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# **RsCMPX\_NrFr2Meas**

***Release 5.0.90.14***

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## REVISION HISTORY

### 1.1 RsCMPX\_NrFr2Meas

Rohde & Schwarz CMX/CMP New Radio FR2 Measurement RsCMPX\_NrFr2Meas instrument driver.

Basic Hello-World code:

```
from RsCMPX_NrFr2Meas import *

instr = RsCMPX_NrFr2Meas('TCPIP::192.168.2.101::hislip0')
idn = instr.query('*IDN?')
print('Hello, I am: ' + idn)
```

Supported instruments: CMX500, CMP200

The package is hosted here: <https://pypi.org/project/RsCMPX-NrFr2Meas/>

Documentation: <https://RsCMPX-NrFr2Meas.readthedocs.io/>

Examples: <https://github.com/Rohde-Schwarz/Examples/>

#### 1.1.1 Version history

Latest release notes summary: Update for FW 5.0.90

##### Version 5.0.90

- Update for FW 5.0.90

##### Version 4.0.186

- Fixed documentation

##### Version 4.0.185

- Update for FW 4.0.185

##### Version 4.0.140

- Update of RsCMPX\_NrFr2Meas to FW 4.0.140 from the complete FW package 7.10.0

**Version 4.0.60**

- Update of RsCMPX\_NrFr2Meas to FW 4.0.60

**Version 4.0.10**

- First released version

## GETTING STARTED

### 2.1 Introduction



**RsCMPX\_NrFr2Meas** is a Python remote-control communication module for Rohde & Schwarz SCPI-based Test and Measurement Instruments. It represents SCPI commands as fixed APIs and hence provides SCPI autocompletion and helps you to avoid common string typing mistakes.

Basic example of the idea:

SCPI command:

SYSTem:REFeRence:FREQuency:SOURce

Python module representation:

writing:

```
driver.system.reference.frequency.source.set()
```

reading:

```
driver.system.reference.frequency.source.get()
```

Check out this example for RsCmpx-Base and RsCmpx-Gprf:

```
"""
# GitHub examples repository path: CMXP/Python/RsCmxp_xxx_ScpiPackages

Example on how to use the python RsCmx auto-generated instrument drivers for
RsCmpx_Base and RsCmpx_Gprf (Base and GPRF) in one script with shared VISA session.
"""

from RsCMPX_Base.RsCMPX_Base import RsCMPX_Base # install from pypi.org
from RsCMPX_Base import enums as base_enums
from RsCMPX_Base import repcap as base_repcap

from RsCMPX_Gprf.RsCMPX_Gprf import RsCMPX_Gprf # install from pypi.org
from RsCMPX_Gprf.CustomFiles.reliability import ReliabilityEventArgs
from RsCMPX_Gprf import enums as gprf_enums
from RsCMPX_Gprf import repcap as gprf_repcaps
```

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```

# CMX Base init
cmx_base = RsCMPX_Base('TCPIP::10.112.1.116', False, True)
print(f'CMX Base IND: {cmx_base.utilities.idn_string}')
print(f'CMX Instrument options:\n{", ".join(cmx_base.utilities.instrument_options)}')
cmx_base.utilities.visa_timeout = 5000 # default is 10000

# Sends OPC after each command
cmx_base.utilities.opc_query_after_write = False
# Checks for syst:err? after each command / query - default value after init is True
cmx_base.utilities.instrument_status_checking = True

# Self-test
self_test = cmx_base.utilities.self_test()
print(f'CMW self-test result: {self_test} - {"Passed" if self_test[0] == 0 else "Failed"}')
↪ ''')
# Reference Frequency Source
cmx_base.system.reference.frequency.source_set(base_enums.SourceIntExt.INTERNAL)

# CMX RsCMPX_Gprf Init - reuse the session of the cmx_base, rather than creating another
↪ one
cmx_gprf = RsCMPX_Gprf.from_existing_session(cmx_base)
cmx_gprf.utilities.visa_timeout = 5000

# Driver's Interface reliability offers a convenient way of reacting on the return value
↪ Reliability Indicator
cmx_gprf.reliability.ExceptionOnError = True # default is 10000

# Callback to use for the reliability indicator update events
def my_reliability_handler(event_args: ReliabilityEventArgs):
    print(f'GPRF Reliability updated.\nContext: {event_args.context}\nMessage:
↪ {event_args.message}')

# We register a callback for each change in the reliability indicator
cmx_gprf.reliability.on_update_handler = my_reliability_handler

# You can obtain the last value of the returned reliability
print(f"\nReliability last value: {cmx_gprf.reliability.last_value}, context '{cmx_gprf.
↪ reliability.last_context}', message: {cmx_gprf.reliability.last_message}")

# Close the sessions
cmx_gprf.close()
cmx_base.close()

```

Couple of reasons why to choose this module over plain SCPI approach:

- Type-safe API using typing module
- You can still use the plain SCPI communication
- You can select which VISA to use or even not use any VISA at all
- Initialization of a new session is straight-forward, no need to set any other properties



- Many useful features are already implemented - reset, self-test, opc-synchronization, error checking, option checking
- Binary data blocks transfer in both directions
- Transfer of arrays of numbers in binary or ASCII format
- File transfers in both directions
- Events generation in case of error, sent data, received data, chunk data (for big files transfer)
- Multithreading session locking - you can use multiple threads talking to one instrument at the same time
- Logging feature tailored for SCPI communication - different for binary and ascii data

## 2.2 Installation

RsCMPX\_NrFr2Meas is hosted on [pypi.org](https://pypi.org). You can install it with pip (for example, `pip.exe` for Windows), or if you are using Pycharm (and you should be :) direct in the Pycharm Packet Management GUI.

### Preconditions

- Installed VISA. You can skip this if you plan to use only socket LAN connection. Download the Rohde & Schwarz VISA for Windows, Linux, Mac OS from [here](#)

### Option 1 - Installing with pip.exe under Windows

- Start the command console: WinKey + R, type `cmd` and hit ENTER
- Change the working directory to the Python installation of your choice (adjust the user name and python version in the path):

```
cd c:\Users\John\AppData\Local\Programs\Python\Python37\Scripts
```

- Install with the command: `pip install RsCMPX_NrFr2Meas`

### Option 2 - Installing in Pycharm

- In Pycharm Menu File->Settings->Project->Project Interpreter click on the '+' button on the top left (the last PyCharm version)
- Type RsCMPX\_NrFr2Meas in the search box
- If you are behind a Proxy server, configure it in the Menu: File->Settings->Appearance->System Settings->HTTP Proxy

For more information about Rohde & Schwarz instrument remote control, check out our [Instrument Remote Control Web Series](#).

### Option 3 - Offline Installation

If you are still reading the installation chapter, it is probably because the options above did not work for you - proxy problems, your boss saw the internet bill... Here are 6 step for installing the RsCMPX\_NrFr2Meas offline:

- Download this python script (**Save target as**): `rsinstrument_offline_install.py` This installs all the preconditions that the RsCMPX\_NrFr2Meas needs.
- Execute the script in your offline computer (supported is python 3.6 or newer)
- Download the RsCMPX\_NrFr2Meas package to your computer from the pypi.org: [https://pypi.org/project/RsCMPX\\_NrFr2Meas/#files](https://pypi.org/project/RsCMPX_NrFr2Meas/#files) to for example `c:\temp\`
- Start the command line WinKey + R, type `cmd` and hit ENTER
- Change the working directory to the Python installation of your choice (adjust the user name and python version in the path):

```
cd c:\Users\John\AppData\Local\Programs\Python\Python37\Scripts
```

- Install with the command: `pip install c:\temp\RsCMPX_NrFr2Meas-5.0.90.14.tar`

## 2.3 Finding Available Instruments

Like the pyvisa's ResourceManager, the RsCMPX\_NrFr2Meas can search for available instruments:

```
"""
Find the instruments in your environment
"""

from RsCMPX_NrFr2Meas import *

# Use the instr_list string items as resource names in the RsCMPX_NrFr2Meas constructor
instr_list = RsCMPX_NrFr2Meas.list_resources("?*")
print(instr_list)
```

If you have more VISAs installed, the one actually used by default is defined by a secret widget called Visa Conflict Manager. You can force your program to use a VISA of your choice:

```
"""
Find the instruments in your environment with the defined VISA implementation
"""

from RsCMPX_NrFr2Meas import *

# In the optional parameter visa_select you can use for example 'rs' or 'ni'
# Rs Visa also finds any NRP-Zxx USB sensors
instr_list = RsCMPX_NrFr2Meas.list_resources('?*','rs')
print(instr_list)
```

---

**Tip:** We believe our R&S VISA is the best choice for our customers. Here are the reasons why:

- Small footprint
- Superior VXI-11 and HiSLIP performance
- Integrated legacy sensors NRP-Zxx support

- Additional VXI-11 and LXI devices search
- Availability for Windows, Linux, Mac OS

## 2.4 Initiating Instrument Session

RsCMPX\_NrFr2Meas offers four different types of starting your remote-control session. We begin with the most typical case, and progress with more special ones.

### Standard Session Initialization

Initiating new instrument session happens, when you instantiate the RsCMPX\_NrFr2Meas object. Below, is a simple Hello World example. Different resource names are examples for different physical interfaces.

```
"""
Simple example on how to use the RsCMPX_NrFr2Meas module for remote-controlling your
↳instrument
Preconditions:

- Installed RsCMPX_NrFr2Meas Python module Version 5.0.90 or newer from pypi.org
- Installed VISA, for example R&S Visa 5.12 or newer
"""

from RsCMPX_NrFr2Meas import *

# A good practice is to assure that you have a certain minimum version installed
RsCMPX_NrFr2Meas.assert_minimum_version('5.0.90')
resource_string_1 = 'TCPIP::192.168.2.101::INSTR' # Standard LAN connection (also
↳called VXI-11)
resource_string_2 = 'TCPIP::192.168.2.101::hislip0' # Hi-Speed LAN connection - see
↳1MA208
resource_string_3 = 'GPIB::20::INSTR' # GPIB Connection
resource_string_4 = 'USB::0x0AAD::0x0119::022019943::INSTR' # USB-TMC (Test and
↳Measurement Class)

# Initializing the session
driver = RsCMPX_NrFr2Meas(resource_string_1)

idn = driver.utilities.query_str('*IDN?')
print(f"\nHello, I am: '{idn}'")
print(f'RsCMPX_NrFr2Meas package version: {driver.utilities.driver_version}')
print(f'Visa manufacturer: {driver.utilities.visa_manufacturer}')
print(f'Instrument full name: {driver.utilities.full_instrument_model_name}')
print(f'Instrument installed options: {",".join(driver.utilities.instrument_options)}')

# Close the session
driver.close()
```

**Note:** If you are wondering about the missing ASRL1::INSTR, yes, it works too, but come on... it's 2023.

Do not care about specialty of each session kind; RsCMPX\_NrFr2Meas handles all the necessary session settings for you. You immediately have access to many identification properties in the interface `driver.utilities`. Here are some of them:

- `idn_string`
- `driver_version`
- `visa_manufacturer`
- `full_instrument_model_name`
- `instrument_serial_number`
- `instrument_firmware_version`
- `instrument_options`

The constructor also contains optional boolean arguments `id_query` and `reset`:

```
driver = RsCMPX_NrFr2Meas('TCPIP::192.168.56.101::hislip0', id_query=True, reset=True)
```

- Setting `id_query` to `True` (default is `True`) checks, whether your instrument can be used with the RsCMPX\_NrFr2Meas module.
- Setting `reset` to `True` (default is `False`) resets your instrument. It is equivalent to calling the `reset()` method.

## Selecting a Specific VISA

Just like in the function `list_resources()`, the RsCMPX\_NrFr2Meas allows you to choose which VISA to use:

```
"""
Choosing VISA implementation
"""

from RsCMPX_NrFr2Meas import *

# Force use of the Rs Visa. For NI Visa, use the "SelectVisa='ni'"
driver = RsCMPX_NrFr2Meas('TCPIP::192.168.56.101::INSTR', True, True, "SelectVisa='rs'")

idn = driver.utilities.query_str('*IDN?')
print(f"\nHello, I am: '{idn}'")
print(f"\nI am using the VISA from: {driver.utilities.visa_manufacturer}")

# Close the session
driver.close()
```

## No VISA Session

We recommend using VISA when possible preferably with HiSlip session because of its low latency. However, if you are a strict VISA denier, RsCMPX\_NrFr2Meas has something for you too - **no Visa installation raw LAN socket**:

```
"""
Using RsCMPX_NrFr2Meas without VISA for LAN Raw socket communication
"""
```

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```

from RsCMPX_NrFr2Meas import *

driver = RsCMPX_NrFr2Meas('TCPIP::192.168.56.101::5025::SOCKET', True, True, "SelectVisa=
↪ 'socket'")
print(f'Visa manufacturer: {driver.utilities.visa_manufacturer}')
print(f"\nHello, I am: '{driver.utilities.idn_string}'")

# Close the session
driver.close()

```

**Warning:** Not using VISA can cause problems by debugging when you want to use the communication Trace Tool. The good news is, you can easily switch to use VISA and back just by changing the constructor arguments. The rest of your code stays unchanged.

## Simulating Session

If a colleague is currently occupying your instrument, leave him in peace, and open a simulating session:

```
driver = RsCMPX_NrFr2Meas('TCPIP::192.168.56.101::hislip0', True, True, "Simulate=True")
```

More option\_string tokens are separated by comma:

```
driver = RsCMPX_NrFr2Meas('TCPIP::192.168.56.101::hislip0', True, True, "SelectVisa='rs',
↪ Simulate=True")
```

## Shared Session

In some scenarios, you want to have two independent objects talking to the same instrument. Rather than opening a second VISA connection, share the same one between two or more RsCMPX\_NrFr2Meas objects:

```

"""
Sharing the same physical VISA session by two different RsCMPX_NrFr2Meas objects
"""

from RsCMPX_NrFr2Meas import *

driver1 = RsCMPX_NrFr2Meas('TCPIP::192.168.56.101::INSTR', True, True)
driver2 = RsCMPX_NrFr2Meas.from_existing_session(driver1)

print(f'driver1: {driver1.utilities.idn_string}')
print(f'driver2: {driver2.utilities.idn_string}')

# Closing the driver2 session does not close the driver1 session - driver1 is the
↪ 'session master'
driver2.close()
print(f'driver2: I am closed now')

print(f'driver1: I am still opened and working: {driver1.utilities.idn_string}')

```

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```
driver1.close()
print(f'driver1: Only now I am closed.')
```

**Note:** The `driver1` is the object holding the ‘master’ session. If you call the `driver1.close()`, the `driver2` loses its instrument session as well, and becomes pretty much useless.

## 2.5 Plain SCPI Communication

After you have opened the session, you can use the instrument-specific part described in the `RsCMPX_NrFr2Meas` API Structure. If for any reason you want to use the plain SCPI, use the `utilities` interface’s two basic methods:

- `write_str()` - writing a command without an answer, for example `*RST`
- `query_str()` - querying your instrument, for example the `*IDN?` query

You may ask a question. Actually, two questions:

- **Q1:** Why there are not called `write()` and `query()` ?
- **Q2:** Where is the `read()` ?

**Answer 1:** Actually, there are - the `write_str()` / `write()` and `query_str()` / `query()` are aliases, and you can use any of them. We promote the `_str` names, to clearly show you want to work with strings. Strings in Python3 are Unicode, the `bytes` and `string` objects are not interchangeable, since one character might be represented by more than 1 byte. To avoid mixing string and binary communication, all the method names for binary transfer contain `_bin` in the name.

**Answer 2:** Short answer - you do not need it. Long answer - your instrument never sends unsolicited responses. If you send a set command, you use `write_str()`. For a query command, you use `query_str()`. So, you really do not need it...

**Bottom line** - if you are used to `write()` and `query()` methods, from `pyvisa`, the `write_str()` and `query_str()` are their equivalents.

Enough with the theory, let us look at an example. Simple write, and query:

```
"""
Basic string write_str / query_str
"""

from RsCMPX_NrFr2Meas import *

driver = RsCMPX_NrFr2Meas('TCPIP::192.168.56.101::INSTR')
driver.utilities.write_str('*RST')
response = driver.utilities.query_str('*IDN?')
print(response)

# Close the session
driver.close()
```

This example is so-called “*University-Professor-Example*” - good to show a principle, but never used in praxis. The abovementioned commands are already a part of the driver’s API. Here is another example, achieving the same goal:

```

"""
Basic string write_str / query_str
"""

from RsCMPX_NrFr2Meas import *

driver = RsCMPX_NrFr2Meas('TCPIP::192.168.56.101::INSTR')
driver.utilities.reset()
print(driver.utilities.idn_string)

# Close the session
driver.close()

```

One additional feature we need to mention here: **VISA timeout**. To simplify, VISA timeout plays a role in each `query_xxx()`, where the controller (your PC) has to prevent waiting forever for an answer from your instrument. VISA timeout defines that maximum waiting time. You can set/read it with the `visa_timeout` property:

```

# Timeout in milliseconds
driver.utilities.visa_timeout = 3000

```

After this time, the `RsCMPX_NrFr2Meas` raises an exception. Speaking of exceptions, an important feature of the `RsCMPX_NrFr2Meas` is **Instrument Status Checking**. Check out the next chapter that describes the error checking in details.

For completion, we mention other string-based `write_xxx()` and `query_xxx()` methods - all in one example. They are convenient extensions providing type-safe float/boolean/integer setting/querying features:

```

"""
Basic string write_xxx / query_xxx
"""

from RsCMPX_NrFr2Meas import *

driver = RsCMPX_NrFr2Meas('TCPIP::192.168.56.101::INSTR')
driver.utilities.visa_timeout = 5000
driver.utilities.instrument_status_checking = True
driver.utilities.write_int('SWEEP:COUNT ', 10) # sending 'SWEEP:COUNT 10'
driver.utilities.write_bool('SOURCE:RF:OUTPUT:STATE ', True) # sending
↳ 'SOURCE:RF:OUTPUT:STATE ON'
driver.utilities.write_float('SOURCE:RF:FREQUENCY ', 1E9) # sending 'SOURCE:RF:FREQUENCY_
↳ 1000000000'

sc = driver.utilities.query_int('SWEEP:COUNT?') # returning integer number sc=10
out = driver.utilities.query_bool('SOURCE:RF:OUTPUT:STATE?') # returning boolean_
↳ out=True
freq = driver.utilities.query_float('SOURCE:RF:FREQUENCY?') # returning float number_
↳ freq=1E9

# Close the session
driver.close()

```

Lastly, a method providing basic synchronization: `query_opc()`. It sends query **\*OPC?** to your instrument. The instrument waits with the answer until all the tasks it currently has in a queue are finished. This way your program waits too, and this way it is synchronized with the actions in the instrument. Remember to have the VISA timeout set

to an appropriate value to prevent the timeout exception. Here's the snippet:

```
driver.utilities.visa_timeout = 3000
driver.utilities.write_str("INIT")
driver.utilities.query_opc()

# The results are ready now to fetch
results = driver.utilities.query_str("FETCH:MEASUREMENT?")
```

---

**Tip:** Wait, there's more: you can send the **\*OPC?** after each `write_xxx()` automatically:

```
# Default value after init is False
driver.utilities.opc_query_after_write = True
```

---

## 2.6 Error Checking

RsCMPX\_NrFr2Meas pushes limits even further (internal R&S joke): It has a built-in mechanism that after each command/query checks the instrument's status subsystem, and raises an exception if it detects an error. For those who are already screaming: **Speed Performance Penalty!!!**, don't worry, you can disable it.

Instrument status checking is very useful since in case your command/query caused an error, you are immediately informed about it. Status checking has in most cases no practical effect on the speed performance of your program. However, if for example, you do many repetitions of short write/query sequences, it might make a difference to switch it off:

```
# Default value after init is True
driver.utilities.instrument_status_checking = False
```

To clear the instrument status subsystem of all errors, call this method:

```
driver.utilities.clear_status()
```

Instrument's status system error queue is clear-on-read. It means, if you query its content, you clear it at the same time. To query and clear list of all the current errors, use this snippet:

```
errors_list = driver.utilities.query_all_errors()
```

See the next chapter on how to react on errors.

## 2.7 Exception Handling

The base class for all the exceptions raised by the RsCMPX\_NrFr2Meas is `RsInstrException`. Inherited exception classes:

- `ResourceError` raised in the constructor by problems with initiating the instrument, for example wrong or non-existing resource name
- `StatusException` raised if a command or a query generated error in the instrument's error queue
- `TimeoutException` raised if a visa timeout or an opc timeout is reached



In this example we show usage of all of them. Because it is difficult to generate an error using the instrument-specific SCPI API, we use plain SCPI commands:

```

"""
Showing how to deal with exceptions
"""

from RsCMPX_NrFr2Meas import *

driver = None
# Try-catch for initialization. If an error occurs, the ResourceError is raised
try:
    driver = RsCMPX_NrFr2Meas('TCPIP::10.112.1.179::hislip0')
except ResourceError as e:
    print(e.args[0])
    print('Your instrument is probably OFF...')
    # Exit now, no point of continuing
    exit(1)

# Dealing with commands that potentially generate errors OPTION 1:
# Switching the status checking OFF temporarily
driver.utilities.instrument_status_checking = False
driver.utilities.write_str('MY:MISSpelled:COMManD')
# Clear the error queue
driver.utilities.clear_status()
# Status checking ON again
driver.utilities.instrument_status_checking = True

# Dealing with queries that potentially generate errors OPTION 2:
try:
    # You might want to reduce the VISA timeout to avoid long waiting
    driver.utilities.visa_timeout = 1000
    driver.utilities.query_str('MY:WRONG:QUERY?')

except StatusException as e:
    # Instrument status error
    print(e.args[0])
    print('Nothing to see here, moving on...')

except TimeoutException as e:
    # Timeout error
    print(e.args[0])
    print('That took a long time...')

except RsInstrException as e:
    # RsInstrException is a base class for all the RsCMPX_NrFr2Meas exceptions
    print(e.args[0])
    print('Some other RsCMPX_NrFr2Meas error...')

finally:
    driver.utilities.visa_timeout = 5000
    # Close the session in any case
    driver.close()

```

**Tip:** General rules for exception handling:

- If you are sending commands that might generate errors in the instrument, for example deleting a file which does not exist, use the **OPTION 1** - temporarily disable status checking, send the command, clear the error queue and enable the status checking again.
  - If you are sending queries that might generate errors or timeouts, for example querying measurement that can not be performed at the moment, use the **OPTION 2** - try/except with optionally adjusting the timeouts.
- 

## 2.8 Transferring Files

### Instrument -> PC

You definitely experienced it: you just did a perfect measurement, saved the results as a screenshot to an instrument's storage drive. Now you want to transfer it to your PC. With RsCMPX\_NrFr2Meas, no problem, just figure out where the screenshot was stored on the instrument. In our case, it is `/var/user/instr_screenshot.png`:

```
driver.utilities.read_file_from_instrument_to_pc(  
    r'/var/user/instr_screenshot.png',  
    r'c:\temp\pc_screenshot.png')
```

### PC -> Instrument

Another common scenario: Your cool test program contains a setup file you want to transfer to your instrument: Here is the RsCMPX\_NrFr2Meas one-liner split into 3 lines:

```
driver.utilities.send_file_from_pc_to_instrument(  
    r'c:\MyCoolTestProgram\instr_setup.sav',  
    r'/var/appdata/instr_setup.sav')
```

## 2.9 Writing Binary Data

### Writing from bytes

An example where you need to send binary data is a waveform file of a vector signal generator. First, you compose your `wform_data` as bytes, and then you send it with `write_bin_block()`:

```
# MyWaveform.wv is an instrument file name under which this data is stored  
driver.utilities.write_bin_block(  
    "SOUR:BB:ARB:WAV:DATA 'MyWaveform.wv'",",  
    wform_data)
```

**Note:** Notice the `write_bin_block()` has two parameters:

- string parameter `cmd` for the SCPI command
  - bytes parameter `payload` for the actual binary data to send
-

## Writing from PC files

Similar to querying binary data to a file, you can write binary data from a file. The second parameter is then the PC file path the content of which you want to send:

```
driver.utilities.write_bin_block_from_file(
    "SOUR:BB:ARB:WAV:DATA 'MyWaveform.wv'",
    r"c:\temp\wform_data.wv")
```

## 2.10 Transferring Big Data with Progress

We can agree that it can be annoying using an application that shows no progress for long-lasting operations. The same is true for remote-control programs. Luckily, the RsCMPX\_NrFr2Meas has this covered. And, this feature is quite universal - not just for big files transfer, but for any data in both directions.

RsCMPX\_NrFr2Meas allows you to register a function (programmers fancy name is `callback`), which is then periodically invoked after transfer of one data chunk. You can define that chunk size, which gives you control over the callback invoke frequency. You can even slow down the transfer speed, if you want to process the data as they arrive (direction instrument -> PC).

To show this in praxis, we are going to use another *University-Professor-Example*: querying the `*IDN?` with chunk size of 2 bytes and delay of 200ms between each chunk read:

```
"""
Event handlers by reading
"""

from RsCMPX_NrFr2Meas import *
import time

def my_transfer_handler(args):
    """Function called each time a chunk of data is transferred"""
    # Total size is not always known at the beginning of the transfer
    total_size = args.total_size if args.total_size is not None else "unknown"

    print(f"Context: '{args.context}{'with opc' if args.opc_sync else ''}', "
          f"chunk {args.chunk_ix}, "
          f"transferred {args.transferred_size} bytes, "
          f"total size {total_size}, "
          f"direction {'reading' if args.reading else 'writing'}, "
          f"data '{args.data}'")

    if args.end_of_transfer:
        print('End of Transfer')
        time.sleep(0.2)

driver = RsCMPX_NrFr2Meas('TCPIP::192.168.56.101::INSTR')

driver.events.on_read_handler = my_transfer_handler
# Switch on the data to be included in the event arguments
```

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```
# The event arguments args.data will be updated
driver.events.io_events_include_data = True
# Set data chunk size to 2 bytes
driver.utilities.data_chunk_size = 2
driver.utilities.query_str('*IDN?')
# Unregister the event handler
driver.utilities.on_read_handler = None

# Close the session
driver.close()
```

If you start it, you might wonder (or maybe not): why is the `args.total_size = None`? The reason is, in this particular case the RsCMPX\_NrFr2Meas does not know the size of the complete response up-front. However, if you use the same mechanism for transfer of a known data size (for example, file transfer), you get the information about the total size too, and hence you can calculate the progress as:

$$\text{progress [pct]} = 100 * \text{args.transferred\_size} / \text{args.total\_size}$$

Snippet of transferring file from PC to instrument, the rest of the code is the same as in the previous example:

```
driver.events.on_write_handler = my_transfer_handler
driver.events.io_events_include_data = True
driver.data_chunk_size = 1000
driver.utilities.send_file_from_pc_to_instrument(
    r'c:\MyCoolTestProgram\my_big_file.bin',
    r'/var/user/my_big_file.bin')
# Unregister the event handler
driver.events.on_write_handler = None
```

## 2.11 Multithreading

You are at the party, many people talking over each other. Not every person can deal with such crosstalk, neither can measurement instruments. For this reason, RsCMPX\_NrFr2Meas has a feature of scheduling the access to your instrument by using so-called **Locks**. Locks make sure that there can be just one client at a time *talking* to your instrument. Talking in this context means completing one communication step - one command write or write/read or write/read/error check.

To describe how it works, and where it matters, we take three typical multithread scenarios:

### One instrument session, accessed from multiple threads

You are all set - the lock is a part of your instrument session. Check out the following example - it will execute properly, although the instrument gets 10 queries at the same time:

```
"""
Multiple threads are accessing one RsCMPX_NrFr2Meas object
"""

import threading
from RsCMPX_NrFr2Meas import *
```

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```

def execute(session):
    """Executed in a separate thread."""
    session.utilities.query_str('*IDN?')

driver = RsCMPX_NrFr2Meas('TCPIP::192.168.56.101::INSTR')
threads = []
for i in range(10):
    t = threading.Thread(target=execute, args=(driver, ))
    t.start()
    threads.append(t)
print('All threads started')

# Wait for all threads to join this main thread
for t in threads:
    t.join()
print('All threads ended')

driver.close()

```

### Shared instrument session, accessed from multiple threads

Same as the previous case, you are all set. The session carries the lock with it. You have two objects, talking to the same instrument from multiple threads. Since the instrument session is shared, the same lock applies to both objects causing the exclusive access to the instrument.

Try the following example:

```

"""
Multiple threads are accessing two RsCMPX_NrFr2Meas objects with shared session
"""

import threading
from RsCMPX_NrFr2Meas import *

def execute(session: RsCMPX_NrFr2Meas, session_ix, index) -> None:
    """Executed in a separate thread."""
    print(f'{index} session {session_ix} query start...')
    session.utilities.query_str('*IDN?')
    print(f'{index} session {session_ix} query end')

driver1 = RsCMPX_NrFr2Meas('TCPIP::192.168.56.101::INSTR')
driver2 = RsCMPX_NrFr2Meas.from_existing_session(driver1)
driver1.utilities.visa_timeout = 200
driver2.utilities.visa_timeout = 200
# To see the effect of crosstalk, uncomment this line
# driver2.utilities.clear_lock()

```

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```

threads = []
for i in range(10):
    t = threading.Thread(target=execute, args=(driver1, 1, i,))
    t.start()
    threads.append(t)
    t = threading.Thread(target=execute, args=(driver2, 2, i,))
    t.start()
    threads.append(t)
print('All threads started')

# Wait for all threads to join this main thread
for t in threads:
    t.join()
print('All threads ended')

driver2.close()
driver1.close()

```

As you see, everything works fine. If you want to simulate some party crosstalk, uncomment the line `driver2.utilities.clear_lock()`. This causes the driver2 session lock to break away from the driver1 session lock. Although the driver1 still tries to schedule its instrument access, the driver2 tries to do the same at the same time, which leads to all the fun stuff happening.

### Multiple instrument sessions accessed from multiple threads

Here, there are two possible scenarios depending on the instrument's VISA interface:

- You are lucky, because your instrument handles each remote session completely separately. An example of such instrument is SMW200A. In this case, you have no need for session locking.
- Your instrument handles all sessions with one set of in/out buffers. You need to lock the session for the duration of a talk. And you are lucky again, because the RsCMPX\_NrFr2Meas takes care of it for you. The text below describes this scenario.

Run the following example:

```

"""
Multiple threads are accessing two RsCMPX_NrFr2Meas objects with two separate sessions
"""

import threading
from RsCMPX_NrFr2Meas import *

def execute(session: RsCMPX_NrFr2Meas, session_ix, index) -> None:
    """Executed in a separate thread."""
    print(f'{index} session {session_ix} query start...')
    session.utilities.query_str('*IDN?')
    print(f'{index} session {session_ix} query end')

driver1 = RsCMPX_NrFr2Meas('TCPIP::192.168.56.101::INSTR')
driver2 = RsCMPX_NrFr2Meas('TCPIP::192.168.56.101::INSTR')

```

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```

driver1.utilities.visa_timeout = 200
driver2.utilities.visa_timeout = 200

# Synchronise the sessions by sharing the same lock
driver2.utilities.assign_lock(driver1.utilities.get_lock()) # To see the effect of ↵
↵crosstalk, comment this line

threads = []
for i in range(10):
    t = threading.Thread(target=execute, args=(driver1, 1, i,))
    t.start()
    threads.append(t)
    t = threading.Thread(target=execute, args=(driver2, 2, i,))
    t.start()
    threads.append(t)
print('All threads started')

# Wait for all threads to join this main thread
for t in threads:
    t.join()
print('All threads ended')

driver2.close()
driver1.close()

```

You have two completely independent sessions that want to talk to the same instrument at the same time. This will not go well, unless they share the same session lock. The key command to achieve this is `driver2.utilities.assign_lock(driver1.utilities.get_lock())`. Try to comment it and see how it goes. If despite commenting the line the example runs without issues, you are lucky to have an instrument similar to the SMW200A.

## 2.12 Logging

Yes, the logging again. This one is tailored for instrument communication. You will appreciate such handy feature when you troubleshoot your program, or just want to protocol the SCPI communication for your test reports.

What can you actually do with the logger?

- Write SCPI communication to a stream-like object, for example console or file, or both simultaneously
- Log only errors and skip problem-free parts; this way you avoid going through thousands lines of texts
- Investigate duration of certain operations to optimize your program's performance
- Log custom messages from your program

Let us take this basic example:

```

"""
Basic logging example to the console
"""

from RsCMPX_NrFr2Meas import *

```

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```

driver = RsCMPX_NrFr2Meas('TCPIP::192.168.1.101::INSTR')

# Switch ON logging to the console.
driver.utilities.logger.log_to_console = True
driver.utilities.logger.mode = LoggingMode.On
driver.utilities.reset()

# Close the session
driver.close()

```

Console output:

10:29:10.819	TCPIP::192.168.1.101::INSTR	0.976 ms	Write: *RST
10:29:10.819	TCPIP::192.168.1.101::INSTR	1884.985 ms	Status check: OK
10:29:12.704	TCPIP::192.168.1.101::INSTR	0.983 ms	Query OPC: 1
10:29:12.705	TCPIP::192.168.1.101::INSTR	2.892 ms	Clear status: OK
10:29:12.708	TCPIP::192.168.1.101::INSTR	3.905 ms	Status check: OK
10:29:12.712	TCPIP::192.168.1.101::INSTR	1.952 ms	Close: Closing session

The columns of the log are aligned for better reading. Columns meaning:

- (1) Start time of the operation
- (2) Device resource name (you can set an alias)
- (3) Duration of the operation
- (4) Log entry

**Tip:** You can customize the logging format with `set_format_string()`, and set the maximum log entry length with the properties:

- `abbreviated_max_len_ascii`
- `abbreviated_max_len_bin`
- `abbreviated_max_len_list`

See the full logger help [here](#).

Notice the SCPI communication starts from the line `driver.utilities.reset()`. If you want to log the initialization of the session as well, you have to switch the logging ON already in the constructor:

```
driver = RsCMPX_NrFr2Meas('TCPIP::192.168.56.101::hislip0', options='LoggingMode=On')
```

Parallel to the console logging, you can log to a general stream. Do not fear the programmer's jargon... under the term **stream** you can just imagine a file. To be a little more technical, a stream in Python is any object that has two methods: `write()` and `flush()`. This example opens a file and sets it as logging target:

```

"""
Example of logging to a file
"""

from RsCMPX_NrFr2Meas import *

driver = RsCMPX_NrFr2Meas('TCPIP::192.168.1.101::INSTR')

```

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```

# We also want to log to the console.
driver.utilities.logger.log_to_console = True

# Logging target is our file
file = open(r'c:\temp\my_file.txt', 'w')
driver.utilities.logger.set_logging_target(file)
driver.utilities.logger.mode = LoggingMode.On

# Instead of the 'TCPIP::192.168.1.101::INSTR', show 'MyDevice'
driver.utilities.logger.device_name = 'MyDevice'

# Custom user entry
driver.utilities.logger.info_raw('----- This is my custom log entry. ---- ')

driver.utilities.reset()

# Close the session
driver.close()

# Close the log file
file.close()

```

**Tip:** To make the log more compact, you can skip all the lines with Status check: OK:

```
driver.utilities.logger.log_status_check_ok = False
```

**Hint:** You can share the logging file between multiple sessions. In such case, remember to close the file only after you have stopped logging in all your sessions, otherwise you get a log write error.

For logging to a UDP port in addition to other log targets, use one of the lines:

```
driver.utilities.logger.log_to_udp = True
driver.utilities.logger.log_to_console_and_udp = True
```

You can select the UDP port to log to, the default is 49200:

```
driver.utilities.logger.udp_port = 49200
```

Another cool feature is logging only errors. To make this mode usefull for troubleshooting, you also want to see the circumstances which lead to the errors. Each driver elementary operation, for example, `write_str()`, can generate a group of log entries - let us call them **Segment**. In the logging mode **Errors**, a whole segment is logged only if at least one entry of the segment is an error.

The script below demonstrates this feature. We use a direct SCPI communication to send a misspelled SCPI command **\*CLS**, which leads to instrument status error:

```

"""
Logging example to the console with only errors logged
"""

```

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```
from RsCMPX_NrFr2Meas import *

driver = RsCMPX_NrFr2Meas('TCPIP::192.168.1.101::INSTR', options='LoggingMode=Errors')

# Switch ON logging to the console.
driver.utilities.logger.log_to_console = True

# Reset will not be logged, since no error occurred there
driver.utilities.reset()

# Now a misspelled command.
driver.utilities.write('*CLaS')

# A good command again, no logging here
idn = driver.utilities.query('*IDN?')

# Close the session
driver.close()
```

Console output:

```
12:11:02.879 TCPIP::192.168.1.101::INSTR    0.976 ms  Write string: *CLaS
12:11:02.879 TCPIP::192.168.1.101::INSTR    6.833 ms  Status check: StatusException:
                                     Instrument error detected: Undefined header;
→ *CLaS
```

Notice the following:

- Although the operation **Write string: \*CLaS** finished without an error, it is still logged, because it provides the context for the actual error which occurred during the status checking right after.
- No other log entries are present, including the session initialization and close, because they were all error-free.

## 3.1 Band

```
# Example value:  
value = enums.Band.B257  
# All values (6x):  
B257 | B258 | B259 | B260 | B261 | B262
```

## 3.2 BandwidthPart

```
# Example value:  
value = enums.BandwidthPart.BWP0  
# All values (4x):  
BWP0 | BWP1 | BWP2 | BWP3
```

## 3.3 ChannelBw

```
# Example value:  
value = enums.ChannelBw.B050  
# All values (4x):  
B050 | B100 | B200 | B400
```

## 3.4 ChannelTypeA

```
# Example value:  
value = enums.ChannelTypeA.PUCCh  
# All values (2x):  
PUCCh | PUSCh
```

## 3.5 ConfigType

```
# Example value:  
value = enums.ConfigType.T1  
# All values (2x):  
T1 | T2
```

## 3.6 CyclicPrefix

```
# Example value:  
value = enums.CyclicPrefix.EXTended  
# All values (2x):  
EXTended | NORMAl
```

## 3.7 DmrsInit

```
# Example value:  
value = enums.DmrsInit.CID  
# All values (2x):  
CID | DID
```

## 3.8 DuplexModeB

```
# Example value:  
value = enums.DuplexModeB.FDD  
# All values (2x):  
FDD | TDD
```

## 3.9 GhopingInit

```
# Example value:  
value = enums.GhoppingInit.CID  
# All values (2x):  
CID | HID
```

## 3.10 GroupHopping

```
# Example value:  
value = enums.GroupHopping.DISable  
# All values (3x):  
DISable | ENABle | NEITher
```

## 3.11 Initialization

```
# Example value:  
value = enums.Initialization.CID  
# All values (2x):  
CID | DMRSid
```

## 3.12 Lagging

```
# Example value:  
value = enums.Lagging.MS05  
# All values (3x):  
MS05 | MS25 | OFF
```

## 3.13 Leading

```
# Example value:  
value = enums.Leading.MS25  
# All values (2x):  
MS25 | OFF
```

## 3.14 ListMode

```
# Example value:  
value = enums.ListMode.ONCE  
# All values (2x):  
ONCE | SEGment
```

### 3.15 LoLevel

```
# Example value:  
value = enums.LoLevel.CORRect  
# All values (3x):  
CORRect | HIGH | LOW
```

### 3.16 LowHigh

```
# Example value:  
value = enums.LowHigh.HIGH  
# All values (2x):  
HIGH | LOW
```

### 3.17 MappingType

```
# Example value:  
value = enums.MappingType.A  
# All values (2x):  
A | B
```

### 3.18 MeasCarrier

```
# Example value:  
value = enums.MeasCarrier.CC1  
# All values (4x):  
CC1 | CC2 | CC3 | CC4
```

### 3.19 MeasFilter

```
# Example value:  
value = enums.MeasFilter.BANDpass  
# All values (2x):  
BANDpass | GAUSS
```

## 3.20 MeasurementMode

```
# Example value:
value = enums.MeasurementMode.MELMode
# All values (2x):
MELMode | NORMal
```

## 3.21 MeasureSlot

```
# Example value:
value = enums.MeasureSlot.ALL
# All values (2x):
ALL | UDEF
```

## 3.22 ModScheme

```
# Example value:
value = enums.ModScheme.BPSK
# All values (6x):
BPSK | PHBPSk | Q16 | Q256 | Q64 | QPSK
```

## 3.23 NsValue

```
# First value:
value = enums.NsValue.NS01
# Last value:
value = enums.NsValue.NSU43
# All values (99x):
NS01 | NS02 | NS03 | NS04 | NS05 | NS06 | NS07 | NS08
NS09 | NS10 | NS100 | NS11 | NS12 | NS13 | NS14 | NS15
NS16 | NS17 | NS18 | NS19 | NS20 | NS21 | NS22 | NS23
NS24 | NS25 | NS26 | NS27 | NS28 | NS29 | NS30 | NS31
NS32 | NS35 | NS36 | NS37 | NS38 | NS39 | NS40 | NS41
NS42 | NS43 | NS44 | NS45 | NS46 | NS47 | NS48 | NS49
NS50 | NS51 | NS52 | NS53 | NS54 | NS55 | NS56 | NS57
NS58 | NS59 | NS60 | NS61 | NS62 | NS63 | NS64 | NS65
NS66 | NS67 | NS68 | NS69 | NS70 | NS71 | NS72 | NS73
NS74 | NS75 | NS76 | NS77 | NS78 | NS79 | NS80 | NS81
NS82 | NS83 | NS84 | NS85 | NS86 | NS87 | NS88 | NS89
NS90 | NS91 | NS92 | NS93 | NS94 | NS95 | NS96 | NS97
NS98 | NS99 | NSU43
```

## 3.24 Path

```
# Example value:  
value = enums.Path.NETWork  
# All values (2x):  
NETWork | STANdalone
```

## 3.25 Periodicity

```
# Example value:  
value = enums.Periodicity.MS05  
# All values (8x):  
MS05 | MS0625 | MS1 | MS10 | MS125 | MS2 | MS25 | MS5
```

## 3.26 PeriodPreamble

```
# Example value:  
value = enums.PeriodPreamble.MS01  
# All values (6x):  
MS01 | MS0125 | MS025 | MS05 | MS10 | MS20
```

## 3.27 PhaseComp

```
# Example value:  
value = enums.PhaseComp.CAF  
# All values (3x):  
CAF | OFF | UDEF
```

## 3.28 PowerClass

```
# Example value:  
value = enums.PowerClass.PC1  
# All values (4x):  
PC1 | PC2 | PC3 | PC4
```



### 3.29 PreambleFormat

```
# First value:
value = enums.PreambleFormat.A1
# Last value:
value = enums.PreambleFormat.C2
# All values (9x):
A1 | A2 | A3 | B1 | B2 | B3 | B4 | C0
C2
```

### 3.30 PucchFormat

```
# Example value:
value = enums.PucchFormat.F0
# All values (5x):
F0 | F1 | F2 | F3 | F4
```

### 3.31 RbwA

```
# Example value:
value = enums.RbwA.K120
# All values (2x):
K120 | M1
```

### 3.32 Repeat

```
# Example value:
value = enums.Repeat.CONTInuous
# All values (2x):
CONTInuous | SINGleshot
```

### 3.33 ResourceState

```
# Example value:
value = enums.ResourceState.ACTive
# All values (8x):
ACTive | ADJusted | INValid | OFF | PENDIng | QUEued | RDY | RUN
```

### 3.34 ResultStatus2

```
# First value:
value = enums.ResultStatus2.DC
# Last value:
value = enums.ResultStatus2.ULEU
# All values (10x):
DC | INV | NAV | NCAP | OFF | OFL | OK | UFL
ULEL | ULEU
```

### 3.35 RetriggerFlag

```
# Example value:
value = enums.RetriggerFlag.IFPower
# All values (3x):
IFPower | OFF | ON
```

### 3.36 RfConverter

```
# First value:
value = enums.RfConverter.IRX1
# Last value:
value = enums.RfConverter.RX44
# All values (40x):
IRX1 | IRX11 | IRX12 | IRX13 | IRX14 | IRX2 | IRX21 | IRX22
IRX23 | IRX24 | IRX3 | IRX31 | IRX32 | IRX33 | IRX34 | IRX4
IRX41 | IRX42 | IRX43 | IRX44 | RX1 | RX11 | RX12 | RX13
RX14 | RX2 | RX21 | RX22 | RX23 | RX24 | RX3 | RX31
RX32 | RX33 | RX34 | RX4 | RX41 | RX42 | RX43 | RX44
```

### 3.37 RxConnector

```
# First value:
value = enums.RxConnector.I11I
# Last value:
value = enums.RxConnector.RH8
# All values (163x):
I11I | I13I | I15I | I17I | I21I | I23I | I25I | I27I
I31I | I33I | I35I | I37I | I41I | I43I | I45I | I47I
IFI1 | IFI2 | IFI3 | IFI4 | IFI5 | IFI6 | IQ1I | IQ3I
IQ5I | IQ7I | R10D | R11 | R11C | R11D | R12 | R12C
R12D | R12I | R13 | R13C | R14 | R14C | R14I | R15
R16 | R17 | R18 | R21 | R21C | R22 | R22C | R22I
R23 | R23C | R24 | R24C | R24I | R25 | R26 | R27
R28 | R31 | R31C | R32 | R32C | R32I | R33 | R33C
```

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R34	R34C	R34I	R35	R36	R37	R38	R41
R41C	R42	R42C	R42I	R43	R43C	R44	R44C
R44I	R45	R46	R47	R48	RA1	RA2	RA3
RA4	RA5	RA6	RA7	RA8	RB1	RB2	RB3
RB4	RB5	RB6	RB7	RB8	RC1	RC2	RC3
RC4	RC5	RC6	RC7	RC8	RD1	RD2	RD3
RD4	RD5	RD6	RD7	RD8	RE1	RE2	RE3
RE4	RE5	RE6	RE7	RE8	RF1	RF1C	RF2
RF2C	RF2I	RF3	RF3C	RF4	RF4C	RF4I	RF5
RF5C	RF6	RF6C	RF7	RF7C	RF8	RF8C	RF9C
RFAC	RFBC	RFBI	RG1	RG2	RG3	RG4	RG5
RG6	RG7	RG8	RH1	RH2	RH3	RH4	RH5
RH6	RH7	RH8					

### 3.38 Scenario

```
# Example value:
value = enums.Scenario.SAL
# All values (1x):
SAL
```

### 3.39 ScSpacing

```
# Example value:
value = enums.ScSpacing.S120k
# All values (2x):
S120k | S60K
```

### 3.40 Sharing

```
# Example value:
value = enums.Sharing.FSHared
# All values (3x):
FSHared | NSHared | OCONnect
```

### 3.41 SignalSlope

```
# Example value:  
value = enums.SignalSlope.FEDGE  
# All values (2x):  
FEDGE | REDGE
```

### 3.42 StopCondition

```
# Example value:  
value = enums.StopCondition.NONE  
# All values (2x):  
NONE | SLFail
```

### 3.43 SyncMode

```
# Example value:  
value = enums.SyncMode.ENHanced  
# All values (4x):  
ENHanced | ESSLot | NORMal | NSSLot
```

### 3.44 TargetStateA

```
# Example value:  
value = enums.TargetStateA.OFF  
# All values (3x):  
OFF | RDY | RUN
```

### 3.45 TargetSyncState

```
# Example value:  
value = enums.TargetSyncState.ADJusted  
# All values (2x):  
ADJusted | PENDing
```

## 3.46 TimeMask

```
# Example value:  
value = enums.TimeMask.G00  
# All values (1x):  
G00
```

## 3.47 UsedSlots

```
# Example value:  
value = enums.UsedSlots.DL  
# All values (3x):  
DL | UL | X
```



## REPCAPS

### 4.1 Instance (Global)

```
# Setting:
driver.repcap_instance_set(repcap.Instance.Inst1)
# Range:
Inst1 .. Inst16
# All values (16x):
Inst1 | Inst2 | Inst3 | Inst4 | Inst5 | Inst6 | Inst7 | Inst8
Inst9 | Inst10 | Inst11 | Inst12 | Inst13 | Inst14 | Inst15 | Inst16
```

### 4.2 Allocation

```
# First value:
value = repcap.Allocation.Nr1
# Values (1x):
Nr1
```

### 4.3 AllocationMore

```
# First value:
value = repcap.AllocationMore.Nr1
# Range:
Nr1 .. Nr32
# All values (32x):
Nr1 | Nr2 | Nr3 | Nr4 | Nr5 | Nr6 | Nr7 | Nr8
Nr9 | Nr10 | Nr11 | Nr12 | Nr13 | Nr14 | Nr15 | Nr16
Nr17 | Nr18 | Nr19 | Nr20 | Nr21 | Nr22 | Nr23 | Nr24
Nr25 | Nr26 | Nr27 | Nr28 | Nr29 | Nr30 | Nr31 | Nr32
```

## 4.4 Area

```
# First value:  
value = repcap.Area.Nr1  
# Range:  
Nr1 .. Nr12  
# All values (12x):  
Nr1 | Nr2 | Nr3 | Nr4 | Nr5 | Nr6 | Nr7 | Nr8  
Nr9 | Nr10 | Nr11 | Nr12
```

## 4.5 BandLimits

```
# First value:  
value = repcap.BandLimits.Nr1  
# Values (2x):  
Nr1 | Nr2
```

## 4.6 CarrierComponent

```
# First value:  
value = repcap.CarrierComponent.Nr1  
# Values (2x):  
Nr1 | Nr2
```

## 4.7 CarrierComponentExt

```
# First value:  
value = repcap.CarrierComponentExt.Nr1  
# Range:  
Nr1 .. Nr32  
# All values (32x):  
Nr1 | Nr2 | Nr3 | Nr4 | Nr5 | Nr6 | Nr7 | Nr8  
Nr9 | Nr10 | Nr11 | Nr12 | Nr13 | Nr14 | Nr15 | Nr16  
Nr17 | Nr18 | Nr19 | Nr20 | Nr21 | Nr22 | Nr23 | Nr24  
Nr25 | Nr26 | Nr27 | Nr28 | Nr29 | Nr30 | Nr31 | Nr32
```



## 4.8 ChannelBw

```
# First value:  
value = repcap.ChannelBw.Bw50  
# Values (4x):  
Bw50 | Bw100 | Bw200 | Bw400
```

## 4.9 Difference

```
# First value:  
value = repcap.Difference.Nr1  
# Values (2x):  
Nr1 | Nr2
```

## 4.10 Layer

```
# First value:  
value = repcap.Layer.Nr1  
# Values (2x):  
Nr1 | Nr2
```

## 4.11 Maximum

```
# First value:  
value = repcap.Maximum.Nr1  
# Values (2x):  
Nr1 | Nr2
```

## 4.12 MaxRange

```
# First value:  
value = repcap.MaxRange.Nr1  
# Values (2x):  
Nr1 | Nr2
```

## 4.13 Minimum

```
# First value:
value = repcap.Minimum.Nr1
# Values (2x):
Nr1 | Nr2
```

## 4.14 MinRange

```
# First value:
value = repcap.MinRange.Nr1
# Values (2x):
Nr1 | Nr2
```

## 4.15 Preamble

```
# First value:
value = repcap.Preamble.Nr1
# Range:
Nr1 .. Nr128
# All values (128x):
Nr1 | Nr2 | Nr3 | Nr4 | Nr5 | Nr6 | Nr7 | Nr8
Nr9 | Nr10 | Nr11 | Nr12 | Nr13 | Nr14 | Nr15 | Nr16
Nr17 | Nr18 | Nr19 | Nr20 | Nr21 | Nr22 | Nr23 | Nr24
Nr25 | Nr26 | Nr27 | Nr28 | Nr29 | Nr30 | Nr31 | Nr32
Nr33 | Nr34 | Nr35 | Nr36 | Nr37 | Nr38 | Nr39 | Nr40
Nr41 | Nr42 | Nr43 | Nr44 | Nr45 | Nr46 | Nr47 | Nr48
Nr49 | Nr50 | Nr51 | Nr52 | Nr53 | Nr54 | Nr55 | Nr56
Nr57 | Nr58 | Nr59 | Nr60 | Nr61 | Nr62 | Nr63 | Nr64
Nr65 | Nr66 | Nr67 | Nr68 | Nr69 | Nr70 | Nr71 | Nr72
Nr73 | Nr74 | Nr75 | Nr76 | Nr77 | Nr78 | Nr79 | Nr80
Nr81 | Nr82 | Nr83 | Nr84 | Nr85 | Nr86 | Nr87 | Nr88
Nr89 | Nr90 | Nr91 | Nr92 | Nr93 | Nr94 | Nr95 | Nr96
Nr97 | Nr98 | Nr99 | Nr100 | Nr101 | Nr102 | Nr103 | Nr104
Nr105 | Nr106 | Nr107 | Nr108 | Nr109 | Nr110 | Nr111 | Nr112
Nr113 | Nr114 | Nr115 | Nr116 | Nr117 | Nr118 | Nr119 | Nr120
Nr121 | Nr122 | Nr123 | Nr124 | Nr125 | Nr126 | Nr127 | Nr128
```

## 4.16 Qam

```
# First value:
value = repcap.Qam.Order16
# Values (3x):
Order16 | Order64 | Order256
```

## 4.17 Rbw

```
# First value:
value = repcap.Rbw.Bw120
# Values (2x):
Bw120 | Bw1000
```

## 4.18 Ripple

```
# First value:
value = repcap.Ripple.Nr1
# Values (2x):
Nr1 | Nr2
```

## 4.19 SEGment

```
# First value:
value = repcap.SEGment.Nr1
# Range:
Nr1 .. Nr512
# All values (512x):
Nr1 | Nr2 | Nr3 | Nr4 | Nr5 | Nr6 | Nr7 | Nr8
Nr9 | Nr10 | Nr11 | Nr12 | Nr13 | Nr14 | Nr15 | Nr16
Nr17 | Nr18 | Nr19 | Nr20 | Nr21 | Nr22 | Nr23 | Nr24
Nr25 | Nr26 | Nr27 | Nr28 | Nr29 | Nr30 | Nr31 | Nr32
Nr33 | Nr34 | Nr35 | Nr36 | Nr37 | Nr38 | Nr39 | Nr40
Nr41 | Nr42 | Nr43 | Nr44 | Nr45 | Nr46 | Nr47 | Nr48
Nr49 | Nr50 | Nr51 | Nr52 | Nr53 | Nr54 | Nr55 | Nr56
Nr57 | Nr58 | Nr59 | Nr60 | Nr61 | Nr62 | Nr63 | Nr64
Nr65 | Nr66 | Nr67 | Nr68 | Nr69 | Nr70 | Nr71 | Nr72
Nr73 | Nr74 | Nr75 | Nr76 | Nr77 | Nr78 | Nr79 | Nr80
Nr81 | Nr82 | Nr83 | Nr84 | Nr85 | Nr86 | Nr87 | Nr88
Nr89 | Nr90 | Nr91 | Nr92 | Nr93 | Nr94 | Nr95 | Nr96
Nr97 | Nr98 | Nr99 | Nr100 | Nr101 | Nr102 | Nr103 | Nr104
Nr105 | Nr106 | Nr107 | Nr108 | Nr109 | Nr110 | Nr111 | Nr112
Nr113 | Nr114 | Nr115 | Nr116 | Nr117 | Nr118 | Nr119 | Nr120
Nr121 | Nr122 | Nr123 | Nr124 | Nr125 | Nr126 | Nr127 | Nr128
Nr129 | Nr130 | Nr131 | Nr132 | Nr133 | Nr134 | Nr135 | Nr136
```

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Nr137	Nr138	Nr139	Nr140	Nr141	Nr142	Nr143	Nr144
Nr145	Nr146	Nr147	Nr148	Nr149	Nr150	Nr151	Nr152
Nr153	Nr154	Nr155	Nr156	Nr157	Nr158	Nr159	Nr160
Nr161	Nr162	Nr163	Nr164	Nr165	Nr166	Nr167	Nr168
Nr169	Nr170	Nr171	Nr172	Nr173	Nr174	Nr175	Nr176
Nr177	Nr178	Nr179	Nr180	Nr181	Nr182	Nr183	Nr184
Nr185	Nr186	Nr187	Nr188	Nr189	Nr190	Nr191	Nr192
Nr193	Nr194	Nr195	Nr196	Nr197	Nr198	Nr199	Nr200
Nr201	Nr202	Nr203	Nr204	Nr205	Nr206	Nr207	Nr208
Nr209	Nr210	Nr211	Nr212	Nr213	Nr214	Nr215	Nr216
Nr217	Nr218	Nr219	Nr220	Nr221	Nr222	Nr223	Nr224
Nr225	Nr226	Nr227	Nr228	Nr229	Nr230	Nr231	Nr232
Nr233	Nr234	Nr235	Nr236	Nr237	Nr238	Nr239	Nr240
Nr241	Nr242	Nr243	Nr244	Nr245	Nr246	Nr247	Nr248
Nr249	Nr250	Nr251	Nr252	Nr253	Nr254	Nr255	Nr256
Nr257	Nr258	Nr259	Nr260	Nr261	Nr262	Nr263	Nr264
Nr265	Nr266	Nr267	Nr268	Nr269	Nr270	Nr271	Nr272
Nr273	Nr274	Nr275	Nr276	Nr277	Nr278	Nr279	Nr280
Nr281	Nr282	Nr283	Nr284	Nr285	Nr286	Nr287	Nr288
Nr289	Nr290	Nr291	Nr292	Nr293	Nr294	Nr295	Nr296
Nr297	Nr298	Nr299	Nr300	Nr301	Nr302	Nr303	Nr304
Nr305	Nr306	Nr307	Nr308	Nr309	Nr310	Nr311	Nr312
Nr313	Nr314	Nr315	Nr316	Nr317	Nr318	Nr319	Nr320
Nr321	Nr322	Nr323	Nr324	Nr325	Nr326	Nr327	Nr328
Nr329	Nr330	Nr331	Nr332	Nr333	Nr334	Nr335	Nr336
Nr337	Nr338	Nr339	Nr340	Nr341	Nr342	Nr343	Nr344
Nr345	Nr346	Nr347	Nr348	Nr349	Nr350	Nr351	Nr352
Nr353	Nr354	Nr355	Nr356	Nr357	Nr358	Nr359	Nr360
Nr361	Nr362	Nr363	Nr364	Nr365	Nr366	Nr367	Nr368
Nr369	Nr370	Nr371	Nr372	Nr373	Nr374	Nr375	Nr376
Nr377	Nr378	Nr379	Nr380	Nr381	Nr382	Nr383	Nr384
Nr385	Nr386	Nr387	Nr388	Nr389	Nr390	Nr391	Nr392
Nr393	Nr394	Nr395	Nr396	Nr397	Nr398	Nr399	Nr400
Nr401	Nr402	Nr403	Nr404	Nr405	Nr406	Nr407	Nr408
Nr409	Nr410	Nr411	Nr412	Nr413	Nr414	Nr415	Nr416
Nr417	Nr418	Nr419	Nr420	Nr421	Nr422	Nr423	Nr424
Nr425	Nr426	Nr427	Nr428	Nr429	Nr430	Nr431	Nr432
Nr433	Nr434	Nr435	Nr436	Nr437	Nr438	Nr439	Nr440
Nr441	Nr442	Nr443	Nr444	Nr445	Nr446	Nr447	Nr448
Nr449	Nr450	Nr451	Nr452	Nr453	Nr454	Nr455	Nr456
Nr457	Nr458	Nr459	Nr460	Nr461	Nr462	Nr463	Nr464
Nr465	Nr466	Nr467	Nr468	Nr469	Nr470	Nr471	Nr472
Nr473	Nr474	Nr475	Nr476	Nr477	Nr478	Nr479	Nr480
Nr481	Nr482	Nr483	Nr484	Nr485	Nr486	Nr487	Nr488
Nr489	Nr490	Nr491	Nr492	Nr493	Nr494	Nr495	Nr496
Nr497	Nr498	Nr499	Nr500	Nr501	Nr502	Nr503	Nr504
Nr505	Nr506	Nr507	Nr508	Nr509	Nr510	Nr511	Nr512

## EXAMPLES

For more examples, visit our [Rohde & Schwarz Github repository](#).

```

"""
# GitHub examples repository path: CMXP/Python/RsCmxp_xxx_ScpiPackages

Example on how to use the python RsCmx auto-generated instrument drivers for
RsCmpx_Base and RsCmpx_Gprf (Base and GPRF) in one script with shared VISA session.
"""

from RsCMPX_Base.RsCMPX_Base import RsCMPX_Base # install from pypi.org
from RsCMPX_Base import enums as base_enums
from RsCMPX_Base import repcap as base_repcap

from RsCMPX_Gprf.RsCMPX_Gprf import RsCMPX_Gprf # install from pypi.org
from RsCMPX_Gprf.CustomFiles.reliability import ReliabilityEventArgs
from RsCMPX_Gprf import enums as gprf_enums
from RsCMPX_Gprf import repcap as gprf_repcaps

# CMX Base init
cmx_base = RsCMPX_Base('TCPIP::10.112.1.116', False, True)
print(f'CMX Base IND: {cmx_base.utilities.idn_string}')
print(f'CMX Instrument options:\n{" ".join(cmx_base.utilities.instrument_options)}')
cmx_base.utilities.visa_timeout = 5000 # default is 10000

# Sends OPC after each command
cmx_base.utilities.opc_query_after_write = False
# Checks for syst:err? after each command / query - default value after init is True
cmx_base.utilities.instrument_status_checking = True

# Self-test
self_test = cmx_base.utilities.self_test()
print(f'CMW self-test result: {self_test} - {"Passed" if self_test[0] == 0 else "Failed"}')
# Reference Frequency Source
cmx_base.system.reference.frequency.source_set(base_enums.SourceIntExt.INTERNAL)

# CMX RsCMPX_Gprf Init - reuse the session of the cmx_base, rather than creating another
cmx_gprf = RsCMPX_Gprf.from_existing_session(cmx_base)

```

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```
cmx_gprf.utilities.visa_timeout = 5000

# Driver's Interface reliability offers a convenient way of reacting on the return value.
↳ Reliability Indicator
cmx_gprf.reliability.ExceptionOnError = True # default is 10000

# Callback to use for the reliability indicator update events
def my_reliability_handler(event_args: ReliabilityEventArgs):
    print(f'GPRF Reliability updated.\nContext: {event_args.context}\nMessage:
↳ {event_args.message}')

# We register a callback for each change in the reliability indicator
cmx_gprf.reliability.on_update_handler = my_reliability_handler

# You can obtain the last value of the returned reliability
print(f"\nReliability last value: {cmx_gprf.reliability.last_value}, context '{cmx_gprf.
↳ reliability.last_context}', message: {cmx_gprf.reliability.last_message}")

# Close the sessions
cmx_gprf.close()
cmx_base.close()
```

## RSCMPX\_NRF2MEAS API STRUCTURE

### Global RepCaps

```
driver = RsCMPX_NrFr2Meas('TCPIP::192.168.2.101::hislip0')
# Instance range: Inst1 .. Inst16
rc = driver.repcap_instance_get()
driver.repcap_instance_set(repcap.Instance.Inst1)
```

**class RsCMPX\_NrFr2Meas**(*resource\_name: str, id\_query: bool = True, reset: bool = False, options: str = None, direct\_session: object = None*)

796 total commands, 6 Subgroups, 0 group commands

Initializes new RsCMPX\_NrFr2Meas session.

#### Parameter options tokens examples:

- Simulate=True - starts the session in simulation mode. Default: False
- SelectVisa=socket - uses no VISA implementation for socket connections - you do not need any VISA-C installation
- SelectVisa=rs - forces usage of RohdeSchwarz Visa
- SelectVisa=ivi - forces usage of National Instruments Visa
- QueryInstrumentStatus = False - same as driver.utilities.instrument\_status\_checking = False. Default: True
- WriteDelay = 20, ReadDelay = 5 - Introduces delay of 20ms before each write and 5ms before each read. Default: 0ms for both
- OpcWaitMode = OpcQuery - mode for all the opc-synchronised write/reads. Other modes: StbPolling, StbPollingSlow, StbPollingSuperSlow. Default: StbPolling
- AddTermCharToWriteBinBlock = True - Adds one additional LF to the end of the binary data (some instruments require that). Default: False
- AssureWriteWithTermChar = True - Makes sure each command/query is terminated with termination character. Default: Interface dependent
- TerminationCharacter = "\r" - Sets the termination character for reading. Default: \n (LineFeed or LF)
- DataChunkSize = 10E3 - Maximum size of one write/read segment. If transferred data is bigger, it is split to more segments. Default: 1E6 bytes
- OpcTimeout = 10000 - same as driver.utilities.opc\_timeout = 10000. Default: 30000ms
- VisaTimeout = 5000 - same as driver.utilities.visa\_timeout = 5000. Default: 10000ms

- `ViClearExeMode` = Disabled - `viClear()` execution mode. Default: `execute_on_all`
- `OpcQueryAfterWrite` = True - same as `driver.utilities.opc_query_after_write` = True. Default: False
- `StbInErrorCheck` = False - if true, the driver checks errors with `*STB?` If false, it uses `SYST:ERR?`. Default: True
- `ScpiQuotes` = double'. - for SCPI commands, you can define how strings are quoted. With single or double quotes. Possible values: `single` | `double` | `{char}`. Default: ```single`
- `LoggingMode` = On - Sets the logging status right from the start. Default: Off
- `LoggingName` = 'MyDevice' - Sets the name to represent the session in the log entries. Default: 'resource\_name'
- `LogToGlobalTarget` = True - Sets the logging target to the class-property previously set with `RsCMPX_NrFr2Meas.set_global_logging_target()` Default: False
- `LoggingToConsole` = True - Immediately starts logging to the console. Default: False
- `LoggingToUdp` = True - Immediately starts logging to the UDP port. Default: False
- `LoggingUdpPort` = 49200 - UDP port to log to. Default: 49200

#### Parameters

- **resource\_name** – VISA resource name, e.g. 'TCPIP::192.168.2.1::INSTR'
- **id\_query** – if True, the instrument's model name is verified against the models supported by the driver and eventually throws an exception.
- **reset** – Resets the instrument (sends `*RST` command) and clears its status subsystem.
- **options** – string tokens alternating the driver settings.
- **direct\_session** – Another driver object or pyVisa object to reuse the session instead of opening a new session.

**static** `assert_minimum_version(min_version: str) → None`

Asserts that the driver version fulfills the minimum required version you have entered. This way you make sure your installed driver is of the entered version or newer.

**classmethod** `clear_global_logging_relative_timestamp() → None`

Clears the global relative timestamp. After this, all the instances using the global relative timestamp continue logging with the absolute timestamps.

**close()** → None

Closes the active `RsCMPX_NrFr2Meas` session.

**classmethod** `from_existing_session(session: object, options: str = None) → RsCMPX_NrFr2Meas`

Creates a new `RsCMPX_NrFr2Meas` object with the entered 'session' reused.

#### Parameters

- **session** – can be another driver or a direct pyvisa session.
- **options** – string tokens alternating the driver settings.

**classmethod** `get_global_logging_relative_timestamp() → datetime`

Returns global common relative timestamp for log entries.



**classmethod** `get_global_logging_target()`

Returns global common target stream.

**get\_session\_handle()** → object

Returns the underlying session handle.

**get\_total\_execution\_time()** → timedelta

Returns total time spent by the library on communicating with the instrument. This time is always shorter than `get_total_time()`, since it does not include gaps between the communication. You can reset this counter with `reset_time_statistics()`.

**get\_total\_time()** → timedelta

Returns total time spent by the library on communicating with the instrument. This time is always shorter than `get_total_time()`, since it does not include gaps between the communication. You can reset this counter with `reset_time_statistics()`.

**static** `list_resources(expression: str = '?*::INSTR', visa_select: str = None)` → List[str]

**Finds all the resources defined by the expression**

- `'*'` - matches all the available instruments
- `'USB::*'` - matches all the USB instruments
- `'TCPIP::192*'` - matches all the LAN instruments with the IP address starting with 192

**Parameters**

- **expression** – see the examples in the function
- **visa\_select** – optional parameter selecting a specific VISA. Examples: `'@ivi'`, `'@rs'`

**reset\_time\_statistics()** → None

Resets all execution and total time counters. Affects the results of `get_total_time()` and `get_total_execution_time()`

**restore\_all\_repcaps\_to\_default()** → None

Sets all the Group and Global repcaps to their initial values

**classmethod** `set_global_logging_relative_timestamp(timestamp: datetime)` → None

Sets global common relative timestamp for log entries. To use it, call the following:  
`io.utilities.logger.set_relative_timestamp_global()`

**classmethod** `set_global_logging_relative_timestamp_now()` → None

Sets global common relative timestamp for log entries to this moment. To use it, call the following:  
`io.utilities.logger.set_relative_timestamp_global()`.

**classmethod** `set_global_logging_target(target)` → None

Sets global common target stream that each instance can use. To use it, call the following:  
`io.utilities.logger.set_logging_target_global()`. If an instance uses global logging target, it automatically uses the global relative timestamp (if set). You can set the target to None to invalidate it.

## Subgroups

### 6.1 Configure

#### class ConfigureCls

Configure commands group definition. 195 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.clone()
```

## Subgroups

### 6.1.1 NrMmwMeas

#### SCPI Commands :

```
CONFigure:NRMMw:MEASurement<Instance>:SPATH
CONFigure:NRMMw:MEASurement<Instance>:NANTenna
CONFigure:NRMMw:MEASurement<Instance>:BAND
CONFigure:NRMMw:MEASurement<Instance>:NSValue
CONFigure:NRMMw:MEASurement<Instance>:NCARrier
CONFigure:NRMMw:MEASurement<Instance>:IQSWap
CONFigure:NRMMw:MEASurement<Instance>:DOSignaling
CONFigure:NRMMw:MEASurement<Instance>:PCLass
```

#### class NrMmwMeasCls

NrMmwMeas commands group definition. 195 total commands, 10 Subgroups, 8 group commands

**get\_band()** → Band

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:BAND
value: enums.Band = driver.configure.nrMmwMeas.get_band()
```

Selects the frequency band. For Signal Path = Network, use[CONFigure:]SIGNaling:NRADio:CELL:RFSettings:FBIndicato

```
    return
    band: No help available
```

**get\_do\_signaling()** → bool

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:DOSignaling
value: bool = driver.configure.nrMmwMeas.get_do_signaling()
```

No command help available

```
    return
    path: No help available
```

**get\_iqswap()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:IQSWap
value: bool = driver.configure.nrMmwMeas.get_iqswap()
```

Enables or disables I/Q swapping (mapping the I values to the Q channel and vice versa) .

**return**  
enable: No help available

**get\_nantenna()** → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:NANTenna
value: int = driver.configure.nrMmwMeas.get_nantenna()
```

Selects the number of RX antennas used by the measurement.

**return**  
number: No help available

**get\_ncarrier()** → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:NCARrier
value: int = driver.configure.nrMmwMeas.get_ncarrier()
```

Configures the number of contiguously aggregated UL carriers in the measured signal. For Signal Path = Network, use the signaling commands configuring contiguous UL CA.

**return**  
number: No help available

**get\_ns\_value()** → NsValue

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:NSValue
value: enums.NsValue = driver.configure.nrMmwMeas.get_ns_value()
```

No command help available

**return**  
value: No help available

**get\_pclass()** → PowerClass

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PCLass
value: enums.PowerClass = driver.configure.nrMmwMeas.get_pclass()
```

Selects the power class of the UE. The setting influences modulation limits.

**return**  
power\_class: Power class 1 to 4

**get\_spath()** → Path

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:SPATH
value: enums.Path = driver.configure.nrMmwMeas.get_spath()
```

Selects between a standalone measurement and a measurement with coupling to signaling settings (cell settings of the network configuration) .

**return**

path: No help available

**set\_band**(*band: Band*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:BAND
driver.configure.nrMmwMeas.set_band(band = enums.Band.B257)
```

Selects the frequency band. For Signal Path = Network, use[CONFIGure:]SIGNaling:NRADio:CELL:RFSettings:FBIndicator

**param band**

No help available

**set\_do\_signaling**(*path: bool*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:DOSignaling
driver.configure.nrMmwMeas.set_do_signaling(path = False)
```

No command help available

**param path**

No help available

**set\_iqswap**(*enable: bool*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:IQSwap
driver.configure.nrMmwMeas.set_iqswap(enable = False)
```

Enables or disables I/Q swapping (mapping the I values to the Q channel and vice versa) .

**param enable**

No help available

**set\_nantenna**(*number: int*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:NANTenna
driver.configure.nrMmwMeas.set_nantenna(number = 1)
```

Selects the number of RX antennas used by the measurement.

**param number**

No help available

**set\_ncarrier**(*number: int*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:NCARrier
driver.configure.nrMmwMeas.set_ncarrier(number = 1)
```

Configures the number of contiguously aggregated UL carriers in the measured signal. For Signal Path = Network, use the signaling commands configuring contiguous UL CA.

**param number**

No help available

**set\_ns\_value**(*value: NsValue*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:NSValue
driver.configure.nrMmwMeas.set_ns_value(value = enums.NsValue.NS01)
```

No command help available

**param value**

No help available

**set\_pclass**(*power\_class*: *PowerClass*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PCLass
driver.configure.nrMmwMeas.set_pclass(power_class = enums.PowerClass.PC1)
```

Selects the power class of the UE. The setting influences modulation limits.

**param power\_class**

Power class 1 to 4

**set\_spath**(*path*: *Path*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:SPATH
driver.configure.nrMmwMeas.set_spath(path = enums.Path.NETWork)
```

Selects between a standalone measurement and a measurement with coupling to signaling settings (cell settings of the network configuration).

**param path**

No help available

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.clone()
```

## Subgroups

### 6.1.1.1 Caggregation

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:CAGGregation:MCARrier
```

#### class CaggregationCls

Caggregation commands group definition. 7 total commands, 4 Subgroups, 1 group commands

**get\_mcarrier**() → MeasCarrier

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:CAGGregation:MCARrier
value: enums.MeasCarrier = driver.configure.nrMmwMeas.caggregation.get_
↳mcarrier()
```

Selects a component carrier for synchronization and single carrier measurements (power dynamics).

**return**

meas\_carrier: No help available

**set\_mcarrier**(*meas\_carrier*: *MeasCarrier*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:CAGGregation:MCARrier
driver.configure.nrMmwMeas.caggregation.set_mcarrier(meas_carrier = enums.
↳ MeasCarrier.CC1)
```

Selects a component carrier for synchronization and single carrier measurements (power dynamics).

**param meas\_carrier**  
No help available

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.caggregation.clone()
```

## Subgroups

### 6.1.1.1.1 AcSpacing

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:CAGGregation:ACSPacing
```

#### class AcSpacingCls

AcSpacing commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**set()** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:CAGGregation:ACSPacing
driver.configure.nrMmwMeas.caggregation.acSpacing.set()
```

Adjusts the component carrier frequencies, so that the carriers are aggregated contiguously, with nominal channel spacing.

**set\_with\_opc**(*opc\_timeout\_ms*: *int* = -1) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:CAGGregation:ACSPacing
driver.configure.nrMmwMeas.caggregation.acSpacing.set_with_opc()
```

Adjusts the component carrier frequencies, so that the carriers are aggregated contiguously, with nominal channel spacing.

Same as set, but waits for the operation to complete before continuing further. Use the RsCMPX\_NrFr2Meas.utilities.opc\_timeout\_set() to set the timeout value.

**param opc\_timeout\_ms**  
Maximum time to wait in milliseconds, valid only for this call.

#### 6.1.1.1.2 Cbandwidth

##### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:CAGGregation:CBANdwidth:AGGRegated
```

##### class CbandwidthCls

Cbandwidth commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_aggregated()** → float

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:CAGGregation:CBANdwidth:AGGRegated
value: float = driver.configure.nrMmwMeas.caggregation.cbandwidth.get_
↪ aggregated()
```

Queries the width of the aggregated channel bandwidth.

```
return
    agg_bandwidth: No help available
```

#### 6.1.1.1.3 Frequency

##### class FrequencyCls

Frequency commands group definition. 3 total commands, 1 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.caggregation.frequency.clone()
```

##### Subgroups

#### 6.1.1.1.3.1 Aggregated

##### SCPI Commands :

```
CONFigure:NRMMw:MEASurement<Instance>:CAGGregation:FREQuency:AGGRegated:LOW
CONFigure:NRMMw:MEASurement<Instance>:CAGGregation:FREQuency:AGGRegated:CENTer
CONFigure:NRMMw:MEASurement<Instance>:CAGGregation:FREQuency:AGGRegated:HIGH
```

##### class AggregatedCls

Aggregated commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**get\_center()** → float

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>
↪ :CAGGregation:FREQuency:AGGRegated:CENTer
value: float = driver.configure.nrMmwMeas.caggregation.frequency.aggregated.get_
↪ center()
```

Queries the center frequency of the aggregated bandwidth.

```
return
    agg_freq_center: No help available
```

**get\_high()** → float

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↪:CAGGregation:FREQuency:AGGRegated:HIGH
value: float = driver.configure.nrMmwMeas.cagggregation.frequency.aggregated.get_
↪high()
```

Queries the upper edge of the aggregated bandwidth.

```
return
    agg_freq_high: No help available
```

**get\_low()** → float

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↪:CAGGregation:FREQuency:AGGRegated:LOW
value: float = driver.configure.nrMmwMeas.cagggregation.frequency.aggregated.get_
↪low()
```

Queries the lower edge of the aggregated bandwidth.

```
return
    agg_freq_low: No help available
```

#### 6.1.1.1.4 NgBandwidth

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:CAGGregation:NgBandwidth:AGGRegated
```

##### class NgBandwidthCls

NgBandwidth commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_aggregated()** → float

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↪:CAGGregation:NgBandwidth:AGGRegated
value: float = driver.configure.nrMmwMeas.cagggregation.ngBandwidth.get_
↪aggregated()
```

No command help available

```
return
    agg_bandwidth: No help available
```



### 6.1.1.2 Cc<CarrierComponent>

#### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.configure.nrMmwMeas.cc.repcap_carrierComponent_get()
driver.configure.nrMmwMeas.cc.repcap_carrierComponent_set(repcap.CarrierComponent.Nr1)
```

#### class CcCls

Cc commands group definition. 35 total commands, 10 Subgroups, 0 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.cc.clone()
```

#### Subgroups

### 6.1.1.2.1 Allocation<AllocationMore>

#### RepCap Settings

```
# Range: Nr1 .. Nr32
rc = driver.configure.nrMmwMeas.cc.allocation.repcap_allocationMore_get()
driver.configure.nrMmwMeas.cc.allocation.repcap_allocationMore_set(repcap.AllocationMore.
↳Nr1)
```

#### class AllocationCls

Allocation commands group definition. 20 total commands, 5 Subgroups, 0 group commands Repeated Capability: AllocationMore, default value after init: AllocationMore.Nr1

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.cc.allocation.clone()
```

#### Subgroups

### 6.1.1.2.1.1 Bwp

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:BWP
```

#### class BwpCls

Bwp commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(*carrierComponent*=*CarrierComponent.Default*, *allocationMore*=*AllocationMore.Default*) → *BandwidthPart*

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALLocation<Allocation>
↳:BWP
value: enums.BandwidthPart = driver.configure.nrMmwMeas.cc.allocation.bwp.
↳get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↳repcap.AllocationMore.Default)
```

Assigns a bandwidth part to allocation <a> of carrier <no>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

**return**

bandwidth\_part: No help available

**set**(*bandwidth\_part*: *BandwidthPart*, *carrierComponent*=*CarrierComponent.Default*, *allocationMore*=*AllocationMore.Default*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALLocation<Allocation>
↳:BWP
driver.configure.nrMmwMeas.cc.allocation.bwp.set(bandwidth_part = enums.
↳BandwidthPart.BWP0, carrierComponent = repcap.CarrierComponent.Default,
↳allocationMore = repcap.AllocationMore.Default)
```

Assigns a bandwidth part to allocation <a> of carrier <no>.

**param bandwidth\_part**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

### 6.1.1.2.1.2 CType

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALLocation<Allocation>:CTYPE
```

#### class CTypeCls

Ctype commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(*carrierComponent*=*CarrierComponent.Default*, *allocationMore*=*AllocationMore.Default*) → *ChannelTypeA*

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:CTYPE
value: enums.ChannelTypeA = driver.configure.nrMmwMeas.cc.allocation.ctype.
↳get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↳repcap.AllocationMore.Default)
```

Selects the type of channel to be measured, for carrier <no>, allocation <a>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

**return**

channel: No help available

**set**(channel: ChannelTypeA, carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:CTYPE
driver.configure.nrMmwMeas.cc.allocation.ctype.set(channel = enums.ChannelTypeA.
↳PUCCh, carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↳repcap.AllocationMore.Default)
```

Selects the type of channel to be measured, for carrier <no>, allocation <a>.

**param channel**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

### 6.1.1.2.1.3 Pucch

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUCCh
```

#### class PucchCls

Pucch commands group definition. 12 total commands, 8 Subgroups, 1 group commands

#### class PucchStruct

Response structure. Fields:

- Pucch\_Format: enums.PucchFormat: PUCCH format
- No\_Symbols: int: Number of allocated OFDM symbols in each uplink slot.
- Start\_Symbol: int: Index of the first allocated symbol in each uplink slot.

- No\_Rbs: int: Number of allocated UL RBs.
- Start\_Rb: int: Index of the first allocated RB.

**get**(*carrierComponent*=*CarrierComponent.Default*, *allocationMore*=*AllocationMore.Default*) → PucchStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh
value: PucchStruct = driver.configure.nrMmwMeas.cc.allocation.pucch.
↳get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↳repcap.AllocationMore.Default)
```

**Specifies settings related to the PUCCH allocation, for carrier <no>, allocation <a>.**

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFIGure:]SIGNaling:NRADio:CELL:PUCCh:FORMat
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:PUCCh:FORMat
- [CONFIGure:]SIGNaling:NRADio:CELL:PUCCh:SPRB
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:PUCCh:SPRB

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

**return**

structure: for return value, see the help for PucchStruct structure arguments.

**set**(*pucch\_format*: *PucchFormat*, *no\_symbols*: int, *start\_symbol*: int, *no\_rbs*: int, *start\_rb*: int, *carrierComponent*=*CarrierComponent.Default*, *allocationMore*=*AllocationMore.Default*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh
driver.configure.nrMmwMeas.cc.allocation.pucch.set(pucch_format = enums.
↳PucchFormat.F0, no_symbols = 1, start_symbol = 1, no_rbs = 1, start_rb = 1,
↳carrierComponent = repcap.CarrierComponent.Default, allocationMore = repcap.
↳AllocationMore.Default)
```

**Specifies settings related to the PUCCH allocation, for carrier <no>, allocation <a>.**

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFIGure:]SIGNaling:NRADio:CELL:PUCCh:FORMat
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:PUCCh:FORMat
- [CONFIGure:]SIGNaling:NRADio:CELL:PUCCh:SPRB
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:PUCCh:SPRB

**param pucch\_format**

PUCCH format

**param no\_symbols**

Number of allocated OFDM symbols in each uplink slot.

**param start\_symbol**

Index of the first allocated symbol in each uplink slot.

**param no\_rbs**

Number of allocated UL RBs.

**param start\_rb**

Index of the first allocated RB.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.cc.allocation.pucch.clone()
```

**Subgroups****6.1.1.2.1.4 Dmrs****class DmrsCls**

Dmrs commands group definition. 2 total commands, 2 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.cc.allocation.pucch.dmr.clone()
```

**Subgroups****6.1.1.2.1.5 Did****SCPI Command :**

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUCCh:DMRS:DID
```

**class DidCls**

Did commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↪:PUCCh:DMRS:DID
value: int = driver.configure.nrMmwMeas.cc.allocation.pucch.dmr.did.
↪get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↪repcap.AllocationMore.Default)
```

Specifies the DMRS ID, for carrier <no>, allocation <a>. See also method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.Cc.Allocation.Pucch.Dmrs.Init.set.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

**return**

idn: No help available

**set**(idn: int, carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:DMRS:DID
driver.configure.nrMmwMeas.cc.allocation.pucch.dmrs.did.set(idn = 1,
↳carrierComponent = repcap.CarrierComponent.Default, allocationMore = repcap.
↳AllocationMore.Default)
```

Specifies the DMRS ID, for carrier <no>, allocation <a>. See also method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.Cc.Allocation.Pucch.Dmrs.Init.set.

**param idn**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

### 6.1.1.2.1.6 Init

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUCCh:DMRS:INIT
```

#### class InitCls

Init commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → DmrsInit

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:DMRS:INIT
value: enums.DmrsInit = driver.configure.nrMmwMeas.cc.allocation.pucch.dmrs.
↳init.get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↳repcap.AllocationMore.Default)
```

Specifies the type of ID used for initialization of the DMRS sequence generation for PUCCH format F2, for carrier <no>, allocation <a>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**return**

initialization: Cell ID or DMRS ID

**set**(initialization: *DmrsInit*, carrierComponent=*CarrierComponent.Default*, allocationMore=*AllocationMore.Default*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:DMRS:INIT
driver.configure.nrMmwMeas.cc.allocation.pucch.dmrS.init.set(initialization =
↳enums.DmrsInit.CID, carrierComponent = repcap.CarrierComponent.Default,
↳allocationMore = repcap.AllocationMore.Default)
```

Specifies the type of ID used for initialization of the DMRS sequence generation for PUCCH format F2, for carrier <no>, allocation <a>.

**param initialization**

Cell ID or DMRS ID

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**6.1.1.2.1.7 Enable****SCPI Command :**

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUCCh:ENABLE
```

**class EnableCls**

Enable commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(carrierComponent=*CarrierComponent.Default*, allocationMore=*AllocationMore.Default*) → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:ENABLE
value: bool = driver.configure.nrMmwMeas.cc.allocation.pucch.enable.
↳get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↳repcap.AllocationMore.Default)
```

No command help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**return**

enable: No help available

**set**(*enable*: bool, *carrierComponent*=CarrierComponent.Default, *allocationMore*=AllocationMore.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:ENABLE
driver.configure.nrMmwMeas.cc.allocation.pucch.enable.set(enable = False,
↳carrierComponent = repcap.CarrierComponent.Default, allocationMore = repcap.
↳AllocationMore.Default)
```

No command help available

**param enable**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

### 6.1.1.2.1.8 Ghopping

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUCCh:GHOPping
```

#### class GhoppingCls

Ghopping commands group definition. 3 total commands, 2 Subgroups, 1 group commands

**get**(*carrierComponent*=CarrierComponent.Default, *allocationMore*=AllocationMore.Default) → GroupHopping

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:GHOPping
value: enums.GroupHopping = driver.configure.nrMmwMeas.cc.allocation.pucch.
↳ghopping.get(carrierComponent = repcap.CarrierComponent.Default,
↳allocationMore = repcap.AllocationMore.Default)
```

Specifies whether group hopping and/or sequence hopping are used for the PUCCH DMRS, for carrier <no>, allocation <a>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

**return**

group\_hopping: NEITHER: no group hopping and no sequence hopping ENABLE:  
group hopping DISable: sequence hopping

**set**(*group\_hopping*: GroupHopping, *carrierComponent*=CarrierComponent.Default, *allocationMore*=AllocationMore.Default) → None



```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:GHOPping
driver.configure.nrMmwMeas.cc.allocation.pucch.ghopping.set(group_hopping =
↳enums.GroupHopping.DISable, carrierComponent = repcap.CarrierComponent.
↳Default, allocationMore = repcap.AllocationMore.Default)
```

Specifies whether group hopping and/or sequence hopping are used for the PUCCH DMRS, for carrier <no>, allocation <a>.

**param group\_hopping**

NEIther: no group hopping and no sequence hopping ENABle: group hopping DIS-  
able: sequence hopping

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Al-  
location’)

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.cc.allocation.pucch.ghopping.clone()
```

## Subgroups

### 6.1.1.2.1.9 Hid

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUCCh:GHOPping:HID
```

#### class HidCls

Hid commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:GHOPping:HID
value: int = driver.configure.nrMmwMeas.cc.allocation.pucch.ghopping.hid.
↳get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↳repcap.AllocationMore.Default)
```

Specifies the hopping ID, for carrier <no>, allocation <a>. See also method  
RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.Cc. Allocation.Pucch.Ghopping.Init.set.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Al-  
location’)

**return**

idn: No help available

**set**(idn: int, carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:GHOPping:HiD
driver.configure.nrMmwMeas.cc.allocation.pucch.ghopping.hid.set(idn = 1,
↳carrierComponent = repcap.CarrierComponent.Default, allocationMore = repcap.
↳AllocationMore.Default)
```

Specifies the hopping ID, for carrier <no>, allocation <a>. See also method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.Cc.Allocation.Pucch.Ghopping.Init.set.

**param idn**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

#### 6.1.1.2.1.10 Init

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUCCh:GHOPping:INIT
```

##### class InitCls

Init commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → GhopingInit

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:GHOPping:INIT
value: enums.GhoppingInit = driver.configure.nrMmwMeas.cc.allocation.pucch.
↳ghopping.init.get(carrierComponent = repcap.CarrierComponent.Default,
↳allocationMore = repcap.AllocationMore.Default)
```

Specifies the type of ID used to initialize group hopping and sequence hopping, for carrier <no>, allocation <a>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**return**

initialization: Cell ID or hopping ID

**set**(*initialization: GhopingInit*, *carrierComponent=CarrierComponent.Default*, *allocationMore=AllocationMore.Default*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:GHOPping:INIT
driver.configure.nrMmwMeas.cc.allocation.pucch.ghopping.init.set(initialization,
↳= enums.GhoppingInit.CID, carrierComponent = repcap.CarrierComponent.Default,
↳allocationMore = repcap.AllocationMore.Default)
```

Specifies the type of ID used to initialize group hopping and sequence hopping, for carrier <no>, allocation <a>.

**param initialization**

Cell ID or hopping ID

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

#### 6.1.1.2.1.11 IcShift

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUCCh:ICSHift
```

##### class IcShiftCls

IcShift commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(*carrierComponent=CarrierComponent.Default*, *allocationMore=AllocationMore.Default*) → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:ICSHift
value: int = driver.configure.nrMmwMeas.cc.allocation.pucch.icShift.
↳get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↳repcap.AllocationMore.Default)
```

Specifies the initial cyclic shift, for carrier <no>, allocation <a>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

**return**

value: No help available

**set**(*value: int*, *carrierComponent=CarrierComponent.Default*, *allocationMore=AllocationMore.Default*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:ICShift
driver.configure.nrMmwMeas.cc.allocation.pucch.icShift.set(value = 1,↳
↳carrierComponent = repcap.CarrierComponent.Default, allocationMore = repcap.
↳AllocationMore.Default)
```

Specifies the initial cyclic shift, for carrier <no>, allocation <a>.

**param value**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

### 6.1.1.2.1.12 IsfHopping

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUCCh:ISFHopping
```

#### class IsfHoppingCls

IsfHopping commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:ISFHopping
value: bool = driver.configure.nrMmwMeas.cc.allocation.pucch.isfHopping.
↳get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =↳
↳repcap.AllocationMore.Default)
```

No command help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

**return**

enable: No help available

**set**(enable: bool, carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:ISFHopping
driver.configure.nrMmwMeas.cc.allocation.pucch.isfHopping.set(enable = False,↳
↳carrierComponent = repcap.CarrierComponent.Default, allocationMore = repcap.
↳AllocationMore.Default)
```

No command help available

**param enable**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

### 6.1.1.2.1.13 Occ

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUCCh:OCC
```

#### class OccCls

Occ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class OccStruct

Response structure. Fields:

- Length: int: OCC length
- Index: int: OCC index

**get**(*carrierComponent*=*CarrierComponent.Default*, *allocationMore*=*AllocationMore.Default*) → OccStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:OCC
value: OccStruct = driver.configure.nrMmwMeas.cc.allocation.pucch.occ.
↳get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↳repcap.AllocationMore.Default)
```

Specifies the OCC length and index for PUCCH format F4, for carrier <no>, allocation <a>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**return**

structure: for return value, see the help for OccStruct structure arguments.

**set**(*length*: int, *index*: int, *carrierComponent*=*CarrierComponent.Default*, *allocationMore*=*AllocationMore.Default*) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:OCC
driver.configure.nrMmwMeas.cc.allocation.pucch.occ.set(length = 1, index = 1,
↳carrierComponent = repcap.CarrierComponent.Default, allocationMore = repcap.
↳AllocationMore.Default)
```

Specifies the OCC length and index for PUCCH format F4, for carrier <no>, allocation <a>.

**param length**

OCC length

**param index**

OCC index

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**6.1.1.2.1.14 ShPrb****SCPI Command :**

```
CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUCCh:SHPRb
```

**class ShPrbCls**

ShPrb commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(*carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default*) → int

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:SHPRb
value: int = driver.configure.nrMmwMeas.cc.allocation.pucch.shPrb.
↳get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↳repcap.AllocationMore.Default)
```

No command help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**return**

value: No help available

**set**(*value: int, carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default*) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:SHPRb
driver.configure.nrMmwMeas.cc.allocation.pucch.shPrb.set(value = 1,
↳carrierComponent = repcap.CarrierComponent.Default, allocationMore = repcap.
↳AllocationMore.Default)
```

No command help available

**param value**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**6.1.1.2.1.15 TdoIndex****SCPI Command :**

```
CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUCCh:TDOindex
```

**class TdoIndexCls**

TdoIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(*carrierComponent*=*CarrierComponent.Default*, *allocationMore*=*AllocationMore.Default*) → int

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:TDOindex
value: int = driver.configure.nrMmwMeas.cc.allocation.pucch.tdoIndex.
↳get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↳repcap.AllocationMore.Default)
```

Specifies the time domain OCC index for PUCCH format F1, for carrier &lt;no&gt;, allocation &lt;a&gt;.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**return**

value: No help available

**set**(*value*: int, *carrierComponent*=*CarrierComponent.Default*, *allocationMore*=*AllocationMore.Default*) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUCCh:TDOindex
driver.configure.nrMmwMeas.cc.allocation.pucch.tdoIndex.set(value = 1,
↳carrierComponent = repcap.CarrierComponent.Default, allocationMore = repcap.
↳AllocationMore.Default)
```

Specifies the time domain OCC index for PUCCH format F1, for carrier &lt;no&gt;, allocation &lt;a&gt;.

**param value**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

### 6.1.1.2.1.16 Pusch

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUSCh
```

#### class PuschCls

Pusch commands group definition. 5 total commands, 4 Subgroups, 1 group commands

#### class PuschStruct

Structure for setting input parameters. Fields:

- Mapping\_Type: enums.MappingType: PUSCH mapping type
- No\_Symbols: int: Number of allocated OFDM symbols in each uplink slot. For mapping type A, the minimum value is 4 symbols.
- Start\_Symbol: int: Index of the first allocated symbol in each uplink slot. For mapping type A, only 0 is allowed.
- No\_Rbs: int: Number of allocated UL RBs.
- Start\_Rb: int: Index of the first allocated RB.
- Mod\_Scheme: enums.ModScheme: Modulation scheme /2-BPSK, QPSK, 16QAM, 64QAM, 256QAM

**get**(carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → PuschStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUSCh
value: PuschStruct = driver.configure.nrMmwMeas.cc.allocation.pusch.
↳get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↳repcap.AllocationMore.Default)
```

Specifies settings related to the PUSCH allocation, for carrier <no>, allocation <a>. The ranges for the allocated RBs have dependencies, see ‘PUSCH RB allocation’.

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFigure:]SIGNaling:NRADio:CELL:UEScheduling:UDEFined:SASSignment:UL:TDOMain:CHMapping
- [CONFigure:]SIGNaling:NRADio:CELL:BWP<bb>:UEScheduling:UDEFined:SASSignment:UL:TDOMain:CHMapping
- [CONFigure:]SIGNaling:NRADio:CELL:UEScheduling:UDEFined:SASSignment:UL:TDOMain:SYMBOL
- [CONFigure:]SIGNaling:NRADio:CELL:BWP<bb>:UEScheduling:UDEFined:SASSignment:UL:TDOMain:SYMBOL
- [CONFigure:]SIGNaling:NRADio:CELL:UEScheduling:UDEFined:SASSignment:UL:RB
- [CONFigure:]SIGNaling:NRADio:CELL:BWP<bb>:UEScheduling:UDEFined:SASSignment:UL:RB
- [CONFigure:]SIGNaling:NRADio:CELL:UEScheduling:UDEFined:SASSignment:UL:MCS
- [CONFigure:]SIGNaling:NRADio:CELL:BWP<bb>:UEScheduling:UDEFined:SASSignment:UL:MCS

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)



**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**return**

structure: for return value, see the help for PuschStruct structure arguments.

**set**(structure: PuschStruct, carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUSCh
structure = driver.configure.nrMmwMeas.cc.allocation.pusch.PuschStruct()
structure.Mapping_Type: enums.MappingType = enums.MappingType.A
structure.No_Symbols: int = 1
structure.Start_Symbol: int = 1
structure.No_Rbs: int = 1
structure.Start_Rb: int = 1
structure.Mod_Scheme: enums.ModScheme = enums.ModScheme.BPSK
driver.configure.nrMmwMeas.cc.allocation.pusch.set(structure, carrierComponent_
↳= repcap.CarrierComponent.Default, allocationMore = repcap.AllocationMore.
↳Default)
```

Specifies settings related to the PUSCH allocation, for carrier <no>, allocation <a>. The ranges for the allocated RBs have dependencies, see 'PUSCH RB allocation'.

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFIGure:]SIGNaling:NRADio:CELL:UEScheduling:UDEFined:SASSignment:UL:TDOMain:CHMapping
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:UEScheduling:UDEFined:SASSignment:UL:TDOMain:CHMapping
- [CONFIGure:]SIGNaling:NRADio:CELL:UEScheduling:UDEFined:SASSignment:UL:TDOMain:SYMBOL
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:UEScheduling:UDEFined:SASSignment:UL:TDOMain:SYMBOL
- [CONFIGure:]SIGNaling:NRADio:CELL:UEScheduling:UDEFined:SASSignment:UL:RB
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:UEScheduling:UDEFined:SASSignment:UL:RB
- [CONFIGure:]SIGNaling:NRADio:CELL:UEScheduling:UDEFined:SASSignment:UL:MCS
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:UEScheduling:UDEFined:SASSignment:UL:MCS

**param structure**

for set value, see the help for PuschStruct structure arguments.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.cc.allocation.pusch.clone()
```

## Subgroups

### 6.1.1.2.1.17 Additional

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUSCh:ADDITIONal
```

#### class AdditionalCls

Additional commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class AdditionalStruct

Response structure. Fields:

- **Dmrs\_Length**: int: Length of the DM-RS in symbols. The maximum value is limited by the 'maxLength' setting for the bandwidth part.
- **Cdm\_Groups**: int: Number of DM-RS CDM groups without data. For Signal Path = Network, the setting is not configurable.
- **Dmrs\_Power**: float: Power of DM-RS relative to the PUSCH power.
- **Antenna\_Port**: int: Antenna port of the DM-RS, for transmission layer 1.
- **Antenna\_Port\_2**: int: Antenna port of the DM-RS, for transmission layer 2.

**get**(carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → AdditionalStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUSCh:ADDITIONal
value: AdditionalStruct = driver.configure.nrMmwMeas.cc.allocation.pusch.
↳additional.get(carrierComponent = repcap.CarrierComponent.Default,↳
↳allocationMore = repcap.AllocationMore.Default)
```

Configures special PUSCH settings, for carrier <no>, allocation <a>.

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### param allocationMore

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

#### return

structure: for return value, see the help for AdditionalStruct structure arguments.

**set**(dmrs\_length: int, cdm\_groups: int, dmrs\_power: float, antenna\_port: int, antenna\_port\_2: int = None, carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUSCh:ADDITIONal
driver.configure.nrmwMeas.cc.allocation.pusch.additional.set(dmrs_length = 1,
↳cdm_groups = 1, dmrs_power = 1.0, antenna_port = 1, antenna_port_2 = 1,
↳carrierComponent = repcap.CarrierComponent.Default, allocationMore = repcap.
↳AllocationMore.Default)
```

Configures special PUSCH settings, for carrier <no>, allocation <a>.

**param dmrs\_length**

Length of the DM-RS in symbols. The maximum value is limited by the ‘maxLength’ setting for the bandwidth part.

**param cdm\_groups**

Number of DM-RS CDM groups without data. For Signal Path = Network, the setting is not configurable.

**param dmrs\_power**

Power of DM-RS relative to the PUSCH power.

**param antenna\_port**

Antenna port of the DM-RS, for transmission layer 1.

**param antenna\_port\_2**

Antenna port of the DM-RS, for transmission layer 2.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

### 6.1.1.2.1.18 Enable

#### SCPI Command :

```
CONFIGure:NRMW:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUSCh:ENABLE
```

#### class EnableCls

Enable commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → bool

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUSCh:ENABLE
value: bool = driver.configure.nrmwMeas.cc.allocation.pusch.enable.
↳get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↳repcap.AllocationMore.Default)
```

No command help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**return**

enable: No help available

**set**(enable: bool, carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default)  
→ None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUSCh:ENABLE
driver.configure.nrMmwMeas.cc.allocation.pusch.enable.set(enable = False,
↳carrierComponent = repcap.CarrierComponent.Default, allocationMore = repcap.
↳AllocationMore.Default)
```

No command help available

**param enable**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

### 6.1.1.2.1.19 Nlayers

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUSCh:NLAYers
```

**class NlayersCls**

Nlayers commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUSCh:NLAYers
value: int = driver.configure.nrMmwMeas.cc.allocation.pusch.nlayers.
↳get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↳repcap.AllocationMore.Default)
```

Selects the number of layers transmitted by the DUT, for carrier <no>, allocation <a>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**return**

number: Number of layers

**set**(*number: int, carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default*)  
→ None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUSCh:NLAYers
driver.configure.nrMmwMeas.cc.allocation.pusch.nlayers.set(number = 1,↳
↳carrierComponent = repcap.CarrierComponent.Default, allocationMore = repcap.
↳AllocationMore.Default)
```

Selects the number of layers transmitted by the DUT, for carrier <no>, allocation <a>.

**param number**

Number of layers

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

#### 6.1.1.2.1.20 Sgeneration

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:PUSCh:SGENERation
```

##### class SgenerationCls

Sgeneration commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class SgenerationStruct

Response structure. Fields:

- Initialization: enums.Initialization: CID: cell ID used DMRSId: DMRS ID used
- Dmrs\_Id: int: ID for Initialization = DMRSId.
- Nscid: int: Parameter nSCID.

**get**(*carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default*) →  
SgenerationStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUSCh:SGENERation
value: SgenerationStruct = driver.configure.nrMmwMeas.cc.allocation.pusch.
↳sgeneration.get(carrierComponent = repcap.CarrierComponent.Default,↳
↳allocationMore = repcap.AllocationMore.Default)
```

Configures the initialization of the DM-RS sequence generation, for carrier <no>, allocation <a>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**return**

structure: for return value, see the help for SgenerationStruct structure arguments.

**set**(*initialization: Initialization, dmrs\_id: int, nscid: int, carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default*) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:PUSCh:SGeneration
driver.configure.nrMmwMeas.cc.allocation.pusch.sgeneration.set(initialization =
↳enums.Initialization.CID, dmrs_id = 1, nscid = 1, carrierComponent = repcap.
↳CarrierComponent.Default, allocationMore = repcap.AllocationMore.Default)
```

Configures the initialization of the DM-RS sequence generation, for carrier <no>, allocation <a>.

**param initialization**

CID: cell ID used DMRSid: DMRS ID used

**param dmrs\_id**

ID for Initialization = DMRSid.

**param nscid**

Parameter nSCID.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

**6.1.1.2.1.21 Srs****class SrsCls**

Srs commands group definition. 1 total commands, 1 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.cc.allocation.srs.clone()
```

**Subgroups****6.1.1.2.1.22 Enable****SCPI Command :**

```
CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>:SRS:ENABLE
```

**class EnableCls**

Enable commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default) → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:SRS:ENABLE
value: bool = driver.configure.nrMmwMeas.cc.allocation.srs.enable.
↳get(carrierComponent = repcap.CarrierComponent.Default, allocationMore =
↳repcap.AllocationMore.Default)
```

No command help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

**return**

enable: No help available

**set**(enable: bool, carrierComponent=CarrierComponent.Default, allocationMore=AllocationMore.Default)  
→ None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:ALlocation<Allocation>
↳:SRS:ENABLE
driver.configure.nrMmwMeas.cc.allocation.srs.enable.set(enable = False,
↳carrierComponent = repcap.CarrierComponent.Default, allocationMore = repcap.
↳AllocationMore.Default)
```

No command help available

**param enable**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocationMore**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

### 6.1.1.2.2 BwPart

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:BwPart
```

#### class BwPartCls

BwPart commands group definition. 6 total commands, 2 Subgroups, 1 group commands

#### class GetStruct

Response structure. Fields:

- Sc\_Spacing: enums.ScSpacing: Subcarrier spacing 60 kHz, 120 kHz.
- Cyclic\_Prefix: enums.CyclicPrefix: Only normal CP is supported.
- Number\_Rb: int: Number of RBs in the bandwidth part.

- Start\_Rb: int: Index of the first RB in the bandwidth part.

**get**(bwp: BandwidthPart, carrierComponent=CarrierComponent.Default) → GetStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:BWPpart
value: GetStruct = driver.configure.nrMmwMeas.cc.bwPart.get(bwp = enums.
↳BandwidthPart.BWP0, carrierComponent = repcap.CarrierComponent.Default)
```

Configures basic properties of the <BWP> on carrier <no>. For dependencies of the RB ranges, see ‘Resource elements, grids and blocks’.

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFIGure:]SIGNaling:NRADio:CELL:SSPacing
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:SSPacing
- [CONFIGure:]SIGNaling:NRADio:CELL:UL:RB
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:UL:RB

**param bwp**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for GetStruct structure arguments.

**set**(bwp: BandwidthPart, sc\_spacing: ScSpacing, cyclic\_prefix: CyclicPrefix, number\_rb: int, start\_rb: int, carrierComponent=CarrierComponent.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:BWPpart
driver.configure.nrMmwMeas.cc.bwPart.set(bwp = enums.BandwidthPart.BWP0, sc_
↳spacing = enums.ScSpacing.S120k, cyclic_prefix = enums.CyclicPrefix.EXTended,
↳number_rb = 1, start_rb = 1, carrierComponent = repcap.CarrierComponent.
↳Default)
```

Configures basic properties of the <BWP> on carrier <no>. For dependencies of the RB ranges, see ‘Resource elements, grids and blocks’.

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFIGure:]SIGNaling:NRADio:CELL:SSPacing
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:SSPacing
- [CONFIGure:]SIGNaling:NRADio:CELL:UL:RB
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:UL:RB

**param bwp**

No help available

**param sc\_spacing**

Subcarrier spacing 60 kHz, 120 kHz.

**param cyclic\_prefix**

Only normal CP is supported.



**param number\_rb**

Number of RBs in the bandwidth part.

**param start\_rb**

Index of the first RB in the bandwidth part.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.cc.bwPart.clone()
```

**Subgroups****6.1.1.2.2.1 Pucch****class PucchCls**

Pucch commands group definition. 2 total commands, 2 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.cc.bwPart.pucch.clone()
```

**Subgroups****6.1.1.2.2.2 AdMrs****SCPI Command :**

```
CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:BWPart:PUCCh:ADMrs
```

**class AdMrsCls**

AdMrs commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(bwp: BandwidthPart, carrierComponent=CarrierComponent.Default) → bool

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:BWPart:PUCCh:ADMrs
value: bool = driver.configure.nrMmwMeas.cc.bwPart.pucch.adMrs.get(bwp = enums.
↳ BandwidthPart.BWP0, carrierComponent = repcap.CarrierComponent.Default)
```

Specifies whether the PUCCH in the <BWP> on carrier <no> uses an additional DMRS. For Signal Path = Network, the setting is not configurable.

**param bwp**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

additional\_dmrs: No help available

**set**(bwp: BandwidthPart, additional\_dmrs: bool, carrierComponent=CarrierComponent.Default) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>[:CC<no>]:BWPart:PUCCh:ADMRs
driver.configure.nrmwMeas.cc.bwPart.pucch.adMrs.set(bwp = enums.BandwidthPart.
↳BWP0, additional_dmrs = False, carrierComponent = repcap.CarrierComponent.
↳Default)
```

Specifies whether the PUCCH in the <BWP> on carrier <no> uses an additional DMRS. For Signal Path = Network, the setting is not configurable.

**param bwp**

No help available

**param additional\_dmrs**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### 6.1.1.2.2.3 Phbpsk

##### SCPI Command :

```
CONFIGure:NRMW:MEASurement<Instance>[:CC<no>]:BWPart:PUCCh:PHBPsk
```

##### class PhbpskCls

Phbpsk commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(bwp: BandwidthPart, carrierComponent=CarrierComponent.Default) → bool

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>[:CC<no>]:BWPart:PUCCh:PHBPsk
value: bool = driver.configure.nrmwMeas.cc.bwPart.pucch.phbpsk.get(bwp = enums.
↳BandwidthPart.BWP0, carrierComponent = repcap.CarrierComponent.Default)
```

Specifies whether the PUCCH in the <BWP> on carrier <no> uses /2-BPSK modulation. For Signal Path = Network, the setting is not configurable.

**param bwp**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

pi\_half\_bpsk: No help available

**set**(bwp: BandwidthPart, pi\_half\_bpsk: bool, carrierComponent=CarrierComponent.Default) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>[:CC<no>]:BWPart:PUCCh:PHBPsk
driver.configure.nrmwMeas.cc.bwPart.pucch.phbpsk.set(bwp = enums.BandwidthPart.
↳BWP0, pi_half_bpsk = False, carrierComponent = repcap.CarrierComponent.
↳Default)
```

Specifies whether the PUCCH in the <BWP> on carrier <no> uses /2-BPSK modulation. For Signal Path = Network, the setting is not configurable.

**param bwp**

No help available

**param pi\_half\_bpsk**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### 6.1.1.2.2.4 Pusch

##### class PuschCls

Pusch commands group definition. 3 total commands, 3 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.cc.bwPart.pusch.clone()
```

##### Subgroups

#### 6.1.1.2.2.5 DftPrecoding

##### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:BWPart:PUSCh:DFTPrecoding
```

##### class DftPrecodingCls

DftPrecoding commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(bwp: *BandwidthPart*, carrierComponent=*CarrierComponent.Default*) → bool

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:BWPart:PUSCh:DFTPrecoding
value: bool = driver.configure.nrMmwMeas.cc.bwPart.pusch.dftPrecoding.get(bwp =
↳enums.BandwidthPart.BWP0, carrierComponent = repcap.CarrierComponent.Default)
```

**Specifies whether the <BWP> on carrier <no> uses a transform precoding function.**

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFigure:]SIGNaling:NRADio:CELL:PUSCh:TPRecoding
- [CONFigure:]SIGNaling:NRADio:CELL:BWP<bb>:PUSCh:TPRecoding

**param bwp**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

enable: OFF: No transform precoding. ON: With transform precoding.

**set**(bwp: BandwidthPart, enable: bool, carrierComponent=CarrierComponent.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:BWPart:PUSCh:DFTPrecoding
driver.configure.nrMmwMeas.cc.bwPart.pusch.dftPrecoding.set(bwp = enums.
↳BandwidthPart.BWP0, enable = False, carrierComponent = repcap.
↳CarrierComponent.Default)
```

**Specifies whether the <BWP> on carrier <no> uses a transform precoding function.**

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFIGure:]SIGNaling:NRADio:CELL:PUSCh:TPRecoding
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:PUSCh:TPRecoding

**param bwp**

No help available

**param enable**

OFF: No transform precoding. ON: With transform precoding.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### 6.1.1.2.2.6 Dmta

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:BWPart:PUSCh:DMTA
```

##### class DmtaCls

Dmta commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class GetStruct

Response structure. Fields:

- Config\_Type: int: DM-RS setting 'dmrs-Type'.
- Add\_Position: int: DM-RS setting 'dmrs-AdditionalPosition'.
- Max\_Length: int: DM-RS setting 'maxLength'.

**get**(bwp: BandwidthPart, carrierComponent=CarrierComponent.Default) → GetStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:BWPart:PUSCh:DMTA
value: GetStruct = driver.configure.nrMmwMeas.cc.bwPart.pusch.dmta.get(bwp =
↳enums.BandwidthPart.BWP0, carrierComponent = repcap.CarrierComponent.Default)
```

**Configures the DM-RS for mapping type A. The settings apply to the <BWP> on carrier <no>.**

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFIGure:]SIGNaling:NRADio:CELL:DMRS:UL:MTA:POSition
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:DMRS:UL:MTA:POSition

**param bwp**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for GetStruct structure arguments.

**set**(bwp: *BandwidthPart*, config\_type: *int*, add\_position: *int*, max\_length: *int*, carrierComponent=*CarrierComponent.Default*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:BWPart:PUSCh:DMTA
driver.configure.nrMmwMeas.cc.bwPart.pusch.dmta.set(bwp = enums.BandwidthPart.
↳BWP0, config_type = 1, add_position = 1, max_length = 1, carrierComponent =
↳repcap.CarrierComponent.Default)
```

**Configures the DM-RS for mapping type A. The settings apply to the <BWP> on carrier <no>.**

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFIGure:]SIGNaling:NRADio:CELL:DMRS:UL:MTA:POSition
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:DMRS:UL:MTA:POSition

**param bwp**

No help available

**param config\_type**

DM-RS setting 'dmrs-Type'.

**param add\_position**

DM-RS setting 'dmrs-AdditionalPosition'.

**param max\_length**

DM-RS setting 'maxLength'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**6.1.1.2.2.7 Dmtb****SCPI Command :**

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:BWPart:PUSCh:DMTB
```

**class DmtbCls**

Dmtb commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class GetStruct**

Response structure. Fields:

- Config\_Type: int: DM-RS setting 'dmrs-Type'.
- Add\_Position: int: DM-RS setting 'dmrs-AdditionalPosition'.
- Max\_Length: int: DM-RS setting 'maxLength'.

**get**(bwp: BandwidthPart, carrierComponent=CarrierComponent.Default) → GetStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:BWPart:PUSCh:DMTB
value: GetStruct = driver.configure.nrMmwMeas.cc.bwPart.pusch.dmtb.get(bwp =
↳enums.BandwidthPart.BWP0, carrierComponent = repcap.CarrierComponent.Default)
```

**Configures the DM-RS for mapping type B. The settings apply to the <BWP> on carrier <no>.**

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFIGure:]SIGNaling:NRADio:CELL:DMRS:UL:MTB:POSition
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:DMRS:UL:MTB:POSition

**param bwp**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for GetStruct structure arguments.

**set**(bwp: BandwidthPart, config\_type: int, add\_position: int, max\_length: int, carrierComponent=CarrierComponent.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:BWPart:PUSCh:DMTB
driver.configure.nrMmwMeas.cc.bwPart.pusch.dmtb.set(bwp = enums.BandwidthPart.
↳BWP0, config_type = 1, add_position = 1, max_length = 1, carrierComponent =
↳repcap.CarrierComponent.Default)
```

**Configures the DM-RS for mapping type B. The settings apply to the <BWP> on carrier <no>.**

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFIGure:]SIGNaling:NRADio:CELL:DMRS:UL:MTB:POSition
- [CONFIGure:]SIGNaling:NRADio:CELL:BWP<bb>:DMRS:UL:MTB:POSition

**param bwp**

No help available

**param config\_type**

DM-RS setting 'dmrs-Type'.

**param add\_position**

DM-RS setting 'dmrs-AdditionalPosition'.

**param max\_length**

DM-RS setting 'maxLength'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

### 6.1.1.2.3 Cbandwidth

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:CBANdwidth
```

#### class CbandwidthCls

Cbandwidth commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(*carrierComponent*=*CarrierComponent.Default*) → ChannelBw

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:CBANdwidth
value: enums.ChannelBw = driver.configure.nrMmwMeas.cc.cbandwidth.
↳get(carrierComponent = repcap.CarrierComponent.Default)
```

Specifies the channel bandwidth of carrier <no>. For Signal Path = Network, use[CONFigure:]SIGNaling:NRADio:CELL:RFSettings:UL:BWIDth.

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

channel\_bw: Channel bandwidth 50 MHz to 400 MHz (Bxxx = xxx MHz) .

**set**(*channel\_bw*: *ChannelBw*, *carrierComponent*=*CarrierComponent.Default*) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:CBANdwidth
driver.configure.nrMmwMeas.cc.cbandwidth.set(channel_bw = enums.ChannelBw.B050,
↳carrierComponent = repcap.CarrierComponent.Default)
```

Specifies the channel bandwidth of carrier <no>. For Signal Path = Network, use[CONFigure:]SIGNaling:NRADio:CELL:RFSettings:UL:BWIDth.

#### param channel\_bw

Channel bandwidth 50 MHz to 400 MHz (Bxxx = xxx MHz) .

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

### 6.1.1.2.4 Frequency

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:FREQuency
```

#### class FrequencyCls

Frequency commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(*carrierComponent*=*CarrierComponent.Default*) → float

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:FREQuency
value: float = driver.configure.nrMmwMeas.cc.frequency.get(carrierComponent =
↳repcap.CarrierComponent.Default)
```

Selects the center frequency of carrier <no>. Without carrier aggregation, you can omit CC<no>. For the supported frequency range, see ‘Frequency ranges’.

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFigure:]SIGNaling:NRADio:CELL:RFSettings:UL:APOint:LOCation
- [CONFigure:]SIGNaling:NRADio:CELL:RFSettings:UL:CFrequency:FREQUENCY

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

frequency: No help available

**set**(frequency: float, carrierComponent=CarrierComponent.Default) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:FREQUENCY
driver.configure.nrMmwMeas.cc.frequency.set(frequency = 1.0, carrierComponent =
↳repcap.CarrierComponent.Default)
```

Selects the center frequency of carrier <no>. Without carrier aggregation, you can omit CC<no>. For the supported frequency range, see ‘Frequency ranges’.

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFigure:]SIGNaling:NRADio:CELL:RFSettings:UL:APOint:LOCation
- [CONFigure:]SIGNaling:NRADio:CELL:RFSettings:UL:CFrequency:FREQUENCY

**param frequency**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

### 6.1.1.2.5 Nallocations

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:NALlocations
```

#### class NallocationsCls

Nallocations commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(carrierComponent=CarrierComponent.Default) → int

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:NALlocations
value: int = driver.configure.nrMmwMeas.cc.nallocations.get(carrierComponent =
↳repcap.CarrierComponent.Default)
```

Number of allocations to be configured, for carrier <no>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

number: For the measured carrier, 0 is not allowed.



**set**(number: int, carrierComponent=CarrierComponent.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:NALlocations
driver.configure.nrMmwMeas.cc.nallocations.set(number = 1, carrierComponent = ↵
↵repcap.CarrierComponent.Default)
```

Number of allocations to be configured, for carrier <no>.

**param number**

For the measured carrier, 0 is not allowed.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

### 6.1.1.2.6 NbwParts

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:NBWParts
```

#### class NbwPartsCls

NbwParts commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(carrierComponent=CarrierComponent.Default) → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:NBWParts
value: int = driver.configure.nrMmwMeas.cc.nbwParts.get(carrierComponent = ↵
↵repcap.CarrierComponent.Default)
```

Configures the number of bandwidth parts for carrier <no>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

number: No help available

**set**(number: int, carrierComponent=CarrierComponent.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:NBWParts
driver.configure.nrMmwMeas.cc.nbwParts.set(number = 1, carrierComponent = ↵
↵repcap.CarrierComponent.Default)
```

Configures the number of bandwidth parts for carrier <no>.

**param number**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

### 6.1.1.2.7 PlcId

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:PLCid
```

#### class PlcIdCls

PlcId commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(*carrierComponent=CarrierComponent.Default*) → int

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:PLCid
value: int = driver.configure.nrMmwMeas.cc.plcId.get(carrierComponent = repcap.
↳ CarrierComponent.Default)
```

Specifies the physical cell ID of carrier <no>. For Signal Path = Network, use[CONFigure:]SIGNaling:NRADio:CELL:PCID.

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

phs\_layer\_cell\_id: No help available

**set**(*phs\_layer\_cell\_id: int, carrierComponent=CarrierComponent.Default*) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:PLCid
driver.configure.nrMmwMeas.cc.plcId.set(phs_layer_cell_id = 1, carrierComponent_
↳ repcap.CarrierComponent.Default)
```

Specifies the physical cell ID of carrier <no>. For Signal Path = Network, use[CONFigure:]SIGNaling:NRADio:CELL:PCID.

#### param phs\_layer\_cell\_id

No help available

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

### 6.1.1.2.8 Sassignment

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:SASSignment
```

#### class SassignmentCls

Sassignment commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**get**(*sc\_spacing: ScSpacing, slot\_no: float, carrierComponent=CarrierComponent.Default*) → int

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>[:CC<no>]:SASSignment
value: int or bool = driver.configure.nrMmwMeas.cc.sassignment.get(sc_spacing =
↳ enums.ScSpacing.S120k, slot_no = 1.0, carrierComponent = repcap.
↳ CarrierComponent.Default)
```

Selects the allocation assigned to UL slot <SlotNo>, for carrier <no>, subcarrier spacing <SCSpacing>.

**param sc\_spacing**

Subcarrier spacing 60 kHz, 120 kHz.

**param slot\_no**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

allocation: (integer or boolean) Allocation assigned to the UL slot. For X slots and DL slots, there is no allocation (NAV) . ON | OFF enables or disables the scheduling of the UL slot.

**set**(sc\_spacing: ScSpacing, slot\_no: float, allocation: int, carrierComponent=CarrierComponent.Default)  
→ None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:SASSignment
driver.configure.nrMmwMeas.cc.sassignment.set(sc_spacing = enums.ScSpacing.
↳ S120k, slot_no = 1.0, allocation = 1, carrierComponent = repcap.
↳ CarrierComponent.Default)
```

Selects the allocation assigned to UL slot <SlotNo>, for carrier <no>, subcarrier spacing <SCSpacing>.

**param sc\_spacing**

Subcarrier spacing 60 kHz, 120 kHz.

**param slot\_no**

No help available

**param allocation**

(integer or boolean) Allocation assigned to the UL slot. For X slots and DL slots, there is no allocation (NAV) . ON | OFF enables or disables the scheduling of the UL slot.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.cc.sassignment.clone()
```

## Subgroups

### 6.1.1.2.8.1 All

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:SASSignment:ALL
```

#### class AllCls

All commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(*sc\_spacing*: ScSpacing, *carrierComponent*=CarrierComponent.Default) → List[int]

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:SASSignment:ALL
value: List[int or bool] = driver.configure.nrMmwMeas.cc.sassignment.all.get(sc_
↳ spacing = enums.ScSpacing.S120k, carrierComponent = repcap.CarrierComponent.
↳ Default)
```

No command help available

**param sc\_spacing**

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

allocation: (integer or boolean items) No help available

**set**(*sc\_spacing*: ScSpacing, *allocation*: List[int], *carrierComponent*=CarrierComponent.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:SASSignment:ALL
driver.configure.nrMmwMeas.cc.sassignment.all.set(sc_spacing = enums.ScSpacing.
↳ S120k, allocation = [1, True, 2, False, 3], carrierComponent = repcap.
↳ CarrierComponent.Default)
```

No command help available

**param sc\_spacing**

No help available

**param allocation**

(integer or boolean items) No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### 6.1.1.2.9 TaPosition

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:TAPosition
```

##### class TaPositionCls

TaPosition commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(*carrierComponent*=CarrierComponent.Default) → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:TAPosition
value: int = driver.configure.nrMmwMeas.cc.taPosition.get(carrierComponent =
↳ repcap.CarrierComponent.Default)
```

Specifies the 'dmrs-TypeA-Position' for carrier <no>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

position: Number of the first DM-RS symbol for mapping type A.

**set**(position: int, carrierComponent=CarrierComponent.Default) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>[:CC<no>]:TAPosition
driver.configure.nrmwMeas.cc.taPosition.set(position = 1, carrierComponent =
↪ repcap.CarrierComponent.Default)
```

Specifies the 'dmrs-TypeA-Position' for carrier <no>.

**param position**

Number of the first DM-RS symbol for mapping type A.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

### 6.1.1.2.10 TxBwidth

**class TxBwidthCls**

TxBwidth commands group definition. 1 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrmwMeas.cc.txBwidth.clone()
```

### Subgroups

#### 6.1.1.2.10.1 Offset

**SCPI Command :**

```
CONFIGure:NRMW:MEASurement<Instance>[:CC<no>]:TXBwidth:OFFSet
```

**class OffsetCls**

Offset commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(carrierComponent=CarrierComponent.Default) → int

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>[:CC<no>]:TXBwidth:OFFSet
value: int = driver.configure.nrmwMeas.cc.txBwidth.offset.get(carrierComponent
↪ repcap.CarrierComponent.Default)
```

Specifies the offset to carrier (TxBW offset) of carrier <no>. For Signal Path = Network, use[CONFIGure:]SIGNaling:NRADio:CELL:RFSettings:UL:OCARrier.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

offset: Number of RBs

**set**(offset: int, carrierComponent=CarrierComponent.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>[:CC<no>]:TXBWidth:OFFSet
driver.configure.nrMmwMeas.cc.txBwidth.offset.set(offset = 1, carrierComponent_
↪= repcap.CarrierComponent.Default)
```

Specifies the offset to carrier (TxBW offset) of carrier <no>. For Signal Path = Network, use[CONFIGure:]SIGNaling:NRADio:CELL:RFSettings:UL:OCARrier.

**param offset**

Number of RBs

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

### 6.1.1.3 Ccall

#### class CcallCls

Ccall commands group definition. 1 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.ccall.clone()
```

### Subgroups

#### 6.1.1.3.1 TxBwidth

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:CCALL:TXBWidth:SCSPacing
```

#### class TxBwidthCls

TxBwidth commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_sc\_spacing()** → ScSpacing

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:CCALL:TXBWidth:SCSPacing
value: enums.ScSpacing = driver.configure.nrMmwMeas.ccall.txBwidth.get_sc_
↪spacing()
```

Selects the subcarrier spacing for all carriers. For Signal Path = Network, use[CONFIGure:]SIGNaling:NRADio:CELL:RFSettings:SSPacing.

**return**

scs: No help available

**set\_sc\_spacing**(scs: ScSpacing) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:CCALL:TXBWidth:SCSPacing
driver.configure.nrMmwMeas.ccall.txBwidth.set_sc_spacing(scs = enums.ScSpacing.
↳ S120k)
```

Selects the subcarrier spacing for all carriers. For Signal Path = Network, use[CONFIGure:]SIGNaling:NRADio:CELL:RFSettings:SSPacing.

**param scs**  
No help available

#### 6.1.1.4 ListPy

##### SCPI Commands :

```
CONFIGure:NRMMw:MEASurement<Instance>:LIST:OSINDEX
CONFIGure:NRMMw:MEASurement<Instance>:LIST
```

##### class ListPyCls

ListPy commands group definition. 22 total commands, 2 Subgroups, 2 group commands

**get\_os\_index()** → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:OSINDEX
value: int or bool = driver.configure.nrMmwMeas.listPy.get_os_index()
```

Selects the number of the segment to be displayed in offline mode. The index refers to the range of measured segments, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.ListPy.Lrange.set. Setting a value also enables the offline mode.

**return**  
offline\_seg\_index: (integer or boolean) No help available

**get\_value()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST
value: bool = driver.configure.nrMmwMeas.listPy.get_value()
```

Enables or disables the list mode.

**return**  
enable: OFF: Disable list mode. ON: Enable list mode.

**set\_os\_index(offline\_seg\_index: int)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:OSINDEX
driver.configure.nrMmwMeas.listPy.set_os_index(offline_seg_index = 1)
```

Selects the number of the segment to be displayed in offline mode. The index refers to the range of measured segments, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.ListPy.Lrange.set. Setting a value also enables the offline mode.

**param offline\_seg\_index**  
(integer or boolean) No help available

**set\_value**(*enable: bool*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST
driver.configure.nrMmwMeas.listPy.set_value(enable = False)
```

Enables or disables the list mode.

**param enable**

OFF: Disable list mode. ON: Enable list mode.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.listPy.clone()
```

## Subgroups

### 6.1.1.4.1 Lrange

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:LIST:LRANge
```

#### class LrangeCls

Lrange commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class LrangeStruct

Response structure. Fields:

- **Start\_Index**: int: First measured segment in the range of configured segments
- **Nr\_Segments**: int: Number of measured segments

**get()** → LrangeStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:LRANge
value: LrangeStruct = driver.configure.nrMmwMeas.listPy.lrange.get()
```

Select a range of measured segments.

**return**

structure: for return value, see the help for LrangeStruct structure arguments.

**set**(*start\_index: int, nr\_segments: int*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:LRANge
driver.configure.nrMmwMeas.listPy.lrange.set(start_index = 1, nr_segments = 1)
```

Select a range of measured segments.

**param start\_index**

First measured segment in the range of configured segments

**param nr\_segments**

Number of measured segments



#### 6.1.1.4.2 Segment<SEGMENT>

##### RepCap Settings

```
# Range: Nr1 .. Nr512
rc = driver.configure.nrmwMeas.listPy.segment.repcap_sEGMent_get()
driver.configure.nrmwMeas.listPy.segment.repcap_sEGMent_set(repcap.SEGMENT.Nr1)
```

##### class SegmentCls

Segment commands group definition. 19 total commands, 7 Subgroups, 0 group commands Repeated Capability: SEGMENT, default value after init: SEGMENT.Nr1

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrmwMeas.listPy.segment.clone()
```

#### Subgroups

##### 6.1.1.4.2.1 Aclr

##### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>:ACLR
```

##### class AclrCls

Aclr commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class AclrStruct

Response structure. Fields:

- Aclr\_Statistics: int: Statistical length in slots
- Aclr\_Enable: bool: Enable or disable the measurement of ACLR results.

**get**(sEGMENT=SEGMENT.Default) → AclrStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>:ACLR
value: AclrStruct = driver.configure.nrmwMeas.listPy.segment.aclr.get(sEGMENT,
↪= repcap.SEGMENT.Default)
```

Defines settings for ACLR measurements in list mode for segment <no>.

##### param sEGMENT

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

##### return

structure: for return value, see the help for AclrStruct structure arguments.

**set**(aclr\_statistics: int, aclr\_enable: bool, sEGMENT=SEGMENT.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>:ACLR
driver.configure.nrMmwMeas.listPy.segment.aclr.set(aclr_statistics = 1, aclr_
↳enable = False, sEGment = repcap.SEGment.Default)
```

Defines settings for ACLR measurements in list mode for segment <no>.

**param aclr\_statistics**  
Statistical length in slots

**param aclr\_enable**  
Enable or disable the measurement of ACLR results.

**param sEGment**  
optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### 6.1.1.4.2.2 Caggregation

##### class CaggregationCls

Caggregation commands group definition. 2 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.listPy.segment.caggregation.clone()
```

#### Subgroups

#### 6.1.1.4.2.3 AcSpacing

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>:CAGgregation:ACSPacing
```

##### class AcSpacingCls

AcSpacing commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**set**(sEGment=SEGment.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>
↳:CAGgregation:ACSPacing
driver.configure.nrMmwMeas.listPy.segment.caggregation.acSpacing.set(sEGment =
↳repcap.SEGment.Default)
```

Adjusts the component carrier frequencies in segment <no>, so that the carriers are aggregated contiguously.

**param sEGment**  
optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**set\_with\_opc**(sEGment=SEGment.Default, opc\_timeout\_ms: int = -1) → None

#### 6.1.1.4.2.4 Mcarrier

##### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>:CAGGregation:MCARrier
```

##### class McarrierCls

Mcarrrier commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(sEGMent=SEGMENT.Default) → MeasCarrier

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>
↳:CAGGregation:MCARrier
value: enums.MeasCarrier = driver.configure.nrMmwMeas.listPy.segment.
↳caggregation.mcarrier.get(sEGMent = repcap.SEGMENT.Default)
```

Selects a component carrier for synchronization.

##### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

##### return

meas\_carrier: No help available

**set**(meas\_carrier: MeasCarrier, sEGMent=SEGMENT.Default) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>
↳:CAGGregation:MCARrier
driver.configure.nrMmwMeas.listPy.segment.caggregation.mcarrier.set(meas_
↳carrier = enums.MeasCarrier.CC1, sEGMent = repcap.SEGMENT.Default)
```

Selects a component carrier for synchronization.

##### param meas\_carrier

No help available

##### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### 6.1.1.4.2.5 Cc<CarrierComponentExt>

##### RepCap Settings

```
# Range: Nr1 .. Nr32
rc = driver.configure.nrMmwMeas.listPy.segment.cc.repcap_carrierComponentExt_get()
driver.configure.nrMmwMeas.listPy.segment.cc.repcap_carrierComponentExt_set(repcap.
↳CarrierComponentExt.Nr1)
```

##### class CcCls

Cc commands group definition. 12 total commands, 7 Subgroups, 0 group commands Repeated Capability: CarrierComponentExt, default value after init: CarrierComponentExt.Nr1

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.listPy.segment.cc.clone()
```

## Subgroups

### 6.1.1.4.2.6 Allocation<Allocation>

## RepCap Settings

```
# Range: Nr1 .. Nr1
rc = driver.configure.nrMmwMeas.listPy.segment.cc.allocation.repcap_allocation_get()
driver.configure.nrMmwMeas.listPy.segment.cc.allocation.repcap_allocation_set(repcap.
↪Allocation.Nr1)
```

### class AllocationCls

Allocation commands group definition. 3 total commands, 1 Subgroups, 0 group commands Repeated Capability: Allocation, default value after init: Allocation.Nr1

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.listPy.segment.cc.allocation.clone()
```

## Subgroups

### 6.1.1.4.2.7 Pusch

## SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>[:CC<carrier>]:ALlocation
↪<Allocation>:PUSCh
```

### class PuschCls

Pusch commands group definition. 3 total commands, 2 Subgroups, 1 group commands

### class PuschStruct

Structure for setting input parameters. Fields:

- Mapping\_Type: enums.MappingType: PUSCH mapping type
- No\_Symbols: int: Number of allocated OFDM symbols in each uplink slot.
- Start\_Symbol: int: Index of the first allocated OFDM symbol in each uplink slot. For mapping type A, only 0 is allowed.
- No\_Rbs: int: Number of allocated UL RBs.
- Start\_Rb: int: Index of the first allocated RB.

- Mod\_Scheme: enums.ModScheme: Modulation scheme /2-BPSK, QPSK, 16QAM, 64QAM, 256QAM

**get**(sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default, allocation=Allocation.Default) → PuschStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>[:CC<carrier>
↪]:ALlocation<Allocation>:PUSCh
value: PuschStruct = driver.configure.nrMmwMeas.listPy.segment.cc.allocation.
↪pusch.get(sEGMent = repcap.SEGMENT.Default, carrierComponentExt = repcap.
↪CarrierComponentExt.Default, allocation = repcap.Allocation.Default)
```

Specifies settings related to the PUSCH allocation, for carrier <c>, allocation <a> in segment <no>. The ranges for the allocated RBs have dependencies, see ‘Resource elements, grids and blocks’.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocation**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

**return**

structure: for return value, see the help for PuschStruct structure arguments.

**set**(structure: PuschStruct, sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default, allocation=Allocation.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>[:CC<carrier>
↪]:ALlocation<Allocation>:PUSCh
structure = driver.configure.nrMmwMeas.listPy.segment.cc.allocation.pusch.
↪PuschStruct()
structure.Mapping_Type: enums.MappingType = enums.MappingType.A
structure.No_Symbols: int = 1
structure.Start_Symbol: int = 1
structure.No_Rbs: int = 1
structure.Start_Rb: int = 1
structure.Mod_Scheme: enums.ModScheme = enums.ModScheme.BPSK
driver.configure.nrMmwMeas.listPy.segment.cc.allocation.pusch.set(structure,
↪sEGMent = repcap.SEGMENT.Default, carrierComponentExt = repcap.
↪CarrierComponentExt.Default, allocation = repcap.Allocation.Default)
```

Specifies settings related to the PUSCH allocation, for carrier <c>, allocation <a> in segment <no>. The ranges for the allocated RBs have dependencies, see ‘Resource elements, grids and blocks’.

**param structure**

for set value, see the help for PuschStruct structure arguments.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocation**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.listPy.segment.cc.allocation.pusch.clone()
```

**Subgroups****6.1.1.4.2.8 Additional****SCPI Command :**

```
CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>[:CC<carrier>]:ALlocation
↳<Allocation>:PUSCh:ADDITIONal
```

**class AdditionalCls**

Additional commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class AdditionalStruct**

Response structure. Fields:

- Dmrs\_Length: int: Length of the DM-RS in symbols. The maximum value is limited by the 'maxLength' setting for the bandwidth part.
- Cdm\_Groups: int: Number of DM-RS CDM groups without data.
- Dmrs\_Power: float: Power of DM-RS relative to the PUSCH power.
- Antenna\_Port: int: Antenna port of the DM-RS.

**get**(sEGment=SEGment.Default, carrierComponentExt=CarrierComponentExt.Default, allocation=Allocation.Default) → AdditionalStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>[:CC<carrier>
↳]:ALlocation<Allocation>:PUSCh:ADDITIONal
value: AdditionalStruct = driver.configure.nrMmwMeas.listPy.segment.cc.
↳allocation.pusch.additional.get(sEGment = repcap.SEGment.Default,
↳carrierComponentExt = repcap.CarrierComponentExt.Default, allocation = repcap.
↳Allocation.Default)
```

Configures special PUSCH settings, for carrier <c>, allocation <a> in segment <no>.

**param sEGment**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param allocation**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Allocation')

**return**

structure: for return value, see the help for AdditionalStruct structure arguments.

**set**(dmrs\_length: int, cdm\_groups: int, dmrs\_power: float, antenna\_port: int, sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default, allocation=Allocation.Default) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>[:CC<carrier>]
↳[:ALlocation<Allocation>]:PUSCh:ADDITIONal
driver.configure.nrMmwMeas.listPy.segment.cc.allocation.pusch.additional.
↳set(dmrs_length = 1, cdm_groups = 1, dmrs_power = 1.0, antenna_port = 1,
↳sEGMENT = repcap.SEGMENT.Default, carrierComponentExt = repcap.
↳CarrierComponentExt.Default, allocation = repcap.Allocation.Default)
```

Configures special PUSCH settings, for carrier <c>, allocation <a> in segment <no>.

**param dmrs\_length**

Length of the DM-RS in symbols. The maximum value is limited by the ‘maxLength’ setting for the bandwidth part.

**param cdm\_groups**

Number of DM-RS CDM groups without data.

**param dmrs\_power**

Power of DM-RS relative to the PUSCH power.

**param antenna\_port**

Antenna port of the DM-RS.

**param sEGMENT**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocation**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

#### 6.1.1.4.2.9 Sgeneration

**SCPI Command :**

```
CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>[:CC<carrier>]:ALlocation
↳<Allocation>:PUSCh:SGENERation
```

**class SgenerationCls**

Sgeneration commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class SgenerationStruct**

Response structure. Fields:

- Initialization: enums.Initialization: CID: cell ID used DMRSid: DMRS ID used
- Dmrs\_Id: int: ID for Initialization = DMRSid.
- Nscid: int: Parameter nSCID.

**get**(sEGMent=SEGMent.Default, carrierComponentExt=CarrierComponentExt.Default, allocation=Allocation.Default) → SgenerationStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>[:CC<carrier>
↪]:ALlocation<Allocation>:PUSCh:SGENeration
value: SgenerationStruct = driver.configure.nrMmwMeas.listPy.segment.cc.
↪allocation.pusch.sgeneration.get(sEGMent = repcap.SEGMent.Default,↪
↪carrierComponentExt = repcap.CarrierComponentExt.Default, allocation = repcap.
↪Allocation.Default)
```

Configures the initialization of the DM-RS sequence generation, for carrier <c>, allocation <a> in segment <no>.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocation**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)

**return**

structure: for return value, see the help for SgenerationStruct structure arguments.

**set**(initialization: Initialization, dmrs\_id: int, nscid: int, sEGMent=SEGMent.Default, carrierComponentExt=CarrierComponentExt.Default, allocation=Allocation.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>[:CC<carrier>
↪]:ALlocation<Allocation>:PUSCh:SGENeration
driver.configure.nrMmwMeas.listPy.segment.cc.allocation.pusch.sgeneration.
↪set(initialization = enums.Initialization.CID, dmrs_id = 1, nscid = 1,↪
↪sEGMent = repcap.SEGMent.Default, carrierComponentExt = repcap.
↪CarrierComponentExt.Default, allocation = repcap.Allocation.Default)
```

Configures the initialization of the DM-RS sequence generation, for carrier <c>, allocation <a> in segment <no>.

**param initialization**

CID: cell ID used DMRSid: DMRS ID used

**param dmrs\_id**

ID for Initialization = DMRSid.

**param nscid**

Parameter nSCID.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param allocation**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Allocation’)



#### 6.1.1.4.2.10 BwPart

##### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>[:CC<carrier>]:BwPart
```

##### class BwPartCls

BwPart commands group definition. 4 total commands, 1 Subgroups, 1 group commands

##### class GetStruct

Response structure. Fields:

- Sc\_Spacing: enums.ScSpacing: Subcarrier spacing 60 kHz, 120 kHz.
- Cyclic\_Prefix: enums.CyclicPrefix: Only normal CP is supported.
- Number\_Rb: int: Number of RBs in the bandwidth part.
- Start\_Rb: int: Index of the first RB in the bandwidth part.

**get**(bwp: *BandwidthPart*, sEGMent=*SEGMent.Default*,  
carrierComponentExt=*CarrierComponentExt.Default*) → *GetStruct*

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>[:CC<carrier>
↪]:BwPart
value: GetStruct = driver.configure.nrMmwMeas.listPy.segment.cc.bwPart.get(bwp,
↪= enums.BandwidthPart.BWP0, sEGMent = repcap.SEGMent.Default,
↪carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Configures basic properties of the <BWP> on carrier <c> in segment <no>. For dependencies of the RB ranges, see ‘Resource elements, grids and blocks’.

##### param bwp

No help available

##### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

##### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

##### return

structure: for return value, see the help for GetStruct structure arguments.

**set**(bwp: *BandwidthPart*, sc\_spacing: *ScSpacing*, cyclic\_prefix: *CyclicPrefix*, number\_rb: *int*, start\_rb: *int*,  
sEGMent=*SEGMent.Default*, carrierComponentExt=*CarrierComponentExt.Default*) → *None*

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>[:CC<carrier>
↪]:BwPart
driver.configure.nrMmwMeas.listPy.segment.cc.bwPart.set(bwp = enums.
↪BandwidthPart.BWP0, sc_spacing = enums.ScSpacing.S120k, cyclic_prefix = enums.
↪CyclicPrefix.EXTended, number_rb = 1, start_rb = 1, sEGMent = repcap.SEGMent.
↪Default, carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Configures basic properties of the <BWP> on carrier <c> in segment <no>. For dependencies of the RB ranges, see ‘Resource elements, grids and blocks’.

**param bwp**

No help available

**param sc\_spacing**

Subcarrier spacing 60 kHz, 120 kHz.

**param cyclic\_prefix**

Only normal CP is supported.

**param number\_rb**

Number of RBs in the bandwidth part.

**param start\_rb**

Index of the first RB in the bandwidth part.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.listPy.segment.cc.bwPart.clone()
```

### Subgroups

#### 6.1.1.4.2.11 Pusch

**class PuschCls**

Pusch commands group definition. 3 total commands, 3 Subgroups, 0 group commands

### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.listPy.segment.cc.bwPart.pusch.clone()
```

### Subgroups

#### 6.1.1.4.2.12 DftPrecoding

**SCPI Command :**

```
CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>[:CC<carrier>
↪]:BWPart:PUSCh:DFTPrecoding
```

**class DftPrecodingCls**

DftPrecoding commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(bwp: *BandwidthPart*, sEGMent=*SEGMENT.Default*,  
carrierComponentExt=*CarrierComponentExt.Default*) → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>[:CC<carrier>
↪]:BWPart:PUSCh:DFTPreCoding
value: bool = driver.configure.nrMmwMeas.listPy.segment.cc.bwPart.pusch.
↪dftPreCoding.get(bwp = enums.BandwidthPart.BWP0, sEGMent = repcap.SEGMENT.
↪Default, carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Specifies whether the <BWP> on carrier <c> in segment <no> uses a transform precoding function.

**param bwp**

No help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

enable: OFF: No transform precoding. ON: With transform precoding.

**set**(bwp: *BandwidthPart*, enable: bool, sEGMent=*SEGMENT.Default*,  
carrierComponentExt=*CarrierComponentExt.Default*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>[:CC<carrier>
↪]:BWPart:PUSCh:DFTPreCoding
driver.configure.nrMmwMeas.listPy.segment.cc.bwPart.pusch.dftPreCoding.set(bwp,
↪= enums.BandwidthPart.BWP0, enable = False, sEGMent = repcap.SEGMENT.Default,
↪carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Specifies whether the <BWP> on carrier <c> in segment <no> uses a transform precoding function.

**param bwp**

No help available

**param enable**

OFF: No transform precoding. ON: With transform precoding.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

## 6.1.1.4.2.13 Dmta

## SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>[:CC<carrier>]:BWPart:PUSCh:DMTA
```

**class DmtaCls**

Dmta commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class GetStruct**

Response structure. Fields:

- Config\_Type: int: DM-RS setting 'dmrs-Type'.
- Add\_Position: int: DM-RS setting 'dmrs-AdditionalPosition'.
- Max\_Length: int: DM-RS setting 'maxLength'.

**get**(bwp: BandwidthPart, sEGMent=SEGment.Default, carrierComponentExt=CarrierComponentExt.Default) → GetStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>[:CC<carrier>
↳]:BWPart:PUSCh:DMTA
value: GetStruct = driver.configure.nrMmwMeas.listPy.segment.cc.bwPart.pusch.
↳dmta.get(bwp = enums.BandwidthPart.BWP0, sEGMent = repcap.SEGment.Default,
↳carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Configures the DM-RS for mapping type A. The settings apply to the <BWP> on carrier <c> in segment <no>.

**param bwp**

No help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for GetStruct structure arguments.

**set**(bwp: BandwidthPart, config\_type: int, add\_position: int, max\_length: int, sEGMent=SEGment.Default, carrierComponentExt=CarrierComponentExt.Default) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>[:CC<carrier>
↳]:BWPart:PUSCh:DMTA
driver.configure.nrMmwMeas.listPy.segment.cc.bwPart.pusch.dmta.set(bwp = enums.
↳BandwidthPart.BWP0, config_type = 1, add_position = 1, max_length = 1,
↳sEGMent = repcap.SEGment.Default, carrierComponentExt = repcap.
↳CarrierComponentExt.Default)
```

Configures the DM-RS for mapping type A. The settings apply to the <BWP> on carrier <c> in segment <no>.

**param bwp**

No help available

**param config\_type**

DM-RS setting 'dmrs-Type'.

**param add\_position**

DM-RS setting 'dmrs-AdditionalPosition'.

**param max\_length**

DM-RS setting 'maxLength'.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**6.1.1.4.2.14 Dmtb****SCPI Command :**

CONFIGure:NRMMw:MEASurement&lt;Instance&gt;:LIST:SEGment&lt;no&gt;[:CC&lt;carrier&gt;]:BWPart:PUSCh:DMTB

**class DmtbCls**

Dmtb commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class GetStruct**

Response structure. Fields:

- Config\_Type: int: DM-RS setting 'dmrs-Type'.
- Add\_Position: int: DM-RS setting 'dmrs-AdditionalPosition'.
- Max\_Length: int: DM-RS setting 'maxLength'.

**get**(bwp: *BandwidthPart*, sEGMent=*SEGment.Default*,  
 carrierComponentExt=*CarrierComponentExt.Default*) → GetStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>[:CC<carrier>
↪]:BWPart:PUSCh:DMTB
value: GetStruct = driver.configure.nrMmwMeas.listPy.segment.cc.bwPart.pusch.
↪dmtb.get(bwp = enums.BandwidthPart.BWP0, sEGMent = repcap.SEGment.Default,
↪carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Configures the DM-RS for mapping type B. The settings apply to the <BWP> on carrier <c> in segment <no>.

**param bwp**

No help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for GetStruct structure arguments.

**set**(bwp: BandwidthPart, config\_type: int, add\_position: int, max\_length: int, sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>[:CC<carrier>]
↳]:BWPART:PUSCh:DMTB
driver.configure.nrMmwMeas.listPy.segment.cc.bwPart.pusch.dmtb.set(bwp = enums.
↳BandwidthPart.BWP0, config_type = 1, add_position = 1, max_length = 1,
↳sEGMent = repcap.SEGMENT.Default, carrierComponentExt = repcap.
↳CarrierComponentExt.Default)
```

Configures the DM-RS for mapping type B. The settings apply to the <BWP> on carrier <c> in segment <no>.

**param bwp**

No help available

**param config\_type**

DM-RS setting 'dmrs-Type'.

**param add\_position**

DM-RS setting 'dmrs-AdditionalPosition'.

**param max\_length**

DM-RS setting 'maxLength'.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### 6.1.1.4.2.15 Cbandwidth

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>[:CC<carrier>]:CBANDwidth
```

##### class CbandwidthCls

Cbandwidth commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → ChannelBw

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>[:CC<carrier>]
↳]:CBANDwidth
value: enums.ChannelBw = driver.configure.nrMmwMeas.listPy.segment.cc.
↳cbandwidth.get(sEGMent = repcap.SEGMENT.Default, carrierComponentExt = repcap.
↳CarrierComponentExt.Default)
```

Specifies the channel bandwidth of carrier <c>, used in segment <no>.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

channel\_bw: Channel bandwidth 50 MHz to 400 MHz (Bxxx = xxx MHz) .

**set**(channel\_bw: ChannelBw, sEGMent=SEGMent.Default,  
carrierComponentExt=CarrierComponentExt.Default) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>[:CC<carrier>]
↳]:CBANdwidth
driver.configure.nrMmwMeas.listPy.segment.cc.cbandwidth.set(channel_bw = enums.
↳ChannelBw.B050, sEGMent = repcap.SEGMent.Default, carrierComponentExt =
↳repcap.CarrierComponentExt.Default)
```

Specifies the channel bandwidth of carrier <c>, used in segment <no>.

**param channel\_bw**

Channel bandwidth 50 MHz to 400 MHz (Bxxx = xxx MHz) .

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

#### 6.1.1.4.2.16 Frequency

**SCPI Command :**

```
CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>[:CC<carrier>]:FREquency
```

**class FrequencyCls**

Frequency commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(sEGMent=SEGMent.Default, carrierComponentExt=CarrierComponentExt.Default) → float

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>[:CC<carrier>]
↳]:FREquency
value: float = driver.configure.nrMmwMeas.listPy.segment.cc.frequency.
↳get(sEGMent = repcap.SEGMent.Default, carrierComponentExt = repcap.
↳CarrierComponentExt.Default)
```

Selects the center frequency of carrier <c>, used in segment <no>. Using the unit CH, the frequency can be set via the channel number. The allowed channel number range depends on the operating band, see ‘Frequency bands’. For the supported frequency range, see ‘Frequency ranges’.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

frequency: No help available

**set**(frequency: float, sEGMent=SEGMent.Default, carrierComponentExt=CarrierComponentExt.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>[:CC<carrier>
↪]:FREquency
driver.configure.nrMmwMeas.listPy.segment.cc.frequency.set(frequency = 1.0,
↪sEGMent = repcap.SEGMent.Default, carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Selects the center frequency of carrier <c>, used in segment <no>. Using the unit CH, the frequency can be set via the channel number. The allowed channel number range depends on the operating band, see 'Frequency bands'. For the supported frequency range, see 'Frequency ranges'.

**param frequency**

No help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### 6.1.1.4.2.17 Nallocations

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>[:CC<carrier>]:NALlocations
```

##### class NallocationsCls

Nallocations commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(sEGMent=SEGMent.Default, carrierComponentExt=CarrierComponentExt.Default) → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>[:CC<carrier>
↪]:NALlocations
value: int = driver.configure.nrMmwMeas.listPy.segment.cc.nallocations.
↪get(sEGMent = repcap.SEGMent.Default, carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

No command help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

number: No help available

**set**(number: int, sEGMent=SEGMent.Default, carrierComponentExt=CarrierComponentExt.Default) → None



```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>[:CC<carrier>
↪]:NALlocations
driver.configure.nrMmwMeas.listPy.segment.cc.nallocations.set(number = 1,
↪sEGMent = repcap.SEGMent.Default, carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

No command help available

**param number**

No help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

#### 6.1.1.4.2.18 PlcId

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>[:CC<carrier>]:PLCid
```

##### class PlcIdCls

PlcId commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>[:CC<carrier>
↪]:PLCid
value: int = driver.configure.nrMmwMeas.listPy.segment.cc.plcId.get(sEGMent =
↪repcap.SEGMENT.Default, carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Specifies the physical cell ID of carrier <c> in segment <no>.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

phs\_layer\_cell\_id: No help available

**set**(phs\_layer\_cell\_id: int, sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>[:CC<carrier>
↪]:PLCid
driver.configure.nrMmwMeas.listPy.segment.cc.plcId.set(phs_layer_cell_id = 1,
↪sEGMent = repcap.SEGMENT.Default, carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Specifies the physical cell ID of carrier <c> in segment <no>.

**param phs\_layer\_cell\_id**

No help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

#### 6.1.1.4.2.19 TaPosition

##### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>[:CC<carrier>]:TAPosition
```

##### class TaPositionCls

TaPosition commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → int

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>[:CC<carrier>]
↳:TAPosition
value: int = driver.configure.nrMmwMeas.listPy.segment.cc.taPosition.
↳get(sEGMent = repcap.SEGMENT.Default, carrierComponentExt = repcap.
↳CarrierComponentExt.Default)
```

Specifies the ‘dmrs-TypeA-Position’ for carrier <c> in segment <no>.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

position: Number of the first DM-RS symbol for mapping type A.

**set**(position: int, sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>[:CC<carrier>]
↳:TAPosition
driver.configure.nrMmwMeas.listPy.segment.cc.taPosition.set(position = 1,
↳sEGMent = repcap.SEGMENT.Default, carrierComponentExt = repcap.
↳CarrierComponentExt.Default)
```

Specifies the ‘dmrs-TypeA-Position’ for carrier <c> in segment <no>.

**param position**

Number of the first DM-RS symbol for mapping type A.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**6.1.1.4.2.20 Ccall****class CcallCls**

Ccall commands group definition. 1 total commands, 1 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.listPy.segment.ccall.clone()
```

**Subgroups****6.1.1.4.2.21 TxBwidth****class TxBwidthCls**

TxBwidth commands group definition. 1 total commands, 1 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.listPy.segment.ccall.txWidth.clone()
```

**Subgroups****6.1.1.4.2.22 ScSpacing****SCPI Command :**

```
CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>:CCall:TXBwidth:SCSPacing
```

**class ScSpacingCls**

ScSpacing commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(sEGment=SEGment.Default) → ScSpacing

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGment<no>
↳:CCall:TXBwidth:SCSPacing
value: enums.ScSpacing = driver.configure.nrMmwMeas.listPy.segment.ccall.
↳txWidth.scSpacing.get(sEGment = repcap.SEGment.Default)
```

Selects the subcarrier spacing used in segment &lt;no&gt;, for all carriers.

**param sEGment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

scs: In the current software version, you must configure the same value for all segments.

**set**(scs: ScSpacing, sEGMent=SEGMENT.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>
↪:CCALL:TXBWidth:SCSPacing
driver.configure.nrMmwMeas.listPy.segment.ccall.txBWidth.scSpacing.set(scs =
↪enums.ScSpacing.S120k, sEGMent = repcap.SEGMENT.Default)
```

Selects the subcarrier spacing used in segment <no>, for all carriers.

**param scs**

In the current software version, you must configure the same value for all segments.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**6.1.1.4.2.23 Modulation****SCPI Command :**

```
CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>:MODulation
```

**class ModulationCls**

Modulation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class ModulationStruct**

Response structure. Fields:

- Mod\_Statistics: int: Statistical length in slots
- Modenable: bool: Enable or disable the measurement of modulation results.

**get**(sEGMent=SEGMENT.Default) → ModulationStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>:MODulation
value: ModulationStruct = driver.configure.nrMmwMeas.listPy.segment.modulation.
↪get(sEGMent = repcap.SEGMENT.Default)
```

Defines settings for modulation measurements in list mode for segment <no>.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for ModulationStruct structure arguments.

**set**(mod\_statistics: int, modenable: bool, sEGMent=SEGMENT.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>:MODulation
driver.configure.nrMmwMeas.listPy.segment.modulation.set(mod_statistics = 1,
↪modenable = False, sEGMent = repcap.SEGMENT.Default)
```

Defines settings for modulation measurements in list mode for segment <no>.

**param mod\_statistics**

Statistical length in slots

**param modenable**

Enable or disable the measurement of modulation results.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### 6.1.1.4.2.24 SeMask

##### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>:SEMask
```

##### class SeMaskCls

SeMask commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class SeMaskStruct

Response structure. Fields:

- Sem\_Statistics: int: Statistical length in slots
- Sem\_Enable: bool: Enable or disable the measurement of spectrum emission results.

**get**(sEGMent=SEGMENT.Default) → SeMaskStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>:SEMask
value: SeMaskStruct = driver.configure.nrMmwMeas.listPy.segment.seMask.
↳get(sEGMent = repcap.SEGMENT.Default)
```

Defines settings for spectrum emission measurements in list mode for segment <no>.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**return**

structure: for return value, see the help for SeMaskStruct structure arguments.

**set**(sem\_statistics: int, sem\_enable: bool, sEGMent=SEGMENT.Default) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>:SEMask
driver.configure.nrMmwMeas.listPy.segment.seMask.set(sem_statistics = 1, sem_
↳enable = False, sEGMent = repcap.SEGMENT.Default)
```

Defines settings for spectrum emission measurements in list mode for segment <no>.

**param sem\_statistics**

Statistical length in slots

**param sem\_enable**

Enable or disable the measurement of spectrum emission results.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**6.1.1.4.2.25 Setup****SCPI Command :**

```
CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>:SETup
```

**class SetupCls**

Setup commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class SetupStruct**

Response structure. Fields:

- Segment\_Length: int: Number of subframes in the segment
- Level: float: Expected nominal power in the segment. The range can be calculated as follows: Range (Expected Nominal Power) = Range (Input Power) + External Attenuation - User Margin The input power range is stated in the specifications document.
- Band: enums.Band: Frequency band used in the segment
- Retrigger\_Flag: enums.RetriggerFlag: Specifies whether the measurement waits for a trigger event before measuring the segment, or not. For the first segment, the value OFF is always interpreted as ON. OFF: measure the segment without retrigger ON: wait for a trigger event from the trigger source configured via TRIGger:NRMMw:MEASi:MEvaluation:SOURce IFPower: wait for a trigger event from the trigger source IF Power
- Evaluat\_Offset: int: Number of subframes at the beginning of the segment that are not evaluated.

**get**(sEGMent=SEGMENT.Default) → SetupStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>:SETup
value: SetupStruct = driver.configure.nrMmwMeas.listPy.segment.setup.
↪get(sEGMent = repcap.SEGMENT.Default)
```

Defines the length and analyzer settings of segment <no>. For carrier-specific settings, there are additional commands. Send this command and the other segment configuration commands for all segments to be measured (method RsCMPX\_NrFr2Meas. Configure.NrMmwMeas.ListPy.Lrange.set) .

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**return**

structure: for return value, see the help for SetupStruct structure arguments.

**set**(segment\_length: int, level: float, band: Band, retrigger\_flag: RetriggerFlag, evaluat\_offset: int, sEGMent=SEGMENT.Default) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>:SETup
driver.configure.nrMmwMeas.listPy.segment.setup.set(segment_length = 1, level =
↪1.0, band = enums.Band.B257, retrigger_flag = enums.RetriggerFlag.IFPower,
↪evaluat_offset = 1, sEGMent = repcap.SEGMENT.Default)
```

Defines the length and analyzer settings of segment <no>. For carrier-specific settings, there are additional commands. Send this command and the other segment configuration commands for all segments to be measured (method RsCMPX\_NrFr2Meas. Configure.NrMmwMeas.ListPy.Lrange.set) .

**param segment\_length**

Number of subframes in the segment

**param level**

Expected nominal power in the segment. The range can be calculated as follows: Range (Expected Nominal Power) = Range (Input Power) + External Attenuation - User Margin The input power range is stated in the specifications document.

**param band**

Frequency band used in the segment

**param retrigger\_flag**

Specifies whether the measurement waits for a trigger event before measuring the segment, or not. For the first segment, the value OFF is always interpreted as ON. OFF: measure the segment without retrigger ON: wait for a trigger event from the trigger source configured via TRIGger:NRMMw:MEASi:MEvaluation:SOURce IF-Power: wait for a trigger event from the trigger source IF Power

**param evaluat\_offset**

Number of subframes at the beginning of the segment that are not evaluated.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

### 6.1.1.5 MultiEval

#### SCPI Commands :

```
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:PFormat
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:TOUT
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:DMode
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:REPetition
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:SCONdition
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:MMode
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:MOEXception
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:NSUBframes
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:FSTRucture
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:GHOPping
```

#### class MultiEvalCls

MultiEval commands group definition. 79 total commands, 9 Subgroups, 10 group commands

**get\_dmode()** → DuplexModeB

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:DMode
value: enums.DuplexModeB = driver.configure.nrMmwMeas.multiEval.get_dmode()
```

No command help available

**return**

mode: No help available

**get\_fstructure()** → ConfigType

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:FSTRucture
value: enums.ConfigType = driver.configure.nrMmwMeas.multiEval.get_fstructure()
```

No command help available

```
return
frame_structure: No help available
```

**get\_ghopping()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:GHOPping
value: bool = driver.configure.nrMmwMeas.multiEval.get_ghopping()
```

No command help available

```
return
value: No help available
```

**get\_rmode()** → MeasurementMode

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:MMODE
value: enums.MeasurementMode = driver.configure.nrMmwMeas.multiEval.get_rmode()
```

Selects the measurement mode.

```
return
measurement_mode: NORMAL: normal mode MELMode: multi-evaluation list mode
For a setting command, only NORMAL is allowed (disables the list mode) . A query
can also return MELM.
```

**get\_mo\_exception()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:MOEXception
value: bool = driver.configure.nrMmwMeas.multiEval.get_mo_exception()
```

Specifies whether measurement results identified as faulty or inaccurate are rejected.

```
return
meas_on_exception: OFF: Faulty results are rejected. ON: Results are never rejected.
```

**get\_nsub\_frames()** → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:NSUBframes
value: int = driver.configure.nrMmwMeas.multiEval.get_nsub_frames()
```

Specifies the number of subframes to be evaluated. If you use two RX antennas, the maximum allowed value is reduced to 10.

```
return
no_subframe: No help available
```

**get\_pformat()** → PucchFormat

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:PFORmat
value: enums.PucchFormat = driver.configure.nrMmwMeas.multiEval.get_pformat()
```

No command help available



**return**  
pucch\_format: No help available

**get\_repetition()** → Repeat

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:REpetition
value: enums.Repeat = driver.configure.nrMmwMeas.multiEval.get_repetition()
```

Specifies the repetition mode of the measurement. The repetition mode specifies whether the measurement is stopped after a single shot or repeated continuously. Use CONFIGure:::MEAS<i>:::SCount to determine the number of measurement intervals per single shot.

**return**  
repetition: SINGleshot: Single-shot measurement CONTinuous: Continuous measurement

**get\_scondition()** → StopCondition

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:SCONdition
value: enums.StopCondition = driver.configure.nrMmwMeas.multiEval.get_
↳scondition()
```

Qualifies whether the measurement is stopped after a failed limit check or continued. SLFail means that the measurement is stopped and reaches the RDY state when one of the results exceeds the limits.

**return**  
stop\_condition: NONE: Continue measurement irrespective of the limit check. SLFail: Stop measurement on limit failure.

**get\_timeout()** → float

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:TOUT
value: float = driver.configure.nrMmwMeas.multiEval.get_timeout()
```

Defines a timeout for the measurement. The timer is started when the measurement is initiated via a READ or INIT command. It is not started if the measurement is initiated manually. When the measurement has completed the first measurement cycle (first single shot), the statistical depth is reached and the timer is reset. If the first measurement cycle has not been completed when the timer expires, the measurement is stopped. The measurement state changes to RDY. The reliability indicator is set to 1, indicating that a measurement timeout occurred. Still running READ, FETCh or CALCulate commands are completed, returning the available results. At least for some results, there are no values at all or the statistical depth has not been reached. A timeout of 0 s corresponds to an infinite measurement timeout.

**return**  
timeout: No help available

**set\_dmode(mode: DuplexModeB)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:DMODE
driver.configure.nrMmwMeas.multiEval.set_dmode(mode = enums.DuplexModeB.FDD)
```

No command help available

**param mode**  
No help available

**set\_ghopping(value: bool)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:GHOPping
driver.configure.nrMmwMeas.multiEval.set_ghopping(value = False)
```

No command help available

**param value**

No help available

**set\_mmode**(*measurement\_mode: MeasurementMode*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:MMODE
driver.configure.nrMmwMeas.multiEval.set_mmode(measurement_mode = enums.
↳ MeasurementMode.MELMode)
```

Selects the measurement mode.

**param measurement\_mode**

NORMAL: normal mode MELMode: multi-evaluation list mode For a setting command, only NORMAL is allowed (disables the list mode) . A query can also return MELM.

**set\_mo\_exception**(*meas\_on\_exception: bool*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:MOEXception
driver.configure.nrMmwMeas.multiEval.set_mo_exception(meas_on_exception = False)
```

Specifies whether measurement results identified as faulty or inaccurate are rejected.

**param meas\_on\_exception**

OFF: Faulty results are rejected. ON: Results are never rejected.

**set\_nsub\_frames**(*no\_subframe: int*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:NSUBframes
driver.configure.nrMmwMeas.multiEval.set_nsub_frames(no_subframe = 1)
```

Specifies the number of subframes to be evaluated. If you use two RX antennas, the maximum allowed value is reduced to 10.

**param no\_subframe**

No help available

**set\_pformat**(*pucch\_format: PucchFormat*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:PFORmat
driver.configure.nrMmwMeas.multiEval.set_pformat(pucch_format = enums.
↳ PucchFormat.F0)
```

No command help available

**param pucch\_format**

No help available

**set\_repetition**(*repetition: Repeat*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:REPetition
driver.configure.nrMmwMeas.multiEval.set_repetition(repetition = enums.Repeat.
↳ CONTinuous)
```

Specifies the repetition mode of the measurement. The repetition mode specifies whether the measurement is stopped after a single shot or repeated continuously. Use `CONFigure::...:MEAS<i>::...:SCOut` to determine the number of measurement intervals per single shot.

**param repetition**

SINGleshot: Single-shot measurement CONTinuous: Continuous measurement

**set\_scondition**(*stop\_condition: StopCondition*) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:SCONdition
driver.configure.nrMmwMeas.multiEval.set_scondition(stop_condition = enums.
↳ StopCondition.NONE)
```

Qualifies whether the measurement is stopped after a failed limit check or continued. SLFail means that the measurement is stopped and reaches the RDY state when one of the results exceeds the limits.

**param stop\_condition**

NONE: Continue measurement irrespective of the limit check. SLFail: Stop measurement on limit failure.

**set\_timeout**(*timeout: float*) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:TOUT
driver.configure.nrMmwMeas.multiEval.set_timeout(timeout = 1.0)
```

Defines a timeout for the measurement. The timer is started when the measurement is initiated via a READ or INIT command. It is not started if the measurement is initiated manually. When the measurement has completed the first measurement cycle (first single shot), the statistical depth is reached and the timer is reset. If the first measurement cycle has not been completed when the timer expires, the measurement is stopped. The measurement state changes to RDY. The reliability indicator is set to 1, indicating that a measurement timeout occurred. Still running READ, FETCh or CALCulate commands are completed, returning the available results. At least for some results, there are no values at all or the statistical depth has not been reached. A timeout of 0 s corresponds to an infinite measurement timeout.

**param timeout**

No help available

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.clone()
```

## Subgroups

### 6.1.1.5.1 Limit

#### class LimitCls

Limit commands group definition. 31 total commands, 5 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.clone()
```

## Subgroups

### 6.1.1.5.1.1 Aclr

#### class AclrCls

Aclr commands group definition. 3 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.aclr.clone()
```

## Subgroups

### 6.1.1.5.1.2 AtTolerance

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:ACLR:ATTolerance
```

#### class AtToleranceCls

AtTolerance commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class AtToleranceStruct

Response structure. Fields:

- Tol\_2330: float: Test tolerance for carrier frequencies 23.45 GHz and 30.3 GHz
- Tol\_3040: float: Test tolerance for carrier frequencies 30.3 GHz and 40.8 GHz

**get()** → AtToleranceStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:ACLR:ATTolerance
value: AtToleranceStruct = driver.configure.nrMmwMeas.multiEval.limit.aclr.
↳atTolerance.get()
```

Defines the test tolerance for relative ACLR limits, depending on the carrier frequency.

#### return

structure: for return value, see the help for AtToleranceStruct structure arguments.

**set(tol\_2330: float, tol\_3040: float)** → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:ACLR:ATTolerance
driver.configure.nrMmwMeas.multiEval.limit.aclr.atTolerance.set(tol_2330 = 1.0,
↳tol_3040 = 1.0)
```

Defines the test tolerance for relative ACLR limits, depending on the carrier frequency.

**param tol\_2330**

Test tolerance for carrier frequencies 23.45 GHz and 30.3 GHz

**param tol\_3040**

Test tolerance for carrier frequencies 30.3 GHz and 40.8 GHz

### 6.1.1.5.1.3 Nr

#### class NrCls

Nr commands group definition. 2 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.aclr.nr.clone()
```

#### Subgroups

### 6.1.1.5.1.4 Caggregation

#### class CaggregationCls

Caggregation commands group definition. 1 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.aclr.nr.caggregation.clone()
```

#### Subgroups

### 6.1.1.5.1.5 Blimits<BandLimits>

#### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.configure.nrMmwMeas.multiEval.limit.aclr.nr.caggregation.blimits.repcap_
↳bandLimits_get()
driver.configure.nrMmwMeas.multiEval.limit.aclr.nr.caggregation.blimits.repcap_
↳bandLimits_set(repcap.BandLimits.Nr1)
```

**SCPI Command :**

```
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:ACLR:NR:CAGGregation:BLIMits<n>
```

**class BlimitsCls**

Blimits commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: BandLimits, default value after init: BandLimits.Nr1

**class BlimitsStruct**

Response structure. Fields:

- Relative\_Level: float or bool: Relative lower ACLR limit without test tolerance
- Absolute\_Level: float or bool: No parameter help available

**get**(bandLimits=BandLimits.Default) → BlimitsStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>
↪:MEvaluation:LIMit:ACLR:NR:CAGGregation:BLIMits<n>
value: BlimitsStruct = driver.configure.nrMmwMeas.multiEval.limit.aclr.nr.
↪caggregation.blimits.get(bandLimits = repcap.BandLimits.Default)
```

Defines relative and absolute limits for the ACLR measured in an adjacent NR channel, with carrier aggregation.

**param bandLimits**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Blimits')

**return**

structure: for return value, see the help for BlimitsStruct structure arguments.

**set**(relative\_level: float, absolute\_level: float, bandLimits=BandLimits.Default) → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>
↪:MEvaluation:LIMit:ACLR:NR:CAGGregation:BLIMits<n>
driver.configure.nrMmwMeas.multiEval.limit.aclr.nr.caggregation.blimits.
↪set(relative_level = 1.0, absolute_level = 1.0, bandLimits = repcap.
↪BandLimits.Default)
```

Defines relative and absolute limits for the ACLR measured in an adjacent NR channel, with carrier aggregation.

**param relative\_level**

(float or boolean) Relative lower ACLR limit without test tolerance

**param absolute\_level**

(float or boolean) No help available

**param bandLimits**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Blimits')

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.aclr.nr.caggregation.blimits.clone()
```

### 6.1.1.5.1.6 Cbandwidth<ChannelBw>

#### RepCap Settings

```
# Range: Bw50 .. Bw400
rc = driver.configure.nrMmwMeas.multiEval.limit.aclr.nr.cbandwidth.repcap_channelBw_get()
driver.configure.nrMmwMeas.multiEval.limit.aclr.nr.cbandwidth.repcap_channelBw_
↳set(repcap.ChannelBw.Bw50)
```

#### class CbandwidthCls

Cbandwidth commands group definition. 1 total commands, 1 Subgroups, 0 group commands Repeated Capability: ChannelBw, default value after init: ChannelBw.Bw50

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.aclr.nr.cbandwidth.clone()
```

## Subgroups

### 6.1.1.5.1.7 Blimits<BandLimits>

#### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.configure.nrMmwMeas.multiEval.limit.aclr.nr.cbandwidth.blimits.repcap_
↳bandLimits_get()
driver.configure.nrMmwMeas.multiEval.limit.aclr.nr.cbandwidth.blimits.repcap_bandLimits_
↳set(repcap.BandLimits.Nr1)
```

## SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:ACLR:NR:CBANdwidth<bw>:BLIMits<n>
```

#### class BlimitsCls

Blimits commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: BandLimits, default value after init: BandLimits.Nr1

#### class BlimitsStruct

Response structure. Fields:

- Relative\_Level: float or bool: Relative lower ACLR limit without test tolerance

- Absolute\_Level: float or bool: No parameter help available

**get**(channelBw=ChannelBw.Default, bandLimits=BandLimits.Default) → BlimitsStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳ :MEvaluation:LIMit:ACLR:NR:CBANdwidth<bw>:BLIMits<n>
value: BlimitsStruct = driver.configure.nrMmwMeas.multiEval.limit.aclr.nr.
↳ cbandwidth.blimits.get(channelBw = repcap.ChannelBw.Default, bandLimits =
↳ repcap.BandLimits.Default)
```

Defines relative and absolute limits for the ACLR measured in an adjacent NR channel. The settings are defined separately for each channel bandwidth.

**param channelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'Cbandwidth')

**param bandLimits**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Blimits')

**return**

structure: for return value, see the help for BlimitsStruct structure arguments.

**set**(relative\_level: float, absolute\_level: float, channelBw=ChannelBw.Default, bandLimits=BandLimits.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳ :MEvaluation:LIMit:ACLR:NR:CBANdwidth<bw>:BLIMits<n>
driver.configure.nrMmwMeas.multiEval.limit.aclr.nr.cbandwidth.blimits.
↳ set(relative_level = 1.0, absolute_level = 1.0, channelBw = repcap.ChannelBw.
↳ Default, bandLimits = repcap.BandLimits.Default)
```

Defines relative and absolute limits for the ACLR measured in an adjacent NR channel. The settings are defined separately for each channel bandwidth.

**param relative\_level**

(float or boolean) Relative lower ACLR limit without test tolerance

**param absolute\_level**

(float or boolean) No help available

**param channelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'Cbandwidth')

**param bandLimits**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Blimits')



## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrmwMeas.multiEval.limit.aclr.nr.cbandwidth.blimits.clone()
```

### 6.1.1.5.1.8 Phbpsk

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:PHBPsk:FERRor
```

#### class PhbpskCls

Phbpsk commands group definition. 8 total commands, 6 Subgroups, 1 group commands

**get\_freq\_error()** → float

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:PHBPsk:FERRor
value: float or bool = driver.configure.nrmwMeas.multiEval.limit.phbpsk.get_
    ↪ freq_error()
```

Defines an upper limit for the carrier frequency error (/2-BPSK modulation) .

**return**  
frequency\_error: (float or boolean) No help available

**set\_freq\_error(frequency\_error: float)** → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:PHBPsk:FERRor
driver.configure.nrmwMeas.multiEval.limit.phbpsk.set_freq_error(frequency_
    ↪ error = 1.0)
```

Defines an upper limit for the carrier frequency error (/2-BPSK modulation) .

**param frequency\_error**  
(float or boolean) No help available

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrmwMeas.multiEval.limit.phbpsk.clone()
```

## Subgroups

### 6.1.1.5.1.9 EsFlatness

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:PHBPsk:ESFlatness
```

**class EsFlatnessCls**

EsFlatness commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class EsFlatnessStruct**

Response structure. Fields:

- **Enable**: bool: OFF: disables the limit check ON: enables the limit check
- **Range\_1**: float: Upper limit for max(range 1) - min(range 1)
- **Range\_2**: float: Upper limit for max(range 2) - min(range 2)
- **Max\_1\_Min\_2**: float: Upper limit for max(range 1) - min(range 2)
- **Max\_2\_Min\_1**: float: Upper limit for max(range 2) - min(range 1)

**get()** → EsFlatnessStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳ :MEvaluation:LIMit:PHBPsK:ESFlatness
value: EsFlatnessStruct = driver.configure.nrMmwMeas.multiEval.limit.phbpsk.
↳ esFlatness.get()
```

Defines limits for the equalizer spectrum flatness (/2-BPSK modulation) .

**return**

structure: for return value, see the help for EsFlatnessStruct structure arguments.

**set(enable: bool, range\_1: float, range\_2: float, max\_1\_min\_2: float, max\_2\_min\_1: float)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳ :MEvaluation:LIMit:PHBPsK:ESFlatness
driver.configure.nrMmwMeas.multiEval.limit.phbpsk.esFlatness.set(enable = False,
↳ range_1 = 1.0, range_2 = 1.0, max_1_min_2 = 1.0, max_2_min_1 = 1.0)
```

Defines limits for the equalizer spectrum flatness (/2-BPSK modulation) .

**param enable**

OFF: disables the limit check ON: enables the limit check

**param range\_1**

Upper limit for max(range 1) - min(range 1)

**param range\_2**

Upper limit for max(range 2) - min(range 2)

**param max\_1\_min\_2**

Upper limit for max(range 1) - min(range 2)

**param max\_2\_min\_1**

Upper limit for max(range 2) - min(range 1)

### 6.1.1.5.1.10 EvMagnitude

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:PHBPsK:EvMagnitude
```

#### class EvMagnitudeCls

EvMagnitude commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class EvMagnitudeStruct

Response structure. Fields:

- Rms: float or bool: No parameter help available
- Peak: float or bool: No parameter help available

**get()** → EvMagnitudeStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>
↳:MEValuation:LIMit:PHBPsK:EvMagnitude
value: EvMagnitudeStruct = driver.configure.nrMmwMeas.multiEval.limit.phbpsk.
↳evMagnitude.get()
```

Defines upper limits for the RMS and peak values of the error vector magnitude (EVM) for /2-BPSK.

#### return

structure: for return value, see the help for EvMagnitudeStruct structure arguments.

**set(rms: float, peak: float)** → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>
↳:MEValuation:LIMit:PHBPsK:EvMagnitude
driver.configure.nrMmwMeas.multiEval.limit.phbpsk.evMagnitude.set(rms = 1.0,
↳peak = 1.0)
```

Defines upper limits for the RMS and peak values of the error vector magnitude (EVM) for /2-BPSK.

#### param rms

(float or boolean) No help available

#### param peak

(float or boolean) No help available

### 6.1.1.5.1.11 Ibe

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:PHBPsK:IBE
```

#### class IbeCls

Ibe commands group definition. 2 total commands, 1 Subgroups, 1 group commands

#### class ValueStruct

Structure for setting input parameters. Fields:

- Enable: bool: OFF: disables the limit check ON: enables the limit check

- Minimum: float: No parameter help available
- Evm: float: No parameter help available
- Rb\_Power: float: No parameter help available
- Iq\_Image\_Lesser: float: I/Q image for low TX power range
- Iq\_Image\_Greater: float: I/Q image for high TX power range

**get\_value()** → ValueStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:PHBpsk:IBE
value: ValueStruct = driver.configure.nrMmwMeas.multiEval.limit.phbpsk.ibe.get_
↳value()
```

Defines parameters used for calculation of an upper limit for the in-band emission (/2-BPSK modulation), see 'In-band emissions limits'.

**return**

structure: for return value, see the help for ValueStruct structure arguments.

**set\_value(value: ValueStruct)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:PHBpsk:IBE
structure = driver.configure.nrMmwMeas.multiEval.limit.phbpsk.ibe.ValueStruct()
structure.Enable: bool = False
structure.Minimum: float = 1.0
structure.Evm: float = 1.0
structure.Rb_Power: float = 1.0
structure.Iq_Image_Lesser: float = 1.0
structure.Iq_Image_Greater: float = 1.0
driver.configure.nrMmwMeas.multiEval.limit.phbpsk.ibe.set_value(value =
↳structure)
```

Defines parameters used for calculation of an upper limit for the in-band emission (/2-BPSK modulation), see 'In-band emissions limits'.

**param value**

see the help for ValueStruct structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.phbpsk.ibe.clone()
```

## Subgroups

### 6.1.1.5.1.12 IqOffset

**SCPI Command :**

```
CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:PHBpsk:IBE:IQOfset
```

**class IqOffsetCls**

IqOffset commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class IqOffsetStruct**

Response structure. Fields:

- Offset\_0: float: I/Q origin offset limit for high TX power range
- Offset\_1: float: I/Q origin offset limit for low TX power range

**get()** → IqOffsetStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳ :MEValuation:LIMit:PHBPsK:IBE:IQOffset
value: IqOffsetStruct = driver.configure.nrMmwMeas.multiEval.limit.phbpsk.ibe.
↳ iqOffset.get()
```

Defines I/Q origin offset values used for calculation of an upper limit for the in-band emission, for /2-BPSK modulation. Two different values can be set for two TX power ranges.

**return**

structure: for return value, see the help for IqOffsetStruct structure arguments.

**set(offset\_0: float, offset\_1: float)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳ :MEValuation:LIMit:PHBPsK:IBE:IQOffset
driver.configure.nrMmwMeas.multiEval.limit.phbpsk.ibe.iqOffset.set(offset_0 = 1.
↳ 0, offset_1 = 1.0)
```

Defines I/Q origin offset values used for calculation of an upper limit for the in-band emission, for /2-BPSK modulation. Two different values can be set for two TX power ranges.

**param offset\_0**

I/Q origin offset limit for high TX power range

**param offset\_1**

I/Q origin offset limit for low TX power range

**6.1.1.5.1.13 IqOffset****SCPI Command :**

```
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:PHBPsK:IQOffset
```

**class IqOffsetCls**

IqOffset commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class IqOffsetStruct**

Response structure. Fields:

- Enable: bool: OFF: disables the limit check ON: enables the limit check
- Offset\_0: float: I/Q origin offset limit for high TX power range
- Offset\_1: float: I/Q origin offset limit for low TX power range

**get()** → IqOffsetStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:PHBpsk:IQOffset
value: IqOffsetStruct = driver.configure.nrMmwMeas.multiEval.limit.phbpsk.
↳ iqOffset.get()
```

Defines upper limits for the I/Q origin offset (/2-BPSK modulation) . Two different I/Q origin offset limits can be set for two TX power ranges.

**return**

structure: for return value, see the help for IqOffsetStruct structure arguments.

**set(enable: bool, offset\_0: float, offset\_1: float)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:PHBpsk:IQOffset
driver.configure.nrMmwMeas.multiEval.limit.phbpsk.iqOffset.set(enable = False,
↳ offset_0 = 1.0, offset_1 = 1.0)
```

Defines upper limits for the I/Q origin offset (/2-BPSK modulation) . Two different I/Q origin offset limits can be set for two TX power ranges.

**param enable**

OFF: disables the limit check ON: enables the limit check

**param offset\_0**

I/Q origin offset limit for high TX power range

**param offset\_1**

I/Q origin offset limit for low TX power range

#### 6.1.1.5.1.14 Merror

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:PHBpsk:MERRor
```

##### class MerrorCls

Merror commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class MerrorStruct

Response structure. Fields:

- Rms: float or bool: No parameter help available
- Peak: float or bool: No parameter help available

**get()** → MerrorStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:PHBpsk:MERRor
value: MerrorStruct = driver.configure.nrMmwMeas.multiEval.limit.phbpsk.merror.
↳ get()
```

Defines upper limits for the RMS and peak values of the magnitude error for /2-BPSK.

**return**

structure: for return value, see the help for MerrorStruct structure arguments.

**set**(rms: float, peak: float) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:PHBpsk:MErRor
driver.configure.nrMmwMeas.multiEval.limit.phbpsk.merror.set(rms = 1.0, peak =
↪1.0)
```

Defines upper limits for the RMS and peak values of the magnitude error for /2-BPSK.

**param rms**  
(float or boolean) No help available

**param peak**  
(float or boolean) No help available

#### 6.1.1.5.1.15 Perror

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:PHBpsk:PERror
```

##### class PerrorCls

Error commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class PerrorStruct

Response structure. Fields:

- Rms: float or bool: No parameter help available
- Peak: float or bool: No parameter help available

**get**() → PerrorStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:PHBpsk:PERror
value: PerrorStruct = driver.configure.nrMmwMeas.multiEval.limit.phbpsk.perror.
↪get()
```

Defines symmetric limits for the RMS and peak values of the phase error for /2-BPSK. The limit check fails if the absolute value of the measured phase error exceeds the specified limit.

**return**  
structure: for return value, see the help for PerrorStruct structure arguments.

**set**(rms: float, peak: float) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:PHBpsk:PERror
driver.configure.nrMmwMeas.multiEval.limit.phbpsk.perror.set(rms = 1.0, peak =
↪1.0)
```

Defines symmetric limits for the RMS and peak values of the phase error for /2-BPSK. The limit check fails if the absolute value of the measured phase error exceeds the specified limit.

**param rms**  
(float or boolean) No help available

**param peak**  
(float or boolean) No help available

#### 6.1.1.5.1.16 Qam<Qam>

##### RepCap Settings

```
# Range: Order16 .. Order256
rc = driver.configure.nrMmwMeas.multiEval.limit.qam.repcap_qam_get()
driver.configure.nrMmwMeas.multiEval.limit.qam.repcap_qam_set(repcap.Qam.Order16)
```

##### class QamCls

Qam commands group definition. 8 total commands, 7 Subgroups, 0 group commands Repeated Capability: Qam, default value after init: Qam.Order16

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.qam.clone()
```

##### Subgroups

#### 6.1.1.5.1.17 EsFlatness

##### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>:ESFlatness
```

##### class EsFlatnessCls

EsFlatness commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class EsFlatnessStruct

Response structure. Fields:

- Enable: bool: OFF: disables the limit check ON: enables the limit check
- Range\_1: float: Upper limit for max(range 1) - min(range 1)
- Range\_2: float: Upper limit for max(range 2) - min(range 2)
- Max\_1\_Min\_2: float: Upper limit for max(range 1) - min(range 2)
- Max\_2\_Min\_1: float: Upper limit for max(range 2) - min(range 1)

**get**(qam=Qam.Default) → EsFlatnessStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>
↳:ESFlatness
value: EsFlatnessStruct = driver.configure.nrMmwMeas.multiEval.limit.qam.
↳esFlatness.get(qam = repcap.Qam.Default)
```

Defines limits for the equalizer spectrum flatness (QAM modulations) .

##### param qam

optional repeated capability selector. Default value: Order16 (settable in the interface 'Qam')



**return**

structure: for return value, see the help for EsFlatnessStruct structure arguments.

**set**(enable: bool, range\_1: float, range\_2: float, max\_1\_min\_2: float, max\_2\_min\_1: float, qam=Qam.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>
↳:ESFlatness
driver.configure.nrMmwMeas.multiEval.limit.qam.esFlatness.set(enable = False,
↳range_1 = 1.0, range_2 = 1.0, max_1_min_2 = 1.0, max_2_min_1 = 1.0, qam =
↳repcap.Qam.Default)
```

Defines limits for the equalizer spectrum flatness (QAM modulations) .

**param enable**

OFF: disables the limit check ON: enables the limit check

**param range\_1**

Upper limit for max(range 1) - min(range 1)

**param range\_2**

Upper limit for max(range 2) - min(range 2)

**param max\_1\_min\_2**

Upper limit for max(range 1) - min(range 2)

**param max\_2\_min\_1**

Upper limit for max(range 2) - min(range 1)

**param qam**

optional repeated capability selector. Default value: Order16 (settable in the interface 'Qam')

#### 6.1.1.5.1.18 EvMagnitude

**SCPI Command :**

```
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>:EVMagnitude
```

**class EvMagnitudeCls**

EvMagnitude commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class EvMagnitudeStruct**

Response structure. Fields:

- Rms: float or bool: No parameter help available
- Peak: float or bool: No parameter help available

**get**(qam=Qam.Default) → EvMagnitudeStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>
↳:EVMagnitude
value: EvMagnitudeStruct = driver.configure.nrMmwMeas.multiEval.limit.qam.
↳evMagnitude.get(qam = repcap.Qam.Default)
```

Defines upper limits for the RMS and peak values of the error vector magnitude (EVM) for QAM modulations.

**param qam**

optional repeated capability selector. Default value: Order16 (settable in the interface 'Qam')

**return**

structure: for return value, see the help for EvMagnitudeStruct structure arguments.

**set**(rms: float, peak: float, qam=Qam.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>
↳:EVMagnitude
driver.configure.nrMmwMeas.multiEval.limit.qam.evMagnitude.set(rms = 1.0, peak=
↳= 1.0, qam = repcap.Qam.Default)
```

Defines upper limits for the RMS and peak values of the error vector magnitude (EVM) for QAM modulations.

**param rms**

(float or boolean) No help available

**param peak**

(float or boolean) No help available

**param qam**

optional repeated capability selector. Default value: Order16 (settable in the interface 'Qam')

**6.1.1.5.1.19 FreqError****SCPI Command :**

```
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>:FERRor
```

**class FreqErrorCls**

FreqError commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(qam=Qam.Default) → float

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>
↳:FERRor
value: float or bool = driver.configure.nrMmwMeas.multiEval.limit.qam.freqError.
↳get(qam = repcap.Qam.Default)
```

Defines an upper limit for the carrier frequency error (QAM modulations) .

**param qam**

optional repeated capability selector. Default value: Order16 (settable in the interface 'Qam')

**return**

frequency\_error: (float or boolean) No help available

**set**(frequency\_error: float, qam=Qam.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>
↪:FERRor
driver.configure.nrMmwMeas.multiEval.limit.qam.freqError.set(frequency_error =
↪1.0, qam = repcap.Qam.Default)
```

Defines an upper limit for the carrier frequency error (QAM modulations) .

**param frequency\_error**

(float or boolean) No help available

**param qam**

optional repeated capability selector. Default value: Order16 (settable in the interface 'Qam')

### 6.1.1.5.1.20 Ibe

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>:IBE
```

#### class IbeCls

Ibe commands group definition. 2 total commands, 1 Subgroups, 1 group commands

#### class IbeStruct

Structure for setting input parameters. Fields:

- Enable: bool: OFF: disables the limit check ON: enables the limit check
- Minimum: float: No parameter help available
- Evm: float: No parameter help available
- Rb\_Power: float: No parameter help available
- Iq\_Image\_Lesser: float: I/Q image for low TX power range
- Iq\_Image\_Greater: float: I/Q image for high TX power range

**get**(qam=*Qam.Default*) → IbeStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>:IBE
value: IbeStruct = driver.configure.nrMmwMeas.multiEval.limit.qam.ibe.get(qam =
↪repcap.Qam.Default)
```

Defines parameters used for calculation of an upper limit for the in-band emission (QAM modulations) , see 'In-band emissions limits'.

**param qam**

optional repeated capability selector. Default value: Order16 (settable in the interface 'Qam')

**return**

structure: for return value, see the help for IbeStruct structure arguments.

**set**(structure: *IbeStruct*, qam=*Qam.Default*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>:IBE
structure = driver.configure.nrMmwMeas.multiEval.limit.qam.ibe.IbeStruct()
structure.Enable: bool = False
structure.Minimum: float = 1.0
structure.Evm: float = 1.0
structure.Rb_Power: float = 1.0
structure.Iq_Image_Lesser: float = 1.0
structure.Iq_Image_Greater: float = 1.0
driver.configure.nrMmwMeas.multiEval.limit.qam.ibe.set(structure, qam = repcap.
↳ Qam.Default)
```

Defines parameters used for calculation of an upper limit for the in-band emission (QAM modulations) , see ‘In-band emissions limits’.

**param structure**

for set value, see the help for IbeStruct structure arguments.

**param qam**

optional repeated capability selector. Default value: Order16 (settable in the interface ‘Qam’)

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.qam.ibe.clone()
```

## Subgroups

### 6.1.1.5.1.21 IqOffset

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>:IBE:IQOffset
```

#### class IqOffsetCls

IqOffset commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class IqOffsetStruct

Response structure. Fields:

- Offset\_0: float: I/Q origin offset limit for high TX power range
- Offset\_1: float: I/Q origin offset limit for low TX power range

**get**(qam=Qam.Default) → IqOffsetStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>
↳ :IBE:IQOffset
value: IqOffsetStruct = driver.configure.nrMmwMeas.multiEval.limit.qam.ibe.
↳ iqOffset.get(qam = repcap.Qam.Default)
```

Defines I/Q origin offset values used for calculation of an upper limit for the in-band emission, for QAM modulations. Two different values can be set for two TX power ranges.

**param qam**

optional repeated capability selector. Default value: Order16 (settable in the interface 'Qam')

**return**

structure: for return value, see the help for IqOffsetStruct structure arguments.

**set**(offset\_0: float, offset\_1: float, qam=Qam.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:QAM<order>
↳:IBE:IQOffset
driver.configure.nrMmwMeas.multiEval.limit.qam.ibe.iqOffset.set(offset_0 = 1.0,
↳offset_1 = 1.0, qam = repcap.Qam.Default)
```

Defines I/Q origin offset values used for calculation of an upper limit for the in-band emission, for QAM modulations. Two different values can be set for two TX power ranges.

**param offset\_0**

I/Q origin offset limit for high TX power range

**param offset\_1**

I/Q origin offset limit for low TX power range

**param qam**

optional repeated capability selector. Default value: Order16 (settable in the interface 'Qam')

**6.1.1.5.1.22 IqOffset****SCPI Command :**

```
CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:QAM<order>:IQOffset
```

**class IqOffsetCls**

IqOffset commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class IqOffsetStruct**

Response structure. Fields:

- Enable: bool: OFF: disables the limit check ON: enables the limit check
- Offset\_0: float: I/Q origin offset limit for high TX power range
- Offset\_1: float: I/Q origin offset limit for low TX power range

**get**(qam=Qam.Default) → IqOffsetStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:QAM<order>
↳:IQOffset
value: IqOffsetStruct = driver.configure.nrMmwMeas.multiEval.limit.qam.iqOffset.
↳get(qam = repcap.Qam.Default)
```

Defines upper limits for the I/Q origin offset (QAM modulations) . Two different I/Q origin offset limits can be set for two TX power ranges.

**param qam**

optional repeated capability selector. Default value: Order16 (settable in the interface 'Qam')

**return**

structure: for return value, see the help for IqOffsetStruct structure arguments.

**set**(enable: bool, offset\_0: float, offset\_1: float, qam=Qam.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:QAM<order>
↳:IQOffset
driver.configure.nrMmwMeas.multiEval.limit.qam.iqOffset.set(enable = False,
↳offset_0 = 1.0, offset_1 = 1.0, qam = repcap.Qam.Default)
```

Defines upper limits for the I/Q origin offset (QAM modulations) . Two different I/Q origin offset limits can be set for two TX power ranges.

**param enable**

OFF: disables the limit check ON: enables the limit check

**param offset\_0**

I/Q origin offset limit for high TX power range

**param offset\_1**

I/Q origin offset limit for low TX power range

**param qam**

optional repeated capability selector. Default value: Order16 (settable in the interface 'Qam')

#### 6.1.1.5.1.23 Merror

**SCPI Command :**

```
CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:QAM<order>:MERRor
```

**class MerrorCls**

Error commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class MerrorStruct**

Response structure. Fields:

- Rms: float or bool: No parameter help available
- Peak: float or bool: No parameter help available

**get**(qam=Qam.Default) → MerrorStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:QAM<order>
↳:MERRor
value: MerrorStruct = driver.configure.nrMmwMeas.multiEval.limit.qam.merror.
↳get(qam = repcap.Qam.Default)
```

Defines upper limits for the RMS and peak values of the magnitude error for QAM modulations.

**param qam**

optional repeated capability selector. Default value: Order16 (settable in the interface 'Qam')

**return**

structure: for return value, see the help for MerrorStruct structure arguments.

**set**(rms: float, peak: float, qam=Qam.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>
↳:MERRor
driver.configure.nrMmwMeas.multiEval.limit.qam.merror.set(rms = 1.0, peak = 1.0,
↳ qam = repcap.Qam.Default)
```

Defines upper limits for the RMS and peak values of the magnitude error for QAM modulations.

**param rms**

(float or boolean) No help available

**param peak**

(float or boolean) No help available

**param qam**

optional repeated capability selector. Default value: Order16 (settable in the interface 'Qam')

#### 6.1.1.5.1.24 Perror

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>:PERRor
```

##### class PerrorCls

Perror commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class PerrorStruct

Response structure. Fields:

- Rms: float or bool: No parameter help available
- Peak: float or bool: No parameter help available

**get**(qam=Qam.Default) → PerrorStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>
↳:PERRor
value: PerrorStruct = driver.configure.nrMmwMeas.multiEval.limit.qam.perror.
↳get(qam = repcap.Qam.Default)
```

Defines symmetric limits for the RMS and peak values of the phase error for QAM modulations. The limit check fails if the absolute value of the measured phase error exceeds the specified limit.

**param qam**

optional repeated capability selector. Default value: Order16 (settable in the interface 'Qam')

**return**

structure: for return value, see the help for PerrorStruct structure arguments.

**set**(rms: float, peak: float, qam=Qam.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QAM<order>
↳ :PERRor
driver.configure.nrMmwMeas.multiEval.limit.qam.perror.set(rms = 1.0, peak = 1.0,
↳ qam = repcap.Qam.Default)
```

Defines symmetric limits for the RMS and peak values of the phase error for QAM modulations. The limit check fails if the absolute value of the measured phase error exceeds the specified limit.

**param rms**

(float or boolean) No help available

**param peak**

(float or boolean) No help available

**param qam**

optional repeated capability selector. Default value: Order16 (settable in the interface 'Qam')

### 6.1.1.5.1.25 Qpsk

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QPSK:FERRor
```

#### class QpskCls

Qpsk commands group definition. 8 total commands, 6 Subgroups, 1 group commands

**get\_freq\_error()** → float

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QPSK:FERRor
value: float or bool = driver.configure.nrMmwMeas.multiEval.limit.qpsk.get_freq_
↳ error()
```

Defines an upper limit for the carrier frequency error (QPSK modulation) .

**return**

frequency\_error: (float or boolean) No help available

**set\_freq\_error(frequency\_error: float)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QPSK:FERRor
driver.configure.nrMmwMeas.multiEval.limit.qpsk.set_freq_error(frequency_error,
↳ 1.0)
```

Defines an upper limit for the carrier frequency error (QPSK modulation) .

**param frequency\_error**

(float or boolean) No help available



## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.qpsk.clone()
```

## Subgroups

### 6.1.1.5.1.26 EsFlatness

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QPSK:ESFlatness
```

#### class EsFlatnessCls

EsFlatness commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class EsFlatnessStruct

Response structure. Fields:

- Enable: bool: OFF: disables the limit check ON: enables the limit check
- Range\_1: float: Upper limit for max(range 1) - min(range 1)
- Range\_2: float: Upper limit for max(range 2) - min(range 2)
- Max\_1\_Min\_2: float: Upper limit for max(range 1) - min(range 2)
- Max\_2\_Min\_1: float: Upper limit for max(range 2) - min(range 1)

**get()** → EsFlatnessStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QPSK:ESFlatness
value: EsFlatnessStruct = driver.configure.nrMmwMeas.multiEval.limit.qpsk.
↳ esFlatness.get()
```

Defines limits for the equalizer spectrum flatness (QPSK modulation) .

#### return

structure: for return value, see the help for EsFlatnessStruct structure arguments.

**set(enable: bool, range\_1: float, range\_2: float, max\_1\_min\_2: float, max\_2\_min\_1: float)** → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QPSK:ESFlatness
driver.configure.nrMmwMeas.multiEval.limit.qpsk.esFlatness.set(enable = False,
↳ range_1 = 1.0, range_2 = 1.0, max_1_min_2 = 1.0, max_2_min_1 = 1.0)
```

Defines limits for the equalizer spectrum flatness (QPSK modulation) .

#### param enable

OFF: disables the limit check ON: enables the limit check

#### param range\_1

Upper limit for max(range 1) - min(range 1)

#### param range\_2

Upper limit for max(range 2) - min(range 2)

**param max\_1\_min\_2**  
Upper limit for max(range 1) - min(range 2)

**param max\_2\_min\_1**  
Upper limit for max(range 2) - min(range 1)

#### 6.1.1.5.1.27 EvMagnitude

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:QPSK:EvMagnitude
```

##### class EvMagnitudeCls

EvMagnitude commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class EvMagnitudeStruct

Response structure. Fields:

- Rms: float or bool: No parameter help available
- Peak: float or bool: No parameter help available

**get()** → EvMagnitudeStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:QPSK:EvMagnitude
value: EvMagnitudeStruct = driver.configure.nrMmwMeas.multiEval.limit.qpsk.
↪ evMagnitude.get()
```

Defines upper limits for the RMS and peak values of the error vector magnitude (EVM) for QPSK.

##### return

structure: for return value, see the help for EvMagnitudeStruct structure arguments.

**set(rms: float, peak: float)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:QPSK:EvMagnitude
driver.configure.nrMmwMeas.multiEval.limit.qpsk.evMagnitude.set(rms = 1.0, peak_
↪ = 1.0)
```

Defines upper limits for the RMS and peak values of the error vector magnitude (EVM) for QPSK.

##### param rms

(float or boolean) No help available

##### param peak

(float or boolean) No help available

### 6.1.1.5.1.28 Ibe

#### SCPI Command :

```
CONFIGure:NRMWw:MEASurement<Instance>:MEValuation:LIMit:QPSK:IBE
```

#### class IbeCls

Ibe commands group definition. 2 total commands, 1 Subgroups, 1 group commands

#### class ValueStruct

Structure for setting input parameters. Fields:

- Enable: bool: OFF: disables the limit check ON: enables the limit check
- Minimum: float: No parameter help available
- Evm: float: No parameter help available
- Rb\_Power: float: No parameter help available
- Iq\_Image\_Lesser: float: I/Q image for low TX power range
- Iq\_Image\_Greater: float: I/Q image for high TX power range

**get\_value()** → ValueStruct

```
# SCPI: CONFIGure:NRMWw:MEASurement<Instance>:MEValuation:LIMit:QPSK:IBE
value: ValueStruct = driver.configure.nrmwMeas.multiEval.limit.qpsk.ibe.get_
↪value()
```

Defines parameters used for calculation of an upper limit for the in-band emission (QPSK modulation) , see 'In-band emissions limits'.

#### return

structure: for return value, see the help for ValueStruct structure arguments.

**set\_value(value: ValueStruct)** → None

```
# SCPI: CONFIGure:NRMWw:MEASurement<Instance>:MEValuation:LIMit:QPSK:IBE
structure = driver.configure.nrmwMeas.multiEval.limit.qpsk.ibe.ValueStruct()
structure.Enable: bool = False
structure.Minimum: float = 1.0
structure.Evm: float = 1.0
structure.Rb_Power: float = 1.0
structure.Iq_Image_Lesser: float = 1.0
structure.Iq_Image_Greater: float = 1.0
driver.configure.nrmwMeas.multiEval.limit.qpsk.ibe.set_value(value = structure)
```

Defines parameters used for calculation of an upper limit for the in-band emission (QPSK modulation) , see 'In-band emissions limits'.

#### param value

see the help for ValueStruct structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.qpsk.ibe.clone()
```

## Subgroups

### 6.1.1.5.1.29 IqOffset

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:QPSK:IBe:IQOFfset
```

#### class IqOffsetCls

IqOffset commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class IqOffsetStruct

Response structure. Fields:

- Offset\_0: float: I/Q origin offset limit for high TX power range
- Offset\_1: float: I/Q origin offset limit for low TX power range

**get()** → IqOffsetStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>
↳:MEvaluation:LIMit:QPSK:IBe:IQOFfset
value: IqOffsetStruct = driver.configure.nrMmwMeas.multiEval.limit.qpsk.ibe.
↳iqOffset.get()
```

Defines I/Q origin offset values used for calculation of an upper limit for the in-band emission, for QPSK modulation. Two different values can be set for two TX power ranges.

#### return

structure: for return value, see the help for IqOffsetStruct structure arguments.

**set(offset\_0: float, offset\_1: float)** → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>
↳:MEvaluation:LIMit:QPSK:IBe:IQOFfset
driver.configure.nrMmwMeas.multiEval.limit.qpsk.ibe.iqOffset.set(offset_0 = 1.0,
↳ offset_1 = 1.0)
```

Defines I/Q origin offset values used for calculation of an upper limit for the in-band emission, for QPSK modulation. Two different values can be set for two TX power ranges.

#### param offset\_0

I/Q origin offset limit for high TX power range

#### param offset\_1

I/Q origin offset limit for low TX power range

### 6.1.1.5.1.30 IqOffset

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QPSK:IQOFfset
```

#### class IqOffsetCls

IqOffset commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class IqOffsetStruct

Response structure. Fields:

- Enable: bool: OFF: disables the limit check ON: enables the limit check
- Offset\_0: float: I/Q origin offset limit for high TX power range
- Offset\_1: float: I/Q origin offset limit for low TX power range

**get()** → IqOffsetStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QPSK:IQOFfset
value: IqOffsetStruct = driver.configure.nrMmwMeas.multiEval.limit.qpsk.
↳ iqOffset.get()
```

Defines upper limits for the I/Q origin offset (QPSK modulation) . Two different I/Q origin offset limits can be set for two TX power ranges.

#### return

structure: for return value, see the help for IqOffsetStruct structure arguments.

**set(enable: bool, offset\_0: float, offset\_1: float)** → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QPSK:IQOFfset
driver.configure.nrMmwMeas.multiEval.limit.qpsk.iqOffset.set(enable = False,
↳ offset_0 = 1.0, offset_1 = 1.0)
```

Defines upper limits for the I/Q origin offset (QPSK modulation) . Two different I/Q origin offset limits can be set for two TX power ranges.

#### param enable

OFF: disables the limit check ON: enables the limit check

#### param offset\_0

I/Q origin offset limit for high TX power range

#### param offset\_1

I/Q origin offset limit for low TX power range

## 6.1.1.5.1.31 Merror

## SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QPSK:MERRor
```

**class MerrorCls**

Error commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class MerrorStruct**

Response structure. Fields:

- Rms: float or bool: No parameter help available
- Peak: float or bool: No parameter help available

**get()** → MerrorStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QPSK:MERRor
value: MerrorStruct = driver.configure.nrMmwMeas.multiEval.limit.qpsk.merror.
    ↪ get()
```

Defines upper limits for the RMS and peak values of the magnitude error for QPSK.

**return**

structure: for return value, see the help for MerrorStruct structure arguments.

**set(rms: float, peak: float)** → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QPSK:MERRor
driver.configure.nrMmwMeas.multiEval.limit.qpsk.merror.set(rms = 1.0, peak = 1.
    ↪ 0)
```

Defines upper limits for the RMS and peak values of the magnitude error for QPSK.

**param rms**

(float or boolean) No help available

**param peak**

(float or boolean) No help available

## 6.1.1.5.1.32 Perror

## SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QPSK:PERRor
```

**class PerrorCls**

Error commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class PerrorStruct**

Response structure. Fields:

- Rms: float or bool: No parameter help available
- Peak: float or bool: No parameter help available

**get()** → `ErrorStruct`

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QPSK:PERRor
value: ErrorStruct = driver.configure.nrMmwMeas.multiEval.limit.qpsk.perror.
    ↪ get()
```

Defines symmetric limits for the RMS and peak values of the phase error for QPSK. The limit check fails if the absolute value of the measured phase error exceeds the specified limit.

**return**

structure: for return value, see the help for `ErrorStruct` structure arguments.

**set(rms: float, peak: float)** → `None`

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:QPSK:PERRor
driver.configure.nrMmwMeas.multiEval.limit.qpsk.perror.set(rms = 1.0, peak = 1.
    ↪ 0)
```

Defines symmetric limits for the RMS and peak values of the phase error for QPSK. The limit check fails if the absolute value of the measured phase error exceeds the specified limit.

**param rms**

(float or boolean) No help available

**param peak**

(float or boolean) No help available

#### 6.1.1.5.1.33 SeMask

**class SeMaskCls**

SeMask commands group definition. 4 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.seMask.clone()
```

#### Subgroups

##### 6.1.1.5.1.34 Area<Area>

#### RepCap Settings

```
# Range: Nr1 .. Nr12
rc = driver.configure.nrMmwMeas.multiEval.limit.seMask.area.repcap_area_get()
driver.configure.nrMmwMeas.multiEval.limit.seMask.area.repcap_area_set(repcap.Area.Nr1)
```

**class AreaCls**

Area commands group definition. 2 total commands, 2 Subgroups, 0 group commands Repeated Capability: Area, default value after init: `Area.Nr1`

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.seMask.area.clone()
```

## Subgroups

### 6.1.1.5.1.35 Caggregation

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:SEMask:AREA<area>:CAGGregation
```

#### class CaggregationCls

Caggregation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class CaggregationStruct

Response structure. Fields:

- Enable: bool: OFF: disables the check of these requirements ON: enables the check of these requirements
- Frequency\_Start: float: Start frequency of the area = FrequencyStart \* aggregated channel bandwidth, relative to the edges of the aggregated channel bandwidth.
- Frequency\_End: float: Stop frequency of the area = FrequencyEnd \* aggregated channel bandwidth, relative to the edges of the aggregated channel bandwidth.
- Level: float: Upper limit for the area.
- Rbw: enums.RbwA: Resolution bandwidth to be used for the area, 120 kHz or 1 MHz.

**get**(area=Area.Default) → CaggregationStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:SEMask:AREA
↳<area>:CAGGregation
value: CaggregationStruct = driver.configure.nrMmwMeas.multiEval.limit.seMask.
↳area.caggregation.get(area = repcap.Area.Default)
```

Defines general requirements for the emission mask area number <area>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The emission mask applies to carrier aggregation (aggregated bandwidth) .

#### param area

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

#### return

structure: for return value, see the help for CaggregationStruct structure arguments.

**set**(enable: bool, frequency\_start: float, frequency\_end: float, level: float, rbw: RbwA, area=Area.Default) → None



```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:SEMask:AREA
↳<area>:CAGGregation
driver.configure.nrMmwMeas.multiEval.limit.seMask.area.caggregation.set(enable_
↳= False, frequency_start = 1.0, frequency_end = 1.0, level = 1.0, rbw = enums.
↳RbwA.K120, area = repcap.Area.Default)
```

Defines general requirements for the emission mask area number <area>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The emission mask applies to carrier aggregation (aggregated bandwidth).

**param enable**

OFF: disables the check of these requirements ON: enables the check of these requirements

**param frequency\_start**

Start frequency of the area = FrequencyStart \* aggregated channel bandwidth, relative to the edges of the aggregated channel bandwidth.

**param frequency\_end**

Stop frequency of the area = FrequencyEnd \* aggregated channel bandwidth, relative to the edges of the aggregated channel bandwidth.

**param level**

Upper limit for the area.

**param rbw**

Resolution bandwidth to be used for the area, 120 kHz or 1 MHz.

**param area**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

#### 6.1.1.5.1.36 Cbandwidth<ChannelBw>

#### RepCap Settings

```
# Range: Bw50 .. Bw400
rc = driver.configure.nrMmwMeas.multiEval.limit.seMask.area.cbandwidth.repcap_channelBw_
↳get()
driver.configure.nrMmwMeas.multiEval.limit.seMask.area.cbandwidth.repcap_channelBw_
↳set(repcap.ChannelBw.Bw50)
```

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:SEMask:AREA<area>:CBANDwidth<bw>
```

#### class CbandwidthCls

Cbandwidth commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: ChannelBw, default value after init: ChannelBw.Bw50

#### class CbandwidthStruct

Response structure. Fields:

- **Enable:** bool: OFF: disables the check of these requirements ON: enables the check of these requirements
- **Frequency\_Start:** float: The start frequency of the area, relative to the edges of the channel bandwidth.
- **Frequency\_End:** float: The stop frequency of the area, relative to the edges of the channel bandwidth.
- **Level:** float: Upper limit for the area
- **Rbw:** enums.RbwA: Resolution bandwidth to be used for the area (1 MHz)

**get**(*area=Area.Default, channelBw=ChannelBw.Default*) → CbandwidthStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:SEMask:AREA
↪ <area>:CBANDwidth<bw>
value: CbandwidthStruct = driver.configure.nrMmwMeas.multiEval.limit.seMask.
↪ area.cbandwidth.get(area = repcap.Area.Default, channelBw = repcap.ChannelBw.
↪ Default)
```

Defines general requirements for the emission mask area number <area>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The emission mask applies to the channel bandwidth <bw>.

**param area**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

**param channelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'Cbandwidth')

**return**

structure: for return value, see the help for CbandwidthStruct structure arguments.

**set**(*enable: bool, frequency\_start: float, frequency\_end: float, level: float, rbw: RbwA, area=Area.Default, channelBw=ChannelBw.Default*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:SEMask:AREA
↪ <area>:CBANDwidth<bw>
driver.configure.nrMmwMeas.multiEval.limit.seMask.area.cbandwidth.set(enable =
↪ False, frequency_start = 1.0, frequency_end = 1.0, level = 1.0, rbw = enums.
↪ RbwA.K120, area = repcap.Area.Default, channelBw = repcap.ChannelBw.Default)
```

Defines general requirements for the emission mask area number <area>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The emission mask applies to the channel bandwidth <bw>.

**param enable**

OFF: disables the check of these requirements ON: enables the check of these requirements

**param frequency\_start**

The start frequency of the area, relative to the edges of the channel bandwidth.

**param frequency\_end**

The stop frequency of the area, relative to the edges of the channel bandwidth.

**param level**

Upper limit for the area

**param rbw**

Resolution bandwidth to be used for the area (1 MHz)

**param area**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

**param channelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'Cbandwidth')

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.seMask.area.cbandwidth.clone()
```

**6.1.1.5.1.37 AtTolerance****SCPI Command :**

```
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:LIMit:SEMask:ATTolerance
```

**class AtToleranceCls**

AtTolerance commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class AtToleranceStruct**

Response structure. Fields:

- Tol\_2330: float: Test tolerance for carrier frequencies 23.45 GHz and 32.125 GHz
- Tol\_3040: float: Test tolerance for carrier frequencies 32.125 GHz and 40.8 GHz

**get()** → AtToleranceStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>
↳:MEvaluation:LIMit:SEMask:ATTolerance
value: AtToleranceStruct = driver.configure.nrMmwMeas.multiEval.limit.seMask.
↳atTolerance.get()
```

Defines the test tolerance for spectrum emission masks, depending on the carrier frequency.

**return**

structure: for return value, see the help for AtToleranceStruct structure arguments.

**set(tol\_2330: float, tol\_3040: float)** → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>
↳:MEvaluation:LIMit:SEMask:ATTolerance
driver.configure.nrMmwMeas.multiEval.limit.seMask.atTolerance.set(tol_2330 = 1.
↳0, tol_3040 = 1.0)
```

Defines the test tolerance for spectrum emission masks, depending on the carrier frequency.

**param tol\_2330**

Test tolerance for carrier frequencies 23.45 GHz and 32.125 GHz

**param tol\_3040**

Test tolerance for carrier frequencies 32.125 GHz and 40.8 GHz

**6.1.1.5.1.38 ObwLimit****class ObwLimitCls**

ObwLimit commands group definition. 1 total commands, 1 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.seMask.obwLimit.clone()
```

**Subgroups****6.1.1.5.1.39 Cbandwidth<ChannelBw>****RepCap Settings**

```
# Range: Bw50 .. Bw400
rc = driver.configure.nrMmwMeas.multiEval.limit.seMask.obwLimit.cbandwidth.repcap_
↪channelBw_get()
driver.configure.nrMmwMeas.multiEval.limit.seMask.obwLimit.cbandwidth.repcap_channelBw_
↪set(repcap.ChannelBw.Bw50)
```

**SCPI Command :**

```
CONFigure:NRMMw:MEASurement<Instance>:MEValuation:LIMit:SEMask:OBWLimit:CBANDwidth<bw>
```

**class CbandwidthCls**

Cbandwidth commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: ChannelBw, default value after init: ChannelBw.Bw50

**get**(channelBw=ChannelBw.Default) → float

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>
↪:MEValuation:LIMit:SEMask:OBWLimit:CBANDwidth<bw>
value: float or bool = driver.configure.nrMmwMeas.multiEval.limit.seMask.
↪obwLimit.cbandwidth.get(channelBw = repcap.ChannelBw.Default)
```

Defines an upper limit for the occupied bandwidth, depending on the channel bandwidth.

**param channelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'Cbandwidth')

**return**

obw\_limit: (float or boolean) No help available

**set**(obw\_limit: float, channelBw=ChannelBw.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳:MEValuation:LIMit:SEMask:OBWLimit:CBANDwidth<bw>
driver.configure.nrMmwMeas.multiEval.limit.seMask.obwLimit.cbandwidth.set(obw_
↳limit = 1.0, channelBw = repcap.ChannelBw.Default)
```

Defines an upper limit for the occupied bandwidth, depending on the channel bandwidth.

**param obw\_limit**

(float or boolean) No help available

**param channelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'Cbandwidth')

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.limit.seMask.obwLimit.cbandwidth.clone()
```

### 6.1.1.5.2 Modulation

#### SCPI Commands :

```
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:MODulation:TDLoffset
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:MODulation:DPRceiver
```

#### class ModulationCls

Modulation commands group definition. 11 total commands, 4 Subgroups, 2 group commands

**get\_dp\_receiver()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:MODulation:DPRceiver
value: bool = driver.configure.nrMmwMeas.multiEval.modulation.get_dp_receiver()
```

Enables maximum ratio combining for modulation measurements with two RX antennas plus one transmission layer.

**return**

enable: No help available

**get\_tdl\_offset()** → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:MODulation:TDLoffset
value: int = driver.configure.nrMmwMeas.multiEval.modulation.get_tdl_offset()
```

Specifies the offset of the UL DC subcarrier from the center frequency (number of subcarriers) .

**return**

offset: No help available

**set\_dp\_receiver**(*enable: bool*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:MODulation:DPReceiver
driver.configure.nrMmwMeas.multiEval.modulation.set_dp_receiver(enable = False)
```

Enables maximum ratio combining for modulation measurements with two RX antennas plus one transmission layer.

**param enable**  
No help available

**set\_tdl\_offset**(*offset: int*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:MODulation:TDLOffset
driver.configure.nrMmwMeas.multiEval.modulation.set_tdl_offset(offset = 1)
```

Specifies the offset of the UL DC subcarrier from the center frequency (number of subcarriers).

**param offset**  
No help available

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.modulation.clone()
```

## Subgroups

### 6.1.1.5.2.1 EePeriods

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:MODulation:EEPeriods:PUCCh
```

#### class EePeriodsCls

EePeriods commands group definition. 3 total commands, 1 Subgroups, 1 group commands

**get\_pucch**() → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↪:MEValuation:MODulation:EEPeriods:PUCCh
value: bool = driver.configure.nrMmwMeas.multiEval.modulation.eePeriods.get_
↪pucch()
```

No command help available

**return**  
pucch: No help available

**set\_pucch**(*pucch: bool*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳:MEvaluation:MODulation:EEPeriods:PUCCh
driver.configure.nrMmwMeas.multiEval.modulation.eePeriods.set_pucch(pucch =
↳False)
```

No command help available

**param pucch**

No help available

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.modulation.eePeriods.clone()
```

## Subgroups

### 6.1.1.5.2.2 Pusch

#### SCPI Commands :

```
CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:MODulation:EEPeriods:PUSCh:LEADing
CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:MODulation:EEPeriods:PUSCh:LAGGing
```

#### class PuschCls

Pusch commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_lagging()** → Lagging

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳:MEvaluation:MODulation:EEPeriods:PUSCh:LAGGing
value: enums.Lagging = driver.configure.nrMmwMeas.multiEval.modulation.
↳eePeriods.pusch.get_lagging()
```

No command help available

**return**

lagging: No help available

**get\_leading()** → Leading

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳:MEvaluation:MODulation:EEPeriods:PUSCh:LEADing
value: enums.Leading = driver.configure.nrMmwMeas.multiEval.modulation.
↳eePeriods.pusch.get_leading()
```

No command help available

**return**

leading: No help available

**set\_lagging**(lagging: *Lagging*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳ :MEValuation:MODulation:EEPeriods:PUSCh:LAGGing
driver.configure.nrMmwMeas.multiEval.modulation.eePeriods.pusch.set_
↳ lagging(lagging = enums.Lagging.MS05)
```

No command help available

**param lagging**

No help available

**set\_leading**(leading: *Leading*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳ :MEValuation:MODulation:EEPeriods:PUSCh:LEADing
driver.configure.nrMmwMeas.multiEval.modulation.eePeriods.pusch.set_
↳ leading(leading = enums.Leadig.MS25)
```

No command help available

**param leading**

No help available

### 6.1.1.5.2.3 EvmSymbol

**SCPI Command :**

```
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:MODulation:EVMSymbol
```

**class EvmSymbolCls**

EvmSymbol commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class EvmSymbolStruct**

Response structure. Fields:

- Symbol: int: OFDM symbol to be evaluated.
- Low\_High: enums.LowHigh: Low or high EVM window position.

**get()** → EvmSymbolStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:MODulation:EVMSymbol
value: EvmSymbolStruct = driver.configure.nrMmwMeas.multiEval.modulation.
↳ evmSymbol.get()
```

Configures the scope of the EVM vs modulation symbol results.

**return**

structure: for return value, see the help for EvmSymbolStruct structure arguments.

**set**(symbol: int, low\_high: *LowHigh*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:MODulation:EVMSymbol
driver.configure.nrMmwMeas.multiEval.modulation.evmSymbol.set(symbol = 1, low_
↳ high = enums.LowHigh.HIGH)
```



Configures the scope of the EVM vs modulation symbol results.

**param symbol**

OFDM symbol to be evaluated.

**param low\_high**

Low or high EVM window position.

#### 6.1.1.5.2.4 EwLength

##### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:MODulation:EWLength
```

##### class EwLengthCls

EwLength commands group definition. 2 total commands, 1 Subgroups, 1 group commands

##### class EwLengthStruct

Response structure. Fields:

- Length\_Cp\_Norm\_60: List[int]: Comma-separated list of 4 values: for 50 MHz, 100 MHz, 200 MHz, 400 MHz Samples for normal CP, 60-kHz SC spacing
- Length\_Cp\_Norm\_120: List[int]: Comma-separated list of 4 values: for 50 MHz, 100 MHz, 200 MHz, 400 MHz Samples for normal CP, 120-kHz SC spacing

**get()** → EwLengthStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:MODulation:EWLength
value: EwLengthStruct = driver.configure.nrMmwMeas.multiEval.modulation.
    ↪ ewLength.get()
```

Specifies the EVM window length in samples for all channel bandwidths, depending on the SC spacing. For ranges and \*RST values, see Table 'Ranges and \*RST values'.

**return**

structure: for return value, see the help for EwLengthStruct structure arguments.

**set(length\_cp\_norm\_60: List[int], length\_cp\_norm\_120: List[int])** → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEvaluation:MODulation:EWLength
driver.configure.nrMmwMeas.multiEval.modulation.ewLength.set(length_cp_norm_60,
    ↪ [1, 2, 3], length_cp_norm_120 = [1, 2, 3])
```

Specifies the EVM window length in samples for all channel bandwidths, depending on the SC spacing. For ranges and \*RST values, see Table 'Ranges and \*RST values'.

**param length\_cp\_norm\_60**

Comma-separated list of 4 values: for 50 MHz, 100 MHz, 200 MHz, 400 MHz Samples for normal CP, 60-kHz SC spacing

**param length\_cp\_norm\_120**

Comma-separated list of 4 values: for 50 MHz, 100 MHz, 200 MHz, 400 MHz Samples for normal CP, 120-kHz SC spacing

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.modulation.ewLength.clone()
```

## Subgroups

### 6.1.1.5.2.5 Cbandwidth<ChannelBw>

## RepCap Settings

```
# Range: Bw50 .. Bw400
rc = driver.configure.nrMmwMeas.multiEval.modulation.ewLength.cbandwidth.repcap_
    ↪ channelBw_get()
driver.configure.nrMmwMeas.multiEval.modulation.ewLength.cbandwidth.repcap_channelBw_
    ↪ set(repcap.ChannelBw.Bw50)
```

## SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEValuation:MODulation:EWLength:CBANDwidth<bw>
```

### class CbandwidthCls

Cbandwidth commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: ChannelBw, default value after init: ChannelBw.Bw50

### class CbandwidthStruct

Response structure. Fields:

- Length\_Cp\_Norm\_60: int: Samples for normal CP, 60-kHz SC spacing
- Length\_Cp\_Norm\_120: int: Samples for normal CP, 120-kHz SC spacing

**get**(channelBw=ChannelBw.Default) → CbandwidthStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>
    ↪ :MEValuation:MODulation:EWLength:CBANDwidth<bw>
value: CbandwidthStruct = driver.configure.nrMmwMeas.multiEval.modulation.
    ↪ ewLength.cbandwidth.get(channelBw = repcap.ChannelBw.Default)
```

Specifies the EVM window length in samples for a selected channel bandwidth, depending on the SC spacing.

### param channelBw

optional repeated capability selector. Default value: Bw50 (settable in the interface 'Cbandwidth')

### return

structure: for return value, see the help for CbandwidthStruct structure arguments.

**set**(length\_cp\_norm\_60: int, length\_cp\_norm\_120: int, channelBw=ChannelBw.Default) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳:MEvaluation:MODulation:EWLength:CBANdwidth<bw>
driver.configure.nrMmwMeas.multiEval.modulation.ewLength.cbandwidth.set(length_
↳cp_norm_60 = 1, length_cp_norm_120 = 1, channelBw = repcap.ChannelBw.Default)
```

Specifies the EVM window length in samples for a selected channel bandwidth, depending on the SC spacing.

**param length\_cp\_norm\_60**

Samples for normal CP, 60-kHz SC spacing

**param length\_cp\_norm\_120**

Samples for normal CP, 120-kHz SC spacing

**param channelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'Cbandwidth')

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.modulation.ewLength.cbandwidth.clone()
```

### 6.1.1.5.2.6 Tracking

#### SCPI Commands :

```
CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:MODulation:TRACking:TIMing
CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:MODulation:TRACking:PHASe
CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:MODulation:TRACking:LEVel
```

#### class TrackingCls

Tracking commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**get\_level()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳:MEvaluation:MODulation:TRACking:LEVel
value: bool = driver.configure.nrMmwMeas.multiEval.modulation.tracking.get_
↳level()
```

Activate or deactivate level tracking. With enabled tracking, fluctuations are compensated.

**return**

tracking: OFF: Tracking disabled ON: Tracking enabled

**get\_phase()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳:MEvaluation:MODulation:TRACking:PHASe
value: bool = driver.configure.nrMmwMeas.multiEval.modulation.tracking.get_
↳phase()
```

Activate or deactivate phase tracking. With enabled tracking, fluctuations are compensated.

**return**

tracking: OFF: Tracking disabled ON: Tracking enabled

**get\_timing()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳:MEvaluation:MODulation:TRACking:TIMing
value: bool = driver.configure.nrMmwMeas.multiEval.modulation.tracking.get_
↳timing()
```

Activate or deactivate timing tracking. With enabled tracking, fluctuations are compensated.

**return**

tracking: OFF: Tracking disabled ON: Tracking enabled

**set\_level(tracking: bool)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳:MEvaluation:MODulation:TRACking:LEVel
driver.configure.nrMmwMeas.multiEval.modulation.tracking.set_level(tracking =
↳False)
```

Activate or deactivate level tracking. With enabled tracking, fluctuations are compensated.

**param tracking**

OFF: Tracking disabled ON: Tracking enabled

**set\_phase(tracking: bool)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳:MEvaluation:MODulation:TRACking:PHASe
driver.configure.nrMmwMeas.multiEval.modulation.tracking.set_phase(tracking =
↳False)
```

Activate or deactivate phase tracking. With enabled tracking, fluctuations are compensated.

**param tracking**

OFF: Tracking disabled ON: Tracking enabled

**set\_timing(tracking: bool)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳:MEvaluation:MODulation:TRACking:TIMing
driver.configure.nrMmwMeas.multiEval.modulation.tracking.set_timing(tracking =
↳False)
```

Activate or deactivate timing tracking. With enabled tracking, fluctuations are compensated.

**param tracking**

OFF: Tracking disabled ON: Tracking enabled

### 6.1.1.5.3 Mslot

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEValuation:MSLot
```

#### class MslotCls

Mslot commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class MslotStruct

Response structure. Fields:

- **Measure\_Slot**: enums.MeasureSlot: UDEF: single slot selected via MeasSlotNo ALL: all scheduled UL slots
- **Meas\_Slot\_No**: int: Slot number for MeasureSlot=UDEF The slot must be in the first radio frame. The number of slots per subframe depends on the SCS. And the slot must be within the captured number of subframes, see [CMDLINKRESOLVED Configure.NrMmwMeas.MultiEval#NsubFrames CMDLINKRESOLVED].

**get()** → MslotStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:MSLot
value: MslotStruct = driver.configure.nrMmwMeas.multiEval.mslot.get()
```

Selects which slots of the captured subframes of the first radio frame are evaluated.

#### return

structure: for return value, see the help for MslotStruct structure arguments.

**set(measure\_slot: MeasureSlot, meas\_slot\_no: int = None)** → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:MSLot
driver.configure.nrMmwMeas.multiEval.mslot.set(measure_slot = enums.MeasureSlot.
↪ALL, meas_slot_no = 1)
```

Selects which slots of the captured subframes of the first radio frame are evaluated.

#### param measure\_slot

UDEF: single slot selected via MeasSlotNo ALL: all scheduled UL slots

#### param meas\_slot\_no

Slot number for MeasureSlot=UDEF The slot must be in the first radio frame. The number of slots per subframe depends on the SCS. And the slot must be within the captured number of subframes, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.nsubFrames.

#### 6.1.1.5.4 Pcomp

##### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEValuation:PCOMP
```

##### class PcompCls

Pcomp commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class PcompStruct

Response structure. Fields:

- Phase\_Comp: enums.PhaseComp: OFF: no phase compensation CAF: phase compensation for carrier frequency UDEF: phase compensation for frequency UserDefFreq
- User\_Def\_Freq: float: Frequency for PhaseComp = UDEF

**get()** → PcompStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:PCOMP
value: PcompStruct = driver.configure.nrMmwMeas.multiEval.pcomp.get()
```

Specifies the phase compensation applied by the UE during the modulation and upconversion.

##### return

structure: for return value, see the help for PcompStruct structure arguments.

**set(phase\_comp: PhaseComp, user\_def\_freq: float)** → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:PCOMP
driver.configure.nrMmwMeas.multiEval.pcomp.set(phase_comp = enums.PhaseComp.CAF,
↪ user_def_freq = 1.0)
```

Specifies the phase compensation applied by the UE during the modulation and upconversion.

##### param phase\_comp

OFF: no phase compensation CAF: phase compensation for carrier frequency UDEF: phase compensation for frequency UserDefFreq

##### param user\_def\_freq

Frequency for PhaseComp = UDEF

#### 6.1.1.5.5 Pdynamics

##### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:TMAsk
```

##### class PdynamicsCls

Pdynamics commands group definition. 3 total commands, 1 Subgroups, 1 group commands

**get\_tmask()** → TimeMask

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:TMAsk
value: enums.TimeMask = driver.configure.nrMmwMeas.multiEval.pdynamics.get_
↪ tmask()
```

No command help available

```

return
    time_mask: No help available

```

**set\_tmask**(time\_mask: TimeMask) → None

```

# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:TMAsk
driver.configure.nrMmwMeas.multiEval.pdynamics.set_tmask(time_mask = enums.
↪TimeMask.G00)

```

No command help available

```

param time_mask
    No help available

```

## Cloning the Group

```

# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.pdynamics.clone()

```

## Subgroups

### 6.1.1.5.5.1 Aeopower

#### SCPI Commands :

```

CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:AEOPower:LEADing
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:AEOPower:LAGGing

```

#### class AeopowerCls

Aeopower commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_lagging**() → int

```

# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↪:MEValuation:PDYNamics:AEOPower:LAGGing
value: int = driver.configure.nrMmwMeas.multiEval.pdynamics.aeopower.get_
↪lagging()

```

No command help available

```

return
    lagging: No help available

```

**get\_leading**() → int

```

# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↪:MEValuation:PDYNamics:AEOPower:LEADing
value: int = driver.configure.nrMmwMeas.multiEval.pdynamics.aeopower.get_
↪leading()

```

No command help available

**return**

leading: No help available

**set\_lagging**(lagging: int) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↪:MEvaluation:PDYNamics:AEOPower:LAGGing
driver.configure.nrMmwMeas.multiEval.pdynamics.aeoPower.set_lagging(lagging = 1)
```

No command help available

**param lagging**

No help available

**set\_leading**(leading: int) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↪:MEvaluation:PDYNamics:AEOPower:LEADing
driver.configure.nrMmwMeas.multiEval.pdynamics.aeoPower.set_leading(leading = 1)
```

No command help available

**param leading**

No help available

#### 6.1.1.5.6 Power

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:POWER:HDMode
```

##### class PowerCls

Power commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_hdmode**() → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:POWER:HDMode
value: bool = driver.configure.nrMmwMeas.multiEval.power.get_hdmode()
```

No command help available

**return**

high\_dynamic\_mode: No help available

**set\_hdmode**(high\_dynamic\_mode: bool) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:POWER:HDMode
driver.configure.nrMmwMeas.multiEval.power.set_hdmode(high_dynamic_mode = False)
```

No command help available

**param high\_dynamic\_mode**

No help available



### 6.1.1.5.7 Result

#### SCPI Commands :

```

CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:MODulation
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:SEMask
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:ACLR
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:PDYNamics
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:PMONitor
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:MERRor
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:PERRor
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:EVMC
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:IEMissions
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:ESFlatness
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:IQ
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:TXM
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult[:ALL]

```

#### class ResultCls

Result commands group definition. 15 total commands, 1 Subgroups, 13 group commands

#### class AllStruct

Structure for setting input parameters. Contains optional set arguments. Fields:

- Evm: bool: Error vector magnitude OFF: Do not evaluate the results. ON: Evaluate the results.
- Magnitude\_Error: bool: No parameter help available
- Phase\_Error: bool: No parameter help available
- Inband\_Emissions: bool: No parameter help available
- Evm\_Versus\_C: bool: No parameter help available
- Iq: bool: No parameter help available
- Equ\_Spec\_Flatness: bool: No parameter help available
- Tx\_Measurement: bool: No parameter help available
- Spec\_Em\_Mask: bool: No parameter help available
- Aclr: bool: No parameter help available
- Power\_Monitor: bool: No parameter help available
- Power\_Dynamics: bool: No parameter help available

**get\_aclr()** → bool

```

# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:ACLR
value: bool = driver.configure.nrMmwMeas.multiEval.result.get_aclr()

```

Enables or disables the evaluation of results in the multi-evaluation measurement.

#### return

enable: OFF: Do not evaluate the results. ON: Evaluate the results.

**get\_all()** → AllStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult[:ALL]
value: AllStruct = driver.configure.nrMmwMeas.multiEval.result.get_all()
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead the commands in ‘Enabling results’.

**return**

structure: for return value, see the help for AllStruct structure arguments.

**get\_es\_flatness()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:ESFlatness
value: bool = driver.configure.nrMmwMeas.multiEval.result.get_es_flatness()
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**return**

enable: OFF: Do not evaluate the results. ON: Evaluate the results.

**get\_evmc()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:EVMC
value: bool = driver.configure.nrMmwMeas.multiEval.result.get_evmc()
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**return**

enable: OFF: Do not evaluate the results. ON: Evaluate the results.

**get\_iemissions()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:IEmissions
value: bool = driver.configure.nrMmwMeas.multiEval.result.get_iemissions()
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**return**

enable: OFF: Do not evaluate the results. ON: Evaluate the results.

**get\_iq()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:IQ
value: bool = driver.configure.nrMmwMeas.multiEval.result.get_iq()
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**return**

enable: OFF: Do not evaluate the results. ON: Evaluate the results.

**get\_merror()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:MERRor
value: bool = driver.configure.nrMmwMeas.multiEval.result.get_merror()
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**return**

enable: OFF: Do not evaluate the results. ON: Evaluate the results.

**get\_modulation()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:MODulation
value: bool = driver.configure.nrMmwMeas.multiEval.result.get_modulation()
```

Enables or disables the evaluation of results in the multi-evaluation measurement.

**return**

enable: OFF: Do not evaluate the results. ON: Evaluate the results.

**get\_podynamics()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:PDYNamics
value: bool = driver.configure.nrMmwMeas.multiEval.result.get_podynamics()
```

Enables or disables the evaluation of results in the multi-evaluation measurement.

**return**

enable: OFF: Do not evaluate the results. ON: Evaluate the results.

**get\_perror()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:PERRor
value: bool = driver.configure.nrMmwMeas.multiEval.result.get_perror()
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**return**

enable: OFF: Do not evaluate the results. ON: Evaluate the results.

**get\_pmonitor()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:PMONitor
value: bool = driver.configure.nrMmwMeas.multiEval.result.get_pmonitor()
```

Enables or disables the evaluation of results in the multi-evaluation measurement.

**return**

enable: OFF: Do not evaluate the results. ON: Evaluate the results.

**get\_se\_mask()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:SEMask
value: bool = driver.configure.nrMmwMeas.multiEval.result.get_se_mask()
```

Enables or disables the evaluation of results in the multi-evaluation measurement.

**return**

enable: OFF: Do not evaluate the results. ON: Evaluate the results.

**get\_txm()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:TXM
value: bool = driver.configure.nrMmwMeas.multiEval.result.get_txm()
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**return**

enable: OFF: Do not evaluate the results. ON: Evaluate the results.

**set\_aclr(enable: bool)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:ACLR
driver.configure.nrMmwMeas.multiEval.result.set_aclr(enable = False)
```

Enables or disables the evaluation of results in the multi-evaluation measurement.

**param enable**

OFF: Do not evaluate the results. ON: Evaluate the results.

**set\_all(value: AllStruct)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult[:ALL]
structure = driver.configure.nrMmwMeas.multiEval.result.AllStruct()
structure.Evm: bool = False
structure.Magnitude_Error: bool = False
structure.Phase_Error: bool = False
structure.Inband_Emissions: bool = False
structure.Evm_Versus_C: bool = False
structure.Iq: bool = False
structure.Equ_Spec_Flatness: bool = False
structure.Tx_Measurement: bool = False
structure.Spec_Em_Mask: bool = False
structure.Aclr: bool = False
structure.Power_Monitor: bool = False
structure.Power_Dynamics: bool = False
driver.configure.nrMmwMeas.multiEval.result.set_all(value = structure)
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead the commands in ‘Enabling results’.

**param value**

see the help for AllStruct structure arguments.

**set\_es\_flatness(enable: bool)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:RESult:ESFlatness
driver.configure.nrMmwMeas.multiEval.result.set_es_flatness(enable = False)
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**param enable**

OFF: Do not evaluate the results. ON: Evaluate the results.

**set\_evmc**(*enable: bool*) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:MEValuation:RESult:EVMC
driver.configure.nrMmwMeas.multiEval.result.set_evmc(enable = False)
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**param enable**

OFF: Do not evaluate the results. ON: Evaluate the results.

**set\_iemissions**(*enable: bool*) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:MEValuation:RESult:IEmissions
driver.configure.nrMmwMeas.multiEval.result.set_iemissions(enable = False)
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**param enable**

OFF: Do not evaluate the results. ON: Evaluate the results.

**set\_iq**(*enable: bool*) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:MEValuation:RESult:IQ
driver.configure.nrMmwMeas.multiEval.result.set_iq(enable = False)
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**param enable**

OFF: Do not evaluate the results. ON: Evaluate the results.

**set\_merror**(*enable: bool*) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:MEValuation:RESult:MERRor
driver.configure.nrMmwMeas.multiEval.result.set_merror(enable = False)
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**param enable**

OFF: Do not evaluate the results. ON: Evaluate the results.

**set\_modulation**(*enable: bool*) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:MEValuation:RESult:MODulation
driver.configure.nrMmwMeas.multiEval.result.set_modulation(enable = False)
```

Enables or disables the evaluation of results in the multi-evaluation measurement.

**param enable**

OFF: Do not evaluate the results. ON: Evaluate the results.

**set\_podynamics**(*enable: bool*) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:MEValuation:RESult:PDYNamics
driver.configure.nrMmwMeas.multiEval.result.set_podynamics(enable = False)
```

Enables or disables the evaluation of results in the multi-evaluation measurement.

**param enable**

OFF: Do not evaluate the results. ON: Evaluate the results.

**set\_perror**(*enable: bool*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:RESult:PERRor
driver.configure.nrMmwMeas.multiEval.result.set_perror(enable = False)
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**param enable**

OFF: Do not evaluate the results. ON: Evaluate the results.

**set\_pmonitor**(*enable: bool*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:RESult:PMONitor
driver.configure.nrMmwMeas.multiEval.result.set_pmonitor(enable = False)
```

Enables or disables the evaluation of results in the multi-evaluation measurement.

**param enable**

OFF: Do not evaluate the results. ON: Evaluate the results.

**set\_se\_mask**(*enable: bool*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:RESult:SEMask
driver.configure.nrMmwMeas.multiEval.result.set_se_mask(enable = False)
```

Enables or disables the evaluation of results in the multi-evaluation measurement.

**param enable**

OFF: Do not evaluate the results. ON: Evaluate the results.

**set\_txm**(*enable: bool*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEvaluation:RESult:TXM
driver.configure.nrMmwMeas.multiEval.result.set_txm(enable = False)
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**param enable**

OFF: Do not evaluate the results. ON: Evaluate the results.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.result.clone()
```

## Subgroups

### 6.1.1.5.7.1 EvMagnitude

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEValuation:RESult:EVMagnitude
```

#### class EvMagnitudeCls

EvMagnitude commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**get\_value()** → bool

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:RESult:EVMagnitude
value: bool = driver.configure.nrMmwMeas.multiEval.result.evMagnitude.get_
↳value()
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

#### return

enable: OFF: Do not evaluate the results. ON: Evaluate the results.

**set\_value(enable: bool)** → None

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:MEValuation:RESult:EVMagnitude
driver.configure.nrMmwMeas.multiEval.result.evMagnitude.set_value(enable =
↳False)
```

Enables or disables the evaluation of results in the multi-evaluation measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

#### param enable

OFF: Do not evaluate the results. ON: Evaluate the results.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.result.evMagnitude.clone()
```

## Subgroups

### 6.1.1.5.7.2 EvmSymbol

#### SCPI Command :

```
CONFigure:NRMMw:MEASurement<Instance>:MEValuation:RESult:EVMagnitude:EVMsymbol
```

#### class EvmSymbolCls

EvmSymbol commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class EvmSymbolStruct**

Response structure. Fields:

- Enable: bool: OFF: Do not measure the results. ON: Measure the results.
- Symbol: int: OFDM symbol to be evaluated.
- Low\_High: enums.LowHigh: Low or high EVM window position.

**get()** → EvmSymbolStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳:MEValuation:RESult:EVMagnitude:EVMSymbol
value: EvmSymbolStruct = driver.configure.nrMmwMeas.multiEval.result.
↳evMagnitude.evmSymbol.get()
```

Enables or disables the measurement of EVM vs modulation symbol results and configures the scope of the measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**return**

structure: for return value, see the help for EvmSymbolStruct structure arguments.

**set(enable: bool, symbol: int, low\_high: LowHigh)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>
↳:MEValuation:RESult:EVMagnitude:EVMSymbol
driver.configure.nrMmwMeas.multiEval.result.evMagnitude.evmSymbol.set(enable =
↳False, symbol = 1, low_high = enums.LowHigh.HIGH)
```

Enables or disables the measurement of EVM vs modulation symbol results and configures the scope of the measurement. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Result.modulation.

**param enable**

OFF: Do not measure the results. ON: Measure the results.

**param symbol**

OFDM symbol to be evaluated.

**param low\_high**

Low or high EVM window position.

**6.1.1.5.8 Scount****SCPI Commands :**

```
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:SCount:MODulation
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:SCount:POWer
```

**class ScountCls**

Scount commands group definition. 4 total commands, 1 Subgroups, 2 group commands

**get\_modulation()** → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:SCount:MODulation
value: int = driver.configure.nrMmwMeas.multiEval.scount.get_modulation()
```



Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**return**

statistic\_count: No help available

**get\_power()** → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:SCount:POWer
value: int = driver.configure.nrMmwMeas.multiEval.scount.get_power()
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**return**

statistic\_count: No help available

**set\_modulation(statistic\_count: int)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:SCount:MODulation
driver.configure.nrMmwMeas.multiEval.scount.set_modulation(statistic_count = 1)
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**param statistic\_count**

No help available

**set\_power(statistic\_count: int)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:SCount:POWer
driver.configure.nrMmwMeas.multiEval.scount.set_power(statistic_count = 1)
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**param statistic\_count**

No help available

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.multiEval.scount.clone()
```

## Subgroups

### 6.1.1.5.8.1 Spectrum

#### SCPI Commands :

```
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:SCount:SPECTrum:SEMask
CONFIGure:NRMMw:MEASurement<Instance>:MEValuation:SCount:SPECTrum:ACLR
```

**class SpectrumCls**

Spectrum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_aclr()** → int

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:MEValuation:SCount:SPECTrum:ACLR
value: int = driver.configure.nrmwMeas.multiEval.scount.spectrum.get_aclr()
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot. Separate statistic counts for ACLR and spectrum emission mask measurements are supported.

**return**  
statistic\_count: Number of measurement intervals (slots)

**get\_se\_mask()** → int

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:MEValuation:SCount:SPECTrum:SEMask
value: int = driver.configure.nrmwMeas.multiEval.scount.spectrum.get_se_mask()
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot. Separate statistic counts for ACLR and spectrum emission mask measurements are supported.

**return**  
statistic\_count: Number of measurement intervals (slots)

**set\_aclr(statistic\_count: int)** → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:MEValuation:SCount:SPECTrum:ACLR
driver.configure.nrmwMeas.multiEval.scount.spectrum.set_aclr(statistic_count = 1)
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot. Separate statistic counts for ACLR and spectrum emission mask measurements are supported.

**param statistic\_count**  
Number of measurement intervals (slots)

**set\_se\_mask(statistic\_count: int)** → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:MEValuation:SCount:SPECTrum:SEMask
driver.configure.nrmwMeas.multiEval.scount.spectrum.set_se_mask(statistic_
count = 1)
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot. Separate statistic counts for ACLR and spectrum emission mask measurements are supported.

**param statistic\_count**  
Number of measurement intervals (slots)

### 6.1.1.5.9 Spectrum

#### class SpectrumCls

Spectrum commands group definition. 2 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrmwMeas.multiEval.spectrum.clone()
```

#### Subgroups

### 6.1.1.5.9.1 Aclr

#### SCPI Command :

```
CONFigure:NRMWw:MEASurement<Instance>:MEValuation:SPECTrum:ACLR:ENABle
```

#### class AclrCls

Aclr commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_enable()** → bool

```
# SCPI: CONFigure:NRMWw:MEASurement<Instance>:MEValuation:SPECTrum:ACLR:ENABle
value: bool = driver.configure.nrmwMeas.multiEval.spectrum.aclr.get_enable()
```

No command help available

**return**

nr: No help available

**set\_enable(nr: bool)** → None

```
# SCPI: CONFigure:NRMWw:MEASurement<Instance>:MEValuation:SPECTrum:ACLR:ENABle
driver.configure.nrmwMeas.multiEval.spectrum.aclr.set_enable(nr = False)
```

No command help available

**param nr**

No help available

### 6.1.1.5.9.2 SeMask

#### SCPI Command :

```
CONFigure:NRMWw:MEASurement<Instance>:MEValuation:SPECTrum:SEMask:MFIltter
```

#### class SeMaskCls

SeMask commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_mfilter()** → MeasFilter

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>
↪:MEvaluation:SPECTrum:SEMask:MFILTER
value: enums.MeasFilter = driver.configure.nrMmwMeas.multiEval.spectrum.seMask.
↪get_mfilter()
```

Selects the resolution filter type for filter bandwidths of 1 MHz.

**return**

meas\_filter: No help available

**set\_mfilter**(meas\_filter: MeasFilter) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>
↪:MEvaluation:SPECTrum:SEMask:MFILTER
driver.configure.nrMmwMeas.multiEval.spectrum.seMask.set_mfilter(meas_filter =
↪enums.MeasFilter.BANDpass)
```

Selects the resolution filter type for filter bandwidths of 1 MHz.

**param meas\_filter**

No help available

### 6.1.1.6 Network

#### SCPI Command :

CONFIGure:NRMW:MEASurement<Instance>:NETWork:RFPSharing

#### class NetworkCls

Network commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_rfp\_sharing()** → Sharing

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:NETWork:RFPSharing
value: enums.Sharing = driver.configure.nrMmwMeas.network.get_rfp_sharing()
```

Selects the RF path sharing mode for a measurement with coupling to signaling settings.

**return**

sharing: NSHared: not shared FSHared: fully shared

**set\_rfp\_sharing**(sharing: Sharing) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:NETWork:RFPSharing
driver.configure.nrMmwMeas.network.set_rfp_sharing(sharing = enums.Sharing.
↪FSHared)
```

Selects the RF path sharing mode for a measurement with coupling to signaling settings.

**param sharing**

NSHared: not shared FSHared: fully shared

### 6.1.1.7 Prach

#### SCPI Commands :

```

CONFigure:NRMMw:MEASurement<Instance>:PRACH:TOUT
CONFigure:NRMMw:MEASurement<Instance>:PRACH:REPetition
CONFigure:NRMMw:MEASurement<Instance>:PRACH:SCONdition
CONFigure:NRMMw:MEASurement<Instance>:PRACH:MOEXception
CONFigure:NRMMw:MEASurement<Instance>:PRACH:PCIndex
CONFigure:NRMMw:MEASurement<Instance>:PRACH:PFORmat
CONFigure:NRMMw:MEASurement<Instance>:PRACH:SSYMBOL
CONFigure:NRMMw:MEASurement<Instance>:PRACH:NOPReambles
CONFigure:NRMMw:MEASurement<Instance>:PRACH:POPReambles
CONFigure:NRMMw:MEASurement<Instance>:PRACH:SCSPacing
CONFigure:NRMMw:MEASurement<Instance>:PRACH:LRSindex
CONFigure:NRMMw:MEASurement<Instance>:PRACH:ZCZConfig

```

#### class PrachCls

Prach commands group definition. 29 total commands, 7 Subgroups, 12 group commands

**get\_lrs\_index()** → int

```

# SCPI: CONFigure:NRMMw:MEASurement<Instance>:PRACH:LRSindex
value: int = driver.configure.nrMmwMeas.prach.get_lrs_index()

```

Specifies the logical root sequence index to be used for generation of the preamble sequence.

**return**

log\_root\_seq\_index: No help available

**get\_mo\_exception()** → bool

```

# SCPI: CONFigure:NRMMw:MEASurement<Instance>:PRACH:MOEXception
value: bool = driver.configure.nrMmwMeas.prach.get_mo_exception()

```

Specifies whether measurement results that the CMX500 identifies as faulty or inaccurate are rejected.

**return**

meas\_on\_exception: OFF: Faulty results are rejected. ON: Results are never rejected.

**get\_no\_preambles()** → int

```

# SCPI: CONFigure:NRMMw:MEASurement<Instance>:PRACH:NOPReambles
value: int = driver.configure.nrMmwMeas.prach.get_no_preambles()

```

Specifies the number of preambles to be captured per measurement interval for multi-preamble result squares.

**return**

number\_preamble: No help available

**get\_pc\_index()** → int

```

# SCPI: CONFigure:NRMMw:MEASurement<Instance>:PRACH:PCIndex
value: int = driver.configure.nrMmwMeas.prach.get_pc_index()

```

The PRACH configuration index identifies the PRACH configuration used by the UE (preamble format, which resources in the time domain are allowed for transmission of preambles etc.) .

**return**  
prach\_conf\_index: No help available

**get\_pformat()** → PreambleFormat

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:PFORmat
value: enums.PreambleFormat = driver.configure.nrMmwMeas.prach.get_pformat()
```

Selects the preamble format. The command is only needed for PRACH configuration indices that allow two preamble formats, see Table ‘Mapping configuration index to preamble format’.

**return**  
preamble\_format: No help available

**get\_po\_preambles()** → PeriodPreamble

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:POPReambles
value: enums.PeriodPreamble = driver.configure.nrMmwMeas.prach.get_po_
↳ preambles()
```

Specifies the periodicity of preambles to be captured for multi-preamble result squares.

**return**  
period\_preamble: 1 ms, 1.25 ms, 2.5 ms, 10 ms, 20 ms, 5 ms

**get\_repetition()** → Repeat

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:REPetition
value: enums.Repeat = driver.configure.nrMmwMeas.prach.get_repetition()
```

Specifies the repetition mode of the measurement. The repetition mode specifies whether the measurement is stopped after a single shot or repeated continuously. Use CONFIGure:::MEAS<i>:::SCOunt to determine the number of measurement intervals per single shot.

**return**  
repetition: SINGleshot: Single-shot measurement CONTinuous: Continuous measurement

**get\_sc\_spacing()** → ScSpacing

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:SCSPacing
value: enums.ScSpacing = driver.configure.nrMmwMeas.prach.get_sc_spacing()
```

Specifies the subcarrier spacing used by the UE for the preambles.

**return**  
sc\_spacing: 60 kHz or 120 kHz

**get\_scondition()** → StopCondition

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:SCONdition
value: enums.StopCondition = driver.configure.nrMmwMeas.prach.get_scondition()
```

Qualifies whether the measurement is stopped after a failed limit check or continued. SLFail means that the measurement is stopped and reaches the RDY state when one of the results exceeds the limits.

**return**

stop\_condition: NONE: Continue measurement irrespective of the limit check. SLFail:  
Stop measurement on limit failure.

**get\_ssymbol()** → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:SSYMBOL
value: int = driver.configure.nrMmwMeas.prach.get_ssymbol()
```

Selects the OFDM symbol to be evaluated for single-symbol modulation result diagrams. The number of OFDM symbols in the preamble (<no of symbols>) depends on the preamble format, see Table ‘Preambles in the time domain’.

**return**

selected\_symbol: No help available

**get\_timeout()** → float

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:TOUT
value: float = driver.configure.nrMmwMeas.prach.get_timeout()
```

Defines a timeout for the measurement. The timer is started when the measurement is initiated via a READ or INIT command. It is not started if the measurement is initiated manually. When the measurement has completed the first measurement cycle (first single shot), the statistical depth is reached and the timer is reset. If the first measurement cycle has not been completed when the timer expires, the measurement is stopped. The measurement state changes to RDY. The reliability indicator is set to 1, indicating that a measurement timeout occurred. Still running READ, FETCh or CALCulate commands are completed, returning the available results. At least for some results, there are no values at all or the statistical depth has not been reached. A timeout of 0 s corresponds to an infinite measurement timeout.

**return**

timeout: No help available

**get\_zcz\_config()** → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:ZCZConfig
value: int = driver.configure.nrMmwMeas.prach.get_zcz_config()
```

Specifies the zero correlation zone config, i.e. which NCS value of an NCS set is used for generation of the preamble sequence.

**return**

zero\_corr\_zone\_con: No help available

**set\_lrs\_index(log\_root\_seq\_index: int)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:LRSindex
driver.configure.nrMmwMeas.prach.set_lrs_index(log_root_seq_index = 1)
```

Specifies the logical root sequence index to be used for generation of the preamble sequence.

**param log\_root\_seq\_index**

No help available

**set\_mo\_exception(meas\_on\_exception: bool)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:MOEXception
driver.configure.nrMmwMeas.prach.set_mo_exception(meas_on_exception = False)
```

Specifies whether measurement results that the CMX500 identifies as faulty or inaccurate are rejected.

**param meas\_on\_exception**

OFF: Faulty results are rejected. ON: Results are never rejected.

**set\_no\_preambles**(*number\_preamble: int*) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:PRCh:NOPReambles
driver.configure.nrmwMeas.prach.set_no_preambles(number_preamble = 1)
```

Specifies the number of preambles to be captured per measurement interval for multi-preamble result squares.

**param number\_preamble**

No help available

**set\_pc\_index**(*prach\_conf\_index: int*) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:PRCh:PCIndex
driver.configure.nrmwMeas.prach.set_pc_index(prach_conf_index = 1)
```

The PRACH configuration index identifies the PRACH configuration used by the UE (preamble format, which resources in the time domain are allowed for transmission of preambles etc.) .

**param prach\_conf\_index**

No help available

**set\_pformat**(*preamble\_format: PreambleFormat*) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:PRCh:PFORmat
driver.configure.nrmwMeas.prach.set_pformat(preamble_format = enums.
↳ PreambleFormat.A1)
```

Selects the preamble format. The command is only needed for PRACH configuration indices that allow two preamble formats, see Table ‘Mapping configuration index to preamble format’.

**param preamble\_format**

No help available

**set\_po\_preambles**(*period\_preamble: PeriodPreamble*) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:PRCh:POPReambles
driver.configure.nrmwMeas.prach.set_po_preambles(period_preamble = enums.
↳ PeriodPreamble.MS01)
```

Specifies the periodicity of preambles to be captured for multi-preamble result squares.

**param period\_preamble**

1 ms, 1.25 ms, 2.5 ms, 10 ms, 20 ms, 5 ms

**set\_repetition**(*repetition: Repeat*) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:PRCh:REPetition
driver.configure.nrmwMeas.prach.set_repetition(repetition = enums.Repeat.
↳ CONTinuous)
```

Specifies the repetition mode of the measurement. The repetition mode specifies whether the measurement is stopped after a single shot or repeated continuously. Use CONFIGure:::MEAS<i>:::SCOunt to determine the number of measurement intervals per single shot.



**param repetition**

SINGleshot: Single-shot measurement CONTInuous: Continuous measurement

**set\_sc\_spacing**(*sc\_spacing: ScSpacing*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:SCSPacing
driver.configure.nrMmwMeas.prach.set_sc_spacing(sc_spacing = enums.ScSpacing.
↳ S120k)
```

Specifies the subcarrier spacing used by the UE for the preambles.

**param sc\_spacing**

60 kHz or 120 kHz

**set\_scondition**(*stop\_condition: StopCondition*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:SCONdition
driver.configure.nrMmwMeas.prach.set_scondition(stop_condition = enums.
↳ StopCondition.NONE)
```

Qualifies whether the measurement is stopped after a failed limit check or continued. SLFail means that the measurement is stopped and reaches the RDY state when one of the results exceeds the limits.

**param stop\_condition**

NONE: Continue measurement irrespective of the limit check. SLFail: Stop measurement on limit failure.

**set\_ssymbol**(*selected\_symbol: int*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:SSYMBOL
driver.configure.nrMmwMeas.prach.set_ssymbol(selected_symbol = 1)
```

Selects the OFDM symbol to be evaluated for single-symbol modulation result diagrams. The number of OFDM symbols in the preamble (&lt;no of symbols&gt;) depends on the preamble format, see Table ‘Preambles in the time domain’.

**param selected\_symbol**

No help available

**set\_timeout**(*timeout: float*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:TOUT
driver.configure.nrMmwMeas.prach.set_timeout(timeout = 1.0)
```

Defines a timeout for the measurement. The timer is started when the measurement is initiated via a READ or INIT command. It is not started if the measurement is initiated manually. When the measurement has completed the first measurement cycle (first single shot), the statistical depth is reached and the timer is reset. If the first measurement cycle has not been completed when the timer expires, the measurement is stopped. The measurement state changes to RDY. The reliability indicator is set to 1, indicating that a measurement timeout occurred. Still running READ, FETCh or CALCulate commands are completed, returning the available results. At least for some results, there are no values at all or the statistical depth has not been reached. A timeout of 0 s corresponds to an infinite measurement timeout.

**param timeout**

No help available

**set\_zcz\_config**(*zero\_corr\_zone\_con: int*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:ZCZConfig
driver.configure.nrMmwMeas.prach.set_zcz_config(zero_corr_zone_con = 1)
```

Specifies the zero correlation zone config, i.e. which NCS value of an NCS set is used for generation of the preamble sequence.

**param zero\_corr\_zone\_con**  
No help available

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.prach.clone()
```

## Subgroups

### 6.1.1.7.1 Limit

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:PRCh:LIMit:FERRor
```

#### class LimitCls

Limit commands group definition. 5 total commands, 4 Subgroups, 1 group commands

**get\_freq\_error()** → float

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:LIMit:FERRor
value: float or bool = driver.configure.nrMmwMeas.prach.limit.get_freq_error()
```

Defines an upper limit for the carrier frequency error.

**return**  
frequency\_error: (float or boolean) No help available

**set\_freq\_error(frequency\_error: float)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:LIMit:FERRor
driver.configure.nrMmwMeas.prach.limit.set_freq_error(frequency_error = 1.0)
```

Defines an upper limit for the carrier frequency error.

**param frequency\_error**  
(float or boolean) No help available

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrmwMeas.prach.limit.clone()
```

## Subgroups

### 6.1.1.7.1.1 EvMagnitude

#### SCPI Command :

```
CONFfigure:NRMWw:MEASurement<Instance>:PRACH:LIMit:EVMagnitude
```

#### class EvMagnitudeCls

EvMagnitude commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class EvMagnitudeStruct

Response structure. Fields:

- Rms: float or bool: No parameter help available
- Peak: float or bool: No parameter help available

**get()** → EvMagnitudeStruct

```
# SCPI: CONFfigure:NRMWw:MEASurement<Instance>:PRACH:LIMit:EVMagnitude
value: EvMagnitudeStruct = driver.configure.nrmwMeas.prach.limit.evMagnitude.
    ↪get()
```

Defines upper limits for the RMS and peak values of the error vector magnitude (EVM) .

#### return

structure: for return value, see the help for EvMagnitudeStruct structure arguments.

**set(rms: float, peak: float)** → None

```
# SCPI: CONFfigure:NRMWw:MEASurement<Instance>:PRACH:LIMit:EVMagnitude
driver.configure.nrmwMeas.prach.limit.evMagnitude.set(rms = 1.0, peak = 1.0)
```

Defines upper limits for the RMS and peak values of the error vector magnitude (EVM) .

#### param rms

(float or boolean) No help available

#### param peak

(float or boolean) No help available

#### 6.1.1.7.1.2 Merror

##### SCPI Command :

```
CONFigure:NRMWw:MEASurement<Instance>:PRCh:LIMit:MERRor
```

##### class MerrorCls

Error commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class MerrorStruct

Response structure. Fields:

- Rms: float or bool: No parameter help available
- Peak: float or bool: No parameter help available

**get()** → MerrorStruct

```
# SCPI: CONFigure:NRMWw:MEASurement<Instance>:PRCh:LIMit:MERRor
value: MerrorStruct = driver.configure.nrmwMeas.prach.limit.merror.get()
```

Defines upper limits for the RMS and peak values of the magnitude error.

##### **return**

structure: for return value, see the help for MerrorStruct structure arguments.

**set(rms: float, peak: float)** → None

```
# SCPI: CONFigure:NRMWw:MEASurement<Instance>:PRCh:LIMit:MERRor
driver.configure.nrmwMeas.prach.limit.merror.set(rms = 1.0, peak = 1.0)
```

Defines upper limits for the RMS and peak values of the magnitude error.

##### **param rms**

(float or boolean) No help available

##### **param peak**

(float or boolean) No help available

#### 6.1.1.7.1.3 Podynamics

##### SCPI Command :

```
CONFigure:NRMWw:MEASurement<Instance>:PRCh:LIMit:PDYNamics
```

##### class PodynamicsCls

Dynamics commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class PodynamicsStruct

Response structure. Fields:

- Enable: bool: No parameter help available
- On\_Power\_Upper: float: No parameter help available
- On\_Power\_Lower: float: No parameter help available

- Off\_Power\_Upper: float: No parameter help available

**get()** → PodynamicsStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:LIMit:PDYNamics
value: PodynamicsStruct = driver.configure.nrMmwMeas.prach.limit.pdynamics.get()
```

No command help available

**return**

structure: for return value, see the help for PodynamicsStruct structure arguments.

**set**(enable: bool, on\_power\_upper: float, on\_power\_lower: float, off\_power\_upper: float) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:LIMit:PDYNamics
driver.configure.nrMmwMeas.prach.limit.pdynamics.set(enable = False, on_power_
upper = 1.0, on_power_lower = 1.0, off_power_upper = 1.0)
```

No command help available

**param enable**

No help available

**param on\_power\_upper**

No help available

**param on\_power\_lower**

No help available

**param off\_power\_upper**

No help available

#### 6.1.1.7.1.4 Perror

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:PRACH:LIMit:PERror
```

##### class PerrorCls

Perror commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class PerrorStruct

Response structure. Fields:

- Rms: float or bool: No parameter help available
- Peak: float or bool: No parameter help available

**get()** → PerrorStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:LIMit:PERror
value: PerrorStruct = driver.configure.nrMmwMeas.prach.limit.perror.get()
```

Defines symmetric limits for the RMS and peak values of the phase error. The limit check fails if the absolute value of the measured phase error exceeds the specified limit.

**return**

structure: for return value, see the help for PerrorStruct structure arguments.

**set**(rms: float, peak: float) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:LIMit:PERRor
driver.configure.nrMmwMeas.prach.limit.perror.set(rms = 1.0, peak = 1.0)
```

Defines symmetric limits for the RMS and peak values of the phase error. The limit check fails if the absolute value of the measured phase error exceeds the specified limit.

**param rms**  
(float or boolean) No help available

**param peak**  
(float or boolean) No help available

### 6.1.1.7.2 Modulation

#### SCPI Commands :

```
CONFIGure:NRMMw:MEASurement<Instance>:PRCh:MODulation:EWLength
CONFIGure:NRMMw:MEASurement<Instance>:PRCh:MODulation:EWPosition
```

#### class ModulationCls

Modulation commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_ew\_length**() → List[int]

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:MODulation:EWLength
value: List[int] = driver.configure.nrMmwMeas.prach.modulation.get_ew_length()
```

Specifies the EVM window length in samples for all preamble formats.

**return**  
evm\_window\_length: No help available

**get\_ew\_position**() → LowHigh

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:MODulation:EWPosition
value: enums.LowHigh = driver.configure.nrMmwMeas.prach.modulation.get_ew_
    ↪ position()
```

Specifies the position of the EVM window used for calculation of the trace results.

**return**  
evm\_window\_pos: No help available

**set\_ew\_length**(evm\_window\_length: List[int]) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:MODulation:EWLength
driver.configure.nrMmwMeas.prach.modulation.set_ew_length(evm_window_length =
    ↪ [1, 2, 3])
```

Specifies the EVM window length in samples for all preamble formats.

**param evm\_window\_length**  
No help available

**set\_ew\_position**(*evm\_window\_pos: LowHigh*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:MODulation:EWPosition
driver.configure.nrMmwMeas.prach.modulation.set_ew_position(evm_window_pos =
↳enums.LowHigh.HIGH)
```

Specifies the position of the EVM window used for calculation of the trace results.

**param evm\_window\_pos**  
No help available

### 6.1.1.7.3 Pfoffset

#### SCPI Commands :

```
CONFIGure:NRMMw:MEASurement<Instance>:PRACH:PFOfFset:AUTO
CONFIGure:NRMMw:MEASurement<Instance>:PRACH:PFOfFset
```

#### class PfoffsetCls

Pfoffset commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_auto**() → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:PFOfFset:AUTO
value: bool = driver.configure.nrMmwMeas.prach.pfoffset.get_auto()
```

Enables or disables automatic detection of the PRACH frequency offset. To configure the offset manually for disabled automatic detection, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.Prach.Pfoffset.value.

**return**  
prach\_freq\_auto: No help available

**get\_value**() → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:PFOfFset
value: int = driver.configure.nrMmwMeas.prach.pfoffset.get_value()
```

Specifies the PRACH frequency offset. This setting is only relevant if automatic detection is disabled, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.Prach.Pfoffset.auto.

**return**  
prach\_freq\_offset: No help available

**set\_auto**(*prach\_freq\_auto: bool*) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:PFOfFset:AUTO
driver.configure.nrMmwMeas.prach.pfoffset.set_auto(prach_freq_auto = False)
```

Enables or disables automatic detection of the PRACH frequency offset. To configure the offset manually for disabled automatic detection, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.Prach.Pfoffset.value.

**param prach\_freq\_auto**  
No help available

**set\_value**(prach\_freq\_offset: int) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:PFOfset
driver.configure.nrMmwMeas.prach.pfOffset.set_value(prach_freq_offset = 1)
```

Specifies the PRACH frequency offset. This setting is only relevant if automatic detection is disabled, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.Prach.PfOffset.auto.

**param prach\_freq\_offset**  
No help available

#### 6.1.1.7.4 Power

##### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:PRCh:POWer:HDMode
```

##### class PowerCls

Power commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_hdmode**() → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:POWer:HDMode
value: bool = driver.configure.nrMmwMeas.prach.power.get_hdmode()
```

No command help available

**return**  
high\_dynamic\_mode: No help available

**set\_hdmode**(high\_dynamic\_mode: bool) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:POWer:HDMode
driver.configure.nrMmwMeas.prach.power.set_hdmode(high_dynamic_mode = False)
```

No command help available

**param high\_dynamic\_mode**  
No help available

#### 6.1.1.7.5 Result

##### SCPI Commands :

```
CONFIGure:NRMMw:MEASurement<Instance>:PRCh:RESult:MODulation
CONFIGure:NRMMw:MEASurement<Instance>:PRCh:RESult:PDYNamics
```

##### class ResultCls

Result commands group definition. 3 total commands, 1 Subgroups, 2 group commands

**get\_modulation**() → bool



```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:RESult:MODulation
value: bool = driver.configure.nrMmwMeas.prach.result.get_modulation()
```

Enables or disables the evaluation of modulation results in the PRACH measurement.

**return**

enable: OFF: Do not evaluate the results. ON: Evaluate the results.

**get\_podynamics()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:RESult:PDYNamics
value: bool = driver.configure.nrMmwMeas.prach.result.get_podynamics()
```

Enables or disables the evaluation of power dynamics results in the PRACH measurement.

**return**

enable: OFF: Do not evaluate the results. ON: Evaluate the results.

**set\_modulation(enable: bool)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:RESult:MODulation
driver.configure.nrMmwMeas.prach.result.set_modulation(enable = False)
```

Enables or disables the evaluation of modulation results in the PRACH measurement.

**param enable**

OFF: Do not evaluate the results. ON: Evaluate the results.

**set\_podynamics(enable: bool)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRACH:RESult:PDYNamics
driver.configure.nrMmwMeas.prach.result.set_podynamics(enable = False)
```

Enables or disables the evaluation of power dynamics results in the PRACH measurement.

**param enable**

OFF: Do not evaluate the results. ON: Evaluate the results.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrMmwMeas.prach.result.clone()
```

## Subgroups

### 6.1.1.7.5.1 All

#### SCPI Command :

```
CONFIGure:NRMMw:MEASurement<Instance>:PRACH:RESult[:ALL]
```

#### class AllCls

All commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class AllStruct**

Response structure. Fields:

- Modulation: bool: OFF: Do not evaluate the results. ON: Evaluate the results.
- Power\_Dynamics: bool: OFF: Do not evaluate the results. ON: Evaluate the results.

**get()** → AllStruct

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:RESult[:ALL]
value: AllStruct = driver.configure.nrMmwMeas.prach.result.all.get()
```

Enables or disables the evaluation of results in the PRACH measurement. This command combines all other CONFIGure:NRMMw:MEAS<i>:PRCh:RESult... commands.

**return**

structure: for return value, see the help for AllStruct structure arguments.

**set(modulation: bool, power\_dynamics: bool)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:RESult[:ALL]
driver.configure.nrMmwMeas.prach.result.all.set(modulation = False, power_
↪dynamics = False)
```

Enables or disables the evaluation of results in the PRACH measurement. This command combines all other CONFIGure:NRMMw:MEAS<i>:PRCh:RESult... commands.

**param modulation**

OFF: Do not evaluate the results. ON: Evaluate the results.

**param power\_dynamics**

OFF: Do not evaluate the results. ON: Evaluate the results.

**6.1.1.7.6 Scount****SCPI Commands :**

```
CONFIGure:NRMMw:MEASurement<Instance>:PRCh:SCount:MODulation
CONFIGure:NRMMw:MEASurement<Instance>:PRCh:SCount:PDYNamics
```

**class ScountCls**

Scount commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_modulation()** → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:SCount:MODulation
value: int = driver.configure.nrMmwMeas.prach.scount.get_modulation()
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**return**

statistic\_count: No help available

**get\_pynamics()** → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:SCount:PDYNamics
value: int = driver.configure.nrMmwMeas.prach.scount.get_pynamics()
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**return**  
statistic\_count: No help available

**set\_modulation(statistic\_count: int)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:SCount:MODulation
driver.configure.nrMmwMeas.prach.scount.set_modulation(statistic_count = 1)
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**param statistic\_count**  
No help available

**set\_pynamics(statistic\_count: int)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:SCount:PDYNamics
driver.configure.nrMmwMeas.prach.scount.set_pynamics(statistic_count = 1)
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**param statistic\_count**  
No help available

#### 6.1.1.7.7 Sindex

##### SCPI Commands :

```
CONFIGure:NRMMw:MEASurement<Instance>:PRCh:SINDEX:AUTO
CONFIGure:NRMMw:MEASurement<Instance>:PRCh:SINDEX
```

##### class SindexCls

Sindex commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_auto()** → bool

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:PRCh:SINDEX:AUTO
value: bool = driver.configure.nrMmwMeas.prach.sindex.get_auto()
```

Enables or disables automatic detection of the sequence index. To configure the index manually for disabled automatic detection, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.Prach.Sindex.value.

**return**  
seq\_index\_auto: No help available

**get\_value()** → int

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:PRCh:SINdex
value: int = driver.configure.nrmwMeas.prach.sindex.get_value()
```

Specifies the sequence index, i.e. which of the 64 preamble sequences of the cell is used by the UE. This setting is only relevant if automatic detection is disabled, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.Prach.Sindex.auto.

**return**

sequence\_index: No help available

**set\_auto**(seq\_index\_auto: bool) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:PRCh:SINdex:AUTO
driver.configure.nrmwMeas.prach.sindex.set_auto(seq_index_auto = False)
```

Enables or disables automatic detection of the sequence index. To configure the index manually for disabled automatic detection, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.Prach.Sindex.value.

**param seq\_index\_auto**

No help available

**set\_value**(sequence\_index: int) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:PRCh:SINdex
driver.configure.nrmwMeas.prach.sindex.set_value(sequence_index = 1)
```

Specifies the sequence index, i.e. which of the 64 preamble sequences of the cell is used by the UE. This setting is only relevant if automatic detection is disabled, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.Prach.Sindex.auto.

**param sequence\_index**

No help available

### 6.1.1.8 RfSettings

#### SCPI Commands :

```
CONFIGure:NRMW:MEASurement<Instance>:RFSettings:FREquency
CONFIGure:NRMW:MEASurement<Instance>:RFSettings:UMARgin
CONFIGure:NRMW:MEASurement<Instance>:RFSettings:ENPower
CONFIGure:NRMW:MEASurement<Instance>:RFSettings:FOFFset
CONFIGure:NRMW:MEASurement<Instance>:RFSettings:MLOFfset
CONFIGure:NRMW:MEASurement<Instance>:RFSettings:LOLevel
CONFIGure:NRMW:MEASurement<Instance>:RFSettings:LOFRequency
CONFIGure:NRMW:MEASurement<Instance>:RFSettings:LRINterval
```

#### class RfSettingsCls

RfSettings commands group definition. 10 total commands, 2 Subgroups, 8 group commands

**get\_envelope\_power()** → float

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:RFSettings:ENPower
value: float = driver.configure.nrmwMeas.rfSettings.get_envelope_power()
```

Sets the expected nominal power of the measured signal. With full RF path sharing, use the signaling commands controlling the uplink power.

**return**

exp\_nom\_pow: The range of the expected nominal power can be calculated as follows:  
 $\text{Range (Expected Nominal Power)} = \text{Range (Input Power)} + \text{External Attenuation} - \text{User Margin}$   
 The input power range is stated in the specifications document.

**get\_foffset()** → int

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:RFSettings:FOFFset
value: int = driver.configure.nrMmwMeas.rfSettings.get_foffset()
```

Do not use anymore. The command has no effect.

**return**

offset: No help available

**get\_frequency()** → float

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:RFSettings:FREquency
value: float = driver.configure.nrMmwMeas.rfSettings.get_frequency()
```

Selects the center frequency of carrier CC1. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.Cc.Frequency.set.

**return**

analyzer\_freq: No help available

**get\_lo\_frequency()** → float

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:RFSettings:LOFREquency
value: float = driver.configure.nrMmwMeas.rfSettings.get_lo_frequency()
```

Queries the required external LO frequency resulting from the measurement settings. The command also triggers a refresh of the information before the query. So no need for a separate refresh command.

**return**

lo\_frequency: No help available

**get\_lo\_level()** → LoLevel

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:RFSettings:LOLevel
value: enums.LoLevel = driver.configure.nrMmwMeas.rfSettings.get_lo_level()
```

Queries whether the level of an external LO signal is correct.

**return**

lo\_level: Level correct, too low, too high.

**get\_lr\_interval()** → float

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:RFSettings:LRInterval
value: float = driver.configure.nrMmwMeas.rfSettings.get_lr_interval()
```

Defines the measurement interval for level adjustment.

**return**

lvl\_rang\_interval: No help available

**get\_ml\_offset()** → float

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:RFSettings:MLOffset
value: float = driver.configure.nrMmwMeas.rfSettings.get_ml_offset()
```

Do not use anymore. The command has no effect.

**return**  
mix\_lev\_offset: No help available

**get\_umargin()** → float

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:RFSettings:UMARgin
value: float = driver.configure.nrMmwMeas.rfSettings.get_umargin()
```

Sets the margin that the measurement adds to the expected nominal power to determine the reference power. The reference power minus the external input attenuation must be within the power range of the selected input connector. Refer to the specifications document. With full RF path sharing, this command is not applicable.

**return**  
user\_margin: No help available

**set\_envelope\_power(exp\_nom\_pow: float)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:RFSettings:ENPower
driver.configure.nrMmwMeas.rfSettings.set_envelope_power(exp_nom_pow = 1.0)
```

Sets the expected nominal power of the measured signal. With full RF path sharing, use the signaling commands controlling the uplink power.

**param exp\_nom\_pow**  
The range of the expected nominal power can be calculated as follows: Range (Expected Nominal Power) = Range (Input Power) + External Attenuation - User Margin  
The input power range is stated in the specifications document.

**set\_foffset(offset: int)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:RFSettings:FOFFset
driver.configure.nrMmwMeas.rfSettings.set_foffset(offset = 1)
```

Do not use anymore. The command has no effect.

**param offset**  
No help available

**set\_frequency(analyzer\_freq: float)** → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:RFSettings:FREQuency
driver.configure.nrMmwMeas.rfSettings.set_frequency(analyzer_freq = 1.0)
```

Selects the center frequency of carrier CC1. Do not use anymore. Use instead method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.Cc.Frequency.set.

**param analyzer\_freq**  
No help available

**set\_lr\_interval**(*lvl\_rang\_interval: float*) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:RFSettings:LRInterval
driver.configure.nrmwMeas.rfSettings.set_lr_interval(lvl_rang_interval = 1.0)
```

Defines the measurement interval for level adjustment.

**param lvl\_rang\_interval**

No help available

**set\_ml\_offset**(*mix\_lev\_offset: float*) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:RFSettings:MLOffset
driver.configure.nrmwMeas.rfSettings.set_ml_offset(mix_lev_offset = 1.0)
```

Do not use anymore. The command has no effect.

**param mix\_lev\_offset**

No help available

**set\_umargin**(*user\_margin: float*) → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:RFSettings:UMargin
driver.configure.nrmwMeas.rfSettings.set_umargin(user_margin = 1.0)
```

Sets the margin that the measurement adds to the expected nominal power to determine the reference power. The reference power minus the external input attenuation must be within the power range of the selected input connector. Refer to the specifications document. With full RF path sharing, this command is not applicable.

**param user\_margin**

No help available

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrmwMeas.rfSettings.clone()
```

## Subgroups

### 6.1.1.8.1 Eattenuation

#### SCPI Command :

```
CONFIGure:NRMW:MEASurement<Instance>:RFSettings:EATTenuation
```

#### class EattenuationCls

Eattenuation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class EattenuationStruct

Response structure. Fields:

- **Rf\_Input\_Ext\_Att:** float: For input path with antenna 1
- **Rf\_Input\_Ext\_Att\_2:** float: For input path with antenna 2

**get()** → EattenuationStruct

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:RFSettings:EATTenuation
value: EattenuationStruct = driver.configure.nrMmwMeas.rfSettings.eattenuation.
↳ get()
```

Defines an external attenuation (or gain, if the value is negative) , to be applied to the input connector. A query returns 1 or 2 values, depending on the number of RX antennas configured via method RsCMPX\_NrFr2Meas.Configure. NrMmwMeas.nantenna. With full RF path sharing, this command is not applicable.

**return**

structure: for return value, see the help for EattenuationStruct structure arguments.

**set(rf\_input\_ext\_att: float, rf\_input\_ext\_att\_2: float = None)** → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:RFSettings:EATTenuation
driver.configure.nrMmwMeas.rfSettings.eattenuation.set(rf_input_ext_att = 1.0,
↳ rf_input_ext_att_2 = 1.0)
```

Defines an external attenuation (or gain, if the value is negative) , to be applied to the input connector. A query returns 1 or 2 values, depending on the number of RX antennas configured via method RsCMPX\_NrFr2Meas.Configure. NrMmwMeas.nantenna. With full RF path sharing, this command is not applicable.

**param rf\_input\_ext\_att**

For input path with antenna 1

**param rf\_input\_ext\_att\_2**

For input path with antenna 2

#### 6.1.1.8.2 LrStart

##### SCPI Command :

```
CONFIGure:NRMW:MEASurement<Instance>:RFSettings:LRStart
```

##### class LrStartCls

LrStart commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**set()** → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:RFSettings:LRStart
driver.configure.nrMmwMeas.rfSettings.lrStart.set()
```

Starts level adjustment.

**set\_with\_opc(opc\_timeout\_ms: int = -1)** → None

```
# SCPI: CONFIGure:NRMW:MEASurement<Instance>:RFSettings:LRStart
driver.configure.nrMmwMeas.rfSettings.lrStart.set_with_opc()
```

Starts level adjustment.

Same as set, but waits for the operation to complete before continuing further. Use the RsCMPX\_NrFr2Meas.utilities.opc\_timeout\_set() to set the timeout value.



**param opc\_timeout\_ms**

Maximum time to wait in milliseconds, valid only for this call.

### 6.1.1.9 Susage

**SCPI Command :**

```
CONFigure:NRMMw:MEASurement<Instance>:SUSage
```

**class SusageCls**

Susage commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class GetStruct**

Response structure. Fields:

- DI\_Slots: int: No parameter help available
- UI\_Slots: int: No parameter help available
- Period: int: No parameter help available
- Used\_Slots: List[enums.UsedSlots]: No parameter help available

**get**(sc\_spacing: ScSpacing) → GetStruct

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:SUSage
value: GetStruct = driver.configure.nrMmwMeas.susage.get(sc_spacing = enums.
↳ ScSpacing.S120k)
```

No command help available

**param sc\_spacing**

No help available

**return**

structure: for return value, see the help for GetStruct structure arguments.

### 6.1.1.10 UIDI

**SCPI Command :**

```
CONFigure:NRMMw:MEASurement<Instance>:ULDL:PERiodicity
```

**class ULDlCls**

UIDI commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**get\_periodicity**() → Periodicity

```
# SCPI: CONFigure:NRMMw:MEASurement<Instance>:ULDL:PERiodicity
value: enums.Periodicity = driver.configure.nrMmwMeas.uldl.get_periodicity()
```

Configures the periodicity of the UL-DL pattern. For Signal Path = Network, use[CONFigure:]SIGNaling:NRADio:CELL:TDD:PATtern{p}:PERiodicity.

**return**

periodicity: 0.5 ms, 0.625 ms, 1 ms, 1.25 ms, 2 ms, 2.5 ms, 5 ms, 10 ms

**set\_periodicity**(periodicity: Periodicity) → None

```
# SCPI: CONFIGure:NRMWw:MEASurement<Instance>:ULDL:PERiodicity
driver.configure.nrmwMeas.uldl.set_periodicity(periodicity = enums.Periodicity.
↳MS05)
```

Configures the periodicity of the UL-DL pattern. For Signal Path = Network, use[CONFigure:]SIGNaling:NRADio:CELL:TDD:PATtern{p}:PERiodicity.

**param periodicity**

0.5 ms, 0.625 ms, 1 ms, 1.25 ms, 2 ms, 2.5 ms, 5 ms, 10 ms

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.nrmwMeas.uldl.clone()
```

## Subgroups

### 6.1.1.10.1 Pattern

#### SCPI Command :

```
CONFigure:NRMWw:MEASurement<Instance>:ULDL:PATtern
```

#### class PatternCls

Pattern commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class GetStruct

Response structure. Fields:

- DL\_Slots: int: Specifies 'nrofDownlinkSlots'.
- DL\_Symbols: int: Specifies 'nrofDownlinkSymbols'.
- UL\_Slots: int: Specifies 'nrofUplinkSlots'.
- UL\_Symbols: int: Specifies 'nrofUplinkSymbols'.

**get**(sc\_spacing: ScSpacing) → GetStruct

```
# SCPI: CONFIGure:NRMWw:MEASurement<Instance>:ULDL:PATtern
value: GetStruct = driver.configure.nrmwMeas.uldl.pattern.get(sc_spacing =
↳enums.ScSpacing.S120k)
```

**Configures the UL-DL pattern for the <SCSpacing>. The ranges have dependencies, see ‘TDD UL-DL configuration’.**

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFigure:]SIGNaling:NRADio:CELL:TDD:PATtern{p}:DL:NSlots
- [CONFigure:]SIGNaling:NRADio:CELL:TDD:PATtern{p}:DL:FSSymbol
- [CONFigure:]SIGNaling:NRADio:CELL:TDD:PATtern{p}:UL:NSlots
- [CONFigure:]SIGNaling:NRADio:CELL:TDD:PATtern{p}:UL:FSSymbol

**param sc\_spacing**

Subcarrier spacing for which the other settings apply.

**return**

structure: for return value, see the help for GetStruct structure arguments.

**set**(sc\_spacing: ScSpacing, dl\_slots: int, dl\_symbols: int, ul\_slots: int, ul\_symbols: int) → None

```
# SCPI: CONFIGure:NRMMw:MEASurement<Instance>:ULDL:PATtern
driver.configure.nrMmwMeas.ulDl.pattern.set(sc_spacing = enums.ScSpacing.S120k,
dl_slots = 1, dl_symbols = 1, ul_slots = 1, ul_symbols = 1)
```

**Configures the UL-DL pattern for the <SCSpacing>. The ranges have dependencies, see ‘TDD UL-DL configuration’.**

INTRO\_CMD\_HELP: For Signal Path = Network, use:

- [CONFIGure:]SIGNaling:NRADio:CELL:TDD:PATtern{p}:DL:NSLots
- [CONFIGure:]SIGNaling:NRADio:CELL:TDD:PATtern{p}:DL:FSSYmbol
- [CONFIGure:]SIGNaling:NRADio:CELL:TDD:PATtern{p}:UL:NSLots
- [CONFIGure:]SIGNaling:NRADio:CELL:TDD:PATtern{p}:UL:FSSYmbol

**param sc\_spacing**

Subcarrier spacing for which the other settings apply.

**param dl\_slots**

Specifies ‘nrofDownlinkSlots’.

**param dl\_symbols**

Specifies ‘nrofDownlinkSymbols’.

**param ul\_slots**

Specifies ‘nrofUplinkSlots’.

**param ul\_symbols**

Specifies ‘nrofUplinkSymbols’.

## 6.2 NrMmwMeas

### class NrMmwMeasCls

NrMmwMeas commands group definition. 575 total commands, 2 Subgroups, 0 group commands

### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.clone()
```

## Subgroups

### 6.2.1 MultiEval

#### SCPI Commands :

```
INITiate:NRMMw:MEASurement<Instance>:MEvaluation
STOP:NRMMw:MEASurement<Instance>:MEvaluation
ABORt:NRMMw:MEASurement<Instance>:MEvaluation
```

#### class MultiEvalCls

MultiEval commands group definition. 492 total commands, 9 Subgroups, 3 group commands

**abort**(opc\_timeout\_ms: int = -1) → None

```
# SCPI: ABORt:NRMMw:MEASurement<Instance>:MEvaluation
driver.nrMmwMeas.multiEval.abort()
```

INTRO\_CMD\_HELP: Starts, stops **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters the RUN state.
- STOP... halts the measurement immediately. The measurement enters the RDY state. Measurement results are kept. The resources remain allocated to the measurement.
- ABORt... halts the measurement immediately. The measurement enters the OFF state. All measurement values are **set** to NAV. Allocated resources are released.

Use FETCh...STATe? to query the current measurement state.

#### param opc\_timeout\_ms

Maximum time to wait in milliseconds, valid only for this call.

**initiate**(opc\_timeout\_ms: int = -1) → None

```
# SCPI: INITiate:NRMMw:MEASurement<Instance>:MEvaluation
driver.nrMmwMeas.multiEval.initiate()
```

INTRO\_CMD\_HELP: Starts, stops **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters the RUN state.
- STOP... halts the measurement immediately. The measurement enters the RDY state. Measurement results are kept. The resources remain allocated to the measurement.
- ABORt... halts the measurement immediately. The measurement enters the OFF state. All measurement values are **set** to NAV. Allocated resources are released.

Use FETCh...STATe? to query the current measurement state.

**param opc\_timeout\_ms**

Maximum time to wait in milliseconds, valid only for this call.

**stop()** → None

```
# SCPI: STOP:NRMMw:MEASurement<Instance>:MEvaluation
driver.nrMmwMeas.multiEval.stop()
```

INTRO\_CMD\_HELP: Starts, stops **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters the RUN state.
- STOP... halts the measurement immediately. The measurement enters the RDY state. Measurement results are kept. The resources remain allocated to the measurement.
- ABORT... halts the measurement immediately. The measurement enters the OFF state. All measurement values are **set** to NAV. Allocated resources are released.

Use FETCh...STATe? to query the current measurement state.

**stop\_with\_opc**(opc\_timeout\_ms: int = -1) → None

```
# SCPI: STOP:NRMMw:MEASurement<Instance>:MEvaluation
driver.nrMmwMeas.multiEval.stop_with_opc()
```

INTRO\_CMD\_HELP: Starts, stops **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters the RUN state.
- STOP... halts the measurement immediately. The measurement enters the RDY state. Measurement results are kept. The resources remain allocated to the measurement.
- ABORT... halts the measurement immediately. The measurement enters the OFF state. All measurement values are **set** to NAV. Allocated resources are released.

Use FETCh...STATe? to query the current measurement state.

Same as stop, but waits for the operation to complete before continuing further. Use the RsCMPX\_NrFr2Meas.utilities.opc\_timeout\_set() to set the timeout value.

**param opc\_timeout\_ms**

Maximum time to wait in milliseconds, valid only for this call.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.clone()
```

## Subgroups

### 6.2.1.1 Aclr

#### class AclrCls

Aclr commands group definition. 7 total commands, 3 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.aclr.clone()
```

## Subgroups

### 6.2.1.1.1 Average

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEValuation:ACLR:AVERage
FETCh:NRMMw:MEASurement<Instance>:MEValuation:ACLR:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:ACLR:AVERage
```

#### class AverageCls

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Nr\_Neg: enums.ResultStatus2: ACLR for the adjacent NR channel with lower frequency
- Carrier: enums.ResultStatus2: Power in the allocated NR channel
- Nr\_Pos: enums.ResultStatus2: ACLR for the adjacent NR channel with higher frequency
- Antenna\_1\_Carrier: enums.ResultStatus2: Power in the allocated NR channel, at RX antenna 1
- Antenna\_2\_Carrier: enums.ResultStatus2: Power in the allocated NR channel, at RX antenna 2

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Nr\_Neg: float: ACLR for the adjacent NR channel with lower frequency
- Carrier: float: Power in the allocated NR channel
- Nr\_Pos: float: ACLR for the adjacent NR channel with higher frequency

- Antenna\_1\_Carrier: float: Power in the allocated NR channel, at RX antenna 1
- Antenna\_2\_Carrier: float: Power in the allocated NR channel, at RX antenna 2

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:ACLR:AVERage
value: CalculateStruct = driver.nrMmwMeas.multiEval.aclr.average.calculate()
```

Returns the relative ACLR values as displayed in the table below the ACLR diagram. The current and average values can be retrieved. See also ‘Square Spectrum ACLR’. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:ACLR:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.aclr.average.fetch()
```

Returns the relative ACLR values as displayed in the table below the ACLR diagram. The current and average values can be retrieved. See also ‘Square Spectrum ACLR’. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEValuation:ACLR:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.aclr.average.read()
```

Returns the relative ACLR values as displayed in the table below the ACLR diagram. The current and average values can be retrieved. See also ‘Square Spectrum ACLR’. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.1.2 Current

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEValuation:ACLR:CURRent
FETCH:NRMMw:MEASurement<Instance>:MEValuation:ACLR:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:ACLR:CURRent
```

#### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Nr\_Neg: enums.ResultStatus2: ACLR for the adjacent NR channel with lower frequency
- Carrier: enums.ResultStatus2: Power in the allocated NR channel
- Nr\_Pos: enums.ResultStatus2: ACLR for the adjacent NR channel with higher frequency
- Antenna\_1\_Carrier: enums.ResultStatus2: Power in the allocated NR channel, at RX antenna 1
- Antenna\_2\_Carrier: enums.ResultStatus2: Power in the allocated NR channel, at RX antenna 2

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Nr\_Neg: float: ACLR for the adjacent NR channel with lower frequency
- Carrier: float: Power in the allocated NR channel
- Nr\_Pos: float: ACLR for the adjacent NR channel with higher frequency
- Antenna\_1\_Carrier: float: Power in the allocated NR channel, at RX antenna 1
- Antenna\_2\_Carrier: float: Power in the allocated NR channel, at RX antenna 2

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:ACLR:CURRENT
value: CalculateStruct = driver.nrMmwMeas.multiEval.aclr.current.calculate()
```

Returns the relative ACLR values as displayed in the table below the ACLR diagram. The current and average values can be retrieved. See also 'Square Spectrum ACLR'. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:ACLR:CURRENT
value: ResultData = driver.nrMmwMeas.multiEval.aclr.current.fetch()
```

Returns the relative ACLR values as displayed in the table below the ACLR diagram. The current and average values can be retrieved. See also 'Square Spectrum ACLR'. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation:ACLR:CURRENT
value: ResultData = driver.nrMmwMeas.multiEval.aclr.current.read()
```



Returns the relative ACLR values as displayed in the table below the ACLR diagram. The current and average values can be retrieved. See also ‘Square Spectrum ACLR’. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.1.3 Dallocation

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:ACLR:DALLocation
```

#### class DallocationCls

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Nr\_Res\_Blocks: str: No parameter help available
- Offset\_Res\_Blocks: str: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:ACLR:DALLocation
value: FetchStruct = driver.nrMmwMeas.multiEval.aclr.dallocation.fetch()
```

No command help available

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.2 Cc<CarrierComponent>

#### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.nrMmwMeas.multiEval.cc.repcap_carrierComponent_get()
driver.nrMmwMeas.multiEval.cc.repcap_carrierComponent_set(repcap.CarrierComponent.Nr1)
```

#### class CcCls

Cc commands group definition. 86 total commands, 2 Subgroups, 0 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.clone()
```

## Subgroups

### 6.2.1.2.1 Layer<Layer>

#### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.nrMmwMeas.multiEval.cc.layer.repcap_layer_get()
driver.nrMmwMeas.multiEval.cc.layer.repcap_layer_set(repcap.Layer.Nr1)
```

#### class LayerCls

Layer commands group definition. 83 total commands, 7 Subgroups, 0 group commands Repeated Capability:  
Layer, default value after init: Layer.Nr1

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.clone()
```

## Subgroups

### 6.2.1.2.1.1 EsFlatness

#### class EsFlatnessCls

EsFlatness commands group definition. 12 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.esFlatness.clone()
```

## Subgroups

### 6.2.1.2.1.2 Average

#### SCPI Commands :

```

READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:ESFlatness:AVERage
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:ESFlatness:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:ESFlatness:AVERage

```

### class AverageCls

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Ripple\_1: float or bool: Limit check result for max (range 1) - min (range 1) .
- Ripple\_2: float or bool: Limit check result for max (range 2) - min (range 2) .
- Max\_R\_1\_Min\_R\_2: float or bool: Limit check result for max (range 1) - min (range 2) .
- Max\_R\_2\_Min\_R\_1: float or bool: Limit check result for max (range 2) - min (range 1) .

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Ripple\_1: float: Max (range 1) - min (range 1)
- Ripple\_2: float: Max (range 2) - min (range 2)
- Max\_R\_1\_Min\_R\_2: float: Max (range 1) - min (range 2)
- Max\_R\_2\_Min\_R\_1: float: Max (range 2) - min (range 1)
- Min\_R\_1: float: Min (range 1)
- Max\_R\_1: float: Max (range 1)
- Min\_R\_2: float: Min (range 2)
- Max\_R\_2: float: Max (range 2)

**calculate**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → CalculateStruct

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:ESFlatness:AVERage
value: CalculateStruct = driver.nrMmwMeas.multiEval.cc.layer.esFlatness.average.
↳calculate(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)

```

Return current, average and extreme limit check results for the equalizer spectrum flatness measurement, for carrier <no>, layer <l>. See also 'Equalizer spectrum flatness limits'.

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳[:ESFlatness:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.esFlatness.average.
↳fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

Return current, average, extreme and standard deviation single value results of the equalizer spectrum flatness measurement, for carrier <no>, layer <l>. See also 'Equalizer spectrum flatness limits'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳[:ESFlatness:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.esFlatness.average.
↳read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↳Default)
```

Return current, average, extreme and standard deviation single value results of the equalizer spectrum flatness measurement, for carrier <no>, layer <l>. See also 'Equalizer spectrum flatness limits'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.2.1.3 Current

#### SCPI Commands :

```

READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:ESFlatness:CURRENT
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:ESFlatness:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:ESFlatness:CURRENT

```

#### class CurrentCls

Current commands group definition. 4 total commands, 1 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Ripple\_1: float or bool: Limit check result for max (range 1) - min (range 1) .
- Ripple\_2: float or bool: Limit check result for max (range 2) - min (range 2) .
- Max\_R\_1\_Min\_R\_2: float or bool: Limit check result for max (range 1) - min (range 2) .
- Max\_R\_2\_Min\_R\_1: float or bool: Limit check result for max (range 2) - min (range 1) .

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Ripple\_1: float: Max (range 1) - min (range 1)
- Ripple\_2: float: Max (range 2) - min (range 2)
- Max\_R\_1\_Min\_R\_2: float: Max (range 1) - min (range 2)
- Max\_R\_2\_Min\_R\_1: float: Max (range 2) - min (range 1)
- Min\_R\_1: float: Min (range 1)
- Max\_R\_1: float: Max (range 1)
- Min\_R\_2: float: Min (range 2)
- Max\_R\_2: float: Max (range 2)

**calculate**(*carrierComponent=CarrierComponent.Default, layer=Layer.Default*) → CalculateStruct

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:ESFlatness:CURRENT
value: CalculateStruct = driver.nrMmwMeas.multiEval.cc.layer.esFlatness.current.
↳calculate(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)

```

Return current, average and extreme limit check results for the equalizer spectrum flatness measurement, for carrier <no>, layer <l>. See also 'Equalizer spectrum flatness limits'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*carrierComponent=CarrierComponent.Default, layer=Layer.Default*) → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳ :ESFlatness:CURRENT
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.esFlatness.current.
↳ fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳ Layer.Default)
```

Return current, average, extreme and standard deviation single value results of the equalizer spectrum flatness measurement, for carrier <no>, layer <l>. See also 'Equalizer spectrum flatness limits'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent=CarrierComponent.Default, layer=Layer.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳ :ESFlatness:CURRENT
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.esFlatness.current.
↳ read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↳ Default)
```

Return current, average, extreme and standard deviation single value results of the equalizer spectrum flatness measurement, for carrier <no>, layer <l>. See also 'Equalizer spectrum flatness limits'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.esFlatness.current.clone()
```

## Subgroups

### 6.2.1.2.1.4 ScIndex

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:ESFlatness:CURRENT:SCIndex
```

#### class ScIndexCls

ScIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Maximum\_1: int: SC index of Max (Range 1)
- Minimum\_1: int: SC index of Min (Range 1)
- Maximum\_2: int: SC index of Max (Range 2)
- Minimum\_2: int: SC index of Min (Range 2)

**fetch**(carrierComponent=CarrierComponent.Default, layer=Layer.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:ESFlatness:CURRENT:SCIndex
value: FetchStruct = driver.nrMmwMeas.multiEval.cc.layer.esFlatness.current.
↳scIndex.fetch(carrierComponent = repcap.CarrierComponent.Default, layer =
↳repcap.Layer.Default)
```

Returns subcarrier indices of the equalizer spectrum flatness measurement for carrier <no>, layer <l>. At these SC indices, the current minimum and maximum power of the equalizer coefficients have been detected within range 1 and range 2.

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### param layer

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.2.1.5 Extreme

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:ESFlatness:EXTreme
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:ESFlatness:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:ESFlatness:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Ripple\_1: float or bool: Limit check result for max (range 1) - min (range 1) .
- Ripple\_2: float or bool: Limit check result for max (range 2) - min (range 2) .
- Max\_R\_1\_Min\_R\_2: float or bool: Limit check result for max (range 1) - min (range 2) .
- Max\_R\_2\_Min\_R\_1: float or bool: Limit check result for max (range 2) - min (range 1) .

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Ripple\_1: float: Max (range 1) - min (range 1)
- Ripple\_2: float: Max (range 2) - min (range 2)
- Max\_R\_1\_Min\_R\_2: float: Max (range 1) - min (range 2)
- Max\_R\_2\_Min\_R\_1: float: Max (range 2) - min (range 1)
- Min\_R\_1: float: Min (range 1)
- Max\_R\_1: float: Max (range 1)
- Min\_R\_2: float: Min (range 2)
- Max\_R\_2: float: Max (range 2)

**calculate**(*carrierComponent=CarrierComponent.Default, layer=Layer.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:ESFlatness:EXTreme
value: CalculateStruct = driver.nrMmwMeas.multiEval.cc.layer.esFlatness.extreme.
↳calculate(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

Return current, average and extreme limit check results for the equalizer spectrum flatness measurement, for carrier <no>, layer <l>. See also 'Equalizer spectrum flatness limits'.



**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:ESFlatness:EXTReme
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.esFlatness.extreme.
↪fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↪Layer.Default)
```

Return current, average, extreme and standard deviation single value results of the equalizer spectrum flatness measurement, for carrier <no>, layer <l>. See also 'Equalizer spectrum flatness limits'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:ESFlatness:EXTReme
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.esFlatness.extreme.
↪read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↪Default)
```

Return current, average, extreme and standard deviation single value results of the equalizer spectrum flatness measurement, for carrier <no>, layer <l>. See also 'Equalizer spectrum flatness limits'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.2.1.6 StandardDev

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:ESFlatness:SDEviation
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:ESFlatness:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Ripple\_1: float: Max (range 1) - min (range 1)
- Ripple\_2: float: Max (range 2) - min (range 2)
- Max\_R\_1\_Min\_R\_2: float: Max (range 1) - min (range 2)
- Max\_R\_2\_Min\_R\_1: float: Max (range 2) - min (range 1)
- Min\_R\_1: float: Min (range 1)
- Max\_R\_1: float: Max (range 1)
- Min\_R\_2: float: Min (range 2)
- Max\_R\_2: float: Max (range 2)

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:ESFlatness:SDEviation
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.esFlatness.standardDev.
↳fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

Return current, average, extreme and standard deviation single value results of the equalizer spectrum flatness measurement, for carrier <no>, layer <l>. See also 'Equalizer spectrum flatness limits'.

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### param layer

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

#### return

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:ESFlatness:SDEviation
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.esFlatness.standardDev.
↳read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↳Default)
```

Return current, average, extreme and standard deviation single value results of the equalizer spectrum flatness measurement, for carrier <no>, layer <l>. See also ‘Equalizer spectrum flatness limits’.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Layer’)

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.1.2.1.7 EvMagnitude

**class EvMagnitudeCls**

EvMagnitude commands group definition. 15 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.clone()
```

#### Subgroups

#### 6.2.1.2.1.8 Average

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:EVMagnitude:AVERage
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:EVMagnitude:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:EVMagnitude:AVERage
```

**class AverageCls**

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: No parameter help available
- Low: List[enums.ResultStatus2]: No parameter help available
- High: List[enums.ResultStatus2]: No parameter help available

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: EVM value for low EVM window position.
- High: List[float]: EVM value for high EVM window position.

**calculate**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation[:CC<no>][:LAYer<layer>
↪]:EVMagnitude:AVERage
value: CalculateStruct = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.
↪average.calculate(carrierComponent = repcap.CarrierComponent.Default, layer =
↪repcap.Layer.Default)
```

No command help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation[:CC<no>][:LAYer<layer>
↪]:EVMagnitude:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.average.
↪fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↪Layer.Default)
```

Returns the values of the EVM RMS diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, { <Low>, <High> }symbol 0, { <Low>, <High> }symbol 1, ... See also 'Square EVM'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEValuation[:CC<no>][:LAYer<layer>
↪]:EVMagnitude:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.average.
↪read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↪Default)
```

Returns the values of the EVM RMS diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Square EVM'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.2.1.9 Current

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:EVMagnitude:CURRENT
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:EVMagnitude:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:EVMagnitude:CURRENT
```

#### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Low: List[enums.ResultStatus2]: No parameter help available
- High: List[enums.ResultStatus2]: No parameter help available

##### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: EVM value for low EVM window position.
- High: List[float]: EVM value for high EVM window position.

**calculate**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:EVMagnitude:CURRENT
value: CalculateStruct = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.
↳current.calculate(carrierComponent = repcap.CarrierComponent.Default, layer =
↳repcap.Layer.Default)
```

No command help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳:EVMagnitude:CURRENT
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.current.
↳fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

Returns the values of the EVM RMS diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Square EVM'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳:EVMagnitude:CURRENT
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.current.
↳read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↳Default)
```

Returns the values of the EVM RMS diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Square EVM'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.2.1.10 Maximum

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:EVMagnitude:MAXimum
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:EVMagnitude:MAXimum
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:EVMagnitude:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Low: List[enums.ResultStatus2]: No parameter help available
- High: List[enums.ResultStatus2]: No parameter help available

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: EVM value for low EVM window position.
- High: List[float]: EVM value for high EVM window position.

**calculate**(*carrierComponent=CarrierComponent.Default, layer=Layer.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:EVMagnitude:MAXimum
value: CalculateStruct = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.
↳maximum.calculate(carrierComponent = repcap.CarrierComponent.Default, layer =
↳repcap.Layer.Default)
```

No command help available

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### param layer

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*carrierComponent=CarrierComponent.Default, layer=Layer.Default*) → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:EVMagnitude:MAXimum
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.maximum.
↳fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

Returns the values of the EVM RMS diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Square EVM'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(carrierComponent=CarrierComponent.Default, layer=Layer.Default) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳:EVMagnitude:MAXimum
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.maximum.
↳read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↳Default)
```

Returns the values of the EVM RMS diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Square EVM'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.1.2.1.11 Peak

##### class PeakCls

Peak commands group definition. 6 total commands, 3 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.peak.clone()
```



## Subgroups

### 6.2.1.2.1.12 Average

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:EVMagnitude:PEAK:AVERage
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:EVMagnitude:PEAK:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

##### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: EVM value for low EVM window position.
- High: List[float]: EVM value for high EVM window position.

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:EVMagnitude:PEAK:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.peak.
↳average.fetch(carrierComponent = repcap.CarrierComponent.Default, layer =
↳repcap.Layer.Default)
```

Returns the values of the EVM peak diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Square EVM'.

##### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

##### param layer

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

##### return

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:EVMagnitude:PEAK:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.peak.
↳average.read(carrierComponent = repcap.CarrierComponent.Default, layer =
↳repcap.Layer.Default)
```

Returns the values of the EVM peak diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Square EVM'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**6.2.1.2.1.13 Current****SCPI Commands :**

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:EVMagnitude:PEAK:CURRent
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:EVMagnitude:PEAK:CURRent
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: EVM value for low EVM window position.
- High: List[float]: EVM value for high EVM window position.

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:EVMagnitude:PEAK:CURRent
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.peak.
↪current.fetch(carrierComponent = repcap.CarrierComponent.Default, layer =
↪repcap.Layer.Default)
```

Returns the values of the EVM peak diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, { <Low>, <High> }symbol 0, { <Low>, <High> }symbol 1, ... See also 'Square EVM'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:EVMagnitude:PEAK:CURRent
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.peak.
↳current.read(carrierComponent = repcap.CarrierComponent.Default, layer =
↳repcap.Layer.Default)
```

Returns the values of the EVM peak diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Square EVM'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.1.2.1.14 Maximum

##### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:EVMagnitude:PEAK:MAXimum
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:EVMagnitude:PEAK:MAXimum
```

##### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

##### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: EVM value for low EVM window position.
- High: List[float]: EVM value for high EVM window position.

**fetch**(carrierComponent=CarrierComponent.Default, layer=Layer.Default) → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:EVMagnitude:PEAK:MAXimum
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.peak.
↳maximum.fetch(carrierComponent = repcap.CarrierComponent.Default, layer =
↳repcap.Layer.Default)
```

Returns the values of the EVM peak diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Square EVM'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:EVMagnitude:PEAK:MAXimum
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.evMagnitude.peak.
↳maximum.read(carrierComponent = repcap.CarrierComponent.Default, layer =
↳repcap.Layer.Default)
```

Returns the values of the EVM peak diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Square EVM'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.1.2.1.15 Iemission

**class IemissionCls**

Iemission commands group definition. 8 total commands, 1 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.iemission.clone()
```

##### Subgroups

#### 6.2.1.2.1.16 Margin

**class MarginCls**

Margin commands group definition. 8 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.iemission.margin.clone()
```

## Subgroups

### 6.2.1.2.1.17 Average

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:IEMission:MARGIN:AVERage
```

#### class AverageCls

Average commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- General: float: Margin over all non-allocated RBs (scope of general limit component)
- Iq\_Image: float: Margin at image frequencies of allocated RBs (scope of I/Q image limit component)
- Carr\_Leakage: float: Margin at the carrier frequency (scope of I/Q offset limit component)

**fetch**(carrierComponent=CarrierComponent.Default, layer=Layer.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:IEMission:MARGIN:AVERage
value: FetchStruct = driver.nrMmwMeas.multiEval.cc.layer.iemission.margin.
↳average.fetch(carrierComponent = repcap.CarrierComponent.Default, layer =
↳repcap.Layer.Default)
```

Return the limit line margin results for carrier <no>. The CURRENT margin indicates the minimum (vertical) distance between the in-band emissions limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReMe and SDEViation values are calculated from the current margins. The margin results cannot be displayed at the GUI.

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### param layer

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.2.1.18 Current

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:IEMission:MARGIN:CURRENT
```

#### class CurrentCls

Current commands group definition. 3 total commands, 2 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- General: float: Margin over all non-allocated RBs (scope of general limit component)
- Iq\_Image: float: Margin at image frequencies of allocated RBs (scope of I/Q image limit component)
- Carr\_Leakage: float: Margin at the carrier frequency (scope of I/Q offset limit component)

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:IEMission:MARGIN:CURRENT
value: FetchStruct = driver.nrMmwMeas.multiEval.cc.layer.iemission.margin.
↳current.fetch(carrierComponent = repcap.CarrierComponent.Default, layer =
↳repcap.Layer.Default)
```

Return the limit line margin results for carrier <no>. The CURRENT margin indicates the minimum (vertical) distance between the in-band emissions limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERAGE, EXTREME and SDEViation values are calculated from the current margins. The margin results cannot be displayed at the GUI.

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### param layer

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.iemission.margin.current.clone()
```

## Subgroups

### 6.2.1.2.1.19 Power

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:IEMission:MARGIN:CURRent:POWer
```

#### class PowerCls

Power commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- General: float: In-band emission value for the general margin (at non-allocated RBs)
- Iq\_Image: float: In-band emission value for the I/Q image margin (at image frequencies of allocated RBs)
- Carr\_Leakage: float: In-band emission value for the carrier leakage margin (at carrier frequency)

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:IEMission:MARGIN:CURRent:POWer
value: FetchStruct = driver.nrMmwMeas.multiEval.cc.layer.iemission.margin.
↳current.power.fetch(carrierComponent = repcap.CarrierComponent.Default, layer_
↳= repcap.Layer.Default)
```

Return the in-band emission trace values at the limit line margin positions for carrier <no>.

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### param layer

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.2.1.20 RbIndex

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:IEMission:MARGIN:CURRent:RBIndex
```

#### class RbIndexCls

RbIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- General: int: Resource block index for the general margin (at non-allocated RBs)
- Iq\_Image: int: Resource block index for the I/Q image margin (at image frequencies of allocated RBs)
- Carr\_Leakage: int: Resource block index for the carrier leakage margin (at carrier frequency)

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:IEMission:MARGIN:CURRent:RBIndex
value: FetchStruct = driver.nrMmwMeas.multiEval.cc.layer.iemission.margin.
↪current.rbIndex.fetch(carrierComponent = repcap.CarrierComponent.Default,
↪layer = repcap.Layer.Default)
```

Return resource block indices for in-band emission margins for carrier <no>. At these RB indices, the CURRent and EXTReme margins have been detected (see method RsCMPX\_NrFr2Meas.NrMmwMeas.MultiEval.Cc.Layer.Iemission.Margin.Current.fetch and ..:EXTReme).

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.1.2.1.21 Extreme****SCPI Command :**

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:IEMission:MARGIN:EXTReme
```

**class ExtremeCls**

Extreme commands group definition. 3 total commands, 2 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- General: float: Margin over all non-allocated RBs (scope of general limit component)
- Iq\_Image: float: Margin at image frequencies of allocated RBs (scope of I/Q image limit component)



- Carr\_Leakage: float: Margin at the carrier frequency (scope of I/Q offset limit component)

**fetch**(carrierComponent=CarrierComponent.Default, layer=Layer.Default) → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation[:CC<no>][:LAYer<layer>
↪]:IEMission:MARGin:EXTReme
value: FetchStruct = driver.nrMmwMeas.multiEval.cc.layer.iemission.margin.
↪extreme.fetch(carrierComponent = repcap.CarrierComponent.Default, layer = ↪
↪repcap.Layer.Default)
```

Return the limit line margin results for carrier <no>. The CURRENT margin indicates the minimum (vertical) distance between the in-band emissions limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReme and SDEViation values are calculated from the current margins. The margin results cannot be displayed at the GUI.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Layer’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.iemission.margin.extreme.clone()
```

## Subgroups

### 6.2.1.2.1.22 Power

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation[:CC<no>][:LAYer<layer>
↪]:IEMission:MARGin:EXTReme:POWer
```

#### class PowerCls

Power commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- General: float: In-band emission value for the general margin (at non-allocated RBs)
- Iq\_Image: float: In-band emission value for the I/Q image margin (at image frequencies of allocated RBs)
- Carr\_Leakage: float: In-band emission value for the carrier leakage margin (at carrier frequency)

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → *FetchStruct*

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:IEMISSION:MARGIN:EXTreme:POWer
value: FetchStruct = driver.nrMmwMeas.multiEval.cc.layer.iemission.margin.
↪extreme.power.fetch(carrierComponent = repcap.CarrierComponent.Default, layer_
↪= repcap.Layer.Default)
```

Return the in-band emission trace values at the limit line margin positions for carrier <no>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Layer’)

**return**

structure: for return value, see the help for *FetchStruct* structure arguments.

### 6.2.1.2.1.23 RbIndex

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:IEMISSION:MARGIN:EXTreme:RBIndex
```

#### class RbIndexCls

RbIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- General: int: Resource block index for the general margin (at non-allocated RBs)
- Iq\_Image: int: Resource block index for the I/Q image margin (at image frequencies of allocated RBs)
- Carr\_Leakage: int: Resource block index for the carrier leakage margin (at carrier frequency)

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → *FetchStruct*

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:IEMISSION:MARGIN:EXTreme:RBIndex
value: FetchStruct = driver.nrMmwMeas.multiEval.cc.layer.iemission.margin.
↪extreme.rbIndex.fetch(carrierComponent = repcap.CarrierComponent.Default,
↪layer = repcap.Layer.Default)
```

Return resource block indices for in-band emission margins for carrier <no>. At these RB indices, the CURRENT and EXTreme margins have been detected (see method *RsCMPX\_NrFr2Meas.NrMmwMeas.MultiEval.Cc.Layer.Iemission.Margin.Current.fetch* and .. *EXTreme*).

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.1.2.1.24 StandardDev****SCPI Command :**

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:IEMission:MARGin:SDEVIation
```

**class StandardDevCls**

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- General: float: Margin over all non-allocated RBs (scope of general limit component)
- Iq\_Image: float: Margin at image frequencies of allocated RBs (scope of I/Q image limit component)
- Carr\_Leakage: float: Margin at the carrier frequency (scope of I/Q offset limit component)

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:IEMission:MARGin:SDEVIation
value: FetchStruct = driver.nrMmwMeas.multiEval.cc.layer.iemission.margin.
↪standardDev.fetch(carrierComponent = repcap.CarrierComponent.Default, layer =
↪repcap.Layer.Default)
```

Return the limit line margin results for carrier <no>. The CURRENT margin indicates the minimum (vertical) distance between the in-band emissions limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReMe and SDEVIation values are calculated from the current margins. The margin results cannot be displayed at the GUI.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.2.1.25 Merror

#### class MerrorCls

Merror commands group definition. 9 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.merror.clone()
```

### Subgroups

### 6.2.1.2.1.26 Average

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:MERRor:AVERage
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:MERRor:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:MERRor:AVERage
```

#### class AverageCls

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Low: List[enums.ResultStatus2]: No parameter help available
- High: List[enums.ResultStatus2]: No parameter help available

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: Magnitude error value for low EVM window position.
- High: List[float]: Magnitude error value for high EVM window position.

**calculate**(carrierComponent=CarrierComponent.Default, layer=Layer.Default) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↪]:MERRor:AVERage
value: CalculateStruct = driver.nrMmwMeas.multiEval.cc.layer.merror.average.
↪calculate(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↪Layer.Default)
```

No command help available

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳:MERRor:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.merror.average.
↳fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

Returns the values of the magnitude error diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of magnitude error values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Squares Magnitude Error, Phase Error'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳:MERRor:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.merror.average.
↳read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↳Default)
```

Returns the values of the magnitude error diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of magnitude error values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Squares Magnitude Error, Phase Error'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

## 6.2.1.2.1.27 Current

## SCPI Commands :

```

READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:MERRor:CURRent
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:MERRor:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:MERRor:CURRent

```

**class CurrentCls**

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: No parameter help available
- Low: List[enums.ResultStatus2]: No parameter help available
- High: List[enums.ResultStatus2]: No parameter help available

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: Magnitude error value for low EVM window position.
- High: List[float]: Magnitude error value for high EVM window position.

**calculate**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → CalculateStruct

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↪:MERRor:CURRent
value: CalculateStruct = driver.nrMmwMeas.multiEval.cc.layer.merror.current.
↪calculate(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↪Layer.Default)

```

No command help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```

# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↪:MERRor:CURRent
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.merror.current.
↪fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↪Layer.Default)

```

Returns the values of the magnitude error diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one

pair of magnitude error values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Squares Magnitude Error, Phase Error'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(carrierComponent=CarrierComponent.Default, layer=Layer.Default) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳:MERRor:CURRent
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.merror.current.
↳read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↳Default)
```

Returns the values of the magnitude error diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of magnitude error values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Squares Magnitude Error, Phase Error'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.1.2.1.28 Maximum

##### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:MERRor:MAXimum
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:MERRor:MAXimum
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:MERRor:MAXimum
```

##### class MaximumCls

Maximum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Low: List[enums.ResultStatus2]: No parameter help available
- High: List[enums.ResultStatus2]: No parameter help available

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: Magnitude error value for low EVM window position.
- High: List[float]: Magnitude error value for high EVM window position.

**calculate**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:MERRor:MAXimum
value: CalculateStruct = driver.nrMmwMeas.multiEval.cc.layer.merror.maximum.
↳calculate(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

No command help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:MERRor:MAXimum
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.merror.maximum.
↳fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

Returns the values of the magnitude error diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of magnitude error values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Squares Magnitude Error, Phase Error'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:MERRor:MAXimum
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.merror.maximum.
↳read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↳Default)
```



Returns the values of the magnitude error diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of magnitude error values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Squares Magnitude Error, Phase Error'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.2.1.29 Modulation

**class ModulationCls**

Modulation commands group definition. 11 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.modulation.clone()
```

#### Subgroups

### 6.2.1.2.1.30 Average

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:MODulation:AVERage
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:MODulation:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:MODulation:AVERage
```

**class AverageCls**

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**class CalculateStruct**

Response structure. Fields:

- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Evm\_Rms\_Low: float or bool: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float or bool: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float or bool: EVM peak value, low EVM window position
- Evm\_Peak\_High: float or bool: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float or bool: Magnitude error RMS value, low EVM window position

- Mag\_Error\_Rms\_High: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float or bool: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float or bool: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float or bool: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float or bool: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float or bool: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float or bool: Phase error peak value, high EVM window position
- Iq\_Offset: float or bool: I/Q origin offset
- Frequency\_Error: float or bool: Carrier frequency error
- Sample\_Clock\_Err: float or bool: No parameter help available
- Timing\_Error: float or bool: Time error
- Tx\_Power: float or bool: User equipment power
- Peak\_Power: float or bool: User equipment peak power
- Psd: float or bool: No parameter help available
- Evm\_Dmrs\_Low: float or bool: EVM DMRS value, low EVM window position
- Evm\_Dmrs\_High: float or bool: EVM DMRS value, high EVM window position
- Mag\_Err\_Dmrs\_Low: float or bool: Magnitude error DMRS value, low EVM window position
- Mag\_Err\_Dmrs\_High: float or bool: Magnitude error DMRS value, high EVM window position
- Ph\_Error\_Dmrs\_Low: float or bool: Phase error DMRS value, low EVM window position
- Ph\_Error\_Dmrs\_High: float or bool: Phase error DMRS value, high EVM window position
- Freq\_Err\_Ppm: float or bool: Carrier frequency error in ppm
- Iq\_Imbalance: float or bool: I/Q gain imbalance
- Iq\_Quadrature\_Err: float or bool: No parameter help available
- Antenna\_1\_Pow: float or bool: Power at RX antenna 1
- Antenna\_2\_Pow: float or bool: Power at RX antenna 2

**class ResultData**

Response structure. Fields:

- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Evm\_Rms\_Low: float: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float: EVM peak value, low EVM window position
- Evm\_Peak\_High: float: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float: Magnitude error peak value, high EVM window position

- Ph\_Error\_Rms\_Low: float: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float: Phase error peak value, high EVM window position
- Iq\_Offset: float: I/Q origin offset
- Frequency\_Error: float: Carrier frequency error
- Sample\_Clock\_Err: float: No parameter help available
- Timing\_Error: float: Time error
- Tx\_Power: float: User equipment power
- Peak\_Power: float: User equipment peak power
- Psd: float: No parameter help available
- Evm\_Dmrs\_Low: float: EVM DMRS value, low EVM window position
- Evm\_Dmrs\_High: float: EVM DMRS value, high EVM window position
- Mag\_Err\_Dmrs\_Low: float: Magnitude error DMRS value, low EVM window position
- Mag\_Err\_Dmrs\_High: float: Magnitude error DMRS value, high EVM window position
- Ph\_Error\_Dmrs\_Low: float: Phase error DMRS value, low EVM window position
- Ph\_Error\_Dmrs\_High: float: Phase error DMRS value, high EVM window position
- Freq\_Err\_Ppm: float: Carrier frequency error in ppm
- Iq\_Imbalance: float: I/Q gain imbalance
- Iq\_Quadrature\_Err: float: No parameter help available
- Antenna\_1\_Pow: float: Power at RX antenna 1
- Antenna\_2\_Pow: float: Power at RX antenna 2

**calculate**(*carrierComponent=CarrierComponent.Default, layer=Layer.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳ :MODulation:AVERage
value: CalculateStruct = driver.nrMmwMeas.multiEval.cc.layer.modulation.average.
↳ calculate(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳ Layer.Default)
```

Return the current, average and standard deviation single value results for carrier <no>, layer <l>. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:MODulation:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.modulation.average.
↪fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↪Layer.Default)
```

Return the current, average and standard deviation single value results for carrier <no>, layer <l>. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Layer’)

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:MODulation:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.modulation.average.
↪read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↪Default)
```

Return the current, average and standard deviation single value results for carrier <no>, layer <l>. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Layer’)

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.2.1.31 Current

#### SCPI Commands :

```

READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:MODulation:CURRent
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:MODulation:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↪]:MODulation:CURRent

```

#### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Evm\_Rms\_Low: float or bool: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float or bool: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float or bool: EVM peak value, low EVM window position
- Evm\_Peak\_High: float or bool: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float or bool: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float or bool: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float or bool: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float or bool: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float or bool: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float or bool: Phase error peak value, high EVM window position
- Iq\_Offset: float or bool: I/Q origin offset
- Frequency\_Error: float or bool: Carrier frequency error
- Sample\_Clock\_Err: float or bool: No parameter help available
- Timing\_Error: float or bool: Time error
- Tx\_Power: float or bool: User equipment power
- Peak\_Power: float or bool: User equipment peak power
- Psd: float or bool: No parameter help available
- Evm\_Dmrs\_Low: float or bool: EVM DMRS value, low EVM window position
- Evm\_Dmrs\_High: float or bool: EVM DMRS value, high EVM window position
- Mag\_Err\_Dmrs\_Low: float or bool: Magnitude error DMRS value, low EVM window position
- Mag\_Err\_Dmrs\_High: float or bool: Magnitude error DMRS value, high EVM window position
- Ph\_Error\_Dmrs\_Low: float or bool: Phase error DMRS value, low EVM window position

- Ph\_Error\_Dmrs\_High: float or bool: Phase error DMRS value, high EVM window position
- Freq\_Err\_Ppm: float or bool: Carrier frequency error in ppm
- Iq\_Imbalance: float or bool: I/Q gain imbalance
- Iq\_Quadrature\_Err: float or bool: No parameter help available
- Antenna\_1\_Pow: float or bool: Power at RX antenna 1
- Antenna\_2\_Pow: float or bool: Power at RX antenna 2

**class ResultData**

Response structure. Fields:

- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Evm\_Rms\_Low: float: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float: EVM peak value, low EVM window position
- Evm\_Peak\_High: float: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float: Phase error peak value, high EVM window position
- Iq\_Offset: float: I/Q origin offset
- Frequency\_Error: float: Carrier frequency error
- Sample\_Clock\_Err: float: No parameter help available
- Timing\_Error: float: Time error
- Tx\_Power: float: User equipment power
- Peak\_Power: float: User equipment peak power
- Psd: float: No parameter help available
- Evm\_Dmrs\_Low: float: EVM DMRS value, low EVM window position
- Evm\_Dmrs\_High: float: EVM DMRS value, high EVM window position
- Mag\_Err\_Dmrs\_Low: float: Magnitude error DMRS value, low EVM window position
- Mag\_Err\_Dmrs\_High: float: Magnitude error DMRS value, high EVM window position
- Ph\_Error\_Dmrs\_Low: float: Phase error DMRS value, low EVM window position
- Ph\_Error\_Dmrs\_High: float: Phase error DMRS value, high EVM window position
- Freq\_Err\_Ppm: float: Carrier frequency error in ppm
- Iq\_Imbalance: float: I/Q gain imbalance

- Iq\_Quadrature\_Err: float: No parameter help available
- Antenna\_1\_Pow: float: Power at RX antenna 1
- Antenna\_2\_Pow: float: Power at RX antenna 2

**calculate**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳:MODulation:CURRENT
value: CalculateStruct = driver.nrMmwMeas.multiEval.cc.layer.modulation.current.
↳calculate(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

Return the current, average and standard deviation single value results for carrier <no>, layer <l>. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳:MODulation:CURRENT
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.modulation.current.
↳fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

Return the current, average and standard deviation single value results for carrier <no>, layer <l>. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳:MODulation:CURRENT
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.modulation.current.
```

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```
↪ read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.  
↪ Default)
```

Return the current, average and standard deviation single value results for carrier <no>, layer <l>. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Layer’)

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.2.1.32 Extreme

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:MODulation:EXTreme  
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:MODulation:EXTreme  
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>  
↪]:MODulation:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Evm\_Rms\_Low: float or bool: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float or bool: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float or bool: EVM peak value, low EVM window position
- Evm\_Peak\_High: float or bool: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float or bool: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float or bool: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float or bool: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float or bool: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float or bool: Phase error peak value, low EVM window position



- Ph\_Error\_Peak\_High: float or bool: Phase error peak value, high EVM window position
- Iq\_Offset: float or bool: I/Q origin offset
- Frequency\_Error: float or bool: Carrier frequency error
- Sample\_Clock\_Err: float or bool: No parameter help available
- Timing\_Error: float or bool: Time error
- Tx\_Power\_Min: float or bool: Minimum user equipment power
- Tx\_Power\_Max: float or bool: Maximum user equipment power
- Peak\_Power\_Min: float or bool: Minimum user equipment peak power
- Peak\_Power\_Max: float or bool: Maximum user equipment peak power
- Psd\_Min: float or bool: No parameter help available
- Psd\_Max: float or bool: No parameter help available
- Evm\_Dmrs\_Low: float or bool: EVM DMRS value, low EVM window position
- Evm\_Dmrs\_High: float or bool: EVM DMRS value, high EVM window position
- Mag\_Err\_Dmrs\_Low: float or bool: Magnitude error DMRS value, low EVM window position
- Mag\_Err\_Dmrs\_High: float or bool: Magnitude error DMRS value, high EVM window position
- Ph\_Error\_Dmrs\_Low: float or bool: Phase error DMRS value, low EVM window position
- Ph\_Error\_Dmrs\_High: float or bool: Phase error DMRS value, high EVM window position
- Freq\_Err\_Ppm: float or bool: Carrier frequency error in ppm
- Iq\_Imbalance: float or bool: I/Q gain imbalance
- Iq\_Quadrature\_Err: float or bool: No parameter help available
- Ant\_1\_Pow\_Min: float or bool: Minimum power at RX antenna 1
- Ant\_1\_Pow\_Max: float or bool: Maximum power at RX antenna 1
- Ant\_2\_Pow\_Min: float or bool: Minimum power at RX antenna 2
- Ant\_2\_Pow\_Max: float or bool: Maximum power at RX antenna 2

#### **class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Evm\_Rms\_Low: float: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float: EVM peak value, low EVM window position
- Evm\_Peak\_High: float: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float: Magnitude error peak value, high EVM window position

- Ph\_Error\_Rms\_Low: float: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float: Phase error peak value, high EVM window position
- Iq\_Offset: float: I/Q origin offset
- Frequency\_Error: float: Carrier frequency error
- Sample\_Clock\_Err: float: No parameter help available
- Timing\_Error: float: Time error
- Tx\_Power\_Min: float: Minimum user equipment power
- Tx\_Power\_Max: float: Maximum user equipment power
- Peak\_Power\_Min: float: Minimum user equipment peak power
- Peak\_Power\_Max: float: Maximum user equipment peak power
- Psd\_Min: float: No parameter help available
- Psd\_Max: float: No parameter help available
- Evm\_Dmrs\_Low: float: EVM DMRS value, low EVM window position
- Evm\_Dmrs\_High: float: EVM DMRS value, high EVM window position
- Mag\_Err\_Dmrs\_Low: float: Magnitude error DMRS value, low EVM window position
- Mag\_Err\_Dmrs\_High: float: Magnitude error DMRS value, high EVM window position
- Ph\_Error\_Dmrs\_Low: float: Phase error DMRS value, low EVM window position
- Ph\_Error\_Dmrs\_High: float: Phase error DMRS value, high EVM window position
- Freq\_Err\_Ppm: float: Carrier frequency error in ppm
- Iq\_Imbalance: float: I/Q gain imbalance
- Iq\_Quadrature\_Err: float: No parameter help available
- Ant\_1\_Pow\_Min: float: Minimum power at RX antenna 1
- Ant\_1\_Pow\_Max: float: Maximum power at RX antenna 1
- Ant\_2\_Pow\_Min: float: Minimum power at RX antenna 2
- Ant\_2\_Pow\_Max: float: Maximum power at RX antenna 2

**calculate**(carrierComponent=CarrierComponent.Default, layer=Layer.Default) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳ J:MODulation:EXTreme
value: CalculateStruct = driver.nrMmwMeas.multiEval.cc.layer.modulation.extreme.
↳ calculate(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳ Layer.Default)
```

Return the extreme single value results for carrier <no>, layer <l>. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → *ResultData*

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:MODulation:EXTreme
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.modulation.extreme.
↪fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↪Layer.Default)
```

Return the extreme single value results for carrier <no>, layer <l>. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → *ResultData*

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:MODulation:EXTreme
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.modulation.extreme.
↪read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↪Default)
```

Return the extreme single value results for carrier <no>, layer <l>. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.2.1.33 StandardDev

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>  
↪]:MODulation:SDEVIation  
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>  
↪]:MODulation:SDEVIation
```

#### class StandardDevCls

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Evm\_Rms\_Low: float: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float: EVM peak value, low EVM window position
- Evm\_Peak\_High: float: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float: Phase error peak value, high EVM window position
- Iq\_Offset: float: I/Q origin offset
- Frequency\_Error: float: Carrier frequency error
- Sample\_Clock\_Err: float: No parameter help available
- Timing\_Error: float: Time error
- Tx\_Power: float: User equipment power
- Peak\_Power: float: User equipment peak power
- Psd: float: No parameter help available
- Evm\_Dmrs\_Low: float: EVM DMRS value, low EVM window position
- Evm\_Dmrs\_High: float: EVM DMRS value, high EVM window position
- Mag\_Err\_Dmrs\_Low: float: Magnitude error DMRS value, low EVM window position
- Mag\_Err\_Dmrs\_High: float: Magnitude error DMRS value, high EVM window position
- Ph\_Error\_Dmrs\_Low: float: Phase error DMRS value, low EVM window position

- Ph\_Error\_Dmrs\_High: float: Phase error DMRS value, high EVM window position
- Freq\_Err\_Ppm: float: Carrier frequency error in ppm
- Iq\_Imbalance: float: I/Q gain imbalance
- Iq\_Quadrature\_Err: float: No parameter help available
- Antenna\_1\_Pow: float: Power at RX antenna 1
- Antenna\_2\_Pow: float: Power at RX antenna 2

**fetch**(*carrierComponent=CarrierComponent.Default, layer=Layer.Default*) → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:MODulation:SDEVIation
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.modulation.standardDev.
↪fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↪Layer.Default)
```

Return the current, average and standard deviation single value results for carrier <no>, layer <l>. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent=CarrierComponent.Default, layer=Layer.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:MODulation:SDEVIation
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.modulation.standardDev.
↪read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↪Default)
```

Return the current, average and standard deviation single value results for carrier <no>, layer <l>. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.1.2.1.34 Perror

##### class PerrorCls

Perror commands group definition. 9 total commands, 3 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.perror.clone()
```

#### Subgroups

#### 6.2.1.2.1.35 Average

##### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:PERRor:AVERage
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:PERRor:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:PERRor:AVERage
```

##### class AverageCls

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Low: List[enums.ResultStatus2]: No parameter help available
- High: List[enums.ResultStatus2]: No parameter help available

##### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: Phase error value for low EVM window position.
- High: List[float]: Phase error value for high EVM window position.

**calculate**(carrierComponent=CarrierComponent.Default, layer=Layer.Default) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↪]:PERRor:AVERage
value: CalculateStruct = driver.nrMmwMeas.multiEval.cc.layer.perror.average.
↪calculate(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↪Layer.Default)
```

No command help available

##### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*carrierComponent*=CarrierComponent.Default, *layer*=Layer.Default) → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳:PERRor:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.perror.average.
↳fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

Returns the values of the phase error diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of phase error values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Squares Magnitude Error, Phase Error'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=CarrierComponent.Default, *layer*=Layer.Default) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳:PERRor:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.perror.average.
↳read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↳Default)
```

Returns the values of the phase error diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of phase error values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Squares Magnitude Error, Phase Error'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

## 6.2.1.2.1.36 Current

## SCPI Commands :

```

READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:PERRor:CURRent
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:PERRor:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:PERRor:CURRent

```

**class CurrentCls**

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: No parameter help available
- Low: List[enums.ResultStatus2]: No parameter help available
- High: List[enums.ResultStatus2]: No parameter help available

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: Phase error value for low EVM window position.
- High: List[float]: Phase error value for high EVM window position.

**calculate**(*carrierComponent=CarrierComponent.Default, layer=Layer.Default*) → CalculateStruct

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↪:PERRor:CURRent
value: CalculateStruct = driver.nrMmwMeas.multiEval.cc.layer.perror.current.
↪calculate(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↪Layer.Default)

```

No command help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*carrierComponent=CarrierComponent.Default, layer=Layer.Default*) → ResultData

```

# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↪:PERRor:CURRent
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.perror.current.
↪fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↪Layer.Default)

```

Returns the values of the phase error diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is



one pair of phase error values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Squares Magnitude Error, Phase Error'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(carrierComponent=CarrierComponent.Default, layer=Layer.Default) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳:PERRor:CURRent
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.perror.current.
↳read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↳Default)
```

Returns the values of the phase error diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of phase error values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Squares Magnitude Error, Phase Error'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.2.1.37 Maximum

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:PERRor:MAXimum
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:PERRor:MAXimum
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:PERRor:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Low: List[enums.ResultStatus2]: No parameter help available
- High: List[enums.ResultStatus2]: No parameter help available

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: Phase error value for low EVM window position.
- High: List[float]: Phase error value for high EVM window position.

**calculate**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:PERRor:MAXimum
value: CalculateStruct = driver.nrMmwMeas.multiEval.cc.layer.perror.maximum.
↳calculate(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

No command help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:PERRor:MAXimum
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.perror.maximum.
↳fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

Returns the values of the phase error diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of phase error values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Squares Magnitude Error, Phase Error'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:PERRor:MAXimum
value: ResultData = driver.nrMmwMeas.multiEval.cc.layer.perror.maximum.
↳read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↳Default)
```

Returns the values of the phase error diagrams for the OFDM symbols in the measured slot, for carrier <no>, layer <l>. The results of the current, average and maximum diagrams can be retrieved. There is one pair of phase error values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'Squares Magnitude Error, Phase Error'.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.2.1.38 Trace

#### class TraceCls

Trace commands group definition. 19 total commands, 5 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.trace.clone()
```

#### Subgroups

### 6.2.1.2.1.39 EsFlatness

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:TRACe:ESFLatness
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:TRACe:ESFLatness
```

#### class EsFlatnessCls

EsFlatness commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch**(carrierComponent=CarrierComponent.Default, layer=Layer.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳[:TRACe:ESFLatness
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.esFlatness.
↳fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

Returns the values of the equalizer spectrum flatness trace for carrier <no>, layer <l>. See also 'Square Equalizer Spectrum Flatness'.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

power: Comma-separated list of power values, one value per subcarrier For not allocated subcarriers, NCAP is returned.

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳[:TRACe:ESFLatness]
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.esFlatness.
↳read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↳Default)
```

Returns the values of the equalizer spectrum flatness trace for carrier <no>, layer <l>. See also 'Square Equalizer Spectrum Flatness'.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

power: Comma-separated list of power values, one value per subcarrier For not allocated subcarriers, NCAP is returned.

### 6.2.1.2.1.40 Evmc

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:TRACe:EVMC
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:TRACe:EVMC
```

**class EvmcCls**

Evmc commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳[:TRACe:EVMC]
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.evmc.
↳fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

Returns the values of the EVM vs subcarrier trace for carrier <no>, layer <l>. See also 'Square EVM vs Subcarrier'.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

ratio: Comma-separated list of EVM values, one value per subcarrier For not allocated subcarriers, NCAP is returned.

**read**(*carrierComponent=CarrierComponent.Default, layer=Layer.Default*) → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:TRACe:EVMC
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.evmc.
↳read(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.Layer.
↳Default)
```

Returns the values of the EVM vs subcarrier trace for carrier <no>, layer <l>. See also 'Square EVM vs Subcarrier'.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

ratio: Comma-separated list of EVM values, one value per subcarrier For not allocated subcarriers, NCAP is returned.

**6.2.1.2.1.41 EvmSymbol****class EvmSymbolCls**

EvmSymbol commands group definition. 6 total commands, 3 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.trace.evmSymbol.clone()
```

**Subgroups****6.2.1.2.1.42 Average****SCPI Commands :**

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:TRACe:EVMSymbol:AVERage
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:TRACe:EVMSymbol:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:EVMSymbol:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.evmSymbol.
↪average.fetch(carrierComponent = repcap.CarrierComponent.Default, layer =
↪repcap.Layer.Default)
```

Returns the values of the EVM vs modulation symbol trace for carrier <no>, layer <l>. See also ‘Square EVM’. To select the scope of the trace, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Modulation.EvmSymbol.set.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Layer’)

**return**

ratio: Comma-separated list of EVM values, one value per modulation symbol

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:EVMSymbol:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.evmSymbol.
↪average.read(carrierComponent = repcap.CarrierComponent.Default, layer =
↪repcap.Layer.Default)
```

Returns the values of the EVM vs modulation symbol trace for carrier <no>, layer <l>. See also ‘Square EVM’. To select the scope of the trace, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Modulation.EvmSymbol.set.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Layer’)

**return**

ratio: Comma-separated list of EVM values, one value per modulation symbol

### 6.2.1.2.1.43 Current

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:TRACe:EVMSymbol:CURRent
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:TRACe:EVMSymbol:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch**(*carrierComponent*=CarrierComponent.Default, *layer*=Layer.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:TRACe:EVMSymbol:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.evmSymbol.
↳current.fetch(carrierComponent = repcap.CarrierComponent.Default, layer =
↳repcap.Layer.Default)
```

Returns the values of the EVM vs modulation symbol trace for carrier <no>, layer <l>. See also 'Square EVM'. To select the scope of the trace, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Modulation.EvmSymbol.set.

Suppressed linked return values: reliability

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### param layer

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

#### return

ratio: Comma-separated list of EVM values, one value per modulation symbol

**read**(*carrierComponent*=CarrierComponent.Default, *layer*=Layer.Default) → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:TRACe:EVMSymbol:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.evmSymbol.
↳current.read(carrierComponent = repcap.CarrierComponent.Default, layer =
↳repcap.Layer.Default)
```

Returns the values of the EVM vs modulation symbol trace for carrier <no>, layer <l>. See also 'Square EVM'. To select the scope of the trace, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Modulation.EvmSymbol.set.

Suppressed linked return values: reliability

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### param layer

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

ratio: Comma-separated list of EVM values, one value per modulation symbol

#### 6.2.1.2.1.44 Maximum

##### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:TRACe:EVMSymbol:MAXimum
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:TRACe:EVMSymbol:MAXimum
```

##### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:TRACe:EVMSymbol:MAXimum
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.evmSymbol.
↳maximum.fetch(carrierComponent = repcap.CarrierComponent.Default, layer =
↳repcap.Layer.Default)
```

Returns the values of the EVM vs modulation symbol trace for carrier <no>, layer <l>. See also ‘Square EVM’. To select the scope of the trace, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Modulation.EvmSymbol.set.

Suppressed linked return values: reliability

##### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

##### param layer

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Layer’)

##### return

ratio: Comma-separated list of EVM values, one value per modulation symbol

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↳]:TRACe:EVMSymbol:MAXimum
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.evmSymbol.
↳maximum.read(carrierComponent = repcap.CarrierComponent.Default, layer =
↳repcap.Layer.Default)
```

Returns the values of the EVM vs modulation symbol trace for carrier <no>, layer <l>. See also ‘Square EVM’. To select the scope of the trace, see method RsCMPX\_NrFr2Meas.Configure.NrMmwMeas.MultiEval.Modulation.EvmSymbol.set.

Suppressed linked return values: reliability

##### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)



**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

ratio: Comma-separated list of EVM values, one value per modulation symbol

**6.2.1.2.1.45 Iemissions****class IemissionsCls**

Iemissions commands group definition. 7 total commands, 3 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.trace.iemissions.clone()
```

**Subgroups****6.2.1.2.1.46 Average****SCPI Commands :**

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:IEmissions:AVERage
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:IEmissions:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch**(carrierComponent=CarrierComponent.Default, layer=Layer.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:IEmissions:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.iemissions.
↪average.fetch(carrierComponent = repcap.CarrierComponent.Default, layer =
↪repcap.Layer.Default)
```

Returns the values of the in-band emissions trace for carrier <no>. The current, average and maximum traces can be retrieved. See also 'Square Inband Emissions'.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

power: Comma-separated list of power values, one value per resource block

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:IEMissions:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.iemissions.
↪average.read(carrierComponent = repcap.CarrierComponent.Default, layer =
↪repcap.Layer.Default)
```

Returns the values of the in-band emissions trace for carrier <no>. The current, average and maximum traces can be retrieved. See also ‘Square Inband Emissions’.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Layer’)

**return**

power: Comma-separated list of power values, one value per resource block

#### 6.2.1.2.1.47 Current

##### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:IEMissions:CURRENT
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:IEMissions:CURRENT
```

##### class CurrentCls

Current commands group definition. 3 total commands, 1 Subgroups, 2 group commands

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:IEMissions:CURRENT
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.iemissions.
↪current.fetch(carrierComponent = repcap.CarrierComponent.Default, layer =
↪repcap.Layer.Default)
```

Returns the values of the in-band emissions trace for carrier <no>. The current, average and maximum traces can be retrieved. See also ‘Square Inband Emissions’.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Layer’)

**return**

power: Comma-separated list of power values, one value per resource block

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:IEMissions:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.iemissions.
↪current.read(carrierComponent = repcap.CarrierComponent.Default, layer =
↪repcap.Layer.Default)
```

Returns the values of the in-band emissions trace for carrier <no>. The current, average and maximum traces can be retrieved. See also ‘Square Inband Emissions’.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Layer’)

**return**

power: Comma-separated list of power values, one value per resource block

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.trace.iemissions.current.clone()
```

## Subgroups

### 6.2.1.2.1.48 Complete

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:IEMissions:CURRent:COMplete
```

#### class CompleteCls

Complete commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:IEMissions:CURRent:COMplete
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.iemissions.
↪current.complete.fetch(carrierComponent = repcap.CarrierComponent.Default,
↪layer = repcap.Layer.Default)
```

No command help available

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

power: No help available

**6.2.1.2.1.49 Maximum****SCPI Commands :**

```
READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:IEmissions:MAXimum
FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:IEmissions:MAXimum
```

**class MaximumCls**

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:IEmissions:MAXimum
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.iemissions.
↪maximum.fetch(carrierComponent = repcap.CarrierComponent.Default, layer =
↪repcap.Layer.Default)
```

Returns the values of the in-band emissions trace for carrier <no>. The current, average and maximum traces can be retrieved. See also 'Square Inband Emissions'.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

power: Comma-separated list of power values, one value per resource block

**read**(*carrierComponent*=*CarrierComponent.Default*, *layer*=*Layer.Default*) → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>
↪]:TRACe:IEmissions:MAXimum
value: List[float] = driver.nrMmwMeas.multiEval.cc.layer.trace.iemissions.
↪maximum.read(carrierComponent = repcap.CarrierComponent.Default, layer =
↪repcap.Layer.Default)
```

Returns the values of the in-band emissions trace for carrier <no>. The current, average and maximum traces can be retrieved. See also 'Square Inband Emissions'.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

power: Comma-separated list of power values, one value per resource block

**6.2.1.2.1.50 Iq****class IqCls**

Iq commands group definition. 2 total commands, 2 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.layer.trace.iq.clone()
```

**Subgroups****6.2.1.2.1.51 High****SCPI Command :**

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:TRACe:IQ:HIGH
```

**class HighCls**

High commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Iphase: List[float]: Normalized I amplitude
- Qphase: List[float]: Normalized Q amplitude

**fetch**(carrierComponent=CarrierComponent.Default, layer=Layer.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳:TRACe:IQ:HIGH
value: FetchStruct = driver.nrMmwMeas.multiEval.cc.layer.trace.iq.high.
↳fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

Returns the results in the I/Q constellation diagram for low and high EVM window position, for carrier <no>, layer <l>. There is one pair of values per modulation symbol. The results are returned in the following order: <Reliability>, {<Iphase>, <Qphase>}symbol 1, ..., {<Iphase>, <Qphase>}symbol n See also 'Square I/Q Constellation'

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.1.2.1.52 Low****SCPI Command :**

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]:TRACe:IQ:LOW
```

**class LowCls**

Low commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Iphase: List[float]: Normalized I amplitude
- Qphase: List[float]: Normalized Q amplitude

**fetch**(carrierComponent=CarrierComponent.Default, layer=Layer.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>][:LAYer<layer>]
↳]:TRACe:IQ:LOW
value: FetchStruct = driver.nrMmwMeas.multiEval.cc.layer.trace.iq.low.
↳fetch(carrierComponent = repcap.CarrierComponent.Default, layer = repcap.
↳Layer.Default)
```

Returns the results in the I/Q constellation diagram for low and high EVM window position, for carrier <no>, layer <l>. There is one pair of values per modulation symbol. The results are returned in the following order: <Reliability>, {<IPhase>, <QPhase>}symbol 1, ..., {<IPhase>, <QPhase>}symbol n See also 'Square I/Q Constellation'

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param layer**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Layer')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.2.2 Modulation

#### class ModulationCls

Modulation commands group definition. 3 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.cc.modulation.clone()
```

#### Subgroups

### 6.2.1.2.2.1 Dallocation

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>]:MODulation:DALlocation
```

#### class DallocationCls

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Nr\_Res\_Blocks: int: Number of allocated resource blocks
- Offset\_Res\_Blocks: int: Offset of the first allocated resource block from the edge of the bandwidth part

**fetch**(carrierComponent=CarrierComponent.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>]
↳:MODulation:DALlocation
value: FetchStruct = driver.nrMmwMeas.multiEval.cc.modulation.dallocation.
↳fetch(carrierComponent = repcap.CarrierComponent.Default)
```

Returns the allocation for the measured slot, for carrier <no>.

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.2.2.2 DchType

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>]:MODulation:DCHType
```

#### class DchTypeCls

DchType commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponent*=*CarrierComponent.Default*) → ChannelTypeA

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>]
↳]:MODulation:DCHType
value: enums.ChannelTypeA = driver.nrMmwMeas.multiEval.cc.modulation.dchType.
↳fetch(carrierComponent = repcap.CarrierComponent.Default)
```

Returns the channel type for the measured slot, for carrier <no>.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

channel\_type: No help available

### 6.2.1.2.2.3 Dmodulation

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>]:MODulation:DMODulation
```

#### class DmodulationCls

Dmodulation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponent*=*CarrierComponent.Default*) → ModScheme

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation[:CC<no>]
↳]:MODulation:DMODulation
value: enums.ModScheme = driver.nrMmwMeas.multiEval.cc.modulation.dmodulation.
↳fetch(carrierComponent = repcap.CarrierComponent.Default)
```

Returns the modulation scheme for the measured slot, for carrier <no>.

Suppressed linked return values: reliability

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

modulation: /2-BPSK, BPSK, QPSK, 16QAM, 64QAM, 256QAM



### 6.2.1.3 ListPy

#### class ListPyCls

ListPy commands group definition. 326 total commands, 7 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.clone()
```

#### Subgroups

### 6.2.1.3.1 Aclr

#### class AclrCls

Aclr commands group definition. 13 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.aclr.clone()
```

#### Subgroups

### 6.2.1.3.1.1 Dallocation

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:ACLR:DALlocation
```

#### class DallocationCls

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Nr\_Res\_Blocks: List[str]: No parameter help available
- Offset\_Res\_Blocks: List[str]: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:ACLR:DALlocation
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.aclr.dallocation.fetch()
```

No command help available

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.1.2 Nr

#### class NrCls

Nr commands group definition. 12 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.aclr.nr.clone()
```

### Subgroups

### 6.2.1.3.1.3 Average

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:ACLR:NR:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:ACLR:NR:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[ResultStatus2]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:ACLR:NR:AVERage
value: List[enums.ResultStatus2] = driver.nrMmwMeas.multiEval.listPy.aclr.nr.
↪ average.calculate()
```

Return the power in the allocated NR channel for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### **return**

carrier: Comma-separated list of values, one per measured segment

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:ACLR:NR:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.aclr.nr.average.fetch()
```

Return the power in the allocated NR channel for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### **return**

carrier: Comma-separated list of values, one per measured segment

### 6.2.1.3.1.4 Current

#### SCPI Commands :

```

FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:ACLR:NR:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:ACLR:NR:CURRent

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[ResultStatus2]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:ACLR:NR:CURRent
value: List[enums.ResultStatus2] = driver.nrMmwMeas.multiEval.listPy.aclr.nr.
    ↪current.calculate()

```

Return the power in the allocated NR channel for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### return

carrier: Comma-separated list of values, one per measured segment

**fetch()** → List[float]

```

# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:ACLR:NR:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.aclr.nr.current.fetch()

```

Return the power in the allocated NR channel for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### return

carrier: Comma-separated list of values, one per measured segment

### 6.2.1.3.1.5 Negativ

#### class NegativCls

Negativ commands group definition. 4 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```

# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.aclr.nr.negativ.clone()

```

## Subgroups

### 6.2.1.3.1.6 Average

#### SCPI Commands :

```

FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:ACLR:NR:NEGativ:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:ACLR:NR:NEGativ:AVERage

```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[ResultStatus2]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>
↪:MEValuation:LIST:ACLR:NR:NEGativ:AVERage
value: List[enums.ResultStatus2] = driver.nrMmwMeas.multiEval.listPy.aclr.nr.
↪negativ.average.calculate()

```

Return the ACLR for the first adjacent NR channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### return

nr\_negativ: Comma-separated list of values, one per measured segment

**fetch()** → List[float]

```

# SCPI: FETCh:NRMMw:MEASurement<Instance>
↪:MEValuation:LIST:ACLR:NR:NEGativ:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.aclr.nr.negative.average.
↪fetch()

```

Return the ACLR for the first adjacent NR channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### return

nr\_negativ: Comma-separated list of values, one per measured segment

### 6.2.1.3.1.7 Current

#### SCPI Commands :

```

FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:ACLR:NR:NEGativ:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:ACLR:NR:NEGativ:CURRent

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[ResultStatus2]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>
↳:MEValuation:LIST:ACLR:NR:NEGativ:CURRENT
value: List[enums.ResultStatus2] = driver.nrMmwMeas.multiEval.listPy.aclr.nr.
↳negativ.current.calculate()
```

Return the ACLR for the first adjacent NR channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**

nr\_negativ: Comma-separated list of values, one per measured segment

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>
↳:MEValuation:LIST:ACLR:NR:NEGativ:CURRENT
value: List[float] = driver.nrMmwMeas.multiEval.listPy.aclr.nr.negativ.current.
↳fetch()
```

Return the ACLR for the first adjacent NR channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**

nr\_negativ: Comma-separated list of values, one per measured segment

#### 6.2.1.3.1.8 Positiv

**class PositivCls**

Positiv commands group definition. 4 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.aclr.nr.positiv.clone()
```

#### Subgroups

#### 6.2.1.3.1.9 Average

**SCPI Commands :**

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:ACLR:NR:POSitiv:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:ACLR:NR:POSitiv:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[ResultStatus2]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>
↪:MEvaluation:LIST:ACLR:NR:POSitiv:AVERage
value: List[enums.ResultStatus2] = driver.nrMmwMeas.multiEval.listPy.aclr.nr.
↪positiv.average.calculate()
```

Return the ACLR for the first adjacent NR channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**

nr\_positiv: Comma-separated list of values, one per measured segment

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>
↪:MEvaluation:LIST:ACLR:NR:POSitiv:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.aclr.nr.positiv.average.
↪fetch()
```

Return the ACLR for the first adjacent NR channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**

nr\_positiv: Comma-separated list of values, one per measured segment

**6.2.1.3.1.10 Current****SCPI Commands :**

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST:ACLR:NR:POSitiv:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:ACLR:NR:POSitiv:CURRENT
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[ResultStatus2]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>
↪:MEvaluation:LIST:ACLR:NR:POSitiv:CURRENT
value: List[enums.ResultStatus2] = driver.nrMmwMeas.multiEval.listPy.aclr.nr.
↪positiv.current.calculate()
```

Return the ACLR for the first adjacent NR channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**

nr\_positiv: Comma-separated list of values, one per measured segment

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>
↪:MEvaluation:LIST:ACLR:NR:POSitiv:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.aclr.nr.positiv.current.
↪fetch()
```

Return the ACLR for the first adjacent NR channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**

nr\_positiv: Comma-separated list of values, one per measured segment

### 6.2.1.3.2 Cc<CarrierComponentExt>

#### RepCap Settings

```
# Range: Nr1 .. Nr32
rc = driver.nrMmwMeas.multiEval.listPy.cc.repcap_carrierComponentExt_get()
driver.nrMmwMeas.multiEval.listPy.cc.repcap_carrierComponentExt_set(repcap.
↪CarrierComponentExt.Nr1)
```

#### class CcCls

Cc commands group definition. 213 total commands, 3 Subgroups, 0 group commands Repeated Capability: CarrierComponentExt, default value after init: CarrierComponentExt.Nr1

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.clone()
```

#### Subgroups

### 6.2.1.3.2.1 EsFlatness

#### class EsFlatnessCls

EsFlatness commands group definition. 30 total commands, 5 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.clone()
```

## Subgroups

### 6.2.1.3.2.2 Difference<Difference>

## RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.difference.repcap_difference_get()
driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.difference.repcap_difference_set(repcap.
↳ Difference.Nr1)
```

### class DifferenceCls

Difference commands group definition. 7 total commands, 4 Subgroups, 0 group commands Repeated Capability: Difference, default value after init: Difference.Nr1

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.difference.clone()
```

## Subgroups

### 6.2.1.3.2.3 Average

## SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>]:ESFlatness:DIFFerence
↳<nr>:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:ESFlatness:DIFFerence<nr>:AVERage
```

### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default, difference=Difference.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:ESFlatness:DIFFerence<nr>:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.
↳ difference.average.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↳ Default, difference = repcap.Difference.Default)
```



Return equalizer spectrum flatness single value results (differences between ranges) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param difference**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Difference')

**return**

difference: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default, difference=Difference.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]
↳:ESFlatness:DIFFerence<nr>:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.difference.
↳average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,
↳difference = repcap.Difference.Default)
```

Return equalizer spectrum flatness single value results (differences between ranges) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param difference**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Difference')

**return**

difference: Comma-separated list of values, one per measured segment

#### 6.2.1.3.2.4 Current

##### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:DIFFerence
↳<nr>:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]
↳:ESFlatness:DIFFerence<nr>:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default, difference=Difference.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:ESFlatness:DIFFerence<nr>:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.
↳difference.current.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↳Default, difference = repcap.Difference.Default)
```

Return equalizer spectrum flatness single value results (differences between ranges) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param difference**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Difference')

**return**

difference: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default, difference=Difference.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:ESFlatness:DIFFerence<nr>:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.difference.
↳current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,
↳difference = repcap.Difference.Default)
```

Return equalizer spectrum flatness single value results (differences between ranges) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param difference**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Difference')

**return**

difference: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.5 Extreme

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>]:ESFlatness:DIFFerence
↳<nr>:EXTReMe
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:ESFlatness:DIFFerence<nr>:EXTReMe
```

**class ExtremeCls**

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt*=*CarrierComponentExt.Default*, *difference*=*Difference.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:ESFlatness:DIFFerence<nr>:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.
↪difference.extreme.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default, difference = repcap.Difference.Default)
```

Return equalizer spectrum flatness single value results (differences between ranges) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param difference**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Difference')

**return**

difference: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*, *difference*=*Difference.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:ESFlatness:DIFFerence<nr>:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.difference.
↪extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,
↪difference = repcap.Difference.Default)
```

Return equalizer spectrum flatness single value results (differences between ranges) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param difference**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Difference')

**return**

difference: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.6 StandardDev

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:DIFFerence
↳<nr>:SDEVIation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*, *difference*=*Difference.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:ESFlatness:DIFFerence<nr>:SDEVIation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.difference.
↳standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,
↳difference = repcap.Difference.Default)
```

Return equalizer spectrum flatness single value results (differences between ranges) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### param difference

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Difference')

#### return

difference: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.7 Maxr<MaxRange>

#### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.maxr.repcap_maxRange_get()
driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.maxr.repcap_maxRange_set(repcap.MaxRange.
↳Nr1)
```

#### class MaxrCls

Maxr commands group definition. 7 total commands, 4 Subgroups, 0 group commands Repeated Capability: MaxRange, default value after init: MaxRange.Nr1

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nRMmwMeas.multiEval.listPy.cc.esFlatness.maxr.clone()
```

## Subgroups

### 6.2.1.3.2.8 Average

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:MAXR<nr>
↳:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:MAXR<nr>
↳:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default, maxRange=MaxRange.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:ESFlatness:MAXR<nr>:AVERage
value: List[float or bool] = driver.nRMmwMeas.multiEval.listPy.cc.esFlatness.
↳maxr.average.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↳Default, maxRange = repcap.MaxRange.Default)
```

Return equalizer spectrum flatness single value results (maximum within a range) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### param maxRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maxr')

#### return

maxr: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default, maxRange=MaxRange.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:ESFlatness:MAXR<nr>:AVERage
value: List[float] = driver.nRMmwMeas.multiEval.listPy.cc.esFlatness.maxr.
↳average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,
↳maxRange = repcap.MaxRange.Default)
```

Return equalizer spectrum flatness single value results (maximum within a range) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param maxRange**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maxr')

**return**

maxr: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.9 Current

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>]:ESFlatness:MAXR<nr>
↪:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>]:ESFlatness:MAXR<nr>
↪:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt*=*CarrierComponentExt.Default*, *maxRange*=*MaxRange.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:ESFlatness:MAXR<nr>:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.
↪maxr.current.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default, maxRange = repcap.MaxRange.Default)
```

Return equalizer spectrum flatness single value results (maximum within a range) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param maxRange**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maxr')

**return**

maxr: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*, *maxRange*=*MaxRange.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]
↳]:ESFlatness:MAXR<nr>:CURRENT
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.maxr.
↳current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,
↳maxRange = repcap.MaxRange.Default)
```

Return equalizer spectrum flatness single value results (maximum within a range) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param maxRange**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maxr')

**return**

maxr: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.10 Extreme

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:MAXR<nr>
↳:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:MAXR<nr>
↳:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default, maxRange=MaxRange.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]
↳]:ESFlatness:MAXR<nr>:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.
↳maxr.extreme.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↳Default, maxRange = repcap.MaxRange.Default)
```

Return equalizer spectrum flatness single value results (maximum within a range) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param maxRange**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maxr')

**return**

maxr: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*, *maxRange*=*MaxRange.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]
↳]:ESFlatness:MAXR<nr>:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.maxr.
↳extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,↳
↳maxRange = repcap.MaxRange.Default)
```

Return equalizer spectrum flatness single value results (maximum within a range) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param maxRange**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maxr')

**return**

maxr: Comma-separated list of values, one per measured segment

**6.2.1.3.2.11 StandardDev****SCPI Command :**

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:MAXR<nr>
↳:SDEviation
```

**class StandardDevCls**

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*, *maxRange*=*MaxRange.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]
↳]:ESFlatness:MAXR<nr>:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.maxr.
↳standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,↳
↳maxRange = repcap.MaxRange.Default)
```

Return equalizer spectrum flatness single value results (maximum within a range) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')



**param maxRange**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maxr')

**return**

maxr: Comma-separated list of values, one per measured segment

**6.2.1.3.2.12 Minr<MinRange>****RepCap Settings**

```
# Range: Nr1 .. Nr2
rc = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.minr.repcap_minRange_get()
driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.minr.repcap_minRange_set(repcap.MinRange.
↳Nr1)
```

**class MinrCls**

Minr commands group definition. 7 total commands, 4 Subgroups, 0 group commands Repeated Capability: MinRange, default value after init: MinRange.Nr1

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.minr.clone()
```

**Subgroups****6.2.1.3.2.13 Average****SCPI Commands :**

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:MINR<nr>
↳:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:MINR<nr>
↳:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default, minRange=MinRange.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:ESFlatness:MINR<nr>:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.
↳minr.average.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↳Default, minRange = repcap.MinRange.Default)
```

Return equalizer spectrum flatness single value results (minimum within a range) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param minRange**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minr')

**return**

minr: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default, minRange=MinRange.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]
↳:ESFlatness:MINR<nr>:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.minr.
↳average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,
↳minRange = repcap.MinRange.Default)
```

Return equalizer spectrum flatness single value results (minimum within a range) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param minRange**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minr')

**return**

minr: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.14 Current

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:MINR<nr>
↳:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:MINR<nr>
↳:CURRENT
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default, minRange=MinRange.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:ESFlatness:MINR<nr>:CURRENT
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.
↳minr.current.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↳Default, minRange = repcap.MinRange.Default)
```

Return equalizer spectrum flatness single value results (minimum within a range) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param minRange**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minr')

**return**

minr: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default, minRange=MinRange.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:ESFlatness:MINR<nr>:CURRENT
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.minr.
↳current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,
↳minRange = repcap.MinRange.Default)
```

Return equalizer spectrum flatness single value results (minimum within a range) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param minRange**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minr')

**return**

minr: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.15 Extreme

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>]:ESFlatness:MINR<nr>
↳:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>]:ESFlatness:MINR<nr>
↳:EXTreme
```

**class ExtremeCls**

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt*=*CarrierComponentExt.Default*, *minRange*=*MinRange.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:ESFlatness:MINR<nr>:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.
↪minr.extreme.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default, minRange = repcap.MinRange.Default)
```

Return equalizer spectrum flatness single value results (minimum within a range) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param minRange**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minr')

**return**

minr: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*, *minRange*=*MinRange.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:ESFlatness:MINR<nr>:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.minr.
↪extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,
↪minRange = repcap.MinRange.Default)
```

Return equalizer spectrum flatness single value results (minimum within a range) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param minRange**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minr')

**return**

minr: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.16 StandardDev

#### SCPI Command :

```

FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:MINR<nr>
↳:SDEviation

```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*, *minRange*=*MinRange.Default*) → List[float]

```

# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:ESFlatness:MINR<nr>:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.minr.
↳standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,↳
↳minRange = repcap.MinRange.Default)

```

Return equalizer spectrum flatness single value results (minimum within a range) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### param minRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minr')

#### return

minr: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.17 Ripple<Ripple>

#### RepCap Settings

```

# Range: Nr1 .. Nr2
rc = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.ripple.repcap_ripple_get()
driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.ripple.repcap_ripple_set(repcap.Ripple.
↳Nr1)

```

#### class RippleCls

Ripple commands group definition. 7 total commands, 4 Subgroups, 0 group commands Repeated Capability: Ripple, default value after init: Ripple.Nr1

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nRMwMeas.multiEval.listPy.cc.esFlatness.ripple.clone()
```

## Subgroups

### 6.2.1.3.2.18 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>]:ESFlatness:RIPple<nr>
↳:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>]:ESFlatness:RIPple
↳<nr>:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default, ripple=Ripple.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:ESFlatness:RIPple<nr>:AVERage
value: List[float or bool] = driver.nRMwMeas.multiEval.listPy.cc.esFlatness.
↳ripple.average.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↳Default, ripple = repcap.Ripple.Default)
```

Return equalizer spectrum flatness single value results (ripple 1 or ripple 2) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### param ripple

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Ripple')

#### return

ripple: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default, ripple=Ripple.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:ESFlatness:RIPple<nr>:AVERage
value: List[float] = driver.nRMwMeas.multiEval.listPy.cc.esFlatness.ripple.
↳average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,
↳ripple = repcap.Ripple.Default)
```

Return equalizer spectrum flatness single value results (ripple 1 or ripple 2) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param ripple**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Ripple')

**return**

ripple: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.19 Current

#### SCPI Commands :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:RIPple<nr>
↪:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:RIPple
↪<nr>:CURRent

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default, ripple=Ripple.Default*) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]
↪[:ESFlatness:RIPple<nr>]:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.
↪ripple.current.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default, ripple = repcap.Ripple.Default)

```

Return equalizer spectrum flatness single value results (ripple 1 or ripple 2) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param ripple**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Ripple')

**return**

ripple: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default, ripple=Ripple.Default*) → List[float]

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]
↪[:ESFlatness:RIPple<nr>]:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.ripple.
↪current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,
↪ripple = repcap.Ripple.Default)

```

Return equalizer spectrum flatness single value results (ripple 1 or ripple 2) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param ripple**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Ripple’)

**return**

ripple: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.20 Extreme

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:RIPple<nr>
↳:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:ESFlatness:RIPple
↳<nr>:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default, ripple=Ripple.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:ESFlatness:RIPple<nr>:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.
↳ripple.extreme.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↳Default, ripple = repcap.Ripple.Default)
```

Return equalizer spectrum flatness single value results (ripple 1 or ripple 2) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**param ripple**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Ripple’)

**return**

ripple: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default, ripple=Ripple.Default) → List[float]



```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:ESFlatness:RIPple<nr>:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.ripple.
↳extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,↳
↳ripple = repcap.Ripple.Default)
```

Return equalizer spectrum flatness single value results (ripple 1 or ripple 2) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param ripple**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Ripple')

**return**

ripple: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.21 StandardDev

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>]:ESFlatness:RIPple<nr>
↳:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*, *ripple*=*Ripple.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:ESFlatness:RIPple<nr>:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.ripple.
↳standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default,↳
↳ripple = repcap.Ripple.Default)
```

Return equalizer spectrum flatness single value results (ripple 1 or ripple 2) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param ripple**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Ripple')

**return**

ripple: Comma-separated list of values, one per measured segment

#### 6.2.1.3.2.22 ScIndex

##### class ScIndexCls

ScIndex commands group definition. 2 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.scIndex.clone()
```

##### Subgroups

#### 6.2.1.3.2.23 Maximum<Maximum>

##### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.scIndex.maximum.repcap_maximum_get()
driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.scIndex.maximum.repcap_maximum_
↪set(repcap.Maximum.Nr1)
```

##### class MaximumCls

Maximum commands group definition. 1 total commands, 1 Subgroups, 0 group commands Repeated Capability: Maximum, default value after init: Maximum.Nr1

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.scIndex.maximum.clone()
```

##### Subgroups

#### 6.2.1.3.2.24 Current

##### SCPI Command :

```
FEtCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:ESFlatness:SCINdex:MAXimum<nr>:CURRent
```

##### class CurrentCls

Current commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default, maximum=Maximum.Default) → List[int]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:ESFlatness:SCIndex:MAXimum<nr>:CURRENT
value: List[int] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.scIndex.
↳maximum.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default, maximum = repcap.Maximum.Default)
```

Return subcarrier indices of the equalizer spectrum flatness measurement for all measured list mode segments, for carrier <c>. At these SC indices, the current MINimum or MAXimum power of the equalizer coefficients has been detected within the selected range.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param maximum**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maximum')

**return**

maximum: Comma-separated list of values, one per measured segment

#### 6.2.1.3.2.25 Minimum<Minimum>

##### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.scIndex.minimum.repcap_minimum_get()
driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.scIndex.minimum.repcap_minimum_
↳set(repcap.Minimum.Nr1)
```

**class MinimumCls**

Minimum commands group definition. 1 total commands, 1 Subgroups, 0 group commands Repeated Capability: Minimum, default value after init: Minimum.Nr1

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.scIndex.minimum.clone()
```

##### Subgroups

#### 6.2.1.3.2.26 Current

##### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:ESFlatness:SCIndex:MINimum<nr>:CURRENT
```

**class CurrentCls**

Current commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt=CarrierComponentExt.Default, minimum=Minimum.Default*) → List[int]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:ESFlatness:SCIndex:MINimum<nr>:CURRent
value: List[int] = driver.nrMmwMeas.multiEval.listPy.cc.esFlatness.scIndex.
↪minimum.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default, minimum = repcap.Minimum.Default)
```

Return subcarrier indices of the equalizer spectrum flatness measurement for all measured list mode segments, for carrier <c>. At these SC indices, the current MINimum or MAXimum power of the equalizer coefficients has been detected within the selected range.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**param minimum**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minimum')

**return**

minimum: Comma-separated list of values, one per measured segment

**6.2.1.3.2.27 Iemission****class IemissionCls**

Iemission commands group definition. 6 total commands, 1 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.iemission.clone()
```

**Subgroups****6.2.1.3.2.28 Margin****class MarginCls**

Margin commands group definition. 6 total commands, 5 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.iemission.margin.clone()
```

## Subgroups

### 6.2.1.3.2.29 Average

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:IEMission:MARGin:AVERage
```

#### class AverageCls

Average commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:IEMission:MARGin:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.iemission.margin.
↪average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return the in-band emission limit line margin results for all measured list mode segments, for carrier <c>. The CURRENT margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReMe and SDEViation values are calculated from the current margins. The results are returned as triplets per segment: <Reliability>, {<Margin>, <IQImage>, <CarrLeakage>}seg 1, {<Margin>, <IQImage>, <CarrLeakage>}seg 2, ...

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

margin: Margin over all non-allocated RBs (scope of general limit component)

### 6.2.1.3.2.30 Current

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:IEMission:MARGin:CURRent
```

#### class CurrentCls

Current commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:IEMission:MARGin:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.iemission.margin.
↪current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return the in-band emission limit line margin results for all measured list mode segments, for carrier <c>. The CURRENT margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReMe and SDEViation values are calculated from the current margins. The results are returned as triplets per segment: <Reliability>, {<Margin>, <IQImage>, <CarrLeakage>}seg 1, {<Margin>, <IQImage>, <CarrLeakage>}seg 2, ...

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

margin: Margin over all non-allocated RBs (scope of general limit component)

### 6.2.1.3.2.31 Extreme

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:IEMission:MARGIN:EXTReMe
```

#### class ExtremeCls

Extreme commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:IEMission:MARGIN:EXTReMe
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.iemission.margin.
↪extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return the in-band emission limit line margin results for all measured list mode segments, for carrier <c>. The CURRENT margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReMe and SDEViation values are calculated from the current margins. The results are returned as triplets per segment: <Reliability>, {<Margin>, <IQImage>, <CarrLeakage>}seg 1, {<Margin>, <IQImage>, <CarrLeakage>}seg 2, ...

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

margin: Margin over all non-allocated RBs (scope of general limit component)

### 6.2.1.3.2.32 RbIndex

#### class RbIndexCls

RbIndex commands group definition. 2 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.iemission.margin.rbIndex.clone()
```

## Subgroups

### 6.2.1.3.2.33 Current

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:IEMission:MARGIN:RBIndex:CURRENT
```

#### class CurrentCls

Current commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[int]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:IEMission:MARGIN:RBIndex:CURRENT
value: List[int] = driver.nrMmwMeas.multiEval.listPy.cc.iemission.margin.
↳rbIndex.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)
```

Return resource block indices of the in-band emission measurement for all measured list mode segments, for carrier <c>. At these RB indices, the CURRENT and EXTreme margins have been detected. The results are returned as triplets per segment: <Reliability>, {<RBIndex>, <IQImage>, <CarrLeakage>}seg 1, {<RBIndex>, <IQImage>, <CarrLeakage>}seg 2, ...

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

rb\_index: Resource block index for the general margin (at non-allocated RBs)

### 6.2.1.3.2.34 Extreme

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:IEMission:MARGIN:RBIndex:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[int]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:IEMission:MARGIN:RBINDEX:EXTreme
value: List[int] = driver.nrMmwMeas.multiEval.listPy.cc.iemission.margin.
↪rbIndex.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return resource block indices of the in-band emission measurement for all measured list mode segments, for carrier <c>. At these RB indices, the CURRENT and EXTreme margins have been detected. The results are returned as triplets per segment: <Reliability>, {<RBIndex>, <IQImage>, <CarrLeakage>}seg 1, {<RBIndex>, <IQImage>, <CarrLeakage>}seg 2, ...

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

rb\_index: Resource block index for the general margin (at non-allocated RBs)

### 6.2.1.3.2.35 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:IEMission:MARGIN:SDEVIation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:IEMission:MARGIN:SDEVIation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.iemission.margin.
↪standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return the in-band emission limit line margin results for all measured list mode segments, for carrier <c>. The CURRENT margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTreme and SDEVIation values are calculated from the current margins. The results are returned as triplets per segment: <Reliability>, {<Margin>, <IQImage>, <CarrLeakage>}seg 1, {<Margin>, <IQImage>, <CarrLeakage>}seg 2, ...

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

margin: Margin over all non-allocated RBs (scope of general limit component)



### 6.2.1.3.2.36 Modulation

#### class ModulationCls

Modulation commands group definition. 177 total commands, 12 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.clone()
```

#### Subgroups

### 6.2.1.3.2.37 Dallocation

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:MODulation:DALlocation
```

#### class DallocationCls

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Nr\_Res\_Blocks: List[int]: Number of allocated resource blocks
- Offset\_Res\_Blocks: List[int]: Offset of the first allocated resource block from the edge of the allocated UL transmission bandwidth

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]
↳:MODulation:DALlocation
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳dallocation.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Returns the allocation for all measured list mode segments, for carrier <c>. The values apply to the last measured slot of the statistical length of a segment. The results are returned as pairs per segment: <Reliability>, {<NrResBlocks>, <OffsetResBlocks>}seg 1, {<NrResBlocks>, <OffsetResBlocks>}seg 2, ...

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.2.38 DchType

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>]:MODulation:DCHType
```

#### class DchTypeCls

DchType commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[ChannelTypeA]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>]
↪:MODulation:DCHType
value: List[enums.ChannelTypeA] = driver.nrMmwMeas.multiEval.listPy.cc.
↪modulation.dchType.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

No command help available

Suppressed linked return values: reliability

#### **param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### **return**

channel\_type: No help available

### 6.2.1.3.2.39 Dmodulation

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>]:MODulation:DMODulation
```

#### class DmodulationCls

Dmodulation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[ModScheme]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>]
↪:MODulation:DMODulation
value: List[enums.ModScheme] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪dmodulation.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Returns the modulation scheme for all measured list mode segments, for carrier <c>. The value applies to the last measured slot of the statistical length of a segment.

Suppressed linked return values: reliability

#### **param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### **return**

modulation: Comma-separated list of values, one per measured segment /2-BPSK, BPSK, QPSK, 16QAM, 64QAM, 256QAM

#### 6.2.1.3.2.40 Evm

##### class EvmCls

Evm commands group definition. 42 total commands, 3 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.clone()
```

##### Subgroups

#### 6.2.1.3.2.41 Dmrs

##### class DmrsCls

Dmrs commands group definition. 14 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.dmrs.clone()
```

##### Subgroups

#### 6.2.1.3.2.42 High

##### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.dmrs.high.clone()
```

##### Subgroups

#### 6.2.1.3.2.43 Average

##### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:HIGh:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:HIGh:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt*=*CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:HIGh:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪evm.dmrS.high.average.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_dmrS\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:HIGh:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.dmrS.
↪high.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_dmrS\_high: Comma-separated list of values, one per measured segment

**6.2.1.3.2.44 Current****SCPI Commands :**

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:HIGh:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:HIGh:CURRent
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:HIGH:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪evm.dmrs.high.current.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_dmrs\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:HIGH:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.dmrs.
↪high.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_dmrs\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.45 Extreme

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:HIGH:EXTReme
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:HIGH:EXTReme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:HIGh:EXTReme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪evm.dmrs.high.extreme.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_dmrs\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:HIGh:EXTReme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.dmrs.
↪high.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_dmrs\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.46 StandardDev

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:HIGh:SDEViation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:HIGh:SDEViation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.dmrs.
↪high.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_dmrs\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.47 Low

#### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.dmrs.low.clone()
```

#### Subgroups

### 6.2.1.3.2.48 Average

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:LOW:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:LOW:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:LOW:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪evm.dmrs.low.average.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_dmrs\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:EVM:DMRS:LOW:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.dmrs.
↳low.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_dmrs\_low: Comma-separated list of values, one per measured segment

#### 6.2.1.3.2.49 Current

##### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:EVM:DMRS:LOW:CURREnt
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:EVM:DMRS:LOW:CURREnt
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:EVM:DMRS:LOW:CURREnt
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳evm.dmrs.low.current.calculate(carrierComponentExt = repcap.
↳CarrierComponentExt.Default)
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_dmrs\_low: (float or boolean items) Comma-separated list of values, one per measured segment



**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:LOW:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.dmrs.
↪low.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_dmrs\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.50 Extreme

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:LOW:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:LOW:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:LOW:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪evm.dmrs.low.extreme.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_dmrs\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:LOW:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.dmrs.
↪low.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_dmrs\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.51 StandardDev

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:LOW:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:DMRS:LOW:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.dmrs.
↪low.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_dmrs\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.52 Peak

#### class PeakCls

Peak commands group definition. 14 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.peak.clone()
```

#### Subgroups

### 6.2.1.3.2.53 High

#### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.peak.high.clone()
```

#### Subgroups

### 6.2.1.3.2.54 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:HIGh:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:HIGh:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:HIGh:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪evm.peak.high.average.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_peak\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:HIGh:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.peak.
↪high.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_peak\_high: Comma-separated list of values, one per measured segment

**6.2.1.3.2.55 Current****SCPI Commands :**

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:HIGh:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:HIGh:CURRent
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:HIGh:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪evm.peak.high.current.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_peak\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:HIGh:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.peak.
↪high.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_peak\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.56 Extreme

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:HIGh:EXTReme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:HIGh:EXTReme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:HIGh:EXTReme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪evm.peak.high.extreme.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_peak\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:HIGh:EXTReme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.peak.
↪high.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_peak\_high: Comma-separated list of values, one per measured segment

#### 6.2.1.3.2.57 StandardDev

##### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:HIGh:SDEVIation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:HIGh:SDEVIation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.peak.
↪high.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_peak\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.58 Low

#### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.peak.low.clone()
```

#### Subgroups

### 6.2.1.3.2.59 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:LOW:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:LOW:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:LOW:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪evm.peak.low.average.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

evm\_peak\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:LOW:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.peak.
↪low.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_peak\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.60 Current

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:LOW:CURREnt
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:LOW:CURREnt
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:LOW:CURREnt
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪evm.peak.low.current.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_peak\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:LOW:CURREnt
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.peak.
↪low.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability



**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_peak\_low: Comma-separated list of values, one per measured segment

**6.2.1.3.2.61 Extreme****SCPI Commands :**

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:LOW:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:LOW:EXTreme

```

**class ExtremeCls**

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:LOW:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪evm.peak.low.extreme.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)

```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_peak\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:PEAK:LOW:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.peak.
↪low.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)

```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_peak\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.62 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:EVM:PEAK:LOW:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:EVM:PEAK:LOW:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.peak.
↳low.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

evm\_peak\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.63 Rms

#### class RmsCls

Rms commands group definition. 14 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.rms.clone()
```

#### Subgroups

### 6.2.1.3.2.64 High

#### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.rms.high.clone()
```

## Subgroups

### 6.2.1.3.2.65 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:EVM:RMS:HIGh:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:EVM:RMS:HIGh:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:EVM:RMS:HIGh:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳evm.rms.high.average.calculate(carrierComponentExt = repcap.
↳CarrierComponentExt.Default)
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

evm\_rms\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:EVM:RMS:HIGh:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.rms.
↳high.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**  
 evm\_rms\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.66 Current

#### SCPI Commands :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:HIGh:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:HIGh:CURRent

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:HIGh:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪evm.rms.high.current.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)

```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**  
 optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**  
 evm\_rms\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:HIGh:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.rms.
↪high.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)

```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**  
 optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**  
 evm\_rms\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.67 Extreme

#### SCPI Commands :

```

FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:EVM:RMS:HIGh:EXTReme
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:EVM:RMS:HIGh:EXTReme

```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:EVM:RMS:HIGh:EXTReme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳evm.rms.high.extreme.calculate(carrierComponentExt = repcap.
↳CarrierComponentExt.Default)

```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

evm\_rms\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:EVM:RMS:HIGh:EXTReme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.rms.
↳high.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)

```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

evm\_rms\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.68 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:HIGh:SDEVIation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:HIGh:SDEVIation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.rms.
↪high.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

evm\_rms\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.69 Low

#### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.rms.low.clone()
```

#### Subgroups

### 6.2.1.3.2.70 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:LOW:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:LOW:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:LOW:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪evm.rms.low.average.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_rms\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:LOW:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.rms.
↪low.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_rms\_low: Comma-separated list of values, one per measured segment

**6.2.1.3.2.71 Current****SCPI Commands :**

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:LOW:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:LOW:CURRENT
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:LOW:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪evm.rms.low.current.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_rms\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:LOW:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.rms.
↪low.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_rms\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.72 Extreme

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:LOW:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:LOW:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]



```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:LOW:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪evm.rms.low.extreme.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_rms\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:LOW:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.rms.
↪low.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_rms\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.73 StandardDev

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:LOW:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:EVM:RMS:LOW:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.evm.rms.
↪low.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

evm\_rms\_low: Comma-separated list of values, one per measured segment

#### 6.2.1.3.2.74 FreqError

**class FreqErrorCls**

FreqError commands group definition. 7 total commands, 4 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.freqError.clone()
```

##### Subgroups

#### 6.2.1.3.2.75 Average

##### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:FERRor:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:FERRor:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:FERRor:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪freqError.average.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return carrier frequency error values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

frequency\_error: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:FERRor:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.freqError.
↪average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return carrier frequency error values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

frequency\_error: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.76 Current

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:FERRor:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:FERRor:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:FERRor:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪freqError.current.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return carrier frequency error values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

frequency\_error: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:FERRor:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.freqError.
↪current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return carrier frequency error values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

frequency\_error: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.77 Extreme

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:FERRor:EXTReme
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:FERRor:EXTReme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:FERRor:EXTReme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪freqError.extreme.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return carrier frequency error values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

frequency\_error: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:FERRor:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.freqError.
↪extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return carrier frequency error values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

frequency\_error: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.78 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:FERRor:SDEViation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:FERRor:SDEViation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.freqError.
↪standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return carrier frequency error values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

frequency\_error: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.79 IqOffset

#### class IqOffsetCls

IqOffset commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.iqOffset.clone()
```

#### Subgroups

### 6.2.1.3.2.80 Average

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:IQOffset:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:IQOffset:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:IQOffset:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪iqOffset.average.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return I/Q origin offset values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

iq\_offset: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:IQOffset:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.iqOffset.
↪average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return I/Q origin offset values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

iq\_offset: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.81 Current

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:IQOffset:CURREnt
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:IQOffset:CURREnt
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:IQOffset:CURREnt
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪iqOffset.current.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return I/Q origin offset values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

iq\_offset: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:IQOffset:CURREnt
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.iqOffset.
↪current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return I/Q origin offset values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

iq\_offset: Comma-separated list of values, one per measured segment

**6.2.1.3.2.82 Extreme****SCPI Commands :**

```

FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:IQOffset:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:IQOffset:EXTreme

```

**class ExtremeCls**

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:IQOffset:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪iqOffset.extreme.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)

```

Return I/Q origin offset values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

iq\_offset: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```

# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:IQOffset:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.iqOffset.
↪extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)

```

Return I/Q origin offset values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

iq\_offset: Comma-separated list of values, one per measured segment



### 6.2.1.3.2.83 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:IQOffset:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:IQOffset:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.iqOffset.
↪standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return I/Q origin offset values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

iq\_offset: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.84 Merror

#### class MerrorCls

Merror commands group definition. 42 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.clone()
```

#### Subgroups

### 6.2.1.3.2.85 Dmrs

#### class DmrsCls

Dmrs commands group definition. 14 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.dmrs.clone()
```

## Subgroups

### 6.2.1.3.2.86 High

#### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.dmrs.high.clone()
```

## Subgroups

### 6.2.1.3.2.87 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:HIGH:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:HIGH:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:HIGH:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪merror.dmrs.high.average.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

mag\_err\_dmrs\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:HIGh:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.
↪dmrs.high.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_dmrs\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.88 Current

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:HIGh:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:HIGh:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:HIGh:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪merror.dmrs.high.current.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_dmrs\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:DMRS:HIGH:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.
↳dmrs.high.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_dmrs\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.89 Extreme

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:DMRS:HIGH:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:DMRS:HIGH:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:DMRS:HIGH:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳merror.dmrs.high.extreme.calculate(carrierComponentExt = repcap.
↳CarrierComponentExt.Default)
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_dmrs\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:DMRS:HIGH:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.
↳dmrs.high.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_dmrs\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.90 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:DMRS:HIGH:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:DMRS:HIGH:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.
↳dmrs.high.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_dmrs\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.91 Low

#### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.dmrs.low.clone()
```

#### Subgroups

### 6.2.1.3.2.92 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:LOW:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:LOW:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:LOW:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪merror.dmrs.low.average.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

mag\_err\_dmrs\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:LOW:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.
↪dmrs.low.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_dmrs\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.93 Current

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:LOW:CURREnt
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:LOW:CURREnt
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:LOW:CURREnt
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪merror.dmrs.low.current.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_dmrs\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:LOW:CURREnt
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.
↪dmrs.low.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_dmrs\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.94 Extreme

#### SCPI Commands :

```

FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:DMRS:LOW:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:DMRS:LOW:EXTreme

```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:DMRS:LOW:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳merror.dmrs.low.extreme.calculate(carrierComponentExt = repcap.
↳CarrierComponentExt.Default)

```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_dmrs\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```

# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:DMRS:LOW:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.
↳dmrs.low.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)

```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')



**return**  
 mag\_err\_dmrs\_low: Comma-separated list of values, one per measured segment

#### 6.2.1.3.2.95 StandardDev

##### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:LOW:SDEVIation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:DMRS:LOW:SDEVIation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.
↪dmrs.low.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**  
 optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**  
 mag\_err\_dmrs\_low: Comma-separated list of values, one per measured segment

#### 6.2.1.3.2.96 Peak

##### class PeakCls

Peak commands group definition. 14 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.peak.clone()
```

## Subgroups

### 6.2.1.3.2.97 High

#### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.peak.high.clone()
```

## Subgroups

### 6.2.1.3.2.98 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:PEAK:HIGh:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:PEAK:HIGh:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt*=*CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:PEAK:HIGh:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪merror.peak.high.average.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

mag\_err\_peak\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:PEAK:HIGh:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.
```

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```
↪ peak.high.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.  
↪ Default)
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_peak\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.99 Current

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>  
↪]:MODulation:MERRor:PEAK:HIGH:CURRENT  
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>  
↪]:MODulation:MERRor:PEAK:HIGH:CURRENT
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>  
↪]:MODulation:MERRor:PEAK:HIGH:CURRENT  
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.  
↪ merror.peak.high.current.calculate(carrierComponentExt = repcap.  
↪ CarrierComponentExt.Default)
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_peak\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>  
↪]:MODulation:MERRor:PEAK:HIGH:CURRENT  
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.  
↪ peak.high.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.  
↪ Default)
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_peak\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.100 Extreme

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:PEAK:HIGH:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:PEAK:HIGH:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:PEAK:HIGH:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪merror.peak.high.extreme.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_peak\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:PEAK:HIGH:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.
↪peak.high.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_peak\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.101 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:PEAK:HIGH:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:PEAK:HIGH:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.
↪peak.high.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_err\_peak\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.102 Low

#### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.peak.low.clone()
```

## Subgroups

### 6.2.1.3.2.103 Average

#### SCPI Commands :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:PEAK:LOW:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:PEAK:LOW:AVERage

```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt*=*CarrierComponentExt.Default*) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:PEAK:LOW:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳merror.peak.low.average.calculate(carrierComponentExt = repcap.
↳CarrierComponentExt.Default)

```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

##### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

##### return

mag\_error\_peak\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*) → List[float]

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:PEAK:LOW:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.
↳peak.low.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)

```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

##### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

##### return

mag\_error\_peak\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.104 Current

#### SCPI Commands :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:PEAK:LOW:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:PEAK:LOW:CURRent

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:PEAK:LOW:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳merror.peak.low.current.calculate(carrierComponentExt = repcap.
↳CarrierComponentExt.Default)

```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

mag\_error\_peak\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:PEAK:LOW:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.
↳peak.low.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)

```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

mag\_error\_peak\_low: Comma-separated list of values, one per measured segment

## 6.2.1.3.2.105 Extreme

## SCPI Commands :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:PEAK:LOW:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:PEAK:LOW:EXTreme

```

**class ExtremeCls**

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:PEAK:LOW:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳merror.peak.low.extreme.calculate(carrierComponentExt = repcap.
↳CarrierComponentExt.Default)

```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_error\_peak\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:PEAK:LOW:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.
↳peak.low.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)

```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_error\_peak\_low: Comma-separated list of values, one per measured segment



### 6.2.1.3.2.106 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:PEAK:LOW:SDEViation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:PEAK:LOW:SDEViation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.
↳peak.low.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

mag\_error\_peak\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.107 Rms

#### class RmsCls

Rms commands group definition. 14 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.rms.clone()
```

#### Subgroups

### 6.2.1.3.2.108 High

#### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.rms.high.clone()
```

## Subgroups

### 6.2.1.3.2.109 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:RMS:HIGh:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:RMS:HIGh:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:RMS:HIGh:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳merror.rms.high.average.calculate(carrierComponentExt = repcap.
↳CarrierComponentExt.Default)
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

mag\_error\_rms\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:RMS:HIGh:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.rms.
↳high.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**  
 mag\_error\_rms\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.110 Current

#### SCPI Commands :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:HIGh:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:HIGh:CURRent

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:HIGh:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪merror.rms.high.current.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)

```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**  
 optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**  
 mag\_error\_rms\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:HIGh:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.rms.
↪high.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)

```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**  
 optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**  
 mag\_error\_rms\_high: Comma-separated list of values, one per measured segment

## 6.2.1.3.2.111 Extreme

## SCPI Commands :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:RMS:HIGh:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:RMS:HIGh:EXTreme

```

**class ExtremeCls**

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:RMS:HIGh:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳merror.rms.high.extreme.calculate(carrierComponentExt = repcap.
↳CarrierComponentExt.Default)

```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_error\_rms\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:RMS:HIGh:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.rms.
↳high.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)

```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_error\_rms\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.112 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:RMS:HIGh:SDEVIation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:RMS:HIGh:SDEVIation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.rms.
↳high.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

mag\_error\_rms\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.113 Low

#### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.rms.low.clone()
```

#### Subgroups

### 6.2.1.3.2.114 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:RMS:LOW:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:MERRor:RMS:LOW:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:LOW:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪merror.rms.low.average.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_error\_rms\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:LOW:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.rms.
↪low.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_error\_rms\_low: Comma-separated list of values, one per measured segment

**6.2.1.3.2.115 Current****SCPI Commands :**

```
FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:LOW:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:LOW:CURRENT
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:LOW:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪merror.rms.low.current.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_error\_rms\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:LOW:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.rms.
↪low.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_error\_rms\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.116 Extreme

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:LOW:EXTRemE
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:LOW:EXTRemE
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:LOW:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪merror.rms.low.extreme.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_error\_rms\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:LOW:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.rms.
↪low.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_error\_rms\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.117 StandardDev

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:LOW:SDEVIation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:MERRor:RMS:LOW:SDEVIation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.merror.rms.
↪low.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```



Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

mag\_error\_rms\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.118 Perror

#### class PerrorCls

Perror commands group definition. 42 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.clone()
```

#### Subgroups

### 6.2.1.3.2.119 Dmrs

#### class DmrsCls

Dmrs commands group definition. 14 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.dmrs.clone()
```

#### Subgroups

### 6.2.1.3.2.120 High

#### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.dmrs.high.clone()
```

## Subgroups

### 6.2.1.3.2.121 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PERRor:DMRS:HIGH:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PERRor:DMRS:HIGH:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PERRor:DMRS:HIGH:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳perror.dmrs.high.average.calculate(carrierComponentExt = repcap.
↳CarrierComponentExt.Default)
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

ph\_error\_dmrs\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PERRor:DMRS:HIGH:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↳dmrs.high.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_dmrs\_high: Comma-separated list of values, one per measured segment

**6.2.1.3.2.122 Current****SCPI Commands :**

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:HIGH:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:HIGH:CURRent

```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:HIGH:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪perror.dmrs.high.current.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)

```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_dmrs\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:HIGH:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↪dmrs.high.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)

```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**  
 ph\_error\_dmrs\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.123 Extreme

#### SCPI Commands :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:HIGH:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:HIGH:EXTreme

```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:HIGH:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪perror.dmrs.high.extreme.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)

```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**  
 optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**  
 ph\_error\_dmrs\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:HIGH:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↪dmrs.high.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)

```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**  
 optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**  
 ph\_error\_dmrs\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.124 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PERRor:DMRS:HIGH:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PERRor:DMRS:HIGH:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↳dmrs.high.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

ph\_error\_dmrs\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.125 Low

#### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.dmrs.low.clone()
```

#### Subgroups

### 6.2.1.3.2.126 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PERRor:DMRS:LOW:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PERRor:DMRS:LOW:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:LOW:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪perror.dmrs.low.average.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_dmrs\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:LOW:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↪dmrs.low.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_dmrs\_low: Comma-separated list of values, one per measured segment

**6.2.1.3.2.127 Current****SCPI Commands :**

```
FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:LOW:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:LOW:CURRENT
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:LOW:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪perror.dmrS.low.current.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_dmrs\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:LOW:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↪dmrs.low.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_dmrs\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.128 Extreme

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:LOW:EXTReMe
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:DMRS:LOW:EXTReMe
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PERRor:DMRS:LOW:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳perror.dmrs.low.extreme.calculate(carrierComponentExt = repcap.
↳CarrierComponentExt.Default)
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_dmrs\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PERRor:DMRS:LOW:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↳dmrs.low.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_dmrs\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.129 StandardDev

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PERRor:DMRS:LOW:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PERRor:DMRS:LOW:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↳dmrs.low.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)
```



Return phase error DMRS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_dmrs\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.130 Peak

#### class PeakCls

Peak commands group definition. 14 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.peak.clone()
```

#### Subgroups

### 6.2.1.3.2.131 High

#### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.peak.high.clone()
```

#### Subgroups

### 6.2.1.3.2.132 Average

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:HIGH:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:HIGH:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:HIGh:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪perror.peak.high.average.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_peak\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:HIGh:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↪peak.high.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_peak\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.133 Current

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:HIGh:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:HIGh:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:HIGH:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪perror.peak.high.current.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_peak\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:HIGH:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↪peak.high.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_peak\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.134 Extreme

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:HIGH:EXTReMe
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:HIGH:EXTReMe
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:HIGH:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪.perror.peak.high.extreme.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_peak\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:HIGH:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↪.peak.high.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_peak\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.135 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:HIGH:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:HIGH:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↪.peak.high.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_peak\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.136 Low

**class LowCls**

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.peak.low.clone()
```

#### Subgroups

### 6.2.1.3.2.137 Average

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:LOW:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:LOW:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:LOW:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪perror.peak.low.average.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_peak\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:LOW:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↪peak.low.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_peak\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.138 Current

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:LOW:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:LOW:CURRENT
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:LOW:CURRENT
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪perror.peak.low.current.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_peak\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:LOW:CURRENT
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↪peak.low.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_peak\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.139 Extreme

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:LOW:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:LOW:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:LOW:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪perror.peak.low.extreme.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_peak\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:LOW:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↪peak.low.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_peak\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.140 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:LOW:SDEVIation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:PEAK:LOW:SDEVIation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.
↪peak.low.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_peak\_low: Comma-separated list of values, one per measured segment



### 6.2.1.3.2.141 Rms

#### class RmsCls

Rms commands group definition. 14 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.rms.clone()
```

#### Subgroups

### 6.2.1.3.2.142 High

#### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.rms.high.clone()
```

#### Subgroups

### 6.2.1.3.2.143 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:HIGh:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:HIGh:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:HIGh:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪pererror.rms.high.average.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_rms\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:HIGh:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.rms.
↪high.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_rms\_high: Comma-separated list of values, one per measured segment

**6.2.1.3.2.144 Current****SCPI Commands :**

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:HIGh:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:HIGh:CURRent
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:HIGh:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪perror.rms.high.current.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_rms\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:HIGh:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.rms.
↪high.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_rms\_high: Comma-separated list of values, one per measured segment

#### 6.2.1.3.2.145 Extreme

##### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:HIGh:EXTReMe
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:HIGh:EXTReMe
```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:HIGh:EXTReMe
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪perror.rms.high.extreme.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_rms\_high: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:HIGh:EXTReme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.rms.
↪high.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_rms\_high: Comma-separated list of values, one per measured segment

#### 6.2.1.3.2.146 StandardDev

##### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:HIGh:SDEViation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:HIGh:SDEViation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.rms.
↪high.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_rms\_high: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.147 Low

#### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.rms.low.clone()
```

#### Subgroups

### 6.2.1.3.2.148 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:LOW:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:LOW:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:LOW:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪pererror.rms.low.average.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

ph\_error\_rms\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:LOW:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.rms.
↪low.average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_rms\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.149 Current

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:LOW:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:LOW:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:LOW:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪perror.rms.low.current.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_rms\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:LOW:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.rms.
↪low.current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_rms\_low: Comma-separated list of values, one per measured segment

**6.2.1.3.2.150 Extreme****SCPI Commands :**

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:LOW:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:LOW:EXTreme

```

**class ExtremeCls**

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:LOW:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪perror.rms.low.extreme.calculate(carrierComponentExt = repcap.
↪CarrierComponentExt.Default)

```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_rms\_low: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PERRor:RMS:LOW:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.rms.
↪low.extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)

```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

ph\_error\_rms\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.151 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PERRor:RMS:LOW:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PERRor:RMS:LOW:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.perror.rms.
↳low.standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

ph\_error\_rms\_low: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.152 Ppower

#### class PpowerCls

Ppower commands group definition. 9 total commands, 5 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.ppower.clone()
```

#### Subgroups

### 6.2.1.3.2.153 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PPOwer:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PPOwer:AVERage
```



**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PPOWer:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪ppower.average.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return user equipment peak power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

peak\_power: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PPOWer:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.ppower.
↪average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return user equipment peak power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

peak\_power: Comma-separated list of values, one per measured segment

**6.2.1.3.2.154 Current****SCPI Commands :**

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PPOWer:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PPOWer:CURRENT
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PPOWer:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪ppower.current.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return user equipment peak power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

peak\_power: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PPOWer:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.ppower.
↪current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return user equipment peak power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

peak\_power: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.155 Maximum

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PPOWer:MAXimum
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PPOWer:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PPOWer:MAXimum
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪ppower.maximum.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return user equipment peak power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

peak\_power: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PPOWer:MAXimum
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.ppower.
↪maximum.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return user equipment peak power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

peak\_power: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.156 Minimum

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PPOWer:MINimum
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PPOWer:MINimum
```

#### class MinimumCls

Minimum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:PPOWer:MINimum
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
```

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```
↪ppower.minimum.calculate(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return user equipment peak power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

peak\_power: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PPOwer:MINimum
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.ppower.
↪minimum.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return user equipment peak power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

peak\_power: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.157 StandardDev

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PPOwer:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PPOwer:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.ppower.
↪standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return user equipment peak power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

peak\_power: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.158 Psd

#### class PsdCls

Psd commands group definition. 9 total commands, 5 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.psd.clone()
```

#### Subgroups

### 6.2.1.3.2.159 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:MODulation:PSD:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PSD:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PSD:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪psd.average.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return RB power values (power spectral density) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

psd: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PSD:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.psd.
↪average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return RB power values (power spectral density) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

psd: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.160 Current

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:MODulation:PSD:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PSD:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PSD:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪psd.current.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return RB power values (power spectral density) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

psd: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:PSD:CURRent
```

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```
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.psd.  
↪current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return RB power values (power spectral density) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

psd: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.161 Maximum

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>]:MODulation:PSD:MAXimum  
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>  
↪]:MODulation:PSD:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>  
↪]:MODulation:PSD:MAXimum  
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.  
↪psd.maximum.calculate(carrierComponentExt = repcap.CarrierComponentExt.  
↪Default)
```

Return RB power values (power spectral density) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

psd: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>  
↪]:MODulation:PSD:MAXimum  
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.psd.  
↪maximum.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return RB power values (power spectral density) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

psd: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.162 Minimum

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>]:MODulation:PSD:MINimum
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PSD:MINimum
```

#### class MinimumCls

Minimum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PSD:MINimum
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳psd.minimum.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)
```

Return RB power values (power spectral density) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

psd: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PSD:MINimum
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.psd.
↳minimum.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return RB power values (power spectral density) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability



**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

psd: Comma-separated list of values, one per measured segment

**6.2.1.3.2.163 StandardDev****SCPI Command :**

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PSD:SDEviation

```

**class StandardDevCls**

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:PSD:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.psd.
↳standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)

```

Return RB power values (power spectral density) for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

psd: Comma-separated list of values, one per measured segment

**6.2.1.3.2.164 Terror****class TerrorCls**

Terror commands group definition. 7 total commands, 4 Subgroups, 0 group commands

**Cloning the Group**

```

# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.terror.clone()

```

## Subgroups

### 6.2.1.3.2.165 Average

#### SCPI Commands :

```

FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:TERRor:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:TERRor:AVERage

```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:TERRor:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳terror.average.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)

```

Return transmit time error values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

timing\_error: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```

# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:TERRor:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.terror.
↳average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)

```

Return transmit time error values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

timing\_error: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.166 Current

#### SCPI Commands :

```

FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:TERRor:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:TERRor:CURRent

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt*=*CarrierComponentExt.Default*) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:TERRor:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳terror.current.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)

```

Return transmit time error values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

timing\_error: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*) → List[float]

```

# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:TERRor:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.terror.
↳current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)

```

Return transmit time error values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

timing\_error: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.167 Extreme

#### SCPI Commands :

```

FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:TERRor:EXTReme
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:TERRor:EXTReme

```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt*=*CarrierComponentExt.Default*) → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:TERRor:EXTReme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↳terror.extreme.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↳Default)

```

Return transmit time error values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

timing\_error: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt*=*CarrierComponentExt.Default*) → List[float]

```

# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↳]:MODulation:TERRor:EXTReme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.terror.
↳extreme.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)

```

Return transmit time error values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

timing\_error: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.168 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:TERRor:SDEViation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:TERRor:SDEViation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.terror.
↳standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return transmit time error values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

timing\_error: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.169 Tpower

#### class TpowerCls

Tpower commands group definition. 9 total commands, 5 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.cc.modulation.tpower.clone()
```

#### Subgroups

### 6.2.1.3.2.170 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:TPOWER:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↳]:MODulation:TPOWER:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪tpower.average.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return user equipment power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

tx\_power: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.tpower.
↪average.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return user equipment power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

tx\_power: Comma-separated list of values, one per measured segment

**6.2.1.3.2.171 Current****SCPI Commands :**

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:CURRENT
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪tpower.current.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return user equipment power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

tx\_power: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.tpower.
↪current.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return user equipment power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

tx\_power: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.172 Maximum

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:MAXimum
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*carrierComponentExt=CarrierComponentExt.Default*) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:MAXimum
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
↪tpower.maximum.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return user equipment power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

tx\_power: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:MAXimum
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.tpower.
↪maximum.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return user equipment power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

tx\_power: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.173 Minimum

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:MINimum
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:MINimum
```

#### class MinimumCls

Minimum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:MINimum
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.
```

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```
↪tpower.minimum.calculate(carrierComponentExt = repcap.CarrierComponentExt.
↪Default)
```

Return user equipment power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

tx\_power: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:MINimum
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.tpower.
↪minimum.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return user equipment power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

tx\_power: Comma-separated list of values, one per measured segment

### 6.2.1.3.2.174 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(carrierComponentExt=CarrierComponentExt.Default) → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST[:CC<carrier>
↪]:MODulation:TPOWer:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.cc.modulation.tpower.
↪standardDev.fetch(carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return user equipment power values for all measured list mode segments, for carrier <c>. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

tx\_power: Comma-separated list of values, one per measured segment

### 6.2.1.3.3 Pmonitor

**class PmonitorCls**

Pmonitor commands group definition. 2 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.pmonitor.clone()
```

#### Subgroups

##### 6.2.1.3.3.1 Peak

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:PMONitor:PEAK
```

**class PeakCls**

Peak commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:PMONitor:PEAK
value: List[float] = driver.nrMmwMeas.multiEval.listPy.pmonitor.peak.fetch()
```

No command help available

Suppressed linked return values: reliability

**return**

step\_peak\_power: No help available

##### 6.2.1.3.3.2 Rms

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:PMONitor:RMS
```

**class RmsCls**

Rms commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:PMONitor:RMS
value: List[float] = driver.nrMmwMeas.multiEval.listPy.pmonitor.rms.fetch()
```

No command help available

Suppressed linked return values: reliability

```
return
    step_rms_power: No help available
```

#### 6.2.1.3.4 Power

##### class PowerCls

Power commands group definition. 9 total commands, 1 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.power.clone()
```

##### Subgroups

#### 6.2.1.3.4.1 TxPower

##### class TxPowerCls

TxPower commands group definition. 9 total commands, 5 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.power.txPower.clone()
```

##### Subgroups

#### 6.2.1.3.4.2 Average

##### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:AVERage
```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>
↳:MEValuation:LIST:POWer:TXPower:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.power.txPower.
↳average.calculate()
```

No command help available

Suppressed linked return values: reliability

**return**

tx\_power: (float or boolean items) No help available

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:POWer:TXPower:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.power.txPower.average.
↳fetch()
```

No command help available

Suppressed linked return values: reliability

**return**

tx\_power: No help available

### 6.2.1.3.4.3 Current

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:POWer:TXPower:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:POWer:TXPower:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>
↳:MEValuation:LIST:POWer:TXPower:CURRent
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.power.txPower.
↳current.calculate()
```

No command help available

Suppressed linked return values: reliability

**return**

tx\_power: (float or boolean items) No help available

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:POWer:TXPower:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.listPy.power.txPower.current.
↳fetch()
```

No command help available

Suppressed linked return values: reliability

```

return
    tx_power: No help available

```

#### 6.2.1.3.4.4 Maximum

##### SCPI Commands :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:MAXimum
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:MAXimum

```

##### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>
↳:MEvaluation:LIST:POWer:TXPower:MAXimum
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.power.txPower.
↳maximum.calculate()

```

No command help available

Suppressed linked return values: reliability

```

return
    tx_power: (float or boolean items) No help available

```

**fetch()** → List[float]

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:MAXimum
value: List[float] = driver.nrMmwMeas.multiEval.listPy.power.txPower.maximum.
↳fetch()

```

No command help available

Suppressed linked return values: reliability

```

return
    tx_power: No help available

```

#### 6.2.1.3.4.5 Minimum

##### SCPI Commands :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:MINimum
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:MINimum

```

##### class MinimumCls

Minimum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>
↳:MEvaluation:LIST:POWer:TXPower:MINimum
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.power.txPower.
↳minimum.calculate()
```

No command help available

Suppressed linked return values: reliability

**return**

tx\_power: (float or boolean items) No help available

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:MINimum
value: List[float] = driver.nrMmwMeas.multiEval.listPy.power.txPower.minimum.
↳fetch()
```

No command help available

Suppressed linked return values: reliability

**return**

tx\_power: No help available

#### 6.2.1.3.4.6 StandardDev

##### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:SDEVIation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>
↳:MEvaluation:LIST:POWer:TXPower:SDEVIation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.power.txPower.
↳standardDev.fetch()
```

No command help available

Suppressed linked return values: reliability

**return**

tx\_power: No help available

### 6.2.1.3.5 Segment<SEGMENT>

#### RepCap Settings

```
# Range: Nr1 .. Nr512
rc = driver.nrMmwMeas.multiEval.listPy.segment.repcap_sEGMENT_get()
driver.nrMmwMeas.multiEval.listPy.segment.repcap_sEGMENT_set(repcap.SEGMENT.Nr1)
```

#### class SegmentCls

Segment commands group definition. 65 total commands, 5 Subgroups, 0 group commands Repeated Capability: SEGMENT, default value after init: SEGMENT.Nr1

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.clone()
```

#### Subgroups

### 6.2.1.3.5.1 Aclr

#### class AclrCls

Aclr commands group definition. 5 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.aclr.clone()
```

#### Subgroups

### 6.2.1.3.5.2 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>:ACLR:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>:ACLR:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots

- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Nr\_Neg: enums.ResultStatus2: ACLR for the adjacent NR channel with lower frequency
- Carrier: enums.ResultStatus2: Power in the allocated NR channel
- Nr\_Pos: enums.ResultStatus2: ACLR for the adjacent NR channel with higher frequency
- Antenna\_1\_Carrier: enums.ResultStatus2: Power in the allocated NR channel, at RX antenna 1
- Antenna\_2\_Carrier: enums.ResultStatus2: Power in the allocated NR channel, at RX antenna 2

### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Nr\_Neg: float: ACLR for the adjacent NR channel with lower frequency
- Carrier: float: Power in the allocated NR channel
- Nr\_Pos: float: ACLR for the adjacent NR channel with higher frequency
- Antenna\_1\_Carrier: float: Power in the allocated NR channel, at RX antenna 1
- Antenna\_2\_Carrier: float: Power in the allocated NR channel, at RX antenna 2

**calculate**(*sEGMent*=*SEGMent.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMent<nr>
↳:ACLR:AVERAge
value: CalculateStruct = driver.nrMmwMeas.multiEval.listPy.segment.aclr.average.
↳calculate(sEGMent = repcap.SEGMent.Default)
```

Return ACLR single value results for segment <no> in list mode. The values described below are returned by FETCH commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*sEGMent*=*SEGMent.Default*) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMent<nr>
↳:ACLR:AVERAge
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.aclr.average.
↳fetch(sEGMent = repcap.SEGMent.Default)
```

Return ACLR single value results for segment <no> in list mode. The values described below are returned by FETCH commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.



**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.1.3.5.3 Current****SCPI Commands :**

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:ACLR:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:ACLR:CURRent

```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Nr\_Neg: enums.ResultStatus2: ACLR for the adjacent NR channel with lower frequency
- Carrier: enums.ResultStatus2: Power in the allocated NR channel
- Nr\_Pos: enums.ResultStatus2: ACLR for the adjacent NR channel with higher frequency
- Antenna\_1\_Carrier: enums.ResultStatus2: Power in the allocated NR channel, at RX antenna 1
- Antenna\_2\_Carrier: enums.ResultStatus2: Power in the allocated NR channel, at RX antenna 2

**class FetchStruct**

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Nr\_Neg: float: ACLR for the adjacent NR channel with lower frequency
- Carrier: float: Power in the allocated NR channel
- Nr\_Pos: float: ACLR for the adjacent NR channel with higher frequency
- Antenna\_1\_Carrier: float: Power in the allocated NR channel, at RX antenna 1
- Antenna\_2\_Carrier: float: Power in the allocated NR channel, at RX antenna 2

**calculate**(*sEGMent*=*SEGment.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:ACLR:CURRENT
value: CalculateStruct = driver.nrMmwMeas.multiEval.listPy.segment.aclr.current.
↳calculate(sEGment = repcap.SEGment.Default)
```

Return ACLR single value results for segment <no> in list mode. The values described below are returned by FETCH commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(sEGment=SEGment.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:ACLR:CURRENT
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.aclr.current.
↳fetch(sEGment = repcap.SEGment.Default)
```

Return ACLR single value results for segment <no> in list mode. The values described below are returned by FETCH commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.1.3.5.4 Dallocation

##### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:ACLR:DALlocation
```

##### class DallocationCls

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: str: No parameter help available
- Nr\_Res\_Blocks: int: No parameter help available
- Offset\_Res\_Blocks: str: No parameter help available

**fetch**(sEGMent=SEGMENT.Default) → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>
↪:ACLR:DALlocation
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.aclr.dallocation.
↪fetch(sEGMent = repcap.SEGMENT.Default)
```

No command help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.5 Cc<CarrierComponentExt>

#### RepCap Settings

```
# Range: Nr1 .. Nr32
rc = driver.nrMmwMeas.multiEval.listPy.segment.cc.repcap_carrierComponentExt_get()
driver.nrMmwMeas.multiEval.listPy.segment.cc.repcap_carrierComponentExt_set(repcap.
↪CarrierComponentExt.Nr1)
```

**class CcCls**

Cc commands group definition. 26 total commands, 3 Subgroups, 0 group commands Repeated Capability: CarrierComponentExt, default value after init: CarrierComponentExt.Nr1

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.cc.clone()
```

#### Subgroups

### 6.2.1.3.5.6 EsFlatness

**class EsFlatnessCls**

EsFlatness commands group definition. 8 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.cc.esFlatness.clone()
```

## Subgroups

### 6.2.1.3.5.7 Average

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>[:CC<carrier>
↪]:ESFLatness:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>[:CC<carrier>
↪]:ESFLatness:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Ripple\_1: float or bool: Limit check result for max (range 1) - min (range 1) .
- Ripple\_2: float or bool: Limit check result for max (range 2) - min (range 2) .
- Max\_R\_1\_Min\_R\_2: float or bool: Limit check result for max (range 1) - min (range 2) .
- Max\_R\_2\_Min\_R\_1: float or bool: Limit check result for max (range 2) - min (range 1) .

##### class FetchStruct

Response structure. Fields:

- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Ripple\_1: float: Max (range 1) - min (range 1)
- Ripple\_2: float: Max (range 2) - min (range 2)
- Max\_R\_1\_Min\_R\_2: float: Max (range 1) - min (range 2)
- Max\_R\_2\_Min\_R\_1: float: Max (range 2) - min (range 1)
- Min\_R\_1: float: Min (range 1)
- Max\_R\_1: float: Max (range 1)
- Min\_R\_2: float: Min (range 2)
- Max\_R\_2: float: Max (range 2)

**calculate**(*sEGMent*=*SEGMENT.Default*, *carrierComponentExt*=*CarrierComponentExt.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMENT<nr>[:CC
↪<carrier>]:ESFlatness:AVERage
value: CalculateStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.
↪esFlatness.average.calculate(sEGMent = repcap.SEGMENT.Default, ↪
↪carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return equalizer spectrum flatness single value results for segment <no>, for carrier <c>.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*sEGMent*=*SEGMENT.Default*, *carrierComponentExt*=*CarrierComponentExt.Default*) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMENT<nr>[:CC
↪<carrier>]:ESFlatness:AVERage
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.esFlatness.
↪average.fetch(sEGMent = repcap.SEGMENT.Default, carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return equalizer spectrum flatness single value results for segment <no>, for carrier <c>.

Suppressed linked return values: reliability

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.8 Current

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMENT<nr>[:CC<carrier>
↪]:ESFlatness:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMENT<nr>[:CC<carrier>
↪]:ESFlatness:CURRENT
```

#### class CurrentCls

Current commands group definition. 3 total commands, 1 Subgroups, 2 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Ripple\_1: float or bool: Limit check result for max (range 1) - min (range 1) .
- Ripple\_2: float or bool: Limit check result for max (range 2) - min (range 2) .
- Max\_R\_1\_Min\_R\_2: float or bool: Limit check result for max (range 1) - min (range 2) .
- Max\_R\_2\_Min\_R\_1: float or bool: Limit check result for max (range 2) - min (range 1) .

**class FetchStruct**

Response structure. Fields:

- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Ripple\_1: float: Max (range 1) - min (range 1)
- Ripple\_2: float: Max (range 2) - min (range 2)
- Max\_R\_1\_Min\_R\_2: float: Max (range 1) - min (range 2)
- Max\_R\_2\_Min\_R\_1: float: Max (range 2) - min (range 1)
- Min\_R\_1: float: Min (range 1)
- Max\_R\_1: float: Max (range 1)
- Min\_R\_2: float: Min (range 2)
- Max\_R\_2: float: Max (range 2)

**calculate**(*sEGMent*=*SEGMent.Default*, *carrierComponentExt*=*CarrierComponentExt.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMent<nr>[:CC
↪<carrier>]:ESFlatness:CURRENT
value: CalculateStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.
↪esFlatness.current.calculate(sEGMent = repcap.SEGMent.Default,
↪carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return equalizer spectrum flatness single value results for segment <no>, for carrier <c>.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC
↪<carrier>]:ESFlatness:CURRENT
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.esFlatness.
↪current.fetch(sEGMent = repcap.SEGMENT.Default, carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Return equalizer spectrum flatness single value results for segment <no>, for carrier <c>.

Suppressed linked return values: reliability

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.cc.esFlatness.current.clone()
```

## Subgroups

### 6.2.1.3.5.9 ScIndex

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC<carrier>
↪]:ESFlatness:CURRENT:SCIndex
```

#### class ScIndexCls

ScIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Maximum\_1: int: SC index of Max (Range 1)
- Minimum\_1: int: SC index of Min (Range 1)
- Maximum\_2: int: SC index of Max (Range 2)
- Minimum\_2: int: SC index of Min (Range 2)

**fetch**(sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC
↪<carrier>]:ESFlatness:CURRENT:SCIndex
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.esFlatness.
↪current.scIndex.fetch(sEGMent = repcap.SEGMENT.Default, carrierComponentExt =
↪repcap.CarrierComponentExt.Default)
```

Return subcarrier indices of the equalizer spectrum flatness measurement for segment <no>, for carrier <c>. At these SC indices, the current minimum and maximum power of the equalizer coefficients have been detected within range 1 and range 2.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.10 Extreme

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC<carrier>
↪]:ESFlatness:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC<carrier>
↪]:ESFlatness:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Ripple\_1: float or bool: Limit check result for max (range 1) - min (range 1) .
- Ripple\_2: float or bool: Limit check result for max (range 2) - min (range 2) .
- Max\_R\_1\_Min\_R\_2: float or bool: Limit check result for max (range 1) - min (range 2) .
- Max\_R\_2\_Min\_R\_1: float or bool: Limit check result for max (range 2) - min (range 1) .

#### class FetchStruct

Response structure. Fields:

- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots



- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Ripple\_1: float: Max (range 1) - min (range 1)
- Ripple\_2: float: Max (range 2) - min (range 2)
- Max\_R\_1\_Min\_R\_2: float: Max (range 1) - min (range 2)
- Max\_R\_2\_Min\_R\_1: float: Max (range 2) - min (range 1)
- Min\_R\_1: float: Min (range 1)
- Max\_R\_1: float: Max (range 1)
- Min\_R\_2: float: Min (range 2)
- Max\_R\_2: float: Max (range 2)

**calculate**(sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMENT<nr>[:CC
↳<carrier>]:ESFlatness:EXTreme
value: CalculateStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.
↳esFlatness.extreme.calculate(sEGMent = repcap.SEGMENT.Default,
↳carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return equalizer spectrum flatness single value results for segment <no>, for carrier <c>.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMENT<nr>[:CC
↳<carrier>]:ESFlatness:EXTreme
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.esFlatness.
↳extreme.fetch(sEGMent = repcap.SEGMENT.Default, carrierComponentExt = repcap.
↳CarrierComponentExt.Default)
```

Return equalizer spectrum flatness single value results for segment <no>, for carrier <c>.

Suppressed linked return values: reliability

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.11 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>[:CC<carrier>
↳]:ESFlatness:SDEVIation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Ripple\_1: float: Max (range 1) - min (range 1)
- Ripple\_2: float: Max (range 2) - min (range 2)
- Max\_R\_1\_Min\_R\_2: float: Max (range 1) - min (range 2)
- Max\_R\_2\_Min\_R\_1: float: Max (range 2) - min (range 1)
- Min\_R\_1: float: Min (range 1)
- Max\_R\_1: float: Max (range 1)
- Min\_R\_2: float: Min (range 2)
- Max\_R\_2: float: Max (range 2)

**fetch**(sEGMent=SEGment.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>[:CC
↳<carrier>]:ESFlatness:SDEVIation
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.esFlatness.
↳standardDev.fetch(sEGMent = repcap.SEGment.Default, carrierComponentExt =
↳repcap.CarrierComponentExt.Default)
```

Return equalizer spectrum flatness single value results for segment <no>, for carrier <c>.

Suppressed linked return values: reliability

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

#### return

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.1.3.5.12 Iemission

##### class IemissionCls

Iemission commands group definition. 8 total commands, 1 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.cc.iemission.clone()
```

##### Subgroups

#### 6.2.1.3.5.13 Margin

##### class MarginCls

Margin commands group definition. 8 total commands, 4 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.cc.iemission.margin.clone()
```

##### Subgroups

#### 6.2.1.3.5.14 Average

##### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>[:CC<carrier>
↪]:IEMISSION:MARGIN:AVERage
```

##### class AverageCls

Average commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- General: float: Margin over all non-allocated RBs (scope of general limit component)
- Iq\_Image: float: Margin at image frequencies of allocated RBs (scope of I/Q image limit component)
- Carr\_Leakage: float: Margin at the carrier frequency (scope of I/Q offset limit component)

**fetch**(sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC
↪<carrier>]:IEMission:MARGIN:AVERage
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.iemission.
↪margin.average.fetch(sEGMent = repcap.SEGMENT.Default, carrierComponentExt =
↪repcap.CarrierComponentExt.Default)
```

Return the in-band emission limit line margin results for segment <no>, for carrier <c>. The CURRENT margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReMe and SDEViation values are calculated from the current margins.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.15 Current

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC<carrier>
↪]:IEMission:MARGIN:CURRENT
```

#### class CurrentCls

Current commands group definition. 3 total commands, 2 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- General: float: Margin over all non-allocated RBs (scope of general limit component)
- Iq\_Image: float: Margin at image frequencies of allocated RBs (scope of I/Q image limit component)
- Carr\_Leakage: float: Margin at the carrier frequency (scope of I/Q offset limit component)

**fetch**(sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC
↪<carrier>]:IEMission:MARGIN:CURRENT
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.iemission.
↪margin.current.fetch(sEGMent = repcap.SEGMENT.Default, carrierComponentExt =
↪repcap.CarrierComponentExt.Default)
```

Return the in-band emission limit line margin results for segment <no>, for carrier <c>. The CURRENT margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTRe me and SDEViation values are calculated from the current margins.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.cc.iemission.margin.current.clone()
```

## Subgroups

### 6.2.1.3.5.16 Power

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC<carrier>
↪]:IEMission:MARGIN:CURRENT:POWer
```

#### class PowerCls

Power commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- General: float: In-band emission value for the general margin (at non-allocated RBs)
- Iq\_Image: float: In-band emission value for the I/Q image margin (at image frequencies of allocated RBs)
- Carr\_Leakage: float: In-band emission value for the carrier leakage margin (at carrier frequency)

**fetch**(sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC
↪<carrier>]:IEMission:MARGIN:CURRENT:POWer
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.iemission.
```

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```
↪margin.current.power.fetch(sEGMent = repcap.SEGMent.Default,↪
↪carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return the in-band emission trace values at the limit line margin positions for segment <no>, for carrier <c>.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.1.3.5.17 RbIndex****SCPI Command :**

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC<carrier>
↪]:IEMission:MARGIN:CURRENT:RBIndex
```

**class RbIndexCls**

RbIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- General: int: Resource block index for the general margin (at non-allocated RBs)
- Iq\_Image: int: Resource block index for the I/Q image margin (at image frequencies of allocated RBs)
- Carr\_Leakage: int: Resource block index for the carrier leakage margin (at carrier frequency)

**fetch**(sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC
↪<carrier>]:IEMission:MARGIN:CURRENT:RBIndex
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.iemission.
↪margin.current.rbIndex.fetch(sEGMent = repcap.SEGMENT.Default,↪
↪carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return resource block indices of the in-band emission measurement for segment <no>, for carrier <c>. At these RB indices, the CURRENT, AVERAGE and EXTREME margins have been detected.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.1.3.5.18 Extreme****SCPI Command :**

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>[:CC<carrier>
↪]:IEMission:MARGin:EXTReme
```

**class ExtremeCls**

Extreme commands group definition. 3 total commands, 2 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- General: float: Margin over all non-allocated RBs (scope of general limit component)
- Iq\_Image: float: Margin at image frequencies of allocated RBs (scope of I/Q image limit component)
- Carr\_Leakage: float: Margin at the carrier frequency (scope of I/Q offset limit component)

**fetch**(sEGMent=SEGment.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>[:CC
↪<carrier>]:IEMission:MARGin:EXTReme
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.iemission.
↪margin.extreme.fetch(sEGMent = repcap.SEGment.Default, carrierComponentExt =
↪repcap.CarrierComponentExt.Default)
```

Return the in-band emission limit line margin results for segment <no>, for carrier <c>. The CURRENT margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReme and SDEViation values are calculated from the current margins.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.cc.iemission.margin.extreme.clone()
```

## Subgroups

### 6.2.1.3.5.19 Power

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>[:CC<carrier>
↪]:IEMission:MARGin:EXTReme:POWer
```

#### class PowerCls

Power commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- General: float: In-band emission value for the general margin (at non-allocated RBs)
- Iq\_Image: float: In-band emission value for the I/Q image margin (at image frequencies of allocated RBs)
- Carr\_Leakage: float: In-band emission value for the carrier leakage margin (at carrier frequency)

**fetch**(sEGMent=SEGment.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>[:CC
↪<carrier>]:IEMission:MARGin:EXTReme:POWer
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.iemission.
↪margin.extreme.power.fetch(sEGMent = repcap.SEGment.Default,↪
↪carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return the in-band emission trace values at the limit line margin positions for segment <no>, for carrier <c>.

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

structure: for return value, see the help for FetchStruct structure arguments.



### 6.2.1.3.5.20 RbIndex

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>[:CC<carrier>
↪]:IEMission:MARGin:EXTReme:RBIndex
```

#### class RbIndexCls

RbIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- General: int: Resource block index for the general margin (at non-allocated RBs)
- Iq\_Image: int: Resource block index for the I/Q image margin (at image frequencies of allocated RBs)
- Carr\_Leakage: int: Resource block index for the carrier leakage margin (at carrier frequency)

**fetch**(sEGMent=SEGment.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>[:CC
↪<carrier>]:IEMission:MARGin:EXTReme:RBIndex
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.iemission.
↪margin.extreme.rbIndex.fetch(sEGMent = repcap.SEGment.Default,↪
↪carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return resource block indices of the in-band emission measurement for segment <no>, for carrier <c>. At these RB indices, the CURRENT, AVERAGE and EXTReme margins have been detected.

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.21 StandardDev

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>[:CC<carrier>
↪]:IEMission:MARGin:SDEVIation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- General: float: Margin over all non-allocated RBs (scope of general limit component)
- Iq\_Image: float: Margin at image frequencies of allocated RBs (scope of I/Q image limit component)
- Carr\_Leakage: float: Margin at the carrier frequency (scope of I/Q offset limit component)

**fetch**(sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC
↪<carrier>]:IEMission:MARGIN:SDEVIation
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.iemission.
↪margin.standardDev.fetch(sEGMent = repcap.SEGMENT.Default,↪
↪carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return the in-band emission limit line margin results for segment <no>, for carrier <c>. The CURRENT margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReMe and SDEVIation values are calculated from the current margins.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.1.3.5.22 Modulation****class ModulationCls**

Modulation commands group definition. 10 total commands, 7 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.cc.modulation.clone()
```

## Subgroups

### 6.2.1.3.5.23 Average

#### SCPI Commands :

```

FETCH:NRMWw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>[:CC<carrier>
↪]:MODulation:AVERage
CALCulate:NRMWw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>[:CC<carrier>
↪]:MODulation:AVERage

```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Evm\_Rms\_Low: float or bool: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float or bool: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float or bool: EVM peak value, low EVM window position
- Evm\_Peak\_High: float or bool: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float or bool: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float or bool: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float or bool: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float or bool: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float or bool: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float or bool: Phase error peak value, high EVM window position
- Iq\_Offset: float or bool: I/Q origin offset
- Frequency\_Error: float or bool: Carrier frequency error
- Sample\_Clock\_Err: enums.ResultStatus2: No parameter help available
- Timing\_Error: float or bool: Time error
- Tx\_Power: float or bool: User equipment power
- Peak\_Power: float or bool: User equipment peak power
- Psd: float or bool: No parameter help available
- Evm\_Dmrs\_Low: float or bool: EVM DMRS value, low EVM window position
- Evm\_Dmrs\_High: float or bool: EVM DMRS value, high EVM window position

- Mag\_Err\_Dmrs\_Low: float or bool: Magnitude error DMRS value, low EVM window position
- Mag\_Err\_Dmrs\_High: float or bool: Magnitude error DMRS value, high EVM window position
- Ph\_Error\_Dmrs\_Low: float or bool: Phase error DMRS value, low EVM window position
- Ph\_Error\_Dmrs\_High: float or bool: Phase error DMRS value, high EVM window position
- Freq\_Err\_Ppm: enums.ResultStatus2: Carrier frequency error in ppm
- Iq\_Imbalance: enums.ResultStatus2: I/Q gain imbalance
- Iq\_Quadrature\_Err: enums.ResultStatus2: No parameter help available
- Antenna\_1\_Pow: enums.ResultStatus2: Power at RX antenna 1
- Antenna\_2\_Pow: enums.ResultStatus2: Power at RX antenna 2

**class FetchStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Evm\_Rms\_Low: float: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float: EVM peak value, low EVM window position
- Evm\_Peak\_High: float: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float: Phase error peak value, high EVM window position
- Iq\_Offset: float: I/Q origin offset
- Frequency\_Error: float: Carrier frequency error
- Sample\_Clock\_Err: float: No parameter help available
- Timing\_Error: float: Time error
- Tx\_Power: float: User equipment power
- Peak\_Power: float: User equipment peak power
- Psd: float: No parameter help available
- Evm\_Dmrs\_Low: float: EVM DMRS value, low EVM window position
- Evm\_Dmrs\_High: float: EVM DMRS value, high EVM window position

- `Mag_Err_Dmrs_Low`: float: Magnitude error DMRS value, low EVM window position
- `Mag_Err_Dmrs_High`: float: Magnitude error DMRS value, high EVM window position
- `Ph_Error_Dmrs_Low`: float: Phase error DMRS value, low EVM window position
- `Ph_Error_Dmrs_High`: float: Phase error DMRS value, high EVM window position
- `Freq_Err_Ppm`: float: Carrier frequency error in ppm
- `Iq_Imbalance`: float: I/Q gain imbalance
- `Iq_Quadrature_Err`: float: No parameter help available
- `Antenna_1_Pow`: float: Power at RX antenna 1
- `Antenna_2_Pow`: float: Power at RX antenna 2

**calculate**(*sEGMent*=*SEGMent.Default*, *carrierComponentExt*=*CarrierComponentExt.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMent<nr>[:CC
↳<carrier>]:MODulation:AVERage
value: CalculateStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.
↳modulation.average.calculate(sEGMent = repcap.SEGMent.Default,
↳carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Returns modulation single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*sEGMent*=*SEGMent.Default*, *carrierComponentExt*=*CarrierComponentExt.Default*) → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMent<nr>[:CC
↳<carrier>]:MODulation:AVERage
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.modulation.
↳average.fetch(sEGMent = repcap.SEGMent.Default, carrierComponentExt = repcap.
↳CarrierComponentExt.Default)
```

Returns modulation single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.1.3.5.24 Current****SCPI Commands :**

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>[:CC<carrier>
↪]:MODulation:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>[:CC<carrier>
↪]:MODulation:CURRent
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Evm\_Rms\_Low: float or bool: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float or bool: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float or bool: EVM peak value, low EVM window position
- Evm\_Peak\_High: float or bool: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float or bool: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float or bool: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float or bool: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float or bool: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float or bool: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float or bool: Phase error peak value, high EVM window position
- Iq\_Offset: float or bool: I/Q origin offset
- Frequency\_Error: float or bool: Carrier frequency error
- Sample\_Clock\_Err: enums.ResultStatus2: No parameter help available
- Timing\_Error: float or bool: Time error
- Tx\_Power: float or bool: User equipment power
- Peak\_Power: float or bool: User equipment peak power
- Psd: float or bool: No parameter help available
- Evm\_Dmrs\_Low: float or bool: EVM DMRS value, low EVM window position

- Evm\_Dmrs\_High: float or bool: EVM DMRS value, high EVM window position
- Mag\_Err\_Dmrs\_Low: float or bool: Magnitude error DMRS value, low EVM window position
- Mag\_Err\_Dmrs\_High: float or bool: Magnitude error DMRS value, high EVM window position
- Ph\_Error\_Dmrs\_Low: float or bool: Phase error DMRS value, low EVM window position
- Ph\_Error\_Dmrs\_High: float or bool: Phase error DMRS value, high EVM window position
- Freq\_Err\_Ppm: enums.ResultStatus2: Carrier frequency error in ppm
- Iq\_Imbalance: enums.ResultStatus2: I/Q gain imbalance
- Iq\_Quadrature\_Err: enums.ResultStatus2: No parameter help available
- Antenna\_1\_Pow: enums.ResultStatus2: Power at RX antenna 1
- Antenna\_2\_Pow: enums.ResultStatus2: Power at RX antenna 2

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Evm\_Rms\_Low: float: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float: EVM peak value, low EVM window position
- Evm\_Peak\_High: float: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float: Phase error peak value, high EVM window position
- Iq\_Offset: float: I/Q origin offset
- Frequency\_Error: float: Carrier frequency error
- Sample\_Clock\_Err: float: No parameter help available
- Timing\_Error: float: Time error
- Tx\_Power: float: User equipment power
- Peak\_Power: float: User equipment peak power
- Psd: float: No parameter help available
- Evm\_Dmrs\_Low: float: EVM DMRS value, low EVM window position

- Evm\_Dmrs\_High: float: EVM DMRS value, high EVM window position
- Mag\_Err\_Dmrs\_Low: float: Magnitude error DMRS value, low EVM window position
- Mag\_Err\_Dmrs\_High: float: Magnitude error DMRS value, high EVM window position
- Ph\_Error\_Dmrs\_Low: float: Phase error DMRS value, low EVM window position
- Ph\_Error\_Dmrs\_High: float: Phase error DMRS value, high EVM window position
- Freq\_Err\_Ppm: float: Carrier frequency error in ppm
- Iq\_Imbalance: float: I/Q gain imbalance
- Iq\_Quadrature\_Err: float: No parameter help available
- Antenna\_1\_Pow: float: Power at RX antenna 1
- Antenna\_2\_Pow: float: Power at RX antenna 2

**calculate**(*sEGMent*=*SEGMent.Default*, *carrierComponentExt*=*CarrierComponentExt.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMent<nr>[:CC
↪<carrier>]:MODulation:CURRent
value: CalculateStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.
↪modulation.current.calculate(sEGMent = repcap.SEGMent.Default,
↪carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Returns modulation single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*sEGMent*=*SEGMent.Default*, *carrierComponentExt*=*CarrierComponentExt.Default*) → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMent<nr>[:CC
↪<carrier>]:MODulation:CURRent
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.modulation.
↪current.fetch(sEGMent = repcap.SEGMent.Default, carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

Returns modulation single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)



**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.1.3.5.25 Dallocation****SCPI Command :**

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>[:CC<carrier>
↪]:MODulation:DALlocation
```

**class DallocationCls**

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Nr\_Res\_Blocks: int: Number of allocated resource blocks
- Offset\_Res\_Blocks: int: Offset of the first allocated resource block from the edge of the bandwidth part

**fetch**(sEGment=SEGment.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>[:CC
↪<carrier>]:MODulation:DALlocation
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.modulation.
↪dallocation.fetch(sEGment = repcap.SEGment.Default, carrierComponentExt =
↪repcap.CarrierComponentExt.Default)
```

Returns the allocation for segment <no>, for carrier <c>. The value applies to the last measured slot of the statistical length.

**param sEGment**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.26 DchType

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>[:CC<carrier>
↪]:MODulation:DCHType
```

#### class DchTypeCls

DchType commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Channel\_Type: enums.ChannelTypeA: No parameter help available

**fetch**(sEGment=SEGment.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>[:CC
↪<carrier>]:MODulation:DCHType
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.modulation.
↪dchType.fetch(sEGment = repcap.SEGment.Default, carrierComponentExt = repcap.
↪CarrierComponentExt.Default)
```

No command help available

#### param sEGment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### param carrierComponentExt

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.27 Dmodulation

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>[:CC<carrier>
↪]:MODulation:DMODulation
```

#### class DmodulationCls

Dmodulation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Modulation: enums.ModScheme: /2-BPSK, BPSK, QPSK, 16QAM, 64QAM, 256QAM

**fetch**(sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC
↪<carrier>]:MODulation:DMODulation
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.modulation.
↪dmodulation.fetch(sEGMent = repcap.SEGMENT.Default, carrierComponentExt =
↪repcap.CarrierComponentExt.Default)
```

Returns the modulation scheme for segment <no>, for carrier <c>. The value applies to the last measured slot of the statistical length.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.28 Extreme

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC<carrier>
↪]:MODulation:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC<carrier>
↪]:MODulation:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Evm\_Rms\_Low: float or bool: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float or bool: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float or bool: EVM peak value, low EVM window position
- Evm\_Peak\_High: float or bool: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float or bool: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float or bool: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float or bool: Phase error RMS value, low EVM window position

- Ph\_Error\_Rms\_High: float or bool: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float or bool: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float or bool: Phase error peak value, high EVM window position
- Iq\_Offset: float or bool: I/Q origin offset
- Frequency\_Error: float or bool: Carrier frequency error
- Sample\_Clock\_Err: enums.ResultStatus2: No parameter help available
- Timing\_Error: float or bool: Time error
- Tx\_Power\_Minimum: float or bool: Minimum user equipment power
- Tx\_Power\_Maximum: float or bool: Maximum user equipment power
- Peak\_Power\_Min: float or bool: Minimum user equipment peak power
- Peak\_Power\_Max: float or bool: Maximum user equipment peak power
- Psd\_Minimum: float or bool: No parameter help available
- Psd\_Maximum: float or bool: No parameter help available
- Evm\_Dmrs\_Low: float or bool: EVM DMRS value, low EVM window position
- Evm\_Dmrs\_High: float or bool: EVM DMRS value, high EVM window position
- Mag\_Err\_Dmrs\_Low: float or bool: Magnitude error DMRS value, low EVM window position
- Mag\_Err\_Dmrs\_High: float or bool: Magnitude error DMRS value, high EVM window position
- Ph\_Error\_Dmrs\_Low: float or bool: Phase error DMRS value, low EVM window position
- Ph\_Error\_Dmrs\_High: float or bool: Phase error DMRS value, high EVM window position
- Freq\_Err\_Ppm: enums.ResultStatus2: Carrier frequency error in ppm
- Iq\_Imbalance: enums.ResultStatus2: I/Q gain imbalance
- Iq\_Quadrature\_Err: enums.ResultStatus2: No parameter help available
- Ant\_1\_Pow\_Min: enums.ResultStatus2: Minimum power at RX antenna 1
- Ant\_1\_Pow\_Max: enums.ResultStatus2: Maximum power at RX antenna 1
- Ant\_2\_Pow\_Min: enums.ResultStatus2: Minimum power at RX antenna 2
- Ant\_2\_Pow\_Max: enums.ResultStatus2: Maximum power at RX antenna 2

**class FetchStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Evm\_Rms\_Low: float: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float: EVM peak value, low EVM window position
- Evm\_Peak\_High: float: EVM peak value, high EVM window position

- Mag\_Error\_Rms\_Low: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float: Phase error peak value, high EVM window position
- Iq\_Offset: float: I/Q origin offset
- Frequency\_Error: float: Carrier frequency error
- Sample\_Clock\_Err: float: No parameter help available
- Timing\_Error: float: Time error
- Tx\_Power\_Minimum: float: Minimum user equipment power
- Tx\_Power\_Maximum: float: Maximum user equipment power
- Peak\_Power\_Min: float: Minimum user equipment peak power
- Peak\_Power\_Max: float: Maximum user equipment peak power
- Psd\_Minimum: float: No parameter help available
- Psd\_Maximum: float: No parameter help available
- Evm\_Dmrs\_Low: float: EVM DMRS value, low EVM window position
- Evm\_Dmrs\_High: float: EVM DMRS value, high EVM window position
- Mag\_Err\_Dmrs\_Low: float: Magnitude error DMRS value, low EVM window position
- Mag\_Err\_Dmrs\_High: float: Magnitude error DMRS value, high EVM window position
- Ph\_Error\_Dmrs\_Low: float: Phase error DMRS value, low EVM window position
- Ph\_Error\_Dmrs\_High: float: Phase error DMRS value, high EVM window position
- Freq\_Err\_Ppm: float: Carrier frequency error in ppm
- Iq\_Imbalance: float: I/Q gain imbalance
- Iq\_Quadrature\_Err: float: No parameter help available
- Ant\_1\_Pow\_Min: float: Minimum power at RX antenna 1
- Ant\_1\_Pow\_Max: float: Maximum power at RX antenna 1
- Ant\_2\_Pow\_Min: float: Minimum power at RX antenna 2
- Ant\_2\_Pow\_Max: float: Maximum power at RX antenna 2

**calculate**(*sEGMent*=*SEGMent.Default*, *carrierComponentExt*=*CarrierComponentExt.Default*) →  
CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMent<nr>[:CC
↪<carrier>]:MODulation:EXTreme
value: CalculateStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.
```

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```
↪ modulation.extreme.calculate(sEGMent = repcap.SEGMent.Default, ↪
↪ carrierComponentExt = repcap.CarrierComponentExt.Default)
```

Return modulation single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(sEGMent=SEGMent.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC
↪ <carrier>]:MODulation:EXTreme
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.modulation.
↪ extreme.fetch(sEGMent = repcap.SEGMent.Default, carrierComponentExt = repcap.
↪ CarrierComponentExt.Default)
```

Return modulation single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.1.3.5.29 StandardDev****SCPI Command :**

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>[:CC<carrier>
↪ ]:MODulation:SDEVIation
```

**class StandardDevCls**

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’

- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Evm\_Rms\_Low: float: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float: EVM peak value, low EVM window position
- Evm\_Peak\_High: float: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float: Phase error peak value, high EVM window position
- Iq\_Offset: float: I/Q origin offset
- Frequency\_Error: float: Carrier frequency error
- Sample\_Clock\_Err: float: No parameter help available
- Timing\_Error: float: Time error
- Tx\_Power: float: User equipment power
- Peak\_Power: float: User equipment peak power
- Psd: float: No parameter help available
- Evm\_Dmrs\_Low: float: EVM DMRS value, low EVM window position
- Evm\_Dmrs\_High: float: EVM DMRS value, high EVM window position
- Mag\_Err\_Dmrs\_Low: float: Magnitude error DMRS value, low EVM window position
- Mag\_Err\_Dmrs\_High: float: Magnitude error DMRS value, high EVM window position
- Ph\_Error\_Dmrs\_Low: float: Phase error DMRS value, low EVM window position
- Ph\_Error\_Dmrs\_High: float: Phase error DMRS value, high EVM window position
- Freq\_Err\_Ppm: float: Carrier frequency error in ppm
- Iq\_Imbalance: float: I/Q gain imbalance
- Iq\_Quadrature\_Err: float: No parameter help available
- Antenna\_1\_Pow: float: Power at RX antenna 1
- Antenna\_2\_Pow: float: Power at RX antenna 2

**fetch**(sEGMent=SEGMENT.Default, carrierComponentExt=CarrierComponentExt.Default) → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>[:CC
↳<carrier>]:MODulation:SDEViation
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.cc.modulation.
↳standardDev.fetch(sEGMent = repcap.SEGMent.Default, carrierComponentExt =
↳repcap.CarrierComponentExt.Default)
```

Returns modulation single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponentExt**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.30 Pmonitor

**class PmonitorCls**

Pmonitor commands group definition. 4 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.pmonitor.clone()
```

### Subgroups

### 6.2.1.3.5.31 Array

**class ArrayCls**

Array commands group definition. 2 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.pmonitor.array.clone()
```



## Subgroups

### 6.2.1.3.5.32 Length

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:PMONitor:ARRay:LENGth
```

#### class LengthCls

Length commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(sEGMent=SEGMENT.Default) → int

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:PMONitor:ARRay:LENGth
value: int = driver.nrMmwMeas.multiEval.listPy.segment.pmonitor.array.length.
↪fetch(sEGMent = repcap.SEGMENT.Default)
```

No command help available

Suppressed linked return values: reliability

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

length: No help available

### 6.2.1.3.5.33 Start

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:PMONitor:ARRay:STARt
```

#### class StartCls

Start commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(sEGMent=SEGMENT.Default) → int

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:PMONitor:ARRay:STARt
value: int = driver.nrMmwMeas.multiEval.listPy.segment.pmonitor.array.start.
↪fetch(sEGMent = repcap.SEGMENT.Default)
```

No command help available

Suppressed linked return values: reliability

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

start: No help available

#### 6.2.1.3.5.34 Peak

##### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMent<nr>:PMONitor:PEAK
```

##### class PeakCls

Peak commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Step\_Peak\_Power: List[float]: No parameter help available

**fetch**(sEGMent=SEGMent.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMent<nr>
↳:PMONitor:PEAK
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.pmonitor.peak.
↳fetch(sEGMent = repcap.SEGMent.Default)
```

No command help available

##### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

##### return

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.1.3.5.35 Rms

##### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMent<nr>:PMONitor:RMS
```

##### class RmsCls

Rms commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Step\_Rms\_Power: List[float]: No parameter help available

**fetch**(sEGMent=SEGMent.Default) → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:PMONitor:RMS
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.pmonitor.rms.
↳fetch(sEGMent = repcap.SEGMent.Default)
```

No command help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.36 Power

**class PowerCls**

Power commands group definition. 9 total commands, 5 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.power.clone()
```

#### Subgroups

### 6.2.1.3.5.37 Average

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float or bool: No parameter help available

**class FetchStruct**

Response structure. Fields:

- Reliability: int: No parameter help available

- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float: No parameter help available

**calculate**(sEGMent=SEGMENT.Default) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>
↪:POWer:AVERage
value: CalculateStruct = driver.nrMmwMeas.multiEval.listPy.segment.power.
↪average.calculate(sEGMent = repcap.SEGMENT.Default)
```

No command help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(sEGMent=SEGMENT.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>
↪:POWer:AVERage
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.power.average.
↪fetch(sEGMent = repcap.SEGMENT.Default)
```

No command help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.38 Current

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>:POWER:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>:POWER:CURRENT
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available

- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float or bool: No parameter help available

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float: No parameter help available

**calculate**(*sEGMent*=*SEGMENT.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMENT<nr>
↳:POWer:CURRent
value: CalculateStruct = driver.nrMmwMeas.multiEval.listPy.segment.power.
↳current.calculate(sEGMent = repcap.SEGMENT.Default)
```

No command help available

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*sEGMent*=*SEGMENT.Default*) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMENT<nr>
↳:POWer:CURRent
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.power.current.
↳fetch(sEGMent = repcap.SEGMENT.Default)
```

No command help available

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.39 Maximum

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMENT<nr>:POWer:MAXimum
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMENT<nr>:POWer:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power\_Max: float or bool: No parameter help available

**class FetchStruct**

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power\_Max: float: No parameter help available

**calculate**(*sEGMent*=*SEGMENT.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>
↪:POWer:MAXimum
value: CalculateStruct = driver.nrMmwMeas.multiEval.listPy.segment.power.
↪maximum.calculate(sEGMent = repcap.SEGMENT.Default)
```

No command help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*sEGMent*=*SEGMENT.Default*) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>
↪:POWer:MAXimum
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.power.maximum.
↪fetch(sEGMent = repcap.SEGMENT.Default)
```

No command help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.40 Minimum

#### SCPI Commands :

```

FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer:MINimum
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer:MINimum

```

#### class MinimumCls

Minimum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power\_Min: float or bool: No parameter help available

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power\_Min: float: No parameter help available

**calculate**(*sEGMent*=*SEGMENT.Default*) → CalculateStruct

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↪:POWer:MINimum
value: CalculateStruct = driver.nrMmwMeas.multiEval.listPy.segment.power.
↪minimum.calculate(sEGMent = repcap.SEGMENT.Default)

```

No command help available

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*sEGMent*=*SEGMENT.Default*) → FetchStruct

```

# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↪:POWer:MINimum
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.power.minimum.
↪fetch(sEGMent = repcap.SEGMENT.Default)

```

No command help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.1.3.5.41 StandardDev****SCPI Command :**

`FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:POWer:SDEViation`

**class StandardDevCls**

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float: No parameter help available

**fetch**(sEGMent=SEGment.Default) → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:POWer:SDEViation
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.power.
↳standardDev.fetch(sEGMent = repcap.SEGment.Default)
```

No command help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.1.3.5.42 SeMask****class SeMaskCls**

SeMask commands group definition. 21 total commands, 6 Subgroups, 0 group commands



## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.seMask.clone()
```

## Subgroups

### 6.2.1.3.5.43 Average

#### SCPI Commands :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMent<nr>:SEMAsk:AVERAge
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMent<nr>:SEMAsk:AVERAge
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Obw: float or bool: Occupied bandwidth
- Tx\_Power: float or bool: Total TX power in the slot

##### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Obw: float: Occupied bandwidth
- Tx\_Power: float: Total TX power in the slot

**calculate**(sEGMent=SEGMent.Default) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGMent<nr>
↪:SEMAsk:AVERAge
value: CalculateStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.
↪average.calculate(sEGMent = repcap.SEGMent.Default)
```

Return spectrum emission single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(sEGMent=SEGMENT.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>
↪:SEMask:AVERage
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.average.
↪fetch(sEGMent = repcap.SEGMENT.Default)
```

Return spectrum emission single value results for segment <no> in list mode. The values described below are returned by FETCH commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.1.3.5.44 Current****SCPI Commands :**

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>:SEMask:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>:SEMask:CURRENT
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Obw: float or bool: Occupied bandwidth
- Tx\_Power: float or bool: Total TX power in the slot

**class FetchStruct**

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots

- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Obw: float: Occupied bandwidth
- Tx\_Power: float: Total TX power in the slot

**calculate**(sEGMent=SEGMENT.Default) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>
↪:SEMask:CURRENT
value: CalculateStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.
↪current.calculate(sEGMent = repcap.SEGMENT.Default)
```

Return spectrum emission single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(sEGMent=SEGMENT.Default) → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>
↪:SEMask:CURRENT
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.current.
↪fetch(sEGMent = repcap.SEGMENT.Default)
```

Return spectrum emission single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.45 Dallocation

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>:SEMask:DAllocation
```

#### class DallocationCls

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available

- Seg\_Reliability: int: No parameter help available
- Nr\_Res\_Blocks: str: No parameter help available
- Offset\_Res\_Blocks: str: No parameter help available

**fetch**(sEGMent=SEGMENT.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>
↪:SEMask:DALLocation
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.
↪dallocation.fetch(sEGMent = repcap.SEGMENT.Default)
```

No command help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.46 Extreme

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>:SEMask:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>:SEMask:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Obw: float or bool: Occupied bandwidth
- Tx\_Power\_Min: float or bool: Minimum total TX power in the slot
- Tx\_Power\_Max: float or bool: Maximum total TX power in the slot

#### class FetchStruct

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Obw: float: Occupied bandwidth

- Tx\_Power\_Min: float: Minimum total TX power in the slot
- Tx\_Power\_Max: float: Maximum total TX power in the slot

**calculate**(*sEGMent*=*SEGMent.Default*) → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMent<nr>
↪:SEMask:EXTreme
value: CalculateStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.
↪extreme.calculate(sEGMent = repcap.SEGMent.Default)
```

Return spectrum emission extreme results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*sEGMent*=*SEGMent.Default*) → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMent<nr>
↪:SEMask:EXTreme
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.extreme.
↪fetch(sEGMent = repcap.SEGMent.Default)
```

Return spectrum emission extreme results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.1.3.5.47 Margin

##### class MarginCls

Margin commands group definition. 13 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.clone()
```

## Subgroups

### 6.2.1.3.5.48 All

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:SEMask:MARGin:ALL
```

#### class AllCls

All commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Margin\_Curr\_Neg: List[float]: No parameter help available
- Margin\_Curr\_Pos: List[float]: No parameter help available
- Margin\_Avg\_Neg: List[float]: No parameter help available
- Margin\_Avg\_Pos: List[float]: No parameter help available
- Margin\_Min\_Neg: List[float]: No parameter help available
- Margin\_Min\_Pos: List[float]: No parameter help available

**fetch**(sEGMent=SEGment.Default) → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:SEMask:MARGin:ALL
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.
↳all.fetch(sEGMent = repcap.SEGment.Default)
```

Return limit line margin values, i.e. vertical distances between the spectrum emission mask and a trace, for segment <no> in list mode.

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.49 Average

#### class AverageCls

Average commands group definition. 4 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.average.clone()
```

#### Subgroups

### 6.2.1.3.5.50 Negativ

#### SCPI Command :

```
FEtCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:SEMask:MARGin:AVERage:NEGativ
```

#### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Margin\_Avg\_Neg\_X: List[float]: No parameter help available
- Margin\_Avg\_Neg\_Y: List[float]: No parameter help available

**fetch**(sEGMent=SEGMENT.Default) → FetchStruct

```
# SCPI: FEtCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:SEMask:MARGin:AVERage:NEGativ
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.
↳average.negativ.fetch(sEGMent = repcap.SEGMENT.Default)
```

Return spectrum emission mask margin results for segment <no> in list mode. The individual commands provide results for the CURRent, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. Returned sequence: <Reliability>, <SegReliability>, <Statist-Expired>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {... }area2, ..., {... }area12

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.51 Positiv

#### SCPI Command :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:AVERage:POSitiv

```

#### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Margin\_Avg\_Pos\_X: List[float]: No parameter help available
- Margin\_Avg\_Pos\_Y: List[float]: No parameter help available

**fetch**(sEGMent=SEGment.Default) → FetchStruct

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:AVERage:POSitiv
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.
↳average.positiv.fetch(sEGMent = repcap.SEGment.Default)

```

Return spectrum emission mask margin results for segment <no> in list mode. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. Returned sequence: <Reliability>, <SegReliability>, <Statist-Expired>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {... }area2, ..., {... }area12

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.52 Power

#### class PowerCls

Power commands group definition. 2 total commands, 2 Subgroups, 0 group commands



## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.average.power.clone()
```

## Subgroups

### 6.2.1.3.5.53 Negativ

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:AVERage:POWer:NEGativ
```

#### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Margin\_Power: List[float]: Comma-separated list of 12 trace values, one value per emission mask area

**fetch**(sEGMent=SEGment.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:AVERage:POWer:NEGativ
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.
↳average.power.negativ.fetch(sEGMent = repcap.SEGment.Default)
```

Returns the spectrum emission trace values at the limit line margin positions of the emission mask areas for segment <no> in list mode. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) . There are results for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned.

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.54 Positiv

#### SCPI Command :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:AVERage:POWer:POSitiv

```

#### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Margin\_Power: List[float]: Comma-separated list of 12 trace values, one value per emission mask area

**fetch**(sEGMent=SEGment.Default) → FetchStruct

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:AVERage:POWer:POSitiv
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.
↳average.power.positiv.fetch(sEGMent = repcap.SEGment.Default)

```

Returns the spectrum emission trace values at the limit line margin positions of the emission mask areas for segment <no> in list mode. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) . There are results for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned.

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.55 Current

#### class CurrentCls

Current commands group definition. 4 total commands, 3 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.current.clone()
```

## Subgroups

### 6.2.1.3.5.56 Negativ

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:CURRent:NEGativ
```

#### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Margin\_Curr\_Neg\_X: List[float]: No parameter help available
- Margin\_Curr\_Neg\_Y: List[float]: No parameter help available

**fetch**(sEGMent=SEGment.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:CURRent:NEGativ
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.
↳current.negativ.fetch(sEGMent = repcap.SEGment.Default)
```

Return spectrum emission mask margin results for segment <no> in list mode. The individual commands provide results for the CURRent, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. Returned sequence: <Reliability>, <SegReliability>, <Statist-Expired>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {... }area2, ..., {... }area12

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.57 Positiv

#### SCPI Command :

```

FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:SEMask:MARGin:CURRent:POSitiv

```

#### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Margin\_Curr\_Pos\_X: List[float]: No parameter help available
- Margin\_Curr\_Pos\_Y: List[float]: No parameter help available

**fetch**(sEGMent=SEGMENT.Default) → FetchStruct

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:SEMask:MARGin:CURRent:POSitiv
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.
↳current.positiv.fetch(sEGMent = repcap.SEGMENT.Default)

```

Return spectrum emission mask margin results for segment <no> in list mode. The individual commands provide results for the CURRent, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. Returned sequence: <Reliability>, <SegReliability>, <Statist-Expired>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {... }area2, ..., {... }area12

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.58 Power

#### class PowerCls

Power commands group definition. 2 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.current.power.clone()
```

## Subgroups

### 6.2.1.3.5.59 Negativ

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:CURRent:POWer:NEGativ
```

#### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Margin\_Power: List[float]: Comma-separated list of 12 trace values, one value per emission mask area

**fetch**(sEGMent=SEGment.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:CURRent:POWer:NEGativ
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.
↳current.power.negativ.fetch(sEGMent = repcap.SEGment.Default)
```

Returns the spectrum emission trace values at the limit line margin positions of the emission mask areas for segment <no> in list mode. The individual commands provide results for the CURRent, AVERage and maximum traces (resulting in MINimum margins) . There are results for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned.

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.60 Positiv

#### SCPI Command :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:CURRent:POWer:POSitiv

```

#### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Margin\_Power: List[float]: Comma-separated list of 12 trace values, one value per emission mask area

**fetch**(sEGMent=SEGment.Default) → FetchStruct

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:CURRent:POWer:POSitiv
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.
↳current.power.positiv.fetch(sEGMent = repcap.SEGment.Default)

```

Returns the spectrum emission trace values at the limit line margin positions of the emission mask areas for segment <no> in list mode. The individual commands provide results for the CURRent, AVERage and maximum traces (resulting in MINimum margins) . There are results for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned.

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.61 Minimum

#### class MinimumCls

Minimum commands group definition. 4 total commands, 3 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.minimum.clone()
```

## Subgroups

### 6.2.1.3.5.62 Negativ

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:MINimum:NEGativ
```

#### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Margin\_Min\_Neg\_X: List[float]: No parameter help available
- Margin\_Min\_Neg\_Y: List[float]: No parameter help available

**fetch**(sEGMent=SEGMENT.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:MINimum:NEGativ
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.
↳minimum.negative.fetch(sEGMent = repcap.SEGMENT.Default)
```

Return spectrum emission mask margin results for segment <no> in list mode. The individual commands provide results for the CURRENT, AVERAGE and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. Returned sequence: <Reliability>, <SegReliability>, <Statist-Expired>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {... }area2, ..., {... }area12

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.63 Positiv

#### SCPI Command :

```

FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:SEMask:MARGin:MINimum:POSitiv

```

#### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Margin\_Min\_Pos\_X: List[float]: No parameter help available
- Margin\_Min\_Pos\_Y: List[float]: No parameter help available

**fetch**(sEGMent=SEGment.Default) → FetchStruct

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:SEMask:MARGin:MINimum:POSitiv
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.
↳minimum.positiv.fetch(sEGMent = repcap.SEGment.Default)

```

Return spectrum emission mask margin results for segment <no> in list mode. The individual commands provide results for the CURRENT, AVERAGE and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. Returned sequence: <Reliability>, <SegReliability>, <Statist-Expired>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {... }area2, ..., {... }area12

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.64 Power

#### class PowerCls

Power commands group definition. 2 total commands, 2 Subgroups, 0 group commands



## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.minimum.power.clone()
```

## Subgroups

### 6.2.1.3.5.65 Negativ

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>
↳:SEMask:MARGIN:MINimum:POWER:NEGativ
```

#### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Margin\_Power: List[float]: Comma-separated list of 12 trace values, one value per emission mask area

**fetch**(sEGMENT=SEGMENT.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>
↳:SEMask:MARGIN:MINimum:POWER:NEGativ
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.
↳minimum.power.negative.fetch(sEGMENT = repcap.SEGMENT.Default)
```

Returns the spectrum emission trace values at the limit line margin positions of the emission mask areas for segment <no> in list mode. The individual commands provide results for the CURRENT, AVERAGE and maximum traces (resulting in MINimum margins) . There are results for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned.

#### param sEGMENT

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.66 Positiv

#### SCPI Command :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:MINimum:POWer:POSitiv

```

#### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment
- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Margin\_Power: List[float]: Comma-separated list of 12 trace values, one value per emission mask area

**fetch**(sEGMent=SEGment.Default) → FetchStruct

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:MINimum:POWer:POSitiv
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.margin.
↳minimum.power.positiv.fetch(sEGMent = repcap.SEGment.Default)

```

Returns the spectrum emission trace values at the limit line margin positions of the emission mask areas for segment <no> in list mode. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) . There are results for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned.

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.5.67 StandardDev

#### SCPI Command :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:SEMask:SDEviation

```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Seg\_Reliability: int: Reliability indicator for the segment

- Statist\_Expired: int: Reached statistical length in slots
- Out\_Of\_Tolerance: int: Percentage of measured subframes with failed limit check
- Obw: float: Occupied bandwidth
- Tx\_Power: float: Total TX power in the slot

**fetch**(sEGMent=SEGMENT.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>
↪:SEMask:SDEVIation
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.segment.seMask.
↪standardDev.fetch(sEGMent = repcap.SEGMENT.Default)
```

Return spectrum emission single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out of tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.6 SeMask

#### class SeMaskCls

SeMask commands group definition. 23 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.seMask.clone()
```

#### Subgroups

### 6.2.1.3.6.1 Dallocation

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:DALlocation
```

#### class DallocationCls

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Nr\_Res\_Blocks: List[str]: No parameter help available

- Offset\_Res\_Blocks: List[str]: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:DALlocation
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.seMask.dallocation.
↪ fetch()
```

No command help available

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.6.2 Margin

#### **class MarginCls**

Margin commands group definition. 6 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.seMask.margin.clone()
```

#### Subgroups

### 6.2.1.3.6.3 Area<Area>

#### RepCap Settings

```
# Range: Nr1 .. Nr12
rc = driver.nrMmwMeas.multiEval.listPy.seMask.margin.area.repcap_area_get()
driver.nrMmwMeas.multiEval.listPy.seMask.margin.area.repcap_area_set(repcap.Area.Nr1)
```

#### **class AreaCls**

Area commands group definition. 6 total commands, 2 Subgroups, 0 group commands Repeated Capability:  
Area, default value after init: Area.Nr1

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.seMask.margin.area.clone()
```

## Subgroups

### 6.2.1.3.6.4 Negativ

#### class NegativCls

Negativ commands group definition. 3 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.seMask.margin.area.negativ.clone()
```

## Subgroups

### 6.2.1.3.6.5 Average

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA<nr>:NEGativ:AVERage
```

#### class AverageCls

Average commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Margin\_Avg\_Neg\_X: List[float]: No parameter help available
- Margin\_Avg\_Neg\_Y: List[float]: No parameter help available

**fetch**(area=Area.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA
→<nr>:NEGativ:AVERage
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.seMask.margin.area.
→negativ.average.fetch(area = repcap.Area.Default)
```

Return spectrum emission mask margin positions for all measured list mode segments. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. The results are returned as pairs per segment: <Reliability>, {<MarginPosX>, <MarginPosY>}seg 1, {<MarginPosX>, <MarginPosY>}seg 2, ...

#### param area

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.6.6 Current

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA<nr>:NEGativ:CURRent
```

#### class CurrentCls

Current commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Margin\_Curr\_Neg\_X: List[float]: No parameter help available
- Margin\_Curr\_Neg\_Y: List[float]: No parameter help available

**fetch**(area=Area.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA
↳<nr>:NEGativ:CURRent
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.seMask.margin.area.
↳negativ.current.fetch(area = repcap.Area.Default)
```

Return spectrum emission mask margin positions for all measured list mode segments. The individual commands provide results for the CURRent, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. The results are returned as pairs per segment: <Reliability>, {<MarginPosX>, <MarginPosY>}seg 1, {<MarginPosX>, <MarginPosY>}seg 2, ...

#### param area

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.6.7 Minimum

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA<nr>:NEGativ:MINimum
```

#### class MinimumCls

Minimum commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Margin\_Min\_Neg\_X: List[float]: No parameter help available
- Margin\_Min\_Neg\_Y: List[float]: No parameter help available

**fetch**(area=Area.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA
↳<nr>:NEGativ:MINimum
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.seMask.margin.area.
↳negativ.minimum.fetch(area = repcap.Area.Default)
```

Return spectrum emission mask margin positions for all measured list mode segments. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. The results are returned as pairs per segment: <Reliability>, {<MarginPosX>, <MarginPosY>}seg 1, {<MarginPosX>, <MarginPosY>}seg 2, ...

**param area**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.6.8 Positiv

#### class PositivCls

Positiv commands group definition. 3 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.seMask.margin.area.positiv.clone()
```

#### Subgroups

### 6.2.1.3.6.9 Average

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA<nr>:POSitiv:AVERage
```

#### class AverageCls

Average commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Margin\_Avg\_Pos\_X: List[float]: X-position of margin for selected area
- Margin\_Avg\_Pos\_Y: List[float]: Y-position of margin for selected area

**fetch**(area=Area.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA
↳<nr>:POSitiv:AVERage
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.seMask.margin.area.
↳positiv.average.fetch(area = repcap.Area.Default)
```

Return spectrum emission mask margin positions for all measured list mode segments. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. The results are returned as pairs per segment: <Reliability>, {<MarginPosX>, <MarginPosY>}seg 1, {<MarginPosX>, <MarginPosY>}seg 2, ...

**param area**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.6.10 Current

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA<nr>:POSitiv:CURRENT
```

#### class CurrentCls

Current commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Margin\_Curr\_Pos\_X: List[float]: X-position of margin for selected area
- Margin\_Curr\_Pos\_Y: List[float]: Y-position of margin for selected area

**fetch**(area=Area.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA
↳<nr>:POSitiv:CURRENT
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.seMask.margin.area.
↳positiv.current.fetch(area = repcap.Area.Default)
```

Return spectrum emission mask margin positions for all measured list mode segments. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. The results are returned as pairs per segment: <Reliability>, {<MarginPosX>, <MarginPosY>}seg 1, {<MarginPosX>, <MarginPosY>}seg 2, ...

**param area**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

**return**

structure: for return value, see the help for FetchStruct structure arguments.



### 6.2.1.3.6.11 Minimum

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA<nr>:POSitiv:MINimum
```

#### class MinimumCls

Minimum commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Margin\_Min\_Pos\_X: List[float]: X-position of margin for selected area
- Margin\_Min\_Pos\_Y: List[float]: Y-position of margin for selected area

**fetch**(area=Area.Default) → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA
↪<nr>:POSitiv:MINimum
value: FetchStruct = driver.nrMmwMeas.multiEval.listPy.seMask.margin.area.
↪positiv.minimum.fetch(area = repcap.Area.Default)
```

Return spectrum emission mask margin positions for all measured list mode segments. The individual commands provide results for the CURRENT, AVERAGE and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. The results are returned as pairs per segment: <Reliability>, {<MarginPosX>, <MarginPosY>}seg 1, {<MarginPosX>, <MarginPosY>}seg 2, ...

#### param area

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.3.6.12 Obw

#### class ObwCls

Obw commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.seMask.obw.clone()
```

## Subgroups

### 6.2.1.3.6.13 Average

#### SCPI Commands :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:AVERage

```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>
↪:MEvaluation:LIST:SEMask:OBW:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.seMask.obw.
↪average.calculate()

```

Return the occupied bandwidth for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### return

obw: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch()** → List[float]

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.seMask.obw.average.
↪fetch()

```

Return the occupied bandwidth for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### return

obw: Comma-separated list of values, one per measured segment

### 6.2.1.3.6.14 Current

#### SCPI Commands :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:CURRENT

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>
↳:MEvaluation:LIST:SEMask:OBW:CURRENT
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.seMask.obw.
↳current.calculate()
```

Return the occupied bandwidth for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**

obw: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch()** → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:CURRENT
value: List[float] = driver.nrMmwMeas.multiEval.listPy.seMask.obw.current.
↳fetch()
```

Return the occupied bandwidth for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**

obw: Comma-separated list of values, one per measured segment

### 6.2.1.3.6.15 Extreme

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>
↳:MEvaluation:LIST:SEMask:OBW:EXTreme
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.seMask.obw.
↳extreme.calculate()
```

Return the occupied bandwidth for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**

obw: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch()** → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:EXTreme
value: List[float] = driver.nrMmwMeas.multiEval.listPy.seMask.obw.extreme.
↪ fetch()
```

Return the occupied bandwidth for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**

obw: Comma-separated list of values, one per measured segment

#### 6.2.1.3.6.16 StandardDev

##### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.seMask.obw.standardDev.
↪ fetch()
```

Return the occupied bandwidth for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**

obw: Comma-separated list of values, one per measured segment

#### 6.2.1.3.6.17 TxPower

##### class TxPowerCls

TxPower commands group definition. 9 total commands, 5 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.listPy.seMask.txPower.clone()
```

## Subgroups

### 6.2.1.3.6.18 Average

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>
↳:MEvaluation:LIST:SEMask:TXPower:AVERage
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.seMask.txPower.
↳average.calculate()
```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### return

tx\_power: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch()** → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>
↳:MEvaluation:LIST:SEMask:TXPower:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.listPy.seMask.txPower.average.
↳fetch()
```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### return

tx\_power: Comma-separated list of values, one per measured segment

### 6.2.1.3.6.19 Current

#### SCPI Commands :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:CURRENT

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:NRMMw:MEASurement<Instance>
→ :MEvaluation:LIST:SEMask:TXPower:CURRENT
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.seMask.txPower.
→ current.calculate()

```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### return

tx\_power: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch()** → List[float]

```

# SCPI: FETCH:NRMMw:MEASurement<Instance>
→ :MEvaluation:LIST:SEMask:TXPower:CURRENT
value: List[float] = driver.nrMmwMeas.multiEval.listPy.seMask.txPower.current.
→ fetch()

```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

#### return

tx\_power: Comma-separated list of values, one per measured segment

### 6.2.1.3.6.20 Maximum

#### SCPI Commands :

```

FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:MAXimum
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:MAXimum

```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>
↳:MEValuation:LIST:SEMask:TXPower:MAXimum
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.seMask.txPower.
↳maximum.calculate()
```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**

tx\_power: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch()** → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>
↳:MEValuation:LIST:SEMask:TXPower:MAXimum
value: List[float] = driver.nrMmwMeas.multiEval.listPy.seMask.txPower.maximum.
↳fetch()
```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**

tx\_power: Comma-separated list of values, one per measured segment

### 6.2.1.3.6.21 Minimum

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEMask:TXPower:MINimum
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:LIST:SEMask:TXPower:MINimum
```

#### class MinimumCls

Minimum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>
↳:MEValuation:LIST:SEMask:TXPower:MINimum
value: List[float or bool] = driver.nrMmwMeas.multiEval.listPy.seMask.txPower.
↳minimum.calculate()
```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**  
tx\_power: (float or boolean items) Comma-separated list of values, one per measured segment

**fetch()** → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>
↳ :MEvaluation:LIST:SEMask:TXPower:MINimum
value: List[float] = driver.nrMmwMeas.multiEval.listPy.seMask.txPower.minimum.
↳ fetch()
```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**  
tx\_power: Comma-separated list of values, one per measured segment

#### 6.2.1.3.6.22 StandardDev

##### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>
↳ :MEvaluation:LIST:SEMask:TXPower:SDEviation
value: List[float] = driver.nrMmwMeas.multiEval.listPy.seMask.txPower.
↳ standardDev.fetch()
```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Suppressed linked return values: reliability

**return**  
tx\_power: Comma-separated list of values, one per measured segment

#### 6.2.1.3.7 Sreliability

##### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:LIST:SRELIability
```

##### class SreliabilityCls

Sreliability commands group definition. 1 total commands, 0 Subgroups, 1 group commands



**fetch()** → List[int]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:LIST:SRELiability
value: List[int] = driver.nrMmwMeas.multiEval.listPy.sreliability.fetch()
```

Returns the segment reliability for all measured list mode segments. A common reliability indicator of zero indicates that the results in all measured segments are valid. A non-zero value indicates that an error occurred in at least one of the measured segments. If you get a non-zero common reliability indicator, you can use this command to retrieve the individual reliability values of all measured segments for further analysis.

Suppressed linked return values: reliability

**return**

seg\_reliability: Comma-separated list of values, one per measured segment The meaning of the returned values is the same as for the common reliability indicator, see previous parameter.

#### 6.2.1.4 Pdynamics

##### **class PdynamicsCls**

Pdynamics commands group definition. 14 total commands, 5 Subgroups, 0 group commands

##### **Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.pdynamics.clone()
```

#### Subgroups

##### 6.2.1.4.1 Average

##### **SCPI Commands :**

```
READ:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:AVERage
FETCh:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:AVERage
```

##### **class AverageCls**

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

##### **class CalculateStruct**

Response structure. Fields:

- Reliability: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Off\_Power\_Before: float or bool: No parameter help available
- On\_Power\_Rms: float or bool: No parameter help available
- On\_Power\_Peak: float or bool: No parameter help available

- Off\_Power\_After: float or bool: No parameter help available

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.
- Off\_Power\_Before: float: No parameter help available
- On\_Power\_Rms: float: No parameter help available
- On\_Power\_Peak: float: No parameter help available
- Off\_Power\_After: float: No parameter help available

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:AVERage
value: CalculateStruct = driver.nrMmwMeas.multiEval.pdynamics.average.
↪ calculate()
```

No command help available

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.pdynamics.average.fetch()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.pdynamics.average.read()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.4.2 Current

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:CURRent
FETCh:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:CURRent
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:CURRent
```

#### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Off\_Power\_Before: float or bool: No parameter help available
- On\_Power\_Rms: float or bool: No parameter help available
- On\_Power\_Peak: float or bool: No parameter help available
- Off\_Power\_After: float or bool: No parameter help available

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.
- Off\_Power\_Before: float: No parameter help available
- On\_Power\_Rms: float: No parameter help available
- On\_Power\_Peak: float: No parameter help available
- Off\_Power\_After: float: No parameter help available

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:CURRent
value: CalculateStruct = driver.nrMmwMeas.multiEval.pdynamics.current.
↪ calculate()
```

No command help available

#### **return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:CURRent
value: ResultData = driver.nrMmwMeas.multiEval.pdynamics.current.fetch()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation:PDYNamics:CURRent
value: ResultData = driver.nrMmwMeas.multiEval.pdynamics.current.read()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement.

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.1.4.3 Maximum

##### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation:PDYNamics:MAXimum
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:PDYNamics:MAXimum
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:PDYNamics:MAXimum
```

##### **class** MaximumCls

Maximum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

##### **class** CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Off\_Power\_Before: float or bool: No parameter help available
- On\_Power\_Rms: float or bool: No parameter help available
- On\_Power\_Peak: float or bool: No parameter help available
- Off\_Power\_After: float or bool: No parameter help available

##### **class** ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.
- Off\_Power\_Before: float: No parameter help available
- On\_Power\_Rms: float: No parameter help available
- On\_Power\_Peak: float: No parameter help available
- Off\_Power\_After: float: No parameter help available

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:MAXimum
value: CalculateStruct = driver.nrMmwMeas.multiEval.pdynamics.maximum.
    ↪ calculate()
```

No command help available

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:MAXimum
value: ResultData = driver.nrMmwMeas.multiEval.pdynamics.maximum.fetch()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:MAXimum
value: ResultData = driver.nrMmwMeas.multiEval.pdynamics.maximum.read()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement.

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.1.4.4 Minimum

##### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:MINimum
FETCH:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:MINimum
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:MINimum
```

##### class MinimumCls

Minimum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Off\_Power\_Before: float or bool: No parameter help available
- On\_Power\_Rms: float or bool: No parameter help available
- On\_Power\_Peak: float or bool: No parameter help available
- Off\_Power\_After: float or bool: No parameter help available

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.
- Off\_Power\_Before: float: No parameter help available
- On\_Power\_Rms: float: No parameter help available
- On\_Power\_Peak: float: No parameter help available
- Off\_Power\_After: float: No parameter help available

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:MINimum
value: CalculateStruct = driver.nrMmwMeas.multiEval.pdynamics.minimum.
↪ calculate()
```

No command help available

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:MINimum
value: ResultData = driver.nrMmwMeas.multiEval.pdynamics.minimum.fetch()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:MINimum
value: ResultData = driver.nrMmwMeas.multiEval.pdynamics.minimum.read()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement.

**return**

structure: for return value, see the help for ResultData structure arguments.

**6.2.1.4.5 StandardDev****SCPI Commands :**

```
READ:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:SDEVIation
FETCH:NRMMw:MEASurement<Instance>:MEValuation:PDYNamics:SDEVIation
```

**class StandardDevCls**

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.
- Off\_Power\_Before: float: No parameter help available
- On\_Power\_Rms: float: No parameter help available
- On\_Power\_Peak: float: No parameter help available
- Off\_Power\_After: float: No parameter help available

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:PDYnamics:SDEviation
value: ResultData = driver.nrMmwMeas.multiEval.pdynamics.standardDev.fetch()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation:PDYnamics:SDEviation
value: ResultData = driver.nrMmwMeas.multiEval.pdynamics.standardDev.read()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement.

**return**

structure: for return value, see the help for ResultData structure arguments.

**6.2.1.5 Pmonitor****class PmonitorCls**

Pmonitor commands group definition. 10 total commands, 5 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.pmonitor.clone()
```

## Subgroups

### 6.2.1.5.1 Average

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:AVERage
FETCh:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

##### class ResultData

Response structure. Fields:

- Reliability: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float: No parameter help available

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.pmonitor.average.fetch()
```

No command help available

##### **return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.pmonitor.average.read()
```

No command help available

##### **return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.5.2 Current

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:CURREnt
FETCh:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:CURREnt
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

##### class ResultData

Response structure. Fields:

- Reliability: int: No parameter help available



- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float: No parameter help available

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:CURRent
value: ResultData = driver.nrMmwMeas.multiEval.pmonitor.current.fetch()
```

No command help available

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:CURRent
value: ResultData = driver.nrMmwMeas.multiEval.pmonitor.current.read()
```

No command help available

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.5.3 Maximum

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:MAXimum
FETCh:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float: No parameter help available

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:MAXimum
value: ResultData = driver.nrMmwMeas.multiEval.pmonitor.maximum.fetch()
```

No command help available

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:MAXimum
value: ResultData = driver.nrMmwMeas.multiEval.pmonitor.maximum.read()
```

No command help available

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.1.5.4 Minimum

##### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:MINimum
FETCh:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:MINimum
```

##### class MinimumCls

Minimum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

##### class ResultData

Response structure. Fields:

- Reliability: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float: No parameter help available

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:MINimum
value: ResultData = driver.nrMmwMeas.multiEval.pmonitor.minimum.fetch()
```

No command help available

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:MINimum
value: ResultData = driver.nrMmwMeas.multiEval.pmonitor.minimum.read()
```

No command help available

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.1.5.5 StandardDev

##### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:SDEviation
FETCh:NRMMw:MEASurement<Instance>:MEValuation:PMONitor:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float: No parameter help available

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:PMONitor:SDEviation
value: ResultData = driver.nrMmwMeas.multiEval.pmonitor.standardDev.fetch()
```

No command help available

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation:PMONitor:SDEviation
value: ResultData = driver.nrMmwMeas.multiEval.pmonitor.standardDev.read()
```

No command help available

**return**

structure: for return value, see the help for ResultData structure arguments.

**6.2.1.6 SeMask****class SeMaskCls**

SeMask commands group definition. 25 total commands, 6 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.seMask.clone()
```

**Subgroups****6.2.1.6.1 Average****SCPI Commands :**

```
READ:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:AVERage
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:AVERage
CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:AVERage
```

**class AverageCls**

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Obw: float or bool: Occupied bandwidth
- Tx\_Power: float or bool: Total TX power in the slot

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Obw: float: Occupied bandwidth
- Tx\_Power: float: Total TX power in the slot

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:AVERage
value: CalculateStruct = driver.nrMmwMeas.multiEval.seMask.average.calculate()
```

Return the current, average and standard deviation single value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.seMask.average.fetch()
```

Return the current, average and standard deviation single value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.seMask.average.read()
```

Return the current, average and standard deviation single value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.6.2 Current

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEValuation:SEMask:CURRENT
FETCH:NRMMw:MEASurement<Instance>:MEValuation:SEMask:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:SEMask:CURRENT
```

#### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Obw: float or bool: Occupied bandwidth
- Tx\_Power: float or bool: Total TX power in the slot

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Obw: float: Occupied bandwidth
- Tx\_Power: float: Total TX power in the slot

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:SEMask:CURRENT
value: CalculateStruct = driver.nrMmwMeas.multiEval.seMask.current.calculate()
```

Return the current, average and standard deviation single value results of the spectrum emission measurement. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:SEMask:CURRENT
value: ResultData = driver.nrMmwMeas.multiEval.seMask.current.fetch()
```

Return the current, average and standard deviation single value results of the spectrum emission measurement. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEValuation:SEMask:CURRENT
value: ResultData = driver.nrMmwMeas.multiEval.seMask.current.read()
```

Return the current, average and standard deviation single value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.6.3 Dallocation

**SCPI Command :**

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:SEMask:DALlocation
```

**class DallocationCls**

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: No parameter help available
- Nr\_Res\_Blocks: str: No parameter help available
- Offset\_Res\_Blocks: str: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:SEMask:DALlocation
value: FetchStruct = driver.nrMmwMeas.multiEval.seMask.dallocation.fetch()
```

No command help available

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.6.4 Extreme

**SCPI Commands :**

```
READ:NRMMw:MEASurement<Instance>:MEValuation:SEMask:EXTreme
FETCh:NRMMw:MEASurement<Instance>:MEValuation:SEMask:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:MEValuation:SEMask:EXTreme
```

**class ExtremeCls**

Extreme commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'

- **Out\_Of\_Tolerance**: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- **Obw**: float or bool: Occupied bandwidth
- **Tx\_Power\_Min**: float or bool: Minimum total TX power in the slot
- **Tx\_Power\_Max**: float or bool: Maximum total TX power in the slot

#### class ResultData

Response structure. Fields:

- **Reliability**: int: 'Reliability indicator'
- **Out\_Of\_Tolerance**: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- **Obw**: float: Occupied bandwidth
- **Tx\_Power\_Min**: float: Minimum total TX power in the slot
- **Tx\_Power\_Max**: float: Maximum total TX power in the slot

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:MEValuation:SEMask:EXTreme
value: CalculateStruct = driver.nrMmwMeas.multiEval.seMask.extreme.calculate()
```

Return the extreme single value results of the spectrum emission measurement. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:SEMask:EXTreme
value: ResultData = driver.nrMmwMeas.multiEval.seMask.extreme.fetch()
```

Return the extreme single value results of the spectrum emission measurement. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEValuation:SEMask:EXTreme
value: ResultData = driver.nrMmwMeas.multiEval.seMask.extreme.read()
```

Return the extreme single value results of the spectrum emission measurement. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.6.5 Margin

#### class MarginCls

Margin commands group definition. 13 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.seMask.margin.clone()
```

### Subgroups

#### 6.2.1.6.5.1 All

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:MARGin:ALL
```

#### class AllCls

All commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Margin\_Curr\_Neg: List[float]: No parameter help available
- Margin\_Curr\_Pos: List[float]: No parameter help available
- Margin\_Avg\_Neg: List[float]: No parameter help available
- Margin\_Avg\_Pos: List[float]: No parameter help available
- Margin\_Min\_Neg: List[float]: No parameter help available
- Margin\_Min\_Pos: List[float]: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:MARGin:ALL
value: FetchStruct = driver.nrMmwMeas.multiEval.seMask.margin.all.fetch()
```

Returns spectrum emission mask margin results. A negative margin indicates that the trace is located above the limit line, i.e. the limit is exceeded. Results are provided for the current, average and maximum traces. For each trace, 24 values related to the negative (Neg) and positive (Pos) offset frequencies of emission mask areas 1 to 12 are provided. For inactive areas, NCAP is returned.

#### return

structure: for return value, see the help for FetchStruct structure arguments.



### 6.2.1.6.5.2 Average

#### class AverageCls

Average commands group definition. 4 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nRMmwMeas.multiEval.seMask.margin.average.clone()
```

#### Subgroups

### 6.2.1.6.5.3 Negativ

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:MARGin:AVERage:NEGativ
```

#### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Margin\_Avg\_Neg\_X: List[float]: No parameter help available
- Margin\_Avg\_Neg\_Y: List[float]: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>
↳:MEvaluation:SEMask:MARGin:AVERage:NEGativ
value: FetchStruct = driver.nRMmwMeas.multiEval.seMask.margin.average.negative.
↳fetch()
```

Returns spectrum emission mask margin results. A negative margin indicates that the trace is located above the limit line, i.e. the limit is exceeded. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) . For each trace, the X and Y values of the margins for emission mask areas 1 to 12 are provided for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned. Returned sequence: <Reliability>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {...}area2, ..., {...}area12

#### return

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.1.6.5.4 Positiv

##### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:MARGin:AVERage:POSitiv
```

##### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Margin\_Avg\_Pos\_X: List[float]: No parameter help available
- Margin\_Avg\_Pos\_Y: List[float]: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>
↳:MEvaluation:SEMask:MARGin:AVERage:POSitiv
value: FetchStruct = driver.nrMmwMeas.multiEval.seMask.margin.average.positiv.
↳fetch()
```

Returns spectrum emission mask margin results. A negative margin indicates that the trace is located above the limit line, i.e. the limit is exceeded. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) . For each trace, the X and Y values of the margins for emission mask areas 1 to 12 are provided for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned. Returned sequence: <Reliability>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {...}area2, ..., {...}area12

##### return

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.1.6.5.5 Power

##### class PowerCls

Power commands group definition. 2 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.seMask.margin.average.power.clone()
```

## Subgroups

### 6.2.1.6.5.6 Negativ

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:MARGin:AVERage:POWer:NEGativ
```

#### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Margin\_Pow\_Avg\_Neg: List[float]: Comma-separated list of 12 trace values, one value per emission mask area

**fetch()** → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>
↪:MEvaluation:SEMask:MARGin:AVERage:POWer:NEGativ
value: FetchStruct = driver.nrMmwMeas.multiEval.seMask.margin.average.power.
↪negativ.fetch()
```

Returns the spectrum emission trace values at the limit line margin positions of the emission mask areas. The individual commands provide results for the CURRENT, AVERAGE and maximum traces (resulting in MINimum margins) . There are results for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned.

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.6.5.7 Positiv

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:MARGin:AVERage:POWer:POSitiv
```

#### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.

- `Margin_Pow_Avg_Pos`: List[float]: Comma-separated list of 12 trace values, one value per emission mask area

**fetch()** → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>
↳:MEvaluation:SEMask:MARGin:AVERage:POWer:POSitiv
value: FetchStruct = driver.nrMmwMeas.multiEval.seMask.margin.average.power.
↳positiv.fetch()
```

Returns the spectrum emission trace values at the limit line margin positions of the emission mask areas. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) . There are results for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned.

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.1.6.5.8 Current

**class CurrentCls**

Current commands group definition. 4 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.seMask.margin.current.clone()
```

#### Subgroups

#### 6.2.1.6.5.9 Negativ

**SCPI Command :**

```
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:MARGin:CURRENT:NEGativ
```

**class NegativCls**

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- `Reliability`: int: 'Reliability indicator'
- `Out_Of_Tolerance`: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- `Margin_Curr_Neg_X`: List[float]: No parameter help available
- `Margin_Curr_Neg_Y`: List[float]: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>
↳:MEvaluation:SEMask:MARGin:CURRent:NEGativ
value: FetchStruct = driver.nrMmwMeas.multiEval.seMask.margin.current.negative.
↳fetch()
```

Returns spectrum emission mask margin results. A negative margin indicates that the trace is located above the limit line, i.e. the limit is exceeded. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins). For each trace, the X and Y values of the margins for emission mask areas 1 to 12 are provided for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned. Returned sequence: <Reliability>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {...}area2, ..., {...}area12

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.1.6.5.10 Positiv

**SCPI Command :**

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:MARGin:CURRent:POSitiv
```

**class PositivCls**

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Margin\_Curr\_Pos\_X: List[float]: No parameter help available
- Margin\_Curr\_Pos\_Y: List[float]: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>
↳:MEvaluation:SEMask:MARGin:CURRent:POSitiv
value: FetchStruct = driver.nrMmwMeas.multiEval.seMask.margin.current.positive.
↳fetch()
```

Returns spectrum emission mask margin results. A negative margin indicates that the trace is located above the limit line, i.e. the limit is exceeded. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins). For each trace, the X and Y values of the margins for emission mask areas 1 to 12 are provided for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned. Returned sequence: <Reliability>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {...}area2, ..., {...}area12

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.1.6.5.11 Power

##### class PowerCls

Power commands group definition. 2 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.seMask.margin.current.power.clone()
```

#### Subgroups

#### 6.2.1.6.5.12 Negativ

##### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:MARGin:CURRent:POWer:NEGativ
```

##### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Margin\_Pow\_Curr\_Neg: List[float]: Comma-separated list of 12 trace values, one value per emission mask area

**fetch()** → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>
↪:MEvaluation:SEMask:MARGin:CURRent:POWer:NEGativ
value: FetchStruct = driver.nrMmwMeas.multiEval.seMask.margin.current.power.
↪negativ.fetch()
```

Returns the spectrum emission trace values at the limit line margin positions of the emission mask areas. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) . There are results for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned.

##### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.6.5.13 Positiv

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:MARGin:CURRent:POWer:POSitiv
```

#### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Margin\_Pow\_Curr\_Pos: List[float]: Comma-separated list of 12 trace values, one value per emission mask area

**fetch()** → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>
↳:MEvaluation:SEMask:MARGin:CURRent:POWer:POSitiv
value: FetchStruct = driver.nrMmwMeas.multiEval.seMask.margin.current.power.
↳positiv.fetch()
```

Returns the spectrum emission trace values at the limit line margin positions of the emission mask areas. The individual commands provide results for the CURRent, AVERage and maximum traces (resulting in MINimum margins) . There are results for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned.

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.6.5.14 Minimum

#### class MinimumCls

Minimum commands group definition. 4 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.seMask.margin.minimum.clone()
```

## Subgroups

### 6.2.1.6.5.15 Negativ

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEValuation:SEMask:MARGIN:MINimum:NEGativ
```

#### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Margin\_Min\_Neg\_X: List[float]: No parameter help available
- Margin\_Min\_Neg\_Y: List[float]: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>
↳:MEValuation:SEMask:MARGIN:MINimum:NEGativ
value: FetchStruct = driver.nrMmwMeas.multiEval.seMask.margin.minimum.negative.
↳fetch()
```

Returns spectrum emission mask margin results. A negative margin indicates that the trace is located above the limit line, i.e. the limit is exceeded. The individual commands provide results for the CURRENT, AVERAGE and maximum traces (resulting in MINIMUM margins) . For each trace, the X and Y values of the margins for emission mask areas 1 to 12 are provided for NEGATIVE and POSITIVE offset frequencies. For inactive areas, NCAP is returned. Returned sequence: <Reliability>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {...}area2, ..., {...}area12

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.6.5.16 Positiv

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEValuation:SEMask:MARGIN:MINimum:POSitiv
```

#### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'



- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Margin\_Min\_Pos\_X: List[float]: No parameter help available
- Margin\_Min\_Pos\_Y: List[float]: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>
↪:MEvaluation:SEMask:MARGIN:MINimum:POSitiv
value: FetchStruct = driver.nrMmwMeas.multiEval.seMask.margin.minimum.positiv.
↪fetch()
```

Returns spectrum emission mask margin results. A negative margin indicates that the trace is located above the limit line, i.e. the limit is exceeded. The individual commands provide results for the CURRENT, AVERAGE and maximum traces (resulting in MINimum margins). For each trace, the X and Y values of the margins for emission mask areas 1 to 12 are provided for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned. Returned sequence: <Reliability>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {...}area2, ..., {...}area12

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.1.6.5.17 Power

**class PowerCls**

Power commands group definition. 2 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.seMask.margin.minimum.power.clone()
```

#### Subgroups

#### 6.2.1.6.5.18 Negativ

**SCPI Command :**

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:MARGIN:MINimum:POWER:NEGativ
```

**class NegativCls**

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'

- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Margin\_Pow\_Min\_Neg: List[float]: Comma-separated list of 12 trace values, one value per emission mask area

**fetch()** → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>
↳:MEvaluation:SEMask:MARGin:MINimum:POWer:NEGativ
value: FetchStruct = driver.nrMmwMeas.multiEval.seMask.margin.minimum.power.
↳negativ.fetch()
```

Returns the spectrum emission trace values at the limit line margin positions of the emission mask areas. The individual commands provide results for the CURRENT, AVERAGE and maximum traces (resulting in MINimum margins) . There are results for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned.

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.1.6.5.19 Positiv

##### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:SEMask:MARGin:MINimum:POWer:POSitiv
```

##### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class FetchStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Margin\_Pow\_Min\_Pos: List[float]: Comma-separated list of 12 trace values, one value per emission mask area

**fetch()** → FetchStruct

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>
↳:MEvaluation:SEMask:MARGin:MINimum:POWer:POSitiv
value: FetchStruct = driver.nrMmwMeas.multiEval.seMask.margin.minimum.power.
↳positiv.fetch()
```

Returns the spectrum emission trace values at the limit line margin positions of the emission mask areas. The individual commands provide results for the CURRENT, AVERAGE and maximum traces (resulting in MINimum margins) . There are results for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned.

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.1.6.6 StandardDev

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEValuation:SEMask:SDEviation
FETCh:NRMMw:MEASurement<Instance>:MEValuation:SEMask:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits.
- Obw: float: Occupied bandwidth
- Tx\_Power: float: Total TX power in the slot

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:SEMask:SDEviation
value: ResultData = driver.nrMmwMeas.multiEval.seMask.standardDev.fetch()
```

Return the current, average and standard deviation single value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEValuation:SEMask:SDEviation
value: ResultData = driver.nrMmwMeas.multiEval.seMask.standardDev.read()
```

Return the current, average and standard deviation single value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.7 State

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:MEValuation:STATe
```

#### class StateCls

State commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**fetch**(*timeout: float = None, target\_main\_state: TargetStateA = None, target\_sync\_state: TargetSyncState = None*) → ResourceState

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:STATE
value: enums.ResourceState = driver.nrMmwMeas.multiEval.state.fetch(timeout = 1.
↪0, target_main_state = enums.TargetStateA.OFF, target_sync_state = enums.
↪TargetSyncState.ADJusted)
```

Queries the main measurement state. Without query parameters, the state is returned immediately. With query parameters, the state is returned when the <TargetMainState> and the <TargetSyncState> are reached or when the <Timeout> expires.

**param timeout**

No help available

**param target\_main\_state**

Target MainState for the query Default is RUN.

**param target\_sync\_state**

Target SyncState for the query Default is ADJ.

**return**

meas\_status: Current state or target state of ongoing state transition OFF: measurement off RUN: measurement running RDY: measurement completed

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.state.clone()
```

## Subgroups

### 6.2.1.7.1 All

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:STATE:ALL
```

#### class AllCls

All commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*timeout: float = None, target\_main\_state: TargetStateA = None, target\_sync\_state: TargetSyncState = None*) → List[ResourceState]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:STATE:ALL
value: List[enums.ResourceState] = driver.nrMmwMeas.multiEval.state.all.
↪fetch(timeout = 1.0, target_main_state = enums.TargetStateA.OFF, target_sync_
↪state = enums.TargetSyncState.ADJusted)
```

Queries the main measurement state and the measurement substates. Without query parameters, the states are returned immediately. With query parameters, the states are returned when the <TargetMainState> and the <TargetSyncState> are reached or when the <Timeout> expires.

**param timeout**

No help available

**param target\_main\_state**

Target MainState for the query Default is RUN.

**param target\_sync\_state**

Target SyncState for the query Default is ADJ.

**return**

state: No help available

**6.2.1.8 Trace****class TraceCls**

Trace commands group definition. 18 total commands, 4 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.nRMmwMeas.multiEval.trace.clone()
```

**Subgroups****6.2.1.8.1 Aclr****class AclrCls**

Aclr commands group definition. 4 total commands, 2 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.nRMmwMeas.multiEval.trace.aclr.clone()
```

**Subgroups****6.2.1.8.1.1 Average****SCPI Commands :**

```
READ:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:ACLR:AVERage
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:ACLR:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Nr\_Neg: float: Power in the adjacent NR channel with lower frequency
- Carrier: float: Power in the allocated NR channel
- Nr\_Pos: float: Power in the adjacent NR channel with higher frequency

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:TRACe:ACLR:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.trace.aclr.average.fetch()
```

Returns the absolute powers as displayed in the ACLR diagram. The current and average values can be retrieved. See also 'Square Spectrum ACLR'.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEValuation:TRACe:ACLR:AVERage
value: ResultData = driver.nrMmwMeas.multiEval.trace.aclr.average.read()
```

Returns the absolute powers as displayed in the ACLR diagram. The current and average values can be retrieved. See also 'Square Spectrum ACLR'.

**return**

structure: for return value, see the help for ResultData structure arguments.

**6.2.1.8.1.2 Current****SCPI Commands :**

```
READ:NRMMw:MEASurement<Instance>:MEValuation:TRACe:ACLR:CURRent
FETCh:NRMMw:MEASurement<Instance>:MEValuation:TRACe:ACLR:CURRent
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Nr\_Neg: float: Power in the adjacent NR channel with lower frequency
- Carrier: float: Power in the allocated NR channel
- Nr\_Pos: float: Power in the adjacent NR channel with higher frequency

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:TRACe:ACLR:CURRent
value: ResultData = driver.nrMmwMeas.multiEval.trace.aclr.current.fetch()
```

Returns the absolute powers as displayed in the ACLR diagram. The current and average values can be retrieved. See also ‘Square Spectrum ACLR’.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:ACLR:CURRENT
value: ResultData = driver.nrMmwMeas.multiEval.trace.aclr.current.read()
```

Returns the absolute powers as displayed in the ACLR diagram. The current and average values can be retrieved. See also ‘Square Spectrum ACLR’.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.8.2 Podynamics

#### class PodynamicsCls

Podynamics commands group definition. 6 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.trace.podynamics.clone()
```

#### Subgroups

### 6.2.1.8.2.1 Average

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:AVERage
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.trace.podynamics.average.fetch()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625 µs. The results of the current, average and maximum traces can be retrieved. See also ‘Square Power Dynamics’.

Suppressed linked return values: reliability

**return**

power: 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the measured active slot. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the slot (0  $\mu$ s) .

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEValuation:TRACe:PDYNamics:AVERage
value: List[float] = driver.nrMmwMeas.multiEval.trace.pdynamics.average.read()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘Square Power Dynamics’.

Suppressed linked return values: reliability

**return**

power: 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the measured active slot. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the slot (0  $\mu$ s) .

### 6.2.1.8.2.2 Current

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEValuation:TRACe:PDYNamics:CURRent
FETCH:NRMMw:MEASurement<Instance>:MEValuation:TRACe:PDYNamics:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEValuation:TRACe:PDYNamics:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.trace.pdynamics.current.fetch()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘Square Power Dynamics’.

Suppressed linked return values: reliability

**return**

power: 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the measured active slot. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the slot (0  $\mu$ s) .

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEValuation:TRACe:PDYNamics:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.trace.pdynamics.current.read()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘Square Power Dynamics’.

Suppressed linked return values: reliability



**return**

power: 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the measured active slot. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the slot (0  $\mu$ s) .

**6.2.1.8.2.3 Maximum****SCPI Commands :**

```
READ:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:MAXimum
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:MAXimum
```

**class MaximumCls**

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:MAXimum
value: List[float] = driver.nrMmwMeas.multiEval.trace.pdynamics.maximum.fetch()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘Square Power Dynamics’.

Suppressed linked return values: reliability

**return**

power: 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the measured active slot. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the slot (0  $\mu$ s) .

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:MAXimum
value: List[float] = driver.nrMmwMeas.multiEval.trace.pdynamics.maximum.read()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘Square Power Dynamics’.

Suppressed linked return values: reliability

**return**

power: 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the measured active slot. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the slot (0  $\mu$ s) .

### 6.2.1.8.3 Pmonitor

#### SCPI Commands :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:TRAcE:PMONitor
READ:NRMMw:MEASurement<Instance>:MEvaluation:TRAcE:PMONitor
```

#### class PmonitorCls

Pmonitor commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:TRAcE:PMONitor
value: List[float] = driver.nrMmwMeas.multiEval.trace.pmonitor.fetch()
```

Returns the power monitor results.

Suppressed linked return values: reliability

**return**

power: Comma-separated list of power values, one value per slot

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation:TRAcE:PMONitor
value: List[float] = driver.nrMmwMeas.multiEval.trace.pmonitor.read()
```

Returns the power monitor results.

Suppressed linked return values: reliability

**return**

power: Comma-separated list of power values, one value per slot

### 6.2.1.8.4 SeMask

#### class SeMaskCls

SeMask commands group definition. 6 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.trace.seMask.clone()
```

## Subgroups

### 6.2.1.8.4.1 Rbw<Rbw>

#### RepCap Settings

```
# Range: Bw120 .. Bw1000
rc = driver.nrMmwMeas.multiEval.trace.seMask.rbw.repcap_rbw_get()
driver.nrMmwMeas.multiEval.trace.seMask.rbw.repcap_rbw_set(repcap.Rbw.Bw120)
```

#### class RbwCls

Rbw commands group definition. 6 total commands, 3 Subgroups, 0 group commands Repeated Capability: Rbw, default value after init: Rbw.Bw120

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.multiEval.trace.seMask.rbw.clone()
```

## Subgroups

### 6.2.1.8.4.2 Average

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEValuation:TRACe:SEMask:RBW<kHz>:AVERage
FETCh:NRMMw:MEASurement<Instance>:MEValuation:TRACe:SEMask:RBW<kHz>:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch**(rbw=Rbw.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEValuation:TRACe:SEMask:RBW<kHz>
↪ :AVERage
value: List[float] = driver.nrMmwMeas.multiEval.trace.seMask.rbw.average.
↪ fetch(rbw = repcap.Rbw.Default)
```

Returns the values of the spectrum emission traces. Separate traces are available for the individual resolution bandwidths (<kHz>). The results of the current, average and maximum traces can be retrieved. See also ‘Square Spectrum Emission Mask’.

Suppressed linked return values: reliability

#### param rbw

optional repeated capability selector. Default value: Bw120 (settable in the interface ‘Rbw’)

#### return

power: Comma-separated list of power results The value in the middle of the result array corresponds to the center frequency. The test point separation between adjacent results depends on the resolution bandwidth, see table below. For RBW1000, results

are only available for frequencies with active limits using these RBWs. For other frequencies, INV is returned.

**read**(*rbw*=*Rbw.Default*) → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>
↳ :AVERage
value: List[float] = driver.nrMmwMeas.multiEval.trace.seMask.rbw.average.
↳ read(rbw = repcap.Rbw.Default)
```

Returns the values of the spectrum emission traces. Separate traces are available for the individual resolution bandwidths (<kHz>). The results of the current, average and maximum traces can be retrieved. See also 'Square Spectrum Emission Mask'.

Suppressed linked return values: reliability

**param rbw**

optional repeated capability selector. Default value: Bw120 (settable in the interface 'Rbw')

**return**

power: Comma-separated list of power results The value in the middle of the result array corresponds to the center frequency. The test point separation between adjacent results depends on the resolution bandwidth, see table below. For RBW1000, results are only available for frequencies with active limits using these RBWs. For other frequencies, INV is returned.

#### 6.2.1.8.4.3 Current

##### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>:CURRent
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch**(*rbw*=*Rbw.Default*) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>
↳ :CURRent
value: List[float] = driver.nrMmwMeas.multiEval.trace.seMask.rbw.current.
↳ fetch(rbw = repcap.Rbw.Default)
```

Returns the values of the spectrum emission traces. Separate traces are available for the individual resolution bandwidths (<kHz>). The results of the current, average and maximum traces can be retrieved. See also 'Square Spectrum Emission Mask'.

Suppressed linked return values: reliability

**param rbw**

optional repeated capability selector. Default value: Bw120 (settable in the interface 'Rbw')

**return**

power: Comma-separated list of power results The value in the middle of the result

array corresponds to the center frequency. The test point separation between adjacent results depends on the resolution bandwidth, see table below. For RBW1000, results are only available for frequencies with active limits using these RBWs. For other frequencies, INV is returned.

**read**(rbw=Rbw.Default) → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>
↳:CURRent
value: List[float] = driver.nrMmwMeas.multiEval.trace.seMask.rbw.current.
↳read(rbw = repcap.Rbw.Default)
```

Returns the values of the spectrum emission traces. Separate traces are available for the individual resolution bandwidths (<kHz>). The results of the current, average and maximum traces can be retrieved. See also 'Square Spectrum Emission Mask'.

Suppressed linked return values: reliability

**param rbw**

optional repeated capability selector. Default value: Bw120 (settable in the interface 'Rbw')

**return**

power: Comma-separated list of power results The value in the middle of the result array corresponds to the center frequency. The test point separation between adjacent results depends on the resolution bandwidth, see table below. For RBW1000, results are only available for frequencies with active limits using these RBWs. For other frequencies, INV is returned.

#### 6.2.1.8.4.4 Maximum

##### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>:MAXimum
FETCh:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>:MAXimum
```

##### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch**(rbw=Rbw.Default) → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>
↳:MAXimum
value: List[float] = driver.nrMmwMeas.multiEval.trace.seMask.rbw.maximum.
↳fetch(rbw = repcap.Rbw.Default)
```

Returns the values of the spectrum emission traces. Separate traces are available for the individual resolution bandwidths (<kHz>). The results of the current, average and maximum traces can be retrieved. See also 'Square Spectrum Emission Mask'.

Suppressed linked return values: reliability

**param rbw**

optional repeated capability selector. Default value: Bw120 (settable in the interface 'Rbw')

**return**

power: Comma-separated list of power results The value in the middle of the result array corresponds to the center frequency. The test point separation between adjacent results depends on the resolution bandwidth, see table below. For RBW1000, results are only available for frequencies with active limits using these RBWs. For other frequencies, INV is returned.

**read**(*rbw=Rbw.Default*) → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:MEvaluation:TRAcE:SEMask:RBW<kHz>
↳:MAXimum
value: List[float] = driver.nrMmwMeas.multiEval.trace.seMask.rbw.maximum.
↳read(rbw = repcap.Rbw.Default)
```

Returns the values of the spectrum emission traces. Separate traces are available for the individual resolution bandwidths (<kHz>). The results of the current, average and maximum traces can be retrieved. See also 'Square Spectrum Emission Mask'.

Suppressed linked return values: reliability

**param rbw**

optional repeated capability selector. Default value: Bw120 (settable in the interface 'Rbw')

**return**

power: Comma-separated list of power results The value in the middle of the result array corresponds to the center frequency. The test point separation between adjacent results depends on the resolution bandwidth, see table below. For RBW1000, results are only available for frequencies with active limits using these RBWs. For other frequencies, INV is returned.

### 6.2.1.9 VfThroughput

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:MEvaluation:VFTHroughput
```

#### class VfThroughputCls

VfThroughput commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**() → float

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:MEvaluation:VFTHroughput
value: float = driver.nrMmwMeas.multiEval.vfThroughput.fetch()
```

No command help available

Suppressed linked return values: reliability

**return**

vf\_throughput: No help available

## 6.2.2 Prach

### SCPI Commands :

```
INITiate:NRMMw:MEASurement<Instance>:PRACH
STOP:NRMMw:MEASurement<Instance>:PRACH
ABORt:NRMMw:MEASurement<Instance>:PRACH
```

#### class PrachCls

Prach commands group definition. 83 total commands, 5 Subgroups, 3 group commands

**abort**(opc\_timeout\_ms: int = -1) → None

```
# SCPI: ABORt:NRMMw:MEASurement<Instance>:PRACH
driver.nrMmwMeas.prach.abort()
```

INTRO\_CMD\_HELP: Starts, stops **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters the RUN state.
- STOP... halts the measurement immediately. The measurement enters the RDY state. Measurement results are kept. The resources remain allocated to the measurement.
- ABORt... halts the measurement immediately. The measurement enters the OFF state. All measurement values are **set** to NAV. Allocated resources are released.

Use FETCh...STATe? to query the current measurement state.

#### param opc\_timeout\_ms

Maximum time to wait in milliseconds, valid only for this call.

**initiate**(opc\_timeout\_ms: int = -1) → None

```
# SCPI: INITiate:NRMMw:MEASurement<Instance>:PRACH
driver.nrMmwMeas.prach.initiate()
```

INTRO\_CMD\_HELP: Starts, stops **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters the RUN state.
- STOP... halts the measurement immediately. The measurement enters the RDY state. Measurement results are kept. The resources remain allocated to the measurement.
- ABORt... halts the measurement immediately. The measurement enters the OFF state. All measurement values are **set** to NAV. Allocated resources are released.

Use FETCh...STATe? to query the current measurement state.

#### param opc\_timeout\_ms

Maximum time to wait in milliseconds, valid only for this call.

**stop()** → None

```
# SCPI: STOP:NRMMw:MEASurement<Instance>:PRACH
driver.nrMmwMeas.prach.stop()
```

INTRO\_CMD\_HELP: Starts, stops **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters the RUN state.
- STOP... halts the measurement immediately. The measurement enters the RDY state. Measurement results are kept. The resources remain allocated to the measurement.
- ABORT... halts the measurement immediately. The measurement enters the OFF state. All measurement values are **set** to NAV. Allocated resources are released.

Use FETCH...STATe? to query the current measurement state.

**stop\_with\_opc**(opc\_timeout\_ms: int = -1) → None

```
# SCPI: STOP:NRMMw:MEASurement<Instance>:PRACH
driver.nrMmwMeas.prach.stop_with_opc()
```

INTRO\_CMD\_HELP: Starts, stops **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters the RUN state.
- STOP... halts the measurement immediately. The measurement enters the RDY state. Measurement results are kept. The resources remain allocated to the measurement.
- ABORT... halts the measurement immediately. The measurement enters the OFF state. All measurement values are **set** to NAV. Allocated resources are released.

Use FETCH...STATe? to query the current measurement state.

Same as stop, but waits for the operation to complete before continuing further. Use the RsCMPX\_NrFr2Meas.utilities.opc\_timeout\_set() to set the timeout value.

**param opc\_timeout\_ms**

Maximum time to wait in milliseconds, valid only for this call.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.clone()
```



## Subgroups

### 6.2.2.1 EvmSymbol

#### class EvmSymbolCls

EvmSymbol commands group definition. 15 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.evmSymbol.clone()
```

## Subgroups

### 6.2.2.1.1 Average

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRACH:EVMSymbol:AVERage
FETCh:NRMMw:MEASurement<Instance>:PRACH:EVMSymbol:AVERage
CALCulate:NRMMw:MEASurement<Instance>:PRACH:EVMSymbol:AVERage
```

#### class AverageCls

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Low: List[enums.ResultStatus2]: No parameter help available
- High: List[enums.ResultStatus2]: No parameter help available

##### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: EVM value for low EVM window position.
- High: List[float]: EVM value for high EVM window position.

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:PRACH:EVMSymbol:AVERage
value: CalculateStruct = driver.nrMmwMeas.prach.evmSymbol.average.calculate()
```

No command help available

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:AVERage
value: ResultData = driver.nrMmwMeas.prach.evmSymbol.average.fetch()
```

Returns the values of the EVM RMS diagrams for the OFDM symbols in the measured preamble. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, ..., {<Low>, <High>}symbol 11 If the preamble contains fewer than 12 symbols, NCAPs are returned for the remaining symbols. See also ‘Square EVM vs Symbol’.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:AVERage
value: ResultData = driver.nrMmwMeas.prach.evmSymbol.average.read()
```

Returns the values of the EVM RMS diagrams for the OFDM symbols in the measured preamble. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, ..., {<Low>, <High>}symbol 11 If the preamble contains fewer than 12 symbols, NCAPs are returned for the remaining symbols. See also ‘Square EVM vs Symbol’.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.2.1.2 Current

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:CURRENT
FETCh:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:CURRENT
```

#### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Low: List[enums.ResultStatus2]: No parameter help available
- High: List[enums.ResultStatus2]: No parameter help available

##### class ResultData

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Low: List[float]: EVM value for low EVM window position.
- High: List[float]: EVM value for high EVM window position.

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:CURRENT
value: CalculateStruct = driver.nrMmwMeas.prach.evmSymbol.current.calculate()
```

No command help available

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:CURRENT
value: ResultData = driver.nrMmwMeas.prach.evmSymbol.current.fetch()
```

Returns the values of the EVM RMS diagrams for the OFDM symbols in the measured preamble. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, ..., {<Low>, <High>}symbol 11 If the preamble contains fewer than 12 symbols, NCAPs are returned for the remaining symbols. See also ‘Square EVM vs Symbol’.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:CURRENT
value: ResultData = driver.nrMmwMeas.prach.evmSymbol.current.read()
```

Returns the values of the EVM RMS diagrams for the OFDM symbols in the measured preamble. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, ..., {<Low>, <High>}symbol 11 If the preamble contains fewer than 12 symbols, NCAPs are returned for the remaining symbols. See also ‘Square EVM vs Symbol’.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.2.1.3 Maximum

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:MAXimum
FETCH:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:MAXimum
CALCulate:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Low: List[enums.ResultStatus2]: No parameter help available
- High: List[enums.ResultStatus2]: No parameter help available

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: EVM value for low EVM window position.
- High: List[float]: EVM value for high EVM window position.

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:PRACH:EVMSymbol:MAXimum
value: CalculateStruct = driver.nrMmwMeas.prach.evmSymbol.maximum.calculate()
```

No command help available

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRACH:EVMSymbol:MAXimum
value: ResultData = driver.nrMmwMeas.prach.evmSymbol.maximum.fetch()
```

Returns the values of the EVM RMS diagrams for the OFDM symbols in the measured preamble. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, ..., {<Low>, <High>}symbol 11 If the preamble contains fewer than 12 symbols, NCAPs are returned for the remaining symbols. See also 'Square EVM vs Symbol'.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRACH:EVMSymbol:MAXimum
value: ResultData = driver.nrMmwMeas.prach.evmSymbol.maximum.read()
```

Returns the values of the EVM RMS diagrams for the OFDM symbols in the measured preamble. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, ..., {<Low>, <High>}symbol 11 If the preamble contains fewer than 12 symbols, NCAPs are returned for the remaining symbols. See also 'Square EVM vs Symbol'.

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.2.1.4 Peak

**class PeakCls**

Peak commands group definition. 6 total commands, 3 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.evmSymbol.peak.clone()
```

## Subgroups

### 6.2.2.1.4.1 Average

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRACH:EVMSymbol:PEAK:AVERage
FETCH:NRMMw:MEASurement<Instance>:PRACH:EVMSymbol:PEAK:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: EVM value for low EVM window position.
- High: List[float]: EVM value for high EVM window position.

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRACH:EVMSymbol:PEAK:AVERage
value: ResultData = driver.nrMmwMeas.prach.evmSymbol.peak.average.fetch()
```

Returns the values of the EVM peak diagrams for the OFDM symbols in the measured preamble. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, ..., {<Low>, <High>}symbol 11 If the preamble contains fewer than 12 symbols, NCAPs are returned for the remaining symbols. See also 'Square EVM vs Symbol'.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRACH:EVMSymbol:PEAK:AVERage
value: ResultData = driver.nrMmwMeas.prach.evmSymbol.peak.average.read()
```

Returns the values of the EVM peak diagrams for the OFDM symbols in the measured preamble. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, ..., {<Low>, <High>}symbol 11 If the preamble contains fewer than 12 symbols, NCAPs are returned for the remaining symbols. See also 'Square EVM vs Symbol'.

#### return

structure: for return value, see the help for ResultData structure arguments.

### 6.2.2.1.4.2 Current

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:PEAK:CURRent
FETCH:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:PEAK:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: EVM value for low EVM window position.
- High: List[float]: EVM value for high EVM window position.

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:PEAK:CURRent
value: ResultData = driver.nrMmwMeas.prach.evmSymbol.peak.current.fetch()
```

Returns the values of the EVM peak diagrams for the OFDM symbols in the measured preamble. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, ..., {<Low>, <High>}symbol 11 If the preamble contains fewer than 12 symbols, NCAPs are returned for the remaining symbols. See also 'Square EVM vs Symbol'.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:PEAK:CURRent
value: ResultData = driver.nrMmwMeas.prach.evmSymbol.peak.current.read()
```

Returns the values of the EVM peak diagrams for the OFDM symbols in the measured preamble. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, ..., {<Low>, <High>}symbol 11 If the preamble contains fewer than 12 symbols, NCAPs are returned for the remaining symbols. See also 'Square EVM vs Symbol'.

#### return

structure: for return value, see the help for ResultData structure arguments.

### 6.2.2.1.4.3 Maximum

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:PEAK:MAXimum
FETCH:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:PEAK:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Low: List[float]: EVM value for low EVM window position.
- High: List[float]: EVM value for high EVM window position.

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:PEAK:MAXimum
value: ResultData = driver.nrMmwMeas.prach.evmsymbol.peak.maximum.fetch()
```

Returns the values of the EVM peak diagrams for the OFDM symbols in the measured preamble. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, ..., {<Low>, <High>}symbol 11 If the preamble contains fewer than 12 symbols, NCAPs are returned for the remaining symbols. See also 'Square EVM vs Symbol'.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:EVMSymbol:PEAK:MAXimum
value: ResultData = driver.nrMmwMeas.prach.evmsymbol.peak.maximum.read()
```

Returns the values of the EVM peak diagrams for the OFDM symbols in the measured preamble. The results of the current, average and maximum diagrams can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, ..., {<Low>, <High>}symbol 11 If the preamble contains fewer than 12 symbols, NCAPs are returned for the remaining symbols. See also 'Square EVM vs Symbol'.

#### return

structure: for return value, see the help for ResultData structure arguments.

### 6.2.2.2 Modulation

#### class ModulationCls

Modulation commands group definition. 20 total commands, 9 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.modulation.clone()
```

### Subgroups

#### 6.2.2.2.1 Average

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRACH:MODulation:AVERage
FETCh:NRMMw:MEASurement<Instance>:PRACH:MODulation:AVERage
CALCulate:NRMMw:MEASurement<Instance>:PRACH:MODulation:AVERage
```

#### class AverageCls

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Evm\_Rms\_Low: float or bool: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float or bool: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float or bool: EVM peak value, low EVM window position
- Evm\_Peak\_High: float or bool: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float or bool: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float or bool: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float or bool: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float or bool: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float or bool: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float or bool: Phase error peak value, high EVM window position
- Frequency\_Error: float or bool: Carrier frequency error
- Timing\_Error: float or bool: Time error



- Tx\_Power: float or bool: User equipment power
- Peak\_Power: float or bool: User equipment peak power
- Antenna\_1\_Pow: float or bool: Power at RX antenna 1
- Antenna\_2\_Pow: float or bool: Power at RX antenna 2

### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Evm\_Rms\_Low: float: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float: EVM peak value, low EVM window position
- Evm\_Peak\_High: float: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float: Phase error peak value, high EVM window position
- Frequency\_Error: float: Carrier frequency error
- Timing\_Error: float: Time error
- Tx\_Power: float: User equipment power
- Peak\_Power: float: User equipment peak power
- Antenna\_1\_Pow: float: Power at RX antenna 1
- Antenna\_2\_Pow: float: Power at RX antenna 2

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:PRCh:MODulation:AVERage
value: CalculateStruct = driver.nrMmwMeas.prach.modulation.average.calculate()
```

Return the current, average and standard deviation single value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRACH:MODulation:AVERage
value: ResultData = driver.nrMmwMeas.prach.modulation.average.fetch()
```

Return the current, average and standard deviation single value results. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRACH:MODulation:AVERage
value: ResultData = driver.nrMmwMeas.prach.modulation.average.read()
```

Return the current, average and standard deviation single value results. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.2.2.2 Current

##### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRACH:MODulation:CURRent
FETCh:NRMMw:MEASurement<Instance>:PRACH:MODulation:CURRent
CALCulate:NRMMw:MEASurement<Instance>:PRACH:MODulation:CURRent
```

##### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Evm\_Rms\_Low: float or bool: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float or bool: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float or bool: EVM peak value, low EVM window position
- Evm\_Peak\_High: float or bool: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float or bool: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float or bool: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float or bool: Phase error RMS value, low EVM window position

- Ph\_Error\_Rms\_High: float or bool: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float or bool: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float or bool: Phase error peak value, high EVM window position
- Frequency\_Error: float or bool: Carrier frequency error
- Timing\_Error: float or bool: Time error
- Tx\_Power: float or bool: User equipment power
- Peak\_Power: float or bool: User equipment peak power
- Antenna\_1\_Pow: float or bool: Power at RX antenna 1
- Antenna\_2\_Pow: float or bool: Power at RX antenna 2

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Evm\_Rms\_Low: float: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float: EVM peak value, low EVM window position
- Evm\_Peak\_High: float: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float: Phase error peak value, high EVM window position
- Frequency\_Error: float: Carrier frequency error
- Timing\_Error: float: Time error
- Tx\_Power: float: User equipment power
- Peak\_Power: float: User equipment peak power
- Antenna\_1\_Pow: float: Power at RX antenna 1
- Antenna\_2\_Pow: float: Power at RX antenna 2

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:PRCh:MODulation:CURRent
value: CalculateStruct = driver.nrMmwMeas.prach.modulation.current.calculate()
```

Return the current, average and standard deviation single value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRACH:MODulation:CURRent
value: ResultData = driver.nrMmwMeas.prach.modulation.current.fetch()
```

Return the current, average and standard deviation single value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRACH:MODulation:CURRent
value: ResultData = driver.nrMmwMeas.prach.modulation.current.read()
```

Return the current, average and standard deviation single value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.2.2.3 DpfOffset

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:PRACH:MODulation:DPFoffset
```

#### class DpfOffsetCls

DpfOffset commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**fetch()** → int

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRACH:MODulation:DPFoffset
value: int = driver.nrMmwMeas.prach.modulation.dpfoffset.fetch()
```

Returns the automatically detected or manually configured PRACH frequency offset for single-preamble measurements.

Suppressed linked return values: reliability

**return**

prach\_freq\_offset: PRACH frequency offset

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.modulation.dpfOffset.clone()
```

## Subgroups

### 6.2.2.2.3.1 Preamble<Preamble>

## RepCap Settings

```
# Range: Nr1 .. Nr128
rc = driver.nrMmwMeas.prach.modulation.dpfOffset.preamble.repcap_preamble_get()
driver.nrMmwMeas.prach.modulation.dpfOffset.preamble.repcap_preamble_set(repcap.Preamble.
↳Nr1)
```

## SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:PRACH:MODulation:DPFoffset:PREamble<Number>
```

### class PreambleCls

Preamble commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: Preamble, default value after init: Preamble.Nr1

**fetch**(preamble=Preamble.Default) → int

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRACH:MODulation:DPFoffset:PREamble
↳<Number>
value: int = driver.nrMmwMeas.prach.modulation.dpfOffset.preamble.
↳fetch(preamble = repcap.Preamble.Default)
```

Returns the automatically detected or manually configured PRACH frequency offset for a selected preamble of multi-preamble measurements.

Suppressed linked return values: reliability

#### param preamble

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Preamble')

#### return

prach\_freq\_offset: PRACH frequency offset

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.modulation.dpfOffset.preamble.clone()
```

### 6.2.2.2.4 DsIndex

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:PRACH:MODulation:DSIndex
```

#### class DsIndexCls

DsIndex commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**fetch()** → int

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRACH:MODulation:DSIndex
value: int = driver.nrMmwMeas.prach.modulation.dsIndex.fetch()
```

Returns the automatically detected or manually configured sequence index for single-preamble measurements.

Suppressed linked return values: reliability

**return**  
sequence\_index: Sequence index

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.modulation.dsIndex.clone()
```

## Subgroups

### 6.2.2.2.4.1 Preamble<Preamble>

#### RepCap Settings

```
# Range: Nr1 .. Nr128
rc = driver.nrMmwMeas.prach.modulation.dsIndex.preamble.repcap_preamble_get()
driver.nrMmwMeas.prach.modulation.dsIndex.preamble.repcap_preamble_set(repcap.Preamble.
↪Nr1)
```

**SCPI Command :**

```
FETCH:NRMMw:MEASurement<Instance>:PRCh:MODulation:DSIndex:PREamble<Number>
```

**class PreambleCls**

Preamble commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: Preamble, default value after init: Preamble.Nr1

**fetch**(*preamble=Preamble.Default*) → int

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRCh:MODulation:DSIndex:PREamble
↳<Number>
value: int = driver.nrMmwMeas.prach.modulation.dsIndex.preamble.fetch(preamble_
↳= repcap.Preamble.Default)
```

Returns the automatically detected or manually configured sequence index for a selected preamble of multi-preamble measurements.

Suppressed linked return values: reliability

**param preamble**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Preamble')

**return**

sequence\_index: Sequence index

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.modulation.dsIndex.preamble.clone()
```

**6.2.2.2.5 Extreme****SCPI Commands :**

```
READ:NRMMw:MEASurement<Instance>:PRCh:MODulation:EXTreme
FETCH:NRMMw:MEASurement<Instance>:PRCh:MODulation:EXTreme
CALCulate:NRMMw:MEASurement<Instance>:PRCh:MODulation:EXTreme
```

**class ExtremeCls**

Extreme commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Evm\_Rms\_Low: float or bool: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float or bool: EVM RMS value, high EVM window position

- Evm\_Peak\_Low: float or bool: EVM peak value, low EVM window position
- Evm\_Peak\_High: float or bool: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float or bool: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float or bool: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float or bool: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float or bool: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float or bool: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float or bool: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float or bool: Phase error peak value, high EVM window position
- Frequency\_Error: float or bool: Carrier frequency error
- Timing\_Error: float or bool: Time error
- Tx\_Power\_Minimum: float or bool: Minimum user equipment power
- Tx\_Power\_Maximum: float or bool: Maximum user equipment power
- Peak\_Power\_Min: float or bool: Minimum user equipment peak power
- Peak\_Power\_Max: float or bool: Maximum user equipment peak power
- Antenna\_1\_Pow\_Min: float or bool: No parameter help available
- Antenna\_1\_Pow\_Max: float or bool: No parameter help available
- Antenna\_2\_Pow\_Min: float or bool: No parameter help available
- Antenna\_2\_Pow\_Max: float or bool: No parameter help available

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Evm\_Rms\_Low: float: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float: EVM peak value, low EVM window position
- Evm\_Peak\_High: float: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float: Phase error peak value, high EVM window position



- Frequency\_Error: float: Carrier frequency error
- Timing\_Error: float: Time error
- Tx\_Power\_Minimum: float: Minimum user equipment power
- Tx\_Power\_Maximum: float: Maximum user equipment power
- Peak\_Power\_Min: float: Minimum user equipment peak power
- Peak\_Power\_Max: float: Maximum user equipment peak power
- Antenna\_1\_Pow\_Min: float: No parameter help available
- Antenna\_1\_Pow\_Max: float: No parameter help available
- Antenna\_2\_Pow\_Min: float: No parameter help available
- Antenna\_2\_Pow\_Max: float: No parameter help available

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:PRCh:MODulation:EXTreme
value: CalculateStruct = driver.nrMmwMeas.prach.modulation.extreme.calculate()
```

Returns the extreme single value results. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:MODulation:EXTreme
value: ResultData = driver.nrMmwMeas.prach.modulation.extreme.fetch()
```

Returns the extreme single value results. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:MODulation:EXTreme
value: ResultData = driver.nrMmwMeas.prach.modulation.extreme.read()
```

Returns the extreme single value results. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.2.2.6 Nsymbol

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:PRCh:MODulation:NSYMBOL
```

#### class NsymbolCls

Nsymbol commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → int

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRCh:MODulation:NSYMBOL
value: int = driver.nrMmwMeas.prach.modulation.nsymbol.fetch()
```

Queries the number of active OFDM symbols (symbols with result bars) in the EVM vs symbol diagram.

Suppressed linked return values: reliability

```
return
    no_of_symbols: No help available
```

### 6.2.2.2.7 Preamble<Preamble>

#### RepCap Settings

```
# Range: Nr1 .. Nr128
rc = driver.nrMmwMeas.prach.modulation.preamble.repcap_preamble_get()
driver.nrMmwMeas.prach.modulation.preamble.repcap_preamble_set(repcap.Preamble.Nr1)
```

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:MODulation:PREamble<Number>
FETCH:NRMMw:MEASurement<Instance>:PRCh:MODulation:PREamble<Number>
```

#### class PreambleCls

Preamble commands group definition. 2 total commands, 0 Subgroups, 2 group commands Repeated Capability: Preamble, default value after init: Preamble.Nr1

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Preamble\_Rel: int: Reliability indicator for the preamble
- Evm\_Rms\_Low: float: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float: EVM RMS value, high EVM window position
- Evm\_Peak\_Low: float: EVM peak value, low EVM window position
- Evm\_Peak\_High: float: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float: Magnitude error RMS value, low EVM window position

- `Mag_Error_Peak_Low`: float: Magnitude error peak value, low EVM window position
- `Mag_Err_Peak_High`: float: Magnitude error peak value, high EVM window position
- `Ph_Error_Rms_Low`: float: Phase error RMS value, low EVM window position
- `Ph_Error_Rms_High`: float: Phase error RMS value, high EVM window position
- `Ph_Error_Peak_Low`: float: Phase error peak value, low EVM window position
- `Ph_Error_Peak_High`: float: Phase error peak value, high EVM window position
- `Frequency_Error`: float: Carrier frequency error
- `Timing_Error`: float: Time error
- `Tx_Power`: float: User equipment power
- `Peak_Power`: float: User equipment peak power
- `Antenna_1_Pow`: float: Power at RX antenna 1
- `Antenna_2_Pow`: float: Power at RX antenna 2

**fetch**(*preamble=Preamble.Default*) → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRACH:MODulation:PREamble<Number>
value: ResultData = driver.nrMmwMeas.prach.modulation.preamble.fetch(preamble = ↵
↵repcap.Preamble.Default)
```

Return the single value results of the EVM vs Preamble and Power vs Preamble squares, for a selected preamble. See also ‘Squares EVM vs Preamble, Power vs Preamble’.

**param preamble**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Preamble’)

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*preamble=Preamble.Default*) → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRACH:MODulation:PREamble<Number>
value: ResultData = driver.nrMmwMeas.prach.modulation.preamble.read(preamble = ↵
↵repcap.Preamble.Default)
```

Return the single value results of the EVM vs Preamble and Power vs Preamble squares, for a selected preamble. See also ‘Squares EVM vs Preamble, Power vs Preamble’.

**param preamble**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Preamble’)

**return**

structure: for return value, see the help for ResultData structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.modulation.preamble.clone()
```

### 6.2.2.2.8 Scorrrelation

#### SCPI Command :

```
FETCH:NRMMw:MEASurement<Instance>:PRACH:MODulation:SCORrelation
```

#### class ScorrrelationCls

Scorrrelation commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**fetch()** → float

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRACH:MODulation:SCORrelation
value: float = driver.nrMmwMeas.prach.modulation.scorrrelation.fetch()
```

Returns the sequence correlation for single-preamble measurements. It indicates the correlation between the ideal preamble sequence determined from the parameter settings and the measured preamble sequence. A value of 1 corresponds to perfect correlation. A value close to 0 indicates that the preamble sequence was not found.

Suppressed linked return values: reliability

**return**  
seq\_correlation: Sequence correlation

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.modulation.scorrrelation.clone()
```

## Subgroups

### 6.2.2.2.8.1 Preamble<Preamble>

#### RepCap Settings

```
# Range: Nr1 .. Nr128
rc = driver.nrMmwMeas.prach.modulation.scorrrelation.preamble.repcap_preamble_get()
driver.nrMmwMeas.prach.modulation.scorrrelation.preamble.repcap_preamble_set(repcap.
↪Preamble.Nr1)
```

**SCPI Command :**

```
FETCH:NRMMw:MEASurement<Instance>:PRACH:MODulation:SCORrelation:PREamble<Number>
```

**class PreambleCls**

Preamble commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: Preamble, default value after init: Preamble.Nr1

**fetch**(preamble=Preamble.Default) → float

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRACH:MODulation:SCORrelation:PREamble
↪<Number>
value: float = driver.nrMmwMeas.prach.modulation.scorrelation.preamble.
↪fetch(preamble = repcap.Preamble.Default)
```

Returns the sequence correlation for a selected preamble of multi-preamble measurements. It indicates the correlation between the ideal preamble sequence determined from the parameter settings and the measured preamble sequence. A value of 1 corresponds to perfect correlation. A value close to 0 indicates that the preamble sequence was not found.

Suppressed linked return values: reliability

**param preamble**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Preamble')

**return**

seq\_correlation: Sequence correlation

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.modulation.scorrelation.preamble.clone()
```

**6.2.2.2.9 StandardDev****SCPI Commands :**

```
READ:NRMMw:MEASurement<Instance>:PRACH:MODulation:SDEVIation
FETCH:NRMMw:MEASurement<Instance>:PRACH:MODulation:SDEVIation
```

**class StandardDevCls**

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits.
- Evm\_Rms\_Low: float: EVM RMS value, low EVM window position
- Evm\_Rms\_High: float: EVM RMS value, high EVM window position

- Evm\_Peak\_Low: float: EVM peak value, low EVM window position
- Evm\_Peak\_High: float: EVM peak value, high EVM window position
- Mag\_Error\_Rms\_Low: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Rms\_High: float: Magnitude error RMS value, low EVM window position
- Mag\_Error\_Peak\_Low: float: Magnitude error peak value, low EVM window position
- Mag\_Err\_Peak\_High: float: Magnitude error peak value, high EVM window position
- Ph\_Error\_Rms\_Low: float: Phase error RMS value, low EVM window position
- Ph\_Error\_Rms\_High: float: Phase error RMS value, high EVM window position
- Ph\_Error\_Peak\_Low: float: Phase error peak value, low EVM window position
- Ph\_Error\_Peak\_High: float: Phase error peak value, high EVM window position
- Frequency\_Error: float: Carrier frequency error
- Timing\_Error: float: Time error
- Tx\_Power: float: User equipment power
- Peak\_Power: float: User equipment peak power
- Antenna\_1\_Pow: float: Power at RX antenna 1
- Antenna\_2\_Pow: float: Power at RX antenna 2

**fetch()** → ResultData

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRACH:MODulation:SDEviation
value: ResultData = driver.nrMmwMeas.prach.modulation.standardDev.fetch()
```

Return the current, average and standard deviation single value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRACH:MODulation:SDEviation
value: ResultData = driver.nrMmwMeas.prach.modulation.standardDev.read()
```

Return the current, average and standard deviation single value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.2.3 Podynamics

#### class PodynamicsCls

Podynamics commands group definition. 14 total commands, 5 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.podynamics.clone()
```

### Subgroups

#### 6.2.2.3.1 Average

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRACH:PDYNamics:AVERage
FETCh:NRMMw:MEASurement<Instance>:PRACH:PDYNamics:AVERage
CALCulate:NRMMw:MEASurement<Instance>:PRACH:PDYNamics:AVERage
```

#### class AverageCls

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.
- Off\_Power\_Before: float or bool: OFF power before the preamble, without transient period.
- On\_Power\_Rms: float or bool: ON power mean value over the preamble.
- On\_Power\_Peak: float or bool: ON power peak value within the preamble.
- Off\_Power\_After: float or bool: OFF power after the preamble, without the transient period.

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.
- Off\_Power\_Before: float: OFF power before the preamble, without transient period.
- On\_Power\_Rms: float: ON power mean value over the preamble.
- On\_Power\_Peak: float: ON power peak value within the preamble.
- Off\_Power\_After: float: OFF power after the preamble, without the transient period.

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:AVERage
value: CalculateStruct = driver.nrMmwMeas.prach.pdynamics.average.calculate()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:AVERage
value: ResultData = driver.nrMmwMeas.prach.pdynamics.average.fetch()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:AVERage
value: ResultData = driver.nrMmwMeas.prach.pdynamics.average.read()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.2.3.2 Current

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:CURRENT
FETCh:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:CURRENT
CALCulate:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:CURRENT
```

#### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.
- Off\_Power\_Before: float or bool: OFF power before the preamble, without transient period.



- On\_Power\_Rms: float or bool: ON power mean value over the preamble.
- On\_Power\_Peak: float or bool: ON power peak value within the preamble.
- Off\_Power\_After: float or bool: OFF power after the preamble, without the transient period.

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.
- Off\_Power\_Before: float: OFF power before the preamble, without transient period.
- On\_Power\_Rms: float: ON power mean value over the preamble.
- On\_Power\_Peak: float: ON power peak value within the preamble.
- Off\_Power\_After: float: OFF power after the preamble, without the transient period.

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:CURRent
value: CalculateStruct = driver.nrMmwMeas.prach.pdynamics.current.calculate()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:CURRent
value: ResultData = driver.nrMmwMeas.prach.pdynamics.current.fetch()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:CURRent
value: ResultData = driver.nrMmwMeas.prach.pdynamics.current.read()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for ResultData structure arguments.

### 6.2.2.3.3 Maximum

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:PDYNamics:MAXimum
FETCh:NRMMw:MEASurement<Instance>:PRCh:PDYNamics:MAXimum
CALCulate:NRMMw:MEASurement<Instance>:PRCh:PDYNamics:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.
- Off\_Power\_Before: float or bool: OFF power before the preamble, without transient period.
- On\_Power\_Rms: float or bool: ON power mean value over the preamble.
- On\_Power\_Peak: float or bool: ON power peak value within the preamble.
- Off\_Power\_After: float or bool: OFF power after the preamble, without the transient period.

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.
- Off\_Power\_Before: float: OFF power before the preamble, without transient period.
- On\_Power\_Rms: float: ON power mean value over the preamble.
- On\_Power\_Peak: float: ON power peak value within the preamble.
- Off\_Power\_After: float: OFF power after the preamble, without the transient period.

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:PRCh:PDYNamics:MAXimum
value: CalculateStruct = driver.nrMmwMeas.prach.pdynamics.maximum.calculate()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:PDYNamics:MAXimum
value: ResultData = driver.nrMmwMeas.prach.pdynamics.maximum.fetch()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:PDYNamics:MAXimum
value: ResultData = driver.nrMmwMeas.prach.pdynamics.maximum.read()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.2.3.4 Minimum

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:PDYNamics:MINimum
FETCh:NRMMw:MEASurement<Instance>:PRCh:PDYNamics:MINimum
CALCulate:NRMMw:MEASurement<Instance>:PRCh:PDYNamics:MINimum
```

#### class MinimumCls

Minimum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.
- Off\_Power\_Before: float or bool: OFF power before the preamble, without transient period.
- On\_Power\_Rms: float or bool: ON power mean value over the preamble.
- On\_Power\_Peak: float or bool: ON power peak value within the preamble.
- Off\_Power\_After: float or bool: OFF power after the preamble, without the transient period.

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.
- Off\_Power\_Before: float: OFF power before the preamble, without transient period.
- On\_Power\_Rms: float: ON power mean value over the preamble.
- On\_Power\_Peak: float: ON power peak value within the preamble.

- Off\_Power\_After: float: OFF power after the preamble, without the transient period.

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:MINimum
value: CalculateStruct = driver.nrMmwMeas.prach.pdynamics.minimum.calculate()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:MINimum
value: ResultData = driver.nrMmwMeas.prach.pdynamics.minimum.fetch()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:MINimum
value: ResultData = driver.nrMmwMeas.prach.pdynamics.minimum.read()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.2.3.5 StandardDev

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:SDEviation
FETCh:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: 'Reliability indicator'
- Out\_Of\_Tolerance: int: Out of tolerance result, i.e. the percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.
- Off\_Power\_Before: float: OFF power before the preamble, without transient period.

- On\_Power\_Rms: float: ON power mean value over the preamble.
- On\_Power\_Peak: float: ON power peak value within the preamble.
- Off\_Power\_After: float: OFF power after the preamble, without the transient period.

**fetch()** → ResultData

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:SDEviation
value: ResultData = driver.nrMmwMeas.prach.pdynamics.standardDev.fetch()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:PDYnamics:SDEviation
value: ResultData = driver.nrMmwMeas.prach.pdynamics.standardDev.read()
```

Return the current, average, minimum, maximum and standard deviation single value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.2.4 State

##### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:PRCh:STATe
```

##### class StateCls

State commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**fetch**(timeout: float = None, target\_main\_state: TargetStateA = None, target\_sync\_state: TargetSyncState = None) → ResourceState

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:STATe
value: enums.ResourceState = driver.nrMmwMeas.prach.state.fetch(timeout = 1.0,
↳target_main_state = enums.TargetStateA.OFF, target_sync_state = enums.
↳TargetSyncState.ADJusted)
```

Queries the main measurement state. Without query parameters, the state is returned immediately. With query parameters, the state is returned when the <TargetMainState> and the <TargetSyncState> are reached or when the <Timeout> expires.

**param timeout**

No help available

**param target\_main\_state**

Target MainState for the query Default is RUN.

**param target\_sync\_state**

Target SyncState for the query Default is ADJ.

**return**

meas\_status: Current state or target state of ongoing state transition OFF: measurement

off RUN: measurement running RDY: measurement completed

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrmwMeas.prach.state.clone()
```

## Subgroups

### 6.2.2.4.1 All

#### SCPI Command :

```
FETCH:NRMW:MEASurement<Instance>:PRACH:STATE:ALL
```

#### class AllCls

All commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(timeout: float = None, target\_main\_state: TargetStateA = None, target\_sync\_state: TargetSyncState = None) → List[ResourceState]

```
# SCPI: FETCH:NRMW:MEASurement<Instance>:PRACH:STATE:ALL
value: List[enums.ResourceState] = driver.nrmwMeas.prach.state.all.
↪ fetch(timeout = 1.0, target_main_state = enums.TargetStateA.OFF, target_sync_
↪ state = enums.TargetSyncState.ADJusted)
```

Queries the main measurement state and the measurement substates. Without query parameters, the states are returned immediately. With query parameters, the states are returned when the <TargetMainState> and the <TargetSyncState> are reached or when the <Timeout> expires.

**param timeout**

No help available

**param target\_main\_state**

Target MainState for the query Default is RUN.

**param target\_sync\_state**

Target SyncState for the query Default is ADJ.

**return**

state: No help available

### 6.2.2.5 Trace

#### class TraceCls

Trace commands group definition. 29 total commands, 7 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.trace.clone()
```

#### Subgroups

### 6.2.2.5.1 Evm

#### class EvmCls

Evm commands group definition. 6 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.trace.evm.clone()
```

#### Subgroups

### 6.2.2.5.1.1 Average

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRACH:TRACe:EVM:AVERage
FETCh:NRMMw:MEASurement<Instance>:PRACH:TRACe:EVM:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRACH:TRACe:EVM:AVERage
value: List[float] = driver.nrMmwMeas.prach.trace.evm.average.fetch()
```

Return the values of the EVM vs subcarrier traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

#### **return**

results: Comma-separated list of EVM values, one value per subcarrier.

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:TRAcE:EVM:AVERage
value: List[float] = driver.nrMmwMeas.prach.trace.evm.average.read()
```

Return the values of the EVM vs subcarrier traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

**return**

results: Comma-separated list of EVM values, one value per subcarrier.

### 6.2.2.5.1.2 Current

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:TRAcE:EVM:CURRent
FETCh:NRMMw:MEASurement<Instance>:PRCh:TRAcE:EVM:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:TRAcE:EVM:CURRent
value: List[float] = driver.nrMmwMeas.prach.trace.evm.current.fetch()
```

Return the values of the EVM vs subcarrier traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

**return**

results: Comma-separated list of EVM values, one value per subcarrier.

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:TRAcE:EVM:CURRent
value: List[float] = driver.nrMmwMeas.prach.trace.evm.current.read()
```

Return the values of the EVM vs subcarrier traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

**return**

results: Comma-separated list of EVM values, one value per subcarrier.



### 6.2.2.5.1.3 Maximum

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:TRACe:EVM:MAXimum
FETCH:NRMMw:MEASurement<Instance>:PRCh:TRACe:EVM:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRCh:TRACe:EVM:MAXimum
value: List[float] = driver.nrMmwMeas.prach.trace.evm.maximum.fetch()
```

Return the values of the EVM vs subcarrier traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

#### return

results: Comma-separated list of EVM values, one value per subcarrier.

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:TRACe:EVM:MAXimum
value: List[float] = driver.nrMmwMeas.prach.trace.evm.maximum.read()
```

Return the values of the EVM vs subcarrier traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

#### return

results: Comma-separated list of EVM values, one value per subcarrier.

### 6.2.2.5.2 EvPreamble

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:TRACe:EVPreable
FETCH:NRMMw:MEASurement<Instance>:PRCh:TRACe:EVPreable
```

#### class EvPreambleCls

EvPreamble commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRCh:TRACe:EVPreable
value: List[float] = driver.nrMmwMeas.prach.trace.evPreamble.fetch()
```

Return the values of the EVM vs preamble traces. See also ‘Squares EVM vs Preamble, Power vs Preamble’.

Suppressed linked return values: reliability

**return**

results: Comma-separated list of EVM values, for preamble 1 to n of the measurement interval.

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:TRAcE:EVPreamble
value: List[float] = driver.nrMmwMeas.prach.trace.evPreamble.read()
```

Return the values of the EVM vs preamble traces. See also ‘Squares EVM vs Preamble, Power vs Preamble’.

Suppressed linked return values: reliability

**return**

results: Comma-separated list of EVM values, for preamble 1 to n of the measurement interval.

### 6.2.2.5.3 Iq

#### SCPI Command :

```
FETCh:NRMMw:MEASurement<Instance>:PRCh:TRAcE:IQ
```

#### class IqCls

Iq commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: ‘Reliability indicator’
- Iphase: List[float]: Normalized I amplitude
- Qphase: List[float]: Normalized Q amplitude

**fetch()** → FetchStruct

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:TRAcE:IQ
value: FetchStruct = driver.nrMmwMeas.prach.trace.iq.fetch()
```

Returns the results in the I/Q constellation diagram. There is one pair of values per modulation symbol. The number of modulation symbols equals the number of subcarriers. The results are returned in the following order: <Reliability>, {<Iphase>, <Qphase>}symbol 1, ..., {<Iphase>, <Qphase>}symbol n. See also ‘Square I/Q Constellation’.

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.2.5.4 Merror

##### class MerrorCls

Merror commands group definition. 6 total commands, 3 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.trace.merror.clone()
```

##### Subgroups

#### 6.2.2.5.4.1 Average

##### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRACH:TRACe:MERRor:AVERage
FETCH:NRMMw:MEASurement<Instance>:PRACH:TRACe:MERRor:AVERage
```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRACH:TRACe:MERRor:AVERage
value: List[float] = driver.nrMmwMeas.prach.trace.merror.average.fetch()
```

Return the values of the magnitude error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

##### return

results: Comma-separated list of magnitude error values, one value per subcarrier.

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRACH:TRACe:MERRor:AVERage
value: List[float] = driver.nrMmwMeas.prach.trace.merror.average.read()
```

Return the values of the magnitude error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

##### return

results: Comma-separated list of magnitude error values, one value per subcarrier.

### 6.2.2.5.4.2 Current

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:TRACe:MERRor:CURRent
FETCh:NRMMw:MEASurement<Instance>:PRCh:TRACe:MERRor:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:TRACe:MERRor:CURRent
value: List[float] = driver.nrMmwMeas.prach.trace.merror.current.fetch()
```

Return the values of the magnitude error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

#### return

results: Comma-separated list of magnitude error values, one value per subcarrier.

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:TRACe:MERRor:CURRent
value: List[float] = driver.nrMmwMeas.prach.trace.merror.current.read()
```

Return the values of the magnitude error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

#### return

results: Comma-separated list of magnitude error values, one value per subcarrier.

### 6.2.2.5.4.3 Maximum

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:TRACe:MERRor:MAXimum
FETCh:NRMMw:MEASurement<Instance>:PRCh:TRACe:MERRor:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:TRACe:MERRor:MAXimum
value: List[float] = driver.nrMmwMeas.prach.trace.merror.maximum.fetch()
```

Return the values of the magnitude error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

**return**

results: Comma-separated list of magnitude error values, one value per subcarrier.

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:TRAcE:MERRor:MAXimum
value: List[float] = driver.nrMmwMeas.prach.trace.merror.maximum.read()
```

Return the values of the magnitude error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

**return**

results: Comma-separated list of magnitude error values, one value per subcarrier.

#### 6.2.2.5.5 Pdynamics

**class PdynamicsCls**

Pdynamics commands group definition. 6 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.trace.pdynamics.clone()
```

#### Subgroups

##### 6.2.2.5.5.1 Average

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:TRAcE:PDYNamics:AVERage
FETCh:NRMMw:MEASurement<Instance>:PRCh:TRAcE:PDYNamics:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:TRAcE:PDYNamics:AVERage
value: List[float] = driver.nrMmwMeas.prach.trace.pdynamics.average.fetch()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘Square Power Dynamics’.

Suppressed linked return values: reliability

**return**

power: 2048 power values, from -275  $\mu$ s to 524.609  $\mu$ s relative to the start of the preamble. The values have a spacing of 0.390625  $\mu$ s. The 705th value is at the start of the preamble (0  $\mu$ s) .

**read()**  $\rightarrow$  List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:TRACe:PDYNamics:AVERage
value: List[float] = driver.nrMmwMeas.prach.trace.pdynamics.average.read()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘Square Power Dynamics’.

Suppressed linked return values: reliability

**return**

power: 2048 power values, from -275  $\mu$ s to 524.609  $\mu$ s relative to the start of the preamble. The values have a spacing of 0.390625  $\mu$ s. The 705th value is at the start of the preamble (0  $\mu$ s) .

#### 6.2.2.5.5.2 Current

##### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:TRACe:PDYNamics:CURRENT
FETCh:NRMMw:MEASurement<Instance>:PRCh:TRACe:PDYNamics:CURRENT
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()**  $\rightarrow$  List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:TRACe:PDYNamics:CURRENT
value: List[float] = driver.nrMmwMeas.prach.trace.pdynamics.current.fetch()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘Square Power Dynamics’.

Suppressed linked return values: reliability

**return**

power: 2048 power values, from -275  $\mu$ s to 524.609  $\mu$ s relative to the start of the preamble. The values have a spacing of 0.390625  $\mu$ s. The 705th value is at the start of the preamble (0  $\mu$ s) .

**read()**  $\rightarrow$  List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:TRACe:PDYNamics:CURRENT
value: List[float] = driver.nrMmwMeas.prach.trace.pdynamics.current.read()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘Square Power Dynamics’.

Suppressed linked return values: reliability

**return**

power: 2048 power values, from -275  $\mu$ s to 524.609  $\mu$ s relative to the start of the preamble. The values have a spacing of 0.390625  $\mu$ s. The 705th value is at the start of the preamble (0  $\mu$ s) .

### 6.2.2.5.5.3 Maximum

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRACH:TRACe:PDYNamics:MAXimum
FETCh:NRMMw:MEASurement<Instance>:PRACH:TRACe:PDYNamics:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRACH:TRACe:PDYNamics:MAXimum
value: List[float] = driver.nrMmwMeas.prach.trace.pdynamics.maximum.fetch()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘Square Power Dynamics’.

Suppressed linked return values: reliability

**return**

power: 2048 power values, from -275  $\mu$ s to 524.609  $\mu$ s relative to the start of the preamble. The values have a spacing of 0.390625  $\mu$ s. The 705th value is at the start of the preamble (0  $\mu$ s) .

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRACH:TRACe:PDYNamics:MAXimum
value: List[float] = driver.nrMmwMeas.prach.trace.pdynamics.maximum.read()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘Square Power Dynamics’.

Suppressed linked return values: reliability

**return**

power: 2048 power values, from -275  $\mu$ s to 524.609  $\mu$ s relative to the start of the preamble. The values have a spacing of 0.390625  $\mu$ s. The 705th value is at the start of the preamble (0  $\mu$ s) .

### 6.2.2.5.6 Perror

#### class PerrorCls

Perror commands group definition. 6 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.nrMmwMeas.prach.trace.perror.clone()
```

#### Subgroups

### 6.2.2.5.6.1 Average

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRACH:TRACe:PERRor:AVERage
FETCH:NRMMw:MEASurement<Instance>:PRACH:TRACe:PERRor:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:NRMMw:MEASurement<Instance>:PRACH:TRACe:PERRor:AVERage
value: List[float] = driver.nrMmwMeas.prach.trace.perror.average.fetch()
```

Return the values of the phase error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

**return**

results: Comma-separated list of phase error values, one value per subcarrier.

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRACH:TRACe:PERRor:AVERage
value: List[float] = driver.nrMmwMeas.prach.trace.perror.average.read()
```

Return the values of the phase error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

**return**

results: Comma-separated list of phase error values, one value per subcarrier.



### 6.2.2.5.6.2 Current

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:TRACe:PERRor:CURRent
FETCh:NRMMw:MEASurement<Instance>:PRCh:TRACe:PERRor:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:TRACe:PERRor:CURRent
value: List[float] = driver.nrMmwMeas.prach.trace.perror.current.fetch()
```

Return the values of the phase error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also 'Squares EVM, Magnitude Error, Phase Error'.

Suppressed linked return values: reliability

#### return

results: Comma-separated list of phase error values, one value per subcarrier.

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:TRACe:PERRor:CURRent
value: List[float] = driver.nrMmwMeas.prach.trace.perror.current.read()
```

Return the values of the phase error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also 'Squares EVM, Magnitude Error, Phase Error'.

Suppressed linked return values: reliability

#### return

results: Comma-separated list of phase error values, one value per subcarrier.

### 6.2.2.5.6.3 Maximum

#### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:TRACe:PERRor:MAXimum
FETCh:NRMMw:MEASurement<Instance>:PRCh:TRACe:PERRor:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:TRACe:PERRor:MAXimum
value: List[float] = driver.nrMmwMeas.prach.trace.perror.maximum.fetch()
```

Return the values of the phase error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

**return**

results: Comma-separated list of phase error values, one value per subcarrier.

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:TRAcE:PERRor:MAXimum
value: List[float] = driver.nrMmwMeas.prach.trace.perror.maximum.read()
```

Return the values of the phase error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘Squares EVM, Magnitude Error, Phase Error’.

Suppressed linked return values: reliability

**return**

results: Comma-separated list of phase error values, one value per subcarrier.

#### 6.2.2.5.7 PvPreamble

##### SCPI Commands :

```
READ:NRMMw:MEASurement<Instance>:PRCh:TRAcE:PVPReamble
FETCh:NRMMw:MEASurement<Instance>:PRCh:TRAcE:PVPReamble
```

##### class PvPreambleCls

PvPreamble commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:NRMMw:MEASurement<Instance>:PRCh:TRAcE:PVPReamble
value: List[float] = driver.nrMmwMeas.prach.trace.pvPreamble.fetch()
```

Return the values of the power vs preamble traces. See also ‘Squares EVM vs Preamble, Power vs Preamble’.

Suppressed linked return values: reliability

**return**

results: Comma-separated list of power values, for preamble 1 to n of the measurement interval.

**read()** → List[float]

```
# SCPI: READ:NRMMw:MEASurement<Instance>:PRCh:TRAcE:PVPReamble
value: List[float] = driver.nrMmwMeas.prach.trace.pvPreamble.read()
```

Return the values of the power vs preamble traces. See also ‘Squares EVM vs Preamble, Power vs Preamble’.

Suppressed linked return values: reliability

**return**

results: Comma-separated list of power values, for preamble 1 to n of the measurement interval.

## 6.3 Route

### class RouteCls

Route commands group definition. 5 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.route.clone()
```

#### Subgroups

### 6.3.1 NrMmwMeas

#### SCPI Command :

```
ROUTE:NRMMw:MEASurement<Instance>
```

### class NrMmwMeasCls

NrMmwMeas commands group definition. 5 total commands, 2 Subgroups, 1 group commands

#### class ValueStruct

Structure for reading output parameters. Fields:

- Scenario: enums.Scenario: No parameter help available
- Controller: str: No parameter help available
- Rx\_Connector: enums.RxConnector: No parameter help available
- Rf\_Converter: enums.RfConverter: No parameter help available

**get\_value()** → ValueStruct

```
# SCPI: ROUTe:NRMMw:MEASurement<Instance>
value: ValueStruct = driver.route.nrMmwMeas.get_value()
```

No command help available

**return**

structure: for return value, see the help for ValueStruct structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.route.nrMmwMeas.clone()
```

## Subgroups

### 6.3.1.1 RfSettings

#### SCPI Command :

```
ROUTE:NRMMw:MEASurement<Instance>:RFSettings:CONNECTor
```

#### class RfSettingsCls

RfSettings commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_connector()** → RxConnector

```
# SCPI: ROUTE:NRMMw:MEASurement<Instance>:RFSettings:CONNECTor
value: enums.RxConnector = driver.route.nrMmwMeas.rfSettings.get_connector()
```

No command help available

**return**  
connector: No help available

**set\_connector(connector: RxConnector)** → None

```
# SCPI: ROUTE:NRMMw:MEASurement<Instance>:RFSettings:CONNECTor
driver.route.nrMmwMeas.rfSettings.set_connector(connector = enums.RxConnector.
↳ I11I)
```

No command help available

**param connector**  
No help available

### 6.3.1.2 Scenario

#### SCPI Command :

```
ROUTE:NRMMw:MEASurement<Instance>:SCENario
```

#### class ScenarioCls

Scenario commands group definition. 3 total commands, 2 Subgroups, 1 group commands

**get\_value()** → Scenario

```
# SCPI: ROUTE:NRMMw:MEASurement<Instance>:SCENario
value: enums.Scenario = driver.route.nrMmwMeas.scenario.get_value()
```

No command help available

```

return
    scenario: No help available

```

## Cloning the Group

```

# Create a clone of the original group, that exists independently
group2 = driver.route.nrMmwMeas.scenario.clone()

```

## Subgroups

### 6.3.1.2.1 MaProtocol

#### SCPI Command :

```
ROUTE:NRMMw:MEASurement<Instance>:SCENario:MAProtocol
```

#### class MaProtocolCls

MaProtocol commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**set**(*controler: str = None*) → None

```

# SCPI: ROUTE:NRMMw:MEASurement<Instance>:SCENario:MAProtocol
driver.route.nrMmwMeas.scenario.maProtocol.set(controler = 'abc')

```

No command help available

**param controler**  
No help available

### 6.3.1.2.2 Salone

#### SCPI Command :

```
ROUTE:NRMMw:MEASurement<Instance>:SCENario:SALone
```

#### class SaloneCls

Salone commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class SaloneStruct

Response structure. Fields:

- Rx\_Connector: enums.RxConnector: No parameter help available
- Rf\_Converter: enums.RfConverter: No parameter help available

**get**() → SaloneStruct

```

# SCPI: ROUTE:NRMMw:MEASurement<Instance>:SCENario:SALone
value: SaloneStruct = driver.route.nrMmwMeas.scenario.salone.get()

```

No command help available

**return**

structure: for return value, see the help for SaloneStruct structure arguments.

**set**(rx\_connector: RxConnector, rf\_converter: RfConverter) → None

```
# SCPI: ROUTe:NRMMw:MEASurement<Instance>:SCENario:SALone
driver.route.nrMmwMeas.scenario.salone.set(rx_connector = enums.RxConnector.
↳ I11I, rf_converter = enums.RfConverter.IRX1)
```

No command help available

**param rx\_connector**

No help available

**param rf\_converter**

No help available

## 6.4 Sense

**class SenseCls**

Sense commands group definition. 6 total commands, 1 Subgroups, 0 group commands

### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.sense.clone()
```

### Subgroups

#### 6.4.1 NrMmwMeas

**class NrMmwMeasCls**

NrMmwMeas commands group definition. 6 total commands, 1 Subgroups, 0 group commands

### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.sense.nrMmwMeas.clone()
```

### Subgroups

#### 6.4.1.1 ListPy

**class ListPyCls**

ListPy commands group definition. 6 total commands, 1 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.sense.nrMmwMeas.listPy.clone()
```

## Subgroups

### 6.4.1.1.1 Segment<SEGMENT>

#### RepCap Settings

```
# Range: Nr1 .. Nr512
rc = driver.sense.nrMmwMeas.listPy.segment.repcap_sEGMENT_get()
driver.sense.nrMmwMeas.listPy.segment.repcap_sEGMENT_set(repcap.SEGMENT.Nr1)
```

#### class SegmentCls

Segment commands group definition. 6 total commands, 2 Subgroups, 0 group commands Repeated Capability: SEGMENT, default value after init: SEGMENT.Nr1

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.sense.nrMmwMeas.listPy.segment.clone()
```

## Subgroups

### 6.4.1.1.1.1 Caggregation

#### class CaggregationCls

Caggregation commands group definition. 5 total commands, 3 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.sense.nrMmwMeas.listPy.segment.caggregation.clone()
```

## Subgroups

### 6.4.1.1.1.2 Cbandwidth

#### class CbandwidthCls

Cbandwidth commands group definition. 1 total commands, 1 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.sense.nrMmwMeas.listPy.segment.caggregation.cbandwidth.clone()
```

## Subgroups

### 6.4.1.1.1.3 Aggregated

#### SCPI Command :

```
SENSe:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>:CAGGregation:CBANDwidth:AGGRegated
```

#### class AggregatedCls

Aggregated commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(sEGMent=SEGMENT.Default) → float

```
# SCPI: SENSE:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>
↪:CAGGregation:CBANDwidth:AGGRegated
value: float = driver.sense.nrMmwMeas.listPy.segment.caggregation.cbandwidth.
↪aggregated.get(sEGMent = repcap.SEGMENT.Default)
```

No command help available

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### return

agg\_bandwidth: No help available

### 6.4.1.1.1.4 Frequency

#### class FrequencyCls

Frequency commands group definition. 3 total commands, 1 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.sense.nrMmwMeas.listPy.segment.caggregation.frequency.clone()
```



## Subgroups

### 6.4.1.1.1.5 Aggregated

#### class AggregatedCls

Aggregated commands group definition. 3 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.sense.nrmwMeas.listPy.segment.caggregation.frequency.aggregated.clone()
```

## Subgroups

### 6.4.1.1.1.6 Center

#### SCPI Command :

```
SENSe:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>
↳:CAGGregation:FREQuency:AGGRegated:CENTer
```

#### class CenterCls

Center commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(sEGMENT=SEGMENT.Default) → float

```
# SCPI: SENSE:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>
↳:CAGGregation:FREQuency:AGGRegated:CENTer
value: float = driver.sense.nrmwMeas.listPy.segment.caggregation.frequency.
↳aggregated.center.get(sEGMENT = repcap.SEGMENT.Default)
```

No command help available

#### param sEGMENT

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### return

frequency: No help available

### 6.4.1.1.1.7 High

#### SCPI Command :

```
SENSe:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>:CAGGregation:FREQuency:AGGRegated:HIGH
```

#### class HighCls

High commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(*sEGMent*=*SEGMENT.Default*) → float

```
# SCPI: SENSE:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>
↳:CAGGregation:FREQUENCY:AGGRegated:HIGH
value: float = driver.sense.nrMmwMeas.listPy.segment.caggregation.frequency.
↳aggregated.high.get(sEGMent = repcap.SEGMENT.Default)
```

No command help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

frequency: No help available

#### 6.4.1.1.1.8 Low

##### SCPI Command :

```
SENSe:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>:CAGGregation:FREQUENCY:AGGRegated:LOW
```

##### class LowCls

Low commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(*sEGMent*=*SEGMENT.Default*) → float

```
# SCPI: SENSE:NRMMw:MEASurement<Instance>:LIST:SEGMENT<no>
↳:CAGGregation:FREQUENCY:AGGRegated:LOW
value: float = driver.sense.nrMmwMeas.listPy.segment.caggregation.frequency.
↳aggregated.low.get(sEGMent = repcap.SEGMENT.Default)
```

No command help available

**param sEGMent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

frequency: No help available

#### 6.4.1.1.1.9 NgBandwidth

##### class NgBandwidthCls

NgBandwidth commands group definition. 1 total commands, 1 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.sense.nrMmwMeas.listPy.segment.caggregation.ngBandwidth.clone()
```

## Subgroups

### 6.4.1.1.1.10 Aggregated

#### SCPI Command :

```
SENSe:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>:CAGGregation:ngBandwidth:AGGRegated
```

#### class AggregatedCls

Aggregated commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(sEGMent=SEGMent.Default) → float

```
# SCPI: SENSE:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>
↪:CAGGregation:ngBandwidth:AGGRegated
value: float = driver.sense.nrMmwMeas.listPy.segment.caggregation.ngBandwidth.
↪aggregated.get(sEGMent = repcap.SEGMent.Default)
```

No command help available

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

agg\_bandwidth: No help available

### 6.4.1.1.1.11 Rlevel

#### SCPI Command :

```
SENSe:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>:RLEVel
```

#### class RlevelCls

Rlevel commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(sEGMent=SEGMent.Default) → float

```
# SCPI: SENSE:NRMMw:MEASurement<Instance>:LIST:SEGMent<no>:RLEVel
value: float = driver.sense.nrMmwMeas.listPy.segment.rlevel.get(sEGMent =
↪repcap.SEGMent.Default)
```

Queries the reference level of segment <no>. The reference level is calculated as expected nominal power + user margin.

#### param sEGMent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**return**  
level: Reference level of the segment

## 6.5 Test

### **class TestCls**

Test commands group definition. 3 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.test.clone()
```

#### Subgroups

### 6.5.1 NrMmwMeas

#### **class NrMmwMeasCls**

NrMmwMeas commands group definition. 3 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.test.nrMmwMeas.clone()
```

#### Subgroups

##### 6.5.1.1 Network

#### SCPI Command :

```
TEST:NRMMw:MEASurement<Instance>:NETWork:NCARrier
```

#### **class NetworkCls**

Network commands group definition. 3 total commands, 2 Subgroups, 1 group commands

**get\_ncarrier()** → int

```
# SCPI: TEST:NRMMw:MEASurement<Instance>:NETWork:NCARrier
value: int = driver.test.nrMmwMeas.network.get_ncarrier()
```

No command help available

**return**  
number: No help available

**set\_ncarrier**(*number: int*) → None

```
# SCPI: TEST:NRMMw:MEASurement<Instance>:NETWork:NCARrier
driver.test.nrMmwMeas.network.set_ncarrier(number = 1)
```

No command help available

**param number**  
No help available

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.test.nrMmwMeas.network.clone()
```

## Subgroups

### 6.5.1.1.1 Caggregation

#### SCPI Command :

```
TEST:NRMMw:MEASurement<Instance>:NETWork:CAGGregation
```

#### class CaggregationCls

Caggregation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**set**() → None

```
# SCPI: TEST:NRMMw:MEASurement<Instance>:NETWork:CAGGregation
driver.test.nrMmwMeas.network.caggregation.set()
```

No command help available

**set\_with\_opc**(*opc\_timeout\_ms: int = -1*) → None

```
# SCPI: TEST:NRMMw:MEASurement<Instance>:NETWork:CAGGregation
driver.test.nrMmwMeas.network.caggregation.set_with_opc()
```

No command help available

Same as set, but waits for the operation to complete before continuing further. Use the RsCMPX\_NrFr2Meas.utilities.opc\_timeout\_set() to set the timeout value.

**param opc\_timeout\_ms**  
Maximum time to wait in milliseconds, valid only for this call.

### 6.5.1.1.2 Cc<CarrierComponent>

#### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.test.nrMmwMeas.network.cc.repcap_carrierComponent_get()
driver.test.nrMmwMeas.network.cc.repcap_carrierComponent_set(repcap.CarrierComponent.Nr1)
```

#### class CcCls

Cc commands group definition. 1 total commands, 1 Subgroups, 0 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.test.nrMmwMeas.network.cc.clone()
```

### Subgroups

#### 6.5.1.1.2.1 Frequency

##### SCPI Command :

```
TEST:NRMMw:MEASurement<Instance>:NETWork[:CC<no>]:FREQuency
```

#### class FrequencyCls

Frequency commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(carrierComponent=CarrierComponent.Default) → float

```
# SCPI: TEST:NRMMw:MEASurement<Instance>:NETWork[:CC<no>]:FREQuency
value: float = driver.test.nrMmwMeas.network.cc.frequency.get(carrierComponent,
↳= repcap.CarrierComponent.Default)
```

No command help available

##### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

##### return

frequency: No help available

**set**(frequency: float, carrierComponent=CarrierComponent.Default) → None

```
# SCPI: TEST:NRMMw:MEASurement<Instance>:NETWork[:CC<no>]:FREQuency
driver.test.nrMmwMeas.network.cc.frequency.set(frequency = 1.0,
↳carrierComponent = repcap.CarrierComponent.Default)
```

No command help available

##### param frequency

No help available

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

## 6.6 Trigger

**class TriggerCls**

Trigger commands group definition. 12 total commands, 1 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.trigger.clone()
```

**Subgroups**

### 6.6.1 NrMmwMeas

**class NrMmwMeasCls**

NrMmwMeas commands group definition. 12 total commands, 3 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.trigger.nrMmwMeas.clone()
```

**Subgroups**

#### 6.6.1.1 ListPy

**SCPI Command :**

```
TRIGger:NRMMw:MEASurement<Instance>:LIST:MODE
```

**class ListPyCls**

ListPy commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_mode()** → ListMode

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:LIST:MODE
value: enums.ListMode = driver.trigger.nrMmwMeas.listPy.get_mode()
```

No command help available

**return**

mode: No help available

**set\_mode**(mode: ListMode) → None

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:LIST:MODE
driver.trigger.nrMmwMeas.listPy.set_mode(mode = enums.ListMode.ONCE)
```

No command help available

**param mode**

No help available

### 6.6.1.2 MultiEval

#### SCPI Commands :

```
TRIGger:NRMMw:MEASurement<Instance>:MEvaluation:THReshold
TRIGger:NRMMw:MEASurement<Instance>:MEvaluation:SLOPe
TRIGger:NRMMw:MEASurement<Instance>:MEvaluation:DElay
TRIGger:NRMMw:MEASurement<Instance>:MEvaluation:TOUT
TRIGger:NRMMw:MEASurement<Instance>:MEvaluation:MGAP
TRIGger:NRMMw:MEASurement<Instance>:MEvaluation:SMODE
TRIGger:NRMMw:MEASurement<Instance>:MEvaluation:FSYnc
```

#### class MultiEvalCls

MultiEval commands group definition. 7 total commands, 0 Subgroups, 7 group commands

**get\_delay**() → float

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:MEvaluation:DElay
value: float = driver.trigger.nrMmwMeas.multiEval.get_delay()
```

Defines a time delaying the start of the measurement relative to the trigger event. This setting has no influence on free run measurements.

**return**

delay: No help available

**get\_fsync**() → bool

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:MEvaluation:FSYnc
value: bool = driver.trigger.nrMmwMeas.multiEval.get_fsync()
```

Enables frame synchronization for ‘Free Run (Fast Sync) ‘ and ‘IF Power’.

**return**

frame\_sync: OFF: slot synchronization ON: frame synchronization

**get\_mgap**() → float

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:MEvaluation:MGAP
value: float = driver.trigger.nrMmwMeas.multiEval.get_mgap()
```

Sets a minimum time during which the IF signal must be below the trigger threshold before the trigger is armed so that an IF power trigger event can be generated.

**return**

min\_trig\_gap: No help available



**get\_slope()** → SignalSlope

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:MEValuation:SLOPe
value: enums.SignalSlope = driver.trigger.nrMmwMeas.multiEval.get_slope()
```

Qualifies whether the trigger event is generated at the rising or at the falling edge of the trigger pulse (valid for external and power trigger sources) .

**return**  
slope: REDGe: Rising edge FEDGe: Falling edge

**get\_smode()** → SyncMode

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:MEValuation:SMODE
value: enums.SyncMode = driver.trigger.nrMmwMeas.multiEval.get_smode()
```

Selects the size of the search window for synchronization.

**return**  
sync\_mode: Normal, enhanced, normal single slot, enhanced single slot

**get\_threshold()** → float

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:MEValuation:THReshold
value: float or bool = driver.trigger.nrMmwMeas.multiEval.get_threshold()
```

Defines the trigger threshold for power trigger sources.

**return**  
trig\_threshold: (float or boolean) No help available

**get\_timeout()** → float

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:MEValuation:TOUT
value: float or bool = driver.trigger.nrMmwMeas.multiEval.get_timeout()
```

Selects the maximum time that the measurement waits for a trigger event before it stops in remote control mode or indicates a trigger timeout in manual operation mode. This setting has no influence on Free Run measurements.

**return**  
trigger\_timeout: (float or boolean) No help available

**set\_delay(delay: float)** → None

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:MEValuation:DElay
driver.trigger.nrMmwMeas.multiEval.set_delay(delay = 1.0)
```

Defines a time delaying the start of the measurement relative to the trigger event. This setting has no influence on free run measurements.

**param delay**  
No help available

**set\_fsyc(frame\_sync: bool)** → None

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:MEValuation:FSYnc
driver.trigger.nrMmwMeas.multiEval.set_fsyc(frame_sync = False)
```

Enables frame synchronization for ‘Free Run (Fast Sync) ‘ and ‘IF Power’.

**param frame\_sync**

OFF: slot synchronization ON: frame synchronization

**set\_mgap**(*min\_trig\_gap: float*) → None

```
# SCPI: TRIGGER:NRMW:MEASurement<Instance>:MEvaluation:MGAP
driver.trigger.nrmwMeas.multiEval.set_mgap(min_trig_gap = 1.0)
```

Sets a minimum time during which the IF signal must be below the trigger threshold before the trigger is armed so that an IF power trigger event can be generated.

**param min\_trig\_gap**

No help available

**set\_slope**(*slope: SignalSlope*) → None

```
# SCPI: TRIGGER:NRMW:MEASurement<Instance>:MEvaluation:SLOPe
driver.trigger.nrmwMeas.multiEval.set_slope(slope = enums.SignalSlope.FEDGE)
```

Qualifies whether the trigger event is generated at the rising or at the falling edge of the trigger pulse (valid for external and power trigger sources) .

**param slope**

REDGe: Rising edge FEDGe: Falling edge

**set\_smode**(*sync\_mode: SyncMode*) → None

```
# SCPI: TRIGGER:NRMW:MEASurement<Instance>:MEvaluation:SMODE
driver.trigger.nrmwMeas.multiEval.set_smode(sync_mode = enums.SyncMode.
↳ ENHanced)
```

Selects the size of the search window for synchronization.

**param sync\_mode**

Normal, enhanced, normal single slot, enhanced single slot

**set\_threshold**(*trig\_threshold: float*) → None

```
# SCPI: TRIGGER:NRMW:MEASurement<Instance>:MEvaluation:THReshold
driver.trigger.nrmwMeas.multiEval.set_threshold(trig_threshold = 1.0)
```

Defines the trigger threshold for power trigger sources.

**param trig\_threshold**

(float or boolean) No help available

**set\_timeout**(*trigger\_timeout: float*) → None

```
# SCPI: TRIGGER:NRMW:MEASurement<Instance>:MEvaluation:TOUT
driver.trigger.nrmwMeas.multiEval.set_timeout(trigger_timeout = 1.0)
```

Selects the maximum time that the measurement waits for a trigger event before it stops in remote control mode or indicates a trigger timeout in manual operation mode. This setting has no influence on Free Run measurements.

**param trigger\_timeout**

(float or boolean) No help available

### 6.6.1.3 Prach

#### SCPI Commands :

```
TRIGger:NRMMw:MEASurement<Instance>:PRACH:THReshold
TRIGger:NRMMw:MEASurement<Instance>:PRACH:SLOPe
TRIGger:NRMMw:MEASurement<Instance>:PRACH:TOUT
TRIGger:NRMMw:MEASurement<Instance>:PRACH:MGAP
```

#### class PrachCls

Prach commands group definition. 4 total commands, 0 Subgroups, 4 group commands

**get\_mgap()** → float

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:PRACH:MGAP
value: float = driver.trigger.nrMmwMeas.prach.get_mgap()
```

Sets a minimum time during which the IF signal must be below the trigger threshold before the trigger is armed so that an IF power trigger event can be generated.

**return**  
min\_trig\_gap: No help available

**get\_slope()** → SignalSlope

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:PRACH:SLOPe
value: enums.SignalSlope = driver.trigger.nrMmwMeas.prach.get_slope()
```

Qualifies whether the trigger event is generated at the rising or at the falling edge of the trigger pulse (valid for external and power trigger sources) .

**return**  
slope: REDGe: Rising edge FEDGe: Falling edge

**get\_threshold()** → float

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:PRACH:THReshold
value: float or bool = driver.trigger.nrMmwMeas.prach.get_threshold()
```

Defines the trigger threshold for power trigger sources.

**return**  
trig\_threshold: (float or boolean) No help available

**get\_timeout()** → float

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:PRACH:TOUT
value: float or bool = driver.trigger.nrMmwMeas.prach.get_timeout()
```

Selects the maximum time that the measurement waits for a trigger event before it stops in remote control mode or indicates a trigger timeout in manual operation mode. This setting has no influence on Free Run measurements.

**return**  
trigger\_timeout: (float or boolean) No help available

**set\_mgap**(*min\_trig\_gap: float*) → None

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:PRACH:MGAP
driver.trigger.nrMmwMeas.prach.set_mgap(min_trig_gap = 1.0)
```

Sets a minimum time during which the IF signal must be below the trigger threshold before the trigger is armed so that an IF power trigger event can be generated.

**param min\_trig\_gap**

No help available

**set\_slope**(*slope: SignalSlope*) → None

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:PRACH:SLOPe
driver.trigger.nrMmwMeas.prach.set_slope(slope = enums.SignalSlope.FEDGE)
```

Qualifies whether the trigger event is generated at the rising or at the falling edge of the trigger pulse (valid for external and power trigger sources) .

**param slope**

REDGe: Rising edge FEDGe: Falling edge

**set\_threshold**(*trig\_threshold: float*) → None

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:PRACH:THReshold
driver.trigger.nrMmwMeas.prach.set_threshold(trig_threshold = 1.0)
```

Defines the trigger threshold for power trigger sources.

**param trig\_threshold**

(float or boolean) No help available

**set\_timeout**(*trigger\_timeout: float*) → None

```
# SCPI: TRIGger:NRMMw:MEASurement<Instance>:PRACH:TOUT
driver.trigger.nrMmwMeas.prach.set_timeout(trigger_timeout = 1.0)
```

Selects the maximum time that the measurement waits for a trigger event before it stops in remote control mode or indicates a trigger timeout in manual operation mode. This setting has no influence on Free Run measurements.

**param trigger\_timeout**

(float or boolean) No help available

## RSCMPX\_NRFR2MEAS UTILITIES

### class Utilities

Common utility class. Utility functions common for all types of drivers.

Access snippet: `utils = RsCMPX_NrFr2Meas.utilities`

**property logger:** *ScpiLogger*

Scpi Logger interface, see [here](#)

Access snippet: `logger = RsCMPX_NrFr2Meas.utilities.logger`

**property driver\_version:** `str`

Returns the instrument driver version.

**property idn\_string:** `str`

Returns instrument's identification string - the response on the SCPI command `*IDN?`

**property manufacturer:** `str`

Returns manufacturer of the instrument.

**property full\_instrument\_model\_name:** `str`

Returns the current instrument's full name e.g. 'FSW26'.

**property instrument\_model\_name:** `str`

Returns the current instrument's family name e.g. 'FSW'.

**property supported\_models:** `List[str]`

Returns a list of the instrument models supported by this instrument driver.

**property instrument\_firmware\_version:** `str`

Returns instrument's firmware version.

**property instrument\_serial\_number:** `str`

Returns instrument's serial\_number.

**query\_opc**(*timeout: int = 0*) → `int`

SCPI command: `*OPC?` Queries the instrument's OPC bit and hence it waits until the instrument reports operation complete. If you define `timeout > 0`, the VISA timeout is set to that value just for this method call.

**property instrument\_status\_checking:** `bool`

Sets / returns Instrument Status Checking. When True (default is True), all the driver methods and properties are sending "SYSTem:ERRor?" at the end to immediately react on error that might have occurred. We recommend to keep the state checking ON all the time. Switch it OFF only in rare cases when you require maximum speed. The default state after initializing the session is ON.

**property encoding: str**

Returns string<=>bytes encoding of the session.

**property opc\_query\_after\_write: bool**

Sets / returns Instrument \*OPC? query sending after each command write. When True, (default is False) the driver sends \*OPC? every time a write command is performed. Use this if you want to make sure your sequence is performed command-after-command.

**property bin\_float\_numbers\_format: BinFloatFormat**

Sets / returns format of float numbers when transferred as binary data.

**property bin\_int\_numbers\_format: BinIntFormat**

Sets / returns format of integer numbers when transferred as binary data.

**clear\_status()** → None

Clears instrument's status system, the session's I/O buffers and the instrument's error queue.

**query\_all\_errors()** → List[str]

Queries and clears all the errors from the instrument's error queue. The method returns list of strings as error messages. If no error is detected, the return value is None. The process is: querying 'SYSTEM:ERROR?' in a loop until the error queue is empty. If you want to include the error codes, call the query\_all\_errors\_with\_codes()

**query\_all\_errors\_with\_codes()** → List[Tuple[int, str]]

Queries and clears all the errors from the instrument's error queue. The method returns list of tuples (code: int, message: str). If no error is detected, the return value is None. The process is: querying 'SYSTEM:ERROR?' in a loop until the error queue is empty.

**property instrument\_options: List[str]**

Returns all the instrument options. The options are sorted in the ascending order starting with K-options and continuing with B-options.

**reset()** → None

SCPI command: \*RST Sends \*RST command + calls the clear\_status().

**default\_instrument\_setup()** → None

Custom steps performed at the init and at the reset().

**self\_test(timeout: int = None)** → Tuple[int, str]

SCPI command: \*TST? Performs instrument's self-test. Returns tuple (code:int, message: str). Code 0 means the self-test passed. You can define the custom timeout in milliseconds. If you do not define it, the default selftest timeout is used (usually 60 secs).

**is\_connection\_active()** → bool

Returns true, if the VISA connection is active and the communication with the instrument still works.

**reconnect(force\_close: bool = False)** → bool

If the connection is not active, the method tries to reconnect to the device. If the connection is active, and force\_close is False, the method does nothing. If the connection is active, and force\_close is True, the method closes, and opens the session again. Returns True, if the reconnection has been performed.

**property resource\_name: int**

Returns the resource name used in the constructor

**property opc\_timeout: int**

Sets / returns timeout in milliseconds for all the operations that use OPC synchronization.

**property visa\_timeout: int**

Sets / returns visa IO timeout in milliseconds.

**property data\_chunk\_size: int**

Sets / returns the maximum size of one block transferred during write/read operations

**property visa\_manufacturer: int**

Returns the manufacturer of the current VISA session.

**process\_all\_commands()** → None

SCPI command: *\*WAI* Stops further commands processing until all commands sent before *\*WAI* have been executed.

**write\_str(cmd: str)** → None

Writes the command to the instrument.

**write(cmd: str)** → None

This method is an alias to the write\_str(). Writes the command to the instrument as string.

**write\_int(cmd: str, param: int)** → None

Writes the command to the instrument followed by the integer parameter: e.g.: cmd = 'SELECT:INPUT' param = '2', result command = 'SELECT:INPUT 2'

**write\_int\_with\_opc(cmd: str, param: int, timeout: int = None)** → None

Writes the command with OPC to the instrument followed by the integer parameter: e.g.: cmd = 'SELECT:INPUT' param = '2', result command = 'SELECT:INPUT 2' If you do not provide timeout, the method uses current opc\_timeout.

**write\_float(cmd: str, param: float)** → None

Writes the command to the instrument followed by the boolean parameter: e.g.: cmd = 'CENTER:FREQ' param = '10E6', result command = 'CENTER:FREQ 10E6'

**write\_float\_with\_opc(cmd: str, param: float, timeout: int = None)** → None

Writes the command with OPC to the instrument followed by the boolean parameter: e.g.: cmd = 'CENTER:FREQ' param = '10E6', result command = 'CENTER:FREQ 10E6' If you do not provide timeout, the method uses current opc\_timeout.

**write\_bool(cmd: str, param: bool)** → None

Writes the command to the instrument followed by the boolean parameter: e.g.: cmd = 'OUTPUT' param = 'True', result command = 'OUTPUT ON'

**write\_bool\_with\_opc(cmd: str, param: bool, timeout: int = None)** → None

Writes the command with OPC to the instrument followed by the boolean parameter: e.g.: cmd = 'OUTPUT' param = 'True', result command = 'OUTPUT ON' If you do not provide timeout, the method uses current opc\_timeout.

**query\_str(query: str)** → str

Sends the query to the instrument and returns the response as string. The response is trimmed of any trailing LF characters and has no length limit.

**query(query: str)** → str

This method is an alias to the query\_str(). Sends the query to the instrument and returns the response as string. The response is trimmed of any trailing LF characters and has no length limit.

**query\_bool(query: str)** → bool

Sends the query to the instrument and returns the response as boolean.

**query\_int**(*query: str*) → int

Sends the query to the instrument and returns the response as integer.

**query\_float**(*query: str*) → float

Sends the query to the instrument and returns the response as float.

**write\_str\_with\_opc**(*cmd: str, timeout: int = None*) → None

Writes the opc-synced command to the instrument. If you do not provide timeout, the method uses current `opc_timeout`.

**write\_with\_opc**(*cmd: str, timeout: int = None*) → None

This method is an alias to the `write_str_with_opc()`. Writes the opc-synced command to the instrument. If you do not provide timeout, the method uses current `opc_timeout`.

**query\_str\_with\_opc**(*query: str, timeout: int = None*) → str

Sends the opc-synced query to the instrument and returns the response as string. The response is trimmed of any trailing LF characters and has no length limit. If you do not provide timeout, the method uses current `opc_timeout`.

**query\_with\_opc**(*query: str, timeout: int = None*) → str

This method is an alias to the `query_str_with_opc()`. Sends the opc-synced query to the instrument and returns the response as string. The response is trimmed of any trailing LF characters and has no length limit. If you do not provide timeout, the method uses current `opc_timeout`.

**query\_bool\_with\_opc**(*query: str, timeout: int = None*) → bool

Sends the opc-synced query to the instrument and returns the response as boolean. If you do not provide timeout, the method uses current `opc_timeout`.

**query\_int\_with\_opc**(*query: str, timeout: int = None*) → int

Sends the opc-synced query to the instrument and returns the response as integer. If you do not provide timeout, the method uses current `opc_timeout`.

**query\_float\_with\_opc**(*query: str, timeout: int = None*) → float

Sends the opc-synced query to the instrument and returns the response as float. If you do not provide timeout, the method uses current `opc_timeout`.

**write\_bin\_block**(*cmd: str, payload: bytes*) → None

Writes all the payload as binary data block to the instrument. The binary data header is added at the beginning of the transmission automatically, do not include it in the payload!!!

**query\_bin\_block**(*query: str*) → bytes

Queries binary data block to bytes. Throws an exception if the returned data was not a binary data. Returns `data:bytes`

**query\_bin\_block\_with\_opc**(*query: str, timeout: int = None*) → bytes

Sends a OPC-synced query and returns binary data block to bytes. If you do not provide timeout, the method uses current `opc_timeout`.

**query\_bin\_or\_ascii\_float\_list**(*query: str*) → List[float]

Queries a list of floating-point numbers that can be returned in ASCII format or in binary format. - For ASCII format, the list numbers are decoded as comma-separated values. - For Binary Format, the numbers are decoded based on the property `BinFloatFormat`, usually float 32-bit (FORM REAL,32).

**query\_bin\_or\_ascii\_float\_list\_with\_opc**(*query: str, timeout: int = None*) → List[float]

Sends a OPC-synced query and reads a list of floating-point numbers that can be returned in ASCII format or in binary format. - For ASCII format, the list numbers are decoded as comma-separated values. - For Binary Format, the numbers are decoded based on the property `BinFloatFormat`, usually float 32-bit (FORM REAL,32). If you do not provide timeout, the method uses current `opc_timeout`.



**query\_bin\_or\_ascii\_int\_list**(*query: str*) → List[int]

Queries a list of floating-point numbers that can be returned in ASCII format or in binary format. - For ASCII format, the list numbers are decoded as comma-separated values. - For Binary Format, the numbers are decoded based on the property BinFloatFormat, usually float 32-bit (FORM REAL,32).

**query\_bin\_or\_ascii\_int\_list\_with\_opc**(*query: str, timeout: int = None*) → List[int]

Sends a OPC-synced query and reads a list of floating-point numbers that can be returned in ASCII format or in binary format. - For ASCII format, the list numbers are decoded as comma-separated values. - For Binary Format, the numbers are decoded based on the property BinFloatFormat, usually float 32-bit (FORM REAL,32). If you do not provide timeout, the method uses current `opc_timeout`.

**query\_bin\_block\_to\_file**(*query: str, file\_path: str, append: bool = False*) → None

Queries binary data block to the provided file. If `append` is `False`, any existing file content is discarded. If `append` is `True`, the new content is added to the end of the existing file, or if the file does not exist, it is created. Throws an exception if the returned data was not a binary data. Example for transferring a file from Instrument -> PC: `query = f"MMEM:DATA? '{INSTR_FILE_PATH}'"`. Alternatively, use the dedicated methods for this purpose:

- `send_file_from_pc_to_instrument()`
- `read_file_from_instrument_to_pc()`

**query\_bin\_block\_to\_file\_with\_opc**(*query: str, file\_path: str, append: bool = False, timeout: int = None*) → None

Sends a OPC-synced query and writes the returned data to the provided file. If `append` is `False`, any existing file content is discarded. If `append` is `True`, the new content is added to the end of the existing file, or if the file does not exist, it is created. Throws an exception if the returned data was not a binary data.

**write\_bin\_block\_from\_file**(*cmd: str, file\_path: str*) → None

Writes data from the file as binary data block to the instrument using the provided command. Example for transferring a file from PC -> Instrument: `cmd = f"MMEM:DATA '{INSTR_FILE_PATH}',"`. Alternatively, use the dedicated methods for this purpose:

- `send_file_from_pc_to_instrument()`
- `read_file_from_instrument_to_pc()`

**send\_file\_from\_pc\_to\_instrument**(*source\_pc\_file: str, target\_instr\_file: str*) → None

SCPI Command: `MMEM:DATA`

Sends file from PC to the instrument

**read\_file\_from\_instrument\_to\_pc**(*source\_instr\_file: str, target\_pc\_file: str, append\_to\_pc\_file: bool = False*) → None

SCPI Command: `MMEM:DATA?`

Reads file from instrument to the PC.

Set the `append_to_pc_file` to `True` if you want to append the read content to the end of the existing PC file

**get\_last\_sent\_cmd**() → str

Returns the last commands sent to the instrument. Only works in simulation mode

**go\_to\_local**() → None

Puts the instrument into local state.

**go\_to\_remote**() → None

Puts the instrument into remote state.

**get\_lock()** → RLock

Returns the thread lock for the current session.

**By default:**

- If you create standard new RsCMPX\_NrFr2Meas instance with new VISA session, the session gets a new thread lock. You can assign it to other RsCMPX\_NrFr2Meas sessions in order to share one physical instrument with a multi-thread access.
- If you create new RsCMPX\_NrFr2Meas from an existing session, the thread lock is shared automatically making both instances multi-thread safe.

You can always assign new thread lock by calling `driver.utilities.assign_lock()`

**assign\_lock(lock: RLock)** → None

Assigns the provided thread lock.

**clear\_lock()**

Clears the existing thread lock, making the current session thread-independent from others that might share the current thread lock.

**sync\_from(source: Utilities)** → None

Synchronises these Utils with the source.

## RSCMPX\_NRFR2MEAS LOGGER

Check the usage in the Getting Started chapter [here](#).

### **class ScpiLogger**

Base class for SCPI logging

#### **mode**

Sets the logging ON or OFF. Additionally, you can set the logging ON only for errors. Possible values:

- `LoggingMode.Off` - logging is switched OFF
- `LoggingMode.On` - logging is switched ON
- `LoggingMode.Errors` - logging is switched ON, but only for error entries
- `LoggingMode.Default` - sets the logging to default - the value you have set with `logger.default_mode`

#### **default\_mode**

Sets / returns the default logging mode. You can recall the default mode by calling the `logger.mode = LoggingMode.Default`.

#### **Data Type**

`LoggingMode`

#### **device\_name: str**

Use this property to change the resource name in the log from the default Resource Name (e.g. `TCPIP::192.168.2.101::INSTR`) to another name e.g. `'MySigGen1'`.

#### **set\_logging\_target(target, console\_log: bool = None, udp\_log: bool = None) → None**

Sets logging target - the target must implement `write()` and `flush()`. You can optionally set the console and UDP logging ON or OFF. This method switches the logging target global OFF.

#### **get\_logging\_target()**

Based on the `global_mode`, it returns the logging target: either the local or the global one.

#### **set\_logging\_target\_global(console\_log: bool = None, udp\_log: bool = None) → None**

Sets logging target to global. The global target must be defined. You can optionally set the console and UDP logging ON or OFF.

#### **log\_to\_console**

Returns logging to console status.

#### **log\_to\_udp**

Returns logging to UDP status.

#### **log\_to\_console\_and\_udp**

Returns true, if both logging to UDP and console in are True.

**info\_raw**(log\_entry: str, add\_new\_line: bool = True) → None

Method for logging the raw string without any formatting.

**info**(start\_time: datetime, end\_time: datetime, log\_string\_info: str, log\_string: str) → None

Method for logging one info entry. For binary log\_string, use the info\_bin()

**error**(start\_time: datetime, end\_time: datetime, log\_string\_info: str, log\_string: str) → None

Method for logging one error entry.

**set\_relative\_timestamp**(timestamp: datetime) → None

If set, the further timestamps will be relative to the entered time.

**set\_relative\_timestamp\_now**() → None

Sets the relative timestamp to the current time.

**get\_relative\_timestamp**() → datetime

Based on the global\_mode, it returns the relative timestamp: either the local or the global one.

**clear\_relative\_timestamp**() → None

Clears the reference time, and the further logging continues with absolute times.

**flush**() → None

Flush all the entries.

**log\_status\_check\_ok**

Sets / returns the current status of status checking OK. If True (default), the log contains logging of the status checking 'Status check: OK'. If False, the 'Status check: OK' is skipped - the log is more compact. Errors will still be logged.

**clear\_cached\_entries**() → None

Clears potential cached log entries. Cached log entries are generated when the Logging is ON, but no target has been defined yet.

**set\_format\_string**(value: str, line\_divider: str = '\n') → None

Sets new format string and line divider. If you just want to set the line divider, set the format string value=None. The original format string is: PAD\_LEFT12(%START\_TIME%) PAD\_LEFT25(%DEVICE\_NAME%) PAD\_LEFT12(%DURATION%) %LOG\_STRING\_INFO% %LOG\_STRING%

**restore\_format\_string**() → None

Restores the original format string and the line divider to LF

**abbreviated\_max\_len\_ascii: int**

Defines the maximum length of one ASCII log entry. Default value is 200 characters.

**abbreviated\_max\_len\_bin: int**

Defines the maximum length of one Binary log entry. Default value is 2048 bytes.

**abbreviated\_max\_len\_list: int**

Defines the maximum length of one list entry. Default value is 100 elements.

**bin\_line\_block\_size: int**

Defines number of bytes to display in one line. Default value is 16 bytes.

**udp\_port**

Returns udp logging port.

**target\_auto\_flushing**

Returns status of the auto-flushing for the logging target.

## RSCMPX\_NRFR2MEAS EVENTS

Check the usage in the Getting Started chapter [here](#).

### **class Events**

Common Events class. Event-related methods and properties. Here you can set all the event handlers.

**property before\_query\_handler: Callable**

Returns the handler of before\_query events.

#### **Returns**

current before\_query\_handler

**property before\_write\_handler: Callable**

Returns the handler of before\_write events.

#### **Returns**

current before\_write\_handler

**property io\_events\_include\_data: bool**

Returns the current state of the io\_events\_include\_data See the setter for more details.

**property on\_read\_handler: Callable**

Returns the handler of on\_read events.

#### **Returns**

current on\_read\_handler

**property on\_write\_handler: Callable**

Returns the handler of on\_write events.

#### **Returns**

current on\_write\_handler

**sync\_from**(source: Events) → None

Synchronises these Events with the source.



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