

R&S®NRX Power Meter

Release Notes

Firmware Version 02.51.22030701

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The software makes use of several valuable open source software packages. For information, see the "Open Source Acknowledgment" provided with the product.

The following abbreviations are used throughout this document: R&S®NRX Power Meter is abbreviated as R&SNRX Power Meter.

PAD-T-M: 3574_3286.02/05.00/CI/1/EN

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1 Information on the current version and history

1.1 Version 02.51.22030701

Released: March 2022

New functionality

Functions

n.a.

Modified functionality

Functions

NRX-K301: Changed behavior of following SCPI commands in remote emulation mode

SENSe:CORRection:CSET1:SElect

SENSe:CORRection:CSET1:STATe

If you use them as a command, then no errors are reported. Default values are returned as responses for queries (SElect returns "", STATe returns 0).

Improvements

Improvements

n.a.

Known issues

Known Issues

Favorite button is without function

Support for network sensors: requires sensor firmware version 02.00 or better

Statistics: wrong results when scaling power axis below 0.1 dB/div

Remote control: USBTMC connection can freeze - please reconnect USB-cable or reboot NRX

1.2 Version 02.50.21112602

Released: December 2021

New functionality

Functions

Added new command for trigger synchronization among multiple sensors:

TRIGger:SENDER

FW update of the sensors via the SCPI remote control interface:

SENSe:SYSTem:FWUpdate

SENSe:SYSTem:FWUpdate:STATus?

Modified functionality

Functions

n.a.

Improvements

Improvements

Display: Fixed the loss of touch events when pressing the touch display too fast

Remote control: Fixed sporadic loss of GPIB connection

Remote control: Fixed SCPI remote control connection stalling when another sensor was plugged in

Fixed several problems when booting NRX with 4 sensors:

- Notification message "Maximum number of sensors configured" even though the option NRX-K4 is installed
- Inability to detect/use one or more sensors even though the option NRX-K4 is installed

Fixed a problem when reconfiguring sensors if more sensors are plugged in than the option NRX-K2/-K4 allows

Known issues

Known Issues

Favorite button is without function

Support for network sensors: requires sensor firmware version 02.00 or better

Statistics: wrong results when scaling power axis below 0.1 dB/div

Remote control: USBTMC connection can freeze - please reconnect USB-cable or reboot NRX

1.3 Version 02.40.20100501

Released: October 2020

New functionality

Functions

Remote control: Option NRX-K301 Keysight Remote Emulation:

- N432A
- E4418B/E4419B
- N1911A/N1912A

Security: Change instrument password

Security: Set User Interface operation restrictions

Modified functionality

Functions

n.a.

Improvements

Improvements

Remote control: Fixed blocked SCPI communication when changing network configuration via GPIB

Known issues

Known Issues

Favorite button is without function

Support for network sensors: requires sensor firmware version 02.00 or better

Statistics: wrong results when scaling power axis below 0.1 dB/div

Remote control: USBTMC connection can freeze - please reconnect USB-cable or reboot NRX

1.4 Version 02.32.20062902

Released: July 2020

New functionality

Functions

n.a.

Modified functionality

Functions

n.a.

Improvements

Improvements

Remote control: INIT:CONT? query returns "1" only if a continuous measurement is active

Security: Disabling "SCPI over LAN" disables all supported protocols (VXI-11, HiSLIP, Socket)

NRT measurement: improved trigger event handling when TRIGger:SOURce is set to EXTERNAL

Known issues

Known Issues

Favorite button is without function

Emulation: other emulations not implemented yet (HP, Agilent)

Support for network sensors: requires sensor firmware version 02.00 or better

Statistics: wrong results when scaling power axis below 0.1 dB/div

Remote control: USBTMC connection can freeze - please reconnect USB-cable or reboot NRX

Remote control: changing network configuration via GPIB may block SCPI communication – please configure network settings in GUI

1.5 Version 02.31.20040101

Released: April 2020

New functionality

Functions

n.a.

Modified functionality

Functions

n.a.

Improvements

Improvements

Support for R&S Recal+

Pulse Analysis: Bugfix display of reference levels related to voltage/power

Trigger: Bugfix behavior of *TRG and TRIG:IMM

NRP2 remote emulation: TRIG:MODE is set to NORMAl after L/R transition or reset

Known issues

Known Issues

Favorite button is without function

Emulation: other emulations not implemented yet (HP, Agilent)

Support for network sensors: requires sensor firmware version 02.00 or better

Statistics: wrong results when scaling power axis below 0.1 dB/div

Remote control: USBTMC connection can freeze - please reconnect USB-cable or reboot NRX

1.6 Version 02.30.19101601

Released: November 2019

New functionality

Functions

Support for R&S Recal+

Buffered Mode for Continuous Average Measurement

Predefined settings for common standards

Sanitization/Declassification

Download of user manual to USB stick

Added SENSE commands:
 SENSE[:POWer]:BURSt:LENGth?
 SENSE[:POWer][:AVG]:FAST

Modified functionality

Functions

Sensor power parameter: default unit depends on SENSE:UNIT:POWer parameter setting

SENSE:POWer:REFerence

SENSE:POWer:CCDF:REFerence

SENSE:TRACe:MEASurement:POWer:*

Source power parameter: default unit depends on SOURCE:POWer:UNIT parameter setting
 SOURCE:POWer

SYSTem:PRESet is different from *RST:

INIT:CONT ON

CALCulate:AVERage:TCONtrol MOVing

CALCulate:TRACe:AVERage:TCONtrol MOVing

SENSE:AVERage:TCONtrol MOVing

SENSE:TRACe:AVERage:TCONtrol MOVing

Improvements

Improvements

Network sensor assignment is persistent.

Timeslot/Timegate: analog output can be assigned to any slot/gate.

Analog output can handle calculated measurement results from two sensors.

Remote control: SENSE:POWer:RANGe commands (NRT bargraph) work as expected.

NRP2-Emulation: Bugfixes

Fixed "TCP SACK Panic" (CVE-2019-11477, CVE-2019-11478, CVE-2019-11479)

Known issues

Known Issues

Favorite button is without function

Emulation: other emulations not implemented yet (HP, Agilent)

Support for network sensors: requires sensor firmware version 02.00 or better

Statistics: wrong results when scaling power axis below 0.1 dB/div

Remote control: USBTMC connection can freeze - please reconnect USB-cable or reboot NRX

1.7 Version 02.20.19042601

Released: May 2019

New functionality

Functions

n.a.

Modified functionality

Functions

Power parameter: default unit depends on UNIT:POWer parameter setting

CALCulate:LIMit:LOWer:POWer

CALCulate:LIMit:UPPer:POWer

CALCulate:METer:LOWer:POWer

CALCulate:METer:UPPer:POWer

CALCulate:NRT:CCDF:THReshold

CALCulate:RELative:POWer

CALCulate:TRACe:MEASurement:POWer:*

OUTPut:RECOder:LIMit:LOWer:POWer

OUTPut:RECOder:LIMit:UPPer:POWer

SENSe:POWer:REFerence

SENSe:POWer:CCDF:REFerence

SENSe:TRACe:MEASurement:POWer:*

SOURce:POWer

TRIGger:LEVel

TRIGger:ALL:LEVel

Ratio parameter: default unit depends on UNIT:POWer:RATio parameter setting

CALCulate:LIMit:LOWer:RATio
CALCulate:LIMit:UPPer:RATio
CALCulate:METer:LOWer:RATio
CALCulate:METer:UPPer:RATio
CALCulate:RELative:RATio
OUTPut:RECOder:LIMit:LOWer:RATio
OUTPut:RECOder:LIMit:UPPer:RATio

Improvements

Improvements

Emulation: complete NRP2 emulation

Support for network sensors: if sensor is not compatible to NRX then an error message is shown - when sensor is removed the error message is still displayed, but can be deleted manually

Trace: horizontal auto scale (only when using NRQ)

Trace: marker results are now displayed in result panel

Timeslot/Timegate: results are now displayed in result panel in graphical view

Remote control: calculated results from two sensors (i.e. DIFF, SUM, ...) can be fetched

Remote control: STAT:QUES completely implemented

Show EULA for used fonts

Known issues

Known Issues

Favorite button is without function

Emulation: other emulations not implemented yet (NRP, HP, Agilent)

Network sensor assignment is not saved - assignment must be repeated after reboot.

Support for network sensors: requires sensor firmware version 02.00 or better

No predefined settings for common standards

Timeslot/Timegate: analog output does only handle the first slot/gate

Statistics: wrong results when scaling power axis below 0.1 dB/div

Analog output does handle only single measurement results from a single sensor

Remote control: USBTMC connection can freeze - please reconnect USB-cable or reboot NRX

Remote control: SENSE:POWer:RANGe commands (NRT bargraph) without function

1.8 Version 02.10.18121802

Released: December 2018

New functionality

Functions

NRP2 emulation

Support for network sensors (NRPxxYN and NRQ)

Modified functionality

Functions

n.a.

Improvements

Improvements

Offset: GUI offset value is always the effective offset (offset value + frequency dependent offset)

Trigger level: limits are updated when offset is to be configured

Trace: fixed wrong behavior in trigger mode "Normal" after reconnecting sensor

Filter: video bandwidth can be configured for NRP sensors

Security settings: webservice / VNC can be disabled

Security settings: request for reboot is shown when switching volatile mode

Remote control: fixed sporadic deadlocks after remote-local transition / reset

Remote control: SCPI errors shown in notification center can be removed

Known issues

Known Issues

Favorite button is without function

Emulation: NRP2 emulation only (most SENSE and CALCulate parameters are implemented, some DISPLAY, MEMORY and OUTPUT parameters not implemented yet)

Emulation: other emulations not implemented yet (NRP, HP, Agilent)

Network sensor assignment is not saved - assignment must be repeated after reboot.

Support for network sensors: requires sensor firmware version 02.00 or better

Support for network sensors: if sensor is not compatible to NRX then an error message is shown - when sensor is removed the error message is still displayed until reboot of NRX

No predefined settings for common standards

Trace: horizontal auto scale not implemented yet

Trace: marker results are not shown in result panel

Timeslot/Timegate: results are not shown in result panel in graphical view

Timeslot/Timegate: analog output does only handle the first slot/gate

Statistics: wrong results when scaling power axis below 0.1 dB/div

Analog output does handle only single measurement results from a single sensor

Remote control: USBTMC connection can freeze - please reconnect USB-cable or reboot NRX

Remote control: calculated results from two sensors (i.e. DIFF, SUM, ...) cannot be fetched

Remote control: STAT:QUES not implemented yet

Remote control: SENSE:POWer:RANGe commands (NRT bargraph) without function

EULA for used fonts is missing

1.9 Version 02.00.18101801

Released: October 2018

New functionality

Functions

First release

Modified functionality

Functions

n.a.

Improvements

Improvements

n.a.

Known issues

Known Issues

Favorite button is without function

No remote emulations

No predefined settings for common standards

LAN sensors cannot be configured

Security settings: Webserver / VNC cannot be disabled

Trace: horizontal auto scale not implemented yet

Trace: marker results are not shown in result panel

Timeslot/Timegate: results are not shown in result panel in graphical view

Timeslot/Timegate: analog output does only handle the first slot/gate

Analog output does handle only single measurement results from a single sensor

Remote control: calculated results from two sensors (i.e. DIFF, SUM, ...) cannot be fetched

Remote control: STAT:QUES not implemented yet

Remote control: SENSE:POWer:RANGe commands (NRT bargraph) without function

Trigger level: Limits are not updated when offset is to be configured

EULA for used fonts is missing

2 Modifications to the documentation

The current documentation is up-to-date.

3 Firmware update

3.1 Update information

Please refer to the document "R&S®NRX Power Meter User Manual" (<https://www.rohde-schwarz.com/manual/nrx/>).

4 Customer support

Technical support – where and when you need it

For quick, expert help with any Rohde & Schwarz product, contact our customer support center. A team of highly qualified engineers provides support and works with you to find a solution to your query on any aspect of the operation, programming or applications of Rohde & Schwarz products.

Contact information

Contact our customer support center at www.rohde-schwarz.com/support or follow this QR code:



Figure 4-1: QR code to the Rohde & Schwarz support page