History and release notes for the Rohde & Schwarz Power Meter NRP

Contents

NRP driver history

Revision	Date	Note
2.2	08/2004	Modifications: Fixed function rsnrp_tslot_setTimeSlotCount
2.1	01/2004	Modifications: Added new function for firmware revision 3.01: -rsnrp_display_setUpdate -rsnrp_display_getUpdate -rsnrp_display_setShowErrorlist -rsnrp_display_getShowErrorlist -rsnrp_error_setExtendedMessage -rsnrp_error_getExtendedMessage -rsnrp_system_setBeepOnOverload -rsnrp_system_getBeepOnOverload -rsnrp_system_setKeyclick -rsnrp_system_getKeyclick -rsnrp_meas_configureMathExt -rsnrp_meas_getMathPrimaryEval -rsnrp_meas_getMathSecondaryEval -rsnrp_meas_getMathPrimaryGate -rsnrp_meas_getMathSecondaryGate -rsnrp_trigger_setSynchronize -rsnrp_trigger_getSynchronize Updated function: -rsnrp_meas_configureMath Changed: -Checking of connected sensors
2.0	05/2003	Modifications: Initial Release, except core functions all is new
1.0	02/2003	Beta Release - Only Core functions are supported

Supported Interfaces

The current revision of instrument driver supports interfaces:

- IEEE 488.2 (IEC-625, GPIB)
- VXI-11
- USB (Requires National Instruments VISA 3.20 or newer)

Overview

Channels and Measurements

The term channel corresponds to the sensors of the R&S NRP. Channels are used for data acquisition, their output are power values in W. Settings related to this are the correction parameters like frequency, offset and duty cycle and parameters related to averaging, trigger and ranging. They can be set through the Channel interfaces, independantly for every channel. Also there are low level methods to start measurements in channels and retrieve the results.
The measurement result is calculated in a second step from the data of one or two channels, using a mathematical operation like quotient or a function like the formula to calculate a standing wave ratio from incident and reflected power. The result is converted to a selectable unit. Finally the result can be compared to upper and lower limit values for supervision purposes. Settings related to this second step can be set through the Measurement interfaces. Also functions for configuring a complete measurement including channel settings are available there.
The R&S NRP has upto 4 channels, depending on installed options. The number of available channels can be queried with rsnrp_chans_getCount

Use this driver as a standard LabVIEW driver

In order to use this driver as a standard LabVIEW driver, please copy the contents of the ~VXIpnp\GWinNt\rsnrp directory into your LabVIEW directory (~LabVIEW\instr.lib\rsnrp\). The driver will then be directly accessible from the LabVIEW Instrument Driver function palette menu.

Additional Help

In addition, the instrument driver documentation is included in compressed HTML format (Windows CHM help file) stored together with the LabVIEW driver sources.
Each VI's help is linked to the section in the "CHM" file that describes all the features of the VI.

- **LabVIEW 6.1** and higher an additional help topic can be accessed directly by pressing "Click here for more help" in the Context Help

LabVIEW 7.1 driver

Please use the LabVIEW 7.0 driver.

LabVIEW 6.0 driver

Please contact [Rohde & Schwarz Customer Support Center](#)