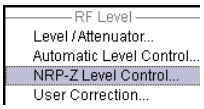
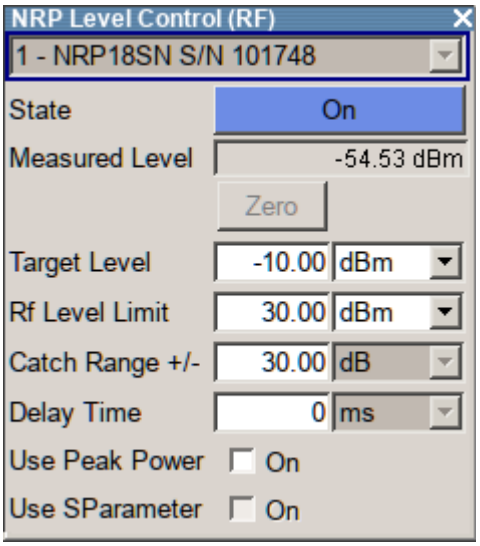
NRP Level Control Settings



► To access the dialog for configuring the level control settings, perform one of the following:

- Select "RF > config... > RF Level > NRP Level Control".
- Press the [menu] key and select "RF > RF Level > NRP Level Control".



The dialog contains all parameters for configuring the settings for level control test setup.

The remote commands required to define these settings are described in Chapter 6.13.12, "SOURce:POWer Subsystem", on page 382

Sensor
Selects the R&S NRP power sensor for power control.

Note: In remote control, the sensors are set up using the `SENSe` commands. The remote measurement is triggered by the `READ` query which also provides the measurement results.
The software version of the connected power sensor can be retrieved by means of the remote control command `:SENS:POW:TYPE?`.

Use the "Setup >" Chapter 4.2.3.4, "NRP Info/Update", on page 101 dialog to update the sensor software.

Remote command:
`[:SOURce<hw>]:POWer:SPC:SELect` on page 390

State
Activates power control using the selected sensor.

The control loop periodically adjusts the generator output. After switching off, the running loop is completed.

Remote command:
`[:SOURce<hw>]:POWer:SPC:STATe` on page 390

Measured Level
Indicates the current reading of the sensor.

Zero - Power Sensors
Activates the auto zero function.

Zeroing calibrates the external power sensor by adjusting its reading at zero signal power. For this purpose, the RF power source must be switched off or disconnected from the sensor. If a Rohde & Schwarz power sensor receives an input power during the zeroing process, it aborts zeroing and generates an error message. Zeroing takes a few seconds, depending on the sensor model. Refer to the documentation of your power sensor for more information.

Tips for zeroing

When to perform zeroing:
- During warm up after switching on or connecting the instrument
- After a substantial change of the ambient temperature
- After fastening the power sensor module to an RF connector at high temperature
- After several hours of operation
- When low-power signals are to be measured, e.g. less than 10 dB above the lower measurement limit.
- Switch off the RF power source for zeroing, but do not disconnect it from the power sensor. This proceeding keeps the thermal equilibrium, and the zeroing process also compensates the noise that superimposes the measured signal (e.g. from a broadband amplifier).

Remote command:
`:SENSe<ch>[:POWer]:ZERO` on page 330

Target Level
Specifies the nominal level expected at the input of the sensor. The signal generator adjusts the output power accordingly, in order to meet the target value at the sensor input, and thus the power required at the DUT.

Remote command:
`[:SOURce<hw>]:POWer:SPC:TARGet` on page 390

Limit - RF Level
Sets an upper limit for the RF output power.

You can use it to protect your DUT from damage due to high input power. If you enter an RF level above this value, the instrument limits the output power to this specified value, and generates a warning message.

However, the level indication in the status bar is not affected.

Note: The limit value is always effective, regardless of whether you work with "NRP Power Control" or not.
The value is not affected by an instrument preset ([PRESET] key), `*RST` and the "Save/Recall" function. It is influenced only by the Factory Preset and the factory value is equal to maximum level.

Remote command:
`[:SOURce<hw>]:POWer:LIMit[:AMPLitude]` on page 386