"Use SParameter"
Indicates whether SParameter correction is used.

"Attenuator Mode"
Displays the selected mode of the attenuator.

"Fixed Range (PEP) In:"
Shows the level range.

Remote command:
n.a.

4.3.5.7 Reverse Power Protection

The reverse power protection prevents against overload by an external signal applied to the RF output of the R&S SMB.

The R&S SMB equipped with frequency options up to 6 GHz includes a reverse power protection as standard. For instruments equipped with frequency option R&S SMB-B112 or R&S SMB-B112L a reverse power protection option R&S SMB-B30 is available. Refer to the data sheet for additional information and the respective option.

The reverse power protection is tripped when the power of the external signal becomes too high. A relay opens and interrupts the internal connection to the RF output. This condition is indicated in the display header by the "OVERLOAD" status message.

Overload
If an "Overload" status message is indicated in the display header, reset the overload protection by pressing the [RF ON/OFF] key.

The RF input is activated when the overload protection is reset.

Remote command:
`:OUTPut<hw>:PROTection:TRIPped?` on page 316
`:OUTPut<hw>:PROTection:CLEar` on page 316
`:OUTPut<hw>[:STATe]` on page 317

4.3.6 RF Measurement

4.3.6.1 NRP Sensor Mapping

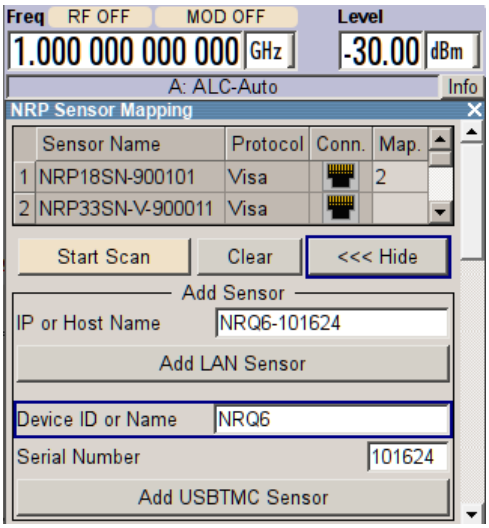
The "NRP Sensor Mapping" lists all R&S NRP sensors detected by the instrument.

Any R&S NRP sensor that supports the USB legacy protocol and is connected to one of the USB interfaces, is detected automatically and added to the list. Vice versa, the R&S SMB removes a sensor from the list, when it is disconnected.

R&S NRP sensors that are connected via LAN or use the USBTMC protocol are not automatically detected. They are detected by the scan search function.

Access:

► Select "RF > config... > RF Measurement > NRP Sensor Mapping"



The dialog lists all detected R&S NRP sensors for selection and mapping. You can also browse the network for sensors.
The detected sensors are characterized by the used protocol and the corresponding connector icon. In the "Mapping" column, you can assign the sensor to one of the available sensor channels. The list can contain several entries but the R&S SMB can only use up to four sensors simultaneously.
The remote commands required to define these settings are described in Chapter 6.12, "SENSe, READ and INITiate Subsystems", on page 318.

Settings

Sensor Mapping List

Displays a list of all sensor entries with information on the sensor name, the used protocol, the connector and the assigned mapping.

If a sensor is connected via LAN or uses the USBTMC protocol, its protocol is indicated as "Visa".

Remote command:
`:SLISt[:LIST]?` on page 321
`:SLISt:ELEMent<ch>:MAPPing` on page 319
`:SLISt:SENSor:MAP` on page 320

Scan
Scans the network and the USB connections for sensors connected via the VISA communication protocol, i.e. sensors that are addressed via LAN or USBTMC.

Sensors communicating via the USB legacy protocol are detected automatically.

Remote command:
`:SLISt:SCAN[:STATe]` on page 320

Clear
Removes the selected sensor from the sensor mapping list.

Remote command:
`:SLISt:CLEar:LAN` on page 319
`:SLISt:CLEar:USB` on page 319
`:SLISt:CLEar[:ALL]` on page 319

Add Sensor/Hide 'Add Sensor'
Shows or hides the "Add Sensor" settings.

Add Sensor settings
Configures settings to add sensors connected to the R&S SMB over USB or LAN.

Add LAN Sensor settings ← Add Sensor settings
Configures settings to add sensors connected to the R&S SMB over LAN.

"IP Address or Host Name"
Displays the host name or the IP address of a R&S NRP power sensor.
If the R&S SMB does not detect a connected R&S NRP sensor, you can assign the address information manually.

"Add LAN Sensor"
Adds a detected R&S NRP sensor connected in the LAN to the list of sensors, including its device ID or name and its serial number.

Remote command:
`:SLISt:SCAN:LSENsor` on page 319

Add USB Sensor settings ← Add Sensor settings
Configures settings to add sensors connected to the R&S SMB via USB.

"Device ID or Sensor Name"
Displays the device identifier or the name of the R&S NRP power sensor.
If the R&S SMB does not detect a connected R&S NRP sensor, you can assign the ID or name manually.

"Serial Number"
Displays the serial number of the R&S NRP power sensor.
If the R&S SMB does not detect a connected R&S NRPsensor, you can assign the serial number manually.