

Remote command:

[\[:SOURce<hw>\]:SWEep\[:FREQuency\]:OVOLtage:START](#) on page 424

Output Voltage Stop - RF Frequency Sweep

Sets the voltage at the sweep stop frequency.

Remote command:

[\[:SOURce<hw>\]:SWEep\[:FREQuency\]:OVOLtage:STOP](#) on page 425

Ext. Trigger Input Slope

Sets the polarity of the active slope of an externally applied instrument trigger.

This setting affects the INST TRIG input (BNC connector at the rear of the instrument).

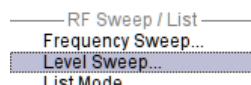
"Positive" activates the rising edge of the trigger signal.

"Negative" activates the falling edge of the trigger signal.

Remote command:

[\[:SOURce\]:INPut:TRIGger:SLOPe](#) on page 354

4.3.7.3 RF Level Sweep

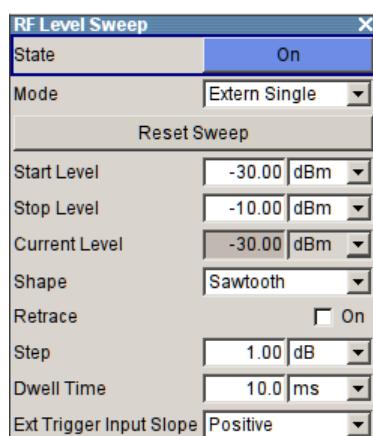


To open the "Level Sweep" menu, select "RF > Configure > Level Sweep" or use the [MENU] key under "RF".

RF Level Sweep Settings

In the top section, the RF level sweep is activated and the sweep mode is selected. The buttons are used to reset the level sweep (all sweep modes) or to execute the level sweep ("Single" mode).

The sweep range, sweep spacing and dwell time are set in the bottom section.



State - Level Sweep

Activates Level Sweep mode.

Note:

Activating a sweep mode automatically deactivates other sweeps and the list mode.

Remote command:

[**:SOURce<hw>**] :POWER:MODE on page 388

Mode - Level Sweep

Selects the level sweep instrument operating mode and the sweep mode.

If you change the sweep mode during the execution, the signal generator stops the sweep and starts with the next trigger event at the initial value.

The "Reset Sweep" button sets the sweep to the start value.

"Auto" Sets an automatically repeated sweep cycle.

Example:

SOUR:SWE:POW:MODE AUTO

TRIG:PSW:SOUR AUTO

SOUR:POW:MODE SWE

"Single" Sets a single sweep cycle. The sweep is triggered by the "Execute Single Sweep" button, or by means remote trigger commands, e.g. *TRG.

Example:

SOUR:SWE:POW:MODE AUTO

TRIG:PSW:SOUR SING

SOUR:POW:MODE SWE

SOUR:SWE:POW:EXEC

- "Step" Sets a step-by-step sweep cycle.
If this mode is activated, the cursor moves to the value displayed for "Current Level". Each sweep step is triggered by a variation of the value in the "Current Level" entry window. The step width is set below at entry field "Step".
If this mode is activated, the cursor moves to the value displayed for "Current Level". If a different sweep mode was activated prior to the "Step" mode, the current sweep is stopped. The step sweep starts at the current level value.

Example:

```
SOUR:SWE:POW:MODE MAN  
TRIG:PSW:SOUR SING  
SOUR:SWE:POW:STEP 0.5  
SOUR:POW:MODE SWE  
SOUR:POW:MAN -16
```

The value entered with command SOUR:SWE:POW:STEP sets the step width.

The value entered with command SOUR:POW:MAN has no effect, the command only triggers the next sweep step. However, the value has to be in the currently set sweep range (start to stop). In remote control only a step-by-step sweep from start to stop frequency is possible.

- "Extern Single" Sets a single sweep cycle. The sweep is triggered by an external trigger signal.
Refer to the description of the rear panel for information about the connectors for external trigger signal input (see [Chapter 3.2.2, "Rear Panel Tour"](#), on page 54).

Example:

```
SOUR:SWE:POW:MODE AUTO  
TRIG:PSW:SOUR EXT  
SOUR:POW:MODE SWE (External trigger)
```

- "Extern Step" Sets a step-by-step sweep cycle. Each sweep step is triggered by an external trigger signal (trigger source as described under "Extern Single"). The step width corresponds to the step width of the rotary knob.

Example:

```
SOUR:SWE:POW:MODE STEP  
SOUR:SWE:POW:STEP 0.5  
TRIG:PSW:SOUR EXT  
SOUR:POW:MODE SWE (External trigger)
```

"Extern Start/Stop"

Sets an automatically repeated sweep cycle that is started, stopped and restartet by subsequent external trigger events.

The first external trigger signal starts the sweep (Start).

The next external trigger signal stops the sweep at the current frequency (Stop).

The third external trigger signal starts the sweep at the start frequency (Start).

Refer to the description of the rear panel for information about the connectors for external trigger signal input (see section "Legend for Rear Panel View").

Example:

```
SOUR:SWE:POW:MODE AUTO  
TRIG:PSW:SOUR EAUT  
SOUR:POW:MODE SWE (External trigger)
```

Remote command:

[\[:SOURce<hw>\]:SWEEp:POWeR:MODE](#) on page 430
[:TRIGger<hw>:PSWeep:SOURce](#) on page 461.
[\[:SOURce<hw>\]:POWER:MODE](#) on page 388

Reset Sweep - Level Sweep

Resets the sweep. The start level is set and the next sweep starts from there.

Remote command:

[\[:SOURce<hw>\]:SWEEp:RESet \[:ALL\]](#) on page 433

Execute Single Sweep - Level Sweep

Triggers the sweep manually. A manual sweep can only be triggered if "Mode Single" is selected.

Example:

```
SOUR:SWE:POW:MODE AUTO  
TRIG:PSW:SOUR SING  
SOUR:POW:MODE SWE  
SOUR:SWE:EXEC
```

Remote command:

[\[:SOURce<hw>\]:SWEEp:POWeR:EXEcute](#) on page 429
[:TRIGger<hw>:PSWeep \[:IMMEDIATE\]](#) on page 461
[:TRIGger<hw>\[:SWEEp\]\[:IMMEDIATE\]](#) on page 463

Start Level - Level Sweep

Sets the start level.

Remote command:

[\[:SOURce<hw>\]:POWER:START](#) on page 391

Stop Level - Level Sweep

Sets the stop level.

Remote command:

[\[:SOURce<hw>\] :POWER:STOP](#) on page 392

Current Level - Level Sweep

Displays the current level.

If "Step" is set, the level for the next level step of the sweep is entered here.

Remote command:

[\[:SOURce<hw>\] :POWER:MANual](#) on page 387

Shape - RF Level Sweep

Selects the cycle mode for a sweep sequence (shape).

"Sawtooth" One sweep runs from the start level to the stop level. The subsequent sweep starts at the start level again, i.e. the shape of sweep sequence resembles a sawtooth.

"Triangle" One sweep runs from start to stop level and back, i.e. the shape of the sweep resembles a triangle. Each subsequent sweep starts at the start level again.

Remote command:

[\[:SOURce<hw>\] :SWEEp:POWeR:SHAPe](#) on page 431

Retrace - RF Level Sweep

Activates that the signal changes to the start level value while it is waiting for the next trigger event. It allows you to shift down the power during the waiting period.

You can enable this feature, when you are working with sawtooth shapes in sweep mode "Single" or "External Single", see [Mode - Level Sweep](#).

