

The "Dwell Time" set by the user is used as the step time of the sweep. The effective net dwell time is shorter, reduced by the setting time. This setting time may be greater than the time specified in the data sheet.

Note:

It is recommended to switch off the display update for optimum sweep performance especially with short dwell times (see [Chapter 4.2.3.6, "Display Update", on page 103](#)).

Remote command:

[\[:SOURce<hw>\] :LFOoutput:SWEep \[:FREQuency\] :DWELL](#) on page 358

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.

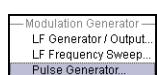
Remote command:

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

4.5.4 Pulse Generator

The "Pulse Generator" dialog is used to configure and activate a pulse modulation signal.

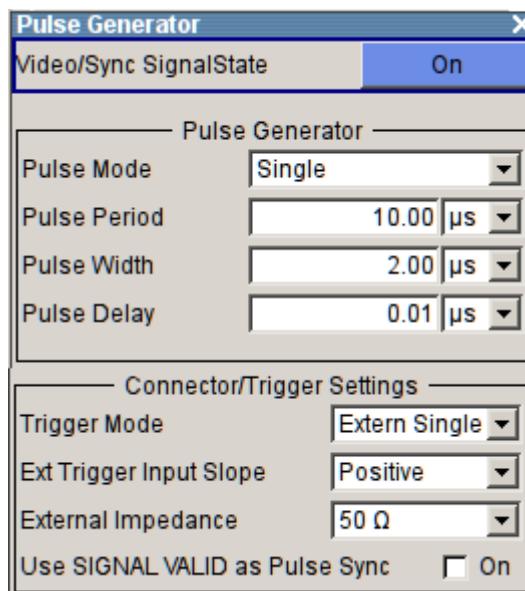
4.5.4.1 Pulse Generator Settings



To access the pulse generator settings ...

- ▶ Select "Mod Gen > config... > Pulse Generator" or use the [MENU] key under "Mod Gen".

Alternatively, the R&S SMB provides the pulse generator parameters in the "Pulse Modulation" dialog accessed via the "Modulation" block.



The dialog provides the settings for the pulse characteristics and trigger mode. Depending on the selected modulation source and pulse mode the provided parameters vary.

Note: Extended features as the generation of double pulse signals with selectable pulse widths and periods, or selectable trigger mode require option R&S SMB-K23.

Video Sync Signal State - Pulse Generator

Switches on/off the output of the video/sync signal at the [PULSE VIDEO] connector. The signal output and the pulse generator are automatically switched on with activation of pulse modulation if pulse generator is selected as modulation source. The signal output can be switched off subsequently.

Pulse modulation of the RF carrier is activated in the "Pulse modulation" menu of the "Modulation" block.

Remote command:

[**:SOURce<hw>**] :PGENerator:STATE on page 377

Pulse Mode - Pulse Generator

Sets the mode of the pulse generator.

"Single" A single pulse is generated in one pulse period.

"Double" Two pulses are generated in one pulse period. Additional settings for the double pulse are available in the menu.

"Train" Requires option R&S SMB-K27.
A user-defined pulse train is generated. Additional settings for the pulse train are available in the menu after selection of the pulse train mode (see [Chapter 4.5.4.2, "Pulse Train Generation", on page 235](#)).
A pulse train is a sequence of pulses with user-defined on and off times. The on-time/off-time value pairs are defined in a pulse train list.
The currently used pulse train file is displayed in the sub menu.

Remote command:

[[:SOURce<hw>](#)] :PULM:MODE on page 397

Pulse Period - Pulse Generator

Sets the period of the generated pulse. The period determines the repetition frequency of the internal signal.

Remote command:

[[:SOURce<hw>](#)] :PULM:PERiod on page 397

Pulse Width - Pulse Generator

Sets the width of the generated pulse. The width determines the pulse length. The pulse width must be at least 20 ns less than the set pulse period.

Remote command:

[[:SOURce<hw>](#)] :PULM:WIDTh on page 409

Pulse Delay - Pulse Generator

(External trigger only)

Sets the pulse delay. The pulse delay determines the time that elapses after a trigger event before pulse modulation starts. The pulse delay is not effective for double pulse generation.

Remote command:

[[:SOURce<hw>](#)] :PULM:DELay on page 395

Double Pulse Width - Pulse Generator

(Double Pulse only)

Sets the width of the second pulse.

Remote command:

[[:SOURce<hw>](#)] :PULM:DOUBLE:WIDTh on page 396

Double Pulse Delay - Pulse Generator

(Double Pulse only)

Sets the delay from the start of the first pulse to the start of the second pulse.

Remote command:

[[:SOURce<hw>](#)] :PULM:DOUBLE:DELay on page 396

Trigger Mode - Pulse Generator

Selects the trigger mode for pulse modulation.

Note: An external trigger signal is supplied via the [PULSE EXT] connector.

"Auto"

The pulse generator signal is generated continuously.

"Single"

The pulse generator signal is triggered by an internal trigger event, initiated with the "[Execute Single Trigger](#)" on page 234.

"Extern Single"

The pulse modulation is triggered by an external trigger event.

"Extern Gated"

The pulse generator signal is gated by an external gate signal.

Remote command:

[\[:SOURce<hw>\] :PULM:TRIGger:MODE](#) on page 404

Execute Single Trigger

Initiates a single pulse sequence manually.

This function is enabled in "Single Trigger", see [Trigger Mode - Pulse Generator](#)

Remote command:

[\[:SOURce\] :PULM\[:INTERNAL\] \[:TRAin\]:TRIGGER:IMMEDIATE](#) on page 405
*TRG on page 287

External Trigger Input Slope - Pulse Generator

(External Trigger only)

Sets the polarity of the active slope of an applied trigger signal.

"Positive" The pulse generator is triggered on the positive slope of the external trigger signal.

"Negative" The pulse generator is triggered on the negative slope of the external trigger signal.

Remote command:

[\[:SOURce<hw>\] :PULM:TRIGger:EXTernal:SLOPe](#) on page 404

Gate Input Polarity - Pulse Generator

(Trigger Mode External Gated only)

Selects the polarity of the Gate signal.

The signal is supplied via the [PULSE EXT] connector.

"Normal" The pulse signal is generated while the gate signal is high.

"Inverse" The pulse signal is generated while the gate signal is low.

Remote command:

[\[:SOURce<hw>\] :PULM:TRIGger:EXTernal:GATE:POLARITY](#) on page 403

External Impedance

Selects the input impedance (10 kOhm or 50 Ohm) for the external trigger and gate signal input ([PULSE EXT]).

Remote command:

[\[:SOURce<hw>\] :PULM:TRIGger:EXTernal:IMPEDANCE](#) on page 404