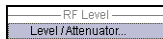
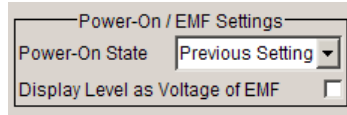


4.3.5.3 Power-On/EMF Settings



The power-on behavior of the R&S SMB and the level display in the display header are set in the "Power-On / EMF Settings" section of the "RF Level/EMF" dialog.

To open the "RF Level/EMF" dialog, select "RF > Configure > EMF" or use the [MENU] key under "RF".



Power-On State - RF Signal

Selects the state which the RF output is to assume after the instrument is switched on.

"RF Off" The output is deactivated when the instrument is switched on.

"Previous Setting" When the instrument is switched on, the output assumes the same state as it had when the instrument was switched off.

Remote command:

`:OUTPut<hw>[:STATe]:PON` on page 317

Display Level as Voltage of EMF - RF Level

Activates display of the signal level as voltage of the EMF (no-load voltage). If this setting is deactivated, the level is displayed as a voltage over a 50 Ohm load.

Note: This setting is not affected by an instrument preset ([Preset] key), *RST) or the "Save/Recall" function. Only the [Chapter 4.2.3.16, "Factory Preset"](#), on page 122 resets the setting.

Remote command:

`[:SOURce<hw>]:POWER:EMF:STATe` on page 384

4.3.5.4 Automatic Level Control - ALC

Your signal generator is equipped with an automatic level control unit to obtain best RF level accuracy.

Automatic Level Control (ALC) is an adaptive control system to stabilize the RF output level. It continuously monitors the current level and adjusts it to keep a steady state over temperature and time.



ALC is active in almost all applications by default. However, the **Pulse Modulation** mode excludes ALC, as the control loop would detect incorrect values and result in level deviations.

Also note that ALC may detect incorrect values in **multi-transmitter** test setups. If multiple generators are coupled, reverse power may affect the ALC readings. Based on incorrect values, ALC would have an impact on the signal to intermodulation ratio.