The R&S SMB generates the RF signal in unmodulated or analog form. The signal generator is equipped therefore with the following sources for analog modulations:

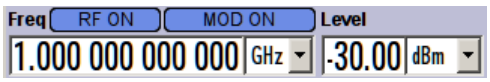
- an internal LF generator
- an internal pulse generator
- the external modulation inputs [MOD EXT] and [PULSE EXT].

An external trigger signal for the sweeps and the LIST mode can be provided at the [INST TRIG] input.

The input [REF IN] is used to input an external instrument reference, and the output [REF OUT] serves as the output of the reference frequency (internal or external).

4.3.2 RF Frequency

The value of the RF frequency is displayed in the header of the display ("Freq"). This field provides the direct input of the RF frequency. Alternatively, you can enter the RF frequency in the "Frequency/Phase" dialog.



Note that the displayed RF frequency in the header, and the RF output frequency, entered in the "Frequency/Phase" dialog can be different, as explained in the following section.

4.3.2.1 RF Frequency vs. RF Output Frequency

If you are working with a downstream instrument, e.g. a mixer or a frequency multiplier, you can enter the related parameter value in the frequency settings dialog ("Offset", "Multiplier").

The generator includes these parameters and displays the result in the "Freq" field in the status bar, as if the downstream instrument and the generator were one unit. This displayed frequency corresponds to the value at the RF output of the downstream instrument. However, the frequency provided at the RF output of the signal generator corresponds to the frequency value set in the "Frequency/Phase" dialog.

The instrument activates the "Freq Offset" icon in the status bar, when a frequency offset or multiplication factor is set.

The correlation between the RF frequency, the RF output frequency and the frequency offset is as follows:

"Freq" (in header) = "RF output frequency" (Frequency in dialog) * "Multiplier" factor (Multiplier in dialog) + "Freq offset" (Offset in dialog)