

R&S®FPL1-B9 internal generator

Frequency		
Frequency range	R&S®FPL1003	5 kHz to 3 GHz
	R&S®FPL1007, R&S®FPL1014, R&S®FPL1026	5 kHz to 7.5 GHz
Setting resolution	independent CW source	0.01 Hz

Frequency offset		
Setting range		0 Hz to f_{\max} ¹¹
Setting resolution		0.01 Hz

Spectral purity		
SSB phase noise	frequency = 1 GHz, output level = 0 dBm	
	carrier offset = 10 kHz	< -102 dBc (1 Hz), -108 dBc (1 Hz) (typ.)
	carrier offset = 100 kHz	< -105 dBc (1 Hz), -111 dBc (1 Hz) (typ.)
	carrier offset = 1 MHz	< -117 dB (1 Hz), -130 dBc (1 Hz) (typ.)
Harmonics	output level = 0 dBm, +20 °C to +30 °C	
	5 kHz ≤ f < 100 kHz	< -30 dBc (nom.)
	100 kHz ≤ f ≤ 7.5 GHz ¹²	< -30 dBc
Non-harmonic spurious	output level = 0 dBm	
	1 kHz < offset from carrier ≤ 4 MHz	-35 dBc (nom.)
	offset from carrier > 4 MHz	< -35 dBc, -45 dBc (typ.)

Level		
Specified level range		-50 dBm to 0 dBm
Setting resolution		0.1 dB
Setting range		-60 dBm to +10 dBm
Absolute level uncertainty	frequency = 50 MHz, +20 °C to +30 °C, output level = -10 dBm, frequency offset = 0 Hz	< 0.5 dB
Frequency response	output level = -10 dBm, referenced to level at 50 MHz, +20 °C to +30 °C, frequency offset = 0 Hz	
	100 kHz ≤ f ≤ 3 GHz	< 1 dB,
	3 GHz < f ≤ 7.5 GHz	< 1.5 dB, < 1 dB (typ.)
Level nonlinearity	for specified level range, referenced to -10 dBm output level, +20 °C to +30 °C, f ≥ 100 kHz	≤ 2 dB, < 0.5 dB (typ.)

¹¹ f_{\max} depends on frequency range.

¹² Limit is nominal for harmonics at frequencies > 20 GHz.