

SPECIFICATIONS IN BRIEF

Specifications in brief		
Frequency range	model .02	5 kHz to 2 GHz
	with R&S®FPH-B3 option	5 kHz to 3 GHz
	with R&S®FPH-B3 and R&S®FPH-B4 options	5 kHz to 4 GHz
	model .06	5 kHz to 6 GHz
	with R&S®FPH-B8 option	5 kHz to 8 GHz
	model .13/.23 (with tracking generator)	5 kHz to 13.6 GHz
	with R&S®FPH-B20 option	5 kHz to 20 GHz
	model .26/.36 (with tracking generator)	5 kHz to 26.5 GHz
	with R&S®FPH-B31 option	5 kHz to 31 GHz
	models .44/.54 (with tracking generator)	5 kHz to 44 GHz
	models .06/.13/.23/.26/.36/.44/.54 with R&S®FPH-B29 option ¹⁾	from 5 kHz down to 100 Hz
Frequency resolution		1 Hz
Resolution bandwidth		1 Hz to 3 MHz in 1/3 sequence
Spectral purity	frequency = 500 MHz	
SSB phase noise	models .02/.06/.13/.26	
	carrier offset = 30 kHz	< -88 dBc (1 Hz), typ. -95 dBc (1 Hz)
	carrier offset = 100 kHz	< -98 dBc (1 Hz), typ. -105 dBc (1 Hz)
	carrier offset = 1 MHz	< -118 dBc (1 Hz), typ. -125 dBc (1 Hz)
	models .23/.36/.44/.54	
	carrier offset = 30 kHz	< -88 dBc (1 Hz), typ. -94 dBc (1 Hz)
	carrier offset = 100 kHz	< -90 dBc (1 Hz), typ. -96 dBc (1 Hz)
	carrier offset = 1 MHz	< -115 dBc (1 Hz), typ. -120 dBc (1 Hz)
Displayed average noise level	0 dB RF attenuation, 50 Ω termination, RBW = 1 kHz, VBW = 10 Hz, sample detector, log scaling, normalized to 1 Hz	
Model .02	preamplifier = off	
	1 MHz to 10 MHz	< -135 dBm, typ. -142 dBm
	10 MHz to 1 GHz	< -142 dBm, typ. -146 dBm
	1 GHz to 4 GHz	< -140 dBm, typ. -144 dBm
	preamplifier = on	
	1 MHz to 10 MHz	< -150 dBm, typ. -160 dBm
	10 MHz to 3 GHz	< -158 dBm, typ. -163 dBm
	3 GHz to 4 GHz	< -156 dBm, typ. -161 dBm
Models .06/.13/.26	preamplifier = off	
	1 MHz to 10 MHz	< -122 dBm, typ. -130 dBm
	10 MHz to 25 MHz	< -130 dBm, typ. -135 dBm
	25 MHz to 1 GHz	< -140 dBm, typ. -145 dBm
	1 GHz to 4 GHz	< -135 dBm, typ. -140 dBm
	4 GHz to 8 GHz	< -135 dBm, typ. -140 dBm
	8 GHz to 19 GHz	< -135 dBm, typ. -138 dBm
	19 GHz to 20 GHz	< -130 dBm, typ. -138 dBm
	20 GHz to 27 GHz	< -130 dBm, typ. -138 dBm
	27 GHz to 29 GHz	< -125 dBm, typ. -130 dBm
	29 GHz to 31 GHz	< -120 dBm, typ. -123 dBm
	preamplifier = on	
	1 MHz to 20 MHz	< -147 dBm, typ. -152 dBm
	20 MHz to 1 GHz	< -158 dBm, typ. -162 dBm
	1 GHz to 3 GHz	< -158 dBm, typ. -162 dBm
	3 GHz to 4 GHz	< -155 dBm, typ. -158 dBm
	4 GHz to 4.5 GHz	< -155 dBm, typ. -158 dBm

¹⁾ For serial number ≥ 103100.

Specifications in brief

	4.5 MHz to 8 GHz	< -150 dBm, typ. -155 dBm
	8 GHz to 20 GHz	< -150 dBm, typ. -155 dBm
	20 GHz to 27 GHz	< -150 dBm, typ. -155 dBm
	27 GHz to 29 GHz	< -140 dBm, typ. -145 dBm
	29 GHz to 31 GHz	< -130 dBm, typ. -133 dBm
Models .23/.36/.44/.54	preamplifier = off	
	1 MHz to 10 MHz	< -125 dBm, -130 dBm (typ.)
	10 MHz to 25 MHz	< -130 dBm, -135 dBm (typ.)
	25 MHz to 2.7 GHz	< -140 dBm, -145 dBm (typ.)
	2.7 GHz to 8 GHz	< -135 dBm, -140 dBm (typ.)
	8 GHz to 29 GHz	< -133 dBm, -138 dBm (typ.)
	29 GHz to 38 GHz	< -130 dBm, -135 dBm (typ.)
	38 GHz to 44 GHz	< -125 dBm, -130 dBm (typ.)
	preamplifier = on	
	1 MHz to 20 MHz	< -147 dBm, -152 dBm (typ.)
	20 MHz to 3 GHz	< -157 dBm, -162 dBm (typ.)
	3 GHz to 4.2 GHz	< -150 dBm, -155 dBm (typ.)
	4.2 GHz to 8 GHz	< -153 dBm, -158 dBm (typ.)
	8 GHz to 27.5 GHz	< -145 dBm, -150 dBm (typ.)
	27.5 GHz to 38 GHz	< -140 dBm, -145 dBm (typ.)
	38 GHz to 44 GHz	< -130 dBm, -135 dBm (typ.)
Third-order intercept (IP3)	intermodulation-free dynamic range, signal level -20 dBm (both), RF attenuation = 0 dB, RF preamplifier = off	
Model .02	f = 1 GHz	+7 dBm (meas.)
	f = 2.4 GHz	+10 dBm (meas.)
Models .06/.13/.26	f = 1 GHz	+7 dBm (meas.)
	f = 4.5 GHz, 22 GHz	+8 dBm (meas.)
	f = 9.5 GHz, 26.5 GHz	+10 dBm (meas.)
	f = 12 GHz	+9 dBm (meas.)
Models .23/.36/.44/.54	f = 1 GHz	+10 dBm (meas.)
	f = 4.5 GHz, 9.5 GHz, 26.5 GHz, 32 GHz, 40 GHz	+11 dBm (meas.)
	f = 12 GHz	+8 dBm (meas.)
	f = 22 GHz	+9 dBm (meas.)
Total measurement uncertainty	95% confidence level, +20°C to +30°C, SNR > 16 dB, 0 dB to -50 dB below reference level, RF attenuation auto	
	10 MHz ≤ f ≤ 44 GHz	< 1.25 dB, typ. 0.5 dB
Display		
Resolution		WVGA, 800 × 480 pixel
R&S®HA-Z306 lithium-ion battery pack		
Capacity		72 Wh
Voltage		nom. 11.25 V
Operating time with new, fully charged battery	model .02	8 h
	model .06	7 h
	models .13/.26	6 h
	models .23/.36/.44/.54	4.5 h
Dimensions	W × H × D	202 mm × 294 mm × 76 mm (8.0 in × 11.6 in × 3 in)
Weight	models .02/.06/.13/.26	2.5 kg (5.5 lb)
	models .23/.36/.44/.54	3.2 kg (7.1 lb)