

Apéndice B.

Especificaciones técnicas del analizador de espectros HP8592B

HP 8592B SPECIFICATIONS	
Frequency	
Range	9 kHz to 22 GHz; 9 kHz to 25 GHz (option H25)
Readout accuracy	$\pm [(5 \times N) \text{ MHz} + 0.01\% \text{ of center frequency} + 2\% \text{ of frequency span}]$
Span	
Range	0 Hz (zero span), (50 X N) kHz to 19.25 GHz
Accuracy	$\pm 2\% \text{ of span, span} > 10 \text{ MHz}; \pm 5\% \text{ of span; span} < 10 \text{ MHz}$
Sweep time	
Range	20 ms to 100 s
Accuracy	$\pm 3\% \text{ of indicated sweep time}$
Sweep trigger	free run, single, line, video, external
Stability	
Noise sidebands	$< (-95 + 20 \log N) \text{ dBc} + 20 \log N$ at $> 30 \text{ kHz}$ offset from CW signal
Comb generator frequency accuracy	100 MHz fundamental frequency $\pm 0.007\%$
AMPLITUDE	
Range	-114 to +30 dBm
Maximum safe input	+30 dBm (1 watt, 7.1 Vrms), 0 Vdc
Gain compression	0.5 dB (total power at input mixer = -10 dBm)
Displayed average noise level	-114 to -92 dBm
Spurious responses	
Second harmonic distortion	
10 MHz to 2.9 GHz	$< -70 \text{ dBc}$ for -40 dBm tone at input mixer
$> 2.75 \text{ GHz}$	$< -100 \text{ dBc}$ for -10 dBm tone at input mixer (or below displayed average noise level)
Third-order intermodulation	
Distortion $> 10 \text{ MHz}$	$< -65 \text{ dBc}$ for two -30 dBm at input mixer and $> 50 \text{ kHz}$ separation
Other input related	$< -70 \text{ dBc}$ for applied freq 18 GHz; $< -60 \text{ dBc}$ for applied freq 22 GHz
Display range	
Log scale	0 to -70 dB from reference level is calibrated; 1 to 20 dB/division in 1 dB steps; 8 divisions displayed
Linear scale	8 divisions
Scale units	dBm, dBmV, dBmV, volts, watts
Reference level	
Range	-114 to +30 dBm
Resolution	0.01 dB for log scale; 0.12% of reference level for linear
Accuracy referred to -20 dBm reference level	
0 to -59.9 dBm	$\pm (0.5 \text{ dB} + \text{input atten acc @ } 50 \text{ MHz})$
-60 to -114 dBm	$\pm (1.25 \text{ dB} + \text{input atten acc @ } 50 \text{ MHz})$
Frequency response, referred to 300 MHz CAL OUT, preselector peaked	
Absolute	$\pm 2.0 \text{ to } + 3.0 \text{ dB}$

Relative flatness	± 1.5 to $+ 2.0$ dB
Calibrator output	
Frequency	300 MHz \pm 30 kHz
Amplitude	-20 dBm \pm 0.4 dB
Input attenuator	
Range	0 to 70 dB in 10 dB steps
Accuracy	0 to 60 dB: 0.5 dB at 50 MHz, ref to 10 dB atten. 70 dB: 1.2 dB at 50 MHz, ref to 10 dB atten.
Resolution bandwidth (-3 dB nominal)	1 kHz to 3 MHz
Switching uncertainty	± 0.4 dB, 3 kHz to 3 MHz RBW; ± 0.5 dB, 1 kHz
Video bandwidth range	30 Hz to 1 MHz
Log to linear switching	± 0.25 dB at reference level
Display scale fidelity	± 0.2 dB / 2 dB, 0 to -70 dB from ref lev, incremental; ± 0.75 dB, 0 to -60 dB from ref lev ± 1.0 dB; 0 to -70 dB
Linear accuracy	$\pm 3\%$ of reference level

