

Chapter 1 General Information

Table 1-1. Performance Specifications (1 of 2)

Specifications are valid when the unit is calibrated at ambient temperature after a 5 minute warmup.

<u>Description</u>	<u>Value</u>
Site Master:	Frequency Range:
S113B, S114B	5 to 1200 MHz
S331B, S332B	25 to 3300 MHz
Frequency Accuracy (RF Source Mode)	75 parts per million @ 25°C*
Frequency Resolution	
S113B, S114B	10 kHz
S331B, S332B	100 kHz
SWR:	
Range	1.00 to 65.00
Resolution	0.01
Return Loss:	
Range	0.00 to 54.00 dB
Resolution	0.01 dB
**Distance-To-Fault (DTF):	
Range (in meters)	0 to (Resolution x dp)
Resolution (in meters)	$(1.5 \times 10^8) \frac{V_f}{\Delta F}$
(Rectangular Windowing)	
	Where V_f is the relative propagation velocity of the cable .
	dp is the number of data points (128, 256, 512).
	ΔF is F2 - F1 (in Hz.)
Wattmeter Power Monitor:	
Range	-80.0 to +80 dBm or 10.0 pW to 100.0 kW
Offset Range	0 to +60.0 dB
Resolution	0.1 dB or 0.1 xW
Test Port, Type N	50 Ohms
***Immunity to Interfering signals up to the level of: S113B, S114B S331B, S332B	+10 dBm, reflection -5 dBm, reflection
Maximum Input (Damage Level):	
Test Port, Type N	+22 dBm
RF Detector	+20 dBm
Measurement Accuracy:	
Measurement accuracy depends on calibration components. Precision calibration components have a directivity of 42 dB.	
Cable Insertion Loss:	
Range	0.00 to 54.00 dB
Resolution	0.01 dB
Spectrum Analyzer:	Frequency Range
S114B	100 kHz to 1200 MHz
S332B	100 kHz to 3000 MHz
Frequency Reference	
Aging	±1 ppm/yr
Accuracy	±2 ppm

Table 1-2. Performance Specifications (2 of 2)

Frequency Span	
S114B	0 Hz (zero span) 100 kHz to 1200 MHz
S332B	0 Hz (zero span) 100 kHz to 3000 MHz
Sweep Time	0.5 sec.
Resolution Bandwidth	10 kHz, 30 kHz, 100 kHz, 1 MHz
Accuracy	± 20% typical
Video Bandwidth	3 kHz, 10 kHz, 30 kHz and 300 kHz
SSB Phase Noise	
@ (1 GHz) 30 kHz offset	≤ -75 dBc/Hz
Spurious Responses	
Input Related	≤ -45 dBc
Spurious	
Residual Responses	≤ -95 dBm
Note:	10 kHz resolution bandwidth, input terminated, no attenuation
Amplitude	
Measurement Range	-90 dBm to +20 dBm typical
Dynamic Range	≥ 60 dB typical
Maximum Safe Input Level	+20 dBm, maximum measurable safe input +27 dBm, maximum damage +27 dBm, peak pulse power +50 Vdc
Displayed Average Noise	
Level:	≤ -90 dBm (400 kHz span) typical
Display Range	
Log Scale	2 to 15 dB/div. In 1 dB steps. Ten divisions displayed.
Frequency Response	
RF Input VSWR	2.0:1
Resolution (Ref. Level)	1.0 dB
Total Level Accuracy	±2 dB ≥ 200 kHz, ±3 dB <200 kHz typical
General	
Internal Memory:	
Trace Memory	200 maximum
Instrument config.	10 setup locations
RS-232	9 pin D-sub, three wire serial
Electromagnetic Compatibility	Meets European community requirements for CE marking
Power Supply:	
External DC Input	+11 to +15 Vdc, 1250 mA max.
Temperature:	
Storage	-20° C to 75° C
Operation	0° C to 50° C
Weight:	1.82 kg (4.0 pounds)
Dimensions:	25.4 x 17.8 x 6.1 cm (10 x 7 x 2.4 inches)

* ±2 ppm/Δ°C from 25°C

** Fault location is accomplished by inverse Fourier Transformation of data taken with the Site Master. Resolution and maximum range depend on the number of frequency data points, frequency sweep range and relative propagation velocity of the cable being tested.