

Operating Manual." The symbol flags important operating instructions located in Section III required to prevent damage to the instrument. To retain the operating condition of the instrument, these instructions must be adhered to.

1-31. RECOMMENDED TEST EQUIPMENT.

1-32. Equipment required to maintain the Model 3335A is listed in Table 1-3. Other equipment can be substituted if it meets or exceeds the critical specifications listed in the table.

Table 1-1. Specifications.

STANDARD/OPTION 001		
FREQUENCY:		
Range:	50 Ω } 75 Ω }	200 Hz to 80.999 999 999 MHz
Stability (Standard):		
Long Term: ± 1 × 10 ⁻⁸ per day ± 1 × 10 ⁻⁷ per month		
Stability (Option 001):		
Long Term: < 5 × 10 ⁻¹⁰ /day after 24-hour warmup and oscillator off time less than 24 hours. < 1 × 10 ⁻⁷ /year for continuous operation		
Spectral Purity:		
Harmonic Distortion:		
All harmonically related signals will be less than the following levels (relative to the fundamental) at full output:		
	Freq Range	Harmonic Level
	200 Hz to 10 MHz	-45 dB
	10 MHz to 80 MHz	-40 dB
Integrated Phase Noise:		
(30 kHz band, excluding ± 1 Hz, centered on the carrier)		
	9.9 MHz:	< -63 dB
	20 MHz:	< -70 dB
	40 MHz:	< -64 dB
	80 MHz:	< -58 dB
Spurious (25°C ± 10°C):		
All non-harmonically related signals are > 75 dB below the carrier or -125 dBm whichever is greater.		
AMPLITUDE:		
Range:	50 Ω: +13.01 dBm to -86.98 dBm	75 Ω: +11.25 dBm to -88.74 dBm
Absolute Level Accuracy:		
(Maximum output at 100 kHz, 10°C to 35°C) ± 0.05 dB		
Flatness: (Relative to 100 kHz, Full Amplitude)		
50 Ω/75 Ω		{ 1 kHz-25 MHz: ± .07 dB 200 Hz-80 MHz: ± .15 dB
Attenuator Accuracy: (Relative to Full Output, 100 kHz, In 2 dB Steps)		
Impedance*	Attenuation (dB)	Accuracy 200 Hz 25 MHz 80 MHz
50 Ω 75 Ω	0 to 18	± 0.04 dB ± 0.15 dB
50 Ω 75 Ω	20 to 58	± 0.09 dB ± 0.25 dB
50 Ω 75 Ω	60 to 98	± 0.20 dB ± 0.50 dB

Table 1-1. Specifications (Cont'd).

OPTION 002/004																										
FREQUENCY:																										
Range:	75 Ω: 200 Hz to 80,999 999 999 MHz 124 Ω: 10 kHz to 10 MHz 135 Ω: 10 kHz to 2 MHz																									
Stability:																										
Long Term:	$\pm 1 \times 10^{-8}$ per day $\pm 1 \times 10^{-7}$ per month																									
See STANDARD/OPTION 001 table for Option 001 stability.																										
Spectral Purity:																										
Harmonic Distortion: All harmonically related signals will be less than the following levels (relative to the fundamental) at full output: (75 Ω) 0 dBm (124 Ω, 135 Ω)																										
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Spurious (25°C \pm 10°C):																										
Impedance	All non-harmonically related signals (whichever is greater)																									
75 Ω	-125 dBm or -75 dBc																									
124 Ω	-97 dBm or -75 dBc (dc to 200 MHz)																									
135 Ω	-100 dBm or -75 dBc (dc to 10 MHz) -68 dBm or -75 dBc (10 MHz-200 MHz)																									
AMPLITUDE:																										
Range:	75 Ω } 124 Ω } +11.25 dBm to -88.74 dBm 135 Ω }																									
Absolute Level Accuracy: (Maximum output at 100 kHz, 10°C to 35°C)																										
75 Ω:	± 0.05 dB																									
124/135 Ω:	± 0.1 dB																									
Flatness: (Relative to 100 kHz, Full Amplitude)																										
75 Ω	1 kHz-25 MHz: $\pm .07$ dB 200 Hz-80 MHz: $\pm .15$ dB																									
124 Ω	50 kHz-10 MHz: $\pm .15$ dB 10 kHz-10 MHz: $\pm .4$ dB																									
135 Ω	10 kHz-2 MHz: $\pm .18$ dB																									
Amplitude Accuracy (includes effects of flatness and attenuator):																										
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Output Balance: 124/135 Ω: ± 60 dB																										

*Levels to -88.74 dBm can be selected but accuracies are unspecified due to the spurious noise floor of -100 dBm.

Table 1-1. Specifications (Cont'd).

OPTION 003																	
FREQUENCY:																	
Range: 75 Ω: 200 Hz to 80.999 999 999 MHz 150 Ω: 10 kHz to 2 MHz																	
Stability:																	
Long Term: $\pm 1 \times 10^{-8}$ per day $\pm 1 \times 10^{-7}$ per month																	
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