

KEYSIGHT TECHNOLOGIES (AGILENT HP)

E4448A

The Agilent / Keysight E4448A is a high-performance microwave spectrum analyzer from the PSA series, operating from 3 Hz to 50 GHz. It offers exceptional dynamic range, precise amplitude accuracy, and can be extended to 325 GHz via optional external mixing. With a flexible platform supporting up to 80 MHz of analysis bandwidth and 16 built-in measurement personalities, it is designed for demanding RF, microwave, and millimeter-wave signal capture and analysis.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488), LAN (10Base-T), RS-232, Centronics Parallel
Display	21.3 cm (8.4 in) color TFT LCD, VGA (640 x 480)

Physical

Power Supply	100 to 132 Vrms (50/60/400 Hz) or 195 to 250 Vrms (50/60 Hz), < 450 W maximum
Operating Temperature	0 to +55 °C °C
Dimensions (W×H×D)	426 x 177 x 482 mm (without handle) mm
Weight	24 kg kg

Frequency Specifications

Frequency Range	3 Hz to 50 GHz
Extended Frequency Range	Up to 325 GHz (with optional external mixing)
Resolution Bandwidth (RBW) Range	1 Hz to 8 MHz
Analysis Bandwidth	10 MHz (standard); 40 MHz or 80 MHz (optional)

Amplitude Specifications

Input Attenuator Range	0 to 70 dB (2 dB steps)
Maximum Safe CW RF Power	+30 dBm (1 W)

Front Panel Inputs and Outputs

RF Input Connector	2.4 mm (male)
RF Input Impedance	50 Ω (nominal)

Environmental and Regulatory

Storage Temperature Range	-40 to +70 °C
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Bandwidth

Video Bandwidth (VBW) Range	1 Hz to 8 MHz
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Amplitude

Amplitude Measurement Range	DANL to +30 dBm
Maximum Safe DC Voltage	0 V (DC coupled)
Trace Detectors	Normal, peak, sample, negative peak, log power average, RMS average, voltage average

Sweep & Trigger

Sweep Time (Span > 0 Hz)	1 ms to 2000 s
Trigger Sources	Free run, video, line, RF burst, external front, external rear

RF & Performance

Preselector	Preselected microwave bands; bypassable (Option 123)
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Inputs & Outputs

Internal Calibration Signal	50 MHz
Reference Oscillator Output	10 MHz
Reference Oscillator Input	1 MHz to 30 MHz

Compliance

EMC Compliance	IEC/EN 61326-1, CISPR 11 Group 1 Class A
Safety Compliance	IEC/EN 61010-1, CSA C22.2 No. 61010-1

Environmental

Vibration & Shock	MIL-PRF-28800F Class 3
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Sweep

Sweep Time (Zero Span)	1 μ s to 6000 s
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RF Input

Input Attenuator Step Size	2 dB
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Frequency

Timebase Aging Rate	$\pm 1 \times 10^{-7}$ / year
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