

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8485A

The Keysight (Agilent/HP) 8485A is a thermocouple-based RF and microwave power sensor designed for accurate average power measurements. It covers a frequency range of 50 MHz to 26.5 GHz and measures power levels from -30 dBm to +20 dBm (1 μ W to 100 mW). The sensor provides a 50-ohm input via a 3.5 mm male connector and features excellent SWR performance to minimize mismatch uncertainty.

SPECIFICATIONS

Physical

Operating Temperature	0 to 55 °C °C
Weight	0.18 kg kg

Basic Specifications

Sensor Type	Thermocouple
Measurement Type	Average Power
Frequency Range	50 MHz to 26.5 GHz
Power Range	-30 dBm to +20 dBm (1 μ W to 100 mW)
Dynamic Range	50 dB
Nominal Impedance	50 Ω

Maximum Input Limits

Maximum Average Power	300 mW
Maximum Peak Power	15 W

Interfaces and Connectivity

RF Input Connector Type	3.5 mm
Connector Gender	Male

Compatibility and Storage

Compatible Power Meters	EPM, EPM-P, P-series, E1416A VXI, 70100A, 43X series
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Performance

Maximum SWR (50 MHz to 2 GHz)	1.15
Maximum SWR (2 GHz to 12.4 GHz)	1.19
Maximum SWR (12.4 GHz to 18 GHz)	1.25
Maximum SWR (18 GHz to 26.5 GHz)	1.29
Zero Set	$\pm$ 50 nW
Zero Drift	$\pm$ 15 nW
Measurement Noise	110 nW

Environmental

Storage Temperature	-40 °C to +75 °C
Operating Humidity	< 95% at 40 °C (non-condensing)

Calibration

Calibration Reference Frequency	50 MHz
Calibration Reference Power	1 mW (0 dBm)
Calibration Data	Calibration factor table printed on sensor body

Power

Power Requirements	Powered by host power meter (via Keysight/HP 11730A-series cable)
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TECHNOLOGY

Thermocouple

APPLICATIONS

RF and Microwave Power Measurement

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.