

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8483A

The Keysight (Agilent) 8483A is a high-performance 75 ohm thermocouple RF power sensor designed for accurate average power measurements over a frequency range of 100 kHz to 2 GHz. Offering excellent standing wave ratio (SWR) characteristics to minimize mismatch uncertainty, it is fully compatible with EPM, EPM-P, and P-series power meters, as well as several legacy and VXI power meters. It uses a thermocouple power sensing element for stable and reliable measurements from -30 to +20 dBm.

SPECIFICATIONS

General

Interfaces	Type-N (75 Ω) male input, proprietary multi-pin power meter sensor interface
Display	None (results displayed on compatible host power meter)

Physical

Power Supply	Powered directly from the connected power meter
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	38 mm × 30 mm × 152 mm mm

Frequency and Impedance

Frequency Range	100 kHz to 2 GHz
Nominal Impedance	75 Ω
Maximum SWR (100 kHz to 600 kHz)	1.80
Maximum SWR (600 kHz to 2 GHz)	1.18

Power Measurement Performance

Power Measurement Range (dBm)	-30 dBm to +20 dBm
Power Measurement Range (Watts)	1 μ W to 100 mW
Maximum Continuous Input Power	300 mW (+25 dBm)
Maximum Peak Input Power	15 W (for < 10 μ s pulse width)

Sensor Characteristics

Sensing Element Type	Thermocouple
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Connectivity and Physical Interfaces

RF Input Connector	Type-N (75 Ω) male
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Compatibility and Calibration

Compatible Power Meter Models	EPM (E4418A/B, E4419A/B), EPM-P (E4416A, E4417A), P-series (N1911A, N1912A), E1416A VXI, 70100A, 435B, 436A, 437B, 438A
Traceability Standards	NIST (US National Institute of Standards and Technology)

Environmental Specifications

Storage Temperature Range	-40 to +75 °C
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TECHNOLOGY

Thermocouple

APPLICATIONS

RF Power Measurement

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