

KEYSIGHT TECHNOLOGIES (AGILENT HP)

W8486A

The Keysight W8486A (formerly Agilent) is a waveguide diode power sensor designed for precise average power measurements in the W-band frequency range from 75 GHz to 110 GHz. Featuring an exceptionally low SWR of 1.08 to minimize mismatch uncertainty, it covers a dynamic range from -30 dBm to +20 dBm. It is compatible with a wide array of legacy and modern Keysight power meters and comes with a 50 MHz calibration port with calibration traceability to NIST.

SPECIFICATIONS

General

Interfaces	Proprietary 12-pin connector for sensor cable
Display	None (requires external power meter)
Supplied Accessories	W281C waveguide to coax adapter (50 MHz calibration adapter)

Physical

Power Supply	Powered by compatible power meter via sensor cable
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	41 mm × 35 mm × 121 mm mm
Weight	0.17 kg kg
Shipping Weight	0.64 kg

Measurement & Performance

Frequency Range	75 GHz to 110 GHz
Power Measurement Range	-30 dBm to +20 dBm
Voltage Standing Wave Ratio (VSWR)	1.08
Sensor Technology Type	Diode
Measurement Type	Average power

System Interface & Connectivity

RF Waveguide Port Type	UG-387/U waveguide flange
Waveguide Size Designation	WR-10
Compatible Power Meter Models	EPM, EPM-P, P-series, E1416A VXI, 70100A, and 43X series

Calibration & Accuracy

Calibration Port	50 MHz
Traceability	US National Institute of Standards and Technology (NIST) millimeter-wave sensor calibration

Environmental

Storage Temperature Range	-40 °C to +75 °C
Operating Humidity	95% R.H. at 40 °C (non-condensing)

Power Limits

Maximum Input Power	100 mW (+20 dBm) average/peak
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Connectivity

Compatible Sensor Cables	Keysight 11730 series
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Performance

Zero Set	±200 nW
Zero Drift	±40 nW (over 1 hour at constant temperature)
Measurement Noise	< 80 nW
Power Linearity	-30 to +15 dBm: ±1%, +15 to +20 dBm: +2% / -4%

Inputs & Outputs

Waveguide Flange	UG-387/U-M circular flange
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Product Options

Option 100	Excludes the 50 MHz Type-N calibration adapter
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TECHNOLOGY

Diode

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.