

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8482H

The Keysight (Agilent) 8482H is a high-power thermocouple RF power sensor designed for accurate average power measurements from 100 kHz to 4.2 GHz. Featuring an integrated 30 dB attenuator, it expands the measurement range up to +35 dBm (3 Watts) while maintaining low SWR to minimize mismatch uncertainty.

SPECIFICATIONS

General

Interfaces	Proprietary 12-pin connector (requires Keysight 11730A series sensor cable)
Display	None (uses host power meter display)

Physical

Power Supply	Powered by compatible host power meter via cable
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	38 mm × 30 mm × 174 mm mm
Weight	0.5 kg kg
Shipping Weight	1.1 kg (2.4 lb)

Measurement Ranges & Power Specifications

Frequency Range Minimum	100 kHz
Frequency Range Maximum	4.2 GHz
Power Measurement Range Minimum	-10 dBm
Power Measurement Range Maximum	+35 dBm
Power Measurement Range (Watts)	100 µW to 3 W
Maximum Continuous Input Power	3.5 W (+35.4 dBm)
Maximum Peak Input Power	100 W

Sensor Technology & Architecture

Sensor Detection Type	Thermocouple
Measurement Modes Supported	Average Power
Dynamic Range	45 dB
Attenuator Value	30 dB (integrated)

RF Port Characteristics

Input Impedance	50 Ω
RF Connector Type	Type-N
Connector Sex	Male
Maximum SWR (100 kHz to 300 kHz)	1.60
Maximum SWR (300 kHz to 1.24 GHz)	1.20
Maximum SWR (1.24 GHz to 4.2 GHz)	1.30

Accuracy, Calibration & Noise

Calibration Traceability	US National Institute of Standards and Technology (NIST)
Calibration Factor Storage Type	Printed table on sensor body for manual entry
Zero Set	$\pm 50 \mu\text{W}$
Zero Drift	$\pm 10 \mu\text{W}$ (1 hour, constant temperature)
Measurement Noise	$\pm 110 \mu\text{W}$

Meter Compatibility & System Integration

Compatible Power Meter Models	EPM Series (E4418A/B, E4419A/B), EPM-P Series (E4416A, E4417A), P-Series (N1911A, N1912A), E1416A VXI, 70100A, 435A/B, 436A, 437A/B, 438A
Recommended Calibration Cycle	1 Year

Environmental Parameters

Storage Temperature Range	-40 to +75 $^{\circ}\text{C}$
Operating Humidity Range	95% RH at 40 $^{\circ}\text{C}$ (non-condensing)
Maximum Operating Altitude	4,600 meters (15,000 feet)

Regulatory Compliance

EMC Standards Compliance	IEC 61326-1 / EN 55011 Class A
Safety Standards Compliance	IEC 61010-1

Performance

Power Linearity (-10 to +20 dBm)	Negligible
Power Linearity (+20 to +30 dBm)	$\pm 3\%$
Power Linearity (+30 to +35 dBm)	$\pm 10\%$

Calibration

Reference Calibration Point	50 MHz, 1.00 mW (0 dBm)
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Connectivity

Compatible Cable Series	Keysight 11730 series
Power Meter Connector	12-pin circular male

Design

Attenuator Integration	Permanently attached and individually calibrated 20 dB attenuator
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TECHNOLOGY

Thermocouple

APPLICATIONS

RF & 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.