

KEYSIGHT TECHNOLOGIES (AGILENT HP)

84814A

The Keysight (formerly Agilent HP) 84814A is a high-performance peak power sensor designed specifically for use with the HP 8990A and 8991A Peak Power Analyzers. Operating over a wide frequency range from 500 MHz to 40 GHz, it features a fast-responding diode detector capable of measuring transient pulse shapes with rise and fall times under 10 ns.

SPECIFICATIONS

General

Interfaces	Specialized multi-pin cable for connection to HP 8990A/8991A peak power analyzers
Display	None (results displayed on host instrument)
Calibration Factors	Printed on the sensor body

Physical

Power Supply	Power supplied by host peak power analyzer
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	37 mm × 27 mm × 137 mm mm
Weight	0.18 kg
Sensor Cable Length	1.5 m (5 ft)

Measurement Ranges & Power Specifications

Frequency Range Minimum	500 MHz
Frequency Range Maximum	40 GHz
Power Measurement Range Minimum	-20 dBm
Power Measurement Range Maximum	+20 dBm
Maximum Continuous Input Power	+20 dBm (100 mW)

Sensor Technology & Architecture

Sensor Detection Type	Diode detector
Measurement Modes Supported	Peak, Pulse
Dynamic Range	40 dB
Rise Time	< 10 ns
Fall Time	< 10 ns
Minimum Pulse Width	50 ns

RF Port Characteristics

Input Impedance	50 Ω
RF Connector Type	2.4 mm
Connector Sex	Male
Maximum SWR (0.5 to 18 GHz)	1.25
Maximum SWR (18 to 26.5 GHz)	1.35
Maximum SWR (26.5 to 40 GHz)	1.60

Meter Compatibility & System Integration

Compatible Power Meter Models	HP 8990A, HP 8991A Peak Power Analyzers
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Environmental Parameters

Storage Temperature Range	-55 to +75 °C
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Power Specifications

Maximum Peak Input Power	+24 dBm (for pulse width < 1 μs)
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Environmental

Operating Altitude	Up to 4570 m (15000 ft)
Storage Altitude	Up to 15240 m (50000 ft)
Operating Relative Humidity	95% at 40 °C

TECHNOLOGY

Diode Detector

APPLICATIONS

RF and Microwave Peak 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.