

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8900D

The Keysight (Agilent/HP) 8900D is a digital peak power meter designed to directly display the peak power of RF pulses from 100 MHz to 18 GHz when used with the 84811A peak power sensor. Featuring a 3.5-digit digital display calibrated in watts and automated range annunciators, the 8900D is an excellent choice for production and field service applications requiring clear, unambiguous pulsed power measurements.

SPECIFICATIONS

General

Interfaces	GPIB (available via Option 001)
Display	3.5-digit digital LED display with range annunciators

Physical

Power Supply	100 / 120 / 220 / 240 VAC (+5% to -10%), 48 to 66 Hz, <10 W
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	213 mm × 88 mm × 345 mm mm
Weight	3.0 kg kg
Shipping Weight	5.5 kg

Measurement Capabilities and Performance

Number of Channels	1
Frequency Range	100 MHz to 18 GHz
Power Measurement Range	0 to +20 dBm (10 mW to 100 mW full scale in two ranges)
Dynamic Range	20 dB
Rise Time	75 ns
Fall Time	125 ns
Pulse Width (Direct Mode)	1 µs to CW
Pulse Width (Compare Mode)	100 ns to CW
Pulse Repetition Rate (Direct Mode)	100 Hz to 100 kHz
Pulse Repetition Rate (Compare Mode)	0 Hz to 100 kHz

Sensor Compatibility and Connection

Compatible Sensor Family	HP 84811A Peak Power Sensor
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User Interface and Display

Display Units	Watts
Measurement Resolution	3.5 digits

Performance

Instrumentation Uncertainty (Direct Mode)	±3.0% of full scale
Instrumentation Uncertainty (Compare Mode)	±1.0% of full scale
Zero Stability	±0.5% of full scale on most sensitive range
Calibration Factor Range	85% to 100% in 1% steps

Auxiliary Outputs

Recorder Output	0 to 1.0 V full scale into >100 kΩ
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Internal Calibrator

Calibrator Power Level	100 mW peak
Calibrator Frequency	100 MHz
Calibrator Accuracy	±1.5% (at 25 °C ± 10 °C)

Sensor Compatibility & Limits

Maximum Average Power Input	250 mW (with HP 84811A peak power sensor)
Sensor SWR (100 MHz to 12 GHz)	< 1.5 (with HP 84811A)
Sensor SWR (12 GHz to 18 GHz)	< 1.6 (with HP 84811A)

Connectivity

GPIB Interface Option	Option 001 adds full HP-IB programmability
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TECHNOLOGY

Diode detection peak power measurement

APPLICATIONS

RF pulse power measurement, radar and pulsed carrier testing

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