

KEYSIGHT TECHNOLOGIES (AGILENT HP)

70100A

The Keysight 70100A (formerly HP 70100A) is a single-slot Modular Measurement System (MMS) power meter module. Offering performance and capabilities equivalent to the classic HP 437B power meter, the 70100A is designed for high-density automated test environments. It features automatic calibration and zeroing, selectable resolution, and broad compatibility with the 8480 series of power sensors, covering a frequency range of up to 110 GHz.

SPECIFICATIONS

General

Interfaces	HP-MSIB (Modular System Interface Bus); GPIB (via MMS Mainframe)
Display	None (headless module; uses MMS mainframe display such as 70004A or 70003A)
Warm-up Time	30 minutes

Physical

Power Supply	Powered directly through MMS mainframe backplane
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	46.8 mm × 132.6 mm × 512.4 mm mm
Weight	1.4 kg kg

Measurement Capabilities and Performance

Number of Channels	1
Frequency Range	100 kHz to 110 GHz (sensor dependent)
Power Measurement Range	-70 to +44 dBm (sensor dependent)
Resolution	Selectable
Duty Cycle Correction	Selectable
Save and Recall	Yes (meter settings)

Measurement Accuracy and Calibration

Instrumentation Accuracy (Log)	±0.02 dB
Instrumentation Accuracy (Linear)	±0.5%
Calibration	Automatic
Zeroing	Automatic
Internal Calibration Source Power	1.00 mW
Internal Calibration Source Frequency	50 MHz

Sensor Compatibility and Connection

Compatible Sensor Family	HP / Agilent / Keysight 8480 Series
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Physical and Power Specifications

Form Factor	Modular Measurement System (MMS) single-slot module
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Reference Oscillator

Reference Oscillator Power Accuracy	±1.2% (at 25 °C ± 10 °C), ±2.0% (0 to 55 °C)
Reference Oscillator SWR	1.05 maximum

Recorder Output

Recorder Output Voltage Range	0 to 1 V
Recorder Output Impedance	1 kΩ nominal

Front Panel Connectors

Sensor Input Connector	12-pin circular, compatible with HP 11730 series cables
Power Reference Connector	Type-N female, 50 Ω
Recorder Output Connector	BNC female

Measurements & Settings

Calibration Factor Range	1.0% to 150.0% in 0.1% steps
Measurement Units	dBm, dB, W, %

TECHNOLOGY

Diode & Thermocouple RF Power Measurement

APPLICATIONS

RF and Microwave Power Measurement

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