

KEYSIGHT TECHNOLOGIES (AGILENT HP)

437B

The Agilent (Keysight/HP) 437B is a low-cost, high-performance, single-channel average power meter designed for ATE systems and demanding benchtop measurements. Compatible with the 8480 family of power sensors, it measures frequencies from 100 kHz to 110 GHz and power levels from -70 dBm to +44 dBm, depending on the sensor used. It features an internal 50 MHz power reference oscillator for automatic calibration, preloaded sensor calibration factor tables, and compliance with MIL-STD-461C EMI specifications within a compact half-rack form factor.

SPECIFICATIONS

General

Interfaces	HP-IB (GPIB)
Display	Custom LCD

Physical

Power Supply	100, 120, 220, 240 Vac (+5%, -10%); 48-66 Hz (all voltages) and 360-440 Hz (100/120 Vac); 8 W max
Operating Temperature	0 to 55 °C
Dimensions (W×H×D)	212.6 × 88.5 × 273.3 mm
Weight	2.6 kg

Measurement Characteristics

Number of Channels	1
Frequency Range	100 kHz to 110 GHz (sensor dependent)
Power Range	-70 dBm to +44 dBm / 100 pW to 25 W (sensor dependent)
Measurement Units	Watts, dBm, dB (relative), %
Display Resolution	Selectable to 0.001 dB

Accuracy and Uncertainty

Instrumentation Linearity	±0.02 dB (logarithmic), ±0.5% (linear)
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Power Reference Oscillator

Reference Frequency	50 MHz
Reference Power Level	1.00 mW (0.0 dBm)
Reference Connector Type	Type-N (female)

Measurement Speed and Processing

Duty Cycle Correction	Yes (for peak power representation of average power)
Offset Range	-99.99 to +99.99 dB

Sensor Interface and Compatibility

Compatible Sensor Families	8480 family
Automatic Zeroing	Yes

Connectivity and Interfaces

Analog Output	Rear panel BNC
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Physical Specifications

Form Factor	3.5 inches high, half-rack wide
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Environmental

Storage Temperature	-40 °C to +75 °C
Operating Humidity	Up to 95% relative humidity to 40°C
Operating Altitude	Up to 4572 m (15,000 ft)

Performance

Reference Oscillator Accuracy	±1.2% (1 year, 0 to 55 °C)
Reference Oscillator SWR	1.06 max
Averaging (Filtering)	Automatic or manual (1 to 512 in powers of 2)

Power

Power Consumption	8 W max
AC Line Frequency	48 to 66 Hz and 360 to 440 Hz

Features

Save/Recall Registers	10 instrument states
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Programming & Control

HP-IB Capabilities	SH1, AH1, T5, TE0, L4, LE0, SR1, RL1, PP1, DC1, DT1, C0
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Configuration Options

Option 002	Rear panel sensor input
Option 003	Rear panel sensor input and rear panel reference oscillator output

TECHNOLOGY

RF / Microwave

APPLICATIONS

Average 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.