GIGA-TRONICS

8542C

The Giga-tronics 8542C is a high-performance dual-channel universal power meter designed for precision RF and microwave power measurements. It features a unique power sweep calibrator with an internal thermistor and supports CW, peak, and true average power measurements when paired with the appropriate 80000-series sensors.

SPECIFICATIONS

General

Interfaces	GPIB

Physical

Power Supply	90 to 253 VAC, 47 to 440 Hz
Operating Temperature	0 to 50 °C

Measurement Characteristics

Frequency Range	10 MHz to 40 GHz (with 80300A Series sensors)
Dynamic Range	Up to 90 dB (with a single sensor)
Maximum Power	Up to 50 W (sensor dependent)
Measurement Modes	CW, Peak, True Average
Measurement Speed	Up to 500 readings/s (over GPIB with 80300A Series)
Modulation Bandwidth	Up to 40 kHz (80400A Series) / Up to 1.5 MHz (80600A Series)
Signal Capability	CW, Pulse Modulated, AM, TDMA, CDMA, PHS

Sensor & Calibration Reference

Number of Channels	2 (Dual Input)
Supported Sensor Families	80300A Series (CW), 80350A Series (Peak), 80400A Series (Modulated), 80600A Series (Modulated)
Internal Reference Frequency	50 MHz

Performance

Display Resolution	0.001 dB
Zeroing	Automatic

Control & Software

GPIB Emulation Modes	HP 437B, HP 438A

Accuracy & Calibration

Instrumentation Accuracy (Logarithmic)	± 0.02 dB
Instrumentation Accuracy (Linear)	± 0.5%
Internal Calibrator Connector	Type N (female)
Internal Calibrator Uncertainty	± 1.2% (1 year)

TECHNOLOGY

RF / Microwave

APPLICATIONS

Power Measurement