

EIP MICROWAVE

548B

The EIP Microwave 548B is a high-performance, full-function CW microwave frequency counter designed for R&D labs and production benches. It covers frequencies from 10 Hz up to 26 GHz (expandable up to 110 GHz) and features automatic amplitude discrimination, selective power measurement capability, and high-speed tracking.

SPECIFICATIONS

General

Interfaces	GPIO (IEEE-488)
Display	12-digit LED

Physical

Power Supply	100/120/220/240 VAC $\pm 10\%$, 48-440 Hz
Operating Temperature	0 to 50 °C
Dimensions (W×H×D)	413 × 140 × 457 mm
Weight	11.4 kg

Frequency Measurement

Band 1 Frequency Range	10 Hz to 100 MHz
Band 2 Frequency Range	10 MHz to 1 GHz
Band 3 Frequency Range	1 GHz to 26.5 GHz (expandable to 110 GHz)
Band 1 Sensitivity	25 mV RMS
Band 2 Sensitivity	-20 dBm
Band 3 Sensitivity	-30 dBm to 12.4 GHz, -25 dBm to 20 GHz, -20 dBm to 26.5 GHz
Automatic Amplitude Discrimination	10 dB
FM Tolerance	20 MHz p-p up to 10 MHz rate

Acquisition & Tracking

Normal Mode Acquisition Time	200 ms
Center Frequency Mode Acquisition Time	20 ms
Tracking Speed	800 MHz/sec

Input Characteristics

Frequency Limit Selection	Keyboard controlled
Peak Damage Protection	+30 dBm continuous
Band 1 Input Impedance	1 M Ω shunted by 25 pF, or 50 Ω nominal (selectable)
Band 2 Input Impedance	50 Ω nominal
Band 3 Input Impedance	50 Ω nominal
Band 1 Connector	BNC female
Band 2 Connector	BNC female
Band 3 Connector	Precision Type N female (Option 06 replaces with APC-3.5)
Band 3 Maximum Operating Input	+10 dBm

Power Measurement

Power Measurement Resolution	0.1 dB
Power Measurement Accuracy	± 0.5 dB typical

Timebase & Reference

Standard Reference Oscillator Frequency	10 MHz
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Ordering Options & Accessories

Option 01	High Stability Oven Timebase
Option 02	Rear Panel Connectors
Option 06	Power Measurement
Option 09	Frequency Extension to 110 GHz

Measurement Characteristics

Frequency Resolution Settings	1 Hz to 1 MHz selectable in decade steps
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Reference Oscillator

Standard Reference Aging Rate	$< 1 \times 10^{-7}$ / month
Standard Reference Temperature Stability	$< 1 \times 10^{-6}$ (0 °C to 50 °C)
Option 01 Oven Aging Rate	$< 5 \times 10^{-10}$ / day (after 72 hours warm-up)
Option 01 Oven Temperature Stability	$< 3 \times 10^{-9}$ (0 °C to 50 °C)

Environmental

Storage Temperature Range	-40 °C to +75 °C
Operating Altitude	Up to 3,048 m (10,000 ft)
Storage Altitude	Up to 12,192 m (40,000 ft)
Operating Humidity	Up to 95% RH at 40 °C (non-condensing)

Frequency Reference

External Reference Input Frequency	1, 2, 5, or 10 MHz
External Reference Input Impedance	1 kΩ nominal
Internal Reference Output Frequency	10 MHz

Option 08

Option 08 Frequency Range	26.5 GHz to 110 GHz
Option 08 Compatible Mixers	EIP 930 Series

Software & Programming

GPIB Emulation Modes	HP 5342A, HP 5343A
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TECHNOLOGY

Heterodyne / YIG-tuned preselector

APPLICATIONS

Microwave Frequency and 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.