

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

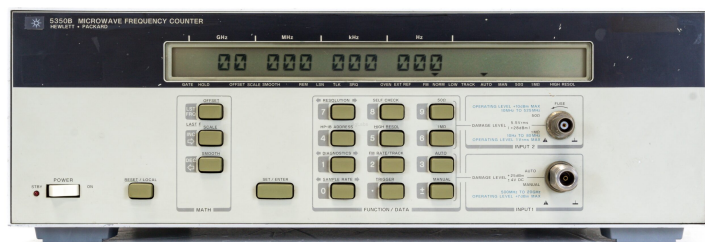
Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 5350B 20 GHz CW Microwave Counter

HP 5350B 20 GHz CW Microwave Frequency Counter The HP/Agilent 5350B is an automatic CW microwave frequency counter in the 5350B/5351B/5352B family. OEM series data describe Input 1 microwave coverage to 20 GHz for the 5350B, a low-frequency Input 2 path, selectable resolution from 1 Hz to 1 MHz, HP-IB, math functions (scale, offset, smooth), and optional high-stability time bases shared across the series. Automatic CW frequency measurement of microwave sources to 20 GHz, production test of microwave oscillators and synthesizers, and systems counting with HP-IB data dump modes. The HP/Agilent 5350B is an automatic CW microwave frequency counter in the 5350B/5351B/5352B family. OEM series data describe Input 1 microwave coverage to 20 GHz for the 5350B, a low-frequency Input 2 path, selectable resolution from 1 Hz to 1 MHz, HP-IB, math functions (scale, offset, smooth), and optional high-stability time bases shared across the series. Automatic CW frequency measurement of microwave sources to 20 GHz, production test of microwave oscillators and synthesizers, and systems counting with HP-IB data dump modes.



MODEL

HP / Agilent 5350B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

5350B

LISTING

<https://aumictechlabs.com/products/5350b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 5350B is a 20 GHz continuous wave microwave frequency counter engineered for precision RF and microwave signal measurement. It delivers direct frequency measurement to 20 GHz without external mixers, addressing the core measurement needs of engineers and laboratories in

demanding test environments. Built on hybrid GaAs circuitry, the 5350B combines sensitivity down to -40 dBm typical with resolution selectable from 1 Hz to 1 MHz, including millihertz-level capability in high-resolution mode. Its time base achieves short-term stability of $<1 \times 10^{-9}$ (1 s averaging) and aging $<1 \times 10^{-7}$ per month, ensuring repeatable measurements across temperature (0–50°C) and line variations.

Technical Specifications

Frequency Measurement: Input 1 spans 10 Hz to 20 GHz; Input 2 covers 10 Hz to 525 MHz with selectable resolution from 1 Hz to 1 MHz

Sensitivity: -32 dBm specified (500 MHz to 12.4 GHz); -27 dBm specified (12.4 GHz to 20 GHz); typical performance reaches -40 dBm and -35 dBm respectively at 25°C

Accuracy: ± 1 LSD $\pm$ (time-base error $\times$ frequency)

Time Base Stability: $<1 \times 10^{-9}$ (1 s), $<1 \times 10^{-6}$ across 0–50°C, 6 dB above interference

Programmable HP-IB interface with English-like command structure for test automation

AM and FM signal handling with configurable tolerance parameters

Sleep mode reduces noise in sensitive measurement scenarios

Typical Applications

Microwave system characterization, RF component testing, oscillator frequency verification, and automated production test environments requiring stable, traceable frequency references.

Compatibility & Integration HP-IB programmability enables seamless integration into automated test racks and data acquisition systems. External frequency references accepted for enhanced time-base stability beyond the internal oscillator.

5350B Characteristics / Specifications

PARAMETER	VALUE
Input 1 Frequency Range 5350B	500 MHz to 20 GHz
Input 2 Frequency Range Overall	10 Hz to 525 MHz
Input 2 50 Ohm Path	10 MHz to 525 MHz
Input 2 1 Mohm Path	10 Hz to 80 MHz
Input 2 Sensitivity 50 Ohm	25 mV rms full environment (15 mV typical at 25 C)
Input 2 Sensitivity 1 Mohm	25 mV rms full environment (15 mV typical at 25 C)
Input 2 Maximum 50 Ohm	+10 dBm
Input 2 Maximum 1 Mohm	1 V rms
Resolution Selectable	1 Hz to 1 MHz
Standard TCXO Aging	1 x 10 ⁻⁷ per month
Standard TCXO Temperature 0 to 50 C	1 x 10 ⁻⁶
Timebase Outputs	10 MHz and 1 MHz, rear BNC
External Timebase Accepted	1, 2, 5, or 10 MHz
Display	24-character alphanumeric LCD backlighted
Auto Mode Throughput	greater than 100 readings/s at 10 kHz resolution DUMP mode
Manual Mode Throughput	greater than 120 readings/s at 10 kHz resolution DUMP mode
Size	425 mmWx 133 mmHx 358 mmDWeight: 11 kg (24 lb)
Operating Temperature	0 C to 50 C
Power	100 VA max

5350B Specifications

PARAMETER	VALUE
HP 5350B 20 GHz CW Microwave Frequency Counter	Overview
Key Features	Automatic microwave CW counting without manual heterodyning
Technical Specifications	Input 1 Frequency Range 5350B: 500 MHz to 20 GHz

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to 50 C
Operating Temperature	0 C to 50 C
Power	100 VA max Notes Input 1 sensitivity and damage levels follow the 5350B-series microwave counter datasheet family. Confirm model-specific upper frequency (20 GHz vs 26.5/40 GHz siblings) on the nameplate.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Timebase Outputs	10 MHz and 1 MHz, rear BNC
External Timebase Accepted	1, 2, 5, or 10 MHz
Display	24-character alphanumeric LCD backlighted
Auto Mode Throughput	greater than 100 readings/s at 10 kHz resolution DUMP mode
Manual Mode Throughput	greater than 120 readings/s at 10 kHz resolution DUMP mode
Size	425 mm W x 133 mm H x 358 mm D
Weight	11 kg (24 lb)
Operating Temperature	0 C to 50 C
Power	100 VA max
Specifications	
PARAMETER	VALUE
Input 1 Frequency Range 5350B	500 MHz to 20 GHz
Input 2 Frequency Range Overall	10 Hz to 525 MHz
Input 2 50 Ohm Path	10 MHz to 525 MHz
Input 2 1 Mohm Path	10 Hz to 80 MHz
Input 2 Sensitivity 50 Ohm	25 mV rms full environment (15 mV typical at 25 C)
Input 2 Sensitivity 1 Mohm	25 mV rms full environment (15 mV typical at 25 C)
Input 2 Maximum 50 Ohm	+10 dBm
Input 2 Maximum 1 Mohm	1 V rms
Resolution Selectable	1 Hz to 1 MHz
Standard TCXO Aging	1 x 10^-7 per month
Standard TCXO Temperature 0 to 50 C	1 x 10^-6
Option 001 Aging: 5 x 10^-10 per day	
Option 001 Temperature 0 to 50 C: 7 x 10^-9	
Option 010 Aging: 1 x 10^-10 per day	
Option 010 Temperature 0 to 50 C: 7 x 10^-9	
Specifications	

PARAMETER	VALUE
Timebase Outputs	10 MHz and 1 MHz, rear BNC
External Timebase Accepted	1, 2, 5, or 10 MHz
Display	24-character alphanumeric LCD backlighted
Auto Mode Throughput	greater than 100 readings/s at 10 kHz resolution DUMP mode
Manual Mode Throughput	greater than 120 readings/s at 10 kHz resolution DUMP mode
Size	425 mmWx 133 mmHx 358 mmDWeight: 11 kg (24 lb)
Operating Temperature	0 C to 50 C
Power	100 VA max

Notes
Input 1 sensitivity and damage levels follow the 5350B-series microwave counter datasheet family. Confirm model-specific upper frequency (20 GHz vs 26.5/40 GHz siblings) on the nameplate.

Ordering Information

OPTION	DESCRIPTION
Option 001	and Option 010
Option 010	Aging: 1 x 10 ⁻¹⁰ per day

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.
Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech
788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 14, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.