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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 5361B 40 GHz Pulse/CW Microwave Counter

HP Agilent 5361B Pulse CW Microwave Frequency Counter The Agilent/HP 5361B is a pulse/CW microwave frequency counter measuring pulsed and continuous carriers. Standard coverage is to 20 GHz with Option 026 to 26.5 GHz and Option 040 to 40 GHz. PROFILE and Scope-View aids characterize chirp and gated pulse measurements. Radar EW and communications pulse carrier measurement, STALO and VCO settling characterization, and CW microwave frequency readout with FM profiling. Pulse and CW microwave counting in one instrument The Agilent/HP 5361B is a pulse/CW microwave frequency counter measuring pulsed and continuous carriers. Standard coverage is to 20 GHz with Option 026 to 26.5 GHz and Option 040 to 40 GHz. PROFILE and Scope-View aids characterize chirp and gated pulse measurements. Radar EW and communications pulse carrier measurement, STALO and VCO settling characterization, and CW microwave frequency readout with FM profiling. Pulse and CW microwave counting in one instrument PROFILE function for frequency transients chirp and linearity



MODEL

HP / Agilent 5361B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

5361B

LISTING

<https://aumictechlabs.com/products/5361b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 5361B is a 40 GHz microwave counter engineered for precision frequency measurements across pulsed and continuous wave signals in radar, electronic warfare, and

communications applications. Operating from 10 Hz to 40 GHz overall, with pulse measurement capability from 500 MHz to 40 GHz, the instrument delivers automatic acquisition and tracking up to 800 MHz/s. Microprocessor control enables streamlined characterization of agile signals, frequency modulation profiling, radar pulse analysis, and oscillator testing - including STALO, VCO, and DTO measurement of step response, settling time, and post-tuning drift.

Technical Specifications

Frequency Coverage Overall measurement range: 10 Hz to 40 GHz Pulse measurement range: 500 MHz to 40 GHz Automatic acquisition: 500 MHz to 40 GHz Manual acquisition: 500 MHz to 20 GHz (extendable to 26.5 GHz with Option 026, 40 GHz with Option 040) Pulse Measurement Minimum pulse width: 60 ns (manual), 100 ns (automatic) Pulse width: 1 ns minimum for $PW < 1$ ms in LSD mode PRF range: 1 Hz to 2 MHz Minimum off-time: 500 ns

Sensitivity (Input 1, 50 Ω) 0.5–12.4 GHz: -28 dBm 12.4–20 GHz: -23 dBm 0.5–26.5 GHz (Option 026): -20 dBm 26.5–40 GHz (Option 040): -29.8 dBm Input 2: 25 mV rms (1 M Ω or 50 Ω)

Frequency Modulation FM tolerance (Input 1): 55 MHz peak-to-peak FM chirp tolerance: 50 MHz peak-to-peak maximum span

Acquisition Performance Tracking speed: 800 MHz/s Acquisition time: < 40 ms (manual), < 100 ms (automatic fast acquisition) Timebase: Oven-controlled crystal oscillator

Key Features Frequency, period, pulse width, rise/fall time, and frequency ratio measurement PRF and PRI determination with off-time analysis Profile measurements spanning 500 MHz to 40 GHz on Y-axis Fast automatic and manual acquisition modes Built-in FM profiling for chirp and transient characterization

Typical Applications Radar signal verification and pulse analysis Electronic warfare signal characterization Oscillator performance evaluation (settling time, drift, step response) Communications system frequency validation Agile signal and frequency-hopping measurements

Compatibility & Integration Options 026 and 040 extend measurement range and sensitivity at higher frequencies. Dual inputs accommodate both microwave (50 Ω) and low-frequency (1 M Ω /50 Ω) signal sources.

5361B Characteristics / Specifications

PARAMETER	VALUE
Standard Frequency Range	10 MHz to 20 GHz
Low Frequency Path Class	down to 10 Hz class on LF input
Frequency Resolution Class	1 Hz class
Measurement Modes	Pulse CW Totalize PROFILE
Input Impedance Microwave	50 Ohm
Sensitivity Class	minus 20 dBm class
Maximum Input Class	+20 dBm class
Fast Track Sweep Rate	up to 800 MHz per second
Scope View Output	pulse envelope and gate window
Remote Interface	GPIO IEEE-488
Form Factor	Benchtop microwave counter
Intended Signals	Pulsed radar carriers CW LO chirped waveforms
Gate Functions	Automatic pulse averaging calibration display aids
FM Rate Mode	Low FM rate measurement supported
Post Tuning Drift Tests	Supported for VCO DTO class
Settling Time Tests	Supported
Size Class	Benchtop rack capable chassis

5361B Specifications

PARAMETER	VALUE
HP Agilent 5361B Pulse CW Microwave Frequency Counter	Overview
Key Features	Pulse and CW microwave counting in one instrument
Technical Specifications	Standard Frequency Range: 10 MHz to 20 GHz

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	
Standard Frequency Range: 10 MHz to 20 GHz	
Option 026 Frequency Extension: to 26.5 GHz	
Option 040 Frequency Extension: to 40 GHz	
Specifications	
PARAMETER	VALUE
Low Frequency Path Class	down to 10 Hz class on LF input
Frequency Resolution Class	1 Hz class
Measurement Modes	Pulse CW Totalize PROFILE
Input Impedance Microwave	50 Ohm
Sensitivity Class	minus 20 dBm class
Maximum Input Class	+20 dBm class
Option 006 Damage Level CW: 39 dBm	
Option 006 Damage Level Pulsed: 50 dBm	
Specifications	
PARAMETER	VALUE
Fast Track Sweep Rate	up to 800 MHz per second
Scope View Output	pulse envelope and gate window
Remote Interface	GPIB IEEE-488
Option 001: Oven timebase	
Option 010: High stability oven timebase	
Specifications	
PARAMETER	VALUE
Form Factor	Benchtop microwave counter
Intended Signals	Pulsed radar carriers CW LO chirped waveforms
Gate Functions	Automatic pulse averaging calibration display aids
FM Rate Mode	Low FM rate measurement supported
Post Tuning Drift Tests	Supported for VCO DTO class
Settling Time Tests	Supported
Size Class	Benchtop rack capable chassis

Notes

Frequency ceilings and options from Agilent 5361B Pulse/CW Microwave Counter literature and option table.
Confirm installed options on the faceplate.

Ordering Information

OPTION	DESCRIPTION
Option 026	to 26.5 GHz and Option 040 to 40 GHz. PROFILE and Scope-View aids characterize chirp and gated pulse measurements.
Option 040	Frequency Extension: to 40 GHz
Option 006	Damage Level CW: 39 dBm

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

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