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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 53152A 46 GHz CW Microwave Frequency Counter

HP Agilent Keysight 53152A 46 GHz CW Microwave Frequency Counter The Agilent/Keysight 53152A is the 46 GHz member of the 53150 Series with a removable 2.92 mm microwave connector and simultaneous frequency/power measurement. Keysight 5966-3118E specifies Channel 2 from 50 MHz to 46 GHz with sensitivity to -17 dBm at 40-46 GHz and power accuracy tables through 46 GHz. Millimeter-wave CW source characterization, high-frequency LO and multiplier chain checks, portable field microwave frequency/power measurements, and automated test to 46 GHz. The Agilent/Keysight 53152A is the 46 GHz member of the 53150 Series with a removable 2.92 mm microwave connector and simultaneous frequency/power measurement. Keysight 5966-3118E specifies Channel 2 from 50 MHz to 46 GHz with sensitivity to -17 dBm at 40-46 GHz and power accuracy tables through 46 GHz. Millimeter-wave CW source characterization, high-frequency LO and multiplier chain checks, portable field microwave frequency/power measurements, and automated test to 46 GHz. Widest 53150 Series microwave coverage to 46 GHz



MODEL

**HP / Agilent
53152A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

53152A

LISTING

<https://aumictechlabs.com/products/53152a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 53152A is a microwave frequency counter delivering precision measurements up to 46 GHz across dual channels. Channel 1 spans 10 Hz to 125 MHz with 40 mVrms sensitivity, while Channel 2 extends to 46 GHz for RF and microwave applications. The instrument combines frequency counting with simultaneous power measurement on Channel 2, eliminating the need for separate instrumentation in mixed-signal test scenarios.

Technical Specifications

Measurement Capability Frequency, relative frequency, frequency offset, and power (including power offset and relative power) Simultaneous frequency and power measurement on Channel 2 Accuracy: ± 1 Least Significant Digit (LSD) $\pm$ residual stability $\pm$ (timebase error $\times$ frequency) Resolution: 1 Hz to 1 MHz Channel 1 (DC/Low Frequency) Frequency Range: 10 Hz to 125 MHz Sensitivity: 40 mVrms Maximum Input: 2 Vrms Damage Level: 120 V (dc + ac peak) Impedance: 1 M Ω /60 pF Connector: BNC female; AC coupling Channel 2 (Microwave Input) Frequency Range: 50 MHz to 46 GHz Impedance: 50 Ω Power measurement rivals diode-sensor power meters with automatic compensation for frequency response and square-law deviation Power display in dBm or Watts

Timebase & Stability Standard: Thermally Compensated Crystal Oscillator (TCXO) Optional Oven Timebase (Opt 001) with aging rate $< 5 \times 10^{-10}$ per month Acquisition Time (Typical) Channel 1: 1/Resolution + 20 ms Channel 2: 1/Resolution + acquisition time + 20 ms

Interfaces & Display HP-IB (IEEE 488) and RS-232 standard connectivity Backlit LCD display

Power & Portability AC Input: 90–132 Vac or 216–264 Vac (47.5–66 Hz); 360–440 Hz capability; 75 VA consumption External DC Input: 11–18 Vdc Optional battery operation: ≥ 2.5 hours continuous with replaceable camcorder batteries

Physical Dimensions: 213 mm W $\times$ 88.5 mm H $\times$ 300 mm D

Key Features Dual-channel architecture for simultaneous low-frequency and microwave measurements Integrated power measurement eliminates external diode sensors for many applications Selectable resolution from 1 Hz to 1 MHz for trade-off between speed and precision Portable battery option supports field and remote testing Automatic line voltage selection; optional external DC supply for laboratory or mobile installations

Typical Applications Telecommunications infrastructure, satellite communications systems, radar signal analysis, and RF component characterization where simultaneous frequency and power data enhance test efficiency.

Compatibility & Integration HP-IB and RS-232 interfaces enable integration into automated test racks and legacy ATE systems. Benchtop standalone operation supported via backlit display and front-panel controls.

53152A Characteristics / Specifications

PARAMETER	VALUE
Channel 1 Frequency Range Normal	10 Hz to 125 MHz
Channel 1 Frequency Range LPF Enabled	10 Hz to 50 kHz
Channel 2 Frequency Range	50 MHz to 46 GHz
Channel 2 Sensitivity 50 to 300 MHz	-20 dBm
Channel 2 Sensitivity 0.3 to 12.4 GHz	-33 dBm
Channel 2 Sensitivity 12.4 to 18 GHz	-30 dBm
Channel 2 Sensitivity 18 to 20 GHz	-27 dBm
Channel 2 Sensitivity 20 to 26.5 GHz	-27 dBm
Channel 2 Sensitivity 26.5 to 40 GHz	-23 dBm
Channel 2 Sensitivity 40 to 46 GHz	-17 dBm
Channel 1 Maximum Input	2 Vrms
Channel 2 Maximum Input 50 MHz to 2 GHz	+5 dBm
Channel 2 Maximum Input Above 2 GHz	+13 dBm
Channel 2 Damage Level	+27 dBm
Residual Stability Channel	1.25 LSD rms
Power Accuracy 0.05 to 12.4 GHz	±1.0 dB
Power Accuracy 12.4 to 20 GHz	±1.5 dB
Power Accuracy 20 to 26.5 GHz	±1.5 dB
Power Accuracy 26.5 to 46 GHz	±2.0 dB
Power Resolution	0.01 dB
FM Tolerance Channel 2 FM Auto To 26.5 GHz	20 MHz p-p max at 10 MHz rate
FM Tolerance Channel 2 FM Auto Above 26.5 GHz	12 MHz p-p max at 10 MHz rate
Acquisition Time Channel 2 FM Auto Typical	140 ms

PARAMETER	VALUE
Channel 2 Connector	2.92 mm removable, SMA/APC-3.5 compatible
Size WxHxD	213 × 88.5 × 300 mm
Weight Without Battery	4 kg
Operating Temperature	0 to 55 C
Interfaces	GPIB and RS-232

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to 55 C
Operating Temperature	0 to 55 C
Interfaces	GPIB and RS-232 Notes Specifications from Keysight 5966-3118E 53152A column. Handle 2.92 mm connector carefully; adapters affect SWR and power accuracy.

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	
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Channel 1 Frequency Range Normal	10 Hz to 125 MHz
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Specifications	
PARAMETER	VALUE
Channel 2 Maximum Input Above 2 GHz	+13 dBm
Channel 2 Damage Level	+27 dBm
Residual Stability Channel 2	1.25 LSD rms
Power Accuracy 0.05 to 12.4 GHz	±1.0 dB
Power Accuracy 12.4 to 20 GHz	±1.5 dB
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Size WxHxD	213 x 88.5 x 300 mm
Weight Without Battery	4 kg
Operating Temperature	0 to 55 C
Interfaces	GPIB and RS-232

Notes
Specifications from Keysight 5966-3118E 53152A column. Handle 2.92 mm connector carefully; adapters affect SWR and power accuracy.

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
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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.