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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 54751A 20 GHz dual channel electrical module

HP Agilent 54751A 20 GHz Sampling Oscilloscope Plug In The HP/Agilent 54751A is a two-channel electrical sampling plug-in for 54750-series mainframes. OEM datasheet bandwidth is selectable per channel as dc to 20 GHz or dc to 12.4 GHz by changing sampler bias. High-bandwidth electrical waveform analysis, low-level microwave signal evaluation with 1 mV/div sensitivity, and multi-channel sampling when two plug-ins are installed in a 54750A mainframe. Independent per-channel 20 GHz or 12.4 GHz bandwidth modes The HP/Agilent 54751A is a two-channel electrical sampling plug-in for 54750-series mainframes. OEM datasheet bandwidth is selectable per channel as dc to 20 GHz or dc to 12.4 GHz by changing sampler bias. High-bandwidth electrical waveform analysis, low-level microwave signal evaluation with 1 mV/div sensitivity, and multi-channel sampling when two plug-ins are installed in a 54750A mainframe. Independent per-channel 20 GHz or 12.4 GHz bandwidth modes Low RMS noise less than or equal to 1 mV high BW and 0.5 mV low BW



MODEL

**HP / Agilent
54751A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

54751A

LISTING

<https://aumictechlabs.com/products/54751a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 54751A is a dual-channel electrical module for high-frequency signal acquisition up to 20 GHz. This plug-in module installs into compatible Agilent/Keysight mainframe

oscilloscopes to enable precise measurement of fast transient and periodic signals across communications, semiconductor, and signal-integrity applications. User-selectable bandwidth (12.4 GHz or 20 GHz per channel) balances measurement speed against noise performance, with rise times as low as 17.5 ps in high-bandwidth mode. Technical Specifications Channels: 2 Bandwidth: 12.4 GHz (low) or 20 GHz (high) per channel, DC-coupled Rise Time: ≤ 17.5 ps (high BW) / ≤ 28.2 ps (low BW) Vertical Resolution: 12 bits standard; 15 bits with averaging Vertical Accuracy: 0.4% of full-scale or marker reading (greater of the two) ± 2 mV $\pm 1.2\%$ of (reading – channel offset) Noise (RMS): ≤ 1 mV (high BW) / ≤ 0.5 mV (low BW); reduces to ~ 50 μ V or ~ 25 μ V with averaging Sensitivity Range: 1 mV/div to 100 mV/div Dynamic Range: ± 400 mV relative to channel offset Trigger Channel Bandwidth: 2.5 GHz internal; up to 18 GHz with HP 54118A External Trigger Bandwidth: 2.5 GHz or 12 GHz selectable Trigger Modes: Normal and High Sensitivity (hysteresis off) Trigger BW Limit: ~ 100 MHz low-pass filter Attenuation Scaling: 0.0001:1 to 1,000,000:1 configurable Connectors: 3.5 mm and SMA (male) Key Features Independent bandwidth selection per channel optimizes noise vs. fidelity tradeoff 12-bit ADC expandable to 15-bit via averaging reduces measurement uncertainty Configurable scale factors from 1 mV/div in fine 0.1 mV increments or standard 1-2-5-10 sequence Two-wide module configuration supports up to four total channels in HP 54750A Compatibility & Integration The 54751A installs into: HP/Agilent 54750A High-Bandwidth Digitizing Oscilloscope Mainframe Agilent 83480A Digital Communications Analyzer Mainframe Agilent/Keysight 86100A/B/C Infiniium DCA/DCA-J Mainframes

54751A Characteristics / Specifications

PARAMETER	VALUE
Number of Channels	2
High Bandwidth Mode	dc to 20 GHz
Low Bandwidth Mode	dc to 12.4 GHz
Transition Time High BW	less than or equal to 17.5 ps (10% to 90%)
Transition Time Low BW	less than or equal to 28.2 ps (10% to 90%)
Maximum Noise RMS High BW	less than or equal to 1 mV
Maximum Noise RMS Low BW	less than or equal to 0.5 mV
Scale Factor Minimum	1 mV/div
Scale Factor Maximum	100 mV/div
Full Scale Divisions	8 divisions
Programmable DC Offset	plus or minus 500 mV
Dynamic Range	plus or minus 400 mV relative to channel offset
Maximum Safe Input Voltage	plus or minus 2 Vdc
Nominal Impedance	50 Ohm
Percent Reflection	less than or equal to 5% for 30 ps rise time
Connectors	3.5 mm male with connector saver female to female
External Trigger Bandwidth On Plug In	2.5 GHz
Net Weight	1.1 kg (2.4 lb)
Shipping Weight	2.0 kg (4.4 lb)
DC Accuracy Single Marker High BW Term	plus or minus 0.4% of fullscale or marker reading whichever greater plus or minus 2 mV plus or minus 1.2% of (reading minus offset)
DC Accuracy Single Marker Low BW Term	plus or minus 0.4% of fullscale or marker reading whichever greater plus or minus 2 mV plus or minus 0.6% of (reading minus offset)
Calibration Temperature Window Notes	specs when within plus or minus 5 C of last plug-in calibration
Bandwidth	Mode: dc to 20 GHz
Rise Time	Connectors: 3.5 mm male with connector saver female to female

54751A Specifications

PARAMETER	VALUE
HP Agilent 54751A 20 GHz Sampling Oscilloscope Plug In	Overview
Key Features	Independent per-channel 20 GHz or 12.4 GHz bandwidth modes
Technical Specifications	Number of Channels: 2
Notes	Specs from HP/Agilent high-bandwidth digitizing oscilloscope plug-in data sheet section for HP 54751A.

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
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Calibration Temperature Window Notes	specs when within plus or minus 5 C of last plug-in calibration

Notes

Specs from HP/Agilent high-bandwidth digitizing oscilloscope plug-in data sheet section for HP 54751A.

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.