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Data Sheet

August 31, 2026

HP / AGILENT

HP / Agilent 54510A 1 GSa/s Digitizing Oscilloscope

The HP 54510A is a member of the 54500 family of portable digitizing oscilloscopes. OEM family literature specifies typically >300 MHz repetitive class repetitive and 250 MHz single-shot class performance with 2 channels and full HP-IB digitizing features. Bench and portable digital/analog debugging, automated production test with HP-IB, and single-shot or repetitive capture depending on model strengths. Autoscaling and automatic pulse-parameter measurements Repetitive Bandwidth: typically >300 MHz repetitive class Vertical Gain Accuracy DC Class: $\pm 1.25\%$ of full scale family ($\pm 1.5\%$ on 54501A) Vertical Resolution: 8 bits ($\pm 0.4\%$); 10 bits via HP-IB with averaging Time Base Range Class: 1 ns/div to 5 s/div family (model-dependent minimum) Dual Time Base Windowing: Yes except 54510A uses pan/zoom



MODEL

**HP / Agilent
54510A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

54510A

LISTING

<https://aumictechlabs.com/products/54510a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 54510A digitizing oscilloscope provides a 1 GSa/s sampling rate for capturing fast transient signals. It features a wide bandwidth, versatile triggering modes, and comprehensive waveform analysis capabilities. The oscilloscope works with demanding applications in electronics design, testing, and manufacturing.

54510A Characteristics / Specifications

PARAMETER	VALUE
Repetitive Bandwidth	typically >300 MHz repetitive class
Single Shot Bandwidth	250 MHz
Sample Rate	1 GSa/s
Number of Channels	2
Vertical Sensitivity Range Class	1 mV/div to 5 V/div family
Vertical Gain Accuracy DC Class	±1.25% of full scale family (±1.5% on 54501A)
Vertical Resolution	8 bits (±0.4%); 10 bits via HP-IB with averaging
Bandwidth Limit	dc to 30 MHz switchable
AC Coupled Lower 3 dB Frequency	10 Hz
LF Reject Lower 3 dB Frequency	450 Hz
Time Base Range Class	1 ns/div to 5 s/div family (model-dependent minimum)
Dual Time Base Windowing	Yes except 54510A uses pan/zoom
Autoscale	Yes
Automatic Measurements	Yes
Hard Copy Output	Pushbutton supported
HP IB Interface	Built-in
Maximum Sample Rate	1 GSa/s
Repetitive Performance Class	Typically greater than 300 MHz per family summary
Power Requirements Family	115/230 Vac, 48 to 66 Hz, 350 VA maximum
Net Weight	Approximately 10 kg (22 lb)
Shipping Weight	Approximately 20 kg (44 lb)
Size	194.3 mmHx 422.3 mmWx 355.6 mmDTrigger Modes Family: Edge, pattern, state, delay, TV line/field
Bandwidth	typically >300 MHz repetitive class

54510A Specifications

PARAMETER	VALUE
Agilent 54510A Digitizing Oscilloscope	Overview
Technical Specifications	Repetitive Bandwidth: typically >300 MHz repetitive class
Notes	Specs from HP 54500 family digitizing oscilloscope catalog datasheet pages for 54510A.

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.

performance with 2 channels and full HP-IB digitizing features.

Applications

Bench and portable digital/analog debugging, automated production test with HP-IB, and single-shot or repetitive capture depending on model strengths.

Key Features

Autoscaling and automatic pulse-parameter measurements

Advanced logic and TV triggering

Measurement limit testing

Nonvolatile setup and waveform memories

Full HP-IB programmability

Portable approximately 22 lb chassis

Technical Specifications

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Notes

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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.