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Data Sheet

August 31, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 54810A

The Agilent 54810A is a 2-channel Infiniium oscilloscope with 500 MHz analog bandwidth, 1 GSa/s real-time sample rate on each channel, and 32K memory depth. OEM Infiniium 54800-series datasheets specify equivalent-time sampling to 100 GSa/s effective, Windows-based UI, LAN/GPIB/RS-232 connectivity, and advanced violation triggering. General-purpose 500 MHz lab debug, single-shot capture at 1 GSa/s, and mixed analog measurements needing Infiniium analysis (FFT, histograms, masks). Analog-like front panel with Windows 98-era GUI



MODEL

**Agilent / Keysight
54810A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

54810A

LISTING

<https://aumictechlabs.com/products/54810a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 54810A is a 2-channel, 500 MHz digital oscilloscope built on the Infiniium platform for design verification and troubleshooting. It delivers 1 GSa/s simultaneous sample rate across both channels with 32k points of memory depth. The instrument combines an analog-like front panel with a Windows-based graphical interface, merging traditional oscilloscope workflows with advanced software-driven analysis. Technical Specifications Bandwidth: 500 MHz Channels: 2 Simultaneous Sample Rate: 1 GSa/s per channel Memory Depth: 32k points Pulse Capture: 500 ps minimum Edge Capture: 800 ps minimum Key Features Triggering depth extends beyond standard edge detection. Glitch and pulse triggering accuracy spans 1.5 ns to 20 ns widths ($\pm 20\%$ setting + 500 ps). Time-qualified pattern triggering covers 20 ns to 160 ms intervals ($\pm 3\%$ setting + 2 ns). Video triggering supports NTSC (525 lines/60 Hz), PAL (625 lines/50 Hz), and 875

lines/60 Hz with selectable field and line capture. User-defined triggering allows configuration of sync pulse level, width, polarity, and edge number. Color-grade persistence display visualizes waveform behavior over time and reveals signal anomalies. LAN connectivity enables web-based remote control from any browser. Email-on-trigger functionality sends screen bitmaps upon trigger events. Voice control provides hands-free operation. USB Test with embedded MatLab supports custom measurement routines. Time correlation integrates with the Agilent 16700 logic analyzer for synchronized multi-domain capture. Waveforms and screen captures save to internal storage or networked drives. Communications mask test kit option available.

Typical Applications

General-purpose design and troubleshooting requiring moderate bandwidth and reliable triggering precision. Video signal characterization. Multi-domain debugging with synchronized logic analysis.

Compatibility & Integration

1160A probe assembly (10:1, 500 MHz, 9 pF input capacitance) included. Compatible probes: 1161A, 1162A, 1163A, 1170A, 1171A, 1172A, 1173A, 10020A, 54006A, Agilent E2643A/44A. Time correlation supported with Agilent 16700 logic analyzer.

54810A Characteristics / Specifications

PARAMETER	VALUE
Channels	2 simultaneous acquisition
Analog Bandwidth	500 MHz
Real Time Sample Rate	1 GSa/s on each channel
Equivalent Time Effective Sample Rate	100 GSa/s
Memory Depth	32768 points per channel
Real Time Bandwidth	250 MHz
Rise Time Equivalent Time	700 ps
Rise Time Real Time	1.4 ns
Vertical Sensitivity 1 Mohm	1 mV/div to 5 V/div
Input Impedance	1 Mohm $\pm 1\%$ (~ 8 pF) or 50 ohm $\pm 1\%$
Maximum Input 1 Mohm	± 250 V (dc+ac) ac less than 10 kHz CATIMaximum Input 50 Ohm: 5 Vrms CATIHardware Bandwidth Limit: 30 MHz selectable
Main Time Base Range	500 ps/div to 20 s/div
Timebase Accuracy	50 ppm
DC Gain Accuracy	$\pm 1.25\%$ of full scale at full resolution scale
Resolution Real Time	8 bits (0.4% of full scale); ≥ 12 bits with averaging
Trigger Modes	Edge, Glitch, Pattern, State, Delay, Violation, Video, Line
Display	8.4 inch color active matrix LCD
Hard Drive	3.2 Gbyte internal class per datasheet era
Averaging	selectable 2 to 4096
Trigger Holdoff Range	60 ns to 320 ms
Glitch Capture Width	as narrow as 500 ps
Printer Support	HP DeskJet and LaserJet class
Bandwidth	500 MHz
Rise Time	Equivalent Time: 700 ps

54810A Specifications

PARAMETER	VALUE
Agilent 54810A Infiniium Oscilloscope	Overview
Key Features	Analog-like front panel with Windows 98-era GUI
Eye diagram and AutoMask/mask test capability	Standard 10/100 LAN, GPIB, RS-232, Centronics
Technical Specifications	Channels: 2 simultaneous acquisition
Notes	Specs from Agilent Infiniium 54810/15/20/25/35/45A Oscilloscopes data sheet. Warranted specs marked with asterisk on sheet after warm-up.

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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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.