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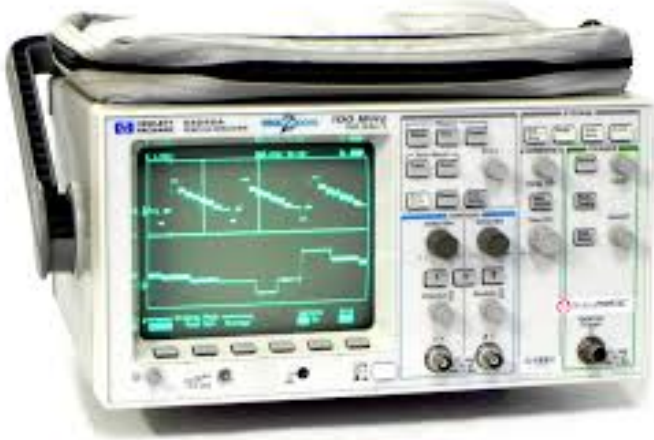
Data Sheet

August 31, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 54645A

The HP 54645A is a dual-channel 100 MHz MegaZoom oscilloscope with 200 MSa/s sampling and a full 1 MB of memory behind each channel. OEM 54600-series literature emphasizes MegaZoom deep memory with high-speed/low dead-time display and responsive front panel, avoiding the sluggish behavior typical of other deep-memory scopes of its era. General-purpose 100 MHz debug, deep-memory capture of infrequent events, and benchtop troubleshooting needing responsive pan/zoom on long records. High speed / low dead time MegaZoom display Peak Detect Class: MegaZoom deep-memory peak capture Vertical System: calibrated V/div MegaZoom Horizontal System: calibrated time/div MegaZoom Channel, bandwidth, sample rate, and 1 MB/channel memory from HP 54645A MegaZoom product datasheet text in the 54600 series overview. For vertical accuracy tables, use the model-specific 54645A pages when available alongside the later 54622A sheet.



MODEL

**Agilent / Keysight
54645A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

54645A

LISTING

<https://aumictechlabs.com/products/54645a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 54645A is a 100 MHz, dual-channel digital oscilloscope engineered for signal acquisition and analysis across applications ranging from general circuit troubleshooting to detailed transient characterization. The instrument combines 1 MB memory per channel with MegaZoom technology, delivering responsive waveform navigation and deep memory capture

capabilities. Maximum sample rates reach 10 GSa/s in repetitive mode, with 200 MSa/s single-shot performance and 20 MSa/s continuous acquisition. The display updates at up to 3 million points per second, enabling real-time visualization of complex signals.

Technical Specifications

Acquisition Bandwidth: 100 MHz Channels: 2 Memory depth: 1 MB per channel Sample rate: 200 MSa/s (maximum), 20 MSa/s (single shot), 10 GSa/s (repetitive) Display update rate: Up to 3 million points/s Vertical System Resolution: 8 bits Sensitivity: 2 mV to 5 V/div DC gain accuracy: $\pm 2\%$ Input impedance: 1 M Ω , approximately 13 pF Maximum input: 400 V (DC + peak AC) Input coupling: AC, DC, GND on CH 1 & 2 Bandwidth limit: Approximately 20 MHz CMRR: Approximately 20 dB at 50 MHz Horizontal System Sweep speed: 2 ns/div to 50 s/div Horizontal accuracy: $\pm 0.01\%$ Horizontal resolution: 100 ps Triggering Sources: CH 1, 2, Line, External Trigger sensitivity: DC to 25 MHz Glitch triggering: >8 ns Pulse width triggering: >500 ps Pattern triggering: High/low/don't-care across channels Video triggering: 525/60 Hz (NTSC), 625/50 Hz (PAL), 875/60 Hz Physical Dimensions: 172 mm H $\times$ 322 mm W $\times$ 317 mm D Weight: Approximately 6.2 kg Power: 100–240 Vac, 48–440 Hz, 300 VA maximum

Key Features

MegaZoom technology enables intuitive panning and zooming through deep memory waveforms Transition, glitch, and pulse-width triggering for advanced signal capture Voltage and time cursors for manual measurement Channel inversion on CH 1 & 2

Typical Applications

Digital and analog circuit debugging Signal integrity analysis Transient event capture Video signal characterization

Compatibility & Integration

GPIB interface module (Agilent 54650A) provides remote control and direct printing capability. Optional accessories include magnetic CRT shielding, display shield, and enhanced video trigger.

54645A Characteristics / Specifications

PARAMETER	VALUE
Analog Channels	2
Bandwidth	100 MHz
Max Sample Rate	200 MSa/s
Memory Depth Per Channel	1 MB
Memory Architecture	MegaZoom deep memory
Scope Family	HP 54600 series
Display Behavior	high speed low dead time MegaZoom display
Front Panel	highly responsive with deep memory
Sweep Speed Range Class	5 ns/div to 5 s/div per family sheet notes
Input Channels	dual channel
Acquisition Type	deep memory digital storage
Intended Bandwidth Class	100 MHz
Sample Rate Class	200 MSa/s
Deep Memory Advantage	find details without special mode sluggishness
Form Factor	benchtop MegaZoom oscilloscope
Automatic Measurements	54600-series measurement set
Autoscale	supported on series
Triggering	edge and advanced 54600-series triggers
Probe Interface	standard passive probe compatible
Remote Options	series GPIB/RS-232 options depending on config
Peak Detect Class	MegaZoom deep-memory peak capture
Vertical System	calibrated V/div MegaZoom
Horizontal System	calibrated time/div MegaZoom

54645A Specifications

PARAMETER	VALUE
Agilent 54645A MegaZoom Oscilloscope	Overview
Key Features	1 MB MegaZoom memory per channel
Technical Specifications	Analog Channels: 2

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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Notes	
Channel, bandwidth, sample rate, and 1 MB/channel memory from HP 54645A MegaZoom product datasheet text in	

the 54600 series overview. For vertical accuracy tables, use the model-specific 54645A pages when available alongside the later 54622A sheet.

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.