


Aumictech

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 54624A 4-Channel, 100 MHz Oscilloscope

Agilent 54624A 100 MHz 4 Channel MegaZoom Oscilloscope The Agilent 54624A is a 4-channel 100 MHz oscilloscope with 200 MSa/s maximum sample rate and 2 MB MegaZoom deep memory per channel (some catalog revisions cite 4 MB maximum memory). Calculated rise time is about 3.5 ns. It targets analog-heavy designs needing four simultaneous inputs with high-definition display and flexible triggering including serial options. Four-input analog debug (power supplies, ABS sensors, multi-rail boards); verification with MegaZoom deep memory; integrated 5-digit frequency counter measurements. The Agilent 54624A is a 4-channel 100 MHz oscilloscope with 200 MSa/s maximum sample rate and 2 MB MegaZoom deep memory per channel (some catalog revisions cite 4 MB maximum memory). Calculated rise time is about 3.5 ns. It targets analog-heavy designs needing four simultaneous inputs with high-definition display and flexible triggering including serial options. Four-input analog debug (power supplies, ABS sensors, multi-rail boards); verification with MegaZoom deep memory; integrated 5-digit frequency counter measurements.



MODEL

**HP / Agilent
54624A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

54624A

LISTING

<https://aumictechlabs.com/products/54624a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent 54624A is a 4-channel, 100 MHz oscilloscope engineered for mixed-signal analysis in electronic testing and debugging. It combines analog and digital signal acquisition with deep memory capture, advanced triggering on serial protocols, and waveform mathematics to isolate complex fault conditions and transient events. The instrument delivers 200 MS/s sampling at up to 8 MB memory per channel, enabling long-duration captures without sample rate compromise.

Technical Specifications

Channels: 4 analog **Bandwidth:** 100 MHz **Maximum Sample Rate:** 200 MS/s **Memory:** Up to 8 MB per channel (MegaZoom deep memory, always available) **Display:** High-definition with 32 intensity levels and 5-ns peak detect capability **Frequency Counter:** Integrated 5-digit measurement **Power Requirements:** 120 V / 220 V, 50 Hz / 60 Hz **Operating Temperature:** -10 °C to +55 °C **Storage Temperature:** -51 °C to +71 °C **Weight:** 16.8 lb (7.62 kg)

Key Features

MegaZoom Deep Memory: Capture non-repeating signals at full sample rate with instant zoom into regions of interest. **Serial Protocol Triggering:** Synchronization on I2C, CAN, LIN, USB, and SPI frame boundaries. **Waveform Math:** Subtraction, multiplication, integration, differentiation, and FFT analysis. **Data Storage:** 1.44 MB floppy drive stores waveforms as TIF/BMP images or ASCII data. **PC Connectivity:** RS-232 and parallel interfaces with optional GPIB module for accelerated transfers. IntuiLink software enables direct PC integration.

Typical Applications

Mixed-signal design verification, embedded system debugging, protocol-level signal analysis, transient capture and fault isolation. **Compatibility & Integration** I2C, CAN, LIN, USB, and SPI protocol support. Data export via RS-232, parallel, or optional GPIB. Waveform archival and import compatible with standard PC applications.

Features & description

From manufacturer datasheet

Features

- 4 analog channels simultaneous acquisition
- 100 MHz bandwidth; 200 MSa/s; MegaZoom deep memory
- High-definition display; flexible triggering (I2C SPI CAN USB options)
- Integrated 5-digit frequency counter
- Lower-cost deep-memory 4-channel scope class

54624A Characteristics / Specifications

PARAMETER	VALUE
Model	54624A
Manufacturer	Agilent / Keysight
Instrument Type	Digital storage oscilloscope
Family	54620 MegaZoom series
Alias	Agilent 54624A; Keysight 54624A; HP 54624A
Analog Channels	4
Bandwidth DC Coupled	dc to 100 MHz
Bandwidth AC Coupled	3.5 Hz to 100 MHz
Calculated Rise Time	about 3.5 ns (0.35/bandwidth)
Single Shot Bandwidth	50 MHz
Maximum Sample Rate	200 MSa/s
Memory Depth Per Channel	2 MB (catalog also cites 4 MB max configurations)
Vertical Resolution	8 bits
Interpolation	Sinx/x with vectors on (single-shot BW equals sample rate/4)
Maximum Sample Rate Scope	200 MSa/s maximum per scope
Channel Acquisition	Ch 1 2 3 4 simultaneous
Related 2 Channel 100 MHz	54622A
Related MSO 100 MHz	54622D 2 plus 16
Related Lower Bandwidth	54621A 60 MHz
Related Higher Bandwidth MegaZoom	54641A 350 MHz; 54642A 500 MHz
Triggering Options Family	edge; pulse; pattern; serial I2C SPI CAN USB
Counter Measurement	integrated 5-digit frequency counter
Input Coupling Family	AC DC GND
Form Factor	benchtop MegaZoom scope
Display	high-definition intensity-graded

PARAMETER	VALUE
Bandwidth	DC Coupled: dc to 100 MHz
Rise Time	about 3.5 ns (0.35/bandwidth)

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
Model	54624A
Manufacturer	Agilent / Keysight
Instrument Type	Digital storage oscilloscope
Family	54620 MegaZoom series
Alias	Agilent 54624A; Keysight 54624A; HP 54624A
Analog Channels	4
Bandwidth DC Coupled	dc to 100 MHz
Bandwidth AC Coupled	3.5 Hz to 100 MHz
Calculated Rise Time	about 3.5 ns (0.35/bandwidth)
Single Shot Bandwidth	50 MHz
Maximum Sample Rate	200 MSa/s
Memory Depth Per Channel	2 MB (catalog also cites 4 MB max configurations)
Vertical Resolution	8 bits
Interpolation	Sinx/x with vectors on (single-shot BW equals sample rate/4)
Maximum Sample Rate Scope	200 MSa/s maximum per scope
Channel Acquisition	Ch 1 2 3 4 simultaneous
Related 2 Channel 100 MHz	54622A
Related MSO 100 MHz	54622D 2 plus 16
Related Lower Bandwidth	54621A 60 MHz
Related Higher Bandwidth MegaZoom	54641A 350 MHz; 54642A 500 MHz
Triggering Options Family	edge; pulse; pattern; serial I2C SPI CAN USB
Counter Measurement	integrated 5-digit frequency counter
Input Coupling Family	AC DC GND
Form Factor	benchtop MegaZoom scope
Display	high-definition intensity-graded

Option 1CM: rackmount kit
Option 003: shielding option

Notes

Specs from Agilent 54621A/54622A/54624A MegaZoom selection guide 5968-8152EN and related datasheets. Memory depth appears as 2 MB/ch or 4 MB max depending on revision; confirm on the unit. Not the same as 54620A logic analyzer.

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
NAICS 423690 · 811210 · 541380
Generated August 13, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.