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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight DSO9254A Oscilloscope: 2.5 GHz, 4 Analog Channels

Agilent DSO9254A Infiniium 9000 Series Oscilloscope The Agilent/Keysight DSO9254A is an Infiniium 9000 Series oscilloscope with 2.5 GHz analog bandwidth on 50 ohm paths. OEM 9000 Series datasheets list 10 GSa/s on 4 channels or 20 GSa/s on 2 channels, standard 20 Mpts/40 Mpts memory, and a 15 inch XGA display. High-speed digital debug, serial decode, mixed-signal timing (MSO models), and general-purpose Infiniium analysis. MegaZoom deep memory options up to Option 500 The Agilent/Keysight DSO9254A is an Infiniium 9000 Series oscilloscope with 2.5 GHz analog bandwidth on 50 ohm paths. OEM 9000 Series datasheets list 10 GSa/s on 4 channels or 20 GSa/s on 2 channels, standard 20 Mpts/40 Mpts memory, and a 15 inch XGA display. High-speed digital debug, serial decode, mixed-signal timing (MSO models), and general-purpose Infiniium analysis. MegaZoom deep memory options up to Option 500 Vertical Resolution: 8 bit; high res mode 9 to 12 bits selectable



MODEL

**Agilent / Keysight
DSO9254A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

DSO9254A

LISTING

<https://aumictechlabs.com/products/dso9254a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight DSO9254A is a 2.5 GHz digital storage oscilloscope delivering four analog channels with integrated logic and protocol analysis capabilities. This Infiniium 9000 Series

instrument combines oscilloscope, logic analyzer, and protocol analyzer functionality in a single platform, enabling efficient signal acquisition and debug workflows across demanding applications. The DSO9254A acquires waveforms at up to 250,000 per second with deep memory architecture supporting up to 1 Gpts per channel (upgradeable), maintaining high sample rates across extended capture windows. A 15-inch XGA touchscreen provides intuitive control and clear signal visualization.

Technical Specifications

Analog Channels & Bandwidth 4 analog channels 2.5 GHz analog bandwidth (upgradeable) 20 GSa/s maximum sample rate on 2 channels; 10 GSa/s on 4 channels 8-bit vertical resolution (greater than 12 bits with averaging) 250,000 waveforms per second acquisition rate

Memory Architecture Standard: 20 Mpts per channel (4-channel mode), 40 Mpts (2-channel mode) Upgradeable to 1 Gpts per channel

Input Specifications Input impedance: 50 Ω $\pm$ 2.5%, 1 M Ω $\pm$ 1% (11 pF typical) Sensitivity (1 M Ω): 1 mV/div to 5 V/div Sensitivity (50 Ω): 1 mV/div to 1 V/div Input coupling: AC (3.5 Hz) or DC (1 M Ω); DC (50 Ω) Hardware bandwidth limit: 20 MHz (1 M Ω input) Dynamic range: $\pm$ 8 div from center screen Rise/fall time (20%-80% at 50 Ω): 98 ps Channel Isolation DC to 50 MHz: 50 dB >50 MHz to 1 GHz: 40 dB >1 GHz to 4 GHz: 25 dB

Integrated Logic Analysis 16 digital channels (MSO models) 2 GSa/s maximum real-time sample rate 128 Mpts maximum memory depth per digital channel (at 2 GSa/s) 2 ns minimum width glitch detection

Key Features Advanced triggering with protocol-aware debug capabilities Application-specific software for debug, analysis, and compliance testing Protocol viewers for physical layer isolation

Typical Applications Signal integrity analysis, mixed-signal debugging, serial protocol validation, and compliance testing in high-speed digital and RF design environments.

Compatibility & Integration Part of the Infiniium 9000 Series ecosystem with configurable bandwidth and memory options.

DSO9254A Characteristics / Specifications

PARAMETER	VALUE
Analog Bandwidth 50 Ohm	2.5 GHz
Analog Bandwidth 1 MOhm	500 MHz
Maximum Sample Rate 4 Channel	10 GSa/s
Maximum Sample Rate 2 Channel	20 GSa/s
Standard Memory 4 Channel	20 Mpts
Standard Memory 2 Channel	40 Mpts
Analog Channels	4
Logic Channels	0
Channel Configuration	4 analog
Display	15 inch XGA
Vertical Resolution	8 bit; high res mode 9 to 12 bits selectable
Input Impedance	50 ohm and 1 MOhm
Roll Mode	200 ms to 20 s
Equivalent Time Max	1000 GSa/s effective with 1.0 ps interpolator
Segment Timestamp Resolution	1 ps
Standard Segment Count	up to 8192 segments
Max Time Between Triggers	562950 s (6.5 days)
Rearm Time Analog	4.5 us
Digital Channel Sample Rate MSO	2 GSa/s
Digital Memory MSO	128/64 Mpts at 2 GSa/s
Digital Glitch Detect MSO	2 ns minimum width
Memory Option 50M	50/100 Mpts
Memory Option 1	100/200 Mpts
Memory Option 2	200/400 Mpts
Memory Option 5	500/250 Mpts on 4 ch or 1 Gpts/500 Mpts on 2 ch

PARAMETER	VALUE
Series Family	Infiniium 9000
Bandwidth	50 Ohm: 2.5 GHz

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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PARAMETER	VALUE
Analog Bandwidth 50 Ohm	2.5 GHz
Analog Bandwidth 1 MOhm	500 MHz
Maximum Sample Rate 4 Channel	10 GSa/s
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Standard Memory 4 Channel	20 Mpts
Standard Memory 2 Channel	40 Mpts
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Channel Configuration	4 analog
Display	15 inch XGA
Vertical Resolution	8 bit; high res mode 9 to 12 bits selectable
Input Impedance	50 ohm and 1 MOhm
Roll Mode	200 ms to 20 s
Equivalent Time Max	1000 GSa/s effective with 1.0 ps interpolator
Segment Timestamp Resolution	1 ps
Standard Segment Count	up to 8192 segments
Option 500 Segment Count: up to 131072 segments	
Specifications	
PARAMETER	VALUE
Max Time Between Triggers	562950 s (6.5 days)
Rearm Time Analog	4.5 us
Digital Channel Sample Rate MSO	2 GSa/s
Digital Memory MSO	128/64 Mpts at 2 GSa/s
Digital Glitch Detect MSO	2 ns minimum width
Memory Option 50M	50/100 Mpts

PARAMETER	VALUE
Memory Option 100	100/200 Mpts
Memory Option 200	200/400 Mpts
Memory Option 500	500/250 Mpts on 4 ch or 1 Gpts/500 Mpts on 2 ch
Series Family	Infiniium 9000

Notes

Bandwidth/sample/memory numbers from Agilent/Keysight Infiniium 9000 Series oscilloscope datasheets. Confirm installed memory and MSO options.

Ordering Information

OPTION	DESCRIPTION
Option 500	Advanced triggering including serial

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

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NIST-traceable calibration · SAM registered ·
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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.