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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight MSO9404A Mixed Signal Oscilloscope: 4 GHz, 4 Analog Plus 16 Digital Channels

Input Sensitivity 1 Mohm: 1 mV/div to 5 V/div Input Sensitivity 50 Ohm: 1 mV/div to 1 V/div Probe Interface Class: AutoProbe / InfiniiMax class From Agilent Infiniium DSO9000A/MSO9000A Series Oscilloscopes data sheet model row for MSO9404A. Input Sensitivity 50 Ohm: 1 mV/div to 1 V/div Probe Interface Class: AutoProbe / InfiniiMax class From Agilent Infiniium DSO9000A/MSO9000A Series Oscilloscopes data sheet model row for MSO9404A.



MODEL

**Agilent / Keysight
MSO9404A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

MSO9404A

LISTING

<https://aumictechlabs.com/products/mso9404a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight MSO9404A is a 4 GHz mixed-signal oscilloscope combining analog, digital, and protocol analysis in a single instrument. With 4 analog channels and 16 digital channels, it delivers up to 20 GSa/s sampling on 2 channels and up to 1 Gpts memory depth per channel. Advanced triggering - including edge, glitch, runt, timeout, pattern, state, pulse width, window, and serial modes - enables capture of elusive signal anomalies. The 15-inch XGA color touchscreen provides intuitive signal visualization and drag-and-drop measurement workflows. Engineers rely on the MSO9404A for embedded systems development, signal integrity analysis, and protocol-level

debugging. Its integrated logic analyzer displays critical timing relationships across 16 digital channels. The protocol analyzer with packet viewers correlates physical layer signals to protocol behavior, supporting serial, I²C/SPI, CAN/LIN/FlexRay, USB, Ethernet, DDR, MIPI D-PHY, and JTAG standards. Up to 10 simultaneous measurements with statistics streamline characterization workflows. Input impedance selectable at 1 M Ω or 50 Ω accommodates both high-impedance and matched-load measurements, with offset accuracy of $\pm(1.25\%$ offset + 1% full scale + 1 mV). Technical Specifications Bandwidth: 4 GHz Analog Channels: 4 Digital Channels: 16 Sample Rate: Up to 20 GSa/s (2 channels); 10 GSa/s (4 channels) Memory Depth: Standard 20 Mpts per channel, upgradable to 1 Gpts Vertical Resolution: 8-bit Display: 15-inch XGA color touchscreen LCD Input Impedance: 1 M Ω or 50 Ω Input Connectors: BNC (analog); ZIF connector (digital logic probes) Power: 100–240 VAC; 375 W maximum dissipation Dimensions: 9 inches (23 cm) deep Weight: 26 lbs (11.8 kg) Key Features InfiniiScan advanced triggering for edge, glitch, runt, timeout, pattern, state, pulse width, window, setup/hold, video, and serial conditions Integrated logic analyzer for timing correlation across 16 digital channels Integrated protocol analyzer with packet drilling and time-correlated physical/protocol layer viewing Drag-and-drop measurement functionality with simultaneous display of 10 measurements and statistics Dynamic range: ± 8 divisions from center screen LAN (LXI Class C), USB, and RS-232 connectivity Typical Applications Embedded systems and firmware debug Signal integrity and timing analysis Multi-protocol packet inspection (serial, I²C/SPI, CAN/LIN, USB, Ethernet, DDR, MIPI D-PHY, JTAG) Compliance testing and jitter characterization FPGA dynamic probing Compatibility & Integration The MSO9404A supports application-specific software including MATLAB integration, EZJIT/EZJIT Plus jitter analysis, power measurement, and DDR validation packages.

MSO9404A Characteristics / Specifications

PARAMETER	VALUE
Model	MSO9404A
Analog Bandwidth 50 Ohm	4 GHz
Analog Bandwidth 1 Mohm	500 MHz
Maximum Sample Rate Four Channels	10 GSa/s
Maximum Sample Rate Two Channels	20 GSa/s
Analog Channels	4
Digital Channels	16
Standard Memory Four Channels	20 Mpts
Standard Memory Two Channels	40 Mpts
Typical Rise Time 10 To 90 Percent 50 Ohm	85 ps
Typical Rise Time 20 To 80 Percent 50 Ohm	59 ps
Vertical Resolution	8 bits, greater than or equal to 12 bits with averaging
Input Impedance	50 ohm plus or minus 2.5 percent, 1 Mohm plus or minus 1 percent (11 pF typical)
Input Sensitivity 1 Mohm	1 mV/div to 5 V/div
Input Sensitivity 50 Ohm	1 mV/div to 1 V/div
Input Coupling 1 Mohm	AC (3.5 Hz), DC
Input Coupling 50 Ohm	DC
Series Family	Infiniium 9000 MSO
Remote Interfaces	LAN USB GPIB class
Form Factor	benchtop Infiniium
Brand Lineage	Agilent / Keysight
Probe Interface Class	AutoProbe / InfiniMax class
Segmented Memory	supported
Bandwidth	50 Ohm: 4 GHz

PARAMETER	VALUE
Rise Time	10 To 90 Percent 50 Ohm: 85 ps

MSO9404A Specifications

PARAMETER	VALUE
Applications	High-speed digital and mixed-signal debug requiring 4 GHz analog bandwidth with parallel digital timing channels.
Key Features	4 analog plus 16 digital channels
Infiniium 9000 Series analysis UI	10 GSa/s on four channels or 20 GSa/s on two channels
Technical Specifications	Model: MSO9404A
Notes	From Agilent Infiniium DSO9000A/MSO9000A Series Oscilloscopes data sheet model row for MSO9404A.

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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Analog Bandwidth 50 Ohm	4 GHz
Analog Bandwidth 1 Mohm	500 MHz
Maximum Sample Rate Four Channels	10 GSa/s
Maximum Sample Rate Two Channels	20 GSa/s
Analog Channels	4
Digital Channels	16
Standard Memory Four Channels	20 Mpts
Standard Memory Two Channels	40 Mpts
Typical Rise Time 10 To 90 Percent 50 Ohm: 85 ps	
Typical Rise Time 20 To 80 Percent 50 Ohm: 59 ps	
Specifications	
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Form Factor	benchtop Infiniium
Brand Lineage	Agilent / Keysight
Probe Interface Class	AutoProbe / InfiniiMax class
Segmented Memory	supported

Notes

From Agilent Infiniium DS09000A/MS09000A Series Oscilloscopes data sheet model row for MS09404A.

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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.