


Aumictech

Test & measurement · bought, sold, repaired, calibrated

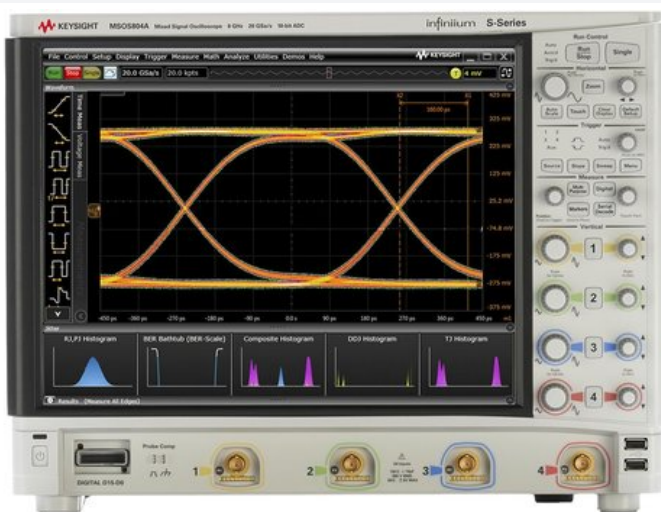
Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight MSOS054A

Channel Bandwidth Four Active Note: 500 MHz four-channel bandwidth Acquisition Architecture: Infiniium S-Series low-noise front end Connectivity Class: USB LAN GPIB class Infiniium interfaces From Keysight Infiniium S-Series oscilloscope product fact sheet 5991-4028 model column for MSOS054A. 6 GHz and 8 GHz bandwidths are two-channel active modes with 4 GHz four-channel bandwidth. Acquisition Architecture: Infiniium S-Series low-noise front end Connectivity Class: USB LAN GPIB class Infiniium interfaces From Keysight Infiniium S-Series oscilloscope product fact sheet 5991-4028 model column for MSOS054A. 6 GHz and 8 GHz bandwidths are two-channel active modes with 4 GHz four-channel bandwidth.



MODEL

**Agilent / Keysight
MSOS054A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

MSOS054A

LISTING

<https://aumictechlabs.com/products/msos054a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight MSOS054A is a high-definition mixed-signal oscilloscope designed for synchronous capture and analysis of analog and digital signals in complex embedded systems. It combines 4 analog channels with 16 digital channels, delivering 500 MHz baseline bandwidth expandable to 8 GHz, maximum sample rates of 20 GSa/s across 2 channels or 10 GSa/s across all 4 channels, and memory depths up to 200 Mpts per channel. The instrument achieves 10-bit native vertical resolution with up to 16 bits available through high-resolution mode, supported by a low-noise

front end and system ENOB of 8.1 bits at full bandwidth. Technical Specifications Bandwidth: 500 MHz standard, upgradeable to 8 GHz Analog channels: 4 Digital channels: 16 Maximum sample rate: 20 GSa/s (2 channels), 10 GSa/s (4 channels) Memory depth: 100 Mpts/channel standard, upgradeable to 200 Mpts/channel Vertical resolution: 10-bit ADC; up to 16 bits in high-resolution mode System ENOB: 8.1 bits at full bandwidth Input impedance: 1 M Ω and 50 Ω (selectable) Timebase accuracy: 75 parts per billion Display: 15-inch XGA capacitive touch screen with multi-touch support Processor: Intel i5 with 8 GB RAM Storage: 256 GB solid state drive (removable) Operating system: Windows 10 Data transfer: USB 3.0 and Ethernet at up to 200 MB/s Key Features Low-noise front end for enhanced signal detail Dual input impedance selection for flexible coupling Rapid data offload via high-speed Ethernet and USB 3.0 Comprehensive accessory kit includes four N2873A 500-MHz passive probes, 16-channel flying lead set logic probe, MSO cable, and MSO calibration fixture Keysight I/O libraries suite included Typical Applications Mixed-signal validation and debugging in digital designs Protocol analysis and compliance testing High-speed digital and analog signal characterization Compatibility & Integration The MSOS054A supports a broad range of Keysight probes and integrates with protocol decode, compliance, and advanced measurement applications.

MSOS054A Characteristics / Specifications

PARAMETER	VALUE
Model	MSOS054A
Series Family	Infiniium S-Series
Instrument Type	Mixed signal oscilloscope
Analog Bandwidth	500 MHz
Calculated Rise Time 10 To	860 ps
Analog Channels	4
Digital Channels	16
Sample Rate Two Channels	20 GSa/s
Sample Rate Four Channels	10 GSa/s
Standard Memory Depth	100 Mpts/ch
Memory Upgrade Class	up to 400 Mpts/ch
Vertical Resolution Full Bandwidth	10 bits
Vertical Resolution High Res Class	up to 16 bits
Full Bandwidth Enob Typical	8.1
Full Bandwidth Noise Floor Typical	74 uV at 2 mV/div class
Rf Noise Density Typical	-160 dBm/Hz class
Sfdr Typical	72 dB class
Display	15 inch XGA capacitive touchscreen
External Display	VGA and DisplayPort
Channel Bandwidth Four Active Note	500 MHz four-channel bandwidth
Chassis Form	benchtop Infiniium
Brand Lineage	Keysight / Agilent
Acquisition Architecture	Infiniium S-Series low-noise front end
Connectivity Class	USB LAN GPIB class Infiniium interfaces
Bandwidth	500 MHz

PARAMETER	VALUE
Rise Time	10 To 90: 860 ps

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	MSOS054A
Series Family	Infiniium S-Series
Instrument Type	Mixed signal oscilloscope
Analog Bandwidth	500 MHz
Calculated Rise Time 10 To 90	860 ps
Analog Channels	4
Digital Channels	16
Sample Rate Two Channels	20 GSa/s
Sample Rate Four Channels	10 GSa/s
Standard Memory Depth	100 Mpts/ch
Memory Upgrade Class	up to 400 Mpts/ch
Vertical Resolution Full Bandwidth	10 bits
Vertical Resolution High Res Class	up to 16 bits
Full Bandwidth Enob Typical	8.1
Full Bandwidth Noise Floor Typical	74 uV at 2 mV/div class
Rf Noise Density Typical	-160 dBm/Hz class
Sfdr Typical	72 dB class
Display	15 inch XGA capacitive touchscreen
External Display	VGA and DisplayPort
Channel Bandwidth Four Active Note	500 MHz four-channel bandwidth
Chassis Form	benchtop Infiniium
Brand Lineage	Keysight / Agilent
Acquisition Architecture	Infiniium S-Series low-noise front end
Connectivity Class	USB LAN GPIB class Infiniium interfaces

Notes

From Keysight Infiniium S-Series oscilloscope product fact sheet 5991-4028 model column for MSOS054A. 6 GHz and 8 GHz bandwidths are two-channel active modes with 4 GHz four-channel bandwidth.

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 15, 2026

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