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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight MSOX3054A

Agilent Keysight MSOX3054A InfiniiVision Oscilloscope The Agilent/Keysight MSOX3054A is a 500 MHz InfiniiVision 3000 X-Series oscilloscope with 4 analog channels and 16 digital channels. OEM 3000A X-Series fact sheets list up to 4 GSa/s sample rate, up to 4 Mpts MegaZoom memory, and 1,000,000 wfms/s update rate with an 8.5-inch WVGA display. Embedded design debug, mixed-signal analysis, education, and general-purpose analog measurements on the 3000 X-Series platform. 4 analog channels plus 16 digital MSO channels The Agilent/Keysight MSOX3054A is a 500 MHz InfiniiVision 3000 X-Series oscilloscope with 4 analog channels and 16 digital channels. OEM 3000A X-Series fact sheets list up to 4 GSa/s sample rate, up to 4 Mpts MegaZoom memory, and 1,000,000 wfms/s update rate with an 8.5-inch WVGA display. Embedded design debug, mixed-signal analysis, education, and general-purpose analog measurements on the 3000 X-Series platform. 4 analog channels plus 16 digital MSO channels Waveform Update Rate: 1000000 waveforms per second



MODEL

**Agilent / Keysight
MSOX3054A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

MSOX3054A

LISTING

<https://aumictechlabs.com/products/msox3054a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight MSOX3054A is a 500 MHz mixed-signal oscilloscope delivering 4 analog channels and 16 integrated digital channels for comprehensive signal measurement and analysis. It captures waveforms at 4 GSa/s with up to 1,000,000 waveforms per second update rate, enabling

fast detection of infrequent events and detailed signal visualization through MegaZoom IV smart memory technology. This 5-in-1 instrument integrates an oscilloscope, logic analyzer, protocol analyzer, optional 20 MHz function/arbitrary waveform generator, and digital voltmeter into a single 8.5-inch WVGA display unit. Standard memory depth is 2 Mpts per channel, expandable to 4 Mpts interleaved. The 8-bit vertical resolution supports detailed waveform analysis across all channels.

Technical Specifications
Bandwidth: 500 MHz (upgradable)
Analog Channels: 4
Digital Channels: 16 (MSO integrated)
Sampling Rate: 4 GSa/s
Memory Depth: 2 Mpts standard; 4 Mpts interleaved optional
Waveform Update Rate: 1,000,000 waveforms/second
Vertical Resolution: 8-bit
Display: 8.5-inch WVGA color
Waveform Generator: 20 MHz arbitrary/function (optional) with sine, square, pulse, triangle, ramp, noise, and DC waveforms

Key Features
Hardware-based serial protocol decoding and analysis of two simultaneous buses
Nine parametric triggers and six serial protocol triggers
Integrated 3-digit voltmeter and 5-digit frequency counter
Waveform math functions including FFT, $Ax+B$, square, absolute value, logarithms, exponentials, and filters
Included 500 MHz, 10:1 passive probe per analog channel (N2890A)
USB host/device connectivity with optional LAN, VGA, and GPIB interfaces
Full upgradability for bandwidth, memory, MSO capability, and WaveGen expansion

Typical Applications
Digital and mixed-signal circuit debugging and validation
Serial bus protocol measurement and decode (CAN, LIN, SPI, I2C)
Logic state analysis with timing correlation to analog signals
Frequency domain analysis via FFT
Arbitrary waveform generation for signal stimulus

Compatibility & Integration
The MSOX3054A supports USB connectivity for external memory and peripherals. Optional LAN and GPIB interfaces enable remote control and data transfer. The InfiniiVision 3000 X-Series platform enables future feature expansion to protect measurement investment.

MSOX3054A Characteristics / Specifications

PARAMETER	VALUE
Model	MSOX3054A
Analog Bandwidth	500 MHz
Analog Channels	4
Digital Channels	16
Maximum Sample Rate	4 GSa/s
Maximum Memory Depth	4 Mpts
Waveform Update Rate	1000000 waveforms per second
Display Size	8.5 inch WVGA
Vertical Resolution	8 bit
Memory Architecture	MegaZoom IV deep memory
Input Coupling	DC AC ground
Input Impedance Class	1 MOhm and 50 ohm paths class
Hardware Counter	Integrated frequency counter
Segmented Memory	Available
WaveGen Option	Built in 20 MHz function arbitrary generator option
Digital Voltmeter Option	Integrated DVM option path
Serial Trigger Analysis	Optional protocol packages
Form Factor	Benchtop InfiniiVision 3000 X
Series Family	InfiniiVision 3000 X Series
Remote Interfaces	USB standard with LAN GPIB options
MSO Capability	yes
Brand Lineage	Agilent / Keysight
Bandwidth	500 MHz

MSOX3054A Specifications

PARAMETER	VALUE
Agilent Keysight MSOX3054A InfiniiVision Oscilloscope	Overview
Applications	Embedded design debug, mixed-signal analysis, education, and general-purpose analog measurements on the 3000 X-Series platform.
Key Features	500 MHz analog bandwidth
Technical Specifications	Model: MSOX3054A
Notes	From Keysight/Agilent InfiniiVision 3000A X-Series fact sheet model row for MSOX3054A.

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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Model	MSOX3054A
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MSO Capability	yes
Brand Lineage	Agilent / Keysight
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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 ·
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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.