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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight MSOX3054G

Keysight / Agilent MSOX3054G InfiniiVision Oscilloscope 500 MHz 4+16 The Keysight/Agilent MSOX3054G is an InfiniiVision 3000G X-Series oscilloscope with 500 MHz analog bandwidth, 4 analog channels, and 16 digital channels. OEM 3000G X-Series fact sheets rate MegaZoom IV class update performance with 5 GSa/s class maximum sample rate and 4 Mpts memory depth on an 8.5 inch capacitive class display. Embedded mixed-signal debug, education labs, serial decode with options, and general-purpose analog measurements. The Keysight/Agilent MSOX3054G is an InfiniiVision 3000G X-Series oscilloscope with 500 MHz analog bandwidth, 4 analog channels, and 16 digital channels. OEM 3000G X-Series fact sheets rate MegaZoom IV class update performance with 5 GSa/s class maximum sample rate and 4 Mpts memory depth on an 8.5 inch capacitive class display. Embedded mixed-signal debug, education labs, serial decode with options, and general-purpose analog measurements. MegaZoom IV ultra-responsive update class Series Family: InfiniiVision 3000G X-Series



MODEL

**Agilent / Keysight
MSOX3054G**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

MSOX3054G

LISTING

<https://aumictechlabs.com/products/msox3054g-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight MSOX3054G is a 500 MHz mixed-signal oscilloscope that combines an oscilloscope, protocol analyzer, frequency response analyzer, arbitrary waveform generator, voltmeter, and counter into a single instrument. It delivers 5 GSa/s sample rate across 4 analog

and 16 digital channels, with 4 Mpts memory depth per channel (half-channel mode) and waveform update rates to 1,000,000 wvfm/s. The 8.5-inch capacitive touch screen supports touch, front-panel, and mouse control, enabling intuitive access to advanced debugging capabilities for mixed-signal designs. Engineers gain precise correlation between analog and digital signals through comprehensive trigger types including edge, pulse width, pattern, rise/fall time, setup & hold, and USB triggers, plus Zone Touch Trigger for rapid signal isolation. Hardware-based protocol decoding covers I2C, SPI, UART/RS232/RS485, and I2S natively, with optional support for aerospace, automotive, power analysis, and USB 2.0 applications.

Technical Specifications
Bandwidth: 500 MHz
Analog Channels: 4
Digital Channels: 16
Maximum Sample Rate: 5 GSa/s
Memory Depth: 4 Mpts per channel (half-channel mode); 2 Mpts per channel (all channels)
Waveform Update Rate: Up to 1,000,000 wvfm/s
Vertical Resolution: 8 bits
Display: 8.5-inch capacitive touch screen (WVGA)
Dimensions: 381 mm × 204 mm × 142 mm
Weight: 9.3 lbs
Waveform Generator Output: 20 MHz Function/Arbitrary Waveform Generator

Key Features
11 trigger types including edge, pulse width, pattern, OR, rise/fall time, Nth edge burst, runt, setup & hold, video, and USB Zone Touch Trigger for intuitive waveform isolation
Waveform math functions: add, subtract, multiply, FFT, d/dt, integrate, square root
Hardware-based mask limit and measurement limit testing for pass/fail validation
3-digit voltmeter and 8-digit counter/totalizer
integrated Bode plot frequency response analysis
Protocol Support
Standard hardware decoding: I2C, SPI, UART/RS232/RS485, I2S, USB-PD
Optional protocols: MIL-STD 1553, ARINC 429, CAN, CAN FD, LIN, SENT, CXPI, FlexRay, user-definable NRZ/Manchester
Compatibility & Integration
Embedded software includes I2C, SPI, UART/RS232/422/485, and I2S decoding
PathWave BenchVue Oscilloscope Software (BV004B) for control and offline analysis
Optional application bundles: Aerospace/Defense, Automotive, Power Analysis, USB 2.0
Connectivity: USB host, USB device, LAN, VGA
Includes N2843A passive probes (500 MHz, 10:1 attenuation, 1 per analog channel)

MSOX3054G Characteristics / Specifications

PARAMETER	VALUE
Model	MSOX3054G
Series Family	InfiniiVision 3000G X-Series
Instrument Type	Mixed signal oscilloscope
Analog Bandwidth	500 MHz
Analog Channels	4
Digital Channels	16
Maximum Sample Rate	5 GSa/s class
Maximum Memory Depth	4 Mpts
Waveform Update Rate	1000000 waveforms per second class
Display Size	8.5 inch capacitive class
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 class
Segmented Memory	Available
WaveGen Path	Built-in function/arbitrary generator option path
Digital Voltmeter Path	Integrated DVM option path
Serial Trigger Analysis	Optional protocol packages
Chassis Form	Benchtop InfiniiVision
Remote Interfaces	USB standard with LAN GPIB options
Brand Lineage	Keysight / Agilent
Mso Capability	Yes
Bandwidth	500 MHz

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.

performance with 5 GSa/s class maximum sample rate and 4 Mpts memory depth on an 8.5 inch capacitive class display.	
Applications	
Embedded mixed-signal debug, education labs, serial decode with options, and general-purpose analog measurements.	
Key Features	
MegaZoom IV ultra-responsive update class	
Mixed signal digital channel capture	
Optional WaveGen and DVM upgrade path	
Serial protocol option packages	
Bandwidth and MSO upgradability class	
Technical Specifications	
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Model	MSOX3054G
Series Family	InfiniiVision 3000G X-Series
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Serial Trigger Analysis	Optional protocol packages
Chassis Form	Benchtop InfiniiVision

PARAMETER	VALUE
Remote Interfaces	USB standard with LAN GPIB options
Brand Lineage	Keysight / Agilent
Mso Capability	Yes

Notes
From Keysight/Agilent InfiniiVision 3000G X-Series fact sheet model row for MSOX3054G. Exact memory split by channel mode follows the published family table.

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.