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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight MSOX4052A

Keysight / Agilent MSOX4052A Mixed Signal Oscilloscope 500 MHz 2+16 The Keysight/Agilent InfiniiVision MSOX4052A is a 4000 X-Series oscilloscope with 500 MHz analog bandwidth and 2 analog channels plus 16 digital channels. OEM data sheet 5991-1103 lists 5 GSa/s half-channel / 2.5 GSa/s all-channel sample rate, 4 Mpts half / 2 Mpts all memory, and a 12.1-inch capacitive touch display with InfiniiScan Zone trigger. Embedded mixed-signal debug, serial protocol analysis, and touch-zone triggered design validation on the 4000 X-Series platform. The Keysight/Agilent InfiniiVision MSOX4052A is a 4000 X-Series oscilloscope with 500 MHz analog bandwidth and 2 analog channels plus 16 digital channels. OEM data sheet 5991-1103 lists 5 GSa/s half-channel / 2.5 GSa/s all-channel sample rate, 4 Mpts half / 2 Mpts all memory, and a 12.1-inch capacitive touch display with InfiniiScan Zone trigger. Embedded mixed-signal debug, serial protocol analysis, and touch-zone triggered design validation on the 4000 X-Series platform. Greater than one million waveforms per second update rate



MODEL

**Agilent / Keysight
MSOX4052A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

MSOX4052A

LISTING

<https://aumictechlabs.com/products/msox4052a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight MSOX4052A is a 500 MHz mixed-signal oscilloscope that combines 2 analog channels with 16 digital channels in a single instrument. Built around a 12.1-inch capacitive touch screen and hardware-based Zone Touch triggering, it delivers intuitive signal isolation and

analysis comparable to modern tablet interfaces. The instrument achieves a waveform update rate of 1,000,000 waveforms per second using MegaZoom IV smart memory technology, minimizing display latency and capturing transient anomalies. Standard segmented memory supports efficient long-record acquisition with gaps.

Technical Specifications
Bandwidth: 500 MHz
Analog Channels: 2 Digital Channels: 16 Maximum Sample Rate: 5 GSa/s (half channel interleaved); 2.5 GSa/s (all channels) Maximum Memory Depth: 4 Mpts (half channel); 2 Mpts (all channels) Waveform Update Rate: 1,000,000 waveforms/second Rise Time: 700 ps Display: 12.1-inch capacitive touch screen MegaZoom IV Smart Memory: Standard Segmented Memory: Standard

Key Features
Hardware-based Zone Touch triggering for rapid signal isolation 7-in-1 instrument platform: oscilloscope, logic analyzer, 5-digit frequency counter, 3-digit DVM, and optional dual-channel 20 MHz arbitrary waveform generator, serial trigger/analysis, and hardware-accelerated mask testing Minimal display latency via smart memory architecture Upgradable bandwidth, digital channels, and software options Multi-language interface: English, Chinese (simplified and traditional), French, German, Italian, Japanese, Korean, Portuguese, Russian, and Spanish USB connectivity for data export and printing Optional LAN/VGA and GPIB modules for extended connectivity

Typical Applications
Mixed-signal debugging and protocol analysis Logic verification with synchronized analog/digital capture Long-duration acquisition with segmented memory Mask-based compliance and production testing Educational and laboratory signal integrity work

Compatibility & Integration
Includes one N2894A 700 MHz passive probe (10:1 attenuation). Full accessory upgrade path supports arbitrary waveform generation, serial protocol triggers, and remote instrument control via USB, LAN, and GPIB interfaces. Standard 3-year warranty; 2-year calibration interval.

MSOX4052A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Mixed Signal Oscilloscope
Series Family	InfiniiVision 4000 X-Series
Model	MSOX4052A
Analog Bandwidth	500 MHz (minus 3 dB)
All Channel Real Time Bandwidth	500 MHz
Calculated Rise Time 10 To	700 ps or less
Analog Channels	2
Digital Channels	16
Maximum Sample Rate Half Channel	5 GSa/s
Maximum Sample Rate All Channels	2.5 GSa/s
Maximum Memory Depth Half Channel	4 Mpts
Maximum Memory Depth All Channels	2 Mpts
Digital Channel Sample Rate	1.25 GSa/s
Waveform Update Rate	greater than 1 million waveforms per second
Display	12.1 inch high definition capacitive touch
Vertical Resolution	8 bits (12 bits with averaging)
Input Impedance	1 MOhm +/-1 percent (16 pF); 50 ohm +/-1.5 percent
Hardware Bandwidth Limit	approximately 20 MHz selectable
Dc Vertical Gain Accuracy	+/-2.0 percent full scale after 30 min warm-up
Time Base Range	500 ps/div to 50 s/div
Time Base Accuracy	+/-10 ppm warranted
Peak Detect Glitch Width	200 ps at all time base settings
Digital Min Detectable Pulse Width	2 ns
Digital Channel To Channel Skew Typical	2 ns
Digital Channel To Channel Skew Maximum	3 ns

PARAMETER	VALUE
Connectivity Standard	USB 2.0 host x3 device x1, LAN, VGA out
Interfaces Optional	GPIB option
Dimensions WxhxD	454 mm x 275 mm x 156 mm
Weight Net	6.3 kg (13.9 lb)
Chassis Form	benchtop oscilloscope
Bandwidth	500 MHz (minus 3 dB)
Rise Time	10 To 90: 700 ps or less

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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Dimensions WxHxD	454 mm x 275 mm x 156 mm
Weight Net	6.3 kg (13.9 lb)
Chassis Form	benchtop oscilloscope

Notes

Numeric rows from Keysight InfiniiVision 4000 X-Series oscilloscope data sheet 5991-1103 model columns for MSOX4052A.

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>

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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.