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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight MSOX4024A

Agilent Keysight MSOX4024A Mixed Signal Oscilloscope 200 MHz 4+16 ch The Keysight InfiniiVision MSOX4024A is a 4000 X-Series oscilloscope with 200 MHz analog bandwidth and 4 analog channels plus 16 digital channels. OEM 4000 X-Series 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, all channel real time bandwidth 200 MHz, and a 12.1 inch capacitive touch display. Embedded mixed signal debug, serial protocol analysis, and touch zone triggered design validation on the 4000 X-Series platform. The Keysight InfiniiVision MSOX4024A is a 4000 X-Series oscilloscope with 200 MHz analog bandwidth and 4 analog channels plus 16 digital channels. OEM 4000 X-Series 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, all channel real time bandwidth 200 MHz, and a 12.1 inch capacitive touch display. Embedded mixed signal debug, serial protocol analysis, and touch zone triggered design validation on the 4000 X-Series platform. Greater than 1 million waveforms per second update rate

**MODEL****Agilent / Keysight
MSOX4024A****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****MSOX4024A****LISTING**<https://aumictechlabs.com/products/msox4024a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight MSOX4024A is a 200 MHz mixed-signal oscilloscope combining 4 analog and 16 digital channels in a single instrument. It delivers a maximum sample rate of 5 GSa/s with 4 Mpt

memory depth and achieves a waveform update rate of 1,000,000 waveforms per second for rapid signal characterization. The 12.1-inch capacitive touch screen provides intuitive signal navigation, while Zone Touch triggering enables fast isolation of events of interest. Rise time of 1.75 ns supports measurement of fast transients.

Technical Specifications
Bandwidth: 200 MHz
Analog channels: 4
Digital channels: 16
Maximum sample rate: 5 GSa/s
Memory depth: 4 Mpts (4096 kBytes)
Waveform update rate: 1,000,000 wfms/s
Rise time: 1.75 ns
Display: 12.1-inch capacitive touch screen

Key Features
Zone Touch triggering for signal isolation
Integrated 3-digit digital voltmeter (optional)
5-digit frequency counter; 8-digit with external reference
Dual-channel 20 MHz arbitrary waveform generator (optional)
Integrated logic analyzer with upgrade capability
Protocol analyzer support via optional software
BenchLink Waveform Builder Basic compatibility

Typical Applications
The MSOX4024A suits digital and mixed-signal validation, embedded systems debugging, serial protocol analysis, and real-time signal capture where simultaneous analog and digital observation is required.

Compatibility & Integration
Each oscilloscope includes four N2894A 700 MHz passive probes (10:1 attenuation), one N2756-60001 16-digital-channel MSO cable, localized power cord, front panel cover, and documentation CD. The instrument supports upgrades to bandwidth, arbitrary waveform generation, digital voltmeter, serial triggering and analysis, and mask testing. The MSOX4024G represents the current replacement product.

MSOX4024A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Mixed Signal Oscilloscope
Series Family	InfiniiVision 4000 X-Series
Model	MSOX4024A
Analog Bandwidth	200 MHz (minus 3 dB)
All Channel Real Time Bandwidth	200 MHz
Calculated Rise Time 10 to	1.75 ns or less
Analog Channels	4
Digital Channels	16
Maximum Sample Rate Half Channel	5 GSa/s
Maximum Sample Rate All Channels	2.5 GSa/s
Equivalent Sample Rate	N/A
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 plus or minus 1 percent (16 pF); 50 ohm plus or minus 1.5 percent
Input Sensitivity Range	1 mV/div to 5 V/div (1 MOhm and 50 ohm) for 200 to 500 MHz models
Hardware Bandwidth Limit	approximately 20 MHz selectable
DC Vertical Gain Accuracy	plus or minus 2.0 percent full scale (warranted after 30 min warm up)
DC Vertical Offset Accuracy	plus or minus 0.1 div plus or minus 2 mV plus or minus 1 percent of offset setting
Offset Range	plus or minus 5 V (less than 10 mV/div); plus or minus 20 V (10 to 200 mV/div); plus or minus 75 V (greater than 200 mV/div)
Maximum Input Voltage 1 MOhm	135 Vrms

PARAMETER	VALUE
Maximum Input Voltage 50 Ohm	5 Vrms or less
Channel To Channel Isolation	40 dB or greater from DC to maximum specified bandwidth (200 MHz to 1 GHz models)
Time Base Range	2 ns/div to 50 s/div
Time Base Accuracy	plus or minus 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
WaveGen Option	optional dual channel 20 MHz function/AWG (DSOX4WAVEGEN2)
Connectivity Standard	USB 2.0 host x3 device x1, LAN, VGA out
Dimensions WxHxD	454 mm x 275 mm x 156 mm
Weight Net	6.3 kg (13.9 lb)
Weight Shipping	11.4 kg (25 lb)
Form Factor	benchtop oscilloscope
Bandwidth	200 MHz (minus 3 dB)
Rise Time	10 to 90: 1.75 ns 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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Series Family	InfiniiVision 4000 X-Series
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All Channel Real Time Bandwidth	200 MHz
Calculated Rise Time 10 to 90	1.75 ns or less
Analog Channels	4
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Maximum Sample Rate Half Channel	5 GSa/s
Maximum Sample Rate All Channels	2.5 GSa/s
Equivalent Sample Rate	N/A
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
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Input Impedance	1 MOhm plus or minus 1 percent (16 pF); 50 ohm plus or minus 1.5 percent
Input Sensitivity Range	1 mV/div to 5 V/div (1 MOhm and 50 ohm) for 200 to 500 MHz models
Hardware Bandwidth Limit	approximately 20 MHz selectable
DC Vertical Gain Accuracy	plus or minus 2.0 percent full scale (warranted after 30 min warm up)
DC Vertical Offset Accuracy	plus or minus 0.1 div plus or minus 2 mV plus or minus 1 percent of offset setting
Offset Range	plus or minus 5 V (less than 10 mV/div); plus or minus 20 V (10 to 200 mV/div); plus or minus 75 V (greater than 200 mV/div)
Maximum Input Voltage 1 MOhm	135 Vrms

PARAMETER	VALUE
Maximum Input Voltage 50 Ohm	5 Vrms or less
Channel To Channel Isolation	40 dB or greater from DC to maximum specified bandwidth (200 MHz to 1 GHz models)
Time Base Range	2 ns/div to 50 s/div
Time Base Accuracy	plus or minus 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
WaveGen Option	optional dual channel 20 MHz function/AWG (DSOX4WAVEGEN2)
Connectivity Standard	USB 2.0 host x3 device x1, LAN, VGA out

Optional Interfaces: GPIB option

Specifications

PARAMETER	VALUE
Dimensions WxHxD	454 mm x 275 mm x 156 mm
Weight Net	6.3 kg (13.9 lb)
Weight Shipping	11.4 kg (25 lb)
Form Factor	benchtop oscilloscope

Notes
Numeric rows from Keysight InfiniiVision 4000 X-Series oscilloscope data sheet 5991-1103 model columns for MSOX4024A. 1.5 GHz real time bandwidth is half channel or full channel equivalent time on 4154 models.

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