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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight MSOX4022A

Keysight / Agilent MSOX4022A Mixed Signal Oscilloscope 200 MHz 2+16 The Keysight/Agilent InfiniiVision MSOX4022A is a 4000 X-Series oscilloscope with 200 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 MSOX4022A is a 4000 X-Series oscilloscope with 200 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
MSOX4022A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

MSOX4022A

LISTING

<https://aumictechlabs.com/products/msox4022a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight MSOX4022A is a 200 MHz mixed-signal oscilloscope built for embedded systems debugging and signal analysis across analog and digital domains simultaneously. It combines 2 analog channels with 16 digital channels, delivering up to 1,000,000 waveforms/sec capture rates

and 5 GSa/s sample speed to expose transient faults and timing anomalies. The 12.1-inch capacitive touch screen and MegaZoom IV smart memory technology streamline complex measurements, while segmented memory captures specific events without dead time. Advanced triggering, including Zone Touch capability, isolates problem signals rapidly. The instrument is fully modular - bandwidth, dual-channel 20 MHz arbitrary waveform generation, 3-digit DVM, serial trigger/analysis, and mask testing are all available as upgrades, protecting your capital investment and scaling with project demands.

Technical Specifications
Bandwidth: 200 MHz (upgradeable)
Analog channels: 2
Digital channels: 16
Sample rate: Up to 5 GSa/s (2.5 GSa/s with all channels active)
Memory depth: 4 Mpts per channel (interleaved); 2 Mpts per channel (all channels active)
Waveform update rate: Up to 1,000,000 waveforms/sec
Display: 12.1-inch capacitive touch screen

Key Features
MegaZoom IV smart memory technology for high-speed waveform capture and visibility
Segmented memory captures event-based data without acquisition gaps
Advanced triggering with Zone Touch capability
Included 700 MHz passive probes (10:1 attenuation, one per analog channel)
Included 16-digital-channel MSO cable
Optional dual-channel 20 MHz arbitrary waveform generator (DSOX4WAVEGEN2)
Optional serial trigger and analysis
Optional mask testing for pass/fail validation
Optional 3-digit digital voltmeter
3-year warranty; 2-year calibration interval

Typical Applications
Embedded system debug and validation
Mixed-signal protocol analysis
Power integrity and signal integrity measurements
FPGA and microcontroller development
Digital state machine troubleshooting

Compatibility & Integration
Accepts standard passive probes and the included MSO cable for 16-channel digital acquisition. Optional serial trigger and analysis upgrades enable protocol-specific debugging on CAN, SPI, I2C, and other buses.

MSOX4022A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Mixed Signal Oscilloscope
Series Family	InfiniiVision 4000 X-Series
Model	MSOX4022A
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	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	2 ns/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	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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Connectivity Standard	USB 2.0 host x3 device x1, LAN, VGA out

PARAMETER	VALUE
Interfaces Optional	GPIO option
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 MSOX4022A.

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.