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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight MSOX4034A

Agilent Keysight MSOX4034A Mixed Signal Oscilloscope 350 MHz 4+16 ch The Keysight InfiniiVision MSOX4034A is a 4000 X-Series oscilloscope with 350 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 350 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 MSOX4034A is a 4000 X-Series oscilloscope with 350 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 350 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
MSOX4034A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

MSOX4034A

LISTING

<https://aumictechlabs.com/products/msox4034a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight MSOX4034A is a 350 MHz mixed-signal oscilloscope that combines a 4-channel analog front end with 16 integrated digital channels for comprehensive signal analysis.

Built around a 12.1-inch capacitive touch display, the instrument delivers up to 5 GSa/s sampling (on half channels) and 4 Mpts of memory to capture transient events with precision. This benchtop platform integrates oscilloscope, logic analyzer, and protocol analyzer functionality in a single 6.3 kg unit.

Technical Specifications
Bandwidth: 350 MHz
Analog Channels: 4
Digital Channels: 16
Maximum Sample Rate: 5 GSa/s (half channels); 2.5 GSa/s (all channels)
Memory Depth: 4 Mpts (upgradable from 2 Mpts)
Waveform Update Rate: 1,000,000 waveforms/s
Vertical Resolution: 8 bits
Minimum Vertical Sensitivity: 1 mV/div
Time Base Range: 2 ns/div to 50 s/div
Rise Time: ≤ 1 ns
Input Impedance: 1 M Ω (analog); 100 k Ω (digital)
Input Capacitance: 8 pF
Display: 12.1-inch TFT LCD capacitive touch screen
Safety Rating: CAT I 300V
Weight: 6.3 kg
Power: Mains

Key Features
Zone Touch Triggering for drawing region-of-interest boxes on screen with simultaneous dual-zone triggering (must intersect/must not intersect logic)
Advanced trigger types: edge, pulse width, video, pattern, runt pulse, rise/fall time, Nth edge burst, and edge-then-edge
Serial protocol triggering and decode: I²C, SPI, CAN, CAN-dbc, LIN, FlexRay, RS232/UART, USB 2.0 (Full/Low/Hi-Speed), USB signal quality, MIL-STD 1553, ARINC 429, I²S, and CAN FD

Typical Applications
Mixed-signal debugging and validation in embedded systems, automotive electronics, consumer devices, and aerospace applications requiring simultaneous analog and digital measurement.

Compatibility & Integration
Native support for I²C, SPI, CAN, LIN, RS232, UART, and USB interfaces with optional protocol decode modules for automotive, aerospace, computer, audio, and embedded serial standards.

MSOX4034A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Mixed Signal Oscilloscope
Series Family	InfiniiVision 4000 X-Series
Model	MSOX4034A
Analog Bandwidth	350 MHz (minus 3 dB)
All Channel Real Time Bandwidth	350 MHz
Calculated Rise Time 10 to	1 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	1 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	350 MHz (minus 3 dB)
Rise Time	10 to 90: 1 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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Instrument Type	Mixed Signal Oscilloscope
Series Family	InfiniiVision 4000 X-Series
Model	MSOX4034A
Analog Bandwidth	350 MHz (minus 3 dB)
All Channel Real Time Bandwidth	350 MHz
Calculated Rise Time 10 to 90	1 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
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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	1 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 MSOX4034A. 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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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.