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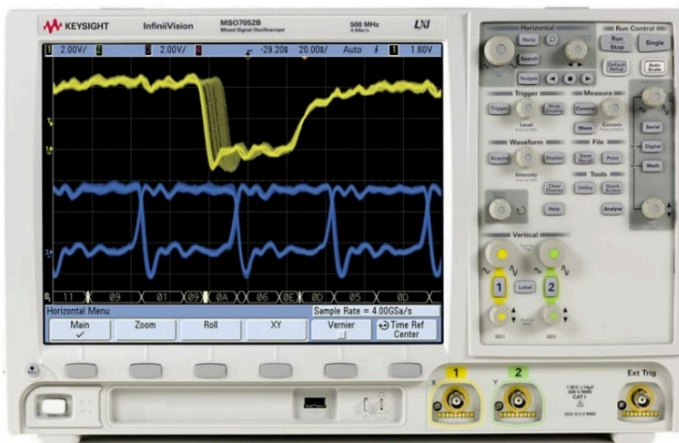
Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent / Keysight MSO7054B 500MHz Oscilloscope, 4 Ch

Keysight / Agilent MSO7054B InfiniiVision 7000B Mixed Signal Oscilloscope The Agilent MSO7054B is a 500 MHz InfiniiVision 7000B mixed-signal oscilloscope with 4 analog channels and 16 digital channels. Maximum sample rate is 4 GSa/s in half-channel mode and 2 GSa/s on each channel. Standard memory is 8 Mpts. Digital pods sample at 2 GSa/s on one pod or 1 GSa/s on each pod with 250 MHz maximum digital input frequency. Peak detect is 250 ps. Update rates reach 100000 waveforms per second. High-resolution mode provides up to 12 bits when timebase conditions are met. The instrument uses a 12.1 inch display and weighs about 13 lb inachassis about 6.5 inches deep. The Agilent MSO7054B is a 500 MHz InfiniiVision 7000B mixed-signal oscilloscope with 4 analog channels and 16 digital channels. Maximum sample rate is 4 GSa/s in half-channel mode and 2 GSa/s on each channel. Standard memory is 8 Mpts. Digital pods sample at 2 GSa/s on one pod or 1 GSa/s on each pod with 250 MHz maximum digital input frequency. Peak detect is 250 ps. Update rates reach 100000 waveforms per second. High-resolution mode provides up to 12 bits when timebase conditions are met. The instrument uses a 12.1 inch display and weighs about 13 lb inachassis about 6.5 inches deep. Embedded mixed-signal debug, serial bus decode, analog and digital timing analysis, and general purpose 500 MHz scope measurements.



MODEL

**Agilent / Keysight
MSO7054B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

MSO7054B

LISTING

<https://aumictechlabs.com/products/mso7054b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight MSO7054B is a mixed-signal oscilloscope delivering 500 MHz bandwidth across 4 analog channels plus 16 high-speed digital channels for comprehensive embedded systems debugging and complex circuit analysis. The instrument captures up to 100,000 waveforms per second with 8 Mpts standard memory and 4 GSa/s sample rate, enabling detailed observation of long-duration and infrequent events. A 12.1-inch XGA display with 256 intensity levels ensures clear signal visibility across mixed-signal measurements.

Technical Specifications

Analog Channels: Bandwidth: 500 MHz Channels: 4 Sample Rate: 4 GSa/s Rise Time: 700 ps Minimum Glitch Capture: 250 ps

Digital Channels: Channels: 16 Sample Rate: Up to 2 GSa/s (deep memory) Bus Width: Up to 16 bits (hex or binary display)

Memory & Capture: Memory Depth: 8 Mpts standard (MegaZoom III deep memory) Waveform Capture Rate: 100,000 waveforms/second

Vertical Resolution: Up to 12 bits (high-resolution mode)

Display: Screen: 12.1-inch XGA Intensity Levels: 256

Key Features

Triggering: Mixed-signal triggering across analog and digital signals simultaneously

Standard serial triggers: I2C, SPI, USB

Optional triggers: CAN/LIN, RS-232/UART, FlexRay, I2S, MIL-STD-1553

Mask Limit Testing application support

Analysis & Decode: Serial decode: I2C, SPI, USB (standard); CAN/LIN, RS-232/UART, FlexRay, I2S, MIL-STD-1553 (optional)

Segmented memory application for long dead-time capture

Vector Signal Analysis (VSA) compatibility with 89601A software

FPGA debug software available

Connectivity: USB and LAN ports

LXI Class C compliant

Web viewer for remote measurements and control

AutoProbe interface with automatic attenuation and probe power

10 MHz reference in/out port

Typical Applications

Embedded systems validation, digital protocol debugging, FPGA development, multi-domain signal correlation, and long-duration event capture in mixed-signal designs.

Compatibility & Integration

Remote control and monitoring via LXI Class C-compliant LAN interface. AutoProbe support enables active probe configuration automation. Compatible with Keysight 89601A VSA software for advanced spectrum and digital modulation analysis.

MSO7054B Characteristics / Specifications

PARAMETER	VALUE
Model	MSO7054B
Instrument Type	mixed signal oscilloscope
Analog Bandwidth	500 MHz
Analog Channels	4
Digital Channels	16
Sample Rate Half Channel	4 GSa/s
Sample Rate Each Channel	2 GSa/s
Memory Depth Standard	8 Mpts
Vertical Resolution	8 bits
High Resolution Mode	up to 12 bits when timebase at or slower than 10 us/div at 4 GSa/s or 20 us/div at 2 GSa/s
Peak Detect	250 ps
Equivalent Time Sample Rate	400 GSa/s when real-time mode off
Digital Sample Rate One Pod	2 GSa/s
Digital Sample Rate Each Pod	1 GSa/s
Digital Max Input Frequency	250 MHz
Digital Glitch Detect	2 ns minimum pulse width
Waveform Update Rate	up to 100000 waveforms per second
Display Size	12.1 inch
Depth Class	about 6.5 inches
Weight Class	about 13 lb
Ac Coupled Bandwidth Lower	3.5 Hz
Calculated Rise Time Class	0.35/bandwidth
Automatic Measurements	23 with statistics
Hardware Counter	5 digit (8 digits with external 10 MHz reference)
Bandwidth	500 MHz

PARAMETER	VALUE
Rise Time	Class: 0.35/bandwidth

MSO7054B Specifications

PARAMETER	VALUE
Applications	Embedded mixed-signal debug, serial bus decode, analog and digital timing analysis, and general purpose 500 MHz scope measurements.
Eight megapoint MegaZoom III memory	Up to 100000 waveforms per second update rate
Technical Specifications	Model: MSO7054B
Notes	From Keysight InfiniiVision 7000B Series datasheet tables for MSO7054B. Probe and serial decode option sets vary by installed licenses.

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	
Specifications	
PARAMETER	VALUE
Model	MS07054B
Instrument Type	mixed signal oscilloscope
Analog Bandwidth	500 MHz
Analog Channels	4
Digital Channels	16
Sample Rate Half Channel	4 GSa/s
Sample Rate Each Channel	2 GSa/s
Memory Depth Standard	8 Mpts
Vertical Resolution	8 bits
High Resolution Mode	up to 12 bits when timebase at or slower than 10 us/div at 4 GSa/s or 20 us/div at 2 GSa/s
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Notes	
From Keysight InfiniiVision 7000B Series datasheet tables for MS07054B. Probe and serial decode option sets	

vary by installed licenses.

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>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 15, 2026

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