Aumictech
Test & measurement · bought, sold, repaired, calibrated

Data Sheet
August 13, 2026

RIGOL

Rigol MSO1074Z 70 MHZ Oscilloscope (4 Channel)

Rigol MSO1074Z 70 MHz Four Channel Mixed Signal Oscilloscope The MSO1074Z is the 70 MHz mixed signal oscilloscope in the MSO/DS1000Z family with 4 analog channels and 16 digital channels withoutabuilt-in generator (use MSO1074Z-S for the dual 25 MHz source). Analog sample rate is 1 GSa/s (1 ch), 500 MSa/s (2 ch), or 250 MSa/s (3/4 ch). Digital sample rate is 1 GSa/s (8 ch) or 500 MSa/s (16 ch). Standard analog memory is 12 / 6 / 3 Mpts, optional 24 / 12 / 6 Mpts. Calculated rise time is 5 ns. Waveform capture rate is up to 30 000 wfms/s. Standard probes are four PVP2150 plus RPL1116. 7 inch 800 × 480 WVGA. The MSO1074Z is the 70 MHz mixed signal oscilloscope in the MSO/DS1000Z family with 4 analog channels and 16 digital channels withoutabuilt-in generator (use MSO1074Z-S for the dual 25 MHz source). Analog sample rate is 1 GSa/s (1 ch), 500 MSa/s (2 ch), or 250 MSa/s (3/4 ch). Digital sample rate is 1 GSa/s (8 ch) or 500 MSa/s (16 ch). Standard analog memory is 12 / 6 / 3 Mpts, optional 24 / 12 / 6 Mpts. Calculated rise time is 5 ns. Waveform capture rate is up to 30 000 wfms/s. Standard probes are four PVP2150 plus RPL1116. 7 inch 800 × 480 WVGA. Four channel analog plus 16 digital embedded debug at 70 MHz

MODEL **Rigol MSO1074Z**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **MSO1074Z**	LISTING **https://aumictechlabs.com/products/mso1074z-2/**

NIST-traceable cal · SAM registered · 30-day returns · NAICS 423690 · 811210 · 541380

This unit

The Rigol MSO1074Z is a 4-channel mixed-signal oscilloscope delivering 70 MHz bandwidth with real-time sample rates up to 1 GSa/s in single-channel mode. Built for simultaneous analog and digital signal capture, it combines 4 analog channels with 16 digital channels for comprehensive mixed-signal analysis. The 7-inch WVGA color display (800×480 pixels) renders waveforms with multi-level intensity grading, while UltraVision technology boosts waveform capture rates to 30,000 wfms/s and supports memory depths up to 24 Mpts (optional).Standard memory is 12 Mpts.Technical Specifications Bandwidth: 70 MHz Analog Channels: 4 Digital Channels: 16 Maximum Sample Rates: 1 GSa/s (single-channel), 500 MSa/s (dual-channel), 250 MSa/s (full-channel) Memory Depth: 12 Mpts standard; 24 Mpts optional Waveform Capture Rate: Up to 30,000 wfms/s Display: 7-inch WVGA TFT LCD (800×480 pixels) with intensity-level control Input Coupling: AC, DC, GND Probe Attenuation: 0.01X to 1000X in 1-2-5 steps Maximum Input Voltage (Analog): CAT I 300 Vrms, CAT II 100 Vrms, 1000 Vpk transient; CAT II 300 Vrms with RP2200 10:1 probeKey Features Automatic measurements including voltage parameters (Vpp, Vamp, Vrms, etc.) and timing measurements (rise/fall time, frequency, period, duty cycle) 16 horizontal and 17 vertical measurement parameters with statistics Trigger functions with optional advanced triggering and serial bus triggering/decoding (RS232/UART, I2C, SPI) Optional real-time waveform recording and replay up to 60,000 frames Included logic probe for digital channel analysis Supplied with 4× PVP2150 150 MHz passive probes; RP2200 150 MHz probes available separatelyConnectivity & Integration USB Host and Device LAN (LXI compliant) GPIB via optional USB-GPIB adapter AUX port

MSO1074Z Characteristics / Specifications

PARAMETER	VALUE
Model	MSO1074Z
Manufacturer	Rigol
Instrument Type	Mixed signal oscilloscope
Alias	MSO1074Z; RIGOL MSO1074Z
Analog Bandwidth	70 MHz
Single Shot Bandwidth	70 MHz
Analog Channels	4
Digital Channels	16
Built In Source	none
Analog Sample Rate 1 ch	1 GSa/s
Analog Sample Rate 2 ch	500 MSa/s
Analog Sample Rate 3 or 4 ch	250 MSa/s
Digital Sample Rate 8 ch	1 GSa/s
Digital Sample Rate 16 ch	500 MSa/s
Analog Memory Standard 1 ch	12 Mpts
Analog Memory Optional 1 ch	24 Mpts
Digital Memory Standard 8 ch	12 Mpts
Digital Memory Standard 16 ch	6 Mpts
Waveform Capture Rate	30 000 wfms/s
Record Frames Optional	up to 60 000
Timebase Scale	5 ns/div to 50 s/div
Timebase Accuracy	less than or equal to plus/minus 25 ppm
Clock Drift	less than or equal to plus/minus 5 ppm per year
Calculated Rise Time	5 ns
Vertical Scale	1 mV/div to 10 V/div

PARAMETER	VALUE
DC Gain Accuracy 10 mV and above	plus/minus 3 percent full scale
Analog Resolution	8 bit
Digital Resolution	1 bit
Analog Input Impedance	(1 MOhm plus/minus 1 percent) parallel (15 pF plus/minus 3 pF)
Digital Input Impedance	(100 kOhm plus/minus 1 percent) parallel (8 pF plus/minus 3 pF)
Digital Threshold Range	plus/minus 15.0 V, 10 mV step
Digital Min Pulse	10 ns
Analog Max Input	CAT I 300 Vrms, CAT II 100 Vrms, 1000 Vpk transient
Digital Max Input	CAT I 40 Vrms, 800 Vpk transient
Bandwidth Limit	20 MHz
Peak Detect Analog	4 ns
Display	7.0 inch TFT, 800 × 480, 16 million colors
Standard Analog Probes	4 x PVP2150 150 MHz
Standard Logic Probe	RPL1116
Power	100 V to 240 V, 45 Hz to 440 Hz, max 50 W
Dimensions	313.1 mm x 160.8 mm x 122.4 mm
Weight	3.2 kg plus/minus 0.2 kg without package
Operating Temperature	0 C to +50 C
Sibling With Source	MSO1074Z-S
Sibling 100 MHz	MSO1104Z Notes Specs from Rigol MSO/DS1000Z datasheet. MSO1074Z is 70 MHz without AWG. Confirm memory option 24 Mpts and serial decode licenses.
Bandwidth	70 MHz
Rise Time	is 5 ns. Waveform capture rate is up to 30 000 wfms/s. Standard probes are four PVP2150 plus RPL1116. 7 inch 800 × 480 WVGA.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to +50 C
Operating Temperature	0 C to +50 C
Sibling With Source	MSO1074Z-S
Sibling 100 MHz	MSO1104Z Notes Specs from Rigol MSO/DS1000Z datasheet. MSO1074Z is 70 MHz without AWG. Confirm memory option 24 Mpts and serial decode 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	MSO1074Z
Manufacturer	Rigol
Instrument Type	Mixed signal oscilloscope
Alias	MSO1074Z; RIGOL MSO1074Z
Analog Bandwidth	70 MHz
Single Shot Bandwidth	70 MHz
Analog Channels	4
Digital Channels	16
Built In Source	none
Analog Sample Rate 1 ch	1 GSa/s
Analog Sample Rate 2 ch	500 MSa/s
Analog Sample Rate 3 or 4 ch	250 MSa/s
Digital Sample Rate 8 ch	1 GSa/s
Digital Sample Rate 16 ch	500 MSa/s
Analog Memory Standard 1 ch	12 Mpts
Analog Memory Optional 1 ch	24 Mpts
Digital Memory Standard 8 ch	12 Mpts
Digital Memory Standard 16 ch	6 Mpts
Waveform Capture Rate	30 000 wfms/s
Record Frames Optional	up to 60 000
Timebase Scale	5 ns/div to 50 s/div
Timebase Accuracy	less than or equal to plus/minus 25 ppm
Clock Drift	less than or equal to plus/minus 5 ppm per year
Calculated Rise Time	5 ns
Vertical Scale	1 mV/div to 10 V/div
DC Gain Accuracy 10 mV and above	plus/minus 3 percent full scale

PARAMETER	VALUE
Analog Resolution	8 bit
Digital Resolution	1 bit
Analog Input Impedance	(1 MOhm plus/minus 1 percent) parallel (15 pF plus/minus 3 pF)
Digital Input Impedance	(100 kOhm plus/minus 1 percent) parallel (8 pF plus/minus 3 pF)
Digital Threshold Range	plus/minus 15.0 V, 10 mV step
Digital Min Pulse	10 ns
Analog Max Input	CAT I 300 Vrms, CAT II 100 Vrms, 1000 Vpk transient
Digital Max Input	CAT I 40 Vrms, 800 Vpk transient
Bandwidth Limit	20 MHz
Peak Detect Analog	4 ns
Display	7.0 inch TFT, 800 x 480, 16 million colors
Standard Analog Probes	4 x PVP2150 150 MHz
Standard Logic Probe	RPL1116
Power	100 V to 240 V, 45 Hz to 440 Hz, max 50 W
Dimensions	313.1 mm x 160.8 mm x 122.4 mm
Weight	3.2 kg plus/minus 0.2 kg without package
Operating Temperature	0 C to +50 C
Sibling With Source	MSO1074Z-S
Sibling 100 MHz	MSO1104Z

Notes
Specs from Rigol MSO/DS1000Z datasheet. MSO1074Z is 70 MHz without AWG. Confirm memory option 24 Mpts and serial decode 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 13, 2026