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Data Sheet

August 13, 2026

YOKOGAWA

Yokogawa DLM5054 500MHz Mixed Signal Oscilloscope

Yokogawa DLM5054 500 MHz 4-Channel Mixed Signal Oscilloscope The Yokogawa DLM5054 is the 500 MHz, 4-analog-channel mixed-signal oscilloscope in the DLM5000 family. It combines 2.5 GS/s real-time sampling, standard 16-bit logic (optional 32-bit /L32), up to 500 M-point records (/M2S), and a 12.1-inch capacitive-touch XGA display for embedded, power-electronics, and automotive debug. Four-channel analog plus 16- or 32-bit logic embedded validation; power-electronics switching and timing at 500 MHz; optional UART/I2C/SPI, CAN/CAN FD/LIN, FlexRay, SENT, CXPI, and PSI5 trigger/decode; long-record intermittent-fault capture with history memory; optional /G03 power analysis and DLMsync multi-unit expansion. The Yokogawa DLM5054 is the 500 MHz, 4-analog-channel mixed-signal oscilloscope in the DLM5000 family. It combines 2.5 GS/s real-time sampling, standard 16-bit logic (optional 32-bit /L32), up to 500 M-point records (/M2S), and a 12.1-inch capacitive-touch XGA display for embedded, power-electronics, and automotive debug. Four-channel analog plus 16- or 32-bit logic embedded validation; power-electronics switching and timing at 500 MHz; optional UART/I2C/SPI, CAN/CAN FD/LIN, FlexRay, SENT, CXPI, and PSI5 trigger/decode; long-record intermittent-fault capture with history memory; optional /G03 power analysis and DLMsync multi-unit expansion.



MODEL

**Yokogawa
DLM5054**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

DLM5054

LISTING

<https://aumictechlabs.com/products/dlm5054-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Yokogawa DLM5054 is a 500 MHz mixed-signal oscilloscope that combines 4 analog input channels with configurable 16-bit or 32-bit logic channels for simultaneous acquisition of analog and digital signals. Operating at up to 2.5 GS/s with 125 Mpoints standard record length (expandable to 500 Mpoints), this instrument delivers 8-bit vertical resolution or 12-bit in High Resolution Mode. The 12.1" XGA touchscreen display and 18-second startup time enable rapid deployment in development and production environments. Analog inputs accept 500 $\mu\text{V}/\text{div}$ to 10 V/div at 1 M Ω impedance or 500 $\mu\text{V}/\text{div}$ to 1 V/div at 50 Ω , with AC and DC coupling options. Maximum input ratings reach 300 Vrms (1 M Ω) and 5 Vrms (50 Ω). Sweep range extends from 1 ns/div to 500 s/div, accommodating both high-speed transients and low-frequency phenomena. Trigger functionality includes 13 standard modes Edge, Pulse Width, Pattern, Runt, Rise/Fall Time, and serial pattern detection - plus optional protocol-specific triggers for UART, I2C, SPI, CAN/CAN FD, LIN, FlexRay, SENT, CXPI, and PSI5. Measurement capabilities span 29 standard waveform parameters with simultaneous evaluation of up to 30 parameters, statistical analysis modes, and cycle-by-cycle measurement. Up to 4 FFT analyses run concurrently on computed or acquired waveforms. Serial bus analysis supports simultaneous decoding of 4 buses with auto-detection of bit rate and threshold. Protocol limits include 300,000 bytes for UART, 100,000 frames for CAN/CAN FD and LIN. History memory stores up to 100,000 waveforms for trend analysis. Internal storage options provide 1.7 GB standard or 64 GB expanded capacity. Connectivity includes USB 3.0 and Ethernet (standard), with optional GP-IB support. Power consumption peaks at 180 VA from 100–120 VAC or 220–240 VAC input (50/60 Hz auto-switching).

Features & description

From manufacturer datasheet

Features

- Four analog channels at 500 MHz with dedicated 16-bit logic (not Flex MSO on CH4) • /L32 expands logic to 32 bits; 4-channel memory options use /M1S and /M2S suffixes • 12.1-inch XGA capacitive touch TFT plus conventional scope controls • History memory up to 100000 waveforms with /M2 or /M2S • Optional serial-bus packages (/Fxx), user-defined math (/G02), and power analysis (/G03) • USB 3.0 PC port, 1000BASE-T Ethernet, and optional GP-IB; four probe-power terminals (/P4)

DLM5054 Characteristics / Specifications

PARAMETER	VALUE
Model	DLM5054
Manufacturer	Yokogawa
Instrument Type	Mixed Signal Oscilloscope
Series	DLM5000
Analog Channels	4
Bandwidth	500 MHz (1 MOhm 20 mV/div to 10 V/div; 50 Ohm 2 mV/div to 1 V/div)
Bandwidth At 500 uV	200 MHz (1 MOhm and 50 Ohm)
Max Sample Rate Real Time	2.5 GS/s
Max Sample Rate Interleave Off	1.25 GS/s (all analog channels)
Max Sample Rate Repetitive	250 GS/s
A/D Resolution	8 bit (25 LSB/div); max 12 bit High Resolution mode
Logic Inputs Standard	16 bit
Logic Inputs Optional	32 bit (/L32)
Logic Max Sample Rate	1.25 GS/s
Vertical Sensitivity 1 MOhm	500 uV/div to 10 V/div (1-2-5)
Vertical Sensitivity 50 Ohm	500 uV/div to 1 V/div (1-2-5)
Input Coupling	AC 1 MOhm; DC 1 MOhm; DC 50 Ohm
Input Impedance	1 MOhm +/-1.0% (approx. 16 pF); 50 Ohm +/-1.0%
Max Input Voltage 1 MOhm	300 Vrms or 400 Vpeak
Max Input Voltage 50 Ohm	5 Vrms or 10 Vpeak
Timebase Range	1 ns/div to 500 s/div
Timebase Accuracy	+/-2.5 ppm (shipping/calibration); +/-1.0 ppm/year ageing
Record Length Standard Repeat	12.5 M points
Record Length Standard Single	50 M points (125 M odd-channel)
Record Length Option Max	500 M points (/M2S single, odd-channel)

PARAMETER	VALUE
Bandwidth Limit Filters	FULL plus 200 MHz down to 8 kHz (14 settings per channel)
Display	12.1-inch TFT capacitive touch, 1024 × 768 (XGA)
Ch to Ch Isolation	-34 dB typical
Residual Noise	0.2 mV rms or 0.05 div rms typical (whichever larger)
Math Traces	4 (4-channel model)
Probe Interface Terminals	4 (4-channel model)
History Memory Standard	up to 20000 waveforms
History Memory Option Max	up to 100000 waveforms (/M2 or /M2S)
Mass	approx. 7.3 kg (no options)
Dimensions	426 W x 266 H x 180 D mm (printer cover closed)
Power Supply	100 to 120 / 220 to 240 VAC, 50/60 Hz, max 290 VA
Operating Temperature	5 to 40 degC Alias: DLM5054 Notes Specs from Yokogawa DLM5000 datasheet (DLM5054). This is the 500 MHz 4-channel DLM5000, not DLM5058 (8 ch) or DLM5054HD (12-bit HD). Four-channel memory options are /M1S and /M2S. Confirm installed logic, memory, and serial/power options on the unit.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	5 to 40 degCAlias: DLM5054
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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	
Technical Specifications	
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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.