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Data Sheet

August 13, 2026

YOKOGAWA

Yokogawa DLM3054 500MHz Mixed Signal Oscilloscope

The Yokogawa DLM3054 is a 500 MHz DLM3000 mixed-signal oscilloscope with 4 analog or 3 analog + 8 bit logic for embedded, power electronics, and mechatronics debug. It combines long-memory analog capture at up to 2.5 GS/s with optional logic analysis, serial-bus decode options, and power-analysis packages. Mixed analog and digital embedded system validation; power electronics switching and timing debug; serial bus trigger and decode with optional /Fxx packages; long-record intermittent fault capture; automotive and industrial control troubleshooting. Bandwidth Limit Filters: FULL plus 200 MHz down to 8 kHz (14 settings per channel) Residual Noise: 0.2 mV rms or 0.05 div rms typical History Memory: up to 20,000 waveforms standard (/M2 or /M2S up to 100,000 on DLM5000) Specs from Yokogawa DLM3000 datasheet (DLM3054). Memory lengths depend on /M1, /M2, or /M3 options and channel/interleave mode; confirm installed options on the unit.



MODEL

**Yokogawa
DLM3054**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

DLM3054

LISTING

<https://aumictechlabs.com/products/dlm3054-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Yokogawa DLM3054 is a 500 MHz mixed-signal oscilloscope that captures both analog and digital signals simultaneously. It delivers four analog channels plus an optional 8-bit logic

analyzer, enabling observation of 11 total channels (3 analog + 8 logic). With a maximum sample rate of 2.5 GS/s and record lengths up to 500 Mpts (optional), this instrument excels at resolving complex waveforms in embedded systems, power electronics, and automotive applications. A fully digital trigger engine minimizes timing jitter while supporting 13 trigger modes including edge, pattern, pulse width, runt, and serial bus protocols. The 8.4-inch XGA touch display and dual-zoom processor enable rapid analysis across up to 500 Megapoints, while 30 simultaneous automated measurements and 100,000-waveform history function streamline debug workflows.

Technical Specifications

Analog Channels: 4 channels
Bandwidth: 500 MHz
Sample Rate: Up to 2.5 GS/s
Record Length: 12.5 Mpts (repeating), 125 Mpts (single interleave), or up to 500 Mpts (optional)
Logic Analyzer: Selectable 8-bit input on Channel 4
Display: 8.4-inch TFT color touch panel, 1024 × 768 XGA resolution
Input Coupling: AC, DC, DC50 Ω , GND
Input Impedance: 1 M Ω $\pm$ 1.0% (20 pF), or 50 Ω $\pm$ 1.5% (VSWR 1.4 or less, DC to 500 MHz)
Voltage Sensitivity: 2 mV/div to 5 V/div (1 M Ω), 2 mV/div to 500 mV/div (50 Ω)
DC Accuracy: $\pm$ (1.5% of 8 div + offset voltage accuracy)
Minimum Scale: 500 μ V/div
Measurements: 30 simultaneous automated waveform parameters
FFT Analysis: 2 simultaneous functions with current or averaged waveforms
History Storage: 100,000 captured waveforms

Key Features

Fully digital trigger system with 13 modes: edge, edge OR, pattern, pulse width, rise/fall time, runt, timeout, window, window OR, interval, serial, TV, A delay B, and A to B(n)
Dual-zoom processor for rapid magnification to 500 Megapoints
Adjustable trigger hold-off
Cursor measurements and FFT spectral analysis
Simultaneous mixed-signal observation across analog and digital domains

Typical Applications

Embedded system development and debug
Power electronics analysis
Automotive electronics testing
Digital-analog signal correlation
Protocol-level serial bus analysis

Compatibility & Integration

Digital trigger supports installed serial bus options
TV trigger modes: NTSC, PAL, SDTV, HDTV, user-defined

Features & description

From manufacturer datasheet

Features

- 500 MHz analog bandwidth, 4 channel configuration

DLM3054 Characteristics / Specifications

PARAMETER	VALUE
Model	DLM3054
Manufacturer	Yokogawa
Instrument Type	Mixed Signal Oscilloscope
Series	DLM3000
Analog Channels	4 analog or 3 analog + 8 bit logic
Bandwidth	500 MHz
Max Sample Rate Real Time	2.5 GS/s
Max Sample Rate Interleave Off	1.25 GS/s
Max Sample Rate Repetitive	250 GS/s
A/D Resolution	8 bit (25 LSB/div); max 12 bit High Resolution mode
Logic Inputs	8 bit (switchable on CH4)
Vertical Sensitivity 1 MOhm	500 uV/div to 10 V/div (200 MHz models); scales with bandwidth
Vertical Sensitivity 50 Ohm	500 uV/div to 1 V/div
Input Coupling	AC 1 MOhm; DC 1 MOhm; DC 50 Ohm
Input Impedance	1 MOhm +/-1.0%; 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); +/-1.0 ppm/year ageing
Record Length Standard Repeat	12.5 M
Record Length Standard Single	50 M points
Record Length Option Max	500 M points (/M3)
Bandwidth Limit Filters	FULL plus 200 MHz down to 8 kHz (14 settings per channel)
Display	8.4-inch capacitive touch TFT
Ch to Ch Isolation	-34 dB typical

PARAMETER	VALUE
Residual Noise	0.2 mV rms or 0.05 div rms typical
Logic Max Sample Rate	1.25 GS/s
History Memory	up to 20,000 waveforms standard (/M2 or /M2S up to 100,000 on DLM5000)
Alias	DLM3054 Notes Specs from Yokogawa DLM3000 datasheet (DLM3054). Memory lengths depend on /M1, /M2, or /M3 options and channel/interleave mode; confirm installed options on the unit.
Optional serial buses	UART/I2C/SPI, CAN/CAN FD/LIN, FlexRay, SENT, CXPI, PSI5

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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Model	DLM3054
Manufacturer	Yokogawa
Instrument Type	Mixed Signal Oscilloscope
Specifications	
PARAMETER	VALUE
Series	DLM3000
Analog Channels	4 analog or 3 analog + 8 bit logic
Bandwidth	500 MHz
Specifications	
PARAMETER	VALUE
Max Sample Rate Real Time	2.5 GS/s
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Max Sample Rate Repetitive	250 GS/s
Specifications	
PARAMETER	VALUE
A/D Resolution	8 bit (25 LSB/div); max 12 bit High Resolution mode
Logic Inputs	8 bit (switchable on CH4)
Vertical Sensitivity 1 MOhm	500 uV/div to 10 V/div (200 MHz models); scales with bandwidth
Specifications	
PARAMETER	VALUE
Vertical Sensitivity 50 Ohm	500 uV/div to 1 V/div
Input Coupling	AC 1 MOhm; DC 1 MOhm; DC 50 Ohm
Input Impedance	1 MOhm +/-1.0%; 50 Ohm +/-1.0%

Specifications

PARAMETER	VALUE
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

Specifications

PARAMETER	VALUE
Timebase Accuracy	+/-2.5 ppm (shipping); +/-1.0 ppm/year ageing
Record Length Standard Repeat	12.5 M
Record Length Standard Single	50 M points

Specifications

PARAMETER	VALUE
Record Length Option Max	500 M points (/M3)
Bandwidth Limit Filters	FULL plus 200 MHz down to 8 kHz (14 settings per channel)
Display	8.4-inch capacitive touch TFT

Specifications

PARAMETER	VALUE
Ch to Ch Isolation	-34 dB typical
Residual Noise	0.2 mV rms or 0.05 div rms typical
Logic Max Sample Rate	1.25 GS/s

History Memory: up to 20,000 waveforms standard (/M2 or /M2S up to 100,000 on DLM5000)

Alias: DLM3054

Notes

Specs from Yokogawa DLM3000 datasheet (DLM3054). Memory lengths depend on /M1, /M2, or /M3 options and channel/interleave mode; confirm installed options on the unit.

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.