

TEKTRONIX

MDO32

The Tektronix MDO32 is a 2-channel 3 Series Mixed Domain Oscilloscope designed for multi-domain signal analysis. Featuring an 11.6-inch Full HD capacitive touch screen, up to 1 GHz bandwidth, 2.5 GS/s sampling rate, and 10 Mpoints record length, it integrates analog channels, a spectrum analyzer, logic channels, an arbitrary function generator, and digital voltmeter capability into a compact benchtop test instrument.

SPECIFICATIONS

General

Display	11.6 in (295 mm) Full HD (1920 × 1080) capacitive touch TFT color display
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Physical

Power Supply	100 V to 240 V AC ±10% (50/60 Hz), 115 V AC ±10% (400 Hz), 130 W max
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Kensington Lock Slot	Rear-panel security slot connects to standard Kensington-style lock
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Key Performance Specifications

Product Family	3 Series MDO
Analog Channels	2
Analog Bandwidth	100 MHz, 200 MHz, 350 MHz, 500 MHz, 1 GHz (option dependent)
Real-Time Sample Rate	2.5 GS/s on all analog channels (5 GS/s half-channel on 1 GHz model)
Record Length	10 Mpoints per channel
Maximum Waveform Capture Rate	> 280,000 wfm/s
Arbitrary Function Generator Option	1 channel (optional)

Vertical System - Analog Channels

Hardware Bandwidth Limits	20 MHz, 250 MHz (model dependent)
Input Coupling	AC, DC
Input Sensitivity Range (1 M Ω)	1 mV/div to 10 V/div
Input Sensitivity Range (50 Ω)	1 mV/div to 1 V/div
Vertical Resolution	8 bits (up to 11 bits in High Res mode)
Maximum Input Voltage (1 M Ω)	300 V RMS CAT II
Maximum Input Voltage (50 Ω)	5 V RMS
Channel-to-Channel Isolation	≥ 100:1 at ≤ 100 MHz, ≥ 30:1 at > 100 MHz up to 1 GHz

Horizontal System - Analog Channels

Time Base Range	400 ps/div to 1000 s/div (1 GHz models); 1 ns/div to 1000 s/div (100–500 MHz models)
Time Base Accuracy	±10 ppm
Channel-to-Channel Deskew Range	±125 ns

Trigger System

Trigger Modes	Auto, Normal, Single
Trigger Holdoff Range	20 ns to 8 s
Trigger Coupling	DC, AC, HF Reject, LF Reject, Noise Reject
Edge Trigger	Positive, negative, or either slope on any channel
Pulse Width Trigger	Trigger on positive or negative pulse width (<, >, =, !=)
Runt Trigger	Trigger on pulse crossing one threshold but failing to cross second threshold
Timeout Trigger	Trigger on event remaining high, low, or either for specified time
Pattern Trigger	Trigger when pattern of signals becomes true or false

Spectrum Analyzer

Spectrum Analyzer Frequency Range	9 kHz to 1 GHz (standard) or 9 kHz to 3 GHz (option 3-SA3)
Resolution Bandwidth (RBW)	20 Hz to 150 MHz
Spectrum Trace Types	Normal, Average, Max Hold, Min Hold
Automatic Peak Markers	Up to 11 peak markers with user-defined threshold and excursion
Spectrum Analyzer Input Connector	N-type female (50 Ω)

Digital Channels (Logic Analyzer)

Digital Input Channels	16 channels (with option 3-MSO / P6316 probe)
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Arbitrary / Function Generator

AFG Standard Waveforms	Sine, Square, Pulse, Ramp, Triangle, DC, Noise, Sin(x)/x, Gaussian, Lorentz, Exponential Rise/Decay, Haversine, Cardiac
AFG Sine Frequency Range	0.1 Hz to 50 MHz
AFG Sample Rate	250 MS/s
AFG Arbitrary Waveform Length	128 kpoints
AFG Vertical Resolution	14 bits

Digital Voltmeter (DVM) & Frequency Counter

DVM Resolution	4 digits
DVM Measurement Types	AC RMS, DC, AC+DC RMS

Display Specifications

Display Size	11.6 in (295 mm) diagonal
Display Resolution	1920 × 1080 (Full HD)
Touchscreen Technology	Capacitive multi-touch

Input / Output Interfaces

Video Output	1 x HDMI rear panel output
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Environmental Specifications

Operating Altitude	Up to 3,000 m (9,842 ft)
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Interfaces

USB Host Ports	2x USB 2.0 host ports (front panel), 1x USB 2.0 host port (rear panel)
USB Device Port	1x USB 2.0 High-Speed device port (rear panel, Type-B)

Inputs & Outputs

Probe Interface	TekVPI probe interface (supports active, differential, and current probes)
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Acquisition System

Acquisition Modes	Sample, Peak Detect, Averaging, Envelope, Hi Res, Roll
Averaging Range	2 to 512 waveforms

Waveform Analysis

Cursor Types	Waveform, V Bars, H Bars, V and H Bars
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Arbitrary Function Generator

AFG Square Wave Frequency Range	0.1 Hz - 25 MHz
AFG Pulse Wave Frequency Range	0.1 Hz - 25 MHz
AFG Ramp / Triangle Wave Frequency Range	0.1 Hz - 500 kHz

Digital Channels

Digital Channel Input Impedance	101 k Ω , 8 pF (with P6316 probe)
Digital Channel Maximum Toggle Rate	500 MHz

Compliance

Safety Compliance	UL61010-1, CAN/CSA-C22.2 No. 61010-1, EN 61010-1, IEC 61010-1
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APPLICATIONS

Test equipment

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.