

MSO/DPO2000 Series Oscilloscopes

Feature-rich tools for debugging mixed signal designs

Product Fact Sheet



Features

Benefits

Up to 4 analog and 16 digital channels	Visualize and analyze analog, digital and serial signals on a single instrument for system-level troubleshooting of complex designs.
Digital phosphor display	Quickly discover glitches and infrequent events with a 5,000 wfm/s waveform capture rate and intensity-graded display.
Complete set of triggers	Rapidly capture signal anomalies with over 125 available trigger combinations, including setup/hold, serial packet content and parallel data.
Wave Inspector® controls	Easily search, mark and navigate long record lengths to find all occurrences of your event.
Automated Measurements	Simplify analysis of your device with 29 automated measurements.
Parallel bus triggering and analysis (MSO Series)	Quickly debug your parallel bus with automated trigger, decode and search.
Serial triggering and analysis options	Quickly debug common serial buses with automated trigger, decode and search – I ² C, SPI, CAN, LIN, and RS-232/422/485/UART.
FilterVu™ variable low-pass filter	Easily filter out unwanted noise without losing sight of important anomalies or glitches with the innovative peak detect glitch capture.

Designed to make your work easier



Wave Inspector® controls speed navigation of long waveform records

Featuring:

- 100 MHz and 200 MHz models
- 2 or 4 analog channels
- 16 digital channels (MSO Series)
- 1 Mpoint standard record length on all channels
- Up to 1 GS/s sample rate on all analog channels
- Up to 2 ns timing resolution on all digital channels
- 29 automated measurements and FFT analysis
- Front panel USB host port for data storage
- Serial bus triggering and analysis options for I²C, SPI, CAN, LIN, and RS-232/422/485/UART
- Parallel bus triggering and analysis, including multi-channel set-up and hold triggering (MSO Series)

www.tektronix.com/mso2000
www.tektronix.com/dpo2000

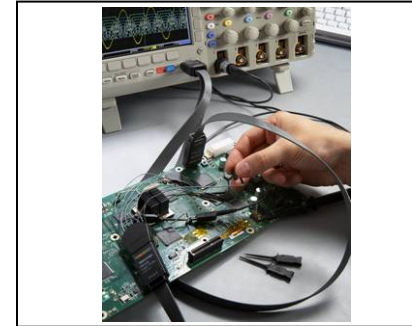
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Key specifications and ordering information

Product Fact Sheet

Models	Analog Channels	Digital Channels	Bandwidth	Analog Sample Rate	Digital Sample Rate Digital Pods 1 / 2
DPO2012	2	--	100 MHz	1 GS/s	--
MSO2012	2	16	100 MHz	1 GS/s	1 GS/s / 500 MS/s
DPO2014	4	--	100 MHz	1 GS/s	--
MSO2014	4	16	100 MHz	1 GS/s	1 GS/s / 500 MS/s
DPO2024	4	--	200 MHz	1 GS/s	--
MSO2024	4	16	200 MHz	1 GS/s	1 GS/s / 500 MS/s



Standard Probes and Accessories
<ul style="list-style-type: none"> • One P2221 200 MHz, 1X/10X Passive Probe Per Analog Channel • One P6316 16 Channel Logic Probe (MSO only) • OpenChoice® Desktop and NI LabVIEW SignalExpress™ TE (LE version) Software • User Manual and Power Cord

Application Modules
DPO2AUTO - Automotive Serial Triggering and Analysis (CAN, LIN)
DPO2COMP - Computer Serial Triggering and Analysis (RS-232/422/485/UART)
DPO2EMBD - Embedded Serial Triggering and Analysis (I ² C, SPI)

Recommended Probes, Accessories, and Services
TAP1500* 1.5 GHz TekVPI Active Probe
TCP0030* 120 MHz TekVPI 30A AC/DC Current Probe
TCP0150* 20 MHz TekVPI 150A AC/DC Current Probe
TDP0500* 500 MHz TekVPI 42V Differential Probe
TDP1000* 1 GHz TekVPI 42V Differential Probe
119-7465-xx TekVPI External Power Supply
DPO2CONN Ethernet and Video Out Connectivity Module
ACD2000 Soft Carrying Case and Front Protective Panel
Opt. R5 5 Year Repair Service Plan
Opt. C3/C5 3 / 5 Year Calibration Service Plan

* Requires 119-7465-xx TekVPI External Power Supply

Key Applications	Benefits
Design and debug of embedded systems	<ul style="list-style-type: none"> • Perform system-level troubleshooting with up to 20 channels • Easily debug parallel and serial buses: <ul style="list-style-type: none"> – Trigger on serial packet content and parallel data – Decode common serial bus standards and defined parallel buses – Automatically search through acquired data
Investigation of transient phenomena	<ul style="list-style-type: none"> • Quickly capture elusive glitches and other infrequent events with 5,000 wfms/s waveform capture rate • Capture a long time window at high resolution with 1 Mpoints record length
Visualization of signals masked by noise	<ul style="list-style-type: none"> • Reveal characteristics of your signal overshadowed by noise with FilterVu™ variable low-pass filter