

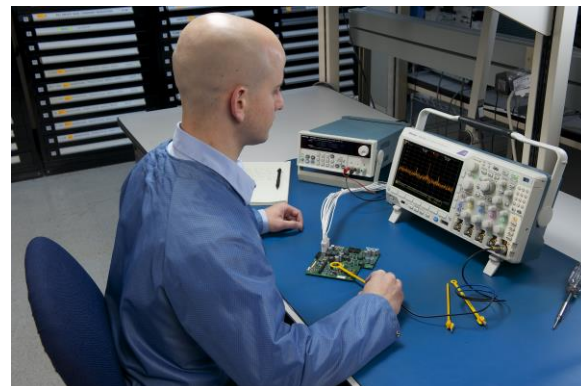
# MDO3000 Series Product Fact Sheet

6 INSTRUMENTS, 1 OSCILLOSCOPE FOR TODAY'S MIXED SIGNAL DESIGNS



Features	Benefits
Mixed Domain Oscilloscope – Integrated Spectrum Analyzer	Every model comes standard with an integrated spectrum analyzer, enabling you to analyze RF signals up to the rated bandwidth of the scope. Option MDO3SA extends the spectrum analyzer frequency coverage to 3 GHz!
Wave Inspector® Navigation	Dedicated front panel controls enable easy navigation through 10 Mpoint records. Automated search capability quickly finds and marks every occurrence of an event.
Integrated, upgradeable arbitrary/function generator (Option MDO3AFG)	The function generator saves bench space and enables closed loop testing by simulating sensors or unfinished system blocks. Capture real signals and replicate them as arbitrary waveforms up to 128k points long, with a single instrument!
Integrated logic analyzer (Optional MDO3MSO)	Enables debug of digital portions of embedded designs. Trace system timing issues with broader system visibility.
Serial bus triggering and analysis (Optional)	Quickly debug your parallel bus and/or common serial buses with automated trigger, decode, and search.
Integrated digital voltmeter and frequency counter	Free with product registration! Enables quick measurements of DC voltage, AC+DC RMS, AC RMS and frequency.
Incredibly small form factor	Saves valuable bench space by integrating a spectrum analyzer, arbitrary function generator, logic analyzer, protocol analyzer and DVM into your debug tool of choice – the oscilloscope. Only 5.8 inches deep and 9 lbs., yet with a 9" WVGA display!
Upgradeability	Don't know what you'll be working on next year? Upgrades are available to analog bandwidth, spectrum analyzer frequency range, arbitrary function generator, digital channels (MSO), serial trigger and analysis packages, and more -- ensuring usefulness for years to come

Designed to make your work easier



Debug your designs faster than ever before with the world's most versatile oscilloscope – the MDO3000 Series.

## Key Points

- 2 or 4 analog channels
- 100, 200, 350, 500 MHz and 1 GHz models
- 16 digital channels (optional with MDO3MSO)
  - Up to 121 ps timing resolution
- 10 M standard record length on all channels
- >280,000 wfm/sec max. waveform capture rate for easy identification of intermittent events and signal anomalies
- Standard voltage probes with 3.9 pF loading and up to 1 GHz bandwidth
- Serial bus triggering and analysis options
- Over 125 available trigger combinations
- 33 automated time and frequency domain measurements
- 75Ω termination with triggers and features for video applications
- 3-year warranty

# MDO3000 Series Product Fact Sheet

## KEY SPECS AND ORDERING INFORMATION

Models	Spec	Description
MDO3102	100 MHz	2 ch, 2.5 GS/s, 10 M RL
MDO3014	100 MHz	4 ch, 2.5 GS/s, 10 M RL
MDO3022	200 MHz	2 ch, 2.5 GS/s, 10 M RL
MDO3024	200 MHz	4 ch, 2.5 GS/s, 10 M RL
MDO3032	350 MHz	2 ch, 2.5 GS/s, 10 M RL
MDO3034	350 MHz	4 ch, 2.5 GS/s, 10 M RL
MDO3052	500 MHz	2 ch, 2.5 GS/s, 10 M RL
MDO3054	500 MHz	4 ch, 2.5 GS/s, 10 M RL
MDO3102	1 GHz	2 ch, 5 GS/s, 10 M RL
MDO3104	1 GHz	4 ch, 5 GS/s, 10 M RL

Options and Application Modules		
MDO3SA	9 kHz – 3 GHz	Spectrum Analyzer
MDO3AFG	50 MHz	Arbitrary / Function Generator
MDO3MSO	16 Digital Channels	and Logic Probe
<b>Serial Bus Triggering &amp; Protocol Analysis</b>		
MDO3AERO	Aerospace (MIL-STD-1553B)	
MDO3AUDIO	Audio (I <sup>2</sup> S, LJ, RJ, and TDM)	
MDO3AUTO	Automotive (CAN / LIN)	
MDPO4COMP	Computer (RS-232 / 422 / 485 / UART)	
MDPO4EMBD	Embedded (I <sup>2</sup> C, SPI)	
MDO3FLEX	Automotive (FlexRay)	
MDPO4USB	USB 2.0 (LS, FS, HS)	
<b>Advanced Analysis</b>		
MDO3LMT	Limit and Mask Testing	
MDO3PWR	Power Analysis	

Recommended Probes	Description
TPP0502	500 MHz, 2X (12.7 pF) passive
TAP1500	1.5 GHz, 10X active probe
TAP2500	2.5 GHz, 10X active probe
TDP0500	500 MHz, 50X/500X, $\pm 42$ V differential
TDP1000	1 GHz, 50X/500X, $\pm 42$ V differential
THDP0100	100 MHz 6 kV high voltage differential
THDP0200	200 MHz 1.5 kV high voltage differential
TMDP0200	200 MHz 750 V high voltage differential
TPP0850	800 MHz, 50X, 2.5 kV high voltage
TCP0020	50 MHz, 20A AC/DC current probe
TCP0030A	120 MHz, 30A AC/DC current probe
TCP0150	20 MHz, 150A AC/DC current probe
TPA-N-PRE	9 kHz - 6 GHz preamplifier, 12 dB gain
TPA-N-VPI	N-to-TekVPI Adapter
Service Options	Description
C3 / C5	Calibration service 3 / 5 years
D1 / D3 / D5	Calibration Data Report 1 / 3 / 5 years
R3 / R5	Standard Warranty extended to 3 / 5 years



Key Applications	Benefits
<ul style="list-style-type: none"> <li>Design and debug of embedded systems</li> </ul>	<ul style="list-style-type: none"> <li>Perform system-level troubleshooting with up to 4 analog, 16 digital and 1 spectrum analyzer channel.</li> <li>Trigger on and decode parallel and common low speed serial buses.</li> <li>Integrated AFG can simulate missing signals to speed design process..</li> </ul>
<ul style="list-style-type: none"> <li>Hunting Noise Sources</li> </ul>	<ul style="list-style-type: none"> <li>Analyze your RF spectrum for noise with the built-in spectrum analyzer</li> <li>See your entire spectrum at once with up to 3 GHz capture bandwidth</li> </ul>
<ul style="list-style-type: none"> <li>Power supply design and analysis</li> </ul>	<ul style="list-style-type: none"> <li>Quickly and accurately analyze your design with automated power measurements.</li> </ul>