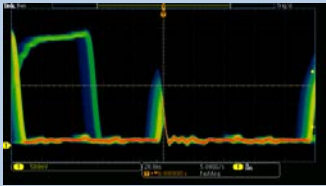


MDO3000 Series vs. Keysight X3000T Series

Competitive Fact Sheet

MDO3000 - At Its Core, A **Best**-in-Class Scope

Discover



- **New!** FastAcq high speed waveform acquisition >280,000 wfms/s
- **New!** Color-graded and Inverted waveform palettes

Capture



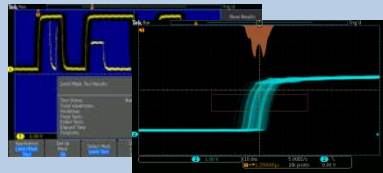
- Industry **best** standard voltage probes
- 10 Mpoints record
- Complete set of triggers
- Act-on-event (Save on Trigger)

Search



- Industry's most comprehensive search and waveform navigation with innovative Wave Inspector® controls

Analyze



- 30 automated measurements
- Advanced math and video functions **standard**
- Limit/Mask Testing
- Power analysis
- Waveform Histograms

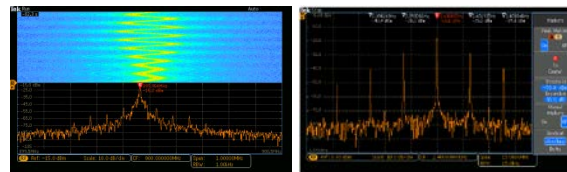
Industry's **ONLY** built-in Spectrum Analyzer

Tektronix MDO3000

- ✓ Spectrum analyzer amplitude is flat from 9 kHz up to scope bandwidth, standard. Upgradable to 3 GHz.
- ✓ Dedicated RF hardware
- ✓ Dedicated front panel controls make spectral analysis easy
- ✓ RF measurements include Channel Power, Adjacent Channel Power Ratio, and Occupied BW
- ✓ Spectrogram display shows frequency and amplitude changes
- ✗ MDO3000 is not time and frequency correlated.

Keysight X3000T FFT

- ✗ FFT amplitude rolls off to -3dB at the scope's rated bandwidth
- ✗ Software based FFT
- ✗ Multiplexed front panel and menu controls for FFT
- ✗ Measurements limited to XY cursors and peak markers
- ✗ Spectrogram Display not available.
- ✓ Gated FFT correlates the time and frequency domain



MDO3000 Spectrogram display and automated peak markers

Industry's **Best** Built-in Arbitrary Waveform Generator

Tektronix MDO3000

- ✓ Up to 50 MHz function generation
- ✓ Arbitrary waveform generation with 128k waveform memory (8X more for more applications) and 250 MS/s output rate.
- ✓ 13 predefined functions

Keysight X3000T

- ✗ Up to 25 MHz function generation
- ✗ Arbitrary waveform generation with 8k waveform memory and 100 MS/s output rate
- ✓ 11 predefined functions

MDO3000 Series vs. Keysight X3000T-Series

Competitive Fact Sheet

Industry's Best Standard Voltage Probes

Tektronix MDO3000

- ✓ Included 3.9 pF passive probes minimize effect of the probe on circuit operation
- ✓ 1 GHz models include 1 GHz probes
- ✓ 1 year warranty on probes

Keysight X3000T

- ✗ 11-12 pF passive probes included
- ✗ 1 GHz models include 500 MHz probes
- ✗ Only 90-day warranty on probes

A Powerful Logic Analyzer

Tektronix MDO3000

- ✓ Maximum record length 10 Mpoints, even with analog channels on
- ✓ Minimum detectable pulse 2ns
- ✓ Channel-to-channel skew 500 ps typical
- ✓ MagniVu high speed sampling offers timing resolution of 121 ps

Keysight X3000T

- ✗ Maximum record length 4 Mpoints with no analog channels on, 500 kpoints with analog channels on
- ✗ Minimum detectable pulse 5ns
- ✗ Channel-to-channel skew 2 ns typical
- ✗ Digital channel timing resolution of 500 ps

Warranted Specifications for Confident Results

Tektronix MDO3000

- ✓ Only 7 scope specifications in MDO3000 datasheet are typical
- All specifications are guaranteed unless noted as "typical."
- ✓ Characteristics described in terms of specified performance with guaranteed tolerance limits

Keysight X3000T

- ✗ Only 6 scope specifications in X3000T datasheet are warranted
- All specifications are typical unless noted otherwise
- ✗ The typical values given are *never* warranted

Deep and Optimized Record Length

Tektronix MDO3000



Deep record length offers more waveform details without under sampling

- ✓ 10 Mpoints record length on all channels, standard

Keysight X3000T



Waveform details lost due to smaller record length and undersampling*

- ✗ 4 Mpoints record length, reduced to 2 Mpoints when channels are interleaved

*Screenshot from X3000

Lower Cost of Ownership

When comparing oscilloscopes, don't forget to look at the "hidden" costs to get the configuration you need (in US \$)

MDO3000 Series Options	Cost	X3000T Series Options	Cost
Built-in Spectrum Analyzer	Included	No Built-in Spectrum Analyzer Available	N/A
LAN/VGA Ports	Included	Add LAN/VGA Ports (DSOXLAN)	\$404
Video Triggering and Analysis	Included	Add Video Triggering and Analysis (DSOX3VID)	\$800
MDO3102/3104 TPP1000 1GHz, 3.9pF Passive Probe	Included	Limited 500MHz 11pF probes on 1GHz models	\$1054 each 1 GHz active probe
Integrated Digital Voltmeter	Free with register	Add Digital Voltmeter (DSOXDVM)	\$76
Total Incremental Cost	-	Total Incremental Cost	>\$1,280 - \$5496