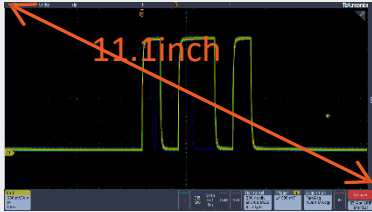


3 Series MDO vs. Keysight X3000T-Series

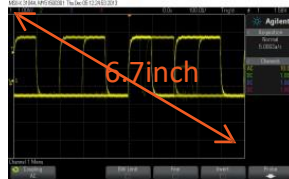
COMPETITIVE FACT SHEET

Screen Size and Waveform Viewing Area

Tektronix 3 Series MDO
(11.6" HD 1920x1080 touch)



Keysight X3000T-Series
(8.5" VGA 800x480 touch)



Long Record Length Navigation and Search

Tektronix 3 Series MDO

- ✓ 10 Mpoints record length on all channels, standard
- ✓ Intuitive waveform navigation pan/zoom easy scrolling through long records

Keysight X3000T-Series

- ✗ Maximum 4 Mpoints record length
- ✗ Limited navigation buttons and multiplexed horizontal controls

Digital Channels

Tektronix 3 Series MDO

- ✓ 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-Series

- ✗ 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 sample rate of 1 GS/s gives 1 ns timing resolution

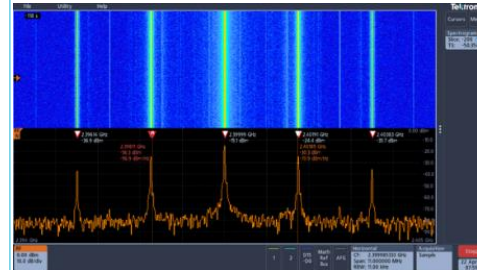
Spectrum Analyzer

Tektronix 3 Series MDO

- ✓ Flat frequency response, 9 kHz to 1 GHz (**\$1,500 value FREE**) or 3 GHz (optional).
- ✓ Dedicated RF hardware with guaranteed RF specifications
- ✓ Intuitive on-screen controls for fast adjustments.
- ✓ Spectrogram display shows frequency and amplitude changes
- ✗ MDO3000 does not provide synchronized time- and frequency-domain display

Keysight X3000T-Series

- ✗ FFT amplitude is -3dB at analog channel bandwidth
- ✗ Software based FFT, no specifications
- ✗ Multiplexed front panel and menu controls for FFT
- ✗ Spectrogram Display not available.
- ✓ Gated FFT display correlates the time and frequency domains.



Spectrum display comparison, 3 Series MDO offers automatic markers and spectrogram display.

Arbitrary Waveform Generator

Tektronix 3 Series MDO

- ✓ Optional and upgradable
- ✓ Up to 50 MHz function generation, 13 predefined functions
- ✓ Arbitrary waveform generation with 128k waveform memory and 250 MS/s output rate

Keysight X3000T-Series

- ✓ Optional and upgradable
- ✗ Up to 20 MHz function generation, 11 predefined functions
- ✗ Arbitrary waveform generation with 8k waveform memory and 100 MS/s output rate

3 Series MDO vs. Keysight X3000T-Series

COMPETITIVE FACT SHEET

Key Specifications Comparison

		Tektronix 3 Series MDO		Keysight X3000T-Series
Channels	✓	2, 4 (+16 digital with 3-MSO option)	✓	2, 4 (+16 digital on MSO models)
Bandwidth	✓	100, 200, 350, 500MHz and 1GHz, upgradable	✓	100, 200, 350, 500 MHz and 1GHz, upgradable
Max. Analog Channel Sample Rate (All channels on)	✓	5 GS/s	✗	2.5 GS/s
Max. Digital Channel Sample Rate	✓	8.25 GS/s	✗	1.25 GS/s
Max. Record Length (All channels on)	✓	10 Mpoints	✗	2 Mpoints (4 Mpoints half channel interleaved)
Segmented Memory	✗	No	✓	Standard
Max Waveform Capture Rate (wfms/s)	✗	>280,000	✓	1 M wfms/s
Integrated Spectrum Analyzer	✓	RF hardware based, 9 KHz to 1 GHz (standard) or 3 GHz (optional)	✗	Software FFT based spectrum analysis
Integrated Arbitrary Waveform Generator	✓	50 MHz	✗	20 MHz
Integrated Digital Voltmeter and Frequency Counter	✓	Free with registration	✓	Free with registration
Serial Trigger and Analysis	✗	Optional: I ² C, SPI, RS232/422/485/UART CAN, CAN-FD, LIN, FlexRay, MIL-STD-1553, I ² S/LJ/RJ/TDM, USB	✓	Optional: I ² C, SPI, RS232/UART, CAN, CAN- FD, CAN-dbc, LIN, SENT, CXPI, FlexRay, I ² S/LJ/RJ, MIL- STD-1553, USB, ARINC, User Defined
Automated Measurements	✓	Standard	✓	Standard
Power Measurements	✓	Optional	✓	Optional
International Languages Localization	✓	Standard	✓	Standard
Display	✓	11.6-inch touch HD 1920 x 1080	✗	8.5-inch touch VGA 800 x 480
Waveform Viewing Area	✓	11.1-inch touch	✗	6.7 inch
Standard Probes	✓	Up to 1 GHz VPI "Smart" VPI Passive Probes	✗	500 MHz passive probes
Warranty	✓	3 years	✓	3 years

3 Series MDO vs. Keysight X3000T-Series

LOWER TOTAL COST OF OWNERSHIP FOR IOT ERA



Tektronix 3 Series MDO	Cost*	Keysight X3000T	Cost*	Delta
Mainframes (100 MHz to 1 GHz)	\$3,850 - \$16,000	Mainframes (100 MHz to 1 GHz)	\$3,783 - \$15,543	\$67 (100MHz) - \$457 (1GHz) premium on Tek
MSO Option	\$1,750	MSO Price	\$1,605	\$145 premium on Tek
AFG Option	\$900	WaveGen Option	\$784	\$116 premium on Tek
Built-in Spectrum Analyzer with comparable RF specifications to Keysight entry standalone spectrum analyzer (BSA N9320B)	1GHz included, \$0 3GHz \$3,000	No built-in spectrum analyzer available. Software-based FFT for spectrum analysis only. Entry-level standalone spectrum analyzer (3 GHz N9320B)	\$8,667	\$5,667 to \$8,667 savings on Tek
1 GHz Models (2 and 4 channels) Include TPP1000 1 GHz, 3.9 pF passive probes	Included	500 MHz, 11 pF passive probes on 1 GHz models	\$1,204 each 1 GHz active probe (N2795A)	\$2,408 - \$4,816 savings on Tek
LAN Port	Included	Add LAN/VGA Ports (DSOXLAN)	\$211	\$211 savings on Tek

** US list prices as of July 21, 2020 from www.tek.com and www.keysight.com