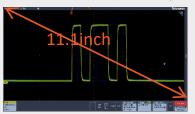
# 3 Series MDO vs. Keysight X3000T-Series

## 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)



# **Spectrum Analyzer**

## **Tektronix** 3 Series MDO

- Flat frequency response, 9 kHz to 1 GHz or 3 GHz.
- 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

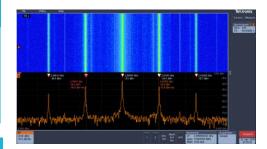
# **Long Record Length Navigation and Search**

#### **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 (2 Mpoints all channels)
- Limited navigation buttons and multiplexed horizontal controls





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

## **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

# **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**

	Tektronix		Kovojeht	
Channels	3 Series MDO		Keysight X3000T-Series	
	✓	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	<b>✓</b>	1 M wfms/s
Integrated Spectrum Analyzer	✓	RF hardware based, 9 KHz to 1 GHz 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 <sup>2</sup> C, SPI, RS232/422/485/UART CAN, CAN-FD, LIN, FlexRay, MIL-STD-1553, I <sup>2</sup> S/LJ/RJ/TDM, USB	<b>✓</b>	Optional: I <sup>2</sup> C, SPI, RS232/UART,CAN, CAN-FD, CAN-dbc, LIN, SENT, CXPI, FlexRay, I <sup>2</sup> S/LJ/RJ, MIL-STD-1553, USB, ARINC, User Defined
Automated Measurements	✓	Standard	✓	Standard
Power Measurements	✓	Optional	✓	Optional
International Language 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
Warranty	<b>√</b>	3 years	<b>√</b>	3 years

