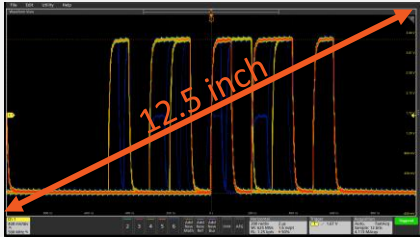# 4 Series MSO vs. Keysight 4000A X-Series

COMPETITIVE FACT SHEET
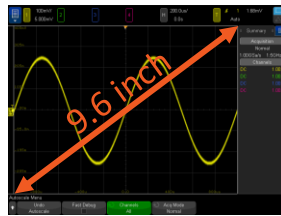
Display Size and Waveform Viewing Area

Tektronix 4 Series MSO

- ✓ 13.3 inch HD (1920 x 1080) – touch with gesture control

Keysight 4000A X-Series

- ✗ 12.1 inch SVGA (800 x 600) – touch but NO gesture control

Digital Channels

Tektronix 4 Series MSO

- ✓ No. of displayed busses limited only by scope memory – user adjustable on the display
- ✓ Up to 48 digital channels
- ✓ 6.25 GS/s sample rate
- ✓ Max. record length up to 62.5 Mpts (opt)

Keysight 4000A X-Series

- ✗ Limited to 2 bus signals – anchored to the bottom of the display
- ✗ Max. of 16 digital channels
- ✗ 1.25 GS/s sample rate
- ✗ Max. record length of 2 Mpts – when not using analog channels

Waveform Capture Rate

Tektronix 4 Series MSO

- ✓ Greater than 500,000 waveforms/s with FastAcq provides similar performance

Keysight 4000A X-Series

- ✓ Up to 1,000,000 waveforms/s – limited to 3 horizontal scale settings

Measurements and Math

Tektronix 4 Series MSO

- ✓ More than 4 math channels, and all can be displayed
- ✓ Graphical equation editor with easily recognizable math functions
- ✓ No. of measurements limited only by scope memory
- ✓ Measurements based on signal data values

Keysight 4000A X-Series

- ✗ Max. of 4 math channels, but can only display 1
- ✗ Limited math choices available through text-based menu
- ✗ Max. of 10 measurements
- ✗ Measurements based on displayed data points

Navigation and Search

Tektronix 4 Series MSO

- ✓ Wave Inspector® controls for easy scrolling through long records
- ✓ User selectable record length
- ✓ Search based on signal data values – reliably find specified events

Keysight 4000A X-Series

- ✗ Uses horizontal scale and position controls for zoom
- ✗ Users cannot select record length only horizontal scale – can result in highly distorted waveforms
- ✗ Search based on displayed data points – results in missing specified events

7 runts found

0 runts found

Tektronix

4 Series MSO vs. Keysight 4000A X-Series

COMPETITIVE FACT SHEET

	Tektronix 4 Series MSO		**Keysight** 4000A X-Series	
Analog Channels	✓	4 or 6	✗	2 or 4
Digital Channels	✓	Up to 48	✗	Up to 16
Bandwidth	✓	200 MHz, 350 MHz, 500 MHz, 1 GHz, 1.5 GHz	✗	200 MHz, 350 MHz, 500 MHz, 1 GHz, 1.5 GHz[1]
Analog-to-Digital Converter	✓	12-bit	✗	8-bit
Analog Sampling Rate	✓	6.25 GS/s on all channels	✗	2.5 GS/s on all channels, 5 GS/s on half channels
Digital Sampling Rate	✓	6.25 GS/s on all channels	✗	1.25 GS/s on all channels
Waveform Capture Rate	✓	Greater than 500,000 waveforms/s	✓	Up to 1,000,000 waveforms/s (limited to 3 settings)
Record Length	✓	31.25 M (std); 62.5 M (opt)	✗	4 M (std)
Segmented Memory	✓	Yes	✓	Yes
Visual Trigger	✓	Yes	✓	Yes
# of Active Measurements	✓	> 10 – Limited only by scope memory	✗	10
Serial Triggering and Analysis	✓	I2C, SPI, I3C, RS-232/422/485/UART, SPMI, CAN, CAN FD, LIN, FlexRay, SENT, USB 2.0, Ethernet, I2S, LJ, RJ, TDM, MIL-STD-1553, ARINC 429	✓	I2C, SPI, RS-232/UART, CAN, CAN FD, LIN, FlexRay, CXPI, SENT, USB PD, I2S, MIL-STD-1553, ARINC 429, User-definable Manchester and NRZ
Integrated Waveform Generator	✓	1 @ 50 MHz	✗	2 @ 20 MHz
Dimensions (H x W x D)		11.0 in x 15.9 in x 6.1 in (280 mm x 405 mm x 155 mm)		10.83 in x 17.87 in x 6.14 in (275 mm x 454 mm x 156 mm)
Display	✓	13.3 inch, HD (1920 x 1080), Touch w/ gesture control	✗	12.1 inch, SVGA (800 x 600), Touch w/o gesture control
Warranty	✓	3 years	✓	3 years

1. 1.5 GHz only available on half channels.

Tektronix