

MSO/DPO3000 Series vs. Agilent MSO/DSO3000 X-Series

Competitive Fact Sheet

Navigation and Search

Tektronix MSO/DPO3000



- ✓ Wave Inspector® controls for easy scrolling through long records.
- ✓ Play/Pause button scrolls the waveform across the screen automatically.
- ✓ Search/Mark controls to automatically find events of interest, mark them, then navigate through the record mark by mark.
- ✓ Manually mark events of interest.

Agilent MSO/DSO3000 X-Series



- ✗ Limited navigation buttons and multiplexed horizontal controls.
- ✓ Auto scrolling of horizontal position to scroll through data.
- ✗ No automated search for Setup/Hold and Logic/Pattern.
- ✗ No manual marks.

Serial Triggering and Decode

Tektronix MSO/DPO3000

- ✓ **Serial Bus Support** – I²C, SPI, CAN, LIN, RS-232/422/485/ UART, I²S/LJ/RJ/TDM, Mil-Std 1553 and Flexray.
- ✓ **Bus Display** – View up to 2 serial buses simultaneously, positioned where you want.
- ✓ **Serial Triggering** – Trigger on packet content.
- ✓ **Event Table** – View captured packets in a tabular listing view.

Agilent MSO/DSO3000 X-Series

- ✓ **Serial Bus Support** – I²C, SPI, CAN, LIN, RS-232/UART, I²S, Mil-Std 1553, ARINC 429 and Flexray.
- ✗ **Bus Display** – View up to 2 serial buses, anchored at the bottom of the screen. Limits display of digital channels
- ✓ **Serial Triggering** – Trigger on packet content.
- ✓ **Event Table** – View captured packets in a tabular listing view. View 2 buses simultaneously.

Key Specifications Comparison

	Tektronix MSO/DPO3000 Series		Agilent MSO/DSO3000 X-Series	
Channels	✓	2, 4 (+16 digital on MSO)	✓	2, 4 (+16 digital on MSO)
Bandwidth	✓	100, 300, 500 MHz	✓	100, 200, 350, 500 MHz and 1GHz
Max. Sample Rate (All channels on)	✓	2.5 GS/s	✗	2 GS/s
Max. Record Length (All channels on)	✓	5 M points (standard)	✗	2 M points (w/ option)
Input Impedance	✓	1MΩ, 75Ω, 50Ω	✗	1MΩ, 50Ω
Navigation and Search	✓	Wave Inspector® controls	✗	Limited navigation buttons and multiplexed knobs
DC Gain Accuracy	✓	1.5%	✗	2%

MSO/DPO3000 Series vs. Agilent MSO/DSO3000 X-Series

Competitive Fact Sheet

Digital Debug with MSO

Tektronix MSO3000



Arrange bus, digital, and analog waveforms on screen for easy operation.

- ✓ Record length not dependent on number of channels used.
- ✓ Green trace for highs (1), blue trace for lows (0).
- ✓ Bus waveforms can be moved within the display.
- ✓ Event table for parallel bus decode.
- ✓ Search on variety of digital features including Setup/Hold, Logic, serial or parallel buses.

Agilent MSO3000 X-Series



Bus anchored to bottom of screen. Not all digital channels individually displayed.

- ✗ Digital channel record length reduced if any analog channels are used.
- ✓ Green trace for highs (1), blue trace for lows (0).
- ✗ Bus waveforms anchored to bottom of the display.
- ✗ No event table for parallel bus decode.
- ✗ Limited search capabilities – no Setup/Hold, Logic, or parallel bus.

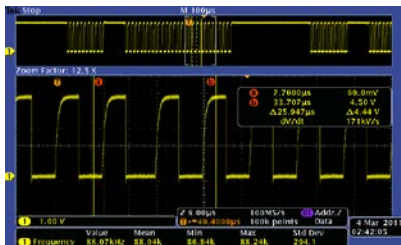
Measurement and Channel Math

Tektronix MSO/DPO3000

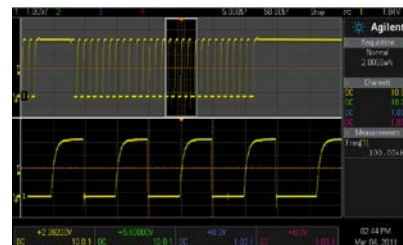
Agilent MSO/DSO3000 X-Series

- ✓ Can use all the record length – up to 5 M points for measurements, averaging, and math, and up to 1 M points for FFT.
- ✓ Advanced math with arbitrary expressions offers very flexible custom measurements.
- ✓ Gate measurements by full record, screen/zoom, or cursors.

- ✗ Uses only displayed points for measurements and math.
- ✗ Math choices limited to 3 operators and 3 functions.
- ✗ No gating for measurements.



Cursor gating within a zoom window to control measurement region.



Measurements limited to screen or zoom window data.

Digital Channels

Tektronix MSO/DPO3000

Agilent MSO/DSO3000 X-Series

- ✓ Maximum record length 5 Mpoints, even with analog channels on.
- ✓ Minimum detectable pulse 2ns.
- ✓ Channel-to-channel skew 500 ps typical.
- ✓ MagniVu extends digital channel timing resolution down to 121 ps.

- ✗ Maximum record length 2 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.



MagniVu offers timing resolution to 121 ps.



Digital channel timing resolution limited to 1ns.