

MSO/DPO5000B Series vs. LeCroy WaveRunner Xi-A Series

Competitive Fact Sheet

Discovering an Intermittent Pulse

Tektronix MSO/DPO5000B Series

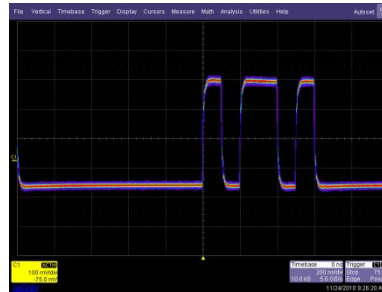
Infinite persistence, stopped after 10 seconds



- ✓ >250,000 wfms/s maximum waveform capture rate.
- ✓ Channels represented with different colors or color intensity grading.
- ✓ Color or grey-scale intensity grading shows frequency of occurrence.
- ✓ Intensity grading is preserved when stopped.

LeCroy WaveRunner Xi-A Series

Infinite persistence, stopped after 1 minute



- ✗ Waveform capture rate not specified for normal operation.
- ✗ As shown, few glitches or intermittent pulses are captured in 1 second.
- ✗ 20,000 wfms/s maximum waveform capture rate in WaveStream™ Fast Viewing mode.
- ✗ Persistence not available in WaveStream™ Fast Viewing mode.

Dedicated Front Panel Controls

Tektronix MSO/DPO5000B LeCroy WR Xi-A

- ✓ Per-channel vertical controls.
- ✗ Multiplexed vertical controls.
- ✓ Wave Inspector® controls make navigation and search easy.
- ✗ Math, Reference, Bus Setup and Measurements are all accessed through Windows UI with touchscreen and/or mouse
- ✓ Quick front panel access to Math, Reference, Bus Setup, and Measurements.



Key Specifications Comparison

	Tektronix MSO/DPO5000B Series	LeCroy WaveRunner Xi-A Series
Channels	✓ 4 (+16 digital MSO)	✓ 2, 4 (+18 to 36 with optional MSO)
Analog Bandwidth	✓ 350 MHz, 500 MHz, 1 GHz, 2 GHz	✓ 400 MHz, 600 MHz, 1 GHz, 2 GHz
Max. Sample Rate (All channels on)	✓ 5 GS/s	✓ 5 GS/s
Max. Standard Record Length (All channels on)	✓ 25 M points	✗ 12.5 M points
Max. Record Length (All channels on)	✓ 125 Mpts. (analog channels) 40 Mpts. (digital channels)	✗ 12.5 M points (analog) 25M - 50 M (digital)
Standard Passive Probes	✓ 1 GHz, 3.9 pF, 10 MΩ (1-2 GHz oscilloscopes); 500 MHz, 3.9 pF, 10 MΩ	✗ 500 MHz, 9.5 pF, 10 MΩ
Display	✓ 10.4 in XGA (1024 X 768)	✗ 10.4 in SVGA (800X600)

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Navigation and Search

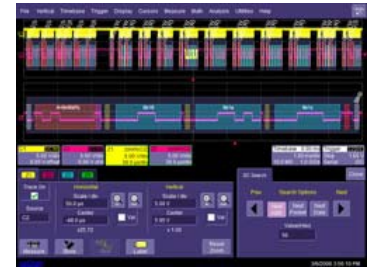
Tektronix MSO/DPO5000B Series

- ✓ Wave Inspector® controls.
- ✓ Pan/Zoom controls for easy scrolling through long records.
- ✓ Search/Mark controls enable you to search for events of interest, mark them, then navigate through the record mark by mark.
- ✓ Simultaneously search up to 8 types of events.
- ✗ No protocol event table or automatic search. (Available in future firmware release.)



LeCroy WaveRunner Xi-A Series

- ✗ Manual turning of horizontal math/zoom position control to scroll through data.
- ✗ Search limited to a single event.
- ✗ No search events found counter.
- ✗ No marks (user or automated).
- ✓ Serial decode search available, but completely separate from WaveScan™.



Digital Debug with MSO

Tektronix MSO5000B

- ✓ Integrated design, with small probe pods.
- ✓ Main digital sample rate of 500 MS/s, with Magni Vu sample rate of 16.5 GS/s.
- ✓ Per-channel digital thresholds enable analysis of multiple logic families.
- ✓ Typical channel-to-channel skews <200 ps, and analog-to-digital deskew capability provided
- ✓ Clocked (state) and unclocked (pattern) logic triggering.
- ✓ Clocked or unclocked parallel bus decode.
- ✓ Green trace for logic highs (1), blue trace for logic lows (0).
- ✓ Channels can be displayed as a bus and/or individual signals.
- ✓ Up to 16 buses available.
- ✓ Digital channels can be grouped and/or independently moved on the display.



LeCroy WR Xi-A + MSO adapter

- ✗ Large external brick form factor, with a bundle of relatively short probe leads.
- ✗ Digital sample rate varies between models from 1 – 2 GS/s maximum.
- ✗ Digital thresholds limited to one per 9-channel digital probe pod. Limited ability to analyze multiple logic families.
- ✗ >1 ns analog-to-digital channel timing skews with no deskew capability affects time-correlation on the display.
- ✗ No clocked logic trigger.
- ✗ No clocked parallel bus decode.
- ✗ No color difference between a logical low and high value.
- ✗ Channels displayed as a bus waveform or as individual signals, but displaying both consumes 2 of the 4 digital traces.
- ✗ Maximum of 4 digital traces, including displayed signals.
- ✗ Digital channels must be displayed in hardware order.

