

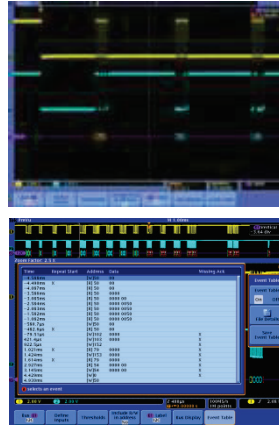
MSO/DPO4000B Series vs. Agilent MSO/DSO7000B Series

Competitive Fact Sheet

Serial Triggering and Decode

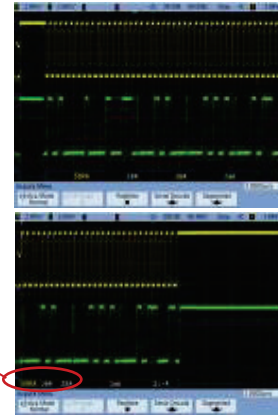
Tektronix MSO/DPO4000B Series

- ✓ **Serial Bus Support** – I²C, SPI, USB, Ethernet, CAN, LIN, FlexRay, RS-232/422/485/UART, I²S/LJ/RJ/TDM, and MIL-STD-1553 available for all models.
- ✓ **Bus Display** – View up to 4 serial buses simultaneously.
- ✓ **Bus Decoding** – Decodes each packet on the bus and displays the value in hex, binary, decimal, or ASCII.
- ✓ **Serial Triggering** – Trigger on packet content.
- ✓ **Event Table** – View captured packets in a tabular listing view.
- ✓ **Search** – Wave Inspector® navigation automatically searches for and marks user-defined events on packet content.



Agilent MSO/DSO7000B Series

- ✗ **Serial Bus Support** – I²C, SPI, CAN, LIN, FlexRay, RS-232/UART, I²S, and 1553 (**4-channel products only**).
- ✗ **Bus Display** – Single serial bus display, anchored at the bottom of the screen.
- ✗ **Bus Decoding** – Hardware decode of each packet on the bus, but not always time-aligned.
- ✓ **Serial Triggering** – Trigger on packet content. Limited serial triggering standard.
- ✓ **Lister** – View captured packets in a tabular listing view.
- ✗ **Search** – Automated but search events only shown in Lister Mode.



Navigation and Search

Tektronix MSO/DPO4000B



- ✓ 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.

Agilent MSO/DSO7000B

- ✗ Only uses horizontal scale control to zoom.
- ✗ Manual turning of horizontal position to scroll through data.
- ✗ Limited automated search capability and only available on Serial Decode.
- ✗ Navigation by horizontal position
- ✗ Automated Search only on Serial Decode

Key Specifications Comparison

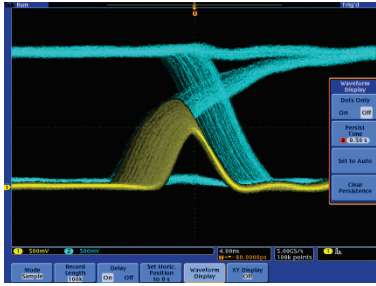
	Tektronix MSO/DPO4000B Series	Agilent MSO/DOS7000B Series
Channels	✓ 2, 4 (+16 digital MSO)	✓ 2, 4 (+16 digital MSO)
Analog Bandwidth	✓ 350 MHz – 1 GHz	✓ 100 MHz - 1 GHz
Real-time Bandwidth (All channels on)	✓ 350 MHz – 1 GHz	✗ 100 – 500 MHz
Max. Sample Rate (All channels on)	✓ 5 GS/s (1 GHz, non-L models) 2.5 GS/s (other models)	✗ 2 GS/s
Max. Record Length (All channels on)	✓ 20 M points (non-L models) 5 M points (other models)	✗ 4 M points (DSO models) 1 M points (MSO models)
Setup and Hold Triggering	✓ Across all analog and digital channels	✗ Not available
Standard Passive Probe	✓ 1 GHz, <4 pF, 10 MΩ (1 GHz models); 500 MHz, <4 pF, 10 MΩ	✗ 500 MHz, 12 pF, 2.2 MΩ; 150 MHz, 15 pF, 10 MΩ (100 MHz models)

MSO/DPO4000B Series vs. Agilent MSO/DSO7000B Series

Competitive Fact Sheet

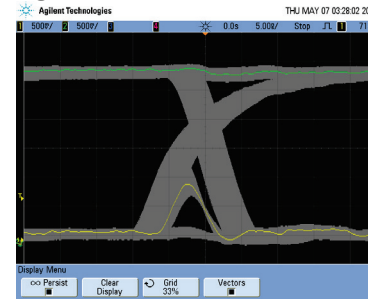
Discovering an Intermittent Pulse / Standard Passive Probe Performance

Tektronix MSO/DPO4000B Series



- ✓ Consistent, user selectable record length across all channels in all acquisition modes.
- ✓ >50,000 wfms/s maximum waveform capture rate.
- ✓ Intensity grading shows frequency of occurrence.
- ✓ Intensity grading is preserved when stopped.
- ✓ Variable persistence also available.
- ✓ 1 GHz probe (1 GHz models)
- ✓ 500 MHz probe (350-500 MHz models)
- ✓ Probe Loading Input Capacitance <4 pF

Agilent MSO/DSO7000B Series

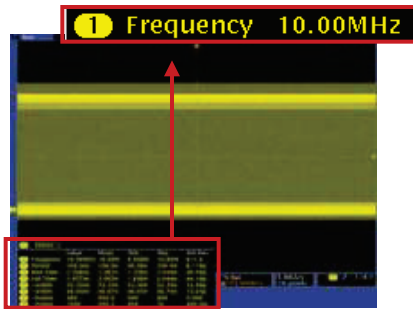


- ✗ Record length determined by the acquisition mode (repetitive, single shot), number of channels on, and time-base setting.
- ✓ 100,000 wfms/s maximum waveform capture rate.
- ✗ No intensity grading in persistence mode – whether running or stopped.
- ✗ Cannot distinguish channel history when stopped – only last acquisition.
- ✗ No variable persistence.
- ✗ 500 MHz probe (350 - 500 MHz, 1 GHz models)
- ✗ 150 MHz probe (100 MHz models)
- ✗ Probe Loading Input Capacitance ~12-15 pF

Measurements and Channel Math

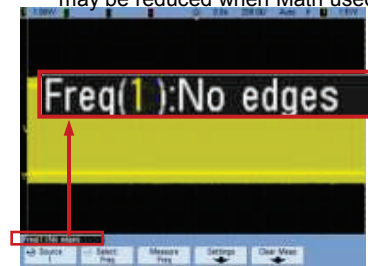
Tektronix MSO/DPO4000B

- ✓ Use all the record length – up to 20 M points for measurements, averaging, and math, and up to 1 M points for FFT.
- ✓ Up to 8 automatic measurements displayed at once.
- ✓ Advanced math with arbitrary expression.
- ✓ Gate measurements by screen or cursors.
- ✓ Accurate low voltage measurement with true 1 mV/div vertical sensitivity setting.



Agilent MSO/DSO7000B

- ✗ Uses only 1000 displayed points by default for measurements, averaging, FFT and math. Special mode for 128k point record length.
- ✗ ≤4 automatic measurements displayed at once.
- ✗ Limited math choices.
- ✗ No cursor gating control.
- ✗ 1 mV/div and 2 mV/div settings are magnifications of 4 mV/div.
- ✗ Record length and sample rate may be reduced when Math used.



Digital Debug with MSO

Tektronix MSO4000B

- ✓ Sample rate not dependent on number of channels used. MagniVu extends digital channel resolution to 61 ps. Minimum detectable pulse: 1ns.
- ✓ 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.
- ✓ Clocked or unclocked parallel bus decode.
- ✓ Event table for parallel bus decode.



Agilent MSO7000B

- ✗ Sample rate cut in half when using both pods. 2 GS/s limits digital channel resolution to 500 ns. Minimum detectable pulse: 2 ns.
- ✗ Record length compromised as digital channels are used.
- ✗ There is no color difference between a low and a high.
- ✗ Bus waveforms anchored to bottom of the display.
- ✗ No clocked parallel bus decode.
- ✗ No event table for parallel bus decode.

