

Tektronix 6 Series B MSO vs. Teledyne LeCroy WavePro HD

COMPETITIVE FACT SHEET

Oscilloscope Performance Specs

Tektronix 6 Series B MSO	LeCroy WavePro HD
✓ 10 GHz & 50 GS/s on <u>two</u> channels 10 GHz & 25 GS/s on <u>four</u> channels	✗ 8 GHz & 20 GS/s on <u>two</u> channels
✓ Up to 64 digital channels (500MHz, 25GS/s)	✗ MS model only - 16 digital channels (250 MHz, 1.25 GS/s)
✓ 100 GS/s of 12-bit ADCs (4x at 25 GS/s), shared for analog or digital FlexChannels™	✗ 40 GS/s of 12-bit ADCs (2x at 20 GS/s) for analog channels only
✓ Full HD 1920 x 1080 15.6" Multi-touch capacitive display	✓ Full HD 1920 x 1080 15.6" Multi-touch capacitive display
✓ 1mV/division hardware vertical sensitivity	✗ 10mV/division hardware vertical sensitivity
✓ Industry's Only Std. closed embedded OS or optional Windows 10 OS	✗ Windows 10 OS Only
✓ Field Upgradable Bandwidth 1GHz→10GHz	✗ No Upgradable Bandwidth



The 6 Series MSO features the same award-winning user interface as the 5 Series MSO



reddot award
product design



GOLDEN
MOUSETRAP
AWARDS
2018 WINNER



Noise Performance at low sensitivities

Bandwidth	Volts / Div	6 Series MSO ^{1,2}	WavePro HD ^{1,2}
2.5 GHz	1 mV	75.6 μ V ✓	155 μ V
	5 mV	90.7 μ V ✓	155 μ V
	10 mV	128 μ V ✓	155 μ V
4 GHz	1 mV	97.4 μ V ✓	228 μ V
	5 mV	117 μ V ✓	228 μ V
	10 mV	171 μ V ✓	228 μ V
8 GHz	1 mV	153 μ V ✓	315 μ V
	5 mV	192 μ V ✓	315 μ V
	10 mV	287 μ V ✓	315 μ V

Note 1: Green checks are awarded for lowest noise as a percentage of full scale. Tektronix scopes display 10 divisions FS, LeCroy scopes display 8.
Note 2: All noise levels are at full bandwidth and represent typical values from both vendors datasheets

Channel Bandwidth, Sample Rate & Memory

Tektronix 6 Series MSO	LeCroy WavePro HD
✓ 10 GHz, 25 GS/s on <u>four</u> channels	✗ 8 GHz, 20 GS/s on <u>two</u> channels
✓ 62.5 Mpts Std. Memory on <u>eight</u> channels	✗ 50 Mpts Std. Memory on <u>four</u> channels

Segmented Memory

Tektronix 6 Series B MSO	LeCroy WavePro HD
✓ FastFrame™ Max of 1,000,000 segments	✗ Max of 65,535 segments
✓ Up to 5,000,000 triggers per second	✗ Up to 650,000 triggers per second
✓ 0 s intersegment time	✗ 1.5 μ s intersegment time

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Key Specifications Comparison

	Tektronix 6 Series B MSO		LeCroy WavePro HD	
Max Bandwidth (on <u>two</u> / <u>four</u> / <u>eight</u> channels)	✓	10 GHz / 10 GHz / 5 GHz	✗	8 GHz / 4 GHz / N/A
Total Sample Rate in Oscilloscope	✓	100 GS/s of sample rate (4x 25 GS/s ADCs)	✗	40 GS/s of sample rate (2x 20 GS/s ADCs)
Analog Sample Rate (on <u>two</u> / <u>four</u> / <u>eight</u> channels)	✓	50 GS/s / 25 GS/s / 12.5 GS/s	✗	20 GS/s / 10 GS/s / N/A
Field Upgradable Bandwidth options	✓	Yes	✗	Not Available
Number of Digital Channels	✓	Up to 64 – with FlexChannels probes (8x TLP058)	✗	MS model provide only 16 digital channels
Digital Channel details	✓	25 GS/s, 500 MHz, individual thresholds, +/-40 V	✗	1.25 GS/s, 250 MHz, 8 grouped thresholds, +/-30 V
Number of Math / Bus channels / Measurements	✓	As many as you want! (until memory runs out)	✗	12 math / 4 buses / 12 measurements
Optional Arbitrary Function Generator (AFG)	✓	Yes – 50 MHz	✗	No AFG option
Optional DVM/ Trigger Freq. Counter	✓	Yes – Free with Registration	✗	No DVM / Counter option
Standard Record Length	✓	62.5 Mpts on up to <u>eight</u> channels	✗	50 Mpts on <u>four</u> channels
Max Optional Record Length	✗	1 Gpts (optional) on up to <u>eight</u> channels	✓	2.5 Gpts (optional) on <u>four</u> channels
Max Segmented Memory segments	✓	1,000,000 segments	✗	65,535 segments
Waveform Capture Rate (non-segmented memory)	✓	>500,000 wfms/s	✗	Not Specified
Effective Number of Bits (ENOB) ^{1, 2}	✓	8.45 bits (1 GHz), 7.95 bits (2.5 GHz), 7.6 bits (4GHz)	✓	7.8 bits (2.5 GHz), 7.5 bits (4GHz)
DC Gain Accuracy	✓	+/- 1.0% Warranted all gain settings, PV provided	✓	+/- 0.5% (0V offset only, no PV process to check)
Visual Trigger (graphical drawn areas)	✓	Yes	✗	Not Available
Floating Licenses (swap licenses between scopes)	✓	Yes – optional floating license can be purchased	✗	Not Available
Operating System	✓	Std. Closed embedded OS or optional Windows 10 OS	✗	Windows 10 Only
TriMode Probe (differential, single, common mode)	✓	TDP7700 Series – up to 10 GHz	✗	Not Available
Analysis / Compliance Packages	✗	Jitter, Power, USB, Automotive, Ethernet, MIPI, DDR3 & LPDDR3, more coming soon	✓	Jitter, Power, USB, PCIe, Automotive, Ethernet, MIPI, DDR

Note 1: Tektronix scopes have been optimized for noise reduction, flatness, INL/DNL ADC linearity calibration and many other areas that don't show up in a head to head matchup with ENOB but is thoroughly optimized for measurement accuracy.

Note 2: Tektronix ENOB is tested at 90% full scale, 500mV Full Scale. Tektronix uses IEEE 1057, Standard for Digitizing Waveform Recorders. LeCroy is tested at 87.5% of full scale at 800mV Full Scale.