Tektronix 5 Series MSO vs. LeCroy HDO9000 Series

COMPETITIVE FACT SHEET

Oscilloscope Design

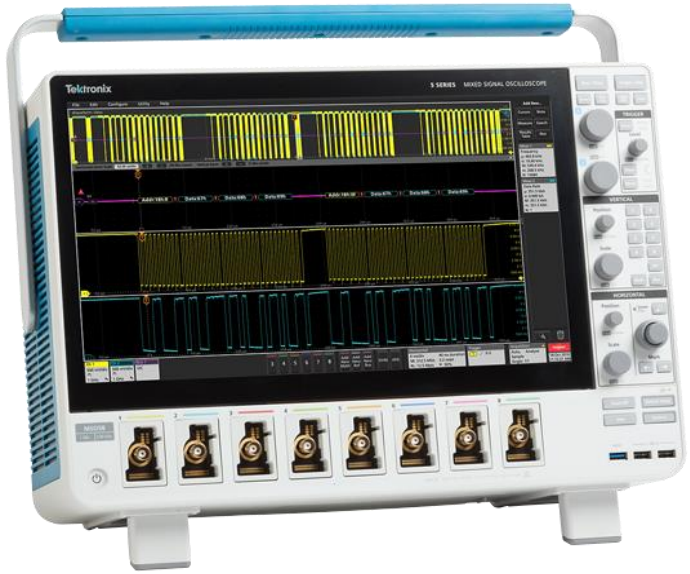
Tektronix 5 Series MSO	**LeCroy** HDO9000 Series
✓ **Industry First** FlexChannels (up to 8) (each input is 1 analog or 8 digital)	✗ Fixed configuration: 4 analog; 16 digital
✓ **Industry First** 4, 6, 8 channel models	✗ 4 channel model only
✓ **Industry First** HD 1920 x 1080 15.6" Multi-touch capacitive display	✗ 15.4" WXGA capacitive touch display
✓ **Industry First** Std. embedded OS or Opt. Windows 10 OS	✗ Windows 7 only
✓ 12 bit Analog to Digital Converter	✗ 8 bit Analog to Digital Converter
✓ >500,000 wfms/sec	✗ Not Available

Analog to Digital Converter (ADC)

Tektronix 5 Series MSO	**LeCroy** HDO9000 Series
✓ 12 bit ADC	✗ 8 bit ADC (Reconfigure to 10 bit)
✓ 6.25 GS/s FlexChannel (Analog or Digital)	✗ 20GS/s Analog; 1.25GS/s digital
✓ Up to 16 bits in **New** High Res mode	✗ Up to 13.8 bits with Optimized Filtering
✓ 7.6 bits ENOB @ 1GHz, 7.9 bits ENOB @ 500MHz	✗ 7.4 bits ENOB @ 1GHz 7.9 bits ENOB @ 500MHz

Included Probing

Tektronix 5 Series MSO	**LeCroy** HDO9000 Series
✓ 1 GHz passive probes (≥1GHz models)	✗ 500 MHz passive probes (≥1GHz models)
✓ 3.9pF Capacitive loading	✗ 10pF Capacitive loading
✓ Automated compensation	✗ Manual compensation
✓ Stores compensation data in memory	✗ Can't store compensation data



Logic Analysis (digital channels)

Tektronix 5 Series MSO	**LeCroy** HDO9000-MS Series
✓ Flexibility – Attached digital probe to any FlexChannel Input	✗ Requires Model –MS be purchased
✓ Up to 64 digital channels (8 per probe)	✗ Up to 16 digital channels
✓ 6.25 GS/s Digital Channel Sample Rate	✗ 1.25 GS/s Digital Channel Sample Rate
✓ 500 MHz || 100K ohm || <3 pF	✗ 250 MHz || 100K ohm || 5 pF
✓ Voltage Input range +/- 30V	✗ Voltage Input Range +/- 20V
✓ ±40V digital threshold level range	✗ ±10V digital threshold level range
✓ 64 adjustable thresholds (one per channel)	✗ 2 adjustable thresholds (one per 8 CHs)

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Key Specifications Comparison

	Tektronix 5 Series MSO		**LeCroy** HDO9000 Series	
Max Bandwidth	✗	Up to 2.0 GHz	✓	Up to 4.0 GHz
Optional Upgradable Bandwidth	✓	Yes	✗	No
Number of Analog Channels	✓	4, 6, or 8 – with FlexChannels™	✗	4
Number of Digital Channels	✓	Up to 32, 48, or 64 – with FlexChannels™	✗	16 on HDO9000-MS models
Number of Math / Bus channels / Measurements	✓	As many as you want!	✗	12 math / 4 buses / 12 measurements
Max Analog Sample Rate (all channels)	✗	6.25 GS/s	✓	20 GS/s
Max Digital Channel Sample Rate (all channels)	✓	6.25 GS/s	✗	1.25 GS/s on HDO9000-MS models
Optional Arbitrary Function Generator (AFG)	✓	Yes – 50 MHz	✗	Not Available
Optional DVM/ Trigger Freq. Counter	✓	Yes – Free with Registration	✗	Not Available
Standard Analog Probes (≥1GHz models)	✓	1 GHz at 3.9pF	✗	500 MHz at 10pF
Passive Probe (auto compensate / remembers data)	✓	Yes / Yes	✗	No / No
Max Standard Record Length (on all channels)	✓	62.5 Mpts	✓	64 Mpts
Max Optional Record Length (on all channels)	✓	125 Mpts	✗	64 Mpts
Max Waveform Capture Rate	✓	>500,000 wfms/s	✗	Not Available
ADC Resolution	✓	12 bits ADC	✗	8 bit ADCs (has reconfigurable mode for 10 bits)
Max Vertical Resolution (with filtering)	✓	Up to 16 bits with High Resolution mode	✗	Up to 13.8 bits with Optional Filtering
Effective Number of Bits (ENOB)*	✓	7.6 Bits	✗	7.4 Bits
Lowest Hardware Vertical Setting	✓	500uV/div = 5 mV Full Scale	✗	2mV/div = 16 mV Full Scale
Screen Size & Resolution	✓	15.6” High Definition 1920 x 1080	✗	15.4” WXGA 1280 x 800
Operating System	✓	Std. Embedded OS or optional Windows 10 OS	✗	Windows 7 only

* ENOB of Tektronix at 500mV FS at 6.25GS/s; LeCroy datasheet at 2GHz (half-bandwidth = 1GHz) at 800mV FS

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