

Tektronix 6 Series MSO vs. Rohde & Schwarz RTO2000

COMPETITIVE FACT SHEET

Oscilloscope Performance Specs

Tektronix 6 Series MSO	Rohde & Schwarz RTO2000
✓ 8 GHz & 25 GS/s on <u>four</u> channels	✗ 6 GHz & 20 GS/s on <u>two</u> channels
✓ Up to 32 digital channels (500 MHz, 25 GS/s)	✗ MSO option - 16 digital channels (400 MHz, 5 GS/s)
✓ 100 GS/s of 12-bit ADCs shared for analog or digital FlexChannels™	✗ 40 GS/s of 8-bit ADCs used for analog channels only
✓ Full HD 1920 x 1080 15.6" Multi-touch capacitive display	✗ WXGA 1280 x 800 12.1" Multi-touch capacitive display
✓ Industry's Only Std. Embedded OS or Optional Windows 10 OS	✗ Windows 7 OS Only
✓ 1 GHz, 3.9 pF passive probes included	✗ 500 MHz, 10pF passive probes included



6 Series MSO



RTO2000

Best in Class Noise Performance

Bandwidth	Volts / Div	6 Series MSO	RTO2000
1 GHz	1 mV	54.8 μV ✓	100 μV
	10 mV	90.9 μV ✓	200 μV
	100 mV	941 μV ✓	1.65 mV
	1 V	7.65 mV ✓	17 mV
4 GHz	1 mV	97.4 μV ✓	240 μV
	10 mV	124 μV ✓	420 μV
	100 mV	1.92 mV ✓	3.6 mV
	1 V	16.3 mV ✓	36 mV
6 GHz	1 mV	127 μV ✓	330 μV
	10 mV	165 μV ✓	480 μV
	100 mV	2.71 mV ✓	3.7 mV
	1 V	23.6 mV ✓	38.8 mV

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



Analog to Digital Converter (ADC)

Tektronix 6 Series MSO	Rohde & Schwarz RTO2000
✓ 12-bit ADC and 25 GS/s on <u>four</u> channels	✗ 8-bit ADC and 10 GS/s on <u>four</u> channel
✓ Tek custom ASIC inputs both analog or digital channels	✗ Only handles analog channels
✓ High Res filtering comes standard!	✗ HD filter mode costs \$1,400
✓ ENOB: 8.2 bits (1 GHz), 7.6 bits (2.5 GHz), 7.25 bits (4 GHz), 6.5 bits (8 GHz)	✗ ENOB: >7 bits (1 GHz), N/A (2.0 GHz), N/A (4 GHz), N/A (6 GHz)

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Key Specifications Comparison

	Tektronix 6 Series MSO		Rohde & Schwarz RTO2000	
Bandwidth models	✓	1 GHz, 2.5 GHz, 4 GHz, 6 GHz, 8 GHz	✓	600 MHz, 1 GHz, 2 GHz, 3, GHz, 4 GHz, 6 GHz
Max Bandwidth on <u>four</u> channels	✓	Up to 8 GHz	✗	Up to 4 GHz
Analog Sample Rate on <u>four</u> channels	✓	25 GS/s	✗	10 GS/s
Number of Digital Channels	✓	Up to 32 – with FlexChannels™	✗	16 digital channels with MS option
Digital Channel Specifications	✓	25 GS/s, 500 MHz, individual thresholds, +/-40 V	✗	5 GS/s, 400 MHz, 4 grouped thresholds, +/-8 V
Number of Math / Bus channels / Measurements	✓	As many as you want! (until memory runs out)	✗	4 math / 4 buses / 8 measurements
Optional Arbitrary Function Generator (AFG)	✗	Yes – optional 1 channel, 50 MHz	✓	Yes – optional 2 channel, 100 MHz
Optional DVM/ Trigger Freq. Counter	✓	Yes – Free with Registration	✗	No DVM / Counter option
Standard Record Length	✓	62.5 Mpts	✗	50 Mpts
Segmented Memory (wfms/second)	✓	>5,000,000 wfms/sec	✗	>2,500,000 wfms/sec
Waveform Capture Rate (non-segmented memory)	✗	>500,000 wfms/sec	✓	1,000,000 wfms/sec
Analog to Digital Converter (ADC)	✓	12-bit ADC	✗	8-bit ADC
Effective Number of Bits (ENOB) @ 500 mV FS 90%	✓	8.2 bits (1 GHz), 7.8 bits (2 GHz), 7.25 bits (4 GHz), 6.5 bits (8 GHz)	✗	> 7.0 bits (Details Not Specified – BW, Scale)
High quality time base oscillator (OCXO)	✓	Included Standard	✗	Option RTO-B4
Standard Analog Probes (≥1GHz models)	✓	1 GHz at 3.9pF	✗	500 MHz at 10pF
Passive Probe (auto compensate / remembers data)	✓	Yes / Yes	✗	No / No
Visual Trigger / Zone Trigger	✓	Included Standard – Draw as many as you want!	✗	Option RTO-K19 – Only up to 8 zones
Floating Licenses (swap licenses between scopes)	✓	Yes – optional floating license can be purchased	✗	Not Available
Operating System	✓	Std. Embedded OS or optional Windows 10 OS	✗	Windows 10 Only
Screen Size & Resolution	✓	15.6" Full High Definition 1920 x 1080	✗	12.1" WXGA 1280 x 800
TriMode Probe (differential, single, common mode)	✓	New TDP7700 Series – up to 8 GHz	✗	Not Available
Analysis / Compliance Packages	✗	Jitter, Power, USB, Automotive, more coming soon	✓	Jitter, Power, USB, Automotive, Ethernet, PCIe, MIPI