Tektronix 6 Series MSO vs. Rohde & Schwarz RTP Series

COMPETITIVE FACT SHEET

Oscilloscope Performance Specs

Tektronix 6 Series MSO	**Rohde & Schwarz** RTP Series
✓ 8 GHz & 25 GS/s on four channels	✗ 8 GHz & 20 GS/s on four 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™	✗ 80 GS/s of 8-bit ADCs used for analog channels only
✓ 50 Ohm and 1 MOhm impedance inputs	✗ 50 Ohm input impedance only
✓ Full HD 1920 x 1080 15.6” Multi-touch capacitive display	✗ HD 1280 x 800 12.1” Multi-touch display
✓ **Industry's Only** Std. Embedded OS or Optional Windows 10 OS	✗ Windows 10 OS Only
✓ 1 GHz, 3.9 pF passive probes included	✗ No probes included

*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

Electronic Products 2017 PRODUCT of the YEAR AWARD

ELEKTRA 2017 WINNER

Noise Performance

Bandwidth	Volts / Div	6 Series MSO	RTP Series
4 GHz	1 mV	97.4 µV ✓	270 µV
	100 mV	1.92 mV ✓	2.7 mV
	1V	16.3 mV ✓	27mV
6 GHz	1 mV	127 µV ✓	340 µV
	100 mV	2.71 mV ✓	3.1 mV
	1 V	23.6 mV ✓	32 mV
8 GHz	1 mV	158 µV ✓	430 µV
	100 mV	3.46 mV ✓	3.6 mV
	1 V	29.7 mV ✓	36 mV

Logic Analysis (MSO – digital channels)

Tektronix 6 Series MSO	**Rohde & Schwarz** RTP Series
✓ Up to 32 digital channels	✗ Up to 16 digital channels
✓ 25 GS/s Digital Channel Sample Rate	✗ 5.0 GS/s Digital Channel Sample Rate
✓ 500 MHz || 100K Ohm || <3 pF	✗ 400 MHz || 100K Ohm || 4 pF
✓ 40 ps digital timing resolution	✗ 200 ps digital timing resolution
✓ ±40 V digital threshold level range	✗ ±8 V digital threshold level range
✓ Up to 32 adjustable thresholds (one per channel)	✗ 4 adjustable thresholds (one per 4 channels)

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Key Specifications Comparison

	Tektronix 6 Series MSO		**Rohde & Schwarz** RTP Series	
Bandwidth models	✓	1 GHz, 2.5 GHz, 4 GHz, 6 GHz, 8 GHz	✗	4 GHz, 6 GHz, 8 GHz
Analog Sample Rate (on four channels)	✓	25 GS/s on four channels	✗	20 GS/s on four channels
Field Upgradable Bandwidth options	✓	Yes	✓	Yes
Number of Digital Channels	✓	Up to 32 – with FlexChannels (4x TLP058 probes)	✗	Up to 16 digital channels
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 / Reference Channels	✓	As many as you want! (until memory runs out)	✗	4 math / 4 buses channels
Optional Arbitrary Function Generator (AFG)	✓	Yes	✓	Yes
Optional DVM/ Trigger Freq. Counter	✓	Yes – Free with Registration	✗	No DVM / Counter option
Channel Input Impedance	✓	50 Ohm and 1 MOhm	✗	50 Ohm only
Standard Record Length (on four channels)	✓	62.5 Mpts	✗	50 Mpts
Max Optional Record Length (on four channels)	✗	250 Mpts (optional)	✓	1 Gpts (optional)
Segmented Memory (wfms/second)	✓	>5,000,000 wfms/sec	✗	3,200,000 wfms/sec
Waveform Capture Rate (non-segmented memory)	✗	>500,000 wfms/sec	✓	950,000 wfms/sec
Analog to Digital Converter (ADC)	✓	12-bit ADC	✗	8-bit ADC
High Resolution / HD Mode	✓	Filter noise at 4 GHz & 12.5 GS/s – Free	✗	HD Mode at 2 GHz & 10 GS/s – option RTP-K17
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)	✗	> 6.5 bits (N/A BW). No other available data.
DC Gain Accuracy	✓	+/- 1.0% Warranted all gain settings, PV provided	✗	+/- 1.5 % to +/-2% (0V offset only)
Size (w x h x d) & Weight	✓	454mm x 309mm x 205mm & 12.7kg (28 lbs)	✗	463mm x 285mm x 349mm & 18kg (~40 lbs)
Floating Licenses (swap licenses between scopes)	✓	Yes – optional floating license can be purchased	✓	Yes
Operating System	✓	Std. Embedded OS or optional Windows 10 OS	✗	Windows 10 Only
TriMode Probe (differential, single, common mode)	✓	***New*** TDP7700 Series	✓	Multi-Mode probe - RT-ZM90

Tektronix