



R&S® RT06 OSCILLOSCOPE

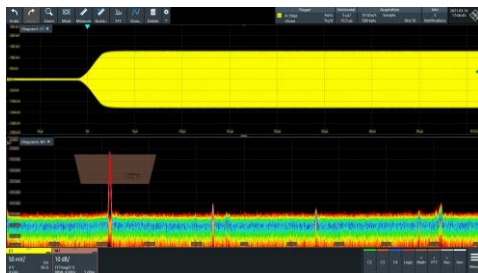
versus Tektronix 6 Series B MSO



Offering bandwidths from 600 MHz to 6 GHz, R&S®RT06 oscilloscopes excel at both time domain and frequency domain testing. Excellent signal fidelity, responsiveness of 1 million waveforms/s and up to 16-bit vertical resolution allow you to measure quickly and with confidence. The capacitive touchscreen with R&S®SmartGrid makes the R&S®RT06 easy and intuitive to use.

Your benefit	Features
Quick and detailed insights	Excellent update rate, memory depth, digital triggering, sample rate, MSO, integrated hardware based spectrum analysis, touchscreen-optimized GUI
Debugging across multiple domains	Unique time domain and frequency domain capability; industry-first ability to trigger in the time or frequency domain and see both domains time-correlated
Deep toolset for signal analysis	Over 90 measurement functions (amplitude and time measurements, jitter, eye, histogram, spectral measurements); statistics, histograms, trend and track functions; the measurement results can also be used in math functions

Fast Fourier transform (FFT) function



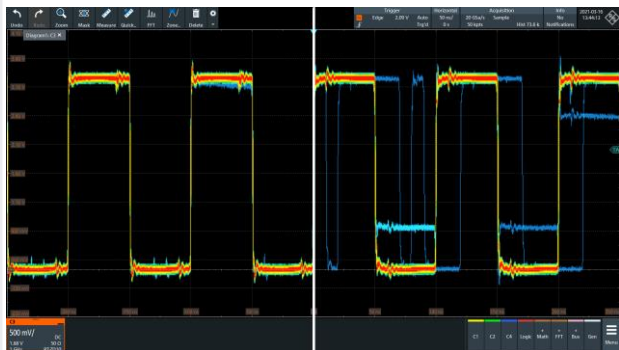
The R&S®RT06 provides multichannel FFTs that enable spectrum analysis on every channel with individual settings (center frequency, frequency span, resolution bandwidth) and an update rate of > 1 000 000 waveforms/s. The overlapping FFT and zone trigger in the frequency domain help to detect and analyze challenging EMI problems such as sporadic emissions.



For more information, visit
www.rohde-schwarz.com/product/RT06

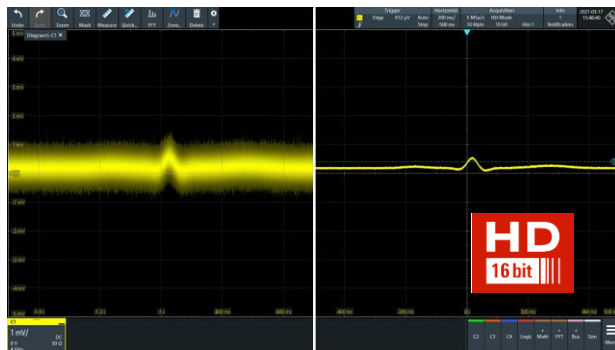
Parameter	R&S®RT06	Tektronix 6 Series B MSO
Bandwidth (GHz)	0.6, 1, 2, 3, 4, 6 (upgradeable)	1, 2.5, 4, 6, 8, 10 GHz (upgradeable)
Input channels	4	4, 6, 8
Mixed signal analysis	16 independent digital channels (optional)	8 digital channels per input channel (optional) – reduced analog channel count
Max. vertical resolution	16-bit	16-bit
Overall system ENOB	Up to 9.4	Up to 9.8
Max. sampling rate	10 Gsample/s on 4 channels 20 Gsample/s on 2 channels (4 GHz and 6 GHz models only)	12.5 Gsample/s on > 4 channels 25 Gsample/s on 4 channels 50 Gsample/s on 2 channels
Memory depth	200 Mpts/channel (standard) Max. 2 Gpts on 2 channels (optional)	62.5 Mpts/channel (standard) Max. 1 Gpts/channel, all channels
Waveform update rate	> 1 000 000 waveforms/s	30,000 wfms/s, 500,000 wfms/s (fast aq)
Noise (1 mV/div, 20 MHz, 50 Ω)	14 µV	9 µV
Spectrum analysis	Overlap FFT, frequency mask, spectrogram (optional), peak list (optional) For every channel: independent settings (center freq., freq. span, RBW), 1 Hz frequency span – more than instrument bandwidth, multiple FFTs	Standard FFT with limited settings Spectrum view: limited freq. span (standard 1.25 GHz, optional max. 2 GHz), non-overlapping, span-locked across all channels, only one spectrum view per input channel
Trigger bandwidth	Full instrument bandwidth, independent of trigger event	Edge: full instrument bandwidth Pulse/logic: 4 GHz
Trigger sensitivity (50 Ω)	0.0001 div (for all bandwidths and all vertical scales), adjustable hysteresis (0 div to 5 div)	2 div to 5 div from DC to 80 % of instrument bandwidth, depending on vertical scaling
Trigger jitter	< 1 ps	< 1.5 ps (sample mode & edge-type trigger) < 80 ps (non edge-type trigger modes)
Zone trigger	Time and frequency domain	Time domain only
Arbitrary function generator	2 channels, 100 MHz	1 channel, 50 MHz
High speed functionalities	Deembedding, clock data recovery, high speed serial pattern trigger	Not available

Quickly find signal faults with 1 million waveforms/s



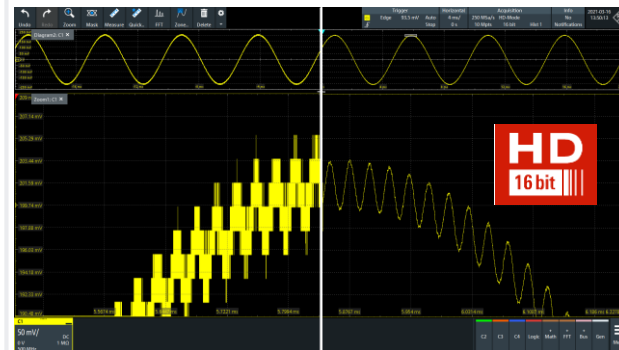
R&S®RT06 oscilloscopes display up to 1 million waveforms/s. Rohde & Schwarz achieved this by developing an ASIC with optimized signal processing. R&S®RT06 oscilloscopes enable you to quickly and reliably detect sporadic signal faults. A high acquisition rate is available even when histograms, masks or cursor measurements are active.

Trigger on any signal detail you see



The unique digital trigger system from Rohde & Schwarz uses the sampling points of the A/D converter in the acquisition path so the trigger system's input data is identical to the displayed signal. The trigger system runs in high definition (HD) mode with up to 16-bit vertical resolution. This results in very high trigger sensitivity. You can reliably isolate even the smallest signal details.

Up to 16-bit vertical resolution



The low-noise frontend and 10 GHz single-core A/D converter are the foundation for the extraordinarily high measurement accuracy and dynamic range of the R&S®RT06 oscilloscopes. The HD mode activates a configurable hardware lowpass filter, increasing the vertical resolution to up to 16 bit and 9.4 ENOB. Since filtering reduces quantizing noise, signal details become visible.

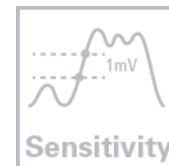
Advantages of the R&S®RT06 over the Tektronix 6 Series B MSO



33 x
faster capture rate



3 x
more memory



2 x
better input sensitivity

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