Make ideas real



# R&S®RTO6 SERIES OSCILLOSCOPES

# Instant insight meets in-depth information



The R&S®RTO6 is the oscilloscope you can trust.

Engineered to deliver reliable results, it is a sophisticated laboratory companion that quickly helps solve measurement problems and keeps things on schedule. The R&S®RTO6 series oscilloscopes leverage engineering expertise to build measurement confidence with deep insights whenever you need them.

The R&S®RT06 series oscilloscopes have a broad measurement toolset, a 15.6" touchscreen and streamlined user interface to help you quickly solve simple or complex circuit issues.

The perfect choice for

Spectrum analysis Serial bus analysis

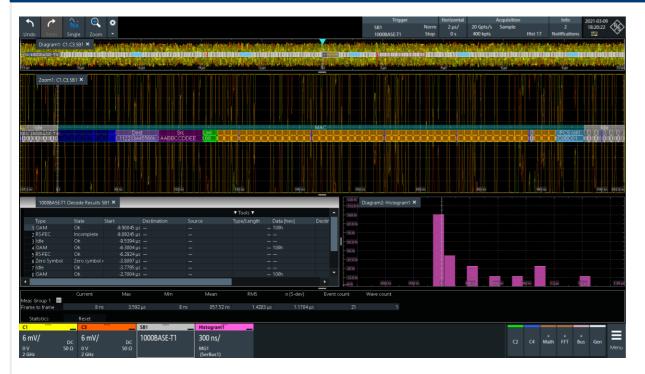
EMI debugging

Power integrity

Key specifications	
Bandwidth	600 MHz/1/2/3/4/6 GHz
Number of channels	4
Update rate (max.)	1 million waveforms per second
Sample rate	10 Gsample/s per channel 20 Gsample/s on 2 ch (4 GHz and 6 GHz models)
Vertical resolution	16-bit system architecture Up to 9.4 effective number of bits (ENOB)
Memory depth	200 Mpts per channel (standard) 1 Gpts per ch/2 Gpts on 1 ch (optional)

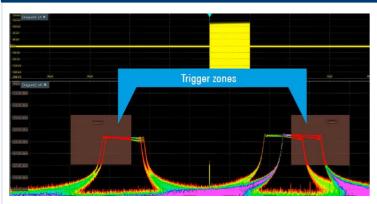
Clear benefits	Intuitive features
Find signal anomalies quickly	with an unparalleled update rate. By capturing up to 1 million waveforms per second, R&S®RT06 oscilloscopes acquire, process and display signals extremely quickly. The high update rate increases the likelihood of detecting and displaying signal faults and including them in an analysis.
Capture all signal details	with excellent signal integrity. Custom A/D converters with extremely low linearity errors and an ultra- wide, spurious-free dynamic range ensure excellent signal integrity and an ENOB of up to 9.4.
See more	with up to 16-bit resolution. The high definition (HD) mode increases the R&S®RTO6 oscilloscope vertical resolution up to 16 bit with digital filtering. The increased resolution allows for sharper waveforms and reveals more signal details that might be masked by noise—or missed entirely.
Find complex signal details	with advanced trigger capabilities. The patented digital trigger system enables triggering on the smallest signal amplitudes and isolation of relevant signal events. The unique zone trigger function can separate events in both the time and frequency domain.
Measure more	with deep and responsive memory. Applications such as the seamless acquisition of long pulse trains or protocol sequences often require the deep memory of R&S®RTO6 oscilloscopes. Segmented memory and history mode help analyze and play back signal sequences over a long observation period.

#### Streamlined user interface and 15.6" touchscreen



The optimized R&S®RT06 user interface and large 15.6" Full HD touchscreen simplify daily measurement tasks with straightforward workflows and multi-touch gestures. The enhanced waveform viewing area and condensed menus maximize the usability of R&S®RT06 oscilloscopes and increase productivity by letting you focus on what is important — measuring.

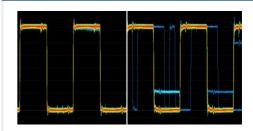
## Zone trigger in time and frequency domain



The intuitive touch function can be used to quickly draw shapes over the waveform area to activate the R&S®RT06 oscilloscope zone trigger, helping graphically separate events in both the time and frequency domain. Define up to eight zones and logically combine them over multiple channels or math functions. Zones activate a trigger signal when a signal either intersects or fails to intersect with the zone, which can be a real-time waveform or a spectrum plot. This powerful, user-friendly feature can separate read/write sequences from the memory of the device under test (DUT).

Ordering information	
Base unit	Туре
Four-channel oscilloscope	R&S®RTO64
Bandwidth options (select one)	
600 MHz	R&S®RT06-B90
1 GHz	R&S®RT06-B91
2 GHz	R&S®RT06-B92
3 GHz	R&S®RT06-B93
4 GHz	R&S®RT06-B94
6 GHz	R&S®RT06-B96
Hardware options	
Mixed signal option: 400 MHz, 16 digital channels	R&S®RTO6-B1
Arbitrary waveform generator	R&S®RT06-B6
16 GHz diff. pulse source/TDR/TDT analysis	R&S®RT06-B7/-K130
Memory upgrade: 400 Mpts per channel	R&S®RT06-B104
Memory upgrade: 1 Gpts per channel	R&S®RT06-B110
Recommended software options	
Spectrum analysis	R&S®RT06-K37
Power analysis	R&S®RT06-K31
Bus analysis	R&S®RT06-K500
Trigger and decode bundle	R&S®RTO6-TDBDL

### One million waveforms per second



R&S®RTO6 oscilloscopes can update at a high rate of up to one million waveforms per second when histograms, masks or cursor measurements are active. The ASIC based signal processing paths ensure a smooth workflow even when performing analysis with the deep acquisition memory.

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