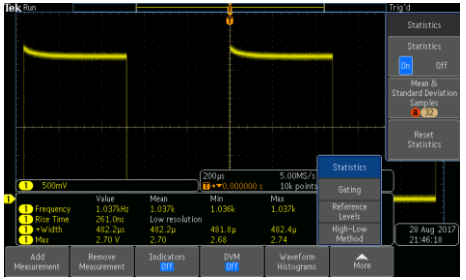
R&S®RTM3000

versus

Tektronix MDO3000

The R&S®RTM3000 outperforms the Tektronix MDO3000 in key parameters with the power of ten.

R&S®RTM3000: 10.1" display, 1280 x 800 pixel resolution



Tektronix MDO3000: 9" display, 800 x 480 pixel resolution

Your benefit	Features
Sharp waveforms, more accurate measurements	10-bit ADC with the R&S®RTM3000 oscilloscope's low-noise frontend gives you more accurate measurements and sharper waveforms.
Capture long periods at high sample rate	The R&S®RTM3000 oscilloscope's standard deep memory gives you extra insurance for those difficult measurements where other scopes run out of capacity.
Debug in the domain you're most comfortable with	Not only does the R&S®RTM3000 provide excellent time domain capabilities, it also offers advanced frequency domain analysis with simple RF setup, spectrogram and time-gated RF views.

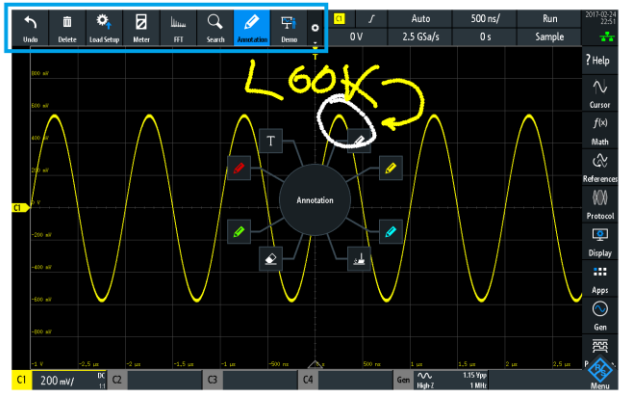
▷ For more information,
see www.rohde-schwarz.com/catalog/RTM3000

Parameter	R&S®RTM3000	Tektronix MDO3000
Acquisition system		
Bandwidth (MHz)	100, 200, 350, 500, 1000 (1GHz) (upgradable)	100, 200, 350, 500, 1000 (1GHz) (upgradable)
ADC resolution	10-bit	8-bit
Max. resolution	16-bit with high resolution	11-bit with high resolution
Max. realtime sampling rate	5 Gsample/s	2.5 Gsample/s (100, 200, 350, 500 MHz) 5 Gsample/s (1 GHz)
Standard memory depth	40 Msample per ch all channels 80 Msample interleaved	10 Msample per ch all channels
Segmented memory depth/history mode	optional – 400 Msample	no
Waveform update rate	64 000 waveforms/s	235 000 to 280 000 waveforms/s
MSO sampling rate / memory	5 Gsample/s / 80 Msample	500 Msample/s / 10 Msample
Hardware dynamic range, full bandwidth	1MΩ: 5mV to 100V 50Ω: 5mV to 10V	1MΩ: 50mV to 100V 50Ω: 50mV to 10V
Multi-domain analysis	yes, 4 inputs up to bandwidth of base unit with spectrogram	yes, 1 input up to bandwidth of base unit optional up to 3 GHz
Passive probes	500 MHz 10:1	500 MHz 10:1 on 500 MHz and below 1 GHz 10:1 on 1 GHz scopes
Accuracy		
DC gain accuracy	1.5 % to 3 %	1.5 % to 3 %
Channel-to-channel isolation	> 50 dB up to bandwidth of scope	> 40 dB at ≤ 100 MHz > 30 dB at > 100 MHz BW
Form factor		
Display	10.1" (1280 x 800)	9" (800x480)
Touchscreen	yes – capacitive	no
Grid annotation	yes	no
Boot time	~ 10 s	~ 45 s

Innovative user interface, quick and easy to use

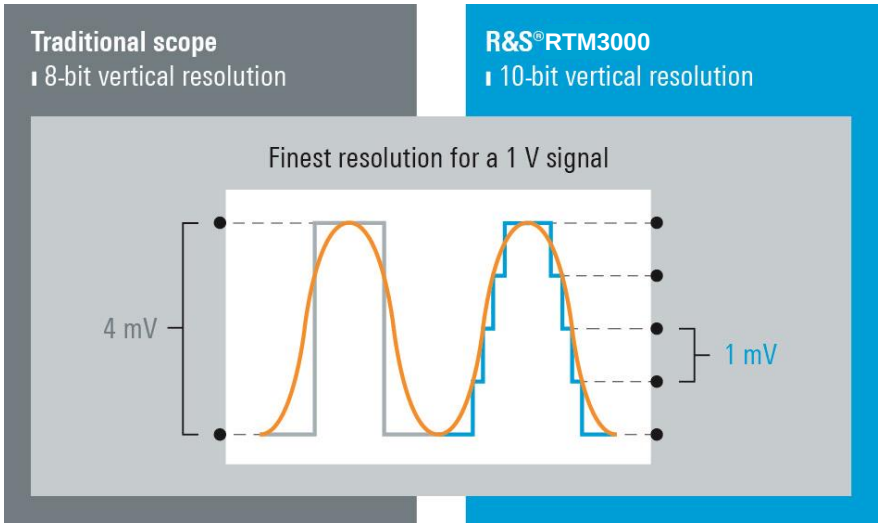
The R&S®RTM3000 user interface offers features not available on the Tektronix MDO3000.

- Touchscreen with gesture support and on-screen annotation
- Mouse support
- Grid annotations for easy determination of vertical and horizontal values
- Pull up/down menu for optimized waveform viewing
- Quick measure button to immediately display nine automated measurements on the signal



Configurable toolbar (including undo and redo) for fast access to functions and quick finger annotation, allowing fast operation and documentation.

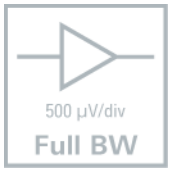
10-bit ADC provides 4 times the vertical resolution of 8-bit ADC



Advantage factors of R&S®RTM3000 versus Tektronix MDO3000

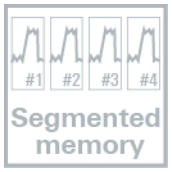
4 times
more ADC resolution

8 times
more memory



10 times
hardware dynamic range (full bandwidth)

∞
more capacitive touch



∞
more segmented memory

2.7 times
more pixels

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