

# R&S®RTM3000

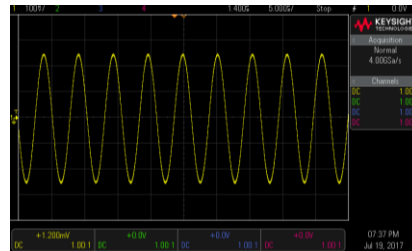
versus

# Keysight 3000T X-Series

The R&S®RTM3000 outperforms the Keysight InfiniiVision 3000T X-series in key parameters with the power of ten.



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



Keysight X3000T: 8.5" 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](http://www.rohde-schwarz.com/catalog/rtm3000)

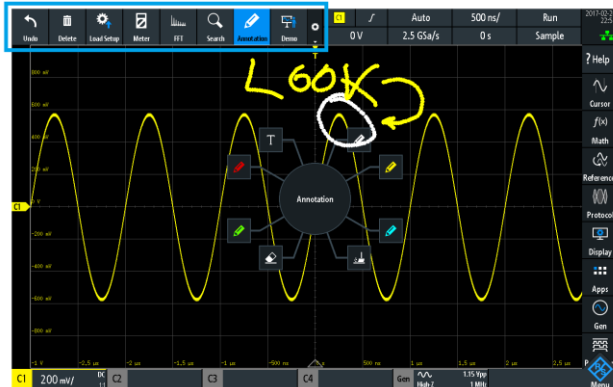


| Parameter                      | R&S®RTM3000   | Keysight X3000T  |
|--------------------------------|---|--|
| <b>Acquisition system</b>      |   |  |
| Bandwidth (MHz)                | 100, 200, 350, 500, 1000 (1GHz) (upgradable)                              | 100, 200, 350, 500, 1000 (1GHz) (upgradable)           |
| ADC resolution                 | 10-bit  | 8-bit  |
| Max. resolution                | 16-bit with high resolution or averaging                                  | 12-bit with averaging                                  |
| Max sampling rate              | 5 Gsample/s   | 5 Gsample/s  |
| Memory depth                   | 40 Msample per ch all channels<br>80 Msample interleaved                  | 2 Msample per ch all channels<br>4 Msample interleaved |
| Segmented memory/ history mode | optional – 400 Msample  | standard – 4 Msample                                   |
| Waveform update rate           | 64 000 waveforms/s<br>2 000 000 waveforms/s in fast segmented memory mode | 1 000 000 waveforms/s                                  |
| MSO sampling rate / memory     | 5 Gsample/s / 80 Msample  | 1.25 Gsample/s / 2 Msample                             |
| Hardware input sensitivity     | 500 µV/div to 10 V/div  | 4 mV/div to 10 V/div                                   |
| Multi-domain analysis          | yes, 4 inputs up to bandwidth of base unit with spectrogram               | yes, 4 inputs up to bandwidth of base unit             |
| <b>Accuracy</b>                |   |  |
| DC gain accuracy               | 1.5 % to 3 %  | 2 % to 8 %   |
| Channel-to-channel isolation   | > 50 dB up to bandwidth of scope  | > 40 dB up to bandwidth of scope                       |
| <b>Form factor</b>             |   |  |
| Display                        | 10.1" (1280 x 800)  | 8.5" (800 x 480)                                       |
| Touchscreen                    | yes – capacitive  | yes - capacitive                                       |
| Boot time                      | ~ 10 s  | ~ 30 s   |

## Innovative user interface, quick and easy to use

The R&S®RTM3000 user interface offers features not available on the Keysight X3000T.

- Touchscreen with gesture support and on-screen annotation
- Mouse support
- Grid annotations for easy determination of vertical and horizontal values
- Adjustable waveform diagram 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.

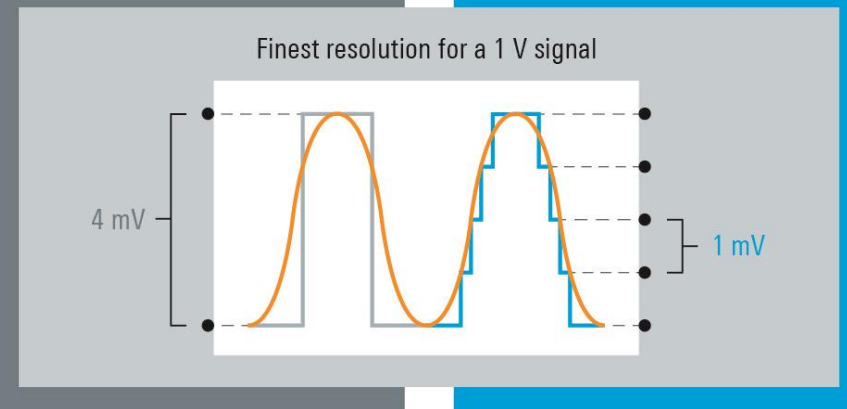
## 10-bit ADC provides 4 times the vertical resolution of 8-bit ADC

Traditional scope

8-bit vertical resolution

R&S®RTM3000

10-bit vertical resolution



## Advantage factors of R&S®RTM3000 versus Keysight X3000T



**4 times**  
more ADC resolution



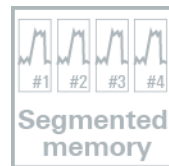
**20 times**  
more memory



**45%**  
more display area



**3 times**  
faster boot time



**100 times**  
more segmented memory



**2.7 times**  
more pixels