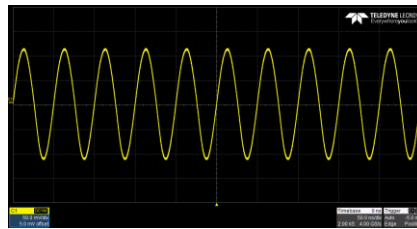# R&S®RTM3000
## versus LeCroy WaveSurfer3000z

### The R&S®RTM3000 outperforms the LeCroy WaveSurfer3000z in key parameters with the power of ten



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



LeCroy WS3000z: 10.1" display, 1024 × 600 pixel resolution

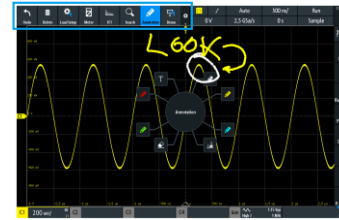| Your benefit | Features |
| --- | --- |
| Sharp waveforms, more accurate measurements | 10-bit ADC with the R&S®RTM3000 oscilloscope's low-noise frontend gives you more accurate measurements and sharper waveforms |
| Capture long periods at high sample rate | The R&S®RTM3000 oscilloscope's standard 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 |

| Parameter | R&S®RTM3000 | LeCroy WS3000z |
| --- | --- | --- |
| **Acquisition system** | | |
| Bandwidth | 100/200/350/500/1000 MHz (1 GHz) (upgradeable) | 100/200/350/500/1000 MHz (1 GHz) (upgradeable) |
| Channels | 2 or 4 analog channels | 4 analog channels only |
| ADC resolution | 10-bit | 8-bit |
| Max. resolution | 16-bit with high resolution or averaging | 11-bit with ERES |
| Max. sampling rate | 5 Gsample/s | 4 Gsample/s |
| Standard memory depth | 40 Msample per channel (all channels) 80 Msample (interleaved) | 10 Msample per channel (all channels) 20 Msample (interleaved) |
| Segmented memory depth/history mode | Optional – 400 Msample | Standard – 10 Msample |
| Waveform update rate | 64 000 waveforms/s standard 2 000 000 waveforms/s in fast segmented memory mode | 130 000 waveforms/s standard |
| MSO sampling rate / memory | 5 Gsample/s / 80 Msample | 500 Msample/s / 10 Msample |
| Hardware input sensitivity | 500 µV/div to 10 V/div | 1 mV/div to 10 V/div |
| Frequency domain analysis | yes, 4 inputs up to bandwidth of base unit with spectrogram | yes, 4 inputs up to bandwidth of base unit |
| **Accuracy** | | |
| DC gain accuracy | 1.5 % to 3 % | 1.5 % to 2.5 % |
| Channel-to-channel isolation | > 50 dB up to bandwidth of scope | not specified |
| **Form factor** | | |
| Display | 10.1" (1280 × 800) pixel resolution | 10.1" WVGA (1024 × 600) pixel resolution |
| Touchscreen | yes – capacitive | yes |
| Grid annotation | yes | – |
| Boot time | ~ 10 s | ~ 50 s |

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

# Innovative user interface, quick and easy to use



Configurable toolbar (including undo and redo) for fast access to functions and quick finger annotation, allowing fast operation and documentation
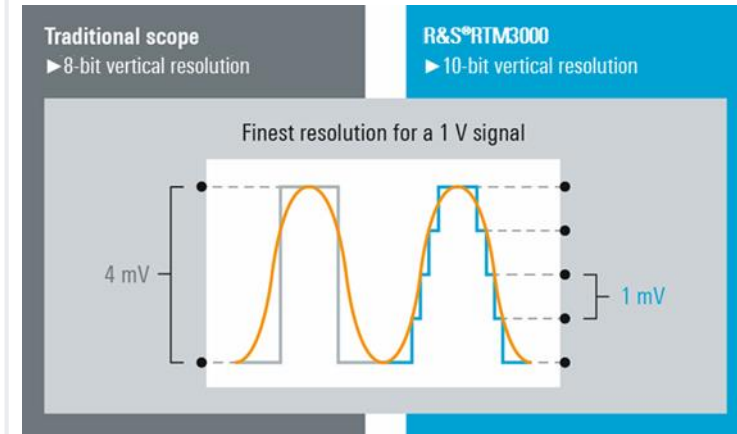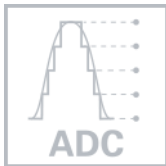
The R&S®RTM3000 user interface offers features not available on the LeCroy Wavesurfer3000z.
► Touchscreen with gesture support and on-screen annotation
► Mouse support
► Grid annotations for easy determination of vertical and horizontal values
► Pull up/down menu for optimized waveform viewing
► Quick measure button to immediately display nine automated measurements on the signal

## A 10-bit ADC provides four times the vertical resolution of an 8-bit ADC

**Traditional scope**
►8-bit vertical resolution

**R&S®RTM3000**
►10-bit vertical resolution

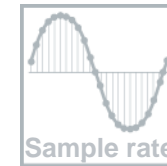Finest resolution for a 1 V signal

4 mV

1 mV

## Advantages of R&S®RTM3000 over LeCroy WaveSurfer3000
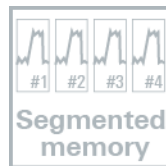
**4 x** More ADC resolution

**4 x** More memory

**25 %** Higher sampling rate

**5 x** Faster boot time

**40 x** More segmented memory

**2.7 x** More pixels