

# R&S® RTM-K15 history and segmented memory

## 100 times longer analysis period



### The perfect choice

General debugging of embedded designs

Protocol traffic analysis

Pulsed signals

Power integrity analysis

### Key specifications of the R&S® RTM-K15

|                             |                 |                     |                      |  |  |
|-----------------------------|-----------------|---------------------|----------------------|--|--|
| <b>Memory segmentation</b>  | no. of segments | record length:      | segments:            |  |  |
|                             |                 | 10 ksample          | 45 000               |  |  |
|                             |                 | 20 ksample          | 22 500               |  |  |
|                             |                 | 50 ksample          | 9183                 |  |  |
|                             |                 | 100 ksample         | 4591                 |  |  |
|                             |                 | 200 ksample         | 2301                 |  |  |
|                             |                 | 500 ksample         | 921                  |  |  |
|                             |                 | 1 Msample           | 460                  |  |  |
| <b>Ultra segmented mode</b> | active on       | 2 Msample           | 230                  |  |  |
|                             |                 | 5 Msample           | 92                   |  |  |
|                             |                 | 10 Msample          | 46                   |  |  |
|                             |                 | 20 Msample          | 23                   |  |  |
|                             |                 | <b>History mode</b> | timestamp resolution | all analog and logic channels, protocol decoding and spectrum view |  |
|                             |                 |                     |                      | blind time $\leq 5 \mu\text{s}$ (up to 200 000 waveforms/s)        |  |
|                             |                 | 3.2 ns              |                      |  |  |

### Capture the longest time periods

- Class leading 460 Msample segmented memory
- Class leading 45 000 segments

### Capture all relevant signal details

- Minimal blind time of  $5 \mu\text{s}$  for fast acquisition
- Maintain highest time resolution within the segment with up to 5 Gsample/s

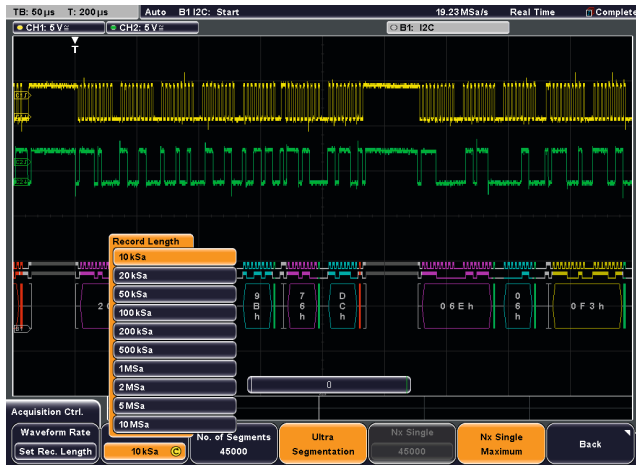
### Analyze each segment with all tools

- QuickMeas
- Mask test
- Serial protocol decode
- MSO functionality
- FFT and spectrum analysis

### Uncover recurring patterns in history

- High resolution 3.2 ns timestamps for each segment
- Download all data for offline analysis

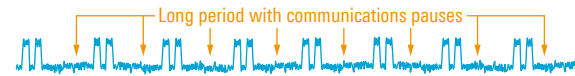
► For more information, see [www.rohde-schwarz.com/product/rtmk15](http://www.rohde-schwarz.com/product/rtmk15)



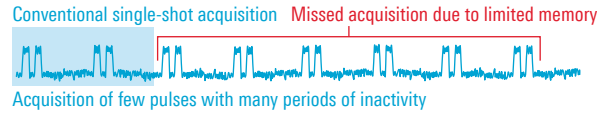
Capture and analyze pulsed and burst signals over a long period.  
460 Msample deep segmented memory is unique in this class.

## Single shot versus segmented acquisition

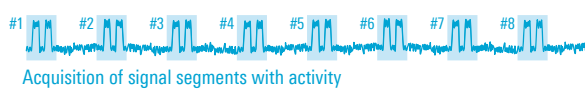
### Protocol-based signal with communications pauses



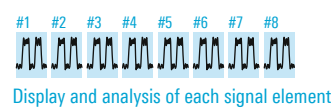
### Single-shot acquisition



### Acquisition using segmented memory



### Analysis of each segment using the history function

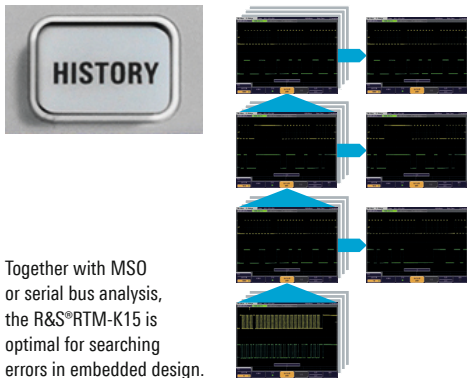


## Recommended for use with

| Designation  | Type        |
|--|-------------|
| Digital oscilloscope, base unit                          | R&S®RTM2000 |
| Hardware option  |             |
| Logic analysis (MSO)                                     | R&S®RTM-B1  |
| Software options   |             |
| I²C/SPI serial triggering and decoding                   | R&S®RTM-K1  |
| UART/RS-232/RS-422/RS-485 serial triggering and decoding | R&S®RTM-K2  |
| CAN/LIN serial triggering and decoding                   | R&S®RTM-K3  |
| I²S/LJ/RJ/TDM serial triggering and decoding             | R&S®RTM-K5  |
| MIL-STD-1553 serial triggering and decoding              | R&S®RTM-K6  |
| ARINC429 serial triggering and decoding                  | R&S®RTM-K7  |
| Spectrum analysis and spectrogram                        | R&S®RTM-K18 |

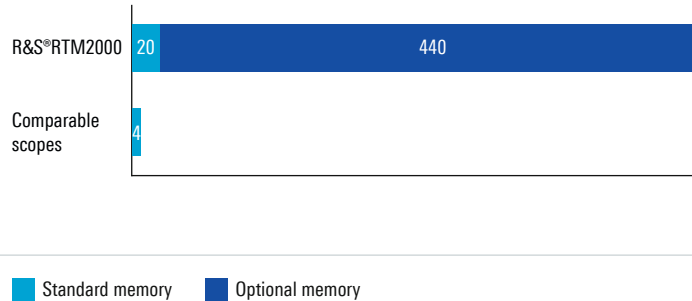
## At a glance

Capture the longest periods with class leading 460 Msample memory



Together with MSO or serial bus analysis, the R&S®RTM-K15 is optimal for searching errors in embedded design.

Capture the longest time periods with class leading 460 Msample memory



■ Standard memory ■ Optional memory

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