

# R&S® RTA4000 Oscilloscopes

## Power of 10



### The perfect choice for

R&D power integrity debugging

R&D serial bus debugging

R&D debugging  
EMI debugging

Manufacturing testing and repair

### Key specifications

Bandwidth	200 MHz, 350 MHz, 500 MHz, 1 GHz
Channels	4 analog channels + 16 digital channels (with MSO option)
ADC	10-bit
Max. sampling rate	5 Gsample/s (interleaved), 2.5 Gsample/s (all channels)
Memory	100 Msample, 200 Msample (interleaved), 1 Gsample (1000 Msample) in history mode
Display	10.1" capacitive touch, 1280 x 800 resolution
Boot time	10 seconds
Connectivity	LAN, USB host/device, fast display over Ethernet
Upgradable	bandwidth, protocol trigger and decode, MSO, pattern generator and arbitrary waveform generator
Probe interface	probe power and auto configuration
Warranty	standard 3-year

### See more of your signal with the power of 10

What sets these scopes apart from all others in their class? New, advanced technology.

- Rohde & Schwarz designed 10-bit ADC
- 500  $\mu\text{V}/\text{div}$  sensitivity with full bandwidth and low noise
- 1000 Msample total standard memory, optimal for serial protocol analysis

Your benefit	Features
See small signal details in the presence of large signals	10-bit ADC, class-leading signal integrity, 500 $\mu\text{V}/\text{div}$ sensitivity with full bandwidth and low noise
Easier to see and collaborate. Faster to operate and interpret results	10.1" capacitive touchscreen with 1280 x 800 resolution, grid annotation, split window, SmartGrid.
Capture more time at full bandwidth	5 Gsample/s max. sample rate with up to 200 Msample memory, 12 horizontal divisions, 1 Gsample in history mode, class-leading timebase accuracy
Troubleshoot and solve a wide range of problems with one instrument	8 instruments in one: oscilloscope, logic analyzer, spectrum analyzer, protocol analyzer, arbitrary waveform generator, pattern generator, counter, digital voltmeter

► For more information, visit  
[www.rohde-schwarz.com/catalog/RTA4000](http://www.rohde-schwarz.com/catalog/RTA4000)



## Unrivaled signal integrity and deep memory

- Superb noise values allows you to see more of your signal
- Rohde & Schwarz designed 10-bit ADC
- 500  $\mu\text{V}/\text{div}$  sensitivity with full bandwidth and low noise
- Capture more time at full bandwidth
- Deep memory: standard 100 Msample per channel and 200 Msample interleaved
- Class-leading timebase accuracy ensures deep memory measurement accuracy
- Standard history function with over 1000 Msample of memory allows you to see back in time to potentially tens of thousands of trigger events

## 8 instruments in one

Oscilloscope	standard
Logic analyzer (16-channel MSO)	R&S®RTA-B1MSO option, includes cabling, lead sets and grabbers
Protocol analyzer	options for different serial buses
Spectrum analyzer	R&S®RTA-K18 option with spectrogram
Integrated digital voltmeter	standard
Trigger counter	standard
Waveform generator (25 MHz)	R&S®RTA-B6 option
Pattern generator (4-bit)	R&S®RTA-B6 option

## Ordering information

### Step 1: Choose your oscilloscope model

Four-channel model: R&S®RTA4004

**Included:** All models include R&S®RT-ZP10 passive probes for each channel, a power cord and a 3-year warranty.

**Languages supported:** English, German, French, Spanish, Italian, Portuguese Czech, Polish, Russian, simplified and traditional Chinese, Korean and Japanese.

### Step 2: Choose your bandwidth option

200 MHz bandwidth	standard
350 MHz bandwidth	R&S®RTA-B243
500 MHz bandwidth	R&S®RTA-B245
1 GHz bandwidth	R&S®RTA-B2410

### Step 3: Choose your options and accessories

#### Software options

Triggering and decoding	R&S®RTA-K1 I <sup>2</sup> C/SPI R&S®RTA-K2 UART/RS-232/422/485 R&S®RTA-K3 CAN/LIN R&S®RTM-K5 I <sup>2</sup> S audio R&S®RTM-K6 MIL-STD-1553 R&S®RTM-K7 ARINC-429
Spectrum analysis	R&S®RTA-K18
Power analysis	R&S®RTA-K31
Application bundle	R&S®RTA-PK1 (includes R&S®RTA-K1, -K2, -K3, -K5, -K6, -K7, -K18, -K31, -B6)

#### Hardware options

R&S®RTA-B1 mixed signal upgrade for non-MSO models, 400 MHz
R&S®RTA-B6 arbitrary waveform generator

#### Accessories

R&S®ZZA-RTA4K rackmount kit
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### Step 4: Choose your probes (more available)

Power rail probe	Type
2.0 GHz, 1:1, 50 k $\Omega$ , $\pm 0.85$ V, $\pm 60$ V offset, Rohde & Schwarz probe interface	R&S®RT-ZPR20
Active single-ended probes	
1.0 GHz, 1 M $\Omega$ , Rohde & Schwarz probe interface	R&S®RT-ZS10E
Active differential probes	
1.0 GHz, 1 M $\Omega$ , R&S®ProbeMeter, micro button, Rohde & Schwarz probe interface	R&S®RT-ZD10
Current probes	
100 MHz, AC/DC, 0.1 V/A, 30 A (RMS), Rohde & Schwarz probe interface	R&S®RT-ZC20B
High voltage differential probes	
100 MHz, 1000:1/100:1, 40 M $\Omega$ , 6000 V (pk), 1000 V CATIII, Rohde & Schwarz probe interface	R&S®RT-ZHD60