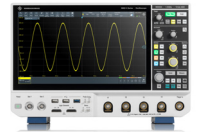


OSCILLOSCOPE PORTFOLIO



R&S®	RTH1000	RTC1000	RTB2000	RTM3000	MX04
Vertical					
Bandwidth	60/100/200/350/500 MHz ¹⁾	50/70/100/200/300 MHz ¹⁾	70/100/200/300 MHz ¹⁾	100/200/350/500 MHz/1 GHz ¹⁾	200/350/500 MHz/1/1.5 GHz ¹⁾
Number of channels	2 plus DMM/4	2	2/4	2/4	4
ADC resolution; system architecture	10 bit; 16 bit	8 bit; 16 bit	10 bit; 16 bit	10 bit; 16 bit	12 bit; 18 bit
V/div, 1 MΩ	2 mV to 100 V	1 mV to 10 V	1 mV to 5 V	500 μV to 10 V	500 μV to 10 V
V/div, 50 Ω	–	–	–	500 μV to 1 V	500 μV to 1 V
Horizontal					
Sampling rate per channel (in Gsample/s)	1.25 (4 CH model); 2.5 (2 CH model); 5 (all channels interleaved)	1; 2 (2 CH interleaved)	1.25; 2.5 (2 CH interleaved)	2.5; 5 (2 CH interleaved)	2.5; 5 (2 CH interleaved)
Maximum memory (per channel/1 channel active)	125 kpoints (4 CH model); 250 kpoints (2 CH model); 500 kpoints	1 Mpoints; 2 Mpoints	10 Mpoints; 20 Mpoints	40 Mpoints; 80 Mpoints	standard: 400 Mpoints; max. upgrade: 800 Mpoints ²⁾
Segmented memory	standard, 50 Mpoints	–	option, 320 Mpoints	option, 400 Mpoints	standard: 10 kpoints; option: 1 Mpoints
Acquisition rate (in waveforms/s)	50 000	10 000	50 000 (300 000 in fast segmented memory mode ²⁾)	64 000 (2 000 000 in fast segmented memory mode ²⁾)	> 4 500 000
Trigger					
Types	digital	analog	analog	analog	digital
Sensitivity	–	–	at 1 mV/div: > 2 div	at 1 mV/div: > 2 div	0.0001 division, all bandwidth, user controllable
Mixed signal option					
Number of digital channels ¹⁾	8	8	16	16	16
Analysis					
Mask test	tolerance mask	tolerance mask	tolerance mask	tolerance mask	³⁾
Mathematics	elementary	elementary	basic (math on math)	basic (math on math)	basic (math on math)
Serial protocols triggering and decoding ¹⁾	I ² C, SPI, UART/RS-232/RS-422/RS-485, CAN, LIN, CAN-FD, SENT	I ² C, SPI, UART/RS-232/RS-422/RS-485, CAN, LIN	I ² C, SPI, UART/RS-232/RS-422/RS-485, CAN, LIN	I ² C, SPI, UART/RS-232/RS-422/RS-485, CAN, LIN, I ² S, MIL-STD-1553, ARINC 429	I ² C, SPI, UART/RS-232/RS-422/RS-485, CAN ³⁾ , CAN-FD ³⁾ , CAN-XL ³⁾ , LIN ³⁾ , MIL-STD-1553 ³⁾ , ARINC 429 ³⁾
Applications ^{1), 2)}	high-resolution frequency counter, advanced spectrum analysis, harmonics analysis, user scripting	digital voltmeter (DVM), component tester, fast Fourier transform (FFT)	digital voltmeter (DVM), fast Fourier transform (FFT), frequency response analysis	power, digital voltmeter (DVM), spectrum analysis and spectrogram, frequency response analysis	power ³⁾ , frequency response analysis
Compliance testing ^{1), 2)}	–	–	–	–	–
Display and operation					
Size and resolution	7" touchscreen, 800 × 480 pixel	6.5", 640 × 480 pixel	10.1" touchscreen, 1280 × 800 pixel	10.1" touchscreen, 1280 × 800 pixel	13.3" touchscreen, 1920 × 1080 pixel (Full HD)
General data					
Dimensions in mm (W × H × D)	201 × 293 × 74	285 × 175 × 140	390 × 220 × 152	390 × 220 × 152	414 × 279 × 162
Weight in kg	2.4	1.7	2.5	3.3	6
Battery	lithium-ion, > 4 h	–	–	–	–

¹⁾ Upgradeable.

²⁾ Requires an option. ³⁾ Available with future firmware release.

CH: Channel.



RTE1000	RT06	RTP
200/350/500 MHz/1/1.5/2 GHz ¹⁾	600 MHz/1/2/3/4/6 GHz ¹⁾	4/6/8/13/16 GHz ¹⁾
2/4	4	4
8 bit; 16 bit	8 bit; 16 bit	8 bit; 16 bit
500 µV to 10 V	1 mV to 10 V (with HD mode: 500 µV to 10 V)	
500 µV to 1 V	1 mV to 1 V (with HD mode: 500 µV to 1 V)	2 mV to 1 V (with HD mode: 1 mV to 1 V)
5	10; 20 (2 CH interleaved in 4 GHz and 6 GHz model)	20; 40 (2 CH interleaved)
50 Mpoints; 200 Mpoints	standard: 200 Mpoints/800 Mpoints; max. upgrade: 1 Gpoints/2 Gpoints	standard: 100 Mpoints/400 Mpoints; max. upgrade: 3 Gpoints
standard	standard	standard
1 000 000 (1 600 000 in ultra-segmented memory mode)	1 000 000 (2 500 000 in ultra-segmented memory mode)	750 000 (3 200 000 in ultra-segmented memory mode)
digital	digital (includes zone trigger)	advanced (includes zone trigger ¹⁾ , digital trigger (14 trigger types) with real-time deembedding ²⁾ , high speed serial pattern trigger incl. 8/16 Gbps CDR ²⁾
0.0001 division, all bandwidth, user controllable	0.0001 division, all bandwidth, user controllable	0.0001 division, all bandwidth, user controllable
16	16	16
user-configurable, hardware based advanced (formula editor)	user-configurable, hardware based advanced (formula editor, Python interface)	user-configurable, hardware based advanced (formula editor, Python interface)
I ² C, SPI, UART/RS-232/RS-422/RS-485, CAN, LIN, I ² S, MIL-STD-1553, ARINC 429, FlexRay™, CAN-FD, USB 2.0/HSIC, Ethernet, Manchester, NRZ, SENT, SpaceWire, CXPI, USB Power Delivery, automotive Ethernet 100BASE-T1	I ² C, SPI, UART/RS-232/RS-422/RS-485, CAN, LIN, I ² S, MIL-STD-1553, ARINC 429, FlexRay™, CAN-FD, MIPI RFFE, USB 2.0/HSIC, MDIO, 8b10b, Ethernet, Manchester, NRZ, SENT, MIPI D-PHY, SpaceWire, MIPI M-PHY/UniPro, CXPI, USB 3.1 Gen1, USB-SSIC, PCIe 1.1/2.0, USB Power Delivery, automotive Ethernet 100BASE-T1/1000BASE-T1	I ² C, SPI, UART/RS-232/422/485, SENT, LIN, CAN/-FD, MIL-STD-1553, ARINC 429, SpaceWire, USB2.0/HSIC/PD, USB3.1 Gen1/2/SSIC, PCIe 1.1/2.0/3.0, 8b10b, MIPI RFFE, MIPI D/M-PHY/UniPro, Auto Ethernet 10/100/1000BASE-T1, Ethernet 10/100BASE-TX, MDIO, Manchester/NRZ
power, advanced spectrum analysis and spectrogram	power, advanced spectrum analysis and spectrogram, jitter and noise decomposition, clock data recovery, I/Q data, RF analysis, deembedding, TDR/TDT analysis	advanced spectrum and spectrogram, jitter and noise decomposition, real-time deembedding, TDR/TDT analysis, I/Q data and R&S [®] VSE analysis, advanced eye
–	see data sheet (PD 5216.1640.22)	see data sheet (PD 3683.5616.22)
10.4" touchscreen, 1024 × 768 pixel	15.6" touchscreen, 1920 × 1080 pixel	13.3" touchscreen, 1920 × 1080 pixel (Full HD)
427 × 249 × 204	450 × 315 × 204	441 × 285 × 316
8.6	10.7	18
–	–	–