

MXO 4 Series OSCILLOSCOPE

Next generation oscilloscope for accelerated insight



The MXO 4 series combines excellent performance and value. The instrument is a once-in-a-decade engineering breakthrough for accelerated insight:

- ▶ 200 MHz to 1.5 GHz bandwidth
- ▶ Up to 5 Gsample/s sample rate
- ▶ Standard memory of 400 Mpoints per channel
- ▶ 12-bit ADC at all sample rates
- ▶ 18-bit architecture with HD mode
- ▶ Precise digital trigger

Ideal for:

Hardware debugging,
serial bus analysis

Power analysis

EMI debugging

Power integrity

Key specifications

Bandwidth	200/350/500 MHz, 1 GHz (on 4 channels), 1.5 GHz (interleaved on 2 channels)
Channels	4 analog, 16 digital (standard) (with logic probes)
Maximum sample rate	5 Gsample/s (interleaved), 2.5 Gsample/s (all channels)
Memory depth	400 Mpoints (standard), 800 Mpoints (option)
Vertical resolutions	12-bit ADC (all settings), 18-bit HD mode
Display	13.3" Full HD display with capacitive touch
Operating system	Linux (closed)
Warranty	3 years

Your benefit

See more signals, faster

See your signals accurately

Capture more time

Isolate events with more precision

Features of the MXO 4

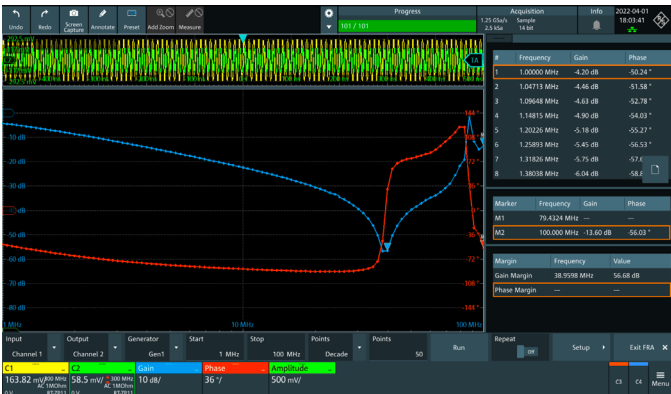
- ▶ World's fastest acquisition rate of over 4.5 million waveforms/s shows infrequent anomalies instantly
- ▶ Industry's lowest trigger rearm time of < 21 ns
- ▶ 12-bit ADC vertical resolution at all sample rates without tradeoffs
- ▶ 18-bit architecture with HD mode
- ▶ Minimal noise of 104 μ V at 1 GHz with 1 mV/div sensitivity
- ▶ ± 5 V offset range with 500 μ V/div sensitivity
- ▶ Standard memory of 400 Mpoints per channel; 800 Mpoints per channel (option)
- ▶ History and segmented memory to capture up to 1 million acquisitions
- ▶ Industry's most sensitive trigger of 0.0001 div
- ▶ Best-in-class trigger jitter of < 1 ps
- ▶ Adjustable digital trigger filters with selectable hysteresis



For options, prices and more information, visit
www.rohde-schwarz.com/product/MXO4

Your go-to tool

- Wide range of analysis functions accelerated by hardware for real-time performance, including math and measurements
- 16 digital channels activated with R&S®MXO4-B1 mixed signal option that can be used simultaneously with all analog channels
- The R&S®MXO4-B6 option adds a dual-channel 100 MHz arbitrary waveform generator with a wide range of wave shapes
- The R&S®MXO4-K36 option for frequency response and impedance analysis makes the oscilloscope versatile enough for power analysis



Serial bus analysis

- Innovative dual-path protocol analysis helps protocol packets decode and trigger correctly, regardless of sample rate settings for the waveform acquisitions
- In addition to very high segmented memory depth, the MXO 4 enables very long time captures of protocol events to help monitor and understand system behavior
- Search functionality helps find events of interest in the captured bus activity based on trigger or protocol content

Spectrum analysis

- Hardware accelerated processing boasts an industry-leading spectrum acquisition rate of 45000 FFT/s – ideal for capturing spurious and random spectrum events
- RF and time domain views with independent control allow intuitive setup and remain time-correlated
- Outstanding RF spectrum performance with peak list and max./min. hold traces, making the MXO 4 perfect for EMI debugging

Probe choices

Rohde & Schwarz offers a wide variety of probes for your applications including:

- Active single-ended and differential probes
- High voltage and current probes
- Power rail probes
- Logic probes
- Near field probes



Visit our probe portfolio

Ordering information	Type
Step 1: Choose your oscilloscope base model	
Oscilloscope, 200 MHz, 4 channels	MXO 4
Base unit (including standard accessories: 700 MHz passive probe (10:1) per channel, accessories bag, quick start guide, power cord)	
Languages supported: English, German, French, Spanish, Italian, Portuguese, Czech, Polish, Russian, simplified and traditional Chinese, Korean and Japanese	
Step 2: Choose your bandwidth upgrade	
Upgrade of MXO 4 to 350 MHz bandwidth	R&S®MXO4-B243
Upgrade of MXO 4 to 500 MHz bandwidth	R&S®MXO4-B245
Upgrade of MXO 4 to 1 GHz bandwidth	R&S®MXO4-B2410
Upgrade of MXO 4 to 1.5 GHz bandwidth	R&S®MXO4-B2415
Step 3: Choose your options and accessories	
Software options	
Low speed serial buses (I ² C/SPI/QuadSPI/UART/RS-232/RS-422/RS-485)	R&S®MXO4-K510
Automotive protocols (CAN/CAN FD/CAN XL/LIN/SENT)	R&S®MXO4-K520
MIPI low speed protocols (SPMI/REFE/I ³ C)	R&S®MXO4-K550
Automotive Ethernet protocols (10BASE-T1S)	R&S®MXO4-K560
Frequency response analysis	R&S®MXO4-K36
Hardware options	
Mixed signal option, for MXO 4 series with 16 digital channels	R&S®MXO4-B1
Arbitrary waveform generator, 100 MHz, 2 analog channels	R&S®MXO4-B6
Memory upgrade to 800 Mpoints on 2 channels	R&S®MXO4-B108
Accessories	
Front cover	R&S®MXO4-Z1
Soft case	R&S®MXO4-Z3
Transit case	R&S®MXO4-Z4
19" rackmount kit, 6 HU	R&S®ZZA-MXO4
Warranty	
Base unit	3 years
All other items ¹⁾	1 year

¹⁾ For options installed, the remaining base unit warranty applies if longer than 1 year. Exception: all batteries have a 1 year warranty.

Rohde & Schwarz GmbH & Co. KG

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