ROHDE&SCHWARZ
Make ideas real

R&S®MXO 5 SERIES OSCILLOSCOPE

Next generation oscilloscope: evolved for more challenges

Key highlights

- ► 100 MHz to 2 GHz bandwidth
- ► Acquisition rate of over 4.5 million waveforms/s
- ► > 45K FFT/s
- ► 12 bit ADC at all sample rates
- ► 18 bit architecture with HD mode
- ► 500 Mpoints per channel standard memory
- ► Precise digital trigger

The perfect choice for

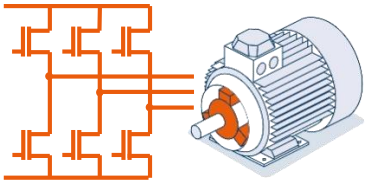
Hardware debugging Serial bus analysis	Power analysis
EMI debugging	Power sequencing
Power integrity	Signal integrity

Your benefit	Features
Fast acquisitions	Capture up to 99% of real-time waveforms with minimal dead time
Deep record length	Longer acquisition times without missing signal details
18-bit architecture	High vertical resolution for high precision signal capture
Digital trigger	Trigger that works with up to 18-bit resolution and 0.0001 div sensitivity
SmartGrid and UI	Highly configurable user interface with intuitive design for fast learning curves

Key specifications	R&S®MXO54	R&S®MXO58
Bandwidth (MHz)	350/500 MHz, 1 GHz and 2 GHz	100/200/350/500 MHz, 1 GHz and 2 GHz (≤4 ch)
Max. sample rate	5 GSamples/s (interleaved) 2.5 GSamples/s (all channels)	
Analog channels	4 or 8	
Digital channels	16 standard (dedicated connector)	
Acquisition rate	4.5 million acquisitions/s per channel 18 million acquisitions/s on 4 channels	
ADC resolution Max. vertical resolution	12-bit ADC – all sample rates 18-bit in HD-mode	
Standard memory depth	500 Mpoints per channel (Opt. upgrade to 1 Gpoints)	
Segmented memory	Up to 1 million segments with 1 Mpoints capture	
FFT speed	> 45K FFT/s	
FFT capabilities	Log-log display, max/min-hold, peak-lists	
Vertical noise floor	130 µVrms at 1 mV/div, 2 GHz bandwidth	
Vertical offset range	5 V at 1 MΩ coupling	
Arbitrary generator	2 channels, 100 MHz with 625 MSamples/s	
Digital trigger sensitivity	0.0001	
Trigger hysteresis	User selectable	
Trigger jitter	< 1 ps (rms) (meas.)	
Time base accuracy	±0.2 ppm	
Display	15.6" Full-HD display with capacitive touch	
VESA mount support	Yes, with adapter R&S®MXO5-Z7	
Operating system	Linux	
Upgradable	Bandwidth, protocol trigger and decode, arbitrary waveform generator, analysis capabilities	
Warranty	1 year	

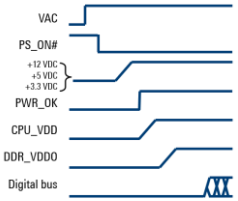
For more information, visit
www.rohde-schwarz.com/product/MXO5

Use case (highlights)



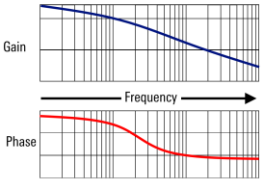
Inverter and drive train analysis

- More channels to observe voltage and current signals
- New WBG devices for faster switching
- Digital trigger with high sensitivity to detect possible shoot-through events
- Longer record length for monitoring



Power sequencing and integrity

- Record more power rails longer
- 18-bit HD for high precision and sensitivity on power ripple
- Record all power up/down sequences
- Additional spectrum analysis helps identify spectral noise in debugging



Control loop response of power supply

- All-in-one tool to observe time and bode plots
- Start from 0.01 Hz to 100 MHz
- Amplitude profile and delayed measurement for settling time

Your go-to tool

- Serial protocol trigger and decode
- Digital voltmeter
- Fast spectrum support log-log scale
- Math functions
- 2 arbitrary generators, 1 MHz to 100 MHz
- MSO logic analysis
- Power analysis quality and harmonics
- Frequency response

Rohde & Schwarz continues to roll out newer capability and functions in future to meet ever changing requirements

Probe choices

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

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

High voltage probes
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Visit our probe portfolio to find out more

Warranty	
Base unit	1 year
All other items	1 year
Extended warranty (1 year, 2 year, …)	WE1, WE2, …
Accredited certification coverage (1 year, 2 years,…)	ACC1, ACC2, …
Additional service options available for extended warranty coverage	

Ordering information
Step 1: Choose your oscilloscope model

Description	Item
350 MHz, 4 channel oscilloscope	R&S®MXO54
100 MHz, 8 channel oscilloscope	R&S®MXO58

Accessories included: 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 option (Software upgradable)

Upgrade of R&S®MXO54 to 500 MHz bandwidth	R&S®MXO5-B245
Upgrade of R&S®MXO54 to 1 GHz bandwidth	R&S®MXO5-B2410
Upgrade of R&S®MXO54 to 2 GHz bandwidth	R&S®MXO5-B2420
Upgrade of R&S®MXO58 to 200 MHz bandwidth	R&S®MXO5-B282
Upgrade of R&S®MXO58 to 350 MHz bandwidth	R&S®MXO5-B283
Upgrade of R&S®MXO58 to 500 MHz bandwidth	R&S®MXO5-B285
Upgrade of R&S®MXO58 to 1 GHz bandwidth	R&S®MXO5-B2810
Upgrade of R&S®MXO58 to 2 GHz bandwidth	R&S®MXO5-B2820

Step 3: Choose your hardware option

Mixed signal option (MSO) with 16 digital channels	R&S®MXO5-B1
Arbitrary waveform generator, 100 MHz, 2 channels	R&S®MXO5-B6
Additional M.2 SSD	R&S®MXO5-B19
Memory option 1 Gpoints	R&S®MXO5-B110

Step 4: Choose your software option

Low speed serial triggering and decode	R&S®MXO5-K510
Automotive serial triggering and decode	R&S®MXO5-K520
Power analysis	R&S®MXO5-K31
Frequency response analysis	R&S®MXO5-K36

Step 5: Choose your accessories

Front cover	R&S®MXO5-Z1
Soft bag	R&S®MXO5-Z3
Transit case	R&S®MXO5-Z4
Vesa mount adapter	R&S®MXO5-Z7
Rackmount kit	R&S®ZZA-MXO5

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