ROHDE&SCHWARZ
Make ideas real

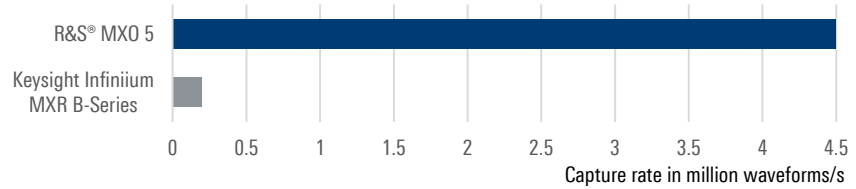
R&S®MXO 5 SERIES OSCILLOSCOPE
vs Keysight Infiniium EXR Series

The R&S®MXO 5 Series delivers breakthrough oscilloscope technology to speed up your understanding in both the time and frequency domains. The MXO 5 Series 4 and 8-channel models combine the deepest standard memory of 500 Mpoints and the world's fastest acquisition rate of 18 million waveforms/second across multiple channels, letting the instrument stand out among competitors.

Your benefit	Features
See signals in real time	Never miss another signal anomaly. The fastest acquisition rate in the industry allows the R&S®MXO 5 to acquire over 99% of real-time signals. This outstanding performance can be easily accessed by any digital trigger and in free run mode.
Optimize perspectives, easily	Customizable layout and toolbar, smart menu and fast search function: the R&S®MXO 5 comes with the most intuitive and flexible user interface of any oscilloscope.
Uncompromising waveform analysis	R&S®MXO 5 has up to 18-bit HD precision in time and frequency measurements. The fast spectrum of > 45K FFT/s reveals spurious spectrum events that would be otherwise missed. The hardware for measurement and math functions allows for responsive control even with deep memory.

Real-time acquisition rate comparison

R&S®MXO 5 Series has the highest acquisition rate on the market to capture more signal details faster than any other scope on the planet. By comparison, Keysight Infiniium EXR Series is 22 times slower, with only a fraction of the capture time (e.g., <4% at 20 ns/div timebase).

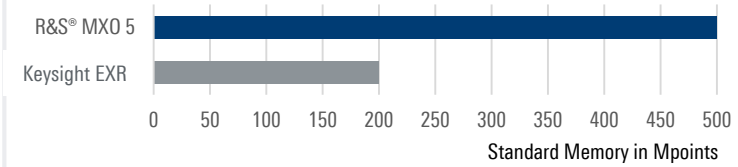


Parameter	R&S®MXO 5 Series	Keysight Infiniium MXR B-Series
Bandwidth (GHz)	0.1, 0.2, 0.35, 0.5, 1, 2 (upgradable)	0.5, 1, 2, 2.5, 4, 6 (upgradable)
Channels	4, 8	4, 8 (service center upgradable)
ADC bits (max vertical)	12 (18-bit HD mode)	10 (16 with high resolution)
Max. sampling rate	5 GSample/s	16 GSample/s
Memory depth: standard option	500 Mpoints/ch 1 Gpoints/ch (2 ch interleaved)	100 Mpoints/ch 1.6 Gpoints/ch (4 ch interleaved)
Max waveform update rate	> 4.5 M waveforms/s	0.2 M waveforms/s
Spectrum analysis:	4 standard, hardware accelerated Span = scope BW up to 2 GHz	Math FFT up to 16, Control based on time captures
Noise at 50 Ω (1 mV/div, 20 MHz)	10 µV	43 µV
Trigger sensitivity	Digital. User selectable hysteresis	Analog. No user hysteresis. (0.15 div)
User interface	Signal icons, SmartGrid, Toolbar	No signal icons. No toolbar.
Hardware options		
Arbitrary function generator	2 ch, 100 MHz, Arb length 40 Mpoints, Freq. resolution 1 mHz, SR 625 MSample/s	1 ch, 50 MHz, Arb memory 122 kpoints, Freq. resolution 12.5 mHz, SR 200 MSample/s
Digital logic analysis (MSO)	16 ch, 400 MHz Move across instruments	16 ch, 300 MHz Each scope requires SW license
External monitor interface	HDMI™ 2.0, DisplayPort++ 1.3	DisplayPort, VGA
Form factor		
Display	15.6" full HD (1920 x 1080) pixel	15.6" full HD (1920 × 1080) pixel
Dimensions (W x H x D)	445 mm × 314 mm × 153 mm	443 mm × 327.5 mm × 223 mm
Weight	9.0 kg / 19.8 lbs	14.5 kg / 32 lbs
Acoustic noise at 1 m	25 dB	42.9 dB
Power consumption	Standby 1.6 W 8 active channels 180 W	Standby 4.6 W 8 active channels 370 W

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

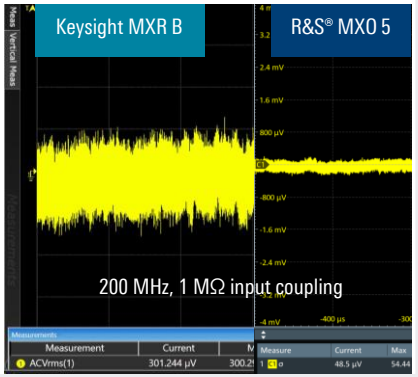
Standard memory depth comparison

Capture longer periods of time with high sample rate, with standard deep memory.

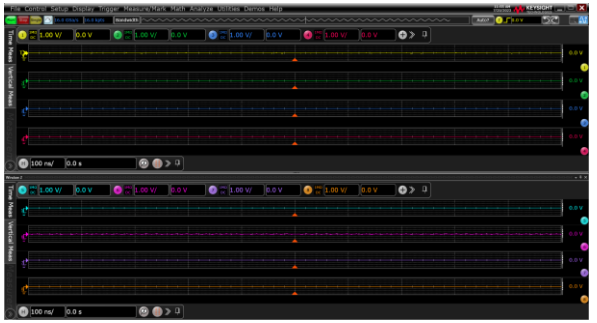


Precision and noise

ADC resolution and noise performance go hand-in-hand. Keysight EXR is still limited by a 10-bit ADC. The 9-bit ENOB performance is based on optimized setup and real comparison with the R&S®MXO 5 Series clearly shows the lack of resolution and higher noise profile.



Optimized user interface



With multiple channels, optimizing the display for the best waveform view and a user-friendly layout is vital.
The Keysight EXR and MXR take up too much space to have dedicated labels.

The R&S®MXO 5 series integrates these for clear channel information with dedicated channel badges containing additional information. The toolbar allows quick access to frequently used functions.

Advantage factors of R&S®MXO 5 Series versus Keysight Infiniium MXR B-Series

40 %
more cost-efficient setup

2.5 x
more standard memory

1000 x
better trigger sensitivity

>20 x
faster waveform update rate

20 %
more vertical resolution
at max sampling rate

2 x
less power consumption

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