Make ideas real



R&S®MXO 5 Series OSCILLOSCOPE

vs LeCroy WaveRunner 8000HD





15.6" full HD (1920 × 1080) pixel

445 mm × 345 mm × 196 mm

11.1 kg / 24.4 lbs

Nominal: 400 W

Standby: Not specified

Not specified

The R&S®MXO 5 Series delivers breakthrough oscilloscope technology to speed up your understanding in both the time and frequency domains. The R&S®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 Series 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	Customizable layout and toolbar, smart menu and fast search function: the $R\&S^\circledast MX0.5$ Series comes with the most intuitive and flexible user interface of any oscilloscope.	
Uncompromising waveform analysis	The R&S $^{\circ}$ MX0 5 Series 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

The R&S®MX0 5 Series offers the highest acquisition rate on the market, allowing it to capture more signal detail in a shorter amount of time than any other scope on the planet. Even in segmentation mode the LeCroy WaveRunner 8000HD is 7 times slower than the R&S®MX05 Series real-time acquisition mode. The LeCroy WaveRunner 8000HD is blind 85% of the time in segmented mode and even longer in real time.



Display

Weight

Dimensions (W x H x D)

Acoustic noise at 1 m

Power consumption

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For more information, visit www.rohde-schwarz.com/product/MX05

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Parameter	R&S®MX0 5 Series	LeCroy WaveRunner 8000HD
Bandwidth (GHz)	0.1, 0.2, 0.35, 0.5, 1, 2 (upgradable)	0.35, 0.5, 1, 2 (not upgradable)
Channels	4, 8	8 (opt. two oscillopes synchronization)
ADC bits (max vertical)	12 (18-bit HD mode)	12 (15 with enhanced resolution)
Max. sampling rate	5 Gsamples/s	2.5 Gsamples/s 10 Gsamples/s (ESR mode)
Memory depth: standard option	500 Mpoints/ch 1 Gpoints/ch	50 Mpoints/ch 1.25 Gpoints/ch; max analysis: 500 Mpoints/ch
Max waveform update rate Real-time acquisition: Segmentation mode:	4.5 M waveforms/s 4.6 waveforms/s	Not specified 0.65 M waveforms/s
Spectrum Analysis:	Standard, 4 independent spectra, up to 45 000 FFT/s	For pay option up to 2 spectrum traces
Noise $@50\Omega$ (1mV/div, 350MHz)	42 μV	95 μV
Noise @1M Ω (1mV/div, 500MHz)	57 μV	Not specified
Trigger sensitivity	Digital. (0.0001 div) User selectable hysteresis	Analog. (<2.5 div) No user hysteresis.
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 Msamples/s	None
Mixed signal capabilities (MSO)	16 ch, move across instruments	16 ch, each scope requires SW license
External monitor interface	HDMI™ 2.0, DisplayPort++ 1.3	HDMI™, DisplayPort
Form factor		

15.6" full HD (1920 x 1080) pixel

445 mm × 314 mm × 153 mm

9.0 kg / 19.8 lbs

Standby: 1.6 W

8 active ch.: 180 W

25 dB

Standard memory depth comparison Capture longer periods of time with high sample rate and standard deep memory. R&S® MXO 5 LeCroy WR8000HD 250 Standard memory in Mpoints

Minimum investment comparison for 8 channels

LeCroy WaveRunner 8000HD



LeCroy WaveRunner 8000HD is available with a minimum bandwidth of 350 MHz, which cannot be upgraded and a standard memory depth of only 50Mpts/ch. Nevertheless, the entry-level price for the most basic version is much higher than the R&S®MX0 5 Series.

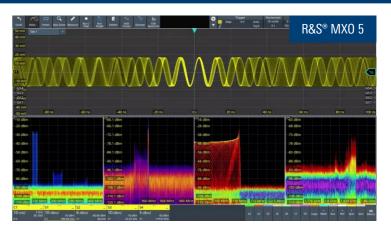
R&S®MX05





The R&S®MXO 5 Series comes standard with almost every feature you need for testing. The entry-level 100 and 200 MHz configurations help make the setup even more affordable

Spectrum analysis capabilities



The R&S®MX0 5 Series works well in both the frequency and time domain. Thanks to hardware accelerated spectrum analysis standard in all R&S®MXO 5 Series oscilloscopes, four different spectral analyses can be performed, from 1-4 waveforms, and set independently, not only from each other but also from the acquisition settings in the timedomain. All this at unprecedented **speeds**, up to 45 000 FFT/s.

The spectrum analysis tool in the LeCroy WaveRunner 8000HD is a paid option with limited performance and flexibility when compared to the R&S®MXO 5 Series.

Advantage factors of R&S®MXO 5 Series versus LeCroy WaveRunner 8000HD



50 %

more cost efficient setup



10 x

more standard memory



25,000 x

better trigger sensitivity



faster waveform update rate



more vertical resolution in HD-mode



less power consumption

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