MXO 3 SERIES OSCILLOSCOPE

versus Siglent SDS 5000 HD

MXO 3: Fast. Precise. Compact.

Benefit	MXO 3 features
Fast	▶ Instantly see all signal activity to better understand your system ▶ Catch rare signal anomalies ▶ See all signal variations, including subtle changes ▶ Responsive to what you do, as you do it for the most information in the shortest amount of time
Precise	▶ Get a sharper and more accurate system overview ▶ See the smallest details even for larger signals ▶ Isolate slightest spikes, bumps, dips and any other important changes ▶ Retain fast sample rates when capturing nanoseconds or milliseconds of time ▶ Replace speculation and persistent doubt with certainty
Compact	▶ Compact enough to work anywhere ▶ Unmatched four-channel and eight-channel performance up to 1 GHz in a surprisingly small package ▶ Integrated ARB, MSO, DMM and protocol analysis ▶ Rackmount with just 5 U

For options, prices and more information, visit
www.rohde-schwarz.com/product/MXO3

Parameter	MXO 3 series	Siglent SDS 5000 HD
Channels	4, 8	4, 6, 8
Bandwidth	100/200/350/500 MHz, 1 GHz	350/500 MHz, 1 GHz
Maximum sampling rate	5.0 Gsample/s	5.0 Gsample/s
User-controlled sampling rate and memory	users can control both	users can control one, but not both
Maximum standard memory depth per channel	125 Mpoints; 500 Mpoints (optional)	500 Mpoints
ADC bits in hardware (with filtering)	12 bit/18 bit (HD mode)	12 bit/16 bit (high resolution mode)
Measured noise at 1mV/div on 50 Ω path	0.6 % full screen	1.2 % full screen
Real time capture ▶ At 20 ns/div ▶ At 1 µs/div	 80 % 99 %	 0.2 % 1 %
Maximum update rate	4 500 000 waveforms/s	120 000 waveforms/s
Maximum offset at 1 mV/div	±3 V	±1.6 V
Triggering ▶ Minimum re-arm time? ▶ Zone trigger ▶ Trigger on math available? ▶ Trigger on spectrum available?	digital 21 ns yes (more zones/shapes/faster speed) yes yes	analog 84 µs yes (simple rectangles) no no
Waveform math ▶ Equation editor available? ▶ Speed (C1 + C2)	 yes fast (700 000 operations/s at 20 ns/div)	 no slow (2 operations/s at 20 ns/div)
Spectrum ▶ Maximum FFTs/s ▶ Accuracy	 50 000/s high; independent frequency and time settings	 2/s low; RBW timebase-dependent
User interface	R&S®SmartGrid (customizable)	limited fixed grid layouts
Waveform persistence	remains on stop	removed on stop
Display	11.6" Full HD (1920 × 1080 pixel)	12.1" (1280 × 800 pixel)
Rackmount height	5 U	6 U

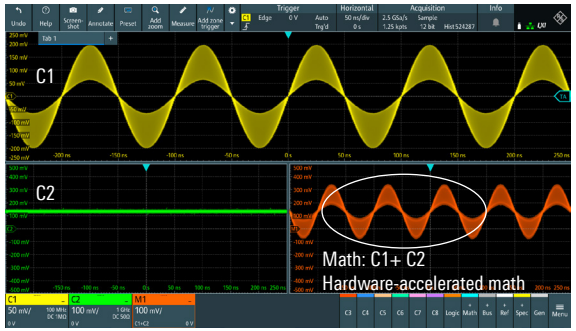
UNMATCHED USER EXPERIENCE

Higher productivity in both the time and frequency domains with the MXO 3 oscilloscope:

- Quick customized layouts with R&S®SmartGrid user interface
- Configurable toolbar for quick access to functions

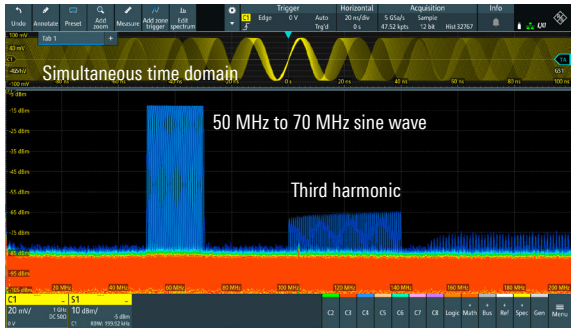
MXO 3 with R&S®SmartGrid

Multiple waveform viewing



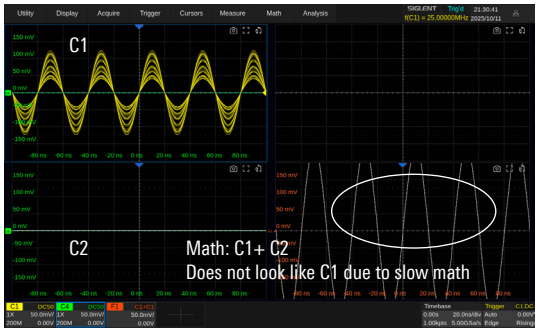
- Quick custom grid layout stacked and side-by-side
- Hardware-accelerated math and spectrum for superior accuracy
- Waveform persistence maintained on STOP

Swept 50 MHz to 70 MHz sine wave

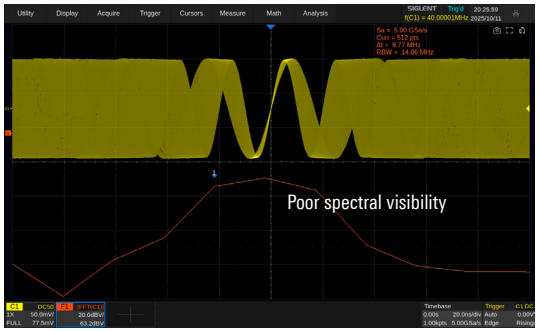


MXO 3 spectrum displays time and frequency simultaneously. See all details instantly with fast updates.

Siglent SDS 5000 HD (user interface limitations)

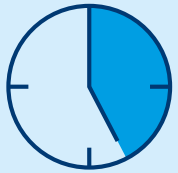


- Only fixed grid selections
- Slow math and FFT limit accuracy and signal visibility
- Waveform persistence disappears on STOP

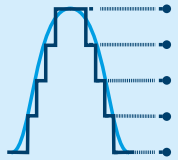


Siglent SDS 5000 HD spectrum cannot see time simultaneously. Slow update misses significant signal details.

Advantages of the MXO 3 over the Siglent SDS 5000 HD

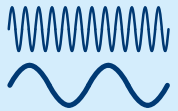


4000 ×
Minimum re-arm time
(21 ns versus 84 µs)



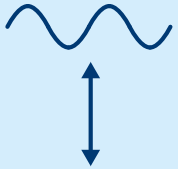
ADC

4 ×
Maximum vertical resolution
(18 bit versus 16 bit)

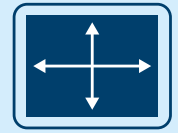


More waveforms

300 ×
Faster capture rate



> 2 ×
Offset



Display area

2 ×
More pixels

Rohde & Schwarz GmbH & Co. KG
www.rohde-schwarz.com | www.rohde-schwarz.com/support | www.training.rohde-schwarz.com

MXO 3 Series Oscilloscope
PD 3610.2369.32 | Version 01.00 | November 2025 (sk)
Data without tolerance limits is not binding | Subject to change