

WaveSurfer 4000HD

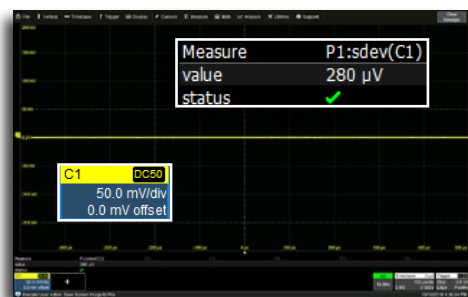
12 bits all the time.

Unrivalled Performance,
Unbeatable Value.

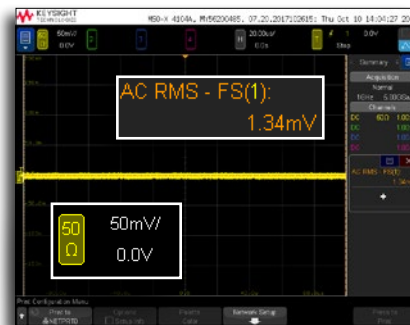


WaveSurfer 4000HD offers the industry's lowest noise, highest precision, and best accuracy.

Baseline Noise (1 GHz model)	WaveSurfer 4000HD	Keysight 4000X
1 mV/div	✓ 125 μ V	X 280 μ V
10 mV/div	✓ 130 μ V	X 320 μ V
50 mV/div	✓ 280 μ V	X 1340 μ V
100 mV/div	✓ 465 μ V	X 2180 μ V
1000 mV/div	✓ 4.7 mV	X 21.1 mV



WaveSurfer 4104HD
1 GHz, 5 GS/s, 12 bits

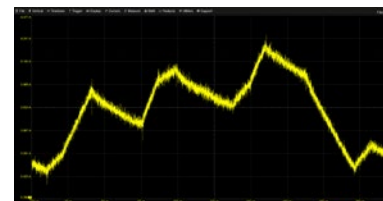


MSOX4104A
1 GHz, 5 GS/s 8 bits
4x more noise

	WaveSurfer 4000HD	Keysight 4000X
Analog Channels	4	2 or 4
Digital (MSO) Channels	16 (with MSO option)	16 (with MSO option)
Bandwidth	200 MHz - 1 GHz	200 MHz - 1.5 GHz †
Resolution	12 bits	8 bits
Noise at 50 mV/div	280 μ V	1340 μ V
Maximum Sample Rate	5 GS/s	5 GS/s
Standard Memory (per channel/interleaved)	12.5/25 Mpts	4 Mpts
Display Size (Resolution)	12.1" (1280 x 800)	12.1" (800 x 600)
Waveform update rate	170,000 wfms/sec	1,000,000 wfms/sec
Gain Accuracy at 1 mV/div	\pm 0.5% of full scale	\pm 2% of full scale
Weight	5.3 kg / 11.7 lbs	6.3 kg / 13.9 lbs
H x W x D	273 mm x 380 mm x 160 mm	275 mm x 454 mm x 156 mm
Start up/Boot time	~35 seconds	~60 seconds

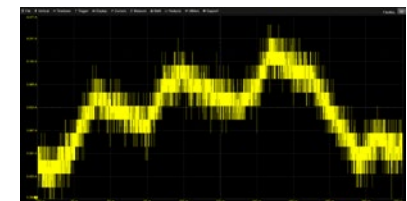
† 1.5 GHz only available on 2 channels

Teledyne LeCroy's
WaveSurfer 4000HD
is always 12-bit resolution



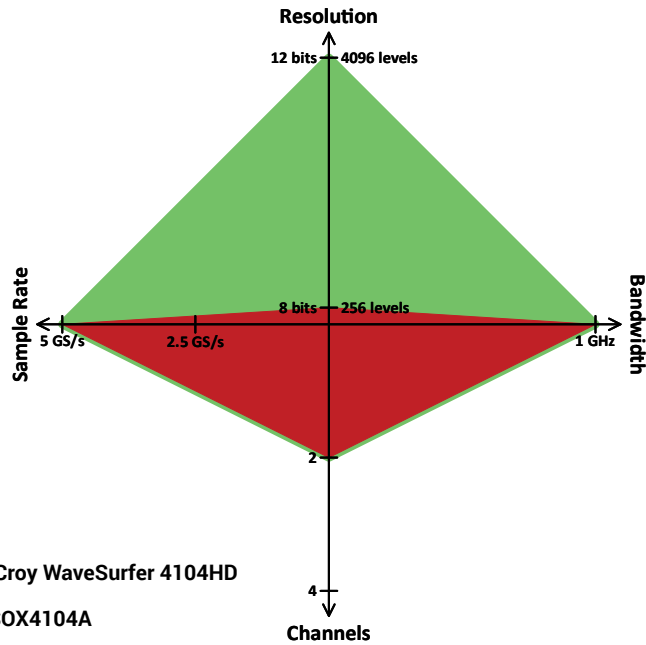
Teledyne LeCroy 12-bit Resolution
Oscilloscope

8-bit oscilloscopes are noisier, less
accurate, and have less precision

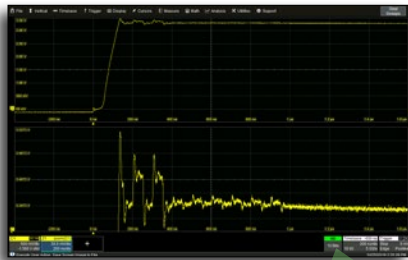


8-bit Resolution Oscilloscope

WaveSurfer 4000HD vs. Keysight 4000X Series



- Teledyne LeCroy WaveSurfer 4104HD
- Keysight MSOX4104A



WaveSurfer 4104HD 1 GHz model

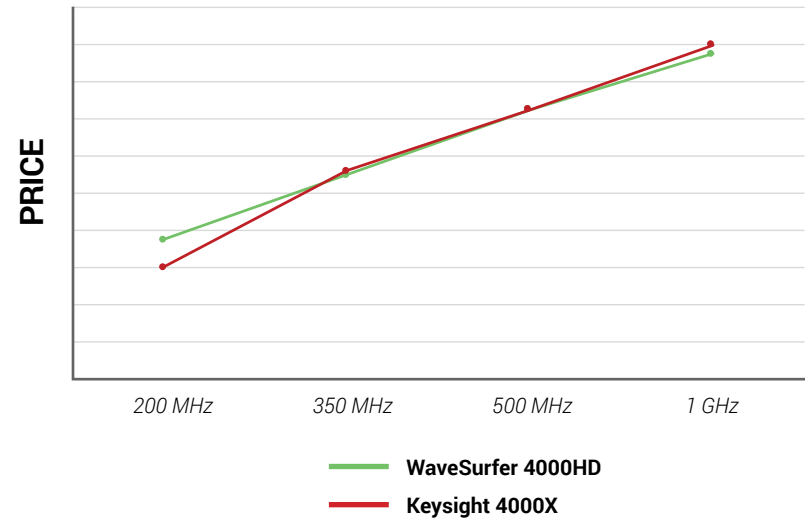
HD
12 Bits



MSOX4104A 1 GHz model

The example above shows a 100x vertical zoom (bottom trace) of the top of a signal. Small variations in signals are lost in noise on a Keysight 8-bit oscilloscope.

Teledyne LeCroy's 12 bits for the price of Keysight's 8 bits



WaveSurfer 4000HD has comprehensive probe support

Over 30 probes in 9 categories

