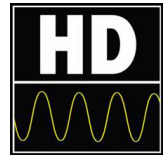




# Competitive Comparison: Agilent 9000 H-Series vs. Teledyne LeCroy HDO4000/6000



*See Your Signals in HD* - The high-definition 9000 H-Series oscilloscope offers up to 12 bits of resolution, which represents 4096 quantization levels, for precision signal viewing. The 9000 H-Series' combination of hypersampling and linear noise reduction technology achieves a noise level up to three times lower than traditional 8-bit oscilloscopes. It is specifically engineered to provide low noise and high-dynamic-range measurement capability in key applications such as medical, automotive, consumer devices, and power analysis.



## See Your Signals in HD

- **Precision signal viewing**  
Reveal hidden signal detail with 16X more resolution and up to 3X less noise.
- **Comprehensive measurement capability**  
Get optional digital channels, more than 20 applications, and ultrasensitive current probes for a complete oscilloscope solution.

	Agilent 9000 H-Series	LeCroy HDO 4000	LeCroy HDO 6000
Bandwidth	250 MHz, 500 MHz, 1 GHz, 2 GHz ✓	200 MHz, 350 MHz, 500 MHz, 1 GHz X	350 MHz, 500 MHz, 1 GHz X
Bits of resolution	Up to 12 bits ✓	12 bits ✓	12 bits ✓
Max sample rate	Up to 10 GSa/s ✓	2.5 GSa/s X	2.5 GSa/s X
Std. Memory depth (4 ch)	50 M ✓	12.5 M X	50 M ✓
Max memory depth (4 ch)	Up to 500 M ✓	Up to 25 M X	Up to 250 M X
Display size	38.1 cm (15") (65% more area) ✓	30.7 cm (12.1") X	30.7 cm (12.1") X
Update rate (1 kPts)	1100 wfms/sec ✓	700 wfms/sec ✓	700 wfms/sec ✓
Mixed signal	Yes ✓	No X	No X
SSD	Available as option ✓	Standard ✓	Standard ✓
History mode playback	No X	Yes ✓	Yes ✓
Spectrum analyzer mode	Yes, InfiniiView/ASV options ✓	Yes ✓	Yes ✓
Sequence/segmented	Yes ✓	Yes ✓	Yes ✓
High sensitivity current/voltage probes	Yes, N2820A/N2821A ✓	No X	No X

Anticipate — Accelerate — Achieve

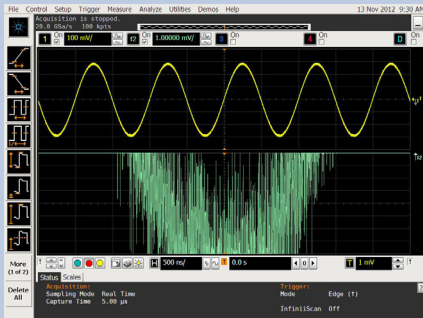


**Agilent Technologies**

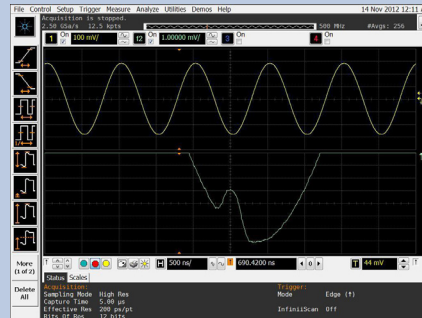
## Example of Agilent 9000 H-Series and LeCroy's 12-bit scope resolving a 2 mV pulse riding on an 800 mV sine wave.

Width and height of the pulse were measured almost identically for both 12-bit scopes (0.20% difference).

The 3X noise reduction when compared to a traditional 8-bit scope is also shown.



Traditional 8-bit scope



Agilent 12-bit 9000 H-Series



LeCroy 12-bit scope

### Complete probing solution

The 9000 H-Series high-definition oscilloscopes are ideal for making high-sensitivity current measurements. The N2820A/N2821A current probes can measure currents as low as 50  $\mu$ A and as high as 5 A via two-channel mode. When these probes are used with a 9000 H-Series oscilloscope, it gives you the ability to accurately measure total current consumption, which is the total area under the current curve.



Channel 1  
High-Sensitivity  
"Zoomed-In"  
View (6.7 mA/div)

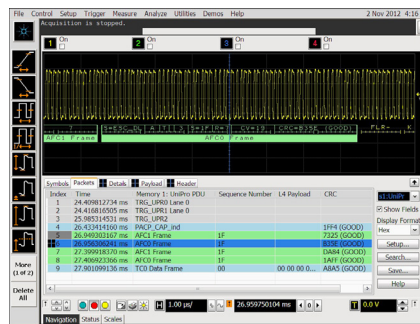
Channel 2  
"Zoomed-Out"  
View (40 mA/div)



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### Serial protocol trigger and decode

Serial protocol decode and trigger: Quickly move between physical and protocol layer information using the time-correlated tracking marker. Display protocol content using waveform symbols and the industry's first multi-tab protocol viewer. The packets tab shows a high-level view of the packet over time.



NOTE: LeCroy's HDO oscilloscopes can achieve 15 bits of resolution via ERES mode, but due to the limited sampling rate of these oscilloscopes, the bandwidth is severely limited.

### InfiniiView oscilloscope analysis software

With Agilent's InfiniiView oscilloscope analysis software, you can capture waveforms on your scope, save them to a file, and open the data record in Agilent's InfiniiView application. View, analyze, share, and document scope measurements anywhere your PC goes.

