

# Industry Comparison Guide: Infiniium 90000-X Series versus LeCroy WaveMaster 8 Zi Series Oscilloscopes

## 32 GHz of true analog bandwidth that delivers

1. *The industry's highest measurement accuracy* – In side by side comparisons the Infiniium 90000-X Series will measure more accurately (closer to reality) than any other real-time oscilloscope
2. *The industry's highest probing bandwidth (30 GHz)* – You are only as good as your probe, combine the 90000-X Series with InfiniiMax III probing system for 30 GHz of probing bandwidth
3. *The industry's most comprehensive software specific applications* – Get your job done faster with the most applications available



	Infiniium 90000-X Series		LeCroy WaveMaster 8 Zi
Maximum bandwidth (2 channel)	32 GHz	✓	30 GHz
Maximum bandwidth (4 channel)	16 GHz	✓	16 GHz
Maximum memory depth	2 G - 4 channels	✓	512 M - 2 channels
Sample rate	80 GSA/s	✓	80 GSA/s
Noise floor at 30 GHz (50 mV/div)	2.02 mV <sub>rms</sub>	✓	4.38 mV <sub>rms</sub>
Jitter measurement floor	150 fs	✓	200 fs
Maximum probing bandwidth	30 GHz	✓	25 GHz
Bandwidth upgradeable	Yes to 32 GHz	✓	Yes to 30 GHz
Captures off screen data	Yes	✓	No
Number of compliance applications	> 20	✓	< 10
Standard/maximum memory	20 Mpts/ 2 Gpts per channel	✓	10 Mpts/ 256 Mpts per channel

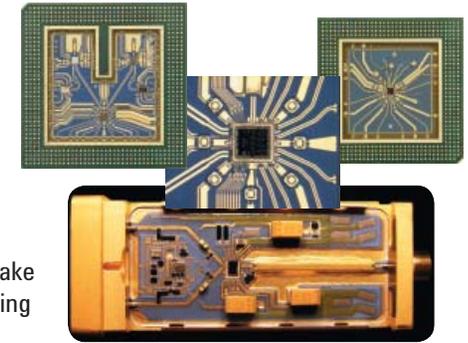


**Agilent Technologies**

# Engineered for 32 GHz of true analog bandwidth that delivers

## How did we achieve this?

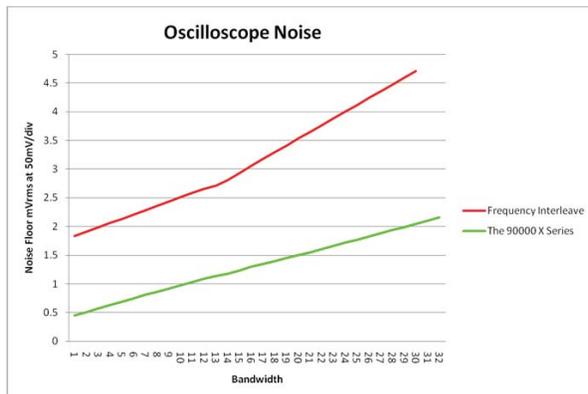
Agilent Technologies has hardware performance to 32 GHz, LeCroy uses an RF technique known as frequency interleaving. While this technique allows for higher bandwidth, it increases the noise density and causes significant interleaving errors, which means measurement errors. The 90000-X Series uses custom Indium Phosphide chips and signal integrity expertise to achieve true analog bandwidth to 32 GHz. The oscilloscope uses no DSP boosting or frequency interleaving to achieve this performance, which means you don't have to make a higher noise density tradeoff to achieve high bandwidth. It also means you get the highest measurement accuracy, whether you are using 16 GHz of bandwidth or 32 GHz.



## It provides the highest measurement accuracy

The 90000-X Series provides true analog bandwidth above 16 GHz which provides you the following:

1. The industry's lowest noise floor
2. The industry's lowest jitter measurement floor
3. The industry's flattest frequency response



Oscilloscope noise is the largest single contributor to measurement errors. The 90000-X Series has less than 1/2 the noise of the LeCroy WaveMaster 8 Zi.

## It provides the highest probing bandwidth

The InfiniiMax III probing system, provides the industry's highest probing bandwidth 30 GHz and:

1. Custom probe amplifier characterization
2. The industry's only AC calibration
3. The industry's only bandwidth upgradeability

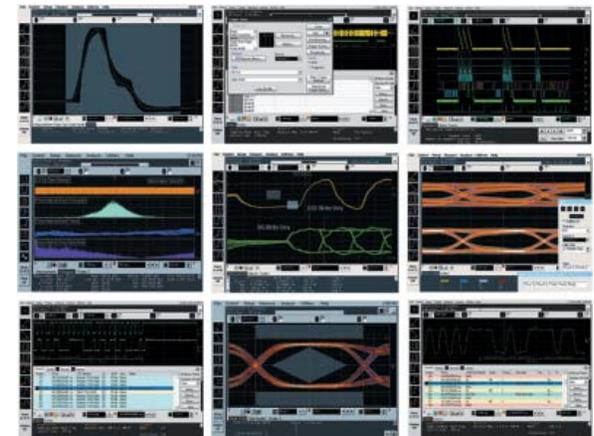


*A measurement system is only as good as its highest bottleneck. The InfiniiMax III probing system provides 30 GHz of bandwidth to ensure high bandwidth probing.*

## It provides the most comprehensive software specific applications

The 90000-X Series provides the largest breadth of applications, so you get your job done faster:

1. Over 40 applications
2. First to market compliance applications
3. The only user-defined application



*Whether you are doing analysis, including jitter, de-embedding, or equalization, compliance, or protocol analysis, Agilent has the software that you need.*

Product specifications and descriptions in this document subject to change without notice.

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