

## WAVEMASTER 8 Zi OSCILLOSCOPES SDA 8 Zi SERIAL DATA ANALYZERS DDA 8 Zi DISK DRIVE ANALYZERS

ACA TMetrix Inc. is happy to announce the availability of the highly anticipated WaveMaster 8 Zi series Oscilloscope, which also includes SDA and DDA versions. You may now request quotations and place orders for the new WaveMaster, SDA, and DDA 8 Zi series products, options, and accessories with TMetrix. Contact TMetrix at 1-800-665-7301 or visit <http://tmetrix.com/contact.aca> to place a request.

### Fastest Real-Time Oscilloscope

The WaveMaster 8 Zi, SDA 8 Zi, and DDA 8 Zi product lines encompass products from 4-30 GHz. Products from 4-16 GHz all have 4 input channels at full bandwidth and 40 GS/s of sample rate. Products from 20-30 GHz utilize Digital Bandwidth Interleaving (DBI) to interleave bandwidth, sample rate, and memory at 2 input channels to provide **the highest bandwidth in a real-time oscilloscope**, 80 GS/s of sample rate, and double the four channel memory. When 4 input channels are used, the LeCroy 8 Zi products have 16 GHz of bandwidth and 40 GS/s of sample rate. In addition, 4-16 GHz models may have their sample rate interleaved to 80 GS/s on two channels through the use of the WM8Zi-2X80GS External Interleaving Device accessory. This option will also interleave memory when used at the full 80GS/s sample rate). **Thus, the WaveMaster 8 Zi also can claim the fastest real-time sample rate (80 GS/s on 2 channels).** This sample rate is standard on 20-30 GHz units and optional on 4-

16 GHz units.

### LeCroy is the Leader in Analysis Memory

Walter LeCroy invented the digital oscilloscope. When LeCroy launched the first Zi platform (WavePro 7 Zi) they demonstrated that while some competing oscilloscope manufacturers could claim very long acquisition memory banner specs, the reality was that these competitive oscilloscopes were nearly impossible to use for even simple zooming operations at 50 Mpts or higher, and forget about using them for analysis – even simple subtractions of two waveforms could bring them to their knees.

LeCroy's X-Stream II fast processing architecture is clearly superior and is unique to LeCroy. Augmented with the best computer processor and OS in the industry, it provides analysis results 10-100X faster than competitive units, with nearly instantaneous front panel responsiveness.

**Now, WaveMaster 8 Zi oscilloscopes provide up to 256 Mpts/ch of acquisition and analysis memory (512 Mpts/ch on 2 channels for 20-30 GHz units).** In addition, **LeCroy is the only oscilloscope supplier to make its full memory available for complete analysis without any limitations.** Contrast that to two major competitors, who litter their on-line Help, release notes, and manuals with descriptions of the limitations of their acquisition memory when doing analysis. Not only do we have the one

competitor's 70000 Series memory banner specification beaten outright (WaveMaster 8 Zi has up to 256 Mpt/ch on 4 channels compared to the competitor's 200 Mpts/ch on 4 channels), but memory performs far faster (10-100X faster) and on longer records (the competitor has a typical 50 Mpt upper limit on analysis processing, sometimes far less than that). The second competitor's 90000A DSO has similar memory limitations.

Now that LeCroy has the bandwidth and sample rate banner specs that customers need, there is no better time to invest in a LeCroy Digital Oscilloscope. Customers should learn the difference between the competitor's *acquisition* memory and LeCroy's *analysis* memory.

## Best Investment Protection with Unlimited Bandwidth Upgrades

WaveMaster 8 Zi starts at 4 GHz (which provides 40 GS/s, or 10:1 oversampling, on 4 channels) and ends at 30 GHz. Plus, WaveMaster 8 Zi has the best hardware and software platform by far – one that is so superior it will stay current and functional for many years – and is supported by the best warranty and after-sale service support guarantees. Now LeCroy also provides investment protection for your customer by allowing them to purchase only the bandwidth they need today and upgrade that same unit to any bandwidth in the future, knowing that the oscilloscope product line can ultimately be upgraded to a 30 GHz oscilloscope. Imagine how important that will be when you are evaluating the purchase of a \$100,000 oscilloscope. This flexibility, especially in these difficult economic times, will be the key to your company's advances in technology with short term and long term success.

The flexibility is owed to LeCroy's Digital Bandwidth Interleave (DBI) technology. The WaveMaster 8 Zi has been designed to accept a simple modification to add the DBI hardware, making upgrades possible from as low as 4 GHz to as high as 30 GHz, or anything in between.

## Eye Doctor™ II Advanced Signal Integrity Tools Add Precision to Measurements

When the first Eye Doctor software package was launched a few years ago, LeCroy was predictably ahead of its time. Now, the marketplace has realized how important these tools are, especially as real-time oscilloscopes are available in microwave frequency bandwidths.

With Eye Doctor II, LeCroy has re-packaged, re-organized, and added to (e.g. CTLE equalization for SuperSpeed USB/USB 3.0 testing) the Eye Doctor tool sets to create a more accessible and easy to use package with more capability. With the launch of the new WaveMaster 8 Zi oscilloscopes, these tools are more important than ever. Plus, many next-generation serial data standards (PCIE Gen3, SuperSpeed USB, SAS/SATA 6 Gb/s) require the very de-embedding, emulation, and equalization capabilities that Eye Doctor II provides.

So whether you are a serial data engineer or just working with high speed signals, the Eye Doctor II tools will be invaluable to you and your team. Be sure to visit <http://tmetrix.com/library.aca> and watch the video on the Eye Doctor II software package. We are sure that you will be impressed.

## Superior Serial Data Analysis

With the launch of the SDA II Serial Data Analysis software in October, LeCroy significantly strengthened its leadership position in serial data testing. By providing correlation with competitor offerings, and a superior range of serial data jitter decomposition and failure analysis tools to assist in understanding the root cause of problems discovered during compliance testing, LeCroy solidified its lead in this important area. In the last quarter, LeCroy also launched HDMI and DisplayPort QualiPHY compliance test packages.

Now, with the WaveMaster 8 Zi launch, LeCroy will be addressing needs for PCIE Gen 3 (8 GT/s),

SuperSpeed USB (or USB3.0, 4.8 Gb/s), and SAS/SATA 6 Gb/s testing. These are all emerging serial data standards and as such are not yet finalized. Yet LeCroy will be addressing their testing needs through “toolboxes” to assist in compliance testing before the standards are finalized, and be in a good position to offer automated QualiPHY compliance test packages after the standards are finalized.

## **New Cascade™ Triggering**

WaveMaster 8 Zi now contains as standard the capability to setup a trigger condition to Arm on an “A” condition, then re-arm on a second “B” condition, then trigger when a third “C” condition is satisfied. It is possible to reset between each condition, and the A, B, or C events can be SMART triggers (with some limitations). For instance, a user could setup the Cascade to arm the trigger when a specified glitch was detected and then trigger when a specified slew rate condition was met, or use the slew rate to further qualify and then trigger on a third Edge event. Very fast (200ps) glitch and width triggering capability, a selection of 12 different SMART triggers, exclusion triggering, and ability to link a WaveScan™ search condition with the cascaded triggering sequence makes for a very powerful rare event isolator.

## **4 & 6 GHz Overlap With WavePro 7 Zi**

Both WavePro 7 Zi and WaveMaster 8 Zi have 4 and 6 GHz models. There are several important reasons for this. WaveMaster has 40 GS/s on all four channels whereas WavePro has 20 GS/s on all four channels and 40 GS/s interleaved.

WaveMaster has up to 256 Mpts on all four channels whereas WavePro has up to 128 Mpts on all four channels and 256 Mpts interleaved. Lastly, by offering 4 and 6 GHz WaveMaster models, we overlap with competitive product lines and also provide ability to late upgrade to 30 GHz. There is higher value that comes with the WaveMaster 4 and 6 GHz models, something to consider when presented with the price difference compared to the WavePro 7 Zi.

## **WaveMaster 8 Zi Contains All that You Know From WavePro 7 Zi**

When LeCroy began to show the first Zi platform products to customers, there was a lot of excitement about the speed, responsiveness, and range of capability. The WaveMaster 8 Zi shares the same basic hardware platform as the WavePro 7 Zi, so all the same capabilities are there (1 MΩ inputs, low speed serial triggers, MSO options, use with all LeCroy probes, etc.). Thus, even a 30 GHz oscilloscope has all of the same general purpose capabilities as a WaveRunner-class oscilloscope, something that no competitive specialized 50 Ω oscilloscope can claim. This is a significant advantage with LeCroy when engineers are trying to debug circuits with a wide range of low speed and high speed signals.

## **Further Information**

If you have any questions, you should contact TMetrix sales. Visit <http://tmetrix.com> or call 1-800-665-7301.