

## **Tektronix Expands DPO70000SX ATI High Performance Oscilloscope Family New 50 GHz Model Includes Industry-Best Low Noise ATI Technology, Ideal for Datacom PAM4 Testing**

BEAVERTON, Ore., Sept. 28, 2015 /PRNewswire/ -- Tektronix, Inc., the world's leading manufacturer of oscilloscopes, today announced the expansion of its [DPO70000SX Performance Oscilloscope Series](#) to include 50 GHz and 23 GHz models. By extending our flagship 70 GHz model, the new 50 GHz product is ideal for engineers and researchers who want to take advantage of the superior low-noise performance of the patented asynchronous time interleaving (ATI) architecture for technologies such as 28 GBaud PAM4 and Kband frequency testing. The 23 GHz instrument joins the existing 33GHz models which feature compact dimensions and built-in scalability using the UltraSync synchronization technology.

The growing family of DPO70000SX Series Performance Oscilloscopes deliver the lowest-noise and highest fidelity of any ultra-high bandwidth real-time oscilloscope available on the market today. As speeds go up and amplitudes go down, system noise has become a major challenge because it obscures important details in signal behavior. Tektronix' 50 GHz and 70 GHz ATI oscilloscopes allow engineers to more accurately capture and measure higher frequency signals with up to 30% less system noise than the legacy frequency interleaving approaches used by other oscilloscope manufacturers.

"The DPO70000SX Series is setting the new standard for performance leadership. We are quickly expanding the family in direct response to customer demand," said Brian Reich, general manager Performance Oscilloscopes, Tektronix. "With our flagship model offering 10% more bandwidth, 25% higher sample rate and 30% lower noise than the nearest major competitor, we wanted to extend our portfolio to cover a broader variety of engineers and researchers who are serious about signal integrity."

### **Symmetrical signal paths for lower noise**

Current real time scope solutions for digitizing ultra-high bandwidth signals distribute signal energy to two digitizing paths then use DSP to reconstruct the input signal. Unlike legacy schemes, Tektronix' unique ATI architecture uses a symmetrical technique that delivers all signal energy to both digitizing paths resulting in an inherent noise advantage when signals are reconstructed. The 50 GHz instrument's ATI channel offers 200 GS/s sample rate for 5 ps/sample resolution. It also has two standard (non-ATI) 33 GHz channels with 100 GS/s sample rate for 10 ps/sample resolution.

To further enhance signal fidelity, DPO70000SX oscilloscopes use a compact 5 1/4 inch form factor so the instrument can be positioned very close to the device under test (DUT) for shorter cable lengths and cleaner signals. The low height means each unit fits in a single 3U rackmount space, or two oscilloscopes can be stacked in the same space as a single standard bench oscilloscope.

Precise multi-instrument timing synchronization is required for test applications such as validation of high-speed networking technologies used in long-reach fiber systems (DP-QPSK Coherent Modulation) and shorter-reach (PAM4) data center networks. The DPO70000SX oscilloscopes meet these needs through the patent-pending UltraSync architecture that provides precise data synchronization and convenient operation of multi-unit systems. UltraSync uses a 12.5 GHz sample clock reference and coordinated trigger for inherent channel-to-channel skew stability superior to channels within a single instrument.

### **PAM4 Analysis Support on DPO70000SX Series**

Multi-level signaling is being planned for deployment in future 56GBaud Datacom standards for transmission of distances up to 10km using a technique known as PAM4. The multi-level signaling presents unique measurement challenges for today's design engineers. To provide testing insight on this new

technology, Tektronix is rolling out PAM4 Analysis support on the DPO70000SX family ([see related release](#)). The industry-best low noise acquisition system in the DPO70000SX 50 GHz and 70 GHz models enables very accurate characterization of PAM4 signaling with this latest analysis toolset.

Rounding out the DPO70000SX Series, Tektronix is also introducing a new 23 GHz model that takes advantage of the compact form factor and supports UltraSync. It features four 23 GHz non-ATI channels with a 50 GS/s sample rate on each, for 20 ps/sample resolution.

### **Pricing & Availability**

DPO70000SX 50 GHz and 23 GHz oscilloscope models will begin shipping in Q4, 2015. The existing 70 GHz and 33 GHz models are available now.

- 50 GHz ATI units start at \$290,000 US MSRP with a two-unit system starting at \$435,000 US MSRP.
- A 23 GHz non-ATI unit starts at \$182,000 US MSRP.

**Wondering what else Tektronix is up to?** Check out the Tektronix [Bandwidth Banter blog](#) and stay up to date on the latest news from Tektronix on [Twitter](#) and [Facebook](#).

### **About Tektronix**

Headquartered in Beaverton, Oregon, Tektronix delivers innovative, precise and easy-to-operate test, measurement and monitoring solutions that solve problems, unlock insights and drive discovery. Tektronix has been at the forefront of the digital age for over 65 years. Join us on the journey of innovation at [www.tektronix.com](http://www.tektronix.com).

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