

Tektronix Automates 400G PAM4 Electrical Testing

Fully Automated Solution for OIF-CEI-56G VSR/MR/LR PAM4 Specs on DPO70000SX Real-Time Oscilloscopes

BEAVERTON, Ore., June 13, 2017 /[PRNewswire](#)/ -- Tektronix, a leading worldwide provider of measurement solutions, has expanded its line-up of PAM4 test solutions to include comprehensive 400G electrical compliance testing for OIF-CEI-56G VSR/MR/LR PAM4 standards. The new 400G-TXE software package runs on high-performance Tektronix DPO70000SX Real-Time Oscilloscopes; a lineup of models which go up to 70 GHz in bandwidth. The automated turnkey solution performs PAM4 compliance test sweeps in a single pass for shorter test times, more reliable and repeatable results, and greater ease of use.

The use of PAM4 encoding doubles the data rate of serial data channels compared to NRZ (non-return to zero). But as a complex modulation scheme it also presents a number of major test and measurement challenges. Many of the measurement specs for PAM4 are still in flux, making it difficult to stay current with the latest measurement techniques being formalized by the standards. The time required to complete complex test procedures can be a significant challenge along with the need for reliable results that can be correlated across test systems.

"By automating the PAM4 testing on our DPO70000SX Oscilloscopes, we are delivering easy-to-use turnkey test solutions our customers need to make the move to 400G," said Brian Reich, general manager, Performance Oscilloscopes, Tektronix. "This repeatable approach for 400G electrical PAM4 standards compliance testing is another addition to a rich set of PAM4 measurement tools from Tektronix for the growing Datacenter community."

The Tektronix 400G package allows users to evaluate electrical PAM4 signals to specification-mandated limits, and offers full OIF-CEI spec-level compliance tests. The solution includes digital clock recovery capabilities that provide trustworthy measurement results under all conditions, including signals impaired with ISI jitter or other impairments. Tektronix 400G-TXE compliance package performs standard required test sweeps with just one application, which results in shorter test times, more reliable and repeatable results and more ease of use.

Beyond compliance testing, Tektronix also provides PAM4 analysis & debug software solutions for both Real-Time and Equivalent-Time Oscilloscopes to support designers with insights needed to fully evaluate failing conditions such as BER and Eye Height & Width.

The 400G-TXE solution runs on high-performance [DPO70000SX](#) 70GHz, 59GHz and 50GHz real-time oscilloscope models that deliver unprecedented low noise and measurement accuracy. High-speed standards such as the OIF- CEI require oscilloscope bandwidths currently provided by the DPO70000SX Series.

Pricing & Availability

The Tektronix 400G-TXE solution is available now. Contact your local sales account manager for pricing details. For more information please visit our [400G-TXE Solution Datasheet](#).

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 70 years. Join us on the journey of innovation at TEK.COM.

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