

Tektronix Introduces New 32 Gb/s Multi-Channel Bit Error Rate Testers for 100G Network Design & Test

Expands Market-Leading BERT Product Portfolio to Support Multi-Channel Testing required for Coherent Optical Modulation Formats, 100G LR4/ER4 Standards

BEAVERTON, Ore., Dec. 18, 2012 - Tektronix, Inc., a leading worldwide provider of test, measurement and monitoring instrumentation, today announced a new series of high-speed pattern generators and error detectors to support optical and serial data communications testing on signals as fast as 32 Gb/s. The new PPG3000 Series Pattern Generators and PED3000 Series Bit Error Detectors feature multi-channel pattern generation with channel-specific data programming ideal for critical margin testing on critical standards like 100G Ethernet, which require up to 4 channels.

The market incentive to develop high-speed optical and data communications links is greater than ever as bandwidth-hungry smartphones, tablets and videos applications continue their rapid growth. Data communications researchers and designers in turn need high-speed test equipment for characterizing and testing optical and serial interfaces that typically employ multiple channels with data rates ranging from 10 to 32 Gb/s per channel.

For testing coherent optical modulation formats, such as DP-QPSK, the PPG3000 Series, with its 4 phase-aligned channels, can be used in conjunction with the TektronixOM4000 Series Coherent Lightwave Signal Analyzer to enable optical designers to optimize and validate coherent modulation formats in real-time.

For bit error rate testing, the PED3000 Series can be combined with the PPG3000 to provide up to 32 Gb/s BER analysis with multi-channel support for quick identification of crosstalk issues common in multi-lane data communications architectures. For example, with IEEE802.3ba standards test, designers can simulate a 4 x 28G test bench to stress-test their receivers' designs. The 32 Gb/s data rate output with adjustable jitter insertion enables design firms to bring product to market with industry best margin capabilities, improving yields and performance of their end products or chips.

"The addition of the PPG3000 and PED3000 Series' to our BERT portfolio enables us to provide customers with choices for critical 100G standards testing," said Brian Reich, general manager Performance Oscilloscopes, Tektronix. "For in-depth analysis requiring exacting signal integrity we continue to offer our award-winning BERTScope family. The new PPG3000 and PED3000 add the ability to conduct BERT tests that require multi-channel aligned data pattern generation up to 32 Gb/s."

Multi-channel Pattern Generation

Consisting of six models in total, the PPG3000 Series includes models with 30 Gb/s or 32 Gb/s speeds and with one, two or four channels. With features such as synchronized and phase adjustable outputs and PRBS or user-defined pattern generation, these instruments provide the flexibility needed to troubleshoot a wide range of design issues including crosstalk. As speeds increase and multi-lane configurations such as 100G Ethernet become commonplace, crosstalk has emerged as a major design challenge.

Multi-channel BER Testing

Available with either one or two channels, the PED3000 Series of error detectors enable comprehensive testing of multi-channel standards like 100G Ethernet. The instruments combine excellent sensitivity (<20mV measured at 30 Gb/s) with the industry's widest data range from 32 Mb/s to 32 Gb/s. Error checking functions include PRBS or user-defined patterns, DC-coupled differential data inputs, single-ended clock input and auto align to input pattern.

Flexibility, Usability

Working together as a fully integrated system, individually or in conjunction with other Tektronix instruments, the PPG3000 and PED3000 Series offer designers a wide range of data rates, patterns, stresses and output level to address a range of standards. Users can quickly configure tests on the fly using an easy-to-use touchscreen graphic user interface. This simple operation shortens training time and improves testing efficiency.

Pricing & Availability

The PPG3000 Series Pattern Generators and PED3000 Series Error Detectors will be available in late December 2012. Pricing starts at \$85,000 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

For more than sixty-five years, engineers have turned to Tektronix for test, measurement and monitoring solutions to solve design challenges, improve productivity and dramatically reduce time to market. Tektronix is a leading supplier of test equipment for engineers focused on electronic design, manufacturing, and advanced technology development. Headquartered in Beaverton, Oregon, Tektronix serves customers worldwide and offers award-winning service and support. Stay on the leading edge at www.tektronix.com.

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