

## **Tektronix Test Solution Aids Development of Integrated PCIe 3.0 in New Intel® Xeon® Processors**

**As a Core Test and Measurement Supplier for Intel's New High-Performance Platform, Tektronix Now Supports PCIe 3.0 from PHY to Protocol Layers**

BEAVERTON, Ore. - March. 12, 2012 - Tektronix, Inc., the world's leading manufacturer of oscilloscopes, today detailed the extensive support provided to Intel® and the PCI Express (PCIe) ecosystem in the testing and verification of the new Intel® Xeon® Processor E5-2600 family (formerly known as Romley). This latest generation platform, targets high-performance server and data center applications and was officially unveiled March 6 by Intel at a global launch event <http://newsroom.intel.com/docs/DOC-2677>.

The Intel Xeon Processor E5-2600 family is the industry's first server processor with integrated PCIe 3.0, reducing I/O latency by as much as 30 percent and improving I/O bandwidth by as much as 2x. Among the Tektronix products used to support the development of the Integrated I/O capability were the DPO/DSA/MSO70000 Series oscilloscopes, TLA7SA16 and TLA7SA08 Logic Protocol Analyzer modules and TLA7000 Series Logic Analyzers, and BERTScope bit error rate testers.

Leading up to the official launch, Tektronix was deeply involved in the successful testing of more than 100 PCIe 3.0 systems and cards on the Intel Xeon Processor E5-2600 family at numerous events worldwide including Intel Developer's Forum and PCI-SIG sponsored events.

"From the very early stages, Tektronix played an active role supporting the testing and verification of the new Intel Xeon Processor E5-2600 family platform, bringing both test instrumentation and expertise," said Roy Siegel, general manager, Oscilloscopes, Tektronix. "This early work means that we can now offer designers products utilizing the Intel Xeon Processor E5-2600 family a full suite of PCIe 3.0 solutions that provide unparalleled visibility from the PHY to the protocol layers."

The Intel development team selected Tektronix as the protocol test vendor for early silicon verification of Intel Xeon Processor E5-2600 family I/O performance. This led to significant, in-depth support for verification that is now publicly available for OEM/ODM use. With fast data rates and improved I/O bandwidth over previous generations, the PCIe 3.0 specification brings new complexity and testing challenges in both the physical and the protocol layers, now fully met by Tektronix solutions.

"Support from the test and measurement community is vital for any new platform, and with PCIe® 3.0, it is even more critical as this new technology greatly improves I/O performance and scalability," said Jim Pappas, Director of Technology Initiatives, Intel Corporation. "Based on our long mutual track record of success and Tektronix' continued drive to be at the forefront of the industry, Tektronix was the ideal test and measurement supplier for this strategic initiative."

### **Comprehensive PCIe 3.0 Test Solutions**

With the world's best over-sampling performance at 100 GS/s, DPO/DSA/MSO70000 Series oscilloscopes deliver the performance and signal fidelity required to meet PCIe 3.0 test challenges. Option PCE3 for these instruments accelerates the analysis and validation of PCIe designs and provides the flexibility to check devices for pre-compliance or perform device characterization or debug in a single software package.

Serial Data Link Analysis software enables channel de-convolution, convolution and receiver equalization. DPOJET Jitter and Eye-diagram Analysis software provides jitter, eye-diagram and parametric testing. And the P7520 TriMode™ Differential Probe is available for validation and debug of chip-to-chip links, including common mode measurements.

These tools also integrate with the TLA7SA16 and TLA7SA08 Logic Protocol Analyzer modules and the TLA7000 Series Logic Analyzers to provide complete visibility of PCIe 3.0 physical and logical layers. In May 2011, the TLA7SA00 won a Test & Measurement World 2011 Best in Test Award in the Bus Analyzers category.

On the receiver side, Tektronix provides a method of implementation (MOI) for PCI Express 3.0 receiver testing using the BERTScope BSA85C. The full set of receiver test challenges is addressed in the MOI including putting devices into loopback, setting and calibrating the required stresses and pre-emphasis, and performing jitter tolerance tests.

#### Availability

Tektronix PCIe 3.0 test solutions are available now worldwide.

Wondering what else Tektronix is up to? 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](http://www.tektronix.com).

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