

Tektronix Announces Test Tools for SuperSpeed USB

Tektronix Provides Customers with Complete Physical Layer SuperSpeed USB Tests to Verify Silicon Compliance

Beaverton, OR, October 14, 2008 – Tektronix, Inc., a leading worldwide provider of test, measurement and monitoring instrumentation, announced a comprehensive test set for the USB 3.0 specification. The high-speed [serial data](#) offering will enable customers to rapidly test their SuperSpeed USB designs.

It is estimated that initial SuperSpeed USB interface ICs and consumer products should appear in early 2010, with widespread adoption continuing throughout 2010. The first SuperSpeed USB products will likely include data-storage devices such as flash drives, external hard drives, digital music players, and digital cameras. These will be followed by video products and eventually data-acquisition systems that need the high data throughput.

“SuperSpeed USB is a giant leap forward in data transfer rates for many devices and consequently requires much more sophisticated testing,” said Ian Valentine, general manager, Technology Solutions Group, Tektronix. “SuperSpeed USB will operate at 5 Gb/s, more than 10 times greater than the existing high-speed USB standard. This speed will require comprehensive signal testing for transmitters, interconnects, and receivers. Customers will be able to fully test the physical layers of their SuperSpeed USB devices using the latest test solution from Tektronix.”

SuperSpeed USB will join other high speed serial standards such as 8 Gb/s PCI-Express and SATA 6 Gb/s as one of the more demanding technologies, requiring advanced test and measurement instruments such as the industry leading Tektronix [DPO/DSA70000 oscilloscope](#) series and analysis software. The Tektronix oscilloscopes can acquire signals up to 8 Gb/s, at or above the [5th harmonic](#), enabling greater margin and fidelity for demanding compliance and debug testing. With the higher bit rate, SuperSpeed USB receivers will also need equalization at the receiver because the signal eye will be closed after traveling through PCB traces, connectors, and cables. This equalization stress testing is facilitated by the Tektronix USB test solution including [AWG7000B arbitrary waveform generators](#) and [DSA8200](#) Sampling Oscilloscopes.



“We welcome the contribution from Tektronix for the SuperSpeed USB standard including their support of the technology with new test tools and methodologies,” said Jeff Ravencraft, USB-IF Chairman. “Tektronix has provided excellent support for the USB-IF. Test sets like this will help enable developers to ensure their products are performing to the standard.”

SuperSpeed USB will adopt a new physical layer using two channels to separate data transmissions and acknowledgements to hit its higher speed targets. In place of the polling and broadcast mechanisms used in USB 2.0, the new USB 3.0 specification will employ a packet-routing technique and is architected so that devices can inform the host when they have data to send. The new link will continue to support the priority and bandwidth reservation that USB 2.0 currently has for the transmission of time sensitive data. In addition SuperSpeed USB supports a new feature called ‘Streams’ that may be used to enable native command queuing resulting in improved mass storage throughput.

The Tektronix test solution for USB 3.0 includes:

- DSA71254 12GHz or higher bandwidth oscilloscope for transmitter testing
- [DPOJET](#) with USB 3.0 setup files and transmit channel emulation for validation and debug
- Real time Serial Data Link Analysis ([SDLA](#)) Software for transmitter channel emulation
- AWG7102 with receiver test patterns and receive channel emulation for receiver testing
- DSA8200 Sampling Scope and [iConnect](#) software for interconnect testing
- All Tektronix test functionality for USB 3.0 is currently available for order and delivery.



About Tektronix

Tektronix is a leading supplier of test, measurement, and monitoring products, solutions and services for the communications, computer, and semiconductor industries - as well as military/aerospace, consumer electronics, education and a broad range of other industries worldwide. With 60 years of experience, Tektronix enables its customers to design, build, deploy, and manage next-generation global communications networks, computing and advanced technologies. Headquartered in Beaverton, Oregon, Tektronix has operations in 19 countries worldwide. Tektronix' Web address is www.tektronix.com.

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