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FuturePlus Systems Introduces Two New DDR3 Memory Bus Mixed Signal Interposers

Reliable DDR3 1600 and 1867 MT/s data capture for Tektronix MSO70000 Series Mixed Signal Oscilloscopes

COLORADO SPRINGS, Colo., Feb. 1, 2011 -- FuturePlus Systems Corp. today introduced the FS2380 DDR3 1867 DIMM and FS2385 DDR3 1600 SO-DIMM Mixed Signal Interposers (MSI) for state of the art double-data-rate (DDR) SDRAM buses. The two products will be used by designers involved with DIMM and SO-DIMM validation, failure analysis and bus functional-parametric validation in PC gaming, servers, super-computing, high-definition television, laptops, desktops and mobile computing applications.

The new interposers are designed for use with the Tektronix MSO70000 Mixed Signal Oscilloscopes Series to provide a high performance connection to the DDR3 bus. The user can then easily observe both the digital and analog representations of the DDR3 Address, Command and Control bus. Additional configurations can be ordered that add connections to the DQ/DQs signals for analog observation.

These two new products are believed to be the first and most cost effective methods of observing the DDR3 bus completely with a Tektronix MSO.

"These products represent FuturePlus Systems' application of our extensive experience in probing the DDR3 bus with a logic analyzer to a new user – the oscilloscope user," said Edward Aichinger, President of FuturePlus Systems.

"Tektronix welcomes the addition of the new FuturePlus MSI Interposers," said Ken Price, Tektronix Product Manager, DDR/Memory Solutions. "This greatly enhances our customer's ability to easily access multiple signal lines on the command bus for memory system decoding and analysis with our MSO70000 oscilloscopes."

Mixed Signal Interposer Design Provides Flexibility and Ease of Use.

The [FS2380](#) and [FS2385](#) Mixed Signal Interposers offer flexibility and out-of-box ease-of-use. The low-profile interposer design minimizes probe-induced effects on the DDR3 bus. An interposer is inserted into the target memory socket, while also accepting a memory module in the probe's extender slot. This capability is

essential when the target system has only one memory slot, or when a user must probe a fully-populated memory bus.

Connecting the Mixed Signal Interposers to the Tektronix MSO

A paddle card with 100 mil stake pins is provided to connect the Tektronix P6780 Differential Logic probe from the Tektronix MSO70000 to observe the A/C/C signals. The other side of the paddle card has 50 mil stake pins for the Tektronix P7500 TriMode™ probe socket cable, which is required to observe DDR3 DQ/DQs signals.

DDR Memory Bus Electrical Validation and Analysis Software

Optional software available from Tektronix auto-configures the MSO for easy setup and test configuration. The user can analyze all Read/Write bursts in the entire acquisition; plot DQS and DQ eye diagrams for Reads and Writes; perform JEDEC conformance tests with Pass / Fail limits; use Chip Select to qualify multi-rank measurements; navigate and time stamp Reads and Writes in an acquired record using Advanced Search and Mark. In addition, with the tightly integrated logic probe interface, customers can perform hardware-based logic qualified triggering on the MSO70000's logic channels to capture events that can't be identified with traditional oscilloscope triggers.

DDR Analysis software on an MSO70000 allows designers to easily move between conformance-test and analysis or debug tools; automatically produce consolidated reports with Pass / Fail information tied to JEDEC specifications; produce statistical measurement results, and test-setup Information; or use the Address/Command bus to precisely qualify Read and Write bursts or other events. This software can be ordered from Tektronix as Option DDRA pre-installed on an [MSO70000 Series oscilloscope](#).

Supported DIMMs and SO-DIMMs

The FS2380 supports a 240-pin, 933 MHz clock (1867 MT/s data rate), 64-bit, Un-buffered Synchronous Double Date Rate 3 DRAM Dual In-Line Memory Module (DDR3 SDRAM DIMM). The FS2385 provides similar support for a 204-pin 800 MHz clock (1600 MT/s data rate) SO-DIMM.

U.S. Pricing and Availability

Both the FS2380 and FS2385 have a U.S. list price of \$11,495. Delivery is eight weeks ARO.

Ordering Options

The FS2380 DIMM MSI, which probes all A/C/C signals, can be expanded to probe some of the DQ/DQs signals by ordering FS2381. By ordering FS2382, the user will be able to observe all A/C/C signals and all DQ/DQs signals.

The FS2385 SO-DIMM MSI, which probes all A/C/C signals, can be expanded to probe some of the DQ/DQs signals by ordering FS2386. By ordering FS2387, the user will be able to observe all A/C/C signals and all DQ/DQs signals.

About FuturePlus Systems

FuturePlus Systems Corporation is a privately held manufacturer of bus protocol analysis tools for the computer industry. The company is a Tektronix Embedded Tools Partner. FuturePlus Systems products are also supported by authorized resellers in Canada, China, Taiwan, Japan, Korea, India, and most European countries. More information about FuturePlus Systems Corporation may be found on the internet at www.futureplus.com.

About Tektronix

For more than sixty 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 instrumentation 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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