



News Release

Contact: Paul Rosenfeld
paul.rosenfeld@sff-sig.org
+1 (650)-961-2473

FOR IMMEDIATE RELEASE

SFF-SIG STANDARDIZES RUGGED MEMORY EXPANSION FOR SMALL FORM FACTOR CPU BOARDS

*XR-DIMM™ Rugged Memory Module Specification Targets Mil/aero and Industrial Applications
with Exceptional Shock and Vibration Requirements*

Santa Clara, California, February 18, 2011. The Small Form Factor Special Interest Group (SFF-SIG), a collaboration of leading suppliers of embedded component, board and system technologies, today announced the public availability of the new XR-DIMM™ Rugged Memory Specification. The Specification defines a highly rugged, DDR3 mezzanine memory module with a pin-and-socket connector optimized for small form factor CPU boards in applications with exceptional shock and vibration requirements. Use of this standardized memory module provides significant flexibility in memory sizes compared to memory soldered to a CPU board. An XR-DIMM module provides a significantly higher level of resistance to shock and vibration than commercial grade memory expansion modules such as SO-DIMM. In addition, the specification provides for both RAM and a Flash memory SSD drive on the same module through a SATA-2 interface.

“For years, designers of SFF CPU boards intended for rugged applications have had to choose between limited configurations of soldered memory or straps or glue to tie down commercial grade memory,” said Paul Rosenfeld, president of SFF-SIG. “The XR-DIMM Specification is the first open-standard off-the-shelf expansion memory module designed specifically for rugged applications.” The Specification was created by the Rugged Memory Working Group at SFF-SIG,

Note: XR-DIMM was originally announced under the name RS-DIMM

consisting of connector, memory module, and CPU board suppliers working together to achieve an optimal definition. Simultaneously with this announcement, two memory module suppliers, Swissbit AG (Bronschhofen, Switzerland) and Virtium Technology (Rancho Santa Margarita, CA), are each introducing XR-DIMM modules.

"The new XR-DIMM Specification gives us the first opportunity to meet the requirements of our customers for memory modules specifically designed for rugged applications," said Ulrich Brandt, General Manager of Swissbit. "Swissbit was pleased to participate in the Working Group and to help develop, validate, and test prototypes of the new technology."

"The new XR-DIMM Specification not only gives us an off-the-shelf memory solution for rugged applications, but it gives us an opportunity to showcase our industry-leading SSDDR (Solid State Disk plus DDR memory) combination in a single module", said Phan Hoang, Vice President of Product Design for Virtium and chairperson of the SFF-SIG Rugged Memory Working Group.

The XR-DIMM Specification defines a small 67.5 mm x 38 mm module that stacks 7.36mm above the CPU board. XR-DIMM uses DDR3 technology and is specified for both unbuffered and registered implementations. Memory sizes up to 4GB, with optional ECC (error correction circuitry) are supported using either 9-chip or 18-chip designs. Ruggedness is achieved by using a 240-pin Samtec BTH/BSH connector pair on the memory module and CPU board, along with two mounting holes. By avoiding the socket "wings" that hold an SO-DIMM in place, XR-DIMM modules can fit on a number of small form factor CPU boards, such as Processor AMC modules, which cannot use SO-DIMM because of the overall width (72mm). Finally, the pin definition for XR-DIMM closely aligns with the SO-DIMM pin definition, making it easy to adapt an existing SO-DIMM-based design to use a rugged XR-DIMM module. Both Swissbit and Virtium are contributing their module designs for use by other SFF-SIG members, which further ensures interoperability across XR-DIMM manufacturers. The XR-DIMM Specification is freely available on the SFF-SIG web site and can be downloaded free of charge and without license or registration.

A prototype XR-DIMM module has been tested on a LiPPERT COM Express module being announced simultaneously, with the shock and vibration results exceeding the levels defined in the ANSI/VITA 47-2005 (R2007) specification.

Please refer to the Swissbit, Virtium and LiPPERT announcements for more information.

Information about other specifications and membership in SFF-SIG may be found at www.sff-sig.org/join.html.

About the Small Form Factor SIG

The Small Form Factor Special Interest Group is an international organization devoted to identifying, creating, and promoting standards that help electronics system and device manufacturers and integrators move to small form factor technologies and building blocks in their products, and protect their investments. Benefits of small form factor products include smaller size, reduced power consumption (eco-friendly, “green” products), and greater reliability compared to larger legacy products.

The SIG’s philosophy is to embrace the latest technologies, as well as maintain legacy compatibility and enable smooth transition solutions to next-generation interfaces. Specifications are readily downloadable from the web site free of charge, as a contribution to the embedded community. For more information about the SFF-SIG, visit www.sff-sig.org or e-mail info@sff-sig.org.

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