

XR-DIMM™ Rugged Memory Specification Fact Sheet

- Tiny 67.5 mm x 38 mm x 7.36 mm form factor enables use on a wide variety of small form factor CPU boards
- Full DDR3 implementation with ECC support
- Supports 9-chip or 18-chip implementations up to 4GB
- Supports one or two memory modules per CPU
- Consistent with SO-DIMM pin definitions, easing conversion from SO-DIMM implementations
- Defines both unbuffered and registered versions
- Optional SATA interface enables combined RAM and SSD on a single module, reducing system space requirements
- Highly rugged interface to CPU using pin connector and screw attachment, providing enhanced resistance to shock and vibration
- ANSI/VITA 47-2005 shock and vibration compliant



The XR-DIMM* (“eXtreme Rugged Dual Inline Memory Module”) Rugged Memory Specification defines a small form factor (38 mm Depth x 67.5 mm Width x 7.36 mm Height) mezzanine DDR3 expansion memory module for use in embedded applications requiring exceptional resistance to shock and vibration as well as extended temperature operation.

The XR-DIMM Rugged Memory Specification includes the board outline, location of mounting holes for positive attachment to the underlying CPU board, connector definition and placement, and pin definition. The XR-DIMM pin definition closely follows the JEDEC DDR3 SO-DIMM pin definition to ease the implementation of CPU designs which may wish to utilize both expansion memory approaches for differing types of applications.

This specification, like the SO-DIMM specification, supports both unbuffered and registered versions. In addition, the pin definition includes a SATA interface to enable the development of dual function modules containing both DDR3 memory and flash memory for a Solid State Disk (SSD) implementation.

* Formerly RS-DIMM