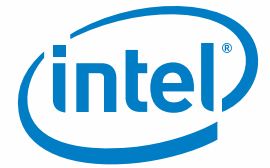


PRODUCT BRIEF

Intel® Integrated RAID Modules
RMS25KB080 and RMS25KB040



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Low Cost SAS-2 with Mirroring, Striping and JBOD
for Intel® Server Boards and Systems

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Low Cost SAS-2 with Mirroring, Striping and JBOD for Intel® Server Boards and Systems

Product Overview:

Ideal for servers and workstations needing high-speed data transfer within a small hardware footprint, the Intel RAID Module RMS25KB080/040 delivers a 1U capable design with high-throughput for internal storage applications. This RAID controller provides SAS capability that allows compatibility with 6Gb/s and 3Gb/s SAS and SATA hard drives, and SAS expander devices.

While many other SAS controllers are driven by large RAID software stacks between the host CPU and controller, the RMS25KB080/040 utilizes the embedded CPU in the LSI* 2308 ASIC to perform RAID 0, 1, and 1E/10 operations. With the reduction in RAID overhead, the RMS25KB080/040 offers superior internal READ/WRITE performance.

The Intel® RMS25KB family has an option for a 4 port or an 8 port model.

Key Advantages:

- **System Design Flexibility** - 1U capable SAS RAID module connects to the Storage I/O expansion slot available on select Intel® server boards based on the Intel® Xeon® processor E5 product family. This module can be used in Intel and 3rd party chassis without the need for a riser card or low profile cutout.
- **Cost Effective Data Protection** - provides a low-cost RAID 0, 1 and 1E solution for entry-level server and workstation environments where high-performance and reliable data protection are required.
- **Excellent Performance and Ultra-Thin Driver** - LSI Fusion-MPT™ architecture and LSI2308 I/O Controller provides up to 700,000 I/Os per second while communicating over the PCI Express* 3.0 Host Bus.
- **High Scalable SAS or SATA Storage** - connect SAS or SATA devices within the array. Employ Just a Bunch of Disks (JBODs) with support of up to 512 physical devices, or RAID 0, 1, 1E/10 with up to 10 devices.

Why Intel® RAID?

All Intel RAID solutions are validated across multiple platforms with Intel® boards, chassis, and systems. Custom training, as well as Intel service and support, make Intel the one source for customers seeking data protection, increased productivity, and simplified IT.

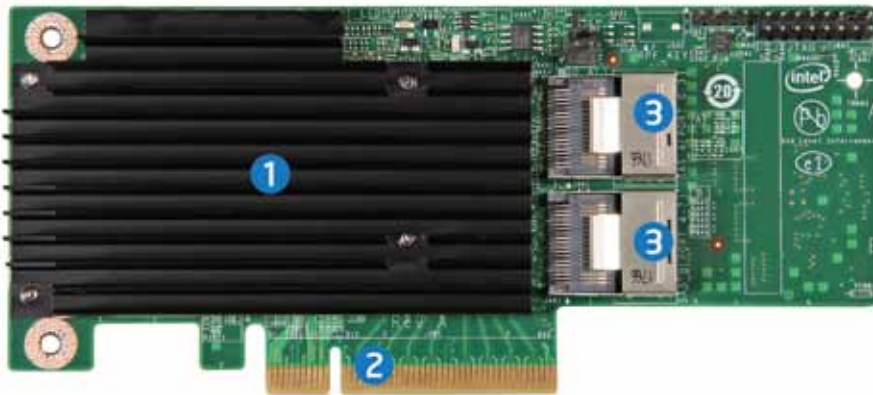


Intel® Integrated RAID Module RMS25KB080/040

Powered by LSI* MegaRAID® Technology

Features:

- 1 **One or two 8087 connectors** for up to eight internal SAS/SATA ports
- 2 **x8 PCI Express* Generation 3 interface** for fast communication with the server board
- 3 **LSI SAS2308 IOC controller** providing SAS 2.0 compliance, including 6Gb/s data transfer and compatibility with SAS or SATA drives



Is an Entry or Mainstream RAID Module right for your application?

RAID is pertinent to both data protection and application performance, thus it is important to select the right product for your needs. The RMS25KB080/040 is an entry-level product that offers exceptional value and may be perfect for mirroring a small number of drives or for connecting to a bunch of disks using JBOD mode. However, it does not offer all of the features or the performance of Intel's mainstream product line. The following table highlights some of the differences between the three key categories of RAID products.

	GOOD	BETTER	BEST
Model	Intel® RAID C600 Upgrade Key RKSAS8R5	Intel® Integrated RAID Module RMS25KB080/040	Intel® Integrated RAID Module RMS25PB080/040
Category	Software RAID	Entry-level	Mainstream
RAID Levels	0,1,5,10,50	0, 1, 1E	0,1,5, 6, and spans 10, 50, 60
Performance Factors	Utilizes the Intel® Xeon® processor and system memory and thus will be affected by the server load	Includes an I/O processor (IOP) for true hardware RAID 0, 1, 1E, but the IOP is not powerful enough to handle parity calculations	Includes a RAID-on-Chip (ROC) processor and up to 1GB embedded cache for superior performance
Data Protection Factors	Limited diagnostics, tied tightly to OS, and long rebuild times	Limited diagnostics	Complete diagnostic and debug tools, quickest rebuild
Compatible with Premium Features such as SSD Cache?	No	No	Yes

Technical Specifications:

Product Order Codes	RS25KB080 (8 port) RS25KB040 (4 port)	
Cables	Multiple kits are available that fit the chassis the module is installed in. See www.intel.com/go/RAID for details.	
Data Protection Feature Highlights	Distributed Sparing Hot Spare Support Expander Support Background Consistency Checking Enclosure Management S.M.A.R.T. Support RAID support before operating system loaded	
Intel® RAID Software	Intel® RAID Web Console 2 Intel® RAID Command Line Tool Intel® RAID Flash Utilities	
I/O Processor	LSI SAS2308 SAS Controller	
Drive Types	SAS 6Gb/s , SATA 6Gb/s, SAS 3Gb/s or SATA 3Gb/s	
Maximum Devices / Drives	Non-RAID	512
	Integrated RAID (IR)	14 spread across 2 volumes
	RAID 0	10 per volume
	RAID 1	2 per volume plus hotspare
	RAID 1E	10 per volume
	RAID 10	10 per volume
Connectors	080 models have two SAS SFF8087 x4 SAS internal connectors; 040 models have one SFF8087 x4 connector	
PCI Interface	X8 PCI Express* 3.0 ¹	
Form Factor	1U Capable Mezzanine Board	
Data Transfer Rates	Up to 6Gb/s per port	
Operating Temperature	Maximum ambient: 50°C	
Operating Voltage	+12V ±10%	
Standard Warranty	3 years, AWR option	
Intel Server Boards Supported	Intel® Server Boards for the Intel® Xeon® processor E5 product family only. Support for future Intel® Server Boards also planned. See www.intel.com/go/RAID for an up to date list of supported motherboards.	
Operating Systems	Extensive support includes Microsoft® Windows® Vista/2008/ Server 2003/2000/XP, Linux®, Solaris®(x86), Netware®, FreeBSD®, VMware® and more. See intel.com for the most complete list of supported operating systems	

For more information on how to make Intel® RAID products part of a successful storage solution, visit: www.intel.com/go/RAID



¹ At launch, compatibility will be limited to PCIe Gen2. PCIe Gen3 support is anticipated to be added by June 2012 and will require a module with a manufacture date that follows the addition of PCIe Gen3 support.

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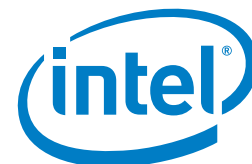
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