Intel® RAID Controller RS25DB080
2nd Generation SAS-2 6G RAID Adapter for Mainstream Applications

Product Overview
The Intel® RAID Controller RS25DB080, with eight internal ports, delivers two 1333MHz processor cores and a 72-bit DDR3 interface that drives 1GB cache memory. For users implementing hybrid server platforms based on solid-state storage, the Intel RS25DB080 unleashes the IOPs and throughput potential of SSDs to provide exceptional storage performance. Even users deploying this new RAID controller in existing HDD-based server environments are likely to experience significant performance gains compared to previous generation controllers.

The Intel RS25DB080 includes a new version of the Intel® RAID Web Console 2 which enhances RAID volume creation by empowering administrators to further optimize their storage for application performance and data protection. Through the use of an intuitive graphical user interface, Intel RAID Web Console 2 deploys all the critical system storage functions without a time-consuming learning curve.

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

Key Advantages
• **Exceptional data protection**
  Supports data redundancy using SAS or SATA hard disk drives through mirroring, parity, and double parity (RAID levels 1, 5, and 6) plus striping capability for spans (RAID levels 10, 50, and 60).

• **Excellent performance**
  A dual core LSI® SAS2208 ROC, x8 PCI Express* Generation 2 host interface, and 1GB of 1333MHz cache enhances the performance of mainstream applications.

• **Inside-the-box design flexibility**
  With a true MD2 form factor, this adapter is ideal for low-profile height and half-length adapter slots. Eight internal 6 Gb/s SAS ports allow connection to 6Gb/s or 3Gb/s high-performance SAS drives, high-capacity SATA drives or a combination of both.

• **Outstanding availability**
  Delivers proactive drive monitoring and automatic error correction. A new battery (optional accessory) offers multiple operating modes including high heat tolerance and 5 year service life options.

• **Support for premium feature upgrades**
  Includes a connector for optional hardware-based keys that easily plugs in to unlock advanced software algorithms designed to improve performance and enhanced data protection. For instance, the SSD Cache with FastPath* I/O upgrade allows for using one or more SSD as enhanced cache for the RAID controller which can significantly improve performance of read-intensive applications such as file, Web, and online transaction processing servers.
Technical Specification

Order Codes
- RAID Card: RS25DB080, BBU: AXXRSBBU9
- Cable Kit: AXXCBL740MS7P

RAID Levels and Spans
- RAID Levels: 0, 1, 5, and 6
- RAID Spans: 10, 50, and 60

Data Protection Feature Highlights
- Online Capacity Expansion
- Hot-Spare Support – Global & Dedicated
- Single Controller Multipathing (Failover)
- Enclosure Management (SES2, SGPIO)
- Background Consistency Checking
- Patrol Read for Media Functionality
- S.M.A.R.T. Support

Intel® RAID Software
- Intel® RAID Web Console 2
- Intel® RAID Command Line Tool
- Intel® RAID Flash Utilities

I/O Processor
- LSI SAS2208 ROC running at 1333MHz

Drive Types
- SAS 6Gb/s or SATA 6Gb/s, SAS 3Gb/s or SATA 3Gb/s

Maximum Drives
- Up to 128 physical devices supported

Connectors
- Two SAS SFF8087 x4 SAS internal connectors

Cache Memory
- Embedded 1GB at 1333MHz

PCI Interface
- x8 PCI Express* 2.0

BBU Support
- Optional Intel® Smart Battery AXXRSBBU9

Form Factor
- Low profile, MD2 (6.6" X 2.536")

Data Transfer Rates
- Up to 6Gb/s per port

Operating Temperature
- Maximum ambient: 65°C (55°C with optional BBU)

Operating Voltage
- +3.3 V

For more information on the Intel® RAID Controller RS25DB080, visit: www.intel.com/go/RAID

Features
1. LSI SAS2208 ROC controller providing SAS 2.0 compliance including 6Gb/s data transfer
2. Embedded 1GB 1333MHz cache (ECC DDR3 memory) to efficiently store data in transition
3. Two SFF8087 SAS/SATA connectors for up to eight internal ports
4. Speaker to deliver audible alerts
5. x8 PCI Express Generation 2 interface for fast communication with the server board
6. Optional Intel® Smart Battery AXXRSBBU9 offering cache protection with up to 5 years service life (not shown)
7. Optional Intel Cable Kit AXXCBL740MS7P includes 2 x 740mm cables with mini-SAS (8087) (not shown)