

# Intel® RAID Controllers RS2VB080/040

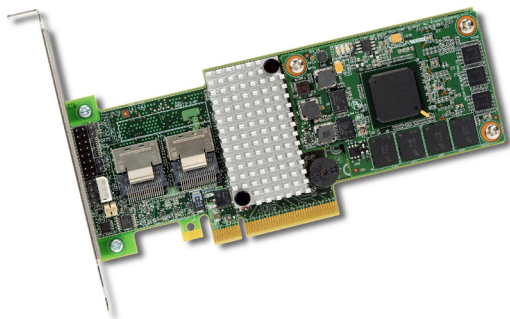
Popular SAS-2 6G RAID Technology with Maintenance Free Backup Included

## Product Overview

The Intel® RAID Controllers RS2VB080/040 offers maintenance free backup capability built on proven 6GB/s SAS RAID technology. The backup unit features NAND flash to capture the RAID controller memory contents in the event of system hangs, crashes, kernel panics or power failures. When one of these issues occurs, all outstanding IOs will be transferred to flash memory for storage for completion once the system comes back online.

In addition to maintenance free backup, the Intel® RAID Controllers RS2VB080/040 features either 8 or 4 internal ports (depending on model), an LSI SAS2108 6Gb/s RAID on Chip (ROC) processor, a native PCI Express® 2.0 architecture, and an easy to use graphical interface. These features combined to provide significant performance and usability gains for both 3Gb/s and 6Gb/s drive-based solutions compared to Intel's SAS 1 and first generation SAS 2 RAID products.

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 and performance.** 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). LSI SAS2108 ROC technology, x8 PCI Express Generation 2 host interface and 800 MHz cache enhances the performance of mainstream applications.
- **Improved serviceability.** NAND flash can retain data for up to ten years and provide near instant optimal RAID performance versus traditional Lithium Ion (LiON) battery backup units (BBUs) which are limited to just days of retention and can take up to 8 hours to charge. Furthermore, NAND technology allows for a standard 3 year warranty.
- **Environmentally friendly.** The maintenance free backup unit (MFBU) improves traditional methods of cache protection by eliminating LiON batteries. MFBU does not require additional hazardous shipping compliance documentation, does not require LiON disposal fees, personnel- or maintenance-planning expenses.
- **Support for premium feature upgrades.** The RS2VB080/040 includes a connector for optional hardware-based keys that easily plug 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.

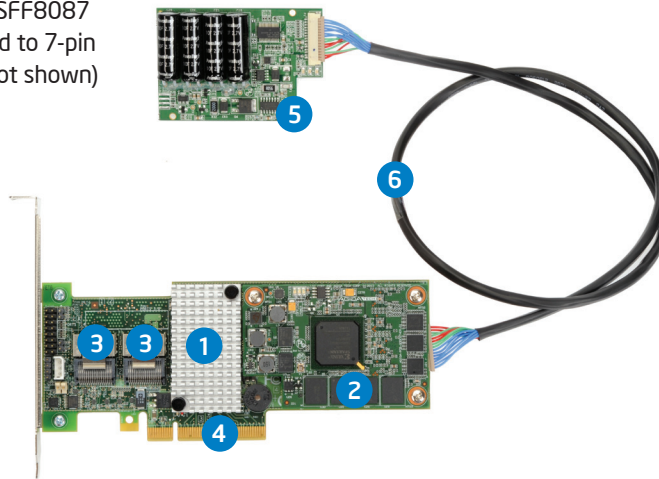
# Intel® RAID Controllers RS2VB080/040

Powered by LSI MegaRAID\* Technology

For more information on the Intel® RAID Controller RS2VB080/040, visit: [www.intel.com/go/RAID](http://www.intel.com/go/RAID)

## Features

1. LSI SAS2108 ROC controller providing SAS 2.0 compliance including 6Gb/s data transfer
2. Embedded 512MB 800 MHz DRAM (ECC DDR2 memory) and NAND flash memory to store and protect data in transition
3. Two (080 model) or one (040 model) SFF8087 SAS/SATA connectors for up to eight/ four internal ports
4. x8 PCI Express Generation 2 interface for fast communication with the server board
5. Maintenance free supercap power module unit
6. Remote cable for supercap power module
7. Up to two cables with SFF8087 connectors that expand to 7-pin connectors included (not shown)



Low-Profile MD2 Form-Factor - 6.6" x 2.536"

## Technical Specifications

Order Codes	RS2VB080 (8 port) RS2VB040 (4 port) Note: Maintenance free backup (flash and capacitor-based) included
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 SAS2108 ROC running at 800 MHz
Drive Types	SAS 6Gb/s, 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 512MB at 800MHz
PCI Interface	x8 PCI Express* 2.0
Backup Support	Includes NAND and Supercap module for maintenance free backup
Form Factor	Low profile, MD2 (6.6" X 2.536")
Data Transfer Rates	Up to 6Gb/s per port
Operating Temperature	Maximum ambient: Controller Card: 60°C, Cap Pack: 55°C
Operating Voltage	+3.3 V

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