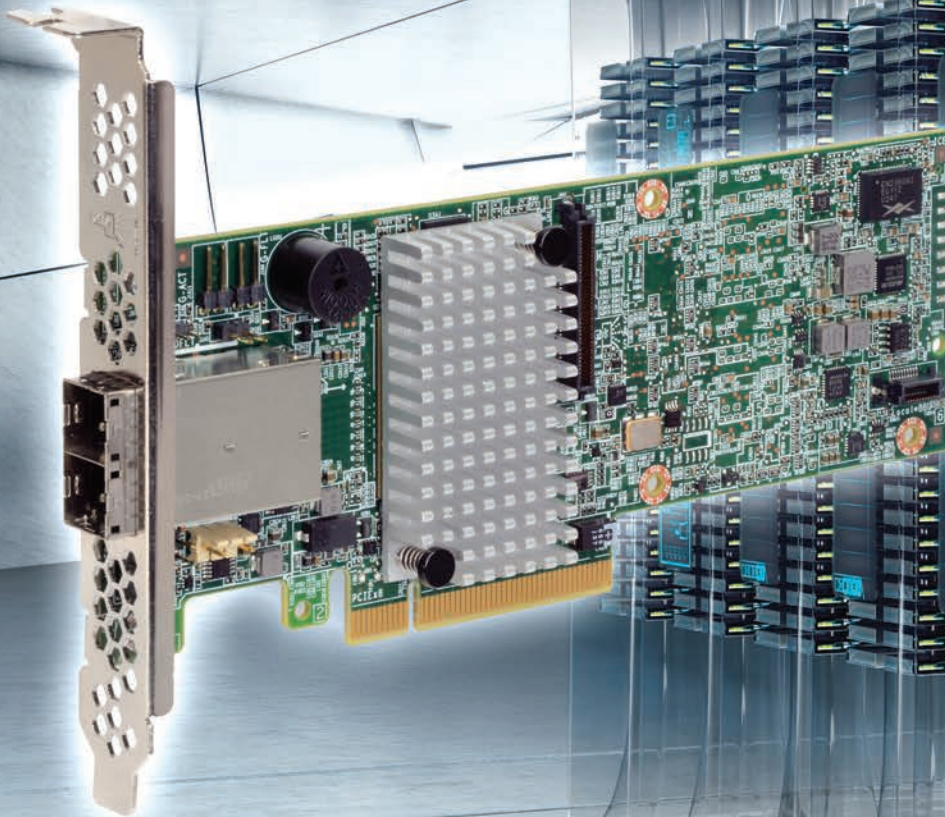


Intel® RAID Controller RS3SC008

Scalable Performance 12Gb/s SAS-3 Intelligent RAID

RAID matters. Rely on Intel® RAID.



Industry-leading performance and scalability for leading-edge datacenters

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Scalable Performance 12Gb/s SAS-3 Intelligent RAID Controller

With the world's data doubling every two years, according to IDC, organizations need server solutions with high performance and scalable storage¹. The Intel® RAID Controller RS2SC008 provides exceptional performance, high scalability, exceptional data protection and greater ease of use to address the challenges of today's datacenter.

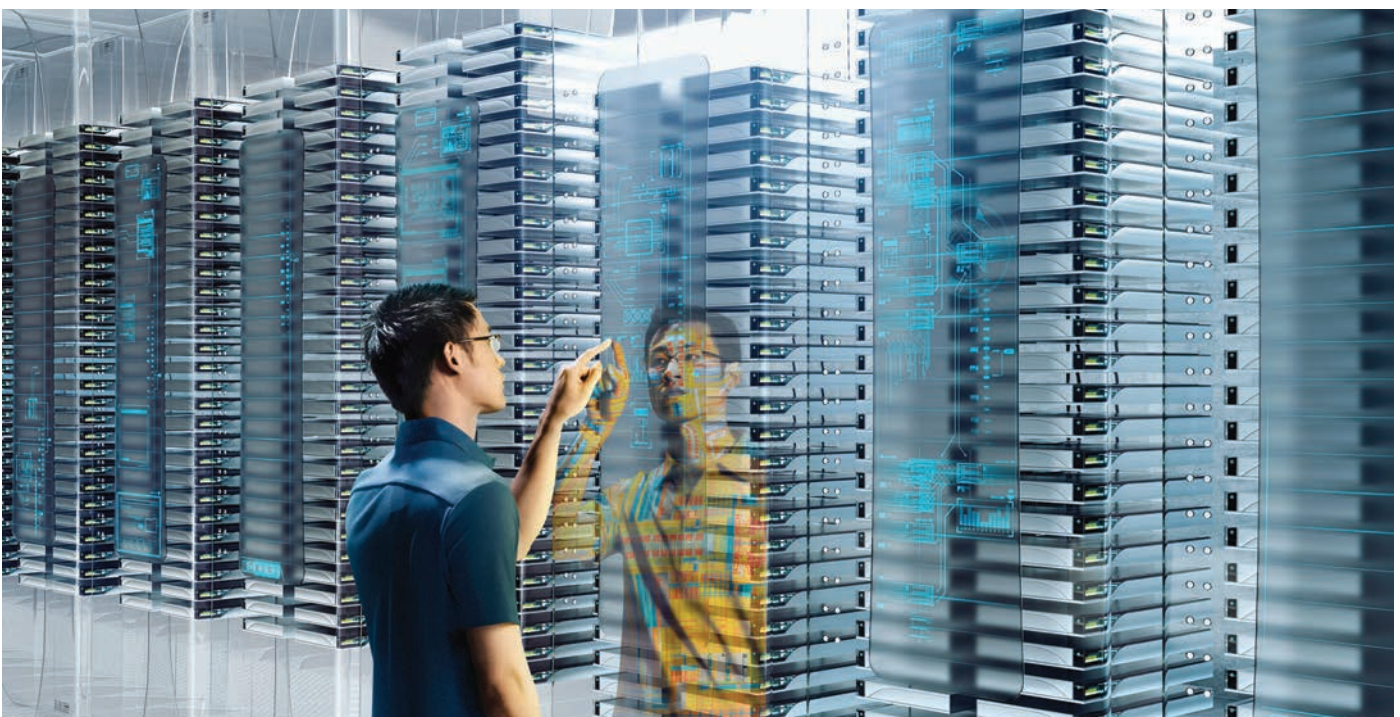
The Intel RS2SC008 is designed with industry-leading RAID technology, including LSI* MegaRAID. It is an easy to use adapter with the ability to support more than 750K RAID 5 IOPS and 6,000MB/s throughput performance, resulting in more than a 60 percent improvement in IOPs and double the bandwidth of previous generation RAID adapters when using high performance 12Gb/s devices.

With eight external ports, the Intel RS2SC008 allows for multiple drives in a SAS network to be connected to a server and joined as intelligent RAID arrays. It features two 1.2GHz processor cores and a 72-bit DDRIII interface that drives 1GB cache memory at 1866MHz. The Intel RCS3008 provides exceptional data throughput since it is designed with 8 PCI Express* lanes that comply with the latest PCI Express 3.0 specification, with 8 gigatransfers per second (GT/s) per lane. It is also backward compatible with previous PCIe and SAS generations through automatic negotiation and provides SAS data transfer rates of 12, 6, and 3Gb/s per lane, and SATA data transfer rates at 6 and 3Gb/s per lane.

The Intel® RAID Web Console 2, provided to manage this adapter, enhances RAID volume creation by empowering administrators to further optimize their storage for application performance and data protection. The intuitive graphical user interface makes it easy to deploy all critical system storage functions and helps eliminate complexity and learning curves. As all Intel RAID solutions are validated across multiple platforms with Intel® server boards, chassis, and systems, when used together they deliver the best combination of built-in performance.

Did you know you can connect up to 240 devices in RAID arrays with the RS3SC008?

By adding an SSD Cache Premium Feature Key some of these devices can be SSD in "virtual tiered storage".



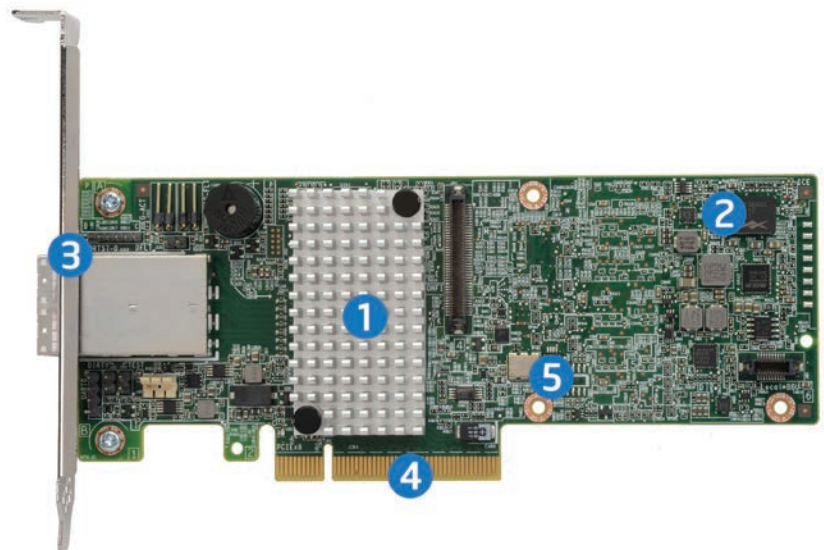
Key Advantages

- **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® SAS3108 ROC, x8 PCI Express Generation 3 host interface and 1GB of 1866 MHz provide the performance required for highly scalable storage.
- **Scalability up to 240 devices.** Eight external ports allow for connecting to JBOD or other external devices with up to 240 devices in RAID arrays.
- **FastPath I/O included.** This feature provides a high performance I/O accelerator for SSDs. The technology is designed to dramatically boost transactional application throughput, delivering up to 750,000 I/Os per second (IOPS) in RAID mode.
- **Optional MFBU.** The Maintenance Free Backup Unit (MFBU) is built using NAND flash that can retain data for up to ten years. In addition, it provides 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, longer lasting technology allows for a standard 3 year warranty.
- **Support for premium feature upgrades.** The RS3SC008 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 a large cache pool for the RAID controller which can significantly improve performance of read-intensive applications, such as file, Web and online transaction processing servers.

Features

Intel® RAID Controller RS3SC008

1. LSI® SAS 3108 I/O processor supporting over 750K IOPs²
2. Embedded 1GB 1866 MHz cache (ECC DDR3 memory) to efficiently store data in transition (Memory module included with all models, but not shown)
3. Two external High Density Mini-SAS connectors with up to eight ports of 12Gb/s bandwidth per port
4. x8 PCI Express* connector with support for Generation 3 protocol
5. "Heartbeat" LED for visual verification that the card is functioning properly



Intel® RAID Controller RS3SC008

Powered by LSI* MegaRAID technology

Technical Specifications

Order Codes	RAID Card: RS3SC008 MFBU (Cache backup): AXXRMFBU4
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 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® SAS3108 ROC running at 1.2 GHz
Drive Types	SAS 12Gb/s, SAS 6Gb/s, SAS 3Gb/s, SATA 6Gb/s or SATA 3Gb/s. Hard-disk and SSD devices supported
Maximum Drives	Up to 128 physical devices supported
Connectors	Two SAS SFF8644 x4 SAS internal connectors
Cache Memory	Embedded 1GB DDR3 at 1866MHz
PCI Interface	x8 PCI Express* 3.0
Form Factor	Low profile, MD2 (6.6" X 2.536")
Data Transfer Rates	Up to 12Gb/s per port
Operating Temperature	Maximum ambient: 65°C (55°C with optional MFBU)
Operating Voltage	+3.3 V
DDR Cache Backup Support	Optional Intel® Maintenance Free Backup Unit AXXRMFBU4
Self-Encrypting Drive Support	Optional AXXRFKDE2 (Disk Encryption) upgrade key enables SafeStore* Encryption Services with Instant Secure Erase* and Local Key Management
SSD Cache Support	Optional AXXRFKSSD2 (SSD Cache 2) upgrade key enables SSD to be utilized as "super-sized" cache for the RAID controller

For more information on the Intel RAID Controller RS3SC008, visit: www.intel.com/go/RAID

For more information on how to make the Intel RAID Controller RS3SC008 part of your server environment, please contact an Intel® Technology Provider participant.

1 - IDC Digital Universe Study, June 2011


2 - Performance tests and ratings are measured using specific computer systems and/or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing.

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