

LSI SAS 2108 RAID Controller Information and Listing

By **Patrick Kennedy** - April 24, 2012

One of the most popular server RAID controller chips out there is the LSI SAS 2108. The LSI SAS 2108 is a 6.0gbs SAS 2 or SATA III based controller that features eight ports and native PCIe 2.0 connectivity. In the forums we have maintained a [LSI Controller Mapping](#) between LSI controllers and their OEM counterparts. This post will be updated with both information on the LSI SAS 2108 based RAID controllers as well as the different OEM models commonly found in the marketplace. Oftentimes LSI SAS 2108 controllers are less expensive when found as OEM parts from Intel, Dell, HP, IBM, Supermicro and others, so it makes sense in many cases to purchase the OEM versions of the LSI SAS 2108 based cards.

Quick Notes on the LSI SAS 2108

- The RAID controller supports both SAS 2 and SATA III at 6.0gbps
- Approximately 12w of power consumption for common cards
- Single PowerPC core at 800MHz
- Battery and capacitor backed onboard cache available
- PCIe 2.0 x8 interface
- Supports SAS expanders (with dual linking)
- Uses sas2flash utility to flash to IT/IR mode (when possible).
- Be advised, you may need to purchase feature keys that cannot be transferred between vendors.

Supported HBA Modes

- RAID 0, RAID 1, RAID 1E, RAID 10 and Passthrough (non-RAID)

Supported RAID Modes

- RAID 0, RAID1, RAID 10, RAID 5, RAID 50, RAID 6, RAID 60 and JBOD

Cards Based on the LSI SAS 2108

The following listing is for the RAID Controllers and HBAs based on the LSI SAS 2108 SAS 2 and SATA III RAID controller. Naming Convention: i=internal port(s), e=external port(s). LSI original SAS 2108 based controller, all cards are PCIe 2.0 x8 unless otherwise noted.

LSI MegaRAID

- [LSI MegaRAID SAS 9260-16i](#) 4x4 port internal SAS vertical, 512MB DDR2 cache, BBU capable RAID 0, 1, 10, 5, 6, 50 and 60
- [LSI MegaRAID SAS 9260-4i](#) 1x4 port internal SAS vertical, 512MB DDR2 cache, BBU capable RAID 0, 1, 10, 5, 6 and 50
- LSI MegaRAID SAS 9260-4ix
- [LSI MegaRAID SAS 9260-8i](#) 2x4 port internal SAS vertical, 512MB DDR2 cache, BBU capable RAID 0, 1, 10, 5, 6, 50 and 60
- LSI MegaRAID SAS 9260-8ix
- [LSI MegaRAID SAS 9260CV-4i](#) 1x4 port internal SAS vertical, 512MB DDR2 cache, BBU capable RAID 0, 1, 10, 5 and 50 with CacheVault
- [LSI MegaRAID SAS 9260CV-8i](#) 2x4 port internal SAS vertical, 512MB DDR2 cache, BBU capable RAID 0, 1, 10, 5, 6, 50 and 60 with CacheVault
- [LSI MegaRAID SAS 9261-8i](#) 2x4 port internal SAS horizontal, 512MB DDR2 cache, BBU capable RAID 0, 1, 10, 5, 6, 50 and 60
- LSI MegaRAID SAS 9262-8i
- LSI MegaRAID SAS 9264-8i
- [LSI MegaRAID SAS 9280-16i4e](#) 4x4 ports internal SAS vertical, 1x4 ports SAS external, 512MB DDR2 cache, BBU capable RAID 0, 1, 10, 5, 6, 50 and 60
- [LSI MegaRAID SAS 9280-24i4e](#) 6x4 ports internal SAS and 1x4 ports SAS external, 512MB DDR2 cache, BBU capable RAID 0, 1, 10, 5, 6, 50 and 60
- [LSI MegaRAID SAS 9280-4i4e](#) 1x4 ports internal SAS vertical and 1x4 ports SAS external, 512MB DDR2 cache, BBU capable RAID 0, 1, 10, 5, 6, 50 and 60
- [LSI MegaRAID SAS 9280-8e](#) 2x4 ports external SAS, 512MB DDR2 cache, BBU capable RAID 0, 1, 10, 5, 6, 50 and 60
- LSI MegaRAID SAS 9280-8ex
- LSI MegaRAID SAS 9280CV-4i4e
- LSI MegaRAID SAS 9280CV-8e
- LSI MegaRAID SAS 9281-8E
- LSI MegaRAID SAS 9282-8e

3Ware (owned by LSI)

- [3ware SAS 9750-8i](#) 2x Internal SFF-8087 ports. 512MB DDR2 cache BBU, capable of RAID 0, 1, 01, 5, 6, 50

IBM ServeRAID

- [ServeRAID M5014 SAS/SATA Controller](#) 2x4 port internal SAS vertical, 256MB cache, RAID 0, 1, 10, 5 and 50, BBU capable, can be cross flashed to LSi9260, need Advanced feature key for RAID 6 and 60 and Drive encryption
- [ServeRAID M5015 SAS/SATA Controller](#) 2x4 port internal SAS vertical 512MB cache, RAID 0, 1, 10, 5 and 50, BBU capable, can be cross flashed to LSi9260, need Advanced feature key for RAID 6 and 60 and Drive encryption.
- [ServeRAID M5025 SAS/SATA Controller](#) 2x4 port external SAS 512MB cache, RAID 0, 1, 10, 5 and 50, BBU capable, can be cross flashed to LSi9280, need Advanced feature key for RAID 6 and 60 and Drive encryption.

Dell Perc RAID

- [PERC H700](#) 2×4 ports internal SAS vertical, 512MB and 1GB DDR2 Non Volatile cache, RAID 0, 1, 10, 5, 6, 50, 60, can be cross flashed to LSI9260, Full height card
- [PERC H700 Adapter](#) 2×4 ports internal SAS vertical, 512MB and 1GB DDR2 Non Volatile cache, RAID 0, 1, 10, 5, 6, 50, 60, can be cross flashed to LSI9260, Full height card
- [PERC H700 Integrated](#) 2×4 ports internal SAS vertical, 512MB and 1GB DDR2 Non Volatile cache, RAID 0, 1, 10, 5, 6, 50, 60, can be cross flashed to LSI9260, Full height card
- PERC H700 Modular
- PERC H800 Proto Adapter
- [PERC H800 Adapter](#) 2×4 ports internal SAS vertical, 512MB and 1GB DDR2 Non Volatile cache, RAID 0, 1, 10, 5, 6, 50, 60, can be cross flashed to LSI9280, Full height card

Fujitsu

- [RAID Ctrl SAS 6G 5/6 512MB \(D2616\)](#) 2×4 port SAS horizontal, 512MB, BBU capable, RAID 0,1,10,5,6,50 and 60
- SAS RAID HDD Module (D2816)
- SAS RAID HDD Module w/o cache (D2837)
- RAID Ctrl SAS 6G 512MB (D3116)
- RAID Ctrl SAS 6G 1GB (D3116)

Intel

- [Intel® Integrated RAID Module RMS2MH080](#) Proprietary Interface
- [Intel® RAID Controller RS2BL040](#) 1×4 ports SAS internal vertical, 512MB DDR2 cache, BBU capable, RAID 0, 1, 10, 5, 6, 50, 60
- [Intel® RAID Controller RS2BL080](#) 2×4 ports SAS internal vertical, 512MB DDR2 cache, BBU capable, RAID 0, 1, 10, 5, 6, 50, 60
- [Intel® RAID Controller RS2BL080DE](#) 2×4 ports SAS internal vertical, 512MB DDR2 cache, BBU capable, RAID 0, 1, 10, 5, 6, 50, 60 with Disk Encryption
- [Intel® RAID Controller RS2MB044](#) 1×4 ports SAS internal vertical and 1×4 ports SAS external, 512MB DDR2 cache, BBU capable, RAID 0, 1, 10, 5, 6, 50, 60
- [Intel® RAID Controller RS2PI008](#) 2×4 ports SAS external, 512MB DDR2 cache, BBU capable, RAID 0, 1, 10, 5, 6, 50, 60
- [Intel® RAID Controller RS2PI008DE](#) 2×4 ports SAS external, 512MB DDR2 cache, BBU capable, RAID 0, 1, 10, 5, 6, 50, 60, with Disk encryption
- [Intel® RAID Controller RS2SG244](#) 6×4 ports SAS internal, 1×4 ports external, 512MB DDR2 cache, BBU capable, RAID 0, 1, 10, 5, 6, 50, 60
- [Intel® RAID Controller RS2VB040](#) 1×4 ports SAS internal vertical, 512MB DDR2 cache, BBU and supercap capable, RAID 0, 1, 10, 5, 6, 50, 60
- [Intel® RAID Controller RS2VB080](#) 2×4 ports SAS internal vertical, 512MB DDR2 cache, BBU and supercap capable, RAID 0, 1, 10, 5, 6, 50, 60
- [Intel® RAID Controller RS2WG160](#) 4×4 ports SAS internal vertical, 512MB DDR2 cache, BBU capable, RAID 0, 1, 10, 5, 6, 50, 60
- [Intel® RAID Controller RT3WB080](#) 2×4 ports SATA internal vertical, 256MB DDR2 cache, BBU capable, RAID 0, 1, 10, 5, 6, 50, 60

SuperMicro Motherboards

- [X8DTU-6F+-LR](#) 2×4 ports SAS internal, 512MB DDR2 cache, BBU capable, RAID 0, 1, 10, 5, 6, 50, 60
- [X8DTU-6TF+-LR](#) 2×4 ports SAS internal, 512MB DDR2 cache, BBU capable, RAID 0, 1, 10, 5, 6, 50, 60
- [X8DTU-6F+](#) 2×4 ports SAS internal, 512MB DDR2 cache, BBU capable, RAID 0, 1, 10, 5, 6, 50, 60
- [X8DTU-6TF+](#) 2×4 ports SAS internal, 512MB DDR2 cache, BBU capable, RAID 0, 1, 10, 5, 6, 50, 60

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Patrick has been running STH since 2009 and covers a wide variety of SME, SMB, and SOHO IT topics. Patrick is a consultant in the technology industry and has worked with numerous large hardware and storage vendors in the Silicon Valley. The goal of STH is simply to help users find some information about server, storage and networking, building blocks. If you have any helpful information please feel free to post on the forums.

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