Broadcom 8708ELP Datasheet

Broadcom LSI 8708ELP LSI00141 PCI Express x4 LSISAS1078 8 Internal 3Gb/s SAS/SATA Ports RAID On Chip Adapter 8708ELP

The MegaRAID SAS 8708ELP, a second generation SAS / SATA RAID adapter from LSI, addresses demands in a cost-effective, yet powerful internal RAID solution for entry-level server and small office environments. The MegaRAID SAS 8708ELP adapter features the LSISAS1078 IC, a powerful I/O storage engine that transparently performs all data protection, data checking, and restoration tasks.

This low-profile adapter offers eight internal 3Gb/s Serial Attached SCSI (SAS) ports on two SFF8087 mini multi-lane connectors, 667Mhz DDRII write cache, and a PCI Express host interface. Furthermore, system builders can choose high performance SAS disks or low-cost, high-capacity SATA drives - or a combination of both - for greater system design flexibility. The 8708ELP offers support for both SAS expanders as well as SATA native command queuing (NCQ).

Key MegaRAID features include:

- RAID 6 as well as RAID 0, 1 & 5

- RAID spans 10, 50 & 60
- Check consistency for background data integrity
- Patrol Read for media scanning and repairing
- Up to 32TB LUN support

Features

- LSISAS1078 RAID on Chip
  - 500MHz PowerPC
  - Hardware RAID 5 & 6 engines
- 8 SAS/SATA compatible ports
- 2 mini-SAS 4i connectors (8087)
  - 3 Gb/s throughput per port
- Fits PCI Express slot, x4 or x8
- 667Mhz DDRII cache (128MB)
- Optional battery backup module
- Connect up to 16 intermixed SAS and SATA devices within the same array
- RAID levels 0, 1, 5 and 6
- RAID Spans 10, 50 and 60
- Auto-resume on array rebuild
- Auto resume array reconstruction
- Online Capacity Expansion
- RAID Level Migration (RLM)
- Create 64 logical volumes
- Up to 32TB LUN support
- Comprehensive management tools
- Audible alarm circuit

Benefits

- Advanced features to protect data
- High-performance architecture reduces IO bottlenecks
- Unifed management application (MSM) simplifies monitoring and management

Specifications

- Part Number: MegaRAID SAS 8708ELP

- Product: Eight-Port 3Gb/s PCI Express SAS/SATA RAID On Chip Adapter
- Solution Provided: Eight-port SAS RAID solution for servers and workstations using up to 16 drives with the flexibility to use either SAS or 3Gb/s SATA drives, or a combination of both
- Environment: Intel™ X86, EM64T and AMD Opteron™
- Physical Dimensions: Low profile, extended half-length (7.71" X 2.536")
- Connectors: Two internal mini-SAS 4i (SAS SFF8087) connectors
- Device Support: Up to 8 direct-connect or up to 16 with SAS expanders, 3Gb/s SAS and SATA drives
- Host Bus Type: x4 lane PCI Express 1.0a compliant
- Data Transfer Rates: 3Gb/s per port
- I/O Processor/SAS Controller: LSI SAS1078 RAID on Chip (ROC)
- Cache Memory: 667MHz DDR II SDRAM, 128MB
- Battery Backup Unit: Optional intelligent Battery Backup Unit (iBBU) LSIiBBU05
- RAID and Fault Tolerant Features
    - RAID levels 0, 1, 5, and 6
    - Online Capacity Expansion (OCE)
    - Configurable stripe size up to 1MB
    - Check Consistency for background data integrity
    - Hot Spare support
        - Automatic rebuild
        - Global and dedicated
        - Enclosure affinity
        - Emergency SATA hot spare for SAS arrays
    - Enclosure management
        - SES (inband)
        - SGPIO (sideband)
        - One 8-pin header to illuminate fault LED
    - RAID spans 10, 50 and 60
    - Online RAID Level Migration (RLM)
    - Fast initialization for quick array setup
    - Patrol read for media scanning and repairing
    - 64 logical drive support
    - DDF compliant Configuration on Disk (COD)
    - S.M.A.R.T support
    - Auto resume after loss of system power during arrays array rebuild or reconstruction (RLM)
    - Up to 32TB LUN support
- Operating Temperature: Maximum ambient: 50°C (40°C w/iBBU)
- Operating Voltage: +3.3V

- Warranty: 3 years, free advanced technical support, advanced replacement option
- Regulatory Certifications: EN55022, EN50082, EN60950; FCC Class A, Class B; Ul1950; UL; CSA C22.2; VCCI; AS3548; BSMI; MIC
- RAID Management
    - MegaRAID Management Suite
        - MegaRAID Storage Manager
        - MegaCLI (command-line interface)
        - WebBIOS
- OS Support: Extensive support includes Microsoft® Windows® Server 2003/2000/XP, Linux® and more. * Visit the LSI download Center for the most complete list of supported operating systems: lsi.com/support

Ordering Part Numbers

- LSI MegaRAID SAS 8708ELP KIT
    - Individually packaged box with LSI 8708ELP HBA, CD containing drivers, 2 MiniSAS to SAS internal cable, low-profile bracket, and quick installation guide
    - Part Number: LSI00141
- LSI MegaRAID SAS 8708ELP BULK
    - Bulk pack LSI 8708ELP card only.

For more information of this Broadcom MegaRAID SAS 8708ELP, please visit Broadcom website:

https://docs.broadcom.com/doc/12352238

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