

# Broadcom 9210-8i Datasheet



Broadcom LSI 9210-8i LSISAS2008 PCIe 2.0 x8 SAS2008 8 Internal Ports 6Gb/s SAS+SATA Host Bus Adapter

9210-8i

The LSI SAS 9210-8i host bus adapter provides high performance for internal drive connectivity in 1U and 2U servers and workstations. The LSI SAS 9210-8i provides 8 lanes of 6Gb/s SAS and is matched with 8 lanes of PCI Express 2.0 5Gb/s performance to eliminate bottlenecks. Performance is based on the LSISAS2008 IO controller that highly integrates the latest enhancements in PCI Express and SAS technology. The HBA supports up to 256 SAS or SATA devices.

The LSI SAS 9210-8i has two (x4) internal mini SAS connectors (SFF8087) that are vertically positioned enabling a low profile solution which provide SAS and SATA data transfer rates of 1.5, 3 and 6Gb/s per lane through automatic speed negotiation that can achieve over 320,000 IOPs. Enhanced features include T-10 Protection Information Model for early detection of and recovery from data corruption, and Spread Spectrum Clocking (SSC) for minimal EMI.

## SAS Leadership

LSI offers the broadest SAS product portfolio in the industry with true end-to-end solutions including controllers, expanders, active-active multiplexers, ROCs, host bus adapters, RAID solutions, and external storage. LSI's proven SAS core has completed extensive stress and interoperability testing resulting in the industry's most robust, interoperable solution.

LSI has supplied leading edge serial technology to systems throughout the world for over seven generations, making LSI the most experienced enabler of serial interconnect for storage in the world. Integrators can be assured that their LSI adapter is providing the most advanced and robust serial technology available.

## Fusion-MPT™ Architecture

The LSI SAS host bus adapters are based on the Fusion MPT™ architected SAS controllers, which implements LSI's Fusion-MPT (Message Passing Technology) architecture. Each controller features embedded PowerPC™ processors that deliver maximum host CPU offload. The built-in intelligence enables LSI to publish a single binary OS driver to operate any Fusion MPT controller or adapter. The architecture enables high performance, reduced software development, and faster time to market.

## Features

- 8 internal 6Gb/s SAS+SATA ports
- 8 lanes, PCI Express 2.0
- Low profile form factor design
- Two x4 internal mini-SAS connectors (SFF8087)
- Internal connectors vertically positioned on board
- LSISAS2008 6Gb/s SAS+SATA Controller
- Supports up to 256 SAS or SATA end devices
- Supports SSDs, HDDs and tape drives
- Offers Integrated RAID (0, 1, 1E and 10)

## Key Advantages

- Provides state of the art connectivity for servers and appliances with internal storage
- 8 lanes of PCI Express 2.0 provides fast signaling for high-bandwidth applications
- High performance with 6Gb/s data transfer rates

## Specifications

- Product: SAS 9210-8i Host Bus Adapter
- I/O Controller: LSISAS2008/ Fusion MPT 2.0
- Storage Connectivity; Data Transfer Rates: 8 ports, 6Gb/s SAS 2.0 Compliant
- SAS Bandwidth: Half Duplex, 600 MB/s per lane
- Port Configurations:
  - 8 ea, x1 ports (individual drives)
  - 2 ea, x4 wide port
- Host Bus: x8 lane, PCI Express 2.0 compliant
- PCI Data Burst Transfer Rates: Half Duplex, x8, PCIe, 4000 MB/s
- Physical Dimensions: Low Profile (2.6" x 6.6")
- Connectors: Two mini-SAS internal connectors (SFF8087) vertically positioned
- Brackets: Full height and low profile
- Cable Support: Passive Copper
- PCI Card Type: 3.3 V Add-in Card
- Operating Voltage: +12V +/-8%; 3.3V +/-9%
- PCI Power (Nominal): 7W typical (Airflow min 200 LFM)
- Device Support: 256 Non-RAID SAS/SATA devices
- Environmental
  - Operating:
    - 0°C to 55°C
    - 5 to 90% Non-condensing
  - Storage:
    - -45°C to 105°C
    - 5 to 90% Non-condensing
- MTBF: >2,000,000 Hours
- Regulatory Certifications: EMC: Class B-US (CFR 47, P15B); Canada (ICES-003); Japan (V-3/02.04); Europe (EN55022/EN55024); Australia/New Zealand (AS/NZS 3548); Korea (N-B 2-0001-404); Safety: EN60950; RoHS; WEEE
- OS Support: Microsoft Windows, Linux (SuSE , Red Hat), Solaris, VMware. See

<http://www.lsi.com/channel/ChannelDownloads> for details on versions and support

For more information of this Broadcom SAS 9210-8i Host Bus Adapter, please visit Broadcom website:

<https://docs.broadcom.com/doc/12352060>

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