

Avago SAS 9211-8i

8-Port, 6Gb/s SAS+SATA to PCI Express Host Bus Adapter



Key Features

- 8 internal 6Gb/s SAS+SATA ports
- 8 lanes, PCle 2.0
- Low profile form factor design
- Two x4 internal mini-SAS connectors (SFF8087)
- SAS 2008 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 and the ability to add external storage
- 8 lanes of PCle 2.0 provides fast signaling for high-bandwidth applications
- High performance with 6Gb/s data transfer rates

8-Port SAS HBA Provides High Performance for Internal and ExternalStorage Connections

Overview

The Avago SAS 9211-8i host bus adapter provides high performance for internal drive connectivity in 1U and 2U servers and workstations. The SAS 9211-8i provides 8 lanes of 6Gb/s SAS and is matched with 8 lanes of PCI Express (PCIe) 2.0 5Gb/s performance to eliminate bottlenecks. Performance is based on the SAS 2008 IO controller that highly integrates the latest enhancements in PCIe and SAS technology. The HBA supports up to 256 SAS or SATA devices.

The SAS 9211-8i has two (x4) internal mini SAS connectors (SFF8087) 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.

Storage by LSI™

Avago Technologies products serve four primary target markets: wireless communications, wired infrastructure, enterprise storage, and industrial. Avago Storage by LSI offers the industry's broadest portfolio of storage solutions, backed by decades of experience and trusted by the world's leading server and storage suppliers. Avago provides the building blocks for storage solutions that help customers understand, prioritize, store and protect critical data.

The Avago SAS portfolio includes MegaRAID° controller cards, host bus adapters (HBAs), advanced software options, Syncro° shared DAS solutions and SAS storage ICs, including RAID-on-Chip (ROCs), I/O controllers and expanders.

Fusion-MPT[™] Architecture

Fusion-MPT architecture marks the next generation of I/O architecture designed to deliver the highest performance available today while reducing time to market, integration, and certification time. Fusion-MPT devices are high performance, cost-effective protocol controllers that represent the newest system- level integration technology in intelligent I/O processors from Avago.

I/O Controller	SAS2008/ 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)		
Brackets	Full height and low profile		
Cable Support	Passive Copper		
Host Bus Type	x8 lane, PCI Express 2.0		
PCI Card Type	3.3 V Add-in Card		
Operating Voltage	+12V +/-8%; 3.3V +/-8%		
PCI Power (Nominal)	7W typical (Airflow n	7W typical (Airflow min 200 LFM)	
Device Support	256 Non-RAID SAS/S	256 Non-RAID SAS/SATA devices	
Integrated RAID (IR)		14 spread across 2 volumes	
	RAID 0	10 per volume	
	RAID 1	2 per volume plus hot spare	
	RAID 1E	10 per volume	
	RAID 10	10 per volume	
Environmental	Operating	Storage	
	0°C to 55°C	-45°C to 105°C	
	5 to 90% Non-conde	ensing 5 to 90% Non-condensing	
MTBF	>2,000,000 Hours	>2,000,000 Hours	
Regulatory Certifications	EMC: Class B-US (CFF	EMC: Class B-US (CFR 47, P15B); Canada (ICES-003); Japan (V-3/02.04); Europe (EN55022/EN55024);	
	Australia/New Zealar	Australia/New Zealand (AS/NZS 3548); Safety: EN60950; RoHS; WEEE	
OS Support		Microsoft Windows, Linux (SuSE , Red Hat), Solaris, VMware	
	See http://www.lsi.co	See http://www.lsi.com/support/pages/download-search.aspx for details on versions	
Warranty	3 years; with advanced replacement option		
	Free technical suppo	Free technical support at http://www.lsi.com/support	

