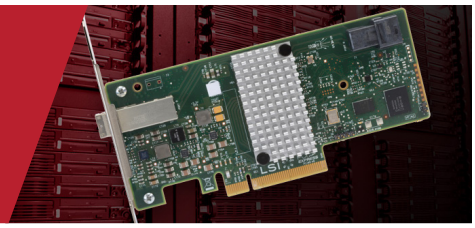
AVAGO TECHNOLOGIES | STORAGE BY LSI™

Product Brief

Avago® SAS 9300 12Gb/s SAS
Host Bus Adapter Family



Key Features

- Eight/four ports of 12Gb/s SAS + SATA ports
- Eight lanes of PCI Express 3.0
- Low-profile form factor
- Mini-SAS HD connectors
- SAS 3008 12Gb/s SAS+SATA controller
- Supports SSDs, HDDs, and tape drives

Key Advantages

- Provides connectivity in a low-profile form factor
- 8 lanes of PCI Express 3.0 provides fast signaling for high bandwidth applications
- High performance with 12Gb/s SAS data transfer rates

For applications demanding high levels of storage connectivity and performance, 8 and 4-port 12Gb/s SAS HBAs connect servers and appliances to internal and external storage, achieving over 1 million IOPS.

Overview

The SAS 9300 8 and 4-port, 12Gb/s SAS host bus adapter family provides increased connectivity and maximum performance for high-end servers and appliances within internal storage, or connecting to large scale storage enclosures.

The SAS 9300 HBA family is based on the SAS 3008 IO controller, integrating the latest enhancements in SAS and PCI Express® technology. Each host bus adapter also supports 8 or 4 SAS ports operating at 12Gb/s data transfer rates, and can reach over 1 million IOPs. The 9300 adapter family supports 8 PCI Express lanes that comply with the latest PCI Express 3.0 specifications. In addition, these adapters are backwards compatible with previous SAS and PCIe generations through automatic negotiation, and provide SAS data transfer rates of 12, 6, and 3 Gb/s per lane, and SATA data transfer rates of 6 and 3Gb/s per lane. Avago Technologies provides a broad suite of industry standard operating system drivers.

Avago 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 12Gb/s 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.

	SAS9300-8e	SAS9300-8i	SAS9300-4i4e	SAS9300-4i
IO Controller	SAS 3008 Fusion MPT 2.5	SAS 3008 Fusion MPT 2.5	SAS 3008 Fusion MPT 2.5	SAS 3004 Fusion MPT 2.5
Port Count	8 port, external	8 port, internal	4 port ext/4 port int	4 port internal
Connectors	Mini SAS HD SFF8644 Two (x4)	Mini SAS HD SFF8643 Two (x4)	Mini SAS HD SFF8644 One (x4), SFF8643 One (x4)	Mini SAS HD SFF8643 One (x4)
Storage Connectivity Data Transfer Rates	12Gb/s SAS 3.0 Compliant	12Gb/s SAS 3.0 Compliant	12Gb/s SAS 3.0 Compliant	12Gb/s SAS 3.0 Compliant
SAS Bandwidth	Half Duplex (x8 wide bus) 9600 MB/s	Half Duplex (x8 wide bus) 9600 MB/s	Half Duplex (x8 wide bus) 9600 MB/s	Half Duplex (x4 wide bus) 4800 MB/s
Port Configurations	8 ea, x1 ports (individual drives) 2 ea, x4 wide port	8 ea, x1 ports (individual drives) 2 ea, x4 wide port	8 ea, x1 ports (individual drives) 2 ea, x4 wide port	4 ea, x1 ports (individual drives) 1 ea, x4 wide port
Host Bus	x8 lane, PCIe 3.0	x8 lane, PCIe 3.0	x8 lane, PCIe 3.0	x8 lane, PCIe 3.0
PCI Data Burst Transfer Rates	Half Duplex x8, PCIe 3.0, 8000 MB/s	Half Duplex x8, PCIe 3.0, 8000 MB/s	Half Duplex x8, PCIe 3.0, 8000 MB/s	Half Duplex x8, PCIe 3.0, 8000 MB/s
Form Factor	Low Profile	Low Profile	Low Profile	Low Profile
Physical Dimensions	2.6" x 6.6"	2.6" x 6.0"	2.6" x 6.0"	2.6" x 6.0"
Brackets	Full Height and low profile vented	Full Height and low profile vented	Full Height and low profile vented	Full Height and low profile vented
Cable Support	Passive Copper Active Optical	Passive Copper	Passive Copper Active Optical (Ext only)	Passive Copper
LED Management		Reference SFF-8485 (SGPIO) compliant	Reference SFF-8485 (SGPIO) compliant	Reference SFF-8485 (SGPIO) compliant
Operating Voltage	+12V +/-8%; 3.3V +/-9%	+12V +/-8%; 3.3V +/-9%	+12V +/-8%; 3.3V +/-9%	+12V +/-8%; 3.3V +/-9%
PCI Power (Nominal)	14.5W	13W	14.2W	10.2W
Device Support	1024 Non-RAID devices	1024 Non-RAID devices	1024 Non-RAID devices	1024 Non-RAID devices
Environmental	Operating: 0°C to 55°C Storage: -45°C to 105°C 5 to 90% non-condensing Airflow: 200 LFM	Operating: 0°C to 55°C Storage: -45°C to 105°C 5 to 90% non-condensing Airflow: 200 LFM	Operating: 0°C to 55°C Storage: -45°C to 105°C 5 to 90% non-condensing Airflow: 200 LFM	Operating: 0°C to 55°C Storage: -45°C to 105°C 5 to 90% non-condensing Airflow: 200 LFM
MTBF	>2,800,000 hours	>2,800,000 hours	>2,800,000 hours	>2,800,000 hours
Regulatory Certifications	EMC: Class B-US (CFR 47, P15B); Canada (ICES-00); 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, FreeBSD; See **www.lsi.com/support** for details on versions * The HBA supports Solaris 10 and Oracle® provides a built in driver; installation of an Avago driver is not required. For more information on the Oracle Solaris 10 driver and installation, sign in at the following Oracle link: **https://support.oracle.com/** Contact Oracle support for Oracle driver or software support.			
Warranty	3 years, free advanced technical support, advanced replacement option			
Ordering Part Number	Single LSI00343	Single LSI00344 Kit LSI00345	Single LSI00348 Kit LSI00349	Single LSI00346 Kit LSI00347

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