Broadcom 9300-16e Datasheet



Broadcom LSI 9300-16e H5-25520-00 LSI00342 PCIe 3.0 x8 SAS3008 16 External Ports 12Gb/s SAS Host Bus Adapter 9300-16e

The Broadcom SAS 9300-16e 16-port, 12Gb/s SAS host bus adapter provides increased connectivity and high performance for high-end servers and storage applications. The SAS 9300-16e HBA is based on the SAS 3008 IO controller that integrates the latest enhancements in SAS and PCI Express (PCIe) technology and can achieve 2 million IOPs.

The SAS 9300-16e has four (x4) external mini SAS HD connectors (SFF8644) and supports 8 PCIe lanes that comply with the latest PCIe 3.0 specification with 8Gb/s per lane in a single direction. The adapter also supports 16 individual SAS ports operating at 12Gb/s. The adapter is backward compatible with previous PCIe and SAS generations through automatic negotiation and provides SAS data transfer rates of 12, 6, and 3Gb/s per lane, and SATA data transfer rates at 6 and 3Gb/s per lane. Broadcom provides a complete suite of industry standard operating system drivers.

Broadcom Storage by LSI

Broadcom products serve four primary target markets: wireless communications, wired infrastructure, enterprise storage, and industrial. Broadcom 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. Broadcom provides the building blocks for storage solutions that help customers understand, prioritize, store and protect critical data.
The Broadcom 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 Broadcom.
Features
 16 external 12Gb/s SAS+SATA ports 8 lanes, PCIe 3.0 Four x4 external - mini-SAS HD connectors (SFF8644) Two SAS 3008 12Gb/s SAS+SATA Controllers Supports up to 1024 SAS or SATA end devices per controller

• Supports SSDs, HDDs and tape drives

- High performance with 12Gb/s data transfer rates with full size form factor
- 8 lanes of PCIe 3.0 provides faster signaling for high-bandwidth applications

Specifications

- Product: SAS 9300-16e Host Bus Adapter
- MPN: H5-25520-00
- OPN: LSI00342
- I/O Controller: Two, SAS 3008/ Fusion MPT 2.5
- Port Count: 16-port, external
- Connectors: Four (x4) mini-SAS HD external connector (SFF8644)
- Storage Connectivity; Data Transfer Rates: 16 ports; 12Gb/s SAS 3.0 compliant
- SAS Bandwidth: Half Duplex (x4 wide bus) 4800 MB/s
- Port Configurations
 - 16 ea, x1 ports (individual drives)
 - 4ea, x4 wide ports
 - o 2 ea, x8 wide ports
- Host Bus: x8 lane, PCIe 3.0
- PCI Data Burst Transfer Rates
- Half Duplex
- x8, PCIe 3.0, 8000 MB/s
- Brackets: Full height
- Physical Dimensions: 4.4" x 6.6"
- Brackets: Full Height
- Cable Support: Passive Copper, Active Copper
- Operating Voltage: +12V +/-8%; 3.3V +/-9%
- PCI Power (Nominal): 28.6W
- Device Support: 1024 Non-RAID SATA/SATA devices per controller
- Environmental
 - Operating: 0°C to 55°C
 - Storage: -45°C to 105°C
 - 5 to 90% Non-condensing

- o Airflow: 200 LFM
- MTBF: >1,500,000 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, FreeBSD See
 http://www.lsi.com/support/pages/download-search.aspx for details on versions * The HBA supports Solaris 10
 and Oracle® provides a built in driver; installation of an LSI 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.

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