Broadcom 9202-16e Datasheet



Broadcom LSI 9202-16e LSI00286 PCIe 2.0 x16 SAS2008 16 External Ports 6Gb/s SAS+SATA Host Bus Adapter 9202-16e

The LSI SAS 9202-16e, quad port, host bus adapter provides high performance for high end servers and high performance storage applications. The LSI SAS 9202-16e provides 16 lanes of 6Gb/s SAS matched with 16 lanes of PCI Express 2.0 5Gb/s performance to eliminate bottlenecks. Internal performance is based on dual LSISAS2008 IO controllers that highly integrate the latest enhancements in PCI Express and SATA technology and supports up to 1024 SAS or SATA devices.

The LSI SAS 9202-16e has four (x4) external HD mini SAS connectors (SFF8644) 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 700,000 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

• 16 external 6 Gb/s SAS+SATA ports

• 16 lanes, PCI Express 2.0

• Low profile form factor design

• Four x4 external HD mini-SAS connectors (SFF8644)

Two LSISAS2008 6Gb/s SAS+SATA Controllers

• Supports up to 1024 SAS or SATA end devices

• Supports SSDs, HDDs and tape drives

Key Advantages

• Maximum connectivity and performance in a low profile form factor

• 16 lanes of PCI Express 2.0 provides faster signaling for high-bandwidth applications

• High performance with 6Gb/s data transfer rates

Specifications

• Product: SAS 9202-16e Host Bus Adapter

OPN: LSI00286

• I/O Controller: Two, LSISAS2008/ Fusion MPT 2.0

• Storage Connectivity; Data Transfer Rates: 16 ports; 6Gb/s SAS 2.0 compliant

- SAS Bandwidth: Half Duplex; 600 MB/s per lane
- Port Configurations
 - 16 ea, x1 ports (individual drives)
 - 4 ea, x4 wide ports
 - o 2ea, x8 wide ports
- Host Bus: x16 lane, PCI Express 2.0 compliant
- Physical Dimensions: Low Profile (2.7" x 6.6")
- Connectors: Four HD mini-SAS external connectors (SFF8644)
- Brackets: Full height and low profile
- Cable Support: Passive, Active Copper
- PCI Card Type: 3.3 V Add-in Card
- Operating Voltage: +12V +/-8%; 3.3V +/-8%
- PCI Power (Nominal): 17 W typical (Airflow min 200 LFM)
- Device Support: 1024 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: >1,000,000 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); 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

For more information of this Broadcom SAS 9202-16e Host Bus Adapter, please visit Broadcome website: https://docs.broadcom.com/doc/12352039

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