

# Broadcom 9311-4i4e Datasheet



Broadcom LSI 9311-4i4e SAS3008-4I4E PCIe 3.0 x8 SAS3008 Fusion-MPT 4 Internal & 4 External Ports 12Gb/s SAS Host Bus Adapter

9311-4i4e

The LSI SAS 9311-4i4e PCI Express (PCIe)-to-Serial Attached SCSI (SAS) host bus adapter (HBA), referred to as the LSI 12Gb/s SAS HBA, provides high-performance external and internal storage connectivity for servers and workstations. The LSI 12Gb/s SAS HBA provides four lanes of 12Gb/s SAS connectivity and is matched with eight lanes of PCIe 3.0 8Gb/s performance. The low-profile design of the SAS HBA includes a full-height bracket and low-profile mounting bracket that create a universal fit for any server. The LSI 12Gb/s SAS HBA is based on the Fusion-MPT™-architected LSI SAS 3004 controller that integrates the latest enhancements in PCIe 3.0 technology and 12Gb/s SAS technology.

The LSI 12Gb/s SAS HBA has onboard Flash memory for the firmware

## Features

- Implements one LSI SAS 3008 four-port 12Gb/s SAS to PCIe 3.0 controller
- Supports eight-lane, full-duplex PCIe 3.0 performance
- Supports SATA link rates of 3Gb/s and 6Gb/s
- Supports SAS link rates of 3Gb/s, 6Gb/s, and 12Gb/s
- Provides one x4 internal mini-SAS HD connector (SFF-8643) and one x4 external mini-SAS HD connector

(SFF-8644)

- Supports passive copper cable, active copper cable, and optical cable
- Can upgrade to support Integrated RAID (RAID 0, RAID 1, RAID 10, and RAID 1E)
- Supports up to 1024 SATA or SAS end devices
- Offered with a full-height bracket and a low-profile vented bracket
- Provides one heartbeat LED

## Specifications

- Product: SAS 9311-4i4e Host Bus Adapter
- I/O Controller: SAS 3008 Fusion MPT 2.5
- Port Count: 4 port ext/4 port int
- Connectors: Mini SAS HD SFF8644 One (x4), SFF8643 One (x4)
- Storage Connectivity Data Transfer Rates: 12Gb/s SAS 3.0 Compliant
- SAS Bandwidth: Half Duplex (x8 wide bus) 9600 MB/s
- Port Configurations
  - 8 ea, x1 ports (individual drives)
  - 2 ea, x4 wide port
- Host Bus: x8 lane, PCIe 3.0
- PCI Data Burst Transfer Rates: Half Duplex x8, PCIe 3.0, 8000 MB/s
- Form Factor: Low Profile
- Physical Dimensions: 2.6" x 6.0"
- Brackets: Full Height and low profile vented
- Cable Support: Passive Copper, Active Optical (Ext only)
- LED Management: Reference SFF-8485 (SGPIO) compliant
- Operating Voltage: +12V +/-8%; 3.3V +/-9%
- PCI Power (Nominal): 14.25W
- Environmental
  - 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
- 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 of this Broadcom SAS 9311-4i4e, please visit Broadcom website:

<https://docs.broadcom.com/doc/12354876>

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