**Product Brief**

# LSI SAS9201-16e

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

### 16-port SAS HBA Provides Maximum Connectivity and Performance for External JBOD and External RAID enclosures

## TYPICAL USES



**File Storage**



**Database**



**Video-on-Demand**



**Storage Appliance**



**Email**



**Video Surveillance**

## KEY FEATURES

- **16 external 6Gb/s SAS+SATA ports**
- **8 lanes, PCI Express 2.0**
- **Standard height form factor**
- **Four x4 external mini-SAS connectors (SFF8088)**
- **LSISAS2116 6Gb/s SAS+SATA Controller**
- **Supports up to 512 SAS or SATA end devices**
- **Supports SSDs, HDDs and tape drives**

## KEY ADVANTAGES

- **Maximum external connectivity and performance in a standard height form factor**
- **8 lanes of PCI Express 2.0 provides fast signaling for high-bandwidth applications and broad compatibility with latest motherboards**
- **High performance with 6Gb/s data transfer rates**



LSI SAS9201-16e

### Overview

The LSI SAS9201-16e, quad port, host bus adapter provides maximum connectivity and performance for external JBOD and external RAID enclosures. The LSI SAS9201-16e provides 16 lanes of 6Gb/s SAS connectivity to 8 lanes of PCI Express 2.0. Performance is based on the LSISAS2116 IO controller that highly integrates the latest enhancements in PCI Express and SAS technology. The HBA supports up to 512 SAS or SATA devices.

The LSI SAS9201-16e has four (x4) external mini -SAS connectors (SFF8088) enabling a 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 430,000 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.

## LSI SAS9201-16e HOST BUS ADAPTER

| | |
|---|---|
| **IO Controller** | LSISAS2116, Fusion MPT 2.0 |
| **Storage Connectivity Data Transfer Rates** | 16 ports; 6Gb/s SAS 2.0 compliant |
| **SAS Bandwidth** | Half Duplex<br>600 MB/s per lane |
| **Port Configurations** | 16 ea, x1 ports (individual drives)<br>4 ea, x4 wide ports |
| **Host Bus** | x16 lane, PCI Express 2.0 compliant |
| **PCI Data Burst Transfer Rates** | Half Duplex<br>x8, PCIe, 4000 MB/s |
| | 3.3 V Add-in Card |
| **Physical Dimensions** | Full Height (4.2" x 6.6") |
| **Connectors** | Four mini-SAS external connectors (SFF8088) |
| **Brackets** | Full height |
| **Cable Support** | Passive, Active  Copper |
| **PCI Card Type** | 3.3 V Add-in Card |
| **Operating Voltage** | +12V  +/-8%;   3.3V  +/-8% |
| **PCI Power (Nominal)** | 17W typical (Airflow min 200 LFM) |
| **Device Support** | 512 Non-RAID SAS/SATA devices |
| **Environmental** | Operating<br>0ºC to 55ºC<br>5 to 90% Non-condensing     Storage<br>-45ºC to 105ºC<br>5 to 90% Non-condensing |
| **MTBF** | >2,000,000 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 6 of 6;  WEEE |
| **OS Support** | Microsoft Windows, Linux (SuSE , Red Hat), Solaris, VMware<br>See http://www.lsi.com/channel/ChannelDownloads  for details on versions |
| **Warranty** | 3 years; with  advanced replacement option<br>Free technical support at http://www.lsi.com/channel/support |

**For more information and sales office locations, please visit the LSI web sites at:**

**lsi.com        lsi.com/channel**