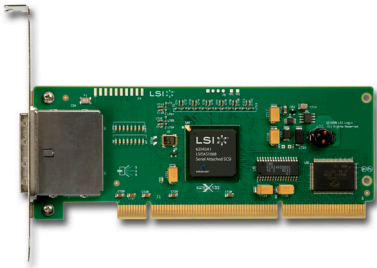


LSISAS3801X

3Gb/s miniSAS Eight-Port Host Bus Adapter



Providing Maximum Throughput for External Storage Arrays, in a Low-Profile Adapter

KEY ADVANTAGES

- Flexible SAS/SATA array architecture optimizes cost
- Eight external high-speed SAS ports
- 3Gb/s per port delivers 2400 MB/s to external enclosures
- Maximum mass-storage connectivity from a low-profile HBA
- SAS/SATA interconnect proven through LSI's robust serial technology

APPLICATIONS

- High performance workstations
- Mid to high-end servers
- External storage connections

TYPICAL USES

- Large-scale external RBOD enclosures
- Tiered SAS/SATA RAID arrays
- Mission-critical applications running from SAS drives

FEATURES

- 3Gb/s per port
- Two x4 external miniSAS connectors (SFF8088)
- Low-profile HBA (PCI Express form factor)
- Connects to both SAS and SATA HDDs and tape drives
- Allows more than 122 total end-point devices
- Fusion-MPT™ architecture providing over 140,000 I/Os per second
- Supports all major operating systems

Industry's First 8-port External SAS Controller

The LSISAS3801X card enables large-scale direct attach storage (DAS) arrays through eight external 3Gb/s miniSAS ports, driving up to 122 Serial Attached SCSI (SAS) and Serial ATA (SATA) devices. The host bus adapter supports large capacity external server storage RAID and non-RAID enclosures by connecting a 64-bit PCI-X 133MHz bus with two external x4 SFF8088 miniSAS connectors. The LSISAS3801X demonstrates a significant advantage over parallel SCSI in providing 2400MB/s (4800 MB/s full-duplex) external data throughput and cost optimization of SAS and SATA drives.

Cost-Optimization of External Storage with SAS

As the first-to-market leader in SAS, LSI is providing more bandwidth to cost-optimized external drive arrays. System integrators can use the LSISAS3801X to build large-scale storage array infrastructures that support both SAS and SATA devices. By utilizing lower-cost SATA drives for data backup and SAS drives for mission-critical applications, end-users will receive high-capacity, high-performance data storage while enjoying an interrupt-free high-activity environment. The performance advantage and cost savings can be felt immediately when using the LSISAS3801X to develop a tiered storage array.

Maximum External Bandwidth in a Low-Profile Adapter

The LSISAS3801X offers two x4 miniSAS external connectors, allowing unprecedented external throughput in a low-profile HBA. By reducing the height on this SAS card, integrators have greater flexibility to plug the LSISAS3801X into servers as thin as 2U, while unleashing 2400MB/s (4800MB/s full-duplex) throughput to external enclosures.

SAS Connectivity from the Serial IO Experts

The LSISAS3801X is a part of the first generation of Serial Attached SCSI controllers. Successful implementation of these serial adapters is effortless because of LSI experience and know-how. Having a supplier who fully understands the physical, electrical and protocol requirements of each new serial standard will reduce the time for system bring-up and offer greater flexibility in system topography.

LSI has supplied cutting edge serial technology to systems throughout the world for over six generations, making LSI the most experienced enabler of serial interconnect for storage in the world. Integrators can be assured that their LSI adapter provides the most advanced and robust serial technology available in the market.

Operating System Support

The LSI SAS3801X HBA supports all key 32-bit and 64-bit versions of Microsoft Windows, Linux,

Solaris, Netware as well as the x86, IA64, SPARC, AMD64 and EM64T system architectures. All OS drivers are backed by extensive testing and

validation to ensure optimum system performance. For a list of the most current supported drivers, visit lsi.com/support.

LSISAS3801X HOST BUS ADAPTER		
PCI Bus	64-bit, 133MHz PCI-X, backward compatible with PCI	
PCI Modes	Bus Master DMA	
PCI Data Burst Transfer Rates	132MB/s (PCI 32-bit bus @ 33MHz) 264MB/s (PCI 64-bit bus @ 33MHz) 528MB/s (PCI 64-bit bus @ 66MHz)	800MB/s (PCI-X 64-bit bus @ 100MHz) 1064MB/s (PCI-X 64-bit bus @ 133MHz)
SAS Bandwidth	Half Duplex Single lane – 300MB/s 2-lanes – 600MB/s 3-lanes – 900MB/s 4-lanes – 1200MB/s 2 x 4-lanes – 2400MB/s	Full Duplex Single lane – 600MB/s 2-lanes – 1200MB/s 4-lanes – 2400MB/s
PCI Card Type	3.3V Add-in Card	
PCI Voltage	+3.3V ±0.3V	
PCI Form Factor	6.6" x 2.5"	
PCI Power	7.5W	
Bracket	Low-Profile, MD-2 Form Factor	
Certification Level	PCI 2.2, PCI-X 1.0a, PCI-X 2.0 model	
I/O Bus	Eight External 3GB/s SAS/SATA Ports	
SAS Processor	LSISAS1068	
Connectors	Internal N/A	External Two miniSAS x4 Connectors (SFF8088)
LED Indicators		
Internal	Activity per PHY (8)	Fault per PHY (8)
Max Number of Physical Devices	122	
Environments	Operating 0°C to 60°C 5 to 90% Non-condensing	Storage -45°C to 105°C 5 to 90% Non-condensing
MTFB	>200,000 Hours	
Compliances	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	
Software – MyStorage	Drive monitoring, HBA management, drive topology	
OS Support	Microsoft® Windows® 2000, Server 2003 32-bit and 64-bit (x86 and AMD64), XP Red Hat® Linux® RHEL 3 Novell® NetWare® 5.1 and 6.5 SuSE® Linux®/SLES Sun SPARC Solaris 2.6 thru 2.10	
Ordering Information	LSISAS3801X Kit – P/N: LSI00124 LSISAS3801X 5-pack – P/N: LSI00125	
Warranty	3 years, advanced replacement option, free advanced technical support at lsi.com/support	



For more information and sales office locations, please visit the LSI web sites at: lsi.com lsi.com/contacts

North American Headquarters
Milpitas, CA
T: +1.866.574.5741 (within U.S.)
T: +1.408.954.3108 (outside U.S.)

LSI Europe Ltd.
European Headquarters
United Kingdom
T: [+44] 1344.413200

LSI KK Headquarters
Tokyo, Japan
Tel: [+81] 3.5463.7165

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