

LSI Lynx3090 SAS Switch

Nine SAS Ports (Four SAS Lanes Each)



FEATURES

- Nine SAS ports (4 SAS lanes each) with user selectable port configurations
- Each SAS port (4 SAS lanes) is capable of 2.4GB/s full duplex
- Connects to both SAS and SATA storage
- Complete port zoning control and display
- Cascading switch options for additional connectivity
- 1U rack mount chassis
- Redundant hot swap power supplies
- Out-of-band management
- Operating system independent

Seamlessly Connect Multiple Servers and SAS Storage Arrays

KEY APPLICATIONS

- Rack mount server clusters
- Blade format for blade server environment
- Integrated with external storage

Overview

The LSI SAS Switch extends the capabilities of SAS beyond a SCSI replacement in Direct Attached Storage (DAS) environments to an actual fabric infrastructure. By providing an interconnect from multiple servers to one or more external storage systems, the SAS Switch enables medium-sized businesses to take advantage of a cost-effective and scalable high-performance storage network.

SAS offers true scalability in performance and number of devices. The overall bandwidth is increased from 320MB/s for Ultra320 SCSI to 1.2GB/s for a x4 SAS wide port. The number of devices supported increases from 16 for Ultra320 SCSI to 1,024 with the SAS Switch.

The LSI SAS Switch allows the construction of a micro-fabric where multiple servers are able to share one or more storage devices. Through the use of zoning, multiple storage domains can be configured.

The SAS Switch offers complete SAS management through an embedded web server. The web server is able to modify port configuration including zoning, firmware management, and viewing the topology of the SAS domain. It also offers flexibility to reconfigure without reconnecting cables or adding hardware.

As the SAS physical layer supports both SAS and Serial ATA (SATA), the SAS Switch enables a single switching infrastructure that addresses multiple classes of storage by supporting a mix of SAS and SATA drives.

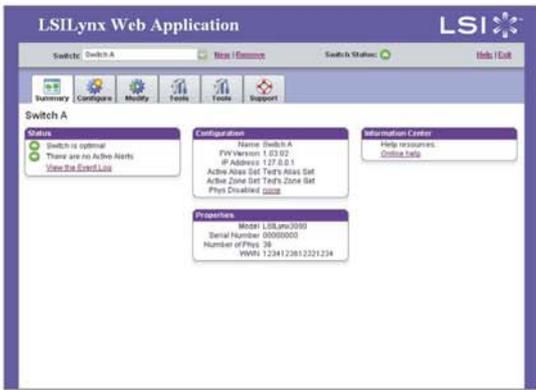
A single SAS Switch can be used in a normal configuration, or two switches can be configured for a High Availability (HA) application where both ports of the storage are connected using redundant paths. If one of the switches fails, the second one will continue normal operation.

LSI SAS Switch Rear View Showing Nine x4 Wide Ports



LSI SAS Switch

SAS/SATA Ports	Nine x4 Wide Ports
Port Configuration	Default: x4 Wide Port
Performance per Ports	1.2Gb/s per x4 Wide Port
Max Number of SAS Addresses	1,024
SAS Connector Configuration	Nine Mini-SAS (SFF8088)
Visual Indicators	Activity and Fault/Status LEDs for Each Port
Management Interfaces	Ethernet 10/100
Size	1U Rack Mount



Embedded Web Application Features

- Switch configuration & maintenance
- CLI management interface option
- Administrator and user level access controls/password
- Topology view - initiators, expanders and targets in the SAS domain
- SAS zoning/configuration from the central point in the SAS domain
- Diagnostics, including verification of the complete I/O path from initiator to target
- Save and restore switch configuration
- SAS topology change alerts
- Non-volatile event/error logging
- Remote firmware upgrade
- Power On Self-Test (POST)

LSI SAS SWITCH

SAS Compliances	64-bit, 133MHz PCI-X, Backward Compatible with PCI		
SAS Protocols	SSP, STP and SMP		
SAS Ports Configuration	Default Configuration – Nine x4 Wide. Each port can be configured x1, x2 or x4		
SAS Bandwidths	Half Duplex Single lane – 3Gb/s Wide Port (2 lanes) – 6Gb/s Wide Port (4 lanes) – 12Gb/s	Full Duplex Single SAS lane – 6Gb/s Wide Port (2 lanes) – 12Gb/s Wide Port (4 lanes) – 24Gb/s	
Storage Types	1.5 or 3.0Gb/s SAS and/or 1.5 or 3.0Gb/s SATA		
Zoning	Up to 120 zoning groups. Ports can be in multiple zoning groups.		
Management Interface	10/100 Ethernet		
Firmware	Field upgradeable		
Connectors	SAS 9 SFF8088 (Mini-SAS)	Management RJ-45	Debug DB-9 Serial
LED Indicators	Activity - 4 per Connector	Link/Fault - 4 per Connector	
Operating Voltage	100-240 VAC @ 50/60Hz		
Power Consumption	50 Watts max – chassis supports two redundant hot swap power supplies		
Size	1.7" x 17" x 25" (Standard 1U rack chassis)		
Environments	Operating Temperature 0°C to 50°C Relative Humidity 5 to 90% Non-condensing	Storage -45°C to 105°C 5 to 90% Non-condensing	
MTBF	TBD		
Compliances	FCC Class B; Canada ICES-003 Class B, CE Europe (EN55022/EN55024); Japan VCCI Class B);		
Warranty	One year		

Warranty

For more than 25 years, LSI has been providing high-performance storage solutions to leading OEMs worldwide. Using only the highest quality components, the LSI SAS switch is assembled in world-class facilities to assure superior product reliability and performance. Because of stringent quality management programs, the LSI SAS Switch carries a one-year warranty.



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