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3Gb x 36-port Serial Attached SCSI (SAS) Expander

General Description:

The RSI-SAS36EXP is a 36-port, 3 Gigabit Serial Attached SCSI (SAS) Expander. This expander provides large storage environments the ability to connect multiple targets and initiators through a switched device for scalability and fault tolerant path redundancy to improve reliability. The RSI-SAS36EXP SAS expander is compliant with the ANSI SAS specification and supports both SAS and SATA I/II devices. SAS benefits include improved performance, simplified cabling with the mini SAS connectors (iPass), and lower power requirements.

SAS Expander Features:

- 36 fully independent SAS and SATA ports
- Supports SSP, SMP, and STP target and initiator
- Supports SATA
- Supports multiple data rates and auto negotiation
 - 1.5G and 3.0Gb/s SAS and SATA
- Provide low latency connection router with crossbar module to efficiently create and maintain connections
- SATA/SAS HDD spin up sequencing per Phy basis
- LEDs indicate SAS Port Activity
- Allows concurrent connections to SAS or SATA targets
- Programmable a scalable interface that supports up to 1024 SAS addresses
- Supports wide and narrow port configurations
- Phy-based zoning for system security
- Includes high performance active cooling higher system reliability

STP/SATA Features:

- Supports SATA/STP data transfers of 1.5 an 3.0Gb/s
- Allows addressing of multiple SATA targets
- Allows multiple initiators to address a single target

SMP Features:

- Decodes SMP packets that are destined for the expander
- Performs CRC checking and generation on the request frames and response frames



RSI-SAS36EXP

Specifications:

Size: 1.72 x 17 x 16 inches, Fits a 1U 19" rack

Weight: 15 lbs.

Power: 20 watts, 100-240 VAC @ 50/60Hz

Data Connectors:

- 9 x SFF-8088 (mini SAS/iPass)
- 1 x Parallel port (DB25) connector

Throughput:

- Up to 3.0Gb/s per Phy for SAS
- Up to 3.0Gb/s per Phy for SATA

Environment:

- Operating temperature: 0-55 °C
- Altitude: 3000 meters
- Relative humidity: 5-95% (non condensing)

Application:

- The RSI-SAS36EXP can be used to attach initiators to SAS/SATA devices in SAS Edge/Fanout topologies to increase the number of accessible devices, or in fault tolerant path redundancy topologies to improve system reliability. The expander is capable of addressing up to 1024 devices.
- 1U rack mount server
- Storage subsystem: RAID, JBOD