

- ▶ **High-Performance**
- ▶ **High-Density**
- ▶ **Scalable SAS-SAS/SATA Disk Expansion Enclosure**



High Performance

The maximum performance per host connection is 1,200MB/sec, which is higher than a single 4G or even 10G Fibre Channel connection. The performance of the bus is achieved by combination of four SAS channels with each supporting 3Gbps full duplex speed. Together with a high-speed SAS HBA or SAS RAID controller card on the server, the storage enclosure provides not only capacity but unprecedented performance for applications like High Definition Video Editing or high speed transaction applications.



Versatile Cost/ Performance Options

For highest performance and reliability, systems can be configured with dual I/O modules and high reliability SAS drives by providing a 1,200 X 2 MB/sec speed and dual-port failover capability. An application for a clustering transaction server can apply the above scheme with the best throughput and reliability. On the other hand, customers looking for performance but not requiring redundancy can deploy the single I/O module system with SAS drives without sacrificing performance and reliability. Applications such as Video Editing can use pure SAS interface for on-line storage usage. For the lowest \$/GB consideration, customers can apply the single I/O module system with large capacity SATA drives to achieve the best performance/cost investment. It is the best and most cost-effective near-line or backup storage available.

Easy Maintenance and Manage-

All of HPC Systems SAS Disk Enclosures are designed in a modular base, completed with redundant and hot-swap I/O modules, fans, and power supplies for easy maintenance. The systems support in-band SES (SCSI Enclosure Service) with embedded SEP for error and status reporting. Each drive has activity and failure LEDs to indicate the drive status. Firmware can be upgraded through in-band SAS ports or serial port.

High Storage Density Design and Offerings

For cost and capacity consideration, HPC System provides both 3U- 16 and 2U-12 solutions, employing 3.5" drives. For applications where power consumption, thermal or environmental elements, and space limitations are considerations, HPC System provides 1U-10 and 2U-24 enclosures using 2.5" drives. All of HPC System's SAS Disk Enclosures are designed with dual host and cascade or paths for further capacity expansion.

Features Overview

- ▶ High performance, and connectivity SAS interface supports
- ▶ High performance/availability SAS drives and high capacity/lower cost SATA drives in a single system, the flexibility to reduce total cost of ownership (true mix-and-match of drives in a single enclosure)
- ▶ Six 4-port connectors for host or expansion with automatic port speed detection and negotiation
- ▶ Scalable with expansion ports to couple with business growth
- ▶ Environment monitoring with SEP/SES Support
- ▶ Redundant and hot swappable io modules, drives, fans and power supplies for high availability and easy maintenance
- ▶ Multiple Form Factor 1U,2U,and 3U with both SFF 2.5"and3.5"drive offerings

Scalability

HPC System enclosures support a scalable solution to manage growing storage needs via efficient expansion. Each SAS I/O Module supports a downlink cascade path with four SAS channels maintaining 1,200MB/s speed.



| Features | Description | XJ-5A13-110R-X* | XJ-SA26-110R-X |
|---------------------------------------|---|-----------------|---|
| GENERAL | | | |
| Number of io Modules | | Single | Dual |
| Host Interface per io Module | Mini SAS 4x connector | | Dual |
| Expansion Interface per io Module | Mini SAS 4x connector | | Single |
| Transfer Speed | 1,200MB/s per connector | | Yes |
| DRIVES SUPPORTED | | | |
| Drive Interface | 3Gb dual ported SAS 1.5/3.0Gb single ported SATA | | Yes |
| Dual ported SATA Support | W/ optional interposer boards | | No |
| Drive RPM | | | up to 15,000 |
| Form Factor | | | SFF 2.5* |
| ADMINISTRATION/MANAGEMENT | | | |
| Admin/firmware Upgrade | in-band | | windows* GUI, serial |
| LED Indicators ,Audible Alarm | | | Yes |
| HOT-SWAP & REDUNANCY | | | |
| I/O Module | Redundant | No | Yes |
| Disk Drive | hot-swap | | 10-bay |
| Cooling | | | 2 |
| Power Supply | Redundant 1+1 | | 250W |
| Power Entry | Dual AC inlet | | Yes |
| ELECTRICAL & ENVIRONMENTAL | | | |
| Universal A/C Input | | | 100-240V AC full range |
| Operating Environment | | | Temperature 5°C to 35*c,Relative humidity 20% to 80% |
| Non-operating Environment | | | Temperature 20°C to 60*c,Relative humidity 10% to 90% |
| PHYSICAL DIMENSIONS | | | |
| Height | | | 44mm/(1.7in) |
| Width | | | 440mm/(17in) |
| Depth | | | 464mm/(18.3in) |
| Weight w/o Disks | | | 14kg/(31 ib) |
| AGENCY | | | |
| Emissions & Safety | | | FCC,CE,UL,CB |
| Quality | | | ISO9001,Iso140000,IECQ QC080000HSPM |

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