

- **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 Systems 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 Systems provides 1U-10 and 2U-24 enclosures using 2.5" drives. All of HPC Systems 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 Systems 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-5A13-212R-X*	XJ-SA26-212R-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		yes
Drive RPM			Up to 15,000
Form Factor			3.5*,1*height
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		12_bay
Cooling			Redundant2+1
Power Supply	Redundant 1+1		460W
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			87mm/(3.4in)
Width			440/(17in)
Depth			548/(21.6in)
Weight w/o Disks			16kg/(35lb)
AGENCY			
Emissions & safety			FCC,CE,UL,CB
Quality			ISO9001,Iso140000,IECQ QC080000HSPM

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