

Simplify Development, Reduce Overhead

The growth of digital content in the enterprise has resulted in progressively complex and expensive storage systems. These systems require large amounts of energy and preclude enterprises from simply adapting their infrastructure as needs change. As the pace of change continues to speed up, the evolution of storage technologies has become extremely important. OEMs and solution integrators need an extensible storage infrastructure that provides flexibility, reliability and energy efficiency to meet diverse application requirements. These include applications in digital media, in compliance retention and in data archival.

The Ability 5U 84-Bay EBOD evolves its platform to 12G SAS while maintaining the prior architecture utilizing significant hardware reuse, a common management API and SBB 2.0 compatibility.



RAID Inc. Advancing 12Gb/s SAS

The RAID Inc. implementation of 12Gb/s SAS offers a number of significant improvements to 6Gb/s SAS over and above the doubling of the data transfer rate from 6 Gb/s to 12 Gb/s. These include support and capabilities for managed cables, active and optical cables, universal ports, self configuration, and standardized zoning. RAID Inc. supports 12Gb/s SAS in end-to-end configurations providing an effective maximum throughput of 14.4 GB/s per I/O module or 28.8 GB/s in a dual controller configuration, enough to support the highest performing solid-state storage devices.

Delivering a Versatile & Scalable Architecture

The 5U 84-Bay leverages the reuse of interchangeable I/O modules, a common enclosure management and SBB 2.0 compatibility. This enables OEMs to accelerate market introduction of new technologies and also significantly simplifies development and testing of storage implementations while reducing overhead.

Assuring Robust Data Availability

Through its intelligent Unified System Management (USM), Ability 5U 84-Bay EBOD safeguards data and ensures maximum availability. Users are able to leverage fault diagnosis and resolution capabilities, persistent error logging and monitoring. In addition, Ability 5U 84-Bay EBOD provides high availability features such as dual redundant PSUs, N+1 cooling modules, dual I/O modules and dual data paths to all drives.

Advantages

- 5U rack-mount enclosure stores up to 5 petabytes of data per rack, saving space in the data center.
- Capacity of 1.7PB in 5U using 20TB enterprise HDDs.
- Certified 80 PLUS Platinum efficient power conversion and adaptive cooling technology reduces power and cooling costs.
- Ultra-dense, with up to 84 3.5" SAS hard disk drives or solid-state drives per 5U enclosure.
- Unique drawer design provides extremely high density per rack unit and provides easy access to hot swap drives.
- Expansion capability up to 336 drives Dual 12Gb SAS I/O modules with integral data path redundancy.
- Maximum of 28.8 Gb/s in a dual controller configuration.
- Data center space savings + power and cooling cost savings = exceptionally low total cost of ownership.

Technical Specifications

General Information

Controller: Dual EBOD Storage Bridge Bay (SBB) 2. 1 compatible I/O Modules per enclosure
Host/Expansion Interface: Three universal x4 12Gb mini-SAS connectors (SFF-8644) per I/O module
Management/Status Reporting: CLI via RS232 and 100Base-T port, SCSI Enclosure Services (SES) via SAS SFF-8644 ports
Maximum System Configuration: Dual host-connected enclosure with a maximum expanded configuration of 4 enclosures for a total of 336 drives

Disk Drives

Device Types Supported: Dual ported 12Gb/s SAS
Max Drives per Enclosure: 84
Available Drive Capacities: HDD up to 20TB

System Availability

Hot Swappable Components: Disk drives, power supply units (PSUs), cooling modules, side planes and SBB I/O Modules

Dimensions

Height: 220mm (8.65") 5 EIA units
Width: 483mm (19") IEC rack compliant
Depth: 933mm (36.75")
Weight: 128Kg (282lbs) with drives

Altitude, Power and Temperatures

Operational Altitude: -100 to 3000m (-330 to 10000')
Non-operational Altitude: -100 to 12,192m (-330 to 40,000')
Voltage: 200-240V AC
Frequency: 60/50Hz
Power Conversion Efficiency: 94% @ 240V (50% load)
Temperature Range: 5° to 35°C (de-rate 5°C above 2,133m (7,000'))
Humidity: 10% to 80% non-condensing

Vibration and Shock

Operational Shock: 5g 10ms ½ Sine (Z-axis), 20g 10ms ½ Sine (X- and Y-axes).
Operational Vibration: Random 0.21g RMS 5-500Hz
Non-operational Shock: 30g 10ms ½ Sine
Non-operational Vibration: Random 1.04g RMS 2-200Hz
Acoustics: Sound Power Operating ≤ 8.0 Bels LWAd @ 23°C



RAID Inc. was founded in 1994 to deliver high-performance storage solutions. The company has earned industry praise for providing platform agnostic technical guidance in high performance computing (HPC), big data, cloud and software-defined data centers—in the most efficient, reliable and cost-effective manner. The world's leading research facilities, government, life science, financial, healthcare, energy, and cloud service providers leverage our team of engineers' extensive academic, research lab and commercial expertise that makes RAID Inc. a trusted industry leader. For more information, visit our website www.raidinc.com or call 1.800.330.7335.