SA2U-24
Rackmount RAID Disk Storage

Rugged Enterprise Class

SYSTEMS ENGINEERED TO PERFORM®

Built in Redundancy
- RAID 0, 1, 3, 5, 6, 10, 50
- Redundant, hot swap components
- Optional snapshot capability
- Additional data protection with full volume copies

Scalability and Performance
- Dual or single RAID controller or JBOD
- Data of 3Gb/sec. Serial-attached SCSI
- OS Support - Windows, Linux, Solaris
- Modular design protects your investment
- Enterprise-class features and functionality without the enterprise price

Compliance and Certifications
- Economically and environmentally sound technologies
- Low latency cache mirroring
- Battery-free cache backup
- DC power option
- RoHS-6 and WEEE compliant

The SA2U-24 features a 24-drive hardware RAID storage array housed in a 2 rack unit (2U) enclosure providing dual 3Gb SAS interfaces per controller to internal 2.5 inch or SSD drives. The SA2U-24 adds support for the emerging 2.5 inch enterprise disk technology to deliver higher IOPS performance in a 2U rack size and shorter chassis depth of under 600mm including cable bends. In addition to the two host attach SAS connections, an internal SAS interface will support up to six additional drive enclosures with 3.5” SAS or SATA drives or three additional enclosures with 2.5” SAS or SATA drives. With support for a total of 96 attached drives managed by the RAID architecture, the SA2U-24 is a low-cost hardware RAID storage solution quickly adding additional server storage.

Revolutionary Performance, Availability, and Quality
The SA2U-24 uses revolutionary technology that instantly and simultaneously mirrors cache between RAID controllers, leading to significant performance improvements over traditional implementations. The use of RAID cache batteries has been completely eliminated with the introduction of super capacitors, providing infinite cache backup during a power loss while being environmentally friendly. The SA2U-24 provides built-in volume snapshot capability allowing point-in-time copies that can be used to maximize business continuity. A full volume copy (vs. a logical volume copy) provides additional protection against disk failure and eliminates application I/O contention when accessing the same data blocks.

Storage Made Easy
The SA2U-24 is easy to configure and manage with an improved intuitive Web Based Interface (WBI) which provides storage setup and monitoring without the need for host based software.

CHASSIS PLANS

Systems Engineered to Perform®

Chassis Plans · 8295 Aero Place · San Diego · CA · 92123
Phone (858) 571-4330 · Fax (858) 571-6146
saleseng@chassisplans.com
www.chassis-plans.com

NEXT GENERATION SOLUTION

SA2U-24

General

Product Type	RAID, JBOD
Chassis Configuration	2U
Disk Architecture	3Gb SAS
Max Drives per Chassis	24 drives
Total Disks Supported	96
Mounting Options	19” Rack, Rack tray
Max Number of Chassis	7 (1 RAID and 6 JBOD)
Max Capacity per Chassis	7.2TB

Protocols and Standards

ICMP (RFC 792, 950, 1256)	TCP (RFC 793)
IP (RFC, 894, 1092)	SCSI-2 and SCSI-3

Hosts

Initiators	SAS (Serial-attached SCSI)
Interface Type	SAS SFF8088
External Ports	2 Single or 4 Dual Controller

Drives

Max Number of Drives	96
Drive Options	SAS 36GB 15K RPM SAS 72GB 15K RPM SAS 146GB 10K RPM SAS 300GB 10K RPM SATA 32GB SSD SATA 64GB SSD SATA 80GB SSD SATA 160GB SSD

RAID

Levels Supported	Non-RAID, 0, 1, 3, 5, 6, 10 and 50
RAID Type	Hardware
Cache Memory	1GB per controller
Cache Backup	Battery-free protection with super capacitors
Virtual disks per System	32
Volumes per virtual disk	256
Volumes per System	256
Mirrored Cache	Yes
Super Capacitor Cache Backup	Yes
Cache Backup to Flash	Yes

Management

Interface Types	Mini DB9 RS232, 10/100 Ethernet
Protocols Supported	SNMP, SSL, SSH, SMTP, SMI-S Provider, HTTP(S)
Management Consoles	WEB GUI, CLI

Power Requirements—AC Input

Input Power Requirements	100-240VAC 50/60Hz 4.5–1.9A
Max Input Power	436W max maximum continuous
Heat Dissipation	1488 BTUs/hour

Power Requirements—DC Input

Voltage	-34 to -72VDC, -48/-60V nominal
Max Input Power	436W maximum continuous
Heat Dissipation	1488 BTU/hour

Temperature and Humidity Ranges

Operating Temperature	41°F to 104°F (5°C to 40°C)
Shipping Temperature	-40°F to 158°F (-40°C to 70°C) Note: Derate 2°C for every km, up to 3000 meters
Operating Humidity	10% to 90% RH @ 104°F (40°C), non-condensing
Non-Operating Humidity	Up to 93% RH @ 104°F (40°C) non-condensing

Declared Acoustic Noise Levels

Sound Power	<6.75B Sound Power
Sound Pressure	<55dBA Sound Pressure

SHOCK AND VIBRATION

Shock, Non-Operational	15G 11ms, half sine
Vibration, Operational	0.21Grms Random 5Hz to 500Hz flat spectrum/feed forward
Vibration, Non-Operational	0.5G 1 octave/minute 5Hz to 500Hz to 5Hz sine sweep 0.5Grms Random 20Hz to-1000Hz flat spectrum

High-Availability Features

Redundant Hot-Swap Controllers	Yes
Redundant Hot-Swap Disk	Yes
Redundant Hot-Swap Fans	Yes
Redundant Hot-Swap Power	Yes
Dual Power Cords	Yes
Hot Standby Spare	Yes
Automatic Failover	Yes
Multi-Path Support	Yes
Snapshot with AssuredSnap™	Yes

REGULATORY

Safety	UL 60950-1:2001 (USA) CAN/CSA-C22.2 No.60950-1-03 (Canada) EN 60950-1 :2001 (EU) IEC 60950-1 :2001 (International)

Electromagnetic Compatibility

Emissions	CFR 47 Part 15 Subpart B Class A (USA) IECS-003: 2004 Class A (Canada) AS/NZS CISPR 22: 2006 Class A (Australia/ New Zealand) VCCI: 2008-4 Class A EN 55022: 2006 Class A (European Union)
Harmonics	EN 61000-3-2: 2006
Flicker	EN 61000-3-3: 1995 (Amended by A1: 2001 and A2: 2005)
Immunity	EN 55024: 1998 (Amended by A1: 2001and A2: 2003)

RoHS and WEEE	RoHS-6 Compliance , China RoHS, WEEE
Country Approvals	Australia/New Zealand, Canada, European Union (EU), Germany (GS Mark), Japan, United States

SUPPORT

Software Warranty	90 days
Standard Hardware Warranty	3 years
Environmental Monitoring	SNMP, CLI, RAIDar 2.0, SMTP, SMI-S Provider
Phone-home Capability	Yes
Remote Diagnostics	Yes
Non-disruptive Updates	Yes
Non-disruptive Volume Expansion	Yes for primary volumes

PHYSICAL

Height	3.5 Inches / 8.9cm
Depth (excluding cables)	21.3 Inches / 54.0cm
Width	17.6 Inches / 44.7cm
Chassis Weight	44 lbs / 20kg
Chassis (w/148GB drives) Weight	58 lbs/ 26.4kg

CHASSIS PLANS

Systems Engineered to Perform®