

# **iSCSI RAID Subsystem**













SS-4503E/R

# High Performance, High Availability, Easy Management

Arena iSCSI RAID system is designed to utilize existing investment for delivering cost effective IP-SAN for SMBs. The single upgradable to active-active redundant controller architecture support seamless controller failover without downtime. High redundancy module, powerful hardware engine, high scalable expansion options and user-friendly management interface make it the best choice for fault tolerance, enterprise level solutions under limited budget.

In recent years, video surveillance has shifted from analogue to digital data archiving; which recording streams via digital video recorder (DVR) or network video recorder (NVR) to external storages with RAID features data protection. Furthermore, critical record would request infrastructure like storage area network (SAN) to achieve performance, scalability and reliability.

Arena offers a complete range of DAS/SAN solutions to meet the critical requirement of modern video surveillance application, various features are tailored for it and various configurations can fulfil different demand.

### **FEATURES HIGHLIGHT**

#### Single Controller Upgradable

Single controller model is field upgradable to a redundant solution. You could upgrade single to redundant by directly insert another controller module. So you can just configure a Active/Active solution by use both controller simultaneously for double I/O throughput, or if you prefer to have Active/Standby solution, you can put one controller on "standby", so it becomes a backup for the other one.

#### **Innovate New Array Structure**

The system features a new innovate array structure that hierarchically organizes storage objects. With this structure, physical drives are combined into Disk Groups (DG). DGs are subdivided into Logical Disks (LDs) where arrays are created. LDs can be combined together to form a stripped Volumes. Either Volumes or LDs can be pointed to a LUN which are then presented to the host computer.

## JBOD Expansion

This feature provides users the option to attach external SAS JBOD unit to expand the capacity of their storage solution. By cascading the RAID-less SAS JBOD unit helps reduce the total cost of ownership.

#### Full complement of iSCSI features

Link Aggregation (802.3ad) and jumbo frame support for maximizing bandwidth and performance, Challenge Handshake Authentication Protocol (CHAP) authentication, Header Digest and Data Digest help to guarantee iSCSI data, Internet Storage Name Service (iSNS) for helping management of iSCSI devices and support multiple iSCSI targets up to 8 sets.

## Centralized management by RAIDGuard Central

RAIDGuard Central (RGC), a free centralized management utility provides centralized monitoring multiple RAID systems by through Ethernet at a local area network. Easier install RGC to a normal PC as an agent and then any PC/server could monitor to RAID system remotely. Allow customer to warning the engineer real-time with mail sending and most popular web messenger: MSN.







## **Janus II Series 2U 12bay iSCSI RAID Subsystem**





## **SPECIFICATION**

#### **Hardware**

Model No.	SS-4503E / SS-4503R
Controller No.	Single (Upgradable) / Dual (Redundant)
Controller CPU	Intel IOP34x 1.2GHz
Cache Memory	2048-4096 MB DDR II
Battery Backup	Optional / Yes
Expansion	miniSAS (SFF-8088) port(*2)
Management port	10/100Mbit port (RJ45)
UPS monitoring	1 (RS232)
Controller CPU Cache Memory Battery Backup Expansion Management port	Intel IOP34x 1.2GHz 2048-4096 MB DDR II Optional / Yes miniSAS (SFF-8088) port(*2) 10/100Mbit port (RJ45)

<sup>\*1.</sup> Support SATA drive needs AA-MUX tray board equipped.

Host Interface	iSCSI GbE (RJ45)
Host Channel No.	4 / 8
Disk Interface	SAS (SATA compatibility)(*1)
Disk Channel No.	12 x 3.5" swappable trays
Hot Swap Disk Tray	12
Hot Swap Power Supply	2 x 420W Redundant
AC Input Voltage	100 to 240V (+/-10%), 47 to 63 Hz
Hot Swap Fan Module	2 x Turbo Fan

#### **iSCSI** Functions

iSCSI Features - Link-A

- Link-Aggregation, LACP (802.3ad) - Jumbo Frame support (9000bytes)

- Challenge Handshake Authentication Protocol (CHAP)

- Header Digest and Data Digest

- Internet Storage Name Service (iSNS)

- Multiple iSCSI targets (up to 8)

#### **RAID Functions**

Snapshot

**RAID Levels** JBOD, 0, 1, 3, 5, 6, 10, 30, 50, 60, NRAID

RAID Features - Support multiple RAID levels and stripe size

- Support local hot spare and global hot spare

- Instant and background initialization

Online RAID level and stripe size migration
 Online disk group defragmentation for free space consolidation

Yes (firmware embedded)

#### - Online capacity expansion and shrink

- Online drive traveling and array roaming

- Online array recovery

- Support Disk Self Test (DST)

- Support Disk Scrubbing (DS)

- Support Disk Cloning (DC)

#### **Environment Specification**

Humidity	20% to 80% non-condensing
Operating Temp.	5°C to 40°C (41°F to 104°F)
Non-operating Temp.	-25 °C to 60 °C (-13 °F to 140 °F)
Physical Dimension	485(W) x 565(D) x 88(H) mm
Packed Dimension	610(W) x 790(D) x 430(H) mm
Safety Regulatory	UL, CUL, CB
EMC Standard	FCC, CE, C-Tick, BSMI
Physical Weight	19Kgs (without drives)
Packed Weight	28Kgs (without drives)

<sup>\*</sup> Specifications and product offerings may vary without notice.

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<sup>\*2.</sup> Support up to 118 disks (include local chassis)

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