

DAS

R-SS-3106

Throughput Performance

1GB/sec (SAS drives)

700MB/sec (SATA Drives)

- ▶ 3U 16-Bay High-Performance SAS-SAS Raid System Supports Both Seagate® Barracuda® ES SAS and SATA drives



R-SS-3106

Low-cost, feature-rich storage for outstanding productivity

The RAID STORE R-SS-3106 is optimized for organizations deploying small to medium application servers, disk-to-disk backup and direct-attach storage solutions. SAS interface channels offer the ease of management and performance required by companies running popular departmental and back-office applications. The R-SS-3106 combines advanced connectivity and storage features sophisticated functionality, exceptional performance, rock-solid reliability, and high availability with intelligent system design for a very affordable solution providing a scalable file service and print service solution.

High storage density for flexibility and economy

Seagate® Barracuda® ES hard drives are reliable as they have features like workload management, which reduces drive failure & lowers system heat levels by verifying data integrity when drive is thermally stressed.

Barracuda ES drives have IRAW (Idle Read After Write), which verifies the integrity of recently written data during idle time.

ERC (Error Recovery Control), another very important feature, which reduces unnecessary RAID rebuilds to drive error recovery times exceeding system timeout period.

The Barracuda ES drive is a best fit for nearline storage applications because of improved rotational vibration, PowerTrim™ technology, and quick and robust download FIW security.

RAID 6 Support

RAID 6 is an emerging technology for shared storage systems and high-capacity SATA disk arrays in servers. With double parity coding, intelligent RAID 6 delivers the highest level of reliability and data protection in a cost-effective solution. As the capacity of storage arrays increases, so does the risk of encountering unrecoverable read errors. And such errors always result in data loss during a RAID 5 rebuild. For this reason, RAID 6 can handle double drive failures and thereby provide greater protection against data loss. This dramatically reduces the risk of catastrophic data loss during RAID rebuilds.

Highlights

- ▶ 16 hot-swappable Seagate® Barracuda® ES SAS/SATA hard drives in a robust 3U chassis
- ▶ RAID 6 support
- ▶ Supports Windows and Linux Cluster Services
- ▶ Redundant, hot-swappable power and cooling
- ▶ Comprehensive embedded web-based management
- ▶ Command Line Interface/Utility via RS232 Serial Port
- ▶ LUN Mapping and Masking
- ▶ Multiple global or dedicated hot-spare drives



Key Components	RAID & Volume Operation	Advanced Data Protection
<ul style="list-style-type: none"> ▶ Intel Xscale IOP341 (Chevelon single core) ▶ 1GB ~ 2GB DDRII 533 DIMM ▶ 32MB Flash ▶ UARTs: serial console and UPS ▶ Fast Ethernet port for management ▶ Drive-side & Host-side: LSI 1068E & SAS expander – SAS(3.0Gb/s),SATAII(3Gb/s), SATAI(1.5Gb/s) ▶ LCM & Enclosure monitor processors ▶ Optional Battery backup module ▶ NVRAM for IO transaction record 	<ul style="list-style-type: none"> ▶ RAID level: 0,1,0+1,3,5,6,10,30,50, 60 and JBOD ▶ Up to 1024 logical volumes in the system ▶ Up to 16 HDDs included in one volume group ▶ Global and dedicated hot spare disks ▶ Write-through or write-back cache policy ▶ Dedicated or shared cache allocation for volume usage ▶ Multiple RAID volumes support ▶ Configurable RAID stripe size ▶ Online volume expansion ▶ Instant RAID volume availability ▶ Auto volume rebuilding ▶ On-line volume migration 	<ul style="list-style-type: none"> ▶ R-SS-3106 - built-in snapshot with rollback enabled ▶ Windows Volume Shadow Copy Services (VSS) ▶ Snapshot enabled up to 16 UDV, each UDV supports up to 32 Snapshot volumes, total 512 snapshot volumes per controller ▶ Off-line array roaming ▶ Smart faulty sector relocation ▶ Battery backup support (optional)
Feature Highlights	Power & Environment	Dimensions/Host Connection
<ul style="list-style-type: none"> ▶ R-SS-3106 ▶ SAS JBOD expansion ▶ RAID 6, 60 ready ▶ Volume Sharing ▶ Web-based management ▶ On-line volume expansion & migration ▶ HDD S.M.A.R.T. enabled ▶ Global/dedicated cache ▶ SATAII HDD compatible ▶ QSNAP 	<ul style="list-style-type: none"> ▶ AC Input: 100-240V ~ 6A-3A 300W 1+1 with PFC(Auto Switching) ▶ DC Output: 3.3V-15A; 5V-25A; 12V-18A ▶ Operating Temperature: 0°C to 40°C ▶ Relative Humidity: 5% to 95% non-condensing 	<ul style="list-style-type: none"> ▶ 3U 19-inch rackmount chassis 431(W) x 516(D) x 87.5(H) mm (17.6 x 21.6 x 5.15 inches) ▶ Up to 32 host connection ▶ Up to 16 hosts for one volume ▶ Support Windows, Linux, MAC and Solaris O/S ▶ LUN access control : read-only & read-write
Enclosure Monitoring	Management Interface	Drive Support
<ul style="list-style-type: none"> ▶ S.E.S. support for standard enclosure management ▶ UPS management via the specific serial port ▶ Fan speed monitoring fan x2 ▶ Redundant power supply monitor ▶ 3.3V, 5V and 12V voltage monitor ▶ Thermal sensors x 3 on the controller BOARD (for CPU, bridge and host channel chip) ▶ Thermal sensor x 3 (up to 24) in enclosure. ▶ Status monitor of expanded SAS/SATA JBODs 	<ul style="list-style-type: none"> ▶ Management UI via serial console, SSH telnet, and secured Web (HTTPS) ▶ Online system firmware upgrade mechanism ▶ Event notification via Email, SNMP trap, windows & browser pop-up, Syslog ▶ Run-time IO transactions recording ▶ Basic operation via LCM ▶ Microsoft Virtual Disk Service (VDS) support 	<ul style="list-style-type: none"> ▶ SCSI-3 compliant ▶ Multiple IO transaction processing ▶ Tagged command queuing ▶ Hard drive S.M.A.R.T. enabled ▶ SAS expansion port connecting up to 4 SAS/SATA ▶ JBODs ▶ Up to 80 SAS/SATA drives per controller

Seagate Barracuda ES Specs

- ▶ Capacity-SATA 3Gb/s, 1.5Gb/s - 2 TB, 1 TB, 750 GB, 500 GB, 250 GB
- ▶ Capacity-SAS 3Gb/s - 2 TB, 1 TB, 750 GB, 500 GB
- ▶ Spindle Speed (RPM) - 7200
- ▶ Cache, Multisegmented (MB) - 32 (SATA), 16 (SAS)
- ▶ Seek Time, Read/Write (average, msec) - 8.5/9.5
- ▶ Mean Time Between Failures (MTBF) (hours) - 1.2 million
- ▶ Reliability Rating at Full 24x7 Operation (AFR) - 0.73%
- ▶ Transfer Rate, Sustained (MB/s) - 105
- ▶ Power Consumption (W, idle) - 8.0
- ▶ Rotation Vibration @ 1500 Hz max (rad/sec²) - 12.5

*Specification are subject to change without notice. All company and product names are trademarks of their respective owners.