

IP SAN R-SS-3106i

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

Performance

Read+Write max 600MB/s
Read/Write max IOPS 120k



R-SS-3106i

IP-SAN flexibility and value

RAID STORE iSCSI products are a new generation of our technology that provides wide interoperability with rich iSCSI features including immediate data, CHAP, VLAN, Link Aggregation, Jumbo Frame, iSNS for network device discovery and near wire speed performance. These functions give network administrators the flexibility to solve tough storage problems with minimum disruption to clients.

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 reliability

RAID 6 (double-parity) 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 errors. RAID 6 has two sets of parity from which the array can be rebuilt; it also remains available through up to two drive failures. This improves overall data protection, without adversely affecting performance and 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 0, 1, 5, 6, 10, 30, 50, 60 and JBOD support
- ▶ Hardware based TCP/IP and iSCSI offload engine
- ▶ Comprehensive embedded web-based management
- ▶ LCD Panel support
- ▶ Intelligent enclosure management, including thermal, voltage, and fan speed monitor and adjustment automation



Key Components	RAID & Volume Operation	Advanced Data Protection
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<ul style="list-style-type: none"> ▶ Intel Xscale IOP341 (Chevelon dual core) ▶ 1GB ~ 2GB DDR II 533 DIMM ▶ 32MB Flash ▶ UARTs: serial console and UPS ▶ Fast Ethernet port for management ▶ Drive-side: LSI 1064E-SAS (3.0Gb/s), SATA II (3Gb/s), SATA I (1.5Gb/s) ▶ Host-side: Two Intel 82546GB GbE controllers ▶ 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 Pds can be 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-US-3106i - 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 ▶ Qcopy - built in remote replication between two controllers ▶ Off-line array roaming ▶ Smart faculty sector relocation ▶ Battery backup support (optional)
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Feature Highlights	Power & Environment	Dimensions/Host Connection
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<ul style="list-style-type: none"> ▶ R-SS-3106i ▶ SAS JBOD Expansion ▶ Load-balancing & fail over ▶ RAID 6, 60 ready ▶ Volume sharing ▶ Web-based management ▶ On-line volume migration ▶ HDD S.M.A.R.T. enabled ▶ Global/dedicated cache 	<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) ▶ 802, 3ad port trunking, LACP ▶ MC/S support ▶ Microsoft Multiparh I/O (MPIO) ▶ ISNS & DHCP support ▶ CHAP authentication ▶ Data/Header digest support ▶ iSCSI jumbo frame support with MTU up to 8k bytes ▶ iSCSI multiple target mode: 32 nodes support ▶ Up to 32 hosts connection ▶ Up to 16 hosts for one volume ▶ Support Windows Linux, Mac & Solaris O/S
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Enclosure Monitoring	Management Interface	Drive Support
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<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 ▶ Expanded SAS/SATA JBODs status monitor 	<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 ▶ HDD S.M.A.R.T. Enabled ▶ SAS expansion port connecting up to 4 SAS/SATA JBODs ▶ Up to 80 SAS/SATA hard drives per controller
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Seagate Barracuda ES Specs

▶ Capacity-SATA 3Gb/s, 1.5Gb/s	- 2 TB, 1 TB, 750 GB, 500 GB
▶ Capacity-SAS 3Gb/s	- 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/sec ²)	- 12.5

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