

DAS

R-US-316

3U 16-Bay SCSI-SATA RAID System
SCSI U320(x2) support SATA II drives

- ▶ Robust, high-availability, high-performance dual channel Ultra 320 SCSI to 8-Bay Serial ATA (SATA) 3Gb/s RAID 6 system



R-US-316

Low-cost, feature-rich storage for outstanding productivity

The RAID STORE R-US-316 is optimized for organizations deploying small to medium application servers, disk-to-disk backup and direct-attach storage solutions. Dual Ultra 320 SCSI host interface channels offer the ease of management and performance required by companies running popular departmental and back-office applications. The R-US-316 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 SATA hard drives in a robust 3U chassis
- ▶ RAID 6 support
- ▶ Supports 3Gb/s and 1.5Gb/s Serial ATA drives
- ▶ Dual Ultra 320 SCSI channels
- ▶ 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
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<ul style="list-style-type: none"> ▶ CPU: Intel Xscale IOP80331 ▶ Memory: 512MB ~ 1GB DDR33 DIMM supported ▶ UARTs: support for serial console management and UPS ▶ Fast Ethernet port: for web-based management use ▶ Backend: Up to 16 SATA 1.0, 1.5Gb/s or SATA 2.0, 3Gb/s disks supported ▶ Front-end: One LSI Ultra 320 SCSI controller ▶ LCM supported ▶ Battery backup support (Optional) ▶ 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 256 logical volumes in the system ▶ Global and dedicated hot spare disks ▶ Write-through or write-back cache policy for different application usage ▶ 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-316 - built-in snapshot with rollback enabled ▶ Up to 32 snapshot logical volumes in the system ▶ Snapshot rollback mechanism ▶ Microsoft Windows Volume ShadowCopy Services(VSS) ▶ Off-line array roaming ▶ Smart faculty sector relocation ▶ Battery backup support(optional)
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Feature Highlights	Power & Environment	Dimensions
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<ul style="list-style-type: none"> ▶ Front-end two SCSI channels failover/load-balancing for high availability (MPIO mode) ▶ Backward-compatible SATAII drive interface ▶ RAID 6,60 ready ▶ Local N-way mirror for high data protection ▶ On-line volume migration with no system down-time ▶ HDD S.M.A.R.T. Enabled ▶ Global/dedicated cache configurable by volume 	<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)
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Enclosure Monitoring	Management Interface	Host & Drive Connection
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<ul style="list-style-type: none"> ▶ SAF-TE 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) ▶ Thermal sensor x 3 (up to 24) in enclosure. 	<ul style="list-style-type: none"> ▶ Management UI via serial console, SSH telnet and HTTP/HTTPS ▶ Online system firmware upgrade mechanism ▶ Event notification via Email, SNMP trap, windows & browser pop-up, Syslog ▶ Run-time IO transactions recording ▶ Built-in LCD module to control most enclosure components 	<ul style="list-style-type: none"> ▶ Microsoft Multiparth IO support (MPIO) ▶ ISCSI - 3 compliant ▶ Multiple IO transaction processing ▶ Tagged command queuing ▶ Support multiple SCSI IDs utility ▶ Hard drive S.M.A.R.T. Enabled ▶ Data SCSI channels for host failover/load-balancing ▶ Compatible with Windows, Linux, MAC
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<ul style="list-style-type: none"> ▶ Capacity-SATA 3Gb/s, 1.5Gb/s ▶ Capacity-SAS 3Gb/s ▶ Spindle Speed (RPM) ▶ Cache, Multisegmented (MB) ▶ Seek Time, Read/Write (average, msec) ▶ Mean Time Between Failures (MTBF) (hours) ▶ Reliability Rating at Full 24x7 Operation (AFR) ▶ Transfer Rate, Sustained (MB/s) ▶ Power Consumption (W, idle) ▶ Rotation Vibration @ 1500 Hz max (rad/sec²) 	<ul style="list-style-type: none"> - 1 TB, 750 GB, 500 GB, 250 GB - 1 TB, 750 GB, 500 GB - 7200 - 32 (SATA), 16 (SAS) - 8.5/9.5 - 1.2 million - 0.73% - 105 - 8.0 - 12.5
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