

# FlashDisk® Turbo SATA

# SA-3000 Series

**4 Gb Fibre Channel interface doubles storage performance and supports RAID 6 for the highest reliability and scalability**

FlashDisk SATA SA-3000 series provides up to 12 TB of low-cost storage using high performance, lower cost Serial ATA drives. It supports dual host interfaces - Ultra320 SCSI or 4 Gb Fibre Channel for the ultimate in speed, capacity, and reliability. Both models offer RAID 6 for added data protection and can sustain two drive failures in an array without loss of data. Ideal for users who work with large data files and want to take advantage of cost-efficient Serial ATA drives without risking data loss due to multiple drive failures.



## FlashDisk Turbo SATA

### Performance

- 510 MB/sec reads, 350 MB/sec write, FC
- 450 MB/sec reads, 300 MB/sec write, SCSI
- 64-bit end-to-end design
- 256 MB of ECC cache per controller

### Capacity & Scalability

- 16 SATA disks per enclosure
- 400 GB, 500 GB, 750 GB disks, 7200 rpm
- 74 & 150 GB disks, 10k rpm
- Scales to 12 TB

### Reliability

- Hot-swappable drives, power supplies, fans, AC power inlets
- Hot spares with automatic drive rebuilds
- Supports multi-pathing and HBA failover
- Supports continuous background media scans

### Compatibility

- Supports most O/S and servers without any host software
- Supports up to 64 hosts
- Supports up to 1024 configurable LUNs
- Compatible with FC switched fabric, point-to-point and FC-AL
- Cluster support: Windows, Novell, UNIX, Linux

### Centralized & Remote Management

- Managed out-of-band via Ethernet, TELNET, FlashConsole appliance
- Automatic event & problem alert notification
- FlashAlert 24-hour "call-home" service
- Centrally managed with a Java-based web browser from any LAN workstation

[www.winsys.com](http://www.winsys.com)

Model	SA-3462	SA-3472
Number of Controllers	1	1
Host Interface	U320 SCSI	4 Gb Fibre Channel, RAID 6
Number of Host Ports	2	2
Hosts Supported	2	64
Configurable LUNs	64	1024
Field Upgradable	SA-3472	SA-3462

### 3U RAID Enclosure

- Controller
- Processor
- RAID levels supported
- On-line capacity expansion
- Cache memory capacity
- Non-volatile cache
- LUN masking, FC model
- Maximum array size
- Host adaptors available for
- Power supplies
- AC Power Inlets
- Max. external cable length

### Operating console

Standard 19" EIA rack or standalone  
Removable, 64-bit RAID controller, field upgradable  
400MHz RISC with 256kb embedded L2 cache  
1, 3, 5, 6, 1+0, 15, 30, 50, 60  
Automatically adds new drives to existing array  
256 MB per controller, upgradable to 2 GB  
Li-ION battery - min. 72 hours  
Configurable using WWN (World Wide Name)  
Up to 64 TB per Logical Disk (host dependent)  
PCI-X, PCI, PCI Express & Sbus  
Dual hot-swap redundant, 460 Watts each  
Dual IEC power connect, hot-swappable  
Up to 10 kilometers with extended optical FC SFPs  
Up to 12 meters LVD, 2 meters single ended with SCSI  
View and edit logical RAID/physical drives, setup hot-spare drives, map hosts, check parity, enable write-back cache, rebuild failed drive, view logs...

### SATA II Disk Drives

7200 rpm disks

500 GB, 750 GB for nearline applications

7200 rpm disks

400 GB, for primary applications, 100% duty cycle, 8.9 msec read seek time

10,000 rpm disks

74 GB and 150 GB for primary storage, 100% duty cycle, 4.6 msec. read seek time

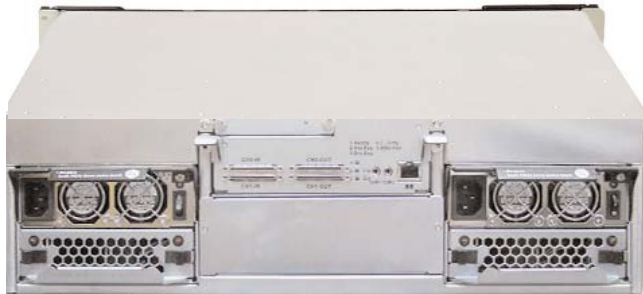
### Controls and Indicators

- LCD front operation panel
- LED indicators
- Component failure
- Alerting

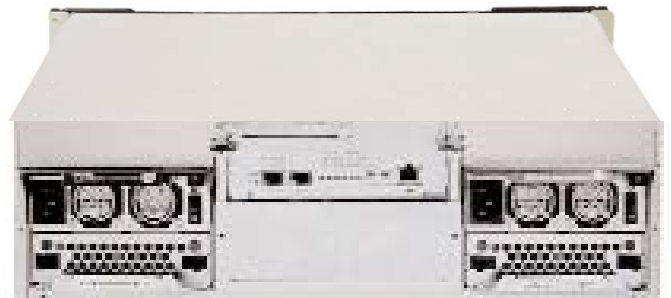
Control panel for setup and configuration  
Power, battery, controller, and system status  
Failure indication through LCD, RS-232C, and GUI  
Built-in beeper/alarm, mute button

<p><b>Compatibility</b>  Operating systems  (no host software drivers needed)  Platforms supported  Cluster support</p> <p>Remote monitoring ports  Communication protocols  Compliance</p>	<p>Supports 14 Operating Systems including Windows, Linux, and UNIX  Intel, SUN, HP, IBM RS-6000, Apple, SGI  Supports 9 industry-standards including Windows, Linux, and Veritas  RJ45 10/100 Ethernet, dual RS-232  TCP/IP, SNMP, SSH  FCC, UL, CE, CSA</p>
<p><b>Options</b>  FlashNAS Appliance  XOsoft WANSync</p>	<p>High performance NAS filer with snapshots  Supports CIFS/NFS/AFP/CNP and NSPF option  Replication over IP for disaster recovery</p>
<p><b>Storage Management</b>  Manage out of band  Centralized management</p> <p>FlashConsole appliance  FlashAlert call home service</p>	<p>Ethernet, TELNET  Manage from any LAN workstation with Java-based web browser and no additional software  Automatic event and problem alert notification  24-hour call center available for immediate action</p>
<p><b>General</b>  Uninterruptible power supply  Redundant AC power  3U RAID chassis dimensions  3U RAID chassis weight  Operating temperature  Cooling System  Relative humidity  Standard Warranty  Installation and service</p>	<p>Required when write-back cache is enabled  Dual 100-240 VAC Inlet, 47-63 Hz  5.25"h x 17.57"w x 19.69"d; standard 19" rackmount  Approximately 75 lbs. with drives  0° to 40° C  Two Dual hot-swap, ball bearing blowers; &lt;50 dB-A  5-95%, non-condensing  One year, next day on-site and toll-free hotline  On-site installation; 24x7 service available</p>

**Model SA-3462**  
**U320 Host Interface**



**Model SA-3472**  
**4 Gb Fibre Channel Interface**



*Either FlashDisk SATA system can be easily replaced or converted to the other in the field with data intact. The drives, fans, power supplies and AC inlets are all hot-swappable.*