



ATA disk based RAID

OVERVIEW

Nexsan's ATA disk-based storage solutions deliver the best in form and function now. The InfiniSAN ATAboy series provides Enterprise class features and functionality in a low profile, correct cost expandable package.

Nexsan designed the InfiniSAN ATAboy2 for maximum flexibility and scalability. All of the ATAboy2's critical components, including the RAID controllers and host connections, are user-pluggable. This design provides reliable, redundant data protection while enabling users to maximize the return on their storage hardware investment by extending the capabilities of the ATAboy system with future upgrades for enhanced performance and functionality.

KEY BENEFITS

Nexsan's award-winning EnterpriseATA™ RAID design allows single or multiple drives to be designated as hot spares. The ATAboy2 ensures dependable hot swapping of drives by combining a custom unitized ATA connector specially designed for drive-plugging operations and an electronic soft-start capability that further enhances reliability when hot swapping. The ATAboy2's advanced RAID architecture supports 48 bit LBA providing the ability to support current high capacity ATA disk drives, with the flexibility to support even higher capacities with Nexsan's proprietary ATAengine™ with soft-reconfigurable FPGAs. This technology also allows field updates of the ATA interface design and remote firmware updates, which are supported using FTP.

Correct Cost Enterprise Class Reliability

Nexsan's unsurpassed fault tolerance results from eliminating all potential single points of failure. The advanced hardware design of the ATAboy2 is supported by Nexsan's Extreme Intelligence software, NexScan™, providing sophisticated centralized management and monitoring of all InfiniSAN subsystems. Tele-Guard™, Nexsan's phone home manager, provides monitoring of all system conditions. Tele-Guard™ provides the vehicle to notify single or multiple system operators of any user defined, system triggered event. In addition to supporting on-line hot swap for critical components, the ATAboy2's unique diagnostics and error handling software monitors automatic failover initiation for all active components. The ATAboy2's built-in NexScan management is platform independent with an intuitive design that simplifies every installation.

High Performance Design

Designed to meet the challenges of the most demanding environments, ATAboy2 delivers unparalleled availability and performance in an ATA RAID device. With sustained throughput speeds of up to 170 MB/s per controller, ATAboy2 provides high performance across all standard platforms and operating systems. Quad SCSI or dual 2Gb fibre channel connectors (per controller) enable easy and flexible implementation into a wide range of environments. ATAboy2's unique combination of high performance and enormous capacity provides exceptional value that enhances all digital storage applications, such as live on-line data, digital film and video, nearline storage, security, audio, disk-based backup (D2D) and disaster recovery.

HIGHLIGHTS

- EnterpriseATA™ RAID built around the latest advanced ATA high-capacity disk drives.
- All mission critical components, including RAID controllers, are hot swappable and completely redundant.
- OS independent - No special software drivers required to connect to any host system.
- NexScan™, our platform independent Web enabled GUI, provides simple system configuration, event and component monitoring from any standard web browser.
- Multi-box capable - NexScan enables remote management and configuration of multiple arrays from a single GUI.
- High performance / High-density - ATAboy2 features 14 drives and up to 3.5TB in only 3u of rack space.
- Three Year Warranty - Advance Exchange, 24X7 Technical Support



Technical Specifications

ATABoy2

Host Interface / Connectivity	Ultra 160 SCSI / 1Gb and 2Gb Fibre
Controllers	Single Controller / Upgradeable to Dual Active-Active Failover / Cache Coherency
Drive Bay Size	14 Bay / 3U
Cache	128MB (Expandable to 512MB)
Battery Back-up	Yes
RAID Levels	0, 4 and 5
Sustained Data Rates	Up to 170 MB/sec per controller
Luns Supported	16 / 32
Power	2 PSU - 350W / 286VA
Cooling	Redundant Blowers

Configuration And Management

NexScan™ is our embedded web-enabled Graphical User Interface (GUI). The platform independence of the ATABoy series allows you to access your system from any standard Internet browser or from any host computer either directly connected or via a LAN or WAN with no software or patches required. You have the option of accessing the ATABoy via the RS-232 serial port or interface to an ANSI terminal or emulator.

- Real-time event, hardware and thermal monitoring dynamically presented.
- Performance statistics monitoring; event logging, rebuild and verify utilities.
- SAF-TE and SMART environmental monitoring support.

Advanced System Features

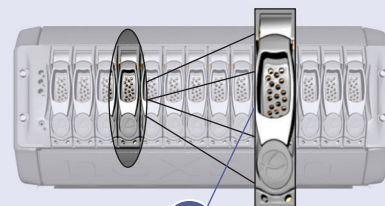
- Continual event monitoring with active user notification.
- On-line capacity expansion, No power cycling
- All major components hot-swap supported.
- Dynamic spare pooling and dedicated spares; array verification.
- Tele-Guard™ - Active/Dynamic phone home notification.
- Active array status monitoring; adjustable stripe width; automatic sector remapping.
- Write-back data cache memory bus, 800 Mbytes/sec bandwidth.
- User-settable priorities for dynamic array reconstruct, verify, create, and expand operations.
- LUN Masking on fibre channel model
- Multi-Box management feature to easily manage multiple ATABoy units.
- SNMP traps supported with unique Nexsan MIB
- Multiple RAID sets supported in a single unit.
- System security password protected.
- Serial port access - all system settings are stored in non-volatile flash memory in case of accidental power loss.
- Graphic display of enclosure layout including rack and tower orientation.
- Alarm status displayed on the events page directly translated from and associated with the occurrence.
- Auto re-scan initiates automatic system scans for real-time "Correct Status" reporting for all RAID arrays and connected disk drives.
- Parity Scrub / Array Verify scheduling - User defined automatic repair of all configured arrays.
- Show-Start - Displays captured start-up messages automatically at power up, restart or upon a user initiated kill/un-kill operation to graphically assist in trouble shooting incorrect configurations, set-ups, etc.
- SAN ready

Nexsan Technologies

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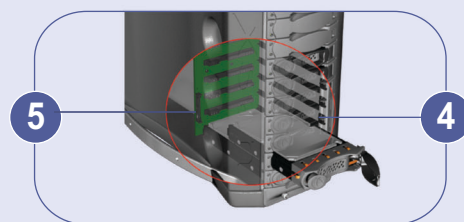
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1 The front door cam mechanism offers soft insertion and ejection of the drives to eliminate gyroscopic damage to the disc drive.

2 Each drive bay has its own auto-venting front door mechanism which maintains the thermal characteristics of the unit even when not fully populated with drives.

3 All units are cooled by incorporating high-pressure centrifugal blowers within the power modules. These have true RPM monitoring and predictive failure reporting. Redundant (N+1) power supplies are designed for RAID.

4 Anti-Rotational Vibration (ARV) drive guides absorb vibration on all three axis for maximum performance and reliability.

5 Multiple component modules dock into a passive midplane. This eliminates cables, offers plug-n-play configuration and a seamless upgrade path for technology advancements.

