A16S-G2130
A12S-G2130
A08S-G2130

Infortrend®

EonStor® SAS-to-SATA Series RAID Subsystem

Successors to SCSI-host Storage with Unrivaled Price/Performance Ratio

HIGHLIGHTS

Compact 2U-profile enclosure
Host ports: 2 or 4 Mini SAS 4x SFF-8088
Drive interface: SATA II (3Gbps)
Drive bays:
- **A16S-G2130: 16**
- **A12S-G2130: 12**
- **A08S-G2130: 8**

Benefits of SATA 3Gb disk drives:
- **Large capacity**
- **Lower cost per GB**

Hardware RAID5 and RAID6
S.M.A.R.T. and NCQ support
Fault-tolerant enclosure disign
- **Redundant power supply units**
- **Redundant fan modules**

Simple, feature-rich management via Java-based SANWatch software

A08S-G2130

A12S-G2130

A16S-G2130

OVERVIEW

The SAS-to-SATA series features extraordinary capacity-footprint and cost-per-GB ratios with no compromise on data protection. Coming in a cableless, backplane-based enclosure, the subsystem is driven by redundant, hot-swappable component pairs whose operation statuses are constantly available via comprehensive interfaces such as LCD screen, firmware utility, telnet console, browser-based or Java-based RAIDWatch software. Behind the robust hardware lies a firmware core that sums a decade of storage development. And hence the subsystem is at ease with all sorts of faults that might jeopardize RAID storage stability, be it related to thermal, hard drive behaviors, or sensitive application characteristics.

APPLICATIONS

Infortrend products are widely applied in disk-to-disk backup, server-attached and network data storage and in major industries such as data-mining, medical imaging, security/CCTV, and digital media including video-on-demand, stream editing and more.

High Availability
* Hot-swap enclosure modules
* Component redundancy
* Intelligent reactive & preventive mechanisms
  - Automated cache flush
  - Automated Media Scan
  - Auto rebuild on hot spares
  - Automated caching mode switch

Advanced RAID Features
* RAID levels 0, 1 (0+1), 3, 5, 6, 10, 30, 50, 60
* RAID Parity regeneration
* 64-bit LBA support
* 3 spare disk types: dedicated, global, enclosure-specific
* Instant array availability
* Stripe size and caching mode configurable per logical drive
* Online array expansion by adding drives or copying & replacing drives
* Online disk cloning

Management
* Java-Based SANWatch software
* LCD keypad panel
* Terminal console via RS-232 port
* Telnet

Monitoring
* SMART status pooling
* Voltage, module presence, temp. monitoring
* Automated FRU status pooling

Operation Robustness
* Intelligent read algorithms
* Write cache threshold purge
* Bad sector reassignment
* Configurable task priority
* Multiple, co-existing RAID arrays w/ stripe sizes ranging from 4K to 1MB
* RAID level migration
* RAID configuration on drives (drive roaming)

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AVAILABLE MODELS

Model	Controller	Host Port	Host Channel	Drive Bay
A16S-G2130	Single	4	4 via 4 SAS ports (4 PHYs per channel)	16
A12S-G2130	Single	2	2 via 2 SAS ports (4 PHYs per channel)	12
A08S-G2130	Single	2	2 via 2 SAS ports (4 PHYs per channel)	8

SPECIFICATIONS

CHARACTERISTICS

- RISC CPU
- ASIC400 RAID engine
- Default DDR cache memory 256MB
- SAS host ports 2 or 4
- BBU option
- LCD keypad panel 1
- COM ports 2
- 10/100 Ethernet port 1
- PSUs 2
- Cooling modules 3 (A12S) or 2
- Diagnostic LEDs on all FRUs

DRIVE INTERFACES

- No. of disk trays 16/12/ 8
- 3Gbps SATA-II

HOST CONNECTION PORTS

- Data single port bandwidth 12Gb/s
- Tag command queuing 1024

RAID CONFIGURATIONS

- RAID Levels 0, 1(0+1), 3, 5, 6, 10, 30, 50, 60
- Up to 32 logical drives (varied by memory size)
- Up to 64 LUNs (varied by memory size)
- Up to 2GB cache per controller
- Multiple array configurations
- Firmware-embedded or browser-based RAIDWatch
- Infortrend Smart, proactive fault management technologies

HIGH-AVAILABILITY

- Redundant, hot-swappable FRUs
- Subsystem self-diagnostics
- Parity regeneration and Media Scan scheduler
- Li-Ion battery backup unit
- UPS status detection
- Multiple Local, Global, and Enclosure-specific hot-spares

MANAGEMENT SOFTWARE

- Java-based SANWatch software
- Terminal via RS-232C
- Telnet over Ethernet
- LCD keypad panel
- Event notification methods
  - Email
  - Fax
  - LAN broadcast
  - SNMP traps
  - Cell phone message
  - Instant messengers

APPROVALS

- RoHS
- Microsoft WHQL-Windows Server 2003

EMC

- CE
  - EN 55022: 1998/A1: 2000/A2: 2003
  - EN 61000-3-2: 2000/A1: 2001
  - EN 61000-3-3: 1995/A1: 2001
  - EN 55024: 1998/A1: 2001/A2: 2003
- FCC (FCC Part 15, subpart B)
- BSMI (CNS 13438)

Safety

- UL (60950-1: 2003)
- BSMI
  - CNS 14336: 1993
  - IEC 60950-1, First Edition

OS SUPPORT

- Microsoft Windows 2000 Server
- Microsoft Windows 2003 Server
- Sun Solaris ver. 9/10
- RedHat Linux ver. 8/9, 64-bit, Enterprise ver.3
- SuSE: Linux ver. 8/9, 64-bit
- Fedora 64-bit
- Mac OSX ver. 10.4

REQUIREMENTS

- AC Input :
  100VAC to 240VAC with PFC (auto-switching)
- DC Output (2U):
  350W, 12V-25A; 5V-25A; 3.3V-20A
- DC Output (3U):
  530W, 12V-32A; 5V-32A; 3.3V-30A
- Relative Humidity :
  5 to 95% non-condensing
- Operating Temperature:
  0° to 40°C (without BBU)
  0° to 35°C (with BBU)

DIMENSIONS

- 2U (A12S/A08S), 19-inch rackmount chassis:
  - Chassis without handles:
    446 (W) x 88 (H) x 490 (D) mm
    (17.5 x 3.5 x 19.2 inches)
  - Chassis with handles:
    482 (W) x 88 (H) x 505 (D) mm
    (19 x 3.5 x 19.9 inches)

- 3U (A16S), 19-inch rackmount chassis:
  - Chassis without handles:
    445 (W) x 130 (H) x 488 (D) mm
    (17.5 x 5.1 x 19.2 inches)
  - Chassis with handles:
    483 (W) x 131 (H) x 504 (D) mm
    (19 x 5.1 x 19.8 inches)

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