

# EonStor<sup>®</sup> A04U-G2421

1U Profile, Single-controller  
4-drive, SCSI-320 to SATA-II RAID Subsystem



The A04U-G2421 subsystem is capable of RAID functionalities and performance that is exceptional for a 1U appliance. The embedded ASIC266 XOR engine frees your servers from I/O load and provides necessary protocols for data protection and resource consolidation. Featuring a wide variety of array configuration, maintenance, and monitoring capabilities, the subsystem is ideal for applications that require the connectivity of SCSI RAID, scalable storage, and dedicated performance.

The 1U subsystem provides four (4) hot-swappable drive bays for SATA-II disk drives, which allow you to build a reliable RAID5/3/1 or a performance-oriented RAID0 array. Our sophisticated firmware allows you to fully utilize the benefits of SATA-II disk drives such as their high capacity, fast sustained performance and affordable total cost of ownership.

**Infortrend<sup>®</sup>**

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## OVERVIEW

The A04U-G2421 storage subsystem is ideal for building a scalable and dedicated storage solution. The subsystem comes with one (1) SCSI-320 host channel and four (4) SATA-II drive bays in a smartly managed enclosure.

The A04U subsystem is built around solid hardware and is managed by a RAID engine that was originally designed for enterprise-class performance and availability.

## HIGHLIGHTS

- . SCSI-320 host channel; transfer rate up to 320MBps
- . SCSI IN and OUT ports enable the connection of multiple units to one SCSI bus
- . High performance single RAID controller providing complete Infortrend RAID functionalities and comprehensive features
- . Compact 1U 19" rackmount enclosure, in short depth – 511mm (20.11 inches)
- . Four (4) SATA-II, 3Gb drive bays; backward compatible with SATA-I
- . Efficient ventilation through the chassis
- . SATA NCQ (Native Command Queuing) support
- . Various comprehensive management tools and event notification methods
- . 750GB-disk supported, providing up to 3TB raw capacity or 2TB when 500GB disks are used
- . Ideal solution for server hosting, web hosting, telecommunications, CCTV monitoring, disk-2-disk backup...etc, where the rack space/depth are limited and the budget is the key consideration

### RELIABILITY

Infortrend's RAID subsystems are renowned for a complete list of RAID configuration choices in terms of RAID levels, performance-tuning, and intelligent fault management. A configured RAID array is not only protected by disk redundancy, but also by the rich variety of protection features ranging from media error recovery to the management of faulty components.



Combined with Infortrend's seamless firmware features, high sustained performance and high capacity capability, the EonStor A04U-G2421 offers highly affordable entry-level storage, in a 1U chassis.

With its compact dimensions and affordable price, the entire RAID Subsystem can be easily replaced at the installation site when needed, for off-site maintenance.

### AVAILABILITY

Throughout the last decade, our sophisticated firmware core is now running over a million RAID arrays around the world, in numerous applications and harsh environments, hence proving the high availability of the Infortrend RAID products.

### MANAGEABILITY

One or many A04U-G2421 RAID arrays can be managed through RS-232 terminal, a Java-based software, or an HTML session invoked by a browser over network. With convenient ways to monitor the subsystem, an administrator of the A04U-G2421 is constantly aware and automatically notified of subsystem status. The subsystem comes standard with a D-SUB 9 serial port and an RJ-45 Ethernet port for local or remote management over simple telnet protocol, HTML, or graphically via Java.

Managing several computer rooms full of Infortrend RAID subsystems has never been so easy. The included Central Management function allows multiple RAID subsystems to be monitored and managed on one single screen – anywhere on your network. With the help of smart algorithms, management software, and choices of management interfaces, system maintenance is easy and is completed with least effort.



## INFOTREND SMART TECHNOLOGIES

Derived from more than ten years experience in RAID storage design, Infortrend's innovative firmware delivers Smart Technologies that provide enhanced storage solutions for every customer environment, from small organizations to large enterprises. These technologies enhance I/O processing, drive handling, and system management.



## MAJOR MARKETS AND USES

Infortrend products are used in server-attached and networked data storage environments in major industries such as medical imaging, multi-media on demand (MOD), and digital media including video-on-demand, stream editing and many others.



### IOSmart

The IOSmart technologies consist of specific functions and configuration options that control various I/O characteristics in order to meet the rapidly increasing requirements of today's applications. The functions include adaptable strip size, adaptive write policy and guaranteed latency I/O which improve sequential write performance and ensure the fast and continuous flow of data.

### DrvSmart

The DrvSmart utility provides an easy way to store data while keeping it safe. One of the main DrvSmart functions, Media Scan, retrieves data from degraded or damaged hard drives and handles low quality drives in both the degraded mode and during the rebuild process. Other DrvSmart features include disk cloning, drive roaming, SMART, transparent resetting of non-responsive hard drives, and RAID parity update tracking and recovery.

### SysSmart

SysSmart combines enclosure monitoring and firmware management capabilities to minimize the chance of downtime caused by hardware failures. The auto data protection mechanisms were developed to ensure data safety. Other SysSmart functions include event-triggered as well as other monitoring utilities and approaches combined with the powerful RAIDWatch manager. Component status, voltage and temperature readings, and system events are instantly revealed through the manager's graphical interface.

## SPECIFICATIONS

### SUBSYSTEM CHARACTERISTICS

- 400MHz RISC CPU, 256KB L2 cache
- ASIC266 RAID engine
- DDR cache memory per controller 256MB
- SCSI-320 host channel 1
- LED panel 1
- COM port 1
- 10/100 Ethernet port 1

### DRIVE INTERFACE

- Number of disk trays 4
- SATA-I/II drives support

### HOST INTERFACE

- VHDCI SCSI port 2
- Data single channel bandwidth 320MBps
- Tag command queuing
- Multiple target IDs

### RAID CONFIGURATIONS

- RAID levels 0, 1(0+1), 3, 5, 10, JBOD
- Max. 4 logical drives
- Max. 128 LUNs
- Multiple array configurations
- Automatic background rebuild
- Infortrend Smart Technologies

### HIGH AVAILABILITY

- Subsystem self-diagnostics
- Hot-spare disk drives

### MANAGEMENT SOFTWARE

- RAIDWatch GUI software
- Terminal via RS-232C
- Telnet over Ethernet
- Event notification methods
  - Email
  - Fax
  - LAN broadcast
  - SNMP traps
  - Cell phone message SMS
  - Instant messengers MSN

### OS SUPPORT

- Microsoft Windows XP
- Microsoft Windows 2000 Server
- Microsoft Windows 2003 Server
- Sun Solaris ver. 8/9
- RedHat\_Linux ver. 8/9, Enterprise ver.3
- SuSE Linux ver. 8/9

### REQUIREMENTS

- AC Input 100VAC ~240VAC with PFC (auto-switching)
- DC Output 12V-12A; 5V-15A; 3.3V-15A
- Relative Humidity 5% to 95%, non-condensing
- Operating Temperature 0°C to 40°C

### DIMENSIONS

- 1U, 19-inch rackmount chassis
- Without handles: 445 (W) x 43.5 (H) x 511 (D) mm (17.5 x 1.7 x 20.1 inches)
- With handles: 478 (W) x 43.5 (H) x 511 (D) mm (18.8 x 1.7 x 20.1 inches)



**SPARE PARTS & ACCESSORIES**



**SPARE PARTS**



Description	Model Name
Drive tray, Type-III bezel and Type-II LED lightpipe	IFT-9273CDTray

**ACCESSORIES**



Description	Part Number
Dummy Drive tray, Type-II bezel	IFT-9272CDTrayDmy



SCSI external round cable, DB68 to VHDCI	IFT-9270UHSTCAB
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SCSI external round cable, VHDCI to VHDCI * One included in the shipping package	IFT-9270UJBODCAB
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RS-232C serial cable, audio-jack to DB9 * One included in the shipping package	IFT-9270ASCab
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Null modem, DB9 female to DB9 male, wires swapped * One included in the shipping package	IFT-9011
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Slide rail assembly, for ES 1U-4bay subsystem, 24" to 36" rack depth	IFT-9277CSlider36
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