Reliable Secure Innovative

SPARE PARTS & ACCESSORIES

Spare Parts

Description	Part Number
SCSI-to-SATA RAID controller, 2 x SCSI-320 dual-stacked VHDCI host connectors, hardware RAID6, and RoHS-compliant	IFT-7470S-16U4D
Drive tray, Type-III bezel and Type-II LED lightpipe	IFT-9273CDTray
Power supply, 530W capacity	IFT-9273ECPSU
Cooling fan	IFT-9273ECFanMod
Left-side forearm handle w/ an LCD keypad panel	IFT-9273CHandLLCD
Right-side forearm handle	IFT-9270CHandR
256MB DDR DIMM module	IFT-DDRESCM2
512MB DDR DIMM module	IFT-DDRESCM5
1GB DDR DIMM module	IFT-DDRESCMA

Accessories

Description	Part Number
Dummy Drive tray, Type-II bezel	IFT-9272CDTrayDmy
SCSI external round cable, DB68 to VHDCI	IFT-9270UHSTCAB
SCSI external round cable, VHDCI to VHDCI (* One included in the shipping package)	IFT-9270UJBODCAB
Li-ION battery module, 4-cell, life-expectancy aware	IFT-9273CBTE
RS-232C serial cable, audio-jack to Db9 (* One included in kit)	IFT-9270ASCab
Serial cable to UPS, audio-cable to DB9	IFT-9270CUPSCab
Null modem, DB9 female to DB9 male, wires swapped (* One included in kit)	IFT-9011
Slide rail assembly, for ES 3U subsystem, 23" to 36" rack depth	IFT-9273CSlider36
Slide rail assembly, for ES 3U subsystem, 23" to 32" rack depth	IFT-9273Cslider32

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ES_A16U-G2430_PRN_PDS_V1.4

EonStor® A16U-G2430

3U Profile, Single-controller
16-driver, SCSI-320 to SATA-II RAID Subsystem

The A16U-G2430 subsystem is capable of RAID functionalities and performance that IT managers will find attractive in a wide range of applications. The embedded ASIC400 XOR engine comes with the highest redundancy RAID6 functionality. With a dedicated XOR, dual PCI-X busses, adaptive I/O and caching policies, the subsystem easily sustains high throughput and is capable of handling I/Os of various characteristics.

Throughout a decade of RAID storage design, Infortrend has developed many configurable features that help adapt RAID storage to applications ranging from multimedia playback to small-block database transactions.

Featuring fast hardware and a wide variety of array configuration capabilities, the subsystem is ideal for applications that require the reliability of SCSI RAID, expansion options, or simply dedicated performance.

The 3U subsystem provides sixteen (16) hot-swappable drive bays for SATA-II disk drives, from which you can build high redundancy RAID6/5/3/10 or high performance RAID0 arrays. Our sophisticated firmware allows you to fully utilize the benefits of SATA-II disk drives such as the fast drive-level performance by the 8MB drive buffer and by the Native Command Queuing protocol.

OVERVIEW

The A16U-G2430 storage subsystem is ideal for building a dedicated and scalable storage. The subsystem comes with two (2) SCSI-320 host channels and sixteen (16) SATA-II drive bays in a smartly managed enclosure. Unlike subsystems made by SIs or solution providers, the subsystem is thoroughly tested in our laboratories with the support of extensive knowledge starting from disk drive behaviors to I/O characteristics. The A16U subsystem is built around solid hardware and is managed by a RAID architecture designed for enterprise-class performance and availability.

HIGHLIGHTS

- **Market leading I/O performance**
  - **Sustained RAID5 Read/write: 566/484MB/s**
  - **Sustained RAID6 Read/write: 566/426MB/s**
- **SCSI-320 host channel; transfer rate up to 320MBps**
- **Single RAID controller providing complete RAID functionalities**
- **ASIC400 architecture with hardware RAID5/6**
- **Compact 3U 19" rackmount enclosure**
- **Sixteen (16) SATA-II, 3Gb drive bays; backward compatible with SATA-I**
- **Proactive measures with enclosure management**
- **SATA NCQ (Native Command Queuing) support**
- **Various comprehensive management tools and event notification methods**
- **Optional, hot-swappable, life expectancy aware battery backup unit**
- **Windows Server 2003 certified**

Reliability

Infortrend's RAID subsystems are well-known for a complete set of RAID configuration choices in terms of RAID levels, performance-tuning options, and intelligent fault management. A configured RAID array is not only protected by disk redundancy, but also the rich variety of protection measures that include media error recovery and the proactive measures dealing with faulty components.

Availability

Our sophisticated firmware core runs a million RAID arrays around the globe, in numerous applications and harsh environments. Due to its efficiency and smart management, higher hardware MTBF is achieved. Numerous firmware tasks, such as Media Scan, initialization, and parity regeneration, can run simultaneously in the background with configurable priorities. As a result, data or drive media faults can be managed before disaster strikes, on the other hand, downtime is minimized.

Manageability

One or many A16U-G2430 RAID arrays can be managed through RS-232 terminal, a Java-based SANWatch software, or an HTML session invoked by a browser over network. With convenient ways to monitor the subsystem, an administrator of the A16U-G2430 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.

With the help of smart algorithms, management software, and choices of management interfaces, maintenance is easy and is completed with least effort.

INFORTREND SMART TECHNOLOGIES

Infortrend's innovative firmware delivers Smart Technologies that provide enhanced protection in every customer environment, from small organizations to large enterprises. These technologies facilitate the efficiency with I/O processing, drive handling, and fault management.

IOSmart

The IOSmart technologies consist of specific configuration options that control various I/O characteristics in order to meet the rapidly increasing demands by today's applications. The functions include adaptable stripe size, adaptive write policy and guaranteed latency I/O which improve sequential write performance and ensure fast and efficient data flow. The AV optimization options provide means to adapt to applications with different outstanding I/Os.

DrvSmart

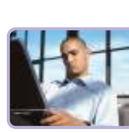
The DrvSmart utility provides an easy way to store data while keeping it safe. One of the main DrvSmart functions, Media Scan, retrieves data from degraded or damaged hard drives and handles low quality drives in both the degraded mode and during the rebuild process. Other DrvSmart features include disk 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 like raising the rotation speed of thermal fans to compensate the loss of ventilation with a faulty fan. Other SysSmart functions include event-triggered as well as other monitoring utilities and approaches combined with the powerful RAIDWatch manager. Component status, voltage/temperature readings, and system events are instantly revealed through the manager's graphical interface.

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 more.



SPECIFICATIONS

Subsystem Characteristics
- 600MHz RISC CPU, 256KB L2 cache
- ASIC400 RAID engine
- RoHS-compliant
- Default DDR cache memory 256MB
- SCSI-320 host channel 2
- LCD keypad panel 1
- COM ports 2
- 10/100 Ethernet port 1
- PSU 2
- Cooling module 2

Drive Interface
- Number of disk trays 16
- NCQ support
- Drive buffer utilization

Host interface
- Dual stacked VHDCI port 2
- Data single channel bandwidth 320MBps
- Tag command queuing
- Multiple target IDs

RAID Configurations
- RAID levels 0, 1(0+1), 3, 5, 6, 10, 30, 50, 60, JBOD
- Max. 32 LDs (varied by memory size)
- Max. 1024 LUNs (varied by memory size)
- Multiple array configurations
- Drive Roamung & Cloning
- Automatic background rebuild
- Infortrend Smart Technologies

High Availability
- Proactive measures against HW faults
- Subsystem self-diagnostics
- Hot-spare disk drives

Management Software
- Java-based SANWatch software
- Web-based embedded RAIDWatch
- Terminal via RS-232C
- Telnet/SSH
- Event notification methods:
  - Email
  - Fax
  - LAN broadcast
  - SNMP traps
  - Cell phone message SMS
  - Instant messages MSN

OS Support (For the latest compatibility details, please contact our sales representatives)
- Microsoft Windows Server 2003
- Microsoft Windows Server 2008
- Microsoft Windows Server 2008 R2
- Sun Solaris
- Red Hat Linux
- SUSE Linux
- Mac OS X

Requirements
- AC Input:
  100 ~ 240VAC with PFC (auto-switching)
- DC Output:
  12V-32A; 5V-32A; 3.3V-30A
- Relative Humidity:
  5% to 95% non-condensing
- Operating Temperature:
  0°C to 40°C (without BBU)
  0°C to 35°C (with BBU)

Dimensions
- 3U, 19-inch rackmount chassis
- Without handles:
  445(W) x 130(H) x 511(D) mm
  (17.5 x 1.7 x 20.1 inches)
- With handles:
  478(W) x 131(H) x 511(D) mm
  (18.8x 1.7 x 20.1 inches)