

# EonStor™ U16U-G4010

## 3U profile, 16-drive SCSI RAID Subsystem



**ULTRA320**  
SCSI

Delivering unprecedented performance and reliability the 3U EonStor U16U RAID subsystems integrate Infortrend's highly acclaimed SCSI-to-SCSI RAID controllers with a wide range of 16 hot-swappable, high-performance, industry-standard SCSI-320 drives in a single, uniquely designed, highly accessible storage enclosure that is able to endure the extreme physical stresses placed on storage subsystems today.

Two models, the EonStor U16U-G4010-4 and EonStor U16U-G4010-6, are both featured with two SCSI-320 host channels, and two SCSI-320 drive channels. The EonStor U16U-G4010-6 model additionally has two SCSI-320 expansion channels. Both models have an embedded SCSI-320 controller that ensures superior performance, extreme reliability and exceptional data availability.

Equipped with two fully redundant, hot-swappable cooling fan modules and two fully redundant, hot-swappable power supply units, the uniquely designed 19-inch rack mountable enclosure has been customized to perform in the most rigorous storage environments where data availability and durability is an imperative.

### **Architecture**

Based on an architecture designed for the most demanding applications, the subsystem is capable of very high levels of performance. Its 64-bit separate-bus backbone is built around dedicated XOR engines running at twice the data bus speed. The calculation of parity and distribution of data can be optimized with the free association between individual logical arrays and different optimization modes.

### **High Performance**

Featuring a 64-bit 133MHz memory bus, the unparalleled bandwidth makes the subsystem's high data throughput more than sufficient for small-to-medium sized servers or workstations. Data can be distributed at the burst rate up to 1066MB/sec. The dual independent PCI bus design virtually eliminates all imminent bottlenecks on IO traffic, providing sufficient throughput for a wide range of applications on workstations, Windows 2000/NT/XP, Linux, or Unix-based servers. These applications

include disk-to-disk backup, Video on Demand, CCTV, stream editing and others.

### **Intelligent Drive Handling**

Media Scan is an innovative Intelligent Drive Handling function that can be used for data retrieval from degraded or damaged hard drives. If two bad blocks occur on two member drives of an array, the integrity of the stored data will be endangered. Intelligent Drive Handling capabilities can be used to retrieve data from the damaged sectors. Media Scan is able to handle low quality drives in both the degraded mode and during the rebuild process. Other intelligent drive management features, which provide further data security, include the transparent resetting of non-responsive hard drives, Power-failure management and bad drive handling during LD expansion.

## **Features and Benefits**

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**Two SCSI-320 Host Channels; Transfer rate up to 320 MB/sec for each channel.**

**Two SCSI-320 Drive Channels; each channel attached to eight drives. Transfer rate up to 320MB/sec for each channel.**

**Two SCSI-320 Drive Expansion Channels on 6 channel models; Transfer rate up to 320MB/sec for each channel.**

**Multiple Logical Drive configurations, each with a different RAID level**

**Auto detection, auto rebuild, hot spare, and hot swap capability**

**LUN Filtering RAID-based and centralized access management in SAN**

**Intelligent Drive Handling: for managing bad blocks during rebuild and the manual Media Scan function for data maintenance**

**Up to 64TB per LD**

**Up to 1GB SDRAM**

**Variable rebuild priority to meet a variety of applications**

**Auto Switch Cache Policy and Auto Shutdown**

**RAIDWatch™: Browser-based GUI Manager on all major platforms**

## **Specifications**

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### **RAID Controllers**

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State-of-the-art 400 MHz RISC Processor with 256 kB embedded L2 cache

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Infotrend Proprietary ASIC133 with XOR engine and ECC inside

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Standard 128 MB ~ 1 GB cache memory in one SDRAM with optional BBU

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LCD controller panel interface

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System Fan Speed, Voltage, and Temperature self-monitoring

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One RS-232C DB9 serial ports for text mode management

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One 10/100Mbit/sec Ethernet Port

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32kB NVRAM with RTC (Real Time Clock)

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Beeper

### **RAID Operation**

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Drives            Up to 16x Ultra320 SCSI HDD

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Hosts            2x Ultra320 SCSI

RAID Level 0, 1, 0+1, 3, 5, 10, 30 and 50, NRAID, JBOD

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Multiple RAID selection

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Hot-spare drive operation

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Drive hot-swapping

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Automatic background rebuild

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Online drive expansion

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Intelligent drive handling

### **Controls and Indicators**

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Front LCD control panel for setup and configuration

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LED indicators for power, battery, controller, and other system operation status

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Component failure indication through LCD, RS-232C, and GUI

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Built-in beeper / alarm mute button

### **Management Software**

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System monitoring via out-of-band Ethernet

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RAIDWatch™ manager software for all major platforms via an Ethernet port

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Firmware-embedded manager via RS-232C (Audio Jack), platform independent

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### External Connections

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Two mini SCSI ports for external connection

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One connector for RS-232C DB9 serial port (38400, n, 8, 1)

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One RJ45 Ethernet port

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### Power Supply

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2 redundant hot-swappable power supplies with PFC

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Input: 90-260VAC, 47-63 Hz

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Output: @5V (25A max.), 12V (32A max.), 3.3V (20A max.)

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### Cooling Fan

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Two separate cooling modules each with 2 individual fans

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### Environmental

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Operating Temperature: 0° to 40°C

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Relative Humidity: 5-95%, non-condensing

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Altitude: Sea Level to 10,000ft

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### Dimensions

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131 x 446.2 x 500 mm (H x W x D) - Standard 19" Rackmount with 3U