



# Technical Specifications



# 3U16Bay S-ATA

# DemonRAID

Model	U3	FC
RAID Engine	Intel i80303 64bit RISC CPU	
RAID Levels	0, 1, 3, 5 or 0+1	
Cache Support (Write back)	Up to 512Mbytes with ECC 144pins SDRAM Memory	
System Type	Rack mountable	
Host Interface	Dual Ultra 160 SCSI Channels	Dual loops 2Gb Fibre Channels, Standard SFP connectors
Host Transfer Rate	160MB / Sec per channel	2Gb / Sec per loop
Disk Interface	SATA - 1.5Gbps	
Disk Channel	Sixteen SATA - 1.5Gb Disk Channels	
LCD Display	2 Lines by 16 Characters	
Hot Swap and redundant	Yes (Power Supply, Drive and Fan).	
Hot Spare	Yes (Drive).	
Battery Back-Up Module	Optional, Support up to 72hrs battery back - up time (N.A.)	
UART - LAN	Optional, Windows - Based GUI RAID manager designed for SCSI / FC host based RAID solutions. The OS - independent, cross-platform RAID management allows configuration and status monitoring via standard web browsers or host computers either directly connected to a LAN or WAN.	
FC Hub Adaptor	Optional, Connecting each RAID systems with in - build FC hub adaptors, provides the greater extension availability. <b>No need for extra External FC Hub or Switch.</b>	
Array Management Support	Yes.	
Automatic Bad - Sector & Error Recovery	Yes.	
Automatic Drive Rebuilds	Yes. Automatic Data rebuilds.	
Audible Alarm, Pager and Fax Notification	Yes. The Pager and Fax Notification have to connect a external modem.	
Remote Terminal Configuration	Yes. Through RS - 232 emulation terminal.	
Operating Systems	O/S Independent and Transparent	
Power Supply	700 + 350 watts Redundancy high quality power system, three 350 watts module with PFC function. Load sharing type and cableless design.	
Electrical	AC Voltage 100 - 240 VAC Ac Frequency 47 - 63Hz	
Temperature	Operating Temperature : 5 to 45 degree C. Non Operating Temperature : - 40 to 60 degree C.	
Relative Humidity	20% to 80% non - condensing	
Dimensions	446.4 (W) * 446.6 (D) * 3U (H)	
Weight	28KG	

## SCSI / FC - IDE RIAD System

▶▶ DemonRAID SATA series are AXUS advanced high density SATA RAID subsystems. DemonRAID SATA series are designed to offer high reliability, incredible performance and costless alternative to high cost Fibre - Fibre and/or SCSI - SCSI RAID subsystems. The SA - 16U3/FC subsystems support either SCSI-160 or 2Gbps Fibre channels host connections, and utilize cost-effective SATA drives with simplified storage setup and management process making it ideal for small to mid - sized servers or workstations and various applications including data backup, media streaming, video on demon, CCTV etc



\*Specification subject to change without notice, all trademarks or registered trademarks are properties of their respective owners.



**AXUS Microsystems Inc.**

12F., No. 800, Chung Cheng Rd., Chung Ho City Taipei Hsien, Taiwan, R.O.C.

Tel:+886-2-3234-8686 Fax:+886-2-3234-1515

www.axus.com.tw

# Outstanding Performance

## Outstanding Performance

Demon S-ATA RAID uses high performance Intel i80303 64bit RISC processor and intelligent cache system which supports up to 512Mbytes SDRAM for data caching, and to simultaneously distribute multiple requests from the host computer to connected EIDE hard drives through high speed serial data transfer.

The unique Demon array management firmware utilizes multitasking real-time kernel technology to allow higher efficiency in data transfer.

"Single drive per independent channel" architecture provides high sufficient data throughput per channel and eliminates overhead disk multitasking in order to increase the data transfer.



## High Reliability

Aluminium device carrier for heat dissipation and emissions protection.

Cable-less design, utilizes solid PCB and connectors instead of cables to improve the signal quality and the system reliability.

High quality power system, three of full 350 watts capacity power modules which bundles with the PFC function.

Implementing a Micro switch on the carrier to cut off the DC power during hot swapping disk to protect the IDE signals.

Demon S-ATA supports optional battery back up module to avoid the data loss due to the sudden loss of power.

## Greater Capacity

Demon S-ATA supports up to 16 drives, and a maximum capacity of 64 TB. Demon S-ATA supports On-Line-Expansion function that allows you to add drives to existing array, and re-strip the data across to all the drives.



## Low Cost of Ownership

Supporting Fibre Channel or Ultra-160 SCSI host connection and utilizing the cost-effective IDE drivers which simplifies the storage setup process to make a smart choice for many kinds of purpose.

### 1. Special AC power latch

A special latch design on AC inlet to protect the AC power cord that may accidentally fall off from the inlet connector.

### 2. Device Carrier

Demon RAID Systems are designed to offer highest product quality and reliability which is equivalent to a complete industry safety standard and our customers. One of our many unique product advantages is the AXUS device carrier. It is designed and made with aluminum materials for greater heat dissipation and emissions protection. We also implement a Micro switch on the carrier to cut off the DC power during disk hot swapping to protect the IDE signals. Our complete Cable-less design, utilizes solid PCB and connectors instead of cables to improve the signal quality and most of all, the system reliability.

### 3. UART to LAN

Demon RAID proudly announces the new release of a special feature: UART to LAN function. It provides an TCP/IP based out-band management for your RAID systems. UART to LAN connects to the RAID system via a UART port and provides remote management functionalities to the subsystem over the networks via the Ethernet port. It also provides local UART ports for users who need to manage the RAID via the text-mode console.

### 4. Integrated (Build-in) FC-Hub

The throughput and distance of fibre channel technology translates into increased flexibility for today's storage area networks (SANs), online transaction processing applications, and other installations where data availability and reliability are paramount. With the AXUS integrated (Build-in) Fibre Channel - Arbitrated Loop (FC-AL) Hub, you can set up campus and metropolitan SANs that have widely separated nodes. AXUS enables you to achieve much more with less effort and we once again builds upon its best-in-class industry reputation.



## Considerable Availability

Advanced algorithms providing RAID levels 0,1,3, 5 or 0+1 option, so you can benefit from either the performance and availability of RAID 0+1 or the capacity and economy of RAID 5.

Providing redundancy power / cooling fan systems which tolerates a mains failure without interrupting services.

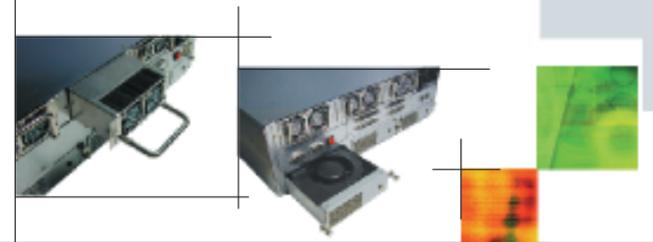
Hot swapping of disk drive / cooling fan/Power supply. Hot swap design allows for easy swap out of faulty parts without the loss of service from RAID.

IDE disks in a single disk per channel configuration lower the risk of failure.

Hot spare for stand-by disk drive. When a hard disk drive error occurs on any of the hard drives, this on-line hot spare disk drive automatically takes over for the failed disk drive leaving you with hand free support.

Automatic drive failure detecting & Automatic drive online rebuilding enables you to replace the hard drive without having any operations or commands. It transfers data into the replaced hard drives automatically.

Independent Operating Systems. No Matter it is Windows Me / 98, Windows 2000, Windows NT, XP, NOVELL, UNIX or Macintosh are compatible and transparent to our subsystems.



## RAID Configuring Management :

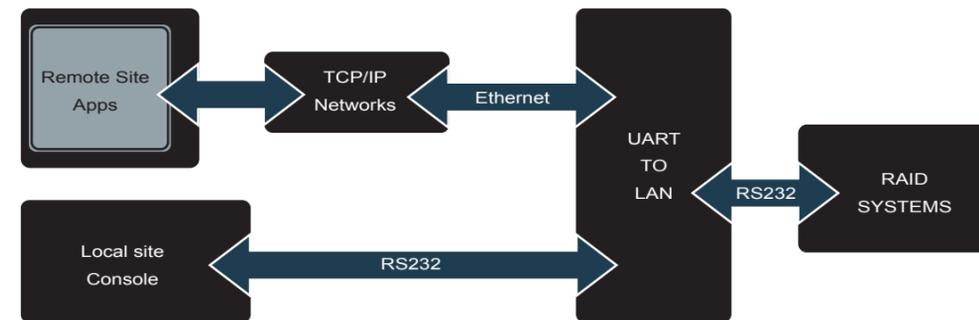
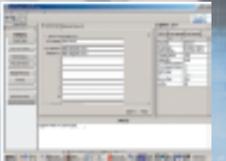
- All the standard functions are included in the Control Panel on Front / Monitor Utility.
- Connecting via RS-232 or LAN port (Host computer to AXUS Demon RAID)
- "Web access" can be set as "Enable" or "Disable" to control the access right of RAID re-configuring.

## RAID health Monitoring :

- Displaying the system information of Demon RAID.
- Monitoring the status of Physical Hard Drive.
- Reporting the status of Power supply, UPS, Fan and Temperature.
- Connecting via either RS-232 LAN port or SCSI interface.

## Critical Event Notification :

- Automatically sends the event report by E-mail.
- Supporting up to 10 E-mail address



RAIDCare Storage Manager, a user-friendly graphical management tool, provides a comfortable interface to configure and monitor the AXUS Demon RAID subsystems from anywhere using standard Web browser via a TCP/IP agent on the Host Computer. This friendly interface not only enables the user to monitor and maintain the Demon RAID, but also provides advanced functionalities such as "Critical event notification" to report the event via E-mail.

There are two major components in the architecture of RAIDCare system, one of them is "Monitor agent", every Host computer connects to the Demon RAID has to install this component for monitoring Demon RAID's real-time health status, responding to any abnormal event, and accepting manager's request to reply RAID's information or re-configuring the RAID. Another counterpart is called "Manager Client", "Manager Client can be any PC with TCP/IP communication or Java Manager, a user interface, which displays the RAID's information and provides user functions to submit commands to re-configure the RAID. We also provide the web interface for managing the RAID.