

RAID-500UW/U2 19" Rackmount RAID Storage Subsystem



Features

- Up to eight half-height disk cartridges
- 300 W redundant hot-swap power supply
- Two 49 CFM cooling fans
- Ultra2 Wide/Ultra Wide SCSI interface
- Hot-swap, auto-rebuild, hot-spare
- Online capacity expansion
- Supports RAID levels 0, 1, (0+1), 3 or 5
- Advanced fault detection and alarm notification for power, fan and overheating

Host-independent

The RAID-500UW/U2 disk array is a stand-alone subsystem. Handling the RAID-500 is as easily as handling a single SCSI HDD. It can be driven by any standard Ultra Wide SCSI adapter card, with no compatibility problems.

The independent storage system provides high data availability. For multiple system host applications, even if one of the system hosts fails, the storage system continues to function as normal.



The RAID controller provides four operation buttons and an LCD display window for users to easily configure the RAID parameters.

Hot-swap, Auto-rebuild, Hot-spare, On-line Spare

The RAID-500 Series provides several configurations designed for high data availability. The failed HDD can be hot-swapped and replaced with a new HDD. The system will dynamically reconfigure the drives and auto-rebuild the lost data in the background, with no need for rebooting.

Users can specify some of the HDDs as spare in advance, thus enabling the RAID-500 to use the spare HDDs to recover data automatically (hot-spare). Other functions include hot standby and auto drive failure detection.



The RAID-500 UW/U2 comes with a 300 W hot-swap redundant power supply providing greater reliability and maximized uptime.

Fault Detection and Alarm Notification

The RAID-500UW/U2 automatically detects the chassis' status, including power failure, fan failure and overheating (over 65° C) of the chassis. Audible and visual alarms enable users to locate the problem immediately.



Ideal heat-dissipation disk cartridge

The disk cartridge chassis of the RAID-500UW/U2, being made of aluminum, does not heat up as much as other material. It delivers ideal heat-dissipation for stable operation.



Comparison of RAID-500UW & RAID-500U2

Specification	RAID-500UW	RAID-500U2
Interface	Ultra Wide SCSI	Ultra2 SCSI
Data Transfer	40 MB/sec	80 MB/sec
Cabling Interface	Single-ended	LVD
Cable Length	1.5 m	12 m
Maximum Devices	8	16

Specifications

Enclosure

- **Construction:** Heavy-duty steel chassis
- **Disk cartridge:** 8 front-accessible half-height drives
- **Power supply:** 300 W AC redundant hot-swap power supply
- **Cooling fan:** Two 49 CFM cooling fans
- **LED indicator:** LED indicator for power failure, fan failure and over heating
- **Drive indicator:** Two indicators for drive data access and failure
- **Fault detection:** Advanced fault detection and alarm notification for power failure, fan failure and overheating

RAID Controller

- **RAID level:** 0, 1 (0+1), 3 or 5
- **Interface:** Ultra Wide (RAID-500UW)/ Ultra2 (RAID-500U2) SCSI (68-pin connector)
- **LCD status:** Indicator on front panel
- **SCSI channels:** 4 (up to 8 optional channels)
- **Data cache:** 16 MB DRAM

Power Supply: Redundant AC input 300 W

Input: 90 ~ 132 V AC or 180 ~ 264 V AC switchable

Output: +5 V @ 32 A, +12 V @ 11 A
-5 V @ 1 A, -12 V @ 1 A

Mini-load: +5 V @ 3 A, +12 V @ 1 A

MTBF: 100,000 hours

Safety: UL/CUL/CE/TUV

Expansion Tips

The on-line expandability and storage scalability of the RAID-500UW/U2 will save you time and give you the flexibility to easily upgrade and scale your system whenever required. This gives efficient and predictable growth to meet the demands of even the fastest-growing applications.

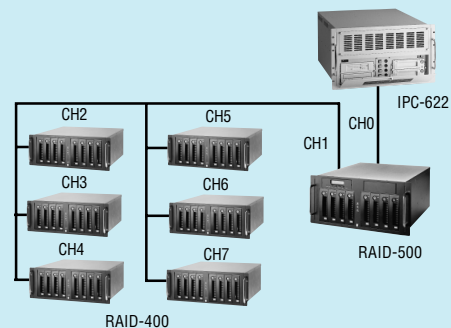
On-line Expansion for Single RAID-500UW/U2 Unit

New HDDs can be added to the RAID-500UW/U2 spare disk cartridge on-line and can be scanned and identified automatically. The system will update the configuration in the background.



Scalability for Huge Capacity RAID subsystem

To upgrade your system, the RAID-500UW/U2 provides 8 optional SCSI channels for connecting multiple drives. Each SCSI channel supports up to 8 drives, enabling you to expand your system up to 56 drives!



RAID-400: Expansion Enclosure



The RAID-400 is the ideal choice as your drive expansion enclosure. Only 4U in height, it offers high storage capacity and greater storage density.

RAID-500UW/U2

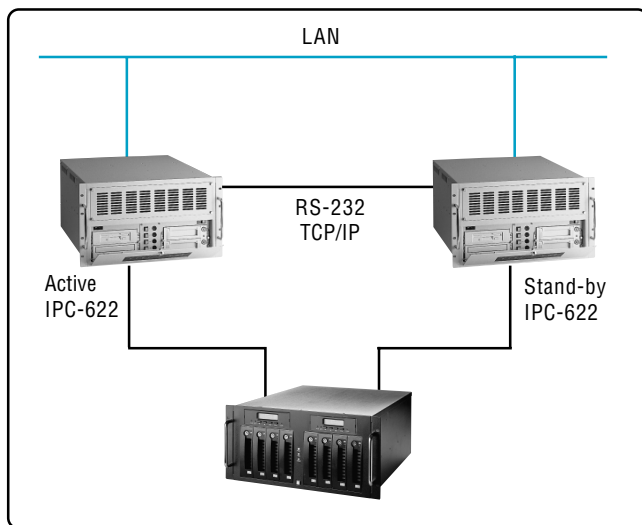
High-end RAID configuration for non-stop systems

More and more applications require high-availability solutions for non-stop systems. Systems, such as in computer telephony and network servers, must be capable of operating around the clock without fail. Here is how Advantech's IPC and RAID-500/400 series deliver server-level fault-tolerance, reliability and availability.

Redundant host - NT clustering systems

The dual-host clustering solution keeps server-based applications highly available, regardless of individual host failures.

The RAID-500 Series can be connected to two network NT servers simultaneously, and configured as two active servers (mutual backup) or as hot-standby servers (one active and one backup). It protects your servers and data storage from component and application failures.



Redundant controller - RAID controller upgrade

The RAID-500UW/U2 also supports a hot-swap, redundant RAID controller. Both controllers are attached to the drives in an active-standby mode. If the primary controller fails, the secondary controller immediately assumes command of the drive array with no interruption to operation or loss of data. The two controllers can monitor each other's status.

This configuration delivers higher protection from controller failure and data loss.



The above special configuration is not a standard offer of Advantech. Please contact our regional applications engineer or visit our website: www.advantech.com/support for further information.



	RAID-500U2	RAID-500UW	RAID-500M	RAID-500	RAID-400M	RAID-400
RAID Controller	Yes	Yes	No	No	No	No
SCSI Interface	Ultra2	Ultra Wide	---	---	---	---
RAID Level	Level 0, 1 (0+1), 3 or 5		---	---	---	---
SCSI Bandwidth	80 MB/sec	40 MB/sec	---	---	---	---
SCSI Cable	LVDS	Single-end	---	---	---	---
DRAM for RAID Controller	16 MB	16 MB	---	---	---	---
Disk Cartridges Installed	8	8	8	0	8	0
Redundant Power Supply	Hot-swap, 300-watt, AC to DC, power on/off switch on each power module Output voltage: +5 V @ 32 A, +12 V @ 11 A ; Min. load: 5 V @ 3 A, +12 V @ 1 A; MTBF: 100,000 hrs, UL/C-UL/TUV/CE approved					
Cooling Fans	Two 49 CFM cooling fans					
Fault-resilient Features	Fault detection and alarm notification: power / fan / excess temperature					
LED Indicators	Bicolors LEDs for power / fan / temperature: Green indicates normal operation, red indicates fault condition					
Controls	Alarm reset button					
Dimensions (W x H x D)	482 x 222.25 x 482 mm (19" x 8.75" x 19")				482 x 177.8 x 482 mm (19" x 7" x 19")	
CE Compliance	Yes					
Operating Temperature	0 ~ 50° C (32 ~ 122° F)					
Relative Humidity	20 ~ 90% @ 50° C (122° F) non-condensing					

Ordering Information

- RAID-500U2**
5U rackmount SCSI Ultra2 Wide RAID subsystem with 300 W AC redundant power supply
- RAID-500U2-R**
RAID-500U2 with redundant controller and 4 SCSI channels
- RAID-500U2-R8**
RAID-500U2 with redundant controller and 8 SCSI channels
- RAID-500UW**
5U rackmount SCSI Ultra Wide RAID subsystem with 300 W AC redundant power supply
- RAID-500UW-R**
RAID-500UW with redundant controller and 4 SCSI channels
- RAID-500UW-R8**
RAID-500UW with redundant controller and 8 SCSI channels
- RAID-500M**
5U rackmount disk enclosure with 8 disk cartridges and 300 W AC redundant power supply
- RAID-500**
5U rackmount disk enclosure with 300 W AC redundant power supply
- RAID-400M**
4U rackmount disk enclosure with 8 disk cartridges and 300 W AC redundant power supply
- RAID-400**
4U rackmount disk enclosure with 300 W AC redundant power supply

* Remark: DC/DC power supply is available upon request