



## SATA/PATA-SATA RAID 1 Box for 2.5" Disks

### InneRAID® Slim

#### Overview

InneRAID® Slim is a robust and easy-to-use internal RAID solution for protecting data and ensuring system availability in space-limited and rugged environments. Directly attaching to a host computer by the pervasive and low-cost SATA/PATA interface, InneRAID® Slim requires no add-on card and driver, which makes it the best RAID solution for heterogeneous platforms. Because the data mirroring is done at the block level, transparently to the host computers, InneRAID® Slim can protect data of all types and of any operating systems. Powered by the Accusys RAID SOC and intelligent disk control logic, InneRAID® Slim offers not only reliability but also streamlined performance. InneRAID® Slim is well proven to fit, for example, onto high-density computing systems, blade servers, networking or telecom devices, health-care equipments, and industry automation control systems.

#### Effortless System Integration

InneRAID® Slim offers a turn-key solution combining rugged hot-swappable disk enclosure and RAID controller. Emulating a standard ATA disk drive, InneRAID® Slim can be deployed virtually in any host systems, regardless of what operating systems and motherboards to be used. System integrators can use single RAID solution on a variety of platforms and applications without technical difficulty. This simplifies product portfolio maintenance and reduces support efforts. In addition, because of its tiny size and no need of add-on cards, users can improve the system reliability simply by replacing the existed hard disk by the RAID box without any change needed to the existed system.

#### Assured Non-Stop Availability

In addition to the fundamental RAID technology to protect data from disk failure, InneRAID® Slim further enhances system availability through features like hot-swappable disk, disk status monitoring, automatic disk data rebuild, and bad sector recovery. It seeks to secure every bit of your data while streamlines the IO access serving.

InneRAID® Slim real-time duplicates data to the both disk drives by the optimized RAID engine, which possesses almost no overhead. It can also automatically detect disk failure or unstableness, and notify users immediately. Users can on-line replace the faulty disk without causing any impact being aware by the applications. Its fast disk rebuilding also helps to bring the system back to the protected state in a short time. As the capacity of disks grows, the risk of losing data due to bad sectors become more probable, and that could lead to system crash if system files or critical data resides on the bad sectors. InneRAID® Slim implements sophisticated algorithms not only to online regenerate data on the bad sectors but also to recover the bad sectors. When the same location is accessed again, the data can be timely and reliably delivered. This significantly prevents data loss and system downtime.

#### Comprehensive Management

InneRAID® Slim is equipped with LED indicators on the front panel and audible alarm. It also supports StorConn™ RAID GUI, by which, users can easily monitor the status of the RAID and disk drives. StorConn™ GUI can also be accessed remotely by web browsers. To further simplify the maintenance efforts, StorConn™ records event history and notifies users by displaying pop-up warning windows and sending out notification email. The API of InneRAID® Slim is also available for system integrators to develop proprietary GUI or to integrate the RAID monitoring functions with other management frameworks.

#### PRODUCT HIGHLIGHTS

- Space-optimized RAID: 3.5" or 5.25" drive bay
- Support 2.5" SATA disks
- Support SATA or PATA host interfaces
- Hardware-accelerated RAID 1
- Hot swappable disks
- Online fast disk rebuilding
- Event logging and notification
- Remote RAID monitoring by web-based GUI
- Support in-band and out-band API
- RoHS-compliant

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## Technical Specifications

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### Interface

- PATA (IDE) or SATA host interface
- Two 2.5" (SFF) SATA disk drives

### RAID Functions

- Hardware-accelerated RAID 1 (disk mirroring)
- High-speed SRAM for data cache
- Automatic online fast data rebuilding
- Automatic disk failure detection
- Online bad sector recovery
- Hot swappable hard disks

### StorConn™ RAID GUI

- Java-based GUI, support web-based remote monitoring
- Event notification by email and popup windows
- Email and popup windows for event notification
- RAID communication via RS232 or SATA/PATA
- Support up to four RAID devices
- Automatic RAID device discovery
- Monitoring server auto-startup

### Management

- Driverless: need no driver on host side
  - LED indicators for disk status
  - Audible alarm for event alert
  - Support GPIO
  - FRAM for preserving disk status
  - Support in-band API via SATA/PATA interface
  - Support out-band API via RS232
  - Firmware update through RS232
  - Independent lock for each disk drive tray
  - Flexible PATA master or slave selection
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## Physical and Environment Specifications

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### Dimensions and Weight:

- **3.5" external drive bay**
  - 5.92 (L) x 3.94 (W) x 1 (H) inch
  - 150 (L) x 100 (W) x 25.4 (H) mm
  - 300 g (w/o disk)
- **5.25" external drive bay**
  - 5.92 (L) x 5.83 (W) x 1.58 (H) inch
  - 150 (L) x 148 (W) x 40 (H) mm
  - 540 g (w/o disk)

### Power Requirement

- **Power connector**
  - Big 4-pin connector
- **Power consumption**
  - + 5.0Vdc/0.5A, tolerance : ±5%

### Temperature

Operation mode : 0°C to 40°C  
Non-operation mode : -25°C to 60°C

### Humidity

Operation mode : 5% to 85% non-condensing  
Non-operation mode : 5% to 95% non-condensing

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### MTBF

100,000 hours

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### Order Information

- **InneRAID® Slim PATA RAID Box**
  - ACS-75210 SATA-2 BS1: 3.5" form factor
  - ACS-75210 SATA-2 BS2: 5.25" form factor
- **InneRAID® Slim SATA RAID Box**
  - ACS-75211 SATA-2 BS1: 3.5" form factor
  - ACS-75211 SATA-2 BS2: 5.25" form factor

### Warranty

1 year limited warranty

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### Certification Compliance

FCC, CE, UL approval

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