

ARC-5060 RAID Controller

Hi-Speed eSATA/USB 2.0/iSCSI/AoE

Cost-Effective RAID Controller

- RAID 6 Support
- Two True 3.0Gbps eSATA
- Up to 8 volumes/per host
- 16 SATA Disk Channels



Highlights

The ARC-5060 RAID controller offers a truly innovative eSATA(3.0Gbps)/USB2.0 solution for use with your PC and Mac workstation. With RAID box technology, it allows two HDDs failure without impact on the existing data and failed drive rebuild is transparent to the host. Designed and leveraged with Areca high volume RAID controllers experience, this RAID box brings a level of data reliability and availability to cost-sensitive storage platforms that were typically available only with high-end enterprise-class storage systems. The introduction of the industry's first 16 channels eSATA solution provides a major benefit for those applications requiring cost-effective RAID solutions that take advantage of low cost, high capacity SATA disk drives. ARC-5020-3 re-driver board guarantees the signal from internal SATA connector to the eSATA connector which can meet eSATA the electrical compliance requirements.

Unparalleled Performance

ARC-5060 RAID controller unleashes the power of 3.0Gbps performance and NCQ support on the eSATA host port. The eSATA port delivers in excess of 210MB/s sustained RAID 5 reads and over 176MB/s RAID 5 sequential writes. More SATA disk channels make ARC-5060 RAID controller well suited for low cost and high capacity application, especially the rapidly growing demand from the DVR markets. With the target mode multiplier emulation, iSCSI/AoE and USB2.0 host channel can also support up to 8 volumes for each host. Up to 16 volumes can be created on each ARC-5060 RAID controller.

Unsurpassed Data Availability

The ARC-5060 RAID controller provides RAID levels 0, 1, 10(1E), 3, 5, 6, Single Disk or JBOD RAID configurations. Its high data availability and protection derives from the following capabilities: Online RAID Capacity Expansion, Array Roaming, Online RAID Level / Stripe Size Migration, Global Online Spare, Automatic Drive Failure Detection, Automatic Failed Drive Rebuilding, Disk Hot Swap, Online Background Rebuilding, Instant Availability/Background Initialization, Auto Reassign Sector and Redundant Flash Image. Areca greater than Two TB support allows for very large volume set application in 64-bit environment such as data-mining and managing large databases.

Easy RAID Management

It can be managed either through the LCD control panel, RS232 port or Ethernet port. Manual configuration and monitoring can be done through the LCD Control Panel. The firmware also contains an embedded terminal emulation via the RS-232 port. The firmware-embedded Web Browser-based RAID manager allows local or remote to access it from any standard internet browser via a LAN port. The controller also supports API library for customer to write its own monitor utility. The single Admin Portal (SAP) monitor utility can support one application to manage multiple RAID units in the network. The hardware monitor can monitor system voltage and temperature. The warning message will show in the LCD, alarm buzzer and respect LED.

Features

- 400MHz storage I/O processor
- Unleash the power of 3.0Gbps and NCQ on the eSATA host port
- NVRAM for RAID events log & transaction log
- Write-through or write-back cache support
- Redundant flash image for controller availability
- RAID level 0, 1, 10, 1E, 3, 5, 6, Single Disk or JBOD
- Multiple RAID selection
- Up to 16 volumes per RAID controller
 - SATA host with port multiplier: 8 x volumes
 - SATA host without port multiplier: 1 x volume
 - iSCSI/AoE: 8 x volumes
 - USB 2.0: 8 x volumes
- Online array roaming
- Online RAID level/stripe size migration
- Online capacity expansion and RAID level migration simultaneously
- Online dynamic volume set capacity expansion
- Offline RAID set and greater 2TB per volume
- Instant availability and background initialization
- Automatic insertion/removal detection and rebuild
- Support SMART, NCQ, and OOB staggered spin-up capable drives

Host Interface

- 2 x 3Gbps eSATA, iSCSI/AoE and USB 2.0

Disk Interface

- 12/16 x 3.0Gbps SATA II, hot swappable drives

Monitors/Notification

- Push Buttons and LCD Display Panel for setup and status
- Environment and drive failure indication through LCD, LED and alarm buzzer
- Keep silent and adequate air flow and cooling by intelligent cooling fan speed controller
- Support 4 x 3-pin fan connector
- Support 1 x 2-pin power status connector

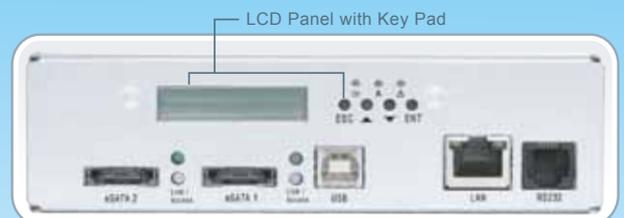
RAID Management

- Field-upgradeable firmware in flash ROM via RS-232 and LAN port
- Firmware-embedded manager via RS-232 port
- Firmware-embedded Browser-based RAID manager, SMTP manager, SNMP agent and Telnet function via LAN port
- Support Out-of-Band API library to design user's AP

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Host Interface	2 x eSATA (SATA II 3.0Gbps) 1 x Hi-Speed USB 2.0/iSCSI/AoE
Host Interface Transfer Rates	eSATA : Up to 3.0Gbps (300MB/s) USB 2.0: Up to 480Mbps (60MB/s)
Host Burst Transfer Rates	eSATA (RAID 0) : Up to 212MB/s (read); Up to 184MB/s (write) eSATA (RAID 5) : Up to 210MB/s (read); Up to 176MB/s(write) (Tested by Silicon Image 3124 PCI-X, it depends on host controller performance)
Disk Interface	Up to 16 SATA II 3.0Gbps channel
Drive Connector	4 x Internal SFF-8087
Form Factor	146(W) x 43(H) x 200(D) mm

ARC-5060 Host Side



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