

# ARC-8050U3-6 RAID BOX



## Compact 6-Disk RAID

- One 10.0 Gbps USB 3.1 Port

R0 Xfer Speed: 1046MB/S (read), 1055MB/S (Write)

R5 Xfer Speed: 1046MB/S (read), 936MB/S (Write)

## Cutting-edge Host Interfaces

ARC-8050U3-6 RAID enclosure offers a truly innovative USB 3.1(10.0Gbps) host interface solution for SOHO group professionals who work at home and or in the office. Using USB 3.1 to PCIe bridge and Areca existing ARC-8050T3-6 industry-proven hardware RAID controller, this RAID storage delivers the performance enhancement of USB 3.1 at the best of cost/performance value. With the much faster speed than ordinary USB 3.0 based storage, ARC-8050U3-6 is an alternative RAID storage for SOHO group professionals who need an affordable storage at home and or in the office. The advancement of 10Gbps USB3.1 connectivity allows the RAID storage to transfer end-to-end 10Gbps storage speed and fully backward compatible with USB 3.0/2.0 interconnection. ARC-8050U3-6 is OS independent, with no additional software or driver installation required, and also used on any Thunderbolt™ 3 USB-C port.

## Unparalleled Performance

ARC-8050U3-6 RAID storage incorporates onboard high performance 1.2Ghz dual core 12G SAS Raid-on-Chip (ROC) and on-board 2GB DDR3-1866 SDRAM memory with ECC protection to deliver true hardware RAID without sharing the CPU computing power on the host system. The ability of hardware RAID controllers to rebuild an array in the event of a drive failure is superior to what software RAID controller offer. With hard drives, the unit USB 3.1 port can deliver peak speed of 1046 MB/sec reads and over 936 MB/sec writes on a RAID 5 volume. High transfer rates make this external storage well suited for different cost-effective RAID application, especially the rapidly growing demand from the Mac video editing markets.

## Unsurpassed Data Availability

ARC-8050U3-6 supports the hardware RAID 6 engine to allow two HDDs failures without impact the existing data and performance. It allows users to hot swap drive in the event of a drive failure with zero downtime. Its high data availability and protection derives from the many advanced RAID features. ARC-8050U3-6 RAID storage allows easy scalability from JBOD to RAID. It can be configured to RAID levels 0, 1, 10, 1E, 3, 5, 6, Single Disk or JBOD. The RAID storage is the most cost-effective SAS/SATA disk drive RAID controller with completely integrated high-performance and data-protection capabilities for USB 3.1 users. ARC-8050U3-6 also supports a battery backup option that protects all data in cache memory in the event of unexpected power outage. Board-level hardware encryption manages any kinds of drives attached to ARC-8050U3-6 without impacting the performance for higher levels of security.

## Easy RAID Management

Configuration and monitoring can be managed either through the LCD control panel or LAN port. The intelligent cooling continuously adapts to environmental conditions by automatically controlling the speed of the cooling fans for the rapidly growing demand from the video editing markets. You can even configure ARC-8050U3-6 to intelligently spin down drives during periods of inactivity to further reduce noise and save energy. ARC-8050U3-6 also provides API source code for users to incorporate the McRAID manager function into their manager utility. The "HDD Xfer Speed" is a firmware-level hard disk / SSD speed function that is used to measure the drive's read performance. If the read-only palimpsest benchmark drops below the normal curve, something may be wrong with this disk.

## Adapter Architecture

- 1.2Ghz dual core 12G SAS Raid-on-Chip (ROC) processor
- 2GB on-board DDR3-1866 SDRAM with ECC protection
- Write-through or write-back cache support
- Support 6 internal 12Gb/s SAS ports
- Support read/write cache allocation by policy
- Redundant flash image for controller availability
- RAID level 0, 1, 10(1E), 3, 5, 6, Single Disk or JBOD
- Multiple RAID selection
- Support up to 1MB stripe size
- Online array roaming
- Online RAID level/stripe size migration
- Instant availability and background initialization
- Support for native 4K and 512 byte sector SAS/SATA devices
- Support HDD firmware update
- Multiple pairs SSD/HDD disk clone function
- SSD automatic monitor clone (AMC) support
- Support global and dedicated hot spare
- Automatic drive insertion/removal detection and rebuilding
- Advanced configuration for smooth data streaming
- Firmware-level "Hdd Xfer Speed" to measure the HDD's read performance
- Battery Backup Module ready (optional)
- SED (self-encrypting drives) function support
- Controller-level hardware encryption support

## ARC-8050U3-6 RAID Storage

<b>Host Interface</b>	1 * USB 3.1 Gen 2: Up to 10.0Gbps (1GB/s) - Supports UASP (USB Attached SCSI Protocol) - Backwards compatible with USB 3.0/2.0
<b>Host Burst Transfer Rates</b>	USB 3.1 (RAID 0) : Up to 1046MB/s (read); Up to 1055MB/s (write)  USB 3.1 (RAID 5) : Up to 1046MB/s (read); Up to 936MB/s (write)
<b>Disk Interface</b>	SAS 3.0 Compatible: Up to 12.0Gbps
<b>System Requirements</b>	Computer with a USB-C or Thunderbolt™ 3 port
<b>Expansion Support</b>	One SFF-8644 (2-lanes) Connector
<b>OS Compatibility</b>	OS Independent
<b>Enclosure Management</b>	LAN Port and LCD
<b>Cooling Fan</b>	1 * 2700rpm/0.135A Brushless Fan
<b>Operating Temperature</b>	0 ~ 50°C
<b>Operation Humidity</b>	5% ~ 95 %, Non-condensing
<b>Power Supply/Input/Output</b>	180W / 100-240V AC
<b>Dimensions</b>	4.84 x 8.45 x 9.11 in (146 x 255 x 290 mm)
<b>Weight</b>	13.2 lbs / 6.0Kg

Actual data rates may vary depending on operating environment, RAID mode, RAID configuration, disk model and disk performance.

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## Disk Interface

- 6 x 12Gb/s SAS/SATA hot swappable drive trays
- Up to 128 12Gb/s SAS or 6Gb/s and 3Gb/s SAS/SATA HDDs/SSDs, using 12Gb/s SAS JBOD
- One downstream SFF-8644 (2 x 12Gb/s ports) expansion connector

## Host Interface

- 1 x 10Gbps USB 3.1

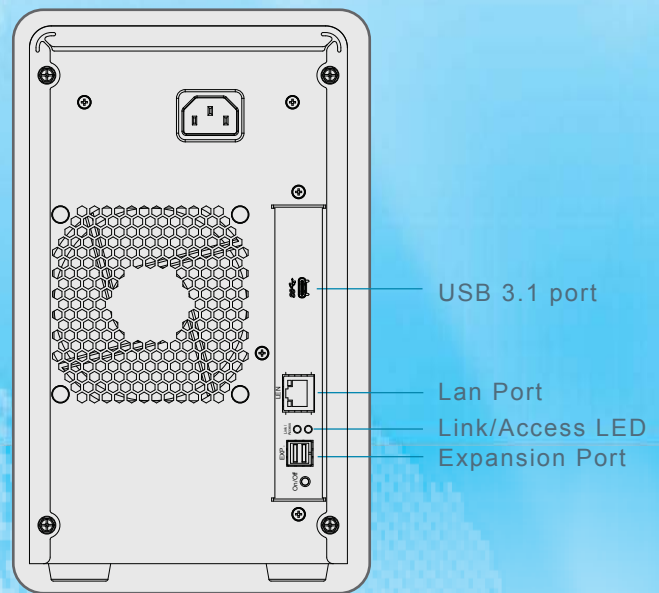
## Monitors/Notification

- 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

## RAID Management

- Push Buttons and LCD Display Panel for RAID configuration
- Firmware-embedded Browser-based RAID manager, SMTP manager, SNMP agent and Telnet function via LAN port
- Support RAID box's API library for customer to write its own AP

ARC-8050U3-6 Rear Side



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