



## RocketRAID 2840A

PCIe 3.0 x8 16-Channel 6Gb/s SAS/SATA RAID Host Bus Adapter

### *The Industry's most Price Competitive 16-Channel PCIe 3.0 SAS RAID Host Adapter!*

The RocketRAID 2840A host bus adapters is the world's most price competitive 16-Channel SAS/SATA RAID controller, and delivers unprecedented end-to-end Generation 3.0 PCI Express transfer performance with Professional class RAID Storage reliability and management capabilities.

#### **RocketRAID 2840A: Professional-Class SAS RAID Solutions**

RocketRAID 2840A host bus adapters capitalize on HighPoint's two decades of RAID and storage technology to deliver professional grade RAID storage at a fraction of the cost of conventional host RAID solutions. Each adapter is powered by our industry proven RAID technology, superior Gen 3.0 PCIe transfer bandwidth, and up to sixteen dedicated 6Gb/s SAS channels, which support robust, high-performance RAID 0, 1, 5, 6, 1/0, 5/0 and JBOD configurations of SAS or SATA hard drives of any disk format, including 512, 512e and 4Kn.

RocketRAID 2840A host bus adapters are designed to maximize the uptime and accessibility of RAID storage. Integrated storage and RAID recovery features enhance data retrieval from failed disks and streamline rebuild sessions. The universal WebGUI interface provides a wide range of preemptive monitoring and maintenance features that enable administrators to easily schedule verification sessions to ensure the health of each RAID storage configuration.

#### **Flexible Storage Solution: SAS or SATA RAID Arrays**

Today's storage applications need solutions that are versatile enough to support more than one type of storage application.

RocketRAID 2840A adapters allow customers to use both 6G SAS and SATA hard drives and SSD's in a wide range of RAID configurations across a variety of operating system and hardware platforms.

#### **Seamlessly Upgrade RAID Storage**

RocketRAID 2840A adapters deliver an unprecedented level of flexibility when it comes to storage configurations. Online Capacity Expansion (OCE) allows administrators to add new drives to existing arrays in order to expand capacity. Online RAID Level Migration (ORLM) allows administrators to convert one RAID level to another in order to tune storage configurations for maximum performance or data security. Future-Proof Online RAID Roaming allows customers to move existing RAID arrays to other RocketRAID RAID controllers, in addition to all future HighPoint RAID products.

#### **Multi-HBA Solution**

HighPoint's multi-HBA (host bus adapter) Non-RAID solution software packages are available for all major operating system platforms including Windows, Linux, FreeBSD, and Mac OS X. The device driver enables up to four independent cards to work in unison, and effectively function as a single 64-channel 6G SAS host controller. This innovative approach to direct-attached mass storage connectivity allows customers to simplify the build process, streamline maintenance procedures, and provides dedicated SAS 6Gb/s point-to-point bandwidth for each connected device.

The robust, versatile, device driver allows administrators to keep tabs on the operational status of each card and individual storage device via the intuitive web-based management interface.

#### **Key Benefits**

- Industry's most cost-effective 16-Channel SAS RAID Controller
- High-performance PCIe 3.0 x8 host Interface
- Directly Supports up to 16 HDDs/SSDs
- Flexible SAS + SATA Array and Storage configurations:
  - SAS 6Gb/s Hard Drives & SSDs
  - SATA 6Gb/s Hard Drives and SSDs
- Enables the Industry's most Cost-Effective RAID 5, 6 & 5/0 Storage Solutions

#### **Suggested Applications**

- NAS
- Surveillance
- Web Servers and Storage Servers

#### **Feature Highlights**

- 16 Internal 6Gb/s SAS+SATA Channels
- RAID 0, 1, 5, 6, 1/0, 5/0, JBOD
- RocketRAID Data Recovery Solution increases chances of data retrieval from a failed drive.
- Maximizes RAID Array Accessibility
- Fast Array set up enables immediate Availability
- Robust RAID Monitoring and Management solution ready
- Supports a wide-spectrum of Operating System Platforms

Feature Specifications	
Bus Interface	8-lane, 8 GT/s PCI Express 3.0 Compliant
Number of Channel / Port	16x 6Gb/s SAS / 6Gb/s SATA Channels
Data Transfer Rates:	Up to 6Gb/s per port
Port Type	Four SFF-8643 mini-SAS HD
Storage Device Support	16x SAS /SATA Hard Drive / SSD
Form Factor	Low Profile
Controller Dimensions	5.97" x 2.68" x 0.06"
Controller Weight	0.26lbs.
RAID Level Support	0, 1, 5, 6, 1/0, 5/0 and JBOD / Non-RAID Mode <i>Note: RAID 6 not supported on macOS. RAID 1/0 is the equivalent of RAID 10. RAID 5/0 is the equivalent of RAID 50.</i>
Operating System Support	Windows Server 2008 and Window 7 and later Linux (Supports Linux Driver auto Compile) FreeBSD Mac
Advanced RAID Features	Flash ROM for Upgradeable BIOS Storage Health Inspector Redundant RAID Configurations BIOS PnP (plug and play) and BBS (BIOS boot specification) support Bootable RAID Array EFI for Mac Platform Multiple RAID Partitions supported Storage Configurations: Direct Attached Supports up to 4 RAID controllers per system Online Array Roaming Online RAID Level Migration (ORLM) Online Capacity Expansion (OCE) RAID Quick Initialization for fast array setup Drive hot-plug support Global Hot Spare Disk support Automatic and configurable RAID Rebuilding Priority Auto resume incomplete rebuilding after power on or reboot system Disk Format compatible: 512, 512e, 4Kn Larger than 2 TB Drive and RAID Array support Spin down Massive Arrays of Idle Disks support Native Command Queuing SAS TCQ Disk media scan and repair Device Error Recovery support Automatic remap and fix drive bad block for Redundant RAID Levels (RAID 1, 5, 6, 10, 50) Staggered Drive Spin Up Write Back and Write Through

RAID Monitoring and Management Suite	
RAID Management Suites:	<ul style="list-style-type: none"> <li>• BIOS/Firmware configuration tool</li> <li>• Browser-Based management tool</li> <li>• CLI (Command Line Interface- scriptable configuration tool)</li> <li>• API package</li> </ul>
Enclosure Management Interface	SGPIO, SES-2 and I2C
Drive LEDs supported	SGPIO, SES-2 and LED Header
SMTP Email Alert Notification	Yes
Alarm Buzzer	Yes

Operating Environment	
Work Temp:	+5°C ~+ 55°C
Storage Temp:	-20°C ~ +80°C
Relative Humidity:	5% ~ 60% non-condensing
Operating Voltage:	PCI-e: 12V, 3.3V Power: 14W (12V 1A, 3.3V 0.5A)
MTBF (Mean Time Before Failure)	920,585 Hours
Compliance Certification	FCC, CE, ROHS & REACH, WEEE

12Gb/s SAS/SATA RAID HBA	RocketRAID 2840A
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Product Image	
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Retail Box Dimensions	6.81" x 7.76" x 1.57"
Retail Box Weight	0.53 lbs.
UPC Code	643653284016
Kit Contents	1x controller card 1x Low Profile Bracket 1x Quick Installation Guide

Optional Accessories	
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	<b>8643-4SAS-1M</b> - 1 Meter Cable length, SFF-8643 to Controller and 4x SFF-8482 to 4x SAS Drives
	<b>8643-4SATA-1M</b> - 1 Meter Cable length, SFF-8643 to Controller and 4x SATA to 4x SATA Drives

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