HighPoint Technologies, Inc.

RocketRAID 2840A

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

RocketRAID

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, and macOS. 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. Note: Only Enterprise and NAS drives are supported
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 *Note: RAID 6 not supported on macOS. Bootable RAID 6 arrays are not supported. RAID 1/0 is the equivalent of RAID 10. RAID 5/0 is the equivalent of RAID 5.*
Operating System Support	Windows Server 2008 and Window 7 and later
	Linux (Supports Linux Driver auto Compile)
	macOS 10.9 and later
	FreeBSD
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 multiple 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, 1/0, 5/0)
	Staggered Drive Spin Up
	Write Back and Write Through

RAID Monitoring and Management Suite	
RAID Management Suites:	• BIOS/UEFI/Firmware configuration tool • Browser-Based management tool • CLI (Command Line Interface- scriptable configuration tool) • API package
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
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
Product Image	
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	
	8643-4SAS-1M - 1 Meter Cable length, SFF-8643 to Controller and 4x SFF-8482 to 4x SAS Drives
	8643-4SATA-1M - 1 Meter Cable length, SFF-8643 to Controller and 4x SATA to 4x SATA Drives

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