



RocketRAID 800 Series

PCIe 3.0 x8 6Gb/s SATA RAID Host Bus Adapters

**Maximizes SATA SSD Storage Performance,
RAID 5 Performance Up to 6,000MB/s!**

RocketRAID 800 series host bus adapters are the industry's fastest SATA RAID Controllers. The PCIe Generation 3.0 host interface and dedicated 6Gb/s SATA channels work in tandem to deliver uncompromised transfer performance for up to 16 SSD's or hard disks. Backed by HighPoint's 20 years of RAID technology expertise, and professional-grade RAID Storage reliability and management capabilities, RocketRAID 800 adapters are ideal for a wide range of cost-effective SATA storage applications.

Superior PCIe Gen 3.0 Transfer Bandwidth

RocketRAID 800 series host bus adapters allow customers to take full advantage of the superior transfer performance delivered by PCIe 3.0. Each PCIe lane supports up to 8 GT/s. PCIe 3.0 is ideal for today's high-speed SSDs; the performance capabilities of multi-SSD RAID 5 configurations can achieve up to 6,000MB/s!

Professional-Class RAID Solutions

RocketRAID 800 series host bus adapters capitalize on HighPoint's 2 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 express transfer bandwidth, and up to sixteen dedicated 6Gb/s SATA channels, which support robust, high-performance RAID 0, 1, 5, 6, 10, 50 and JBOD configurations using hard drives of any disk format, including 512, 512e and 4Kn.

RocketRAID 800 adapters were designed to maximize the uptime and accessibility of RAID storage. Advanced storage and RAID recovery tools enhance

data retrieval from failed disks and streamline rebuild sessions. The universal RocketRAID 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.

Seamlessly Upgrade RAID Storage

Rocket 800 series host bus adapters deliver unprecedented level of flexibility when it comes to storage configurations. Customers are free to expand or convert RAID storage configurations as needed to keep on top of the evolving demands of the storage application, without sacrificing existing data. Online Capacity Expansion (OCE) allows administrators to add new drives to existing arrays in order to expand available 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. Arrays created with RocketRAID800 adapters are future proof, Online RAID Roaming allows customers to move existing RAID arrays to other 800series RAID controllers, in addition to all future HighPoint RAID products.

Customized Solution Services for Customers

HighPoint offers a range of Customized Solution services for SMB Customers. We can tailor RocketRAID 800 series adapters to meet the requirements of client defined storage applications across Linux, Windows, Mac and FreeBSD platforms, and are ready to assist Solution Providers with unique product branding. A full API library is available for integration projects and we offer a variety of Enclosure Management services including SGPIO and I2C.

Key Benefits

- Features high-performance PCIe 3.0 x8 host Interface
- Enables the Industry's most Cost-Effective RAID 5, 6 & 50 Storage Solutions
- Directly Support up to 16 SATA SSD's and hard disks and 160TB of storage capacity
- Customizable Solution Services

Suggested Applications

- NAS (High-end Workstations)
- Surveillance
- Web Servers and Storage Servers

Feature Highlights

- 16 internal 6Gb/s SATA Channels
- OEM Series up to 48x Internal 6Gb/s SATA Channels
- RAID 0,1,5,6,10,50, JBOD
- Advanced Data Rescue mode increase chances of data recovery 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 |
| Data Transfer Rates | Up to 6Gb/s per port |
| Port Type | SFF-8643 mini-SAS HD |
| RAID Mode | 0, 1, 5, 6, 10, 50 and JBOD / Non-RAID Mode <i>Note: RAID 6 not supported on Mac OS X</i> |
| Operating System | Window Server 2008 and Window 7 and later |
| | Linux |
| | FreeBSD |
| | Mac |
| Advanced RAID Features | |
| Flash ROM for Upgradeable BIOS | Yes |
| Storage Health Inspector | Yes |
| Redundant RAID Configurations | Yes |
| BIOS PnP (plug and play) and BBS (BIOS boot specification) support | Yes |
| Bootable RAID Array | Yes |
| EFI for Mac Platform | Yes |
| Multiple RAID Partitions supported | Yes |
| Storage Configurations Support Details | Direct Attached |
| Multiple RAID Adapters supported | Support up to 4 RAID controllers per system |
| Online Array Roaming | Yes |
| Online RAID Level Migration (ORLM) | Yes |
| Online Capacity Expansion (OCE) | Yes |
| Quick RAID Initialization for fast array setup | Yes |
| Drive hot-plug support | Yes |
| Global Hot Spare Disk support | Yes |
| Automatic and configurable RAID Rebuilding Priority | Yes |
| Auto resume incomplete rebuilding after power on or reboot system | Yes |
| Disk Format compatible: 512, 512e, 4Kn | Yes |
| Larger than 2 TB Drive and RAID Array support | Yes |
| Spin down Massive Arrays of Idle Disks support | Yes |
| Native Command Queuing | Yes |
| Disk media scan and repair | Yes |
| Device Error Recovery support | Yes |
| Automatic remap and fix drive bad block for RAID array | RAID 1, 5, 6, 10, 50 |
| Staggered Drive Spin Up | Yes |
| Write Back and Write Through | Yes |
| RAID Monitoring and Management Suite | |
| <ul style="list-style-type: none"> RAID Management Suites: BIOS/Firmware configuration tool Browser-Based management tool CLI (Command Line Interface- scriptable configuration tool) API package | Yes |
| Enclosure Management Interface: SGPIO and I2C (Drive LEDs supported: SGPIO and LED Header) | Yes |
| 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 | Typical: 14W |
| MTBF (Mean Time Before Failure) | 920,585 Hours |
| Certification / Approval | FCC, CE, ROHS & REACH |

| PCIe 3.0 6Gb/s SATA RAID HBA | | RocketRAID 840A |
|------------------------------|---|-----------------|
| Product Image | | |
| Product Dimensions | 5.97" x 2.68" x 0.06" | |
| Retail Box Dimensions | 13.38" L x 7.68" H x | |
| Retail Box Weight | 1.09 lbs | |
| UPC Code | 643653840014 | |
| 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 | |

OEM Series offer a Wide Selection of Drive Connectivity Solutions

With up to twelve Mini-SAS HD ports and 48 6Gb/s SATA channels, and powered by HighPoint’s industry proven RAID technology and the superior transfer bandwidth provided by PCIe 3.0, RocketRAID 800 adapters are an ideal connectivity platform for affordable, high-performance, direct attached mass storage applications.

| OEM Series | | |
|-----------------|----------------------|-----------------|
| No. of Channels | Ports | Model |
| 8x SATA 6Gb/s | 2x Int. Mini-SAS HD | RocketRAID 820A |
| | 2x Ext. Mini-SAS HD | RocketRAID 822A |
| 16x SATA 6Gb/s | 4x Ext. Mini-SAS HD | RocketRAID 844A |
| 32x SATA 6Gb/s | 8x Int. Mini-SAS HD | RocketRAID 880A |
| 48x SATA 6Gb/s | 12x Int. Mini-SAS HD | RocketRAID 800F |
| 80x SATA 6Gb/s | 20x Int. Mini-SAS HD | RocketRAID 800P |

OEM Series RocketRAID 800 Host Bus Adapters are available direct from HighPoint for customized storage projects. For more information, please contact our Sales Department at sales@highpoint-tech.com.

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