



## RocketRAID 3700 Series

12Gb/s PCIe 3.0 x8 SAS/SATA RAID Host Bus Adapters



### Customizable SAS 12Gb/s RAID Solutions for Project Customers

#### Professional-Class SAS 12Gb/s RAID Controllers

RocketRAID 3700 series 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 express transfer bandwidth, and up to sixteen dedicated 12Gb/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 3700 series host bus adapters are designed to maximize the uptime and accessibility of RAID storage. RocketRAID storage and RAID recovery solutions 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.

#### 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 3700 adapters allow customers to use both 12G/6G SAS and 6G SATA hard drives and SSD's in a wide range of RAID configurations, with internal, external or Hybrid port connectivity, across a variety of operating system and hardware platforms.

#### Seamlessly Upgrade RAID Storage

RocketRAID 3700 adapters deliver an 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 RocketRAID 3700 series adapters are future-proof; Online RAID Roaming allows customers to move existing RAID arrays to other 3700 series RAID controllers, in addition to all future HighPoint RAID products.

#### Key Benefits

- Dedicated 12Gb/s Data Transfer Rate per channel
- Featured high-performance PCIe 3.0 x8 host Interface
- Flexible SAS + SATA Array and Storage configurations:
  - SAS 12Gb/s Hard Drives & SSDs, backward compatible with SAS 6Gb/s drives
  - SATA 6Gb/s Hard Drives and SSDs
  - Internal, External and Hybrid port configurations
- Enables the Industry's most Cost-Effective RAID 5, 6 & 50 Storage Solutions
- Customizable Solution Services

#### Suggested Applications

- NAS
- Surveillance
- Web Servers and Storage Servers

#### Feature Highlights

- Up to 16 Internal/External/Hybrid 12Gb/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



### Customized Solution Services for SMB Customers

HighPoint offers a range of Customized Solution services for SMB Customers. We can tailor RocketRAID 3700 host bus adapters to meet the requirements of client defined storage applications across Linux, Windows, and macOS 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, SES-2 and I2C.

### 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 RocketRAID 3700 device driver enables up to four independent cards to work in unison, and effectively function as a single 64-channel 12G 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 12Gb/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 RocketRAID 3700’s intuitive web-based management interface.

Feature Specifications	RocketRAID 3740A	RocketRAID 3720A	RocketRAID 3742A	RocketRAID 3740C	RocketRAID 3720C
Bus Interface	8-lane, 8 GT/s PCI Express 3.0 Compliant				
Number of Channel / Ports	16 Internal	8 Internal	8x Internal & 8x External	16x Internal	8x Internal
Data Transfer Rates:	Up to 12Gb/s per port				
Port Type	4x SFF-8643 mini-SAS HD	2x SFF-8643 mini-SAS HD	2x SFF-8643 / 2x SFF-8644 mini-SAS HD	4x SFF-8643 mini-SAS HD	2x SFF-8643 mini-SAS HD
Number of Devices	16x SAS /SATA Hard Drive / SSD	8x SAS /SATA Hard Drive / SSD	16x SAS /SATA Hard Drive / SSD	16x SAS /SATA Hard Drive / SSD	8x SAS /SATA Hard Drive / SSD
	<i>Note: Only Enterprise and NAS drives are supported</i>				
	<b>Note:</b> RocketRAID 3700 Series controllers can be used with the RS6418S and RS6414S JBOD tower enclosures via 8644-8088-1M1 SFF-8644 to SFF-8088 cables.				
Form Factor	Low-Profile	Low-Profile	Low-Profile	Low-Profile	Low-Profile
RAID Level Support	0, 1, 5, 6, 1/0, 5/0, and JBOD / Non-RAID Mode <i>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.</i>				
Operating System Support	Window Server 2008 and Window 7 and later, Microsoft Hyper-V				
	Linux				
	macOS 10.9 and later				

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
UEFI support for PC Platforms	Yes
Multiple RAID Partitions supported	Yes
Storage Configurations	Direct Attached
Multiple RAID Adapters supported	Yes
Online Array Roaming	Yes
Online RAID Level Migration (ORLM) – <i>(not supported by macOS)</i>	Yes
Online Capacity Expansion (OCE) – <i>(not supported by macOS)</i>	Yes
RAID Quick 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
SAS TCQ	Yes
Disk media scan and repair	Yes
Device Error Recovery support	Yes
Automatic remap and fix drive bad block for RAID array	Redundant RAID Levels (RAID 1, 5, 6, 1/0, 5/0)
Staggered Drive Spin Up	Yes
Write Back and Write Through	Yes
RAID Monitoring and Management Suite	
<ul style="list-style-type: none"> <li>RAID Management Suites:</li> <li>BIOS/UEFI/Firmware configuration tool</li> <li>Browser-Based management tool</li> <li>CLI (Command Line Interface- scriptable configuration tool)</li> <li>API package</li> </ul>	Yes
Enclosure Management Interface: SGPIO, SES-2 and I2C (Drive LEDs supported: SGPIO, SES-2 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
Operating Voltage:	PCI-e: 12V, 3.3V Power: 14W (12V 1A, 3.3V 0.5A)
MTBF (Mean Time Before Failure)	920,585 Hours
Certification / Approval	CE, FCC, RoHS, REACH, WEEE

12Gb/s SAS/SATA RAID HBA	RocketRAID 3740A	RocketRAID 3720A	RocketRAID 3742A
Product Image			
No. of Channels	16 Internal	8 Internal	16 (8x Internal & 8x External)
Product Dimensions	5.97" x 2.68" x 0.53"	5.97" x 2.68" x 0.53"	5.97" x 2.68" x 0.53"
Retail Box Dimensions	6.81" x 7.76" x 1.57"	6.81" x 7.76" x 1.57"	6.57" x 2.68" x 0.53"
Retail Box Weight	0.60 lbs.	0.57 lbs.	0.62 lbs.
UPC Code	643653374014	643653372010	643653374212
Kit Contents	1x controller card 1x Low Profile Bracket 1x Quick Installation Guide	1x controller card 1x Low Profile Bracket 1x Quick Installation Guide	1x controller card 1x Low Profile Bracket 1x Quick Installation Guide

12Gb/s SAS/SATA RAID HBA	RocketRAID 3740C	RocketRAID 3720C
Product Image		
No. of Channels	16 Internal	8 Internal
Product Dimensions	5.63" x 2.71" x 0.72"	5.63" x 2.71" x 0.72"
Retail Box Dimensions	6.69" x 7.83" x 1.89"	6.69" x 7.83" x 1.89"
Retail Box Weight	0.64 lbs.	0.62 lbs.
UPC Code	643653374021	643653372027
Kit Contents	1x controller card 1x Low Profile Bracket 1x Quick Installation Guide	1x controller card 1x Low Profile Bracket 1x Quick Installation Guide

### HighPoint Certified Cable Accessories

We manufacture a selection of certified data cables and storage enclosures designed for use with RocketRAID 3700 series 12Gb/s SAS/SATA RAID controllers.

HighPoint Certified accessories are fully compliant with all current technology standards and have been rigorously tested with our RocketRAID series controller cards and RocketStor enclosures to ensure maximum transfer performance, secure connectivity, and ease of integration.

As we cannot guarantee secure connectivity, stability or compatibility with unqualified third-party cables, adapters or enclosures, only HighPoint Certified accessories can be used with RocketRAID 3700 series controllers.

Certified Cable Accessories	
	<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
	<b>8644-8088-1M1</b> - 1 Meter Cable Length. SFF-8644 to controller and SFF-8088 to storage device. Designed for the RocketRAID 3742A RAID Controller, and RocketStor 6414 & RocketStor 6418S JBOD Storage Enclosures.

**Certified Enclosure Accessories**



**RocketStor 6414S – 4-Bay SAS/SATA JBOD Tower Storage Enclosure**



**RocketStor 6418S - 8-Bay SAS/SATA JBOD Tower Storage Enclosure**

**OEM Series**

The following OEM Series RocketRAID 3700 Host Bus Adapters are available direct from HighPoint. For more information, please contact our Sales Department at [sales@highpoint-tech.com](mailto:sales@highpoint-tech.com).

OEM Series		
No. of Channels	Ports	Model
8x SAS 12 Gb/s	2x Ext. Mini-SAS HD	RocketRAID 3722A
16x SAS 12Gb/s	4x Ext. Mini-SAS HD	RocketRAID 3744A

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