

Storage Solution BIOS Packages for RocketRAID 272x/271x Series PCIe RAID HBA's

HighPoint has introduced a series of Storage Solution packages for our RocketRAID 272x/271x series of 6Gb/s SAS/SATA PCIe RAID HBA's, each designed to improve system efficiency and deliver friendly experience for various storage applications. The following article introduces the features and functions of each package, in order to inform customers which package best meets the requirements of their target storage application and platform.

RocketRAID 272x/271x Series 6Gb/s SAS/SATA PCIe RAID HBA's

The RocketRAID 272x/271x series RAID HBA's represent the industry's most comprehensive and versatile PCIe RAID controller cards. Available with up to 8 internal, external or hybrid SATA channels, and powered by our industry proven Value RAID Technology and PCIe 2.0 x8 host interface, RocketRAID 272x/271x series HBA's are ideal for a wide-range of RAID storage applications for Professional and SMB customers.

RocketRAID 2720SGL – 2x Internal Mini-SAS Ports (SFF-8087)

RocketRAID 2722 – 2x External Mini-SAS Ports (SFF-8088)

RocketRAID 2721 – 1x Internal (SFF-8087) / 1x External (SFF-8088) Mini-SAS Ports

RocketRAID 2710 - 1x Internal Mini-SAS Port (SFF-8087)

RocketRAID 2711 - 1x External Mini-SAS Port (SFF-8088)

There are three Storage Solutions Packages available for RocketRAID 272x/271x series, each of which is tailored for a specific range of storage applications; RAID BIOS, Quick BIOS and Non-RAID BIOS Modes.

RAID BIOS – RAID Storage with Boot Support Mode

With the RAID BIOS package, the RocketRAID 272x/271x utilizes HighPoint's Value RAID technology with RAID 5 & 6 support, enables the ability to boot from a disk or array hosted by the card. The RocketRAID controller can be used to host the primary system storage and boot drive while this mode is enabled.

Note: This RAID BIOS package is recommended for storage applications that require Booting features, and utilize direct point-to-point storage configurations. Storage configurations that utilize Port Multiplier and SAS Expansion should not use this package.

Feature Highlights:

- RAID 0, 1, 5, 6, 10, 50, JBOD
- Supports Bootable RAID volumes
- Supports up to 8x SAS and SATA HDD/SSD Drives

Quick BIOS – RAID Mode with Disabled Booting Function

The Quick BIOS software package removes the RocketRAID 272x/271x HBA's booting function, which frees system resources normally allocated to HBA's during the system's boot-phase. We strongly recommend using the Quick BIOS package if the RAID Storage configuration is used for exclusively for storage, and does not require boot capability. This mode can help eliminate boot-related symptoms experienced by platforms that have limited resources available during system BIOS post.

Note: the Quick BIOS software package is recommended for storage applications that utilize Port Multiplier or SAS expansion, and do not need to boot from RAID storage.

Feature Highlights:

- RAID 0, 1,5,6,10,50,JBOD
- Support up to SAS and SATA HDD/SSD Drives
- Supports SAS Extension and SATA Port Multiplier device

Non-RAID BIOS – Non-RAID Mode

The Non-RAID BIOS Package is designed for storage configuration comprised of single, independent hard disks or SSD's. This BIOS mode eliminates the HBA's RAID functionality, and prevents the RAID controller's BIOS from interrupting the I/O of individual JBOD configurations.

With the Non-RAID BIOS installed, the RocketRAID 272x/271x HBA can only support single disk configurations. This mode allows the HBA to essentially function as a non-RAID "Rocket" 2700 model, and can support Linux OS's embedded mvsas driver.

Feature Highlights:

- Support Single Boot Drive
- Supports up to 8x Individual drive
- Both SAS and SATA HDD and SSD

RocketRAID 272x/271x Storage Solution BIOS Packages are Designed for Various Storage Applications

Customers are free to switch between the different Storage Solution packages as needed, to best meet the requirements of each storage application. An easy to use flash utility is available from the Software Downloads page of each RocketRAID 272x/271x HBA.

Converting to a different BIOS storage mode under DOS:

When downloading the corresponding BIOS package from the HighPoint website, please extract the package to a bootable USB flash disk. Boot to true DOS environment and run the .bat file to update BIOS:

Step1 Boot to Dos and switch to the BIOS folder

```
Directory of A:\R272X
.                <DIR> 09-07-16 10:31a
..               <DIR> 09-07-16 10:31a
GO              BAT      24 03-29-16 4:26p
LOAD           EXE     115,114 01-11-12 10:42a
R272X          BIN     524,288 02-14-12 7:45p
               3 file(s)      639,426 bytes
               2 dir(s)     60,322 Mega bytes free
A:\R272X>go.bat_
```

Step2 Run go.bat to start the BIOS update

```
Directory of A:\R272X
.                <DIR> 09-07-16 10:31a
..               <DIR> 09-07-16 10:31a
GO              BAT      24 03-29-16 4:26p
LOAD           EXE     115,114 01-11-12 10:42a
R272X          BIN     524,288 02-14-12 7:45p
               3 file(s)      639,426 bytes
               2 dir(s)     60,322 Mega bytes free
A:\R272X>go.bat_
```

Converting to a Non-RAID BIOS storage mode under Windows:

The HighPoint RAID Management software(WebGUI) for Windows also support to update the Non-RAID BIOS. It may convert the RAID mode to Non-RAID mode with WebGUI. The WebGUI can be download from Windows software of RocketRAID 272x's product page:

http://www.highpoint-tech.com/USA_new/series_rr272x_configuration.htm