



## SSD7204

PCIe 3.0 x8 4-Port M.2 NVMe RAID HBA



### Industry's Best Cost/Performance 4-Channel NVMe RAID HBA

The SSD7204 is the industry's best cost/performance 4-channel M.2 NVMe RAID storage solution, and is an ideal replacement for aging SATA storage infrastructure. The dedicated PCIe 3.0 bandwidth and intelligent switch technology can allocate up to 4 lanes per NVMe SSD, and delivers over 7000 MB/s of transfer performance.

SSD7204 HBAs benefit from our industry-leading NVMe RAID engine, and can support RAID 0, 1, 10 and single disk configurations of up to 4 M.2 NVMe SSDs.

#### Platform Independent, Universally Compatible NVMe RAID Solution

The SSD7204 NVMe RAID HBA is a fully independent NVMe storage solution; it does not require a hardware environment with Bifurcation support and can be easily integrated into any AMD or Intel computing platform with a free PCIe 3.0/4.0 x8 or x16 slot.

**Cross-Sync RAID Technology:** SSD7204 HBAs enable administrators to optimize RAID performance by scaling available bus bandwidth up to 16 lanes, and deliver up to 14,000MB/s of transfer speed.

#### Distraction-Free, Zero-Noise Cooling Solution

The SSD7204 is ideal for applications that require a distraction free work environment. The compact single-width RAID HBA can operate in complete silence, thanks to its full-length black anodized aluminum heat sink and ventilated PCIe bracket, which work in conjunction to dissipate waste heat away from critical NVMe chipset componentry and hosted M.2 NVMe SSDs.

#### Industry Proven NVMe RAID Technology

HighPoint 7000 Series NVMe RAID controllers will automatically recognize new NVMe SSDs as single drives; no configuration necessary. In addition, our proven NVMe RAID stack enables each controller to support multiple RAID arrays or mixed configurations of single disks and RAID storage.

**RAID 10 (Security & Speed)** - RAID 10 requires a minimum of 4 NVMe SSD's and is comprised of a stripe between two RAID 1 arrays. RAID 10 capable of delivering read performance on par with RAID 0, and is superior to RAID 5 for NVMe applications. Unlike RAID 5, RAID 10 doesn't necessitate additional parity related write operations, which reduce the TBW life span of NVMe SSDs.

**RAID 0 (Speed)** - Also known as a "stripe" array, this mode delivers Maximum Performance, and requires a minimum of 2 NVMe SSDs.

**RAID 1 (Security)** - This mode creates a hidden duplicate of the target SSD, and requires 2 NVMe SSD to configure.

#### Universal Software Suite Easily Manages & Monitors RAID Storage

HighPoint's comprehensive NVMe management suite streamlines installation, service and upgrade workflows.

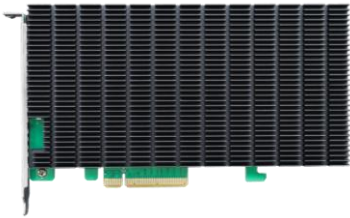
#### Key Benefits

- 4x M.2 Ports (242/2260/2280/22110)
- PCIe 3.0 x8 bus bandwidth
- Works with any PC & Mac Platform with a dedicated PCIe 3.0 or 4.0 x8 / x16 slot
- Cross-Sync Technology: double capacity & performance up to 14,000MB/s!
- RAID 0, 1, 10 & Single disk
- Silent, Passive cooling system
- Integrated TRIM & S.M.A.R.T. Monitoring with TBW Tracking
- For Windows, macOS & Linux

**OS-Level Management:** The WebGUI is an intuitive graphical user interface designed to work with all modern Web Browsers.

The CLI (Command Line Interface) is ideal for seasoned administrators and platforms that do not utilize graphical operating systems.

**1-Click Self Diagnostic & Logging Service:** The WebGUI's Diagnostic tab enables the interface to gather all necessary hardware, software and storage configuration data and compile it into a single file.

Product feature	SSD7104
Product Image	
Bus Interface	PCI-Express 3.0 x8
Number of Channel / Port	4x M.2 NVMe port (Dedicated PCIe 3.0 x4 per port)
Port Type	4x M.2 NVMe
Data Transfer Rate	8GT/s
Number of device	4x M.2 NVMe SSD
SSD Form Factor	2242/2260/2280/22110 (supports single & double sided)
Form Factor	Full-Height
Card Dimensions	7.68" (W) x 4.38" (H) x 0.73" (D)
Card Weight	1.39 lbs.
Warranty	2 Years
Windows (only supports 64-bit operating system)	Windows 11, 10 Windows Server 2022, 2019, 2016 Microsoft Hyper-V
Linux (only supports 64-bit operating system)	RHEL/Debian/Ubuntu/Fedora/Proxmox/Rocky Linux(Linux kernel 3.10 and later)
macOS	macOS 10.13 ~ macOS Ventura 13.x
ARM Platform Support( NVIDIA model)	Yes (Linux)
System Requirements	<p><b>Mac Platforms:</b></p> <ul style="list-style-type: none"> <li>• Apple Mac Pro Systems: 2012 and later Mac Pro systems; 5.1, 7.1 (2019)</li> <li>• Intel &amp; Apple M1 Platform compatible</li> <li>• Thunderbolt™ 3 Connectivity via Thunderbolt™ Expansion chassis: RocketStor6661A</li> </ul> <p><b>PC Platforms:</b></p> <ul style="list-style-type: none"> <li>• Any PC Systems or Motherboard with an industry standard PCIe x16 physical Slot (Bifurcation is not required)</li> <li>• Thunderbolt™ 3 Connectivity (requires a PC platform with a Thunderbolt 3 port) &amp; Thunderbolt™ Expansion chassis: RocketStor6661A</li> </ul>
Secure Boot(PC platforms)	Windows: Supports Secure Boot enable or disabled Linux: Supports Secure Boot disabled
Cooling System	Full-length anodized aluminum heatsink & thermal padding

<b>NVMe Configuration</b>	
RAID Support	Single, RAID 0, 1, 10
TRIM RAID Support	Single, RAID 0, 1, 10
Data RAID(Non-Bootable)	Windows, Linux, Mac
Boot RAID	Windows: Not supported
	Linux: Not supported
	Mac: Bootable using one (non-RAID) M.2 SSD as the boot drive. Only supports up to macOS 10.15.
<b>NVMe RAID Management</b>	
Management Suites	WebGUI (Browser-Based management tool )
	CLI (Command Line Interface- scriptable configuration tool)
	API package
SMTP Email Alert Notification	Yes
Alarm Buzzer	Yes
Storage Health Inspector	Yes
NVMe SMART status	Yes
Automatic & configurable RAID Rebuilding Priority	Yes
Auto resume incomplete rebuilding after power on or reboot system	Yes
Single-RAID or Multi-RAID Arrays per Controller	Yes
Cross-Sync RAID Solution Across Controllers	Yes (Windows, Linux, Mac)
<b>Advanced RAID features</b>	
Flash ROM for Upgradeable UEFI	No
Bootable RAID Array	No
Multiple RAID Partitions supported	Yes
Online Array Roaming	Yes
RAID Quick Initialization for fast array setup	Yes
Global Hot Spare Disk support	Yes
<b>Operating Environment</b>	
Work Temp	+5°C ~ + 55°C
Storage Temp	-20°C ~ +80°C
Operating Voltage	PCI-e: 12V, 3.3V
Power	Typical: 7.29W
MTBF (Mean Time Before Failure)	920,585 Hours
Certification / Approval	CE, FCC, RoHS, REACH, WEEE
<b>Kit Contents</b>	1x SSD7104
	1x Quick Installation Guide
<b>Optional Accessories</b>	
HS8004	Replacement fan-less cooling system