SSD7202
Bootable PCIe 3.0 x8 2-Port M.2 NVMe RAID HBA

Industry's Most Affordable Dual-Port Bootable M.2 NVMe RAID HBA

Cost-Effective Bootable Gen3 NVMe RAID Solution

The SSD7202 is a cost-effective, low-profile, bootable NVMe RAID solution for Windows and Linux platforms that is capable of delivering up to 7,000 MB/s of transfer performance from a pair of off-the-shelf M.2 SSDs.
Each SSD7202 controller benefits from our industry-leading NVMe RAID architecture, and can support striping, mirroring or single disk configurations for up to two 2242, 2260 or 2280 M.2 NVMe SSDs.

Advanced Bootable NVMe RAID Technology

The SSD7202 NVMe RAID controller can be used to configure bootable RAID or single NVMe SSD configurations for Windows and Linux systems. Optional UEFI downloads and complete installation guides are available for each supported platform.

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

RAID 1 (Security) - This mode creates a hidden duplicate of the target SSD, and requires 2 NVMe SSDs to configure. RAID 1 is ideal for bootable volumes.

Platform Independent NVMe RAID Solution

HighPoint NVMe RAID controllers are truly independent NVMe storage solutions. Unlike most NVMe devices in today's marketplace, which are tied to a specific hardware

platform or brand of SSD or motherboard, SSD7000 series controllers do not require a hardware environment with Bifurcation support, or any specialized software released by SSD manufacturers; they can be easily integrated into an AMD or Intel motherboard with a dedicated PCIe 3.0 or 4.0 x16 slot.

Advanced NVMe Cooling Solution

The SSD7202 advanced NVMe cooling solution mitigates the risk of thermal throttling by ensuring NVMe SSDs consistently operate within their recommended temperature thresholds, even under sustained heavy I/O. The full-length anodized aluminum heat sink is equipped with an ultra-durable, low-decibel fan and high-conductivity thermal padding. This innovative, ultra- efficient cooling system rapidly transfers waste heat away from critical NVMe and controller componentry, without introducing unwanted distraction into your work environment.

Ideal for Compact Desktops & Workstations

The SSD7202 is ideal for PC's that require NVMe boot performance or an ultra-compact storage solution. The low-profile SSD7202 can directly host up to 16TB of NVMe Storage in a device smaller than your average video card, and can be easily installed into any industry standard PCIe 3.0 x8 or x16 slot.

Comprehensive Bootable OS Support

The SSD7102 features comprehensive device driver support for all major OS platforms including Windows 11 and 10, Server 2022 and 2019, and Linux Distributions such as RHEL, Debian, Ubuntu, Fedora, Proxmox and Rocky Linux.

In addition, we provide Open-Source driver packages with our LACS2.0 solution, and offer Binary driver development services for project customers that require unique kernels or support non- standard distributions.

Key Benefits

- Comprehensive NVMe Boot Support for Linux and Windows
- Truly Platform Independent
- Up to 2 off-the-shelf M.2 MLC, TLB, & QLC NVMe SSDs
- Compact Half-Height Form Factor
- Advanced Bootable NVMe RAID Technology: RAID 0, 1, Single Disk
- Up to 16TB capacity per controller
- Advanced NVMe Cooling Solution with Full fan control
- Integrated SSD TBW and temperature monitoring capability

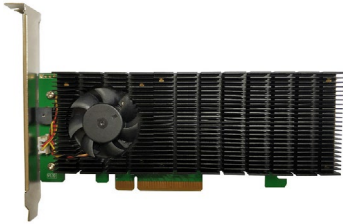### Universal Software Suite Easily Manages & Monitors RAID Storage

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

Pre-OS Level Management: The UEFI Tool is a command line utility designed to configure arrays prior to OS installation.

BIOS Level Management: The UEFI HII utility will add RAID creation menus to the motherboard's BIOS interface for systems that support 3rd party HII capable devices.

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.

Feature Specifications	
Product Image	
Bus Interface	PCI-Express 3.0 x8
Number of Channel / Port	2x M.2
Data Transfer Rates	8GT / 16Gbps per lane
Number of Devices	2x M.2 NVMe SSD
SSD Form Factor	2242/2260/2280 (supports single & double sided)
Form Factor	Low-Profile
Card Dimension	6.61" (W) x 2.71" (H) x 0.92" (D)
Card Weight	0.97 lbs.
Windows Support	Windows 11 and 10, Windows Server 2022/Server 2019/Server 2016, Microsoft Hyper-V
Linux Support	RHEL/Debian/Ubuntu/Fedora/Proxmox/Rocky Linux (Kernel 3.10 or later)
PC Platform Support	• Any PC Systems or Motherboard with an industry standard PCIe x16 physical Slot (Bifurcation is not required) • Thunderbolt™ 3 Connectivity (requires a PC platform with a Thunderbolt 3 port) & Thunderbolt™ Expansion chassis: RocketStor6661A
ARM Platform Support (NVIDIA model)	Yes (Linux)
Secure Boot (PC platforms)	Windows: Supports Secure Boot enable or disabled Linux: Supports Secure Boot disabled
Cooling System	Full-length anodized aluminum heat sink with integrated cooling fan & thermal padding
Fan Control	Yes (Windows)
NVMe Configuration	
RAID Support	0, 1, Single disk
TRIM RAID Support	0, 1, Single disk
Storage Mode – NVMe	Bootable & Data RAID
Management Suite	Browser-Based management tool
	CLI (Command Line Interface – scriptable configuration tool)
	API Package
	UEFI Tool / UEFI HII
	BIOS interface via Human Interface Infrastructure Support (HII)

Management Features	
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)
Advanced RAID features	
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
Operating Environment	
Work Temp	+5°C ~ + 55°C
Storage Temp	-20°C ~ +80°C
Operating Voltage	PCI-e: 12V, 3.3V
Power	Typical: 8.32W
MTBF (Mean Time Before Failure)	920,585 Hours
Certification / Approval	CE, FCC, RoHS, REACH, WEEE
Kit Contents	1x SSD7202
	1x Quick Installation Guide
	1x Low-Profile bracket