



SSD7500 Series PCIe Gen4 x16

M.2 NVMe RAID Controllers



Cutting-Edge PCIe Gen. 4 NVMe RAID & Connectivity Solutions

Truly Independent Cutting-Edge PCIe Gen 4 x16 NVMe RAID Storage Performance for AMD Platforms

HighPoint's 7500 Series combine dedicated, cutting edge PCIe Gen 4 x16 host connectivity with our industry proven RAID technology to deliver unbeatable storage performance. The dedicated PCIe 4.0 x16 host interface enables each NVMe SSD to interface directly with the system CPU to ensure maximum transfer performance and near instant response time.

Truly Independent, Stand-Alone NVMe RAID Solution for both Intel & AMD Platforms

Unlike most PCIe Gen4 NVMe storage devices in today's marketplace, which are tied to a specific hardware platform or brand of SSD or motherboard, HighPoint SSD7500 series controllers are truly independent NVMe RAID solutions. SSD7500 series controllers do not require motherboard platforms with Bifurcation support, or any specialized software released by SSD manufactures; any AMD-based system with a dedicated PCIe 4.0 x16 slot can now take full advantage of the industry's fastest storage solution. In addition, SSD7500 series controllers are fully backwards compatible with Intel PCIe 3.0 platforms, enabling customers to take full advantage of advanced Gen 4 storage media without migrating to a new computing environment.

Bootable RAID Support for Windows and Linux

SSD7500 series NVMe RAID controllers 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 1/0 (Security & Speed) - Unique to HighPoint NVMe RAID solutions, RAID 1/0 (also known as RAID 10) requires a minimum of 4 NVMe SSD's – it will mirror the data of one stripe array to a second, hidden stripe array for security. RAID 1/0 is capable of delivering read performance on par with RAID 0, and is superior to RAID 5 for NVMe applications.

Unlike RAID 5, RAID 1/0 doesn't necessitate additional parity related write operations, which reduce the TBW life span of NVMe SSD's.

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 SSD's to configure. RAID 1 is ideal for bootable volumes.

Comprehensive NVMe RAID Support

HighPoint 7500 Series NVMe RAID controllers will automatically recognize new NVMe SSD's as single drives- no configuration necessary. In addition, our comprehensive NVMe RAID stack enables each controller to support RAID multiple RAID 0, 1 or 10 arrays, or mixed configurations of single disks and RAID storage.

New for Gen 4! Ultra-Efficient, Low-Noise Hyper-Cooling Solution

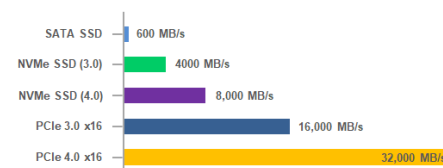
SSD7500 series RAID controllers benefit from a completely new, ground-up redesign of our proven NVMe cooling system. HighPoint's Low-Noise Hyper-Cooling solution ensures your NVMe SSD's consistently operate within their recommended temperature thresholds, even under sustained heavy I/O, by combining a full length anodized aluminum heat sink with an ultra-durable, near-silent fan, and high-conductivity thermal pad. 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.

Comprehensive NVMe RAID Management - Your Choice – Graphical or Text-only interfaces

When it comes to maintaining critical storage configurations, each customer has specific needs and preferences. Both management interfaces share universal layouts across all major operating systems, and can be administered locally or remotely via an

Key Benefits

- Dedicated PCIe 4.0 x16 direct to CPU NVMe RAID Solutions
- Truly Platform Independent
- 4 and 8 NVMe PCIe 4.0 devices
- PCIe Gen 3 Compatible
- Up to 32TB capacity per controller
- Low-Noise Hyper-Cooling Solution
- Integrated SSD TBW and temperature monitoring capability
- Bootable RAID Support for Windows and Linux
- Complete NVMe RAID Solution



Suggested Applications

- Best Suited for Content processing Workstations that require up to 32TB of storage via a single device
- Best suitable for performance hungry Read-Intensive applications

internet connection.

The CLI (command line interface) is a powerful, text-only management interface designed for advanced users and professional administrators.

Comprehensive user guides are available for both interfaces are available from each controller's Software Updates webpage. Both interfaces were designed to streamline NVMe Storage Management. Customers can easily track TBW (Terabytes Written) and the temperature of each individual NVMe SSD, ensure the SSD7000 controller is using the fastest available PCIe slot, configure an event log with email notification, and monitor the status of critical RAID configurations in person or remotely via an internet connection.

Product feature	SSD7505	SSD7540
Bus Interface	PCI-Express 4.0 x16	PCI-Express 4.0 x16
Number of Channel / Port	4x M.2 NVMe port (Dedicated PCIe 4.0 x4 per port)	8x M.2 NVMe port (up to PCIe 4.0 x4 per port)
Data Transfer Rates	16GT / 16Gbps per lane	16GT / 16Gbps per lane
Number of Devices	4x M.2 NVMe SSD	8x M.2 NVMe SSD
SSD Form Factor	2242/2260/2280/22110	2242/2260/2280
Form Factor	Full Height	Full Height
Card Dimensions	7.68" (W) x 4.41" (H) x 0.81" (D)	TBD
Card Weight	1.32 lbs. (600g)	TBD
Operating System	Windows 10, Windows Server 2012 R2 or later, Linux Kernel 3.10 or later, macOS 10.13 or later	Windows 10, Windows Server 2012 R2 or later, Linux Kernel 3.10 or later, macOS 10.13 or later
Cooling	Full length Heat sink with built-in Low-Noise fan	Full length Heat sink with built-in Low-Noise fan
NVMe Configuration		
RAID Support	Single (single-disk), RAID 0, 1, 1/0	Single (single-disk), RAID 0, 1, 1/0
TRIM RAID Support	Single (single-disk), RAID 0, 1, 1/0	Single (single-disk), RAID 0, 1, 1/0
Storage Mode - NVMe	Bootable & Data RAID	Data RAID
NVMe RAID Management		
Management Suites	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 and configurable RAID Rebuilding Priority	Yes	
Auto resume incomplete rebuilding after	Yes	
Single-RAID or Multi-RAID Arrays per Controller	Yes	
Cross-Sync RAID Solution Across Controllers	No	
Operating Environment		
Work Temp	+5°C ~ + 55°C	
Storage Temp	-20°C ~ +80°C	
Operating Voltage	PCI-e: 12V, 3.3V	
Power	Typical: 8W	
MTBF (Mean Time Before Failure)	920,585 Hours	
Certification / Approval	CE, FCC, RoHS, REACH, WEEE	
Kit Contents	SSD7505	SSD7540
	QIG	QIG

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