



SSD7120

4x dedicated 32Gbps U.2 Ports to PCIe 3.0 x16
RAID Controller



Ultra-High Performance, Flexible U.2 NVMe RAID Controller

Designed for high-end desktop & workstation platforms, the SSD7120 is capable of delivering transfer performance up to 8x faster than onboard NVMe solutions, and up to 44x faster than conventional SATA SSD's. The SSD7120's unique hardware architecture provides dedicated PCIe 3.0 x4 (32Gb/s) bus bandwidth for each U.2 SSD, and unlocks the true performance potential of NVMe based storage configurations. Equipped with four U.2 NVMe ports, the SSD7120 can host up to 8TB of blazing fast NVMe RAID storage. The U.2 ports are compatible a wide range of 2.5" rack mount chassis in today's marketplace, and simplify upgrade and maintenance procedures.

Performance-Focused Hardware Architecture

Our performance-focused NVMe hardware architecture delivers uncompromised end to end PCIe 3.0 x16 bandwidth; integrated Smart-Switching technology allocates 4x dedicated lanes for each SSD to ensure maximum transfer speed and immediate response time.

Cross Sync RAID Technology

HighPoint's revolutionary Cross-Sync NVMe RAID Technology can dramatically boost performance and storage capacity. Customers can easily link two SSD7120 controllers to act as a single storage device. A single SSD7120 can support up to 8TB of storage and 14,000MB/s of transfer speed. Cross-Sync technology doubles capacity to 16TB while delivering and astonishing 28,000MB/s of transfer speed!

Flexible 2.5" U.2 Form Factor

The U.2 ports provide customers with a great deal of flexibility when selecting an appropriate hardware platform.

The connectors are compatible with a wide selection of 2.5" form-factor rackmount chassis available in today's marketplace. In addition, the industry standard SFF-8639 connectors accept cables of varying length, which allow the SSD7120 RAID controller to be easily integrated into custom chassis designs.

This design simplifies field upgrades and maintenance sessions, and is ideal for chassis that require removable drive trays for quick access to storage devices.

Maximizing Your NVMe RAID Performance

HighPoint understands that determining the ideal PCIe configuration to maximize NVMe storage performance isn't always easy. We are dedicated to the customer experience – our goal is to make NVMe storage expansion as quick, painless and intuitive as possible for users of any experience level. Our continuous R&D enables us to identify the ideal PCIe configuration for a wide range of motherboard platforms to ensure customers are able to optimize their NVMe SSD storage configurations, regardless of application.

HighPoint NVMe Manager

Each SSD7120 RAID controller includes a simple, intuitive web-based management interface designed to provide a wealth of monitoring and configuration options for novice and experts alike.

A Quick Configuration menu allows new users to get everything up and running with a few simple clicks. Experienced Pros can fine tune configurations for specific applications, monitor the health of the controller and NVMe SSD's, and configure event notification using the Advanced Options menu.

Key Benefits

- Dedicated PCIe 3.0 x16 bus bandwidth
- 4x U.2 Ports with Dedicated PCIe 3.0 x4 bandwidth for each NVMe SSD
- 14,000MB/s transfer performance
- **Cross-Sync Technology:** double capacity & performance up to 28,000MB/s!
- Flexible 2.5" U.2 Form Factor
- Easy to integrate into existing server/rackmount chassis
- For Windows, Linux, and macOS

Suggested Applications

- Rendering Systems & Applications
- High-End Desktops and Workstations



NVMe Storage Health & Life Span Monitoring

The SSD7100 Series RAID controllers include an intuitive, web-based interface, that in addition to RAID creation and storage management, features integrated TRIM support, SMART monitoring, and total Terabyte Written (TBW) tracking – essential data points for maintaining the longevity and endurance of any NVMe storage configuration.

SMART monitoring allows you to check a variety of physical attributes for each NVMe SSD, including temperature readings, voltage and TBW in real time.

Feature Specifications	
Bus Interface	PCI-Express 3.0 x16
Number of Channel / Port	4x U.2 NVMe port (Dedicated PCIe 3.0 x4 per port)
Data Transfer Rates:	8GT per lane / 8Gbps per lane
Number of Devices	4x U.2 NVMe SSD
SSD Form Factor	2.5" U.2 SSD
Form Factor	Low profile
Dimensions	5.72" W x 2.72" H x 0.67" D
Weight	0.60 lbs.
Operating System Support	Windows 11 / 10, Windows Server 2022/ 2019/ 2016/ 2012 R2, Microsoft Hyper-V
	RHEL/Debian/Ubuntu/Fedora/Proxmox/Xenserver (kernel 3.10 and later)
	macOS 10.13 and later
Cooling	Full-length aluminum heat sink
Storage Mode	Data Storage
NVMe Configurations	
RAID Mode Support	Single, RAID 0, 1, 10, JBOD
TRIM RAID Support	Single, RAID 0, 1, 10
NVMe RAID Management	
RAID 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
Redundant RAID Configurations	Yes
Single-RAID and Multi-RAID Arrays per Controller	Yes
Cross-Sync RAID Solution over multi-SSD7101A-1 Controllers	Yes (Windows, Linux, Mac)
Advanced RAID Features	<ul style="list-style-type: none"> • Bootable RAID Array • Multiple RAID Partitions supported • Online Array Roaming • RAID Quick Initialization for fast array setup • Global Hot Spare Disk support
Operating Environment	
Work Temp:	+5°C ~+ 55°C
Storage Temp:	-20°C ~ +80°C
Operating Voltage	PCI-e: 12V, 3.3V
Power	Typical: 7.43W
MTBF (Mean Time Before Failure)	920,585 Hours
Certification / Approval	FCC, CE, ROHS & REACH

NVMe PCIe 3.0 RAID Controller	SSD7120
Product Image	
Retail Box Dimensions	13.38" L x 7.68" H x 2.76"
Retail Box Weight	1.29 lbs.
Kit Contents	SSD7120 RAID Controller, Quick Installation Guide, Low-Profile bracket
Product Dimensions	5.97" L x 2.68" H x 0.06" D

HighPoint Certified Cable Accessories	
	<p>8643-8639-50 - SFF-8643 to U.2 SFF-8639 connector with 15-pin SATA Power Connector</p> <p>The Cable has been tested with the HighPoint SSD7120 NVMe U.2 NVMe RAID Controller, and major U.2 SSDs from Intel, Micron, and the HGST Ultra series.</p>
	<p>8643-8643-0350 / 8643-8643-060 - SFF-8643 NVMe Host to SFF-8643 NVMe HD-Mini-SAS Device (U.2) cables</p> <p>These cables have been certified with the HighPoint SSD7120 controller, SFF-8643 NVMe Enclosures, and major U.2 SSDs from Intel, Micron, and the HGST Ultra series.</p>
	<p>OLX4-8643-061- SFF-8643 NVMe Host to Oculink backplane cable</p> <p>This cable has been tested with the HighPoint SSD7120 NVMe U.2 NVMe RAID Controller, Oculink compliant backplanes, and major U.2 SSDs from Intel, Micron, and the HGST Ultra series.</p>

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