HighPoint
Technologies, Inc.

SSD7101A-1
4x dedicated 32Gbps M.2 Ports to PCIe 3.0 x16 RAID Controller

NVMe Solution

Mind-Blowing NVMe Performance for PC & Mac - 14000MB/s Transfer Speed!

The SSD7101A-1 NVMe RAID controller represents a paradigm shift in system acceleration. Our innovative hardware architecture and game-changing NVMe RAID technology enable the compact PCIe 3.0 x16 controller to deliver up to 14,000 MB's of performance from just 4 M.2 SSD's. Any PC platform or 2019 Mac Pro system with a free, dedicated PCIe 3.0 x16 slot can now experience a level of performance once exclusive to large-scale hard disk configurations and enterprise hardware platforms.

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 SSD7101A-1 controllers to act as a single storage device. A single SSD7101A-1 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!

Cross-Sync
RAID Technology

Robust, Compact & Efficient – Shield & Cool Your SSD's

It's no secret that PCIe devices can generate a great deal of heat, especially during peak operation. HighPoint is no stranger to PCIe design, and has engineered the SSD71001A-1 to excel in high-stress environments. The all-aluminum casing naturally dissipates waste heat away from the SSD modules, and features an integrated fan and heat sink that work in conjunction to eject excess heat away from vital components and keep ambient temperatures manageable and cool.

New for Mac Platforms – Full Fan Control

The SSD7101A-1 now features full fan control when used with Mac platforms and macOS 10.14 and later. Customers can track the temperature of each NVMe SSD using the management interface's SHI feature (Storage Health Inspector), and select from 3 speed settings or power-off the controller's fan for silent operation.

This feature is ideal for media and design applications that require low-noise working environments.

HighPoint NVMe Manager

Each SSD7101A-1 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

- 4x M.2 Ports (242/2260/2280/22110)
- Dedicated PCIe 3.0 x16 bus bandwidth
- Works with any PC/2019 Mac Pro with a dedicated PCIe 3.0 x16 slot
- *Cross-Sync Technology*: double capacity & performance up to 28,000MB/s!
- RAID 0,1, 10 & JBOD
- Integrated TRIM & S.M.A.R.T. Monitoring with TBW Tracking
- Full Fan Control for Mac Platforms
- For Windows, macOS & Linux

Suggested Applications

- High-End Desktops
- Professional Workstations
- Media Servers

HPT NVMe Solution

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 2280 M.2 NVMe Ports (Dedicated PCIe 3.0 x4 per M.2 Port)
Data Transfer Rates:	8GT/ 8Gbps per lane
Number of Devices	Up to 4x M.2 NVMe SSD's (Compatibility List)
SSD Form Factor	2242/2260/2280/22110
Form Factor	Full-Height
Dimensions	8.39" L x 5.00" H x 0.85 D"
Weight	0.77 lbs.
Operating System Support	Windows 10, Windows Server 2012 R2 or later
	Linux Kernel 3.3 or later
	macOS 10.13 and later
Cooling	Aluminum casing with single 50mm x50mm cooling fan
Storage Mode	Data Storage only (non-bootable)
NVMe Configurations	
RAID Mode Support	Single, RAID 0, 1, 1/0, JBOD *(Note: RAID 1/0 is the equivalent of RAID 10)*
TRIM RAID Support	Single/ RAID 0, 1, 1/0
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	Mac & Windows only
Fan Control	Mac only
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
Compliance Certification	FCC, CE, RoHS, REACH, WEEE

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NVMe PCIe 3.0 RAID Controller	SSD7101A-1
Product Image	
Retail Box Dimensions	13.38" L x 7.68" H x 2.76"
Retail Box Weight	1.29 lbs
Kit Contents	1x -SSD7101A-1 RAID Controller 1x Quick Installation Guide
Product Dimensions	5.97" x 2.68" x 0.06"