HighPoint Technologies, Inc.

SSD7104 – 4 Channel M.2 PCIe 3.0 x16 NVMe RAID Controller with Fan-less Cooling Solution

NVMe Solution

SSD7104 – Silent, High-Performance 4-Channel NVMe RAID Solution

Unbeatable Storage Performance

The SSD7104 features our next-gen PCB architecture and industry proven NVMe RAID technology to deliver up to 14,000 MB's of performance from just four off-the-shelf M.2 drives! The compact controller card is no larger than your average GPU, and directly hosts up to 4 M.2 NVMe SSD's of any form factor(2242/2260/2280/22110).
The SSD7104 is our first x16 RAID controller to employ our innovative fan-less, zero-noise cooling system, which is ideal for media applications that require a quiet, controlled working environment, and ensures critical NVMe components and the M.2 SSD's remain cool even under sustained load.

Truly 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

Performance-Focused NVMe Architecture

The SSD7104 benefits from the latest generation of our industry proven, performance-focused NVMe hardware architecture. Designed to deliver uncompromised end to end PCIe 3.0 x16 bandwidth, the integrated Smart-Switching technology allocates 4x dedicated lanes for each SSD to ensure maximum transfer speed and immediate response time.

Cross Sync RAID Technology

Customers can easily link two SSD7104 controllers to act as a single storage device. A single RAID controller can support up to 8TB of storage and 14,000MB/s of transfer speed.
Cross-Sync technology doubles capacity to 16TB while delivering transfer performance up to 28,000MB/s!

Distraction-Free, Zero-Noise Cooling Solution

The SSD7104 is ideal for high-performance media applications that require a distraction free work environment.
The SSD7104 can operate in complete silence, thanks to its full-length black anodized aluminum heat sink and ventilated full-height bracket, which work in conjunction to dissipate waste heat away from critical NVMe chipset componentry and the four hosted M.2 NVMe SSD's.

Comprehensive OS Platform Support

Linux Distributions: A dedicated team of engineers proactively monitors and updates support for all major Linux distributions. Our innovative Auto Compile feature is now embedded directly into our open-source driver packages.

macOS Ready: The SSD7104 NVMe RAID controller is fully compatible with Apple's latest 2019 Mac Pro workstation platform, and is macOS 10.15.x ready.

Windows Platforms: Like the entire SSD7000 series product family, the SSD7104 is fully compliant with current Windows operating systems including Windows 10 and Server 2019.

Comprehensive NVMe RAID Management

When it comes to maintaining critical storage configurations, each customer has specific needs and preferences

Key Benefits

- 4x M.2 Ports (242/2260/2280/22110)
- ***New Design***: Fan-less, Zero-Noise Cooling Solution
- Dedicated PCIe 3.0 x16 bus bandwidth
- Works with any PC & Mac Platform with a dedicated PCIe 3.0 or 4.0 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
- For Windows, macOS & Linux

Suggested Applications

- High-End Desktops
- Professional Workstations
- Media Servers

Both management interfaces share universal layouts across all major operating systems, and can be administered locally or remotely via an internet connection.

The Web RAID Management Interface (**WebGUI**) is a simple and intuitive web-based management tool and is ideal for customers who are new to RAID technology.

The **CLI** (command line interface) is a powerful, text-only management interface designed for advanced users and professional administrators. The universal command lines work with any platform, and are shared across our entire product line.

Comprehensive user guides are available for both management interfaces, and are included with the most recent product updates available from the SSD7104 Software Updates webpage.

Feature Specifications	
Bus Interface	PCI-Express 3.0 x16
Number of Channel / Port	4x M.2 NVMe port
Data Transfer Rate	8GT per lane / 8Gbps per lane
Number of devices	4x M.2 NVMe SSD
SSD Form Factor	2242/2260/2280/22110
Controller Form Factor	Full Height
Dimensions	7.68"(W) x 4.41"(H) x 0.81"(D)
Weight	1.32 lbs. (600g)
Operating System Support	Windows 10, Windows Server 2016 or later, Linux Kernel 3.10 or later, macOS 10.13 or later
Cooling	Fan-less, Full-length Anodized Aluminum Heat sink
NVMe Configuration	
RAID Support	Single disk, RAID 0, RAID 1
TRIM RAID Support	Single disk, RAID 0, RAID 1
Storage Mode - NVMe	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	Yes
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	CE, FCC, RoHS, REACH, WEEE
Kit Contents	1x SSD7104 RAID Controller
	1x Quick Installation Guide

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