



SSD7102 - Bootable, 4x dedicated M.2 Ports
to PCIe 3.0 x16 NVMe RAID Controller

Comprehensive NVMe Booting Solution



**Introducing the SSD7102 – Bootable
4x M.2 NVMe RAID Controller**

The SSD7102 is the latest member of HighPoint’s groundbreaking SSD7100 series of NVMe RAID controllers. Like its sister card, the SSD7101A-1, the SSD7102 supports up to four off-the-shelf NVMe SSD’s, as separate drives or configured into one or more RAID arrays. Unlike the SSD7101A-1, the SSD7102 can be used to boot the host system, from the individual SSD’s or RAID arrays.

Our performance-focused architecture ensures the PCIe 3.0 x16 host interface is equally distributed amongst the M.2 slots, providing dedicated x4 transfer bandwidth for each individual SSD; four-times faster than the majority of NVMe RAID controllers or solutions in today’s marketplace. No other NVMe controller delivers this level of performance and versatility.

**Fast & Secure NVMe Booting
Solution**

Unlike the majority of NVMe RAID controllers on the market, the SSD7102 can support a variety of NVMe-based boot configurations for Windows -based platforms. Customers can configure up to four independent bootable volumes, one per M.2 drive, or boot from one or more RAID arrays. RAID 0 is ideal for systems that require the quickest boot-time possible. RAID 1, and 1/0 are ideal for customers that require additional layers of data security for their boot volumes.

**Independent, Stand-Alone NVMe
RAID Solutions**

SSD7100 Series NVMe RAID Controllers are truly independent NVMe RAID solutions, and were designed for easy integration into commercially available, Intel and AMD based high-performance desktops, workstations, and server platforms.

Unlike most NVMe controllers or drive solutions featured in today’s marketplace, the SSD7100 Series can be used with nearly any system that has a free PCIe 3.0 x16 slot.

**Shields & Cools Your SSD’s – Zero
Performance Throttling!**

Highly-stressed hardware environments designed to host professional media applications produce a great deal of waste heat, especially during peak I/O. SSD7100 Series NVMe RAID Controllers were engineered to excel in such conditions. The all-aluminum casing naturally dissipates heat away from the NVMe modules, and features an integrated fan /heat sink that eject excess heat away from vital components to keep ambient temperatures manageable and cool.

**Integrated TRIM & SMART Monitoring
with TBW Tracking**

Each SSD7100 NVMe RAID Controller includes our intuitive NVMe Manager software interface, which features TRIM support, and SMART monitoring with total Terabyte Written (TBW) tracking. TRIM support promotes the longevity and endurance of NVMe storage by enabling each SSD to handle garbage collection more efficiently, which helps eliminate write speed degradation. SMART monitoring allows you to check a variety of physical attributes of each NVMe SSD, including temperature readings, voltage and TBW. The interface updates attribute data in real time, and can be even be configured to notify you by Email, in the event of an error condition or threshold warning.

Key Benefits

- Comprehensive NVMe Boot Support
- Up to 4 off-the-shelf M.2 NVMe SSD’s
- RAID 0, 1, 1/0
- Windows 10 / Server 2012 R2 and Later
- Dedicated PCIe 3.0 x16 bus bandwidth
- Dedicated PCIe 3.0 x4 bandwidth for each NVMe M.2 SSD

Suggested Applications

- Media Workstations & Servers
- High-End Desktops

**Comprehensive NVMe RAID
Capability**

SSD7100 Series NVMe RAID Controllers employ our industry proven RAID stack, and support up to four NVMe SSD’s in one or more RAID 0, 1, 5 and 1/0 configurations. The NVMe SSD’s can be set to operate independently if desired, and RAID arrays can be scaled or upgraded, as the needed, for additional performance or storage capacity. Each controller includes a simple, intuitive web-based RAID 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 using the Advanced Options menu.

Feature Specifications	
Bus Interface	PCI-Express 3.0 x16
Number of Channel / Port	4* 2280 M.2 NVMe ports (Dedicated PCIe 3.0 x4 per port)
Data Transfer Rate	8GT per lane / 8Gbps per lane
Number of device	4x M.2 NVMe SSD
Form Factor	Full Height (2242/2260/2280/22110)
Dimensions	213mm*127mm*21.59mm
Weight	0.77 lbs.
Operating System	Windows 10, Windows Server 2012 R2 or later Coming December 2018: Linux Kernel 3.3 or later
Cooling	Aluminum casing with single 50x50 fan blower
Storage Modes	Data, Bootable
NVMe Configurations	
RAID Support	Legacy / RAID 0, 1, 1/0
TRIM RAID Support	UEFI Bootable & 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
Storage Health Inspector	Yes
NVMe SMART status	Yes
Global Hot Spare Disk support	Yes
Automatic and configurable RAID Rebuilding Priority	Yes
Auto resume incomplete rebuilding after	Yes
Single-RAID or Multi-RAID Arrays per Controller	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
Certification / Approval	FCC, CE, ROHS & REACH
Kit Contents	1x SSD7102 RAID Controller
	1x Low Profile bracket
	1x Quick Installation Guide
Packaging	
Retail Box Dimensions	13.38" L x 7.68" H x 2.76"
Retail Box Weight	1.29 lbs.

HighPoint Headquarters
Phone 1-408-942-5800
Fax 1-408-942-5801
E-mail sales@highpoint-tech.com
Website www.highpoint-tech.com
Address 41650 Christy St. Fremont
CA, 94538

HighPoint Taiwan
Phone + 886-2-2218-3435
Fax + 886-2-2218-3436
E-mail sales@highpoint-tech.com
Website www.highpoint-tech.com
Address 5F., No.3, Swei Lane, Jhongjheng
Rd., Sindian District, New Taipei City
23148, Taiwan (R.O.C.)

HighPoint China
Phone + 86-10-6213-0920
Fax + 86-10-6897-5074
E-mail sales@highpoint-tech.com
Website www.highpoint-tech.cn
Address 4th Floor Kehaifulin Building,
N0. 12 Zhong Guan Cun South
Rd, Aidian District Beijing
China 100081

