

HighPoint's SSD7105 is the fastest and most versatile NVMe RAID storage upgrade for PCIe Gen3 computing platforms

May 2022, Fremont, CA- HighPoint launches the SSD7105; the industry's fastest bootable PCIe 3.0 x16 4x M.2 NVMe RAID solution. The SSD7105 is an ideal storage upgrade for any PCIe Gen3 desktop, workstation and server platform, and introduces several new features designed to streamline integration workflows, including a high-efficiency cooling system with full fan control, comprehensive Linux support, a new 1-Click Diagnostic solution, and our innovative Cross-Sync RAID technology.

The compact controller is smaller than your average GPU yet can directly host up to four off-the-shelf 2242/2260/2280/22110 double or single-sided M.2 NVMe SSDs, in one or more bootable RAID configurations. A single SSD7105 can support up to 32TB of storage at 14,000MB/s. Two SSD7105's in a Cross-Synced RAID configuration can double these numbers; up to 64TB @ 28,000MB/s; faster than most PCIe Gen4 NVMe controllers!

Replace aging SAS/SATA Infrastructure with Proven NVMe Technology

Now is the best time to replace aging SAS/SATA storage infrastructure. NVMe technology is no longer restricted to niche applications or exotic hardware platforms; it is now well established and readily available.

M.2 NVMe media, in particular, is more versatile and affordable than ever before. In many cases, M.2 SSDs are less expensive than their SAS/SATA counterparts. M.2 NVMe SSDs are now available with up to 8TB of capacity, and the performance advantages are immediately obvious; you would need 5 of today's fastest SAS/SATA SSDs to keep up with your average M.2 drive, and 20 or more to match a simple 4x M.2 RAID 0 configuration hosted by the SSD7105! And thanks to the lack of moving parts, NVMe media is inherently more efficient and reliable than platter-based hard disk drives.

All-in-one Performance and Security upgrade for any PCIe 3.0 Workstation & Server

The vast majority of computing platforms in service today rely on PCIe 3.0 host connectivity. And the reason is simple - PCIe 3.0 is tried and true. The technology is mature; cost-effective, highly reliable and still capable of delivering excellent performance. Compatibility concerns are minimal, and solutions are available for nearly any application, budget and working environment.

The SSD7105 allows you to squeeze every last drop out of your PCIe Gen3 host platform without compromising reliability – in fact, it can drastically improve efficiency and uptime of your server or workstation. In addition to the massive performance boost made possible by NVMe technology, the SSD7105's Redundant RAID 1 and 10 capability can shield your bootable volume and mission critical data against the threat of hardware failure.

Industry's Only Bootable 4-Port PCIe 3.0 x16 NVMe RAID Controller

The SSD7105 is the industry's fastest bootable NVMe RAID solution for PCIe Gen3 host platforms. It is capable of delivering up to 14,000MB/s of transfer performance using off the shelf M.2 SSDs. The four independent ports and dedicated PCIe bandwidth ensure each SSD can operate at full speed, concurrently.

And unlike most bootable NVMe controllers, which are restricted to specific platforms or configurations, the SSD7105 is no one-trick pony; it is an independent, multi-purpose, bootable NVMe RAID solution, and is capable of accommodating an enormous number of high-performance storage applications.

For example, an administrator could configure each SSD to operate independently as a stand-alone boot drive. This type of configuration could be used to host a cost-effective Virtualization solution based around Hyper-V or Proxmox.

The SSD7105 is also capable of hosting multi-RAID configurations, such as a secure, bootable RAID 1 volume alongside a blazing fast RAID 0 array tailored for a specific software suite or application. The possibilities are nearly endless!

Need more than 14,000MB/s?

HighPoint's Cross-Sync Technology delivers Gen4 performance in a Gen3 package!

HighPoint's revolutionary Cross-Sync NVMe RAID technology allows administrators to combine two independent PCIe 3.0 RAID controller cards to function as a single device; effectively doubling your transfer bandwidth and storage capability!

The process is seamless and entirely transparent to the host system. The Windows or Linux OS will recognize the two 4-port cards as a single 8-Port NVMe device. A dual-card Cross-Synced SSD7105 configuration can host up to 64TB of storage and deliver up to 28,000 MB/s of transfer performance – exactly what you would expect from today's fastest 8-port PCIe Gen4 controllers!

Works with all Major Windows and Linux Platforms

The SSD7105 is fully compatible with all major Windows and Linux based operating systems. Comprehensive device driver support is available for Windows 11 and 10, Server 2022 and 2019, and Linux Distributions such as RHEL, Debian, Ubuntu, Fedora, Arch, Proxmox and Xenserver.

In addition, we offer Binary driver development services, and Open-Source driver packages for other or non-standard distributions.

Linux Binary Driver Packages are developed specifically for a particular distribution and kernel. Binary drivers are easy to install, even for novice Linux users.

Linux Open-Source Package with Auto-Compilation packages are ideal driver for most Linux applications. The administrator need only install the root package; the driver will handle all future updates automatically, such as checking/monitoring the status of kernel releases, preparing the system environment, recompiling a new driver, and installation.

macOS Support for Non-bootable storage configurations - SSD7105 is compatible with 2019 Mac Pro's and legacy 5,1 workstation platforms, and can be used to host non-bootable NVMe SSDs and RAID arrays. Device drivers are available for macOS 10.x and 11.x.

Advanced NVMe RAID Engine

The SSD7105's advanced NVMe RAID engine is capable of supporting bootable RAID 0, 1, 10, arrays and single-drives, including mixed configurations of single-disks and arrays, multiple arrays, multiple boot volumes, and boot + storage configurations.

RAID 0 (Striping) - Also known as a "stripe" array, this mode delivers Maximum Performance and capacity by linking multiple NVMe SSD's together to act as a single storage unit.

RAID 1 (Mirroring) - This mode creates a hidden duplicate of the target SSD, and is ideal for applications that require an extra layer of data security.

RAID 10 (Security & Speed) - RAID 10 offers the best of both worlds. Two RAID 1 arrays are striped together to maximize performance. RAID 10 is capable of delivering read performance on par with RAID 0, and is superior to RAID 5 for NVMe applications. Unlike RAID 5, RAID 10 doesn't necessitate additional parity related write operations, which reduce the DDPD/TBW life span of NVMe SSDs.

Ultra-Quiet Active Cooling Solution with Full Fan Control

The SSD7105's advanced cooling system combines a full-length anodized aluminum heat sink with an ultra-durable, near-silent fan, and high-conductivity thermal pad. This compact, ultra-efficient solution rapidly transfers waste heat away from critical NVMe and controller componentry, without introducing unwanted distraction into your work environment.

Full Fan Control – By default, the SSD7105's cooling system will automatically adjust fan speed to ensure NVMe media operates within their recommended temperature thresholds. However, advanced administrators can opt for full manual control. The WebGUI management suite provides 3 selectable speed settings, including an option to fully disable the fan. This feature is ideal for media and design applications that require low-noise or silent working environments, and utilize platforms already equipped with robust cooling systems.

Thunderbolt™ Compliant NVMe RAID Solution

The SSD7105 is fully Thunderbolt™ compliant, and is compatible with PCIe expansion chassis capable of hosting a standard full-height, full-length PCIe device such as the RocketStor 6661A. This enables the SSD7105 to host data-only SSD and RAID configurations for Mac platforms with Thunderbolt™ 3 connectivity.

Comprehensive Monitoring & Management Suite

HighPoint believes that you should not need a professional IT background to configure, monitor and maintain NVMe and RAID storage configurations. Two comprehensive user interfaces are included with each SSD7105 RAID controller.

The **WebGUI** is a simple, intuitive graphical user interface designed to work with all modern Web Browsers. It is equipped with Wizard-like quick configuration menus as well as a suite of advanced tools for expert administrators.

The **CLI** (Command Line Interface) is ideal for seasoned administrators or platforms that do not utilize graphical operating systems.

The WebGUI's **SHI Feature** (Storage Health Inspector) allows administrators to instantly check the operating status of NVMe SSDs in real-time, such as temperature, voltage and TBW (Total Bytes Written). TBW tracking in particular, is essential for maintaining the long-term health of NVMe storage configurations. NVMe media have finite write capability; once the TBW threshold has been reached, the NVMe SSD should be replaced to avoid the risk of a write failure.

Event & Error Logging with Email Notification: Each interface includes automated event logging with configurable Email Event Notification

Intelligent 1-Click Self-Diagnostic Solution: HighPoint's Web-based graphical management suite (WebGUI) now includes a host of automated diagnostic tools designed to streamline the troubleshooting process, even for novice administrators. Customers no longer have to manually assemble a collection of screenshots, logs and status reports when submitting support inquiries. 1-click enables the interface to gather all necessary hardware, software and storage configuration data and compile it into a single file, which can be transmitted directly to our FAE Team via our Online Support Portal.

Pricing and Availability

The SSD7105 is slated for release in late May of 2022, and will be available direct from the Highpoint eStore and our North American Resale and Distribution partners.

SSD7105 4xM.2 Bootable PCIe 3.0 x16 NVMe RAID Controller: MSRP: US\$399.00