

HighPoint M.2 HPC Series RAID Controllers establish a new benchmark for NVMe performance: up to 55,000MB/s for a single RAID array!

HighPoint manufactures the industry's most comprehensive selection of M.2, U.2 and U.3 NVMe RAID controllers. The 8-Port SSD7540 and SSD7140A represent the best M.2 solutions available in today's marketplace. HighPoint 8-Port High-Port-Count (HPC) M.2 controllers deliver unbeatable performance and storage capacity in a compact PCIe device that can be easily integrated into any industry standard computing platform. Our SSD7540 PCIe Gen4 x16 controller can support up to 64TB of storage at speeds up to 28,000MB/s. Dual-Card Cross-Sync configurations can double performance and capacity thresholds – up to 120+TB at an astonishing 55,000MB/s!

Performance Driven Hardware Architecture

HighPoint's unique performance-focused NVMe architecture utilizes intelligent switch technology to allocate up to x4 lanes of bandwidth to each NVMe device port. This enables our 8-port controllers to fully saturate x16 lanes of host bandwidth using as little as four NVMe SSDs.

However, additional SSDs can be added to maximize storage capacity, or fine tune the configuration for a specific application by optimizing a RAID array for sequential or random I/O.

Advanced NVMe RAID Engine

SSD7500 and SSD7000 Series 8-Port M.2 NVMe RAID controllers employ HighPoint's advanced NVMe RAID engine, which is capable of supporting one or more RAID 0, 1, or 10 arrays, JBOD (span) configurations, or individual SSDs. A RAID 0 array will maximize performance and storage capacity. RAID 1 "mirroring" adds a layer of data security – anything written to the target SSD is automatically duplicated to a second hidden SSD, which will immediately take control should the target fail or fall offline. RAID 10 is unique to HighPoint NVMe solutions, and blends performance with security. A RAID 10 array is comprised of two mirrored pairs striped together – it delivers performance on par with RAID 0, yet allows one member of each RAID pair to fail without the risk of data loss.

SSD7500 Series PCIe Gen4 controllers are also Windows & Linux boot capable – each card can host one or more bootable RAID arrays, or SSDs.

Cross-Sync RAID Technology: HighPoint's 8-Port M.2 RAID controllers are Cross-Sync capable; provided the host system has two free PCIe slots with x16 dedicated electrical lanes, administrators can link two 8-port cards to function as a single 16-port device! This will double your storage capacity and performance potential; a pair of Cross-Synced SSD7540 controllers can deliver over 55,000MB/s of transfer performance – no other NVMe RAID solution in today's marketplace comes close!

HighPoint M.2 Series RAID Controllers

HighPoint's small-footprint 8-Port M.2 series controllers can support up to 64TB of storage capacity using cost-effective, off-the-shelf M.2 SSDs.

M.2 controllers directly host the NVMe media – this makes for a much more compact and streamlined solution, as the host system does not need to provide internal drive bays or accommodate additional cabling accessories. At 11.22" in length, HighPoint 8-port M.2 RAID controllers are single-width and conform to full-length, full-height, specifications. As such, they can be easily installed into most desktop chassis and 2U+ rackmount servers.

The SSD7140A PCIe 3.0 x16 controller can support up to 64TB at speeds up to 14,000MB/s, and is the industry's fastest single-card PCIe Gen3 RAID solution.

The SSD7540 PCIe Gen4 x16 RAID controller can support the same level of storage capacity but can double the performance envelope to 28,000MB/s. If you need maximum performance, you need a Gen4-based solution. Gen4 controllers double the performance potential of Gen3 models. Gen4 SSDs are becoming the M.2 media of choice as they are readily available, affordable, and fully backwards compatible with Gen3 solutions. Recent refinements in caching technology enables Gen4 M.2 solutions to deliver a level of performance that was simply inconceivable just a few years ago.

HighPoint's revolutionary Gen4 NVMe RAID technology takes this a step further, and has established a new performance benchmark. For the first time ever, a single NVMe RAID array has broken the 48,000MB/s barrier. Cross-Synced SSD7540 controllers can now deliver a mind blowing 55,000MB/s of transfer performance – nearly 4x what is possible with a Gen3 solution!

[See the SSD7540 in action](#)

Target Applications: M.2 RAID solutions are ideal for applications that require a high-level of write performance for a specific task or duration in a compact, easy to install package. M.2 media deliver excellent random read and write performance, and in large configurations, can be tailored accommodate workflows that require long-term sequential write performance. Target applications include media editing and production, 3D rendering and design, media capture, high-speed data acquisition and security systems.

[Read more about specific target applications](#)

Learn More

[SSD7500 Series PCIe Gen4 M.2 NVMe RAID Controllers](#)

[SSD7000 Series PCIe Gen3 M.2 NVMe RAID Controllers](#)

Pricing and Availability

The SSD7540 and SSD7140A are now available direct from HighPoint, and our Certified North American Retail and Distribution partners.

SSD7540 – 8x M.2 (PCIe Gen4 x16): MSRP USD\$1099.00

SSD7140A – 8x M.2 (PCIe Gen3 x16): MSRP USD\$729.00

Special OEM Pricing and Bundled SKUs are available for VAR and Project inquiries. For more information, please contact our sales department: sales@highpoint-tech.com