HighPoint Launches Dual-Width NVMe Gen 4 AIC Series for Apple Mac Pro M2 Ultra

June 2023, Fremont, CA – HighPoint announces a new PCIe Gen4 NVMe AIC product line designed for Apple's latest generation of Mac Pro workstations.
The new Mac Pro is powered by Apple's own M2 Ultra silicon and 24-Core CPU, which is reported to perform nearly 2x faster than its predecessor. The platforms GPU capability is arguably even more impressive; up to 76 cores and 192GB of memory. This prodigious computing and graphical power is backed by 7 full-length PCIe expansion slots, 4 of which can support dual-width PCIe devices. Built for professional media post production and content creation applications, the new platform can handle up to 22 concurrent streams of 8K ProRes video.
HighPoint's Dual-Width E1.S and M.2 NVMe AICs are the perfect High-performance storage solution for Apple's new powerhouse. Designed for high-stress media, industrial and AI applications, SSD7749 series NVMe RAID AIC host bus adapters, are capable of delivering up to 28GB/s of sustained transfer throughput via a single PCIe Gen4 x16 slot, and double-this with a Cross-Sync configuration!

Double your Mac Pro's Storage Performance and Capacity with HighPoint's Double-Width NVMe Architecture

HighPoint's innovative dual-width NVMe hardware architecture is capable of delivering maximum bandwidth for each available PCIe Gen4 slot! SSD7749 series NVMe AICs leverage Broadcom's 48-lane PCIe Gen4 PEX88048 switch chipset, with proven SerDes and SRIS technology, to optimize signal integrity, reduce latency and maximize transfer throughput.
This combination enables our dual-width NVMe AIC to optimize the x16 lanes of bandwidth provided by the Mac Pro's PCIe Gen4 expansion slots, and allocate a dedicated x4 lanes to each downstream device port The end result is 28GB/s of real-world transfer performance; the maximum possible for a single-card application!

Double & Tripple NVMe Storage Performance: SSD7749 series dual-width NVMe AICs double the performance capabilities of conventional PCIe Gen3 NVMe solutions, from 14GB/s to 28GB/s per PCIe slot.
In addition, SSD7749 series NVMe RAID AICs feature HighPoint's Cross-Sync performance technology. M2 Mac Pros can easily accommodate a pair of SSD7749 AICs via the two dual-width (double-height) Gen4 x16 slots. This enables customers to leverage up to 32 lanes and double transfer throughput to an astounding 55GB/s!

Double Capacity with Enterprise Class Reliability: SSD7749 series AICs were designed to accommodate high-capacity DC class E1.S and 22110 M.2 NVMe media, which offer enterprise grade reliability, with endurance ratings between 1 and 3 DWPD (disk writes per day); on par with U.2/U.3 SSDs. DC class E1.S media is also ideal for applications that must operate for extended periods of time, and are capable of delivering high levels of sustained, long-duration read & write I/O performance, especially when compared to their "client" class counterparts.

Precision Engineered Double-Width NVMe Cooling Solution

As NVMe technology continues to proliferate across vertical markets, the demand for a faster, denser storage solution that utilizes compact form-factor M.2 SSDs and the new Enterprise & DC form Factor E1.S, is on the rise. However, such solutions require a much more robust and efficient cooling system. High-density PCIe Gen4 NVMe media generates a considerable volume of waste heat under load; successfully managing this heat is the key to unlocking the full performance potential of NVMe storage.
In response to this growing demand, HighPoint's product development team have engineered an entirely new double-width cooling solution for SSD7749 series NVMe AICs. Designed to drastically improve cooling performance over existing single-width solutions, this innovative new system mitigates the threat of thermal throttling and ensures high-density PCIe Gen4 E1.S and M.2 22110 media consistently deliver maximum throughput for extended I/O sessions.
Each AIC is fully enclosed by an anodized aluminum casing designed to optimize airflow. The dual-width architecture's unique socket design enables NVMe media to be arranged vertically, similar to how memory is installed into a conventional motherboard. This ensures both sides of the SSD are exposed to the cool air ingested by a pair of powerful, low-decibel cooling fans integrated directly into the casing's "door" mechanism, which swings up and away from the AIC to expose the SSD loading bay. The cool air is condensed and circulated throughout the casing, which then rapidly ejects waste heat via the ventilated PCIe bracket.

Dual-Width NVMe AIC Product Lines

SSD7749 Series: *8-Channel PCIe Gen4 x16 NVMe RAID AIC Host Bus Adapters*

HighPoint's SSD7749 series represents the epitome of NVMe RAID Storage Technology. Armed with HighPoint's advanced NVMe RAID stack, SSD7749 series AICs are capable of supporting RAID 0, 1, 10 arrays and individual-drives, including mixed configurations of single-disks and arrays. SSD7749 series AICs include a comprehensive suite of NVMe Storage and RAID Management and Monitoring tools for macOS, designed to streamline upgrade and maintenance workflows.

WebGUI & CLI: The *WebGUI* is an 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 HighPoint CLI (Command Line Interface) is ideal for seasoned administrators and platforms that do not utilize graphical operating systems.

SHI (Storage Health Inspector): SHI provides wealth of information about NVMe SSDs, and enables administrators to instantly asses the temperature, TBW/DWPD rating, and operational status of each hosted drive, and configure temperature thresholds to correspond with the target SSD's official specifications.

Pricing and Availability

HighPoint's series of Dual-Wide NVMe AICs are set to launch in late June 2023, and will be available direct from our E-Store and our Certified Global Resale and Distribution partners.

SSD7749E 8-Channel PCIe 4.0 x16 E1.S NVMe RAID AIC: MSRP USD$1499.00

https://www.highpoint-tech.com/nvme1/ssd7749e

SSD7749M 8-Channel PCIe 4.0 M.2 NVMe RAID AIC: MSRP USD$1549.00
https://www.highpoint-tech.com/nvme1/ssd7749m