HighPoint Expands NVMe Solution Lineup with New Gen3 & Gen4 Dedicated Host Connectivity Adapter Series!

August 2022 – Fremont, CA. HighPoint Technologies, Inc. is now shipping a complete range of high-performance NVMe HBA solutions for x86-64 Intel/AMD, Nvidia ARM PC and Mac Platforms.
For nearly three decades, HighPoint has designed, manufactured and deployed a comprehensive range of high-performance, high-port-count controller boards for the storage and connectivity industry. HighPoint has leveraged the breadth and depth of this engineering experience to develop their latest NVMe solution lineup; the Rocket 1000 PCIe Gen3 and Rocket 1500 PCIe Gen4 Series NVMe connectivity HBAs.
Available with up to 8 dedicated M.2, U.2 or U.3 device ports for internal external and hybrid connectivity, and powered by industry proven NVMe hardware architecture, HighPoint NVMe HBAs can accommodate a wide range of high-performance industrial, business and media applications.

NVMe Storage & Connectivity Solutions for the Vertical Marketplace

With the release of the Rocket 1000 and 1500 series HBAs, HighPoint NVMe product portfolio is truly second to none. In addition to the industry's largest selection of RAID HBAs and enclosure solutions, HighPoint now delivers a complete range of 4 and 8 channel NVMe storage and connectivity controllers for PCIe Gen3 and Gen4 platforms.
HighPoint Rocket Series NVMe HBAs address the needs of solutions providers and system integrators that cater to vertical marketplaces for high-speed industrial, corporate, and media applications. They were designed professional applications that demand uncompromised connectivity performance, scalability and adaptability, in a compact, easy to integrate package that is universally compatible with industry standard Intel or AMD x86 and Nvidia ARM PC platforms.

Maximum Performance Through Intelligent Design

HighPoint NVMe HBAs benefit from decades of engineering and design expertise, and are capable of saturating x16 lanes of host bandwidth. The highly flexible, performance-focused hardware architecture is unique to HighPoint NVMe hardware solutions, and is designed to fully leverage the capabilities of Broadcom's PEX PEX88048 (PCIe Gen4) and PEX8747 (PCIe Gen3) intelligent switch chipsets. The innovative PCB design enables each HBA to allocate as much as x4 lanes per device port; this ensures all x8 or x16 lanes worth of bandwidth are available at all times, even if half the ports are not in use. Conversely, the majority of NVMe controllers in today's marketplace either split the available host bandwidth equally amongst each device port, or rely on the system's motherboard to allocate PCIe lanes. NVMe controllers that utilize this type of basic architecture are unable to allocate resources on the fly – the values are fixed, regardless of whether or not a given port is occupied. This method is highly inefficient, and imposes a severe performance bottleneck; unless all ports are in use, bandwidth inevitably goes to waste.

Compact, Easy to Integrate, & Software-Defined Storage Infrastructure Ready

Rocket 1000 and 1500 Series HBAs are compact, single width PCIe cards that can be easily installed into any modern x86 and ARM platform. M.2 HBAs host the NVMe media directly, and U.2/U.3 models HighPoint NVMe HBAs are natively supported by all major operating systems, including Windows 11, Windows Server, macOS, and current distributions of Linux. Your NVMe SSDs will be automatically recognized, and can be prepped and mounted using the operating system's standard tool sets.
Rocket 1000 and 1500 series HBAs are ideal foundations for Software-Defined Storage solutions (SDS), such as those that employ Linux CEPH, Microsoft S2D and VMware vSAN. Native support drastically

simplifies storage expansion, management and maintenance workflows, as the HBAs work independent of the host hardware platform, and do not require any product-specific software layer.

Ultra-Efficient, Completely Silent and Low-Noise Cooling Solutions

PCIe devices can generate considerable heat under heavy load. Maximizing NVMe storage performance requires a robust, and efficient cooling apparatus. This is especially true for M.2 HBAs, as the NVMe media is hosted directly by the device. When it comes to combating waste heat, HighPoint NVMe solutions pull no punches. Rocket 1000 and 1500 series HBAs are equipped with one of 3, industry-proven cooling solutions.

Silent Running: Several 4-Port models, such as the Rocket 1204 and Rocket 1120 sport a completely silent, fan-less system, which is ideal for professional media workflows that demand a quiet, controlled work environment.

Low-Noise Solution: The majority of HighPoint's 4-Port HBAs employ unique heatsink and fan combo systems to battle waste heat. These HBAs employ full length aluminum heatsinks with integrated low-noise cooling fans and thermal pads which work in tandem to keep critical controller componentry and hosted NVMe SSDs within their temperature thresholds, even under sustained, full-load.

Hyper-Cooling Solution: HighPoint 8-Port M.2 NVMe HBAs are equipped with an ultra-efficient cooling solution designed specifically for large NVMe configurations. Knowns as "Low-Noise Hyper-Cooling", this system combines a high-conductivity thermal pads with anodized aluminum heatsinks equipped with built-in, low noise fans. This design ensures the NVMe media and critical chipset and RAID componentry remain cool, even under heavy load, while minimizing the risk of distraction in the work environment.

Pricing and Availability

Rocket 1000 and 1500 series NVMe HBAs will be available direct from HighPoint and our North American retail and distribution partners starting in late August 2022.

Rocket 1500 Series

Rocket 1504–4x M.2, PCIe 4.0 x16
Rocket 1508–8x M.2, PCIe 4.0 x16
Rocket 1580–8x U.2/U.3, PCIe 4.0 x16

Rocket 1000 Series

Rocket 1204–4x M.2, PCIe 3.0 x8
Rocket 1104–4x M.2, PCIe 3.0 x16
Rocket 1101–4x M.2, PCIe 3.0 x16 (TBA)
Rocket 1108–8x M.2, PCIe 3.0 x16
Rocket 1120–4x U.2/U.3, PCIe 3.0 x16
Rocket 1180–8x U.2/U.3, PCIe 3.0 x16