## HighPoint Unlocks NVIDIA GPU Power: Introduces Industry's First Hardware Architecture for GPU-Direct NVMe Storage

**Fremont, CA – September 2025** - HighPoint Technologies, a leader in high-performance storage solutions, has announced the launch of the Rocket 7638D, a revolutionary PCIe Gen5 switch adapter engineered to solve the most critical bottleneck in modern AI/ML workflows: data starvation. The adapter's groundbreaking hardware architecture provides a foundational platform for GPU-Direct NVMe storage, enabling NVIDIA GPUs to directly access massive datasets without the performance penalties of CPU bottlenecks. The Rocket 7638D is designed to help AI professionals maximize their return on investment by ensuring their GPUs are always at full utilization, accelerating model training, inference, and data preprocessing to unprecedented speeds.

### The Paradigm Shift: From Conventional to Direct

For decades, the path from storage to compute has been a bottleneck. Data has had to travel from an NVMe drive, through the host CPU, and into the GPU's memory—a slow, inefficient process that wastes valuable compute cycles. The Rocket 7638D shatters this conventional model. It is the first 48-lane Gen5 PCIe switch adapter engineered with a dedicated x16 Gen5 pathway for both an external GPU and NVMe storage from a single slot. This architecture creates a direct, peer-to-peer data channel that bypasses the host CPU entirely.

The result is a transformative leap in performance. By eliminating latency and reducing CPU overhead, the Rocket 7638D ensures that precious GPU compute cycles are no longer wasted on I/O. HighPoint's innovative hardware architecture provides a direct data path that, when paired with a compatible third-party software solution, enables a full GPU Direct Storage (GDS) stack. For deep learning, this translates directly to faster epochs, reduced model training time, and a significant boost in inference throughput, providing a competitive edge for any data-intensive application.
This ensures that powerful GPUs and other accelerators are not sitting idle, but are constantly processing data at their maximum potential, dramatically accelerating workflows and increasing overall system efficiency.

### Simple, Intuitive, and Professional

Despite its advanced capabilities, the Rocket 7638D has been engineered to streamline installation, deployment and field service. The hardware is natively supported by all major operating system platforms, eliminating the need for additional software or complex driver installation. This plug-and-play functionality allows AI/ML, HPC, and Scientific Imaging professionals to quickly install the card and begin building a GPU-accelerated storage solution. For peace of mind, HighPoint's user-friendly MPT utility enables administrators to quickly view firmware information, monitor PCIe bus speed, and check the health of the adapter's switch chipset in real time.

### Key Innovations at a Glance

- **Revolutionary Hardware Architecture:** The Rocket 7638D is the first PCIe Gen5 switch adapter to provides the foundational hardware for a GPU-direct NVMe storage solution.
- **Dedicated Bandwidth for Maximum GPU Utilization:** Our proven PCIe Switching Technology dynamically allocates 48 lanes of Gen5 bandwidth, guaranteeing dedicated x16 pathways to both

the GPU and NVMe storage. This eliminates the I/O bottleneck, ensuring your GPU is never starved for data.

- **Uncompromised CDFP-CopprLink Connectivity:** Ensures reliable, high-bandwidth GPU-to-host data transfers, supporting NVIDIA's most powerful GPUs and external enclosures for flexible deployment.
- **Flexible Dual-MCIO 8i Ports:** The Rocket 7638D dual MCIO 8i ports are capable of supporting up to 16 NVMe drives for a staggering 2 Petabytes of storage. This high-density adapter is purpose-built to handle the largest AI datasets, from petabytes of scientific imaging data to vast training sets for large language models (LLMs).
- **Broad Platform Compatibility:** Works with Intel, AMD, and ARM platforms
- **Optimized for AI Workflows:** Provides a hardware platform for GPU Direct Storage (GDS), reducing CPU overhead, lowering latency, and accelerating data preprocessing.
- **FRU (Field Replaceable Unit):** VPD stored by each adapter enables service providers to easily procure replacements with the correct firmware/hardware combination.

### A Paradigm Shift in GPU-Accelerated Storage

In essence, the Rocket 7638D is the missing link for any NVIDIA-accelerated workflow. It's innovative hardware architecture fundamentally changes the relationship between compute and storage. By unlocking the full potential of your GPU hardware and enabling the fastest possible data pipelines, the Rocket 7638D ensures your ROI is fully realized.

### Learn More

HighPoint Rocket 7638D external PCIe Gen5 Switch Adapter

### About HighPoint Technologies

HighPoint Technologies, Inc. is a global leader in high-performance storage and connectivity solutions. Backed by 30 years of industry experience, we specialize in pioneering PCIe connectivity and storage expansion technologies, including NVMe, SAS/SATA, USB, and Thunderbolt. Our unwavering commitment to innovation has enabled us to deliver reliable, high-density solutions that meet the evolving demands of today's marketplace.

**Our Expertise & Solutions** Powered by proven PCIe switching technology, our product portfolio includes scalable NVMe Switch and RAID AICs & Adapters, PCIe expansion platforms, and external storage and GPU connectivity solutions. We leverage decades of combined software and hardware expertise to engineer solutions that deliver exceptional performance and reliability for mission-critical applications.

**Target Markets & Applications** Our technology is employed by enterprises and professionals across the globe to address today's most demanding applications. HighPoint solutions are the foundation for data-intensive workloads in AI/ML/LLM, data centers, edge servers, and high-performance workstations, supporting both x86 (AMD/Intel) and ARM platforms. For more information, please visit HighPoint Technologies.