HighPoint Introduces PCIe Gen5 Accelerator Expansion Solutions for NVIDIA RTX PRO Blackwell GPUs in Servers and Workstations

PAE solution bundles overcome physical clearance, PCIe connectivity, host power, cooling, and acoustic challenges—enabling flexible NVIDIA BWE GPU expansion across on-premises enterprise offices, engineering facilities, and AI development laboratories.

FREMONT, CA — November 2026 — HighPoint Technologies, Inc., a leader in high-performance PCIe interconnect and storage solutions, has introduced a new line of PCIe Accelerator Expansion (PAE) Solution bundles, designed to enable flexible NVIDIA Blackwell Workstation Edition (BWE) GPU deployment for challenging hardware environments.

By combining full-width PCIe Gen5 x16 CopprLink connectivity, compact single-slot host adapters, and independent GPU power delivery with a dedicated external cooling system, HighPoint PAE solutions address five critical GPU deployment challenges: physical PCIe clearance, PCIe bandwidth integrity, host power limitations, GPU thermal management, and acoustic requirements.

Designed for enterprise IT and AI infrastructure specialists, system integrators, VARs, resellers, and professional workstation users, HighPoint's PAE family offers a flexible hardware-based approach to GPU expansion for on-premises offices, enterprise facilities, and development laboratories.

Injecting High-Performance GPU Capability into Existing Infrastructure

As organizations seek expand on-premises GPU computing capabilities, IT specialists are faced with the following conundrum; existing 1U/2U servers and workstations platforms often lack the physical space, power capacity, or cooling infrastructure needed to accommodate high-performance NVIDIA Blackwell GPUs.

Overcoming such challenges becomes paramount in office environments and development laboratories, where GPU performance must be balanced with available electrical capacity, thermal thresholds, and operating noise.

HighPoint PAE solutions address these hurdles by enabling compatible multi-slot GPUs to operate externally while maintaining high-bandwidth PCIe connectivity to the host platform. By relocating GPU power delivery and cooling outside the chassis,

organizations gain greater flexibility to expand GPU capabilities without extensive modifications to existing server or workstation infrastructure.

HighPoint provides a range of Engineering services, including host compatibility consultation and technical configuration guidance to help customers identify suitable deployment architectures.

HighPoint PAE Solutions: Five Hardware Advantages for On-Premises GPU Deployment

1. Overcomes Physical PCIe Clearance Constraints

HighPoint PAE bundles utilize compact, single-width PCIe host adapters to connect multi-slot GPUs via external accelerator enclosures, enabling deployment in compatible servers and workstations with limited internal clearance. This approach helps preserve adjacent PCIe expansion space for high-speed networking, storage, and other essential devices.

2. Maintains High-Bandwidth PCIe Gen5 x16 Connectivity

HighPoint's PAE hardware architecture preserves the available PCIe lane width for demanding GPU data-transfer requirements across compatible AI and professional computing environments.
The dedicated PCIe Gen5 switch adapters, combined with high-bandwidth CopprLink cable connectivity, provide full-width PCIe Gen5 x16 external GPU connections supporting up to 64 GB/s of theoretical bandwidth, before protocol overhead.

3. Provides Independent GPU Power Delivery

HighPoint PAE external GPU enclosures feature dedicated 1300W PSUs, enabling supported NVIDIA BWE GPUs to receive power independently of the host server or workstation infrastructure.
For customers in need of dual compute expansion, the RocketStor 8631DD is capable of supporting two independently powered GPU enclosures, reducing dependence on host PSU capacity while offering flexible power distribution for enterprise and laboratory deployments, subject to available facility electrical capacity.

4. Relocates GPU Waste Heat Outside the Host Chassis

The dedicated hardware cooling systems provided by each enclosure moves GPU-generated waste heat outside the server or workstation chassis, significantly reducing the internal host thermal load.
This external cooling architecture is designed to support sustained GPU operation while allowing organizations to manage host and accelerator thermal requirements separately.

5. Address Acoustic Requirements in Offices and Development Labs

Acoustic performance is an important consideration when deploying high-power GPUs in occupied offices, engineering facilities, and AI development laboratories.

HighPoint PAE enclosures incorporate acoustically optimized cooling fans engineered to balance high-efficiency GPU thermal management without introducing excessive noise into the working environment. Under HighPoint's specified full-load test configuration, RocketStor RS8631D enclosures measure 65.9 dBA at one meter, providing a documented acoustic reference for on-premises deployment planning.

Three PAE Solution Bundles for Flexible GPU Expansion

RocketStor RS8631DW — External Single-GPU Expansion

The RocketStor 8631DW combines a PCIe Gen5 x16 host adapter, RocketStor RS8631D GPU enclosure, and CopprLink connectivity to enable external deployment of a single compatible multi-slot GPU; ideal for servers and workstations faced with physical clearance, host power, or cooling limitations.

RocketStor RS8631DH — GPU Expansion with Internal NVMe Connectivity

The RocketStor 8631DH combines a dedicated external PCIe Gen5 x16 GPU connection with internal NVMe connectivity through a PCIe switch-based host adapter. The architecture supports hardware-level peer-to-peer data paths between compatible GPU and NVMe devices, providing an expansion foundation for GPU-intensive workflows and internal storage resources via industry standard UBM backplanes.

RocketStor RS8631DD — Dual-GPU Expansion Ready

The RocketStor 8631DD features a Broadcom 48-lane PCIe Gen5 switch-based host adapter with two dedicated external Gen5 x16 CopprLink connections, supporting dual-GPU expansion and switch-level peer-to-peer pathways for compatible systems.

The standard RocketStor 8631DD bundle includes one RocketStor 8631D enclosure; a second enclosure is available separately for dual-GPU deployment.

Designed for Enterprise AI Infrastructure and Professional Workflows

HighPoint PAE solutions provide flexible hardware-level expansion capability for a broad range of compatible GPU-accelerated workflows, including AI development, engineering simulation, professional visualization, and data-intensive computing.

By addressing physical installation, high-bandwidth PCIe connectivity, power delivery, thermal management, and acoustic requirements, in a single unified package, PAE Bundle Solutions help organizations integrate NVIDIA RTX PRO Blackwell GPUs into

existing on-premises server and workstation environments while avoiding costly and complicated infrastructure upgrades.

“As organizations bring high-performance GPU computing into enterprise offices, engineering facilities, and AI development laboratories, successful deployment requires more than GPU performance alone,” said May Hwang, Marketing Director at HighPoint Technologies.

“HighPoint PAE solutions address the physical, power, cooling, connectivity, and acoustic challenges that can limit GPU deployment, helping customers expand their existing infrastructure with greater flexibility and confidence.”

Availability and Enterprise Evaluation Programs

HighPoint RocketStor 8631DW, 8631DH, and 8631DD PAE Solution Bundles are offered through HighPoint and its authorized sales channels, subject to regional availability and product configuration.

Enterprise IT teams, AI infrastructure providers, system integrators, resellers, and professional workstation users can contact HighPoint to request a complimentary Server & GPU Compatibility Review and inquire about available technical evaluation opportunities.

Explore HighPoint PAE Solutions: https://www.highpoint-tech.com/pae-solutions-landing-page

About HighPoint Technologies

HighPoint Technologies, Inc. is a leading developer of high-performance storage and connectivity expansion solutions for enterprise, industrial, AI, media, and HPC applications. For over two decades, HighPoint has delivered innovative PCIe, NVMe, RAID, and storage networking technologies that enable organizations to maximize performance, scalability, and reliability across mission-critical environments.