HighPoint PCIe Switching Solutions: Revolutionizing PCIe Expansion & M.2 Acceleration

April 2025 – Fremont, CA - In today's enterprise IT, edge computing, High-Performance Computing (HPC), and industrial computing sectors, the demand for processing power is growing at an unprecedented rate. Despite modern enterprise and edge platforms being equipped with substantial processing capabilities, the bandwidth-hungry, high-demand applications they are designed to host can quickly exhaust available PCIe resources. To address this challenge, HighPoint has launched its revolutionary PCIe Gen5 and 2nd-Gen Gen4 NVMe Switch AICs and Adapters, bringing forth new era of PCIe expansion and M.2 acceleration solutions.

HighPoint's Rocket 1600 and Rocket 1500 Series

HighPoint's Rocket 1600 and 1500 series PCIe x16 product families are not your typical NVMe controllers. Powered by HighPoint's industry-leading PCIe Switch Architecture, these PCIe Gen5 and 2nd-Gen Gen4 Adapters and AICs offer the following standout features:

Wide Device Compatibility: These adapters and AICs not only support traditional NVMe devices but are also capable of hosting a diverse range of PCIe devices, including GPUs, networking cards, data capture devices, and M.2 accelerators. This broad compatibility allows enterprises to integrate multiple high-performance devices within a single platform, significantly enhancing overall system performance.

Exceptional Expansion Capabilities: HighPoint's PCIe Gen5 and 2nd-Gen PCIe Gen4 x16 NVMe Adapters can host up to eight PCIe devices or as many as four PCIe x8 GPUs from a single slot. This capability enables users to achieve higher device density within their systems without encountering bandwidth bottlenecks.

Dedicated Bandwidth Allocation: Each MCIO or SlimSAS port delivers x8 lanes of dedicated bandwidth, ensuring that each connected device receives ample bandwidth resources. This design not only improves data transmission efficiency but also minimizes potential latency issues.

M.2 Accelerator Support: HighPoint's PCIe Gen5 NVMe Switch AICs can host up to eight M.2 accelerators. This is particularly crucial for applications requiring high-performance storage and data processing, such as big data analytics, and AI/ML workloads.

Flexible Deployment Options: Whether you are an enterprise IT department needing high-performance computing or an edge computing platform seeking efficient data processing, HighPoint's PCIe solutions offer flexible deployment options. Administrators are free to alter PCIe device configurations as needed to address the unique needs of each target application, and without compromising performance or efficiency.

In Summary

HighPoint's PCIe Gen5 and Gen4 NVMe Switch AICs and adapters revolutionize PCIe expansion and M.2 acceleration, offering unmatched bandwidth, flexibility, and scalability. Designed to host multiple PCIe devices, including GPUs and M.2 accelerators, these solutions empower businesses to overcome PCIe resource limitations, optimize infrastructure, and deliver next-generation performance for data centers, edge computing, and high-performance environments.

Learn More

PCIe Switching Architecture：

https://www.highpoint-tech.com/switching-technology

Gen5 Switch Series:

Rocket 1628A - PCIe Gen5 x16 to 4-MCIOx8 NVMe Switch Adapter

https://www.highpoint-tech.com/nvme-switch-adapter/gen5/rocket-1628a

Rocket 1608A - PCIe Gen5 x16 to 8-M.2x4 NVMe Switch AIC

https://www.highpoint-tech.com/nvme-switch-aic/gen5/rocket-1608a

2nd-Gen Gen4 Switch Series:

Rocket 1528D - PCIe Gen4 x16 to 4-SlimSASx8 NVMe Switch Adapter

https://www.highpoint-tech.com/nvme-switch-adapter/gen4/rocket-1528d

About HighPoint Technologies, Inc.

HighPoint is committed to providing innovative, reliable, and scalable solutions that meet the evolving demands of today's high-performance computing, video editing, and 3D rendering. Our team is dedicated to helping you achieve your technical and business goals, ensuring your systems run at peak efficiency.

We invite you to explore our PCIe Gen5 and Gen4 x16 expansion solutions and experience the difference that HighPoint makes. For more information, visit our website or contact our sales team directly.