

HighPoint's Half-Length NVMe AICs empower compact systems with true x16 Storage Performance

May 2025 – Fremont, CA - In the ever-evolving landscape of high-performance computing, space efficiency, and raw speed are often at odds. However, HighPoint Technologies is changing the game with its new Rocket 7604A and Rocket 1604A PCIe Gen5 NVMe AICs, which deliver true x16 storage performance in a half-length, compact form factor. These solutions are ideal for small form factor tower servers, rackmount chassis, and edge computing environments where space is limited, but performance must remain uncompromised.

Designed for modern workloads that demand high-speed, high-capacity storage, the Rocket 7604A and Rocket 1604A enable systems to directly host up to 64TB of NVMe storage without the need for internal drive bays or additional cooling components. This makes them a perfect fit for edge computing, AI, and data-intensive applications where every inch of space matters.

Server-Grade NVMe AICs for Maximum Flexibility

Both the Rocket 7604A and Rocket 1604A are server-grade PCIe Add-In Cards (AICs) that support up to 8x off-the-shelf M.2 2280 SSDs, regardless of their speed or capacity. This flexibility allows users to tailor their storage configurations to specific needs, whether it's high-speed read/write for AI training or large capacity for data archiving.

The Rocket 7604A and Rocket 1604A are not just about capacity—they deliver real-world performance of up to 56GB/s using just four drives. This is made possible by HighPoint's advanced PCIe Gen5 switching and RAID technologies, ensuring that storage systems can keep up with the most demanding workloads.

Powerful Cooling for Sustained Performance

One of the biggest challenges in compact systems is thermal management. HighPoint addresses this with self-contained cooling solutions that effectively prevent thermal throttling, even under heavy, sustained I/O operations. This ensures that NVMe SSDs maintain their peak performance without the need for extra cooling devices or complex thermal management setups, making the AICs ideal for edge environments where space and power are limited.

Rocket 1604A Switch AIC: Gen5 Speeds with Native Support

The Rocket 1604A Switch AIC is designed for users who want to leverage PCIe Gen5 speeds without the hassle of software or drivers. It offers simple drop-in installation and is natively supported by modern Windows and Linux platforms, meaning it is automatically recognized and ready to use right out of the box.

With no need for additional software, the Rocket 1604A is perfect for environments that prioritize ease of deployment and simple serviceability. HighPoint's proven PCIe Switching architecture ensures each M.2 SSD operates at maximum throughput under the most challenging workloads.

Rocket 7604A RAID AIC: Customizable Storage for Critical Applications



For users who need more than just speed—those who require flexibility, performance, and security—the Rocket 7604A RAID AIC offers a powerful solution. It supports RAID 0, 1, and 10 configurations, allowing users to balance speed, redundancy, and data protection according to their specific needs. The Rocket 7604A's Active Hardware Sensor Monitoring solution and a Comprehensive NVMe Storage Management Suite, give administrators real-time insights into drive health, temperature, and performance. These features are essential for environments where data integrity and system reliability are paramount.

In Summary

Whether it's for AI model training, real-time data analytics, or media production, the Rocket 7604A and Rocket 1604A deliver the storage performance and dependability that professionals need in a compact, easy to integrate add-in-card form factor. As the demand for edge computing and portable high-performance systems continues to rise, HighPoint's half-length NVMe AICs are setting a new benchmark for storage innovation.

Learn More

Rocket 7604A – PCIe Gen5 x16 to 4x M.2 NVMe RAID Adapter

Product page: <https://www.highpoint-tech.com/rocket-7604a-individual-page/>

Buy Now: <https://www.highpoint-tech.com/product-page/rocket-7604a>

Rocket 1604A – PCIe Gen5 x16 to 4x M.2 NVMe Switch AIC

Product page: <https://www.highpoint-tech.com/rocket-1604a-individual-page/>

Buy Now: <https://www.highpoint-tech.com/product-page/rocket-1604a>

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, AI, and 3D rendering applications. 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.