HighPoint RocketStor 6500 Series Delivers Ultra-Compact, High-Density External NVMe Storage Solutions with KIOXIA CD8P Series NVMe SSDs

June 11, 2025 – Fremont, CA - In the fast-evolving world of data storage, the demand for scalable, high-performance, and space-efficient solutions has never been greater. HighPoint Technologies has once again set a new standard by combining its cutting-edge RocketStor 6500 Series with KIOXIA CD8P Data Center PCIe® 5.0 NVMe™ SSDs, delivering a robust and simple storage expansion solution designed for enterprise-grade applications. This innovative collaboration empowers businesses to meet the challenges of modern data-driven environments, from enterprise IT to edge computing and high-performance computing (HPC).

"The collaboration between HighPoint and KIOXIA represents a major leap forward in external NVMe storage technology," said May Hwang, VP of HighPoint Technologies. *"By integrating our ultra-compact RocketStor 6500 Series with KIOXIA's high-performance CD8P Series U.2 SSDs, we are delivering an enterprise-class storage solution that redefines scalability, efficiency, and reliability. Whether for high-density data centers, AI-driven workloads, or edge computing applications, this solution delivers seamless, high-speed, and secure data access in even the most space-constrained environments."*

"We are excited to work with HighPoint to create an ultra-compact, high-performance storage solution, utilizing our CD8P Series PCIe 5.0 NVMe SSDs," said Neville Ichhaporia, senior vice president and general manager of the SSD business unit at KIOXIA America, Inc. "Our data center-class NVMe SSDs, combined with HighPoint's RocketStor 6500 Series system, will help accelerate the most demanding AI, HPC, and cloud workloads."

Target Applications & Platforms

The HighPoint RocketStor 6500 Series, paired with KIOXIA CD8P Series SSDs, is specifically designed to meet the demands of modern, high-performance computing environments. This solution excels in the following applications and platforms:

- **Enterprise IT**

Data Center Expansion: Enables seamless scaling of storage infrastructure for large-scale data centers, supporting the growing demands of cloud computing, AI, and machine learning.
Cloud-Native Architectures: Integrates effortlessly with hybrid and private cloud environments, ensuring scalable, high-density storage for modern enterprise applications.
Mission-Critical Workloads: Provides the reliability and performance needed for database management, transaction processing, and other enterprise-critical tasks.

- **Edge Computing**

Real-Time Data Processing: Ideal for edge environments where low latency is critical, such as in IoT devices, autonomous systems, and remote monitoring solutions.
Remote and Branch Offices (ROBO): Compact and reliable storage solutions for edge data centers, ensuring data availability and performance in space-constrained locations.
Industrial IoT (IIoT): Supports real-time data collection and analysis in manufacturing, logistics, and smart cities, enabling faster decision-making and operational efficiency.

- **High-Performance Computing (HPC)**

Scientific Research: Delivers the high-speed, low-latency storage required for complex simulations, climate modeling, and genomic research.
Supercomputing Centers: Provides scalable, high-density storage solutions for HPC clusters, enabling faster processing of large-scale datasets.
AI and Machine Learning Workflows: Supports the rapid processing of massive datasets for training models and advancing AI-driven innovations.

- **Industrial Computing**

Manufacturing Automation: Compact and durable storage solutions for industrial PCs and automation systems, supporting real-time data acquisition and processing.
SCADA Systems: Enables reliable storage for Supervisory Control and Data Acquisition systems used in utilities, transportation, and energy management.
Robotics and Machine Learning: Supports industrial robots and machine learning models with fast, low-latency data access, improving production efficiency and accuracy.

This combination of HighPoint's RocketStor 6500 Series and KIOXIA's CD8P Series NVMe SSDs is tailored to meet the unique challenges of Enterprise IT, Edge Computing, High-Performance Computing (HPC), and Industrial Computing environments, delivering unmatched performance, scalability, and reliability.

Key Features

The HighPoint RocketStor 6541AW and KIOXIA CD8P Series SSDs solution offers the following key features:

Ultra-compact design:

RocketStor 6541AW: The world's smallest 4-bay external NVMe RAID enclosure, measuring just 4.84 inches tall and 6.10 inches long, saving valuable space in data centers and edge computing environments.

RocketStor 6542AW: The industry's most compact 8-bay external NVMe storage solution, offering high-density storage without compromising on performance or flexibility.

High-density storage support:

RocketStor 6500 series enclosures can support up to 8 KIOXIA CD8P Series NVMe SSDs, with up to 30.72TB of capacity. This enables customers to add up to 245.76TB via a single PCIe slot; ideal for data-intensive applications and high-performance computing workloads.

Simplified Connectivity:

The elegant, single-cable host to device connectivity simplifies deployment and service workflows, particularly in space-constrained industrial and edge computing environments.

High performance and Efficiency:

Achieve actual transfer speeds of up to 28GB/s to meet the needs of high-performance computing and real-time data processing. By offloading storage traffic, the CPU load is reduced and the overall efficiency is improved.

Security and Data Protection:

The solutions were designed to accommodate SED (self-encrypting drives) and are fully compatible with HighPoint's SafeStorage OPAL SED solution. In addition, Rocket 6500 series enclosures are powered by HighPoint's proven NVMe RAID technology, which offers RAID 0, 1, and 10 capabilities to enhance data redundancy and reliability.

Suitable for space-constrained environments:

The compact, lightweight design and external form factor is perfect for edge and industrial computing platforms, and high-density data centers where internal space is limited.

A new benchmark for future storage expansion

The combination of the HighPoint RocketStor 6541AW and the KIOXIA CD8P Series drives redefines the standard for external NVMe storage solutions. This innovative combination not only breaks the limits of storage density and performance, but also meets the diverse needs of enterprise IT, edge computing and high-performance computing through ultra-compact design and efficient connectivity. For enterprises and organizations that need high-density, high-performance storage solutions, the collaboration between HighPoint and KIOXIA offers a great choice. Whether it is the expansion of the data center or the optimization of the edge computing environment, this combination provides enterprises with superior storage performance and flexibility.

Learn More

For more information about the HighPoint RocketStor 6541AW and KIOXIA KCD81PUG30T7, please visit:
https://www.highpoint-tech.com/nvme-enclosure/rs6542aw

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About HighPoint Technologies, Inc.

HighPoint Technologies is a leader in storage innovation, providing high-performance, high-density NVMe switching and RAID adapter solutions for x86 AMD/Intel and ARM platforms. With nearly three decades of expertise, HighPoint has been focused on providing innovative, reliable and high-performance storage solutions for enterprises and data centers.

By working with KIOXIA, HighPoint extends its leadership in high-density storage to help customers meet the challenges of rapidly changing technology and achieve continued business growth.