

Maximizing Performance with the RocketAIC 7749E: The Ultimate NVMe AIC SSD Solution for AI, Data Center and Edge Servers & Workstations!

Designed to meet the rigorous demands of AI Edge Servers, Data Centers and High-Performance Workstations, HighPoint's revolutionary RocketAIC 7749EW NVMe AIC SSD leverages eight KIOXIA XD7P Data Center Class E1.S SSDs, state-of-the-art PCIe Gen4 switch architecture, and industry leading RAID technology to deliver an unbeatable combination of ultra-dense storage capacity, enterprise grade reliability and endurance, proven SED data protection, and blazing-fast transfer speeds, efficiently packaged into a robust, compact PCIe AIC form factor. Engineered for performance-hungry industrial and business applications, including data-intensive, low-latency workflows associated with Machine Learning systems, AI applications and scientific research, RocketAIC 7749E NVMe AIC SSDs are available with 15, 30 and 61TB of storage capacity, and deliver an unprecedented 28GB/s of sustained transfer bandwidth, all from a single PCIe 4.0 x16 slot.

Performance-Focused Hardware Architecture

HighPoint RocketAIC NVMe AIC SSDs incorporate Broadcom industry-leading PCIe switch chipsets, to optimize signal integrity, reduce latency and maximize transfer throughput.

The highly flexible, performance-focused hardware architecture is unique to our NVMe solutions and ensures bandwidth is never wasted. RocketAIC 7749EW series AIC SSDs allocate a dedicated x16 lanes of upstream bandwidth, and x4 lanes of downstream bandwidth to each device port. This enables each AIC to deliver up to 28,000MB/s of real-world sustained transfer bandwidth; the maximum possible from a single PCIe Gen4 slot!

Precision Engineered Double-Width NVMe Cooling Solution

HighPoint's groundbreaking dual-width cooling solution resides within the heart of each RocketAIC 7749EW series AIC SSD. This innovative cooling system was engineered to prevent thermal throttling and enable NVMe storage to deliver maximum sustained transfer throughput under the most demanding workloads. Whether processing sophisticated AI algorithms, or rendering a complex 3D model for design and analysis, RocketAIC 7749EW AIC SSDs are always up to the task.

Designed to drastically improve cooling performance over existing single-width solutions, this innovative new system mitigates the threat of thermal throttling and ensures high-density PCIe Gen4 NVMe media consistently deliver maximum throughput for extended I/O sessions. Each RocketAIC 7749EW AIC SSD is fully enclosed by an anodized aluminum casing designed to optimize airflow. The dual-width architecture's unique socket design enables the KIOXIA E1.S SSDs to be arranged vertically, similar to how memory is installed into a conventional motherboard. This ensures both sides of each device are exposed to the cool air ingested by a pair of powerful, low-decibel cooling fans. The cool air is then condensed and circulated throughout the casing, which then rapidly ejects waste heat via the ventilated PCIe bracket.

SafeStorage NVMe SSD Encryption Solution

RocketAIC 7749EW AIC SSDs are compatible with HighPoint's SafeStorage, a comprehensive NVMe Hardware Encryption Solution designed to accommodate large-scale RAID arrays and individual SSDs. Developed in line with leading SED technology and based on OPAL SSC TCG specifications, SafeStorage is designed to safeguard critical assets by preventing access to stored data when physical disks are misplaced or stolen. Volumes encrypted with SafeStorage activate each disk member's self-encryption capabilities, providing robust data protection.

Comprehensive Compatibility and Installation Guides

HighPoint's has extensive experience with Dell, HP and Supermicro computing platforms, encompassing the integration of our storage AICs as well as the development and maintenance of device driver and management software for these solutions. As a result, RocketAIC NVMe AIC SSDs are seamlessly compatible with a wide range of HP Z and ProLiant Workstations and Servers, and Dell Precision and PowerEdge platforms. HighPoint has conducted intensive research to identify each compatible platform, analyze their capabilities, and provide clear, concise installation guides for each supported RocketAIC NVMe AIC SSD. All reports follow the same easy to read format and are continuously updated to ensure the latest information and testing data is readily available.

Quick & Intuitive Management Suite

Though RocketAIC NVMe AIC SSDs are designed to work right out of the box, customers are free to install HighPoint's intuitive WebGUI and CLI management software suite, which includes our SHI solution (Storage Health Inspector), which provides simple and quick real-time temperature monitoring and endurance tracking. Administrators can easily tailor RAID storage for a specific target Application & platform.

Striping - This mode delivers Maximum Performance and capacity by linking multiple NVMe SSDs together to act as a single storage unit.

Mirroring - This mode creates a hidden duplicate of the target SSD, and is ideal for applications that require an extra layer of data security, including bootable volumes.

Security & Speed –This mode offers the best of both worlds. Two mirrored arrays are striped together to maximize performance with a layer of data redundancy.

Shipping & Availability

HighPoint RocketAIC 7749EW Series NVMe AIC SSDs will be shipping in March of 2024, and will be available worldwide, direct from our E-Store and our Certified Global Resale and Distribution partners.

[Where to Buy](#)

RocketAIC 7749EW Series:

RA7749EW-K15T3-0A 15.36TB PCIe Gen4 x16 NVMe AIC SSD: MSRP USD \$5,699.00

RA7749EW-S30T7-01 30.72TB PCIe Gen4 x16 NVMe AIC SSD: MSRP USD \$7,499.00

RA7749EW-S61T4-02 61.44TB PCIe Gen4 x16 NVMe AIC SSD: MSRP USD \$10,999.00