



RocketAIC 7749MW

PCIe Gen 4 x16 NVMe AIC SSD - Up to 32TB of Pro-Class Storage

32TB

Uncompromised Storage Performance & Capacity for Data-Intensive Workflows

HighPoint's revolutionary RocketAIC 7749MW NVMe AIC SSD is designed for professionals who demand the highest levels of storage performance and reliability. Armed with 16 to 32TB of Pro Class NVMe storage, and capable of delivering 28GB/s of sustained transfer speed, the RocketAIC 7749MW represents a new standard for high-density, high-speed data storage solutions. RocketAIC 7749MW series NVMe AIC SSDs were designed for off-the-shelf Content Creation Workstation and AI servers manufactured by leading system vendors including Apple, Dell HP and Supermicro, and are capable of accommodating a wide-range of high-performance applications, including AI driven workflows, virtual memory solutions, post-production platforms, and high-speed data ingestion and media capture systems. Each AIC is equipped with HighPoint's ground breaking dual-width AIC architecture and Broadcom's state-of-the-art PCIe Gen4 PCIe switch to maximize the density, performance and reliability of NVMe storage media. The robust aluminum casing fully encloses and protects the SSDs and sensitive controller hardware from high-stress working environments, and incorporates a purpose-built cooling system designed to maximize the performance potential of PCIe Gen4 NVMe media.

HighPoint's groundbreaking dual-width cooling solution resides within the heart of each RocketAIC 7749MW series NVMe 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 you're rendering complex 3D models, editing 8K video footage or processing sophisticated AI algorithms, RocketAIC 7749MW AIC SSDs are always up to the task.

Comprehensive Compatibility & Installation Guides

HighPoint's has extensive experience with Dell and HP 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 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.

Performance-Focused Hardware Architecture

HighPoint RocketAIC NVMe expansion drives 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 7749MW 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!

Equipped with Samsung 990 PRO M.2 SSDs

RocketAIC 7749MW AIC SSDs leverage our industry leading NVMe hardware architecture and Samsung's 990 PRO series M.2 SSDs to deliver class-leading reliability and transfer performance.

SafeStorage NVMe SSD Encryption Solution

RocketAIC 7749MW 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.

Feature Highlights

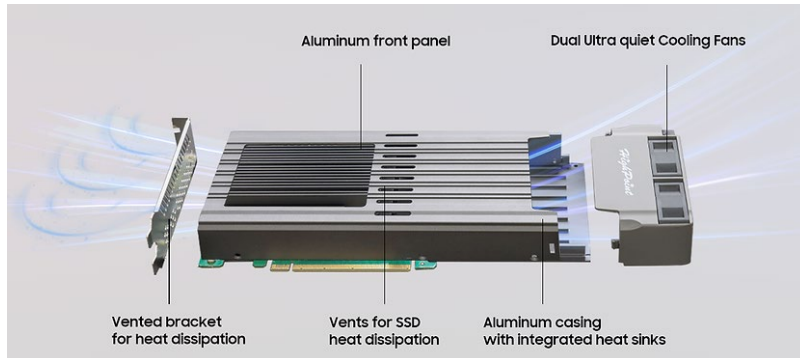
- Robust, Blazing-Fast High-Density Dual-Width PCIe Gen4 x16 NVMe AIC SSD
- Seamless Compatibility with a wide-range of Dell & HP Server & Workstation Platforms
- Performance Focused Hardware Architecture: x16 lanes of dedicated upstream and x4 lanes of downstream bandwidth for each NVMe port
- Sustained transfer speeds up to 28,000MB/s
- Equipped with eight of Samsung 990 PRO Series M.2 SSDs and 32TB of Storage Capacity
- Precision Engineered Dual-Width Cooling Solution Prevents Thermal Throttling
- Quick & Intuitive Management Suite: Easily Reconfigure RAID storage for your target application and platform
- Optional Boot-RAID Capability for Linux & Windows
- SafeStorage TCG SSD Solution

Precision Engineered Dual-Width NVMe Cooling Solution

As NVMe technology continues to proliferate across vertical markets, the demand for a faster, denser storage solution that utilizes compact form-factor SSD media is on the rise. However, such solutions require a much more robust and efficient cooling system. High-density PCIe Gen4 NVMe media generates a considerable volume of waste heat under load; successfully managing this heat is the key to unlocking the full performance potential of NVMe storage.

In response to this growing demand, HighPoint's product development team have engineered an entirely new dual-width cooling solution for the RocketAIC 7749MW series. 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 7749MW AIC SSD is fully enclosed by an anodized aluminum casing designed to optimize airflow:



The dual-width architecture's unique socket design enables the 990 PRO SSDs to be arranged vertically, similar to how memory is installed into a conventional motherboard. This ensures each SSD is exposed to the airflow ingested by a pair of powerful, low-decibel cooling fans. Cool air is condensed and circulated throughout the casing, which then rapidly ejects waste heat via the ventilated PCIe bracket.

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.

Easily Tailor RAID storage for your 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.