



RocketAIC 7749EW

PCIe 4.0 x16 NVMe Expansion Drive Series

61TB

Ultra-Dense PCIe Gen4 x16 Storage Expansion Drives

RocketAIC Series PCIe Expansion Storage Drives

If you are looking for a high-speed storage upgrade or expansion solution for a modern Server or Workstation platform, NVMe media is a must-have. The combination of performance and reliability in a compact package is simply too good to ignore. However, the process of selecting the right NVMe controller and SSD for the job and then determining if the combination is compatible with your computing platform is no easy matter.

Until now that is; HighPoint has taken the guess work out of NVMe storage technology! If you need the fastest, most reliable turnkey storage in today's marketplace, you need a RocketAIC NVMe expansion drive.

RocketAIC Drives employ industry-proven storage technology, precision engineered hardware architecture, and class-leading media from today's premier NVMe media manufactures to deliver the speed, endurance & reliability customers expect from a professional-grade storage solution.

RocketAIC 7749EW

HighPoint's RocketAIC 7749EW is the industry's most advanced turnkey PCIe expansion storage drive. Engineered for performance-hungry industrial and business applications, RocketAIC 7749EW NVMe drives leverage HighPoint's ground breaking dual-wide PCB architecture and precision engineered NVMe cooling system, with state-of-the-art PCIe Gen4 PCIe switch technology to maximize the density, performance and reliability of E1.S storage media. RocketAIC 7749EW series drives are equipped with eight of Solidigm's DC class E1.S SSDs, and are ideal for professional workflows that require a high-density NVMe storage solution capable of maximizing x16 lanes of PCIe Gen4 host bandwidth with enterprise-level endurance and reliability.

The dual-wide, full-height, full-length PCIe NVMe drives can be integrated into industry standard tower workstations and servers with GPU-class risers, and are capable of delivering up to 28GB/s of sustained transfer performance and over 60TB of storage capacity.

Broadcom Inside!

HighPoint RocketAIC NVMe expansion drives incorporate Broadcom PCIe switch chipsets, to optimize signal integrity, reduce latency and maximize transfer throughput. The Switch ICs are integrated directly into the AIC's controller hardware, and provide an abundance of electrical lanes: a total of 48 for RocketAIC 7749EW series drives. The highly flexible, performance-focused hardware architecture is unique to our NVMe solutions and ensures bandwidth is never wasted. RocketAIC 7749EW series drives allocate a dedicated x16 lanes of Upstream bandwidth, and x4 lanes of downstream bandwidth to each device port.

Equipped with Solidigm's Datacenter Class D7-P5520 Series E1.S SSDs

RocketAIC 7749EW series NVMe expansion drives leverage our industry leading NVMe hardware and Solidigm's Datacenter Class D7-P5520 Series E1.S SSDs to deliver enterprise grade reliability and transfer performance. Engineered for professional workflows and ultra-high-performance workstation platforms, RocketAIC 7749EW drives deliver a potent combination of high-density storage capacity, reliability and blazing fast data throughput.

Feature Highlights

- Dedicated PCIe Gen4 x16 Host Bandwidth delivers up to 28,000MB/s
- Equipped with eight of Solidigm's Datacenter Class D7-P5520 Series E1.S SSDs
- Precision Engineered Dual-Wide Cooling Solution Prevents Thermal Throttling
- Up to 61.44TB of Storage Capacity
- Tuned for Maximum Performance & Capacity

Your Choice: Maximum Transfer Speed & Capacity, Maximum Data Security, or the Best of Worlds!

RocketAIC NVMe expansion drives were designed to accommodate a wide-range of high-performance workflows, including AI learning and AV systems, content creation and post-production platforms, and high-speed data ingestion and media capture solutions. RocketAIC NVMe expansion drives are shipped pre-configured to maximize storage and capacity, but can be easily reconfigured using our quick and intuitive management suite.

Striping - This mode delivers Maximum Performance and capacity by linking multiple NVMe SSD's 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.

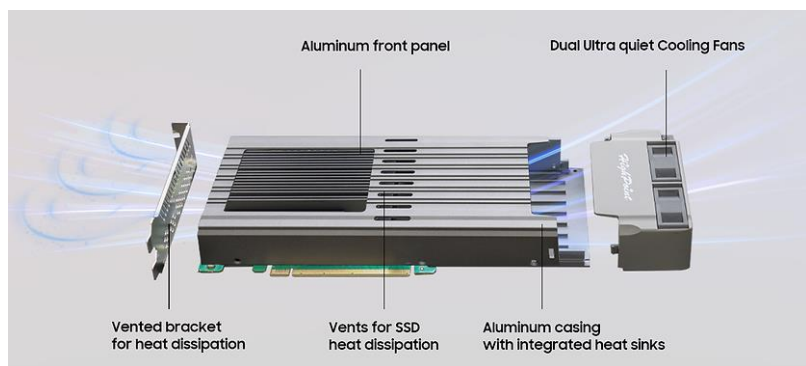
Security & Speed - This mode offers the best of both worlds. Two mirrored arrays are striped together to maximize performance with a layer of data redundancy.

Precision Engineered Double-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 M.2 SSDs and new DC class E1.S 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 double-width cooling solution for the RocketAIC 7749EW 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 E1.S media consistently deliver maximum throughput for extended I/O sessions.

Each RocketAIC 7749EW drive is fully enclosed by an anodized aluminum casing designed to optimize airflow:



The dual-width architecture's unique socket design enables the Solidigm SSDs to be arranged vertically, similar to how memory is installed into a conventional motherboard. This ensures both sides of each SSD 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.

Quick & Intuitive Management Suite

Though RocketAIC series drives are designed to work right out of the box, customers are free to install HighPoint's intuitive WebGUI management software, which includes our SHI solution, and provides simple and quick real-time temperature monitoring and endurance tracking. Quick, and easily mastered, the WebGUI works with all modern web browsers and can be used to manage, configure and monitor every aspect of your RocketAIC NVMe drive with a few simple clicks.

Product feature	RA7749EW-S30T7-01	RA7749EW-S61T4-02
Capacity	30.72TB	61.44TB
Performance	Sequential Read (MB/s): 28138	Sequential Read (MB/s): 28138
	Sequential Write (MB/s): 27377	Sequential Write (MB/s): 27377
RAID Support	RAID 0, 1, 10, Single-Disk	
TRIM RAID Support	RAID 0, 1, 10, Single-Disk	
Number of Channel / Port	8x E1.S NVMe port (Dedicated PCIe 4.0 x4 per port)	
Port Type	8x E1.S NVMe	
Data Transfer Rate	16GT/s	
Number of devices	8x E1.S NVMe SSD	
SSD Form Factor	Thickness 9.5 mm x 8 x E1.S NVMe SSD	
Card Dimensions	11.18"(W) x 4.92" (H) x 1.53"(D)	
Card Weight	4.03 lbs.	
Warranty	3 Years	3 Years
	TBW(Total SSDs) : 56PB TBW(Single SSD): 7PB	TBW(Total SSDs) : 112PB TBW(Single SSD): 14PB
Cooling System	Aluminum casing with integrated thermal pad & cooling fan	
SED	No	
Enhanced Power Loss Data Protection	Yes	
Supported Systems		
OS (Only supports 64-bit OS)	Windows 11, 10 Windows Server 2022, 2019, 2016 Microsoft Hyper-V RHEL & Debian & Ubuntu & Fedora & Proxmox & Rocky Linux(Linux kernel 3.10 and later)	
System Requirements	PC Platforms: Dell Precision 7960 Tower Workstation	
Secure Boot	Windows: Yes (need UEFI driver corresponding to Secure Boot) Linux: No	
NVMe Storage Management		
Management Suites	WebGUI (Browser-Based management tool)	
	CLI (Command Line Interface- scriptable configuration tool)	
	API package	
	UEFI Tool & UEFI HII	
SMTP Email Alert Notification	Yes	
Alarm Buzzer	Yes	
Storage Health Inspector	Yes	
NVMe SMART status	Yes	
Automatic and configurable RAID Rebuilding Priority	Yes	
Auto resume incomplete rebuilding after power on or reboot system	Yes	
Single-RAID or Multi-RAID Arrays per Controller	Yes	

Advanced RAID features	
Bootable RAID Array	Yes
Online Array Roaming	Yes
RAID Quick Initialization for fast array setup	Yes
Operating Environment	
Work Temp	+5°C ~ + 55°C
Storage Temp	-20°C ~ +80°C
Operating Voltage	PCI-e: 12V, 3.3V
Power	137.28W 161.28W
MTBF	2 million hours
Certification / Approval	CE, FCC, RoHS, REACH, WEEE
Kit Contents	
RocketAIC 7749EW-S30T7-01	1x RA7749EW-S30T7-01 (includes 8 x Solidigm D7-P5520 3.84TB SSDPFUKX038T1 E1.S NVMe) 1x QIG
RocketAIC 7749EW-S61T4-02	1x RA7749EW-S61T4-02 (includes 8 x Solidigm D7-P5520 7.68TB SSDPFUKX076T1 E1.S NVMe) 1x QIG

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