HighPoint
Technologies, Inc.

RocketAIC 7540HW
PCIe Gen4 x16 NVMe AIC SSD

32TB

Ultra-Speed PCIe Gen4 x16 NVMe AIC SSD

RocketAIC Series NVMe AIC SSD

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 AIC SSD.

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.

Designed for Factory-Built Server and Workstation Platforms

RocketAIC drives have been validated with a wide range of Workstation and Server vendors including Dell, HP, and Supermicro. We have developed a series of Installation Guides to provide customers with clear, concise instructions for each supported workstation and server. Each guide examines the target system's PCIe configuration in detail to evaluate the performance potential, mechanical compatibility and power requirements of each available expansion slot, and provide a list of recommended RocketAIC NVMe AIC SSD.

RocketAIC 7540HW

HighPoint's high-density RocketAIC 7540HW series NVMe AIC SSDs are comprised of eight Samsung 990 PRO M.2 SSDs, pre-configured to for maximum performance and storage capacity. The Full-Height, Full-length, single-width AIC drive was designed for use with full-sized PC-based tower workstation platforms, and was engineered to accommodate professional workflows that demand massive storage capacity, maximum uptime, and uncompromised transfer throughput.

Broadcom Inside!

RocketAIC NVMe AIC SSDs incorporate Broadcom PCIe switch chipsets, to optimize signal integrity, reduce latency, maximize transfer throughput and provide an abundance of electrical lanes. The highly flexible, performance-focused hardware architecture is unique to our NVMe solutions and ensures bandwidth is never wasted. The RocketAIC 7540HW allocates a dedicated x16 lanes of upstream bandwidth, and x4 lanes of downstream bandwidth to each device, and is capable of delivering 28GB/s of transfer throughput; the maximum possible from a single-slot PCIe Gen4 NVMe AIC SSD!

Powered by Samsung's Class-Leading 990 PRO M.2 SSDs

RocketAIC 7540HW series NVMe AIC SSDs are powered by Samsung's proven 990 PRO series M.2 SSDs, which deliver client class -leading I/O performance and reliability. RocketAIC 7540HW drives deliver a potent combination of blazing transfer speeds and high-endurance reliability, and are equally suited for professional workflows and personal high-performance computing applications.

Feature Highlights

- Dedicated PCIe Gen4 x16 Host Bandwidth delivers up to 28,000MB/s
- Powered by Samsung's Class-Leading 990 PRO SSDs
- Powerful, Low-Decibel NVMe Hyper Cooling Solution
- Up to 32TB of Storage Capacity
- Tuned for Maximum Performance & Capacity
- SafeStorage TCG SED Solution

Your Choice: Maximum Transfer Speed & Capacity, Maximum Data Security, or the Best of Worlds!
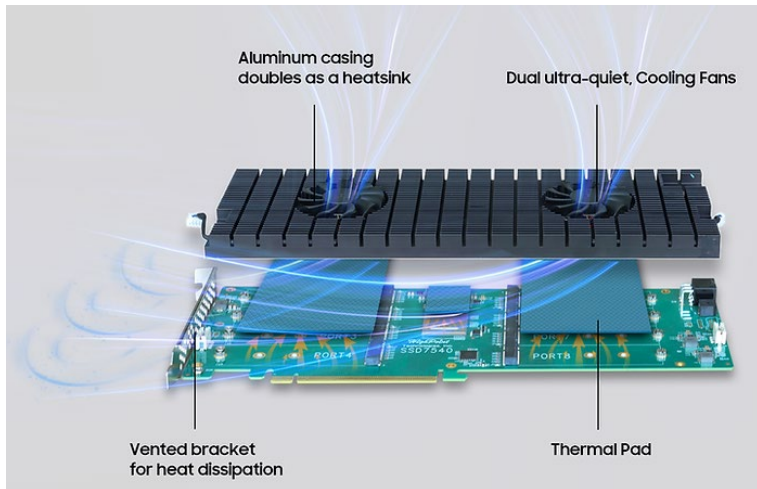
RocketAIC NVMe AIC SSDs were designed to accommodate a wide-range of high-performance workflows, including AI learning and AV systems, content creation and post-production platforms, and high-speed data ingestion and media capture solutions. RocketAIC drives are shipped pre-configured to maximize storage capacity and performance, but can be easily reconfigured using our quick and intuitive management suite.

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.

PCIe-Gen4 Hyper-Cooling Solution

In order to optimize NVMe storage performance, you will need a reliable way to keep temperatures in check. RocketAIC NVMe RAID SSDs were designed to mitigate the threat of thermal throttling to excel in high-stress computing environments.

The RocketAIC 7540HW's proven PCIe Gen4 NVMe Hyper-Cooling solution was engineered to perform optimally in demanding workflows while generating minimal noise. The system leverages a full-length anodized aluminum heatsink with powerful low-decibel cooling fans and high-efficiency thermal padding to rapidly transfers waste heat away from sensitive hardware and ensure the Samsung 990 PRO SSDs always perform optimally, even under maximum load.

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 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	RA7540HW-A16T0-0E	RA7540HW-A32T0-0F
Bus Interface	PCI-Express 4.0 x16	
Capacity	16TB	32TB
Data Transfer Rate	16GT/s	
Performance (sequential)	Up to 28,000MB/s	
Number of Channel / Port	8x PCIe 4.0 x4 M.2 Ports	
Number of Devices	8x Samsung 990 PRO M.2 NVMe SSDs	
AIC Form Factor	Full-Height, Full-Length	
AIC Dimensions	11.18''(W) x 4.41''(H) x 0.94''(D)	
AIC Weight	1.85 lbs.	
Warranty	3 Years	
	Endurance (TBW) Total SSDs: 9600TB Single SSD: 1200TB	Endurance (TBW) Total SSDs: 9600TB Single SSD: 1200TB
Supported Operating Systems *(only supports 64-bit operating systems)*		
Windows	Windows 11, 10 / Windows Server 2022, 2019, 2016 / Microsoft Hyper-V Only supports 64-bit operating system.	
Linux	RHEL/Debian/Ubuntu/Fedora/Proxmox/Rocky Linux (Linux kernel 3.10 and later)	
Secure Boot(PC platforms)	Windows: Supports Secure Boot Disable & Enable (Please download the corresponding UEFI driver) Linux: Support Secure Boot Disable	
Cooling System	PCIe Gen4 Hyper-Cooling Solution	
NVMe Configuration		
RAID Support	Single, RAID 0, 1, 10	
Storage Mode - NVMe		
Data RAID (Non-Bootable)	Windows, Linux	
Boot RAID	Windows: Windows 10, 11 / Windows Server 2016, 2019, 2022 / Microsoft Hyper-V	
	RHEL, Debian, Ubuntu, Fedora, Proxmox, Rocky Linux (Linux Kernel 3.10 and later)	
Advanced RAID Features		
Flash ROM for Upgradeable UEFI	Yes	
Multiple RAID Partitions supported	Yes	
Online Array Roaming	Yes	
Global Hot Spare Disk support	Yes	
Automatic and configurable RAID Rebuilding Priority	Yes	
Auto resume incomplete rebuilding after powering on or rebooting system	Yes	
Single-RAID or Multi-RAID Arrays per Controller	Yes	
Event Log	Yes	
Configurable Temperature Thresholds	Yes	
S.M.A.R.T. support	Yes	
TCG SED support	Yes	

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NVMe RAID Management		
Management Suites	WebGUI (Browser-Based management tool)	
	CLI (Command Line Interface- scriptable configuration tool)	
	API package	
	UEFI Tool & UEFI HII (BIOS interface via Human Interface Infrastructure Support)	
SMTP Email Alert Notification	Yes	
Alarm Buzzer	Yes	
Storage Health Inspector	Yes	
Operating Environment		
Work Temp	+5°C ~ + 55°C	
Storage Temp	-20°C ~ +80°C	
Operating Voltage	PCI-e: 12V, 3.3V	
Power	85.28W	86.08W
MTBF	1.5 million hours	
Kit Contents	**RA7540HW-A16T0-0E**	**RA7540HW-A32T0-0F**
RocketAIC 7540HW	1x RA7540HW-A16T0-0E	1x RA7540HW-A32T0-0F
	1x Quick Installation Guide	1x Quick Installation Guide

RocketAIC 7540HW

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