



RocketAIC 7502W

PCIe 4.0 x16 NVMe Expansion Drive Series

8TB

Bootable PCIe Gen4 x16 Storage Expansion Drives

RocketAIC Series PCIe Expansion Storage Drives

RocketAIC bootable series of expansion drives are simple and secure system disk and storage upgrade solutions for industry leading Dell and HP workstation and server platforms. RocketAIC drives are shipped pre-configured, and ready to use right out of the box. Installation is simple affair, regardless if you are installing a clean OS or adding storage to an existing platform; simply insert the compact PCIe add-in-card into a free slot, power up the system and install the device driver when prompted. The host system will immediately recognize the RocketAIC drive as a single, physical disk, which can be partitioned and formatted as desired, just like any other ordinary drive.

Designed for Factory-Built Server and Workstation Platforms

We have developed a series of Installation Guides to provide customers with clear, concise instructions for each supported Dell/HP 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 PCIe Expansion Drives.

RocketAIC 7502HW

The RocketAIC 7502HW is HighPoint's most compact, high-density PCIe Gen4 Expansion drive, and is capable of delivering a blistering 14,000MB/s of transfer throughput and up to 8TB of bootable, pre-configured storage. The Half-Height/Half-Length form factor is compliant with a wide range of PC riser cards, and can be easily integrated into industry leading Dell and HP servers and workstations.

Broadcom Inside!

RocketAIC NVMe expansion drives 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 7502HW allocates a dedicated x16 lanes of upstream bandwidth, and x4 lanes of downstream bandwidth to each device, and is capable of delivering 14GB/s of transfer throughput; the maximum possible from a single-slot PCIe Gen4 expansion drive!

Powered by Class-Leading M.2 SSDs

RocketAIC 7502HW series NVMe expansion drives are powered by Samsung's proven 980PRO and WD BLACK SN850X series M.2 NVMe SSDs. RocketAIC 7502HW drives deliver a potent combination of blazing transfer speeds and high-endurance reliability, and are equally suited for professional server and workstation environments, and personal high-performance computing applications.

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 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.

Feature Highlights

- Dedicated PCIe Gen4 x16 Host Bandwidth delivers up to 14,000MB/s
- Broadcom Inside
- Powered by Class-Leading M.2 SSDs
- Advanced NVMe Cooling Solution
- Up to 8TB of Storage Capacity
- Tuned for Maximum Performance & Capacity

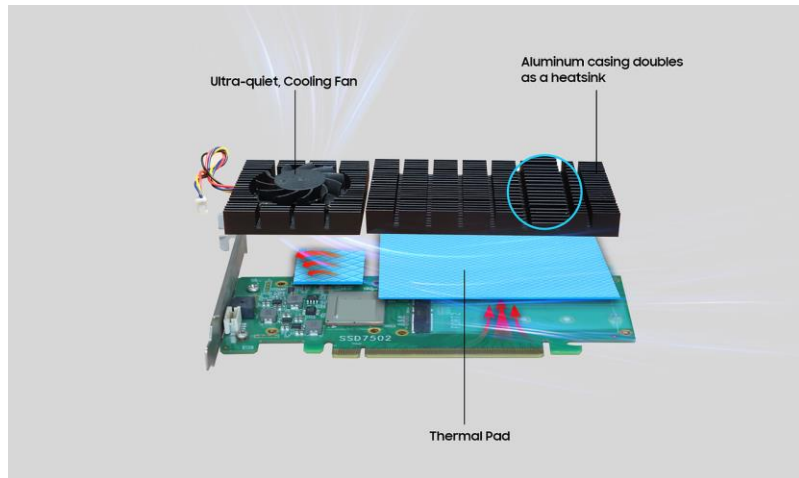
Mirroring - This mode creates a hidden duplicate of the target SSD, and is ideal for applications that require an extra layer of data security, including bootable volumes.

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.

Protects Your System Disk with Data Mirroring Technology

While RocketAIC drives are tuned for maximum performance and storage density by default, they can be easily reconfigured to act as data mirrors. Mirroring technology, AKA RAID 1, remains one of the most effective ways to secure a bootable system disk against the possibility of device failure. A mirrored RocketAIC drive creates an automated backup of the target system disk. If the original should fail, the mirrored backup will immediately, and seamlessly, take the reins. This enables the host system to remain online, and continue to operate normally. The redundancy delivered by a mirrored drive is essential for many server-based applications, especially Virtual Machine and hosting solutions, which must remain available for client access on a 24/7/365 basis.

Advanced NVMe Cooling Solution



The RocketAIC 7502HW is equipped with HighPoint’s advanced PCIe Gen4 NVMe cooling solution, which mitigates the risk of thermal throttling by ensuring each hosted SSDs consistently operates within their recommended temperature thresholds, even under sustained heavy I/O. The full-length anodized aluminum heat sink is equipped with an of ultra-durable, low-decibel cooling fan and high-conductivity thermal padding. This innovative, ultra- efficient cooling system rapidly transfers waste heat away from critical componentry and NVMe media, without introducing unwanted distraction into your working environment.

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	RA7502HW-A02T0-03	RA7502HW-A04T0-00	RA7502HW-A08T0-09
Capacity	2TB	4TB	8TB
Performance	Sequential Read (MB/s): 13810	Sequential Read (MB/s): 13938	Sequential Read (MB/s): 13916
	Sequential Write (MB/s): 10463	Sequential Write (MB/s): 10252	Sequential Write (MB/s): 12426
RAID Support	RAID 0, 1, Single-Disk		
TRIM RAID Support	RAID 0, 1, Single-Disk		
Number of Channel / Port	2		
Port Type	M.2		
Data Transfer Rate	16GT/s		
Number of devices	2		
SSD Form Factor	2280		
Card Dimensions	6.57" (W) x 2.72" (H) x 0.80" (D)		
Card Weight	0.86lbs		
Warranty	3 Years		
	TBW(Total SSDs): 1200TB TBW(Single SSD): 600TB	TBW(Total SSDs): 2400TB TBW(Single SSD): 1200TB	TBW(Total SSDs): 4800TB TBW(Single SSD): 2400TB
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: PC Systems or Motherboard with an industry standard PCIe x16 physical Slot (Bifurcation is not required), Refer to the compatibility list.		
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		
Cross-Sync RAID Solution Across Controllers	Yes		

Advanced RAID features			
Online Array Roaming	Yes		
RAID Quick Initialization for fast array setup	Yes		
Global Hot Spare Disk support	Yes		
Operating Environment			
Work Temp	+5°C ~ + 55°C		
Storage Temp	-20°C ~ +80°C		
Operating Voltage	PCI-e: 12V, 3.3V		
Power	33.28W	29.88W	29.88W
MTBF	1.5 million hours		1.8 million hours
Certification / Approval	CE, FCC, RoHS, REACH, WEEE		
Kit Contents			
RocketAIC 7502HW-A02T0-03	1x RA7502HW-A02T0-03 (includes 2 x Samsung 980 Pro 1TB MZ-V8P1T0B M.2 NVMe)		
	1x QIG		
RocketAIC 7502HW-A04T0-00	1x RA7502HW-A04T0-00 (includes 2 x Samsung 980 Pro 2TB MZ-V8P2T0B M.2 NVMe)		
	1x QIG		
RocketAIC 7502HW-A08T0-09	1x RA7502HW-A08T0-09 (includes 2 x WD_BLACK SN850X 4TB WDS400T2X0E M.2 NVMe)		
	1x QIG		

