HighPoint Technologies, Inc.

Rocket 1000 Series PCIe Gen3 Fan-Less NVMe HBA's
Dedicated Gen 3 Bandwidth with Silent Cooling Systems

HPT NVMe Solution

Fully Independent NVMe Solution - No Bifurcation Required

No Bifurcation Required:
Works with any Industry Standard PCIe 3.0/4.0 Slot!

HighPoint Rocket 1000 Series Fan-Less NVMe HBA's are compatible with a wide range of hardware platforms. The PCIe 3.0 host interface is fully compliant with industry standard PCIe 3.0 and 4.0 PCIe slots, does not require a host platform with Bifurcation support, and is not limited to a specific brand or model of motherboard.

Built-in High-speed, Intelligent Switch Chipset

HighPoint NVMe HBA's integrated Broadcom high-performance intelligent PCIe switch chipset, which ensures maximum transfer bandwidth is available for each device port, at all times. Up to x4 dedicated lanes can be allocated to each M.2 NVMe SSD.

Native, In-Box NVMe Device Driver Support

HighPoint NVMe HBA's were designed with simplicity in mind. All you need is a little patience and a screwdriver; just install the M.2 SSD's and plug in the card!

Rocket 1000 Series HBA's are natively supported by all major operating systems, including Windows 10, Windows Server 2019, macOS Big Sur, and current distributions of Linux. You won't need to juggle a series of device drivers, install a complex software suite, or master a specialized management interface. Your NVMe SSD's will be automatically recognized, and can be prepped and mounted using the operating system's standard tool set.

Ultra-High-Performance NVMe Storage Solution

Rocket 1000 Series NVMe HBA's can host RAID arrays created using the operating systems built-in storage management tools.
macOS Disk Utility and Windows Disk Management can configure RAID 0 arrays using up to 4 M.2 drives.

Supports any Off-the-Shelf M.2 NVMe SSD

Any Capacity, Any Generation & Any Form-Factor...

Rocket 1000 series M.2 ports are capable of supporting any industry standard off-the-shelf M.2 NVMe SSD

NAND Form Factor: Single & Double-Sided

M.2 Form Factor: 2280, 2260, 2242, 22110

Silent Operation

Fan-less Cooling for Media Sensitive Work Environments

Rocket 1104 and Rocket 1204 HBA's feature ventilated bracket and full-length black-anodized heat sink with high-conductivity thermal pad efficiently whisks waste heat away from hosted SSD's and critical controller componentry.
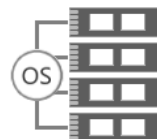
This robust, fan-less design allows for completely silent operation – ideal for applications that require low-noise work environments.

Key Benefits

- Fully compliant with Industry standard PCIe 3.0 Slots; no-Bifurcation dependency or need for specific brand/model of motherboards

- Integrated, High-Performance Intelligent, PCIe Switch controller chipset powered by Broadcom ensures Dedicated PCIe x4 lane bandwidth is allocated to each M.2 Slot at all times

- Native, in-box NVMe driver support for all major OS platforms

- Broad Compatibility with current computing platforms: HP, Dell, Alienware, Legacy Mac Pro, 2019 Mac Pro, Apple M1 Platforms

- Completely Silent, Fan-Less Cooling System

R1000 HBA's can host bootable NVMe SSD's when used with Legacy Mac Pro 5.1 systems and macOS 10.x or earlier.

R1000 HBA's support OS-based RAID, which can be configured using the operating system's default storage management interface.

The R1104 and R1204 can support up to 4 M.2 NVMe SSD's of any form-factor.

Product	R1104	R1204
Bus Interface	PCI-Express 3.0 x16	PCI-Express 3.0 x8
Number of Channel / Port	4x M.2 NVMe port (Dedicated PCIe 3.0 x4 per port)	4x M.2 NVMe port (up to PCIe 3.0 x4 per port)
Data Transfer Rate	8GT / 8Gbps per lane	8GT / 8Gbps per lane
Number of device	4x M.2 NVMe SSDs	4x M.2 NVMe SSDs
SSD Form Factor	2242/2260/2280/22110 (supports single & double sided)	2242/2260/2280/22110 (supports single & double sided)
Form Factor	Full-Height	Full-Height
Card Dimensions	7.68" (L) x 4.38" (H) x 0.73" D	7.68" (L) x 4.38" (H) x 0.73" D
Package Weight	1.34 lbs.	1.39 lbs.
Cooling	Silent Design: Fan-less, Full-length anodized aluminum Heat sink	Silent Design: Fan-less, Full-length anodized aluminum Heat sink
Supported Operating Systems		
Windows	Windows 10 or later, Windows Server 2019	
Linux	Linux Kernel 3.10 or later	
macOS	MacOS 10.13 or later (Big Sur compatible)	
FreeBSD	FreeBSD 12.1 and later	
System Requirements	**Mac Platforms:** • Apple Mac Pro Systems: 2012 and later Mac Pro systems; 5.1, 7.1 (2019) • Apple M1 Platform compatible • Thunderbolt™ 3 Connectivity via Thunderbolt™ Expansion chassis: RocketStor6661A	
	PC Platforms: • Any PC Systems or Motherboard with an industry standard PCIe x16 physical Slot (Bifurcation is not required) • Thunderbolt™ 3 Connectivity (requires a PC platform with a Thunderbolt 3 port) & Thunderbolt™ Expansion chassis: RocketStor6661A	
Operating Environment		
Work Temp	+5°C ~ + 35°C	+5°C ~ + 35°C
Storage Temp	-20°C ~ +80°C	-20°C ~ +80°C
Operating Voltage	PCI-e: 12V, 3.3V	PCI-e: 12V, 3.3V
Power	Typical: 17.72W	Typical: 17.72W
MTBF (Mean Time Before Failure)	920,585 Hours	920,585 Hours
Certification / Approval	CE, FCC, RoHS, REACH, WEEE	CE, FCC, RoHS, REACH, WEEE
Kit Contents	R1104	R1204
	QIG	QIG

Compact, Self-Contained M.2 Solution:

The M.2 SSD's are directly hosted by the R1000 HBA; no additional drive bays or enclosures are required.

Ultra-High Performance:

Dedicated PCIe 3.0 x16 or x8 Bus-Bandwidth

R1000 Series NVMe HBA's are Thunderbolt™ compliant, and can be installed into PCIe expansion chassis, such as the RocketStor 6661A.