HighPoint
Technologies, Inc.

Rocket 1180
PCIe 3.0 x16 8-Port U.2 NVMe HBA

Fast & Versatile 8-Channel PCIe Gen3 NVMe Connectivity Solution

R1000 Series NVMe HBAs are fully independent, stand-alone NVMe storage solutions for PCIe Gen3 platforms; they are not tied to a specific motherboard, chipset or operating system, can be easily integrated into any motherboard or server/workstation platform with a free PCIe 3.0/4.0 x16 or x8 slot, and are capable of supporting off-the-shelf NVMe SSDs of any capacity.

The Rocket 1180 is a versatile, high-performance NVMe connectivity HBA for PCIe 3.0 host platforms. The eight independent device ports can support U.2/U.3 or M.2 NVMe SSDs via a range of cabling solutions.

Performance-Focused NVMe Hardware Architecture

HighPoint NVMe connectivity HBAs benefit from decades of engineering and design expertise, and are capable of saturating x16 lanes of PCIe Gen4 or Gen3 host bandwidth. The highly flexible, performance-focused NVMe hardware architecture leverages intelligent PCIe switch technology to allocate up to x4 lanes to each device port, as needed.

Native, In-Box NVMe Device Driver Support

HighPoint NVMe HBA's were designed with simplicity in mind. Just install the SSDs and plug in the card!

Rocket 1000 Series HBA's are natively supported by all major Windows and macOS operating systems, VMware ESXi 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 SSDs 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 2 or more NVMe SSDs.

Supports any Industry Standard U.2/U.3 NVMe SSD

Any Capacity & Any Generation

Rocket 1000 series M.2 ports are capable of supporting any industry standard U.2/U.3 NVMe SSD

Form Factor: 2.5" U.2/U.3, M.2 *(via cabling accessories and compatible backplanes).*

Versatile Cabling Solutions

The Rocket 1180 works with a variety of industry standard connectors – not just SFF-8639, which is employed directly by U.2 media. We offer a selection of cabling accessories capable of supporting a wide range of storage configurations, including SFF-8643 connections and SFF-8611 Oculink backplanes. This allows the Rocket 1180 to support any industry standard U.2 or M.2 NVMe SSD.

Ultra-Efficient Silent, Low-Noise Cooling Systems

The 8-Port Rocket 1180 employs our new multi-stage cooling solution that combines an anodized aluminum heatsink with a built-in low noise fan This design ensures the NVMe chipset and RAID componentry remain cool under heavy load while minimizing the risk of distraction in the work environment.

Key Benefits

- Up to 8 NVMe SSDs
- PCIe 3.0 x16 Host Interface
- Fully compliant with Industry standard PCIe 3.0 Slots; no-Bifurcation dependency or need for a specific brand/model of motherboard
- Integrated, High-Performance, Intelligent PCIe switch technology ensures can allocate up to PCIe x4 lanes to each U.2 port
- 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
- Versatile Cabling Solutions: SFF-8639, SFF-8643 & SFF-8611 (Oculink)

Product	**Rocket 1180 (R1180)**
Bus Interface	PCI-Express 3.0 x16
No. of Channels/Ports	8x U.2 NVMe port (Up to x4 lanes per port)
Data Transfer Rate	8GTs
Number of devices	8x NVMe SSDs
SSD Form Factor	2.5" U.2/U.3, M.2
Form Factor	Half-Height (Low-Profile)
Card Dimensions	6.55" (W) x 2.71"(H) x 0.83" (D)
Package Weight	0.93 lbs.
Cooling	Full-Length Anodized Aluminum Heat sink with built-in Low-Noise fan
Supported Operating Systems & Platforms	
Windows	Windows 11, 10 / Windows Server 2022, 2019
Linux	Linux Kernel v3.10 or later
FreeBSD	FreeBSD 12.1 and later
VMware	ESXi 6.7 and later
System Requirements	**PC Platforms:** • Any PC or Motherboard with an industry standard PCIe x16 physical Slot (Bifurcation is not required)
Operating Environment	
Work Temp	+5°C ~ + 35°C
Storage Temp	-20°C ~ +80°C
Operating Voltage	PCI-e: 12V, 3.3V
Power	Typical: 7.13W
MTBF	920,585 Hours
Certification	CE, FCC, RoHS, REACH, WEEE
Kit Contents	R1180
	QIG
	Low-Profile bracket

Oculink Backplane   U.2 SSD   mini-SAS HD Mobile

Industry Standard SFF-8643 Connector Ports

The Rocket 1120 and 1180 utilize industry standard SFF-8643 connectors, which are compatible with a wide selection of 2.5" form-factor server chassis available in today's marketplace. SFF-8643 connectors can accept cables of varying length, which allow the controllers be easily integrated into custom built hardware environments.

HighPoint Certified Cable & Enclosure Accessories

We manufacture a selection of certified data cables and enclosures for Rocket 100 series NVMe HBAs. HighPoint Certified Cable accessories are fully compliant with all current technology standards and have been rigorously tested with our Rocket 1120 and Rocket 1180 host bus adapters to ensure maximum transfer performance, secure connectivity, and ease of integration.
As we cannot guarantee secure connectivity, stability or compatibility with unqualified third-party devices or accessories, only HighPoint Certified cables and enclosures can be used with our storage products and solutions.

SSD7180 & SSD7184 (Internal)	
8643-8643-0350 / 8643-8643-060 	SFF-8643 NVMe Host to SFF-8643 NVMe HD-Mini-SAS Device (U.2) cables Length: 13.78" (35cm) / 23.62" (60cm)
8643-8639-50 	SFF-8643 to SFF-8639 NVMe HD-Mini-SAS Device (U.2) cable, with Power Connector Length: 19" (50cm)
OLX4-8643-061 	SFF-8643 NVMe Host to Oculink backplane cable Length: 23.62" (60cm)