HighPoint
Technologies, Inc.

Rocket 1580
PCIe 4.0 x16 8-Port U.2 NVMe HBA

Industry's Fastest & Most Versatile PCIe Gen4 NVMe Connectivity Solution

HighPoint Rocket Series NVMe connectivity HBAs address the needs of solution providers and system integrators that cater to vertical marketplaces for high-speed industrial, corporate, and media applications. They were designed for professional applications that demand uncompromised storage performance, scalability and adaptability, in a compact, easy to integrate package that is universally compatible with industry standard x86-64 (Intel/AMD), and ARM platforms.

The Rocket 1580 is the industry's fastest and most vsersatile PCIe Gen4 NVMe connectivity HBA. 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 plugin the card!
Rocket 1500 Series HBA's are natively supported by all major Windows and current distributions of Linux. You won't need to juggle aseries 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

The RocketU 1580 NVMe HBA can host RAID arrays created using the operating systems built-in storage management tools. Windows Disk Management can configure RAID 0 or JBOD arrays using two or more NVMe SSDs.

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

Any Capacity & Any Generation

The Rocket 1580 is 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 1580 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 PCIe Gen4 capable cabling accessories capable of supporting a wide range of storage configurations, including SFF-8643 connections and SFF-8611 Oculink backplanes. This allows the Rocket 1580 to support any industry standard U.2 or M.2 NVMe SSD.
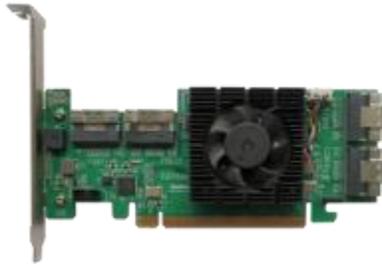
Hyper Cooling Solution Ensures Sustained Gen4 Transfer Performance

HighPoint's Low-Noise Hyper-Cooling solution enables the Rocket1580 to function optimally within the recommended temperature ranges, even under sustained I/O, by combining an anodized aluminum heat sink with an ultra-durable low-decibel fan and high-conductivity thermal padding. This innovative, ultra- efficient cooling system rapidly transfers waste-heat away from critical controller componentry, without introducing unwanted distraction into your work environment.
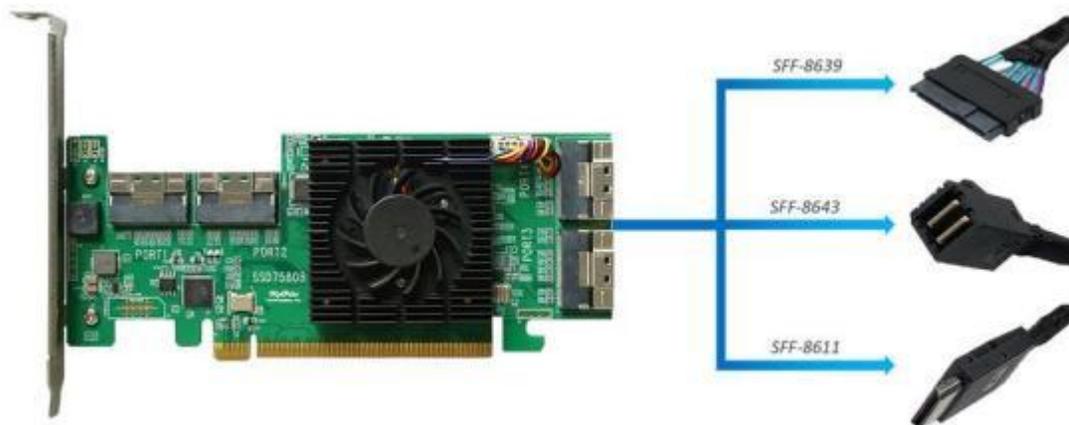
Key Benefits

- Fully compliant with Industry standard PCIe 3.0 Slots; no-Bifurcation dependency or need for specific brand/model of motherboards
- Integrated, Intelligent, Next-Gen PCIe 4.0 Switch controller chipset powered by Broadcom ensures Dedicated PCIex4 lane bandwidth is allocated to each U.2 port at all times
- Native, in-box NVMe driver support for all major OS platforms
- Broad Compatibility with current computing platforms: HP, Dell, Alienware
- Card can be used in any slot PCIe 3.0 or 4.0 slot; Bifurcation or standard
- Versatile Cabling Solutions: SFF-8639, SFF-8643 & SFF-8611 (Oculink)
- Gen4 Hyper Cooling Solution

Product	Rocket 1580 (R1580)
Bus Interface	PCI-Express 4.0 x16
Number of Channel / Port	8x U.2 NVMe port (Dedicated PCIe 4.0 x4 per port)
Data Transfer Rate	16GT / 16Gbps per lane
Number of devices	8x NVMe SSD
SSD Form Factor	2.5" U.2/U.3, M.2 *(M.2 support depends upon system backplane)*
Form Factor	Half-Height
Card Dimensions	6.50''W *2.27''H *0.80''D
Card Weight	0.64 lbs.
Supported Operating Systems & Platforms	
Windows	Windows 11, 10 / Windows Server 2022, 2019 / Microsoft Hyper-V
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/x8 physical Slot (Bifurcation is not required)
Cooling	Full-Length Anodized Aluminum Heat sink with built-in Low-Noise fan(s)
Operating Environment	
Work Temp	+5°C ~ + 55°C
Storage Temp	-20°C ~ +80°C
Operating Voltage	PCI-e: 12V, 3.3V
Power	Typical: 17.72W
MTBF	920,585 Hours
Certification	CE, FCC, RoHS, REACH, WEEE
Kit Contents	R1580
	QIG

Versatile Cabling Options

The SSD7580 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 PCIe Gen4 capable cabling accessories capable of supporting a wide range of storage configurations, including SFF-8643 connections and SFF-8611 Oculink backplanes. This allows the Rocket 1580 to support any industry standard U.2 or M.2 NVMe SSD.

Certified Cable Accessories - Hot-Swap Compatible

TS8i-8639-060	SFF-8654 to U.2 SFF-8639 cable with a 15-pin SATA power connector. Each cable supports two U.2 NVMe SSDs. Length: 0.6M (60cm) / 23.62"
8654-8643-210	SFF-8654 (host) to SFF-8643 (device) PCIe 4.0 x8 NVMe cable. Each cable can host up to 2x NVMe SSDs. Length: 1M (100cm) / 39.37"
8654-8611-205	SFF-8654 (host) to SFF-8611 Oculink (device) PCIe 4.0 x8 NVMe cable. Each cable can host up to 2x NVMe SSDs. Length: 0.5M (50cm) / 19"