



## Rocket 1749E

PCIe Gen4 x16 to DC-Class 8x E1.S NVMe Switch AIC

**Data Center Class Gen4 x16 NVMe AIC Storage Solution; Expandable Up to 8x E1.S Drives via a Single PCIe x16 Slot!**

HighPoint's Rocket 1749E PCIe Gen4 x16 NVMe AIC (Add-in-Card) is a groundbreaking Data Center (DC) class NVMe storage solution designed to address the rigorous performance and reliability requirements of modern Data Centers, Industrial Platforms, and Edge Computing Servers.

The compact dual-width AIC is equipped with eight independent E1.S ports and is capable of directly hosting up to 61.44TB of storage capacity while delivering 28GB/s of transfer throughput and 6 million IOPS, via a single PCIe x16 slot.

Purpose built for x86 Intel/AMD and ARM platforms, Rocket 1749E AICs deliver exceptional sustained performance, Quality of Service (QoS), and robust management features. The compact, high-density AIC storage solution is engineered to accommodate mission-critical workloads that demand unparalleled performance and efficiency.

### Enterprise Grade NVMe Storage in compact AIC Form Factor

The advantages of the E1.S technology are hard to ignore; enterprise endurance, reliability and capacity in compact form-factor. E1.S drives are similar in size to 2280 M.2 SSDs, and like M.2 media, E1.S storage can be directly hosted by a PCIe add-in-card. The Rocket 1749E's tidy hardware footprint is compatible with any computing environment capable of hosting modern GPU's, making it ideal for compact industrial platforms, rack mounts and desktop systems in need of a DC-grade storage solution.

### Powered by Class-Leading PCIe Gen4 Switch Technology

Proven PCIe Gen4 Switching Architecture resides in the core of each Rocket 1749E AIC. HighPoint's innovative technology employs Broadcom's industry leading PEX88048 IC Switch IC to optimize signal integrity, minimize latency, maximize data transfer speed, and enable the AIC to provide x48 lanes of internal PCIe Gen4 bandwidth; x16 lanes to the upstream connection and 32 to the downstream ports. This guarantees that maximum bandwidth is available to each E1.S SSD at all times, enabling the AIC to deliver a class-leading 28GB/s of real-world transfer performance.

### Revolutionary Cooling and Maintenance Systems

Rocket 1749E's AICs are equipped with HighPoint's advanced dual-width hardware cooling system, which leverages a full-length anodized aluminum casing, integrated heat sinks and a pair of ultra-durable, low-decibel cooling fans to ensure 24/7 operation without thermal throttling. The solution fully encases and insulates E1.S media from the host computing environment, efficiently transferring waste heat away from critical SSD and controller componentry without injecting excessive noise into the workplace.

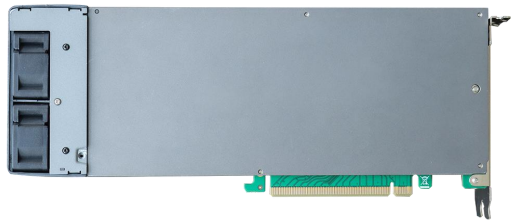
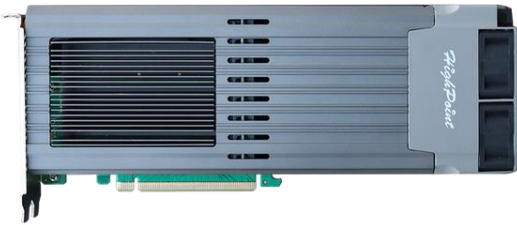
The Rocket 1749E's toolless SSD Loading system reduce downtime by simplifying installation, upgrade and maintenance procedures. Each E1.S slot's quick-release latch enables SSDs to be quickly added or removed without the need for hand tools or fasteners or removing the AIC from the host platform.

### Feature Highlights

- 8 Independent E1.S Ports
- Supports Up to 8x 9.5mm or 4x 15mm E1.S DC-Class SSDs
- Leverages Broadcom's 48-lane PCIe Gen4 PEX88048 PCIe Switch IC
- Optimizes signal integrity & stability, & minimizes latency
- Maximize performance & connectivity density per PCIe 4.0 x16 slot: 28 GB/s and 6 Million IOPs
- Advanced Dual-Width NVMe Cooling Solution & Toolless Loading System
- Natively supported by Mainstream Operating systems: delivers driverless deployment experience
- Supports x86 Intel/AMD & ARM Platforms

<b>Product Model</b>	<b>Rocket 1749E</b>
<b>Hardware Features</b>	
Bus Interface	PCIe 4.0 x16
Number of Channel / Port	8 x E1.S Ports (Dedicated PCIe 4.0 x4 per port)
Connector Type	E1.S
Number of devices	8
SSD Form Factor	9.5mm: Up to 8 SSDs 15mm: Up to 4 SSDs
Data Transfer Rate	32GB/s
External Power Connector	Yes; Uses PCIe Standard 2x3 Power Connector
Toolless SSD Installation	Yes
<b>Mechanical Specifications</b>	
Form Factor	Full-Height, Full-Length, Dual-Width
PCIe Bracket	Dual-Width Full-Height Ventilated Bracket
Cooling Solution	Dual Low-Decibel Cooling Fans & Full-Length Aluminum Heatsink
Card Dimensions	284mm (L) x 110mm (H)
Card Weight	2.60 lbs.
<b>Supported Systems</b>	
OS	Native OS Support
Software Secure Boot	Yes
<b>Operating Environment</b>	
Working Temp.	+0°C ~ + 55°C
Storage Temp.	-20°C ~ +80°C
Operating Voltage	PCIe: 12V(+/- 8%), 3.3V (+/- 8%)
Power	Typical: 17.28W
MTBF	920,585 Hours
<b>Kit Contents</b>	
Kit Contents	Rocket 1749E Switch AIC
	QIG

Rocket 1749E AIC



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