HighPoint
Technologies, Inc.

RocketStor 8631D
PCIe Gen5 x16 eGPU/PCIe Expansion Enclosure

Dedicated Gen5 Accelerator Enclosure with CopprLink &1300W TDP Support

The HighPoint RocketStor 8631D is the dedicated PCIe Gen5 accelerator enclosure engineered to accommodate the stringent demands of AI, HPC, and professional media workflows and vertical industry. It is the first external PCIe expansion enclosure designed to deliver dedicated PCIe Gen5 x15 bandwidth and optimize thermal performance alongside robust 1300W TDP support.

By strictly adhering to the PCI-SIG CopprLink specification and incorporating Astera Labs Retimer technology, the RocketStor 8631D guarantees your high-value GPUs and FPGAs operate at their full potential, reliably, and without compromise. This enclosure solves the most critical challenges encountered when deploying PCIe Gen5 infrastructure—signal integrity, power delivery, and thermal management—in one robust, enterprise-grade solution.

Feature Highlights

- **Dedicated Gen5 x16: 64 GB/s Performance**
- **1300W of Unconstrained Power**
- **Universal PCIe card Support, up to 3-slot width**
- **Smart Thermal Management:** Dual-Fan Cooling System with Programmable Smart Fan Control prevents thermal throttling
- **Astera Labs Retimer: Guaranteed End-to-End Gen5 Signal Integrity**
- **Seamless, Plug-and-Play Software-less Installation** for Linux & Windows

Performance Without Physical Limits

The RocketStor 8631D is not just an expansion box; it is a guaranteed high-performance solution for your high-value PCIe compute resources. This is made possible the designs' two key features:

Key Feature	Core Technology	Value Proposition to User
I. Unthrottled PCIe Gen5 x16 Fabric	**Astera Labs Retimers** & **PCI-SIG CopprLink**	**Reliability & Consistency:** Eliminates signal degradation and latency over an external cable connection, guaranteeing the advertised 64GB/s of dedicated x16 bandwidth.
II. Physical Empowerment	**1300W PSU** & **Triple-Slot Cooling**	**TDP Maximization:** Ensures your GPU or FPGA runs at its full TDP and maximum boost clocks, indefinitely, without thermal or power-related throttling - critical requirements for sustained AI training and simulation.

The RocketStor 8631D is the industry's first enclosure to satisfy all these requirements simultaneously, making it the definitive platform for scaling accelerator performance across demanding vertical industry applications.

Unlocking Uncompromised Gen5×16 Performance

Maximum performance requires maximum technological commitment. The RocketStor 8631D is built around the fastest and most reliable connectivity standards available today:

PCIe**GEN5**
RETIMER

Astera Labs Gen5 Retimer Technology: Integrated Retimer technology actively cleans, reshapes, and amplifies the PCIe signal. This is crucial for maintaining signal integrity and resetting the jitter and insertion loss budgets over the external cable, ensuring the host server sees a clean, low-latency Gen5×16 link for reliable, sustained throughput.

*Coppr***Link**

PCI-SIG CopprLink Standard: The enclosure features a robust, enterprise-grade external PCIe x16 Gen5 CDFP connector. By adhering to the PCI-SIG CopprLink specification, the RocketStor 8631D guarantees maximum bandwidth and seamless interoperability with HighPoint's CopprLink Host Interface Cards (HICs) and other compliant devices.

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Application Focus: Dedicated PCIe Gen5 Fabric

When paired with a HighPoint External PCIe Switch Adapter, the RocketStor 8631D delivers true **host-to-device PCIe Gen5 x16 performance** for workloads such as scientific modeling, real-time analytics, and high-resolution rendering.

Engineered for Maximum TDP & Reliability

High-speed technology must be paired with superior physical engineering. The RocketStor 8631D is landmarking the industry's first enclosure to address the power and cooling requirements of next-generation accelerators, ensuring **maximum TDP (Thermal Design Power)** is sustained without throttling or component breakdown.

1300W
GEN5

Dual, High-Efficiency Cooling Fans

Robust Aluminum Chassis

3-SLOT

Massive 1300-Watt PSU: The RocketStor 8631D upscales power support from 850W to 1300 Watts via a new integrated PSU. This immense capacity significantly widens the range of supported compute and accelerator cards from all vertical industry applications.
It guarantees dedicated, stable power delivery for performance-hungry workflows, preventing unexpected system shutdowns and prolonging component lifespan.

Advanced, Intelligent Cooling Solution: The enclosure's powerful cooling fans, backed by a bank of integrated hardware sensors and programmable Smart Fan Control, dynamically adjust airflow within the chassis to address thermal load in real time. This sophisticated system prevents performance throttling while keeping the solution's acoustic performance in mind.

Streamlined Internal Layout: The RocketStor 8631D chassis was precision engineered to reduce cable clustering and minimize obstructions, ensuring superior, unhindered airflow directly over the most critical components.

Triple-Slot Width Design: The enclosure's chassis is specifically designed for universal PCIe GPU compatibility, including industry-standard full-height, 2-slot, and 3-slot PCIe Gen5 GPUs from all leading manufacturers. This commitment to physical sizing ensures maximum flexibility for integration projects.

Applications & Use Cases

AI/ML Computing & Deep Learning

Accelerates data loading & model training times, supporting high-throughput data processing.

Scientific Research & Big Data Analytics

Maximizing accelerator TDP & bandwidth ensures faster analytics and insights generation.

High-Performance Content Creation & Rendering

Delivers the power, flexibility, & performance needed to turn creative visions into reality.

Product	RocketStor 8631D
Bus Interface	PCI-Express 5.0 x16
Hardware Architecture	Asteralabs PCIe 5.0 Retimer Technology
CooprLink Compliant	Yes (CDFP Pin Definition)
Number of Channel / Devices	1 x CDFP (Dedicated PCIe 5.0 x16 per port)
Port Type	CDFP (Gen5)
Data Transfer Rate	64GB/s
Power Measurement	Yes
Number of GPU Supported	1
GPU Support	Full-height, 2-slot and 3-slot GPUs
	Up to 370mm x 170mm (to Gold Finger) x 88mm & below
Power Measurement	Real Time Power Measurement
Audible Alarm	High Temperature, Low-Fan Speed Warnings
Smart Fan Control	Dynamically adjusts fan speed to address changing temperature conditions
	Manually Select from 5 Speed settings (Ultra-Low to Full)
Enclosure Dimensions	18.66" x 11.26" x 6.10"
Product Weight	13.4 lbs.
Front Panel LEDs	
Power Switch	Powers On/Off the unit. Illuminates blue when powered On.
Back Panel	
CDFP Port	Upstream Port for PCIe 5.0 1x16
Mute Button	used to mute the audible alarm
Supported Systems	
OS Support	Any OS with native PCIe device support
Software Secure Boot	Yes
Hardware Secure Boot	Yes
Management Software	
Firmware Upgrade Tools (MPT Utility)	Used to upgrade both the MCU firmware and Retimer Firmware
Operating Environment	
Work Temp	+5°C ~ + 55°C
Storage Temp	-20°C ~ +80°C
Operating Voltage	100V ~ 240V AC In
Power Supply	1300W

Kit Contents	1x RocketStor 8631D Enclosure
	1x Gen5 CopprLink Cable (1M)
	1x QIG
	12V-HPWR to 2x4 Power Cable x1
	1x UL Cable
Optional Accessories	Rocket 7638D PCIe 5.0 x16 External Expansion Adapter
	Rocket 7634D PCIe 5.0 x16 External Expansion Adapter

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HighPoint Headquarters
Phone: 1-408-942-5800
Fax: 1-408-942-5801
E-mail: sales@highpoint-tech.com
Website: www.highpoint-tech.com
Address: 41650 Christy St. Fremont, CA, 94538