

# PCIe Expansion Systems

4U and 5U expansion chassis with ample power to run lots of PCIe slots and host multiple option cards. Provide total bidirectional throughput between a host system and a target expansion system, delivering expanded I/O capabilities needed to support evolving workloads.



**UP TO 18 ADDITIONAL  
PCIe 3.0 SLOTS**

Incorporate up to 18 additional PCIe 3.0 slots, allowing you to scale your system in response to your most complex application or program needs.



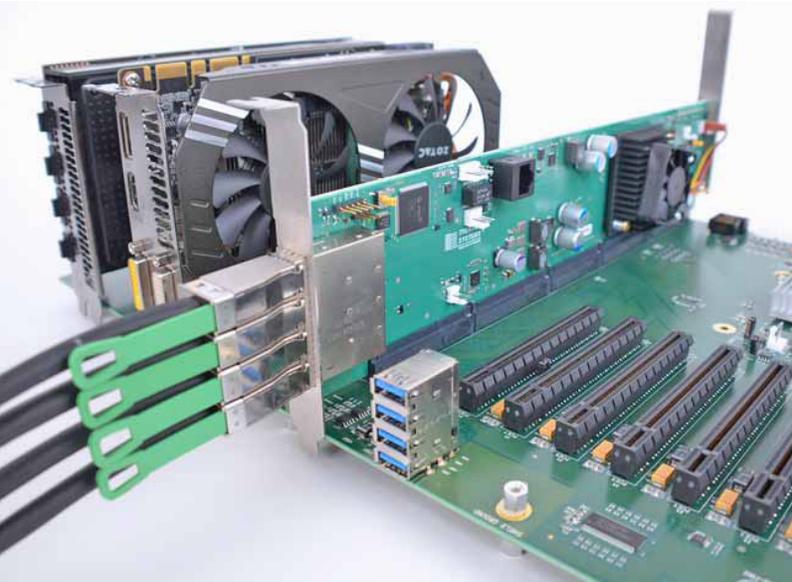
**SYSTEM DESIGN  
FLEXIBILITY**

Connect host card to any system with a x16 slot. Easily add or remove I/O devices or make changes to existing components.



**PERFORMANCE  
OPTIMIZATION**

Offload tasks from the host system and dedicate specific tasks to separate option cards, reducing congestion, latency, and resource contention.



## Overview

PCIe Expansion Systems, in 4U and 5U height, allow you to easily connect a host system to a target system via a card and cable architecture.

With x4, x8, and x16 PCIe 3.0 slots, greatly expand I/O capabilities with a wide range of option cards that can be easily added or removed to meet the demands of ever-changing workloads.

Choose from a wide range of chassis and backplane configurations to craft a system that best fits your technical, performance, and environmental requirements!

### SOLUTION HIGHLIGHTS



**Multi-layer cybersecurity** creates a secure computing platform while enhancing resilience against sophisticated cyberthreats.



**Strict revision control** is achieved through Trenton's approved vendor list (AVL), ensuring engineer-vetted parts.



**In-house engineers** (hardware, software, mechanical, and electrical) control the design of your system down to the board and chip level.



**Five-year warranty** means we will repair, replace, or refund for any potential defects in material, workmanship, and design.



**Counterfeit Protection Program (CPP)** helps Trenton detect, remove, and destroy counterfeit parts and components.



**TAA compliance** is achieved because Trenton manufactures PCIe Expansion Kits, and its other solutions, in the United States.



**Lifetime support** gives you unlimited access to our team of experts that help troubleshoot problems and offer solutions.



**Vetted supply chain** helps protect your system from potentially compromised counterfeit electronic parts and components.



**CSfC, ITAR, ISO9001, and AS9100 adherence and compliance** allow Trenton to consistently provide secure, high-quality computing solutions.

# Technical Overview

SPECIFICATION	DETAILS
Host/Target Card	Under 2.85" high, each has 4x x4 PCIe Cable Ports (Quad SFF-8644 Connectors)
Cables	1-3m long, each has 4x x4 SFF-8644 Cable Plugs (PCIe x16 Edge Connectors)
Storage	Up to 52x SATA SSDs, 1x SlimeLine optical SSD (FIPS 140-2/3 available)
Form Factors	4U - 5U chassis between 16.5" - 24.5" depth
Network Interface	1x 1GbE port supporting IPMI via backplane
PCIe Interconnect	x4, x8, and x16 PCIe 3.0 slots
Power	High Wattage, redundant/N+1/non-redundant, non-461 fixed or removable

## BACKPLANE VARIATIONS

#	BACKPLANE	SLOTS
1	HDB8228	8X FHFL PCIe 3.0: 4X X16 AND 4X X4
2	HDB8259	15X FHFL PCIe 3.0: 4X X16 AND 11X X8
3	HDB8231	18X FHFL PCIe 3.0: 2X X8 AND 16 X4
4	HDB8228, HDB8259, HDB8231	X1, X4, X8, AND X16 HALF-HEIGHT OR FHFL PCIe 3.0/4.0/5.0

## CHASSIS VARIATIONS

#	BACKPLANE	DEPTH	POWER SUPPLY	STORAGE (NOT OFFERED BY DEFAULT, ONLY VIA A PCIe RAID CONTROLLER)
1	THS4086 (4U)	16.5"	1X 1200W NON-REDUNDANT, NON-461, FIXED, OR 2X 800W REDUNDANT, NON-461, REMOVABLE	UP TO 12X FRONT-REMOVABLE SATA DRIVES AND 1X SLIMLINE OPTICAL DRIVE
2	THS4095 (4U)	26"	1X 1200W NON-REDUNDANT, NON-461, FIXED	UP TO 16X FRONT-REMOVABLE SATA DRIVES AND 1X SLIMLINE OPTICAL DRIVE
3	THS5095 (5U)	19.5"	1X 1200W NON-REDUNDANT, NON-461, FIXED	UP TO 6X FRONT-REMOVABLE SATA DRIVES AND 1X SLIMLINE OPTICAL DRIVE
4	THS5087 (5U)	23"	2X 1500W N+1, NON-461, FIXED, OR 2X 2430W N+1, NON-461, FIXED	UP TO 12X FRONT-REMOVABLE SATA DRIVES AND 1X SLIMLINE OPTICAL DRIVE
5	TSS5201 (5U)	24.5"	2X 1200W REDUNDANT, NON-461, REMOVABLE	UP TO 48X FRONT-REMOVABLE SATA DRIVES, 4X INTERNAL SATA DRIVES, AND 1X SLIMLINE OPTICAL DRIVE
6	4U-5U	16.5"-26"	LOW/MID/HIGH WATTAGE, REDUNDANT OR NON-REDUNDANT, 461-OPTIONAL, FIXED OR REMOVABLE	SAS/SATA/NVME DRIVES (INTERNAL, FRONT-REMOVABLE, VIA RAID CONTROLLER, OR VIA RISER)

If you need a different system variation not listed above, please contact a Trenton Systems engineer to configure a system or solution to your specific application or program requirements.

**Contact us for pricing and availability.**

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