Gen4 ExpressBox4400

High-performance GPU expansion system with up to 8 PCIe Gen4 x16 slots for compute-intensive applications

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Features

- Up to 8 PCIe 4.0 x16 slots
- Up to 64 Gbps data transfer via PCIe Gen4
- High expandability for GPU-intensive applications
- Compact 4U GPU accelerator
- Manufacturer No.: OSS-EB4400

Gen4 ExpressBox4400 – High-performance GPU accelerator with NVIDIA® GPU support

The Gen4 ExpressBox4400 is a high-performance PCIe Gen4 expansion solution designed specifically for AI workflows, high-performance computing (HPC) and data analytics. With support for up to four NVIDIA® A100 PCIe GPUs, the system delivers 2.5x FP64 performance compared to the NVIDIA® V100. The eight PCIe Gen 4 slots allow for flexible configuration, whether for HPC acceleration, FPGA data processing or memory expansion.

Highest data throughput for AI, deep learning and data science

Thanks to the PCIe Gen4 architecture, the Gen4 ExpressBox4400 offers a data throughput of up to 128 Gbit/s, which is twice as fast as PCIe Gen 3. Two dedicated PCIe Gen4 x16 HBA/NIC slots ensure optimal connectivity to server and network infrastructures, while the configurable eight PCIe Gen4 x8 slots provide space for FPGAs, memory add-in cards or specialized accelerators.

Robust and modular design for industrial and mobile AI applications

The Gen4 ExpressBox4400 is designed for use in transportable and industrial AI environments. The robust housing and optional AC or DC power supply make it ideal for ground, air and sea-based applications. Additional features such as dynamic fan speed control, IPMI-based system monitoring and replaceable fan filters ensure maximum efficiency and longevity.

With support for the latest PCIe Gen4 add-in cards, the Gen4 ExpressBox4400 offers a future-proof solution for AI training, deep learning, simulations and big data analysis. Flexible slot and host uplink configuration allows throughput to be optimized and system performance to be tailored to specific workloads.

Appearance

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Specifications	Gen4 ExpressBox4400
SYSTEM	
Host Options	1x PCIe 4.0 x16 Host-to-Target uplink (32GBit/s) 2x PCIe 4.0 x16 Host-to-Target uplink (64GBit/s) SmartNIC Host
Backplane Options	**Dual OSS-538:** 1x Single-width PCIe 4.0 x16 FHFL upstream slot 4x Dual-width PCIe 4.0 x16 FHFL downstream slot **Dual OSS-521:** 1x Single-width PCIe 4.0 x16 FHFL upstream slot 6x Single-width PCIe 4.0 x16 FHFL downstream slot 1x Dual-width PCIe 4.0 x16 FHFL downstream slot
Additional Slot Options	**Standard**: Modifies one dual-width PCIe 4.0 x16 FHFL downstream slot to two single-width PCIe 4.0 x16 FHFL downstream slots per backplane **Riser**: Adds an additional single-width PCIe 4.0 FHFL downstream slot per backplane
System Monitoring	**Standard:** Automatic dynamic temperature-based fan speed control **Optional**: IPMI system monitoring with power, temperature, and fan speed control and monitoring
ENVIRONMENTAL	
Chassis	4U rackmount design
Cooling	2x 180CFM 92mm fans Default PWM controlled based on built-in temperature sensors **Optional**: IPMI system monitoring and control Quadrafoam 45 PPI Replaceable Fan Filters
Power Supply	Single/Dual AC 2600W Single/Dual AC 1600W Power Cords: 1.8m US 110V, 1.8m US 240V, 1.8m UK, 1.8m IEC
PCIe 4.0 Cable Length	1m, 2m, 3m
Operating Temperature	-10° ~ 50°C[1] Short-term operation (30 min.): -5° ~ 40°C
Storage Temperature	-40° ~ 85°C
Humidity	Operating: 5 ~ 95% non-condensing Storage: 0 ~ 95% non-condensing
Operating Altitude	0 ~ 1,800 Meter (at operating temperature) 0 ~ 4,500 Meter (at derated temperature)
Dimensions (W x H x D)	271.8 x 177.8 x 470mm
Weight	11.3kg (without GPU cards)
Certifications	UL, cUL, RoHS3, TUV-GS (EN60950-1 /IEC60950-1,EK1-ITB2000) Pending test: FCC Class A

[1] These temperature ranges may require GPU/CPU throttling.