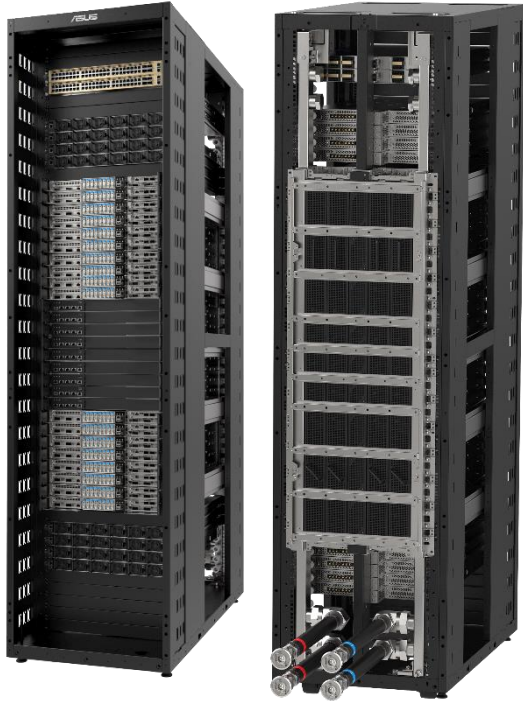# XA GB721-E2

Rack Scale Solution with NVIDIA® GB300 NVL72

XA GB721-E2 is built on NVIDIA GB300 NVL72 architecture, which integrates 36 NVIDIA Grace™ CPUs and 72 NVIDIA Blackwell Ultra GPUs, delivering exceptional performance for demanding AI workloads.

- **Powered by the Latest NVIDIA GB300 Grace™ Blackwell Ultra Superchips.**
- **Liquid-cooled, rack-scale solution that boasts 36 NVIDIA Grace™ CPUs and 72 NVIDIA Blackwell Ultra GPUs.**
- **NVIDIA® NVLink™ technology within single domain.**

Cooling Solutions

- Features a liquid cooling system that reduces energy consumption and operational costs—reportedly achieving a lower total cost of ownership (TCO).

Connectivity and Bandwidth

- NVIDIA® NVLink™ : Allowing 9 switches to interconnect the NVIDIA® NVLink™ ports on each of the 72 NVIDIA Blackwell Ultra GPUs within a single NVIDIA® NVLink™ domain as a single massive GPU with a switching capacity of 14.4TB/s. Significantly surpassing PCIe Gen5 capabilities.

Features

- ASUS rack scale solution with NVIDIA GB300 NVL72
- NVIDIA® NVLink™ technology connectivity

Target Application
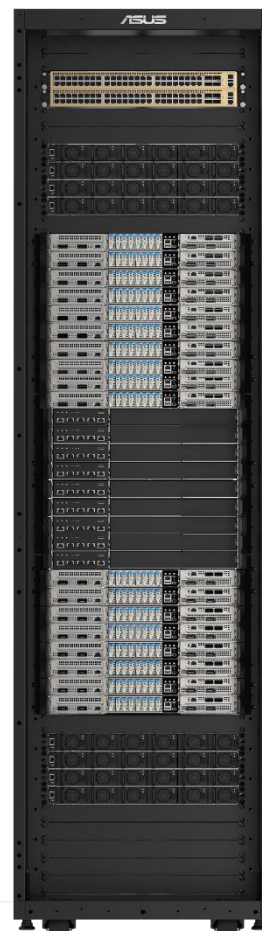
- AI/ML
- LLM training

XA GB721-E2 (Rack)

Rack	48RU NVIDIA MGX™ Rack Compliant
Rack Configuration	1 x NVIDIA MGX™ 48RU Rack 1 x 1400A Rack Busbar 1 x Rack Manifold (L&R) 4 x Cable Cartridges 2 x TOR SN2201 (1GBe) 6 or 8 x 33kW Power Shelves 18 x Compute Trays 9 x NVIDIA® NVLink™ Switch trays
Dimension	2236mm x 600mm x 1159mm

2 x SN2201
1 x OS Switch 1GBe (Optional)

3 or 4x 1RU Power Shelf 33KW

10x Compute Trays

9x NVLink Switch Trays

8x Compute Trays

3 or 4 x 1RU Power Shelf 33KW

XA GB721-E2 (Compute Tray)

Processor		2 x NVIDIA GB300 Grace™ Blackwell Ultra Superchips
Memory	**CPU Memory Size**	**[Per Bianca]** 480 GB
	Bandwidth	Up to 512 GB/s
	Memory Type	LPDDR5X with ECC, Co-Packaged
	GPU Memory Size	**[Per Bianca]** 576 GB
	Bandwidth	Up to 16 TB/s
	Memory Type	HBM3e
Expansion Slots	**Total PCIe Slots**	N/A
Storage Bays		8 x E1.S hot-swap drive bays 1 x M.2 Gen5 x4
Networking	**LAN**	4 x NVIDIA® ConnectX®-8 800GbE OSFP ports 1x NVIDIA BlueField®-3 DPUs (B3240) 1 x Management LAN
Front I/O Ports		1 x USB3.2 Gen1 ports 1 x BMC Management Port 1 x Micro USB debug port 1 x Power Button /w LED 1 x UID Button /w LED 1 x miniDP 1 x PXE 1G NIC
Rear I/O Ports		4 x NVIDIA® NVLink™ Connector 2 x Liquid Inlet/Outlet UQD04
Switch/LED		**Front:** 1 x Power /LED 1 x Location Switch/LED 1 x Reset 1 x Message LED 2 x LAN LED 1 x NVIDIA® NVLink™ LED 8 x E1.S LED
OS Support		*Please find the latest OS support from https://www.asus.com/event/Server/OS_support_list/OS.html
Management Solution	**Software**	ASUS Control Center
	Out of Band Remote Management	On-Board ASMB11-iKVM for KVM-over-IP
Dimension		766mm x 438mm x 43.6mm (1RU)
Gross Weight Kg		28 kg
Power Supply		50 V Busbar

Note