

# ESC NM2N721-E1

## Rack Scale Solution with NVIDIA® GB200 NVL72



ESC NM2N721-E1 is built on NVIDIA GB200 NVL72 architecture, which integrates 36 NVIDIA Grace™ CPUs and 72 NVIDIA Blackwell GPUs, delivering exceptional performance for demanding AI workloads.

- **Powered by the Latest NVIDIA GB200 Grace™ Blackwell Superchips.**
- **Liquid-cooled, rack-scale solution that boasts 36 NVIDIA Grace™ CPUs and 72 NVIDIA Blackwell 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 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 1<sup>st</sup> rack scale solution with NVIDIA GB200 NVL72
- NVIDIA® NVLink™ technology connectivity

### Target Market

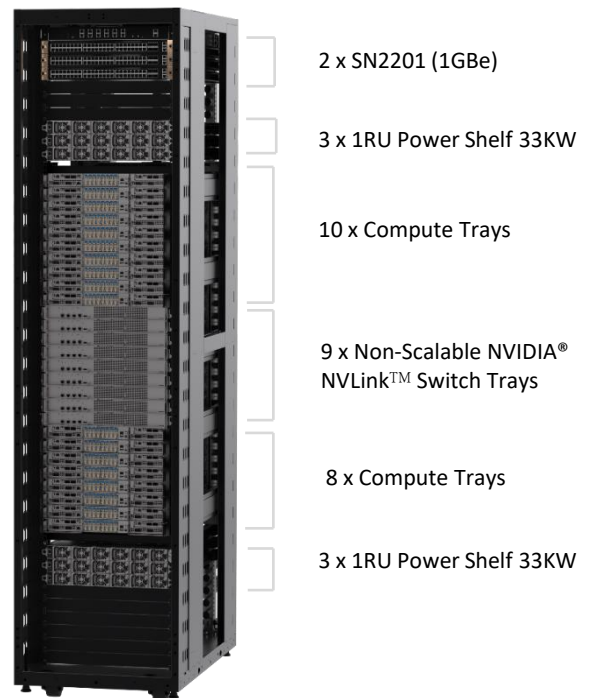
- CSP
- LLM & Inference

## ESC NM2N721-E1 (Rack)

<b>Rack</b>	48RU NVIDIA MGX™ Rack Compliant
<b>Rack Configuration</b>	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 1068mm

\*For the configuration with 8 \*power shelves, N+1 redundancy will be implemented.



# ESC NM2N721-E1 (Compute Tray)

# SPECIFICATION

<b>Processor</b>		2 x NVIDIA GB200 Grace™ Blackwell Superchips
<b>Memory</b>	<b>CPU Memory Size</b>	<b>[Per GB200]</b> 480 GB
	<b>Bandwidth</b>	Up to 512 GB/s
	<b>Memory Type</b>	LPDDR5X with ECC, Co-Packaged
	<b>GPU Memory Size</b>	<b>[Per GB200]</b> 384 GB
	<b>Bandwidth</b>	Up to 16 TB/s
	<b>Memory Type</b>	HBM3e
<b>Expansion Slots</b>	<b>Total PCIe Slots</b>	N/A
<b>Storage Bays</b>		8 x E1.S hot-swap drive bays 1 x M.2 Gen5 x4 (Up to 22110)
<b>Networking</b>	<b>LAN</b>	4 x NVIDIA® ConnectX®-7 400GbE OSFP ports 4 x NVIDIA BlueField®-3 DPUs (B3240) 1 x Management LAN
<b>Front I/O Ports</b>		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
<b>Rear I/O Ports</b>		4 x NVIDIA® NVLink™ Connector 2 x Liquid Inlet/Outlet UQD04
<b>Switch/LED</b>		<b>Front:</b> 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
<b>OS Support</b>		<ul style="list-style-type: none"> <li>•Ubuntu 22.04</li> <li>•RHEL 9.2</li> <li>•SLES 15 SP5</li> </ul> <p>*Please find the latest OS support from <a href="https://www.asus.com/event/Server/OS_support_list/OS.html">https://www.asus.com/event/Server/OS_support_list/OS.html</a></p>
<b>Management Solution</b>	<b>Software</b>	ASUS Control Center
	<b>Out of Band Remote Management</b>	On-Board ASMB11-iKVM for KVM-over-IP
<b>Dimension</b>		766mm x 438mm x 43.6mm (1RU)
<b>Gross Weight Kg</b>		28 kg
<b>Power Supply</b>		48V Busbar
<b>Environment</b>		Operation temperature: 10°C ~ 35°C Non operation temperature: -40°C ~ 70°C Non operation humidity: 20% ~ 90% ( Non condensing)
<b>Note</b>		