



AI Server for NVIDIA HGX B300, Air Cooled

(Supermicro SYS-822GS-NB3RT)

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An NVIDIA HGX B300 8-GPU system in an 8U air-cooled chassis, sold and supported by Cisco and managed through Cisco Intersight, for AI training and inference in standard data centers.

Product overview

This server brings NVLink-connected training and inference capacity to the Cisco AI compute portfolio without requiring liquid cooling infrastructure. The underlying hardware is the Supermicro GPU SuperServer SYS-822GS-NB3RT, an 8U air-cooled NVIDIA HGX B300 8-GPU system. Cisco handles the selling motion, support through Cisco CX Services, and lifecycle management through Cisco Intersight. Supermicro builds the hardware. Customers get Supermicro's GPU server engineering and Cisco's support and operations model in one orderable product.

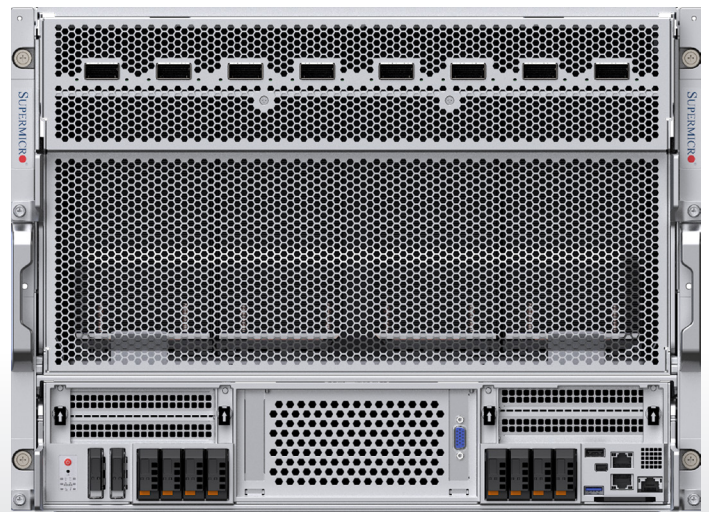


Figure 1. AI Server for NVIDIA HGX B300, Air Cooled (Supermicro SYS-822GS-NB3RT)



The system pairs two Intel Xeon 6768P processors with an NVIDIA HGX B300 8-GPU baseboard connected over fifth-generation NVLink at 1.8 TB/s per GPU, with 2.3 TB of HBM3e memory across the baseboard. Cooling comes from up to 12 heavy duty fans in a standard air-cooled chassis. Target workloads include large-model training, fine-tuning, and high-throughput inference where eight NVLink-connected GPUs per node are required.

Figure 2. Air cooled cluster of Cisco AI Server for NVIDIA HGX B300, Air Cooled (Supermicro SYS-822GS-NB3RT)



Features and benefits

Table 1 summarizes the primary features and benefits of the platform.

Table 1. Features and benefits

Feature	Benefit
NVIDIA HGX B300 8-GPU baseboard with NVLink 5 at 1.8 TB/s	Eight GPUs work as one coherent pool for training and long-context inference
2.3 TB HBM3e GPU memory per system	Large models and KV caches stay resident on fewer nodes
Air cooling with up to 12 heavy duty fans	Deploys in standard data centers; no facility water or liquid retrofit needed
Dual Intel Xeon 6768P processors	Keeps data pipelines fed, with up to 4 TB of DDR5-6400 in the Cisco configuration
8x NVIDIA ConnectX-8 SuperNICs at 800 Gb/s	One NIC per GPU for non-blocking east-west scale-out
NVIDIA BlueField-3 B3240 DPU	Offloads north-south networking and storage from the host CPUs
6x 6600 W Titanium (3+3) power supplies	96% efficiency with full redundancy under GPU load
Cisco Intersight management	One operations model across the Cisco compute estate
Cisco CX Services support	Dedicated support contracts from Cisco and Supermicro for a multi-vendor system



Prominent feature

Eight Blackwell Ultra GPUs, one NVLink domain: the full eight-GPU NVLink domain, with NVSwitch and 2.3 TB of HBM3e, in a chassis that cools itself with up to 12 heavy duty fans and standard data center air.

The server is ready to deploy into existing air cooled datacenters with proper planning. Scale-out fabrics: eight NVIDIA ConnectX-8 SuperNICs give each GPU its own 800 Gb/s east-west port, and an NVIDIA BlueField-3 B3240 DPU carries north-south and storage traffic.

Platform support

Cisco offers this Supermicro platform in a defined configuration, listed in Table 2.

Table 2. Cisco selected configuration, SYS-822GS-NB3RT (HGX B300 air cooled)

Item	Selected configuration
PID	SYS-822GS-NB3RT (Supermicro SKU)
Platform	HGX 8U rackmount air-cooled platform, approx. 17.6 in W x 13.8 in H x 37.4 in D
GPU	1x NVIDIA HGX B300 8-GPU baseboard
CPU	2x Intel Xeon 6768P
Memory	16x or 32x 128 GB DDR5-6400 RDIMM (2 TB or 4 TB total)
M.2 boot drives	2x 1.9TB NVMe PCIe4x4 M.2 22x110mm (1DWPD)
NVMe storage	8x E1.S 3.84TB NVMe Drives
East-west NICs	8x NVIDIA ConnectX-8 SuperNICs
North-south NICs	1 NVIDIA BlueField-3 B3240 DPU
Software management	Cisco Intersight
Support	Cisco CX Services
Availability	October 2026



Licensing

This is a hardware product; no platform license is required. Cisco Intersight management requires an Intersight license, listed in Table 3.

Table 3. Licensing

License	Description
Cisco Intersight	License tier appropriate to the deployment, see Cisco sales specialist

Product sustainability

Information about Cisco’s Environmental, Social and Governance (ESG) initiatives and performance is provided in Cisco’s CSR and sustainability [reporting](#).

Table 4. Cisco Environmental Sustainability Information

Sustainability Topic		Reference
General	Information on product-material-content laws and regulations	Materials
	Information on electronic waste laws and regulations, including our products, batteries and packaging	WEEE Compliance
	Information on product takeback and resuse program	Cisco Takeback and Reuse Program
	Sustainability Inquiries	Contact: csr_inquiries@cisco.com
Power	Power (Including Pluggable)	
Material	Product packaging weight and materials	Contact: environment@cisco.com



Product specifications

Table 5 reflects the Supermicro data sheet for the SYS-822GS-NB3RT. Product specifications may change without notice.

Table 5. Specifications, Supermicro GPU SuperServer SYS-822GS-NB3RT

Category	Specification
Form factor	8U rackmount, air cooled; enclosure 449 x 356 x 950 mm (17.6 x 13.8 x 37.4 in)
GPU	NVIDIA HGX B300 8-GPU baseboard; 8x SXM modules, 2.3 TB total HBM3e
GPU interconnect	NVIDIA NVLink 5 with NVSwitch, 1.8 TB/s GPU-to-GPU
Processor	Dual socket Intel Xeon 6700-series with P-cores, up to 86 cores/172 threads per CPU, up to 350 W, up to 336 MB cache
System memory	32 DIMM slots; up to 8 TB DDR5-5200 (2DPC) or 4 TB DDR5-6400 (1DPC)
Drive bays	8 front hot-swap E1.S NVMe bays; 2x M.2 NVMe with hardware RAID (Broadcom 3808N)
Expansion slots	2x PCIe 5.0 x16 FHHL
Networking	8x 800 Gb/s OSFP ports (NVIDIA ConnectX-8 SuperNICs); 2x RJ45 10GbE (Intel X710); dedicated IPMI port
Cooling	Air cooled; up to 12 heavy duty fans with optimal fan speed control
Power	6x 6600 W redundant (3+3) Titanium Level (96%)
BIOS	AMI 64 MB UEFI
System management	Cisco Intersight (Cisco offer)
Operating environment	10 to 35 C operating; 8% to 90% relative humidity, non-condensing
Weight	Net 119 kg (263 lb); gross 137 kg (302 lb)
Motherboard/chassis	Super X14DBG-LC/CSE-GP807TS-R000NP



System requirements

Table 6 lists what must be in place before installation.

Table 6. System requirements

Requirement	Description
Rack	Standard 19-inch rack, 8U, 950 mm chassis depth; verify rail, weight, and airflow clearance
Power	6x 6600 W inputs; provision AC feeds sized for full GPU load
Cooling	Air-cooled data center capable of removing full system heat load; 10 to 35 C intake
Operating humidity	8% to 90% non-condensing
Management	Cisco Intersight account and claimed device connectivity

Ordering information

The base platform is a Supermicro SKU offered through Cisco. Cisco ordering PIDs for the configured system are in progress. To order, contact your Cisco account representative or visit the Cisco Ordering Home Page.

Table 7. Ordering information

Part number	Product description
SYS-822GS-NB3RT1	Supermicro 8U 2x Xeon 6 HGX B300 air-cooled 8-GPU Server, 16 DIMM
SYS-822GS-NB3RT2	Supermicro 8U 2x Xeon 6 HGX B300 air-cooled 8-GPU Server, 32 DIMM
SVC-NVSTDSUP-3Y	NVIDIA Enterprise Support Entitlement, 3Yr

Warranty information

Warranty terms for this Cisco-offered Supermicro platform are standard Supermicro warranty terms. Support is delivered through Cisco CX Services under the applicable service contract, contact your Cisco sales specialist for more details.

Cisco and Partner Services

Cisco CX and Supermicro Services cover this platform from planning through deployment and ongoing operations, with dedicated support contracts. For more information, visit <https://www.cisco.com/go/services>.

Cisco Capital

Flexible payment solutions to help you achieve your objectives

Cisco Capital makes it easier to get the right technology to achieve your objectives, enable business transformation and help you stay competitive. We can help you reduce the total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services and complementary third-party equipment in easy, predictable payments. [Learn more](#).

Learn more

For more on Cisco AI infrastructure, visit <https://www.cisco.com/go/ai>. Full platform specifications are available on the Supermicro product page for the SYS-822GS-NB3RT.

Learn more about Cisco and Supermicro partnership:

<https://www.cisco.com/site/us/en/solutions/globalpartners/supermicro/index.html>.