

ASUS Ascent GX10

Also known as: Ascent GX10 · GX10 · ASUS GB10 desktop · 90MS0371-M001Z0 (64 GB / 1 TB)

The Ascent GX10 is ASUS's build of NVIDIA's GB10 desk-side reference design: the same GB10 Grace Blackwell SoC, LPDDR5X unified memory, ConnectX-7 NIC and NVIDIA DGX OS as the DGX Spark, in an ASUS chassis with its own cooling, a front power button and a wider storage menu (1, 2 or 4 TB, where the 1 and 2 TB tiers use PCIe 4.0 drives). ASUS also lists a 64 GB memory variant that was not orderable at the time of writing. Compute, memory bandwidth and the software stack are the platform's, so pick it over the NVIDIA-branded box on price, storage tier, channel availability or support terms, not on performance. Like any GB10 box it is a single-developer prototyping and fine-tuning machine, not a cluster node.

1 PFLOP FP4 AI performance · vendor claim; NVIDIA states this figure is with sparsity	20-core Arm CPU · 10x Cortex-X925 + 10x Cortex-A725	128 GB LPDDR5X-8533 unified Memory · 64 GB variant listed, not yet orderable
1, 2 or 4 TB M.2 NVMe Storage · single slot; 4 TB is PCIe 5.0, 1 and 2 TB are PCIe 4.0	ConnectX-7 + 10 GbE Networking · NVIDIA rates the GB10 NIC at 200 Gbps	240 W external adapter Power · USB-C PD input; 42-130 W measured, reported

COMPUTE01/05	
SoC	NVIDIA GB10 Grace Blackwell · Blackwell GPU integrated with the Grace CPU
CPU cores	20-core Arm · 10x Cortex-X925 + 10x Cortex-A725
GPU	Blackwell, 5th-gen Tensor Cores, 4th-gen RT Cores · 6,144 CUDA cores per NVIDIA's GB10 documentation
FP4 performance	up to 1 PFLOP · sparse; NVIDIA publishes no dense figure
GB10 TDP	140 W · NVIDIA figure for the GB10 SoC

MEMORY & STORAGE		02/05
Memory	128 GB or 64 GB LPDDR5X-8533 · coherent unified CPU+GPU memory, soldered	
Bandwidth	273 GB/s · 256-bit interface, NVIDIA GB10 figure	
Inference ceiling	up to 200B parameters (128 GB), up to 100B (64 GB) · vendor claim, single unit	
Storage options	1 TB, 2 TB or 4 TB M.2 NVMe · one slot; 4 TB on PCIe 5.0, 1 TB and 2 TB on PCIe 4.0	
SSD form factor	M.2 2242 · reported	
Self-encrypting drive	not stated by ASUS · NVIDIA lists self-encryption for DGX Spark storage	
CONNECTIVITY		03/05
Scale-out NIC	NVIDIA ConnectX-7 · two 200 GbE ports, reported; attaches over two PCIe 5.0 x4 links, reported	
Ethernet	1x RJ-45, 10 GbE	
USB	4x USB-C 20 Gbps (USB 3.2 Gen 2x2) · three with DisplayPort 2.1 alt mode, one is the PD 3.1 EPR power input	
Display	1x HDMI 2.1a · plus DisplayPort over USB-C	
Wireless	Wi-Fi 7 2x2, Bluetooth 5.4	
Other	Front power button, Kensington lock slot · no USB-A ports	
POWER, COOLING & PHYSICAL		04/05
Power supply	240 W external adapter · included	
Measured draw	42-47 W idle, 120-130 W load · reported, before optics	
Cooling	Three fans, dual vapor chamber · vendor claim; the same ASUS page also describes a dual-fan design with 7-level control	
Dimensions	150 x 150 x 51 mm · W x D x H	
Weight	1.48 kg	
Operating temperature	not published by ASUS · NVIDIA gives 5C to 30C for DGX Spark	

SOFTWARE & SUPPORT05/05

OS	NVIDIA DGX OS · Ubuntu-based
Stack	NVIDIA AI software stack, preloaded · ASUS names PyTorch, TensorFlow, JAX, Ollama
ASUS software	Power Sync only · no ASUS fleet or remote-management tool listed
Clustering	two units direct, four with an external switch · vendor claim
Warranty	1-year limited hardware · per ASUS FAQ

PROCUREMENT

Typical lead time

128 GB units ship from retail stock in at least some markets: Scan UK listed the 128 GB / 1 TB unit in stock for next-day delivery on 2026-10-14. The 64 GB variant is not orderable: Scan UK shows it as unavailable with notify-me only, and NVIDIA marks the 64 GB GB10 configuration as coming soon through OEM partners. No ASUS lead time is published.

Pricing

Not published on the ASUS product pages. Reported: about \$3,000 / \$3,500 / \$4,000 for 1 / 2 / 4 TB at launch, roughly \$1,000 below the 4 TB NVIDIA box for the 1 TB unit; the 1 TB unit moved from \$3,499 to \$3,999 in June 2026; on 2026-09-01 the ASUS US store moved to \$5,999 / \$6,999 / \$7,999, above NVIDIA's own DGX Spark list price. Scan UK listed the 128 GB / 1 TB unit at GBP 4,999 inc. VAT on 2026-10-14. No 64 GB price is published.

Price has moved at least three times in a year and differs widely between the ASUS store and resellers; get a dated quote at order time.

The 1 TB and 2 TB tiers use PCIe 4.0 SSDs; only the 4 TB tier is PCIe 5.0. If local dataset I/O matters, price the 4 TB tier, not just the cheapest.

Retail warranty is a 1-year limited hardware warranty; there is no published enterprise support contract, and NVIDIA AI Enterprise licensing is a separate purchase.

Confirm the memory size on the part number: the 64 GB and 128 GB units share the product name.

FIELD NOTES

Performance is the GB10 platform's, not ASUS's. The SoC, memory, NIC and OS are the same as DGX Spark, so throughput is decided by the 273 GB/s memory bandwidth, and decode-heavy inference will look slower than the 1 PFLOP sparse FP4 headline suggests.

The differentiators are chassis-level: a front power button, a reworked chassis with extra bottom intakes, labelled 20 Gbps USB-C ports, and 1 TB and 2 TB storage tiers that NVIDIA's own box does not offer. ServeTheHome rated the cooling well, but ASUS's page describes both a three-fan and a dual-fan design, so do not quote a fan count without checking the unit.

Measured draw sits far below the 240 W adapter rating (42-47 W idle, 120-130 W loaded, reported). Size a box's electrical and thermal budget on the measured figures plus margin for optics on the ConnectX-7 ports.

The 64 GB variant halves the memory but not the platform cost structure; ASUS markets it for models up to about 100B parameters. Until it is orderable and priced, plan on the 128 GB unit.

ASUS publishes no operating temperature range and no remote-management tooling. For any deployment outside an office desk, treat environmental limits and out-of-band management as open questions to put to ASUS.

QUESTIONS WE GET ON THIS PART

How is the ASUS Ascent GX10 different f from NVIDIA DGX Spark?

Same GB10 SoC, unified memory, ConnectX-7 NIC and NVIDIA DGX OS. ASUS differs on chassis and cooling, a front power button, storage tiers (1, 2 or 4 TB, with PCIe 4.0 drives on the two smaller tiers), a listed 64 GB memory variant, a 1-year limited warranty, and price, which has been both below and above NVIDIA's own box over the past year (reported).

How much does the ASUS Ascent GX10 cost?

ASUS does not publish a price on its product pages. Reported: about \$3,000 for the 1 TB unit at launch, rising to \$3,999 in June 2026 and to \$5,999 / \$6,999 / \$7,999 for 1 / 2 / 4 TB in the ASUS US store from September 2026. Reseller prices vary widely; Scan UK listed the 128 GB / 1 TB unit at GBP 4,999 inc. VAT in October 2026.

Can I cluster ASUS Ascent GX10 units?

ASUS says two units link directly over ConnectX-7 to pool 256 GB of memory (two 128 GB units), and four units need an external switch. NVIDIA's GB10 page says ConnectX networking can link up to four systems. It is a small desk cluster, not a rack-scale architecture.

What software runs on the ASUS Ascent GX10?

NVIDIA DGX OS (Ubuntu-based) with the NVIDIA AI software stack preloaded, the same as other GB10 systems. ASUS adds no AI software of its own; the only ASUS utility it lists is Power Sync, for powering an ASUS NUC and monitor together.

REFERENCES

[1] <https://www.asus.com/networking-iot-servers/desktop-ai-supercomputer/ultra-small-ai-supercomputers/asus-ascent-gx10/techspec/>

[2] <https://www.asus.com/networking-iot-servers/desktop-ai-supercomputer/ultra-small-ai-supercomputers/asus-ascent-gx10/>

[3] <https://www.nvidia.com/en-us/products/workstations/dgx-spark/>

[4] <https://docs.nvidia.com/dgx/dgx-spark/hardware.html>

[5] <https://www.servethehome.com/asus-ascent-gx10-review-a-new-nvidia-gb10-solution/>

[6] <https://www.servethehome.com/asus-ascent-gx10-review-a-new-nvidia-gb10-solution/4/>

[7] <https://forums.developer.nvidia.com/t/gx10-price-increase-3499-3999/373025>

[8] <https://prismix.dev/news/e1f1765c7a60>

[9] <https://www.starryhope.com/minipcs/models/asus-ascent-gx10/>

[10] <https://www.scan.co.uk/products/asus-ascent-gx10-desktop-ai-supercomputer-gb10-blackwell-superchip-64gb-lpddr5x-1tb-ssd>