



HPE NVIDIA GB300 NVL72 by HPE

72x B300

Blackwell Ultra

rack

OVERVIEW

—	—	—	132.0 kW
Peak Dense	Aggregate Memory	Aggregate Bandwidth	Aggregate Power

CONFIGURATION

Accelerator	B300 SXM 288GB
Count	72
Memory per GPU	288 GB
Bandwidth per GPU	8.0 TB/s

POWER & EFFICIENCY

Aggregate Power	132.0 kW
TDP per GPU	1400 W
Efficiency	—
Aggregate Bandwidth	—

SYSTEM DETAILS

Vendor: HPE	Family: NVL	Architecture: Blackwell Ultra
Form Factor: rack	Release Year: —	Process Node: 4nm

INTERCONNECT

Fifth-generation NVLink across all 72 GPUs through nine NVLink switch trays; each compute tray carries two ConnectX-8 ports at 800 Gbps and one BlueField-3 DPU, with two Spectrum SN2201 top-of-rack switches for management

NOTES

HPE's build of NVIDIA's GB300 NVL72, a 48U rack holding 36 Grace processors and 72 Blackwell Ultra GPUs across eighteen compute trays, each tray carrying two Grace CPUs and four GPUs on two GB300 boards. Nine NVLink switch trays tie the 72 GPUs into one domain over fifth-generation NVLink, and each tray adds two ConnectX-8 ports at 800 Gbps and a BlueField-3 DPU. Power comes from eight 33 kW shelves onto a 50 V DC busbar, each shelf built from six 5.5 kW supplies. HPE is unusually precise about what the rack actually draws: 132 kW nominal thermal design power, around 155 kW electrical design power at peak, and a recommendation that data centres provision busways for 192 kW. The figure shown here is the 132 kW nominal. Cooling is direct liquid to cold plates on both CPUs and GPUs, fed by an in-row CDU rated at 1.3 MW that can serve up to eight racks. The rack measures 2495 by 600 by 1068 mm and weighs about 3,300 lb fully loaded. HPE publishes no accelerator memory total and no throughput figure; the only memory it states is 512 GB of LPDDR5X per Grace CPU, which is host memory rather than HBM.