

HPE ProLiant Compute XD685 (HGX B300)

8x B300

Blackwell Ultra

rack

2025

OVERVIEW

36.0 FP8 PFLOPS Dense	2.1 TB Aggregate Memory	64.0 TB/s Aggregate Bandwidth	— Aggregate Power
---------------------------------	-----------------------------------	---	-----------------------------

PERFORMANCE METRICS

Precision	Peak (PFLOPS)	Per GPU (TFLOPS)	TFLOPS/W
FP64	0.0	1.3	—
FP32	0.6	75.0	—
TF32	9.0	1125.0	—
FP16	18.0	2250.0	—
BF16	18.0	2250.0	—
FP8	36.0	4500.0	—
FP4	108.0	13500.0	—
FP6	36.0	4500.0	—

All figures are dense. Vendors commonly headline the sparse number, which is twice the dense one.

CONFIGURATION

Accelerator	B300 SXM 288GB
Count	8
Memory per GPU	288 GB
Bandwidth per GPU	8.0 TB/s

POWER & EFFICIENCY

Aggregate Power	—
TDP per GPU	1400 W
FP8 Efficiency	—
Aggregate Bandwidth	64.0 TB/s

SYSTEM DETAILS

Vendor: HPE	Family: ProLiant Compute XD	Architecture: Blackwell Ultra
Form Factor: rack	Release Year: 2025	Process Node: 4nm

INTERCONNECT

NVLink 5.0 / NVSwitch 4.0 across the HGX B300 baseboard; 4x FHHL PCIe Gen5 x16 slots for fabric, NIC or DPU

NOTES

The eight-way XD685 in its NVIDIA HGX B300 configuration, which requires the high-power liquid-cooled chassis S6Y07A rather than the standard DLC one. This is the denser sibling of the air-cooled

XD690, which reaches the same eight Blackwell Ultra GPUs in 10U where this does it in 5U. Two fifth-generation AMD EPYC processors, 24 DIMM slots and up to 6 TB of DDR5-6400, eight EDSFF NVMe E3.S drives. HPE publishes no system power draw for the XD685, only twelve 3,000 W Titanium supplies with ten deployable, so unlike the XD690 no figure is recorded; the compute shown is NVIDIA's specification for the HGX B300 baseboard rather than an HPE claim.