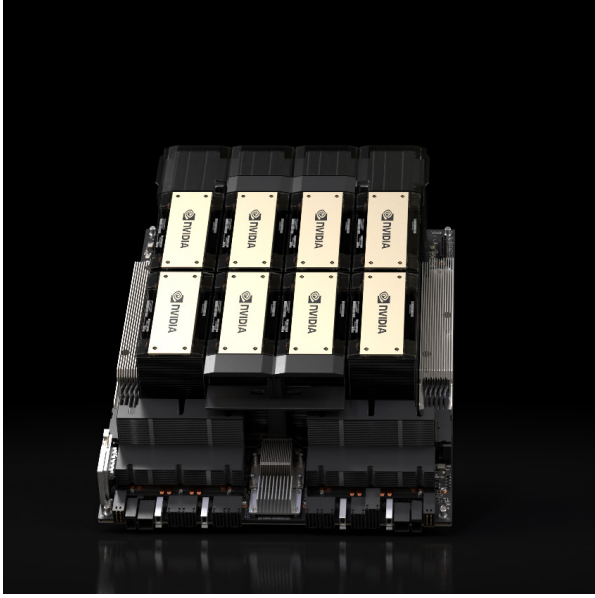
Datasheet

NVIDIA H200 Tensor Core GPU

The world's most powerful GPU for supercharging AI and HPC workloads.



Higher Performance and Larger, Faster Memory

The NVIDIA H200 Tensor Core GPU supercharges generative AI and high-performance computing (HPC) workloads with game-changing performance and memory capabilities.

Based on the **NVIDIA Hopper™ architecture**, the NVIDIA H200 is the first GPU to offer 141 gigabytes (GB) of HBM3e memory at 4.8 terabytes per second (TB/s)—that's nearly double the capacity of the **NVIDIA H100 Tensor Core GPU** with 1.4X more memory bandwidth. The H200's larger and faster memory accelerates generative AI and large language models, while advancing scientific computing for HPC workloads with better energy efficiency and lower total cost of ownership.

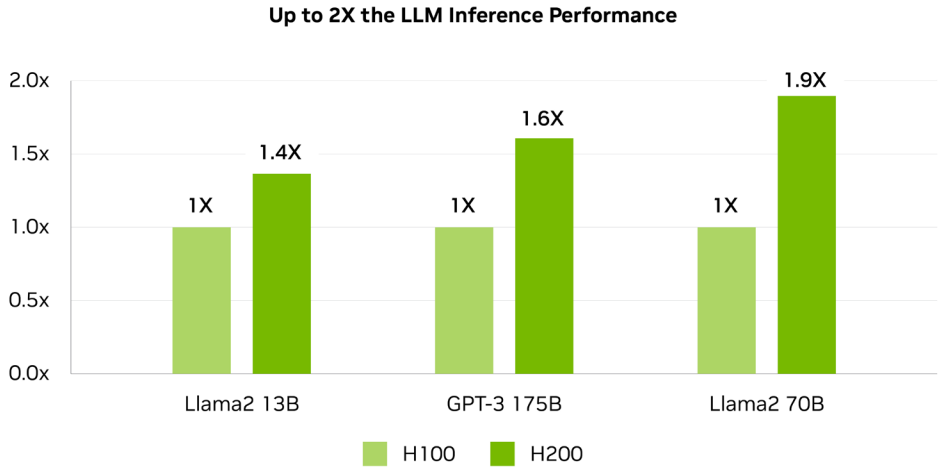
Key Features

- 141GB of HBM3e GPU memory
- 4.8TB/s of memory bandwidth
- 4 petaFLOPS of FP8 performance
- 2X LLM inference performance
- 110X HPC performance

Unlock Insights With High-Performance LLM Inference

In the ever-evolving landscape of AI, businesses rely on large language models to address a diverse range of inference needs. An AI inference accelerator must deliver the highest throughput at the lowest TCO when deployed at scale for a massive user base.

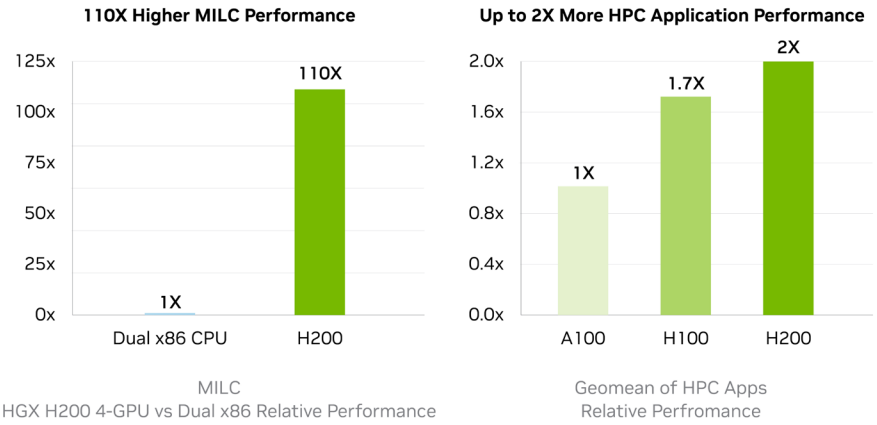
The H200 doubles inference performance compared to H100 GPUs when handling large language models such as Llama2 70B.



Preliminary measured performance, subject to change.
Llama2 13B: ISL 128, OSL 2K | Throughput | H100 1x GPU BS 64 | H200 1x GPU BS 128
GPT-3 175B: ISL 80, OSL 200 | x8 H100 GPUs BS 64 | x8 H200 GPUs BS 128
Llama2 70B: ISL 2K, OSL 128 | Throughput | H100 1x GPU BS 8 | H200 1x GPU BS 32.

Supercharge High-Performance Computing

Memory bandwidth is crucial for HPC applications, as it enables faster data transfer and reduces complex processing bottlenecks. For memory-intensive HPC applications like simulations, scientific research, and artificial intelligence, the H200's higher memory bandwidth ensures that data can be accessed and manipulated efficiently, leading to 110X faster time to results.



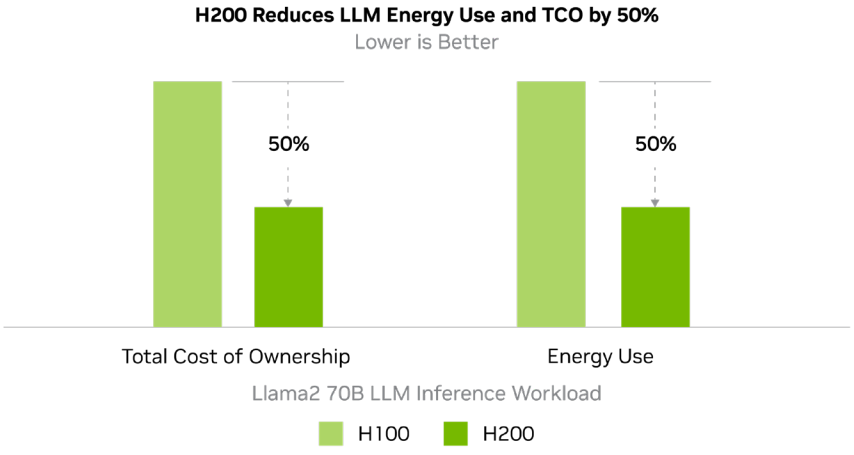
Projected performance, subject to change.

HPC MILC- dataset NERSC Apex Medium | HGX H200 4-GPU | dual Sapphire Rapids 8480

HPC Apps- CP2K: dataset H2O-32-RI-dRPA-96points | GROMACS: dataset STMV | ICON: dataset r2b5 | MILC: dataset NERSC Apex Medium | Chroma: dataset HMC Medium | Quantum Espresso: dataset AUSURF112 | 1x H100 | 1x H200.

Reduce Energy and TCO

With the introduction of H200, energy efficiency and TCO reach new levels. This cutting-edge technology offers unparalleled performance, all within the same power profile as the H100 Tensor Core GPU. AI factories and supercomputing systems that are not only faster but also more eco-friendly deliver an economic edge that propels the AI and scientific communities forward.



Preliminary measured performance, subject to change.

Llama2 70B: ISL 2K, OSL 128 | Throughput | H100 1x GPU BS 8 | H200 1x GPU BS 32

Technical Specifications	
Form Factor	H200 SXM[1]
FP64	34 TFLOPS
FP64 Tensor Core	67 TFLOPS
FP32	67 TFLOPS
TF32 Tensor Core	989 TFLOPS[2]
BFLOAT16 Tensor Core	1,979 TFLOPS[2]
FP16 Tensor Core	1,979 TFLOPS[2]
FP8 Tensor Core	3,958 TFLOPS[2]
INT8 Tensor Core	3,958 TFLOPS[2]
GPU Memory	141GB
GPU Memory Bandwidth	4.8TB/s
Decoders	7 NVDEC 7 JPEG
Max Thermal Design Power (TDP)	Up to 700W (configurable)
Multi-Instance GPUs	Up to 7 MIGs @16.5GB each
Form Factor	SXM
Interconnect	NVIDIA NVLink®: > 900GB/s > PCIe Gen5: 128GB/s
Server Options	NVIDIA HGX™ H200 partner and NVIDIA-Certified Systems™ with 4 or 8 GPUs
NVIDIA AI Enterprise	Add-on

1. Preliminary specifications. May be subject to change.
2. With sparsity.

Ready to get started?

To learn more about the NVIDIA H200 Tensor Core GPU, visit **nvidia.com/h200**

NVIDIA