NVIDIA Groq 3 LPU vs NVIDIA H800 PCIe 80GB

Side by side datacenter GPU specifications from the Flopper.io database.

OVERVIEW

	NVIDIA Groq 3 LPU	NVIDIA H800 PCIe 80GB
FP32 TFLOPS	–	**51.0**
Memory	–	**80 GB**
Memory Bandwidth	–	**2.0 TB/s**
TDP	–	**350 W**

PERFORMANCE BY PRECISION

Precision	NVIDIA Groq 3 LPU peak TFLOPS (dense)	NVIDIA H800 PCIe 80GB peak TFLOPS (dense)
FP64	–	0.8
FP32	–	51.0
TF32	–	378.0
BF16	–	756.5
FP16	–	756.5
FP8	1200.0	1513.0
FP6	–	–
FP4	–	–
INT8	–	1513.0

SPECIFICATIONS

	NVIDIA Groq 3 LPU	NVIDIA H800 PCIe 80GB
Architecture	Groq LPU	Hopper
Process Node	–	4nm
Launch Year	2026	2022
Form Factor	–	PCIe
Memory Type	On-die SRAM	HBM3
Interface Width	–	–
Interconnect	LPU C2C	–

	NVIDIA Groq 3 LPU	NVIDIA H800 PCIe 80GB
TDP	–	350 W
FP32 Efficiency	–	0.15 TFLOPS/W