Apple M3 Ultra vs NVIDIA RTX A2000 6GB

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

OVERVIEW

	Apple M3 Ultra	NVIDIA RTX A2000 6GB
FP32 TFLOPS	**32.8**	**8.0**
Memory	**512 GB**	**6 GB**
Memory Bandwidth	**819 GB/s**	**288 GB/s**
TDP	—	**70 W**

PERFORMANCE BY PRECISION

Precision	Apple M3 Ultra peak TFLOPS (dense)	NVIDIA RTX A2000 6GB peak TFLOPS (dense)
FP64	—	0.1
FP32	32.8	8.0
TF32	—	—
BF16	—	—
FP16	—	—
FP8	—	—
FP6	—	—
FP4	—	—
INT8	—	—

SPECIFICATIONS

	Apple M3 Ultra	NVIDIA RTX A2000 6GB
Architecture	Apple M3	Ampere
Process Node	3nm	8nm
Launch Year	2025	2021
Form Factor	SoC	PCIe
Memory Type	LPDDR5	GDDR6
Interface Width	—	192-bit
Interconnect	—	—

	Apple M3 Ultra	NVIDIA RTX A2000 6GB
TDP	–	70 W
FP32 Efficiency	–	0.11 TFLOPS/W