



# NVIDIA RTX A2000 12GB vs NVIDIA A100 SXM4 40GB

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

## OVERVIEW

|                  | NVIDIA RTX A2000 12GB | NVIDIA A100 SXM4 40GB |
|------------------|-----------------------|-----------------------|
| FP32 TFLOPS      | 8.0                   | 19.5                  |
| Memory           | 12 GB                 | 40 GB                 |
| Memory Bandwidth | 288 GB/s              | 1.6 TB/s              |
| TDP              | 70 W                  | 400 W                 |

## PERFORMANCE BY PRECISION

| Precision | NVIDIA RTX A2000 12GB peak TFLOPS (dense) | NVIDIA A100 SXM4 40GB peak TFLOPS (dense) |
|-----------|-------------------------------------------|-------------------------------------------|
| FP64      | 0.1                                       | 9.7                                       |
| FP32      | 8.0                                       | 19.5                                      |
| TF32      | 8.0                                       | 156.0                                     |
| BF16      | 8.0                                       | 312.0                                     |
| FP16      | 8.0                                       | 312.0                                     |
| FP8       | —                                         | —                                         |
| FP6       | —                                         | —                                         |
| FP4       | —                                         | —                                         |
| INT8      | 16.0                                      | 624.0                                     |
| INT4      | —                                         | 1248.0                                    |

## SPECIFICATIONS

|                 | NVIDIA RTX A2000 12GB | NVIDIA A100 SXM4 40GB |
|-----------------|-----------------------|-----------------------|
| Architecture    | Ampere                | Ampere                |
| Process Node    | 8nm                   | 7nm                   |
| Launch Year     | 2022                  | 2020                  |
| Form Factor     | PCIe                  | SXM                   |
| Memory Type     | GDDR6                 | HBM2e                 |
| Interface Width | 192-bit               | 4096-bit              |

|                 | NVIDIA RTX A2000 12GB | NVIDIA A100 SXM4 40GB |
|-----------------|-----------------------|-----------------------|
| Interconnect    | —                     | —                     |
| TDP             | 70 W                  | 400 W                 |
| FP32 Efficiency | 0.11 TFLOPS/W         | 0.05 TFLOPS/W         |