



# NVIDIA A100 SXM4 80GB vs NVIDIA A100 PCIe 40GB

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

## OVERVIEW

|                  | NVIDIA A100 SXM4 80GB | NVIDIA A100 PCIe 40GB |
|------------------|-----------------------|-----------------------|
| FP32 TFLOPS      | 19.5                  | 19.5                  |
| VRAM             | 80 GB                 | 40 GB                 |
| Memory Bandwidth | 2.0 TB/s              | 1.6 TB/s              |
| TDP              | 400 W                 | 250 W                 |

## PERFORMANCE BY PRECISION

| Precision | NVIDIA A100 SXM4 80GB peak TFLOPS (dense) | NVIDIA A100 PCIe 40GB peak TFLOPS (dense) |
|-----------|-------------------------------------------|-------------------------------------------|
| INT8      | 624.0                                     | 624.0                                     |
| INT4      | 1248.0                                    | 1248.0                                    |
| FP16      | 312.0                                     | 312.0                                     |
| BF16      | 312.0                                     | 312.0                                     |
| TF32      | 156.0                                     | 156.0                                     |
| FP32      | 19.5                                      | 19.5                                      |
| FP64      | 9.7                                       | 9.7                                       |

## SPECIFICATIONS

|                 | NVIDIA A100 SXM4 80GB | NVIDIA A100 PCIe 40GB |
|-----------------|-----------------------|-----------------------|
| Architecture    | Ampere                | Ampere                |
| Process Node    | 7nm                   | 7nm                   |
| Launch Year     | 2020                  | 2020                  |
| Form Factor     | SXM                   | PCIe                  |
| Memory Type     | —                     | —                     |
| Interface Width | —                     | —                     |
| Interconnect    | —                     | —                     |
| TDP             | 400 W                 | 250 W                 |

|                 | NVIDIA A100 SXM4 80GB | NVIDIA A100 PCIe 40GB |
|-----------------|-----------------------|-----------------------|
| FP32 Efficiency | 0.05 TFLOPS/W         | 0.08 TFLOPS/W         |