



# NVIDIA A100 PCIe 80GB vs NVIDIA GeForce RTX 3090 24GB

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

## OVERVIEW

|                  | NVIDIA A100 PCIe 80GB | NVIDIA GeForce RTX 3090 24GB |
|------------------|-----------------------|------------------------------|
| FP32 TFLOPS      | 19.5                  | 35.6                         |
| VRAM             | 80 GB                 | 24 GB                        |
| Memory Bandwidth | 1.9 TB/s              | 936 GB/s                     |
| TDP              | 300 W                 | 350 W                        |

## PERFORMANCE BY PRECISION

| Precision | NVIDIA A100 PCIe 80GB peak TFLOPS (dense) | NVIDIA GeForce RTX 3090 24GB peak TFLOPS (dense) |
|-----------|-------------------------------------------|--------------------------------------------------|
| INT8      | 624.0                                     | 284.0                                            |
| INT4      | 1248.0                                    | 568.0                                            |
| FP16      | 312.0                                     | 71.0                                             |
| BF16      | 312.0                                     | 71.0                                             |
| TF32      | 156.0                                     | 35.6                                             |
| FP32      | 19.5                                      | 35.6                                             |
| FP64      | 9.7                                       | 0.6                                              |

## SPECIFICATIONS

|                 | NVIDIA A100 PCIe 80GB | NVIDIA GeForce RTX 3090 24GB |
|-----------------|-----------------------|------------------------------|
| Architecture    | Ampere                | Ampere                       |
| Process Node    | —                     | 8nm                          |
| Launch Year     | 2021                  | 2020                         |
| Form Factor     | PCIe                  | PCIe                         |
| Memory Type     | HBM2e                 | —                            |
| Interface Width | 5120-bit              | —                            |
| Interconnect    | —                     | —                            |

|                 | NVIDIA A100 PCIe 80GB | NVIDIA GeForce RTX 3090 24GB |
|-----------------|-----------------------|------------------------------|
| TDP             | 300 W                 | 350 W                        |
| FP32 Efficiency | 0.07 TFLOPS/W         | 0.10 TFLOPS/W                |