# Huawei Ascend 310 vs NVIDIA RTX A2000 12GB

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

## OVERVIEW

| | Huawei Ascend 310 | NVIDIA RTX A2000 12GB |
|---|---|---|
| FP32 TFLOPS | – | 8.0 |
| Memory | – | 12 GB |
| Memory Bandwidth | – | 288 GB/s |
| TDP | 8 W | 70 W |

## PERFORMANCE BY PRECISION

| Precision | Huawei Ascend 310 peak TFLOPS (dense) | NVIDIA RTX A2000 12GB peak TFLOPS (dense) |
|---|---|---|
| FP64 | – | 0.1 |
| FP32 | – | 8.0 |
| TF32 | – | 8.0 |
| BF16 | – | 8.0 |
| FP16 | 8.0 | 8.0 |
| FP8 | – | – |
| FP6 | – | – |
| FP4 | – | – |
| INT8 | 16.0 | 16.0 |

## SPECIFICATIONS

| | Huawei Ascend 310 | NVIDIA RTX A2000 12GB |
|---|---|---|
| Architecture | Da Vinci | Ampere |
| Process Node | 12nm | 8nm |
| Launch Year | 2018 | 2022 |
| Form Factor | SoC | PCIe |
| Memory Type | LPDDR4X | GDDR6 |
| Interface Width | 128-bit | 192-bit |
| Interconnect | – | – |

| | Huawei Ascend 310 | NVIDIA RTX A2000 12GB |
|---|---|---|
| TDP | 8 W | 70 W |
| FP32 Efficiency | – | 0.11 TFLOPS/W |