Huawei Ascend 910A vs NVIDIA RTX PRO 5000 Blackwell 48GB

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

OVERVIEW

	Huawei Ascend 910A	NVIDIA RTX PRO 5000 Blackwell 48GB
FP32 TFLOPS	**16.0**	**65.0**
Memory	**32 GB**	**48 GB**
Memory Bandwidth	**1.2 TB/s**	**1.3 TB/s**
TDP	**310 W**	**300 W**

PERFORMANCE BY PRECISION

Precision	Huawei Ascend 910A peak TFLOPS (dense)	NVIDIA RTX PRO 5000 Blackwell 48GB peak TFLOPS (dense)
FP64	—	—
FP32	16.0	65.0
TF32	—	—
BF16	—	—
FP16	256.0	—
FP8	—	—
FP6	—	—
FP4	—	1032.0
INT8	512.0	—

SPECIFICATIONS

	Huawei Ascend 910A	NVIDIA RTX PRO 5000 Blackwell 48GB
Architecture	Da Vinci	Blackwell
Process Node	TSMC 7nm	4nm
Launch Year	2019	2025
Form Factor	OAM	PCIe
Memory Type	HBM2	GDDR7
Interface Width	—	512-bit
Interconnect	HCCS	—

	Huawei Ascend 910A	NVIDIA RTX PRO 5000 Blackwell 48GB
TDP	310 W	300 W
FP32 Efficiency	0.05 TFLOPS/W	0.22 TFLOPS/W