

# NVIDIA GeForce RTX 5090 32GB

Blackwell PCIe 2025 4nm

## OVERVIEW

104.8

FP32 TFLOPS

32 GB

VRAM GDDR7

1.8 TB/s

Memory Bandwidth

575 W

TDP

## PERFORMANCE METRICS

Precision	Peak TFLOPS	Bits	Type
INT8	838.2	8	Standard
FP8	838.2	8	Standard
FP4	1676.0	4	Standard
FP16	419.1	16	Standard
BF16	419.1	16	Standard
TF32	209.5	32	Standard
FP32	104.8	32	Standard
FP64	1.6	64	Standard

## MEMORY SPECIFICATIONS

Capacity	32 GB
Type	GDDR7
Bandwidth	1.8 TB/s
Interface Width	512-bit

## POWER & EFFICIENCY

TDP	575 W
Est. Max Power	661 W
FP32 Efficiency	0.18 TFLOPS/W
FP16 Efficiency	0.73 TFLOPS/W

## HARDWARE DETAILS

Vendor: NVIDIA	Architecture: Blackwell	Process Node: 4nm
Form Factor: PCIe	Launch Year: 2025	Variant: 32GB

## COMPUTE ENGINE

CUDA Cores: 21,760	Tensor Cores: 680 (5th Gen)	SMs: 170
Base Clock: 2.01 GHz	Boost Clock: 2.41 GHz	

## CHIP DESIGN

Transistors: 92.0 billion	Die Size: 750 mm <sup>2</sup>
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