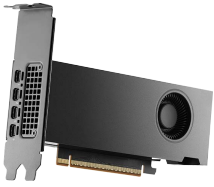
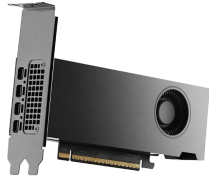


NVIDIA RTX PRO™ Blackwell GPUs

NVIDIA Blackwell Architecture



• NVIDIA RTX PRO™ 2000
Blackwell



• NVIDIA RTX PRO™ 4000
Blackwell SFF Edition



• NVIDIA RTX PRO™ 4000
Blackwell



• NVIDIA RTX PRO™ 4500
Blackwell



• NVIDIA RTX PRO™ 5000
Blackwell



• NVIDIA RTX PRO™ 6000
Blackwell Max-Q
Workstation Edition



• NVIDIA RTX PRO™ 6000
Blackwell Workstation
Edition



• NVIDIA RTX PRO™ 6000
Blackwell Server Edition

Features

- NVIDIA Blackwell architecture
- Up to 96GB GDDR7 memory
- Up to PCIe Gen5 x16 interface
- UP to 24,064 CUDA® Cores, 188 RT Cores, and 752 Tensor Cores
- Support up to 4x mDP 2.1b/DP 2.1b displays, 600W TGP
- Designed for server and workstation

Ordering Information

NVIDIA RTX PRO™ 2000 Blackwell	PCIe x8 GEN5, 16 GB GDDR7 ECC, 4x mDP 2.1b, 70 W, 2.7" H x 6.6" L, Dual Slot
NVIDIA RTX PRO™ 4000 Blackwell SFF Edition	PCIe x8 GEN5, 24 GB GDDR7 ECC, 4x mDP 2.1b, 70 W, 2.7" H x 6.6" L, Dual Slot
NVIDIA RTX PRO™ 4000 Blackwell	PCIe x16 GEN5, 24 GB GDDR7 ECC, 4x DP 2.1b, 145 W, 4.4" H x 9.5" L, Single Slot
NVIDIA RTX PRO™ 4500 Blackwell	PCIe x16 GEN5, 32 GB GDDR7 ECC, 4x DP 2.1b, 200 W, 4.4" H x 10.5" L, Dual Slot
NVIDIA RTX PRO™ 5000 Blackwell	PCIe x16 GEN5, 48/72 GB GDDR7 ECC, 4x DP 2.1b, 300 W, 4.4" H x 10.5" L, Dual Slot
NVIDIA RTX PRO™ 6000 Blackwell Max-Q Workstation Edition	PCIe x16 GEN5, 96 GB GDDR7 ECC, 4x DP 2.1b, 300 W, 4.4" H x 10.5" L, Dual Slot
NVIDIA RTX PRO™ 6000 Blackwell Workstation Edition	PCIe x16 GEN5, 96 GB GDDR7 ECC, 4x DP 2.1b, 600 W, 5.4" H x 12" L, Dual slot
NVIDIA RTX PRO™ 6000 Blackwell Server Edition	PCIe x16 GEN5, 96 GB GDDR7 ECC, 4x DP 2.1b, 600 W default, 4.4" H x 10.5" L, Dual Slot, fanless

Specifications

Model Name	NVIDIA RTX PRO™ 2000 Blackwell	NVIDIA RTX PRO™ 4000 Blackwell SFF Edition	NVIDIA RTX PRO™ 4000 Blackwell	NVIDIA RTX PRO™ 4500 Blackwell
Graphic Core				
Memory	16 GB GDDR7 memory, 128-bit	24 GB GDDR7 memory, 192-bit	24 GB GDDR7 memory, 192-bit	32 GB GDDR7 memory, 256-bit
ECC Support	Yes	Yes	Yes	Yes
GPGPU Computing				
CUDA® Cores	4,352	8,960		10,496
Tensor Cores	136	280		328
RT Cores	34	70		82
Compute API	CUDA 12.8, OpenCL 3.0	CUDA 12.8, OpenCL 3.0	CUDA 12.8, OpenCL 3.0, DirectCompute	CUDA 12.8, OpenCL 3.0, DirectCompute
Graphics API	DirectX 12, Shader Model 6.7, OpenGL 4.6, Vulkan 1.4	DirectX 12, Shader Model 6.7, OpenGL 4.6, Vulkan 1.4	DirectX 12, Shader Model 6.6, OpenGL 4.6, Vulkan 1.3	DirectX 12, Shader Model 6.6, OpenGL 4.6, Vulkan 1.3
Display				
Display Outputs	4x mDP 2.1b ¹ Up to four simultaneous displays ²	4x mDP 2.1b ¹ 4x 3840x2160 @ 165 Hz 2x 7680x4320 @ 100 Hz	4x DP 2.1b 4x 3840 x 2160 @ 165 Hz 2x 7680 x 4320 @ 100 Hz	4x DP 2.1b 4x 3840 x 2160 @ 165 Hz 2x 7680 x 4320 @ 100 Hz
Interface	PCIe Gen5 x8 ¹	PCIe Gen5 x8 ¹	PCIe Gen5 x16	PCIe Gen5 x16
Mechanicals				
Dimensions	2.7" H x 6.6" L	2.7" H x 6.6" L	4.4" x 9.5" L	4.4" H x 10.5" L
Form Factor	HHHL, Dual slot	HHHL, Dual slot	FHML, Single slot	FHFL, Dual slot
Environmental				
Module Power Consumption	70 W	70 W	145 W	200 W
Thermal Solution	Active	Active	Active	Active
Multi-Instance GPU	–	–	–	4

Model Name	NVIDIA RTX PRO™ 5000 Blackwell		NVIDIA RTX PRO™ 6000 Blackwell Max-Q Workstation Edition	NVIDIA RTX PRO™ 6000 Blackwell Workstation Edition	NVIDIA RTX PRO™ 6000 Blackwell Server Edition
Graphic Core					
Memory	48 GB GDDR7 memory, 512-bit	72 GB GDDR7 memory, 512-bit	96 GB GDDR7 memory, 512-bit	96 GB GDDR7 memory, 512-bit	96 GB GDDR7 memory, 512-bit
ECC Support	Yes		Yes	Yes	Yes
GPGPU Computing					
CUDA® Cores	14,080		24,064		
Tensor Cores	440		752		
RT Cores	110		188		
Compute API	CUDA 12.8, OpenCL 3.0, DirectCompute		CUDA 12.8, OpenCL 3.0, DirectCompute		
Graphics API	DirectX 12, Shader Model 6.6, OpenGL 4.6, Vulkan 1.3		DirectX 12, Shader Model 6.6, OpenGL 4.6, Vulkan 1.3		
Display					
Display Outputs	4x DP 2.1b 4x 4,096 x 2,160 @ 120 Hz 4x 5,120 x 2,880 @ 60 Hz 2x 7,680 x 4,320 @ 60 Hz		4x DP 2.1b 4x 4,096 x 2,160 @ 120 Hz 4x 5,120 x 2,880 @ 60 Hz 2x 7,680 x 4,320 @ 60 Hz	4x DP 2.1b 4x 4,096 x 2,160 @ 120 Hz 4x 5,120 x 2,880 @ 60 Hz 2x 7,680 x 4,320 @ 60 Hz	4x DP 2.1b
Interface	PCIe Gen5 x16		PCIe Gen5 x16		
Mechanicals					
Dimensions	4.4" H x 10.5" L		4.4" H x 10.5" L	5.4" H x 12" L	4.4" H x 10.5" L
Form Factor	FHFL, Dual slot		FHFL, Dual slot	XHFL, Dual slot	FHFL, Dual slot
Environmental					
Module Power Consumption	300 W		300 W	600 W	Up to 600 W (Configurable)
Thermal Solution	Active		Active	Double-flow-through	Passive; air- and liquid-cooled
Multi-Instance GPU	Up to 2x 24 GB Up to 1x 48 GB	Up to 2x 36 GB Up to 1x 72 GB	Up to 4x 24 GB Up to 2x 48 GB Up to 1x 96 GB	Up to 4x 24 GB Up to 2x 48 GB Up to 1x 96 GB	Up to 4x 24 GB

1. Uses full-length PCIe interface.
2. Multi monitor:
 - Four independent displays at 4k 165 Hz using DP
 - Two independent displays at 4k 360 Hz or 8k 100 Hz with DSC using DP
 - Other display configurations may be possible based on available bandwidth



 **NVIDIA**

RTX PRO