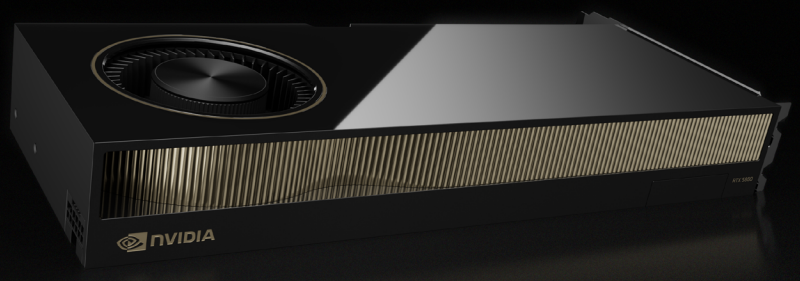
Datasheet

NVIDIA RTX 5880 Ada Generation

Performance for endless possibilities.



Powering the Next Era of Innovation

In a rapidly evolving world of visual computing, maintaining a competitive edge is crucial. Whether you're creating stunning 3D animations, rendering photorealistic scenes, or simulating complex physics modeling, the NVIDIA RTX™ 5880 Ada Generation GPU is the perfect solution for handling the most demanding tasks.

Powered by the cutting-edge Ada Lovelace architecture, the RTX 5880 combines 110 third-generation RT Cores, 440 fourth-generation Tensor Cores, and 14,080 CUDA® cores with 48GB of graphics memory to deliver blazing fast speed and efficiency for rendering, graphics, and compute workloads. Purpose-built for today's professional workflows, the RTX 5880 empowers you to unleash your creativity, accelerate workflows, and tackle the most challenging problems with ease.

NVIDIA RTX professional graphics cards are certified for a broad range of professional applications, tested by leading independent software vendors (ISVs) and workstation manufacturers, and backed by a global team of support specialists. Get the peace of mind to focus on what matters with the premier visual computing solution for mission-critical business.

Key Features

- PCIe Gen4
- Four DisplayPort 1.4a connectors
- AV1 encode and decode support
- DisplayPort with audio
- 3D stereo support with stereo connector
- NVIDIA GPUDirect® for Video support
- NVIDIA GPUDirect Remote Direct Memory Access (RDMA) support
- NVIDIA Quadro® Sync II[1] compatibility
- NVIDIA RTX Experience™
- NVIDIA RTX Desktop Manager software
- NVIDIA RTX IO support
- HDCP 2.2 support
- NVIDIA Mosaic[2] technology

PNY Part Number

Part Number	EAN Code	SPQ	Box Content (per card)
VCNRTXA5880-SB (retail)	353640339408	4	1x power cable

Specifications	
GPU memory	48GB GDDR6
Memory interface	384-bit
Memory bandwidth	960 GB/s
Error correcting code (ECC)	Yes
NVIDIA Ada Lovelace architecture-based CUDA Cores	14,080
NVIDIA fourth-generation Tensor Cores	440
NVIDIA third-generation RT Cores	110
Single-precision performance	69.3 TFLOPS[3]
RT Core performance	160.2 TFLOPS[3]
Tensor performance	1108.4 TFLOPS[4]
System interface	PCIe 4.0 x16
Power consumption	Total board power: 285 W
Thermal solution	Active
Form factor	4.4" H x 10.5" L, dual-slot
Display connectors	4x DisplayPort 1.4a[5]
Max simultaneous displays	4x 4096 x 2160 @ 120hz 4x 5120 x 2880 @ 60hz 2x 7680 x 4320 @ 60hz
Encode/decode engines	3x encode, 3x decode (+AV1 encode and decode)
VR ready	Yes
vGPU software support[6]	> NVIDIA vPC/vApps > NVIDIA RTX Virtual Workstation
vGPU profiles supported	See the **Virtual GPU Licensing Guide**
Graphics APIs	DirectX 12, Shader Model 6.6, OpenGL 4.6[7], Vulkan 1.3[7]
Compute APIs	CUDA 11.6, OpenCL 3.0, DirectCompute
NVIDIA NVLink	No

Ready to Get Started?

To learn more about NVIDIA RTX, visit
www.nvidia.com/en-us/design-visualization/rtx

1 Quadro Sync II card sold separately. I 2 Windows 10 and Linux. I 3 Peak rates based on GPU boost clock. I 4 Effective FP8 teraFLOPS (TFLOPS) using sparsity. I 5 Display ports are on by default for RTX 5880. Display ports aren't active when using vGPU software. I 6 Virtualization support for the RTX 5880 Ada Generation GPU will be available in an upcoming NVIDIA vGPU release, anticipated in Q1, 2024. I 7 Product is based on a published Khronos specification and is expected to pass the Khronos conformance testing process when available. Current conformance status can be found at www.khronos.org/conformance

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