



# NVIDIA QUADRO GV100

Reinventing the Workstation with Real-Time Ray Tracing and AI

## The Power To Accelerate AI-Enhanced Workflows

The NVIDIA® Quadro® GV100 reinvents the workstation to meet the demands of AI-enhanced design and visualization workflows. It's powered by NVIDIA Volta, delivering extreme memory capacity, scalability, and performance that designers, architects, and scientists need to create, build, and solve the impossible.

### Supercharge Rendering with AI

- > Work with full fidelity, massive datasets
- > Enjoy fluid visual interactivity with AI-accelerated denoising

### Bring Optimal Designs to Market Faster

- > Work with higher fidelity CAE simulation models
- > Explore more design options with faster solver performance

### Enjoy Ultimate Immersive Experience

- > Work with complex, photoreal datasets in VR

### Realize New Opportunities with AI

- > Access DL frameworks for AI development via NVIDIA NGC
- > Accelerate AI training/inferencing with Tensor Cores and NVLink

All Quadro cards are certified with a broad range of professional applications, tested by leading workstation manufacturers, and backed by a global team of support specialists to give you the peace of mind to focus on doing your best work.

## Features

- > Four DisplayPort 1.4 Connectors<sup>3</sup>
- > DisplayPort with Audio
- > 3D Stereo Support with Stereo Connector<sup>3</sup>
- > NVIDIA GPUDirect® for Video support
- > NVIDIA NVLink Support<sup>1</sup>
- > Quadro Sync II<sup>4</sup> Compatibility
- > NVIDIA RTX Experience™
- > NVIDIA RTX Desktop Manager software
- > HDCP 2.2 Support
- > NVIDIA Mosaic<sup>5</sup> technology
- > Dedicated hardware video encode and decode engines<sup>6</sup>



## SPECIFICATIONS

GPU Memory	32GB HBM2
Memory Interface	4096-bit
Memory Bandwidth	Up to 870 GB/s
ECC	Yes
NVIDIA CUDA Cores	5,120
NVIDIA Tensor Cores	640
Double-Precision Performance	7.4 TFLOPS <sup>7</sup>
Single-Precision Performance	14.8 TFLOPS <sup>7</sup>
Tensor Performance	118.5 TFLOPS
NVIDIA NVLink	Connects 2 Quadro GV100 GPUs <sup>2</sup>
NVIDIA NVLink Bandwidth	200 GB/s
System Interface	PCIe 3.0 x 16
Max Power Consumption	250 W
Thermal Solution	Active
Form Factor	4.4" H x 10.5" L, Dual Slot, Full Height
Display Connectors	4x DP 1.4
Max Simultaneous Displays	4x 4096x2160 @ 120 Hz 4x 5120x2880 @ 60 Hz 2x 7680x4320 @ 60 Hz
VR Ready	Yes
Graphics APIs	Shader Model 6.6, OpenGL 4.6 <sup>8</sup> , DirectX 12 Ultimate, Vulkan 1.3 <sup>9</sup>
Compute APIs	CUDA 11.6, DirectCompute, OpenCL 3.0

<sup>1</sup> NVIDIA NVLink sold separately. | <sup>2</sup> Connecting two GV100 cards with NVLink to scale performance and memory capacity to 64GB is only possible if your application supports NVLink technology. Please contact your application provider to confirm their support of NVLink. | <sup>3</sup> VGA/DVI/HDMI/stereo support via adapter/connector/bracket. | <sup>4</sup> Quadro Sync II card sold separately. | <sup>5</sup> Windows 10, Windows 11, and Linux. | <sup>6</sup> Please refer to [developer.nvidia.com/video-encode-decode-gpu-support-matrix](https://developer.nvidia.com/video-encode-decode-gpu-support-matrix) for details on NVIDIA GPU video encode and decode support. | <sup>7</sup> Peak rates based on GPU Boost Clock. | <sup>8</sup> 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](https://www.khronos.org/conformance)

[Learn more](#)

To learn more about the NVIDIA Quadro GV100, visit [www.nvidia.com/quadro](https://www.nvidia.com/quadro)