DATASHEET

NVIDIA RTX A4500

Powerful Performance for Professionals.

The NVIDIA RTX™ A4500 combines high performance, enterprise reliability, and the latest **RTX technology** to help you achieve your best work in real-time. Built on the NVIDIA Ampere architecture, the RTX A4500 combines 56 second-generation RT Cores, 224 third-generation Tensor Cores, and 7,168 CUDA® cores with 20 GB of graphics memory to supercharge rendering, AI, graphics, and compute tasks. Connect two RTX A4500s with NVIDIA NVLink[1] to scale memory and performance with multi-GPU configurations[2], allowing professionals to work with memory intensive tasks such as large models, ultra-high resolution rendering, and complex compute workloads.

NVIDIA RTX professional graphics cards are certified with 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 needed to focus on what matters with the premier visual computing solution for mission-critical business.

Features

- PCI Express Gen 4
- Four DisplayPort 1.4a connectors
- AV1 decode support
- DisplayPort with audio
- 3D stereo support with stereo connector
- NVIDIA GPUDirect® for Video support
- NVIDIA Quadro® Sync II[3] compatibility
- NVIDIA RTX Experience™
- NVIDIA RTX Desktop Manager software
- NVIDIA RTX IO support
- HDCP 2.2 support
- NVIDIA Mosaic[4] technology
- NVIDIA NVLink Technology

SPECIFICATIONS

GPU memory	**20 GB GDDR6**
Memory interface	**320-bit**
Memory bandwidth	**640 GB/s**
Error-correcting code (ECC)	**Yes**
NVIDIA Ampere architecture-based CUDA Cores	**7,168**
NVIDIA third-generation Tensor Cores	**224**
NVIDIA second-generation RT Cores	**56**
Single-precision performance	**23.7 TFLOPS[5]**
RT Core performance	**46.2 TFLOPS[5]**
Tensor performance	**189.2 TFLOPS[6]**
NVIDIA NVLink	**Low profile bridges connect two NVIDIA RTX A4500 GPUs[1]**
NVIDIA NVLink bandwidth	**112.5 GB/s (bidirectional)**
System interface	**PCI Express 4.0 x16**
Power consumption	**Total board power: 200 W**
Thermal solution	**Active**
Form factor	**4.4" H x 10.5" L, dual slot, full height**
Display connectors	**4x DisplayPort 1.4**
Max simultaneous displays	**4x 4096 x 2160 @ 120 Hz, 4x 5120 x 2880 @ 60 Hz, 2x 7680 x 4320 @ 60 Hz**
Power connector	**1x 8-pin PCIe**
Encode/decode engines	**1x encode, 1x decode (+AV1 decode)**
VR ready	**Yes**
Graphics APIs	**DirectX 12.0[7], Shader Model 5.1[7], OpenGL 4.6[8], Vulkan 1.2[8]**
Compute APIs	**CUDA, DirectCompute, OpenCL™**

1 NVIDIA NVLink sold separately. | 2 Connecting two RTX A4500 cards with NVLink to scale performance and memory capacity to 40GB is only possible if your application supports NVLink technology. Please contact your application provider to confirm their support for NVLink. | 3 Quadro Sync II card sold separately. | 4 Windows 10 and Linux. | 5 Peak rates based on GPU Boost Clock. | 6 Effective teraFLOPS (TFLOPS) using the new sparsity feature. | 7 GPU supports DX 12.0 API, hardware feature level 12 + 1. | 8 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**

Learn more

To learn more about the NVIDIA RTX A4500, visit **www.nvidia.com/rtx-a4500/**