You need to do great things—create and collaborate from anywhere, on any device, without the distractions of slow performance, poor stability, or application incompatibility. With NVIDIA RTX™, you can unleash your vision and enjoy ultimate creative freedom.

NVIDIA RTX professional visualization products power a wide range of laptop, desktop, and data center solutions. Leverage the latest advancements in real-time ray tracing, AI, virtual reality (VR), and interactive, photorealistic rendering to develop revolutionary products, tell vivid visual stories, and design groundbreaking architecture like never before. Support for advanced features, frameworks, and SDKs across all of our products gives you the power to tackle the most challenging visual computing tasks, no matter the scale.

NVIDIA Professional Laptop GPUs
Professionals today increasingly need to work on complex workflows like VR, 8K video editing, and photorealistic rendering on the go. NVIDIA RTX laptop GPUs deliver world-class performance in a portable form factor combining the latest advancements in real-time ray tracing, advanced shading, and AI-based capabilities, so professionals can tackle demanding workflows from anywhere.

NVIDIA Desktop Workstation GPUs
NVIDIA RTX and Quadro-powered desktop workstations are designed and built specifically to drive the most challenging workloads of artists, designers, and engineers. Large GPU memory boosts application performance to accelerate your workflows and tackle the heaviest of workloads. NVIDIA RTX workstation solutions deliver significant business impact for demanding industries like manufacturing, media and entertainment, and energy.

NVIDIA Data Center GPUs
Demand for visualization, rendering, data science, and simulation continues to grow as businesses tackle larger, more complex workloads. Scale up your visual compute infrastructure and tackle graphics-intensive workloads, complex designs, photorealistic renders, and augmented and virtual environments at the edge with NVIDIA GPUs. Optimized for reliability in enterprise data centers, NVIDIA GPUs feature both active and passive thermal solutions to fit into a variety of servers.
## NVIDIA Professional Graphics Solutions

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### Laptop GPUs

- **NVIDIA RTX 5000 Ada Generation**
  - 9,128 (3rd Gen)
  - 2048 (3rd Gen)
  - 3004 (3rd Gen)
  - 512 GB/s

- **NVIDIA RTX 4000 Ada Generation**
  - 7,424 (3rd Gen)
  - 16 GB

- **NVIDIA RTX 3500 Ada Generation**
  - 5,120 (3rd Gen)
  - 12 GB

- **NVIDIA RTX 3000 Ada Generation**
  - 4,608 (3rd Gen)
  - 8 GB

- **NVIDIA RTX 2000 Ada Generation**
  - 3,072 (3rd Gen)
  - 6 GB

- **NVIDIA RTX A5000**
  - 7,424 (3rd Gen)
  - 16 GB

- **NVIDIA RTX A4500**
  - 5,120 (3rd Gen)
  - 12 GB

- **NVIDIA RTX A3000 12GB**
  - 4,096 (3rd Gen)
  - 8 GB

- **NVIDIA RTX A2000 8GB**
  - 2,560 (3rd Gen)
  - 6 GB

- **NVIDIA RTX A1000 6GB**
  - 2,560 (3rd Gen)
  - 6 GB

- **NVIDIA RTX A1000**
  - 2,048 (3rd Gen)
  - 4 GB

- **NVIDIA RTX A5000**
  - 2,048 (3rd Gen)
  - 4 GB

- **NVIDIA T600**
  - 896 (3rd Gen)
  - 4 GB

- **NVIDIA T550**
  - 1,024 (3rd Gen)
  - 4 GB

### Desktop GPUs

- **NVIDIA RTX 6000 Ada Generation**
  - 18,176 (3rd Gen)
  - 192 GB

- **NVIDIA RTX 4000 SFF Ada Generation**
  - 6,144 (3rd Gen)
  - 20 GB

- **NVIDIA RTX A6000**
  - 10,752 (3rd Gen)
  - 32 GB

- **NVIDIA RTX A5500**
  - 10,240 (3rd Gen)
  - 32 GB

- **NVIDIA RTX A5000**
  - 8,192 (3rd Gen)
  - 256 GB

- **NVIDIA RTX A4500**
  - 7,168 (3rd Gen)
  - 256 GB

- **NVIDIA RTX A4000**
  - 6,144 (3rd Gen)
  - 192 GB

- **NVIDIA RTX A2000**
  - 3,328 (3rd Gen)
  - 6 GB

- **NVIDIA T1000 (NVIDIA T1000 8GB)**
  - 896 (3rd Gen)
  - 16 GB

- **NVIDIA T4000 4GB**
  - 384 (3rd Gen)
  - 16 GB

- **Quadro GV100**
  - 5,120 (3rd Gen)
  - 192 GB

### Data Center GPUs

- **NVIDIA L40**
  - 18,176 (3rd Gen)
  - 192 GB

- **NVIDIA A40**
  - 10,752 (3rd Gen)
  - 256 GB

- **NVIDIA A10**
  - 9,216 (3rd Gen)
  - 16 GB

- **NVIDIA A16**
  - 4x 1,280 (3rd Gen)
  - 4x 10 GB

### Additional Notes

- **CUDA parallel processing cores cannot be compared between GPU generations due to several important architectural differences that exist between stream multiprocessor designs.**
- **Peak rates are based on GPU Boost clock.**
- **Effective TFLOPS using the sparsity feature. NVIDIA Ada Lovelace architecture using FP16 or FP32 matrix multiply with FP16 or FP32 accumulate; NVIDIA Ampere architecture using FP16 matrix multiply with FP16 or FP32 accumulate.**
- **Feature support varies by system-level implementation. Check with your workstation OEM vendor for system specific configurations.**
- **SLI functionality is provided via NVLink.**
- **Supported adaptors are required for HDMI.**
- **Supports multi-view rendering (MVR) feature.**
- **Ensures data integrity and reliability by eliminating soft errors on direct random-access memory (DRAM) only.**
- **Support for configuration at 60W TGP and above. NVIDIA RTX A1000 and RTX A2000 8GB Laptop GPUs, VR-Ready at 60W TGP and above.**

For more information on NVIDIA professional graphics solutions, visit: [www.nvidia.com/en-us/design-visualization/rtx](http://www.nvidia.com/en-us/design-visualization/rtx)