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

NVIDIA RTX powers a wide range of mobile, desktop, and data center solutions for millions of professionals. Leverage the latest advancements in real-time ray tracing, AI, virtual reality (VR), and interactive, photorealistic rendering, so you can 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 Laptop GPUs**  
Professionals today increasingly need to work on complex workflows like VR, 8K video editing, and photorealistic rendering on the go. NVIDIA RTX mobile GPUs deliver desktop-level performance in a portable form factor. With up to 24 gigabytes (GB) of massive GPU memory, NVIDIA RTX mobile GPUs combine the latest advancements in real-time ray tracing, advanced shading, and AI-based capabilities, so professionals can tackle demanding workflows from anywhere.

**NVIDIA Desktop Workstations GPUs**  
NVIDIA RTX-powered desktop workstations are designed and built specifically for artists, designers, and engineers, to drive their most challenging workloads. Connect multiple NVIDIA RTX GPUs to scale up to 96 GB of GPU memory and performance to tackle the largest workloads and speed up your workflow. This delivers significant business impact across industries like manufacturing, media and entertainment, and energy.

**NVIDIA Servers 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

#### GPU SPECIFICATIONS

<table>
<thead>
<tr>
<th>GPU</th>
<th>CUDA Core(s)</th>
<th>RT Core(s)</th>
<th>Memory</th>
<th>Floating-Point Single Precision (TFLOPS)</th>
<th>Floating-Point Double Precision (TFLOPS)</th>
<th>Error-Correcting Code (ECC)</th>
<th>Maximum Display Resolution</th>
<th>Single-Pass Stereo</th>
<th>VR Ready</th>
<th>Single-Stream Encoder/Decoder</th>
<th>Single-Stream Encoder/Decoder (NVLink)</th>
<th>Quadro RTX 4000 (128-bit)</th>
<th>Quadro RTX 4000 (192-bit)</th>
<th>Quadro RTX 4000 (256-bit)</th>
<th>Quadro RTX 4000 (320-bit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quadro RTX™ 4000</td>
<td>4,096</td>
<td>320</td>
<td>256 GB</td>
<td>640 GB/s</td>
<td>14.9</td>
<td>119.4</td>
<td>4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Quadro RTX 5000</td>
<td>6,048</td>
<td>320</td>
<td>256 GB</td>
<td>640 GB/s</td>
<td>14.9</td>
<td>119.4</td>
<td>4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Quadro RTX 6000</td>
<td>8,192</td>
<td>320</td>
<td>256 GB</td>
<td>640 GB/s</td>
<td>14.9</td>
<td>119.4</td>
<td>4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Quadro RTX 7000</td>
<td>10,368</td>
<td>320</td>
<td>256 GB</td>
<td>640 GB/s</td>
<td>14.9</td>
<td>119.4</td>
<td>4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Quadro RTX 8000</td>
<td>12,544</td>
<td>320</td>
<td>256 GB</td>
<td>640 GB/s</td>
<td>14.9</td>
<td>119.4</td>
<td>4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Quadro RTX 9000</td>
<td>14,720</td>
<td>320</td>
<td>256 GB</td>
<td>640 GB/s</td>
<td>14.9</td>
<td>119.4</td>
<td>4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Quadro RTX 10000</td>
<td>16,896</td>
<td>320</td>
<td>256 GB</td>
<td>640 GB/s</td>
<td>14.9</td>
<td>119.4</td>
<td>4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Quadro RTX 12000</td>
<td>19,088</td>
<td>320</td>
<td>256 GB</td>
<td>640 GB/s</td>
<td>14.9</td>
<td>119.4</td>
<td>4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

#### PERFORMANCE

- **Floating-Point Single Precision (TFLOPS)**: Measures the peak floating-point single precision performance in trillion floating-point operations per second (TFLOPS).
- **Floating-Point Double Precision (TFLOPS)**: Measures the peak floating-point double precision performance in trillion floating-point operations per second (TFLOPS).
- **Error-Correcting Code (ECC)**: Measures the error-correcting code (ECC) performance in Gigabytes per second (GB/s).
- **Maximum Display Resolution**: The maximum display resolution supported by the GPU.
- **Single-Pass Stereo**: Indicates support for single-pass stereo rendering.
- **VR Ready**: Indicates support for virtual reality (VR) experiences.
- **Single-Stream Encoder/Decoder**: Indicates support for single-stream encoder/decoder operations.
- **Single-Stream Encoder/Decoder (NVLink)**: Indicates support for single-stream encoder/decoder operations using NVLink technology.

#### DISPLAY TECHNOLOGY

- **Maximum Display Resolution**: The maximum display resolution supported by the GPU.
- **Single-Pass Stereo**: Indicates support for single-pass stereo rendering.
- **VR Ready**: Indicates support for virtual reality (VR) experiences.
- **Single-Stream Encoder/Decoder**: Indicates support for single-stream encoder/decoder operations.
- **Single-Stream Encoder/Decoder (NVLink)**: Indicates support for single-stream encoder/decoder operations using NVLink technology.

#### VIRTUAL REALITY

- **VR Ready**: Indicates support for virtual reality (VR) experiences.
- **Single-Stream Encoder/Decoder**: Indicates support for single-stream encoder/decoder operations.
- **Single-Stream Encoder/Decoder (NVLink)**: Indicates support for single-stream encoder/decoder operations using NVLink technology.

#### OPTIONS

- **VR Ready**: Indicates support for virtual reality (VR) experiences.
- **Single-Stream Encoder/Decoder**: Indicates support for single-stream encoder/decoder operations.
- **Single-Stream Encoder/Decoder (NVLink)**: Indicates support for single-stream encoder/decoder operations using NVLink technology.


© 2020 NVIDIA Corporation. All rights reserved. NVIDIA and the NVIDIA logo, CUDA, GPUDirect, NVLink, Pascal, Quadro, Quadro RTX, SLI, Turing, VirtualLink, and Volta are trademarks or registered trademarks of the respective owners with which they are associated. Features, pricing, availability, and specifications are subject to change without notice. NOV20