

# NVIDIA® PROFESSIONAL GRAPHICS SOLUTIONS



**PNY** | **PRO**  
GRAPHICS | HPC | AI



PARTNER

# WHICH PNY PROFESSIONAL BOARD IS RIGHT FOR YOU?

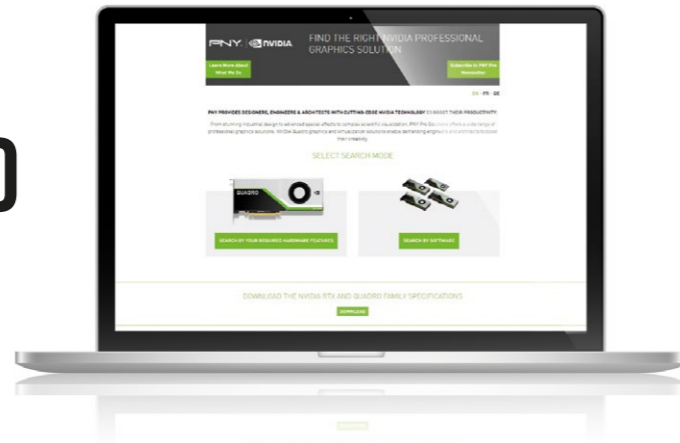
Part Number	GPU SPECIFICATIONS				PERFORMANCE		DISPLAY TECHNOLOGY					OPTIONS						
	CUDA Cores <sup>1</sup>	GPU Memory	Memory Bandwidth	Tensor Cores <sup>1</sup>	Ray Tracing Cores <sup>1</sup>	FloatingPoint Performance (Tflops) <sup>2</sup>	DisplayPort <sup>2/3/4</sup>	Maximum Active Displays <sup>4</sup>	Maximum Resolution Support @ 60 Hz	FSAA (Maximum)	Dimensions	Mosaic Technology	Maximum Power Consumption	H.264 and HEVC Encode/Decode Engines	Vulkan Support	GPUDirect™ for Video	Graphics Synchronization <sup>5</sup>	NVLink Bridge support
<b>NVIDIA FOR DESKTOP WORKSTATIONS</b>																		
<b>NVIDIA RTX™ A6000</b> <span style="color:red">NEW</span>	VCNRTXA6000-PB	10 752	48 GB	768 GB/s	336	84	38,7 SP	4	4	7680x4320	64x	111,76x266,7	✓	300W	✓	✓	✓	✓
<b>QUADRO® GV100</b>	VCQGV100-PB	5 120	32 GB	870 GB/s	640	-	14,8 SP	4	4	7680x4320	64x	111,76x266,7	✓	250W	✓	✓	✓	✓
<b>QUADRO® RTX™ 8000</b>	VCQRTX8000-PB	4 608	48 GB	672 GB/s	576	72	16,3 SP	4	4	7680x4320	64x	111,76x266,7	✓	260W	✓	✓	✓	✓
<b>QUADRO® RTX™ 6000</b>	VCQRTX6000-PB	4 608	24 GB	672 GB/s	576	72	16,3	4	4	7680x4320	64x	111,76x266,7	✓	260W	✓	✓	✓	✓
<b>NVIDIA RTX™ A5000</b> <span style="color:red">NEW</span>	VCNRTXA5000-PB	8 192	24 GB	768 GB/s	256	64	27,8	4	4	7680x4320	64x	111,76x266,7	✓	230W	✓	✓	✓	✓
<b>QUADRO® RTX™ 5000</b>	VCQRTX5000-PB	3 072	16 GB	448 GB/s	384	48	11,2	4	4	7680x4320	64x	111,76x266,7	✓	230W	✓	✓	✓	✓
<b>NVIDIA RTX™ A4000</b> <span style="color:red">NEW</span>	VCNRTXA4000-PB	6 144	16 GB	512 GB/s	192	48	19,2	4	4	7680x4320	64x	111,76x266,7	✓	140W	✓	✓	✓	✓
<b>QUADRO® RTX™ 4000</b>	VCQRTX4000-PB	2 304	8 GB	416 GB/s	288	36	7,1	3	4	7680x4320	64x	111,76x241,63	✓	265W	✓	✓	✓	-
<b>QUADRO® P2200</b>	VCQP2200-PB	1 280	5 GB	200 GB/s	-	-	3,8	4	4	7680x4320	64x	111,76x200,66	✓	75W	✓	✓	✓	-
<b>NVIDIA T1000</b> <span style="color:red">NEW</span>	VCNT1000-PB	896	4 GB	160 GB/s	-	-	2,5	4	4	7680x4320	64x	69,91x156,79	✓	50W	✓	✓	✓	-
<b>QUADRO® P1000 V2</b>	VCQP1000V2-PB VCQP1000DVIV2-PB	640	4 GB	80 GB/s	-	-	1,89	4	4	7680x4320	64x	68,91x149,86	✓	47W	✓	✓	✓	-
<b>NVIDIA T600</b> <span style="color:red">NEW</span>	VCNT600-PB	640	4 GB	160 GB/s	-	-	1,786	4	4	7680x4320	64x	69,91x156,79	✓	40W	✓	✓	✓	-
<b>QUADRO® P620 V2</b>	VCQP620V2-PB VCQP620DVI-PB	512	2 GB	80 GB/s	-	-	1,39	4	4	7680x4320	64x	68,91x149,86	✓	40W	✓	✓	✓	-
<b>NVIDIA T400</b> <span style="color:red">NEW</span>	VCNT400-PB	384	2 Gb	80 GB/s	-	-	1,094	3	4	7680x4320	64x	69,91x156,79	✓	30W	✓	✓	✓	-
<b>QUADRO® P400 V2</b>	VCQP400V2-PB VCQP400DVIV2-PB	256	2 GB	32 GB/s	-	-	0,64	3	4	7680x4320	64x	68,91x149,86	✓	30W	✓	✓	✓	-
<b>NVIDIA FOR DATA CENTERS</b>																		
<b>NVIDIA A100</b> <span style="color:red">NEW</span>	TCSA100M-PB	6 912	40 GB	1600 GB/s	432	-	19,5 SP	-	-	-	-	111,76x266,7	-	250W	-	-	-	✓
<b>NVIDIA V100S</b>	TCSV100SM-32GB-PB	5 120	32 GB	1134 GB/s	640	-	14,0 SP	-	-	-	-	111,76x266,7	-	250W	-	-	-	-
<b>NVIDIA A40</b> <span style="color:red">NEW</span>	TCSA40M-PB	10 752	48 GB	696 GB/s	336	84	37,7 SP	3	4	7680x4320	64x	111,76x266,7	✓	300W	✓	✓	✓	✓
<b>QUADRO® RTX™ 8000 PASSIVE</b>	VCQRTX8000PAS-BSP	4608	48 GB	624 GB/s	576	72	14,9 SP	-	-	-	-	111,76x266,7	-	260W	✓	✓	✓	✓
<b>QUADRO® RTX™ 6000 PASSIVE</b>	VCQRTX8000PAS-BSP	4608	24 GB	624 GB/s	576	72	14,9 SP	-	-	-	-	111,76x266,7	-	260W	✓	✓	✓	✓
<b>NVIDIA A30</b> <span style="color:red">NEW</span>	TCSA30M-PB	3584	24 GB	933,1 GB/s	224	-	10,3 SP	-	-	-	-	111,15x267,7	-	165W	-	-	-	-
<b>NVIDIA A16</b> <span style="color:red">NEW</span>	TCSA16M-PB	2560 x4	16 GB x4	231,9 GB/s x4	80 x4	20 x4	8,678 SP	-	-	-	-	111,15x267,7	-	250W	-	-	-	-
<b>NVIDIA A10 CEC</b> <span style="color:red">NEW</span>	TCSA10MCEC-PB	9216	24 GB	600,2 GB/s	288	72	31,2 SP	-	-	-	-	111,5x267,7	-	150W	-	-	-	-
<b>NVIDIA T4</b>	TCST4M-PB TCST4MATX-PB	2560	16 GB	320 GB/s	320	40	8,1 SP	-	-	-	-	68,90x16,5	-	70W	-	-	-	-
<b>NVIDIA M10</b>	TCSM10M-PB	2560 640 x 4	32 GB 8 GB x4	332 GB/s 83 GB/s x 4	-	-	1,7 SP	-	-	-	-	111,76x266,7	-	225W	-	-	-	-

1. Processing cores cannot be compared between GPU generations due to several important architectural differences that exist between designs.  
 2. Maximum display resolution: DVI-DL: 2560 x 1600 @ 60Hz or 1920 x 1200 @ 120Hz. DVI-SL 1920 x 1200 @ 60Hz  
 3. Adapters available for DVI-SL, DVI-DL, HDMI, and VGA.  
 4. Option to connect a third and/or fourth display using DisplayPort 1.2s/1.4s multi-streaming capabilities. 4 Displays require a supported DisplayPort 1.2 Multi-Stream capable hub.  
 5. NVIDIA QUADRO® Sync II is compatible with Quadro K-series or higher and NVIDIA RTX-series.

FOR MORE INFORMATION ON NVIDIA WORKSTATION PRODUCTS:  
 Visit: [WWW.NVIDIA.COM/QUADRO](http://WWW.NVIDIA.COM/QUADRO) & [WWW.PNY.EU/QUADRO](http://WWW.PNY.EU/QUADRO)




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# FIND THE RIGHT NVIDIA QUADRO® CARD ON THE PNY ONLINE CONFIGURATOR







## NVIDIA FOR THE DATA CENTER BY PNY


### HIGH-PERFORMANCE COMPUTING HIGHLIGHTS IDEAL FOR

	<b>NVIDIA A100</b> TCSA100M-PB	FP64 9,7 TFLOPS FP64 Tensor Core 19,5 TFLOPS MIG Instance GPU NVLink 600 Gb/s	HPC, Deep Learning, Machine Learning, Training, Data Analytics
	<b>NVIDIA V100S</b> TCSV100SM-32GB-PB	FP64 8,2 TFLOPS FP32 16,4 TFLOPS	HPC, Deep Learning, Machine Learning, Training, Inferencing Virtual Desktop Integration
	<b>NVIDIA A30</b> TCSA30M-PB	FP64 5,2 TFLOPS FP16 165 TFLOPS MIG Instance GPU	HPC, Deep Learning, Machine Learning, Training, Data Analytics



### PROFESSIONAL VIRTUALIZATION HIGHLIGHTS IDEAL FOR

	<b>NVIDIA A40</b> TCSA40M-PB	FP32 38,7 TFLOPS 3x DP 1.4 NVLink 112,5 Gb/s CEC Hardware Root of Trust	HPC Rendering, Deep Learning, Machine Learning, Training, Inferencing Virtual Desktop Integration
	<b>QUADRO® RTX™ 8000 PASSIVE</b> VCQRTX8000PAS-PB	FP32 16,3 TFLOPS 4x DP 1.4 NVLink 100 Gb/s	HPC Rendering, Deep Learning, Machine Learning, Training, Inferencing Virtual Desktop Integration
	<b>QUADRO® RTX™ 6000 PASSIVE</b> VCQRTX6000PAS-PB	FP32 16,3 TFLOPS 4x DP 1.4 NVLink 100 Gb/s	HPC Rendering, Deep Learning, Machine Learning, Training, Inferencing Virtual Desktop Integration
	<b>NVIDIA A10 CEC</b> TCSA10CEC-PB	FP32 31,2 TFLOPS Single Slot Card CEC Hardware Root of Trust	HPC Rendering, Deep Learning, Machine Learning, Training, Inferencing Virtual Desktop Integration

### VIRTUAL DESKTOP INTEGRATION - INFERENCING HIGHLIGHTS IDEAL FOR





	<b>NVIDIA T4</b> TCST4M-PB TCST4MATX-PB	FP32 8,1 TFLOPS INT 4 260 TOPS Max. Power 70W Low Profile Form Factor	HPC, Inferencing Virtual Desktop Integration Designer / Engineer / Power User
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### VIRTUAL DESKTOP INTEGRATION HIGHLIGHTS IDEAL FOR



	<b>NVIDIA A16</b> TCSA16M-PB	4x GPU 64 GB Memory (16 GB x4) Density Optimized virtualization	Virtual Desktop Integration Office Workers
	<b>NVIDIA M10</b> TCSM10M-PB	4x GPU Density Optimized Virtualisation	Virtual Desktop Integration Office Workers

# NVIDIA PROFESSIONAL GRAPHICS CARDS BY PNY



### ULTRA HIGH-END PACKAGE CONTENT IDEAL FOR

	<b>NVIDIA RTX™ A6000</b> VCNRTXA6000-PB	1 x DP to HDMI adapter 1 x Quick Start Guide 1 x Dual 8-pin to 8-pin CPU	Artificial Intelligence Animation - Visualization Broadcast - Video Editing Oil & Gas Medical Imaging
	<b>QUADRO® GV100</b> VCQGV100-PB	4 x DP to DVI (SL) adapters 1 x DP to HDMI adapter 1 x Quick Start Guide 1 x Dual 6-pin to 8-pin	Artificial Intelligence Animation - Visualization Broadcast - Video Editing Oil & Gas Medical Imaging
	<b>QUADRO® RTX™ 8000</b> VCQRTX8000-PB	1 x DP to DVI (SL) adapter 1 x DP to HDMI adapter 1 x Quick Start Guide 1 x Dual 6-pin to 8-pin	Artificial Intelligence Animation - Visualization Broadcast - Video Editing Oil & Gas Medical Imaging
	<b>QUADRO® RTX™ 6000</b> VCQRTX6000-PB	1 x DP to DVI (SL) adapter 1 x DP to HDMI adapter 1 x Quick Installation Guide 1 x Dual 6-pin to 8-pin	Artificial Intelligence Animation - Visualization Broadcast - Video Editing Oil & Gas Medical Imaging



### HIGH-END PACKAGE CONTENT IDEAL FOR

	<b>NVIDIA RTX™ A5000</b> VCNRTXA5000-PB	1 x DP to HDMI adapter 1 x Quick Start Guide	Animation - Visualization Broadcast - Video Editing Design Manufacturing – large models Medical Imaging
	<b>NVIDIA RTX™ A4000</b> VCNRTXA4000-PB	1 x DP to HDMI adapter 1 x Quick Start Guide	Animation - Visualization Broadcast - Video Editing Design Manufacturing – large models Medical Imaging

### MID-RANGE PACKAGE CONTENT IDEAL FOR

	<b>QUADRO® P2200</b> VCQP2200-PB	1 x DP to DVI (SL) adapter 1 x Quick Start Guide	Animation / Video Editing Manufacturing – med/large models Medical Imaging
	<b>NVIDIA T1000</b> VCNT1000-PB	4 x mDP to DP adapter 1 x Quick Start Guide 1 x unattached LP Bracket	Animation Video Editing Manufacturing – medium models

### ENTRY-LEVEL PACKAGE CONTENT IDEAL FOR

	<b>NVIDIA T600</b> VCNT600-PB	4 x mDP to DP adapter 1 x Unattached LP Bracket 1 x Quick Start Guide	Video Editing Manufacturing – small/medium models
	<b>NVIDIA T400</b> VCNT400-PB	3 x mDP to DP adapter 1 x Unattached ATX Bracket 1 x Quick Start Guide	Manufacturing – volume CAD



# BENEFITS OF PROFESSIONAL GRAPHICS

## AMPERE ARCHITECTURE BUILT FOR THE DATA CENTER

Delivered application performance is more than raw flops. Computational professionals depend on mission critical applications to accelerate discoveries and insights at scale. It starts with the world's fastest accelerators and includes a reliable infrastructure, the ability to monitor and manage that infrastructure, and the ability to quickly move data where it is needed. The NVIDIA Accelerated Computing Platform provides all of these to deliver unprecedented performance in scientific, analytics, engineering, consumer, and enterprise applications.

### Differentiated Engineering:

Low Operating Voltage for Long Term Reliability.  
Large Guard-Band for Guaranteed Quality.  
Error Correction Code (ECC) for Data Integrity.

### Extensive Qualification & Testing:

Long Burn-in-Testing.  
Zero Error Tolerance at Aggressive Clocks.  
Result: 5% of GPUs screened out.  
Guaranteed Quality.

### Enterprise Tools:

Simplyfy Data Center Operations.  
Manage and Monitor GPUs.  
System Diagnostics, GPU recovery,  
RMA diagnostics.  
GPU Cluster Management.



# WHICH PNY PROFESSIONAL BOARD TO USE FOR YOUR APPLICATION?

## Should I use a Professional Graphics Card?

PNY offers a suite of professional solutions that enable designers, manufacturers, scientists and researchers to do their work smarter, faster, with greater reliability and with energy efficiency. If you answer one or more of the below questions with yes we recommend to use professional NVIDIA cards.

### Does your work involve creating, rendering, or visualizing data and images?

NVIDIA's professional cards are fully compatible, tested & certified on all your professional applications for more performance & reliability.

### Is hardware reliability important?

Time spent troubleshooting is lost time for your creativity. NVIDIA professional graphics cards are designed for 24/7 operation with pro support.

### Do you prefer long availability for your hardware?

Professional NVIDIA cards are usually available for 3 or more years while gaming cards often have a lifetime below 6 months.

## Which NVIDIA for my application?

APPLICATION					
Microsoft Office	Siemens NX				
Trimble SketchUp	PTC Creo				
Adobe Illustrator CC, Photoshop CC	After Effects CC, Premiere Pro CC				
Autodesk AutoCAD, Inventor, Revit		Maya, 3ds MAX			
Dassault Systems Solidworks	CATIA	3DEXCITE, CATIA Live Rendering	Solidworks Visualize	ABAQUS, SIMULA	
	The Foundry Mari, Nuke				
			Ansys Mechanical		
			Schlumberger Petrel		
Small/simple CAD models, Video, entry PLM • ISV Certs • Higher performance vs. IGP, gfx GPU • NVIDIA Mosaic	Medium size/complexity CAD models, basic DCC, Medical Imaging, PLM • +2GB memory • Approx. 118% faster	Large/complex CAD models, Advanced DCC, Medical Imaging • +4GB memory • Approx. 37% faster • NVIDIA Mosaic with sync	Large/complex CAD models, Seismic exploration, complex DCC effects • +8GB memory • Approx. 65% faster • Error Correcting Code (ECC) Memory	Largest CAD models, CAE, Photo-realistic rendering, Seismic exploration, GPGPU compute • +8GB memory • Approx. 61% faster	Most demanding rendering and GPGPU compute applications • Multi-GPU solution • Highest performance
NVIDIA T600 NVIDIA T400	Quadro P2200 NVIDIA T1000	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000 Quadro RTX 8000	2 x NVIDIA RTX A6000 2 x Quadro GV100 2 x Quadro RTX 8000
ENTRY	BASIC	MID-RANGE	UPPER-RANGE	HIGH-END	ULTRA HIGH-END



FOR A FULL LIST OF RECOMMENDATIONS:  
Please visit our [PNY ONLINE CONFIGURATOR](https://PNY.QUADRO-SELECTOR.COM)  
[HTTPS://PNY.QUADRO-SELECTOR.COM](https://PNY.QUADRO-SELECTOR.COM)

## NVIDIA RTX™ PLATFORM MOST POWERFUL VISUAL COMPUTING

The term "professional workstation" implies many things to many people. However, it usually translates to expectations of high quality, excellent reliability, responsive support, and high performance. The NVIDIA professional series is built to provide this high level of quality and reliability.

### NVIDIA RTX™ Application Value-add:

Solidworks Realview.  
3ds Max Shade.  
Solidworks Visualize.  
PTC Creo OIT.  
Solidworks Ambient Occlusion.  
Catia Live Rendering.

### NVIDIA RTX™ Unique Features:

Large memory with ECC®.  
NVIDIA RTX Desktop Manager.  
GPU direct for Video.  
Higher Level of FSAA (64x).  
Multi-GPU.  
Enterprise IT Tools.  
Iray Server Streaming.  
Quad Buffered Stereo.  
Mosaic.  
Warp & Blend.  
Bezel Correction & Overlap.  
Genlock & Framelock.

### Performance:

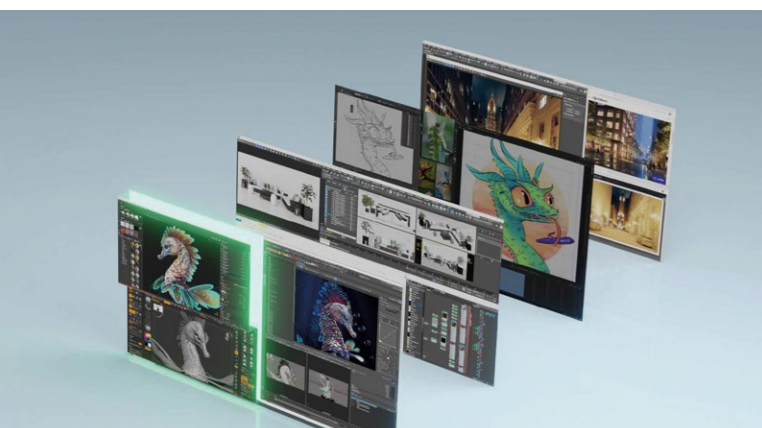
Application specific feature development & tuning.  
Driver optimizations to maximize GPU features.  
Unique features to support pro workflows.  
IT tools for easy deployment & management.

### Reliability:

Application specific testing by NVIDIA.  
100+ professional application certifications by ISVs.  
Unique rock-solid driver with deterministic release schedule.  
Designed and built by NVIDIA to a single specification for 24/7 reliability and stability.

### Support:

Deep workflow experience across vertical industries.  
Long-Life Cycle availability and support.  
Bulk availability for large Enterprise.  
Global technical pre-sales and post-sales support.



# PNY ADVANTAGE

"PNY PROVIDES UNSURPASSED SERVICE AND COMMITMENT TO ITS PROFESSIONAL GRAPHICS CUSTOMERS"

- 3 Year standard warranty
- Pre-sales support and system configuration assistance
- Dedicated Field Application engineers
- Direct tech support hotlines
- Support escalation for prompt issue resolution
- Certified software support and bug reporting
- Published product support and training materials
- Advanced replacement options for mission-critical deployments
- Long product life cycles and availability
- Loyalty partner channel programs

## COMPATIBILITY & SUPPORT FOR ALL WORKSTATION BRANDS

### PNY WARRANTY EXTENSION SERVICE

- To better protect your investment, PNY offers a comprehensive extended 5 Year warranty to your NVIDIA® card from PNY®.

### MAIN FEATURES

- Additional 2 Year Extended Warranty Service for your NVIDIA® card by PNY®.
- Advanced Product Replacement (for European Union countries, Norway and Switzerland).

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