NVIDIA QUADRO RTX GPUs REIMAGINE THE DATA CENTER

Support the most demanding workloads with NVIDIA® Quadro® RTX™ powered servers. For cinematic production rendering, going directly from CAD files to photorealistic renders, utilizing generative design, powering AI or big data analytics, or providing GPU virtualization, servers with NVIDIA Quadro RTX deliver unprecedented performance at a fraction of the cost, space, and power requirements of traditional CPU-based systems.

IDEAL FOR AI AND BIG DATA ANALYTICS

Deep Learning is a subfield of machine learning, also known as AI, concerned with algorithms inspired by the structure and function of the brain called artificial neural networks, generally referred to as Deep Neural Networks (DNNs). NVIDIA GPU acceleration of DNNs bring the compute performance and data capacity to quickly and efficiently train large DNNs for a variety of tasks.

SERVERS WITH NVIDIA QUADRO RTX USE CASES INCLUDE:

Offline Rendering • Accelerated Desktop Rendering • Powerful Virtual Workstations
Scalable Visualization Solutions • Artificial Intelligence

NVIDIA QUADRO RTX 8000 AND RTX 6000 – ACTIVE AND PASSIVE

For the first time ever NVIDIA is offering Quadro RTX 8000 and RTX 6000 in actively cooled (fansink) and passive (heatsink) versions. The active versions provide the highest possible performance, but require a server enclosure designed to work with actively cooled GPU boards. The passive option supports a wider array of server enclosure, some power savings, but slightly less performance – although either version far outperforms competing solutions. Here's a summary of the performance delta.

	RTX 8000 & RTX 6000 ACTIVE	RTX 8000 & RTX 6000 PASSIVE	PERFORMANCE DELTA
RTX OPS	84 T	84 T	None
Rays Cast	10 Giga Rays/sec	10 Giga Rays/sec	None
Peak FP32 Performance	16.3 TFLOPS	14.9 TFLOPS	Passive -8.60%
Peak FP16 Performance	32.5 TFLOPS	29.9 TFLOPS	Passive -8.60%
Peak INT8 Performance	261.0 TOPS	238.9 TOPS	Passive -8.46%
Deep Learning TFLOPS	130.5 Tensor TFLOPS	119.4 Tensor TFLOPS	Passive -8.50%
Maximum Power Consumption	TGP 260 W	TBP 295 W	TGP 250 W	Passive TGP 10 W Less

For more information, contact a PNY account manager at 1-888-333-3657 or email: **GOPNY@PNY.COM**

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SERVER ENCLOSURES FOR ACTIVE NVIDIA QUADRO RTX 8000 OR RTX 6000 BOARDS

Server manufacturers recognize the need to support actively cooled graphics boards. The following table summarizes enclosures from leading systems vendors capable of hosting Quadro RTX 8000 or RTX 6000 active boards in even the most demanding data center or at the edge use cases.

VENDOR*	MODEL NUMBER	PART NUMBER	# OF GPUs
ASUS Computer	ESC4000 G4	8x
ASUS Computer	ESC8000 G4	4x
GIGABYTE	W42G-PO8R	4x
Supermicro	SMC SS4019GP-TRT2	8x
Supermicro	SMC SYS-709GP-TRT	4x
Supermicro	SMC SYS 1019GP-TT	2x
TYAN Computer	Thunder HX FT-B7105	4x
TYAN Computer	Thunder HX FA77-B7119	10x

SERVER ENCLOSURES FOR PASSIVE NVIDIA QUADRO RTX 8000 OR RTX 6000 BOARDS

Passively cooled Quadro RTX 8000 or RTX 6000 boards work with a wider choice of server systems. Generally, any offering capable of hosting dual slot width high end Tesla boards will also work with the server certified and authorized Quadro RTX 8000 or RTX 6000.

VENDOR*	MODEL NUMBER	PART NUMBER	# OF GPUs SUPPORTED
ASRock Rack	3U8G-C621	8x
ASUS Computer	ESC4000G4	4x
ASUS Computer	ESC8000G4	8x
HP Enterprise	Proliant DL 380 Gen 10	2x
HP Enterprise	Proliant DL 85 Gen 10	2x
HP Enterprise	Proliant ML 350 Gen 10	2x w/NVLink
HP Enterprise	Proliant DL 580 Gen 10	4x
HP Enterprise	Apollo XL27D Gen 10	8x
Inspur	NF5468M5	8x w/NVLink
Lenovo	Think System SR670	4x
Supermicro	SYS-1019GP	2x
Supermicro	SYS-1026GP	3x
Supermicro	SYS-1029GQ	4x
Supermicro	SYS-2029U/6029U	4x
Supermicro	SYS-7049-TRT	4x
Supermicro	SYS-2029GP-TR	6x
Supermicro	SYS-4029GP-TRT2	8x
Supermicro	SYS-4029GP-TRT	8x
TYAN Computer	TN76-B7102	4x
TYAN Computer	FT48T-B105	5x
TYAN Computer	FT77D-B7109	8x
TYAN Computer	FA77-B7719	10x

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*Information obtained from respective vendor websites as of March 9, 2020