UNMATCHED POWER.
UNMATCHED CREATIVE FREEDOM.
NVIDIA® QUADRO® GP100

World's Most Advanced Visual and Mixed-mode Computing Accelerator.

The NVIDIA Quadro GP100, powered by the Pascal GPU architecture, is equipped with the most advanced visualization, simulation and compute capabilities, to meet the needs of the most demanding professional workflows and Deep Learning development environments. A single GP100 with 3584 FP32/1792 FP64 CUDA cores has incredible horsepower to render photorealistic design concepts interactively, create extremely detailed 3D models, run intensive CAE simulations to validate designs, and interact with design prototypes in immersive VR. You can even connect two GP100 boards with NVIDIA NVLink™ technology[1] to scale performance with an amazing 32 GB of combined HBM2 ultra-high bandwidth memory.[2]

Mixed-mode compute capabilities include FP64 (5.2 TFLOPS), FP32 (10.3 TFLOPS), FP16 (20.7 TFLOPS) and INT8 (47 TOPS), making the GP100 an ideal choice for applications ranging from the latest CAE tools to Deep Learning (AI) SDKs and deveopment frameworks.

Quadro cards are certified with a broad range of sophisticated professional applications and backed by a global team of support specialists. This gives you the peace of mind to focus on doing your best work. Whether you're developing revolutionary products and validating them, telling spectacularly vivid visual stories, or advancing the frontiers of artificial intelligence Quadro gives you the performance to do it brilliantly.

FEATURES

> Four DisplayPort 1.4 Connectors[3]
> DisplayPort with Audio
> 3D Stereo Support with Stereo Connector[3]
> NVIDIA GPUDirect™ Support
> NVIDIA NVLink™ Support[1]
> Quadro Sync II[4] Compatibility
> NVIDIA nView® Desktop Management Software
> HDCP 2.2 Support
> NVIDIA Mosaic[5]
> NVIDIA Iray and MentalRay Support

PACKAGE CONTENTS

> NVIDIA® Quadro® GP100 Professional Graphics Board
> Software Installation Disc
> Printed Quick Start Guide
> Auxiliary Power Cable
> Stereo Connector Bracket
> DisplayPort to DVI-D SL Adapter

WARRANTY AND SUPPORT

> 3-Year Warranty
> Pre- and Post-Sales Technical Support
> Dedicated Field Application Engineers
> Direct Tech Support Hot Lines

PNY PART NUMBER	VCQGP100-PB
SPECIFICATIONS	
GPU Memory	**16 GB HBM2**
Memory Interface	**4096-bit**
Memory Bandwidth	**Up to 717 GB/s**
NVIDIA CUDA® Cores and Performance	**1792 FP64 | 5.2 TFLOPS 3584 FP32 | 10.3 TFLOPS FP16 | 20.7 TFLOPS INT8 |47 TOPS**
NVIDIA NVLINK™	**2 GP100 boards supported**
System Interface	**PCI Express 3.0 x16**
Max Power Consumption	**235 W**
Thermal Solution	**Active**
Form Factor	**4.4" H x 10.5" L, Dual Slot, Full Height**
Display Connectors	**4x DP 1.4, 1x DVI-D DL**
Max Simultaneous Displays	**4 direct, 4 DP 1.4 Multi-Stream**
Display Resolution	**4x 4096 x 2160 at 120Hz 4x 5120 x 2880 at 60Hz**
Graphics APIs	**Shader Model 5.1, OpenGL 4.5[6], DirectX 12.0[7], Vulkan 1.0[6]**
Compute APIs	**CUDA, DirectCompute, OpenCL™**

NVIDIA QUADRO AUTHORIZED PARTNER
PNY®

PNY Technologies, Inc.
100 Jefferson Road, Parsippany, NJ 07054
Tel 408 567 5500 | Fax 408 855 0680

For more information visit: **www.pny.com/quadro**

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	TESLA K40C	QUADRO K6000	QUADRO GP100	BENEFIT
GPU ARCHITECTURE	KEPLER (GEN -2)	KEPLER (GEN -2)	PASCAL	NVIDIA'S LATEST GPU ARCHITECTURE
CUDA CORES	2880	2880	3584	FASTER RENDERING AND COMPUTE PERFORMANCE
FP64 PERFORMANCE	1.7 TFLOPS	1.7 TFLOPS	5.2 TFLOPS	206% GREATER FP64 COMPUTE PERFORMANCE
FP32 PERFORMANCE	4.29 TFLOPS	4.29 TFLOPS	10.3 TFLOPS	140% BETTER FP32 COMPUTE PERFORMANCE
FP16 PERFORMANCE	NONE	NONE	20.7 TFLOPS	REQUIRED FOR DEEP LEARNING (AI)
INT8 PERFORMANCE	NONE	NONE	47 TOPS	OPTIMIZES NEURAL NETWORK (AI) INFERENCING
MEMORY SIZE	12 GB GDDR5 ECC	12 GB GDDR5 ECC	16 GB HBM2 ECC	NEXT GENERATION MEMORY TECHNOLOGY
ECC MEMORY OVERHEAD	6.25% (11.25 GB AVAILABLE)	6.25% (11.25 GB AVAILABLE)	NONE, 16 GB AVAILABLE	NO ECC CAPACITY OR PERFORMANCE HIT
MEMORY BUS WIDTH	384-BIT	384-BIT	4096-BIT	RADICALLY ADVANCED MEMORY BUS IMPLEMENTATION
PEAK MEMORY BANDWIDTH	288 GB/S	288 GB/S	717 GB/S	MOVE DATA TO AND FROM 149% GPU FASTER
DISPLAY SUPPORT	NONE	2X DP 1.2 + 2X DVI DL	4X DP 1.4 + 1X DVI-D DL	SUPPORTS FOUR 5K OR MULTIPLE 8K DISPLAYS
HDR IMAGE SUPPORT	NO	NO	YES	MORE LIFELIKE IMAGES
VR READY	NO	NO	YES	PERFORMANCE AND FEATURES TO DRIVE VR EXPERIENCES
BOARD POWER	225 W	225 W	235 W	MUCH HIGHER PERFORMANCE AT SIMILAR POWER
AUXILIARY POWER CONNECTOR	2X 6-PIN PCIE	2X 6-PIN PCIE	8-PIN PCIE	SIMPLIFIED POWER SUPPLY CONNECTIVITY
FORM FACTOR	4.376" H X 10.5" L DUAL SLOT	4.376" H X 10.5" L DUAL SLOT	4.4" H X 10.5" L DUAL SLOT	NO SIGNIFICANT MECHANICAL CHANGES

HAVE QUESTIONS ON THE NEW NVIDIA QUADRO GP100?
CONTACT YOUR **PNY ACCOUNT MANAGER** OR E-MAIL:
GOPNY@PNY.COM