

CREATE MASSIVE ARTIFACT FREE  
VISUAL DISPLAY SOLUTIONS

NVIDIA® QUADRO® SYNC II

## Essential Professional Graphics For Maximum Productivity

Display resolutions are increasing, with 4K displays becoming common and the increasing availability of 5K and beyond displays. Massive visualization displays in design centers, entertainment, retail, and sporting events are pushing the boundaries of display technologies. On-air broadcasts incorporating graphics, video, and virtual sets are becoming the norm. The mixing of graphics and video, often across many display devices, is becoming part of the creative process.

The NVIDIA Quadro Sync II card provides the solution for these advanced synchronized display requirements. The Quadro Sync II card can synchronize up to 4 Pascal GPUs per card for 16 synchronized displays per Sync II card, and with 2 Sync II cards per system, up to 8<sup>1</sup> Pascal GPUs per chassis for a total of 32 synchronized displays per system. The NVIDIA Quadro Sync II card combined with Quadro Pascal-based GPU graphics is the solution for professional synchronized display deployments.

### THE PNY ADVANTAGE

PNY provides unsurpassed service and commitment to its professional graphics customers. In addition, PNY delivers a complete solution including the appropriate adapters, cables, brackets, driver software installation disc and documentation to ensure a quick and successful install.

### FEATURES

- > 2x RJ-45 Frame Lock connectors
- > BNC Genlock connector
- > Status indicator LEDs
- > 4 sync edge connectors
- > Supports up to 8<sup>1</sup> Quadro GPUs
- > Projector Overlap
- > Stereoscopic 3D Support
- > PCIe or SATA Power
- > Secure cable

### PACKAGE CONTENT

- > NVIDIA® Quadro® SYNC II Board
- > Printed Quick Start Guide
- > Four 30,5 cm connect cables
- > Two 61 cm connect cables

### WARRANTY AND SUPPORT

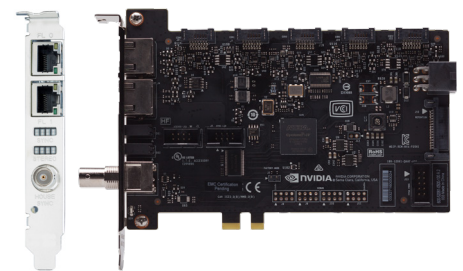
- > 3-Year Warranty
- > Pre- and Post-Sales Technical Support
- > Dedicated Field Application Engineers
- > Direct Tech Support Hot Lines

### COMPATIBLE CARDS

- > Quadro GP100
- > Quadro P6000
- > Quadro P5000
- > Quadro P4000

### PNY PART NUMBERS

- > VCQPQUADROSYNC2-PB
- > VCQP6000SYNC-PB
- > VCQP5000SYNC-PB
- > VCQP4000SYNC-PB



### BENEFITS

- > The ability to synchronize the display outputs from 4 Quadro GPUs for a total of 16 synchronized displays per Sync II cards
- > Two Sync II cards per chassis can provide up to 32 synchronized displays per chassis.
- > Sync II cards can be connected to Sync II cards in another chassis to synchronize displays between systems in visualization clusters.
- > Sync II cards can be connected to an external timing signal, synchronizing the output of the GPUs connected to the Sync II card to the external timing.
- > Mosaic technology enables up to 16 displays or projectors per systems or per cluster to act like a single large virtual display. The Sync II card can synchronize the 16 displays for Mosaic to provide artifact free images across all 16 displays.
- > Create multi-display stereoscopic visualization clusters
- > Seamlessly blend multi projector solutions with no visual artifacts
- > Support up to two Mosaics. Two Quadro Sync II connected together with the 2 x 7 header can support one to four Mosaics.

<sup>1</sup> Quadro Sync II 32 display support requires a future software update, estimated October 2017. Quadro Sync II cards currently support up to 16 displays.

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**UNMATCHED POWER.  
UNMATCHED CREATIVE  
FREEDOM.  
NVIDIA® QUADRO® P4000**

## Extreme Visual Computing Performance in a Single Slot Form Factor.

The NVIDIA Quadro P4000 combines a 1792 CUDA core Pascal GPU, large 8 GB GDDR5 memory and advanced display technologies to deliver the performance and features that are required by demanding professional applications. The ability to create an expansive visual workspace of up to four 5K displays (5120x2880 @ 60Hz) with HDR color support lets you view your creations in stunning detail. The P4000 is specially designed with the performance that is necessary to drive immersive VR environments. Additionally, you can create massive digital signage solutions of up to thirty-two 4K displays per system by connecting multiple P4000s via Quadro Sync II<sup>2</sup>.

Quadro cards are certified with a broad range of sophisticated professional applications, tested by leading workstation manufacturers, 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 or telling spectacularly vivid visual stories, Quadro gives you the performance to do it brilliantly.

### THE PNY ADVANTAGE

PNY provides unsurpassed service and commitment to its professional graphics customers. In addition, PNY delivers a complete solution that includes the appropriate adapters, cables, brackets, driver software installation disc, and documentation to ensure a quick and successful install.

### FEATURES

- > Four DisplayPort 1.4 Connectors<sup>1</sup>
- > DisplayPort with Audio
- > 3D Stereo Support with Stereo Connector<sup>1</sup>
- > NVIDIA GPUDirect™ Support
- > Quadro Sync II<sup>2</sup> Compatibility
- > NVIDIA nView® Desktop Management Software
- > HDCP 2.2 Support
- > NVIDIA Mosaic<sup>3</sup>
- > NVIDIA Iray and MentalRay Support

### PACKAGE CONTENTS

- > NVIDIA Quadro P4000 Professional Graphics Board
- > Software Installation Disc
- > Printed Quick Start Guide
- > Stereo Connector Bracket
- > Two DP to DVI-D SL Adapters

### WARRANTY AND SUPPORT

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



PNY PART NUMBER	VCQP4000-SB
<b>SPECIFICATIONS</b>	
GPU Memory	8 GB GDDR5
Memory Interface	256-bit
Memory Bandwidth	Up to 243 GB/s
NVIDIA CUDA® Cores	1792
System Interface	PCI Express 3.0 x16
Max Power Consumption	105 W
Thermal Solution	Active
Form Factor	4.4" H x 9.5" L, Single Slot, Full Height
Display Connectors	4x DP 1.4
Max Simultaneous Displays	4 direct, 4 DP 1.4 Multi-Stream
Display Resolution	4x 4096x2160 @ 120Hz 4x 5120x2880 @ 60Hz
Graphics APIs	Shader Model 5.1, OpenGL 4.5 <sup>4</sup> , DirectX 12.0 <sup>5</sup> , Vulkan 1.0 <sup>4</sup>
Compute APIs	CUDA, DirectCompute, OpenCL™

<sup>1</sup> VGA/DVI/HDMI/stereo support via adapter/connector/bracket | <sup>2</sup> NVIDIA Quadro Sync II board sold separately. Learn more at [www.nvidia.com/quadro](http://www.nvidia.com/quadro) | <sup>3</sup> Windows 7, 8, 8.1, 10 and Linux | <sup>4</sup> Product is based on a published Khronos Specification, and is expected to pass the Khronos Conformance Testing Process when available. Current conformance status can be found at [www.khronos.org/conformance](http://www.khronos.org/conformance) | <sup>5</sup> GPU supports DX 12.0 API Hardware Feature Level 12\_1

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