

**PART NUMBER:**  
VCQK1200DP-PB  
VCQK1200DVI-PB

## NVIDIA Quadro K1200 by PNY

HIGHEST PERFORMANCE IN SMALL FORM FACTOR (SFF) WORKSTATIONS

Accelerate your creativity with NVIDIA® Quadro® K1200—the world's most powerful workstation graphics for small form factor workstations. Support for multiple 4K displays, large memory capacity, advanced photorealistic rendering and flexible multi-GPU configurations.



The NVIDIA Quadro K1200 offers incredible 3D application performance in a compact footprint. Its flexible single-slot and low-profile form factor makes it compatible with even the most space and power-constrained workstation chassis. 4 GB of GDDR5 GPU memory with fast bandwidth enables you to create large, complex 3D models, and an all-new display engine drives up to four displays natively with DisplayPort 1.2 support for true 4K resolutions up to 4096x2160 @ 60 Hz with 30-bit color.

NVIDIA Quadro is the world's most advanced visual computing platform for workstations. Much more than a powerful graphics accelerator for sophisticated applications used by professionals, NVIDIA Quadro enables you to create and collaborate in exciting new ways. This makes it the #1 solution for designing, visualizing, and simulating your ideas.

NVIDIA Quadro by PNY GPUs are designed, built, and tested by NVIDIA specifically for professional workstations powering more than 150 professional applications across a broad range of industries, including manufacturing, media and entertainment, sciences, and energy.

## QUADRO K1200 - PRODUCT SPECIFICATIONS

GPU MEMORY	4 GB GDDR5	
MEMORY INTERFACE	128-bit	
MEMORY BANDWIDTH	80 GB/s	
GPU PROCESSING CORES	512	
SYSTEM INTERFACE	PCI Express 2.0 x16	
MAX POWER CONSUMPTION	45 W	
THERMAL SOLUTION	Ultra-quiet Active Fansink	
FORM FACTOR	68.91 mm (H) x 160.02 mm (L) Single Slot, Low Profile	
DISPLAY CONNECTORS	4 x mini DP (DisplayPort)	
MAX SIMULTANEOUS DISPLAYS	4 direct, 4 DP 1.2 Multi-Stream	
MAX DP 1.2 RESOLUTION	4096 x 2160 @ 60 Hz	
MAX DVI-DL RESOLUTION	2560 x 1600 @ 60 Hz (330 MHz active DP to DVI adapter) 1920 x 1200 @ 120 Hz (330 MHz active DP to DVI adapter)	
MAX DVI-SL RESOLUTION	1920 x 1200 @ 60 Hz (miniDP to DP)	
MAX VGA RESOLUTION	2048 x 1536 at 85 Hz	
GRAPHICS APIS	Shader Model 5.0, OpenGL 4.5 <sup>1</sup> , DirectX 12	
COMPUTE APIS	CUDA, DirectCompute, OpenCL	
PART NUMBER	VCQK1200DP-PB	VCQK1200DVI-PB
PACKAGE CONTENT	4 x miniDP to DP adapter	4 x miniDP to DP adapter 4 x miniDP to DVI adapter
EAN Number	3536403344658	3536403344696

<sup>1</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)

## Quadro K1200 - TECHNICAL SPECIFICATIONS AND FEATURES

<b>QUAD-DISPLAY SUPPORT</b>	A new display engine drives up to four displays with DisplayPort 1.2 support for ultra-high resolutions up to 4096x2160 @ 60 Hz with 30-bit color.
<b>POWERFUL GRAPHICS IN A FLEXIBLE FORM FACTOR</b>	NVIDIA GPU architecture delivers advanced, power-efficient 3D application performance. Its flexible single-slot and low-profile form factor makes it compatible with even the most space and power-constrained workstation chassis.
<b>4 GB GDDR5 GPU MEMORY WITH FAST DATA TRANSFER</b>	Large GPU memory with fast bandwidth enables the creation of large, complex 3D models.

### Quadro K1200 - FEATURES

- DisplayPort 1.2
- DisplayPort with Audio
- Professional 3D Support
- NVIDIA GPUDirect™ Support
- NVIDIA nView® Desktop Management Software Compatibility
- HDCP Support
- NVIDIA Mosaic Mode
- Energy Star Enabling

### QUADRO K1200 - TECHNICAL SPECIFICATIONS

#### SUPPORTED PLATFORMS

- Microsoft Windows 8.1 (64-bit and 32-bit)
- Microsoft Windows 8 (64-bit and 32-bit)
- Microsoft Windows 7 (64-bit and 32-bit)
- Linux® - Full OpenGL implementation, complete with NVIDIA and ARB extensions (64-bit and 32-bit)

#### 3D GRAPHICS ARCHITECTURE

- Scalable geometry architecture
- Hardware tessellation engine
- FXAA/TXAA dedicated anti-aliasing engine
- Bindless Textures
- Shader Model 5.0 (OpenGL 4.5² and DirectX 12)
- Up to 16K x16K texture and render processing
- Transparent multisampling and super sampling
- 16x angle independent anisotropic filtering
- 32-bit per-component floating point texture filtering and blending
- Up to 64x full scene antialiasing (FSAA)
- Decode acceleration for MPEG-2, MPEG-4 Part 2 Advanced Simple Profile, H.264, MVC, VC1, DivX (version 3.11 and later), and Flash (10.1 and later)
- Blu-ray dual-stream hardware acceleration (supporting HD picture-in-picture playback)
- NVIDIA GPU Boost (Automatically increases GPU engine throughput to maximize application performance.)

#### PARALLEL COMPUTING CAPABILITIES

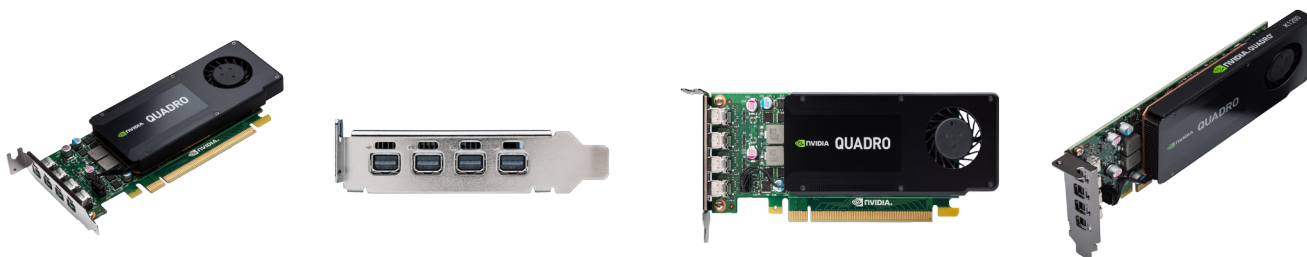
- Streaming Multi-Processor Design (SM 5.0) delivers high performance and energy efficiency
- Support for all the latest CUDA features, including Unified Memory, Dynamic Parallelism and Dedicated Shared Memory
- Programming support for CUDA C, CUDA C++, DirectCompute 5.0, OpenCL, Python, and Fortran

#### ADVANCED DISPLAY FEATURES

- Simultaneously drive up to four displays when connected natively
- Support up to four displays when using DisplayPort 1.2 Multi-Stream
- Quad DisplayPort 1.2 (supporting resolutions up to 4096x2160 @60 Hz)
- Optional DisplayPort to VGA, DisplayPort to DVI (single-link and dual-link) and DisplayPort to HDMI cables (resolution support based on dongle specifications)
- HDCP support over DisplayPort, DVI and HDMI connectors
- 12-bit internal display pipeline (hardware support for 12-bit scanout on supported panels, applications and connection)
- Stereoscopic 3D display support including NVIDIA® 3D Vision™ technology, 3D DLP, Interleaved, and passive stereo
- OpenGL and Direct3D quad buffered stereo support
- Underscan/overscan compensation and hardware scaling
- Support for NVIDIA® Quadro® Mosaic, NVIDIA® nView® multi-display technology, NVIDIA® Enterprise Management Tools

#### DISPLAY PORT AND HDMI DIGITAL AUDIO

- Support for the following audio modes: Dolby Digital (AC3), DTS 5.1, Multichannel (7.1) LPCM, Dolby Digital Plus (DD+), and MPEG-2/MPEG-4 AAC
- Data rates of 44.1 KHz, 48 KHz, 88.2 KHz, 96 KHz, 176 KHz(HDMI only), and 192 KHz (HDMI only)
- Word sizes of 16 bits, 20 bits, and 24 bits



#### PACKAGE CONTENT: VCQK1200DP-PB

- 4 x miniDP to DP
- Drivers + Installation Guide

P/N: GSP-MINIDP/DP



#### PACKAGE CONTENT: VCQK1200DVI-PB

- 4 x miniDP to DP
- 4 x miniDP to DVI SL
- Drivers + Installation Guide

P/N:GSP-MINIDP/DP  
P/N:GSP-MINIDP/DVI

