PART NUMBER:
VCQK4200-PB

NVIDIA Quadro K4200 by PNY
INCREDIBLE GRAPHICS PERFORMANCE

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

The NVIDIA Quadro K4200 delivers incredible 3D application performance and capability, allowing you to take advantage of dual copy-engines for seamless data movement within GPU memory—all in a flexible, single-slot form factor. 4 GB of GDDR5 GPU memory with ultra-fast bandwidth is ideal for creating and rendering large, complex models. DisplayPort 1.2 support for ultra-high resolutions like 3840x2160 @ 60 Hz with 30-bit color and an all-new display engine drives up to four displays. Plus, NVIDIA Sync allows you to frame-lock multiple displays together and take advantage of SDI video input/output.

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 K4200 - PRODUCT SPECIFICATIONS

GPU MEMORY	4 GB GDDR5
MEMORY INTERFACE	256-bit
MEMORY BANDWIDTH	173 GB/s
CUDA CORES	1344
SYSTEM INTERFACE	PCI Express 2.0 x16
MAX POWER CONSUMPTION	108 W
THERMAL SOLUTION	Ultra-quiet active fansink
FORM FACTOR	111.15 mm (H) x 241.3 mm (L) Single Slot, Full Height
DISPLAY CONNECTORS	1 x DVI-I DL, 2 x DP1.2, 1 x Stereo[1]
MAX SIMULTANEOUS DISPLAYS	3 direct, 4 DP 1.2 Multi-Stream
MAX DP 1.2 RESOLUTION	3480 x 2160 @ 60 Hz
MAX DVI-I DL RESOLUTION	2560 x1600 @ 60 Hz 1920 x1200 @ 120 Hz
MAX DVI-I SL RESOLUTION	1920 x1200 @ 60 Hz
MAX VGA RESOLUTION	2048 x 1536 at 85 Hz
GRAPHICS APIS	Shader Model 5.0, OpenGL 4.5[2], DirectX 11.2[3]
COMPUTE APIS	CUDA, DirectCompute, OpenCL
PACKAGE CONTENT	- 2 x DP to DVI (SL) adapter P/N: QSP-DPDVISL - DVI to VGA adapter P/N: QSP-DVIVGA - Stereo Connector P/N: QSP-STEREOQ4000-PB
PART NUMBER	VCQK4200-PB
EAN NUMBER	3536403343842

[1] Via supplied adapter/connector/bracket
[2] 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
[3] GPU supports DX 11.2 API, Hardware Feature Level DX 11.0

Quadro K4200 - TECHNICAL SPECIFICATIONS AND FEATURES

QUAD-DISPLAY SUPPORT	A new display engine drives up to four displays and DisplayPort 1.2 support for ultra-high resolutions like 3840x2160 @ 60 Hz with 30-bit color. NVIDIA SYNC allows multiple displays to be frame-locked together.
INCREDIBLE GRAPHICS PERFORMANCE	The NVIDIA GPU architecture provides incredible 3D application performance with dual copy engines for seamless data movement within GPU memory—all in a flexible single-slot form factor.
4 GB GDDR5 GPU MEMORY WITH ULTRA-FAST BANDWIDTH	Large GPU memory with fast bandwidth enables the creation and rendering of large, complex models.

Quadro K4200 - FEATURES

- DisplayPort 1.2
- DisplayPort with Audio
- DVI-I Dual-Link Connector
- VGA Support
- Professional 3D Support
- NVIDIA 3D Vision™ Pro
- Quadro Sync Compatibility
- HD SDI Capture/Output Compatibility

- NVIDIA GPUDirect™ Support
- NVIDIA nView® Desktop Management Software Compatibility
- Stereo Connector
- HDCP Support
- NVIDIA Mosaic Mode
- Energy Star Enabling

QUADRO K4200 - 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
- NVIDIA® GigaThread™ engine with dual copy engines
- Shader Model 5.0 (OpenGL 4.53 and DirectX 11.2[3])
- Up to 16K x16K texture and render processing
- Transparent multisampling and super sampling
- 16x angle independent anisotropic filtering
- 128-bit floating point performance
- 32-bit per-component floating point texture filtering and blending
- 64x full scene antialiasing (FSAA)/128x FSAA in SLI Mode
- 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)
- Dedicated H.264 Encoder
- Blu-ray dual-stream hardware acceleration (supporting HD picture-in-picture playback)
- Quadro Boost (Automatically adjusts GPU engine throughput to maximize application performance.)

PARALLEL COMPUTING CAPABILITIES

- SMX Architecture (streaming multi-processor design that delivers greater processing and efficiency)
- Hyper Q
- Dynamic Parallelism (GPU dynamically spawns new threads without going back to the CPU)
- API support includes: CUDA C, CUDA C++, DirectCompute 5.0, OpenCL, Java, Python, and Fortran
- NVIDIA® Parallel DataCache™ hierarchy (configurable L1 and unified L2 caches)
- 64 KB of RAM (configurable partitioning of shared memory and L1 cache) Dual

Warp Scheduler (schedules and dispatches simultaneously instructions from two independent warps)

ADVANCED DISPLAY FEATURES

- 30-bit color (10-bit per each red, green, blue channel)
- Simultaneously drive up to three displays when connected natively
- Support up to four displays when using DisplayPort 1.2 Multi-Stream
- Dual DisplayPort 1.2 (supporting resolutions such as 3840x2160 @60 Hz)
- Dual-link DVI-I/DVI-D outputs (up to 2560 x1600 @ 60 Hz and 1920x1200 @ 120 Hz)
- Internal 400 MHz DAC DVI-I output (analog display up to 2048x1536 @ 85 Hz)
- 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
- 10-bit internal display processing (hardware support for 10-bit scanout for both windowed desktop and full screen, only available on Windows and Linux with Aero disabled)
- NVIDIA 3D Vision™ technology, 3D DLP, interleaved, and other 3D stereo format support
- Full OpenGL quad buffered stereo support
- Underscan/overscan compensation and hardware scaling
- Support for NVIDIA® Quadro® Mosaic, NVIDIA® nView® multi-display technology, NVIDIA® Enterprise Management Tools
- Support for large-scale, ultra-high resolution visualization using the Quadro SVS platformwhich includes Quadro Mosaic, Quadro Sync and Warp/Blend technologies

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+), andMPEG-2/MPEG-4 AAC
- Data rates of 44.1 KHz, 48 KHz, 88.2 KHz, 96 KHz, 176 KHz, and 192 KHz
- Word sizes of 16 bits, 20 bits, and 24 bits

PACKAGE CONTENT:

- 2 x DP to DVI (SL) adapter   P/N: **QSP-DPDVISL**
- DVI to VGA adapter   P/N: **QSP-DVIVGA**
- Stereo Additional Connector   P/N: **QSP-STEREOQ4000-PB**
- Drivers + Installation Guide

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