NVIDIA Quadro K620 by PNY

POWERFUL GRAPHICS
IN A FLEXIBLE FORM FACTOR

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 K620 offers impressive power-efficient 3D application performance and capability. 2 GB of DDR3 GPU memory with fast bandwidth enables you to create large, complex 3D models, and a flexible single-slot and low-profile form factor makes it compatible with even the most space and power-constrained chassis. Plus, there’s the DisplayPort 1.2 support for ultra-high-resolutions like 4096x2160 @ 60 Hz with 30-bit color and the all-new display engine that drives up to four displays natively.

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 K620 - PRODUCT SPECIFICATIONS

| GPU MEMORY | 2 GB GDDR3 |
| MEMORY INTERFACE | 128-bit |
| MEMORY BANDWIDTH | 29 GB/s |
| CUDA CORES | 384 |
| 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 | 1 x DVI-I DL, 1 x DP1.2 |
| MAX SIMULTANEOUS DISPLAYS | 2 direct, 4 DP 1.2 Multi-Stream |
| MAX DP 1.2 RESOLUTION | 4096 x 2160 @ 60 Hz |
| MAX DVI-I DL RESOLUTION | 2560 x 1600 @ 60 Hz |
| MAX DVI-I SL RESOLUTION | 1920 x 1200 @ 120 Hz |
| MAX VGA RESOLUTION | 2048 x 1536 at 85 Hz |
| GRAPHICS APIS | Shader Model 5.0, OpenGL 4.5¹, DirectX 11.2² |
| COMPUTE APIS | CUDA, DirectCompute, OpenCL |
| PACKAGE CONTENT | - 1 x DP to DVI (SL) adapter P/N: QSP-DPVDIVSL |
| | - 1 x DVI to VGA adapter P/N: QSP-DVIVGA |
| | - 1 x Low Profile bracket |
| PART NUMBER | VCQK620-PB |
| EAN NUMBER | 3536403943767 |

¹ Product is based on a published Khronos Specification, and is expected to pass the Khronos Conformance Testing Process when available.
² Current conformance status can be found at www.khronos.org/conformance

© 2014 NVIDIA Corporation and PNY. All rights reserved. NVIDIA, the NVIDIA logo, nVidia, nView, CUDA, Kepler, and 3D Vision are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and other countries. The NVIDIA logo is a registered trademark of NVIDIA Corporation, OpenCL is a trademark of Apple Inc. used under license to the Khronos Group Inc. All other trademarks and copyrights are the property of their respective owners. Jul14
Quadro K620 - TECHNICAL SPECIFICATIONS AND FEATURES

**QUAD-DISPLAY SUPPORT**
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.

**POWERFUL GRAPHICS IN A FLEXIBLE FORM FACTOR**
NVIDIA GPU architecture delivers advanced, power-efficient 3D application performance. A flexible single-slot, low-profile form factor with no need for external power connectors makes this card compatible with even the most space and power constrained chassis.

**2 GB DDR3 GPU MEMORY WITH FAST DATA TRANSFER**
Large GPU memory with fast bandwidth enables the creation of large, complex 3D models.

Quadro K620 - FEATURES
- DisplayPort 1.2
- DisplayPort with Audio
- DVI-Dual-Link Connector
- VGA Support
- Professional 3D Support
- NVIDIA GPUDirect ™ Support
- NVIDIA nView ™ Desktop Management Software Compatibility
- HDCP Support

Quadro K620 - 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
- Bilinear Textures
- Shader Model 5.0 (OpenGL 4.5 and DirectX 11.2)
- Up to 16K x 16K 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 anti-aliasing (IFSAI)

**ADVANCED DISPLAY FEATURES**
- Simultaneously drive up to two displays when connected natively
- Support up to four displays when using DisplayPort 1.2 Multi-Stream
- Dual DisplayPort 1.2 (supporting resolutions up to 4096x2160 @ 60 Hz)
- Dual-link DVI-I (Supports 300MP/s/sec which enables resolutions like 2560x1600 @ 60Hz and 1920x1200 @ 120Hz)
- Internal 400 MHz DAC DVI-I output (analog display up to 2048x1536 @ 85Hz)
- 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, interlaced, 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, and 192 KHz
- Word sizes of 16 bits, 20 bits, and 24 bits

**PARALLEL COMPUTING CAPABILITIES**
- Streaming Multi-Processor Design (SM 5.0) delivers high performance and energy efficiency
- Support for all the latest CUDA 6 features, including Unified Memory, Dynamic Parallelism and Dedicated Shared Memory
- Programming support for CUDA C, CUDA C++, DirectCompute 5.0, OpenCL, Python, and Fortran

**PACKAGE CONTENTS:**
- 1 x DP to DVI (SL) adapter
- DVI to VGA adapter
- 1 x Low Profile bracket
- Drivers + Installation Guide

More information: www.pny.eu/quadro

Follow us: @PNYproDE - @PNYproFR - @PNYproUK