Overview

Models

NVIDIA Quadro K4000 3GB Graphics   C2J94AA

Introduction

The NVIDIA Quadro K4000 graphics board is a single slot PCI Express add-in card based on the new NVIDIA Kepler architecture graphics processing unit (GPU). The Quadro K4000 graphics board is the perfect choice for medium-to-large complexity designs and models in professional CAD, M&E and visualization applications. This card provides impressive performance capabilties in a single slot design.

Performance and Features

- Comprehensive ISV certifications for professional environments
- Ultra-efficient 80W maximum power provides industry leading performance/watt results.
- 3 GB of blazing GDDR5 memory
- Attach up to 4 active digital monitors using DisplayPort daisy chaining monitors or by a DisplayPort hub device.
- Direct attach up to 3 active monitors using all available display connectors on the Quadro K4000
- Latest graphics API's supported including OpenGL 4.3 and CUDA 5.0
- Windows 8 compliant
- NVIDIA Mosaic Technology enabled
- NVIDIA nView™ multi-display manageme

Compatibility

The Quadro K4000 is supported on the following HP Personal Workstations:

- Z820, Z620, Z420, Z220

Service and Support

The NVIDIA Quadro K4000 has a one-year limited warranty or the remainder of the warranty of the HP product in which it is installed. Technical support is available seven days a week, 24 hours a day by phone, as well as online support forums. Parts and labor are available on-site within the next business day. Telephone support is available for parts diagnosis and installation. Certain restrictions and exclusions apply.

Technical Specifications

Form Factor	4.376" H x 9.5" L Single Slot, Full Height
Graphics Controller	NVIDIA Quadro K4000 Graphics Card Kepler GK106 GPU 768 CUDA cores Max Power: 80 Watts
Bus Type	PCI Express 2.0 x16
Memory	3 GB GDDR5, 2800 Mhz 192-bit memory I/O path 134 GB/s memory bandwidth
Connectors	1 DL-DVI(I) output, 2 DisplayPort outputs CTO: No video cable adapter included AMO: One DP-to-DVI adapter included with card Additional DVI-to-VGA, DisplayPort-to-VGA or DisplayPort-to-DVI adapters are available as accessories
Maximum Resolution	DisplayPort: - up to 3840 x 2160 x 30 bpp @ 60Hz - supports High Bit Rate 2 (HBR2) and Multi-Stream Transport (MST) DL-DVI(I) output: - up to 2560 x 1600 x 32 bpp @ 60Hz
Image Quality Features	● 10-bit internal display processing pipeline ● 10-bit scan-out support
Display Output	VGA: - requires use of DVI-to-VGA and/or DP-to-VGA video cable adapters - 400 Mhz integrated RAMDAC - Max resolution: 2048 x 1536 x 32 bpp @ 85 Hz DL-DVI(I): - Max resolution: 2560 x 1600 x 32 bpp @ 60 Hz SL-DVI(I): - Max resolution: 1920 x 1200 x 32 bpp @ 60 Hz DisplayPort: - Supports HBR2 and MST - Max resolution: 3840 x 2160 x 30 bpp @ 60 Hz (only one monitor can be connected to a Quadro K4000 DisplayPort connector at this resolution) - Max number of DisplayPort daisy-chained monitors or hub connected monitors from a single Quadro K4000 DisplayPort connector: 4 with maximum resolution of 1920 x 1200 HDMI: - Requires use of DP-to-HDMI cable - Max Resolution: 1920 x 1080 x 32 bpp @ 60Hz Maximum number of monitors across all available Quadro K4000 outputs is 4.
Shading Architecture	Full Microsoft DirectX 11 Shader Model 5.0

Technical Specifications

Supported Graphics APIs	OpenGL 4.3 DirectX 11 API support includes: CUDA C, CUDA C++, DirectCompute 5.0, OpenCL, Java, Python, and Fortran
Available Graphics Drivers	Windows 8 Pro 64-bit Windows 8 (China) 64-bit Genuine Windows 7 Professional (64-bit and 32-bit) Red Hat Enterprise Linux (RHEL) 5 Desktop/Workstation (64-bit) Red Hat Enterprise Linux(RHEL) 6 Desktop/Workstation SUSE Linux Enterprise Desktop 11 (64-bit) HP qualified drivers may be preloaded or available from the HP support Web site: http://welcome.hp.com/country/us/en/support.html SUSE Linux Enterprise drivers may also be obtained from: ftp://download.nvidia.com/novell or http://www.nvidia.com
Notes	1. Quadro K4000 offered as CTO does not include a video cable adapter. Video cable adapters must be ordered separately. 2. Quadro K4000 offered as AMO includes one DP-to-DVI video cable adapter. Additional cables must be ordered separately. 3. Quadro K4000 is Windows 8 Compliant. 4. A total maximum of 4 active monitors are supported across all display output types. To get 4 monitors, at least one monitor must be daisy chained on a DisplayPort output. 5. A DisplayPort hub device may be used to connect multiple DisplayPort monitors to a single Quadro K4000 DisplayPort output.