Overview

NVIDIA Quadro K4200 4GB Graphics

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INTRODUCTION

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. An all-new display engine drives up to four displays with DisplayPort 1.2 support for ultra-high resolutions like 3840x2160 @ 60 Hz with 30-bit color. Plus, NVIDIA Sync allows you to frame-lock multiple displays together and take advantage of SDI video input/output.

The NVIDIA Quadro K4200 is an excellent choice for the most demanding product design challenges. It can also easily handle most media and entertainment needs.

Overview

PERFORMANCE AND FEATURES

- Powerful high end GPU based on the NVIDIA Kepler GPU architecture
- Large 4GB ultra-fast GDDR5 memory accomodates larger models and datasets
- Dual copy-engines for seamless data movement within GPU memory
- Quad-display support that can drive ultra-high resolutions up to 3840 x 2160 @ 60Hz with 30-bit color depth
- Support for NVIDIA® Quadro® Mosaic, NVIDIA® nView® multi-display technology
- 1344 CUDA parallel processing cores well suited to accelerate single precision computing workflows
- Comprehensive set of ISV application certifications

COMPATIBILITY

The NVIDIA Quadro K4200 is supported in the following HP Z Workstations:

- Z440, Z640, Z840

SERVICE AND SUPPORT

The NVIDIA Quadro K4200 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.

QuickSpecs

Technical Specifications

TECHNICAL SPECIFICATIONS

Form Factor	Dimensions: 4.376" H x 9.5" L Single Slot, Full Height Cooling: Active Weight: 461 grams (without extender)
Graphics Controller	NVIDIA Quadro K4200 GPU: GK104-850 GPU with 1344 CUDA cores Power: 108 Watts
Bus Type	PCI Express 2.0 x16
Memory	Size: 4GB GDDR5 Memory Bandwidth: 173 GB/s Memory Width: 256-bit
Connectors	1 DL-DVI(I) 2 DisplayPort 1.2a Factory Configured Option: No video cable adapter included After market option kit: 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 Single Link-DVI(I) output: - up to 1920 x 1200 x 32 bpp @ 60Hz VGA (via adapter cable): – 2048 × 1536 × 32 bpp at 85 Hz
Image Quality Features	10-bit internal display processing (hardware support for 10-bit scanout for both windowed desktop and full screen, only available on Windows with Aero disabled and Linux) NVIDIA® 3D Vision™ technology, 3D DLP, Interleaved, and other 3D stereo format support Full OpenGL quad buffered stereo support Support for large-scale, ultra-high resolution visualization using the NVIDIA® SVS platform which includes NVIDIA® Mosaic, NVIDIA® Sync and NVIDIA® Warp/Blend technologies
Display Output	Maximum number of displays - 3 direct attached monitors - 4 using DP 1.2a with MST and HBR2 enabled monitors Maximum number of DisplayPort displays possible (may require MST and/or HBR2):

Technical Specifications

	- 4 1920x1200
	- 4 2560x1600
	- 2 3840x2160
	Maximum number of monitors across all available Quadro K4200 outputs is 4.
Shading Architecture	Shader Model 5.0
Supported Graphics APIs	OpenGL 4.4
	DirectX 11.1
	API support includes:
	CUDA C, CUDA C++, DirectCompute 5.0, OpenCL, Java, Python, and Fortran
Available Graphics Drivers	Microsoft Windows 8.1
	Microsoft Windows 8
	Microsoft Windows 7
	Linux - Full OpenGL implementation, complete with NVIDIA and ARB extensions
	HP qualified drivers may be preloaded or available from the HP support Web site:
	http://welcome.hp.com/country/us/en/support.html
Notes	1. Quadro K4200 offered as CTO does not include a video cable adapter. Video cable adapters must be ordered separately.
	2. Quadro K4200 offered as After Market Kits includes one DP-to-DVI video cable adapter. Additional cables must be ordered separately.
	3. A total maximum of 4 active monitors are supported across all display output types. This may be accomplished by using daisy chained DisplayPort 1.2 displays (displays must support MST and HBR2).
	4. Configurations of a single Quadro K4200 graphics card in HP Z440 Workstation require the HP Z440 Fan and Front Card Guide Kit, configurable from the factory (CTO PN: G8T99AV) or as an Aftermarket Option (AMO PN: J9P80AA).

Summary of Changes

Date of change:	Version History:		Description of change:
Sept 15, 2014	Version 1	Added	Migrate to current template, add product photo
Dec 3, 2014	From v1 to v2	Added	Note for Z440 configurations.
May 1, 2015	From v2 to v3	Changed	Note for Technical Specification section.