Overview

NVIDIA Quadro K5200 8GB Graphics

NVIDIA Quadro K5200 8GB Graphics J3G90AA

INTRODUCTION

The NVIDIA Quadro K5200 gives you amazing application performance and capability, making it faster and easier to accelerate 3D models, render complex scenes, and simulate large datasets. 8 GB of GDDR5 GPU memory with ultra-fast bandwidth allows you to create and render large, complex models and compute massive datasets. Plus, there's the all-new display engine that drives up to four displays natively with DisplayPort 1.2 support for ultra-high resolutions like 4096x2160 @ 60 Hz with 30-bit color. Quadro Sync also lets you frame-lock multiple displays together and take advantage of SDI video input/output support.

Overview

The NVIDIA Quadro K5200 is set to take on the most demanding workflows whether in product development, high end styling, near real-time photorealistic rendering, media and entertainment creations, and simulations/analysis.

PERFORMANCE AND FEATURES

- Amazing graphics and rendering performance delivered by the highest end Kepler based GPU technology
- 8GB GDDR5 ultra-fast memory supporting a wide memory path to minimize memory access performance penalties
- New display engine drives up to four displays natively with DisplayPort 1.2 support for ultra-high resolutions like 4096x2160 @ 60 Hz with 30-bit color
- NVIDIA SYNC allows multiple displays to be frame-locked together and supports SDI video input/output
- Support for large-scale, ultra-high resolution visualization using the NVIDIA® SVS platform which includes NVIDIA® Mosaic, NVIDIA® Sync and NVIDIA® Warp/Blend technologies
- 2304 CUDA parallel processing cores well suited to accelerate demanding parallel computing workloads using CUDA
- Comes complete with all necessary ISV application certifications

COMPATIBILITY

The NVIDIA Quadro K5200 is supported in the following HP Z Workstations:

- Z440, Z640, Z840

SERVICE AND SUPPORT

The NVIDIA Quadro K5200 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

TECHNICAL SPECIFICATIONS

Form Factor	Dimensions: 4.376” H x 10.5” L Dual Slot, Full Height Cooling: Active Weight: 880 grams (without extender)
Graphics Controller	NVIDIA Quadro K5200 GPU: GK110-850-B1 with 2304 CUDA cores Power: 150 Watts
Bus Type	PCI Express 3.0 x16
Memory	Size: 8GB GDDR5 Memory bandwidth: 192GB/s Memory Width: 256-bit
Connectors	1 DVI-I 1 DVI-D 2 DisplayPort 1.2a Factory configured option: No adapter included with card. After market option kit: No adaptor included with card. Additional DVI to VGA, DisplayPort to VGA, DisplayPort to DVI, and DisplayPort to Dual-Link DVI adapters available as accessories
Maximum Resolution	DisplayPort: - up to 4096 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 NVIDIA® Quadro® Mosaic, NVIDIA® nView® multi-display technology, NVIDIA® Enterprise Management Tools. Support for large-scale, ultra-high resolution visualization using the NVIDIA® SVS platform which includes NVIDIA® Mosaic, NVIDIA® Sync and NVIDIA® Warp/Blend technologies.

Technical Specifications

Display Output	Maximum number of displays - 4 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): - 4 1920x1200 - 4 2560x1600 - 2 4096x2160 Maximum number of monitors across all available Quadro K5200 outputs is 4.
Shading Architecture	Shader Model 5.0
Supported Graphics APIs	OpenGL 4.4 DirectX 11 API support for NVIDIA's CUDA™ C, CUDA C++, DirectCompute 5.0, OpenCL, Java, Python, 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. Factory configured Quadro K5200 does not include a video cable adapter. Video cable adapters must be ordered separately. 2. 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). 3. Configurations of a single Quadro K5200 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
December 3, 2014	From v1 to v2	Added	Note for Z440 configurations.
May 1, 2015	From v2 to v3	Changed	Notes for Technical Specification section