

### Overview

### NVIDIA® Quadro® K1200 4GB Graphics T/SFF Kit



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T7T59AA

## INTRODUCTION

The NVIDIA® Quadro® K1200 delivers outstanding professional 3D application performance in a low profile plug-in card form factor. This card is perfect for small form factor HP Z Workstations, like the HP Z240 SFF, providing a level of application performance never before possible. This kit is now also available for all Z workstation tower form factors. Ultra-fast 4GB of GDDR5 GPU memory enables you to work with large complex models. Plus, an all-new display engine drives up to four directly attached displays with ultra-high resolutions up to 4096x2160 @ 60 Hz with 30-bit color.

The NVIDIA® Quadro® K1200 is an excellent choice as a mainstream workhorse graphics solution for product development challenges and media and entertainment creation.

## PERFORMANCE AND FEATURES

- Powerful midrange graphics performance using NVIDIA's new Maxwell GPU architecture all in a low profile package ideal for HP Z SFF Workstations

### Overview

- Now available for Z workstation tower form factors with the addition of a full height chassis bracket.
- Large 4GB ultra-fast GDDR5 memory accommodates larger models and datasets
- Quad-display support with 4 mini-DP connectors on the card allowing ultra-high resolutions up to 4096 x 2160 @ 60Hz with 30-bit color depth
- All the professional ISV application certifications that one can expect
- Support for NVIDIA® Quadro® Mosaic, NVIDIA® nView® multi-display technology
- 512 CUDA parallel processing cores can be used to accelerate single precision computing workflows

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### COMPATIBILITY

The NVIDIA® Quadro® K1200 is supported in the following HP Z Workstations:

- Z240, Z440, Z640, Z840

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### SERVICE AND SUPPORT

The NVIDIA® Quadro® K1200 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 online support forums. Parts and labor are available next business day, depending on country\*. Certain restrictions and exclusions apply.

\* Service levels and response times may vary depending on your geographic location. Restrictions and limitations apply. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.

### Technical Specifications

#### TECHNICAL SPECIFICATIONS

<b>Form Factor</b>	Dimensions: 2.71" H x 6.875" L Single Slot, Low Profile Cooling: Active Weight: ~175 grams Includes Full Height and Low Profile chassis brackets
<b>Graphics Controller</b>	NVIDIA® Quadro® K1200 Graphics Card GPU: GM107 with 512 CUDA cores Power: 46 Watts
<b>Bus Type</b>	PCI Express 2.0 x16
<b>Memory</b>	Size: 4GB GDDR5 Memory Bandwidth: 80 GB/s Memory Width: 128-bit
<b>Connectors</b>	4 mini-DisplayPort 1.2a  Factory Configured Option: 4 mini-DP-to-DP adapters included with card Option Kit: 4 mini-DP-to-DP adapters included with card  Additional DisplayPort-to-VGA or DisplayPort-to-DVI adapters are available as accessories
<b>Maximum Resolution</b>	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 x 1536 x 32 bpp at 85 Hz
<b>Image Quality Features</b>	12-bit internal display pipeline (hardware support for 12-bit scanout on supported panels, applications and connection)
<b>Display Output</b>	Maximum number of displays - 4 direct attached monitors  Maximum number of DisplayPort displays possible: - 4 1920x1200

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- 4 2560x1600
- 4 4096x2160

Maximum number of monitors across all available Quadro® K1200 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® K1200 offered as Factory Configured Option includes 4 miniDP to DP video cable adapters. Other video cable adapters must be ordered separately.
2. Quadro® K1200 offered as an Option Kit includes 4 mini-DP to DP adapters. 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. Kit includes Full Height and Low Profile chassis brackets.

### Summary of Changes

Date of change:	Version History:		Description of change:
	From v1 to v2		

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