

### Overview

## NVIDIA Quadro K1200 4GB Graphics



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L4D16AA

## INTRODUCTION

The NVIDIA Quadro K1200 delivers outstanding professional 3D application performance in a low profile plug-in card form factor. This card is dedicated for small form factor HP Z Workstations, like the HP Z230 SFF, providing a level application performance never before possible. 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
- Large 4GB ultra-fast GDDR5 memory accommodates larger models and datasets

### Overview

- 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:

- Z230 SFF

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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 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.

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### 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
<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 - 4 2560x1600 - 4 4096x2160  Maximum number of monitors across all available Quadro K1200 outputs is 4.
<b>Shading Architecture</b>	Shader Model 5.0

### Technical Specifications

**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).
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### Summary of Changes

Date of change:	Version History:		Description of change:

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