

### Overview

## Models

NVIDIA Quadro NVS 450 512MB Graphics

FH519AA

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## Introduction

The NVIDIA® Quadro® NVS 450 business graphics solution delivers a reliable hardware and software platform for a stable environment and robust IT management tools for seamless enterprise deployment. Featuring NVIDIA® nView® multi-display technology and support for up to four displays, business professionals can maximize productivity through increased desktop real estate and advanced application management tools. Quadro NVS 450 is certified on leading business applications and designed to meet the needs of today's most demanding business user.

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## Performance and Features

- **NVIDIA® nView® Advanced-Display Software:** The nView Advanced Display Software delivers maximum flexibility for single-large display or multi-display options, providing unprecedented end-user control of the desktop experience for increased productivity.
  - **NVIDIA Unified Architecture:** Industry's first unified architecture designed to dynamically allocate GPU resources to deliver optimized performance.
  - **Unified Driver Architecture (UDA):** Part of the NVIDIA Forceware unified software environment (USE). The NVIDIA UDA guarantees forward and backward compatibility with software drivers. Simplifies upgrading to a new NVIDIA product because the latest driver supports all current NVIDIA products.
  - **Quad DisplayPort:** Capable of driving quad ultra high resolution displays at 2560x1600.
  - **High Digital Display Resolution:** Internal TMDS transmitters and 400 MHz RAMDAC(s) deliver crystal-clear image quality for the high resolution digital displays. **Ultimate Image Quality:** Quadro NVS graphics products deliver the industry's best image quality, sharpness and pixel tracking for analog LCDs, DLPs and plasma displays with resolutions up to 2048 x 1536.
  - **EnergyStar Enabling Design:** Enables ENERGY STAR qualified with low maximum and low idle power levels.
  - **PCI Express 2.0 Compliant:** Doubles the data transfer rate up to 5 GT/sec per lane for an aggregate bandwidth of 16 GB/sec bi-directional (8 GB/sec in each direction).
  - **Integrated TMDS Transmitters:** Enable support for the latest digital flat panel (DFP) displays.
  - **Essential for Microsoft Windows Vista:** Offering an enriched 3D user interface, increased application performance, and the highest image quality, NVIDIA Quadro graphics boards and NVIDIA® OpenGL ICD drivers are optimized for 32- and 64-bit architectures to enable a smooth Windows Vista experience.
  - **NVIDIA® CUDA™ Parallel Computing Processor:** A parallel computing processor architecture exposed through a C language environment and tool suite in combination with high performance visualization, CUDA unleashes new capabilities to solve highly complex challenges such as real-time ray tracing, video encoding, and interactive volume rendering.
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## Compatibility

The Quadro NVS 450 is supported on the following HP Personal Workstations:

- Z400, Z600, Z800
  - Z420, Z620, Z820
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### Overview

#### **Service and Support**

The NVIDIA Quadro NVS 450 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

|                                   |   |
|-----------------------------------|---|
| <b>Form Factor</b>                | ATX Full Height, 1/2 length<br>Passive cooling  |
| <b>Bus Type</b>                   | PCI Express x16, Generation 2.0   |
| <b>Memory</b>                     | 512 MB GDDR3 (256 MB per GPU)   |
| <b>Connectors</b>                 | Four DisplayPort;<br>Four DisplayPort to DVI-D adapters included.<br>(‘DisplayPort to VGA’ and ‘DisplayPort to Dual Link DVI’ adapters available as an accessory)   |
| <b>Maximum Resolution</b>         | DisplayPort connectors support ultra-high-resolution panels (up to 2560 x 1600)<br><br><b>NOTE:</b> This card supports up to four displays  |
| <b>Supported Graphics APIs</b>    | OpenGL 3.0<br>DirectX 10.0  |
| <b>Available Graphics Drivers</b> | Genuine Windows 7 Professional (64-bit and 32-bit)<br>Genuine Microsoft Windows Vista (64-bit and 32-bit)<br>Microsoft Windows XP Professional (64-bit and 32-bit)<br>Red Hat Enterprise Linux(RHEL) 5 Desktop/Workstation<br>Red Hat Enterprise Linux(RHEL) 6 Desktop/Workstation<br>SUSE Linux Enterprise Desktop 11 (64-bit and 32-bit)<br><br>HP qualified drivers may be preloaded or available from the HP support Web site:<br><a href="http://welcome.hp.com/country/us/en/support.html">http://welcome.hp.com/country/us/en/support.html</a><br><br>SUSE Linux Enterprise drivers may also be obtained from:<br><a href="ftp://download.nvidia.com/novell">ftp://download.nvidia.com/novell</a> or <a href="http://www.nvidia.com">http://www.nvidia.com</a> |
| <b>Power Consumption</b>          | <40 Watts   |

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