

### Overview

## NVIDIA Quadro NVS 400 Graphics Card

### Models

NVIDIA Quadro NVS 400 Graphics Card	AA605A
DVI pigtail cables (2) upgrade kit	AA606A

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### Introduction

The NVIDIA Quadro NVS 400 PCI quad-head graphics controller offers business professionals maximum screen real estate for the utmost in productivity. The new quad display solution powered by two state of the art Graphics Processing units (GPUs) is equipped with two high-density connectors, which supports up to four analog and/or digital displays allowing power users the ability to manage and display more data faster. The Quadro4 400 NVS graphics card combined with NVIDIA's new multi-display software, nView, lets users view their work on multiple displays and allows the user to create up to 32 individual desktops. Easily installed with a setup wizard, this controller integrates seamlessly with the Microsoft® Windows® environment. It is tested for compatibility with all major financial, non-linear editing (NLE), and electronic design automation (EDA) applications. It provides great flexibility for users who need support for either 1 to 4 analog or digital displays. The Quadro NVS 400 Graphics Card promotes workstation productivity by delivering stability, high image quality, and fast performance. It's ideally suited for users that run the gamut from Wall Street financial traders to corporate video editors.

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### Key Benefits

- Permits work to be viewed on one to four monitors with nView multi-display software
  - Dual 350-MHz RAMDACs deliver crystal-clear images
  - Integrated TMDS transmitters support the latest flat-panel displays
  - Single high-density connector supports dual-analog or digital displays
  - Unified driver architecture (UDA) provides easy installation and manageability
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### Performance

The Quadro NVS 400 Graphics Card is optimized for workstation configurations. It comes with enhanced, customized multi-display drivers, including nView multi-display desktop and application management software.

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### Compatibility

The NVIDIA Quadro NVS 400 Graphics Controller is compatible with the HP Compaq d530 convertible minitower and the HP Workstation xw3100, HP Workstation xw4100, HP Workstation xw6000, and HP Workstation xw8000.

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### Service and Support

The NVIDIA Quadro NVS 400 Graphics Card 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 in online support forms. Certain restrictions and exclusions apply

### Technical Specifications

<b>Form Factor</b>	ATX
<b>Graphic Controller</b>	Integrated Quadro2 EX 2-D/3-D 128-bit graphics processor unit (GPU)
<b>VGA controller</b>	Integrated into the Quadro GPU
<b>Bus type</b>	PCI
<b>RAMDAC</b>	Dual 350 MHz
<b>Memory</b>	64 MB DDR unified frame buffer, Z-buffer and Texture storage
<b>Connector</b>	2 High-density Flex Connector
<b>Controller clock speed</b>	220 MHz
<b>Color planes</b>	32-bit color buffer
<b>Overlay planes</b>	1 16-bit Video overlay plane, software emulation for OpenGL overlay planes
<b>Stencil planes</b>	8-bit stencil buffer
<b>Alpha planes</b>	8-bit alpha buffer
<b>Total bits/pixel</b>	64
<b>Maximum vertical refresh rate</b>	120 Hz
<b>Maximum pixel clock</b>	343 MHz based on resolutions shown below
<b>Multi-monitor support</b>	Up to 4 analog or digital monitors
<b>Single DVI Support</b>	Yes
<b>Dual DVI Support</b>	Yes
<b>nView Hardware Architecture</b>	32-bit color 2048 x 1536 @ 60 Hz maximum resolution 2D rendering engine optimized for 32-, 24-, 16-, 15-, and 8-bpp modes
<b>High-definition Video Processor (HDVP)</b>	Full-screen, full-frame video playback of HDTV and DVD content DVD-ready motion compensation for MPEG-2 Independent hardware color controls for video overlay Hardware color-space conversion (YUV 4:2:2 and 4:2:0) IDCT motion compensation 5-tap horizontal by 3-tap vertical filtering 8:1 up/down scaling
<b>Available graphics drivers</b>	Microsoft Windows 2000 and Microsoft Windows XP HP qualified drivers may be preloaded or available from the HP support Web site: <a href="http://welcome.hp.com/country/us/eng/software_drivers.html">http://welcome.hp.com/country/us/eng/software_drivers.html</a> .

Resolution	Maximum Colors Supported	Maximum Refresh Rate
640 x 480	16.7 M	120 Hz
800 x 600	16.7 M	120 Hz
1024 x 768	16.7 M	120 Hz
1152 x 864	16.7 M	120 Hz
1280 x 1024	16.7 M	120 Hz
1600 x 1200	16.7 M	85 Hz
1920 x 1080	64 K	100 Hz
1920 x 1080	16.7 M	75 Hz
1920 x 1200	64 K	85 Hz
1920 x 1200	16.7 M	70 Hz
1920 x 1440	64 K	75 Hz
1920 x 1440	16.7 M	60 Hz
2048 x 1536	64	60 Hz

With digital flat panel monitors, the maximum digital resolution is 1280 x 1024 at 60 Hz with reduced blanking.

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