

### Overview

### Models

NVIDIA Quadro FX 580 512MB PCIe Graphics Card

FY945AA

### Introduction

The Best value professional-class graphics solution, the NVIDIA® Quadro® FX 580 solution provides energy efficiency while delivering maximum productivity.

### Performance and Features

- 30 bit-color: 30-bit color fidelity (10 bits per color) enables billions rather than millions of color variations for rich, vivid image quality with the broadest dynamic range.
- 128-Bit Precision Graphics Pipeline: Full IEEE 32-bit floating-point precision per color component (RGBA) delivers millions of color variations with the broadest dynamic range. Sets new standards for image clarity and quality in shading, filtering, texturing, and blending. Enables unprecedented rendered image quality for visual effects processing.
- 512 MB GDDR3 GPU Memory with ultra fast memory bandwidth: Delivers high throughput for interactive visualization of large models and high-performance for real time processing of large textures and frames and enables the highest quality and resolution full-scene antialiasing (FSAA).
- Dual DisplayPort Digital Display Connectors: Dual DisplayPort connectors support ultra-high-resolution panels (up to 2560 x 1600) --which result in amazing image quality producing detailed photorealistic images.
- Single Dual-Link Digital Display Connector: Dual-link TMDS transmitter supports ultra-high-resolution panels (up to 3840 x 2400 @24Hz) --which result in amazing image quality producing detailed photorealistic images.
- NVIDIA® CUDA™: A C language environment and tool suite in combination with high performance visualization unleashes new capabilities to solve highly complex challenges such as real-time ray tracing and interactive volume rendering.

### Compatibility

The NVIDIA Quadro FX 580 is supported on the following HP Personal Workstations: Z400, Z600 and Z800.

### Service and Support

The NVIDIA Quadro FX 580 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

Form Factor	4.376 inches (H) × 6.60 inches (L) (11.12 cm (H) × 16.76 cm (L))
Graphics Controller	NVIDIA Quadro FX 580 Graphics Board
Bus Type	PCI Express x16, Generation 2.0
Memory	512 MB GDDR3 SDRAM unified graphics memory
Connectors	2 DisplayPort, 1 Dual-Link DVI-I. One DisplayPort to DVI and one DVI to VGA adapter included (‘DisplayPort to VGA’ and ‘DisplayPort to Dual Link DVI’ adapters available as an accessory)
Maximum Resolution	<ul style="list-style-type: none"><li>• Two DisplayPort outputs drive two digital displays up to 2560 x 1600</li><li>• One dual-link DVI-I output drives one digital display at resolutions up to 2560 x 1600 @ 60Hz or one analog display at resolutions up to 2048 x 1536 @ 85Hz</li></ul>
RAMDAC	Single Internal 400 MHz DAC
Shading Architecture	Full Shader Model 4.0 (OpenGL 2.1/DirectX 10 class) <ul style="list-style-type: none"><li>• Long fragment programs (unlimited instructions)</li><li>• Long vertex programs (unlimited instructions)</li><li>• Looping and subroutines (up to 256 loops per vertex program)</li><li>• Dynamic flow control</li><li>• Conditional execution</li></ul>
Supported Graphics APIs	OpenGL 3.0 DirectX 10.0
Available Graphics Drivers	Genuine Windows Vista Business (64-bit and 32-bit) Microsoft Windows XP Professional (64-bit and 32-bit) Red Hat Enterprise Linux(RHEL) WS4 & 5 Desktop/Workstation  HP qualified drivers may be preloaded or available from the HP support Web site: <a href="http://welcome.hp.com/country/us/en/support.html">http://welcome.hp.com/country/us/en/support.html</a>  Novell SUSE Linux Enterprise drivers may be obtained from: <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>
High-level Shader Languages	Optimized compiler for Cg and Microsoft HLSL <ul style="list-style-type: none"><li>• OpenGL 2.1 and DirectX 10 support</li><li>• Open source compiler</li></ul>
CUDA™ Parallel Processor Cores	32
Power consumption	40 Watts

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