

Overview

Models

NVIDIA Quadro® FX 5600 (PCI Express x16, 1.5 GB, Dual Dual-Link DVI, Stereo) Graphics Card

GU095AA

Introduction

The NVIDIA Quadro® FX 5600 ultra-high-end graphics card brings the industry's first 1.5 GB frame buffer and memory bandwidth up to 76.8 GB/sec. to CAD, DCC, medical, scientific, and oil & gas configuration and visualization applications.

Ground-breaking NVIDIA® unified architecture dynamically allocates geometry, shader, and compute processing power to efficiently deliver optimized performance. Featuring the industry's first 1.5GB frame buffer with massive memory bandwidth up to 76.8 GB/sec., Quadro FX 5600 enables interactive visualization of the largest, 64-bit datasets. The reference standard for Shader Model 4.0, Quadro FX 5600 solution enables next generation ultra-realistic, realtime visualization applications with unprecedented image quality. With two dual-link DVI connectors, NVIDIA Quadro FX 5600 offers the industry's best image quality at resolutions up to 2560 x 1600 @ 60Hz.

As a flexible platform, Quadro FX 5600 graphics cards can be paired with NVIDIA Quadro G-Sync and SDI, or integrated in NVIDIA Quadro Plex visual computing system (VCS) to offer best-in-class industry solutions. Coupled with the C programming environment and tool suite, Quadro FX 5600 graphics cards enable professionals to solve complex visualization challenges such as real-time ray tracing and interactive volume rendering.

Performance and Features

Ground-breaking NVIDIA® unified architecture efficiently delivers up to 2x the application performance

- Industry's first unified architecture designed to dynamically allocate compute, geometry, shading and pixel processing power to deliver optimized GPU performance
- Array of 128 parallel 1.35GHz processor cores harness massive floating point computing power enabling maximum application performance

NVIDIA PureVideo Technology

- NVIDIA® PureVideo™ technology is the combination of high-definition video processors and software that delivers unprecedented picture clarity, smooth video, accurate color, and precise image scaling for SD and HD video content. Features include, high-quality scaling, spatial temporal de-interlacing, inverse telecine, and high quality HD video playback from DVD.

The reference standard for Shader Model 4.0 and next generation operating systems enabling breakthrough ultra-realistic, real-time visualization applications

- Unmatched performance and realistic effects for all next-generation OpenGL and Microsoft DirectX 10 industry-leading professional applications
- Essential for accelerating the Windows Vista experience by offering an enriched 3D user interface, increased application performance, and the highest image quality
- Native NVIDIA® OpenGL ICD drivers are optimized for 32- and 64-bit architectures to enable the best Windows and Linux experience

Interactive visualization of massive datasets with unprecedented 32x FSAA image quality

- Massive memory bandwidth up to 76.8GB/sec. enables interactive visualization of the largest, 64-bit datasets
- Full 128-bit floating point pipeline with high dynamic range and breakthrough FSAA, sets the standard for the industry's highest workstation quality
- Dual dual-link DVI outputs enable HD output up to 2560x1600 resolution at amazing frame rates

Flexible platform to deliver CAD, DCC, and visualization professionals best-of-class solutions

- Featuring NVIDIA® SLI™ technology for NVIDIA Quadro® graphics cards is a revolutionary platform innovation that enables professional users to dynamically scale graphics performance, enhance image quality, and expand display real estate
- Integrated in NVIDIA Quadro® Plex Visual Computing System (available from a 3rd party) delivers a quantum leap in visual computing, enabling breakthrough levels of capability and productivity from a high density, industry standards-based architecture

Compatibility

The Quadro FX 5600 is supported on the following HP Personal Workstations: xw8600 and xw9400.

Overview

Service and Support

The NVIDIA Quadro FX 5600 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 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

Graphics Controller	NVIDIA Quadro FX 5600 graphics card
Bus Type	PCI Express x16
Memory	1.5 GB GDDR3 SDRAM unified graphics memory
Connectors	2 Dual-Link DVI-I analog/digital monitor outputs, 1 3-pin Mini DIN stereo output
Maximum Resolution	2560x1600 @ 60Hz
RAMDAC	Dual 400 MHz integrated
Image Quality Features	12-bit subpixel sampling precision enhances AA quality Rotated-grid full-scene antialiasing (RG FSAA) 32x FSAA dramatically reduces visual aliasing artifacts or "jaggies" at resolution up to 1920x1200
Avivo Video and Display Platform	nView Architecture - Advanced multi-display desktop & application management seamlessly integrated into Microsoft Windows®
Display Output	Dual dual-link DVI-I outputs support two digital displays at up to 2560x1600 @ 60Hz Internal 400 MHz DACs - Two analog displays up to 2560x1600 @ 60Hz
Shading Architecture	Fully programmable GPU (OpenGL 2.1/DirectX 10 class) Long fragment programs (unlimited instructions) Long vertex programs (unlimited instructions) Looping and subroutines (up to 256 loops per vertex program) Dynamic flow control Conditional execution
Supported Graphics APIs	OpenGL 2.1 ICD with immediate mode support for all OGL primitive types DirectX 10
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) WS3, WS4 & 5 Desktop/Workstation HP qualified drivers may be preloaded or available from the HP support Web site: http://welcome.hp.com/country/us/en/support.html Novell SUSE Linux Enterprise drivers may be obtained from: ftp://download.nvidia.com/novell or http://www.nvidia.com
High-Resolution Antialiasing	The NVIDIA Quadro FX 5600 Architecture includes: 128-bit color precision Unlimited fragment instruction Unlimited vertex instruction 3D volumetric texture support Single-system powerwall 12 pixels per clock rendering engine Hardware accelerated antialiased points & lines Hardware OpenGL overlay planes Hardware accelerated two-sided lighting Hardware accelerated clipping planes 3rd-generation occlusion culling 16 textures per pixel in fragment programs Window ID clipping functionality Hardware accelerated line stippling
High-level Shader Languages	Optimized compiler for Cg and Microsoft® HLSL OpenGL 2.1 and DirectX 10 support Open source compiler

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