QuickSpecs

Overview

Models

NVIDIA Quadro FX 1400 PCI-Express graphics controller kit.   PM979A
Includes: PCA with ATX bracket, DVI to VGA converter, CD and manual.

Introduction

The NVIDIA Quadro FX 1400 is a mid-range workstation graphics solution for CAD, DCC and Scientific applications. Armed with 128 MB DDR memory, 256-bit memory interface, 19.2 GB/s memory bandwidth and NVIDIA Scalable Link Interface technology, the NVIDIA Quadro FX 1400 delivers industry leading performance, -advanced features and programmability at the top end of the price performance segment. Tested and certified with all major DCC, CAD and Scientific applications, engineers and animators alike can achieve tremendous productivity from the precision, performance, programmability and quality of the Quadro FX 1400.

Performance & Features

Features include a unified memory architecture, which dynamically allocates memory between graphics subsystems. Lightspeed Memory Architecture (LMA) II optimally load balances across NVIDIA's patented crossbar memory controller, resulting in maximum memory bandwidth utilization. Other features include:

- 128 MB DDR
- Dual DVI-I
- 3-pin mini-din Stereo connector
- Third-generation pixel and vertex programmability
- 128-bit IEEE floating-point precision graphics pipeline
- 128-bit color precision
- 12-bit sub-pixel precision
- 65,536 fragment instruction/65,536 vertex instruction
- 3D volumetric textures
- Hardware OpenGL overlays
- Hardware accelerated antialiased points and lines
- Hardware accelerated two-sided lighting
- Hardware accelerated clipping planes
- 3rd generation occlusion culling
- Rotated Grid full-scene antialiasing (4x)
- OpenGL quad-buffered stereo
- Optimized and certified for OpenGL 1.5 and DirectX 9.0c applications
- Multi-display productivity
  PCIe x16 BUS

Compatibility

The NVIDIA Quadro FX 1400 is supported on HP xw4200, xw4300, xw6200, xw8200 and xw9300 Workstations.

Service and Support

The NVIDIA Quadro FX 1400 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	ATX, 4.376" x 8.5" Single slot
Graphics Controller	NVIDIA NV41GL
Bus Type	PCI-Express x16, <75W power consumption
RAMDAC	Dual 400 MHz integrated
Memory	128 MB 300 MHz DDR SDRAM unified frame buffer, Z-buffer and Texture storage 19.2 GB/s graphics memory bandwidth
Connectors	2 DVI-I analog/digital monitor outputs, 1 3-pin Mini DIN stereo output
Multi-monitor support	Dual integrated analog display controllers supporting up to two analog displays at 2048x1536 @ 85Hz on both displays.
Additional product features	128 KB BIOS 3.3V Flash ROM reprogrammable by SW Hardware accelerated Overlay Planes Hardware accelerated two-sided lighting Hardware accelerated antialiased points and lines Quad-buffered Stereo 3D Volumetric Texture support Hardware accelerated Occlusion Culling Scalable Link Interface (SLI) technology Compliant with Microsoft®/Intel® PC2001 Workstation requirements Video Timings compliant with VESA DMT 1.0 and VESA GTF 1.0 specifications DDC2B+ Monitor support on all OS platforms ACPI Version 1.0b Power Management support (all modes)
Shading architecture	Fully programmable GPU (OpenGL1.5/DirectX 9.0c class) Long fragment programs (up to 65,536 instructions) Long vertex programs (up to 65,536 instructions) Looping and subroutines (up to 256 loops per vertex program) Dynamic flow control Conditional execution Optimized compilers for Cg, OpenGL shading language, and Microsoft HLSL
Supported graphics APIs	OpenGL 1.5 ICD with immediate mode support for all OGL primitive types DirectX 9.0c
Available graphics drivers	HP-tested: Microsoft Windows® XP, Windows 2000 and Linux HP qualified drivers may be preloaded or available from the HP support Web site: http://welcome.hp.com/country/us/eng/software_drivers.html.
Maximum resolution	Dual DVI-I output - drives dual digital displays at resolutions up to 1920x1200 @ 60Hz Internal 400MHz RAMDACs - drives dual analog displays up to 2048x1536 @ 85Hz each