

Overview

Models

ATI FireGL V7200 graphics card

ES356AA

Introduction

The FireGL V7200 is a high-end graphics card aimed at professional workstation users. It has multiple parallel geometry engines and pixel shaders, as well as 256MB of ultra-high speed video memory and a highly efficient memory controller. It is ideal for high-end workstation tasks featuring complex large models with very high polygon counts, working in real-time with multiple lighting and shading effects, or challenging high resolution visualizations, such as outputting to a large LCD or plasma display. It is also HD Component Video output-enabled.

The FireGL V7200 has a 512-bit Ring Bus memory controller and a Ring Bus data path. This bus is composed of two 256-bit internal rings each running in opposite directions. Two key features help cut memory latency and make the most of the high-speed GDDR3 memory - data only has to travel a maximum distance of half the ring before reaching its destination and the topology allows data, once requested, to travel around the ring without having to go back through the memory controller. It also features programmable intelligent arbitration logic that allows the memory controller to dynamically prioritize and route requests based on the current execution profile.

The graphics card comes equipped with ATI Avivo™ Technology, with a High Dynamic Range (HDR) 64-bit per pixel display capability. It can produce over one trillion colors for vibrant visual fidelity and enables rich real-time lighting and contrast effects with suitable application support.

Performance & Features

Key features include:

- Full OpenGL® 2.0 compliancy and hardware support for Microsoft® DirectX® 9.0 Shader Model 3.0
- Scalable ultra-threaded Shader Model 3.0 architecture with fast dynamic branching and high performance parallel processing
- 8 parallel geometry engines and 16 pixel shader processors
- PCI Express x16
- 256MB GDDR3 unified graphics memory with a 512-bit Ring-Bus memory controller
- 128-bit full floating point precision
- Quad buffered stereo 3D support
- HDR rendering support with 64-bit per pixel floating point
- High performance video processor that hardware accelerates video decoding and transcoding
- Multi-display productivity with independent display resolutions and refresh rates

Compatibility

The ATI FireGL V7200 is supported on the following platforms: HP xw6400 Workstation, HP xw8400 Workstation.

Service and Support

The ATI FireGL V7200 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
Graphics Controller	R520
Bus Type	PCI Express x16
Memory	256MB GDDR3 graphics memory with unified frame buffer, Z-buffer and Texture storage and a 512-bit Ring-Bus memory controller
Connectors	Dual DVI-I analog/digital, dual VGA analog support with DVI-to-VGA adapters. The DVI-I digital connectors are Dual Link capable. Stereoscopic 3D output connector with quad buffer support, HD Component Video (YPrPb) output with optional adapter.
Maximum Resolution	Analog support for 2048x1536 @ 85Hz on each output connector. Digital support for 1920x1200 @ 60Hz on each output connector. Dual Link digital support for 2560x1600 @ 60Hz. Ideal for 30-inch widescreen displays. NOTE: Stereo supported on single display only.
RAMDAC	Dual 10-bit per channel 400MHz
Ring Bus memory controller	• 512-bit internal ring bus for highly efficient memory reads • Programmable intelligent arbitration logic
Image quality features	• 2x/4x/6x Anti-aliasing modes; multi-sample algorithm with gamma correction, programmable sparse sample patterns, and centroid sampling • 2x/4x/8x/16x Anisotropic Filtering modes; up to 128-tap texture filtering • High resolution texture support (up to 4K x 4K) • Hardware supported overlays, anti-aliased points and lines, 2 sided lighting, occlusion culling
Avivo video and display platform	• 64-bit per pixel floating point HDR supported throughout the pipeline, includes support for blending and multi-sample anti-aliasing • 32-bit integer HDR (10:10:10:2) format supported throughout the pipeline, includes support for blending and multi-sample anti-aliasing
Programmable video processor	• Accelerated MPEG-2, MPEG-4, DivX, WMV9, VC-1 and H.264 decoding and transcoding • Seamless pixel shader integration with video in real-time
Display output	• 16-bit per channel floating point HDR and 10 bit per channel DVI output • Programmable piecewise linear gamma correction, color correction, and color space conversion (10-bits per color) • Complete independent color controls and video overlays for each display • High quality pre- and post-scaling engines with underscan support for all outputs • Content-adaptive de-flicker filtering for interlaced displays • Xilleon TV encoder for high quality analog support • Spatial/temporal dithering enables 10-bit color quality on 8 and 6-bit displays • VGA mode support on all outputs
Shading architecture	• Supports Microsoft DirectX 9.0 Shader Model 3.0 programmable vertex and pixel shaders in hardware • Full speed 128-bit floating point processing for all shader operations • Dedicated branch-execution units for high performance dynamic branching and flow control • Dedicated texture address units for improved efficiency • Up to 512 simultaneous pixel threads • Multiple Render Target (MRT) support • Render to vertex buffer support
Supported graphics APIs	OpenGL 2.0, Microsoft DirectX 9.0
Available graphics drivers	Microsoft Windows XP Professional qualified drivers may be preloaded or available from the HP support Web site: http://welcome.hp.com/country/us/eng/software_drivers.html . HP-tested Windows XP and Linux

Technical Specifications

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