

## Overview

## ATI FireGL X1-256p

### Models

HP Itanium series Workstations

A9653A

### Introduction

The ATI FireGL X1 graphics card is positioned as a High End 3D graphics product and provides leadership performance while being the first graphics product to provide 256 MB of unified graphics memory. The FireGL X1 is an AGP 8X graphics product and provides the ability of driving any combination of dual Analog/Digital displays.

### Key Benefits

- 256 MB of unified graphics memory
- Dual DVI-I connectors providing connection to dual Analog or dual Digital displays
- Stereo output
- Complete set of professional ISV certifications

### Performance

The ATI FireGL X1 is optimized for professional High End 3D graphics configurations.

### Compatibility

The ATI FireGL X1 is compatible with HP Workstations zx2000, zx6000, and c8000.

### Service and Support

The ATI FireGL X1 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

<b>Form Factor</b>	ATX
<b>Graphics Controllers</b>	ATI FGL 9700 GPU
<b>Bus Type</b>	AGP-Pro50 1x/2x/4x/8x Version 3.0 compliant
<b>RAMDAC</b>	Dual 400MHz/30-bit
<b>Memory</b>	256MB DDR SDRAM unified frame buffer, Z-buffer and Texture storage
<b>Connectors</b>	Dual DVI-I analog/digital monitor outputs
<b>Slots required</b>	Occupies 2 physical slots in the system
<b>Dimensions</b>	Single AGP/ATX card. 230.28mm x 107.96 mm
<b>Multi-monitor support</b>	Dual Screen output for resolutions up to 2x2048x1536x32 bit
<b>Additional product features</b>	256MB DDR SDRAM unified frame buffer, Z-buffer and Texture storage 64-KB BIOS Serial Flash ROM, reprogrammable by SW, 3.3V only, no Jumpers 2D and 3D acceleration provided for 16-bit and 32-bit RGB modes Hardware cursor with full color alpha channel 16/32 bit Z buffer, 16/32 bit W-buffer, 8-bit stored alpha and 8-bit Stencil planes Bus mastering support for 2D/3D display lists and local memory vertex list execution Hardware lighting support for up to 8 lights Bilinear, Trilinear and Anisotropic texturing Cubic Environment and Perturbation Bump Mapping Projective Texture, 3D Texture and Video Texture support Full Scene Anti-Aliasing (FSAA) support with up to 6 subsamples Video Engine supports YCrCb (4:2:2, 4:1:0, 4:2:0) to RGB conversion Video scaling and up to 4x4 tap filtering supported for all YUV and RGB16/32 formats Per pixel quad buffering on all screen resolutions VESA compliant Stereoscopic Interface on MiniDin Connector 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)
<b>AGP1x/2x/4x/8x Version 3.0 compliant including</b>	Sideband Addressing AGP Texturing (Execute Mode) AGP Read and AGP Write Support 8X Fast write support
<b>FGL 9700 GPU featuring:</b>	VGA controller supporting full standard feature set 2D Engine with 128-bit datapath processing multiple pixels per clock PIXEL TAPESTRY III, 3D rendering engine utilizing 2 parallel pipelines with two texture blending units each capable, of handling up to 8 texels in a single pass, delivering 2.4 Gigatexels/s fill rate CHARISMA ENGINE III, geometry unit utilizing 4 vertex processing engines, capable of executing two instructions per clock cycle each, thus yielding up to 200 million transformed, clipped and lit triangles per second VIDEO IMMERSION III, industry leading video technology supporting MPEG 2 encode/decode Dual independent display controllers with 4K x 4K address space each 256-bit external frame buffer interface providing memory bandwidth of up to 20 GB per second 256-bit external frame buffer interface providing memory bandwidth of up to 20 GB per second
<b>Supported graphics APIs</b>	OpenGL 1.3 ICD with immediate mode support for all OGL primitive types DirectX 8.1

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**Available graphics drivers**      Microsoft XP 64-Bit Edition Version 2003  
Linux: version 7.3, Advanced Workstation 2.1 for Itanium  
HP-UX 11i: v11.23  
HP qualified drivers may be preloaded or available from the HP support Web site:  
See: [http://www.hp.com/support/workstation\\_drivers](http://www.hp.com/support/workstation_drivers)

<b>ATI FireGL X1-256p Graphics Card display, resolutions &amp; refresh rates</b>	<b>CRT DISPLAY (SINGLE OR DUAL)</b>		
	<b>Resolution</b>	<b>Maximum Refresh Rate</b>	<b>Bits Per Pixel</b>
	640x480	100Hz	16, 24, 32
	800x600	100Hz	16, 24, 32
	1024x768	100Hz	16, 24, 32
	1152x864	100Hz	16, 24, 32
	1280x960	100Hz	16, 24, 32
	1280x1024	100Hz	16, 24, 32
	1600x1000	100Hz	16, 24, 32
	1600x1024	76Hz	16, 24, 32
	1600x1200	100Hz	16, 24, 32
	1792x1344	100Hz	16, 24, 32
	1920x1200	100Hz	16, 24, 32
	2048x1536	85Hz	16, 24, 32

<b>DIGITAL DISPLAY (SINGLE OR DUAL)</b>		
<b>Resolution</b>	<b>Maximum Refresh Rate</b>	<b>Bits Per Pixel</b>
640x480	75Hz	16, 24, 32
800x600	75Hz	16, 24, 32
1024x768	75Hz	16, 24, 32
1280x1024	75Hz	16, 24, 32
1600x1000	60Hz	16, 24, 32
1600x1200	60Hz	16, 24, 32
1920x1080	60Hz	16, 24, 32
1920x1200	60Hz	16, 24, 32

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