

## ATI Fire GL

### Fire GL V7100

#### PCI Express Innovation Powers High-End Graphics

The FireGL™ Visualization series of workstation graphics accelerators is designed specifically for the new, high-bandwidth PCI Express™ bus, and is architected to deliver unprecedented speed and image quality for real-time visualization. True cinematic quality rendering of complex geometry is now available for compelling animation, visual effects, mechanical design and leading edge business communication.

#### Two Way Acceleration With Ati's Single-Chip PCI Express Solution

The bridgeless, single-chip design of the FireGL native PCI Express graphics processor fully engages all of the benefits of this interconnect standard in the safest, most cost effective, and most reliable transition from AGP. Unlike other 'bridged' PCI Express implementations, ATI's FireGL PCI Express products deliver full bandwidth in both upstream and downstream directions, doubling the capabilities of previous products.

#### Compatibility And Stability

ATI's FireGL cards — whether PCI Express x16 lane or AGP 8X — are designed to accelerate 3D workstation applications based on OpenGL® and Microsoft® DirectX® 9.0. With full certification on the leading computer aided design (CAD), architecture/ engineering/construction (AEC) and digital content creation (DCC) applications, FireGL is the high performance choice for graphics professionals working in Windows® or Linux® based systems.

#### Features

- Built on ATI's native PCI Express x16 lane architecture
- Outstanding high-end workstation performance and quality utilizing 16 pixel pipelines and 6 geometry engines
- 256 MB GDDR3 unified graphics memory
- Dual display support via two DVI outputs
- Dual link support for ultra-high resolution 9 Mpixel displays
- Stereo 3D connector with quad-buffered support
- Optimized and certified for professional workstation applications based on OpenGL® and Microsoft® DirectX® 9.0
- Windows® and Linux® support
- Three year warranty with toll-free advanced technical



# ATI Fire GL

## Fire GL V7100

### Specifications

#### Graphics technology:

- Powered by ATI's scalable FireGL workstation Visual Processing Units (VPU) - Up to 256-bit high bandwidth memory architecture
- 2, 4 or 6 parallel geometry engines
- 4, 8 or 16 parallel pixel pipelines
- 128-bit full floating point precision
- 24-bits per RGBA component displays beyond 16.7M colors

#### Display support

- Dual DVI-I supports any combination of digital and analog displays 1
- Maximum resolution of 2048x1536 per display (dual mode)
- 3840 x 2400 support (dual link2)
- Independent resolution and refresh rate selection for any two connected displays - Dual integrated 10-bit per channel 400 MHz DACs
- Integrated 165 MHz TMDS transmitter (DVI & HDCP compliant)

#### API and Operating system support:

- OpenGL® 1.5 + extensions
- OpenGL Shading Language
- Microsoft® DirectX® 9.0
- DX9 HLSL
- Windows® XP/Windows XP64/Windows 2000
- Linux® 32/Linux 64

#### Graphic Features:

- Hardware acceleration of the following: -
- Anti-aliased points and lines or full scene anti-aliasing (2X, 4X, 6X)
  - 3D lines and triangles
  - Stipple points
  - Two-sided lighting
  - Up to 8 light sources
  - Directional and local lighting
  - OpenGL overlay planes
  - Occlusion culling
  - 6 user defined clip planes

- OpenGL polymode functions
- 32-bit (24+8-bit stencil) Z Buffer
- Fast Z and color clears
- Full DX9 vertex shader support with 4 vertex units
- Quad-buffer stereo support 3 SMARTSHADER™ Technology
- Programmable pixel and vertex shaders
- 16 textures per pass
- Pixel shaders up to 160 instructions with 32-bit floating point precision for each RGBA component
- Multiple render target support
- Shadow volume rendering acceleration
- High precision 10-bit per channel frame buffer support
- SMOOTHVISION™ Technology
- 2X/4X/6X anti-aliasing modes
- High performance adaptive algorithm with programmable sample patterns
- 2X/4X/8X/16X anisotropic filtering modes
- Adaptive algorithm with bi-linear (performance) and tri-linear (quality) options HYPER Z™ Technology
- 3-level Hierarchical Z-Buffer with early Z test
- Lossless Z-Buffer compression (up to 24:1)
- Fast Z-Buffer Clear

#### System requirements:

- Intel® Pentium® 4/Xeon™, AMD Athlon®/Opteron™ or compatible CPU
- PCI Express bus4
- AGP 8X/4X bus5
- 128MB of system memory (256MB or more recommended)
- Installation software requires CD-ROM drive
- 300 watt or greater power supply (recommended)

#### Warranty and Support:

- 3-year limited product repair/replacement warranty
- Dedicated Workstation level technical support via email and toll free hotline
- Advanced parts replacement option

