



▶ FIREGL X3-256

The FireGL™ X3-256 is ATI's highest performance workstation graphics accelerator designed for AGP-based workstations. Built on a high-bandwidth, parallel processing architecture, the FireGL X3-256 delivers unprecedented speed and image quality for real-time visualization. Complex geometry is now rendered with true cinematic quality for compelling animation, visual effects, mechanical design and leading edge business communication.

With 256MB of GDDR3 memory, dual-link ultra-high resolution output, stereo 3D capabilities, and hardware accelerated rendering using OpenGL Shading Language and DirectX 9 HLSL, the FireGL X3-256 provides leading edge technology for high performance and innovation. Design professionals are empowered to realize a dramatic increase in productivity and a reduction in design cycle times, without sacrificing quality.

▶ 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 on Windows® or Linux® based systems.

WWW.ATI.COM/FIREGL

- ▶ BUILT ON ATI'S HIGH-BANDWIDTH, PARALLEL PROCESSING ARCHITECTURE
- ▶ OUTSTANDING HIGH-END WORKSTATION PERFORMANCE AND QUALITY UTILIZING 12 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 SUPPORT



▶ ATI FIREGL™ WORKSTATION GRAPHICS ACCELERATORS

PCI EXPRESS™	MEMORY			VPU		OUTPUT			3D PERFORMANCE	
	SIZE	INTERFACE	BANDWIDTH	GEOMETRY ENGINES	PIXEL PIPELINES	DUAL SCREEN	DUAL LINK	STEREO 3D	VERTICES PER SEC.	PIXELS PER SEC.
FIREGL V3100	128MB	128-bit	6.4GB/sec	2	4	DVI + VGA	-	-	200M	1.6G
FIREGL V3200	128MB	128-bit	12.8GB/sec	2	4	DVI + DVI	-	Yes	250M	2.0G
FIREGL V5100	128MB	256-bit	22.4GB/sec	6	12	DVI + DVI	-	Yes	675M	5.4G
FIREGL V7100	256MB	256-bit	28.8GB/sec	6	16	DVI + DVI	Yes	Yes	750M	8.0G
AGP ACCELERATED GRAPHICS PORT	MEMORY			VPU		OUTPUT			3D PERFORMANCE	
	SIZE	INTERFACE	BANDWIDTH	GEOMETRY ENGINES	PIXEL PIPELINES	DUAL SCREEN	DUAL LINK	STEREO 3D	VERTICES PER SEC.	PIXELS PER SEC.
FIREGL T2-128	128MB	128-bit	10.2GB/sec	2	4	DVI + VGA	-	-	200M	1.6G
FIREGL Z1-128	128MB	256-bit	19.8GB/sec	4	4	DVI + DVI	-	-	300M	1.3G
FIREGL X1-128	128MB	256-bit	19.8GB/sec	4	8	DVI + DVI	-	-	300M	2.6G
FIREGL X2-256T	256MB	256-bit	22.0GB/sec	4	8	DVI + DVI	-	-	412M	3.3G
FIREGL X3-256	256MB	256-bit	28.8GB/sec	6	12	DVI + DVI	Yes	Yes	750M	5.4G

FIREGL GRAPHICS TECHNOLOGY

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

BUS TECHNOLOGY

- PCI Express x16 native support¹
- AGP 8X support²

APIs AND OPERATING SYSTEMS

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

DISPLAY SUPPORT

- Dual DVI-I supports any combination of digital and analog displays³
- Maximum resolution of 2048x1536 per display (dual display mode)
- 3840 x 2400 support (dual link⁴)
- 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)

GRAPHICS 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-buffered stereo 3D support⁵

SYSTEM REQUIREMENTS

- Intel® Pentium® 4/Xeon™, AMD Athlon™/Opteron™ or compatible
- PCI Express bus¹
- AGP 8X/4X bus²
- 128MB of system memory (256MB or more recommended)
- Installation software requires CD-ROM drive
- 300 watt or greater power supply (recommended)

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

HYPER Z™

- 3-level Hierarchical Z-Buffer with early Z test
- Lossless Z-Buffer compression (up to 24:1)
- Fast Z-Buffer Clear

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

WARRANTY AND SUPPORT

- 3-year limited product repair/replacement warranty
- Workstation level technical support via email and phone
- Advanced parts replacement option
- Dedicated workstation level-three technical support via email and tollfree hotline

▶ LEARN MORE:

Visit: www.ati.com/FireGL

ATI FireGL. Proven graphics solutions for today's and tomorrow's high-performance workstations.

- 1 FireGL Visualization series supports PCI Express x16 lane bus.
- 2 FireGL T2-128, FireGL Z1-128, FireGL X1-128, FireGL X2-256T and FireGL X3-256 support AGP 8X bus.
- 3 All FireGL boards have dual DVI-I connectors except FireGL T2-128 and FireGL V3100 which have one DVI-I and one VGA connector.
- 4 Dual link available on FireGL X3-256 and FireGL V7100 only.
- 5 Stereo 3D available on FireGL X3-256, FireGL V3200, FireGL V5100 and FireGL V7100.

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ATI TECHNOLOGIES INC.
1 Commerce Valley Drive East
Markham, Ontario, Canada L3T 7X6
Telephone: (905) 882-2600
Facsimile: (905) 882-2620
www.ati.com

ATI TECHNOLOGIES (EUROPE) GMBH
Keltnering 13
D-82041 Oberhaching, Germany
Telephone: +49 89 665 15-0
Facsimile: +49 89 665 15-300

ATI TECHNOLOGIES (JAPAN) INC
Kojimachi Nakata Bldg 4F
5-3 Kojimachi, Chiyoda-Ku
Tokyo 102-0083, Japan
Telephone: +81 35275-2241
Facsimile: +81 35275-2242

ATI TECHNOLOGIES SYSTEMS CORP.
4555 Great America Parkway
Suite 501, Santa Clara, CA
95054-1208
Telephone: (408) 572-6500
Facsimile: (408) 572-6305