

# High-end 3D Acceleration for Performance-driven Graphics Professionals

- Super-charged performance for AGP 8x systems
- Best image quality available on the desktop:
  - 10-bit sub-pixel accuracy

**3D***labs* 

- Exclusive SuperScene<sup>™</sup> full scene antialiasing
- High geometry precision and texture coordinate precision
- Extends the desktop with dual analog and digital monitor support and Multiview support and framelocking of multiple workstations\*

# Maximum Performance with AGP 8x

Wildcat4 takes full advantage of the new AGP 8x interface standard, which transfers 2 GB of graphics information per second between the graphics card and system. Couple this with legendary Wildcat performance and you get super-charged graphics for the most complex projects.

# Exclusive SuperScene Antialiasing

Forget about jaggies and crawling, twinkling edges. SuperScene antialiasing dramatically improves image quality with true, multi-sampled scene mode antialiasing — at resolutions up to 1920 x 1080!

Plus, SuperScene can be "forced" to work in any OpenGL window. Even applications with no native support for full scene antialiasing can experience improvements in image quality. With SuperScene, you get higher performance and significantly lower memory use than typical multisampled antialiasing techniques.

# Six T & L Engines

Six T & L engines deliver outstanding performance especially as scene complexity increases. Our T & L engines not only give you top performance, but also 32 light sources to work with for higher levels of real-time realism.

#### Abundant Memory

Apply numerous, extremely detailed texture maps without compromising performance. Large, dedicated frame buffer and texture memory support lets you create in rich, photorealistic shading and highly detailed textures always in true color, with maximum depth accuracy and with double buffering enabled.

# **Complete OpenGL 1.3 Support**

Complete OpenGL<sup>®</sup> 1.3 acceleration which sustains the highest level of real-time, on-screen OpenGL performance in the industry.

# **3D Volumetric Texture Support**

Hardware accelerated 3D volumetric textures allow you to apply textures throughout the volume – not just the surface — of any model. Wildcat4 provides real-time performance with 3D textures for applications such as medical imaging and GIS.



Wildcat4 is the best choice for graphics-intensive environments where real-time performance and design integrity truly matter.

# Graphics Evolved



# Wildcat Chipset Technology

#### Data width (per pipeline):

- Frame buffer: 128 bits
- Texture buffer: 64 bits
- Integrated 320 MHz RAMDAC
- Dual-pipeline configuration
- Complete OpenGL<sup>®</sup> 1.3 geometry acceleration using highly-tuned T & L engines. Accelerates the complete OpenGL 1.3 pipeline, including all geometry operations, triangle setup, texturing, and pixel operations

#### **Geometry Acceleration**

- Model view matrix transformation of vertex and normal coordinates
- Perspective and viewport transformationsTexture matrix transformation of
- texture coordinates
- · Local display list storage and processing
- Full lighting calculations (up to 32 lights)
- View volume clipping
- Up to six user clip planes
- Image processing

#### Performance

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3D, Gouraud-shaded, Z-buffered triangles:	37.9 M/sec.	35.1 M/sec.	
3D, Vectors, solid-color, 10 pixel:	33.9 M/sec.	29.4 M/sec.	
Trilinear textured fill rate:	400 Mpixels/sec.	400 Mpixels/sec.	

#### **Professional 3D Features**

• SuperScene full-scene multisampled antialiasing:

- Point sampled with sixteen samples
- Sample location jittering
- Dynamic sample allocation
- Dynamic sample backoff
- 64-bit hardware accumulation buffer
- Cube-mapped texture mapping
- Bump-mapped texture mapping
- Gradient area fills
- Multitexturing

# Traditional 2D Operations

- 16- and 32-bit color depths (565, 8888)
- Solid and patterned area fills
- Vectors (diamond rule compliant)
- Block moves (screen-to-screen)
- Block gets (screen-to-system)
- Block puts (system-to-screen)

# Contacts, Service, and Support

For more information and online technical support, visit us at www.3dlabs.com.

# In North America:

1901 McCarthy Boulevard Milpitas, CA 95035 (408) 530-4700 (800) 464-3348

# **Board Physical**

- Full-length ATX form-factor
- AGP 3.0 support, 4x and 8x modes of operation
  DirectX<sup>®</sup> 7.0 support
- Wide, independent buses connecting frame buffer and texture memory to the graphics chipset for maximum performance
- 3D volumetric texture support

#### Memory

- Wildcat4 7210: 384 MB total memory (Frame Buffer: 128 MB DDR SDRAM; Texture Buffer: 256 MB DDR SDRAM)
- Wildcat4 7110: 256 MB total memory (Frame Buffer: 128 MB DDR SDRAM; Texture Buffer: 128 MB DDR SDRAM)

#### Display

- True color resolutions up to 2048 x 1536 double-buffered and 32-bit Z per monitor
- 60Hz-90Hz screen refresh rates
   (monitor dependant)

#### Stereo Sync Support

Female, 3-pin, VESA-standard, mini-DIN connector provides connection to a LCD shutter glasses emitter module or to other stereo shutter devices.

### **Digital Flat Panel Output**

Two 29-pin DVI-I output connectors

### Drivers

- Windows<sup>®</sup> XP
- Windows 2000
- Linux (available Q1 2003)

#### Connectors

- Two DVI-I compatible Digital Video Output Ports
- One 3-Pin, Mini-DIN stereo sync output
   One BNC Connector for Genlock (Wildcat4 7210 only)
- Two 9-pin D-connectors for Multiview (Wildcat4 7210 only)



Shiroyama JT Mori Bldg., 16F Toranomon

4-3-1 Minato-ku, Tokyo 105-6016, Japan

In Asia Pacific:

Tel: (81) 3-5403-4653



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Product	Memory	Display	Performance	Value	Segment		ent	Summary	
Wildcat4 7210	384 MB total	Independent	<ul> <li>37.9 Million Tri/Sec</li> <li>400.0 Million pixels/sec</li> <li>33.9 Million Vec/Sec</li> </ul>	Ultimate high-end performance and features	9	ы С	DCC Vis Sim	Sir	Wildcat4 offers the best image quality in the industry with 10-bit sub-pixel accuracy, exclusive SuperScene™ antialiasing, and high geometry
Wildcat4 7110	256 MB total	Dual Head	<ul> <li>35.1 Million Tri/Sec</li> <li>400.0 Million pixels/sec</li> <li>29.4 Million Vec/Sec</li> </ul>	Powerful high-end performance	บี	ă			and texture coordinate precision. With this well-established legacy of quality, you can be confident in the accuracy of your designs.

NOTE: Performance numbers reflect maximum hardware rate. Numbers may vary depending on application.

In Europe:

Meadlake Place, Thorpe Lea Road

Egham, Surrey TW20 8HE, UK

Tel: (44) 1784-470-555

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### Genlock Support (Wildcat4 7210 only)

Synchronizes the vertical refresh rate of the system display to and external signal

#### Multiview Support (Wildcat4 7210 only)

Provides frame locking and rate locking of multiple workstations.

#### System Requirements

- Intel<sup>®</sup> 7505, 7205, or 875 chipset-based Pentium motherboard
- Microsoft Windows 2000 (SP2), Windows XP, or Linux
- One AGP Pro 50 slot
- An open PCI slot adjacent to the AGP Pro slot for cooling and power
- 128 MB (minimum) system memory, 512 MB (or greater) recommended for best performance
- 3 MB of free space on the computer's primary system disk for the video display driver software
- 50 W of available power

#### Warranty

· Three (3) years parts and labor limited warranty

#### Maximum Supported Screen Resolutions (true color, double-buffered)

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Resolution	Max Analog Refresh Rate (Hz)	SuperScene Antialiasing Supported (128 plane mode, single display)	Frame Sequential Stereo Available At (Hz)			
2048 x 1536	60	-	-			
2048 x 1152	75	-	-			
1920 x 1440	75	-	-			
1920 x 1200	85	-	-			
1920 x 1080	85	yes	-			
1856 x 1392	85	-	-			
1824 x 1368	85	-	-			
1824 x 1128	75	yes	-			
1792 x 1344	75	-	-			
1792 x 1120	75	yes	-			
1600 x 1200	90	yes	-			
1600 x 1024	76	yes	-			
1600 x 900	85	yes	-			
1520 x 856	90	yes	120			
1440 x 900	90	yes	120			
1360 x 766	90	yes	120			
1280 x 1024	85	yes	120			
1280 x 960	85	yes	120			
1280 x 800	90	yes	120			
1280 x 720	75	yes	120			
1152 x 864	85	yes	120			
1024 x 768	85	yes	120			
800 x 600	85	yes	120			
640 x 480	85	yes	120			
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