



Wildcat™ 4000 3D Graphics Accelerator

The industry-recognized leader in 3D graphics on the desktop

Wildcat 4000 3D graphics high-performance features

- Highly-tuned 3,000-MFLOPS geometry engine sustains the highest level of real-time on-screen performance in the industry
- Large dedicated 16 MB frame buffer and 64 MB texture memory support rich, photorealistic shading and highly detailed textures – always in true color, with maximum depth accuracy, and with double buffering enabled
- Wide, independent buses connect frame buffer and texture memory to the graphics chipset for maximum performance
- Specialized DirectBurst™ technology optimizes the 3D graphics pipeline, significantly boosting performance
- Advanced 2D and 3D rendering functionality guarantees maximum acceleration of the most advanced professional 3D applications

Following a tradition of graphics excellence spanning three decades, Intense3D developed the Wildcat 4000 3D graphics accelerator. It is the first in a family of Wildcat graphics products based on Intense3D's innovative Wildcat 3D Graphics Technology and sets the standard today for 3D performance on the desktop. Far outpacing competing technologies, the Wildcat 4000 empowers users across the visual computing spectrum to achieve new, unparalleled levels of productivity with the most complex visual data sets.

While fulfilling the most demanding performance requirements, the Wildcat 4000 is exceedingly affordable – even for users with overriding budget concerns. As a result, its popularity is soaring across all the visual computing markets. It is recognized today by industry experts and graphics professionals as the foremost 3D graphics accelerator technology currently shipping in desktop systems.

Wildcat 4000 graphics chips, developed by Intense3D, provide industry-leading acceleration of...

- The complete OpenGL pipeline, including all geometry operations, triangle setup, texturing, and pixel operations.
- The Wildcat 4000 also specifically accelerates the following features in hardware:
 - Matrix transformations
 - Alpha blending
 - Full lighting calculations (up to 8 lights)
 - Masking
 - 2D and 3D vectors
 - Fog effects
 - 2D and 3D triangles
 - Texture mapping
 - Rectangle fills
 - Stenciling
 - BitBlit (screen-to-screen copy)
 - Z-buffering
 - Anti-aliased vectors

- Fast window clears
- Get block (screen-to-system copy)
- Fast window mode double-buffering
- Put block (system-to-screen copy)
- Put bit map (for drawing text)
- Clipping

In addition, the Wildcat 4000 supports...

- All standard graphics APIs, including OpenGL, 2D GDI, and RenderGL
- 10-bit gamma correction
- Four video look-up tables
- Eight stencil planes
- Eight overlay planes (double-buffered)
- 32-bit Z buffer at resolutions up to 1 M pixels; 24-bit Z buffer at 1.3 M pixels
- YUV-to-RGB color conversion
- Hardware cursor

- DDC2B Display Data Channel standard
- DPMS (Display Power Management Signaling)
- Multiple display configurations
- Frame sequential and interlaced stereo required for head-mounted displays and shutter glasses

Wildcat 4000 texturing hardware features...

- 64 MB of dedicated texture memory (standard at no extra cost)
- Bilinear and trilinear MIP-mapped filtering with full 32-bit texels

Wildcat 4000 performs 3D and 2D operations at the following rates...

• 3D performance with Z buffering* :

Gouraud-shaded triangles, 25-pixel (tri/sec)	3.4 M
Gouraud-shaded triangles, 50-pixel (tri/sec)	1.9 M
Lit Gouraud-shaded triangles, 25-pixel (tri/sec)	3.4 M
Lit Gouraud-shaded triangles, 50-pixel (tri/sec)	1.9 M
Textured Gouraud-shaded fill, 32-bit (RGBA) texels, trilinear-interpolated (pixels/sec)	68.0 M
Vectors, 10-pixel, solid-color (vec/sec)	7.3 M
Gouraud-shaded vectors, 10-pixel (vec/sec)	6.4 M
Anti-aliased vectors, 10-pixel (vec/sec)	3.0 M

• 2D performance:

Vectors, 10-pixel, solid-color (vec/sec)	7.8 M
Anti-aliased vectors, 10-pixel (vec/sec)	3.7 M
Blit, screen-to-screen (pixels/sec)	118 M
Area clears (pixels/sec)	5.2 G
Solid fills (pixels/sec)	310 M
Text, 9x13 (chars/sec)	1,671 K

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

Wildcat 4000's superb display capabilities support double-buffered 24-bit true color at the following resolutions/refresh rates ...

Resolution	Monitor Format	Refresh Rates
1280 x 1024	5:4	60, 60i, 70i, 72i, 74, 75, 76, 85 Hz
1280 x 960	4:3	60, 60i, 75, 79, 81, 85 Hz
1152 x 864	4:3	60, 60i, 70, 75, 85 Hz
1024 x 768	4:3	60, 60i, 70, 75, 85, 98, 99, 122 Hz
800 x 600	4:3	60, 60i, 72, 75, 85, 123, 126, 153 Hz
640 x 480	4:3	60, 60i, 72, 75, 85, 151, 154, 185 Hz
1440 x 900	16:10	60, 75, 85, 90 Hz
1280 x 800	16:10	60, 75, 85, 90 Hz
1520 x 856	16:9	60, 60i, 70, 75, 85, 90 Hz
1360 x 766	16:9	60i, 72, 75, 85, 90 Hz
1280 x 720	16:9	50, 60, 75 Hz
856 x 480	16:9	50, 60, 75 Hz

System requirements for the Wildcat 4000 include ...

- One PCI 2.1 slot and one AGP 2.0 slot
- 49 W of available power
- Windows NT 4.0, or later

For information call:

Toll Free 1-877-286-1145

www.intense3d.com

The Intense3D and Wildcat logos are trademarks of Intergraph Corporation. Windows NT is a registered trademark of Microsoft Corporation. OpenGL is a registered trademark of Silicon Graphics, Inc. Other brands and product names are trademarks of their respective owners.

Intense3D believes the information in this publication is accurate as of its publication date. Such information is subject to change without notice. Intense3D is not responsible for inadvertent errors. Copyright 1999 Intergraph Corporation, Huntsville, AL 35894-0001. Printed in USA. CS990056

