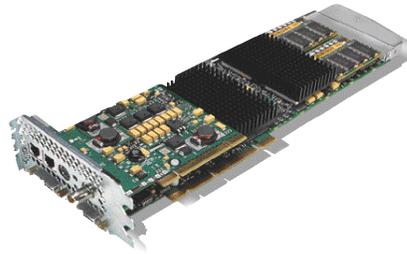


DATA SHEET

Wildcat



Wildcat® 4210

Dual-pipeline Architecture for Extreme Graphics Professionals

With the industry's first full dual-pipeline architecture, Wildcat 4210 pushes graphics speed to the limit.

Higher-than-ever supported screen resolutions, along with SuperScene™ antialiasing and 3D volumetric textures, lets you see your creations with better image quality and more realism than ever before.

The Wildcat 4210 also supports two displays (under Windows 2000) when you need the performance and realistic 3D experience of Wildcat graphics, but more visual elbowroom than a single screen will allow.

Complete OpenGL® 1.2 geometry acceleration

Complete OpenGL® 1.2 geometry acceleration using two highly-tuned hardware geometry engines to sustain the highest level of real-time on-screen performance in the industry.

Dedicated texture memory and frame buffers

Apply numerous, extremely detailed texture maps without compromising performance. Large, dedicated 128 MB frame buffer and 128 MB 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.

Leading-edge, 3D volumetric texture support

Hardware accelerated 3D volumetric texture support allows you to apply textures throughout the volume of any model, not just the external surfaces. The Wildcat 4210 provides real-time performance with 3D textures for applications such as medical imaging and GIS.

Exclusive SuperScene™ antialiasing

Forget about jaggies and crawling, twinkling edges. SuperScene antialiasing dramatically improves the sense of reality with true, multi-sampled scene mode antialiasing. With SuperScene, you get higher performance and significantly lower memory utilization than typical multisampled antialiasing techniques.

Maximum acceleration for maximum performance

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.

Fully programmable geometry ASIC

With programmable geometry ASIC, you can work with the latest innovations in graphics APIs by means of a simple software driver update. This protects your graphics investment and gives you more power on the desktop.

Praise for Wildcat 4210

"We have given awards to other graphics cards before, but never to such a barn-burning, roof-raising solution as (the) latest Wildcat cards"

CADENCE Magazine
July 2000

Technical Specifications

Wildcat Chipset Technology

- Data width:
 - Frame buffer: 256 bits
 - Texture buffer: 128 bits
 - DirectBurst: 64 bits
- Integrated 250MHz RAMDAC
- Dual-pipeline configuration featuring wide, independent buses to connect frame buffer and texture memory to the graphics chipset
- Complete OpenGL® 1.2 geometry acceleration using a highly-tuned hardware geometry engine. Accelerates the complete OpenGL 1.2 pipeline, including all geometry operations, triangle setup, texturing, and pixel operations
- Wide, independent buses connecting frame buffer and texture memory to the graphics chipset for maximum performance
- 3D volumetric texture support
- DirectBurst™ technology optimizes the 3D graphics pipeline, significantly boosting performance

Geometry Acceleration

- Model view matrix transformation of vertex and normal coordinates
- Perspective and viewport transformations
- Texture matrix transformation of texture coordinates
- Local display list storage and processing
- Full lighting calculations (up to 24 lights)
- View volume clipping
- Up to six user clip planes
- Image processing

Hardware Performance

- 3D Gouraud-shaded triangles, Z-buffered: 15.0M Tri/Sec
- Trilinear Textured, Gouraud-shaded, 32-bit (RGBA) texels: 243.0M pixels/sec
- 3D Vectors, solid-color, 10-pixel: 17.6M Vec/Sec

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

Professional 3D Features

SuperScene full-scene multisampled antialiasing:

- Point sampled with eight samples
- Sample location jittering
- Dynamic sample allocation
- Dynamic sample backoff
- 64-bit hardware accumulation buffer

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)

Board Physical

- Full-length ATX form-factor
- AGP Pro 110 - AGP Version 2.0 Compliant

Memory

- 128MB dedicated frame buffer
- 128MB dedicated texture buffer
- 32MB DirectBurst

Display

- True color resolutions up to 1920X1200 double-buffered and 32-bit Z per monitor
- 60Hz-90Hz screen refresh rates (monitor dependant)
- Dual display support under Windows 2000

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

Supported Screen Resolutions (true color, double-buffered)

Display Resolution	Max. Refresh Rates	SuperScene Support	Stereo Support
1280 x 1024	85	X	X
1920 x 1440	75		
1856 x 1392	85		
1824 x 1368	90		
1792 x 1344	75		
1600 x 1200	90	X	
1280 x 960	85	X	X
1152 x 864	85	X	X
1024 x 768	85	X	X
800 x 600	85	X	X
640 x 480	85	X	X
1920 x 1200	76		
1824 x 1128	75	X	
1792 x 1120	75	X	
1600 x 1024	76	X	
1440 x 900	90	X	X
1280 x 800	90	X	X
2048 x 1152	75		
1920 x 1080	85	X	
1600 x 900	85	X	
1520 x 856	90	X	X
1360 x 766	90	X	X
1280 x 720	85	X	X
856 x 480	85	X	X

Drivers

- Windows NT
- Windows 2000
- LINUX (Xfree86, v.4)

Connectors

- 3-Pin, MiniDIN stereo sync output
- Two 29-pin DVI-I output connectors (supports two standard 15-pin VGA output connectors with required adapter)
- Genlock BNC connector
- Two Multiview RJ12 modular jack connectors

Genlock Support

Provides a periodic signal to the display system to lock vertical refresh rate

Multiview Support

Provides frame locking and rate locking of multiple workstations

System Requirements

- Intel Pentium Processor or compatible
- Microsoft Windows NT 4.0 with Service Pack 5 or higher or Windows 2000
- One AGP Pro 110 slot
- Two open PCI slots adjacent to the AGP Pro 100 slot for cooling and power
- Minimum of 32MB DRAM (64MB recommended)
- 3MB of free space on the computer's primary system disk for the video display driver software
- 110W of available power

Warranty

Three (3) years parts and labor limited warranty

The Wildcat 4210 is only available in systems from leading workstation vendors including BOXX Technologies, Compaq, Dell, IBM, RT-Set, SGI and Quantum3D.



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