

Oxygen VX1 PCI workstation accelerator from 3Dlabs® enables systems without an AGP slot to benefit from the Oxygen family's award-winning quality and performance, significantly extending their useful life. The Oxygen VX1 PCI is one of the few 32MB PCI graphics cards on the market today that delivers outstanding workstation productivity and provides 100% OpenGL® 1.2 functionality and full Virtual Texturing.

PRAISE FOR OXYGEN VX1 PCI

"3Dlabs has always been associated with quality, and now the PCI version of the Oxygen VX1 has enabled this accelerator to be one of the most cost-effective and flexible graphics cards in its class."

Anand Lal Shimpi

CEO of AnandTech - a high-profile technology review site

3Dlabs.

OXYGEN™ VX1 PCI

Outstanding OpenGL and PCI Flexibility from the Oxygen Family

- **Highly-Optimized, Multi-Threaded PowerThreads™ SSE OpenGL Drivers**
3Dlabs' new-generation PowerThreads SSE OpenGL drivers are fully optimized for Intel Pentium® III and AMD® Athlon processors to maximize your geometry throughput. The multi-threaded architecture of PowerThreads SSE unleashes the power of your current single or multiple CPU system, scaling geometry performance as more CPU processing power is added.
- **Virtual Textures Bring the Advantages of AGP Texturing to PCI**
Virtual Texturing technology integrates on-board and system memory into a large hardware-managed virtual texture store – and works seamlessly over the PCI bus – bringing the benefits of fast AGP texture access and unified memory to PCI systems.
- **Legendary, Workstation-Class 3Dlabs Drivers**
16 years of 3Dlabs' OpenGL experience provides you quality you can trust - backed by the industry's most extensive application compatibility testing program.
- **Sophisticated Rendering Pipeline**
The GLINT R3 graphics processor accelerates 100% of OpenGL 1.2 and DirectX 7.0 primitives, including filtered volumetric rendering, advanced bump-mapping with per pixel lighting and multiple textures in a single pass.
- **Fully Accelerated Windows 98 and Direct3D Drivers**
Oxygen VX1 ships with 100% natively accelerated drivers for Windows 98 with OpenGL and Direct3D support to give you the flexibility to run all the latest leading professional applications.
- **Advanced Software and Control Panel**
3Dlabs' advanced control panel optimizes your system for your applications with three mouse clicks, Colorific color-calibrates your display and Soft Engine 4 significantly enhances AutoCAD performance.



Technical Specifications

GLINT R3 Rasterization Processor

- Virtual Texture memory management unit
- 256MB Virtual Texture address space
- Texture Unit with single pass, multi-texture capability
- Integrated 300MHz RAMDAC
- High-speed 128-bit Memory interface
- 7 independent DMA engines
- 2D/3D Raster Engine
- Integrated SVGA Controller

PowerThreads SSE OpenGL Drivers

- PowerThreads™ SSE OpenGL ICD with full Pentium III and AMD Athlon 3DNow! optimizations
- OpenGL 1.1 ICD (OpenGL 1.2 ready)
- Multiprocessor system optimized

Professional 3D Rendering

- Complete OpenGL 1.2 functionality in silicon
- Virtual Texturing in silicon
- Up to 256MB Virtual Texture space
- 2048x2048x32 maximum individual texture size
- Single pass bump-mapping, per-pixel lighting
- Gouraud shading
- Perspective correct bilinear and trilinear filtering
- Perspective correct per pixel MIP-mapping
- Dual bilinear mip-mapped textures in a single pass
- Volumetric Rendering with up to 8-way filtering
- Source and destination alpha blending
- Fogging and depth cueing
- Anti-aliased lines and polygons
- Full-scene anti-aliasing
- Scissoring and stippling
- Overlay and stencil buffers
- 32 bit Z-buffering
- GID clipping

Hardware Performance

- Fill rate - 220Mtexels/sec dual bilinear mip-map textures
 - Fill rate - 110Mpixels/sec trilinear mip-map textures
 - Polygon setup rate - 11M polygons/sec
 - Polygon rate - 2M lit, transformed, displayed, polygons/sec (for 600MHz Pentium III)
 - Viewperf Light-02 - 2.62 (1280x1024 true color)
 - ProCDRS-03: 11.02
 - 2D Winbench 99 HE - 537 (1024x768 true color)*
 - 2D Winbench 99 BG - 230 (1024x768 true color)*
- Test system: Dual Intel Pentium III 700MHz, Intel SE440BX motherboard, 512MB of RAM, 75Hz refresh rate. The board used for the tests was the Oxygen VX1-PCI with Windows NT driver version 2.15-0254.

Board Physical

- PCI - 32-bit 33/66 MHz Version 2.1

Memory

- 32MB of unified SDRAM framebuffer, Z-buffer and texture memory
- Up to 256MB of host memory used as a Virtual Texture store

Display

- True color resolutions up to 1920x1200 or 2048x1536 with 32-bit Z
- 60Hz-150Hz screen refresh rates (monitor dependant)
- Softimage-compliant 8-bit double-buffered overlay planes
- DDC2B support on all operating systems

Drivers

- Windows NT 4.0 and PowerThreads SSE OpenGL ICD
- Windows 98, fully DirectX 7 compatible and PowerThreads SSE OpenGL ICD
- Multi-threaded and Thread Safe
- Windows 2000

Advanced Control Panel

- Point-and-click to automatically optimize system configuration for each professional application

Value-added Software Bundles

- Soft Engine 4, from Vibrant, for up to 400% AutoCAD performance boost (a \$300 value)
- Colorific from E-Color, Inc. for accurate color calibration and matching (a \$50 value)

Video

- Bilinear filtered playback re-scaling
- Hardware YUV-RGB conversion
- Hardware MPEG-2 Motion Compensation

Connectors

- DB-15 analog connector

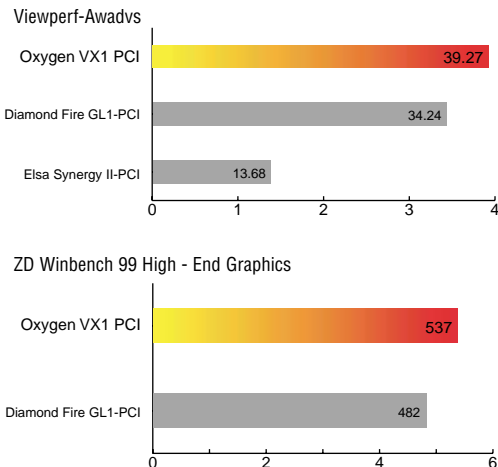
System Requirements

- 100% IBM-compatible PC
- Intel Pentium, AMD Processor or compatible
- IBM compatible motherboard with AGP slot
- Microsoft Windows NT 4.0 with Service Pack 5 or higher, Windows 98 or Windows 2000
- 64MB system memory
- 16MB free disk space

Warranty

- Three (3) years parts and labor limited warranty

OXYGEN VX1 PCI Delivers Outstanding Performance



Supported Screen Resolutions

Display Resolution	Color Depth	Refresh Rates
640x480	8-bit, 16-bit, True-color	100, 85, 75, 60Hz
800x600	8-bit, 16-bit, True-color	100, 85, 75, 60Hz
1024x768	8-bit, 16-bit, True-color	100, 85, 75, 60Hz
1152x864	8-bit, 16-bit, True-color	100, 85, 75, 60Hz
1280x960	8-bit, 16-bit, True-color	100, 85, 75, 60Hz
1280x1024	8-bit, 16-bit, True-color	100, 85, 75, 60Hz
1600x1200	8-bit, 16-bit, True-color	100, 85, 75, 60Hz
1920x1080	8-bit, 16-bit, True-color	100, 85, 75, 60Hz
1920x1200	8-bit, 16-bit, True-color	75Hz
2048x1536	8-bit, 16-bit, True-color	60Hz

Fully Tested on all Leading Professional Applications

Houdini	Softimage/3D	Solid Edge
Lightscape	AutoCAD	SolidDesigner
LightWave 3D	CATIA	SolidWorks
Maya NT	I-DEAS	Unigraphics
Mirai	MicroStation	
MultiGen Creator	Pro/ENGINEER	

Software Bundles to Increase Your Productivity

- Vibrant's Soft Engine 4 improves display performance of AutoCAD by up to four times
- Colorific from E-Color, Inc. calibrates your screen for display and printing consistency



Contacts, Service and Support

- For more information and online technical support, visit us at www.3dlabs.com
- Buy online at www.3dlabs.com/store
- Three year parts and labor warranty

In North America:

480 Potrero Avenue, Sunnyvale, CA 94086
Tel: (800) 464-3348

In Europe:

Meadlake Place, Thorpe Lea Road, Egham, Surrey
TW20 8HE, UK
Tel: (44) 1784-470-555

In Asia/Pacific:

Shiroyama JT Mori Bldg., 16F Toranomon, 4-3-1 Minato-ku
Tokyo 105-6016, Japan
Tel: (81) 3-5403-4653

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