

Voodoo 4™ 4500 PCI

32MB 2D/3D Accelerator

Preliminary Specifications

The Voodoo 4 4500 delivers all the power and performance PC owners demand from 3dfx. Designed around the new 3dfx VSA-100 chip, the Voodoo 4 4500 features a 3D engine capable of rendering over 333 Megapixels per second and a 350 MHz RAMDAC for 2D resolutions as high as 2048x1536. Working together they bring both 2D Windows applications and 3D games to life in glorious 32-bit color. With support for all major API's including DirectX®, Glide® and OpenGL®, the Voodoo 4 4500 boasts the largest library of titles available for PC. A perfect balance of price and performance, the Voodoo 4 4500 is the ideal 2D/3D accelerator for today's home PC enthusiast.

Product Features

- Fully-integrated 128-bit 2D/3D/Video Accelerator
- 333-367 Megapixels/second
- 32MB of Graphics Memory
- 32-bit color rendering
- 3dfx FXT1™ and DirectX® Texture Compression
- 2K x 2K Textures
- PCI local bus support
- 350MHz RAMDAC for resolutions up to 2048 x 1536
- Windows 95, 98, NT4.0, Windows 2000 drivers
- Fully software-compatible with 3dfx Voodoo3



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3D Acceleration

- Dual pixel pipeline: 2-pixels/clock (single texture) or 2 textures/clock (single pixel)
- 32-bit RGBA
- 24-bit floating point depth buffer (Z and W)
- 8-bit stencil buffer
- 32-bit textures
- 2K x 2K texture size
- DirectX® and FXT1™ Texture Compression support
- Full hardware setup of triangle parameters
- Supports multi-triangle strips and fans
- Transparency/chroma-key with dedicated color mask • Alpha blending of source and destination pixels
- Sub-pixel and sub-textel correction to 0.4 x 0.4 resolution
- Per-pixel atmospheric fog with programmable fog zones
- Dynamic environment mapping
- Perspective-correct true divide-per-pixel 3D texture mapping and Gouraud shading
- Single-cycle bump mapping
- Single-cycle trilinear mip-mapping

Video Acceleration and Features

- Planar-to-packed-pixel digital video format conversion
- Full VMI 1.4 video port support with CCIR-656 extension
- 350MHz RAMDAC for refresh rates up to 160Hz
- CCIR-601 video input port
- FIFO optimized for high-speed bursting of geometry and texture data
- Bi-endian byte ordering support

Refresh Rates (Hz)

| NUMBER OF COLORS | | | | | |
|------------------|--------------|-------|--------|--------|----------------------|
| RESOLUTION | Aspect Ratio | 256 | 65K | 16.7M | Recomm. Monitor Size |
| | 640x480 | 4:3 | 60-160 | 60-160 | 14"+ |
| | 800x600 | 4:3 | 60-160 | 60-160 | |
| | 1024x768 | 4:3 | 60-120 | 60-120 | 17"+ |
| | 1152x864 | 4:3 | 60-120 | 60-120 | |
| | 1280x1024 | 5:4 | 60-100 | 60-100 | 21"+ |
| | 1600x1024 | 16:10 | 60-100 | 60-100 | |
| | 1600x1200 | 4:3 | 60-100 | 60-100 | 24"+ |
| | 1920x1080 | 16:9 | 60-85 | 60-85 | |
| | 1920x1200 | 16:10 | 60-85 | 60-85 | |
| | 1920x1440 | 4:3 | 60-75 | 60-75 | |
| | 2048x1536 | 4:3 | 60-75 | 60-75 | |

Software Support

- Forward and backward compatible with Voodoo3 drivers
- Windows 95, 98, Windows 2000, and Windows NT4.0 device drivers
- Industry's most comprehensive 3D API support: Microsoft DirectX®, OpenGL®, Glide 2.x and 3.x
- MPEG-2: Support for hardware and software MPEG-2 encoders and decoders from leading suppliers via Microsoft DirectShow



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