

Voodoo 4™ 4500 AGP

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
- AGP with full sideband 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-texel 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)

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