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designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense

C E M a r k i n g W a r n i n g

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1.1 Introduction of Voodoo 2.

Congratulation ! You are owing the best quality 3D images currently available on a consumer PC level – HELIOS 3D Voodoo 2.

Voodoo 2 is the next generation of Voodoo Graphics. It is estimated that HELIOS 3D Voodoo 2's performance will be around 3 times that of Voodoo Graphics, mainly in speed and multiple textures per pixel. Multiple textures per pixel allows for enhanced special effects, single pass trilinear filtering, and improved performance.

In addition, two Voodoo 2 cards of the same type can be connect together to accelerate the performance speed, special effects, signal to reach the double fill rate performance of stunning visuals resolutions up to 1024 x 768. In general, this effect we call “ SLI – Scan Line Interleaving “, which will have better performance than normal AGP 3D graphic cards in fill rate.

HELIOS Voodoo 2 is a full-screen, 3D-only accelerator. It can make use of a pass-through cable to connect your 2D card to the Voodoo 2's 3D, all to the best display.

However, If you want is maximum gaming power, now you have chosen a right one – HELIOS Voodoo 2.

1.2 3D Feature Support –

- Full-Screen, 3D-Only Accelerator, works with another 2D or 2D/3D VGA card through a pass-through cable.
- Support full –screen games under Windows 95, Windows 98.
- Supports for game development tools including Gemini OpenGVS, Multigen, GameGen, SGI Open GL, Glide, Direct 3D, Mini GL and Autodesk 3D studio under DOD, Win 32 and IRIX.
- Resolution up to 800 x 600 and higher resolution through SLI, Scan Line Interleave, up to 1024 x 768.
- Support 8MB / 12MB high speed EDO DRAM may run at 90 MHz and 25 ns.
- Full hardware triangle setup.
- 3 Million fully featured triangles/sec for filtered, LOD MIP-mapped, Z-buffered, alpha-blended, fogged, textured triangles.
- 90 Million fully featured pixel/sec for bi-linear textures, with LOD MIP-mapping, Z-buffering, alpha-blending and fogging enabled.
- 180 Million pixel/sec with scanline interleaved configuration.
- Bi-linear and tri-linear texture filtering.
- Z-buffer (16bpp, integer and floating point).
- Level of detail (LOD) MIP mapping.
- Multiple Textures per Pixel.
- Single Pass Trilinear Filtering.
- Bump Mapping Through Texture Compositing.
- Edge Anti-Aliasing.
- Hardware Triangle Set-up (independent strips & fans).
- Sub-pixel and sub-textel correction.
- Ground shading and texture modulation.
- Full 24-bit rendering, dithered to 16-bit RGB.
- Linear frame buffer access.
- Single-pass tri-linear filtering.
- Single-pass dual textures per pixel.

1.3 Technical Specifications –

This paragraph provides the technical specifications and features of **HELIOS Voodoo 2** card.

Configuration :

HELIOS Voodoo 2 chipset - 3Dfx (500-0010-01) x2 + 3Dfx (500-0009-01) x1
- 8 MB EDO DRAM on board.

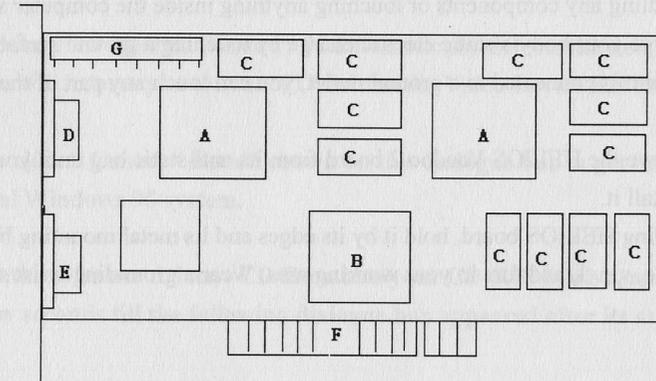
Bus Interface – PCI 2.1 compliant.

Software Drivers support – Windows 95, Windows 98.

1.4 System Requirements –

- Intel Pentium or other compatible CPU more than 90 MHz with a CD-ROM drive installed.
- Installed VGA card.
- Vacant PCI 2.1 slot, should ask two vacant PCI slots if SLI executed.
- Minimum 16 MB RAM.
- 13 MB available free hard disk space.
- VGA monitor.
- Windows 95 or Windows 98.

2. HARDWARE OVERVIEW –



A : Texture Buffer chipset : 3Dfx, 500-0010-01

B : Frame Buffer chipset : 3Dfx, 500-0009-01

C : EDO DRAM : 8MB

D : VGA port for Monitor

E : VGA port for connection with another VGA card

F : PCI Connector

G : SLI Connector

Note: You can use two Voodoo 2 cards in your system, connected with a pass through cable. These two cards can do “SLI” = Scan Line Interleaving. This about doubles the performance and enables resolutions up to 1024 x 768.

CHAPTER 3. HARDWARE INSTALLATION :

3.1 Static Electricity Precautions :

1. Before Handling any components or touching anything inside the computer system unit, discharge your body's static electric charge by touching a ground surface. If the system unit is connected to a ground outlet, you can touch any part of the chassis.
2. Do not remove the HELIOS Voodoo 2 board from its anti-static bag until you are ready to install it.
3. When handling HELIOS board, hold it by its edges and its metal mounting bracket.
4. Avoid plastic, vinyl, and furs in your working area. Wear a grounding wrist strap if available.

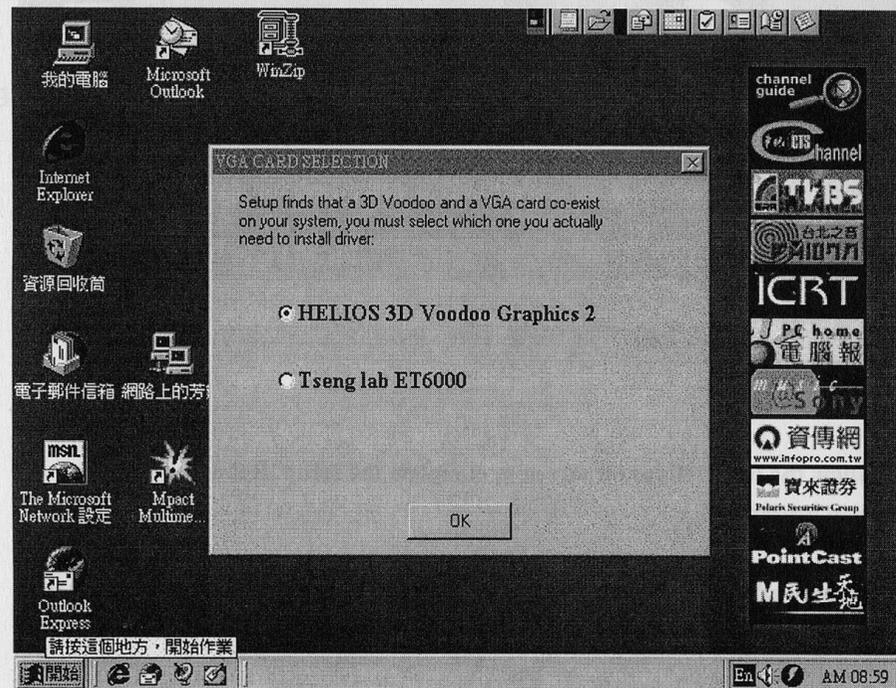
3.2 Hardware Installation :

1. Switch off your computer system and all peripheral devices, and unplug the power cord from the wall outlet.
2. Remove the cover of the case from your computer system.
3. Locate the free PCI slot closest to your existing VGA card and press the card gently and evenly into the slot. Once firmly seated, secure the card's mounting bracket with a screw.
4. Connect your monitor cable to the 3D HELIOS Voodoo 2, 15-pin female connector (Ref to " Hardware Overview " part "D").
5. Connect the VGA pass-through cable to the HELIOS Voodoo 2, 15-pin male connector (Ref to " Hardware Overview " part "E").
6. Connect the other end of the VGA pass-through cable to the 15-pin connector on your original VGA graphics card.
7. Replace the cover of your computer.
8. Replace the power cord of your computer.
9. Turn on the monitor and your computer system.

CHAPTER 4 SOFTWARE INSTALLATION :

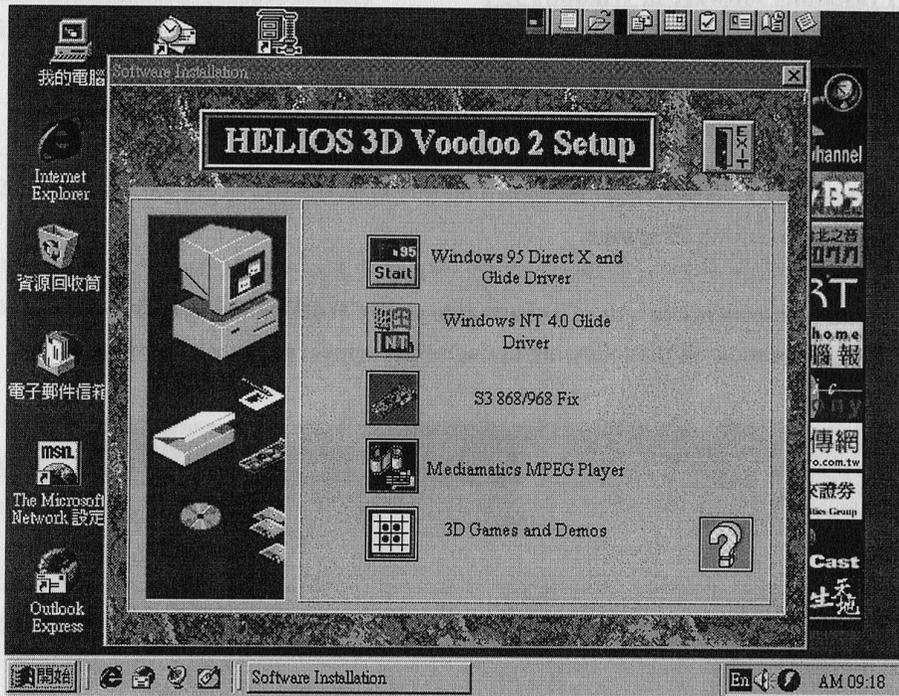
4.1 Installing software in Windows 95 :

1. Switch on your system. Windows 95 automatically detects the new device. The system will inform you that a PCI Multimedia Video Device has been detected.
2. Please click " Cancel " button shown on this dialogue box to get back to normal Windows 95 system.
3. Insert the software driver - CD-Rom into your CD-ROM drive, and then wait for few seconds till the following dialogue box appeared after its auto-run.



Please click the " O.K " after HELIO 3D Voodoo Graphic 2 being selected for installation.

4. Click "Start" for Windows 95 X and Glide Driver for Voodoo 2 Graphic card as below :



5. Follow the instructions on screen to complete the setup. Reboot the system when prompted.
6. You may adjust the resolution rate to 800 x600 after the Voodoo 2 been set up properly under Voodoo 2s' exclusively control panel.

Note : Even Voodoo 2 may support resolution rate up to 800 x 600, but it still major depending on the resolution rate the software - game disk may support. It means if you cannot adjust the resolution rate to 800 x 600 from your system after Voodoo 2 being setup it must be caused by the hard disk game itself doesn't support the high resolution rate 800 x 600.

CHAPTER 5. FAQ & TROUBLESHOOTING :

1. Why resolution rate cannot be set up to 800 x 600 before starting a 3D game ?
Please be sure if the game driver is supporting the 800 x 600 or not since the major resolution rate is depending on the software driver.
2. What are the advantages of V2 over Voodoo Graphics ?
Mainly in speed and multiple textures per pixel. It is estimated that V2's performance will be around 3 times that of Voodoo Graphics. It will also be able to higher resolution then Voodoo Graphics, up to 1024 x 768. These improvements will allow game designers to create more complex 3D environments and characters, resulting in more stunning visuals. Multiple textures per pixel allows for enhanced special effects, single pass trilinear filtering, and improved performance.
3. What is SLI ?
SLI stands for Scan Line Interleaving. This means if you have 2 PCI cards from the same company, you can connect them together using a pass-through cable. One of the cards would display the odd number fields, and the other card would display the even number fields. This will almost double the fill rate performance of Voodoo 2.