

3D Vision

3D Vision-985

User's Manual





FCC & DOC Compliance

Federal Communications Commission Statement

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio

Warning!! The use of shielded cables for the connection of the monitor to the graphics card is required to assure compliance with FCC regulations. Changes or modifications to this unit nor expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.'

Canadian Department of Communications Statement

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Version 1.1

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3D Vision-985 Package & Product Information

This manual contains all the information you'll need to use the 3D vision card. Please take a moment to familiarize yourself with the design and organization of the manual.

Manual Features

This manual also uses some icons to call your attention to important information. The icons appear in the sidebar and represent the following.

-  Important Information
-  A recommendation or good idea
-  A warning or bad idea
-  Danger warning

Package Contents

The 3D Vision 985 card package contains the following items. Please inspect the package contents and confirm that everything is there. If anything is missing or damaged, call your vendor for instructions before proceeding.

The package includes:

- One 3D Vision-985 Card
- One CD Title for DIY Guide, Auto installation, Driver Files & Direct X5, and trial Game Software that includes "Tomb Raider II", "Terracide", and "Team Apache" 3 games.
- User's Manual

Online Manual Format

If the support disk for your AGP Card is a CD-ROM disc, a copy of the printer manual stored on the disc in Adobe Acrobat format. If so, it requires Adobe Acrobat Reader version 3.0 or later to view it. Acrobat Reader for Microsoft Windows95 may also be supplied on the Support Disk. If not, you can obtain a free copy of the Reader software from the Adobe web site which is currently at www.adobe.com as well as other locations.

If you have the online manual, you may want to install Acrobat Reader on your system hard disk. You can copy the manual over as well so that the manual is readily available without having to hunt up the Support Disk when you want to view it.

If you are unfamiliar with Acrobat Reader, please take a moment to view the Reader Online Guide which is available under the Help menu when you run Reader.

Component Information

New Features

Integrated triangle setup engine

- High performance setup engine with
- 1.6 Million Triangles/Second
- Does float to fixed conversion

Trident 3DImage 985 rendering performance

- 45MP/s Bi-Linear

- 4KB texture cache
- 100MHz SGRAM
- More pipelined

Support for AGP Slot

- 2X(133 MHz) transfer mode support
- Pipelined & side band Extensive validation

4 MB 100 MHz (10ns) SGRAM

Pass Trilinear And Texture Compositing

- Texture Morphing
- Reflections & Shadows
- Searchlights/spotlights

TV-Out (Optional)

- TV-Out Encoder AD724 or AD722
- +5V Operation
- Accepts FSC Clock or Crystal, or 4FSC Clock
- Composite Video and Separate Y/C
(S-Video)Outputs
- Logic Selectable NTSC or PAL Encoding Modes
- Compact 16-Pin SOIC
- Applications in RGB or PAL Encoding

Video-in (Philip SA7111a for 64 pin QFP&LQFP)(Optional)

- Four analog inputs, internal analog source selectors, e.g. 4xCVBS or 2xY/C
- Two analog preprocessing channels
- Fully programmable static gain for the main channels or automatic gain control for the selected CVBS or Y/C channel
- Switchable white peak control
- Two built-in analog anti-aliasing filters
- On-chip clock generator
- Data output streams for 16, 12 or 8 bit width with the following formats:
 - YUV 4 : 1 : 1 (12bit)
 - YUV 4 : 2 : 2 (16bit)
 - YUV 4 : 2 : 2 (CCIR-656) (8bit)
 - RGB (5, 6, 5) (16bit) with dither
 - RGB (8, 8, 8) (24-bit) with special application
- Odd/even field identification by a non interlace CVBS input signal
- Fix level for RGB output format during horizontal blanking
- 720 active samples per line on the YUV bus
- One user programmable general purpose switch on an output pin
- 5V tolerant digital I/O ports.

Resolution and frequency

Resolution	Colors	Refresh Rate (Hz)
640x480	256, 16bit, 32bit	60, 72, 75, 85, 100
720x480	256, 16bit, 32bit	60
800x600	256, 16bit, 32bit	60, 75, 85, 100
1024x768	256, 16bit, 32bit	44, 60, 70, 75, 80,
1280x1024	256, 16bit	44, 60, 75, 85, 100
1600x1200	256, 16bit	48, 60, 75, 85

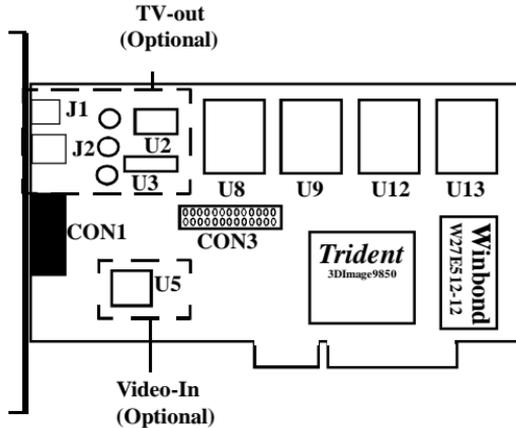
Note: The selectable refresh rate items show up according to the monitor type. If the monitor is not a DDC(Display Data Channel) compatible one, the items only show "Optimal" and "Adapter default".

For example, (Under 1024 x 768 x 16bit mode)

1. The monitor support 60,75,85 Hz for this mode, the items show "60", "75", "85".
2. The monitor is not a DDC compatible one, the items show "Optimal", "Adapter default".

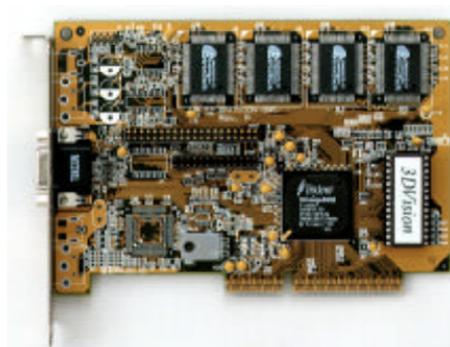
Layout

The illustration as the followings shows the connectors, chipset and header of the card.



Picture

The illustration as the following shows the chipset, connectors, and sockets of the card.



Installing the Card

Before The Basic Procedure

To install a VGA Card on the mainboard you need to notice the following items.

- ☺ Unplug after switch off power.
- ☹ Make sure your hands dry
- ☺ Do not touch other parts inside computer when using "Screw driver"
- ☺ Hold insulated part when you take the interface card
- ☺ Circuit Short is caused by user's rashness when leaving screws inside computers.

The Basic procedure of the installation

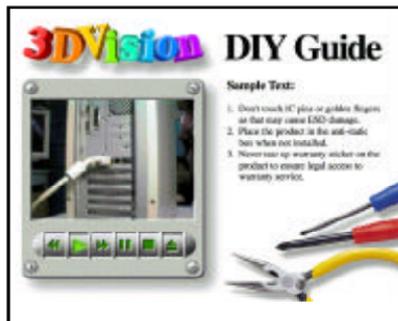
In supported CD, we have a video that teach you how to operate the card, the steps as it follows,

1. Power off the computer and monitor. Disconnect the monitor cable form the back of your computer and remove the computer cover with screw driver.
2. If there is an existing graphcis card, unscrew it from chassis and rock it gently from end to end then pull it straight up to remove it.

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3. Align your card with an empty expansion AGP slot, and grasp the card by the top edge and carefully seat it firmly into the selected expansion slot.
4. Replace the screw to fasten the card in place. Replace the computer cover.
5. Plug the monitor back into your card. Make sure your monitor cable is securely fastened then turn on the computer and monitor.

The screen for example as it follows.



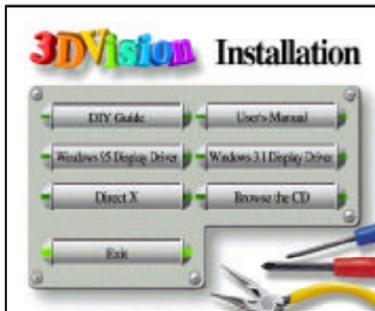
Using your card

The Standard Computer System Requirements

1. Mainboard with AGP Slot
 2. At least 16Mbytes EDO/SDRAM
 3. Using the Windows 95
 4. DirectX 3 or above (DirectX 5 suggested)
 5. CD-ROM
 6. Speaker or Earphone (Unnecessary)
 7. Sound Card (Unnecessary)
- (Appendix is for your reference)

Software Setup

When you insert supported CD, it will autorun the screen, 3D Vision installation as it follows, it includes DIY Guide, User's manual, Windows95, Windows31, Direct X and Browser.



Besides, we also supply Windows NT and OS/2 installation guide. You can follow the following procedure.

Software Setup

Before installing the 3D Vision Card onto your computer, make sure that the card is properly connected.

MS Windows 95 Installation

1. Start the installation program "instal.exe" on the CD
2. Click on the button "Windows 95 Display Driver"
3. Follow the steps on the screen

Note:

It only supports Win95, not for Win98 (Memphis), and we have two setup.exe, one is under \win95\WHQL, the other is \win95\Performance. If you run auto-installation, it will run the default "setup.exe" in \win95\WHQL.

Installing Under the Windows 3.1

Installing Windows 3.1, you can follow the steps and type the path in it.

1. Under Dos Mode status.
2. Enter the path c:\Win31(if your directory is Win31) then type "setup"
3. It will show your system Information, choose "Display" then click "Enter" key.
4. Choose "Other (Requires disk provided by a hardware manufacturer)" item then install the file from your CD-ROM driver.



Installing Under the Windows NT

This driver package containing:

- SGIUL40.SYS
(Trident linear addressing video miniport driver)
- SGIUL40.DLL
(Trident 256/64K/16M colors accelerated video display driver)
- 3D Vision.INF
(setup files used by Windows NT Setup program)
- README (This README file for Windows NT Version 4.0)
- TDISPLUS.DLL (Trident Utility program, for TV output)
- NTIME.EXE (Trident Utility, It is used for 9397)

Procedure:

1. Run the Windows NT display Setup program located in the Control Panel, Select Display Icon. Double click it. To bring up Display Property page. Select "Settings" Tab on the Display Property page.
2. Click "Display Type..." button from the Display Settings options.
3. Select "Change..." button from the Display Type options.
4. Select "Have Disk..." button from the Select Device options.
5. Windows NT will prompt you for the correct path where the driver is loaded.
6. Choose "3DVision-985" from the list of drivers.
7. Then follow the procedures provide by Windows NT to complete installation.
8. Restart Windows NT. Windows NT will start up with default mode using the Trident drivers.

Installing Under the OS/2

This Trident OS/2 Display Drivers utility supports the following color monitor resolutions with OS/2. The required memory is shown in parentheses.

640x480x256	640x480x65K
800x600x256	800x600x65K
1024x768x256	1024x768x65K (2M)
1280x1024x256 (2M)	1280x1024x65K (4M)
1600x1200x256 (4M)	640x480x16.7M
800x600x16.7M (2M)	1024x768x16.7M (4M)

This utility includes Trident OS/2 Display Drivers installation and Trident OS/2 Display Drivers setting.

A. Installation Procedure from command prompt

1. Insert the Trident OS/2 Display Driver diskette in diskette drive A: or diskette drive B:
2. Open an OS/2 full-screen or OS/2 Windows session under "Command Prompt" of the System folder.
3. Switch the current drive to the diskette driver where the Trident OS/2 Display Driver diskette was inserted.
4. At the drive prompt, Type the command:"Install"".

B. Installation procedure from the OS/2 Desktop:

1. Insert the Trident OS/2 Display Driver diskette in diskette drive A: or diskette drive B:
2. Open the OS/2 System folder, double-click on the Drives object, and then double-click on drive A.
3. When the drive A folder opens, double-click on INSTALL.EXE.
4. You can also click on the floppy drive object from Launch Pad, and then double-click on INSTALL.EXE.

C. Available Trident Display Driver Setting pages

The first page of the Trident Display Drivers Setting window is labeled Screen Resolution selection page.

- Select the resolution and color depth.
- Enable/Disable virtual screen
- The second page is Monitor Model selection page.
- Click on Monitor tab to go to this page.
- Point to and click on the down arrow button to show a list of monitor models.
- Select the monitor model. If you can not find your monitor' model, select "Default".”.

This page is Refresh Rate selection page.

- . Click on Refresh tab to go to this page.
- . The refresh rates displayed are those supported at each resolution by the monitor specified in the Monitor Model selection page.
- . You can change the refresh rates by clicking on down arrow button and then clicking on the desired refreshrate. After the selections, click on the "SET" button to complete the installation.
- . Reboot OS/2 to have this installation take effect.

D. Display Drivers Setting Procedure.

I. Double-click on the Trident folder, and then double-click Display Setting object.

II. To change resolution and / or color depth

- . Click Screen tab.
- . Select the resolution and color depth.
- . Click Set button.

III. To change refresh rate

- . Click Refresh tab.
- . Point to and click down arrow button.
- . Select the refresh rate.
- . Click Set button to take effect.

Appendix A :

[Procedure of Installing AGP VGA card]

Before installing AGP VGA driver, you need to setup the Windows 95 environment with installing the following items :

- OSR2.1
- USB supplemental driver
- Direct X5 driver

HOW TO INSTALL THIS PRODUCT

In order to install Universal Serial Bus support on a PC, Windows 95 version OSR2.0 must be running and you have to download the file "USBSUPP.EXE" from Microsoft web site.

To install this product:

(If you downloaded the file from Microsoft Web site and put file disk in driver A already, you can do the following steps.)

1. Start Windows Explorer.
2. Click on the A: drive(disk to display the contents of the floppy disk.
3. Double click on USBSUPP.EXE

HOW TO UNINSTALL THIS PRODUCT

1) Once you have installed the USB Supplement, it can be uninstalled from Control Panel, Add/Remove components. If for any reason you wish to reinstall the USB supplement, you must first uninstall any version currently on your system.

GENERAL INFOM

For the latest information on Support ability and Trouble shooting the USB Supplement, check out <http://WWW.MICROSOFT.COM/KB> for access to our online Knowledge Base.

For USB device specific issues, contact your OEM or Vendor of the device.

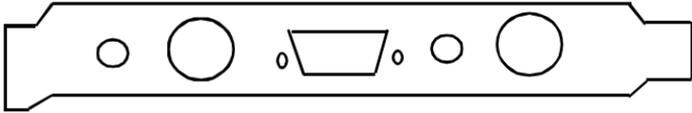
These products are manufactured independent of Microsoft Corp.

CMOS Setup

In Aperture size section of "Chipset Feature Setup", use maximum size or set the size larger than the size of system memory.

Video In & TV-Out Illustration

J1 J2 CON1 CN1 CN2



TV-Out: J1 : RCA Jack J2 : S-Video

Video-In: CN1:RCA Jack(Composite)

CN2:S-Video

CON1:VGA Connector

Please connect CN1 to run Video In function
