TRIDENT BLADE 3D SP9880 3D GRAPHIC ACCELERATOR

MANUAL

BLADE 3D 9880

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Important

Operating System requirement: **For Windows 95 user** Need OSR2.1 or newer version. OSR2.1 means OSR2.0 + USB supplement upgrade. Please find this upgrade file "usbsupp.exe" from your OS supplier. DirectX 5.0 r newer

For Windows 98 user

DirectX 5.0 r newer

For Windows NT4.0 user

Need at least SP3 or newer version Please find this **S**ervice **P**ack **3** upgrade from your OS supplier.

1. SP9880 Features

High Performance rCADE3DAccelerator

- AGP 2X with side band addressing for up to 533 Mbytes per second
- Single Cycle Pipelined Engine
- Per Pixel Mip-Mapping
- Multiple Levels of Detail (LOD)
- 32-bit Color Rendering
- 1/16th Sub-Pixel Precision
- Perspective Correct Textures
- DirectX 6 Texture Compression & Anisotropic Filtering
- 4Kbyte Texture Cache
- DirectDraw [™] acceleration
- Multiple Buffering

Setup Engine

- 32-bit IEEE Floating Point Input Data
- Slope and vertex calculations
- Back Facing Triangle Culling
- Deep Command List
- Flexible Vertex Buffers
- Triangle Strips and Fans

Rendering Engine

- Gourard and Flat Shading
- Scene Anti-Aliasing
- OpenGL compliant blending for fog and depthcueing
- 16-bit Z-buffer

Texturing Engine

- Anisotropic, Tri-Linear, Bi-Linear, Point-Sampled Filtering
- Mip-Mapping with 11 Levels-Of-Detail
- Color Key and Alpha Blending
- 1/2/4/8-bits per pixel Palletized Textures

2D GUI Engine

- 8/15/16/24/32-bits per pixel color formats
- 256 Raster Operations (ROPs)
- BitBLTs, lines, polygons, fills, patterns, clipping, bit masking
- Panning, scrolling, clipping, color expansion, sprites

DVD with THAMA[™]

- Trident Hardware-Assisted MPEG-2 & AC-3
- Simultaneous Motion Compensation and Front End Processing
- Dynamic Frame and Field De-Interlacing
- Pan and Scan Support
- Tamper-Proof Software Copy Protection
- Supports DVD 1.0, VCD 2.0 and CD-Karaoke
- Microsoft DirectShow native support, MCI backwards compatibility
- No additional frame buffer requirements

Memory Interface

- 8Mbyte Frame Buffer
- 64-bit 125MHz SGRAM/SDRAM

CRT Interface

- Integrated 24-bit 230MHz RAMDAC
- DDC2B & VESA[™] DPMS

2. Board outline

SP9880 using SGRAM

8MB on board, board size: 144 x 97 mm.



3. Hardware Installation

3.1 Package Contents

- 1. Trident 9880 card.
- 2. CD title or Software diskettes
- 3. This manual.(D:\Manual\9880manu.doc)

3.2 Installing the Card

- 1. Turn off your computer.
- Remove the cover of the computer per the owner's manual.
- 3. Install the card in the AGP bus slots.
- 4. Replace the cover.

3.3 Resolutions, refresh rate and colors supported:

9880 AGP bus VGA cards are fully compatible VGA with the addition of Hi-Color and True Color modes depending on the amount of video memory stalled. The amount of memory needed to display various resolutions is shown below 8 MB on board support:

| Resolution & Colors | BPP | Refresh Rate(Hz) |
|---------------------|-----|--|
| 640X480-256 | 8 | 60 / 70 / 72 / 75 / 85 / 100 / 120 / 160 |
| 640X480-64K | 16 | 60 / 70 / 72 / 75 / 85 / 100 / 120 / 160 |
| 640X480-16M | 32 | 60 / 70 / 72 / 75 / 85 / 100 / 120 / 160 |
| 800X600-256 | 8 | 60 / 70 / 72 / 75 / 85 / 100 / 120 / 160 |
| 800X600-64K | 16 | 60 / 70 / 72 / 75 / 85 / 100 / 120 / 160 |
| 800X600-16M | 32 | 60 / 70 / 72 / 75 / 85 / 100 / 120 / 160 |
| 1024X768-256 | 8 | 60 / 70 / 72 / 75 / 85 / 100 / 120 |
| 1024X768-64K | 16 | 60 / 70 / 72 / 75 / 85 / 100 / 120 |
| 1024X768-16M | 32 | 60 / 70 / 72 / 75 / 85 / 100 / 120 |
| 1280X1024-256 | 8 | 60 / 70 / 72 / 75 / 85 / 100 |
| 1280X1024-64K | 16 | 60 / 70 / 72 / 75 / 85 / 100 |
| 1600X1200-256 | 8 | 60 / 70 / 72 / 75 / 85 |
| 1600X1200-64K | 16 | 60 / 70 / 72 / 75 / 85 |

4. Smart Installation

4.1 Put the Smart Installation CD in your CD-ROM



4.2 Select the language for you. Default is same as system language. (Click small UP/DOWN arrow for more languages) Then click the **Driver installation** button



4.3 Comes up the Confirm Installation window

Click **OK**, if the information and driver location is fine.

| Confirm Installation | | × |
|---|---|----------------|
| System information Your operating system: Your video card: Your video chipset: | Windows 95 build 1212 B Trident T9880 | Cancel Help |
| Driver information Driver location: | e:\Drivers\Trident\9880\WIN95\ Browse | |

4.4 The Driver Confirmation window

Then click Install button

| Driver Confirmation | × |
|--|----------------|
| "Trident Blade 3D PCI/AGP (v6.50.5452bicd) | Cancel Help |
| "Trident Blade 3D PCI/AGP (v6.50.5452bicd) | |
| This driver is going to be installed onto your system. Click "Install" to accept or "Cancel" to quit the installation. | |

4.5 Install complete, please restart your computer.

5. Manually install Windows 95 & Windows 98 drivers

5.1 Installation and Setup

5.1.1 Windows95 VER: OSR2.0

The Windows setup program installs and modifies all of the necessary files. Follow these steps to install the Windows 95 driver.

Insert the "Window 95 Driver" Installation Diskette or DISC (CD Title Driver).

Select Control Panel from My Computer group.

| 鸟 My | Соп | puter | | _ 🗆 × |
|----------------|---------|---------|--------------|-------|
| <u>F</u> ile § | Edit | ⊻iew | Help | |
| | H | | | |
| 3½ Flo | PPy (/ | 4:) | (C:) | |
| Cd_3 | 30 (D: |) 🖸 | ontrol Panel | |
| 1 objec | t(s) se | elected | 1 | // |

• Select the **Display** icon



- Double-click on the **Display** icon in the Setting -> **Control Panel** folder. You can also click the right mouse button anywhere on the desktop and select the Properties option form the pop-out menu.
- Click the **Settings** tab.
- Click the **Change** Display Type... button.

| Display Properties | ? × |
|------------------------|-----------------------------|
| Background Screen Save | r Appearance Settings |
| | |
| Color palette | Desktop area |
| 16 Color | 640 by 480 pixels |
| Eont size | |
| Small Fonts | Custom |
| | Change Display <u>T</u> ype |
| | OK Cancel Apply |

• Click the **Change** button

| Advanced Display Pro | operties | ? × |
|-----------------------|--------------------------|-------------------|
| Adapter Monitor Pe | formance | |
| Adapter / Driver info | I Graphics Adapter (VGA) | Change |
| Manufacturer: | (Standard display types) | |
| Current files: | 4.0 Vita drv "Vdd | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | OK Ca | ncel <u>Apply</u> |

• Click the Have Disk button.

| Select De | vice | × |
|-----------|--|---|
| 9 | Click the Display adap you don't know which disk for this device, cl | oters that matches your hardware, and then click OK. If model you have, click OK. If you have an installation lick Have Disk. |
| Manufact | urers: | Models: |
| 🖳 (Stan | dard display types) 🔺 | 🖳 Standard Display Adapter (VGA) |
| 🖳 🖳 Actix | Systems 💻 | 🖳 Standard PCI Graphics Adapter |
| 📃 🖳 ATI T | echnologies | 🖳 Standard PCI Graphics Adapter (VGA) |
| 📃 🖳 Boca | Research | 🖳 Standard PCI Graphics Adapter (XGA) |
| 📃 🖳 Cardi | nal Technologies 🚽 | 🖳 Super VGA |
| • | | |
| | | Have Disk |
| | | OK Cancel |

• Change directories and Select Trident 9880

Diskette is A: or B:\WIN95 , Disc (CD Title) is E:\drivers\Trident\9880\WIN95

● ("A:" or "B:"→ Diskette Drive "E:"→CD Drive

| Install Fr | om Disk | × |
|------------|---|----------------|
| _ | Insert the manufacturer's installation disk into the drive selected, and then click OK. | OK Cancel |
| | Copy manufacturer's files from: | <u>B</u> rowse |

| Open | | ? × |
|---------------------------|---|--------------|
| File name: trident.inf | Eolders: e:\drivers\trident\9880\win95 | OK Cancel |
| | Dri <u>v</u> es: | |

- Select Trident 9880 PCI/AGP driver form the list and click OK button. If a
 message stating that one or more driver files is older than the files on the system
 respond YES to overwrite the files.
- Click the Close button and Apply button, and restart your computer.

5.1.2 Windows98

• Select Control Panel from My Computer group.



• Select the **Display** icon

| Display Properties ? 🗙 |
|--|
| Background Screen Saver Appearance Effects Web Settings |
| Wallpaper Select an HTML Document or a picture: It stroot Black Thatch Black Thatch Black Bivets Bubbles Conter |
| OK Cancel Apply |

- Double-click on the **Display** icon in the Setting -> **Control Panel** folder. You can
 also click the right mouse button anywhere on the desktop and select the
 Properties option form the pop-out menu.
- Click the Settings tab.



• Then show [Unknown Device.] Properties tab Select Adapter

| eral Adapter Monitor Performance Color Management isplay ont Size: small Fonts ormal size (96 dpi) Show gettings icon on task bar | |
|--|------|
| isplay ont Size: Small Fonts Tomal size (96 dpi) T (Show gettings icon on task bar) | |
| ont Size: Small Fonts 🛛 💌 Iomal size (96 dpi) 1 [Show settings icon on task bar] | |
| Small Fonts Iormal size (96 dpi) Show <u>s</u> ettings icon on task bar | |
| lormal size (96 dpi) Show settings icon on task bar | |
| Show settings icon on task bar | |
| | |
| | |
| ompatibility | |
| ome programs operate improperly if you do not restart your compu fter you change color settings. | uter |
| fter I change color settings: | |
| Bestart the computer before applying the new color settings. | |
| Apply the new color settings without restarting. | |
| Ask me before applying the new color settings. | |

Then show Standard PCI Graphics.... tab Select Change

b

| Standard PCI Graphics | Adapter (VGA) Propertie | s ? 🗙 |
|--------------------------|------------------------------|-------------|
| General Adapter Moni | tor Performance Color Ma | anagement |
| CAdapter / Driver inform | araphics Adapter (VGA) | Change |
| Manufacturer: | (Standard display types) | |
| Software version: | 4.0 | |
| Current files: | vga.drv,*vdd | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | ancel Apply |

• Then show Update Device ... tab Select Next



• Then show Update Device... tab Select Search for a better... Then select Next



• Then show **Update Device** ... tab If the **Specify a location** is wrong Please select **Browse**



• Then show **Browse for Folder** tab ,Select you need driver Then select **OK**

| Browse for Folder |
|---|
| Select the folder that contains driver information (.INF file) for this device. |
| 🖻 💼 Trident 📃 |
| ⊕ - 🧰 9397 |
| 🕀 🧰 🧰 9440 |
| i ⊕ • 🧰 9680 |
| ⊕ 9685 |
| ⊕ - 🧰 9750 |
| ⊕ - 🧰 9850 |
| |
| 🔁 Win95 |
| |
| - Manual |
| 🗄 💼 Havoc 🔤 |
| 📃 🦾 🔚 Juvinfont 🔤 🔟 |
| OK Cancel |

 Then show Update Device Driver Wizard tab Select CD-ROM driver
 Click the Specify a locator, if right
 Then select Next

| Update Device Driver Wizard | |
|-----------------------------|---|
| | Windows will search for updated drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search. Eloppy disk drives D-ROM drive Microsoft Windows Update Specify a Jocation: D:\DRIVERS\TRIDENT\9880\WIN98 Bjowse |
| | < <u>B</u> ack Next > Cancel |

 Then show Update Device Driver Wizard tab Select Next

| Update Device Driver Wizard | |
|-----------------------------|--|
| | Windows driver file search for the device: |
| | Trident Blade 3D PCI/AGP (v6.50.5452bicd) |
| | Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue. |
| 8 😞 | Location of driver: |
| | D:\DRIVERS\TRIDENT\9880\WIN98\TRIDE |
| | |
| | < Back Next> Cancel |

• Then show Update Device Driver Wizard tab Select Finish

| Update Device Driver Wizard | | |
|-----------------------------|--|--|
| | Trident Blade 3D PCI/AGP (v6.50.5452bicd) | |
| | Windows has finished installing an updated driver for your hardware device. | |
| 8 | | |
| | | |
| | | |
| | < <u>B</u> ack Finish Cancel | |

 Then show System Settings Change tab Select OK

| System S | ettings Change 🛛 🛛 🔀 |
|----------|---|
| ? | To finish setting up your new hardware, you must restart your computer. |
| | Do you want to restart your computer now? |
| | <u>Yes</u> <u>N</u> o |

5.2 How to Change Color Depth and Resolution

- 1. Make sure that you have installed the **WINDOWS95** Driver.
- 2. Click on the Start box in the lower left corner and proceed to Control Panel.
- 3. Inside the **Control panel** group , click on **Display** icon to open the **Display Properties** folder and select the **Setting table**
- 4. Click on the pull-down arrow from the **Color** palette area to select color depth or adjust the sliding bar to either **Less** or **More** from the **Desktop area**
- Select OK to restart WINDOWS95 and new color depth or the new resolution takes effect.

6. Windows NT4.0 Setup

The following steps describe how to install WindowsNT4.0 display drivers

- 1. Select **Control Panel** from the **Main** group.
- 2. Select the **Display** icon.
- 3. Select Change Display Type.
- 4. Select Change from the Adapter Type area.
- 5. Select Other.
- 6. Place the Windows NT Installation Disk or Disc (CD Title) into Driver. Click OK.
- 7. Select Install and click "YES" when the Installing Driver dialog box appears.
- When the WINDOWS NT Setup dialog box appears select driver A or CD ROM, and click "Continue".

A message appears stating that drivers were successfully installed. Click **OK**. Another message appears stating that the driver could not be restarted dynamically. Restart **Windows NT** to run the new driver. Click **OK**.

FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two condition.(1).this device may not cause harmful interference. (2).this device must accept any interference received, including interference that may cause undesired operation

Warning:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, used and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference will not occur in a 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:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different form that to which the receiver in connected.
- Consult the dealer or an experienced radio/TV technician for help.

Notice:

(1) An Unshielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord by used.

(2) Use only shielded cables to connect I/O devices to this equipment.3

(3) Changes or modifications not expressly approved by the party responsible for compliance could void the use's authority to operate the equipment.

Trademark Acknowledgments

All brand names and trademarks are the property of their owners.