

FCC ID:ICUVGA-GW802

EUT:VGA CARD

APPLICANT:GAINWARD CO., LTD.
User's Manual

FEDERAL COMMUNICATIONS COMMISSION

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

NOTE

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. This equipment generates, uses and can radiated radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that 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 from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded interface cables must be used in order to comply with emission limits.

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

Table of Contents

<i>Chapter 1 Overview.....</i>	<i>1</i>
<i>Chapter 2 Hardware Installation</i>	<i>2</i>
<i>Chapter 3 Installation</i>	
<i>Microsoft Windows 3.1 Drivers</i>	<i>4</i>
<i>Microsoft Windows 95 Drivers</i>	<i>5</i>
<i>Microsoft Windows NT Drivers</i>	<i>7</i>
<i>Chapter 4 PowerStrip for Windows 95/NT</i>	<i>8</i>
<i>Chapter 5 Trouble Shooting</i>	<i>9</i>

1 Overview

Congratulations and thank you for selecting this graphics card — one of the finest 2D and 3D graphics and video accelerators available on the market today. Designed for personal computers, featuring an advanced AGP bus architecture, and bundled with accelerated drivers and powerful support software, the graphics card is highly optimized for 32-bit Windows and Direct3D games. An intelligent Plug and Play design ensures problem-free installation and use, with advanced support for the latest VESA standards (VBE), display power management (DPM), and Plug and Play monitors (DDC), and compatibility with all major 3D APIs.

System Requirements

The minimum system requirements for installing the graphics card are as follows:

- a personal computer with a Pentium, Pentium II or compatible microprocessor and at least 8MB of memory
- a VGA analog monitor supporting a minimum 60Hz vertical refresh rate
- a free 32 bit AGP bus slot
- a CD-ROM drive

Features

- Enhanced 128 bit graphics engine
- Integrated 2.0MHz RAMDAC
- Enhanced Streams Processor™ technology for hardware-assisted high-quality video playback of two video streams against a graphics background
- Supports simultaneous display of graphics and video of different color depths
- 110MHz Streams Processor operation permits video resolution support of up to 1280x1024x256 @60Hz refresh
- 66MHz Baseline AGP bus (1103D AGP), 33MHz Bus Mastering
- 100MHz Memory Clock support functionality for high performance, support SGRAM block write
- BIOS support for VESA Display Power Management Signaling (DPMS) monitor power savings modes, DDC monitor communications support

2 Hardware Installation

CAUTION!

- Static electricity can severely damage electronic parts. Take these precautions: Before touching any electronic parts, drain the static electricity from your body. You can do this by touching the internal metal frame of your computer while it's unplugged.
- Don't remove a card from the anti-static container it shipped in until you're ready to install it. When you remove a card from your computer, place it back in its container.
- Don't let your clothes touch any electronic parts.
- When handling a card, hold it by its edges, and avoid touching its circuitry.

Before You Begin

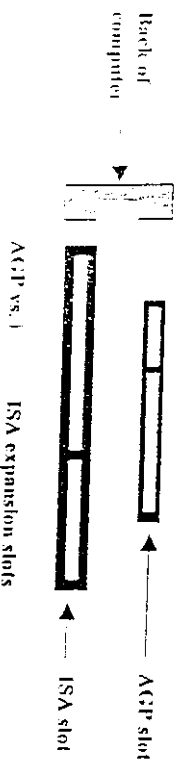
Before you proceed further, make sure your computer system meets the peripheral requirements and switch to the standard VGA display driver.

Prepare Your Computer for Installation

Prior to working on your computer, make sure the power of the computer and any related equipment is turned off.

Select a Vacant Expansion (AGP) Slot

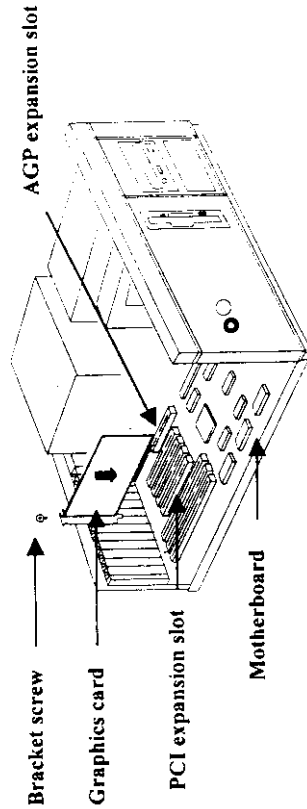
Most AGP bus computers have a combination of AGP and ISA expansion slots. AGP are usually made with plastic of a contrasting brown color (beige color), and a shorter than other slots in your computer. Your system manual should identify the AGP slots. Plugging your Graphic card into a non-AGP slot could damage the card or your computer, or both.



2 Hardware Installation

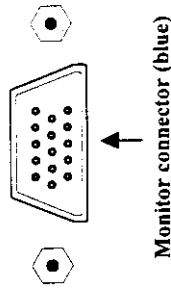
Insert your Graphic Card

Remove the cover for the slot you intend to use and save the screw for the mounting bracket. Then, pick up the Graphic card and position it over the expansion slot you've chosen. Push the card with firmly and evenly until it's fully seated in the slot. Replace the screw to secure the bracket of the Graphic card to the computer chassis.



Connect the monitor

Plug your monitor cable into the monitor connector on your Graphic card. Make sure the other end of the monitor cable is properly connected to your monitor.



3 Installation

CAUTION!

- If you received Driver CD with your VGA card, you can: Insert the CD into CD-ROM. At the DOS command prompt, typing D:\CDSETUP
- If you receive a diskette with the VGA card, please use A:\SETUP (or B:\SETUP)
- If you are performing a driver and utility upgrade, first configure Windows for a standard Windows display driver and ensure that the Display Control Panel is not running before continuing.
- If you have any install question, please check the README file in D:\CONTENTS\TEXT (or A:\RELEASE\TEXT from diskette.)

Microsoft Windows 3.1 Drivers

➤ If you are performing a driver and utility upgrade, first configure Windows for a standard Windows display driver and ensure that the Display Control Panel is not running before continuing.

SETUP VGA MODE

1. Change directory to Windows 3.1 and type "SETUP".
2. Select "DISPLAY" [ENTER].
3. Change to "VGA" [ENTER].
4. Click ENTER button to save the result.

SETUP DRIVER

1. Insert the backup copy of the driver installation diskette in drive A: or B: (or insert the Driver CD into your CD-ROM drive) and run the Setup program by selecting Run from the Windows Program Manager.
2. Change directory to Windows 3.1 and type "SETUP".
3. Select "DISPLAY" [ENTER].
4. Change to "OTHER" [ENTER].
5. Type D:\extra\trio3dwin31 (D is the letter of your CD-ROM).
6. Select the resolution and refresh rate which you need then click ENTER button to save the result.

3 Installation

Microsoft Windows 95 Drivers

- Before installing the Display driver, make sure your Windows 95 is installed in VGA mode and work fine.
- Please install the DirectX before you want to play the MPEG Movie Player.
- For Windows 95 OSR2 user: The Caution message will be shown on screen when system restart. Please select "No" on "Do you want to fix this (by restoring the file types to ActiveMovie)?" option and enable "Don't ask this question again" option.

SETUP VGA MODE

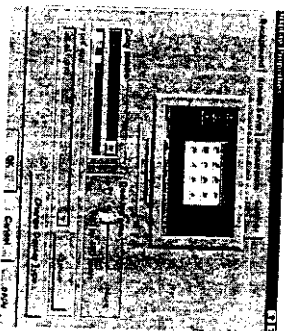
Click the right mouse button anywhere on the Windows 95 desktop and select Properties from the pop-up menu that appears on screen. Select Settings | Change Display Type (if you use the OSR2, please select Settings | Advanced Properties) and then click the [Change] button for Adapter Type. When the Select Device dialog box appears on the screen, please select [Standard display types] from the manufactures and select Standard Display Adapter (VGA) from the Models then click OK button.

SETUP DRIVER

1. Turn on your computer and start Windows 95. Insert the disk driver into your floppy (or insert the Driver CD into your CD-ROM drive).
2. Type A:\SETUP [Enter] (or B:\SETUP [Enter] as appropriate) in the Run dialog box that appears on screen. If you install with CD, please type D:\CDSETUP [Enter] in the Run dialog box.
3. The VGA Setup for Windows dialog box will appear, please click on the "Microsoft Windows Drivers and Utilities" button.
4. The PowerStrip Setup Wizard dialog box will appear on the screen, please follow the instruction to install.
5. In Display Properties, select Settings | Change Display Type (if you use the OSR2, please select Settings | Advanced Properties) and then click the [Change] button for Adapter Type.
6. When the Select Device dialog box appears on screen, check the [Have Disk] button and enter the path to the driver installation diskette (e.g., D:\Win32). Click "OK".
7. Select correct VGA mode (e.g., S3 Inc. Trio3D [x-xx-xxx]), then click the OK button. Finally click Apply button to restart your computer.

3 Installation

DirectDraw --- DirectDraw drivers designed for optimized video and multimedia playback with your VGA card are automatically installed when you install the drivers for Windows 95. Microsoft's DirectDraw runtime libraries are included and automatically installed when you install the Windows 95 support files using the Setup program on the driver installation diskette or CD.



To Change Resolution

Under Windows95, you may want to add the Display Control Panel to your "Startup" group, and enable the "Use system tray" option, so that Display Control Panel "QuickKeys" are conveniently and instantly available from the task bar.

1. For changing resolution, please excite Display Control Panel in Display Power Tools program group.
 2. Select Display Setting dialog box, then change resolution or color or refresh rate... and close the dialog.
 3. Follow the instruction on screen to take effect new display setting.
- If you already enable the "Use system tray" option and add the Display Control Panel to your "Startup" group, please follow below step to change resolution.
1. To switch resolutions, double click on the "QuickKeys" icon in the System Setup Folder.
 2. Select Display Setting dialog box, then change resolution or color or refresh rate... and close the dialog.
 3. Follow the instruction on screen to take effect new display setting.

In Windows 95 environment, please notice below information.....

1. Any changes to font size require that Windows be restarted (this is why the QuickKeys module ignores Preset font size information).
2. Although all running Windows applications are notified of a change in display settings, different applications respond in different ways to these changes; program icons, in particular, (even Display Power Tools icons!) sometimes fail to be accurately repainted as a result of a change in color depth.

3 Installation

Microsoft Windows NT Drivers

If you are running Windows NT, please note that drivers for NT are not compatible with earlier releases of NT, and vice versa. Consult your dealer, local user support groups or on-line services from time to time to ensure you have the latest release for the version of NT you are running.

To use an AGP graphics card with NT4.0, you may need to pre-install NT with Service Pack 3 (SP3) before installing the AGP card.

SETUP DRIVER

1. Turn on your computer and start Windows NT.
2. Insert the disk driver into your floppy (or Insert the Driver CD into your CD-ROM drive).
3. Type A:SETUP [Enter] (or B:SETUP [Enter] as appropriate) in the Run dialog box that appears on screen. If you install with CD, please type D:\CDSETUP [Enter] in the Run dialog box.
4. The VGA Setup for Windows dialog box will appear, please click on the "Microsoft Windows Drivers and Utilities" button.
5. The PowerStrip Setup Wizard dialog box will appear on the screen, please follow the instruction to install.
6. In Display Properties, select Settings | Advanced Properties | Change Display Type and then click the [Change] button for Adapter Type.
7. When the Select Device dialog box appears on screen, check the [Have Disk] button and enter the path to the driver installation diskette (e.g., D:\Win32). Click "OK".
8. Select correct VGA mode (e.g., S3 Inc. Trio3D [x-xx-xxxx]), then click the OK button. Finally click Apply button to restart your computer.

To Change Resolution

1. For change resolution, please select Display icon from the Control Panel, then change resolution or color or refresh rate.. from Setting dialog box and close the dialog.
2. Select Restart Now (to activate drivers)

To check monitor is VESA DDC compliant or not, users must push the "Check for plug and play_monitor" icon. Since this function will change the original refresh rate setting, Visual Control Panel (VPC) will not automatically perform this function for you.

4

PowerStrip for Windows95/NT

The PowerStrip is a display control and desktop enhancement utility for Windows 95/NT, specially designed and optimized for use with your graphics accelerator or monitor. You should think of the PowerStrip as a kind of supplementary "device driver" which works in conjunction with your accelerator's display driver, and allows you to get the most from your monitor.

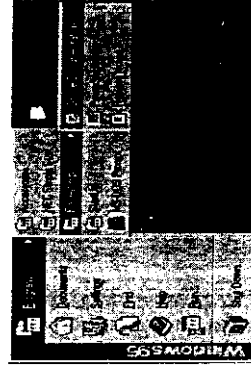
For maximum compatibility and flexibility, the PowerStrip program and drivers are loaded and unloaded *dynamically*, but note that many of the features the program provides are only available while the PowerStrip is running.

Starting the Power Strip

1. When you install the PowerStrip, the program and on-line documentation is added to the PowerStrip folder under the Windows Start menu.
2. To start the PowerStrip, click Start | Programs | PowerStrip | PowerStrip.
3. Change the PowerStrip interface to the language of your choice at any time, by clicking the PowerStrip | Advanced options | About the PowerStrip | Appearance.

Removing the PowerStrip from your system

1. To subsequently remove the PowerStrip, click the Start | Settings | Control Panel | Add-Remove Programs.
2. The Add/Remove Programs Properties dialog box will appears on screen, select PowerStrip (remove only) from the list of programs on the Install/Uninstall page.
3. Then click the Add/Remove button.
Before removing the PowerStrip from your system, it is a good idea to first switch to PowerStrip "safe mode". When you uninstall the PowerStrip, you remove all program files related to the program.



5 Trouble Shooting

Problem: After installation and restarting, Windows 95 informs me that display setting is still incorrect. What can I do?

There may be conflict between previous and current display drivers. This is caused by not complete removal of previous display driver. Try the following steps to remove it:

Solution:

- (1) Use right button of mouse to click on "My Computer" icon on desktop.
- (2) Select "Properties" and "System Properties" box appears
- (3) Click on "Device Manager" tab
- (4) You will see a list of devices on your computer.
- (5) Open "Display adapters" in the list (double click it).
- (6) You will find two (or more) conflicted adapters listed here.
- (7) Remove all previous adapters by selecting them and press "Remove"
- (8) Close Device Manager and restart Windows 95.
- (9) Now display driver will work correctly.

Problem: After installing the driver, Windows 95 doesn't prompt me for restarting and the driver still doesn't work after I reboot it by myself.
You may have installed similar drivers before. Try the following steps to install:

Solution:

- (1) Use right button of mouse to click on "My Computer" icon on desktop.
- (2) Select "Properties" and "System Properties" box appears
- (3) Click on "Device Manager" tab
- (4) You will see a list of devices on your computer.
- (5) If "Display adapters" appears in the list, click it.
If "Display adapters" doesn't appear, jump to step 9 and continue.
- (6) The name of your card will be listed in the box. Double click it.
- (7) The properties box of your card appears. Select "Driver" tab.
- (8) Click "Change Driver..." and follow the installation steps.
- (9) Click "Other devices" you will see your card is listed.
- (10) Click on the name of card, the properties box appears.
Select "Driver" tab.
- (11) Click "Change Driver..." and follow the installation steps.

Problem: When using Display Control Panel the Preview can't work or refresh rate is not correct.

Solution: It is because in some modes, such like 1600x1200, Preview mode may not work well in drivers.

5 Trouble Shooting

When you need advanced technique service, please Complete this form and FAX to your dealer.

Your name:

Phone :

Product S/N:

PCB NO.:

HARDWARE CONFIGURATION			
Mainboard Chipset:	CPU Clock:	MHz	
Mainboard CPU:	VGA Memory Type:		
Mainboard Memory:	VGA Memory	MB	
Mainboard Brand:	VGA Memory Brand:		
Cache Memory:	KB	FDD/HDC Card:	
Monitor:	Horizontal Freq. :	KHz	to KHz
	Vertical Freq. :	Hz	to Hz
Other Cards on Mainboard:			
Note:			

5

Trouble Shooting

SOFTWARE CONDITION
CONFIG.SYS:
AUTOEXEC.BAT:
Operation System or Test Program:
Application Software or Test Program:
Problem Description:
Note: --

