
XFX
SEE IT-HEAR IT-FEEL IT
GeForce
7 SERIES
User's Manual

## Copyright



## Notice

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## Trademarks



## Technical Support

If you require additional information or assistance during installation, please contact your dealer who will be able to provide the latest information. Or you may visit our website for technical support or email to us.

# FCC Compliance

Federal Communications Commission Statement

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

- This device may not cause harmful interference.
- 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 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 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/TV technician for help.

**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 not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

# TABLE OF CONTENTS

# A. PRODUCT INFORMATION

**THANK YOU** for purchasing our NVIDIA® GeForce™ 7 series VGA card, which supports DirectX 9.0 Shader Model 3.0 and ushers in a new era of graphics and gaming. With a GeForce 7 series graphics card, you can get better performance and higher speed in graphics that you have ever experienced.

## A. 1 Item Checklist

- ✓ One NVIDIA® GeForce™ 7 series VGA card
- ✓ One driver CD
- ✓ One video cable
- ✓ One user's manual

## A. 2 System Requirements

- Intel PIII / Celeron, AMD Duron or Athlon CPU or higher
- 64 MB system memory at least
- For 7800 GTX, at least 400W system power supply (with 12V current rating of 26A). For two GeForce 7800 GTX-based graphics cards running in NVIDIA SLI configurations, a minimum 500W system power supply (with 12V rating of 34A) is recommended.
- For 7800 GT, at least 350W system power supply (with 12V current rating of 20A). For two GeForce 7800 GT-based graphics cards running in NVIDIA SLI configurations, a minimum 450W system power supply (with 12V rating of 26A) is recommended.
- Windows 2000 / XP
- A PCI Express compliant motherboard
- A PCI Express supplementary power connector
- CD-ROM or DVD-ROM drive

## A. 3 Key Features for 7800 Series

– Next-generation architecture delivers mind-blowing performance
  - New NVIDIA® CineFX™ 4.0 engine delivers advanced visual effects at unimaginable speeds
    - 2x floating-point shader power (over previous generation)
    - New texture core accelerates 64-bit floating point texture filtering for state-of-the-art HDR support
  - Proven Microsoft® DirectX 9.0 Shader Model 3.0 technology
  - Designed for the next-generation Microsoft® "Longhorn" operating system (OS)

- Industry's most stable driver architecture delivers rock-solid reliability and compatibility

– Advanced visual effects engines deliver the most realistic gaming experience
  - New NVIDIA® Intellisample™ 4.0 technology delivers exceptional visual quality through gamma correct rotated grid antialiasing and advanced anisotropic filtering
    - Breakthrough transparency supersampling and multisampling antiasing modes
    - Improved sample coverage (up to 128 Taps) improves quality of anisotropic filtering
    - Support for normal map compression enables more lifelike characters and environments
  - 64-bit floating point texture filtering and blending delivers state-of-the-art HDR support

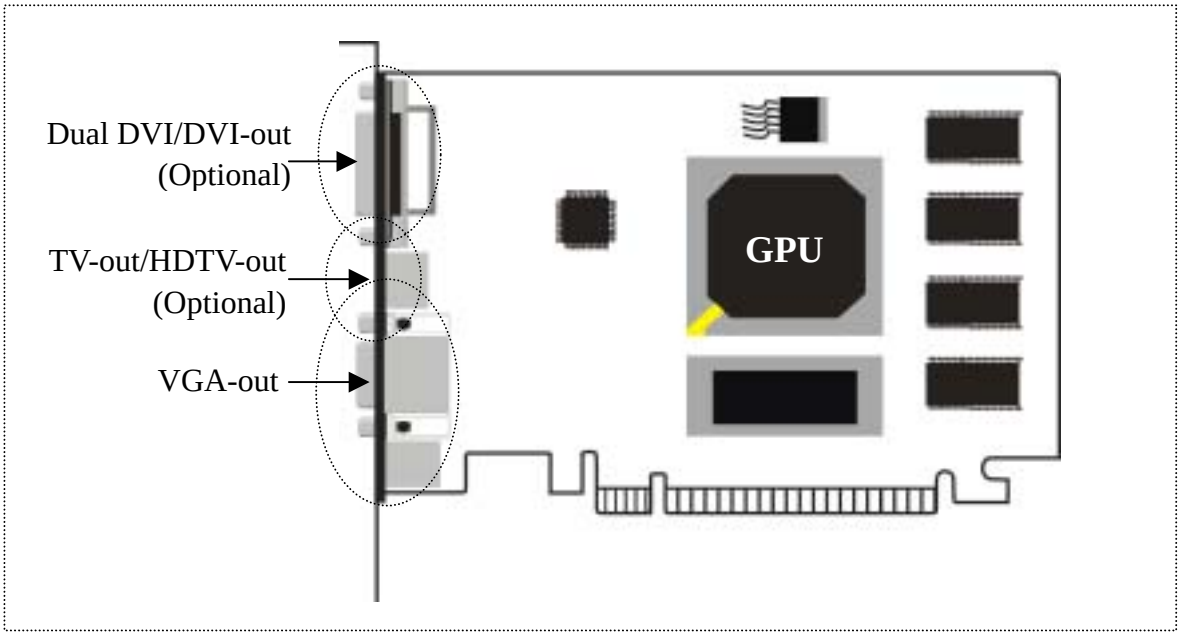
– NVIDIA® SLI™ technology – Up to 2x the performance of a single GPU for unparalleled gaming experiences
  - Scales performance on over 60 top PC games

– NVIDIA® PureVideo™ technology delivers home-theater quality video to the PC
  - Dedicated video processors dramatically increase video processing performance
  - Enhanced HDTV processing delivers 50% efficiency improvement and WMV9 1080p support
  - Multi-threading video processing improves efficiency
  - MPEG2 video encode and decode delivers a stunning video experience
  - WMV9 decode acceleration provides unmatched performance for Microsoft® Windows® Media Center Edition
  - Industry's most advanced video algorithms
    - Inverse 3:2 and 2:2 pull-down
    - Advanced motion adaptive de-interlacing smoothes playback on progressive displays
    - High-quality video scaling and filtering allows you to change window size to full screen without video noise or artifacts
  - Integrated HDTV-output brings content from your desktop to your high-definition TV

# B. HARDWARE INSTALLATION

## B. 1 Board Layout

***Note***: The pictures are for reference only and might be different from the appearance of your purchased product.




**GeForce 7 Series PCI-E card**

***Note:*** The card and other components are subjected to damage by static electricity. Users should take necessary precautions when handling these static sensitive devices, such as taking on anti-static wrist strap, or keep the motherboard touching the metal chassis of PC to eliminate static electricity.

## B. 2 Uninstall the Existing Display Driver

- Skip this step if you are installing a new computer.
- Click Start | Setting | Control Panel | System | Device Manager. Select the existing driver name in Display Adapter column and delete it (please refer to your old VGA card's manual).

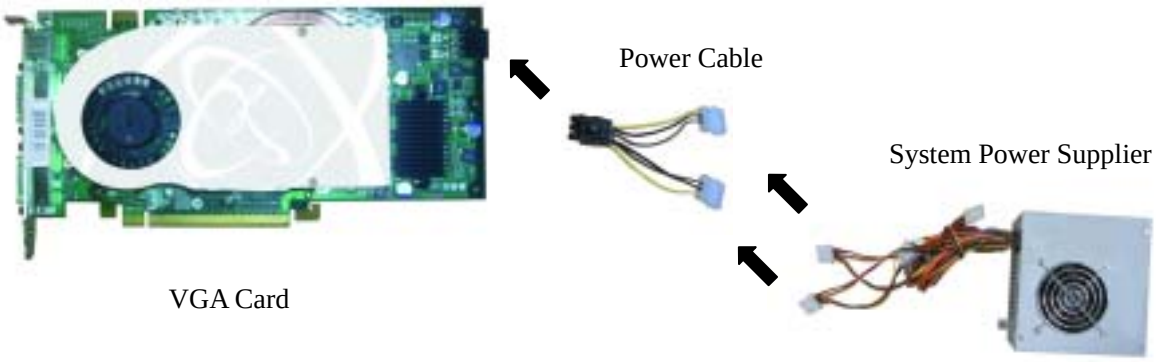
# B. HARDWARE INSTALLATION

## B. 3 Install New VGA Card

- Shut down the computer and unplug electrical cords on your computer;
- Open up the case cover and remove the existing card;
- Earth yourself then take the card out of the anti-static bag. Insert the new card (XFX specially builds an aluminum strip to protect the VGA, you can let it be during / after VGA card installation) into one PCI-E slot. Pay attention to the slot direction and avoid the damage to motherboard and VGA card;
- Put the cover back and plug in the electrical cords;

## B. 4 Connect Our Power Cable (if available)

After installing the card, please connect our power cable before starting your computer.




## B. 5 Connect Our HDTV / VIVO Cable (if available)

# C. DRIVER INSTALLATION

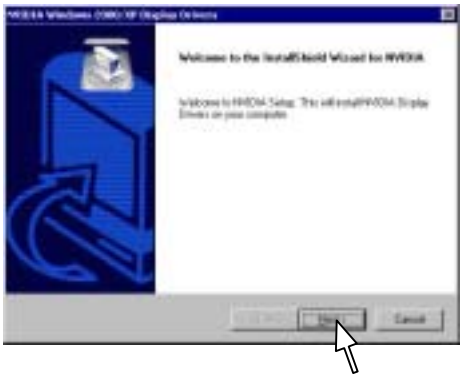
## C. 1 Display Driver Installation

1. Put the driver CD into the CD/DVD-ROM drive of your PC. After XFX VGA card is detected, the below window will be loaded automatically. Click the XFX logo to continue;


2. Click *VIDEO DRIVERS* to continue;


3. Click *WINDOWS DRIVER* to continue;

4. Click *Next* in this welcome window;



5. Click *Yes* to continue;

6. Click *Finish* to complete the display driver installation and restart the computer.

# C. DRIVER INSTALLATION

## C. 2 TV Capture Driver Installation

1. Put the driver CD into the CD/DVD-ROM drive of your PC. After XFX VGA card is detected, the below window will be loaded automatically. Click the XFX logo to continue;


2. Click *VIDEO DRIVERS* to continue;


3. Click *TV CAPTURE* to continue;

4. Click *Next* to continue;

5. Click *Finish* to complete the installation and restart the computer.

# C. DRIVER INSTALLATION

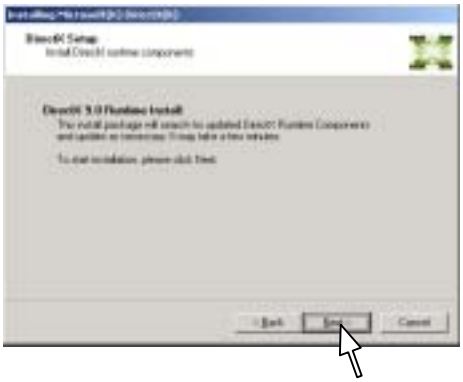
## C. 3 DirectX 9.0 Installation

1. Put the driver CD into the CD/DVD-ROM drive of your PC. After XFX VGA card is detected, the below window will be loaded automatically. Click the XFX logo to continue;


2. Click *INSTALL DIRECTX 9.0* to continue;


3. Check “I accept the agreement” and then click *Next* to continue;

4. Click *Next* to continue;



5. Click *Finish* to complete the installation and restart the computer.

# D. SETTING

7800 GTX is used as an example here.

## D. 1 Display Properties

After the driver installation, you may click *Display* icon in Control Panel to view display properties. Or, you may right-click the Windows desktop to pop up the shortcut menu, and then click *Properties*. In Settings tab, you may change the display settings.

– ***Screen area***

Change the resolution of your monitor.

– ***Colors***

Change the color depth of your monitor.

## D. 2 Advanced Settings

Click *Advanced* button in the Settings tab to change various property settings.

### *D.2.1 General*

– ***Display***

Set system font size.

– ***Compatibility***

Set the operating mode of system after changing color settings.

### *D.2.2 Adapter*

This tab shows you some basic information of the adapter.

### *D.2.3 Monitor*

In this tab, you may adjust refresh rate of your monitor.

### *D.2.4 Troubleshoot*

If you have problems with your graphics hardware, you can adjust the slider to troubleshoot display-related problems.

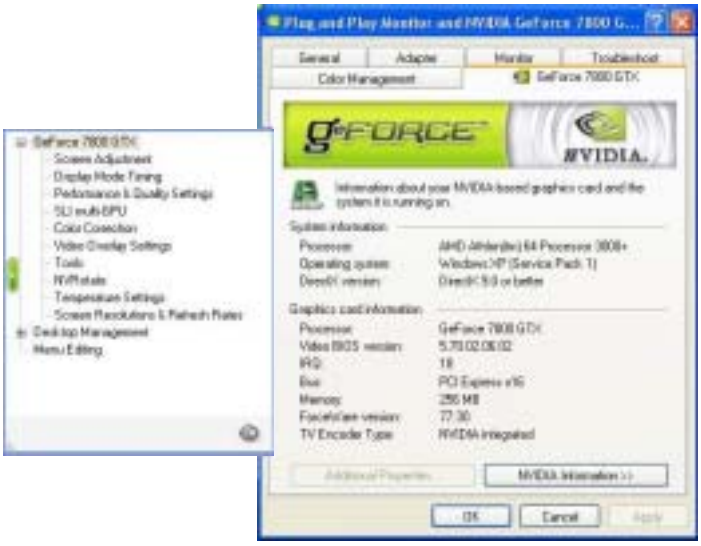
### *D.2.5 Color Management*

In this tab, you may manage and select monitor color profiles.

You may click *Add* to select and append appropriate color profile.

### *D.2.6 GeForce 7800 GTX*

This tab shows relevant information about the card, and it has links to the NVIDIA website for updated information about the graphics card, latest drivers and other information.



In the above window, you may select any scheme in the extended menu.

#### D.2.6.1 nView Display Mode

– ***Standard (nView disabled):*** disable the nView function, allowing viewing on one display. The default setting.

– ***Clone:*** allow two output devices to display the same image.

– ***Horizontal Span:*** the desktop area is spread horizontally across both displays.

– ***Vertical Span:*** the desktop area is spread vertically across both displays.

– ***Display:*** you may select the output device on which to display windows.

You may click on *Device Settings* to adjust screen position, correct color or select output device.

#### D.2.6.1.1 Color Correction

a. In Device Selection tab you may select the output device on which to display Windows. If you check "TV", then you may select TV format by clicking *Change Format*.

b. Color Correction tab


– ***Active Color Channel***

- Select one color channel as active color channel and parameter adjust object. The options are: red, green, blue, or all channels.
- You may adjust brightness, contrast and gamma of the active color channel.

– ***Custom Color Settings***

More colors are available, and you may change or keep the settings.

#### D.2.6.1.2 Screen Adjustment

a. In Screen Adjustment tab, you may adjust the screen position.

b. In Display Timing tab, you may set display timing mode.


– ***Auto-Detect (let Windows determine the proper mode)***

This option allows Windows to receive the proper timing information directly from the monitor itself. This is the default setting.

Note: Some old monitors may not support this feature.

– ***General Timing Formula (GTF)***

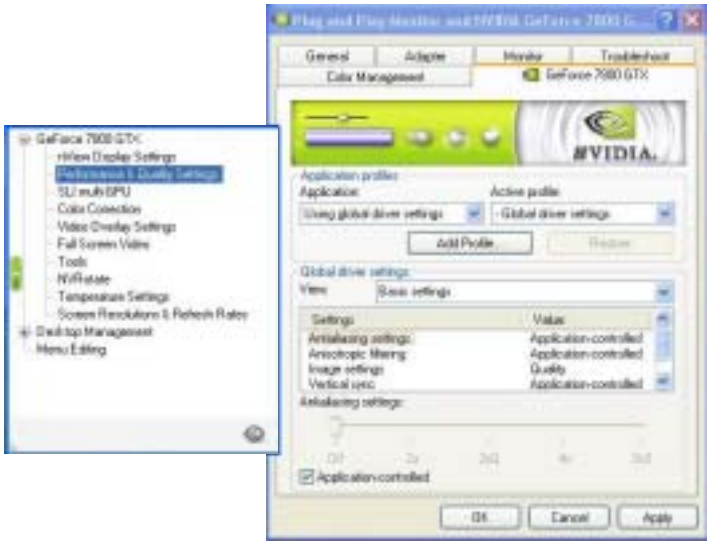
GTF is the standard used by many new monitors.

– ***Discrete Monitor Timings (DMT)***

DMT is an old standard still in use by some monitors. Select this option if your monitor complies with it.

– ***Fixed Aspect Ratio Timing***

### D.2.6.2 Performance & Quality Settings



– ***Intellisample ™ Settings***

Intellisample Engine: The industry's fastest and highest quality antialiasing delivers ultra-realistic visuals, with no jagged edges, at lightning-fast speeds.

– ***Antialiasing-Off (no antialiasing)***

*Off (no antialiasing):* Disable antialiasing in 3D applications. Pitch on it when you require maximum performance in your applications.

*2x:* Enable antialiasing using the 2x mode. Pitch on it for improved image quality and high performance in 3D applications.

*Quincunx Antialiasing (tm):* Enable a patented antialiasing technique available. It offers the quality of the slower 4x AA mode at very near the performance of the faster 2x AA mode.

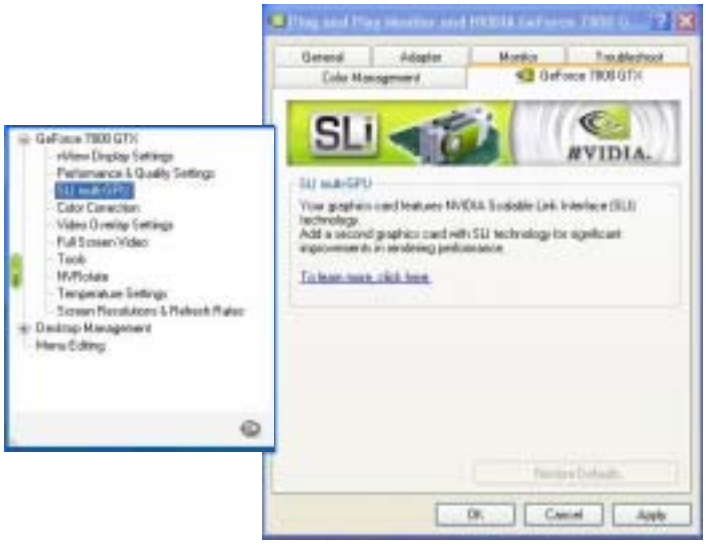
*4x:* Enable the antialiasing using the 4x mode. Pitch on it for the highest possible image quality at eh expense of some performance drain in 3D applications.

– ***Anisotropic Filtering-Off***

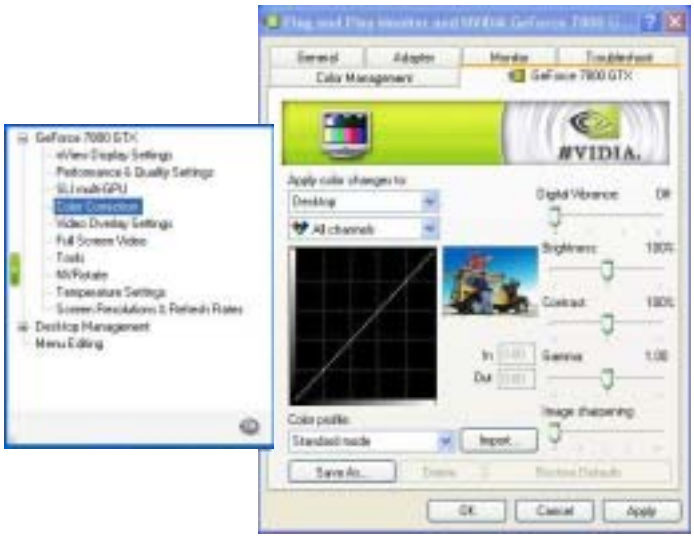
– ***Texture Sharpening***

### D.2.6.3 SLI multi-GPU

If you add a second graphics card with SLI technology for significant improvements in rendering performance, for more information, please click the link on the below window.

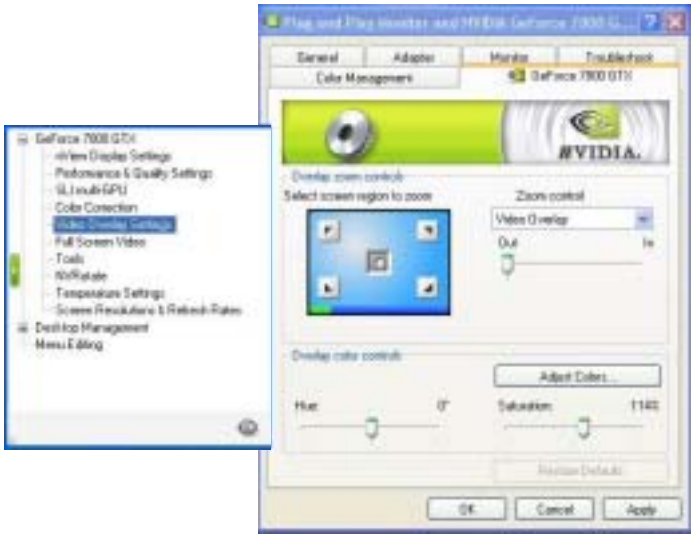



### D.2.6.4 Color Correction




Please refer to D.2.6.1.1.

### D.2.6.5 Video Overlay Settings



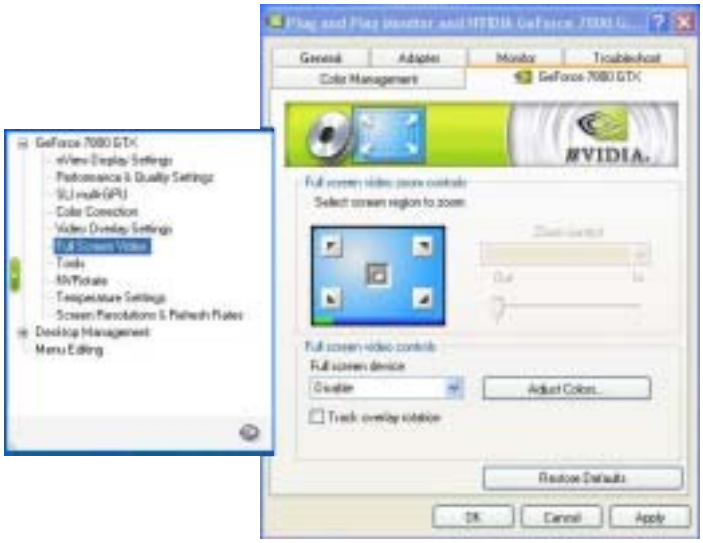
– ***Zoom Control***

This option: Video Overlay, Video Mirror, Both.

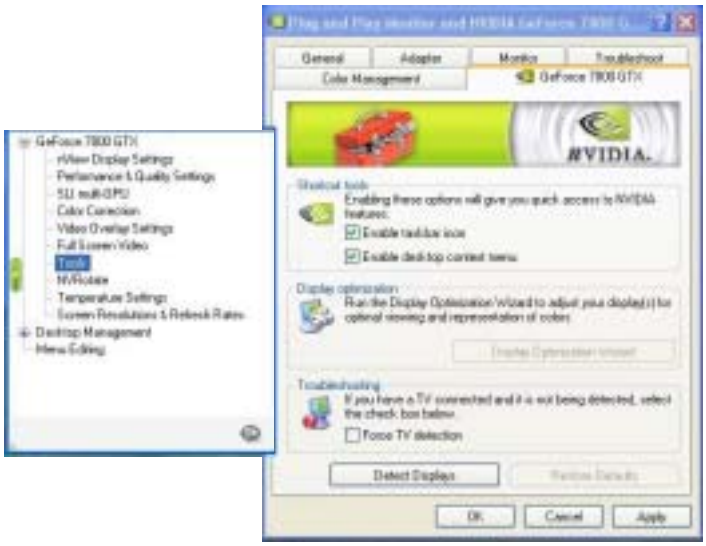
– ***Select screen region to zoom***

This option lets you select the region on the video playback to zoom in or out.

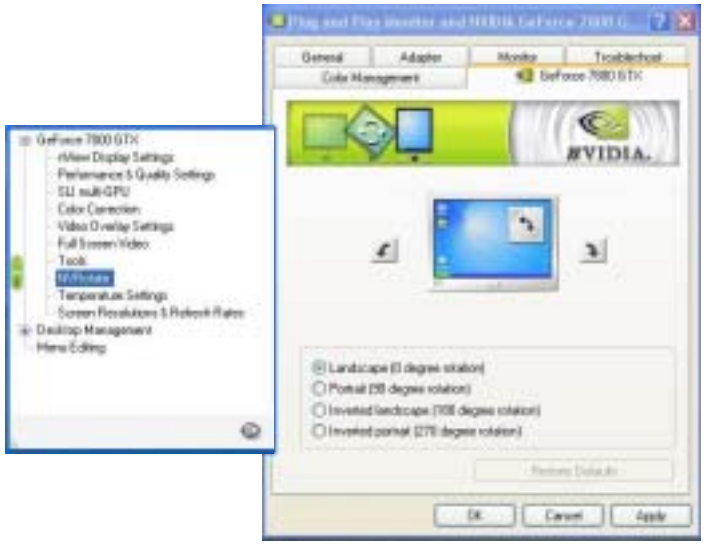
### D.2.6.6 Fullscreen Video



### D.2.6.7 Tools



### D.2.6.8 NVRotate



NVIDIA's NVRotate technology allows users to pivot any display connected to an NVIDIA GPU from landscape to portrait mode, for easier information and application viewing.

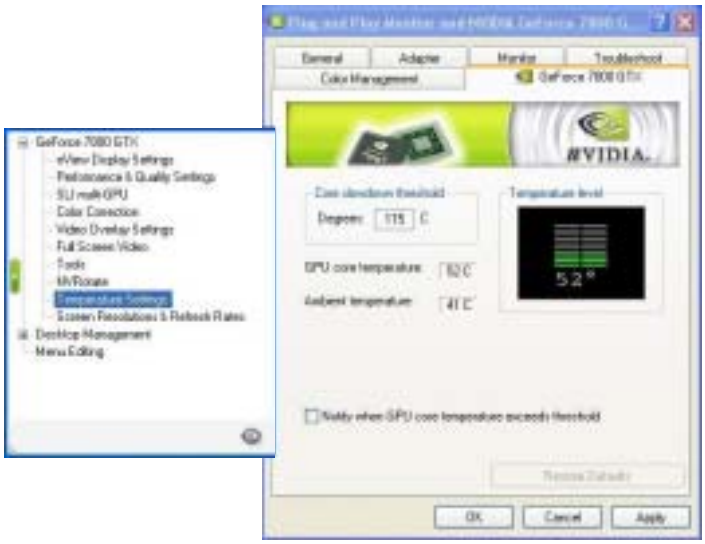
– ***Landscape (0 degree rotation)***

– ***Portrait (90 degree rotation)***

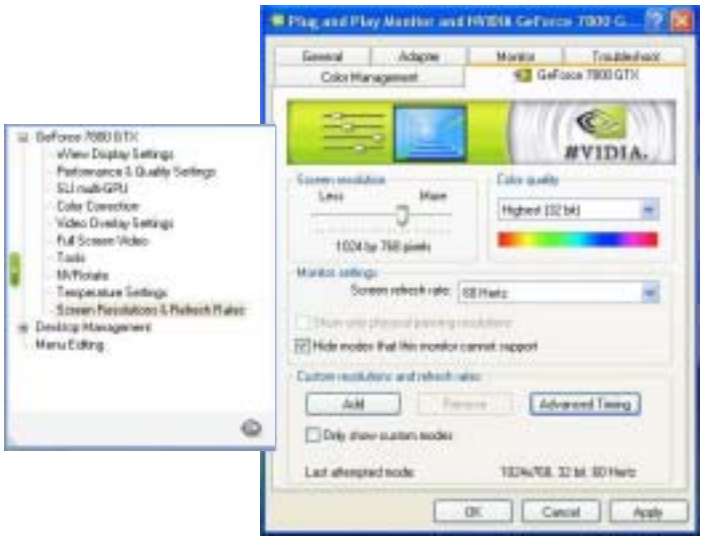
– ***Inverted Landscape (180 degree rotation)***

– ***Inverted Portrait (270 degree rotation)***

### D.2.6.9 Temperature Settings



### D.2.6.10 Screen Resolutions & Refresh Rates



# E. TROUBLESHOOTING

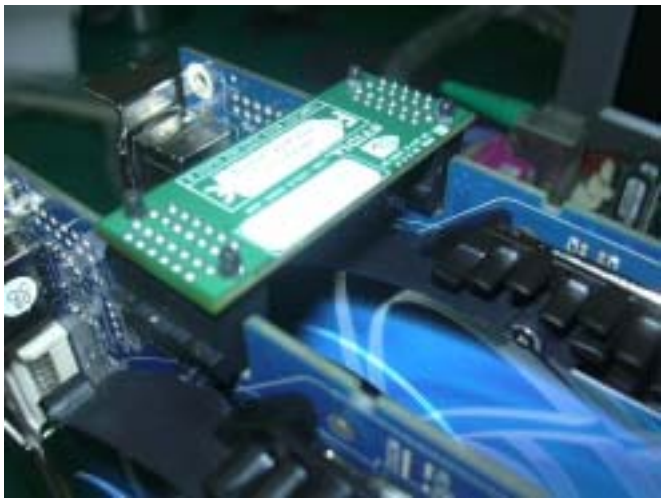
| TROUBLE | RECOMMENDED ACTIONS |
|---|---|
| After installation and restarting, Windows 95/98 reports that the display settings are still incorrect. | - Make sure the “Assign IRQ to VGA” option is enabled in the BIOS.<br>- Check if there is enough IRQ for VGA.<br>- Uninstall the driver, restart, and reinstall the driver. |
| The above problem or other troubles appear when using non-Intel main board. | - Install display pack program corresponding to main board (chipset) such as VIA-AGP4X, etc. |
| Unable to set high resolution (over 640 x 480) or color depth over 256-bit. | - Make sure the driver installation is correct, or please reinstall the driver in Control Panel/Monitor/Setup.<br>- Install compatible driver for monitor. |
| Fail to set high refresh rate. | - It depends on the features of monitor. Consult your monitor documentation for the proper configuration. |
| DirectX or other applications report no video memory available. | - OS is not OSR 2.1 or later.<br>- DirectX version is not 9.0 or later. |
| Games or applications report “No 3D acceleration hardware found.” | - 3D works only in 16-bit or 32-bit color depth. Switch your color depth display mode to the corresponding color depth.<br>- Check necessary libraries such as DirectX or OpenGL.<br>- Try to switch to a lower resolution. |
| The PC will freeze when operating some 3D games. | - Due to the update of driver, it might not be compatible with some games, please download the right driver. |
| My MPEG player displays bad quality video clips. | - You must install DirectX 9 or later so that you can take advantage of the hardware acceleration mode (DirectDraw).<br>- Try to switch to a lower resolution, color depth, or refresh rate. And ensure hardware acceleration support. |

# Appendix---- Installing SLI Card (if available)

***Note***: The pictures are for reference only and might be different from your purchased product and the real interface.

## I. Hardware Installation

***Note***: To protect the board, always holding the two edges of the boards instead of holding any components or fan.



The monitor should always connect the second board, like below:

## II. System Installation:

Go to the control panel-> display properties -> setting tab and selected advanced to go to the board setting page.

Then select SLI multi-GPU at the left hand menu. Make sure “enable SLI multi-GPU” and “show GPU load balancing” are ticked.


After restarting the system, you will see a “SLI has been enabled” message appear in the system tray and it’s done. Enjoy it!

www.XFXforce.com

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