

Declaration of Conformity

We, Manufacturer/Importer
(full address)

G.B.T. Technology Trading GmbH
Ausschlagler Weg 41, 1F 20537 Hamburg, Germany

declare that the product
(description of the apparatus, system, installation to which it refers)

VGA Card

GV-NX86S256H

is in conformity with
(reference to the specification under which conformity is declared)
in accordance with 89/336 EEC-EMC Directive

- | | | | |
|---|--|---|---|
| <input type="checkbox"/> EN 55011 | Limits and methods of measurement of radio disturbance characteristics of industrial, scientific and medical (ISM) high frequency equipment | <input checked="" type="checkbox"/> EN 61000-3-2 | Disturbances in supply systems caused |
| <input type="checkbox"/> EN 55013 | Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment | <input checked="" type="checkbox"/> EN 61000-3-3 | Disturbances in supply systems caused by household appliances and similar electrical equipment "Voltage fluctuations" |
| <input type="checkbox"/> EN 55014-1 | Limits and methods of measurement of radio disturbance characteristics of household electrical appliances, portable tools and similar electrical apparatus | <input type="checkbox"/> EN 55024 | Information Technology equipment-Immunity characteristics-Limits and methods of measurement |
| <input type="checkbox"/> EN 55015 | Limits and methods of measurement of radio disturbance characteristics of fluorescent lamps and luminaries | <input type="checkbox"/> EN 50082-1 | Generic immunity standard Part 1: Residual, commercial and light industry |
| <input type="checkbox"/> EN 55020 | Immunity from radio interference of broadcast receivers and associated equipment | <input type="checkbox"/> EN 50082-2 | Generic immunity standard Part 2: Industrial environment |
| <input checked="" type="checkbox"/> EN 55022 | Limits and methods of measurement of radio disturbance characteristics of information technology equipment | <input type="checkbox"/> EN 55014-2 | Immunity requirements for household appliances tools and similar apparatus |
| <input type="checkbox"/> DIN VDE 0855 | Cabled distribution systems; Equipment for receiving and/or distribution from sound and television signals | <input type="checkbox"/> EN 50091-2 | EMC requirements for uninterruptible power systems (UPS) |
| <input type="checkbox"/> part 10 | | | |
| <input type="checkbox"/> part 12 | | | |
| <input checked="" type="checkbox"/> CE marking | | | |



(EC conformity marking)

The manufacturer also declares the conformity of above mentioned product with the actual required safety standards in accordance with LVD 2006/95/EC

- | | | | |
|--|---|---|---|
| <input type="checkbox"/> EN 60065 | Safety requirements for mains operated electronic and related apparatus for household and similar general use | <input checked="" type="checkbox"/> EN 60950 | Safety for information technology equipment including electrical business equipment |
| <input type="checkbox"/> EN 60335 | Safety of household and similar electrical appliances | <input type="checkbox"/> EN 50091-1 | General and Safety requirements for uninterruptible power systems (UPS) |

Manufacturer/Importer

Signature : Timmy Huang

(Stamp)

Date : Apr. 17, 2007

Name : Timmy Huang

DECLARATION OF CONFORMITY

Per FCC Part 2 Section 2.1077(a)



Responsible Party Name: G.B.T. INC. (U.S.A.)

**Address: 17358 Railroad Street
City of Industry, CA 91748**

Phone/Fax No: (818) 854-9338/ (818) 854-9339

hereby declares that the product

Product Name: VGACard

Model Number: GV-NX86S256H

Conforms to the following specifications:

FCC Part 15, Subpart B, Section 15.107(a) and Section 15.109
(a), Class B Digital Device

Supplementary Information:

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 and (2) this device must accept any inference received, including that may cause undesired operation.

Representative Person's Name: ERIC LU

Signature: Eric Lu

Date: Apr. 17, 2007

GV-NX86S256H

GeForce™ 8600 GTS Graphics Accelerator

User's Manual

Rev. 101

12MD-NX86S2H-101R



* The WEEE marking on the product indicates this product must not be disposed of with user's other household waste and must be handed over to a designated collection point for the recycling of waste electrical and electronic equipment!!

* The WEEE marking applies only in European Union's member states.

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Trademarks

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Notice

Please do not remove any labels on VGA card, this may void the warranty of this VGA card

Due to rapid change in technology, some of the specifications might be out of date before publication of this booklet.

The author assumes no responsibility for any errors or omissions that may appear in this document nor does the author make a commitment to update the information contained herein.

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1. Introduction

1.1. Features

- Powered by **NVIDIA® GeForce™ 8600 GTS** Graphics Processing Unit (GPU)
- Supports PCI Express x16
- Integrated with 256 MB GDDR3 memory
- Supports DirectX 10
- Supports NVIDIA® SLI™ (Scalable Link Interface) technology ^(Note)
- Supports AV / S-Video / TV-Out and HDTV output
- Supports 2 DVI-I connectors
- Supports 2 D-sub connectors (by adapter)
- Supports HDCP (High-bandwidth Digital Content Protection) technology

1.2. Minimum System Requirements

- **Hardware**
 - Intel® Pentium® 4 or AMD Athlon™
 - 128 MB of system memory; 2 GB or more for best performance
 - Optical drive for software installation (CD-ROM or DVD-ROM drive)
 - A power supply with 450-watt is recommended
- **Operating System**
 - Windows® Vista
 - Windows® XP with Service Pack 2 (SP2)
 - Windows® XP Professional x64 Edition
 - Windows® 2000
- **SLI™ Configuration**

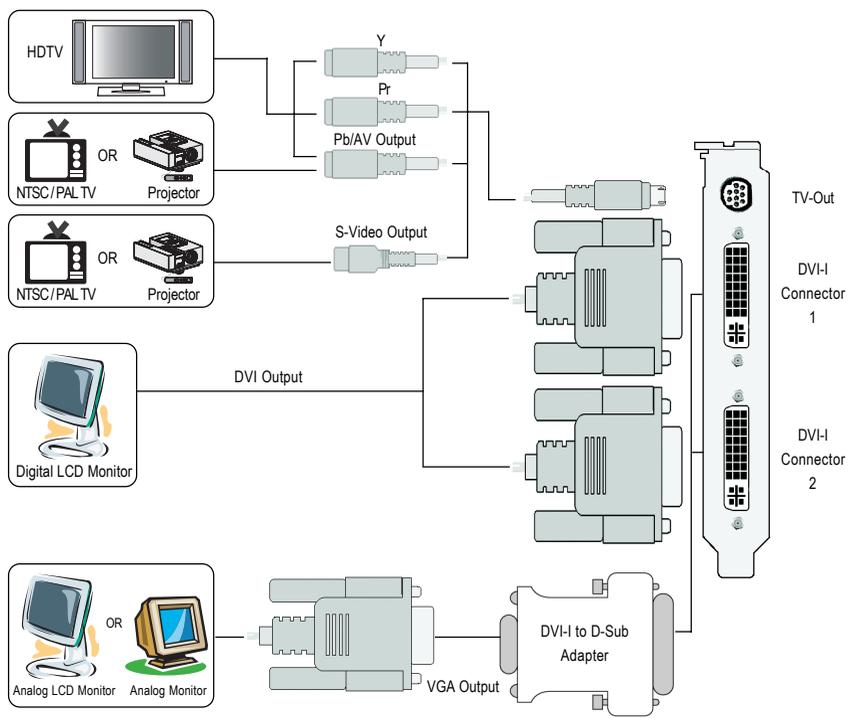
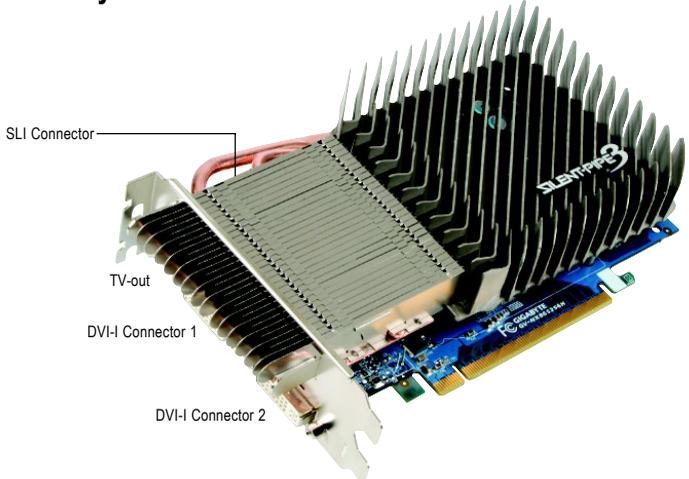
If you are planning on using this graphics card as part of an SLI™ system, the following is required:

 - An SLI™ certified motherboard with two PCI Express x16 slots and correct PCIe chipset driver
 - Two GV-NX86S256H
 - A power supply with 1000-watt or above is recommended
 - An SLI™ bridge connector

(Note) SLI technology requires a PCI Express motherboard with two x16 physical connectors. Graphics cards working in an SLI configuration must be with the same model name (i.e. GV-NX86S256H) and from the same vendor (i.e. GIGABYTE TECHNOLOGY).

2. Hardware Installation

2.1. Board Layout





Expansion cards contain very delicate Integrated Circuit (IC) chips. To protect them against damage from static electricity, you should follow some precautions whenever you work on your computer.

1. Turn off your computer and unplug power supply.
2. Use a grounded wrist strap before handling computer components. If you do not have one, touch both of your hands to a safely grounded object or to a metal object, such as the power supply case.
3. Place components on a grounded antistatic pad or on the bag that came with the components whenever the components are separated from the system.

The card contains sensitive electric components, which can be easily damaged by static electricity, so the card should be left in its original packing until it is installed.

Unpacking and installation should be done on a grounded anti-static mat. The operator should be wearing an anti-static wristband, grounded at the same point as the anti-static mat.

Inspect the card carton for obvious damage. Shipping and handling may cause damage to your card. Be sure there are no shipping and handling damages on the card before proceeding.

⚡ **DO NOT APPLY POWER TO YOUR SYSTEM IF IT HAS BEEN DAMAGED ON THE CARD.**

⚡ **In order to ensure your graphics card working correctly, please use official Gigabyte BIOS only. Use none official Gigabyte BIOS might cause problem on the graphics card.**

2.2. Hardware Installation

Installing Your graphics card.

Now that you have prepared your computer, you are ready to install your graphics accelerator card.

To remove the existing graphics card:

1. Power off the computer and monitor, then disconnect the display cable from the back of your computer.

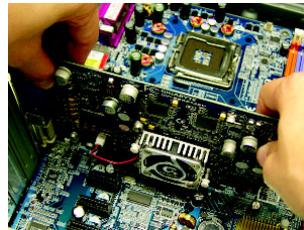


2. Remove the computer cover. If necessary, consult your computer's manual for help in removing the cover.



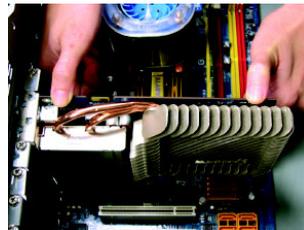
3. Remove any existing graphics card from your computer.

Or, if your computer has any on-board graphics capability, you may need to disable it on the motherboard. For more information, please see your computer documentation.



To install your new graphics card:

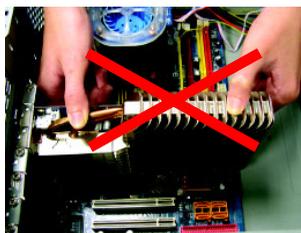
1. Locate the PCI Express x16 slot. If necessary, remove the metal cover from this slot; then align your graphics card with the PCI Express x16 slot, and press it in firmly until the card is fully seated.



* Please make sure that the gold edge connectors of the graphics card is securely inserted.



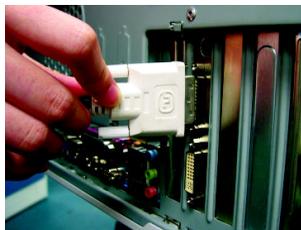
When installing the graphics card, do not push down the heat pipe. This may displace the heat pipe and cause bad contact between the GPU and thermal pad as well as affect the heat dissipation. To avoid system instability, do not touch the graphics card when it is running .



2. Replace the screws to fasten the card in place, and replace the computer cover.



3. Plug the display cable into your graphics card; then turn on the computer and monitor. To connect a flat panel directly to your graphics card, use the DVI-I connector. To connect a VGA monitor to the DVI-I connector, plug the DVI-I to D-sub adapter into the DVI-I connector, then plug the monitor cable into the adapter.



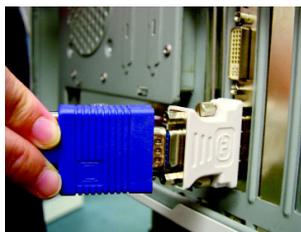
Connect a flat panel



To TV / VCR



To Flat Panel Display

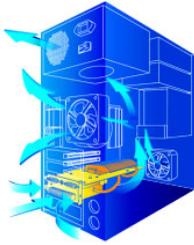


Connect a VGA monitor via DVI-I to D-sub adapter

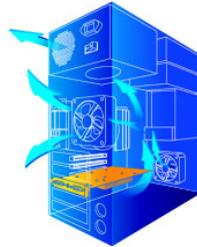
You are now ready to proceed with the installation of the graphics card driver. Please refer to next chapter for detailed instructions.

GIGABYTE Thermal Solution Guidelines:

1. GIGABYTE established the use of silent pipes on graphics card's thermal solution, and has been the leading company for silent thermal solution. GIGABYTE's passive thermal solution allows system to work perfectly in chassis with 40~50 degrees Celsius through the air flow of the system. Please beware of the other excess component or insufficient system thermal design that may cause high system temperature. Excess high temperature will affect the passive thermal design and thus compromising system stability.
2. GIGABYTE TECHNOLOGY's passive thermal design effectively implemented heat exchange, radiation and convection to improve stability of the system. Please maintain passive thermal sink at a normal and clean environment. Extra dust on heatsink may decrease the effectiveness of the thermal design.

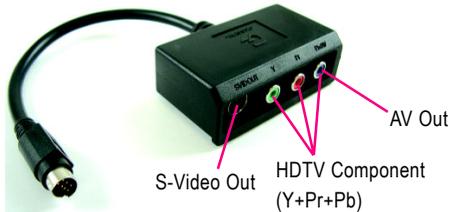


Silent Thermal Technology



Passive Thermal Design

GIGABYTE Video Adapter for Nvidia Graphics Cards



Connect to the TV-Out port
on the graphics card.

(1) Connecting HDTV

Connect your HDTV cables to the video adapter
according to the corresponding color.

(Y= Green, Pr= Red, Pb= Blue)



(2) Connecting S-Video

If your TV has a S-Video connection, connect the S-Video cable from your TV to the S-Video Out port on the adapter.



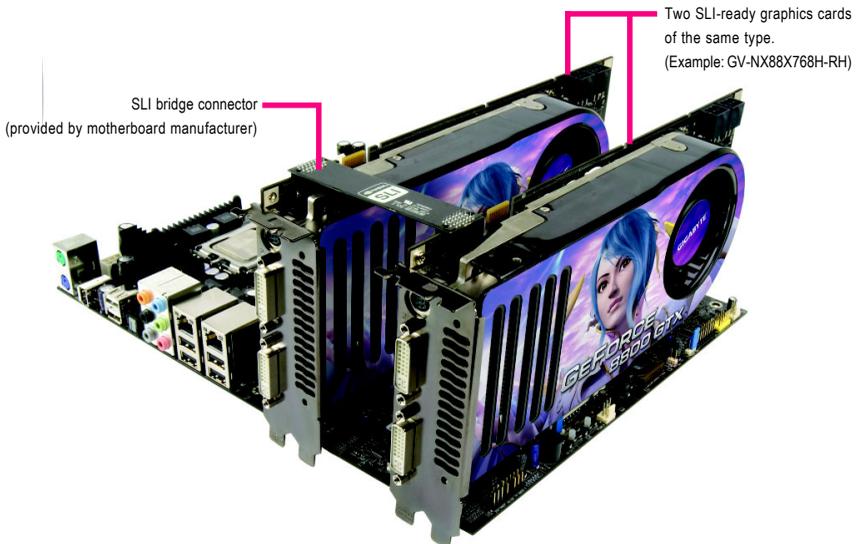
(3) Connecting AV Output

If your TV has a Composite video connection, you can connect the RCA cable from your TV to the AV Out port on the adapter.



How NVIDIA® SLI™ (Scalable Link Interface) technology works:

In an SLI configuration, two SLI-ready graphics cards of the same model and the same manufacturers are connected together via SLI bridge connector in a system that provides two PCI Express x16 slots to scale graphics performance. The picture below shows that two graphics cards are linked in parallel in an SLI configuration.



3. Software Installation

In this manual, we assume that your CD-ROM Drive letter to be Drive D:

The installation of Windows® 2000 / Windows® XP drivers is very simple. When you insert the driver CD into your CD-ROM drive, you can see the AUTORUN window (if it does not show up, run "D:\setup.exe"). Then you can follow the guides to setup your graphics card driver. (Please follow the subsection 3.1.3 "Driver installation" to install the driver for your graphics accelerator.)

3.1. Windows® XP Driver and Utilities Installation

3.1.1. Operating System Requirement

- When loading the graphics card drivers for the system, please make sure your system has installed DirectX 9.0c or later version.
- If you install the graphics card drivers for the motherboard, which consist of SIS or VIA chipsets, please install the appropriate driver program for that motherboard. Or please contact your motherboard nearest dealer for motherboard driver.

3.1.2. DirectX Installation

Install Microsoft DirectX to enable 3D hardware acceleration support for Windows® 2000 or Windows® XP to achieve better 3D performance.

- Note: For software MPEG support in Windows® 2000 or Windows® XP, you must install DirectX first. Users who run Windows® XP with Service Pack 2 or above do not need to install DirectX separately.

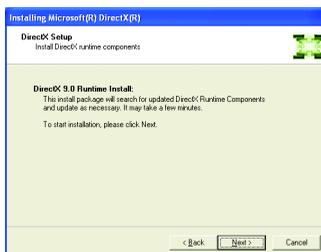


Step 1.

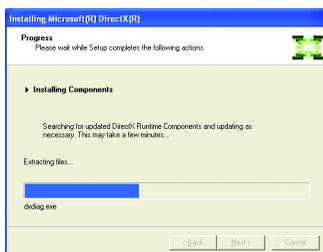
When autorun window show up, click the **Install DirectX 9** item.



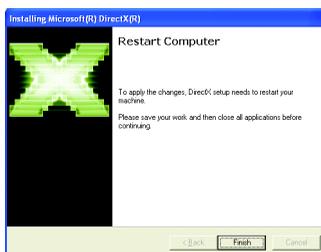
Step 2. Choose **I accept the agreement** and click the **Next** button.



Step 3. Click the **Next** button.



Installing the components.



Step 4. Click **Finish** to restart computer.
Then the DirectX 9 installation is completed.

3.1.3. Driver Installation

A. New hardware found

After the graphics card is inserted into your computer at the first time, the windows will automatically detect a new hardware in the system and pop out a "New Hardware Found" message. The following is the step-by-step installation guide.

Step 1: Found new hardware wizard: Video controller (VGA Compatible)



Click the "Next" button to install the driver. (There is a driver CD disk that came with your graphics accelerator, please insert it now.)

Or click the "Cancel" button to install the driver from AUTORUN window.

Step 2: Found new hardware wizard: Searching and installing

The wizard will search for the driver and install it automatically.



Step 3: Found new hardware wizard: Finish

Click the "Finish" button to finish the installation.



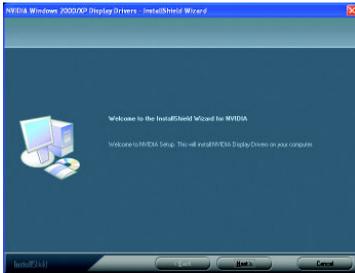
B. Driver installation (Autorun Window)

Insert the driver CD disk into your CD-ROM, and then you can see the AUTORUN window. If it does not show up, please run "D:\setup.exe".

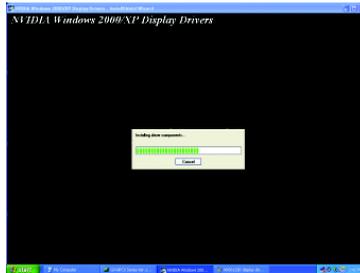


Step 1.

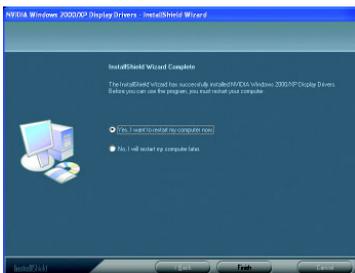
When autorun window show up, click the **Install Display Driver** item.



Step 2. Click "Next" button.



Windows installing the components.



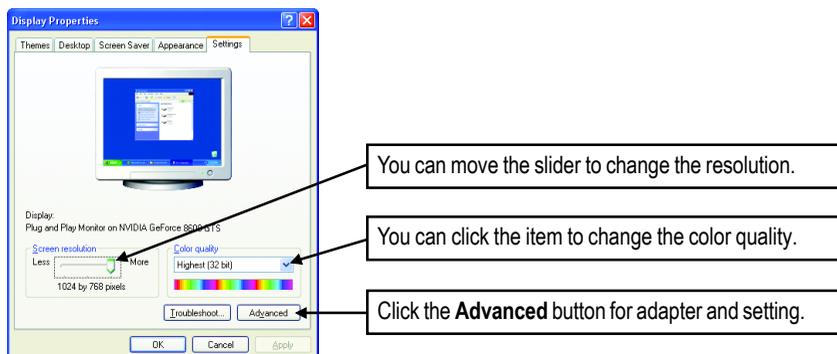
Step 3. Click "Finish" button to restart computer. Then the driver installation is completed.

3.1.5. Display Properties Pages

To access Display Properties pages, right-click on desktop and then select **Properties**. The **Display Properties** dialog box shows the information of display adapter, color, the range of display area, and the refresh rate.

Settings (Resolutions and Color depth for Windows)

You may adjust the screen resolution and color quality settings in this dialog box.



To access more advanced options, click the **Advanced** button.

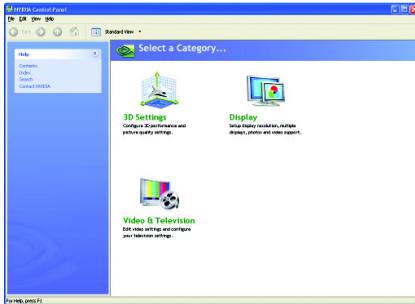
NVIDIA Control Panel

After pressing the **Advanced** button in **Settings**, you'll see the **Plug and Play Monitor and NVIDIA GeForce 8600 GTS Properties** dialog box. Click the **GeForce 8600 GTS** tab. (You can also click the NVIDIA icon on the taskbar and select **NVIDIA Control Panel**.)



Access the **GeForce 8600 GTS** tab page to launch the NVIDIA Control Panel

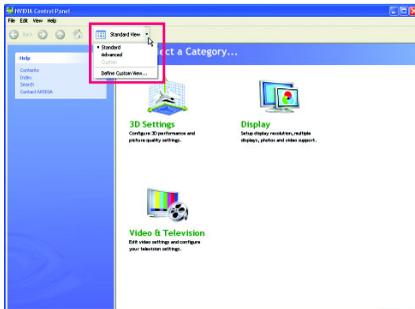
- All of the NVIDIA control panels have been consolidated into a single application, the NVIDIA Control Panel. Click the **Start the NVIDIA Control Panel** button to open the NVIDIA Control Panel.



In the NVIDIA Control Panel, select a category to alter specific NVIDIA display settings.

The categories are:

- 3D Settings
- Display
- Video & Television



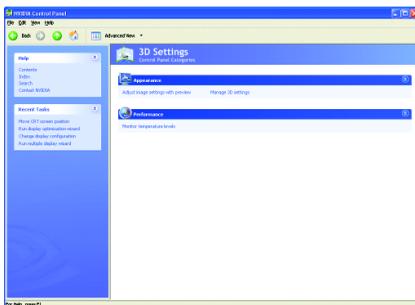
In the NVIDIA Control Panel, select a view mode.

The supported modes are:

- Standard
- Advanced
- Custom

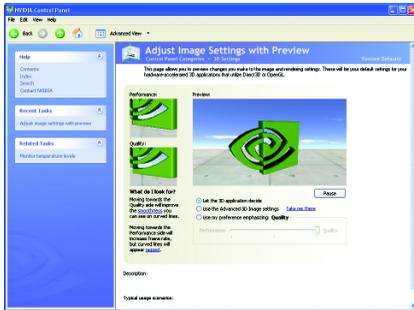
3D Settings

Tasks in the 3D Settings pages allow you to do the following:



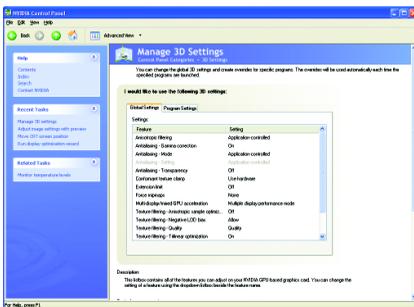
- Change the image and rendering settings of your 3D applications and games that utilize Direct3D and OpenGL technology.
- Override the shipped clocked frequencies of your GPU and GPU memory to increase your GPU performance.
- Assign specific 3D settings to a game so that these settings automatically load when a game is launched.
- Enable NVIDIA Scalable Link Interface (SLI) technology for SLI-capable systems and NVIDIA GPU-based graphics cards.

Appearance



■ Image Settings with Preview

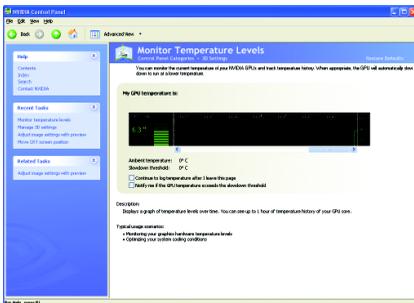
If you are unfamiliar with 3D technology or not an advanced graphics user, use the Adjust Image Settings with Preview page to preview any changes you make for improved image quality and rendering.



■ Manage 3D Settings (Note)

The Manage 3D Settings page enables you to establish default 3D settings to use for all your Direct3D or OpenGL applications and to establish a unique set of 3D settings for a particular game or application.

Performance



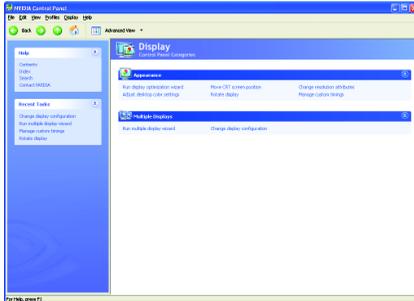
■ Monitor Temperature Levels

Use this page if you overclock your GPU and want to see how your GPU heats up over time. You can monitor the current temperature of your NVIDIA GPU and track its temperature history. When appropriate, the GPU will automatically slow down to run at a lower temperature.

(Note) This item is present only in Advanced view mode.

Display

A variety of display features enable you to further manipulate and configure your display settings to optimize the use of your displays. Tasks in the Display pages allow you to do the following:



Appearance

- Run display optimization wizard
- Move CRT screen position
- Change resolution attributes
- Adjust desktop color settings
- Rotate display
- Manage custom timings (Note 1)

Multiple Displays

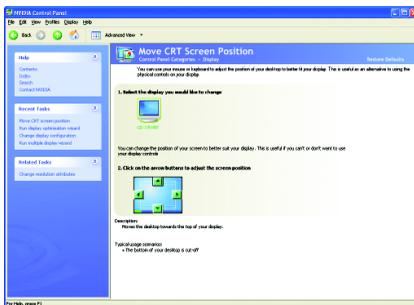
- Run multiple display wizard (Note 2)
- Change display configuration

Appearance



■ Run Display Optimization Wizard

This wizard helps you adjust your displays for optimal viewing and representation of colors.



■ Move CRT Screen Position

You can use your mouse (by clicking on the arrow keys on this page) or the arrow keys on your keyboard to adjust the position of your display. This is a useful alternative to using the controls (buttons) on your actual physical display.

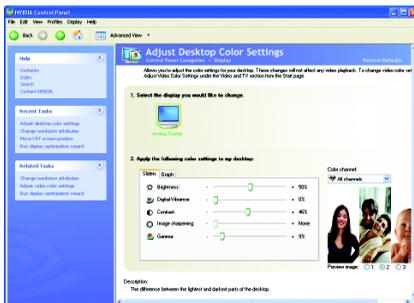
(Note 1) This item is present only in Advanced view mode.

(Note 2) This item will show up when you connect two monitors.



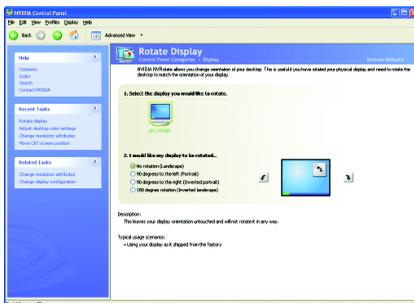
■ Change Resolution Attributes

Using the Change Resolution controls, you can change the color setting, reduce screen flickering, or adjust the amount of information appearing on the display.



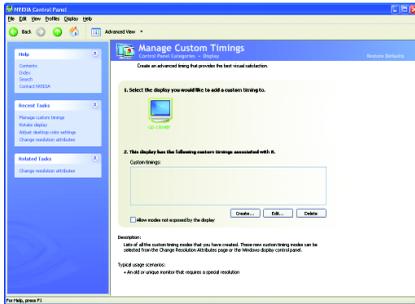
■ Adjust Desktop Color Settings

Use this page to set the contrast, sharpness, and color depth (Digital Vibrance) of the images on your desktop. These changes will not affect any video playback. To change video color settings, go to Adjust Video Color Settings under the Video and TV section from the Start page.



■ Rotate Display

The NVIDIA Rotate features enable you to change the orientation of your desktop to portrait, landscape, and inverted modes. This is useful if you have rotated your physical display and need to rotate the desktop to match the orientation of your display.



■ Manage Custom Timings ^(Note 1)

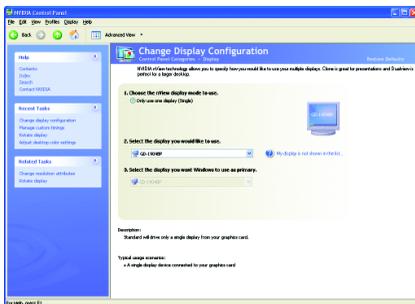
If you are an advanced user, you can create custom timing modes with the width, height, bit-color depth, and the refresh rate etc. The Advanced Timing page enables you to adjust timings for your graphics card in order to support a variety of different display timings for ultimate flexibility for analog CRT and DVI connections. You can use the advanced Change Resolution Attributes page to view custom display modes you have saved in the Create Custom Timings page.

Multiple Displays



■ Run Multiple Display Wizard ^(Note 2)

This wizard will help you enable and customize your multi-display setup.



■ Change Display Configuration

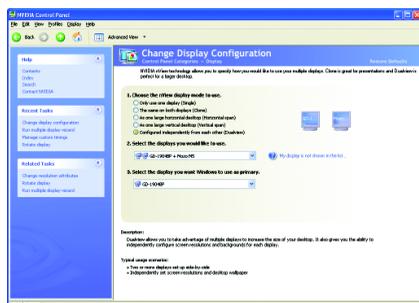
NVIDIA nView technology enables you to view your desktop in one of several multi-display modes to make the best use of the displays (monitors) that are connected to your computer.

(Note 1) This item is present only in Advanced view mode.

(Note 2) This item will show up when you connect two monitors.

Dual-Monitor Setup (Note) :

You can set the display to output from two monitors on the Change Display Configuration page.



Select your preferred nView display modes here.

- Only use one display (Single)
- The same on both display (Clone)
- As one large horizontal desktop (Horizontal span)
- As one large vertical desktop (Vertical span)
- Configured independently from each other (Dualview)

(1) The same on both display (Clone)

Clone mode indicates that both displays in the display pair show images of the same desktop.



Clone Mode

(2) As one large horizontal desktop (Horizontal span)

Horizontal Span mode indicates that both displays in the display pair function as one wide virtual desktop. The width of each display is half the width of the total virtual desktop width.



Horizontal Span Mode

(3) As one large vertical desktop (Vertical span)

Vertical Span mode indicates that both displays in the display pair function as one tall virtual desktop. The height of each display is half the height of the total virtual desktop height.



Vertical Span Mode

(Note) Only **"Only use one display (Single)"** mode is available when SLI mode is enabled.

(4) Configured independently from each other (Dualview)

Dualview mode indicates that both displays in the display pair function as one virtual desktop. Unlike Horizontal Span or Vertical Span mode, Dualview treats each display as a separate device. This means that the taskbar will not be stretched across displays and 3D applications are not accelerated as efficiently as when the application spans displays.

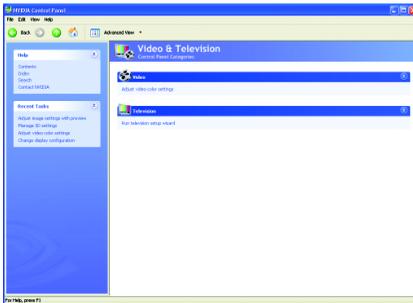


Dualview Mode

Display Matrix	Model	GV-NX86S256H
	CRT+TV	Yes
	CRT+DVI	Yes
	DVI+TV	Yes
	DVI+TV+CRT	No
	DVI+DVI	Yes
	CRT+CRT	Yes

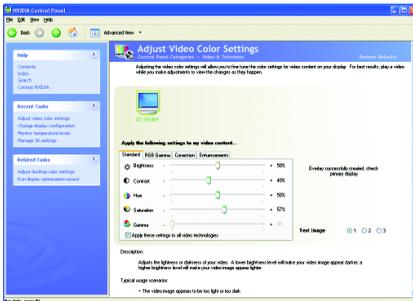
Video & Television

Video and television features are similar to those for analog and digital displays and include features specific to television and HDTV (high definition television) technology for optimal viewing. Tasks in the Video & Television pages allow you to do the following:



- Adjust your television picture quality and video color settings for the best possible viewing in its environment .
- Change the position and size of the desktop video to best fit your television or HDTV (high definition television) screen.
- Change the signal format to use for your standard television or HDTV as well as change country-specific signal or the HDTV format.
- Enable full screen video mirroring.

Video



- Adjust Video Color Settings
Use the controls on this page to fine tune the color settings for video content on your display. Select one of the test images to monitor your changes. For best results, play a video while you make adjustment to view the changes as they happen.

Television ^(Note)

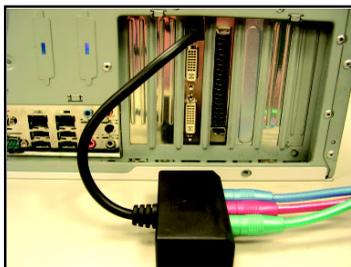


■ Run Television Setup Wizard ^(Note)

The wizard will guide you through the steps to configure your television for use with your computer.

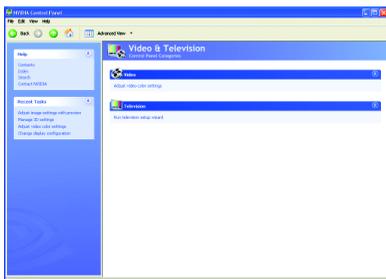
HDTV Setup

Follow the steps below to connect an HDTV to your system using the included component video adapter.



Step 1:

Connect the HDTV component cable to the adapter according to the corresponding color. (Y= Green, Pr= Red, Pb= Blue). Connect the TV Out cable from the adapter to the TV Out port on your graphics card.



Step 2:

Go to NVIDIA Control Panel. Select the **Run television setup wizard** ^(Note) item in the **Video & Television** page.



Step 3:

When the Television Setup Wizard appears, click **Next**.

(Note) This item will show up when you connect a television.



Step 4:
Select **Component** in the **Connector Type** screen.



Step 5:
Select a definition type for your HDTV (depending on the specifications of your HDTV) and click **Next**.



Step 6:
Click the **Preview** button to preview the selected settings. Then click **Next**.



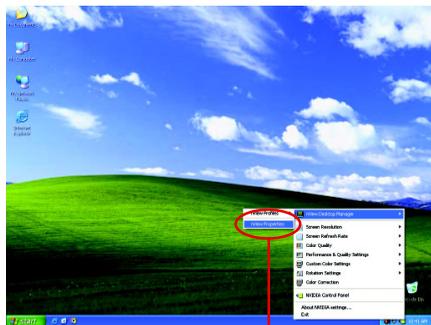
Step 7:
Click **Finish** to apply the new television settings.

3.1.6. nView Properties pages ^(Note)

nView is a set of desktop tools designed to help you be more productive when using your graphics card. With **nView** you can set up multiple desktops to work with your applications. Multiple desktops give you extra desktop areas on which to run your applications so you won't have to crowd several open application windows on one desktop.

Enable the nView Desktop Manager features:

Click the NVIDIA icon  on the taskbar and select **nView Properties** under **nView Desktop Manager**. Click the "Enable" button to turn on all the nView Desktop Manager features.



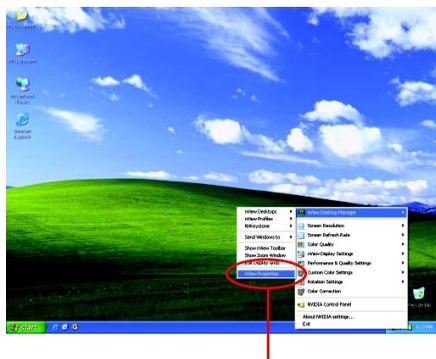
Step 1: Click **nView Properties**.



Step 2: Click **Enable**.

Access nView properties page:

To access the **nView** properties page, you can click the NVIDIA icon  on the taskbar and select **nView Properties** under **nView Desktop Manager**.



Click the item to start configuring nView features.

(Note) This item will show up when you connect two monitors.

nView Desktop Management properties



- This tab contains information about the nView Desktop Manager. The setup wizard can also be accessed from this tab.

nView Profiles properties



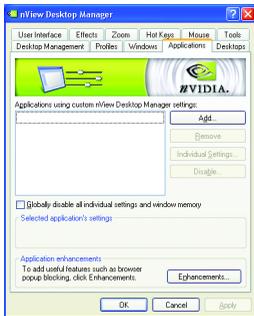
- This tab contains a record all nView display settings for easy software setup.

nView Windows properties



- This tab allows you to control window and dialog box placement when using multiple monitors.

nView Applications properties



- This tab allows you to control nView settings depending different applications.

nView Desktops properties



- This tab allows you to create up to 32 unique desktops.

nView User Interface properties



- This tab allows for customization of the nView user interface.

nView Effects properties



- This tab provides special windows effects that you can apply to your applications.

nView Zoom properties



- This tab provides dynamic zoom functionality on the desktop. Also enables full screen video playback via the video mirroring control button.

nView Hot Keys properties



- This tab lets you perform various actions with shortcut keys or key combinations.

nView Mouse properties



- This tab can modify and extend mouse behavior with kinematic actions.

nView Tools properties



- This tab can improve nView functionality for mobile and desktop users.

3.2. Windows® 2000 Driver Installation

With Windows running on your computer, you need to install the graphics card driver to take advantage of the higher performance, resolutions, and special graphics features of the graphics card. To ensure you install the latest driver, insert the Installation CD that shipped with your graphics card.

To install the graphics card driver for Windows® 2000, please insert the Installation CD. Then the AUTORUN window will show up. Click **Install Display Driver** item, and follow the wizard to install the driver.

If Windows® does not show the CD automatically, please run following steps:

1. Click the Start button on the control bar.
2. Select Run.
3. Type the following: D:\SETUP.exe
(If D is not your CD-ROM drive, substitute D with the correct drive letter.)
4. Click "OK".
5. Click on "Install Display Drivers" to begin the Installation Wizard.
6. Click "Next".
7. Click "Yes" to the license agreement.
8. Follow the Wizard's on-screen instructions to complete the installation.



Please make sure the Windows® 2000 have installed Windows® 2000 Service Pack (or later) before installing the graphics accelerator driver.

4. Troubleshooting Tips

The following troubleshooting tips may help if you experience problems. Contact your dealer or Gigabyte for more advanced troubleshooting information.

- Check that the card is seated properly in the PCI Express x16 slot.
- Ensure that the display cable is securely fastened to the card's display connector.
- Make sure that the monitor and computer are plugged in and receiving power.
- If necessary, disable any built-in graphics capabilities on your motherboard. For more information, consult your computer's manual or manufacturer.

(NOTE: Some manufacturers do not allow the built-in graphics to be disabled or to become the secondary display.)

- Make sure you selected the appropriate display device and graphics card when you installed the graphics driver.
- Restart your computer. Press the **F8** key on your keyboard after system starts up. When the Windows Advanced Options Menu appears, select Safe Mode and press Enter. After getting into Safe Mode, in Device Manager check whether the driver for the graphics card is correct.
- For more assistance, use the Troubleshooting Guide located in the Windows® Help or contact your computer manufacturer.



CAUTION

If necessary, adjust your monitor's setting by monitor's adjust panel to make the screen looks focused, crisp, and sharp. (Please refer to the monitor's manual.)

5. Appendix

5.1. Reflash BIOS in MS-DOS Mode

1. Extract the downloaded Zip file to your hard disk(s) or floppy disk. This procedure assumes drive A.
2. Restart the computer in MS-DOS mode. (For Windows® 2000/XP, you need a startup disk to restart the computer in MS-DOS mode.)
3. Change the command prompt to A:\>.
4. To back up the current BIOS, at the A:\> prompt, type [BIOS flash utility name] -s [BIOS file name] **(example: gvf18 -s X86S2H.f1)** and press **Enter**.
5. To flash BIOS, at the A:\> prompt, type [BIOS flash utility name] -p [BIOS file name] **(example: gvf18 -p X86S2H.f2)** and press **Enter**.
6. Wait until it's done, then restart your computer.

5.2. Resolutions and Color Depth Table (In Windows® XP)

GeForce 8600 GTS Single Display Standard Modes

Display Screen Resolution	Refresh Rate (Hz)	Color Depth (bpp)		
		8bpp(256 color)	16bpp(65K color)	32bpp(16.7M)
		Standard mode	High mode	True mode
320 x 200	60~75	✓	✓	✓
320 x 240	60~75	✓	✓	✓
400 x 300	60~75	✓	✓	✓
480 x 360	60~75	✓	✓	✓
512 x 384	60~75	✓	✓	✓
640 x 400 (16:10)	60~75	✓	✓	✓
640 x 480	60~240	✓	✓	✓
720 x 480	60	✓	✓	✓
720 x 576	50~60	✓	✓	✓
800 x 600	60~240	✓	✓	✓
848 x 480	60~240	✓	✓	✓
960 x 600 (16:10)	60~240	✓	✓	✓
1024 x 768	60~200	✓	✓	✓
	240	✓	✓	X
1088 x 612 (16:9)	60~200	✓	✓	✓
	240	✓	✓	X
1152 x 864	60~170	✓	✓	✓
	200	✓	✓	X
1280 x 720 (16:9)	60~150	✓	✓	✓
	170	✓	✓	X
1280 x 768	60~150	✓	✓	✓
	170	✓	✓	X
1280 x 800	60~150	✓	✓	✓
	170	✓	✓	X
1280 x 960	60~150	✓	✓	✓
	170	✓	✓	X
1280 x 1024	60~150	✓	✓	✓
	170	✓	✓	X
1360 x 768	60~150	✓	✓	✓
	170	✓	✓	X
1600 x 900 (16:9)	60~120	✓	✓	✓
	140~150	✓	✓	X
1600 x 1024	60~100	✓	✓	✓
	120	✓	✓	X

To be continued...

Display Screen Resolution	Refresh Rate (Hz)	Color Depth (bpp)		
		8bpp(256 color) Standard mode	16bpp (65K color) High mode	32bpp (16.7M) True mode
1600 x 1200	60~100	✓	✓	✓
	120	✓	✓	X
1920 x 1080 (16:9)	60~85	✓	✓	✓
	100	✓	✓	X
1920 x 1200 (16:10)	60~85	✓	✓	✓
	100	✓	✓	X
1920 x 1440	60~85	✓	✓	✓
2048 x 1536	60~85	✓	✓	✓
2560 x 1600 (Dual-Link)	60	✓	✓	✓

* This table is for reference only. The actual resolutions supported depend on the monitor you use.