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## 1. Introduction

The NVIDIA GeForce3™ graphics processing unit (GPU) shakes up the gaming industry with unprecedented visual effects and sizzling frame rates—injecting life into the previously artificial world of computer-generated graphics. Powered by the new NVIDIA nfiniteFX™ engine and the Lightspeed Memory Architecture™, the GeForce3 GPU enables users to look into a rich environment instead of just a computer screen. 3D scenes have ambiance with the GeForce3 because textures appear photo-realistic and custom lighting heightens the drama. Characters and living creatures have organic imperfections and unique expressions—you can see their personality. Programmability and performance combine to provide the catalyst for this graphics revolution.

NVIDIA's patented high-resolution antialiasing (HRAA) generates high-performance samples at nearly four times the rate of GeForce2 Ultra, while delivering the industry's best visual quality. The GeForce3 delivers more than 800 billion operations (BOPS)—more than twice the raw performance available to consumers in today's GPUs. For more complex scenes and visuals, the GeForce3 advantage grows to as much as a seven-fold increase in delivered performance.

### 1.1 Feature

- nfiniteFX™ engine for full programmability
- 64MB DDR (Double Data Rate) memory on board.
- HRAA-high-resolution antialiasing.
- Surface engine for high-order surfaces and patches.
- 1MB Flash-ROM on board.
- Integrated hardware transform engine
- Support AGP 4X and AGP Fast Write.
- 7.36GB/sec Memory Bandwidth.
- 3.2 Billion Pixels/Sec Rendering Power.
- Integrated hardware lighting engine
- Full-compliant professional OpenGL 1.2 support. For Windows Operating system
- Drivers for Windows 2000, Windows 98SE, Windows ME.
- DirectX and S3TC texture compression.
- Hardware accelerated real-time shadows
- High-performance 2D rendering engine
- High-quality HDTV/DVD playback

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## 1.2 System Requirements

- Any motherboard with AGP bus.
- Microsoft Windows 98 / 98SE / ME / Windows 2000.
- DirectX 8 and OpenGL Features.

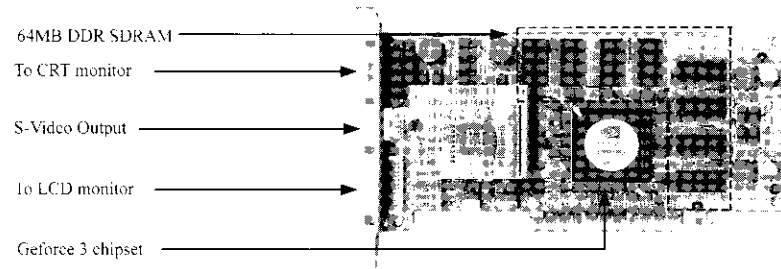
## 1.3 Package Contents

- MVGA-NVG20A adapter.
- Auto-Run Driver CD-Title.
- User's Manual.
- RCA Cable 1.8m.
- RCA to S-Video cable
- S-Video cable 1.8m. (Optional)

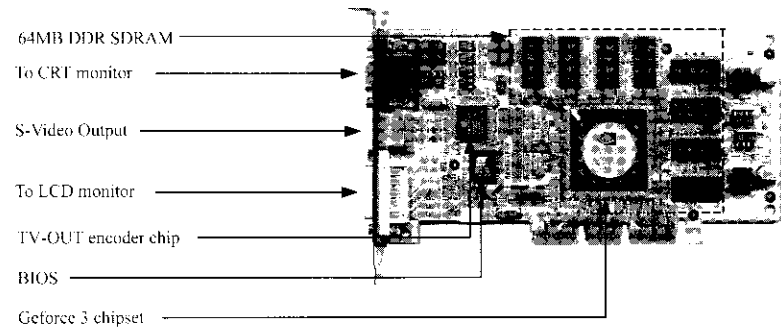
## 2. Hardware Installation

### 2.1 Adapter Configuration

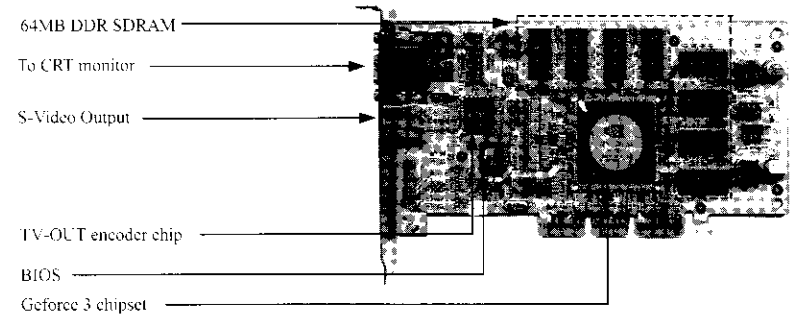
#### MVGA-NVG20A



MVGA-NVG20A (Video in/out/DVI)



MVGA-NVG20A (w/ TV-OUT/DVI)



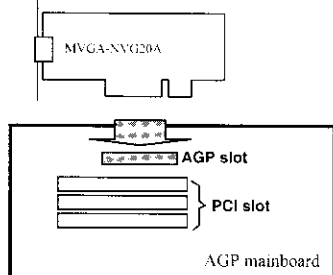
MVGA-NVG20A (w/ TV-OUT)

## 2.2 Installing your VGA adapter

1. Power off your computer, remove its outside cover, and then assert yourself by touching the power supply of your computer.

**Note:** Before installing your new VGA card, you must first set the VGA option to either Standard VGA or Standard Display VGA.

2. Remove your old graphics card, and install your new VGA card into the AGP slot.

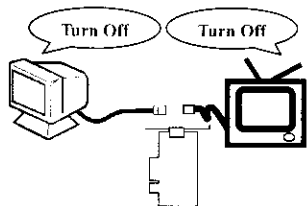


3. Align and secure the mounting bracket of your new VGA card to your computer and replace your computer cover.
4. Connect your monitor cable to the DB-15 connector at your new VGA card.



**!!! Caution !!!**  
Before you turn on your system, you have to be sure the VGA card is setup already and all the cables are connected.

**DO NOT connect / disconnect TV-out cable when your TV or PC is Power On.**



5. Power on your computer.

## 3. Software Installation

After inserting VGA card into port, please turn on PC and new hardware will be automatically detected.

Auto-Run CD will auto-detect your VGA and TV card devices. Therefore, it might show more than one device in the first installing window.

**Notice :** Otherwise, Auto-Run CD will skip the first installing window when it only detects one device. Please select one installation of the devices that is proper for this product.

### 3.1 Installing driver on Windows 98/98SE/ME

Please set the VGA card as "Standard PCI Graphics Adapter(VGA)". When it done, Windows system will ask you to restart it, please choose "No". Then you should follow the next step.

1. Insert the AutoRun CD-ROM driver (wait a few seconds). You will see "VGA Installer" window that will be shown on the screen. If it does not display, please brow CD and double click "AutoRun.exe".
2. Click-on 'Install Driver' to install the VGA driver.
3. After the installation is complete, the system will ask you whether you want to restart your computer now. Click 'Yes', to reboot your system and activate the program.

### 3.2 Installing DirectX on Windows 98/98SE/ME/2000

When the system restart after finishing VGA driver setup, please install better DirectX version than that on your system.

1. Double click CD-ROM icon to let it AutoRun. The "VGA Installer" will be shown again.
2. Click 'Install DirectX' and you will see a 'Installer' dialog, and click 'OK' to show next page.
3. Click 'Yes' to continue.
4. Click-on 'ReInstall DirectX' to install the DirectX program.
5. When it is done, please click 'OK' to reboot windows.

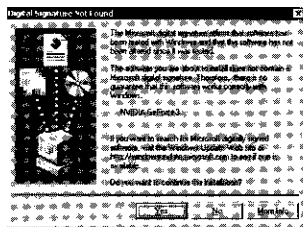
### 3.3 View User's manual

Click 'User's Manual' to view detailed information regarding the various Drivers/Programs and FAQ located on the CD.

### 3.4 Installing driver on Windows 2000

Please set the VGA card as 'Video Controller (VGA Compatible)'. When it done, Windows system will ask you to restart it, please choose 'No'. Then you should follow the next step.

1. Insert the AutoRun CD-ROM driver (wait a few seconds). You will see 'VGA Installer' window that will be shown on the screen. If it does not display, please brow CD and double click 'AutoRun.exe'.
2. Click 'Install Driver' to install the VGA driver.
3. If you see the 'Digital Signature Not Found' this dialog box please click 'Yes'.



4. Windows 2000 will ask you to restart your computer, click 'OK' to finish the installation.

## 4. Optional Functions

**Notice :** Following of functions are optional. This product may not support those functions. Therefore, please check out the features of this product first which are on the paper user's manual.

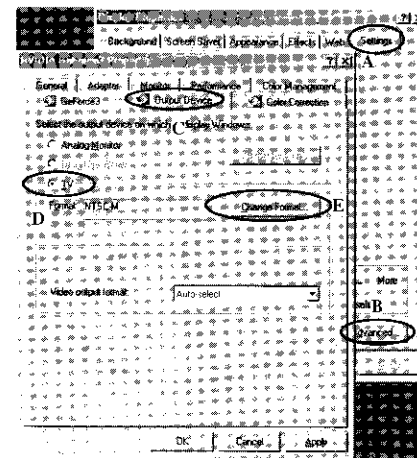
### 4.1 TV-OUT Function Instructions

#### 4.1.1 How to enable the TV-OUT function

**Warning:** The VGA card needs to see real 75 ohms AV input. Connect the signal cable between TV-OUT of VGA and TV's Video input and turns on the TV before launch 'Display Properties'. Otherwise the TV-out function would be gray and un-selectable.

1. Boot up the system from monitor.
2. To Connect the signal cable between TV-OUT of VGA and TV's Video input and turn on the TV.
3. After launch 'display properties' then :

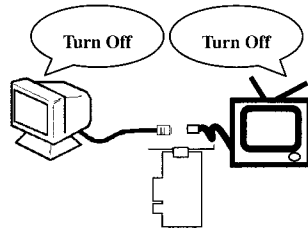
- A. Click 'Settings'
- B. Click 'Advanced...'
- C. Click 'Output Device'
- D. Select 'TV'
- E. Click 'Change Format'



#### 4.1.2 How to use TV-out cables correctly?

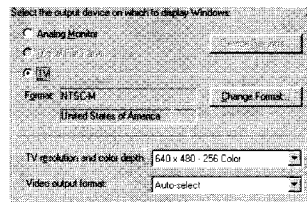
1. Power off your PC and TV first.
2. Connect the signal cable to the Video input at your TV from your VGA card, and then power on your PC and TV.

**Caution:** Before you power on your system, you have to be sure the VGA card is setup correctly and all the cables are connected. **DO NOT** connect / disconnect TV-out cable when your TV or PC is Power On.



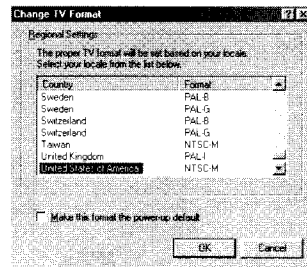
#### 4.1.3 How to change TV setting?

1. You can click 'TV' to switch VGA output to TV.



- A. Click 'Change Format' to select which standard TV you want.

When you select 'Make this format the power-up default'; the System will change BIOS default to the format, when you boot-up next time.



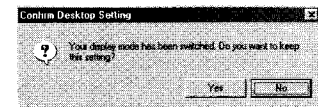
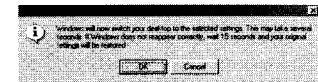
- B. Select 'TV resolution and color depth' to change resolution and color depth.



- C. Click 'Video output format' to select output from Composite or S-Video.

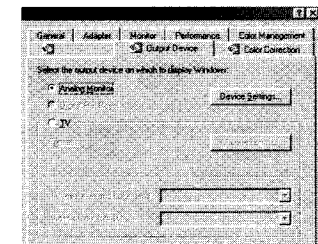


- D. Click 'OK' to switch your display mode.



#### 4.1.4 How to adjustment screen position?

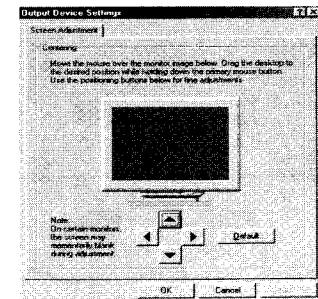
1. Click on 'Display' of Control Panel. Select 'Settings' page and click 'Advanced Properties'. You will see the windows.



- A. When the output of your VGA is set to Monitor, You can click 'Device Setting' to adjust the screen position

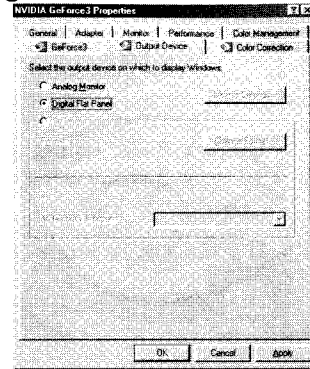
**WARNING:**

The Monitor display may become scrambled if you adjust the screen position over the required range.



## 4.2 How to change output to Digital Flat Panel?

1. A. You can click 'Digital Flat Panel' to switch VGA output to Digital Flat Panel.

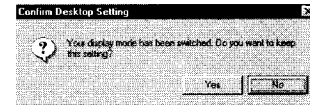


- B. Click 'OK' or 'Apply' to switch your display device.

2. Click 'OK' to make sure.



3. Windows will ask you to keep this setting. Click 'Yes' to finish setting.



**Note :** The function is just for output device with DVI connector.

## 5. Display Information

### 5.1 Resolutions Supported

Resolutions	Color Depth	Refresh Rate (Hz)												
		60	70	72	75	85	100	120	140	144	150	170	200	240
640 x 480	8bit	60	70	72	75	85	100	120	140	144	150	170	200	240
	16bit	60	70	72	75	85	100	120	140	144	150	170	200	240
	32bit	60	70	72	75	85	100	120	140	144	150	170	200	240
800 X 600	8bit	60	70	72	75	85	100	120	140	144	150	170	200	240
	16bit	60	70	72	75	85	100	120	140	144	150	170	200	240
	32bit	60	70	72	75	85	100	120	140	144	150	170	200	240
1024 X 768	8bit	60	70	72	75	85	100	120	140	144	150	170	200	
	16bit	60	70	72	75	85	100	120	140	144	150	170	200	
	32bit	60	70	72	75	85	100	120	140	144	150	170	200	
1152 X 864	8bit	60	70	72	75	85	100	120	140	150				
	16bit	60	70	72	75	85	100	120	140	150				
	32bit	60	70	72	75	85	100	120	140	150				
1280 X 1024	8bit	60	70	72	75	85	100	120	140	150				
	16bit	60	70	72	75	85	100	120	140	150				
	32bit	60	70	72	75	85	100	120						
1600 X 1200	8bit	60	70	72	75	85	100							
	16bit	60	70	72	75	85	100							
	32bit	60	70	72	75	85								
1920 X 1080	8bit	60	70	72	75	85	100							
	16bit	60	70	72	75	85	100							
	32bit	60	70	72	75									
1920 X 1200	8bit	60	70	72	75	85								
	16bit	60	70	72	75	85								
	32bit	60	70	72	75									
1920 X 1440	8bit	60	70	72	75	85								
	16bit	60	70	72	75	85								
	32bit	60	70	75	85									
2048 X 1536	8bit	60	70	72	75									
	16bit	60	70	72	75									
	32bit	60												

