

**User's Manual**  
**for**  
**MVGA-NVANTA/AG**

**DOC NO:54-VANTA-02**

**Rev. B**

**99/07/22**

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# FCC Requirement



This device has been certified to comply with the limits for a Class B computing device pursuant to Subpart J of Part 15 of the FCC Rules. See instructions if interference to radio reception is suspected.

**WARNING:** This equipment generates and uses radio frequency energy and, if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio or television reception.

It has been tested and found to comply with the limits for a Class B compliant device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause 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 the receiving antenna
- Relocate the computer away from the receiver
- Move the computer away from the receiver
- Plug the computer into a different outlet so that the computer and the receiver are on different branch circuits
- Ensure that the card's mounting screws, attachment connector screws, and ground wires are tightly secured
- Ensure that slot covers are installed in all unused slots

If necessary, consult your dealer, service representative, or an experienced radio/television technician for additional suggestions.

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. It is the responsibility of the user to correct such interference.

The user may find the following booklet prepared by the Federal Communications Commission helpful: *How to Identify and Resolve Radio-TV Interference Problems.*

This booklet is available from the Government Printing Office, Washington, D.C. 20402, Stock No. 004-000345-4.

**NOTE:** You must use shielded interface cables with a ferrite bead in order to maintain compliance with the limits for a Class B device.

<b>CAUTION:</b>	CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT
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In no event will we be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or the inability to use the product or documentation, even if advised of the possibility of such damages.

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## **Trademark Acknowledgement**

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## **Limited Warranty**

Our company warrants this product against defects in materials and workmanship for a period of one (1) year from the date of purchase. During the warranty period, a product determined by us to be defective in form or function will be repaired or at our option, to be replaced at no charge. This warranty does not apply if the product has been damaged by accident, abuse, misuse, or as a result of service or modification other than by us.

This warranty is in lieu of any other warranty expressed or implied. In no event shall we be held liable for incidental or consequential damages, such as lost revenue or lost business opportunities arising from the purchase of a this product.

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# 1. Introduction

The MVGA-NVANTA/AG is a highly integrated 3D/2D graphics card. Leveraging the RIVA TNT2 core technology,(TwiN-Textel)architecture,24bit z-buffering.8bit stencil buffer and per-pixel mapping precision delivers unsurpassed quality. MVGA-NVANTA/AG delivers breakthrough 3D and 2D graphics performance. In addition to its outstanding graphics capabilities ,the MVGA-NVANTA/AG provides complete support for video, software DVD playback, as well as support for the latest system technology such as AGP 4X bus.

MVGA-NVANTA/AG graphics card is ideal for small business users who require high-performance 2D platform and for corporate users who also have data-intensive visualization demands. The MVGA-NVANTA/AG exceeds the standards of the mainstream PC graphics market and Microsoft's PC 98 ,PC 99, and DirectX 6.0 initiatives.

## Features

- High performance 2D/3D processor nVIDIA Vanta VGA Chipset
- 8M/16M SD(SG) RAM memory on board
- Integrated true-color 250MHz RAMDAC interface
- Supports high screen resolutions up to 1920x1200@75Hz
- 128-bit TwiN-Textel architecture
- High-performance 128-bit 2D/GUI/DirectDraw acceleration
- Fast 32-bit VGA/SVGA support
- Optimized for Katmai New instructions and 3DNow!<sup>TM</sup>
- High performance implementation of Direct3D and OpenGL standards
- Full-screen, full-frame DVD playback
- Video acceleration for DirectShow,MPEG-1,MPEG-2,and Indeo
- AGP 4X/2X interface (AGP 2.0 and AGP 1.0)
- 64-bit frame buffer interface.
- Windows 2000,Windows NT 4.0 display drivers
- Windows 98 and 95 display drivers
- OpenGL ICD for Windows 2000, Windows NT 4.0, Windows 98 and Windows 95

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## **System Requirements**

Pentium / Pentium II / Pentium III / AMD K6-2 / AMD K6-3 family motherboard with AGP bus.

Microsoft Windows 95 (OSR2.1) / Windows 98 / Windows 2000 or Windows NT 4.0 with service pack 3(sp3)

DirectX 5.X/6.X driver

## **Package Contents**

MVGA-NVANTA/AG Without TV-OUT

MVGA-NVANTA/AG adapter

AutoRun Driver CD-Title

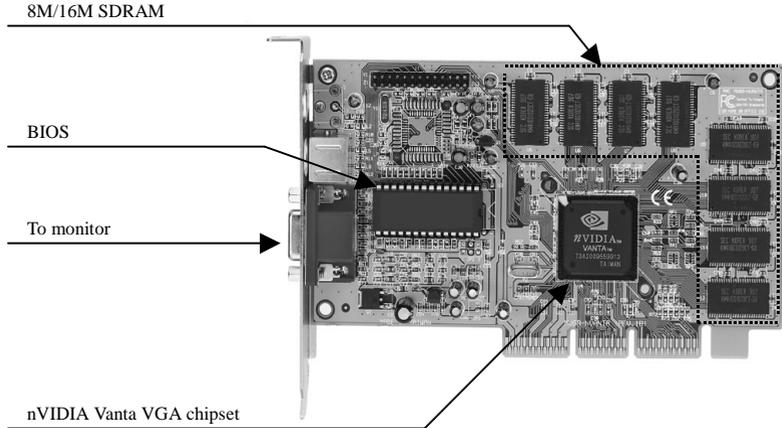
User's Manual

IVI's WinDVD CD-Title (optional)

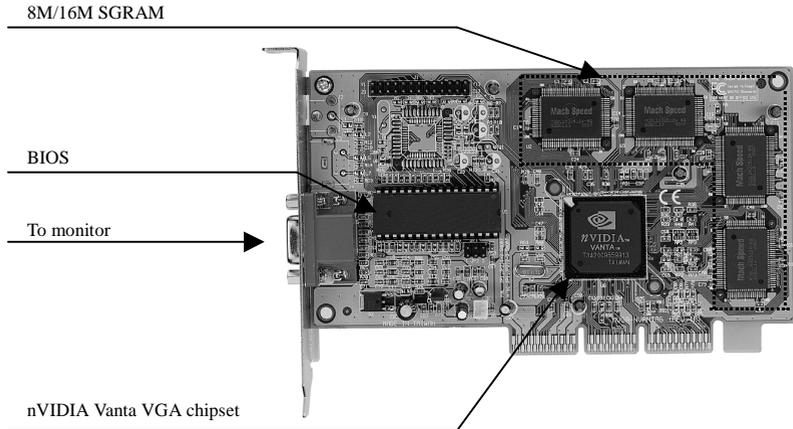
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## 2. Hardware Installation

### Adapter Configuration



MVGA-NVANTA (W/O TV-Out)



MVGA-NVANTAG (W/O TV-Out)

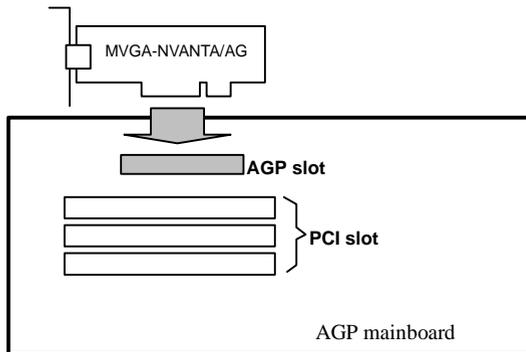
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## Installing the MVGA-NVANTA/AG adapter card

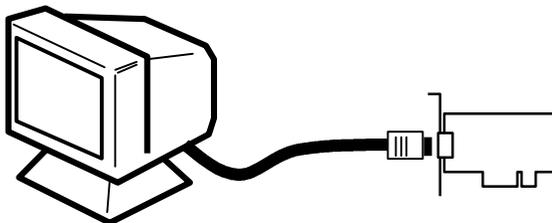
1. Turn OFF your computer, remove the computer case, and then ground yourself by touching the power supply of the computer.

**Note:** Before installing the MVGA-NVANTA/AG 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 MVGA- NVANTA/AG card into the AGP slot.



3. Align and secure the mounting bracket of the card to the computer and replace the computer case.
4. Connect the monitor cable to the DB-15 connector of the card.



5. Turn ON your computer.

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## 3. Software Installation

### AutoRun Instruction

1. Insert the AutoRun CD-ROM driver (wait a few seconds). You will see the window.



2. Please click 'MVGA-NVANTA/AG' you will see the window.



Click-on '**Install Driver**' to install the VGA driver.

Click-on '**DirectX**' to install Microsoft DirectX onto your Windows 95/98 system. Not necessary, if it has already been installed in your system.

Click-on '**Readme**', to view detailed information regarding the various Drivers/Programs and FAQ's located on the CD.

Click-on '**Browse CD**' to view the contents of the CD.

Click-on '**Exit**' to exit the AutoRun tool .

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## Installing drivers on Windows 95/98

1. Insert the AutoRun driver into the CD-ROM drive, and click-on **'Install Driver'** to setup the VGA driver. Please click **'OK'**.

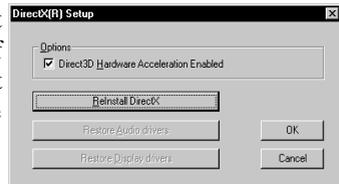


2. After the installation is complete, the system will ask you whether you want to restart your computer now. Please click **'Yes'** to reboot your system and activate the program.

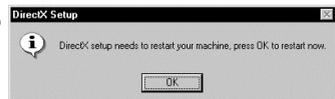


## Installing DirectX on Windows 95/98

1. There is no need to re-install DirectX, if it is already on your system. However, if you don't have it and want to install it click-on **'ReInstall DirectX'** to install the DirectX program.



2. When it is done, please click **'OK'** to reboot windows.



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## Installing drivers on Windows NT 4.0 (SP3)

1. Start Windows NT, switch display properties to VGA mode (16 colors, 640x480 pixels), then restart your computer.
2. After your computer restarts, right-click the desktop and click **'Properties'**.
3. Click the **'Settings'** tab.
4. Select **'Display Type'**.
5. Select **'Adapter Type'** and click **'Change'**.
6. Click **'Have Disk'**.
7. Insert the AutoRun driver into the CD-ROM drive.
8. Click (assuming your CD-ROM disc driver X) **'Browse CD'** to select the path **'X:\ NVANTA\NT40'** of the display driver for Windows NT.
9. You will see a list of nVIDIA Series driver. Select Vanta driver and then click **'OK'**.
10. Windows NT will once again prompt for confirmation. All appropriate files are then copied to the hard disk. When all files are copied, go back to the **'Display Properties'** box by clicking **'Apply'** or Click **'Close'**.
11. The **'System Setting Change'** dialog box is displayed. Click **'Yes'** to restart Windows.
12. Windows NT will restart with the default settings. The display applet will appear to allow for mode selection.

## 4. Display Information

<b>Resolutions Supported</b>				
<b>Resolution</b>	<b>Vertical Frequency</b>	<b>Color Depth</b>		
		<b>256 colors Standard</b>	<b>65K colors Standard</b>	<b>16.7M colors Standard</b>
640 x 480	60Hz	✓	✓	✓
	70Hz	✓	✓	✓
	72 Hz	✓	✓	✓
	75 Hz	✓	✓	✓
	85Hz	✓	✓	✓
	100Hz	✓	✓	✓
	120Hz	✓	✓	✓
	140Hz	✓	✓	✓
	144Hz	✓	✓	✓
	150Hz	✓	✓	✓
	170Hz	✓	✓	✓
	200Hz	✓	✓	✓
	240Hz	✓	✓	✓
	800 X 600	60Hz	✓	✓
70Hz		✓	✓	✓
72 Hz		✓	✓	✓
75 Hz		✓	✓	✓
85Hz		✓	✓	✓
100Hz		✓	✓	✓
120Hz		✓	✓	✓
140Hz		✓	✓	✓
144Hz		✓	✓	✓
150Hz		✓	✓	✓
170Hz		✓	✓	✓
200Hz		✓	✓	✓
240Hz		✓	✓	✓
1024 X 768		60Hz	✓	✓
	70Hz	✓	✓	✓
	72 Hz	✓	✓	✓
	75 Hz	✓	✓	✓
	85Hz	✓	✓	✓
	100Hz	✓	✓	✓
	120Hz	✓	✓	✓
	140Hz	✓	✓	✓
	144Hz	✓	✓	✓
	150Hz	✓	✓	✓
	170Hz	✓	✓	✓
	200Hz	✓	✓	✓
	240Hz	✓	✓	✓

1152 X 864	60Hz	V	V	V
	70Hz	V	V	V
	72 Hz	V	V	V
	75 Hz	V	V	V
	85Hz	V	V	V
	100Hz	V	V	V
	120Hz	V	V	V
	140Hz	V	V	V
	150Hz	V	V	V
	170Hz			
	200Hz			
240Hz				
1280 X 1024	60Hz	V	V	V
	70Hz	V	V	V
	72 Hz	V	V	V
	75 Hz	V	V	V
	85Hz	V	V	V
	100Hz	V	V	V
	120Hz	V	V	V
1600 X 1200	60Hz	V	V	V
	70Hz	V	V	V
	72 Hz	V	V	V
	75 Hz	V	V	V
	85Hz	V	V	V
1920 X 1080	60Hz	V	V	V
	70Hz	V	V	V
	72 Hz	V	V	V
	75 Hz	V	V	V
	85Hz	V	V	V
1920 X 1200	60Hz	V	V	V
	70Hz	V	V	V
	72 Hz	V	V	V
	75 Hz	V	V	V

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## 5. MVGA-NVANTA/AG FAQ

**Q:** *While installing on a Windows 95 or 98 operating system, my computer loses the Vertical Sync.*

**A:** Please check your monitor's specifications. Some monitors connect the DDC signal to ground: Which causes the BIOS to not detect your monitor. Therefore, causing your MVGA-NVANTA/AG to not receive any data or refresh rates.

**Q:** *I can't install the driver on my Windows 95 system.*

**A:** If your operating system isn't the OSR2.1 version, you won't be able to install the driver.

*to fix the problem:*

Please change your operating system to the OSR2.1 version.  
Windows 95 OSR2.1 Installation.

1. Install Windows 95 OSR2.1
2. Execute USBSUPP
3. Install DirectX ver 5.0/6.0 or higher
4. Install the VGA driver

**Q:** *The image on my monitor keeps on flickering and the driver can't change the refresh rate.*

**A:** The problem is due to a failed DDC monitor detection.

*To fix the problem:*

1. Go to 'Settings' 'Control Panel' 'Display'
2. Select 'Settings' page
3. Click 'Advanced Properties'
4. Select 'Monitor' page
5. Click 'Change'
6. Select 'Show All Devices' and choose your monitor type.  
If your monitor type is not listed, Please select one that is as similar as possible.

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**Q: *How do I change the resolution, color, and refresh-rate on my Windows 95/98 system?***

**A:** Open the 'My Computer' folder and select the 'Control Panel' icon. Double-click on 'Display' then select 'Settings'. A new menu will appear choose 'Color Palette' to change the Color values. Choose 'Desktop area' to change the Resolution (screen image size). From the same screen click-on 'Advanced Properties' to access the Refresh-rate.

**Q: *How do I change the resolution, color, and refresh-rate on my Windows NT system?***

**A:** The procedure is basically the same as above, for the 95 & 98 system. Except that you must select 'Test' then 'OK', so that the changes can take affect.