

User's Manual
for
MVGA-NVTNTA
MVGA-NVTNTAL

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Rev. C

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.

CAUTION:	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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Notice

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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.

TABLE OF CONTENTS

1. Introduction	1
Features	1
System Requirements	1
Package Contents	2
2. Hardware Installation	3
Adapter Configuration	3
Installing the MVGA-NVTNTA/AL adapter card.....	5
3. Software Installation	6
Autorun Instruction	6
Installing drivers onto your Windows 95/98	7
Installing DirectX on your Windows 95/98	7
Installing drivers onto your Windows NT 4.0(SP3).....	8
4.Display Information	9
Resolutions Supported.....	9
5.MVGA-NVTNTA/AL FAQ	11

1. Introduction

The MVGA-NVTNTA/AL is a high performance 2D/3D graphics card. It has a 128-bit local memory interface. The MVGA-NVTNTA/AL comes with SDRAM / SGRAM on board , featuring it's high speed 2D & turbo 3D state of the art MPEG 1/2 playback with a fast integrated SVGA core, integrated with 250MHz RAMDAC supporting up to 1920x1200@75Hz.

Features

- High performance 2D/3D processor Riva TNT
- SDRAM/SGRAM memory on board
- Bus mastering DMA 2x66MHz AGP interface with full sideband width support
- TwiN-Textel(TNT)32bit graphics pipeline providing 2 texture mapped , lit pixels per clock and single pass multi-texture rendering
- 32-bit ARGB rendering with destination alpha , 16-bit or 24-bit Z buffer , 8-bit stencil buffer
- Supports Windows 95 (OSR2.1), 98, & NT 4.0(sp3)
- Optimized for Direct3D acceleration with complete support for DirectX 5.X and 6.X
- Integrated true-color 250MHz RAMDAC interface
- High performance 128-bit 2D/GUI/DirectDraw acceleration
- Video acceleration for DirectShow MPEG 1/2 and Indeo
- Built-in NVIDIA RIVA TNT™ 128-bit 3D Graphics and Video Accelerator
- Supports high screen resolutions up to 1920x1200@75Hz
- Supports DDC1/2B monitor
- DVD sub-picture alpha blend composite
- 1MB Flash-ROM on board (optional)
- S-Video and Composite video output ports (optional)

System Requirements

- Pentium/Pentium II motherboard with AGP bus.
- Microsoft Windows 95 (OSR2.1) / 98 or NT 4.0 with service pack 3 (sp3)
- DirectX 5.X/6.X driver

Package Contents

MVGA-NVTNTA/AL adapter

AutoRun Driver CD-Title

User's Manual

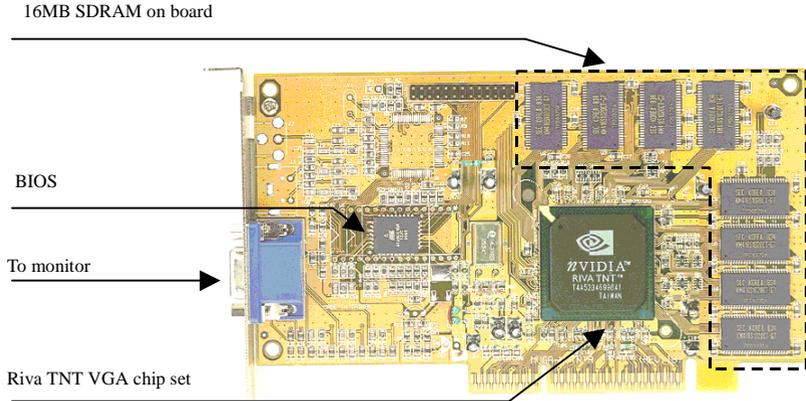
IVI's WINDVD CD-Title (optional)

RCA cable (Only for MVGA-NVTNTA With TV-OUT)

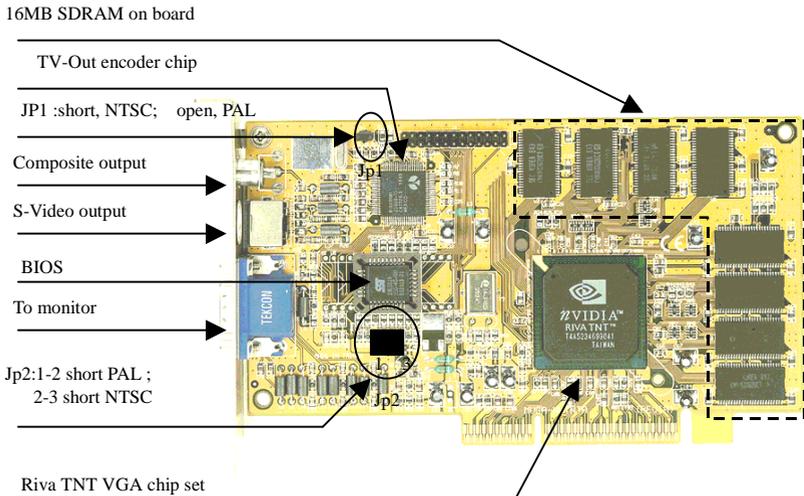
S-VIDEO cable (Only for MVGA-NVTNTA With TV-OUT , optional)

2. Hardware Installation

Adapter Configuration

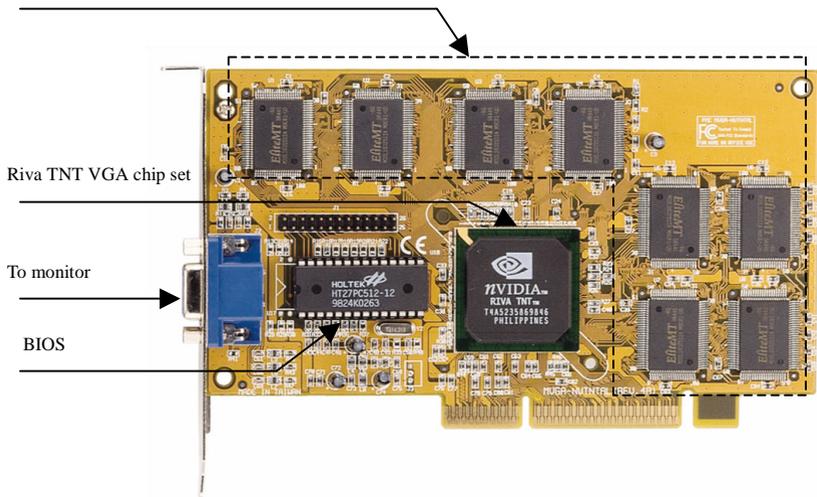


MVGA-NVTNTA (w/o TV-Out)



MVGA-NVTNTA (with TV-Out)

16 MB SDRAM or SGRAM on Board



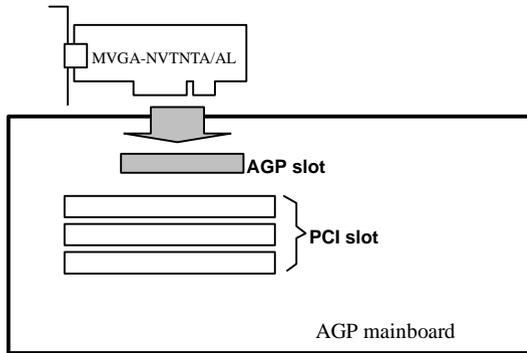
MVGA-NVTNTAL

Installing the MVGA-NVTNTA/AL adapter card

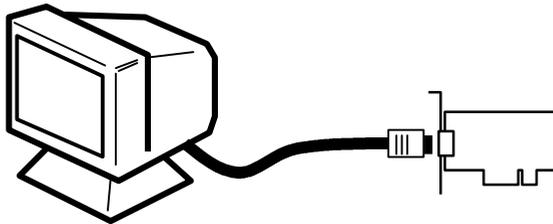
1. Turn OFF your computer, remove the computer case, and then ground yourself by touching the power supply of the computer.

Note: Before installing the MVGA-NVTNTA/AL 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-NVTNTA/AL 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.

3. Software install

Autorun Instruction

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



2. If you can not see that windows, please click 'MVGA-NVTNTA/AL' from right side windows.



3. Click-on '**Install Driver**' to install the VGA driver.
4. Click-on '**DirectX**' to install Microsoft DirectX onto your Windows 95/98 system. Not necessary, if it has already been installed in your system.
5. Click-on '**Readme**', to view detailed information regarding the various Drivers/Programs and FAQ's located on the CD.
6. Click-on '**Browse CD**' to view the contents of the CD.
7. Click-on '**Exit**' to exit the AutoRun tool .

Installing drivers onto your Windows 95/98

1. Insert the AutoRun driver into the CD-ROM drive, and click on 'MVGA-NVTNTA/AL' to setup the VGA driver. Please click 'OK'.

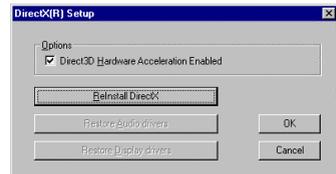


2. After the installation is complete, the system will ask you whether you want to restart your computer now. Please click 'OK', to reboot your system and activate the program.



Installing DirectX on your 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.



Installing drivers onto your Windows NT 4.0 (SP3)

1. Start Windows NT, switch display properties to VGA mode (16 colors, 640x480 pixels), then restart your computer to make the change.
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:\NVTNTA\NT4.0** of the display driver for Windows NT.
9. You will see a list of NVTNT Series driver. Select NT4.0 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 **Close**. Click **Apply**.
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

Resolutions Supported				
Resolution	Vertical Frequency	Color Depth		
		256 colors Standard	65K colors Standard	16.7M colors Standard
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	√	√	√
	70Hz	√	√	√
	72 Hz	√	√	√
	75 Hz	√	√	√
	85Hz	√	√	√
	100Hz	√	√	√
	120Hz	√	√	√
	140Hz	√	√	√
	150Hz	√	√	
	170Hz	√	√	
	200Hz	√	√	
	240Hz	√	√	
1280 X 1024	60Hz	√	√	√
	70Hz	√	√	√
	72 Hz	√	√	√
	75 Hz	√	√	√
	85Hz	√	√	√
	100Hz	√	√	√
1600 X 1200	60Hz	√	√	√
	70Hz	√	√	√
	72 Hz	√	√	√
	75 Hz	√	√	√
	85Hz	√	√	
1920 X 1080	60Hz	√	√	√
	70Hz	√	√	√
	72 Hz	√	√	√
	75 Hz	√	√	
	85Hz			
1920 X 1200	60Hz	√	√	√
	70Hz	√	√	
	72 Hz	√	√	
	75 Hz	√	√	
	75 Hz	√	√	

5. MVGA-NVTNTA/AL 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-NVTNTA/AL 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 or higher
4. Install the VGA driver

Q: *What is the performance difference between 8MB memory and 16MB memory on board?*

A: When tested with the 3D Winmark, they tested the same. However, when test with 2D Winbench, the 16MB memory out performed the 8MB memory.

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'
3. Select 'Advanced Properties'
4. Select 'Monitor'
5. Select '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.

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

A: Go to and 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.

Q: *Why don't I enable the TV-OUT on my system to enable TV-OUT display?*

A: You have to disconnect VGA monitor and connect RCA or S-VIDEO cable to VGA card's RCA or S-VIDEO connecto . So, first of all turn off your system, then do above action. After you make sure finishing above action, please turn on your system and TV . The VGA card will auto detect TV presented and switch display to your TV .