

User's Manual

For

MVGA-NVTNT2A/AL(Ultra)

DOC NO : 54-T2ALU-02

Rev.B

99/08/06

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. 004-000-00345-4.

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

The information in this document is subject to change in order to improve reliability, design, or function without prior notice and does not represent a commitment on the part of this company.

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.

No part of this reference manual may be reproduced or transmitted in any form or by any means without the prior written permission of this company.

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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	2
Package Contents	2
2. Hardware Installation	3
Adapter Configuration.....	3
Installing the MVGA-NVTNT2A/AL(Ultra) adapter card	4
3. Software Installation	5
AutoRun Instruction	5
Installing drivers on Windows 95/98.....	6
Installing DirectX on Windows 95/98.....	6
TV-OUT Function Instruction.....	7
Installing drivers on Windows NT 4.0(SP3)	9
4. Display Information	10
5. MVGA-NVTNT2A/AL(Ultra) FAQ.....	12

1. Introduction

The MVGA-NVTNT2A/AL(Ultra) (TwiN-Textel) architecture is the second generation integrated, 128-bit 3D Processor that processes 2 pixels-per-clock cycle enabling single-pass multi-texturing. MVGA-NVTNT2A/AL(Ultra) 32-bit color pipeline, 24-bit Z-buffering, 8-bit stencil buffer and per-pixel mip-mapping precision delivers unsurpassed quality and performance allowing developers to write standards based applications with stunning visual effects and realism.

Features

- High performance 2D/3D processor Riva TNT2 ULTRA
- 32MB SGRAM/ SDRAM memory on board
- 128-bit wide frame buffer interface up to 32Mbyte memory devices
- 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
- 24-bit Z buffer , 8-bit stencil buffer
- Supports Windows 95 (OSR2.1), Windows 98
- Supports Windows NT 4.0(sp3), Windows 2000 only for graphics
- Optimized for 3D acceleration with complete support for DirectX 5.X, 6.X
and OpenGL
- Integrated true-color 300MHz RAMDAC interface
- High performance 128-bit 2D/GUI/DirectDraw acceleration
- Video acceleration for DirectShow MPEG 1/2 and Indeo
- AGP 4X/2X interface with full sideband support
- Supports high screen resolutions up to 1920x1200@75Hz
- Supports DDC1/2B monitor
- DVD sub-picture alpha blend composite
- 1MB Flash-ROM on board

System Requirements

Pentium /Pentium II /Pentium III motherboard with AGP bus.
Microsoft Windows 95 (OSR2.1) /Windows 98
Windows 2000 or Windows / NT 4.0 with service pack 3
DirectX 5.X/6.X driver

Package Contents

MVGA-NVTNT2A/AL(Ultra)
MVGA-NVTNT2A/AL(Ultra) adapter
AutoRun Driver CD-Title
User's Manual
RCA Cable **【Only for MVGA-NVTNT2A/AL(Ultra) w/TV-OUT】**
IVI's WinDVD CD-Title (Optional)
S-Video Cable (Optional)

2. Hardware Installation

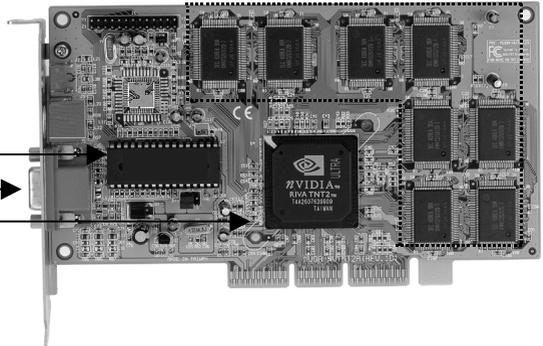
Adapter Configuration

32MB SGRAM on board

BIOS

To monitor

Riva TNT2 ULTRA



MVGA-NVTNT2A(Ultra)

32MB SDRAM on board

TV-Out encoder chip(Optional)

Composite output(Optional)

S-Video output(Optional)

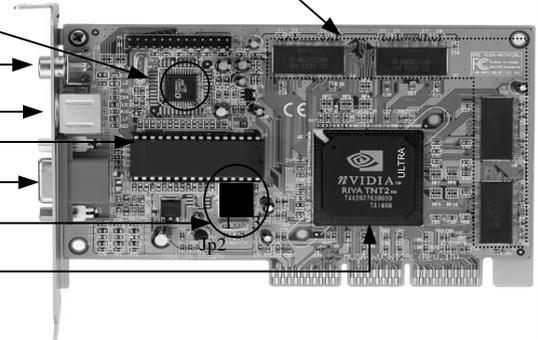
BIOS

To monitor

NTSC Jp1, Jp2;2-3 Short

PAL Jp1, Jp2;1-2 Short

Riva TNT2 ULTRA chip set



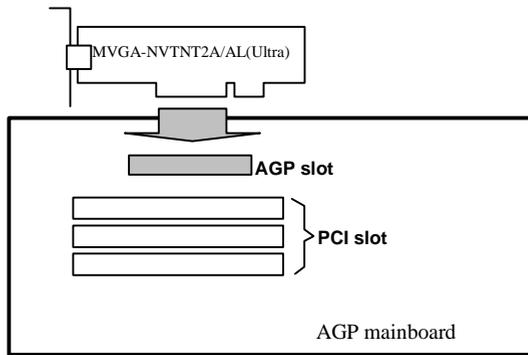
MVGA-NVTNT2AL (Ultra)

Installing the MVGA-NVTNT2A/AL(Ultra) adapter card

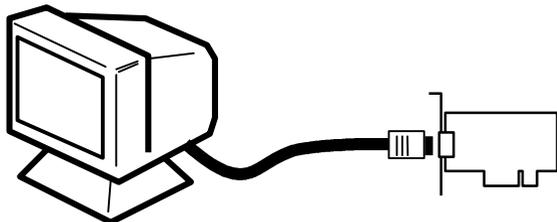
1. Turn OFF your computer, remove the computer case, and then ground yourself by touching the power supply of the computer.

Note:	Before installing the MVGA-NVTNT2A/AL(Ultra) card you must first set the VGA option to either standard VGA or Standard Display VGA.
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2. Remove your old graphics card, and install your new MVGA-NVTNT2A/AL(Ultra) 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 Installation

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-NVTNT2A/AL(Ultra)' 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 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**'.

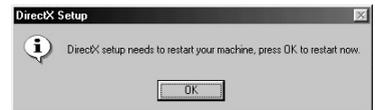
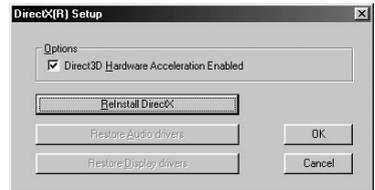


2. After the installation is complete, the system will ask you whether you want to restart your computer now. Please click '**Yes**', to reboot your system and activate the program.



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.



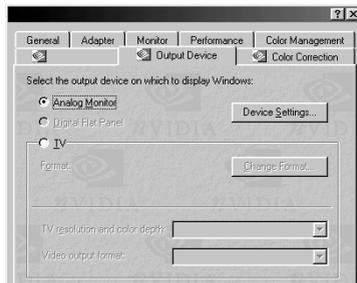
TV-OUT Function Instruction

How to adjustment screen position?

Click 'My computer' on desktop, then click 'Control Panel'.

Click 'Display' then select 'Settings' page.

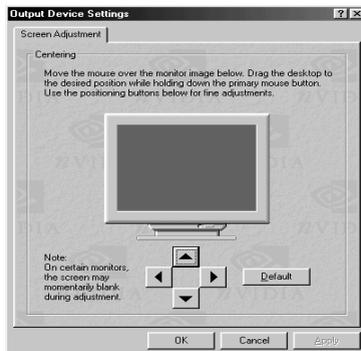
Click 'Advanced Properties', you will see the windows.



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

WARNING:

The Monitor display may become scrambled if you adjustment screen position over range.



How to change TV setting?

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

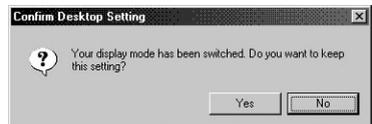
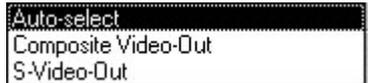
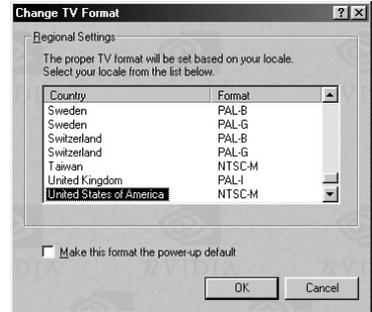
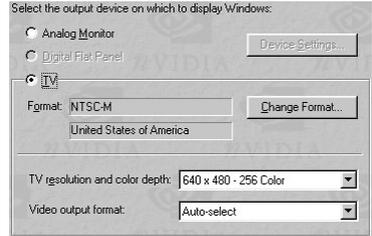
- A. Click 'Display Format' to select which TV standard you want.

When you select 'Make this format the power-up default', 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-Vide.

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



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 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:\NVTNT2LU\NT4.0'** of the display driver for Windows NT.
9. You will see a list of NVTNT2 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 **'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

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	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	V	V	V
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

5. MVGA-NVTNT2A/AL(Ultra) 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-NVTNT2A/AL(Ultra) 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: *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. 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: 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 click '**OK**', so that the changes can take affect.