M S - 8808

nVIDIA Vanta™/TNT2 M64

Graphics Accelerator ***User's Guide***

VERSION 1.0
1999/07/13 ROC

CE

FCC-B Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Notice 1
The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Notice 2
Shielded interface cables and A.C. power cord, if any, must be used in order to comply with the emission limits.

VOIR LA NOTICE D'INSTALLATION AVANT DE RACCORDER AU RESEAU.

MICRO-STAR MS-8808

FC

Tested to Comply with FCC Standard

FOR HOME OR OFFICE USE

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Chapter 1

MS-8808 nVIDIA Vanta™/TNT2 M64 Graphics Accelerator

1. Overview

The MS-8808 nVIDIA Vanta™/TNT2 M64 Graphics Accelerator is a second-generation 128-bit Twin Texel, 3D/2D graphics processor. The MS-8808 delivers breakthrough 3D and 2D performance. In addition to its outstanding performances, it also provides complete support for video, software, and hardware DVD playback. The MS-8808 is optimized for Small business user and corporate users.

2. Features

Chip List:

❒ **nVIDIA Vanta™/TNT2 M64 :** 2D & 3D accelerator processor.

General Features

- Optimized for Direct3D acceleration with complete support for DirectX 5.0 and 6.0
- High performance 128-bit 2D/GUI/DirectDraw Acceleration
- Video acceleration for DirectShow™, MPEG-1, MPEG-2 and Indeo®
- 250MHz Palette-DAC(300MHz Palette-DAC for TNT2 M64)
- AGP 4x/2x interface with full sideband support

Award-Winning 3D/2D performance

- 128-bit Twin-Texel architecture
- High-performance 128-bit 2D/GUI/DirectDraw acceleration
- Fast 32-bit VGA/SVGA support
- Optimized for new processor
- High performance implementation of Direct3D and OpenGL standards

High quality video playback

- Full-Screen, full-frame DVD playback
- Video acceleration for DirectShow, MPEG-1, MPEG-2, and Indeo

Robust system interface

- AGP 4x/2x interface (AGP 2.0 and AGP 1.0)

Digital TV Output

- Dual independent TV and 16bpp monitor display using the encoder's programmable timing generators in master mode
- Full screen pass-through mode
- Transfers 24-bit RGB pixel data using 12-bit words in multiplexed form
- Supports 640x480, 640x400, 720x400, 800x600, and 512x384 resolutions

Full Software Support

- Windows® 95 and 98 Display Drivers
- Windows® 2000, Windows® NT 4.0 Display Drivers
- OpenGL ICD for Windows® NT 4.0, and Windows® 95 an 98

Supports super high resolution graphics modes

- 640x480 8/16/32 bit colors with 240Hz
- 800x600 8/16/32 bit colors with 240Hz
- 1024x768 8/16/32 bit colors with 200Hz
- 1152x864 8/16/32 bit colors with 150Hz
- 1280x1024 8/16/32 bit colors with 120Hz
- 1600x1200 8/16/32 bit colors with 85Hz
- 1920x1200 8/16/32 bit colors with 75Hz
- 2048x1536 8/16 bit colors with 60Hz

3. System Requirements

To install MS-8808 VGA card, your computer system needs to meet the following requirements:

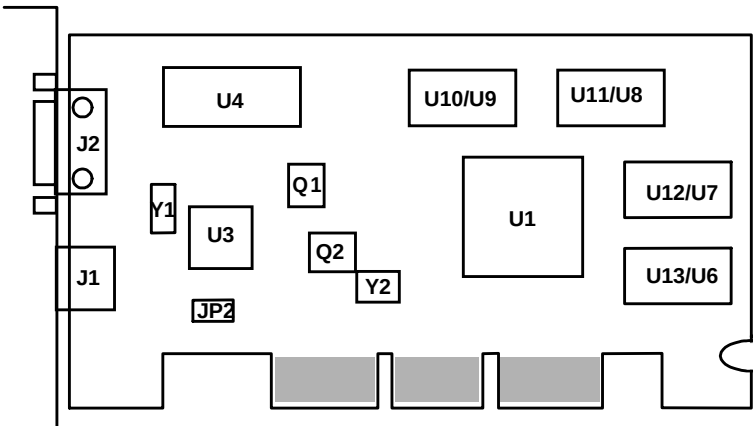
Computer	Intel Pentium® processor, Intel Pentium® II/III processor or compatible system
Expansion Slot	AGP slot
Monitor	VGA Support, minimum 640x480 resolution
Operating system	Windows® 95/98, Windows® NT 4.0.
CD-ROM	Double Speed or Higher

4. Package Contents

Before installing the MS-8808 VGA card, please check to make sure that your package is complete:

- VGA card
- CD
  - drivers and applications on CD
  - documentation on CD
- User's Guide on CD

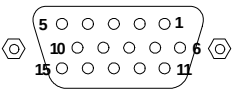
5. Card Layout



U1	nVIDIA VANTA/TNT2 M64 AGP Graphics Processor
U3*	Brooktree BT868/869 TV-Out
U4	VGA BIOS PLCC
U6/U7/U8/U9	SDRAM 1M*16 8MB
U10/U11/U12/U13	SDRAM 4M*16 32MB
Y1*	Crystal 13.5MHz TV-Out
Y2	Crystal 14.31818MHz
J1*	S-Video Connector TV-Out
J2	VGA Connector
JP2*	TV-Out NTSC/PAL Jumper
Q1	MOSFET-N
Q2	TL431 SMD

*** Optional Components**

6. DB 15 Pin Connector



Analog Video Display Connector(DB15-S)	
Pin	**Signal Description**
1	Red
2	Green
3	Blue
4	Not used
5	Ground
6	Ground
7	Ground
8	Ground
9	Not used
10	Ground
11	Not used
12	SDA
13	Horizontal Sync
14	Vertical Sync
15	SCL

7. Vertical Refresh Rate

Resolution	Color	Vertical Refresh (Hz)
640x480	8bit, 16bit, 32bit	60,75,85,100,120,140,160,200,240
800x600	8bit, 16bit, 32bit	60,75,85,100,120,140,160,200,240
1024x768	8bit, 16bit, 32bit	60,75,85,100,120,140,160,200
1280x1024	8bit, 16bit, 32bit	60,75,85,100,120
1600x1200	8bit, 16bit, 32bit	60,75,85
1920x1200	8bit, 16bit, 32bit	60,75
2048x1536	8bit, 16bit	60

Chapter 2

Installation of nVIDIA Vanta™/TNT2 M64 VGA Driver

1. Driver

1.1 Install Enhanced Drivers for Windows® 95/98

After installing the MS-8808 VGA card into the mainboard, Windows® 95/98 will auto-detect changes in your hardware configuration; this will install the Standard VGA Driver. To get the maximum performance, you need to install the MS-8808 driver.

Before installing MS-8808 driver, you need to install theWindows® 95 OSR2 USB supplement to support the AGP function. Windows® 98 need not install this.

To install MS-8808 enhanced driver, follow the steps below:

Step 1: Insert the **CD_Title** provided into your CD-ROM drive.

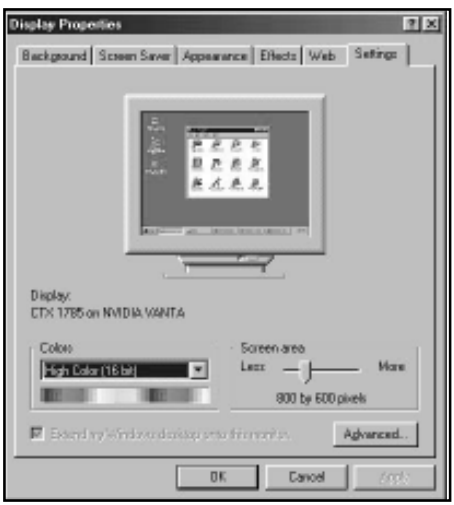
After inserting the **CD_Title**, this will autorun showing this window.

Step 2: Click on **Install VGA Drivers** button.

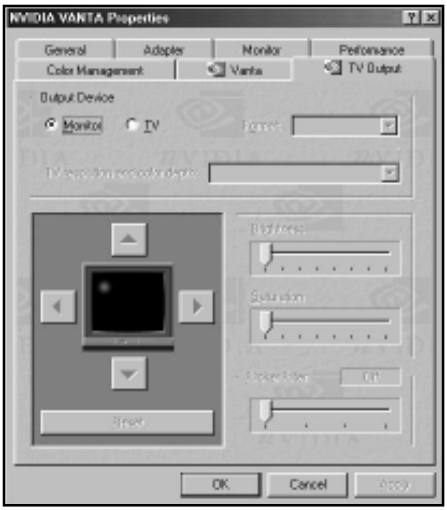
Step 3: Click on the **OK** button. This will copy the necessary files into the hard drive.

Step 4: Choose **OK**, to restart the computer now.

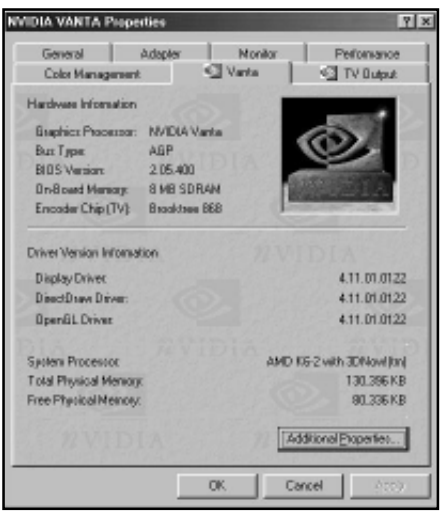
New Display Properties:



This function is used for setting Color palette, and Desktop Area.



This function is used for setting which output device to use, whether TV-Out(optional) or Monitor.



This shows Hardware Information/BIOS version/Memory Size.

This item is for 3D setting and OpenGL setting.

1.2 Install Enhanced Drivers For Windows® NT

You need to install the Windows® NT 4.0 "Service Pack 3", before installing the driver.

After installing MS-8808 Card, Windows® NT will default to Standard VGA mode 640x480x16 colors.

To install MS-8808 enhanced driver, follow the steps below:

Step 1: Insert the **CD_Title** provided into your CD-ROM drive.

After inserting the **CD_Title**, this will autorun showing this window.

Step 2: Click on **Install VGA Drivers** button.

Step 3: Click on the **Next** button. This will copy the necessary files into the hard drive.

Choose Yes, I want to restart my computer now.

Step 4: Click on the **Finish** button.

Using Display Properties new function:

This function is used to show the Display Driver version, chip version and memory size.

This function is used for setting Color palette, Desktop Area and Refresh rate.