

3DVision-SAGP

User's Manual





FCC & DOC Compliance

Federal Communications Commission Statement

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

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 in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in particular installation. If this equipment does cause harmful 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:

- Re-orient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio

Warning!! The use of shielded cables for the connection of the monitor to the graphics card is required to assure compliance with FCC regulations. Changes or modifications to this unit nor expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.'

Canadian Department of Communications Statement

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Version 1.0

Copyright ©July 1997 All rights reserved

Portions copyright ELITEGROUP Computer Systems Co., LTD.

This publication may not be copied, reproduced, transmitted or reduced to any printed or electronic medium or to any machine readable form, or stored in a retrieval system, either in or electronic medium or to any machine readable form, or stored in a retrieval system, either in whole or in part without the written consent of the copyright holders.

The contents of this publication are subject to change. The manufacturer reserves the right to alter the contents of this publication at anytime and without notice. The contents of this publication may contain inaccuracies or typographical errors and is supplied for informational use only.

Products are noted in this publication for identification purposes only. Microsoft is a registered trademark and Windows is a trademark of Microsoft Corporation. Pentium is a trademark of Intel Corporation. All other product names or brands may be trademarks or registered trademarks of their respective holders.



Contents

3DVision-SAGP Package & Product Information.....	1
Manual Features.....	1
Package Contents.....	1
Online Manual Format.....	2
Component Information.....	3
New Features	3
Resolution and Frequency	5
Layout.....	6
Jumper setting.....	6
3D Engine Block Diagram.....	7
Installing the Card	8
Before The Basic Procedure.....	8
The Basic procedure of the installation.....	8
Using your card.....	10
Software Setup.....	10
MS Windows 95 Installation.....	11
Installing Under the Windows 3.1.....	11
Installing Under the Windows NT.....	12
Appendix A.....	13

3DVision-SAGP Package & Product Information

This manual contains all the information you'll need to use the 3DVision card. Please take a moment to familiarize yourself with the design and organization of the manual.

Manual Features

This manual also uses some icons to call your attention to important information. The icons appear in the sidebar and represent the following.

- ☺ Important Information
- 😊 A recommendation or good idea
- ☹ A warning or bad idea
- 💣 Danger warning

Package Contents

The 3DVision-SAGP card package contains the following items. Please inspect the package contents and confirm that everything is there. If anything is missing or damaged, call your vendor for instructions before proceeding.

The package includes:

- ☑ One 3DVision-SAGP Card
- ☑ One CD Title for DIY Guide, Auto installation, Driver Files & Direct X5,
- ☑ User's Manual

Online Manual Format

If the support disk for your AGP Card is a CD-ROM disc, a copy of the printer manual stored on the disc in Adobe Acrobat format. If so, it requires Adobe Acrobat Reader version 3.0 or later to view it. Acrobat Reader for Microsoft Windows95 may also be supplied on the Support Disk. If not, you can obtain a free copy of the Reader software from the Adobe web site which is currently at www.adobe.com as well as other locations.

If you have the online manual, you may want to install Acrobat Reader on your system hard disk. You can copy the manual over as well so that the manual is readily available without having to hunt up the Support Disk when you want to view it.

If you are unfamiliar with Acrobat Reader, please take a moment to view the Reader Online Guide which is available under the Help menu when you run Reader.

Overview

Our top-of-the-line 3DVision-SAGP is a high performance AGP graphics card with integrated RiVA128 Chipset. It balances high quality 3D polygon and textured graphics acceleration, widows acceleration and state-of-the-art MPEG1/MPEG2 playback with a fast integrated standard VGA and VESA BIOS extension, 206 RAMDAC and video ports. The 3DVision-SAGP was designed especially for professional 3D applications and 4MB SGRAM for 64-bit Synchronous Memory Interface.

RIVA128 Chipset Features

The RIVA 128™ is the first 128-bit 3D Multimedia Accelerator to offer unparalleled 2D and 3D performance, meeting all the requirements of the mainstream PC graphics market and Microsoft's PC' 97. The RIVA 128 introduces the most advanced Direct3D™ acceleration solution and also delivers leadership VGA, 2D and Video performance, enabling a range of applications from 3D games through to DVD, Interact™ and video conferencing.

Key Features

■ Full support for Intel's Accelerated Graphics Port(AGP)

- ✓ Supports AGP 1.0 compliant configuration setting
- ✓ Supports AGP 1X mode

■ Built-in a high quality 3D engine

- ✓ Supports solid, flat, and Gouraud shading

- ✓ Supports high quality dithering
- ✓ Supports Z-test, Alpha, and scissors clipping test
- ✓ True-color 3D graphics

■ **System Requirements**

- ✓ Intel or compatible Pentium II systems
- ✓ with AGP(Accelerated Graphics Port) Interface.

■ **Display Support**

- ✓ Register compatible with VGA
- ✓ BIOS compatible with VESA super VGA
- ✓ VESA DPMS support
- ✓ Separate horizontal and vertical sync at TTL Levels

■ **Balanced PC System**

- ✓ Execute Versus DMA / Execute models
- ✓ Building a balanced system

■ **Operating Systems Supported**

- ✓ Windows 95
- ✓ Windows NT4.0
- ✓ Windows 3.1

■ **High Performance 2D Accelerator**

- ✓ Built-in 42 double-words hardware command queue
- ✓ Supports Turbo Queue architecture to achieve extra-high performance

■ **4MB 100 MHz SGRAM**

- ✓ 128-bit Synchronous Memory Interface
- ✓ four 256Kx32 parts for every bank of memory
- ✓ 100 MHz operation
- ✓ High speed block fill and masked writes
- ✓ Single cycle burst reads

■ **TV-OUT (Optional)**

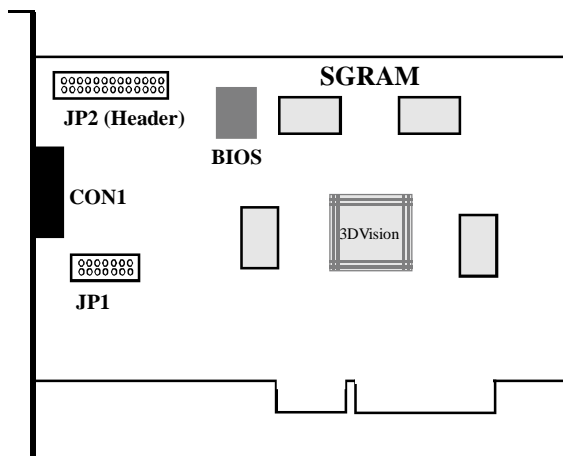
Resolution and frequency

Resolution	BPP*	4Mbyte(128-bit)
640x480	4	120Hz
	8	120Hz
	16	120Hz
	32	120Hz
800x600	4	120Hz
	8	120Hz
	16	120Hz
	32	120Hz
1024x768	4	120Hz
	8	120Hz
	16	120Hz
	32	120Hz
1152x864	4	120Hz
	8	120Hz
	16	120Hz
	32	120Hz
1280x1024	4	100Hz
	8	100Hz
	16	100Hz
	32	-
1600x1200	4	75Hz
	8	75Hz
	16	75Hz
	32	-

*BPP : bit per pixel

Layout

The illustration as the followings shows the connectors, chipset and header of the card.



Connector

The illustration as the followings shows the connectors for TV-out(Optional).



3D Engine

Triangle setup engine

- Setup hardware optimized for Microsoft's Direct3D API
- 4.2Gflop floating point geometry processor
- Slope and Setup calculations
- Accepts IEEE Single Precision format used in Direct 3D
- Efficient vertex caching

Rendering Engine

- Rendering pipeline optimized for Microsoft's Direct3D API
- Perspective correct true-color Gouraud lighting and texture mapping
- Full 32-bit RGBA texture filter and Gouraud lighting pixel data path
- Alpha blending for translucency and transparency
- Sub-pixel accurate texture mapping
- Internal pixel path: up to 24bits, alpha: up to 8 bits
- Texture magnification filtering with high quality bilinear filtering without performance degradation
- Texture minification filtering with MIP mapping without performance degradation
- LOD MIP-mapping: filter shape is dynamically adjusted based on surface orientation
- Texture sizes from 4 to 2048 texels in either U or V
- Perspective correct per-pixel fog for atmospheric effects
- Perspective correct specular highlights
- Multibuffering (Double, Triple, Quad buffering) for smooth 3D animation

Installing the Card

Before The Basic Procedure

To install a VGA Card on the mainboard you need to notice the following items.

- ☺ Unplug after switch off power.
- ☹ Make sure your hands dry
- ☺ Do not touch other parts inside computer when using "Screw driver"
- ☺ Hold insulated part when you take the interface card
- ☺ Circuit Short is caused by user's rashness when leaving screws inside computers.

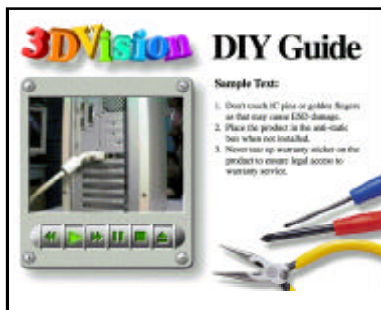
The Basic procedure of the installation

In supported CD, we have a video that teach you how to operate the card, the steps as it follows,

1. Power off the computer and monitor. Disconnect the monitor cable form the back of your computer and remove the computer cover with screw driver.
2. If there is an existing graphincs card, unscrew it from chassis and rock it gently from end to end then pull it straight up to remove it.

3. Align your card with an empty expansion AGP slot, and grasp the card by the top edge and carefully seat it firmly into the selected expansion slot.
4. Replace the screw to fasten the card in place. Replace the computer cover.
5. Plug the monitor back into your card. Make sure your monitor cable is securely fastened then turn on the computer and monitor.

The screen for example as it follows.



Using your card

The Standard Computer System Requirements

- 1.Mainboard with AGP Slot
 - 2.At least 16Mbytes EDO/SDRAM
 - 3.Using the Windows 95(OSR2.1), or NT
 - 4.DirectX 5
 - 5.CD-ROM
 - 6.Speaker or Earphone(Unnecessary)
 - 7.Sound Card(Unnecessary)
- (Appendix is for your reference.)

Software Setup

When you insert supported CD, it will autorun the screen, 3D Vision installation as it follows, it includes DIY Guide, User's manual, Windows95, Windows31, Direct X and Browser.



Besides, we also supply Windows NT and OS/2 installation guide. You can follow the following procedure.

Software Setup

Before installing the 3DVision Card onto your computer, make sure that the card is properly connected.

MS Windows 95 Installation

1. Start the installation program "instal.exe" on the CD
2. Click on the button "Windows 95 Display Driver"
3. Follow the steps on the screen

Note:

The installation steps are only for Win95.

Installing Under the Windows 3.1

Installing Windows 3.1, you can follow the steps and type the path in it.

1. Start Windows3.1
2. Choose "Main" icon in program manager
3. Click "windows setup"
4. Choose "options" on the menu bar
5. Choose "change systems settings"
6. For "Display" setting, choose "others.."
7. Enter the path of "drivers\win31" of your CD drive
8. Follow the installation procedure and finish driver's setup.

Installing Under the Windows NT

Procedure:

1. Run the Windows NT display Setup program located in the Control Panel, Select Display Icon. Double click it. To bring up Display Property page. Select "Settings" Tab on the Display Property page.
2. Click "Display Type..." button from the Display Settings options.
3. Select "Change..." button from the Display Type options.
4. Select "Have Disk..." button from the Select Device options.
5. Windows NT will prompt you for the correct path where the driver is loaded.
6. Choose "3D Vision" from the list of drivers.
7. Then follow the procedures provide by Windows NT to complete installation.
8. Restart Windows NT. Windows NT will start up with default mode using the drivers.

Appendix A :

[Procedure of Installing AGP VGA card]

Before installing AGP VGA driver, you need to setup the Windows 95 environment with installing the following items :

- OSR2.1
- USB supplemental driver
- Direct X5 driver

HOW TO INSTALL THIS PRODUCT

In order to install Universal Serial Bus support on a PC, Windows 95 version OSR2.0 must be running and you have to download the file "USBSUPP.EXE" from Microsoft web site.

To install this product:

(If you downloaded the file from Microsoft Web site and put file disk in driver A already, you can do the following steps.)

1. Start Windows Explorer.
2. Click on the A: drive(disk to display the contents of the floppy disk.
3. Double click on USBSUPP.EXE

How To uninstall this product

1) Once you have installed the USB Supplement, it can be uninstalled from Control Panel, Add/Remove components. If for any reason you wish to reinstall the USB supplement, you must first uninstall any version currently on your system.

General Information

For the latest information on Supportability and Troubleshooting the USB Supplement, check out <http://WWW.MICROSOFT.COM/KB> for access to our online Knowledge Base.

For USB device specific issues, contact your OEM or Vendor of the device.

These products are manufactured independent of Microsoft Corp.