*JOYTECH COMPUTER CO., LTD*

# VGA CARD

# Manual

## Model NO. : A4-SIS300SG-B1
## FCC ID : FQISIS300

## FEDERAL COMMUNICATIONS COMMISSION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE

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. This equipment generates, uses and can radiated radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a 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:

-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

Shielded interface cables (except S-Video cable, AV-Video cable, 3D Simulation Glasses cable) must be used in order to comply with emission limits.

Changes or modifications not expressly approved by the party responsible for compliance could void the user‘s authority to operate the equipment.

*Congratulations and welcome your purchase of this advanced graphic accelerator or sound card. This enclosed setup CD contains all the information about the board.*
*May you enjoy it doing it by yourself. Following is the important installation procedure in Chapter 1 and 2.*



## Chapter 1 Hardware Installation - Safely placing the card in your computer

1. Please power off your computer and monitor, then disconnect the monitor from the back of your computer.
2. Be aware to discharge your body's static electricity by touching the metal surface of computer chassis. Then remove the computer cover.
3. If there is an existing card in your system, replace it gently but save the screw. Or, you may need to remove the cover from the rear of expansion slot that you select.
4. Align your card with an empty corresponding expansion slot (PCI or AGP), then carefully grasp the card by top edge and put it firmly into the slot. Secure the screw to fasten the card in place and replace the computer cover.
5. Plug the monitor cable into your card, then turn on the computer and monitor.
6. Now you have finished the hardware installation and are ready to install the driver.

## Chapter 2 Software installation - Easily installing the enhanced driver

The Setup CD title bring you to take advantage of your card's performance. But, there are some issues you should note in advance.

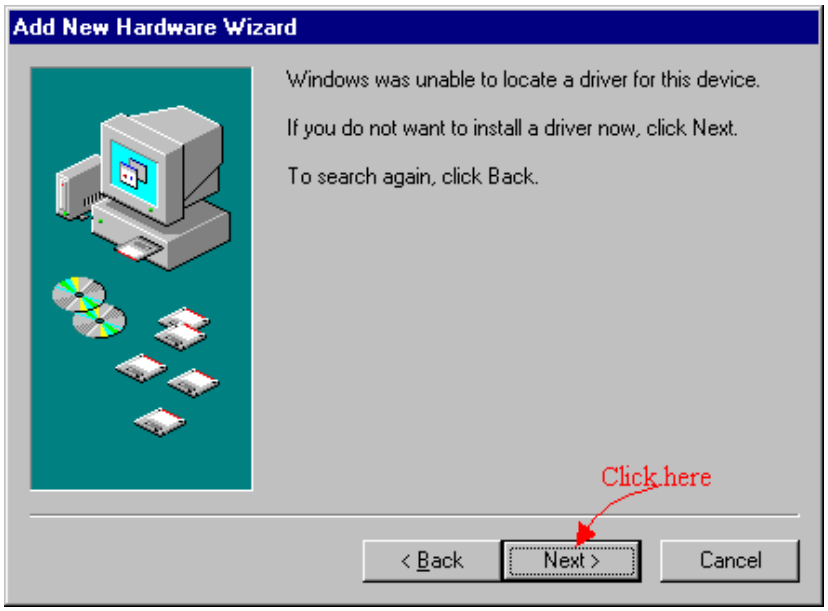
1. If it is the first time you install the card by the Plug and Play feature of Windows 95/98. Windows will find a new hardware and ask for the driver. There are four (4) different kind conditions from Windows 98, Windows 96 OSR 2, Windows 95 and Windows NT. The basic rule is to click " Next ", " Next"...until " Finish ".

**For Windows 98:**
(The general rule is to click Next", Next" ... until Finish")
**After launch Windows 98, you will see a dialog similar to the one (Add new hardware Wizard) in the window.**


The default is " Next", press " Next ", after that, you will see a dialog as follows.


The default is " Search for the best driver.... ", select it then press "Next ", after that, you will see a dialog as follows.


The default is " Next ", press " Next ", after that, you will see a dialog as follows.




The default is " Next ", press " Next ", after that, you will see a dialog as follows.


While Windows prompt you to restart Windows, please click " Yes " to restart your system. After Windows restarting, go to step 2.

**For Windows 95 OSR2:**

(The general rules is to click Next", Next".... until Finish ")
After launch Windows 95 OSR2, You will see a dialog similar to the one (Update Device Driver Wizard) in the Windows.

The default is " Next ", press " Next ", after that. You will see a dialog as follows.

Simply press " Finish ", and after that you will see following window:

Please insert your Windows 95 CD-title into CD-ROM driver, then follow on-screen instructions to go on.

While Windows prompt you to restart Windows, Click " Yes " to restart Windows. After Windows restarting, go to step 2.

**For Windows 95 (Original Version)**

After launch Windows 95, you will see a dialog similar to the one (New Hardware Found) in the windows.

Click " Do not install a driver (Windows will not prompt you again) " then press " OK ".
After that, if the card you are installing is a VGA card, you will see the below dialog; for the other cards, you can skip the following procedure and go directly to step 2.

Press " Cancel ", and then you will see:

Click " Cancel ", then go to step 2.

While Windows prompt you restart Windows; please click " Yes " to restart your system. After Windows restarting go to step 2.

**For Windows NT:**
Please select VGA mode from boot menu, if it is your first time to start Windows NT.

2. Insert the Setup CD into your CD-ROM driver.
IF Windows 95/98 runs the CD-ROM automatically, proceed to step 3.

3. It will auto-launch the setup program on Windows 95/98 or Windows NT then click a proper driver.

4. If you are on the other platform on the setup program does not auto-run, please double click the **MSSETUP.EXE** on the root of the setup CD. After a setup display in the specific setup window, you can conveniently install the driver and related software by the on-screen instructions to complete the installation.

The following windows is an example Setup Window for 3Dfx Banshee, other chipset has similar picture. Click the button to install a corresponding drivers or software. While Windows prompt you to restart Windows, please click YES to restart your system.

**Chapter 3 Video Mode tables**

**Video Mode Tables**
**Savage 2000 AGP 64MB**

| Color Depth<br>Resolution | 8-bit<br>Refresh Rate | 16-bit<br>Refresh Rate | 24-bit<br>Refresh Rate | 32-bit<br>Refresh Rate |
|---|---|---|---|---|
| 640x480 | 60-200 | 60-200 | - | 60-200 |
| 800x600 | 60-200 | 60-200 | - | 60-200 |
| 1024x768 | 60-160 | 60-160 | - | 60-120 |
| 1152x864 | 60-120 | 60-120 | - | 60-120 |
| 1280x1024 | 60-120 | 60-120 | - | 60-85 |
| 1600x1200 | 60-100 | 60-100 | - | 60 |

**SiS 300 AGP 16MB/32MB**

| Color Depth | 8-bit | 16-bit | 24-bit | 32-bit |
|---|---|---|---|---|

| Resolution | Refresh Rate | Refresh Rate | Refresh Rate | Refresh Rate |
|---|---|---|---|---|
| 640x480 | 60-160 | 60-160 | - | 60-160 |
| 800x600 | 60-160 | 60-160 | - | 60-120 |
| 1024x768 | 60-120 | 60-120 | - | 60-185 |
| 1280x1024 | 60-185 | 60-85 | - | 43 |
| 1600x1200 | 60-85 | 60-70 | - | - |

**nVidia TNT AGP/16MB**

| Color Depth<br>Resolution | 8-bit<br>Refresh Rate | 16-bit<br>Refresh Rate | 24-bit<br>Refresh Rate | 32-bit<br>Refresh Rate |
|---|---|---|---|---|
| 640x480 | 60-170 | 60-170 | - | 60-170 |
| 800x600 | 60-144 | 60-144 | - | 60-144 |
| 1024x768 | 60-100 | 60-100 | - | 60-100 |
| 1152x864 | 60-100 | 60-100 | - | 60-100 |
| 1280x1024 | 60-85 | 60-85 | - | 60-85 |
| 1600x1200 | 60-75 | 60-75 | - | 60-75 |

**3Dfx Voodoo Banshee AGP/16MB**

| Color Depth<br>Resolution | 8-bit<br>Refresh Rate | 16-bit<br>Refresh Rate | 24-bit<br>Refresh Rate | 32-bit<br>Refresh Rate |
|---|---|---|---|---|
| 640x480 | 60-120 | 60-120 | 60-120 | 60-120 |
| 800x600 | 60-120 | 60-120 | 60-120 | 60-120 |
| 1024x768 | 60-100 | 60-100 | 60-100 | 60-100 |
| 1280x1024 | 75-85 | 75-85 | 75-85 | 75-85 |
| 1600x1200 | 65-75 | 65-75 | 65-75 | 65-75 |

**Trio 3D AGP/8MB**

| Color Depth<br>Resolution | 8-bit<br>Refresh Rate | 16-bit<br>Refresh Rate | 24-bit<br>Refresh Rate | 32-bit<br>Refresh Rate |
|---|---|---|---|---|
| 640x480 | 60-85 | 60-75 | 60-75 | - |
| 800x600 | 56-85 | 56-85 | 56-85 | - |
| 1024x768 | 43-85 | 43-85 | 43-85 | - |
| 1280x1024 | 43-60 | 43-60 | 43-60 | - |
| 1600x1200 | | - | - | - |

**nVidia TNT2 AGP/16/32MB**

| Color Depth<br>Resolution | 8-bit<br>Refresh Rate | 16-bit<br>Refresh Rate | 24-bit<br>Refresh Rate | 32-bit<br>Refresh Rate |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 640x480 | 60-170 | 60-170 | - | 60-170 |
| 800x600 | 60-144 | 60-144 | - | 60-144 |
| 1024x768 | 60-100 | 60-100 | - | 60-100 |
| 1152x864 | 60-100 | 60-100 | - | 60-100 |
| 1280x1024 | 60-85 | 60-85 | - | 60-85 |
| 1600x1200 | 60-75 | 60-75 | - | 60-75 |

**nVidia TNT2 Ultra AGP/16/32MB**

| **Color Depth** | **8-bit** | **16-bit** | **24-bit** | **32-bit** |
|---|---|---|---|---|
| **Resolution** | **Refresh Rate** | **Refresh Rate** | **Refresh Rate** | **Refresh Rate** |
| 640x480 | 70-120 | 70-120 | - | 70-120 |
| 800x600 | 60-240 | 60-240 | - | 60-240 |
| 1024x768 | 60-170 | 60-170 | - | 60-100 |
| 1152x864 | 60-150 | 60-150 | - | 60-140 |
| 1280x1024 | 60-120 | 60-120 | - | 60-100 |
| 1600x1200 | 60-85 | 60-85 | - | 60-75 |

**Intel 752 AGP/8/16MB**

| **Color Depth** | **8-bit** | **16-bit** | **24-bit** | **32-bit** |
|---|---|---|---|---|
| **Resolution** | **Refresh Rate** | **Refresh Rate** | **Refresh Rate** | **Refresh Rate** |
| 640x480 | 60-120 | 60-120 | 60-120 | - |
| 720x480 | 75-85 | 75-85 | 75-85 | - |
| 720x576 | 60-85 | 60-85 | 60-85 | - |
| 800x600 | 60-120 | 60-120 | 60-120 | - |
| 1024x768 | 60-120 | 60-120 | 60-120 | - |
| 1152x864 | 60-85 | 60-85 | - | - |
| 1280x720 | 60-85 | 60-85 | - | - |
| 1280x960 | 60-85 | 60-85 | - | - |
| 1280x1024 | 60-85 | 60-85 | - | 60-85 |
| 1600x1200 | 60-85 | 60-85 | - | - |

**SiS6326 AGP 8MB**

| Color Depth<br>Resolution | 8-bit<br>Refresh Rate | 16-bit<br>Refresh Rate | 24-bit<br>Refresh Rate | 32-bit<br>Refresh Rate |
|---|---|---|---|---|
| 640x480 | 60-120 | 60-120 | 60-120 | - |
| 800x600 | 56-120 | 56-120 | 56-120 | - |
| 1024x768 | 43-120 | 43-120 | 43-120 | - |
| 1280x1024 | 43-85 | 43-85 | 43-85 | - |
| 1600x1200 | 60-75 | 60-75 | - | - |

**nVidia M64 AGP/16/32MB**

| Color Depth<br>Resolution | 8-bit<br>Refresh Rate | 16-bit<br>Refresh Rate | 24-bit<br>Refresh Rate | 32-bit<br>Refresh Rate |
|---|---|---|---|---|
| 640x480 | 60-170 | 60-170 | - | 60-170 |
| 800x600 | 60-144 | 60-144 | - | 60-144 |
| 1024x768 | 60-100 | 60-100 | - | 60-100 |
| 1152x864 | 60-100 | 60-100 | - | 60-100 |
| 1280x1024 | 60-85 | 60-85 | - | 60-85 |
| 1600x1200 | 60-75 | 60-75 | - | 60-75 |

**RIVA128/ZX AGP/8MB**

| Color Depth<br>Resolution | 8-bit<br>Refresh Rate | 16-bit<br>Refresh Rate | 24-bit<br>Refresh Rate | 32-bit<br>Refresh Rate |
|---|---|---|---|---|
| 640x480 | 60-75 | 60-75 | - | 60-75 |
| 800x600 | 60-75 | 60-75 | - | 60-75 |
| 1024x768 | 60-75 | 60-75 | - | 60-75 |
| 1152x864 | 60-75 | 60-75 | - | 60-75 |
| 1280x1024 | 60-75 | 60-75 | - | 60-75 |
| 1600x1200 | 60 | 60 | - | 60 |

**Vanta AGP/16/32MB**

| Color Depth<br>Resolution | 8-bit<br>Refresh Rate | 16-bit<br>Refresh Rate | 24-bit<br>Refresh Rate | 32-bit<br>Refresh Rate |
|---|---|---|---|---|
| 640x480 | 60-170 | 60-170 | - | 60-170 |
| 800x600 | 60-100 | 60-100 | - | 60-100 |
| 1024x768 | 60-85 | 60-85 | - | 60-85 |
| 1152x864 | 60-100 | 60-100 | - | 60-100 |
| 1280x1024 | 60-85 | 60-85 | - | 60-85 |

| | | | | |
|---|---|---|---|---|
| 1600x1200 | 60 | 60 | - | 60 |

**Savage4 AGP/16/32MB**

| Color Depth<br>Resolution | 8-bit<br>Refresh Rate | 16-bit<br>Refresh Rate | 24-bit<br>Refresh Rate | 32-bit<br>Refresh Rate |
|---|---|---|---|---|
| 640x480 | 60-160 | 60-160 | - | 60-160 |
| 800x600 | 56-85 | 56-85 | - | 56-85 |
| 1024x768 | 60-85 | 60-85 | - | 60-85 |
| 1152x864 | 60-100 | 60-100 | - | 60-100 |
| 1280x1024 | 60-85 | 60-85 | - | 60-85 |
| 1600x1200 | 60 | 60 | - | 60 |

**Intel i740 AGP/8MB**

| Color Depth<br>Resolution | 8-bit<br>Refresh Rate | 16-bit<br>Refresh Rate | 24-bit<br>Refresh Rate | 32-bit<br>Refresh Rate |
|---|---|---|---|---|
| 640x480 | 60-85 | 60-85 | 60-85 | - |
| 800x600 | 56-85 | 56-85 | 56-85 | - |
| 1024x768 | 60-85 | 60-85 | 60-85 | - |
| 1280x1024 | 60-85 | 60-85 | 60-85 | - |
| 1600x1200 | 60-75 | - | - | - |

**3DLabs Permedia2/8MB**

| Color Depth<br>Resolution | 8-bit<br>Refresh Rate | 16-bit<br>Refresh Rate | 24-bit<br>Refresh Rate | 32-bit<br>Refresh Rate |
|---|---|---|---|---|
| 640x480 | 60-100 | 60-100 | 60-100 | - |
| 800x600 | 60-100 | 60-100 | 60-100 | - |
| 1024x768 | 60-75 | 60-75 | 60-75 | - |
| 1152x870 | 60-75 | 60-75 | 60-75 | - |
| 1280x1024 | 60-75 | 60-75 | 60-75 | - |
| 1600x1200 | 60-75 | 60-75 | 60-75 | - |

**Cirrus Logic 5465 AGP/ 4MB**

| Color Depth<br>Resolution | 8-bit<br>Refresh Rate | 16-bit<br>Refresh Rate | 24-bit<br>Refresh Rate | 32-bit<br>Refresh Rate |
|---|---|---|---|---|
| 640x480 | 60-85 | 60-85 | 60-85 | - |
| 800x600 | 56-85 | 56-85 | 56-85 | - |
| 1024x768 | 60-85 | 60-85 | 60-85 | - |
| 1152x864 | 70-85 | 70-85 | 70-85 | - |
| 1280x1024 | 60-85 | 60-85 | 60-75 | - |
| 1600x1200 | 60-96i | 60-96i | - | - |

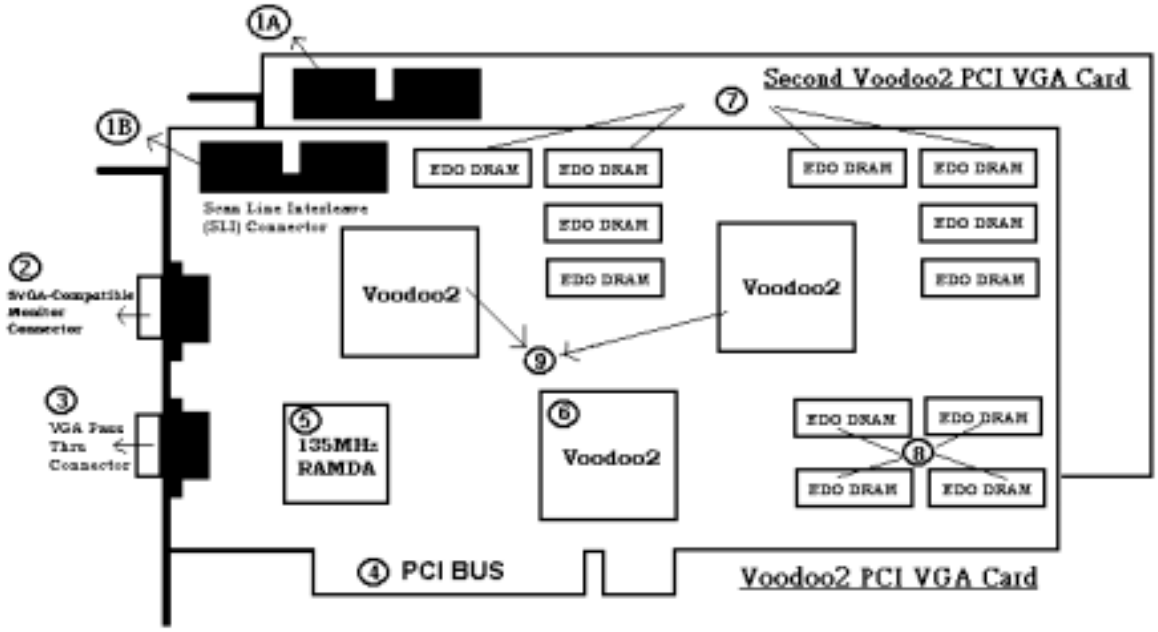
**3Dfx VoodooII PCI/12MB**

| Mode | Double Buffer (No Z) | Double Buffer (With Z) | Triple Buffer (No Z) | Triple Buffer (With Z) |
|---|---|---|---|---|
| **Resolution** | **Refresh Rate** | **Refresh Rate** | **Refresh Rate** | **Refresh Rate** |
| 640x400 | 72-120 | 72-120 | 72-120 | 72-120 |
| 640x480 | 72-120 | 72-120 | 72-120 | 72-120 |
| 800x600 | 72-120 | 72-120 | 72-120 | 72-120 |

Remark: Refresh rate might be varied slightly according to user's monitor size.

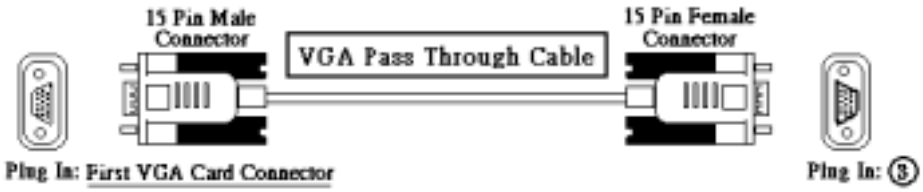
**Chapter 4 Special Introduction of 3Dfx PCI Voodoo 2 card**

**1. Voodoo 2 PCI VGA Board**

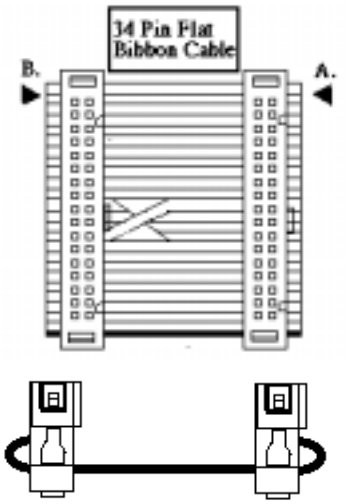



(1) Scan Line Interleave (SLI) Connector
(2) SVGA-Compatible Monitor Connector. (Connect with Monitor cable)
(3) VGA Pass Through Connector. (Connect with VGA Pass Though Cable, 15" pin female connector)
(4) PCI Bus Connector
(5) 135MHz RAMDAC
(6) Frame Buffer Interface
(7) Texture Memory
(8) Frame Buffer Memory
(9) Texture Management Units

2. VGA Pass Through Cable




3. 34 Pin Flat Ribbon Cable for SLI




If you have two (2) Voodoo 2 cards, plug one flat cable into mutual SLI connector. Be aware the cable direction as marked " A ", " B ".