



## **QDI SA3000 AGP**

User's Guide

Version 1.0

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QDI® believes the information contained in this document is accurate and reliable. However, QDI® reserves the right to make corrections, improvements, or changes to this document at any given time without prior notice.

Please refer to README file in the driver diskette for operating instructions and other information updates.

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# Contents

<b>Introduction</b>	<b>1</b>
Features .....	1
System Requirements .....	2
Package Contents .....	2
Software Upgrade .....	2

<b>Hardware Installation</b>	<b>3</b>
------------------------------	----------

<b>Drivers Auto-Installation</b>	<b>5</b>
Before You Begin .....	5
Operating System Requirements .....	5
Installation of SA3000 Display Drivers for Windows 95/98/NT .....	5
Configuring Windows 95 Driver .....	9
Configuring Windows NT 4.0 Driver .....	13

## BIOS Upgrade



## Introduction

Thank you for purchasing the QDI SA3000 AGP 3D Graphics Card.

With S3 Savage3D 2D/3D/video True Media Accelerator built in, your QDI SA3000 combines outstanding 3D acceleration, excellent 2D graphics and superior video quality on a single board, providing you with both high performance and satisfied quality in 3D game and multimedia applications.

### Features:

- AGP Bus. Supports AGP 2X DMA and Execute modes.
- S3 Savage3D Graphics and Video accelerator.
- 8MB SDRAM or SGRAM on board.
- 250MHz RAMDAC, supports resolutions up to 1280x1024 32 bit Color and 1600x1200 32 bit color.
- Excellent 2D graphics for business applications. 128 bit engine for full feature Windows graphics acceleration.
- Fully advanced 3D enhancement. Floating point triangle setup engine, 128 bit dual rendering pipelines, single clock trilinear filtering, edge anti-aliasing, texture compression, perspective correction, 24 bit Z-buffering, full alpha blending, specular lighting, atmospheric effect, etc.
- MPEGII acceleration with IDCT and motion compensation for full frame rate software DVD playback.
- Simultaneous CRT and TV-out, S-video and C-video TV signal out for NTSC/PAL/HDTV.
- Flash memory programmable for BIOS upgrade.
- Supports DPMS, DDC2B and ACPI.
- Supports Drivers Auto Installation.

*User's Manual* 1



- Drivers for major operation systems and APIs.  
Windows 95/98, Windows NT 4.0.  
DirectX 5.0/6.0, OpenGL ICD.
- Popular and new generation 3D games support.

### System Requirements:

**Computer:** Uses mainboard with an AGP Bus slot.  
**Monitor:** Standard VGA monitor. For receiving all the benefits from the graphic card, a high resolution multi-frequency monitor is needed.  
**Operating System:** Windows 95; Windows 98, Windows NT 4.0 etc.

### Package Contents:

Before installing your QDI SA3000 graphic card, please check to make sure your QDI SA3000 package is complete.

- ☒ QDI SA3000 AGP graphic card.
- ☒ Driver CD-ROM Disk.
- ☒ User's manual.

Contact your dealer if you find anything missing or damaged.

**Note!** *Graphic cards are sensitive to static charge. To avoid damages that may occur by static charge, leave the graphic card in its antistatic packaging until installation. Keep the packaging for possible future transportation.*

### Software Upgrade

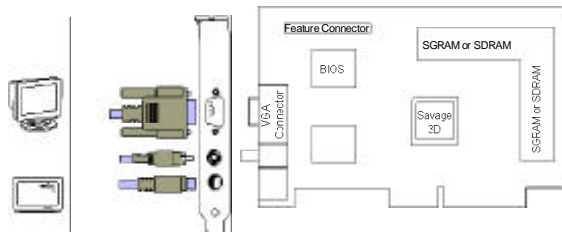
You can visit our web-site: **http: // www.qdigrp.com** / for BIOS, drivers updates and other release information.





## Hardware Installation

Follow the detailed procedures described in this section for easy installation of the QDI SA3000 Graphic card onto your computer system. The only tool needed for installation is a screwdriver.



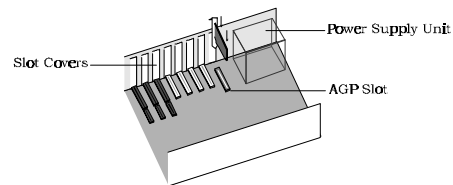
**Note!** Before installing the QDI SA3000 AGP card, touch a metal surface of your computer to discharge yourself from static charge, hold the graphic card by the edges be sure not to touch the IC chips, leads or circuits.

1. Before opening the computer cover , be sure the power to the computer system unit and all devices connected to it are turned off. Disconnect the computer from the power supply.
2. In a typical PC computer all cover mounting screws are located on the back of the computer. Remove these screws and save them. Carefully remove the cover.
3. Remove the existing VGA card or disable the mainboard's VGA.
4. Remove the AGP slot shield at the back of the computer by removing its retaining screw and lifting it out. Save the screw.

User's Manual 3



5. Carefully insert the graphic card into the AGP slot by holding the card at the top and gently pushing both ends into the slot at the same time. Do not force the card into the slot! If the card does not fit easily, pull it back, and try again.



6. Secure the card with the screw removed in the above step.
7. Replace and secure the system cover.
8. Connect a VGA compatible or multi-frequency monitor with the 15 pin video connector at the back of the QDI SA3000 card.
9. Reconnect the computer to the power supply.





# Drivers Auto-Installation

## Before You Begin

*All installation instructions assumes the CD-ROM disk is located in drive D: and Windows 95 is in C:\Windows. Replace either with the actual location if necessary.*

## Operating System Requirements

For all AGP feature benefits, use Windows 95 OSR2.1 or the later version. To install Windows 95 OSR2.1, first install OSR2.0 then upgrade to OSR2.1 by installing USBSUPP which is provided by Microsoft. You can contact the distributor of Windows 95 OSR2 for USBSUPP supplement.

## Installation of SA3000 Display Drivers for Windows 95/98/NT

The display drivers can be automatically installed into Windows 95, Windows 98 and Windows NT4.0.

### 1. Installing Standard VGA Driver

It is recommended that you first install Windows 95/98/NT with the SA3000 AGP card already installed. After the installation of Windows 95/98/NT, the default VGA driver should have been installed first.



If Windows 95(OSR2) has been installed before the installation of the SA3000 AGP card, the first time Windows 95 runs with the SA3000, the **Update Device Driver Wizard** window appears, click **next** (*Do not click **Cancel** , or your system will hang!*). Then click **finish** to install the standard VGA driver, direct the installation path to your `\windows\system` directory if Windows 95 CD is requested. Follow the prompt, do not restart Windows 95 then proceed to step 2. If using Windows 98/NT, this incident will not occur.



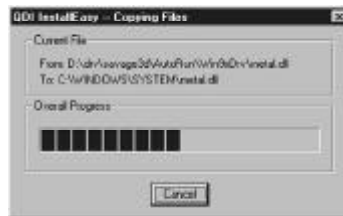
## 2. Installing the SA3000 driver

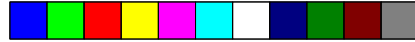
After inserting the auto-run SA3000 driver CD into the CD ROM drive, a dialog box pops up as shown on the following page. You can also run AutoRun.exe from the CD directly if auto-run is not supported by your system.





Selecting **Install Display Driver** from the dialog box with your mouse, this will automatically install the SA3000 driver. When completed, a message box pops up, prompting you to restart the computer. Press OK to restart the computer.





### 3. Installing DirectX

In windows 95, run auto.exe from the CD-ROM and select **Install DirectX** from the dialog box, then follow the prompts to install DirectX.



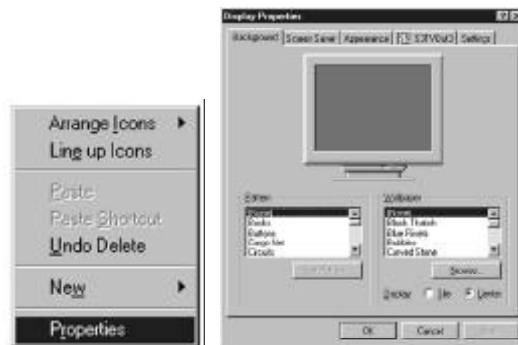


## Configuring Windows 95 Driver

To receive optimum visual display and performance, configure your Windows 95 driver once it is installed.

Click the right mouse button while the mouse is pointing at an empty area of Windows 95 desktop and select **Properties** from **Display Properties** Window, you can adjust screen resolution, color depth, monitor setting, refresh rate, etc.

Refer to the sections below for a complete description of what options are available for each configuration tab. After making your changes, follow the on-screen prompts to complete the configuration.

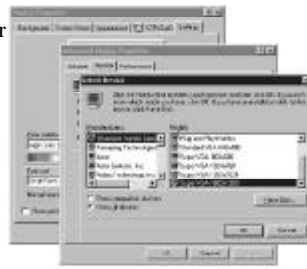


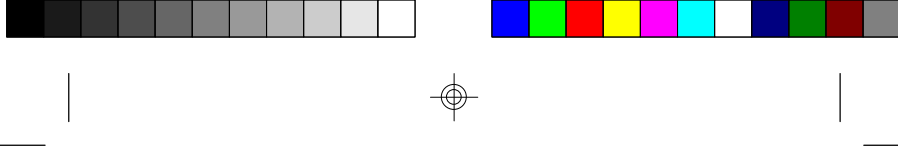


If you want to change the screen resolution or color depth, click on the **Settings** tab at the top of the screen. This panel will now be displayed. Change the screen resolution using the 'Desktop area' slider on the right side of the window. To change the color depth of the screen use the 'Color palette' selector located on the left side of the window.



If you are not able to choose a resolution that your monitor supports, you may need to change your monitor settings by clicking the **Advanced Properties** button and clicking the **Monitor** tab. Click **Change** button for Monitor Type. Click the Manufacturer and Model that matches your monitor. If your monitor brand is not displayed, choose Standard monitor and VGA model.

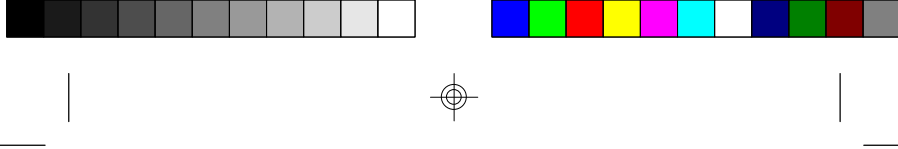




If you want to change the refresh rate, click **Advanced Properties** button in the **Setting** panel, click the down arrow button, choose the number of refresh rate you hope to select then click **OK** button. In general, the higher the refresh rate, the better the display quality. Be sure your monitor can support the refresh rate chosen!



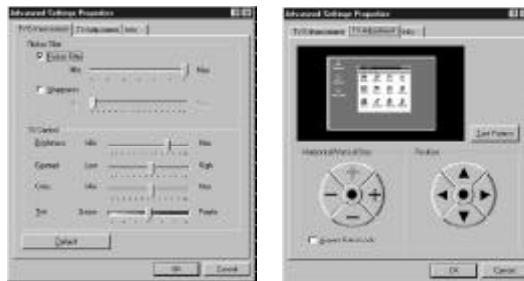
If you want to view the image or video on TV, connect your TV to the video out connector (C-video or S-video) first. For TV-out setting, click on **S3TVOut3** tab at the top of **Display Properties** Window.



Tick the **TV** Box in this panel to enable TV-out. Click on the down arrows in **TV-Type** and **TV Output Signal** area to select NTSC/PAL and S-Video/C-Video to conform your TV standard and the connection.



Click **Advanced Setting** button to adjust the image effect on TV, click on **TV-Adjustment** tab to adjust the image size and position.





## Configuring Windows NT 4.0 Driver

To configure your Windows NT 4.0 driver once it is installed, follow the procedures listed below.

1. Right click on the Windows NT desktop and select **Properties**.
2. From the Display Properties dialog box, you can change your driver and monitor configurations. Click on the **Settings** tab, located at the top of the dialog box, and adjust the settings using the drop-down boxes and slider bars.
3. Follow the on-screen prompts for completing Windows NT 4.0 driver or monitor configuration.





## BIOS Upgrade

On rare occasions, it may be necessary to upgrade the video BIOS on your QDI SA3000 card. In such a case, you will receive a new BIOS Binary file and a utility called S3 Flash.

Follow these steps to upgrade your video BIOS:

- Step 1. Start your computer from MS-DOS system floppy disk, or while Windows 95 is booting, press the key 'F8' and select 'Command Prompt Only' from the start menu.
- Step 2. If you have received the BIOS upgrade files. At DOS prompt, create a directory in your hard disk, then copy the upgrade files into this directory. change the directory to the BIOS upgrade directory.
- Step 3. At the DOS prompt, type the following command to install the new BIOS into the QDI SA3000 card's Flash Memory

### **S3Flash xxx.ROM**

xxx.rom is the BIOS BIN File you received. This will load the BIOS image file into the card's BIOS space.

**Important: Do NOT reboot or power down the machine until the message 'S3 Video BIOS has been updated' is displayed, or it will cause the BIOS to be incompletely programmed, resulting in a non-functioning graphic card.**

After the new BIOS has been installed, restart your machine normally. Please be sure to Hard Boot your system by either pressing the Reset button or the Power button.





## FCC Information

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 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 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.

This device complies with Part 15 of 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.

Notice to user: Changes or modifications to this product not approved by the party responsible for FCC compliance could void your authority to operate this equipment.

In order for an installation of this product to maintain compliance with the limits for a Class B device, shielded cables must be used for the connection of any devices external to this product.



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