

QDI RV2000

*AGP*

# **3D Graphic Card**

# **QDI RV2000 AGP**

User Guide

Version 1.2

Copyright© 1998 LEGEND.QDI®

All rights reserved

No part of this manual may be reproduced or transferred to other media without permission from QDI®.

## **Notice**

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.

## **Trademarks Acknowledgments**

- MS-DOS, Windows, and DirectX are trademarks of Microsoft Corporation
- Pentium is a trademark of Intel Corporation
- OS/2, VGA are trademarks of IBM Corporation

All other brands and product names are trademarks of their respective companies.

# 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 RV2000 display drivers for Windows 95/98/NT .....	5
Configuring Windows 95 Driver .....	9
Configuring Windows NT 4.0 Driver .....	12
<b>Video-In drivers Installation</b>	<b>13</b>
Running Video-In Software .....	16
<b>BIOS Upgrade</b>	



# Introduction

Thank you for purchasing the QDI RV2000 AGP 3D Graphic Card.

~~QDI RV2000 is a high performance 3D graphics card designed for business applications.~~

## Features:

- AGP Bus, AGP V1.0 interface compliant.
- Rendition V2200 3D Accelerator embedded high performance RISC processor.
- 4MB 100MHz SGRAM on board, 800MB bandwidth.
- Excellent 2D graphics acceleration for business applications .
- Powerful hardware triangle engine, pixel engine and fill engine, delivering advanced 3D features and 3D special effects.
- High quality video playback MPEG-2 acceleration in hardware.  
High quality video-in (NTSC/PAL) supports video conference application and full motion video recording (optional).  
Flicker free TV out (NTSC/PAL) with overscan compensation for displaying games on large TV screens.
- 230 MHz RAMDAC for high resolution, high color depth and high refresh rate, displays up to 1600x1200 with 85 Hz.
- VGA fully compatible.  
DPMS for power management support.  
DDC2B for monitoring plug and play support.

- Driver Auto-Installation for Window 95/98/NT.
- Drivers for major operation systems and APIs Windows 95, Windows 98, Windows NT4.0, DirectX5, OpenGL support, etc.  
Supports popular games with 3D acceleration and 3D special effect.

## 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 RV2000 graphic card, please check to make sure your QDI RV2000 package is complete.

- QDI RV2000 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 damage that may occur by static charge, leave the graphic card in its antistatic packaging until installation. Keep the packaging for possible future transportation.*

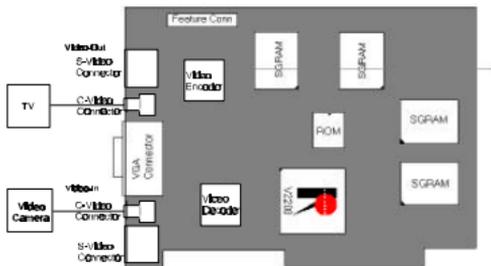
## Software Upgrade

You can visit our web-site: [http:// www.qdigrp.com](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 RV2000 Graphic card onto your computer system. The only tool needed for installation is a screwdriver.

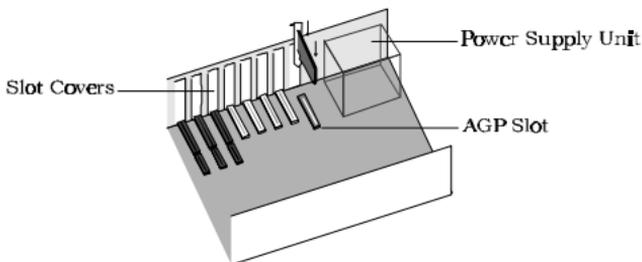
**Note!** Before installing the QDI RV2000 AGP card, touch a



*metal surface of your computer to discharge yourself of 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 that 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 an existing VGA card or disable the mainboard 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.
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.



1. Secure the card with the screw removed in the above step.
2. Replace and secure the system cover.
3. Connect a VGA compatible or multi-frequency monitor with the 15 pin video connector at the back of the QDI RV2000 card.
4. Connect the computer to the power supply.

# **D**rivers Auto-Installation

## **Before you begin**

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

## **Operating System Requirements**

For all AGP features 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 RV2000 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 RV2000 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 RV2000 AGP card, the first time Windows 95 runs with the RV2000, 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.



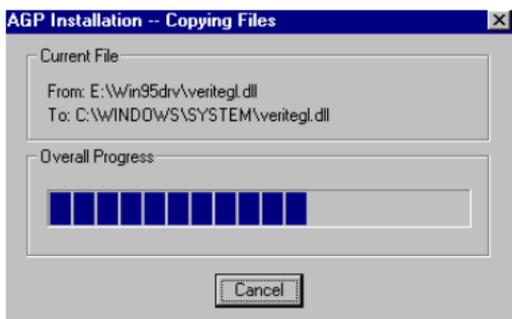
## 2. Installing the RV2000 driver

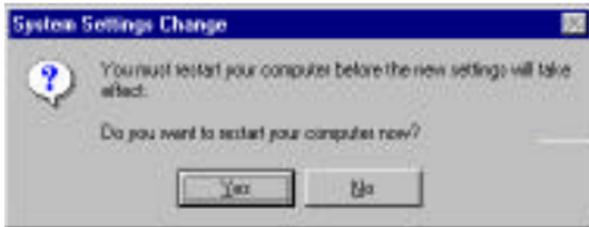
After inserting the auto-run RV2000 driver CD into the CD ROM drive, a dialog box pops up as shown below.

You can also run Auto.exe in the CD directly if auto-run is not supported by your system.



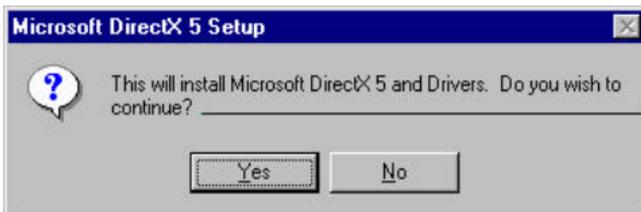
Selecting **Install Display Driver** from the dialog box with your mouse, will automatically install the RV2000 driver. When completed, a message box pops up, prompting you to restart the computer. Press OK to restart the computer.





## 1. Installing DirectX

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



**Note:** *If you try to install DirectX in Windows 98 and NT, a message box will popup, informing you that it is unnecessary to install them in these two operation systems. Please take note that the DirectX can only be auto-installed in Windows English, Simplified and Tradition Chinese versions. For the other language versions, please direct the path to **D:\DirectX5\Multi Language** and install the correspondent language version manually. You can read the Readme file in this*

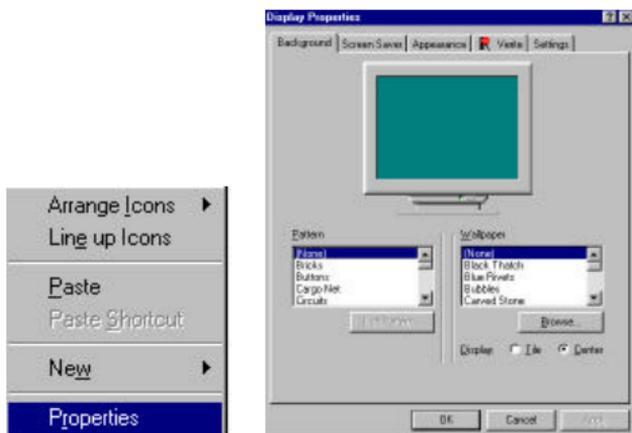
*path to receive the name of corresponding installation program.*

## Configuring Windows 95 Driver

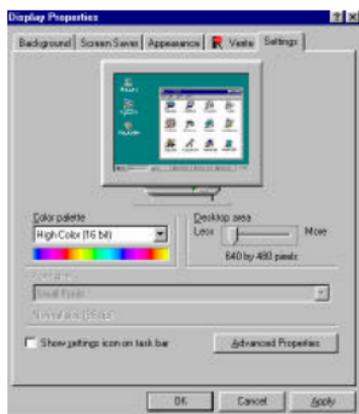
To receive the optimum visual display and performance, configure your Windows 95 driver once it is installed.

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.

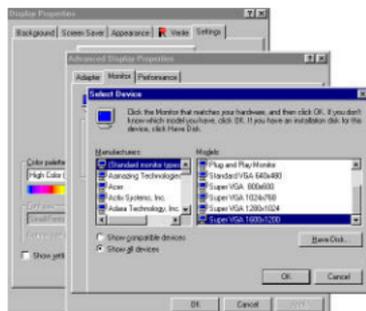
Refer to the sections below for a complete description of what options are available for each configuration tab. After making your changes, follow the on-screen prompts to complete the configuration.



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 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.



You can also change other settings. Click on the **Verite** tab at the top of the window.



Here, you can choose a refresh rate by clicking a button from the upper left part of the panel. In general, the higher the refresh rate, the better the display quality. Be sure your monitor can support the refresh rate chosen!

For digital video playback, choose whether the Bilinear Filtering should be enabled ( "Always On"), never ( "Always Off"), or only when the frame rate being displayed is actually 30fps ( "Auto"). Make this selection in the upper right portion of the window. For best digital video playback quality, we recommend the "Always On" setting.

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, then choose "On" in the TV-out options and choose NTSC or PAL to conform your TV-Standard.

The next setting is "Gamma Correction." Gamma correction is a fairly complex notion. Simply put, it modifies color values to compensate for the different characteristics of different monitors, 10

is the default value. Increasing this value will make colors appear brighter. Decreasing it will make colors appear darker. It is not merely a brightness control, as the degree of its effect depends on the original brightness of the particular color being drawn.

The last setting is "Vsync in Flip". This allows you to send data to the frame buffer during the VSYNC signal. When running Direct3D Tunnel test at 60Hz refresh rate, we will be running at 60 fps. However, when running at 75Hz or 85Hz refresh rate, we will get about half of the refresh rate, 37.5 fps or 42.5 fps, respectively. By disabling this setting, we can achieve approximately the refresh rate of 60Hz, 75Hz, or 85Hz because now the data does not wait for the Vsync signal. Instead, as soon as the next data stream is ready, it outputs to the frame buffer. In doing this, you will see some tearing .

## 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.

# Video-In drivers Installation

Video-In is an optional feature, if this feature is included in your RV2000, install the drivers for Video-In. Once you have installed the Windows 95 drivers, please follow the next steps.

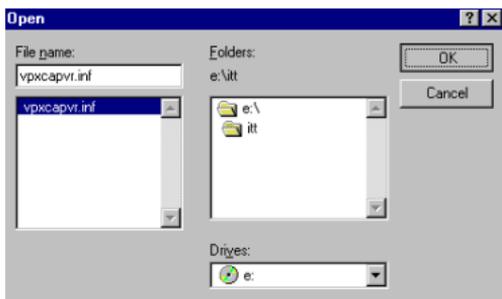
- Insert the CD-ROM disk into the CD-ROM drive. In Windows 95, open the **My Computer** window and double click on the **Control Panel** icon.
- In **Control Panel** window, double click on the **Add New Hardware** icon. The **Add New Hardware Wizard** window will appear. Click on **Next** to begin installing the new hardware, then click on **No** to search for the new hardware, and click on **Next** to continue.



The next step is to select the type of hardware, you could select **Sound, video, and game controller** option. Then click on **Next** to continue.



When asked to select the manufacturer and model of the hardware, click on **Have Disk** since the manufacturer and model are not on the list. In the Install From Disk menu, select the location of the drivers. Click on **Browse**, direct the path to \itt of the CD-ROM, then click **OK** in the **Install From Disk** window.



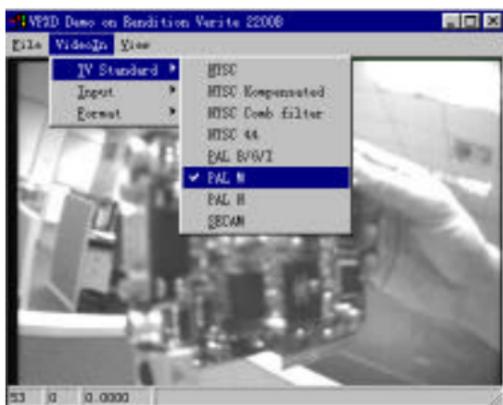
At this point, the **Select Device** windows will prompt for the model of the hardware and since we are installing only one hardware, click **OK** to continue.



Then click on **Finish** to continue installing the software. At this point, the video-in drivers are being installed onto your system.

## Running Video-In Software

There is a file labeled VpxTV-Ve.exe in the directory \itt of your RV2000 CD-ROM disk. Copy this file to your hard disk. Before running the software, you must connect either a camera, VCR or DVD player to the Video-In connector (C-video or S-video). Then run VpxTV-Ve.exe, change the setting in Video-In menu as shown in the window below.



## BIOS Upgrade

On rare occasions, it may be necessary to upgrade the video BIOS on your QDI RV2000 card. In such a case, you will receive a new BIOS Binary file and a utility called DOSPROM to install that BIOS into the card.

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 `8F` and select 'Command Prompt Only' in 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, change the directory to the BIOS upgrade directory, type the following command to install the new BIOS into the QDI RV2000 card's Flash Memory.

### **DOSPROM xxxx.rom**

xxxx.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 'BIOS Update Success' 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 you 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.

English

website : " [www.qdigrp.com](http://www.qdigrp.com) "

**P/N: 430-02006-021**  
**Manual for QDI RV2000 AGP Ver 1.2**