FireMV™ 2200

User's Guide

P/N 137-50051-10

ATI™ FIREMV™

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IMPORTANT SAFETY INSTRUCTIONS

- **Read Instructions** - All the safety and operating instructions should be read before the product is operated.
- **Retain Instructions** - The safety and operating instructions should be retained for future reference.
- **Heed Warnings** - All warnings on the product and the operating instructions should be adhered to.
- **Compatibility** - This option card is for use only with IBM AT or compatible UL Listed personal computers that have Installation Instructions detailing user installation of card cage accessories.
- **Grounding** - For continued protection against risk of electric shock and fire, this accessory should be installed only in products equipped with a three-wire grounding plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace the obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
- **Secure Attachment** - All card securement pins shall be completely tightened as to provide continuous bonding between the option card and the PC chassis.
- **Lightning** - For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet, and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
- **Power Lines** - An outside antenna system should not be located in the vicinity of overhead power lines or other light or power circuits, or where it can fall into such power lines or circuits.
- **Antenna Installation** - When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them may be fatal.

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CHAPTER 1:

Getting Started

Your ATI FireMV™ 2200 multi-view 2D workstation graphics card is designed exclusively for the financial and corporate marketplaces. The FireMV™ line has been engineered to deliver stability and reliability for a wide range of professional operating environments. For mission-critical, “always on” systems, FireMV™ graphics cards deliver uninterrupted performance.

Look to the FireMV™ series to realize these core benefits:

- Reliability
- Stability
- Flexibility
- User-friendly software
- Direct user support
- Lower power consumption
- Space-efficient, low-profile design
- Product longevity

Features of your FireMV™ 2200 card include:

- Dual display.
- Industry standard DMS59 connector for easy access to after-market cables.
- DMS59 to dual DVI-I cable (to support both DVI and VGA).
- Low-profile & half-length card for maximum flexibility.

System Requirements

Make sure you meet the following system requirements before installing your FireMV™ 2200 card.

Hardware	• Intel® Pentium® 4/Xeon®; AMD Athlon® 64/K7/XP or compatible. • 128 MB of system memory; 256 MB or more for best performance. • Motherboard with available X16 lane PCI Express™ slot and correct chipset driver or available PCI slot, as appropriate. • CD-ROM drive (required for installation software).
Operating System	• Windows® 2000 with Service Pack 1 (or higher). • Windows® XP Home or Pro with Service Pack 1 (or higher).
Monitor	• High-resolution MultiSync or multi-frequency monitors or other VGA monitors. • Digital flat-panel (DFP) displays or digital CRT displays.

Display Modes

Resolutions are limited by the performance of the attached monitor(s).

- Maximum analog resolution = 2048 x 1536
- Maximum digital resolution = 1600 x 1200

Before You Begin

Before you begin installing your FireMV™ 2200 product, please do the following.

Record Your Serial and Part Numbers

The serial number and 102 part number printed on the graphics card are required for registration. They are located on a sticker on the back of the card.

1	Serial number (S/N)
2	102 part number (P/N)

Write these numbers down before installing your new ATI product.

Uninstall Previous Graphics Card Drivers

To ensure the successful installation of your new FireMV™ 2200 card, you must uninstall the drivers for the existing graphics card before removing it from your computer.

To uninstall previous drivers

With your current graphics card still in your computer:

1. Close all applications that are currently running.
2. Navigate to the **Control Panel** and select **Add/Remove Programs.**
3. Select your current graphics card drivers and select **Add/Remove.** The wizard will help you remove your current display drivers.

   Note: If the previously installed graphics card has any additional software installed, it should also be removed at this point.

4. Restart your system after the drivers have been removed.

CHAPTER 2:

Installing Hardware

This chapter will guide you through the physical installation of your FireMV™ 2200 card.

Quick Installation

Experienced users and system administrators can follow these brief instructions for installing the FireMV™ 2200 card in the shortest possible time.

To perform a quick installation

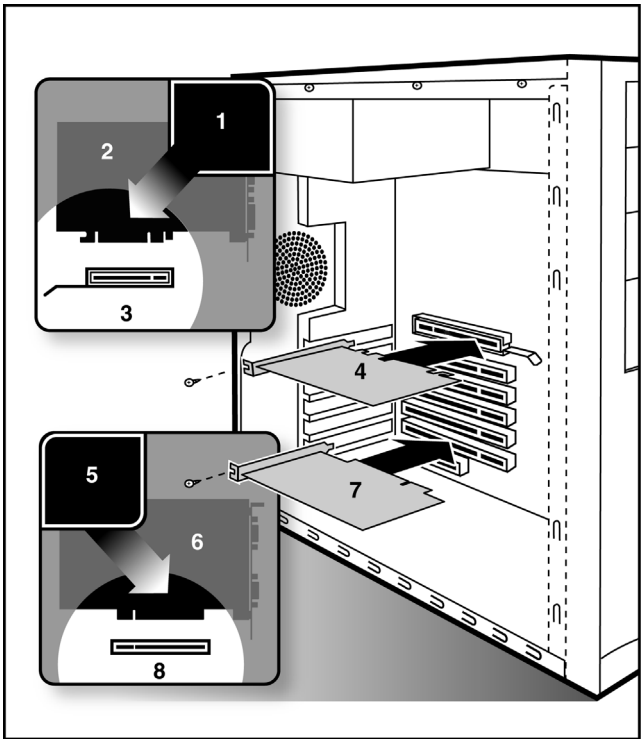
1. Uninstall the drivers and software for your old graphics card if you have not already done so.

   Note: If you are using a motherboard containing an on-board graphics solution and do not intend to use it as part of a multiple monitor display, disable it.

2. Shut down and disconnect your computer system.
3. Remove any previously installed card.
4. Install your new FireMV™ 2200 card.
5. Reassemble and connect your computer system.
6. Install the FireMV™ 2200 drivers and configuration software from the ATI Installation CD-ROM by doing one of the following:
   - Run through the automatic **ATISETUP** utility; or
   - **Start > Run > X:\ATISETUP.EXE** (where **X** is the drive letter of your CD-ROM drive).

Detailed Installation

The following instructions will take you step by step through the installation of your new FireMV™ 2200.



FireMV™ 2200 Installation Diagram

❶	PCIe Interface Connector
❷	PCIe Card
❸	PCIe Interface Connection
❹	Insertion Point for PCIe Card
❺	PCI Interface Connector
❻	PCI Card
❼	PCI Interface Connection
❽	Insertion Point for PCI Card

1 Turn off the computer, monitor, and other peripheral devices.

2 Unplug the computer's power cord and disconnect all cables from the back of your computer.

> **WARNING** - Wait approximately 20 seconds after unplugging the power cord before disconnecting a peripheral or removing a component from the motherboard to avoid possible damage to the motherboard.

3 Remove the computer cover.

If necessary, consult your computer's manual for help in removing the cover.

> **WARNING** - Remember to discharge your body's static electricity by touching the power supply or the metal surface of the computer chassis.

4 Unscrew or unfasten and remove any existing graphics card from your computer.

Note: If your computer has an on-board graphics capability, you may need to disable it on the motherboard. For more information, see your computer documentation.

5 Locate the appropriate slot and, if necessary, remove the metal back-plate cover.

6 Align your ATI graphics card with the slot and press it in firmly until the card is fully seated.

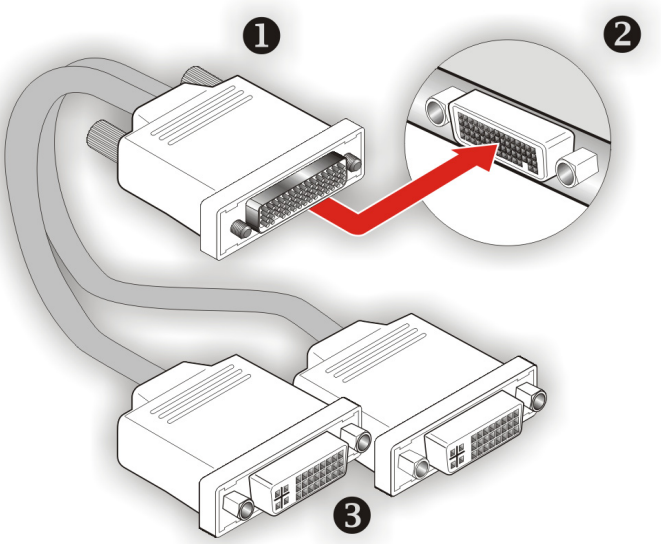
7 Screw in or fasten the graphics card securely and replace the computer cover.

8 Reconnect any cables you have disconnected and plug in the computer's power cord.

9 Turn on the monitor and then your computer.

Connecting Your Monitors

Your FireMV™ 2200 card is designed for use with a DMS-59 cable connector, which provides support for two monitors. The type of monitors supported depends on the DMS-59 cable that is used.



1	Male DMS-59 connector
2	Female DMS-59 connection on the backplate of your FireMV™ 2200 graphics card
3	Dual Female DVI-I connections

Note: The DMS-59 cable has two connections: a primary and a secondary. If you are using a single display, make sure you connect it to the primary connection. A single display will not function properly if it is connected to the secondary connection.

Display Configurations

The FireMV™ 2200 graphics card provides dual display functionality. The following table lists the different ways you can connect displays to your card.

Display Configuration	Connector(s) Used	Comments
Single CRT display	VGA connector with DVI-I-to-VGA adapter	CRT- cathode ray tube analog display. The DVI-I connection can support a CRT display using the DVI-I-to-VGA adapter.
Single DFP display	DVI-I connector	DFP - digital flat panel display.
DFP display + DFP Display	DVI-I connector + DVI-I connector	
CRT display + DFP display	VGA connector with DVI-I-to-VGA adapter + DVI-I connector	
CRT display + CRT display	VGA connector with DVI-I-to-VGA adapter + VGA connector with DVI-I-to-VGA adapter	

Turning on the System

ⓘ **WARNING** - Turn on your monitor before you turn on your computer. Failure to do so could damage your monitor.

If you have properly installed your graphics card, operating system messages will appear once the boot procedure is finished.

Your monitor will be running in a basic video mode. Higher refresh rates are not available at this stage of the installation. Once you have installed the FireMV™ 2200 drivers and software, you can use the Display Properties control panel to adjust the video settings and configure multiple monitors.

CHAPTER 3:

Installing Software

This chapter will guide you through the installation of the drivers and software associated with your FireMV™ 2200 card.

HYDRAVISION™ Multi-monitor Management

The HYDRAVISION™ multi-monitor and desktop management software will install automatically with the Express driver installation of the ATISETUP utility. If you do not want to install HYDRAVISION™ , select the **Custom** driver installation and clear the **HYDRAVISION™** check box.

For more information concerning HYDRAVISION™ , consult the user's guide included on the ATI Installation CD-ROM.

Installing Drivers and Software in Windows®

You will need to install the FireMV™ 2200 drivers and software in the following cases:

- After you have installed the card in your system.
- After you have reinstalled or upgraded your operating system.

This procedure applies to Windows® 2000 and Windows® XP.

Software Installation Prerequisites

To install or remove the drivers, you must have administrator rights or be logged on as a user with administrator rights.

Your operating system must be installed and running before you can install the FireMV™ 2200 drivers. You must also have Service Pack 1 (or higher) for Windows® 2000 or Windows® XP installed.

Make sure your monitor cable is properly attached before you begin.

> **Note:** The installation dialog will display in English if your operating system's language is not supported.

To install ATI drivers and software

1. Start your system. When the **Found New Hardware Wizard** comes up, click **Cancel**. When the **System Settings Change** window asks you to restart your computer, click **No**.
2. Run the **ATISETUP** utility. The **ATISETUP** utility will start automatically if you insert the ATI Installation CD-ROM into your CD-ROM drive after the operating system has started. If your CD-ROM auto-run is not enabled or the **ATISETUP** utility does not start automatically:
    a) Click the **Start** button in the task bar.
    b) Click **Run**.
    c) Select **ATISETUP.EXE** from the root directory of the ATI Installation CD-ROM.
    d) Click **OK**.
3. Click **Install** under Software Install.
4. Click **Next**.
5. Click **Yes** to the license agreement. ATI Easy Install will start the Installation Wizard.

6 Follow the wizard's on-screen instructions to complete the installation.

Note: The **Express** installation option is recommended. The HYDRAVISION™ multi-monitor and desktop management software will automatically be installed, along with the ATI driver, by selecting this option. Not all software components are installed using the **Express** installation. **Custom** installation allows you to select individual software components for installation.

7 When the **Setup complete** message appears, select **Yes, I want to restart my computer now** and click **Finish**.

8 After the system reboots, the **Found New Hardware** message may display the **Digital Signature Not Found** message. Click **Yes** or **Continue** to complete the driver installation.

Monitor Configuration

Once the drivers and software have been installed, you can configure your monitor.

To configure your primary display

1 Navigate to the Control Panel and choose **Display** or right-click on the desktop and choose **Properties**.

2 Choose the **Settings** tab and select a screen resolution and color depth that best suit your requirements and your monitor's performance.

3 Click the **Advanced** button and select the **Monitor** tab.

4 Choose a refresh rate from the drop-down list.

> ⓘ **WARNING** - Choosing a refresh rate unsupported by your monitor may damage your monitor. Consult your monitor's documentation if necessary.

5 Click **OK** until you return to the desktop.

To set up a multi-monitor display

1 From the **Start menu** click **Control Panel**, then **Display**. Click the **Settings** tab to access the basic multi-monitor configuration settings.

Note: ATI software provides many additional configuration features that can be accessed by clicking the **Advanced** button from the **Display Properties > Settings** tab.

2 Select the **Monitor** icon identified by the number **2**.

3 Click **Extend my Windows desktop onto this monitor**.

4 Set the **Screen Resolution** and **Color Quality** as appropriate for the second monitor. Click **Apply** or **OK** to apply these new values.

- Refer to your Windows online help and documentation for further information on using the **Settings** tab.

Note: When you use multiple monitors with your FireMV™ 2200 card, one monitor will always be **Primary**. Any additional monitors will be designated as **Secondary**.

Reinstalling Drivers

You can reinstall the drivers at any time using the **ATISETUP** utility on the ATI Installation CD-ROM. The **ATISETUP** utility will start automatically if you insert the ATI Installation CD-ROM into your CD-ROM drive after the operating system has started. If your CD-ROM auto-run is not enabled or the **ATISETUP** utility does not start automatically, perform the following actions:

1 Click the **Start** button in the task bar.

2 Select **Run.**

3 **Browse** to `ATISETUP.EXE` on the root directory of the ATI Installation CD-ROM and click **OK.**

To manually reinstall drivers

To manually reinstall drivers, when prompted for a driver installation CD, insert the ATI Installation CD-ROM and browse to the **drivers** subdirectory**.**

CHAPTER 4:

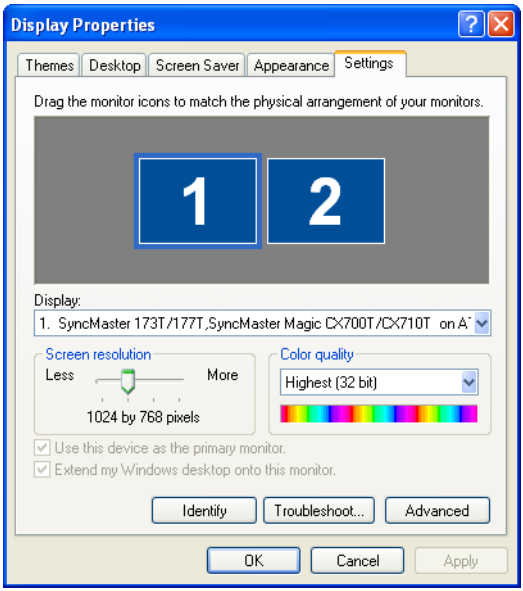
Display Properties

This chapter describes how to use the advanced display, multiple-monitor, and 3D graphics features in ATI's Display Properties options.

Accessing the CATALYST™ Software Suite

The CATALYST™ Software Suite installs the ATI display tabs into the Windows® **Display Properties** dialog. They are accessed through the **Advanced** button located on the **Settings** tab.

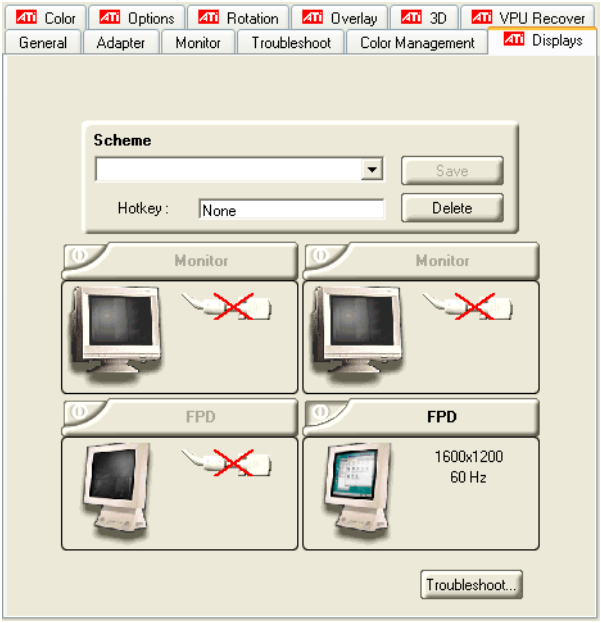
To access the **Display Properties** dialog, right-click on the desktop or navigate through Windows® **Control Panel**, which is located in the **Start** menu.



Windows® Display Properties Settings Tab

ATI Displays Tab

The ATI Displays tab provides control over multiple-monitor features. Here you can enable/disable display devices and swap the assignment of **Primary** and **Secondary** displays.



The Displays Tab

ATI Displays Tab	
Scheme	Displays the drop-down list of available display-device configurations that have previously been created. New configurations can be entered here and then saved using the **Save** button.
Hotkey	Associates a hotkey with a scheme. To input the hotkey, highlight the field and press the appropriate key combination on your keyboard.

ATI Displays Tab	
Display Configuration button	These are the buttons that contain the name of the devices that can be connected to your graphics card, such as **Monitor**, **Panel**, **FPD**, **TV** or **YPrBr**. Clicking on any of these buttons opens further options to refine your display on that device. Only the type of devices supported by your graphic card will be displayed as valid options. If the text on the button is greyed out, that device is not currently connected to your graphics card.
Save button	Saves display-device configuration schemes.
Delete button	Deletes display-device configuration schemes.
Display buttons	Enables or disables a display device; they also indicate whether a device is enabled or disabled.

To enable or disable a display

If the enable/disable button is green, it indicates the device is enabled. If it is red, it indicates the device is disabled. If the button is greyed out, the device is not an option. For example, if there is only one monitor connected, all buttons will be grey.

1. Click the enable/disable button for the display device you want to enable/disable.
2. Click **OK** or **Apply** to save the changes.

To save a display-device scheme

Display-device selections can be saved as a scheme for quick recall.

1. Click the enable/disable button for the display devices you want to have active.
2. Type a name into the **Scheme** drop-down list field.
3. Click **Save** to save the scheme.

Dynamic Display Reassignment

You can change the assignment of your Primary and Secondary display on the fly, without rebooting. If you have more than one display device available and have the proper adapters or connectors, you can plug it in to your FireMV™ 2200 graphics card in order to view or extend your desktop display to that device.

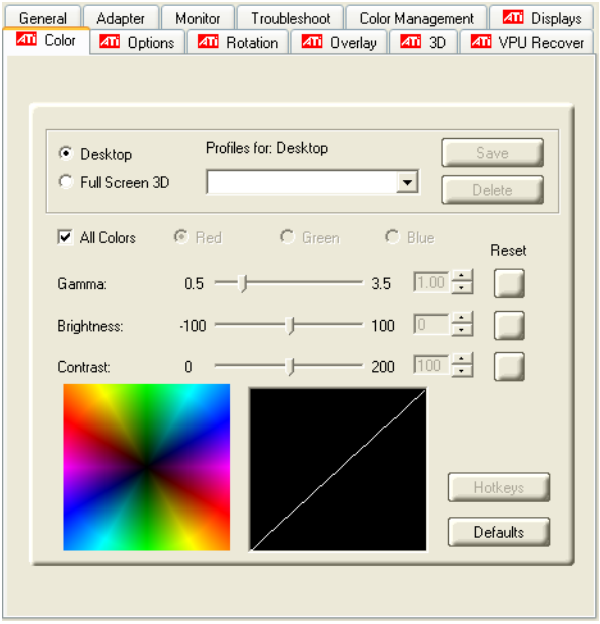
> **Note:** Before you can change the assignment of the Primary display, at least one Secondary display and the Extended Desktop mode must be enabled. Extended Desktop mode is enabled through the Windows® **Display Property** dialog, under **Settings**. For more information, consult your Windows® documentation.

To assign your Primary monitor

1. Click the buttons to assign the Primary monitor:
   - Clicking the button will reassign the Primary and Secondary monitors. Clicking the button creates a clone or mirror image of the Primary display onto the Secondary display.
2. Click **OK** or **Apply** to save the changes.

ATI Color Tab

The ATI Color tab allows you to configure Gamma, Brightness, and Contrast color settings for both your desktop and full screen 3D environments. You can also save settings to a color profile for easy recall. In addition, you can assign unique hotkey combinations that allow you to adjust Gamma, Brightness, and Contrast color settings within your full-screen 3D applications.



The Color Tab

ATI Color Tab	
Desktop radio button	Select **Desktop** to configure your desktop color settings.
Full Screen 3D radio button	Select **Full Screen 3D** to configure the color settings for your 3D applications. Note that the configured settings will only be apparent within a full-screen 3D application environment.
Profiles for	Indicates whether the profiles in the drop-down list are for your Desktop or a full-screen 3D environment.
Profiles drop-down list	Lists all of the Desktop or Full Screen 3D profiles that you have saved. Selecting a profile from the list loads those custom color settings for the relevant environment. To create a new profile, simply type in a name and click **Save**.
Save button	Saves your current color settings to a Desktop or Full Screen 3D profile, using the name you specified in the list box. To restore these settings later, simply select the Profile name from the list and click **Apply** or **OK**.

ATI Color Tab	
Delete button	Deletes the profile that is selected in the Profiles list box.
All Colors checkbox	Adjusts the Gamma, Brightness or Contrast for Red, Green, and Blue simultaneously. Note that any individual color settings in effect are lost if **All Colors** is selected; the color settings revert back to the last-known All Colors settings.
Red, Green, and Blue radio buttons	Selects the active color component (Red, Green, or Blue) whose values will be adjusted by the Gamma, Brightness, and Contrast sliders. Note that any individual color settings made are lost if you subsequently select **All Colors**.
Gamma slider	Increases or decreases the gamma correction of your Desktop or full-screen 3D application. Changing the gamma alters the curvature of the color curve.
Brightness slider	Increases or decreases the color brightness of your Desktop or full-screen 3D application. Changing the brightness adjusts the vertical position of the color curve.
Contrast slide	Increases or decreases the color contrast of your Desktop or full-screen 3D application. Changing the contrast adjusts the slope of the color curve.
Reset buttons	Restores an individual slider setting to its default value. Click **Apply** or **OK** to save.
Color preview box	The color image indicates visually how the Gamma, Brightness and Contrast sliders affect the final color settings of your display device. In Desktop mode, clicking on this with your mouse pointer will change the image.
Hotkeys button	Opens the **Color Hotkeys Settings** dialog. There you can assign hotkeys for adjusting your color settings within a full-screen 3D application environment. To activate this button, you must select the **Full Screen 3D** radio button.
Defaults button	Restores all of the color settings to the default values. Click **Apply** or **OK** to save.
Color Curve box	The color curve indicates mathematically how the **Gamma**, **Brightness** and **Contrast** sliders affect the final color settings of your display device.

To create a Desktop or Full Screen 3D profile

1 Choose either the **Desktop** or **Full Screen 3D** radio button, as desired.

2 Adjust the **Gamma**, **Brightness**, and **Contrast** sliders to the desired settings, either individually or using the **All Colors** checkbox.

3 Type a profile name in the Profile list box.

4 Click **Save**.

To apply the settings for a specific Desktop profile

1 Choose the **Desktop** radio button.

2 Select the profile name from the drop-down list box.

3 Click **Apply** or **OK**.

To apply the settings for a Full Screen 3D profile

1 Choose the **Full Screen 3D** radio button.

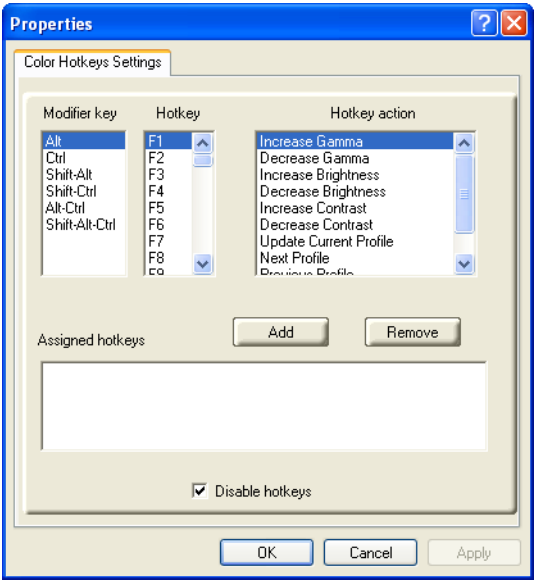
2 Select the profile name from the drop-down list box.

3 Click **Apply** or **OK**.

4 Start your 3D application in full-screen mode.

Hotkeys

Some 3D applications automatically load their own color settings rather than those set through the ATI Color tab. To use custom settings, you can preconfigure hotkey combinations to either adjust the individual color properties or apply profiles you have created, once the 3D application is running.



The Color Hotkeys Settings dialog

To access the Color Hotkeys Settings dialog

1. Select the **Full Screen 3D** radio button.
2. Click the **Hotkeys** button to access the Color Hotkeys Settings dialog.

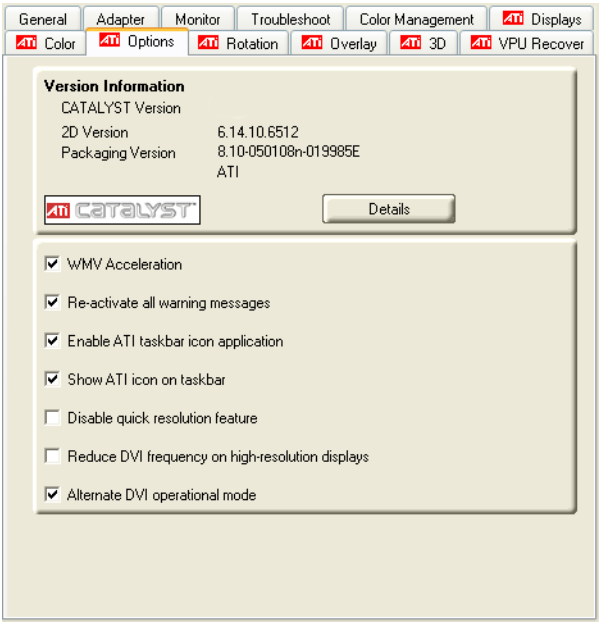
   Note: For the steps used to assign hot keys, refer to the Color Hotkeys Settings section.

The easiest way to apply your own color settings from within a full screen 3D application is to create a Full Screen 3D profile and save it, assign hotkeys for the “Load Current Profile” action through the Hotkeys dialog, make sure that the profile you prefer is selected from the drop-down list box, and click **OK**. Once inside the 3D application, use the hotkeys to trigger the profile.

Some 3D applications allow you to switch easily between full-screen mode and windowed mode and do not load their own color settings. In windowed mode, you can make slider adjustments or select a different profile on the Color tab, then switch back to full-screen mode to see the effects immediately.

ATI Options Tab

The ATI Options tab provides detailed driver information and access to your graphics card's versioning and specifications.



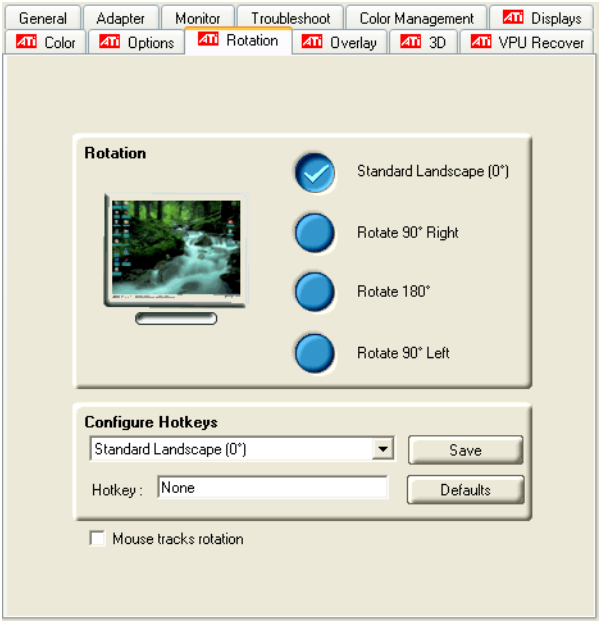
The Options Tab

ATI Options Tab	
Version Information	Shows the driver build version.
Details button	Gives access to the Details tab, which lists the card's hardware details and driver information.
WMV Acceleration	When enabled, improves the performance of .WMV format video files.
Reactivate all warning messages	Reactivates any disabled graphics warning messages.

ATI Options Tab	
Enable ATI taskbar icon application	Enables/disables the ATI taskbar applications and removes the ATI icon from your system tray.
Show ATI icon on taskbar	Removes/replaces the ATI icon from the system tray without disabling the ATI icon applications.
Disable quick resolution feature	The quick resolution feature is accessible by left-clicking the ATI icon in the system tray. Checking this option disables this feature.
Reduce DVI frequency on high-resolution	Resolves display corruption or no image at high resolutions (for example 1280x1024 @75Hz) using a digital DVI display. This setting has no effect when using a DVI-I-to-VGA adapter.
Alternate DVI operational mode	Use this option if you are experiencing display corruption on your DVI flat panel display.

ATI Rotation Tab

Use the Rotation tab to rotate the image on your display up to 180 degrees. This feature is useful when using a flat panel display that can be physically rotated to different positions.



The ATI Rotation Tab

ATI Rotation Tab	
Rotation buttons	Rotates the display by the preset amount.
Configure Hotkeys drop-down list	Lists the rotation actions with which you can associate a hotkey. The options are: • Standard Landscape (0°). • Rotate 90° Right. • Rotate 180°. • Rotate 90° Left. • Toggle between 0° and 90° Right. • Toggle between 0° and 180°. • Toggle between 0° and 90° Left.
Hotkey field	Associates a hotkey with a rotation. To input the hotkey, click on the field and press the appropriate key combination on your keyboard.
Save button	Saves a hotkey setting.
Defaults	Restores the default hotkey settings.

To rotate a single display

1. Select one of the four rotation settings by clicking the appropriate button.
2. Click **OK** or **Apply**.

To rotate multiple displays

1. Select the **Settings** tab in the Windows® **Display Properties** dialog.
2. Select the display to which you want to apply the rotation.
3. Click the **Advanced** button and select the **Rotation** tab.
4. Select one of the four rotation settings by clicking the appropriate button.
5. Click **OK** or **Apply**.

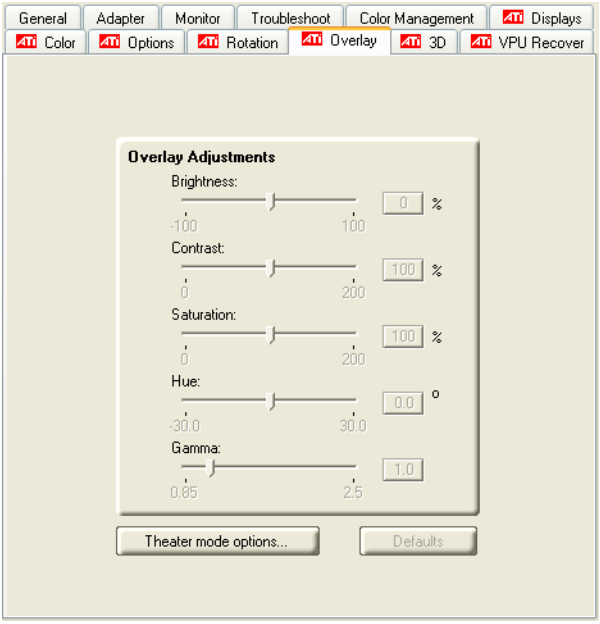
ATI Overlay Tab

The ATI Overlay tab allows you to configure the brightness, contrast, saturation, hue, and gamma properties of your video overlay.

Video overlay allows for the viewing of video on your PC. This feature is available only through the **Primary** video display**.** The video overlay controls are automatically activated during playback of any video file type that supports overlay adjustments.

Move the sliders to the right to increase the values of the various options, and to the left to decrease them.

Click the **Defaults** button to reset the values to their default settings.



The ATI Overlay Tab

ATI Overlay Tab	
Brightness	Adjusts the brightness of the video image.
Contrast	Adjusts the contrast in the video image.
Saturation	Adjusts the vividness of the color. Sliding it all the way to the left removes all color and produces a black and white picture.
Hue	Adjusts the pureness or tint of the red, green, and blue components of the color.
Gamma	Adjusts the overall intensity of the video image.
Theater mode options	Accesses **Theater Mode** overlay settings.These settings only apply to video content when viewed in dual-controller Clone mode. For more information, see the Theatre Mode Settings section.
Defaults button	Resets the Overlay settings to default values.

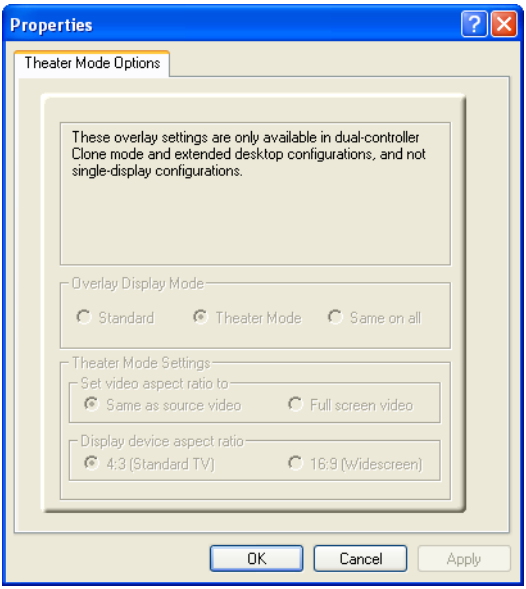
Theater Mode Options

Theater Mode Options are available under the following conditions:

- Your ATI graphics accelerator has dual controllers to support Primary and Secondary (Clone) displays.
- Your ATI video adapter has dual display functionality by providing a standard VGA connector and a digital flat panel connector such as the DVI-I connector or to a TV using the TV-Out connector.

In either of these cases, you can access Theater Mode Options if more than one display is connected.

> **Note:** These settings apply to video content viewed when you are in dual-controller Clone mode, and not single-display or extended desktop configurations.



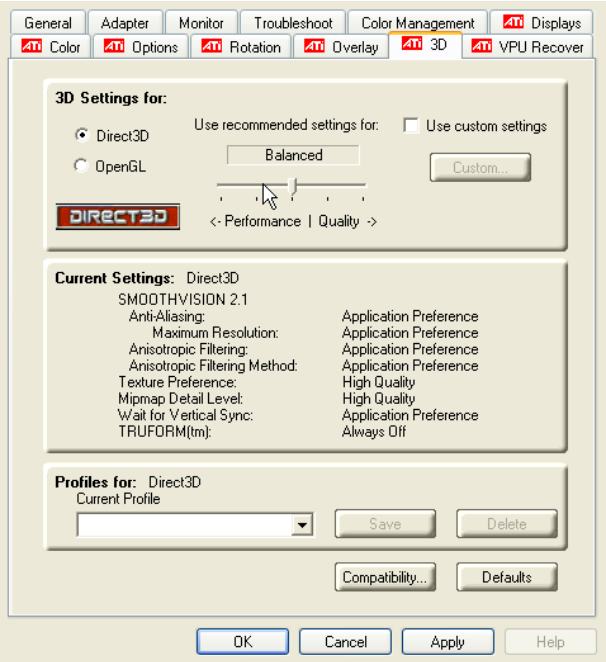
Theater Mode Options Dialog

Theater Mode Options	
Standard	Video content is displayed on your Primary display *only*.

Theater Mode Options	
Theater Mode	Video content is displayed on your Primary and Secondary displays. Video content is displayed on your Secondary display(s) is always in full screen mode. Note: your computer must be set for 16-bit color depth or higher to use this mode.
Same on all	Video content is displayed on your Primary and Secondary display in exactly the same manner. For example, all displays will show video output in full screen mode.
Theater Mode Settings	These settings are available when **Theater Mode** is selected.
Same as source video	The aspect ratio of the source video is maintained for full screen display. Note: that this option may result in black bars on either the horizontal or vertical sides of the video display.
Full Screen Video	The source video is scaled so that your display is showing full screen. Note: if the source video contains horizontal black bars, as do some DVD movies, the full screen video will also contain black bars.
4:3 (Standard TV)	Select this option if the aspect ratio of the display device showing full screen video has the standard 4:3 aspect ratio (standard TVs and monitors).
16:9 (Widescreen)	Select this option if the aspect ratio of the display device is showing full screen video has a 16:9 aspect ratio (widescreen HDTVs).

ATI 3D Tab

This tab allows you to fine-tune settings for both Direct 3D® and OpenGL® applications. It displays existing settings and allows you to create unique application profiles.

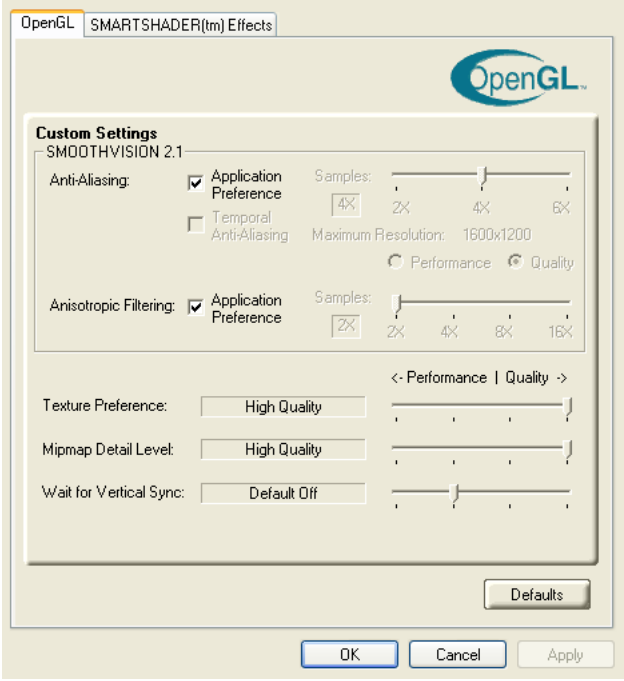


ATI 3D Tab

ATI 3D Tab	
3D Settings for radio buttons	Selects either Direct 3D® or OpenGL® as the format to be altered in the workspace.
Performance/Quality slider	Controls the overall performance/image quality of your graphic application. Moving the slider to the left will maximize application performance, while moving the slider to the right will maximize image quality.
Use Custom Settings checkbox	When **Use Custom Settings** is checked, the Performance/Quality slider is disabled and the **Custom** button is enabled. Using custom settings is recommended for advanced users only.
Custom button	Opens the Custom Properties dialog. Using custom settings is recommended for advanced users only. For more information, refer to the Custom Properties Dialog section.

ATI 3D Tab	
Current Settings	Shows the current settings for either Direct 3D® or OpenGL®, whichever is selected.
Profiles for	Allows you to save a unique profile of the custom settings you have selected. Once you have completed making your custom settings, click **OK** in the Custom Properties dialog. Enter a name in Current Profile and click the **Save** button. Saved profiles are selected from the Current Profile drop-down window. To delete a profile, select it from the **Current Profile** drop-down window and press the **Delete** button.
Compatibility Settings button	Accesses advanced settings that may solve compatibility issues for a few specific Direct 3D® or OpenGL® applications, whichever is selected. For more information, refer to the Compatibility Dialog section.
Defaults	Resets to the dialog's default values.

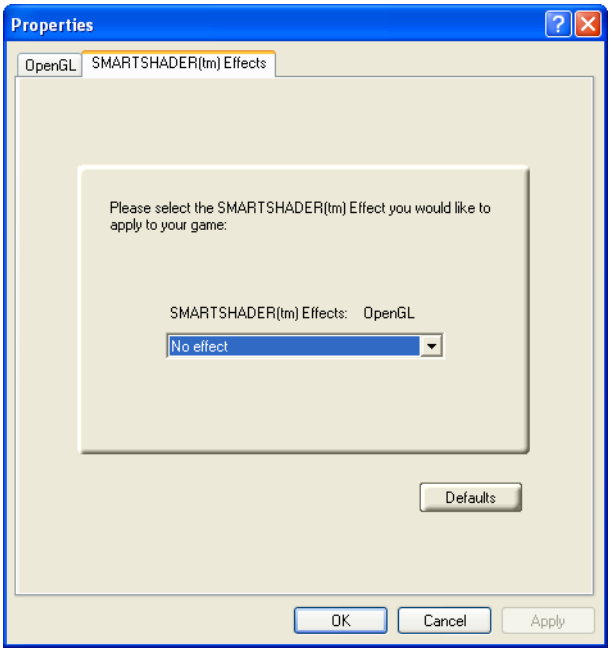
Custom Properties Dialog



Custom Properties Dialog

Custom Properties Dialog: OpenGL® or Direct 3D®	
SMOOTHVISION™ Anti-Aliasing slider	SMOOTHVISION™ (Anti-Aliasing) improves image quality by removing jagged edges from 3D images, resulting in smoother, more natural-looking objects. Anti-Aliasing can be applied using different sample patterns and sample points such as 2X or 4X. Moving this slider to the right increases sampling to provide the most realistic 3D image. Select the **Application Preference** checkbox for high-quality images, with a negligible reduction in the application's performance. Deselect the **Application Preference** checkbox to customize the anti-aliasing.

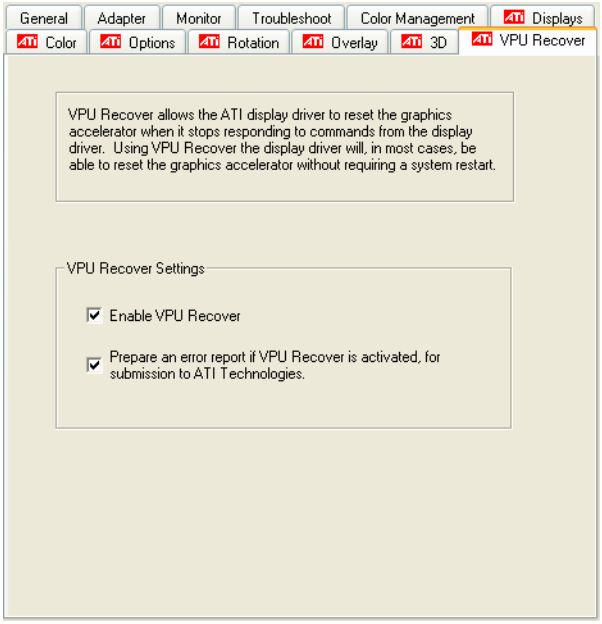
Custom Properties Dialog: OpenGL® or Direct 3D®	
SMOOTHVISION™ Anisotropic Filtering slider	Anisotropic filtering uses a texture filtering technique that blends multiple texture samples together. The number of samples taken when anisotropic filtering is performed can vary. By moving this slider to the right, as the number of samples taken increases, the quality of the final image increases significantly. 16X provides extremely detailed, crisp-looking images as a result of the largest number of texture samples possible. Selecting the **Application Preference** checkbox will result in high-quality images, with a negligible reduction in the application's performance. Select the **Application Preference** checkbox for high-quality images, with a negligible reduction in the application's performance. Deselect the **Application Preference** checkbox to customize the anisotropic filtering.
Texture Preference slider	Choose between high quality or high performance textures for your application. Moving the slider to the right delivers the highest quality experience. Moving the slider to the left emphasizes a high-performance solution while still providing good visuals.
Mipmap Detail Level slider	Choose the texture quality of the mipmaps the application will use. Mipmaps are a collection of different sized textures of the same image. As the user moves closer to a 3D object the image quality should increase, requiring a higher quality texture of the same image. The base mipmap is the highest quality texture, and all subsequent mipmaps are smaller sized textures of the same image. Moving the slider to the right selects a higher quality base mipmap, delivering the highest quality application experience. Moving the slider to the left selects a lower quality mipmap, delivering the highest application performance.
Wait for Vertical sync slider	Controls whether the Vertical sync is always on, always off, or controlled by the application.
TRUFORM™ slider	TRUFORM™ is a technology developed by ATI that enables higher-order surface rendering through traditional triangle rendering APIs. It improves the sillouhettes and lighting of objects.



Custom Properties Dialog: SMARTSHADER™ Effects	
SMARTSHADER™ Effects drop-down list	SMARTSHADER™ applies preset pixel effects on OpenGL® or Direct 3D® applications. Choose the desired effect and click **OK**.
Defaults button	Restores the default settings.

ATI VPU Recover Tab

Hardware crashes may occur when a hardware device and the corresponding software device driver are no longer able to communicate with each other. VPU Recover enables the ATI display driver to detect when the graphics card is no longer able to respond to display driver commands. When this situation arises, the display driver will reset the graphics card. Depending on the current state of the system when VPU Recover is activated, applications that are running may be able to fully recover from this reset. In other cases, running applications may be closed, and the user will be returned to the Windows® desktop.



The ATI VPU Recover Tab

ATI VPU Recover Tab	
Enable VPU Recover checkbox	Enables VPU Recover.
Prepare an Error Report checkbox	When VPU Recover is activated a dialog will prompt you to submit an automatically generated error report to ATI. This error report will help ATI to determine the cause of the problem and help create more stable drivers. To disable this feature, deselect the **Prepare an Error Report** checkbox.

CHAPTER 5:

Reference

This chapter offers troubleshooting tips and provides customer-care, warranty, and compliance information.

Troubleshooting

The following troubleshooting tips may help if you experience problems. ATI's documentation contains helpful installation/configuration tips and other valuable feature information. Please contact your dealer for more advanced troubleshooting information.

General Problems	
Problem	**Possible Solution**
Computer Does Not Boot-Up Properly	• Verify that the installation instructions were properly followed. • If you have problems during start-up, restart your computer in **Safe Mode**. Check the system configuration utility of your operating system for the interrupt assignments. • Contact Dell Technical Support if the problem persists.
No Display	• Check that the card is seated properly in its expansion slot. • Ensure that the monitor cable is securely fastened to the card. • Make sure that the monitor and computer are plugged in and receiving power. • If necessary, disable any built-in graphics capabilities on your mother board. For more information, consult your computer's manual or manufacturer. (Note: some manufacturers do not allow the built-in graphics to be disabled or to become the secondary display.) • Make sure that you selected the appropriate monitor when you installed your enhanced driver.

General Problems	
Problem	**Possible Solution**
Screen Defects Appear	• Check if your monitor supports the resolution, horizontal (kHz) and vertical (Hz) refresh rates as required by the graphics card. • Check your current resolution, refresh rate, and color depth settings in the **Settings** and **Monitor** tabs in your **Display Properties** dialog. **Warning!** Ensure that both video card and monitor support resolution and refresh rates you select. Incompatible resolution/refresh rate selection may result in monitor damage. Refer to your monitor's documentation for recommended resolutions and refresh rates.
Off-Center Screen Image, Odd Colors or No Picture	• Try adjusting the brightness, sharpness, contrast, and color balance controls of your monitor. • Try adjusting the centering and positioning controls of your monitor to position the picture on the screen. **Note:** The **Screen Position** settings in **Display Properties > Advanced > Displays > Adjustments** tune the position of the picture on the screen via the video signal. • Set the monitor's RGB inputs (and sync switches, if this option is available) to 75 Ohms, with the sync set to external. • Digital Flat Panel (DFP) monitor users: refer to your monitor's documentation for the appropriate cable and connector to plug into the DVI-I connector on the graphics card.
Operating System Warns that Video Card Isn't Properly Configured	• Check the driver installation and make sure that all software is correctly loaded corresponding to your operating system and applications. • Re-install the ATI drivers for your FireMV™ 2200 card.

Customer Care

If you require further assistance with your product, the following Customer Care options are available to you:

Service	Access	Additional Info
Online	ati.com/online/customercare	• Always available. • Complimentary.

Service	Access	Additional Info
Telephone US & Canada	1-866-284-2093	• 9:00AM - 7:00PM EST. Monday to Friday. • Complimentary for registered users. • Toll-free.
Telephone Europe	+49-1803-347345	• 10:30AM - 7:00PM GMT. Monday to Friday. • Complimentary for registered users. • International and local toll charges to Germany will apply. • Support available in English, German, and French.
Telephone Argentina	+0800-333-5277	• 9:00AM - 5:30PM EST. Monday to Friday. • Toll-free • Support available in English, Spanish, and Portuguese.
Telephone Brazil	+0800-891-9068	• 9:00AM - 5:30PM EST. Monday to Friday. • Toll-free • Support available in English, Spanish, and Portuguese.
Telephone Mexico	+001800-514-3276	• 9:00AM - 5:30PM EST. Monday to Friday. • Toll-free • Support available in English, Spanish, and Portuguese.
Telephone Other Latin American Countries	+1-905-882-3277	• 9:00AM - 5:30PM EST. Monday to Friday. • Complimentary • International and local toll charges to Canada will apply. • Support available in English, Spanish, and Portuguese.
Mail	ATI TECHNOLOGIES INC. Attention: Customer Care 1 Commerce Valley Drive East Markham, Ontario Canada L3T 7X6	• Complimentary.

Disclaimer

ATI Customer Care will work to resolve your issue and help you to get your product up and running. If your issue is not resolved, our technicians will determine whether the difficulty you are experiencing is the result of the product, whether your product contains a defect, and whether your product should be returned to ATI for warranty service.

- ATI Customer Care is unable to assist with refunds, returns, or exchange-specific inquiries. If resolving the problem being experienced is critical to your decision to keep the product, it is your responsibility to ensure that you know and are within the period of time your reseller will allow for refunds, returns, or exchange.
- ATI is not responsible for any expense incurred accessing Customer Care. It is expected that customers will review the expense associated with the available support options and will choose the method that best meets their needs and budget.
- ATI Customer Care reserves the right to limit support options for products that are not registered or are at End of Life.

Warranty Information

Hardware Warranty Service Statement

ATI Technologies Inc. warrants to the original purchaser of the hardware that the product is in good working condition, according to its specifications at the time of shipment, for a period of three years from the date of original purchase.

Should the product, in ATI's opinion, malfunction within the warranty period, ATI will, at its discretion, repair or replace the product upon receipt with an equivalent. Any replaced parts become the property of ATI. This warranty does not apply to the software component of the installation, usage not in accordance with product specifications and instructions, natural or personal disaster, or unauthorized alterations, repairs, or modifications.

Proof of purchase may be required, if doubt exists regarding warranty eligibility. Late model products are assumed to be under warranty. ATI accepts ordinals, photocopies and faxes as proof of purchase when required

Warranty Service

For warranty service instructions visit:

ati.com/online/warranty or contact one of our Customer Service Representatives using one of the aforementioned means.

- Before shipping any unit for repair, obtain an RMA number for warranty service.
- When shipping your product, pack it securely, show the RMA and serial number of the product on the outside, and ship prepaid and insured.
- ATI will not be held liable for damage or loss to the product in shipment.
- Standard warranty service consists of repair upon receipt.
- ATI reserves the right to replace the product with a serviced product at their sole discretion at

any time.

- You are responsible for the cost of shipping the product to ATI. ATI plays the cost of returning the product to you.

Products which are repaired under warranty are guaranteed for the remainder of the original warranty period. Repairing or exchanging a product does not start a new warranty period. If, at the time of repair, a product is already "out of warranty" or within the last 90 days of the warranty period, ATI will guarantee the repair for the full 90 days. All other terms and conditions of the original warranty apply.

Limitations

- This warranty is valid only if the online Product Warranty Registration form at:
  ati.com/online/registration
  is successfully submitted within 30 days of purchase of said product.
- All warranties for this product, expressed or implied, will expire three (3) years* from date of original purchase.
- All accompanying cables and accessories are warranted for 90 days.
- No warranties for this product, expressed or implied, shall extend to any person who purchases the product in a used condition.
- The liability of ATI in respect of any defective product will be limited to the repair or replacement of such product. ATI may use new or equivalent-to-new replacement parts. Defective product will be sent in for repair or replacement only. ATI makes no other representations or warranties as to fitness for a particular purpose, merchantability or otherwise in respect of the product. No other representations, warranties or conditions, shall be implied by statute or otherwise. In no event shall ATI be responsible or liable for any damages, including but not limited to the loss of revenue or profit, arising:
- From the use of the product, as a result of any event, circumstance, action or abuse beyond the control of ATI; whether such damages be direct, indirect, consequential, special or otherwise and whether such damages are incurred by the person to whom this warranty extends or a third party
- From the loss of use of the product, as a result of any event, circumstance, action or abuse beyond the control of ATI; whether such damages be direct, indirect, consequential, special or otherwise and whether such damages are incurred by the person to whom this warranty extends or a third party.
- Unauthorized repairs to an ATI board level product will void the warranty offered by ATI Technologies. ATI reserves the right to refuse to service any product which has been altered, modified, or repaired by non-ATI service presonnel.

Getting Additional Accessories

Additional and replacement cables, installation CD-ROMs, manuals, and other accessories for ATI products can be purchased from the online ATI store at:

ati.com/online/accessories.

Compliance Information

This section details the compliance information for this product.

FCC Compliance Information

This FireMV™ product 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 manufacturer's 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:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and 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/TV technician for help.

The use of shielded cables for connection of the monitor to the graphics card is required to ensure compliance with FCC regulations. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Industry Canada Compliance Statement

ICES-003 This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la Classe B est conforme à la norme NMB-003 du Canada.

For further compliance information:

ATI Research Inc.
4 Mount Royal Ave.
Marlborough, MA
01752-1976
USA
508-303-3900

CE Compliance Information

EMC Directive 89/336/EEC and amendments 91/263/EEC, 92/31/EEC and 93/68/EEC, Class B Digital Device EN 55022:2003/CISPR 22 Class B, Limits and Methods of Measurement of Radio Interference Characteristics Information Technology Equipment.

EN 55024:1998/CISPR 24:1997 +A1:2001 +A2:2003, Immunity of Information Technology Equipment (ITE), including EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6

Informations de conformité de la CE

Directive EMC 89/336/CEE et amendements 92/31/CEE et 93/68/CEE, pour dispositif numérique de Classe B.

EN 55022:2003/CISPR 22:1997, - Classe B - Limites et méthodes de mesure des caractéristiques d'interférences radiophoniques, Matériel des technologies de l'information.

EN 55024:1998/CISPR 24:1997 +A1:2001 +A2:2003, Norme sur l'immunité de matériel des technologies de l'information, et comprenant EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6

Electrical Safety

73/23/EEC - The Low Voltage Directive

IEC 60950-1:2001, IEC 60950:1999, 3rd Edition - Safety of Information Technology Equipment

BS EN60950-1:2002, BS EN60950:2000, 3rd Edition UL 60950-1:2003, UL 60950:2000, 3rd Edition CAN/CSA C22.2 No. 60950-1:2002, CAN/CSA C22.2 No. 60950-00, 3rd Edition (2000)

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I.T.E. ACCESSORY
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VCCI Class B ITE Compliance Information

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＢ情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。

MIC Certification Information

B급 기기 (가정용 정보통신기기)

이 기기는 가정용으로 전자파적합등록을 한 기기로서 주거지역에서는 물론 모든지역에서 사용할 수 있습니다.

BSMI Certification Information

CNS 13438，C6357，B 類 — 資訊科技設備

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