



ATI Radeon™ X1700 FSC User's Guide

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Documentation Updates

AMD is constantly improving its product and associated documentation. To maximize the value of your AMD product, you should ensure that you have the latest documentation. AMD's documentation contains helpful installation/configuration tips and other valuable feature information.



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.

Note: This graphics card is for use only with compatible UL Listed personal computers that have Installation Instructions detailing user installation of card cage accessories.

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Introduction

Congratulations on the purchase of your ATI Radeon™ X1700 FSC graphics card. We hope that you will enjoy countless hours of trouble-free computing.

System Requirements

Hardware	<ul style="list-style-type: none">• Intel® Pentium® 4 or AMD Athlon®.• 512MB of system memory; 1GB or more for best performance.• Optical drive for installation software (CD-ROM or DVD-ROM drive).
Operating System	<ul style="list-style-type: none">• Windows® XP with Service Pack 2 (SP2).• Windows® XP Professional x64 Edition.• Windows® XP Media Center Edition.• Windows® Vista Ready.
Monitor	<ul style="list-style-type: none">• High-resolution MultiSync or multi-frequency monitors or any other type of VGA monitor.• Digital flat-panel (DFP) displays or digital CRT display.

External Connections

- 15-pin D-shell (female) VGA output.
- DVI-I output.
- S-Video output.

Using Multiple Displays

Connecting Your Monitors

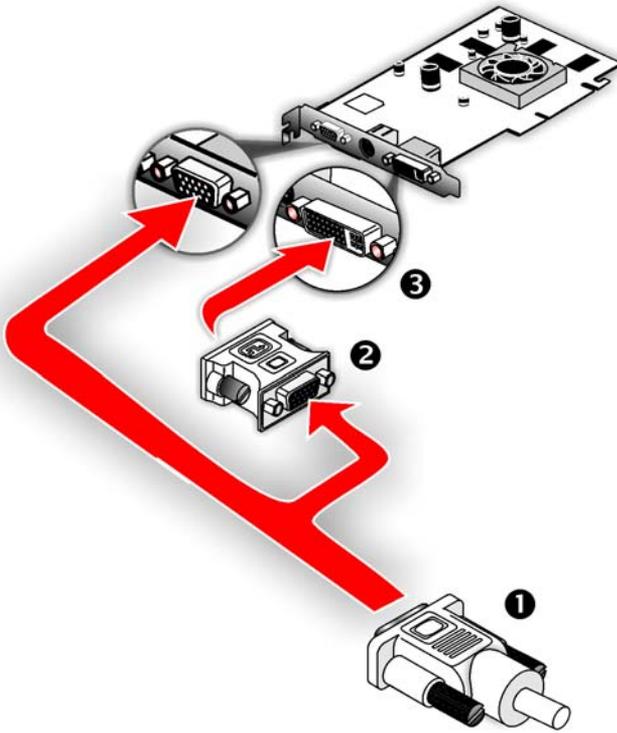
Your ATI Radeon™ X1700 FSC graphics card provides hardware support for the following display configurations:

- Single VGA.
- Single DVI.
- Dual VGA.

The TV Out connection supports the following TV formats (cables not provided):

- Composite.
- S-Video.
- Component.

The TV Out connection can be combined with DVI or VGA for clone or extended display support.



Connections and Adapters for the ATI Radeon™ X1700 FSC Card

- | | |
|---|--|
| 1 | Standard VGA Monitor Connector. To connect a VGA monitor to the DVI-I connector, plug the supplied DVI-I-to-VGA adapter into the DVI-I connector, then plug your monitor cable into the adapter. |
| 2 | DVI-I-to-VGA Adapter (not included). |
| 3 | DVI-I Connection. To connect a digital display. |
-

Note: If you use multiple monitors, the ATI Radeon™ X1700 FSC card must be the primary graphics card. Normally, the system BIOS determines which graphics card will be the primary.

Using TV Display

This chapter describes how to use the TV display feature of your ATI Radeon™ X1700 FSC card.

Using TV Out

Your ATI Radeon™ X1700 FSC has TV Out capability.

Viewing Your PC Display on a TV

You can attach your ATI Radeon™ X1700 FSC to a TV and a monitor at the same time. You can also connect it to your VCR and record your monitor's display.



IMPORTANT INFORMATION for European Customers

Some PC monitors in Europe **cannot** be used simultaneously with TV display. When you enable TV display in Europe, the refresh rate for the monitor and TV is set to 50 Hz. Some monitors may not support this refresh rate **and could be damaged**.

- Please check the documentation supplied with your monitor to see if your monitor supports a refresh rate of 50 Hz.
- If your monitor does not support 50 Hz (or if you are not sure), turn off your monitor before turning on your PC when using your TV as a display.

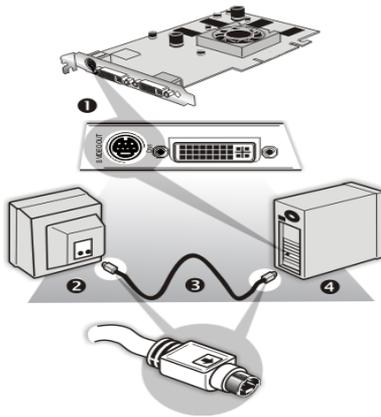
TV-out display is ideal for giving presentations and watching movies, or playing games on a screen larger than a typical monitor. The following tips will help you get the most out of your TV Out feature.

Connecting to a TV or VCR

To connect your ATI Radeon™ X1700 FSC card to a TV or VCR, use an S-Video cable. Many TVs (and VCRs) have a composite video input, in which case you can use an S-video-to-composite video adapter. If your TV has cable input only, you can connect your graphics card to your TV through your VCR or an RF modulator that is available from most electronics stores.

To connect S-Video Out

- 1 Power off your computer and your TV (or VCR).
- 2 Determine if your TV (or VCR) supports either an S-Video or composite video connection.
- 3 Looking at the back of your PC, locate your S-Video out connection. Using an S-Video cable or an adapter cable, attach one end of the cable to your graphics card and the other to your TV (or VCR). Refer to the illustration.
- 4 Power on your TV (or VCR) first, then your computer.



Connecting Your S-Video Out to a TV or VCR

- | | |
|---|--|
| 1 | S-video connection on graphics card |
| 2 | TV or VCR |
| 3 | S-Video cable (with or without S-video-to-composite adapter) |
| 4 | Computer |
-

Using a Monitor vs. Using TV Display

Using your TV for your computer's display can be useful; however, the display on your monitor may change or look squashed. This distortion occurs because the display adjusts to fit the dimensions of your TV. To correct the monitor's display, use the monitor's control buttons to adjust its display size and position.

Some single-frequency monitors may not work with TV display enabled. If you experience problems when TV display is enabled, disable TV display to restore your monitor's display.

Viewing Text on a TV

A TV is designed primarily to show moving images. The large dot pitch of a TV will yield poor quality static images. The small text sizes commonly used for PC desktops can appear blurred or unclear on a TV. You can compensate for this degradation by using larger fonts.

Using a TV as the Only Display

If you plan to move your computer to a place where you are using TV display only, make sure that you have the TV display feature enabled prior to removing the monitor.

The maximum display resolution for TV is 1024 x 768. Choosing a resolution higher than this will cause the TV display to disappear if it is the only display device.

Using Games and Applications

Some older games and applications may program your ATI Radeon™ X1700 FSC directly to run under a specific display mode. This may cause your TV display to turn off automatically or become scrambled (your PC monitor or portable LCD display will not be affected). Your TV display will be restored once you exit the game or if you restart your computer.

Connecting to HDTV

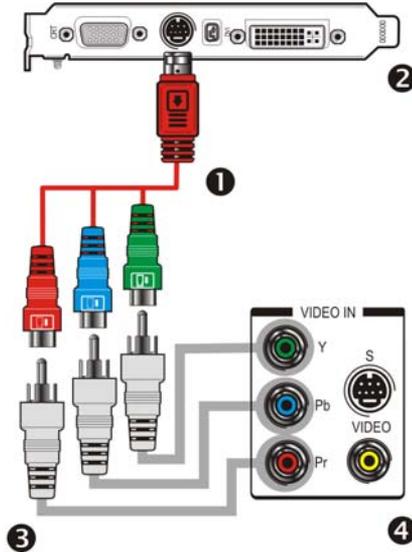
View computer output directly on your High Definition Television (HDTV) or other component input device. Provide a big-screen experience for your computer that is ideal for playing games, giving presentations, watching movies, and browsing the Internet.

HDTV uses YPbPr connectors to receive input. YPbPr are color coded as the following:

- Y = Green
- Pb = Blue
- Pr = Red

The HDTV Component Video Adapter (YPbPr) can be used in place of the standard A/V Output cable to connect to an HDTV or other component input device, using component video cables.

Note: You must have a monitor attached to your computer before connecting an HDTV. For proper operation of your HDTV Component Video Adapter, ATI display drivers must be correctly installed.



ATI HDTV Component Video Adapter (optional)

- ① ATI HDTV Component Video Adapter (optional)

- ② Backplate of the ATI Graphics Card

- ③ Male RCA Patch Cables – available from consumer electronics dealer

- ④ Typical HDTV Video Input Connections

Note: Input and output cables lengths should not exceed 50 feet (15m).

Installing your ATI HDTV Component Video Adapter

- 1 Turn on your component input device, and set it to YPbPr input.

Note: See your HDTV or component input device manual for configuration information specific to your device.

- 2 Turn on your computer.

Note: Your TV will not display anything until Windows starts. This can take several minutes.

Using Your HDTV Video Cable

Use the optional HDTV Component Video Adapter to watch DVD movies and play video games on your High Definition Television.

Note: Copy-protected DVDs restrict playback to 480i and 480p modes.

For maximum performance when you watch DVD movies or play computer games on your HDTV, you should find the mode and screen resolution that provide the best result on your TV, and use those settings exclusively.

ATI Catalyst™ Control Center

The ATI Catalyst™ Control Center is a graphical user application providing access to the display features contained within the installed ATI hardware and software. Use the ATI Catalyst™ Control Center to fine-tune your graphics settings, enable or disable connected display devices, and change the orientation of your desktop. Many of the features show you a preview of the changes before they are applied.

The ATI Catalyst™ Control Center offers you two views of the software:

- Basic View is a simplified view that includes wizards to get the inexperienced user up and running.
- Advanced View allows the advanced user to access and configure the complete feature set of the software.

The ATI Catalyst™ Control Center can be customized for easy access to the features you use most.

Use the ATI Catalyst™ Control Center to access a comprehensive online help system, or connect to the ATI Web site.

Launching ATI Catalyst™ Control Center

Launch ATI Catalyst™ Control Center from one of the following access points:

- Windows® Start Menu
- Windows® System Tray
- Desktop shortcuts
- Predefined hot keys

Launching ATI Catalyst™ Control Center Using the Start Menu

From the Windows® task bar, click **Start**:

- Choose **Programs** > ATI Catalyst™ Control Center > ATI Catalyst™ Control Center.

Launch ATI Catalyst™ Control Center Using the System Tray

- 1 Right-click the ATI icon in the Windows® System Tray.
- 2 Select ATI Catalyst™ Control Center from the popup menu.

Launch ATI Catalyst™ Control Center Using the Desktop Shortcut

When you first installed ATI Catalyst™ Control Center, the setup wizard provided you with the option of placing a shortcut on the desktop. If you chose this option, you can

- Double-click the ATI Catalyst™ Control Center desktop shortcut.

Launch ATI Catalyst™ Control Center Using Hot Keys

- You can press the predefined combination of keys **Ctrl+Alt+C** to launch ATI Catalyst™ Control Center, or you can define your own hot key sequence by using the ATI Catalyst™ Control Center's Hotkey Manager.

Reference

Additional Accessories

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

ati.amd.com/online/accessories

Compliance Information

This section details the compliance information for this product.

FCC Compliance Information

This ATI Radeon™ X1700 Series product complies with FCC Rules part 15. Operation is subject to the following two conditions

- This device may not cause harmful interference.
- 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:

Advanced Micro Devices, Inc.
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Marlborough, MA
01752
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)

To meet UL safety requirements, the computer's maximum room temperature should not exceed 40° C.



Waste Electrical and Electronic Equipment (WEEE) Directive Compliance

This product was manufactured by Advanced Micro Devices, Inc.



