



ATI Radeon HD 4850 Graphics Card

User Guide

Part Number: 137-41599-10

© 2008 Advanced Micro Devices Inc. All rights reserved.

The contents of this document are provided in connection with Advanced Micro Devices, Inc. ("AMD") products. AMD makes no representations or warranties with respect to the accuracy or completeness of the contents of this publication and reserves the right to discontinue or make changes to products, specifications, product descriptions, and documentation at any time without notice. No license, whether express, implied, arising by estoppel or otherwise, to any intellectual property rights is granted by this publication. Except as set forth in AMD's Standard Terms and Conditions of Sale, AMD assumes no liability whatsoever, and disclaims any express or implied warranty, relating to its products including, but not limited to, the implied warranty of merchantability, fitness for a particular purpose, or infringement of any intellectual property right. AMD's products are not designed, intended, authorized or warranted for use as components in systems intended for surgical implant into the body, or in other applications intended to support or sustain life, or in any other application in which the failure of AMD's product could create a situation where personal injury, death, or severe property or environmental damage may occur.

Trademarks

AMD, and the AMD Arrow logo, and combinations thereof, ATI, the ATI logo, Avivo, Catalyst, Catalyst Control Center, CrossFireX, HyperMemory, PowerPlay, Radeon, SurroundView, The Ultimate Visual Experience and combinations thereof are trademarks of Advanced Micro Devices, Inc.

HyperTransport is a licensed trademark of the HyperTransport Technology Consortium.

Microsoft, Windows, and Vista are registered trademarks of the Microsoft Corporation in the United States and/or other jurisdictions.

Other names are for informational purposes only and may be trademarks of their respective owners.

Dolby Laboratories, Inc.

Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.

© 1992-1997 Dolby Laboratories, Inc. All rights reserved.

Macrovision

Apparatus Claims of U.S. Patent Nos. 6,836,549; 6,381,747; 7,050,698; 6,516,132; and 5,583,936. Licensed for limited viewing uses only.

This product incorporates copyright protection technology that is protected by US patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

Disclaimer

While every precaution has been taken in the preparation of this document, Advanced Micro Devices, Inc. assumes no liability with respect to the operation or use of AMD hardware, software or other products and documentation described herein, for any act or omission of AMD concerning such products or this documentation, for any interruption of service, loss or interruption of business, loss of anticipatory profits, or for punitive, incidental or consequential damages in connection with the furnishing, performance, or use of the AMD hardware, software, or other products and documentation provided herein. Ensure that you have the latest documentation.

Important Safety Instructions

Note: This product is for use only with compatible UL-listed personal computers that have installation instructions detailing user installation of this class of product.

Read all instructions before beginning installation. All safety and installation instructions should be read before the product is installed or operated.

Retain all instructions. Safety, installation, and operating instructions should be retained for future reference.

Heed all warnings. All warnings regarding the product and its operating instructions should be obeyed.

Use appropriate grounding.

Caution:

For continued protection against the risk of electric shock and fire, install this accessory only in products equipped with a three-wire grounding plug, a plug having a third (grounding) pin. This is a safety feature. Do not remove the grounding pin of a three-pin plug.

Attach product securely. All product-securing screws or fasteners should be completely tightened in order to provide continuous bonding between the product and the PC chassis, as appropriate.

For cards with TV tuners:

- **Ground outdoor antenna appropriately.**

Caution:

Since an outdoor antenna or cable system may be connected to the product, be sure that the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the *National Electrical Code, ANSI/NFPA 70* and the *Canadian Electrical Code, Section 54* provide useful information.

- **Unplug system during storms or prolonged disuse.**

Caution:

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 help prevent damage to the product from power-line surges.

- **Install outdoor antenna system away from power lines.**

Warning:

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.

Caution:

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.

Note to CATV System Installer

This reminder is provided to call the CATV systems installer's attention to Section 820-40 of the NEC, which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as is practical.

Contents

System Requirements	1
Hardware	1
Display Configuration	3
Configure the Display (Optional)	3
ATI Radeon HD 4850 Graphics Card Connections	4
Display Adapters (Optional Accessories)	4
Supported Display Connections	5
Using ATI Catalyst Control Center	7
ATI Catalyst Control Center Overview	7
Starting the ATI Catalyst Control Center Software	7
Accessing ATI Catalyst Control Center Help	8
Searching the Help	8
Reference	9
Customer Care	9
International Compliance Information	10
FCC Compliance Information	10
Industry Canada Compliance Statement	11
CE Compliance Information	11
Electrical Safety	11
Waste Electrical and Electronic Equipment (WEEE) Directive Compliance	11
VCCI Class B ITE Compliance Information	12
MIC Certification Information	12
BSMI Certification Information	12

Chapter 1

System Requirements

Hardware

Minimum requirements are:

- Motherboard with one PCIe® ×16 lane graphics slot.
- AMD Athlon™ or Intel® Pentium® 4 CPU.
- 1 GB RAM.
- CD-ROM or DVD-ROM drive for installing software.
- A 450 watt or better power supply with two 2×3 PCIe power connectors.
- Certified power supplies are strongly recommended; for a list of certified power supplies, see ati.amd.com/certifiedpsu.

Display Configuration

This section describes how to configure the display and lists the available display connections.

Configure the Display (Optional)

If you are not experiencing any troubles with the display, no adjustments are necessary.

1. Right-click on the desktop and, in the shortcut that appears, click **Properties**.
The Display Properties dialog appears.
2. Click the **Settings** tab and then select the screen resolution and color depth that best suit your requirements and the display's performance.
3. Click **Advanced** and then select the **Monitor** tab.
4. Choose a refresh rate from the drop-down list.

Caution:

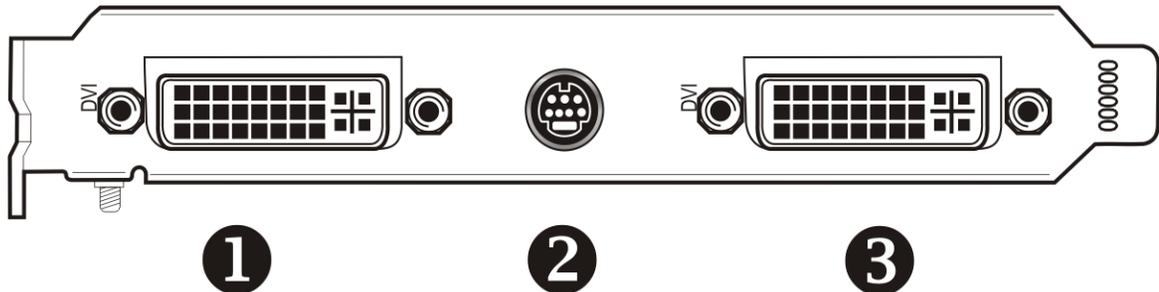
Choosing a refresh rate unsupported by the display may damage it. Consult the display's documentation if necessary.

5. Click **OK**.
Once you have configured the main display you can configure any other displays that are connected.
6. To configure another display, do the following:
 - a. Right-click on the desktop and, in the shortcut that appears, click **Properties**.
Note: The ATI Catalyst™ Control Center software can also enable and configure multiple monitors.
 - b. To access the basic multi-monitor configuration settings, click the **Settings** tab.
 - c. Select the monitor icon identified by the number 2.
Note: When using multiple monitors with the graphics card, one monitor will always be the primary display, additional monitors will be designated as secondary.
 - d. Click **Extend my Windows desktop onto this monitor**.
 - e. Set the Screen Resolution and Color Quality as appropriate for the second monitor.
 - f. Click **OK**.

ATI Radeon HD 4850 Graphics Card Connections

The following figure illustrates the typical connections on the ATI Radeon HD 4850 Graphics Card graphics card. Available connections may vary between models.

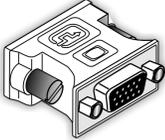
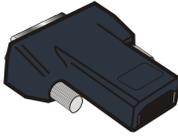
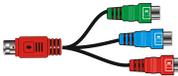
Figure 2–1 ATI Radeon HD 4850 Graphics Card Connections



1	DVI-I Dual Link connection (It provides audio and video digital signals and HDMI™ output that is compatible with most HDMI devices.)
2	TV/HDTV out
3	DVI-I Dual Link connection (It provides audio and video digital signals and HDMI output that is compatible with most HDMI devices.)

Display Adapters (Optional Accessories)

The following illustrates the adapters you can use to connect the graphics card to other display devices not directly supported by the connection types available on the graphics card.

Adapter	Description
	DVI-to-VGA
	DVI-to-HDMI The HDMI adapter is a proprietary adapter manufactured and sold by approved manufacturers (like Wison Technologies Co., Ltd.) that has a specific detection mechanism to allow properly configured graphics cards to pass HDMI signals through a DVI connection to an HDMI compliant device.
	7-pin HDTV output cable

Supported Display Connections

The graphics card provides hardware support for DVI-I and VGA monitors, and HDMI HDTVs (using a DVI-to-HDMI adapter). It also provides standard TV output.

Table 2–1 Display Configurations

Display	Connections
CRT analog display	DVI-I connection and DVI-I-to-VGA adapter
LCD digital monitor	DVI-I connection and DVI cable DVI-I connection and DVI-I-to-VGA adapter
TV	7-pin HDTV output cable
HDTV display	DVI connection and DVI cable 7-pin HDTV output cable and RCA cables
HDMI HDTV	DVI connection and DVI-to-HDMI adapter and HDMI cable

Using ATI Catalyst Control Center

ATI Catalyst Control Center Overview

The ATI Catalyst Control Center software provides access to the display features of the graphics card. Use the software to fine-tune graphics settings, enable or disable connected display devices, and change the orientation of the desktop. Many features display previews of the changes before they are applied.

The following configurations are available:

Basic View	A simplified view of the features that includes wizards to quickly make changes.
Advanced View	A powerful interface that enables complete configuration of the feature set of the graphics card.
Custom View	A customized view so that desired features can be accessed quickly.

For information on the individual features of the software, access the comprehensive in-program help system (see [Accessing ATI Catalyst Control Center Help](#) on page 8 or visit the AMD Customer Care Web site at ati.amd.com/support/).

Starting the ATI Catalyst Control Center Software

The following table shows the ways you can start the ATI Catalyst Control Center software:

Table 3–1 ATI Catalyst Control Center Access Routes

Access Route	Instructions
Windows® Desktop	<ol style="list-style-type: none"> 1. Right-click anywhere on the desktop. 2. From the shortcut menu that appears, click ATI CATALYST(TM) Control Center.
Windows Start Menu	<ol style="list-style-type: none"> 1. Click Start on the Windows task bar. 2. Select All Programs ▶ Catalyst Control Center.
Windows System Tray	<ol style="list-style-type: none"> 1. Right-click the ATI icon in the Windows System Tray. 2. From the short menu, select ATI Catalyst Control Center.
Desktop Shortcut	When you first installed the 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.
Predefined Hot Keys	You can define your own hot key sequence by using the ATI Catalyst Control Center Hotkey Manager.

Accessing ATI Catalyst Control Center Help

ATI Catalyst Control Center Help provides information on the features and concepts of your ATI Radeon graphics card. You can also use the ATI Catalyst Control Center Help feature to access usage information, generate a problem report, and get software version information for your graphics card.

1. Open ATI Catalyst Control Center in the Advanced view.
2. Choose one of the following options:
 - ⇒ Press the **F1** key at any time to get specific help on the currently displayed information.
 - ⇒ From the ATI Catalyst Control Center Dashboard, choose **Help** ▶ **Help Contents** to browse the entire help contents.
 - ⇒ From the ATI Catalyst Control Center Dashboard, choose **Help** ▶ **Search Help** to search the help contents for a specific term.
 - ⇒ To access AMD's Web site, from the ATI Catalyst Control Center Dashboard, choose **Help** ▶ **Go to ATI.com**.

Searching the Help

1. Click **Help** in the Dashboard.
2. Click **Search Help**.
3. Enter the word(s) you wish to search for the in search box of the ATI Catalyst Control Center Help.
4. Click **Go**.

Chapter 4

Reference

The following section offers troubleshooting tips and provides customer care, warranty, and compliance information.

Customer Care

For detailed instructions on how to use your product, refer to the documentation included on the installation CD.

To activate Customer Care, you must register your product at ati.amd.com/online/registration.

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

Service	Availability	Language	Access
Online or mail	24 hours a day	English, French, Spanish	http://ati.amd.com/support/ or Advanced Micro Devices, Inc., Graphics Product Group, Attention: Customer Care, 1 Commerce Valley Drive East, Markham, Ontario, Canada L3T 7X6
Telephone US & Canada	Monday to Thursday: 9:00 a.m. to 5:30 p.m. Friday: 9:00 a.m. to 3:00 p.m. Note: AMD reserves the right to change hours of support. For more information, please refer to ati.amd.com/support/terms/ .	English	1-877-284-1566 (toll-free) or 1-905-882-2626 (Canada) (International and/or local toll charges to Canada will apply).

AMD Customer Care for Graphics Products will work to resolve your issue and help you to get your ATI 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 ATI product, whether your product contains a defect, and whether your product is under warranty.

- AMD 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.
- AMD 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.
- AMD Customer Care reserves the right to limit support options for products that are not registered or are reaching end of life.

International Compliance Information

This section details the worldwide compliance information for this product, which is manufactured to be compliant in the regions where it is sold.

Caution:

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

FCC Compliance Information

This product complies with FCC Rules Part 15. Operation is subject to the following 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 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.

Complies with FCC 15.107, 15.109, 15.111, and 15.117.

For further compliance information:

Advanced Micro Devices, Inc.
62 Forest Street
Marlborough, MA 01752
USA Tel: 508-303-3900

Industry Canada Compliance Statement

This Class B digital apparatus complies with Canadian ICES-003 and with BETS-7, Section 3.6.

Cet appareil numérique de la Classe B est conforme à la norme NMB-003 du Canada, et NTMR-7, Section 3.6.

CE Compliance Information

EMC Directive 2004/108/EC

CISPR 22:2006/EN 55022:2006—Class B: Limits and methods of measurement of radio disturbance characteristics of Information Technology Equipment.

CISPR 24:1997/EN 55024:1998—Information Technology Equipment—Immunity Characteristics—Limits and Methods of Measurements

Electrical Safety

Europe: The Low Voltage Directive—2006/95/EC

- EN 60950-1—Safety of Information Technology Equipment

USA/Canada:

- UL 60950-1 (Information Technology Equipment—Safety—Part 1: General Requirements)
- CSA C22.2 No. 60950-1 (Information Technology Equipment—Safety—Part 1: General Requirements)

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.



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

B급기기(가정용 방송통신기기)

이 기기는 가정용(B급)으로 전자파적합등록을 한 기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

"Class B" Equipment (Household purpose info/telecommunications equipment)

As this equipment has undergone EMC registration for household purpose, this product can be used in any area including residential area.

BSMI Certification Information

CNS 13438・C6357・B類－資訊科技設備