

CrossFire™ Operation Guide

This motherboard supports CrossFire™ feature. CrossFire™ technology offers the most advantageous means available of combining multiple high performance Graphics Processing Units (GPU) in a single PC. Combining a range of different operating modes with intelligent software design and an innovative interconnect mechanism, CrossFire™ enables the highest possible level of performance and image quality in any 3D application. Currently CrossFire™ feature is only supported with Windows XP with Service Pack 2; it may be supported with other OS in the future.



What graphics cards work with CrossFire™?

A complete CrossFire™ system requires a CrossFire™ Ready motherboard, a CrossFire™ Edition graphics card and a compatible standard Radeon (CrossFire™ Ready) graphics card from the same series, or two CrossFire™ Ready cards if they are software enabled. This applies to cards from ATI or any of its partners.

Cards For AGI Express Slot	Cards For PCI Express Slot
Radeon X1800 Series	Radeon X1800 CrossFire™ Edition
Radeon X1600 Series	Radeon X1600 Series
Radeon X1300 Series	Radeon X1300 Series
Radeon X850 Series	Radeon X850 CrossFire™ Edition



1. If a customer incorrectly configures their system they will not see the performance benefits of CrossFire™. All three CrossFire™ components, a CrossFire™ Ready graphics card, a CrossFire™ Ready motherboard and a CrossFire™ Edition co-processor graphics card, must be installed correctly to benefit from the CrossFire™ multi-GPU platform.
2. If you pair a 12-pipe CrossFire™ Edition card with a 16-pipe card, both cards will operate as 12-pipe cards while in CrossFire™ mode.

Enjoy the benefit of CrossFire™



Currently, ATI has released Radeon X850XT, X1800XT, X1300, and X1600 CrossFire™ cards, which require different methods to enable CrossFire™ feature. In the below procedures, we use Radeon X850XT as the example graphics card. For other CrossFire™ cards that ATI has released or will release in the future, please refer to ATI graphics card manuals for detailed installation guide.

- Step 1. Connect to the system power supply. Please connect a hard disk power connector to SLI/XFIRE Power connector.



It is recommended to use 500-Watt power supply or greater to perform the benefit of CrossFire™ feature for Radeon X850XT.



- Step 2. Install the standard Radeon (CrossFire™ Ready) graphics card to AGI Express slot (PCI Express x 4). For the proper installation procedures, please refer to section “Expansion Slots”.

Standard Radeon
(CrossFire™ Ready)
graphics card



- Step 3. Install the Radeon CrossFire™ Edition graphics card to PCI Express x 16 slot. For the proper installation procedures, please refer to section “Expansion Slots”.

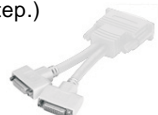
Radeon CrossFire™
Edition graphics card

Standard Radeon
(CrossFire™ Ready)
graphics card



You are allowed to install two CrossFire™ Edition graphics cards to both slots, or you may use one CrossFire™ Edition graphics cards and a compatible standard Radeon (CrossFire™ Ready) graphics card from the same series.

- Step 4. Correctly connect the DVI-DMS cable to the monitor connector and two graphics cards that you install. (If you install two standard Radeon (CrossFire™ Ready) graphics cards to this motherboard, please skip this step.)



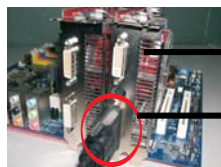
DVI-DMS cable



DMS connector



DVI connector



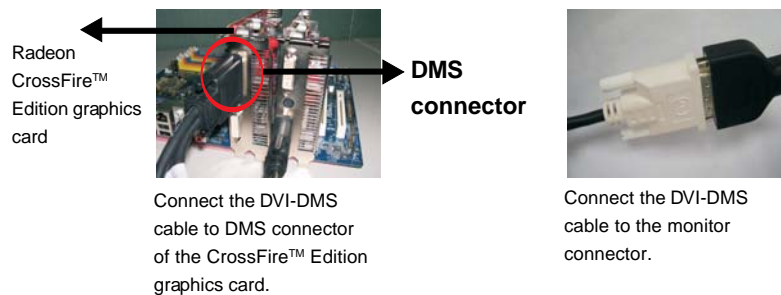
Connect the DVI-DMS
cable to DVI connector of
the compatible standard
Radeon (CrossFire™
Ready) graphics card.

Standard Radeon (CrossFire™ Ready)
graphics card

DVI connector



There are two DVI connectors on the
standard Radeon (CrossFire™ Ready)
graphics card. Please connect the DVI-DMS
cable to the correct DVI connector;
otherwise, the graphics card will not work.



If you install two CrossFire™ Edition graphics cards to this motherboard, please connect one end of DVI-DMS cable to the monitor, another end to DMS of one of the CrossFire™ Edition graphics cards to PCIE1 slot (PCI Express x 16), and the other end to DVI of another CrossFire™ Edition graphics card to AGI Express slot (PCI Express x 4). If you install one CrossFire™ Edition graphics card and one compatible standard Radeon (CrossFire™ Ready) graphics card to this motherboard, please connect one end of DVI-DMS cable to the monitor, another end to DMS of the CrossFire™ Edition graphics card, and the other end to DVI of the compatible standard Radeon (CrossFire™ Ready) graphics card.

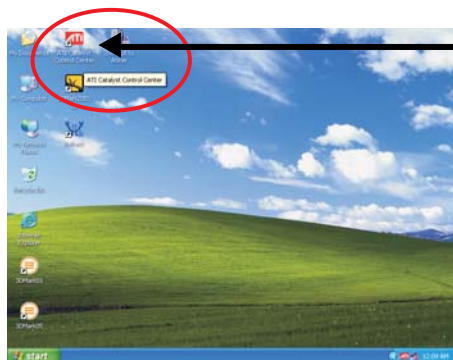
- Step 5. Power on your computer and boot into OS.
- Step 6. Remove the ATI driver if you have any VGA driver installed in your system.



The Catalyst Uninstaller is an optional download. We recommend using this utility to uninstall any previously installed Catalyst drivers prior to installation. Please visit this website for the driver:
<http://support.ati.com/ics/support/DLRedirect.asp?fileIDExt=050553d40196ef109fff37cbb40aaf28&accountID=737&deptID=894>

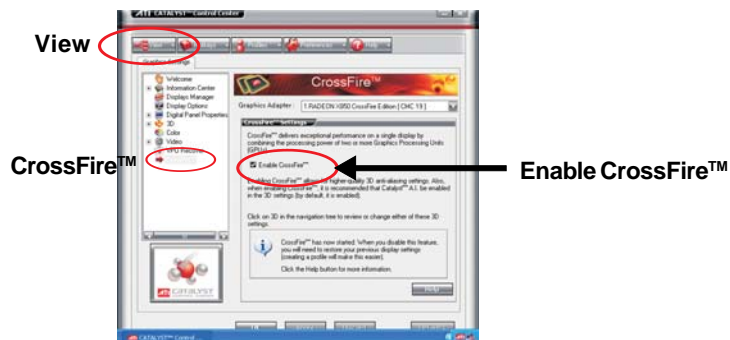
- Step 7. Install the required drivers to your system. Please visit the websites below for installing the drivers that ATI recommends:
- A. ATI recommends Windows XP Service Pack 2 or higher to be installed (If you have Windows XP Service Pack 2 or higher installed in your system, there is no need to download it again):
<http://www.microsoft.com/windowsxp/sp2/default.msp>
 - B. You must have Microsoft .NET Framework installed prior to downloading and installing the CATALYST Control Center:
<http://www.microsoft.com/downloads/details.aspx?FamilyId=262D25E3-F589-4842-8157-034D1E7CF3A3&displaylang=en>
- Step 8. Restart your computer.

Step 9. Install the VGA card drivers to your system, and restart your computer. Then you will find "ATI Catalyst Control Center" on your desktop (ATI Catalyst driver should be version 5.10 or higher).



You will find "ATI Catalyst Control Center" on your desktop.

Step 10. Double-click "ATI Catalyst Control Center". Click "View", and select "Advanced View". Click "CrossFire™", and then set the option "Enable CrossFire™" to "Yes".



If you install one Radeon CrossFire™ Edition graphics card and one compatible standard Radeon (CrossFire™ Ready) graphics card to this motherboard but not two Radeon CrossFire™ Edition graphics cards, please as well follow the above steps. However, although you have selected the option "Enable CrossFire™", the CrossFire™ function can not work actually. Your computer will automatically reboot. After restarting your computer, please confirm whether the option "Enable CrossFire™" in "ATI Catalyst Control Center" is selected or not; if not, please select it again, and then you are able to enjoy the benefit of CrossFire™ feature.

Step 11. You can freely enjoy the benefit of CrossFire™ feature.

* **CrossFire™** appearing here is a registered trademark of ATI Technologies Inc., and is used only for identification or explanation and to the owners' benefit, without intent to infringe.