

# SurroundView Display Configurations



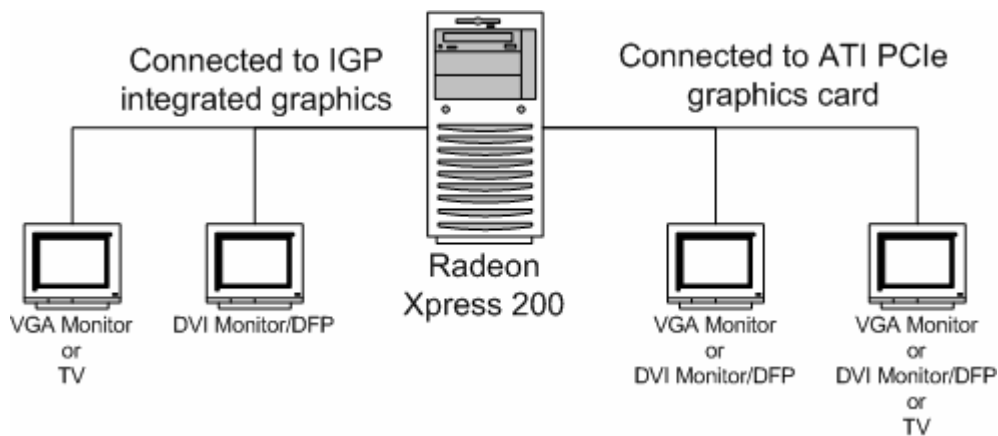
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# Introduction

SurroundView is the ATI technology that provides multi-graphics controller display capability for both the ATI PCIe-based graphics card and the ATI integrated graphics processor (IGP). This document outlines sample display configurations with SurroundView enabled on the Radeon Xpress 200 ATI chipset incorporated into the HP dx5150 Business PC. Enabling SurroundView does not impact display modes (resolution and color depth) or performance. The display mode of each output is controlled independently by the graphics controller connected to it. The modes listed in the table below vary for each system configuration and are dependent on monitor capabilities. These values are the absolute maximum, assuming memory bandwidth is not a limiting factor.

## Radeon Xpress 200 Display Configuration

Figure 1. Radeon Xpress 200 Display Configuration



Up to four displays can be connected to an Radeon Xpress 200 system with a single PCIe graphics card and SurroundView enabled. More than four displays are possible using additional PCI graphics controllers. The Radeon Xpress 200 supports a Digital Video Interface (DVI) connected to a Digital Flat Panel (DFP), in addition to analog output to a VGA monitor or TV.

Display Connected to	Display Type	Max. resolution
Radeon Xpress 200	VGA monitor	2048*1536*32
	TV (composite, s-video)	Composite & S-Video: 1024*768*32
Radeon Xpress 200 + external TMDS	DVI-DFP monitor	1600*1200*32
PCIe Graphics Card	The type of displays and resolutions supported depend on which card is used. SurroundView does not affect the display modes of this card.	

## Configuration Options Table

Radeon Xpress 200	External PCIe Graphics Card	ATI SurroundView (F10 Setup)	PCI Graphics Card
VGA + DVI	Not Installed	Not Applicable	A PCI Card can be installed in any configuration. This is a standard multi-display feature supported by the Microsoft Operating System.
Disabled	Non-ATI graphics card <sup>1</sup>	Not Applicable	
Disabled <sup>2</sup>	ATI graphics card	Disabled	
VGA + DVI <sup>2</sup>	ATI graphics card	Enabled	

### Notes:

1. When using a non-ATI PCI Express (PCIe) graphics card, SurroundView is not supported. The integrated graphics processor (IGP) is automatically disabled, and the system memory allocated to the IGP is freed for other use.

2. When installing an ATI PCIe graphics card, SurroundView is disabled by default. Enabling SurroundView in the BIOS (F10 Setup) enables the integrated UMA graphics controller, which in turn makes available up to two additional graphics outputs. When enabling the integrated UMA graphics controller, system memory will be reallocated.

- The amount of memory allocated to internal graphics is determined in the BIOS (F10 Setup) setting Advanced Chipset Features/UMA Frame Buffer Size. The default is 64MB.
- When viewing Advanced Chipset Features in the BIOS (F10 Setup), the Internal Video Mode may read "UMA" even if the internal graphics is disabled. This field is not updated by adding a PCIe graphics card. The Internal Video Mode "Disabled" setting frees up the allocated UMA graphics memory when a PCI graphics card is the only adapter required.
- When a PCI graphics card is used in combination with the integrated graphics processor and/or a PCIe graphics card, it cannot be set as primary. By default it is configured as a secondary controller. If, instead, the PCI graphics card is the only enabled controller in the system, by necessity it is the primary controller.
- Potentially, a non-ATI-branded PCIe graphics card could be installed, one that contains an ATI chipset and uses ATI-based software drivers, but does not support SurroundView. This may be caused by an older card and older driver source code. You may not be able to use SurroundView with all PCIe card combinations. All ATI-branded PCIe cards support SurroundView. Consult [ATI Technologies Inc.](#) for a complete listing of ATI cards.

# For more information

[www.ati.com](http://www.ati.com)

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