



Radeon™ HD 4650

Up to 1GB [128-bit] DDR2 Graphics Card

XFx Part Numbers:

- HD-465X-ZDH(*)
- HD-465X-ZDL(*)
- HD-465X-ZDF(*)
- HD-465X-YAF(*)
- HD-465X-ZPF(*) AGP 8X
- HD-465X-YPF(*) AGP 8X

Bus
PCI-E 2.0
/ AGP 8X
Profile
Standard
Output
Dual DVI



ENERGY SAVER.

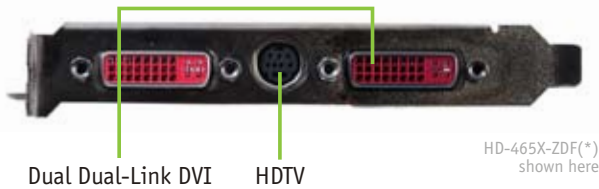
When it comes to beautiful performance, things can get a bit ugly. The XFX Radeon HD 4650 is a little energy saver that deliver the gaming experience of previous high-end graphic cards while also offering excellent HD video decoding. Add Unified Video Decoder 2 and Enhanced DVD Upscaling capabilities and you've got more than a casual gaming experience.

- Unified Superscalar Shader Architecture
- Accelerated Video Transcoding (AVT)
- 320 Stream Processing Units
- ATI PowerPlay™ Technology
- ATI Stream Technology
- DirectX 10.1 Support
- HDCP Capable
- PCI Express 2.0
- AGP 8X



Radeon™ HD 4650

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Dual Dual-Link DVI HDTV

HD-465X-ZDF(*) shown here

XFX Radeon™ HD 4650



PCI-Express Cardbus Connector

HD-465X-ZDF(*) shown here



AGP Cardbus Connector

HD-465X-ZPF(*) shown here



ATI PowerPlay™ Technology

Designed to enable power saving profiles that help reduce power consumption when the graphics card is idle or in minimal use. This dynamic power management enables the graphics card to automatically adjust power between low, medium and high states for a tremendous power efficiency advantage. For example, when receiving and composing emails little demand is on the graphics card and it runs in a low state, whereas when gaming, there is high demand on the graphics engine and the graphics card runs in a high state. Since the graphics card consumes less power it also produces less heat ultimately contributing to reduced system temperatures and fan noise delivering consistent performance levels for a seamless user experience.



ATI Stream Technology

A set of advanced hardware and software technologies that enable ATI graphics cards, working with the system's CPU to accelerate many applications beyond just graphics. This enables better balanced platforms capable of running demanding computing tasks faster than ever.



Dual Dual-Link Technology

Supporting digital output up to 2560x1600 on two LCD Monitors at the same time. (HD-465X-ZDF*)



HDTV Ready and HD Gaming

Supporting digital output up to 2560x1600 on two LCD Monitors at the same time.



HDCP

High-bandwidth Digital Content Protection (HDCP) is a technology to protect digital entertainment content. HDCP has been implemented across both DVI and HDMI interfaces.



Double Lifetime Protection

Our exclusive Double Lifetime Protection guarantees the quality and dependability of our card for both you and the second owner.

*Valid for North America only

XFX Products Chart for this Chipset***

PCI-E 2.0

Model Number	Packing	Version	Engine		Memory			Stream	Cooling	Output	Profile	CrossFireX	Minimum Power Req	Card Dimension
			Clk(MHz)	Bus	Type	Size	Speed**							
HD-465X-ZDH(*)	(4)	Standard	600	128bit	DDR2	1GB	1GHz	320	Heatpipe	◆, ●	Standard	No	400W	6.6x 4.376x .75 in
HD-465X-ZDL(*)	(7)(C)	Standard	600	128bit	DDR2	1GB	800MHz	320	Fansink	◆, ●	Standard	No	400W	6.6x 4.376x .75 in
HD-465X-ZDF(*)	(2)(C)(E)	Standard	600	128bit	DDR2	1GB	1GHz	320	Fansink	◆, ●	Standard	No	400W	6.6x 4.376x .75 in
HD-465X-YAF(*)	(2)(C)	Standard	600	128bit	DDR2	512MB	800MHz	320	Fansink	■, ○, ●	Standard	No	400W	6.6x 4.376x .75 in

AGP 8X

Model Number	Packing	Version	Engine		Memory			Stream	Cooling	Output	Profile	CrossFireX	Minimum Power Req	Card Dimension
			Clk(MHz)	Bus	Type	Size	Speed**							
HD-465X-ZPF(*)	(2)(C)(R)	Standard	600	128bit	DDR2	1GB	800MHz	320	Fansink	◆, ●	Standard	No	400W, 4-pin	6.6x 4.376x .75 in
HD-465X-YPF(*)	(2)	Standard	600	128bit	DDR2	512MB	800MHz	320	Fansink	■, ○, ●	Standard	No	400W, 4-pin	6.6x 4.376x .75 in

Outputs - ○ VGA, □ DVI, ◇ Dual DVI, ● S-Video and HDTV, ■ DVI w/ Dual-link, ◆ Dual DVI w/ Dual Dual-link, ♥ DMS-59 Output, ▲ HDMI, △ Supports HDMI with Upgrade Kit

* Insert Packing Code reference here for the complete model number. See XFXforce.com regarding package contents for each model. All XFX graphics cards include a Serial Number Door Hanger or Card for convenient reference. Game bundles may be included with certain models/packing during promotional periods.

** Optimal memory speed. Actual speed may vary.

*** Specifications subject to change without notice. See XFXforce.com for the latest information.

www.XFXforce.com

