

update
09/2008

Catalogue

Summer 2008





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**Welcome to AMD's
sizzling range of
graphics cards
for summer 2008!**



AMD is proud to make available to our customers our latest and greatest graphic cards, including the completely new "game-eating" ATI Radeon™ HD 4800 X2 series! With technologically advanced, high performance ATI Radeon graphic cards for all budgets, there has never been a better time for either your game play or wallet to buy an AMD graphic card. All ATI Radeon™ HD 4000 and ATI Radeon HD 3000 series graphic cards combine the industry's most advanced set of technology features for hardcore gamers, casual gamers and for advanced multimedia usage. With DirectX® 10.1 for the hottest, leading-edge games, specific hardware for high quality Blu-ray HD playback and raw performance for video encoding and decoding, all ATI Radeon HD 4000 and ATI Radeon HD 3000 series graphic cards are built for hardcore, demanding usage! Combine this with our energy efficient designs for lower power usage across the board, and you have the right level of performance for all usage models and all wallets. And don't

forget about AMD's new ATI Hybrid Graphics set up. Start with an AMD 780G chipset-based motherboard with the industry's fastest integrated graphic core. Add an ATI Radeon™ HD 4550 series graphic card. Then your options are open: combine the performance of the Integrated graphics and the discrete graphic card for up to 1.7x the performance of the integrated graphics alone, for serious game playing potential.¹ Or have the integrated graphics working alone for low power usage. The choice is yours! Also, don't forget about our exciting ATI Cross-FireX™ multi GPU technology, enabling up to 4 graphic cards in parallel for the fastest possible game playing experience ever!² Finally, all this performance is enabled by AMD's powerful suite of ATI Catalyst™ graphic drivers, with regularly scheduled driver performance updates, available every month at AMD.com.

The completely new ATI Radeon™ HD 4000 and ATI Radeon™ HD 3000 series



**AMD's powerful graphic families bring
all these new key technologies together for the first time.**

Support for Microsoft DirectX® 10.1

See the games coming out NOW with DirectX 10.1 for stunning visuals and incredible game play. All the ATI Radeon HD 4000 and ATI Radeon HD 3000 series cards have this — why should you not have it, too?

ATI Avivo™ HD video technology

Unmatched award-winning quality for all your video needs.

UVD

Radeon HD 4800 series cards have full hardware video decoding for H.264 and VC1 built in. Be energy efficient and let the CPU do other tasks, even while watching Blu-ray.

HDMI and HDCP

Key technologies built in. The keys to crystal clear video at 1080p and beyond!^{3,4,5}

ATI CrossFireX™ technology

2 cards not enough? Only ATI CrossFireX technology brings you the option of up to 4 ATI Radeon GPU's in one system!² Intense performance. Ultimate upgradeability! New high-speed inter-GPU paths for even greater scaling when adding 2, 3 or 4 ATI Radeon HD 4800 series cards together!²

Advanced GDDR5 memory

ATI Radeon HD 4870 X2 comes with up to 2 GB of GDDR5 memory, today's fastest graphic card memory in the technology!



PCI Express® 2.0

Give me 2x the bus bandwidth over PCIe® 1.1 for improved performance in today's games!

Multi-monitor support

Seeing is believing; up to 8 monitors in one system with ATI SurroundView™ technology!²

55nm chip technology

AMD's most advanced chip manufacturing process that enables cool, quiet and energy efficient graphic performance.

All 8X AA

The competition says use 4X AA – we say use all 8X for the smoothest possible in game graphics.

1600 stream processors

2x the number of the ATI Radeon HD 4870 card!

Over 1 teraFLOPS

of raw horsepower to render your game, with enough left over for physics, AI, visibility detection etc.

40 texture processors

2.5 times AMD's previous generation for higher frame rates and higher quality texturing at even higher resolutions.

Tessellation

High performance tessellation for extreme geometric complexity for that creates superbly life like in game visuals.

REMEMBER – Only ATI Radeon HD 4000 and ATI Radeon HD 3000 series gives you all this.



Believe it or not -

The best just got X2 better

Ruby's Ultimate License to Thrill.

ATI Radeon™ HD 4870 X2 and ATI Radeon™ HD 4850 X2 are the most powerful graphic cards AMD has ever built. The technology is based on the award-winning 55nm graphic cores. These cards combine all the latest features and incredible performance for the professional gamer in the ultimate game playing rigs. With up to 2x the graphic performance of the ATI Radeon HD 3800 series cards, but with only a few watts of extra power draw, you have two new graphic cards that are so highly energy efficient, that power, heat and noise are kept to a minimum in your game playing rigs.

Built intelligently for today's gamers.

It's all about unbelievably fast graphic cards! And even the ATI Radeon HD 4870 X2 draws less than 285 watts of power, so these cards are power efficient, elegant and fast. It is possible to add up to 4 ATI Radeon HD 4870 cards in one ATI CrossFireX™ enabled rig and still use a standard chassis and a power supply rated at less than 1000 watts². Try that with the competition's graphic card technology!



ultimate gaming



DirectX® 10.1 support



**1080p
HD video display**



ATI Avivo™ HD



**Blu-ray & HD
DVD video**



**Unified Video
Decoder 2**



**Built-in HDMI
pass through
7.1 audio**



**ATI CrossFireX™
multi-GPU**



**up to GDDR5
gaming memory**



**PCI Express®
2.0 support**



**ATI Catalyst™
driver stability**

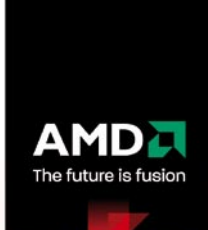


**ATI Power Play™
energy conservation**



* the ATI Radeon HD
4800 GPUs are capable of
outputting Display Port signals

Specifications	ATI Radeon™ HD 4870 X2
Bus Type	PCI Express® 2.0
Engine Clock	750MHz
Memory Type	GDDR5
Memory Bandwidth	230GB/sec
Memory Size	2GB
Stream processing units	1600
UVD technology for HD video decoding and playback	Yes, UVD 2
HDMI with 7.1 sound	Integrated
Output HDTV	Integrated Display Port *
Slot	Dual slot
Max boarder power	285W
ATI CrossFireX™ Ready	Internal cable



ATI Radeon™
HD 4850 X2

PCI Express® 2.0

625MHz

GDDR3

128GB/sec

2GB

1600

Yes, UVD 2

Integrated

Integrated
Display Port *

Dual slot

230W

Internal cable

ATI Radeon™ HD 4870 X2

ATI Radeon™ HD 4850 X2

The new benchmark for the ultimate graphics card in the world has arrived. Based on the award winning RV770 chip, times 2! Only for gamers wanting maxed out resolutions with unheard of frame rates need apply. See how the latest games were meant to be seen. With up to 2 GB of GDDR5 memory, the ATI Radeon™ HD 4870 X2 is truly the king of the hill. No compromise. Destroy your competition with the ATI Radeon™ HD 4850 X2, a card to be proud of! Want more? Is it possible? This card work with ATI CrossFireX™ technology for dual card, quad-GPU mayhem!²





ultimate gaming



DirectX® 10.1 support



**1080p
HD video display**



ATI Avivo™ HD



**Blu-ray & HD
DVD video**



**Unified Video
Decoder 2**



**Built-in HDMI
pass through
7.1 audio**



**ATI CrossFireX™
multi-GPU**



**GDDR5
gaming memory**



**PCI Express®
2.0 support**



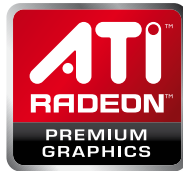
**ATI Catalyst™
driver stability**



**ATI Power Play™
energy conservation**



Specifications	ATI Radeon™ HD 4870
Bus type	PCI Express® 2.0
Engine clock	750MHz
Memory type	GDDR5
Memory bandwidth	max 115 GB/sec
Memory size	up to 1GB
Stream processing units	800
UVD technology for HD video decoding and playback	Yes, UVD 2
HDMI with 7.1 sound	Integrated
Output HDTV	HDMI w/ adapter
Slot	Dual slot
Max boarder power	160W
ATI CrossFireX™-ready	Internal cable



ATI Radeon™ HD 4870

The ultimate. The new performance leader for ultimate gameplay. One powerful RV770 chip on one card. Cuts through DirectX® 10 and DirectX® 10.1 games at HD resolutions. No card gives you more. Give yourself the performance edge, with all the newest technologies that ensure that this is the only card you will need for ultimate gaming dominance!





Ultimate gaming



DirectX® 10.1 support



**1080p
HD video display**



ATI Avivo™ HD



**Blu-ray &
HD DVD video**



**Unified Video
Decoder 2**



**Built-in HDMI
pass through
7.1 audio**



**ATI CrossFireX™
multi-GPU**



**GDDR3
gaming memory**



**PCI Express®
2.0 support**



**ATI Catalyst™
driver stability**

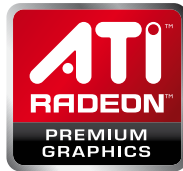


**ATI Power Play™
energy conservation**



* Some board designs
may be dual slot

Specifications	ATI Radeon™ HD 4850
Bus type	PCI Express® 2.0
Engine clock	625MHz
Memory Type	GDDR3
Memory Bandwidth	max 64 GB/sec
Memory Size	up to 1GB
Stream processing units	800
UVD technology for HD video decoding and playback	Yes, UVD 2
HDMI with 7.1 sound	Integrated
Output HDTV	HDMI w/ adapter
Slot	Single slot *
Max board power	110W
ATI CrossFireX™-ready	Internal cable



ATI Radeon™ HD 4850

Based on the same, powerful new RV770 chip, the ATI Radeon™ HD 4850 gives intense game play at high-est resolutions at an accessible price! Never before has performance this close to perfection come in such an affordable package! With 512MB of GDDR3 memory, single slot design, low power draw and wide availability, the competition is left speechless with the onslaught of the ATI Radeon HD 4850!



All new

ATI Radeon™ HD 4600 series

Launch of ATI Radeon™ HD 4670 and ATI Radeon™ HD 4650 graphics cards. With 320 stream processors, DirectX® 10.1 and breakthrough energy efficiency, these are the fastest, low cost, true gamer graphics cards in this wattage category.⁷ These cards give amazing frame rates for gamers on a budget who want to play today's intense games on mid size LCD's and at high quality settings, without having to plug in extra power connectors. With all the new key ATI Radeon™ HD 4000 series gaming and

video features, in a small package, these cards are in a class of their own. Fully compatible with ATI Cross-FireX™ technology when mated with the right motherboards, these cards truly empower the user's craving for upgradability.²





Mainstream gaming



DirectX® 10.1 support



**GDDR3
gaming memory**



ATI Avivo™ HD



**Blu-ray &
HD DVD video**



**Unified Video
Decoder 2**



**Built-in HDMI
pass through
7.1 audio**



**ATI CrossFireX™
multi-GPU**



**ATI Catalyst™
driver stability**



**ATI Power Play™
Energy conservation**



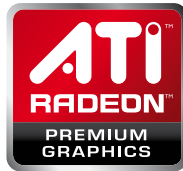
**Multi-monitor
support**



**ATI Radeon™ DVI
to HDMI adapter**



Specifications	ATI Radeon™ HD 4670
Bus Type	PCI Express® 2.0
Engine Clock	750MHz
Memory Type	DDR3/GDDR3
Memory Bandwidth	max 32 GB/sec
Memory Size	512MB/1GB
Stream processing units	320
UVD technology for HD video decoding and playback	Yes, UVD 2
HDMI with 7.1 sound	Integrated
Output HDTV	HDMI w/ adapter
Slot	Single
Max boarder power	59W
ATI CrossFireX™ Ready	Internal cable



ATI Radeon™
HD 4650

PCI Express® 2.0

600MHz

DDR2

max 16GB/sec

512MB

320

Yes, UVD 2

Integrated

HDMI
w/ adapter

Single

48W

Internal cable

ATI Radeon™ HD 4670

ATI Radeon™ HD 4650

Just launched: the world's fastest graphics cards in the sub-75 Watt category.⁷ Get high octane game play on a budget. Nothing comes close! Based on the same architecture as the market leading ATI Radeon™ HD 4800 series, the ATI Radeon™ HD 4600 series brings high end gaming and formidable video technologies to the mainstream.





Mainstream gaming



DirectX® 10.1 support



**1080p
HD video display**



ATI Avivo™ HD



**Blu-ray & HD
DVD video**



**Unified Video
Decoder 2**



**Built-in HDMI
pass through
7.1 audio**



**ATI CrossFireX™
multi-GPU**



**up to GDDR3
gaming memory**



**PCI Express®
2.0 support**



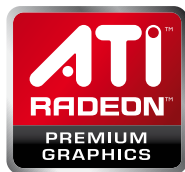
**ATI Catalyst™
driver stability**



**ATI Power Play™
energy conservation**



Specifications	ATI Radeon™ HD 4550
Bus Type	PCI Express® 2.0
Engine Clock	600MHz
Memory Type	DDR3
Memory Bandwidth	12,8GB/sec
Memory Size	512MB
Stream processing units	80
UVD technology for HD video decoding and playback	Yes, UVD 2
HDMI with 7.1 sound	Integrated
Output HDTV	HDMI w/ adapter
Slot	Single slot
Max boarder power	20W
ATI CrossFireX™ Ready	Internal cable



AMD
The future is fusion

ATI Radeon™
HD 4350

PCI Express® 2.0

600MHz

DDR2

8GB/sec

256MB

80

Yes, UVD 2

Integrated

HDMI
w/ adapter

Single slot

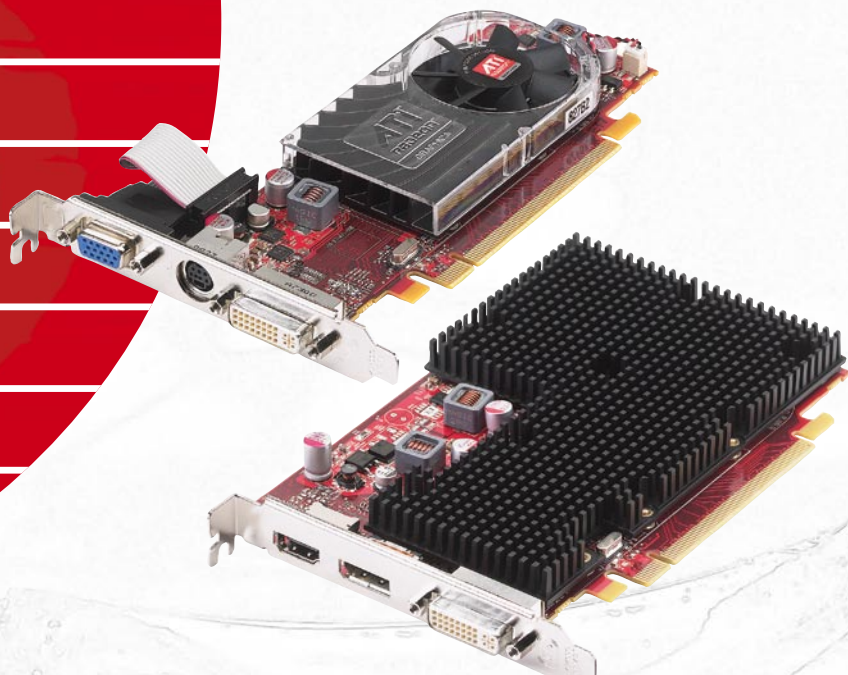
20W

Internal cable

ATI Radeon™ HD 4550

ATI Radeon™ HD 4350

With all the latest features, these cards deliver an incredible visual experience with best in class performance. Add this graphics card to your PC and watch Blu-ray movies and HD content play with incredible visual fidelity⁸, and view digital photos with over 1 billion colors⁹. Enjoy unprecedented levels of graphics realism and play the latest games with support for Microsoft DirectX®10.1. Do it all with break-through efficiency that doesn't compromise performance.





Extreme gaming



DirectX® 10.1 support



**1080p
HD video display**



ATI Avivo™ HD



**Blu-ray &
HD DVD video**



**Unified Video
Decoder**



**Built-in HDMI
pass through
5.1 audio**



**ATI CrossFireX™
multi-GPU**



**PCI Express®
2.0 support**



**ATI Power Play™
energy conservation**



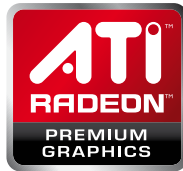
**Dual-monitor
support**



**ATI Radeon™ DVI
to HDMI adapter**



Specifications	ATI Radeon™ HD 3870
Bus type	PCI Express® 2.0
Engine clock	2.25GHz
Memory type	GDDR3/GDDR4
Memory interface	256 bit
Memory size	up to 1GB
Stream processing units	320
UVD technology for HD video decoding and playback	Yes
HDMI with 5.1 sound	Integrated
Output HDTV	HDMI w/ adapter
Output	2x Dual DVI-I w/ HDCP
ATI CrossFireX™ -ready	Internal cable
Windows Vista®	Certified



ATI Radeon™ HD 3870

Launched only 9 months ago to huge acclaim as the enthusiast choice for extreme game play, the ATI Radeon™ HD 3870 is still considered a high octane performance card for true game play. Now with a price that makes it totally accessible as an upgrade for serious gamers who want the best, but don't want to pay for it! Runs intensive games at high settings and high resolutions. Want even more? Plug a 2nd one into an ATI CrossFire™ rig for extreme play!





Extreme gaming



DirectX® 10.1 support



**1080p
HD video display**



ATI Avivo™ HD



**ATI CrossFireX™
multi-GPU**



**GDDR3/GDDR4
gaming memory**



**PCI Express®
2.0 Support**



**ATI Catalyst™
driver stability**



**ATI Power Play™
energy conservation**



**Dual-monitor
support**



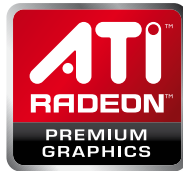
**ATI Radeon™ DVI
to HDMI adapter**



Dual DVI outputs

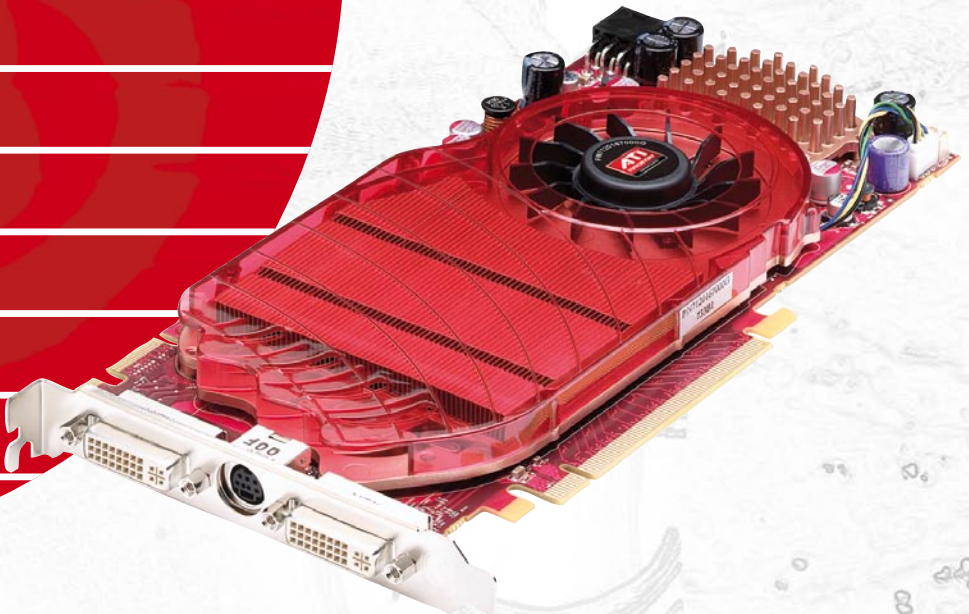


Specifications	ATI Radeon™ HD 3850
Bus type	PCI Express® 2.0
Engine clock	1.66GHz
Memory type	DDR2/GDDR3/GDDR4
Memory interface	256 bit
Memory size	up to 1GB
Stream processing units	320
UVD technology for HD video decoding and playback	Yes
HDMI with 5.1 sound	Integrated
Output HDTV	HDMI w/ adapter
Output	2x Dual DVI-I w/ HDCP
ATI CrossFireX™-ready	Internal cable
Windows Vista®	Certified



ATI Radeon™ HD 3850

Intense DirectX® 10.1 gaming, low power usage and a single slot footprint for smaller rigs, with all the features you find in its big brother the ATI Radeon HD 3870.





Mainstream gaming



DirectX® 10.1 support



**1080p
HD video display**



ATI Avivo™ HD



**Blu-ray &
HD DVD video**



**Unified Video
Decoder**



**Built-in HDMI
pass through
5.1 audio**



**ATI CrossFireX™
multi-GPU**



**PCI Express®
2.0 support**



**ATI Power Play™
energy conservation**



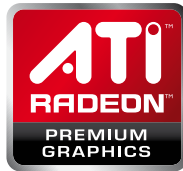
**Dual-monitor
support**



**ATI Radeon™ DVI
to HDMI adapter**



Specifications	ATI Radeon™ HD 3650
Bus type	PCI Express® 2.0
Engine clock	800MHz
Memory type	DDR2/GDDR3
Memory interface	128 bit
Memory size	up to 1GB
Stream processing units	120
UVD technology for HD video decoding and playback	Yes
HDMI with 5.1 sound	Integrated
Output HDTV	HDMI w/ adapter
Output	2x Dual DVI-I w/ HDCP
ATI CrossFireX™ -ready	Internal cable
Windows Vista®	Certified



ATI Radeon™ HD 3650

The card for serious gamers on a TIGHT budget. All the same key features including DirectX® 10.1, PCI Express® 2.0, HDMI³ support and HDCP⁵ built in. But at a price point that works. Passion for gaming is not limited by budget with this card. Look out for many special versions of this card from our board vendors. GDDR3 versions with higher clocked memory and overclocked⁶ versions with faster graphic chips and memory!





Mainstream gaming



DirectX® 10.1 support



ATI Hybrid Graphics



ATI Avivo™ HD



**Blu-ray &
HD DVD video**



**Unified Video
Decoder**



**Built-in HDMI
pass through
5.1 audio**



**ATI CrossFireX™
multi-GPU**



**ATI Catalyst™
driver stability**



**ATI Power Play™
Energy conservation**



**Dual-monitor
support**



**ATI Radeon™ DVI
to HDMI adapter**



Specifications	ATI Radeon™ HD 3470
Bus Type	PCI Express® 2.0
Engine Clock	950MHz
Memory Type	DDR2/GDDR3
Memory Interface	64 bit
Memory Size	up to 1GB
Stream processing units	40
UVD technology for HD video decoding and playback	Yes
HDMI with 5.1 sound	Integrated
Output HDTV	HDMI w/ adapter
Output	2x Dual DVI-I w/ HDCP
ATI CrossFireX™ Ready	Internal cable
Windows Vista®	Certified



AMD
The future is fusion

ATI Radeon™
HD 3450

PCI Express® 2.0

500MHz

DDR2/GDDR3

64 bit

up to 512MB

40

Yes

Integrated

HDMI
w/ adapter

2x Dual DVI-I
w/ HDCP

Internal cable

Certified

ATI Radeon™ HD 3470

ATI Radeon™ HD 3450

DirectX® 10.1, PCI Express® 2.0. Again all the same indispensable technologies as their bigger brothers. But at unbeatable price points for casual gamers and HD enthusiast. Want a HD PC rig to power a full HD 1080p TV panel at low power and noise? Want to combine with an AMD 780G chipset for ATI Hybrid CrossFire™ performance? This is the card for you.



ATI Hybrid Graphics

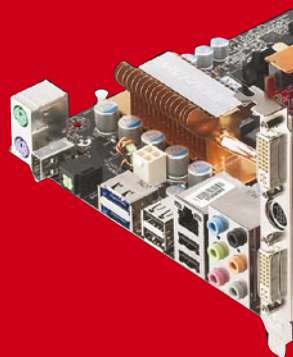


Have you ever faced the question: can I upgrade from integrated graphics to discrete graphic and not have to throw away my built-in, integrated graphics? Well, now you can! With AMD's new ATI Hybrid Graphics technology you multiply your performance, productivity and efficiency when you plug in an ATI Radeon™ HD 3000 Series graphics card into a new AMD 780 Series chipset-based motherboard. Start with a motherboard featuring the recently launched AMD 780G chipset. These chipsets have the ATI Radeon™ HD 3200 GPU built-in – get a full 2x the performance over AMD's previ-



ous generation chipset a powerful DirectX® 10 graphic core. Now add in an ATI Radeon HD 3470, ATI Radeon HD 3450 or even an ATI Radeon HD 2400 PRO based graphic card. Any of these combinations gives you a multi-GPU performance boost from ATI Hybrid CrossFireX™ technology so you can play the latest games.¹ You can also use a multi-GPU setup with any ATI Radeon HD 3000 Series card and ATI SurroundView™ technology to drive up to 4 monitors for incredible productivity, whether at work or in the home office.² And don't forget power consumption: both the chipset and graphic cards are highly

power efficient, using less energy than other chipsets or discrete graphic cards. Finally, ATI PowerPlay™ technology can change power use on the fly — ranging from maximum performance for gaming or low power settings for web surfing or general PC use. ATI Hybrid Graphics, it's the ideal platform for building entry-level PCs for work, video entertainment or basic gaming!



ATI CrossFireX™ technology

AMD's performance gaming solution

ATI CrossFireX™ technology provides the ultimate multi-GPU performance gaming platform. Enabling game dominating power, ATI CrossFireX™ technology enables two, three or four discrete graphic processors to work together to improve gaming performance.² To enable ATI CrossFireX™ technology in your system, be sure to select ATI CrossFireX-ready motherboards. These motherboards are designed to work with either AMD or Intel processors and enable the simultaneous use of one or more ATI Radeon™ HD graphic cards. ATI CrossFireX™ technology allows you to expand your system's graphic capabilities. It allows you to scale your system's graphics horsepower as you need it, supporting up to four ATI Radeon HD graphic cards,





enabling the most scalable gaming platform ever.² Armed with up to four ATI Radeon HD graphic cards, your gaming rig can break through traditional graphic limitations to play even the most demanding games at ultra high resolutions with the highest detail settings your monitor can handle, for The Ultimate Visual Experience™.

But, it's not just about high end cards: With the right dual or quad PCIe® x16 or x8 sockets on your ATI CrossFireX™ enabled motherboard you can multiply your gaming performance with combinations of any similar ATI Radeon™ HD 2000, ATI Radeon™ HD 3000 and ATI Radeon™ HD 4000 series graphic cards. (Please check the AMD website for exact combinations which work

together). Finally, not sure what you will need? With the right ATI CrossFireX™ enabled motherboards, you can place one ATI Radeon™ graphic card in your rig today. Later, when the need arises, buy another similar ATI Radeon graphic card, plug it in, set the ATI CrossFireX™ bridge, re-configure the drivers and you are away!² With extreme scaling in most of today's games, adding a 2nd, 3rd or 4th graphic card can secure your system for the performance you need today and tomorrow.



Technical support

on ATI Radeon™ graphic boards

UK: Phone +44 (0) 1276 803299

Monday - Friday: 09:30 - 16:00 GMT



Product advisory

Included in this catalogue is important specification information for ATI Radeon™ range of graphic chips and graphic cards. You can find these chips (GPU's) integrated in graphic cards available from many of the world's leading manufacturers of graphic cards. Please confirm the exact specifications of these boards before purchase as they may vary from descriptions included.

Footnotes

¹ Indicates performance improvements obtainable through ATI Hybrid CrossFireX™ technology and related ATI Catalyst™ software running under the Windows Vista® operating system.

² Number of installable cards subject to graphics card model and motherboard design, and may require a specialized power supply.

³ May not support all HDMI displays. Please visit AMD Customer Care at ati.amd.com for more information.

⁴ Requires 1080p HD capable display.

⁵ Playing HDCP content requires additional HDCP ready components, including but not limited to an HDCP ready monitor, Blu-ray or HD DVD disc drive, multimedia application and computer operating system.

⁶ AMD's product warranty does not cover damages caused by overclocking, even when overclocking is enabled via AMD OverDrive™ software.

⁷ ATI Radeon HD 4670 delivers over 8 gigaFLOPS per Watt as compared to the GeForce 9500 GT at 1.79gigaFLOPS per Watt.

⁸ Blue-ray drive and HD capable monitor required.

⁹ Requires a 10-bit display.

Notes

ATI Avivo™ and ATI Avivo™ HD are technology platforms that include a broad set of capabilities offered by certain ATI Radeon GPUs. Not all products have all features and full enablement of some capabilities may require complementary products. The features listed reflect the capabilities of the graphic processing unit (GPU). Implementations may vary by graphic card. Consult graphic card specifications to confirm support for these features. Features, pricing, availability and specifications may vary by product model and are subject to change without notice. Products may not be exactly as shown.

45858-A

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