Official Catalogue

Summer 2008

AMD Smarter Choice

ATI RADEON PREMIUM GRAPHICS

Index

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 graphics cards, including the completely new "game eating" ATI Radeon™ HD 4800 series! With technologically advanced, high performance ATI Radeon graphics cards for all budgets, there has never been a better time for either your game play or wallet to buy an AMD graphics card. All ATI Radeon™ HD 3000 and ATI Radeon HD 4800 series graphics cards combine the industry's most advanced set of technology features for hard core 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 3000 and ATI Radeon HD 4800 series graphics 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 graphics core. Add an ATI Radeon™ HD 3400 series graphics card. Then your options are open: combine the performance of the Integrated graphics and the discrete graphics 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 CrossFireX™ multi GPU technology, enabling up to 4 graphics 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™ graphics drivers, with regularly scheduled driver performance updates, available every month at AMD.com.

The completely new
ATI Radeon™ HD 4800 and
ATI Radeon™ HD 3000 family

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

Support for Microsoft DirectX® 10.1.
All the ATI Radeon HD 3000 and ATI Radeon HD 4800 series cards have this this – why should you not have it too?

PCI Express® 2.0.
Give me 2x the bus bandwidth over PCIe® 1.1 for improved performance in today's games!

Native 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!

Multi-monitor support.
Seeing is believing; up to 8 monitors in one system with ATI SurroundView™ technology![2]

HDMI and HDCP.
Key technologies built in. The keys to crystal clear video at 1080p and beyond![3,4,5]

ATI Avivo™ HD video technology.
Unmatched award winning quality for all your video needs.

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

55nm chip technology.
AMD's most advanced chip manufacturing process that enables cool, quiet and energy efficient graphics performance.

REMEMBER – Only ATI Radeon HD 3000 and ATI Radeon HD 4800 series gives you all this

All new
ATI Radeon™ HD 4800 series

Ruby's Ultimate License to Thrill. ATI Radeon™ HD 4870 and ATI Radeon™ HD 4850 are the most powerful graphics cards AMD has ever built. The technology is based on the award winning 55nm RV770 graphics 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 graphics performance of the ATI Radeon HD 3800 series cards, but with only a few watts of extra power draw, you have two new graphics 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 graphics cards! And even the ATI Radeon HD 4870 draws less than 160 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 watts [2]. Try that with the competition's graphics card technology!

All Fundamentals of the
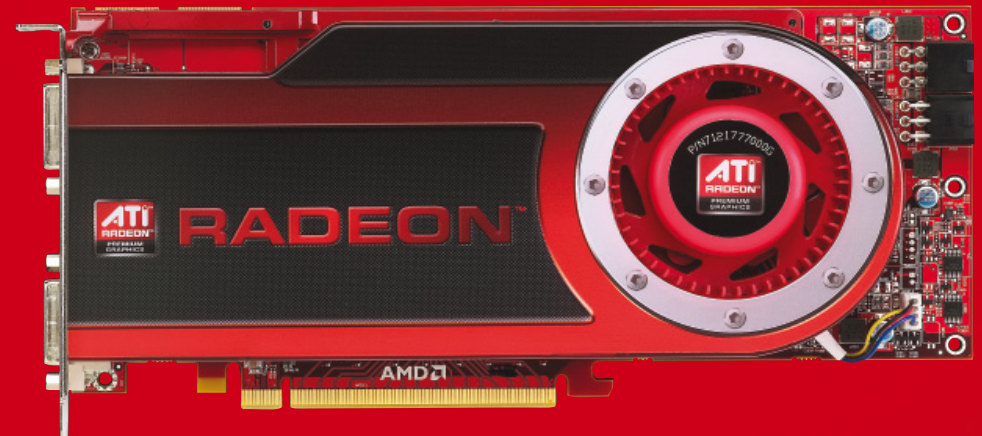# ATI Radeon™ HD 4800 series

All 8X AA.
The competition says use 4X AA – we say use all 8X for the smoothest possible in game graphics.
800 stream processors.
2.5x the number of the ATI Radeon HD 3800 series!
Advanced GDDR5 memory.
ATI Radeon HD 4870 comes with up to 1 GB of GDDR5 memory, today's fastest graphics card memory in the technology!

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.
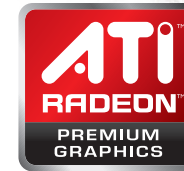**DirectX® 10.1.**
See the games coming out NOW with DirectX 10.1 for stunning visuals and incredible game play.

ATI CrossFireX™ technology.
New high speed inter-GPU paths for even greater scaling when adding 2, 3 or 4 ATI Radeon HD 4800 Series cards together! [2]
Tessellation.
High performance Tessellation for extreme geometric complexity for that creates superbly life like in game visuals.

Ultimate Gaming

Comprehensive
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™
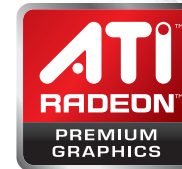Driver Stability

ATI Power Play™
Energy Conservation

ATI Radeon™ HD 4870

The ultimate. The new performance leader for ultimate game play. 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!

Specifications	ATI Radeon™ HD 4870
Bus Type	PCIe x16/2.0
Engine Clock	750 MHz
Memory Type	GDDR5
Memory Bandwidth	max 115 GB/sec
Memory Size	up to 1 GB
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/ Adaptor
Slot	Dual Slot
Max Boarder Power	160 W
ATI CrossFireX™ Ready	Internal Cable

Ultimate Gaming

Comprehensive
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

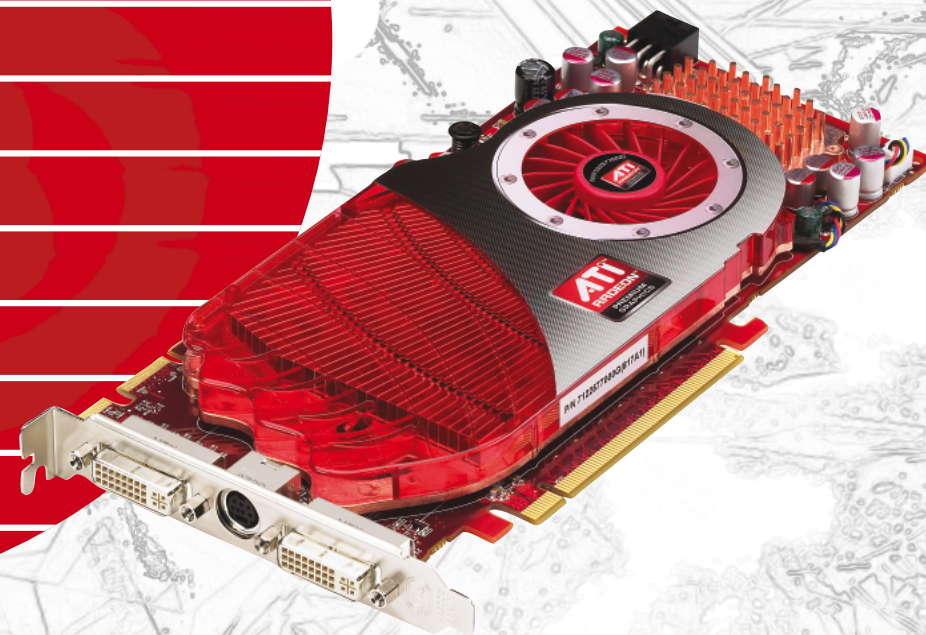PCI Express®
2.0 Support

ATI Catalyst™
Driver Stability

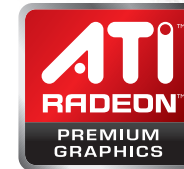ATI Power Play™
Energy Conservation

ATI Radeon™ HD 4850

Based on the same, powerful new RV770 chip, the ATI Radeon™ HD 4850 gives intense game play at highest resolutions at an accessible price! Never before has performance this close to perfection come in such an affordable package! With 512 MB 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!

Specifications	ATI Radeon™ HD 4850 PRO
Bus Type	PCIe x16/2.0
Engine Clock	625 MHz
Memory Type	GDDR3
Memory Bandwidth	max 64 GB/sec
Memory Size	up to 1 GB
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/ Adaptor
Slot	Single Slot
Max Board Power	110 W
ATI CrossFireX™ Ready	Internal Cable

Extreme Gaming

Comprehensive 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

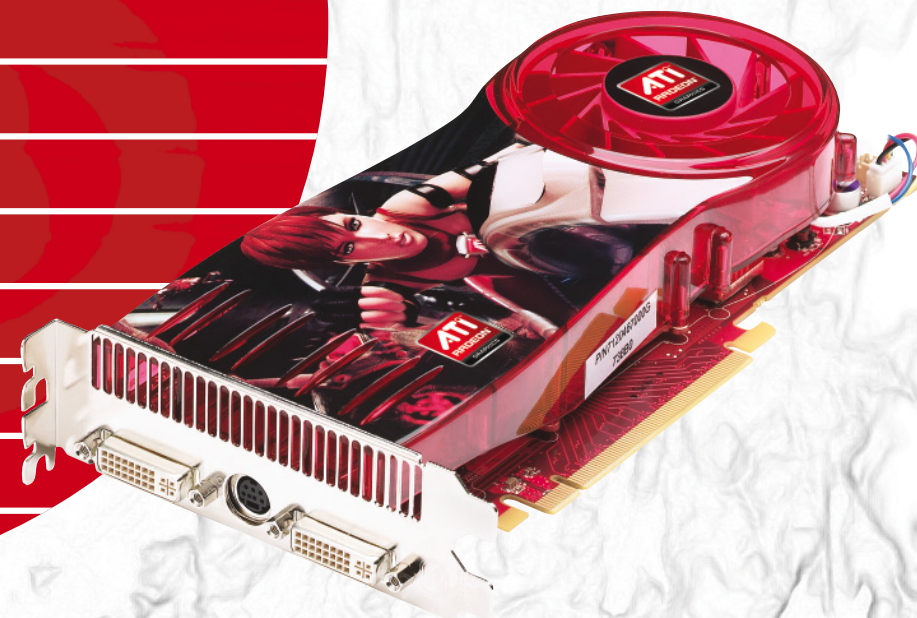## ATI Power Play™ Energy Conservation

Dual Monitor Support

ATI Radeon™ DVI to HDMI Adapter

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 CrossFireX™ rig for extreme play!

Specifications	ATI Radeon™ HD 3870
Bus Type	PCIe x16/2.0/AGP
Engine Clock	2.25 GHz
Memory Type	GDDR3/GDDR4
Memory Interface	256 bit
Memory Size	up to 1 GB
Stream processing units	320
UVD technology for HD video decoding and playback	Yes
HDMI with 5.1 sound	Integrated
Output HDTV	HDMI w/ Adaptor
Output	2x Dual DVI-I w/ HDCP
ATI CrossFireX™ Ready	Internal Cable
Windows Vista®	Certified

Extreme Gaming

Comprehensive
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
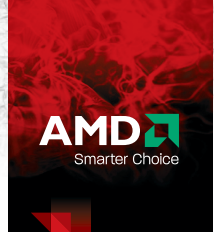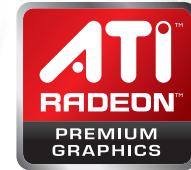
ATI Power Play™
Energy Conservation

Dual Monitor
Support
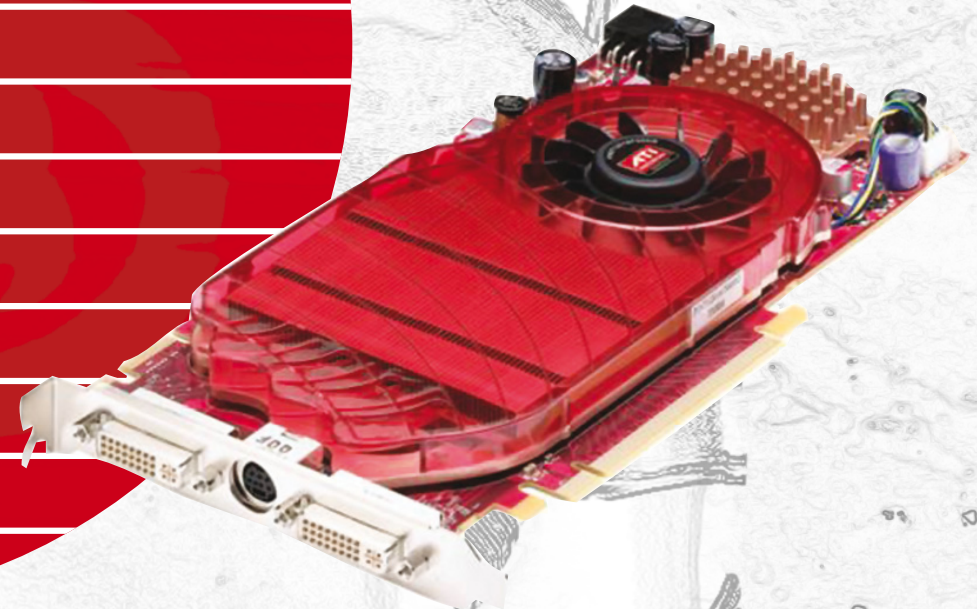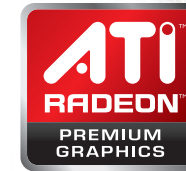
ATI Radeon™ DVI
to HDMI Adapter

Dual DVI Outputs

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 it's big brother the ATI Radeon HD 3870.

Specifications	ATI Radeon™ HD 3850
Bus Type	PCIe x16/2.0/AGP
Engine Clock	1.66 GHz
Memory Type	DDR2/GDDR3/GDDR4
Memory Interface	256 bit
Memory Size	up to 1 GB
Stream processing units	320
UVD technology for HD video decoding and playback	Yes
HDMI with 5.1 sound	Integrated
Output HDTV	HDMI w/ Adaptor
Output	2x Dual DVI-I w/ HDCP
ATI CrossFireX™ Ready	Internal Cable
Windows Vista®	Certified

Mainstream Gaming

Comprehensive
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

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, HDMI[3] support and HDCP[5] 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 overclocked[6] versions with faster graphics chips and memory!

Specifications	ATI Radeon™ HD 3650
Bus Type	PCIe x16/2.0/AGP
Engine Clock	800 MHz
Memory Type	DDR2/GDDR3
Memory Interface	128 bit
Memory Size	up to 1 GB
Stream processing units	120
UVD technology for HD video decoding and playback	Yes
HDMI with 5.1 sound	Integrated
Output HDTV	HDMI w/ Adaptor
Output	2x Dual DVI-I w/ HDCP
ATI CrossFireX™ Ready	Internal Cable
Windows Vista®	Certified

Mainstream Gaming

Comprehensive 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
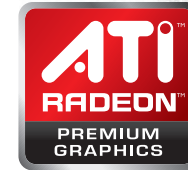
ATI Catalyst™ Driver Stability

ATI Power Play™ Energy Conservation

Dual Monitor Support
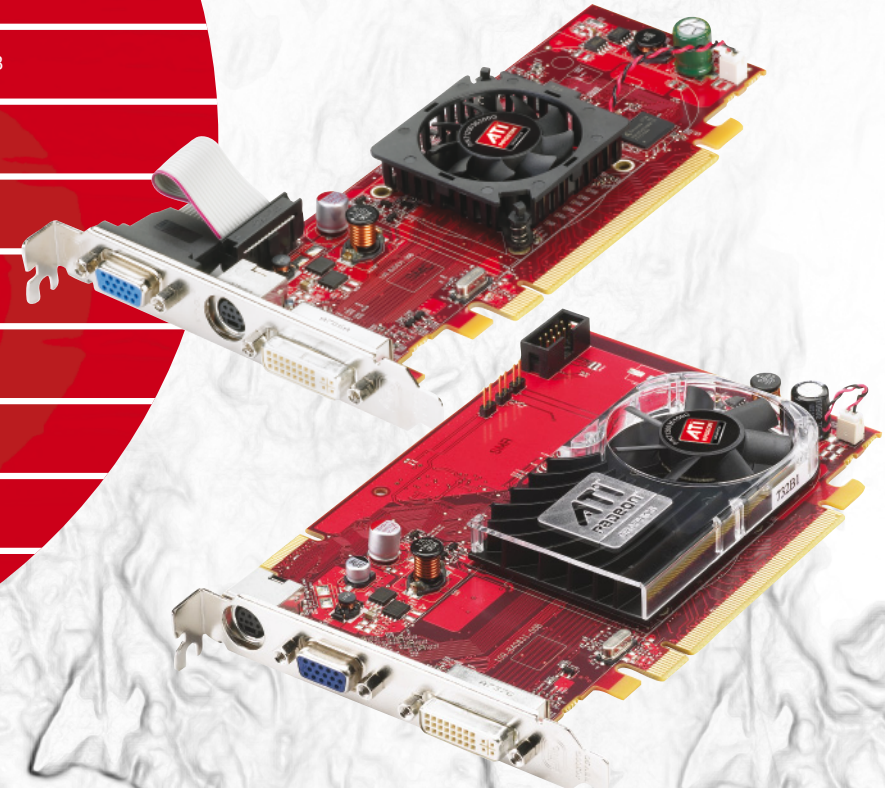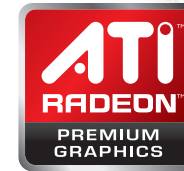
ATI Radeon™ DVI to HDMI Adapter

ATI Radeon™ HD 3470

ATI Radeon™ HD 3450

DirectX® 10.1, PCI Express® 2.0. Again all the same indispensible 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 CrossFireX™ performance? This is the card for you.

Specifications	ATI Radeon™ HD 3470	ATI Radeon™ HD 3450
Bus Type	PCIe x16/2.0/AGP	PCIe x16/2.0/AGP
Engine Clock	950 MHz	500 MHz
Memory Type	DDR2/GDDR3	DDR2/GDDR3
Memory Interface	64 bit	64 bit
Memory Size	up to 1 GB	up to 512 MB
Stream processing units	40	40
UVD technology for HD video decoding and playback	Yes	Yes
HDMI with 5.1 sound	Integrated	Integrated
Output HDTV	HDMI w/ Adaptor	HDMI w/ Adaptor
Output	2x Dual DVI-I w/ HDCP	2x Dual DVI-I w/ HDCP
ATI CrossFireX™ Ready	Internal Cable	Internal Cable
Windows Vista®	Certified	Certified

Mainstream Gaming

Comprehensive DirectX® 10.1 Support

1080p HD Video Display

ATI Avivo™ HD

ATI CrossFireX™ Multi-GPU

GDDR3/GDDR4 Gaming Memory

ATI Catalyst™ Driver Stability

Dual Monitor Support

Dual DVI Outputs

ATI Radeon™ HD 2600
ATI Radeon™ HD 2400

Performance for gamers and multimedia enthusiasts, the key features you need and just incredible value. Superb cards with rock solid ATI Catalyst™ drivers. Just the ticket for building PC's for today's demanding market.
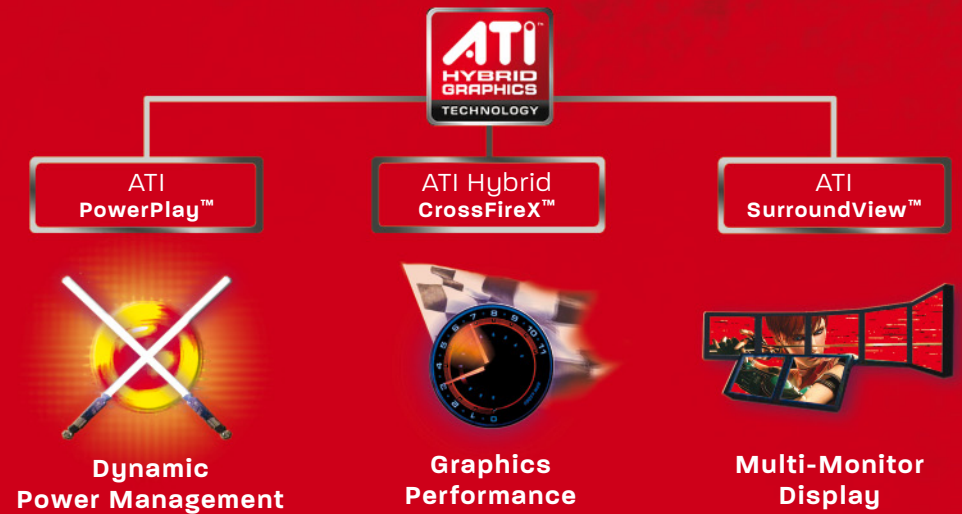
Specifications	ATI Radeon™ HD 2600 PRO	ATI Radeon™ HD 2400 PRO
Bus Type	PCIe x16/2.0/AGP	PCIe x16/2.0/AGP
Engine Clock	800 MHz	800 MHz
Memory Type	DDR2/GDDR3	DDR2/GDDR3
Memory Interface	128 bit	64 bit
Memory Size	up to 512 MB	up to 512 MB
Stream processing units	120	40
HDMI with 5.1 sound	Integrated	Integrated
Output HDTV	HDMI w/ Adaptor	HDMI w/ Adaptor
Output	2x Dual DVI-I	1x Dual DVI 1x Single Link DVI-I
ATI CrossFireX™ Ready	Internal Cable	Cable not required
Windows Vista®	Certified	Certified

ATI
HYBRID
GRAPHICS
TECHNOLOGY

| ATI **PowerPlay™** | ATI Hybrid **CrossFireX™** | ATI **SurroundView™** |

Dynamic Power Management **Graphics Performance** **Multi-Monitor Display**

Performance and Technology

ATI Hybrid Graphics

Have you ever faced the question: can I upgrade from integrated graphics to discrete graphics 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 previous generation chipset a powerful DirectX® 10 graphics core. Now add in an ATI Radeon HD 3470, ATI Radeon HD 3450 or even an

ATI Radeon HD 2400 PRO based graphics 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 Surround-View™ 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 graphics cards are highly power efficient, using less energy than other chipsets or discrete graphics cards. Finally, ATI Power-Play™ technology can change power use on the fly — ranging from maximum performance for
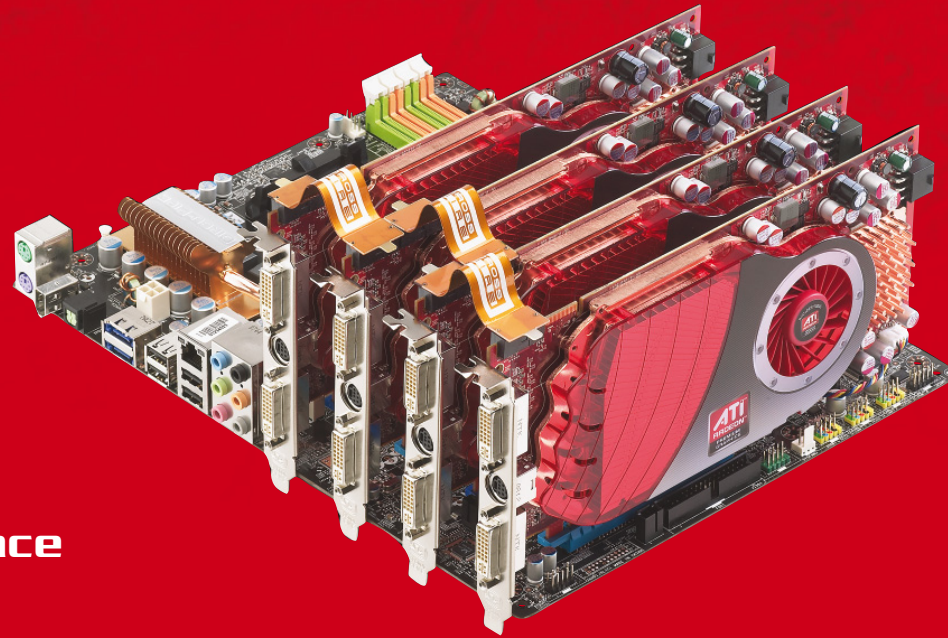
gaming or low power settings for web surfing or general PC use. ATI Hybrid Graphics, it's the ideal platform for building entry-level PCs for work, video entertainment or basic gaming!

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 graphics 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 graphics cards. ATI CrossFireX™ technology allows you to expand your system's graphics capabilities. It allows you to scale your system's graphics horse power as you need it, supporting up to four

ATI Radeon HD graphics cards, enabling the most scalable gaming platform ever.[2] Armed with up to four ATI Radeon HD graphics cards, your gaming rig can break through traditional graphics 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 socket's 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 graphics cards. (Please

check the AMD web site 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™ graphics card in your rig today. Later, when the need arises, buy another similar ATI Radeon graphics 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 graphics 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

AMD
Smarter Choice

Product advisory

Included in this catalogue is important specification information for ATI Radeon™ range of graphics chips and graphics cards. You can find these chips (GPU's) integrated in graphics cards available from many of the world's leading manufacturers of graphics 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 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.

Notes

ATI Avivo™ and ATI Avivo™ HD are a technology platform that includes 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 graphics processing unit (GPU). Implementations may vary by graphics card. Consult graphics 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.

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