



The XFX Radeon HD 5970: two 5870 GPUs, two gigabytes of GDDR5, a card that's more than a foot long.

# XFX Radeon HD 5970

## DirectX 11 CrossFire on a stick

**T**he recipe: Take two of the fastest GPUs on the planet capable of running DirectX 11, specially chosen for their low voltage leakage. Toss in two gigabytes of high-speed GDDR5 memory. Mix all ingredients into a card with high-end Japanese solid capacitors and a souped-up thermal dissipation system. The result: the XFX Radeon HD 5970—a GPU so yummy, you may even go back for seconds.

While the product name doesn't hint at the card's dual-GPU nature, there's no mistaking the presence of two graphics chips when you check out the back of the board. Then there's the sheer size of it: At more than 12 inches, you'll need a high-end PC case that's deep enough to handle this monster. You'll need a beefy power supply, too, since the HD 5970 burns 294W at full throttle—and that's if you don't overclock it. The good news is the card consumes just 42W at idle, less than double the idle power of a single HD 5870, thanks to an enhanced deep-sleep mode for the slave GPU.

AMD built in a number of enhancements over its previous dual-GPU effort, the 4870 X2. The card now sports a full-length vapor chamber mounted on the back of the board, which enables the card to support up to 400W of heat dissipation—enough headroom for some serious overclocking. A simplistic overvolting tool is available on AMD's website, allowing you to tweak the voltage setting a little higher in order to push clock speeds—albeit at the expense of additional power consumption.

The HD 5970 does make a few compromises in order to shoehorn 4 billion transistors worth of GPUs onto one card. Core and memory clocks are lower than on the single-GPU Radeon HD 5870, at 725MHz and

1,000MHz, respectively (versus the HD 5870's 850MHz and 1,200MHz). AMD has built in lots of overhead, so if you have good case cooling and a suitable PSU, you can push the clock speed much higher if you want. One other compromise is the use of a mini-DisplayPort connector. This kept all three display connectors on one expansion slot cover, so that a full-height exhaust could be added to the second slot cover.

OK, so the card is physically large and burns nearly 300W at full throttle. But does it perform? Yes, Virginia, this card does indeed deliver the goods. It's the fastest single graphics card we've ever tested. At \$600, this card had better be fast. XFX's limited lifetime warranty, complete with the ability to transfer said warranty when you resell the card, eases that financial pain a bit.

What you get for your six C-bills is an incredibly speedy graphics card that delivers tremendous gaming performance and doesn't eat kilowatts when idle. So if what you want is the fastest graphics card you can buy, then the XFX Radeon HD 5970 is the card for you.

Just make sure your case can handle it. —LOYD CASE



XFX RADEON HD 5970

VERDICT **9**

**+** FULL HOUSE

**-** BUSTED FLUSH

Incredible gaming performance; very low idle power usage; XFX's excellent warranty.

So big you need a huge PC case to hold it; pricey; eats power at full bore.

\$600, [www.xfxforce.com](http://www.xfxforce.com)

### BENCHMARKS

	XFX Radeon HD 5970	GeForce GTX 295	XFX 5870	EVGA 285 GTX SSC	Radeon HD 4870 X2
3DMark Vantage Performance	21,202	19,342	17,089	13,941	14,658
3DMark Vantage Extreme	12,537	9,241	8,312	6,276	6,574
Hawx (fps)	102	93	68	62	78
Far Cry 2 / Action (fps)	76	62	62	47	67
Far Cry 2 / Ranch Long (fps)	113	73	74	56	77
Battle Forge / DX10 (fps)	60	33	47	46	36
Crysis / DX10 (fps)	44	29	32	22	33
Resident Evil 5 (fps)	131	115	100	87	126
X3: Terran Conflict (fps)	106	100	101	93	101
STALKER: Clear Skies (fps)	52	40	36	27	38

Our test bed consists of an X58 chipset motherboard, an Intel 3.3GHz Core i7 975 Extreme Edition, 6GB of DDR3, and Windows 7 Ultimate in 64-bit. All games were run at 1920x1200 with 4x AA.

# HIGH-END VIDEOCARD

## ATI Radeon HD 5970



**W**hat do you get if you put two of the fastest GPUs in the world on a single board, along with a whopping 2GB of GDDR5 memory? Only the fastest videocard ever! With Nvidia's fall refresh MIA, the HD 5970 is the only game in town. While the board sports two of the same GPUs as found on the 5870, they're clocked slightly slower, by default. Intrepid overclockers with a thirst for power can overclock their 5970s—but only if their PSU is beefy enough to handle the load. [www.atl.com](http://www.atl.com)

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### Games we are playing

■ **The Saboteur**  
[www.ea.com/games/the-saboteur](http://www.ea.com/games/the-saboteur)

■ **Dragon Age**  
<http://dragonage.bioware.com>

■ **Team Fortress 2**  
[www.teamfortress.com](http://www.teamfortress.com)

■ **Call of Duty: Modern Warfare 2**  
[www.modernwarfare2.com](http://www.modernwarfare2.com)

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