PERFORMANCE GRAPHICS CARDS ($299 AND HIGHER)

MEMORY When it comes to graphics memory, you can never have too much, especially if you're a hard-core gamer. More RAM means better performance, improved 3D texturing, and higher display resolutions. If you're an avid gamer itching to frag opponents in Half-Life 2 or Doom 3, make the move up to 256MB. More memory allows for smoother gameplay, though anything above 256MB won't make much of a difference.

SLOT TYPE The AGP bus was developed specifically for graphics cards, but it has been replaced by a faster technology called PCI Express (PCIe). Both nVidia and ATI, makers of today's top consumer graphics-processing units—the engines that drive the cards—are supporting this new technology, which doubles the bandwidth of AGP 8x. PCIe cards are more expensive but worth the investment. Make sure you buy the right type (AGP or PCIe) for your motherboard.

DIRECTX 10 The latest version of Microsoft's multimedia instruction set enables compatible graphics cards to render more-realistic visuals. Look for DirectX 10 support if you're planning to play the latest 3D games in Windows Vista.

DVI VERSUS ANALOG Many of today's LCD monitors have Digital Visual Interface (DVI) connections, which provide image quality superior to the standard analog VGA interface (which is also typically present). Make sure your card has a DVI connection so you can take advantage of this improvement.

DUAL-CARD CONFIGURATIONS Both nVidia and ATI have developed dual-card technologies—called Scalable Link Interface (SLI) and CrossFire, respectively—that allow you to install two video cards for optimal performance. These configurations demand a robust power supply and a compatible motherboard, however. Alternatively, you can purchase a powerful single card based on nVidia's GeForce 8800 or ATI's Radeon X1950 XT. —*Matthew Murray, Associate Editor*

Model	Price	Graphics Engine	Video RAM	Interface	Rated Max. DirectX Version	OpenGL Version	Max. Resolution	Ports	Bundled Adapters	Find Out More
ASUSTEK COMPUTER										
EN7950GX2/2PHT/1G	$569.99	GeForce 7950 GX2	1GB	PCI Express	9	2	2,560x1,600	HDTV out, two DVI	HDTV, two DVI-to-VGA	usa.asus.com 502-995-0883
EN8800GTX/HTDP/768M	$639.99	GeForce 8800 GTX	768MB	PCI Express	10	2	2,560x1,600	HDTV out, two DVI	HDTV, DVI-to-VGA	
EAX1950XTX/HTVDP/512M	$699.99	Radeon X1950 XTX	512MB	PCI Express	9	2	2,048x1,536	HDTV/S-Video/composite out*, two DVI	S-Video, composite, component, VIVO, two DVI-to-VGA	
ATI TECHNOLOGIES										
Radeon X1900 GT	$299	Radeon X1900 XT	256MB	PCI Express	9	2	2,560x1,600	HDTV/S-Video/composite out*, two DVI	HDTV, S-Video, composite, VIVO, DVI-to-VGA	www.ati.com 905-882-2626
Radeon X1950 Pro	$299	Radeon X1950 Pro	256MB	PCI Express	9	2	2,560x1,600	HDTV/S-Video/composite out*, two DVI	HDTV, S-Video, composite, DVI-to-VGA	
Radeon X1950 XT	$429	Radeon X1950 XTX	512MB	PCI Express	9	2	2,560x1,600	HDTV/S-Video/composite out*, two DVI	HDTV, S-Video, composite, DVI-to-VGA	
BFG TECHNOLOGIES										
GeForce 7900 GT OC	$299.99	GeForce 7900 GT	512MB	PCI Express	9	2	2,560x1,600	HDTV out, two DVI	HDTV, two DVI-to-VGA	www.bfgtech.com 847-281-3110
GeForce 7950 GX2	$599.99	GeForce 7950 GX2	1GB	PCI Express	9	2	2,560x1,600	HDTV out, two DVI	HDTV, DVI-to-VGA	
GeForce 8800 GTX	$629.99	GeForce 8800 GTX	768MB	PCI Express	10	2	2,560x1,600	HDTV out, two DVI	HDTV, two DVI-to-VGA	
EVGA										
e-GeForce 7800 GS CO	$339.99	GeForce 7800 GS	256MB	AGP 8x	9	2	1,600x1,200	S-Video out, VGA, DVI	DVI-to-VGA	www.evga.com 888-881-3842
e-GeForce 8800 GTS	$499.99	GeForce 8800 GTS	640MB	PCI Express	10	2	2,560x1,600	HDTV out, two DVI	HDTV, two DVI-to-VGA	
1GB e-GeForce 7950 GX2	$599.99	GeForce 7950 GX2	1GB	PCI Express	9	2	2,560x1,600	HDTV/S-Video/composite out*, two DVI	Two DVI-to-VGA	
e-GeForce 8800 GTX	$649.99	GeForce 8800 GTX	768MB	PCI Express	10	2	2,560x1,600	HDTV out, two DVI	HDTV, DVI-to-VGA	
LEADTEK RESEARCH										
WinFast A400 GT TDH	$299.99	GeForce 6800 GT	256MB	AGP 8x	9	1.5	2,048x1,536	S-Video/composite out, VGA, DVI	S-Video, composite, DVI-to-VGA	www.leadtek.com 510-490-8076
WinFast PX7950 GX2 TDH	$549.99	GeForce 7950 GX2	1GB	PCI Express	9	2	2,560x1,600	HDTV out, two DVI	HDTV, DVI-to-VGA	
WinFast PX 8800 GTX TDH	$649.99	GeForce 8800 GTX	768MB	PCI Express	10	2	2,560x1,600	HDTV out, two DVI	HDTV, DVI-to-VGA	
MSI COMPUTER										
RX1900 CrossFire	$439.99	Radeon X1900 XT	512MB	PCI Express	9	2	2,048x1,536	CrossFire, HDTV out, two DVI	CrossFire connector, HDTV, DVI-to-VGA	www.msicomputer.com 626-913-0828
NX7900GTX-T2D512E	$499.99	GeForce 7900 GTX	512MB	PCI Express	9	2	2,560x1,600	HDTV/S-Video out*, two DVI	HDTV, S-Video, two DVI-to-VGA	
NX8800GTX-T2D768E	$649.99	GeForce 8800 GTX	768MB	PCI Express	10	2	2,560x1,600	HDTV out, two DVI	HDTV, DVI-to-VGA	
PNY TECHNOLOGIES										
7950 GT 512MB PCIe	$249.99	GeForce 7950 GT	512MB	PCI Express	9	2	2,560x1,600	HDTV/S-Video out*, two DVI	HDTV, S-Video, two DVI-to-VGA	www.pny.com 973-515-9700
8800 GTS 640MB PCIe	$419.99	GeForce 8800 GTS	640MB	PCI Express	10	2	2,560x1,600	HDTV/S-Video out*, two DVI	HDTV, S-Video, DVI-to-VGA	

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