

Top 10 Digital projectors & Graphics cards

		Digital projectors	LCD/DLP technology	Maximum brightness Contrast ratio	Lamp life (hours) Replacement bulb	Dimensions (wxdxh) Weight	Max resolution	Wireless facilities Memory card	Economy mode	Noise
PC ADVISOR BEST BUY	1	 Toshiba TLP-S10 01932 828 828 www.toshiba.co.uk Last month 1	• £999 inc VAT • 3-year parts & labour warranty • First review Jan 04	LCD 1,200 Ansi lumens 400:1	2,000 £299	303x206x84mm 2.2kg	800x600 (SVGA)	no no	yes	36dB
	The TLP-S10 performs extremely well. Less weighty and armed with a higher brightness rating than the second-placed InFocus, the Toshiba is perfect for going on the road. It's also £175 cheaper. The ability to switch to eco mode and cut out virtually all noise makes this versatile projector worth every penny.									
PC ADVISOR RECOMMENDED	2	 InFocus X1 0800 028 6470 www.infocus.com Last month 2	• £1,174 inc VAT • 3-year parts & labour warranty • First review Apr 03	DDR DLP 1,000 Ansi lumens 2000:1	3,000 varies	249x318x106mm 3.1kg	800x600 (SVGA)	no no	no	37dB
	Not only is the InFocus cheap to buy and run, it's also equipped with cutting-edge DDR DLP technology to handle dark colours. The X1's clear display and sharp definition make it adept at both video and Windows apps. The device isn't particularly quiet in operation so it's more suited to the office than home environment.									
3	 NEC LT220 08459 404 020 www.nec.co.uk Last month 3	• £1,665 inc VAT • 3-year European onsite warranty • First review Apr 03	SDR DLP 1,800 Ansi lumens 500:1	1,500/2,000 £298	260x275x92mm 3.2kg	800x600 (SVGA)	yes no	yes	32dB/ 29dB	
The LT220 may be pricey but it's a superior projector that boasts one of the best images in the chart. Business users will appreciate the clean text display while cinephiles will relish the bright tints and warm hues. Another bonus is the large screen and lack of system noise – it can be restricted to a near-inaudible 29dB.										
4	 Relisys RLP2000 0161 232 6000 www.relisys.co.uk New	• £1,996 inc VAT • 1-year return-to-base warranty • First review Feb 04	LCD 2,000 Ansi lumens 400:1	2,000 £247	320x260x114mm 3.9kg	1,024x768 (XGA)	no no	yes	37dB	
Almost £2,000 is a lot to pay for an LCD projector, but by shopping around it ought to be possible to get this model for less. With 2,000 Ansi lumens, it will remain bright and clear in most light conditions and few LCD projectors can match the Relisys' sharp and colourful results in Windows.										
5	 ViewSonic PJ250 01293 643 900 www.viewsoniceurope.com New	• £1,539 inc VAT • 3-year warranty • First review Feb 04	DDR DLP 1,000 Ansi lumens 2,000:1	2,000 £295	180x141x45mm 0.9kg	1,024x768 (XGA)	no no	yes	43dB	
The ViewSonic has plenty to offer with its tiny frame, sharp text output and above-average image size. It's particularly adept at making a big impression in a small space thanks to its short throw lens. However, the PJ250's brightness rating, noise levels and overcast colour palette are causes for concern.										

		Graphics cards	Graphics processor	Installed RAM	Core/memory clock	Ramdac	8x AGP	Maximum resolution @75Hz	DirectX version	DVI	
PC ADVISOR BEST BUY	1	 Leadtek WinFast A380 Ultra TDH MyVivo 0870 443 0880 www.leadtek.co.uk New	• £300 inc VAT • 1-year warranty • First review Feb 04	nVidia GeForce FX 5950 Ultra	256MB DDR	475/475MHz	400MHz	yes	2,048x1,536	9x	yes
	Time will tell whether the revamped 5950 (an upgrade from the 5900) has the necessary hardware to excel in DirectX 9.0 games – early evidence suggests the Radeons may have an advantage. But on the currently available games, the 5950 is an excellent performer. Its price tag is relatively modest as well.										
PC ADVISOR RECOMMENDED	2	 Sapphire Radeon 9800 Atlantis Pro 0870 138 3554 www.sapphiretech.com Last month 5	• £280 inc VAT • 1-year warranty • First review Sep 03	ATI Radeon 9800 Pro	128MB DDR	380/340MHz	400MHz	yes	2,048x1,536	9x	yes
	Unlike the 5900 Ultra, the Radeon 9800 Pro is still very much with us. Good thing too, since it's not significantly slower than the 9800 XT and GeForce FX 5950 Ultra. Costing less than even the 5950, it might yet be the better purchase if the DirectX 9.0 superiority of ATI's hardware turns out to be justified.										
3	 Sapphire Radeon 9800XT Atlantis 0870 138 3554 www.sapphiretech.com New	• £380 inc VAT • 2-year warranty • First review Feb 04	ATI Radeon 9800 XT	256MB DDR	412/365MHz	400MHz	yes	2,048x1,536	9x	yes	
At £80 more than the 5950 Ultra, this Radeon 9800 XT chip produces comparable frame rates to those of its closest rival. While this currently makes it an expensive but, it could prevail once the games market becomes flooded with DirectX 9.0 titles. The coming months should test the true capabilities of this model.											
4	 Asus Radeon 9800XT 0870 443 0880 www.asus.com.tw New	• £390 inc VAT • 3-year warranty • First review Feb 04	ATI Radeon 9800 XT	256MB DDR	412/365MHz	400MHz	yes	2,048x1,536	9x	yes	
Though it's £10 more than the Sapphire version, this Asus card still promises the strong performance of ATI's Radeon 9800 XT chip. The higher the detail levels, the more the 9800 XT revels in its lightning-fast hardware. Throw in a bumper software bundle and you have an expensive but true entertainer of a card.											
5	 Asus Radeon 9600XT 0870 443 0880 www.asus.com.tw New	• £150 inc VAT • 3-year warranty • First review Feb 04	ATI Radeon 9600 XT	128MB DDR	500/300MHz	400MHz	yes	2,048x1,536	9x	yes	
The Radeon 9600 XT can't compete with the stunning frame rates of the other cards here. It is, however, at least half the price, and performance is fair in existing games titles. With its software pack, this card offers better value for money than the GeForce FX 5700 Ultra reviewed in the February 04 edition.											

Buying advice

Graphics cards

• **Graphics processor** Speed is generally determined by the graphics processor itself rather than the card. The highest performing graphics processors are currently the nVidia GeForce FX 5950 Ultra and ATI Radeon 9800 XT, although cards equipped with these chips do tend

to be rather expensive. For more modest frame rates, the ATI Radeon 9600 XT is a great bargain. Game players may have to switch off some detail settings with a cheaper card.

- **RAM** Unless you're looking for an extremely cheap card, don't settle for less than 128MB of DDR RAM. 256MB is advised with very high-end cards.
- **Features** If you're paying in excess of £100 for a card, support for DirectX 9.0 and 8x AGP will keep your graphics

up to date in the coming months. Digital connectors are becoming increasingly common and to ensure future compatibility, demand a DVI (digital visual interface) connector.

- **Dual-display support** An attractive extra that allows you to stretch your Windows desktop over two screens, which effectively doubles your workspace and means you won't need to keep flipping from one window to another.