TOP 10 FLAT-PANEL DISPLAYS & GRAPHICS CARDS

Flat-panel displays

			Screen size	Max resolution	Pixel pitch	Dimensions (wxdxh)	Weight	Digital connector	USB Port
1	 **CTX PV700** 01923 810 800 www.ctxeurope.com LAST MONTH 1	• £395 ex VAT • 3-year warranty • First review Sep 02	17in	1,280x1,024	0.26mm	438x447x166mm	7.5kg	no	no
			The PV700 may not have the extras of some of its competitors, and its specifications are lower, but when it comes to what really matters – good visual display and value for money – it's way ahead of its peers. The big plus point is its price: where most models are at least £500, £395 makes it a bargain.						
2	 **NEC 1700V** 0870 120 1160 www.nec.mitsubishi.com LAST MONTH 2	• £449 ex VAT • 3-year warranty • First review Sep 02	17in	1,280x1,024	0.26mm	434x437x220mm	6.2g	no	no
			The 1700V may lack extras, and it costs more than our Best Buy, but this flagship model from NEC has one of the best images we've seen on a 17in model. With its 1,280x1,024 resolution at 60Hz and 0.26mm dot pitch, the 1700V yields visual quality way beyond the capabilities of the competition.						
3	 **LG Flatron L1810B** 0870 607 5544 www.lge.co.uk NEW	• £599 ex VAT • 3-year warranty • First review Nov 02	18.1in	1,280x1,024	0.28mm	406x431x223mm	7.8kg	yes	yes
			The L1810B combines value for money with high performance – an attractive 18.1in flat-panel display at a price that beats many 17in models. There are sacrifices, like the 0.28mm pixel pitch and 350:1 contrast ratio, but generally LG has cut costs in all the right places to produce a value-for-money 18.1in flat-panel.						
4	 **Sony SDM-X52** 0870 511 1999 www.sony-cp.com LAST MONTH 3	• £399 ex VAT • 3-year warranty • First review Oct 02	15in	1,024x768	0.29mm	392x199x358mm	4.8kg	yes	no
			Sony brings its design nous to the 15in flat-panel market with the SDM-X52. The 1,024x768 resolution at 75Hz is standard but it offers a wide 150-degree viewing angle. The 400:1 contrast ratio and Candelas rating mean display won't be dull but it's let down by the disappointing 0.29mm dot pitch.						
5	 **Sony SDM-S71** 0870 511 1999 www.sony-cp.com LAST MONTH 4	• £609 ex VAT • 3-year warranty • First review Sep 02	17.1in	1,280x1,024	0.26mm	423x233x399mm	6.5kg	no	no
			The SDM-S71 is a design classic, but the lack of a USB hub or DVI (digital visual interface) disappoints and the setup options aren't the most versatile. However, it succeeds in terms of specifications. Image quality is excellent and text reproduction offers well-defined characters and clean backgrounds.						

Graphics cards

			Graphics processor	Installed RAM	DDR RAM	Ramdac	8xAGP	Maximum resolution @ 75Hz	DirectX version	DVI
1	 **Gigabyte Maya II R9700 Pro** 01908 362 700 http://uk-giga-byte.com LAST MONTH 1	• £260 ex VAT • 3-year warranty • First review Dec 02	ATI Radeon 9700 Pro	128MB	yes	400MHz	yes	1,920x1,440	9.0x	yes
			The image quality from this Radeon 9700-based card is astonishing. Although the GeForce4 Ti 4600 chip could keep close to its 200fps (frames per second) in Quake III, at higher resolutions it dropped behind. Top performance, a three-year warranty and bumper software bundle win Gigabyte a Best Buy award.							
2	 **Sapphire Radeon 9700 Atlantis Pro** 0870 467 0753 www.sapphiretech.com LAST MONTH 2	• £250 ex VAT • 1-year warranty • First review Dec 02	ATI Radeon 9700 Pro	128MB	yes	400MHz	yes	1,920x1,440	9.0x	yes
			This 128MB version of the Radeon 9700 Pro trounced the GeForce4 Ti 4600, regularly collecting between 10 and 20fps (frames per second) more. The Sapphire is slightly slower than our Best Buy, software is sparse and the warranty is just one-year, but it's also slightly cheaper.							
3	 **AOpen Aeolus Ti 4200 S-DV128** 0800 138 5196 www.aopen.nl LAST MONTH 3	• £125 ex VAT • 2-year warranty • First review Dec 02	nVidia GeForce4 Ti 4200	128MB	yes	350MHz	no	2,048x1,536	8.0x	yes
			The Aeolus unlocks the full potential of the GeForce4 Ti 4200. Performance is boosted by 128MB of DDR RAM. At lower resolutions it comes close to the Ti 4600, and doesn't tail off when detail is increased. Its older technology will date it, but it's still a great budget card.							
4	 **Sapphire Radeon 9000 Atlantis Pro** 0870 467 0753 www.sapphiretech.com LAST MONTH 4	• £70 ex VAT • 1-year warranty • First review Dec02	ATI Radeon 9000 Pro	64MB	yes	400MHz	yes	1,920x1,440	8.1x	yes
			This budget Radeon 9000 Pro card has modest specifications, but these don't hinder performance too much. It is only when you hit the 1,600x1,200 resolution that it starts to struggle. You will also miss out on full-screen anti-aliasing, but it does offer a cheap DualView option.							
5	 **PNY Verto GeForce4 Ti 4200** 01844 261 872 www.pny.co.uk LAST MONTH 5	• £145 ex VAT • 5-year warranty • First review Dec 02	nVidia GeForce4 Ti 4200	64MB	yes	350MHz	no	2,048x1,536	8.0x	yes
			PNY uses a GeForce4 Ti 4200 chip. While it's a good performer its high price and low 64MB of DDR RAM leave it bringing up the rear. As a bonus it has a five-year warranty, but of the mid-range cards the Aeolus is a more polished performer.							

Buying advice: graphics cards

It's generally the graphics chip (for example, the ATI Radeon 9700 Pro) rather than the card itself that determines ultimate speed. Look for the ATI Radeon 9700 Pro and the nVidia GeForce4 Ti 4600 for the highest frame rates. At the other end of the scale, the Radeon 9000 Pro is a great bargain. Buying a sub-£100 card doesn't mean you can't enjoy the latest games, you'll just have to play them at a lower resolution (around 1,024x768).

Memory is important. While average 3D performance is possible with 64MB, it must be DDR (double data rate) RAM rather than the slower SDR variety. For the works, you want at least 128MB of DDR RAM.

If you're paying £150 or more for a card, support for DirectX 9.0x and 8x AGP will keep your graphics up to date in the coming months. Digital connectors are becoming increasingly common, and for future compatibility, you should demand a DVI (digital visual interface) connector. One attractive extra is dual-monitor support. This 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.