











# TOP 10 FLAT-PANEL DISPLAYS & GRAPHICS CARDS

		Flat-panel displays	Screen size	Max resolution	Pixel pitch	Dimensions (wxdxh)	Weight	Digital connector	USB Port	
1		<b>Fujitsu-Siemens 5100FA</b> 0800 004 003 <a href="http://www.fujitsu-siemens.com">www.fujitsu-siemens.com</a> LAST MONTH 1	<ul style="list-style-type: none"><li>• £899 ex VAT</li><li>• 3-year warranty</li><li>• First review Feb 03</li></ul>	20in	1,600x1,200	0.255mm	482x200x458mm	9.2kg	yes	no
				The 5100FA may be expensive, but it's the best 20in flat-panel on the market. The Fujitsu-Siemens shines with high-quality output and, due to its high-end specs, it's possible to use the display in a bright room. The 170-degree viewing angle also means that several people can watch the screen at the same time.						
2		<b>Sharp LL-T1620H</b> 0800 138 8879 <a href="http://www.sharp.co.uk">www.sharp.co.uk</a> LAST MONTH 2	<ul style="list-style-type: none"><li>• £354 ex VAT</li><li>• 3-year warranty</li><li>• First review Mar 03</li></ul>	16in	1,280x1,024	0.248mm	352x185x370mm	5.3kg	yes	no
				Sporting a 16in diagonal viewing area, the Sharp is a great budget model that performs well on text and graphics but isn't so impressive as a home entertainment display. Its integrated speakers will also be a lifesaver if you're short on desk space. One for the office rather than the living room.						
3		<b>CTX S530</b> 01923 810 800 <a href="http://www.ctxeurope.com">www.ctxeurope.com</a> LAST MONTH 3	<ul style="list-style-type: none"><li>• £249 ex VAT</li><li>• 3-year warranty</li><li>• First review Jan 03</li></ul>	15in	1,024x768	0.297mm	372x171x355mm	3.7g	no	no
				Buying a low-end flat-panel doesn't have to mean putting up with below-par performance. CTX knows what to cut out and what to leave in when producing a value-for-money screen, and the S530 belies its specifications to offer a silky-smooth picture guaranteed to remain untainted by dead pixels for 101 days.						
4		<b>CTX PV722i</b> 01923 810 800 <a href="http://www.ctxeurope.com">www.ctxeurope.com</a> LAST MONTH 4	<ul style="list-style-type: none"><li>• £389 ex VAT</li><li>• 3-year warranty</li><li>• First review Mar 03</li></ul>	17in	1,280x1,024	0.264mm	438x166x447mm	7.3kg	yes	no
				From its wide 170-degree viewing angle to its correction controls the bargain-priced PV722i has been designed as a home entertainment display, although you won't find any space-saving built-in speakers. There was, however, some pixellation out to the sides of the screen. Having said that, text was spot on.						
5		<b>NEC MultiSync LCD-1860NX</b> 0870 120 1160 <a href="http://www.nec.mitsubishi.com">www.nec.mitsubishi.com</a> LAST MONTH 5	<ul style="list-style-type: none"><li>• £599 ex VAT</li><li>• 3-year warranty</li><li>• First review Mar 03</li></ul>	18.1in	1,280x1,024	0.281mm	398x200x370mm	8.3kg	yes	no
				The 18.1in 1860NX is simple and streamlined but, at 8.3kg, it isn't a lightweight model. Given its average specifications, the MultiSync performed surprisingly well. Be warned, though, if you display graphics with the sharpness turned up the screen suffers from moiré patterns.						

		Graphics cards	Graphics processor	Installed RAM	DDR RAM	Ramdac	8xAGP	Maximum resolution @ 75Hz	DirectX version	DVI	
1		<b>Gigabyte Maya II R9700 Pro</b> 01908 362 700 <a href="http://uk-giga-byte.com">http://uk-giga-byte.com</a> <b>LAST MONTH 1</b>	<ul style="list-style-type: none"><li>• £260 ex VAT</li><li>• 3-year warranty</li><li>• First review Dec 02</li></ul>	ATI Radeon 9700 Pro	128MB	yes	400MHz	yes	1,920x1,440	9x	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 a bumper software bundle win Gigabyte a Best Buy award.							
2		<b>Sapphire Radeon 9700 Atlantis Pro</b> 0870 467 0753 <a href="http://www.sapphiretech.com">www.sapphiretech.com</a> <b>LAST MONTH 2</b>	<ul style="list-style-type: none"><li>• £250 ex VAT</li><li>• 1-year warranty</li><li>• First review Dec 02</li></ul>	ATI Radeon 9700 Pro	128MB	yes	400MHz	yes	1,920x1,440	9x	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		<b>Sapphire Atlantis 9500</b> 0870 467 0753 <a href="http://www.sapphiretech.com">www.sapphiretech.com</a> <b>NEW</b>	<ul style="list-style-type: none"><li>• £126 ex VAT</li><li>• 1-year warranty</li><li>• First review Mar 03</li></ul>	ATI Radeon 9500	128MB	yes	400MHz	yes	1,920x1,440	9x	yes
				ATI's Radeon 9500 chip fits into the 'performance at a modest price' category. Although there's less in the way of brute force and graphics rendering facilities, most of the important features are still present, such as support for DirectX 9.0. The 9500 also scores high marks for overall image quality.							
4		<b>Abit Siluro GF4 Ti 4200 8X Otes</b> 01438 226 333 <a href="http://www.abit.com.tw">www.abit.com.tw</a> <b>NEW</b>	<ul style="list-style-type: none"><li>• £120 ex VAT</li><li>• 1-year warranty</li><li>• First review Mar 03</li></ul>	nVidia GeForce Ti 4200	128MB	yes	350MHz	yes	2,048x1,536	8x	yes
				The Abit Siluro features a revised Ti 4200 chip with 8X AGP support and an innovative heat pipe cooling system that helps keep the card from overheating, although you do lose a PCI slot in the process. The Ti 4200 8X Otes is an improvement, but it's playing catch up to the newer Radeon 9500 chip.							
5		<b>AOpen Aeolus Ti 4200 S-DV128</b> 0800 138 5196 <a href="http://www.aopen.nl">www.aopen.nl</a> <b>LAST MONTH 3</b>	<ul style="list-style-type: none"><li>• £125 ex VAT</li><li>• 2-year warranty</li><li>• First review Dec 02</li></ul>	nVidia GeForce4 Ti 4200	128MB	yes	350MHz	no	2,048x1,536	8x	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.							

## Buying advice: graphics cards

It's generally the graphics chip 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 9x 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.