

Family fare

More and more people are buying PCs for use at home – PCs that provide education, entertainment and serious working tools in one easy-to-use unit. We take a look at some of the latest multimedia models designed for this market

So, you've decided to buy a PC. You've read the magazines, studied the adverts, looked in shops and have decided upon the one you want. Sort of. You know you want a Pentium 133. You've read that Windows 95 runs better with 16Mb of RAM, so that's settled. Hard drives are cheap these days so there's little point in having anything less than a gigabyte and it goes without saying that a CD-ROM drive and sound card are essential. Monitor? A 15-inch one sounds right and after all you've heard about the Internet, it's probably best to get a modem too. So, that's the computer you want to buy – but the question is, who do you buy it from?

Open any computer magazine and you'll be faced with pages upon pages of advertisements for PCs – some from big-name companies, some not. Some seem rather expensive, some seem suspiciously cheap. When it comes to parting with your money, who's the best to buy from?

We're going to try and provide you with a little help. We've taken a look at eight PCs from a variety of manufacturers, both big and small. There's no price limit but the machines are all of the same specification and are as standard as possible. Where there are differences, they're when manufacturers have settled on certain components – quad or eight-speed CD-ROM drives, for example.



Carrera Panther

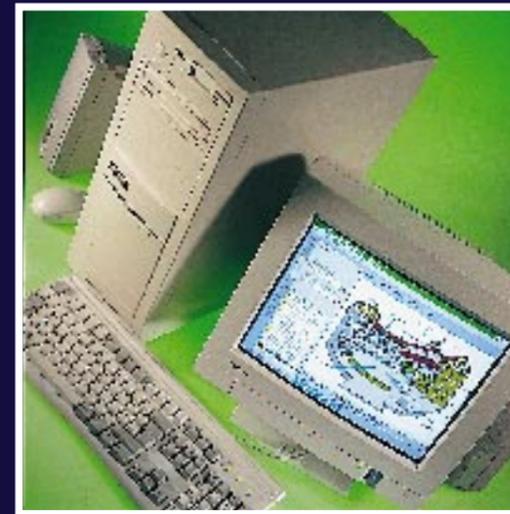
Carrera has been around since 1992. Based in London, it recently opened a showroom at its manufacturing facility that offers customers the chance to walk in at any time to try out machines before they buy one. Carrera builds its machines to order and components can be specified right down to the motherboard.

The tower case of the Carrera Panther is probably too large to fit on the average desktop but since the power button, floppy and CD-ROM drives are at the top of the unit, standing it underneath a desk still leaves everything within easy access. The clips on the CD-ROM drive's disc tray mean that the tower can be stood on its side as a desktop unit without CDs falling out of the drive.

It's good to see that smaller manufacturers are paying attention to the appearance of their PCs. In the past, buying from a smaller company meant that you got something that looked like it had been built for someone's GCSE coursework. Not so with the Carrera Panther – it's very well put together.

There's not as much room for expansion inside the Panther as its size implies but, fortunately, this is because it has almost every expansion card you would ever need already fitted. A Creative Labs Sound Blaster 32 sound card with wavetable synthesis, V.34 fax modem, ATI TV tuner and ATI 3D Expression video card with 2Mb of RAM are supplied, leaving one ISA and three PCI slots free. There's plenty of room around the free slots but getting at the PCI ones is a little trickier than it should be because of three ribbon cables that trail across them. Installing a PCI card would require some temporary disconnection but at least the cables are long enough not to get in the way. 16Mb of EDO RAM is by way of two 8Mb SIMMs, leaving four SIMM slots free. Three of these slots are easy to get at, the fourth isn't and the video card would have to be removed before a SIMM could be fitted. It's a minor point but one we felt worth mentioning.

When it comes to multimedia, the Carrera Panther is well-equipped. As well as making a huge difference to software installations, the eight-speed CD-ROM drive should also improve the playback of MPEG CDs using the ATI TV tuner card. In theory, at least, as whenever we tried to play an MPEG CD, a configuration problem caused a cryptic error message. However, the ATI card did work well when it came to displaying a television signal and was also capable of capturing still and moving



images to disk. The Sound Blaster 32 sound card was typically excellent in conjunction with the Yamaha YST-M15 speakers and we were equally impressed by the ATI 3D Expression video card. This was capable of displaying 32-bit colour at 640x480, 24-bit at 800x600 and 16-bit at 1,024x768 resolution.

The rest of the system was also up to scratch. The 15in GoldStar 1527 monitor gave a clear and steady image and its digital controls were simple to use. No surprises from the Microsoft mouse and even the Mitsumi Windows 95 keyboard had a pleasant action.

This was a multimedia PC group test and the Carrera Panther was the only machine that really went overboard to meet the brief. Its excellent sound card, hardware MPEG playback and TV tuner do make an impact on its price though.

- £1,820.08 (incl VAT)
- Carrera: 0171 830 0586

Carrera Panther

Features	★★★★★
Build quality	★★★★★
Value for money	★★★★★
Performance	★★★★★
Overall	★★★★★

Gateway P5-133

In PC terms at least, Gateway has been around for ages. It began in the United States ten years ago and moved into Europe in 1993. Based in Dublin, Gateway takes orders direct from customers, builds the machines in its manufacturing facility and despatches them in around ten days. Although the bulk of PC orders come from Gateway's advertisements in magazines such as *What PC?*, it also has a showroom in Covent Garden. This offers prospective customers

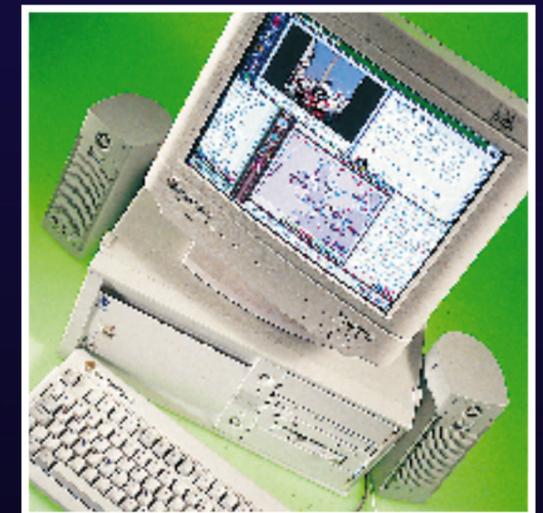
the chance to see and use Gateway PCs and although the shop carries no stock to buy, it is possible to call the Dublin sales line from there to place an order.

The Gateway P5-133 comes in a desktop case but it can also be stood on either side as a tower unit if the clips on the CD-ROM disc tray are brought into play. As far as computer cases go, it's also quite attractive and the light grey colour Gateway uses for its PCs makes a pleasant change from the usual beige.

Open up the case and the inside is a revelation. Gateway is one of the first PC manufacturers to use a new motherboard design called ATX in its PCs. The design has several implications for PCs but, as far as users are concerned, the main one is that the motherboard has an extremely tidy layout. There's bags of space around the expansion slots, even for full-length cards, and all cabling is tucked well out of the way at one end of the motherboard. The P5-133 came with an Ensoniq Soundscape sound card, V.34 modem and S3 Trio 64V+ video card fitted, leaving one ISA and three PCI slots free. 16Mb of RAM comes on two SIMMs, leaving two slots free. As with the expansion slots, getting at them is no problem.

We haven't had much luck with Gateway monitors in the past at *What PC?*, but we're glad to say that the 15in Vivitron 15 supplied with the P5-133 was a big improvement. Based on a technology similar to Sony's Trinitron, the screen gave a clear, bright image but it wasn't perfect – the focus was slightly out in the corners, giving text a rather fuzzy aspect.

The STB Trio64V+ video card performed well, all the way up to 1,024x768 in 8-bit colour. At a more usable 800x600 resolution, it's capable of 32-bit colour with no noticeable impact on graphics per-



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formance. The Ensoniq sound card performed capably, as did the Altec Lansing speakers.

The Gateway P5-133 is a superb machine. It's extremely quick, has great components and comes from a big-name company. It is on the pricey side, but it's still great value for money.

- £1,755.45 (incl VAT)
- Gateway: 0800 552000

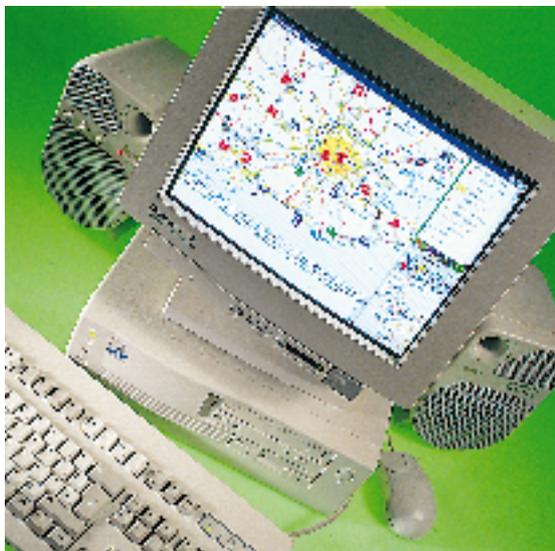
Gateway P5-133

Features	★★★★★
Build quality	★★★★★
Value for money	★★★★★
Performance	★★★★★
Overall	★★★★★

Mesh Genius! 133 Connect

Based in NW London, Mesh celebrates its tenth anniversary next year. In addition to a manufacturing facility, it has a showroom where customers can view and buy standard systems from stock, or if their requirements are particularly exotic, Mesh will build a machine to order and deliver it in around five working days. All Mesh systems come with a one-year back-to-base warranty, extendable to three years and lifetime telephone support.

The comparatively small size of the desktop case means there isn't much room inside for expansion, but that's not to say things are cramped. Quite the opposite in fact – although the expansion slots are mounted vertically rather than horizontally, there's plenty of room to fit in both PCI and ISA cards. A Pace V.34 modem is fitted into one of the ISA slots, leaving two free, although the blanking plate for one of these is taken up by the socket panel for the integrated 16-bit sound card. There are also two free PCI slots, since the 2Mb ATI graph-



ics controller is integrated. 16Mb of RAM is provided on two 8Mb SIMMs, leaving two memory banks free with plenty of clearance around them.

The Microscan 4V/ADI 15in monitor supplied with the Genius! gave a reasonable image that was perfectly steady, thanks to the 75Hz refresh rate at 800x600. The ATI video controller can go up to 1,280x1,024 in 8-bit colour but is probably best left at 800x600 in 24-bit colour. 16-bit sound is also built onto the motherboard and being Creative Labs' Vibra 16 chipset, there are no problems with either quality or compatibility.

The Mesh Genius! 133 Connect is another astonishingly quick machine. It isn't, however, astonishingly expensive, and you can't help but wonder how Mesh manages to do it. A super all-rounder at a super price.

- £1,395 (incl VAT)
- Mesh: 0181 452 1111

Mesh Genius! 133 Connect

Features	★★★★★
Build quality	★★★★★
Value for money	★★★★★
Performance	★★★★★
Overall	★★★★★

Olivetti Xana

Olivetti has been making PCs for as long as there have been PCs to make, but it only recently set up a special division to handle consumer, rather than business, PCs. 'Olivetti Personal Computers' sells only through retailers and its first product is the Xana.

The Xana is available in several configurations and for this group test we wanted to look at a P133 model. Olivetti supplied a P166. So, as far as this group test goes, the Xana simply isn't comparable to the other machines. We decided to test it anyway and the results were quite revealing – the P166 was slower than all but one of the P133s. This can only be put down to components that don't hang together well.

Apparently, the Xana's bulging case was designed by the de Luchi studio in Milan and its 'European white' (light grey) colour and overall design is intended to inconspicuously 'blend with any style of



home interior' and be 'dust-resistant'. At least it looks a little more interesting than the beige metal boxes favoured by the majority of manufacturers.

One nice design feature is the two large knobs used to release the cover. Pop these open, give them a twist and the case slides off without a screwdriver in sight. The case is best described as 'slimline', another way of saying that it doesn't have much room for expansion. What you do get is a vertical riser board with either two PCI or one PCI and one ISA slot, depending on what cards you put where. Two 8Mb SIMMs are fitted, leaving two free and, providing you have long, thin fingers, getting at these shouldn't be a problem.

The Xana's Trident video controller is integrated onto the motherboard and could be pushed to a non-interlaced 1,600x1,024 in 8-bit colour, or more useably, 800x600 in 32-bit. The Vibra 16 sound card is also sort of integrated – rather than sitting in an expansion slot, its bottom edge is wired directly to the motherboard.

As far as the rest of the system goes, Olivetti has done a good job. Everything is finished in 'European white' and blends together nicely. The monitor gave a sharp image and in addition to the usual tilt-and-swivel base, Olivetti also supplies a base that has two speakers built in to it. This doesn't take up much more room than the normal base and the sound isn't bad at all. This is a handy solution for desktops with limited space but if even these speakers are too loud, they can be dispensed with completely as the little internal PC speaker is connected to the sound card as well.

If looks are important, the Olivetti Xana will add a touch of style to any desktop. Unfortunately, over £2,000 for P133-like performance is an awful lot ▶

of money to pay for a PC, even if it is dust-resistant.

- £2,099 (incl VAT)
- Olivetti: 0800 447799

Olivetti Xana

Features	★ ★ ★ ★ ★
Build quality	★ ★ ★ ★ ★
Value for money	★ ★ ★ ★ ★
Performance	★ ★ ★ ★ ★
Overall	★ ★ ★ ★ ★

PC Science Multimedia Workstation

PC Science is based in North Yorkshire and has been around for about a year and a half. It sells PCs through the direct channel and has an order turnaround time of about five working days. All machines come with a five-year warranty, the first year of which is on-site.

Supplied in a squat mini-tower case, PC Science's machine looks fairly unremarkable until you notice the hard drive. Rather than a standard IDE unit somewhere inside the case, the Workstation has a removable drive, complete with handle. Unlock the unit with the supplied key, tug the handle, and the whole drive, complete with storage caddy, can be removed. This is a neat feature. Apart from being the ultimate in data protection (no one can get at your data if it isn't there), it's also handy if the machine has a dual role as family and business PC. Since the drives are barely more expensive than normal ones, it's possible to have two – one for your children's games, for example, and one for you.

Apart from a couple of long ribbon cables, the insides are tidy enough. There are three PCI and three ISA slots free, with plenty of room around them but the two free SIMM slots are a little more difficult to get at. The video card is the Matrox Millennium with 2Mb of



Ram, which as usual, performed well. Only one other card is fitted – an IBM MWave combined V.34 modem and sound card with wavetable synthesis.

We've never heard of the Daytek monitor before and although it worked well enough at resolutions up to 1,024x768, the display distorted horribly if pushed beyond this. The keyboard and mouse were fine though, and PC Science also supplies a pair of Trust speakers and a QuickShot joystick.

PC Science's machine is a solid performer at a good price and the removable hard drive is an added bonus. Its only real shortcomings are in the bundled software, which is unexciting, to say the least.

- £1,408.83 (incl VAT)
- PC Science: 01423 323386

Multimedia Workstation

Features	★ ★ ★ ★ ★
Build quality	★ ★ ★ ★ ★
Value for money	★ ★ ★ ★ ★
Performance	★ ★ ★ ★ ★
Overall	★ ★ ★ ★ ★

Tag Technology Tag Media P5-133

Although Tag only began trading in November 1994, its parent company has been around since 1985. Based in Edmonton, London, Tag sells mainly through the direct channel although it also sells machines through a dealership on London's Tottenham Court Road.

The mini-tower case of the Tag Media P5-133 looks a little ordinary compared to some of the more stylish machines in this group test. It can also be stood on its side as a desktop system, thanks again to the CD-ROM drive's disc clips. The inside of the Tag Media is tidy enough and is really only let down by a few stray ribbon cables. There's plenty of space around the three free PCI slots but only one of the three vacant ISA slots is usable. Granted, one of the ISA slots is a shared ISA/PCI one that's taken up by the PCI video card, but the other is rendered unusable by a socket panel for two Sega gamepads blocking its blanking plate.

The Tag-badged monitor gave an extremely crisp image at all resolutions and managed to stay usable even at 1,152x864 in 16-bit colour. The Edge 3D video can go higher than this, though things do work out best at 800x600 in 32-bit colour.

As mentioned earlier, the Tag Media P5-133 has connectors for two Sega gamepads, which is a roundabout way of saying that it can run Sega Saturn games that have been specially converted for the Diamond Edge 3D video card. Three games are supplied along with a single control pad, and the games themselves are very impressive. Whether or not any other games can be purchased, however, is another matter and so pseudo Saturn-compatibility may be a

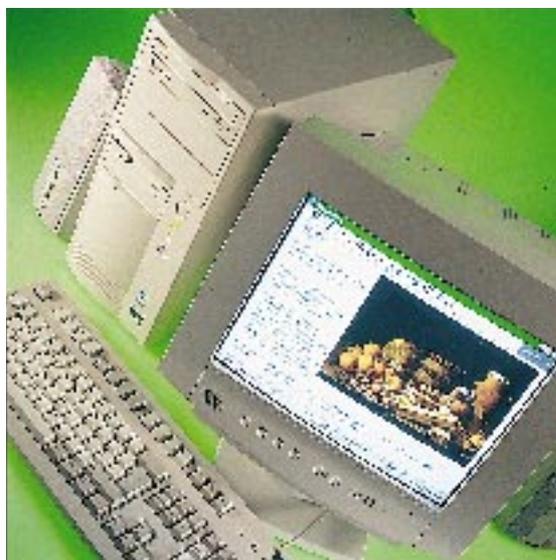
And then there were eight...

Originally, there were ten PCs in this group test but only eight made it to the page. The reason? Two PCs from two different manufacturers were dropped because of sub-standard assembly.

One machine didn't work at all because the hard drive lacked a cable to connect it to the motherboard. In addition, the ribbon cable that connects the parallel port to the motherboard was not connected and the internal PC speaker was held in place with a piece of tape.

The other machine worked but smoke began to pour from its case after only five minutes' use. We traced this to the insulation burning off a loose wire inside. The casing of its monitor was also cracked. Both machines also had loose pieces of plastic and metal components rattling around inside their cases.

Such sub-standard workmanship is wholly unacceptable, but in this instance we're going to assume it was a one-off that will not happen again. Thus, rather than embarrass the manufacturers by identifying them, we elected to drop their machines from the group test and give them a second chance.



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short-lived affair. The card also provides 16-bit sound, which, under Windows at least, was perfectly adequate through the supplied Yamaha speakers.

Another PC that is great value for money. The Tag Media P5-133 is quick, well-specified and the inclusion of the Diamond Edge 3D video card makes it an excellent gamer's machine.

- £1,291.32 (incl VAT)
- Tag Technology: 0181 803 7770

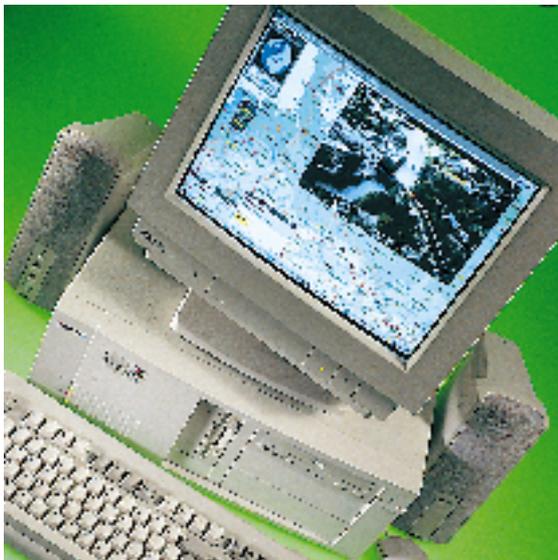
Tag Media P5-133

Features	★ ★ ★ ★ ★
Build quality	★ ★ ★ ★ ★
Value for money	★ ★ ★ ★ ★
Performance	★ ★ ★ ★ ★
Overall	★ ★ ★ ★ ★

Tatung TCS-5900

You may have come across the Tatung name on both televisions and monitors, but the company also makes PCs – right down to the motherboards.

The TCS-5900 comes in a desk-



top case finished in cream, rather than grey. It's a little untidy inside and several cables trail across the SIMM slots, all but obscuring them from view. Not that this matters as all four slots are occupied by 4Mb SIMMs, which means that memory expansion is something of a problem. There are two PCI and two ISA slots free, though one of each is effectively disabled by the fact that their blanking plates are taken up by socket panels for both the sound card and one of the serial ports.

Tatung supplies a Pine 16-bit sound card and internal V.34 modem, together with a Cirrus Logic PCI video card. The card isn't the most versatile we've seen, being capable of 24-bit colour only at 640x480, 16-bit at 800x600 and 8-bit at its maximum of 1,024x768. The monitor supplied with the TCS-5900 is, perhaps unsurprisingly, made by Tatung and it gave a sharp, steady image. Its built-in speakers were adequate and certainly capable of loud volumes, though their sound could hardly be described as hi-fidelity. Although Windows 95 is supplied with the TCS-5900, a Windows 95 keyboard isn't. This is a bit of an oversight on Tatung's part and hopefully one that will be rectified before too long.

The sound and video cards could hardly be described

as cutting-edge, there's no room for more memory and there's no bundled software. That said, the TCS-5900 could hardly be described as expensive. A solid, no-nonsense PC.

- £1,349 (incl VAT)
- Tatung: 01952 290111

Tatung TCS-5900

Features	★ ★ ★ ★ ★
Build quality	★ ★ ★ ★ ★
Value for money	★ ★ ★ ★ ★
Performance	★ ★ ★ ★ ★
Overall	★ ★ ★ ★ ★

Viglen Contender ES P5/133

Viglen has been around for twenty-one years. It started out making acrylic products and then, ten years ago, it moved to computers. Viglen's manufacturing facility is based in Middlesex and although it sells only through the direct channel, there is a showroom on site where machines can be viewed.

The Contender ES comes in a standard-sized desktop case, providing ample scope for expansion inside. There's one ISA and three PCI slots free and the total lack of any stray cabling means there's bags of room around them. Alas, the same cannot be said of the four SIMM slots. These are buried beneath the hard drive, which makes getting at the two free slots rather tricky, though not impossible.

The Contender's 1Mb video card is a 64-bit Cirrus Logic PCI model, capable of 1,152x864 resolution in 8-bit colour, 800x600 in 16-bit colour and 640x480 in 24-bit colour. There isn't a separate sound card inside as the Creative Labs chips are integrated onto the motherboard, but these offer full Sound Blaster 16 compatibility just the same.

You also get a pair of QuickShot Sound Force 200 speakers which, although on the small side, are fine for most purposes.

The Viglen Envy 15P 15in monitor displayed a clear image at 800x600, but it tended to lose focus in the corners if pushed ▶

To buy or not to buy

Buying a PC is an expensive business but, fortunately, outright purchase isn't the only way to get one into your household. Businesses have been able to spread the costs of PC ownership by leasing them over a number of years.

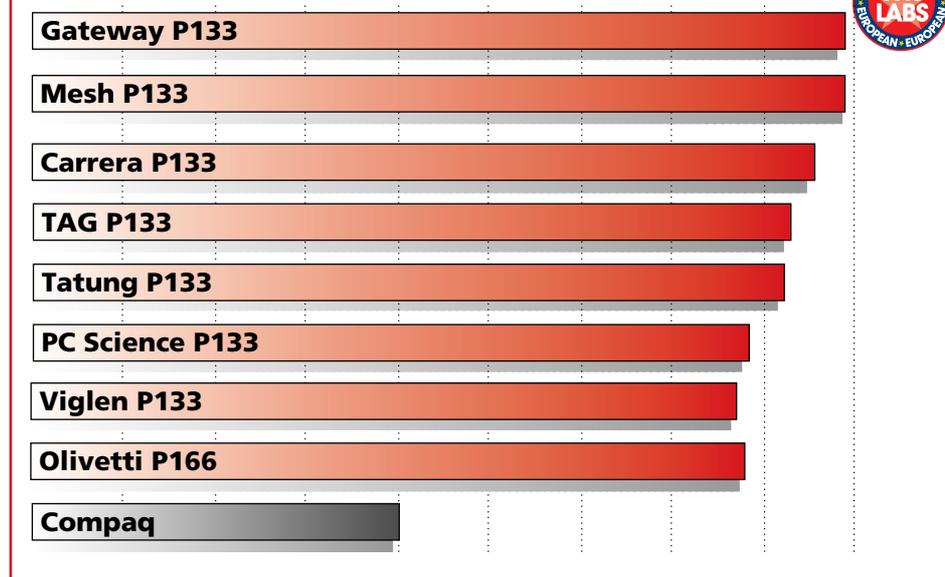
There are a few computer manufacturers who operate rental deals through high street shops and AST recently started to offer its PCs through Granada on the 'Option-To-Buy' scheme. For a regular monthly payment, Granada will deliver, install and maintain a PC for you, which is an attractive option for many users. The minimum contract is twelve months and after this time you can either return the machine, continue renting it or upgrade it for a better one. If you rent the machine for three years, it's yours to keep, with no further payment.

This sounds like a good deal and for some people, it will be. Unfortunately, there is a downside with the cost. An AST Advantage! 624 (reviewed in the August issue) costs £74.99 per month, including VAT and with no deposit. Buying it after three years will therefore cost £2,699.64. When you consider the actual purchase price of £1,799, this seems like an expensive way of buying a PC, particularly one that is likely to be out of date when you actually get around to owning it. If, however, your computing needs are short-term or you plan to upgrade the PC at regular intervals, then renting is a quick and easy solution. AST: 0181 587 3000

Family multimedia PCs compared

Manufacturer	Carrera	Gateway	Mesh	Olivetti	PC Science	Tag Technology	Tatung	Viglen
Model	Panther	P5-133	Genius! 133 Connect	Xana	Multimedia Workstation	Tag Media P5-133	TCS-5900	Contender ES P5/133
Processor	Pentium 133	Pentium 133	Pentium 133	Pentium 166	Pentium 133	Pentium 133	Pentium 133	Pentium 133
Ram	16Mb EDO	16Mb EDO	16Mb EDO	16Mb	16Mb	16Mb EDO	16Mb	16Mb
Cache	512Kb	256Kb	256Kb	256Kb	256Kb	256Kb	256Kb	256Kb
HDD	1.2Gb	2Gb	1.2Gb	1.6Gb	1.7Gb	1.7Gb	1.7Gb	1Gb
CD-Rom	Eight-speed	Eight-speed	Eight-speed	Eight-speed	Eight-speed	Eight-speed	Eight-speed	Quad-speed
Sound card	Sound Blaster AWE 32	Ensoniq Soundscape	Vibra 16	Vibra 16	IBM Mwave	16-bit	Pine 16-bit	Vibra 16
Monitor	15in	15in	15in	15in	15in	15in	15in	15in
Modem	Internal V.34	Internal V.34	Internal V.34	Internal V.34	Internal V.34	Internal V.34	Internal V.34	Internal V.34
Software	Lotus SmartSuite, CorelDraw 4, Quicken 3	MS Works, MS Money, MS Publisher, multimedia and games CD bundle	Lotus SmartSuite, multimedia CD bundle	MS Works, assorted multimedia titles	Harvard Graphics, WordStar for Windows, CadComplete, Photofinish, PC Paintbrush	MS Works, Sega games, Encarta 96		MS Publisher, MS Works, MS Money, multimedia CD bundle
Other	Speakers	Speakers, joystick	Speakers	Speakers	Speakers	Speakers, Sega control pad		Speakers
Warranty	3 years	3 years	1 year	1 year	5 years	2 years	1 year	1 year

Speed tests



This has been an extremely close contest and in terms of performance and value for money, there's little to choose between most of the machines. Two, however, stand out from the rest – the Mesh Genius! 133 Connect and the Gateway P5-133. Both offer equally outstanding performance and come from solid, reliable companies. The Gateway machine has the edge when it comes to the hard drive and sound card, but it costs over £350 more than the Mesh. Thus, our Best Buy award goes to Mesh for the Genius! 133 Connect – a well-designed machine that represents excellent value for money.

NOTES: NSTL benchmarks from which this chart was generated were performed in the What PC? VNU Labs. Performance is measured against a Compaq DX4/100. In all tests, a longer bar indicates better system performance.

beyond this. The Viglen-badged keyboard has a light and pleasantly clicky action, and the Microsoft mouse was equally well-received. **Although it may not be up there with some of the faster P133s, the Viglen Contender ES is nevertheless a capable performer. Its quad-speed CD-ROM drive and 1Gb hard drive do make it look a little under-specified, though.**

- £1,449 (incl VAT)
- Viglen: 0181 758 7000

Viglen Contender ES P5/133

Features	★ ★ ★ ★ ★
Build quality	★ ★ ★ ★ ★
Value for money	★ ★ ★ ★ ★
Performance	★ ★ ★ ★ ★
Overall	★ ★ ★ ★ ★

Protect yourself

If you want to defraud someone of £2,000, then there are much easier ways than setting up a bogus PC company, placing advertisements in the computer press, taking orders from customers then doing a moonlight flit. A PC manufacturer, however, is a business just like any other and it is an unfortunate fact of life that businesses do occasionally go bust.

Manufacturers who have been around for a few years are obviously going to be more financially stable than those established last week, but that alone isn't a cast-iron guarantee and besides, not everyone wants to pay the price premium usually associated with long-established PC manufacturers.

When it comes to buying a PC, no matter how big the manufacturer, there are a number of guidelines you should always follow. You can find these explained in detail in the *What PC?* Buyer's Charter at the back of the magazine. Read them and follow them and if the worst happens, at least you'll have some protection.



The Gateway P5-133 comes in a close second, and it really is extremely close. Pipped only on price by the Mesh PC, the Gateway has a huge hard drive, better-than-average sound card and a great software bundle. **If you're looking for a big-name PC, then this is one to seriously consider. We're also going to recommend the Tag Media P5-133. It's a capable performer with good-quality components and if you'll excuse the pun, the Diamond Edge 3D card gives it an edge when it comes to games. At the asking price, it's a good buy.**