

POWER PCs		Last month's position	First reviewed	PC World-Bench 4	Price (ex VAT)	Warranty	Processor type/speed	RAM	Hard disk/capacity	Mother-board	Chipset	Modem	USB ports	Monitor	Screen size	Dot pitch	Max resolution @75Hz	Graphics card	Graphics chip	Graphics card memory	Sound card	Speakers	No of speakers/subwoofer	DVD-ROM speed	CD-RW read/write/rewrite rate	Operating system and software
	<b>1</b> Systemax Reliance 3017 0870 729 7364 www.systemaxpc.co.uk	1	Nov 02	121	£1,249	3-year onsite	Intel Pentium 4/ 2.41GHz	512MB DDR RAM	IBM/ 2x80GB	MSI MS-6398E	Intel 845	56K	5	CTX PR960F	19in	0.24mm	1,600x 1,200	nVidia GeForce4 Ti 4600	nVidia GeForce4 Ti 4600	128MB	Creative Audigy	Videologic ZXR 500	5/yes	16x	40x/40x/10x	Windows XP Home, Lotus SmartSuite 9.7
	<b>2</b> Hi-Grade Ultis PV4 2.8 PV10 020 8532 6100 www.higrade.com	2	Nov 02	131	£1,200	1-year onsite 2-year return to base	Intel Pentium 4/ 2.8GHz	512MB DDR RAM	Maxtor/ 80GB	MSI MS-6566E	Intel 845	56K	6	LG Flatron 915FT Plus	19in	0.24mm	1,600x 1,200	MSI GeForce4 Ti 4600	nVidia GeForce4 Ti 4600	128MB	Creative Audigy	Creative Inspire 5.1	5/yes	16x	40x/32x/10x	Windows XP Home, Microsoft Works Suite 2002
	<b>3</b> Mesh Elite XP 2.8GHz 020 8208 4702 www.meshcomputers.com	3	Nov 02	126	£1,299	3-year return to base	Intel Pentium 4/ 2.8GHz	512MB DDR RAM	Western Digital/ 120GB	Abit SR7-8X	SIS 648	56K	4	Mitsubishi Diamond Pro 920	19in	0.24mm	1,600x 1,200	nVidia GeForce4 Ti 4600	nVidia GeForce4 Ti 4600	128MB	Creative Audigy	Creative Inspire 5.1	5/yes	16x	48x/40x/12x	Windows XP Home, Lotus SmartSuite 9.7
	<b>4</b> Carrera SSC Extreme 253a 0871 222 3456 www.carrera.co.uk	4	Nov 02	118	£1,285	2-year onsite, 3-year return to base	Intel Pentium 4/ 2.53GHz	512MB RDRAM	IBM/ 80GB	Asus P4T533	Intel 850E	56K	6	LG Flatron 915FT Plus	19in	0.24mm	1,600x 1,200	Asus GeForce4 Ti 4600	nVidia GeForce4 Ti 4600	128MB	Creative Audigy	Videologic ZXR 500	5/yes	16x	48x/40x/12x	Windows XP Home, Ability Office
	<b>5</b> NEC Powermate I-Select XL5 0870 010 6322 www.nec-online.co.uk	5	Nov 02	120	£1,299	3-year onsite	Intel Pentium 4/ 2.8GHz	512MB DDR RAM	Western Digital/ 120GB	Gigabyte	SIS 651	56K	5	NEC MultiSync HR19	19in	0.25mm	1,600x 1,200	ATI Radeon 9700	ATI Radeon 9700	128MB	Creative SoundBlaster Live 5.1	Labtec LCS-2632	2/yes	16x	40x/16x/10x	Windows XP Home, Microsoft Works Suite 2002
	<b>6</b> Cybyte XP2200RDG+ TV 0160 345 5554 www.cybyte.com	6	Nov 02	122	£1,275	2-year collect and return	AMD Athlon XP 2200+/ 1.8GHz	512MB DDR RAM	Western Digital/ 120GB	MSI KT3 Ultra2	Via KT333	56K	6	LG Flatron 915FT Plus	19in	0.24mm	1,600x 1,200	MSI GeForce4 Ti 4600	nVidia GeForce4 Ti 4600	128MB	Creative Audigy	Creative Inspire 5.1	5/yes	16x	48x/40x/12x	Windows XP Home
	<b>7</b> Time Neptune 2200 PQ 01282 777 555 www.timecomputers.com	7	Nov 02	120	£1,200	3-year return to base	AMD Athlon XP 2200+/ 1.8GHz	512MB DDR RAM	Seagate/ 80GB	MSI MS-6380E	Via KT333	56K	4	LG Flatron 915FT Plus	19in	0.24mm	1,600x 1,200	MSI GeForce4 Ti 4600	nVidia GeForce4 Ti 4600	128MB	Creative Audigy	Creative Inspire 5.1	5/yes	16x	40x/16x/10x	Windows XP Home, multimedia bundle
	<b>8</b> Evesham Evolution 2.8 9700 0870 160 9500 www.evesham.com	8	Nov 02	125	£1,499	2-year onsite, 1-year return to base	Intel Pentium 4/ 2.8GHz	512MB DDR RAM	Western Digital/ 120GB	Asus P4B533	Intel 845	56K	6	LG Flatron 915FT Plus	19in	0.24mm	1,600x 1,200	ATI Radeon 9700	ATI Radeon 9700	128MB	Creative Audigy	Creative Inspire 5.1	5/yes	16x	48x/48x/12x	Windows XP Home, Pinnacle Studio 7.0
	<b>9</b> Best Price Poweroid.com 2200 0870 220 0444 www.poweroid.co.uk	9	Nov 02	119	£1,299	2-year parts and labour, 4-year return to base	Intel Pentium 4/ 2.41GHz	512MB RDRAM	IBM/ 120GB	Asus P4T533	Intel 850E	56K	6	LG Flatron 915FT Plus	19in	0.24mm	1,600x 1,200	nVidia GeForce4 Ti 4600	nVidia GeForce4 Ti 4600	128MB	Creative Audigy	Creative Inspire 5.1	5/yes	16x	40x/32x/10x	Windows XP Home, StarOffice 5.2
	<b>10</b> Wisdom Computers Ebony 2100 0870 050 2299 www.wisdom-computers.co.uk	10	Nov 02	109	£1,200	1-year onsite	AMD Athlon XP 2100+/ 1.73GHz	512MB DDR RAM	IBM/ 80GB	MSI	Via KT333	56K	6	AOC LM500 flat-panel	19in	0.3mm	1,024x 768	MSI GeForce4 Ti 4600	nVidia GeForce4 Ti 4600	128MB	Creative Audigy	Creative Inspire 5.1	5/yes	16x	48x/40x/12x	Windows XP Home

## 1 Systemax Reliance 3017

The Systemax Reliance 3017 holds on to our Best Buy award this month, despite the fact that it's not the speediest performer and isn't powered by the fastest Pentium 4 processor. The Reliance 3017 is, however, the best all-round package in the Power PC chart and it is for this reason that it retains the coveted top spot.

The 2.4GHz Pentium 4 chip is the driving force behind the Systemax and, supported by the 512MB of DDR (double data rate) RAM, it managed a WorldBench 4 score of 121 – respectable, but by no means outstanding. The results of



graphics and video encoding tests were also very good but certainly not the best.

There are two 80GB hard drives on this machine, adding up to a whopping 160GB of storage space. Although you'd probably never fill all that space, having two hard drives is always desirable – you can duplicate important files and store a copy on both hard drives for extra security.

The CTX PR960F is an excellent display and is easily on a par with the LG Flatron 915FT Plus offered by many of the other systems in the chart. It may only have two USB ports to the Flatron's four but, as the Reliance has five USB ports on the tower itself (two of which are front-mounted), you'll be hard-pushed to find enough peripherals to fill all the ports.

The three-year onsite warranty is an excellent addition that will guarantee peace of mind while you use this great system. There's a Bluetooth card thrown in, too, and the relatively low price of £1,249 rounds off the package nicely.

← Systemax's Reliance keeps the Best Buy award for being the ultimate all-round Power PC package



↑ The Hi-Grade turned in the highest WorldBench score we've seen, and comes with a TV tuner card and webcam

## 2 Hi-Grade Ultis PV4 2.8 PV10

The Hi-Grade Ultis PV4 2.8 PV10 is only a whisker away from the top spot with its outstanding performance and reasonable price. However, the Best Buy's superior warranty keeps it in second place.

The WorldBench 4 score of 131 was the highest in the chart – in fact, the highest score we've seen so far. This is largely due to the latest Pentium 4 processor, running at 2.8GHz, powering the system, as well as the quality of the other components.

There's 512MB of DDR (double data rate) RAM to go with the 80GB hard drive. Although it isn't as big as the Mesh's hard drive in third place, it's highly unlikely that you would be able to fill 80GB of storage space quickly. The graphics are taken care of by an MSI GeForce4 Ti 4600 card and the combination of the Creative Audigy sound card and the Inspire 5300 speakers creates brilliant surround sound.

The warranty isn't the best on offer in the Power chart. Although it covers you for three years, only the first is onsite – after that it is return-to-base. Hi-Grade has generously thrown in a couple of extras – there is a TV tuner card and a webcam that should provide you with plenty of entertainment, even if it isn't of the highest quality. All this for a flat £1,200 isn't a bad deal at all, so overall the Ultis is well worth a Recommended award.

## 3 Mesh Elite XP 2.8GHz

Mesh has created a system around the new Pentium 4 2.8GHz processor that is more than deserving of its Recommended award. A solid performer in every way,

the Elite XP 2.8GHz offers great components at a good price.

Where the Elite really excelled was in the graphics tests. The combination of the new Intel chip and the GeForce4 Ti 4600 graphics card gave frame rates of an astounding 95fps (frames per second) in Quake III's Annihilator demo at a resolution of 1,600x1,200. This easily outstripped systems we tested that use ATI's new Radeon 9700. Frame rates like this make the Mesh an ideal choice for gamers and people who use graphics-intensive applications.

Keen gamers will also be able to create immersive surround sound with the Creative Audigy card and the Inspire 5300 speaker system. There's an enormous 120GB Western Digital hard drive for storage, 512MB of DDR (double data rate) RAM with two spare memory slots and a 48-/40-/12- speed (read/write/rewrite) CD-RW drive.

Overall, though, Mesh's Elite XP 2.8GHz is let down by the warranty – although it is three years long, the cover is only collect-and-return. The system comes in at £1,299 and, at that price, you would perhaps expect a more generous warranty.



↑ The solid-performing Mesh is an ideal choice for gamers looking for top graphics frame rates

## 4 Carrera SSC Extreme 253a

Holder of the last Recommended award this month is the Carrera SSC Extreme 253a. The casing on the tower unit certainly makes it stand out from the average beige box, but as the monitor and keyboard lack the same trim it looks like a mix-and-match PC.

The Pentium 4 processor that powers the Extreme runs at 2.53GHz, but only achieves a WorldBench 4 score of 118. One of two manufacturers this month to choose Rambus over DDR (double data rate) RAM, Carrera has also added a

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↑ The Carrera houses a stylish looking tower, while the LiveDrive provides easy access to the audio ports

LiveDrive, which allows quick and easy access to audio ports at the front of the PC. With a Creative Audigy card and Videologic's excellent ZXR 500 speaker system, the Extreme 253a is ideal for creating and playing music. What really stands out, though, is the generous warranty – two-year onsite followed by three-year return-to-base cover. Add £149 to the reasonable basic price of £1,285, and you can have a DVD writer too.



↑ An all-round good performer, the NEC's Radeon graphics card failed to beat its GeForce rival

5 NEC Powermate I-Select XL5

Narrowly missing out on a Recommended award is the NEC Powermate I-Select. Powered by one of Intel's newest processors, the Pentium 4 2.8GHz, the XL5 only achieved 120 in our WorldBench 4 tests. The machine is still a decent system, though, and is one of only two PCs in this month's chart to boast ATI's new graphics card, the Radeon 9700.

The 9700 used in this system was an early model and the NEC couldn't quite match the performance of PCs using the nVidia's GeForce4 Ti 4600 card in our tests. However, as the Graphics card chart on page 116 will testify, the 9700 is more than a match for the latest GeForce4. The frame rate of 79fps (frames per second) when running Quake III's Annihilator demo at a resolution of 1,600x1,200 was nearly 15fps slower than that achieved by the Mesh Elite XP, a system that uses a 2.8GHz P4 with a GeForce4 Ti 4600.

NEC's monitor is a good unit but lacks extras – unlike the LG Flatron 915FT Plus there are no extra USB ports. A real let-down is the sound system – the Creative SoundBlaster Live 5.1 sound card is not up to the standard of the Audigy and the Labtec speakers consist of a subwoofer and just two satellites.

6 Cybyte XP2200RDG+ TV

Cybyte's XP2200RDG+ TV is the highest entry to boast an AMD processor rather than a Pentium chip, and it proves to be more than a match for the Intel-powered machines in terms of performance. A mid-table WorldBench 4 score of 122 shows that the 1.8GHz Athlon XP 2200+ can easily mix it with the latest Pentium 4 CPUs.



↑ Spurning Intel and opting for an AMD processor, the Cybyte is more than a match for its competitors

Cybyte sticks with the LG Flatron 915FT Plus – a popular monitor in the Power PC chart – and offers a vast 120GB hard drive to go with the 512MB of DDR (double data rate) RAM. The GeForce4 Ti 4600 handles the graphics and there's a Creative Audigy sound card to go with the Inspire speakers.

The warranty isn't particularly generous – it only stretches to two years' return-to-base cover – and there is no bundled office suite software. However, there is a TV tuner card and a 48-/40-/12- (read/write/rewrite) speed CD-RW drive for backup.

7 Time Neptune 2200 PQ

Time has opted for the Athlon XP 2200+ chip to power the Neptune 2200 PQ and, running at 1.8GHz, it's a full 1GHz slower in clock speed than the new Pentium 4. However, clock speed is not a gauge of overall performance and the Neptune scored a respectable score of 120 in our WorldBench 4 tests – on a par with the fifth-placed Pentium 4-powered NEC.

Time has opted for the LG Flatron 915FT Plus monitor and this adds four more USB

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↑ Time's Neptune has a slightly below-par 80GB hard drive but there are eight ports for peripherals

ports to the four on the tower. You won't be stuck for a port, no matter how many peripheral devices you want to connect.

Although the Neptune's 80GB hard drive isn't the largest here, you'll still struggle to fill it. A TV tuner card has also been bundled with this system and, in terms of graphics and audio, a GeForce4 Ti 4600 and Creative's Audigy take care of the duties. Indeed, the 2200 PQ certainly isn't lacking in terms of quality components. It's also good value at £1,200, especially with the generous software bundle and joystick to keep gamers happy. In terms of warranty, though, things aren't as rosy – you only get three years' return-to-base cover.

8 Evesham Evolution 2.8 9700

Like NEC, Evesham has decided to couple the new 2.8GHz Pentium 4 with ATI's latest graphics card, the Radeon 9700. However, as the graphics card was an early test model the frame rate of 82fps (frames per second) at a resolution of 1,600x1,200 may not be indicative of how good a card



↑ The Evolution offers a good set of components and achieved a speedy performance, but it's rather pricey

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the 9700 is. In terms of the WorldBench 4 performance, the Evolution 2.8 9700 scored 125 – this month's third-highest score. There's 512MB of DDR (double data rate) RAM and a 120GB hard drive. The LG Flatron 915 FT Plus monitor rounds off a good specification. Where the Evesham falls down is in terms of cost – at £1,499 it's the priciest system here. When you consider that this doesn't include any office suite software, even the two years' onsite cover followed by three years' parts-and-labour can't make up for this.



↑ If you want to make music, check out the Poweroid.com 2200 which features a LiveDrive

9 Best Price Poweroid.com 2200

Although this machine is called the 2200, Poweroid.com has in fact opted for Pentium power, rather than the Athlon route, with a 2.4GHz P4. One of only two systems in the chart to use Rambus memory, the 2200 was disappointing in our WorldBench 4 tests, achieving only 119.

The most striking feature of the Poweroid.com machine is the LiveDrive, making this PC great for anyone interested in creating their own music. The Creative

Audigy Platinum and Inspire 5300 speakers complete a good all-round sound system. Graphics are handled well by the GeForce4 Ti 4600 and the LG Flatron 915FT Plus is a near-faultless monitor.

The warranty is the major flaw with this Best Price PC – although it lasts six years, there's no onsite cover.

10 Wisdom Computers Ebony 2100

Bringing up the rear of the Power PCs chart this month is Wisdom Computer's Ebony 2100. Opting for the slightly older Athlon XP 2100+ it lags behind in performance, although still has something to offer if you're looking for good-quality audio. The Creative Audigy and Inspire 5300 speaker system create decent surround sound. However, if you're looking to create a home cinema effect you'll be disappointed with the 15in flat-panel as it only supports resolutions of up to 1,024x768, wasting the potential of the 128MB GeForce4 Ti 4600 graphics card.

The warranty only lasts one year, but offers onsite cover. There's room inside for upgrading and, at £1,200, it's fairly priced.

↓ With Creative's Audigy Platinum and Inspire's speaker system, the Wisdom knows how to play music



Rambus explained

Although DDR (double data rate) RAM is the popular memory choice for PCs, it isn't the only option. Two manufacturers this month have opted for the lower cost RDRAM (rambus dynamic random access memory) instead, which is only supported on Intel platforms.

In the days of SDR (single data rate) RAM it was clear that a new memory technology would be necessary to avoid a bottleneck in the system with ever increasing processor and bus speeds. AMD took the DDR route while Intel chose RDRAM. It is only recently that DDR made its debut on the

Intel platform, but RDRAM still offers the best performance. It provides four power modes: Power Down mode uses no energy at all, Nap mode uses very little power and Standby mode uses about 20 percent of the power used when it is in its active state or Read/write mode.

Unlike SDR and DDR, which fit into Dimm (dual inline memory module) slots on the motherboard, RDRAM uses Rimm (Rambus inline memory module) slots. Any unused Dimm slots can be left empty, but vacant Rimm slots require a Crimm (continuity Rimm) to be installed – basically a blank that completes the circuit.