

Burne es

Some of us don't want to pay the price premium of cutting-edge technology and would rather have a more rounded package that doesn't break the bank. With this in mind, the *PCW* group test pays homage to the family PC.



s processors get faster and memory and drive capacities rise, it's important to remember that not everyone necessarily needs this amount of computing power. For some, a good package that covers all bases and is easier on the pocket may be more suitable. For the family, bundled peripherals and a wide range of functionality are more important than an extra 10fps in Quake III or five minutes saved balancing the books.

The family PC has the difficult task of keeping up with the latest games as well as offering a comprehensive feature set. Bundled peripherals are important for those who want a one-stop-shop solution, but others may prefer to shop for extras separately. Office tasks must be catered for and Internet connectivity is essential.

Another major area of importance is that of price. Too high and it will put off the family user, too low and the system will be too cut down to be of any realistic use. Juggling these points and still staying ahead of the game is no easy task.

We invited 14 manufacturers to take up the challenge of putting together an affordable yet functional family PC and set the following guides: at least 128MB of RAM, a 12GB hard drive, 16MB dedicated graphics card, a minimum 17in monitor, modem and sound included, Windows 98 Second Edition with an optional office software suite and a one-year, parts and labour warranty (either on-site or collect and return). The price to squeeze this all into? £999 ex VAT was the challenge. Read on to find out how it all panned out.

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Carrera Octan M700



THE BEST THING that can be said about Carrera's entry into this group test is that it's fast. Like evesham.com, Carrera has opted for an Athlon processor, clocked at 700MHz. This has been combined with the fastest possible graphics card, a Hercules 3D Prophet DDR-DVI with 32MB of DDR memory, which helps to make the Carrera one of the fastest machines for 3D performance.

However, it looks as though the Athlon's off-die cache has hampered it slightly compared with some of the Intel machines, as the Pentium III-based machines hold the top spot in terms of both 2D and 3D performance.

The card also has room for a DVI port. This is not really necessary, as there is no digital flat panel to connect it to, but at least it's there should you choose to upgrade at some point in the future.

A good sound card sits in a PCI

slot - a generic Aureal Vortex 2 card with optical digital out. The modem sitting below this has an extra port for your phone line, so you won't have to buy a telephone socket splitter in order to use your modem. There is also a USB card that provides an extra two ports. However, if you want to add an ISA card, you'll have to remove this first as it obscures the shared slot.

A Panasonic DVD-ROM drive is present, together with a 20.5GB IBM hard drive. Unfortunately, there is no removable storage device, which is a bit of a shame considering the machine's target market.

The LG Studioworks 775N monitor is frankly below par here. The display is simply not as clear as others, and the focus is a little blurred in its current configuration.

As far as input devices go, we found the two-button mouse a little disappointing and would have liked to have seen a wheel mouse. However, the keyboard is up to Carrera's usual high standard and should please most users.

Overall, we would have happily settled for a slower machine in exchange for some form of removable storage and a better monitor.

DETAILS

PRICE £1,173.83 (£999 ex VAT)

CONTACT Carrera 020 8307 2800

www.carrera.co.uk

PROS A fast system, an extra two USB ports at the rear

CONS Monitor, no removable storage **OVERALL** You get speed for your money but not enough else for it to win here

BUILD QUALITY PERFORMANCE VALUE FOR MONEY OVERALL RATING **** ****

Dell Dimension XPS T700



DELL IS A MAJOR international player in the PC market and its position and buying power usually allow it to produce feature-packed PCs at a good price.

The Dimension XPS T700 is a fast machine, but Dell has cut back on some features to enhance performance. That said, this is by no means a disappointing PC, it just doesn't cover as many bases as some of the other models on test.

Driving the Dimension is a 700MHz Intel Pentium III CPU backed up by 128MB of PC100 SDRAM. Avoiding the poor SDRAM performance offered by the 820 chipset, Dell has installed a motherboard with a BX chipset, which is fine since the PIII 700 runs with a 100MHz bus.

A 20.4GB
Western Digital
hard disk sits on
the primary EIDE
channel, providing
a commendable
amount of storage.
Connected to the
secondary EIDE

channel is an NEC DVD-ROM drive. Unfortunately, there's no form of removable storage, which appears to be a remarkable oversight.

Filling the single AGP slot is a Dell-branded graphics card equipped with the nVidia GeForce 256 chipset.
Connected to the graphics card is a Dell-branded monitor with a flat-screen, aperture-grille tube. Whether it's a Mitsubishi NF or a Sony FD tube is hard to say, but Dell has been known to use Sony tubes in the past. The display is

clear and bright, but the three-button OSD control isn't very intuitive.

Sound is well catered for with a SoundBlaster Live! 1024 connected to a set of Altec Lansing ACS340 speakers. Input devices are high quality with a Dell-branded keyboard married to a Microsoft Intellimouse.

Bundled software includes Microsoft Works Suite with Word 2000, plus Norton Anti Virus, which walked away with an Editor's Choice award in last month's group test.

The Dell is a good machine and a strong performer. The disappointment is the lack of removable storage.

DETAILS

PRICE £1,116.25 (£950 ex VAT)

CONTACT Dell 0870 152 4699

www.dell.co.uk

PROS Fast Pentium III CPU, impressive performance

CONS No removable storage or extra peripherals

OVERALL A solid Intel-based machine for the price. If you're looking for an Intel foundation to build on, the Dell is worth a look





Elonex WebRider Pro



ELONEX HAS OPTED for a Celeron processor for its WebRider Pro. This is one of the new breed of FC-PGA Celerons clocked at 600MHz and mounted on a Slocket in a Slot 1 board. Like the FC-PGA Pentium IIIs, this processor is similar to its big brother, although it only runs on a 66MHz bus and comes with 128KB of full-speed Level 2 cache as opposed to 256KB. 128MB of PC100 SDRAM backs up the processor although, unfortunately, the RAM clock on our review unit had been

set to Host Clock minus 33MHz, which would result in the RAM running at 33MHz. As the chip is new, this could just have been an oversight.

Graphics duty is handled by ATi's All in Wonder 128. However, while this provides a wonderful array of multimedia features, it can't really compete in the 3D stakes. The card is hooked up to an

Elonex-branded 19in monitor. On the whole, the Elonex fared badly in our tests, taking last place in everything with SYSmark, 3DMark and Quake III scores of 98, 1,683 and 21.6fps respectively.

Although the main focus of the group test isn't performance, we did specify games playing as a factor and in this arena it couldn't really keep up. However, if you would rather have a larger monitor, TV tuner and great DVD play back, then the Elonex has it covered.

The main board offers three vacant

DIMM slots, four PCI slots, one ISA and one shared. One PCI slot is occupied by the 3Com modem, with sound coming from an onboard SoundBlaster PCI 128 solution piped through a set of PC Works speakers. An Acer DVD-ROM drive occupies the top 5.25in bay with two left for expansion. There's also a Zip 100 drive thrown in for data transport and backup. The bottom 3.5in bay is taken up by the 13.6GB Fujitsu hard drive, which leaves one vacant. Also bundled is an Epson Stylus Color 660 printer and Acer Prisa 320U scanner.

If you don't want to play games, the Elonex may be for you, but the Viglen offers a better all-round package.

DETAILS

PRICE £1,173.83 (£999 ex VAT) **CONTACT** Elonex 0800 037 4466

www.elonex.co.uk

PROS TV tuner, 19in monitor **CONS** Not really up to state-of-the-art gaming, very slow

OVERALL If you're not that bothered about games and would rather have the TV tuner and 19in monitor, consider the Elonex

BUILD QUALITY PERFORMANCE VALUE FOR MONEY OVERALL RATING



evesham.com Athlon GeForce 700



AS USUAL, EVESHAM.COM has presented us with an exceptionally well-built machine that would be a good buy for any family. Again, however, the company has lost out to other manufacturers on value for money. A 700MHz Athlon beats at the heart of this system, mounted on an MSI K7 Pro motherboard. This uses AMD's own chipset, the 750, with three PCI slots and one shared slot free. This fast processor has been married with an equally fast graphics card. It uses

nVidia's GeForce chip and this, together with its 32MB of memory, helps this machine score highly on both our 3DMark and Quake III tests. A V.90 modem is mounted directly below the graphics card, with a basic sound card, the SoundBlaster 128, below this.

Diamond provides the PCI modem. A Memorex

CD-RW/DVD combo drive sits in the uppermost 5.25in bay. As always, we would have preferred to have seen a separate CD drive as well, so that you can copy on the fly, but you will still be able to create CDs and read the latest DVD software. A massive 30GB Maxtor drive is included.

After the expansion cards and peripherals are taken into account, there are three PCI slots free and two 5.25in bays for future expansion.

One disappointing aspect concerns

the monitor. The Taxan Valuevision isn't the best here. The screen is fairly reflective and visibly curved, as you would expect from a budget shadowmask model. This would not be a problem if there were a lot of extras thrown into the bundle, but as it stands the screen makes this system a little lacking on the value-for-money front.

In terms of the bundled software, you get Lotus SmartSuite Millennium edition. This is a fully-functional office suite that suits its intended task. There's also Adaptec's Easy CD Creator preloaded and a game, Mechwarrior 3. It's not a bad buy, but other vendors have put in better family bundles this month.

DETAILS

PRICE £1,173.83 (£999 ex VAT)

CONTACT evesham.com 0800 038 0800

www.evesham.com

PROS Speedy performer, DVD/CD-RW combo drive

CONS Monitor, would have preferred a separate CD drive

OVERALL A good all-rounder that just loses out in this test



Maxdata Artist Future PIII 700



THIS IS THE first time we have reviewed a Maxdata system and from this entry it looks as though the German company has a few things to learn about the UK PC market. Inside the case there's a Pentium III 700E mounted on an MSI 6199VA board, which uses VIA's latest chipset.

This can support a 133MHz FSB, and Maxdata has put 128MB of PC133 SDRAM into a single memory slot. The 700E processor cannot take full advantage of this, however, as it can't

support a 133MHz FSB. In SYSmark, this machine falls towards the bottom of the table. although you'll still be able to perform most 2D . tasks fairly easily.

There is an Elsa Erazor III graphics card in the AGP slot. This uses the revamped TNT2 Pro chip which incorporates faster memory, more memory bandwidth

and a higher fill rate. It's not up to the standards of the TNT2 Ultra or the GeForce, but it still packs quite a punch in our 3D bench tests, putting it midtable despite its lack of T&L capability.

One of the PCI slots contains a Creative SoundBlaster 128 sound card a fairly basic card, but functional enough, and one that has made a frequent appearance in this group test. Below that is a Conexant modem that supports the V.90 standard. A Toshiba DVD-ROM drive is provided along with

a 20.5GB hard disk, but there is no removable storage solution.

The 17in Belinea monitor is not up to the same standard as other monitors in this test. We found the OSD fairly tricky to use, and the display does not look as clear as others here. In terms of build quality our review system was good, with the various cables secured out of the way to make upgrading easy.

Maxdata bundles Works Suite 2000 with its machine and this includes Microsoft Word as well as the latest version of the more basic Works Suite, so vou'll be able to create and edit documents and spreadsheets from day one.

Overall, the Artist Future shows some promise, but it's eclipsed by the competition.

DETAILS

PRICE £1,172.65 (£998 ex VAT)

CONTACT Maxdata 01344 788 900

www.maxdata.co.uk

PROS 700MHz processor

CONS Monitor, no storage device

OVERALL Value for money kills this one dead

BUILD QUALITY PERFORMANCE **VALUE FOR MONEY OVERALL RATING**

Mesh Matrix 700GDR



MESH KNOWS HOW to make a highspec PC and has won many PCW awards in the past. This time we were looking for a good balance of performance and features to suit a family environment. With the Matrix 700GDR, Mesh has proved that it isn't only capable of producing high-end machines, since most families would be happy with this spec.

Beating at the heart of the machine is a 700MHz Athlon backed up by 128MB of PC100 SDRAM. This is quite generous and provides decent

performance for a machine of this price. You also get a 20.5GB IBM hard disk, which will keep most users happy.

Connected to the secondary EIDE channel is a Pioneer DVD-114 DVD-ROM drive which provides 10-speed DVD and 40-speed CD performance. Sitting above this is a Philips CD-RW drive, which is great for archiving data.

Unfortunately, the Philips drive is black and gold and sticks out like the proverbial sore thumb.

The video setup is first rate and the gamers in the family should be happy. Sitting in the AGP slot is a Guillemot 3D Prophet graphics adaptor which sports the nVidia GeForce 256 chipset and has a healthy 32MB of memory onboard. Coupled with the Prophet is a Mitsubishi Diamond Pro 710s monitor. This 17in unit sports a Natural Flat tube, giving the screen almost no reflectivity.

Sound is a complete Creative Labs solution with a SoundBlaster Live! 1024 coupled with Four Point Surround speakers. You'd be hard pushed to find a better sound setup at this price.

The final expansion card is a Diamond SupraExpress 56K modem to get you online straight away.

Input devices are high quality, with a Microsoft Internet keyboard coupled with an Intellimouse and the Microsoft Works Suite rounds things off.

On the whole Mesh has put together a great package. If a bundled printer or scanner aren't your main requirements, the Matrix 700GDR should be top of vour list.

DETAILS

PRICE £1,173.83 (£999 ex VAT)

CONTACT Mesh Computers

020 8208 4706 www.meshplc.co.uk

PROS Top notch components for the price CONS If you want a printer or scanner you'll have to look elsewhere

OVERALL If you want a great specification and are happy to choose your own printer and scanner, this is a superb package



Panrix Magnum 700



PANRIX IS NO STRANGER to the winner's podium, and last month the Leeds-based integrator walked away with the Editor's Choice award. This month, however, things are a little different and although Panrix has produced a good machine, it doesn't quite fit the criteria as well as some of the competition.

Processing speed is well taken care of with a 700MHz Athlon filling the Slot A on the Asus K7V motherboard. One of the three DIMM sockets is filled with

128MB of SDRAM. which is ample for this purpose.

Demonstrating modern design, this motherboard has no ISA slots. What you get is five PCI slots and single AGP and AMR slots. There's nothing in the AMR slot and Panrix has used the backing plate to mount two extra USB ports instead.

The graphics solution is top

notch and comes in the form of a Hercules GeForce 256 DDR-DVI. This is a great card as, not only does it marry the GeForce chipset with fast DDR memory, but it also gives you the added flexibility of a DVI connector, in case you prefer a digital flat-panel screen. The screen is the Mitsubishi Diamond Plus 73, which incorporates a 17in Diamondtron NF tube. It's not quite as good as the Mitsubishi model supplied by Mesh, but it's still a flat-screen, aperture-grille display.

Storage is very well taken care of with a 30.7GB Maxtor Diamond Max hard disk. The optical storage is equally impressive, taking the form of the Ricoh MP9060 DVD-ROM/CD-RW combo drive. This unit gives you the best of both worlds, although you can't copy a CD directly, you'll have to use the hard disk as an intermediary instead.

Sound comes courtesy of the onboard VIA AC'97 sound chipset which pumps its signal to a set of Labtec LCS 1030 speakers. Finally, a Diamond SupraSST 56K modem will get you online.

The Panrix is a fairly good machine with some great features, but other manufacturers have produced more well-rounded specifications this month.

DETAILS

PRICE £1.173.83 (£999 ex VAT)

CONTACT Panrix 0113 244 4958

www.panrix.com

PROS Fast processor, huge hard disk

CONS Short on features

OVERALL Panrix has produced a decent machine, but there are better family PCs on offer this month

BUILD QUALITY PERFORMANCE **VALUE FOR MONEY OVERALL RATING**

Polar Professional PIII 600



POLAR HAS PRODUCED a PC that is fine as far as it goes, but one that doesn't quite fit the family PC spec. Polar has opted for an Intel system - a Pentium III 600EB. A good motherboard - the Supermicro PIII SCA - has been chosen to complement the CPU. This can take either SDRAM or RDRAM and so it is a good choice if you are thinking of upgrading in the future.

The memory translator hub required to run the SDRAM slows the system down slightly, which explains why the Polar

trails the Watford machine slightly.

The graphics card is a Matrox G400 with 32MB of SDRAM onboard. It is a shame this isn't the dual-head version, but it does display a good image, even if it can't compete with the GeForce cards in 3D.

The supplied monitor cannot take full advantage of the quality image the Matrox card is

pumping out, though. On the positive side, it is a 19in model but, given its quality, we would have preferred to see a higher standard 17in model. The display is below par, as the focus is not as sharp as others on test. Unfortunately, the poor focus means that the higher resolutions offered by this 19in tube are unpleasant to use.

One PCI slot is filled with an OEM version of Creative's SoundBlaster Live! 1024. This one has the welcome inclusion of a CD SPDIF connector, and the three-piece speakers will produce a fair quality sound reproduction.

A Panasonic SR-8585 DVD-ROM drive is provided, along with a 25GB IBM hard drive. Although there is space for it at the front of the case, Polar has chosen to mount this in a standard 3.5in drive bay. A network card and modem are also installed. Removable storage comes in the form of a Zip 100. This isn't the best, especially considering the CD-RW drives seen elsewhere, but it is better than nothing.

This is a fair effort from Polar and the bundled Lotus SmartSuite means that you can be productive from day one, but there are better all-rounders on test here.

DETAILS

PRICE £1,173.83 (£999 ex VAT)

CONTACT Polar 0800 138 1238

w.polartechnology.com

PROS Large hard disk, good connectivity CONS Monitor could be better, poor SDRAM performance from the 820 chipset

OVERALL Good, but not enough of a family focus to win here



Quantex Microsystems GX600S



QUANTEX'S ENTRY is built around a Pentium III clocked to 600MHz. The chip is running on a 100MHz system bus and is backed up by 128MB of PC100 SDRAM. In terms of SYSmark performance, the Quantex was a little lacking, beating only the Elonex with its new FC-PGA Celeron clocked to the same 600MHz frequency.

Moving into 3D performance, the Quantex picked up a bit, mainly due to the nVidia GeForce-based Creative Annihilator graphics adaptor, although

the card uses SDR, not DDR memory. A look at the back also revealed that the Annihilator was equipped with an S-Video port and a DVI connector for digital flat-panel capability, adding some future proofing.

Inside the case the system was neat, but the design was not the best we've seen. Access to the processor was

obscured by the power supply and the plastic moulding on the front of the case balloons out at the bottom, increasing the size of the chassis.

The MSI motherboard offers four PCI slots, one ISA and one shared slot with an Aureal Vortex 2 sound card occupying one and a Lucent LT Winmodem sitting in the shared slot. Two DIMM slots are vacant and there was space for one more 5.25in device – the other two play host to the Toshiba DVD-ROM drive and Sony CD-RW

drive. Only one of the four available 3.5in bays allows external access and will only hold a humble floppy drive. Sitting in the bottom 3.5in bay is a 20GB Seagate Barracuda hard disk.

A Quantex-badged Delta Electronics 17in monitor is hooked up to the graphics card. Unfortunately the display on our review model gave the impression of a U-shaped shadow dropping across the screen. Bundled peripherals include a set of Altec Lansing ACS 45.1 speakers and a Microsoft Sidewinder Pro joystick.

Despite the good graphics card and CD-RW drive, the poor monitor and generally disappointing performance makes the Quantex hard to recommend.

DETAILS

PRICE £1,173.83 (£999 ex VAT)
CONTACT Quantex 01438 224 444
www.gtx.co.uk

PROS Good graphics card, DVI output **CONS** The rest of the spec isn't on the same par

OVERALL The true benefit of the graphics card can't be seen, due to less suitable components elsewhere

BUILD QUALITY PERFORMANCE VALUE FOR MONEY OVERALL RATING ***

Simply Systemax A700A-DPRW-R



handle the latest crop of games. Connected to the G400 is an Iivama S700JT1 monitor. This is liyama's budget, 17in. shadow-mask model and the quality difference between this and the Vision Master range is notable. That said, it's not a terrible monitor, the focus is good and the colours are rich, but

cards, but it will

it does pale in comparison to the superflat, aperture-grille models on test.

The EIDE channels are well used on this machine. On the primary channel there's a 15.3GB Maxtor Diamond Max hard disk. This might not be huge by today's standards, but it's still large enough to suit most home users' needs. The secondary channel sports a Ricoh MP9060 DVD-ROM/CD-RW combo drive. This great unit walked away with a Highly Commended award in last month's CD-RW group test. The

only problem with a combo drive is that you can't make a direct copy of a CD. However, Simply has considered this and thoughtfully included a 52-speed CD-ROM drive as well.

Sound comes courtesy of a SoundBlaster PCI 128 card married to a set of PC Works speakers with two satellites and a subwoofer. A 56K modem is included for Internet access while a Hauppauge TV tuner will mean you won't have to miss your favourite programmes while you're working.

An Epson Stylus Color 460 inkjet printer may not be the best quality or fastest inkjet around, but it adds value to an already impressive spec.

If you want a good all-round home PC, the Simply has a lot to offer.

DFTAILS

PRICE £1,173.82 (£999 ex VAT)

CONTACT Simply 08707 297 366

www.simply.co.uk

PROS Great spec, great value **CONS** Not the fastest on test

OVERALL The Simply offers a lot. It's a great all-round package and worth considering

BUILD QUALITY PERFORMANCE VALUE FOR MONEY OVERALL RATING

**** **** ****

not be as fast as the latest GeForce

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A WELL-ROUNED system is preferable

to a power PC in this marketplace and

BioStar motherboard has three DIMM

128MB PC100 SDRAM module. The

board layout is fairly tidy and there's

plenty of working room should you want

Graphics are taken care of by a

Matrox Millennium G400, which may

so Simply has sensibly specced a 650MHz Athlon for processor duty. The

slots, one of which is filled with a

to upgrade later.

Time 800-7 VQ Professional stand tower used a board the explanation of the splant tower the splant to the splant tower tower tower the splant tower tower tower the splant tower t

TIME HAS SUPPLIED the fastest clocked processor in this month's group test, a whopping 800MHz Athlon backed up by the now *de facto* 128MB of RAM. However, to pay for the processor other components have been sacrificed, so the true potential of this CPU has not been realised. In terms of SYSmark performance there was little to separate the Dell, with its 700MHz Pentium III, from the Time, with both machines notching up 146 overall.

Although the machine is housed in a

standard sized ATX tower, Time has used a Micro-ATX board, so you have the expansion disadvantages of Micro-ATX without the space-saving advantage. Since the board is Micro-ATX, the number of PCI slots is limited to three, with two available, plus one empty DIMM slot.

Occupying the top two 5.25in bays are a Panasonic

DVD-ROM drive and an LG CD-RW drive, thoughtfully loaded with Play and Stop buttons for easy CD music control. An commendable 20GB of storage space is provided by the Fujitsu hard drive. Sound comes from an onboard solution utilising the SoundBlaster PCI 128 chipset piped out to a set of Labtec LCS-2632 speakers.

Connected to the 17in Time-badged monitor is a disappointing graphics card. The TNT M64-based card more or less crippled performance in the 3D

department. We would rather have seen a few less clock cycles on the CPU and a more competent graphics card for the money. Consequently the Time floated near the bottom of the group in our Quake III and 3DMark tests, scoring 28.1fps and 2,061 3DMarks respectively.

Time has been quite generous with bundled peripherals. There is a Mustek 1200 USB scanner and an Epson Color 660 printer. These may not be top of their class, but they are more than adequate, considering the price point.

Time has put too much emphasis on the CPU, resulting in an unbalanced machine and the use of the Micro-ATX motherboard is disappointing.

DETAILS

PRICE £1,173.83 (£999 ex VAT) **CONTACT** Time 01282 777 555

wwwtimecomputers.com

PROS Fast processor, scanner, printer **CONS** Poor graphics card, Micro-ATX motherboard

OVERALL While the processor has the highest clock value, this has not been exploited and other machines offer better value

BUILD QUALITY
PERFORMANCE
VALUE FOR MONEY
OVERALL RATING

Tiny Home Performance Plus



DESPITE THE OBVIOUS pun, Tiny submitted the smallest machine in the group test, so if space is a premium, the Performance Plus may appear an attractive prospect. At its heart beats a 700MHz Pentium III processor, backed up by 128MB of PC100 SDRAM. Given the diminutive dimensions of the case, the motherboard utilises the Micro-ATX form factor incorporating the VIA chipset.

Two PCI and one shared slot are on offer, although one PCI holds the

modem and only one of the two DIMM slots is empty. Given the size of the case, everything is sensibly located, and there's even space for one 5.25in and one 3.5in device.

However, at the front, the aesthetic benefit (if there is one) of the curvy fascia is soon outweighed by the awkwardness it imposes. Ejecting the Panasonic DVD-ROM drive is no easy feat and inserting disks into the

floppy drive soon becomes annoying.

Graphics come from a TNT M64-based card, so the performance is nothing staggering. It only managed fourth from the bottom in our SYSmark 2000 test, with a score of 120, along with the Polar. When it came to 3D performance, the Tiny only managed to outrank the Elonex notching up 27.5fps and 1,960 3DMarks in Quake III and 3DMark respectively.

Acting as the window to the Performance Plus is a 17in Panasonic

Panasync monitor. While it may only be a 17in model, the display produced is excellent. Sound comes from an onboard Creative SoundBlaster chipset coupled with a set of fairly small Tinybranded speakers. The keyboard features the increasingly common quick launch, sleep and volume buttons, but they are set well away from the usual layout to avoid accidental use.

On the whole, the Tiny didn't really excel in this group test, with its only defining feature being the monitor. As we went to press Tiny told us that this machine should have shipped with a Lexmark printer, which adds some value. If you want a small system, then it may be the one for you, but otherwise there are better systems on show in the group.

DEIAILS

 $\textbf{PRICE}~\pounds1,\!173.83~(\pounds999~ex~VAT)$

CONTACT Tiny 01293 821 555

www.tiny.com

PROS Fantastic monitor

CONS Everything else is a bit lacking

OVERALL If you need a small system, the Tiny may be for you, but there are better PCs here

BUILD QUALITY PERFORMANCE VALUE FOR MONEY OVERALL RATING **** ** ***

Viglen HomePro P3-650LWr



UNSURPRISINGLY, the Viglen HomePro 650 features a 650MHz Pentium III running on a 100MHz bus and supported by 128MB of PC100 SDRAM. The MSI motherboard is based on Intel's tried and tested BX chipset, but there's definitely life in the old dog and BX isn't ready to roll over just yet.

Performance saw Viglen firmly adopting a middle of the road stance; a SYSmark score of 130 may not be astronomical, but it's more than enough to keep you going for a fair while.

Likewise, in the 3D stakes the ATi Rage Fury Pro may not be cutting edge, but it's more than capable of keeping up with the pack, with a Quake III score of 30.6fps and 2,165 3DMarks. As the focus of the machine was that of a family PC, you'll find a full set of multimedia capabilities thanks to the ATi graphics chipset. Video in and out is also included,

although the 17GB Fujitsu hard drive will fill up quite quickly if you're into serious video editing.

Delving inside revealed no nasty surprises. The system was well laid out with all major components thoughtfully located. Of the three available DIMM slots, two are free for upgrading and, should you have any old ISA cards lying around, you'll find two vacant slots plus one shared. One PCI slot holds the 3Com modem with the other taking the SoundBlaster PCI 128, leaving two free.

A Pioneer DVD-ROM drive sits in the top 5.25in bay, leaving the one below free. A Panasonic LS-120 takes care of removable storage plus floppy disk requirements, which leaves two free bays.

Visual duties are provided by a Viglenbranded 17in ADI monitor providing an adequate, if a little uninspiring display. In terms of bundled peripherals Viglen has pulled out the stops, packing in an HP Scanjet 3300C scanner and Deskjet 610C printer that significantly add to the value and are good family items.

On the whole, Viglen has played the best hand in balancing between price and performance and gets a truly welldeserved Editor's Choice award.

DETAILS

PRICE £1,173.83 (£999 ex VAT) **CONTACT** Viglen 020 8758 7000

ww.viglen.co.uk

PROS Good performance, bundle and price CONS No groundbreaking components OVERALL Viglen has sensibly chosen components that work well together and, given the price, nothing has been noticeably sacrificed

BUILD QUALITY
PERFORMANCE
VALUE FOR MONEY
OVERALL RATING

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Watford Electronics Aries Pro 7200



THIS SYSTEM IS AN interesting combination of old and new technology and makes it the fastest machine for games here. Despite this, it doesn't win any awards, although there are some good components on show. The most interesting feature is the way in which a new processor has been combined with old technology. The processor, a Pentium III 600EB, has both on-die cache and supports a 133MHz FSB.

Instead of opting for an 820 motherboard with fast RAMBUS or

crippled SDRAM, Watford has gone down the BX route. The Gigabyte motherboard can over-clock the BX chipset to support a 133MHz FSB, and Watford has made sure that the 128MB of SDRAM is PC133. Although this is not an Intel-approved method of configuring the latest generation of Pentiums, it proved stable, and gives the

machine an overall speed boost compared to 820 SDRAM solutions.

The motherboard has a Promise chip onboard that supports UltraDMA66, although the benefit of this has yet to make itself evident. In the AGP slot is a Creative Annihilator Pro. This GeForce card has 32MB of DDR memory, and has been configured well to push it to the top of the 3D performance graphs, beating other machines with higher clocked processors. There is a Creative SoundBlaster 128 in a PCI slot, a fairly

basic sound card by today's standards, but adequate for the machine's intended use. A Diamond modem lies below this.

A Pioneer DVD-ROM drive takes care of optical duties and sports a slot-loading mechanism. Unfortunately, the Seagate 28.5GB hard drive is the only storage device – a removable solution really should be a prerequisite on a PC.

On the plus side, the CTX monitor is a fantastic, 17in aperture-grille display. The FD Trinitron tube displays an excellent image, even better than the Mitsubishi supplied by Mesh.

However, even the superb monitor can't make up for the lack of features seen elsewhere. That said, if you want the best graphics card and monitor combination, this is the one.

DETAILS

PRICE £1,173.83 (£999 ex VAT)

CONTACT Watford 0870 729 5555

www.watford.co.uk

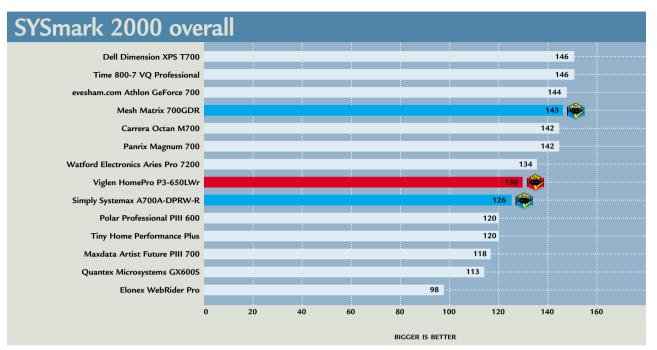
PROS Excellent monitor, speedy in our tests

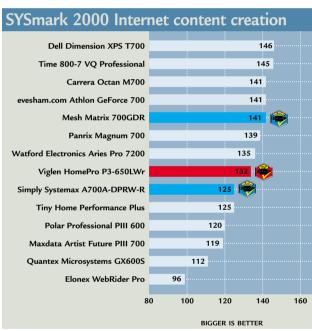
CONS No removable storage

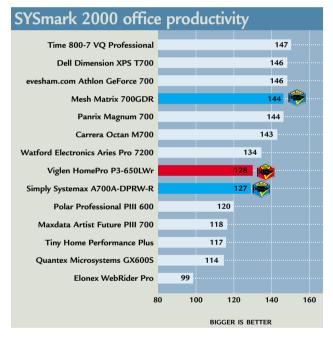
OVERALL Worth a look for the monitor and fast performance

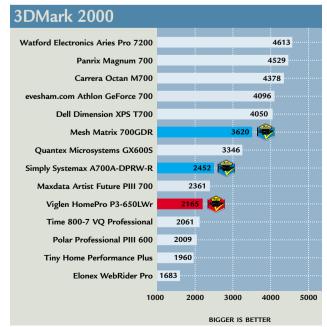


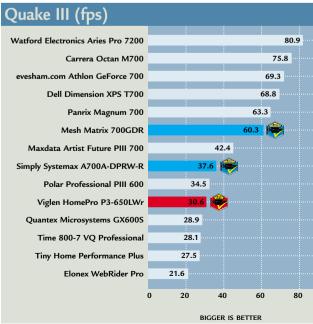














How we did the tests

SYSmark 2000

his comprises 12 application workloads and a management program. The workloads are divided into two categories: office productivity and Internet content creation. We run the benchmark at a resolution of 1,024 x 768 in 16bit colour. It loops three times, rebooting between each workload.

It then assigns the system a performance rating for each application, based on a comparison of workload runtimes between the system being tested and a fixed calibration platform. A rating of 100 indicates the test system has performance equal to that of the calibration platform, 200 indicates twice the performance and so on. The calibration platform is based on a Pentium III 450MHz processor, an Intel 440BX chipset motherboard, 128MB of SDRAM, a 32MB Diamond Viper V770 Ultra graphics card, an IBM DJNA 371800 and Windows 98 SE.

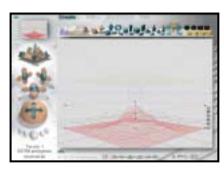
Each category rating is a geometric mean of the workload ratings in that category. The overall rating is a weighted geometric mean of the category ratings.

Office productivity Corel CorelDraw 9.0

This script first takes an abstract design, applies an Art Stroke to it and runs various filter effects. It creates and manipulates a scene composed of vector graphics. Next, it takes a raster image and applies effects. It creates several 3D objects and performs 3D manipulations.

Corel Paradox 9.0

This performs SQL-style queries on a database table and runs a 'find duplicates' query. It imports other text files, formatting and exporting each to HTML. Then it opens up query forms, enters



additional data and produces reports based on queries.

Microsoft Word 2000

This workload invokes word processing functions, including editing, spell checking, search and replace, font change, copy and paste, print preview, mail merge fields, insert hyperlinks, background and table formatting plus opening and viewing HTML pages.

Microsoft Excel 2000

Operations include closing and opening spreadsheets, HTML pages and data in text files, spell checks, formula calculation, plotting data, formatting charts and cells, analysing data in pivot tables, naming a cell and inserting hyperlinks.

Microsoft PowerPoint 2000

Operations include spell

checks, editing, formatting and moving pictures, applying templates, formatting tables in slides, inserting hyperlinks, applying header and footer data formatting

3DMark 2000 tests each system's DirectX performance (above) and OpenGL performance is tested via Quake III: Arena (below)





Bryce 4 script manipulates a wire frame scene and renders it

charts, applying graphics and sound effects, and adding movie files.

Dragon NaturallySpeaking Preferred 4.0

The script plays a pre-recorded wav file into Naturally-Speaking, which then converts the wav file to text.

Netscape Communicator 4.61

This opens a website of plays by Shakespeare and selects and loads the texts several times. Then it loads a page consisting of large tables, thumbnails and images and cycles through viewing the images.

Internet content creation Adobe Premiere 5.1

This creates an animation of about 16 BMP files and other AVI clips and puts transitions between them. It superimposes two audio tracks and runs the audio through filters.

Adobe Photoshop 5.5

The script loads, resizes, zooms out of images, applies filters to the images, changes mode and colour settings, adjusts image brightness and contrast and saves the image to a JPEG file.

Avid Elastic Reality 3.1

The workload sets up and renders a morph between two MPEG2-sized images (720 x 480 pixels, roughly 750KB).

MetaCreations Bryce 4

This script opens an assembled wire frame scene and renders it to the final image. Then a new image is opened and saved in Metastream format. Another image is opened and saved in an HTML-compatible format.

Microsoft Windows Media Encoder 4.0

The input file is an AVI clip that is encoded using the MPEG-4 Video Codec.

3DMark 2000

It uses Remedy Entertainment's MAX-FX to test the DirectX performance of a system. It runs two specially coded games at low, medium and high resolutions. We ran the benchmark at 1,024 x 768 in 16bit colour, with each game set to loop three times. The 3DMark is calculated by adding the frames per second for each game together and multiplying the result by 12.

Quake III

We tested each system's OpenGL performance with Quake III: Arena (1.11). The settings were: video mode – 1,024 × 768, colour depth – 16bit, full screen, highest texture detail, texture quality – 16bit, texture filter – bilinear, lighting and lightmap. At command prompt we typed:

timedemo 1 demo demo001

This runs demo 1 and records the frames per second.



Table of features













	40					40
Manufacturer	CARRERA	DELL	ELONEX	EVESHAM.COM	MAXDATA	MESH
MODEL NAME	OCTAN M700	DIMENSION	WEBRIDER PRO	Athlon	ARTIST FUTURE	MATRIX
		XPS T700		GeForce 700	PIII 700	700GDR
Price inc VAT (ex VAT)	£1,173.83 (£999)	£1,116.25 (£950)	£1,173.83 (£999)	£1,173.83 (£999)	£1,172.65 (£998)	£1,173.83 (£999)
Telephone	020 8307 2800	0870 152 4699	0800 037 4466	0800 038 0800	01344 788 900	020 8208 4706
HARDWARE SPECS						
Processor	Athlon 700	PIII 700E	Celeron 600	Athlon 700	PIII 700E	Athlon 700
RAM/type	128MB/PC100	128MB/PC100	128MB/PC100	128MB/PC100	128MB/PC133	128MB/PC100
Occupied RAM slots/spare RAM slots	1/2	1/2	1/3	1/2	1/2	1/2
Max memory in this configuration	640MB	640MB	896MB	640MB	640MB	640MB
Maximum memory supported by motherboard	768MB	768MB	1GB	768MB	768MB	768MB
Hard disk (manufacturer & model)	IBM Deskstar	Western Digital	Fujitsu MPE3136AH	Maxtor 53073U6	Maxtor 92041U4	IBM Deskstar
HD size/interface	20.5GB/EIDE	20.4GB/EIDE	13.6GB/EIDE	30GB/EIDE	20.5GB/EIDE	20.5GB/EIDE
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Storage drive model and manufacturer	None	None	Iomega Zip 100	None	None	Philips CD-RW 404
Size of storage drive media/drive interface	N/A	N/A	100MB/EIDE	N/A	N/A	650MB/EIDE
MOTHERBOARD COMPONENTS		5 "	-	140	N/C	145
Motherboard manufacturer	Asus	Dell	Fic	MSI	MSI	MSI
Model/chipset	K7M/AMD 750	E139761/BX	KA11/VIA 694X	K7 Pro/AMD 750	MS6199VA/VIA693A	K7 Pro/AMD 750
EXPANSION AND I/O						
No of 3.5/5.25in bays	3/4	5/2	4/3	2/3	4/2	4/3
No of free 3.5/5.25in bays	1/3	3/1	1/2	0/2	2/2	2/1
No of PCI/ISA/shared slots	4/0/1	4/0/1	4/1/1	5/0/1	4/1/1	5/0/1
No of free PCI/ISA/shared slots	2/0/0	2/0/1	3/1/1	3/0/1	2/1/1	3/0/1
No of USB/serial/parallel/PS2	4/2/1/2	2/1/1/2	2/2/1/2	2/2/1/2	2/2/1/2	2/2/1/2
Multimedia						
DVD manufacturer/model	Panasonic SR-8585	NEC DV-5700A	Acer DVP 1040A	Memorex CD-RW/DVD 6424-4	Toshiba SD-M1302	Pioneer DVD-114
Sound card manufacturer & model	Aureal	Creative	Creative	Creative	Creative	Creative
Sound Card Manufacturer & Model	Vortex 2 Superquad	SB Live! 1024 OEM	SB PCI 128 onboard	SB PCI 128	SB PCI 128	SB Live! 1024 OEM
C					Wave Master 120	
Speakers (manufacturer & model)	Altec Lansing ACS54	Altec Lansing ACS340	PC Works CSW 100E	Cambridge	wave Master 120	Cambridge
		D 0 0 0 0	477 411 144 1 400	Soundworks SBS52		Four Point Surround
Graphics card manufacturer and model	Hercules 3D Prophet DDR-DVI	Dell GeForce 256	ATi All in Wonder 128	Generic nVidia GeForce 256	Elsa Erazor III Pro	Guillemot 3D Prophet
Chipset	nVidia GeForce 256	nVidia GeForce 256	ATi Rage 128	nVidia GeForce 256	nVidia TNT2 Pro	nVidia GeForce 256
RAM/max RAM and type	32MB/32MB/DDR	32MB/32MB	32MB/32MB	32MB/32MB	32MB/32MB	32MB/32MB
	SGRAM	SDRAM	SDRAM	SDRAM	SGRAM	SDRAM
Graphics card interface	AGP	AGP	AGP	AGP	AGP	AGP
Monitor manufacturer/model	LG Studioworks	Dell D-790	Elonex V999	Taxan Valuevision	Belinea 10 30 40	Mitsubishi Diamond
·	775N			1710 TCO 99		Pro 710s
Monitor size/max viewable diagonal	17in/15.9in	17in/16in	19in/18in	17in/16in	17in/16in	17in/16in
Maximum resolution/refresh	1,280 x 1,024/60Hz	1,600 x 1,200/70Hz	1,600 x 1,200/75Hz	1,280 x 1,024/60Hz	1,600 x 1,200/69Hz	1,600 x 1,200/60Hz
OTHER INFORMATION	1,200 X 1,02 1/ 00112	1,000 x 1,200/70112	1,000 x 1,200/70112	1,200 x 1,02 1/00112	1,000 x 1,200/05112	1,000 x 1,200/00112
Modem manufacturer and model	V.90 Winmodem	V.90 Winmodem	3Com V.90 Winmodem	Diamond 56i Pro	Conexant HCF RTAD	Diamond 56i V Pro
Misc hardware	None	None	Epson Stylus Color	None	None	None
THIS HAI GWAI C	None	None	660 printer, AcerScan	None	TAOHE	HOILE
			Prisa 320U USB			
Bundled software	Lotus SmartSuite	MS Works Suite	MS Works Suite	Lotus SmartSuite	MS Works Suite	MS Works Suite
	Family Pack	2000	2000	Millennium, Go Back	2000	2000
				disaster recovery		Nero Burning ROM
Standard warranty	2 yrs on-site	1 yr on-site, 2 yrs C&R	1 yr on-site	2 yrs on-site	1yr on-site, 2 yrs RTB	1 yr on-site, 2 yrs RTB
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MAGNUM 700	Professional	GX600S	SYSTEMAX	800-7 VQ	Номе	НомеРко	Aries Pro
WAGRESIN 700	PIII 600	anous .	A700A-DPRW-R	Professional	PERFORMANCE PLUS	P3-650LWr	7200
£1,173.83 (£999)	£1,173.83 (£999)	£1,173.83 (£999)	£1,173.83 (£999)	£1,173.83 (£999)	£1,173.83 (£999)	£1,173.83 (£999)	£1,173.83 (£999)
0113 244 4958	0800 138 1238	01438 224 444	08707 297 366	01282 777 555	01293 821 555	020 8758 7000	0870 729 5555
0113 244 4530	0000 130 1230	01430 224 444	00/0/ 25/ 300	01202777 333	01293 021 333	020 87 30 7 000	00/0/2/3333
Athlon 700	PIII 600EB	PIII 600E	Athlon 650	Athlon 800	PIII 700E	PIII 650E	PIII 600EB
128MB/PC100	128MB/PC133	128MB/PC100	128MB/PC100	128MB/PC100	128MB/PC100	128MB/PC100	128MB/PC133
1/2	1/1 or 2 RIMMS	1/2	1/2	1/1	1/1	1/2	1/3
640MB	640MB	640MB	640MB	384MB	384MB	640MB	768MB
768MB	768MB	768MB	768MB	512MB	512MB	768MB	1GB
Maxtor 53073U6							
	IBM Deskstar	Seagate Barracuda ATA	Maxtor 91531U3	Fujitsu MPF3204AH	Fujitsu MPE3204AT	Fujitsu MPE3170AT	Seagate Barracuda
30.7GB/EIDE	25GB/EIDE	20.4GB/EIDE	15.3GB/EIDE	20GB/EIDE	20.5GB/EIDE	17GB/EIDE	28.5GB/EIDE
None	Iomega Zip 100	Sony CRX-100E	Ricoh MP9060	LG CED-8042B	None	Panasonic LS-120	None
N/A	100MB/EIDE	650MB/EIDE	650MB/EIDE	650MB/EIDE	N/A	120MB/EIDE	N/A
	6 :	Mari	D'	A 4CL) ACI	1401	C' L
Asus	Supermicro	MSI	Biostar	MSI	MSI	MSI	Gigabyte
K7V/VIA KX133	PIII SCA/820	MS6199VA/VIA693A	M7MKA/AMD 750	MS6191/AMD 750	MS6156 BX7/VIA 693A	MS6119/BX	GA-BX2000+/BX
4/0	.	4/0	0.40	4/0	2.42	1.10	2.42
4/2	5/2	4/3	3/3	4/3	3/2	4/2	3/3
2/2	2/1	2/1	1/1	2/1	1/1	2/1	1/2
5/0/0	5/0/0	4/1/1	4/1/1	3/0/0	2/0/1	3/1/2	5/0/1
4/0/0	2/0/0	3/1/0	1/1/1	2/0/0	1/0/1	1/1/2	4/0/0
4/2/1/2	2/2/1/2	2/2/1/2	2/2/1/2	2/2/1/2	2/2/1/2	2/2/1/2	2/2/1/2
Ricoh MP9060	Panasonic SR-8585	Toshiba SD-M1302	Ricoh MP9060	Panasonic SR-8585	Panasonic SR-8503	Pioneer DVD-114	Pioneer DVD-104
Ricoh MP9060 VIA	Panasonic SR-8585 Creative	Toshiba SD-M1302	Ricoh MP9060 Creative	Panasonic SR-8585 Creative	Panasonic SR-8503 Creative	Pioneer DVD-114 Creative	Pioneer DVD-104 Creative
VIA	Creative	Aureal	Creative	Creative	Creative	Creative	Creative
VIA AC'97 Onboard Labtec LCS 1030	Creative SB Live! 1024 OEM	Aureal Vortex 2	Creative SB PCI 128 Cambridge -	Creative SB PCI 128 Onboard	Creative SB PCI 64 Onboard	Creative SB PCI 128 Altec Lansing ACS 33	Creative SB PCI 128 Maxxtro SPK41Q
VIA AC'97 Onboard	Creative SB Live! 1024 OEM Labtec LCS 2414 Matrox G400	Aureal Vortex 2 Altec Lansing ACS 45	Creative SB PCI 128 Cambridge - PC Works Matrox G400	Creative SB PCI 128 Onboard Labtec LCS-2632	Creative SB PCI 64 Onboard Tiny OEM	Creative SB PCI 128	Creative SB PCI 128
VIA AC'97 Onboard Labtec LCS 1030 Hercules 3D Prophet	Creative SB Live! 1024 OEM Labtec LCS 2414	Aureal Vortex 2 Altec Lansing ACS 45	Creative SB PCI 128 Cambridge - PC Works	Creative SB PCI 128 Onboard Labtec LCS-2632 MSI 3D Phantom	Creative SB PCI 64 Onboard Tiny OEM MSI 3D Phantom	Creative SB PCI 128 Altec Lansing ACS 33	Creative SB PCI 128 Maxxtro SPK41Q Creative Annihilator
VIA AC'97 Onboard Labtec LCS 1030 Hercules 3D Prophet DDR-DVI	Creative SB Live! 1024 OEM Labtec LCS 2414 Matrox G400 single head	Aureal Vortex 2 Altec Lansing ACS 45 Creative Annihilator	Creative SB PCI 128 Cambridge - PC Works Matrox G400 single head	Creative SB PCI 128 Onboard Labtec LCS-2632 MSI 3D Phantom MS-8808	Creative SB PCI 64 Onboard Tiny OEM MSI 3D Phantom MS-8808	Creative SB PCI 128 Altec Lansing ACS 33 ATI Rage Fury Pro	Creative SB PCI 128 Maxxtro SPK41Q Creative Annihilator Pro
VIA AC'97 Onboard Labtec LCS 1030 Hercules 3D Prophet DDR-DVI nVidia GeForce 256	Creative SB Live! 1024 OEM Labtec LCS 2414 Matrox G400 single head Matrox G400	Aureal Vortex 2 Altec Lansing ACS 45 Creative Annihilator nVidia GeForce 256	Creative SB PCI 128 Cambridge - PC Works Matrox G400 single head Matrox G400	Creative SB PCI 128 Onboard Labtec LCS-2632 MSI 3D Phantom MS-8808 nVidia TNT2 M64	Creative SB PCI 64 Onboard Tiny OEM MSI 3D Phantom MS-8808 nVidia TNT2 M64	Creative SB PCI 128 Altec Lansing ACS 33 ATi Rage Fury Pro ATi Rage 128 Pro	Creative SB PCI 128 Maxxtro SPK41Q Creative Annihilator Pro nVidia GeForce 256
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VIA AC'97 Onboard Labtec LCS 1030 Hercules 3D Prophet DDR-DVI nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP Mitsubishi Diamond Plus 73 17in/15.9in	Creative SB Live! 1024 OEM Labtec LCS 2414 Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP Frank & Walter Gmbh 996 19in/18in	Aureal Vortex 2 Altec Lansing ACS 45 Creative Annihilator nVidia GeForce 256 32MB/32MB SDRAM AGP Delta Electronics DE-770 17in/15.8in	Creative SB PCI 128 Cambridge - PC Works Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP liyama S700JT1	Creative SB PCI 128 Onboard Labtec LCS-2632 MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Time 17S	Creative SB PCI 64 Onboard Tiny OEM MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Panasonic Panasync SL75 17in/15.9in	Creative SB PCI 128 Altec Lansing ACS 33 ATi Rage Fury Pro ATi Rage 128 Pro 32MB/32MB SDRAM AGP ADI Provista E55 17in/15.9in	Creative SB PCI 128 Maxxtro SPK41Q Creative Annihilator Pro nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP CTX PR705F
VIA AC'97 Onboard Labtec LCS 1030 Hercules 3D Prophet DDR-DVI nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP Mitsubishi Diamond Plus 73 17in/15.9in	Creative SB Live! 1024 OEM Labtec LCS 2414 Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP Frank & Walter Gmbh 996 19in/18in	Aureal Vortex 2 Altec Lansing ACS 45 Creative Annihilator nVidia GeForce 256 32MB/32MB SDRAM AGP Delta Electronics DE-770 17in/15.8in	Creative SB PCI 128 Cambridge - PC Works Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP liyama S700JT1	Creative SB PCI 128 Onboard Labtec LCS-2632 MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Time 17S	Creative SB PCI 64 Onboard Tiny OEM MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Panasonic Panasync SL75 17in/15.9in 1,280 x 1,024/60Hz	Creative SB PCI 128 Altec Lansing ACS 33 ATi Rage Fury Pro ATi Rage 128 Pro 32MB/32MB SDRAM AGP ADI Provista E55 17in/15.9in	Creative SB PCI 128 Maxxtro SPK41Q Creative Annihilator Pro nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP CTX PR705F
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VIA AC'97 Onboard Labtec LCS 1030 Hercules 3D Prophet DDR-DVI nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP Mitsubishi Diamond Plus 73 17in/15.9in 1,280 x 1,024/60Hz Diamond 56i Pro	Creative SB Live! 1024 OEM Labtec LCS 2414 Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP Frank & Walter Gmbh 996 19in/18in 2,048 x 1,536/60Hz Diamond 56i Pro RPTI PCI	Aureal Vortex 2 Altec Lansing ACS 45 Creative Annihilator nVidia GeForce 256 32MB/32MB SDRAM AGP Delta Electronics DE-770 17in/15.8in 1,280 x 1,024/60Hz Lucent LT Winmodem MS Sidewinder	Creative SB PCI 128 Cambridge - PC Works Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP liyama S700JT1 17in/16in 1,280 x 1,024/60Hz Conexant SoftK56 Epson Stylus	Creative SB PCI 128 Onboard Labtec LCS-2632 MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Time 17S 17in/15.9in 1,280 x 1,024/60Hz MicroModem HSP56 Mustek Scanexpress	Creative SB PCI 64 Onboard Tiny OEM MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Panasonic Panasync SL75 17in/15.9in 1,280 x 1,024/60Hz MicroModem HSP56	Creative SB PCI 128 Altec Lansing ACS 33 ATi Rage Fury Pro ATi Rage 128 Pro 32MB/32MB SDRAM AGP ADI Provista E55 17in/15.9in 1,280 x 1,024/60Hz 3Com V.90 Winmodem HP Scanjet 3300C	Creative SB PCI 128 Maxxtro SPK41Q Creative Annihilator Pro nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP CTX PR705F 17in/16in 1,600 x 1,200/60Hz Diamond 56i Pro V
VIA AC'97 Onboard Labtec LCS 1030 Hercules 3D Prophet DDR-DVI nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP Mitsubishi Diamond Plus 73 17in/15.9in 1,280 x 1,024/60Hz Diamond 56i Pro	Creative SB Live! 1024 OEM Labtec LCS 2414 Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP Frank & Walter Gmbh 996 19in/18in 2,048 x 1,536/60Hz Diamond 56i Pro RPTI PCI 10Mbytes/sec	Aureal Vortex 2 Altec Lansing ACS 45 Creative Annihilator nVidia GeForce 256 32MB/32MB SDRAM AGP Delta Electronics DE-770 17in/15.8in 1,280 x 1,024/60Hz Lucent LT Winmodem MS Sidewinder	Creative SB PCI 128 Cambridge - PC Works Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP liyama S700JT1 17in/16in 1,280 x 1,024/60Hz Conexant SoftK56 Epson Stylus Color 460, Hauppauge	Creative SB PCI 128 Onboard Labtec LCS-2632 MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Time 17S 17in/15.9in 1,280 x 1,024/60Hz MicroModem HSP56 Mustek Scanexpress 1200 USB, Epson Stylus Color 600, Joystick,	Creative SB PCI 64 Onboard Tiny OEM MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Panasonic Panasync SL75 17in/15.9in 1,280 x 1,024/60Hz MicroModem HSP56	Creative SB PCI 128 Altec Lansing ACS 33 ATi Rage Fury Pro ATi Rage 128 Pro 32MB/32MB SDRAM AGP ADI Provista E55 17in/15.9in 1,280 x 1,024/60Hz 3Com V.90 Winmodem HP Scanjet 3300C HP Deskjet 610C	Creative SB PCI 128 Maxxtro SPK41Q Creative Annihilator Pro nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP CTX PR705F 17in/16in 1,600 x 1,200/60Hz Diamond 56i Pro V
VIA AC'97 Onboard Labtec LCS 1030 Hercules 3D Prophet DDR-DVI nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP Mitsubishi Diamond Plus 73 17in/15.9in 1,280 x 1,024/60Hz Diamond 56i Pro	Creative SB Live! 1024 OEM Labtec LCS 2414 Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP Frank & Walter Gmbh 996 19in/18in 2,048 x 1,536/60Hz Diamond 56i Pro RPTI PCI 10Mbytes/sec	Aureal Vortex 2 Altec Lansing ACS 45 Creative Annihilator nVidia GeForce 256 32MB/32MB SDRAM AGP Delta Electronics DE-770 17in/15.8in 1,280 x 1,024/60Hz Lucent LT Winmodem MS Sidewinder	Creative SB PCI 128 Cambridge - PC Works Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP liyama S700JT1 17in/16in 1,280 x 1,024/60Hz Conexant SoftK56 Epson Stylus Color 460, Hauppauge WinTV GO, MS	Creative SB PCI 128 Onboard Labtec LCS-2632 MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Time 17S 17in/15.9in 1,280 x 1,024/60Hz MicroModem HSP56 Mustek Scanexpress 1200 USB, Epson Stylus	Creative SB PCI 64 Onboard Tiny OEM MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Panasonic Panasync SL75 17in/15.9in 1,280 x 1,024/60Hz MicroModem HSP56	Creative SB PCI 128 Altec Lansing ACS 33 ATi Rage Fury Pro ATi Rage 128 Pro 32MB/32MB SDRAM AGP ADI Provista E55 17in/15.9in 1,280 x 1,024/60Hz 3Com V.90 Winmodem HP Scanjet 3300C HP Deskjet 610C	Creative SB PCI 128 Maxxtro SPK41Q Creative Annihilator Pro nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP CTX PR705F 17in/16in 1,600 x 1,200/60Hz Diamond 56i Pro V
VIA AC'97 Onboard Labtec LCS 1030 Hercules 3D Prophet DDR-DVI nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP Mitsubishi Diamond Plus 73 17in/15.9in 1,280 x 1,024/60Hz Diamond 56i Pro None	Creative SB Live! 1024 OEM Labtec LCS 2414 Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP Frank & Walter Gmbh 996 19in/18in 2,048 x 1,536/60Hz Diamond 56i Pro RPTI PCI 10Mbytes/sec Network Adaptor	Aureal Vortex 2 Altec Lansing ACS 45 Creative Annihilator nVidia GeForce 256 32MB/32MB SDRAM AGP Delta Electronics DE-770 17in/15.8in 1,280 x 1,024/60Hz Lucent LT Winmodem MS Sidewinder Precision Pro	Creative SB PCI 128 Cambridge - PC Works Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP liyama S700JT1 17in/16in 1,280 x 1,024/60Hz Conexant SoftK56 Epson Stylus Color 460, Hauppauge WinTV GO, MS Sidewinder GamePad	Creative SB PCI 128 Onboard Labtec LCS-2632 MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Time 17S 17in/15.9in 1,280 x 1,024/60Hz MicroModem HSP56 Mustek Scanexpress 1200 USB, Epson Stylus Color 600, Joystick, Gamepad and Webcam Lotus SmartSuite	Creative SB PCI 64 Onboard Tiny OEM MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Panasonic Panasync SL75 17in/15.9in 1,280 x 1,024/60Hz MicroModem HSP56 Lexmark 3200 MS Works Suite	Creative SB PCI 128 Altec Lansing ACS 33 ATi Rage Fury Pro ATi Rage 128 Pro 32MB/32MB SDRAM AGP ADI Provista E55 17in/15.9in 1,280 x 1,024/60Hz 3Com V.90 Winmodem HP Scanjet 3300C HP Deskjet 610C MS Sidewinder Joystick	Creative SB PCI 128 Maxxtro SPK41Q Creative Annihilator Pro nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP CTX PR705F 17in/16in 1,600 x 1,200/60Hz Diamond 56i Pro V Onboard UDMA 66
VIA AC'97 Onboard Labtec LCS 1030 Hercules 3D Prophet DDR-DVI nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP Mitsubishi Diamond Plus 73 17in/15.9in 1,280 x 1,024/60Hz Diamond 56i Pro None	Creative SB Live! 1024 OEM Labtec LCS 2414 Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP Frank & Walter Gmbh 996 19in/18in 2,048 x 1,536/60Hz Diamond 56i Pro RPTI PCI 10Mbytes/sec Network Adaptor	Aureal Vortex 2 Altec Lansing ACS 45 Creative Annihilator nVidia GeForce 256 32MB/32MB SDRAM AGP Delta Electronics DE-770 17in/15.8in 1,280 x 1,024/60Hz Lucent LT Winmodem MS Sidewinder Precision Pro Corel Office Suite 8 Software Essentials and	Creative SB PCI 128 Cambridge - PC Works Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP liyama S700JT1 17in/16in 1,280 x 1,024/60Hz Conexant SoftK56 Epson Stylus Color 460, Hauppauge WinTV GO, MS Sidewinder GamePad MS Works 2000, educational and	Creative SB PCI 128 Onboard Labtec LCS-2632 MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Time 17S 17in/15.9in 1,280 x 1,024/60Hz MicroModem HSP56 Mustek Scanexpress 1200 USB, Epson Stylus Color 600, Joystick, Gamepad and Webcam Lotus SmartSuite Millennium, Exec	Creative SB PCI 64 Onboard Tiny OEM MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Panasonic Panasync SL75 17in/15.9in 1,280 x 1,024/60Hz MicroModem HSP56 Lexmark 3200 MS Works Suite Home Compilation	Creative SB PCI 128 Altec Lansing ACS 33 ATi Rage Fury Pro ATi Rage 128 Pro 32MB/32MB SDRAM AGP ADI Provista E55 17in/15.9in 1,280 x 1,024/60Hz 3Com V.90 Winmodem HP Scanjet 3300C HP Deskjet 610C MS Sidewinder Joystick MS Works Suite 2000, MS Encarta 2000,	Creative SB PCI 128 Maxxtro SPK41Q Creative Annihilator Pro nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP CTX PR705F 17in/16in 1,600 x 1,200/60Hz Diamond 56i Pro V Onboard UDMA 66
VIA AC'97 Onboard Labtec LCS 1030 Hercules 3D Prophet DDR-DVI nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP Mitsubishi Diamond Plus 73 17in/15.9in 1,280 x 1,024/60Hz Diamond 56i Pro None	Creative SB Live! 1024 OEM Labtec LCS 2414 Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP Frank & Walter Gmbh 996 19in/18in 2,048 x 1,536/60Hz Diamond 56i Pro RPTI PCI 10Mbytes/sec Network Adaptor	Aureal Vortex 2 Altec Lansing ACS 45 Creative Annihilator nVidia GeForce 256 32MB/32MB SDRAM AGP Delta Electronics DE-770 17in/15.8in 1,280 x 1,024/60Hz Lucent LT Winmodem MS Sidewinder Precision Pro Corel Office Suite 8	Creative SB PCI 128 Cambridge - PC Works Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP liyama S700JT1 17in/16in 1,280 x 1,024/60Hz Conexant SoftK56 Epson Stylus Color 460, Hauppauge WinTV GO, MS Sidewinder GamePad MS Works 2000,	Creative SB PCI 128 Onboard Labtec LCS-2632 MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Time 17S 17in/15.9in 1,280 x 1,024/60Hz MicroModem HSP56 Mustek Scanexpress 1200 USB, Epson Stylus Color 600, Joystick, Gamepad and Webcam Lotus SmartSuite Millennium, Exec software pack,	Creative SB PCI 64 Onboard Tiny OEM MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Panasonic Panasync SL75 17in/15.9in 1,280 x 1,024/60Hz MicroModem HSP56 Lexmark 3200 MS Works Suite	Creative SB PCI 128 Altec Lansing ACS 33 ATI Rage Fury Pro ATI Rage 128 Pro 32MB/32MB SDRAM AGP ADI Provista E55 17in/15.9in 1,280 x 1,024/60Hz 3Com V.90 Winmodem HP Scanjet 3300C HP Deskjet 610C MS Sidewinder Joystick MS Works Suite 2000, MS Encarta 2000, family/entertainment/	Creative SB PCI 128 Maxxtro SPK41Q Creative Annihilator Pro nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP CTX PR705F 17in/16in 1,600 x 1,200/60Hz Diamond 56i Pro V Onboard UDMA 66
VIA AC'97 Onboard Labtec LCS 1030 Hercules 3D Prophet DDR-DVI nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP Mitsubishi Diamond Plus 73 17in/15.9in 1,280 x 1,024/60Hz Diamond 56i Pro None	Creative SB Live! 1024 OEM Labtec LCS 2414 Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP Frank & Walter Gmbh 996 19in/18in 2,048 x 1,536/60Hz Diamond 56i Pro RPTI PCI 10Mbytes/sec Network Adaptor	Aureal Vortex 2 Altec Lansing ACS 45 Creative Annihilator nVidia GeForce 256 32MB/32MB SDRAM AGP Delta Electronics DE-770 17in/15.8in 1,280 x 1,024/60Hz Lucent LT Winmodem MS Sidewinder Precision Pro Corel Office Suite 8 Software Essentials and Activision games	Creative SB PCI 128 Cambridge - PC Works Matrox G400 single head Matrox G400 32MB/32MB SDRAM AGP liyama S700JT1 17in/16in 1,280 x 1,024/60Hz Conexant SoftK56 Epson Stylus Color 460, Hauppauge WinTV GO, MS Sidewinder GamePad MS Works 2000, educational and	Creative SB PCI 128 Onboard Labtec LCS-2632 MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Time 17S 17in/15.9in 1,280 x 1,024/60Hz MicroModem HSP56 Mustek Scanexpress 1200 USB, Epson Stylus Color 600, Joystick, Gamepad and Webcam Lotus SmartSuite Millennium, Exec	Creative SB PCI 64 Onboard Tiny OEM MSI 3D Phantom MS-8808 nVidia TNT2 M64 32MB/32MB SDRAM AGP Panasonic Panasync SL75 17in/15.9in 1,280 x 1,024/60Hz MicroModem HSP56 Lexmark 3200 MS Works Suite Home Compilation	Creative SB PCI 128 Altec Lansing ACS 33 ATi Rage Fury Pro ATi Rage 128 Pro 32MB/32MB SDRAM AGP ADI Provista E55 17in/15.9in 1,280 x 1,024/60Hz 3Com V.90 Winmodem HP Scanjet 3300C HP Deskjet 610C MS Sidewinder Joystick MS Works Suite 2000, MS Encarta 2000,	Creative SB PCI 128 Maxxtro SPK41Q Creative Annihilator Pro nVidia GeForce 256 32MB/32MB/DDR SGRAM AGP CTX PR705F 17in/16in 1,600 x 1,200/60Hz Diamond 56i Pro V Onboard UDMA 66



Editor's Choice Many demands are placed on the family PC. It has to function as a home office, a price/performance/features equation had been balanced. A fairly powerful processor and graphics card are required capable of the latest of the

function as a home office, a gaming station for the latest releases. Internet terminal for communication and many other roles. Add to this an extremely price-sensitive market and it is no easy task to produce an all singing all dancing solution that won't disappoint. In general we were pleased with the standard of submissions and most machines would do well at the tasks outlined for them.

We were looking at how well the

processor and graphics card are required for the odd bit of gaming, but there are other factors. Bundled peripherals are good for some families but some prefer to buy a printer and scanner separately. We wanted a PC that was adequate in all areas without skimping on others.

The winners

With this in mind, the Editor's Choice award goes to Viglen's HomePro 650. The 650MHz Pentium III processor at its

core may not be blistering by today's ever increasing standards, but it is more than capable of keeping you going for a fair amount of time. Likewise, ATi may not have the fastest chipset around compared to the likes of nVidia, but it can still keep up. You also get the added bonus of video in and out plus great DVD playback. The 17in ADI monitor again would not win any prizes in a dedicated group test but it is more than adequate for day to day use. 120MB of removable storage, courtesy of an LS-120 drive, may seem small compared to 650MB offered by CD-R, but if you're only backing up data files it is sufficient. Topping off the package are top notch peripherals, in this case an HP ScanJet 3300C scanner and DeskJet 610C printer. If you have a use for these items then you certainly won't go home disappointed. On the whole, Viglen has produced a well-rounded package that

Next up on the blocks comes Mesh with its Matrix 700GDR taking the first Highly Commended award. For those who like to choose their own peripherals the Matrix is ideal. The saving has been ploughed into other areas of the system, most noticeably the Mitsubishi Diamond Pro 710s monitor. Again, this is not the best 17in model around but is still a great unit and is unlikely to disappoint anyone. The 700MHz Athlon will keep you going well into the future with a GeForce 256-based graphics card to keep the gamers happy. Add to this a Philips CD-RW, Creative SoundBlaster Live! 1024. Pioneer DVD-ROM and 128MB of SDRAM and you've got a quality system that is more than adequate for the task at hand.

fits the criteria perfectly

Finally, rounding off the awards is the Simply Systemax Power A700A-DPORW taking the last Highly Commended award. Hot on the heals of the Viglen, the Simply also sports a 650MHz chip, although this time an Athlon, and 128MB of SDRAM. Graphics come from Matrox's G400 (although only a single head unit) and the 17in monitor stems from liyama's budget range. There's a DVD/CD-RW combo courtesy of Ricoh plus a 52-speed CD-ROM for on the fly copying. A Hauppauge TV card is a good bonus for the family and the Epson Stylus 460 printer adds value. On the whole a fair contender, but just pipped at the post by the Viglen.



Choose your own peripherals with the Mesh



Simply's Systemax includes a TV card



Viglen's HomePro 650 took the top prize for its well-rounded family PC package