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£799 PCS

We challenged 10 manufacturers to produce the best PCs they could for £799 and found that a lot has changed in the past five months, with all systems including a 1.2GHz CPU or above as well as good-sized hard drives



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For the second time this year, *PCW* is turning its attention to the £799 ex VAT price point. Last time around was five months ago and the PC market has moved on in leaps and bounds since then. We set the requirements fairly low this time around, so that manufacturers had a chance to impress us with their ingenuity. We left it entirely up to each of them to make the choice of processor they felt best met the price point, but stated that, as memory prices are the lowest we have ever seen, we expected no less than 128MB. Most manufacturers, we're pleased to say, supplied twice that amount.

As far as storage goes, we wanted to see a minimum of 20GB installed. Again, some manufacturers gave us double this. When it came to monitors nothing less than the *de facto* 17in would satisfy us. At £799, after all, you have to give some leeway. On the modem, CD or DVD drive and sound and speakers fronts we gave the manufacturers free rein. Windows Me was the OS of choice and we didn't expect to receive any office productivity software this time around. We also asked for a three-year warranty.

Where graphics cards were concerned we again left it very much open to interpretation, but we were most interested to see that many of the machines submitted for review featured cards based on the STM Kyro II chipset rather than an nVidia solution. The Kyro II is a very good choice, offering good 2D and 3D performance for this price range.

Advent 3952 SP

PRICE £938.83 (£799 ex VAT) **CONTACT** Advent 08705 464 464
PROS Good SYSmark performance **CONS** Poor 3D performance; no removable storage
OVERALL A better graphics card and a single stick of RAM would have improved this PC
FEATURES ■■■■■ **PERFORMANCE** ■■■■■
VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■

Advent's entrant into this month's group test is based on AMD's 1.33GHz Athlon and 256MB of PC2100 DDR memory. When we first booted up, we were pleased to see that Advent had not been stingy with the memory, but upon looking inside the machine, we were disappointed that it was supplied in the form of two 128MB modules rather than just one larger stick. As this fills all of the memory slots, upgrading in the future will require you to discard at least half of what you've paid for. The reason for this is that the Gigabyte GA-7DX motherboard features the AMD 761 northbridge, which supports only two unbuffered memory slots.

The graphics card is a standard GeForce2 MX-based solution from 3D Power with 32MB of SDRAM and an S-Video port. Advent has also included a Creative SoundBlaster Live! 1024 card rather than rely on the onboard SoundBlaster 128 PCI

chipset. The benefit is that the Live! 1024 features better MIDI sound and offers a digital out connector. A set of Cambridge Soundworks FPS1000 speakers are also included.

The Maxtor hard drive runs to 30.7GB, while Toshiba provides the 16-speed DVD drive. Comms are taken care of by a 56K Lucent-chipped modem, while the monitor is a Sony Multiscan E220. This is above average, supporting flicker-free resolutions up to 1,280 x 1,024 at 75Hz.

Turning our attention to performance, the Advent did fairly well in 2D tests under SYSmark 2001, coming home in fourth place. Sadly, though, the older GeForce2 MX chipset employed on the graphics card let it down when we challenged its 3D performance – it was the slowest in the 3DMark 2001 test, and second slowest in Quake III Team Arena. This poor 3D performance and the awkward upgrade path means we cannot recommend the Advent as it stands.



Atlas/Hi-Grade Meridian A1400

PRICE £938.83 (£799 ex VAT) **CONTACT** Atlas 020 8532 6515
PROS Fast; good bundle **CONS** Only an eight-speed CD-RW
OVERALL A seriously fast machine for the power user
FEATURES ■■■■■ **PERFORMANCE** ■■■■■
VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■

Our hats come off to Atlas/Hi-Grade for providing one of only two 1.4GHz Athlon processors in the group test and, boy, is this machine fast! The minor effect DDR memory has on overall system performance is highlighted well here.

Atlas/Hi-Grade has fitted 256MB of PC133 SDRAM to this machine. In contrast the Mesh machine has DDR memory, which you might expect makes it faster than the Atlas/Hi-Grade, but not so. The Atlas/Hi-Grade's 1.4GHz processor gives it enough power to beat Advent's 1.33GHz system in SYSmark 2001.

The rest of the specification is equally impressive. A 40GB Western Digital hard drive will provide you with all the storage space you'll need, and you'll be able to back this up using the eight-speed write and rewrite CD-RW. The Asus A7V133 motherboard provides for ample expansion. It features four EIDE ports, with the extra two provided by a

Promise UltraDMA100 controller. When the hard disk is connected to this, as in this configuration, you see a small speed increase.

Graphics come courtesy of VideoLogic's Vivid! XS. This 32MB card was the winner of our graphics card group test in August's issue, and is a speedy performer. It can't compete with the GeForce2 Pro card in the ComputeIT PC, but you'll be able to play modern games at more than reasonable frame rates. It also has an S-Video out port. LG is the supplier of the 17in monitor, with its Flatron tube providing a steady, clear and bright image.

Sound is taken care of by the four-channel Guillemot Fortissimo. This is the original iteration of the card, rather than the second version we reviewed in our last issue. It still has optical S/PDIF (Sony/Philips Digital Interface) out, though, and the bundled Cambridge four-point speakers produce a reasonable enough effect considering the price of the system.

ComputelT Infinity LT

PRICE £938.83 (£799 ex VAT) **CONTACT** ComputelT 08707 487 487

PROS Very fast 3D performance **CONS** Poor sound system

OVERALL A very capable machine that only lacks a dedicated sound card

FEATURES ■■■■■ **PERFORMANCE** ■■■■■

VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■

ComputelT is still a relatively recent arrival in the reviews and group test pages of *PCW*, but each time we have seen one of its PCs we have been impressed by the balance of value and performance. This machine does little to spoil that growing reputation.

This PC, based on the 1.33GHz AMD Athlon, benefits from 256MB of PC133 SDRAM. The motherboard is another newcomer – this time from Elitegroup, also known as ECS – and, built around the VIA KT133A chipset, it supports a 266MHz front-side bus (FSB). The board features five PCI slots and the ubiquitous AGP slot, as well as a single AMR socket for communications.

This is not the best board, but it was stable throughout our tests and performed well. It is a shame, then, that ComputelT has opted for a software sound solution, relying on the onboard AC97 processing capabilities to handle audio output.

This inevitably means you can

expect a performance hit when playing games.

What really impressed us was the inclusion of a 64MB Hercules 3D Prophet GeForce2 Pro graphics card. This wiped the floor in comparison to the other cards seen this month, driving this machine to first place in the 3DMark tests and easily offsetting the effect of the onboard sound.

The monitor is a middle-of-the-road NEC offering fairly standard flicker-free resolutions of 1,152 x 864 at 75Hz. The only other add-on is an internal 56K modem. Storage, meanwhile, is handled by a 41.1GB IBM Deskstar hard drive and two optical units – a slot-loading Pioneer DVD drive and 16x 10x 40x Plextor CD-RW drive with BurnProof abilities.

Overall, not a bad show from ComputelT, although nothing special in terms of 2D performance. This is the machine to go for if you're a gamer with less demanding sound requirements.



evesham.com Axis 1.3

PRICE £938.83 (£799 ex VAT) **CONTACT** evesham.com 0870 160 9500

PROS Well featured; good value for money **CONS** Not the fastest

OVERALL A solid entrant from evesham.com offering good value and solid components

FEATURES ■■■■■ **PERFORMANCE** ■■■■■

VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■

It's no surprise to see a decent system from evesham.com, despite the low price. The performance is nothing to write home about, with the evesham.com sitting mid-table on all the performance graphs, but it's a well-rounded machine with a good mix of components.

Sitting in the Chaintech motherboard is a 1.33GHz AMD Athlon CPU running on a 266MHz front-side bus. Backing up this fast CPU is 256MB of PC2100 DDR SDRAM which fills one of the two DIMM slots.

The AGP slot is populated by a 64MB GeForce2 MX card from Leadtek. The GeForce2 MX chipset is not the fastest for 3D applications and this is borne out by the mediocre 3D results.

Showing off the graphics card to good effect is an LG Flatron 775FT monitor. This 17in flat-screen display doesn't exhibit the damping wires associated with aperture-grille models, but still produces a bright

and vibrant image with little reflection. One of the PCI slots is occupied with a 56K modem. The sound comes courtesy of an onboard sound chip although it's a better solution than most we've seen.

The C-Media sound chip supports 5.1 audio output via two extra outputs in the bottom backing plate. Unfortunately, due to the low price there are no 5.1 channel speakers provided, although the four-point surround package that is supplied is a decent addition.

Storage is amply catered for with a 30GB Maxtor hard disk connected to the primary EIDE channel. Connected to the secondary channel are the DVD-ROM and CD-RW drives. Also, the bundled copy of StarOffice will get you working straight out of the box.

The evesham.com system case sports two USB ports at the front, so it's easy to connect devices such as digital cameras or MP3 players.

Intellect Power 13A

PRICE £938.83 (£799 ex VAT) **CONTACT** Intellect 0161 429 9911

PROS Very fast hard drive; excellent monitor **CONS** Poor speakers; no removable storage

OVERALL Not a bad system for the price, but removable storage would have been good

FEATURES **PERFORMANCE**

VALUE FOR MONEY **OVERALL**

Intellect is yet another newcomer, and it has yet to win an award in our reviews or group test pages. This month it has submitted a system based on the 1.3GHz AMD Athlon processor, paired with 256MB of PC133 SDRAM. The whole lot is held together by an Asus A7V133 motherboard, and supplemented on the graphics and sound fronts by a 64MB Hercules 3D Prophet 4500 card and SoundBlaster Live! 1024. Internet connectivity is handled by an internal 56K modem.

This all adds up to a fairly healthy system, although it lacks any removable storage. There is, on the other hand, a 12-speed DVD drive from Memorex and a very fast 40.9GB Fujitsu hard drive. The 7,200rpm raw spindle speed helps make this one of the fastest drives we have seen, writing files at an impressive rate.

The monitor is yet another LG, but this time around it's slightly more upmarket – a Flatron 795FT Plus,

with a top flicker-free resolution of 1,600 x 1,200 at 75Hz it also features an in-built four-port USB hub.

Our only complaint as far as specs go, apart from the lack of removable storage, is the disappointing set of stereo speakers with subwoofer, rather than the kind of surround-sound solution provided by some other manufacturers.

The Intellect performed fairly well, despite demonstrating that the slower bus speed of this CPU option results in slightly lower 2D benchmark scores. It does slightly better when it comes to 3D, scoring second fastest in Quake III Team Arena and above average in 3DMark 2001.

Overall, not a bad system, but lacking that little something extra that would transform it from a contender into a winner. The monitor is excellent, and the games performance is fair, which is worth considering if these are on your shopping list.



Mesh Matrix 1200 Plus

PRICE £938.83 (£799 ex VAT) **CONTACT** Mesh 020 8208 4706

PROS Well built, capable system **CONS** The 1.2GHz CPU means it isn't as fast as others

OVERALL While it would grace any household, Mesh hasn't gone the extra mile this time

FEATURES **PERFORMANCE**

VALUE FOR MONEY **OVERALL**

Unusually, Mesh's system doesn't shine particularly well in this group test. Everything you'd want or need from a £799 PC is there, but in this highly competitive test, it simply doesn't offer enough to win awards.

Frightening though it is, the well-built Matrix has the lowest clocked CPU in this test: a 1.2GHz Athlon. Added to this is 256MB of PC2100 DDR SDRAM. However, this doesn't give much of a performance boost to the machine in SYSmark terms. The 256MB is contained on a single stick, with one free memory slot on the motherboard for the future. The Asus A7A266 motherboard can accept both SDR and DDR SDRAM, with separate slots for each. However, it can't take both at the same time.

The 40.9GB hard drive is a good unit, and the Fujitsu model supports the high bandwidth UltraDMA100 standard, as we would expect. Both DVD and CD-RW are included, in common with most of the other

machines here. The Teac CD-RW is an eight-speed write, eight-speed rewrite model: hardly cutting edge, but not bad inside a £799 PC.

Sound is taken care of by a Creative SoundBlaster Live! 1024 card. This does not have onboard Dolby Digital decoding, as seen on the more recent 5.1 version, and so this is a four-channel card. It outputs to the four-channel Cambridge Soundworks FPS1000 speakers.

Despite bundling a 64MB graphics card, the nVidia GeForce2 MX 400 chip is still outgunned by the faster Kyro II cards such as the VideoLogic Vivid! XS. This confirms our experience that the amount of memory on a graphics card does not make a huge difference to 3D performance. There is an S-Video port, at least, so you'll be able to output the signal to your TV. Mitsubishi's 17in aperture-grille Diamond Pro 730, a V.90 modem and a copy of Works Suite 2001 complete the bundle.

Multivision Guardian BPXS

PRICE £938.83 (£799 ex VAT) **CONTACT** Multivision 0870 066 0885

PROS Fastest CD-RW; hard drive protection system **CONS** Poor 2D performance

OVERALL The Guardian system is a good idea but it does impact on system performance

FEATURES ■■■■■ **PERFORMANCE** ■■■■■

VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■

In previous group tests we have often been impressed with Multivision machines which frequently represent excellent value for money. However, this is slightly different to what we have seen in the past mainly because of two factors. First, it comes in a full-tower case, and second, it includes the Guardian.

If you're wondering what a Guardian is, it's a hard drive protection system, sitting in a drive bay, that acts as a virtual write-protection system for your drive and allows you to either do 'test' installations without risking your working configuration, or stop your kids installing anything they shouldn't. It also claims to protect against virus attacks and the accidental removal of vital files.

The processor in this system is yet another 1.33GHz AMD Athlon, housed in a Gigabyte GA-7DX motherboard. Sadly there is only 128MB of memory, which is fairly common in this group test but a little stingy nonetheless.

less considering the price of memory at the time of writing.

Graphics are handled by the now familiar VideoLogic Vivid! XS, with sound catered for by the adequate onboard Creative SoundBlaster PCI 128.

The hard drive is a budget Seagate U8 model offering an impressive 40GB, and is backed up by two optical drives – a 16-speed DVD drive from Pioneer and Mirai's 24x 10x 40x CD-RW. The monitor is the same NEC Multisync 75F as the one seen in ComputelT's configuration, with a top flicker-free resolution of 1,152 x 864 at 75Hz.

In terms of performance, the Multivision manages only a meagre 125 points in SYSmark 2001. It does do slightly better in Quake III Team Arena, though.

This is a poor showing from a company that has impressed in the past, and the full-tower case can't make up for it.



Panrix Magnum 1333

PRICE £938.83 (£799 ex VAT) **CONTACT** Panrix 0113 244 4958

PROS Above average performance; USB networking **CONS** Only 128MB of RAM

OVERALL A decent system but it could have been better with a bit more thought

FEATURES ■■■■■ **PERFORMANCE** ■■■■■

VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■

The Magnum is based on a 1.33GHz AMD Athlon CPU residing in an MSI motherboard sporting the VIA KT266 chipset. This motherboard has a Promise EIDE RAID controller built in, but Panrix has chosen not to make use of it, instead connecting the single 30.7GB Maxtor hard disk to the primary EIDE controller. Strangely, Panrix has connected the CD-RW drive to the primary EIDE channel as well, with the DVD-ROM drive residing on the secondary one. If the intention was to separate the two optical drives it would have been a better idea to connect the hard disk to the Promise controller so that its performance was not hindered.

That said, performance is not disappointing, with the Panrix grabbing third place in both the SYSmark 2001 and 3DMark 2001 tests. However, it only manages fifth position in the Quake III Team Arena test.

The motherboard also supports USB networking, allowing you to

create a LAN by connecting two PCs through their USB ports. The port for this is mounted in the bottom backing plate and doesn't obscure an expansion slot. Only one of the five PCI slots is occupied with a 56K modem. Sound comes courtesy of the onboard AC97 chip that pumps its signal out to a mediocre speaker set of two satellites and a subwoofer.

One of the three DIMM slots is filled with 128MB of PC2100 DDR SDRAM. In the AGP Pro slot is a VideoLogic Vivid! XS graphics card sporting the Kyro II chipset. This card offers an excellent price/performance ratio and should be able to make the most of the latest 3D games. The monitor is a 17in aperture-grille model in the shape of the Mitsubishi Diamond Plus 73. It's not the best 17in unit around, but it does provide vivid colours and a reasonably sharp image.

Ultimately the Panrix is a decent enough system, but there are even better value propositions elsewhere.



Polar Prelude 1200

PRICE £938.83 (£799 ex VAT) **CONTACT** Polar 0800 138 1238

PROS Some decent speakers **CONS** Poor benchmark performance

OVERALL A system that offers everything you need but is let down by poor performance

FEATURES ■■■■■ **PERFORMANCE** ■■■■■
VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■

Polar tied with Mesh for the slowest clocked system this month. Both provided a 1.2GHz AMD Athlon-based systems. We were not surprised, then, that the Polar was the poorest performing system in this month's SYSmark 2001 test.

The 1.2GHz processor is backed up by 256MB of PC133 SDRAM, which puts it ahead of some of the other machines on test here. The backbone of the system is a KinetiZ 7E-A motherboard from QDI.

Graphics are handled by the 3D Power GeForce2 MX, a card that employs the nVidia GeForce2 MX chipset and runs a little slower than its replacement, the MX400. Sound, meanwhile, is processed by a Creative SoundBlaster Live! 1024 that pipes its output to a set of Labtec LCS-2514 speakers, which all adds up to a pretty good combination, and a change from the FPS1000 speakers we are more used to seeing bundled with Creative cards.

Polar is the only company in this test to have supplied one of the new V.92 modems that feature slightly faster upload speeds. Storage comes in the form of a 40GB Seagate hard drive, and a 16-speed DVD drive from Toshiba. In terms of backup, removable optical storage is handled by a Teac CD-RW running at the now rather sedate 8x 8x 32x speed.

Polar breaks from the norm by supplying an Iiyama Vision Master Pro 411 monitor. This is an excellent 17in unit capable of delivering sharp images at resolutions up to 1,280 x 1,024 at a 75Hz refresh rate.

In terms of performance the Polar scored 122 in SYSmark, which puts it at the back of the pack. In both 3DMark 2001 and Quake III Team Arena, however, it outperforms both the Mesh and Advent machines.

Taken as a whole, we expected to see better performance from this system, and it is this poor speed that ultimately lets it down.



Systemax A1400RV Lifestyle

PRICE £938.83 (£799 ex VAT) **CONTACT** Systemax 0870 297 366

PROS Good 2D performance; bundled printer **CONS** No removable storage

OVERALL A fair system for the price, but uninspiring

FEATURES ■■■■■ **PERFORMANCE** ■■■■■
VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■

Systemax is one of two manufacturers to provide a 1.4GHz system this month, but strangely this machine is nowhere near as fast as that provided by Atlas.

This time around, it's a 1.4GHz AMD Athlon, fitted into a Gigabyte GA-7DX motherboard. This is a popular choice this month, but it suffers in comparison to the Atlas through the inclusion of only 128MB of PC2100 DDR memory.

In terms of graphics processing, Systemax has opted for a 32MB VideoLogic Vivid! XS card, as have many of its competitors.

Sound, on the other hand, is relegated to the status of onboard chips, although the chipset in this instance is the SoundBlaster PCI 128 – not to be sniffed at. Its output is piped to a set of Cambridge Soundworks SBS-52 stereo speakers.

Internet connectivity is handled by a ubiquitous 56K PCI modem, which still leaves plenty of room for expansion.

There's 30GB of storage in the form of a Quantum Fireball LP hard drive, and a 16-speed DVD drive from Pioneer to handle multimedia and software installation. Sadly there is no removable storage solution.

On a more positive note, Systemax is the only supplier to bundle a printer – an Epson Stylus Color 480 SXU. The supplied CTX monitor has a 17in tube, which is capable of resolutions up to 1,152 x 864 at a 75Hz refresh. This month, that is pretty much the norm.

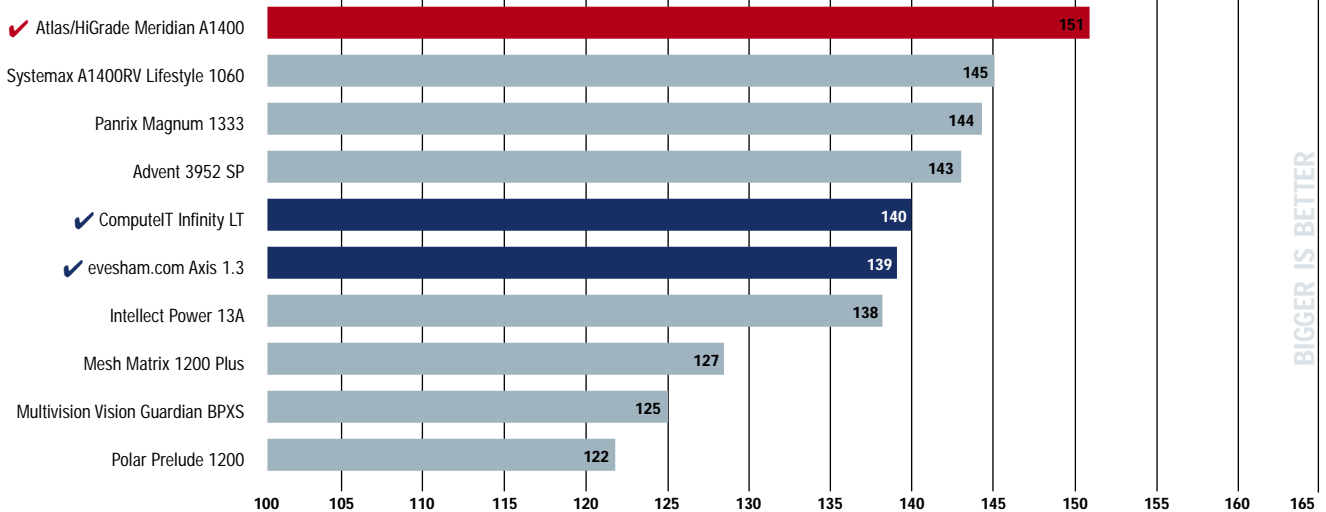
In terms of performance, the Systemax does very well, and comes second in SYSmark. Atlas puts in a slightly better showing, six points faster, but to achieve that it has double the memory.

Overall, this is not a bad system. It's fine for business applications, but it lacks that little extra something that will appeal to gamers. If anything, it could do with some more memory – especially at current prices.



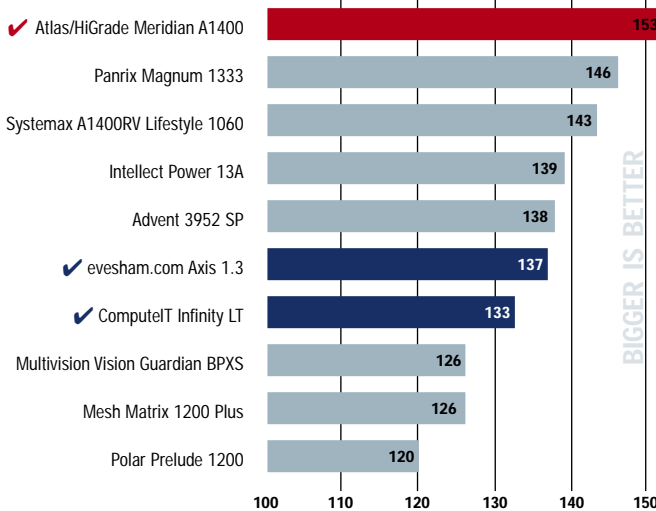
LAB RESULTS

SYSmark 2001 overall



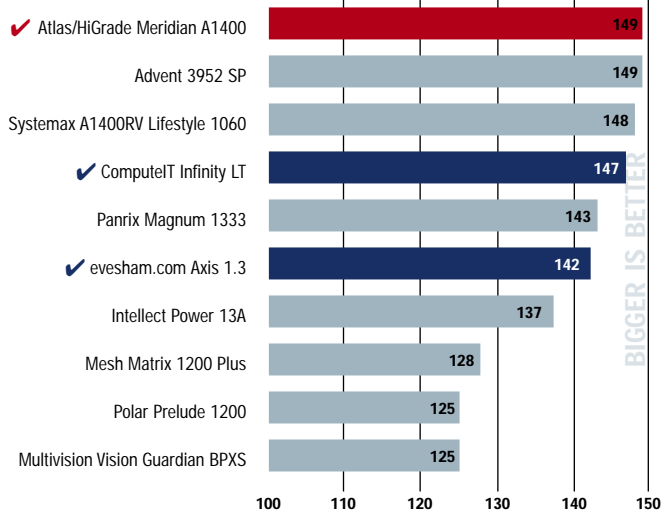
BIGGER IS BETTER

SYSmark 2001 Internet content creation



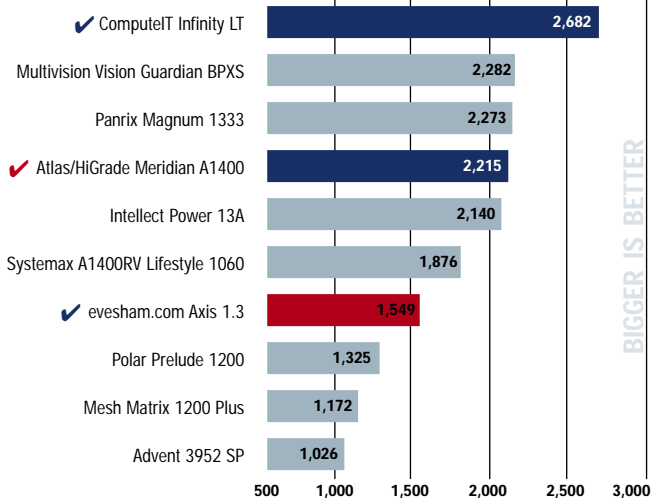
BIGGER IS BETTER

SYSmark 2001 office productivity



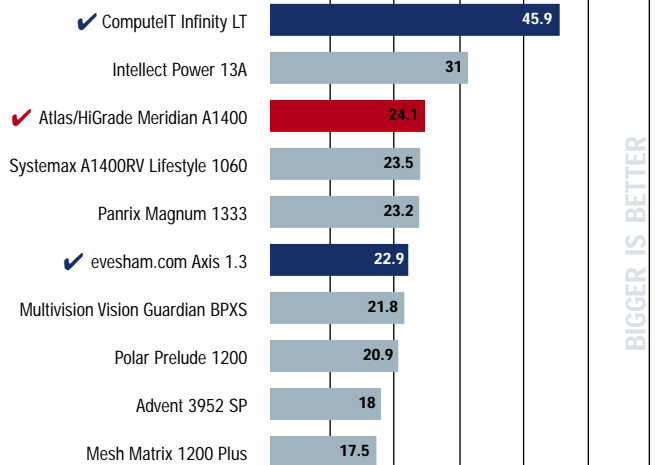
BIGGER IS BETTER

3DMark 2001 (1,280 x 1,024 at 32bit)



BIGGER IS BETTER

Quake III Team Arena (fps) (1,280 x 1,024 at 32bit)



BIGGER IS BETTER

Please see page 56 for an explanation of how we tested the PCs

TABLE OF FEATURES



| MANUFACTURER | ADVENT | ATLAS/HIGRADE | COMPUTE IT | EVESHAM.COM |
|--|--|--|--|--|
| MODEL NAME | 3952 SP | MERDIAN A1400 PWN | INFINITY LT | AXIS 1.3 |
| Price (ex VAT) | £799 | £799 | £799 | £799 |
| Price (inc VAT) | £938.83 | £938.83 | £938.83 | £938.83 |
| Telephone | 08705 464 464 | 020 8532 6515 | 08707 487 487 | 0870 160 9500 |
| URL | www.pcworld.co.uk | www.atlasplc.com | www.it.pc.co.uk | www.evesham.com |
| HARDWARE SPECS | | | | |
| Processor | 1.33GHz AMD Athlon | 1.4GHz AMD Athlon | 1.33GHz AMD Athlon | 1.33GHz AMD Athlon |
| RAM/type | 256MB PC2100 | 256MB PC133 SDRAM | 256MB PC133 SDRAM | 256MB PC2100 |
| Occupied/spare RAM slots | 2/0 | 1/2 | 1/2 | 1/1 |
| Max memory in this configuration | 256MB | 1.25GB | 1.25GB | 768MB |
| Maximum memory supported by motherboard | 1GB | 1.5GB | 1.5GB | 1GB |
| Hard disk (manufacturer and model) | Maxtor 5T030H3 | Western Digital WD400BB | IBM Deskstar | Maxtor 5T030H3 |
| Hard disk size/interface | 30.7GB/EIDE | 40GB/EIDE | 41.1GB/EIDE | 30GB/EIDE |
| Storage drive manufacturer and model | N/A | Teac CD-W58 | Plextor PX-W1610A | Samsung SW-212B |
| Size of storage drive media/interface | N/A | 650MB/EIDE | 650MB/EIDE | 650MB/EIDE |
| MOTHERBOARD COMPONENTS | | | | |
| Motherboard manufacturer | Gigabyte | Asus | ECS | Chaintech |
| Model/chipset | GA-7DX/AMD761 VIA 686B | A7V133/VIA KT133A | K7VZA/VIA KT133A | 7KJD/AMD760 & VIA8231 |
| EXPANSION AND I/O | | | | |
| No of 3.5/5.25in bays | 4/3 | 3/4 | 3/3 | 3/3 |
| No of free 3.5/5.25in bays | 2/2 | 1/2 | 1/1 | 1/1 |
| No of PCI/ISA/shared/AMR slots | 5/0/0/1 | 4/0/1/0 | 5/0/0/1 | 4/0/1/1 |
| No of free PCI/ISA/shared/AMR slots | 3/0/0/1 | 2/0/1/0 | 4/0/0/1 | 3/0/1/1 |
| No of USB/serial/parallel/PS/2 | 2/2/1/2 | 4/2/1/2 | 2/2/1/2 | 2/2/1/2 |
| MULTIMEDIA | | | | |
| DVD manufacturer and model | Toshiba SD-M1502 | Hitachi GD-8000 | Pioneer DVD-106 | BTC BDV212B |
| DVD speed/interface | 16x/EIDE | 16x/EIDE | 16x/EIDE | 12x/EIDE |
| Sound card manufacturer | Creative | Guillemot | VIA | C-Media |
| Sound card model | SoundBlaster Live! 1024 | Maxi Sound Fortissimo | Onboard AC97 | Onboard C-Media 8738 |
| Speakers manufacturer and model | Cambridge Soundworks FPS1000 | Cambridge Soundworks FPS1000 | Cambridge Soundworks SW310 | Cambridge Soundworks FPS-1000 |
| Graphics card manufacturer and model | 3D Power GeForce2 MX32 | VideoLogic Vivid! XS | Hercules 3D Prophet GeForce 2 Pro | Leadtek Winfast GeForce2 MX MAX |
| Chipset | nVidia GeForce2 MX | STM Kyro II | nVidia GeForce2 Pro | nVidia GeForce2 MX |
| Memory and type | 32MB SDRAM | 32MB SDRAM | 64MB DDR | 64MB SDRAM |
| Graphics card interface | AGP | AGP | AGP | AGP |
| Monitor manufacturer and model | Sony Multiscan E220 | LG Flatron 775FT | NEC Multisync 75F | LG Flatron 775FT |
| Monitor size/max viewable diagonal | 17in/16in | 17in/16in | 17in/16in | 17in/16in |
| Maximum resolution at VESA refresh | 1,280 x 1,024 at 75Hz | 1,152 x 864 at 75Hz | 1,152 x 864 at 75Hz | 1,152 x 864 at 75Hz |
| OTHER INFORMATION | | | | |
| Modem manufacturer and model | Lucent Win Modem 56K V.90 | VFM56.0-PRS 56K V.90 | Conexant HFC 56K V.90 | Diamond Supra SST 56i Pro DF |
| Misc hardware | N/A | Logitech QuickCam Express | N/A | N/A |
| Bundled software | Microsoft Works 2001 | N/A | Ahead Nero 5.5 | Sun StarOffice 5.2 |
| Standard warranty (RTB = return to base, C&R = collect and return) | 3 years on site | 1 year on site, 2 years RTB | 1 year C&R, 2 years RTB | 2 years on site, 1 year RTB |

| INTELLECT | MESH | MULTIVISION | PANRIX | POLAR | SYSTEMAX |
|--|--|--|--|--|--|
| POWER 13A | MATRIX 1200 PLUS | VISION GUARDIAN BPXS | MAGNUM 1333 | PRELUDE 1200 | A1400RV LIFESTYLE 100 |
| £799 | £799 | £799 | £799 | £799 | £799 |
| £938.83 | £938.83 | £938.83 | £938.83 | £938.83 | £938.83 |
| 0161 429 9911 | 020 8208 4706 | 0870 066 0885 | 0113 244 4958 | 0800 138 1238 | 08707 297 366 |
| www.intellect.uk.com | www.meshcomputers.com | www.multivision.co.uk | www.panrix.com | www.polartechnology.com | www.systemaxpc.co.uk |
| 1.3GHz AMD Athlon | 1.2GHz AMD Athlon | 1.33GHz AMD Athlon | 1.33GHz AMD Athlon | 1.2GHz AMD Athlon | 1.4GHz AMD Athlon |
| 256MB PC133 SDRAM | 256MB PC2100 | 128MB PC2100 | 128MB PC2100 | 256MB PC133 SDRAM | 128MB PC2100 |
| 1/2 | 1/1 0/3 | 1/1 | 1/2 | 1/2 | 1/1 |
| 1.25GB | 768MB | 640MB | 1.1GB | 1.25GB | 640MB |
| 1.5GB | 1GB | 1GB | 1.5GB | 1.5GB | 1GB |
| Fujitsu MPG3409AH | Fujitsu MPG3409AT | Seagate U8 | Maxtor | Seagate ST340824A | Quantum Fireball LP |
| 40.9GB/EIDE | 40.9GB/EIDE | 40GB/EIDE | 30.7GB/EIDE | 40GB/EIDE | 30GB/EIDE |
| N/A | Teac CD-W58E | Mirai CRD-BP1500P | Samsung SW-212B | Teac CD-W58E | N/A |
| N/A | 650MB/EIDE | 650MB/EIDE | 650MB/EIDE | 650MB/EIDE | N/A |
| Asus | Asus | Gigabyte | MSI | ODI | Gigabyte |
| A7V133/VIA KT133A | A7A266/Aii Magic 1 | GA-7DX/ AMD 761 VIA 686B | K7T266 Pro/VIA KT266 | KinetiZ 7E-A/ VIA KT133A | GA-7DX/AMD 761 VIA 686B |
| 4/3 | 3/3 | 4/6 | 4/3 | 5/2 | 3/3 |
| 2/2 | 1/1 | 3/3 | 2/1 | 3/0 | 1/2 |
| 4/0/1/0 | 4/0/1/0 | 5/0/0/1 | 4/0/1/0 | 4/0/1/1 | 5/0/0/1 |
| 2/0/0/0 | 2/0/1/0 | 3/0/0/1 | 3/0/1/0 | 2/0/1/1 | 4/0/0/1 |
| 4/2/1/2 | 4/2/1/2 | 4/2/1/2 | 3/2/1/2 | 2/1/1/2 | 2/2/1/2 |
| Memorex DVD-MAXX 1240 | Pioneer DVD-116 | Pioneer DVD-116 | Toshiba SD-M1402 | Toshiba SD-M1502 | Pioneer DVD-106 |
| 12x/EIDE | 16x/EIDE | 16x/EIDE | 16x/EIDE | 16x/EIDE | 16x/EIDE |
| Creative | Creative | Creative | VIA | Creative | Creative |
| SoundBlaster Live! 1024 | SoundBlaster Live! 1024 | Onboard SoundBlaster PCI 128 | Onboard AC97 | SoundBlaster Live! 1024 | Onboard SoundBlaster PCI 128 |
| Cambridge Soundworks SW310 | Cambridge Soundworks FPS1000 | Cambridge Soundworks FPS1000 | Panrix 2.1 speakers | Labtec LCS-2514 | Cambridge Soundworks SBS-52 |
| Hercules 3D Prophet 4500 | LRI2850 | Videologic Vivid! XS | Videologic Vivid! XS | 3D Power GeForce2 MX | Videologic Vivid! XS |
| STM Kyro II | nVidia GeForce2 MX 400 | STM Kyro II | STM Kyro II | nVidia GeForce2 MX | STM Kyro II |
| 64MB SDRAM | 64MB SDRAM | 32MB SDRAM | 32MB SDRAM | 32MB SDRAM | 32MB SDRAM |
| AGP | AGP | AGP | AGP | AGP | AGP |
| LG Flatron 795FT Plus | Mitsubishi Diamond Pro 730 | NEC Multisync 75F | Mitsubishi Diamond Plus 73 | Iiyama Vision Master Pro 411 | CTX EX700F |
| 17in/16in | 17in/16in | 17in/16in | 17in/16in | 17in/16in | 17in/16in |
| 1,600 x 1,200 at 75Hz | 1,600 x 1,200 at 75Hz | 1,152 x 864 at 75Hz | 1,152 x 864 at 75Hz | 1,280 x 1,024 | 1,152 x 864 at 75Hz |
| Conexant HCF 56K V.90 | Conexant HCF 56K V.90 | Intel HaM 56K V.90 | MicroLink 56K V.90 | Hayes V.92 | 56K Smart HCF 56K V.90 |
| N/A | N/A | Guardian hard drive protection system | USB networking | N/A | Epson Stylus Color 480 SXU |
| N/A | Microsoft Works Suite 2001 | Lotus SmartSuite Millennium | N/A | N/A | Lotus SmartSuite Millennium |
| 3 years on site | 1 year on site, 2 years RTB | 1 year on site 2 years RTB | 1 year on site 2 years RTB | 1 year on site, 3 years RTB | 3 years on site, |

Editor's Choice

At a price point of £799 you would expect several features to be missing or that the system would feature low-end components. But with the current price trend we see prices of the core components such as RAM and CPUs dropping virtually every day. This allows for some amazing configurations for even the cheapest PC and this group test shows how much you can get for a reasonably small outlay.

A few years ago you would have expected to pay £2,000 to £3,000 for a high-end system, but any of the systems that we have on test this month could be regarded as a fast machine and, even though they lack some of the features of more expensive systems, they still include some of the fastest processors on the market and ample amounts of RAM. A new trend seems to be to go with Kryo II-based graphics cards since these offer excellent price/performance ratio compared to what nVidia has on offer.

Several manufacturers have opted for some kind of onboard audio solution, ranging from AC97 soft audio to full six-channel hardware Dolby Digital sound. But the sound card is only half of the audio system and you need a good set of speakers to bring out the best aural effects. This is, sadly, where we see the biggest cost cut, as the best speaker systems here are four-point surround systems that are fairly basic by today's standards.

We've also noticed an increase in drive space, as none of the machines on test feature less than a 30GB hard drive, which should be ample space for anyone looking for a machine in this price range.

What is most noticeable is the small difference between all the systems, it was only minor things that separated the winners from the rest of the crowd this month, albeit important things. Most of the machines featured similar speed processors as well as very similar graphics cards. All of them featured a DVD-ROM drive, but some lacked a backup drive, which we think is a fairly important part of any PC today.

The winners

In the end we decided to give the **Editor's Choice** to the **Atlas/Hi-Grade Meridian A1400** which was

the fastest system in our 2D tests, beating its closest competitor by six points in SYSmark 2001. This is quite impressive if you take into consideration that the Meridian A1400 doesn't feature DDR memory backing up its 1.4GHz CPU but rather relies on standard PC133 SDRAM, although Atlas has supplied an ample 256MB. The Meridian A1400 does also feature a 40GB 7,200rpm hard drive, a CD-RW from Teac capable of writing CD-Rs and CD-RWs at eight speed. You also get a 16-speed DVD-ROM drive, a VideoLogic Vivid! XS graphics card and a four-channel sound card with optical output from Guillemot. As an added bonus Atlas also supplies a Logitech Quick Cam Express web camera. All in all this makes the Meridian A1400 a well-balanced system that performs well both in SYSmark 2001 as well as in our 3D test.

Our first **Highly Commended** award goes to the **ComputelT Infinity LT** for being the fastest machine in our 3D tests, beating the competition by far due to the supplied GeForce2 Pro graphics card with 64MB of DDR video memory. Sadly ComputelT went for the onboard AC97 audio rather than fitting a separate sound card, but this is a small omission. On the other hand, ComputelT has supplied the largest hard drive this month, a massive 41.1GB Deskstar drive from IBM. It is also the only manufacturer to supply a 16-speed CD writer from Plextor, although Multivision offers a 24-speed drive. This together with a 1.33GHz AMD Athlon processor and 256MB of PC133 SDRAM makes for a very capable system.

Our last **Highly Commended** award goes to the **evesham.com Axis 1.3**. This system features 256MB of DDR memory as well as a 1.33GHz AMD Athlon processor making it slightly faster in our 2D tests than the ComputelT. Unfortunately evesham.com has gone for a GeForce2 MX-based graphics card and this results in a slightly slower 3D score than what we've seen from systems using Kryo II-based cards. Evesham.com supplied an interesting motherboard from Chaintech that features onboard six-channel Dolby Digital sound, but sadly only supplied 4.1-channel speakers. Overall, the Axis 1.3 is a well-rounded system that offers excellent upgrade potential.



Atlas/Hi-Grade Meridian A1400



ComputelT Infinity LT



evesham.com Axis 1.3

These PCs include some of the fastest processors on the market