

Power notebook Hi-Grade Notino R5400-2000

PC ADVISOR **RECOMMENDED**
The Notino R5400-2000 from Hi-Grade bundles Intel's fastest mobile processor into a rugged chassis that comes with military approval. With a 2GHz Mobile P4 processor the performance, although not disappointing, failed to better previous P4M machines seen by *PC Advisor*. The R5400 only managed a WorldBench 4

score of 91, compared to 103 achieved by Toshiba's 1.7GHz Satellite Pro 6100 (reviewed June 02). Where the Satellite uses nVidia's GeForce4 420 Go graphics, the Notino is only equipped with an S3 ProSavage DDR chipset. However, at £1,649, the Notino is a good £400 cheaper than the Satellite Pro.

Video editing isn't the main concern of a notebook, but the Notino fared well in our video encoding tests. It crunched down 500MB of DV (digital video) footage to Mpeg-2 in 10 minutes 53 seconds – not far off a 1.9GHz P4 desktop PC, which came in a minute faster.

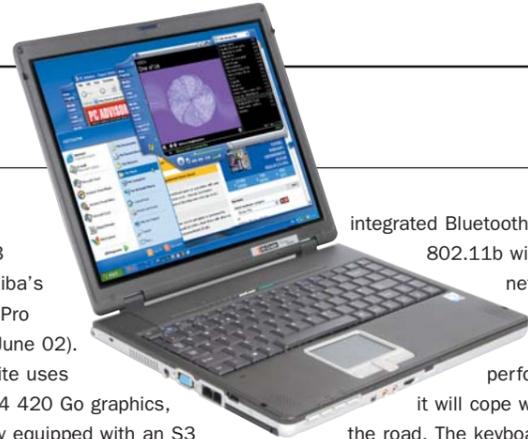
The R5400 is well equipped, bundling 384MB of DDR (double data rate) RAM, a 40GB hard drive, DVD/CD-RW combo drive, three USB 2.0 ports, FireWire and TV-out as standard. There's also optional

integrated Bluetooth or 802.11b wireless networking. It may lose out on performance, but it will cope with life on the road. The keyboard is spill-proof and the machine passes the military 810E standard, covering shock and vibration resistance. Hi-Grade supplements this with a two-year international warranty that even covers accidental damage.

Verdict

The Notino may not offer the highest performance score, despite housing Intel's fastest mobile processor, but in use it's unlikely you'll notice. Performance aside it has a lot to offer and the international warranty is a bonus earning it a well deserved Recommended award. ■

Will Head



Hi-Grade Notino R5400-2000		TOP 10
Specifications: 2GHz Mobile Pentium 4; 384MB DDR RAM; 40GB hard drive; 14.1in TFT; 24x/8x/8x CD-RW; 8x DVD; optional integrated 802.11b/Bluetooth; USB 2.0; FireWire; 313x257x30mm; 2.43kg.		
Hi-Grade: 020 8532 6100		
Website: www.higrade.com		
Price: £1,649 ex VAT		
Build quality	9	
Features	8	
Value for money	7	

Apple desktop PC eMac

When Apple unveiled the new iMac, with its flat-panel display, company CEO Steve Jobs famously proclaimed the death of the CRT (cathode ray tube) monitor. So the launch in April of the eMac, built around a 17in CRT screen, came as something of a surprise. Apple's reasoning was that a low-cost alternative was required for its education customers, who typically have tight budgets, and CRTs are much cheaper than their LCD (liquid crystal display) equivalents.

In another surprising turnaround, though, less than two months later the eMac has gone on sale to the general public too. The consumer eMac differs only slightly from the education model.

It has a CD-RW drive instead of CD-ROM, and includes a built-in modem. Apart from its screen and appearance, the eMac is pretty much a feature-for-feature match with the iMac. It has a 700MHz Power PC G4 processor, GeForce2 MX graphics and built-in ethernet, USB and FireWire ports. As is always the case with Macs, not enough RAM – just 128MB – is provided.

The 17in screen is good, but, frankly, not good enough. It's fine at standard 1,024x768 resolution, but when you raise it to its maximum resolution of 1,280x960 (which is surely the point of having a bigger screen), the screen refresh rate is a potentially headache-inducing 72Hz.

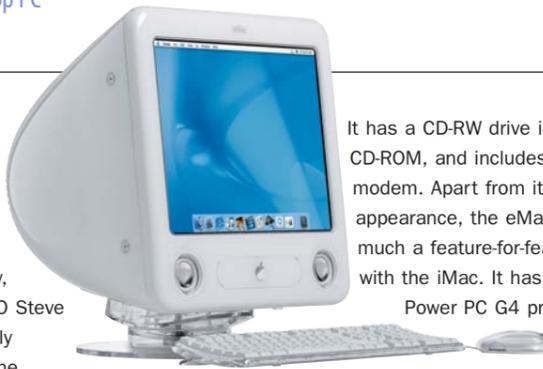
As with all Apple hardware, it runs Mac OS X rather than Windows, so we weren't able to benchmark it. However, in Mac-specific speed tests, the eMac proved to

be a match for the iMac – which is no slouch – and in some cases even faster.

Verdict

The eMac is an attractive low-cost entry into the Mac market, and surprisingly powerful and well-specified. However, it just isn't as attractive as the iMac. ■

Alex Katz



eMac	
Specifications: 700MHz Power PC G4; 128MB RAM; 40GB hard disk; 17in flat CRT; 32x/24x/10x CD-RW; 32MB nVidia GeForce2 MX; 56K V.90 modem; 10/100Base-T ethernet; three USB ports; two FireWire ports.	
Apple: 0800 039 1010	
Website: www.apple.com/uk/emac	
Price: £807.66 ex VAT	
Build quality	9
Features	7
Value for money	8

Smartphone Nokia 7650

As PDAs (personal digital assistants) and phones converge, two distinct devices are emerging – PDAs that have mobile phones bolted on, such as Handspring's Treo (see page 55), and mobile phones that have PDA functions, like this new model from Nokia.

The advantages of having a connected PDA are easy to see – you can send and receive emails while on the move, you only have to maintain one address book rather than two, plus you only have to carry one device around with you.

The 7650 combines the three functions you need from a PDA – calendar, email and address book – with a host of other useful features in a package that measures just 114x56x26mm (width x depth x height) and weighs an easily cartable 154g.

Distinctive features

The 7650's PDA functions are easy to use – the interface is controlled with a small four-way joystick, which you move to highlight items and press inwards to select. Like a normal PDA, you can synchronise the information on the device with your PC, although only wirelessly via Bluetooth or infrared (there's no option to buy a cable). Nokia provides its own 'PC Suite' to achieve this, although it was not available in time for our review.

Most striking is the backlit colour screen. Indoors, this displays an easy-to-read image with 4,096 colours at its disposal. Outside, however, it can be a little tricky to see what's going on in bright conditions. The screen also has an impact on battery life – our test phone lasted for a day on average before it needed recharging.

Shooting ahead

What separates the Nokia 7650 from previous smartphones is hidden at the rear – a tiny digital camera. You can use this to take pictures at resolutions up to 640x480 and send them directly to other compatible phones, or email them. To do this, you'll need to take advantage of a fast GPRS (general packet radio service) connection utilising a new service called MMS (multimedia messaging). MMS makes it possible to send still images, text, voice and audio clips over the mobile network. We didn't find the process particularly easy – you'll certainly have to learn some mobile phone jargon and read the manual carefully. At the time of writing this was only available on T-mobile, but other networks will undoubtedly follow suit.



Photo album

Images are stored on the phone's 4MB internal memory. It can't be expanded and is used for the address book and email, so you'll probably be able to keep 15 images or so on it. If you take a picture of someone in your address book, you can add it to their contact details, so every time they ring

their grinning mug with pop up on the screen. Nokia promises that you'll be able to upload images you have snapped to its Club Nokia website, so your friends can see them too. Other features include support for Java applications, so in the future you'll be able to download extra software to run on the 7650, plus voice-activated dialling and an integrated speakerphone.

We tested a unit from Virgin Mobile, which at the time of writing hadn't announced when it was going to launch its GPRS service. Virgin's price rivals that of some Pocket PCs, but there is no contract or monthly charge to pay.

Verdict

Before we'd plump for the Nokia 7650 over a separate PDA and phone, we'd need a way of connecting the phone to the PC via a cable, and for the more advanced features to be easier to use. The camera is a fun addition, but a bit gimmicky and expensive to run. A product for posing rather than using. ■

Jason Jenkins

MMS explained

SMS (short messaging service) is the runaway hit of mobile phones, with over 45 million text messages changing handsets everyday in the UK. MMS (multimedia messaging service) is the big brother of SMS, allowing you to send not only text, but pictures, audio and video.

Of course, the networks aren't doing this out of the goodness of their hearts – they see it as a lucrative money spinner. T-Mobile currently offers the service at £20 a month for 10MB of messages. To get the most from MMS you'll need a colour mobile phone, preferably with a built-in camera, which won't be cheap either.

Nokia 7650	
Specifications: dualband mobile phone with HSCSD and GPRS support; 640x480 digital camera; 4MB RAM; Symbian OS; contact book; calendar; email; WAP browser; colour screen; Java application support; 114x56x26mm; 154g.	
Nokia: 0845 6000 600	
Website: www.virgin.com/mobile	
Price: £340 ex VAT	
Build quality	9
Features	8
Value for money	6

Power notebook
Sony PCG-GRX416SP

PC ADVISOR Sony can always be relied upon for innovation and the PCG-GRX416SP is no exception. This is the first notebook we have seen to sport a massive 16.1in TFT (thin film transistor) display. It supports resolutions of up to 1,600x1,200 and the image quality is superb. However, the Sony falls (heavily) into the desktop replacement category, weighing almost 4kg and

measuring 355x292x40mm. That said, it provides you with most of the features you would expect from a full-sized PC, plus some extras you wouldn't. The Sony is powered by a 1.8GHz Mobile Pentium 4 processor twinned with 256MB of RAM. This relatively slow processor and low memory specification means that its WorldBench score of 97 leaves something to be desired – the top Power notebook beats it by 21 points. However, a host of other features puts the Sony ahead of the competition in terms of specification alone. Graphics are provided by ATI's Mobility Radeon 7500 with 16MB internal memory and 16MB of external DDR (double data rate) RAM, which ensures smooth performance. A 40GB hard drive offers plenty of storage

space and there is a combo DVD/CD-RW drive for backups. The software bundle is generous, although several of these are Sony utilities, including DVGate for image capture, VisualFlow Memory Stick browser and MovieShaker video editing software. These video-enthusiast tools are backed up by a built-in MagicGate slot to read MemoryStick media and a FireWire port for fast digital video transfer.

Verdict
 The Sony PCG isn't cheap, so if you're after lots of power on a tight budget look elsewhere. However, you do get what you pay for and the PCG-GRX416SP is the last word in innovation, with the benefit of a huge screen, plenty of extras and the backup of a reliable brand name. ■

Ursula Seymour



Sony PCG-GRX416SP

Specifications: 1.8GHz Mobile Pentium 4; 256MB DDR RAM; 40GB hard drive; 16.1in TFT; ATI Mobility Radeon 7500; combo drive 8x DVD/24x/16x/10x CD-RW; 355x292x40mm.

Sony: 0870 542 4424
Website: www.vaio.sony-europe.com
Price: £2,469 ex VAT

0	1	2	3	4	5	6	7	8	9	10
Build quality	9									
Features	9									
Value for money	7									

Budget notebook
EXCLUSIVE Fujitsu Amilo M-7800

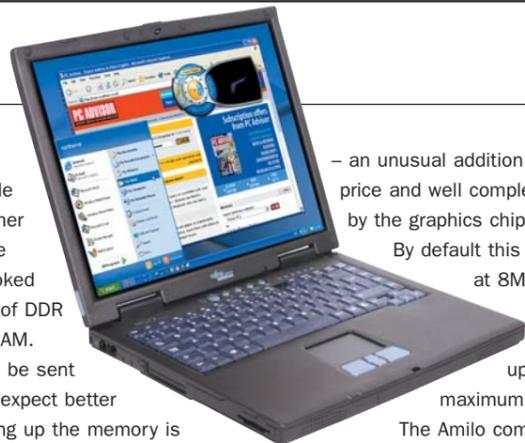
PC ADVISOR Fujitsu gave *PC Advisor* an exclusive look at its upcoming Amilo M-7800 and we were suitably impressed. It's a well-rounded package with some excellent features that wouldn't look out of place in our Power notebook chart, while offering good value for money. It couldn't shake the low-cost Mesh from the number one spot but it deserves our Recommended award.

The WorldBench score of 75 may pale in comparison to other chart entries but the review model we looked at only had 128MB of DDR (double data rate) RAM. Production units will be sent out with 256MB so expect better performance. Backing up the memory is a generous 30GB hard drive for storage. Inside you'll find a 1.7GHz Mobile Pentium 4, equipped with the battery life benefits of SpeedStep. By the time the Amilo ships it will also come with a combo DVD/CD-RW drive rather than single DVD – great news if you need to back up important data. There's no floppy drive, but you will find a memory card slot that supports most storage cards with the exception of CompactFlash and Microdrive. The lid overhangs slightly to accommodate a large, crisp 15.1in screen

– an unusual addition at this price and well complemented by the graphics chipset. By default this is set at 8MB, but you can specify up to a maximum of 32MB. The Amilo comes with XP Home and a software package that includes Works Suite 2002. We'd like to see a better warranty than a 1-year collect and return, though.

Verdict
 Fujitsu notebooks tend to be expensive but the Amilo M-7800 has a lot to offer at a low price. We're used to seeing such generous deals from smaller companies but Fujitsu has proven it can put together a great overall bundle. Well worth a look. ■

Spencer Dalziel



Fujitsu Amilo M-7800 **TOP 10**

Specifications: 1.7 GHz Mobile Pentium 4; 128MB DDR RAM; 30GB hard drive; S3 Pro Savage graphics; 15.1in TFT; 8x DVD; modem; lithium battery; 310x255x29mm; 2.2kg.

Fujitsu: 01344 475 555
Website: www.fujitsu-europe.com
Price: £1,154 ex VAT

0	1	2	3	4	5	6	7	8	9	10
Build quality	8									
Features	8									
Value for money	8									

Connected personal digital assistants
O2 Xda and Handspring Treo 270

O2's Xda and Handspring's Treo 270 are two of the most highly anticipated connected PDAs (personal digital assistants) this summer. Both handle emails and voice calls, can browse the web and manage your diary, but which is better?

O2 Xda
 Let's start with the Xda which, despite having built-in communications, measures a svelte 129x73x18mm, and weighs just 201g – much smaller than a jacketed iPaq. Hardware-wise, it's similar to an iPaq 3830, with the same 206MHz processor, 32MB RAM and an integrated SD (secure digital)/MMC (multimedia card) slot. The Xda's display also looks superb, but runs at a slightly coarser 12bits compared to the 3830's 16bits.

What makes the Xda unique is that it's the first device in Europe to combine Microsoft's latest Pocket PC 2002 Phone Edition operating system with GPRS (general packet radio service) data. Phone Edition integrates many communication facilities, including a Sim card manager, speakerphone, support for caller ID, conference calling and, best of all, text messages that are managed by the standard inbox application.

GPRS allows the Xda to remain connected to the internet while only

charging for the data actually used, as oppose to time online. At around 0.25p per kilobyte, GPRS is cheap for messaging, but web pages can easily work out at 25p each. Unforgivably, there's no supplied GPRS data counter, but you can buy one for £10 from www.all-locations.com.

Email and SMS (short messaging service) work beautifully on the Xda, and the always-on GPRS connection even allows mobile instant messaging. Web browsing on Pocket IE is surprisingly good, but even with 'Fit to screen' activated, be prepared for plenty of scrolling. The Xda is GPRS Class 8, which realistically delivers downloads up to 40Kbps (kilobits per second), but you may want to deactivate pictures to accelerate access, not to mention reduce GPRS charges.

Based on Pocket PC 2002, the Xda also boasts impressive applications including Pocket Word, Excel and Media Player; the supplied stereo earphones and microphone double up as a hands-free kit and for listening to music.

Infuriatingly, for subscribers to rival networks, the Xda can only be bought with a subscription to O2. On the upside, you can just select an O2 GPRS tariff for data use only, although the device then costs £100 more than with a new voice and data subscription. O2's lowest volume 4MB GPRS tariff costs £13.99 per month.

O2 Xda

Specifications: 206MHz Intel StrongARM; Pocket PC 2002 Phone Edition; 32MB RAM; 240x320 colour TFT; 129x73x18mm; 201g; recharger; USB cradle and earphones/hands-free kit; 3.5-hour talktime/150-hour standby/15-hour PDA usage; dualband GSM phone; GPRS support.

O2: 0870 850 0202
Website: www.o2.co.uk/xda
Price: from £425 ex VAT

0	1	2	3	4	5	6	7	8	9	10
Build quality	9									
Features	9									
Value for money	6									

Handspring Treo 270
 Handspring's Treo 270 is a Palm OS-based device that's essentially a colour version of the Treo 180 reviewed in the June O2 issue. Unlike the Treo 180, there's no longer a handwriting recognition version, but the tiny Qwerty keypad is now backlit and the battery life has also been improved. The Treo 270 is available Sim-free from Handspring's website for £549 or can be bought with an O2 subscription for £299 inc VAT.

The Treo 270's screen may sport 12bit colour, but it's lower resolution than the Xda, and nowhere near as bright and crisp. In terms of data calls, the Treo 270 employs standard dialup mobile access, although a free GPRS upgrade is promised by the end of the year.

The improved Blazer web browser is good, but not a patch on the Xda's Pocket IE. However, email and text messaging works well with the keypad, which remains quicker to use than handwriting. The Treo's smaller dimensions of just 108x71x21mm and 153g also make it more discrete, especially for voice calls; a hands-free set is also supplied.

Verdict
 Overall the Xda is preferred, despite costing up to twice as much as the Treo and not being available Sim-free. Alternatively, if you're after a device that's more phone than PDA, check out Nokia's 7650 on page 53.

Both devices work well out of the box, but the Xda's communications feel better integrated than the Treo and, coupled with GPRS today, it's the clear leader. Diehard Palm OS fans will champion the Treo's smaller size, lower price and quicker keypad, but the Xda is technically far superior and looks better too. It's just a shame it's not available Sim-free. ■

Gordon Laing



Handspring Treo 270

Specifications: 33MHz Motorola Dragonball; PalmOS 3.5.2H4; 16MB RAM; 160x160 pixel colour STN; 108x71x21mm; 153g; recharger; USB HotSync cable; hands-free kit; 3-hour talktime/150-hour standby/7-day PDA usage; dualband GSM phone.

Handspring: 020 7309 0134
Website: www.handspring.co.uk
Price: from £254 ex VAT

0	1	2	3	4	5	6	7	8	9	10
Build quality	7									
Features	6									
Value for money	8									

Flat-panel display Samsung SyncMaster 171P

Samsung has enlisted the help of Ferdinand Porsche to design its latest SyncMaster model. Visually appealing, the 171P is a sturdy and durable flat-panel with an attractive textured casing and refined curves. It may contrast sharply with the sleek minimalist design of Sony's SDM-S71 (see below) but it's good to see that other manufacturers are now taking up the design gauntlet.

The touch-sensitive control panel is every bit as modern as the case design. The menu options, however, aren't quite as pleasing and the dearth of screen resize keys makes it difficult to use the whole of the screen area in anything other than full 1,280x1,024 mode. But with a 17in LCD (liquid crystal display) offering as much usable workspace as an 18.5in CRT (cathode ray tube) monitor, there's more than enough support for 1,280x1,024. The lack of USB support on the 171P may be a problem, although the presence of a DVI (digital visual interface) connector ensures compatibility for the future.

It wouldn't be fitting to pair the Porsche styling with a dated specifications list, so the 171P offers a host of exciting features. Apart from the 0.264mm pixel

pitch and wide viewing angle, the 500:1 contrast ratio is excellent. Images are always realistic and filled with detail. On the down side, though, we found the text reproduction lacked clarity, and for office applications a screen like the Sony SDM-S71 will give you sharper results. This is a shame, as the ability to rotate the screen through 90 degrees is ideally suited to office work.

Verdict

The gorgeous styling of the 171P sets it apart from the competition, with even the Sony flat-panels looking a little dated in comparison. But beauty doesn't go merely screen deep and, although there are better (and cheaper) models for detailed text work, in all other areas the 171P more than fulfils its potential. ■

Robin Morris



Samsung SyncMaster 171P		4	TOP 10
Specifications: 17in screen size; maximum resolution 1,280x1,024; pixel pitch 0.264mm; 424x206x457mm; 6.23kg; DVI digital connector; 3-year warranty.			
Samsung: 0800 521 652			
Website: www.samsungelectronics.com			
Price: £605 ex VAT			
Build quality	9		
Features	8		
Value for money	8		

Flat-panel display Sony SDM-S71

With many models on the market, it's all too easy to opt for a flat-panel that offers value for money at the expensive of quality. However, when cost is less of an issue a Sony screen will more than satisfy expectations. The Sony SDM-S71 reflects everything that's good about TFT (thin film transistor) screens. The slender neck and streamlined base creates an incredible feeling of space,

and the dark casing distances the Sony range from the mob of beige-coloured competitors.

Despite its strong design, however, the stripped down S71 will disappoint those in search of a host of ports and accessories. The lack of a USB hub, for instance, removes the ability to plug in USB devices conveniently without having to delve around the back of your PC. No DVI (digital visual interface) is another omission, limiting its future-proofing. The clunky setup options aren't the most versatile and it was hard to use the full 17in of workspace in anything other than the maximum resolution of 1,280x1,024.

But if the Sony is lacking when it comes to accessories and menu options, it succeeds in the most important area of

all: specifications. The hardware is strong, and the 400:1 contrast ratio is particularly significant. Image quality is excellent and the crisp colour palette brings the most static of pictures to life. Better still is the text reproduction, and the well-defined characters and clean background are perfect for intensive work sessions.

Verdict

As with all Sony products the price will put off those on a shoestring budget and many a prudent consumer will question the wisdom of spending over £600 on a screen without USB or digital facilities. Nonetheless, the Sony's superior performance makes it a safe bet for the affluent. ■

Robin Morris



Sony SDM-S71		3	TOP 10
Specifications: 17.1in screen size; maximum resolution 1,280x1,024; pixel pitch 0.264mm; 423x233x399mm; 6.5kg; 3-year warranty.			
Sony: 08705 111 999			
Website: www.sony-cp.com			
Price: £609 ex VAT			
Build quality	9		
Features	7		
Value for money	7		

Superbudget PC Systemax Inspire 7012

Putting together a PC as a competitor for our Superbudget chart is no easy thing. At such a low price the profit margin is much slimmer and it's harder for manufacturers or resellers to appease the needs of all buyers. It's a trade off, and deciding which features stay and which go is no simple task, so we were impressed with this new offering from Systemax.

Not only does the Inspire 7012 strike a happy balance between features and specifications, it also comes in over £100 cheaper than all the other models in our Superbudget PC chart. The Systemax may have narrowly missed a Recommended award but it's a great buy nonetheless thanks to the PC's low cost.

Duron makes a comeback

AMD's budget Duron processor rarely makes an appearance in our charts any more, and this 1.3GHz model certainly won't give the performance of an Athlon chip. That said, the WorldBench 4 score of 98 was only four points short of the result turned in by the Poweroid 2012 from Best Price. Both systems sported similar specifications but the Poweroid offers a 1.9GHz Pentium 4 so the Inspire 7012 is adept at making the best of what it's got.

Backing up the processor is a 40GB IBM hard drive spinning at 7200rpm (revolutions per minute) and 256MB of DDR (double data rate) RAM. There are two spare Dimm slots on the motherboard so there's more than enough room for a serious upgrade if you want to push out even better performance.

The 5.25in bays at the front of the Systemax PC are filled with standard offerings – a 16-speed DVD and a 40-/24-/10-speed (read/write/rewrite) CD-RW. One thing we did like was the bonus addition of two extra USB ports at the bottom of the front side to complement the four ports round the back.

Let me entertain you

If you're looking for an entertainment PC then the Systemax Inspire 7012 will disappoint. You don't get a screaming fast graphics card, a fantastic monitor or the best audio setup around, but nVidia's budget GeForce4 MX 420 card still packs plenty of power thanks to its 64MB of onboard RAM.

The bundled 17in monitor helps keep the price down because it's from the CTX value range. While a 0.27mm dot pitch and a maximum resolution of 1,280x1,024 at 60Hz aren't the greatest specifications, the Inspire had a clear enough picture and only diehard gamers will complain that games can't be run at 1,600x1,200.



Sound as a bell

Sound on the 7012 is onboard but it's well worth paying out a bit more to upgrade this to a SoundBlaster card. It's an inexpensive upgrade that will certainly make a lot of difference to the audio quality coming out of Cyber Acoustic's CA-3080 speakers. This setup only includes two satellites so you won't get the advantage of surround sound but the Inspire does include a subwoofer, which makes the overall sound quality much better. Naturally, as a business tool, the Systemax has more than enough power to cope with day-to-day applications and tasks.

Systemax has made the offer all the more interesting by including some decent software, a gamepad to get the most from its games bundle and a value printer from Epson.

The Stylus C20 UX printer offers USB connectivity and reasonable performance. Its resolution of 720x720dpi adequately copes with all print jobs but it's worth shelling out for the best photo paper if you want to use the printer and PC as a digital imaging solution. The printer has been designed to appease the novice user so there's a lack of function buttons – only two on the unit's casing – and this keeps operations simple. It's a compact model with only enough room for a 100-sheet input tray. It's not the best printer

in the world and quite a slow mover but given that it comes free as part of a good PC package you can't complain.

The Superbudget Inspire isn't covered by an onsite warranty but the first year of the three-year warranty is collect-and-return which is the next best thing.

Verdict

The Inspire 7012 doesn't have some of the trimmings being sported by other entrants in our Superbudget chart but it can't be beaten for value. Despite lower specifications it's respectably fast and is a sensible option for the first-time buyer looking to get a good all-rounder. ■

Spencer Dalziel

Systemax Inspire 7012		5	TOP 10
Specifications: 1.3GHz AMD Duron; 256MB DDR RAM; 40GB hard drive; 40x/24x/10x; 16x DVD-ROM; 17in monitor; Windows XP Home.			
Systemax: 08707 297 364			
Website: www.systemaxpc.co.uk			
Price: £599 ex VAT			
Build quality	8		
Features	6		
Value for money	8		

External CD-RWs

La Cie CDRW FireWire 40x12x48 and AOpen ESW-884

Far from being an expensive add-on, the CD-RW is now a near-essential part of any PC. But with a huge number of drives on the market it's becoming harder for drive manufacturers to make their models stand out. This month we take a look at two external models from La Cie and AOpen.

The advantages of an external drive are obvious: setup takes seconds and doesn't require you to lift the lid off the PC. The external interface makes it easy to transfer these drives to an Apple Macintosh. Better still, the drive can be disconnected and installed on another PC in less time than it takes you to read this page. Of course, you'll pay extra for the privilege, and it's worth remembering that some external drives can take up a great deal of desk space. However, these models from La Cie and AOpen demonstrate just how much external drives can differ.

with a trio of writing technologies (CAV, CLV and Z-CLV), allowing it to choose the appropriate one for each situation. We would have liked to see support for the Mount Rainier (CD-MRW) standard. Featured in the recent Teac drive (see the July 02 issue), this regulates the formatting of CD-RW CDs and should help to iron out the inconsistencies between drives. In light of the La Cie's specifications and price, it's a disappointment not to see this included.

Speed was good, with 350MB recorded in two minutes 21 seconds – almost as fast as the Teac drive. A spare CD-R and CD-RW and a copy of Easy CD Creator make up the rest of the bundle.



You will also have to sacrifice a certain amount of speed with this drive: its eight-speed CD-R/RW capabilities are hardly pushing the limits of technology. Indeed, the drive is technically extremely basic, and there's little besides the JustLink error prevention feature to boost performance. It would have been nice to see some improved writing technology or Mount Rainier support, but considering the AOpen's low price tag and basic specifications, something had to give.

But while the AOpen clearly can't compete with the 40-speed drives, it still managed to record 350MB of data in just under four minutes. The Nero package is also a good addition, and a spare CD-R and CD-RW is included.

La Cie CDRW FireWire 40x12x48

The La Cie certainly qualifies as portable, but with its hefty 2.27kg frame, you're not going to want to carry it around for long distances. Nonetheless, it's easy to connect and disconnect thanks to its high-speed FireWire (IEEE 1394) interface. No interface board is provided, so if you don't have a spare FireWire port, you'll need to buy a separate card.

The La Cie's casing looks strong enough to withstand a fair amount of knocks, but the design needs refining. In particular, the drive is hidden away behind an impenetrable inner shell and, although the CD tray can supposedly be ejected by pressing the button, this often failed to work. You can eject it through Windows, but this is hardly satisfactory.

Thankfully the drive is more impressive in operation, and the 40-/12-speed CD-R/CD-RW facilities are extremely good. The fast turn of pace is partly due to the tri-laser feature, which equips the drive

AOpen ESW-884

If the bulky La Cie matches its mighty frame with some heavyweight specifications then the opposite is very much the case with the AOpen.

With a slim and slender 400g frame barely larger than a CD case, the ESW-884 is an extremely portable CD-RW choice. The drive uses the new USB 2.0 standard although, for the sake of older PCs, it does offer backwards compatibility with USB 1.1. If you have a spare FireWire port, the drive will also work with this, but you'll need to purchase a special cable.



Verdict

Both of these drives have their strengths. The AOpen is incredibly portable and almost half the price of the La Cie. It isn't, however, the most powerful of drives on the market and if speed is an issue you might prefer the La Cie.

Whether you want either of these drives, however, will depend on how important portability is to you. The £180 La Cie, for example, costs almost twice as much as the impressive 40-speed LG CD-RW. With good internal models available much cheaper, only a very small number of people will find the advantages of external CD burning worth the money. ■

Robin Morris

La Cie CDRW FireWire 40x12x48											4	TOP 10
Specifications: 48x/40x/12x; 4MB data buffer; average access time 130ms; 2.27kg; FireWire; 275x200x59mm; 1-year warranty.												
La Cie: 020 7872 8000												
Website: www.lacie.co.uk												
Price: £180.50 ex VAT												
0	1	2	3	4	5	6	7	8	9	10		
Build quality											7	
Features											9	
Value for money											6	

AOpen ESW-884											5	TOP 10
Specifications: 24x/8x/8x; 2MB data buffer; average access time 150ms; 400g; 144x145x21mm; USB 2.0 (FireWire optional).												
Avnet.com (supplier): 01296 737 957												
Website: www.aopen.nl												
Price: £95 ex VAT												
0	1	2	3	4	5	6	7	8	9	10		
Build quality											8	
Features											7	
Value for money											7	