

Bluetooth keyboard and mouse Microsoft Wireless Optical Desktop Bluetooth

Bluetooth has been a buzzword for quite some time now, as those in the know predict a wire-free future for our computing devices. With this latest release Microsoft has got behind the concept in a big way, so it looks like Bluetooth might finally make it beyond the hype and into the mainstream.

The Wireless Optical Desktop Bluetooth consists of a keyboard and mouse that connect to your PC via Bluetooth, which means no messy trailing cables. Well, sort of, as you still have to plug the wireless transceiver into your PC.

Wireless keyboards and mice are hardly a new idea, though, as those based on radio wave technology have been around for a while. And, to be completely honest, there isn't a significant difference between a radio-based and Bluetooth-based desktop setup.

Out of the blue

Bluetooth has a range of 30ft, so you can use your keyboard or mouse while not seated at your desk. But you can do this with a standard wireless setup and these devices are cheaper, so why opt for Bluetooth instead? The key selling point is that you can connect your PC to other Bluetooth devices via the transceiver. For example, if you have a Bluetooth printer you could hook this up, too, or you can use a Bluetooth-enabled phone as a dialup modem – ideal if you use a notebook. There is also a notebook USB adapter to allow you to use the transceiver with a laptop.

But before you get too excited, do check first if the particular device you want to use with the Bluetooth Desktop is compatible. A list is printed (in very small type) on the back of the box. It states that up to seven devices can be connected as long as they adhere to the following Bluetooth profiles: printers must use the Hardcopy Cable Replacement profile; wireless modem connections to Bluetooth-enabled mobile phones need to use the Dial-Up Networking profile; and lastly, keyboards and mice must use the Human Interface Device profile.

Setting up Bluetooth devices can be a trial, as it's not always the most co-operative of standards. However, getting the transceiver to talk to the keyboard, mouse and PC was a doddle. Simply load up the software, making sure to keep your existing mouse and keyboard plugged in, then restart your PC. Follow the simple instructions and you will have set up a secure Bluetooth connection between all three devices.

Quality control

This being Microsoft, both the mouse and keyboard are top-quality devices. In fact, I am typing this review on the keyboard: the keys are soft and pleasant to use, while the additional wristrest gives good support. It's equipped with plenty of hotkeys so you can easily control frequently used apps such as email, Media Player, Messenger and the internet. The optical mouse, which features four buttons and a scrollwheel, can be customised very easily using the supplied IntelliPoint software, as can the hotkeys.

Keyboard, mouse and transceiver are all finished in attractive metallic blue and silver trim, so they will add a touch of class to any desktop.

Verdict

If you already use a wireless keyboard and mouse then you won't really notice a difference upgrading to Microsoft's Optical Desktop, although if you own a Bluetooth-enabled phone or printer then this kit will prove very handy.

As a standard keyboard and mouse the setup displays perfect build quality with plenty of extras for the price. ■



Ursula Seymour

Wireless Optical Desktop Bluetooth

- Microsoft: 0870 601 0100
- Website: www.microsoft.com
- Price: £136 ex VAT (from www.microanvica.co.uk)

Specifications

233MHz Pentium PC; Windows XP with SP1 and Bluetooth update; 128MB RAM, 75MB hard disk space; Bluetooth transceiver, keyboard and optical mouse; works with up to 7 Bluetooth devices; 30ft range; programmable hotkeys; 4 x AA batteries.

Good points

Adds Bluetooth to your PC; good quality; can connect to other devices.

Bad points

Doesn't differ that much from standard wireless; pricey.

Build quality



Features



Value for money



"The best nForce2™ board in the World"



01274 471268



Intermediate digital camera

Olympus Camedia C-730 Ultra Zoom

Olympus cameras are never seen as particularly stylish buys but they are never short of functionality and impressive picture quality. The Camedia C-730 is no exception – it takes great telephoto shots and its functionality will please novices and experts alike. Considering the Olympus contains a whopping 10x optical zoom, it's a surprisingly compact camera. Add the 3x digital zoom and the C-730 offers 30x magnification.

Lights, camera, action

Getting good results when you're using the full stretch of the zoom is only possible if the rest of the specification list is up to scratch and here the Ultra Zoom doesn't disappoint. The 3.2Mp (megapixel) CCD (charge coupled device) has a maximum resolution of 2,048x1,536 and shots can be saved as JPG or TIF at several compression rates. A dual-media slot provides storage so you can use the bundled 16MB xD-Picture Card or add a SmartMedia card. We recommend shelling out on a higher-capacity card, though, as high-quality JPG shots take up about 1.72MB each or 4MB if you're using the interpolated 3,200x2,400 resolution setting.

The fast shutter speed stops motion blur and a long flash range means that distant subjects stay well lit in low light. Despite a host of flash settings to accommodate different photographic conditions the flash can't match the power of the 10x optical zoom so Olympus has added support for an external dedicated speedlight flash. If you want to use the optical zoom to its full potential the external flash is vital, as is a tripod stand.

To get the best out of the Camedia C-730 you'll have to purchase some optional accessories, such as rechargeable lithium batteries, a mains adapter and recharger.

Under control

Settings are adjusted using a jogdial and four-way navipad. The auto mode, which is

ideal for novices, takes care of every photographic nuance – simply press the shot button to take a picture. Turn the jogdial to A/S/M (aperture priority/shutter priority/manual shooting) mode and you have access to a wealth of configurations. Manual tweaks include full exposure control, metering and ISO sensitivity. If you want to take advantage of the 30x magnification then you must have A/S/M mode selected.

All image information is displayed either on the clear 1.5in display or through the EVF (electronic viewfinder). This may suck out extra juice from the two non-rechargeable lithium batteries but it provides you with a more accurate depiction of what

Considering the Olympus Camedia contains a whopping 10x optical zoom, it's a surprisingly compact camera

the photo will actually look like than a normal optical viewfinder. On full auto and presets the Camedia captures great images. Though we didn't like the unnatural smoothness in photos taken with the interpolated resolution, all the other shots we took were well lit and accurately coloured. It does take a while to focus in low light conditions and the viewfinder isn't bright enough, but these are the only problems on an otherwise exceptional camera.

Verdict

If you're looking to spend up to £500 on a digital camera and you're after the best in zoom capabilities then look no further. The C-730 might lack the image detail of other 4Mp contenders in our Intermediate digital cameras chart (see page 228) but it more than makes up for this with great specifications and features. While the onus is on the end user to pay out for the extended bundle it's worth the extra cost. ■

Spencer Dalziel



Olympus Camedia C-730

- Olympus: 0800 072 0070
- Website: www.olympus.com
- Price: £411 ex VAT

Specifications

3.2Mp; max res 2,048x1,536; 16MB xD-Picture Card; 2 x lithium batteries; 108x78x76mm; 310g; max/min 165/8 photos on 16MB; 1-year return-to-base warranty.

Good points

Zoom capabilities; manual configurations.

Bad points

Lack of a decent bundle; dim viewfinder.

Build quality



Features



Value for money





...enough said!

www.cclcomputers.co.uk/epox



Epox 8 RDA+
as reviewed on awardtech.com -
winner of the Awardtech gold award



Professional digital camera

FujiFilm FinePix S602 Pro Zoom

The FinePix S602 Pro is an updated version of FujiFilm's older model, the S602. It costs £100 more with five essential differences: a flash sync terminal for studio lighting, a threaded shutter for affordable cable releases and an all-black finish, along with bundled rechargeable AA batteries and a 340MB IBM Microdrive.

The rest of the S602 Pro's specifications are identical to its elder sibling's, which is no bad thing. Dominating the proceedings is an impressive 6x optical zoom lens, equivalent in coverage to a 35-210mm lens on a 35mm camera. Two macro modes get as close as 10cm and 1cm respectively, although the latter suffers from slight barrel distortion. There's a motor-assisted manual focusing ring that is quite usable when the central portion of the image is optionally magnified. Composition is with a 1.8in LCD (liquid crystal display) or a high-quality EVF (electronic viewfinder).

FujiFilm has fitted both SmartMedia and CompactFlash slots, and the latter is capable of taking the IBM Microdrive. The ageing S602 came with just 16MB memory and room for six high-quality JPGs; the Pro version is bundled with a 340MB Microdrive and can store over 150.

The Zoom offers fine exposure control with shutter and aperture priority, manual, program and fully automatic modes. Shutter speeds run to 15 seconds and there are 13 aperture settings. A burst mode captures up to five full-resolution images in one second and there's a built-in flash, a hotshoe and the new studio sync-terminal.

The S602 Pro's big selling point, though, is a third-generation SuperCCD chip, which can capture 640x480 pixel video at a smooth 30fps (frames per second). In practice, the quality's still below that of a camcorder but it's far superior to any other digital camera we've seen.

FujiFilm claims its SuperCCD chips deliver a higher resolution than conventional CCDs (charge coupled devices) and uses this as justification to output higher-resolution files. As such, the S602 Pro has a 3.1Mp (megapixel) chip but can output huge 6Mp files. In practice, though, we found the Pro actually resolved no more detail than a good 3Mp model – certainly not as much detail as the 4Mp £599 Canon G3 and nowhere near the 5Mp Nikon 5000, which costs £699. Admittedly neither come with a 340MB Microdrive, but the 1GB model costs less than £200.

Verdict

Fujifilm's Pro package has worthy improvements, but it remains in the uncomfortable position of coupling high-end features with a mid-range chip. It handles well, has a great 6x zoom and the best video mode yet. But £699 is expensive for a camera with an effective resolution of 3Mp. ■

Gordon Laing



FujiFilm FinePix S602 Pro Zoom

- Jessops: 0800 652 6400
- Website: www.fujifilm.co.uk
- Price: £699 inc VAT

Specifications

3.1Mp; 2,832x2,128 pixels output; 6x optical zoom; 35-210mm (35mm equivalent); 340MB IBM Microdrive (takes CompactFlash or SmartMedia); image size at best Jpeg quality: 2.2MB (6Mp), 1.2MB (3Mp); 1.8in LCD and EVF; 4 x AA batteries; 121x81x97mm; 600g.

Build quality



Features



Value for money



Internal memory card reader

Asus USB 6-in-1 reader

Asus USB 6-in-1 reader

- Asus: 0870 429 3220
- Website: www.asus.com
- Price: £24 ex VAT

Specifications

Internal USB media card reader; reads CompactFlash, SmartMedia, Secure Digital, MMC, Memory Stick and IBM Microdrive media.

Build quality



Features



Value for money



Having tested Asus' internal USB 6-in-1 card reader we have one piece of advice: buy an external card reader. It's so much less hassle. Our problems with this device began as soon as we took it out of the box and realised that the installation instructions amounted to a single scrap of paper with all instructions given in clear-as-mud Taiwanese English.

While installing the drive we found that there was no way to secure it within the metal housing of the 3.5in drive bay, as the holes for the supplied screws didn't line up with the slots on the casing. If you pushed a card too hard into one of the slots on the drive the whole unit would go shooting back inside the PC,



which could cause damage. Thanks to our expert knowledge of PCs (ahem) we managed to get the reader up and working, but at the cost of our two extremely handy USB ports on the front of our PC. The installation sheet does warn you of this, but we'd far rather use a single port to plug in an external card reader.

Verdict

This drive isn't worth the bother of opening up your PC and losing two USB ports when there are plenty of similarly priced external readers. ■

Ursula Seymour

Digital TV card

Nebula Electronics DigiTV PCI



The DigiTV card from Nebula Electronics allows you to watch digital terrestrial television on your PC. Since the demise of ITV Digital, the service has been replaced with Freeview which, as the name implies, costs nothing to receive. The move to free transmissions from paid subscription is a bonus for PC owners wishing to receive digital broadcasts, since no encryption or smartcards are necessary. Just plug in the device and you can watch all the channels available.

The card is bundled with an infrared receiver and all-in-one remote control, so you can operate it from a distance. Television viewing is conducted through the supplied DigiTV application and, thankfully, the interface is easy to use. The software tells you what programmes are on now and next. You can also record programmes, either by simply pressing the record button or by setting up timers. Recordings are named using the programme information available – for example, if you record *Friends* then that's what the filenames will be called.

When it came to making reliable recordings we did experience some problems with program crashes, resulting in incomplete recordings. This could be down to conflicts with the SIS controller

on our test system, but it meant that recording was erratic at best. There's also currently no support for digital text (a replacement for Teletext), although this is promised as a future update.

For simple TV viewing the card worked extremely well, producing a clear picture and good quality sound.

Verdict

If you want a neat and simple solution for receiving digital broadcasts on your PC then DigiTV is well worth investigating. The bundled remote control is a great bonus and it produces good quality pictures and sound. We did experience problems with recording, though, which is a shame since everything else worked so well. ■

Will Head

Nebula Electronics DigiTV PCI

- Nebula Electronics: 01689 885 009
- Website: www.nebula-electronics.com
- Price: £102 ex VAT

Specifications

Digital terrestrial TV card; PCI card; remote control/receiver; DigiTV software; overlay support; digital text not currently supported.

Build quality



Features



Value for money



Intermediate digital camera

FujiFilm FinePix M603 Premium Kit



FujiFilm cameras stand out from the crowd due to their design prowess and this new FinePix M603 is no exception. Touted as a multimedia camera, this model combines high-quality DV (digital video) capabilities with an impressive feature list. The M603 is interestingly styled to incorporate its DV functionality but, as an intermediate digital camera, it's too expensive and ergonomically awkward.

The FinePix sports a 3.1Mp (megapixel) CCD (charge coupled device) with a maximum resolution of 2,048x1,536. Using FujiFilm's unique SuperCCD chip it can produce images with 6Mp recorded pixels; shots are saved as JPG only. There's a dual-media slot for xD-Picture Cards or CompactFlash storage and this Premium Kit comes with both cards. Users are provided with a 16MB xD Card and a generous 512MB IBM Microdrive. This is a sensible addition, as the DV capabilities demand plenty of storage.

The camera has a 2.5in LCD (liquid crystal display) and it can capture video at 640x480 with 30fps (frames per second). You get about

7.5 minutes on the 512MB card, but you can knock the quality or frame rate down to gain more minutes. Video quality is impressive and it's good to see sound included with zooming – manufacturers usually choose one or the other.

Sadly though, the FinePix is decidedly average as a digital camera. It's too simplistic, with only ISO, white balance and exposure settings to tweak. This isn't to say you can't get good automatic shots. The SuperCCD produces colourful and detailed images, but it isn't worth the cost.

Verdict

If you're starting out with digital imaging and DV is as important to you as your pictures then the M603 is a worthwhile if expensive buy. ■

Spencer Dalziel

FinePix M603 Premium Kit

- FujiFilm: 020 7586 1477
- Website: www.fujifilm.co.uk
- Price: £577 ex VAT

Specifications

3.1Mp; max res 2,048x1,536; 16MB xD Card; 512MB Microdrive; 1 x lithium battery; 65x32x93; 210g; 122/6 max/min photos on 16MB; 1-year return-to-base warranty.

Build quality



Features



Value for money



Digital projector InFocus LP70

In today's projector market choosing the number-one model is no easy task as there's such a huge variety of devices. There's the value-for-money CTX PS-5140, for example, a projector that delivers crisp SVGA images. Should you have more to spend, it's well worth paying for the extra detail offered by an XGA projector. The £2,000+ projectors swap their basic LCD engines for the latest advances in DLP (digital light processing) technology. Even here, though, there are difficult choices to make.

The NEC LT260 has built-in wireless LAN features and a PC Card slot that allows you to copy your presentations on to a credit-card sized memory card so you can leave your laptop in the office. And then, for the ultimate in portability, we come to this month's new projector, the InFocus LP70.

Tipping the scales at a featherweight 1.1kg, this is the lightest projector we've seen yet. It's perhaps a shame that a PC Card facility wasn't included for maximum portability, but even so when it comes to dispensing with unnecessary pounds the LP70 outshines the competition. The inclusion of onboard speakers also cuts down on the need for extra equipment.

The brightness rating of 1,100 Ansi lumens, though not the highest available, is capable of generating a visible image in most light conditions. The InFocus' light sensors automatically adjust the amount of brightness to suit the environment.

With an operating noise of just 32dB, the InFocus' gentle hum is barely audible. The remote control and menu system (including advanced features like Picture in Picture and the Mask tool) are well thought out and an additional feature allows you to control the projector directly from the PC.

Increasingly, manufacturers are equipping their high-end projectors with DLP technology. By using an intricate system of rotating mirrors to adjust the light beam, DLP keeps out excess light more effectively than basic LCD technology.

The projector can handle darker colours with greater aplomb and the InFocus' contrast ratio of 800:1 reflects its considerable depth of colour. In fact, the InFocus is a cut above the rest due to its DDR (double data rate) technology which allows it to process data more quickly and efficiently. In performance, the InFocus is a triumph and its crisp but intense image quality almost matches the NEC LT260's.

Verdict

If you're looking for a digital projector and your main priority is pounds – whether in terms of weight or price – the InFocus is the current leader of the £2,000+ pack. ■

Robin Morris



InFocus LP70

- InFocus: 01628 666 622
- Website: www.infocus.com
- Price: £2,250 ex VAT

Specifications

DLP; 1,100 Ansi lumens; 120W UHP lamp; 2,000 hours lamp life; replacement bulb £280; 1.1kg; max res 1,024x768; 99x149x63mm; DVI connector; 2-year warranty.

Build quality



Features



Value for money



Portable scanner Visioneer Strobe XP 100

Visioneer Strobe XP 100

- Visioneer: 01483 445 480
- Website: www.visioneer-europe.com
- Price: £128 ex VAT

Specifications

600dpi optical resolution; 24bit output (36bit internal); sheetfed; USB (host powered); 289x51x38mm.

Build quality



Features



Value for money



Flatbed scanners are ideal when you're in the office but they're hardly suited to life on the road. Their sheer size alone means that road warriors and travelling professionals need an alternative scanner and this is where the Strobe comes in.

Measuring just 289x51x38mm, the XP 100 fits into even the smallest notebook bag but still allows you to carry out A4 scans. It works by passing the paper over the scanning element, rather than the other way round, allowing for a small, portable footprint.

Unlike its predecessor, the XP 100 is also USB powered so there's no power supply to cart around. It offers a maximum optical resolution of 600dpi (dots per inch) and an output colour



depth of 24bit – low by current standards, but more than adequate for general use.

The Strobe is speedy, too. Scanning a photo at 600dpi took one minute three seconds, while a sheet of A4 text at 200dpi took just 13 seconds.

Verdict

Obviously a flatbed scanner is your best bet for high-quality scans but if you need to scan something away from your desk then the Strobe is a great alternative. The results are good, it's fast and, at £128, it's reasonably priced too. ■

Will Head



DVD writer Sony DRU-500A

Many consumers have held back from choosing a DVD writer because of the competing formats on the market. No one wants to pay £250 for a drive that may end up on the obsolete pile alongside Betamax videos. With Sony's DRU-500A this isn't a problem as it covers all options. Not only is it the first drive to be compatible with both competing formats, but it's also a nifty burner in itself and offers great value for money.

The DRU-500A is easy to install and comes with nearly everything you need to get going. We say nearly because Sony hasn't bundled any blank media, so you'll have to get some yourself before you can experiment with the drive. The software bundle might not have the versatility offered by Nero but it's a generous collection that gives you the ability to edit, create menus and turn your home movies into video DVDs.

Supporting the quickest speeds available, the DRU-500A is certainly not going to leave you waiting. DVD+R and DVD+RW supports 2.4-speed, DVD-RW achieves a dual-speed rate while DVD-R comes in at quad-speed. We burned over 3GB of data in 16 minutes seven seconds

using a DVD+R disc. That's 3.2MB per second, which is extremely fast. DVD-R also fared well, burning 3.1MB per second in 16 minutes 40 seconds.

Your DVD discs are also protected by a generous 8MB buffer so underruns shouldn't destroy any expensive media. On the down side, Veritas' Record Now software isn't as versatile as Nero and you will have to download the DLA packet-writing software. However, the CD-R and CD-RW speeds make up for this.

Verdict

The Sony DRU-500A isn't a perfect DVD writer but it's the closest thing we've seen. It's fast, cheap and won't be redundant in a couple of years time. The software is comprehensive and it's easy to use. Sony's external version, the DRX-500UL, is ideal if space inside your PC is tight. ■

Spencer Dalziel



Sony DRU-500A

- Sony: 0800 2623 7669
- Website: www.sonyisstorage.com
- Price: £212 ex VAT

Specifications

DVD-R/-RW/+R/+RW drive: 4x
DVD-R: 2x DVD-RW; 2.4x DVD+R;
2.4x DVD+RW; EIDE; 8MB buffer;
32x/24x/10x CD (read/write/rewrite);
1-year warranty.

Build quality



Features



Value for money



DVD writer Pioneer DVR A-05

Sony might have beaten Pioneer to the first all-format drive but the DVR A-05 is the best DVD-R/-RW compatible drive we've seen. It's also blisteringly quick and leaves the competition for dust. Add a low price tag and you have a great buy on your hands.

Thanks to the clear instructions, the DVR A-05 doesn't take long to set up. There's no bundled IDE cable so Pioneer assumes there's already one in your PC. Apart from that the box contains everything you'll need to use the drive, including two blank discs and a pin for the emergency eject pinhole button.

The software bundles My DVD for DVD authoring with VOB's Instant CD+DVD. A word of warning: this combination is versatile but first-time users may find it intimidating as there are no wizards to handhold you through the process. Perseverance will pay dividends, though, as these are great software packages.

The internal A-05 supports the new quad-speed rate for DVD-R discs while the DVD-RW achieves dual-speed. The CD-RW and CD-R speeds could have been bumped up a

little, though, as its 32-/16-/eight-speed (read/write/rewrite) facilities are pretty average. There may be no support for the DVD+R/+RW format, but the DVR A-05's main advantage is its cheap media. If you intend to burn a large amount of content and want to keep costs down then the Pioneer is the best option.

When it comes to burning movies on to DVD-R the A-05 is simply the best. The DVD-RW facility burned 3.3MBps (megabytes per second), copying over 3GB in 15 minutes 45 seconds. The same process with a DVD-R disc took just 10 minutes 21 seconds – an astonishing 5MBps.

Verdict

Cheap to buy and cheap to run, the DVR A-05 is a must for anyone wanting to burn a number of DVDs without spending hours waiting at a PC. It's not a complete solution like Sony's all-format model but it's the next best thing. ■

Spencer Dalziel



Pioneer DVR A-05

- Pioneer: 01753 789 500
- Website: www.pioneer-eur.com
- Price: £207 ex VAT

Specifications

DVD-R/-RW drive; 4x DVD-R;
2x DVD-RW; EIDE; 2MB buffer;
32x/16x/8x CD (read/write/rewrite);
1-year warranty.

Build quality



Features



Value for money





Flat-panel display Samsung SyncMaster 181T

We've reviewed many Samsung displays in the Test Centre and have noticed a lack of consistency in our results. Samsung offers a huge array of both CRT (cathode ray tube) and flat-panel models over a range of prices but, when we combine specifications, features and value for money, only some turn out to be worthy buys. If you're after a Samsung display it seems to be a case of potluck: you pay your money and take your chances.

Fortunately, the 18.1in SyncMaster 181T flat-panel hits the worthy buy nail squarely on the head and has *PC Advisor's* Gold award written all over it. Samsung managed to get so many things right on this excellent display we're sure it will satisfy anyone who decides to purchase it. Despite being a high-end corporate model the 181T is aggressively priced so offers amazing value for money. It's also a bit of a looker to boot.

The 181T offers a maximum resolution of 1,280x1,024 and a 0.2805mm dot pitch. Its 500:1 contrast ratio and 250 candelas brightness makes for a luminescent display. The wide 170-degree viewing angle also allows several people to view the screen at the same time so it's a perfect option for multimedia presentations or DVD watching. If you don't mind forking out some extra cash then invest in the wall-mountable kit for a truly professional touch. While the 181T doesn't have the highest specifications across the board, most are pretty high-end and it utilises those that it has to good effect, producing great focus, sharp detail and bright colours.

Looking good

The first thing that really hit us about the SyncMaster 181T was its stylish minimalist finish. There aren't any extras like speakers, a separate power adapter or a USB hub so the hardware doesn't look fussy – and this is part of its appeal. The black-and-grey case looks well designed rather than tacky and the thin bezel gives the 181T a svelte feel. The screen is easy to adjust thanks to a well-built stand and you don't need to dismount the screen to swivel it into portrait mode. Samsung bundles some Pivot software to turn the onscreen image as well as other useful programs such as colour calibration.

Round the back is a choice of digital or analogue connections. For a pure digital-to-digital signal you'll need a graphics card with a DVI (digital visual interface), or you can opt for the more common VGA analogue port. The advantage of using a pure digital signal is that it renders slightly better quality and it means the image is displayed at its optimal level, so you don't have to use the calibration controls on the OSD (onscreen display).

Should a VGA port be your only option, don't worry. The OSD menu system is quite comprehensive and if you don't like working on the maximum resolution you can sharpen up the text with the OSD.



We wouldn't be at all surprised if someone bought the 181T as an office monitor only to borrow it for home use at the weekends

We were very impressed with the overall results on the 181T and our tests demonstrated that it can easily cope with any image application you throw at it. Text is sharp and detailed and the colour palette is spot on. The bright display

also aids vibrancy so there's an intense colour definition that other flat-panels can't match. DVD playback is a treat too.

Verdict

The 181T is so versatile, we wouldn't be at all surprised if someone bought the 181T as an office monitor only to borrow it for home use at the weekends. We didn't come across any dead pixels or ghosting problems in any of our tests.

If you want one of the best 18.1in flat-panels on the market then Samsung's offering is hard to refuse. The 181T manages to combine top image quality with style at an amazing price that undercuts most of the competition. ■

Spencer Dalziel

Samsung SyncMaster 181T

- Samsung: 0800 521 652
- Website: www.samsungelectronics.com
- Price: £475 ex VAT

Specifications

18.1in flat-panel; max res 1,280x1,024; 0.2805mm dot pitch; 500:1 contrast ratio; 170-degree viewing angle; 250cd/m²; 32bit colour; 398x208x443mm; 5.8kg; 3-year return-to-base warranty.

Good points

Price; design; quality.

Bad points

Dot pitch; no USB hub or speakers.

Build quality



Features



Value for money



USB 2.0 external hard drive and two-port USB 2.0 PC Card Vtec VT-VDisk2/20 & Belkin USB 2.0 2-Port CardBus

Transferring data can be a time-consuming business, particularly if you are relying on USB 1.1 which can only shift data at a top speed of 12Mbps (megabits per second). But now there are a couple of new connection standards on the block: FireWire, which can reach speeds of up to 400Mbps and most recently USB 2.0 which, on paper, is the fastest of the lot offering rates of up to 480Mbps.

This month we put this latest standard on test, taking a look at Belkin's USB 2.0 2-port CardBus (which adds two of these high-speed connectors to your notebook via a PC Card) and Vtec's 20GB USB 2.0 external hard drive. This promises a speedy way to back up data and transfer files.

As with many new technologies, though, all did not run smoothly. Belkin's CardBus came with non-Microsoft approved drivers, which proved flaky. One notebook we installed the CardBus on warned us that it might cause problems, before promptly freezing up and refusing to work. Another notebook we tested installed and recognised the CardBus without complaint, but when we plugged in the Vtec hard drive it refused to play ball.

But it wasn't just the CardBus that caused us problems. The drive was equally picky about which PCs it would work with. When we plugged it into our test desktop PC, the USB 2.0 card

couldn't provide the drive with enough power to work. You can increase power by plugging in an optional adapter, but this wasn't included with the review drive.

We eventually got the devices to work well on a notebook that already had USB 2.0, and therefore all the Microsoft drivers, preinstalled. Given that the Belkin card is supposed to add this functionality to notebooks that don't already use USB 2.0, we weren't impressed.

We were hoping that the devices would offer top performance to make up for all the installation hassles.

But with a transfer time of 1.25 minutes for 342MB of mixed files and

49 seconds for a single 495MB file,

the Vtec drive only offered around the same performance as the Iomega HDD 120GB FireWire (reviewed February 03). In fact, it was slightly slower than the Western Digital 120GB External Drive (reviewed January 03). But the price is right and the design desirable.

Verdict

USB 2.0 clearly has some teething problems before it becomes truly plug and play, but it offers high-speed data transfer at a reasonable price. If Belkin improved the drivers for its CardBus and Vtec threw in a power adapter with its drive then we might have a winning combination. ■

Ursula Seymour



Vtec VT-VDisk2/20

- Vtec: 01264 336 901
- Website: www.vtec.co.uk
- Price: £115 ex VAT

Specifications

20GB 2.5in notebook hard drive; supports USB 2.0 and 1.1; 140x15x77mm; bus or self-powered (with optional power adapter).

Build quality



Features



Value for money



Belkin USB 2.0 2-Port CardBus

- Belkin: 01933 352 000
- Website: www.belkin.co.uk
- Price: £43 ex VAT

Specifications

Adds two USB 2.0 ports via PC Card; power adapter; works with any 32bit Type II PC Card slot; complies with USB and OHCI specifications.

Build quality



Features



Value for money



CD/DVD disc label printer

TDK LPCW-50 Label Printer

TDK LPCW-50 Label Printer

- TDK: 01737 773 773
- Website: www.tdk-europe.com
- Price: £99.99 ex VAT

Specifications

Thermal 200dpi optical disc label printer; USB 1.0/1.1; black ink cartridge supplied (red, blue and silver available separately); print speed 9mm per sec black ink; AC adapter; 750g; 180x186x57mm.

Build quality



Features



Value for money



Templates to create disc labels abound but usually you need to output them on special preprinted labels and then manually apply them – not the easiest of tasks. Wrinkles and poorly positioned labels often result, spoiling the final effect and, claims TDK, possibly the disc too.

TDK is banking on the idea that an easy-to-use £100 DVD labelling kit will appeal to anyone with butterfingers and an urge to organise their discs. Setup is quick and the label templates are simple to select and edit. Just overwrite in a field to add text or import existing track information from the CD or DVD source or a Windows Media Player playlist. Images can be included, though the tiny letterbox and restriction of mono output limit their usefulness.



When you're ready to print, slot in the chosen ink colour, slide a disc into the printer's bay and hit Print. When the disc auto-ejects you must swivel it round 180 degrees to line it up and print the lower half.

Verdict

This printer provides a basic disc labelling solution. It can only take one ink at a time but that's probably all you need and we had consistently clean results. ■

Rosemary Haworth

Audio and video controller

Cavs SpaceShuttle A/V

EXCLUSIVE



Contour Design is a name that may only be familiar to Mac users as up until now the company has focused on developing products for use with Apple's hardware. However, recognising that shifting its attention to PC users will significantly broaden its market, the company has come up with a new product with which it hopes will woo the Wintel crowd.

The SpaceShuttle A/V is a bizarrely shaped audio and video controller. We hesitate to call it a mouse as it is rather more specialised than that, though it does sit on your desk and is controlled in much the same way. The SpaceShuttle uses technology that was previously developed for Contour's ShuttlePro and it is from this that it gets its name, rather than its striking resemblance to a spacecraft.

The A/V is designed to make editing video on your PC easier. The ShuttlePro has long offered high-end video editors a simple way to manipulate footage and the SpaceShuttle aims to offer the same sort of flexibility to everyday home users.

The Jog/Shuttle controller, which makes up the two wheels on the top of the device, allows you to swiftly navigate through audio, video and animation timelines. There are also a further five buttons that can be programmed to carry out common editing functions. Out of the box the SpaceShuttle comes with settings for a wide range of popular editing packages, all of which are installed when you download the driver software.

If you want to use the SpaceShuttle with other applications – for example, games – you can program the buttons to carry out shortcuts of your choice. But it's more of a companion device to be used alongside a normal mouse, as it doesn't make desktop navigation easy.

Verdict

We're not sure if the SpaceShuttle will prove such a hit with PC users as the ShuttlePro was with Mac-based professional video editors. If you spend a lot of time working with video or music then it does have its benefits, but the average user should stick with a standard mouse. ■

Ursula Seymour

Cavs SpaceShuttle A/V

- Contour Design: 020 8731 1410
- Website: www.contouravs.com
- Price: £38 ex VAT

Specifications

USB interface; five programmable buttons; jog/shuttle control; works with Macs and PCs; 2-year warranty.

Build quality



Features



Value for money



Removable storage

Sony Micro Vault

- Sony: 020 7365 2947
- Website: www.sony-europe.com
- Price: £103 ex VAT

Keychain USB drives aren't particularly exciting devices, but Sony's new model has two interesting features: it's large and fast. The Micro Vault is the first keychain device we've seen to support the faster USB 2.0 standard and this model also offers 256MB of storage. This time around Sony has opted for a sleek grey design, which makes its previous offerings look slightly Fisher Price in comparison.

When it came to copying, a single 200MB file took two minutes 48 seconds while 2,048 small files (200MB in total) took 11 minutes 25 seconds. Running the same tests on USB 1.1 resulted in four minutes five seconds for the single file and 13 minutes 30 seconds for the small files.

Verdict

A keychain drive isn't revolutionary, but Sony's new device offers fast performance and plenty of storage space for the money while looking good into the bargain. ■

Will Head



MP3 and CD player

Waitec Glam

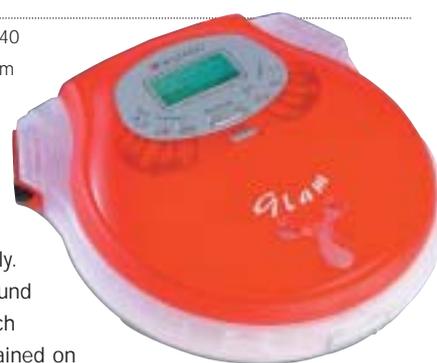
- Waitec: 0031 77 326 1040
- Website: www.waitec.com
- Price: £50 ex VAT

Personal CD players that can also play MP3 CDs have been dropping in price recently. MP3 CDs can store around 10 hours of music, which should keep you entertained on even the longest journey without having to lug around dozens of discs. Presumably aimed at school children, the Waitec Glam is a bright, somewhat garish-looking device that is unlikely to win any admirers over the age of 12. The carrying strap is also rather unsightly to adult eyes, though it would be more secure than a beltclip when attached to a hyperactive prepubescent.

Verdict

The Waitec is still cheaper than many MP3 players on the market but it is a bulky device that, in our opinion, is anything but glam. On the plus side, audio playback is good. ■

Ben Camm-Jones





Multifunction device Brother MFC 890

EXCLUSIVE

With the 890, Brother is leading MFDs (multifunction devices) in a new direction. These products were always employed for small office work using laser-based technology to churn out low-quality mono text or graphics as quickly as possible. But Brother has noted that changes are afoot. The mammoth growth in the digital imaging technology market means people are looking for all-in-one devices to cater for their high-quality imaging needs. Step forward the MFC 890.

The MFC 890 is a printer, fax machine, copier and scanner that utilises four-colour ink cartridges for high-quality print output. Given its size and output capacity it's not ideal for large offices that require speed but it's perfect for small workgroups where space is restricted. Brother has also introduced a PhotoCapture Centre facility so home users can use this MFD for all their digital imaging requirements.

At the front of the case on the lefthand side are three slots for different memory storage: CompactFlash, SmartMedia and Memory Stick. It's just a bit of a shame that the 890 doesn't support Microdrive.

The printed word

As it's an ink cartridge-based model, the MFC 890's running costs are higher than those of laser toner MFDs but the hardware unit is much cheaper and the quality is good. That said, Brother has been stunningly generous with the running costs – 1.6ppp (pence per page) for black and 1.9ppp for the life of each colour cartridge.

The 890 connects via parallel or USB connections and should you wish to hook it up to a network you can use the 10/100 TX base option. The hardware buttons are easy to follow thanks to a comprehensive LCD (liquid crystal display), the copying facility is straightforward and there is even a 400 percent zoom option. The 33.3Kbps (kilobits per second) fax speaks for itself so we'll concentrate on the 890's printing and scanning functionality.

Colour printing has a maximum resolution of 2,400x1,200 and Brother claims the 890 can churn out 16ppm (pages per minute) in colour and 20ppm in mono. We couldn't match these speeds in draft mode printing – we achieved only 9ppm for colour and mono. To be fair, though, most manufacturers overestimate speed and

the quality is good. We've seen plenty of models that suffer from bad streaking on low-quality settings so it was refreshing to see nice sharp output at draft mode.

The printer software's interface is limited but it does give you a choice of photo settings and photo paper. We printed an A4-size full-colour image on the highest resolution using glossy photo paper, and this took a respectable eight minutes. The results were impressive with good attention to the colour and detail of the source photo.



Copycat

The scanner has an optical resolution of 600x1,200 with a 36bit colour depth and the PaperPort software is limited but easy to use. Naturally you can scan straight to applications or email and the hardware sports quick-scan buttons. An A4 full-colour image was knocked out in two and a half minutes and the results were clear, well-produced images.

If you want to make copies of your home photos we wouldn't recommend using the 890's

copy button. It's the quickest way by far but the results are too dark and lack detail. It's better to scan the image on full resolution and then print it out. We scanned in a photo-sized full-colour image and printed it out at the maximum resolution

and, though it took a while, the finished result was much better than the copied image. We'd also recommend steering clear of the True2life colour enhancement technology. This option is only available when photo printing but it suffused our test images with an unnatural colour palette.

Verdict

Cheap to buy, cheap to run, versatile and offering good quality output, the MFC 890 has to be one of the best multifunction devices that's passed through the Test Centre. ■

Spencer Dalziel

People are looking for all-in-one devices to cater for their high-quality imaging needs. Step forward the MFC 890

Brother MFC 890

- Brother: 0870 830 4000
- Website: www.brother.co.uk
- Price: £272 ex VAT

Specifications

20ppm mono; 16ppm colour; optical res 1,200x2,400dpi; scanner max optical res 600x1,200dpi; 36bit colour depth; 1,200x1,200dpi colour copy; 8MB RAM; 33.3Kbps fax; USB or parallel connection; 100-page A4 input tray; 492x466x378mm; 13kg.

Good points

Value for money; network connection.

Bad points

Size; colour enhancement technology.

Build quality



Features



Value for money



Multifunction device

Epson Stylus CX3200



Epson has a great history of creating consumer-friendly imaging products and the stunningly cheap Stylus CX3200 is no exception. The company is also demonstrating a commitment to the humble MFD (multifunction device). Like a few other manufacturers, Epson has observed new markets opening up thanks to the massive increase in digital imaging for home users. MFDs provide an all-in-one digital photographic solution. With a well-specified MFD you can scan original photos, copy, print and archive images without the need for several devices. As long as you have a digital camera and a PC then a decent MFD should serve you well. But is the CX3200 any good?

Home, sweet home

This all-in-one device serves as a printer, scanner and copier but doesn't come with the added facility of faxing. There's no network option either so it's not a useful office tool, but then that's not the CX3200's forte. This is hardware for the home environment, which is reflected in its compact dimensions and ease of use as an out-of-the-box solution.

Epson has even bundled a USB cable, something many manufacturers overlook. You don't get parallel connection support so it won't serve those of you with older PCs but, to be fair, most users now have USB support. It's complemented by a full set of easy-to-read instructions and there is full online support should you run into trouble though we had no problems during our tests.

Essentially, the CX3200 is a combination of all Epson's existing print-and-scan technology. It can knock out about 10ppm (pages per minute) and uses a two-cartridge ink-based system that employs Epson's T040 black and T041 colour cartridges. These are used in several of Epson's value printers but they do yield impressive photo image quality.

On the down side, they run out rather quickly and this makes the CX3200 expensive to run. Black printing costs around 4.4ppp (pence per page) and colour printing is a minimum of 7.4ppp. If you can put up with high maintenance and pricey running costs then this is still a worthy MFD. Epson is selling the hardware at a value-for-money price and is presumably making the money back from post-sale costs.

Epson is loath to give away hardware resolutions on the CX3200 and nowhere in the literature does it appear except for one mention of 5760dpi 'optimised' resolution for photo printing. The print utility interface is comprehensive, giving users manual control over saturation, brightness and contrast, but you can't select the resolution you want to use.

You choose the type of print job you want so you can opt for draft, text, text and graphics or photo. The printer then automatically selects the correct resolution for the job. This won't bother the average user because it's an easier setup for printing. As long as the results are okay and, in the CX3200's case, they're fine (though the model's a little noisy).

Snail-paced Stylus

If you're in need of fast output then we don't recommend the CX3200 as it's certainly no speed demon. We could only get 7ppm (pages per minute) for mono and 4.5ppm for colour – a long way off the claimed print speed. While draft mode printing lightly spreads the ink, all other print jobs looked great. Colour on graphics is impressive and text is sharply defined. Photo printing is even more impressive as long as you steer clear of the colour enhancement option.

The Stylus CX3200 proved to be a versatile product that will serve home users well. It's just a shame the running costs are so expensive

A 600x1,200dpi resolution and a 48bit colour depth take care of scanning, pumping out great results. Epson's Smart Panel bundle is a good software centre to take care of your scanning needs and Twain support makes it easy to scan from different applications. For making copies of your home photographs the CX3200 really excels. It takes about 10 minutes to scan in a photo on high resolution and then print it off, resulting in a superb, if expensive, copy.

Verdict

Cheap to buy and offering great results, the CX3200 proved to be a versatile and capable product that would serve home users well. It's just a shame its running costs are so high. ■

Spencer Dalziel

Epson Stylus CX3200

- Epson: 0800 220 546
- Website: www.epson.co.uk
- Price: £126 ex VAT

Specifications

14ppm mono; 10ppm colour; optimised res 5,760 x720; scanner max optical res 600x1,200dpi; 48bit colour depth; 1,200x1,200dpi colour copy; USB connection; 100-page A4 input tray; 475x389x235mm; 7.2kg; 1-year warranty.

Good points

Good photo quality; price.

Bad points

Running costs.

