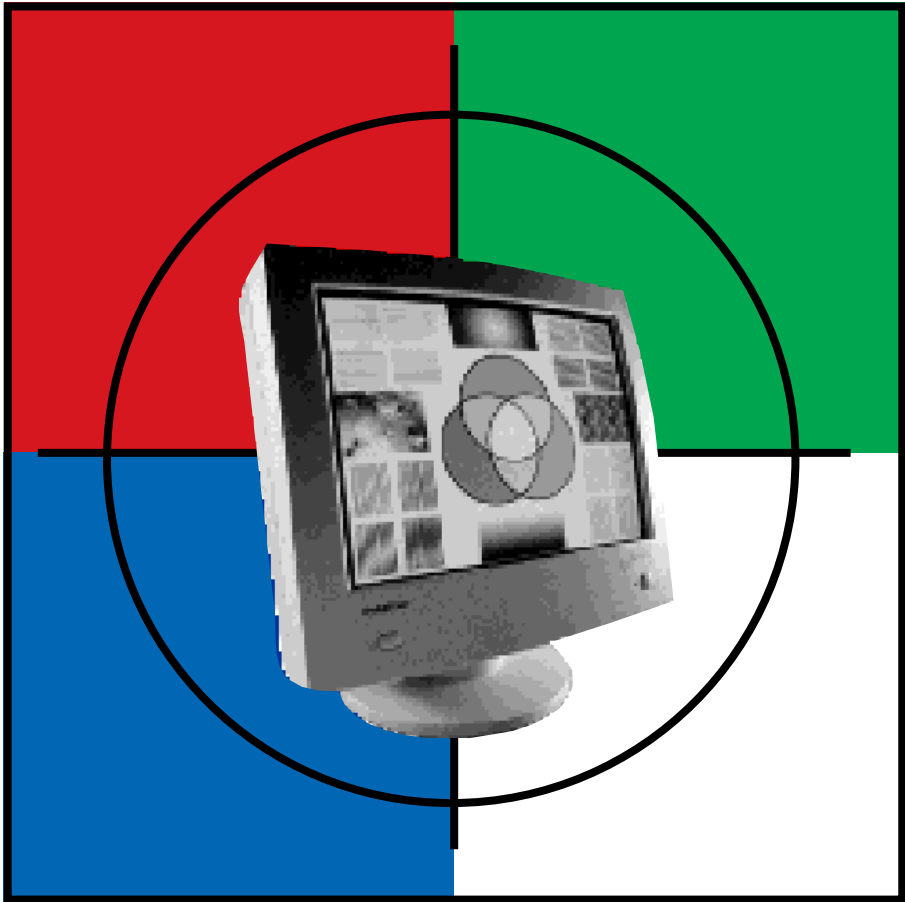


Screen test

Most PCs are supplied with 14in or 15in screens. For more comfortable working and to get the most from today's high-resolution Windows graphics, you can upgrade to a larger, better-quality unit such as one of the 17in monitors we review here

With so much attention directed toward the speed of the processor, the size of the hard disk and the amount of memory fitted, monitors can get neglected when it comes to choosing a PC. This can cause problems later because the monitor is, in fact, a vital part of the machine. It is, after all, where the computing 'takes place' as far as the user is concerned – you don't interact with a processor or a hard disk, you interact with a screen.

Most PC suppliers keep the overall cost of their systems down by providing relatively inexpensive monitors, which are invariably small – 14in (or, at best, 15in) tube diagonals are the norm – and often not of especially good quality. Replacing such a display with a larger, better-quality unit capable of higher resolutions can completely



change the way it feels to work with your PC.

For a start, a clearer picture is less fatiguing to look at, and the sharper it is, the better you will comprehend text and icons, so the easier it becomes to work with applications. Increasing the resolution from the standard VGA or even SVGA to the 1,024x768 that a 17in monitor is capable of has another instantly visible effect – it gives you more room to work in.

The relatively cramped Windows desktop you were used to suddenly expands into an area big enough to run two applications side by side, or to see much more of the workspace of an individual application so you don't have to scroll so much and you can see what you are doing properly. Even if you have a good-quality 14in monitor, replacing it with a 17in screen will literally make a big difference.

In this review, we put a dozen

17in monitors through their paces to see which ones offer the best in terms of features, picture quality and, of course, value for money.

Hitachi 17MVX Pro 2



Hitachi has long been a major manufacturer of monitors and its tubes are widely used by other makers, but the MVX Pro 2 is entirely a Hitachi product. It's not especially large, with a narrowish bezel and a front to back measurement of slightly under 18in, so you are left with some desk in front of you on which to put a keyboard and a mug of coffee.

The tilt-and-swivel stand holds the cabinet firmly in place and damps down most vibration coming up from the desktop, and although the monitor weighs a fairly hefty 22kg the stand isn't stiff or difficult to adjust, but neither does it slip out of position.

Unlike some 17in and larger displays, the MVX doesn't have a five-way set of BNC inputs for use with a special cable. In fact, the video cable is permanently attached at the back of the unit, which is slightly less expensive from a manufacturing point of view but can be a problem if the cable itself develops a fault.

The controls are mounted in the usual place below the bezel, and operate via an on-screen display consisting of icons indicating what each function does. Mostly this is clear enough, and there is a good

range of controls including barrel/pincushion and trapezoidal edge correction, rotation, red, green and blue gun intensity adjustment and two preset colour 'temperatures' respectively redder and bluer than the default median setting.

The screen surface of the 17MVX Pro 2 is relatively flat although still lightly curved in both planes, and would generally be described as an FST (flatter squarer tube) design to distinguish it from the Trinitron tube developed by Sony which is completely flat in the vertical plane.

When the image was sized up to fill the available screen area it reached a diagonal of 15.75in, which is about average for a 17in tube. The focus was quite sharp overall, including at the corners, and flicker will not be a problem thanks to support for vertical refresh rates of up to 100Hz at 1,024x768 resolution.

In the main the Hitachi is a good-quality unit for the money, but we'd have preferred to have a separate video cable rather than a captive one.

○ £575 incl VAT (RRP)
○ Hitachi: 0181 849 2000

Hitachi 17MVX Pro 2

Build	★★★★★
Controls	★★★★★
Image quality	★★★★★
Value for money	★★★★★
Overall	★★★★★

ADI Microscan 17

According to the press back-grounder accompanying the Microscan, ADI is now the fifth largest monitor manufacturer in the world. The Microscan itself certainly has all the attributes of a mainstream product, at least on paper, including compliance with the strict TCO '92 standard which governs both electromagnetic emissions and 'green' power-saving features.

From the front it looks fairly similar to the Hitachi, with a relatively narrow bezel framing its FST screen, but it is slightly slimmer front to back and weighs over 4kg less. Also, unlike the Hitachi, it doesn't have a captive signal cable, and both standard 15-pin VGA and D-SUB inputs are provided.

The tilt-only stand was a bit too stiff for comfort, but at least it didn't slip once the cabinet was in position, and again it didn't let the

Jargon buster

Terms to look out for when buying are listed below.

OSD

Stands for on-screen display. The monitor can be adjusted via controls on screen.

Cathode Ray Tube (CRT)

A monitor is essentially a glass tube, shaped like a funnel. A 'gun' at the thin end fires a beam of electrons at the wide end of the tube – the screen. The inside surface of the screen is coated with tiny dots of phosphor which glow briefly when hit by an electron. This glow is the image we see.

Dot pitch

The size of the dots of phosphor on a screen – the smaller the dots, the sharper the image. Look for a size of .28mm or below for a 17in monitor.

Refresh rate

The electron beam draws a monitor image a line at a time, from top to bottom. When one screen has been drawn, the beam goes back to the top and starts again. Many screens are drawn each second – the exact number is called the refresh rate and is measured in Hertz (Hz). A refresh rate of 72Hz (the minimum for a steady image) means that 72 screens are drawn each second.

FST

'Flat square tube'. Most 17in monitors have a screen that is much flatter than a 14in one. In fact, once you've used a 17in monitor, a 14in screen will come to look like a goldfish bowl.

Trinitron

Sony system enabling screens to be flatter, sharper and clearer than normal. The drawback is that a Trinitron screen has two thin wires running across it (more obvious on some monitors than others).



monitor wobble too much if the desk was nudged.

The controls are slightly unusual in that they combine a fairly high button count with an on-screen display element, whereas having an OSD is usually used as a way of reducing the number of buttons to a bare minimum. This approach can look a touch less friendly at first glance, but it actually provides slightly quicker access to specific functions than stepping through a palette of icons or a menu on the screen itself.

The functionality on offer is pretty much identical to what you get with the Hitachi monitor, except that this time there are two user-definable colour channels rather than one, but no preset colour temperatures.

While both monitors have FST screens, there are appreciable differences between the two, with the ADI producing a noticeably less even display, with darker areas at the edges and corners. Focus at the corners wasn't as good as the Hitachi's either, although the screen as a whole still appeared reasonably sharp and readable. Once again, high vertical refresh support of up to 100Hz at 1,024x768 resolution means that flicker won't be an issue, unless of course your graphics card can't deliver high refresh rates in this mode.

Plenty of features for the price, but not quite as good as the Hitachi offering for image quality.

- £711 incl VAT (RRP)
- £570 incl VAT (street price)
- ADI: 0181 236 0801

ADI Microscan 17

Build	★ ★ ★ ★ ★
Controls	★ ★ ★ ★ ★
Image quality	★ ★ ★ ★ ★
Value for money	★ ★ ★ ★ ★
Overall	★ ★ ★ ★ ★



Mitsubishi Diamond Pro 87TXM

Some time ago, Mitsubishi struck a technology exchange deal with Sony that resulted in Mitsubishi gaining the rights to develop its own version of the Sony Trinitron screen, which it named the Diamondtron. The external characteristics of Diamondtron screens are the same as Trinitrons – namely, they are flat in the vertical plane as if cut from sections of a cylinder, which means they produce an extremely flat image.

The Diamond Pro is based on one of these screens housed in a compact cabinet measuring just under 17in deep, although it still weighs a noticeable 22kg. It has both D-SUB and BNC connections, although as usual only the standard D-SUB cable is provided – if you want a BNC lead you have to buy it yourself. The conventional tilt-and-swivel stand is firm and supportive, but still fairly easy to reposition despite the weight of the cabinet.

Once again, the Mitsubishi Diamond Pro is a monitor with digital controls operated through an on-screen display; although both the quality of the screen menus, (which feature pictures showing the effects of the various options) and the range of controls themselves are well above average.

The geometry controls really are exhaustive, to the extent that many are probably best left alone except by service engineers. In addition to the usual pincushion, trapezoid, rotation and parallelogram corrections, you get something called pin balance, which straightens up the sides when both curve in the same direction like a square sail taking wind, plus tuners for convergence and a mass of detailed tweaks for getting the edges and corners exactly right. To top this lot

off, each of the three factory-preset colour channels is fully customisable, with individual adjustments for the red, blue and green components.

None of this would be much use without a decent picture – but, fortunately, the Diamond Pro acquits itself well. The overall focus is



good, and remains sharp to the corners, and colours have a richness and vibrancy that creates an above average impression of depth or relief to the display. As with the previous units, 100Hz vertical refresh is supported at 1,024x768 resolution, so the picture is nice and stable as well as crisp.

This is a well-made monitor with excellent and detailed controls and a quality screen that delivers the goods.

- £821 incl VAT (RRP)
- £704 incl VAT (street price)
- Mitsubishi: 0800 212422

Diamond Pro 87TXM

Build	★ ★ ★ ★ ★
Controls	★ ★ ★ ★ ★
Image quality	★ ★ ★ ★ ★
Value for money	★ ★ ★ ★ ★
Overall	★ ★ ★ ★ ★

Idek Iiyama Vision Master 17 Pro

Not to be confused with the Vision Master 17, which is based on an FST screen, the VM17 Pro also uses a Mitsubishi Diamondtron tube. The two units look fairly similar, and are almost exactly the same size, although for some reason the Idek is a kilo heavier.

The monitor benefits from a good solid stand which is reasonably easy to adjust, and it has both D-SUB and BNC inputs at the rear. The connectors are deeply recessed beneath the back of the cabinet – which makes them a bit fiddly to get at, but does mean that the display can be pushed right back against the wall without the cabling getting in the way.

Idek has reduced the button count to the bare minimum of three, with one that opens the on-screen setup menu and two that both select items and then make adjustments. It's rather easy to for- ►

17in monitors

get to keep pressing the menu button to lock your selection before trying to adjust it and so go shooting off elsewhere in the menu system, but the on-screen display itself was the best-looking so far apart from the Mitsubishi's.

Many of the same commands are on offer, with tuners for trapezoidal and pincushion edge distortion, a parallelogram correction, rotation, moiré reduction, three preset colour temperatures and a user-definable colour channel which has red and blue gun intensity adjustment.

There were some slight geometry problems with vertical lines bending in towards the centre, just



as with the Hitachi, and a certain amount of red gun misconvergence at the right side of the image that we couldn't get rid of, as the convergence control seemed only to shift the effect to the other side of the screen. We've seen other VM17s (and other types of monitor altogether) with the minor geometry quirk, but this was the first VM17 with an intractable misconvergence problem, which suggests it was something specific to the review unit itself rather than a general thing.

That aside, the image was very sharp and had the same sense of clarity and depth as the picture we got from the Mitsubishi.

A credible alternative to the Mitsubishi, although without quite the range of controls.

- £735 incl VAT (RRP)
- £676 incl VAT (street price)
- Idek Iiyama: 01438 745482

Vision Master 17 Pro

Build	★ ★ ★ ★ ★
Controls	★ ★ ★ ★ ★
Image quality	★ ★ ★ ★ ★
Value for money	★ ★ ★ ★ ★
Overall	★ ★ ★ ★ ★

Samsung Syncmaster 17GLi

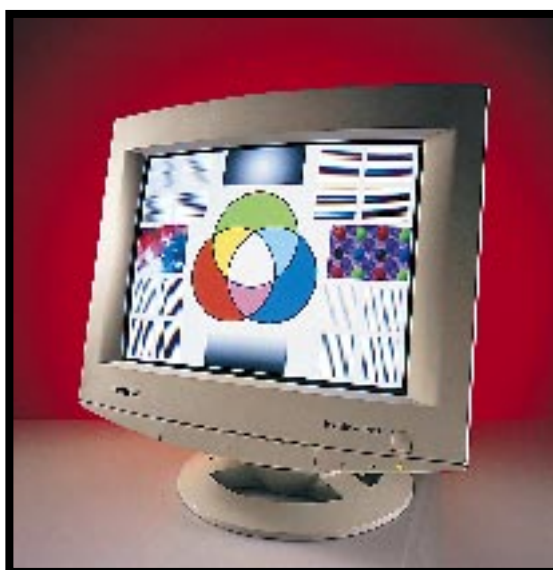
With its approximate street price of £563 including VAT, the Samsung Syncmaster is in the same league as the Hitachi and ADI, but clearly cheaper than the Mitsubishi and Idek. Like the Hitachi, it lacks BNC connections and has a captive signal cable, and – in common with both the Hitachi and the ADI – it is based on an FST screen, not a Diamondtron or Trinitron tube.

The unit has a wide bezel and, like the Mitsubishi and ADI monitors, the controls are concealed on a push-release block that drops down and presents them to you at a comfortable, easily viewable angle. The rest of the cabinet is fairly compact and the whole thing only weighs 18kg, which might be why the stand tended to transmit a little too much vibration up to the monitor itself, although it didn't allow any slippage.

The controls are particularly easy to use thanks to the way they are arranged, with each of three buttons triggering a menu dealing with a specific area of functionality – sizing, positioning and geometry – with a second press displaying either settings information or further related functions. A second group of four buttons acts both to select and adjust the chosen control.

You don't get the huge array of doodads on offer from the Mitsubishi, but the essentials are all there, including barrel/pincushion, trapezoid, parallelogram and rotation, and there are two preset colour temperatures but no user-definable channel this time.

The main problem with this monitor turned out to be a slight but noticeable lack of focus which was at its most pronounced at the centre of the screen rather than the corners, which were actually quite clear.



The geometry was acceptable and there was no serious misalignment, which was fortunate, since there was no control for correcting it. The maximum supported vertical refresh at 1,024x768 resolution was 80Hz, which, though lower than the others tested so far, is still above the recommended 75Hz and should appear stable and flicker-free to the vast majority of users.

Attractively designed with well-thought-out controls, but suffers from a lack of sharp focus at high resolution.

- £704 incl VAT (RRP)
- £563 incl VAT (street price)
- Samsung: 0181 391 0168

Samsung Syncmaster 17GLi

Build	★ ★ ★ ★ ★
Controls	★ ★ ★ ★ ★
Image quality	★ ★ ★ ★ ★
Value for money	★ ★ ★ ★ ★
Overall	★ ★ ★ ★ ★

CTX 1785S

This is another £570-ish FST monitor like the Samsung, ADI and Hitachi models. It has a captive signal cable and a somewhat stiff tilt-and-swivel stand, although at just 17.5kg the CTX is the lightest monitor so far tested here. The control buttons are mounted directly on the bezel, and operate via an easy-to-follow on-screen menu system which makes use of colour and a modest amount of animation to clarify both what each function does and where you are in the range of each control.

The geometry options cover rotation and pin balance as well as trapezoidal, parallelogram and pincushion correction, and there are three fully customisable colour channels, each starting from a standard preset colour temperature.

The first thing we noticed about the CTX's screen was that it was rather dark – even with the brightness right up the image tended to wash out rather than light up properly. The internal picture geometry fell within acceptable levels, and the controls were able to get the edges and corners true, but there wasn't anything we could do about the focus, which wasn't especially sharp at the centre and worsened at the edges and corners.

The CTX 1785S has an acceptable image diagonal, quite nice controls and no problems with vertical refresh support, but it is let down by indifferent image quality and an overly dark screen.

- £586 incl VAT (RRP)
- £575 incl VAT (street price)
- CTX: 01923 818461



You talk about a resolution...

To fully appreciate the benefits of a larger monitor, you need to understand how computer images are formed. The computer's graphics card is responsible for displaying images. An image consists of lots of dots, called pixels. The smaller the pixels (and the more of them there are), the sharper the image. The exact number of pixels which are used to display an image is called the image resolution.

All computer graphics cards can display at a resolution of 640 pixels across by 480 pixels down, but because so few pixels are used, everything is rather large and chunky. A resolution of 800x600 pixels gives a sharper image but because more pixels are crammed into the same space, everything becomes smaller. 800x600 is the limit for a 14in monitor – higher resolutions just make everything too small to be legible. To take things further, there needs to be more space for the pixels – the screen has to get bigger.

The screens above show how Windows 95 looks at three different resolutions – 640x480, 800x600 and 1,024x768 pixels. Notice how the same window gets smaller as resolution increases, taking up less space on the desktop.



Things to look for when buying

When it comes to buying a monitor, it all comes down to what looks best to you. A screen described as 'perfect' by one person may be unacceptable to another; it's all very subjective. The key to success is to see the monitor in action before you buy it. The things you should look for are:

1) Focus

The monitor should display an image that is evenly and crisply focused. Most monitors lose a little focus in the corners because of the screen's curvature, but it shouldn't detract from the overall image.

2) Colour rendition

Colours should be bright and pure, with no uneven patches. Black should be black and white white.

3) Image shape

A screen is obviously rectangular and the image should be too. Images can be

distorted in several ways but all monitors have controls to compensate. It's worthwhile checking that the controls allow you to get an image that fills the whole screen, is perfectly horizontal and is regular, with straight, parallel sides.



CTX 1785S

Build	★★★★★
Controls	★★★★★
Image quality	★★★★★
Value for money	★★★★★
Overall	★★★★★

Viewsonic PT770

The Viewsonic turned out to be another Diamondtron-based display like the Idek and, of course, the

Mitsubishi itself. It has a nice, fluidly articulated stand and looks quite handsome from the front, thanks to its bevelled screen surround and the general absence of buttons.

Apart from a button for auto-size/centring (which will only work if it gets exactly the right kind of signal from the PC) and a reset button, the controls consist of a stud that opens the OSD and a thumbwheel both for navigating the menu and making changes. The system works fairly well and there are plenty of options at your disposal, including all the major geometry adjustments, horizontal and vertical convergence tuning and red, blue and green intensity, although there are no additional presets or custom colour channels.

Unsurprisingly, the image char-



acteristics are very like the Mitsubishi's, with a nice, flat-looking picture that is sharply focused from the centre to the corners and reasonably bright.

Very similar in specifications and characteristics to the Idek, but rather cheaper. Idek does offer a full three years' warranty though, whereas Viewsonic does a one-year one.

Monitors compared						Monitors compared (contd)					
Model	Actual image diagonal (in)	Screen type	Dot pitch (mm)	Max vertical refresh at 1,024x768	Type of controls	Inputs	Depth of cabinet	Weight	Screen regulation (1 - 5)	Moiré (1 - 5)	Standards
ADI Microscan 17	15.75	FST	0.26	100Hz	Digital, OSD	15-pin VGA, D-SUB	435mm	17.8kg	4	5	TCO '92, MPR II, VESA DPMS, VESA DDC 1 & 2B
CTX 17855	15.5	FST	0.26	100Hz	Digital, OSD	Captive cable	417mm	17.5kg	3	4	MPR II, VESA DPMS, VESA DDC 1 & 2B
Goldstar Studioworks 76i	15.9	FST	0.28	80Hz	Digital, OSD	15-pin VGA	431mm	17kg	4	3	MPR II, VESA DPMS, VESA DDC 1 & 2B
Hitachi 17MVX Pro 2	15.75	FST	0.26	100Hz	Digital, OSD	Captive cable	465mm	22kg	5	4	TCO '92, MPR II, VESA DPMS, VESA DDC 1 & 2B
Idek Iiyama Vision Master 17 Pro	15.75	Diamondtron	0.25	110Hz	Digital, OSD	15-pin VGA, D-SUB	420mm	23kg	4	5	MPR II, VESA DPMS, VESA DDC 1 & 2B
Mitsubishi Diamond Pro 87TXM	15.9	Diamondtron	0.25	100Hz	Digital, OSD	15-pin VGA, D-SUB	425mm	22kg	5	5	TCO '92, MPR II, VESA DPMS, VESA DDC 1 & 2B
NEC Multisync XV17 Plus	15.4	FST	0.28	100Hz	Digital, OSD	Captive cable	450mm	18.5kg	2	3	TCO '92, MPR II, VESA DPMS, VESA DDC 1 & 2B
Samsung Syncmaster 17GLi	15.6	FST	0.28	80Hz	Digital, OSD	Captive cable	439mm	18kg	4	4	MPR II, VESA DPMS, VESA DDC 1 & 2B
Sony Multiscan 17sfl	16	Trinitron	0.25	80Hz	Digital, OSD	Captive cable	451mm	19kg	4	5	TCO '92, MPR II, VESA DPMS, VESA DDC 1 & 2B
Taxan Ergovision 730TCO	15.5	FST	0.28	85Hz	Digital, OSD	Captive cable	462mm	18kg	3	3	TCO '92, MPR II, VESA DPMS, VESA DDC 1 & 2B
Viewsonic PT770	15.8	Diamondtron	0.25	100Hz	Digital, OSD	15-pin VGA	435mm	18.5kg	4	5	MPR II, VESA DPMS, VESA DDC 1 & 2B
Wyse WYSEvision WY-17PS	15.75	Diamondtron	0.25	100Hz	Digital, OSD	15-pin VGA	435mm	22kg	4	5	MPR II, VESA DPMS, VESA DDC 1 & 2B

- £821 incl VAT (RRP)
- £633 incl VAT (street price)
- Viewsonic: 0800 833648

Viewsonic PT770

Build	★★★★★
Controls	★★★★★
Image quality	★★★★★
Value for money	★★★★★
Overall	★★★★★

NEC Multisync XV17 Plus

The XV17 Plus was so new when we got it that it arrived even before the press release had been written. Like previous NEC monitors, it has an FST screen surrounded by the trademark wide lower bezel, which gives the cabinet a solid, slightly steroidal appearance. It had a captive cable and therefore no BNC inputs, and was supplied with a smoothly travelling stand which didn't let the cabinet slip once it had been positioned.

The on-screen menu is presented in a tabbed format to speed access to each area of operation, and it contains a good range of geometry corrections but no colour correction or convergence tuning. The latter wasn't necessary as there was no serious misalignment evident in the image, but if you are engaged in design or DTP you might miss the ability to adjust the monitor to match the characteristics of a colour printer.

We were disappointed with the image, which wasn't sharp enough for comfort at 1,024x768 resolution, and which could have done



with being intrinsically brighter. We noticed the screen regulation was rather poor, so the image expanded and contracted noticeably when bright areas were switched on and off. This indicates that the high voltage regulation inside the monitor isn't all it could be.

Not really up to scratch in terms of image quality, especially considering the price.

- £856 incl VAT (RRP)
- £635 incl VAT (street price)
- NEC: 0645 404020

NEC Multisync XV17 Plus

Build	★★★★★
Controls	★★★★★
Image quality	★★★★★
Value for money	★★★★★
Overall	★★★★★

Sony Multiscan 17sfl

This bears a slight resemblance to the NEC in that it has a deep lower bezel on which its control buttons are mounted. It's reasonably compact and not too deep front to back, but although the stand was very easy to adjust it was a bit loose and tended to allow the cabinet to wobble too much. The Multiscan has a captive signal cable and no BNC connectors.

As with the Samsung, you get a set of control buttons, each of which opens a display dealing with a specific area. This makes them relatively easy to understand and quick to access the function you want.

The options are slightly limited – there is no trapezoid or parallelogram adjustment, colour tuning is done via a single control rather than individual red, green and blue intensity sliders, and the tube itself has a top vertical refresh of 80Hz at 1,024x768, which is a little lower than average here. That said, Sony tells us that a new model, which will offer an improved feature set, is due for release shortly.



Image quality was fair but not quite as sharply focused as the Mitsubishi or the Idek, which also had more comprehensive controls.

- £762 incl VAT (RRP)
- £649 incl VAT (street price)
- Sony: 01932 816000

Sony Multiscan 17sfl

Build	★★★★★
Controls	★★★★★
Image quality	★★★★★
Value for money	★★★★★
Overall	★★★★★

Wyse WYSEvision WY-17PS

Although it didn't look exactly like any of the others tested so far there was something oddly familiar

about the Diamondtron-based Wyse WY-17PS. All became clear when we started to use the controls, which consisted of a sort of oversized button which invoked an OSD and a thumbwheel which both navigated the menu and served to make adjustments. The mechanism, and indeed the actual OSD itself, were the same as that used on the Viewsonic, and a moment's further examination convinced us that the two monitors were in fact the same but for some styling differences in their respective cabinets.

This is no bad thing as the Viewsonic, and in turn the Wyse, benefit from usable controls containing a wide range of functions, and the Wyse produced the same kind of bright, sharply focused and

flat-looking image as its counterpart.

Another good-quality Diamondtron-based display with plentiful controls and, like the Viewsonic version, it's priced a touch lower than average for its class.

- £640 incl VAT (RRP)
- Wyse: 01734 342200

Wyse WYSEvision WY-17PS

Build	★★★★★
Controls	★★★★★
Image quality	★★★★★
Value for money	★★★★★
Overall	★★★★★

Taxan Ergovision 730TCO

The Taxan Ergovision doesn't quite have the looks of the Sony, but it's solidly enough built and has a more supportive stand. There isn't much in it in terms of size and weight and, once again, you get a captive signal lead rather than a detachable one.

This time the controls are concealed beneath a cover, but the functionality on offer is pretty much what we've come to expect, with pincushion, trapezoid and parallelogram geometry, rotation, three preset colour temperatures and an RGB adjustment system for custom colour settings. Operation is straightforward, thanks to a typically self-explanatory OSD, although you do have to search through this one as there are no shortcut buttons to specific groups of controls.

The FST screen is reasonably ►





Goldstar Studioworks 76i

Goldstar's Studioworks 76i is an FST screen display in a compact, relatively light cabinet with a deep lower bezel but only two visible control buttons, giving the unit a plain, understated appearance.

It had very much the same external control mechanism as the Viewsonic and Wyse, with a single button activating the on-screen menu, and a thumbwheel for moving around within it and then adjusting the selected function. The menu system was different, but the essentials were there, including pincushion and trapezoidal edge correction, rotation and two preset colour temperatures with a third user-definable channel.

sharp out to the corners and the geometry didn't cause us any problems, but we did notice some ripple-pattern interference (moiré) here and there which had a slight impact on fine detail reproduction in certain areas of the display.

The cheapest display in the group so far, and as such offers quite good value in terms of the features it offers.

- £734 incl VAT (RRP)
- £544 incl VAT (street price)
- Taxan: 01344 484646

Taxan Ergovision 730TCO

Build	★★★★★
Controls	★★★★★
Image quality	★★★★★
Value for money	★★★★★
Overall	★★★★★



Monitors and health

If you think staring at a monitor is a pain in the neck, then you're probably not doing it right. Monitors are seldom the cause of health complaints – it's the way people use them. If you use a monitor for long periods then there are a number of dos and don'ts:

DO

- position your monitor at eye-level – as a general guide, your eyes should be at the same height as the top of the monitor casing.
- ensure that bright lights are not reflected in the screen and don't face a window or bright light – use blinds or curtains to adjust light levels.
- use the monitor's brightness and contrast controls to produce a comfortable image for your eyes.
- clean your monitor regularly – greasy finger marks on the screen are not conducive to a sharp image.

DON'T

- use screen filters to reduce radiation – all monitors emit radiation – it's called visible light and without it we wouldn't be able to see anything. Filters only serve to diminish the quality of the image.
- squint – if you're having problems reading the screen, check your graphics card, monitor or optician. If you wear bifocal glasses, check with your optician that they are suitable for work with a monitor. You should be able to see the screen clearly without raising or lowering your head.
- just sit there – take regular breaks and look away from the screen regularly. Short, frequent breaks are better than long, infrequent ones.

If you want more information about monitors and health, the Health and Safety Executive have a range of publications. Contact them on 01787 881165.

We noticed a degree of moiré interference in the picture, and the general focus could have been a touch sharper, although there was no worsening at the corners of the image. Also, in order to achieve even a moderate degree of brightness, both the contrast and brightness controls had to be set at maximum, which really means that both could do with greater ranges.

Despite a couple of relatively minor shortcomings in terms of image quality the Goldstar offers a reasonable compromise between price and capabilities for the budget-conscious buyer.

- £590 incl VAT (RRP)
- £505 incl VAT (street price)
- Goldstar: 01753 500400

Goldstar Studioworks 76i

Build	★★★★★
Controls	★★★★★
Image quality	★★★★★
Value for money	★★★★★
Overall	★★★★★



In the main, we were quite happy with the quality of the monitors in this group test, and there was surprisingly little to choose between several of them, both in terms of controls, image quality and price. That said, the Mitsubishi Diamond Pro just edged ahead of the competition thanks to its well-designed control interface, the sheer range of functions on offer and the overall quality of the image it produced.



It would be unfair, not to say misleading, to claim any more than a slight gap between this and the other three

Diamondtron-based monitors here, as the Idek and the near-identical Viewsonic and Wyse units all combined usable, comprehensive controls with good image quality. The same could also be said of the Hitachi, which leaves us with little choice but to give a Best Buy to the Mitsubishi, and Recommendeds to the Idek, Viewsonic, Wyse and Hitachi, despite this being an unusually large number for one review.

Dominic Bucknall