

# hot off the press

Bringing you the latest and greatest hardware products that missed the Reviews deadline by a whisker, our team takes a look at Matrox's comeback graphics card, the Parhelia, and two new Toshiba releases – its e740 PDA and TDP-P5 digital projector

## Matrox Parhelia

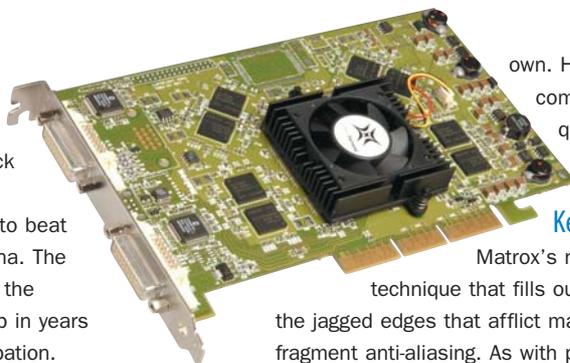
Graphics card

Matrox ruled the graphics market back in the late 90s with its G400 chip. Lately, however, its releases have failed to beat the likes of nVidia and ATI in the 3D arena. The company hopes to regain the crown with the Parhelia, its first totally new graphics chip in years and, as such, the subject of much anticipation.

### Good on paper

Technically, at least, the Parhelia should restore Matrox to its number one position. Its four vertex shader engines mean the card is classified as 512bit, an impressive achievement considering the top-drawer ATI and nVidia chips are only 256bit. The Parhelia's quad-texturing capabilities also allow increased processing power in games with lots of multitexturing. But this is, in essence, the Matrox's stumbling block. The available games on the market at the moment can't test the advanced hardware of the Parhelia. In contrast, on current games titles, the Matrox doesn't fare too well.

On Quake III, for instance, the Parhelia generates frame rates in the region of 70-130fps (frames per second), comparing unfavourably with the 140-196fps of the GeForce4 Ti 4600 and the 130-171fps of the ATI Radeon 8500. It does even less well in the DirectX Comanche test, managing an average of 21.5fps compared to 26fps on the Radeon and 32fps on the nVidia. Even more worrying, in all our tests the Parhelia struggled against the GeForce4 MX despite the latter's price tag being a third of its



own. However, this lack of firepower is compensated for by fantastic graphics quality, which is partly due to its strong anti-aliasing technology.

### Keeping a good line

Matrox's new take on anti-aliasing, the technique that fills out graphics images and eliminates the jagged edges that afflict many objects in games, is 16x fragment anti-aliasing. As with previous forms of the technology, the trick is to make the graphics more attractive while keeping the frame rate as high as possible. On the Parhelia we found the performance drop at later resolutions to be around 24 percent as opposed to 30-34 percent on the nVidia and ATI cards.

The Parhelia's graphics quality is high and games will remain colourful and vivid thanks to its one billion colours and strong rendering capabilities. The true quality of the Parhelia, however, won't be seen until games programmers start unlocking the potential of features such as vertex shading and multitexturing.

And that's the big problem – that we're expected to place so much faith in a series of technological advances that have yet to be proven useful to the industry. Certainly, Matrox could be right and, six months from now, Parhelia users might be enjoying masses of gameplay and the best graphics quality around. But in the meantime we'd recommend that you hold back on purchasing the Parhelia and wait to see what nVidia and ATI answer it with in the next few months.

Matrox: [www.matrox.co.uk](http://www.matrox.co.uk)

Price: £279 ex VAT

## Toshiba e740 and TDP-P5

Personal digital assistant and projector

Toshiba may be new to the PDA (personal digital assistant) market, but it's proving no slouch in terms of design and innovation. For a start, its new e740 is the first PDA we've seen in our Test Centre to use Intel's new 400MHz XScale processor. This chip offers lower power consumption and twice the speed and battery life of the previous StrongARM CPUs.

But the e740's features don't stop there – it also includes integrated wireless though you have the choice between the Bluetooth or 802.11b standards. There's also an expansion pack available, providing VGA and USB ports, so you can hook it up to a projector and give presentations on the move.

As luck would have it, Toshiba also has a new super-portable projector on offer: the slimline TDP-P5. If you frequently travel around the country giving presentations, then the two combined



could dramatically reduce the amount of kit you need to lug about with you. Look out for a full review of both products in the October 02 issue of *PC Advisor*.

Toshiba: [www.toshiba.co.uk](http://www.toshiba.co.uk)

Price: e740, £468; TDP-P5, approximately £2,127