

news

Mystery shrouds AMD's 64bit processors

In a show with no major announcements, AMD managed to steal much of the limelight at Computex, with a product that won't be available until September at the earliest.

With specs on AMD's forthcoming 64bit Hammer processors thin on the ground, the odd piece of information let slip by motherboard manufacturers kept interest at a high. Gossip was rife regarding the slow speeds turned in by the 64bit Opteron workstation and server processor, codenamed Sledge Hammer, but *PC Advisor* learnt that AMD may have deliberately locked the chip at a low clock speed to prevent show visitors from measuring its true performance.

According to our source, "It was locked at 800[MHz] and that's why people are saying there's poor performance, but in actual fact it was locked so people couldn't play around and get benchmarks out of it."

MSI was displaying two motherboards – the K8A Gem and K8H Gem Abil – both of which support the desktop 64bit Claw Hammer chip. A specs list stated the boards

supported a processor running at 1.6GHz – this despite repeated efforts from AMD to stop measuring CPU performance in megahertz.

But later in the show this list was changed, with the clock speed replaced by a 3000+ rating. This falls in line with AMD's True Performance index, used to rate all its current processors. At the moment, the fastest AMD desktop CPU is the Athlon XP 2200+ which runs at 1.82GHz.

Adding to the mystery, a motherboard seen by *PC Advisor* and said to be designed for Claw Hammer, touted a sticker (pictured) stating '256K-800MHz', undoubtedly referring to the chip's clock speed. Markings on another board showed it was capable of running on a 200MHz bus, giving a 400MHz DDR (double data rate) bus speed.

AMD hasn't given a precise date for Claw Hammer's launch, but motherboard manufacturers seem to be gearing up for a September/October launch. As to what spec they'll be, we'll have to wait and see.

For more information, see www.amd.com

Chill out and speed up to greater gigahertz



PC processors can only run to a certain speed without overheating. Cool it down, however, and you can push to greater gigahertz heights. It's not big, it's not clever – but it is kind of, well, cool.

Asetek was showing off a PC running at a whopping 3.2GHz, using its VapoChill cooling system. The VapoChill uses proprietary 'vapour phase technology' to achieve sub-zero cooling. By employing a four-step cooling cycle

covering compression, condensation, pressure reduction and evaporation, the system provides a stable way to reduce the heat of your processor.

With the rapid introduction of faster and faster CPUs it is a questionable proposition, but with Asetek's chilling system in place you can lay claim to the fastest PC available for a good few months at least.

See www.vapochill.com for more details

Asus uses XScale to offer faster, longer-lasting PDA

Intel's latest PDA (personal digital assistant) processor looks set to bring a double bonus to palmtop owners – higher performance and longer battery life. The XScale chip builds on the Intel's StrongARM processor, doubling both power and battery life.

Asus was proudly showing off the XScale-based MyPal A600, a full colour device that boasts the size and power consumption more commonly associated with monochrome models. Measuring just 75x125x13mm, and with a claimed battery life of 12 hours, the A600 is an impressive piece of kit.

With a 400MHz PXA250 XScale processor, not only can it satisfy the basic PDA functionality offering features including a diary and contact manager, but it can also turn its hand to more demanding applications – like playing movies.

It's always been possible to watch movies on a Pocket PC device, but dropped frames were a sticking point. Now they are a problem of the past on the A600, which provides a

much smoother image. This isn't a killer application, but it is a welcome bonus.

A speed of 400MHz may seem like an incredible, or silly, amount of power to have in a PDA, depending on your standpoint. However, like a colour screen, a powerful processor isn't a must – but if you can have one with little sacrifice then why not?

The A600 is well equipped in other areas, too. There's 64MB of RAM and a Secure Digital/Multimedia Card slot for expansion. There will also be an optional CompactFlash card adapter, providing greater flexibility. The 3.5in screen offers a standard resolution of 240x320 pixels with up to 65,000 colours.

UK pricing is yet to be finalised, but the device is set to retail at \$17,900 Taiwan dollars (approx £358) including VAT.

Visit Asus online at www.asus.com



SIS challenges nVidia for graphics crown



The graphics market has been ruled by nVidia for some time. Too long, some think. Rather than graciously stand back and let someone else have a go, nVidia has continually released faster and faster products, keeping it comfortably in the lead. Now SIS, more commonly known for its chipsets, has decided to make

a play for the lucrative graphics market with Xabre (think sabre with an X).

Initially, Xabre it will be available as an integrated graphics chip for motherboards, but SIS hopes to woo the graphics card manufacturers into using its chip.

Xabre 400, the fastest available at launch, is unlikely to be cause nVidia much alarm, but

SIS is hoping that future revisions will be more powerful. The company claims the Xabre 400 is on par with nVidia's GeForce4 MX 440 budget offering, but with a couple of additional tricks up its sleeve.

The chip will support AGP 8x from the start, doubling the bandwidth currently offered by AGP 4x to 2.1GBps (gigabytes per second). Xabre is also DirectX 8.1 compliant, providing greater support for games developers.

The success of Xabre relies largely on whether SIS can convince manufacturers to produce boards with its chip, possibly upsetting their current arrangements with nVidia. But we think that even if it just creates another option for the consumer on a budget, Xabre will be a good thing.

Visit www.sis.com to learn more



made in taiwan

Small is beautiful, says Atoz

PCs don't have to live in a huge unsightly box, as the Atoz EZgo PC proves. We've seen small PCs before, but Atoz claims its EZgo is the smallest Pentium 4-based system available. We don't know about that, but it is certainly tiny at just 198x161x62mm.

But just because everything has been crammed into such a small space, it doesn't mean you have to miss out on features. In addition to supporting Pentium 4, you'll find two FireWire ports, four USB (two USB 2.0), a Type II PC Card slot, TV-out, infrared, ethernet, a modem plus onboard sound and video.

Atoz isn't just concentrating on space-saving PCs – it's also turned its hand to flat-panel displays. But Atoz has a new take; while most manufacturers would want you to look at the screen, Atoz is more enthusiastic about its rear view.

Designed for the style-conscious user, the black-and-silver casing certainly stands out from the competition. The Impix L1501B (pictured) is a 15in TFT (thin-film transistor) panel offering a maximum resolution of 1,024x768, a 0.30mm pixel pitch and a 60-degree horizontal viewing angle. The contrast ratio runs to 350:1 and it has a brightness rating of 200 Candelas.

Atoz was also showing off its wireless telephone headset. The small unit measures just 40x30x10mm and provides up to two-and-a-half hours talktime and 80 hours standby. It's lightweight at 22g and has a range of up to 5m. The headset communicates with the similarly sized basestation, which attaches to popular mobile phones. If and when this wireless headset will launch in the UK has yet to be decided.

Visit Atoz online at www.atoztech.co.uk for more about these products



NET CONTROL FOR THE HOME

If you like the idea of home automation – allowing you to control all your home appliances from a central computer – then Power iA's SG 2100+ may be the device for you. It uses a GX1 processor running at 233MHz and comes with 32MB of RAM. Although underpowered by PC standards, the SG 2100+ is more than up to the job. It can act as an internet gateway, piping web access to various devices throughout your home as well as control your lighting and even read the meters for you.

www.power-ia.com.tw

LINUX IN THE PALM OF YOUR HAND

It's a safe bet that if it has a processor, someone will try to run Linux on it. Taiwanese company Linpus Technologies has done just that for StrongARM-based PDAs (personal digital assistants). Called ECniw, the system provides a full, graphical, Linux-based operating system for PDAs using Intel's StrongARM processor.

Besides providing the ultimate in geek cool, the ECniw has many benefits: it's small – the kernel occupies a mere 500KB, with the graphics engine running to 600KB – and it boots quickly, taking just six seconds from power on. The large Linux userbase means software can be simply and quickly ported to the device.

www.linplus.com

Play it again Wincan

If a device contains internal storage, it's never too long before the manufacturer bungs in an MP3 player as well. We've seen it with phones and cameras, and now Wincan Technology has done it with its product of the moment – the USB Pen Drive.

With so many small USB drives on the market, Wincan seeks to differentiate itself by the addition of an MP3 player. The device is so new that its external casing has yet to be made, but the 'nude' model on show functioned adequately.

Of course, any songs you store on the drive will eat into your available storage space – negating the benefits of the device in the first place – but it's a handy addition if you just want to take a few tunes with you and have a convenient method of transferring files.

See www.wincan.com.tw for more information

Free digital TV from set-top box

TV Digital may have gone off-air, taking with it our beloved Monkey, but free-to-air digital transmissions continue. Now the BBC has been granted the license to manage digital transmissions from later this year, the number of free channels on offer is set to expand to over 24.



All you need to leap into the digital TV generation is a free-to-air receiver. We've already reviewed the Pace and Grundig boxes (see page 94), but the market looks set to expand even further thanks to the sheer number of channels soon to be available.

MSI's DVB-T box supports both standard and widescreen TVs and comes with plenty of connection options, including composite, Scart and Y, CB Cr sockets. There's even an SP/DIF (Sony Philips digital interface) for digital sound and a PC Card slot.

There are plans to sell the box in the UK, but at the time of writing no date or price had been set.

See www.msi.com.tw for more details

FASTER DDR RAM

The speed of DDR (double data rate) memory is set to rise a notch from 333MHz to 400MHz. In anticipation of this, RAM maker Kingmax already has 400MHz modules in production. Current chipset support runs to 333MHz, but some motherboard manufacturers are pushing this technology to its limits by overclocking 333MHz chipsets to 400MHz. Forthcoming chipsets will officially support the new standard. Visit Kingmax online at www.kingmax.com



Silent PCs

While Intel and AMD are fighting it out in the high end of the processor market, chipmaker Via has been taking a new approach with its Eden range.

Faster processors mean more heat, and more heat means noisier fans.

However, Via's Eden platform (pictured above) requires no fan to cool the processor. Coupled with a fanless power supply, the result is a completely silent PC. It may not rival the performance of the latest chips but, as our tests proved, it's more than adequate for office tasks. For more information visit www.pcadvisor.co.uk, and search for our review of the Via Epia Mini-ITX.

Gigabyte has taken the Eden board and put it in a slim case, producing a small, quiet low-cost PC. The device on show was a concept model, but if there's demand for the unit it could make it to market. www.gigabyte.com.tw



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Different take on Tablet PCs

Tablet PCs are coming and ECS, perhaps better known for its motherboards, has a new take on the concept. Rather than opt for the basic Tablet, its U800 combines the traditional PC advantages of a LCD (liquid crystal display) PC with the portability of a Tablet PC.

The U800's processor, memory and hard drive are all housed within its 15in TFT (thin film transistor) screen which means the entire system can be easily unclipped from its stand to give you a fully functional Tablet PC that you can walk around with and use away from the desk.

When on its stand the U800 is controlled, as any normal LCD PC, with a keyboard and mouse. The screen can be rotated to portrait view, which is handy for different size documents, and the unit draws its power from a connector on the stand.

The U800 isn't currently in production but if trials by ECS prove successful we should hopefully see it on the market soon.

Watch this space: www.ecs.com.tw



Fingerprint reader could put paid to passwords

Passwords are a necessary evil to ensure that unauthorised users can't gain access to confidential material, but they're far from ideal.

With most humans unable to reliably remember a string of meaningless digits and characters, there's a fine balance between easily guessable and memorable passwords.

Fingerprint recognition offers a good alternative, as the amount of information in an individual fingerprint is far greater than that of even the most unintelligible passwords and it's something you carry with you everywhere.

The main downside is the need for a fingerprint reader compatible with any device, but AuthenTec reckons it has a solution. The AES3500 is a small pad perfect for integration in PDAs (personal digital assistants), notebooks, computer keyboards and any other device where space is at a premium.

The reader measures just 14mm square and is only 1.4mm thick. As the pad is so small, when you enter your fingerprint for the first time it creates an image of the whole dab from a series of images of different parts. When it comes to authenticating, however, it can recognise you from a single press of your digit.

Unlike similar readers, AuthenTec's pad reads below the surface of the skin so it can reliably recognise dirty, oily, calloused or dry fingers.

Find out more online at www.authentec.com



PCs JUST KEEP ON GETTING SMALLER

PCs are getting smaller, and Lex System has a number of slim designs for the home. Ranging from a minuscule 220x165x42mm (width x depth x height) up to a still smaller 180x260x163mm. Lex also has a number of motherboards, specifically designed to fit in its cases, supporting both traditional socket 370 processors and Via's low-power Eden chips.

www.lex.com.tw

ALL-IN-ONE BOX OF FUN

As the entertainment world becomes increasingly digital, we're seeing more crossover between the PC arena and consumer electronics. MSI's MS-3220 digital satellite receiver provides all the TV functions you'd expect as well as email and internet connectivity. There's even an optional hard drive so you can record programmes digitally for playback at a later time.

www.msi.com.tw

MINI MEDIA PLAYER

A mere five years ago Mpeg-1 video used to stress a top-of-the-range PC, but advances in technology mean you can now fit the necessary equipment into a case the size of a box of tissues. Carry's media player can play Jpeg, VideoCD (Mpeg-1) and MP3 files stored on CompactFlash, SmartMedia, SD (Secure Digital), MMC (Multimedia Card) and Memory Stick media directly on your TV.

www.carry.com.tw