

# Hoojum Cubit 5

## APC TO TAKE A SHINE TO

Price £1,320 inc VAT  
Supplier Scan, [www.scan.co.uk](http://www.scan.co.uk)  
Manufacturer [www.hoojum.com](http://www.hoojum.com)

It's great to see a British company at the forefront of something as cutting-edge as small form factor PCs. Hoojum Design has been selling gorgeous little boxes for some years now but, until recently, they were based around VIA's EPIA platform, so their performance was limited. When Hoojum released the Pentium 4-powered Cubit P4 in 2003, however, the company took a big leap towards the mainstream.

The Cubit 5 is another step in the same direction, offering desktop performance in an incredibly good-looking package – a bit like the writer of this review.

Like the Cubit P4, the Cubit 5 is based around a Shuttle motherboard – in the case of our review sample, the Intel 915G-based FB83 from Shuttle's SB83G5. Scan only sells the Cubit 5 pre-installed with the FB83, but the chassis supports a wide range of Shuttle boards from the FN41U upwards, so you can use pretty much any board and processor that you want. When you buy the Cubit 5, you can ask the company to use a specific board in a ready-built system, or you can buy the kit for building it yourself. This is an ideal option if you happen to own a compatible Shuttle to which you want to give a unique facelift.

Building your own Cubit 5 isn't for the faint-hearted though. In fact, if you buy the Cubit 5 pre-built, you'll be hard-pressed to work out how to open it up at all, as it isn't a conventional chassis with a few panels bolted on the outside. The side panels, top and base comprise one single aluminium tube, with the front and back panels bolted on.

The internals are mounted on aluminium plates, which Hoojum calls the Quickslot system. These plates slide together to carry all the components, and then slide inside the grooves on the outer tube. It's a bit like the computing equivalent of IKEA furniture; the end result is a small form factor that weighs a ton and is incredibly sturdy. However, without the outer tube, the Quickslot internals

are very flimsy indeed. The Cubit 5 is a system designed to be built once and not tinkered with afterwards.

With Shuttle guts, the Cubit 5's features don't differ greatly from the SB83G5 on which it's based. A conventional Shuttle ICE heatpipe system is used for CPU cooling, and the much quieter 250W Silent X PSU supplies the amps, keeping sound pollution low. The system is noisy when it initially boots, but soon becomes almost inaudible once the temperature control kicks in. As the motherboard uses Intel's 915G chipset, there's an LGA775 processor socket, a 16x PCI-E slot, integrated GMA900 graphics and a regular PCI slot. Only standard DDR memory is supported, not DDR2, and, as the 915G chipset has



Hoojum supplies the standard Windows XP MCE remote for watching TV

The front panel has an integrated memory card reader



### IN DETAIL

Processor	3.4GHz Intel Pentium 4 550J
Motherboard	Shuttle FB83
Memory	1GB PC3200 Corsair Value Select
Graphics	128MB XFX GeForce 6600
Sound card	On-board HD Audio with 6-channel support
Hard disk(s)	2 x 120GB S-ATA Maxtor DiamondMax Plus 9
Optical drives	Panasonic UJ-815a (UJ-845 in retail model)
Case	Hoojum Cubit 5
Cooling	Shuttle ICE, 90mm exhaust fan
Overclocking	Separate DRAM and CPU timings; CPU clock: 200 - 355MHz; max voltages: CPU 0.625-1.5875; DDR 2.9V; chipset voltage 1.7V
Ports	Rear: 2 x USB 2, FireWire, LAN, serial, D-SUB, optical and coaxial S/PDIF out, 3 x surround audio out; Front: 2 x USB 2, FireWire, mic, line-in, headphone
Extras	Compro VideoMate DVB-T200 plus IR remote, memory card reader (CF, SM, SD, MMC, MS), Windows XP Media Center Edition 2005, MCE IR remote

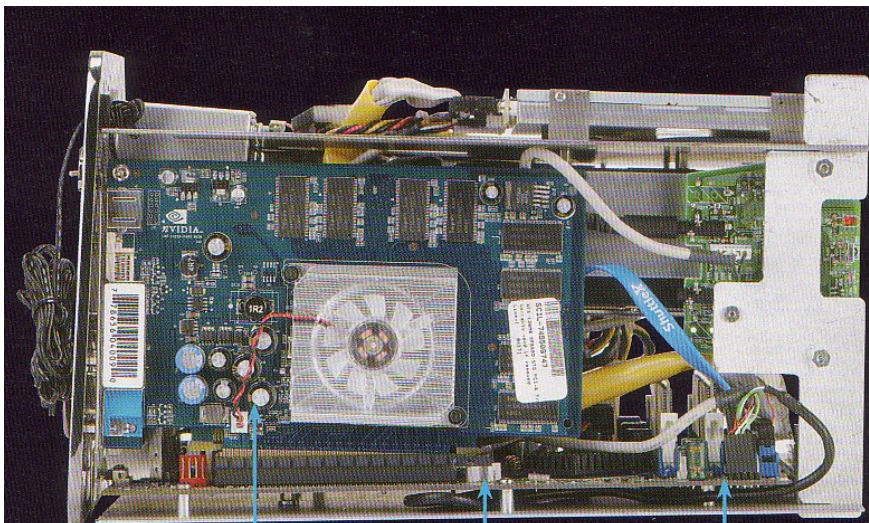
been superseded by the 945P, you won't be able to use Intel's latest and greatest dual-core CPUs. Our sample came with a 3.4GHz Pentium 4 550J and 1GB of Corsair Value Select PC3200 memory. With only two DIMM sockets available, there's no room to add more memory.

The Cubit 5 can accommodate one or two hard disks, and our sample came fitted with twin 120GB Maxtor DiamondMax Plus 9 S-ATA drives. However, the chassis supports only a slimline, slot-loading optical drive, which, in practice, will probably restrict you to Panasonic or Pioneer drives. Our unit had Panasonic's UJ-815A, but Hoojum now supplies the UJ-845, which offers both dual-layer writing and DVD-RAM support.

Both the PCI-E and PCI slots on the FB83 motherboard are filled. A PCI-E GeForce 6600 from XFX was supplied to replace the on-board Intel GMA900 graphics, while a Compro VideoMate DVB-T200 has been added to complement the Windows XP Media Center Edition 2005 operating system. The latter is a nice 'best of both worlds' TV tuner. It doesn't have the dual analogue and digital tuners of the T300 (see Issue 23, p67), but it can capture video from analogue composite and S-Video sources, which few DVB tuners can do. However, this is only available in third-party applications, and not MCE 2005 itself.

MCE 2005 comes with a remote control and, usually, a separate USB infrared receiver. Hoojum has cleverly installed this internally at the front of the Cubit 5, so as not to spoil the system's looks. There are two remotes as well – the standard Microsoft MCE one, plus one that comes with the Compro tuner.

The usual complement of front audio, USB 2 and FireWire ports are there, and Hoojum has taken the sensible move of including a memory card reader as well, which supports the most common formats. With the Shuttle internals, the Cubit 5 also accepts Shuttle peripherals, such as internal wireless networking. This is also handy if you ever need to replace components such as the PSU.



If you can build your own car from scratch then you might enjoy trying to upgrade some of the Cubit 5's internal components

The chrome version of the Cubit is a surefire way to impress your mates, and it's a capable performer too

The motherboard is a standard Shuttle FB83

### PERFORMANCE

At its standard settings, the Cubit 5 was certainly no slouch, and performed well in all three of our 2D Media Benchmark tests. As expected for a 3.4GHz Pentium 4 550J with Hyper-Threading, the video encoding results were its biggest strength, although they look weaker now that we've seen what dual-core CPUs have to offer. Still, the Cubit 5 beats the most impressive Media PC we've seen so far, the Sony VGC-V2S (see Issue 21, p36), in all the performance tests.

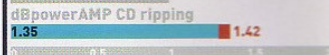
Gaming frame rates were held back by the vanilla XFX GeForce 6600 graphics card. The Cubit 5 couldn't even reach 30fps in Far Cry at 1,280 x 1,024 with 2x AA and 2x AF. However, we found the graphics card to be incredibly overclockable. The card supplied by Hoojum could be raised from the standard 300MHz core and

650MHz memory settings to an incredible 500MHz core with 700MHz memory. This increased the average frame rate in Far Cry from 27.2fps to 31.7fps, although this still isn't smooth. Less CPU-limited levels than our usual Fort demo received even more benefit, with Volcano jumping from 32.1fps to 41.4fps.

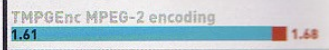
The Cubit 5 itself however, isn't much of an overclocker, but that's par for the course for the mainstream 915G chipset. Even a 220MHz FSB rendered the Cubit 5 completely unbootable, and it wouldn't complete our benchmarks at 215MHz either. It operated well at 210MHz, which clocked the 3.4GHz processor to 3.57GHz. This gave a small 3 per cent boost to the overall benchmark results, although the effect on gaming was almost insignificant, and image manipulation in Paint Shop Pro 8

### RESULTS

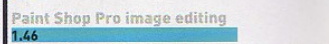
#### APPLICATIONS



The Cubit 5 is more than adequate at audio ripping



The Pentium 4 CPU yet again shows its video encoding prowess



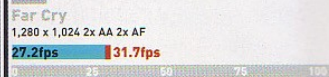
Another good score, although the memory doesn't like overclocking, as it slows the PC right down

#### OVERALL:



Fast, small and shiny, but not keen on overclocking  
 CPC reference PC = 1.0

#### 3D:



The GeForce 6600 overclocks nicely, although it's pretty mediocre otherwise

CPC reference PC = 52fps

Standard Overclocked

appeared to suffer slightly from the overclock. This is probably because the CPU was throttling when overclocked.

### CONCLUSION

Hoojum's Cubit 5 is absolutely gorgeous, particularly with the chrome finish that our review model sported. Visually, it competes with high-end designs from the likes of Sony and Apple. As you'd expect from a product as distinctive as the Cubit 5, it's very pricey, although the chrome finish is the most expensive option; black is £60 cheaper, and white, peach, blue or brown, £45 less.

Packed with a Shuttle FB83 and 3.4GHz Pentium 4 550J, it's no slouch, either. The mediocre gaming performance is nothing that a GeForce 6800 GT upgrade wouldn't fix.

The Cubit 5 is still too heavy for a LAN party, but, in the media PC configuration supplied to us, it's very attractive. If you're looking for a truly eye-catching HTPC, the Hoojum Cubit 5 is a worthy contender, although you'll need deep pockets.

JAMES MORRIS

