Scan 3XS Core i5 Nanu £725

Small but perfectly formed, the Nanu provides the performance of a workstation in an unfeasibly diminutive, plus potentially portable package

Don't be deceived by the Nanu's diminutive proportions; it has the aspirations of a much bigger workstation

> "Based around a chassis measuring just 286mm, this is one small system, yet it promises power [enough] for everyday 3D content creation tasks"

Despite the general computing trend towards more processing power in smaller and smaller components, size is still generally synonymous with power in workstations. But that doesn't have to be the case, and this month Scan hopes to prove the point with its 3XS i5 Nanu. Based around a chassis measuring just 286mm along its longest dimension, this is one small system, yet it promises processing power that's still sufficient for everyday 3D content creation tasks.

Inside the Nanu can be found a healthy array of components. The CPU is Intel's Core i5 760, a quad-core processor running at 2.8GHz. This doesn't have the Hyper-Threading ability of the Core i7, so it doesn't offer the virtual doubling of cores which can provide extra performance with multi-threaded processing tasks such as rendering. But the i5 does still include Turbo Mode, so it can increase the clock speed of individual cores when required, if not all the cores are being utilised. With a single active core, the clock speed increases to 3.46GHz; if two are under load, they will both run at 3.33GHz; and if three or four cores are used the processor will run them at 2.93GHz. So you get a worthwhile performance enhancement from Turbo Mode, particularly with single or dual-threaded tasks.

The processor was backed by 4GB of PC3-12800 DDR3 memory in our sample, but 8GB is also available for just £41.35 extra. Since the processor is a Core i5, only a dual-channel memory configuration is supported, rather than the triple-channel setup of the Core i7. The graphics provision is also reasonable. An AMD FirePro V4800 is supplied, with 1GB of 900MHz GDDR5 memory. This card offers 400 stream processors, which is a quarter of the number in the highest-end FirePro V8800, but still very competitive with previous-generation FirePros and NVIDIA Quadro FX hardware. It also supports Eyefinity, so can drive three TFTs simultaneously for a truly huge desktop.

With space at a premium, the Nanu eschews the usual workstation configuration of a superfast operating system and applications disc combined with a slower data drive. Instead, a single 1TB conventional hard disc in the shape of a Western Digital Caviar Black is supplied, configured as one partition. Rounding off the storage is a Samsung optical drive, providing 8x DVD writing and rewriting.

One of the problems with using a small form factor chassis for workstations in the past has been system noise. The reduced overall size usually necessitated smaller fans, which have to rotate more quickly to provide the same level of cooling as a larger blower. However, the Nanu's Silverstone case relies on a large, front-mounted 120mm fan for general system airflow, which allows the workstation to operate very quietly indeed.

With its mid-range processor and graphics, the Nanu was never going to give high-end workstations anything to worry about in the performance stakes. But it still does reasonably well. Perhaps the weakest area is in rendering, where the score of 3.92 in CINEBENCH R11.5's CPU test is less than half that of the recent six-core Intel Core i7 systems we've seen from Armari and Workstation Specialists. The OpenGL result of 52.38 is much more respectable, however, and the SPECviewperf 11 scores are similarly acceptable. High points include a LightWave-01 result of 43.94, Maya-03 result of 49.28 and sw-02 result of 32.12, implying that the Nanu will do a decent job of 3D animation and product design.

With a price just over £700, the Scan 3XS i5 Nanu packs a fair amount of modelling and rendering power into a very small space, and you don't pay a significant premium for the privilege. It would make an ideal space-saving system for working at home, particularly where the unit will regularly need to be carried to a temporary production location. If space and portability are important to you, it's well worth a look.

The i5 core includes Turbo Mode which enables you to increase the clock speed of individual cores

The good & the bad

- ✓ Decent mid-range performance considering the chassis size
- ✓ Good OpenGL performance, with dual-slot graphics an option
- ✓ Reasonably priced
- ✓ Quiet and readily portable
- ✗ Not as fast as a full-sized workstation
- ✗ Limited internal space for storage upgrade
- ✗ Limit of 8GB on memory, with dual-channel configuration

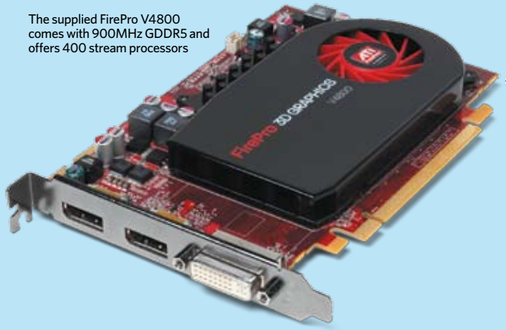
Essential info

www.scan.co.uk
£725 exc VAT

OPERATING SYSTEMS
- Windows 7 Professional 64-bit

OPTIMAL SYSTEM REQUIREMENTS
- 2.8GHz Intel Core i5 760
- 4GB PC3-12800 DDR3 SDRAM
- 1GB AMD FirePro V4800
- 1TB Western Digital Caviar Black 7,200rpm SATA hard disc
- Samsung 8x DVD rewriter

WARRANTY
- Two years; first year onsite, second year RTB



The supplied FirePro V4800 comes with 900MHz GDDR5 and offers 400 stream processors

Our verdict

Features	7/10
Performance	7/10
Value for money	9/10

> "Big performance, small box, although it won't be giving the latest six-core Intel Core i7s anything to worry about when it comes to rendering"

Final Score 8/10

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