

Workstations don't come much more powerful than the 8550 Xtreme. Note: the system does not come with a monitor



The good & the bad

- ✓ The fastest rendering performance we've ever seen
- ✓ Very capable modelling
- ✓ Three-year warranty
- ✓ Extensive graphics and storage upgrade options
- ✗ Expensive
- ✗ Small secondary hard disk for data

3DBOXX 8550 Xtreme

£6,279 (exc VAT)*

Two frequency-enhanced six-core processors and the latest NVIDIA Quadro graphics promise peerless workstation performance

Essential info

www.escapestudios.co.uk
www.boston.co.uk
www.boxxtech.com
 • £6,279 (exc VAT) from Escape Studios
 • For US price, contact BOXX Tech directly

OPERATING SYSTEMS
 • Windows 7 Professional 64-bit

OPTIMAL SYSTEM REQUIREMENTS
 • 2x 3.33GHz Intel Xeon X5680 running at 4.2GHz
 • 12GB PC3-12800 ECC DDR3 SDRAM
 • 2GB NVIDIA Quadro 4000
 • 160GB Seagate Momentus 7200.4 7,200rpm SATA hard disk
 • 500GB Seagate Momentus 7200.4 7,200rpm SATA hard disk
 • Pioneer DVR-218L 20x DVDewriter
 • Warranty: Three years RTB

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This system is a rendering powerhouse which will blitz through your output, but such high performance comes at an equally high price

The SPECviewperf 11 scores were on par with the best we've seen, particular highlights being a LightWave-01 result of 65.75, Maya-03 score of 82.41, and sw-02 figure of 55.45, although all tests were completed with aplomb. OpenGL performance is not usually influenced by extra cores, more by clock speed and graphics; so here the system is providing what we would expect of a 4.2GHz Intel CPU and Quadro 4000 GPU, and there are numerous options for improving the latter if you need more OpenGL grunt.

In the supplied specification, however, the 3DBOXX 8550 Xtreme is a phenomenal rendering powerhouse which will blitz through your output. Its modelling abilities are also on a

par with the best, and potentially superior if you upgrade the graphics beyond its currently already high level. Amazingly, despite the powerful components, this is a remarkably light system, which didn't threaten back strain as we moved it around the test lab. The custom aluminium BOXX chassis is mostly to thank here, although the choice of 2.5-inch hard disks will also have helped. It's also worth noting that where BOXX systems used to ship from the States, making them a little hard to source in a hurry, now they're also assembled in the UK by Boston Limited. The only drawback is the hefty price. But if you want the most powerful workstation we've ever seen, you should expect to pay a premium.

Increasing processor clock speed beyond the nominal frequency used to be the domain of enthusiast gamers.

But when Intel added Turbo Mode to the Core i7, this potentially very beneficial activity started to be a legitimate prospect for professional users as well. Nevertheless, although we've seen a number of single-processor workstations taking advantage of the possibilities, such as Workstation Specialists' WSX-6+ (see issue 21), dual-processor systems have remained at stock settings. Now, at last, with the 8550 Xtreme, BOXX is pushing dual Xeons to a higher level.

The 8550 Xtreme is based around a pair of Xeon X5680s, which nominally run at 3.33GHz. However, BOXX has set these to run at 4.2GHz, a 25 per cent increase. This configuration is guaranteed to perform stably for the full three years of the warranty, and they're also kept well within their temperature

threshold by a custom water-cooling system. These are six-core CPUs with Hyper-Threading too, so the end result is a total of 24 virtual processors available for multi-threaded tasks like rendering. The twin CPUs are partnered with a very healthy 12GB of 1,066MHz ECC DDR3 SDRAM, configured as six modules of 2GB across the 12 DIMM slots so there's room for upgrade, although the slots are extremely hard to access.

Graphics acceleration is provided by one of NVIDIA's latest Fermi-based Quados - in this case the 4000 model. This sports 256 CUDA cores and 2GB of GDDR5 memory. The 8550's motherboard could fit a further six PCI Express graphics cards, although only four can operate at 16x speed simultaneously. So SLI and Tesla are potential future options, or CrossFire if you switch over to AMD FirePros.

For main storage, BOXX relies on the usual arrangement of smaller hard disk for

operating system and apps, plus a larger one for more general usage. However, both are 2.5-inch models, and both are regular 7,200rpm mechanical hard disks, rather than the boot disk being solid state as is so often the case with current workstations. The 500GB capacity of the secondary drive is also a little meagre, considering the price and general specification, but you can add up to ten more 2.5-inch disks if you need more capacity. Rounding off storage is a Pioneer 20x DVDewriter, but no card reader.

With its pair of high-frequency six-core processors, the 8550 Xtreme promises the most grunt of any workstation we've ever seen. For most of our tests, this was borne out in reality. Its rendering score in MAXON CINEBENCH R11.5 of 21.03 was twice that of any system we've rated. The CINEBENCH OpenGL score of 49.89 was also impressive, although this test runs best on AMD FirePros.

Our verdict	Features	8/10
	Performance	10/10
	Value for money	7/10

“It may be extremely expensive, but it's also the most powerful rendering system that we've ever tested, by quite a margin”

Final score **9/10**

*Price correct at the time of going to print
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