

SCAN

3XS Z87 Cyclone SLI



The fastest pre-built gaming PC we've seen

- + CYCLONE**
4K gaming; great water-cooled insides; quiet
- PUFF**
Uninspiring exterior; expensive

HOW MUCH?

Price £3,480 inc VAT

Supplier www.scan.co.uk

Manufacturer

www.scan.co.uk

IN DETAIL

CPU Intel Core i7-4770K
overclocked to 4.6GHz

Motherboard Asus
Maximus VI Formula

Memory 16GB Corsair
Vengeance 2,133MHz DDR3

Graphics 2 x EVGA Nvidia
GeForce GTX 780 3GB

Sound Sound Blaster Z

Hard disk 500GB Samsung
840 Evo SSD, 2TB Seagate
Barracuda

Optical drive Pioneer Blu-ray

Case Corsair Obsidian 750D

Cooling CPU: EK
Supremacy CPU
waterblock; GPU: EK Titan
SE waterblocks Other: XSPC
AX360 radiator, 3x 120mm
Corsair SP120 fans, Lain
DDC pump, EK-RES X3
reservoir, EK Blood Red
coolant, Monsoon 1/2in ID
compression fittings

PSU 760W Corsair AX760

Ports Front: 4x USB 3, 2x
USB 2, 2x mini-jacks, flash
card reader Rear: 6x USB 3,
4x USB 2, LAN, audio out,
mic, headphone, optical
S/PDIF out, HDMI, DVI

Extras Windows 8 Pro 64-bit

Warranty Three years (one
year on-site, two years parts
and labour)

As we've seen in our 4K feature this month [see p102], you need a monster PC to play games at high settings with nearly 8.5 million pixels on the screen. With mid-range graphics cards out of the question, the focus is firmly in the high end, and you'll need two or more of them too. Thankfully, Scan is at hand with a system designed to offer decent frame rates using the latest 4K monitors, such as the Asus PQ321 we also looked at this issue [see p27]. Not only that, but it features a full-on custom water-cooling system and lighting, with an equally imposing price tag.

Scan has opted for Corsair's brand spanning new Obsidian 750D [see p30]. It isn't a particularly swanky-looking case, but Scan has added a couple of refinements that jazz up the appearance a little. The custom flash card reader and USB front panel offers an illuminated Scan logo that can be backlit using several different colours, with the red matching the interior fixtures. The inside has also been kitted out with white lighting to illuminate all the expensive hardware that's visible through the large side-panel window.

Asus' Maximus VI Formula sits at the heart of the system, with its integrated waterblock connected to the water-cooling system. Meanwhile, an Intel Core i7-4770K is paired with an EK Supremacy CPU waterblock, with the CPU overclocked to 4.6GHz using a vcore of 1.3V. There's plenty of RAM available too – 16GB of Corsair Vengeance Pro running at 2,133MHz.

Corsair also gets dibs on the PSU, with an AX760 sitting in the bottom of the case sporting a set of Corsair's custom braided modular cables.

In addition, three Corsair SP120 fans shift the heat from an XSPC AX360 triple 120mm-fan radiator mounted in the roof. As this acts as a massive exhaust, there's little need for the rear stock case fan, so this has been removed.

To deal with the possibility of being connected to a demanding 4K monitor, Scan has chosen two EVGA GeForce GTX 780 3GB cards running in SLI and water-cooled them using EK FC Titan full-cover waterblocks connected in series. They're also overclocked, with the



core speed boosted from 863MHz to 963MHz, and the memory from 6GHz to 6.2GHz (effective). To match the lighting and red Asus RoG logos on the motherboard, Scan has also picked red Monsoon compression fittings for the black tubing and EK blood red coolant. Finally, the pump of choice is a Laing DDC, which has a huge EK-RES X3 reservoir tube mounted directly on top, showing off the blood-red coolant.

Then we get to the storage setup, which features a single 2TB Seagate Barracuda hard disk and a massive 500GB Samsung 840 Evo SSD, with a Pioneer BDC-207DBK Blu-ray drive and Creative Sound

THE WHITE LIGHTING INSIDE ILLUMINATES THE EXPENSIVE HARDWARE THROUGH THE WINDOW

Blaster Z sound card filling the rest of the specification. As if all this wasn't enough, Scan is also offering an Asus Vulcan headset and a copy of Battlefield 4 Digital Deluxe, worth over £140, to anyone who buys the system within 30 days of this issue of **Custom PC** being in the shops.

The 3XS Z87 Cyclone SLI also includes a three-year warranty, with the first year on-site. Plus, as with all of Scan's systems, the 3XS Z87 Cyclone SLI is configurable via its website. If you need more storage, want Windows 7 rather than Windows 8, or if you don't need the graphics grunt for a 4K monitor, you can tweak the specification a little to suit you.

As you would expect in a system of this price, the cable routing and insides have been meticulously finished, with the silver braided PSU cables looking particularly neat. Our only qualm is that the pump has



01 Scan has picked red Monsoon compression fittings for the black tubing, and EK blood-red coolant

02 Three Corsair SP120 fans shift the heat from an XSPC AX360 triple 120mm-fan radiator mounted in the roof

03 The cable routing and insides have been meticulously finished, with the silver braided PSU cables looking particularly neat

been mounted directly on the case, which may result in some vibration, but overall, the system was very quiet indeed.

PERFORMANCE

As you can imagine from such a setup, the 4.6GHz Core i7-4700K was no slouch, with this machine producing some of the fastest results we've seen from a Haswell-based PC. It managed an image editing score of 2,377, which is just behind that of Overclockers' Ultima Extreme Envy (see Issue 119, p46) and noticeably faster than Scan's own 3XS Z87 Nanu GTX (see Issue 119, p45), which offers a good comparison against the cheaper Core i5-4670K CPU.

The difference was much more marked in the video encoding test, where the Hyper-Threaded Core i7-4770K managed a score of 4,545 – again, just behind the Ultima Extreme Envy but significantly faster than the Core i5-based 3XS Z87 Nanu GTX. Thanks to the speedy memory, the multi-tasking score topped out at 1,955, with the overall score coming in at a lofty 2,959.

At 1,920 x 1,080, the two GeForce GTX 780 3GB's had a massive impact on frame rates. In Battlefield 3, the 3XS Z87 Cyclone SLI was nearly 80 per cent faster than the Overclockers system with its single graphics card, with a minimum frame rate of 174fps compared to 97fps.

An almost identical result presented itself in Crysis 3 at the same resolution, where the 3XS Z87 Cyclone SLI managed a minimum of 81fps compared to 45fps for the Overclockers Ultima Extreme Envy. In our Total War: Shogun 2 test, the overclocked Core i7-4770K proved to be 18 per cent faster than a stock-speed CPU too, with a minimum of 33fps compared to 28fps.

As we had a 4K monitor to hand this month, we also ran the 3XS Z87 Cyclone SLI through our game tests at a resolution of 3,840 x 2,160. In Battlefield 3, it managed a minimum of 54fps – double that of a single GeForce GTX 780 3GB and 35 per cent faster than a single Radeon HD 7990 6GB. In Crysis 3, the need for two GeForce GTX 780 3GBs was clear, with the minimum of 36fps being over double the 16fps we



achieved with our own 4770K system with a single GTX 780 installed. Meanwhile, the 3XS Z87 Cyclone SLI was over 60 per cent faster than a similar system using a single Radeon HD 7990 6GB.

If you're looking for a power-frugal system, the 3XS Z87 Cyclone SLI probably isn't for you. Under load, the power draw peaked at a substantial 590W – the highest we've seen for quite a while.

Thankfully, it remained quiet even under load, although the CPU appears to be paying the price for the quiet fan noise. Despite being water-cooled, the Core i7-4770K topped 88°C during our stress test, with a delta T of 66°C – still within thermal limits but rather toasty nonetheless. As such, we refrained from pushing either the CPU or graphics cards any further, but this is most likely due to the continuing heat issues with Haswell CPUs, and not something Scan has done wrong. The graphics cards, by comparison, were excellently cooled, with a delta T of just 23°C from the hottest card.

CONCLUSION

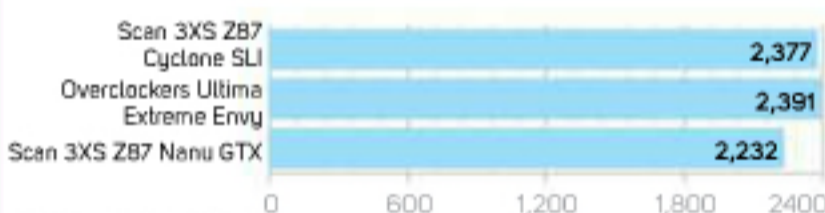
If you add up the retail cost of all the components in the 3XS Z87 Cyclone SLI, you soon realise that, despite its wallet-scaring price tag, you'd actually be quids in if you bought one. The components account for a couple of hundred quid of the price, yet you also get a complex pre-built and overclocked system with Windows. In addition, you get a three-year warranty and Scan's 30-day offer of a Vulcan headset and Battlefield 4 too.

It's certainly attractive too, with the insides looking clean, racy and lust-worthy – everything you want from a PC in this price range. However, we can't help feeling that the case doesn't do justice to a system that costs over £3,000, although looks are subjective. However, we can't ignore the extensive customisation on the inside, the massive SSD, fancy water-cooling and the fact that Scan has hit the nail on the head as far as a 4K gaming system is concerned. If you want a finely crafted 4K gaming PC, this is the machine for you.

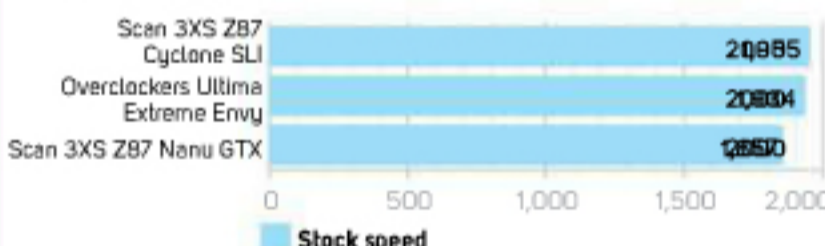
ANTONY LEATHER

RESULTS

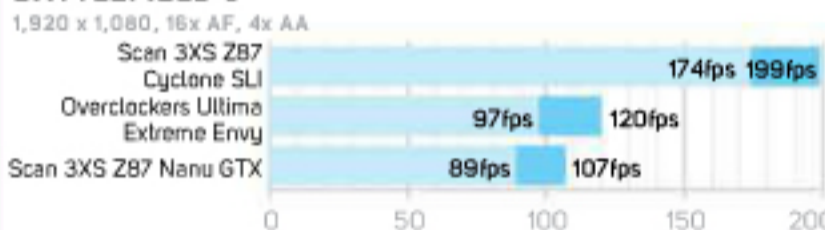
GIMP IMAGE EDITING



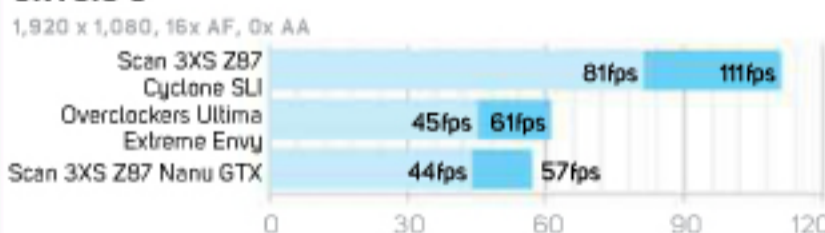
MULTI-TASKING



BATTLEFIELD 3



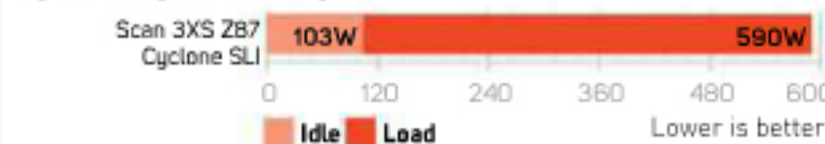
CRYSIS 3



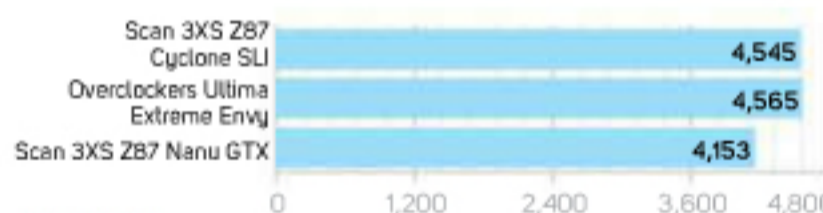
SHOGUN 2: TOTAL WAR DX9 CPU BENCHMARK



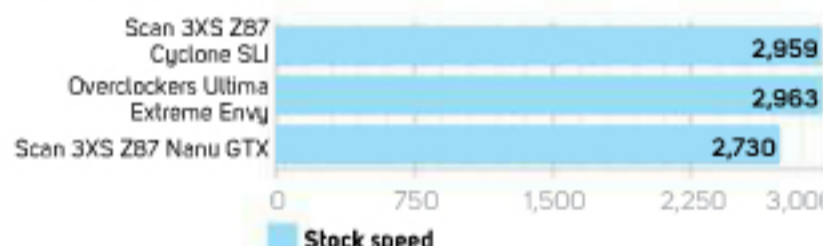
POWER CONSUMPTION



HANDBRAKE H.264 VIDEO ENCODING



OVERALL



BATTLEFIELD 3



CRYSIS 3



SCORES

- SPEED 24/25
- DESIGN 22/25
- HARDWARE 23/25
- VALUE 21/25

CUSTOM PC
90%
OVERALL