

GAMING LAPTOP

CyberPower Fangbook 4 SK-X17 / £1,909 inc VAT

SUPPLIER www.cyberpowersystem.co.uk

CyberPower's Fangbook 4 SK-X17 brings the joys of active sync tech to the mobile world, featuring Nvidia's G-Sync tech in order to eliminate stuttering and tearing artefacts in games. It's a monster of a machine too, with a 17.3in screen and a huge chassis, although its matt black exterior is aesthetically inconspicuous. The lid is only decorated by a subtle, metal-effect CyberPower logo, and the keyboard is simply surrounded by a row of discreet buttons. There's a classy touch from the keyboard backlight, though, as well as some subtle lighting beneath the front edge.

Build quality is sturdy too.

It's only possible to push down the wrist rest with a fair amount of force, and there's only a little movement between the lid and the screen. The base is also rock-solid, and you can tug off the base panel to reveal accessible components and cooling gear. The storage, memory and Wi-Fi

chip can all be reached, and there's a spare M.2 socket.

Move to the edges and you'll find six USB 3 ports, four audio jacks, a card reader and a USB 3.1 Type-C connection. Meanwhile, the display output selection includes HDMI and mini-DisplayPort, and there's Killer Gigabit Ethernet and Intel dual-band 802.11ac Wi-Fi too. It's a versatile machine.

The impressive build quality and versatility comes with one main caveat: the Fangbook is 47mm thick and weighs 3.9kg. The huge size means the keyboard has a strong base,

which helps for hammering keys. The keys are the usual Scrabble-tile affair, with good travel and a consistent, quiet action. They're a little soft compared with mechanical keys, but you can't expect a laptop to replicate the whole desktop experience. The touchpad has a couple of minor issues though. The buttons are a little too stiff, the surface has too much friction and it doesn't support gestures. It's adequate, but you'll want a USB mouse if you're gaming at a table.

Gaming power comes from a desktop Nvidia GeForce GTX 980, with 8GB of GDDR5 memory. The chip has 2,048 stream processors and a 1266MHz maximum boost speed. Meanwhile, processing power comes courtesy of a Skylake Core i7-6820HK. It's a mobile chip, but its 2.7GHz clock speed is a little higher than that of the more common i7-6700HQ, and it will reach 3.6GHz with Turbo Boost. It has an unlocked multiplier as well, although CyberPower hasn't applied an overclock. Elsewhere, the specs are business as usual. There's 16GB of 2133MHz memory, a fast 256GB Samsung SM951NVMe



M.2 SSD and a 2TB hard disk.

Then there's the 17.3in screen, which has a 1,920 x 1,080 resolution and a matt finish, both of which are sensible design decisions. The former means that games will look sharp at the native resolution, at maximum settings, without unduly taxing the graphics core (in fact, the desktop GTX 980 is overkill for this resolution), and the latter means bright lights won't interfere with gameplay.

The panel also supports Nvidia G-Sync, making the Fangbook the first laptop we've reviewed with this technology, and it's a welcome addition. It's designed to synchronise the GPU's frame rate with the panel's refresh rate, which means that tearing effects are eliminated. It works extremely well; we tested it with Nvidia's Pendulum demo, and the smoothness of G-Sync makes non-synced gaming look decidedly choppy.

Finally, the Fangbook includes a one-year warranty covering both parts and labour, which includes a month of collect and return service. It's a middling deal, and we'd ideally like to see two years of parts coverage with such a machine, although paying £19 more extends the collect and return coverage to a full year.

Performance

The desktop-class GTX 980 sliced through our games benchmarks. With Fallout 4 running at Ultra settings with anti-aliasing, the Fangbook hit a smooth minimum of 55fps, and it stayed above 60fps in The Witcher 3 at High graphics settings, and even enabling HairWorks resulted in a solid minimum of 46fps. Even Crysis 3 couldn't stop the Fangbook, which never dropped below 48fps in this demanding game.

The high-end quad-core mobile CPU romped through our application tests as well. Its video encoding score of 227,562 is the kind of result we expect from desktops, showing that this machine has enough power to handle

Even Crysis 3 couldn't stop the Fangbook

/ SPECIFICATIONS

CPU 2.7GHz Intel Core i7-6820HK

Memory 16GB 2133MHz DDR4

Graphics Nvidia GeForce GTX 980 8GB

Screen 17.3in 1,920 x 1080 Nvidia G-Sync IPS

Storage 256GB Samsung SM951NVMe M.2 SSD, 2TB hard disk

Weight 3.9kg

Networking Gigabit Ethernet, dual-band 802.11ac Wi-Fi

Ports 6 x USB 3, 1 x USB 3.1 Type-C, Gigabit Ethernet, 4 x audio, SD card slot, HDMI, mini-DisplayPort

Dimensions (mm) 428 x 295 x 47 (W x D x H)

Operating system Windows 10 Pro 64-bit

Warranty One year parts and labour, including one month of collect and return cover

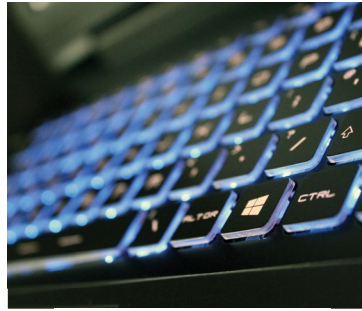
both multi-threaded software and high-end games. Meanwhile, the Samsung PCI-E NVMe SM951SSD delivered sequential read and write results of 1,850MB/sec and 1,421MB/sec, which are great speeds.

What's more, the Fangbook performed well without ever proving too hot or loud. The respective CPU and GPU delta Ts of 66°C and 61°C are high but not toasty enough to cause concern. The laptop was quiet when idle and its noise was modest when running games – its fans spun up after ten minutes, but then slowed down when the components were cooled. It modulated between these two levels during gameplay, and neither sound was too intrusive.

Then there's the 1080p panel, which has a good brightness level of 324cd/m², and its black level of 0.29cd/m² and contrast ratio of 1,117:1 are decent results too, meaning that dark areas in games will look deep and well defined, while colours across the board will be punchy. The panel is consistent too, only losing around 6 per cent of its brightness from the top edge, and less from other areas of the screen, with similar deviations in colour temperature. Colour accuracy isn't brilliant though. The colour temperature of 7,784K is overly cool, the delta E of 3.18 is middling and the sRGB gamut display level of 86.1 per cent is average. As a result, colours in games will look a little cool, but it's not a deal breaker.

Even the sound is reasonable. The speakers are managed by the SoundBlaster Cinema app. By default, it uses Music mode, where the subwoofer's reasonable thump doesn't overpower other sounds and, while the meaty mid-range is a little muffled, high frequencies are clear and detailed.

Finally, there's the battery, which is never a strong point for gaming laptops. With the screen brightness ramped up and a game benchmark running, the CyberPower lasted for



56 minutes – on a par with its rivals. The bottom line is simple: keep the Fangbook plugged into the mains.

Conclusion

CyberPower's Fangbook 4 SK-X17 might be costly, thick and heavy, but it makes up for its size with ample versatility, smart design and loads of power. The GTX 980 scythes through games, the CPU is fast and there's a rapid SSD and a G-Sync screen. If you have the money, it's one of the best no-nonsense gaming laptops we've seen.

MIKE JENNINGS

CPC REALBENCH 2015 GIMP IMAGE EDITING



HANDBRAKE H.264 VIDEO ENCODING



LUXMARK OPENCL



HEAVY MULTITASKING



SYSTEM SCORE



INTEL REFERENCE: 89.45%

SPEED
24/25

DESIGN
22/25

HARDWARE
23/25

VALUE
21/25

OVERALL SCORE
90%

FALLOUT 4

1,920 x 1,080, Ultra Detail, TAA



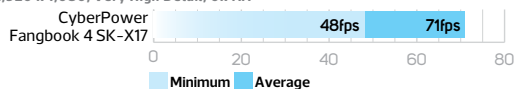
WITCHER 3

1,920 x 1,080, High Detail, AA on, HairWorks off



CRYSIS 3

1,920 x 1,080, Very High Detail, OX AA



VERDICT

Heavy, bulky and subtly styled, but this laptop has it where it counts, thanks to great performance, versatility and features.