INTEL Z690 GAMING PC

CYBERPOWER HYPER LIQUID INFINITY X129 / £3,999 inc VAT

SUPPLIER cyberpowersystem.co.uk

As its name suggests, CyberPower's Hyper Liquid Infinity comes in a huge case filled with an ambitious custom water-cooling setup. Two EK Quantum Kinetic pump/reservoir combo units dominate the front of the Corsair 7000D chassis, one of which is hooked up to a 240mm radiator in the roof, while the other flows into a 360mm unit behind those reservoirs.

The 240mm unit cools the GPU via an EK Quantum Vector Trio waterblock, while the 360mm radiator chills the processor with a Quantum Velocity2 waterblock. Smartly, CyberPower has also chosen to cool the CPU with blue coolant and the GPU with green liquid, all with hard tubing.

Those colours indicate which components this machine uses. The CPU is Intel's latest Core i9-12900K, which has eight high-power P-Cores with base and boost speeds of 3.2GHz and 5.2GHz, and eight power-efficient E-Cores with base and boost clocks of 2.4GHz and 3.9GHz. CyberPower pairs this Alder Lake chip with 32GB of DDR5 memory running at 4800MHz, while a 1TB Seagate FireCuda 530 PCI-E 4 SSD delivers fantastic read and write speeds of 6,971MB/sec and 5,441MB/sec.

Meanwhile, graphics power comes from an Nvidia GeForce RTX 3080. Underneath the EK waterblock sits an MSI Suprim X LHR model, which raises the original clock of 1710MHz to 1905MHz. It's all powered by a fully modular Corsair RM850 PSU with 80 Plus Gold efficiency.

The motherboard comes from MSI too, and it's superb. It has four DDR5 slots with a top speed of 6666MHz, and its two top 16x PCI-E slots support PCI-E 5. The board has a monster five M.2 connectors too, four of which support 4x PCI-E 4, plus it comes equipped with 2.5Gbps Ethernet, Wi-Fi 6E and Realtek ALC4080 audio. At the rear, the MSI also has five USB 3.2 Gen 2 ports and a Type-C socket that supports USB 3.2 Gen 2x2. There are four USB 2 ports as well, and no 1x PCI-E slots, but those are the only negatives.

It's all packed into a vast Corsair 7000D chassis, in a sturdy and tidy build. Around the back there's room for more fans and 2.5in drives, alongside easy access to the 360mm radiator. Both side panels have hinges, the roof and front panels pop free, and the case has four USB 3.2 Gen 1 ports and a Type-C connection on the front panel.

The case has no RGB LEDs, but CyberPower has used its cooling hardware, motherboard and power cables to supply illumination. The CyberPower looks great, although it's also a monster – it measures 600mm tall and 550mm long, it's extremely heavy and the motherboard is tricky to access. It's a setup that's overkill for most people, but it makes a serious statement if you want a really powerful PC.

You get a decent warranty as well, with CyberPower offering five years of labour coverage and two years of parts protection alongside six months of collect and return service.

SPEC

CPU
Intel Core i9-12900K

Motherboard
MSI Z690 Carbon WiFi

Memory
32GB Kingston Fury Beast 4800MHz DDR5

Graphics
MSI GeForce RTX 3080 10GB

Storage
1TB Seagate FireCuda 530 M.2 SSD

Networking
2.5Gbps Ethernet, dual-band 802.11ax Wi-Fi, Bluetooth 5.2

Case
Corsair 7000D

Cooling
CPU: EK Quantum Velocity2 waterblock, EK CoolStream 360 radiator with 3 x 120mm fans, EK TBE 200 D5 pump/reservoir, 3 x 120mm fans; GPU: EK Quantum Vector Trio waterblock, EK CoolStream 240 radiator with 2 x 120mm fans, EK TBE 200 D5 pump/reservoir; front: 4 x 120mm fans; rear: 1 x 120mm fan

PSU
Corsair RM850x 850W

Ports
Front: 4 x USB 3.1, 1 x USB 3.2 Gen 1 Type-C, 1 x audio; rear: 5 x USB 3.2 Gen 2, 1 x USB 3.2 Gen 2x2 Type-C, 4 x USB 2.0, 1 x optical S/PDIF, 5 x audio

Operating system
Windows 11 Home 64-bit

Warranty
Five years labour with two years parts and six months collect and return

PERFORMANCE

The RTX 3080 and i9-12900K deliver superb gaming speed. In Cyberpunk 2077 at 2,560 x 1,440, the CyberPower hit a 99th percentile minimum of 66fps, although that figure dropped to 34fps at 4K. Those figures are respectively 9fps and 2fps frames ahead of the last system we saw with an RTX 3080 – a rig with a smaller GPU overclock and an AMD processor.

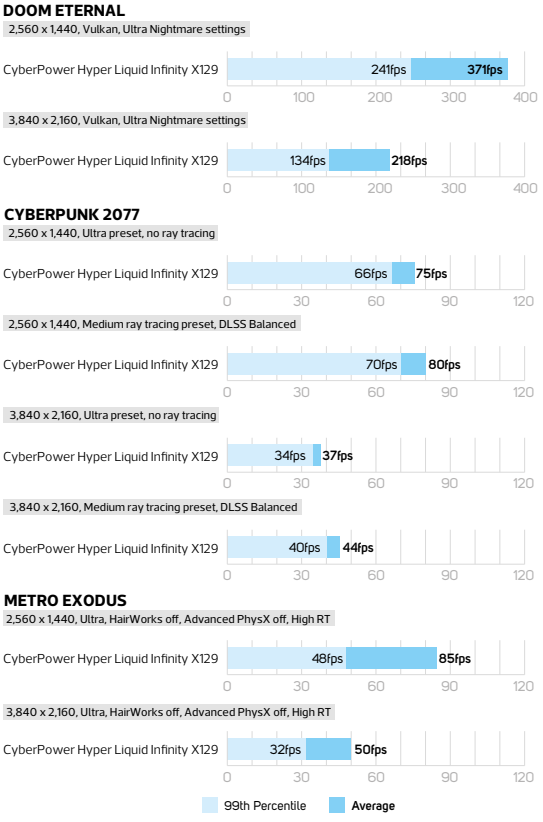
BENCHMARK RESULTS

78,810 GIMP IMAGE EDITING

1,126,691 HANDBRAKE H.264 VIDEO ENCODING

372,940 HEAVY MULTI-TASKING

403,385 SYSTEM SCORE



With Medium ray tracing and DLSS in Cyberpunk, the CyberPower's 99th percentile results increased to 70fps at 2,560 x 1,440 and 40fps at 4K. It's not quite powerful enough to cope with this level of demanding gaming at 4K, but it's amazing at 2,560 x 1,440. Likewise, the 99th percentile result of 48fps in Metro Exodus at 2,560 x 1,440 with High ray tracing is superb, with an average of 85fps, although the former drops right down to 32fps at 4K.

Sadly, Assassin's Creed Valhalla refused to run on this machine at the time of writing, with Intel's Scroll Lock DRM fix not able to help either. However, the Doom Eternal result shows how much power is on top for playing undemanding games at high frame rates. The CyberPower averaged 371fps in this game at 2,560 x 1,440, and 218fps at 4K, so it can handle 240Hz screens fine.

CyberPower's Core i9-12900K fared well in our tests too. In our image editing test, the CyberPower's result of 78,810 was marginally ahead of the result from the Scan 3XS Vengeance Ti (see Issue 221, p34), and its video encoding score of 1,126,691 in our heavily multi-threaded Handbrake test is superb, matching the Scan and beating any current AMD AM4 CPU in all our RealBench tests. This Core i9 chip is a beast that will tackle any gaming or high-end content creation work.

There's undeniable power here, but CyberPower's rig includes ten fans and it's louder than most gaming and content-creation PCs, including the aforementioned Scan. The noise isn't ruinous, especially if you use a headset, play loud music or keep your PC beneath your desk, but this PC isn't subtle. Positively, the respective CPU and GPU delta Ts of 69°C and 52°C are good, the fan noise never varied, and the processor's single-core and multi-core peak boost speeds of 5GHz and 4.9GHz are solid.

CONCLUSION

The noise will put some people off this PC, and not everyone needs this level of water cooling or power – or a system that's this big. Scan's alternative is tempting too – it doesn't have the size or the water-cooling setup, but it's cheaper and faster in games. The CyberPower, though, is a superb choice for anyone who wants a high-end gaming and content-creation PC that looks the part thanks to its great water cooling and powerful internals.

MIKE JENNINGS

VERDICT

CyberPower's system offers great speed and water cooling inside a large, sturdy case, but it's expensive, loud and overkill for lots of users.

BUZZ LIGHTYEAR

- \+ Fantastic gaming speed
- \+ Excellent Intel CPU
- \+ Awesome custom water cooling
- \+ Fully featured motherboard

EMPEROR ZURG

- − Consistently loud
- − Huge, heavy chassis
- − Some tricky internal access
- − Other PCs are faster in games

PERFORMANCE	23/25
DESIGN	23/25
HARDWARE	23/25
VALUE	21/25
OVERALL SCORE	90%