INTEL Z790 GAMING PC

CYBERPOWERINFINITY X139 PRO / £3,699 incvat

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vidia's new GeForce RTX 4080 is locked and loaded inside both of this month's review PCs, and the CyberPowerInfinity X139 Pro is the priciest of the two. In the CyberPower's case, its MSI Ventus 3X OC slightly overclocks the GPU's boost clock from 2505MHz to 2530MHz. The underlying RTX 4080 GPU is also based on Nvidia's new Ada Lovelace architecture, and is equipped with 9,728 CUDA codes and 16GB of GDDR6X memory.

It's an amazing piece of gaming silicon, and CyberPower has elevated the rest of the internals to match. Intel's Raptor Lakerange-topping Corei9-13900K has eight Hyper-Threaded P-Cores with a top all-core boost speed of 5.5GHz. You also get 32GB of DDR5 memory clocked to

5600MHz and two PCI-E 4 SSDs. The 1TB Solidigm P44 Pro is the smaller and faster boot drive, while a Solidigm P41 Plus adds 2TB of secondary space.

MSI also supplies the PSU and motherboard, and they're both great choices. The MSI MPG A1000G is a fully modular 1,000W PSU with 80 Plus Gold certification, and the MSI MAG Z790 Tomahawk Wi-Fi consistently impresses. Its main 16x PCI-E slot supports PCI-E 5, it has four heats ink-covered PCI-E 4 M.2 connectors, and connection options include 2.5Gbps Ethernet, dual-band 802.11ax Wi-Fi 6E and Bluetooth 5.3.

Audio is good thanks to Realtek's ALC4080 codec, and the board has two CPU power connectors, a 16+1 power phase design and debug LEDs. The rear I/O panel is packed, and includes a superfast USB 3.2 Gen 2x2 Type – C connection, a secondary Type – C port, eight full-sized USB sockets, and buttons to clear and flash the BIOS. The only notably missing features are on-board power and reset buttons, plus a POST code display.

Still, it's an impressive specification, and it's clear where this pricier PC excels alongside the cheaper Wired 2 Fire. That rig's mother board uses DDR4 memory, it has one fewer M.2 connector, lesser-



SPEC

CPU

3GHz Intel Core i9-13900K

Motherboard

 $MSI\,MAG\,Z790\,Tomahawk\,Wi-Fi$

Memory

32GB Kingston Fury Beast 5600MHz DDR5

Graphics

MSI GeForce RTX 4080 16GB

Storage

1TB Solidigm P44 Pro M.2 SSD, 2TB Solidigm P41 Plus M.2 SSD

Networking

2.5Gbps Ethernet, dual-band 802.11ax Wi-Fi 6E, Bluetooth 5.3

Case

Corsair 5000D Airflow

Cooling

CPU: EK Basic 360mm radiator with 3 x 120mm fans; GPU: 3 x 90mm fans; front: 3 x 120mm fans; rear: 1 x 120mm fan

Ports

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

Operating system

Windows 11 Home 64-bit

Warranty

Five years labour with two years parts. First two years collect and return, then return to base

quality audio and fewer USB connectors. Beyond the board, Wired 2 Fire's system only has a single SSD and it relies on a Core i 5 processor. The two rigs converge in the warranty department though – they both have five year labour deals with two years of the all-important parts coverage.

Cyber Power's ambitious hardware slots inside a Corsair 5000D Airflow case. It's arobust, good-looking chassis, and the PSU shroud, cable covers and Cyber Power's fastidious cable tidying keep the interior neat.

Meanwhile, the MSIRTX 4080 card takes up three slots, and a sizeable EK 360 mm AlO liquid cooler cools the CPU, but the top of the mother board isn't blocked and the interior is accessible. Around the back, there's room for three 2.5 in drives and two 3.5 in drives. There's also a fan board with two vacantheaders, alongside an accessory tray.

Performance

 $There 's not much the RTX\,4080\,won't handle\,when it comes to games. We played Cyberpunk\,2077\,with Medium ray tracing and Balanced DLSS, and the RTX\,$

LOVELACE

- Excellent gaming pace
- + Awesome CPU power
- Great motherboard and two SSDs
- Consistently quiet, no matter the workload

LOVE ACTUALLY

- Pricier than rivals
- Can't hit peak all-core CPU boost clock



4080 delivered a 99th percentile minimum of 50fps. In Assassin's Creed Valhalla at 4K, the Cyber Power didn't drop below 66fps and it averaged 94fps.

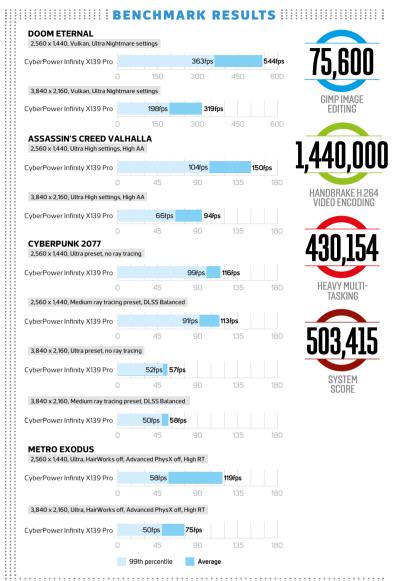
The RTX 4080 will handle virtually any ray-traced game at 4K until you start using the most demanding settings, and DLSS 3 has shown it has the potential to dramatically improve frame rates further here with its AI-based frame generation tech-it just needs more supporting ames.

Cyber Power's PC didn't overhaul the cheaper Wired 2 Fire in gaming tests though. The two rigs delivered virtually equal results in Doom Eternal and Assassin's Creed at 4K, and the Wired 2 Fire was faster in Metro Exodus. Instead, the Cyber Power came into its own in application benchmarks.

The Core i9-13900K scored 1,440,000 in our heavily multi-threaded video encoding benchmark – a 43 per centimprovement on the Wired 2Fire's Core i5 chip and faster than AMD's contenders. CyberPower's PC beat the Wired 2Fire in the multi-tasking test too, and the Core i9-13900K's overall result of 503,415 maintained the CyberPower's lead over Wired 2Fire.

There's not much between this high-end chip and the Core i5-13600K in single-threaded workloads, and AMD's Ryzen 97950X beats both – but the Core i9-13900K still offers near-unbeatable content-creation pace. It's ably supported by the SSDs – the main drive's read and write speeds of 7,100MB/sec and 6,355MB/sec are superb, and the secondary drive offered solid pace of 4,085MB/sec and 3,382MB/sec.

The Cyber Power is also an impressive thermal performer when gaming. It's consistently quiet, and there's barely any difference between the rig's gaming noise level and its idle output. It's less impressive during multicore CPU tests, where the processor hit a delta T of 77°C and throttled to 5.3 GHz, but that doesn't ruin productivity and noise levels remained modest – it's not much below the stated peak all–core boost of 5.4 GHz, and this is a notoriously difficult CPU to keep cool.



Conclusion

CyberPower's system delivers a huge amount of graphics and processing power alongside a great motherboard and chassis. The Core i9 CPU and topnotch motherboard make this PC a superior content-creation and multi-tasking option than its rival, but we still recommend the Wired2Fire for gaming. The latter delivers comparable RTX 4080 gaming speed at a lower price, but if you want a PC that does it all then this CyberPower rig is a top choice.

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VERDICT

Great performance, a superb motherboard and slick design, although you can get similar gaming pace for less money elsewhere.

