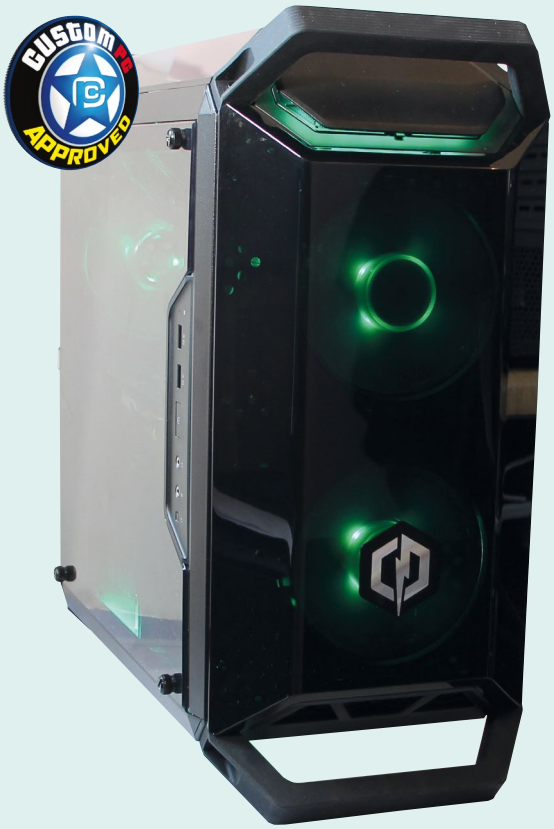
GAMING PC

CyberPower Infinity Mini GTX / £1,499 inc VAT

SUPPLIER www.cyberpowersystem.co.uk



CyberPower's Infinity Mini GTX is a small, mid-priced PC that crams a lot of hardware inside a Cooler Master MasterBox Q300P case. All four corners of this case have sturdy rubber handles, allowing this 8.2kg system to be carried easily – or positioned in a different orientation. The handles are removable too, if you'd like to save more space.

The case's smart, modular design continues elsewhere. The front I/O panel can be moved to six different locations, and the rear side panel has rubber thumbscrews that function as rubber feet – perfect for positioning the CyberPower on its side. The Q300P is 450mm tall and deep, so it's about as deep as a mid-tower case, but much shorter. However, it is a little larger than the Zotac MEK1 (see Issue 176, p60), which is also a couple of hundred grams lighter than the CyberPower.

Despite its small size, there were no temperature issues

The CyberPower's small, versatile exterior gives way to a smart interior. Despite the case's small dimensions, there's a sizeable motherboard tray, allowing CyberPower to keep all the cables tidy. The pair of intake fans and the 120mm fan on the water-cooling radiator all glow with RGB LEDs, and a panel at the front is also synchronised with the same lighting, making for a smart glowing affect. CyberPower has also installed an RGB LED strip in the bottom of the chassis.

The Q300P isn't without fault though. Its diminutive dimensions mean the only upgrade space comes from two 2.5in bays. And the side panel, which isn't made of tempered glass, feels surprisingly flimsy.

The CyberPower's £1,499 specification revolves around high-end Nvidia and Intel hardware. The Core i7-8700K has six Hyper-Threaded cores and a 3.7GHz stock speed, but this machine's tighter confines mean it isn't overclocked, and it's cooled by a Cooler Master MasterLiquid cooler with just a single 120mm fan.

The Zotac GeForce GTX 1080 graphics card has been overclocked from 1480MHz to 1657MHz though. This sizeable jump raises the average boost clock to 1797MHz. Zotac's machine is only a little cheaper than the CyberPower, but comparing these components reveals a considerable gulf. The MEK1 made do with an older Core i7-7700K processor, and a stock-speed GTX 1070 Ti graphics card.

It's all plugged into an Asus Prime B360M-K motherboard. It uses Intel's new B360 chipset, which supports half as many PCI-E lanes as the Z170 chipset, and only supports one M.2 slot rather than three – it also doesn't support multiplier overclock and the memory frequency peaks at 2666MHz.

None of these issues is hugely relevant in such a small PC, though, where you're only likely to install one graphics card, and you don't have the cooling headroom for massive overclocks anyway. The modest micro-ATX board inside this machine has a couple of spare 1x PCI-E slots, but no vacant memory or M.2 slots. At the rear, you'll find four USB 3 ports, but no Type-C connector.

Elsewhere, the CyberPower has 16GB of 2666MHz memory, a super-quick 250GB Samsung 970 Evo NVMe SSD and a 2TB hard disk. Zotac's system had slower memory, a poorer SSD and half the hard disk capacity. The PSU is a little underwhelming though. The Cooler Master MasterWatt Lite has enough power, with 600W available, but it's not modular and it only has the basic 80 Plus efficiency rating.

The warranty is decent, with a full two years of parts protection, plus a further year of labour costs covered, although there's only one month of collect and return service.

Performance

The jump between a stock-speed GTX 1070 Ti and an overclocked GTX 1080 gives the CyberPower a respectable lead over the Zotac MEK1 in gaming benchmarks, with minimum frame rates pulling ahead by a good 10fps in The Witcher 3. The benchmarks reveal that this machine will easily power through games at 1080p and 2,560 x 1,440,

/SPECIFICATIONS

CPU 3.7GHz Intel Core i7-8700K

Motherboard Asus Prime B360M-K

Memory 16GB Corsair Vengeance LPX 2666MHz DDR4

Graphics Zotac GeForce GTX 1080 8GB

Storage 250GB Samsung 970 Evo M.2 SSD, 2TB Seagate Barracuda hard disk

Case Cooler Master MasterBox Q300P

Cooling CPU: Cooler Master MasterLiquid ML120 with 1 x 120mm fan; GPU: 2 x 90mm fans; front: 2 x 120mm fans

PSU Cooler Master MasterWatt Lite 600W

Ports Front: 2 x USB 3, 2 x audio; rear: 4 x USB 3.1, 2 x USB 2, 1 x Gigabit Ethernet, 2 x PS/2, 3 x audio

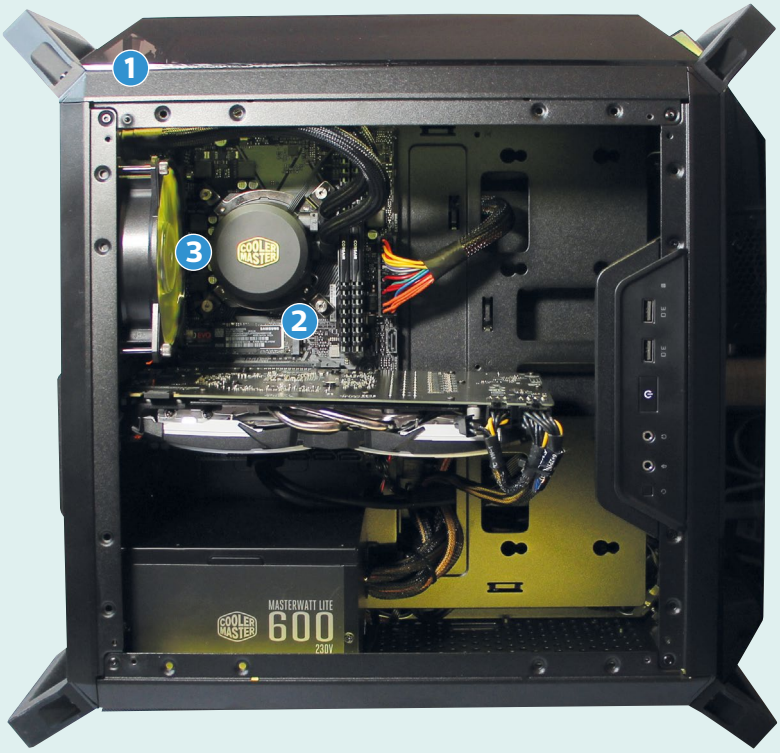
Operating system Microsoft Windows 10 Home 64-bit

Warranty Two years parts and labour, plus one year labour only, return to base with first month collect and return

1 **The case's handles make this PC easier to lug around than the average tower**

2 **A super-fast NVMe Samsung 970 Evo SSD sits above the graphics card**

3 **The Zotac GeForce GTX 1080 card's core is overclocked to 1657MHz**



and it will be fine with high refresh-rate 1080p panels and VR headsets. However, its 4K minimums barely sneak past 25fps, which is our low bar for playable gaming, so tough titles will be sluggish at this high resolution. If you're interested in 4K gaming, you really need a GTX 1080 Ti, but the CyberPower still performs really well for a sub-£1,500 mini system.

There's no competition in the CPU stakes either. The CyberPower's Coffee Lake Core i7 chip easily outpaces the older part in the Zotac. It's a little quicker in the image editing test, and its six cores put it 200,000 points ahead of the Zotac system in our heavily multi-threaded Handbrake test.

That huge advantage means the CyberPower will handle any game and almost all mainstream productivity applications. The new Samsung SSD is good, too, with read and write speeds of 3,576MB/sec and 1,537MB/sec.

Despite its small size, we had no temperature issues from CyberPower's small system either. The CPU and GPU peak delta Ts of 55°C and 51°C are fine, and neither component had throttling issues. This system is extremely quiet too – it produces a barely audible hum when idle and gaming, and it only became a tiny bit louder in a full-system stress test.

Conclusion

The cost difference between the CyberPower Infinity Mini GTX and the Zotac MEK1 is under £100, but the CyberPower is better in virtually every department. The GTX 1080, current-generation CPU and new SSD all provide loads more power. The CyberPower's case is more accessible than the slimmer Zotac's design, and the warranty is decent as well.

The CyberPower's motherboard and PSU are basic, and some aspects of the case are a tad flimsy, but this machine is excellent in key areas, making it ideal if you need a small, powerful gaming rig that's easy to transport.

MIKE JENNINGS

CPC REALBENCH

54,077	445,369	202,300
GIMP IMAGE EDITING	HANDBRAKE H.264 VIDEO ENCODING	HEAVY MULTI-TASKING

175,436	153.28%
SYSTEM SCORE	INTEL PERFORMANCE INDEX SCORE

PERFORMANCE	DESIGN	OVERALL SCORE
21/25	22/25	87%
HARDWARE	VALUE	
22/25	22/25	

VERDICT

Small, punchy and portable, this versatile rig offers plenty of gaming and processing power in a small case for a good price.

FALLOUT 4

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

CyberPower Infinity Mini GTX: 93fps / 115fps

2,560 x 1,440, Ultra Detail, TAA

CyberPower Infinity Mini GTX: 56fps / 69fps

THE WITCHER 3: WILD HUNT

1,920 x 1,080, High Detail, Nvidia HairWorks off

CyberPower Infinity Mini GTX: 83fps / 134fps

2,560 x 1,440, High Detail, Nvidia HairWorks off

CyberPower Infinity Mini GTX: 74fps / 95fps

DEUS EX: MANKIND DIVIDED

1,920 x 1,080, Very High Detail, DX12

CyberPower Infinity Mini GTX: 67fps / 85fps

2,560 x 1,440, Very High Detail, DX12

CyberPower Infinity Mini GTX: 45fps / 59fps

0 35 70 105 140

Minimum Average