Apple iMac 2020 review

If it was possible for us to award the iMac both five stars and zero stars, I'd be very tempted to do that. For what it is, it's an exceptionally powerful, beautifully designed all-in-one that combines performance and elegance. But what it is makes a mockery of Apple's claims of a "planet-sized plan" to be kind to the environment.

By combining the computer and screen into a single unit that you have to replace all in one go, it prevents staggered upgrades of traditional desktop and monitor combos. Yes you can sell older units second hand or pass them to colleagues with less performance-driven needs as you – but many of us just hang onto them beyond when we'd like to upgrade. Not just because of environmental considerations, but because of the price premium of having to upgrade both at once.

The Mac Pro showed us what the iMac should be – and if the iMac was instead separated into computer and screen for those whose needs and budget don't stretch to Apple's flagship desktop, I'd be singing its praises unreservedly. But instead I'm holding it in both admiration and disdain.

If you are in circumstances where these concerns don't matter – maybe you're in a large studio where your iMac will be handed down a number of times and then gifted to a student who's grateful, maybe you're in the design team of a super villain who loves the technological disposability it epitomises – the iMac is a fantastic desktop. It's not too different from the previous model – but it is where it matters: in performance and output.

A familiar design

From the outside, 2020's iMac looks like the previous model – at least until sunlight starts flooding in through your

window. The new optional nanotexture glass uses a technique borrowed from the Pro Display XDR – essentially etching the glass to reduce glare. Comparing the display with others including an older iMac, an Acer Concept 7 4K display and a MacBook Pro, you really can notice the difference.

The underlying 27-inch, 5120 x 2880 display hasn't changed though. It's accurate enough when we tested using a DataColor SpyderX Elite colourimeter (*below*) – having an average delta-E of less than 2, so imperceptible to the human eye – but lacks the full Adobe RGB gamut that you get from design-focused displays from Acer, Dell and HP, capable of outputting only 85%.

The 2020 iMac's real big new feature is the inclusion of

Intel’s 10th-gen Core chips. This brings a 10-core processor option to the iMac for the first time. They’re not cheap – our review unit with that chip, 64GB of RAM, 4TB of storage, AMD Radeon Pro 5700XT graphics and 10GB ethernet comes to a pound/dollar under six grand – more than the entry-level iMac Pro. But if your needs stretch to those components, I’m assuming you have the budget.

We’re used to new generations of Intel Core chips not making much of a difference to performance but the 10th-gen really does ramp up. This iMac’s Intel Core i9-10910 has 10 cores – two more than the top-spec, i9-9900K chip offered by the previous iMac and its rivals – and runs at the same 3.6GHz. We were expecting a modest amount in Cinebench – the CPU-based rendering test – over the 20% boost you’d get from the two extra cores, but the iMac was a blistering 35% faster.

If you’re considering how the iMac measures up against a top-spec 16-inch MacBook Pro – it’s 57% faster.

For benchmarking comparison, we’ve put this new iMac up against:

- An Acer ConceptD 500 desktop with an Intel Core i9-9900K 3.6GHz 8-core 9th-gen processor, 64GB RAM, 1TB SSD + 2x 2TB hard drives and an Nvidia Quadro 4000 graphics card, costing £2,499.
- An Apple 16-inch MacBook Pro laptop with an Intel Core i9-9980H 2.4GHz 8-core 9th-gen processor, 32GB RAM, 2TB and an AMD Radeon Pro 5600M graphics chip, costing £4,499/$4,499.
- An Apple iMac from 2019 with an Intel Core i9-9900K 3.6GHz 8-core 9th-gen processor, 16GB RAM, 512GB SSD and an AMD Radeon Pro Vega 48 graphics chip, costing £3,284/$3,449.

Cinebench R20

Photoshop

In Photoshop too, the ConceptD is a winner – nearly 20% than the 2019 model and 16% faster than that MacBook Pro.

Cinema 4D ProRender

For real-time GPU-enhanced performance, we were disappointed though. With 16GB of HBM, the new 5700XT has twice the memory of any graphics chip offered previously in an iMac and was much, much faster than the previous iMac or current 16-inch MBP.

But against a desktop with a modest full-sized graphics card – an Nvidia Quadra RTX 4000 with only 4GB of RAM – iMac was outclassed. Our Cinema 4D ProRender test is an intensive, long-term test taking over an hour, and the full-size board has better cooling for this kind of sustained performance. So the 5700XT will likely perform better in comparison to the RTX 4000 if you’re asking for its performance in short bursts – for example for effects previews in video editing or compositing apps, though even these apps will suffer when you use GPU-accelerated rendering.

The last new feature is a “studio-class” microphone. I don’t think even Apple is suggesting you can throw away your Shure SM7B microphone to do your podcast – but if your mic needs are sounding clearer on Zoom calls, this delivers.

What remains from the previous design has everything you’d need around its core display-and-process features – Thunderbolt 3, USB and SD card ports, smooth screen rotating, a nicely designed keyboard and mouse that’s much better than what you get out of the box from PC rivals and an OS that’s much slicker than Windows.

So, in total, the iMac has everything and nothing to recommend it. I’m disappointed it’s not a doublewide Mac mini – to hold a full-size and replaceable graphics card and drives – and a separate screen, but for the chosen format it excels.

In this review, I’ve ignored Apple’s impending move from Intel chips to its own ARM-based processors, dubbed Apple Silicon. This is because we don’t know when an iMac with these chips will appear beyond ‘at some point before summer 2022′, nor whether their first generation will be much faster than what we have now. We were surprised by the performance increase in Intel’s 10th-gen chip and perhaps we will be again – but for now we can only judge the iMac on what we can see in front of us.

https://www.digitalartsonline.co.uk/reviews/creative-hardware/apple-imac-2020-review/