15-inch MacBook Pro mini-review: How much does Apple’s fastest laptop offer?

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- The 2019 15-inch MacBook Pro—it looks just like last year’s model.
  Samuel Axon
- For ports, we’re still looking at four Thunderbolt 3—two on each side.
  Samuel Axon
- It still has the butterfly keyboard, though Apple claims this one will fail less often.
  Samuel Axon
- It’s quite portable for a laptop this fast.
  Samuel Axon
- Apple calibrates its screens better than most others in the business.
  Samuel Axon
- Yep, still looks the same as last year. (That’s not a bad thing, though.)
  Samuel Axon

For the longest time, one of my main frustrations with the 15-inch MacBook Pro has been that you could usually get much faster video performance in similar Windows machines. For

computers intended for video editors, game developers, and so on, that’s a big problem.

The MacBook Pro we reviewed last year was generally a good workhorse for Mac users, albeit with a steep price tag. But since we published that review, Apple has expanded its configuration options in two very important ways for performance. First, you can configure a new MacBook Pro with an Intel Core i9 CPU with eight cores, not just six. Second, there are now pricier workstation graphics options that up the video performance ante over any other recent MacBook Pro.

Of course, selecting both these options when buying means you’re spending a minimum of $3,349. So the question now becomes: does the Pro deliver performance that’s worth the cost, and who is this for at that price?

We’re going to try to answer those questions about the maxed-out 2019 15-inch MacBook Pro. And since we’re just looking at a specs bump over the last 15-inch MacBook Pro we reviewed, this will be a narrower look focusing almost entirely on graphics and CPU performance. Other than a slightly tweaked keyboard, more CPU cores, and the much-faster Vega discrete GPU option, there’s not much new here. That may not be a bad thing.

Specs

Specs at a glance: 2018 15-inch MacBook Pro	
Screen	2880×1800 at 15.4-inches and 500 nits
OS	macOS Mojave 10.14.5
CPU	2.4GHz 8-core Intel Core i9 (5GHz Turbo) with 16MB shared L3 cache

RAM	32GB 2400MHz DDR4
GPU	Radeon Pro Vega 20 with 4GB HMB2
HDD	4TB SSD
Networking	802.11ac Wi-Fi; IEEE 802.11a/b/g/n; Bluetooth 5.0
Ports	4x Thunderbolt 3, 3.5mm headphone
Size	0.61-inch×13.75-inch×9.48-inch (1.55cm×34.93cm×24.07cm)
Weight	4.02lbs (1.83kg)
Warranty	1 year, or 3 years with AppleCare+ ($379)
Price as reviewed	$5,149
Other perks	720p FaceTime HD camera, stereo speakers, three microphones

We have a total of three ninth-generation Intel CPU configuration options. At the low end is a 2.6GHz, 6-core, Intel Core i7 with a 12MB L3 cache and Turbo Boost up to 4.5GHz. The next step up is an 8-core Core i9 processor with a 16MB L3 cache and Turbo Boost up to 4.8GHz. Finally, you can amp that up ever-so-slightly by going to an otherwise-similar Core i9 with a 2.4GHz clock speed and Turbo Boost up to 5GHz.

In any case, you're looking at an integrated Intel UHD Graphics 630 for low-power operations and support for 2400MHz DDR4 memory. Speaking of memory: the default is 16GB DDR4, but you can spend $400 to take it up to 32GB. Most people won't need 32GB in the near future, but it's a relatively recent addition that is nice to have for some use cases.

GPU comes in four discrete configurations. The bottom two are the ones we already saw in the 2018 model: AMD Radeon Pro 55X

with 4GB of GDDR5, or AMD Radeon Pro 560X with 4GB. New since our last review are the Radeon Pro Vega 15 with 4GB of HBM2 memory and the Radeon Pro Vega 20 with the same.

Solid-state storage options include 512GB, 1TB, 2TB, or 4TB. Apple recently cut the prices of these to be much more competitive in the current marketplace, making 1TB a more viable upgrade at an additional $200 over the base spec. However, that 4TB option is still nuts, even though the upgrade costs half as much as it did before, at $1,400.

Like previous models, the Pro has four Thunderbolt 3 ports, a headphone jack, 802.11a/b/g/n/ac Wi-Fi, Bluetooth 5, a 15.4-inch 2,880×1,800-resolution display with a max of 500 nits of brightness and P3 wide color, and a 720p front-facing video camera. Apple estimates up to 10 hours of battery life for movie playback or wireless Web browsing.

Our review unit is fully maxed out. We have the 2.4GHz 8-core Core i9, 32GB of RAM, the Radeon Pro Vega 20, and 4TB of SSD storage. That means our unit would cost $5,149 in the Apple store, which is, of course, far outside most users' price ranges. Note, though, that $1,400 is the SSD alone, and it's more than $1,500 less expensive than the top-spec MacBook Pro just a year ago, despite delivering notably improved performance.

Still, this is one of the most expensive mainstream laptops you can buy. I'm not sure I'd even call it mainstream anymore, if for no other reason than it comes equipped with workstation-class graphics.

Design

The current 15-inch MacBook Pro looks and feels identical to the one we reviewed in 2018. It still has a Touch Bar, and it still has 15.4-inch IPS display with a resolution of 2880 x 1800 pixels. It still has the luxuriously large touch pad, it

still has four Thunderbolt 3 ports, and it still weighs roughly four pounds and is 0.61 inches thick. A teardown by iFixit found the internals to be largely the same, too, for all intents and purposes.

The new new new butterfly keyboard

The only design change is the newest-generation butterfly keyboard, which Apple believes will be more reliable than its problem-laden predecessors. It’s too soon for us to make a judgment about the keyboard’s reliability for ourselves; it hasn’t broken in the few weeks we’ve had it, but that won’t tell you much.

It doesn’t feel any different under my fingers than the 2018 15-inch MacBook Pro I reviewed about a year ago. That keyboard did feel a bit different than the one that came before, and it was a little quieter, too. Those subtle benefits are here as well, but you probably wouldn’t be able to tell the difference even with the two most recent iterations side-by-side.

We’ve already written at length about the keyboard in these laptops, and the takeaway remains the same: they’re divisive. Some people like typing on them—I’m one of those people. Some people hate typing on them. Polling the Ars staff, it anecdotally seems like about a 60/40 split against the butterfly keyboards.

So we recommend trying one at the Apple Store (if one is nearby) before purchasing. Give it a little time; they feel quite different to type on than most laptop keyboards. You might find you like it after a while. Or you might really not. We can’t predict that for you, but they’re controversial enough that caution is advised.

Performance

Performance is what this review is all about, so let’s jump into the benchmarks. Here’s what we’re testing.

Model	CPU	GPU
2019 15-inch MacBook Pro with Touch Bar	Intel Core i9-9980HK at 2.4GHz (5GHz Turbo)	Radeon Pro Vega 20 4GB HMB2
2018 15-inch MacBook Pro with Touch Bar	Intel Core i9-8950K at 2.9GHz (4.8GHz Turbo)	AMD Radeon Pro 560X 4GB GDDR5
2018 Mac mini	Intel Core i7-8700B at 3.2GHz (4.6GHz turbo)	Intel UHD Graphics 630
2017 iMac Pro	Intel Xeon W at 3GHz (4.5GHz Turbo)	AMD Radeon Pro Vega 64 16GB HMB2
2019 HP Spectre x360 15	Intel Core i7-8750H at 2.2GHz (4.1GHz Turbo)	Nvidia GeForce GTX 1050Ti 4GB
2018 HP Spectre x360 15	Intel Core i7-8550U at 1.8GHz (4.0GHz Turbo)	Nvidia GeForce MX150
2018 Dell XPS 15 2-in-1	Intel Core i7-8705G at 3.1GHz (4.1GHz Turbo)	Radeon RX Vega M GL 4GB HMB2
Microsoft Surface Laptop 2	Intel Core i7-8650U at 1.9GHz (4.2GHz Turbo)	Intel UHD Graphics 620

And now for the results.

Listing image by Samuel Axon

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