Here’s what we learned from iFixit’s iPhone 11 teardown

iFixit’s annual iPhone teardown is always a great opportunity to take a peek inside Apple’s latest hardware, but has raised some intriguing questions. The big discovery is a second battery connector within the iPhone 11 Pro Max, which could be an indicator that the hardware was supposed to support bidirectional wireless charging at one point. *iFixit* also confirmed the size of the phone’s large L-shaped battery, the manufacturer of the phone’s modem, and found a hint of the amount of RAM inside Apple’s most powerful iPhone.

The second battery connector is the most interesting discovery of the teardown. Multiple rumors prior to this year’s iPhone 11 announcement suggested that Apple was preparing to equip the phones with bilateral charging to “reverse charge” AirPods, for example, when placed on the back of the new iPhones. These reports turned out to be false. However, after the phones came out, there was an unconfirmed rumor that they had the hardware to support bidirectional charging, but that the feature had been disabled in software. *iFixit’s* discovery isn’t conclusive: it notes that the second connector could have something to do with the iPhone 11 Pro’s battery monitoring and managing hardware.

The battery is attached via two connectors, which iFixit suggests could be a sign of bilateral charging functionality. Image: iFixit

Otherwise, *iFixit’s* report re-confirms much of what we saw in a previous iPhone 11 Pro Max teardown, which revealed that the phone has a 25 percent bigger battery than last year’s iPhone XS Max. It’s a 3969mAh model that runs at 3.79V for a total of 15.04Wh of power, a 2.96Wh improvement over last year. This

extra capacity has meant that the battery, and hence phone, are a little thicker, by 0.7mm and 0.4mm respectively. In theory, the phone's lack of 3D Touch mitigates the phone's thickness increase a little, but in reality *iFixit* discovered that this only seems to have trimmed 0.25mm off the thickness of the display.

Elsewhere there are a couple of more minor discoveries:

- The phones use Intel modems, even after Apple settled its longstanding dispute with Qualcomm earlier this year. However, that's not exactly surprising given the two companies only dropped their lawsuits back in April.
- *iFixit's* teardown suggests that the iPhone 11 Pro Max has 4GB of RAM. However, it says this finding is "very non-definitive." There was no sign of the extra 2GB of RAM that is rumored to be dedicated to the phone's cameras.
- As part of the teardown, *iFixit* discovered some hardware that could relate to Apple's new ultra wideband antenna, which will offer better AirDrop performance on the phones and could be used to locate items tagged with Apple's rumored tracking service.

Despite iFixit's note that the phone has "some relatively repair-friendly features" surrounding its battery, it still awarded the phone a 6 out of 10 score for repairability overall, exactly the same as last year's devices.

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