Intel's benchmark claims against Apple's M1 draw scrutiny

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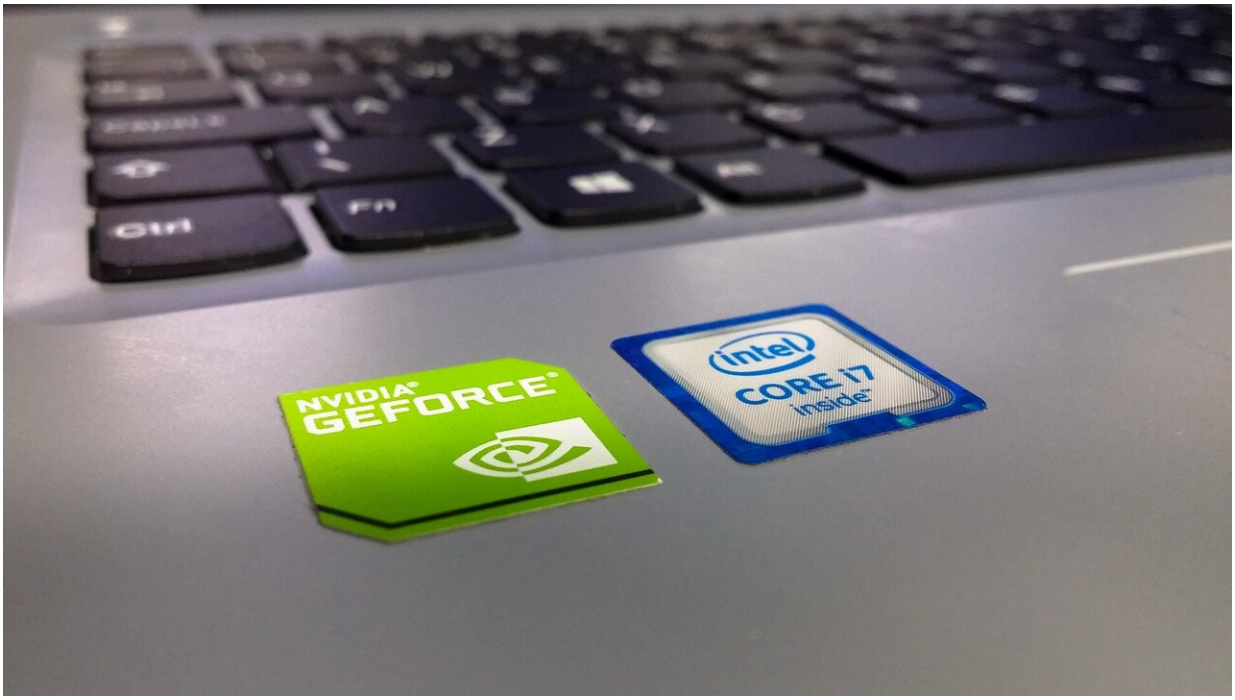

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They say that breaking up is hard to do. Apple and Intel had a 15-year relationship as Intel produced the chips that helped Apple—in the early 2000's only a fraction of the size of Intel—grow into the giant it is today. Apple's market value today is six times that of Intel.

So when Apple announced last year that it was ditching Intel in favor of

manufacturing its own chips, there were hard feelings in Santa Clara.

Last week, Intel fired the first salvo in what may become a drawn-out battle of public relations pitches between the two former pals.

Tom's Hardware reported that Intel last week released a series of slides purporting to prove the superiority of Intel's 11th generation Tiger Lake processors over Apple's new M1 chip being used in the MacBook Air, 13-inch MacBook Pro and the Mac mini.

But in their effort to demonstrate dominance over Apple's new offering, Intel inadvertently invited close scrutiny of its numbers that ultimately led a number of observers and analysts to question at least some of the results.

Andrew Freedman of Tom's Hardware notes, for instance, that for its measure of speed during Microsoft Office 365 tasks, instead of relying on industrywide benchmarks, Intel used its own RUG (real world usage) speed test. Such in-house tests often cherry pick tasks and conditions favorable to the company's products.

Using an Intel Core i7-1185G7 white box with 16GB RAM, the company found a 30-percent edge in performance over a 13-inch MacBook Pro with the M1 system on a chip.

Tests competed by Tom's Hardware could not duplicate those results. They found, in fact, that the M1 compared favorably to Intel in every one of the tasks.

PC World's Gordon Man Ung weighed in by suggesting it was fair to question whether Intel picked tasks that favored its chip design. He also noted that the WebXPRT 3 browser benchmark test for everyday tasks, such as the PDF export test that showed Intel was twice as fast as the

M1, gave a "home-field advantage" to Intel because of Intel's close relationship to Principled Technologies, which designs the tests.

Ung noted that such factors don't necessarily invalidate the test findings, but said Apple defenders may fairly suggest "some fouls got missed by the refs here."

In another unexplained move, Intel used different hardware between tests. According to Engadget, a battery-life test that yielded favorable results for Intel used a MacBook Air rather than the more energy efficient MacBook Pro.

In still other instances, Intel relied on tests known to favor its own hardware acceleration tools, such as the Topaz Labs AI test.

Apple's production of its own line of chips is clearly cause for concern in Intel's offices. Intel has long been a key player in semiconductor production.

But the financial impact, at least initially, may not be quite as severe as some anticipate. Apple has done about $3.4 billion worth of business with Intel annually, according to *The New York Times*. That amount represents less than 5 percent of Intel's annual sales.

Still, it's clear other tech companies, especially manufacturers of cellphones and tablets, eyeing the the success of M1 and the possible subsequent wounds to Intel—along with self-inflicted ones—are weighing whether to consider competing chip manufacturers such as AMD, and possibly even going the Apple route and designing their own.

According to Patrick Moorhead, of Moor Insights & Strategy, Apple's move to design its own chips "could inspire other companies to look at non-Intel processors. Reputationally, this is not a good thing for Intel."

More information:

- www.tomshardware.com/news/inte … sors-with-benchmarks
- www.pcworld.com/article/360659 … -m1-isnt-faster.html

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