

Apple is a "semiconductor superpower in the making," Nikkei reports-- the iPhone maker is said to be pushing chip design efforts further in order to rely less on suppliers such as Intel and Qualcomm.



According to "industry sources in Asia," Apple is currently "invested in research and development" in a number of components making its devices. The first is the baseband modem chips required for cellular communications. To do so Apple has poached Esin Terzioglu, a modem chip engineer from current iPhone modem supplier Qualcomm, with whom Apple is locked in a bitter \$1 billion dollar lawsuit over unpaid royalty rebates.

The second is "core processors for notebooks." Such chips would reduce dependence on Intel-- so much so Apple is said to be using an ARM-based (not x86) design. A final chip Apple is supposed to be working brings together "touch, fingerprint and display driver functions," and comes through a desire to "control next-generation display technology and some related key components."

But why would Apple want to go through the hassle of designing own technologies? As Sanford C. Bernstein analyst Mark Li puts it, "by designing its own chips, Apple can better differentiate itself from others. Further, depending too much on other chip suppliers in the age of artificial intelligence will deter its development."

In addition, such development further protects proprietary technology information technology, provides more efficient chips and allows for confidential logistic operations and inventory control.

Apple has a history of designing own chips-- the iPhone and iPad have always run on proprietary core processing chips, and the latest iPhone saw the company drop Imagination Technology in favour of an in-house graphics solution. That said, the above mentioned in-house chips will only debut later in the future, maybe within the next 2 years.

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