How will Intel and Qualcomm be affected when the US revokes chip export licenses to Huawei?

The United States has revoked licenses that allowed American companies, including Intel and Qualcomm, to ship chips used in laptops and handheld devices to Huawei, according to three Reuters sources.

A fourth Reuters source said several US companies were informed on May 7 that their licenses were immediately revoked. The US Department of Commerce earlier that day confirmed it had revoked a number of licenses but did not name the companies.

An Intel spokesman declined to comment. Qualcomm did not respond when asked for comment by Reuters, and Huawei did not immediately respond to questions.

This move comes after Huawei in April launched its first artificial intelligence (AI)-enabled laptop called MateBook X Pro, equipped with Intel's new Core Ultra 9 CPU (central processing unit), causing Republican lawmakers are frustrated. They say this suggests that the US Department of Commerce has given the green light for Intel to sell chips to Huawei.

'We have revoked a number of export licenses for Huawei,' the US Department of Commerce announced, refusing to specify which licenses were revoked.

This action by the US Department of Commerce comes after coordinated pressure from hard-liners against China on the Republican side in the US Congress, calling on the Biden administration to act tougher to stop Huawei.

Republican Congressman Elise Stefanik said in a statement: 'This action will strengthen US national security, protect American innovation and reduce China's ability to develop technology' .

The US's license revocation could harm Huawei and the US suppliers that do business with this Chinese telecommunications giant. Huawei has long relied on Intel chips to power its laptops.

Intel is also facing weak demand for traditional data center and PC chips. Last month, this American chip giant lost $11 billion in stock market capitalization after forecasting revenue and profits for the second quarter of 2024 were lower than analysts' estimates.

Huawei was placed on a trade blacklist by the US in 2019 amid concerns it could spy on Americans, part of a broader effort to hinder China's military buildup. Huawei's placement on the trade blacklist means US suppliers must seek special, difficult-to-obtain licenses before shipping goods to them.

Even so, American suppliers still receive billions of dollars worth of licenses to sell goods and technology to Huawei, including a particularly controversial license granted by the Trump administration allowing Intel to supply CPUs. for Huawei for use in laptops starting in 2020.

Qualcomm has been selling older 4G chips for Huawei handsets since receiving a license from US officials in 2020. In a regulatory filing earlier this month, Qualcomm said it did not expect to receive additional business. Collect chips from Huawei after this year.

However, Qualcomm still licenses its 5G technology portfolio to Huawei. Last year, Huawei began using 5G chips designed by its HiSilicon unit, whose production process most analysts said violated US sanctions.

In a filing this month, Qualcomm said its patent agreement with Huawei will expire early in fiscal 2025 and has begun negotiations to extend the agreement. Critics say such licenses have contributed to Huawei's resurgence.

Huawei shocked the technology industry last year when it launched the Mate 60 smartphone line equipped with a 5G-enabled HiSilicon Kirin 9000s chip manufactured by SMIC using a 7-nanometer process, despite US export restrictions on both devices. This Chinese company.

According to market research firm Counterpoint, the Mate 60 series helped Huawei smartphone sales increase by 70% in China in the first quarter of 2024 compared to the same period last year. The smart auto components business also contributed to Huawei's resurgence, as the company achieved its fastest revenue growth in four years in 2023.

In mid-April, Huawei launched the Pura 70 smartphone line equipped with HiSilicon Kirin 9100 chip supporting 5G. Kirin 9010 is a newer version of the Kirin 9000s chip designed by HiSilicon and manufactured by SMIC for the Mate 60 series launched last year.

According to analysts at investment bank Jefferies, the Pura 70 series was sold out within two days of its launch.

TechInsights (Canada) said it had discovered "with high confidence" that the Kirin 9010 is manufactured using SMIC's 7 nanometer N + 2 process, an improved version of the conventional 7 nanometer process.

TechInsights is a company specializing in providing market research and analysis services for the semiconductor industry.

According to PhoneArena, the Kirin 9010 chip has a main core of 2.3 GHz, three high-performance cores of 2.18 GHz and four energy-saving cores of 1.55 GHz. However, the single-core performance of Kirin 9010 is 30% lower than the Cortex-X2 core of Qualcomm Snapdragon 8+ Gen 1. The reason is SMIC's limited ability in chip production due to being affected by sanctions. from America.

Snapdragon 8+ Gen 1 was launched two years ago but is manufactured by TSMC on a 4 nanometer process, an advanced technology that SMIC's capabilities cannot currently reach. When compared with the same Cortex-A77 core on Snapdragon 870 (chip for mid-range smartphones), Kirin 9010 still consumes 50% more power.

TSMC is the world's No. 1 contract chip manufacturer, headquartered in Taiwan.

The inferiority of Kirin 9010 may be because SMIC does not own the advanced ultraviolet lithography printer line from ASML company (Netherlands). SMIC currently only has deep ultraviolet (DUV) lithography machines, which are not enough to create chips more advanced than 5 nanometers.

Current high-end Android smartphones, including the Galaxy S24 series, are using the Snapdragon 8 Gen 3 chip, manufactured using a 4 nanometer process.

Intel's license to sell millions of dollars worth of CPUs to Huawei was not revoked by the US, AMD is dissatisfied

In mid-March, Reuter reported that Intel was still allowed to sell CPUs worth millions of dollars to Huawei.

US President Joe Biden has long been under pressure to revoke the license issued by the Trump administration, allowing Intel to sell advanced CPUs to Huawei for use in laptops. Pressure comes from Intel's rival AMD and anti-China US lawmakers who are seeking to stop all sales activities to companies in this Asian powerhouse. AMD was disgruntled and argued that it was unfair that it did not receive a license to sell similar CPUs to Huawei.

Intel's ability to retain a license to sell CPUs, while AMD is unable to obtain similar powers, highlights the uneven and uncertain situation companies face as the US seeks to limit China's access to technology. advanced technology.

That allows Huawei to maintain a small but growing share of the global laptop market, while AMD is deprived of hundreds of millions of dollars in sales to the Chinese telecommunications giant.

Emma Xu, an analyst at technology market research firm Canalys, said: 'The majority of CPUs used in Huawei laptops are still from Intel, so any further restrictions from the US will make Huawei's laptop production difficult. becomes quite difficult'.

At the end of 2020, shortly before Mr. Trump left office as US President, the Department of Commerce granted US companies, including Intel, special rights to sell certain items to Huawei.

A source said AMD applied for a license to sell similar CPUs in early 2021 after President Joe Biden took office but never received a response to its application.

Reuters could not determine why Intel was granted a license and AMD was not. However, the impact on Huawei laptop sales was immediate. Sales of Huawei laptops containing AMD chips decreased from 47.1% in 2020 to 9.3% in the first half of 2023, according to AMD's internal presentation with data taken from NPD and GfK.

According to the presentation, the market share of Huawei laptops containing Intel chips jumped during this period from 52.9% to 90.7%. That leaves the two US companies with an "estimated revenue gap" of up to $512 million by early 2023.

Circana (formed last year from the merger of NPD and IRI) and GfK (now owned by NIQ) declined to comment on the matter.

Huawei's laptop market share has increased from 2.2% in 2018 to 9.7% in 2023 as it replaces Dell as China's third largest laptop manufacturer, according to market research firm Canalys.

Intel has additional difficulties because of bans from China

On April 12, the Wall Street Journal reported that the Chinese government has required telecommunications carriers to replace foreign chips in their core networks by 2027. According to the Wall Street Journal, China's Ministry of Industry and Information Technology China issued this directive earlier this year, which could affect US chipmakers such as Intel and AMD.

The industry watchdog has ordered the country's three largest state-owned mobile carriers, China Mobile, China Unicom and China Telecom, to audit their networks and set timelines for replacing faulty processors. Must be from China.

China is accelerating its campaign to eliminate American technology, in part to avoid growing sanctions from the Biden administration. The Chinese government has directed state-backed agencies and corporations to stop using iPhones, pushed companies to abandon foreign computers and required its electric car makers to use chips designed domestic plan.

At the end of March, US media reported that China issued regulations banning the use of Intel and AMD chips, as well as foreign operating systems such as Windows, in personal computers and servers at state agencies.

The official reason for this ban is privacy and national security concerns. The Chinese government claims that Intel and AMD can collect sensitive data from government computers and use them for espionage purposes. However, many experts suspect this is just an excuse for China to promote the use of domestic CPUs.

The ban applies to all government computers, including those used in the military sector.