Commerce Strengthens Restrictions on Advanced Computing Semiconductors, Semiconductor Manufacturing Equipment, and Supercomputing Items to Countries of Concern

Updates to Modify and Reinforce Restrictions Initially Released on October 7, 2022, to Address National Security Concerns Posed by PRC Military Modernization

Washington, D.C.—Today, the U.S. Department of Commerce’s Bureau of Industry and Security (BIS) released a package of rules designed to update export controls on advanced computing semiconductors and semiconductor manufacturing equipment, as well as items that support supercomputing applications and end-uses, to arms embargoed countries, including the PRC, and to place additional related entities in the PRC on the Entity List.

“Today’s updated rules will increase effectiveness of our controls and further shut off pathways to evade our restrictions. These controls maintain our clear focus on military applications and confront the threats to our national security posed by the PRC Government’s military-civil fusion strategy,” said Secretary of Commerce Gina M. Raimondo. “As we implement these restrictions, we will keep working to protect our national security by restricting access to critical technologies, vigilantly enforcing our rules, while minimizing any unintended impact on trade flows.”

“Export controls are a powerful national security tool, and the updates released today build on our ongoing assessment of the U.S. national security and foreign policy concerns that the PRC’s military-civil fusion and military modernization present,” said Under Secretary of Commerce for Industry and Security Alan F. Estevez. “BIS will continue to assess the security environment and technology landscape and will not hesitate to act as appropriate.”

“The Bureau of Industry and Security will continue to demonstrate global leadership in the regulation of advanced computing and artificial intelligence technologies. These technologies inherently serve as force multipliers for humanitarian good and also for undermining global security and advancing repression,” said Assistant Secretary of Commerce for Export Administration Thea D. Rozman Kendler. “By imposing stringent license requirements, we ensure that those seeking to obtain powerful advanced chips and chip manufacturing equipment will not use these technologies to undermine U.S. national security. We will continue to hone these controls as technology evolves so that our technology is not used to threaten global peace and security.”
Today’s rules reinforce the October 7, 2022, controls to restrict the PRC’s ability to both purchase and manufacture certain high-end chips critical for military advantage. These updates are necessary to maintain the effectiveness of these controls, close loopholes, and ensure they remain durable.

These controls were strategically crafted to address, among other concerns, the PRC’s efforts to obtain semiconductor manufacturing equipment essential to producing advanced integrated circuits needed for the next generation of advanced weapon systems, as well as high-end advanced computing semiconductors necessary to enable the development and production of technologies such as artificial intelligence (AI) used in military applications.

Advanced AI capabilities—facilitated by supercomputing, built on advanced semiconductors—present U.S. national security concerns because they can be used to improve the speed and accuracy of military decision making, planning, and logistics. They can also be used for cognitive electronic warfare, radar, signals intelligence, and jamming. These capabilities can also create concerns when they are used to support facial recognition surveillance systems for human rights violations and abuses.

The three rules released today are summarized briefly below. Exporters are encouraged to carefully review the full text of the rules, which make changes to existing provisions of the Export Administration Regulations (EAR).

**Advanced Computing Chips Rule (AC/S IFR):**

Text of the rule is available on BIS’s website here. Effective date for this rule will be November 16, 2023, and the deadline for public comments is 60 days from the date the rule is put on public display.

The AC/S IFR retains the stringent PRC-wide licensing requirements imposed in the October 7, 2022, rule and makes two categories of updates:

- First, adjusting the parameters that determine whether an advanced computing chip is restricted;
- Second, imposing new measures to address risks of circumvention of the controls.

**Part 1: Parameter Changes:**

Based on public comments, recent technological developments, and analysis of the prior rule’s national security impact, the AC/S IFR removes “interconnect bandwidth” as a parameter for identifying restricted chips. The rule also:

- Restricts the export of chips if they exceed either of two parameters:
  1. The preexisting performance threshold set in the October 7 rule; or
  2. A new “performance density threshold,” which is designed to preempt future workarounds.
• Requires a notification for the export of certain additional chips with performance just below the restricted threshold. Under new “License Exception Notified Advanced Computing (NAC),” following receipt of notification for exports and reexport to Macau and destinations identified as subject to a U.S. arms embargo (including the PRC), the U.S. government will determine within 25 days whether the transaction may proceed under the license exception or instead require a license.

As part of these updates, we are also introducing an exemption that will permit the export of chips for consumer applications.

Part 2: Circumvention Prevention:

• Establishes a worldwide licensing requirement for export of controlled chips to any company that is headquartered in any destination subject to a U.S. arms embargo (including the PRC) or Macau, or whose ultimate parent company is headquartered in those countries, to prevent firms from countries of concern from securing controlled chips through their foreign subsidiaries and branches.

• Creates new red flags and additional due diligence requirements to help foundries identify restricted chip designs from countries of concern. This will make it easier for foundries to assess whether foreign parties are attempting to circumvent the controls by illicitly fabbing restricted chips.

• Expands licensing requirements for export of advanced chips, with a presumption of denial, to all 22 countries to which the United States maintains an arms embargo (including the PRC) and Macau.

• Imposes license requirements for export of advanced chips, with a presumption of approval, to these same additional countries, in response to reporting that countries of concern have used third countries to divert or access restricted items. This will provide greater visibility for compliance monitoring and enforcement.

• Creates a notification requirement for a small number of high-end gaming chips to increase visibility into shipments and prevent their misuse to undermine U.S. national security.

• Includes a request for public comments on multiple topics, including risks associated with infrastructure as a service (IaaS) providers, the application of controls on deemed exports and deemed reexports, additional compliance guidance that could be provided to foundries receiving chip designs, and how to more precisely define key terms and parameters in the regulation.

Expansion of Export Controls on Semiconductor Manufacturing Items Interim Final Rule (SME IFR):

The text of the rule is available on BIS’s website here. Effective dates for this rule are 30 days after public inspection on the Federal Register web site (except the Temporary General License), and the deadline for public comments is 60 days from the date that the rule is put on public inspection.
Key changes made from the October 7, 2022, rule include:

- Imposes controls on additional types of semiconductor manufacturing equipment.
- Refines and better focuses the U.S. persons restrictions while codifying previously existing agency guidance, to ensure U.S. companies cannot provide support to advanced PRC semiconductor manufacturing while avoiding unintended impacts.
- Expanding license requirements for semiconductor manufacturing equipment to apply to additional countries beyond the PRC and Macau, to 21 other countries for which the U.S. maintains an arms embargo.

**Additions to the Entity List:**

Text of the rule is available on the Federal Register’s website [here](https://www.bis.doc.gov/index.php/about-bis/newsroom/2082). Effective date for this rule is October 17, 2023.

- BIS is adding to the Entity List two PRC entities and their subsidiaries (a total of 13 entities) involved in the development of advanced computing chips that have been found to be engaged in activities contrary to U.S. national security and foreign policy interests. These entities will also be subject to restrictions on foreign-produced items made with U.S. technology.
- Foundries producing chips for these listed parties will need a BIS license before the foundries may send such chips to these entities or parties acting on behalf of these entities as a result of applying the “footnote 4” Entity List foreign direct product rule designation.

**Additional Background:**

BIS’s actions today were taken under the authority of the Export Control Reform Act of 2018 and its implementing regulations, the EAR.

Under these authorities, BIS possesses a variety of tools to control the export of U.S.-origin and certain foreign-produced commodities, software, and technology as well as specific activities of U.S. persons, for national security and foreign policy reasons. These tools include issuing federal regulations, as well as using the licensing and regulatory process to take party-specific actions.

Additional information on the October 7, 2022, rules is available on BIS’s Public Information page regarding controls on advanced computing and semiconductor manufacturing equipment controls to the PRC, which will be updated with today’s actions as appropriate: [https://www.bis.doc.gov/index.php/about-bis/newsroom/2082](https://www.bis.doc.gov/index.php/about-bis/newsroom/2082)

Additional information on BIS’s approach and regulatory and enforcement activities related to countering the PRC’s military modernization, human rights abuses, and other activities can be found online at:

• Assistant Secretary for Export Administration Kendler’s and Assistant Secretary for Export Enforcement Axelrod’s testimonies (here) and (here) before the Senate Banking Committee on May 31, 2023.

• Assistant Secretary for Export Administration Kendler’s testimony before the Select Committee on the Strategic Competition between the United States and the Chinese Communist Party on July 20, 2023.

    For more information, please visit BIS’s website at: https://bis.doc.gov

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