U.S. Export Controls on Chips to China – Explained

From the 2018 Export Control Reform Act to the Commerce Department's rules and the Entity List: how advanced AI chips and chipmaking tools are kept from China, and the gap that remains.

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Click any box to open the law text.

Export Control Reform Act
2018 statute · 50 U.S.C. ch. 58

U.S. regulations administered by BIS require a license to export certain U.S.-linked tech, including some made abroad, to certain countries, companies & end uses.

Bureau of Industry & Security
(BIS), Commerce Department
Writes the EAR · 15 C.F.R. 730–774

Review committee
Commerce (BIS) chairs
State, DoD, DOE vote
Majority adds a firm

What: tech
AI chips (3A090)
EUV & chip tools

Where: buyer
§ 742.6(a)(6)(iii)
See 3 tiers below ↓

Reach: FDP rule
(Foreign Direct Product)
§ 734.9: also covers chips made abroad

Who: Entity List
Part 744, Supp. 4
See firms below ↓

D:5, China + Macau
Arms-embargoed, incl. China; + China-HQ'd
Presumed denial

Middle tier
D:1 / D:4 countries not in A:5 or A:6
Presumed approval

Close Allies + Unlisted Countries
A:5/A:6 allies + all not in D:1, D:4, D:5
No license needed

U.S. regulations classify countries into 3 tiers, each with different standards for granting licenses.

BIS license required
§ 742.6(a)(6) · § 744.23 · exporter must apply

Gap
Renting chips in overseas data centers is not an export

Barred by regulation
§ 742.6(b)(10): presumption of denial for advanced AI chips to China, e.g., Blackwell, Rubin, H100, A100

Allowed: case-by-case
Jan. 2026 BIS rule (91 FR 1684)
H200 (25% tariff), H20
Adopted in Trump 2nd term

U.S. regulations tightly restrict chip exports to China.

Notable Chinese tech firms on the Entity List (year added)

Being listed means a BIS license is needed to send the firm almost any item subject to the EAR, and license requests are usually denied.

Chips & AI: Huawei (2019) · SMIC (2020) · YMTC, Cambricon (2022) Biren, Moore Threads (2023) · Sophgo, Zhipu AI (2025)

Supercomputing: NUDT + national centers (2015) · Sugon (2019) Phytium, Sunway (2021) · Inspur (2023)

AI surveillance: Hikvision, Dahua, SenseTime, Megvii, iFlytek (2019)

Chip tools & drones: SMEE (2022) · DJI (2020)

Partial list. Hundreds of Chinese entries in all, many with subsidiaries.

What the control list covers

Category 3 (Electronics) of the Commerce Control List, Supplement No. 1 to Part 774. Click a card to open the list.

3A090.a
Top-end AI chips
Integrated circuits with total processing performance (TPP) of 4,800 or more, or TPP of 1,600 or more with high performance density. Captures data-center GPUs such as the A100 and A800, H100 and H800, H200 and Blackwell.
First adopted under Biden (Oct. 7, 2022 rule)

3A090.b
Second-tier AI chips
Lower TPP and performance-density bands added in October 2023 to catch chips designed to sit just under the 3A090.a line.

3A090.c
High-bandwidth memory
HBM stacks used alongside AI accelerators, added in December 2024.

4A090
Computers & servers
Computers, servers and systems that contain 3A090 chips, such as GPU server boards and AI systems.

.z items
Products with 3A090 inside
Paragraph ".z" entries (e.g., 3A001.z, 4A003.z, 5A992.z) pull in other electronics, computers and networking gear that incorporate 3A090 chips.

3B
Chipmaking equipment
Fab tools under 3B001 and 3B090, including EUV lithography and advanced etch and deposition equipment.

3D / 3E
Software & technology
Software and technical know-how for developing or producing the controlled chips and tools.

License requirement: 15 C.F.R. § 742.6(a)(6) for 3A090, 4A090 and related .z items. TPP is defined in the 3A090 technical notes. Thresholds summarized; see the current text before quoting numbers.

Sources: 50 U.S.C. ch. 58 (ECRA); 15 C.F.R. Parts 730–774 (EAR), incl. §§ 734.9, 742.6, 744.23 and the Entity List; BIS final rule, 91 FR 1684 (Jan. 15, 2026). Links go to the current text at Cornell's Legal Information Institute.

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