

119TH CONGRESS  
2D SESSION

**S.** \_\_\_\_\_

To provide for export restrictions on certain semiconductor manufacturing equipment and components therefor, and for other purposes.

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IN THE SENATE OF THE UNITED STATES

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Mr. RICKETTS (for himself, Mr. KIM, Mr. RISCH, and Mr. SCHUMER) introduced the following bill; which was read twice and referred to the Committee on \_\_\_\_\_

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## A BILL

To provide for export restrictions on certain semiconductor manufacturing equipment and components therefor, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Multilateral Alignment  
5 of Technology Controls on Hardware (MATCH) Act”.

6 **SEC. 2. SENSE OF CONGRESS.**

7 It is the sense of Congress that—

8 (1) export controls on semiconductor manufac-  
9 turing equipment and components represent one of

1 the United States' most effective defenses of this  
2 foundational technology;

3 (2) advanced computing applications like artifi-  
4 cial intelligence are transforming military affairs and  
5 the balance of power;

6 (3) the United States and its allies have an ad-  
7 vantage in the foundational technologies that under-  
8 pin advanced computing applications, including ad-  
9 vanced-node integrated circuits and the equipment  
10 and software required to design and produce ad-  
11 vanced-node integrated circuits;

12 (4) robust controls on semiconductor manufac-  
13 turing equipment and components have been a bi-  
14 partisan priority across multiple administrations, re-  
15 flecting a shared recognition that protecting Amer-  
16 ica's semiconductor advantage is essential to na-  
17 tional security;

18 (5) the adversaries of the United States are ex-  
19 ploiting gaps in the current export control regime;

20 (6) certain entities, including ChangXin Mem-  
21 ory Technologies, Hua Hong Semiconductor Lim-  
22 ited, Huawei Technologies Company, Semiconductor  
23 Manufacturing International Corporation, and  
24 Yangtze Memory Technologies Corporation are en-  
25 gaged in efforts to produce advanced-node integrated

1 circuits that are especially crucial for the Military-  
2 Civil Fusion efforts of the People's Republic of  
3 China and warrant comprehensive export controls to  
4 prevent those companies from accessing items made  
5 with United States technologies;

6 (7) companies located in adversary countries  
7 that produce semiconductor manufacturing equip-  
8 ment are critical to adversaries' efforts to overcome  
9 exports controls to develop advanced-node integrated  
10 circuit production capabilities, and such companies  
11 should not be permitted to utilize or benefit from  
12 United States or allied technology or components;

13 (8) the United States Government should work  
14 closely with allies and partners of the United States  
15 to align export controls on semiconductor manufac-  
16 turing equipment and components to prevent gaps in  
17 controls, reduce the risk of circumvention, and en-  
18 sure a level global playing field; and

19 (9) securing a diplomatic agreement, including  
20 through the use of positive incentives to encourage  
21 adoption of these controls, is the best and most sus-  
22 tainable path to alignment.

1 **SEC. 3. REPORT AND APPLICATION OF CONTROLS.**

2 (a) IDENTIFYING CHOKEPOINTS.—Not later than 60  
3 days after the date of the enactment of this Act, and annu-  
4 ally thereafter, the covered agency heads shall—

5 (1) jointly conduct a review to identify all cov-  
6 ered semiconductor manufacturing equipment and  
7 all covered facilities; and

8 (2) shall—

9 (A) submit to the appropriate congres-  
10 sional committees a list of all such equipment  
11 and facilities; and

12 (B) notify the public in the Federal Reg-  
13 ister when this submission has occurred.

14 (b) DIPLOMATIC ENGAGEMENT.—

15 (1) IN GENERAL.—The covered agency heads  
16 shall prioritize and, upon the date of the enactment  
17 of this Act, immediately engage in diplomatic efforts  
18 to encourage the governments of allied supplier  
19 countries to adopt—

20 (A) countrywide controls, or other policies  
21 that have the same practical effect as country-  
22 wide controls, on covered semiconductor manu-  
23 facturing equipment that are subject to the ju-  
24 risdiction of such allied supplier country; and

25 (B) license requirements for the export of  
26 all applicable items to any covered facility and

1 the servicing of all applicable items at any cov-  
2 ered facility, with a policy of denying such li-  
3 cense.

4 (2) BRIEFING ON DIPLOMATIC EFFORTS.—Not  
5 later than 90 days after the date of the enactment  
6 of this Act, the covered agency heads shall provide  
7 a briefing to members of the appropriate congress-  
8 sional committees that—

9 (A) describes the status of diplomatic ef-  
10 forts to secure the adoption by allied supplier  
11 countries of the controls described in paragraph  
12 (1);

13 (B) outlines and assesses positive incen-  
14 tives to encourage adoption of these controls;  
15 and

16 (C) identifies—

17 (i) countries that have not adopted  
18 the controls described in paragraph (1)(A);

19 (ii) countries that have not adopted  
20 the controls described in paragraph (1)(B);  
21 and

22 (iii) measures that the United States  
23 has taken to implement the controls de-  
24 scribed in subparagraphs (A) and (B) of  
25 paragraph (1).

1 (c) APPLICATION OF CONTROLS AND EXHAUSTION  
2 OF DIPLOMATIC RECOURSE.—

3 (1) APPLICATION OF CONTROLS.—Not later  
4 than 150 days after the date of the enactment of  
5 this Act, and annually thereafter, the Secretary of  
6 Commerce, in consultation with the Secretary of  
7 State, shall issue regulations that—

8 (A) apply countrywide controls to covered  
9 semiconductor manufacturing equipment pro-  
10 duced in the United States; and

11 (B) apply comprehensive end-user or end-  
12 use restrictions to all covered facilities located  
13 in countries of concern.

14 (2) EXHAUSTION OF DIPLOMATIC RECOURSE.—  
15 Except as provided in paragraph (4), for each allied  
16 supplier country, the covered agency heads shall  
17 jointly certify, not later than 150 days after the date  
18 of the enactment of this Act, to the appropriate con-  
19 gressional committees that either—

20 (A) the country has implemented—

21 (i) countrywide controls, or policies  
22 that have the same practical effect, on all  
23 semiconductor manufacturing equipment  
24 that is subject to the jurisdiction of the al-  
25 lied supplier country; and

1 (ii) licensing requirements, with a pol-  
2 icy of denying the license, for the export of  
3 all applicable items to any covered facility,  
4 or other policies with the same practical ef-  
5 fect; or

6 (B)(i) the country has not adopted the  
7 controls described in subparagraph (A) or (B)  
8 of subsection (b)(1);

9 (ii) the covered agency heads have  
10 prioritized and exhausted available diplomatic  
11 channels;

12 (iii) such channels have failed to secure ex-  
13 port controls from the allied supplier country  
14 that have the same practical effect as those de-  
15 scribed in subparagraphs (A) and (B) of sub-  
16 section (b)(1); and

17 (iv) continued delay would materially un-  
18 dermine the national security of the United  
19 States.

20 (3) EXTENSION OF CONTROLS.—For each allied  
21 supplier country for which the covered agency heads  
22 submitted a certification described in paragraph  
23 (2)(B), the Secretary of Commerce, in consultation  
24 with the Secretary of State, shall issue regulations  
25 that—

1 (A) establish jurisdiction over and apply  
2 countrywide controls, by directly controlling the  
3 equipment, indirectly restricting the end-use of  
4 essential components of such equipment, or  
5 both, to covered semiconductor manufacturing  
6 equipment exported from the allied supplier  
7 country; and

8 (B) require a license for the servicing of  
9 any applicable item that is also subject to the  
10 jurisdiction of the allied supplier country in any  
11 covered facility located in a country of concern  
12 and implement a policy of denying the license  
13 for such servicing; and

14 (C) establish jurisdiction over applicable  
15 items from the allied supplier country and apply  
16 end-user or end-use controls prohibiting the ex-  
17 port of such items to any covered facility.

18 (4) NATIONAL SECURITY WAIVER.—The covered  
19 agency heads may jointly grant a one-time waiver to  
20 extend the 150-day deadline for certification under  
21 paragraph (2) by not more than 90 days, if the cov-  
22 ered agency heads, with concurrence from the Sec-  
23 retary of Defense and the Secretary of Energy,  
24 jointly—

1 (A) submit a report to the appropriate con-  
2 gressional committees describing—

3 (i) justification for why the deadline  
4 could not be met; and

5 (ii) the interim steps the covered  
6 agency heads have taken to prevent stock-  
7 piling; and

8 (B) determine and certify to the appro-  
9 priate congressional committees that—

10 (i) the extension is in the national se-  
11 curity interest of the United States, de-  
12 spite the risk that countries of concern  
13 may take advantage of the delay to further  
14 stockpile covered semiconductor manufac-  
15 turing equipment; and

16 (ii) the government of the allied sup-  
17 plier country is taking concrete, verifiable  
18 steps, pursuant to their domestic laws and  
19 regulations and as expeditiously as pos-  
20 sible, to adopt and implement controls that  
21 have the same practical effect as, or are  
22 more stringent than, the controls that  
23 would otherwise be imposed under para-  
24 graph (3).

1 (d) REPORT.—Not later than 180 days after the date  
2 of the enactment of this Act, and annually thereafter, the  
3 covered agency heads shall provide to the appropriate con-  
4 gressional committees a report that includes—

5 (1) a list of all covered semiconductor manufac-  
6 turing equipment;

7 (2) a list of all entities that own or operate a  
8 covered facility;

9 (3) the scope of the countrywide controls im-  
10 posed by the United States and allied supplier coun-  
11 tries on each covered semiconductor manufacturing  
12 equipment identified pursuant to paragraph (1);

13 (4) a summary of diplomatic engagements and  
14 unilateral actions undertaken by the covered agency  
15 heads in the 12-months period prior to the submis-  
16 sion of the report to close any gap among allied sup-  
17 plier countries in the countrywide controls imposed  
18 by such countries for covered semiconductor manu-  
19 facturing equipment; and

20 (5) a certification that the export of any cov-  
21 ered semiconductor manufacturing equipment to a  
22 country of concern and the export of any applicable  
23 items to any covered facility, or servicing of any  
24 such item located in a country of concern, requires  
25 a license issued by the United States or an allied

1 supplier country, with a policy of denying such li-  
2 cense.

3 (e) TERMINATION AND REIMPOSITION OF CONTROLS  
4 UPON ALLIED ACTION.—

5 (1) TERMINATION OR MODIFICATION.—The  
6 Secretary of Commerce, in consultation with the  
7 Secretary of State, may terminate or modify any  
8 control imposed under subsection (c)(3) for items ex-  
9 ported from an allied supplier country, if the country  
10 has established controls, including licensing policies,  
11 that have the same practical effect as those de-  
12 scribed in subsection (b)(1).

13 (2) REIMPOSITION.—If, after terminating or  
14 modifying a control under paragraph (1), the cov-  
15 ered agency heads determine that the allied supplier  
16 country has materially weakened, suspended, or re-  
17 voked the control that justified the termination or  
18 modification under paragraph (1), the Secretary of  
19 Commerce shall, in consultation with the Secretary  
20 of State and not later than 60 days after making  
21 such determination—

22 (A) notify the appropriate congressional  
23 committees of such determination; and

1 (B) reimpose the control under subsection  
2 (c)(3) that was terminated or modified under  
3 paragraph (1).

4 (f) **RULE OF CONSTRUCTION.**—Nothing in this Act  
5 may be construed as diminishing or superseding the au-  
6 thority of the Secretary of Commerce to control the ex-  
7 port, reexport, or in-country transfer of items under the  
8 Export Control Reform Act of 2018 (50 U.S.C. 4801 et  
9 seq.).

10 (g) **DEFINITIONS.**—In this section:

11 (1) **ADVANCED-NODE INTEGRATED CIRCUITS.**—  
12 The term “advanced-node integrated circuits” has  
13 the meaning given that term in section 772.1 of the  
14 Export Administration Regulations.

15 (2) **ALLIED SUPPLIER COUNTRY.**—The term  
16 “allied supplier country” means any country that—  
17 (A) is not a country of concern; and  
18 (B) is engaged in the production of covered  
19 semiconductor manufacturing equipment.

20 (3) **APPLICABLE ITEM.**—The term “applicable  
21 item” means any item that is or can be made sub-  
22 ject to the Export Administration Regulations, in-  
23 cluding—

24 (A) a United States-origin item;

1 (B) a foreign-produced item that is the di-  
2 rect product of, or produced by plants or major  
3 components that are the direct product of,  
4 United States-origin software or technology  
5 subject to the Export Administration Regula-  
6 tions;

7 (C) a foreign-produced item with more  
8 than zero percent de minimis United States-ori-  
9 gin content; and

10 (D) a foreign-produced item that contain  
11 United States-origin or foreign-produced inte-  
12 grated circuits that are presumptively designed  
13 or produced, directly or indirectly, with tech-  
14 nology, software, or equipment that is subject  
15 to the Export Administration Regulations.

16 (4) APPROPRIATE CONGRESSIONAL COMMIT-  
17 TEES.—The term “appropriate congressional com-  
18 mittees” means—

19 (A) the Committee on Banking, Housing,  
20 and Urban Affairs and the Committee on For-  
21 eign Relations of the Senate; and

22 (B) the Committee on Foreign Affairs of  
23 the House of Representatives.

24 (5) CAPABILITIES COMPARABLE TO THOSE OF  
25 THE PRODUCT SOLD BY THE GLOBAL MARKET

1 LEADER.—The term “capabilities comparable to  
2 those of the product sold by the global market lead-  
3 er” means, considering cost, throughput, reliability,  
4 precision, and any other relevant factors, advanced-  
5 node integrated circuit makers headquartered out-  
6 side of countries of concern, when selecting a tool  
7 for use in high-volume manufacturing, would be in-  
8 different about using, or would prefer to use, the  
9 tool produced by the country of concern, rather than  
10 a tool sold by the company with the greatest share  
11 of the global market for tools used to accomplish the  
12 same function.

13 (6) COUNTRY OF CONCERN.—The term “coun-  
14 try of concern” has the meaning given the term  
15 “covered nation” in section 4872(f) of title 10,  
16 United States Code.

17 (7) COUNTRYWIDE CONTROLS.—The term  
18 “countrywide controls” means licensing require-  
19 ments, with a policy of denying any such license, for  
20 the export, reexport, in-country transfer, or servicing  
21 of specified items to any destination within a coun-  
22 try of concern, excluding exports where the destina-  
23 tion is a fabrication facility that existed as of the  
24 date of the enactment of this Act and remains  
25 owned and operated by a company headquartered,

1 and the ultimate parent company of which is  
2 headquartered, outside of any country of concern.

3 (8) COVERED AGENCY HEADS.—The term “cov-  
4 ered agency heads” means the Secretary of Com-  
5 merce, acting through the Under Secretary of Com-  
6 merce for Industry and Security, and the Secretary  
7 of State.

8 (9) COVERED FACILITY.—The term “covered  
9 facility” means—

10 (A) a facility engaged in the production of  
11 advanced-node integrated circuits which is  
12 owned or operated by an entity headquartered  
13 in, or whose ultimate parent company is  
14 headquartered in, a country of concern; or

15 (B) any facility owned or operated by, or  
16 in common ownership or control with—

17 (i) any entity referenced in subpara-  
18 graphs (A) or (B) of section 5949(j)(3) of  
19 the James M. Inhofe National Defense Au-  
20 thorization Act for Fiscal Year 2023 (Pub-  
21 lic Law 117–263; 41 U.S.C. 4713 note);

22 (ii) Hua Hong Semiconductor Lim-  
23 ited;

24 (iii) Huawei Technologies Company;

1 (iv) any producer, manufacturer, or  
2 developer of semiconductor manufacturing  
3 equipment that is headquartered in, or the  
4 ultimate parent company of which is  
5 headquartered in, a country of concern; or

6 (v) any entity that is a subsidiary, af-  
7 filiate, or successor to, or has a joint ven-  
8 ture, teaming agreement, joint develop-  
9 ment or research agreement, technology  
10 transfer or collaboration agreement, or  
11 other similar type of arrangement with an  
12 entity described in any of clauses (i)  
13 through (iv).

14 (10) COVERED SEMICONDUCTOR MANUFAC-  
15 TURING EQUIPMENT.—The term “covered semicon-  
16 ductor manufacturing equipment”—

17 (A) means semiconductor manufacturing  
18 equipment or a component therefor that—

19 (i) is an applicable item; and

20 (ii) the covered agency heads deter-  
21 mine no country of concern produces in  
22 sufficient volumes and with capabilities  
23 comparable to those of the product sold by  
24 the global market leader, as of the date of  
25 the enactment of this Act; and

1 (B) includes, at a minimum—

2 (i) all semiconductor manufacturing  
3 equipment, materials, and software that,  
4 as of the date of the enactment of this Act,  
5 require a license for the export, reexport,  
6 or in-country transfer to any destination in  
7 a country of concern;

8 (ii) all deep ultraviolet immersion pho-  
9 tolithography machines, through silicon via  
10 deposition and etch tools, cryogenic etch  
11 equipment, and cobalt deposition equip-  
12 ment; and

13 (iii) all semiconductor manufacturing  
14 equipment or components specified in Ex-  
15 port Control Classification Number 3B993  
16 (as in effect on the date of the enactment  
17 of this Act) except any item the covered  
18 agency heads determine do not meet the  
19 requirements of subparagraph (A).

20 (11) EXPORT; IN-COUNTRY TRANSFER; REEX-  
21 PORT; EXPORT ADMINISTRATION REGULATION.—The  
22 terms “export”, “in-country transfer”, “reexport”,  
23 and “Export Administration Regulations” have the  
24 meanings given such terms in section 1742 of the

1       Export Control Reform Act of 2018 (50 U.S.C.  
2       4801).

3           (12) IN SUFFICIENT VOLUMES.—The term “in  
4       sufficient volumes” means in volumes sufficient to  
5       meet 75 percent of current demand from all coun-  
6       tries of concern.

7           (13) SERVICING.—The term “servicing” means  
8       any servicing of equipment or components, whether  
9       in-person or remote, including installation, calibra-  
10      tion, repair, overhauling, refurbishing, testing, diag-  
11      nosing, updating software or firmware, training,  
12      field services, application support engineering,  
13      customization, technical assistance, process adjust-  
14      ments, troubleshooting, and transfer of industry best  
15      practices for maintenance.