

119TH CONGRESS  
1ST SESSION

# H. R. 3447

To require the Secretary of Commerce to issue standards with respect to chip security mechanisms for integrated circuit products, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

MAY 15, 2025

Mr. HUIZENGA (for himself, Mr. FOSTER, Mr. MOOLENAAR, Mr. KRISHNAMOORTHY, Mr. CRAWFORD, Mr. LIEU, Mr. LAHOOD, and Mr. GOTTHEIMER) introduced the following bill; which was referred to the Committee on Foreign Affairs

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## A BILL

To require the Secretary of Commerce to issue standards with respect to chip security mechanisms for integrated circuit products, 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 “Chip Security Act”.

### 5 **SEC. 2. SENSE OF CONGRESS.**

6 It is the sense of Congress that—

7 (1) technology developed in the United States  
8 should serve as the foundation for the global eco-

1 system of artificial intelligence to advance the for-  
2 eign policy and national security objectives of the  
3 United States and allies and partners of the United  
4 States;

5 (2) the United States can foster goodwill,  
6 strengthen relationships, and support innovative re-  
7 search around the world by providing allies and  
8 partners of the United States with advanced com-  
9 puting capabilities;

10 (3) advanced integrated circuits and computing  
11 hardware that is exported from the United States  
12 must be protected from diversion, theft, and other  
13 unauthorized use or exploitation in order to bolster  
14 the competitiveness of the United States and protect  
15 the national security of the United States;

16 (4) implementing chip security mechanisms will  
17 improve compliance with the export control laws of  
18 the United States, assist allies and partners with  
19 guarding computing hardware, and enhance protec-  
20 tions from bad actors looking to access, divert, or  
21 tamper with advanced integrated circuits and com-  
22 puting hardware; and

23 (5) implementing chip security mechanisms may  
24 help with the detection of smuggling or exploitation  
25 of advanced integrated circuits and computing hard-

1       ware, thereby allowing for increased flexibility in ex-  
2       port controls and opening the door for more inter-  
3       national partners to receive streamlined and larger  
4       shipments of advanced computing hardware.

5   **SEC. 3. DEFINITIONS.**

6       In this Act:

7           (1) APPROPRIATE CONGRESSIONAL COMMIT-  
8       TEES.—The term “appropriate congressional com-  
9       mittees” means—

10           (A) the Committee on Banking, Housing,  
11           and Urban Affairs of the Senate; and

12           (B) the Committee on Foreign Affairs of  
13           the House of Representatives.

14           (2) CHIP SECURITY MECHANISM.—The term  
15       “chip security mechanism” means a software-,  
16       firmware-, or hardware-enabled security mechanism  
17       or a physical security mechanism.

18           (3) COVERED INTEGRATED CIRCUIT PROD-  
19       UCT.—The term “covered integrated circuit prod-  
20       uct” means—

21           (A) an integrated circuit classified under  
22           Export Control Classification Number 3A090 or  
23           3A001.z;

1 (B) a computer or other product classified  
2 under Export Control Classification Number  
3 4A090 or 4A003.z; or

4 (C) an integrated circuit or computer or a  
5 product containing an integrated circuit or com-  
6 puter that is classified under an Export Control  
7 Classification Number that is a successor or  
8 substantially similar to the numbers listed in  
9 subparagraphs (A) and (B).

10 (4) EXPORT.—The term “export” has the  
11 meaning given that term in section 1742(3) of the  
12 Export Control Reform Act of 2018 (50 U.S.C.  
13 4801(3)).

14 (5) IN-COUNTRY TRANSFER.—The term “in-  
15 country transfer” has the meaning given that term  
16 in section 1742(6) of the Export Control Reform Act  
17 of 2018 (50 U.S.C. 4801(6)).

18 (6) REEXPORT.—The term “reexport” has the  
19 meaning given that term in section 1742(9) of the  
20 Export Control Reform Act of 2018 (50 U.S.C.  
21 4801(9)).

22 (7) SECRETARY.—The term “Secretary” means  
23 the Secretary of Commerce.

1 **SEC. 4. REQUIREMENTS FOR SECURITY MECHANISMS FOR**  
2 **EXPORT OF INTEGRATED CIRCUIT PROD-**  
3 **UCTS.**

4 (a) PRIMARY REQUIREMENTS FOR CHIP SECURITY  
5 MECHANISMS.—

6 (1) IN GENERAL.—Not later than 180 days  
7 after the date of the enactment of this Act, the Sec-  
8 retary shall require any covered integrated circuit  
9 product to be outfitted with chip security mecha-  
10 nisms that implement location verification, using  
11 techniques that are feasible and appropriate on such  
12 date of enactment, before it is exported, reexported,  
13 or in-country transferred to or in a foreign country.

14 (2) NOTIFICATION REQUIREMENT.—Not later  
15 than 180 days after the date of the enactment of  
16 this Act, the Secretary shall require any person that  
17 has received a license or other authorization under  
18 the Export Control Reform Act of 2018 (50 U.S.C.  
19 4811 et seq.) to export, reexport, or in-country  
20 transfer a covered integrated circuit product to  
21 promptly report to the Under Secretary of Industry  
22 and Security, if the person obtains credible informa-  
23 tion that the product—

24 (A) is in a location other than the location  
25 specified in the application for the license or  
26 other authorization;

1 (B) has been diverted to a user other than  
2 the user specified in the application; or

3 (C) has been subjected to tampering or an  
4 attempt at tampering, including efforts to dis-  
5 able, spoof, manipulate, mislead or circumvent  
6 location verification mechanisms or other chip  
7 security mechanisms.

8 (b) DEVELOPMENT OF SECONDARY REQUIREMENTS  
9 FOR CHIP SECURITY MECHANISMS.—

10 (1) ASSESSMENT.—

11 (A) IN GENERAL.—Not later than one year  
12 after the date of the enactment of this Act, the  
13 Secretary shall—

14 (i) conduct an assessment to identify  
15 what additional mechanisms, if any, should  
16 be added to the primary chip security  
17 mechanisms required under subsection  
18 (a)(1)—

19 (I) to enhance compliance with  
20 the requirements of the Export Con-  
21 trol Reform Act of 2018;

22 (II) to prevent, hinder, and de-  
23 tect the unauthorized use, access, or  
24 exploitation of covered integrated cir-  
25 cuit products;

1 (III) to identify and monitor  
2 smuggling intermediaries; and

3 (IV) to achieve any national secu-  
4 rity or foreign policy objective of the  
5 United States that the Secretary con-  
6 sider appropriate; and

7 (ii) if the Secretary identifies any  
8 such mechanism, develop requirements for  
9 outfitting covered integrated circuit prod-  
10 ucts with that mechanism.

11 (B) ELEMENTS.—The assessment required  
12 by paragraph (1) shall include—

13 (i) an examination of the feasibility,  
14 reliability, and effectiveness of—

15 (I) methods and strategies that  
16 prevent the tampering, disabling, or  
17 other manipulating of covered inte-  
18 grated circuit products;

19 (II) workload verification meth-  
20 ods;

21 (III) methods to modify the  
22 functionality of covered integrated cir-  
23 cuit products that have been illicitly  
24 acquired; and

1 (IV) any other method the Sec-  
2 retary determines appropriate for the  
3 prevention of unauthorized use, ac-  
4 cess, or exploitation of covered inte-  
5 grated circuit products;

6 (ii) an analysis of—

7 (I) the potential costs associated  
8 with implementing each method exam-  
9 ined under clause (i), including an  
10 analysis of—

11 (aa) the potential impact of  
12 the method on the performance  
13 of covered integrated circuit  
14 products; and

15 (bb) the potential for the in-  
16 troduction of new vulnerabilities  
17 into the products;

18 (II) the potential benefits of im-  
19 plementing the methods examined  
20 under clause (i), including an analysis  
21 of the potential increase—

22 (aa) in compliance of cov-  
23 ered integrated circuit products  
24 with the requirements of the Ex-



1 port Control Reform Act of 2018;  
2 and

3 (bb) in detecting, hindering,  
4 and preventing unauthorized use,  
5 access, or exploitation of the  
6 products; and

7 (III) the susceptibility of the  
8 methods examined under clause (i) to  
9 tampering, disabling, or other forms  
10 of manipulation; and

11 (iii) an estimate of the expected costs  
12 to implement at-scale methods to tamper  
13 with, disable, or manipulate a covered inte-  
14 grated circuit product, or otherwise cir-  
15 cumvent the methods examined under  
16 clause (i).

17 (2) REPORT TO CONGRESS.—

18 (A) IN GENERAL.—Not later than one year  
19 after the date of the enactment of this Act, the  
20 Secretary shall submit to the appropriate con-  
21 gressional committees a report on the results of  
22 the assessment required by paragraph (1), in-  
23 cluding—

24 (i) an identification of the chip secu-  
25 rity mechanisms, if any, to be included in

1 the requirements for secondary chip secu-  
2 rity mechanisms; and

3 (ii) if applicable, a roadmap for the  
4 timely implementation of the secondary  
5 chip security mechanisms.

6 (B) FORM.—The report required by para-  
7 graph (1) shall be submitted in unclassified  
8 form, but may include a classified annex.

9 (3) IMPLEMENTATION.—

10 (A) IN GENERAL.—If any mechanisms are  
11 determined by the Secretary to be appropriate,  
12 the Secretary shall, not later than 2 years after  
13 the date on which the Secretary completes the  
14 assessment required by paragraph (1), require  
15 any covered integrated circuit product to be  
16 outfitted with the secondary chip security mech-  
17 anisms identified pursuant to paragraph (1)(A)  
18 before the product is exported, reexported, or  
19 in-country transferred to or in a foreign coun-  
20 try.

21 (B) PRIVACY.—In implementing require-  
22 ments for secondary chip security mechanisms  
23 under subparagraph (A), the Secretary shall  
24 prioritize confidentiality.

1 (c) ENFORCEMENT AUTHORITY.—In carrying out  
2 this section, the Secretary may—

3 (1) verify, in a manner the Secretary deter-  
4 mines appropriate, the ownership and location of a  
5 covered integrated circuit product that has been ex-  
6 ported, reexported, or in-country transferred to or in  
7 a foreign country;

8 (2) maintain a record of covered integrated cir-  
9 cuit products and include in the record the location  
10 and current end-user of each such product; and

11 (3) require any person who has been granted a  
12 license or other authorization under the Export Con-  
13 trol Reform Act of 2018 to export, reexport, or in-  
14 country transfer a covered integrated circuit product  
15 to provide the information needed to maintain the  
16 record.

17 (d) ANNUAL ASSESSMENT AND REPORT ON NEW  
18 CHIP SECURITY MECHANISMS.—Not later than 2 years  
19 after the date of the enactment of this Act, and annually  
20 thereafter for 3 years, the Secretary shall—

21 (1) conduct an assessment of new chip security  
22 mechanisms that have been developed in the year  
23 preceding the date of the assessment; and

24 (2) submit to the appropriate congressional  
25 committees a report that includes—

1 (A) a summary of the results of the assess-  
2 ment required by paragraph (1);

3 (B) an evaluation of whether any of the  
4 new mechanisms assessed under paragraph (1)  
5 should be added to or replace any of the exist-  
6 ing requirements for secondary chip security  
7 mechanisms developed under subsection (b)(1);  
8 and

9 (C) any recommendations for modifications  
10 to relevant export controls to allow for more  
11 flexibility with respect to the countries to or in  
12 which covered integrated circuit products may  
13 be exported, reexported, or in-country trans-  
14 ferred if the products include chip security  
15 mechanisms that meet the requirements devel-  
16 oped under subsection (b)(1).

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