

Calendar No. 833

98TH CONGRESS
2D SESSION

S. 1201

[Report No. 98-425]

To amend title 17 of the United States Code to protect semiconductor chips and masks against unauthorized duplication, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MAY 4 (legislative day, MAY 2), 1983

Mr. MATHIAS (for himself, Mr. HART, Mr. BINGAMAN, Mr. WILSON, Mr. HATCH, Mr. LAXALT, Mr. DENTON, Mr. KENNEDY, Mr. CRANSTON, Mr. TSONGAS, Mr. LEAHY, Mr. DOMENICI, Mr. EAST, Mr. PERCY, Mr. DIXON, Mr. TOWER, Mr. ARMSTRONG, Mr. CHILES, Mr. BYRD, Mr. HATFIELD, and Mr. LAUTENBERG) introduced the following bill; which was read twice and referred to the Committee on the Judiciary

MAY 2 (legislative day, APRIL 30), 1984

Reported by Mr. THURMOND, with an amendment

[Omit the part struck through and insert the material printed in *italic*]

A BILL

To amend title 17 of the United States Code to protect semiconductor chips and masks against unauthorized duplication, 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,*

1 That this Act may be cited as the "Semiconductor Chip Pro-
2 tection Act of 1983".

3 DEFINITIONS

4 SEC. 2. Section 101 of title 17 of the United States
5 Code is amended by adding at the end thereof the following:

6 "A 'semiconductor chip product' is the final or in-
7 termediate form of a product—

8 "(1) having two or more layers of metallic,
9 insulating, or semiconductor material, deposited
10 on or etched away from a piece of semiconductor
11 material in accordance with a predetermined pat-
12 tern;

13 "(2) intended to perform electronic circuitry
14 functions; and

15 "(3) that is a writing or a discovery, or the
16 manufacture, use, or distribution of which is in or
17 affects commerce.

18 "A 'mask work' is a series of related images—

19 "(1) having the predetermined, three-dimen-
20 sional pattern of metallic, insulating, or semicon-
21 ductor material present or removed from the
22 layers of a semiconductor chip product; and

23 "(2) in which series the relation of the
24 images to one another is that each image has the

1 pattern of the surface of one form of the semicon-
 2 ductor chip product.

3 “A ‘mask’ is a substantially two-dimensional, par-
 4 tially transparent and partially opaque sheet. A mask
 5 embodies a mask work if the pattern of transparent
 6 and opaque portions of the mask is substantially similar
 7 to the pattern of one of the images of the mask work.
 8 Masks and mask works shall not be deemed pictorial,
 9 graphic, or sculptural works. The copyright in a mask
 10 or mask work shall not extend to any other work of
 11 authorship embodied therein.

12 “As used in sections 109(a), 401, 405, 406, 501(A),
 13 503, 506, 509, and 602 of this title, ‘copy’ includes a semi-
 14 conductor chip product that is subject to the exclusive rights
 15 described in section 106.”

16 SUBJECT MATTER OF COPYRIGHT

17 SEC. 3. Section 102(a) of title 17 of the United States
 18 Code is amended—

19 (1) by adding after paragraph (5) the following:

20 “(6) mask works;” and

21 (2) by redesignating paragraphs (6) and (7) as
 22 paragraphs (7) and (8), respectively.

23 EXCLUSIVE RIGHTS

24 SEC. 4. Section 106 of title 17 of the United States
 25 Code is amended—

1 (1) by striking out “and” at the end of paragraph
2 (4);

3 (2) by striking out the period at the end of para-
4 graph (5) and inserting “; and” in lieu thereof; and

5 (3) adding at the end thereof the following:

6 “~~(6)~~ in the case of mask works—

7 “(A) to embody the mask work in a mask;

8 “~~(B)~~ to distribute a mask embodying the
9 mask work;

10 “~~(C)~~ to use a mask embodying the mask
11 work to make a semiconductor chip product;

12 “~~(D)~~ in the manufacture of a semiconductor
13 chip product, substantially to reproduce, by opti-
14 cal, electronic, or other means, images of the
15 mask work on material intended to be part of the
16 semiconductor chip product; and

17 “~~(E)~~ to distribute or use a semiconductor
18 chip product made as described in subparagraph
19 ~~(C)~~ or ~~(D)~~ of this paragraph.”.

20 LIMITATION ON EXCLUSIVE RIGHTS AS TO MASKS

21 SEC. 5. (a) Chapter 1 of title 17 of the United States
22 Code is amended by adding at the end the following:

1 **“§ 119. Scope of exclusive rights: Compulsory licensing**
2 **with respect to mask works**

3 “(a) In the case of mask works, the exclusive rights
4 provided by section 106 are subject to compulsory licensing
5 under the conditions specified by this section.

6 “(b) The owner of a copyright on a mask work shall be
7 required to grant a compulsory license under the copyright,
8 to any applicant therefor, subject to all of the following terms
9 and conditions, and all of the following circumstances:

10 “(1) The applicant has purchased a semiconductor
11 chip product made or distributed in violation of the
12 owner’s exclusive rights under section 106.

13 “(2) When the applicant first purchased such
14 semiconductor chip product (hereinafter in this section
15 referred to as the ‘infringing product’), the applicant
16 did not have actual knowledge that or reasonable
17 grounds to believe that the infringing product was an
18 infringing product (hereinafter in this section referred
19 to as ‘having notice of infringement’).

20 “(3) The applicant, before having notice of in-
21 fringement, committed substantial funds to the use of
22 the infringing product; the applicant would suffer sub-
23 stantial out-of-pocket losses (other than the difference
24 in price between the infringing product and a nonin-
25 fringing product) if denied the use of the infringing
26 product; and it would be inequitable in the circum-

1 “(f) MASKS.—Copyright in mask works endures for a
2 term of ten years from the first authorized—

3 “(1) distribution;

4 “(2) use in a commercial product; or

5 “(3) manufacture in commercial quantities

6 of semiconductor chip products made as described in subpara-
7 graph (C) or (D) of paragraph (6) of section 106.”.

8 INNOCENT INFRINGEMENT

9 SEC. 7. Section 501 of title 17 of the United States
10 Code is amended by adding at the end thereof the following:

11 “(e) Notwithstanding any other provision of this chap-
12 ter, a purchaser of a semiconductor chip product who pur-
13 chased it in good faith, without having notice of infringement
14 (as that term is used in section 110 of this title), shall not be
15 liable as an infringer or otherwise be liable or subject to rem-
16 edies under this chapter with respect to the use or distribu-
17 tion of units of such semiconductor chip product that occurred
18 before such purchaser had notice of infringement.”.

19 IMPOUNDING AND SEIZURE

20 SEC. 8. Sections 503(a), 503(b), and 509(a) of title 17
21 of the United States Code are each amended by inserting
22 “masks,” after “film negatives,” each place it appears.

1 **EFFECTIVE DATE**

2 **SEC. 9.** The amendments made by this Act shall take
3 effect ninety days after the date of enactment of this Act, but
4 shall not apply to—

5 (1) semiconductor chip products manufactured in
6 the United States or imported into the United States
7 before the effective date;

8 (2) masks made in the United States or imported
9 into the United States before the effective date; or

10 (3) semiconductor chip products manufactured in
11 the United States by means of masks described in
12 paragraph (2) of this section.

13 *That this Act may be cited as the “Semiconductor Chip Pro-*
14 *tection Act of 1984”.*

15 **DEFINITIONS**

16 **SEC. 2.** *Section 101 of title 17 of the United States*
17 *Code is amended by adding at the end thereof the following:*

18 “A ‘semiconductor chip product’ is the final or in-
19 *termediate form of a product—*

20 “(1) *having two or more layers of metallic,*
21 *insulating, or semiconductor material, deposited*
22 *or otherwise placed on, or etched away or other-*
23 *wise removed from a piece of semiconductor mate-*
24 *rial in accordance with a predetermined pattern;*

25 “(2) *intended to perform electronic circuitry*
26 *functions; and*

1 “(3) that is a writing, or the manufacture,
2 use, or distribution of which is in or affects
3 commerce.

4 “A ‘mask work’ is a series of related images, how-
5 ever fixed or encoded—

6 “(1) having the predetermined, three-dimen-
7 sional pattern of metallic, insulating, or semicon-
8 ductor material present or removed from the
9 layers of a semiconductor chip product; and

10 “(2) in which series the relation of the
11 images to one another is that each image has the
12 pattern of the surface of one form of the semicon-
13 ductor chip product.

14 “A ‘mask’ is a substantially two-dimensional
15 sheet, partially transparent and partially opaque to
16 preselected radiation. A mask embodies a mask work if
17 the pattern of transparent and opaque portions of the
18 mask is substantially similar to the pattern of one of
19 the images of the mask work. Masks and mask works
20 shall not be deemed pictorial, graphic, or sculptural
21 works. The copyright in a mask work shall neither
22 extend to, nor affect, limit, or impair any copyright in
23 any other work of authorship embodied therein or in a
24 semiconductor chip product.

1 *The provisions of sections 109(a), 401, 405, 406,*
2 *501(A), 503, 506, 509, and 602 of this title, applicable to*
3 *copies of a work shall apply also to semiconductor chip*
4 *products.”.*

5 *SUBJECT MATTER OF COPYRIGHT*

6 *SEC. 3. Section 102(a) of title 17 of the United States*
7 *Code is amended—*

8 (1) *by adding after paragraph (5) the following:*

9 “*(6) mask works;*”; *and*

10 (2) *by redesignating paragraphs (6) and (7) as*
11 *paragraphs (7) and (8), respectively.*

12 *EXCLUSIVE RIGHTS*

13 *SEC. 4. Section 106 of title 17 of the United States*
14 *Code is amended—*

15 (1) *by striking out “and” at the end of paragraph*
16 *(4);*

17 (2) *by striking out the period at the end of para-*
18 *graph (5) and inserting “; and” in lieu thereof; and*

19 (3) *adding at the end thereof the following:*

20 “*(6) in the case of mask works, only the following*
21 *rights—*

22 “*(A) to embody the mask work in a mask;*

23 “*(B) to distribute a mask embodying the*
24 *mask work;*

25 “*(C) to embody an image of the mask work*
26 *in a semiconductor chip product;*

1 “(D) in the manufacture of a semiconductor
2 chip product, substantially to reproduce, by opti-
3 cal, electronic, or other means, an image of the
4 mask work on material intended to be part of the
5 semiconductor chip product; and

6 “(E) to distribute a semiconductor chip prod-
7 uct made as described in subparagraph (C) or (D)
8 of this paragraph.”.

9 LIMITATION ON EXCLUSIVE RIGHTS AS TO MASKS

10 SEC. 5. (a) Chapter 1 of title 17 of the United States
11 Code is amended by adding at the end the following:

12 “§ 119. **Scope of exclusive rights: Right of reverse engineer-**
13 **ing with respect to mask works**

14 “(a) In the case of mask works, the exclusive rights pro-
15 vided by section 106 are subject to a right of reverse engineer-
16 ing use under the conditions specified by this section.

17 “(b) It is not infringement of the rights of the owner of a
18 copyright on a mask work to reproduce the pattern on one or
19 more masks or in a semiconductor chip product solely for the
20 purpose of teaching, analyzing, or evaluating the concepts or
21 techniques embodied in the mask or semiconductor chip prod-
22 uct, or the circuit schematic, logic flow, or organization of
23 components utilized therein.”.

24 (b) The chapter analysis for chapter 1 of title 17 is
25 amended by adding at the end thereof the following:

“119. *Scope of exclusive rights: Right of reverse engineering with respect to mask works.*”.

1 (c) Section 106 of title 17 of the United States Code is
2 amended by striking out “118” and inserting in lieu thereof
3 “119”.

4 DURATION OF COPYRIGHT

5 SEC. 6. Section 302 of title 17 of the United States
6 Code is amended by adding at the end thereof the following:

7 “(f) MASKS.—Copyright in mask works endures for a
8 term of ten years from the earliest of first authorized—

9 “(1) distribution;

10 “(2) use in a commercial product; or

11 “(3) manufacture in commercial quantities of
12 semiconductor chip products made as described in sub-
13 paragraph (C) or (D) of paragraph (6) of section
14 106.”.

15 INNOCENT INFRINGEMENT

16 SEC. 7. (a) Chapter 5 of title 17 of the United States
17 Code is amended by adding at the end thereof the following:

18 “§ 511. **Innocent infringement of mask works**

19 “(a) Notwithstanding any other provision of this chap-
20 ter, an innocent purchaser of an infringing semiconductor
21 chip product shall not be liable as an infringer or otherwise
22 be liable or subject to remedies under this chapter with re-
23 spect to the distribution of units of such semiconductor chip
24 product that occurred before such innocent purchaser had
25 notice of infringement.

1 “(b) *The remedies of the owner of a copyright on a mask*
2 *work against an innocent purchaser shall be limited to a rea-*
3 *sonable royalty upon each unit of the infringing semiconduc-*
4 *tor chip product that the innocent purchaser made or distrib-*
5 *uted after having notice of infringement, if the innocent pur-*
6 *chaser establishes the applicability of all of the following cir-*
7 *cumstances:*

8 “(1) *the innocent purchaser, before first having*
9 *notice of infringement, committed substantial funds to*
10 *the use of the infringing product;*

11 “(2) *the innocent purchaser would suffer substan-*
12 *tial out-of-pocket losses (other than the difference in*
13 *price between the infringing product and a noninfring-*
14 *ing product) if denied the use of the infringing product;*

15 “(3) *the innocent purchaser’s use of the infringing*
16 *product is and will be for substantially the same pur-*
17 *pose that initially gave rise to the innocent purchaser’s*
18 *immunity under subsection (a);*

19 “(4) *in the case of an innocent purchaser who,*
20 *after having notice of infringement, makes the infring-*
21 *ing semiconductor chip product, or has it made for*
22 *him, the copyright owner and the owner’s licensees, if*
23 *any, are unable to supply the infringing semiconductor*
24 *chip product to the innocent purchaser at a reasonable*
25 *price; and*

1 “(5) it would be inequitable in the circumstances
2 not to permit the innocent purchaser to continue the
3 use or proposed use of the infringing product.

4 “(c) The immunity of an innocent purchaser and limi-
5 tation of remedies with respect thereto shall extend to good
6 faith purchasers from him.

7 “(d) For the purposes of this section—

8 “(1) ‘innocent purchaser’ means one who pur-
9 chases an infringing semiconductor chip product in
10 good faith, and without having notice of infringement;

11 “(2) ‘notice of infringement’ means actual knowl-
12 edge that, or reasonable grounds to believe that, a prod-
13 uct is an infringing semiconductor chip product; and

14 “(3) ‘infringing semiconductor chip product’
15 means a semiconductor chip product which is made or
16 distributed in violation of the exclusive rights of an
17 owner of a copyright in a mask work.”.

18 (b) The table of sections for chapter 5 is amended by
19 adding at the end thereof the following new item:

 “511. Innocent infringement of mask works.”.

20 **IMPOUNDING AND SEIZURE**

21 **SEC. 8.** Sections 503(a), 503(b), and 509(a) of title 17
22 of the United States Code are each amended by inserting
23 “masks,” after “film negatives,” each place it appears.

1

SAVINGS CLAUSES

2

SEC. 9. Nothing contained in this Act shall be deemed to add to or detract from existing rights of owners of copyrights in works of authorship listed in section 102(a) of title 17 of the United States Code, prior to its amendment by this Act. Nothing contained in this Act shall be deemed to detract from any right of the lawful owner of product purchased from the copyright owner, or from a person authorized by the copyright owner, freely to use, distribute and resell the product without liability therefor under the copyright laws.

11

EFFECTIVE DATE

12

SEC. 10. The amendments made by this Act shall not create liability for any conduct that occurred prior to the date of enactment of this Act, but shall apply to all acts of manufacture or distribution of semiconductor chip products that occur in the United States after such date, to all acts of importation of semiconductor chip products into the United States that occur after such date, and to all violations of the exclusive rights of the copyrights owner under section 106(6) of title 17, United States Code, as amended by section 4 of this Act, that occur after such date. Notwithstanding the provisions of this section, no alleged infringer shall be liable under this Act with respect to the continued manufacture or distribution of any semiconductor chip product that the al-

- 1 *leged infringer commercially distributed in the United States*
- 2 *prior to January 1, 1980.*

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A BILL

To amend title 17 of the United States Code to protect semiconductor chips and masks against unauthorized duplication, and for other purposes.

MAY 2 (legislative day, APRIL 30), 1984

Reported with an amendment