

109TH CONGRESS  
1ST SESSION

# H. R. 4569

To require certain analog conversion devices to preserve digital content security measures.

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IN THE HOUSE OF REPRESENTATIVES

DECEMBER 16, 2005

Mr. SENSENBRENNER (for himself and Mr. CONYERS) introduced the following bill; which was referred to the Committee on the Judiciary

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## A BILL

To require certain analog conversion devices to preserve digital content security measures.

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 “Digital Transition  
5 Content Security Act of 2005”.

6 **TITLE I—REQUIREMENTS FOR**  
7 **ANALOG CONVERSION DEVICES**

8 **SEC. 101. PROHIBITIONS.**

9 No person shall—

1           (1) manufacture, import, offer to the public,  
2 provide or otherwise traffic in any—

3           (A) analog video input device that converts  
4 into digital form an analog video signal that is  
5 received in a covered format, or an analog video  
6 signal in a covered format that is read from a  
7 prerecorded medium, unless any portions of  
8 that device that are designed to access, record,  
9 or pass the content of the analog video signal  
10 within that device—

11           (i) detect and respond to the rights  
12 signaling system with respect to a par-  
13 ticular work by conforming the copying  
14 and redistributing of that work to the in-  
15 formation contained in the rights signaling  
16 system for that work in accordance with  
17 the compliance rules set forth in section  
18 201 and the robustness rules referred to in  
19 section 202; and

20           (ii) pass through or properly reinsert  
21 and update the CGMS-A portion of the  
22 rights signaling system or coding and data  
23 pertaining to CGMS-A, and pass through  
24 the VEIL portion of the rights signaling

1 system, in accordance with such compli-  
2 ance rules and robustness rules; or

3 (B) analog video input device that does not  
4 convert into digital form an analog video signal  
5 that is received by that device in a covered for-  
6 mat, or an analog video signal in a covered for-  
7 mat that is read from a prerecorded medium,  
8 unless that device—

9 (i) preserves, passes through, or prop-  
10 erly reinserts the CGMS-A portion of the  
11 rights signaling system or coding and data  
12 pertaining to CGMS-A, and passes  
13 through the VEIL portion of the rights  
14 signaling system, in accordance with the  
15 compliance rules set forth in section 201  
16 and the robustness rules referred to in sec-  
17 tion 202;

18 (ii) outputs the analog video signal in  
19 a covered format; or

20 (2) manufacture, import, offer to the public,  
21 provide, or otherwise traffic in any technology, prod-  
22 uct, service, device, component, or part thereof,  
23 that—

24 (A) is primarily designed or produced for  
25 the purpose of modifying or causing an analog

1 video input device to no longer conform to the  
2 requirements set forth in paragraph (1);

3 (B) has only limited commercially signifi-  
4 cant purpose or use other than to modify or  
5 cause an analog video input device to no longer  
6 conform to the requirements set forth in para-  
7 graph (1); or

8 (C) is marketed by that person or another  
9 acting in concert with that person with that  
10 person's knowledge for use in modifying or  
11 causing an analog video input device to no  
12 longer conform to the requirements set forth in  
13 paragraph (1).

14 **SEC. 102. EXCEPTIONS.**

15 Section 101 shall not apply to a particular product  
16 or device that—

17 (1) was legally manufactured and sold as new  
18 before the effective date of this title and is subse-  
19 quently offered for sale or otherwise trafficked in, if  
20 such product or device has not been modified, after  
21 such effective date, so that the product, if in compli-  
22 ance with section 101 before the modification, is  
23 configured so that the product or device is no longer  
24 in compliance with that section; or

1           (2) is a device capable solely of displaying pro-  
2           grams and cannot be upgraded or readily modified  
3           so as to incorporate transmission, redistribution, or  
4           recording capabilities.

5 **SEC. 103. ENCODING RULES.**

6           No person shall encode a program, or cause a pro-  
7           gram to be encoded, using the rights signaling system, un-  
8           less such encoding meets the following requirements:

9           (1) The rights signaling system may be encoded  
10          so as to prevent or limit copying, redistribution, or  
11          both, of prerecorded media, video-on-demand, pay-  
12          per-view, subscription-on-demand, and undefined  
13          business models that are comparable to any such de-  
14          fined business model.

15          (2) The rights signaling system—

16                (A) may not be encoded so as to prevent  
17                first generation of copies permitted under title  
18                II of pay television transmissions, non-premium  
19                subscription television, free conditional access  
20                delivery, and undefined business models that  
21                are comparable to any such defined business  
22                model; but

23                (B) may be encoded so as to prevent or  
24                limit further copying or redistribution, or both,  
25                of any defined business model or comparable

1 undefined business model referred to in sub-  
2 paragraph (A).

3 (3) The rights signaling system—

4 (A) may not be encoded so as to numeri-  
5 cally limit copying as permitted under title II of  
6 a non-conditional access broadcast transmission  
7 and undefined business models that are com-  
8 parable to a non-conditional access broadcast  
9 transmission; but

10 (B) may be encoded so as to prevent redis-  
11 tribution of any such non-conditional access  
12 broadcast transmission and comparable unde-  
13 fined business models.

14 (4)(A) During the 12-month period beginning  
15 on the effective date set forth in section 109, the  
16 VEIL portion of the rights signaling system may  
17 only be encoded in program formats described in  
18 paragraph (1).

19 (B) After the end of that 12-month period, the  
20 VEIL portion of the rights signaling system may be  
21 encoded in any program format, except that, in any  
22 case in which a person encodes a program or causes  
23 a program to be encoded with the VEIL portion of  
24 the rights signaling system, that person shall also  
25 encode the program or cause the program to be en-

1 coded with the CGMS—A portion of the rights sig-  
2 naling system.

3 **SEC. 104. TRANSMISSION OF RIGHTS SIGNALING SYSTEM.**

4 Any person making a transmission of a live event or  
5 an audiovisual work protected by copyright shall, upon the  
6 request of an owner or authorized licensee of the live event  
7 or copyrighted work, include in its transmission the rights  
8 signaling system for the transmission and shall not, with-  
9 out the authorization of such owner or licensee, deactivate  
10 or alter the rights signaling system. The rights signaling  
11 system shall be applied in accordance with the request,  
12 but in no case with encoding restrictions in addition to  
13 those required by section 103.

14 **SEC. 105. IMPROVEMENTS TO VEIL.**

15 (a) ADOPTION OF IMPROVEMENTS TO VEIL.—If,  
16 upon the petition of any interested party, the Director of  
17 the Patent and Trademark Office determines that the  
18 VEIL portion of the rights signaling system has become  
19 materially ineffective in a way that cannot be adequately  
20 remedied by existing technical flexibility in the embedding  
21 function of the VEIL portion of the rights signaling sys-  
22 tem, then the Director may by rule adopt commercially  
23 reasonable improvements to the detection function of the  
24 VEIL portion of the rights signaling system in order to  
25 maintain the functionality of the rights signaling system

1 under this Act. Any such improvements shall be limited  
2 to adjustments or upgrades solely to the same underlying  
3 VEIL technology of the existing rights signaling system.  
4 The Director shall conduct the rulemaking proceeding  
5 under this subsection on an expedited basis.

6 (b) PARTICIPANTS.—In a rulemaking conducted  
7 under subsection (a), the Director of the Patent and  
8 Trademark Office shall encourage representatives of the  
9 film industry, the broadcast, cable, and satellite industry,  
10 the information technology industry, and the consumer  
11 electronics industry to negotiate in good faith in an effort  
12 to reach agreement on the commercially reasonable im-  
13 provements to the detection function of the VEIL portion  
14 of the rights signaling system to be adopted in the rule.  
15 The Director shall ensure that such negotiation process  
16 is open and public and that all potentially affected parties  
17 are invited to participate in the process through public no-  
18 tice. The Director shall cause any agreement for which  
19 there is substantial consensus of the parties on all material  
20 points to be published and shall take such agreement into  
21 account in any final rule adopted.

22 (c) FACTORS.—

23 (1) IN GENERAL.—In determining whether or  
24 not to adopt commercially reasonable improvements  
25 to the detection function of the VEIL portion of the

1 rights signaling system, including an agreement of  
2 the parties as described in subsection (b), the Direc-  
3 tor of the Patent and Trademark Office shall con-  
4 sider the impact on content owners, content distribu-  
5 tors, consumers, manufacturers, and competition  
6 generally in all affected markets resulting from the  
7 failure to adopt such improvements, as well as from  
8 the adoption of such improvements. As part of the  
9 determination, the Director shall examine—

10 (A) the licensing terms under which im-  
11 provements would be licensed, ensuring that the  
12 licensing terms will impose no materially great-  
13 er burdens than those terms already established  
14 for the VEIL portion of the rights signaling  
15 system;

16 (B) the intellectual property rights impli-  
17 cated by the improvements; and

18 (C) the effect of the improvements on  
19 interoperability of consumer audiovisual prod-  
20 ucts (including consumer electronic and infor-  
21 mation technology products capable of receiv-  
22 ing, displaying, or recording programs).

23 (2) DISCLOSURE OF INTELLECTUAL PROPERTY  
24 RIGHTS.—The Director of the Patent and Trade-  
25 mark Office shall require those parties participating

1 or filing comments in the process of making a deter-  
2 mination under this section to disclose any material  
3 intellectual property rights in improvements under  
4 consideration.

5 (3) **TIMETABLE FOR IMPLEMENTATION.**—The  
6 Director of the Patent and Trademark Office shall  
7 determine the appropriate timetable for implementa-  
8 tion of any improvements adopted under this sec-  
9 tion, giving due consideration to the generally ac-  
10 cepted manufacturing cycle of 18 months in a case  
11 involving improvements that require material  
12 changes to the design or implementation of detec-  
13 tors.

14 (4) **PETITIONS FOR RECONSIDERATION.**—After  
15 issuing a final rule under this section, the Director  
16 of the Patent and Trademark Office shall permit  
17 and consider petitions for reconsideration of the rule  
18 that are filed.

19 **SEC. 106. CIVIL REMEDIES.**

20 (a) **CIVIL ACTIONS.**—Any person injured by a viola-  
21 tion of section 101 may bring a civil action in an appro-  
22 priate United States district court on account of such vio-  
23 lation.

24 (b) **POWERS OF THE COURT.**—In an action brought  
25 under subsection (a), the court—

1           (1) may grant temporary and permanent in-  
2           junctions on such terms as it deems reasonable to  
3           prevent or restrain the violation of section 101;

4           (2) at any time while an action is pending, may  
5           order the impounding, on such terms as it deems  
6           reasonable, of any device or product that is in the  
7           custody or control of the alleged violator and that  
8           the court has reasonable cause to believe was in-  
9           volved in the violation;

10           (3) may award damages under subsection (c);

11           (4) in its discretion may allow the recovery of  
12           costs by or against any party other than the United  
13           States or an officer thereof;

14           (5) in its discretion may award reasonable at-  
15           torney's fees to the prevailing party; and

16           (6) may, as part of a final judgment or decree  
17           finding a violation, order the remedial modification  
18           or the destruction of any device or product involved  
19           in the violation that is in the custody or control of  
20           the violator or has been impounded under paragraph  
21           (2).

22           (c) AWARD OF DAMAGES.—

23           (1) IN GENERAL.—Except as otherwise pro-  
24           vided in this title, a person committing a violation  
25           of section 101 is liable for either—

1 (A) the actual damages and any additional  
2 profits of the violator, as provided in paragraph  
3 (2); or

4 (B) statutory damages, as provided in  
5 paragraph (3).

6 (2) ACTUAL DAMAGES.—The court shall award  
7 to the complaining party the actual damages suf-  
8 fered by the party as a result of the violation, and  
9 any profits of the violator that are attributable to  
10 the violation and are not taken into account in com-  
11 puting the actual damages, if the complaining party  
12 elects such damages at any time before final judg-  
13 ment is entered.

14 (3) STATUTORY DAMAGES.—At any time before  
15 final judgment is entered, a complaining party may  
16 elect to recover an award of statutory damages for  
17 each violation of section 101 in the sum of not less  
18 than \$200 or more than \$2,500 per device, product,  
19 component, offer, or performance of service, as the  
20 court considers just.

21 (4) REPEATED VIOLATIONS.—In any case in  
22 which the injured party sustains the burden of prov-  
23 ing, and the court finds, that a person has violated  
24 section 101 within three years after a final judgment  
25 was entered against the person for another such vio-

1 lation, the court may increase the award of damages  
2 up to triple the amount that would otherwise be  
3 awarded, as the court considers just.

4 (5) INNOCENT VIOLATIONS.—

5 (A) IN GENERAL.—The court in its discre-  
6 tion may reduce or remit the total award of  
7 damages in any case in which the violator sus-  
8 tains the burden of proving, and the court  
9 finds, that the violator was not aware and had  
10 no reason to believe that its acts constituted a  
11 violation.

12 (B) NONPROFIT LIBRARY, ARCHIVES, EDU-  
13 CATIONAL INSTITUTIONS, OR PUBLIC BROAD-  
14 CASTING ENTITIES.—

15 (i) IN GENERAL.—In the case of a  
16 nonprofit library, archives, educational in-  
17 stitution, or public broadcasting entity, the  
18 court shall remit damages in any case in  
19 which the library, archives, educational in-  
20 stitution, or public broadcasting entity sus-  
21 tains the burden of proving, and the court  
22 finds, that the library, archives, edu-  
23 cational institution, or public broadcasting  
24 entity was not aware and had no reason to  
25 believe that its acts constituted a violation.

1                   (ii) DEFINITION.—In this subpara-  
2                   graph, the term “public broadcasting enti-  
3                   ty” has the meaning given that term in  
4                   section 118(g) of title 17, United States  
5                   Code.

6 **SEC. 107. CRIMINAL OFFENSES AND PENALTIES.**

7           (a) IN GENERAL.—Any person who violates section  
8 101 willfully and for purposes of commercial advantage  
9 or private financial gain—

10                   (1) shall be fined not more than \$500,000 or  
11                   imprisoned for not more than 5 years, or both, for  
12                   the first offense; and

13                   (2) shall be fined not more than \$1,000,000 or  
14                   imprisoned for not more than 10 years, or both, for  
15                   any subsequent offense.

16           (b) LIMITATION FOR NONPROFIT LIBRARY, AR-  
17 CHIVES, EDUCATIONAL INSTITUTION, OR PUBLIC BROAD-  
18 CASTING ENTITY.—Subsection (a) shall not apply to a  
19 nonprofit library, archives, educational institution, or pub-  
20 lic broadcasting entity (as defined in section 118(g) of title  
21 17, United States Code).

22           (c) STATUTE OF LIMITATIONS.—A criminal pro-  
23 ceeding under this section shall be barred unless such pro-  
24 ceeding is commenced within 5 years after the cause of  
25 action arises.

1 **SEC. 108. DEFINITIONS.**

2 In this title:

3 (1) ANALOG VIDEO INPUT DEVICE.—The term  
4 “analog video input device” means a hardware de-  
5 vice, other than a professional device, and any asso-  
6 ciated firmware or software, that is designed—

7 (A) to receive an analog video signal in a  
8 covered format or to read an analog signal in  
9 a covered format from a prerecorded medium;  
10 and

11 (B) to record or digitize such signal, or to  
12 alter such signal in a way that affects the state  
13 or passage of the rights signaling system if  
14 present in such signal.

15 (2) COMMERCIAL ADVERTISING MESSAGES.—  
16 The term “commercial advertising messages” means,  
17 with respect to any service, program, or schedule or  
18 group of programs, commercial advertising messages  
19 other than—

20 (A) advertising relating to the service itself  
21 or the programming contained therein; or

22 (B) advertising which is displayed concu-  
23 rrently with the display of any part of any such  
24 program, including station identification logos,  
25 frames, and banners.

1           (3) COMPARABLE.—The term “comparable”  
2 means, when used in connection with a defined busi-  
3 ness model and an undefined business model, that  
4 the undefined business model approximates the de-  
5 fined business model more closely than it approxi-  
6 mates any other defined business model.

7           (4) COMPLIANCE RULES.—The term “compli-  
8 ance rules” means the rules provided for in section  
9 201.

10          (5) CONDITIONAL ACCESS DELIVERY.—The  
11 term “conditional access delivery”—

12           (A) means any delivery, whether analog or  
13 digital, of a service, program, or schedule or  
14 group of programs by means of any technology  
15 that controls access to the delivery; and

16           (B) does not include a transmission or re-  
17 transmission of an over-the-air television broad-  
18 cast.

19          (6) COVERED FORMAT.—The term “covered  
20 format” means any analog video format for which  
21 the rights signaling system is specified, if such speci-  
22 fication is certified by the Director of the Patent  
23 and Trademark Office under section 202.

24          (7) DEFINED BUSINESS MODEL.—The term  
25 “defined business model” means prerecorded media,

1 video-on-demand, pay-per view, pay television trans-  
2 mission, subscription-on-demand, non-premium sub-  
3 scription television, free conditional access delivery,  
4 or non-conditional access broadcast transmission.

5 (8) FREE CONDITIONAL ACCESS DELIVERY.—

6 The term “free conditional access delivery” means a  
7 conditional access delivery for which viewers are not  
8 charged any fee, other than government-mandated  
9 fees, for the reception or viewing of the program-  
10 ming contained in the delivery.

11 (9) NON-CONDITIONAL ACCESS BROADCAST

12 TRANSMISSION.—The term “non-conditional access  
13 broadcast transmission” means a broadcast trans-  
14 mission, including an over-the-air transmission for  
15 reception by the general public using radio fre-  
16 quencies allocated for that purpose, whether analog  
17 or digital, that is not subject to a technology that  
18 controls access to the transmission.

19 (10) NON-PREMIUM SUBSCRIPTION TELE-

20 VISION.—The term “non-premium subscription tele-  
21 vision” means an analog or digital delivery of a serv-  
22 ice, or schedule or group of programs, including  
23 those which may be offered for sale together with  
24 other services, for which subscribers are charged a  
25 subscription fee for the reception or viewing of the

1 programming contained in the delivery, other than  
2 pay television and subscription-on-demand.

3 (11) PAY-PER-VIEW.—(A) The term “pay-per-  
4 view”—

5 (i) means an analog or digital delivery of  
6 an individual program or specified group of pro-  
7 grams in a case in which—

8 (I) such individual program, or each  
9 individual program of the group of pro-  
10 grams, is generally uninterrupted by com-  
11 mercial advertising messages; and

12 (II) recipients are charged a separate  
13 fee for each such program or specified  
14 group of programs; and

15 (ii) includes delivery of a single program  
16 described in clause (i) for which multiple start  
17 times are made available at time intervals which  
18 are less than the running time of the program  
19 as a whole.

20 (B) If a delivery qualifies both as pay-per-view  
21 and a pay television transmission, then the delivery  
22 shall be deemed, for purposes of this title, to be pay-  
23 per-view rather than a pay television transmission.

24 (12) PAY TELEVISION TRANSMISSION.—(A) The  
25 term “pay television transmission” means an analog

1 or digital transmission of a service or schedule of  
2 programs, in a case in which—

3 (i) each individual program of the service  
4 or schedule of programs is generally uninter-  
5 rupted by commercial advertising messages; and

6 (ii) subscribing viewers are charged a peri-  
7 odic subscription fee for the service or schedule  
8 of programs, such as on a monthly basis, for  
9 the reception of the programming delivered by  
10 the service, whether separately or together with  
11 other services or programming, during the view-  
12 ing period covered by the fee.

13 (B) If a delivery qualifies both as a pay tele-  
14 vision transmission and pay per view, video-on-de-  
15 mand, or subscription-on-demand, then the delivery  
16 shall be deemed, for purposes of this title, to be pay-  
17 per-view, video-on-demand or subscription-on-de-  
18 mand rather than a pay television transmission.

19 (13) PRERECORDED MEDIUM.—The term  
20 “prerecorded medium” means the delivery of one or  
21 more programs, in prerecorded form, whether in  
22 analog or digital format, on a packaged medium,  
23 such as a VHS tape or DVD disc, or on another op-  
24 tical medium or storage device.

1           (14) PROFESSIONAL DEVICE.—(A) The term  
2           “professional device” means a device that is de-  
3           signed, manufactured, marketed, and intended for  
4           use by a person who regularly employs such a device  
5           for lawful business or industrial purposes, such as  
6           making, performing, displaying, distributing, or  
7           transmitting copies of audiovisual works on a com-  
8           mercial scale at the request of, or with the explicit  
9           permission of, the copyright owner.

10           (B) If a device is marketed to or is commonly  
11           purchased by persons other than those described in  
12           subparagraph (A), then such device shall not be con-  
13           sidered to be a “professional device”.

14           (15) PROGRAM.—The term “program” means  
15           an audiovisual work, in analog or digital format, as  
16           defined in section 101 of title 17, United States  
17           Code, that is offered for transmission, delivery, or  
18           distribution, either generally or on demand, to sub-  
19           scribers, purchasers, or the public at large, or other-  
20           wise for commercial purposes.

21           (16) REDISTRIBUTION.—The term “redistribu-  
22           tion”—

23                   (A) means the movement of video content  
24                   beyond the home or similar local environment;  
25                   and

1 (B) does not include the secure movement  
2 of video content within any of the rooms or  
3 areas within a consumer’s primary residence, or  
4 within and among locations such as a con-  
5 sumer’s car, boat, recreational vehicle, or sec-  
6 ondary residence.

7 (17) RIGHTS SIGNALING SYSTEM.—

8 (A) RIGHTS SIGNALING SYSTEM.—The  
9 term “rights signaling system” means CGMS-  
10 A, (“CGMS-A”) supplemented by VEIL.

11 (B) CGMS-A.—The term “CGMS-A”  
12 means Content Generation Management Sys-  
13 tem-Analog.

14 (C) VEIL.—The term “VEIL” means  
15 Video Encoded Invisible Light technology.

16 (18) ROBUSTNESS RULES.—The term  
17 “robustness rules” means the minimum robustness  
18 requirements established under section 202.

19 (19) SUBSCRIPTION-ON-DEMAND.—(A) The  
20 term “subscription-on-demand” means the delivery  
21 of an individual program or a specified group of pro-  
22 grams, in a case in which—

23 (i) a subscriber is able, at his or her dis-  
24 cretion, to select the time for beginning the ex-  
25 hibition of the program or group of programs;

1           (ii) such individual program, or each indi-  
2           vidual program of the group of programs, is  
3           generally uninterrupted by commercial adver-  
4           tising messages; and

5           (iii) subscribing viewers are charged a peri-  
6           odic subscription fee for the reception of such  
7           programming during the viewing period covered  
8           by the fee.

9           (B) If a delivery of a program qualifies both as  
10          a pay television transmission and subscription-on-de-  
11          mand, then the delivery shall be deemed, for pur-  
12          poses of this title, to be subscription-on-demand  
13          rather than a pay television transmission.

14          (20) UNDEFINED BUSINESS MODEL.—The term  
15          “undefined business model” means the transmission,  
16          delivery, or distribution of a program or programs  
17          that is not a defined business model.

18          (21) VIDEO-ON-DEMAND.—(A) term “video-on-  
19          demand” means a delivery of an individual program  
20          or a specified group of programs in a case in  
21          which—

22               (i) such individual program, or each indi-  
23               vidual program of the group of program, is gen-  
24               erally uninterrupted by commercial advertising  
25               messages;

1 (ii) recipients are charged a separate fee  
2 for such individual program or specified group  
3 of programs; and

4 (iii) a recipient is able, at his or her discre-  
5 tion, to select the time for beginning the of ex-  
6 hibition of such individual program or specified  
7 group of programs.

8 (B) If a delivery qualifies as both video-on-de-  
9 mand and a pay television transmission, then the de-  
10 livery shall be deemed, for purposes of this title, to  
11 be video-on-demand.

12 **SEC. 109. EFFECTIVE DATE.**

13 This Act shall take effect 12 months after the date  
14 of the enactment of this Act.

15 **TITLE II—COMPLIANCE**  
16 **STANDARDS**

17 **SEC. 201. COMPLIANCE RULES.**

18 (a) DETECTING.—Any analog video input device sub-  
19 ject to section 101(1) that receives an analog video signal  
20 through transmission from a source external to that device  
21 or by reading a recording of such signal from a  
22 prerecorded medium—

23 (1) shall detect or cause to be detected the  
24 presence of the rights signaling system in the analog  
25 video signal; and

1           (2) if the rights signaling system is present in  
2 the analog video signal—

3           (A) shall determine, or cause to be deter-  
4 mined, based on information conveyed by the  
5 rights signaling system, whether the content  
6 contained in such analog video signal is copy  
7 unlimited no redistribution content, copy one  
8 generation content, or copy prohibited content,  
9 in accordance with Table W; and

10           (B) shall abide by the relevant recording,  
11 output, and passing rules set forth in sub-  
12 sections (b), (c), and (d).

13 (b) RECORDING.—

14           (1) COPY PROHIBITED CONTENT.—An analog  
15 video input device shall not record or cause the re-  
16 cording of copy prohibited content in digital form,  
17 including retention and deletion on a frame-by-  
18 frame, minute-by-minute, or megabyte-by-megabyte  
19 basis, unless—

20           (A) the copy prohibited content is retained  
21 for a period of not more than 90 minutes from  
22 initial receipt of each unit of such content using  
23 a bound recording method; and

1 (B) such content is destroyed or otherwise  
2 rendered unusable no later than the end of that  
3 90-minute period.

4 (2) COPY ONE GENERATION AND COPY UNLIM-  
5 ITED NO REDISTRIBUTION CONTENT.—An analog  
6 video input device shall not record or cause the re-  
7 cording of copy one generation content or copy un-  
8 limited no redistribution content in digital form,  
9 other than—

10 (A) using an authorized recording method  
11 in accordance with any requirements established  
12 under section 202(1); or

13 (B) using a bound recording method, in  
14 which case Copy One Generation Content so re-  
15 corded becomes Copy Prohibited Content with  
16 respect to that device.

17 (3) TRANSITORY IMAGE.—The requirements  
18 under paragraphs (1) and (2) do not prohibit tem-  
19 porary storage of data for the sole purpose of ena-  
20 bling a function not prohibited by those require-  
21 ments, if such stored data—

22 (A) is not maintained in the manner de-  
23 scribed in section 512(a)(4) of title 17, United  
24 States Code, after that function has been per-  
25 formed; and

1 (B) is not stored in a way that permits  
2 copying or redistribution of such data for other  
3 purposes.

4 (c) OUTPUTS.—

5 (1) ANALOG OUTPUTS.—An analog video input  
6 device shall not pass, or direct to be passed, copy  
7 prohibited content, copy one generation content, or  
8 copy unlimited no redistribution content to an ana-  
9 log output except—

10 (A) as an analog video signal that is  
11 passed with—

12 (i) in the case of copy prohibited con-  
13 tent, the rights signaling system encoding  
14 indicating “no copying is permitted”;

15 (ii) in the case of copy one generation  
16 content, the rights signaling system encod-  
17 ing indicating “one generation of copies  
18 may be made”; or

19 (iii) in the case of copy unlimited no  
20 redistribution content, the rights signaling  
21 system encoding indicating “copy control  
22 restrictions not asserted but redistribution  
23 of the work is intended to be limited”; or

24 (B) if such device is incorporated into a  
25 computer product, to a VGA output or to a

1 similar output that was widely commercially  
2 available as of May 1, 2001, and that carries  
3 uncompressed video signals with a resolution  
4 less than or equal to a constrained image to a  
5 computer monitor.

6 (2) DIGITAL OUTPUTS.—An analog video input  
7 device shall not pass, or direct to be passed, copy  
8 prohibited content, copy one generation content, or  
9 copy unlimited no redistribution content to a digital  
10 output except—

11 (A) to an output protected by an author-  
12 ized digital output method in accordance with  
13 any requirements established under section  
14 202(1); or

15 (B) for the purpose of making a recording  
16 (in accordance with paragraph (1) or (2) of  
17 subsection (c), if such such content is protected,  
18 including during transmission, by the cor-  
19 responding authorized recording method.

20 (d) PASSING VIA OTHER THAN AN OUTPUT (ADD-  
21 IN DEVICES).—An analog video input device that passes  
22 copy prohibited content, copy one generation content, or  
23 copy unlimited no redistribution content from that analog  
24 video input device to another product, other than through  
25 an output in accordance with subsection (d), shall so pass

1 such content protected in accordance with the minimum  
2 robustness requirements established under section 202.

3 **SEC. 202. IMPLEMENTING REGULATIONS.**

4 Not later than 120 days after the date of the enact-  
5 ment of this Act, the Director of the Patent and Trade-  
6 mark Office, in consultation with the Register of Copy-  
7 rights, shall adopt regulations to establish—

8 (1) minimum robustness requirements to ensure  
9 the content security preservation requirements set  
10 forth in section 201 are implemented in a reasonable  
11 manner so that such requirements cannot be de-  
12 feated or circumvented by the use of generally avail-  
13 able tools or equipment, and can only with difficulty  
14 be defeated or circumvented by use of professional  
15 tools or equipment;

16 (2) a list of certified analog video signals that  
17 typically carry copyrighted video content and are a  
18 covered format under this Act;

19 (3) a list of certified digital content rights pro-  
20 tection output and home networking connection  
21 technologies that effectively implement the analog  
22 hole rights signaling system detection and content  
23 protection responses set forth in Table W;

24 (4) a list of certified digital content rights pro-  
25 tection recording technologies that effectively imple-

1 ment the analog hole rights signaling system detec-  
2 tion and content protection responses set forth in  
3 Table W;

4 (5) criteria and procedural rules to govern addi-  
5 tions to and removal from the lists established under  
6 paragraphs (2), (3), and (4); and

7 (6) arbitration rules necessary for purposes of  
8 resolving disputes arising under paragraph (3) and  
9 disputes concerning comparable undefined business  
10 models under section 103.

11 **SEC. 203. DEFINITIONS.**

12 (a) IN GENERAL.—In this title:

13 (1) ANALOG VIDEO SIGNAL.—The term “analog  
14 video signal” means a signal conforming to one of  
15 the certified analog signal formats on the list estab-  
16 lished under section 202(2).

17 (2) AUTHORIZED DIGITAL OUTPUT METHOD.—  
18 The term “authorized digital output method” means  
19 an output method on the list certified by the Direc-  
20 tor of the Patent and Trademark Office under sec-  
21 tion 202(3), as such list may be amended from time  
22 to time in accordance with the procedures estab-  
23 lished under section 202(5).

24 (3) AUTHORIZED RECORDING METHOD.—The  
25 term “authorized recording method” means a re-

1        cording method on the list certified by the Director  
2        of the Patent and Trademark Office under section  
3        202(4), as such list may be amended from time to  
4        time in accordance with the procedures established  
5        under section 202(5).

6            (4) BOUND RECODING METHOD.—The term  
7        “bound recording method” means a method for re-  
8        cording content that effectively and uniquely associ-  
9        ates such recording with a single analog video input  
10       device (using a cryptographic protocol or other effec-  
11       tive means) so that such recording cannot be  
12       accessed in usable form by another product (except  
13       where the content of such recording is passed to an-  
14       other product by an authorized digital output meth-  
15       od).

16           (5) COMPUTER PRODUCT.—The term “com-  
17        puter product” means a device that is designed for  
18        or permits the end user to install a wide variety of  
19        commercially available software applications thereon,  
20        such as a personal computer, handheld “personal  
21        digital assistant”, and similar products, and further  
22        includes a subsystem of such a product, such as a  
23        graphics card.

24           (6) CONSTRAINED IMAGE.—The term “con-  
25        strained image” means an image that—

1 (A) has the visual equivalent of no more  
2 than—

3 (i) 350,000 pixels per frame (e.g. an  
4 image with resolution of 720 x 480 pixels  
5 for a 4:3 (non-square pixel) aspect ratio);  
6 and

7 (ii) 30 frames per second;

8 (B) may be attained by reducing resolu-  
9 tion, such as by discarding, dithering, or aver-  
10 aging pixels to obtain the specified value; and

11 (C) can be displayed using video processing  
12 techniques such as line doubling or sharpening  
13 to improve the perceived quality of the image.

14 (7) COPY UNLIMITED NO REDISTRIBUTION CON-  
15 TENT.—The term “copy unlimited no redistribution  
16 content” means, with respect to an analog video  
17 input device—

18 (A) the content of an analog video signal  
19 received by that device through transmission  
20 from a source external to that device, or by  
21 reading of the signal from a prerecorded me-  
22 dium, with a rights signaling system encoding  
23 indicating “copy control restrictions not as-  
24 serted but redistribution of the work is intended  
25 to be limited”, as defined in Table W; or

1 (B) the result of combining content with  
2 any content other than copy one generation  
3 content or copy prohibited content.

4 (8) COPY ONE GENERATION CONTENT.—The  
5 term “copy one generation content” means, with re-  
6 spect to an analog video input device—

7 (A) the content of an analog video signal  
8 received by that device through transmission  
9 from a source external to that device, or by  
10 reading of that signal from a prerecorded me-  
11 dium, with a rights signaling system encoding  
12 indicating “one generation of copies may be  
13 made”, as defined in Table W; or

14 (B) the result of combining content de-  
15 scribed in subparagraph (A) with any content  
16 other than copy prohibited content.

17 (9) COPY PROHIBITED CONTENT.—The term  
18 “copy prohibited content” means, with respect to an  
19 analog video input device—

20 (A) the content of an analog video signal  
21 received by such device through transmission  
22 from a source external to that device, or by  
23 reading of such signal from a prerecorded me-  
24 dium with a rights signaling system encoding

1           indicating “no copying is permitted”, as defined  
 2           in Table W;

3           (B) content received by that device as copy  
 4           one generation content that has been recorded  
 5           using a bound recording method in accordance  
 6           with section 201(b)(2)(B); or

7           (C) the result of combining content de-  
 8           scribed in subparagraph (A) or (B) with any  
 9           other content.

10          (10) TABLE W.—The term “Table W” means  
 11          the following table:

**TABLE W—Analog Hole Rights Signaling System Detection & Content Protection Response**

	<b>(Step 1) CGMS-A State De- tected</b>	<b>(Step 2) RCI State De- tected (re- distribution control bit to be de- tected with CGMS-A)</b>	<b>(Step 3) VEIL De- tected</b>	<b>Rights Assertion Description</b>	<b>Technical Content Protection Response</b>
1 .....	Not Present	Not Present	No	No copy or redis- tribution control is being asserted	No Technical Protection Applied
2 .....	Not Present	Not Present	Yes	<b>INCON- SISTENT STATE*</b> — Rights are being asserted so the CGMS-A and RCI must have been stripped.	VIEW ONLY— Protect as Copy Pro- hibited Content
3 .....	(0,0) Copy Control Not As- serted	Not Present	No	No Copy or redis- tribution control is being asserted	No Technical Protection Applied
4 .....	(0,0) Copy Control Not As- serted	Not Present	Yes	<b>INCON- SISTENT STATE*</b> — Rights are being asserted so the CGMS-A was probably tam- pered and/or the RCI was prob- ably stripped.	VIEW ONLY— Protect as Copy Pro- hibited Content

**TABLE W—Analog Hole Rights Signaling System Detection & Content Protection Response—Continued**

	<b>(Step 1) CGMS-A State De- tected</b>	<b>(Step 2) RCI State De- tected (re- distribution control bit to be de- tected with CGMS-A)</b>	<b>(Step 3) VEIL De- tected</b>	<b>Rights Assertion Description</b>	<b>Technical Content Protection Response</b>
5 ....	Not Present	(0) Redis- tribution Control Not As- serted	No	It appears that no copy or redis- tribution control is being asserted	No Technical Protection Applied
6 ....	Not Present	(0) Redis- tribution Control Not As- serted	Yes	<b>INCON- SISTENT STATE*</b> — Rights are being asserted so the CGMS-A and/or RCI were prob- ably stripped or tampered.	VIEW ONLY— Protect as Copy Pro- hibited Content
7 ....	(0,0) Copy Control Not As- serted	(0) Redis- tribution Control Not As- serted	Yes	<b>INCON- SISTENT STATE*</b> — Rights are being asserted so the CGMS-A and/or RCI were prob- ably tampered.	VIEW ONLY— Protect as Copy Pro- hibited Content
8 ....	(0,0) Copy Control Not As- serted	(1) Redis- tribution Control Asserted	Detection Unnec- essary	No numeric copy control is being asserted but re- distribution con- trol is being as- serted	Protect as Copy Un- limited No Redistribu- tion Con- tent
9 ....	Not Present	(1) Redis- tribution Control Asserted	Detection Unnec- essary	It appears that no numeric copy control is being asserted but re- distribution con- trol is being as- serted	Protect as Copy Un- limited No Redistribu- tion Con- tent
10 ...	(1,0) Copy One Gen- eration	Detection Unneces- sary	Detection Unneces- sary	Numeric copy con- trol is being as- serted and redis- tribution control is implied by CGMS-A state	Protect as Copy One Generation Content
11 ...	(0,1) Copy No More	Detection Unneces- sary	Detection Unneces- sary	Numeric copy con- trol is being as- serted and redis- tribution control is implied by CGMS-A state	VIEW ONLY— Protect as Copy Pro- hibited Content
12 ...	(1,1) Copy Never	Detection Unneces- sary	Detection Unneces- sary	Numeric copy con- trol is being as- serted and redis- tribution control is implied by CGMS-A state	VIEW ONLY— Protect as Copy Pro- hibited Content

1 (b) OTHER DEFINITIONS.—The definitions in section  
2 108 apply to this title.

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