

109TH CONGRESS
1ST SESSION

H. R. 4569

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

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

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

	(Step 1) CGMS-A State De- tected	(Step 2) RCI State De- tected (re- distribution control bit to be de- tected with CGMS-A)	(Step 3) VEIL De- tected	Rights Assertion Description	Technical Content Protection Response
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	INCON- SISTENT STATE* — 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	INCON- SISTENT STATE* — 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

	(Step 1) CGMS-A State De- tected	(Step 2) RCI State De- tected (re- distribution control bit to be de- tected with CGMS-A)	(Step 3) VEIL De- tected	Rights Assertion Description	Technical Content Protection Response
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	INCON- SISTENT STATE* — 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	INCON- SISTENT STATE* — 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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