



“HD TV” LOGO LICENSE AGREEMENT

This “HD TV” LOGO LICENSE AGREEMENT is entered into between DIGITALEUROPE (“Licensor”), a trade association having its office at 20 Rue Joseph II, 1000 Brussels, Belgium, and

_____ (“Licensee”)
a corporation having its office at

_____ and
is effective as of the Effective Date.

WHEREAS, Licensor has developed the “HD TV” Minimum Requirements and “HD TV” Logo;

WHEREAS, Licensor is the owner of the “HD TV” Logo and the owner of the “HD TV” Benelux trade mark;

WHEREAS, Licensee desires to use the “HD TV” Logo;

WHEREAS, Licensee has received the “HD TV” Minimum Requirements and the “HD TV” Logo Usage Guidelines;

WHEREAS, Licensor and Licensee wish to enter into this Agreement, which sets forth the terms and conditions under which Licensor grants to Licensee certain rights with respect to the “HD TV” Logo.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth herein, the parties agree as follows:

1. Definitions

For purposes hereof, the following terms shall have the respective meanings provided.

1.1 “Agreement” shall mean this “HD TV” Logo License Agreement, including all Annexes attached hereto, and any and all amendments to this “HD TV” Logo License Agreement and/or such Annexes.

1.2 ““HD TV” Minimum Requirements” shall mean the requirements mentioned in Annex A including any revisions as may be made thereto from time to time by Licensor.

1.3 ““HD TV” Testing and Verification Procedure” shall mean the procedure for testing and verification by Licensee of its products for compliance with the “HD TV” Minimum Requirements according to the guidelines and record formats as specified in Annex B.

1.4 ““HD TV” Logo Usage Guidelines” shall mean the “HD TV” Logo Usage Guidelines mentioned in Annex E including any revisions as may be made thereto from time to time, and communicated with reasonable written notice to Licensee, by Licensor.

1.5 ““HD TV” Television Receiver” shall mean a product that complies with the “HD TV” Minimum Requirements.

1.6 “Effective Date” shall mean the date on which this Agreement has been signed by both Licensee and Licensor and payment of the initial logo administration fee has been received by Licensor.

1.7 “Logo Owner” shall mean the Licensor or any successor owner of the trademark rights, copyrights and/or other rights in and to the “HD TV” Logo pursuant to an assignment and/or transfer of such rights by the Licensor.

1.8 ““HD TV” Logo” shall mean the “HD TV” Logo as set forth in ANNEX D. “Logo” shall mean any of the “HD TV” Logo versions.

1.9 “Brand” shall mean each name under which Licensee is putting a line of products into the market and for which Licensee desires to enter into this Agreement.

1.10 “Sign” shall mean any trademark, service mark, trade name, logo or other indicia of ownership.

1.11 “Affiliate” shall mean any entity which controls, is controlled by or is under common control with a party hereof, and "control" shall mean the ability, directly or indirectly, to direct the affairs of another by means of ownership of more than 50% of the shares or other similar interest entitled to vote for election of the Board of Directors or similar managing authority.

2. “HD TV” Logo License

2.1 Subject to the terms and conditions and with the limitations and exceptions set forth in this Agreement, Licensor, as of the Effective Date, grants to Licensee a non-exclusive, non-transferable right, on a worldwide basis, without the right to sublicense, during the term hereof, to use the “HD TV” Logo for the Brands as specified in ANNEX F solely (i) on “HD TV” Television Receivers, (ii) on packing materials that accompany “HD TV” Television Receivers, (iii) in advertising and other sales and marketing literature relating to “HD TV” Television Receivers, including catalogues or brochures, and user manuals for “HD TV” Television Receivers, or (iv) in electronic images (such as websites) associated with “HD TV” Television Receivers.

2.2 The “HD TV” Logo shall be used only in the form and manner specified in the “HD TV” Logo Usage Guidelines. Licensee is strictly prohibited from using the “HD TV” Logo in any form other than that which is specifically set forth in the “HD TV” Logo Usage Guidelines.

2.3 Licensee shall make best efforts to ensure that its distributors' and retailers' usage of the “HD TV” Logo in advertising, promotional materials, catalogues or brochures offering Licensee's “HD TV” Television Receivers for sale shall comply with the “HD TV” Logo Usage Guidelines and this Article.

2.4 Notwithstanding anything in this Agreement to the contrary, if Licensee develops, manufactures, sells, uses or otherwise disposes of non-compliant products the license of the “HD TV” Logo granted in this Agreement shall not apply with respect to such non-compliant products.

2.5 Licensee shall not register any Sign which resembles or is confusingly similar to the “HD TV” Logo, or which may dilute the “HD TV” Logo nor use any such Sign which could reasonably be deemed to be confusingly similar, deceptive or misleading with respect to the “HD TV” Logo, or which could reasonably be deemed apt to dilute the “HD TV” Logo. If Licensee uses any Sign which, in Licensor's reasonable opinion, is confusingly similar, deceptive or misleading with respect to the “HD TV” Logo, or which may dilute the “HD TV” Logo, Licensee shall, as soon as reasonably practical but in any event within thirty (30) days upon receiving a written request from Licensor, permanently cease such use.

2.6 Licensor shall bear the expense of obtaining and maintaining any trademark or other intellectual property registrations or rights applicable to the “HD TV” Logo.

3. Self-certification

3.1 Licensee agrees that all of its products bearing or marketed using the “HD TV” Logo shall conform to the applicable “HD TV” Minimum Requirements and that all uses of the “HD TV” Logo shall fully comply with the “HD TV” Logo Usage Guidelines.

3.2 Licensee agrees that it will not sell, market, promote or distribute a product bearing the “HD TV” Logo that is not in full compliance with the applicable “HD TV” Minimum Requirements.

3.3 Licensee agrees that it shall, prior to placing a product on the market, test the product at its own quality assurance facility according to the “HD TV” Testing and Verification Procedure. If, in Licensee's reasonable judgment, the result of the testing and verification is that such product fails to comply, or is likely to fail, with the applicable “HD TV” Minimum Requirements, Licensee shall not sell, market, promote or distribute such non-compliant product with the “HD TV” Logo.

Licensee shall keep records of the tests conducted in the format as defined in the “HD TV” Testing and Verification Procedure. Upon request in writing and on a thirty (30) day notice of Licensor, Licensee shall provide these test records to Licensor.

3.4 Licensee shall submit to Licensor twice a year on July 31 and January 31 at the latest a declaration listing the products that comply with the “HD TV” Minimum Requirements and that were placed on the market in the preceding six (6) months period starting January 1 and July 1 respectively. The declaration shall be according to the format defined in ANNEX C.

3.5 If at any time during the term hereof, Licensor determines, in its sole reasonable judgment, that Licensee may be selling, marketing, promoting or distributing a product with the “HD TV” Logo that is not in full compliance with the applicable “HD TV” Minimum Requirements, then at the request of Licensor, Licensee shall forthwith stop marketing, promoting or distributing the non-compliant product with the “HD TV” Logo and withdraw the “HD TV” Logo from the non-compliant products.

3.6 If Licensee does not comply with the request of the Licensor, Licensor shall have the right to terminate the rights relating to the “HD TV” Logo granted to Licensee under this Agreement with respect to the product upon thirty (30) days’ prior written notice to Licensee if the breach shall not have been remedied within this thirty (30) day period as set forth in Article 9.2 below.

3.7 The right of termination set forth in Article 3.6 above shall not be exclusive of any other remedies or means of redress to which the Licensor may be lawfully entitled, and all such remedies shall be cumulative. Upon termination of the Licensee’s rights pursuant to Article 3.6, all rights of Licensee granted hereunder relating to the “HD TV” Logo with respect to the product that failed to meet the “HD TV” Minimum Requirements shall cease and the termination procedures set forth in Article 9.2 below shall apply to such termination but without otherwise affecting this Agreement in relation to compliant products.

4. Revisions

4.1 For revisions, supplements or updates to the “HD TV” Minimum Requirements and / or the “HD TV” Testing and Verification Procedure that do not imply material modifications to product designs or manufacturing processes, Licensee shall comply within ninety (90) days after written notice from Licensor for all products placed on the market after the notice period. For all other Revisions Licensee shall comply within eighteen (18) months.

5. Logo license and administration fees

5.1 In consideration of the licenses granted hereunder, subject to the terms and conditions and with the limitations set forth herein, Licensee agrees to pay

to Licensor a logo lump sum license fee of EUR ten thousand (10000) and an annual logo administration fee of EUR two thousand (2000). The logo administration fee covers up to three (3) Brands as listed in Annex F.

Whenever a Licensee would like to obtain a license for more than three (3) Brands, Licensee shall enter into one or more additional Agreements.

The above amounts are net and will be paid in full notwithstanding any withholding or other taxes due by Licensee.

This Agreement shall not become effective until Licensor has received the applicable logo lump sum license fee from Licensee.

5.2 The logo lump sum license fee as well as the annual logo administration fee(s) are payable by the due date indicated on the Licensor's corresponding invoice(s). In the event of any delay in payment, interest shall be payable on the overdue amount at a rate equal to the sum of the interest rate applied by the European Central Bank to its most recent main refinancing operation carried out before the first calendar day of the half-year in question plus eight (8) percent, and shall be computed daily. In addition to interest, Licensor shall be entitled to compensation for the losses incurred through Licensee's late payment, including the costs of recovery and legal fees, in an amount equal to fifteen (15) percent of the amount due (with a minimum charge of EUR five hundred (500)).

5.3 Upon providing ninety (90) days written notice to the Licensee, and not more than twice yearly, the Licensor may increase the annual logo administration fee. Any such increase shall not exceed ten (10) percent of the at that time applicable logo administration fee.

6. Information

6.1 Licensee shall comply with Licensor's reasonable requests, including financial support, for cooperation in connection with Licensor's efforts regarding the enforcement or protection of Licensor's rights and interests in the "HD TV" Logo.

6.2 Licensee authorises Licensor to make the Brand(s) listed in Annex F public.

7. Ownership of the "HD TV" Logo

7.1 Licensee acknowledges that this Agreement does not transfer or convey to Licensee ownership of, or any rights in, any of the "HD TV" Logo, except as expressly set forth herein. Use of the "HD TV" Logo (if Licensee has been granted the license to use the "HD TV" Logo) by Licensee shall inure solely to the benefit of the Licensor, as owner of all rights in and to the "HD TV" Logo. Upon termination of this Agreement, no monetary amounts shall be assigned as

attributable to any goodwill associated with such Licensee's use of the "HD TV" Logo.

7.2 Licensor hereby reserves all rights not herein expressly granted by this Agreement. Such reserved rights are the sole and exclusive property of the Licensor.

8. Warranty and Disclaimer

8.1 LICENSOR MAKES NO REPRESENTATION OR WARRANTY AS TO THE VALUE OR UTILITY OF "HD TV" LOGO AND THE INFORMATION TO BE SUPPLIED TO LICENSEE PURSUANT TO THIS AGREEMENT, SUCH AS BUT NOT LIMITED TO THE "HD TV" MINIMUM REQUIREMENTS, THE "HD TV" LOGO USAGE GUIDELINES, IF ANY, OR THE ABILITY OF LICENSEE OR ITS AFFILIATES TO MAKE USE THEREOF TO SECURE INTERCHANGEABILITY WITH OTHER "HD TV" TELEVISION RECEIVERS. LICENSOR, MAKES NO WARRANTY WHATSOEVER THAT THE USE OF INFORMATION SUPPLIED BY LICENSOR DOES NOT INFRINGE OR WILL NOT CAUSE INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHT OWNED OR CONTROLLED BY ANY PERSON. LICENSEE UNDERSTANDS AND AGREES THAT THE LICENSOR MAKES NO WARRANTY WHATSOEVER THAT ANY MANUFACTURE, USE, SALE, LEASE OR OTHER DISPOSAL OF "HD TV" TELEVISION RECEIVERS WILL BE FREE FROM INFRINGEMENT OF ANY THIRD-PARTY INTELLECTUAL PROPERTY RIGHTS. LICENSOR MAKES NO REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, STATUTORY OR OTHERWISE, AND EXPRESSLY DISCLAIM IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ANY EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION THAT MIGHT ARISE FROM ANY ACTIVITIES OR INFORMATION DISCLOSURES RELATING TO THIS AGREEMENT.

8.2 Nothing in this Agreement shall be construed as imposing on Licensor an obligation to take any action to protect its intellectual property rights or other interests in the "HD TV" Logo, however, Licensor shall actively promote the legal use of the "HD TV" Logo and actively pursue third parties that use the "HD TV" Logo without being licensed.

8.3 Licensee acknowledges and agrees that Licensor shall not be liable for the actions of any government official, agency or other authority with respect to the enforcement of any law or regulation applied or relating to "HD TV" Television Receivers.

8.4 Neither party shall be liable to the other in respect of any event of default for loss of profits, goodwill, business opportunity, data or revenue or any type of special, indirect or consequential loss (including loss or damage suffered as a result of an action brought by a third party) even if such loss was reasonably

foreseeable or the relevant party had been advised of the possibility of the other party incurring the same.

9. Term and Termination

9.1 This Agreement shall become effective as of the Effective Date and shall continue in force for an indefinite term, unless terminated earlier in accordance with this Agreement.

9.2 Either party may terminate this Agreement at any time on thirty (30) days' written notice to the other party in the event that the latter shall materially breach or fail to perform any material obligation under this Agreement and such default is not remedied within thirty (30) days after notice is given specifying the nature of the default. Such right of termination shall not be exclusive of any other remedies or means of redress to which the non-defaulting party may be lawfully entitled, and all such remedies shall be cumulative. Licensee may terminate this agreement at any time on sixty (60) days' prior written notice to Licensor, without the right to reclaim or withhold payment of the fees resulting from this Agreement invoiced by Licensor until the end of the notice period.

9.3 Licensee hereby agrees that the use of the "HD TV" Logo in any way not in compliance with the "HD TV" Minimum Requirements and the "HD TV" Logo Usage Guidelines, and the non-timely payment of the annual logo administration fee shall constitute a material breach of this Agreement.

9.4 Licensee acknowledges that Licensee's breach of any of the terms of this Agreement shall cause irreparable damage to Licensor and the "HD TV" Logo. Therefore, without prejudice to the right to claim damages and the other statutory rights arising from a Licensee's breach of any of the terms of this Agreement, Licensor shall be entitled to collect from Licensee immediately due and payable damages in an amount of EUR two thousand five hundred (2500) per day that the default continues.

10. Notices

10.1 Wherever provision is made in this Agreement for the giving of any notice or communication, such notice or communication shall be in writing and shall be deemed to have been duly given if mailed by airmail, postage prepaid, addressed to the party entitled to receive the same or delivered to such party, or sent by facsimile transmission, by e-mail, or sent by courier, in each case to the attention of the individual acting on behalf of such party specified below (the "Contact Person"):

if to Licensor, to:

Attention Tony Graziano, Director Technical & Regulatory Affairs
DIGITALEUROPE
20 Rue Joseph II

1000 Brussels
Belgium
Tel: +32 2 609 53 14
Fax: +32 2 609 53 39
tony.graziano@digitaleurope.org

and if to the Licensee, to:

Attention: _____

Tel No.: + _____

Fax No.: + _____

E-mail: _____

VAT No.: _____

Notice shall be deemed to have been given on the day that it is so delivered personally or sent by facsimile transmission and confirmation of successful transmission is received or, if sent by courier, shall be deemed to have been given two business days after delivery by the courier company, or if mailed, ten business days following the date on which such notice was so mailed.

11. Miscellaneous

11.1 Licensee agrees that it is not authorized to bring any actions for unauthorized use or infringement of the “HD TV” Logo. Licensee will notify Licensor immediately should it learn of any such unauthorized use or infringement by any entity. Licensor shall have the option, at its own expense, to assume the defence of any suit or action brought against Licensee that challenges or concerns the validity of any right granted by Licensor hereunder. Licensor shall be entitled to all proceeds resulting from any such suit or action.

11.2 Licensor represents and warrants that it has the right to enter into this Agreement and to grant a license to Licensee pursuant to the terms.

11.3 This Agreement and the rights granted hereunder shall be personal to Licensee and shall not be assigned, transferred, sold, pledged, divided or made subject to any lien, charge, security interest or encumbrance of any kind or manner. Licensee shall not have the right to sublicense any rights granted hereunder.

11.4 Licensors shall have the right to assign this Agreement, at any time during the term thereof, to any other entity that succeeds Licensor in its function as the licensor of the “HD TV” Logo, upon prior written notice to Licensee.

11.5 This Agreement shall be governed and construed, and any matters relating to this Agreement shall be decided, according to the laws of Belgium.

11.6 Licensee agrees and acknowledges that all disputes between the parties hereto arising out of or in connection with the interpretation or execution of this Agreement shall be finally settled by the courts of Brussels; and each party to this Agreement hereby irrevocably consents to the exclusive jurisdiction of such courts.

11.7 Licensee agrees to all of the terms and conditions of this Agreement on its own behalf and on behalf of its Affiliates. This Agreement shall inure to the benefit of the parties hereto and to each of Licensee’s Affiliates, provided that (i) each such Affiliate shall comply with the terms of this Agreement as those terms apply to the Licensee, (ii) nothing herein shall relieve Licensee of any of its obligations under the terms of this Agreement, (iii) Licensee agrees to cause its Affiliates to comply with the terms and conditions of this Agreement in the same manner and to the same extent as they apply to Licensee (except that only the Licensee shall be liable for payment of the logo administration fee to Licensor); and (iv) Licensee shall be responsible for the acts or omissions of its Affiliates as if such acts or omissions had been the acts or omissions of Licensee. Without limiting the generality of the foregoing, any breach of this Agreement by an Affiliate shall be deemed by Licensor as a breach by Licensee.

11.8 This Agreement sets forth the entire agreement and understanding between the parties as to the subject matter hereof and merges all prior discussions between them and neither of the parties shall be bound by any conditions, definitions, warranties, waivers, releases or representations (either expressed or implied) with respect to the subject matter of this Agreement, other than expressly set forth herein (including the Annexes hereto), or as duly set forth on or subsequent to the date hereof in writing signed by a duly authorized representative of the party to be bound thereby.

11.9 This Agreement shall not be varied, modified, amended or nullified by any means except in writing signed by a duly authorized representative of each party.

11.10 This Agreement may be executed in counterparts (including facsimile transmission) each of which shall be deemed an original but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed this Agreement by their duly authorized representatives as of the Effective Date.

DIGITALEUROPE

< Company name of LICENSEE >

NN

NN

Date

Date

Attachments: ANNEX A: “HD TV” Minimum Requirements
ANNEX B: “HD TV” Testing and Verification Procedure
ANNEX C: “HD TV” Compliance Declaration
ANNEX D: “HD TV” Logo
ANNEX E: “HD TV” Logo Usage Guidelines
ANNEX F: Brands covered by this Agreement

ANNEX A “HD TV” Minimum Requirements

DIGITALEUROPE “HD TV” Minimum Requirements for HD Television Receivers

1. Scope

The application scope of the “HD TV” Minimum Requirements for HD Television Receivers are devices with integrated digital HD reception capability for DVB compliant Satellite, Cable or Terrestrial digital TV signals, for example set-top boxes, integrated digital TVs and recorders.

HD set-top boxes and HD recorders share the need for an HD output compatible with “HD ready” display devices. Integrated HD TVs do not, but shall be compliant with the DIGITALEUROPE “HD ready” minimum requirements for display devices [1]. Compliance with the “HD TV” Minimum Requirements for HD Television Receivers consequently signifies different interface requirements depending on the nature of the equipment.

The term “HD television receiver” is used to indicate the category of devices as above.

2. Logo

Positive



Negative



3. Requirements for the logo “HD TV”

A television receiver has to cover the following requirements to be awarded the logo “HD TV”:

The numbers between square brackets refer to the references listed at the end of this Annex A.

3.1 Reception Function Requirements for HD television receivers

The HD television receiver supports the following modulation and channel coding schemes:

1. a) For a satellite HD television receiver:
 - DVB-S according to [2], and
 - DVB-S2 Non-Backwards Compatible (NBC) Broadcast Mode according to [3]
An upper symbol rate of at least 30 megasymbols per second shall be supported.

- b) For a cable HD television receiver:
 - DVB-C including 256 QAM according to [4],
- c) For a terrestrial HD television receiver:
 - DVB-T as per E-Book [13]¹

The HD television receiver complies with the following system layer specification:

- 2. - MPEG-2 Systems, and
- MPEG-2 Systems Amendment 3 Transport of AVC Video Data over ITU-T Rec H.222 / ISO/IEC 13818-1 according to [5], [9]

The HD television receiver control system for service discovery and installation, channel and component selection and basic OSD and EPG (related to mandatory DVB SI functions as per [12] for service names as carried in the SDT and event information as carried in EIT present/following) complies with:

- 3. a) DVB-SI in accordance with [6] and [12],
- b) for terrestrial systems also in accordance with [13].

The HD television receiver Video decoder supports the following compressed video formats, up to the resolution of 1280 x 720 progressive and 1920 x 1080 interlaced:

- 4. MPEG-4 AVC HP@L4 for 50Hz according to [9] (implying [8]), and
- 5. a) For satellite and cable receivers:
 - MPEG-2 MP@HL (HD) for 50Hz according to [9] (implying [7])
- b) For terrestrial receivers:
 - MPEG-2 MP@ML (SD) for 50Hz according to [9] (implying [7])

The HD television receiver audio decoder supports the following audio formats:

- 6. One of the multichannel audio decoders below in accordance with the following rules:
 - a) Satellite and Cable HD receivers support at least one of:
 - AC-3 according to [9] (implying [11]),
 - Enhanced AC-3 according to [9] (implying [11]),
 - HE-AAC according to [9] (implying [19]).
 - b) Terrestrial HD receivers support at least one of ²:
 - Enhanced AC-3 according to [9] (implying [11]),
 - HE-AAC according to [9] (implying [19])
- 7. MPEG-1 Layer II (2.0) according to [9] (implying [10])

3.2 Output Interface requirements for HD television receivers *without display for video reproduction*

HD television receivers without a display for video reproduction have an HD video output that provides a reproduction of the HD source (television broadcast) that will allow it to interface to an “HD ready” display device; i.e.:

¹ It is not required to support hierarchical modulation as per [13].

² Multi-mode terrestrial/cable and/or terrestrial/satellite receivers are permitted to comply with the applicable HD requirements for satellite and/or cable audio decoding, provided the receiver is clearly marketed as HD capable for satellite and/or cable only.

8. Provides:
 - analogue YPbPr according to [17], or
 - DVI according to [14], or
 - HDMI according to [15]
9. If the HD television receiver is intended to be used with HD sources (television broadcasts) some of which require content protection to permit HD quality output, then the HD television receiver should implement an HDMI or DVI interface with support for HDCP (according to [16]).
10. Can reproduce any HD source (television broadcast) on its HD outputs in at least one of the following HD formats and timings with a 16:9 aspect ratio:
 - a. 1280x720 @ 50Hz progressive, or
 - b. 1920x1080 @ 50Hz interlaced
11. The HD television receiver provides a mode in which it delivers 1280x720p and 1920x1080i, 50Hz HD sources (television broadcasts) in their original format (unscaled) and timing on its HD output to an “HD ready” display device.

An HD television receiver may operate exclusively in this mode, or may have it selectable via a setup menu, allowing the user to disable scaling by the HD television receiver.

For HDMI and DVI, when available the HD television receiver should rely on the (E-)EDID information returned by the display device - indicating the video formats the display device can receive and render - to stay within the capabilities of and avoid interoperability issues with non-HD / non-“HD ready” display devices.

HD television receivers without a display for video reproduction have an audio output that provides a reproduction of the audio on:

12. a consumer electrical or optical digital audio interface according to [18], at least capable of carrying:
 - a. two channel PCM in case of MPEG1-layerII format reception,
 - b. the original AC-3 bitstream in case AC-3 is supported and being received,
 - c. an AC-3 according to [22] (implying [11]) or DTS according to [20] (implying [21]) transcoded bitstream in case Enhanced AC-3 and/or HE-AAC is supported and being received,whereby
 - i. a transcoded bitstream shall have the same channel layout as the originally received bitstream unless when exceeding the maximum number of channels supported by the transcoded bitstream format, in which case this maximum shall be used, and
 - ii. in case of HE-AAC reception it is permitted, at least until December 31, 2009³, to provide a two channel PCM down mix, and
 - iii. a consumer electrical or optical digital audio interface according to [18] may be omitted in case the HD television receiver provides a minimally 5 channel audio reproduction system capable of driving at least 5 speakers,
13. RCA stereo:
 - stereo out or mono-out on two channels for MPEG-1 layer-II,
 - two channel downmix in case of multi-channel AC-3, Enhanced AC-3 or HE-AAC reception,and
14. if HDMI output is available it is at least capable to carry the audio signal as:
 - two channel PCM, and
 - the original AC-3 bitstream in case AC-3 is supported and being received

³ Defined as per the first date the receiver was put on the market

- multi-channel PCM or an AC-3 according to [15] (implying 11) or DTS according to [15] (implying [21]) transcoded bitstream in case Enhanced AC-3 and/or HE-AAC is supported and being received, whereby:
 - i. a transcoded bitstream shall have the same channel layout as the originally received bitstream unless when exceeding the maximum number of channels supported by the transcoded bitstream format, in which case this maximum shall be used, and
 - ii. in case of HE-AAC reception it is permitted, at least until December 31, 2009⁴, to provide a two channel PCM down mix, and
 - iii. audio output on HDMI may be limited to two channel PCM in case the HD television receiver provides a minimally 5 channel audio reproduction system capable of driving at least 5 speakers.

3.3 Specific requirements for HD television receivers *with display* for video reproduction (Integrated High Definition digital TVs)

The following requirements are applicable to HD television receivers with a display for video reproduction:

15. HD television receivers with a display for video reproduction fully comply with the DIGITALEUROPE “HD ready” Minimum Requirements for display devices [1].
16. HD television receivers with a display for video reproduction provide for multi-channel audio out on a consumer electrical or optical digital audio interface (as per requirement 12 above).

3.4 Additional Requirements for HD television receivers *with recording capability* for “off-air” signals

Under the condition that there are no contractual or legal obligations constraining the recording of broadcasted content or playback of recorded content, and provided such is allowed by the content protection status of the received signal, HD television receivers with recording capability for “off-air” signals are able to:

17. - record in HD quality any HD source (television broadcast) they can receive and decode, and
 - subsequently playback the content in HD quality, and
 - maintain the aspect ratio of the original signal in the above process, and
 - can record accompanying sound (including multi-channel sound) and
 - can playback the recorded sound so that an output can be generated equivalent to the originally received signal.

References

- [1] DIGITALEUROPE (<http://www.digitaleurope.org>) - "HD ready" Minimum Requirements / DIGITALEUROPE Conditions for HD Labelling of Display Devices
- [2] ETSI EN 300 421 V1.1.2 (1997-08): “Digital Video Broadcasting (DVB); Framing structure, channel coding and modulation for 11/12 GHz satellite services”
- [3] ETSI EN 302 307 V1.1.1 (2005-03): “Digital Video Broadcasting (DVB); Second generation framing structure, channel coding and modulation systems for Broadcasting, Interactive Services, News Gathering and other broadband satellite applications”

⁴ Defined as per the first date the receiver was put on the market

- [4] ETSI EN 300 429 V1.2.1 (1998-04): "Digital Video Broadcasting (DVB); Framing structure, channel coding and modulation for cable systems"
- [5] ITU-T Recommendation H.222.0 / ISO/IEC 13818-1: "Information Technology - Generic Coding of moving pictures and associated audio information: Systems"- and ITU-T Recommendation H.222.0 / Amendment 3 (2004)/ISO/IEC 13818-1: 2000/Amendment 3:(2004): "Transport of AVC video data over ITU-T Recommendation H.222.0 /ISO/IEC 13818-1 streams".
- [6] ETSI EN 300 468 V1.6.1 (2004-11): "Digital Video Broadcasting (DVB); Specification for Service Information (SI) in DVB systems"
- [7] ITU T Rec. H.262 | ISO/IEC 13818-2 (2nd edition, 2000): "Information Technology - Generic Coding of moving pictures and associated audio: Video"
- [8] ITU T Rec. H.264 | ISO/IEC 14496 10 AVC: "Advanced Video Coding for Generic Audiovisual Services", May 2003 / ISO/IEC 14496-10:2004/AM 1, Part 10: Advanced Video Coding AMENDMENT 1: AVC fidelity range extensions
- [9] ETSI TS 101 154 V1.8.1 "Digital Video Broadcasting (DVB); Implementation guidelines for the use of Video and Audio Coding in Broadcasting Applications based on the MPEG-2 Transport Stream"
- [10] ISO/IEC 11172-3 (1993): "Information Technology - Coding of moving pictures and associated audio for digital storage media at up to about 1,5 Mbit/s - Part 3: Audio"
- [11] ETSI TS 102 366 V1.1.1 (2005-02): Digital Audio Compression (AC-3, Enhanced AC-3) Standard
- [12] ETSI ETR 211 ed.2 (1997-08): Guidelines on implementation and usage of Service Information (SI)
- [13] IEC 62216-1 Digital Terrestrial Receivers for the DVB-T system, 2001
- [14] DVI - DDWG, "DVI Visual Interface", rev. 1.0, April 2, 1999 as further qualified in EIA/CEA-861 rev.B, "A DTV Profile for Uncompressed High Speed Digital Interfaces" May 2002, furthermore allowing both DVI-D and DVI-I connectors, requiring compliance to the 50Hz profile, and requiring support for both 720p and 1080i video formats.
- [15] HDMI - HDMI Licensing, LLC, "High-Definition Multimedia Interface", rev. 1.0, December 9, 2002
- [16] HDCP - Intel, "High-Bandwidth Digital Content Protection System", rev. 1.2, June 13, 2006 or later as required by the HDCP license contract. (Note: on DVI HDCP rev. 1.0 or rev. 1.1 will apply)
- [17] YPbPr - CEA-770.3 rev. C, November 2001
- [18] Consumer electrical or optical digital audio interface - as defined per IEC 60958-1 Edition 2.0 (2004-03) "Digital audio interface - Part 1: General", IEC 60958-3 Edition 2.0 (2003-01) "Digital audio interface - Part 3: Consumer applications", and the applicable parts of IEC 61937 "Digital Audio - Interface for non-linear PCM encoded audio bitstreams applying IEC 60958"
- [19] ISO/IEC 14496-3: 2005 "Information technology -- Coding of audio-visual objects - Part 3: Audio, including amendment 1: "Bandwidth Extension" and ISO/IEC 14496-3:2005/AMD2:2006 "Parametric Coding for High Quality Audio"
- [20] IEC 61937-5 , "Digital audio – Interface for non-linear PCM encoded audio bitstreams applying IEC 60958 – Part 5: Non-linear PCM bitstreams according to the DTS (Digital Theater Systems) format(s)"
- [21] ETSI TS 102 114 V1.2.1 (2002-12): "DTS Coherent Acoustics; Core and Extensions"
- [22] IEC 61937-3 , "Digital audio – Interface for non-linear PCM encoded audio bitstreams applying IEC 60958 – Part 3: Non-linear PCM bitstreams according to the AC-3 and enhanced AC-3 formats"

ANNEX B

“HD TV” Testing and Verification Procedure

Purpose & Scope

This “HD TV” Testing and Verification Procedure defines the basic compliance testing and verification procedure details specifying how a Licensee shall self-certify a product for conformance to the “HD TV” Minimum Requirements as defined in the “HD TV” Logo License Agreement.

The “HD TV” Testing and Verification Procedure is limited to evaluation of the compliance of the product with the “HD TV” Minimum Requirements as defined in the “HD TV” Logo License Agreement and is not designed to test or confirm the overall performance of the product. Each Licensee remains solely responsible for ensuring that its products function correctly, fully comply with the claimed specifications, and interoperate with other products.

The Licensee shall be solely responsible for all testing, testing results, and the correct declaration thereof.

Terms & Definitions

A television receiver device can physically be either one unit, or a compound of 2 or more units that together form a functionally undividable entity.

Television receiver devices shall be tested using generators capable of generating a variety of industry standard test signals and test patterns. Expected display behaviour shall refer to these industry standard test signals and test patterns.

Aspect ratio refers to the picture aspect ratio, which is a fraction of total horizontal (H) picture size over total vertical (V) picture size.

All 720 and 1080 line video formats near 59.94 Hz / 60 Hz shall be listed as 60 Hz.

The primary purpose of the compliance declaration is to confirm that the receiver device is compliant to all applicable criteria of the “HD TV” Minimum Requirements as defined in the “HD TV” Logo License Agreement.

Technical References

The “HD TV” Minimum Requirements and this “HD TV” Compliance Declaration refer to the technical references as detailed hereafter or in a later backward compatible revisions. The references in Annex A of this agreement apply in this Annex.

Test Record Format

Device information

Brand:	
Model(s): (multiple entries only applicable for fully equivalent models)	
Description:	
Test record filing date:	

Description of the major functions of the device	Choices	Value
The device has a mode for satellite reception	Y/N	
This specifically implies applicability of and compliance with requirement 1a		
The device has a mode for cable reception	Y/N	
This specifically implies applicability of and compliance with requirement 1b		
The device has a mode for terrestrial reception	Y/N	
This implies applicability of and compliance with requirement 1c and 3b		
The device has no display for video reproduction	Y/N	
This implies applicability of and compliance with the requirements in section 3.2 of Annex A		
The device provides a minimally 5 channel audio reproduction system capable of driving at least 5 speakers	Y/N	
In case the television receiver has no display for video reproduction: the television receiver is intended to be used with HD sources (television broadcasts) some of which require content protection to permit HD quality output	Y/N	
If Yes, this implies compliance with requirement 8 If No, this implies compliance with requirement 8		8/9
The device has a display for video reproduction	Y/N	
This implies applicability of and compliance with the requirements in section 3.3 of Annex A		
The device has a recording capability for "off-air" signals	Y/N	
This implies applicability of and compliance with the requirements in section 3.4 of Annex A		
Licensee declares that the television receiver device is in compliance with the applicable Technical References as detailed above or in a later backward compatible revision, and has successfully passed the relevant tests as defined or referenced therein.	Y/N	

Description of multichannel audio decoder support	Choices	Value
For HD television receivers with a mode for satellite HD reception:		
The device supports AC-3 in accordance with requirement 6a	Y/N/na	
The device supports Enhanced AC-3 in accordance with requirement 6a	Y/N/na	
The device supports HE-AAC in accordance with requirement 6a	Y/N/na	
For HD television receivers with a mode for cable HD reception:		
The device supports AC-3 in accordance with requirement 6a	Y/N/na	
The device supports Enhanced AC-3 in accordance with requirement 6a	Y/N/na	
The device supports HE-AAC in accordance with requirement 6a	Y/N/na	
For HD television receivers with a mode for terrestrial HD reception:		
The device supports Enhanced AC-3 in accordance with requirement 6b	Y/N/na	
The device supports HE-AAC in accordance with requirement 6b	Y/N/na	

In addition Licensee declares that the television receiver device has been tested and found to be in compliance with all of the requirements listed below, as explicitly confirmed by entering “Y” in the value column for each individual applicable criterion. Non applicable requirements shall be indicated with “na”. If a section does not apply to the device it shall be left unmarked.

Section 1 – General compliance statements

Description	Choices	Value
Requirement 1a		
In case the television receiver supports satellite reception modality,		
supports DVB-S	Y/N/na	
supports DVB-S2 Non-Backwards Compatible (NBC) Broadcast Mode according to [3], and	Y/N/na	
supports an upper symbol rate of at least 30 megasymbols	Y/N/na	
Requirement 1b		
In case the television receiver supports cable reception modality,		
supports DVB-C including 256 QAM according to [4]	Y/N/na	
Requirement 1c		
In case the television receiver supports terrestrial reception modality,		
supports DVB-T as per E-Book [13]	Y/N/na	
Requirement 2		
Supports MPEG-2 Systems ISO/IEC 13818-1 as constrained by ETR 100 154	Y/N	
Supports MPEG-2 Systems Amendment 3 Transport of AVC Video Data over ITU-T Rec H.222 / ISO/IEC 13818-1 according to [5]	Y/N	
Requirement 3a		
Supports DVB-SI in accordance with [6] and [12]	Y/N	
Requirement 3b		
In case the television receiver supports terrestrial reception modality,		
supports DVB-SI in accordance with [13]	Y/N/na	
Requirement 4		
Supports MPEG-4 AVC HP@L4 for 50Hz according to [9] (implying [8])	Y/N	
Is tested in accordance with ITU H.264.1 “Conformance specification for H.264 advanced video coding” (including Corrigendum 1 and any subsequent released corrigenda),	Y/N	
Has been specifically tested to support all required video formats as defined for MPEG-4 AVC HP@L4 for 50Hz (see [9])	Y/N	
Requirement 5		
In case the television receiver supports cable or satellite reception modality,		
Supports MPEG-2 MP@HL (HD) for 50Hz according to [9] (implying [7])	Y/N/na	
Has been specifically tested to support all required video formats as defined for MPEG-2 MP@HL (HD) for 50Hz (see [9])	Y/N/na	
In case the television receiver supports terrestrial reception modality,		
Supports MPEG-2 MP@ML (SD) for 50Hz according to [9] (implying [7])	Y/N/na	
Requirement 6		
In case the television receiver supports cable or satellite reception modality		
Supports decoding of: AC-3 according to [11] or Enhanced AC-3 according to [11] or HE-AAC according to [19].	Y/N/na	
In case the television receiver supports HD terrestrial reception modality		
Supports decoding of: Enhanced AC-3 according to [11] or HE-AAC according to [19].	Y/N/na	
Requirement 7		
Supports MPEG-1 Layer II (2.0) according to [9] (implying [10])	Y/N	

Section 2 – compliance statements for television receivers without a display for video reproduction

Not applicable for television receivers with a display for video reproduction.

Description	Choice	Value
Requirement 8/9		
In case the device supports reception of signals some of which require content protection to permit HD quality output,		
supports DVI with HDCP according to [14] and [16] AND/OR supports HDMI with HDCP according to [15] and [16]	Y/N/na	
Indicate which output(s) support requirement 8/9	Text below	
	←	└─┘
Requirement 8		
In case the device does not support reception of any signal which requires content protection to permit HD quality output,		
supports DVI according to [14] (no HDCP required) AND/OR supports HDMI according to [15] (no HDCP required) AND/OR supports analogue YPbPr according to [17]	Y/N/na	
Indicate which output(s) support requirement 8	Text below	
	←	└─┘
In case the television receiver supports Conditional Access		
indicate why the user may not expect to receive signals requiring content protection permitting HD quality output	Text below	
	←	└─┘
Requirement 10		
Can reproduce any HD source (television broadcast) on its HD outputs in at least one of the following HD formats and timings with a 16:9 aspect ratio: a) 1280x720 @ 50Hz progressive b) 1920x1080 @ 50Hz interlaced	Y/N	
Requirement 11		
The television receiver provides a mode in which it delivers 1920x1080i 50Hz HD sources (television broadcasts) in their original format (unscaled) and timing on its HD output(s)	Y/N	
The television receiver provides a mode in which it delivers 1280x720p 50Hz HD sources (television broadcasts) in their original format (unscaled) and timing on its HD output(s)	Y/N	
Indicate how the user can direct the television receiver to produce the originally received format on its output(s).	Text below	
	←	└─┘

Requirement 12		
The television receiver without a display for video reproduction has a consumer electrical or optical digital audio interface according to [18], at least capable of carrying:		
- two channel PCM in case of MPEG1-layerII format reception	Y/N/na	
- the original AC-3 bitstream in case AC-3 is supported and being received	Y/N/na	
- an AC-3 according to [22] (implying [11]) or DTS according to [20] (implying [21]) transcoded bitstream in case Enhanced AC-3 is supported and being received,	Y/N/na	
- an AC-3 according to [22] (implying [11]) or DTS according to [20] (implying [21]) transcoded bitstream in case HE-AAC is supported and being received, OR a two channel PCM down mix	Y/N/na	
- whereby the transcoded bitstream shall have the same channel layout as the originally received bitstream unless when exceeding the maximum number of channels supported by the transcoded bitstream format, in which case this maximum shall be used	Y/N/na	
OR		
The television receiver provides a minimally 5 channel audio reproduction system capable of driving at least 5 speakers	Y/N/na	
Requirement 13		
The television receiver without a display for video reproduction has an audio output that provides a reproduction of the audio of HD sources (television broadcasts) on RCA stereo, carrying:		
stereo out or mono-out on two channels for MPEG-1 layer-II reception	Y/N	
two channel downmix in case of multi-channel AC-3, Enhanced AC-3 or HE-AAC reception	Y/N	
Requirement 14		
In case the television receiver without a display for video reproduction has an HDMI output this HDMI output provides a reproduction of the audio, carrying the audio signal as:		
two channel PCM,	Y/N/na	
AND		
- the original AC-3 bitstream in case AC-3 is supported and being received	Y/N/na	
- multi-channel PCM or an AC-3 according to [15] (implying 11) or DTS according to [15] (implying [21]) transcoded bitstream in case Enhanced AC-3 is supported and being received,	Y/N/na	
- multi-channel PCM or an AC-3 according to [15] (implying 11) or DTS according to [15] (implying [21]) transcoded bitstream in case HE-AAC is supported and being received, OR a two channel PCM down mix	Y/N/na	
- whereby a transcoded bitstream shall have the same channel layout as the originally received bitstream unless when exceeding the maximum number of channels supported by the transcoded bitstream format, in which case this maximum shall be used,	Y/N/na	
OR		
The television receiver provides a minimally 5 channel audio reproduction system capable of driving at least 5 speakers	Y/N/na	

Section 3 – compliance statements for television receivers with a display for video reproduction

Not applicable for receivers without a display for video reproduction.

Description	Choice	Value
Requirement 15		
The television receiver has a video display for video reproduction that fully complies with the DIGITALEUROPE “HD ready” Minimum Requirements for display devices [1]	Y/N	
Please complete “Annex B of the DIGITALEUROPE “HD ready” Logo License Agreement” for display devices for this television receiver and add it to this form. This document is available on the DIGITALEUROPE website www.digitaleurope.org .	Form	
Requirement 16		
The television receiver with a display for video reproduction a consumer electrical or optical digital audio interface according to [18], at least capable of carrying		
- two channel PCM in case of MPEG1-layerII format reception	Y/N/na	
- the original AC-3 bitstream in case AC-3 is supported and being received	Y/N/na	
- an AC-3 according to [22] (implying [11]) or DTS according to [20] (implying [21]) transcoded bitstream in case Enhanced AC-3 is supported and being received,	Y/N/na	
- an AC-3 according to [22] (implying [11]) or DTS according to [20] (implying [21]) transcoded bitstream in case HE-AAC is supported and being received, OR a two channel PCM down mix	Y/N/na	
- whereby the transcoded bitstream shall have the same channel layout as the originally received bitstream unless when exceeding the maximum number of channels supported by the transcoded bitstream format, in which case this maximum shall be used	Y/N/na	
OR		
The television receiver provides a minimally 5 channel audio reproduction system capable of driving at least 5 speakers	Y/N/na	

Section 4 –compliance statements for television receivers with an “off-air” recording capability

Only applicable for television receivers with an off-air recording capability.

Description	Choice	Value
Requirement 17		
Under the condition that there are no contractual or legal obligations constraining the recording of broadcasted content or playback of recorded content, and provided such is allowed by the content protection status of the received signal, the television receiver with recording capability for “off-air” signals is able to:		
record in HD quality any HD source (television broadcast) it can receive and decode	Y/N	
subsequently playback the content in HD quality	Y/N	
maintain the aspect ratio of the original signal in the above process	Y/N	
can record accompanying sound (including multi-channel sound)	Y/N	
can playback the recorded sound so that an output can be generated equivalent to the originally received signal	Y/N	
Indicate any contractual or legal obligation constraining the recording of or later playback of broadcasted content (other than specific signaling of the content protection status of the received signal e.g. through a Conditional Access system)	Text below	
	←	└─┘

ANNEX C “HD TV” Compliance Declaration

Licensee / submitter information

Name:	
Title:	
Company Name:	
Address 1:	
Address 2:	
Postal Code:	
City:	
Country:	
Telephone:	
Fax:	
Email:	

Period covered by this declaration

Period:	
---------	--

Licensee / submitter declares that the television receivers listed in this declaration have been tested according to the "HD TV" Testing and Verification Procedure and have been found to be in compliance with the "HD TV" Minimum Requirements.

Television Receiver information

Brand	Model	Description

ANNEX D
“HD TV” Logo

“HD TV” Logo - positive “black” version sample



“HD TV” Logo - negative “white” version sample



ANNEX E

“HD TV” Logo Usage Guidelines

These “HD TV” Logo Usage Guidelines describe the correct use of the “HD TV” Logo.

Because the “HD TV” Logo represents a recognized quality it is a valuable asset. Therefore it is important that the branding identity maintain the same quality. These guidelines should be carefully applied before incorporating the “HD TV” Logo into your product or related support materials.

Use of the “HD TV” Logo

The “HD TV” Logo may be used only by Licensees who have entered into the “HD TV” Logo License Agreement with DIGITALEUROPE (as well as their distributors and resellers pursuant to the “HD TV” Logo License Agreement). The “HD TV” Logo may only be used as set forth in these guidelines and in the Agreement. The “HD TV” Logo may only be used in connection with the promotion of the “HD TV” Television Receivers, and on products that are compliant with the “HD TV” Minimum Requirements as defined in the “HD TV” Logo License Agreement.

Licensees may not use any other trademark, service mark, trade name, logo or other indicia of ownership which could reasonably be deemed to be confusingly similar, deceptive or misleading with respect to the “HD TV” Logo, or which could reasonably be deemed apt to dilute the “HD TV” Logo.

Positioning

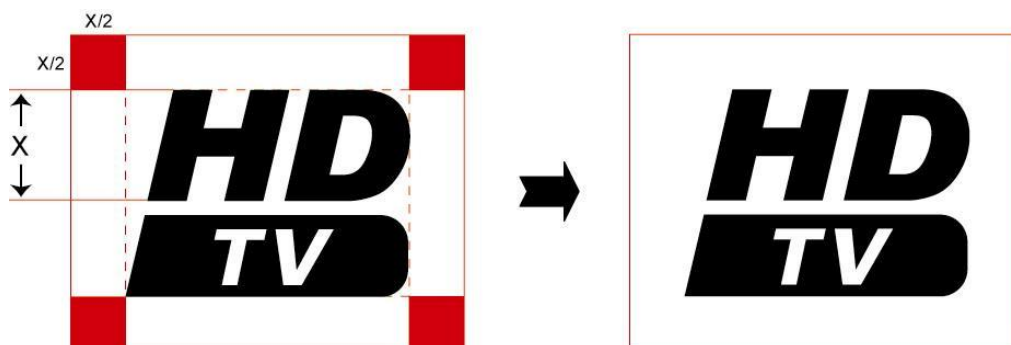
The “HD TV” Logo should be positioned in a horizontal format. Do not rotate the logo in a vertical, diagonal, or upside-down format.

Alteration

The “HD TV” Logo may not be altered (alteration includes outlining, rotating, skewing, stretching, scaling in a disproportional manner or reproducing the mark three-dimensionally).

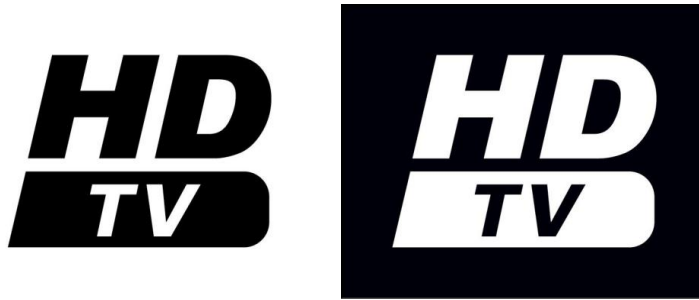
Clear Space / Safe Zone

The “HD TV” Logo must always be positioned alone and apart from any other text or graphics. The minimum stand-alone space around the mark is half of the height of the letter “H” in that usage of the “HD TV” Logo.



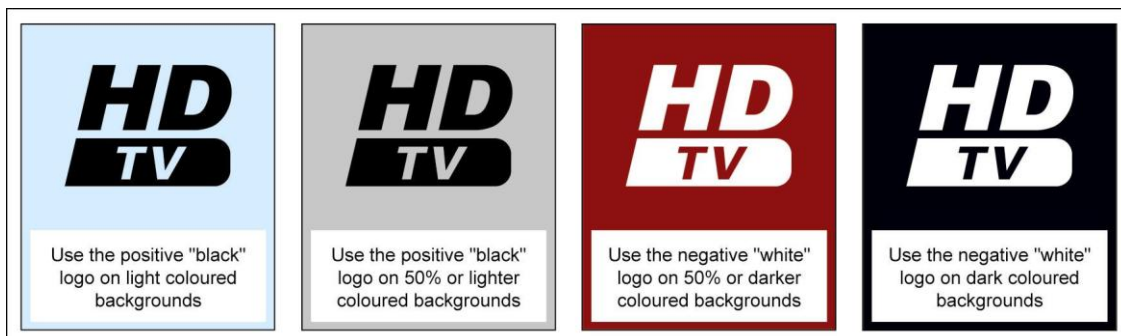
Colours

Acceptable colours for the “HD TV” Logo are Black and White.



Backgrounds

The "HD TV" Logo should always appear on a clean, solid background of high-value contrast (example: value equivalent to 50 percent black or darker if using a negative "white" logo).



Size

The "HD TV" Logo should not be less prominent than other 3rd-party technology marks or logos appearing on the product. The size of the "HD TV" Logo should be 1 cm tall or larger.

Placement Guidelines

The following are specific placement guidelines:

a. Hardware

The "HD TV" Logo should never be obstructed by another label or sticker. The "HD TV" Logo can be placed on the product using a label or sticker.

b. Packaging

The "HD TV" Logo may be placed on the front, rear, side or top-viewing panel of the package. It should never be obstructed by another label or sticker. The "HD TV" Logo may be printed directly onto packaging or placed on the package using a label or sticker.

c. Web Pages

The "HD TV" Logo may be used on Web pages.

d. Advertisement, Direct Mail, Collateral and Documentation

The "HD TV" Logo may be used in advertising, direct mail, collateral or documentation.

Where Not to Use the "HD TV" Logo

The "HD TV" Logo may not appear on or in connection with any product that is not fully compliant with the "HD TV" Minimum Requirements, as set forth in the "HD TV" Logo License Agreement.

Referencing “HD TV” in Text

In text reference may be made to the fact that a “HD TV” Television Receiver complies with the “HD TV” Minimum Requirements.

Trademark Notices

The following trademark notice should be included in all marketing materials, such as press releases, brochures, manuals, advertising, product fliers:

The “HD TV” Logo is a trademark of DIGITALEUROPE.

Other Terms and Conditions

Your license to use the “HD TV” Logo will terminate no later than the termination or expiration date of the “HD TV” Logo License Agreement with which you obtained the right to use the “HD TV” Logo.

Warning

The “HD TV” Logo shall not be used in connection with products of companies that have not entered into an “HD TV” Logo License Agreement with DIGITALEUROPE, or with products of brands not covered by an “HD TV” Logo License Agreement with DIGITALEUROPE.

DIGITALEUROPE reserves the right to initiate legal proceedings to preserve its rights.

Non-commercial Usage

Authorization for and information on the non-commercial usage of the “HD TV” Logo can be obtained from DIGITALEUROPE.

ANNEX F
Brands covered by this Agreement

- 1.
- 2.
- 3.