

Doc. B/04

31 Jan 02

6 Dec 04

13 Mar 06

13 Dec 07

Formerly Doc. E/21

2 July 1986

1 Dec 1986

**ADVANCED TELEVISION SYSTEMS COMMITTEE, Inc.**

**Patent Policy**

1. **Inclusion of Patents in Specification Documents.** There is no objection in principle to drafting a Specification Document in terms that include the use of an Essential Claim, if it is considered that technical reasons justify this approach. It shall be the policy of the Advanced Television Systems Committee, Inc. (ATSC) that Essential Claims included in ATSC Specification Documents be available to implementers on reasonable and non-discriminatory terms. Prior to a vote on a Specification Document subject to a disclosed Essential Claim and no later than the time frames specified in Section 5, the ATSC shall receive from the person or entity that holds the Essential Claim written confirmation (using the attached form) that:
  - a. A license to the Essential Claim will be made available upon request without compensation to all applicants for the purpose of implementing the Specification Document, which license may be conditioned upon license reciprocity with respect to the same Specification Document; or
  - b. A license to the Essential Claim will be made available upon request under reasonable and nondiscriminatory terms and conditions to all applicants for the purpose of implementing the Specification Document, which conditions may include license reciprocity with respect to the same Specification Document; or
  - c. A license to the Essential Claim will not be provided under reasonable and nondiscriminatory terms and conditions to applicants for the purpose of implementing the Specification Document.

This written confirmation shall be submitted to the President of the ATSC for review and retained in the ATSC's files. After issuance of the ATSC Standard or Recommended Practice, the ATSC shall make the written confirmations available to Members, Observers and third parties upon request.

If a Participant submits a statement under Section 1(c), the technology group considering the Specification Document to which such Essential Claim pertains shall consider whether alternatives to including such Essential Claim are feasible. If there are no feasible alternatives, and the technology group considers that a Specification Document incorporating an Essential Claim identified by a statement under Section 1(c) is in the interests of the Membership, application shall be made to the ATSC Board of Directors for an exception to this policy. The application shall include all information supplied by the Participant, and reasons that an exception should be made. If the Board approves, work on the Specification Document may continue, but when the Specification Document is balloted to the ATSC Membership for approval, the ballot shall include information on the policy exception and the reasons for approval.

2. **Notice of Essential Claims upon a Standard or Recommended Practice.** When the ATSC receives a written confirmation as set forth in Section 1 with respect to a Proposed Standard or a Proposed Recommended Practice that becomes part of an ATSC Standard or ATSC Recommended Practice, the resulting document shall include a notice as follows:

**NOTE:** The user's attention is called to the possibility that compliance with this standard may require use of an invention covered by patent rights. By publication of this standard, no position is taken with respect to the validity of this claim or of any patent rights in connection therewith. One or more patent holders have, however, filed a statement regarding the terms on which such patent holder(s) may be willing to grant a license under these rights to individuals or entities desiring to obtain such a license. Details may be obtained from the ATSC Secretary and the patent holder.

3. **Disclosure of Patents.** A Participant shall disclose in writing, using the attached form, the existence of any Potential Claim of which any Representative of the Participant who is active in a technology group or specialist group has actual personal knowledge. No Participant, however, shall be required to disclose the existence of a Potential Claim owned by another entity if such a disclosure would cause that Participant to breach a contractual obligation of confidentiality. A Participant shall deliver any Disclosure Statement to the President of the ATSC. All submitted Disclosure Statements must be maintained in the ATSC's files.
4. **Contents of Patent Disclosures.** Disclosure Statements shall be submitted using the attached form and shall include (a) the name of the Participant making the Disclosure Statement and the name of the Representative responsible for the Disclosure Statement; (b) the name of the person or entity that holds the patent or patent application with the Potential Claim; (c) the patent number or published patent application number, if available, in which the Potential Claim is contained; (d) the Specification Document to which the Disclosure Statement applies; (e) an indication from the Participant that it, in good faith, believes the Potential Claim may be relevant to the implementation of the Specification Document, and (f) the written confirmation required by Section 1, if the Participant making the Disclosure Statement is the holder of the patent or patent application on which the Potential Claim is based. A Participant submitting a statement under Section 1(c) shall supply sufficient identifying information about the Potential Claim to permit it to be identified within a Specification Document.
5. **Timeframe for Patent Disclosures.** The patent disclosure obligation is an ongoing obligation that begins with participation by a Participant's Representative in the development of a Specification Document and extends through the life of the Specification Document. A Participant shall make a Disclosure Statement as soon as practically possible during the development of the Specification Document and, at the latest, within forty-five (45) business days after the Participant's Representative obtains actual knowledge of a Potential Claim relating to a Specification Document and in advance of any vote on the Specification Document. For a Participant's discovery of a Potential Claim subsequent to the adoption of the Specification Document, the Participant shall make a Disclosure Statement as soon as practically possible and, at the latest, within forty-five (45) business days after the Participant's Representative obtains

actual knowledge of the Potential Claim. ATSC shall provide notice of the patent disclosure obligations to Members in technology group and membership letter ballots.

6. **Failure to Disclose Patents.** Any Participant that (a) does not disclose its refusal to license a Potential Claim pursuant to Section 1(c), or (b) fails to submit a Disclosure Statement concerning a Potential Claim in conformance with Sections 3, 4 and 5, shall be deemed to agree to license any resulting Essential Claim to other Members and Observers and any requesting third party under reasonable and nondiscriminatory terms and conditions and shall not be entitled to make an election under Section 1(c). Any Participant's knowing failure to disclose a Potential Claim, whether by violation or manipulation of the provisions of this Policy, shall be deemed incompatible with such Participant's obligations toward ATSC and shall constitute a "failure to disclose" with consequences as defined in this paragraph. ATSC may in such a case terminate any such Participant's ability to participate in ATSC processes.
7. **No Patent Search Required.** Section 3 does not require a Representative or Participant to perform or conduct patent searches. Knowledge of Potential Claims of a Participant shall not be automatically imputed to any Representative.
8. **No Responsibility for Identifying Patents.** The ATSC shall not be responsible for identifying Essential Claims or for conducting inquiries into the legal validity or scope of Potential Claims.
9. **Non-Member Participants.** Each technology group and specialist group shall use reasonable and consistent efforts, within the discretion of its chair, to ensure that any non-Member who participates in any ATSC activity agrees to be bound by this Patent Policy. In particular, chairs of groups may require non-Member Participants to (a) execute declarations of their intention to comply with this Patent Policy, (b) to require the companies they represent to execute such declarations, or (c) to take other steps to demonstrate their knowledge of and agreement to be bound by this Patent Policy. In addition, chairs of groups shall use reasonable efforts to state at the commencement of meetings that this Patent Policy applies to all Members, Observers and non-Member Participants alike, and all email reflectors shall contain a similar message. Chairs of groups shall have the discretion to refuse input and contributions by non-Member Participants who refuse to comply with such measures.
10. **Claims in Documents Normatively Referenced.** Any patent or patent application with Essential Claims contained in a document that is normatively referenced by a Specification Document shall be subject to the disclosure requirements of this Policy. Any Participant that holds any Potential Claims in a document that is normatively referenced by a Specification Document shall make the submissions required by Sections 1 and 3 of this Policy as soon as commercially reasonable after a decision is made by a technical body to normatively reference the material on which the Potential Claims are based and in any event prior to a vote on the Specification Document at issue. No such requirements shall exist when the normatively referenced document is an ATSC document in respect of which the Participant has already made a disclosure pursuant to Section 1. No such requirements shall apply to references to materials contained in Specification Documents that are informative references rather than normative references. This section shall not imply any duty on the part of any technology group or specialist group to investigate the disclosure status of normatively referenced documents.

11. **Definitions.** Capitalized terms used herein shall have the meanings ascribed to them in this Section.

- a. “Disclosure Statement” means a written disclosure made pursuant to Sections 3 and 4.
- b. “**Essential Claim**” means claims of all patents issued, and patent applications filed, under the laws of any country that are necessarily infringed by implementing the normative portion of a Specification Document. An Essential Claim is “necessarily infringed” only when there is no other technically reasonable noninfringing alternative for implementing a Specification Document.
- c. “**Member**” means a voting member of the ATSC, or a voting member of a technology group, as defined in the ATSC Bylaws, or any member of a specialist group, as defined in the ATSC Bylaws.
- d. “**Observer**” means an observing member of the ATSC or an observing member of a technology group, as defined in the ATSC Bylaws.
- e. “**Participant**” means a Member, Observer, individual, or organization that participates in the development of a Specification Document within the ATSC, an ATSC technology group, or an ATSC specialist group.
- f. “**Potential Claim**” means a claim in any patent issued or granted under the laws of any country, as well as a claim in, or supported by, any pending published patent application filed under the laws of any country, of which a Representative of a Participant has actual personal knowledge and that, in the good faith judgment of such Participant’s Representative, may be an Essential Claim.
- g. “**Representative**” means a person employed by a Participant who is authorized by such Participant to represent such Participant in connection with the work of the ATSC, a technology group, as defined in the ATSC Bylaws, or a specialist group, as defined in the ATSC Bylaws.
- h. “**Specification Document**” means an ATSC Standard, an ATSC Recommended Practice, a Proposed Standard, a Proposed Recommended Practice, a Candidate Standard, or a Working Draft, as defined in the ATSC Bylaws.

# ATSC

## Disclosure Statement and Licensing Declaration

This declaration does not represent an implied license grant

Please return to:

President  
ATSC

1750 K Street NW  
Suite 1200  
Washington, DC 20006  
202-872-9160 – Office  
202-872-9161 – Fax

Discloser:

Name of  
Participant

DTS, Inc.

Contact Information for Participant's Representative:

Name of  
Representative  
Address

Blake Welcher, DTS, Inc., 5220 Las Virgenes Rd., Calabasas, CA 91302

Tel.

818.436.1330 (direct)

Fax

818.436.1850

Email

Blake.Welcher@dts.com

URL (Optional)

Identification of ATSC Specification Document relevant to the Disclosure Statement:

Number

A/107-ATSC 2.0 Standard

Title

ATSC Standard: Non-Real-Time Content Delivery - A/103:2014

<b>Licensing Declaration</b>	
If the Discloser is the holder of a patent and/or pending patent application that is the subject of an Essential Claim, i.e., the use of which it believes would be required to implement the identified ATSC Specification Document, the Discloser hereby declares, in accordance with the Statement on ATSC Patent Policy (see ATSC website), that (check one box only).	
<input type="checkbox"/>	<p>a. The Discloser agrees to make a license to the Essential Claim available without compensation upon request to all applicants for the purpose of implementing the Specification Document, which license may be conditioned upon license reciprocity with respect to the same Specification Document. Negotiations are left to the parties concerned and are performed outside of ATSC.</p> <p>Mark here ___ if the Discloser's willingness to license is conditioned on reciprocity for the above ATSC Standard.</p>
<input checked="" type="checkbox"/>	<p>b. The Discloser agrees to make a license to the Essential Claim available upon request under reasonable and nondiscriminatory terms and conditions to all applicants for the purpose of implementing the Specification Document, which conditions may include license reciprocity with respect to the same Specification Document. Negotiations are left to the parties concerned and are performed outside of ATSC.</p> <p>Mark here ___ if the Discloser's willingness to license is conditioned on reciprocity for the above ATSC Standard.</p>
<input type="checkbox"/>	<p>c. The Discloser will not make a license to the Essential Claim under reasonable and nondiscriminatory terms and conditions to applicants for the purpose of implementing the Specification Document.</p>
<p><b>Without Compensation:</b> The phrase "without compensation" does not mean that the Discloser is waiving all of its rights with respect to each patent or patent application that is the subject matter of the Essential Claim. Rather, "without compensation" refers to the issue of monetary compensation; i.e., that the Discloser will not seek any monetary compensation as part of the licensing arrangement (whether such compensation is called a royalty, a one-time licensing fee, etc.). However, while the Discloser in this situation is committing to not charging any monetary amount, the Discloser is still entitled to require that the implementer of the ATSC Specification Document sign a license agreement that contains other reasonable terms and conditions such as those relating to governing law, field of use, reciprocity, warranties, etc.</p> <p><b>Reciprocity:</b> As used herein, the word "reciprocity" means that the Discloser shall only be required to license any prospective licensee under the stated terms (without compensation or under reasonable and nondiscriminatory terms and conditions) if such prospective licensee will commit to license its patent(s) or patent application(s) forming the subject matter of an Essential Claim under similar (without compensation or under reasonable and nondiscriminatory) terms and conditions.</p>	

**Disclosure of Patents**

In accordance with Sections 3 and 4 of the ATSC Patent Policy, please identify each patent or patent application forming the subject matter of any Potential Claim of which any Representative of the Discloser who is active in an ATSC technology group or specialist group has actual personal knowledge. The Discloser, in good faith believes that the Potential Claim may be relevant to the implementation of the Specification Document identified by this Disclosure Statement.

No.	Patent / Application No. and Country	Patent /Application Holder	Status (Granted or Pending)
1.	705194 / Australia	Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels / DTS, Inc.	Granted
2.	PI9611852.0 / Brazil	Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels / DTS, Inc.	Granted
3.	2,238,026 / Canada	Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels / DTS, Inc.	Granted
4.	2,331,611 / Canada	Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels / DTS, Inc.	Granted
5.	ZL 96199832.6 / China (People's Republic)	Multi-Channel Audio Decoder (Original Title: Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels) / DTS, Inc.	Granted
6.	001087 / Eurasian Patent Organization	Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels / DTS, Inc.	Granted
7.	0864146 / European Patent Convention	Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels /	Granted
8.	1015510B / Hong Kong	Multi-Channel Audio Decoder (Original Title: Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels) / DTS, Inc.	Granted
9.	214667 / India	Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels / DTS, Inc.	Granted
10.	4174072 / Japan	Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels / DTS, Inc.	Granted
11.	0277819 / Korea, Republic of	Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels / DTS, Inc.	Granted

No.	Patent / Application No. and Country	Patent /Application Holder	Status (Granted or Pending)
12.	217257 / Mexico	Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels / DTS, Inc.	Granted
13.	PCT/US96/18764 / Patent Cooperation Treaty	Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels / DTS, Inc.	National
14.	182240 / Poland	Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels / DTS, Inc.	Granted
15.	183092 / Poland	Multi-Channel Acoustic Product / DTS, Inc.	Granted
16.	183498 / Poland	Multi-Channel Acoustic Decoder / DTS, Inc.	Granted
17.	92765 / Taiwan	Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels / DTS, Inc.	Granted
18.	5,956,674 / U.S.	Multi-Channel Predictive Subband Audio Coder Using Psychoacoustic Adaptive Bit Allocation In Frequency, Time And Over The Multiple Channels / DTS, Inc.	Granted
19.	5,974,380 / U.S.	Multi-Channel Audio Decoder / DTS, Inc.	Granted
20.	5,978,762 / U.S.	Digitally Encoded Machine Readable Storage Media Using Adaptive Bit Allocation In Frequency, Time And Over Multiple Channels / DTS, Inc.	Granted
21.	ZL03156927.7 / China	Multi-Channel Audio Encoder / DTS, Inc.	Granted
22.	ZL200610081785.5 / China	Multi-Channel Audio Encoder / DTS, Inc.	Granted
23.	ZL200610081786.X / China	Multi-Channel Audio Encoder / DTS, Inc.	Granted
24.	ZL201010126591.9 / China	Multi-Channel Audio Encoder / DTS, Inc.	Granted
25.	HK1092270 / Hong Kong	Multi-Channel Audio Encoder / DTS, Inc.	Granted
26.	HK1092271 / Hong Kong	Multi-Channel Audio Encoder / DTS, Inc.	Granted
27.	HK1149979 / Hong Kong	Multi-Channel Audio Encoder / DTS, Inc.	Granted
28.	6,487,535 / U.S.	Multi-Channel Audio Encoder / DTS, Inc.	Granted
29.	ZL00809269.9 / China	Apparatus And Method Of Encoding And Decoding Multi-Channel Audio Signals / DTS, Inc.	Granted
30.	Appl. #00942890.5/ European Patent Convention	Improving Sound Quality Of Established Low Bit-Rate Audio Coding Systems Without Loss Of Decoder Compatibility / DTS, Inc.	Pending
31.	2228790 / European Patent Convention	Sound Quality Of Established Low Bit-Rate Audio Coding Systems Without Loss Of Decoder Compatibility / DTS, Inc.	Granted
32.	Appl. # 02104637.9 / Hong Kong	Improving Sound Quality Of Established Low Bit-Rate Audio Coding Systems Without Loss Of Decoder Compatibility / DTS, Inc.	Pending



No.	Patent / Application No. and Country	Patent /Application Holder	Status (Granted or Pending)
33.	4204227 / Japan	Improving Sound Quality Of Established Low Bit-Rate Audio Coding Systems Without Loss Of Decoder Compatibility / DTS, Inc.	Granted
34.	0606992 / Korea, Republic of	Improving Sound Quality Of Established Low Bit-Rate Audio Coding Systems Without Loss Of Decoder Compatibility / DTS, Inc.	Granted
35.	MY-122805-A / Malaysia	Improving Sound Quality Of Established Low Bit-Rate Audio Coding Systems Without Loss Of Decoder Compatibility / DTS, Inc.	Granted
36.	85867 / Singapore	Improving Sound Quality Of Established Low Bit-Rate Audio Coding Systems Without Loss Of Decoder Compatibility / DTS, Inc.	Granted
37.	194695 / Taiwan	Improving Sound Quality Of Established Low Bit-Rate Audio Coding Systems Without Loss Of Decoder Compatibility / DTS, Inc.	Granted
38.	6,226,616 / U.S.	Improving Sound Quality Of Established Low Bit-Rate Audio Coding Systems Without Loss Of Decoder Compatibility / DTS, Inc.	Granted
39.	2001259641 / Australia	Discrete Multi-Channel Audio With A Backwards Compatible Mix / DTS, Inc.	Granted
40.	2406706 / Canada	Discrete Multi-Channel Audio With A Backwards Compatible Mix / DTS, Inc.	Granted
41.	ZL01812518.2 / China (People's Republic)	Discrete Multi-Channel Audio With A Backwards Compatible Mix / DTS, Inc.	Granted
42.	1312242 / European Patent Convention	Discrete Multi-Channel Audio With A Backwards Compatible Mix / DTS, Inc.	Granted
43.	Appl. #03107207.1 / Hong Kong	Discrete Multi-Channel Audio With A Backwards Compatible Mix / DTS, Inc.	Granted
44.	152543 / Israel	Discrete Multi-Channel Audio With A Backwards Compatible Mix / DTS, Inc.	Granted
45.	4860088 / Japan	Discrete Multi-Channel Audio With A Backwards Compatible Mix / DTS, Inc.	Granted
46.	0736640 / Korea, Republic of	Discrete Multi-Channel Audio With A Backwards Compatible Mix / DTS, Inc.	Granted
47.	Appl. #PCT/US01/14878	Discrete Multi-Channel Audio With A Backwards Compatible Mix / DTS, Inc.	National
48.	92568 / Singapore	Discrete Multi-Channel Audio With A Backwards Compatible Mix / Inventors: William Smith, Stephen Smyth, Ming Yan, Yu-Li You	Granted
49.	7,212,872 / U.S.	Discrete Multi-Channel Audio With A Backwards Compatible Mix / DTS, Inc.	Granted
50.	Appl. #11/726,976 / U.S.	Discrete Multi-Channel Audio With A Backwards Compatible Mix / DTS, Inc.	Abandoned
51.	2,423,893 / Canada	Method Of Decoding Two-Channel Matrix Encoded Audio To Reconstruct Multichannel Audio / DTS, Inc.	Granted
52.	ZL01820126.1 / China	Method Of Decoding Two-Channel Matrix Encoded Audio To Reconstruct Multichannel Audio / DTS, Inc.	Granted

No.	Patent / Application No. and Country	Patent /Application Holder	Status (Granted or Pending)
53.	1354495 / European Patent Convention	Method Of Decoding Two-Channel Matrix Encoded Audio To Reconstruct Multichannel Audio / DTS, Inc.	Granted
54.	HK1071271 / Hong Kong	Method Of Decoding Two-Channel Matrix Encoded Audio To Reconstruct Multichannel Audio / DTS, Inc.	Granted
55.	155129 / Israel	Method Of Decoding Two-Channel Matrix Encoded Audio To Reconstruct Multichannel Audio / DTS, Inc.	Granted
56.	0666019 / Korea, Republic of	Method Of Decoding Two-Channel Matrix Encoded Audio To Reconstruct Multichannel Audio / DTS, Inc.	Granted
57.	Appl. #PCT/US01/30997	Method Of Decoding Two-Channel Matrix Encoded Audio To Reconstruct Multichannel Audio / DTS, Inc.	National
58.	95983 / Singapore	Method Of Decoding Two-Channel Matrix Encoded Audio To Reconstruct Multichannel Audio / DTS, Inc.	Granted
59.	TR 2003 00428 B / Turkey	Method Of Decoding Two-Channel Matrix Encoded Audio To Reconstruct Multichannel Audio / DTS, Inc.	Granted
60.	7,003,467 / U.S.	Method Of Decoding Two-Channel Matrix Encoded Audio To Reconstruct Multichannel Audio / DTS, Inc.	Granted
61.	ZL200580013443.3 / China	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Granted
62.	1741093 / European Patent Convention	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Granted
63.	2228791 / European Patent Convention	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Granted
64.	HK1099597 / Hong Kong	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Granted
65.	Appl. #1257/MUMNP/06 / India	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Pending
66.	201937 / Israel	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Granted
67.	178243 / Israel	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Granted
68.	4997098 / Japan	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Granted
69.	1149956 / Korea, Republic of	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Granted
70.	10-1207110 / Korea, Republic of	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Granted
71.	10-1237559 / Korea, Republic of	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Granted
72.	Appl. #PCT/US2005/009240	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	National

No.	Patent / Application No. and Country	Patent /Application Holder	Status (Granted or Pending)
73.	2387022 / Russian Federation	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Granted
74.	TR 2006 06137 B / Turkey	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Granted
75.	7,272,567 / U.S.	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Granted
76.	7,668,723 / U.S.	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Granted
77.	8,374,858 / U.S.	Scalable Lossless Audio Codec And Authoring Tool / DTS, Inc.	Granted
78.	ZL200580013444.8 / China (People's Republic)	Lossless Multi-Channel Audio Codec / DTS, Inc. / DTS, Inc.	Granted
79.	1743326 / European Patent Convention	Lossless Multi-Channel Audio Codec / DTS, Inc.	Granted
80.	Appl. #10187592.0 / European Patent Convention	Lossless Multi-Channel Audio Codec / DTS, Inc.	Pending
81.	Appl. #10187589.6 / European Patent Convention	Lossless Multi-Channel Audio Codec / DTS, Inc.	Pending
82.	1105475 / Hong Kong	Lossless Multi-Channel Audio Codec / DTS, Inc.	Granted
83.	257005 / India	Lossless Multi-Channel Audio Codec / DTS, Inc.	Granted
84.	178244 / Israel	Lossless Multi-Channel Audio Codec / DTS, Inc.	Granted
85.	Appl. #200376 / Israel	Lossless Multi-Channel Audio Codec / DTS, Inc.	Pending
86.	4934020 / Japan	Lossless Multi-Channel Audio Codec / DTS, Inc.	Granted
87.	5551677 / Japan	Lossless Multi-Channel Audio Codec / DTS, Inc.	Granted
88.	5593419 / Japan	Lossless Multi-Channel Audio Codec / DTS, Inc.	Granted
89.	5599913 / Japan	Lossless Multi-Channel Audio Codec / DTS, Inc.	Granted
90.	1243412 / Korea, Republic of	Lossless Multi-Channel Audio Codec / DTS, Inc.	Granted
91.	1307693 / Korea, Republic of	Lossless Multi-Channel Audio Codec / DTS, Inc.	Granted
92.	PCT/US2005/009275	Lossless Multi-Channel Audio Codec / DTS, Inc.	National
93.	2387023 / Russian Federation	Lossless Multi-Channel Audio Codec / DTS, Inc.	Granted
94.	TR 2006 06136 B / Turkey	Lossless Multi-Channel Audio Codec / DTS, Inc.	Granted
95.	7,392,195 / U.S.	Lossless Multi-Channel Audio Codec / DTS, Inc.	Granted
96.	8,239,210 / U.S.	Lossless Multi-Channel Audio Codec / DTS, Inc.	Granted
97.	2009209444 / Australia	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Granted
98.	Appl. #PI 0906619-5 / Brazil	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Pending

No.	Patent / Application No. and Country	Patent /Application Holder	Status (Granted or Pending)
99.	Appl. #2711632 / Canada	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Pending
100.	ZL200980103481.6 / China (People's Republic)	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Granted
101.	Appl. #09706695.5-1243 / European Patent Convention	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Pending
102.	Appl. #11101072.6 / Hong Kong	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Pending
103.	Appl. #1657/MUMNP/2010 / India	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Pending
104.	Appl. #W-00-2010-02579 / Indonesia	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Pending
105.	206785 / Israel	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Granted
106.	5356413 / Japan	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Granted
107.	Appl. #10-2010-7017781 / Korea, Republic of	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Pending
108.	300077 / Mexico	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Granted
109.	586566 / New Zealand	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Granted
110.	597101 / New Zealand	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Granted
111.	PCT/US2009/000124	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	National

No.	Patent / Application No. and Country	Patent /Application Holder	Status (Granted or Pending)
112.	1-2010-501739 / Philippines	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Granted
113.	2495502 / Russian Federation	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Granted
114.	163082 / Singapore	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Granted
115.	I474316 / Taiwan	Lossless Multi-Channel Audio Codec Using Adaptive Segmentation With Random Access Point (RAP) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Granted
116.	7,930,184 / U.S.	Multi-Channel Audio Coding/Decoding Of Random Access Points And Transients / DTS, Inc.	Granted
117.	13822 / Viet Nam	Method And Device For Coding Lossless Multi-Channel Audio Using Adaptive Segmentation With Random Access Point (Rap) And Multiple Prediction Parameter Set (MPPS) Capability / DTS, Inc.	Granted
118.	7,333,929 / U.S.	Modular Scalable Compressed Audio Data Stream / DTS, Inc.	Granted
119.	2011205144 / Australia	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted
120.	2011221401 / Australia	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted
121.	2006332046 / Australia	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted
122.	Appl. #2,608,030 / Canada	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Pending
123.	Appl. #2853987 / Canada	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Pending
124.	ZL200680021765.7 / China (People's Republic)	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted
125.	Appl. #06848793.3 / European Patent Convention	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Pending
126.	2479750 / European Patent Convention	Method For Hierarchically Filtering An Audio Signal And Method For Hierarchically Reconstructing Time Samples Of An Audio Signal / DTS, Inc.	Granted
127.	HK1117655 / Hong Kong	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted

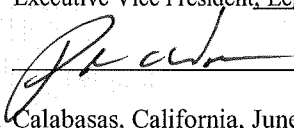
No.	Patent / Application No. and Country	Patent /Application Holder	Status (Granted or Pending)
128.	1171859 / Hong Kong	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted
129.	Appl. #1960/MUMNP/2007 / India	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Pending
130.	187402 / Israel	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted
131.	5164834 / Japan	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted
132.	5291815 / Japan	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted
133.	1325339 / Korea, Republic of	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted
134.	593517 / New Zealand	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted
135.	563337 / New Zealand	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted
136.	590418 / New Zealand	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted
137.	PCT/IB2006/003986	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	National
138.	2402160 / Russian Federation	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted
139.	TR 2008 06843 B / Turkey	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted
140.	Appl. #2008/06842 / Turkey	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Pending
141.	TR 2007 08666 B / Turkey	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted
142.	7,548,853 / U.S.	Scalable Compressed Audio Bit Stream And Codec Using A Hierarchical Filterbank And Multichannel Joint Coding / DTS, Inc.	Granted

Disclosure Information

In accordance with Sections 3 and 4 of the ATSC Patent Policy, if the Discloser has made a licensing declaration under paragraph (c) above, please provide the following information.

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- an identification of specific section(s) or text of the Specification Document that are relevant to the Essential Claim; and
- an identificatio of each patent or patent application claim covering the Specification Document.

This information is informal in nature and does not constitute a legal opinion, but should be based on "good faith and belief" of the Disclosure. Information provided in this section does not represent a formal "notice" that implementation of any resulting ATSC Standard or Recommended Practice would infringe any patent or patent application for the Essential Claim.

Completed by:  
Name of Participant DTS, Inc.  
Name of Representative Blake Welcher  
Title of Representative Executive Vice President, Legal, General Counsel, Corporate Secretary  
Signature   
Place, date Calabasas, California, June 6, 2015