

**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.



**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

<b>Discloser:</b>	
<b>Name of Participant</b>	LG ELECTRONICS INC.
<b>Contact Information for Participant's Representative:</b>	
<b>Name of Representative</b>	SEONG JU , LEE
<b>Address</b>	19, Yangjae-daero 11gil, Seocho-gu Seoul 137-130, Korea
<b>Tel.</b>	+82-2-6912-6541
<b>Fax</b>	+82-2-6912-6046
<b>E-mail</b>	seongju.lee@lge.com
<b>URL (optional)</b>	
<b>Identification of ATSC Specification Document relevant to the Disclosure Statement:</b>	
<b>Number</b>	A/322
<b>Title</b>	ATSC Proposed Standard: Physical Layer Protocol (A/322)

**Licensing Declaration**

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).

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.

Mark here  if the Discloser's willingness to license is conditioned on reciprocity for the above ATSC Standard.

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.

Mark here  if the Discloser's willingness to license is conditioned on reciprocity for the above ATSC Standard.

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.

**Without Compensation:** 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.

**Reciprocity:** 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.

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.	Country	Patent/Applicaton Holder	Status [granted/ pending]
1	PCT/KR2014/000455	PCT	LG ELECTRONICS INC.	Pending
	10-1625071	KR	LG ELECTRONICS INC.	Granted
	10-2016-0062393	KR	LG ELECTRONICS INC.	Pending
	14740629	EP	LG ELECTRONICS INC.	Pending
	2014-80005187	CN	LG ELECTRONICS INC.	Pending
	14/158573	US	LG ELECTRONICS INC.	Pending
2	PCT/KR2014/000456	PCT	LG ELECTRONICS INC.	Pending
	10-2015-7019494	KR	LG ELECTRONICS INC.	Pending
	14740421	EP	LG ELECTRONICS INC.	Pending
	2014-80005216	CN	LG ELECTRONICS INC.	Pending
	15/153282	US	LG ELECTRONICS INC.	Pending
	9369325	US	LG ELECTRONICS INC.	Granted
3	PCT/KR2014/000477	PCT	LG ELECTRONICS INC.	Pending
	10-2015-7015326	KR	LG ELECTRONICS INC.	Pending
	14740764	EP	LG ELECTRONICS INC.	Pending
	2014-80005279	CN	LG ELECTRONICS INC.	Pending
	MXA2015008821	MX	LG ELECTRONICS INC.	Pending
	2015-549284	JP	LG ELECTRONICS INC.	Pending
	2894646	CA	LG ELECTRONICS INC.	Pending
	1549MUMNP2015	IN	LG ELECTRONICS INC.	Pending
	14/156966	US	LG ELECTRONICS INC.	Pending
4	PCT/KR2014/003403	PCT	LG ELECTRONICS INC.	Pending
	10-2015-7017120	KR	LG ELECTRONICS INC.	Pending
	14787926	EP	LG ELECTRONICS INC.	Pending
	2014-80018885	CN	LG ELECTRONICS INC.	Pending
	9191082	US	LG ELECTRONICS INC.	Granted

	14/881957	US	LG ELECTRONICS INC.	Pending
5	PCT/KR2014/004368	PCT	LG ELECTRONICS INC.	Pending
	10-20105-7035422	KR	LG ELECTRONICS INC.	Pending
	14797689	EP	LG ELECTRONICS INC.	Pending
	2014-80028275	CN	LG ELECTRONICS INC.	Pending
	MXA2015015171	MX	LG ELECTRONICS INC.	Pending
	14/278431	US	LG ELECTRONICS INC.	Pending
6	PCT/KR2014/004004	PCT	LG ELECTRONICS INC.	Pending
	10-2015-7033360	KR	LG ELECTRONICS INC.	Pending
	14794498	EP	LG ELECTRONICS INC.	Pending
	2014-80026215	CN	LG ELECTRONICS INC.	Pending
	2016-512828	JP	LG ELECTRONICS INC.	Pending
	2910135	CA	LG ELECTRONICS INC.	Pending
	MXa2015015070	MX	LG ELECTRONICS INC.	Pending
	312MUMNP2015	IN	LG ELECTRONICS INC.	Pending
	1120150281036	BR	LG ELECTRONICS INC.	Pending
	2015146740	RU	LG ELECTRONICS INC.	Pending
	2014263392	AU	LG ELECTRONICS INC.	Pending
	1201504649	VN	LG ELECTRONICS INC.	Pending
	201507842	SF	LG ELECTRONICS INC.	Pending
	15/182481	US	LG ELECTRONICS INC.	Pending
	9391725	US	LG ELECTRONICS INC.	Granted
7	PCT/KR2014/004762	PCT	LG ELECTRONICS INC.	Pending
	14/894881	US	LG ELECTRONICS INC.	Pending
	14803807	EP	LG ELECTRONICS INC.	Pending
8	PCT/KR2014/005316	PCT	LG ELECTRONICS INC.	Pending
	9246730	US	LG ELECTRONICS INC.	Granted
	14/970171	US	LG ELECTRONICS INC.	Pending
	14813304	EP	LG ELECTRONICS INC.	Pending
	2014-80034590	CN	LG ELECTRONICS INC.	Pending
	2016-521198	JP	LG ELECTRONICS INC.	Pending
	10-2015-7033486	KR	LG ELECTRONICS INC.	Pending
a	PCT/KR2014/006724	PCT	LG ELECTRONICS INC.	Pending
	2014-80042929	CN	LG ELECTRONICS INC.	Pending
	14832885	EP	LG ELECTRONICS INC.	Pending



9	10-2016-7000995	KR	LG ELECTRONICS INC.	Pending
	15/044879	US	LG ELECTRONICS INC.	Pending
	9294322	US	LG ELECTRONICS INC.	Granted
10	PCT/KR2014/005794	PCT	LG ELECTRONICS INC.	Pending
	14/319883	US	LG ELECTRONICS INC.	Pending
	14819999	EP	LG ELECTRONICS INC.	Pending
	2014-80037493	CN	LG ELECTRONICS INC.	Pending
	10-2016-7000702	KR	LG ELECTRONICS INC.	Pending
11	PCT/KR2014/005881	PCT	LG ELECTRONICS INC.	Pending
	14820052	EP	LG ELECTRONICS INC.	Pending
	2014-80038542	CN	LG ELECTRONICS INC.	Pending
	10-2015-7036008	KR	LG ELECTRONICS INC.	Pending
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	15/041865	US	LG ELECTRONICS INC.	Pending
	9294247	US	LG ELECTRONICS INC.	Granted
12	PCT/KR2014/006314	PCT	LG ELECTRONICS INC.	Pending
	14825957	EP	LG ELECTRONICS INC.	Pending
	14/330740	US	LG ELECTRONICS INC.	Pending
13	PCT/KR2014/007371	PCT	LG ELECTRONICS INC.	Pending
	14834418	EP	LG ELECTRONICS INC.	Pending
	2014-80043440	CN	LG ELECTRONICS INC.	Pending
	10-2016-7006042	KR	LG ELECTRONICS INC.	Pending
	14/455079	US	LG ELECTRONICS INC.	Pending
14	PCT/KR2014/007588	PCT	LG ELECTRONICS INC.	Pending
	14836737	EP	LG ELECTRONICS INC.	Pending
	2014-80045207	CN	LG ELECTRONICS INC.	Pending
	10-0216-7006718	KR	LG ELECTRONICS INC.	Pending
	1252016	EG	LG ELECTRONICS INC.	Pending
	201600622	SF	LG ELECTRONICS INC.	Pending
	2014307164	AU	LG ELECTRONICS INC.	Pending
	20161011532	RU	LG ELECTRONICS INC.	Pending
	14/459845	US	LG ELECTRONICS INC.	Pending
15	PCT/KR2014/007301	PCT	LG ELECTRONICS INC.	Pending
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	2014-80050181	CN	LG ELECTRONICS INC.	Pending

	10-2016-7002622	KR	LG ELECTRONICS INC.	Pending
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16	9350490	US	LG ELECTRONICS INC.	Granted
	15/094182	US	LG ELECTRONICS INC.	Pending
17	15/061168	US	LG ELECTRONICS INC.	Pending
	PCT/KR2015/011840	PCT	LG ELECTRONICS INC.	Pending
18	9198005	US	LG ELECTRONICS INC.	Granted
	14/885882	US	LG ELECTRONICS INC.	Pending
19	15/097066	US	LG ELECTRONICS INC.	Pending
	PCT/KR2015/011831	PCT	LG ELECTRONICS INC.	Pending
20	14/830346	US	LG ELECTRONICS INC.	Pending
	104125485	TW	LG ELECTRONICS INC.	Pending
	PCT/KR2015/006932	PCT	LG ELECTRONICS INC.	Pending
21	14/869134	US	LG ELECTRONICS INC.	Pending
	104125483	TW	LG ELECTRONICS INC.	Pending
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22	14/837957	US	LG ELECTRONICS INC.	Pending
	PCT/KR2015/006935	PCT	LG ELECTRONICS INC.	Pending
23	14/836155	US	LG ELECTRONICS INC.	Pending
	15/161925	US	LG ELECTRONICS INC.	Pending
	PCT/KR2015/007131	PCT	LG ELECTRONICS INC.	Pending
24	14/797948	US	LG ELECTRONICS INC.	Pending
	PCT/KR2015/007021	PCT	LG ELECTRONICS INC.	Pending
25	14/797969	US	LG ELECTRONICS INC.	Pending
	PCT/KR2015/007022	PCT	LG ELECTRONICS INC.	Pending
26	14/918323	US	LG ELECTRONICS INC.	Pending
	104127034	TW	LG ELECTRONICS INC.	Pending
	PCT/KR2015/007024	PCT	LG ELECTRONICS INC.	Pending
27	14/918350	US	LG ELECTRONICS INC.	Pending
	PCT/KR2015/007023	PCT	LG ELECTRONICS INC.	Pending
28	14/853352	US	LG ELECTRONICS INC.	Pending
	PCT/KR2015/008877	PCT	LG ELECTRONICS INC.	Pending
29	14/853291	US	LG ELECTRONICS INC.	Pending
	PCT/KR2015/008886	PCT	LG ELECTRONICS INC.	Pending
	14/863899	US	LG ELECTRONICS INC.	Pending

30	104128174	TW	LG ELECTRONICS INC.	Pending
	PCT/KR2015/008875	PCT	LG ELECTRONICS INC.	Pending
31	14/837729	US	LG ELECTRONICS INC.	Pending
	PCT/KR2015/007450	PCT	LG ELECTRONICS INC.	Pending
32	14/744490	US	LG ELECTRONICS INC.	Pending
	15/182220	US	LG ELECTRONICS INC.	Pending
	104118532	TW	LG ELECTRONICS INC.	Pending
	PCT/KR2015/005458	PCT	LG ELECTRONICS INC.	Pending
33	14/755946	US	LG ELECTRONICS INC.	Pending
	15/199177	US	LG ELECTRONICS INC.	Pending
	PCT/KR2015/005467	PCT	LG ELECTRONICS INC.	Pending
34	PCT/KR2015/002913	PCT	LG ELECTRONICS INC.	Pending
35	9363042	US	LG ELECTRONICS INC.	Granted
	15/146211	US	LG ELECTRONICS INC.	Pending
	PCT/KR2015/005466	PCT	LG ELECTRONICS INC.	Pending
36	14/690838	US	LG ELECTRONICS INC.	Pending
	PCT/KR2015/003246	PCT	LG ELECTRONICS INC.	Pending
37	14/692889	US	LG ELECTRONICS INC.	Pending
	10-2016-7011054	KR	LG ELECTRONICS INC.	Pending
	2015-80002622	CN	LG ELECTRONICS INC.	Pending
	PCT/KR2015/002128	PCT	LG ELECTRONICS INC.	Pending
38	14/723098	US	LG ELECTRONICS INC.	Pending
	PCT/KR2015/004780	PCT	LG ELECTRONICS INC.	Pending
39	PCT/KR2015/001796	PCT	LG ELECTRONICS INC.	Pending
40	9363040	US	LG ELECTRONICS INC.	Granted
	15/136493	US	LG ELECTRONICS INC.	Pending
41	14/598956	US	LG ELECTRONICS INC.	Pending
42	9264160	US	LG ELECTRONICS INC.	Granted
	14/984817	US	LG ELECTRONICS INC.	Pending
43	9258800	US	LG ELECTRONICS INC.	Granted
	14/990370	US	LG ELECTRONICS INC.	Pending
44	8873673	US	LG ELECTRONICS INC.	Granted
	8989304	US	LG ELECTRONICS INC.	Granted
	9094156	US	LG ELECTRONICS INC.	Granted
	9197383	US	LG ELECTRONICS INC.	Granted

	14/886582	US	LG ELECTRONICS INC.	Pending
45	14/167913	US	LG ELECTRONICS INC.	Pending
46	RE46039	US	LG ELECTRONICS INC.	Granted
	15/152309	US	LG ELECTRONICS INC.	Pending
47	RE45523	US	LG ELECTRONICS INC.	Granted
	14/684747	US	LG ELECTRONICS INC.	Pending
48	8155660	US	LG ELECTRONICS INC.	Granted
49	RE44109	US	LG ELECTRONICS INC.	Granted
50	9130809	US	LG ELECTRONICS INC.	Granted
	9246732	US	LG ELECTRONICS INC.	Granted
	14/981573	US	LG ELECTRONICS INC.	Pending
51	8437328	US	LG ELECTRONICS INC.	Granted
52	RE45887	US	LG ELECTRONICS INC.	Granted
	15/008242	US	LG ELECTRONICS INC.	Pending
53	14/451274	US	LG ELECTRONICS INC.	Pending
54	14/513115	US	LG ELECTRONICS INC.	Pending
55	9294884	US	LG ELECTRONICS INC.	Granted
	15/018121	US	LG ELECTRONICS INC.	Pending
56	9357040	US	LG ELECTRONICS INC.	Granted
	15/143184	US	LG ELECTRONICS INC.	Pending
57	9385876	US	LG ELECTRONICS INC.	Granted
	15/170514	US	LG ELECTRONICS INC.	Pending
58	9185366	US	LG ELECTRONICS INC.	Granted
	14/873666	US	LG ELECTRONICS INC.	Pending
59	9240865	US	LG ELECTRONICS INC.	Granted
	14/965477	US	LG ELECTRONICS INC.	Pending
	2698298	CA	LG ELECTRONICS INC.	Pending
60	8954829	US	LG ELECTRONICS INC.	Granted
	9184770	US	LG ELECTRONICS INC.	Granted
	14/878747	US	LG ELECTRONICS INC.	Pending
61	14/229548	US	LG ELECTRONICS INC.	Pending
62	14/280301	US	LG ELECTRONICS INC.	Pending
63	9270392	US	LG ELECTRONICS INC.	Granted
	15/008096	US	LG ELECTRONICS INC.	Pending
64	9392281	US	LG ELECTRONICS INC.	Granted

64	15/201026	US	LG ELECTRONICS INC.	Pending
65	14/242550	US	LG ELECTRONICS INC.	Pending
66	9178536	US	LG ELECTRONICS INC.	Granted
	14/861504	US	LG ELECTRONICS INC.	Pending
	15/208161	US	LG ELECTRONICS INC.	Pending
	8984381	US	LG ELECTRONICS INC.	Granted
67	8966349	US	LG ELECTRONICS INC.	Granted
	9258581	US	LG ELECTRONICS INC.	Granted
	14/987436	US	LG ELECTRONICS INC.	Pending
68	9348691	US	LG ELECTRONICS INC.	Granted
	14/202962	US	LG ELECTRONICS INC.	Pending
69	9197472	US	LG ELECTRONICS INC.	Granted
	9363791	US	LG ELECTRONICS INC.	Granted
	15/148883	US	LG ELECTRONICS INC.	Pending
70	9300435	US	LG ELECTRONICS INC.	Granted
	15/048695	US	LG ELECTRONICS INC.	Pending
71	9369757	US	LG ELECTRONICS INC.	Granted
	14/533564	US	LG ELECTRONICS INC.	Pending
72	14/203100	US	LG ELECTRONICS INC.	Pending
73	14/200648	US	LG ELECTRONICS INC.	Pending
	14/524624	US	LG ELECTRONICS INC.	Pending
74	9008218	US	LG ELECTRONICS INC.	Granted
	14/663144	US	LG ELECTRONICS INC.	Pending
75	9325438	US	LG ELECTRONICS INC.	Granted
	9385823	US	LG ELECTRONICS INC.	Granted
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76	9094136	US	LG ELECTRONICS INC.	Granted
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	15/213080	US	LG ELECTRONICS INC.	Pending
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80	9043687	US	LG ELECTRONICS INC.	Granted
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	15/046111	US	LG ELECTRONICS INC.	Pending
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81	14/604417	US	LG ELECTRONICS INC.	Pending
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82	14/549262	US	LG ELECTRONICS INC.	Pending
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	10-2016-7008655	KR	LG ELECTRONICS INC.	Pending
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83	9210022	US	LG ELECTRONICS INC.	Granted
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	15/180887	US	LG ELECTRONICS INC.	Pending
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84	14/616218	US	LG ELECTRONICS INC.	Pending
	10-2016-7010265	KR	LG ELECTRONICS INC.	Pending
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86	14/618725	US	LG ELECTRONICS INC.	Pending
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87	14/559213	US	LG ELECTRONICS INC.	Pending
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89	9219630	US	LG ELECTRONICS INC.	Pending
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92	9264476	US	LG ELECTRONICS INC.	Granted
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93	9215038	US	LG ELECTRONICS INC.	Granted
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97	9240862	US	LG ELECTRONICS INC.	Granted
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	14865613	EP	LG ELECTRONICS INC.	Pending
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	10-2016-7012283	KR	LG ELECTRONICS INC.	Pending
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98	14/549126	US	LG ELECTRONICS INC.	Pending
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101	14/908826	US	LG ELECTRONICS INC.	Pending
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103	14/906415	US	LG ELECTRONICS INC.	Pending
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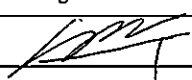
**Disclosure of Information**

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;

- an identification of each patent or patent application that is the subject matter of the Essential Claim;
- an identification of specific section(s) or text of the Specification Document that are relevant to the Essential Claim; and
- an identification 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 Discloser. 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	_____
	LG ELECTRONICS INC.
Name of Representative	_____
	SEONG JU , LEE
Title of Representative	_____
	Senior Manager
Signature	_____
	
Place, Date	_____
	Seoul, Korea      August 12 , 2016