



Innovation, Science and
Economic Development Canada
Communications Research Centre Canada

Innovation, Sciences et
Développement économique Canada
Centre de recherches sur les communications Canada

3701 Carling Avenue
P.O. Box 11490, Station "H"
Ottawa ON K2H 8S2

November 17, 2016

Mr. Mark Richer
President – ATSC
1750 K Street NW
Suite 1200
Washington, DC 20006

Dear Mr. Richer,

Please find enclosed a Disclosure Statement and Licensing Declaration on behalf of the Communications Research Centre Canada (CRC).

CRC's Layered Division Multiplexing (LDM) technology, which is the subject of the referenced patents, is used in the ATSC 3.0 standard Physical Layer Protocol for service and data multiplexing and transmission. It has also been used in the Transmitter Identification (TxID) system.

The form was completed by Dr. Yiyan Wu, who may be contacted for additional information.

Sincerely,

Ouafaa Deuab
Acting Vice President, Business Development and Corporate Affairs

Enclosure.



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	Communications Research Centre Canada
Contact Information for Participant's Representative:	
Name of Representative	Ouafaa Douab, Acting VP, Business Development and Corporate Affairs
Address	3701 Carling Avenue, PO Box 11490, Station H
	Ottawa, Ontario, Canada K2H 8S2
Tel.	+1 613 998 8925
Fax	
E-mail	ic.rso-bar.ic@canada.ca
URL (optional)	
Identification of ATSC Specification Document relevant to the Disclosure Statement:	
Number	A/322
Title	ATSC 3.0 "Physical Layer Protocol"

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.


N o.	Patent / Application No. and Country	Patent / Application Holder	Status [granted/ pending]
1	2,773,716 Canada	Communications Research Centre Canada	Pending
2	9,479,826 United States	Communications Research Centre Canada	Granted
3			
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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:	Yiyao Wu
Name of Participant	Communications Research Centre Canada
Name of Representative	Ouafaa Douab
Title of Representative	Acting Executive Vice President, Business Development and Corporate Affairs
Signature	
Place, Date	Ottawa, Canada November 17, 2016