

QUALCOMM Incorporated

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www.qualcomm.com

November 07, 2017

Via Email and Federal Express

Attn: Daro Bruno

ATSC

1776 K STREET NW 8th FLOOR WASHINGTON, DC 20006-2304

Re: QUALCOMM Incorporated's IPR Declaration of November 07, 2017 for Working Draft ATSC Proposed Standard: Signaling, Delivery, Synchronization, and Error Protection (A/331) 22 September 2017 (S33-331r0)

Dear Sir,

Enclosed please find Qualcomm Incorporated's IPR Disclosure Statement and Licensing Declaration for Working Draft ATSC Proposed Standard: Signaling, Delivery, Synchronization, and Error Protection (A/331) 22 September 2017 (S33-331r0).

Please confirm receipt of this declaration at your earliest convenience via email to ip.disclosure@qualcomm.com. If you have any questions or concerns, please contact me directly at 858-587-1121. Thank you for your time and assistance with this matter.

Sincerely

Michael Atlass

Sr. Dir, Legal Counsel, Standards Policy & Compliance

Qualcomm Incorporated

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:

QUALCOMM Incorporated

Contact Information for

Participant's Representative:

Michael Atlass, Sr. Dir, Legal Counsel,

Standards Policy and Compliance

Name of Representative:

Michael Atlass, Sr. Dir, Legal Counsel,

Standards Policy and Compliance

Address:

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Tel. No.:

858-587-1121

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858-658-2503

Email:

ip.disclosure@qualcomm.com

URL (optional):

www.qualcomm.com

Identification of ATSC Specification Document relevant to the Disclosure Statement:

Number: S33-331r0

Title: ATSC Working Draft Proposed Standard: Signaling, Delivery, Synchronization, and

Error Protection (A/331)

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 ATS Specification Document, the Discloser hereby declares, in accordance with the Statement on ATSC Pater Policy (see ATSC website), that (check one box only).	SC ent
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, who 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.	ich
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 of its rights with respect to each patent or patent application that is the subject matter of the Essential Clarkather, "without compensation" refers to the issue of monetary compensation ; <i>i.e.</i> , that the Discloser not seek any monetary compensation as part of the licensing arrangement (whether such compensation as called a royalty, a one-time licensing fee, etc.). However, while the Discloser in this situation is committed to not charging any monetary amount, the Discloser is still entitled to require that the implementer of ATSC Specification Document sign a license agreement that contains other reasonable terms and conditions.	will tion ting 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.

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:	
completed by.	
Name of Participant:	QUALCOMM Incorporated
Name of Representative:	Michael Atlass
Title of Representative:	Sr. Dir, Legal Counsel, Standards Policy & Compliance
Signature:	dubert Alle
Place, Date:	San Diego, CA Nov 07, 2017

Disclosure of Patents_

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. forming the subject matter of any Potential Claim of which any Representative of the Discloser who is active in an In accordance with Sections 3 and 4 of the ATSC Patent Policy, please identify each patent or patent application

No	Patent/Application	Country	Patent/Application Holder Status	Status [granted/pending]
1	15/058,963	United States	QUALCOMM Incorporated PENDI	PENDING
2	15/457,145	United States	QUALCOMM Incorporated PENDI	PENDING
ω	15/457,111	United States	QUALCOMM Incorporated PEND	PENDING
4	15/399,381	United States	QUALCOMM Incorporated PENDI	PENDING