

LETTER OF ASSURANCE FOR ESSENTIAL PATENT CLAIMS

Please return via mail,
e-mail (as a PDF), or fax:

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No license is implied by submission of this Letter of Assurance

A. SUBMITTER:

Legal Name: Marvell International Ltd. ("Submitter")

B. SUBMITTER'S CONTACT INFORMATION (for the purpose of licensing information):

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C. IEEE STANDARD OR PROJECT (e.g., AMENDMENT, CORRIGENDA, OR REVISION):

In accordance with Clause 6.3.5 of the *IEEE-SA Standards Board Operations Manual*, this licensing position is limited to the following:

Standard/Project Number: IEEE 802.11n
Title: IEEE 802 Part 11
Amendment 5: Enhancements for Higher Throughput

D. SUBMITTER'S POSITION REGARDING LICENSING OF ESSENTIAL PATENT CLAIMS:

In accordance with Clause 6 of the *IEEE-SA Standards Board Bylaws*, the Submitter hereby declares the following (Check box 1 or box 2 below):

Note: Nothing in this Letter of Assurance shall be interpreted as giving rise to a duty to conduct a patent search. The IEEE takes no position with respect to the validity or essentiality of Patent Claims or the reasonableness of rates, terms, and conditions provided in connection with submission of a Letter of Assurance, if any, or in any license agreements offered by the Submitter. To the extent there are inconsistencies between the Letter of Assurance Form and any sample licenses, material licensing terms, or not to exceed rates provided in connection with 1. a. or 1. b. below, the terms of the Letter of Assurance Form shall control.

- 1. The Submitter may own, control, or have the ability to license Patent Claims that might be or become Essential Patent Claims. With respect to such Essential Patent Claims, the Submitter's licensing position is as follows (must check a, b, c, or d and any applicable subordinate boxes):
 - a. The Submitter will grant a license without compensation to an unrestricted number of applicants on a worldwide basis with reasonable terms and conditions that are demonstrably free of unfair discrimination.
 - (Optional) A sample of such a license (or material licensing terms) that is substantially similar to what the Submitter would offer is attached.

b. The Submitter will grant a license under reasonable rates to an unrestricted number of applicants on a worldwide basis with reasonable terms and conditions that are demonstrably free of unfair discrimination.

(Optional) These reasonable rates will not exceed _____ (e.g., percent of product price, flat fee, per unit).

(Optional) A sample of such a license (or material licensing terms) that is substantially similar to what the Submitter would offer is attached.

c. The Submitter without conditions will not enforce any present or future Essential Patent Claims against any person or entity making, using, selling, offering to sell, importing, distributing, or implementing such a compliant implementation.

d. The Submitter is unwilling or unable to grant licenses according to the provisions of either a or b above or to agree that it will not enforce its Essential Patent Claims as described in c above.

2. After a Reasonable and Good Faith Inquiry, the Submitter is not aware of any Patent Claims that the Submitter may own, control, or have the ability to license that might be or become Essential Patent Claims.

E. SCOPE OF ASSURANCE:

Note: The Submitter must complete this section if box 1 in part D above is checked.

The Submitter may, but is not required to, identify one or more of its Patent Claims that it believes might be or become Essential Patent Claims. *(Submitter must check box 1 or box 2 below)*

1. When checked, this Letter of Assurance only applies to the Patent Claims identified below that are or become Essential Patent Claims. (If no Patent Claim is identified below, then this Letter of Assurance applies to all Essential Patent Claims supported by the disclosure in the patent or patent applications listed below.)

Patent/Application/Docket Number:
Description/Title (optional):

Claim (optional):

Patent/Application/Docket Number:
Description/Title (optional):

Claim (optional):

Patent/Application/Docket Number:
Description/Title (optional):

Claim (optional):

For additional patents, use additional pages as necessary.

2. When checked, this Letter of Assurance is a Blanket Letter of Assurance. As such, all Essential Patent Claims that the Submitter may currently or in the future have the ability to license shall be available under the terms as indicated above in part D.1; however, a Blanket Assurance shall not supersede any pre-existing or simultaneously submitted specific assurance identifying potential Essential Patent Claims.

DEFINITIONS

The following terms, when capitalized, have the following meanings:

"Accepted Letter of Assurance" and *"Accepted LOA"* shall mean a Letter of Assurance that the IEEE-SA has determined is complete in all material respects and has been posted to the IEEE-SA web site.

"Affiliate" shall mean an entity that directly or indirectly, through one or more intermediaries, controls the Submitter, is controlled by the Submitter, or is under common control with the Submitter. For the purposes of this definition, the term "control" and its derivatives, with respect to for-profit entities, means the legal, beneficial or equitable ownership, directly or indirectly, of more than fifty percent (50%) of the capital stock (or other ownership interest, if not a corporation) of an entity ordinarily having voting rights. "Control" and its derivatives, with respect to nonprofit entities, means the power to elect or appoint more than fifty percent (50%) of the Board of Directors of an entity.

"Blanket Letter of Assurance" shall mean a Letter of Assurance that applies to all Essential Patent Claims for which a Submitter may currently or in the future (except as otherwise provided for in these Bylaws and in the *IEEE-SA Standards Board Operations Manual*) have the ability to license.

"Enabling Technology" shall mean any technology that may be necessary to make or use any product or portion thereof that complies with the [Proposed] IEEE Standard but is neither explicitly required by nor expressly set forth in the [Proposed] IEEE Standard (e.g., semiconductor manufacturing technology, compiler technology, object-oriented technology, basic operating system technology, and the like).

"Essential Patent Claim" shall mean any Patent Claim the use of which was necessary to create a compliant implementation of either mandatory or optional portions of the normative clauses of the [Proposed] IEEE Standard when, at the time of the [Proposed] IEEE Standard's approval, there was no commercially and technically feasible non-infringing alternative. An Essential Patent Claim does not include any Patent Claim that was essential only for Enabling Technology or any claim other than that set forth above even if contained in the same patent as the Essential Patent Claim.

"Letter of Assurance" and *"LOA"* shall mean a document, including any attachments, stating the Submitter's position regarding ownership, enforcement, or licensing of Essential Patent Claims for a specifically referenced IEEE Standard, submitted in a form acceptable to the IEEE-SA.

"Patent Claim(s)" shall mean one or more claims in issued patent(s) or pending patent application(s).

"Reasonable and Good Faith Inquiry" includes, but is not limited to, a Submitter using reasonable efforts to identify and contact those individuals who are from, employed by, or otherwise represent the Submitter and who are known to the Submitter to be current or past participants in the development process of the [Proposed] IEEE Standard identified in a Letter of Assurance, including, but not limited to, participation in a Sponsor Ballot or Working Group. If the Submitter did not or does not have any participants, then a Reasonable and Good Faith Inquiry may include, but is not limited to, the Submitter using reasonable efforts to contact individuals who are from, employed by, or represent the Submitter and who the Submitter believes are most likely to have knowledge about the technology covered by the [Proposed] IEEE Standard.

"Statement of Encumbrance" shall mean a specific reference to an Accepted LOA or a general statement in the transfer or assignment agreement that the Patent Claim(s) being transferred or assigned are subject to any encumbrances that may exist as of the effective date of such agreement. An Accepted LOA is an encumbrance.

"Submitter" when used in reference to a Letter of Assurance shall mean an individual or an organization that provides a completed Letter of Assurance. A Submitter may or may not hold Essential Patent Claims.

Should any discrepancy exist between the definitions above and the definitions in the IEEE-SA Standards Board Bylaws clause 6.1, the definitions contained in the Bylaws shall control.