

FIRA CONSORTIUM, INC.
INTELLECTUAL PROPERTY RIGHTS POLICY

As approved on June 26, 2019 and amended on March 4, 2020 and December 11, 2020

Effective as of February 10, 2021

1. IPR Generally

1.1 Purpose

FiRa Consortium (the "Consortium") has adopted this Intellectual Property Rights Policy (this "IPR Policy" or "Policy") and related rules of procedure (the "Rules of Procedure") in order to minimize the possibility of inadvertent infringement of the IPR of Members and third parties using or implementing any Consortium Standards.

1.2 Applicability

All Members and all Member Representatives are subject to this Policy and the Rules of Procedure.

1.3 Software Scope

In addition to text documents, this IPR Policy applies to any (a) Software developed by a Working Group for inclusion in a Draft Standard or Standard, and (b) any Software Reference Implementation of all or part of a Draft Standard or Standard. To the extent that any Working Group develops any other Software (e.g., tools or other stand-alone Software), the submission and licensing terms relating to such Software shall be determined at the time that the Working Group is created and reflected in a charter approved by the Board of Directors.

2. Definitions

Term	Definition
Defensive Revocation	A term in a License entitling the licensor to revoke a License if the licensee (i) refuses to offer the licensor a License to any Necessary Claims under the same Standard Owned by it or any of its Related Parties for purposes of implementing the same Standard, or (ii) asserts a Necessary Claim against the licensor under the same Standard Owned by it or any of its Related Parties, where infringement of such Necessary Claim results solely from the implementation of such Standard.
Draft Standard	A technical Standard or other material that is produced by a Working Group that could, if used or implemented as intended, infringe a claim(s) under an issued patent or a patent application anywhere in the world.
Implementers	Those Members that desire to use or implement a Standard.
IPR	An abbreviation of "Intellectual Property Rights". As used in this Policy, IPR means claims in patents and patent applications and copyrights. IPR excludes design patents, trademarks and trade secrets, none of which are included in a Participant and Member's licensing obligations.
License	Either (a) an agreement to license Necessary Claim(s) to any Implementer, either with or without RAND compensation, and otherwise on a RAND, perpetual, irrevocable (except as provided in this IPR Policy), non-exclusive basis solely for purposes of complying with a Standard and making, having made, using, marketing, importing, exporting, offering to sell and selling, and otherwise distributing the Fully Compliant portions of products, or (b) a binding, perpetual, irrevocable (except as provided in this IPR Policy), commitment not to assert Necessary Claim(s) against any Implementer of the Standard to which such commitment relates. For purposes of this Policy, a License to Necessary Claim(s) is deemed to include a Reciprocity and Defensive Revocation term, and "Fully Compliant" portions are the specific portions of products (hardware, software or combinations thereof) that: (i) implement and are compliant with the Required Elements of a Standard, and (ii) are qualified pursuant to the applicable Consortium test, certification, and qualification process, if any.
Member	A Consortium member of any class.

<p>Necessary Claims</p>	<p>Those claims under patents and/or patent applications anywhere in the world that are subject to Necessary Infringement. In the case of Software for inclusion in a Draft Standard or Standard, or of material for inclusion in a Reference Implementation, “Necessary Infringement” in this definition refers to unavoidable infringement of claims under patents and/or patent applications anywhere in the world Owned by the Submitter or any of its Related Parties resulting from the use or distribution of such Submission to the extent it becomes incorporated in a Standard or Reference Implementation, but excluding unavoidable infringement resulting from the implementation of any third-party standard or specification (whether developed by the third party alone or collaboratively with the Consortium or others), or any portion thereof.</p>
<p>Necessary Claims Review Period</p>	<p>Either (a) 60 days from the date electronic notice has been sent to each Member that the Draft Standard has entered an exclusion period or (b) such shorter period of time, not less than 30 days, as determined by the Board of Directors based on the recommendation of the relevant Working Group chair.</p>
<p>Necessary Infringement</p>	<p>Unavoidable infringement of claims under patents and/or patent applications anywhere in the world resulting from the implementation of the Required Elements of a Standard or Reference Implementation, there being no technically feasible approach currently available to avoid such infringement. For the avoidance of doubt, Necessary Infringement excludes infringement of claims resulting solely from the implementation of any third-party standard or specification (whether developed by the third party alone or collaboratively with the Consortium or others), or any portion thereof, and merely incorporated by reference in the body of a Standard or Reference Implementation.</p>
<p>Non-discriminatory</p>	<p>Available to an Implementer under terms that are substantially identical to the terms made available to other substantially similar Implementers of the same Standard under similar circumstances.</p>
<p>Owned</p>	<p>With respect to any Necessary Claim(s), the word “Owned” includes any Necessary Claim(s) that are owned, controlled, or licensable (without any payment obligation to or permission from a third party other than a Related Party), even if not registered in the name of the Member.</p>
<p>Other Work Product</p>	<p>Any Working Group deliverable that is not a Draft Standard, Standard, or Reference Implementation. Unless the context otherwise requires, any reference to the adoption of Other Work Product shall also be deemed to apply to the adoption of an amendment to that Other Work Product as well.</p>

Participant	Any Member, including an Educational and Academic Member (each as defined in the Bylaws of the Consortium) that designates an observer pursuant to the Bylaws, that enrolls to take part in a Working Group that has not withdrawn from such Working Group within 45 calendar days of its enrollment.
Party	Any Member, Participant, Submitter or other person or entity that is bound by this Policy.
RAND	Reasonable and Non-discriminatory.
Reasonable	License terms relating to Necessary Claims that are not more onerous (including as to price) than could be obtained by the Owner of such claims in the open market absent their inclusion in a Standard.
Reciprocity	A License term requiring a licensee to provide a License back to the licensor with respect to any Necessary Claim(s) Owned by the licensee under the same Standard.
Reference Implementation	Software representing an implementation of some or all of the Required Elements of a Draft Standard or Standard, which complies with the applicable Draft Standard or Standard, and which has been formally adopted by the Consortium.

<p>Related Party</p>	<p>With respect to a Member, any past, present or future Person (defined below) that (a) is owned or controlled, directly or indirectly, by that Member; or (b) owns or controls that Member (either directly or indirectly); or (c) is under common ownership or control, directly or indirectly, with that Member. For purposes of the foregoing: (i) “owned”, “owns”, and “ownership” mean, with respect to a Person, the beneficial ownership of fifty percent (50%) or more of the voting equity securities or other equivalent voting interests of the Person (or less if the country of incorporation or the country of domicile of the entity requires that foreign ownership be less than fifty percent (50%)); (ii) “controlled”, “controls” and “control” means (A) the ability to elect a majority of the board of directors, (B) in relation to a partnership or other unincorporated association, the right to a share of more than half of its net assets or net income, (C) the power to direct or control the management and affairs of a Person (e.g., a subsidiary), or (D) the ownership of securities or other instruments representing fifty percent (50%) or more of the outstanding voting power of a particular Person, which shall conclusively constitute control for purposes of this definition (or less if the country of incorporation or the country of domicile of the entity requires that foreign ownership be less than fifty percent (50%)); and (iii) “Person” means a trust, corporation, partnership, joint venture, limited liability company, association, unincorporated organization or other legal or governmental entity. Any Member or potential Member that finds it impossible to secure the agreement of its ultimate parent company to be bound by this Policy, or otherwise believes that the application of this definition to its Related Parties would result in unfairness, as applied in its unique circumstances, may apply for a limited and fact-specific exemption on such form as the Consortium may from time to time make available for that purpose.</p>
<p>Representative</p>	<p>Any individual that acts on behalf of a Member in connection with a Working Group, or in the completion of any form to be delivered to the Consortium pursuant to the Policy or the Rules of Procedure.</p>

<p>Required Element</p>	<p>Any element of a Draft Standard or Standard that has not been identified as “Optional.” For the avoidance of doubt, when a Draft Standard or Standard requires an Implementer to implement one of two or more alternative elements, then all such elements shall be deemed to be “Required Elements.”</p>
<p>Software</p>	<p>Any combination of text listing of commands to be interpreted or to be compiled, translated, or assembled into an executable computer program; text listings that describe data structures; text listing that specifies an Application Programming Interface (API) used to interact with some executable computer service (including access from an executable computer program, library, or remotely via a telecommunications interface); binary data files; executable, object, or other intermediate executable code files; and text listings that describe the behavior of modeled devices or objects (e.g., XML, YANG, etc.).</p>
<p>Standard</p>	<p>A Draft Standard that has been formally adopted by the Consortium. Unless the context otherwise requires, any reference to the adoption of a Standard shall also be deemed to apply to the adoption of an amendment to a Standard as well.</p>
<p>Submission</p>	<p>An affirmative and knowing contribution of material with the intention that such material be considered for inclusion in a Standard, Reference Implementation, or Other Work Product that is (a) accompanied by a Submission of Technology form in the form attached to the IPR Policy as Appendix A, or (b) made at any time during a Working Group meeting (even if the Submitter subsequently withdraws from the Working Group within 45 calendar days of its enrollment), where such contribution has been recorded in the minutes of such meeting, and where the maker of the contribution has not objected to such text after the minutes have been posted for review (for at least 30 days) by all Working Group Participants. Submissions of Software or software for inclusion in a Reference Implementation must additionally be accompanied by a completed Software Submission form in the form attached to this IPR Policy as Appendix B.</p>
<p>Submitter</p>	<p>Both a Member as well as any Representative(s) of a Member, and any other person or entity making a Submission that is bound by the Policy under a separate written agreement (e.g. a “guest” agreement).</p>

Technical Committee	At any relevant time, the most senior technical committee of the Consortium.
Working Group	A formally chartered Consortium technical development committee that is intended to produce a Standard or Other Work Product.

3. Patents

The terms of this Section 3 apply to Draft Standards, Standards, Software and Reference Implementations, but not to Other Work Product.

3.1 Obligations of Submitters at Time of Submission

Any Submitter, by making a Submission, agrees that if the Draft Standard in connection with which the Submission is made is finally approved by the Consortium, the Submitter and each of its Related Parties will provide a License to all Necessary Claims Owned by it or any of its Related Parties and included in its Submission that become Necessary Claim(s) of the resulting Standard to all Implementers, either (i) without compensation and otherwise on a RAND basis or (ii) with RAND compensation and otherwise on a RAND basis. Each Submitter shall submit a Submission of Technology Declaration Form in the form of [Appendix A](#), either at the time of the Submission, or if the Submission was made during a Working Group meeting without submission of such form, within sixty days of the day such Submission was referenced in the minutes of such Work Group meeting. Pursuant to such form, a Submitter may elect to provide such License without compensation by selecting that option in the form, provided that a Submitter that fails to submit such form in accordance with the preceding sentence shall be deemed to have agreed that the License to be so provided shall be on the terms specified in Section 3.1(ii) above.

3.2 Obligations of Participants

(a) Every Member, by becoming a Participant in a Working Group, agrees that if a Draft Standard produced by such Working Group during Participant's membership in the Working Group is finally approved by the Consortium, the Member and each of its Related Parties will provide a License to all Necessary Claims Owned by it or any of its Related Parties under the resulting Standard, either (i) without compensation and otherwise on a RAND basis or (ii) with RAND compensation and otherwise on a RAND basis, in each case, subject to Section 3.2(b). When a Member joins a Working Group, the Member does not incur License obligations for any Standards developed by the Working Group and finally approved by the Consortium before the Member joins the Working Group. Each Participant in the Working Group during the development of a Draft Standard (including a Participant that withdraws from the Working Group before the Draft Standard is completed, in the manner provided in Section 3.12) shall submit a written election in the form of [Appendix C](#) to this Policy prior to the expiration of the Necessary Claims Review Period relating to such Draft Standard.

(b) A Participant separately may elect to withhold a License to some or all of its Necessary Claim(s) under a Draft Standard by submitting a written election identifying such withheld Necessary Claims in the form of [Appendix C](#) prior to the expiration of the Necessary Claims Review Period relating to such Draft Standard.

(c) In the event that a Participant fails to timely return a signed and completed election form in accordance with Section 3.2(a) or 3.2(b) above, then such Participant shall be deemed to have elected to provide the License required by Section 3.2(a) as set forth in Section 3.2(a)(ii).

(d) Notwithstanding anything to the contrary, an election form returned pursuant to this Section 3.2 by a Participant that was a Submitter shall apply only to those portions of a Draft Standard that do not derive from such Participant's Submission, and the Submitter's original undertakings under Section 3.1 above shall continue to be binding as to all Necessary Claims Owned by the Submitter or any of its Related Parties included in its Submission that become Necessary Claim(s) of the resulting Standard. For example, if a Submitter elects to provide a License without compensation by selecting that option in the Submission of Technology Declaration Form pursuant to Section 3.1, that election continues to be binding as to the Submitter's Necessary Claims included in its Submission even if the Submitter later elects to provide a License with RAND compensation by selecting that option in the written election in the form of [Appendix C](#) to this Policy pursuant to Section 3.2(a).

Note: A Participant may elect different options above with respect to different Necessary Claims, but its elections, taken together, must apply to all Necessary Claims Owned by it or any of its Related Parties.

3.3 Elections by Non-Participant Members

A non-Participant Member may, if it wishes, irrevocably commit to License its Necessary Claims Owned by it under a Draft Standard, either with or without RAND compensation and otherwise on a RAND basis, by submitting a fully completed written election in the form of [Appendix D](#) to this Policy. A non-Participant Member may also withhold Necessary Claims, by identifying such Necessary Claims as withheld in such written election form.

Note: A non-Participant Member may elect different options above with respect to different Necessary Claims as specified in [Appendix D](#).

3.4 Necessary Claims Exclusions

If a License is withheld by any Participant or non-Participant Member with respect to a Draft Standard, it shall be referred back to the Board of Directors for consideration and possible action before it can be finally approved by the Consortium.

3.5 Patent Calls

At the beginning of every in-person meeting and teleconference that occurs as a part of the technical process, and at any other appropriate time in the course of electronic collaboration as may be provided for under the Rules of Procedure, the following patent call shall be read:

Please be aware that this meeting is being held under the Intellectual Property Rights Policy adopted by the Consortium. If you do not have a copy of this policy, please see me during this meeting. You may also view and download a copy of that policy at the FiRa Governing Documents section of the Consortium website.

At this time, I would ask that anyone in attendance inform me if they are personally aware of any claims under any patent applications or issued patents that would be likely to be infringed by an implementation of the Draft Standard, Standard or Other Work Product which is the subject of this meeting. You need not be the inventor under such patent or patent application anywhere in the world in order to inform us of its existence, nor will you be held responsible for expressing a belief that turns out to be inaccurate.

3.6 Ownership of Working Group Work Product

As regards any portion of a Draft Standard that is collaboratively created in a Working Group (i.e., a portion that was not a formal Submission), the following rules shall apply:

(a) Each Member that was a Participant in a Working Group agrees that if: (i) the Draft Standard of that Working Group is finally approved by the Consortium, (ii) any Representative of such a Participant in such Working Group is named as an inventor in any patent and/or patent application anywhere in the world, where such patent and/or patent application contains a Necessary Claim(s) Owned by the Participant or any of its Related Parties under such finally adopted Standard, and (iii) that claim was developed or discovered as a result of such collaboration; then neither such Participant nor any of its Related Parties shall assert such Necessary Claim(s) anywhere in the world against any Implementer with respect to its implementing of such Standard.

(b) In the event that any such inventor or Participant or any of its Related Parties shall breach the foregoing obligation, the Consortium shall have no obligation to intervene, but such Implementer shall be entitled to claim protection, and assert a complete defense against such action, under this Section 3.6 as a third-party beneficiary.

3.7 Patent Searches

In no event shall the Consortium, Representative, Participant or non-Participant Member, or any of their Related Parties be obligated to conduct any patent searches

regarding any Necessary Claims (whether Owned by such entity or by third parties) that may be infringed by any implementation of a Draft Standard, Standard or Reference Implementation.

3.8 Confidential and Proprietary Information

For the avoidance of doubt, the disclosure obligations set forth in this Section 3 shall not require a Member to violate the terms of any written non-disclosure agreement with a third party that is not (i) a Related Party of such Member, or (ii) controlled by, or under common control with, a Related Party of such Member, provided that (a) such agreement has not been entered into with the purpose, in whole or in part, of avoiding disclosure under this IPR Policy, and (b) the Member makes such disclosure as it is able to make without violating such agreement, and at minimum discloses (x) the fact that it has knowledge of a patent claim that it would otherwise be obligated to disclose, and (y) the portion of the Draft Standard that would result in infringement of such patent claim.

3.9 Transfers of Necessary Claims

(a) Each Party bound by this Policy agrees that it will not transfer, and has not transferred, Ownership of any patents or patent applications having Necessary Claims solely for the purpose of circumventing such Party's obligations under this IPR Policy.

(b) No Party bound by this Policy shall transfer Ownership in any patent or patent application having Necessary Claims, except to a successor that agrees in writing to (i) be bound by all commitments previously made by the direct or indirect transferor(s) under this Policy with respect to such patent or patent application, and (ii) include the obligations set forth in this Section 3.9 in any document of transfer relating to such patent or application in the event that it later transfers the same.

3.10 Patent Claims Revealed After Publication

In the event that a Necessary Claim is first revealed following adoption of a Standard by the Consortium, the Owner of such claim will be asked to License the Necessary Claim in the manner outlined in Section 3.1 above. If such request is refused, the Standard in question shall be referred back to the Technical Committee for consideration and possible action.

3.11 Document Notations

All electronic and tangible copies of Draft Standards that are subject to Member IPR review, and all Standards, shall include the relevant legend specified on [Appendix E](#).

3.12 Resignation as a Member

(a) Participants. Any Participant that terminates its participation in a Working Group or its membership in the Consortium while a Draft Standard is under development

in that Working Group shall be bound by a continuing License obligation with respect to such Draft Standard in the event it is finally adopted, provided that such obligation shall only extend to Necessary Claims that satisfy all of the following: such claims (i) were not withheld under a timely filed [Appendix C](#) pursuant to Section 3.2, and (ii) were Necessary Claims under the Draft Standard at the time of such Participant's termination, and (iii) remain Necessary Claims under the resulting Standard. At the election of such Participant, such Necessary Claim(s) may be excluded from the License if excluded pursuant to the process set forth in 3.2(b) and within the earlier of (1) 60 days of Participant's termination; and (2) the expiration of the applicable Necessary Claims Review Period.

(b) Non-Participants. Any Member that elected to grant a License under Section 3.3 with respect to a Draft Standard being developed by a Working Group that terminates its membership in the Consortium while such Draft Standard is under development in that Working Group shall be bound by a continuing License obligation with respect to such Draft Standard in the event the Draft Standard is finally adopted, provided that such obligation shall only extend to Necessary Claims that satisfy all of the following: such claims (i) were subject to a commitment to grant a License under a filed [Appendix D](#) pursuant to Section 3.3, (ii) were Necessary Claims under the Draft Standard at the time of such Member's termination, and (iii) remain Necessary Claims under the resulting Standard.

4. Copyrights

4.1 Copyright in Standards

Subject to Section 4.3 below with respect to Software, the copyright for all Draft Standards, Standards and Other Work Product shall belong to the Consortium.

4.2 Contributions of Copyrighted Materials

Subject to Section 4.3 below with respect to Software, each Submitter who contributes copyrighted materials to the Consortium shall retain copyright ownership of its original work, while at the same time granting the Consortium a non-exclusive, irrevocable, worldwide, perpetual, royalty-free license under the Submitter's copyrights in its Submission to reproduce, distribute, publish, display, perform, and create derivative works of the Submission based on that original work for the purpose of developing a Draft Standard, Standard or Other Work Product under the Consortium's own copyright.

4.3 Software

(a) Prior to or at the time of making a Submission of Software to a Working Group for inclusion in a Draft Standard or making a Submission for inclusion in a Reference Implementation, the Submitter shall complete and submit a Software Submission Form ([Appendix B](#) to this Policy).

(b) Each Submitter who makes a Submission of Software to a Working Group

for inclusion in a Draft Standard or makes a Submission for inclusion in a Reference Implementation shall have the right, at its election, to retain copyright ownership of such Software, while at the same time granting the Consortium and all Implementers and users a license in accordance with Section 4.3(c)(ii).

(c) Once any Draft Standard including Software or any Reference Implementation is formally adopted by the Consortium, , each Submitter who made a Submission of Software to that Draft Standard or Reference Implementation shall, in accordance with the election it made in its Submission Form, either:

- (i) transfer its copyright ownership in such Software to the Consortium; or
- (ii) grant to the Consortium and any Implementer and user a non-exclusive, irrevocable, worldwide, perpetual, royalty-free license under Submitter's copyrights in such Software to redistribute and use the same in source and binary forms, with or without modification, for the sole purpose of developing or implementing the Standard or a Reference Implementation, as appropriate.

In the event that a Submitter has elected the first option above and selected the Copyright Grant-Back License option in Appendix B hereto, the Consortium shall grant the following copyright grant-back license to the Submitter:

The Consortium hereby grants to Submitter a non-exclusive, irrevocable, perpetual, worldwide, royalty-free, sublicenseable and transferable copyright license to use, copy, prepare derivative works of, modify, distribute directly or indirectly through multiple tiers, publicly perform and publicly display by all means now known or later discovered, and/or otherwise fully exploit its Software Submission(s) and any derivative works thereof or modifications created thereto for any purpose or use.

(d) Necessary Claims in any Software Submission made to a Working Group for inclusion in a Draft Standard or Standard, or in any Submission submitted to a Working Group for inclusion in a Reference Implementation, shall be subject to all of the rights and obligations applicable to Necessary Claims in this Policy including the patent licensing requirements of Section 3.1 and transfer requirements of Section 3.9 (above).

Notwithstanding the preceding sentence, no other express or implied licenses to any Party's patent rights are granted by this Section 4.3.

(e) Unless otherwise approved by the Board of Directors, all Software included in any Draft Standard or Standard shall be licensed by the Consortium under a copyright license, as maintained by the Consortium, that grants any Implementer and user a non-exclusive, irrevocable, worldwide, perpetual, royalty-free license under the Consortium's copyrights in such Software to redistribute and use the same in source and binary forms, with or without modification, for the sole purpose of developing or implementing the Standard or a Reference Implementation, as appropriate.

5. Trade Secrets

Participants and other Members will not be expected to reveal trade secret information in the course of participation in any Consortium activity, nor will they be asked by the Consortium to sign non-disclosure agreements. The Consortium will not be held responsible for the disclosure of any Member's or non-Member's trade secrets, regardless of the circumstances.

6. Trademarks

6.1 Consortium Trademarks

Trademarks created by the Consortium, registered or otherwise, are the property of the Consortium. Use of Consortium trademarks shall be governed by such policies, procedures and guidelines as may be established and approved by the Consortium from time to time, and applicable law.

6.2 Non-Consortium Trademarks

The Consortium's use of third-party trademarks, registered or otherwise, shall be governed by such policies, procedures and guidelines as may be established and approved by the owners of such trademarks, and applicable law.

7. Irrevocability and Binding Nature of Commitments

All commitments made under this policy shall be irrevocable, except that the Owner of a Necessary Claim is deemed to include a Reciprocity and Defensive Revocation term in a License to its Necessary Claims.

8. Survival of Obligations

(a) Any License obligations and other obligations that a Member incurs under this Policy shall continue in force after the Member ceases to be a Member for any reason. To the extent that a Party bound by this Policy or any of its Related Parties incurs any License obligation with respect to a Standard, and files a continuation, continuation in part, divisional or other patent instrument based upon a patent or patent application filed prior to the applicable Member's resignation or termination that included a Necessary Claim or included disclosure sufficient to support the filing of a Necessary Claim that was subject to such License obligation, and such new instrument includes a new patent claim that would result in Necessary Infringement by such Standard, then any such patent claim shall be deemed to be a Necessary Claim subject to the terms of this IPR Policy, and such Party and each of its Related Parties shall be under an obligation to offer a License to such Necessary Claim under the Standard, unless excluded pursuant to 3.2(b), 3.3 or 3.12, to all would-be Implementers of such Standard with respect to such patent claims. Except as stated in this paragraph, no Member shall become subject to any new License obligations or other obligations under this Policy after it ceases to be a Member.

(b) The Consortium shall have the right to assign all of its rights under this Policy, and the right to enforce all obligations incurred by Members and Participants under this Policy, to any successor to the mission of the Consortium.

(c) All persons and entities that are intended third party beneficiaries of rights and obligations incurred under this Policy shall remain entitled to enforce the same, notwithstanding any termination, dissolution or winding up of the Consortium.

9. Amendment

This IPR Policy may only be amended by the affirmative action of not less than eighty percent of the then-serving members of the Board of Directors. No such change shall have retrospective effect, nor take effect less than sixty calendar days prior to the date upon which the notice of such change has been sent to each Member.



Appendix A

FIRA CONSORTIUM, INC.

SUBMISSION OF TECHNOLOGY DECLARATION FORM

NOTE: This form is subject to the Intellectual Property Rights Policy (the "IPR Policy") of FiRa Consortium, Inc. (the "Consortium"), and related Consortium Rules of Procedure (collectively, such documents are referred to below as the "Policies and Procedures"). ***All capitalized terms used in this form are intended to have the meanings given to them in the IPR Policy.***

NOTE: A Submitter must submit this form in accordance with Section 3.1 of the IPR Policy. All blanks (including those associated with Exhibit B, when applicable) must be completed in order for this Submission to be given consideration.

Name of Submitter:	
Name of Representative Completing this Form on Behalf of Submitter:	
Mailing Address of Representative:	
Email Address of Representative:	
Draft Standard and RFP (if any) to which this Submission relates:	

A. The Representative hereby represents the following on behalf of him/herself and the Submitter, as the context requires:

1. The Representative is authorized to make the Submission attached as **Exhibit A** on behalf of the Submitter, and to make the following representations and warranties.
2. The Submitter has reviewed the Policies and Procedures and agrees that its Submission is being made in full compliance with the same.
3. The Submitter hereby irrevocably agrees to the following (*the Submitter must elect at least one of the following*):

_____ Royalty Free RAND License. If the Draft Standard is finally approved by the Consortium, the Submitter and each of its Related Parties will provide a License to all Necessary Claims Owned by it or any of its Related Parties and included in its Submission that become Necessary Claim(s) of the resulting Standard without compensation and otherwise on a RAND basis, to all Implementers;

_____ RAND License with Royalty. Agrees to the same terms as the Royalty Free RAND License above, but reserves the right to charge a royalty or other compensation on RAND terms for all Necessary Claims; or

_____ Split Licenses. Agrees to the same terms as the RAND License with Royalty above, but without compensation and otherwise on RAND terms in connection with the Necessary Claims identified as “RAND Free Claims” on **Exhibit B**.

Notes:

(a) A Member may elect different options above with respect to different Necessary Claims, but its elections, taken together, must apply to all Necessary Claims Owned by it and its Related Parties.

(b) In the case of Necessary Claims under non-public patent applications, the disclosure of such claims on **Exhibit B** need not be in such detail as would disclose any trade secrets.

4. The Submitter hereby agrees that the Consortium may copy, distribute and otherwise make available this Submission for the purpose of evaluation, and that in the event that the Submission is accepted, in whole or in part, that the Consortium will own the copyright in the resulting Standard and all rights therein, including the rights of distribution. This agreement shall not in any way deprive the Submitter of any patent claims relating to the technology to which its Submission relates.

5. The Submitter is not aware of any Necessary Claim(s) or other IPR of any third party that might be infringed by the implementation of the Standard referenced above as a result of the incorporation of the Submission into a Standard or any related Referenced Implementation, whether in whole or in part. If the Submitter is aware of any such potential infringement, then the Submitter has described such Necessary Claim(s) and other IPR on **Exhibit B**, together with any supporting documentation that may be readily available to the Submitter.

B. The Consortium, in accepting this Submission, acknowledges the following:

1. The representation required in paragraph A.5 above is being solicited purely for informational purposes, and the Consortium will not be relying on such representation or otherwise holding the Representative or Submitter responsible for its completeness or accuracy.



IPR POLICY

2. EXCEPT AS SPECIFICALLY PROVIDED FOR ABOVE, THIS SUBMISSION IS BEING OFFERED WITHOUT ANY WARRANTY WHATSOEVER, AND IN PARTICULAR, ANY WARRANTY OF NON-INFRINGEMENT IS EXPRESSLY DISCLAIMED, EXCEPT TO THE EXTENT OF KNOWING FALSITY IN ANY STATEMENT MADE ABOVE. ANY IMPLEMENTATION OF ANY STANDARD INCORPORATING THIS SUBMISSION IN WHOLE OR IN PART SHALL BE MADE ENTIRELY AT THE IMPLEMENTER'S OWN RISK, AND THE SUBMITTER SHALL HAVE NO LIABILITY WHATSOEVER TO ANY IMPLEMENTER OR THIRD PARTY FOR ANY DAMAGES OF ANY NATURE WHATSOEVER DIRECTLY OR INDIRECTLY ARISING FROM SUCH IMPLEMENTATION, EXCEPT AS A RESULT OF ANY KNOWING FALSITY IN ANY STATEMENT MADE ABOVE.

This submission has been made on _____, 20__.

Name of Submitter

By: _____
Signature of Representative

Name: _____

Exhibit A

SUBMISSION

Insert description of Submission in such detail as may from time to time be required under the Policies and Procedures.

Exhibit B

RAND FREE CLAIMS

List here all Necessary Claim(s) Owned by the Submitter or any of its Related Parties for which the Submitter or any such Related Party agrees to provide a License without royalty or other compensation and otherwise on RAND terms.

Jurisdiction and Patent Number	Necessary Claims

THIRD PARTY NECESSARY CLAIMS AND OTHER IPR

List here all Necessary Claim(s) and other IPR Owned by third parties, to the extent of Submitter's knowledge.

Jurisdiction and Patent Number	Necessary Claims and Other IPR	Affected Portion of Submission or Standard

Appendix B

FIRA CONSORTIUM, INC.

SOFTWARE SUBMISSION

NOTE: This form is subject to the Intellectual Property Rights Policy (the "IPR Policy") of FiRa Consortium (the "Consortium"), and related Consortium Rules of Procedure (collectively, such documents are referred to below as the "Policies and Procedures"). *All capitalized terms used in this form are intended to have the meanings given to them in the IPR Policy.*

By making this Software Submission, Submitter represents and warrants that he/she has the necessary rights and authority to make the commitments set forth below.

A. This form relates to (you must choose one):

_____ All Software the undersigned Submitter may contribute to the _____ Working Group.

_____ The Software described in an attachment to this form.

B. Copyright elections (you must choose one):

Submitter accepts and agrees to one of the following options for all Software referenced in Section A above which is Submitted by it:

_____ **Copyright Assignment.** Contingent upon Submitter's Submission(s) being included in a Draft Standard or a Reference Implementation that is formally adopted by the Consortium, Submitter hereby assigns to the Consortium all copyright rights and copyright interests in its Software Submission(s). Such assignment is made expressly subject to any pre-existing non-exclusive licenses or other nonexclusive rights already granted with respect to such Software Submission(s). SUCH SOFTWARE SUBMISSION IS PROVIDED TO THE CONSORTIUM BY THE SUBMITTER AND ITS CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE DISCLAIMED. IN NO EVENT SHALL THE SUBMITTER OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION), HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING



NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE SUBMISSION, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This copyright assignment is subject to the Consortium granting the following copyright grant-back license, if selected:

_____ **Copyright Grant-Back License.** Upon the Copyright Assignment described above occurring, the Consortium hereby grants to Submitter a non-exclusive, irrevocable, perpetual, worldwide, royalty-free, sublicenseable and transferable copyright license to use, copy, prepare derivative works of, modify, distribute directly or indirectly through multiple tiers, publicly perform and publicly display by all means now known or later discovered, and/or otherwise fully exploit its Software Submission(s) and any derivative works thereof or modifications created thereto for any purpose or use.

_____ **Copyright License Grant.** Contingent upon Submitter's Software Submission(s) being included in a Draft Standard or a Reference Implementation that is formally adopted by the Consortium, Submitter hereby grants to the Consortium and any Implementer and user a non-exclusive, irrevocable, worldwide, perpetual, royalty-free license under Submitter's copyrights in such Software to redistribute and use the same in source and binary forms, with or without modification, for the sole purpose of developing or implementing the Standard or a Reference Implementation, as appropriate.

IN WITNESS WHEREOF, the Submitter has executed this Submission Form through its duly authorized Representative.

Submitter: _____

By: _____

Name: _____

Title: _____

Date: _____

To be completed by the Consortium if the Submitter has selected the Copyright Assignment with Copyright Grant-Back License option above:



IPR POLICY

IN WITNESS WHEREOF, the Consortium has executed this Submission Form through its duly authorized representatives.

By: _____

Name: _____

Title: _____

Date: _____



Appendix C

FIRA CONSORTIUM, INC.

PARTICIPANT INTELLECTUAL PROPERTY RIGHTS ELECTION FORM

NOTE: This form is subject to the Intellectual Property Rights Policy (the "IPR Policy") of FiRa Consortium, Inc. (the "Consortium"), and related Consortium Rules of Procedure (collectively, such documents are referred to below as the "Policies and Procedures"). ***All capitalized terms used in this form are intended to have the meanings given to them in the IPR Policy.***

NOTE: A Participant ***must*** submit this form in order to elect to either (a) grant a License with respect to a Draft Standard in accordance with Section 3.2(a)(i) of the IPR Policy or (b) withhold Necessary Claims with respect to a Draft Standard in accordance with Section 3.2 of the IPR Policy. All blanks (including those associated with **Exhibit A**, when applicable) must be completed in order for this form to be given consideration.

Name of Member:	
Name of Representative Completing this Form on Behalf of Member:	
Mailing Address of Representative:	
Email Address of Representative:	
Draft Standard to which this Form relates:	

A. The Representative hereby represents the following on behalf of him/herself and the Member, as the context requires:

1. The Representative is authorized to complete and submit this Form on behalf of the Member, and to make the following representations and warranties.
2. The Representative and the Member have each reviewed the Policies and Procedures, and agree that this Form is being completed and submitted in full compliance with the same.
3. The Member hereby irrevocably agrees to the following (***the Member must elect only one of the following***):

_____ Royalty Free RAND License. If the Draft Standard is finally approved by the Consortium, the Member and each of its Related Parties will provide a License to all Necessary Claim(s) Owned by it or any of its Related Parties without compensation (“RAND Free”) and otherwise on a RAND basis, to all Implementers; or

_____ RAND License with Royalty. Agrees to the same terms as the Royalty Free RAND License above, but reserves the right to charge a royalty or other compensation on RAND terms (“RAND Royalty”) in connection with all Necessary Claims, or, if **Exhibit A** is submitted along with this Appendix, all Necessary Claims other than those identified as “RAND Free Claims” on **Exhibit A** (Necessary Claims not identified on **Exhibit A** will be Licensed on a RAND Royalty basis); or

_____ Withholding of License as to Identified Necessary Claims with RAND Free Default. Asserts that no guarantee of License rights is made (or that such rights will in fact be denied in some or all cases) as to the Necessary Claims Owned by it or any of its Related Parties and identified as “Withheld Claims” on **Exhibit A**, and agrees that all other Necessary Claims will be Licensed on a RAND Free basis (Necessary Claims not identified on **Exhibit A** will be Licensed on a RAND Free basis); or

_____ Withholding of License as to Identified Necessary Claims with RAND Royalty Default. Asserts that no guarantee of License rights is made (or that such rights will in fact be denied in some or all cases) as to the Necessary Claims Owned by it or any of its Related Parties and identified as “Withheld Claims” on **Exhibit A**, agrees that all Necessary Claims identified as “RAND Free Claims” on **Exhibit A** will be Licensed on a RAND Free basis, and agrees that all Necessary Claims not identified on **Exhibit A** will be Licensed on a RAND Royalty basis (Necessary Claims not identified on **Exhibit A** will be Licensed on a RAND Royalty basis).

Notes:

(a) A Member may elect any of the options above, but its election must apply to all Necessary Claims Owned by it and its Related Parties.

(b) In the case of Necessary Claims under non-public patent applications, the disclosure of such claims on **Exhibit A** need not be in such detail as would disclose any trade secrets.

4. The Representative is not aware of any Necessary Claim(s) or other IPR of any third party that might be infringed by the implementation of the Draft Standard referenced above. If the Representative is aware of any such potential infringement, then the Representative has described such Necessary Claim(s) and other IPR on **Exhibit A**, together with any supporting documentation that may be readily available to the Representative.



IPR POLICY

B. The Consortium, in accepting this Form, acknowledges that the representation required in paragraph A.4 above is being solicited purely for informational purposes, and the Consortium will not be relying on such representation or otherwise holding the Representative or Member responsible for its completeness or accuracy.

This Form has been submitted on _____, 20__.

Name of Member

By: _____
Signature of Representative

Name: _____

Exhibit A

RAND FREE CLAIMS

List here all Necessary Claim(s) Owned by the Member or any of its Related Parties for which the Member or any such Related Party agrees to provide a License without royalty or other compensation and otherwise on RAND terms.

Jurisdiction and Patent Number	Necessary Claim(s)

WITHHELD CLAIMS

List here all Necessary Claim(s) Owned by the Member or any of its Related Parties for which no Section 3.2 License will be provided.

Jurisdiction and Patent Number	Necessary Claims	Affected Portion of Submission or Standard

THIRD PARTY NECESSARY CLAIMS AND OTHER IPR

List here all Necessary Claim(s) and other IPR Owned by third parties, to the extent of the Representative's knowledge.

Jurisdiction and Patent Number	Necessary Claims and Other IPR	Affected Portion of Submission or Standard



Appendix D

FIRA CONSORTIUM, INC.

NON-PARTICIPANT INTELLECTUAL PROPERTY RIGHTS ELECTION FORM

NOTE: This form is subject to the Intellectual Property Rights Policy (the "IPR Policy") of FiRa Consortium, Inc. (the "Consortium"), and related Consortium Rules of Procedure (collectively, such documents are referred to below as the "Policies and Procedures"). ***All capitalized terms used in this form are intended to have the meanings given to them in the IPR Policy.***

NOTE: A non-Participant Member ***may*** submit this form in order to elect to either withhold Necessary Claims, or grant any License, with respect to a Draft Standard in accordance with Section 3.3. All blanks (including those associated with **Exhibit A**, when applicable) must be completed in order for this form to be given consideration.

Name of Member:	
Name of Representative Completing this Form on Behalf of Member:	
Mailing Address of Representative:	
Email Address of Representative:	
Draft Standard to which this Form relates:	

A. The Representative hereby represents the following on behalf of him/herself and the Member, as the context requires:

1. The Representative is authorized to complete and submit this Form on behalf of the Member, and to make the following representations and warranties.
2. The Representative and the Member have each reviewed the Policies and Procedures, and agree that this Form is being completed and submitted in full compliance with the same.
3. A Member is encouraged but not required to address all Necessary Claims Owned by it and its Related Parties. The Member hereby irrevocably agrees to the following (the Member must elect only one of the following with respect to any individual Necessary Claim):

- (a) _____ Identified Necessary Claim(s). If the Draft Standard is finally approved by the Consortium, the Member and each of its Related Parties (i) will provide to all Implementers (A) a License as to the Necessary Claim(s) Owned by it or any of its Related Parties and identified as “RAND Free Claims” on **Exhibit A** without compensation and otherwise on a RAND basis (“RAND Free”), and (B) a License as to the Necessary Claim(s) Owned by it or any of its Related Parties and identified as “RAND Royalty Claims” on **Exhibit A** with a royalty or other compensation on RAND terms and otherwise on a RAND basis (“RAND Royalty”), and (ii) asserts that no guarantee of License rights is made (or that such rights will in fact be denied in some or all cases) as to the Necessary Claims identified as “Withheld Claims” on **Exhibit A**; or
- (b) _____ Blanket Royalty Free RAND License. If the Draft Standard is finally approved by the Consortium, the Member and each of its Related Parties will provide a License to all Necessary Claim(s) Owned by it or any of its Related Parties on a RAND Free basis, to all Implementers; or
- (c) _____ RAND License with Royalty. If the Draft Standard is finally approved by the Consortium, the Member and each of its Related Parties will provide a License as to all Necessary Claim(s) Owned by it or any of its Related Parties on a RAND Royalty basis, or, if **Exhibit A** is submitted along with this Appendix, all Necessary Claims other than those identified as “RAND Free Claims” on **Exhibit A** (Necessary Claims not identified on **Exhibit A** will be Licensed on a RAND Royalty basis); or
- (d) _____ Withholding of License as to Identified Necessary Claims with RAND Free Default. Asserts that no guarantee of License rights is made (or that such rights will in fact be denied in some or all cases) as to the Necessary Claims Owned by it or any of its Related Parties and identified as “Withheld Claims” on **Exhibit A**, and agrees that all other Necessary Claims will be Licensed on a RAND Free basis (Necessary Claims not identified on **Exhibit A** will be Licensed on a RAND Free basis); or
- (e) _____ Withholding of License as to Identified Necessary Claims with RAND Royalty Default. Asserts that no guarantee of License rights is made (or that such rights will in fact be denied in some or all cases) as to the Necessary Claims Owned by it or any of its Related Parties and identified as “Withheld Claims” on **Exhibit A**, agrees that all Necessary Claims identified as “RAND Free Claims” on **Exhibit A** will be Licensed on a RAND Free basis, and agrees that all Necessary Claims not identified on **Exhibit A** will be Licensed on a RAND Royalty basis (Necessary Claims not identified on **Exhibit A** will be Licensed on a RAND Royalty basis).

Notes:

- (i) A Member may elect any one of the options above.



IPR POLICY

(ii) An election pursuant to clause (a) above applies only to Necessary Claims specifically identified on **Exhibit A**, and is not intended to apply to any other Necessary Claims Owned by the Member or any of its Related Parties.

(iii) An election pursuant to (b), (c), (d) or (e) above must apply to all Necessary Claims Owned by the Member or any of its Related Parties.

(iv) In the case of Necessary Claims under non-public patent applications, the disclosure of such claims on **Exhibit A** need not be in such detail as would disclose any trade secrets.

4. The Representative is not aware of any Necessary Claim(s) or other IPR of any third party that might be infringed by the implementation of the Draft Standard referenced above. If the Representative is aware of any such potential infringement, then the Representative has described such Necessary Claim(s) and other IPR on **Exhibit A**, together with any supporting documentation that may be readily available to the Representative.

B. The Consortium, in accepting this Form, acknowledges that the representation required in paragraph A.4 above is being solicited purely for informational purposes, and the Consortium will not be relying on such representation or otherwise holding the Representative or Member responsible for its completeness or accuracy.

This Form has been submitted on _____, 20__.

Name of Member

By: _____
Signature of Representative

Name: _____

Exhibit A

RAND FREE CLAIMS

List here all Necessary Claim(s) Owned by the Member or any of its Related Parties for which the Member or any such Related Party agrees to provide a License without royalty or other compensation and otherwise on RAND terms.

Jurisdiction and Patent Number	Necessary Claim(s)

RAND ROYALTY CLAIMS

List here all Necessary Claim(s) Owned by the Member or any of its Related Parties for which the Member or any such Related Party agrees to provide a License with a royalty or other compensation on RAND terms and otherwise on RAND terms.

Jurisdiction and Patent Number	Necessary Claim(s)

WITHHELD CLAIMS

List here all Necessary Claim(s) Owned by the Member or any of its Related Parties for which a corresponding Section 3.3 License is expressly withheld.

Jurisdiction and Patent Number	Necessary Claims	Affected Portion of Submission or Standard

THIRD PARTY NECESSARY CLAIMS AND OTHER IPR

List here all Necessary Claim(s) and other IPR Owned by third parties, to the extent of the Representative's knowledge.

Jurisdiction and Patent Number	Necessary Claims and Other IPR	Affected Portion of Submission or Standard

Appendix E

DOCUMENT NOTATIONS

1. Notation when no Necessary Claims have been Identified

All Draft Standards that are subject to Member IPR review and all Standards shall include the following introductory language:

"Recipients of this document are requested to submit, with their comments, notification of any relevant patent claims or other intellectual property rights of which they may be aware that might be infringed by any implementation of the Standard set forth in this document, and to provide supporting documentation."

All Standards shall additionally include the following introductory language:

"THIS STANDARD IS BEING OFFERED WITHOUT ANY WARRANTY WHATSOEVER, AND IN PARTICULAR, ANY WARRANTY OF NON-INFRINGEMENT IS EXPRESSLY DISCLAIMED. ANY USE OF THIS STANDARD SHALL BE MADE ENTIRELY AT THE IMPLEMENTER'S OWN RISK, AND NEITHER THE CONSORTIUM, NOR ANY OF ITS MEMBERS OR SUBMITTERS OR THEIR RELATED PARTIES, SHALL HAVE ANY LIABILITY WHATSOEVER TO ANY IMPLEMENTER OR THIRD PARTY FOR ANY DAMAGES OF ANY NATURE WHATSOEVER, DIRECTLY OR INDIRECTLY, ARISING FROM THE USE OF THIS STANDARD."

2. Notation when Necessary Claims or other IPR are Identified

(a) When Necessary Claims have been identified for Draft Standards, or thereafter with respect to already published Standards, where the owner of such Necessary Claim(s) is willing to provide a License relating to such Necessary Claim(s), such Draft Standard or Standard shall include a notice substantially as follows in the introductory language:

"THE CONSORTIUM draws attention to the fact that it is claimed that compliance with this Standard may involve the use of a patent ("IPR") concerning [section of Standard]. THE CONSORTIUM takes no position concerning the evidence, validity or scope of this IPR."

"The holder of this IPR has assured THE CONSORTIUM that it is willing to License at least this IPR it owns and any third party IPR it has the right to sublicense which might be infringed by any implementation of this Standard to Members of THE CONSORTIUM desiring to implement this Standard. Information may be obtained from:

[Name of Holder of Right]
[Address]

"Attention is also drawn to the possibility that some of the elements of this Standard may be the subject of IPR other than those identified above. THE CONSORTIUM shall not be responsible for identifying any or all such IPR.

"THIS STANDARD IS BEING OFFERED WITHOUT ANY WARRANTY WHATSOEVER, AND IN PARTICULAR, ANY WARRANTY OF NON-INFRINGEMENT IS EXPRESSLY DISCLAIMED. ANY USE OF THIS STANDARD SHALL BE MADE ENTIRELY AT THE IMPLEMENTER'S OWN RISK, AND NEITHER THE CONSORTIUM, NOR ANY OF ITS MEMBERS OR SUBMITTERS OR THEIR RELATED PARTIES, SHALL HAVE ANY LIABILITY WHATSOEVER TO ANY IMPLEMENTER OR THIRD PARTY FOR ANY DAMAGES OF ANY NATURE WHATSOEVER, DIRECTLY OR INDIRECTLY, ARISING FROM THE USE OF THIS STANDARD."

(b) In the event that the owner of any IPR has asserted that infringement would result from the implementation of a Draft Standard or Standard, and such owner has refused to grant a License under the terms of this Policy, then the second paragraph of the above notice shall be replaced or supplemented, as appropriate, with the following:

"The holder of such IPR has refused a request by THE CONSORTIUM that it agree to make a License available for the purpose of implementing this Standard. Information may be obtained from:

[Name of Holder of Right]
[Address]