

Project Charter

for

Optical Project

This Project Charter establishes the scope of the CableLabs Optical Project (the “Project”), as well as conditions for participation, governance, and intellectual property terms. All Project Participants are bound by the terms of this Project Charter.

To participate in and make Contributions to the Project and any associated Working Groups, parties must execute the Project Participation Agreement.

1. **Project Name. Optical**
2. **Project Description & Background.** The Optical Project objectives focus on developing optical-related specifications, tools, test suites, software, and documentation, with a primary focus on application of coherent optical technologies in the access network. The Project Charter structure allows for Project Participants other than the Initial Project Participants to join and contribute to the Project.
3. **Project Chair and Co-Chairs.**
 - 3.1. The initial Chair for the Project will be: Curtis Knittle c.knittle@cablelabs.com
 - 3.2. The Project Chair’s responsibilities include identifying new Working Groups, for each new Working Group appointing a temporary WG Chair to facilitate filling the vacancy of a permanent WG chair, tracking Working Group progress, ensuring Working Groups meet their goals, communicating Working Group plans, appointing Committees, ensuring all participating parties have executed a Project Participation Agreement, organizing meetings, calling for disclosure of Essential Patent Claims at each meeting, and making information regarding such disclosures available to all Participants, and other activities of the Participants. The Chair may delegate such responsibilities as he or she may see fit to any Working Group Chair.
4. **Participants and Working Groups.** The Project may have one or more Working Groups, and each Working Group will operate as set forth in this Project Charter.
 - 4.1. **Project Participants.** Only Project Participants shall be permitted to participate in and make Contributions to the Project and any associated Working Groups. No party will be granted Project Participant status until that party executes the Project Participation Agreement, except the CableLabs Member companies, who may be deemed to be Project Participants. CableLabs shall ensure that all participating CableLabs Member companies are bound by the terms of the Project Participation Agreement. The Initial Project Participants are on the Optical Project wiki.
 - 4.2. **Working Group Chair.** The Project Chair will designate a chair or co-chairs for each Working Group.
 - 4.3. **Working Group Requirements.** Each Working Group must be comprised of at least 2 Participants. No party will be permitted to participate in a Working Group without first notifying the Project Chair in writing of its intent to participate in that Working Group and signing the Project Participation Agreement.
 - 4.4. **Initial Working Groups.**
 - 4.4.1. **Point to Point Coherent Optics.** This Working Group may appoint ad hoc sub groups to work on specific Specifications.

- 4.5. Operator Advisory Group. The Operator Advisory Group for the Optical Project is composed of CableLabs Member companies. While the work of the Optical project is principally defined and directed by the members of the Optical Project Working Groups, the Operator Advisory Group has an oversight role on the Project and may define and prioritize project deliverables and (re)direct Optical activities, by a majority vote of its members, to ensure consistency with the business and technical requirements of the cable operator community. However, neither the WG members nor the Operator Advisory Group may redirect the Project outside of the primary focus of applying optical technologies in the network, and the obligations on the Participants under the IPR Policy (attached as Exhibit A) shall not apply to any portion of a Specification outside the scope defined by the primary focus, absent express agreement by that Participant.
5. Contributions. All parties must execute a Project Participation Agreement in order to make Contributions to the Project. All Contributions to the Project or to any of its Working Groups are made under the terms of this Charter, including the IPR Policy attached as Exhibit A. A Participant may not make any Contribution unless that Participant is the exclusive owner of the Contribution or has sufficient intellectual property rights from the owners to make the Contribution under the terms of this Charter and the IPR Policy. Participants must disclose the identities of all known copyright owners in the Contribution and the terms of any licenses not covered by this Charter and the IPR Policy. It shall be the responsibility of the Participant making a Contribution to ensure, to the satisfaction of the Working Group Chair, that the Contribution complies with the requirements of this Charter and the IPR Policy. Working Group Chairs shall have the right to review all Contributions before adding them to the Specifications.
6. Project Confidentiality. This is a **confidential** Project with the following terms applicable to all Participants:

Participant agrees that in the course of participating in the Project, certain proprietary and confidential information, including draft specifications, technical requirements, business requirements, test scripts and test tools, and software, may be disclosed to Participant (“Confidential Information”). Participant acknowledges that such Confidential Information is proprietary to CableLabs and/or the discloser of the Confidential Information and agrees not to disclose the Confidential Information to a non-Participant without the Project Chair’s prior written consent. Participant agrees to exercise the same standard of care to preserve and safeguard the Confidential Information as they use to preserve and safeguard their own similar confidential information, but no less than a commercially reasonable level of care.

Confidential Information does not include information which: (i) is independently developed by Participant without any use of and/or access to the Confidential Information as established by appropriate documentation; (ii) information that is lawfully received by Participant free of restrictions on disclosure; (iii) information that is in the public domain at the time of disclosure or (iv) information which becomes part of the public domain through no wrongful act of Participant, including by publication of a Specification under Section 9.4 of this Charter.

In the event that Participant is required by a legislative, administrative or judicial governmental authority to disclose any Confidential Information, Participant agrees to promptly deliver notice to the Project Chair and assist CableLabs and/or the Discloser of the Confidential Information in seeking a protective order or other similar remedy to protect the Confidential Information from disclosure.

For the avoidance of doubt, the Project Chair may from time to time make public certain Confidential Information (including Contributions) in Specifications pursuant to this Project Charter.

7. IPR Policy. Participant, on behalf of itself and its Affiliates, hereby agrees to be bound by the terms and conditions of the IPR Policy attached hereto and incorporated herein as Exhibit A (“IPR Policy”).
8. Representations, Warranties and Disclaimers.
 - 8.1. Participant represents and warrants that it is legally entitled to grant the rights and promises set forth in this Charter. IN ALL OTHER RESPECTS THE CONTRIBUTIONS ARE PROVIDED "AS IS." The entire risk as to implementing or otherwise using an Issued Specification is assumed by the implementer and user. Except as stated herein, all Participants expressly disclaim any warranties (express, implied, or otherwise), including implied warranties of merchantability, non-infringement, fitness for a particular purpose, or title, related to the Contributions.
 - 8.2. To the maximum extent permitted by law, CableLabs makes no representation or warranty, express or implied, with respect to the completeness, accuracy or utility of any Issued Specification or any information contained in the Issued Specification. CableLabs is not responsible for problems caused by changes in the operating characteristics of any computer hardware or operating system that result from the installation of, or interaction with, any Compliant Implementation of the Issued Specification. CableLabs is under no obligation to provide any maintenance support or updates. CableLabs does not warrant that the information contained in the Issued Specification is accurate or current or free from error. The Issued Specification may contain defects or deficiencies that CableLabs cannot correct.
 - 8.3. Participant agrees to hold CableLabs harmless for any claims arising from or related to its use of the Issued Specification, except for any injury (including death) to persons or damage to property caused by the grossly negligent acts or omissions or willful acts of CableLabs, its employees, contractors or agents.
 - 8.4. CableLabs’ license of the Issued Specification and related documentation does not indicate CableLabs’ endorsement of any particular technology or use of any particular technology.
 - 8.5. CABLELABS PROVIDES THE FINAL SPECIFICATION AND ANY OTHER MATERIALS “AS IS.” CABLELABS HEREBY DISCLAIMS ANY AND ALL EXPRESS, IMPLIED OR STATUTORY CONDITIONS, REPRESENTATIONS AND WARRANTIES, (INCLUDING ANY THAT MAY ARISE FROM A COURSE OF DEALING OR COURSE OF PERFORMANCE), INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, AND NON-INFRINGEMENT WITH REGARD TO THE ISSUED SPECIFICATION AND ANY OTHER MATERIALS.
 - 8.6. LIMITATION OF LIABILITY. IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER PARTY OR TO ANY THIRD PARTY FOR ANY BUSINESS INTERRUPTION, LOSS OF USE, REVENUE, PROFIT, CONTENT OR DATA, OR FOR INDIRECT, SPECIAL, CONSEQUENTIAL, INCIDENTAL, EXEMPLARY OR PUNITIVE DAMAGES ARISING FROM OR RELATING TO THE USE OF OR INABILITY TO USE THE ISSUED SPECIFICATION OR OTHER MATERIALS, THE CONTRIBUTIONS, THE INFORMATION CONTAINED THEREIN, OR ANY DOCUMENTATION, WHETHER THE ALLEGED LIABILITY IS BASED ON CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR ANY OTHER BASIS, EVEN IF THE OTHER PARTY HAS BEEN ADVISED AS TO THE POSSIBILITY OF SUCH DAMAGES. REGARDLESS, IN NO EVENT SHALL EITHER PARTY BE LIABLE UNDER THIS AGREEMENT FOR AN AMOUNT GREATER THAN THE SUM OF FEES RECEIVED BY CABLELABS HEREUNDER.
9. Specification Development Process.

- 9.1. Work in Progress. Any Working Group Participant may submit a proposed initial draft document as a candidate Draft Specification of that Working Group. The Working Group Chair will designate each submission as a “Work in Progress” document. A Work in Progress document is an incomplete document, designed to guide discussion and generate feedback that may include several alternative requirements for consideration.
- 9.2. Draft. Each Work in Progress document of a Working Group must be approved by the Working Group Chair in order to become a Draft Specification. The Draft Specification becomes the basis for all going forward work on that deliverable. A Draft Specification is in the CableLabs specification format and is considered largely complete, but lacking review by CableLabs Members and Project Participants. Drafts are susceptible to substantial change during the review process.
- 9.3. Issued. Upon reaching Draft Specification status, the Project Chair or his/her designee will make available the Draft Specification to all Project Participants for a thirty (30) day review period. The Project Chair may then designate that Draft Specification as “Issued.”
- 9.4. Publication and Submission. Upon the designation of an Issued Specification, the Project Chair will publish the Issued Specification on the CableLabs website. The Project Chair may also submit the Issued Specification to appropriate standards bodies or other consortia.

10. Withdrawal and Termination.

- 10.1. Withdrawal. A Participant may withdraw from a Project or a Working Group at any time by notifying the Project Chair in writing, and that withdrawal is effective upon receipt of the notice by the Project Chair.
- 10.2. Termination. Participant’s Participation Agreement shall terminate upon receipt of written notice to the Project Chair in the event either party materially breaches the Participation Agreement and such breach is not cured or is incapable of being cured within thirty days after the breaching party receives notice of the breach from the non-breaching party.
- 10.3. Winding Down. CableLabs may terminate the Project and the Participation Agreements for any or no reason upon six (6) months’ notice.
- 10.4. Effect of Withdrawal or Termination. Upon a Project Participant’s withdrawal or termination, or termination of a Working Group or the Project, all existing commitments and obligations up to the effective date of withdrawal or termination will remain in effect. Sections 7, 10 and Section 1 of the IPR Policy (Copyrights), shall survive any withdrawal or termination by Participant. And, Section 2 of the IPR Policy (Patents) shall survive any withdrawal or termination by Participant for one (1) year and one (1) day.

11. Miscellaneous.

- 11.1. Public Announcements. Upon execution of the Participation Agreement, a press release approved in advance by both parties may be issued.
- 11.2. Amendments. Except for changes to the IPR Policy, the Chair may make reasonable amendments to this Charter upon thirty (30) notice to the Participants.
- 11.3. Assignment. The Participation Agreement may not be assigned by either CableLabs or Participant without the written consent of the non-assigning party; provided such consent shall not be unreasonably delayed or denied. Notwithstanding the foregoing limitations, either party may assign the Participation Agreement or its rights under this Charter, or delegate its duties under this Charter in whole or in part, to: (a) a successor entity resulting through an acquisition,

merger or similar change of control transaction; (b) any entity that acquires all or substantially all of the voting stock, equity interests or assets of the party; or (c) any subsidiary or affiliated entity of the party.

- 11.4. Most Favored Status. CableLabs shall make available to Participant any license terms made available to any other Participant of this Optical Project Charter and Participation Agreement. CableLabs also commits that the benefit of any modifications, clarifications or interpretations of language, made by CableLabs or mandated by applicable governmental or judicial authority, in a Optical Project Charter and Participation Agreement shall be extended to Participant in accordance with this Section. Where CableLabs agrees to make a change to a particular Participant's Optical Project Charter and Participation Agreement, Participant may incorporate such change, or upgrade to such revised agreement in total, at any time. CableLabs keep Licensee informed of any changes to the Optical Project Charter and Participation Agreement by posting such to the Project website.
- 11.5. Waiver. Any waiver by either party of any breach of the Participation Agreement or this Charter shall not constitute a waiver of any subsequent or other breach.
- 11.6. No Agency/Partnership Relationship. This Charter does not create any agency or partnership relationship between CableLabs and Participant.
- 11.7. Severability. If any provision or provisions of the Participation Agreement or this Charter shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not be in any way affected or impaired thereby.
- 11.8. Headings. The headings of the several sections of this Charter are for convenience and reference only and are not intended to be a part of or to affect the meaning or interpretation of this Charter.
- 11.9. Compliance with Laws. In connection with this Charter, each party shall comply with all applicable regulations and laws, including export, re-export and foreign policy controls and restrictions that may be imposed by any government. Each party shall require its commercial customers with a contractual relationship that may export any Compliant Implementation of the Issued Specification to assume an equivalent obligation with regard to import and export controls.
- 11.10. Entire Agreement. The Participation Agreement and this Charter embody the entire understanding of the parties with respect to the subject matter hereof and merges all prior agreements or discussions between them. The Participation Agreement and this Charter shall be governed by the laws of the State of California without giving effect to the principles of conflicts of law.
- 11.11. Notices. Any notices required or permitted to be made or given to either party pursuant to this Charter shall be in writing and shall be delivered as follows with notice deemed given as indicated: (a) by personal delivery when delivered personally; (b) by overnight courier upon written notification of receipt; or (c) by email transmission upon acknowledgment of receipt of email transmission. All notices must be sent to the address set forth in the Project Participant Agreement.

12. Definitions.

- 12.1. "Affiliate" shall mean an entity that directly or indirectly, through one or more intermediaries, controls the Submitter or Applicant, is controlled by the Submitter or Applicant, or is under common control with the Submitter or Applicant. 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.

- 12.2. “Contribution” means any work of authorship, including any modifications or additions to an existing work, that a Project Participant submits to the Project for inclusion in a Draft Specification or Issued Specification. For the purposes of this definition, “submit” means any form of electronic, oral, or written communication for the purpose of discussing and improving a Draft Specification or Issued Specification, but excluding communication that the Participant conspicuously designate in writing as not a contribution.
- 12.3. “Draft Specification” means all versions of a document or implementation of a document, in software or hardware, (except an Issued Specification) developed by the Project or any Working Group for the purpose of creating, commenting on, revising, updating, modifying, or adding to any document or implementation of a document that is to be considered for inclusion in the Issued Specification. As used herein Draft Specifications may include, but are not limited to, for example, specifications, tests, test plans, code, and other documents as posted on the Project Wiki, and implementations thereof, in software or hardware.
- 12.4. “Issued Specification” means the final version and contents of any Draft Specification approved as an Issued Specification as set forth in Section 9.3.
- 12.5. “Project Participant” or “Participant” means a party that has executed a Project Participation Agreement, and that party’s Affiliates, unless that party has previously withdrawn or been terminated from the Project.
- 12.6. “Project” means the Optical Project that is established under this Project Charter.

EXHIBIT A

IPR Policy

1. Copyrights. In order to create a homogenous ownership of the collective work of the Project, all Participants grant a joint ownership interest in any Contributions made to the Project. This facilitates the migration of the Project work product to other communities, open source projects, and standards development organizations. With respect to any worldwide copyrights, or copyright applications and registrations, in a Contribution submitted to the Project:
 - 1.1. Participant hereby assigns to CableLabs joint ownership, and to the extent that such assignment is or becomes invalid, ineffective or unenforceable, Participant hereby grants to CableLabs a perpetual, irrevocable, non-exclusive, worldwide, no-charge, royalty-free, unrestricted license to exercise all rights under those copyrights. This includes the right to sublicense these same rights to third parties through multiple levels of sublicensees or other licensing arrangements;
 - 1.2. Participant agrees that both Participant and CableLabs can do all things in relation to Participant's Contribution as if both of Participant and CableLabs were the sole owners, and if one of Participant or CableLabs makes a derivative work of Participant's Contribution, the one who makes the derivative work (or has it made) will be the sole owner of that derivative work;
 - 1.3. Participant agrees not to assert any moral rights in Participant's Contribution against CableLabs, or licensee or transferee of CableLabs;
 - 1.4. Participant agrees that CableLabs may register a copyright in Participant's Contribution and exercise all ownership rights associated with it; and
 - 1.5. Participant agrees that neither of Participant or CableLabs has any duty to consult with, obtain the consent of, pay or render an accounting to the other for any use or distribution of Participant's Contribution.
 - 1.6. By participating in the Project, the Participant agrees that all copyright created in the collective work belongs to CableLabs. CableLabs will hold all copyright rights granted under this agreement on behalf of the Project.
2. Patents. [*Note, this substantially follows the IEEE Patent Policy*] Specifications may be drafted in terms that include the use of Essential Patent Claims. For each Draft Specification, each Participant shall notify the Project Chair, using the format of the Letter of Assurance specified in Appendix 1, that the Draft Specification may require the use of a potential Essential Patent Claim. Upon notice of a potential Essential Patent Claim, the Project Chair shall request a Letter of Assurance, from the patent holder or patent applicant. The Project Chair shall request Letters of Assurance without coercion.
 - 2.1. The Submitter of a Letter of Assurance (LOA) may, after Reasonable and Good Faith Inquiry, indicate it 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. If the patent holder or patent applicant provides an LOA, it should do so as soon as reasonably feasible in the Specification development process. LOAs should be provided to the Project Chair prior to the approval of the Issued Specification. A potential Essential Patent Claim for which licensing assurance cannot be obtained (e.g., an LOA is not provided or the LOA indicates that licensing assurance is not being provided) shall be referred to the Operator Advisory Group and/or the Board of Directors of CableLabs.
 - 2.2. The licensing assurance shall be either:

- 2.2.1. A general disclaimer to the effect that the Submitter without conditions will not enforce any present or future Essential Patent Claim against any person or entity making, having made, using, selling, offering to sell, or importing any Compliant Implementation that practices the Essential Patent Claims for use in conforming with the Specification; or,
- 2.2.2. A statement that the Submitter will make available a license for Essential Patent Claims to an unrestricted number of Applicants on a worldwide basis without compensation or under Reasonable Rates, with other reasonable terms and conditions that are demonstrably free of any unfair discrimination to make, have made, use, sell, offer to sell, or import any Compliant Implementation that practices the Essential Patent Claims for use in conforming with the Specification. An Accepted LOA that contains such a statement signifies that reasonable terms and conditions, including without compensation or under Reasonable Rates, are sufficient compensation for a license to use those Essential Patent Claims and precludes seeking, or seeking to enforce, a Prohibitive Order except as provided in this policy.
- 2.3. At its sole option, the Submitter may indicate in its LOA any of the following: (i) a not-to-exceed license fee or rate commitment, (ii) a sample license agreement, or (iii) one or more material licensing terms. Acceptance of the LOA shall not constitute an endorsement of the terms as reasonable.
- 2.4. An Accepted Letter of Assurance shall apply to the Submitter, including its Affiliates. The Submitter, however, may specifically exclude certain Affiliates identified in the Letter of Assurance, except that a Submitter shall have no ability to exclude Affiliates if the Submitter has indicated Reciprocal Licensing on an Accepted Letter of Assurance.
- 2.5. The Submitter shall not condition a license on the Applicant's agreeing (a) to grant a license to any of the Applicant's Patent Claims that are not Essential Patent Claims for the referenced Specification, or (b) to take a license for any of the Submitter's Patent Claims that are not Essential Patent Claims for the referenced Specification.
- 2.6. On a Letter of Assurance, the Submitter may indicate a condition of Reciprocal Licensing. If an Applicant requires compensation under Reciprocal Licensing to its Essential Patent Claims, then a Submitter may require compensation for its Essential Patent Claims from that Applicant even if the Submitter has otherwise indicated that it would make licenses available without compensation.
- 2.7. The Submitter and all Affiliates (other than those Affiliates excluded in a Letter of Assurance) shall not, with the intent of circumventing or negating any of the representations and commitments made in the Accepted Letter of Assurance, assign or otherwise transfer any rights in any Essential Patent Claims that they hold, control, or have the ability to license.
- 2.8. An Accepted Letter of Assurance is intended to be binding upon any and all assignees and transferees of any Essential Patent Claim covered by such LOA. The Submitter agrees (a) to provide notice to any assignee or other transferee of a patent or application of an Accepted Letter of Assurance either through a Statement of Encumbrance or by binding its assignee or transferee to the terms of such Letter of Assurance; and (b) to require its assignee or transferee to (i) agree to similarly provide such notice and (ii) to bind its assignees or transferees to agree to provide such notice as described in (a) and (b).
- 2.9. The Submitter and the Applicant should engage in good faith negotiations (if sought by either party) without unreasonable delay or may litigate or, with the parties' mutual agreement, arbitrate: over patent validity, enforceability, essentiality, or infringement; Reasonable Rates or

other reasonable licensing terms and conditions; compensation for unpaid past royalties or a future royalty rate; any defenses or counterclaims; or any other related issues.

- 2.10. The Submitter of an Accepted LOA who has committed to make available a license for one or more Essential Patent Claims agrees that it shall neither seek nor seek to enforce a Prohibitive Order based on such Essential Patent Claim(s) in a jurisdiction unless the implementer fails to participate in, or to comply with the outcome of, an adjudication, including an affirming first-level appellate review, if sought by any party within applicable deadlines, in that jurisdiction by one or more courts that have the authority to: determine Reasonable Rates and other reasonable terms and conditions; adjudicate patent validity, enforceability, essentiality, and infringement; award monetary damages; and resolve any defenses and counterclaims. In jurisdictions where the failure to request a Prohibitive Order in a pleading waives the right to seek a Prohibitive Order at a later time, a Submitter may conditionally plead the right to seek a Prohibitive Order to preserve its right to do so later, if and when this policy's conditions for seeking, or seeking to enforce, a Prohibitive Order are met.
- 2.11. Nothing in this policy shall preclude a Submitter and an implementer from agreeing to arbitrate over patent validity, enforceability, essentiality, or infringement; Reasonable Rates or other reasonable licensing terms and conditions; compensation for unpaid past royalties or a future royalty rate; any defenses or counterclaims; reciprocal obligations; or any other issues that the parties choose to arbitrate.
- 2.12. Nothing in this policy shall preclude a licensor and licensee from voluntarily negotiating any license under terms mutually agreeable to both parties.
- 2.13. If a Submitter becomes aware of additional Patent Claim(s) that are not already covered by an Accepted Letter of Assurance, that are owned, controlled, or licensable by the Submitter, and that may be or become Essential Patent Claim(s) for the Specification, then such Submitter shall submit a Letter of Assurance stating its position regarding enforcement and licensing of such Patent Claims. For the purposes of this commitment, the Submitter is deemed to be aware if any of the following individuals who are from, employed by, or otherwise represent the Submitter have personal knowledge of additional potential Essential Patent Claims, owned or controlled by the Submitter, related to a Specification and not already the subject of a previously Accepted Letter of Assurance: (a) individuals who participated in the past, or are participating at present, in the development of the Specification, or (b) the individual executing the previously Accepted Letter of Assurance.
- 2.14. A Letter of Assurance is irrevocable once submitted and accepted and shall apply, at a minimum, from the date of the Issued Specification.
- 2.15. Copies of an Accepted Letter of Assurance may be provided to Participants. Discussion of essentiality, interpretation, or validity of Patent Claims is prohibited during the Specification development process. CableLabs shall determine when and the extent to which patent licensing terms may be discussed.
- 2.16. CableLabs is not responsible for
 1. Identifying Essential Patent Claims for which a license may be required;
 2. Determining the validity, essentiality, or interpretation of Patent Claims;
 3. Determining whether any licensing terms or conditions provided in connection with submission of a Letter of Assurance, if any, or in any licensing agreements are reasonable or non-discriminatory; or,
 4. Determining whether an implementation is a Compliant Implementation for the purposes of

this IPR Policy. For the avoidance of doubt, CableLabs may determine Certified implementations.

2.17. Nothing in this policy shall be interpreted as giving rise to a duty to conduct a patent search.

2.18. In order for this IPR Policy to function efficiently, individuals participating in the Specification development process: (a) shall inform the Project Chair of the holder of any potential Essential Patent Claims of which they are personally aware and that are not already the subject of an Accepted Letter of Assurance, that are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents; and (b) should inform the Project Chair of any other holders of potential Essential Patent Claims that are not already the subject of an Accepted Letter of Assurance.

3. Use of Trademarks. DOCSIS®, PacketCable™, DPoE™, and CableLabs® are trademarks of CableLabs. Participant may use CableLabs trademarks so long as such use is factual, is not incorporated into the name of Participant's products and services, provides appropriate attribution to CableLabs (for example, "_____ is a trademark of Cable Television Laboratories, Inc.") and it does not appear that CableLabs endorses Participant's products or services.

4. 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 Project Chair has determined is complete in all material respects and has been posted to the CableLabs web site.

"Affiliate" shall have the meaning set forth in the Definitions section of the Charter.

"Applicant" shall mean any prospective licensee for Essential Patent Claims. *"Applicant"* shall include all of its Affiliates.

"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 have the ability to license.

"Compliant Implementation" shall mean any product (e.g., component, sub-assembly, or end-product) or service that conforms to any mandatory or optional portion of a normative clause of a Specification.

"Enabling Technology" shall mean any technology that may be necessary to make or use any product or portion thereof that complies with a Specification but is neither explicitly required by nor expressly set forth in the Specification (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 practice of which is necessary to implement either a mandatory or optional portion of a normative clause of the Specification where there is no commercially and technically feasible non-infringing alternative implementation for such mandatory or optional portion of the normative clause. An Essential Patent Claim does not include any Patent Claim that is 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*” or “*LOA*” shall mean a document, including any attachments, stating the Submitter’s position regarding ownership, enforcement, and licensing of Essential Patent Claims for a specifically referenced Specification, submitted in a form substantially as in Appendix 1 and approved by the Project Chair. A sample Letter of Assurance is located below in Appendix 1 – Letter of Assurance.

“*Patent Claim(s)*” shall mean one or more claims in issued patent(s) or pending patent application(s) in any jurisdiction worldwide.

“*Prohibitive Order*” shall mean an interim or permanent injunction, exclusion order, or similar adjudicative directive that limits or prevents making, having made, using, selling, offering to sell, or importing a Compliant Implementation.

“*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 Specification identified in a Letter of Assurance, including, but not limited to, participation in a Working Group. If the Submitter does not, despite having used reasonable efforts, identify any such individual, 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 Specification.

“*Reasonable Rate*” shall mean appropriate compensation to the patent holder for the practice of an Essential Patent Claim excluding the value, if any, resulting from the inclusion of that Essential Patent Claim’s technology in the Specification. In addition, determination of such Reasonable Rates should include, but need not be limited to, the consideration of:

- The value that the functionality of the claimed invention or inventive feature within the Essential Patent Claim contributes to the value of the relevant functionality of the smallest saleable Compliant Implementation that practices the Essential Patent Claim.
- The value that the Essential Patent Claim contributes to the smallest saleable Compliant Implementation that practices that claim, in light of the value contributed by all Essential Patent Claims for the same Specification practiced in that Compliant Implementation.
- Existing licenses covering use of the Essential Patent Claim, where such licenses were not obtained under the explicit or implicit threat of a Prohibitive Order, and where the circumstances and resulting licenses are otherwise sufficiently comparable to the circumstances of the contemplated license.

A Reasonable Rate may be a collective rate set for a group Essential Patent Claims owned by a plurality of Essential Patent Claim owners, e.g., a patent pool rate.

“*Reciprocal Licensing*” shall mean that the Submitter of an LOA has conditioned its granting of a license for its Essential Patent Claims upon the Applicant’s agreement to grant a license to the Submitter with Reasonable Rates and other reasonable licensing terms and conditions to the Applicant’s Essential Patent Claims, if any, for the referenced Specification, including any amendments, corrigenda, editions, and revisions. If an LOA references an amendment or

corrigendum, the scope of reciprocity includes the base Specification and its amendments, corrigenda, editions, and revisions.

“*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*” shall mean an individual or an organization that provides a completed Letter of Assurance. A Submitter may or may not hold Essential Patent Claims. A Submitter may or may not be a Participant. “*Submitter*” shall include all of its Affiliates unless specifically and permissibly excluded.

Appendix 1 to IPR Policy

LETTER OF ASSURANCE FOR ESSENTIAL PATENT CLAIMS

No license is implied by submission of this Letter of Assurance

Please return via mail, e-mail (as a PDF): legal@cablelabs.com

A. SUBMITTER:

Legal Name: _____

B. SUBMITTER'S CONTACT INFORMATION:

Contact Name/Title:

Address:

Telephone: _____ E-mail: _____ URL: _____

C. CableLabs PROJECT: Optical

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

In accordance with Project Charter, 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. CableLabs takes no position with respect to the validity or essentiality of Patent Claims, or the reasonableness of rates, other 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, this 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 make available a license for Essential Patent Claims without compensation to an unrestricted number of Applicants on a worldwide basis with other reasonable terms and conditions that are demonstrably free of unfair discrimination to make, have made, use, sell, offer to sell, or import any Compliant Implementation that practices the Essential Patent Claims for use in conforming with the CableLabs Specifications associated with the Project identified in part C.

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

(Optional) Such a license will include a Reciprocal Licensing requirement.

b. The Submitter will make available a license for Essential Patent Claims under Reasonable Rates to an unrestricted number of Applicants on a worldwide basis with other reasonable terms and conditions that are demonstrably free of unfair discrimination to make, have made, use, sell, offer to sell, or import any Compliant Implementation that practices the Essential Patent Claims for use in conforming with the CableLabs Specifications associated with the Project identified in part C.

(Optional) These reasonable rates will not exceed (e.g., percent of unit 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.

(Optional) Such a license will include a Reciprocal Licensing requirement.

c. The Submitter without conditions will not enforce any present or future patents that each include at least one Essential Patent Claim against any person or entity making, having made, using, selling, offering to sell, or importing any Compliant Implementation that practices the Essential Patent Claims for use in conforming with the CableLabs Specifications associated with the Project identified in part C.

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):

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 in part D.1; however, a Blanket Assurance shall not supersede any pre-existing or simultaneously submitted specific assurance identifying potential Essential Patent Claims.

F. APPLICATION TO AFFILIATES:

With respect to any Essential Patent Claims that an Affiliate has the ability to license, the Submitter agrees that (i) the licensing positions described in parts C and D apply to any Essential Patent Claims within the scope of the assurance described in part E; and (ii) the terms of this assurance are binding on each such Affiliate; provided, however, that such representations and commitments shall not apply to Affiliates identified below:

Organization's Name #1 _____

Address _____

Contact person _____

Organization's Name #2 _____

Address _____

Contact person _____

Affiliates may not be excluded if the Reciprocal Licensing box is checked in part D.1.a or D.1.b. For additional Affiliates, use additional pages as necessary.

G. SIGNATURE:

By signing this Letter of Assurance, you represent that you have the authority to bind the Submitter and all Affiliates (other than those Affiliates permissibly excluded above) to the representations and commitments provided in this LOA and acknowledge that users and implementers of the CableLabs Specifications associated with the Project identified in part C are relying or will rely upon and may seek enforcement of the terms of this LOA. The Submitter and all Affiliates (other than those Affiliates permissibly excluded above) agree not to sell or otherwise transfer any rights in any Essential Patent Claims that they hold, control, or have the ability to license with the intent of circumventing or negating any of the representations and commitments made in this LOA.

The Submitter agrees (a) to provide notice of an Accepted Letter of Assurance either through a Statement of Encumbrance or by binding its assignee or transferee to the terms of such Letter of Assurance; and (b) to require its assignee or transferee to (i) agree to similarly provide such notice and (ii) to bind its assignees or transferees to agree to provide such notice as described in (a) and (b).

If D.1.a or D.1.b is checked, the Submitter shall not condition a license on the Applicant's agreeing (a) to grant a license to any of the Applicant's Patent Claims that are not Essential Patent Claims for the CableLabs Specifications associated with the Project identified in part C, or (b) to take a license for any of the Submitter's Patent Claims that are not Essential Patent Claims for the CableLabs Specifications associated with the Project identified in part C.

If Submitter becomes aware of additional Patent Claims not already covered by an Accepted Letter of Assurance that are owned, controlled, or licensable by the Submitter and that may be or become Essential Patent Claims with respect to the CableLabs Specifications associated with the Project identified in part C, the Submitter agrees to submit a Letter of Assurance stating its position regarding enforcement and licensing of such Patent Claims.

Print name of authorized person:

Title of authorized person:

Signature of authorized person: _____ Date: _____

Address:

Phone: _____ E-mail: _____

Note that this assurance applies, at a minimum, from the date of the Specification approval to the date of the Specifications transfer to inactive status and is irrevocable upon acceptance by the CableLabs.

DEFINITIONS – See Project Charter, and Exhibit 1-IPR Policy.