CableLabs® Specification Engineering Change (EC) Form						
EC TRACKING INFORMATION (Blue fields to be completed by CableLabs only)						
Project P2PCO	Status N	Identifier PHYv1.0-N-18	3.0002-2		Version 2	
Affected Specification   P2PCO-SP-PHYv1.0-I01-180629						
ECR Date	11/7/2018	Comment Period End Date	11/28/2018	SEVERITY	CHANGE TYPE	
ECO Date	11/28/2018	Comment Period End Date	12/12/2018	Non-Critical	Minor	
ECN Date	12/12/2018	Cert Wave No	Cert Wave No		☐Major	
ECN Effective Date	Effective Date Overall Type of Change (Tech/Edit/Both)			Technical		

TO OBTAIN LATEST ISSUED SPECIFICATION WORD VERSION, CLICK THE FOLLOWING: https://community.cablelabs.com/wiki/display/TECHPUBS/Coherent+Optics+Specifications

TO SUBMIT EC, EMAIL COMPLETED FORM TO: CoherentOptics-ec@cablelabs.com

SPECIFICATION DOCUMENT DETAILS				
Document EC is written agains	st: P2PCO-PHYv1.0 Issued Ver	rsion # IO1	-	
AUTHOR INFORMATION				
Primary Author	First Alberto Last Campos	Country	USA	
Email	a.campos@cablelabs.com Phone			
Company	CableLabs			
Additional Contributors	Matt Schmitt, Steve Jia			
ENGINEERING CHANGE DOCUMENT DETAILS				
Title of EC	Full Duplex Coherent Optics (PHY)			
Date sent to CableLabs	11/6/2018			
	EC REVISIO	ON HISTORY		
Date of revised EC				
Brief description of revision				
DETAILED PROPOSED CHANGES				
Sections Affected	5.2, 5.3, 6.3, 7.3.1, 7.4.1.2, 7.4.10			
REQs Affected	Yes	Test Plans Affected	No	

**Commented [cl1]:** Click on the drop-down arrow and select the specification or Test Plan name.

**Commented [cl2]:** This is a DATE only field. Information for each version can be listed in the brief description field below.

Commented [cl3]: To be filled in ONLY when revising the original posted EC. For multiple revisions, please add to the previous text, noting the version # to which the description applies.

Does this EC request a new TLV or sub-TLV number? Yes \_\_\_\_
See embedded change detail for TLV table templates.

Does this EC request a new or revised figure or graphic? Yes \_x\_\_

If yes, attach all graphic files and list those attached files in the table below. NOTE: Graphics submitted are to be editable except for UML diagrams.

This Engineering Change has the following file(s) attached.			
Type of Attachment(s) (Visio, Word, txt, .yang, etc.)	File Name of Attachment(s)		

OTHER RELATED ENGINEERING CHANGES (LIST ALL THE APPLY)			
The following EC(s) are recommended to be processed in conjunction with this document:			
EC# Title of EC Affected Document		Affected Document	

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By submitting this Engineering Change Request ("ECR"), the contributor (including any additional authors and contributors), individually and as an authorized representative of their respective Company(ies), agrees that if CableLabs incorporates this ECR in whole or in part into the relevant Specification or Test Plan, all intellectual property shall be considered a "Contribution" as defined in Charter for the Optical Project, including the Intellectual Property Rights Policy therein. CableLabs may disclose the content of this ECR as is necessary for the development of CableLabs' Specifications. Questions about the licensing of intellectual property in this ECR submission may be directed to legal@cablelabs.com.

ARCH-x-18.0001-x Full Dup	lex Coherent Optics (Architecture)	P2PCO-SP-ARCH
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## NOTE! IMPORTANT EC AUTHOR INSTRUCTIONS:

**Project and IPR information:** Charter for the Optical Project. Note related info in the footer of this form. Contact <a href="legal@cablelabs.com">legal@cablelabs.com</a>.

For an ECR to advance to ECO status, all spec requirements are to have the correct DUT clearly stated and only one requirement type is used in the sentence.

For an ECO to advance to ECN status, new or updated traceability inserted as a comment is required. Also if applicable, compiled MIB files and final Schema docs must be attached and the MIB REQ Change Details table completed.

### **DETAILED DESCRIPTION OF PROBLEM:**

According to a recent operators' survey, approximately 20 percent of existing cable access networks use a single-fiber topology, meaning that downstream and upstream transmission to and from fiber nodes takes place on a single strand of fiber. The same survey estimated that this number is likely to grow larger in the future, for example to provide for redundant optical links and new business opportunities. Therefore, a cost-effective mechanism to support bidirectional transmission over a single fiber is needed for coherent signals in access networks.

These ECs add a new feature referred to as "Full Duplex Coherent Optics" in order to address this need.

### **CHANGE DETAILS FOR THE SPECIFICATION:**

Complete Engineering Change details **for the specification** are contained in *either* the following Change Details file **or** the latest complete specification Word document the EC author has embedded below:



PHYv1.0-18.0002.do

# CHANGE DETAILS FOR MIB OBJECTS ONLY

MIB REQ CHANGE DETAILS ONLY - Mandatory for ECO and ECN (all fields require completion)					
REQ ID# List existing ID or "new"	Add/ Change/ Delete (A/C/D)	MIB OBJECTS  (Only enter new MIB requirement text or final revised MIB text)	Rqmt Category MUST, SHOULD, MAY or No Change (NC)	DUT List new value: CM, CMTS, CCAP, RPD, CCAP Core or "NC"	Trace To Test Case (TC#) Insert TC#, "new", or No Change (NC)

### **End of Request**

#### **Additional Instructions to EC Author**

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