

IEEE P802.3ct Task Force: 100 Gb/s over DWDM Systems

Update Report

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Futurewei, U.S. Subsidiary of Huawei

May 21, 2020

IEEE P802.3ct Task Force Project information

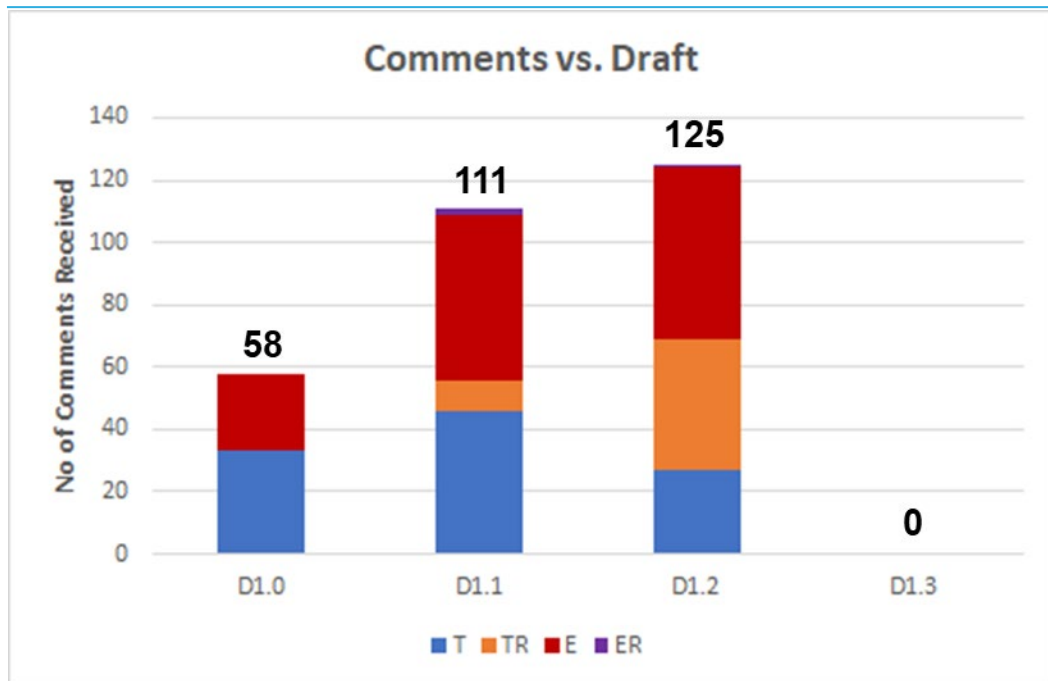
Task Force Organization

- John D'Ambrosia, Chair, IEEE P802.3ct Task Force
- Tom Issenhuth, Vice-Chair, IEEE P802.3ct Task Force
- Editorial Team
 - Tom Issenhuth – Chief Editor
 - Peter Stassar – 100 GbE Optical PHY Clause
 - Steve Trowbridge - 100 GbE PCS/FEC/PMA Extender Clauses
- Task force web and reflector information
 - Reflector: <http://www.ieee802.org/3/ct/reflector.html>
 - Home page: <http://www.ieee802.org/3/ct/index.html>
- Project Documentation –
 - PAR : http://www.ieee802.org/3/ct/ProjDoc/P802.3ct_200215.pdf
 - CSD: <http://www.ieee802.org/3/ct/ProjDoc/ec-18-0249-01-ACSD-p802-3ct.pdf>
 - Objectives: http://www.ieee802.org/3/ct/ProjDoc/3ct_Objectives_190911.pdf
 - Timeline: http://www.ieee802.org/3/ct/ProjDoc/timeline_3ct_200121.pdf
- Ad Hoc page: <http://www.ieee802.org/3/ct/public/adhoc/index.html>

Activities since Mar 2020 (1 of 2)

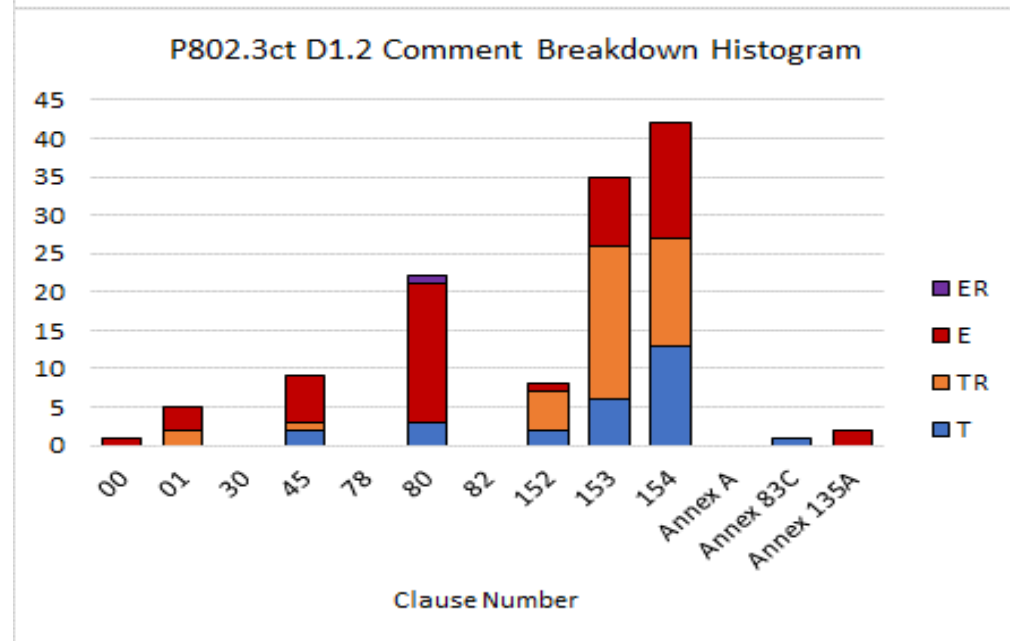
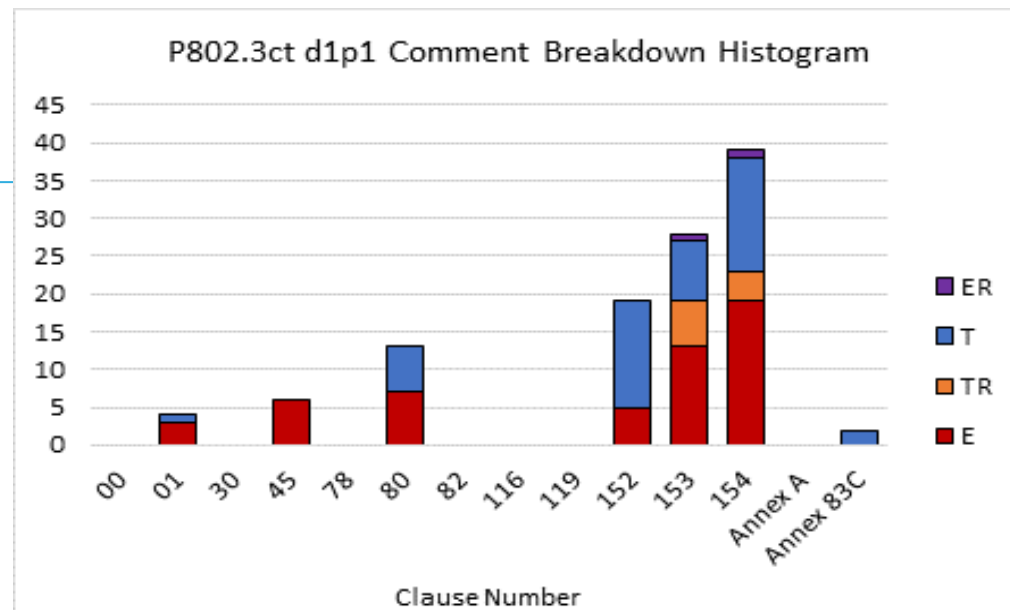
- Task Force Reviews
 - D1.3 – Opened – 4/22 Closed – 5/1 0 Total Comments
- Interim Teleconference Meetings – to progress the draft
 - Addressing comments submitted against D1.2
 - 3/19, 3/26, 4/2, 4/9
 - Addressing comments submitted against D1.3 & Approved [by unanimous consent] generation of D2.0:
 - 5/14
- Preview draft uploaded (D1.3) – 5/2
- Updated draft (D2.0) – 5/15

Comment History



P802.3ct D1.3 Comment Breakdown

Description	Clause	T	TR	E	ER	Total
Front Matter	0					0
Introduction	1					0
Mgmt	45					0
Introduction 40/100	80					0
Inverse RS-FEC	152					0
100GBASE-ZR PMA	153					0
100GBASE-ZR PMD	154					0
Annex	A/83C/135A					0
Total Comments		0	0	0	0	0



Changes between D1.3 and D2.0

IEEE P802.3ct™/D4.32.0, 24th April 2020, 14th May 2020
(Amendment of IEEE Std 802.3™-2018 as amended by [list to be populated during publication process])

IEEE P802.3ct™/D4.32.0

Draft Standard for Ethernet Amendment: Physical Layers and Management Parameters for 100 Gb/s Operation over DWDM systems

Prepared by the
LAN/MAN Standards Committee
of the
IEEE Computer Society

This draft is an amendment of IEEE Std 802.3-2018 as amended by IEEE Std 802.3cb-2018, IEEE Std 802.3bt-2018, IEEE Std 802.3cd-2018, IEEE Std 802.3cn-2019, IEEE Std 802.3cg-2019, IEEE Std 802.3cq-2020, IEEE Std 802.3cm-2020, IEEE Std 802.3ch-20xx, IEEE Std 802.3ca-20xx, and IEEE Std 802.3cu-20xx. This amendment adds Physical Layer (PHY) specifications and management parameters for 100 Gb/s operation over DWDM systems with reaches of at least 80 km. Draft D4.32.0 is prepared for Task Force review. This draft expires 6 months after the date of publication or when the next version is published, whichever comes first.

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Draft Amendment to IEEE Std 802.3-2018
IEEE P802.3ct 100 Gb/s over DWDM systems Task Force

IEEE Draft P802.3ct/D2.0
14th May 2020

but also not specifically excluded as long as the end-to-end link requirements are met. The arrangement of (DWDM) elements within the black link shown in Figure 154-3 is not intended to place constraints on the construction of the black link, but simply to define the location of the single channel interfaces at TP2 and TP3.

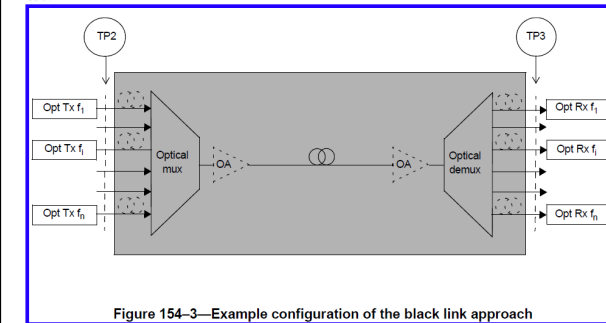


Figure 154-3—Example configuration of the black link approach

The 100GBASE-ZR PMD is specified on the assumption that it is part of a DWDM system where on the

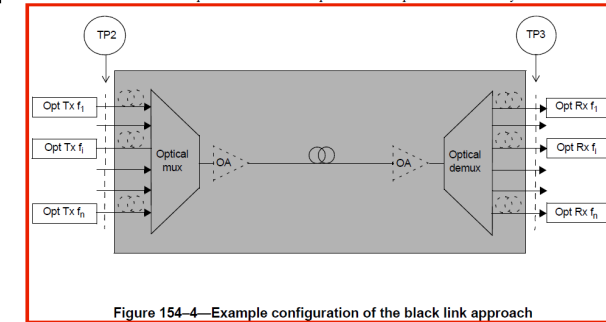


Figure 154-4—Example configuration of the black link approach

multichannel part inside the black link multiple DWDM optical signals are present, each sourced by a separate 100GBASE-ZR transmitter. These multiple DWDM channels operate on a DWDM frequency grid, defined by Table 154-6, which shows the mapping of the 100GBASE-ZR channel index numbers to the optical channel center frequencies. This grid corresponds to the DWDM frequency grid defined by Recommendation ITU-T G.694.1. The 100GBASE-ZR PMD specification covers a maximum of 48 channels over a DWDM system, supporting between 1 and 48 channels.

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This is an unapproved IEEE Standards draft, subject to change.

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WG Motion

Motion:

Move that the IEEE 802.3 Working Group progress the IEEE P802.3ct draft to Working Group ballot.

M: John D'Ambrosia

S: Tom Issenhuth

Technical (>75%)

Motion:

Going Forward

- If Approved
 - Initial WG Ballot Opens – Thurs May 21, 2020
 - Initial WG Ballot Closes – Sat Jun 20, 2020
- TF Interim teleconference meetings to address comments submitted against D2.0 (shared time with IEEE P802.3cw). See http://www.ieee802.org/3/ct/public/tf_interim/index.html.
 - Jul 2 (Tentative)
 - July 9
 - July 23
 - July 30
 - Aug 6
 - Aug 13 (Tentative)

Questions?

Thank you!