

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl **FM** SC **FM** P1 L # 447

Carlson, Steve HSD, Bosch, Ethernovia

Comment Type **E** Comment Status **D** EZ

The FrameMaker template has been updated to Version 5.1 by Pete Anslow.

SuggestedRemedy

Update the template to Ver. 5.1 per Anslow
<http://www.ieee802.org/3/tools/framemaker/index.html>

Proposed Response Response Status **W**

PROPOSED ACCEPT.

Cl **FM** SC **FM** P7 L17 # 372

Grow, Robert RMG Consluting

Comment Type **E** Comment Status **D** EZ

WG ballot group is now known.

SuggestedRemedy

Add WG ballot group.

Proposed Response Response Status **W**

PROPOSED ACCEPT.

Cl **FM** SC **FM** P11 L3 # 395

Wienckowski, Natalie General Motors

Comment Type **E** Comment Status **D** EZ

The expansion for PMA is physical medium attachment per 802.3-2022 1.5.

SuggestedRemedy

Change: Physical Media Attachment (PMA)
 To: Physical Medium Attachment (PMA)

Proposed Response Response Status **W**

PROPOSED ACCEPT.

Cl **FM** SC **FM** P11 L10 # 660

Murty, Ramana Broadcom

Comment Type **E** Comment Status **D** EZ

Text in Amendment 3

SuggestedRemedy

There is no abbreviation (PHY) in 802.3db. Add a comma after "two" on line 11.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Copy the official text for 802.3db.

Cl **FM** SC **FM** P11 L10 # 396

Wienckowski, Natalie General Motors

Comment Type **E** Comment Status **D** EZ

The description of db doesn't match D3.2 of P802.3db. PHY is not the correct abbreviation as it means "Physical Layer device". Also, two oxford commas are missing.

SuggestedRemedy

Change: Physical Layer (PHY) specifications and management parameters for 100, 200 and 400 Gb/s over one, two and four pairs of multimode fiber based on 100 Gb/s optical signaling.

To: Physical Layer specifications and management parameters for 100, 200, and 400 Gb/s over one, two, and four pairs of multimode fiber based on 100 Gb/s optical signaling.

Proposed Response Response Status **W**

PROPOSED ACCEPT.

Cl **FM** SC **FM** P11 L22 # 397

Wienckowski, Natalie General Motors

Comment Type **E** Comment Status **D** EZ

The description of de doesn't match D3.1 of P802.3de.

SuggestedRemedy

Change: Single Pair
 To: Single-Pair

Proposed Response Response Status **W**

PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

CI **FM** SC **FM** P11 L30 # 398
 Wienckowski, Natalie General Motors
 Comment Type **E** Comment Status **D** EZ
 The description of cx doesn't match D3.0 of P802.3cx.
 SuggestedRemedy
 Change: transmit and receive path delays
 To: transmit and receive path data delays
 Proposed Response Response Status **W**
 PROPOSED ACCEPT.

CI **FM** SC **FM** P20 L48 # 449
 Carlson, Steve HSD, Bosch, Ethernetovia
 Comment Type **E** Comment Status **D** EZ
 Editor's note is woefully out of date. Example projects are a decade old: (e.g., IEEE P802.3bj and IEEE P802.3bk)
 SuggestedRemedy
 Change to (e.g., IEEE P802.3cx and IEEE P802.3cz)
 Proposed Response Response Status **W**
 PROPOSED ACCEPT.

CI **00** SC **0** P0 L0 # 346
 Brown, Matt Huawei
 Comment Type **ER** Comment Status **D** EZ
 Many errors in editorial instructions throughout this draft. These are a mess and rather painful to comment on one by one.
 SuggestedRemedy
 Please review all editorial instructions and ensure that that are consistent with the rules and common style. Consult editorial instructions paragraph on page 20 line 33 and consult 802.3bs, 802.3ck, etc., for examples. Most have been pointed out in other comments, but likely several have not.
 Proposed Response Response Status **W**
 PROPOSED ACCEPT IN PRINCIPLE.
 The Editor will review the editorial instructions and make changes as needed; however, as no specific suggested remedy was provided, it is not clear what will satisfy the commenter.

CI **00** SC **0** P0 L0 # 455
 D'Ambrosia, John Futurewei, US Subsidiary of Huawei
 Comment Type **E** Comment Status **D** EZ
 The terms master/slave should be avoided.
 SuggestedRemedy
 Consult with IEEE SA for acceptable terms and replaced
 Proposed Response Response Status **W**
 PROPOSED REJECT.

Topic was addressed already in TF review under comment #293 against D1.3, where reference to Annex K was inserted in Clause 165.

CI **1** SC **1.4.128a** P21 L8 # 373
 Grow, Robert RMG Consluting
 Comment Type **TR** Comment Status **A**
 An Ethernet network is not full duplex, though it may include full duplex links. Similarly, an Ethernet network may include multiple data rates in the collective set of its physical layer links. This error is similar to some of the PHY Type definitions that exist in approved P802.3/D3.2, but should not be replicated. 1.4.14 1000BASE-T1 does not include a description of the "network"; but 1.4.82 10GBASE-T1 seems to be the model for this definition (thus replicating an error).

SuggestedRemedy
 IEEE 802.3 Physical Layer specification for a 25 Gb/s Ethernet link using a single twisted-pair copper cable.

Response Response Status **W**
 ACCEPT IN PRINCIPLE.
 Change
 IEEE 802.3 Physical Layer specification for a 25 Gb/s Ethernet link using a single twisted pair copper cable.
 To
 IEEE 802.3 Physical Layer specification for a 25 Gb/s Ethernet link using a single balanced pair of conductors.
 Recent automotive and industrial Ethernet projects have deprecated "twisted-pair copper cable." See comment #475.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 1 SC 1.4.407 P21 L11 # 343
 Brown, Matt Huawei
 Comment Type E Comment Status D EZ
 Editorial instruction is superfluous as changes are evident by the change marking.
 SuggestedRemedy
 Change to "Change 1.4.407 as follows:"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 1 SC 1.4.473 P21 L16 # 383
 Marris, Arthur Cadence Design Systems
 Comment Type E Comment Status D EZ
 No editing instruction for 1.4.473
 SuggestedRemedy
 Add "Change 1.4.473 as follows:"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 1 SC 1.4.473 P21 L17 # 344
 Brown, Matt Huawei
 Comment Type ER Comment Status D EZ
 No editorial instruction.
 SuggestedRemedy
 Add editorial instruction here and in various other locations in this draft including 105.1.1.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 1 SC 1.4.473 P21 L17 # 475
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ
 If we are going to change 'twisted pair' to 'conductor pair' here, we need to also change the same change in the matching definition of PoDL PD.
 SuggestedRemedy
 Add 1.4.472 PoDL PD to the draft, changing "twisted" to "conductor" as shown:
 1.4.472 PoDL PD: A Powered Device that is intended to receive power from a link section consisting of a single </SO>twisted</SO>conductor pair. (See IEEE Std 802.3, Clause 104.)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 1 SC 105.3 P37 L25 # 369
 Grow, Robert RMG Consluting
 Comment Type TR Comment Status D
 If 25GBASE-T1 deserves its own protocol stack in Figure 105-1, then it should describe those sublayers in the relevant 105.3.x subclauses. I missed this and should have voted no on advancement to WG ballot as the draft is not technically complete. I should have seen these titles with no associated changes as an indication of incompleteness.
 SuggestedRemedy
 The technical experts in the TF are much better qualified than I am to provide the missing text for the 25GBASE-T1 protocol stack relevant sections. Delete the subclause titles not relevant to the 25GBASE-T1 protocol stack. Include editorial instructions for each of the remaining subclauses.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Remove 105.3.1 through 105.3.5

Cl 30 SC 30.3.2.1.2 P15 L15 # 399
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 The PHY type needs to be moved right and then there should be space before the description.
 SuggestedRemedy
 Add spaces in "25GBASE-T1 Clause 165 25 Gb/s PAM4" to match 802.3-2022 spacing.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

CI 30 SC 30.3.2.1.3 P15 L21 # 400
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 The PHY type needs to be moved right and then there should be space before the description.
SuggestedRemedy
 Add spaces in "25GBASE-T1 Clause 165 25 Gb/s PAM4" to match 802.3-2022 spacing.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 30 SC 30.5.1.1.2 P15 L35 # 401
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 The PHY type needs to be moved right and then there should be space before the description.
SuggestedRemedy
 Add spaces in "25GBASE-T1 Single balanced pair of conductors PHY as specified in Clause 165" to match 802.3-2022 spacing.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 30 SC 30.6.1.1.5 P15 L49 # 402
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 The PHY type needs to be moved right and then there should be space before the description.
SuggestedRemedy
 Add spaces in "25GBASE-T1 as specified in Clause 165" to match 802.3-2022 spacing.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.3 P28 L1 # 334
 Maguire, Valerie Copperopolis
 Comment Type E Comment Status D EZ
 The PICS subclause for clause 45 is 45.5.
SuggestedRemedy
 Replace, "45.3" with "45.5" and re-number subsequent subclauses in this clause accordingly.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.3 P28 L2 # 335
 Maguire, Valerie Copperopolis
 Comment Type E Comment Status D EZ
 Interface is capitalized when appearing after "MDIO" (see clause 45 header).
SuggestedRemedy
 Replace, "Input/Output (MDIO) interface" with "Input/Output (MDIO) Interface" (this may need to be a maintenance request)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.2.1 P23 L7 # 374
 Grow, Robert RMG Consluting
 Comment Type E Comment Status D EZ
 I find no changes or inserts in the partial content copied from P802.3/D3.2. (Nor an editor's note explaining why the content is in the draft and that it should be removed prior to publication.)
SuggestedRemedy
 Delete lines 7 through 20.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 45 SC 45.2.1 P23 L7 # 504
 Huber, Thomas Nokia
 Comment Type E Comment Status D EZ
 It is not clear why Table 45-3 and the text that introduces it are included here, since there is no change being made.
 SuggestedRemedy
 Remove everything between the heading 45.2.1 and the heading 45.2.1.7
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1 P23 L8 # 386
 Marris, Arthur Cadence Design Systems
 Comment Type ER Comment Status D EZ
 Why is Table 45-3 included if there are no changes?
 SuggestedRemedy
 Delete Table 45-3
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1 P23 L9 # 476
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ
 There are no edits to Table 45-3 or 45.2.1, and text of the complete section or complete table are not shown. These should not be in the draft, as they do not match the base standard and also contain no edits.
 SuggestedRemedy
 Delete 45.2.1 text (but not the section header) and Table 45-3 from the draft.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.7.4 P23 L34 # 375
 Grow, Robert RMG Consulting
 Comment Type E Comment Status D EZ
 Inserted text should be underlined.
 SuggestedRemedy
 Underline line 34.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.7.5 P23 L51 # 376
 Grow, Robert RMG Consulting
 Comment Type E Comment Status D EZ
 Inserted text should be underlined.
 SuggestedRemedy
 Underline line 51.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.16 P24 L3 # 404
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 Only 1 new row is being added.
 SuggestedRemedy
 Change: insert new rows
 To: insert new row
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

CI 45 SC 45.2.1.214 P24 L30 # 403

Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ

The editorial instruction doesn't reference the new row added.

SuggestedRemedy

Change: Change the identified row in Table 45-178 as follows (unchanged rows not shown):

To: Change the identified row in Table 45-178 and insert a new row immediately below the changed row as follows (unchanged rows not shown):

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 45 SC 45.2.1.214.2 P25 L11 # 377

Grow, Robert RMG Consulting
 Comment Type TR Comment Status R

When looking to see if the PICS needed to be updated for the changed bit behavior, I couldn't find a PICS item corresponding to this existing shall.

SuggestedRemedy

Delete the shall, or add PICS item for the specified behavior.

Response Response Status W

REJECT.

Not all SHALL statements in Clause 45 have respective PICS. Since this is an existing SHALL statement and does not have a PICS in IEEE Std 802.3-2022, I would prefer to make no changes that would / could affect other projects and PHYs.

CI 45 SC 45.2.1.244 P25 L19 # 654

McClellan, Brett Marvell
 Comment Type E Comment Status D EZ

Table number doesn't match the editor instruction

SuggestedRemedy

change Table 45-179 to 45-206

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 45 SC 45.2.1.244 P25 L19 # 387

Marris, Arthur Cadence Design Systems
 Comment Type E Comment Status D EZ

Table number should be 45-206

SuggestedRemedy

Change "Table 45-179" to "Table 45-206". Similar issue for Table 45-207 on page 26

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 45 SC 45.2.1.244.1 P25 L43 # 653

McClellan, Brett Marvell
 Comment Type E Comment Status D EZ

missing references to Clause 165

SuggestedRemedy

change "Reed-Solomon interleaving is described in 149.3.2.2.15. This is communicated to the link partner via Infocfields as specified in 149.4.2.4.5."

to "Reed-Solomon interleaving is described in 149.3.2.2.15 for MultiGBASE-T1 and 165.3.2.2.15 for 25GBASE-T1. This is communicated to the link partner via Infocfields as specified in 149.4.2.4.5 for MultiGBASE-T1 and 165.4.2.4.5 for 25GBASE-T1."

make the same correction on page 26 lin 26

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 45 SC 45.2.1.245 P26 L1 # 655

McClellan, Brett Marvell
 Comment Type E Comment Status D EZ

Table number doesn't match the editor instruction

SuggestedRemedy

change Table 45-180 to 45-207

Proposed Response Response Status W

PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 45 SC 45.2.1.245 P26 L1 # 378
 Grow, Robert RMG Consluting
 Comment Type E Comment Status D EZ
 Table number error, it is Table 45-207 in P802.3/D3.2.
 SuggestedRemedy
 Correct table number per comment.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.246 P26 L35 # 388
 Marris, Arthur Cadence Design Systems
 Comment Type E Comment Status D EZ
 Why is 45.2.1.246 included if nothing has been changed?
 SuggestedRemedy
 Delete 45.2.1.246
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.245.1 P26 L29 # 379
 Grow, Robert RMG Consluting
 Comment Type E Comment Status D EZ
 I don't find it in the style manual, but I believe the preference is that "and" should be preceded by an "Oxford" comma.
 SuggestedRemedy
 "L=2, L=4, and L=8" (retaining underscore and strikethrough).
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.246 P26 L35 # 478
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ
 There are no edits to PICS in clause 45 required in the draft - i.e., section 45.3 (or subclauses) and no editing instructions.
 SuggestedRemedy
 Delete 45.3 and subclauses, including headers, from the draft
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.246 P26 L35 # 492
 Huber, Thomas Nokia
 Comment Type E Comment Status D EZ
 Subclause 45.2.1.246 and its 4 subclauses do not appear to be changed by this amendment
 SuggestedRemedy
 Remove 45.2.1.246 and its subclauses
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.246 P26 L35 # 380
 Grow, Robert RMG Consluting
 Comment Type E Comment Status D EZ
 Text with no changes. (Nor editorial note to explain why the content is in the draft and that it should be removed prior to publication.)
 SuggestedRemedy
 Delete page 26, line 35 through page 27, line 43
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

CI 45 SC 45.2.1.246 P26 L35 # 516
 Ran, Adee Cisco
 Comment Type E Comment Status D EZ
 There is no editorial instruction nor any indication of changes in the text in 45.2.1.246 and its subclauses.
 SuggestedRemedy
 Remove 45.2.1.246 through 45.2.1.246.4 from the draft.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.2.1.246 P26 L35 # 604
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 all of subclause 45.2.1.246 (including table 45-181) appear identical to the base 802.3-2022 standard except that the table number should be 45-208
 SuggestedRemedy
 remove all of subclause 45.2.1.246 or at least change Table 45-181 to Table 45-208
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.2.1.246 P26 L35 # 477
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ
 There are no edits to Section 45.2.1.246 (or subclauses) in the draft and no editing instructions.
 SuggestedRemedy
 Delete 45.2.1.246 and subclauses, including headers, from the draft
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.2.1.246.1 P26 L43 # 600
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 missing references to Clause 165
 SuggestedRemedy
 change "Transmitter test mode operations defined by bits 1.2313.15:13, are described in 149.5.1 and Table149-17."
 to "Transmitter test mode operations defined by bits 1.2313.15:13, are described in 149.5.1 and Table 149-17 for MultiGBASE-T1 and 165.5.1 and Table 165-11 for 25GBASE-T1"

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.2.1.246.2 P26 L51 # 601
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 missing references to Clause 165

SuggestedRemedy
 change "149.3.2.2.20."
 to "149.3.2.2.20 for MultiGBASE-T1 and 165.3.2.2.20 25GBASE-T1."
 make the same correction on page 27 line 35
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.2.1.246.4 P27 L42 # 602
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 missing references to Clause 165
 SuggestedRemedy
 change "See 149.5.2.3.1 and 149.5.2.3.2 for more information."
 to "See 149.5.2.3.1, 149.5.2.3.2, 165.5.2.3.1 and 165.5.2.3.2 for more information."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

CI 45 SC 45.2.246 P26 L35 # 407
 Wienckowski, Natalie General Motors
 Comment Type T Comment Status D EZ
 Unchanged register definitions don't need to be included in the spec.
 SuggestedRemedy
 Remove this Subclause and 45.2.1.246.x as no changes have been made from the base standard.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.3 P28 L1 # 607
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 I see no differences between this subclause and the base 802.3-2022
 SuggestedRemedy
 remove all of subclause 45.3 if no changes are made to this subclause
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Remove all of subclause 45.3

CI 45 SC 45.3 P28 L1 # 605
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 Clause 45 PICs in the 802.3-2022 base standard is 45.5
 SuggestedRemedy
 change 45.3 to 45.5 and associated subclauses
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Remove all of subclause 45.3, there are no changes made in P802.3cy

CI 45 SC 45.3 P28 L1 # 517
 Ran, Adeo Cisco
 Comment Type E Comment Status D EZ
 There is no editorial instruction nor any indication of changes in the text in 45.3 (PICS). The draft includes the content up to 45.3.2.3 (without any changes) but omits the rest of the PICS.
 SuggestedRemedy
 If there are no changes to the PICS, remove 45.3 from the draft.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Remove 45.3 from the draft.

CI 45 SC 45.3 P28 L1 # 493
 Huber, Thomas Nokia
 Comment Type E Comment Status D EZ
 Subclause 45.3 (and its subclauses) are shown in the draft as the PICS, but the PICS is clause 45.5 in the published 802.3, and in any case there are no changes compared to 802.3-2022.
 SuggestedRemedy
 Remove subclause 45.4 and its subclauses
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 45 SC 45.3 P28 L6 # 336
 Maguire, Valerie Copperopolis
 Comment Type E Comment Status D EZ
 Interface is capitalized when appearing after "MDIO" (see clause 45 header).
 SuggestedRemedy
 Replace, "MDIO interface" with "MDIO Interface" (this may need to be a maintenance request)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

CI 45 SC 45.3.2.2 P28 L36 # 606
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 IEEE Std 802.3-2022 is the new base document
 SuggestedRemedy
 change multiple references to IEEE Std 802.3-202x to IEEE Std 802.3-2022
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 78 SC 78.1.4 P30 L8 # 345
 Brown, Matt Huawei
 Comment Type E Comment Status D EZ
 Editorial instruction not correct. Row in table is inserted not changed.
 SuggestedRemedy
 Change "unchanged rows not shown" to "some rows not shown".
 Same for 78.2.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

CI 78 SC 78.2 P30 L22 # 608
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 25GBASE-T1 should appear before 25GBASE-T in Table 78-2, per pattern set in the baseline
 SuggestedRemedy
 change editor instruction to: Insert a row for 25GBASE-T1 before 25GBASE-T in Table 78-2
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 78 SC 78.3 P30 L43 # 479
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type T Comment Status A
 "The EEE capability for 25GBASE-T1 shall be advertised during link training according to 165.4.2.4.10." has two problems. First, the advertisement not described in 165.4.2.4.10 (that is where link training is, but not the advertisement). The advertisement is in 165.4.2.4.5 (you could say 165.4.2.4 because it contains the full infofield function)
 The second problem is that this is a duplicate shall with the advertisement shall in clause 165.4.2.4.5: "EEEen and OAMen indicate EEE and 25GBASE-T1 OAM capability enable, respectively. The PHY shall indicate the support of these two optional capabilities by setting the corresponding capability bits."
 *it turns out these are also problems with the entries for 2.5G/5G/10GBASE-T1...
 SuggestedRemedy
 Change "shall be advertised" to "is advertised" on P30 L43, and change 165.4.2.4.10 to 165.4.2.4.
 Response Response Status C
 ACCEPT.

CI 78 SC 78.3 P30 L43 # 518
 Ran, Adee Cisco
 Comment Type E Comment Status D EZ
 The editorial instruction here is "insert", so the text should not be underlined. However, it may be preferable to unclude the whole paragraph and use "change".
 SuggestedRemedy
 Include the whole paragraph and use the "change" editorial instruction.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change the text format and remove underline.

CI 78 SC 78.3 P30 L49 # 480
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ
 Missing period at the end of the sentence to be edited.
 SuggestedRemedy
 Add a period after "Auto-Negotiation"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 78 SC 78.3 P30 L49 # 609
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 missing period
 SuggestedRemedy
 change to: Auto-Negotiation.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 78 SC 78.5 P30 L54 # 481
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ
 The change made to this paragraph is already in the base standard 802.3-2022. "Case-3 of the PHY in the MultiGBASE-T1 set is the same as Case-1 when Slow Wake is active. Case-4 of the PHY in the MultiGBASE-T1 set is the same as Case-2 when Slow Wake is active." so the edit is unnecessary.
 SuggestedRemedy
 Delete editing instruction "Modify the 10th paragraph..." on P30 L54, and the text on P31 L1 through 7 for the edit to the text. Retain header for 78.5 and editing instruction and edit to Table
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 78 SC 78.5 P31 L1 # 519
 Ran, Adeo Cisco
 Comment Type T Comment Status D EZ
 The editorial instruction says "Modify the 10th paragraph of 78.5 as follows:"
 However, the text in the draft is not the tenth paragraph (which addresses MultiGBASE-T1) but from the seventh paragraph (which addresses MultiGBASE-T).
 The tenth paragraph in the 802.3-2022 standard already includes the final two sentences in this amendment (they are defined for 10GBASE-T1); it seems that no change to the text is required.
 SuggestedRemedy
 Remove the editorial instruciotn and the change to the text.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 78 SC 78.5 P31 L2 # 610
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 the 802.3-2022 base document uses 'link partner' not 'Link Partner'
 SuggestedRemedy
 change 'Link Partner' to 'link partner' in every occurrence
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 78 SC 78.5 P31 L5 # 494
 Huber, Thomas Nokia
 Comment Type E Comment Status D EZ
 The changes indicated for the text of the 10th paragraph are already present in 802.3-2022
 SuggestedRemedy
 Remove the editing instruction to modify the 10th paragraph.and associated text of the 10th paragraph.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 78 SC 78.5 P31 L5 # 611
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 the 802.3-2022 base document uses 'link partner' not 'Link Partner'
 SuggestedRemedy
 remove the editor instruction and text
 Proposed Response Response Status W
 PROPOSED REJECT.
 Seems like a copy of comment #610 with wrong suggested remedy?

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

CI 78 SC 78.5 P31 L9 # 520
 Ran, Adee Cisco
 Comment Type E Comment Status D EZ
 "Summary of the LPI timing parameters for supported PHYs or interfaces" is Table 78-4, not Table 78-3.
 SuggestedRemedy
 Change the number in the editorial instruction and the table heading to 78-4.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 78 SC 78.5 P31 L9 # 482
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ
 Table 78-3 in this draft is 78-4 in 802.3-2022
 SuggestedRemedy
 Renumber table 78-3 as 78-4 in both editing instruction and title
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 78 SC 78.5 P31 L14 # 612
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 the 802.3-2022 base document shows this as Table 78-4
 SuggestedRemedy
 change Table 78-3 to Table 78-4 on lines 9 and 14
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 78 SC 78.5 P31 L22 # 521
 Ran, Adee Cisco
 Comment Type T Comment Status A
 The new values in Table 78-3 are given with precision of up to five fractional digits (10 ps resolution). Adding to the two integer digits, this results in seven digits of significance.

The rightmost zero digit indicates that this level of precision is expected (Style manual, 16.3.2: "Only as many significant digits should be used as the precision of data justifies").
 The existing values in the table (in 802.3-2022) are mostly with two fractional digits (10 ns resolution) with a single exception of 25GBASE-T which has three (1 ns resolution). In all cases except 2.5GBASE-T1 the number of significant digits is up to 4 (2.5GBASE-T1 has values above 100).

It seems unnecessary to specify and impractical to measure LPI timing delays with a 10 ps resolution.
 SuggestedRemedy
 Round all the numbers to four digits of significance (three fractional digits for numbers below 10, two for numbers above 10). Omit rightmost zero digits unless it is strictly required.
 Response Response Status C
 ACCEPT.

CI 78 SC 78.6 P32 L1 # 614
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 I see no differences between this subclause and the base 802.3-2022
 SuggestedRemedy
 remove all of subclause 78.6 if no changes are made to this subclause
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 78 SC 78.6 P32 L1 # 483
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type T Comment Status D EZ
 There are no changes to clause 78 PICS in this draft
 SuggestedRemedy
 Delete 78.6 and subclauses (P32 L1 - P33 L35)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 78 SC 78.6 P32 L1 # 522
 Ran, Adeo Cisco
 Comment Type E Comment Status D EZ
 There is no editorial instruction nor any indication of changes in the text in 78.6 (PICS).
 SuggestedRemedy
 If there are no changes to the PICS, remove 78.6 from the draft.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 78 SC 78.6 P32 L1 # 495
 Huber, Thomas Nokia
 Comment Type E Comment Status D EZ
 There appear to be no actual changes to this subclause. There are places in 78.6.2.2 and 78.6.3 where clause 78.4 has been incorrectly changed to 78.5; ignoring those, the content is the same as 802.3-2022
 SuggestedRemedy
 Remove subclause 78.6 (and its subclauses)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 78 SC 78.6 P32 L6 # 613
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 multiple reference to 78.5 in this subclause do not match 802.3-2022
 SuggestedRemedy
 change all occurrences of 78.5 to 78.4 in subclause 78.6
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Subclause 78.6 was not modified in P802.3cy and will be removed.

Cl 98 SC 98.5.1 P34 L8 # 524
 Ran, Adeo Cisco
 Comment Type E Comment Status D EZ
 The text is modified and new text is indicated with underline. Therefore, the instruction "Insert" is inappropriate (see page 20).
 SuggestedRemedy
 Change the editorial instruction to "Change the text in 98.5.1 as follows".
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Remove text page 34, lines 10-21, and change format of the newly inserted line by removing the underline.
 Cl 98B SC 98B.4 P147 L31 # 630
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 unnecessary line added
 SuggestedRemedy
 delete extra line '-'
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 104 SC 104 P35 L1 # 473
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type TR Comment Status A
 According to the objectives, the project is to support clause 104 over appropriate media. Clause 104 is not present in the draft, and the current types do not support 25GBASE-T1. Discussion has been to use the same parameters as 10GBASE-T1.
 SuggestedRemedy
 Add clause 104, and 104.1.3 PoDL system types to the draft with an editing instruction to change the final sentence of the second paragraph from "A Type F PSE and Type F PD are compatible with 2.5GBASE-T1, 5GBASE-T1, and 10GBASE-T1 PHYs." to "A Type F PSE and Type F PD are compatible with 2.5GBASE-T1, 5GBASE-T1, 10GBASE-T1, and 25GBASE-T1 PHYs." (editor to put in strikeouts, underlines, etc as needed)
 Also, change external references to Clause 104 (in 1.4.473 and 1.4.472 (if added)) to cross-references.
 Response Response Status C
 ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 105 SC 105 P35 L1 # 381
 Grow, Robert RMG Consluting
 Comment Type ER Comment Status D EZ
 P802.3cz (Amendment 7) currently specifies includes many changes to Clause 105. With this project currently targeted to be Amendment 9, base text should include proposed inserts, replaces and changes in P802.3/D2.2.
 SuggestedRemedy
 Use base text from P802.3cz/D2.2. Individual comments will be made on items noticed.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Align Clause 105 with changes done in IEEE P802.3cz D2.2

Cl 105 SC 105 P39 L1 # 663
 Murty, Ramana Broadcom
 Comment Type E Comment Status D EZ
 Blank page
 SuggestedRemedy
 Remove blank page.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 105 SC 105.1 P35 L7 # 384
 Marris, Arthur Cadence Design Systems
 Comment Type E Comment Status D EZ
 Missing editing instructions
 SuggestedRemedy
 Add editing instructions for 105.1.1 and 105.1.3. Correct editing instruction for 105.7. It is not an editorial note.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #408 for 105.1.1
 Add editing instructions for 105.1.3. Correct editing instruction for 105.7. It is not an editorial note.

Cl 105 SC 105.1.1 P34 L6 # 523
 Ran, Adeo Cisco
 Comment Type E Comment Status D EZ
 Editorial instruction is missing for 105.1.1
 SuggestedRemedy
 Add "Change" instruction.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #408 for 105.1.1

Cl 105 SC 105.1.1 P35 L4 # 382
 Grow, Robert RMG Consluting
 Comment Type E Comment Status D EZ, 105.1.1
 Missing editorial instruction.
 SuggestedRemedy
 Change first paragraph (as modified by P802.3cz/D2.2) as follows:
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #408

Cl 105 SC 105.1.1 P35 L7 # 408
 Wienckowski, Natalie General Motors
 Comment Type T Comment Status D EZ, 105.1.1
 The change made by IEEE Std 802.3cz removed the list of PHYs so no change is needed for IEEE Std 802.3cy.
 SuggestedRemedy
 Delete 105.1.1.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 105 SC 105.1.1 P35 L7 # 360
 Grow, Robert RMG Consluting
 Comment Type ER Comment Status D EZ, 105.1.1
 P802.3cz (Amendment 7) currently specifies removal of the list in this paragraph.
 SuggestedRemedy
 Use base text from P802.3cz/D2.2 or work with P802.3cz TF to agree on a common approach to such lists that keep reappearing in Std 802.3.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #408

Cl 105 SC 105.1.1 P35 L10 # 496
 Huber, Thomas Nokia
 Comment Type E Comment Status D EZ, 105.1.1
 Missing an editing instruction
 SuggestedRemedy
 Add an editing instruction to modify the first paragraph of 105.1.1 as shown.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #408

Cl 105 SC 105.1.1 P35 L10 # 525
 Ran, Adee Cisco
 Comment Type E Comment Status D EZ, 105.1.1
 Although it is preceded by "such as" which suggests it only includes examples, the list keeps growing.
 The list of PHYs has no merit here. Table 105–1 contains the same information and can be referenced.
 SuggestedRemedy
 Delete the list of PHYs and refer to Table 105–1 instead.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #408 for 105.1.1

Cl 105 SC 105.1.1 P35 L12 # 347
 Brown, Matt Huawei
 Comment Type ER Comment Status D EZ, 105.1.2
 Instruction is not consistent with proper form.
 SuggestedRemedy
 Break into two instructions, one for text and one for figure.
 Figure instructions should be
 "Replace Figure 131-1 (adding stack for 25GBASE-T1 and adding NOTE 2) as follows:"
 Then either:
 "Insert new bullet e as shown:" and remove the underline, or
 "Change list as follows:" and include whole list, with new item e underlined

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Changes relative to suggested remedy in >><<
 Break into two instructions, one for text and one for figure.
 Figure instructions should be
 "Replace Figure >>105<<-1 (>>as modified by P802.3cz/D3.2<<, adding stack for 25GBASE-T1 and adding NOTE 2) as follows:"
 Then >>"Insert new bullet e as shown:" and remove the underline<<

Cl 105 SC 105.1.1 P35 L12 # 526
 Ran, Adee Cisco
 Comment Type E Comment Status D EZ, 105.1.2
 The change of the text in 105.1.2 does not include the context and makes the new text obscure for readers without going to the base document.
 Also, "Update Figure 131-1" - should be 105-1.
 SuggestedRemedy
 Separate into two instructions, the first for the figure (and change it to Figure 105-1), the second to the text - either the second paragraph or the list of exceptions.
 Include the full list of exceptions or use "insert a new item at the end of the list of exceptions".
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #347

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 105 SC 105.1.2 P35 L11 # 361
 Grow, Robert RMG Consluting
 Comment Type ER Comment Status D EZ, 105.1.2
 Editorial instruction should follow the subclause title line. Editorial instruction should be split into two to point at appropriate documents (e.g., P802.3cz) and use correct editing instruction.
 SuggestedRemedy
 Move editorial instruction below subclause title. Instruction at this location should be "Replace Figure 105-1 (as modified by P802.3cz/D3.2) with the below which adds a protocol stack for 25GBASE-T1 and adds NOTE-2."
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #347

Cl 105 SC 105.1.2 P35 L12 # 357
 Lewis, Jon Dell Technologies
 Comment Type E Comment Status D EZ, 105.1.2
 In the editing instructions for 105.1.2 it indicates that Figure 131-1 is being modified.
 SuggestedRemedy
 Change editing instructions to read: "Change 105.1.2 adding a new bullet e as shown below. Update Figure 105-1 adding stack for 25GBASE T1 and adding NOTE 2 as shown below"
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #347

Cl 105 SC 105.1.2 P35 L12 # 497
 Huber, Thomas Nokia
 Comment Type E Comment Status D EZ, 105.1.2
 The editing instruction refers to figure 131-1 instead of 105-1
 SuggestedRemedy
 Change 131-1 to 105-1
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #347

Cl 105 SC 105.1.2 P35 L12 # 409
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ, 105.1.2
 Change to an editorial instruction for Figure 131-1 only and refer to IEEE Std 802.3cz.
 SuggestedRemedy
 Delete the existing editorial note and add the following: Replace Figure 131-1 (as modified by IEEE Std 802.3cz-202x) with the figure found below, which adds 25GBASE-T1.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #347

Cl 105 SC 105.1.2 P35 L16 # 411
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ, 105.1.2
 Add editorial note for the text and put the text before the Figure.
 SuggestedRemedy
 x means underline "x"
 Change 105.1.2 adding a new bullet e) as shown below.
 _e) The MDI as specified in Clause165 for 25GBASE-T1 uses a single-lane data path..
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #347

Cl 105 SC 105.1.2 P35 L27 # 362
 Grow, Robert RMG Consluting
 Comment Type TR Comment Status D EZ, 25GBASE-T1 PCS
 The PCS type should be specified.
 SuggestedRemedy
 25GBASE-T1 PCS
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #452

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

CI 105 SC 105.1.2 P35 L27 # 615
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ, 25GBASE-T1 PCS
 the PCS in the 25GBASE-T1 stack should be identified similar to the pre-existing stacks
 SuggestedRemedy
 insert '25GBASE-T1' before PCS
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #452

CI 105 SC 105.1.2 P35 L27 # 456
 He, Xiang Huawei
 Comment Type E Comment Status D EZ, 25GBASE-T1 PCS
 (Figure 105-1) For 25GBASE-T1, FEC is part of PCS functions, so it is better not to list FEC as a separate sublayer in this figure. Please refer to 25GBASE-T or 10GBASE-T1 as two examples.
 SuggestedRemedy
 Recommend to change the "PCS" box as "25GBASE-T1 PCS" (preferred) or "64B/65B RS-FEC PCS" and remove the FEC box.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #362 + remove the FEC box

CI 105 SC 105.1.2 P35 L28 # 616
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 the FEC in the 25GBASE-T1 stack is not a separate entity from the PCS
 SuggestedRemedy
 delete 'FEC' and insert 'RS-FEC' before PCS
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #452

CI 105 SC 105.1.2 P35 L37 # 453
 D'Ambrosia, John Futurewei, US Subsidiary of Huawei
 Comment Type TR Comment Status A
 As previously commented the stacks in Figs 105-1 and 165-1 do not match, but it is noticed additionally that these diagrams treat FEC differently. In 105-1 FEC is in a sublayer under the PCS, while in 165-1 it is combined with the PCS. Clause 165.3.2.2.2 seem to indicate that FEC is a TX PCS function and there is no such subclause in the Rx PCS function. This is somewhat difficult to figure out.
 SuggestedRemedy
 If the commenter is understanding the draft correctly, the title of the 165 column should be 25GBASE-T1 PCS/FEC/PMA. As noted previously, the stack of 25GBASE-T1 in Fig 105-1 should be modified to match the stack in Fig 165-1.

Response Response Status W
 ACCEPT IN PRINCIPLE.
 Figure 105-1 will be modified to match the stack in Figure 165-1.

CI 105 SC 105.1.2 P35 L37 # 452
 D'Ambrosia, John Futurewei, US Subsidiary of Huawei
 Comment Type TR Comment Status D EZ
 The stack for 25GBASE-T1 in Fig 105-1 does not match the stack shown in Fig 165-1.
 SuggestedRemedy
 Modify the stack of 25GBASE-T1 in Fig 105-1 to match the stack in Fig 165-1.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Redraw 25GBASE-T1 stack in Figure 105-1 to match Figure 165-1.

CI 105 SC 105.1.2 P35 L45 # 363
 Grow, Robert RMG Consluting
 Comment Type ER Comment Status D EZ, Figure 105-1
 P802.3cz also adds a stack for BASE-AU.
 SuggestedRemedy
 Use Figure 105-1 from P802.3cz/D2.2 as base for modification. The 25GBASE-T1 stack could be inserted to the left of the BASE-AU stack. Stack widths will probably have to be narrowed to accommodate 4 different stacks.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 105 SC 105.1.2 P35 L45 # 410
 Wienckowski, Natalie General Motors
 Comment Type T Comment Status D EZ, Figure 105-1
 Need to change Figure 105-1 to also include 25GBASE-AU.
 SuggestedRemedy
 Modify Figure 105-1 to include 4 PHYS, similar to 125-1, adding the 25GBASE-AU stack from 802.3cz D2.1.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 105 SC 105.1.2 P35 L47 # 364
 Grow, Robert RMG Consluting
 Comment Type ER Comment Status D EZ, 105.1.2
 Insert second editorial instruction.
 SuggestedRemedy
 Insert new item at bottom of lettered list.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #347

Cl 105 SC 105.1.3 P35 L13 # 358
 Lewis, Jon Dell Technologies
 Comment Type E Comment Status D EZ, 105.1.3
 Are editing instructions needed for Table 105-1?
 SuggestedRemedy
 Please add the appropriate editing instructions
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #365

Cl 105 SC 105.1.3 P35 L50 # 617
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ, 105.1.3
 this subclause is missing editor's instructions for subclause 105.1.3 and Table 105-1
 SuggestedRemedy
 add editor's instruction as needed
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #365

Cl 105 SC 105.1.3 P35 L51 # 412
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ, 105.1.3
 Add editorial instruction.
 SuggestedRemedy
 Insert new fifth paragraph for 25GBASE-T1 after the new paragraph inserted by IEEE Std 802.3cz-202x.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #365

Cl 105 SC 105.1.3 P35 L51 # 413
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ, 105.1.3
 SuggestedRemedy
 Delete unchanged paragraph on 25GBASE-T.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #365

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 105 SC 105.1.3 P35 L51 # 365
 Grow, Robert RMG Consluting
 Comment Type ER Comment Status D EZ, 105.1.3
 Missing editorial instruction. Unchanged text is included in draft without including all of 105.1.3.
 SuggestedRemedy
 Delete page 35, line 52 through page 36, line 4. Editing instruction: "Insert new third paragraph below (before paragraph inserted by P802.3cz/D2.2."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 105 SC 105.1.3 P35 L52 # 527
 Ran, Adee Cisco
 Comment Type E Comment Status D EZ, 105.1.3
 Editorial instruction is missing for 105.1.3.
 The first paragraph in the amendment is the third one in the base standard.
 SuggestedRemedy
 Add a "Change" instruction and bring in the missing two paragraphs.
 Alternatively, use "Insert the following paragraph after the third paragraph of 105.1.3".
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #365

Cl 105 SC 105.1.3 P36 L6 # 484
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ, 105.1.3
 There is no corresponding editing instruction for this edit to 105.1.3 and the full text of 105.1.3 is not shown.
 SuggestedRemedy
 Add editing instruction at P35 L49 (by header):
 Insert new fourth paragraph to 105.1.3 as shown:
 Delete unchanged paragraph beginning "25GBASE-T represents..." (P35 L52 - P36 L4)
 Remove underline from new paragraph at P36 L6 - P36 L10
 Replace "Physical Layer devices... at 25Gb/s" on P36 L11 with new editing instruction,
 "Insert new row at end of Table 105-1 as shown: (unchanged rows not shown)
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #365

Cl 105 SC 105.1.3 P36 L6 # 414
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 Underline is not needed with an "insert" instruction.
 SuggestedRemedy
 Remove underlining from new text.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 105 SC 105.1.3 P36 L7 # 528
 Ran, Adee Cisco
 Comment Type T Comment Status A
 "for transmitting 25 Gb/s Ethernet" - and also receiving?
 The preceding paragraph for 25GBASE-T has "for data communication at 25 Gb/s" instead.
 SuggestedRemedy
 Use "for data communication at 25 Gb/s" as in the previous paragraph.
 Response Response Status C
 ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 105 SC 105.1.3 P36 L9 # 618
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 description should conform to existing baseline text
 SuggestedRemedy
 change 'Physical Coding Sublayers' to 'physical coding sublayer'
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Line number was fixed.

Cl 105 SC 105.1.3 P36 L12 # 366
 Grow, Robert RMG Consluting
 Comment Type ER Comment Status D EZ, Table 105-1
 Missing editorial instruction.
 SuggestedRemedy
 Insert new row into Table 105-1 for 25GBASE-T1 after 25GBASE-T:
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #415

Cl 105 SC 105.1.3 P36 L13 # 529
 Ran, Adeo Cisco
 Comment Type E Comment Status D EZ, Table 105-1
 Editorial instruction is missing for Table 105-1.
 SuggestedRemedy
 Add an appropriate instruction.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #415

Cl 105 SC 105.1.3 P36 L13 # 415
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ, Table 105-1
 Add editorial instruction.
 SuggestedRemedy
 Insert a row for for 25GBASE-T1 before the row for 25GBASE-T in Table 105-1 (as modified by IEEE Std 802.3cz-202x) as follows (unchanged rows not shown):
 As this is not the last row, a row needs to be added that is merged and includes an elipses.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 105 SC 105.1.3 P36 L21 # 485
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ
 suppressing hyphenation on description will make the description more readable.
 SuggestedRemedy
 suppress hyphenation on "single balanced pair of conductors"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 105 SC 105.1.3 P36 L50 # 498
 Huber, Thomas Nokia
 Comment Type E Comment Status D EZ, Table 105-1
 Missing an editing instruction
 SuggestedRemedy
 Add an editing instruction to insert a new paragraph after the 3rd paragraph as shown and modify Table 105-1 as shown.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #415

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 105 SC 105.2 P37 L1 # 619
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ, Table 105-2
 this subclause is missing editor's instructions for subclause 105.2 and Table 105-2
 SuggestedRemedy
 add editor's instruction as needed
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #367

Cl 105 SC 105.2 P37 L1 # 499
 Huber, Thomas Nokia
 Comment Type E Comment Status D EZ, Table 105-2
 Missing an editing instruction to modify Table 105-2
 SuggestedRemedy
 Add an editing instruction to insert a new row at the end of Table 105-2 as shown.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #367

Cl 105 SC 105.2 P37 L2 # 367
 Grow, Robert RMG Consluting
 Comment Type E Comment Status D EZ, Table 105-2
 Missing editorial instruction.
 SuggestedRemedy
 Insert a row for 25GBASE-T1 after 25GBASE-T and a column for 25BASE-AU PCS/PMA/PMD between clause 114 and clause 166 (inserted by P802.3cz/D2.2).
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 105 SC 105.2 P37 L2 # 416
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ, Table 105-2
 Add editorial instruction.
 SuggestedRemedy
 Insert a row for for 25GBASE-T1 before the row for 25GBASE-T in Table 105-2 and columns for Clause 98 and Clause 165 (as modified by IEEE Std 802.3cz-202x) as follows (unchanged rows not shown):
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #367

Cl 105 SC 105.2 P37 L2 # 417
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 Need to have merged rows before and after new row that is in the middle of the table.
 SuggestedRemedy
 Change the row before 25GBASE-T1 to a merged row with an elipses. Add a row after 25GBASE-T1 that is merged and includes an elipses.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 105 SC 105.2 P37 L3 # 530
 Ran, Adee Cisco
 Comment Type E Comment Status D EZ, Table 105-2
 Editorial instruction is missing for Table 105-2.
 SuggestedRemedy
 Add an appropriate instruction.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #367

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 105 SC 105.2 P37 L3 # 487
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ, Table 105-2

Edits in Table 105-2:
 No editing instruction for Table 105-2,
 missing editing marking on entry in Nomenclature row for "25GBASE-T1"
 Row should be after 25GBASE-T, which is in the middle of the table, but no other rows are shown.

SuggestedRemedy

Add editing instruction, "Change Table 105-2 adding new row for 25GBASE-T1 immediately below row for 25GBASE-T, and adding new column for 25GBASE-T1 PCS/PMA at the right hand side as shown (unchanged rows not shown):"
 Add underline to Nomenclature entry for "25GBASE-T1"
 Add new "... " row following new row for 25GBASE-T1.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

See comment #367

Cl 105 SC 105.2 P37 L6 # 348
 Brown, Matt Huawei
 Comment Type E Comment Status D EZ

Table too wide.

SuggestedRemedy

Reduce table with by adjust column widths.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

The Editor will attempt to reduce the size of the table. If that does not work, the Editor will break the table into two, separating fiber and copper media.

Cl 105 SC 105.2 P37 L6 # 368
 Grow, Robert RMG Consluting
 Comment Type TR Comment Status D EZ

As amendment 9, the table from P802.3cz should be used as base.

SuggestedRemedy

Include clause 166 column from P802.3cz/D2.2.

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 105 SC 105.2 P37 L6 # 451
 D'Ambrosia, John Futurewei, US Subsidiary of Huawei
 Comment Type TR Comment Status A Table 105-2

Table 105-2 appears incomplete -
 Clause 78 EEE optional support not indicated
 Clause 106 mandatory use of RS and 25GMII not indicated
 Clause 165 is noted as PMD, not PCS / PMA as noted by the title of the agenda

SuggestedRemedy

For 25GBASE-T1 entry in Table 105-2, make the following:
 Clause 78 EEE - Optional
 Clause 106 - Mandatory

Change title of 165 column to "25GBASE-T1 PCS/PMA "

Response Response Status W
 ACCEPT IN PRINCIPLE.

For 25GBASE-T1 entry in Table 105-2, make the following:
 Clause 78 EEE - Optional
 Clause 106 RS - Mandatory
 Clause 106 25GMII - Optional

Change title of 165 column to "25GBASE-T1 PCS/PMA "

Cl 105 SC 105.2 P37 L8 # 531
 Ran, Adeo Cisco
 Comment Type E Comment Status A Table 105-2

In Table 105-2:

The column for clause 165 should be labeled "25GBASE-T1 PCS and PMA".

EEE should be marked "O", RS and 25GMII should be "M" and "O".

Several of the clauses are included in this draft and the heading numbers should be made active links.

The columns can be narrowed to make the table fit within the margins.

SuggestedRemedy

Per comment

Response Response Status C
 ACCEPT IN PRINCIPLE.

See comment #451

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 105 SC 105.2 P37 L11 # 462

Lusted, Kent Intel Corporation

Comment Type TR Comment Status A Table 105-2

Table 105-2 entry "25GBASE-T1" has a column for Clause 165 denoted as "25GBASE-T1 PMD". This name is misleading because Clause 165 contains a PCS and a PMA. Note that PMD is not used at all in the title of Clause 165 on page 40. Furthermore, the Table 44-1 in IEEE Std 802.3-2022 (page 1716) provides a column name of "RS-FE PCS and 1-pair PMA" which is inconsistent with the existing text in 3cy D2.0 Table 105-2.

SuggestedRemedy

Change the column title from "25GBASE-T1 PMD" to "25GBASE-T1 PCS/PMA"

Response Response Status W

ACCEPT.

Cl 105 SC 105.2 P37 L11 # 621

McClellan, Brett Marvell

Comment Type E Comment Status A Table 105-2

25GBASE-T1 has a PCS/PMA not a PMD

SuggestedRemedy

change PMD to PCS/PMA in the 165 column

Response Response Status C

ACCEPT IN PRINCIPLE.

See comment #451

Cl 105 SC 105.2 P37 L17 # 486

Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve

Comment Type T Comment Status A Table 105-2

"25GBASE-T1 PMD" - 25GBASE-T1 is a PCS/PMA not a PMD.

SuggestedRemedy

Change "25GBASE-T1 PMD" to "25GBASE-T1 PCS/PMA"

Response Response Status C

ACCEPT.

Cl 105 SC 105.2 P37 L20 # 620

McClellan, Brett Marvell

Comment Type TR Comment Status A Table 105-2

missing EEE, RS, 25GMII in table

SuggestedRemedy

insert 'O' in the EEE column, 'M' in RS, and 'O' in 25GMII

Response Response Status C

ACCEPT.

Cl 105 SC 105.2 P37 L20 # 463

Lusted, Kent Intel Corporation

Comment Type TR Comment Status A Table 105-2

Table 105-2 entry "25GBASE-T1" does not include a row entry for 25GMII. The 25GMII should be an optional implementation for the Physical Layer type. Note that 25GMII is referenced in Cl 165.1.2 (p40, line 37)

SuggestedRemedy

Mark the appropriate box for 25GMII with "O" for Optional

Response Response Status W

ACCEPT.

Cl 105 SC 105.2 P37 L20 # 461

Lusted, Kent Intel Corporation

Comment Type TR Comment Status A Table 105-2

Table 105-2 entry "25GBASE-T1" does not include a row entry for Reconciliation Sublayer RS. The RS is necessary because the RS adapts the bit serial protocols of the MAC to the parallel format of the PCS service interface.

SuggestedRemedy

Mark the appropriate box for RS with "M" for Mandatory

Response Response Status W

ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 105 SC 105.3 P37 L24 # 454
 D'Ambrosia, John Futurewei, US Subsidiary of Huawei
 Comment Type ER Comment Status D EZ
 Subclauses 105.3.1 through 105.3.5 are listed with no changes. Is this the intent?
 SuggestedRemedy
 Delete subclauses 105.3.1 through 105.3.5
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #625 and #626. Delete 105.3.1 and 105.3.5.

Cl 105 SC 105.3 P37 L25 # 532
 Ran, Adeo Cisco
 Comment Type E Comment Status D EZ
 Why are all the subclause headings listed?
 The new inserted text should not be underlined.
 SuggestedRemedy
 Remove the unnecessary ones before 105.3.6
 Remove the underline format.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #625 and #626. Delete 105.3.1 and 105.3.5.

Cl 105 SC 105.3 P37 L26 # 385
 Marris, Arthur Cadence Design Systems
 Comment Type E Comment Status D EZ
 Unneeded subclause headings
 SuggestedRemedy
 Delete 105.3.1 to 105.3.5
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #625 and #626. Delete 105.3.1 and 105.3.5.

Cl 105 SC 105.3 P37 L26 # 349
 Brown, Matt Huawei
 Comment Type ER Comment Status D EZ
 No changes to 105.3.1 through 105.3.5"
 SuggestedRemedy
 Delete headings for 105.3.1 through 105.3.5.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #625 and #626. Delete 105.3.1 and 105.3.5.

Cl 105 SC 105.3 P37 L26 # 488
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ
 Headers for 105.3.1 through 105.3.5 are unnecessary
 SuggestedRemedy
 Delete headers 105.3.1 through 105.3.5 and go straight to 105.3.6.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #625 and #626. Delete 105.3.1 and 105.3.5.

Cl 105 SC 105.3 P37 L26 # 622
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 it isn't necessary to show section headers for 105.3.1 through 105.3.5
 SuggestedRemedy
 delete section headers for 105.3.1 through 105.3.5
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #625 and #626. Delete 105.3.1 and 105.3.5.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

CI 105 SC 105.3 P37 L40 # 623
 McClellan, Brett Marvell
 Comment Type ER Comment Status A
 this text is unnecessary and redundant
 SuggestedRemedy
 delete 'Clause 98 Auto-Negotiation may be used by 25GBASE-T1 PHYs. Auto-Negotiation is performed upon link startup through the use of half-duplex differential Manchester encoding.'
 Response Response Status C
 ACCEPT.

CI 105 SC 105.3.2 P37 L28 # 625
 McClellan, Brett Marvell
 Comment Type E Comment Status A
 add a description of the 10GBASE-T1 PCS
 SuggestedRemedy
 insert "25GBASE-T1 PHYs use the PCS specified in Clause 165. The 25GBASE-T1 PCS performs encoding of data from the 25GMII to 64B/65B RS_FEC code blocks and PAM4 modulation and transfers the symbols to the PMA and performs error correction and decoding of PAM4 symbols from the PMA and transfers the decoded data to the 25GMII." add editor instructions as needed
 Response Response Status C
 ACCEPT IN PRINCIPLE.

Insert "25GBASE-T1 PHYs use the PCS specified in Clause 165. The 25GBASE-T1 PCS performs encoding of data from the 25GMII to 64B/65B RS-FEC code blocks and PAM4 modulation and transfers the symbols to the PMA and performs error correction and decoding of PAM4 symbols from the PMA and transfers the decoded data to the 25GMII."
 Use the following editorial note: "Insert a new paragraph at the end of 105.3.2 as follows:"

CI 105 SC 105.3.4 P37 L33 # 626
 McClellan, Brett Marvell
 Comment Type E Comment Status A
 add a description of the 10GBASE-T1 PMA
 SuggestedRemedy
 insert "25GBASE-T1 PHYs use the PMA specified in Clause 165. TThe PMA provides for full duplex communications over a single balanced pair of conductors." add editor instructions as needed
 Response Response Status C
 ACCEPT IN PRINCIPLE.

Changes per text with change of "Tthe" to "The". Use the following editorial note: "Insert a new paragraph at the end of 105.3.4 as follows:"
 Page line was adjusted.

CI 105 SC 105.3.6 P37 L40 # 350
 Brown, Matt Huawei
 Comment Type ER Comment Status D EZ
 When using "insert" instruction, no underline required.
 SuggestedRemedy
 Remove underline.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 105 SC 105.3.6 P37 L40 # 489
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ
 Style of text about 25GBASE-T1 does not fit the style of the surrounding text in this clause (note that clause 126 where 802.3ch edited had a very different style). Also, the second statement "is optional" is unnecessary, as the text already says AN "may be used". The text can be rephrased in the same style as the rest of the clause and much simpler.
 SuggestedRemedy
 Change editing instruction to "Insert new paragraph at the end of 105.3.6 as follows:"
 Replace 2 paragraph edit at P37 L40-43 with:
 "Clause 98 AN may be used by the 25GBASE-T1 PHY, but is not required."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 105 SC 105.5 P37 L45 # 624
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ, Table 105-3
 this subclause is missing editor's instructions for subclause 105.5 and Table 105-3
 SuggestedRemedy
 add editor's instruction as needed
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #370

Cl 105 SC 105.5 P37 L46 # 351
 Brown, Matt Huawei
 Comment Type ER Comment Status D EZ, Table 105-3
 Editorial instruction complete wrong. This is not and editorial note.
 SuggestedRemedy
 Change instruction to "Insert new row at the end of Table 105-3 as follows."
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #370

Cl 105 SC 105.5 P37 L49 # 371
 Grow, Robert RMG Consluting
 Comment Type E Comment Status D EZ
 This misplaced editorial note should be deleted as well as the PICS subclause.
 SuggestedRemedy
 Delete note and subclause 105.7 from the draft.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 There is a tracked change on page/line 38/22. Move editorial instruction to proper location.

Cl 105 SC 105.5 P37 L49 # 490
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ, Table 105-3
 Editing instruction is incorrect, position of edit needs to be after 25GBASE-T, which would have rows following the edit.
 SuggestedRemedy
 Replace "Editorial Note: Change 105.7 as shown below." with "Change Table 105-3 inserting new rows for 25GBASE-T1 after rows for 25GBASE-T1 as shown (unchanged rows not shown):"
 Add ... row after the changed row in the table.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #370

Cl 105 SC 105.5 P37 L49 # 370
 Grow, Robert RMG Consluting
 Comment Type ER Comment Status D EZ, Table 105-3
 Missing editorial instruction for 105.5. I think this table is supposed to be arranged in what I am now calling "illuminati sort order", though there appear to be some violations of that order. May as well insert after 25GBASE-T as far as I'm concerned.
 SuggestedRemedy
 Insert row into Table 105-3 for 25GBASE-T1 after 25GBASE-T.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 105 SC 105.5 P37 L49 # 418
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ, Table 105-3
 Editorial insturction is not correct.
 SuggestedRemedy
 Replace the current Editorial Note with: Insert a new row for 25GBASE-T1 at the end of Table 105-3 (as modified by IEEE Std 802.3cz-202x) as follows (unchanged rows not shown):
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #370

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 105 SC 105.5 P37 L49 # 533
 Ran, Adeo Cisco
 Comment Type E Comment Status D EZ, Table 105-3
 The editorial note seems to be an instruction, and to point to the wrong place.
 SuggestedRemedy
 Change "Editorial Note: Change 105.7 as shown below" to "Change Table 105-3 as shown below".
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #370

Cl 105 SC 105.5 P37 L49 # 356
 Lewis, Jon Dell Technologies
 Comment Type E Comment Status D EZ
 Editorial Note is separated from 105.7.
 SuggestedRemedy
 If possible, please try to move the Editorial Note closer to 105.7
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 105 SC 105.5 P37 L50 # 500
 Huber, Thomas Nokia
 Comment Type E Comment Status D EZ, Table 105-3
 The "editorial note" should be replaced with an editing instruction to modify Table 105-3
 SuggestedRemedy
 Add an editing instruction to insert new rows at the end of Table 105-3 as shown.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #370

Cl 105 SC 105.5 P38 L1 # 359
 Lewis, Jon Dell Technologies
 Comment Type E Comment Status D EZ, Table 105-3
 Are editing instructions needed for Table 105-3?
 SuggestedRemedy
 Please add the appropriate editing instructions
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #370

Cl 105 SC 105.5 P38 L6 # 419
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 SuggestedRemedy
 Merge cells in row with ellipses.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 105 SC 105.5 P38 L7 # 534
 Ran, Adee Cisco
 Comment Type T Comment Status A Table 105-3, L

It is unclear what the expressions "L=1" etc. mean in this table.

In the table in the base document, the "Notes" column includes references to the subclause within the PHY clause that specifies this delay. In this case, it should be "See 165.10"

Looking at 165.10, there are different maximum delay specifications depending on the "Interleave" parameter. Interleaving (or "L") is negotiated between the link partners and may be different in either direction, so is unknown in advance for a given device.

The purpose of this table (per the text preceding it: "network planners and administrators conform to constraints regarding the cable topology and concatenation of devices... Table 105-3 contains the values of maximum sublayer delay (sum of transmit and receive delays at one end of the link".

Therefore it seems adequate to list here only the maximum delay of the PHY, which happens with L=8. The text in 165.10 can include further details about how the delay can be lower in some cases.

SuggestedRemedy

Use only one row for "25GBASE-T1 PHY", with the data for L=8, and point to 165.10 in the "Notes" column, consistent with the other rows.

Response Response Status C
 ACCEPT IN PRINCIPLE.

Comment was re-classified as T

- Change L=1 to "no interleave, see 165.10"
- Change L=2 to "2x interleave, see 165.10"
- Change L=4 to "4x interleave, see 165.10"
- Change L=8 to "8x interleave, see 165.10"

This change brings the table closer to format of table 44-2 for T1 PMDs.

Cl 105 SC 105.5 P38 L8 # 627
 McClellan, Brett Marvell
 Comment Type ER Comment Status A Table 105-3, L

L' isn't defined anywhere in Clause 105 and makes the note confusing. Follow the example for 10GBASE-T1 in Clause 44

SuggestedRemedy

break the 25GBASE-T box into 4 lines with these labels: '25GBASE-T1 no interleave', '25GBASE-T1 2x interleave', '25GBASE-T1 4x interleave', '25GBASE-T1 8x interleave'.
 Replace the 'L=' notes in each row with 'See 165.10'

Response Response Status C
 ACCEPT IN PRINCIPLE.

See comment #534

Cl 105 SC 105.5 P38 L16 # 628
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ

missing note d from base standard

SuggestedRemedy

insert "dCumulative round-trip delay contributed by up to four PMA stages in a PHY."

Proposed Response Response Status W
 PROPOSED REJECT.

Note is not currently in use in snippet of Table 105-3 used in the draft

Cl 105 SC 105.7 P38 L18 # 501
 Huber, Thomas Nokia
 Comment Type E Comment Status D EZ, 105.7

Missing an editing instruction to modify clause 105.7

SuggestedRemedy

Add an editing instruction to modify the first paragraph of 105.7 as shown.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

See comment #491

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 105 SC 105.7 P38 L19 # 491
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ, 105.7
 There is no subclause 105.7 in the base standard, and no edits to it in this draft.
 SuggestedRemedy
 Delete subclause 105.7, P38 L19-25
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 105 SC 105.7 P38 L20 # 535
 Ran, Adeo Cisco
 Comment Type E Comment Status D EZ
 Editorial instruction is missing.
 SuggestedRemedy
 Add an appropriate instruction.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #491

Cl 105 SC 105.7 P38 L20 # 352
 Brown, Matt Huawei
 Comment Type ER Comment Status D EZ
 Missing editorial instruction.
 SuggestedRemedy
 Add editorial instruction.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #491

Cl 105 SC 105.7 P38 L45 # 629
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ, 105.7
 this subclause is missing editor's instructions for subclause 105.7
 SuggestedRemedy
 add editor's instruction as needed
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #491

Cl 105 SC 105.7 P39 L1 # 420
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 SuggestedRemedy
 remove blank page
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 149B SC 149B P148 L15 # 631
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 use of 'MultiGBASE-T1' may be too general here if new PHYs are later specified that don't conform to this subclause
 SuggestedRemedy
 replace 'MultiGBASE-T1' with 'Clause 149 and Clause 165'
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.1 P40 L10 # 393
 Akin, Sami VW AG
 Comment Type E Comment Status D EZ
 In the first sentence of the paragraph, we have '... as well as the 25GBASE-T1 Physical Medium Attachment (PMA) sublayers'. The 'sublayers' should be 'sublayer'. It's a typo.
 SuggestedRemedy
 We should have '... as well as the 25GBASE-T1 Physical Medium Attachment (PMA) sublayer'.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.1 P40 L14 # 536
 Ran, Adeo Cisco
 Comment Type E Comment Status D EZ, PHYs
 The phrase "The 25GBASE-T1 PHYs" seems to be inherited from clause 149 which has "The 2.5GBASE-T1, 5GBASE-T1, and 10GBASE-T1 PHYs", because that clause specifies three different PHYs. But here only one PHY is specified, and is later referred to in singular, e.g. in the third paragraph "a 25GBASE-T1 PHY".
 Similarly in two other instances in this paragraph, and also in the first sentence in 165.1.2 and maybe elsewhere.
 Other artifacts of this inheritance seem to exist, e.g. in 165.1.3 "The 25GBASE-T1 PHY each operate" should be "The 25GBASE-T1 PHY operates".
 SuggestedRemedy
 Change "PHYs" to "PHY" and change plural to singular as necessary in this paragraph and elsewhere where appropriate.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #511

Cl 165 SC 165.1 P40 L14 # 511
 Grow, Robert RMG Consulting
 Comment Type E Comment Status D EZ, PHYs
 Though similar problems exist in many clauses in 802.3, I think in many cases using plural "PHYs" in this clause is wrong. There is one 25GBASE-T1 PHY specification and most of the time text is addressing the 25GBASE-T1 PHY specification, not multiple instances of a 25GBASE-T1 interface on a networked device, or various 25GBASE-T1 PHY implementations. Grammar problems left after deleting 50 Gb/s and 100 Gb/s highlight this, for example on line 17, "the 25GBASE-T1 PHYs" where "the" and "PHYs" would have been appropriate for a list of multiple rates, but is not for a single rate.
 SuggestedRemedy

Search on "PHYs" and correct grammar as appropriate (e.g., "the 25GBASE-T1 PHY" or "a 25GBASE-T1 PHY", etc.) Including: p.41, l. 25; p. 42, l. 6; p. 95, l. 37; p. 109, l. 28, 29; p. 161, l. 33.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.1 P40 L23 # 664
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marvell
 Comment Type E Comment Status D EZ
 Clause 78 is in the draft - should be an active cross-ref, not external.
 SuggestedRemedy
 Change "Clause 78" to an active cross reference and remove external tag.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.1.1 P40 L24 # 422
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 Clause 78 is in the draft.
 SuggestedRemedy
 Change "Clause 78" to black and make it a hyperlink.
 Also on P42L5
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.1.1 P40 L27 # 389
 Marris, Arthur Cadence Design Systems
 Comment Type E Comment Status D EZ
 Inconsistent capitalization of "this Clause"
 SuggestedRemedy
 Compare the capitalisation of clause on line 21 and 28. Choose a style for this and make it consistent
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.1.2 P40 L35 # 636
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 indicate that Auto-Negotiation is optional
 SuggestedRemedy
 Insert 'Optional' before Auto-Negotiation
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.1.2 P40 L37 # 665
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marvell
 Comment Type E Comment Status D EZ
 Clause 98 is in the draft - should be an active cross-ref, not external.
 SuggestedRemedy
 Change "Clause 98" to an active cross reference and remove external tag.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.1.2 P40 L37 # 421
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 Clause 98 is in the draft.
 SuggestedRemedy
 Change "Clause 98" to black and make it a hyperlink.
 Also on P41L42, P41L46, P41L52, P49L5, P96L46, P97L47, P117L40, P117L44, P131L6, P131L33, P141L28, P37L40, P37L43
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.1.2 P40 L37 # 390
 Marris, Arthur Cadence Design Systems
 Comment Type E Comment Status D EZ
 Clause 98
 SuggestedRemedy
 Make Clause 98 a cross reference. Also page 41 line 42. Also Clause 78 on page 42 line 5. Scrub the document and make Clause 45, Clause 78 and Clause 98 an active cross reference throughout rather than an external.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.1.3 P41 L30 # 512
 Grow, Robert RMG Consulting
 Comment Type E Comment Status D multi-pair, EZ
 Grammar problem and other artifacts left after deleting 50 Gb/s and 100 Gb/s.
 SuggestedRemedy
 A 25GBASE-T1 PHY operates using full-duplex communications over one, shielded balanced pair of conductors with an effective rate of 25 Gb/s in each direction while meeting the requirements...
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comments #391 and #448

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.1.3 P41 L 30 # 448
 Carlson, Steve HSD, Bosch, Ethernetovia
 Comment Type E Comment Status D multi-pair, EZ
 Leftover reference to two and four pairs: "over one, two, or four shielded..."
 SuggestedRemedy
 Delete "two or four" from the sentence
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.1.3 P41 L 30 # 394
 Akin, Sami VW AG
 Comment Type ER Comment Status D multi-pair, EZ
 The first sentence of the first paragraph states 'The 25GBASE-T1 PHY each operate using full-duplex communications over one, two, or four shielded balanced pair of conductors with an effective rate of 25 Gb/s on each pair ...'. Following the changes in the objectives, should this sentence indicate only one shielded balanced pair? Although I set the category of this comment as editorial, I am not fully sure if this is editorial or technical.
 SuggestedRemedy
 We should have "The 25GBASE-T1 PHY each operates using full-duplex communications over one shielded balanced pair of conductors with an effective rate of 25 Gb/s in each direction simultaneously while meeting the requirements (EMC, temperature, etc.) of automotive environments."
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comments #391 and #448

Cl 165 SC 165.1.3 P41 L 30 # 391
 Marris, Arthur Cadence Design Systems
 Comment Type E Comment Status D multi-pair, EZ
 Change "each operate" to "operates"
 SuggestedRemedy
 Change "each operate using full-duplex communications over one, two, or four shielded balanced pair of conductors" to "operates using full-duplex communications over a shielded balanced pair of conductors"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.1.3 P41 L 30 # 666
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marvell
 Comment Type T Comment Status D multi-pair, EZ
 "The 25GBASE-T1 PHY each operate...over one, two, or four shielded... on each pair..." didn't get cleaned up when we deleted the 2 and 4 lane 50GBASE-T2 and 100GBASE-T4
 SuggestedRemedy
 change the first sentence of the first paragraph of 165.1.3 to:"The 25GBASE-T1 PHY operates using full-duplex communications over a single shielded balanced pair of conductors with an effective rate of 25 Gb/s in each direction simultaneously while meeting the requirements (EMC, temperature, etc.) of automotive environments."
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comments #391 and #448

Cl 165 SC 165.1.3 P41 L 30 # 537
 Ran, Adeo Cisco
 Comment Type E Comment Status D multi-pair, EZ
 "using full-duplex communications over one, two, or four shielded balanced pair of conductors with an effective rate of 25 Gb/s on each pair in each direction simultaneously"
 I thought this is a single pair PHY at 25 Gb/s total?
 SuggestedRemedy
 Rewrite as necessary
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comments #391 and #448

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.1.3 P41 L31 # 405

Wienckowski, Natalie General Motors

Comment Type T Comment Status D multi-pair, EZ

Only 1 pair of conductors is used.

SuggestedRemedy

Change: The 25GBASE-T1 PHY each operate using full-duplex communications over one, two, or four shielded balanced pair of conductors with an effective rate of 25 Gb/s on each pair in each direction simultaneously ...

To: The 25GBASE-T1 PHY operates using full-duplex communications over one shielded balanced pair of conductors with an effective rate of 25 Gb/s in each direction simultaneously ...

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See comments #391 and #448

Cl 165 SC 165.1.3 P41 L31 # 466

Tu, Mike Broadcom

Comment Type TR Comment Status D multi-pair, EZ

25GBASE-T1 operates over one cable only.

SuggestedRemedy

Change to:
"... using full-duplex communications over one shielded balanced pair of conductors with an effective rate of 25 Gb/s in each direction simultaneously while ..."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See comments #391 and #448

Cl 165 SC 165.1.3 P41 L31 # 502

Huber, Thomas Nokia

Comment Type T Comment Status D multi-pair, EZ

The scope of the project was changed to being only 25 Gb/s. The first sentence of the paragraph seems to be referring to operation at 50 Gb/s or 100 Gb/s by allowing for 2 or 4 pairs with an effective rate of 25G on each pair.

SuggestedRemedy

Change
"one, two, or four shielded balanced pair of conductors with an effective rate of 25 Gb/s on each pair in each direction simultaneously..."
to
"one shielded balanced pair of conductors with an effective rate of 25 Gb/s in each direction simultaneously ..."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See comments #391 and #448

Cl 165 SC 165.1.3 P41 L35 # 637

McClellan, Brett Marvell

Comment Type E Comment Status D EZ

'rates' is redundant to MBd and incorrectly plural

SuggestedRemedy

delete 'rates'

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.1.3 P41 L35 # 423

Wienckowski, Natalie General Motors

Comment Type E Comment Status D EZ

grammar

SuggestedRemedy

Change: at 14 062.5 MBd rates.
To: at a 14 062.5 MBd rate.

Proposed Response Response Status W

PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

CI 165 SC 165.1.3 P41 L35 # 514
 Grow, Robert RMG Consluting
 Comment Type E Comment Status D EZ
 There is only one Baud rate listed, "rates" should be singular.
 SuggestedRemedy
 "at a 14.0625 GBd rate."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 165 SC 165.1.3 P41 L35 # 513
 Grow, Robert RMG Consluting
 Comment Type E Comment Status D
 Most multigigabit specifications use GBd for Baud rate (e.g., Clause 30, Clause 48 for 10GBASE-X, Clause 108 for 25GBASE-R, etc.) Also change similar MHz specifications.
 SuggestedRemedy
 p. 41, l. 35 - 14.0625 GBd
 p. 42, l. 17 - 14.0625 GBd
 p. 44, l. 5 - 14.0625 GBd
 p. 151, l. 4 - 14.0625 GBd
 p. 50, l. 21 - 14.0625 MHz
 p. 107, l. 38 - 0.878 906 25 GHz
 p. 113, l. 37 - 14.0625 GHz
 p. 144, l. 34 - 14.0625 GHz
 Proposed Response Response Status W
 PROPOSED REJECT.
 =====
 Reason: Proposed change introduces potential editorial problems (there is a nonbreaking space, but no nonbreaking "." that I know of) and does not align with the multigigabit clauses most closely related to this clause - clause (149) and the MultiGBASE-T clauses (113 and 126).

CI 165 SC 165.1.3 P41 L36 # 638
 McClellan, Brett Marvell
 Comment Type TR Comment Status A
 TX_D, TX_EN and TX_ER are not 25GMII signals. Note that Clause 149 has the same error.
 SuggestedRemedy
 change '25GMII TX_D, TX_EN, and TX_ER' to '25GMII TXD and TXC'
 Response Response Status C
 ACCEPT.

CI 165 SC 165.1.3 P41 L37 # 538
 Ran, Adeo Cisco
 Comment Type T Comment Status A
 Since this PHY uses RS-FEC, the concept of BER is inadequate; when a FEC (super)frame is discarded, all bits are replaced with error bits, so the BER can be much higher than the 1e-12 stated here.
 The performance of this PHY is defined by the rfer target, which can be stated as equivalent to some BER if RS-FEC was not used. The method used in other PHYs is comparison of MAC frame loss ratio (FLR). The FLR equivalent of BER=1e-12 is 6.2e-10 (see for example 92.1).
 The suggested remedy uses FLR. Alternatively, "performance" or other terms can be used instead, but not simply "BER".
 SuggestedRemedy
 Change "To maintain a bit error ratio (BER) of less than or equal to 10⁻¹²" to "To maintain a frame loss ratio (FLR) equivalent to a bit error ratio (BER) of less than or equal to 10⁻¹²".
 Response Response Status C
 ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.1.3 P42 L6 # 667

Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve

Comment Type TR Comment Status A

"The EEE capability is a mechanism by which 25GBASE-T1 PHYs are able to reduce power consumption during periods of low link utilization." this doesn't really describe something we spend a lot of time discussing - namely that EEE does this based on link utilization IN EITHER DIRECTION.

SuggestedRemedy

add "independently for each direction of the link" to the end of the sentence.

Response Response Status C

ACCEPT.

Cl 165 SC 165.1.3.1 P42 L28 # 539

Ran, Adeo Cisco

Comment Type T Comment Status A L

The text in this subclause specifies what happens "In the transmit direction, in normal mode", but does not say anything about the receive direction in normal mode.

Specifically, the number L is used as part of the specification; it is not stated here how L is determined, but in 165.3.2.2 (PCS Transmit function) it is written that "The interleaver settings requested in each direction of transmission may be different... signaled during the PAM2 training mode Infofield exchange". This means L can be different in the receive and transmit directions; this should be noted here (any preferably notation should be used to clarify that there are two simultaneous values of L).

A reference to the definition and content of the infofield (in 165.4.2.4.5) would also be helpful.

SuggestedRemedy

Rewrite as necessary

Response Response Status C

ACCEPT IN PRINCIPLE.

Change

"A number, L, of these"

to

"A number, L (see 165.3.2.2.15), of these"

Cl 165 SC 165.1.3.1 P42 L35 # 340

Gorshe, Steve Microchip Technology

Comment Type ER Comment Status D

The phrase "RS-FEC (936, 846, 2^10)" appears to be the incorrect format. This implies that the FEC symbol size is 2^10 = 1024 bits. It appears that it should be "RS-FEC (936, 846, 10)" using the 10-bit symbol size of KR-4 and KP-4 FEC codes

SuggestedRemedy

If the comment is correct, this should be changed to RS-FEC (936, 846, 10)

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

=====

replace "(936,846,2^10)" with "(936,846) over GF(2^10)"

Cl 165 SC 165.1.3.3 P44 L22 # 424

Wienckowski, Natalie General Motors

Comment Type E Comment Status D EZ

78.3 is in the draft.

SuggestedRemedy

Change "78.3" to black and make it a hyperlink.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.1.6 P45 L32 # 540

Ran, Adeo Cisco

Comment Type E Comment Status D

The conventions listed here are mainly for state diagrams. There is another subclause 165.3.7.1 which also lists state diagram conventions, and is located right before the state diagrams - where it is more helpful to the reader.

SuggestedRemedy

Move the content of this subclause to 165.3.7.1, merging as necessary.

Proposed Response Response Status W

PROPOSED REJECT.

165.3.7.1 covers just state diagram conventions, while 165.1.6 is more generic in nature. No changes needed. The current structure mimics the existing clauses in the approved 802.3-2022

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.2.2 P47 L6 # 541

Ran, Adee Cisco
 Comment Type T Comment Status D L

The value of L and the choice of precoding are requested by the link partner during link training - which is a PMA function. These values have to be passed to the PCS for correct encoding.

Since all information exchange from the PMA to the PCS is defined in terms of service interface primitives, some primitive should indicate the value of L and precoding selection.

The of PMA_CONFIG.indication could be expanded to to include these values but I suspect it may not be straightforward, since the existing content (master or slave) is available before training starts, but the values of L and precoding are determined only later.

SuggestedRemedy

Add a primitive as described in the comment, in the text and figures as necessary.

Proposed Response Response Status W

PROPOSED REJECT.

No specific changes were proposed.

Cl 165 SC 165.2.2.3.3 P50 L3 # 656

Wu, Peter Marvell
 Comment Type E Comment Status D EZ

Upon receipt of this primitive the PMA transmits on the MDI the signals corresponding to the indicated symbols processed to conform to 149.5.2. Misssing ",", hard to read

SuggestedRemedy

Upon receipt of this primitive, the PMA transmits on the MDI the signals corresponding to the indicated symbols processed to conform to 149.5.2.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.2.2.3.3 P50 L4 # 603

McClellan, Brett Marvell
 Comment Type E Comment Status D EZ

incorrect reference

SuggestedRemedy

change 149.5.2 to 165.5.3

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.2.2.3.3 P50 L4 # 668

Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ

Incorrect reference. "Upon receipt of this primitive the PMA transmits on the MDI the signals corresponding to the indicated symbols processed to conform to 149.5.2." The reference points to the transmitter electrical specifications for 2.5G/5G/10GBASE-T1 (Clause 149). The electrical specifications for 25GBASE-T1 have different timing and are specified in 165.5.3

SuggestedRemedy

Change external reference of 149.5.2 to an active cross-reference to 165.5.3

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.2.2.9.1 P52 L38 # 669

Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ

The allowed values of pcs_data_mode are missing. (this happens in other clauses, but is done correctly in clause 113). From the state diagram, it is clear that the allowed values are TRUE and FALSE.

SuggestedRemedy

Insert the following at the end of 165.2.2.9.1:
 The pcs_data_mode parameter can take on one of the following two values of the form:
 TRUE PHY is in state PCS_Data (see Figure 165-27)
 FALSE PCS is not in state PCS_Data (see Figure 165-27)

Proposed Response Response Status W

PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.3.2 P54 L28 # 670

Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve

Comment Type T Comment Status D

"The PCS comprises one PCS Reset function and two simultaneous and asynchronous operating functions. The PCS operating functions are: PCS Transmit and PCS Receive." - this has been copied from clause to clause, but isn't true for clause 165 (or 149 or even 97). The automotive clauses add a 3rd function to the PCS - the PCS OAM. see figure 165-4.

SuggestedRemedy

change ""The PCS comprises one PCS Reset function and two simultaneous and asynchronous operating functions. " to ""The PCS comprises one PCS Reset function and two simultaneous and asynchronous operating functions, and the PCS OAM function."

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.3.2 P55 L29 # 657

Wu, Peter Marvell

Comment Type E Comment Status D EZ

alert_detect should also be added to the note

SuggestedRemedy

"NOTE—rx_lpi_active and tx_lpi_active are only required for the EEE capability" is changed to " NOTE—alert_detect, rx_lpi_active and tx_lpi_active are only required for the EEE capability"

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.3.2 P58 L11 # 467

Tu, Mike Broadcom

Comment Type TR Comment Status D EZ

The control codes for MultiGBASE-T1 is defined in Table 149-2, not Table 149-1.

SuggestedRemedy

Change all references to table of control code from Table 149-1 to Table 149-2, including the list below:

1. Page 58, line 11, Figure 165-6.
2. Page 59, line 10, Figure 165-7.
3. Page 61, line 10.
4. Page 61, line 19.
5. Page 70, line 2.
6. Page 70, line 3.
7. Page 79, line 25.
8. Page 79, line 26.
9. Page 80, line 9.
10. Page 80, line 11.
11. Page 132, line 43.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.3.2.2 P56 L2 # 671

Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve

Comment Type T Comment Status D

"Dashed rectangles in Figure 165–16 and Figure 165–17 are used to indicate states and state transitions in the transmit process state diagram that shall be supported by PHYs with the EEE capability." is a duplicate 'shall' with the previous requirement to conform to Figures 165-16 and 165-17. It also does not have a PICS entry, confirming that it is duplicative.

SuggestedRemedy

Change "that shall be reported" to "that are reported"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Changes per text + update PICS as needed.

Cl 165 SC 165.3.2.2 P56 L13 # 542

Ran, Adee Cisco

Comment Type T Comment Status D L

The term L is used in the text here without explanation of what it denotes.

One has to read to the bottom of this subclause to understand what L means and how it is determined.

SuggestedRemedy

Preferably add text to introduce the concept of interleaving, the definition of L and how it is determined, at the beginning of this subclause, before L is used.

Proposed Response Response Status W

PROPOSED REJECT.

No specific changes were proposed

Cl 165 SC 165.3.2.2 P56 L20 # 543

Ran, Adee Cisco

Comment Type T Comment Status D

"The symbol period, T, is 1000 / 14.0625 ps"

This exercise is not very friendly for the reader. The number 14.0625 seems to come out of nowhere (only much later it is found that the signaling rate is 14.0625 GBd).

The ratio evaluates to $71 + 1/9$ ps, and this number can be used instead, since it is expressed as ratio anyway.

Also, this seems to be the nominal period, without the allowed frequency deviation (which is not specified here, but I assume it is per 165.5.3.6).

SuggestedRemedy

Change to " $71 \frac{1}{9}$ " formatted using equation editor to format the common fraction. Or use "71.111..."

Add "nominal".

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

=====

Reason: If we say "nominal symbol period" it creates a new term, which isn't well defined, and the term "symbol period" is used elsewhere in the PCS text. Additionally, this text (and the original) specify the transmit clock frequency in 2 places. A better solution references the existing spec in 165.5.3.6. Optionally, you could put the number after the reference, but it isn't needed.

Change:

"The symbol period, T, is 1000 / 14.0625 ps."

to:

"The symbol period, T, is one period of the transmitter clock frequency, specified in 165.5.3.6."

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.3.2.2 P56 L20 # 724

Jonsson, Ragnar

Marvell

Comment Type E Comment Status D post-deadline, EZ

The notation "1000 / 14.0625 ps" can be confusing, even if it is not ambiguous.

SuggestedRemedy

Change "1000 / 14.0625 ps" to "(1000 / 14.0625) ps"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See comment #543

Cl 165 SC 165.3.2.2 P56 L37 # 672

Zimmerman, George

CME Consulting/APL Gp, Cisco, CommScope, Marve

Comment Type E Comment Status D EZ

"the PCS Transmit function shall use a 65B coding technique to generate, at each symbol period, code-groups that represent data or control" - the previous text refers to symbol periods as the period of the PAM4 signalling. A 65B code group does not happen "at each symbol period". The added incorrect phrase does not seem to add any value.

SuggestedRemedy

delete ", at each symbol period,"

Also, update PICS PCT7 Feature text (P132 L38) deleting the same text

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.3.2.2 P56 L41 # 341

Gorshe, Steve

Microchip Technology

Comment Type ER Comment Status D

Here and other places, the term "9360-bit (936, 846) RS-FEC frames" is used. This terminology is incorrect or at least inconsistent with typical terminology. The 9360-bit entity is actually an FEC codeword. An FEC frame consists of multiple FEC codewords.

SuggestedRemedy

In all instances where the 9360-bit block is referred to as an FEC "frame" the term should be changed to FEC "codeword".

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.3.2.2 P57 L2 # 658

Wu, Peter

Marvell

Comment Type E Comment Status D EZ

What does "RS" mean here? Reconciliation Sublayer or Reed-Soloman Frames

SuggestedRemedy

After reaching the normal mode of operation, EEE-capable PHYs may enter the LPI transmit mode under the control of the RS via the 25GMII-> "After reaching the normal mode of operation, EEE-capable PHYs may enter the LPI transmit mode under the control of the Reconciliation sublayer via the 25GMII."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Changed capitalization of "sublayer"

After reaching the normal mode of operation, EEE-capable PHYs may enter the LPI transmit mode under the control of the RS via the 25GMII-> "After reaching the normal mode of operation, EEE-capable PHYs may enter the LPI transmit mode under the control of the Reconciliation Sublayer via the 25GMII."

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.3.2.2.1 P57 L35 # 544

Ran, Adee Cisco
 Comment Type E Comment Status D

Both "65-bit" and "65B" used in the text; is there a difference?

Note that the RS-FEC encoding is not related to the PCS's 65-bit blocks, since due to the 10-bit OAM its block size is not an integer multiple of 65.

65B is used as part of the 64B/65B encoding scheme name but should not be used on its own.

SuggestedRemedy

Use "65-bit" consistently, and remove the "65B" label from the RS-FEC name.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See comment #673

=====

Reason: Note that if comment 673 is accepted (and clause 149 is referenced) this issue goes away entirely. The proposed change takes a single instance of 65-bit and rather than changing that would change MANY instances of 65B RS-FEC frame (or encoding). The BASE-T1 clauses don't just use RS-FEC frame and instead use 65B RS-FEC frame (or 81B in clause 97) because the frame isn't just about the RS-FEC code, but is also about the blocking - and to distinguish it from the Clause 91 RS-FEC sublayer.

Change: Consider this after comment 673. If Comment 673 is resolved as proposed, it will obviate this change (it removes the statement objected to - and hence there is no reason to go around changing all the '65B RS-FEC' instances). If comment 673 does not obviate this, change "The Transmit PCS maps 25GMII signals using a 64B/65B encoding, and inserting the resulting into a 65B RS-FEC frame for 65B RS-FEC coding scheme. The Receive PCS performs the reverse operations."

Cl 165 SC 165.3.2.2.3 P57 L51 # 640

McClellan, Brett Marvell
 Comment Type E Comment Status D EZ

header disconnected from subclause text

SuggestedRemedy

move header after Figure 156-6 to be contiguous with subclause text

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.3.2.2.4 P59 L44 # 673

Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status A 165.3.2.2.4 - 165.3.2.2.12

With the exception of deleting a table to reference clause 149, It seems that 165.3.2.2.4 through 165.3.2.2.12 are identical to clause 149. This is as it should be, but is redundant. Suggest referencing clause 149 for the whole thing. In the suggested remedy I have been careful to use 'shalls' and 'are' based on whether there is a requirement to reference in the PICS.

SuggestedRemedy

Delete 165.3.2.2.4 through 165.3.2.2.12. Replace with:

"165.2.2.4 Block structure

The 65-bit block structure specified in 149.3.2.24 is used by 25GBASE-T1, with the block format shown in Figure 149-8.

165.2.2.5 Control codes

The mapping of control characters is used to map the 25GMII and 25GBASE-T1 PCS is as specified for MultiGBASE-T1 PHYs in in 149.3.2.2.5 and shown in Table 149-2. All 25GMII control code values that do not appear in the table shall not be transmitted and shall be treated as an error if received.

165.2.2.6 Ordered sets

The use of Ordered sets is as specified for the MultiGBASE-T1 PHYs in 149.3.2.2.6.

165.2.2.7 Idle (/I/)

Idle control characters shall be as specified for MultiGBASE-T1 PHYs in 149.3.2.2.7.

165.2.2.8 LPI (/LI/)

Low Power Idle control characters shall be as specified for MultiGBASE-T1 PHYs in 149.3.2.2.8.

165.2.2.9 Start (/S/)

Start control characters are as specified for MultiGBASE-T1 PHYs in 149.3.2.2.9.

165.2.2.10 Terminate (/T/)

Terminate control characters are as specified for MultiGBASE-T1 PHYs in 149.3.2.2.10.

165.2.2.11 Ordered set (/O/)

Ordered set control characters shall be specified for MultiGBASE-T1 PHYs in 149.3.2.2.11.

165.2.2.12 Error (/E/)

Error characters are as specified for MultiGBASE-T1 PHYs in 149.3.2.2.12. See R_BLOCK_TYPE and T_BLOCK_TYPE function definitions in 165.3.7.2.4 for further information."

Response Response Status C

ACCEPT IN PRINCIPLE.

Changes as proposed + update PICS.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.3.2.2.4 P59 L45 # 426

Wienckowski, Natalie General Motors

Comment Type T Comment Status A 165.3.2.2.4 - 165.3.2.2.12

The Block structure is identical to the MultiGBASE-T1 Block Structure in Clause 49.

SuggestedRemedy

Replace the contents of 165.3.2.2.4 with the following:
The block structure used by 25GBASE-T1 is the MultiGBASE-T1 block structure defined in 149.3.2.2.4 with the format as shown in Figure 149-8. The characters in the 65-bit block in Figure 149-8 are either data characters or control characters and, when transferred across the 25GMII interface, the corresponding TXC or RXC bit is set accordingly.

Response Response Status C

ACCEPT IN PRINCIPLE.

See comment #673

Cl 165 SC 165.3.2.2.5 P60 L48 # 641

McClellan, Brett Marvell

Comment Type E Comment Status D EZ

header disconnected from subclause text

SuggestedRemedy

insert page break

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.3.2.2.5 P61 L10 # 425

Wienckowski, Natalie General Motors

Comment Type T Comment Status D EZ, Table 149-1

The MultiGBASE-T1 Control Codes are in Table 149-2, not Table 149-1.

SuggestedRemedy

Change: Table 149-1
To: Table 149-2
Also on P61L19, P132L43, P137L6, P58L11, P59L11, P70L2, P70L3, P79L25, P79L26, P80L9, P80L11, P132L43.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.3.2.2.5 P61 L10 # 639

McClellan, Brett Marvell

Comment Type E Comment Status D EZ, Table 149-1

incorrect reference to Table 149-1, should be Table 149-2

SuggestedRemedy

change Table 149-1 to Table 149-2 on page 61 lines 10 and 19, also change page 58 line 11, also change page 59 line 10, page 70 lines 2 and 3, page 79 lines 25 and 26, page 80 lines 9 and 11. Update associated PICs.
If an associated comment to create a new Table 165-2 is accepted, then these references will be to Table 165-2.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.3.2.2.5 P61 L10 # 643

McClellan, Brett Marvell

Comment Type ER Comment Status D

using Table 149-2 as a reference has some issues, the column headings are 'XGMII control code', '2.5G/5G/10G BASE-T1 control code', and '2.5G/5G/10G BASE-T1 O code' instead of 25GMII and 25GBASE-T1

SuggestedRemedy

copy Table 149-2 to 165.3.2.2.5 and label as Table 165-2, change the column headers as indicated, and change the reference to Table 165-2

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See comment #673

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.3.2.2.5 P61 L10 # 642

McClellan, Brett Marvell
Comment Type T Comment Status A 165.3.2.2.4 - 165.3.2.2.12
missing statement on additional control codes

SuggestedRemedy

insert 'All 25GMII control code values that do not appear in the table shall not be transmitted and shall be treated as an error if received.'

Response Response Status C

ACCEPT IN PRINCIPLE.

See comment #673

Cl 165 SC 165.3.2.2.14 P62 L39 # 503

Huber, Thomas Nokia
Comment Type E Comment Status D
Awkward grammar in the sentence

SuggestedRemedy

Change:
The RS-FEC encoding takes the 8460-bit vector, consisting of tx_group130x65B, and the 10-bit OAM_field, and shall generate the 90 10-bit parity symbols (900 bits total).
To:
The RS-FEC encoding takes the 8460-bit vector, consisting of tx_group130x65B and the 10-bit OAM_field, and generates the 90 10-bit parity symbols (900 bits total).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

=====

Reason: proposed response removes the 'shall' for the RS encoding

Change:
The RS-FEC encoding takes the 8460-bit vector, consisting of tx_group130x65B, and the 10-bit OAM_field, and shall generate the 90 10-bit parity symbols (900 bits total).
To:
The RS-FEC encoding shall generate the 90 10-bit parity symbols (900 bits total) using the 8460-bit vector, consisting of tx_group130x65B and the 10-bit OAM_field as the message symbols.

Cl 165 SC 165.3.2.2.18 P65 L51 # 674

Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marvell
Comment Type E Comment Status A 165.3.2.2.18 - 165.3.2.2.21

Similarly, 165.3.2.2.18 through 165.3.2.2.21 are identical to clause 149, and can be referenced. (note I've left EEE capability since this seems to be an area we discuss diverging frequently, and the numbers are different in the wake time table)

SuggestedRemedy

Replace 165.3.2.2.18 through 165.3.2.2.21 each as follows:
165.3.2.2.18 PCS scrambler
The PCS scrambler operates as specified in 149.3.2.2.18.
165.3.2.2.19 Gray mapping for PAM4 encoding
The PCS transmit process shall map pairs of bits to Gray-coded PAM4 symbols as specified in 149.3.2.2.19
165.3.2.2.20 Selectable precoder
The PCS transmit process shall precode the Gray-coded PAM4 symbols as specified in 149.3.2.2.20.
165.3.2.2.21 PAM4 encoding
The PCS transmit process shall encode each precoder output symbol as specified in 149.3.2.2.21

Response Response Status C

ACCEPT IN PRINCIPLE.

Changes as proposed + update PICS.

Cl 165 SC 165.3.2.2.22 P67 L34 # 725

Jonsson, Ragnar Marvell
Comment Type T Comment Status D post-deadline, partial frame
Sleep signal should be composed of 16 RS frames

SuggestedRemedy

change "eight Reed-Solomon frames" to "sixteen Reed-Solomon frames"

Proposed Response Response Status W

PROPOSED ACCEPT.

See comment #710 for justification

Comment type changed to non-R due to post-deadline status.

Cl 165 SC 165.3.2.2.23 P67 L35 # 726
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, partial frame
 Sleep signal should be composed of 16 RS frames
 SuggestedRemedy
 change "eight RS-FEC frames" to "sixteen RS-FEC frames"
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 See comment #710 for justification
 Comment type changed to non-R due to post-deadline status.

Cl 165 SC 165.3.2.3 P68 L37 # 545
 Ran, Adeo Cisco
 Comment Type T Comment Status D
 It is not stated that the receive function includes undoing the effect of the selected precoding. Precoding is a separate function from PAM4 mapping in Figure 165–6, but it does not appear in Figure 165–7.
 The channel description in the precoder options is not sufficient; even if it matches the actual channel, at least a mod4 operation (not trivial) has to be implemented..
 SuggestedRemedy
 Add a box "Undo selected precoder" in Figure 165–7.
 Add content similar to 165.3.2.2.20 in a subclause under 165.3.2.3 describing the decoding used for each precoder option (e.g., $G(n)=(P(n)+P(n-1)) \bmod 4$ for 1+D). It can be mentioned that this decoding may be implemented in several ways.
 In the second paragraph of 165.3.2.3, change "The received PAM4 symbols are demapped" to "The received PAM4 symbols, after decoding the selected Precoder operation (see <new subclause>), are demapped".
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Add a box "Undo selected precoder" in Figure 165–7.
 In the second paragraph of 165.3.2.3, change "The received PAM4 symbols are demapped" to "The received PAM4 symbols, after decoding the selected Precoder operation (see <new subclause>), are demapped".
 Content similar to 165.3.2.2.20 in a subclause under 165.3.2.3 describing the decoding used for each precoder option (e.g., $G(n)=(P(n)+P(n-1)) \bmod 4$ for 1+D) was not added, since no specific text was proposed.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.3.2.3 P69 L13 # 715
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, partial frame
 There should be 32 partial PHY frames per PHY frame, where each PHY frame has 8 RS-FEC frames.
 SuggestedRemedy
 Change 16 to 32
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 See comment #710 for justification
 Comment type changed to non-R due to post-deadline status.

Cl 165 SC 165.3.2.3 P69 L17 # 427
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 grammar
 SuggestedRemedy
 Change: and subject
 To: and is subject
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.3.2.3 P69 L22 # 727
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, partial frame
 Sleep signal should be composed of 16 RS frames
 SuggestedRemedy
 change "eight RS-FEC frames" to "sixteen RS-FEC frames"
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 See comment #710 for justification
 Comment type changed to non-R due to post-deadline status.

Cl 165 SC 165.3.2.4 P69 L33 # 728
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, partial frame
 Wake signal should be composed of 16 RS frames
 SuggestedRemedy
 change "eight RS-Frames" to "sixteen RS-Frames"
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 See comment #710 for justification
 Comment type changed to non-R due to post-deadline status.

Cl 165 SC 165.3.3 P70 L12 # 675
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status A 165.3.3 - 165.3.4
 Similarly, 165.3.3 through 165.3.4 are identical to clause 149
 SuggestedRemedy
 Replace 165.3.3 and 165.3.4 as follows:
 165.3.3 Test-pattern generators
 The test-pattern generator mode shall operate as specified in 149.3.3.
 165.3.4 Side-stream scrambler polynomials
 The PCS Transmit function shall employ side-stream scrambling as specified in 149.3.4.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Changes as proposed + update PICS

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

CI 165 SC 165.3.5 P71 L23 # 711
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, partial frame
 There should be 32 partial PHY frames per PHY frame, where each PHY frame has 8 RS-FEC frames.
 SuggestedRemedy
 Change 16 to 32
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 See comment #710 for justification
 Comment type changed to non-R due to post-deadline status.

CI 165 SC 165.3.5 P71 L28 # 710
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, partial frame
 Figure 165-12 is inconsistent with L=8 super frame. There is a general inconsistency in the document due to incorrect definition of 16 partial PHY frames per PHY frame. There should be 32 partial PHY frames per PHY frame, where each PHY frame is 8 RS-FEC frames.
 SuggestedRemedy
 Correct figure 165-12 to use 32 partial PHY frames per PHY frame. Same change needs to be done in every place that assumes 16 partial PHY frames per PHY frame.
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Comment type changed to non-R due to post-deadline status.

CI 165 SC 165.3.5 P71 L43 # 712
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, partial frame
 There should be 32 partial PHY frames per PHY frame, where each PHY frame has 8 RS-FEC frames.
 SuggestedRemedy
 change 15 to 31 and 16 to 32nd
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 See comment #710 for justification
 Comment type changed to non-R due to post-deadline status.

CI 165 SC 165.3.5 P71 L44 # 713
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D ne, partial frame, 450 to 1170
 There should be 32 partial PHY frames per PHY frame, where each PHY frame has 8 RS-FEC frames.
 SuggestedRemedy
 change 450 to 1170 in line 44 and 45
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 See comment #710 for justification
 Comment type changed to non-R due to post-deadline status.

CI 165 SC 165.3.5 P71 L44 # 428
 Wienckowski, Natalie General Motors
 Comment Type T Comment Status D 450 to 1170
 The equation for Sn was updated, but the text is still the same from Clause 149.
 SuggestedRemedy
 Change: Each partial PHY frame is 450 bits long, beginning at Sn where $(n \bmod 450) = 0$.
 To: Each partial PHY frame is 1170 bits long, beginning at Sn where $(n \bmod 1170) = 0$.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.3.5 P71 L44 # 469
 Tu, Mike Broadcom
 Comment Type **TR** Comment Status **D** 450 to 1170
 The size of a partial PHY frame is 1170 bits, not 450 bits.
 SuggestedRemedy
 Change the sentence to:
 "Each partial PHY frame is 1170 bits long, beginning at Sn where (n mod 1170) = 0."
 Proposed Response Response Status **W**
 PROPOSED ACCEPT.

Cl 165 SC 165.3.5 P71 L44 # 652
 McClellan, Brett Marvell
 Comment Type **T** Comment Status **D** 450 to 1170
 If the PHY frame is 1/4th of an RSFEC frame then it is 1170 symbols long.
 SuggestedRemedy
 change "Each partial PHY frame is 450 bits long, beginning at Sn where (n mod 450) = 0."
 to "Each partial PHY frame is 1170 symbols long, beginning at Sn where (n mod 1170) = 0."
 Proposed Response Response Status **W**
 PROPOSED ACCEPT.

Cl 165 SC 165.3.5 P71 L48 # 714
 Jonsson, Ragnar Marvell
 Comment Type **T** Comment Status **D** post-deadline, partial frame
 There should be 32 partial PHY frames per PHY frame, where each PHY frame has 8 RS-FEC frames.
 SuggestedRemedy
 Change 17550 to 36270, 17654 to 36365, and 18720 with 37440.
 Proposed Response Response Status **W**
 PROPOSED ACCEPT.
 See comment #710 for justification
 Comment type changed to non-R due to post-deadline status.

Cl 165 SC 165.3.6 P72 L17 # 729
 Jonsson, Ragnar Marvell
 Comment Type **T** Comment Status **D** post-deadline, partial frame
 Sleep signal should be composed of 16 RS frames
 SuggestedRemedy
 change "eight RS-FEC frames" to "sixteen RS-FEC frames"
 Proposed Response Response Status **W**
 PROPOSED ACCEPT.
 See comment #710 for justification
 Comment type changed to non-R due to post-deadline status.

Cl 165 SC 165.3.6 P72 L22 # 732
 Jonsson, Ragnar Marvell
 Comment Type **E** Comment Status **D** post-deadline, EZ
 The description in lines 22-24 is easily misunderstood to imply a sequence of signals, as opposed to two parts of the signal.
 SuggestedRemedy
 Change "The first part of this cycle is known as the quiet period and lasts for a time lpi_quiet_time. The quiet period is defined in 165.3.6.2. The second part of this cycle is known as the refresh period and lasts for a time lpi_refresh_time." to "The one part of this cycle is known as the quiet period and lasts for a time lpi_quiet_time. The quiet period is defined in 165.3.6.2. The another part of this cycle is known as the refresh period and lasts for a time lpi_refresh_time."
 Proposed Response Response Status **W**
 PROPOSED ACCEPT IN PRINCIPLE.

Minor editorial changes relative to suggested remedy.

Change "The first part of this cycle is known as the quiet period and lasts for a time lpi_quiet_time. The quiet period is defined in 165.3.6.2. The second part of this cycle is known as the refresh period and lasts for a time lpi_refresh_time." to "The one part of this cycle is known as the quiet period and lasts for a time lpi_quiet_time. The quiet period is defined in 165.3.6.2. The other part of this cycle is known as the refresh period and lasts for a time lpi_refresh_time."

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

CI 165 SC 165.3.6 P72 L28 # 733
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, EZ
 lpi_offset no longer exists and has been replaced with master and slave specific versions
 SuggestedRemedy
 replace "lpi_offset" with "lpi_master_offset, lpi_slave_offset"
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Comment type changed to non-R due to post-deadline status.

CI 165 SC 165.3.6 P72 L29 # 689
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline
 lpi_offset has been replaced with master and slave version. The values are incorrect, and it is also error prone to restate a value already defined in table 165-3.
 SuggestedRemedy
 Remove "lpi_offset is a fixed value equal to lpi_qr_time / 2 + 4 (52 RS-FEC frame periods)." OR replace it with "The values for these timing parameters are given in Table 165-03."
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Remove "lpi_offset is a fixed value equal to lpi_qr_time / 2 + 4 (52 RS-FEC frame periods)."
 Comment type changed to non-R due to post-deadline status.

CI 165 SC 165.3.6 P73 L10 # 690
 Jonsson, Ragnar Marvell
 Comment Type E Comment Status D post-deadline, EZ
 The location of the slave refresh signal is incorrect or misleading in the Figure 165-13. It should be at location 42, not 43 (see Table 165-3)
 SuggestedRemedy
 Redraw location of slave refresh signal at location 42
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 165 SC 165.3.6 P73 L28 # 691
 Jonsson, Ragnar Marvell
 Comment Type E Comment Status D post-deadline, EZ
 The location of the slave refresh signal is incorrect or misleading in the Figure 165-14. It should be at location 42, not 43 (see Table 165-3)
 SuggestedRemedy
 Redraw location of slave refresh signal at location 42
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 165 SC 165.3.6.1 P74 L15 # 716
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, partial frame
 There should be 32 partial PHY frames per PHY frame, where each PHY frame has 8 RS-FEC frames.
 SuggestedRemedy
 Change "PHY frame" to "RS-FEC frame" in lines 15 and 16.
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 See comment #710 for justification
 Comment type changed to non-R due to post-deadline status.

CI 165 SC 165.3.6.1 P74 L18 # 507
 Graba, Jim Broadcom
 Comment Type E Comment Status D EZ
 Typo
 SuggestedRemedy
 Change "... starting a frame 92" to "... starting at frame 92"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.3.7 P75 L5 # 644

McClellan, Brett

Marvell

Comment Type E Comment Status D

With the few exceptions listed below it seems that 165.3.7 Detailed functions and state diagrams is identical to clause 149. This is as it should be, but is redundant. I suggest referencing clause 149 for most of the text and figures

Exceptions:

- 1.rfer_timer definition
- 2.Figure 165–20—EEE transmit state diagram where a change was introduced
- 3.A definition for variable rfer_test_if was added, but is never used in the document. See related comment to remove it.
- 4.Use of 25GMII instead of XGMII
- 5.Subclause and Figure references to 165 instead of 149

SuggestedRemedy

Replace the text of 165.3.7.2.1 Constants with:

"The PCS state diagram constants are as defined in 149.3.7.2.1 with the exception that 25GMII replaces XGMII."

Replace the text of 165.3.7.2.2 Variables with:

"The PCS state diagram variables are as defined in 149.3.7.2.3 with the exception that 25GMII replaces XGMII and the following modifications:

Reference to 149.4.4.1 is replace by 165.4.4.1."

Replace the text of 165.3.7.2.3 Timers with:

"The PCS timers are as defined in 149.3.7.2.3 with the exception that 25GMII replaces XGMII and the following modified definitions:

rfer_timer

Timer that is triggered every 12.5 μ s \pm 1%. When the timer reaches its terminal count, rfer_timer_done = TRUE."

Replace the text of 165.3.7.2.4 Functions with:

"The PCS functions are as defined in 149.3.7.2.4 with the exception that 25GMII replaces XGMII and the following modifications:

Reference to 149.3.2.2.2 is replace by 165.3.2.2.2."

Replace the text of 165.3.7.2.5 Counters with:

"The PCS counters are as defined in 149.3.7.2.5."

In 165.3.7.3 delete Figure 165–16, Figure 165–17, Figure 165–18 and Figure 165–19 and replace all references these figures with Figure 149–16 Figure 149–17, Figure 149–18 and Figure 149–19.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.3.7.2.1 P75 L41 # 546

Ran, Adeel

Cisco

Comment Type E Comment Status D

The constant name "REFER_CNT_LIMIT" is longer than the value it holds, and is more obscure. Wherever it is used in the text or in diagrams, it would be easier for the reader to understand if the number 16 was used instead (the number 16 is already used in some places, so the merit of having a constant is questionable).

Similarly for RFRX_CNT_LIMIT (88).

SuggestedRemedy

Replace instances of REFER_CNT_LIMIT with 16, and instances of RFRX_CNT_LIMIT with 88, and delete the constant definitions.

Proposed Response Response Status W

PROPOSED REJECT.

Introducing obscure and undefined numbers is less transparent than having constants with definitions.

Cl 165 SC 165.3.7.2.2 P76 L3 # 342

Gorshe, Steve

Microchip Technology

Comment Type E Comment Status D EZ

Is the list on this page supposed to be in strictly alphabetical order? If so, rf_valid should be moved

SuggestedRemedy

If strictly alphabetical order is intended on this page and the next page, it should be cleaned up

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Align the order of the variable definitions alphabetically.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.3.7.2.2 P77 L6 # 505
 Martino, Kjersti Inneos
 Comment Type E Comment Status D
 Include explicit text indicating that lpi_refresh_detect is a boolean variable for consistency with other definitions
 SuggestedRemedy
 "Boolean variable that is set TRUE when"..."
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 =====
 Reason: Proposed response does not match the form of similar text (A Boolean variable that is set TRUE when)
 Change to: "A Boolean variable that is set TRUE when"..."

Cl 165 SC 165.3.7.2.3 P78 L8 # 470
 Tu, Mike Broadcom
 Comment Type TR Comment Status D
 The rfer_timer is used to set the hi_rfer variable. The hi_rfer variable is set when there are 16 FEC errors within one rfer_timer interval. In 802.3ch 10GBASE-T1 this translate to 16 FEC errors within 31.25 usec, or about 98 FEC frames. For 802.3cy, we should keep the rfer_timer long enough to ~98 FEC frames as well.
 We need to revise 45.2.3.87.2 PCS high RFER (3.2324.9) for 25GBASE-T1 as well.
 See tu_3cy_01_08_16_2022.pdf for additional details.
 SuggestedRemedy
 1. On page 78, line 8, change "12.5 us" to "32.5 us".
 2. On page 27, line 44, add the following:
 "45.2.3.87.2 PCS high RFER (3.2324.9)
 When read as a one, bit 3.2324.9 indicates that the MultiGBASE-T1 PCS receiver is detecting 16 or more RS-FEC errored blocks within one rfer_timer interval. When read as a zero, bit 3.2324.9 indicates that the MultiGBASE-T1 PCS is detecting fewer than 16 RS-FEC errored blocks within one rfer_timer interval. Bit 3.2324.9 is a reflection of the state of the hi_rfer variable defined in 149.3.8.1 and 165.3.8.1."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.3.7.2.3 P78 L16 # 730
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, partial frame
 Sleep signal should be composed of 16 RS frames
 SuggestedRemedy
 change "eight RS-FEC frame" to "sixteen RS-FEC frame"
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 See comment #710 for justification
 Comment type changed to non-R due to post-deadline status.

Cl 165 SC 165.3.7.2.6 P80 L37 # 509
 Graba, Jim Broadcom
 Comment Type TR Comment Status D
 RX_FRAME includes unreliable Wake frames.
 SuggestedRemedy
 Add to the end of the description: "If the optional EEE is supported, RX_FRAME shall be FALSE during the first 8 WAKE frames."
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Per comment + add a new PICS entry for the added requirement

Cl 165 SC 165.3.7.3 P84 L37 # 506
 Martino, Kjersti Inneos
 Comment Type T Comment Status D
 Figure 165-18 is missing the dashed line box around the transition to R_TYPE(rx_coded) = 'L' from RX_E
 SuggestedRemedy
 Add dashed line
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.3.8 P87 L1 # 645

McClellan, Brett Marvell
 Comment Type E Comment Status A 165.3.8

It appears that 165.3.8 PCS management is identical to clause 149 with the exception of reference to 25GMII. This is as it should be, but is redundant. I suggest referencing clause 149 for the entire text.

SuggestedRemedy

Replace all text of 165.3.8 with "PCS management is defined in 149.3.8 with the exception that 25GMII replaces XGMII."

Response Response Status C
 ACCEPT.

Cl 165 SC 165.3.8.1 P87 L7 # 547

Ran, Adeo Cisco
 Comment Type T Comment Status A 165.3.8

It seems that only few of the status variables defined in 54.2.1 are listed here.

Among the ones listed, the LPI variables seem unnecessary, since the LPI real-time status in both directions is conveyed over the 25GMII.

The status of training parameters would be important for management, but they are not listed.

Also, control variables are not listed; management interface should include at least reset, test modes, interleaving and precoding request to the link partner, and loopback mode.

SuggestedRemedy

Expend the management interface section per the comment, and further as necessary.

Response Response Status C
 ACCEPT IN PRINCIPLE.

See comment #645

Cl 165 SC 165.3.8.3 P87 L45 # 548

Ran, Adeo Cisco
 Comment Type T Comment Status D

The presence of a loopback function should be listed as part of the PCS functions, not as part of the PCS management, which typically only lists control variables and register mappings.

165.3.2.2 (PCS Transmit function) currently does not even mention that the transmit function can be fed by the receive function.

SuggestedRemedy

Add text to 165.3.2.2 (PCS Transmit function) that describes the effect of loopback mode.

Delete the content of 165.3.8.3 and add a control variable for loopback mode instead.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Delete the content of 165.3.8.3 and add a control variable for loopback mode instead.

The text "that describes the effect of loopback mode" was not provided at this time.

Cl 165 SC 165.3.9.1 P88 L16 # 717

Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, partial frame

There should be 32 partial PHY frames per PHY frame, where each PHY frame has 8 RS-FEC frames.

SuggestedRemedy

Change "PHY frame" to "RS-FEC frame".

Proposed Response Response Status W
 PROPOSED ACCEPT.

See comment #710 for justification

Comment type changed to non-R due to post-deadline status.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.3.9.2.1 P88 L34 # 508
 Graba, Jim Broadcom
 Comment Type TR Comment Status D
 OAM symbols may be unreliable during the beginning of Wake
 SuggestedRemedy
 Change according to pp 5-6 in graba_3cy_01_0816.pdf
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.3.9.4.1 P88 L48 # 549
 Ran, Ade Cisco
 Comment Type E Comment Status D
 The text says "The body of this subclause is composed of state diagrams..." - but it does not. There is no state diagram in this subclause, only references to other subclauses, and two additional variables. I assume these variable definitions do not contradict any state diagrams defined elsewhere.
 There is no need for this "conventions" subclause.
 SuggestedRemedy
 Delete subclause 165.3.9.4.1.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

=====
 Reason: Because the subclauses just reference 149.3.9.4.x with "see ..." and the general statement about precedence is not made, this subclause is necessary. Without it, the requirements aren't clear in the case of conflict. However, it can be reworded.
 Change:
 "is composed of"
 to:
 "specifies directly and by reference"

Cl 165 SC 165.3.9.4.3 P89 L15 # 718
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, partial frame
 There should be 32 partial PHY frames per PHY frame, where each PHY frame has 8 RS-FEC frames.
 SuggestedRemedy
 Change "PHY frame" to "RS-FEC frame".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

See comment #710 for justification
 Comment type changed to non-R due to post-deadline status.

Cl 165 SC 165.4.2.2 P91 L30 # 337
 Maguire, Valerie Copperopolis
 Comment Type E Comment Status D EZ
 Interface is capitalized when appearing after "MDIO" (see clause 45 header).
 SuggestedRemedy
 Replace, "MDIO interface" with "MDIO Interface"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.4.2.2 P91 L31 # 429
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 45.2.1.7.4 is in the draft.
 SuggestedRemedy
 Change "45.2.1.7.4" to black and make it a hyperlink.
 Also P138L35
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.4.2.3 P92 L9 # 338
 Maguire, Valerie Copperopolis
 Comment Type E Comment Status D EZ
 Interface is capitalized when appearing after "MDIO" (see clause 45 header).
 SuggestedRemedy
 Replace, "MDIO interface" with "MDIO Interface"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.4.2.3 P92 L10 # 430
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 45.2.1.7.5 is in the draft.
 SuggestedRemedy
 Change "45.2.1.7.5" to black and make it a hyperlink.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.4.2.3 P92 L10 # 646
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 incorrect reference for the 802.3-2022 base
 SuggestedRemedy
 change 45.2.1.193.7 to 45.2.1.243.7
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.4.2.3 P92 L31 # 431
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 Incorrect reference. 45.2.1.193.7 doesn't exist in 802.3-2022.
 SuggestedRemedy
 Change :45.2.1.193.7" to "45.2.1.243.7".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.4.2.4 P92 L20 # 719
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, partial frame
 There should be 32 partial PHY frames per PHY frame, where each PHY frame has 8 RS-FEC frames.
 SuggestedRemedy
 Change "16th" to "32nd", 17550 to 36270, and 17645 to 36365
 Proposed Response Response Status W
 PROPOSED ACCEPT.

See comment #710 for justification
 Comment type changed to non-R due to post-deadline status.

Cl 165 SC 165.4.2.4.2 P93 L1 # 550
 Ran, Adeo Cisco
 Comment Type E Comment Status D EZ
 Unnecessary capitalization in "Frame Delimiter", especially in the text where "start" is not capitalized.
 SuggestedRemedy
 Change to "frame delimiter" in heading and text.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.4.2.4.2 P93 L3 # 551
 Ran, Adeo Cisco
 Comment Type E Comment Status D EZ
 Here "Octet x" (x=1 to 3) but in subsequent subclauses it is "Octx" (x=4 and above).
 SuggestedRemedy
 Change to be consistent, one way or another.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change to "Octet" for consistency.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.4.2.4.3 P93 L9 # 720
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, partial frame
 There should be 32 partial PHY frames per PHY frame, where each PHY frame has 8 RS-FEC frames.
 SuggestedRemedy
 Change 16 to 32 in line 9, change 16th to 32nd in line 10, and change 15 to 31 in line 11
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 See comment #710 for justification
 Comment type changed to non-R due to post-deadline status.

Cl 165 SC 165.4.2.4.5 P93 L49 # 552
 Ran, Adeo Cisco
 Comment Type E Comment Status D EZ
 "When <condition" should not be followed by "then". "Then" is used after "if".
 Also in 165.4.2.4.6 and 165.4.2.4.7.
 SuggestedRemedy
 Delete "then" in these 3 places, or change "When" to "If"
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Delete "then" in these 3 places

Cl 165 SC 165.4.2.4.6 P94 L50 # 647
 McClellan, Brett Marvell
 Comment Type TR Comment Status D
 "DataSwPFC24 shall be set to an integer multiple of 32. When the value of DataSwPFC24 is a multiple of 16 the switch from PAM2 to PAM4 occurs on a PHY frame boundary."
 The L=8 superframe boundary is at multiples of 32.
 SuggestedRemedy
 change text to: "DataSwPFC24 shall be set to an integer multiple of 32. When the value of DataSwPFC24 is a multiple of 32 the switch from PAM2 to PAM4 occurs on a L=8 superframe boundary."
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Changes per text + update PICS

Cl 165 SC 165.4.2.4.6 P94 L51 # 471
 Tu, Mike Broadcom
 Comment Type TR Comment Status D
 The DataSwPFC24 should be a multiple of 32, not 16.
 SuggestedRemedy
 Change this sentence to:
 "When the value of DataSwPFC24 is a multiple of 32 the switch from PAM2 to PAM4 occurs on a PHY frame boundary."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.4.2.4.6 P94 L51 # 721
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, partial frame
 There should be 32 partial PHY frames per PHY frame, where each PHY frame has 8 RS-FEC frames.
 SuggestedRemedy
 Change 16 to 32.
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 See comment #710 for justification
 Comment type changed to non-R due to post-deadline status.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.4.2.4.10 P95 L 50 # 686
 Razavi Majomard, Seid Alireza Marvel
 Comment Type E Comment Status D EZ
 the definition of timing-lock should be moved to this section
 SuggestedRemedy
 move these lines from line 30-32 of clause 165.4.4.1 to line 50 of clause 165.4.2.4.10 : " In the TRAINING state, whenever SLAVE operating in loop timing locks the MASTER timing reference, it sets timing_lock_OK=1."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.4.2.4.10 P96 L 5 # 553
 Ran, Adeo Cisco
 Comment Type T Comment Status D
 Some values in Table 165-9 are given as expressions. It is unclear why these specific expressions are used, and the values are not easier to understand this way. Also, they look like ranges on first reading.
 Also in Table 165-10.
 SuggestedRemedy
 Change the expressions to what they evaluate to. Add explanation in the text if necessary.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change the expressions to what they evaluate to.

Cl 165 SC 165.4.2.4.10 P96 L 5 # 687
 Razavi Majomard, Seid Alireza Marvel
 Comment Type T Comment Status A 40ms to 30ms
 The 40ms for half-duplex is too long.
 SuggestedRemedy
 change 40ms to 30ms
 Response Response Status C
 ACCEPT.
 Vote statistics from DVL (Motion #1):
 YES: 11
 NO: 1
 ABSTAIN: 2

Cl 165 SC 165.4.2.4.10 P96 L 5 # 692
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status A post-deadline, 40ms to 30ms
 The 40ms mandatory half-duplex transmission is too long. It should be changed to 30ms.
 SuggestedRemedy
 change 40ms to 30ms
 Response Response Status C
 ACCEPT.
 Comment type changed to non-R due to post-deadline status.
 Vote statistics from DVL (Motion #1):
 YES: 11
 NO: 1
 ABSTAIN: 2

Cl 165 SC 165.4.2.4.10 P96 L 18 # 693
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status A post-deadline, 40ms to 30ms
 The 40ms mandatory half-duplex transmission is too long. It should be changed to 30ms.
 SuggestedRemedy
 change 40ms to 30ms
 Response Response Status C
 ACCEPT.
 Comment type changed to non-R due to post-deadline status.
 Vote statistics from DVL (Motion #1):
 YES: 11
 NO: 1
 ABSTAIN: 2

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.4.2.4.10 P96 L18 # 688
 Razavi Majomard, Seid Alireza Marvel
 Comment Type T Comment Status A 40ms to 30ms
 The 40ms for half-duplex is too long.
 SuggestedRemedy
 change 40ms to 30ms
 Response Response Status C
 ACCEPT.
 Vote statistics from DVL (Motion #1):
 YES: 11
 NO: 1
 ABSTAIN: 2

Cl 165 SC 165.4.2.6 P96 L53 # 554
 Ran, Adee Cisco
 Comment Type T Comment Status D
 "The frequency of the SEND_S signal shall be 703.125 MHz"
 It is probably the nominal signaling rate, or the nominal frequency of the clock driving the "signal" (which we typically call "pattern").
 The frequency can be within the range defined in 165.5.3.6.
 SuggestedRemedy
 Change "The frequency of the SEND_S signal shall be" to "The nominal signaling rate of the SEND_S signal is".
 Consider changing "signal" to "pattern".
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change "The frequency of the SEND_S signal shall be" to "The nominal signaling rate of the SEND_S signal is".
 Remove PICS as needed.

Cl 165 SC 165.4.2.6.1 P98 L21 # 432
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 98.5.1 is in the draft
 SuggestedRemedy
 Change "98.5.1" to black and make it a hyperlink.
 Also P98L24, P98L27
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.4.3 P101 L15 # 555
 Ran, Adee Cisco
 Comment Type T Comment Status D
 165.4.3 and its subclauses are gratuitous content and a burden for readers.
 165.4.3.1 is not referred to by any other subclause, and has one normative requirement that points to 165.5.3 (which includes normative requirements on its own).
 165.4.3.2 has no normative requirements and is also not referred to by any other subclause.
 SuggestedRemedy
 Delete 165.4.3 and its subclauses, or move the content to an informative annex.
 Alternatively, if there is something to write about the MDI (e.g. mechanical connector specification) it should be placed here.
 Proposed Response Response Status W
 PROPOSED REJECT.
 The existing text provides explanation of how MDI encoding works and it is valuable to a reader. On the other hand, there is not enough material to move it into a self-standing Annex.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.4.3.1 P101 L33 # 433
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 typo
 SuggestedRemedy
 Change: During training or quietre fresh signalling,
 To: During training or quiet refresh signalling,
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.4.3.1 P101 L33 # 648
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 typo
 SuggestedRemedy
 change 'quietre' to 'quiet'
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.4.3.1 P101 L34 # 694
 Jonsson, Ragnar Marvell
 Comment Type E Comment Status D post-deadline, EZ
 Misspelling of "refresh" in QR
 SuggestedRemedy
 Change "quietre fresh signalling" to "quiet refresh signalling"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.4.3.1 P108 L35 # 599
 Jonsson, Ragnar Marvell
 Comment Type E Comment Status D EZ
 A note was dropped during comment resolution for draft 1.2. This note is probably unnecessary, but a possible text for the note is suggested.
 SuggestedRemedy
 If the note is needed, the suggested text for the note is: NOTE – the receiver can be expected to ignore the first 150 ns following a transition to quiet refresh signaling.
 Proposed Response Response Status W
 PROPOSED REJECT.

This is a copy of comment #333 against D1.3. That comment was rejected, there is no change in position of the TF.

Cl 165 SC 165.4.4.1 P103 L29 # 685
 Razavi Majomard, Seid Alireza Marvel
 Comment Type E Comment Status D EZ
 timing-lock_OK is not mentioned in the state diagram
 SuggestedRemedy
 line 30-32 from clause 165.4.4.1 should be moved to clause 165.4.2.4.10 startup sequence, page 95, line 50
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.4.4.1 P103 L30 # 649
 McClellan, Brett Marvell
 Comment Type T Comment Status D EZ
 timing_lock_OK is defined but never used as a state machine variable
 SuggestedRemedy
 delete definition for timing_lock_OK
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.4.5 P106 L23 # 659

Wu, Peter

Marvell

Comment Type E Comment Status D EZ

_mGigT1 should be replaced with _25GigT1

SuggestedRemedy

NOTE—The variables link_control and link_status are designated as link_control_mGigT1 and link_status_mGigT1, respectively, by the Auto-Negotiation Arbitration state diagram (Figure 98–7) if the optional Auto-Negotiation function is implemented. -> NOTE—The variables link_control and link_status are designated as link_control_25GigT1 and link_status_25GigT1, respectively, by the Auto-Negotiation Arbitration state diagram (Figure 98–7) if the optional Auto-Negotiation function is implemented.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.5 P107 L1 # 556

Ran, Adee

Cisco

Comment Type E Comment Status R PMA definition structure

Shouldn't PMA electrical specifications be under the PMA main subclause (165.4)?

SuggestedRemedy

Consider moving the hierarchy of 165.5 to become 165.4.6.

Response Response Status C

REJECT.

The current Clause 165 structure follows closely the structure used for other BASE-T/T1 clauses in IEEE Std 802.3-2022.

Cl 165 SC 165.5.1 P107 L5 # 557

Ran, Adee

Cisco

Comment Type T Comment Status R PMA definition structure

Test modes are functional specifications, and should be defined under 165.4.2.2 (they override the normal transmit functionality defined there).

SuggestedRemedy

Move 165.5.1 to become 165.4.2.2.

Add a reference to the test modes to 165.4.2.2 (which currently only has normal operation mode or transmit zero).

Response Response Status C

REJECT.

The current Clause 165 structure follows closely the structure used for other BASE-T/T1 clauses in IEEE Std 802.3-2022.

Cl 165 SC 165.5.1 P107 L37 # 558

Ran, Adee

Cisco

Comment Type T Comment Status D

"... the PHY shall provide access to a frequency reduced version of the transmit symbol clock or TX_TCLK_879"

"reduced version" and "or" are unclear.

"TX_TCLK_879 is equal to 878.90625 MHz"

A clock is not equal to its frequency. And this is an exact value with no tolerance.

SuggestedRemedy

Change to "the PHY shall provide access to a frequency-divided version of its transmit symbol clock, with divisor 16, referred to as TX_TCLK_879. The nominal frequency of TX_TCLK_879 is 878.90625 MHz".

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Changes per comment. Update PICS as needed.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.5.1 P107 L38 # 515

Grow, Robert RMG Consluting
 Comment Type E Comment Status D EZ

IEEE Style Manual 16.3.2 also says to use space separators to the right of the decimal point.

SuggestedRemedy

If not changed to 0.878 906 25 GHz, should be 878.906 25 MHz.

Proposed Response Response Status W

PROPOSED REJECT.

This is an IEEE 802.3 exception to the IEEE style manual.
https://www.ieee802.org/3/WG_tools/editorial/requirements/words.html#numbers

In text, where this improves clarity, follow the IEEE Editorial Style Manual: Use spaces instead of commas between numbers in tens or hundreds of thousands (e.g., 62 000, 100 000, but 4000).

Digits to the right of the decimal point.
 >>Do not include any separators in the digits to the right of the decimal point or include any trailing zeros in tables or in text.<<

Cl 165 SC 165.5.1 P108 L8 # 559

Ran, Adeo Cisco
 Comment Type T Comment Status D

"Test mode 7 is for enabling measurement of the bit error ratio of the link including the RS-FEC encoder/decoder, transmit and receive analog front ends of the PHY, and a cable connecting two PHYs"

The description in the remainder of this paragraph implies that what is actually measured is the RS-FEC block error ratio (rfer), not the BER; each errored block is counted as an error once, not as the number of nonzero bits.

Also, when performing such a test, here are typically two PHYs involved, not just one. Although the test mode is defined for a transmitter in one PHY, the rfer can only be measured in a receiver of the other PHY.

SuggestedRemedy

Change the quoted sentence to
 "Test mode 7 is for enabling measurement of the RS-FEC block error ratio of a link partner in a link between two PHYs, including RS-FEC encoder and decoder, transmit and receive analog front ends, and a cable connecting the PHYs".

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.5.1.1 P108 L14 # 560

Ran, Adeo Cisco
 Comment Type T Comment Status D

The figures seem to show test setups of transmitters or receivers, with external measurement instruments. These are not test fixtures - which are sometimes part of test setups (see for example Figure 97B-2, Figure 97B-3, Figure 93-5). This clause actually has specified test fixtures in 165.5.5.

I found the uses of "test fixture" in this context in clause 149, but this error should not be perpetuated.

SuggestedRemedy

Change the subclause title to "Test setups" and change "fixture" to "setup" in the text and figure titles.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.5.1.1 P108 L18 # 561

Ran, Adeo Cisco
 Comment Type E Comment Status D

"for data communication only" - unclear. As opposed to what?

SuggestedRemedy

Either clarify what it means, or delete this phrase.

Proposed Response Response Status W

PROPOSED REJECT.

This statement implies data channel only, not the control channel.

Cl 165 SC 165.5.1.1 P109 L3 # 562

Ran, Adeo Cisco
 Comment Type T Comment Status D

Why is a balun required for measuring transmitter jitter?

The test setup in figure 165-30 seems sufficient, and there is no need to specify a different one; if anyone wants to use a single-ended scope they can do so with a balun - this would arguably be an equivalent setup.

SuggestedRemedy

Delete figure 153-32 and add " and jitter" to the title of figure 165-30.

Proposed Response Response Status W

PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.5.1.1 P109 L11 # 354
 Fischer, Peter BKS Kabel-Service AG
 Comment Type T Comment Status D
 Output of the balun should be specified
 SuggestedRemedy
 Define output impedance for the balun in relation to the digital scope/ capturing device
 Proposed Response Response Status W
 PROPOSED REJECT.
 No specific value was proposed by the commenter. The test figures in 165.5.1.1 are taken from 149.5.1.1 IEEE Std 802.3-2022.

Cl 165 SC 165.5.1.1 P109 L19 # 355
 Fischer, Peter BKS Kabel-Service AG
 Comment Type T Comment Status D
 Output of the balun should be specified
 SuggestedRemedy
 Define output impedance for the balun in relation to the Spectrum analyser
 Proposed Response Response Status W
 PROPOSED REJECT.
 No specific value was proposed by the commenter. The test figures in 165.5.1.1 are taken from 149.5.1.1 IEEE Std 802.3-2022.

Cl 165 SC 165.5.2 P109 L41 # 434
 Wienckowski, Natalie General Motors
 Comment Type T Comment Status D
 As only 1 pair is used, we don't need a subscript on the lines.
 SuggestedRemedy
 In Figure 165-34, remove subscript "i" from SL<p>, SL<n>, Signal <p>, Signal<n>, DL<p>, and DL<n>.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.5.2 P110 L1 # 695
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status A post-deadline, source lane
 Reference to laning is probably obsoleted, given that 802.3cy no longer supports 50Gbps and 100Gbps.
 SuggestedRemedy
 Remove reference to laning
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 See comment #435

Cl 165 SC 165.5.2 P110 L1 # 435
 Wienckowski, Natalie General Motors
 Comment Type T Comment Status A source lane
 Remove refereces to the subscript "i" in the text.
 SuggestedRemedy
 Change: Note that the source lane (SL) signals SLi<p> and SLi<n> are the positive and negative sides of the transmitter end's differential signal pair on lane i and the destination lane (DL) signals DLi<p> and DLi<n> are the positive and negative sides of the receiver end's differential signal pair on lane i.
 To: Note that the source lane (SL) signals SL<p> and SL<n> are the positive and negative sides of the transmitter end's differential signal pair and the destination lane (DL) signals DL<p> and DL<n> are the positive and negative sides of the receiver end's differential signal pair.

Response Response Status C
 ACCEPT.

Cl 165 SC 165.5.2 P115 L26 # 437
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 grammar
 SuggestedRemedy
 Change: is used
 To: are used
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

CI 165 SC 165.5.2 P117 L25 # 438
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 Clause 45 is in the draft.
 SuggestedRemedy
 Change "Clause 45" to black and make it a hyperlink.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 165 SC 165.5.3 P110 L # 569
 Ran, Adee Cisco
 Comment Type T Comment Status D EZ
 It seems odd that a transmitter operating above 14 GBd with a channel that can have an insertion loss of almost 30 dB at the Nyquist frequency, has no specification of transition time, and no option or specification for transmitter equalization (pre-emphasis).
 In high-speed backplane and copper cable PHYs, transition time and Tx equalization are among the important Tx parameters; without specifying them, a slow transmitter over a high-loss channel can create a large precursor ISI at the receiver input. Such ISI is not easily handled by the analog front end, and can impact the linearity of receiver circuits, in addition to placing unnecessary equalization burden on receivers (it is much cheaper in power and area to implement Tx equalization than Rx equalization).
 SuggestedRemedy
 Consider adding a specification for transmitter maximum transition time (a possible limit can be 60 ps for 20% to 80%, as in 130.7.1, or maybe lower).
 Consider adding a precursor equalization function to the transmitter; see 130.7.1.10 for an example of how this can be specified.
 Proposed Response Response Status W
 PROPOSED REJECT.
 No specific changes were proposed at this time.

CI 165 SC 165.5.3 P110 L26 # 565
 Ran, Adee Cisco
 Comment Type T Comment Status D
 "The electrical input shall be AC-coupled"
 A transmitter is typically output, but this is a full-duplex PHY so there are no separate input and output.
 SuggestedRemedy
 Change the quoted phrase to "The transmitter shall be AC-coupled"
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Changes per comment. Update PICS as needed.

CI 165 SC 165.5.3 P110 L33 # 566
 Ran, Adee Cisco
 Comment Type T Comment Status D EZ
 "A mated connector pair has been included in the transmitter specifications defined in this subclause."
 Which connector is that? The MDI connector is not specified.
 Also in Table 165-12.
 SuggestedRemedy
 Clarify.
 Proposed Response Response Status W
 PROPOSED REJECT.
 No specific changes were proposed.

CI 165 SC 165.5.3 P110 L34 # 696
 Jonsson, Ragnar Marvell
 Comment Type E Comment Status D post-deadline, EZ
 The single sentence paragraph is not clear.
 SuggestedRemedy
 Remove this single sentence paragraph OR amend it such that its meaning becomes clear.
 Proposed Response Response Status W
 PROPOSED REJECT.
 Unclear why / what in the indicated text is unclear.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

CI 165 SC 165.5.3.2 P110 L5 # 563
 Ran, Adeo Cisco
 Comment Type T Comment Status D EZ
 "SNDR distortion" - the "D" in SNDR stands for distortion.
 SuggestedRemedy
 Delete "distortion".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 165 SC 165.5.3.3 P110 L25 # 564
 Ran, Adeo Cisco
 Comment Type T Comment Status D EZ
 "Time Interval Error" - capitalization is not needed.
 Also in 165.5.3.3.1 (line 36).
 SuggestedRemedy
 Change to lower case.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 165 SC 165.5.3.4 P112 L25 # 459
 John Abbott Corning Incorporated
 Comment Type T Comment Status D EZ
 In comparing equations 165-12 and 165-13 to clause 149, it seems to me that the lower frequency limit "5" in equation 165-13 should scale as one goes from 2.5 to 5 to 10 to 25Gb/s, since every other limit in clause 165 is the 149 limits x 2.5 (i.e. 25Gb/s = 2.5 * 10Gb/s). However, "5" was used in clause 149 for 2.5,5,10.
 SuggestedRemedy
 scale "5 MHz" in 165-13 if appropriate. Thank you!
 Proposed Response Response Status W
 PROPOSED REJECT.
 Unclear what the actual issue is. Equation 165-13 is already defined from 5 MHz up.

CI 165 SC 165.5.3.6 P110 L37 # 567
 Ran, Adeo Cisco
 Comment Type T Comment Status D EZ
 Is there no specification for the Tx clock frequency of the SLAVE PHY?
 At the minimum, the short-term rate of variation of the SLAVE transmitter when the MASTER is in LPI mode should be specified - just as it is specified for the MASTER (and for similar reasons) - likely, the same maximum rate can be used.
 It may also be helpful to state that when the master is not in LPI transmit mode, the SLAVE PHY frequency is equal to that of the MASTER due to loop timing.
 SuggestedRemedy
 Per comment
 Proposed Response Response Status W
 PROPOSED REJECT.
 No changes to text proposed.

CI 165 SC 165.5.4.1 P110 L52 # 568
 Ran, Adeo Cisco
 Comment Type T Comment Status D
 BER can't be 1e-12 after RS-FEC decoding (As stated in some other comments), and especially it can't be a "shall" on the receiver's input signals...
 Also in 165.5.4.2.
 SuggestedRemedy
 Change BER to RS-FEC frame error rate, with the appropriate value.
 Change "shall be received" to "are expected to be decoded".
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change "shall be received" to "are expected to be decoded". Update PICS as needed.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.5.4.2 P114 L19 # 472
 Simms, Bill NVIDIA
 Comment Type E Comment Status D EZ
 in figure 165.36, unclear what <0.5m refers to
 SuggestedRemedy
 define 0.5m either in text or in notes for figure
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Add an arrow between Differential directional coupler and Receiver and mark is as "<0.5m"

Cl 165 SC 165.5.4.2 P114 L30 # 510
 Sedarat, Hossein Ethernovia
 Comment Type TR Comment Status D
 The added noise level and bandwidth are taken from 802.3ch as-is and are not correct for 802.3cy where the signaling bandwidth is 2.5x wider.
 SuggestedRemedy
 In table 165-14: Replace 3500 MHz with 8750 MHz (=3500*2.5), and replace -152 dBm/Hz with -156 dBm/Hz (to maintain the same noise power over the new bandwidth)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.5.5 P114 L35 # 734
 DiMinico, Christopher MC Communications
 Comment Type T Comment Status D post-deadline
 165.5.5 Test fixture specifications should have same frequency range. The frequency range should be consistent with what's tested. The host test fixture is used to measure the MDI RL (5 MHz$\leq f \leq 10000 \text{ MHz}$) and the link segment test fixture is used to validate host test fixture therefore the test fixture specifications should be at least 5 MHz$\leq f \leq 10000 \text{ MHz}$ based on D2.0. This range would not include margin between test fixture and DUT therefore I suggest keeping the minimum of 1 MHz consistent with 165.5.5.1 and 165.5.5.2 for all test fixture specifications.
 My comment is to address the test fixture minimum frequency. The max frequency should be addressed with the MDI RL max.

SuggestedRemedy
 In 165.5.5.3.1 Insertion loss equation(165–17) and (165–18) change min frequency to 1 MHz.
 In 165.5.5.3.2 Return loss equation(165–20)change min frequency to 1 MHz also include frequency range in this subclause line 10.
 In 165.5.5.3.3 Mode Conversion equation(165–21)change min frequency to 1 MHz.
 In 165.5.5.3.4 Crosstalk equation(165–22)change min frequency to 1 MHz.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 In 165.5.5.3.1 Insertion loss equation(165–17) and (165–18) change min frequency to 1 MHz.
 In 165.5.5.3.2 Return loss equation(165–20)change min frequency to 1 MHz
 In 165.5.5.3.3 Mode Conversion equation(165–21)change min frequency to 1 MHz.
 In 165.5.5.3.4 Crosstalk equation(165–22)change min frequency to 1 MHz.

Cl 165 SC 165.5.5.1 P114 L50 # 723
 Jonsson, Ragnar Marvell
 Comment Type E Comment Status D post-deadline, EZ
 Unless there is specific meaning in multiplying with the exact number 0.3334, it would be better to include this multiplication in the coefficients of the equation, or alternatively use divide by 3.
 SuggestedRemedy
 Change 0.09144 to 0.030480, 0.51054 to 0.17018, and remove "x0.3334" in equation (165-15). Same change should be made to equation (165-16), if it is not removed (see separate comment).
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.5.5.1 P115 L3 # 436
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 awkward working
 SuggestedRemedy
 Change: The reference insertion loss of the TP2 or TP3 test fixtures
 To: The reference insertion loss at TP2 or TP3 of the HTF
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.5.5.2 P115 L32 # 697
 Jonsson, Ragnar Marvell
 Comment Type E Comment Status D post-deadline, EZ
 Equation (165-16) is identical to (165-15), apart from subscript of "lstrfref" instead of "htfref".
 It would simplify/clarify the spec to define only one "trfref" limit.
 SuggestedRemedy
 Eliminate equation (165-16) and change "htfref" in equation (165-15) to "trfref"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.7 P118 L4 # 570
 Ran, Adeo Cisco
 Comment Type T Comment Status D EZ
 The first sentence says "single shielded balanced pair of conductors", the second says
 "single pair of shielded, balanced conductors".

Either use consistent language, or say it once.

I assume it is the pair that is shielded (not each conductor), and it is also balanced.
 "Single" goes without saying because it is "pair", not "pairs".

Also, the term "link segment" appears in the heading but not in the text.

SuggestedRemedy

Change the text to

25GBASE-T1 is designed to operate over link segments comprising a shielded balanced pair
 of conductors that meet the requirements specified in this subclause. This link segment
 supports an effective data rate of 25 Gb/s in each direction simultaneously.

Change "link segment pair" to "link segment" across the draft.

Proposed Response Response Status W
 PROPOSED ACCEPT.

Comment type changed to T

Cl 165 SC 165.7.1.1 P118 L18 # 698
 Jonsson, Ragnar Marvell
 Comment Type E Comment Status D post-deadline, EZ
 The subscript "MHz" is inconsistent with other notations for "f" in this section, and it is
 inconsistent with line 23 and the first use of "f" in equation (165-23)

SuggestedRemedy

Remove the subscript "MHz" from "f" in equation (165-23)

Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.7.1.1 P118 L18 # 571
 Ran, Adee Cisco
 Comment Type E Comment Status D EZ
 In equation 165-23, f is defined "in MHz", so there is no need to have "MHz" in the equation; f_MHz is undefined.
 SuggestedRemedy
 Change "f_MHz" to "f" in the equation.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.7.1.1 P118 L22 # 460
 John Abbott Corning Incorporated
 Comment Type T Comment Status R 10G
 In comparing section 165.7 in clause 165 to section 149.7 in clause 149, clause 149 has a max frequency $F_{max} = 4000 \cdot S$ (equation 149-17) where $S=1$ for 10Gb/s and S would = 2.5 for 25Gb/s. Hence clause 149 would lead one to think clause 165 should have $F_{max}=2.5 \cdot 4000 = 10,000\text{MHz}$., rather than 9000MHz in equation 165-23 and elsewhere.
 SuggestedRemedy
 Change 9000 to 10,000 in section 165.7.1.1 and elsewhere as appropriate (if there is a reason to use 9000 instead of 10,000 -- maybe that number should be even lower ?) Thank you!
 Response Response Status C
 REJECT.
 No consensus to make this change based on the data presented to the TF by the cabling and PHY experts. 9 GHz cutoff does provide sufficient bandwidth for this project.

Cl 165 SC 165.7.1.1 P118 L27 # 572
 Ran, Adee Cisco
 Comment Type T Comment Status D
 "The insertion loss is illustrated in Figure 165-40"
 Figure 165-40 does not illustrate an insertion loss of any link segment. It illustrates the limit imposed by equation 165-23.
 SuggestedRemedy
 Change the first sentence to "The insertion loss of a 25GBASE-T1 link segment shall meet Equation (165-23) as illustrated in Figure 165-40".
 In the figure add a label "meets equation constraints" above the curve, and change the title to "Link segment insertion loss limit".
 Delete the quoted sentence.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Changes per comment. Update PICS as needed.

Cl 165 SC 165.7.1.1 P118 L Figure # 593
 Stephan Schreiner Rosenberger Hochfrequenztechnik
 Comment Type E Comment Status D EZ
 X-Axes Grid is very dense.
 SuggestedRemedy
 Using a frequency step of 500 MHz for the grid instead of 250 MHz.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.7.1.2 P119 L3 # 573

Ran, Adeo Cisco
 Comment Type T Comment Status D

The differential characteristic impedance should apply to the insertion loss specification, so it should appear before 165.7.1.1.

This statement does not need a standalone subclause, it can be added to 165.7.1.

Also, the statement is repeated in 165.7.1.3.1.

SuggestedRemedy

Move the content of this subclause to 165.7.1 and delete this subclause heading.

Delete the sentence "The reference impedance for the return loss specification is 100 Ω" in 165.7.1.3.1.

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.7.1.3 P119 L5 # 574

Ran, Adeo Cisco
 Comment Type E Comment Status D

The term "Return loss" is strictly adequate for the content of 165.7.1.3.1.

The other subclauses under 165.7.1.3 discuss parameters that are dependent on reflections as well as insertion loss between them, so they should not be grouped under "Return loss". This hierarchy should be flattened.

SuggestedRemedy

Delete the subclause heading of 165.7.1.3.1, merging its content into 165.7.1.3 "Return loss".

Promote subclauses 165.7.1.3.2 through 165.7.1.3.4 in the hierarchy to become 165.7.1.4 through 165.7.1.6.

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.7.1.3.1 P119 L23 # 575

Ran, Adeo Cisco
 Comment Type E Comment Status D EZ

Font size mismatch in "30<=f<=9000".
 Also in 165.7.1.3.1 and in 165.7.1.4.

SuggestedRemedy

Correct the font size

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.7.1.3.1 P119 L Figure # 594

Stephan Schreiner Rosenberger Hochfrequenztechnik
 Comment Type E Comment Status D EZ

X-Axes grid starts at 1 MHz, which is different to the figures before and after. Additionally, the X-Axis Grid is very dense.

SuggestedRemedy

Start the frequency grid at 0 MHz and use a frequency step of 500 MHz for the grid instead of 250 MHz

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.7.1.3.1 P119 L Figure # 595

Stephan Schreiner Rosenberger Hochfrequenztechnik
 Comment Type E Comment Status D EZ

There is a vertical blue line at the 1 MHz position.

SuggestedRemedy

Remove the vertical blue line at the 1 MHz position.

Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.7.1.3.2 P120 L1 # 699
 Jonsson, Ragnar Marvell
 Comment Type E Comment Status D post-deadline, EZ
 the word "Noise" should not be capitalized
 SuggestedRemedy
 Change "Noise" to "noise".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.7.1.3.2 P120 L6 # 439
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ, Table 165-15
 The table needs a title
 SuggestedRemedy
 Table 165-15-Echo Metrics Parameters
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.7.1.3.2 P120 L6 # 579
 Ran, Adee Cisco
 Comment Type E Comment Status D EZ, Table 165-15
 The title of Table 165-15 seems like a placeholder.
 SuggestedRemedy
 Use an appropriate title.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #439

Cl 165 SC 165.7.1.3.2 P120 L6 # 392
 Marris, Arthur Cadence Design Systems
 Comment Type ER Comment Status D EZ, Table 165-15
 XXX
 SuggestedRemedy
 Change name of "Table 165-15-XXX" to something more meaningful
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #439

Cl 165 SC 165.7.1.3.2 P120 L6 # 464
 Hidaka, Yasuo Credo Semiconductor, Inc.
 Comment Type E Comment Status D EZ, Table 165-15
 Missing caption of table 165-15.
 SuggestedRemedy
 Add a table caption such as "Parameters of echo metrics."
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #439

Cl 165 SC 165.7.1.3.2 P120 L47 # 580
 Ran, Adee Cisco
 Comment Type T Comment Status D
 What is K in equation 165-27?
 Table 165-15 has N but not K. Should it be N?
 SuggestedRemedy
 Correct if necessary.
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Change to N

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.7.1.3.2 P121 L9 # 581
 Ran, Adee Cisco
 Comment Type E Comment Status D EZ
 Equations 165-30, 165-31, 165-33 may need some tidying up - some letters are too small to be seen, others (like the subscript k in 165-31) are too large. The Sigma signs are too small and unaligned with the rest of the equations.
 SuggestedRemedy
 Improve if possible
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Editor will attempt to increase the equation size. They were already drawn as large equations at this time.

Cl 165 SC 165.7.1.3.2 P121 L13 # 582
 Ran, Adee Cisco
 Comment Type E Comment Status D EZ
 Equation variable hn should be formatted as in the equation.
 Also for Pr in step 4
 SuggestedRemedy
 Apply italic and subscript formats as necessary.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.7.1.3.2 P121 L13 # 700
 Jonsson, Ragnar Marvell
 Comment Type E Comment Status D post-deadline, EZ
 the "n" in "hn" should be subscript
 SuggestedRemedy
 Change "n" in "hn" to subscript
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.7.1.3.2 P121 L36 # 704
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline
 After the latest updates to the ETM algorithm, the REM and ETM calculations have become too different to be described in one sequence of calculation steps. Therefore, they should be separated into two separate sections.
 SuggestedRemedy
 Create a new sub-section titled "Calculating the Residual Echo Metric (REM)" that includes steps 1 through 5. Create another sub-section titled "Calculating Echo Tail Metric (ETM)" containing steps 6 through 8.
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Comment type changed to non-R due to post-deadline status.

Cl 165 SC 165.7.1.3.2 P122 L1 # 583
 Ran, Adee Cisco
 Comment Type E Comment Status D EZ
 Equation 165-36 needs some tidying up. Some letters are too small to be seen. The Sigma signs are too small and unaligned with the rest of the equations.
 The delay is only required for setting the span of the residual echo, and the final result should not be very sensitive to this estimate. Therefore perhaps the process of estimating the propagation delay in a cable does not require such a detailed equation. It can be done, e.g. using the length of the cable and an approximate speed of light in the medium, or using "group delay" which is a readily available from measurements.
 SuggestedRemedy
 Tidy up the equation or replace it with less prescriptive text.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Editor will attempt to increase the equation size. They were already drawn as large equations at this time.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.7.1.3.2 P122 L21 # 701
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D *ost-deadline, equation 165-38*
 The "RE_k" value in (165-38) is different from the "RE_k" value defined in (165-32), which is both misleading and confusing. It would be more appropriate to use "PE_k" for partial echo response.
SuggestedRemedy
 Change "RE_k" in (165-38) to "PE_k"
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #584

Cl 165 SC 165.7.1.3.2 P122 L24 # 584
 Ran, Adeo Cisco
 Comment Type T Comment Status D *Equation 165-38*
 Missing value in the third case of equation 165-38.
 I assume the value should be 0.
SuggestedRemedy
 Add "0" for the third case.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

=====
 Comment related to equation 165-38 (page 122, line 22). Replace RE_k(k) with g_n^m and add '0' as the third value - incorrect reproduction in the draft

Cl 165 SC 165.7.1.3.2 P122 L26 # 585
 Ran, Adeo Cisco
 Comment Type T Comment Status D *equation 165-38*
 Step 8 mentions "partial response g_n^m" but I don't see where that is defined.
SuggestedRemedy
 Add a reference to where g_n^m is defined, or define it if it isn't.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #584

Cl 165 SC 165.7.1.3.2 P122 L26 # 703
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D *ost-deadline, equation 165-38*
 The REM and ETM are no longer the same values (as they used to be in previous version of the ETM algorithm), so wording in Step 8 needs to be clarified.
SuggestedRemedy
 Change "associated REM. The ETM(m) is this REM evaluated at Ndiscard_etm." to "associated ETM."
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #584

Cl 165 SC 165.7.1.3.2 P122 L26 # 702
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D *ost-deadline, equation 165-38*
 The signal "g_n^m" is not defined anywhere.
SuggestedRemedy
 Add definition of "g_n^m"
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #584

Cl 165 SC 165.7.1.3.3 P122 L29 # 586
 Ran, Adeo Cisco
 Comment Type E Comment Status D *EZ*
 Unnecessary capitalization in "Residual Echo Metric". Also, the acronym REM has already been introduced in 165.7.1.3.2.
SuggestedRemedy
 Remove the unnecessary capitalization and delete "(REM)".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.7.1.3.4 P122 L45 # 587

Ran, Adeo Cisco
 Comment Type E Comment Status D EZ

Unnecessary capitalization in "Echo Tail Metric".

Also, the acronym ETM should be defined where it is first used in text, which is in step 8 of 165.7.1.3.2.

SuggestedRemedy

Remove the unnecessary capitalization and delete "(ETM)".

In step 8 of 165.7.1.3.2, change "The ETM(m) is this REM" to "The echo tail metric (ETM) of segment m, ETM(m), is this REM".

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.7.1.3.4 P122 L50 # 588

Ran, Adeo Cisco
 Comment Type T Comment Status D

The text is about ETM but the equation has REM(N_discard), and no ETM limit is defined.

SuggestedRemedy

Correct as necessary.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Comment related to Equation 165-40. Replace REM(N_disc) with ETM(m) - incorrect reproduction in the draft.

Cl 165 SC 165.7.1.4 P119 L24 # 577

Ran, Adeo Cisco
 Comment Type T Comment Status D

"The coupling attenuation is illustrated in Figure 165-42"

Figure 165-42 does not illustrate a coupling of any link segment. It illustrates the limit imposed by equation 165-41.

SuggestedRemedy

Change "the 25GBASE-T1 link segment shall meet the coupling attenuation values determined by using Equation (165-41)" to "the coupling attenuation of a 25GBASE-T1 link segment shall meet the coupling attenuation in Equation (165-41) as illustrated by Figure 165-42".

In the figure add a label "meets equation constraints" below the curve, and change the title to "Link segment coupling attenuation limit".

Delete the quoted sentence.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.7.1.4 P123 L6 # 440

Wienckowski, Natalie General Motors
 Comment Type T Comment Status D

Annex 165A does not define the Coupling and screening attenuation test methodology. As this is the same as it was for Clause 149, Annex 149A should be referenced.

SuggestedRemedy

Change: Annex 165A
 To: Annex 149A (This should be in green with no hyperlink.)
 Also P124L2

Proposed Response Response Status W

PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.7.1.4 P123 L Figure # 596
 Stephan Schreiner Rosenberger Hochfrequenztechnik
 Comment Type E Comment Status D EZ
 X-Axes Grid is very dense.
 SuggestedRemedy
 Using a frequency step of 500 MHz for the grid instead of 250 MHz.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.7.1.5 P123 L 54 # 705
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status A post-deadline, 9GHz
 The screening attenuation should be defined up to 9GHz
 SuggestedRemedy
 Change "4000" to "9000".
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 See comment #457

Cl 165 SC 165.7.1.5 P123 L 54 # 457
 Brychta, Michal Analog Devices
 Comment Type T Comment Status A 9GHz
 Many other specifications in subclause 165.7 cover bandwidth up to 9000MHz. That includes for for example 165.7.1.4 Coupling attanuation. Is there a reason why the screening attenuation should be specified "only" in range up to 4000 MHz?
 SuggestedRemedy
 Consider if screening attanuation could be / should be specified up to 9000MHz.
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 Add a sentence at the end of 165.7.1.5 reading: "For frequencies greater than 4000 MHz, the coupling attenuation specification in 165.7.1.4 is sufficient."

Cl 165 SC 165.7.1.6 P124 L 6 # 651
 McClellan, Brett Marvell
 Comment Type TR Comment Status D
 The max link delay should be scaled for 11 meters, vs the original 15 meters in 802.3cy
 SuggestedRemedy
 change 94ns to 69ns
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.7.2 P124 L 18 # 441
 Wienckowski, Natalie General Motors
 Comment Type T Comment Status D EZ
 Incorrect reference, 165C.5 doesn't exist.
 SuggestedRemedy
 Change: 165C.5
 To: 165A.5
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.7.2 P124 L 18 # 650
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 incorrect reference
 SuggestedRemedy
 change 165C.5 to 165A.5
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

CI 165 SC 165.7.2.1 P124 L25 # 442
 Wienckowski, Natalie General Motors
 Comment Type T Comment Status D EZ
 The frequency range used needs to be changed.
SuggestedRemedy
 Change: The power ANEXT loss is derived using Equation (97–25).
 To: The PSANEXT loss is derived using Equation (97–25) over the frequency range defined for Equation (165-42).
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 165 SC 165.7.2.1 P124 L35 # 474
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type TR Comment Status A 9GHz
 The upper frequency for ANEXT and AFEXT should be at least as high as with the link segment upper frequency.
SuggestedRemedy
 Change 4000 to 9000 on P124 L35 and P126 L6. (equations 165-42 and 165-43)
 Response Response Status C
 ACCEPT.

CI 165 SC 165.7.2.1 P125 L1 # 589
 Ran, Adeo Cisco
 Comment Type T Comment Status D
 "PSANEXT is illustrated in Figure 165–43"
 Figure 165-43 does not illustrate any PSA. It illustrates the limit imposed by equation 165-42.
 Also for PSAACRF in 165.7.2.2.
 Also for MDI return loss in 165.8.2.1.
SuggestedRemedy
 Change "shall meet the values determined using Equation (165–42)" to "shall meet Equation (165–42) as illustrated by Figure 165-43".
 In the figure add a label "meets equation constraints" below the curve, and change the title to "PSANEXT limit".
 Delete the quoted sentence.
 Apply similarly in 165.7.2.2 and in 165.8.2.1, with appropriate adjustments.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Changes per comment. Update PICS as needed.

CI 165 SC 165.7.2.2 P125 L36 # 443
 Wienckowski, Natalie General Motors
 Comment Type T Comment Status D EZ
 The frequency range used needs to be changed.
SuggestedRemedy
 Change: The power AACRF is derived using Equation (97–27).
 To: The PSAACRF is derived using Equation (97–27) over the frequency range defined for Equation (165-43).
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.7.3.1 P119 L24 # 576

Ran, Adeo Cisco
 Comment Type T Comment Status D

"The 25GBASE-T1 return loss is illustrated in Figure 165-41"

Figure 165-41 does not illustrate a return loss of any link segment. It illustrates the limit imposed by equation 165-24.

SuggestedRemedy

Change "each 25GBASE-T1 link segment pair shall meet the values determined by using Equation (165-24) at all frequencies from 30 MHz to 9000 MHz" to "the return loss of a 25GBASE-T1 link segment shall meet Equation (165-24) as illustrated in Figure 165-44".

In the figure add a label "meets equation constraints" below the curve, and change the title to "Link segment return loss limit".

Delete the quoted sentence.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Changes per comment. Update PICS as needed.

Cl 165 SC 165.7.3.2 P119 L53 # 578

Ran, Adeo Cisco
 Comment Type E Comment Status D EZ

Unnecessary capitalization in "Echo Tail and Residual Echo Metrics". Also "Noise" in the subclause text.

SuggestedRemedy

Remove the unnecessary capitalization.

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.7.12.1 P124 L36 # 706

Jonsson, Ragnar Marvell
 Comment Type T Comment Status A post-deadline, 9GHz

The PSANEXT should be defined up to 9GHz

SuggestedRemedy

Change "4000" to "9000".

Response Response Status C
 ACCEPT.

Cl 165 SC 165.7.12.1 P125 L23 # 707

Jonsson, Ragnar Marvell
 Comment Type T Comment Status A post-deadline, 9GHz

The PSANEXT should be defined up to 9GHz

SuggestedRemedy

Expand Figure 165-43 from 4000MHz to 9000MHz.

Response Response Status C
 ACCEPT.

Cl 165 SC 165.7.12.2 P126 L6 # 708

Jonsson, Ragnar Marvell
 Comment Type T Comment Status A post-deadline, 9GHz

The PSAACRF should be defined up to 9GHz

SuggestedRemedy

Change "4000" to "9000".

Response Response Status C
 ACCEPT.

Cl 165 SC 165.7.12.2 P126 L31 # 709

Jonsson, Ragnar Marvell
 Comment Type T Comment Status A post-deadline, 9GHz

The PSAACRF should be defined up to 9GHz

SuggestedRemedy

Expand Figure 165-44 from 4000MHz to 9000MHz.

Response Response Status C
 ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.8.2.1 P126 L7 # 458

Brychta, Michal Analog Devices
 Comment Type T Comment Status A 10G, 9 GHz

The MDI return loss here is specified up to 10000 MHz. Most of the specifications in subclause 165.7 use frequency range up to 9000MHz. May it be better to unify the relevant frequency range upper end in 165.7 and 165.8 on the same number, or is there a reason why they should be different?

SuggestedRemedy

Use for relevant 165.7 and 165.8 specifications frequency range either up to 9000MHz, or up to 10000MHz.

Response Response Status C

ACCEPT IN PRINCIPLE.

In 165.8 change 10000 MHz to 9000 MHz

Cl 165 SC 165.8.2.1 P127 L4 # 465

Tu, Mike Broadcom
 Comment Type TR Comment Status D

Equation 165-44 for the MDI return loss is too restrictive for practical PHY designs. Also need to set the maximum frequency to 9GHz instead of 10GHz.

SuggestedRemedy

See proposed limits in "vakilian_3cy_01_08_16_2022.pdf"

Proposed Response Response Status W

PROPOSED REJECT.

I am unable to locate the referenced presentation

Cl 165 SC 165.8.2.1 P127 L Figure # 597

Stephan Schreiner Rosenberger Hochfrequenztechnik
 Comment Type E Comment Status D EZ

X-Axes Grid is very dense.

SuggestedRemedy

Using a frequency step of 500 MHz for the grid instead of 250 MHz.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.8.2.1 P127 L Figure # 598

Stephan Schreiner Rosenberger Hochfrequenztechnik
 Comment Type E Comment Status D EZ

There is a vertical blue line at the 0 MHz position.

SuggestedRemedy

Remove the vertical blue line at the 1 MHz position.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 165 SC 165.10 P129 L5 # 590

Ran, Adeo Cisco
 Comment Type T Comment Status D L

Here there are different maximum delay specifications depending on the "Interleave" parameter. Interleaving (or "L") is negotiated between the link partners and may be different in either direction, so is unknown in advance for a given device.

The purpose of this table (per the text preceding it: "network planners and administrators conform to constraints regarding the cable topology and concatenation of devices".

The normative requirement "The sum of the transmit and receive data delays for an implementation of the PHY shall not exceed the limits shown in Table 165-16" is irrelevant with different values of interleave in the transmit and receive directions. The maximum delay happens when both sides choose L=8; if it is known that in a specific link the choices are different, the constraints can be tightened.

Therefore it seems adequate to have a normative requirement only for the maximum delay of the PHY, which happens with L=8.

Text can be added to explain that the actual delay may be lower if either or both partners requests a lower value of L, assuming this information is available to network management.

SuggestedRemedy

Delete the first three rows in Table 165-16, leaving only the one with Interleave value of 8, and remove the "Interleave" column.

Add explanatory text as in the comment.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Delete the first three rows in Table 165-16, leaving only the one with Interleave value of 8, and remove the "Interleave" column.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.11.2.2 P130 L36 # 445
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 typo
 SuggestedRemedy
 Change: IEEE Std 802.3ch-2020,
 To: IEEE Std 802.3cy-202x,
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.11.2.2 P130 L36 # 591
 Ran, Adee Cisco
 Comment Type E Comment Status D EZ
 Incorrect amendment name.
 SuggestedRemedy
 Change "ch-2020" to "cy-202x".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.11.2.2 P130 L44 # 450
 Carlson, Steve HSD, Bosch, Ethernovia
 Comment Type E Comment Status D EZ
 Incorrect citation
 SuggestedRemedy
 Change: IEEE Std 802.3ch-2020,
 To: IEEE Std 802.3cy-202x,
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.11.4.1 P131 L39 # 592
 Ran, Adee Cisco
 Comment Type T Comment Status D EZ
 Item G3 status should be "IAN:M".
 SuggestedRemedy
 Per comment
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.11.4.2.5 P135 L30 # 722
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline
 Alert happens at the fifth frame after 8 frame boundary.
 SuggestedRemedy
 Change "beginning of" to "fifth frame after".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Comment type changed to non-R due to post-deadline status.

Cl 165 SC 165.11.4.2.6 P136 L6 # 731
 Jonsson, Ragnar Marvell
 Comment Type T Comment Status D post-deadline, partial frame
 Sleep signal should be composed of 16 RS frames
 SuggestedRemedy
 change "eight RS-FEC frame" to "sixteen RS-FEC frame"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

See comment #710 for justification

Comment type changed to non-R due to post-deadline status.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165 SC 165.11.4.2.8 P137 L1 # 446
 Wienckowski, Natalie General Motors
 Comment Type T Comment Status D EZ
 Table 149-1 has nothing to do with the OAM state diagrams.
 SuggestedRemedy
 Change: Table 149-1
 To: Figure 149-24
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.11.4.2.8 P137 L6 # 468
 Tu, Mike Broadcom
 Comment Type TR Comment Status D EZ
 The OAM state diagrams are shown in Figure 149-24 and Figure 149-25.
 SuggestedRemedy
 Change from "Table 149-1 and Figure 149-25" to "Figure 149-24 and Figure 149-25".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165 SC 165.11.4.3.3 P139 L10 # 339
 Maguire, Valerie Copperopolis
 Comment Type E Comment Status D EZ
 Interface is capitalized when appearing after "MDIO" (see clause 45 header).
 SuggestedRemedy
 Replace, "MDIO interface" with "MDIO Interface"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165A SC 165A P149 L1 # 444
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D EZ
 There is no Annex 165B.
 SuggestedRemedy
 Change: Insert new Annex 165A and Annex 165B as follows:
 To: Insert new Annex 165A as follows:
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165A SC 165A P149 L43 # 632
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 HTF used without definition in this Annex
 SuggestedRemedy
 replace 'HTF' with 'Host Test Fixture (HTF)'
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165A SC 165A.1 P149 L30 # 406
 Wienckowski, Natalie General Motors
 Comment Type T Comment Status D EZ
 The objective is 25 Gb/s up to 2 inline connectors for at least 11 m.
 The drawing is correct, but the text on the link segment in Figure 165A-1 is not.
 SuggestedRemedy
 Change: four in-line connectors
 To: two in-line connectors
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165A SC 165A.1 P149 L30 # 676
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type TR Comment Status D
 There are only 2 in-line connectors in a clause 165 link segment, the figure says 4. Also, the wording could be improved in the label.
 SuggestedRemedy
 Change "SPE P-to-P link segments four in-line connectors up to at least 11m" to "Clause 165 link segment (up to 2 in-line connectors and up to at least 11m length)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165A SC 165A.1 P149 L32 # 678
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type T Comment Status D
 It is not clear where the "PHY ends" in the figure - there is an interface point defined, but not labeled. It doesn't really matter in the figure though or to the content of the annex.
 SuggestedRemedy
 Suggest deleting the dotted vertical lines on the very left and right sides of the figure (the unlabeled interface plane)
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Cl 165A SC 165A.1 P149 L33 # 677
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type TR Comment Status D
 "Channel" is ambiguous (there are many different test points and reference losses in the annex), and is referenced differently in the text of 165A.3. Align the figure with the text.
 SuggestedRemedy
 Change "Channel" to "TP0 to TP5 Channel"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165A SC 165A.2.1 P150 L16 # 679
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type ER Comment Status D
 There are 3 different wordings for what is being recommended here, but they appear to be the same thing. "recommended maximum insertion loss for the Host PCB", "recommended printed circuit board insert loss", and "recommended maximum insertion loss" - it appears that these are all "recommended maximum insertion loss from TP0/TP5 to the host-side PCB connection of the MDI".
 SuggestedRemedy
 Change "The recommended maximum insertion for the Host PCB loss is" to "The recommended maximum insertion loss from TP0/TP5 to the host-side PCB connection of the MDI is" on line 16,
 Change "The recommended printed circuit board trace insertion loss is based on a 76.2 mm trace length. The recommended maximum insertion loss is" to "This maximum recommended loss is based on a 76.2 mm trace length, and is"
 Similarly change the wording on line 29 for the "recommended minimum insertion loss" on lines 27, 28, and 30
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165A SC 165A.2.1 P150 L25 # 680
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ
 font size problem in the frequency span, and missing period. Same problems on lines 25 and 36, and on page 151 line 2.
 SuggestedRemedy
 Fix the font size for "9000" and add a period to the end of the sentence. (3 instances)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165A SC 165A.2.1 P150 L32 # 633
 McClellan, Brett Marvell
 Comment Type T Comment Status D
 the Host PCB insertion loss should be greater than the minimum requirement
 SuggestedRemedy
 change <= to >=
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl 165A SC 165A.4 P151 L19 # 682
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type TR Comment Status D
 This section does NOT describe any 'Channel' return loss, but rather describes the models used for the Tx/Rx function to MDI return loss (equivalent of 149C.4.1).
 SuggestedRemedy
 Change the title of 165A.4 to "Example models for Tx/Rx function to MDI return loss"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165A SC 165A.4 P151 L20 # 681
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type T Comment Status D EZ, Figure 165A-3
 The figure referenced (149C-2) is identical to the figure (unreferenced) in the draft, and moreover, adds no value as it is a simple concatenation of words, already stated clearly in the text.
 SuggestedRemedy
 delete "illustrated in Figure 149C-2" and delete Figure 165A-3
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165A SC 165A.4 P151 L20 # 634
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ, Figure 165A-3
 incorrect reference
 SuggestedRemedy
 change 'Figure 149C-2' to 'Figure 165A-3'
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment #681

Cl 165A SC 165A.4 P151 L41 # 635
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 Element column entries should use subscripts
 SuggestedRemedy
 copy the subscript format from Table 149C-2, fix the micro symbol in the Unit column
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165A SC 165A.5 P152 L3 # 683
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type ER Comment Status D
 We removed the 'laning' but forgot it here.
 SuggestedRemedy
 Change "When multiple 25GBASE-T1 lanes/PHYs are implemented" to "When multiple ports of 25GBASE-T1 are implemented"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 165A SC 165A.5 P152 L6 # 684
 Zimmerman, George CME Consulting/APL Gp, Cisco, CommScope, Marve
 Comment Type E Comment Status D EZ
 we say 'specified' twice
 SuggestedRemedy
 Change "than that specified for power sum alien near-end crosstalk specified in" to "than that specified for power sum alien near-end crosstalk in"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Proposed Responses

IEEE P802.3cy D2.0 10G+ Auto Task Force Initial Working Group ballot comments

Cl **Particip** SC **Participants** P7 L11 # 353

Fischer, Peter BKS Kabel-Service AG

Comment Type **E** Comment Status **D** EZ

Till when will be Valerie Maguire listed as Working Group Treasurer?

SuggestedRemedy

If a new Working Group Treasurer is available replace with the correct name, if not wait till the term has been officially ended.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Apply current template.

Cl **TOC** SC **TOC** P13 L1 # 661

Murty, Ramana Broadcom

Comment Type **E** Comment Status **D** EZ

It is good to add a heading and provide a bookmark to the page.

SuggestedRemedy

Add the heading "Contents" and provide a bookmark to the page.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Apply the latest template

Cl **TOC** SC **TOC** P13 L10 # 662

Murty, Ramana Broadcom

Comment Type **E** Comment Status **D** EZ

Add space between subclause number and text.

SuggestedRemedy

Per comment

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Apply the latest template