Cl **FM** *SC* **FM** *P* **1** *L* **29** # 50

Grow, Robert Self

Comment Type **E** *Comment Status* **D** *(bucket1)*

Both cx and cz were approved during the March SASB meeting and should be referenced with the year 2023.

SuggestedRemedy

Replace "202x" with "2023" here and on page 12.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **FM** *SC* **FM** *P* **4** *L* **21** # 51

Grow, Robert Self

Comment Type **E** *Comment Status* **D** *(bucket1)*

This is not the current front matter.

SuggestedRemedy

Replace with current front matter.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Align front matter with latest 802.3 FrameMaker template.

Cl **FM** *SC* **FM** *P* **8** *L* **12** # 71

D'Ambrosia, John Futurewei, US Subsidiary of Huawei

Comment Type **ER** *Comment Status* **D** *(bucket1)*

Task Force Leadership not fully recognized

SuggestedRemedy

1. Modify
"Mark Nowell, IEEE P802.3df Task Force Vice Chair"
to
Mark Nowell, IEEE P802.3df Task Force Vice Chair, IEEE P802.3df "Optics"Sub-task Force Chair

2. Add
Kent Lusted, IEEE P802.3df "Electrical" Sub-task Force Chair
Mark Gustlin, IEEE P8023df "Architecture and Logic" Sub-task Force Chair

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement with editorial license.

Cl **FM** *SC* **FM** *P* **8** *L* **24** # 52

Grow, Robert Self

Comment Type **E** *Comment Status* **D** *(bucket1)*

The WG ballot group is now known, please fill in so that names can be reviewed.

SuggestedRemedy

Per comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **FM** *SC* **FM** *P* **8** *L* **42** # 72

D'Ambrosia, John Futurewei, US Subsidiary of Huawei

Comment Type **E** *Comment Status* **D** *(bucket1)*

Members of WG Ballot not added

SuggestedRemedy

Add WG Balloting List

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **FM** *SC* **FM** *P* **12** *L* **37** # 53

Grow, Robert Self

Comment Type **E** *Comment Status* **D** *(bucket1)*

This is not the self description of the approved D3.2 draft. The end of the sef description was changed when the original project was split adding P802.3dh. (Publication of IEEE Std 802.3cz-2023 is expected soon.)

SuggestedRemedy

"for optical automotive Ethernet using graded-index glass optical fiber."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement with editorial license.

Cl **FM** *SC* **FM** *P* **12** *L* **47** # 54

Dudek, Mike
Marvell

Comment Type **E** *Comment Status* **D** *(bucket1)*

IEEE Std 802.3-2022 has been published

SuggestedRemedy

Change 202x to 2022

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **1** *SC* **1.3** *P* **30** *L* **40** # 55

Dudek, Mike
Marvell

Comment Type **E** *Comment Status* **D** *(bucket1)*

"One fibre rows" is strange.

SuggestedRemedy

Check the reference and correct to "One fibre row" unless the reference does have this in its title.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
The referenced standard is currently in draft state. The title in the referenced draft has recently been corrected to say "One fibre row".
Change "rows" to "row".

Cl **1** *SC* **1.4.148i** *P* **31** *L* **44** # 24

Slavick, Jeff
Broadcom

Comment Type **TR** *Comment Status* **D** *(bucket1)*

Isn't it a 800GMII interface between the RS and either a PCS or Extender and an Extender and a PCS. This definition only lists RS to PCS.

SuggestedRemedy

The interface used between the Reconciliation Sublayer (RS), Media Independent Interface Extender Sublayer (XS) and the Physical Coding Sublayer (PCS) for 800 Gb/s operation

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The 800GMII is indeed an interface between the RS and the PCS. The 800GMII extender, as its name implies, extends the reach of the 800GMII to a PCS that is not colocated with the MAC/RS.

Cl **1** *SC* **1.4.184h** *P* **31** *L* **37** # 56

Dudek, Mike
Marvell

Comment Type **E** *Comment Status* **D** *(bucket1)*

The editors note has served its purpose

SuggestedRemedy

delete the editors note

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.
[Editor's note: Changed page from 33 to 31]

Cl **1** *SC* **1.4.184k** *P* **32** *L* **1** # 47

Brown, Matt
Huawei

Comment Type **E** *Comment Status* **D** *(bucket1)*

No such thing as "800 Gb/s Extender Sublayer". See 171.1.

SuggestedRemedy

Change "800 Gb/s Extender Sublayer" to "800GMII Extender Sublayer"
Also in 1.5, page 32, line 32

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **1** *SC* **1.4.461** *P* **32** *L* **18** # 31

Huber, Tom
Nokia

Comment Type **E** *Comment Status* **D** *(bucket1)*

The text has a comma splice

SuggestedRemedy

Change "...the PCS distributes data to multiple logical lanes, these logical lanes are called PCS lanes." to "…the PCS distributes data to multiple logical lanes that are called PCS lanes."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
The sentence as written is grammatically incorrect.
Implement the suggested remedy with editorial license.

Cl **4** *SC* **4.4.2** *P* **33** *L* **32** # 41

Schreiner, Stephan — Rosenberger Hochfrequenztechnik GmbH & Co. KG

Comment Type **E** *Comment Status* **D** *(bucket1)*

in minFrameSize for 2.5 GB/s, 5 GB/s,... is a line break after 512 bits, which might be caused by a different column width

SuggestedRemedy

Inrease width of column to match the size of the other columns from the MAC data rate

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.7.5** *P* **40** *L* **14** # 1

Hajduczenia, Marek — Charter Communications

Comment Type **E** *Comment Status* **D** *(bucket1)*

list uses “.” instead of “,” in edited list “100GBASE-KR1, 200GBASE-KR2, 400GBASE-KR4. 800GBASE-KR8"

SuggestedRemedy

Change “.” to “,” before newly added entry. Same on line 19. The same applies to Table 45-12

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.3.25** *P* **60** *L* **1** # 17

Slavick, Jeff — Broadcom

Comment Type **TR** *Comment Status* **D** *(bucket1)*

Listing the number of PCS lanes for each PCS type in Clause 45 just adds duplication of information provided in the actual PCS clause. This text is likely to get stale or not updated as new rates or PCS configurations are added.

SuggestedRemedy

Remove the last paragraph that begins with Clause 82

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.
[Editor's note: change page/line from 0/0 to 60/1]

Cl **45** *SC* **45.2.3.25** *P* **60** *L* **1** # 30

Slavick, Jeff — Broadcom

Comment Type **TR** *Comment Status* **D** *(bucket1)*

The second paragraph is not necessary and just make for more work in the future. The first paragraph provides references to all the necessary registers for the maximal width PCS and states the unused lanes for thinner PCS's are to to return 0.

SuggestedRemedy

Remove the last paragraph of 45.2.3.25
Remove the last paragraph of 45.2.4.15
Remove the last paragraph of 45.2.5.15

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.3.25.1** *P* **60** *L* **14** # 18

Slavick, Jeff — Broadcom

Comment Type **TR** *Comment Status* **D** *(bucket1)*

Including the PCS rate when defining which variable is extraneous information. Just provide the clauses those given variable and the clause numbers.

SuggestedRemedy

Change the last sentence to read "This bit reflects the state of am_lock[0] or amps_lock[0] (see 82.2.19.2.2, 119.2.6.2.2, or 172.2.6.2.2)."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change to: "This bit reflects the state of am_lock[0] (see 82.2.19.2.2) or amps_lock[0] (see 119.2.6.2.2 and 172.2.6.2.2)."
[Editor's note: changed page/line from 0/0 to 60/14]

Cl **45** *SC* **45.2.3.48a** *P* **62** *L* **43** # 19

Slavick, Jeff — Broadcom

Comment Type **TR** *Comment Status* **D** *(bucket1)*

The clause 45 registers are containers for information the other clauses have. Whether a counter exists is functional Clause dependency not a Clause 45 dependency.

SuggestedRemedy

Remove the word "optional" in the second sentence

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.
[Editor's note: changed page/line from 0/0 to 62/43]

Cl **45** SC **45.2.4.15** P **68** L **36** # 20

Slavick, Jeff Broadcom

Comment Type **TR** *Comment Status* **D** *(bucket1)*

Including the PCS rate when defining which variable is extraneous information. Just provide the clauses those given variable and the clause numbers.

SuggestedRemedy

Change the last sentence to read "This bit reflects the state of amps_lock[0] (see 119.2.6.2.2, or 172.2.6.2.2)."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change to: "This bit reflects the state of amps_lock[0] (see 119.2.6.2.2 and 172.2.6.2.2)."
Make similar change in 45.2.5.15.1

[Editor's note: changed page/line from 0/0 to 60/1]

Cl **45** SC **45.2.4.15** P **68** L **47** # 21

Slavick, Jeff Broadcom

Comment Type **TR** *Comment Status* **D** *(bucket1)*

Listing the number of PCS lanes for each PCS type in Clause 45 just adds duplication of information provided in the actual PCS clause. This text is likely to get stale or not updated as new rates or PCS configurations are added.

SuggestedRemedy

Remove the last paragraph that begins with Clause 119

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

[Editor's note: changed page/line from 0/0 to 68/47]

Cl **45** SC **45.2.4.16a** P **71** L **45** # 23

Slavick, Jeff Broadcom

Comment Type **TR** *Comment Status* **D** *(bucket1)*

The clause 45 registers are containers for information the other clauses have. Whether a counter exists is functional Clause dependency not a Clause 45 dependency.

SuggestedRemedy

Remove the word "optional" in the second sentence

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

[Editor's note: changed page/line from 0/0 to 71/45]

Cl **45** SC **45.2.5.16a** P **81** L **45** # 22

Slavick, Jeff Broadcom

Comment Type **TR** *Comment Status* **D** *(bucket1)*

The clause 45 registers are containers for information the other clauses have. Whether a counter exists is functional Clause dependency not a Clause 45 dependency.

SuggestedRemedy

Remove the word "optional" in the second sentence

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

[Editor's note: changed page/line from 0/0 to 81/45]

Cl **45** SC **45.2.5.16a** P **81** L **49** # 11

Ewen, John Independent

Comment Type **E** *Comment Status* **D** *(bucket1)*

Beginning of sentence refers to registers 4.300 to 4.302; however, the subclause is defining registers 5.300 to 5.302

SuggestedRemedy

Change 4.300 - 4.302 to 5.300 - 5.302 respectively in first sentence of second sub-clause paragraph.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **93A** SC **93A.1** P **245** L **54** # 9

Lusted, Kent Intel Corporation

Comment Type **TR** *Comment Status* **D** *(bucket1)*

Table 93A "Physical Layer specificiations that employ COM" in the base document, as amended by Std 802.3ck-2022, does not contain entries for the new 800GbE rates.

SuggestedRemedy

Update the table to include the following Physical Layer references and Parameter values:
800GAUI-8 C2C (Annex 120F) | Table 120F-8
800GBASE-CR8 (Clause 162) | Table 162-20
800GBASE-KR8 (Clause 163) | Table 163-11

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Add Annex 93A to the draft.
In 93A.1 add the instruction "Change Table 93A–2 (as amended by 802.3ck-2022) as follows (some unmodified rows not shown):"
Insert rows per the suggested remedy, after the last row for 400GAUI-4 C2C (Annex 120F).
Implement with editorial license.

Cl **120** *SC* **120.5.11.2** *P* **98** *L* **13** # 15

Ran, Adee Cisco

Comment Type **T** *Comment Status* **D** *(bucket1)*

"All test patterns specified in 120.5.11.2.1, 120.5.11.2.2, 120.5.11.2.3, and 120.5.11.2.4 are defined without precoding."
This should also include 120.5.11.2.a (PRBS9Q test pattern added in 802.3ck).

SuggestedRemedy

Add 120.5.11.2.a.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **124** *SC* **124.5.4** *P* **106** *L* **10** # 42

Schreiner, Stephan Rosenberger Hochfrequenztechnik GmbH & Co. KG

Comment Type **E** *Comment Status* **D** *(bucket1)*

Missing Bracket 3x"(" but only 2x")"

SuggestedRemedy

Insert Bracket at the End of Line 11

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **124** *SC* **124.8.1** *P* **115** *L* **8** # 3

Nicholl, Shawn AMD

Comment Type **T** *Comment Status* **D** *test pattern (bucket1)*

The Pattern column for the Wavelength row contains text "Square wave, 3, 4, 5, 6, or valid 400GBASE-R signal, or 800GBASER signal". Currently, it seems that the word valid is only applied to the 400GBASE-R signal, and not to the 800GBASE-R signal.

SuggestedRemedy

Propose "Square wave, 3, 4, 5, 6, or valid 400GBASE-R signal, or valid 800GBASER signal".

Similar comment for rows pertaining to "Side mode suppression ratio" parameter and to "Average optical power" parameter.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change to "Square wave, 3, 4, 5, 6, or valid 400GBASE-R or 800GBASE-R signal".
Implement with editorial license.
See comment #94.

Cl **124** *SC* **124.12.2** *P* **123** *L* **42** # 87

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *(bucket1)*

Missing 124.12.3 Major capabilities/options

SuggestedRemedy

Add major options for the four PMD types

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #45.

Cl **124** *SC* **124.12.4** *P* **124** *L* **11** # 45

Brown, Matt Huawei

Comment Type **E** *Comment Status* **D** *(bucket1)*

In 124.12.4.3a/b/c the PICS item nicknames DR1 and DR2 are repeated. Also, the status variable is not defined and a different variable will need to be defined for each PMD type.

SuggestedRemedy

In 124.12.3 create status lable (like "*MD") for each PMD type.
In 124.12.4.3, 124.12.4.3a, 124.12.4.3b, and 124.12.4.3c...
- change the item labels such that they are unique
- update the status with the new status variables

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement proposed remedy with editorial license.

Cl **124** *SC* **124.12.4.** *P* **125** *L* **35** # 92

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *(bucket1)*

Need PICS for the 800G MDIs because the IEC connector reference is different to 400G, and there is an interface performance spec.

SuggestedRemedy

Per comment

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement proposed remedy with editorial license

Cl **124** *SC* **124.12.4.1** *P* **124** *L* **3** # 88

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *(bucket1)*

F1 Compatible with 400GBASE-R PCS and PMA

SuggestedRemedy

Modify to include 800G

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement proposed remedy with editorial license

Cl **124** *SC* **124.12.4.3a** *P* **124** *L* **11** # 89

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *(bucket1)*

Presumably the "status" criterion in each of these four tables in 124.12.4.3X will be adjusted to the PMD type major options. Also, they could be combined as one table in one subclause: "400GBASE-DR4-2 transmitter meets specifications in" and so on.

SuggestedRemedy

Per comment

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve the comment using the response to comment #45

Cl **124** *SC* **124.12.4.4** *P* **125** *L* **1** # 90

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *(bucket1)*

This subclause title "Optical measurement methods" represents the obsolete thinking that we specify testing, which we don't; we specify parameter limits and explain what the parameters are and how they might be determined by measurement. We started to move away from this in Clause 52, where this subclause was called "Optical measurement requirements", matching 52.9. But 124.8 is called "Definition of optical parameters and measurement methods"

SuggestedRemedy

Change "Optical measurement methods" to "Optical parameters and measurement methods".

Proposed Response *Response Status* **W**

PROPOSED REJECT.
This title is consistent with similar clauses, e.g. Clause 151. The title of this subclause is also consistent with the PICS items listed in the table.

Cl **124** *SC* **124.12.4.4** *P* **125** *L* **21** # 91

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *(bucket1)*

The status of OM9 to OM12 should depend on the major option for PMD type

SuggestedRemedy

Per comment

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #45.

Cl **162** *SC* **162.14.4.2** *P* **139** *L* **52** # 7

Lusted, Kent Intel Corporation

Comment Type **TR** *Comment Status* **D** *(bucket1)*

The PICS table for "PMD control function" the base document, as amended by Std 802.3ck-2022, has an incorrect reference to the relevant subclause for the training pattern entries due to the addition of the new item (h) in 3df 162.6.11 and the new sub-clause 162.8.11.1, including Table 162-10a.

SuggestedRemedy

Update 162.14.4.2 PMD Control Function PICS items as follows:
For Item 'PC2':
- update the subclause to be 162.8.11.1
- update value/comment to reference Table 162-10a

For Item 'PC3':
- update the subclause to be 162.8.11.1

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Add 162.14.4.2 from the base document and amend table items PC2 and PC3 per the suggested remedy.

Cl **163** *SC* **163.13.4.2** *P* **148** *L* **52** # 8

Lusted, Kent — Intel Corporation

Comment Type **TR** *Comment Status* **D** *(bucket1)*

The PICS table for "PMD control function" the base document, as amended by Std 802.3ck-2022, has an incorrect reference to the relevant subclause for the training pattern entries due to the addition of the new item (h) in 3df 162.6.11 and the new sub-clause 162.8.11.1, including Table 162-10a.

SuggestedRemedy

Update 163.13.4.2 PMD Control Function PICS items as follows:
For Item 'PC2':
- update the subclause to be 162.8.11.1
- update value/comment to reference Table 162-10a

For Item 'PC3':
- update the subclause to be 162.8.11.1

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Add 163.13.4.2 from the base document and amend table items PC2 and PC3 per the suggested remedy.

Cl **167** *SC* **167.1.1** *P* **151** *L* **40** # 93

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *(bucket1)*

Clause 173 and then Clause 172

SuggestedRemedy

Could be simplified to: Clause 173 then Clause 172

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The wording is consistent with multiple similar subclauses from IEEE Std 802.3-2022 including 122.1.1, 124.1.1 and 151.1.1.
The proposed change does not improve accuracy or clarity of the draft.

Cl **167** *SC* **167.8.1** *P* **159** *L* **9** # 94

Dawe, Piers — Nvidia

Comment Type **T** *Comment Status* **D** *test pattern (bucket1)*

For the transmitter, we aren't talking about an optical signal but the pattern the transmitter is transmitting, which does not depend on V vs. S. It is not stated what "valid" means. One could assume it means the same as compliant, in which case it adds nothing. This table entry has become very long.
We can simplify:
3, 4, 5, 6, or valid 100GBASE-VR1, 200GBASE-VR2, 400GBASE-VR4, 800GBASE-VR8, 100GBASE-SR1, 200GBASE-SR2, 400GBASE-SR4, or 800GBASE-SR8 signal
to
3, 4, 5, 6, or 100GBASE-R1, 200GBASE-R2, 400GBASE-R4 or 800GBASE-R8 signal
Surprisingly, we have not used the term "800GBASE-R8" although in Section 6 we have 100GBASE-R10 and 100GBASE-R4. Such names will be useful for describing PMAs and AUIs, increasingly so as we work on 200G/lane in P802.3dj.

SuggestedRemedy

Change:
3, 4, 5, 6, or valid 100GBASE-VR1, 200GBASE-VR2, 400GBASE-VR4, 800GBASE-VR8, 100GBASE-SR1, 200GBASE-SR2, 400GBASE-SR4, or 800GBASE-SR8 signal
to
3, 4, 5, 6, or 100GBASE-R1, 200GBASE-R2, 400GBASE-R4, 800GBASE-R8, signal

Similarly for Average optical power.
For Stressed receiver sensitivity, just delete "valid". The SRS signal is on the edge of non-compliance anyway, by definition.
Define 100GBASE-R1, 200GBASE-R2, 400GBASE-R4, 800GBASE-R8 in the PMA clauses or introductory clauses 80, 116, 169.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
The wording should be improved. Use similar wording as Table 124-10.
In Table 167-11 change
"or valid 100GBASE-VR1, 200GBASE-VR2, 400GBASE-VR4, 800GBASE-VR8, 100GBASE-SR1, 200GBASE-SR2, 400GBASE-SR4, or 800GBASE-SR8 signal"
to
"or valid 100GBASE-R, 200GBASE-R, 400GBASE-R, or 800GBASE-R signal"

Cl **167** *SC* **167.10.3.4** *P* **165** *L* **1** # 95

Dawe, Piers Nvidia

Comment Type **TR** *Comment Status* **D** *(bucket1)*

A dual-row 24-position connector was recommended for 100GBASE-SR10, long ago. 400GBASE-SR8 has two options: a dual-row twelve-fiber interface (although different positions are used) and a single-row sixteen-fiber interface. Since then, the sixteen-fiber approach has become established.
With the higher bandwidth for 800GBASE-SR8 vs. 400GBASE-SR8, the advantage of a single-row angled connector is more important.

SuggestedRemedy

Delete Option A, the dual-row 24-position non-angled connector.
Update PICS accordingly.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
This issue was previous addressed in D1.0 comment #146, https://www.ieee802.org/3/df/comments/D1p0/8023df_D1p0_comments_final_clause.pdf, and D1.1 comment #115, https://www.ieee802.org/3/df/comments/D1p1/8023df_D1p1_comments_final_clause.pdf, and in both cases the task force decided to retain the dual-row, twelve fiber connector option.
The comment does not provide sufficient justification to support the suggested remedy.

Cl **167** *SC* **167.10.3.4** *P* **165** *L* **14** # 58

Dudek, Mike Marvell

Comment Type **T** *Comment Status* **D** *(bucket1)*

The option B uses the angled interface which is depicted in Figure 167-10 not Figure 167-9

SuggestedRemedy

Change Figure 167-9 to 167-10

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **167** *SC* **167.11.4.6** *P* **168** *L* **35** # 59

Dudek, Mike Marvell

Comment Type **E** *Comment Status* **D** *(bucket1)*

OC17 appears to be identical to OC16 except in the status column.

SuggestedRemedy

Label one of these with Option A and one with Option B

Proposed Response *Response Status* **W**

PROPOSED REJECT.
While they may look similar, OC16 applies to flat fiber interfaces and OC17 applies to angled fiber interfaces. "!AFI" in OC16 means not angled or flat and "AFI" in OC17 means angled. This aligns with OC8 and OC9 of 167.11.4.6 of IEEE Std 802.3db-2022.

Cl **169** *SC* **169.5** *P* **180** *L* **31** # 97

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *(bucket1)*

Table layout

SuggestedRemedy

Adjust column widths

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There are no apparent issues with the layout of Table 169-6.
The comment does not provide sufficient justification to make any changes to the draft.

Cl **170** *SC* **170.4.4.2** *P* **187** *L* **3** # 98

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *(bucket1)*

Broken variable name

SuggestedRemedy

Make second column slightly wider

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **171** *SC* **171.1** *P* **189** *L* **11** # 44

Brown, Matt — Huawei

Comment Type **E** *Comment Status* **D** *(bucket1)*

Description of Extender implies it has only one 800GAUI-n, but it can also have two. Also, by definition 800GAUI-n is a physical instantiations so a bit superfluous.

SuggestedRemedy

Change "The 800GMII Extender is composed of a DTE 800GXS at the RS end, and a PHY 800GXS at the PHY end with a physical instantiation of 800GAUI-n between two adjacent PMA sublayers."
To:
"The 800GMII Extender is composed of a DTE 800GXS at the RS end, and a PHY 800GXS at the PHY end with one or two 800GAUI-n between."
Align definition in 1.4.184j.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **171** *SC* **171.1** *P* **190** *L* **22** # 67

D'Ambrosia, John — Futurewei, US Subsidiary of Huawei

Comment Type **TR** *Comment Status* **D** *(bucket1)*

The definition of the OSI Physical Layer is incorrect as shown in Fig 171-1. The medium is not part of the Physical Layer

SuggestedRemedy

modify Fig 171-1 to show the Physical Layer bottom border at the bottom of the MDI

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **171** *SC* **171.2** *P* **190** *L* **46** # 99

Dawe, Piers — Nvidia

Comment Type **TR** *Comment Status* **D** *(bucket1)*

I don't see any the modification to the FEC degrade signaling in 171.5. It might be different to the 400GBASE-R PCS, but here we are comparing it to the 800GBASE-R PCS. I thought we sorted this out last time.

SuggestedRemedy

Delete "with the modified FEC degrade signaling defined in 171.5"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement with editorial license.
Change the reference of "171.5" to "118.2.1" in 171.2; and change the reference of "171.5" to "118.2.2" in 171.3.

Cl **171** *SC* **171.3** *P* **192** *L* **15** # 4

Nicholl, Shawn — AMD

Comment Type **TR** *Comment Status* **D** *(bucket1)*

Figure 171-2 "Functional block diagram for the PHY 800GXS" shows "Flow <n> Rx" labels in the transmit path of the PHY 800GXS and likewise shows "Flow <n> Tx" labels in the receive path. This introduces confusion.

SuggestedRemedy

Propose one of the following solutions:
* Update the diagram. In the transmit path of the PHY 800GXS (i.e. direction from PMA to 800GMII), use labels "Flow 0 Tx" and "Flow 1 Tx". In the receive path of the PHY 800GXS (i.e. direction from 800GMII to PMA), use labels "Flow 0 Rx" and "Flow 1 Rx". The problem with this proposal is that it contradicts the PICS tables (which for example, indicate that the "171.8.4.1 Transmit function" of the 800GXS includes a 64B/66B to 256B/257B transcoder).
* Update the diagram. Remove the Tx/Rx in the dotted area. Replace "Flow 0 Tx" with "Flow 0". Replace "Flow 1 Tx" with "Flow 1". Replace "Flow 0 Rx" with "Flow 0". Replace "Flow 1 Rx" with "Flow 1". If this solution is chosen, propose to apply similar solution to Figure 172-2 "Functional block diagram".
* Remove the diagram. Since the diagram is effectively an inverted replica of Figure 172-2 "Functional block diagram", rely on the text (in the same manner that 118.1.2 "200GXS/400GXS Sublayer" was able to rely on text without a new diagram).

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #5.

Cl **171** *SC* **171.6** *P* **194** *L* **26** # 43

Brown, Matt — Huawei

Comment Type **E** *Comment Status* **D** *(bucket1)*

The PMA above the PMD may not be an 800GBASE-R PMA (per Clause 173) and the PMA may not have 8 lanes.

SuggestedRemedy

For the PMA immediately above the PMD change "PMA (32:8)" to "PMA".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **171** *SC* **171.6** *P* **194** *L* **35** # 48

Brown, Matt — Huawei

Comment Type **E** *Comment Status* **D** *(bucket1)*

No such thing as "800 Gb/s Extender Sublayer". See 171.1.

SuggestedRemedy

Change "800 Gb/s EXTENDER SUBLAYER" to "800GMII EXTENDER SUBLAYER"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **171** *SC* **171.8.4.3** *P* **201** *L* **8** # 32

Huber, Tom — Nokia

Comment Type **E** *Comment Status* **D** *(bucket1)*

It is not clear why the coding rules PICS items jump from C6 to C9; the set of items is the same as what is in clause 118, which numbers them sequentially.

SuggestedRemedy

Change the numbering of C9 through C11 to C7 through C9, respectively.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **172** *SC* **172.1.5** *P* **204** *L* **14** # 5

Nicholl, Shawn — AMD

Comment Type **TR** *Comment Status* **D** *(bucket1)*

Figure 172.1.5 "Functional block diagram" contains a functional diagram of the 800G PCS. Currently, the diagram shows "Flow <n> Tx" labels in the transmit path and likewise shows "Flow <n> Rx" labels in the receive path. When/If this diagram is re-used for 800GXS it may cause confusion.

SuggestedRemedy

Propose to update the diagram. Remove the Tx/Rx in the dotted area. Replace "Flow 0 Tx" with "Flow 0". Replace "Flow 1 Tx" with "Flow 1". Replace "Flow 0 Rx" with "Flow 0". Replace "Flow 1 Rx" with "Flow 1". See similar comment against Figure 171-2 "Functional block diagram for the PHY 800GXS" in sub-clause 171.3 and apply consistent solution.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Remove the "Tx" and "Rx" from the labels inside the dotted boxes in Fig 172-2 and in Fig 171-2.
Implement with editorial license.

Cl **172** *SC* **172.2** *P* **205** *L* **1** # 100

Dawe, Piers — Nvidia

Comment Type **ER** *Comment Status* **D** *(bucket1)*

This title "Physical Coding Sublayer (PCS)" is as good as the same as the main clause title "Physical Coding Sublayer (PCS), type 800GBASE-R" which can't be right.

SuggestedRemedy

Change this to "Functions within the PCS", change 172.2.1 to "Overview of functions within the PCS", "Functions and processes within the PCS" or similar.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change title of 172.2 from "Physical Coding Sublayer (PCS)" to "PCS functions". Change title of 172.2.1 to "Overview".

Cl **172** *SC* **172.2.1** *P* **205** *L* **19** # 33

Huber, Tom — Nokia

Comment Type **E** *Comment Status* **D** *(bucket1)*

The word block is overloaded in this paragraph, which discusses 66-, 257-, and 5140-bit blocks, and also uses 'block' to refer to the processes (called functional blocks) in Figure 172-2.

SuggestedRemedy

In the second sentence, change "encode and rate matching block" to "encode and rate matching functional block" or "encode and rate matching process".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change from: "block in Figure 172–2."
To: "function shown in Fig 172-2".

Cl **172** *SC* **172.2.1** *P* **205** *L* **33** # 34

Huber, Tom Nokia

Comment Type **E** *Comment Status* **D** *(bucket1)*

The sentences describing AM lock, reordering, deskewing could be written more clearly.

SuggestedRemedy

Change
It attains alignment marker lock based on the common marker (CM) portion that is periodically transmitted on every PCS lane. After alignment markers are found on all PCS lanes, the individual PCS lanes are identified using the unique marker portion (UM) and then reordered, reordered and deskewed, and the align_status flag is set..
to
It attains alignment marker lock based on the common marker (CM) portion of the alignment markers that are periodically transmitted on every PCS lane and identifies individual PCS lanes using the unique marker portion (UM) or the alignment makers. The PCS lanes are then reordered and deskewed, and the align_status flag is set..

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change from: "It attains alignment marker lock based on the common marker (CM) portion that is periodically transmitted on every PCS lane. After alignment markers are found on all PCS lanes, the individual PCS lanes are identified using the unique marker portion (UM) and then reordered and deskewed, and the align_status flag is set.."
To: "It attains alignment marker lock based on the common marker (CM) portion of the alignment markers that are periodically transmitted on every PCS lane and identifies individual PCS lanes using the unique marker (UM) portion of the alignment marker. The PCS lanes are then reordered and deskewed, and the align_status flag is set."

Cl **172** *SC* **172.2.3** *P* **206** *L* **1** # 101

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *(bucket1)*

Same topic, very short subclauses

SuggestedRemedy

Make 172.2.3, 172.2.2.1, or remove this subheading and change the title of 172.2.2 to " 66-bit blocks and the 64B/66B code" or similar.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The sub-clauses 172.2.2 and 172.2.3 are consistent with the subclauses in Clause 119, where 119.2.2 is "Use of blocks" and 119.2.3 is "64B/66B code". In this case, maintaining consistency with Clause 119 is beneficial for readers, while a short subclause does not impact readability of the clause.
The proposed change does not improve the clarity or accuracy of the draft.

Cl **172** *SC* **172.2.4.1.1** *P* **206** *L* **44** # 103

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **D** *(bucket1)*

If it's OK to combine criteria in the second column it's OK in the third column

SuggestedRemedy

Combine rows 3 and 4, combine rows 5 and 6

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The same change was suggested in D1.1 comment # 20. At that time there was no consensus to make the change. (https://www.ieee802.org/3/df/comments/D1p1/8023df_D1p1_comments_final_id.pdf). The table is correct as written. The comment does not provide any new justification to support the suggested remedy.

Cl **172** *SC* **172.2.4.4** *P* **207** *L* **20** # 106

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *(bucket1)*

Instead of 0 to 31, t might be better to number the lanes 0.0 to 0.15, 1.0 to 1.15

SuggestedRemedy

Per comment

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The clause clearly differentiates between PCS lanes 0-15 as belonging to flow 0 and 16-31 to flow 1. The draft is technically correct as written. The suggested remedy does not improve the accuracy or clarity of the draft.

Cl **172** *SC* **172.2.4.4** *P* **207** *L* **27** # 105

Dawe, Piers Nvidia

Comment Type **ER** *Comment Status* **D** *(bucket1)*

Please don't make work for your readers

SuggestedRemedy

Add an informative NOTE saying what is common among these lanes, what is the same for the two flows, and what is the same in 400G.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
172.2.2.4.4 states clearly what is same as in Cl119 400GBASE-R and the exceptions are called out. There are two tables which show the different AM encoding for the two flows. No sufficient justification to make changes in the suggested remedy.

Cl **172** *SC* **172.2.4.4** *P* **208** *L* **7** # 104

Dawe, Piers Nvidia

Comment Type **ER** *Comment Status* **D** *(bucket1)*

This table is very hard to use. The next is split over two pages

SuggestedRemedy

Make the headings line up with the ~columns, e.g. by inserting spaces.
Combine the two tables, adjusting the text on the previous page. The PCS lane numbers are unique, but sub-heading rows or another column indication flow 0 and flow 1 can be used.
Use the orphan rows property to ensure the table is not split.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The formating of the tables is identical to Clause 119. The table titles show the flow number (flow0 or flow1). The comment does not provide sufficient justification to make a change to the draft. Nor do the proposed changes improve the clarity or accuracy of the draft.

Cl **172** *SC* **172.2.4.9** *P* **210** *L* **48** # 36

Huber, Tom Nokia

Comment Type **T** *Comment Status* **D** *(bucket1)*

It's more clear to say the test pattern is the result of the MII being a continuous stream of Idle characters (which the PCS will then turn into blocks, etc.).

SuggestedRemedy

Change the last sentence of the first paragraph from
The scrambled idle test pattern is the output of the PCS when the input to the PCS at the 800GMII is a control block with all idle characters.
To
The scrambled idle test pattern is the output of the PCS when the input to the PCS at the 800GMII is a contiuous stream of idle characters.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

The text incorrect refers to a "control block" at the 800GMII. The suggested remedy is an improvement, but should be more specifically referring to "idle control characters".
Change:
"The scrambled idle test pattern is the output of the PCS when the input to the PCS at the 800GMII is a control block with all idle characters."
To:
"The scrambled idle test pattern is the output of the PCS when the input to the PCS at the 800GMII is composed only of idle control characters."

Cl **172** *SC* **172.2.6.3** *P* **214** *L* **15** # 38

Huber, Tom Nokia

Comment Type **E** *Comment Status* **D** *(bucket1)*

It appears that the only difference between figure 119-3 and figures 172-5 and 172-6 is that figure 119-3 has been split into two parts because the part shown in figure 172-6 is done separately for each flow. It would be helpful if that was more clear in the bullet points that describe the exceptions.

SuggestedRemedy

Change:
— The PCS synchronization process is depicted in Figure 172–5 and Figure 172–6, instead of in Figure 119–13.
— The monitor for three consecutive uncorrectable FEC codewords (see Figure 172–6) is done independently within each flow.
To:
— The PCS synchronization process is depicted in Figure 172–5 and Figure 172–6, which are derived by splitting Figure 119–13 into two parts to better illustrate that the monitor for three consecutive uncorrectable FEC codewords (see Figure 172–6) is done independently within each flow.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The text in 172.2.6.3 is listing the exceptions to the state diagrams in 119.2.6.3. The draft is technically correct as written. The suggested remedy does not add to the clarity of the draft.

Cl **172** *SC* **172.7.4.3** *P* **222** *L* **21** # 39

Huber, Tom Nokia

Comment Type **E** *Comment Status* **D** *(bucket1)*

It appears that Items C7-C9 are omitted here because in clause 119 they are used for EEE-related rules, which are not relevant to 800G - but the remaining items should have been renumbered.

SuggestedRemedy

Change the numbering of C9 through C11 to C7 through C9, respectively.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement the suggested remedy in 172.7.4.3 and 171.8.4.3 with editorial license.

Cl **173** *SC* **173.1** *P* **226** *L* **26** # 49

Brown, Matt — Huawei

Comment Type **E** *Comment Status* **D** *(bucket1)*

No such thing as "800 Gb/s Extender Sublayer". See 171.1.

SuggestedRemedy

Change "800 Gb/s EXTENDER SUBLAYER" to "800GMII EXTENDER SUBLAYER"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **173** *SC* **173.3** *P* **227** *L* **26** # 60

Maguire, Valerie — Copperopolis

Comment Type **E** *Comment Status* **D** *(bucket1)*

Use a non-breaking space between figures and abbreviations

SuggestedRemedy

Use a non-breaking space between "53.125" and "GBd".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **173** *SC* **173.4.2.1** *P* **232** *L* **15** # 2

Nicholl, Shawn — AMD

Comment Type **T** *Comment Status* **D** *(bucket1)*

In 173.4.2.1 "32:8 PMA bit-level multiplexing" the word "contain" is used which is inconsistent with referenced 120.5.2 "Bit-level multiplexing".

SuggestedRemedy

Propose to replace "contain" with "carries", so the sentence reads "... each of the 8 output lanes carries two PCSLs from ...". Using the word "carries" emphasizes that each lane is carrying a stream of bits.

Propose to make the same change in 173.4.2.2 "8:32 PMA bit-level multiplexing".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Implement the proposed changes in the suggested remedy.

Cl **173** *SC* **173.4.3.1** *P* **233** *L* **26** # 102

Dawe, Piers — Nvidia

Comment Type **T** *Comment Status* **D** *(bucket1)*

On further investigation: this must be output not generate. If there are multiple PMAs they share this limit, as is made clear for the receive direction.

SuggestedRemedy

Per comment

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
In checking with similar subclauess in Clause 120 a number of different terms are used in this context, including "produce" and "deliver". "produce" is probably the better term , because the skew between lanes at the output of a PMA is a combination of skew between lanes at the input of the PMA and any additional skew that is internally generated by the PMA itself.
Change from:
"shall generate no more than 29 ns of Skew between PCSLs toward the 800GAUI-8"
to:
"shall produce no more than 29 ns of Skew between PCSLs toward the 800GAUI-8"
This change makes the wording consistent with 120.5.3.1.

Cl **173** *SC* **173.6.5** *P* **241** *L* **15** # 40

Huber, Tom — Nokia

Comment Type **E** *Comment Status* **D** *(bucket1)*

The status column should be reformatted so the items are not spilling over lines

SuggestedRemedy

Reformat so that the items are not split across lines

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement the suggested remedy with editorial license.

Cl **173A** *SC* **173A** *P* **276** *L* **28** # 46

Brown, Matt — Huawei

Comment Type **E** *Comment Status* **D** *(bucket1)*

No such thing as "800 Gb/s Extender Sublayer". See 171.1.

SuggestedRemedy

Change "800 Gb/s EXTENDER SUBLAYER" to "800GMII EXTENDER SUBLAYER"
Also in Figure 173-4, page 277, line 31.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.