Cl **45**　　　*SC* **45.2.1.135**　　　*P* **45**　　　*L* **29**　　　# 16

Ran, Adee　　　　　　　　　　　Cisco

Comment Type　**TR**　　　*Comment Status*　**D**　　　*TX EQ register (bucket2)*

Registers 1.500 through 1.515 and 1.516 through 1.531 are mapped to variables that are used for transmitter equalization (local and remote) with AUI-C2C interfaces at 25 or 50 Gb/s per lane (defined in Annex 120B or 120D respectively). The transmit equalizer has 3 taps and specific sets of tap values (or ratios) with relatively coarse steps.

For 100 Gb/s per lane AUI-C2C, the transmitter equalization is controlled by a different set of variables, as defined in 120F.3.1.7 and 120F.3.2.6. The variables are different from and incompatible with those of Annex 120B/120D - the transmit equalizer has 5 taps and finer step size. The mapping of these variables to MDIO registers is also specified in these subclauses of 120F.

Therefore, Registers 1.500 through 1.531 should be made specific to the AUI-C2C at 25 or 50 Gb/s per lane.

This should have been done in 802.3ck, but if the subclauses of clause 45 are modified by this project, it should be done correctly.

If the suggested remedy is not within scope then, as an alternative, these subclauses of clause 45 should be deleted from 802.3df, since they are irrelevant for 800GAUI-n and thus out of scope.

SuggestedRemedy

In the title and body text of 45.2.1.135, change "50GAUI-n, 100GAUI-2, 200GAUI-n, and 400GAUI-n, and 800GAUI-n" to "50GAUI-n, 100GAUI-2, 200GAUI-8, 200GAUI-4, 400GAUI-16, and 400GAUI-8". Apply the same change in the title of Table 45-107.

Apply similarly in 45.2.1.136, 45.2.1.137 (including Table 45-108), and 45.2.1.138.

Proposed Response　　　*Response Status*　**W**

PROPOSED ACCEPT IN PRINCIPLE.
Some of the changes proposed in the suggested remedy are not within the scope of this project. However, some changes are warranted.
Delete the changes to the 45.2.1.135, 45.2.1.136, 45.2.1.137, and 45.2.1.138 subclauses from the 802.3df draft.
Other changes may be addressed through the 802.3 maintenance process.
See brown_3df_03_230523 slides 19 & 20.

!! need to review and re-approve; below is our best estimate

PROPOSED ACCEPT IN PRINCIPLE.

Some of the changes proposed in the suggested remedy are not within the scope of this project. However, some changes are warranted.

Delete the changes to the 45.2.1.135, 45.2.1.136, 45.2.1.137, and 45.2.1.138 subclauses

from the 802.3df draft.

Other changes may be addressed through the 802.3 maintenance process.

See slides 21 & 22 in the following presentation:
https://www.ieee802.org/3/df/public/23_0523/brown_3df_03b_230523.pdf

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

Slavick, Jeff　　　　　　　　　　Broadcom

Comment Type　**TR**　　　*Comment Status*　**D**　　　*(bucket2)*

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]

!! need to review and re-approve; below is our best estimate

PROPOSED ACCEPT.
[Editor's note: change 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**　　　*(bucket2)*

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]

!! need to review and re-approve; below is our best estimate

PROPOSED ACCEPT.

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

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected　　RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Comment ID

Comment ID **21**

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

Slavick, Jeff   Broadcom

Comment Type   **TR**   *Comment Status* **D**   *(bucket2)*

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]

!! need to review and re-approve; below is our best estimate

PROPOSED ACCEPT.

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

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

Slavick, Jeff   Broadcom

Comment Type   **TR**   *Comment Status* **D**   *(bucket2)*

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]

!! need to review and re-approve; below is our best estimate

PROPOSED ACCEPT.

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

Cl **45**   *SC* **45.2.1.135.1**   *P* **45**   *L* **48**   # 25

Slavick, Jeff   Broadcom

Comment Type   **TR**   *Comment Status* **D**   *TX EQ register (bucket2)*

With the deletions the paragraph now reads a bit strangely and needs some word smithing. "The value of this bit indicates the value of the variable Request_flag in the lane 0 receiver in the receive direction (see 120B.3.2 and 120D.3.2.3). This indicates whether the chip-to-chip device is issuing a request to change the remote transmitter equalization in the chip-to-chip lane 0 transmitter in the receive direction. If a lane 0 receiver in the receive direction is not present in the package, then the value returned for this bit should be zero."

SuggestedRemedy

Make it so the old paragraph is a full cross out text and replaced with the following paragraph:
"This bit indicates the state of the Request_flag variable of the lane 0 receiver in the receive direction (see 120B.3.2 and 120D.3.2.3). When read as a one, the device is issuing a request to change the transmitter equalization of the transmitter driving lane 0 in the receive direction. If a lane 0 receiver in the receive direction is not present in the package, then the value returned for this bit should be zero."

Proposed Response   *Response Status* **W**

PROPOSED REJECT.
Resolve using the response to comment #16.

!! need to review and re-approve; below is our best estimate

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #16.

Cl **45**   *SC* **45.2.1.135.2**   *P* **46**   *L* **3**   # 26

Slavick, Jeff   Broadcom

Comment Type   **TR**   *Comment Status* **D**   *TX EQ register (bucket2)*

The value of these indicates the value is an odd phrase

SuggestedRemedy

Replace "The value of these bits indicates the value of the variable Requested_eq_c1 in the" with "These its indicate the state of the Requested_eq_c1 variable of the"

Proposed Response   *Response Status* **W**

PROPOSED REJECT.
Resolve using the response to comment #16.

!! need to review and re-approve; below is our best estimate

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #16.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Comment ID

Comment ID **26**

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2023-05-24 4:09:56 PM

Cl **45**   *SC* **45.2.1.135.3**   *P* **46**   *L* **3**   # 27

Slavick, Jeff   Broadcom

Comment Type **TR**   *Comment Status* **D**   *TX EQ register (bucket2)*

The value of these indicates the value is an odd phrase

SuggestedRemedy

Replace "The value of these bits indicates the value of the variable Requested_eq_cm1 in the" with "These its indicate the state of the Requested_eq_cm1 variable of the"

Proposed Response   *Response Status* **W**

PROPOSED REJECT.
Resolve using the response to comment #16.

!! need to review and re-approve; below is our best estimate

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #16.

Cl **45**   *SC* **45.2.1.135.2**   *P* **46**   *L* **3**   # 28

Slavick, Jeff   Broadcom

Comment Type **TR**   *Comment Status* **D**   *TX EQ register (bucket2)*

We're requesting the transmitter that is driving this given receiver to be changed. Not sure this text supports lane reversal between ends of the C2C link or not.

SuggestedRemedy

Replace "for the transmitter equalization in the chip-to-chip lane 0 transmitter in the receive direction." with "for the transmitter equalization of the transmitter driving the lane 0 receiver in the receive direction."
Make the same change in 45.2.1.135.3

Proposed Response   *Response Status* **W**

PROPOSED REJECT.
Resolve using the response to comment #16.

!! need to review and re-approve; below is our best estimate

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #16.

Cl **45**   *SC* **45.2.1.135.4**   *P* **46**   *L* **22**   # 29

Slavick, Jeff   Broadcom

Comment Type **TR**   *Comment Status* **D**   *TX EQ register (bucket2)*

We're providing the transmitter eq that is driving this receiver. Not sure this text supports lane reversal between ends of the C2C link or not.

SuggestedRemedy

Replace "being used in lane 0 of the transmitter in the receive direction"
with
"being used by the transmitter driving the lane 0 receiver in the receive direction."
Make the same chang in 45.2.1.135.5

Proposed Response   *Response Status* **W**

PROPOSED REJECT.
Resolve using the response to comment #16.

!! need to review and re-approve; below is our best estimate

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #16.

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

Slavick, Jeff   Broadcom

Comment Type **TR**   *Comment Status* **D**   *(bucket2)*

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.

!! need to review and re-approve; below is our best estimate

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Comment ID* **30**   Page 3 of 6
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   2023-05-24 4:09:56 PM
SORT ORDER: Comment ID

Cl **172**　　*SC* **172.2.4.1.1**　　　*P* **206**　　*L* **29**　　　# 35

Huber, Tom　　　　　　　　　　Nokia

Comment Type **E**　　*Comment Status* **D**　　　　*PCS (bucket2)*

Per the style guide, a clause should not have a single subclause. It is however useful to have some separation between the general description and this new stateless encoder.

SuggestedRemedy

One option would be to make 172.2.4.1.1 a level-4 heading. The other would be insert a level 5 heading immediately after 172.2.4.1 with an innocuous title like 'Process description' and renumber the existing 172.2.4.1.1 to 172.2.4.1.2. In either case, the cross-reference at line 15 would also need to be updated.

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See brown_3df_03_230523 slide 24 to 26.

!! need to review and re-approve; below is our best estimate

PROPOSED ACCEPT IN PRINCIPLE.

Implement the changes on slide 34 in the following presentation:
https://www.ieee802.org/3/df/public/23_0523/brown_3df_03b_230523.pdf
Implement with editorial license.

Cl **172**　　*SC* **172.2.5.8.1**　　　*P* **212**　　*L* **10**　　　# 37

Huber, Tom　　　　　　　　　　Nokia

Comment Type **E**　　*Comment Status* **D**　　　　*PCS (bucket2)*

Per the style guide, a clause should not have a single subclause. It is however useful to have some separation between the general description and this new stateless encoder.

SuggestedRemedy

One option would be to make 172.2.5.8.1 a level-4 heading. The other would be insert a level 5 heading immediately after 172.2.5.8 with an innocuous title like 'Process description' and renumber the existing 172.2.5.8.1 to 172.2.5.8.2. In either case, the cross-reference at line 3 would also need to be updated.

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See brown_3df_03_230523 slide 24 to 26.

!! need to review and re-approve; below is our best estimate

PROPOSED ACCEPT IN PRINCIPLE.

Implement the changes on slide 35 in the following presentation:
https://www.ieee802.org/3/df/public/23_0523/brown_3df_03b_230523.pdf
Implement with editorial license.

Cl **45**　　*SC* **45.2.1.135.1**　　　*P* **48**　　*L* **44**　　　# 57

Dudek, Mike　　　　　　　　　　Marvell

Comment Type **E**　　*Comment Status* **D**　　　　*TX EQ register (bucket2)*

800GAUI-16 is not being defined in this amendment and therefore 120D and 120B are not used. There is no need to make changes to these sections?

SuggestedRemedy

Remove the changes to sections 45.2.1.135.1 to 45.2.1.135.7 and other equivalent changes. (If 800GAUI-16 is to be included in this amendment then bring in Annex 120D and make appropriate changes (including Title changes)

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #16.

!! need to review and re-approve; below is our best estimate

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #16.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Comment ID

Comment ID **57**

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

Dawe, Piers   Nvidia

Comment Type   **TR**   *Comment Status* **D**   (bucket2)

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.
See brown_3df_03_230523 slide 22.

!! need to review and re-approve; below is our best estimate

PROPOSED ACCEPT IN PRINCIPLE.

Implement the changes on slide 26 in the following presentation:
https://www.ieee802.org/3/df/public/23_0523/brown_3df_03b_230523.pdf
Implement with editorial license.

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

Dawe, Piers   Nvidia

Comment Type   **T**   *Comment Status* **D**   (bucket2)

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.

!! need to review and re-approve; below is our best estimate

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.

There is no consensus to make the proposed changes.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Comment ID* **103**   Page 5 of 6
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   2023-05-24 4:09:56 PM
SORT ORDER: Comment ID

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

Dawe, Piers   Nvidia

Comment Type   **E**   *Comment Status*   **D**   *(bucket2)*

    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 through 15 as belonging to flow 0
    and 16 through 31 to flow 1. The draft is technically correct as written. The suggested
    remedy does not improve the accuracy or clarity of the draft.
    Pending task force review of the following presentation:
    https://www.ieee802.org/3/df/public/23_0523/dawe_3df_02_230523.pdf

    !! need to review and re-approve; below is our best estimate

    PROPOSED REJECT.

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

    There is no consensus to make the proposed changes.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Comment ID* **106**   Page 6 of 6
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   2023-05-24 4:09:56 PM
SORT ORDER: Comment ID