Cl 00   **SC 0**   **P 0**   **L 0**   **# 1**

Brown, Matt   Huawei

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

Keep 802.3ck aligned with the new revision 802.3dc.

SuggestedRemedy

With editorial license, align 802.3ck with the lastest draft of the new revision 802.3dc.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl 00   **SC 0**   **P 0**   **L 0**   **# 13**

Brown, Matt   Huawei

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

In D2.2, the mixed-mode insertion loss parameter and variable names were updated to make them common throughout the draft and presumably to align with the mixed-mode return loss parameter and variable names as updated in D2.1. However, the adopted parameters names for insertion loss which include differential-mode do not match those for return loss.

SuggestedRemedy

Thoughout the draft…
Change "differential to common-mode return loss" to "differential-mode to common-mode return loss"
Change "common-mode to differential return loss" to "common-mode to differential-mode return loss"

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
This comment does not apply to the substantive changes between IEEE P802.3ck D2.2 and D2.1 or the unsatisfied negative comments from previous drafts. Hence it is not within the scope of the recirculation ballot.
However, the proposed change is an improvement to the draft.
Implement suggested remedy with editorial license.

Cl 1   **SC 1.3**   **P 32**   **L 10**   **# 159**

Ghiasi, Ali   Ghiasi Quantum/Inphi

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

Per unsatisfied comment from D2.2 OSFP reference should be updated

SuggestedRemedy

Update reference to Rev. 4.1, August 2nd 2021

Proposed Response   *Response Status* **W**

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

Cl 1   **SC 1.3**   **P 32**   **L 11**   **# 160**

Ghiasi, Ali   Ghiasi Quantum/Inphi

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

Per unsatisfied comment from D2.2 QSFP-DD800 reference should be updated

SuggestedRemedy

Change reference to QSFP-DD/QSFP-DD800/QSFP112 Hardware Specifications 6.0, May 28 2021

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement suggested remedy with editorial license except version is 6.01 rather than 6.0.

Cl 45   **SC 45.2.7.13.1**   **P 64**   **L 54**   **# 49**

Ran, Adee   Cisco

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

Bit 6 is defined in this subclause, and is not mentioned in the referenced subclause 45.2.7.12.3.

SuggestedRemedy

Change "bits 7.49.6 through 7.49.0" to "bits 7.49.5 through 7.49.0".

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl 69   **SC 69.2.6**   **P 69**   **L 23**   **# 2**

Brown, Matt   Huawei

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

EEE is not supported by the Clause 163 PMDs.

SuggestedRemedy

Amend 69.2.6 as follows.
Change "With the optional EEE feature, described in Clause 78, Backplane Ethernet PHYs can achieve lower power consumption during periods of low link utilization."
To: "Some Backplane Ethernet PHYs support the optional EEE feature, described in Clause 78, to achieve lower power consumption during periods of low link utilization."

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
This comment does not apply to the substantive changes between IEEE P802.3ck D2.2 and D2.1 or the unsatisfied negative comments from previous drafts. Hence it is not within the scope of the recirculation ballot.
However, the proposed change is an improvement to the draft.
Implement the suggested remedy.

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: Clause, Subclause, page, line

Cl **69**
SC **69.2.6**

Page 1 of 12
2021-09-24 1:41:25 PM

Cl **80**   *SC* **80.1.5**   *P* **80**   *L* **45**   # 3

Brown, Matt   Huawei

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

100GAUI-1 C2C/C2M are relevant to the new PMDs specified in 802.3db.

SuggestedRemedy

Align Table 80-5 with 802.3db including 100GBASE-VR1/SR1. In columns for 120F/120G add "O" for the VR1/SR1 PMDs.

Proposed Response   *Response Status*   **W**

PROPOSED ACCEPT IN PRINCIPLE.
This comment does not apply to the substantive changes between IEEE P802.3ck D2.2 and D2.1 or the unsatisfied negative comments from previous drafts. Hence it is not within the scope of the recirculation ballot.
However, the proposed change is an improvement to the draft.
Implement the suggested remedy.

Cl **93A**   *SC* **93A.1**   *P* **229**   *L* **39**   # 34

Ran, Adee   Cisco

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

In the existing c(-2) row, "2nd" is written with superscript, but in the new c(-3) "3rd" is not.

Also, the tables specifying the values (120F-8, 162-19) use superscript.

SuggestedRemedy

Format "rd" in superscript.

Proposed Response   *Response Status*   **W**

PROPOSED ACCEPT.

Cl **120F**   *SC* **120F.3.2.5**   *P* **263**   *L* **31**   # 80

Dudek, Mike   Marvell

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

The name Ildd is not used in Table 120F-5 so it is confusing to use it in the specification on line 48

SuggestedRemedy

Include Ildd in the parameter name in Table 120F-5 (or write the parameter name out fully on line 48.

Proposed Response   *Response Status*   **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement the second option in the suggested remedy with editorial license.
[Editor's note: Change page from 247 to 263.]

Cl **120G**   *SC* **120G.3.1.1**   *P* **261**   *L* **34**   # 39

Ran, Adee   Cisco

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

This subclause specifies _limits_ to the RLdc, not the RLdc itself.

SuggestedRemedy

Change "Common-mode to differential return loss of the host output is shown in Equation (120G–1)" to "The minimum common-mode to differential return loss of the host output is defined by Equation (120G–1)".

Proposed Response   *Response Status*   **W**

PROPOSED ACCEPT IN PRINCIPLE.
This comment does not apply to the substantive changes between IEEE P802.3ck D2.2 and D2.1 or the unsatisfied negative comments from previous drafts. Hence it is not within the scope of the recirculation ballot.
However, the proposed changes are and improvement to the draft.
Implement the suggested remedy.

Cl **120G**   *SC* **120G.3.2.3**   *P* **266**   *L* **5**   # 81

Dudek, Mike   Marvell

Comment Type   **T**   *Comment Status*   **D**   *?L Tfx wording (CC) (bucket1)*

For the module test there is not a "host-facing connection"

SuggestedRemedy

Change "host facing connection" to module-facing connection"

Proposed Response   *Response Status*   **W**

PROPOSED ACCEPT.
[Editor's note: Changed page/line from 285/24 to 266/5.]

Cl **120G**   *SC* **120G.3.2.3**   *P* **266**   *L* **5**   # 41

Ran, Adee   Cisco

Comment Type   **TR**   *Comment Status*   **D**   *?L Tfx wording (CC) (bucket1)*

When measuring module ERL, the test fixture (aka MCB) does not have a host-facing connection.

SuggestedRemedy

Change "host-facing" to "cable-facing".

Proposed Response   *Response Status*   **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #81.

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: Clause, Subclause, page, line

Cl **120G**
SC **120G.3.2.3**

Page 2 of 12
2021-09-24 1:41:25 PM

Cl **120G**　　*SC* **120G.3.3**　　　　*P* **267**　　*L* **27**　　　# 42

Ran, Adee　　　　　　　　　Cisco

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

The normative requirement of meeting the BER specification 120G.1.1 is stated in the host stressed input test subclause, 120G.3.3.5. There is no need for a footnote in Table 120G-7 that points to the same.

Similarly in Table 120G-9 (module stressed input).

SuggestedRemedy

Delete footnote a from both tables.

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
This comment does not apply to the substantive changes between IEEE P802.3ck D2.2 and D2.1 or the unsatisfied negative comments from previous drafts. Hence it is not within the scope of the recirculation ballot.
However, the proposed change is an improvement to the draft.
Implement the suggested remedy.

Cl **120G**　　*SC* **120G.3.3**　　　　*P* **267**　　*L* **27**　　　# 5

Brown, Matt　　　　　　　　Huawei

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

In Table 120G-7, footnote "a" is redundant since the referenced subclause 120G.3.3.5 specifies the BER requirement.

SuggestedRemedy

Delete footnote a.

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
This comment does not apply to the substantive changes between IEEE P802.3ck D2.2 and D2.1 or the unsatisfied negative comments from previous drafts. Hence it is not within the scope of the recirculation ballot.
However, the proposed change is an improvement to the draft.
Implement the suggested remedy.

Cl **120G**　　*SC* **120G.3.3.2**　　　　*P* **267**　　*L* **36**　　　# 43

Ran, Adee　　　　　　　　　Cisco

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

Subclause title is incorrect.

SuggestedRemedy

Change "Module" to "Host".

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT.

Cl **120G**　　*SC* **120G.3.3.3**　　　　*P* **267**　　*L* **43**　　　# 44

Ran, Adee　　　　　　　　　Cisco

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

This subclause specifies _limits_ to the RLcd, not the RLcd itself.

SuggestedRemedy

Change "Differential to common-mode return loss of the host input is shown in Equation (120G–2)" to "The minimum differential to common-mode return loss of the host input is defined in Equation (120G–2)".

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT.
This comment does not apply to the substantive changes between IEEE P802.3ck D2.2 and D2.1 or the unsatisfied negative comments from previous drafts. Hence it is not within the scope of the recirculation ballot.
However, the proposed change is an improvement to the draft.
Implement the suggested remedy.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general　　　　*Cl* **120G**　　Page 3 of 12
COMMENT STATUS: D/dispatched A/accepted R/rejected　　RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn　　*SC* **120G.3.3.3**　　2021-09-24 1:41:25 PM
SORT ORDER: Clause, Subclause, page, line

Cl **120G** *SC* **120G.3.3.5** *P* **268** *L* **29** *#* 117

Dawe, Piers Nvidia

Comment Type **TR** *Comment Status* **D** *HI SI terminology (bucket1)*

802.3 is not a test spec (there was a companion standard for that which has been withdrawn). There is no requirement to test, only to comply. We provide definitions of measurable parameters, not measurement requirements. Making the naming more consistent.

SuggestedRemedy

Here and in Table 120G-10, change "Host stressed input test" to "Host stressed input tolerance". Change "Host stressed input tolerance is measured according to the procedure" to "Host stressed input tolerance is defined by the procedure" Similarly in 120G.3.4.2 Module stressed input test.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
The title of 120G.3.3.5 should be updated to reflect the intent rather than the test.
In Table 120G-7 change "Host stressed input test" to "Host stressed input tolerance".
Change the title of 120G.3.3.5 to "Host stressed input tolerance".
In Table 120G-9 change "Module stressed input test" to "Module stressed input tolerance".
Change the title of 120G.3.3.5 to "Module stressed input tolerance".

Cl **120G** *SC* **120G.3.3.5.2** *P* **270** *L* **16** *#* 122

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *HI SI method (bucket1)*

This says "the host PCB in 120G.3.2.2.1" while 120G.3.2.2.1 says "reference host channel"

SuggestedRemedy

Use the same name in both subclauses, e.g. change "host PCB" to "reference host channel". Or, change "The reference host channel is configured in the same way as the host PCB in 120G.3.2.2.1 ..." to "The reference host channel is configured according to 120G.3.2.2.1 ...".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
This comment does not apply to the substantive changes between IEEE P802.3ck D2.2 and D2.1 or the unsatisfied negative comments from previous drafts. Hence it is not within the scope of the recirculation ballot.
However, the proposed change is an improvement to the draft.
Change "host PCB" to "reference host channel"

Cl **120G** *SC* **120G.3.3.5.2** *P* **270** *L* **25** *#* 116

Dawe, Piers Nvidia

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

Blank line

SuggestedRemedy

Remove

Proposed Response *Response Status* **W**

PROPOSED REJECT.
This comment does not apply to the substantive changes between IEEE P802.3ck D2.2 and D2.1 or the unsatisfied negative comments from previous drafts. Hence it is not within the scope of the recirculation ballot.
This "blank line" is a result of putting the table anchor on its own line to prevent odd formatting as the text moves around. We can optimize spacing issues like this closer to publication once the document is more stable.

Cl **120G** *SC* **120G.3.3.5.2** *P* **270** *L* **30** *#* 124

Dawe, Piers Nvidia

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

Table format

SuggestedRemedy

Use a separate Units column as usual.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
This comment does not apply to the substantive changes between IEEE P802.3ck D2.2 and D2.1 or the unsatisfied negative comments from previous drafts. Hence it is not within the scope of the recirculation ballot.
However, the proposed change is an improvement to the draft.
Implement the suggested remedy.

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: Clause, Subclause, page, line

Cl **120G**
SC **120G.3.3.5.2**

Page 4 of 12
2021-09-24 1:41:25 PM

Cl **120G**   *SC* **120G.3.4**   *P* **271**   *L* **36**   # 6

Brown, Matt   Huawei

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

In Table 120G-9, footnote "a" is redundant since the referenced subclause 120G.3.4.3 specifies the BER requirement.

SuggestedRemedy

Delete footnote a.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
This comment does not apply to the substantive changes between IEEE P802.3ck D2.2 and D2.1 or the unsatisfied negative comments from previous drafts. Hence it is not within the scope of the recirculation ballot.
However, the proposed change is an improvement to the draft.
Implement the suggested remedy.

Cl **120G**   *SC* **120G.3.4.3.2**   *P* **273**   *L* **32**   # 129

Dawe, Piers   Nvidia

Comment Type   **E**   *Comment Status* **D**   *I method test setup (bucket1)*

"transition time ... at the input to the frequency-dependent attenuator", "jitter profile of the signal at the output of the pattern generator". These are the same place and the style guide says to use the same name for the same thing every time. Also the frequency-dependent attenuation/attenuator is not always present, and to measure transition time or jitter one connects the scope to the PG not to the attenuator. By the way, 120G.3.3.5.2 says "at the pattern generator output" (see another comment).

SuggestedRemedy

Change "at the input to the frequency-dependent attenuator" to "at the output of the pattern generator".

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
This comment does not apply to the substantive changes between IEEE P802.3ck D2.2 and D2.1 or the unsatisfied negative comments from previous drafts. Hence it is not within the scope of the recirculation ballot.
However, the proposes change is an improvement to the draft.
The comment refers to item a) in 120G.3.4.3.2 with reference to transition time measurement.
Item c) in 120G.3.4.3.2 refers to the output of the pattern generator with reference to jitter measurement.
Both reference points are on the same node so the same test point should be referenced.
Implement the suggested remedy with editorial license.

Cl **120G**   *SC* **120G.3.4.3.2**   *P* **274**   *L* **1**   # 105

Dawe, Piers   Nvidia

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

Not a link

SuggestedRemedy

Make "Table 162-20" a link

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **120G**   *SC* **120G.3.4.3.2**   *P* **274**   *L* **1**   # 111

Dawe, Piers   Nvidia

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

Table 162-20 contains parameters C0 and C1, which I believe should not be used here.

SuggestedRemedy

Say that parameters C0 and C1 do not apply.

Proposed Response   *Response Status* **W**

PROPOSED REJECT.
The referenced equations 93A-13 and 93A-14 provide the s-parameters for only the PCB traces. As such it is not necessary to add text excluding the capacitors.

Cl **120G**   *SC* **120G.3.4.3.2**   *P* **274**   *L* **3**   # 82

Dudek, Mike   Marvell

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

The word "representing" is strange here

SuggestedRemedy

Change "representing" to "providing"

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #106.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **120G**   Page 5 of 12
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   *SC* **120G.3.4.3.2**   2021-09-24 1:41:25 PM
SORT ORDER: Clause, Subclause, page, line

Cl **120G**　　*SC* **120G.3.4.3.2**　　　*P* **274**　　*L* **4**　　　　# 109

Dawe, Piers　　　　　　　　　　　　Nvidia

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

I believe that when the complex numbers are boiled down to decibels, and noting that gamma0 is 0 and Zc is 100 ohm, the respones has the form Ildd = A.sqrt(f) + B.f exactly.

SuggestedRemedy

Please give the equation.

Proposed Response　　*Response Status* **W**

PROPOSED REJECT.
The equations provide the complex s-parameters necessary as a target for the frequency-dependent loss and the ILdd in decibles is provide in Figure 120G-11. It is not necessary to provide yet another equation.

Cl **120G**　　*SC* **120G.3.4.3.2**　　　*P* **274**　　*L* **9**　　　　# 15

Lusted, Kent　　　　　　　　　　　　Intel Corporation

Comment Type **ER**　　*Comment Status* **D**　　　　MI SI FDA (bucket1)

There is an editor's note to be removed in the next draft, pending changes to the Z_p value and the frequency range.

SuggestedRemedy

Resolve the value of z_p and adjust the frequency range as necessary

Proposed Response　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #8.

Cl **120G**　　*SC* **120G.3.4.3.2**　　　*P* **274**　　*L* **9**　　　　# 106

Dawe, Piers　　　　　　　　　　　　Nvidia

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

The 18.2 dB is information that lets the reviwer understand the spec - does it occur in the text or just in this editor's note?

SuggestedRemedy

Add it to the text: change "This represents..." to "the differential-mode insertion loss (18.2 dB) represents...

Proposed Response　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change "representing ILdd from the output of the pattern generator to TP1a of 18.2 dB at 26.56 GHz. This represents 16 dB channel loss with an additional allowance for host transmitter package loss."
To ". The resulting insertion loss from the output of the pattern generator to TP1a is 18.2 dB at 26.56 GHz, representing 16 dB channel loss with an additional allowance for host transmitter package loss."

Cl **120G**　　*SC* **120G.4.1**　　　*P* **276**　　*L* **11**　　　　# 10

Brown, Matt　　　　　　　　　　　　Huawei

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

The term "(informative)" would better be "(recommended)" and should align with 163.10.2 and 120F.4.2.

SuggestedRemedy

In the title of 120G.4.1 change "(informative)" to "(recommended)".

Proposed Response　　*Response Status* **W**

PROPOSED ACCEPT.

Cl **120G**　　*SC* **120G.4.1**　　　*P* **276**　　*L* **13**　　　　# 47

Ran, Adee　　　　　　　　　　　　Cisco

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

The insertion loss cannot be compared to ("equal to or less than") an equation. The equation defines a limit; however, it is not measurable, so it can only be a recommendation.

SuggestedRemedy

Change "is expected to be equal to or less than" to "is recommended to be within the limits defined by".

Proposed Response　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
The word "expected" was chosen intentionally to convey that the interface specifications were created with the assumption of a channel meeting this insertion loss criteria. However, the wording should be updated to reflect that the equation is in the form an inequality. Wording use elsewhere, e.g., 162.11.4, can be used.
Change "is expected to be equal to or less than" to "is expected to meet".

Cl **120G**　　*SC* **120G.5.2**　　　*P* **278**　　*L* **24**　　　　# 16

Lusted, Kent　　　　　　　　　　　　Intel Corporation

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

There is an editor's note to be removed in the next draft, pending changes to thef_b value.

SuggestedRemedy

Reaffirm the correct f_b value and remove the editor's note

Proposed Response　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
There were no comments submitted that expressed concern with the value of f_b.
Remove the editor's note.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general　　　　　*Cl* **120G**　　Page 6 of 12
COMMENT STATUS: D/dispatched A/accepted R/rejected　　RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn　　*SC* **120G.5.2**　　2021-09-24 1:41:25 PM
SORT ORDER: Clause, Subclause, page, line

Cl **135**　　　*SC* **135.5.7.2**　　　　　*P* **123**　　　*L* **49**　　　　# 75

Dudek, Mike　　　　　　　　　　　　Marvell

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

Inconsistent use of C2C

SuggestedRemedy

Either put C2C after all the variants or just the last one. Also on page

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Put C2C once after all the variants on page 123.

Cl **136**　　　*SC* **136.8.11.7.1**　　　*P* **127**　　　*L* **36**　　　　# 83

Kochuparambil, Beth　　　　　　　Cisco Systems

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

Sentence uses absolute language which is discouraged by the Style Guide, "always."

SuggestedRemedy

Change "This variable is always set to FALSE for 50 Gb/s per lane PHYs, otherwise it is
set to TRUE."　to　"This variable is set to FALSE for 50 Gb/s per lane PHYs, otherwise it is
set to TRUE."

Proposed Response　　　*Response Status* **W**

PROPOSED REJECT.
This comment does not apply to the substantive changes between IEEE P802.3ck D2.2
and D2.1 or the unsatisfied negative comments from previous drafts. Hence it is not within
the scope of the recirculation ballot.
The style guide discourages use of the "absolution verbiage" to avoid making guarantees.
In this case, the use of always is in terms of an imposed requirement, not a guarantee. The
intent in this case is to be clear that there are no exceptions. Use of "always" in this context
in abundantly common throughout 802.3.

Cl **161**　　　*SC* **161.5.2.6**　　　　　*P* **139**　　　*L* **52**　　　　# 24

Nicholl, Shawn　　　　　　　　　　Xilinx

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

In response to P802.3ck/D2.0 Comment #162, P802.3ck/D2.1 revised the text to following:

The alignment markers shall be mapped to tx_scrambled_am<1284:0> in a manner that
yields the same result as the process described in the remainder of this subclause

The new language is inconsistent with existing Clause 119, which bears much similarity to
portions of Clause 161.

SuggestedRemedy

Propose to return to the text of P802.3ck/D2.0:

The alignment markers shall be mapped to am_txmapped<1284:0> in a manner that yields
the same result as the following process.

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
This comment does not apply to the substantive changes between IEEE P802.3ck D2.2
and D2.1 or the unsatisfied negative comments from previous drafts. Hence it is not within
the scope of the recirculation ballot.
However, the proposed change is an improvement to the draft.

On page 139 line 52 change:
"tx_scrambled_am<1284:0>"
To:
"am_txmapped<1284:0>"

 On page 139 line 48 insert a new subclause heading:
"161.5.2.6.1 Alignment marker mapping"

On page 140 split the paragraph starting at line 48 to insert a new subclause heading:
"One group of aligned and reordered alignment markers are mapped every 20 × 16 384 66-
bit blocks. This group of aligned and reordered alignment markers is called the "alignment
marker group" and is labeled am_txmapped<1284:0>.

161.5.2.6.2 Alignment marker insertion
An alignment marker group shall be inserted so it appears in the output stream every 81
920 x 257-bit blocks."

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general　　　　*Cl* **161**　　　Page 7 of 12
COMMENT STATUS: D/dispatched A/accepted R/rejected　　　RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn　　*SC* **161.5.2.6**　　　2021-09-24 1:41:25 PM
SORT ORDER: Clause, Subclause, page, line

Cl **162**　　　*SC* **162.9.3**　　　　　*P* **170**　　　*L* **12**　　　# 73

Dudek, Mike　　　　　　　　　　　Marvell

Comment Type **TR**　　*Comment Status* **D**　　　　　TP0/TP5 (bucket1)

In the context of 162 the "transmitter" includes the host PCB. The characteristis in 162A.2 do not include the host PCB and therefore should not be called just transmitter characteristics

SuggestedRemedy

Change to "Recommended transmitter characteristis at TP0 are provided in 162A.2"

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change to "Change to "Recommended transmitter characteristics at TP0 are provided in 162A.2"

Cl **162**　　　*SC* **162.9.3.7**　　　　*P* **176**　　　*L* **48**　　　# 78

Dudek, Mike　　　　　　　　　　　Marvell

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

"common-mode to differential-mode insertion loss" appears to be used thoughout the document and "common-mode to differential-mode return loss" is used in 162B however "common-mode to differential return loss" is used here and in other places

SuggestedRemedy

Change all instances to "common-mode to differential-mode return loss"

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #13.
[Editor's note: Changed page from 188 to 176.]

Cl **162**　　　*SC* **162.9.4**　　　　　*P* **177**　　　*L* **29**　　　# 74

Dudek, Mike　　　　　　　　　　　Marvell

Comment Type **TR**　　*Comment Status* **D**　　　　　TP0/TP5 (bucket1)

In the context of 162 the "receiver" includes the host PCB. The characteristis in 162A.3 do not include the host PCB and therefore should not be called just receiver characteristics

SuggestedRemedy

Change to "Recommended receiver characteristis at TP5 are provided in 162A.3"

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change to: "Recommended receiver characteristics at TP5 are provided in 162A.3"

Cl **162**　　　*SC* **162.9.4.3**　　　　*P* **178**　　　*L* **47**　　　# 22

Wu, Mau-Lin　　　　　　　　　　MediaTek Inc.

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

The sentence refers to '162.9.4.3.3 item f' for SNR_TX calibration. However, there are no item f in 162.9.4.3.3. It shall be 'item e' in 162.9.4.3.3 for SNR_TX calbiration.

SuggestedRemedy

Change 'item f' to 'item e'.

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT.

Cl **162**　　　*SC* **162.9.4.3.3**　　　*P* **179**　　　*L* **46**　　　# 108

Dawe, Piers　　　　　　　　　　　Nvidia

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

As far as I can see, sigma_bn is a number to be found, all the other inputs to Equation 162-12 (fb and f_hp) are constant in the draft: so the ratio sigma_hp/sigma_bn is fixed too, at a little less than 1.

SuggestedRemedy

Please tell the reader what that ratio is

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change equation (162-12) to show the constant value (0.6954) to be multiplied by sigma_bn^2.

Cl **162**　　　*SC* **162.11.3**　　　　*P* **186**　　　*L* **43**　　　# 26

Ran, Adee　　　　　　　　　　　Cisco

Comment Type **TR**　　*Comment Status* **D**　　　　RL Tfx wording (CC) (bucket1)

When measuring cable assembly ERL, the test fixture (aka MCB) does not have a host-facing connection.

SuggestedRemedy

Change "host-facing" to "cable-facing".

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general　　　　　*Cl* **162**　　　Page 8 of 12
COMMENT STATUS: D/dispatched A/accepted R/rejected　　RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn　　　*SC* **162.11.3**　　2021-09-24 1:41:25 PM
SORT ORDER: Clause, Subclause, page, line

Cl **162** *SC* **162.11.3** *P* **186** *L* **43** # 76

Dudek, Mike Marvell

Comment Type **T** *Comment Status* **D** ?L Tfx wording (CC) (bucket1)

While testing the Cable ERL there isn't a "host-facing connection'

SuggestedRemedy

Change "host facing connection" to cable-facing connection"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #26.

Cl **162** *SC* **162.11.7.1** *P* **192** *L* **8** # 27

Ran, Adee Cisco

Comment Type **E** *Comment Status* **D** CA COM pkg (bucket1)

The new equations 93A-13a and 93A-14a use a parameter z_p2 (instead of z_p in the existing equations 93A-13 and 93A-14). The text here refers to z_p, so the existing equations should be referenced instead.

SuggestedRemedy

Change 93A-13a to 93A-13 and 93A-14a to 93A-14.

Consider merging equations 93A-12a, 93A-13a, 93A-14a with their existing counterparts.

Proposed Response *Response Status* **W**

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

Cl **162** *SC* **162.11.7.1.1** *P* **192** *L* **37** # 77

Dudek, Mike Marvell

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

typo

SuggestedRemedy

Change "an differential" to "a differential".   Also on page 193 line 22

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **162B** *SC* **162B.1.1** *P* **293** *L* **23** # 135

Dawe, Piers Nvidia

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

There's only one subclause in this annex, plus PICS, which makes it hard to find the what it contains from the contents.

SuggestedRemedy

Promote 162B.1.1 TP2 or TP3 test fixture to 162B.2, promote 162B.1.2 Cable assembly test fixture to 162B.3, promote 162B.1.3 Mated test fixtures to 162B.4.

Proposed Response *Response Status* **W**

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

Cl **162B** *SC* **162B.1.3** *P* **295** *L* **25** # 137

Dawe, Piers Nvidia

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

"The TP2 or TP3 and cable assembly test fixtures" sounds like three test fixtures.

SuggestedRemedy

Change to "The TP2 or TP3 test fixture and the cable assembly test fixture".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general *Cl* **162B** Page 9 of 12
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn *SC* **162B.1.3** 2021-09-24 1:41:25 PM
SORT ORDER: Clause, Subclause, page, line

Cl **162D**　　*SC* **162D.1**　　　　　*P* **316**　　　*L* **14**　　　# `139`

Dawe, Piers　　　　　　　　　　　　Nvidia

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

A host can have other than six MDI connector receptacles. Aligning terminology with 162C.1, third sentence. The text mentions what's specified for hosts but doesn't discuss how many types there are for cables. This text can be simplified.

SuggestedRemedy

Change:
There are six MDI connector "receptacles" specified for hosts.
to
There are six MDI connector types.
or, change "There are six MDI connector "receptacles" specified for hosts. See Table 162D–1 references for receptacle and plug requirements." to "Table 162D-1 lists the six MDI connector types specified for hosts and cables."

Proposed Response　　　　*Response Status*　**W**

PROPOSED ACCEPT IN PRINCIPLE.

Merge the two paragraphs together and change text to the follows:
"This annex describes cable assembly types specified in 162.11 for hosts with 100GBASE-CR1, 200GBASE-CR2, or 400GBASE-CR4 Physical Layers. The six MDI connector receptacles specified for hosts are given in Table 162D–1. This enables multiple cable assembly types with different combinations of the plug connectors at each end."

Cl **162D**　　*SC* **162D.1.1**　　　*P* **317**　　　*L* **6**　　　# `141`

Dawe, Piers　　　　　　　　　　　　Nvidia

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

other end

SuggestedRemedy

other end(s)

Proposed Response　　　　*Response Status*　**W**

PROPOSED ACCEPT.
This comment does not apply to the substantive changes between IEEE P802.3ck D2.2 and D2.1 or the unsatisfied negative comments from previous drafts. Hence it is not within the scope of the recirculation ballot.
However, the proposed change is an improvement to the draft.
Implement the suggested remedy.

Cl **163**　　*SC* **163.9.3.5**　　　*P* **213**　　　*L* **12**　　　# `31`

Ran, Adee　　　　　　　　　　　　Cisco

Comment Type　**E**　　*Comment Status*　**D**　　　transition time (CC) (bucket1)

"with transmitter equalization off by setting coefficients to preset 1 values (see 162.9.3.1.3)." is awkward: equalization not "off by", it is "turned off by", not "off by".

SuggestedRemedy

Change "transmitter equalization off " to "transmitter equalization turned off".

Proposed Response　　　　*Response Status*　**W**

PROPOSED ACCEPT IN PRINCIPLE.
For consistency with other clauses refer to "transmit equalization" rather than "transmitter equalization".
Change "transmitter equalization off" to "transmit equalization turned off".

Cl **163**　　*SC* **163.10.1**　　　*P* **215**　　　*L* **13**　　　# `21`

Wu, Mau-Lin　　　　　　　　　　　MediaTek Inc.

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

The 'value' of 'Common-mode to differential-mode insertion loss, IL_dc' shall be 'Equation (163-8)', instead of 'Equation (163-7)'.

SuggestedRemedy

Change the 'value' of 'Common-mode to differential-mode insertion loss, IL_dc' from "Equation (163-7)" to "Equation (163-8)".

Proposed Response　　　　*Response Status*　**W**

PROPOSED ACCEPT.

Cl **163**　　*SC* **163.13.4.3**　　　*P* **226**　　　*L* **7**　　　# `33`

Ran, Adee　　　　　　　　　　　　Cisco

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

In item TC14 value/comment has the nominal value. But the mandatory requirement is a range specified in Table 163-5.

For consistency, item TC12 should also refer to the table.

SuggestedRemedy

Change value/comment to "Per Table 163-5" in both items.

Proposed Response　　　　*Response Status*　**W**

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general　　　　*Cl* **163**　　　Page 10 of 12
COMMENT STATUS: D/dispatched A/accepted R/rejected　　RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn　　*SC* **163.13.4.3**　　2021-09-24 1:41:25 PM
SORT ORDER: Clause, Subclause, page, line

Cl **163A** *SC* **163A.3.1** *P* **320** *L* **23** # 142

Dawe, Piers Nvidia

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

Make it easier to see what S(0) is

SuggestedRemedy

In figures 163A-2, 3 and 4, change "Reference channel" to "Reference channel S(0)"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163A** *SC* **163A.3.1.1** *P* **321** *L* **15** # 51

Hidaka, Yasuo Credo Semiconductor

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

The reference pulse response peak, v^{ref}_{peak} must be the max value of h(t), if h(t) has multiple peaks.

SuggestedRemedy

Change "the peak value" to "the maximum value" on line 15 and line 29 in page 321.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163A** *SC* **163A.3.1.1** *P* **321** *L* **16** # 53

Hidaka, Yasuo Credo Semiconductor

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

This location was overlooked in comment #23 on D2.1. Apply the same change as comment #23 on D2.1 to this location.

SuggestedRemedy

Change "the longer package trace length" to "the longest transmitter package trace length".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163A** *SC* **163A.3.1.1** *P* **321** *L* **36** # 52

Hidaka, Yasuo Credo Semiconductor

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

Comment #23 on D2.1 was not correctly implemented. It should be the longest "transmitter" package trace length.

Apply the same change on line 52 in page 322.

SuggestedRemedy

Change "the longest package trace length" to "the longest transmitter package trace length".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163A** *SC* **163A.3.1.2** *P* **321** *L* **45** # 134

Dawe, Piers Nvidia

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

This says "The reference ERL value is determined from the reference PTDR response using the method in 93A.5.2..." yet 93A.5.2 finds the effective reflection waveform, Reff(t), by time gating and weighting the PTDR waveform, PTDR(t).

SuggestedRemedy

Do you mean 93A.5.2 to 93A.5.5?

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change the text to "The reference ERL value is determined using the method in 93A.5..."

Cl **163A** *SC* **163A.3.1.3** *P* **321** *L* **53** # 144

Dawe, Piers Nvidia

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

The method for obtaining the reference transition time using the measured test fixture scattering parameters and the reference transmitter and package models are defined below, and are outlined in Figure 163A–3.

SuggestedRemedy

method ... is ... is

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

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: Clause, Subclause, page, line

Cl **163A**
SC **163A.3.1.3**

Page 11 of 12
2021-09-24 1:41:25 PM

Cl **163A**   *SC* **163A.3.1.3**   *P* **322**   *L* **24**   # 11

Brown, Matt   Huawei

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

This is sequence of steps in method to determine transition time.

SuggestedRemedy

Convert the method to a lettered list.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **163A**   *SC* **163A.3.1.3**   *P* **322**   *L* **27**   # 145

Dawe, Piers   Nvidia

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

Out of order

SuggestedRemedy

Swap equations 163A-5 and 4

Proposed Response   *Response Status* **W**

PROPOSED REJECT.
The ordering of the equations follows convention.

Cl **163A**   *SC* **163A.3.2.2**   *P* **323**   *L* **44**   # 146

Dawe, Piers   Nvidia

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

Give the units

SuggestedRemedy

Say that ERL(ref) and ERL(meas) are in decibels

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.
[Editor's note: Changed page from 232 to 323.]

Cl **163A**   *SC* **163A.4**   *P* **323**   *L* **53**   # 20

Wu, Mau-Lin   MediaTek Inc.

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

The sentence of "An example test fixture and its reference values are provided in 163B.3." here is not correct, due to the example test fixture shown in 163B.3 is for TP0v, instead of TP5v.

SuggestedRemedy

Remove the sentence of "An example test fixture and its reference values are provided in 163B.3."

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **163A**   Page 12 of 12
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   *SC* **163A.4**   2021-09-24 1:41:25 PM
SORT ORDER: Clause, Subclause, page, line