Cl **157** *SC* **157.2** *P* **21** *L* **15** # 1

D'Ambrosia, John — Futurewei, U.S. Subsidiary of Huawei

Comment Type **ER** *Comment Status* **X**

As currently written, Note A only applies to the one cell where it is denoted, when in actuality it applies to all of the various cells in the clause columns
Also applies to Table 157-4, 157-5, and 157-6

SuggestedRemedy

Move the current location of Note A in table to next to "Clause."

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **27** *L* **19** # 2

D'Ambrosia, John — Futurewei, U.S. Subsidiary of Huawei

Comment Type **ER** *Comment Status* **X**

The bottom of the "Physical Layer" is incorrect - it includes the MDI and should be drawn to the top of the "Medium"

SuggestedRemedy

Move the bottom dashed line from the bottom of the PMD sublayer to the top of Medium

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2** *P* **22** *L* **36** # 3

D'Ambrosia, John — Futurewei, U.S. Subsidiary of Huawei

Comment Type **E** *Comment Status* **X**

In Table 157-6, Clause 91 title is noted as "100GBASE-R FEC", but the title of Clause 91 refers to "RS-FEC." Reference Table 80-3a from IEEE Std 802.3ck-2022

SuggestedRemedy

Change "100GBASE-R FEC" to "100GBASE-R RS-FEC"

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.3** *P* **18** *L* **42** # 4

Schreiner, Stephan — Rosenberger Hochfrequenztechnik GmbH & Co. KG

Comment Type **E** *Comment Status* **X**

Table 157-2 - Multi-Gigabit Ethernet BiDi PHYs is interrupted by Figure 157-1a - Architectural positioning of 100 Gb/s Ethernet BiDi PHYs.

SuggestedRemedy

Reorder from: "Figure 157-1 … Table 157-2 … Figure 157-1a … Table 157-2 (continued)" to "Figure 157-1 … Figure 157-1a … Table 157-2"

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.1** *P* **21** *L* **15** # 5

Schreiner, Stephan — Rosenberger Hochfrequenztechnik GmbH & Co. KG

Comment Type **E** *Comment Status* **X**

Table 157-3 has ist footnote index on the Mandatory "M" in line 2, column 3. All other tables have this footnote index on line 2 column 2.

SuggestedRemedy

Change the footnote index position to the Line: "10GBASE-BR10-D" , column "EEE"

Proposed Response *Response Status* **O**

Cl **00** *SC* **0** *P* **7** *L* **50** # 6

Maguire, Valerie — Copperopolis (aff'l w/ CME Consulting and Cisco)

Comment Type **E** *Comment Status* **X**

IEEE-SA Standards Board member names to be supplied at publication

SuggestedRemedy

Replace, "Konstantinos Karachalios, Secretary"

with, "FirstName SecondName, Secretary"

Proposed Response *Response Status* **O**

Cl **00** *SC* **0** *P* **11** *L* **2** # 7

Maguire, Valerie — Copperopolis (aff'l w/ CME Consulting and Cisco)

Comment Type **E** *Comment Status* **X**

Consider adding placeholder information for P802.3da

SuggestedRemedy

Insert,
"IEEE Std 802.3da™-20xx
Amendment X- This amendment includes changes to IEEE Std 802.3-2022 and adds Clause 188 through Clause 189. This amendment adds Physical Layer specifications and management parameters for enhancement of multidrop 10 Mb/s operation based on the 10BASE-T1S PHY specified in Clause 147 of IEEE Std 802.3-2022, and specifies optional provision of power over single balanced
pair mixing segments. Additionally, this amendment includes additions and changes to Clause 148 to automatically allocate node IDs (Dynamic PLCA)."
(Editor to ensure that TM is superscript)

Proposed Response *Response Status* **O**

Cl **00** *SC* **0** *P* **2** *L* **4** # 8

Maguire, Valerie — Copperopolis (aff'l w/ CME Consulting and Cisco)

Comment Type **E** *Comment Status* **X**

Consider adding additional Keywords.

SuggestedRemedy

Insert in alphabetical order:
Optical Line Terminal (OLT), Optical Network Terminal (ONT), Optical Network Unit (ONU)

Proposed Response *Response Status* **O**

Cl **168** *SC* **168** *P* **26** *L* **16** # 9

Maguire, Valerie — Copperopolis (aff'l w/ CME Consulting and Cisco)

Comment Type **E** *Comment Status* **X**

Consider using alternate sentence structure than a "shall" statement.

SuggestedRemedy

Replace, "a PMD shall be connected" with, "a PMD is connected"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.2** *P* **30** *L* **43** # 10

Maguire, Valerie — Copperopolis (aff'l w/ CME Consulting and Cisco)

Comment Type **E** *Comment Status* **X**

Consider using alternate sentence structure than a "shall" statement.

SuggestedRemedy

Replace, "Transmit function shall convert" with, "Transmit function converts"

Replace, "The optical signal shall then be delivered" with, "The optical signal is then delivered"

Replace, "from lowest to highest shall correspond " with, "from lowest to highest corresponds"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.3** *P* **30** *L* **51** # 11

Maguire, Valerie — Copperopolis (aff'l w/ CME Consulting and Cisco)

Comment Type **E** *Comment Status* **X**

Consider using alternate sentence structure than a "shall" statement.

SuggestedRemedy

Replace, "The PMD receive function shall convert" with, "The PMD receive function converts"

Replace, "from lowest to highest shall correspond" with, "from lowest to highest corresponds"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.4** *P* **31** *L* **19** # 12

Maguire, Valerie — Copperopolis (aff'l w/ CME Consulting and Cisco)

Comment Type **E** *Comment Status* **X**

Consider using alternate sentence structure than a "shall" statement.

SuggestedRemedy

Replace, "global signal detect function shall report" with, "global signal detect function reports"

Replace, "SIGNAL_DETECT shall be a global indicator" with, "SIGNAL_DETECT is a global indicator"

Replace, "SIGNAL_DETECT parameter shall be generated" with, "SIGNAL_DETECT parameter is generated"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.5** *P* **31** *L* **42** # 13

Maguire, Valerie — Copperopolis (aff'l w/ CME Consulting and Cisco)

Comment Type **E** *Comment Status* **X**

Consider using alternate sentence structure than a "shall" statement.

SuggestedRemedy

Replace, "the PMD shall be reset" with, "the PMD is reset"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.6** *P* **31** *L* **47** # 14

Maguire, Valerie — Copperopolis (aff'l w/ CME Consulting and Cisco)

Comment Type **E** *Comment Status* **X**

Consider using alternate sentence structure than a "shall" statement.

SuggestedRemedy

Replace, "compliant with this clause shall include" with, "compliant with this clause includes"

Replace, "this function shall turn off" with, "this function turns off"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.7** *P* **32** *L* **6** # 15

Maguire, Valerie — Copperopolis (aff'l w/ CME Consulting and Cisco)

Comment Type **E** *Comment Status* **X**

Consider using alternate sentence structure than a "shall" statement.

SuggestedRemedy

Replace, "the PMD shall set" with, "the PMD sets"

Replace, "PMD_fault shall be mapped to" with, "PMD_fault is mapped to"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.8** *P* **32** *L* **13** # 16

Maguire, Valerie — Copperopolis (aff'l w/ CME Consulting and Cisco)

Comment Type **E** *Comment Status* **X**

Consider using alternate sentence structure than a "shall" statement.

SuggestedRemedy

Replace, "the PMD shall set" with, "the PMD sets"

Replace, "PMD_transmit_fault shall be mapped to" with, "PMD_transmit_fault is mapped to"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.9** *P* **32** *L* **21** # 17

Maguire, Valerie — Copperopolis (aff'l w/ CME Consulting and Cisco)

Comment Type **E** *Comment Status* **X**

Consider using alternate sentence structure than a "shall" statement.

SuggestedRemedy

Replace, "100GBASE-BRx-U PMD shall include" with, "100GBASE-BRx-U PMD includes"

Replace, "the PMD shall set the" with, "the PMD sets the"

Replace, "PMD_receive_fault shall be mapped" with, "PMD_receive_fault is mapped"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.10** *P* **32** *L* **31** # 18

Maguire, Valerie — Copperopolis (aff'l w/ CME Consulting and Cisco)

Comment Type **E** *Comment Status* **X**

Consider using alternate sentence structure than a "shall" statement.

SuggestedRemedy

Replace, "Silent start shall be provided" with, "Silent start is provided"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.11** *P* **40** *L* **53** # 19

Maguire, Valerie — Copperopolis (aff'l w/ CME Consulting and Cisco)

Comment Type **E** *Comment Status* **X**

Consider using alternate sentence structure than a "shall" statement.

SuggestedRemedy

Replace, "RIN shall be as defined" with, "RIN is defined "

Proposed Response *Response Status* **O**

Cl **00** *SC* **0** *P* **7** *L* **31** # 20

Lusted, Kent — Synopsys

Comment Type **E** *Comment Status* **X**

Fill in the balloter information in the introduction

SuggestedRemedy

Fill in the balloter information in the introduction

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.1** *P* **22** *L* **30** # 21

Lusted, Kent — Synopsys

Comment Type **T** *Comment Status* **X**

The 100GAUI-1 C2C and 100GAUI-1 C2M annexes should be referenced in Table 157-6.

SuggestedRemedy

Add references to 100GAUI-1 C2C (Annex 120F) and 100GAUI-1 C2M (Annex 120G).
Type = optional

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **26** *L* **22** # 22

Lusted, Kent — Synopsys

Comment Type **T** *Comment Status* **X**

The 100GAUI-1 C2C and 100GAUI-1 C2M annexes should be referenced in Table 168-1

SuggestedRemedy

Add references to 100GAUI-1 C2C (Annex 120F) and 100GAUI-1 C2M (Annex 120G)
Type = optional

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **26** *L* **33** # 23

Lusted, Kent — Synopsys

Comment Type **TR** *Comment Status* **X**

The Table 168-1 states that Clause 91 RS-FEC is required for the 100GBASE-BRx PMDs. There is no specific mention in the draft specification of which RS-FEC is to be used with the 100GBASE-BRx PMDs. Note that Clause 91 defines two RS-FECs: RS(528) and RS(544).

SuggestedRemedy

Bring in Clause 91 into the draft. Specifically, Clause 91.5.2.7 and 91.5.3.3 as modified by 3ck and 3df. Update the relevant sub-clauses for RS(528) or RS(544)

Proposed Response *Response Status* **O**

Cl **FM** *SC* **FM** *P* **1** *L* **23** # 24

Ran, Adee — Cisco Systems, Inc.

Comment Type **E** *Comment Status* **X**

The list of amendments is missing.
Currently ratified amendments are listed in the proposed response.

SuggestedRemedy

Change "as amended by IEEE Std 802.3yy-20xx"
to
"as amended by IEEE Std 802.3dd-2022, IEEE Std 802.3cs-2022, IEEE Std 802.3db-2022, IEEE Std 802.3ck-2022, IEEE Std 802.3de-2022, IEEE Std 802.3cx-2023, IEEE Std 802.3cz-2023, IEEE Std 802.3cy-2023, IEEE Std 802.3df-2024, and IEEE Std 802.3-2022/Cor 1-2024".

Proposed Response *Response Status* **O**

Cl **FM** *SC* **FM** *P* **1** *L* **26** # 25

Ran, Adee Cisco Systems, Inc.

Comment Type **E** *Comment Status* **X**

Task Force review has completed.

SuggestedRemedy

Change "Task Force review" to "Working Group Ballot".

Proposed Response *Response Status* **O**

Cl **FM** *SC* **FM** *P* **8** *L* **3** # 26

Ran, Adee Cisco Systems, Inc.

Comment Type **E** *Comment Status* **X**

The placeholders in the text box should be replaced.

SuggestedRemedy

Change from
"IEEE Std 802.3xx-20xx, IEEE Draft Standard for Ethernet. Amendment: Amendment title (copy from PAR)."
to
"IEEE Std 802.3dk-20xx, IEEE Draft Standard for Ethernet—Amendment: Bidirectional 100 Gb/s Optical Access PHYs"

Proposed Response *Response Status* **O**

Cl **FM** *SC* **FM** *P* **8** *L* **31** # 27

Ran, Adee Cisco Systems, Inc.

Comment Type **E** *Comment Status* **X**

Placeholder should be replaced

SuggestedRemedy

Change "IEEE Std 802.3xx-20xx" to "IEEE Std 802.3dk-20xx"

Proposed Response *Response Status* **O**

Cl **00** *SC* **0** *P* **1** *L* # 28

Ran, Adee Cisco Systems, Inc.

Comment Type **TR** *Comment Status* **X**

The project description refers to "a single strand of single-mode fiber". The word "strand" appears two more times in the draft, but is not defined in it. The base standard has only 3 instances of "strand", all related to copper wires, not optical fibers.
It is unclear what "strand" means.

SuggestedRemedy

Assuming "strand" means a single fiber, as it seems from the draft, I suggest changing "a single strand of single-mode fiber" to "one single-mode fiber", consistent with the text added in 30.5.1.1.2.
Implement across the draft (3 instances, and possbly other places as appropriate).

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.7.4** *P* **13** *L* **12** # 29

Ran, Adee Cisco Systems, Inc.

Comment Type **ER** *Comment Status* **X**

Table 45-9 has been amended multiple times. The editorial instruction should state which version the amendment is based on.
Similarly for other tables in existing clauses (45 and 80).
I believe the current version of table 45-9 is in 802.3df-2024. Other tables may be in different amendments.
(P802.3da is also in flight but I assume P802.3dk is planned to be completed first)

The label in the suggested remedy is based on the label in 802.3df.

SuggestedRemedy

In the editorial instruction before Table 45-9, change the text to:
Insert a new row in Table 45–9 (as modified by IEEE Std 802.3db-2022, IEEE Std 802.3ck-2022, and IEEE 802.3df-2024) after the row for “100GBASE-LR4, 100GBASE-ER4”, as follows (some unchanged rows not shown):"
Change other instructions in clause 45 and clause 80 as appropriate.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157** *P* **17** *L* **1** # 30

Ran, Adee Cisco Systems, Inc.

Comment Type **ER** *Comment Status* **X**

Missing editorial instruction for clause 157.
It seems that this amendment includes the whole clause with changes. But instructions should be given for specific changes, per the IEEE SA style manual.

Especially, changes to tables and the addition of a new figure 157-1a should be separate instructions. Tables that are not changed at all (such as table 157-3 through table 157-5) should not appear in the draft.

Previous amendments can be used as references.

SuggestedRemedy

Add editorial instructions to each subclause that is changed, as done in previous amendments.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.2** *P* **17** *L* **30** # 31

Ran, Adee Cisco Systems, Inc.

Comment Type **E** *Comment Status* **X**

Missing "and" before 80.1.3

SuggestedRemedy

Insert "and"

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.1** *P* **22** *L* **31** # 32

Ran, Adee Cisco Systems, Inc.

Comment Type **TR** *Comment Status* **X**

I believe the AUIs defined in 802.3ck (100GAUI-1 C2C and C2M) are very relevant for the 100GBASE-BRx PHYs. They should be included in Table 157-6.

SuggestedRemedy

Add columns for Annexes 120F and 120G, optional for all PHYs.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.3** *P* **24** *L* **7** # 33

Ran, Adee Cisco Systems, Inc.

Comment Type **E** *Comment Status* **X**

Missing period at the end of the last paragraph.

SuggestedRemedy

Add a period.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.6** *P* **24** *L* **46** # 34

Ran, Adee Cisco Systems, Inc.

Comment Type **E** *Comment Status* **X**

This clause does not include a PICS - it only refers to other clauses that do.
This is very unusual. Subclause 157.6 should be removed (perhaps in maintenance, because it would not be in scope), but even if it is not, there is no need to change it in this amendment - it is not helpful for readers and only adds editiorial burden.
Note that clauses 161 through 167, added by the change in this draft, are not related to this clause at all.

SuggestedRemedy

Remove 157.6 from the draft.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168** *P* **26** *L* **1** # 35

Ran, Adee Cisco Systems, Inc.

Comment Type **ER** *Comment Status* **X**

Missing editorial instruction for clause 168.

SuggestedRemedy

Add an editorial instruction: "Insert new clause 168".

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **26** *L* **47** # 36

Ran, Adee Cisco Systems, Inc.

Comment Type **TR** *Comment Status* **X**

I believe the AUIs defined in 802.3ck (100GAUI-1 C2C and C2M) are very relevant for the 100GBASE-BRx PHYs. They should be included in Table 168-1.

SuggestedRemedy

Add rows for Annexes 120F and 120G, optional.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.1** *P* **30** *L* **8** # 37

Ran, Adee Cisco Systems, Inc.

Comment Type **TR** *Comment Status* **X**

The title of 168.5.1 is "PMD block diagram", but the block diagram in Figure 168-2 is not of a PMD but of a transmit/receive path.

I am aware that the incorrect heading exists in many previous clauses, but an error should not be carried over to a new clause.
The suggested remedy is being used in similar subclauses in P802.3dj.

SuggestedRemedy

Change the subclause title from "PMD block diagram" to "Block diagram".

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6** *P* **32** *L* **53** # 38

Ran, Adee Cisco Systems, Inc.

Comment Type **T** *Comment Status* **X**

Footnote a says "The RS-FEC correction function may not be bypassed for any operating distance". This is not an option, so "may" is inappropriate. Also, this statement is out of place in 168.6, which is about optical specifications.

I am aware that the same text exists in many previous clauses, but an error should not be carried over to a new clause.

SuggestedRemedy

Delete footnote a from Table 168-5, and instead add a footnote for the "RS-FEC" row in Table 168-1, stating "The option to perform error detection without error correction (see 91.5.3.3) is not supported. FEC error correction shall not be bypassed".

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **33** *L* **11** # 39

Ran, Adee Cisco Systems, Inc.

Comment Type **TR** *Comment Status* **X**

The signaling range for recent PMDs with 100 Gb/s per lane has been narrowed to +/- 50 ppm, to avoid possible performance degradatation.

The 100 Gb/s AUIs defined in Annex 120F and 120G support this narrower range.

See 800GBASE-VR8/SR8 PMDs in 802.3df, Table 167-7 and Table 167-8 (both amended from 802.3db) as an example of how this is implemented in new PMDs.

SuggestedRemedy

In Table 168-6 and Table 168-7, change the signaling rate range to 53.125 +/- 50 ppm.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **33** *L* **28** # 40

Ran, Adee Cisco Systems, Inc.

Comment Type **ER** *Comment Status* **X**

The row for OMA_outer (min) in Table 167-7 contains two sub-rows. This should be indicated by indentation, as done in the "Receiver sensitivity" row in Table 167-8, to clarify that these are two cases.

The phrase "for 1.4 dB <= max(TECQ, TDECQ) <= TDECQ(max)" is overly long and can be shortened to improve readabilty.

SuggestedRemedy

Indent the sub-rows starting with "for".
Change "for 1.4 dB <= max(TECQ, TDECQ) <= TDECQ(max)" to "for max(TECQ, TDECQ) >= 1.4"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **33** *L* **50** # 41

Ran, Adee Cisco Systems, Inc.

Comment Type **TR** *Comment Status* **X**

Footnote b of Table 167-7 refers to clause 139, but this clause is for a 50 Gb/s PMD and is irrelevant. The relevant clause may be 140 instead (assuming it is consistent; if not, further changes need to be made).

Also, external references should be indicated by "forest green" text color.

SuggestedRemedy

Change "Clause 139" to "Clause 140" and format as external reference (forest green).

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **34** *L* **1** # 42

Ran, Adee Cisco Systems, Inc.

Comment Type **T** *Comment Status* **X**

Equations 168-1 through 168-3 are not equations - they are expressions that don't mean anything without the context, which is Table 167-7.

It would be a better service to the reader if these expressions are placed directly in the table.

SuggestedRemedy

Move these expressions into Table 168-8, OMA_outer row, replacing the references to the equations.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **33** *L* **36** # 43

Ran, Adee Cisco Systems, Inc.

Comment Type **TR** *Comment Status* **X**

"Transmitter over/under -shoot" is shorthand that should not be used in a standard.
The definitions in subclause 168.7.7 are actually to two different parameters, overshoot and undershoot, while "over/under-shoot" is not defined at all.
The label in the table has been changed to "overshoot/undershoot" in 802.3db.

Also, the definition subclause 168.7.7 should be aligned with the recent text in 802.3db (167.8.8) instead of older clauses.

SuggestedRemedy

Change the label to "Overshoot/undershoot (max)".
Change the text in 168.7.7 to align it with 167.8.8 in 802.3db-2022.
Change in Table 168–10 and elsewhere accordingly.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.1** *P* **36** *L* **1** # 44

Ran, Adee Cisco Systems, Inc.

Comment Type **TR** *Comment Status* **X**

The title of Table 168-10 is incorrect. It does not include or even refer to test pattern definitions; what it contains is the mapping of parameters to test patterns and related sublclause.

I am aware that the same title exists in many previous clauses, but an error should not be carried over to a new clause. It has been corrected in P802.3dj, and the suggested remedy is taken from Table 180-15.

SuggestedRemedy

Change the title of Table 168-10 to "Mapping of parameters to test patterns and related subclauses".

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.1** *P* **36** *L* **7** # 45

Ran, Adee — Cisco Systems, Inc.

Comment Type **E** *Comment Status* **X**

Typo in "Sidn"

SuggestedRemedy

Change to "Side"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.5.3** *P* **38** *L* **50** # 46

Ran, Adee — Cisco Systems, Inc.

Comment Type **ER** *Comment Status* **X**

Reference to 121.8.5.3 is not a functional link. It should be formatted as an external reference.

Other similar external references appear in 168.7.13.1, 168.7.13.2, 168.7.13.3, 168.7.7 (3 references), 168.7.11, 168.8.1, and maybe other places.

SuggestedRemedy

Format all external references in forest green text color.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.5.4** *P* **39** *L* **3** # 47

Ran, Adee — Cisco Systems, Inc.

Comment Type **E** *Comment Status* **X**

"5 tap, T spaced" should be "5-tap, T-spaced".
(see for example 167.8.6.1 in 802.3db)

I am aware that the same text exists in many previous clauses, but an error should not be carried over to a new clause.

SuggestedRemedy

Change per comment.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.11** *P* **41** *L* **3** # 48

Ran, Adee — Cisco Systems, Inc.

Comment Type **T** *Comment Status* **X**

The signaling rate is 53.125 GBd, so the number should be 53.125 GHz, not 53.2.

SuggestedRemedy

Change per comment.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.12** *P* **41** *L* **32** # 49

Ran, Adee — Cisco Systems, Inc.

Comment Type **E** *Comment Status* **X**

Cross-reference to equation 168-4 is not active.
Similarly for equations 168-5 and 168-6 in the subsequent paragraphs.

SuggestedRemedy

Make the cross-references active.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.12** *P* **41** *L* **40** # 50

Ran, Adee — Cisco Systems, Inc.

Comment Type **TR** *Comment Status* **X**

Equations 168-4 through 168-5 have equal signs and define receiver sensitivity - but the receiver sensitivity does not need to be equal to a value - it should be below some maximum, as shown in the figure.

SuggestedRemedy

Either change the equation to have a "lower than" value, or define the term as the maximum RS.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.12** *P* **41** *L* **7** # 51

Ran, Adee Cisco Systems, Inc.

Comment Type **ER** *Comment Status* **X**

Figure 168-6 is a bitmap with poor quality.

SuggestedRemedy

Replace the figure with an SVG one.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.12** *P* **41** *L* **15** # 52

Ran, Adee Cisco Systems, Inc.

Comment Type **TR** *Comment Status* **X**

The label "Meets equation constraints" appears between curves. It suggests that the allowed range is between these lines, which is incorrect.

SuggestedRemedy

Move the label below the bottom line.

Proposed Response *Response Status* **O**

Cl **00** *SC* **0** *P* **0** *L* **0** # 53

Regev, Alon Keysight

Comment Type **E** *Comment Status* **X**

PDF document properties contain incorrect data:
Tile is listed as "IEEE Draft P802.3xx"
Author is listed as "IEEE P802.3xx Task Force"
Subject is listed as "IEEE P802.3aj"
Copyright notice is "Copyright © 201x IEEE. All rights reserved."

SuggestedRemedy

change Title fron "IEEE Draft P802.3xx" to "IEEE Draft P802.3dk"
change Author fron "IEEE P802.3xx Task Force" to "IEEE P802.3dk Task Force"
change Subject from "IEEE P802.3aj" to ""IEEE P802.3dk"
change copyright notice from "Copyright © 201x IEEE. All rights reserved." to "Copyright © 2025 IEEE. All rights reserved."

Proposed Response *Response Status* **O**

Cl **Particip** *SC* **Participants** *P* **7** *L* **4** # 54

Regev, Alon Keysight

Comment Type **E** *Comment Status* **X**

"P802.3xx" should be "P802.3dk"

SuggestedRemedy

change "P802.3xx" to "P802.3dk"

Proposed Response *Response Status* **O**

Cl **Introdu** *SC* **Introduction** *P* **8** *L* **31** # 55

Regev, Alon Keysight

Comment Type **E** *Comment Status* **X**

"802.3xx" should be "802.3dk"

SuggestedRemedy

"802.3xx" should be "802.3dk"

Proposed Response *Response Status* **O**

Cl **Introdu** *SC* **Introduction** *P* **8** *L* **4** # 56

Regev, Alon Keysight

Comment Type **E** *Comment Status* **X**

"802.3xx" should be "802.3dk"

SuggestedRemedy

"802.3xx" should be "802.3dk"

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.28** *P* **15** *L* **44** # 57

Regev, Alon Keysight

Comment Type **T** *Comment Status* **X**

Instead of just deleting "1 0 1 x x x = Reserved", replace it with "1 0 1 1 1 x = Reserved"

SuggestedRemedy

Instead of deleting "1 0 1 x x x = Reserved", replace it with "1 0 1 1 1 x = Reserved"

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.5.1.1.2** *P* **12** *L* **20** # 58

Regev, Alon Keysight

Comment Type **E** *Comment Status* **X**

References to "Clause 168" should be links

SuggestedRemedy

on lines 20, 23, 26, 29, 32, and 35 make the references to "Clause 168" into links to "Clause 168"

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.1** *P* **22** *L* **32** # 59

Regev, Alon Keysight

Comment Type **E** *Comment Status* **X**

The clause numbers in the column headers should be links to the clauses

SuggestedRemedy

change the column labels "81", "82", "91", "83", "83A", 83B", "83D", "83E", "135", "135D", "135E", "135F", and "135G" into links

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.3** *P* **24** *L* **7** # 60

Regev, Alon Keysight

Comment Type **E** *Comment Status* **X**

"80.3" should be a link

SuggestedRemedy

change "80.3" to a link to "80.3"

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.3** *P* **24** *L* **23** # 61

Regev, Alon Keysight

Comment Type **E** *Comment Status* **X**

"80.4" should be a link

SuggestedRemedy

change "80.4" to a link to "80.4"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **26** *L* **7** # 62

Regev, Alon Keysight

Comment Type **E** *Comment Status* **X**

remove editor's notes prior to publication

SuggestedRemedy

remove editor's notes prior to publication

Proposed Response *Response Status* **O**

Cl **158** *SC* **158.2** *P* **28** *L* **12** # 63

Regev, Alon Keysight

Comment Type **E** *Comment Status* **X**

"80.3" should be a link

SuggestedRemedy

change "80.3" to a link to "80.3"

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.2** *P* **17** *L* **30** # 64

Regev, Alon Keysight

Comment Type **E** *Comment Status* **X**

"80.1.3" shoul be "and 80.1.3"

SuggestedRemedy

change "80.1.3" to "and 80.1.3"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.1** *P* **36** *L* **7** # 65

Regev, Alon Keysight

Comment Type **E** *Comment Status* **X**

"sidn" should be "side"

SuggestedRemedy

change "sidn-mode" to "side-mode"

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.1** *P* **22** *L* **41** # 66

Maki, Jeffery Juniper Networks

Comment Type **T** *Comment Status* **X**

100GAUI-1 C2C & 100GAUI-1 C2M are missing.

SuggestedRemedy

Add 100GAUI-1 C2C & 100GAUI-1 C2M

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **26** *L* **48** # 67

Maki, Jeffery Juniper Networks

Comment Type **T** *Comment Status* **X**

100GAUI-1 C2C & 100GAUI-1 C2M are missing.

SuggestedRemedy

Add 120F-100GAUI-1 C2C & 120G-100GAUI-1 C2M

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **26** *L* **33** # 68

Opsasnick, Eugene Broadcom, Inc.

Comment Type **TR** *Comment Status* **X**

Table 168-1 lists the Clause 91 RS-FEC as Required for 100GBASE-BR10, -BR20, and -BR40. Clause 91 defines both RS[528] and RS[544], but there is no indication which of these two FEC codes should be used with the BR10/20/40 PMDs. Subclauses 91.5.2.7 and 91.5.3.3 list which PHYs use RS[528] and which use RS[544] along with some other features of each FEC code.

SuggestedRemedy

Add Clause 91 to the standard and add the three PHYs of this standard to the list of PHYs that implement RS[544] as was done in 802.3ck for 100GBASE-CR1/KR1:

In 91.5.2.7 add:
Change the second sentence of the second paragraph of 91.5.2.7 (as modified by IEEE Std 802.3ck-2022)
as follows:

When used to form a 100GBASE-KP4, 100GBASE-CR2, 100GBASE-KR2, 100GBASE-VR1, 100GBASE-SR2, 100GBASE-SR1, 100GBASE-DR, 100GBASE-FR1, 100GBASE-LR1,100GBASE-CR1, or 100GBASE-KR1, 100GBASE-BR10, 100GBASE-BR20, or 100GBASE-BR40 PHY, the RS-FEC sublayer shall implement RS(544,514).

In 91.5.3.3 add:
Change the second sentence of the second paragraph of 91.5.3.3 (as modified by IEEE Std 802.3ck-2022)
as follows:

When used to form a 100GBASE-KP4, 100GBASE-CR2, 100GBASE-KR2, 100GBASE-VR1, 100GBASE-SR2, 100GBASE-SR1, 100GBASE-DR, 100GBASE-FR1, 100GBASE-LR1, 100GBASE-CR1, or 100GBASE-KR1, 100GBASE-BR10, 100GBASE-BR20, or 100GBASE-BR40 PHY, the RS-FEC sublayer shall be capable of correcting any combination of up to t=15 symbol errors in a codeword.

Change the third paragraph of 91.5.3.3 (as modified by IEEE Std 802.3ck-2022) as follows:

The Reed-Solomon decoder may provide the option to perform error detection without error correction to reduce the delay contributed by the RS-FEC sublayer. The presence of this option is indicated by the assertion of the FEC_bypass_correction_ability variable (see 91.6.8). When the option is provided, it is enabled by the assertion of the FEC_bypass_correction_enable variable (see 91.6.1). This option shall not be used when the RS-FEC sublayer is used to form part of a 100GBASE-CR2, 100GBASE-KR2, 100GBASE-VR1, 100GBASE-SR2, 100GBASE-SR1, 100GBASE-SR4, 100GBASE-DR, 100GBASE-FR1, 100GBASE-LR1, 100GBASE-CR1, or 100GBASE-KR1, 100GBASE-BR10, 100GBASE-BR20, or 100GBASE-BR40 PHY.

Change the last sentence of the last paragraph of 91.5.3.3 (as modified by IEEE Std 802.3ck-2022) as

follows:

When the RS-FEC sublayer is used to form a 100GBASE-KP4, 100GBASE-CR2, 100GBASE-KR2, 100GBASE-VR1, 100GBASE-SR2, 100GBASE-SR1, 100GBASE-DR, 100GBASE-FR1, 100GBASE-LR1, 100GBASE-CR1, or 100GBASE-KR1, 100GBASE-BR10, 100GBASE-BR20, or 100GBASE-BR40 PHY, the symbol error threshold shall be K=6380.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **26** *L* **33** # 69

Opsasnick, Eugene Broadcom, Inc.

Comment Type **TR** *Comment Status* **X**

Table 168-1 lists the Clause 91 RS-FEC as Required for 100GBASE-BR10, -BR20, and -BR40. Subclause 91.5.3.3.1 should be updated to add the 3 new PHYs using RS[544] to the list of PHYs using the optional FEC Degraded SER feature as defined in Clause 91.

SuggestedRemedy

In 91.5.3.3.1 add:
Change the first paragraph of 91.5.3.3.1 (as modified by IEEE Std 802.3ck-2022) as follows:

For 100GBASE-CR2, 100GBASE-KR2, 100GBASE-VR1, 100GBASE-SR2, 100GBASE-SR1, 100GBASE-DR, 100GBASE-FR1, 100GBASE-LR1, 100GBASE-CR1, and 100GBASE-KR1, 100GBASE-BR10, 100GBASE-BR20, and 100GBASE-BR40 PHYs an optional FEC degraded symbol error ratio function is available.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **33** *L* **24** # 70

Johnson, John Broadcom

Comment Type **TR** *Comment Status* **X**

At ER(min) = 3.5 dB and OMA(max) =5 dBm, maximum TX Pavg would be 6.2 dBm, which exceeds the PAVG(max) spec of 4.8dBm for 100G-BR10.

SuggestedRemedy

Minimum required TX OMA at TDECQ(max) = 3.1 dBm, corresponding to PAVG = 4.3dBm at ER(min). To conform to TX Pavg(max) = 4.8 dBm, propose to change TX OMA(max) from 5 dBm to 3.6 dBm in Table 168-6, and RX OMA(max) from 5 dBm to 3.6dBm in Table 168-7.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **33** *L* **38** # 71

Johnson, John Broadcom

Comment Type **TR** *Comment Status* **X**

The transmitter power excursion (TPE) maximum limits are inconsistent with the specified OMA(max) and maximum overshoot (OS) = 22%. As discussed in johnson_3dj_01a_2411, OS should roll off to ~14.6% at OMA(max) to be consistent with other 100G PAM4 PMDs.

SuggestedRemedy

Assuming ideal linearity, TPE(max) = OMA(max)*(OS+0.5), where OS = 14.6%. Based on this, change the spec limits for TPE(max) as follows:

100G-BR10: from 2.8 dBm to 1.7 dBm (assuming acceptance of TX OMA(max) = 3.6 dBm)
100G-BR20: from 3.9 dBm to -0.5 dBm
100G-BR40: from 6.1 dBm to 7.8 dBm

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **33** *L* **50** # 72

Johnson, John Broadcom

Comment Type **TR** *Comment Status* **X**

It's unnecessary to compare with Cl. 139 in footnote (b).

SuggestedRemedy

Delete "Even though the representation of the OMAouter requirement is different from that in Clause 139, they are consistent." from footnote (b).

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.4** *P* **36** *L* **46** # 73

Johnson, John Broadcom

Comment Type **TR** *Comment Status* **X**

Add text to clarify the reference receiver used to measure OMAouter, refering to the definitions in 168.7.5.

SuggestedRemedy

Add the following sentence to the end of the paragraph:

"OMAouter is measured using waveforms captured at the output of the reference receiver defined in 168.7.5, before the reference equalizer."

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.5** *P* **37** *L* **21** # 74

Johnson, John Broadcom

Comment Type **TR** *Comment Status* **X**

The TDECQ test method in 168.7.5 needlessly reiterates the definitions in 121.8.5. The text of 168.7.5.1 lists test method exceptions that should be in 168.7.5.3. 168.7.5.3 has a single exception for the FFE (which is not needed because it is the same as 121.8.5.4). This clause should reference 121.8.5 and list a complete set of test method exceptions specific to Cl. 168.

SuggestedRemedy

Follow the specification method of 802.3dj D1.5, Cl.180.9.5, which includes improved descriptions of the reference receiver that are used in other test method sub-clauses. Remove sub-clauses 168.7.5.1, 168.7.5.3 and 168.7.5.4. (168.7.5.2 becomes 168.7.5.1) Replace the text in 168.7.5 with the following:

The TDECQ of each lane shall be within the limits given in Table 168-6 if measured using the methods
specified in 121.8.5.1, 121.8.5.3, 121.8.5.4 and 168.7.5.1, with the following exceptions:
— The signaling rate of the test pattern generator is as given in Table 168-6 and uses the test pattern
specified for TDECQ in Table 168-10.
— The reference receiver, composed of the combination of the O/E converter and the oscilloscope, has
a 3 dB bandwidth of approximately 26.5625 GHz with a fourth-order Bessel-Thomson response to at
least 1.3 × 53.125 GHz, and at frequencies above 1.3 × 53.125 GHz, the response should not exceed
–20 dB. Compensation may be made for any deviation from an ideal fourth-order Bessel-Thomson
response.
— The normalized noise power density spectrum N(f) is equivalent to white noise filtered by a fourth order
Bessel-Thomson response filter with a 3 dB bandwidth of 26.5625 GHz.
— The optical return loss is as given in Table 168-6.
— The lowest measured TDECQ values are achieved with the equalizer optimization method described
in 121.8.5. Alternative optimization methods such as minimum mean squared error (MMSE) may be
used to determine equalizer tap weights to reduce test time, and are expected to report equal or
higher values of TDECQ. These alternative methods should not be used for receiver sensitivity and
stressed receiver sensitivity calibration.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.7** *P* **39** *L* **37** # 75

Johnson, John Broadcom

Comment Type **TR** *Comment Status* **X**

Add text to clarify the reference receiver used to measure TX over/undershoot, refering to the definitions in 168.7.5.

SuggestedRemedy

Replace "but without the reference equalizer being applied in either case."
with "at the output of the reference receiver defined in 168.7.5, before the reference equalizer."

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.8** *P* **40** *L* **17** # 76

Johnson, John Broadcom

Comment Type **TR** *Comment Status* **X**

Add text to clarify the reference receiver used to measure TX power excursion, refering to the definitions in 168.7.5.

SuggestedRemedy

Replace "but without the reference equalizer being applied."
with "at the output of the reference receiver defined in 168.7.5, before the reference equalizer."

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.9** *P* **40** *L* **32** # 77

Johnson, John Broadcom

Comment Type **TR** *Comment Status* **X**

Add text to clarify the reference receiver used to measure extinction ratio, refering to the definitions in 168.7.5.

SuggestedRemedy

Add the following to the end of the paragraph:
"The extinction ratio is measured using waveforms captured at the output of the reference receiver defined in 168.7.5, before the reference equalizer."

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.10** *P* **40** *L* **41** # 78

Johnson, John Broadcom

Comment Type **TR** *Comment Status* **X**

The reference receiver is previously defined in 168.7.5, so it can be referenced rather than redefining it in this clause.

SuggestedRemedy

Delete the following text:
"as measured through an O/E converter and oscilloscope with a combined 3 dB bandwidth of approximately 26.5625 GHz with a fourth-order Bessel-Thomson response to at least 1.3 × 53.125 GHz and at frequencies above 1.3 × 53.125 GHz the response should not exceed –20 dB. Compensation may be made for any deviation from an ideal fourth-order Bessel-Thomson response."
Replace with the following text:
"The transmitter transition time is measured using waveforms captured at the output of the reference receiver defined in 168.7.5, before the reference equalizer."

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.13** *P* **42** *L* **1** # 79

Johnson, John Broadcom

Comment Type **TR** *Comment Status* **X**

The stressed receiver sensitivity test method in 168.7.13 needlessly reiterates the test method specified in 121.8.10.

SuggestedRemedy

Follow the specification method of 802.3dj D1.5, Cl.180.9.13, which points to 121.8.10 along with a short list of exceptions. Replace the entirety of 168.7.13 with the following text:

Stressed receiver sensitivity of each lane shall be within the limit given in Table 168-7 if measured using the
method defined in 121.8.10 with the following exceptions:
— The SECQ of the stressed receiver conformance test signal is measured according to 168.7.5, except
that the test fiber is not used. The transition time of the stressed receiver conformance test signal is
no greater than the value specified in Table 168-6.
— With the Gaussian noise generator on and the sinusoidal jitter and sinusoidal interferer turned off, the
RINxOMA of the SRS test source should be no greater than the value specified in Table 168-6.
— The signaling rate of the test pattern generator and the extinction ratio of the E/O converter are as
given in Table 168-6 using test patterns specified in Table 168-10.
— The required values of the “Stressed receiver sensitivity (OMAouter), each lane (max)”, “Stressed eye
closure for PAM4 (SECQ), lane under test” and “OMAouter of each aggressor lane” are as given in
Table 168-7.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.28** *P* **15** *L* **44** # 80

Simms, William NVIDIA

Comment Type **E** *Comment Status* **X**

In Table 45-30, values 101110 and 101111 are undefined

SuggestedRemedy

Make these two remaining vlalues reserved

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.2** *P* **17** *L* **30** # 81

Simms, William NVIDIA

Comment Type **E** *Comment Status* **X**

missing 'and' before 80.1.3

SuggestedRemedy

add the 'and' to be consistent with the one removed in front of 50 Gb/s

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.4** *P* **29** *L* **26** # 82

Simms, William NVIDIA

Comment Type **E** *Comment Status* **X**

strage break in body text and insertion of Tables

SuggestedRemedy

Leave text at line 23 and picking up at line 49 unbroken and move tables to appropriate location

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.5.4** *P* **39** *L* **3** # 83

Simms, William NVIDIA

Comment Type **E** *Comment Status* **X**

strange break in text between line 3 and 17 with figure n the mddle.

SuggestedRemedy

move figure to after the completed text

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.12** *P* **41** *L* **32** # 84

Simms, William NVIDIA

Comment Type **E** *Comment Status* **X**

The Figure 168-6 has an x-axis of TECQ but the test below the figure references SECQ. Line 32, 35, and 38

SuggestedRemedy

Not sure if this is an error

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.9** *P* **45** *L* **17** # 85

Simms, William NVIDIA

Comment Type **E** *Comment Status* **X**

another break in text for table

SuggestedRemedy

move table after text

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.2** *P* **17** *L* **30** # 86

Mi, Guangcan Huawei Technologies Co., Ltd

Comment Type **ER** *Comment Status* **X**

in “131.1.2 (for 50 Gb/s), 80.1.3 (for 100 Gb/s)”, missing and

SuggestedRemedy

change to "131.1.2 (for 50 Gb/s), and 80.1.3 (for 100 Gb/s)"

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.1** *P* **22** *L* **27** # 87

Mi, Guangcan Huawei Technologies Co., Ltd

Comment Type **TR** *Comment Status* **X**

Table 157-6. The 100G bidi PMDs should also support 100G AUI-1 C2M

SuggestedRemedy

add two columns for 100G AUI-1 C2C(CL120F) and 100G AUI-1 C2M(120G) respectively .

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **26** *L* **21** # 88

Mi, Guangcan Huawei Technologies Co., Ltd

Comment Type **TR** *Comment Status* **X**

Table 168-1. The 100G bidi PMDs should also support 100G AUI-1 C2M

SuggestedRemedy

add two rows for 100G AUI-1 C2C(CL120F) and 100G AUI-1 C2M(120G) respectively .

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **33** *L* **15** # 89

Mi, Guangcan Huawei Technologies Co., Ltd

Comment Type **ER** *Comment Status* **X**

the labe of wavelength is currently written as 100GBASE-BRx-D center wavelengths (range) or 100GBASE-BRx-U center wavelengths (range). This doesn't seem right. The upstream and down stream would only have one wavelength each. The wavelength can not be precisely controlled, thus a range is specified allowing the center wavelength to drift or shift. It is however a single wavelength, therefore the plural form here is not appropriate.

SuggestedRemedy

change wavelengths to wavelength in both cases of upstream and downstream.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.4** *P* **36** *L* **41** # 90

Mi, Guangcan Huawei Technologies Co., Ltd

Comment Type **TR** *Comment Status* **X**

recent clauses has been pointing out the source of OMAout data. Recommend to add in CL168 as well.

SuggestedRemedy

add "OMAouter is measured using waveforms captured at the output of the reference receiver defined in 168.7.5, before the reference equalizer.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.5** *P* **37** *L* **20** # 91

Mi, Guangcan — Huawei Technologies Co., Ltd

Comment Type **ER** *Comment Status* **X**

looking back at CL 140.7 and other IMDD clauses in 100Gbps, the description of TDECQ and its measurement setup has been referencing as much as possible the existing content in CL 121.8.5 and writing only the changes and differences. An example in CL140 is:
"TDECQ, and for 100GBASE-DR only, TDECQ – 10log10(Ceq) shall be within the limits given in
Table 140–6 if measured using the test setup specified in 121.8.5.1, with an optical channel specified in 140.7.5.2, using the measurement method specified in 121.8.5.3, and using a reference equalizer as described in 140.7.5.1, with the following exceptions: ....."

also double checking the content of 168.7.5.1, there seems no technical difference than what was defined in CL 140.7.5 or CL 124.8.5, except need of updates to the table references. For the sake of clarity and consistence, also avoiding misleading message of new test setp, it is recommended to update the section with references to existing clauses while only listing out the exceptions.

SuggestedRemedy

delet sections 168.7.5.1, 168.7.5.3,168.7.5.4. make appropriate references to existing clauses, so that the overall standard of 802.3 is coherent. implement with editorial licenses.

some possible languages:
The TDECQ shall be within the limits given in
Table 168–6 if measured using the test setup specified in 121.8.5.1, with an optical channel specified in 168.7.5.2, using the measurement method specified in 121.8.5.3, and using a reference equalizer as described in 168.7.5.1, with the following exceptions:
The signaling rate of the test pattern generator is as given in Table 168–6 and uses a test pattern
specified for TDECQ in Table 168–10.
— The combination of the O/E converter and the oscilloscope has a 3 dB bandwidth of approximately 26.5625 GHz with a fourth-order Bessel-Thomson response to at least 1.3 × 53.125 GHz and at frequencies above 1.3 × 53.125 GHz the response should not exceed –20 dB. Compensation may be made for any deviation from an ideal fourth-order Bessel-Thomson response.
— The normalized noise power density spectrum, N(f) in Equation (121–9), is equivalent to white noise filtered by a fourth-order Bessel-Thomson response filter with a 3 dB bandwidth of 26.5625 GHz."

or

"The TDECQ shall be within the limits given in Table 168–6 if measured using the test setup specified in 121.8.5.1, with an optical channel specified in 168.7.5.2, using the measurement method specified in 140.7.5, and using a reference equalizer as described in 140.7.5.1."

or other format that fits.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.6** *P* **39** *L* **27** # 92

Mi, Guangcan — Huawei Technologies Co., Ltd

Comment Type **ER** *Comment Status* **X**

"The TECQ of each lane is measured using the
methods specified for TDECQ in 168.7.5, except that the test fiber is not used."

There is only one lane in BRx PMDs in each direction.

SuggestedRemedy

delete " of each lane"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.7** *P* **39** *L* **31** # 93

Mi, Guangcan — Huawei Technologies Co., Ltd

Comment Type **ER** *Comment Status* **X**

There seems to be no change from the method defined in CL 140. reference to CL 140 regarding the calculation.

SuggestedRemedy

possible language from CL 151, and update the reference tables should serve the purpose :

"The over/under-shoot of each lane shall be within the limits given in Table 151–7 if measured using a test
pattern specified for over/under-shoot in Table 151–11.
Overshoot and undershoot are measured using the waveform captured for the TDECQ test (see 151.8.5) and the waveform captured for the TECQ test (see 151.8.6), but without the reference equalizer being applied in each case.
Overshoot and undershoot are calculated using the methods in 140.7.7."

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.11** *P* **40** *L* **51** # 94

Mi, Guangcan — Huawei Technologies Co., Ltd

Comment Type **TR** *Comment Status* **X**

802.3 dj has extensively discussed the definition of RINxOMA. Consensus were made to update the definition of RINxOMA which better describes the actual behaviour and aligns with what is being used in the field. Related contribution from Ahmad and JJ, https://www.ieee802.org/3/dj/public/24_09/chayeb_3dj_01_2409.pdf

SuggestedRemedy

align to what is defined in dj.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **33** *L* **36** # 95

Stassar, Peter — Huawei

Comment Type **ER** *Comment Status* **X**

This draft still uses "over/undershoot", In P802.3dj it was recently agreed to use "transmitter over and undershoot". Also in 168.7,1 and 168.7.7

SuggestedRemedy

168.6.1 change "Transmitter over/under -shoot" to "Transmitter overshoot and undershoot". In 168.7.1, Table 168-10 change "Over/under-shoot" to "Transmitter overshoot and undershoot". Change heading of 168.7.7 from "Over/under-shoot" to "Transmitter overshoot and undershoot". In paragraphs 1 and 2 of 168.7.7 change "over/under-shoot" to "over and undershoot".

Proposed Response *Response Status* **O**

Cl **1** *SC* **1.4** *P* **11** *L* **0** # 96

Slavick, Jeff — Broadcom

Comment Type **TR** *Comment Status* **X**

Missing definitions for 100GBASE-BR10/20

SuggestedRemedy

1.4.x 100GBASE-BR10: IEEE 802.3 Physical Layer specification for a 100 Gb/s bidirectional link over one single-mode fiber with reach up to at least 10 km. There are different specifications for 100GBASE-BR10-D and 100GBASE-BR10-U; a transmission path connects one to the other. (See IEEE Std 802.3, Clause 168.)
1.4.y 100GBASE-BR20: IEEE 802.3 Physical Layer specification for a 100 Gb/s bidirectional link over one single-mode fiber with reach up to at least 20 km. There are different specifications for 100GBASE-BR20-D and 100GBASE-BR20-U; a transmission path connects one to the other. (See IEEE Std 802.3, Clause 168.)
1.4.z 100GBASE-BR40: IEEE 802.3 Physical Layer specification for a 100 Gb/s bidirectional link over one single-mode fiber with reach up to at least 40 km. There are different specifications for 100GBASE-BR40-D and 100GBASE-BR40-U; a transmission path connects one to the other. (See IEEE Std 802.3, Clause 168.)

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b** *P* **14** *L* **13** # 97

Slavick, Jeff — Broadcom

Comment Type **ER** *Comment Status* **X**

Std 802.3-2022 BiDi PMA/PMD extended ability 2 is clause 45.2.1.33 and Table 45-37.

SuggestedRemedy

Fix the Clause numbering to align with base standard and update editing instructions appropriately.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b** *P* **14** *L* **44** # 98

Slavick, Jeff Broadcom

Comment Type **ER** *Comment Status* **X**

The descriptions of the bits are done from highest number bit to lowest. So the new clauses that are adding higher numbered bits should be inserted "before" the existing sub-clases describing bits 5:0.

SuggestedRemedy

Change editing instruction to insert the new clauses "before 45.2.1.33.1" (after correcting to base standard clause numbers)

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.28** *P* **15** *L* **44** # 99

Slavick, Jeff Broadcom

Comment Type **TR** *Comment Status* **X**

In Table 45-30 the entries for 101110 and 101111 are no longer specified.

SuggestedRemedy

Add in a 10111x = Reserved to Table 45-30

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **26** *L* **7** # 100

Slavick, Jeff Broadcom

Comment Type **TR** *Comment Status* **X**

Remove all the Editors notes stating what the section was leveraged from. This note has no life span and should not be included in the publication.

SuggestedRemedy

Remove all the Editors notes stating which clause was used to create the current clause (10 occurences).

Proposed Response *Response Status* **O**

Cl **80** *SC* **80.4** *P* **16** *L* **13** # 101

Slavick, Jeff Broadcom

Comment Type **TR** *Comment Status* **X**

The other optical PHYs in this table note that the delay time includes 2m of fiber.

SuggestedRemedy

Add "Includes 2m of fiber." before the See 168.3.1

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1** *P* **17** *L* **1** # 102

Slavick, Jeff Broadcom

Comment Type **TR** *Comment Status* **X**

There is no editing instruction for Clause 157 which is an existing base standard clause.

SuggestedRemedy

Reduce the amount of text, Figures and Tables to only be changes being made to Clause 157 and not the entire Clause. Inserting appropriate editing instructions for section that is being changed.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.6** *P* **24** *L* **51** # 103

Slavick, Jeff Broadcom

Comment Type **TR** *Comment Status* **X**

Clauses 161-167 are related to things other than the BiDi PMDs

SuggestedRemedy

Remove the strikethough of Clause 160 and insert a , between Clause 160 and Clause 168

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.12.3** *P* **49** *L* **15** # 104

Slavick, Jeff — Broadcom

Comment Type **TR** *Comment Status* **X**

INS is used as a conditonal in 168.12.4.8 so it needs a *

SuggestedRemedy

Add a * before INS in the item column in 168.12.3

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.5.1.1.2** *P* **12** *L* **12** # 105

Slavick, Jeff — Broadcom

Comment Type **ER** *Comment Status* **X**

100GBASE-T does not exist.

SuggestedRemedy

Change the editing instructions to be "Insert the following types into the “APPROPRIATE SYNTAX” section of 30.5.1.1.2 before 100GBASE-CR1 (as inserted by IEEE Std. 802.3ck-2022):"

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.3** *P* **24** *L* **7** # 106

Zimmerman, George — ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **E** *Comment Status* **X**

80.3 should be an External cross reference or else bring it in to the draft (do changes need to be made? - the existing 80.3 does NOT reference that it applies to 100GBASE-BRx PHYs ….)

SuggestedRemedy

Mark 80.3 as External (green) or bring it into the draft with appropriate changes to refernece application to 100GBASE-BRx PHYs.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.3.2** *P* **28** *L* **52** # 107

Zimmerman, George — ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **E** *Comment Status* **X**

Active cross references to sections 80.5, Figure 80-9, 83.5.3.4, all point nowhere, they are not in the draft.
I will not comment more on cross references - however, there are numerous ones missed and they need to be checked.

SuggestedRemedy

Mark cross references as external. Editor to check the draft for external cross references globally and fix.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.3.2** *P* **29** *L* **2** # 108

Zimmerman, George — ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **TR** *Comment Status* **X**

"is" is for statements of fact. The limitation on the skew seems to be a requirement. Further, the requirements in 83.5.3.4 go further and specify skew variation. Is that to be specified? While 83.5.3.4 was mentioned earlier defining skew, it isn't clear that those requirements apply. Here is where that should be stated.

SuggestedRemedy

Change "Skew at SP2 is limited to 43 ns as defined by 83.5.3.4" to "Skew and skew variation at SP2 shall comply with the requirements of 83.5.3.4"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.12.3** *P* **49** *L* **28** # 109

Zimmerman, George — ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **T** *Comment Status* **X**

Delay constaints is a section of the PICS, not a capability or option. These are requiremetns that need to be spelled out in their own table.

SuggestedRemedy

Delete row "DC" in 168.12.3, add new section 168.12.4.1 Delay and skew specifications and renumber subsequent PICS statements. Go through 168.3 and call out the delay constraint requirments one-by-one to populate (this is where having the "shalls" would have been useful).

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.3** *P* **35** *L* **11** # 110

Zimmerman, George ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **T** *Comment Status* **X**

The unit for a power budget can't be dB - power has units - dBm, for example…. dB is only good for ratios.

SuggestedRemedy

Either rename "Power budget" so it is clear it is a ratio, or change units to reflect a unit of power (e.g., dBm)

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.12** *P* **41** *L* **15** # 111

Zimmerman, George ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **T** *Comment Status* **X**

"Meets equation constraints" cannot possibly be right for all 3 PHYs. Also, the plot says it is receiver sensitivity but the axis says OMAouter(dBm). This needs further definition in the equations 168-4, 168-5, and 168-6 and the text to unravel. Is this saying that the RS should be sensitive to a signal with an OMA of the level of equations 168-4, 168-5, and 168-6 (depending on the PHY type) (but can be sensitive to a lower level signal)? If so, the label needs to be 3 different labels, each indicating which line they are for, and on the bottom side of the line... The equations need more words to describe the measurement. I'm sorry, but I don't know well enough what you meant to write a good solution.

SuggestedRemedy

See comment. Adjust location of "Meets equation constraints" so that it meets all 3 lines. Consider more explanatory words and converting the equations 168-4, 168-5 and 168-6 to inequalities.

Proposed Response *Response Status* **O**

Cl **FM** *SC* **FM** *P* **1** *L* **23** # 112

Zimmerman, George ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **ER** *Comment Status* **X**

This draft is amending IEEE Std 802.3-2022 which has already been amended now by at least 9 published amendments, and at least one in WG ballot ahead of this draft. It is important to keep track of the other changes so that the new changes are properly correlated with clause numbers and other changes made. Since this amendment makes changes to clauses 30 & 45 in places near or at where other amendments have, this may create errors. Hence my marking this comment, which seems minor, as required.

SuggestedRemedy

Replace "IEEE Std 802.3y-20xx" with the list of published amendements and those ahead of this amendment in the process. (Note - Include at least the published amendments (dd, cs, db, ck, de, cx, cz, cy, df , and Cor1 listed in the introduction), as well as 802.3da which is ahead of this amendment.
Editor to review edits to existing clauses (30, 45, and 80) to determine whether any section numbering or editing instructions for location of changes are altered.

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.5.1.1.2** *P* **12** *L* **12** # 113

Zimmerman, George ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **E** *Comment Status* **X**

As a card-carrying BASE-T guy, I'm pretty sure we never got so audacious as to do 100GBASE-T. Where does this go? Most of these are alphanumeric, so I think the new MAUs are the first in the 100G section… (whereas "T" would be in an odd place, near the end, and the location of the new row in the fault description tables is grouped after the LR4/ER4 row... - that's why I'm not sure)

SuggestedRemedy

change 100GBASE-T to 50GBASE-SR

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.5.1.1.2** *P* **12** *L* **20** # 114

Zimmerman, George ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **E** *Comment Status* **X**

"Clause 168" references should be active cross-references (hyperlinks) - they are not.

SuggestedRemedy

Replace "Clause 168" text at lines 20, 23, 26, 29, 32, and 35 with active cross references

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b.7** *P* **14** *L* **43** # 115

Zimmerman, George ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **E** *Comment Status* **X**

Insert editorial instructions are without underscores (those are for inserts on a "Change" instruction)

SuggestedRemedy

Remove underscores in 45.2.1.27b.7 through 45.2.1.27b.12 (including on paragraph text).

Proposed Response *Response Status* **O**

Cl **157** *SC* **157** *P* **17** *L* **1** # 116

Zimmerman, George ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **E** *Comment Status* **X**

There is no editing instruction for this clause. As the entire clause seems to be included here, marked with 'change' editing marks (which is more than you need), it seems "Change title and text of Clause 157 as shown:" may be used - even though it is REALLY unusual.

SuggestedRemedy

Insert editing instruction prior to header, "Change title and text of Clause 157 as shown:"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168** *P* **26** *L* **1** # 117

Zimmerman, George ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **E** *Comment Status* **X**

Again, no editing instruction.

SuggestedRemedy

Insert editing instruction prior to header, "Insert Clause 168 after Clause 167."

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **26** *L* **50** # 118

Zimmerman, George ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **T** *Comment Status* **X**

The note doesn't quite hit the point. Physical implementation of the CGMII is optional. The logical description still applies (which is what the "However" says…)

SuggestedRemedy

Change "The CGMII is an optional interface." to "Physical implementation of the the CGMII is optional."

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **27** *L* **13** # 119

Zimmerman, George ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **T** *Comment Status* **X**

Physical implementation of the CGMII is optional, but that is not what Figure 168-1 shows.

SuggestedRemedy

Add footnote 1 to CGMII at line 13. Add text of "NOTE - Physical implementation of CGMII is optional" at line 29 (below PCS).

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **26** *L* **6** # 120

Zimmerman, George ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **E** *Comment Status* **X**

While the editor's notes on where things came from are helpful, they need eventually to be removed. They've probably served their purpose now, through d2.0, and may be deleted, but if you want to keep them around, they should be deleted prior to SA ballot.

SuggestedRemedy

Either: change editor's notes to say "Editor's note (to be removed prior to SA Ballot:" or delete Editor's notes on origin for subclauses.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.4** *P* **24** *L* **23** # 121

Zimmerman, George ADI,APLgp,Cisco,Marvell,OnSemi,Sony,SenTekse

Comment Type **E** *Comment Status* **X**

80.4 should be an active cross reference.

SuggestedRemedy

Replace 80.4 with an active cross reference

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.5.1.1.2** *P* **12** *L* **11** # 122

Huber, Thomas Nokia

Comment Type **E** *Comment Status* **X**

100GBASE-T is not included in 30.5.1.1.2 of 802.3-2022 or any of its amendments. Further, In the rest of 30.5.1.1.2, the PHYs are listed alphabetically by rate; as such, this set BRxx PHYs should be inserted before 100GBASE-CR

SuggestedRemedy

Change the editing instruction to say "Insert the following types into the "APPROPRIATE SYNTAX" section of 30.5.1.1.2 after 50GBASE-SR:"

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b** *P* **14** *L* **13** # 123

Huber, Thomas Nokia

Comment Type **E** *Comment Status* **X**

The clause number for BiDi PMA/PMD extended ability 2 (register 1.35) is 45.2.1.33. The table number is 45-37.

SuggestedRemedy

Change the clause number from 45.2.1.27b to 45.2.1.33, change the editing instruction to say "Insert new rows in Table 45-37 above the row for "1.35.5" as shown (additional unchanged rows not shown):", and change the table number from 45-31b to 45-37.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b.7** *P* **14** *L* **46** # 124

Huber, Thomas Nokia

Comment Type **E** *Comment Status* **X**

The new clauses related to the new bits in table 45-37 need to be inserted in 45.2.1.33 rather than in 45.2.1.27b. Since the current set of subclauses go from bit 5 to bit 0 (i.e., 45.2.1.33.1 concerns bit 5, 45.2.1.33.2 concerns bit 4, etc.), for consistency, the new subclauses be inserted before the existing subclauses rather than after them.

SuggestedRemedy

Change the editing instruction to say "Insert new subclauses 45.2.1.33.a to 45.2.1.33.f before 45.2.1.33.1". Change the subclause headings as follows:
45.2.1.27b.7 --> 45.2.1.33.a
45.2.1.27b.8 --> 45.2.1.33.b
45.2.1.27b.9 --> 45.2.1.33.c
45.2.1.27b.10 --> 45.2.1.33.d
45.2.1.27b.11 --> 45.2.1.33.e
45.2.1.27b.12 --> 45.2.1.33.f

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.28** *P* **15** *L* **44** # 125

Huber, Thomas Nokia

Comment Type **T** *Comment Status* **X**

The values 10111x need to be indicated as reserved

SuggestedRemedy

Insert a line "1 0 1 1 1 x = Reserved" above the line for BR40-U.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157** *P* **17** *L* **1** # 126

Huber, Thomas Nokia

Comment Type **E** *Comment Status* **X**

This clause is missing editing instructions

SuggestedRemedy

Add an editing instruction at the top of the page:
"Change clauses 157 and 157.1 as shown:"
Add an editing instruction below clause 157.2: "Change clause 157.2.1 as shown"
Delete tables 157-3 through 157-5, as they are not being modified.
Add an editing instruction: "Insert Table 157-6 below Table 157-5."
Add an editing instruction: "Change clauses 157.2.2 through 157.2.5 as shown:"
Delete clauses 157.2.6 and 157.2.7 since they are not being modified.
Add an editing instruction: "Change clauses 157.3, 157.4, and 157.6 as shown:"

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.3** *P* **18** *L* **1** # 127

Huber, Thomas Nokia

Comment Type **T** *Comment Status* **X**

The architecture is essentially the same for all rates. Rather than introducing figure 157-1a to introduce the 100G rate, it would be better to use a single figure that is more generic and covers the architecture of all rates.

SuggestedRemedy

Take figure 157-1a as a starting point. Change "CGMII" to "XGMII, 25GMII, 50GMII, or CGMII". Change the PCS to "10GBASE-R, 25GBASE-R, 50GBASE-R, or 100GBASE-R PCS" (or maybe just "rGBASE-R PCS", referencing the nomenclature introducted in Table 157-1). Add note 1 to the FEC sublayer, saying "conditional for 10GBASE-BRx based on PHY type". At the bottom, list all the various PMDs, or use a generic "rGBASE-BRx" label. Replace the existing figure 157-1 with the figure described in this comment..Undo the modifications to the title of Figure 157-1. Delete new figure 157-1a.and the reference to it in 157.1.2 (which is not shown as a change in the draft).

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.6** *P* **24** *L* **50** # 128

Huber, Thomas Nokia

Comment Type **T** *Comment Status* **X**

The change to replace clause 160 with 168 is not correct; clauses 161 to 167 are unrelated to bidirectional PHYs.

SuggestedRemedy

Undo the replacement of 160 with 168, and add Clause 168 to the list, so it reads "… Clause 114, Clause 158 through Clause 160, Clause 168, and related annexes…"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.9** *P* **32** *L* **21** # 129

Huber, Thomas Nokia

Comment Type **E** *Comment Status* **X**

The first sentence of this clause is a comma splice.

SuggestedRemedy

Replace the comma with a semicolon, split into two separate sentences for the U and D PMDs, or write it as "The PMD_receive_fault function is mandatory in the 100GBASE-BRx-U PMD and optional in the 100GBASE-BRx-D PMD.".

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6** *P* **32** *L* **40** # 130

Huber, Thomas Nokia

Comment Type **T** *Comment Status* **X**

The sentence concerning BR40 working with BR20 or BR10 as long as the shorter reach channel requirements are met is helpful, but it seems incomplete. Would is also not be true that the BR20 PMD operates with a BR10 PMD as long as the channel requirements of the BR10 PMD are met?

SuggestedRemedy

Make the sentence more generic: "A longer reach PMD interoperates with a shorter reach PMD as long as the channel requirments of the shorter reach PMD are met."

Proposed Response *Response Status* **O**

Cl **00** *SC* **0** *P* **0** *L* **0** # 131

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

pdf metadata is at default

SuggestedRemedy

Populate with correct data

Proposed Response *Response Status* **O**

Cl **FM** *SC* **FM** *P* **1** *L* **26** # 132

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Task Force review

SuggestedRemedy

Working Group ballot

Proposed Response *Response Status* **O**

Cl **Content** *SC* **Contents** *P* **12** *L* **0** # 133

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Contents is missing

SuggestedRemedy

Add Contents

Proposed Response *Response Status* **O**

Cl **1** *SC* **1.4** *P* **12** *L* **0** # 134

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Physical Layer definitions are missing

SuggestedRemedy

Add Physical Layer definitions after 1.4.24 100BASE-X and before 1.4.24a 100GBASE-CR1

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.5.1.1.2** *P* **12** *L* **12** # 135

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Unlike most tables which are in order of MAC rate - reach - length, this is in alphanumeric order

SuggestedRemedy

Change "30.5.1.1.2 after 100GBASE-T" to "30.5.1.1.2 (as modified by IEEE Std 802.3ck-2022), after 50GBASE-SR and before 100GBASE-CR1"

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.5.1.1.2** *P* **12** *L* **16** # 136

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

So that the reviewers can confirm that the new material is inserted in the correct place

SuggestedRemedy

Please show one row before and one after the new material

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.5.1.1.2** *P* **12** *L* **18** # 137

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

In 30.5, one should not describe these MAU types "bi-directional" when others such as 50GBASE-BR10 and 40GBASE-T are not described like that. By the way, 802.3 spells it without a hyphen.

SuggestedRemedy

Either change the description of many MAUs (via maintenance?) or don't use the word for these ones.

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.5.1.1.2** *P* **12** *L* **23** # 138

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Trailing blanks

SuggestedRemedy

Remove. It looks like there are five in this page

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.5.1.1.2** *P* **12** *L* **23** # 139

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Three dots

SuggestedRemedy

Should not be underlined

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.7.4** *P* **13** *L* **20** # 140

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

So that the reviewers can confirm that the new material is inserted in the correct place

SuggestedRemedy

Please show one row before and one after the new material

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.7.5** *P* **13** *L* **38** # 141

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

So that the reviewers can confirm that the new material is inserted in the correct place

SuggestedRemedy

Please show one row before and one after the new material

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.8.1** *P* **13** *L* **48** # 142

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Table 45-12 is part of 45.2.1.8 not 45.2.1.8.1

SuggestedRemedy

Delete "45.2.1.8.1 PMD transmit disable 14 (1.9.15)"

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.8** *P* **14** *L* **5** # 143

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

So that the reviewers can confirm that the new material is inserted in the correct place

SuggestedRemedy

Please show one row before and one after the new material

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b** *P* **14** *L* **13** # 144

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Wrong subclause number

SuggestedRemedy

Change 45.2.1.27b to 45.2.1.33 and move this and its subclauses after 45.2.1.28.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b** *P* **14** *L* **39** # 145

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

So that the reviewers can confirm that the new material is inserted in the correct place

SuggestedRemedy

Please show one row after the new material

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.28** *P* **15** *L* **31** # 146

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

Why put the 100GBASE-BR PMA/PMD types in 1.29 with PQX rather than in 1.7 with 50GBASE-BR and 100GBASE ?

SuggestedRemedy

Change from 45.2.1.28 10P/2B PMA/PMD control register (Register 1.30) (which is wrong anyway, the table is for 1.29) Table 45-30, PMA/PMD control 3 register bit definitions, to 45.2.1.6 PMA/PMD control 2 register (Register 1.7) Table 45-7, PMA/PMD control 2 register bit definitions, values 1 1 1 1 x x x.
Notice that 3dj is bringing bit 7 into use so there is adequate space here.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.28** *P* **15** *L* **37** # 147

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

45.2.1.28 10P/2B PMA/PMD control register (Register 1.30)

SuggestedRemedy

Should have been 45.2.1.27 PMA/PMD control 3 register (Register 1.29) - but see another comment

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.28** *P* **15** *L* **44** # 148

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

1 1 x x x x = Reserved

SuggestedRemedy

Also 1 0 1 1 1 x = Reserved - but see another comment

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.28** *P* **15** *L* **51** # 149

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

So that the reviewers can confirm that the new material is inserted in the correct place

SuggestedRemedy

Please show one sub-row after the new material

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.28** *P* **15** *L* **51** # 150

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

There is no following row

SuggestedRemedy

Remove the row with three dots

Proposed Response *Response Status* **O**

Cl **80** *SC* **80.1** *P* **16** *L* **2** # 151

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

80.1 (as modified by 3ck) needs additions

SuggestedRemedy

Per comment

Proposed Response *Response Status* **O**

Cl **80** *SC* **80.1.3** *P* **16** *L* **2** # 152

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

80.1.3 (as modified by 3ck) needs additions

SuggestedRemedy

Per comment

Proposed Response *Response Status* **O**

Cl **80** *SC* **80.2.3** *P* **16** *L* **2** # 153

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Table 80-1, 40 Gb/s and 100 Gb/s PHYs
and
Table 80-5, Nomenclature and clause correlation (100GBASE-P optical)
need additions

SuggestedRemedy

Per comment

Proposed Response *Response Status* **O**

Cl **80** *SC* **80.2.5** *P* **16** *L* **2** # 154

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

80.2.3 (as modified by 3ck) and 80.2.5 need additions

SuggestedRemedy

Per comment

Proposed Response *Response Status* **O**

Cl **80** *SC* **80.2.5** *P* **16** *L* **2** # 155

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Table 80-8, Summary of Skew constraints
and
Table 80-9, Summary of Skew Variation constraints
need additions

SuggestedRemedy

Per comment

Proposed Response *Response Status* **O**

Cl **80** *SC* **80.4** *P* **16** *L* **6** # 156

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

This table is ordered by MAC rate - reach - length, so these rows don't go at the end

SuggestedRemedy

Change "Insert three new rows at the end of Table 80-7" to "Insert three new rows in Table 80-7 (as modified by IEEE Std 802.3db-2022) between 100GBASE-LR1 PMD and 100GBASE-ER4 PMD"

Proposed Response *Response Status* **O**

Cl **80** *SC* **80.4** *P* **16** *L* **12** # 157

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

So that the reviewers can confirm that the new material is inserted in the correct place

SuggestedRemedy

Please show one row before and one after the new material

Proposed Response *Response Status* **O**

Cl **80** *SC* **80.4** *P* **16** *L* **13** # 158

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

To match the existing entries

SuggestedRemedy

Insert "Includes 2 m of fiber." 3 times

Proposed Response *Response Status* **O**

Cl **80** *SC* **80.4** *P* **16** *L* **17** # 159

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

This is a long table and this amendment makes it longer, so it should make the consequential change.

SuggestedRemedy

Split the table into two, one for 40G and one for 100G.

Proposed Response *Response Status* **O**

Cl **80** *SC* **80.7** *P* **16** *L* **20** # 160

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Needs to mention the new PMD clause. Insert:

SuggestedRemedy

Change the first paragraph of 80.7 as follows:
80.7 Protocol implementation conformance statement (PICS) proforma
Change the first paragraph of 80.7 (as modified by IEEE Std 802.3ck-2022) as follows:
The supplier of a protocol implementation that is claimed to conform to any part of IEEE Std 802.3, Clause 45, Clause 73, Clause 74, Clause 81 through Clause 89, Clause 91 through Clause 95, Clause 135 through Clause 138, Clause 140, Clause 152 through Clause 154, _Clause 157,_ Clause 161 through Clause 163, and related annexes _,_ demonstrates compliance by completing a protocol implementation conformance statement (PICS) proforma.

Proposed Response *Response Status* **O**

Cl **91** *SC* **91.5.2.7** *P* **16** *L* **22** # 161

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Missing material

SuggestedRemedy

Bring in 91.5.2.7, 91.5.3.3, 91.5.3.3.1, 91.6.3, 91.7.3, 91.7.4.1, 91.7.4.2 (as modified by 3ck) and make appropriate changes

Proposed Response *Response Status* **O**

Cl **135** *SC* **135.5.7** *P* **16** *L* **30** # 162

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

Should precoding be allowed as an option?

SuggestedRemedy

Consider including precoding (135.5.7) as an option. This could be controlled by the network operator according to experience.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.4** *P* **22** *L* **31** # 163

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Add 100GAUI-1 C2C and C2M

SuggestedRemedy

Add 120F, 120G after 135G (2-lane PMA) and before 168 (PMD). Optional.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.4** *P* **23** *L* **20** # 164

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

medium independent

SuggestedRemedy

medium-independent

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.4** *P* **24** *L* **22** # 165

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

I think that the normative delay specs are in 168.3, and what is in 80.4 is sort of a restatement for clarity.

SuggestedRemedy

Change "in 80.4" to "in 168.3 (and see 80.4)"

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.4** *P* **24** *L* **24** # 166

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Skew and Skew Variation is missing

SuggestedRemedy

Add text to refer to 168.3.2, and refer to 80.5

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.6** *P* **24** *L* **50** # 167

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Clause 114, Clause 158 through Clause 160Clause 168, and related annexes demonstrates

SuggestedRemedy

Clause 114, Clause 158 Xthrough Clause 160X , Clause 159, Clause 160, or _Clause 168,_ and related annexes demonstrates
[inserting a comma]

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **26** *L* **34** # 168

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

For these relatively long links, FEC latency is not an issue but robustness may be

SuggestedRemedy

Consider allowing Clause 161 RS-FEC-Int (with 91.6.7a 100G_RS_FEC_enable):
152—Inverse RS-FEC Optional b
161—RS-FEC-Int Optional
b Inverse RS-FEC is required to convert between RS-FEC and RS-FEC-Int (see 152.1.2).

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **26** *L* **48** # 169

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

Add 100GAUI-1 C2C and C2M

SuggestedRemedy

Insert 120F and 120G below 135G. Optional.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **27** *L* **3** # 170

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Add reference to 157

SuggestedRemedy

Per comment

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **27** *L* **9** # 171

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

In 157, this figure includes OAM (OPTIONAL)

SuggestedRemedy

Do the same here?

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **27** *L* **28** # 172

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Layout

SuggestedRemedy

Left justify

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.1** *P* **27** *L* **36** # 173

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Blank line?

SuggestedRemedy

Remove?

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.1** *P* **30** *L* **39** # 174

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

This says "TP1 and TP4 ... (these test points are not typically be accessible in an implemented system)" but this is outdated. Clause 167 (100G/lane VR and SR says "might not be accessible". Linear optical modules are feasible at 100G/lane now, at least for DR. Grammar: "are not typically be"

SuggestedRemedy

Change "are not typically be" to "might not be"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.4** *P* **31** *L* **23** # 175

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

inter-sublayer service interface primitives defined in 131.3.

SuggestedRemedy

inter-sublayer service interface primitives defined in 80.3.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.4** *P* **31** *L* **25** # 176

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

While the status variables have "global" in their names so that 1-lane PHYs can be managed the same as multilane PHYs, saying that SIGNAL_DETECT is a *global* indicator of the presence of the optical signal isn't really right.

SuggestedRemedy

Delete "global" here and in PICS F10

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.4** *P* **31** *L* **31** # 177

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

This "base text" does not agree with the published 160.5 and similar sections in other clauses such as 140 and 167. "Must" is deprecated.

SuggestedRemedy

Change "an unavoidable consequence" to "a consequence". Change "must" to "need to". Make any other changes to align with the published 802.3 as appropriate.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **33** *L* **19** # 178

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

For improved readability, where the parameter limits seem likely to remain the same for all 3 (6) PMDs...

SuggestedRemedy

As for the first four rows, merge and straddle the triple entries for
Side-mode suppression ratio (SMSR), (min)
Transmitter transition time (max)
RINxOMA (max)
Transmitter reflectance (max)

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **33** *L* **39** # 179

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Use the emerging standard order for these parameters (see Clause 151)

SuggestedRemedy

Move Average launch power of OFF transmitter (max)
to after Transmitter transition time (max)

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **33** *L* **46** # 180

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

It's probably not worth testing some transmitters for TDECQ and RIN with 15 dB return loss and others with 15.6 dB. The cost in paperwork may outweigh any difference in yield.

SuggestedRemedy

Consider changing 15.6 to 15 here and in Table 168-11 (simplifying and being conservative).
Then RINxOMA can become RIN15OMA.
If it is thought worthwhile, the discrete reflectances for 100GBASE-BR10 in Table 168-14 and the channel optical return loss in Table 168-12 could be made slightly worse, to spend that 0.6 dB.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **33** *L* **51** # 181

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

A comparison with Clause 139 (50GBASE-FR LR ER) doesn't seem relevant; saying this is consistent doesn't seem correct.

SuggestedRemedy

Delete the sentence "Even though the representation of the OMAouter requirement is different from that in Clause 139, they are consistent."

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **34** *L* **1** # 182

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

In equations, functions and abbreviations of words should be upright not italic

SuggestedRemedy

Change max to upright, three times

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.3** *P* **35** *L* **14** # 183

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

6.3 dB doesn't seem right for the wavelengths concerned: see comment against 168.9

SuggestedRemedy

Change 6.3 to 6.0 (or 6.1); change 10.6 to 10.3 (or 10.4)

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.1** *P* **36** *L* **7** # 184

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Sidn

SuggestedRemedy

Side

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.4** *P* **37** *L* **2** # 185

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Blank line(s)?

SuggestedRemedy

Remove. Set the figure to float.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.5.1** *P* **38** *L* **5** # 186

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

This long sentence with two clauses is hard to understand. In a few places such as 150.8.5, 150.8.7, 150.8.10 and 151.8.1 it has been divided into two sentences.

SuggestedRemedy

Change "GHz and at frequencies" to "GHz. At frequencies", here and in 168.7.10.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.5.3** *P* **38** *L* **53** # 187

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

More exceptions

SuggestedRemedy

The signaling rate of the test pattern generator is as given in Table 168-6 and uses a test pattern specified for TDECQ in Table 168–10.
There are no interfering optical lanes and therefore the delay requirement of at least 31 UI between test pattern on one lane and any other lane, as specified in 121.8.5.1, is redundant.
[Stated above — The combination of the O/E converter and the oscilloscope has a 3 dB bandwidth of approximately 26.5625 GHz with a fourth-order Bessel-Thomson response to at least 1.3 × 53.125 GHz. At frequencies above 1.3 × 53.125 GHz the response should not exceed –20 dB. Compensation may be made for any deviation from an ideal fourth-order Bessel-Thomson response.]
The normalized noise power density spectrum, N(f) in Equation (121–9), is equivalent to white noise filtered by a fourth-order Bessel-Thomson response filter with a 3 dB bandwidth of 26.5625 GHz.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.5.4** *P* **39** *L* **19** # 188

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

A signal that needed a main tap at 0.8 would be unhealthily over-emphasised and troublesome for the receiver. The over/under-shoot spec may catch many such signals. If it catches them all, tightening this limit will make no difference. If it doesn't catch all of them, tightening this limit will be helpful.

SuggestedRemedy

Change 0.8 to 0.85

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.7** *P* **39** *L* **33** # 189

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

There is only one limit for this in the table

SuggestedRemedy

Change limits to limit

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.10** *P* **40** *L* **36** # 190

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

There is only one limit for this in the table

SuggestedRemedy

Change limits to limit

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.11** *P* **40** *L* **53** # 191

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

In practice, RIN is not measured with the optical power meter method described in 52.9.6 these days, but with the scope method described in P802.3dj 180.9.11 (and T&M vendor's literature). This has the advantage that RIN can be calculated as a by-product of a TECQ measurement.

SuggestedRemedy

As this project is ahead of P802.3dj, replace the contents of 168.7.11 with a copy of 180.9.11, adjusting for the optical return loss(es) and reference Rx bandwidth of this clause.
In Table 168-10, change "Square wave" to "4 or 6".

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.12** *P* **41** *L* **8** # 192

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

This figure is a bitmap; grey and unclear

SuggestedRemedy

Insert the figure the proper way so it appears as a "vector graphic" in the pdf;
Use black font;
Make the axes black.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.12** *P* **41** *L* **9** # 193

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

y axis can be optimised

SuggestedRemedy

Change the limits from (-18 to 0) to (-15 to -3)

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.12** *P* **41** *L* **37** # 194

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

100GBASE-BR10

SuggestedRemedy

100GBASE-BR10

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.12** *P* **41** *L* **40** # 195

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Units should be upright not italic

SuggestedRemedy

Per comment

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.13** *P* **42** *L* **38** # 196

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

In this section we have: conformance test signal, signal being transmitted, received conformance signal, optical test signal, stressed receiver conformance test signal, test signal, input signal, signal, and stressed receiver conformance input signal. We are supposed to use the same name for a thing, every time (style guide 10.1.1 Homogeneity).

SuggestedRemedy

Try to clean this up, as much as is reasonable.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.13** *P* **42** *L* **39** # 197

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

"SRS" is not explained. It is used only three times.

SuggestedRemedy

Spell it out each time

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.13** *P* **42** *L* **42** # 198

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

This says "The reflectance of the optical link should be at its maximum level" but there is no text to tell the reader what to do, and unlike the TDECQ setup, there is no optical reflector in Fig 168-7.

SuggestedRemedy

Explain this fully or delete the sentence.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.13** *P* **42** *L* **44** # 199

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

While it should be obvious...

SuggestedRemedy

Add text saying that the PMD's transmitter and any other circuitry that could cause crosstalk should be operational when stressed sensitivity (and regular sensitivity) is measured. The same goes for transmitter measurements such as TECQ and TDECQ.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.13.1** *P* **43** *L* **2** # 200

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

100
MHz

SuggestedRemedy

Use non-breaking space

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.13.3** *P* **43** *L* **33** # 201

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Now that we have a definition of TECQ, this can be done directly

SuggestedRemedy

Change "is measured according to 168.7.5, except that the test fiber is not used" to "is measured according to 168.7.6"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.13.3** *P* **43** *L* **41** # 202

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

From the style guide: The word may is used to indicate a course of action permissible within the limits of the standard (may equals is permitted to).

SuggestedRemedy

Change "under-stressed may result" to "under-stressed could result" or "under-stressed might result"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.8.1** *P* **44** *L* **3** # 203

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Links to be made by staff

SuggestedRemedy

Should be forest green. Also in 168.12.4.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.8.2** *P* **44** *L* **17** # 204

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Most sections like this have a footnote:
A host system that fails to meet the manufacturer's requirements and/or usage restrictions may emit laser radiation in excess of the safety limits of one or more safety standards. In such a case, the host manufacturer is required to obtain its own laser safety certification.

SuggestedRemedy

If this footnote is required, add it

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.9** *P* **45** *L* **26** # 205

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

Originally, 10 km = 6 dB at 1310 nm. 10GBASE-BR10 can be at 1260 nm, so 6.2 dB. 25GBASE-BR10 and 50GBASE-BR10, also 1260 nm, are allowed 6.3 dB. 100GBASE-BR's shortest wavelength is 1303.6 nm so the same cable won't show so much loss. Calculating the channel insertion loss using the link model, it's 6.00 dB at 1310 nm 6.20 at 1260 or 6.02 dB at 1303.6 nm

SuggestedRemedy

Change 6.3 to 6 (or 6.1). Change the budget for 100GBASE-BR10 from 10.6 to 10.3 (or 10.4).

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.9** *P* **45** *L* **36** # 206

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

This gives the dispersion ranges for the upstream direction only

SuggestedRemedy

Add two more rows for the dispersion ranges for the downstream direction.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.9** *P* **45** *L* **44** # 207

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

Other clauses have changed to the IEC definition

SuggestedRemedy

Change "ANSI/TIA/EIA-526-7/method A-1" to "the IEC 61280-4-2 one-cord reference method"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.10** *P* **46** *L* **1** # 208

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Table 168-12 contains numbers not definitions

SuggestedRemedy

Change "defined in" to "given in" or "of"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.10** *P* **46** *L* **9** # 209

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

...), or type G.657.A1 or type G.657.A2 (bend insensitive) fibers or the requirements in ...

SuggestedRemedy

Insert comma, as in 151.11.1:
...), or type G.657.A1 or type G.657.A2 (bend insensitive) fibers, or the requirements in ...

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.10** *P* **46** *L* **26** # 210

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

may not support operation 10 km for 100GBASE-BR10, 20 km for 100GBASE-BR20 or 40 km for 100GBASE-BR40.

SuggestedRemedy

may not support operation *at* 10 km for 100GBASE-BR10, 20 km for 100GBASE-BR20 or 40 km for 100GBASE-BR40.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.11** *P* **47** *L* **39** # 211

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

"168.11 Requirements for interoperation between 100GBASE-BRx PMDs" other similar material e.g. in 151 doesn't say "Requirements for".

SuggestedRemedy

Delete "Requirements for" here and in the table title.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.11** *P* **47** *L* **39** # 212

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **X**

This needs some text to introduce the table, which should also address interoperability, or not, with 100GBASE-BR10. Presumably the mixed link has to stay within the chromatic dispersion limits of the shorter-reach PMD.

SuggestedRemedy

Something like:
168.11 Interoperation between 100GBASE-BRx PMDs
The 100GBASE-BR20 and 100GBASE-BR40 PMDs can interoperate with each other (over an engineered link) provided that the fiber optic cabling (channel) characteristics for 100GBASE-BR20 in Table 168-12 are met, with the exception of the maximum and minimum channel insertion loss values, which are given in Table 168-15 for the two link directions separately. Attenuators may be used to achieve the required losses. Interoperation between 100GBASE-BR10 and 100GBASE-BR20 or 100GBASE-BR40 is not recommended (or whatever the case is).

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.12.1** *P* **48** *L* **14** # 213

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Links to be made by staff

SuggestedRemedy

Should be forest green. Also at like 47

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.12.1** *P* **48** *L* **28** # 214

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

Blank sub-row?

SuggestedRemedy

Remove. Also in 168.12.3, twice

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.12.3** *P* **49** *L* **13** # 215

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **X**

The ONU silent start applies to the U PHYs but not the D PHYs

SuggestedRemedy

Create major options for U and D. Status of F12 ONU silent start becomes U:M

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.5.1** *P* **30** *L* **38** # 216

Dudek, Mike Marvell

Comment Type **E** *Comment Status* **X**

poor English.

SuggestedRemedy

Delete the "be" in "are not typically be accessible"

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6** *P* **32** *L* **40** # 217

Dudek, Mike Marvell

Comment Type **TR** *Comment Status* **X**

The statement is made that the 100GBASE-DR40 PMD will interoperate with the 100GBASE-BR10 and 100GBASE-BR20 provided the channel requirements for 100GBASE-BR10 and 100GBASE-BR20 are met, however section 168.11 includes additional requirements for interoperation between 100GBASE-BR40 and 100GBASE-20 including the addition of minimum losses. Section 168.11 doesn't include minimum losses for inter-operation between 100GBASE-BR40 and 100GBASE-10 and the minimum Tx output power for 100GBASE-BR40 in the off state is -15dBm which is greater than the signal detect "fail" level of -20dBm.

SuggestedRemedy

add "except that the channel losses are specified in section 168.11". Add an appropriate table for the inter-operation between 100GBASE-BR40 and 100GBASE-BR10 to section 168.11

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.12** *P* **41** *L* # 218

Dudek, Mike Marvell

Comment Type **T** *Comment Status* **X**

In Figure 168-6 "meets equation constraints" needs to be below all the lines or it needs to be deleted.

SuggestedRemedy

Fix it

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.11** *P* **47** *L* **47** # 219

Dudek, Mike Marvell

Comment Type **TR** *Comment Status* **X**

There is only one fiber between the BR20 and BR40 PMD's so there can't be different loss specs for the two directions. To be compliant in both directions it appears that the loss between BR20 and BR40 would have to be min 8.3dB and max 10dB which is a very small range but could be specified.

SuggestedRemedy

Collapse the two rows in Table 168-15 into one row. With min loss of 8.3dB and max loss of 10dB

Proposed Response *Response Status* **O**

Cl **157** *SC* **1.3** *P* **18** *L* **1** # 220

Effenberger, Frank — Futurewei Technologies

Comment Type **E** *Comment Status* **X**

Figure 157-1(a) is unfortunate in how it breaks over the pages, and then Table 157-2 gets broken up in a weird way.

SuggestedRemedy

Try to squeeze all four speeds onto a single figure.

Proposed Response *Response Status* **O**

Cl **45** *SC* **2.1.28** *P* **15** *L* **43** # 221

Effenberger, Frank — Futurewei Technologies

Comment Type **E** *Comment Status* **X**

Table 45-50: The reserved bits are not quite right, as there are wo codepoints that need to be reserved.

SuggestedRemedy

Add the following:
1 1 x x x x = Reserved
1 0 1 1 1 x = Reserved

Proposed Response *Response Status* **O**

Cl **00** *SC* **0** *P* **1** *L* **13** # 222

Wienckowski, Natalie — IVN Solutions LLC

Comment Type **ER** *Comment Status* **X**

The Ammendment title is supposed to match the name in the PAR

SuggestedRemedy

Change: Amendment: Bidirectional 100 Gb/s Optical Access PHYs
To: Amendment: Greater than 50 Gb/s Bidirectional Optical Access PHYs Task Force
Also change this on the heading of each page.

Proposed Response *Response Status* **O**

Cl **00** *SC* **0** *P* **8** *L* **4** # 223

Wienckowski, Natalie — IVN Solutions LLC

Comment Type **ER** *Comment Status* **X**

The box under "Introduction" needs to be updated with P802.3dk information.

SuggestedRemedy

Change: Std 802.3-20xx
To: Std 802.3dk-202x
and Change: Amendment title (copy from PAR)
To: Greater than 50 Gb/s Bidirectional Optical Access PHYs Task Force

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.7.4** *P* **13** *L* **10** # 224

Wienckowski, Natalie — IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Includes an unchanged row when the editing instructions say it doesn't.

SuggestedRemedy

Delete unchanged row

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.7.5** *P* **13** *L* **40** # 225

Wienckowski, Natalie — IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Includes an unchanged row when the editing instructions say it doesn't.

SuggestedRemedy

Delete unchanged row

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.8.1** *P* **14** *L* **7** # 226

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Includes an unchanged row when the editing instructions say it doesn't.

SuggestedRemedy

Delete unchanged row

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b** *P* **14** *L* **13** # 227

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

The Clause numbers from P802.3-2022 need to be used, not the numbers from P802.3cp-2021.

SuggestedRemedy

Change 45.2.1.27b to 45.2.1.33 and reorder to put the clauses in the correct order.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b** *P* **14** *L* **15** # 228

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

The Table numbers from P802.3-2022 need to be used, not the numbers from P802.3cp-2021.

SuggestedRemedy

Change Table 45-31b to Table 45-37, also on line 19

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b.7** *P* **14** *L* **43** # 229

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

The Clause numbers from P802.3-2022 need to be used, not the numbers from P802.3cp-2021. Also, the higher number bits are defined before the lower number bits so the new bit definitions go before the existing ones.

SuggestedRemedy

Change: 45.2.1.27b.7-45.2.1.27b.12 after 45.2.1.27b.6
To: 45.2.1.33.a-45.2.1.33.f before 45.2.1.33.1

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b.7** *P* **14** *L* **45** # 230

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

The Clause numbers from P802.3-2022 need to be used, not the numbers from P802.3cp-2021.

SuggestedRemedy

Change 45.2.1.27b.7 to 45.2.1.33.a

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b.8** *P* **15** *L* **1** # 231

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

The Clause numbers from P802.3-2022 need to be used, not the numbers from P802.3cp-2021.

SuggestedRemedy

Change 45.2.1.27b.8 to 45.2.1.33.b

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b.9** *P* **15** *L* **8** # 232

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

The Clause numbers from P802.3-2022 need to be used, not the numbers from P802.3cp-2021.

SuggestedRemedy

Change 45.2.1.27b.9 to 45.2.1.33.c

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b.10** *P* **15** *L* **13** # 233

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

The Clause numbers from P802.3-2022 need to be used, not the numbers from P802.3cp-2021.

SuggestedRemedy

Change 45.2.1.27b.10 to 45.2.1.33.d

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.3** *P* **18** *L* **35** # 234

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

The table should not be broken up with a Figure in the middle of it. Only the new rows should be shown.

SuggestedRemedy

Add editorial instruction: Insert new rows at the end of Table 157-2 as follows (unchanged rows not shown):
Delete the first 18 rows of the table which are not changed.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.3** *P* **18** *L* **35** # 235

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Change the second paragraph of 157.1.3 as follows:

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.3** *P* **19** *L* **1** # 236

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Insert Figure 157-1a after Figure 157-1 as follows:

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.4** *P* **20** *L* **37** # 237

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Change 157.1.4 as follows:

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.1** *P* **20** *L* **45** # 238

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Change title 157.2.1 as follows:

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.1** *P* **20** *L* **48** # 239

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Change the last sentence of the first paragraph of 157.2.1 as follows:
Move all text to before the tables. Delete the unchanged sentences as they have no changes.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.1** *P* **21** *L* **1** # 240

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Delete unchanged content.

SuggestedRemedy

Delete Table 157-3, Table 157-4, Table 157-5.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.1** *P* **22** *L* **26** # 241

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Insert Table 157-6 after Table 157-5 as follows:

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.2** *P* **23** *L* **5** # 242

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Change 157.2.2 as follows:

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.3** *P* **23** *L* **12** # 243

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Change 157.2.3 as follows:

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.4** *P* **23** *L* **19** # 244

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Change the second and third paragraphs of 157.2.4 as follows:
Delete the first paragraph as it doesn't have any changes.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.5** *P* **23** *L* **34** # 245

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Change 157.2.5 as follows:

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.6** *P* **23** *L* **39** # 246

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Unchanged subclause

SuggestedRemedy

Delete 157.2.6

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.2.7** *P* **23** *L* **43** # 247

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Unchanged subclause

SuggestedRemedy

Delete 157.2.7

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.3** *P* **23** *L* **51** # 248

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Insert paragraph at the end of 157.3 as follows:
Delete unchanged paragraphs.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.4** *P* **24** *L* **10** # 249

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Insert paragraph at the end of 157.4 as follows:
Delete unchanged paragraphs.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.5** *P* **24** *L* **39** # 250

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Unchanged subclause

SuggestedRemedy

Delete 157.5

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.6** *P* **24** *L* **47** # 251

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Change the first paragraph of 157.6 as follows:
Delete the second paragraph as it doesn't have any changes.

Proposed Response *Response Status* **O**

Cl **157** SC **157.6** P **24** L **49** # 252

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

broken link

SuggestedRemedy

fix the Clause 45 link as it is in the document. Correct links not in the document as already requested.

Proposed Response *Response Status* **O**

Cl **168** SC **168** P **26** L **0** # 253

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Insert Clause 168.

Proposed Response *Response Status* **O**

Cl **00** SC **0** P **11** L **54** # 254

Wienckowski, Natalie IVN Solutions LLC

Comment Type **ER** *Comment Status* **X**

Missing table of contents

SuggestedRemedy

Create table of contents and insert after the introductory material and before Clause 30.

Proposed Response *Response Status* **O**

Cl **168** SC **168.1** P **26** L **7** # 255

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

There should not be editor's notes in D2.0 or later.

SuggestedRemedy

Delete note indicating which subclause this is based on. Delete similar notes in 168.2, 168.3, 168.4, 168.5, 168.7, 168.8, 168.9, 168.10, and 168.12.

Proposed Response *Response Status* **O**

Cl **168** SC **168.1** P **26** L **19** # 256

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

broken link

SuggestedRemedy

fix the Clause 45 link as it is in the document.

Proposed Response *Response Status* **O**

Cl **168** SC **168.4** P **29** L **27** # 257

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

tables should not be in the middle of a paragraph

SuggestedRemedy

Move Tables 168-2 and 168-3 after the paragraph text.

Proposed Response *Response Status* **O**

Cl **168** SC **168.7.5.4** P **39** L **27** # 258

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

figures should not be in the middle of a paragraph

SuggestedRemedy

Move Figure 168-5 after the paragraph text.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.7.13.1** *P* **42** *L* **35** # 259

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Figure 168-7 is part of 168.7.13.1, not 168.7.13.

SuggestedRemedy

Move Figure 168-7 after the first paragraph of 168.7.13.1.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.9** *P* **45** *L* **19** # 260

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

tables should not be in the middle of a paragraph

SuggestedRemedy

Move Table 168-12 after the paragraph text.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b.11** *P* **15** *L* **19** # 261

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

The Clause numbers from P802.3-2022 need to be used, not the numbers from P802.3cp-2021.

SuggestedRemedy

Change 45.2.1.27b.11 to 45.2.1.33.e

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27b.12** *P* **15** *L* **25** # 262

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

The Clause numbers from P802.3-2022 need to be used, not the numbers from P802.3cp-2021.

SuggestedRemedy

Change 45.2.1.27b.12 to 45.2.1.33.f

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.1** *P* **17** *L* **3** # 263

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Change the first and second paragraphs of 157.1.1 as follows: Delete third paragraph as it has no changes.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.2** *P* **17** *L* **23** # 264

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.

SuggestedRemedy

Add editorial instruction: Change 157.1.2 as follows:

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.2** *P* **17** *L* **28** # 265

Wienckowski, Natalie IVN Solutions LLC

Comment Type **ER** *Comment Status* **X**

References to external points not properly indicated. Per the instructions in the FM draft template: Any cross references that refer to clauses, tables, equations, or figures not covered by this amendment are highlighted in green. This is done by applying a character tag of “External”.

SuggestedRemedy

Correct all external references per instructions throughout the document.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.3** *P* **17** *L* **51** # 266

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.
The entire subclause shouldn't be included, only the changes should be included.

SuggestedRemedy

Add editorial instruction: Change row "r" of Table 157-1 as follows (unchanged rows not shown):
Delete text before the table and unchanged table rows.

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.3** *P* **18** *L* **1** # 267

Wienckowski, Natalie IVN Solutions LLC

Comment Type **E** *Comment Status* **X**

Missing editorial instruction.
The unchanged figure should not be included.

SuggestedRemedy

Add editorial instruction: Change title of Figure 157-1 as follows:
Delete the figure.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.1** *P* **33** *L* # 268

Maniloff, Eric Ciena

Comment Type **TR** *Comment Status* **X**

Currently the OMA (Max) values for 100GBASE-BR10/BR20/BR40 are 5/0/8.3dBm. At max TDECQ the OMA (Min) values for these are 3.1/-0.3/7.8 dBm. This leaves 0.3 dB difference between Min and Max for BR20 and 0.5dB difference between Min and Max for BR40. This is not sufficient difference for manufacturing yield, lifetime, thermals.

SuggestedRemedy

Increase the OMA Max for 100GBASEBR20 and BR40 to allow a larger difference between min and max values. Alternatively the minimum OMA could be reduced. Ensure a minimum of 1.5dB difference between Min and Max values.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.3** *P* **35** *L* # 269

Maniloff, Eric Ciena

Comment Type **T** *Comment Status* **X**

Penalty allocations include 0.9dB more than TDECQ for the 10km spec, but only 0.5dB more for the 20 & 40km specs. Penalty allocations normally include allocations for DGD and MPI penalties. DGD is 3.1/3.9/5.0 ps for 10/20/40km specs. The expectation would be that penalties for 20 & 40 kms would be ≥ those for 10 km.

SuggestedRemedy

Adjust the penalties and corresponding related specifications to align with the link impairments.

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.6.3** *P* **35** *L* # 270

Maniloff, Eric Ciena

Comment Type **E** *Comment Status* **X**

Penalty allocations include values for DGD and MPI. In 802.3dj there was a decision to explicitely state the allocations for these, which is useful information to include.

SuggestedRemedy

Add a footnote to the Penalty aloocations specifying the values for DGD and MPI

Proposed Response *Response Status* **O**

Cl **168** *SC* **168.9** *P* **45** *L* **30** # 271

Maniloff, Eric Ciena

Comment Type **T** *Comment Status* **X**

It appears that a statistical analysis is being used to arrive at the chromatic dispersion values, as documented in G.652 Appendix I. The document should clarify the approach used to arrive at the CD values. 802.3dj currently includes the following text: "The dispersion specifications are based on the statistical link design methodology documented in
ITU-T REC G.652, Appendix I."

SuggestedRemedy

Add a footnote to the CD values in Table168-12 indicating the method used to calculate the dispersion values.

Proposed Response *Response Status* **O**