Cl **FM** *SC* **FM** *P* **15** *L* **2** # 69

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **E** *Comment Status* **D** *bucket*

In the table of contents, there is no space between clause number and clause title for 45.2.14.b1 through 45.2.1.14b1.6.

SuggestedRemedy

Increase the space after clause number in the format of table of contents.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **000** *SC* **0** *P* **293** *L* **1** # 71

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **E** *Comment Status* **D** *bucket*

For all Annexes, the title texts of the top-level bookmarks in the PDF file include only the clause number and do not include the title of the clause. It is not convenient, because we have to expand the bookmark to see the title of the annex.

SuggestedRemedy

Include the title text in the top-level of the bookmark. For example, "Annex 135A (informative) 50Gb/s PMA sublayer partitioning examples", not only "Annex 135A". Apply the change to all the Annexes.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Unfortunately, because of the way the Annex headings are structured in the Framemaker template the PDF bookmark headings cannot be generated automatically in the format that the commenter requests. Instead, for that format the bookmarks must be manually generated after the PDF is created.

To save some effort on the part of the editorial team, I would ask that the task force forgive the format until publication.

Cl **001** *SC* **1.4.54a** *P* **35** *L* **10** # 8

Lusted, Kent — Intel

Comment Type **TR** *Comment Status* **D** *bucket*

The definition of 100GBASE-DR does not quite align with 200GBASE-DR2 and 400GBASE-DR4 in P802.3bs.

SuggestedRemedy

Change to: "IEEE 802.3 Physical Layer specification for 100 Gb/s serial transmission using 100GBASE-R encoding and 4-level pulse amplitude modulation over one wavelength on single-mode fiber, with reach up to at least 500 m. (See IEEE Std 802.3, Clause 140.)"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **001** *SC* **1.4.58a2** *P* **35** *L* **29** # 10

Lusted, Kent — Intel

Comment Type **TR** *Comment Status* **D** *bucket*

The definition of 50GBASE-FR does not quite align with 200GBASE-FR4 and 400GBASE-FR8 in P802.3bs.

SuggestedRemedy

Change to: "IEEE 802.3 Physical Layer specification for 50 Gb/s serial transmission using 50GBASE-R encoding and 4-level pulse amplitude modulation over one wavelength on single-mode fiber, with reach up to at least 2 km. (See IEEE Std 802.3, Clause 139.)"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **001** *SC* **1.4.58a4** *P* **35** *L* **36** # 11

Lusted, Kent — Intel

Comment Type **TR** *Comment Status* **D** *bucket*

The definition of 50GBASE-LR does not quite align with 200GBASE-LR4 and 400GBASE-LR8 in P802.3bs.

SuggestedRemedy

Change to: "IEEE 802.3 Physical Layer specification for 50 Gb/s serial transmission using 50GBASE-R encoding and 4-level pulse amplitude modulation over one wavelength on single-mode fiber, with reach up to at least 10 km. (See IEEE Std 802.3, Clause 139.)"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **001** *SC* **1.4.58a6** *P* **35** *L* **44** # 64

Maguire, Valerie — Siemon

Comment Type **E** *Comment Status* **D** *bucket*

50GBASE-SR will run over one transmit and one receive fiber; not "a" fiber.

SuggestedRemedy

Replace, "using 50GBASE-R encoding over a multimode fiber" with, "using 50GBASE-R encoding over one lane of multimode fiber"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

For 50GBASE-SR there is no need to mention the number of lanes. The wording should be based on the definition for 25GBASE-SR which is also a single-lane MMF PHY. However, the definition should not imply a single fiber.

Change "a multimode" to "multimode".

Cl **030** *SC* **30** *P* **38** *L* **2** # 137

Slavick, Jeff — Broadcom Limited

Comment Type **T** *Comment Status* **D** *Bucket*

Need to bring in aBIPErrorCount, aFECAbilty, aLaneMapping, aRSFECBIPErrorCount, and aRSFECLaneMapping and add 50G to their defnitions

SuggestedRemedy

Per comment

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **030** *SC* **30.3.2.1.2** *P* **38** *L* **16** # 18

Ran, Adee — Intel

Comment Type **E** *Comment Status* **D** *Bucket*

In the base document 100GBASE-R appears as "multi-lane PCS", but here it is missing from 50GBASE-R.

Similarly in 30.5.1.1.2.

SuggestedRemedy

Insert "multi-lane PCS" after "Clause 133" in both places.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **030** *SC* **30.5.1.1.2** *P* **38** *L* **50** # 2

Marris, Arthur — Cadence Design Syste

Comment Type **E** *Comment Status* **D** *Bucket*

Say explicitly where the new entries should be inserted

SuggestedRemedy

Say explicitly where the new entries should be inserted in 30.5.1.1.2

Also 50GBASE-FR is defined im lause 139 (not 138)

Also say explicitly where the entires should be inserted in 30.6.1.1.5

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **030** *SC* **30.5.1.1.2** *P* **38** *L* **50** # 19

Ran, Adee — Intel

Comment Type **E** *Comment Status* **D** *Bucket*

The placement of new entries is not specifed in the instruction. The exact location is difficult to describe now, but may be easier when other projects are finished and possibly after a revision project.

Also applies in 30.6.1.1.5.

SuggestedRemedy

Add editor's notes (to be removed prior to publication) stating that the exact locations for insertion should be indicated.

Apply in all relevant subclauses.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **030** *SC* **30.5.1.1.2** *P* **39** *L* **3** # 20

Ran, Adee — Intel

Comment Type **E** *Comment Status* **D** *Bucket*

Base docuemnt uses "copper balanced" instead of "balanced copper".

Appears 3 times

SuggestedRemedy

Change "balanced copper" to "copper balanced" 3 times

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **030** *SC* **30.5.1.1.2** *P* **39** *L* **13** # 21

Ran, Adee Intel

Comment Type **E** *Comment Status* **D** *Bucket*

Base document includes number of lanes for all multi-lane copper cable and optical PHYs.

SuggestedRemedy

Insert "2 lane" and "4 lane" as necessary.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **030** *SC* **30.5.1.1.17** *P* **40** *L* **7** # 23

Ran, Adee Intel

Comment Type **T** *Comment Status* **D** *Bucket*

The last occurrence of "and" in this line (preceding "2 500 000") should be deleted as it is not the last item.

SuggestedRemedy

per comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **045** *SC* **45** *P* **42** *L* **0** # 152

Slavick, Jeff Broadcom Limited

Comment Type **T** *Comment Status* **D** *bucket*

BS has changed text in 45.2.1.124 that specifies the behavior of PRBS enables for 200 & 400G.

SuggestedRemedy

Add 50G, 100G PAM4 into the new text since the "all others" text is wrong for 802.3cd. May want to just add the sub-section for D1.1 with an editors note to copy the text for 802.3bs into D1.2 since I believe it maybe changing for 802.3bs D2.2.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Implement suggested remedy using editorial licence

Cl **045** *SC* **45** *P* **42** *L* **0** # 151

Slavick, Jeff Broadcom Limited

Comment Type **T** *Comment Status* **D** *bucket*

MDIO RS-FEC registers need to include 134

SuggestedRemedy

Add clause 134 to the description of 45.2.1.102.5, 45.2.1.102.6, 45.2.1.102.2, 45.2.1.102.1, 45.2.1.108

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Implement suggested remedy using editorial licence

Cl **045** *SC* **45** *P* **42** *L* **0** # 153

Slavick, Jeff Broadcom Limited

Comment Type **T** *Comment Status* **D** *bucket*

MDIO for C2C and C2M AUI controls I think are using the 200/400G versions. Current 802.3bs lists the register names and 200GAUI-n and 400GAUI-n.

SuggestedRemedy

Add 50G and 100GAUI-2 to 802.3bs 45.2.1.116d, 45.2.1.116e, 45.2.1.116f. May want to pull the sections in and add editors note to bring in in future draft in case 802.3bs changes the text.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Implement suggested remedy using editorial licence

Cl **045** *SC* **45.2.1.4.6a** *P* **43** *L* **47** # 3

Marris, Arthur Cadence Design Syste

Comment Type **E** *Comment Status* **D** *Bucket*

Change:
Insert 45.2.1.4.6a after 45.2.1.6 as follows:
To:
Insert 45.2.1.4.6a after 45.2.1.4.6 as follows:

SuggestedRemedy

Change:
Insert 45.2.1.4.6a after 45.2.1.6 as follows:
To:
Insert 45.2.1.4.6a after 45.2.1.4.6 as follows:

Also add space in 45.2.1.14b150G on line 12 of page 50

Change 45.2.1.14da.2 to 45.2.1.14b1.2 on line 48 page 50

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **045** *SC* **45.2.1.10** *P* **49** *L* **30** # 7

Marris, Arthur Cadence Design Syste

Comment Type **T** *Comment Status* **D** *Bucket*

Bit 1.11.14 is unavailable for 50G extended abilities

SuggestedRemedy

With editorial licence do the following:
Create new register "PMA/PMD extended ability 2" at location 1.25
Define bit 0 of this register to be "50G extended abilities"
Add new subclause 45.2.1.14f1 and Table 45-17f1 to describe this and also include in Table 45-3.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **045** *SC* **45.2.1.14b** *P* **50** *L* **12** # 24

Ran, Adee Intel

Comment Type **E** *Comment Status* **D** *Bucket*

No white space between number and title

SuggestedRemedy

Add some spacing

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **045** *SC* **45.2.1.14b** *P* **50** *L* **27** # 25

Ran, Adee Intel

Comment Type **T** *Comment Status* **D** *Bucket*

The description for "0" incorrectly states 400G PMDs, in 5 cases

SuggestedRemedy

Change 400G to 50G in last 5 rows

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **045** *SC* **45.2.3.4.5a** *P* **53** *L* **39** # 181

Pete Anslow

Comment Type **T** *Comment Status* **D** *bucket*

Bit address is incorrect.

SuggestedRemedy

Change 3.4.10 to 3.4.5, twice.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **045** *SC* **45.2.3.13** *P* **55** *L* **40** # 26

Ran, Adee Intel

Comment Type **E** *Comment Status* **D** *Bucket*

"10GBASE-T" was changed to "MultiGBASE-T" in 802.3bq.

Also applies in subsequent clauses.

SuggestedRemedy

Change "10GBASE-T" to "MultiGBASE-T" in the following

- titles of 45.2.3.13, 45.2.3.13.1, 45.2.3.13.4, 45.2.3.13.5, and 45.2.3.14
- body of 45.2.3.14.1 and 45.2.3.14.2 (two times each), 45.2.3.14.3, and 45.2.3.14.4

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **069** *SC* **69.2.3** *P* **62** *L* **39** # 27

Ran, Adee Intel

Comment Type **E** *Comment Status* **D** *bucket*

The insertion location in the editorial instruction is ambiguous. A better instruction here would be "change 69.2.3 as follows (some unchanged paragraphs not shown)" and add the preceding paragraph to clarify the location.

Alternatively, place it at the end of the list, since order is not siginficant.

SuggestedRemedy

Change the instruction to "Insert the following new paragraph after the last paragraph in 69.2.3 (as modified by IEEE Std 802.3cb-201x):"

Proposed Response *Response Status* **W**

PROPOSED REJECT.

The location is important and the instruction is sufficiently clear.

Cl **069** *SC* **69.2.3** *P* **62** *L* **42** # 28

Ran, Adee Intel

Comment Type **T** *Comment Status* **D** *bucket*

In the base document, KR4 and KP4 include the modulation type. The newly added types use PAM4 modulation.

Consistency is preferable and in this clause the modulation type is not obvious if not stated.

SuggestedRemedy

Change "50 Gb/s operation" to "50 Gb/s operation using 4-level PAM" for 50GBASE-KR, and similarly for the new 100GBASE-KR2 and 200GBASE-KR4.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **069** *SC* **69.2.3** *P* **62** *L* **45** # 4

Marris, Arthur Cadence Design Syste

Comment Type **E** *Comment Status* **D** *bucket*

Change 100GBASE-KR to 100GBASE-KR-2
Change 200GBASE-KR to 200GBASE-KR-4

SuggestedRemedy

Change 100GBASE-KR to 100GBASE-KR-2
Change 200GBASE-KR to 200GBASE-KR-4

also on line 49 make Clause 119 a link

Change 802.3by-201x to 802.3by-2016 on next page

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

On: page/line 62/45
Change: "100GBASE-KR"
To: "100GBASE-KR2"

On page/line 62/47 and 208/1
Change: "200GBASE-KR"
To: "200GBASE-KR4"

Cl **069** *SC* **69.2.3** *P* **62** *L* **45** # 29

Ran, Adee Intel

Comment Type **T** *Comment Status* **D** *bucket*

100GBASE-KR is not defined in this project.

SuggestedRemedy

Change to 100GBASE-KR2.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **073** *SC* **73.5** *P* **66** *L* **11** # 5

Marris, Arthur — Cadence Design Syste

Comment Type **E** *Comment Status* **D** *Bucket*

Change 136.8.6 to 136.8.7
Change 137.8.5 to 137.8.7

SuggestedRemedy

Change 136.8.6 to 136.8.7
Change 137.8.5 to 137.8.7

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **073** *SC* **73.6.4** *P* **67** *L* **1** # 30

Ran, Adee — Intel

Comment Type **E** *Comment Status* **D** *Bucket*

We should change the third and fifth paragraphs, not third and fourth (the fourth was added by 802.3by and is not included in this draft)

SuggestedRemedy

Consider bringing in the fourth paragraph. Change the instruction as required (possibly separate to two instructions).

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Implement suggested remedy with editorial licence

Cl **073** *SC* **73.6.4** *P* **67** *L* **9** # 9

Lusted, Kent — Intel

Comment Type **TR** *Comment Status* **D** *Bucket*

Typo

SuggestedRemedy

In the last sentence of the revised third paragraph of 73.6.4, change "1000BASE-X" to "1000BASE-KX"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **073** *SC* **73.6.4** *P* **67** *L* **10** # 31

Ran, Adee — Intel

Comment Type **E** *Comment Status* **D** *Bucket*

The phrase "as the MDI and physical medium are different" was removed in 802.3by. The removal should have been maintained in 802.3cb as well (comment will be submitted). There is no need to re-insert it.

SuggestedRemedy

Delete the quoted phrase.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **073** *SC* **73.7.1** *P* **67** *L* **26** # 32

Ran, Adee — Intel

Comment Type **E** *Comment Status* **D** *Bucket*

The deleted text should also include 25G PHYs, added in 802.3by. See 802.3cb.

SuggestedRemedy

Insert "25GBASE-KR, 25GBASE-KR-S, 25GBASE-CR, 25GBASE-CR-S" after "10GBASE-KR", in strikeout font.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **073** *SC* **73.10.2** *P* **69** *L* **26** # 141

Slavick, Jeff — Broadcom Limited

Comment Type **T** *Comment Status* **D** *Bucket*

Missing the CR PHYs for the new link_fail_inhibit_timer list

SuggestedRemedy

Add 50GBASE-CR, 100GBASE-CR2 and 200GBASE-CR4 to the link_fail_inhibit_timer with a min duration of 1.6s

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **073** *SC* **73.10.2** *P* **69** *L* **30** # 142

Slavick, Jeff — Broadcom Limited

Comment Type **T** *Comment Status* **D** *Bucket*

Missing 10GBASE-KR from the 500ms link_fail_inhibit_timer list

SuggestedRemedy

Add 10GBASE-KR to the list of PHYs that use 500ms link_fail_inhibit_timer

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **080** *SC* **80.1.4** *P* **74** *L* **16** # 35

Ran, Adee — Intel

Comment Type **T** *Comment Status* **D** *bucket*

We should make the specified frequency for loss consistent. 13.28 GHz is used in many cases and there is no need for higher resolution.

SuggestedRemedy

Change "13.28125" to "13.28" across the draft.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **080** *SC* **80.2.1** *P* **76** *L* **34** # 36

Ran, Adee — Intel

Comment Type **E** *Comment Status* **D** *bucket*

Missing comma after "Clause 83"

SuggestedRemedy

Insert a comma

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **082** *SC* **82.7.4** *P* **82** *L* **24** # 37

Ran, Adee — Intel

Comment Type **E** *Comment Status* **D** *bucket*

Does the change in PICS heading numbers result from a maintenance request? if so please add an editor's note, and clarify what should be done with the lower level subclauses... Otherwise it is out of scope and should not be done in this project (leave for maintenance)

SuggestedRemedy

per comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

The subclause heading levels were in error in 802.3-2015. Without the amendments to the clause heading levels the new AN PICS would be subsidiary to 82.6.4.7 Management.

Add an editor's note as requested.

Cl **091** *SC* **91.6** *P* **85** *L* **50** # 143

Slavick, Jeff — Broadcom Limited

Comment Type **T** *Comment Status* **D** *Bucket*

Table 91-2 points to the wrong MDIO register bit for the new Four lane PMD.

SuggestedRemedy

Change 1.200.2 to 1.200.3

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **091** *SC* **91.6.2a** *P* **85** *L* **9** # 146

Slavick, Jeff — Broadcom Limited

Comment Type **E** *Comment Status* **D** *Bucket*

"This variable shall.." appears to be in different font then the rest of the paragraph.

SuggestedRemedy

Fix the font used in 91.6.2a

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **091** *SC* **91.6.2a** *P* **85** *L* **9** # 145

Slavick, Jeff — Broadcom Limited

Comment Type **T** *Comment Status* **D** *Bucket*

There is a shall for the setting four_lane_pmd when a PAM4 link, but not for legacy links. I'm not sure we need a shall statement.

SuggestedRemedy

Change "This variable shall be set to zero for the 100GBASE-CR2, 100GBASE-KR2, 100GBASE-SR2, and 100GBASE-DR PMDs. This variable is mapped to the bit defined in 45.2.1.101 (1.200.2)."
To "This variable is set to zero for the 100GBASE-CR2, 100GBASE-KR2, 100GBASE-SR2, and 100GBASE-DR PMDs. This variable is mapped to the bit defined in 45.2.1.101 (1.200.2)."
If shall is necessary "This variable shall be set to zero for the 100GBASE-CR2, 100GBASE-KR2, 100GBASE-SR2, and 100GBASE-DR PMDs. This variable is mapped to the bit defined in 45.2.1.101 (1.200.2) and shall be set appropriately for the PHY type."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Remove the shall as proposed in the suggested remedy.

Cl **091** *SC* **91.6.2a** *P* **85** *L* **11** # 144

Slavick, Jeff — Broadcom Limited

Comment Type **T** *Comment Status* **D** *Bucket*

Points to the wrong MDIO register bit for the new Four lane PMD.

SuggestedRemedy

Change 1.200.2 to 1.200.3

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **091** *SC* **91.6.2a** *P* **86** *L* **11** # 1

Marris, Arthur — Cadence Design Syste

Comment Type **E** *Comment Status* **D** *Bucket*

It should be bit 1.200.3 rather than 1.200.2

SuggestedRemedy

Change to 1.200.3

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **116** *SC* **116.1.4** *P* **87** *L* **44** # 38

Ran, Adee — Intel

Comment Type **E** *Comment Status* **D** *bucket*

We should align with 802.3bs D2.1 changes, changing "nomenclature" to "PHY type" twice in this paragraph.

SuggestedRemedy

Change per 802.3bs D2.1.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **131** *SC* **131.1.2** *P* **91** *L* **16** # 128

Ghiasi, Ali — Ghiasi Quantum LLC

Comment Type **ER** *Comment Status* **D** *bucket*

Missing "The"

SuggestedRemedy

Add "The" 50 Gigabit

Proposed Response *Response Status* **W**

PROPOSED REJECT.

There is no issue with the grammar as written. This wording is consistent with 802.3bs 116.1.2, 802.3by 105.1.2, and 802.3-2015 80.1.3.

Cl **131** *SC* **131.1.2** *P* **92** *L* **18** # 129

Ghiasi, Ali — Ghiasi Quantum LLC

Comment Type **TR** *Comment Status* **D** *bucket*

Missing reference to CL 135 A optional AUI

SuggestedRemedy

Add reference to CL 135A

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Consistent with other BASE-R PHY families, 135.1.4 and Annex 135A provide examples of PMA locations and MMD mapping. As such, Annex 135A is introduced and referenced from Clause 135.

Cl **131** *SC* **131.1.3** *P* **92** *L* **39** # 70

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **E** *Comment Status* **D** *bucket*

In Table 131-1, 50GBASE-SR is written as 50GBASES-SR.

SuggestedRemedy

Change 50GBASES-SR to 50GBASE-SR.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **131** *SC* **131.1.4** *P* **93** *L* **1** # 97

Nicholl, Gary — Cisco Systems

Comment Type **E** *Comment Status* **D** *bucket*

Table 131-2. The title for Clause 134 is "50GBASE-R FEC". Is there possibility for confusion with BASE-R FEC at 100G. Same comment for Table 131-3.

SuggestedRemedy

Perhaps it would be better to use "RS-FEC" rather than "50GBASE-R FEC" to be consistent with what we did for 100G and with the title of Clause 134.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

To align with the title of Clause 134…

In Table 131-2, Table 131-3, Table 131-4, and Table 69-2b:
Change "50GBASE-R FEC"
To "50GBASE-R RS-FEC"

Cl **131** *SC* **131.2** *P* **93** *L* **42** # 130

Ghiasi, Ali — Ghiasi Quantum LLC

Comment Type **ER** *Comment Status* **D** *bucket*

Missing couple of "The"

SuggestedRemedy

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Grammar is correct as written.

Cl **131** *SC* **131.2.1** *P* **94** *L* **1** # 72

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **E** *Comment Status* **D** *bucket*

A grammer error.

SuggestedRemedy

Change "it are used" to "it is used".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **132** *SC* **132.1.4** *P* **103** *L* **39** # 40

Ran, Adee — Intel

Comment Type **E** *Comment Status* **D** *Bucket*

We have specific definitions for this project, in 131.4

SuggestedRemedy

Change "80.4" to "131.4", active cross reference.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **132** *SC* **132.1.7** *P* **104** *L* **31** # 41

Ran, Adee — Intel

Comment Type **E** *Comment Status* **D** *Bucket*

Annex 4a is included in this amendment.

SuggestedRemedy

Make it an active cross reference.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **132** *SC* **132.2** *P* **96** *L* **34** # 131

Ghiasi, Ali — Ghiasi Quantum LLC

Comment Type **ER** *Comment Status* **D** *bucket*

Missing more "the" before 50xx

SuggestedRemedy

Add "the"

Proposed Response *Response Status* **W**

PROPOSED REJECT.

There is no need for an extra "the" at the location indicated by the commenter.

Cl **132** *SC* **132.4** *P* **104** *L* **45** # 42

Ran, Adee — Intel

Comment Type **E** *Comment Status* **D** *bucket*

Align with 802.3bs D2.1 changes in 117.4.

SuggestedRemedy

Remove period after "81.4" and add "described in 81.4.4" after "stop signaling".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **133** *SC* **133.1.2** *P* **107** *L* **26** # 43

Ran, Adee — Intel

Comment Type **T** *Comment Status* **D** *bucket*

There is another exception.

(also in the similar list in 133.2.1)

SuggestedRemedy

(add a period at the end of item 3)

Add item 4: The nominal rate at the FEC or PMA service interface is 12.890625 Gb/s per PCS lane, rather than 10.3125 Gb/s per PCS lane.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Implement suggested remedy except put at the top of the list.

Cl **133** *SC* **133.2.4** *P* **111** *L* **16** # 98

Nicholl, Gary — Cisco Systems

Comment Type **E** *Comment Status* **D** *bucket*

Unnecessary comma after "defined in 82.2.19"

SuggestedRemedy

Remove the comma after "defined in 82.2.19"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **133** *SC* **133.5** *P* **112** *L* **1** # 99

Nicholl, Gary — Cisco Systems

Comment Type **T** *Comment Status* **D** *bucket*

Update PICS as required with editorial licence

SuggestedRemedy

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **134** *SC* **134.1.1** *P* **117** *L* **12** # 44

Ran, Adee — Intel

Comment Type **T** *Comment Status* **D** *bucket*

There is another exception. a major one

SuggestedRemedy

Add an item at the beginning (or after the first item): "The service interface has 4 lanes instead of 20 lanes".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **134** *SC* **134.1.1** *P* **117** *L* **14** # 45

Ran, Adee Intel

Comment Type **E** *Comment Status* **D** *bucket*

Multiple instances of the numbers "2" and "4" appear in the text.

Per style manual, "In general text, isolated numbers less than 10 should be spelled out".

(In these cases it would also be easier to read)

SuggestedRemedy

Change instances of "2" and "4" (isolated) in the text to "two" and "four" respectively (unless they are adjacent to higher numbers or in equations, etc.). Repeat across clause 134 per style manual.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **134** *SC* **134.1.1** *P* **117** *L* **17** # 46

Ran, Adee Intel

Comment Type **E** *Comment Status* **D** *bucket*

Improve style

SuggestedRemedy

Change "that" to "for the fact that", twice in this paragraph

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **134** *SC* **134.1.2** *P* **117** *L* **27** # 47

Ran, Adee Intel

Comment Type **E** *Comment Status* **D** *bucket*

Missing space after "Figure 134-1"

SuggestedRemedy

Add space

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **134** *SC* **134.5.2.6** *P* **121** *L* **15** # 114

Ghiasi, Ali Ghiasi Quantum LLC

Comment Type **TR** *Comment Status* **D** *bucket*

item 3 is BIP3 field, is there a reason we are changing it?

SuggestedRemedy

this should be amp_tx_x<33:26>=am_tx_x<33:26>

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Item 3 copies the BIP3 field unchanged from am_tx_x<65:0> to amp_tx_x<63:0> consistent with Clause 91.

Note that the bit position index for BIP3 field has changed by 2, due to the removal of the sync header bits.

Cl **134** *SC* **134.5.2.6** *P* **121** *L* **16** # 115

Ghiasi, Ali Ghiasi Quantum LLC

Comment Type **TR** *Comment Status* **D** *bucket*

Why are we changing bit position for M4, M5, and M6 from CL82

SuggestedRemedy

Shouldn't be amp_tx_x<57,34>?

Proposed Response *Response Status* **W**

PROPOSED REJECT.

M4, M5 and M6 are correctly mapped from am_tx_x<65:0> to amp_tx_x<63:0>.

Note that the bit position index for M4,M5 and M6 has changed by 2, due to the removal of the sync header bits.

Cl **134** *SC* **134.5.2.6** *P* **121** *L* **28** # 48

Ran, Adee Intel

Comment Type **E** *Comment Status* **D** *bucket*

Per style manual, multiple lists in the same subclause need separate labels. See 91.5.2.5 as an example

SuggestedRemedy

per comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **134** *SC* **134.5.2.6** *P* **121** *L* **41** # 49

Ran, Adee Intel

Comment Type **E** *Comment Status* **D** *bucket*

Equation variables should be set in italic font. This is usually done, but is inconsistent.

SuggestedRemedy

Change "y", "i", "k" here to style "Equation Variables".

Go over clause 134 and apply to all variables. Also, apply in Figure 134-4 and Figure 134-5, using clause 91 figures as reference.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **134** *SC* **134.5.2.6** *P* **121** *L* **45** # 51

Ran, Adee Intel

Comment Type **E** *Comment Status* **D** *bucket*

Two values, 0 and 1

SuggestedRemedy

change "value" to "values"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change
"shall be set to the binary value 0 and 1 in an alternating pattern"
To
"shall be set to 0 or 1 in an alternating pattern"

Cl **134** *SC* **134.5.2.6** *P* **121** *L* **45** # 50

Ran, Adee Intel

Comment Type **T** *Comment Status* **D** *bucket*

The pad bit is am_txmapped<256>

SuggestedRemedy

Delete ":255"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **134** *SC* **134.5.3.6** *P* **124** *L* **30** # 52

Ran, Adee Intel

Comment Type **T** *Comment Status* **D** *bucket*

The number of lanes is known, so it can be stated.

SuggestedRemedy

Change "multiple" to "four".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **134** *SC* **134.5.3.7** *P* **124** *L* **45** # 53

Ran, Adee Intel

Comment Type **E** *Comment Status* **D** *bucket*

stray character "(" before "255"

SuggestedRemedy

Delete it

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **134** *SC* **134.5.3.8** *P* **125** *L* **21** # 100

Nicholl, Gary Cisco Systems

Comment Type **E** *Comment Status* **D** *bucket*

Remove unnecessary period in front of "Receive"

SuggestedRemedy

Remove period.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **134** *SC* **134.5.4.2.1** *P* **127** *L* **13** # 165

Shrikhande, Kapil Innovium

Comment Type **TR** *Comment Status* **D** *bucket*

Reference to Clause 134.1 seems incorrect, 134.1 is Overview.

SuggestedRemedy

Reference sub-clause 134.5.3.7 rather than 134.1

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

The correct subclause reference is 134.5.2.6.

Change reference to 134.5.2.6.

Cl **134** *SC* **134.5.4.2.1** *P* **127** *L* **21** # 166

Shrikhande, Kapil Innovium

Comment Type **TR** *Comment Status* **D** *bucket*

I believe variable amps_lock should be amps_lock<x>

SuggestedRemedy

Change amps_lock to amps_lock<x>

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **134** *SC* **134.5.4.2.1** *P* **127** *L* **22** # 54

Ran, Adee Intel

Comment Type **T** *Comment Status* **D** *bucket*

amps_lock is per lane. In clause 91 it has <x>, and without it the description is confusing.

SuggestedRemedy

Change to "amps_lock<x>"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

See also comment 166.

Cl **134** *SC* **134.6.5** *P* **129** *L* **32** # 116

Ghiasi, Ali Ghiasi Quantum LLC

Comment Type **TR** *Comment Status* **D** *bucket*

hi_ser not defined

SuggestedRemedy

Defin the variable, "The hi_ser variable is define .."

Proposed Response *Response Status* **W**

PROPOSED REJECT.

hi_ser is defined in 134.6.5 on page 129 and starting on line 33.

"This variable is defined when the FEC_bypass_indication_ability variable is set to one. When FEC_bypass_indication_enable is set to one, this bit is set to one if the number of RS-FEC symbol errors in a window of 8192 codewords exceeds the threshold (see 91.5.3.3) and is set to zero otherwise. This variable is mapped to the bit defined in 45.2.1.102 (1.201.2)."

Cl **134** *SC* **134.7** *P* **131** *L* **1** # 101

Nicholl, Gary Cisco Systems

Comment Type **T** *Comment Status* **D** *bucket*

Update PICS as required with editorial licence

SuggestedRemedy

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **135** *SC* **135.1.1** *P* **135** *L* **11** # 102

Nicholl, Gary Cisco Systems

Comment Type **T** *Comment Status* **D** *bucket*

Incorrect reference to Clause 135.

SuggestedRemedy

I believe the reference should be to Clause 133, i.e. the 50GBASE-R PCS clause.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

See comment #169.

Cl **135** *SC* **135.1.1** *P* **135** *L* **11** # 169

Shrikhande, Kapil — Innovium

Comment Type **ER** *Comment Status* **D** *bucket*

Incorrect reference to Clause 135 from within Clause 135.

SuggestedRemedy

Change reference from Clause 135 to Clause 133 if the intent was to reference the 50GE PCS Clause

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

See comment #102.

Cl **135** *SC* **135.1.2** *P* **136** *L* **27** # 105

Nicholl, Gary — Cisco Systems

Comment Type **E** *Comment Status* **D** *bucket*

The AN ssublayer is missing in Figure 135-1.

SuggestedRemedy

Add AN sublayer to Figure 135-1.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **135** *SC* **135.1.4** *P* **137** *L* **9** # 6

Marris, Arthur — Cadence Design Syste

Comment Type **TR** *Comment Status* **D** *bucket*

There are 2 FEC lanes not 4 for 50G and 4-lanes for 100G

SuggestedRemedy

Change
PMA (4:2)
to:
PMA (2:2)

Change
PMA (20:4)
to:
PMA (4:4)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

See also comment #106.

Cl **135** *SC* **135.1.4** *P* **137** *L* **28** # 106

Nicholl, Gary — Cisco Systems

Comment Type **T** *Comment Status* **D** *bucket*

Figure 135-2. The PMA (4-2) below the 50G FEC should be PMA (2-2), and the PMA (20-4) below the 100G FEC should be PMA (4-4).

SuggestedRemedy

Change the PMA (4-2) below the 50G FEC to PMA (2-2), and the PMA (20-4) below the 100G FEC to PMA (4-4).

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

See comment #6.

Cl **135** *SC* **135.5.2** *P* **144** *L* **18** # 73

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **T** *Comment Status* **D** *bucket*

It seems the order of the sequence is reversed between the input and the output. The convention in clause 83 and clause 120 were the same order of the sequence between the input and the output.

SuggestedRemedy

Revert the order of the output sequence so that the order of the sequence becomes same between the input and the output.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **136** *SC* **136.8.12.1.2** *P* **171** *L* **39** # 13

Lusted, Kent — Intel

Comment Type **TR** *Comment Status* **D** *bucket*

As a reader, it is a bit confusing to have the control and status field encoding details in another section (i.e. 136.8.12.2 and 136.8.12.3). This sections decribes the cell encoding rules but the cell details are elsewhere.

There are two immediately obvious solutions:
Option 1: move Clauses 136.8.12.2 and 136.8.12.3 to be subclauses of 136.8.12.1.2
Option 2: add a new paragraph that has references to Clauses 136.8.12.2 and 136.8.12.3

SuggestedRemedy

Implement Option 2 by adding a new paragraph:

"Control and status field structure is defined in Clause 136.8.12.2 and Clause 136.8.12.3."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change the title of 136.8.12.1.2 from "Control and status field encoding" to "Control and status fields".

Insert the following paragraph before the first paragraph of 136.8.12.1.2:

"The control field comprises 16 bits with the structure defined in Clause 136.8.12.2. The status field comprises 16 bits with the structure defined in Clause 136.8.12.3."

Change the title of 136.8.12.2 from "Control field" to "Control field structure".

Change the title of 136.8.12.3 from "Status field" to "Status field structure".

Cl **136** *SC* **136.8.12.1.3** *P* **172** *L* **32** # 14

Lusted, Kent — Intel

Comment Type **TR** *Comment Status* **D** *bucket*

It is a bit confusing to have identifier_i = 1 listed here when the first lane is 0. Especially since the previous sentence references identifier 0.

SuggestedRemedy

Consider changing Figure 136-5 to represent identifier_i = 0.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change Figure 136-5 to represent identifier_i = 0, i.e., the first row intable 136-8 (1 + x + x^2 + x^12 + x^13), and label it accodingly.

Cl **136** *SC* **136.11.7** *P* **195** *L* **18** # 60

Mellitz, Richard — Samtec

Comment Type **TR** *Comment Status* **D** *bucket*

The does not appear to be and equation reference for FzHP or FpHP. It is closely related to eq. 93A-22. One could deduce the meaning. However we should be more explicit.

SuggestedRemedy

Add equation proposed for COM in mellitz_3bs_01_0815_elect.pdf or explicitly specified in Healey_02_0115.pdf

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve with comment 58.

There is no need to define new parameters, since appropriate parameters are defined in 93A.1 (as amended by 802.3bs) albeit with other names.

The COM parameter tables should be aligned with 93A.1.

Modify Table 136-15 as follows:

1. In row "Continuous time filter, zero frequencies", change symbol "fzHP" to "fz2".

2. In row "Continuous time filter, pole frequencies", remove symbol "fzHP" and corresponding value.

Cl **136A** *SC* **136A.2** *P* **334** *L* **22** # 162

Healey, Adam — Broadcom Ltd.

Comment Type **T** *Comment Status* **D** *bucket*

Why is "the value of linear fit pulse peak (min.) is 0.75 × vf" listed as an exception. This the value proposed in 137.9.2 and it is unclear what the motiviation would be to make the requirement different for copper cable applications.

SuggestedRemedy

Remove the exception.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **137** *SC* **137.1** *P* **215** *L* **41** # 58

Mellitz, Richard — Samtec

Comment Type **TR** *Comment Status* **D** *bucket*

The does not appear to be and equation reference for FzHP or FpHP. It is closely related to eq. 93A-22. One could deduce the meaning. However we should be more explicit.

SuggestedRemedy

Add equation proposed for COM in mellitz_3bs_01_0815_elect.pdf or explicitly specified in Healey_02_0115.pdf

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve with comment 60.

Modify Table 137-5 as follows:

1. In row "Continuous time filter, zero frequencies", change symbol "fzHP" to "fz2".

2. In row "Continuous time filter, pole frequencies", remove symbol "fpHP" and corresponding value.

3. In row "Continuous time filter, DC gain 2", change symbol "gDC" to "gDC2".

See also comment 60.

Cl **137** *SC* **137.8.12** *P* **212** *L* **44** # 157

Healey, Adam — Broadcom Ltd.

Comment Type **E** *Comment Status* **D** *bucket*

"The PMD fault function." should be "The PMD control function.".

SuggestedRemedy

Correct the text as stated in the comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **137** *SC* **137.9.2** *P* **213** *L* **14** # 158

Healey, Adam — Broadcom Ltd.

Comment Type **T** *Comment Status* **D** *bucket*

Items 1) and 2) are not exceptions. The vf (max.) and vf (min.) values are as stated in Table 120D-1.

SuggestedRemedy

Remove items 1 and 2 from the list of exceptions.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **137** *SC* **137.9.2** *P* **213** *L* **19** # 159

Healey, Adam — Broadcom Ltd.

Comment Type **T** *Comment Status* **D** *bucket*

Exception 4 is stated incorrectly. In IEEE P802.3bs/D2.1, Annex 120D specifies J4 (max) and not J5 (max).

SuggestedRemedy

Change the exception to state "the parameter J4 (max) is replaced by J3 (max) with value TBD." If J4 is preferred to J3, remove the exception.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

802.3bs changed 120D to use J4 instead of J5 in D2.1. Specification method in Clause 136 refers to 120D definitions and uses J4. Clause 137 should be aligned.

Remove the exception.

Cl **137** *SC* **137.10** *P* **215** *L* **25** # 68

Mike Li — Intel

Comment Type **E** *Comment Status* **D** *bucket*

Pre-cursor 2 should be C(-2), not C(-1)

SuggestedRemedy

Change it to C(-2)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.