Cl **00** *SC* **0** *P* **12** *L* **47** # 1

Laubach, Mark Ciena

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

If you look at the 802.3cy project, it states the annexes that were added.

SuggestedRemedy

Change "Clause 155 and Clause 156" to "Clause 155, Clause 156, Annex 155A, and Annex 156A".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155** *P* **39** *L* **1** # 2

Laubach, Mark Ciena

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

Other projects have indicated the start of new material.

SuggestedRemedy

Insert "Insert new clauses and corresponding annexes as follows:" as the first line of this page.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Add the following editing instruction before the 155 clause title: "Insert new Clause 155 and Clause 156 as follows:"

Cl **155** *SC* **155.2.5.5** *P* **46** *L* **28** # 3

Laubach, Mark Ciena

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

text is obscured by what seems to be change bars in the figure - cannot read all letters of technical text.

SuggestedRemedy

Since everything from clause 155 on is "new" material, why are change bars turned on at all? If they are turned on, they can't obscure technical text. Consider turning off change bars starting at CL 155.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

The change bars are automatically added by FrameMaker when text is changed as it was from D2.0 to D2.1. The bars will be removed in D2.2.

Cl **1** *SC* **1.3** *P* **21** *L* **8** # 5

Marris, Arthur Cadence Design Systems

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

Because it is mentioned in 155.2.5.10 include reference to:
ITU-T Recommendation G.709.3—Flexible OTN long-reach interfaces

SuggestedRemedy

Add: "ITU-T Recommendation G.709.3—Flexible OTN long-reach interfaces"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.2** *P* **43** *L* **22** # 6

Marris, Arthur Cadence Design Systems

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

Should this be "128 bit"?
This is a resubmission of a comment against draft 2.0 that was not considered during draft 2.0 comment resolution (hence TR classification).

SuggestedRemedy

Consider changing "128-symbol" to "128 bit symbol". Similar issue with "119-symbol" on line 37.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change "128-symbol" to "128 bit" twice, and "119-symbol" to "119-bit".

Cl **155** *SC* **155.2.2** *P* **43** *L* **17** # 7

Marris, Arthur Cadence Design Systems

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

This is the first place "400GBASE-ZR frame" and "GMP" are mentioned. It would be helpful to include a reference to where they are defined

SuggestedRemedy

Change "The transcoded blocks are then mapped into a 400GBASE-ZR frame using generic mapping procedure (GMP)," to "The transcoded blocks are then mapped into a 400GBASE-ZR frame using generic mapping procedure (GMP) (see 155.2.5.3),"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **00** *SC* **0** *P* **20** *L* **6** # 8

Grow, Robert RMG Consulting

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

Oops! How did 2022 get inserted here.

SuggestedRemedy

Delete "2022"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.151.1** *P* **25** *L* **37** # 11

Ran, Adee Cisco

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

"For 100GBASE-ZR the specific optical frequency corresponding to each channel index number is listed in Table 154-5 and for 400GBASE-ZR the specific optical frequency corresponding to each channel index number is listed in Table 156–4"

The newly added text (starting with "and") makes the sentence hard to read, and it does not match the text in the subsequent paragraph.

SuggestedRemedy

Change the quoted text to
"The specific optical frequency corresponding to each channel index number is listed in Table 154-5 for 100GBASE-ZR and in Table 156–4 for 400GBASE-ZR".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.153a.1** *P* **27** *L* **37** # 13

Ran, Adee Cisco

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

There is only one appropriate PMD clause. The text can be made clearer.

Comment applies similarly in 45.2.1.157a.1.

SuggestedRemedy

Change to "The optical frequencies that correspond to these index values are given in Table 156–4 for 400GBASE-ZR".

Apply similarly in the other subclause.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.153a.1** *P* **27** *L* **39** # 14

Ran, Adee Cisco

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

Paragraph break before the period.

SuggestedRemedy

Delete it.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.227** *P* **30** *L* **17** # 15

Ran, Adee Cisco

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

"See 153.2.5.1 and 155.2.6.1 for a definition of this counter."

("this" is the SC-FEC corrected codewords counter)

However, 155.2.6.1 is titled "Hamming SD-FEC decoder" - a very different FEC, and does not define this counter.

The appropriate reference seems to be 155.5.1.

SuggestedRemedy

Change the reference to 155.5.1

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.228** *P* **30** *L* **23** # 16

Ran, Adee Cisco

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

The title of this subclause does not match the base document.

SuggestedRemedy

Change to "SC-FEC uncorrected codewords counter (Register 1.2278, 1.2279)".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.228** *P* **30** *L* **25** # 17

Ran, Adee Cisco

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

155.2.6.1 is an incorrect cross reference.

SuggestedRemedy

Change to 155.5.2.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.229** *P* **30** *L* **32** # 18

Ran, Adee Cisco

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

155.2.6.1 is an incorrect cross reference.

SuggestedRemedy

Change to 155.5.3.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #97. 155.5.3 only points to 153.2.5.3 which is already stated in the subclause.

Cl **45** *SC* **45.2.1.230** *P* **30** *L* **41** # 19

Ran, Adee Cisco

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

155.2.6.1 is an incorrect cross reference.

SuggestedRemedy

Change to 155.5.4.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #98. 155.5.4 only points to 153.2.5.4 which is already stated in the subclause.

Cl **45** *SC* **45.2.3.61.1** *P* **31** *L* **5** # 20

Ran, Adee Cisco

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

155.2.5.1 is an incorrect cross reference.

SuggestedRemedy

Change to 155.4.2.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.3.61.4** *P* **31** *L* **22** # 21

Ran, Adee Cisco

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

155.2.5.2 is an incorrect cross reference.

SuggestedRemedy

Change to 155.2.6.5.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **116** *SC* **116.1.3** *P* **33** *L* **12** # 22

Ran, Adee Cisco

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

The new entry in Table 116-2 says "using 400GBASE-ZR PCS and PMA encoding". This is different from all other rows which simply use "encoding". This detail is not helpful.

SuggestedRemedy

Change to "using 400GBASE-ZR encoding".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **116** *SC* **116.3** *P* **34** *L* **1** # 23

Ran, Adee Cisco

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

Table 116-5a should be placed in 116.1.3 after the existing tables, not in the service interface subclause 116.3.

Also, the table ruling needs cleaning.

SuggestedRemedy

Move the table and format it per comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Move Table 116-5a to 116.1.4 and cleanup table formatting. With editorial license

Cl **116** *SC* **116.4** *P* **34** *L* **24** # 24

Ran, Adee Cisco

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

Incorrect subclause number: "Summary of 200 Gigabit and 400 Gigabit Ethernet sublayers" is 116.2 in the base standard.

SuggestedRemedy

Change the heading numbering to get the correct numbering for this subclause and its descendants.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **116** *SC* **116.4.4** *P* **34** *L* **35** # 25

Ran, Adee Cisco

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

A "replace" instruction makes the reader wonder how the new text changes the existing definitions.

In fact, the new text adds some sentences to the existing text, so the instruction should be "change" rather than "replace".

SuggestedRemedy

Change the instruction, and underline the new sentences.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change editing instruction to "change" from "replace" and use standard editorial markups to show modifications in the text.

Cl **116** *SC* **116.4.4** *P* **34** *L* **42** # 26

Ran, Adee Cisco

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

This paragraph is now specific to 200GBASE-R and 400GBASE-R PMAs, but it still uses the generic terms "PMA", "PCS" and "PMD" - unlike the subsequent paragraph in which everything is explicit to 400GBASE-ZR.

"PMA" should be changed to "200GBASE-R and 400GBASE-R PMAs" or "these PMAs".

Similarly "PMD" should be change to "200GBASE-R and 400GBASE-R PMDs".

Alternatively, the paragraph could be rephrased to start with "For 200GBASE-R and 400GBASE-R, the PMA performs" - this way the whole paragraph becomes specific to the BASE-R family (which includes PCS and PMD). A similar change should be applied in the subsequent clause.

SuggestedRemedy

Preferably use the second option:

Change "The 200GBASE-R and 400GBASE-R PMAs perform" to "For 200GBASE-R and 400GBASE-R, the PMA performs".

In the subsequent paragraph, change "The 400GBASE-ZR PMA performs" to "For 400GBASE-R, the PMA performs" and delete the "400GBASE-ZR" qualifiers for PCS, PMA and PMD in the rest of the paragraph.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

In the second paragraph change "The 200GBASE-R and 400GBASE-R PMAs perform" to "For 200GBASE-R and 400GBASE-R, the PMA performs". In the third paragraph change "The 400GBASE-ZR PMA performs" to "For 400GBASE-ZR, the PMA performs" and delete the "400GBASE-ZR" qualifiers for PCS, PMA and PMD in the rest of the paragraph.

Cl **116** *SC* **116.4.5** *P* **35** *L* **5** # 27

Ran, Adee Cisco

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

"400GBASE-ZR PMD and its corresponding media" - plural.

SuggestedRemedy

Change "is specified" to "are specified".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.1** *P* **39** *L* **8** # 30

Ran, Adee Cisco

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

"The term 400GBASE-ZR is used when referring to the 400GBASE-ZR PHY, which uses"

Too wordy.

SuggestedRemedy

Change to "The 400GBASE-ZR PHY uses".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.2** *P* **43** *L* **5** # 32

Ran, Adee Cisco

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

What does "n" stand for and what values does it take?

SuggestedRemedy

Either specify what it is, or change to "transmit control signals (TXC) and receive control signals
(RXC)".

A reference to 117.3 or to 81.3 may be appropriate here.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change "transmit control signals (TXC<n> = 1) and receive control signals (RXC<n> = 1)" to "transmit control signals (TXC) and receive control signals (RXC)" and add a reference to 81.3.

Cl **155** *SC* **155.2.2** *P* **43** *L* **7** # 33

Ran, Adee Cisco

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

"the 400GBASE-ZR PCS provides 128-bit soft decision forward error correction (SD-FEC) codewords"

"Soft decision" is a feature of the FEC decoder. Calling this code SD-FEC is a bad terminology; it is a Hamming code (as stated on Line 21) that may (and ideally should) be decoded with soft input.

Also, there are other soft-decision decoders in 802.3, so using this term just for this specific code is inappropriate.

The code should be named appropriately where it is initially mentioned.

SuggestedRemedy

Preferably replace the label "SD-FEC" to a more appropriate one such as "Extended Hamming code FEC" or "EH-FEC" across the document.

If this isn't done, Change "128-bit soft decision forward error correction (SD-FEC) codewords" to "codewords of a systematic (128, 119) double-extended Hamming code (denoted "SD-FEC" within this clause)".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Keep "SD-FEC" and change "When communicating with the PMA in the transmit direction, the 400GBASE-ZR PCS provides 128-bit soft decision forward error correction (SD-FEC) codewords from the 400GBASE-ZR PCS to the PMA, which the PMA encodes into two streams of 16QAM symbols." to "When communicating with the PMA in the transmit direction, the 400GBASE-ZR PCS provides codewords (see 155.3.2.1) of a systematic (128, 119) double-extended Hamming code (denoted "SD-FEC" within this clause) from the 400GBASE-ZR PCS to the 400GBASE-ZR PMA".

Cl **155** *SC* **155.2.2** *P* **43** *L* **21** # 36

Ran, Adee Cisco

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

SD-FEC should be in parentheses to match SC-FEC.

(I understand that the parentheses in SC-FEC are due to the acronym - but it would make the text more readable).

SuggestedRemedy

Per comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

This is the first use of SC-FEC abbreviation which is why it is in ( ). The SD-FEC abbreviation was previously used in line 7 so there is no need to repeat it here. Change "and an inner Hamming code SD-FEC" to "and a SD-FEC"

Cl **155** *SC* **155.2.2** *P* **43** *L* **22** # 37

Ran, Adee Cisco

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

"The 128-symbol SD-FEC codeword blocks are sent to the PMA"

Two paragraphs above this was referred to as "128-bit soft decision forward error correction (SD-FEC) codewords" - very different language referring to the same thing.

I assume the symbols are bits and that codewords and codeword blocks are the same.

SuggestedRemedy

Change to consistent language, preferably bits and codewords.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the responses to comments #6 and #171.

Cl **155** *SC* **155.2.2** *P* **43** *L* **35** # 39

Ran, Adee Cisco

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

"When the receive function is in normal mode, the SD-FEC codeword blocks are provided to the Hamming (128,119) SD-FEC decoder. Next the PCS de-interleaves the corrected SD-FEC codewords using a convolutional de-interleaver"

Is there any other mode for the receive function?

Are "SD-FEC codeword blocks" different from "SD-FEC codewords"?

SuggestedRemedy

Change to "In the receive direction, the SD-FEC decoder generates error-corrected codewords from the incoming data stream on the PMA service interface, which are then are passed through a convolutional de-interleaver".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change "When the receive function is in normal mode, the SD-FEC codeword blocks are provided to the Hamming (128,119) SD-FEC decoder. Next the PCS de-interleaves the corrected SD-FEC codewords using a convolutional de-interleaver and passes the resulting 119-symbol codewords to the descrambler." to "In the receive direction, the SD-FEC decoder generates error-corrected codewords from the incoming data stream on the PMA service interface, which are then passed through a convolutional de-interleaver. The convolutional de-interleaver passes the resulting 119-symbol codewords to the descrambler."

Cl **155** *SC* **155.2.2** *P* **43** *L* **43** # 40

Ran, Adee Cisco

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

"The reverse transcoder converts 257-bit blocks to 64B/66B"

64B/66B is the encoding scheme; the blocks are 66-bit blocks (as in the first sentence of 155.2.3).

The next sentence is indeed about the encoding scheme, so is fine.

SuggestedRemedy

Change "64/66B" to "66-bit"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.3** *P* **43** *L* **46** # 41

Ran, Adee Cisco

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

Subclauses 155.2.3 through 155.2.6 describe functions within the PCS. They should be placed below 155.2.2 in the hierarchy.

Alternatively, 155.2.2 can be renamed "PCS overview", because that's what it is.

SuggestedRemedy

Preferably change the hierarchy per the comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change the name of 155.2.2 to: "PCS overview"

Cl **155** *SC* **155.2.3** *P* **43** *L* **49** # 42

Ran, Adee Cisco

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

"generate, manipulate and interpret blocks" is a single list.

SuggestedRemedy

Change to "generate, manipulate, and interpret blocks"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.4** *P* **44** *L* **1** # 43

Ran, Adee Cisco

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

The title of 155.2.4 is "64B/66B code" but the mapping to 66-bit blocks is already described in 155.2.3. The final sentence in 155.2.4 points to 119.2.3 which has already been mentioned in 119.2.3.

This subclause describes the additional 257-bit blocks and GMP, so its current title "64B/66B code" is inappropriate. The title of the previous subclause 155.2.3, "Use of blocks", fits better.

Also "codestream" is not defined.

SuggestedRemedy

Move the second sentence, "The 64B/66B codestream is then transcoded into a 256B/257B stream, mapped to a 400GBASE-ZR frame using GMP, and FEC bits added in this PCS before transmission", into 155.2.3, changing "codestream" to "block stream".

Delete the remainder of this subclause.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Implement proposed change with editorial license

Cl **155** *SC* **155.2.5.3** *P* **44** *L* **29** # 44

Ran, Adee Cisco

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

"ITU-T G.709 (06/2020)"
There is an "ITU-T Recommendation G.709" entry in the normative references (1.3), which is undated. Is there a reason to include the date here?

Also, please use the same name as in 1.3.

SuggestedRemedy

Change to "ITU-T Recommendation G.709", preferably without the date, unless there is a reason to lock a specific version.

Proposed Response *Response Status* **W**

ACCEPT IN PRINCIPLE.

Change: "ITU-T G.709 (06/2020) Annex D" To: "ITU-T Recommendation G.709"

Cl **155** *SC* **155.2.5.3** *P* **44** *L* **38** # 46

Ran, Adee Cisco

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

The graphical objects in Figure 155-4 are not aligned to each other.

I'd suggest entering object sizes and positions manually rather than trying to align them by hand. The top row should be divided such that the sum of the widths is equal to widths of the other rows.

Also in Figure 155-5.

SuggestedRemedy

Per comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Update Figures 155-4 and 155-4 to improve alignment of the objects in the figures. With editorial license.

Cl **155** *SC* **155.2.5.3** *P* **44** *L* **51** # 47

Ran, Adee Cisco

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

"The first 1920 bits of the frame contain alignment markers (AM)"

It is not a single alignment marker, so the abbreviation AM isn't appropriate. And these are not the per-lane alignment markers defined in 119.2.4.4.2 because there are no lanes in this PCS.

Using terminology from 400GBASE-R creates unnecessary confusion. It would be simpler to say that the first 1920 bits are identical to am_mapped as defined in 119.2.4.4.2.

If the goal is to keep the name identical to other documents, then you could call it the AM field in the frame. This way AM becomes a notation rather than an abbreviation, and it can be removed from 1.5.

Also, the definitions of AM and PAD are repeated in 155.2.5.4.1 and 155.2.5.4.2, in different words. It would be easier for readers to have it only once.

SuggestedRemedy

Change list item 1 to:
"The first 1920 bits of the frame are the AM field, defined in 155.2.5.4.1".
Change list item 2 to
"The next 1920 bits of the frame are the pad field, defined in 155.2.5.4.2".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.3** *P* **45** *L* **8** # 48

Ran, Adee Cisco

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

Item 5 has "The 400GBASE-ZR PCS payload of the serialized stream of 257-bit blocks is mapped"

This is quite confusing. It would help readers if existing terminology is used in this sentence.

In the following paragraph, "the logically serialized 257-bits block encoded stream produced according to 155.2.5.2" seems to refer to tx_xcoded<256:0>.

SuggestedRemedy

In item 5, change "The 400GBASE-ZR PCS payload of the serialized stream of 257-bit blocks" to "The stream of tx_xcoded<256:0> blocks".

In the paragraph following the list, change "(the logically serialized 257-bits block encoded stream produced according to 155.2.5.2)" to "(from the stream of tx_xcoded<256:0> blocks)".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using response to comment #174

Cl **155** *SC* **155.2.5.3** *P* **45** *L* **12** # 49

Ran, Adee Cisco

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

"4 x 257"

x is used as a multiplication sign in several other places.

SuggestedRemedy

Change x to a proper multiplication sign when that is the intent, across the draft.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Implement suggested remedy with editorial license

Cl **155** *SC* **155.2.5.3** *P* **45** *L* **13** # 50

Ran, Adee Cisco

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

"is either filled with data bits … or stuff bits"
The "either" clause should be exchangeable with the "or" clause.

SuggestedRemedy

Change "is either filled with" to "is filled with either"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.3** *P* **45** *L* **16** # 51

Ran, Adee Cisco

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

"The 257-bit encoded data is a logically serial stream"

"logically serial stream" does not make sense, and this rate (as a serial stream) is not feasible in the foreseeable future.

Which 257-bit encoded data is that? is it the transcoder output, the payload area of a four-frame multi-frame mentioned in the previous paragraph, or the full frame? I assume it's the transcoder output, because the alternatives have higher data rate.

SuggestedRemedy

Change "The 257-bit encoded data is a logically serial stream at a rate of" to "The nominal data rate required for the transcoder output is".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: "The 257-bit encoded data is a logically serial stream at a rate of" to: "The nominal data rate required for the 64B/66B to 256B/257B transcoder output is"

Cl **155** *SC* **155.2.5.3** *P* **45** *L* **17** # 53

Ran, Adee Cisco

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

"The clocks for the PCS and the 400GBASE-ZR frame are independent"

This sentence would better be placed as the first sentence in the paragraph, to clarify what's it all about.

SuggestedRemedy

Move the quoted sentence to the beginning of the paragraph.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.5.2** *P* **46** *L* **45** # 56

Ran, Adee Cisco

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

"The RFP bit indicates a remote 400GBASE-ZR defect"

In the previous paragraph RPF is defined as "remote PHY fault". And it only indicates a fault if it is set to 1.

(RPF, not RFP; and fault, not defect)

SuggestedRemedy

Change to "The RPF bit is used to signal a remote 400GBASE-ZR fault".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.5.3** *P* **47** *L* **10** # 58

Ran, Adee Cisco

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

Hyphen in title as a separator.
Also in the body of this subclause, as a separator between bit labels, several times.

SuggestedRemedy

Change the hyphens to en dashes.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Implement with editorial license

Cl **155** *SC* **155.2.5.5.3** *P* **47** *L* **13** # 59

Ran, Adee Cisco

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

"OIF-400ZR-02.0" - seems like a normative reference.

SuggestedRemedy

Add an entry in 1.3 as necessary.

Proposed Response *Response Status* **W**

PROPOSED REJECT.

OIF-400ZR-02.0, Implementation Agreement 400ZR is already a normative reference in 1.3.

Cl **155** *SC* **155.2.5.5.3** *P* **47** *L* **19** # 60

Ran, Adee Cisco

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

C1-14 bits

SuggestedRemedy

Change to C1-C14 or C<14:1>

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change "C1-14 bits" to: "C1-C14"

Cl **155** *SC* **155.2.5.6** *P* **47** *L* **44** # 61

Ran, Adee Cisco

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

Digits should not be italicized.
There are many instances in this draft.

SuggestedRemedy

Format digits as upright, all instances.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Implement with editorial license

Cl **155** *SC* **155.2.5.10** *P* **50** *L* **22** # 63

Ran, Adee Cisco

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

"The effect of the convolutional interleaver shall be to distribute consecutive units of 119 bits from the SC-FEC encoded frame in order to improve resilience of the system to bursts of errors"

This is a very vague description of a normative requirement. There is already a "shall" in the second sentence ("shall be functionally equivalent").

SuggestedRemedy

Either change "shall be" to "is" or delete this sentence.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: "shall be" to "is"

Cl **155** *SC* **155.2.6.1** *P* **52** *L* **9** # 64

Ran, Adee Cisco

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

119 bit

SuggestedRemedy

119-bit

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: "119 bit messages" to "119-bit blocks"

Cl **155** *SC* **155.2.6.2** *P* **52** *L* **13** # 65

Ran, Adee Cisco

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

"produces" does not grammatically match "shall perform"

SuggestedRemedy

Change to "produce"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.6.5** *P* **52** *L* **32** # 66

Ran, Adee Cisco

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

"FEC_degraded_SER_ability_variable"
one underscore too many.

SuggestedRemedy

Change to "FEC_degraded_SER_ability variable"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.6.5** *P* **52** *L* **36** # 67

Ran, Adee Cisco

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

"The PCS counts the number of bits corrected by the SC-FEC decoder"

Then on L39-40: "the number of symbol errors detected is increased by 957 x 257"

The SC-FEC corrects bit errors, not symbol errors, and this paragraph discusses counting the number of bit errors (usually corrected, but when uncorrectable, all bits are marked as errors).

Then on L42: "if the number of symbol errors is less than..."

The text should be consistent - bit errors, not symbols; and not necessarily corrected.

SuggestedRemedy

Change "The PCS counts the number of bits corrected by the SC-FEC decoder" to "The PCS counts the number of bit errors detected by the SC-FEC decoder"

Change "the number of symbol errors detected is increased" to "the number of bit errors detected is increased".

Change "if the number of symbol errors" to "if the number of bit errors detected".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.6.5** *P* **52** *L* **37** # 68

Ran, Adee Cisco

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

"in consecutive non-overlapping SC-FEC frames of FEC_degraded_SER_interval (see 155.5)"

The wording "of FEC_degraded_SER_interval" is unclear.

In clause 119 the corresponding wording is "in consecutive nonoverlapping blocks of FEC_degraded_SER_interval codewords (see 119.3.1),"

SuggestedRemedy

Change to "in consecutive non-overlapping blocks of FEC_degraded_SER_interval SC-FEC frames (see 155.5)"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.6.7** *P* **53** *L* **1** # 69

Ran, Adee Cisco

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

"detect and removal" in heading

SuggestedRemedy

Change to "detection and removal"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.6.10** *P* **54** *L* **21** # 72

Ran, Adee Cisco

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

"shall decode blocks" should be "shall decode 66-bit blocks" to align with 155.2.6.9 and avoid ambiguity.

This applies to 3 instances of "blocks" in this subclause.

SuggestedRemedy

Change per comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.1** *P* **54** *L* **54** # 73

Ran, Adee Cisco

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

"the Physical Medium Attachment (PMA) sublayer for the 400 Gb/s Physical Layer implementation known as 400GBASE-ZR"

Too wordy. This is a single PHY, not a family of PHYs.

SuggestedRemedy

Change to "the Physical Medium Attachment (PMA) sublayer for the 400GBASE-ZR PHY".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.1.3** *P* **55** *L* **20** # 74

Ran, Adee Cisco

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

Item k starts with "Provide". To align with all other items, it should be "Providing".

SuggestedRemedy

Change per comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.2.2.2** *P* **57** *L* **51** # 75

Ran, Adee Cisco

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

"for each 128-bit SD-FEC codeword"
But according to 155.3.2.2.1, the message has 128 x m bits. The 128 bits are generated in the SD-FEC decoder in the PCS.

SuggestedRemedy

Change to "for each SD-FEC codeword".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.3** *P* **58** *L* **31** # 76

Ran, Adee Cisco

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

"The input (transmit direction) or output (receive direction) between the PMA and PCS carries a 128-bit SD-FEC codeword at 1/128 the DP-16QAM symbol rate"

The transmit and receive directions do not carry the same number of bits on each transaction of the service interface.

The interface carries codewords, not a single codeword.

Also, syntax can be improved.

SuggestedRemedy

Change the quoted sentence to "The input (transmit direction) of the PMA carries 128-bit SD-FEC codewords at 1/128 the DP-16QAM symbol rate from the PCS. The output (receive direction) of the PMA carries 128 x m bits representing the SD-FEC decoder input 1/128 the DP-16QAM symbol rate to the PCS".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

The rate is not 1/128 the symbol rate, but 1/16 the symbol rate (see response to comment #197.)Change to: "The input (transmit direction) of the PMA carries 128-bit SD-FEC codewords at 1/16 the DP-16QAM symbol rate from the PCS. The output (receive direction) of the PMA carries 128 x m bits representing the SD-FEC decoder input at 1/16 the DP-16QAM symbol rate to the PCS"

Cl **155** *SC* **155.3.3** *P* **58** *L* **34** # 77

Ran, Adee Cisco

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

"Likewise" is inadequate; the interface between the PMA and the PMD is nothing like the interface with the PCS.

This should be a separate paragraph from the PCS interface.

SuggestedRemedy

Delete "Likewise" and add a paragraph break.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.3** *P* **58** *L* **36** # 78

Ran, Adee Cisco

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

"and operate at the same nominal signaling rate"

Same as what? It's not the same as the PCS-PMA rate.

What is the rate?

SuggestedRemedy

Rephrase, preferably adding the nominal signaling rate explicitly.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment#198

Cl **155** *SC* **155.3.3.1.3** *P* **60** *L* **32** # 79

Ran, Adee Cisco

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

"For each polarization, the stream of SD-FEC interleaved symbols are assembled"

Singular/plural mismatch

SuggestedRemedy

Either change "the stream of" to "the" or change "are" to "is".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change "are" to "is"

Cl **155** *SC* **155.5.1** *P* **76** *L* **12** # 82

Ran, Adee Cisco

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

"The variable register is a 32-bit counter"
"register" is used in clause 45; within the PCS these are variables.
Similarly in 155.5.2.

SuggestedRemedy

Change "The variable register" to "This variable", in both places.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

In 155.5.1 change: "The variable register is a 32-bit counter" to: "The FEC_corrected_cw_counter ia a 32-bit counter" and in 155.5.2 change: "The variable register is a 32-bit counter" to: "The FEC_uncorrected_cw_counter is a 32-bit counter" consistent with text in clause 153.2.5

Cl **156** *SC* **156.9.11** *P* **101** *L* **36** # 86

Ran, Adee Cisco

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

offsett

SuggestedRemedy

offset

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.9.11** *P* **101** *L* **37** # 88

Ran, Adee Cisco

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

"The instantaneous I-Q offset per polarization is the maximum value per polarization and shall be within the limits given in Table 156–6"

Please separate parameter definition from normative statement.

Similarly in 156.9.12.

SuggestedRemedy

Change to
"The maximum instantaneous I-Q offset per polarization shall be within the limits given in Table 156–6", in a separate paragraph.

Apply similarly in 156.9.12.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change 156.9.11 to "The maximum instantaneous I-Q offset per polarization shall be within the limits given in Table 156-6.The instantaneous I-Q offset per polarization is the maximum value per polarization and is calculated as I-Q offset = 10log10[(Imean2 + Qmean2)/Psignal] with a measurement interval of 1 us."Change 156.9.12 to "The maximum mean I-Q offset per polarization shall be within the limits given in Table 156-6.The mean I-Q offset per polarization is the mean value per polarization and is calculated as I-Q offset = 10log10[(Imean2 + Qmean2)/Psignal]."

Cl **156** *SC* **156.9.29** *P* **104** *L* **1** # 89

Ran, Adee Cisco

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

Left margin in this page is larger than in other pages.

SuggestedRemedy

Fix it

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.10.1.2.4** *P* **106** *L* **21** # 90

Ran, Adee Cisco

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

beta

SuggestedRemedy

Change to the Greek letter

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.227** *P* **30** *L* **16** # 94

Bruckman, Leon Huawei

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

Wrong reference

SuggestedRemedy

Replace "and 155.2.6.1" with "and 155.2.6.5"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #15.

Cl **45** *SC* **45.2.1.228** *P* **30** *L* **22** # 95

Bruckman, Leon Huawei

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

This counter is for uncorrected errors

SuggestedRemedy

Replace "aSC-FEC corrected codewords counter" with "SC-FEC uncorrected codewords counter"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #16.

Cl **45** *SC* **45.2.1.228** *P* **30** *L* **24** # 96

Bruckman, Leon Huawei

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

Wrong reference

SuggestedRemedy

Replace "and 155.2.6.1" with "and 155.2.6.5"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #17.

Cl **45** *SC* **45.2.1.229** *P* **30** *L* **32** # 97

Bruckman, Leon Huawei

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

Total bits is fully defined in 153.2.5.3, clause 155 does not add anything.

SuggestedRemedy

Delete refernce to 155.2.6.1

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Deleting reference to 155.2.6.1 means there is no change to the existing 45.2.1.229 text so delete this subclause.

Cl **45** *SC* **45.2.1.230** *P* **30** *L* **40** # 98

Bruckman, Leon Huawei

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

Wrong reference

SuggestedRemedy

Replace "and 155.2.6.1" with "and 155.2.6.5"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.3.61.1** *P* **31** *L* **4** # 99

Bruckman, Leon Huawei

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

Wrong reference

SuggestedRemedy

Replace: "155.2.5.1" with: "155.2.5.5.2"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #20.

Cl **45** *SC* **45.2.3.61.4** *P* **31** *L* **21** # 100

Bruckman, Leon Huawei

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

Wrong reference

SuggestedRemedy

Replace: "155.2.5.2" with: "155.2.6.5"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #21.

Cl **155** *SC* **155.2.4** *P* **44** *L* **5** # 101

Bruckman, Leon Huawei

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

Reference to 119.2.3 is already provided in this context in the previous sub clause (155.2.3)

SuggestedRemedy

Delete: "Details of the 64B/66B code are provided in 119.2.3."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #43.

Cl **155** *SC* **155.2.5.5.1** *P* **46** *L* **37** # 102

Bruckman, Leon Huawei

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

"as defined by" replabce "by" with "in"

SuggestedRemedy

Replace: "as defined by" with: "as defined in"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.5.4** *P* **47** *L* **30** # 103

Bruckman, Leon Huawei

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

"The 400GBASE-ZR frame contains 1280-bit OH fields. This field is logically composed of" inconsistent singular/plural

SuggestedRemedy

Replace: "The 400GBASE-ZR frame contains 1280-bit OH fields. This field is logically composed of" with: "The 400GBASE-ZR frame contains 1280-bit OH fields. These fields are logically composed of"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.6.2** *P* **52** *L* **14** # 104

Bruckman, Leon Huawei

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

"as depicted in the left hand side of Figure 155–8". Figure 155-8 does not depict this. This text is a left over of D2.0 that pointed to a figure that was removed during comment resolution

SuggestedRemedy

Delete "as depicted in the left hand side of Figure 155–8"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.6.7** *P* **53** *L* **8** # 105

Bruckman, Leon Huawei

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

There is an entry in the PICS to test this function, but there is no "shall"

SuggestedRemedy

Replace: "the AM and OH fields need to be" with: "the AM and OH fields shall be"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.6.7.1** *P* **53** *L* **22** # 106

Bruckman, Leon Huawei

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

"to determine the contents of the 5th and 6th octets of the 320-bit OH fields" The text is correct, but in the figure these octest are numnbered 4 and 5, so it may create some confusion

SuggestedRemedy

Replace: "to determine the contents of the 5th and 6th octets of the 320-bit OH fields" with: "to determine the contents of octets number 4 and 5 of the 320-bit OH fields"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #191

Cl **155** *SC* **155.3.1.3** *P* **55** *L* **5** # 107

Bruckman, Leon Huawei

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

"Sampling at the symbol rate of the incoming signals" this text (changed from D2.0) seems to contradict the text in 155.3.3.2.1.

SuggestedRemedy

Delete: "at the symbol rate"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.2.2.1** *P* **57** *L* **43** # 108

Bruckman, Leon Huawei

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

Typo in equation: (k*4+1*m)

SuggestedRemedy

Replace: "(k*4+1*m)" with: "(k*4+1)*m"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.3.1.7** *P* **65** *L* **3** # 109

Bruckman, Leon Huawei

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

"The two polarization symbol streams stream shall be converted" unnecesary word "stream"

SuggestedRemedy

Replace: "The two polarization symbol streams stream shall be converted" with: "The two polarization symbol streams shall be converted"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.3.1.8** *P* **65** *L* **9** # 110

Bruckman, Leon Huawei

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

There is an entry in the PICS to test this function, but there is no "shall"

SuggestedRemedy

Replace: "are passed" with: "shall be passed"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.3.1.8** *P* **65** *L* **14** # 111

Bruckman, Leon Huawei

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

Table 155-7 title refers to physical lanes, while the clause talks about analog signals

SuggestedRemedy

Replace: "Allowed symbol mapping to physical lanes" with: "Allowed symbol mapping to analog signals"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.4.2** *P* **68** *L* **45** # 112

Bruckman, Leon Huawei

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

There is no low power mode

SuggestedRemedy

Replace: "during power on, and when the MDIO has put the PMA sublayer into low power mode." with: "and during power on."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.4.2** *P* **68** *L* **48** # 113

Bruckman, Leon Huawei

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

There is no low power mode

SuggestedRemedy

Replace: "during power on, and when the MDIO has put the PCS sublayer into low-power mode." with: "and during power on."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.7.4.1** *P* **78** *L* **50** # 114

Bruckman, Leon Huawei

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

Make text consistent with clause

SuggestedRemedy

Replace: "Symbol mapping to physical signals" with: "Symbol mapping to analog signals"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.5.2** *P* **88** *L* **25** # 115

Bruckman, Leon Huawei

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

Strange text: "and delivered to the MDI"

SuggestedRemedy

Replace: "and delivered to the MDI" with: "and deliver them to the MDI"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.9.2** *P* **98** *L* **41** # 117

Bruckman, Leon Huawei

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

"The transmitter is modulated using the test pattern defined in Table 156–10". Table 156-10 defines only test pattern 5, but in Table 156-11 these two parameters can be tested using either test pattern 5 or a valid 400GBASE-ZR signal.

SuggestedRemedy

Change the reference to Table 156-11

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.9.13** *P* **101** *L* **48** # 119

Bruckman, Leon Huawei

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

Text is not consistent with other subclauses in this section

SuggestedRemedy

At the end of the paragraph add: "and shall be within the limits given in Table 156–6"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.9.14** *P* **102** *L* **3** # 120

Bruckman, Leon Huawei

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

Text is not consistent with other subclauses in this section

SuggestedRemedy

At the end of the paragraph add: "and shall be within the limits given in Table 156–6"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

At the end of the first sentence add "and shall be within the limits given in Table 156-6"

Cl **156** *SC* **156.9.15** *P* **102** *L* **6** # 121

Bruckman, Leon Huawei

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

Typeo"I-I-Q"

SuggestedRemedy

Replace "I-I-Q" with "I-Q"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.9.15** *P* **102** *L* **8** # 122

Bruckman, Leon Huawei

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

Text is not consistent with other subclauses in this section

SuggestedRemedy

At the end of the paragraph add: "and shall be within the limits given in Table 156–6"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.9.19** *P* **102** *L* **41** # 124

Bruckman, Leon Huawei

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

Reference to the value is missing

SuggestedRemedy

At the beginning of the section add: "The Transmit output power stability shall be within the limits given in Table 156–6."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.9.20** *P* **102** *L* **51** # 125

Bruckman, Leon Huawei

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

Is "must" used ?

SuggestedRemedy

Replace "must" with "shall"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

At the end of the first paragraph add "and shall be within the limits given in Table 156-6". In the second paragraph change "the average transmit output power must be within the range defined by the min and max values of average channel output power as specified in Table 156–6." to "the average transmit output power shall be within the limits given in Table 156–6". With editorial license.

Cl **156** *SC* **156.9.21** *P* **103** *L* **7** # 127

Bruckman, Leon Huawei

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

Is "must" used ?

SuggestedRemedy

Replace "must" with "shall"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

At the end of the first paragraph add "and shall be within the limits given in Table 156-6". In the second paragraph change "the average transmit output power must be within the range defined by the min and max values of average channel output power as specified in Table 156–6." to "the average transmit output power shall be within the limits given in Table 156–6"

Cl **156** *SC* **156.9.22** *P* **103** *L* **12** # 128

Bruckman, Leon Huawei

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

Is "must" used ?

SuggestedRemedy

Replace "must" with "shall"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change "This field specifies the minimum average channel power that must be met for the highest setting of the adjustable range of transmit output power." to "This field specifies the minimum average channel power for the highest setting of the adjustable range of transmit output power and shall be within the limits given Table 156-6"

Cl **156** *SC* **156.9.23** *P* **103** *L* **18** # 129

Bruckman, Leon Huawei

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

Text is not consistent with other subclauses in this section

SuggestedRemedy

At the end of the paragraph add: "and shall be within the limits given in Table 156–6"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.9.26** *P* **103** *L* **38** # 130

Bruckman, Leon Huawei

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

Redundant text

SuggestedRemedy

Delete : "a while maintaining"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #144

Cl **156** *SC* **156.9.27** *P* **103** *L* **48** # 131

Bruckman, Leon Huawei

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

Text is not consistent with other subclauses in this section

SuggestedRemedy

At the end of the paragraph add: "and shall be within the limits given in Table 156–8"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.9.32** *P* **104** *L* **21** # 132

Bruckman, Leon Huawei

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

A "shall" seems to be missing

SuggestedRemedy

Replace: "the maximum allowable interferometric crosstalk is specified Table 156–8" with: "the maximum allowable interferometric crosstalk shall be as specified in Table 156–8"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change "the maximum allowable interferometric crosstalk is specified Table 156–8" to "the interferometric crosstalk shall be within the limits given in Table 156–8"

Cl **156** *SC* **156.10.1.2** *P* **105** *L* **50** # 133

Bruckman, Leon Huawei

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

Missing text

SuggestedRemedy

Replace: "in the following" with: "in the following sections"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Replace "described in the following" with "described in 156.10.1.2.1 through 156.10.1.2.7"

Cl **156** *SC* **156.10.1.2.6** *P* **106** *L* **30** # 134

Bruckman, Leon Huawei

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

Text is not clear

SuggestedRemedy

Replace: "The coefficients of the equalizer are searched that minimize the EVMmax value using the signal with additive white Gaussian noise considering the receiver OSNR(min)." with: "The coefficients of the equalizer that minimize the EVMmax value are searched using the signal with additive white Gaussian noise considering the receiver OSNR(min)."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.10.1.2.7** *P* **107** *L* **26** # 135

Bruckman, Leon Huawei

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

A "shall" seems to be missing at the end of the section

SuggestedRemedy

At the end of the section add: "EVMmax shall be within the limit given in Table 156–6."

Proposed Response *Response Status* **W**

PROPOSED REJECT.

The shall statement is previously stated in 156.9.10 with "The EVMmax shall be within the limits given in Table 156–6 if measured using the methods specified in 156.10.1.1 and 156.10.1.2".

Cl **116** *SC* **116.1.2** *P* **32** *L* **20** # 136

Dudek, Mike Marvell

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

In figure 116-2 the 200GBASE-R PHY should use the 200GBASE-R PCS and PMA, not a 200GBASE-ZR PCS and PMA.

SuggestedRemedy

Change 200GBASE-ZR PCS and PMA to 200GBASE-R PCS and PMA

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

The comment is actually for Figure 116-1. Change "200GBASE-ZR" to "200GBASE-R" for PCS and PMA.

Cl **155** *SC* **155.2.5.11** *P* **50** *L* **30** # 137

Dudek, Mike Marvell

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

Adding 9 parity bits to the block won't change the number of blocks.

SuggestedRemedy

Change 10796 to 10976,

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #187

Cl **155** *SC* **155.2.6.5** *P* **52** *L* **31** # 138

Dudek, Mike Marvell

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

The sentence is somewhat confusing due to "signal" being both a noun and verb.

SuggestedRemedy

Insert "report" between "to" and "signal" or use similar wording to 45.2.4.21.1 and change it to "signal the presence of a degraded received signal".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: "signal degradation of the received signal." to "signal the presence of a degraded received signal."

Cl **156A** *SC* **156A.1** *P* **115** *L* **15** # 139

Dudek, Mike Marvell

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

Typo.

SuggestedRemedy

Change "lack" to "black"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156A** *SC* **156A.3** *P* **117** *L* **25** # 140

Dudek, Mike Marvell

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

The formating is cutting off part of T

SuggestedRemedy

fix it.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Correct the equation formatting so T(f) is fully visible.

Cl **156** *SC* **156.7.1** *P* **94** *L* **15** # 143

Dudek, Mike Marvell

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

Typo.

SuggestedRemedy

Change "internals" to "intervals" in footnote b

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.9.26** *P* **103** *L* **38** # 144

Dudek, Mike Marvell

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

Typo.

SuggestedRemedy

Delete the duplicate "while maintaining a"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.9.32** *P* **104** *L* **21** # 147

Dudek, Mike Marvell

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

Typo.

SuggestedRemedy

insert "in" between "specified" and "Table"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.11.2** *P* **107** *L* **52** # 148

Dudek, Mike Marvell

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

There is a footnote 7 mark the footnote is on a different page.

SuggestedRemedy

move the footnote or paragraph so that they are on the same page

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Ensure the footfoot marker and associated footnote are on the same page. With editorial license.

Cl **156** *SC* **156.13.4.3** *P* **112** *L* **6** # 149

Dudek, Mike Marvell

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

The tables provide values not definitions.

SuggestedRemedy

Change to Per definitions in 156.9.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

In the Value/Comment row of Table 156.13.4.3 change to "Per definitions in 156.9".

Cl **156** *SC* **156.13.4.4** *P* **112** *L* **22** # 150

Dudek, Mike Marvell

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

The tables provide values not definitions.

SuggestedRemedy

Leave the Values/comments blank as is done for 140.12.4.6 in the base standard or change to "meets requiements in Table ….."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

In Value/Comment column of Table 156.13.4.4, change OM2 to "Per IEC 61280-1-3 under modulated conditions", change OM3 to "Per IEC 61280-1-1" and OM4-OM13 leave blank.

Cl **156** *SC* **156.9.1** *P* **97** *L* **37** # 152

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

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

Parameters Optical center frequency, side-mode suppression, average channel output power, transmit output power stability, and transmit output power absolute accuracy are all noted as using pattern "valid 400GBASE-R signal, 5". It is believed the user has a choice to use either pattern, which would be better noted with an or between the two noted patterns. The current denotation doesnt imply a choice between patterns.

SuggestedRemedy

In Table 156-11, change all instances of "valid 400GBASE-R signal, 5" to "5 or valid 400GBASE-R signal"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

In Table 156-11 change "valid 400GBASE-ZR signal, 5" to "5 or valid 400GBASE-ZR signal"

Cl **156** *SC* **156.9.2** *P* **98** *L* **42** # 153

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

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

Current text is pointing to Table 156-10, which is the summary of test patterns. The test patterns for 156.9.2 are denoted in Table 156-11.

SuggestedRemedy

Change Table reference from 156-10 to 156-11.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #117.

Cl **116** *SC* **116.3** *P* **33** *L* **3** # 155

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

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

The insertion of Table 116-5a is showing up as part of 116.3. It is not clear to commenter if this is a Frame issue.

SuggestedRemedy

Ensure that the addition of Table 116-5a is in 116.1.4.

Proposed Response *Response Status* **W**

ACCEPT IN PRINCIPLE.

Resolve using the response to comment #23.

Cl **155A** *SC* **155A.1** *P* **114** *L* **30** # 156

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

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

Figure 155A-1 is essentially the same figure as 118-2. However, in Fig 155A-1, the PMA(16:4) is denoted as MMD 10 and PMA (4:16) is dnoted as MMD 9, which does not match Fig 118-2, which uses MMD 9 and MMD 8 respectively.

SuggestedRemedy

Change the noted MMDs in Figu 155A-1 to match the same MMDs in Fig 118-2.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

In Figure 155A-1 change MMD10 to MMD9 and MMD9 to MMD 8 to align with Figure 118-2 in IEEE Std 802.3-2022.

Cl **155** *SC* **155.2** *P* **41** *L* **41** # 158

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

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

Suggest rewording the following sentence due to its briefness - The PCS service interface is the Media Independent Interface (400GMII), which is defined in Clause 117.

SuggestedRemedy

The upper interface of the PCS may connect to the Reconciliation Sublayer through the 400GMII, which is defined in Clause 117.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change "The PCS service interface is the Media Independent Interface (400GMII), which is defined in Clause 117" to "The service interface of the PCS connects to Reconciliation Sublayer. The PCS service interface is the 400 Gb/s Media Independent Interface (400GMII) (see Clause 117)."

Cl **155** *SC* **155.2.2** *P* **43** *L* **1** # 159

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

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

There is inconsistent usage of the terms 400GBASE-ZR PCS and PCS, as well as 400GBASE-ZR PMA and PMA thoughout this subclause

SuggestedRemedy

Review all of Clause 155 and implement a consistent approach to use of 400GBASE-ZR PCS / PCS and 400GBASE-ZR PMA / PMA.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change "PCS" to "400GBASE-ZR PCS" and change "PMA" to "400GBASE-ZR PMA" throughout clause 155. With editorial license.

Cl **116** *SC* **116.3** *P* **33** *L* **33** # 161

Huber, Thomas Nokia

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

This clause is in the wrong place - the material on the next page (about inserting table 116-5a) is still part of clause 116.1.4

SuggestedRemedy

Move the material from line 33 to the bottom of page 33 to after what is currently (and incorrectly) numbered clause 116.4.5.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the responses to comments #23 and 24.

Cl **116** *SC* **116.4** *P* **34** *L* **24** # 162

Huber, Thomas Nokia

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

The heading here should be 116.2 rather than 116.4 - this applies to all the subheadings 116.4.3, 116.4.4, 116.4.5 as well.

SuggestedRemedy

Correct the heading numbers (it may be that moving the incorrectly placed 116.3 will fix this automatically)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #24.

Cl **155** *SC* **155.2.2** *P* **42** *L* **12** # 166

Huber, Thomas Nokia

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

In Figure 155-3, the block labeled "Encode" should probably say "64B/66B Encode"

SuggestedRemedy

Add "64B/66B" to the label.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.2** *P* **43** *L* **6** # 168

Huber, Thomas Nokia

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

The sentence describing communication from PCS to PMA is a bit awkward, and doesn't really need to discuss what the PMA does since this subcluase is about the PCS.

SuggestedRemedy

Change "When communicating with the PMA in the transmit direction, the 400GBASE-ZR PCS provides 128-bit soft decision forward error correction (SD-FEC) codewords from the 400GBASE-ZR PCS to the PMA, which the PMA encodes into two streams of 16QAM symbols."
to
"When communicating with the PMA in the transmit direction, the 400GBASE-ZR PCS uses a single lane carrying 128-bit soft decision forward error correction (SD-FEC) codewords."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #33.

Cl **155** *SC* **155.2.2** *P* **43** *L* **18** # 170

Huber, Thomas Nokia

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

The phrase '257-bit blocks stream' is awkward; 'stream of 257-bit blocks' would be better.

SuggestedRemedy

Change "…with the ±100 ppm 257-bit blocks stream being mapped…" to "with the ±100 ppm stream of 257-bit blocks being mapped…"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #259

Cl **155** *SC* **155.2.2** *P* **43** *L* **22** # 171

Huber, Thomas Nokia

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

The text here switches from "128 bit SD-FEC codewords" to "128 symbol SD-FEC codewords". Better to keep consistent.

SuggestedRemedy

Change "The 128-symbol SD-FEC codeword blocks are sent to the PMA…" to "The 128-bit SD-FEC codewords are sent to the PMA…"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.2** *P* **43** *L* **32** # 172

Huber, Thomas Nokia

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

The PCS is receiving m-bit digitized DP-16QAM symbols from the PMA, and aligning to 128-bit SD-FEC codewords.

SuggestedRemedy

Change "…the PCS synchronization process accepts the stream of symbols via the PMA_IS_UITDATA.indication primitive and forms a stream of 128-symbol SD-FEC codeword blocks"
to
"…the PCS synchronization process accepts a stream of m-bit digitized DP-16QAM symbols via the PMA_IS_UNITDATA.indication primitive and forms a stream of 128-bit SD-FEC codewords."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.3** *P* **45** *L* **8** # 174

Huber, Thomas Nokia

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

Item 5 is written awkwardly. The intent is to define the payload area of the 400GBASE-ZR frame. The details of how it is filled are covered in the next paragraph and other subsequent text. "Bit 5141" implies that the first bit is numbered 1 rather than 0, which is not in line with what is in Table 155-1 below.

SuggestedRemedy

Replace the text of item 5) with: The remaining bits, from bit 5140 of the first row to end of the frame, are the payload areat hat consists of 10,220 257-bit blocks.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: "The 400GBASE-ZR PCS payload of the serialized stream of 257-bit blocks is mapped into the payload area of 400GBASE-ZR frames from bit 5141 to the end of the frame. The payload size of each 400GBASE-ZR frame is 10 220 x 257 bits." to: "The remaining bits, from bit 5140 of the first row to end of the frame, are the payload area that consists of 10 220 x 257-bit blocks"

Cl **155** *SC* **155.2.5.4** *P* **45** *L* **42** # 176

Huber, Thomas Nokia

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

The introductory sentence implies that filling in the AM, pad, and OH fields somehow depends on the GMP mapping process. That is true for the GMP-related OH, but the rest of it has no dependence on the GMP process. Also, 155.2.5.4 doesn't address the OH fields.

SuggestedRemedy

Replace the existing text with this: This clause specifies the alignment markers and pad fields of the 400GBASE-ZR frame.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.4.1** *P* **46** *L* **1** # 177

Huber, Thomas Nokia

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

The description of where the AM field is and how the variable am_mapped<1919:0> is inserted is not clear.

SuggestedRemedy

Delete the first sentence of the paragraph ("The AM field is carried at the beginning of each frame in the first row."); the location of the field is clear from figure 155-4. Delete the last sentence of the paragraph ("The transmission order of am_mapped is from am_mapped<0> to am_mapped<1919>.") At the end of the preceding paragraph (bottom of page 45), add a sentence to clarify the order of the bits of am_mapped within the AM field of the frame (i.e., am_mapped<0:1919> are mapped into bits 0-1919 of the AM field).

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: "The resulting 1920-bit value is inserted in the AM field of each 400GBASE-ZR frame." to: "The resulting am_mapped<0:1919> is mapped to bits 0 to 1919 of the AM field".Delete the first and last sentences of the last paragragh in 155.2.5.4.1

Cl **155** *SC* **155.2.5.5** *P* **46** *L* **10** # 178

Huber, Thomas Nokia

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

The title and introductory sentence of the clause are misleading - the contents are really about the OH elements (except for 155.2.5.5.4, which deals with mapping into the field labelled OH in figure 155-4)

SuggestedRemedy

Change the title from "OH fields" to "400GBASE-ZR overhead"
Replace the introductory sentence with this text: The 400GBASE-ZR overhead is carried in a 40-octet frame structure that uses a 4-frame multiframe, as shown in Figure 155-5 and described in 155.2.5.5.1 through 155.2.5.5.3. The mapping of this structure into the OH field in Figure 155-4 is described in 155.2.5.5.4. The overhead is intended to be consistent with the description in subclause 8.8 of OIF-400ZR-02.0.
Replace the caption of Figure 155-5 with this: Contents of 400GBASE-ZR OH field

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change the title of 155.2.5.5 from "OH fields" to "400GBASE-ZR overhead" Change the text of 155.2.5.5 to "The 400GBASE-ZR overhead is carried in a 40-octet frame structure that uses a 4-frame multiframe, as shown in Figure 155-5 and described in 155.2.5.5.1 through 155.2.5.5.3. The mapping of this structure into the OH fields in Figure 155-4 is described in 155.2.5.5.4. The overhead is intended to be consistent with the description in subclause 8.8 of OIF-400ZR-02.0."Change the title of Figure 155-5 to "Contents of 400GBASE-ZR OH fields". With editorial license.

Cl **155** *SC* **155.2.5.5.1** *P* **46** *L* **38** # 179

Huber, Thomas Nokia

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

The description of the MFAS as being in "each 40-octet frame within the 160-octet block" is not correct. The overhead frame is 40 octets; the 4-frame multiframe should not be described as a 160-octet block. The reference to G.709.1 clause 9.2.1 is not particulary helpful because the OIF 400ZR/400GBASE-ZR application uses the field differently than FlexO uses it.

SuggestedRemedy

Change the second sentence of the clause to say: "It is an auto-wrapping 8-bit counter that is incremented in each 400GBASE-ZR frame."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.5.3** *P* **47** *L* **12** # 180

Huber, Thomas Nokia

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

The description of the JC information as "spread across the second, third, and fourth frames of the 160-octet block" is not correct. The overhead frame is 40 octets.

SuggestedRemedy

Replace the sentence with: The justification control information is carried in octets 4 and 5 of the second, third, and fourth frames of the multiframe, as shown in Figure 155-5.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.5.4** *P* **47** *L* **30** # 182

Huber, Thomas Nokia

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

The first two sentences can be combined and made clearer

SuggestedRemedy

Rewrite as: The 128-bit OH field in the 400GBASE-ZR frame is logically composed of four 320-bit structures..

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #103

Cl **155** *SC* **155.2.5.6** *P* **47** *L* **37** # 183

Huber, Thomas Nokia

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

SC-FEC blocks are not 'calculated' (the parity bits are calculated, the rest are not). 'Constructed' would be a better choice.

SuggestedRemedy

Change "provides the input data for the calculation of SC-FEC input blocks" to "provides the input data for the construction of SC-FEC input blocks".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.6** *P* **47** *L* **40** # 184

Huber, Thomas Nokia

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

The formula should use appropriate arithmetic symbols.

SuggestedRemedy

Change the x to a multiplcation symbol and the / to a division symbol.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.7** *P* **48** *L* **10** # 185

Huber, Thomas Nokia

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

Missing an indefinite article

SuggestedRemedy

Change "... MBAS requires additional 34 bits of padding." to "… MBAS rqeuires an additional 34 bits of padding."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: "In order to conform to this block size, the SC-FEC block of 244 664 input bits plus 38 bits of CRC32 and MBAS requires additional 34 bits of padding." To: "In order to conform to this block size, the SC-FEC block of 244 664 input bits plus 38 bits of CRC32 and MBAS requires 34 bits of additional padding."

Cl **155** *SC* **155.2.5.9** *P* **50** *L* **13** # 186

Huber, Thomas Nokia

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

x should be a multiplication symbol

SuggestedRemedy

Use the multiplication symbol

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.11** *P* **50** *L* **30** # 187

Huber, Thomas Nokia

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

The number of 128-bit blocks is incorrect

SuggestedRemedy

Change 10796 to 10976.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.9.13** *P* **51** *L* **43** # 188

Huber, Thomas Nokia

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

Presumably the intent here is that the test signal is the result of the MII being a constant stream of idle characters; as written, it implies a single Idle control block.

SuggestedRemedy

Replace:
The scrambled idle test pattern is the output of the PCS when the input to the PCS at the 400GMII is a control block with all idle characters.
with
The scrambled idle test pattern is generated by applying a signal consisting of a continuous stream of idle control characters at the 400GMII.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.6.7** *P* **53** *L* **12** # 189

Huber, Thomas Nokia

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

The term 'OH field' is being overloaded in the text - sometimes it means the 1280-bit OH field in the frame, sometimes it is referring to specific overhead information elements within that field. I would be more clear to use "OH field" to refer to the 1280-bit field.only.

SuggestedRemedy

Change:
Once AM lock has been acquired, the OH fields MFAS, status and JC1-JC6 can be extracted for use by the GMP de-mapper and for error signaling.
To:
Once AM lock has been acquired, the MFAS, status, and JC1-JC6 information can be extracted from the OH field for use by the GMP de-mapper and for error signaling.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: "Once AM lock has been acquired, the OH fields MFAS, status and JC1-JC6 are extracted for use by the GMP de-mapper and for error signaling." To: "Once AM lock has been acquired, the MFAS, status, and JC1-JC6 information may be extracted from the OH fields for use by the GMP de-mapper and for error signaling."

Cl **155** *SC* **155.2.6.7** *P* **53** *L* **15** # 190

Huber, Thomas Nokia

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

There is only one 1280-bit overhead field

SuggestedRemedy

Change "overhead fields" to "overhead field"

Proposed Response *Response Status* **W**

PROPOSED REJECT.

The decision was made in the D2.0 rewrite to use the term "OH fields".

Cl **155** *SC* **155.2.6.7.1** *P* **53** *L* **19** # 191

Huber, Thomas Nokia

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

The description of MFAS alignment is more complex than it needs to be

SuggestedRemedy

Change the section heading from 'MFAS detection' to 'MFAS alignment'.
Change the text of the clause to read:
Alignment to the four-frame multiframe is achieved via the two LSBs of the MFAS. The multiframe is used to support recovery of other overhead information elements shown in FIgure 155-5

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

MFAS is required only for the JC1-JC6 octets recovery, so it is useful to indicate this.Change the section heading to "MFAS alignment"Change: "Only the two LSBs of MFAS are required to determine the contents of the 5th and 6th octets of the 320-bit OH fields received after de-interleaving from the 1280 bit OH fields." To "Alignment to the four-frame multiframe is achieved via the two LSBs of the MFAS."

Cl **155** *SC* **155.2.6.8** *P* **54** *L* **3** # 192

Huber, Thomas Nokia

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

There is no context for most of what is in this paragraph - CRCs used in the GMP parameters have not been mentioned before, there is no mention of Cm(t) and ∑CnD(t) that were mentioned in the tx clause. Since GMP is being used by reference to other documents, the less said about the details here, the better.

SuggestedRemedy

Revise the text of the subclause to read:
The GMP-demapped shall decode the JC1-JC6 octets according to the procedures described in ITU-T G.709 Annex D, recover the parameters Cm(t) and ∑CnD(t), and use them to recover the 1028-bit data blocks that were inserted into the frame by the GMP mapper.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change the subclause text to read: "The GMP-demapped shall decode the JC1-JC6 octets according to the procedures described in ITU-T G.709 Annex D, recover the parameters Cm(t) and ∑CnD(t), and use them to recover the 1028-bit data blocks that were inserted into the frame by the GMP mapper and the signal stream rate."

Cl **155** *SC* **155.3.1.3** *P* **55** *L* **10** # 193

Huber, Thomas Nokia

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

There is an awkward comma separating a list of two items: "state of polarization, and polarization mode dispersion". Presumably the comma was inserted to avoid the phrase being incorrectly parsed as "state of (polarization and polarization mode dispersion)". Rather than an awkward comma, the 'both... and' construct can be used.

SuggestedRemedy

change "… including state of polarization, and polarization mode dispersion; … " to "… including both state of polarization and polarization mode dispersion; ..."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.1.3** *P* **56** *L* **10** # 194

Huber, Thomas Nokia

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

Sepraating the Gray coding and polarization distribution processes in Figure 155-9 does not align well with the text that follows; the Gray coding is described in terms the 4 components of the DP16QAM symbols.

SuggestedRemedy

Combine the Gray coding, symbol interleaving, and polarization distribution into a single process in the figure.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.2.2.1** *P* **57** *L* **43** # 195

Huber, Thomas Nokia

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

The closing parenthesis for the second index is in the wrong place

SuggestedRemedy

Change (k*4+1*m) to (k*4+1)*m

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #108.

Cl **155** *SC* **155.3.2.2.1** *P* **57** *L* **41** # 196

Huber, Thomas Nokia

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

In all of the rx_codeword expressions, the multiplication symbol × should be used rather than *

SuggestedRemedy

Replace all instances of * with ×

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.3** *P* **58** *L* **34** # 197

Huber, Thomas Nokia

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

The signal rate between PCS and PMA seems to be mixing symbols and bits. Each transfer between PCS and PMA has 128 bits, or 16 DP-16QAM symbols, so the rate between PCS and PMA would be 1/16 the DP-16QAM symbol rate. It would of course be 1/128 the DP-16QAM bit rate .

SuggestedRemedy

Either change to 1/16, or change "DP-16QAM symbol rate" to "DP-16QAM bit rate".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change 1/128 to 1/16. See response to comment #76

Cl **155** *SC* **155.3.3** *P* **58** *L* **36** # 198

Huber, Thomas Nokia

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

The last sentence has a few issues. The use of "Likewise" to begin the sentence seems not quite right since the interface between PCS and PMA and the interface between PMA and PMD are quite different. The list of components should have 'and' rather than 'or'. It's not clear if the last clause about nominal signaling rate is intended to mean the 4 components all have the same nominal rate, or that collectively they support the same rate as the PCS-to-PMA interface supports.

SuggestedRemedy

Rewrite the sentence: The input (receive direction) or output (transmit direction) signals between the PMA and PMD carry analog signals represneting the components of DP-16QAM symbols (namely, XI, XQ, Yi, and YQ). All of the components operate a thte same nominal signaling rate.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

The rate at the PMA to PMD service interface is higher than the rate at the PCS to PMA service interface due to the addition of Pilot, FAW and reserved symbols to create the DSP frame. Change: "Likewise, the input (receive direction) or output (transmit direction) signals between the PMA and PMD carry analog signals representing the components of symbols, namely XI, XQ, YI, or YQ, and operate at the same nominal signaling rate." To: "The input (receive direction) or output (transmit direction) signals between the PMA and PMD carry analog signals represneting the components of DP-16QAM symbols (namely, XI, XQ, YI, and YQ)."

Cl **155** *SC* **155.3.3.1.1** *P* **58** *L* **45** # 199

Huber, Thomas Nokia

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

The second paragraph seems out of place since this subclause is discussing the transmit function.

SuggestedRemedy

Delete the paragraph.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.3.1.1** *P* **59** *L* **10** # 200

Huber, Thomas Nokia

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

Columns 1-3 of table 155-2 and columns 4-6 are the same, except for the headings of columns 1 and 4. It would be better to reduce to 3 columns and combine the headings appropriately.

SuggestedRemedy

Delete columns 4-6. Change the heading of columns 2 and 3 to I and Q, respectively. Change the heading of column 1 to
X: (c8i,m c8i+1, c8i+2, c8i+3)
Y: (c8i+4, c8i+5, c8i+6, c8i+7)

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Making the suggested change will not enhance the clarity of the draft and the column headings align with the symbol labels in 155.3.3.1.1.

Cl **155** *SC* **155.3.3.1.2** *P* **59** *L* **42** # 201

Huber, Thomas Nokia

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

This sentence (which appears to be copied firectly from 400ZR) is out of place here - there is no context for what pilot symbols are. The first sentence of the second paragraph (which also appears to come from 400ZR) is not necessary to understand how the interleaving works (and is somewhat contradicted by later text that discusses how the output of the interleaving process is mapped into the transmission frame), and the two paragraphs can otherwise be combined.

SuggestedRemedy

Replace the first paragraph and first sentence of the second paragraph with:
The DP-16QAM symbols from 16 SD-FEC codewords are time-interleaved to decorrelate the noise between consecutively received symbols.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.3.1.3** *P* **60** *L* **39** # 202

Huber, Thomas Nokia

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

The description of the frame and mutliframe structure would be more clear if the abbreviations for the different types of symbols were spelled out, and if the organization was modified such that the overall structure of the frame is described before the details of the first vs 2nd through 49th frames are described.

SuggestedRemedy

Replace the second, third, and fourth paragraphs with this text:
Each frame is based on 116 sets of 32 symbols. The first symbol of each set is a pilot symbol [P0, P1, ..., P115]. Each frame begins with an 11-symbol training sequence (TS, ts<0:10>). ts<0> is this also P0.

The first frame includes a 22-symbol Frame Alignment Word (FAW, faw<0:21>), 76 reserved symbols (rsvd<0:75>), and 3488 payload symbols (m<0:3487>). The reserved symbols are randomized and are ignored by the receiver. The payload symbols occupy the last 16 symbols before P4 and all symbols between P4 and P115.

Frames 2 through 49 do not have the FAW or reserved symbols, and therefore carry 1586 payload symbols, occupying the last 21 symbols between P0 and P1, and all symbols between P1 and P115.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change the second, third and fourth paragraphs to (see also comments #267 and #268):"Each frame is based on 116 sets of 32 symbols. The first symbol of each set is a pilot symbol [P0, P1, …, P115]. Each frame begins with an 11-symbol training sequence (TS, ts<0:10>). The first symbol of each TS has the same value as the corresponding pilot symbol for each polarization and is counted as a pilot symbol. The first frame includes a 22-symbol Frame Alignment Word (FAW, faw<0:21>), 76 reserved symbols (rsvd<0:75>), and 3488 payload symbols (m<0:3487>). The reserved symbols are randomized and are ignored by the receiver. The payload symbols occupy the last 16 symbols before P4 and all symbols between P4 and P115.Frames 2 through 49 do not have the FAW or reserved symbols, and therefore carry 1586 payload symbols, occupying the last 21 symbols between P0 and P1, and all symbols between P1 and P115."

Cl **155** *SC* **155.2.5.7** *P* **49** *L* **5** # 205

Slavick, Jeff Broadcom

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

Figure 155-7 appears to be incorrect in it's representation of how the information, parity and pad bits are done. Each of the 5 parity blocks plus CRC + MBAS utilize 23.8 rows of the 690 column bits. 23.8 * 5 = 119 which means the start of each parity should begin on rows 24, 48, 72 and 96 as shown but completely fill to the end of the 119th row. The 6 x 119b pad is actually 6 more columns of data and is just filler and shouldn't be part of this diagram.

SuggestedRemedy

In figure 155-7 remove the 6x119 bit pad text and arrow, make the Bj+3 black outline box go around the light gray boxes, remove the left light gray box from Bj+3 and make the CRC & MBAS of Bj+4 point to the gray box that remains (which the 6x119bit pad use to point at)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.5** *P* **46** *L* **28** # 209

Slavick, Jeff Broadcom

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

There are a pair of dark lines in the middle of the blocks representing the different bits to field mapping.

SuggestedRemedy

Fix the strange looking dark lines.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #3.

Cl **155** *SC* **155.2.5.7** *P* **48** *L* **12** # 210

Slavick, Jeff Broadcom

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

The 34-bit pad appears to be filler to make the length of the information frame the proper size. The SC-FEC is then using this to generate the parity data. So it seems this should be specified as to what value the 34bit field is so the other end knows as well.

SuggestedRemedy

change "34-bit pad" to "34-bit pad of all zeroes"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.10** *P* **50** *L* **19** # 212

Slavick, Jeff Broadcom

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

The convolutional interleaver operates on the scrarmbled stream. No need to back reference two and three operations.

SuggestedRemedy

Replace the first sentence of 10.2.5.10 to be "The scrambled output from the frame synchronous scrambler is processed by the convolutional interleaver and is organized into 10 976 blocks of 119 bits where the first 119 bits from the scrambler is the first block, the following 199bits the second block and so forth."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: "The scrambled output from the SC-FEC encoder plus padding is organized as 10 976 rows of 119 bits, as shown on the left hand side of Figure 155–8." to: "The scrambled output from the frame synchronous scrambler is processed by the convolutional interleaver and is organized into 10 976 x 119-bit blocks where the first 119 bits from the scrambler is the first block, the following 199 bits the second block and so forth."

Cl **155** *SC* **155.2.5.11** *P* **50** *L* **30** # 213

Slavick, Jeff Broadcom

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

Is the SD-FEC codeword is not 10.8 billion bits, but the number of codewords created and the size it not readily distinguishable

SuggestedRemedy

Add the wide "x" between the 796 and 128-bit at the end of the first paragraph. Also between the 796 and the 119-bit

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.10** *P* **50** *L* **18** # 214

Slavick, Jeff Broadcom

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

In section 155.2.5.8 it says the organization is 119 rows of 10 970 bits, but this section is now stating it's 10 976 rows of 119 bits.

SuggestedRemedy

Change rows to columns

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

There are no 10 976 rows of 119 bits, but 10976 blocks of 119 bits. See response to comment #212

Cl **155** *SC* **155.2.5.11** *P* **50** *L* **30** # 216

Slavick, Jeff Broadcom

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

Looks like you're adding 9b of parity to each 119bit block to make it 128b blocks. So the number of input blocks to output blocks should be the same.

SuggestedRemedy

Remove the 10 976 and 10 796 from the last sentence of the first paragraph.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #187

Cl **155** *SC* **155.2.6.2** *P* **52** *L* **14** # 217

Slavick, Jeff Broadcom

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

Figure 155-8 is the Transmit bit order diagram.

SuggestedRemedy

Delete everything after the word bits

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: "sequences of 10 976 x 119 bits as depicted in the left hand side of Figure 155–8." to "sequences of 10 976 x 119-bit blocks."

Cl **155** *SC* **155.2.6.4** *P* **52** *L* **23** # 218

Slavick, Jeff Broadcom

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

The 10 976 x 119bits have been called blocks up to this point.

SuggestedRemedy

Change rows to blocks

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.4.2** *P* **70** *L* **12** # 219

Brown, Matt Huawei

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

The word "can" in this context is deprecated per style guide.

SuggestedRemedy

Change "The JC1-JC2 field information is also protected by limits on how the JC1-JC2 fields can change"
To: "Change "The JC1-JC2 field information is also protected by limits on how the JC1-JC2 fields might change"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #192. Editor assumed that commenter refers to text in page 54 line 8

Cl **155** *SC* **155.3.2.3.1** *P* **58** *L* **15** # 220

Brown, Matt Huawei

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

The word "can" in this context is deprecated per style guide.

SuggestedRemedy

Change "The SIGNAL_OK parameter can take on one of two values of the form:"
To: "The SIGNAL_OK parameter takes on one of two values of the form:"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.4.2** *P* **68** *L* **48** # 221

Brown, Matt Huawei

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

EEE is not supported for 400GBASE-ZR.

SuggestedRemedy

Delete: ", and when the MDIO has put the PCS sublayer into low-power mode."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.4.2** *P* **70** *L* **12** # 222

Brown, Matt Huawei

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

The word "can" in this context is deprecated per style guide.

SuggestedRemedy

Change "A Boolean variable that is set to true when the AMP_SLIP requested by the alignment marker lock state diagram has been completed and the next candidate 1920-bit block position can be tested."
To: "A Boolean variable that is set to true when the AMP_SLIP requested by the alignment marker lock state diagram has been completed and the next candidate 1920-bit block position is available to be tested."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.7.4.1** *P* **78** *L* **14** # 224

Brown, Matt Huawei

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

The word "can" in this context is deprecated per style guide.

SuggestedRemedy

Reference to the subclause 155.2.6.7.2 is sufficient. Delete the text in the value/comment cell for FDD.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.6** *P* **89** *L* **41** # 226

Brown, Matt Huawei

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

The word "can" in this context is deprecated per style guide. Also, it is not clear what is meant by "this PMD type" or "the link".

SuggestedRemedy

Change: "By using this methodology this PMD type can support a wide range of applications, as long as the link requirements specified in 156.8 are met."
To: "By using this methodology 400GBASE-ZR PMD supports a wide range of applications, as long as the black link requirements specified in 156.8 are met."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.6** *P* **90** *L* **43** # 227

Brown, Matt Huawei

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

The word "can" in this context is deprecated per style guide.

SuggestedRemedy

Change "The 400GBASE-ZR PMD is specified on the basis that it can be connected"
To: "The 400GBASE-ZR PMD is specified on the basis that it may be connected"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.9.26** *P* **103** *L* **38** # 228

Brown, Matt Huawei

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

The word "can" in this context is deprecated per style guide.

SuggestedRemedy

Change: "Receiver OSNR tolerance is defined as minimum OSNR that the receiver can tolerate while"
To: "Receiver OSNR tolerance is defined as minimum OSNR that the receiver tolerates while"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156A** *SC* **156A.1** *P* **115** *L* **15** # 229

Brown, Matt Huawei

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

The word "can" in this context is deprecated per style guide.

SuggestedRemedy

Change "The purpose of this annex to provide examples of optical component specifications that can meet the DWDM lack link requirements."
To: "The purpose of this annex to provide examples of optical component specifications that meet the DWDM lack link requirements."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.6** *P* **74** *L* **18** # 230

Brown, Matt Huawei

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

1 pause_quanta = 512 BT
2400000 BT is 4687.5 pause_quanta
Delay constraints are normally specified in integer number of pause_quanta.

SuggestedRemedy

Change "2 400 000 BT" to "2 400 256 BT"
Change "6000 ns" to "6000.64 ns"

Proposed Response *Response Status* **W**

PROPOSED REJECT.

The proposed values are already integrated in D2.1. Commenter may have mistakenly referred to D2.0. Referenced text is on page 76 line 36.

Cl **FM** *SC* **FM** *P* **10** *L* **16** # 231

Brown, Matt Huawei

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

"physical layer" should be capitalized

SuggestedRemedy

Change "physical layer" to "Physical Layer"
Also, at the following locations
page 12, line 42
page 39, line 8

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

The use of lower case "physical layer" on page 10 is from the 802.3 FrameMaker template and will not be changed. Change "physical layer" to "Physical Layer" as noted on pages 12 and 39.

Cl **155** *SC* **155.2.1** *P* **41** *L* **34** # 235

Brown, Matt Huawei

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

It is specifically the 400 Gb/s MII.

SuggestedRemedy

Change the sentence to "The PCS service interface is the 400 Gb/s Media Independent Interface (400GMII) (see Clause 117)."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #158.

Cl **155** *SC* **155.2.2** *P* **42** *L* **23** # 236

Brown, Matt Huawei

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

Use style consistent in both transmit and receive direction.

SuggestedRemedy

Change "OH & AM insertion" to "OH/AM insertion".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.2** *P* **43** *L* **7** # 237

Brown, Matt Huawei

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

Redundant words. It is quite clear that if the PCS provides it, it is from the PCS.

SuggestedRemedy

Change "the 400GBASE-ZR PCS provides 128-bit soft decision forward error correction (SD-FEC) codewords from the 400GBASE-ZR PCS to the PMA"
To "the 400GBASE-ZR PCS provides 128-bit soft decision forward error correction (SD-FEC) codewords to the PMA"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #33

Cl **155** *SC* **155.2.2** *P* **43** *L* **13** # 238

Brown, Matt Huawei

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

The word "can" in this context is deprecated per style guide.

SuggestedRemedy

Change "The PCS transmit function can operate in normal mode or test-pattern mode."
To "The PCS transmit function operates in normal mode or test-pattern mode.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.3** *P* **45** *L* **17** # 239

Brown, Matt Huawei

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

The sentence says "The clocks for the PCS and the 400GBASE-ZR frame are independent." Does this mean it is not permitted for the PCS clock and frame clock to be derived from the same source? A 20 ppm reference clock might be used for both.

SuggestedRemedy

Perhaps is should state:
"The clocks for the PCS and the 400GBASE-ZR frame may be independent."
or
"It is not necessary for the the clocks for the PCS and the 400GBASE-ZR frame to be dependent."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: "The clocks for the PCS and the 400GBASE-ZR frame are independent." to: "The clocks for the PCS and the 400GBASE-ZR frame may be independent."

Cl **155** *SC* **155.2.5.3** *P* **45** *L* **23** # 240

Brown, Matt Huawei

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

The meaning of the following sentence is not clear. "The values in Table 155–1 include all possible outcomes for the rates and tolerances of the 400GBASE-ZR application."

SuggestedRemedy

Perhaps "The values in Table 155–1 include all possible outcomes for any PCS and frame clock rate within the permissible ranges."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.6.7** *P* **53** *L* **12** # 242

Brown, Matt Huawei

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

The word "can" in this context is deprecated per style guide. It is not clear if this is stating what shall happen, what may happen, or what might happen.

SuggestedRemedy

Change "Once AM lock has been acquired, the OH fields MFAS, status and JC1-JC6 can be extracted for use by the GMP de-mapper and for error signaling."
To
"Once AM lock has been acquired, the OH fields MFAS, status and JC1-JC6 are extracted for use by the GMP de-mapper and for error signaling."
or
"Once AM lock has been acquired, the OH fields MFAS, status and JC1-JC6 may be extracted for use by the GMP de-mapper and for error signaling."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #189

Cl **155** *SC* **155.2.2** *P* **43** *L* **21** # 243

Maniloff, Eric Ciena

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

The text currently reads "an outer staircase FEC
(SC-FEC) code and an inner Hamming code SD-FEC", SC-FEC and SD_FEC should both be in parentheses.

SuggestedRemedy

Replace "an outer staircase FEC
(SC-FEC) code and an inner Hamming code SD-FEC" with "an outer staircase FEC
(SC-FEC) code and an inner Hamming (SD-FEC) code.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the responses to comments #36.

Cl **155** *SC* **155.2.6.7.2** *P* **53** *L* **38** # 245

Maniloff, Eric Ciena

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

For link degrace monitoring, the CFEC not SC-FEC BER is used

SuggestedRemedy

Change "Pre-FEC bit error ratio monitors within the SC-FEC" to "Pre-FEC bit error ratio monitors within the CFEC"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.9.11** *P* **101** *L* **36** # 248

Maniloff, Eric Ciena

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

us is used for microseconds, instead of µs or microseconds

SuggestedRemedy

change us to µs

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.9.14** *P* **102** *L* **4** # 249

Maniloff, Eric Ciena

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

Period in middle of sentence

SuggestedRemedy

change "signal. Measured" to "signal, measured"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.9.20** *P* **102** *L* **51** # 250

Maniloff, Eric Ciena

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

Transmit Power should be within the stated range when set to Highest or Lowest provisionable powers.

SuggestedRemedy

Change highest to lowest or highest

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.A.3** *P* **117** *L* **25** # 252

Maniloff, Eric Ciena

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

factor 2 should be outside (…)^6 term

SuggestedRemedy

Update equation

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change "exp[-loge(2)x(2(f-f0)/B)^6]" to "exp[-loge(2)x2((f-f0)/B)^6]".

Cl **156** *SC* **156.A.3** *P* **117** *L* **30** # 253

Maniloff, Eric Ciena

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

T is transmission in linear units

SuggestedRemedy

Change definition of T to indicate linear units

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change "transmission loge" to "transmission in linear units"

Cl **155** *SC* **155.2.2** *P* **43** *L* **17** # 258

Law, David — Hewlett Packard Enterprise

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

The terms '400GBASE-ZR frame' (e.g., page 43, line 17) and 'frame' (e.g., page 43, line 19) seem to be used interchangeably in subclause 155.2 'Physical Coding Sublayer (PCS)' and its subclauses. In addition, the term 'frame' is used in subclause 155.2 'Physical Coding Sublayer (PCS)' in reference to figure 155–4 '400GBASE-ZR frame structure' yet in subclause 155.3 'Physical Medium Attachment (PMA) sublayer, type 400GBASE-ZR' it is used in reference to the figure 155–11 'Multi-frame and frame formats'.

SuggestedRemedy

Since Figure 3–1 'Packet format' defines 'frame' as the Destination Address through the Frame Check Sequence, and this is what 'frame' generally refers to elsewhere in IEEE Std 802.3, suggest that:

[1] The terms 'frame' and '400GBASE-ZR frame', when used in reference to figure 155–4, should be replaced with '400GBASE-ZR PCS frame'.
[2] The term 'frame', when used in reference to figure 155–11, should be replaced with '400GBASE-ZR PMA frame' in subclause 155.2.
[3] The term 'multi-frame' should be replaced with '400GBASE-ZR PMA multi-frame' in subclause 155.2.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.2** *P* **43** *L* **18** # 259

Law, David — Hewlett Packard Enterprise

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

Suggest that a ± ppm value should be applied to a rate.

SuggestedRemedy

Suggest that the text '... with the ±100 ppm 257-bit blocks stream being mapped into a ±20 ppm timing domain.' should be changed to read '... with the 257-bit block stream in the 401.542892 Gb/s ± 100 ppm timing domain being mapped into a 402.489753 Gb/s ± 20 ppm timing domain.'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.2.5.11** *P* **50** *L* **33** # 260

Law, David — Hewlett Packard Enterprise

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

Suggest that '... the tx_codeword parameter of the PMA_IS_UNITDATA.request.' be changed to read '... the tx_codeword parameter of the PMA_IS_UNITDATA.request primitive.'.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.3.1.1** *P* **58** *L* **49** # 262

Law, David — Hewlett Packard Enterprise

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

Suggest that the text 'Each SD-FEC codeword from the SD-FEC encoder ...' should be changed to read 'Each SD-FEC codeword passed across the PMA service interface from the SD-FEC encoder ...'.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.3.1.2** *P* **59** *L* **46** # 263

Law, David — Hewlett Packard Enterprise

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

It seems odd to say that 'Prior to ... frame construction, each frame consists of 10 976 x 16 DP-16QAM symbols.', if the frame hasn't been constructed it doesn't consist of anything. In addition, subclause 155.3.3.1.3 'Transmission multi-frame and frame' says 'Each multi-frame is made up of 49 frames, each with 3712 symbols.'. It, therefore, appears that the reference to 'each frame consists of 10 976 x 16 DP-16QAM symbols' is about 400GBASE-ZR frames used within PCS, rather than the multi-frame and frame used within the PMA.

Since the PMA service interface just passes a continuous stream of 128-bit SD-FEC codewords from the PCS to PMA, with no other information, the PMA has no knowledge of the 400GBASE-ZR frame used within PCS. As a result, I suggest that this sentence is deleted.

SuggestedRemedy

Delete the text 'Prior to polarization distribution and transmission frame construction, each frame consists of 10 976 16 DP-16QAM symbols' from the start of the second paragraph of subclause 155.3.3.1.2.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #201

Cl **155** *SC* **155.3.3.1.2** *P* **60** *L* **1** # 264

Law, David — Hewlett Packard Enterprise

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

The last paragraph of subclause 155.3.3.1.2 'Symbol interleaving' says 'The output stream is mapped, with the transmission order of left to right, into the next available frame payload location (see 155.3.3.1.3).'. It isn't clear what 'left to right' is about, if it is to Figure 155–10 'Eight-way Hamming code interleaver' I'm not sure that is a complete description. Instead, for Figure 155–10, isn't it 'bottom to top from left to right'?

SuggestedRemedy

Suggest the text '... the transmission order of left to right, into the ...' is changed to read '... the transmission order of from bottom to top, left to right (see Figure 155-10), into the ...'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: "The output stream is mapped, with the transmission order of left to right, into the next available frame payload location (see 155.3.3.1.3)." To: "The output stream is mapped, with the transmission order bottom to top, left to right (see Figure 155-10), into the next available frame payload location (see 155.3.3.1.3)."

Cl **155** *SC* **155.3.3.1.2** *P* **60** *L* **27** # 265

Law, David — Hewlett Packard Enterprise

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

Subclause 155.2.5.11 'Hamming SD-FEC encoder' says '... results in 10 796 128-bit SD-FEC codewords.' and 'The 128-bit SD-FEC codewords are sent to the 400GBASE-ZR PMA sublayer ...'. Subclause 155.3.3.1.2 'Symbol interleaving' says 'The symbol interleaver performs an 8-way interleaving of groups of sixteen symbols mapped from SD-FEC codewords as illustrated in Figure 155–10.'. I, therefore, believe the reference to ' Hamming code' should be changed to 'SD-FEC codeword' in the title of Figure 155–10.

SuggestedRemedy

Suggest that the title of Figure 155–10 be changed from 'Eight-way Hamming code interleaver' to 'Eight-way SD-FEC codeword interleaver'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

The interleaving is of DP-16QAM symbols. Change the title of Figure 115-10 to: "Eight-way DP-16QAM symbol interleaver"

Cl **155** *SC* **155.3.3.1.3** *P* **60** *L* **32** # 266

Law, David — Hewlett Packard Enterprise

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

The first paragraph of subclause 155.3.3.1.3 'Transmission multi-frame and frame' says 'For each polarization, the stream of SD-FEC interleaved symbols are assembled into a frame format suitable for transmission over the 400GBASE-ZR medium and for reception and decoding by the 400GBASE-ZR PMA receive path.'. I don't believe it is a stream of 'SD-FEC interleaved symbols', instead I believe it is a stream of 'interleaved DP-16QAM symbols' (see 155.3.3.1.2 'Symbol interleaving' that says 'The DP-16QAM symbols shall be time interleaved ...').

SuggestedRemedy

Suggest that the text 'For each polarization, the stream of SD-FEC interleaved symbols are assembled into a frame format suitable for transmission ...' is changed to read 'The stream of interleaved DP-16QAM symbols is assembled into a frame format, one for each polarization, suitable for transmission ...'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.3.1.3** *P* **60** *L* **39** # 267

Law, David — Hewlett Packard Enterprise

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

Since the second paragraph of subclause 155.3.3.1.3 includes the first use of TS, PS, and FAW, suggest that they should be expanded.

SuggestedRemedy

Suggest that the text '... an 11-symbol TS (ts<0:10>), 116 PS symbols [P0, ..., P115], a 22-symbol FAW (faw<0:21>) ...' should be changed to read '... an 11-symbol Training sequence (TS) (ts<0:10>), 116 Pilot sequence (PS) symbols [P0, ..., P115], a 22-symbol Frame alignment word (FAW) (faw<0:21>) ...'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #202

Cl **155** *SC* **155.3.3.1.3** *P* **60** *L* **41** # 268

Law, David — Hewlett Packard Enterprise

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

The second paragraph of subclause 155.3.3.1.3 says 'There are 16 symbols after P3 ...'. According to Figure 155–11 there are 31 symbols after P3, 15 reserved symbols (rsvd<61:75>) followed by 16 payload symbols (m<0:15>).

SuggestedRemedy

Suggest the text 'There are 16 symbols after P3 ...' should be changed to read 'There are 16 payload symbols, preceded by 15 reserved symbols, after P3 ...'. Similarly, suggest that the text 'There are 21 symbols after P0 and ...' on line 45 is changed to read 'There are 21 payload symbols, preceded by 10 Training symbols, after P0 and ...'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #202

Cl **155** *SC* **155.3.3.1.4** *P* **61** *L* **31** # 269

Law, David — Hewlett Packard Enterprise

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

Suggest that the text '... the outer constellation symbol values ...' (page 61, line 31) is changed to read '... the outer four points of the 16QAM constellation symbol values ...' and the text 'The symbols values are set at the outer four points of the 16QAM constellation ...' (page 62, line 29) is changed to read 'It is made up of the outer four points of the 16QAM constellation symbol values and ...' to align similar text in these two locations.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.3.1.4** *P* **61** *L* **31** # 270

Law, David — Hewlett Packard Enterprise

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

I don't think the term DC balance needs to be qualified by 'zero'.

SuggestedRemedy

Suggest the text '... and designed for zero DC balance.' should be '... and is designed for DC balance.'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.3.1.7** *P* **65** *L* **3** # 271

Law, David — Hewlett Packard Enterprise

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

Typo

SuggestedRemedy

Change '... symbol streams stream shall ...' to read '... symbol streams shall ...'

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.3.1.7** *P* **65** *L* **3** # 272

Law, David Hewlett Packard Enterprise

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

Subclause 155.3.3.1.7 '16QAM encode' says 'The two polarization symbol streams stream [sic] shall be converted to four analog signals ...'. I believe that the 'two polarization symbol streams' are produced by serialising the two multi-frames, one for each polarization, but this process isn't specified.

SuggestedRemedy

Suggest that:

[1] The text 'The two polarization symbol streams stream shall be converted to four analog signals ...' in subclause 155.3.3.1.7 should be changed to read 'Two polarization symbol streams, derived from their respective multi-frames, shall be converted to four analog signals ...'
[2] A new last paragraph should be added to the end of subclause 155.3.3.1.3 'Transmission multi-frame and frame' that reads 'Each multi-frame shall be serialised into a stream of 16QAM symbols for transmission. Relative to Figure 155-11, the frames shall be transmitted from top to bottom, and the symbols of each frame shall be transmitted from left to right. The assembly of symbols into multi-frames is continuous.'.
[3] An arrow should be drawn to the right of Figure 155-11 annotated 'Frames transmitted top to bottom'.
[4] An arrow should be drawn at the bottom of Figure 155-11. It should start below P0 of frame 48, drop-down, and then turn 90 degrees to the right, ending below the righthand side of frame 48. The arrow should be annotated as 'Symbols transmitted left to right'.
See IEEE_P802d3cw_D2p1_comments_David_Law_figure_155-1.jpg for illustration of [3] and [4].

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Implement suggested remedy with editorial license

Cl **155** *SC* **155.3.3.1.7** *P* **65** *L* **5** # 273

Law, David Hewlett Packard Enterprise

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

Typo.

SuggestedRemedy

Suggest that '... the PMD:IS_UNITDATA.request primitives.' should be changed to read '... the PMD:IS_UNITDATA.request primitive.'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.3.3.1.8** *P* **65** *L* **9** # 274

Law, David Hewlett Packard Enterprise

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

Suggest a shall is added to subclause 155.3.3.1.8.

SuggestedRemedy

Suggest that the text 'The four analog signals XI, XQ, YI, and YQ are passed to ... using any of the mappings in Table 155–7.' should be changed to read 'The four analog signals XI, XQ, YI, and YQ shall be passed to ... using one of the mappings in Table 155–7.'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.4.2** *P* **68** *L* **36** # 275

Law, David Hewlett Packard Enterprise

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

Since for faws_lock<x>, x = 0:1 (see page 69, line 12) suggest that:

[1] The two instances of '... true for all x ...' should be changed to read '... true for both x ...'.
[2] The one instance of '... for any x.' should be changed to read '... for either x.'.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **155** *SC* **155.7.3** *P* **78** *L* **10** # 276

Law, David Hewlett Packard Enterprise

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

Suggest that the 'Subclause' entry for PICS item DC should be 155.6.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Implement suggested remedy. Also delete word "in" from the "Value/Comment" colum text in the same row

Cl **156** *SC* **156.13.3** *P* **110** *L* **16** # 277

Law, David — Hewlett Packard Enterprise

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

Suggest that the 'Subclause' entry for PICS item DC should be 156.3.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **156** *SC* **156.6** *P* **91** *L* **8** # 282

Dawe, Piers — Nvidia

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

The house style is to put the units in ordinary round brackets, as in the style manual, Annex B, section 4.3, and a huge number of tables in 802.3 such as Table 116-7 in this draft.

SuggestedRemedy

Change the square brackets to the usual round brackets. Also in Table 156-12.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change the "[ ]" brackets to "( )" brackets in Tables 156-4 and 156-12.

Cl **156** *SC* **156.10.1.2.4** *P* **106** *L* **21** # 290

Dawe, Piers — Nvidia

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

"RRC filter with a beta = 0.2"

SuggestedRemedy

Say that beta is the roll-off factor, use the Greek letter for beta (which I won't use here, the comment tools might not like it), and refer to Eq 156-1.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #90.