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<td>1</td>
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<td>PHY shows 400GBASE-R PCS instead of 400GBASE-ZR PCS</td>
<td>X</td>
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<tr>
<td>1</td>
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<td>Comment on FLR references being processed by Clause 119 PCS, but should actually only reference the clause 155 PCS.</td>
<td>X</td>
<td>O</td>
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<tr>
<td>1</td>
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<td>Receiver Sensitivity for an unamplified link should not be part of the same PMD as receiver sensitivity for an amplified link. This is a distinct application, and a receiver should not be burdened with a requirement to support both applications. Although the sensitivity spec in Table 156-7 is informative, other aspects of this application are normative. If this is a required application it should be defined as a separate PMD.</td>
<td>X</td>
<td>O</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>Multiple definitions are being added, so the editing instruction should use plural forms.</td>
<td>X</td>
<td>O</td>
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<tr>
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<td>Multiple definitions are being added, so the editing instruction should use plural forms.</td>
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<tr>
<td>2</td>
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<td>Replace 400GBASE-E with 400GBASE-ZR</td>
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<td>2</td>
<td>E</td>
<td>Change &quot;additionally processed by the FEC (Clause 155) and PCS (Clause 119).&quot; to &quot;processed by the Clause 155 400GBASE-ZR PCS&quot;.</td>
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**Comment ID 3**

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<td>Remove sensitivity spec from Table 156-7, or modify to define a separate PMD supporting this.</td>
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**Comment ID 4**

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<td>4</td>
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<td>Optical path power penalty for OSNR at TP3 ≥ 34dB is a separate application, and should be removed or applied to a separate PMD.</td>
<td>X</td>
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<td>4</td>
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<td>Change &quot;definition&quot; to &quot;definitions&quot;</td>
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<td>Remove sensitivity spec from Table 156-7, or modify to define a separate PMD supporting this.</td>
<td>X</td>
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<td>Change &quot;abbreviation&quot; to &quot;abbreviations&quot;</td>
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**Comment Type**: E  **Comment Status**: X

The phrase 'GMP mapped' is often used colloquially, but it would be more clear in the text to say 'mapped using GMP'

**Suggested Remedy**
- Change "The transcoded blocks are then GMP mapped into a 400GBASE-ZR Frame" to "The transcoded blocks are then mapped into a 400GBASE-ZR frame using GMP"

**Proposed Response**  **Response Status**: O

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

FEC is being used as both a noun and an adjective in the sentence describing CFEC. While the usage throughout 802.3 is not entirely consistent, within a single sentence we probably should be consistent.

**Suggested Remedy**
- Change "The transmit data is encoded with a concatenated forward error correction (CFEC) consisting of an inner SC-FEC code and an outer Hamming code SD-FEC." to "The transmit data is encoded with a concatenated forward error correction (CFEC) code consisting of an inner SC-FEC code and an outer Hamming SD-FEC code."

**Proposed Response**  **Response Status**: O

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

The description of the test pattern is grammatically awkward. The first sentence of the paragraph has already established that a test pattern is transmitted when the transmit channel is in test pattern mode. The second sentence is intended to indicate what the test pattern is.

**Suggested Remedy**
- Change the second sentence: "The PCS shall provide transmit test-pattern mode for the scrambled idle pattern (see 119.2.4.9)." to "The transmitted test pattern shall be the scrambled idle pattern (see 119.2.4.9)."

**Proposed Response**  **Response Status**: O

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

The description of the test pattern is grammatically awkward. The first sentence of the paragraph has already established that a test pattern is transmitted when the transmit channel is in test pattern mode. The second sentence is intended to indicate what the test pattern is.

**Suggested Remedy**
- Change "The PCS maps the 400GMII signal into 66 bit blocks, and vice versa using a 64B/66B coding scheme." to "The PCS maps the 400GMII signal in 66b blocks, and demaps the 400GMII signal from 66b blocks, using a 64B/66B coding scheme."

**Proposed Response**  **Response Status**: O
IEEE P802.3cw D1.1 400 Gb/s over DWDM systems 2nd Task Force review comments

### Proposed Response

#### Comment 12

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

**Comment:** It would be more clear to say "mapped into a 400GBASE-ZR frame using GMP" than "GMP mapped"

**Suggested Remedy**

- Change: The 64B/66B codestream is then transcoded into a 256B/257B stream, GMP mapped and FEC bits added in this PCS before transmission to The 64B/66B codestream is then transcoded into a 256B/257B stream, mapped to a 400GBASE-ZR frame using GMP, and FEC bits are added in this PCS before transmission.

**Proposed Response**  **Response Status:** O

#### Comment 13

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

**Comment:** It would be more clear to say "mapped into a 400GBASE-ZR frame using GMP" than "GMP mapped", the word 'payload' is missing from the description of the area of the frame into which the 257b blocks are mapped, and the multiplication symbol should be used rather than x to indicate multiplication.

**Suggested Remedy**

- Change item 5 from: The 400GBASE-ZR PCS payload is GMP mapped into the area of the 400GBASE-ZR frame starting at column 5141 of row 0 and ending at column 10 280 of row 255. The payload size is 10 220 x 257B.
- to The 400GBASE-ZR PCS payload is mapped into the payload area of the 400GBASE-ZR frame, starting at column 5141 of row 0 and ending at column 10 280 of row 255, using GMP. The payload size is 10 220 x 257B.

**Proposed Response**  **Response Status:** O

#### Comment 14

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

**Comment:** The AMs are used to locate the row that is the start of the frame, not the row number. There is also a stray comma before the parenthetical phrase.

**Suggested Remedy**

- Change: AM alignment is processed post-FEC decode, after descrambling, to locate the row number corresponding to the start of the 400GBASE-ZR frame, (SC-FEC being already 10 970 bit row aligned).
- to AM alignment is processed post-EC decode, after descrambling, to locate the row corresponding to the start of the 400GBASE ZR frame (SC-FEC being already 10 970 bit row aligned).

**Proposed Response**  **Response Status:** O

#### Comment 15

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

**Comment:** The reference to G.709.1 at the end of the paragraph should be preceded by ITU-T

**Suggested Remedy**

- Insert "ITU-T" before "G.709.1.

**Proposed Response**  **Response Status:** O
IEEE P802.3cw D1.1 400 Gb/s over DWDM systems 2nd Task Force review comments

Cl 155 SC 155.2.4.5 P41 L26 # 16
Huber, Tom Nokia

Comment Type T Comment Status X
The generator polynomial G(x) is not defined anywhere in the text, which makes the detailed description of how to compute the CRC that was copied from the referenced OIF document not useful.

SuggestedRemedy
The computation is fully specified in the referenced OIF document. Delete the second sentence of the second paragraph and the entire third paragraph and bullet list, so the text reads:
A 32-bit cyclic redundancy code is calculated over 244 664 input bits as described in the OIF-400ZR-01.0, March 10, 2020, subclause 9.2. The 32 bits of the CRC value are......

Proposed Response Response Status O

Cl 155 SC 155.2.4.5 P41 L31 # 17
Huber, Tom Nokia

Comment Type E Comment Status X
Missing a 'd' in 'placed' in the description of where the CRC goes.

SuggestedRemedy
Change "The 32 bits of the CRC value are placed with..." to "The 32 bits of the CRC value are placed with..."

Proposed Response Response Status O

Cl 155 SC 155.2.4.6 P41 L40 # 18
Huber, Tom Nokia

Comment Type E Comment Status X
The last two paragraphs would be better combined, with the clause in the first sentence of the final paragraph concerning the location of the MBAS field removed (that information is already provied in the first sentence of the next-to-last paragraph).

SuggestedRemedy
Replace the last two paragraphs with:
Following the CRC-32 a 6-bit MBAS is added. The MBAS is used by the SC-FEC encoder and decoder to synchronize the state of the error de-correlator controllers between the receiver and the transmitter. The staircase FEC implementation uses a 7-bit MBAS which provides a 128-block sequence. The six most significant bits of the 7-bit MBAS are transferred between source and sink in the 6-bit MBAS overhead. The numerical value represented in the six MBAS overhead bits is incremented every two SC-FEC blocks and provides a 128-block multi-block.

Proposed Response Response Status O

Cl 155 SC 155.2.4.6 P41 L48 # 19
Huber, Tom Nokia

Comment Type E Comment Status X
Multiplication should be indicated with a multiplication symbol rather than an italicized x.

SuggestedRemedy
Replace the italicized x's in the formula with multiplication symbols.

Proposed Response Response Status O

Cl 155 SC 155.2.4.6 P42 L1 # 20
Huber, Tom Nokia

Comment Type E Comment Status X
Missing a 'd' in 'illustrated'

SuggestedRemedy
Change: "... which are added to the 400GBASE-ZR SC-FEC frame as illustrate in Figure 155–5." to "which are added to the 400GBASE-ZR SC-FEC frame as illustrated in Figure 155–5."

Proposed Response Response Status O
### Proposed Response

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**Comment Type**
- **E**: Editorial required
- **G**: General required
- **T**: Technical required

**Comment Status**
- **A**: Accepted
- **D**: Dispatched
- **R**: Rejected
- **W**: Written
- **C**: Closed
- **Z**: Withdrawn

**Proposed Response**

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- **Bits should be spelled out, and no need to describe the size of the padding again here since it is already clearly described in 155.2.4.7.
- **Multiplication should be indicated with a multiplication symbol rather than an x.**
IEEE P802.3cw D1.1 400 Gb/s over DWDM systems 2nd Task Force review comments

CI 155  SC 155.2.5.7  P48  L 10  # 27
Huber, Tom  Nokia
Comment Type  E  Comment Status  X
The first sentence of the second paragraph is grammatically awkward
Suggested Remedy
Change "The beginning of each 400GBASE-ZR frame will have the AM and OH fields within the first 20 x 257B, and are repeated every 10 240 x 257B." to The beginning of each 400GBASE-ZR frame will have the AM and OH fields within the first 20 x 257B, and these fields are repeated every 10 240 x 257B.
Proposed Response  Response Status  O

CI 155  SC 155.3.2  P50  L 41  # 28
Huber, Tom  Nokia
Comment Type  E  Comment Status  X
Multiplication should be indicated with a multiplication symbol rather than an x.
Suggested Remedy
Replace the x's in both formulas in the paragraph with multiplication symbols.
Proposed Response  Response Status  O

CI 156  SC 156.2  P65  L 23  # 29
Huber, Tom  Nokia
Comment Type  T  Comment Status  X
Since the value of SIGNAL_DETECT is fixed to OK, and therefore not dependent on the amount of light being received, the NOTE needs to be revised.
Suggested Remedy
Change
NOTE—SIGNAL_DETECT = OK does not guarantee that the rx_symbol parameters are known to be good. It is possible for a poor quality link to provide sufficient light for a SIGNAL_DETECT = OK indication and still not meet the BER defined in 156.1.1.

NOTE - SIGNAL_DETECT = OK does not guarantee that the rx_symbol parameters are known to be good or that the BER defined in 156.1.1 will be met.
Proposed Response  Response Status  O

CI 156  SC 156.7.2  P73  L 13  # 30
D'Ambrosia, John  Futurewei, US Subsidiary of Huawei
Comment Type  ER  Comment Status  X
Agreed upon language from 802.3ct, which is a ratified standard should be used in appropriate situations.
Suggested Remedy
Under Value in Table 156-7, change: The frequency in Table 156–4 corresponding to the variable Rx_optical_channel_index to The frequency in Table 156–4 where the channel index number equals the variable Rx_optical_channel_index
Proposed Response  Response Status  O

CI 156A  SC 156A.2  P89  L 37  # 31
D'Ambrosia, John  Futurewei, US Subsidiary of Huawei
Comment Type  TR  Comment Status  X
The stated average receive power (min) is incorrectly stated as -16 dBm, when it should be -12 dBm - The operating ranges in Figure 156A–3 can be roughly divided into 2 areas, one where the OSNR is between TBD dB (12.5 GHz) and TBD dB (12.5 GHz) together with an average optical power at TP3 between 0 dBm and -16 dBm
Suggested Remedy
Change the -16 dBm in the noted sentence to -12, and modify the TBD in Fig 156A-3 to reflect this change in value.
Proposed Response  Response Status  O
Cl 156A SC 156A.3 P91 L5 #32
D'Ambrosia, John Futurewei, US Subsidiary of Huawei

Comment Type TR Comment Status X
Stated channel output power range is incorrect
"should be amplified to a channel output range of -16 dBm to 0 dBm."
As noted in Table 156A-1, the range is -12 dBm to 0 dBm

Suggested Remedy
- modify noted -16 dBm to -12 dBm
- also modify -16 dBm to -12 dBm throughout the rest of the subclause as appropriate

Proposed Response Response Status O

Cl 00 SC 00 P L #33
D'Ambrosia, John Futurewei, US Subsidiary of Huawei

Comment Type TR Comment Status X
Given the potential different stack configurations, this annex should be used to illustrate different examples with the different PCS / PMA

Suggested Remedy
- Presentation illustrating different concepts will be provided

Proposed Response Response Status O

Cl 116 SC 116.1.4 P29 L38 #34
D'Ambrosia, John Futurewei, US Subsidiary of Huawei

Comment Type TR Comment Status X
Clause 119 and 120 are not mandatory for 400GBASE-ZR

Suggested Remedy
- For 400GBASE-ZR - change Clause 119 and 120 from "M" to "O"

Proposed Response Response Status O
IEEE P802.3cw D1.1 400 Gb/s over DWDM systems 2nd Task Force review comments

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Issenhuth, Tom Huawei

Comment Type: E
Comment Status: X

Figure 156-5 is incomplete.

Suggested Remedy:
Complete figure 156-5 to be consistent with the figure in the published OIF 400ZR IA 13.1.210

Proposed Response: Response Status: O

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Issenhuth, Tom Huawei

Comment Type: T
Comment Status: X

EVM definition in incomplete.

Suggested Remedy:
Update EVM definition based on output from EVM ad hoc

Proposed Response: Response Status: O

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Issenhuth, Tom Huawei

Comment Type: E
Comment Status: X

Sentence does not contain location of definitions.

Suggested Remedy:
Add location of definitions.

Proposed Response: Response Status: O

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Issenhuth, Tom Huawei

Comment Type: E
Comment Status: X

Sentence does not contain location of definitions.

Suggested Remedy:
Add location of definitions.

Proposed Response: Response Status: O

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Comment ID: 42
Comment ID: 42
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