Comment Type: T, Comment Status: D

Text says the 400GMII extender sublayers are shown in the figure, but the figure does not include them.

Suggested Remedy
Delete the second sentence of the first paragraph of 155.1.2, beginning with "The sublayers of a 400GMII Extended Sublayer."

Proposed Response

Response Status: W

PROPOSED ACCEPT IN PRINCIPLE.

Referenced example is addressed in new 120A-6 which does show how extender sublayer is used with 400GBASE-ZR.

Change existing text "The sublayers of a 400GMII Extender Sublayer (400GXS) from Clause 118 are shown because the 00GBASE-ZR PHY is able to propagate FEC degrade signaling across the PCS and XS sublayers as described in 118.2." to "The sublayers of a 400GMII Extender Sublayer (400GXS) are shown in 120A-6. The 400GBASE-ZR PHY is able to propagate FEC degrade signaling across the PCS and XS sublayers as described in 118.2."

Comment Type: T, Comment Status: D

The right-hand curly brace, two horizontal lines, and word 'Frame' on the right hand side of the figure don't seem to add any clarity. The figure title is 400GBASE-ZR frame structure, and the text describes the structure clearly.

Suggested Remedy
Delete the right-hand curly brace, horizontal lines and 'Frame', leaving only the frame itself in the figure.

Proposed Response

Response Status: W

PROPOSED ACCEPT.

Comment Type: T, Comment Status: D

The description of the alignment markers repeats some details from clause 119 that create ambiguity regarding the transmission order, and also doesn't mention that the 3-bit status described in clause 119 is not included.

Suggested Remedy
Rewrite the clause as follows: Alignment markers are used to provide frame delineation for the 400GBASE-ZR frame. They are inserted before FEC encoding and removed after FEC decoding (see Figure 155-2). The variable am_mapped<1919:0> is constructed in a manner that yields the same result as the process described in 119.2.4.4.2. The 133-bit pad and 3-bit status fields are not added. The resulting 1920-bit value is inserted in the AM field of each 400GBASE-ZR frame.

Proposed Response

Response Status: W

PROPOSED ACCEPT.
The overhead in G.709.1 does not include the 'LDI' field described in 155.2.4.4.5; that is only in the 400ZR IA. As such the statement that the contents of the overhead are are described in G.709.1 clauses 8.1 and 9.2 is not accurate.

**Suggested Remedy**
Since G.709.1 and the 400ZR IA have different descriptive techniques, and neither one uses the same bit numbering convention of 802.3, it may be more expedient to create a figure in P802.3cw that shows the structure of the first set of 320 bits rather than to try and reference either document. Revise the text to say: The overhead is organized into four sets of 320 bits that are interleaved in groups of 10 bits to form the 1280 bit field. The contents of the first 320 bits are as shown in Figure 155-X and described below. The contents of the second through fourth sets of 320 bits are all zeros.

PROPOSED ACCEPT IN PRINCIPLE.

The 2020 IEEE SA Standards Style Manual states subclauses can have a maximum of 5 numbers separated by decimal points.

Change 155.2.4.4 "Alignment Marker (AM) and Overhead (OH) insertion" to "Alignment Marker (AM) and Pad insertion"

Change 155.2.4.4.3 400GBASE-ZR OH to 155.2.4.5 Overhead (OH) insertion.
<table>
<thead>
<tr>
<th>Cl 155</th>
<th>SC 155.2.4.9</th>
<th>P 46</th>
<th>L 25</th>
<th># 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huber, Tom</td>
<td>Nokia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comment Type T</strong></td>
<td><strong>Comment Status D</strong></td>
<td><strong>bucket</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| The last 6 rows in the first column are shaded, presumably because they are the 6 blocks of padding, but the shading is not maintained in the other columns.

**SuggestedRemedy**
Remove the shading of the pad blocks and relabel the left-most column to just show 10976 blocks of 119b, as the details of which blocks are pad blocks are not really important to this figure.

**Proposed Response**  
**Response Status W**
**PROPOSED ACCEPT.**

<table>
<thead>
<tr>
<th>Cl 155</th>
<th>SC 155.2.4.10</th>
<th>P 46</th>
<th>L 38</th>
<th># 21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huber, Tom</td>
<td>Nokia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comment Type E</strong></td>
<td><strong>Comment Status D</strong></td>
<td><strong>bucket</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| No need for a hyphen in "It adds 9-bits of parity."

**SuggestedRemedy**
To maximize clarity, reword as "It adds 9 parity bits."

**Proposed Response**  
**Response Status W**
**PROPOSED ACCEPT.**

<table>
<thead>
<tr>
<th>Cl 155</th>
<th>SC 155.2.5.6</th>
<th>P 48</th>
<th>L 50</th>
<th># 22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huber, Tom</td>
<td>Nokia</td>
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</tr>
<tr>
<td><strong>Comment Type T</strong></td>
<td><strong>Comment Status D</strong></td>
<td><strong>bucket</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| The title of the clause is "CRC-32 check", but the text is mostly about error marking

**SuggestedRemedy**
Revise the title to be "CRC-32 check and error marking"

**Proposed Response**  
**Response Status W**
**PROPOSED ACCEPT.**

<table>
<thead>
<tr>
<th>Cl 155</th>
<th>SC 155.2.5.7</th>
<th>P 49</th>
<th>L 6</th>
<th># 23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huber, Tom</td>
<td>Nokia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comment Type E</strong></td>
<td><strong>Comment Status D</strong></td>
<td><strong>bucket</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| There should be a hyphen in CRC32

**SuggestedRemedy**
Change to CRC-32

**Proposed Response**  
**Response Status W**
**PROPOSED ACCEPT.**

<table>
<thead>
<tr>
<th>Cl 155</th>
<th>SC 155.2.5.7.2</th>
<th>P 49</th>
<th>L 48</th>
<th># 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huber, Tom</td>
<td>Nokia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comment Type T</strong></td>
<td><strong>Comment Status D</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Additional detail about the LDI field and how it relates to tx_am_sf<2:0> in clause 118 is needed.

**SuggestedRemedy**
Add a cross-reference to the description of the LDI bits in the Transmit clause (this is currently 155.2.4.4.5, but may be changed to 155.2.4.4.3.2 based on another comment)

**Proposed Response**  
**Response Status W**
**PROPOSED ACCEPT.**

<table>
<thead>
<tr>
<th>Cl 155</th>
<th>SC 155.4</th>
<th>P 61</th>
<th>L 10</th>
<th># 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lewis, David</td>
<td>Lumentum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comment Type T</strong></td>
<td><strong>Comment Status D</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Detailed functions and state diagrams for 400GBASE-ZR PCS and PMA are needed.

**SuggestedRemedy**
Contribution with proposed baseline text and figures will be made at a task force meeting.
If the baseline is accepted, the editor's note can be removed. The task force could also decide that the detailed functions and state diagrams are not needed, in which case subclause 155.4 can be removed.

**Proposed Response**  
**Response Status W**
**PROPOSED ACCEPT IN PRINCIPLE.**

Contribution to be considered at a task force meeting.
IEEE P802.3cw D1.2 400 Gb/s over DWDM systems 3rd Task Force review comments

Cl 155 SC 155.5 P61 L17 # 9
Lewis, David Lumentum

Comment Type T Comment Status D
Management information for 400GBASE-ZR PCS and PMA is needed.

Suggested Remedy
- Contribution with proposed baseline text and figures will be made at a task force meeting. If the baseline is accepted, the editor's note can be removed. The task force could also decide that management details are not needed, in which case subclause 155.5 can be removed.

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
Contribution to be considered at a task force meeting.

Cl 155 SC 155.6 P61 L23 # 10
Lewis, David Lumentum

Comment Type T Comment Status D
Loopback information is needed.

Suggested Remedy
- Contribution with proposed baseline text and figures will be made at a task force meeting. If the baseline is accepted, the editor's note can be removed. The task force could also decide that loopback details are not needed, in which case subclause 155.6 can be removed.

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
Contribution to be considered at a task force meeting.

Cl 155 SC 155.8 P63 L1 # 11
Lewis, David Lumentum

Comment Type T Comment Status D
PICS tables are needed.

Suggested Remedy
- Contribution with proposed tables will be made at a task force meeting.

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
Contribution to be considered at a task force meeting.

Cl 156 SC 156.7.1 P73 L25 # 5
Jackson, Kenneth Sumitomo Electric

Comment Type E Comment Status D
Table 156-6, Laser frequency noise mask. Eliminate TBDs?

Suggested Remedy
- Make reference to 156.9.6 Laser frequency noise mask.

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
Remove TBD and replace with "See 156.9.16"

Cl 156 SC 156.7.2 P74 L23 # 27
Maniloff, Eric Ciena

Comment Type T Comment Status D
Receiver OSNR is only defined for average receive power = -12 dBm

Suggested Remedy
- Remove text "For average receive power < -12 dBm"

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
In table 156-7 change
"Receiver OSNR (min): For average receive power < –12 dBm
For average receive power => –12 dBm"
to
"Receiver OSNR (min):"
<table>
<thead>
<tr>
<th>Cl</th>
<th>SC</th>
<th>Comment Type</th>
<th>Comment Status</th>
<th>Receiver OSNR tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>156</td>
<td>156.7.2</td>
<td>T</td>
<td>D</td>
<td>only defined for average receive power = -12 dBm</td>
</tr>
<tr>
<td>156</td>
<td>156.9.4</td>
<td>T</td>
<td>D</td>
<td>Figure 156-4-Transmit spectral mask (max and min)</td>
</tr>
</tbody>
</table>

**Suggested Remedy**

Remove text "For average receive power = -12 dBm" from receiver OSNR tolerance

**Proposed Response**

PROPOSED ACCEPT IN PRINCIPLE.

**Response Status**

W

**Comment Status**

D

**Comment Type**

T

---

<table>
<thead>
<tr>
<th>Cl</th>
<th>SC</th>
<th>Comment Type</th>
<th>Comment Status</th>
<th>Table 156-7 has a blank line at the end of the table</th>
</tr>
</thead>
</table>

**Suggested Remedy**

Remove the blank line

**Proposed Response**

PROPOSED ACCEPT.

**Response Status**

W

**Comment Status**

D

**Comment Type**

E

---

<table>
<thead>
<tr>
<th>Cl</th>
<th>SC</th>
<th>Comment Type</th>
<th>Comment Status</th>
<th>Interferometric crosstalk is not required to be specified for point-to-point applications</th>
</tr>
</thead>
</table>

**Suggested Remedy**

Remove Interferometric crosstalk from Table 156-8

**Proposed Response**

PROPOSED ACCEPT IN PRINCIPLE.

**Response Status**

W

**Comment Status**

D

**Comment Type**

T

---

<table>
<thead>
<tr>
<th>Cl</th>
<th>SC</th>
<th>Comment Type</th>
<th>Comment Status</th>
<th>Change the labels in the figure to 1.0e6 as an example to match the values in Table 156-12.</th>
</tr>
</thead>
</table>

**Proposed Response**

PROPOSED ACCEPT IN PRINCIPLE.

**Response Status**

W

**Comment Status**

D

**Comment Type**

E

---

**Type:** TR/technical required

**Comment Status:** D/dispatched

**Response Status:** W/written
IEEE P802.3cw D1.2 400 Gb/s over DWDM systems 3rd Task Force review comments

Comment Type: E  Comment Status: D
Add table reference for Receiver OSNR tolerance

Suggested Remedy
Change "Receiver OSNR tolerance" to "The Receiver OSNR tolerance is specified in Table 156-7. Receiver OSNR tolerance is defined."

Proposed Response  Response Status: W  PROPOSED ACCEPT IN PRINCIPLE.

Comment Type: T  Comment Status: D
Optical Path Power penalty is not required for the defined application.

Suggested Remedy
Remove 156.9.20

Proposed Response  Response Status: W  PROPOSED ACCEPT IN PRINCIPLE.

Comment Type: TR  Comment Status: D
There is a mismatch between the title of subclause 156.10.1.2.1 and the corresponding block in Figure 156-7.

Suggested Remedy
Rename subclause 156.10.1.2.1 as "Polarization Demux"

Proposed Response  Response Status: W  PROPOSED ACCEPT.

Comment Type: T  Comment Status: D
Number of block samples is TBD

Suggested Remedy
Replace TBD with "1000"

Proposed Response  Response Status: W  PROPOSED ACCEPT.
<table>
<thead>
<tr>
<th>Cl 156</th>
<th>SC 156.10.1.2.2</th>
<th>P 84</th>
<th>L 11</th>
<th># 32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issenhuth, Tom</td>
<td>Huawei</td>
<td>Comment Type</td>
<td>T</td>
<td>Comment Status</td>
</tr>
<tr>
<td>SuggestedRemedy</td>
<td></td>
<td>Number of symbols is TBD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposed Response</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Cl 156</th>
<th>SC 156.10.1.2.3</th>
<th>P 84</th>
<th>L 13</th>
<th># 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pittala, Fabio</td>
<td>Huawei</td>
<td>Comment Type</td>
<td>TR</td>
<td>Comment Status</td>
</tr>
<tr>
<td>SuggestedRemedy</td>
<td></td>
<td>In Figure 156-8 there is a box &quot;Carrier Phase Recovery&quot; but no subclause is included to describe the functionality of this DSP block.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposed Response</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cl 156</th>
<th>SC 156.10.1.2.4</th>
<th>P 84</th>
<th>L 19</th>
<th># 33</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Huawei</td>
<td>Comment Type</td>
<td>T</td>
<td>Comment Status</td>
</tr>
<tr>
<td>SuggestedRemedy</td>
<td></td>
<td>Number of symbols is TBD</td>
<td></td>
<td></td>
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<tr>
<td>Proposed Response</td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Cl 156</th>
<th>SC 156.13.4.4</th>
<th>P 91</th>
<th>L 25</th>
<th># 34</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issenhuth, Tom</td>
<td>Huawei</td>
<td>Comment Type</td>
<td>T</td>
<td>Comment Status</td>
</tr>
<tr>
<td>SuggestedRemedy</td>
<td></td>
<td>PICS table needs to be updated as &quot;I-Q offset&quot; was changed to &quot;I-Q (max instantaneous)&quot; and &quot;I-Q (mean)&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposed Response</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Cl 156A</th>
<th>SC 156A</th>
<th>P 95</th>
<th>L 1</th>
<th># 35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issenhuth, Tom</td>
<td>Huawei</td>
<td>Comment Type</td>
<td>T</td>
<td>Comment Status</td>
</tr>
<tr>
<td>SuggestedRemedy</td>
<td></td>
<td>Majority and possibly all of the annex no longer needed with the removal of the unamplified specification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposed Response</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

For task force discussion.