### IEEE P802.3cw D1.5 400 Gb/s over DWDM systems 6th Task Force review comments

<table>
<thead>
<tr>
<th>CI</th>
<th>FM</th>
<th>SC</th>
<th>Comment Type</th>
<th>Comment Status</th>
<th>Comment</th>
<th>Proposed Response</th>
<th>Response Status</th>
</tr>
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<tbody>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>E</td>
<td>D</td>
<td>To someone not active on the project, content of Clauses 155 and 156 look like they may be based on other clauses.</td>
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<td>E</td>
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<td>SuggestedRemedy: Editor's might want to look at changes made during the revision to clauses on which Clauses 155 and 156 are based to look for other style changes. Examples I searched on and commented include capitalization of register, elimination of must, misuse of &quot;PHY&quot;, but I am less sure of how correcting misuse of &quot;comprise&quot; and &quot;comprising&quot; and &quot;implementer&quot; were handled in P802.3.</td>
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<td>ER</td>
<td>D</td>
<td>Proposed Response: Ensure correct usage of words &quot;comprise&quot;, &quot;comprising&quot; and &quot;implementer&quot; based on usage in P802.3 D3.2. See responses to comment 7.</td>
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<td></td>
<td></td>
<td>ER</td>
<td>D</td>
<td>SuggestedRemedy: Multiple comments have been submitted but time does not allow this commenter to review all at this time. Editors should update draft for consistency with P802.3/D3.2. The draft is currently inconsistent, in some places recognizing that it will not be an amendment to the 2018 revision, and in many places assuming it will be an amendment to the 2018 revision.</td>
<td>D</td>
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<td>E</td>
<td>D</td>
<td>Proposed Response: Review the entire draft and ensure all references are to IEEE Std 802.3-2018, not IEEE Std 802.3-2018.</td>
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**TYPE:** TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general

**COMMENT STATUS:** D/dispatched  A/accepted  R/rejected  RESPONSE STATUS: O/open  W/written  C/closed  Z/withdrawn

**SORT ORDER:** Clause, Subclause, page, line

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Grow, Robert  RMG Consulting

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</table>
Some information in this copyright block has been updated.

**Suggested Remedy**

Replace the IEEE-SA front matter with that found in a current template.

**Proposed Response**

PROPOSED ACCEPT IN PRINCIPLE.

Modify copyright block to match copyright block in Version 5.0 of the IEEE 802.3 Working Group FrameMaker template

---

IEEE page numbering style has changes no more Roman numeral front matter numbering.

**Suggested Remedy**

Delete the second paragraph of the note.

**Proposed Response**

PROPOSED ACCEPT.

---

This isn't the current IEEE SA mandated front matter.

**Suggested Remedy**

Replace the IEEE-SA front matter with that found in a current template.

**Proposed Response**

PROPOSED ACCEPT IN PRINCIPLE.

Modify front matter to match front matter in Version 5.0 of the IEEE 802.3 Working Group FrameMaker template

---

This is not the current FM Introduction (e.g., first paragraph and Section Nine have been modified at a minimum).

**Suggested Remedy**

Get current Introduction from P802.3/D3.2.

**Proposed Response**

PROPOSED ACCEPT IN PRINCIPLE.

Modify introduction as required to match Version 5.0 of the IEEE 802.3 Working Group FrameMaker template

---

Typo.

**Suggested Remedy**

Replace "04" with "104".

**Proposed Response**

PROPOSED ACCEPT.

---

Not the current P802.3/D3.0 self description.

**Suggested Remedy**

Update with the current P802.3de self description (D3.0 or later as appropriate.)

**Proposed Response**

PROPOSED ACCEPT IN PRINCIPLE.

Modify IEEE Std 802.3de-202X description to match description in IEEE P802.3de/D3.0
### comment 1
**Cl 1 SC 1.4 P21 L6 # 15**

Grow, Robert  
RMG Consulting

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

**Suggested Remedy**  
Amendment x, Amendment ?, or similar.

**Proposed Response**  
PROPOSED ACCEPT IN PRINCIPLE.

Change "Amendment 7" to "Amendment x".

### comment 2
**Cl 30 SC 30.5.1.1.2 P12 L22 # 16**

Grow, Robert  
RMG Consulting

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

**Suggested Remedy**  
"...after 400GBASE-VR4 (inserted by IEEE Std 802.3db-202x)..."

**Proposed Response**  
PROPOSED ACCEPT IN PRINCIPLE.

Change insertion point to "after 400GBASE-SR16 as follows."

### comment 3
**Cl 45 SC 45.2 P23 L3 # 8**

Grow, Robert  
RMG Consulting

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

**Suggested Remedy**  
P802.3/D3.2 has this "MIDO Interface registers"

**Proposed Response**  
PROPOSED REJECT.

P802.3cw 45.2 is labeled "MDIO Interface Registers" which is consistent with P802.3/D3.2.

### comment 4
**Cl 78 SC 78.1.4 P29 L8 # 17**

Grow, Robert  
RMG Consulting

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

**Proposed Response**  
PROPOSED ACCEPT IN PRINCIPLE.

There is no discernable pattern for insertion point based on P802.3/D3.2 and P802.3cb/D3.0. Change insertion point from "Insert new rows for 400GBASE-ZR in Table 78–1 (as modified by IEEE Std 802.3cu-20xx and IEEE Std 802.3ct-20xx) with 400GBASE-ZR after 400GBASE-LR4-6 as follows (unchanged rows not shown):" to "Insert new row for 400GBASE-ZR at end of Table 78–1:"

**Suggested Remedy**  
Using these rules, and consider the 6 400GBASE inserts being done by P802.3db to determine the correct insert point. (I don't think the insert points in P802.3db/D3.0 follow these rules.)

**Proposed Response**  
PROPOSED ACCEPT IN PRINCIPLE.

There is no discernable pattern for insertion point based on P802.3/D3.2 and P802.3cb/D3.0. Change insertion point from "Insert new rows for 400GBASE-ZR in Table 78–1 (as modified by IEEE Std 802.3cu-20xx and IEEE Std 802.3ct-20xx) with 400GBASE-ZR after 400GBASE-LR4-6 as follows (unchanged rows not shown):" to "Insert new row for 400GBASE-ZR at end of Table 78–1:"

**Suggested Remedy**  
Using these rules, and consider the 6 400GBASE inserts being done by P802.3db to determine the correct insert point. (I don't think the insert points in P802.3db/D3.0 follow these rules.)

**Proposed Response**  
PROPOSED ACCEPT IN PRINCIPLE.

There is no discernable pattern for insertion point based on P802.3/D3.2 and P802.3db/D3.0. Change insertion point from "Insert new rows for 400GBASE-ZR in Table 78–1 (as modified by IEEE Std 802.3cu-20xx and IEEE Std 802.3ct-20xx) with 400GBASE-ZR after 400GBASE-LR4-6 as follows (unchanged rows not shown):" to "Insert new row for 400GBASE-ZR at end of Table 78–1:"

**Suggested Remedy**  
Using these rules, and consider the 6 400GBASE inserts being done by P802.3db to determine the correct insert point. (I don't think the insert points in P802.3db/D3.0 follow these rules.)

**Proposed Response**  
PROPOSED ACCEPT IN PRINCIPLE.
Page 116

Comment Type: E  Comment Status: D  Page numbering for clause 116 is incorrect

Suggested Remedy
Correct the page numbering in clause 116 to align with the rest of the document.

Proposed Response  Response Status: W  PROPOSED ACCEPT.

Page 116.1.2

Comment Type: ER  Comment Status: D  P802.3db/D3.0 modifies this list inserting a new item and re-lettering the last item to be "i)".

Suggested Remedy
Change "i)" in the editing instruction (also adding a reference to IEEE Std 802.3db-202x) making the new item "j)". Review clause to assure all P802.3db changes are incorporated in instructions and base text that is being modified.

Proposed Response  Response Status: W  PROPOSED ACCEPT IN PRINCIPLE.

In 116.1.2 change insertion point to "Insert item k) at end of lettered list in 116.1.2 (as modified by IEEE Std 802.3ck-202x) the 400GHzBASE optical table is now 116-5. In 116.1.4 change editing instructions to "Change Table 116-5 as follows:. Change Table 116-4 to Table 116-5 and modify as required to align with Table 116-5 from P802.3/D3.2 before adding new columns for 155 and 156. In 116.2.5 keep editing instructions as written as IEEE Std 802.3ck-202x included Clause 167 as inserted by 803.3cu D3.0. Modify paragraph to match current wording in 802.3ck D3.1 and insert Clause 156 at the end of the sentence.

With editorial license.

Page 116.1.4

Comment Type: E  Comment Status: D  Insertion point states as modified by IEEE Std 802.3cu-20xx. This document is an amendment to P802.3/D3.2 which includes all modifications from 802.3cu so this reference is no longer valid.

Suggested Remedy
Remove reference to P802.3cu. Review entire document and remove any references to amendments included in P802.3/D3.2 and update references as required for amendments to P802.3/D3.2.

Proposed Response  Response Status: W  PROPOSED ACCEPT.

Page 115

Comment Type: ER  Comment Status: D  Use of the word "must" is deprecated.

Suggested Remedy
Rewrite to "shall" or other choice of grammar. Also p. 73, l. 43; p. 75, l. 41, 42; p. 85, l. 34; p. 91, l. 35; and p. 94, l. 26.

Proposed Response  Response Status: W  PROPOSED ACCEPT IN PRINCIPLE.

Replace "must" with "shall" throughout the document.

With editorial license.
Because the AM field is protected by C-FEC, the error rate in the amp matching should be extremely low. A single match to the full 1920 bit field should be adequate to declare amp_valid.

**SuggestedRemedy**

Change the last sentence from: “The sequence is considered to be valid if at least TBD bits match the known bits of the pattern described in 155.2.4.4.1.” to “The sequence is considered to be valid if all bits match the known bits of the pattern described in 155.2.4.4.1.”

**Proposed Response**

PROPOSED ACCEPT.

**LATE COMMENT**

Because the channel passband min & max characteristics are specified as black link characteristics in Table 156-8, it is not necessary to have a separate table specifying adjacent channel isolation.

**SuggestedRemedy**

Remove the parameter from Table 156-8 and delete Table 156-9. Remove the test pattern line for adjacent channel isolation from Table 156-11. Remove the parameter definition at 156.9.29.

**Proposed Response**

PROPOSED ACCEPT IN PRINCIPLE.

**LATE COMMENT**

For task force discussion.
<table>
<thead>
<tr>
<th>Comment</th>
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<th>Proposed Response</th>
<th>Suggested Remedy</th>
<th>Comment Type</th>
<th>Comment Status</th>
</tr>
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<tbody>
<tr>
<td>Cl 156 SC 156.8</td>
<td>P85</td>
<td>L30</td>
<td>25</td>
<td>D</td>
<td>W</td>
<td>PROPOSED ACCEPT IN PRINCIPLE.</td>
<td>Remove parameter from table. Remove note (d). ADM applications can be considered Out-of-Scope for this specification.</td>
<td>T</td>
<td>D</td>
</tr>
<tr>
<td>Cl 156 SC 156.9.1</td>
<td>P86</td>
<td>L35</td>
<td>22</td>
<td>D</td>
<td>W</td>
<td>PROPOSED ACCEPT.</td>
<td>Change pattern description to read &quot;Scrambled idle encoded by CFEC&quot;.</td>
<td>E</td>
<td>D</td>
</tr>
<tr>
<td>Cl 156 SC 156.9.13</td>
<td>P90</td>
<td>L35</td>
<td>26</td>
<td>D</td>
<td>W</td>
<td>PROPOSED ACCEPT IN PRINCIPLE.</td>
<td>Add definition: The I-Q amplitude imbalance (mean) is the center value between the proportional amplitude difference of the in-phase component I and quadrature component Q of the signal.</td>
<td>T</td>
<td>D</td>
</tr>
<tr>
<td>Cl 156 SC 156.9.14</td>
<td>P90</td>
<td>L39</td>
<td>27</td>
<td>D</td>
<td>W</td>
<td>PROPOSED ACCEPT IN PRINCIPLE.</td>
<td>Add definition: The I-Q phase error (max) is the largest proportional phase difference of the in-phase component I and quadrature component Q of the signal. Measured relative to LO</td>
<td>T</td>
<td>D</td>
</tr>
<tr>
<td>Cl 156 SC 156.9.15</td>
<td>P90</td>
<td>L43</td>
<td>28</td>
<td>D</td>
<td>W</td>
<td>PROPOSED ACCEPT IN PRINCIPLE.</td>
<td>Add definition: The I-Q phase error (min) is the largest negative proportional phase difference of the in-phase component I and quadrature component Q of the signal. Measured relative to LO</td>
<td>T</td>
<td>D</td>
</tr>
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**TYPE**: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general

**COMMENT STATUS**: D/dispatched  A/accepted  R/rejected  RESPONSE STATUS: O/open  W/written  C/closed  Z/withdrawn

**SORT ORDER**: Clause, Subclause, page, line
Comment Type: T  Comment Status: D  
The I-Q quadrature skew (max) is TBD

SuggestedRemedy
Add definition: The I-Q quadrature skew (max) is the maximum relative skew between the in-phase component I and quadrature component Q of the signal.

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

LATE COMMENT
Change definition from "The I-Q quadrature skew is TBD" to "The I-Q quadrature skew (max) is the maximum relative skew between the in-phase component I and quadrature component Q of the signal."

Comment Type: T  Comment Status: D  
Receive filtering definitions include TBDs

SuggestedRemedy
Update as: "The signal is filtered using a 3rd-order super gaussian filter with RRC = 0.2"

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

LATE COMMENT
Change "The signal is filtered using a TBD TBD taps" to "The signal is filtered using a 3rd-order super gaussian filter with RRC = 0.2."

Comment Type: T  Comment Status: D

SuggestedRemedy
Suggest to use Equalizer definition used in OMA to determine EVM of Rahn_3cw-01a_220223

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

LATE COMMENT
Change "The signal is equalized using an FIR filter with TBD TBD taps" to "The signal is equalized using an FIR filter with 7 real taps"