| C/ 00 SC 0   | P 13  | L 36                | # 1                  | C/ 155 SC 155.2.2   | P <b>39</b>  | L <b>48</b> | # 3       |
|--|---|---------------------|----------------------|---|--|-------------|-----------|
| Maguire, Valerie   | The Siemon (  | Company             |                      | Maguire, Valerie  | The Siemon   | Company     |           |
| Comment Type E<br>Missing period at the  | Comment Status <b>D</b><br>end of the second sentence.  |                     | bucket               | Comment Type E<br>Follow style for clause   | Comment Status D<br>headers  |             | bucket    |
| SuggestedRemedy<br>Replace, "(Super-PON  | N)" with, "(Super-PON)."  |                     |                      | SuggestedRemedy<br>Replace, "Use of Block   | <s" "use="" blocks"<="" of="" td="" with,=""><td></td><td></td></s">   |             |           |
| Proposed Response<br>PROPOSED ACCEP <sup>-</sup>   | Response Status W<br>T.   |                     |                      | Proposed Response<br>PROPOSED ACCEPT  | Response Status W  |             |           |
| C/ 120A SC 120A.6  | P 105   | L 28                | # 18                 | C/ 155 SC 155.2.4.3   | B P 40   | L 28        | # 5       |
| Lewis, David   | Lumentum  |                     |                      | Maguire, Valerie  | The Siemon   | Company     |           |
| Comment Type TR  | Comment Status D  |                     |                      | Comment Type E  | Comment Status D   |             | bucket    |
|  | PCS should be a separate MMI  |                     | and PMD. This allows | Follow style for clause   | headers  |             |           |
|  |   |                     |                      |   |  |             |           |
|  | dy defined MDIO registers in c  | lause 45.           |                      | SuggestedRemedy   |  |             |           |
| SuggestedRemedy  | , ,   |                     |                      |   | er" with, "GMP mapper"   |             |           |
| SuggestedRemedy<br>In Figure 120A-9 char   | dy defined MDIO registers in c<br>nge the curly bracket for MMD<br>aption MMD3 next to the PCS.   |                     | divider between PCS  | Replace, "GMP Mappe<br>Proposed Response  | Response Status W  |             |           |
| SuggestedRemedy<br>In Figure 120A-9 char   | nge the curly bracket for MMD <sup>2</sup>  |                     | divider between PCS  | Replace, "GMP Mappe   | Response Status W  |             |           |
| <i>SuggestedRemedy</i><br>In Figure 120A-9 char<br>and PMA. Add the ca   | nge the curly bracket for MMD <sup>-</sup><br>aption MMD3 next to the PCS.<br><i>Response Status</i> <b>W</b>   |                     | divider between PCS  | Replace, "GMP Mappe<br>Proposed Response  | Response Status W  | L <b>45</b> | # [4]     |
| SuggestedRemedy<br>In Figure 120A-9 char<br>and PMA. Add the ca<br>Proposed Response<br>PROPOSED ACCEP   | nge the curly bracket for MMD <sup>-</sup><br>aption MMD3 next to the PCS.<br><i>Response Status</i> <b>W</b>   |                     | divider between PCS  | Replace, "GMP Mappe<br>Proposed Response<br>PROPOSED ACCEPT   | Response Status W  |             | # [4]     |
| SuggestedRemedy<br>In Figure 120A-9 char<br>and PMA. Add the ca<br>Proposed Response<br>PROPOSED ACCEP   | nge the curly bracket for MMD <sup>-</sup><br>aption MMD3 next to the PCS.<br><i>Response Status</i> <b>W</b><br>T.   | 1 to start at the o |                      | Replace, "GMP Mappe<br>Proposed Response<br>PROPOSED ACCEPT<br>Cl 155 SC 155.2.4.4  | Response Status W  |             | # 4bucket |
| SuggestedRemedy<br>In Figure 120A-9 char<br>and PMA. Add the ca<br>Proposed Response<br>PROPOSED ACCEP <sup></sup><br>Cl 155 SC 155.1.5  | nge the curly bracket for MMD<br>aption MMD3 next to the PCS.<br><i>Response Status</i> <b>W</b><br>T.<br><i>P</i> <b>38</b>  | 1 to start at the o |                      | Replace, "GMP Mappe<br>Proposed Response<br>PROPOSED ACCEPT<br>Cl 155 SC 155.2.4.4<br>Maguire, Valerie  | Response Status W<br>P 41<br>The Siemon<br>Comment Status D            |             |           |
| SuggestedRemedy<br>In Figure 120A-9 char<br>and PMA. Add the ca<br>Proposed Response<br>PROPOSED ACCEP<br>Cl 155 SC 155.1.5<br>Maguire, Valerie  | nge the curly bracket for MMD <sup>*</sup><br>aption MMD3 next to the PCS.<br><i>Response Status</i> <b>W</b><br>T.<br><i>P</i> <b>38</b><br>The Siemon C<br><i>Comment Status</i> <b>D</b> | 1 to start at the o | # 2                  | Replace, "GMP Mappe<br>Proposed Response<br>PROPOSED ACCEPT<br>Cl 155 SC 155.2.4.4<br>Maguire, Valerie<br>Comment Type E  | Response Status W<br>P 41<br>The Siemon<br>Comment Status D            |             |           |
| SuggestedRemedy<br>In Figure 120A-9 char<br>and PMA. Add the ca<br>Proposed Response<br>PROPOSED ACCEP <sup>T</sup><br>Cl 155 SC 155.1.5<br>Maguire, Valerie<br>Comment Type E<br>Follow style for clause<br>SuggestedRemedy | nge the curly bracket for MMD<br>aption MMD3 next to the PCS.<br><i>Response Status</i> <b>W</b><br>T.<br><i>P</i> <b>38</b><br>The Siemon O<br><i>Comment Status</i> <b>D</b><br>e headers | 1 to start at the o | # 2bucket            | Replace, "GMP Mappe<br>Proposed Response<br>PROPOSED ACCEPT<br>Cl 155 SC 155.2.4.4<br>Maguire, Valerie<br>Comment Type E<br>Follow style for clause<br>SuggestedRemedy                          | Response Status W<br>P 41<br>The Siemon<br>Comment Status D            | Company     | bucket    |
| SuggestedRemedy<br>In Figure 120A-9 char<br>and PMA. Add the ca<br>Proposed Response<br>PROPOSED ACCEP <sup>T</sup><br>Cl 155 SC 155.1.5<br>Maguire, Valerie<br>Comment Type E<br>Follow style for clause<br>SuggestedRemedy | nge the curly bracket for MMD <sup>*</sup><br>aption MMD3 next to the PCS.<br><i>Response Status</i> <b>W</b><br>T.<br><i>P</i> <b>38</b><br>The Siemon C<br><i>Comment Status</i> <b>D</b> | 1 to start at the o | # 2bucket            | Replace, "GMP Mappe<br>Proposed Response<br>PROPOSED ACCEPT<br>Cl 155 SC 155.2.4.4<br>Maguire, Valerie<br>Comment Type E<br>Follow style for clause<br>SuggestedRemedy<br>Replace, "Alignment M | Response Status W<br>P 41<br>The Siemon<br>Comment Status D<br>headers | Company     | bucket    |

C/ 155 SC 155.2.4.4

| C/ 155     | SC 155.2.4.5 | P 42           | 2 | L 38 | # | 21       |
|------------|--------------|----------------|---|------|---|----------|
| Huber, Tom |              | Nokia          |   |      |   |          |
| Comment Ty | pe T         | Comment Status | D |      |   | Overhead |

The details of the overhead are rather complicated, and the description may not be clear enough for a reader who is unfamiliar with the details of ITU-T FlexO technology on which all of this is based. The 400GBASE-ZR frame is based on a FlexO-4 frame, which is formed by interleaving four ~100G FlexO frame structures. The clauses about AM and Pad describe the fields after this interleaving is done, for simplicity. The overhead clause is sort of a hybrid of trying to describe the 1280-bit field that results from interleaving four 320-bit fields, but it gets complicated by the fact that all the overhead is in the first ~100G structure that uses a 4-frame multiframe. Since most readers probably are not familiar with the details of FlexO, it is probably better to introduce the overhead in terms of a 40-byte frame structure and 4-frame multiframe, and then have a separate subclause to explain how the overhead is mapped into the 400GBASE-ZR overhead field.

#### SuggestedRemedy

Change the title of 155.2.4.5 to "Overhead (OH)"

Add text before Figure 155-4 as follows:

The 400GBASE-ZR overhead is a 40-byte frame structure that uses a four-frame multiframe, as shown in Figure 155-4 and described in 155.2.4.5.1 through 155.2.4.5.3.

Change the text at the top of figure 155-4 from "bytes of the first 320-bit OH field" to "byte number"

Delete the paragraph after the figure and insert new subclause 155.2.4.5.4 as follows: 155.2.4.5.4 Mapping into the 400GBASE-ZR frame

The 400GBASE-ZR frame contains a 1280-bit overhead field. This field is logically composed of four 320-bit structures. The 40-byte overhead frame described in subclause 155.2.4.5 is the first such 320-bit structure. The second, third, and fourth 320-bit structures are all zeros. The four 320-bit structures are 10-bit interleaved to form the 1280-bit overhead field.

Assuming this general direction is agreeable, subsequent comments address additional changes to 155.2.4.5.x that would also be needed.

### Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change the title of 155.2.4.5 to "Overhead (OH)"

Add text before Figure 155-4 as follows:

The 400GBASE-ZR overhead is a 40-byte frame structure that uses a four-frame multiframe, as shown in Figure 155-4 and described in 155.2.4.5.1 through 155.2.4.5.4.

Change the text at the top of figure 155-4 from "bytes of the first 320-bit OH field" to "byte number"

Delete the paragraph after the figure and insert new subclause 155.2.4.5.4 as follows: 155.2.4.5.4 Mapping into the 400GBASE-ZR frame

The 400GBASE-ZR frame contains a 1280-bit overhead field. This field is logically composed of four 320-bit structures. The 40-byte overhead frame described in 155.2.4.5 is the first such 320-bit structure. The second, third, and fourth 320-bit structures are all zeros. The four 320-bit structures are 10-bit interleaved to form the 1280-bit overhead field.

| C/ 155     | SC | 155.2.4.5.1 | P <b>4</b>     | 2 | L <b>46</b> | # | 22       |
|------------|----|-------------|----------------|---|-------------|---|----------|
| Huber, Tom |    |             | Nokia          | a |             |   |          |
| Comment Ty | фe | т           | Comment Status | D |             |   | Overhead |
| ,          | '  | T           | Comment Status |   |             |   |          |

It is better to describe the MFAS field independently of the 320-bit FlexO instances, as noted in an earlier comment.

#### SuggestedRemedy

Replace the text of 155.2.4.5.1 with:

The MFAS is in the first byte of the overhead frame. It is wrapping counter that is incremented each frame to provide a 256-frame multi-frame sequence as defined by ITU-T G.709.1 Clause 9.2.1.

# Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

#### Replace the text of 155.2.4.5.1 with:

The MFAS is in the first byte of the overhead field. It is a wrapping counter that is incremented each frame to provide a 256-frame multi-frame sequence as defined by ITU-T G.709.1 Clause 9.2.1.

| C/ 155     | SC 155.2.4.5.2 | P <b>42</b>      | L <b>52</b> | # 23     |
|------------|----------------|------------------|-------------|----------|
| Huber, Tom |                | Nokia            |             |          |
| Comment Ty | pe T           | Comment Status D |             | Overhead |

This subclause seems to be covering two separate concepts: the STAT field of the overhead, and behavior based on detecting link faults, which should be in the receiver clause rather than the transmitter.

SuggestedRemedy

Delete the first and last paragraphs (a subsequent comment will address re-inserting this information in the clause describing the receiver)

Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.

Delete the first and last paragraphs of 155.2.4.5.2.

| TYPE: TR/technical required ER/editorial required GR/gener | al required T/technical E/editorial G/general          | C/ 155         |
|--|--|----------------|
| COMMENT STATUS: D/dispatched A/accepted R/rejected         | RESPONSE STATUS: O/open W/written C/closed Z/withdrawn | SC 155.2.4.5.2 |
| SORT ORDER: Clause, Subclause, page, line                  |  |                |

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| C/ 155 SC 155.2.4.5.2 P 43 L 1 # 24  | C/ 155 SC 155.2.4.5.2  | P <b>43</b>  | L 10                           | # 19   |
|--|--|--|--------------------------------|--|
| Huber, Tom Nokia   | Lewis, David   | Lumentum   |                                |  |
| Comment Type T Comment Status D Overhead   | Comment Type <b>T</b> C  | comment Status D   |                                | Overhea  |
| It is better to describe the STAT field independently of the 320-bit FlexO instances, as noted in an earlier comment.  | There needs to be clarificat is an adjacent PHY 400GX  | S. The connection may b  | e made via MD                  |  |
| SuggestedRemedy  | integrated implementation a  | as a direct hardware conn  | lection.                       |  |
| Change the first sentence of the second paragraph of 155.2.4.5.2 from: The status  | SuggestedRemedy  |  |                                |  |
| overhead byte is present in every frame, but only carried in the first of the four 320-bit OH<br>instances.<br>to:<br>The status overhead byte provides status information about the 400GBASE-ZR link. | Add a paragraph: "If there is<br>STAT<7> is equal to the va<br>STAT<8> is equal to the va<br>400GXS sublayer adjacent, | lue of rx_am_sf<2> from<br>lue of rx_am_sf<1> from                 | the 400GXS su<br>the 400GXS su | ublayer, and LD in<br>ublayer. If there is not a |
|  | RS, then the value of RD in  |  |                                |  |
| Proposed Response Response Status W<br>PROPOSED ACCEPT IN PRINCIPLE.   | status byte in the receive di<br>STAT<8> in the transmit di  | rection of the 400GBASE  |                                |  |
| Change the first sentence of the second paragraph of 155.2.4.5.2 from:   | Proposed Response Re<br>PROPOSED ACCEPT IN P   | esponse Status W<br>RINCIPLE.                                      |                                |  |
| "The status overhead byte is present in every frame, but only carried in the first of the four 320-bit OH instances."  | Add two new paragraphs at  | the end of 155.2.4.5.2:  |                                |  |
| to:  | "If there is an adjacent PHY   |  |                                |  |
| "The status overhead byte provides status information about the 400GBASE-ZR link."   | to the value of rx_am_sf<2><br>the value of rx_am_sf<1> fr   | from the 400GXS sublation the 400GXS sublation the 400GXS sublayer | yer, and LD in s<br>r.         | STAT<8> is equal to                              |
| C/ 155 SC 155.2.4.5.2 P 43 L 8 # 25  | If there is not a 400GXS su  | blayer adjacent, meaning   | that the 400GI                 | BASE-ZR PCS is                                   |
| Huber, Tom Nokia   | connected to a MAC-RS, th<br>STAT<8> of the received st  |  |                                |  |
| Comment Type T Comment Status D Overhead   | and the value of LD in STA   |  |                                |  |
| With the new version of Figure 155-4 that breaks out the individual bits of what was<br>formerly shown as the 3-bit LDI field, it would be better to just refer to those bits explicitly in            | C/ 155 SC 155.2.4.6  | P <b>43</b>  | L 30                           | # 43   |
| the text. Also note that something got lost in translation - the RD bit (identified in the text  | Issenhuth, Tom   | Huawei   |                                |  |
| as LDI<1>) corresponds to tx_am_sf<2>, and the LD bit (identified as LDI<2>) corresponds to tx_am_sf<1>  | Comment Type E C   | omment Status D  |                                |  |
| SuggestedRemedy  | Incorrect usage of CRC-32  | as CRC32 is used throug  | h out the 802.3                | 3 revision D3.0 draft.                           |
| Change the last sentence of the fourth paragraph to say:   | SuggestedRemedy  |  |                                |  |
| The LD bit corresponds to $tx_am_sf<1>$ in 118.2.2. The RD bit corresponds to $tx_am_sf<2>$ in 118.2.2.  | To keep alignment with the throughout the draft  | new 802.3 draft standard   | l, change CRC-                 | -32 to CRC32                                     |
| Proposed Response Response Status W  | Proposed Response Re   | esponse Status W   |                                |  |
| PROPOSED ACCEPT IN PRINCIPLE.  | PROPOSED ACCEPT.   |  |                                |  |
| Change the last sentence of the fourth paragraph to say:   |  |  |                                |  |
| "The LD bit corresponds to tx_am_sf<1> in 118.2.2. The RD bit corresponds to tx_am_sf<2> in 118.2.2."  |  |  |                                |  |
| TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/g  |  | C/ 15  |                                | Page 3 of 10                                     |

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed Z/withdrawn SORT ORDER: Clause, Subclause, page, line

| C/ 155       | Page 3 of 10         |
|--------------|----------------------|
| SC 155.2.4.6 | 1/13/2022 2:17:18 PM |

| C/ 155 SC 155.2.4.7        | P <b>43</b>                   | L <b>49</b>       | # 6               | C/ 155             | SC 155.2.                          | 5.7                           | P 50  | L 17              | # 26                     |
|----------------------------|-------------------------------|-------------------|-------------------|--------------------|------------------------------------|-------------------------------|---|-------------------|--------------------------|
| Maguire, Valerie           | The Siemon (                  | Company           |                   | Huber, To          | m                                  |                               | Nokia   |                   |                          |
| Comment Type E             | Comment Status D              |                   | bucke             | Comment            | Туре Т                             | Comment                       | t Status D  |                   | Overhead                 |
| Follow style for clause he | aders                         |                   |                   |                    |                                    |                               |   |                   | d is agreed, it would be |
| SuggestedRemedy            |                               |                   |                   |                    |                                    |                               |   | clause 155.2.4.5  | ame is recovered from    |
| •                          | R Frame to SC-FEC Adapta      | ation" with, "400 | GBASE-ZR frame to | Suggested          | •                                  |                               |   |                   | ,                        |
| SC-FEC adaptation"         | -                             |                   |                   | 00                 | ,                                  | aph at the end c              | of 155.2.5.7 as f   | ollows:           |                          |
|                            | Response Status W             |                   |                   | The 40             | 00GBASE-ZR                         | overhead is rec               | covered from the  | e 1280-bit overhe | ad field by 10-bit de-   |
| PROPOSED ACCEPT.           |                               |                   |                   | Interie<br>structi |                                    | 320-bit structur              | es. The 40-byte   | overhead frame    | is the first 320-bit     |
| C/ 155 SC 155.2.4.8        | P <b>46</b>                   | L <b>1</b>        | # 7               | Proposed           |                                    | Response                      | Status W  |                   |                          |
| Maguire, Valerie           | The Siemon (                  | Company           |                   |                    | ,                                  | PT IN PRINCIP                 |   |                   |                          |
| Comment Type E             | Comment Status D              |                   | bucke             |                    |                                    |                               |   |                   |                          |
| Follow style for clause he | aders                         |                   |                   | Insert             | a new paragra                      | aph at the end c              | of 155.2.5.7:   |                   |                          |
| SuggestedRemedy            |                               |                   |                   |                    |                                    |                               |   |                   | ead field by 10-bit de-  |
| Replace, "Pad Insertion"   | with, "Pad insertion"         |                   |                   | interle<br>structu |                                    | 320-bit structur              | es. The 40-byte   | overhead frame    | is the first 320-bit     |
| Proposed Response          | Response Status 🛛 🛛 🛛 🛛 🛛 🛛 🖉 |                   |                   |                    |                                    |                               |   |                   |                          |
| PROPOSED ACCEPT.           |                               |                   |                   | C/ 155             | SC 155.2.                          | 5.7.1                         | P 50  | L 28              | # 28                     |
| C/ 155 SC 155.2.4.9        | P 46                          | L 7               | # 8               | Huber, To          |                                    |                               | Nokia   |                   |                          |
| Maguire, Valerie           | The Siemon (                  | -                 | " 0               | Comment            | 51                                 |                               | t Status D  |                   | Overhead                 |
| Comment Type E             | Comment Status D              | Joinpany          | bucke             |                    |                                    |                               | arding the description around the the term of the term of the the term of |                   | head is agreed, the text |
| Follow style for clause he |                               |                   | buoke             | Suggested          |                                    |                               |   |                   |                          |
| SuggestedRemedy            |                               |                   |                   |                    | •                                  | byte numbers"                 |   |                   |                          |
| ,                          | onous Scrambler" with, "Fra   | ame svnchronou    | is scrambler"     | -                  | Response                           | -                             | Status W  |                   |                          |
|                            | Response Status W             |                   |                   |                    |                                    | PT IN PRINCIP                 |   |                   |                          |
| PROPOSED ACCEPT.           |                               |                   |                   | -                  |                                    |                               |   |                   |                          |
|                            |                               |                   |                   |                    | of the text at t<br>of the 320-bit | ne top of Figure<br>OH field" | 155-9 from:   |                   |                          |
|                            |                               |                   |                   | to:                |                                    |                               |   |                   |                          |
|                            |                               |                   |                   | "huto r            | numbers"                           |                               |   |                   |                          |

| C/ 155    | SC 155.2.5.7                          | .1 <i>P</i> 50  | L 28                | # 27                   |
|-----------|---------------------------------------|---|---------------------|------------------------|
| Huber, To | m                                     | Nokia   |                     |                        |
| Comment   | 51                                    | Comment Status D  |                     | Overhead               |
|           | /te numbering in<br>hould be the sam  | figure 155-9 is different fron<br>ne.                     | n that in figure 15 | 5-5. For consistency   |
| Suggested | lRemedy                               |   |                     |                        |
|           |                                       | ed or 1-based byte numberi<br>d change whichever figure n | 0 (                 | •                      |
| Proposed  | Response                              | Response Status 🛛 🛛 🛛 🛛 🛛 🖉                               |                     |                        |
| PROP      | OSED ACCEPT                           | IN PRINCIPLE.   |                     |                        |
|           |                                       |   | <b></b>             |                        |
| Chang     | e to U-based hui                      | mbering for Figure 155-9, the                             | e same as Figure    | 155-4.                 |
| C/ 155    | SC 155.2.5.7                          | .2 P 50   | L <b>42</b>         | # 29                   |
| Huber, To | m                                     | Nokia   |                     |                        |
| Comment   | Туре Т                                | Comment Status D  |                     | Overhead               |
|           | 0                                     | omments regarding the desc<br>should not mention the 320- |                     | rhead is agreed, the   |
| Suggested | IRemedy                               |   |                     |                        |
|           | ate the second c<br>nt in every 400GB | lause of the first sentence, s<br>3ASE-ZR frame.          | so it reads: The s  | tatus overhead byte is |
| Proposed  | Response                              | Response Status W   |                     |                        |
| PROP      | OSED ACCEPT                           | IN PRINCIPLE.   |                     |                        |
|           | -4-4                                  | laura af tha first sant search                            |                     |                        |
| Elimin    | ate the second c                      | lause of the first sentence, s                            | so it reads:        |                        |

"The status overhead byte is present in every 400GBASE-ZR frame."

| C/ 155       | SC 155.2.5.7 | .2 P 50          | L <b>50</b> | # 20     |
|--------------|--------------|------------------|-------------|----------|
| Lewis, David |              | Lumentum         |             |          |
| Comment Typ  | pe T         | Comment Status D |             | Overhead |

There needs to be clarification of how the LDI fields translate to rx\_am\_sf<2:0> when there is an adjacent PHY 400GXS. The connection may be made via MDIO registers or in an integrated implementation as a direct hardware connection.

### SuggestedRemedy

Add a paragraph: "If there is an adjacent PHY 400GXS sublayer, then the value of RD in the received STAT<7> is passed to tx\_am\_sf<2> in the transmit direction of the 400GXS sublayer, and LD in STAT<8> is passed to tx\_am\_sf<1> in the transmit direction of the 400GXS sublayer. If there is not a 400GXS sublayer adjacent, meaning that the 400GBASE-ZR PCS is connected to a MAC-RS, then the value of RD in STAT<7> is passed to the DTE management entity to indicate a remote degrade event, and LD in the received STAT<8> is passe to the RD bit in STAT<7> in the transmit direction is of the 400GBASE-ZR PCS.

| Proposed Response | Response Status | W |  |
|-------------------|-----------------|---|--|
| PROPOSED ACCEPT   | IN PRINCIPLE.   |   |  |

Add two new paragraphs at the end of 155.2.5.7.2:

"If there is an adjacent PHY 400GXS sublayer, then the value of RD in the received STAT<7> is passed to  $tx_am_sf<2>$  in the transmit direction of the 400GXS sublayer, and LD in STAT<8> is passed to  $tx_am_sf<1>$  in the transmit direction of the 400GXS sublayer.

If there is not a 400GXS sublayer adjacent, meaning that the 400GBASE-ZR PCS is connected to a MAC-RS, then the value of RD in STAT<7> is passed to the DTE management entity to indicate a remote degrade event, and LD in the received STAT<8> is passed to the RD bit in STAT<7> in the transmit direction is of the 400GBASE-ZR PCS."

C/ 155 SC 155.2.5.7.2 Page 5 of 10 1/13/2022 2:17:18 PM

| C/ 155  | SC 155  | .2.5.7.2  | P 51  | L 5  |  | # 30         |                  |
|---|---|---|---|--|--|--------------|------------------|
| Huber, Tom  | ı   |   | Nokia   |  |  |              |                  |
| Comment T   | уре Т   | Com   | nment Status  | D  |  | С            | verhead          |
|   |   |   |   | eiver-specific tex<br>, some additiona                                       |  |              | of link          |
| SuggestedF  | Remedy  |   |   |  |  |              |                  |
| The 400<br>network<br>FEC de<br>link.<br>In the c | OGBASE-2<br>c equipment<br>ecoder are<br>ase of a D | ZR PCS provi<br>nt with re-rou<br>used to dete<br>OSP framing c | te capabilities.<br>ct and indicate<br>or 400GBASE- | and signaling of<br>Pre-FEC bit erro<br>link degrade at<br>ZR frame or mul   | or ratio moni<br>the 400GBA<br>ti-frame loss | itors within | the SC-<br>tical |
| •   |   |   | , ,   | g LF ordered sets  | δ.   |              |                  |
| Proposed R  | •   | Resp<br>CEPT IN PRII  | onse Status   | vv   |  |              |                  |
| FROF  | JSED ACC  |   | NGIFLE.   |  |  |              |                  |
| Add the   | following   | at the end of   | the 155.2.5.7                                       | 2:   |  |              |                  |
| FEC de<br>link.<br>In the c                       | ecoder are<br>ase of a D                            | used to deten<br>OSP framing o                                  | ct and indicate                                     | Pre-FEC bit error<br>link degrade at<br>ZR frame or mul<br>g LF ordered sets | the 400GBA<br>ti-frame loss                  | SE-ZR opt    | lical            |
| C/ 155  | SC 155  | .4.2.1  | P 62  | L 26   |  | # 31         |                  |
| Huber, Tom  | 1   |   | Nokia   |  |  |              |                  |
| Comment T   |   | Com   | ment Status   | D  |  | ١            | /ariables        |
|   | • •   | align status  | appears to be                                       | e Boolean, so it s   | hould be de                                  | scribed as   | such.            |
| SuggestedF  | Remedv  | _ 0 _   |   | ·  |  |              |                  |
| 00  |   | le." to "A Boo  | olean variable.                                     | •  |  |              |                  |
|   |   |   | onse Status   |  |  |              |                  |
| Proposed R<br>PROPC                               | •   | CEPT IN PRI   |   |  |  |              |                  |
| PROPC   | DSED ACC  | CEPT IN PRI   | NCIPLE.   | riable" with "A  | boolean vari                                 | iable."      |                  |

| C/ 155   | SC 155.4. | 2.1 <i>P</i> 62  | L <b>34</b> | # 32      |  |  |  |  |  |
|--|-----------|------------------|-------------|-----------|--|--|--|--|--|
| Huber, Tor   | n         | Nokia            |             |           |  |  |  |  |  |
| Comment 1  | Гуре Е    | Comment Status D |             | Variables |  |  |  |  |  |
| There is inconsistent sentence structure in the description of the variables - some begin with "A Boolean variable.", while others omit begin with "Boolean variable.". Those that describe non-Boolean variables all begin with "A variable." |           |                  |             |           |  |  |  |  |  |
| <b>•</b> • •   |           |                  |             |           |  |  |  |  |  |

# SuggestedRemedy

Change the sentences that begin with "Boolean variable." to begin with "A Boolean variable

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Replace all descriptions starting "Boolean variable..." with "A boolean variable."

| C/ 155             | SC 155.4.2                       | 2.1 <i>P</i> 63                           | L 14              | # 36         |
|--------------------|----------------------------------|---|-------------------|--------------|
| Issenhuth          | , Tom                            | Huawei                                    |                   |              |
| Comment            | Туре Е                           | Comment Status D                          |                   | TBDs         |
|                    | not in magenta<br>lecases in 156 | . There is one more case in 15<br>5.10.1. | 55.4.2.1, 3 cases | in 155.6 and |
| Suggested<br>Chang | dRemedy<br>ge color of TBI       | Ds to magenta                             |                   |              |
| Proposed           | Response                         | Response Status W                         |                   |              |

PROPOSED ACCEPT IN PRINCIPLE.

Search for all TBDs and change to magenta as necessary.

C/ 155 SC 155.4.2.1

| C/ 155 SC 155.4.2.1 P 64 L 5 # 33  | C/ 155 SC 155.4.2.1 P 64 L 10 # 34  |
|--|---|
| Huber, Tom Nokia   | Huber, Tom Nokia  |
| Comment Type         T         Comment Status         D         Overhead           Since the description of the LDI field now identifies specific bit positions, it would be more clear to state that rx_local_degraded is true when the receiver detects the value 1 in the LD bit of the STAT field (which is actually LDI<2>, per figure 155-4)         Overhead  | Comment Type         T         Comment Status         D         Overhead           Since the description of the LDI field now identifies specific bit positions, it would be more clear to state that rx_rm_degraded is true when the receiver detects the value 1 in the RD bit of the STAT field (which is actually LDI<1>, per figure 155-4)   |
| SuggestedRemedy  | SuggestedRemedy   |
| <ul> <li>Change the first two sentences from:</li> <li>Boolean variable that is asserted true when the receiver detects LDI&lt;1&gt; in the STAT byte of two consecutive 400GBASE-ZR frames. It is deasserted when LDI&lt;1&gt; is deasserted for two consecutive frame periods.</li> <li>to:</li> <li>A Boolean variable that is asserted true when the receiver detects the value 1 in the LD bit of the STAT byte of two consecutive 400GBASE-ZR frames. It is deasserted when the value 0 is detected in the LD bit for two consecutive frames.</li> </ul> | Change the first two sentences from:<br>Boolean variable that is asserted true when the receiver detects LDI<2> in the STAT byte<br>of two consecutive 400GBASE-ZR frames. It is deasserted when LDI<2> is deasserted for<br>two<br>consecutive frame periods.<br>to:<br>A Boolean variable that is asserted true when the receiver detects the value 1 in the RD bit<br>of the STAT byte of two consecutive 400GBASE-ZR frames. It is deasserted when the<br>value 0 is detected in the RD bit for two consecutive frames. |
| Proposed Response Response Status W  | Proposed Response Response Status W   |
| PROPOSED ACCEPT IN PRINCIPLE.  | PROPOSED ACCEPT IN PRINCIPLE.   |
| In the description of rx_local_degraded, change the first two sentences from:  | In the description of rx_rm_degraded change the first two sentences from:   |
| "Boolean variable that is asserted true when the receiver detects LDI<1> in the STAT byte of two consecutive 400GBASE-ZR frames. It is deasserted when LDI<1> is deasserted for two consecutive frame periods."  | "Boolean variable that is asserted true when the receiver detects LDI<2> in the STAT byte<br>of two consecutive 400GBASE-ZR frames. It is deasserted when LDI<2> is deasserted for<br>two consecutive frame periods."   |
| to:  | to:   |
| "A Boolean variable that is asserted true when the receiver detects the value 1 in the LD bit of the STAT byte of two consecutive 400GBASE-ZR frames. It is deasserted when the value 0 is detected in the LD bit for two consecutive frames."   | "A Boolean variable that is asserted true when the receiver detects the value 1 in the RD bit of the STAT byte of two consecutive 400GBASE-ZR frames. It is deasserted when the value 0 is detected in the RD bit for two consecutive frames."  |

C/ 155 SC 155.4.2.1

| C/ 155 SC 155.4.2.4 P 68  | L <b>4</b> # 35               | C/ 1                   | 56 SC 156.5.1   | P 79  | L 8               | # 39                    |
|---|-------------------------------|------------------------|---|---|-------------------|-------------------------|
| Huber, Tom Nokia  |                               | lsse                   | nhuth, Tom  | Huawei  |                   |                         |
| Comment Type T Comment Status D<br>It seems like this process should be predicated on PM<br>no point in looking for the PCS AMs if the PMA is not                                 |                               | d - there's            | <i>ment Type</i> <b>E</b><br>Missing cross referer  | Comment Status D<br>nce to 156.9                        |                   | bucke                   |
| SuggestedRemedy<br>Modify the output of LOCK_INIT from UCT to pma_ali<br>aligning the PCS AMs doesn't start until the PMA align<br>Proposed Response Response Status W            | ign_status, so that the proce | ess of Prop            | gestedRemedy<br>Add cross reference<br>osed Response<br>PROPOSED ACCEP                            | Response Status W<br>T.                                 |                   |                         |
| PROPOSED ACCEPT IN PRINCIPLE.   |                               | C/ 1                   | 56 SC 156.6   | P 81  | L 26              | # 40                    |
| For the LOCK_INIT state, change the output transition "pma_align_status".   | ו condition from "UCT" to     |                        | nhuth, Tom<br><i>ment Type</i> <b>E</b>   | Huawei<br>Comment Status D                              |                   |                         |
| Cl 155 SC 155.7.3 P 72  | L 17 # 37                     |                        | DADM is shown as a<br>revision  | n abbreviation but is not include                       | ed in 1.5 of this | draft or the 802.3 D3.0 |
| ssenhuth, Tom Huawei Comment Type E Comment Status D Incorrect use of C-FEC, should be CFEC as stated in SuggestedRemedy Change C-FEC to CFEC Proposed Response Response Status W | 1.5                           | bucket Prop            | vestedRemedy<br>Add abbreviation to 1<br>osed Response<br>PROPOSED ACCEP<br>For task force discus |   | ation             |                         |
| PROPOSED ACCEPT.  |                               | C/ 1                   |   | P 87  | L <b>33</b>       | # 41                    |
| C/ 156 SC 156.5.1 P 79  | L 6 # <u>38</u>               | Com                    | nhuth, Tom<br><i>ment Type</i> E  | Huawei<br>Comment Status D                              |                   |                         |
|   |                               | bucket                 | No OADM abbreviation  | on  |                   |                         |
| Comment Type E Comment Status D<br>Missing cross reference to 156.9   |                               | bucket<br>Sugg         | gestedRemedy  | on<br>.5 or fully spell out abbreviatior                | 1                 |                         |
| Comment Type E Comment Status D   |                               | bucket<br>Sugg<br>Prop | gestedRemedy  | .5 or fully spell out abbreviatior<br>Response Status W | 1                 |                         |

C/ 156 SC 156.8

| C/ 156 SC 156.9.23 P 93 L  | 36 # 42                   | C/ 156 SC 156.10.1.1 P 94 L 20 # 11   |  |  |  |  |
|--|---------------------------|---|--|--|--|--|
| ssenhuth, Tom Huawei   |                           | Maguire, Valerie The Siemon Company   |  |  |  |  |
| omment Type E Comment Status D<br>3 uses of OADM abbreviation  |                           | Comment Type         E         Comment Status         D         bucket           Follow style for clause headers  |  |  |  |  |
| uggestedRemedy<br>Add abbreviation to 1.5 or fully spell out abbreviations                                       |                           | SuggestedRemedy<br>Replace, "Calibrated Coherent Receiver" with, "Calibrated coherent receiver"   |  |  |  |  |
| roposed Response Response Status <b>W</b><br>PROPOSED ACCEPT IN PRINCIPLE.                                       |                           | Proposed Response Response Status W<br>PROPOSED ACCEPT.   |  |  |  |  |
| See response to comment 40.  |                           | C/ 156 SC 156.10.1.2 P 95 L 2 # 12  |  |  |  |  |
| 156 SC 156.10 P 93 L   | 41 # 9                    | Maguire, Valerie The Siemon Company   |  |  |  |  |
| Maguire, Valerie     The Siemon Compar       Comment Type     E     Comment Status     D                         | y<br>bucket               | Comment Type E Comment Status D bucket<br>Follow style for clause headers   |  |  |  |  |
| Follow style for clause headers  | bucket                    | SuggestedRemedy   |  |  |  |  |
| uggestedRemedy<br>Replace, "EVM Conformance test setup and calculation" wi<br>setup and calculation"             | th, "EVM conformance test | Replace, "Offline Digital Signal Processing" with, "Offline digital signal processing"<br><i>Proposed Response Response Status</i> <b>W</b><br>PROPOSED ACCEPT. |  |  |  |  |
| roposed Response Response Status <b>W</b><br>PROPOSED ACCEPT.  |                           | C/ 156 SC 156.10.1.2.1 P 95 L 25 # 13   |  |  |  |  |
| / 156 SC 156.10.1 P 94 L   | <b>43</b> # 10            | Maguire, Valerie The Siemon Company   |  |  |  |  |
| laguire, Valerie The Siemon Compar   |                           | Comment Type E Comment Status D bucket<br>Follow style for clause headers   |  |  |  |  |
| omment Type E Comment Status D<br>Follow style for clause headers  | bucket                    | SuggestedRemedy<br>Replace, "Polarization Demux" with, "Polarization demux"   |  |  |  |  |
| uggestedRemedy<br>Replace, "EVM Conformance test setup" with, "EVM confor  | mance test setup"         | Proposed Response Response Status W<br>PROPOSED ACCEPT.   |  |  |  |  |
| roposed Response Response Status <b>W</b><br>PROPOSED ACCEPT.  |                           | C/ 156 SC 156.10.1.2.2 P 95 L 31 # 14   |  |  |  |  |
| PROPOSED ACCEPT.   |                           | Maguire, Valerie The Siemon Company   |  |  |  |  |
|  |                           | Comment Type         E         Comment Status         D         bucket           Follow style for clause headers  |  |  |  |  |
|  |                           | SuggestedRemedy<br>Replace, "Clock and Frequency Offset Recovery" with, "Clock and frequency offset<br>recovery"  |  |  |  |  |
|  |                           | Proposed Response Response Status W<br>PROPOSED ACCEPT.   |  |  |  |  |
| YPE: TR/technical required ER/editorial required GR/general<br>OMMENT STATUS: D/dispatched A/accepted R/rejected | •                         |   |  |  |  |  |

SORT ORDER: Clause, Subclause, page, line

| C/ 156                     | SC 156.10.1.                               | 2.3                       | P 95                      | L 39           | # 15 |        | C/ 156                     | SC 156.13.4.4            | 4 <i>P</i> 103                          | L 18 | 8 # 45 |       |
|----------------------------|--|---------------------------|---------------------------|----------------|------|--------|----------------------------|--------------------------|---|------|--------|-------|
| Maguire, \                 | /alerie                                    |                           | The Siemon                | Company        |      | -      | Issenhuth                  | Tom                      | Huawei                                  |      |        |       |
| <i>Comment</i><br>Follow   | <i>Type</i> <b>E</b><br>style for clause I | Comment S<br>neaders      | Status <b>D</b>           |                |      | bucket | <i>Comment</i><br>Missir   | ••                       | Comment Status D<br>s reference for OM1 | )    |        | bucke |
| Suggested<br>Repla         | <i>Remedy</i><br>ce, "Carrier Phase        | e Recovery" w             | <i>r</i> ith, "Carrier pl | hase recovery" |      |        | S <i>uggested</i><br>Add c | Remedy<br>oss reference  |   |      |        |       |
|                            | Response<br>OSED ACCEPT.                   | Response S                | tatus W                   | ·              |      |        | Proposed<br>PROF           | Response<br>OSED ACCEPT. | Response Status V                       | v    |        |       |
| C/ 156                     | SC 156.10.1.2                              | 2.4                       | P 95                      | L <b>42</b>    | # 16 |        |                            |                          |   |      |        |       |
| Maguire, \                 | /alerie                                    |                           | The Siemon                | Company        |      |        |                            |                          |   |      |        |       |
| <i>Comment</i><br>Follow   | <i>Type</i> <b>E</b><br>style for clause I | Comment S<br>neaders      | Status <b>D</b>           |                |      | bucket |                            |                          |   |      |        |       |
| Suggested<br>Repla         | <i>IRemedy</i><br>ce, "Receive Filte       | ring" with, "Re           | eceive filtering          | n              |      |        |                            |                          |   |      |        |       |
| Proposed<br>PROP           | Response<br>OSED ACCEPT.                   | Response S                | itatus <b>W</b>           |                |      |        |                            |                          |   |      |        |       |
| C/ 156                     | SC 156.10.1.2                              | 2.5                       | P 95                      | L <b>48</b>    | # 17 |        |                            |                          |   |      |        |       |
| Maguire, \                 | /alerie                                    |                           | The Siemon                | Company        |      |        |                            |                          |   |      |        |       |
| <i>Comment</i><br>Follow   | <i>Type</i> <b>E</b><br>style for clause I | Comment S<br>neaders      | Status <b>D</b>           |                |      | bucket |                            |                          |   |      |        |       |
| Suggested<br>Repla         | <i>IRemedy</i><br>ce, "Offset Comp         | ensation" with            | , "Offset comp            | ensation"      |      |        |                            |                          |   |      |        |       |
| Proposed<br>PROP           | Response<br>OSED ACCEPT.                   | Response S                | tatus <b>W</b>            |                |      |        |                            |                          |   |      |        |       |
| C/ 156                     | SC 156.13.4.                               | 1                         | P 101                     | L <b>39</b>    | # 44 |        |                            |                          |   |      |        |       |
| Issenhuth                  |  |                           | Huawei                    |                |      |        |                            |                          |   |      |        |       |
| Comment<br>Value/          | <i>Type</i> <b>E</b><br>Comment shown      | Comment S<br>as "Meets BE |                           | 156.1.1"       |      | bucket |                            |                          |   |      |        |       |
| S <i>uggestec</i><br>Chang | <i>IRemedy</i><br>je"in156.1.1" to "i      | n 156.1.1"                |                           |                |      |        |                            |                          |   |      |        |       |
| Proposed<br>PROP           | Response<br>OSED ACCEPT.                   | Response S                | itatus <b>W</b>           |                |      |        |                            |                          |   |      |        |       |

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

C/ 156 SC 156.13.4.4 Page 10 of 10 1/13/2022 2:17:18 PM