Cl **FM**   *SC* **FM**   *P* **1**   *L* **8**   # 151

Carlson, Steve   HSD Bosch Ethernovia

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

Change title to reflect 25GBASE-T1 only and change admendment number.

SuggestedRemedy

Draft Standard for Ethernet Amendment 10: Physical Layer Specifications and
Management Parameters 25 Gb/s Electrical Automotive Ethernet

Proposed Response   *Response Status* **O**

Cl **FM**   *SC* **FM**   *P* **1**   *L* **29**   # 152

Carlson, Steve   HSD Bosch Ethernovia

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

Change title to reflect 25GBASE-T1 only and change admendment number.

SuggestedRemedy

Change to: This draft is an amendment of IEEE Std 802.3-2022 as amended by IEEE
Std 802.3dd-2022 ,IEEE Std 802.3cs-2022, IEEE Std 802.3db-2022, IEEE Std 802.3de-
2022, and IEEE Std 802.3cx-202x. The purpose of the amendment is to specify physical
layer specifications and management parameters for 25 Gb/s operation on automotive
cabling in an automotive application. Draft D1.3 is prepared for the Task Force review. This
draft expires 6 months after the date of publication or when the next version is published,
whichever comes first.

Proposed Response   *Response Status* **O**

Cl **FM**   *SC* **FM**   *P* **2**   *L* **3**   # 153

Carlson, Steve   HSD Bosch Ethernovia

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

Add Abstract

SuggestedRemedy

Abstract: This amendment to IEEE Std 802.3-2022 adds physical layer specifications and
management parameters for 25 Gb/s operation on a single balanced pair of conductors
suitable for automotive applications

Proposed Response   *Response Status* **O**

Cl **FM**   *SC* **FM**   *P* **2**   *L* **4**   # 154

Carlson, Steve   HSD Bosch Ethernovia

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

Add Keywords

SuggestedRemedy

25GBASE-T1; Automotive Ethernet; IEEE 802.3cy™; MASTER/SLAVE; Medium
Dependent Interface; Physical Coding Sublayer; Physical Layer; Physical Medium
Attachment.

Proposed Response   *Response Status* **O**

Cl **FM**   *SC* **FM**   *P* **12**   *L*   # 155

Carlson, Steve   HSD Bosch Ethernovia

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

SuggestedRemedy

IEEE Std 802.3cy™-20xx: This amendment includes changes to IEEE Std 802.3-2022 and
adds Clause 165 and Annex 165A. This amendment adds physical layer specifications and
management parameters for operation at 25 Gb/s over a single balanced pair of
conductors.

Proposed Response   *Response Status* **O**

Cl **00**   *SC* **0**   *P*   *L*   # 199

Wienckowski, Natalie   General Motors

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

SuggestedRemedy

Change: <<.3cy PHY>>
To: 25GBASE-T1

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **00**   Page 1 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *SC* **0**   6/8/2022 10:58:01 AM
SORT ORDER: Clause, Subclause, page, line

Cl **00**   *SC* **0**   *P* **0**   *L* **0**   # 146

Hajduczenia, Marek   Charter

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

There are multiple broken cross references in the draft right now that need attention. Most are caused by deletion of subclauses between D1.1 and D1.2. Individual locations are listed with potential resolution

SuggestedRemedy

All locations are provided using page / line reference
- 161 / 7, Figure 165-25 was removed; reference back to Clause 149?
- 169 / 29 and 151 / 3, references to 165.5.6 and 165.5.7 are errored, since subclauses were removed in D1.2; reference back to Clause 149?
- 161 / 24-34, references to 165.3.9.2.13 through 165.3.9.2.15 are errored, since subclauses were removed in D1.2; reference back to Clause 149?
- 161 / 28, Figure 165-23 was removed; reference back to Clause 149?
- 166 / 26, 167 / 40, 167 / 438, reference to 165.5.6 is broken, it was removed in D1.2; reference back to Clause 149?
- 139 / 3, 126 / 29, 116 / 20, and 73 / 4, reference to 165.5.6 is errored, since subclause was removed in D1.2; reference back to Clause 149?

Fix all external broken cross references to other clauses and replace them with text in forest green (external reference). There are too many locations to list them all, they can be easily located in FM.

Proposed Response   *Response Status* **O**

Cl **1**   *SC* **1.3**   *P* **24**   *L*   # 156

Carlson, Steve   HSD Bosch Ethernovia

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

P802.3cy has made no addtions to C 1.3

SuggestedRemedy

Delete C 1.3 from the draft

Proposed Response   *Response Status* **O**

Cl **1**   *SC* **1.5**   *P* **25**   *L*   # 157

Carlson, Steve   HSD Bosch Ethernovia

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

P802.3cy has made no addtions to C 1.5

SuggestedRemedy

Delete C 1.5 from the draft

Proposed Response   *Response Status* **O**

Cl **30**   *SC* **30.3.2.1.2**   *P* **23**   *L* **17**   # 162

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Delete: Insert the following new entry in the APPROPRIATE SYNTAX section of 30.3.2.1.2 after the entry for "50GBASE-R") as follows:
50GBASE-T2 Clause 165 50 Gb/s PAM4
Insert the following new entry in the APPROPRIATE SYNTAX section of 30.3.2.1.2 after the entry for "100GBASE-R" as follows:
100GBASE-T4 Clause 165 100 Gb/s PAM4

Proposed Response   *Response Status* **O**

Cl **30**   *SC* **30.3.2.1.3**   *P* **23**   *L* **34**   # 163

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Delete: Insert the following new entry in the APPROPRIATE SYNTAX section of 30.3.2.1.3 after the entry for "50GBASE-R" as follows:
50GBASE-T2 Clause 165 50 Gb/s PAM4
Insert the following new entry in the APPROPRIATE SYNTAX section of 30.3.2.1.3 after the entry for "100GBASE-R" as follows:
100GBASE-T4 Clause 165 100 Gb/s PAM4

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **30**   Page 2 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *SC* **30.3.2.1.3**   6/8/2022 10:58:01 AM
SORT ORDER: Clause, Subclause, page, line

Cl **30**   *SC* **30.5.1.1.2**   *P* **24**   *L* **3**   # 164

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Delete: Insert the following new entry in the APPROPRIATE SYNTAX section of 30.5.1.1.2
after the entry for "50GBASE-SR" as follows:
50GBASE-T2 Two balanced pair of conductors PHY as specified in Clause 165
Insert the following new entry in the APPROPRIATE SYNTAX section of 30.5.1.1.2 after
the entry for "100GBASE-SR10" as follows:
100GBASE-T4 Four balanced pair of conductors PHY as specified in Clause 165

Proposed Response   *Response Status* **O**

Cl **30**   *SC* **30.6.1.1.5**   *P* **24**   *L* **27**   # 165

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Delete:
Insert the following new entry in the APPROPRIATE SYNTAX section of 30.6.1.1.5 after
the entry for "50GBASE-R" as follows:
50GBASE-T2 50GBASE-T2 as specified in Clause 165
Insert the following new entry in the APPROPRIATE SYNTAX section of 30.6.1.1.5 after
the entry for "100GBASE-R" as follows:
100GBASE-T4 100GBASE-T4 as specified in Clause 165

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.1.7.4**   *P* **26**   *L* **35**   # 182

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Change contents of PMA/PMD column to: 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.1.7.5**   *P* **26**   *L* **51**   # 183

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Change contents of PMA/PMD column to: 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.1.16**   *P* **27**   *L* **11**   # 166

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

In Table 45-19 change the text to the following.
-x- indicates to strikethrough "x"
_y_ indicates to underline "y"
Change the "Bit(s)" column in the Reserved row to 1.18.15:_8_-7-
Delete the rows for 1.18.9 and 1.18.8.

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.1.16**   *P* **27**   *L* **25**   # 167

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Delete: Editorial Note (to be removed prior to publication): The use of 50GBASE-T2 and
100GBASE-T4 subject to future discussion about laning and where laning happens (below
or above MII)
Delete the same note on P28L28, P30L15, P170L29, P170L42.

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **45**   Page 3 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *SC* **45.2.1.16**   6/8/2022 10:58:01 AM
SORT ORDER: Clause, Subclause, page, line

Cl **45**   *SC* **45.2.1.16**   *P* **27**   *L* **28**   # 168

Wienckowski, Natalie   General Motors

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

SuggestedRemedy

Change: Insert three new subclauses ahead of subclause 45.2.1.16.1, as shown follows:
To: Insert three a subclause ahead of subclause 45.2.1.16.1, as shown follows:

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.1.16**   *P* **27**   *L* **30**   # 169

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Delete 45.2.1.16.a and 45.2.1.16.b.
Change 45.2.1.16.c to 45.2.1.16.a.

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.1.214**   *P* **28**   *L* **12**   # 170

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

-x- indicates to strikethrough "x"
_y_ indicates to underline "y"
Change the "Description" column for "Type Selection" to the following
1xxx = Reserved
-0111 = Reserved-
0111 = 25GBASE-T1
The remainder of this cell is the same from 10GBASE-T1 through 100BASE-T1.

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.1.214.2**   *P* **28**   *L* **41**   # 171

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Delete: When these bits are
set to 1000, the mode of operation is 50GBASE-T2. When these bits are set to 1001, the
mode of operation is 100GBASE-T4.

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.1.244**   *P* **29**   *L* **12**   # 172

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Delete: 50GBASE-T2, and 100GBASE-T4,

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.1.244.1**   *P* **29**   *L* **26**   # 160

Wienckowski, Natalie   General Motors

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

The addition of L=8 exclusions is not consistent with the original text.

SuggestedRemedy

Change the text to the following.
-x- indicates to strikethrough "x"
_y_ indicates to underline "y"
The values of L=2_,_ -and- L=4_, and L=8_ are not defined for 2.5GBASE-T1 PHYs, -and-
the value_s_ of L=4 _and L=8 are_ -is- not defined for 5GBASE-T1 PHYs_, and the value
of L=8 is not defined for 10GBASE-T1 PHYs._

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **45**   Page 4 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *SC* **45.2.1.244.1**   6/8/2022 10:58:01 AM
SORT ORDER: Clause, Subclause, page, line

Cl **45**   *SC* **45.2.1.245**   *P* **29**   *L* **49**   # 173

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Delete: 50GBASE-T2, and 100GBASE-T4,

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.3**   *P* **31**   *L* **28**   # 161

Wienckowski, Natalie   General Motors

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

Editor's note is no longer needed as the OAM registers were removed in D1.2.

SuggestedRemedy

Delete: Editor's Note (to be removed prior to the first Working Group ballot): Reviewers are encouraged to consider whether the following "MultiGBASE-T1 OAM registers" can be used "as-is" or if new registers are needed.

Proposed Response   *Response Status* **O**

Cl **78**   *SC* **78.1**   *P* **41**   *L* **2**   # 184

Wienckowski, Natalie   General Motors

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

missing title

SuggestedRemedy

Between 78 and 78.1.2 add: 78.1 Overview

Proposed Response   *Response Status* **O**

Cl **78**   *SC* **78.1.4**   *P* **41**   *L* **5**   # 174

Wienckowski, Natalie   General Motors

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

Change the instructions.

SuggestedRemedy

Delete: , insert a row for 50GBASE-T2 after 40GBASE-T, and insert a row for 100GBASE-T4 after 100GBASE-CR10

Proposed Response   *Response Status* **O**

Cl **78**   *SC* **78.1.4**   *P* **41**   *L* **18**   # 175

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Delete the 50GBASE-T2 and 100GBASE-T4 rows and the rows with elipses after each of them.

Proposed Response   *Response Status* **O**

Cl **78**   *SC* **78.2**   *P* **41**   *L* **27**   # 176

Wienckowski, Natalie   General Motors

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

Change the instructions.

SuggestedRemedy

Delete: , insert a row for 50GBASE-T2 after 40GBASE-T, and insert a row for 100GBASE-T4 after 100GBASE-CR10

Proposed Response   *Response Status* **O**

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

Cl **78**
SC **78.2**

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6/8/2022 10:58:01 AM

Cl **78**   *SC* **78.2**   *P* **41**   *L* **45**   # 177

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Delete the 50GBASE-T2 and 100GBASE-T4 rows and the rows with elipses after each of them.

Proposed Response   *Response Status* **O**

Cl **78**   *SC* **78.3**   *P* **42**   *L* **5**   # 178

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Change: The EEE capability for 25GBASE-T1, 50GBASE-T2, and 100GBASE-T4 shall be advertised during link training according to 165.4.2.4.10.
To: The EEE capability for 25GBASE-T1 shall be advertised during link training according to 165.4.2.4.10.

Proposed Response   *Response Status* **O**

Cl **78**   *SC* **78.3**   *P* **42**   *L* **11**   # 179

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Remove the strikethrough in "and" and delete: , 50GBASE-T2, and 100GBASE-T4

Proposed Response   *Response Status* **O**

Cl **78**   *SC* **78.5**   *P* **42**   *L* **27**   # 180

Wienckowski, Natalie   General Motors

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

Change the instructions.

SuggestedRemedy

Change the editor's instructions to: Insert a row in Table 78-3 for 25GBASE-T1 after 25GBASE-T as follows (unchanged rows not shown):

Proposed Response   *Response Status* **O**

Cl **78**   *SC* **78.5**   *P* **43**   *L* **8**   # 181

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Delete the 50GBASE-T2 and 100GBASE-T4 rows and the rows with elipses after each of them.

Proposed Response   *Response Status* **O**

Cl **78**   *SC* **Table 78-2**   *P* **41**   *L* **42**   # 253

Jonsson, Ragnar   Marvell

Comment Type   **TR**   *Comment Status* **X**

EEE LPI signaling needs to be updated

SuggestedRemedy

Updates on slide 4 of jonsson_3cy_01_06_14_22

Proposed Response   *Response Status* **O**

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

Cl **78**
SC **Table 78-2**

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Cl **78**   *SC* **Table 78-3**   *P* **42**   *L* **40**   # 254

Jonsson, Ragnar   Marvell

Comment Type **TR**   *Comment Status* **X**

     EEE LPI signaling needs to be updated

SuggestedRemedy

     Updates on slide 5 of jonsson_3cy_01_06_14_22

Proposed Response   *Response Status* **O**

Cl **80**   *SC* **80**   *P* **47**   *L* **1**   # 185

Wienckowski, Natalie   General Motors

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

     Delete the text for 100GBASE-T4.

SuggestedRemedy

     Remove Cluase 80 from the draft.

Proposed Response   *Response Status* **O**

Cl **98**   *SC* **98.5.1**   *P* **52**   *L* **8**   # 186

Wienckowski, Natalie   General Motors

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

     Change the instructions.

SuggestedRemedy

     Change the editor's instructions to: Insert a new variable, 25GigT1, at the end of the list as shown below

Proposed Response   *Response Status* **O**

Cl **98**   *SC* **98.5.1**   *P* **52**   *L* **24**   # 187

Wienckowski, Natalie   General Motors

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

     Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

     Delete: — 50GigT2; represents that the 50GBASE-T2 PMA is the signal source.
     — 100GigT4;represents that the 100GBASE-T4 PMA is the signal source.

Proposed Response   *Response Status* **O**

Cl **98B**   *SC* **98B.3**   *P* **170**   *L* **22**   # 191

Wienckowski, Natalie   General Motors

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

     Remove 50GBASE-T2 and 100GBASE-T4 from Table 98B-1.

SuggestedRemedy

     Delete rows for A7 and A8
     Change Reserved row to the following: -A6- _A7_ through A8 | Reserved

Proposed Response   *Response Status* **O**

Cl **98B**   *SC* **98B.4**   *P* **170**   *L* **35**   # 193

Wienckowski, Natalie   General Motors

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

     Change the instructions.

SuggestedRemedy

     Change the editor's instructions to:Insert the following new entry in the dashed list before the entry for 10GBASE-T1 as follows:

Proposed Response   *Response Status* **O**

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

Cl **98B**
SC **98B.4**   Page 7 of 23
6/8/2022 10:58:01 AM

Cl **98B** *SC* **98B.4** *P* **170** *L* **37** # 192

Wienckowski, Natalie General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Delete: —100GBASE-T4
—50GBASE-T2

Proposed Response *Response Status* **O**

Cl **105** *SC* **105.1.1** *P* **54** *L* **12** # 189

Wienckowski, Natalie General Motors

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

fix typo

SuggestedRemedy

Change 50GBASE-T2 to 25GBASE-T1.

Proposed Response *Response Status* **O**

Cl **105** *SC* **105.1.3** *P* **55** *L* **7** # 197

Wienckowski, Natalie General Motors

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

Replace the TBD

SuggestedRemedy

Change: <<TBD>>
To: baseband medium, for transmitting 25 Gb/s Ethernet over a point-to-point single balanced pair of conductors. 25GBASE-T1 uses Reed-Solomon FEC in its Physical Coding Sublayers mapped to PAM4 for transmission on a single balanced pair of conductors.

Proposed Response *Response Status* **O**

Cl **105** *SC* **105.1.3** *P* **55** *L* **18** # 198

Wienckowski, Natalie General Motors

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

Replace the TBD

SuggestedRemedy

Change: <<TBD>>
To: Reed–Solomon encoding and PAM4 modulation over a single balanced pair of conductors

Proposed Response *Response Status* **O**

Cl **105** *SC* **105.5** *P* **56** *L* **30** # 200

Sedarat, Hossein Ethernovia

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

The entries of table 105-3 are missing.

SuggestedRemedy

Add the following to the table:

L	Bit Time	Pause Quanta	Time ns
1	25600	50	1024
2	36864	72	1474.56
4	58880	115	2355.2
8	102400	200	4096

These same entries should also be included in table 165-17.

Proposed Response *Response Status* **O**

Cl **131** *SC* **131** *P* **58** *L* **1** # 188

Wienckowski, Natalie General Motors

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

Delete the text for 50GBASE-T2.

SuggestedRemedy

Remove Cluase 105 from the draft.

Proposed Response *Response Status* **O**

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

Cl **131**
SC **131**

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Cl **165**   *SC* **165**   *P* **61**   *L* **5**   # 214

Zimmerman, George   CME Consulting/various

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

Replace <<.3cy PHY>> in title, and elsewhere in clause 165 with 25GBASE-T1

SuggestedRemedy

see comment

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.2**   *P* **68**   *L* **43**   # 215

Zimmerman, George   CME Consulting/various

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

Delete editorial note and accept content of 165.2 (subject to changes in other comments)

SuggestedRemedy

see comment

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.2.1.2.1**   *P* **69**   *L* **49**   # 213

Zimmerman, George   CME Consulting/various

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

"that a valid MultiGBASE-T1 link" - should just refer to 25GBASE-T1. This clause only refers to 25GBASE-T1.

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.2.2**   *P* **70**   *L* **12**   # 218

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.2.2.1**   *P* **70**   *L* **36**   # 216

Zimmerman, George   CME Consulting/various

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

a MultiGBASE-T1 link' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.2.2.2**   *P* **62**   *L* **3**   # 217

Zimmerman, George   CME Consulting/various

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

a MultiGBASE-T1 link' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.3.1**   *P* **77**   *L* **24**   # 219

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.3.2.2**   *P* **79**   *L* **5**   # 220

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

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

Cl **165**
SC **165.3.2.2**

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Cl **165**   *SC* **165.3.2.2.3**   *P* **81**   *L* **46**   # 221

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.3.2.2.4**   *P* **83**   *L* **12**   # 222

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.3.2.2.4**   *P* **83**   *L* **50**   # 223

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.3.2.2.9**   *P* **85**   *L* **1**   # 224

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.3.2.2.13**   *P* **86**   *L* **16**   # 225

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.3.6.1**   *P* **97**   *L* **18**   # 258

Jonsson, Ragnar   Marvell

Comment Type   **TR**   *Comment Status* **X**

EEE LPI signaling needs to be updated

SuggestedRemedy

Text on slide 6 of jonsson_etal_3cy_01a_06_07_22

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.3.6.2**   *P* **98**   *L* **14**   # 261

Jonsson, Ragnar   Marvell

Comment Type   **TR**   *Comment Status* **X**

EEE LPI signaling needs to be updated

SuggestedRemedy

Text on slide 4 of jonsson_etal_3cy_01a_06_07_22

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.3.6.3**   *P* **98**   *L* **19**   # 226

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 10 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *SC* **165.3.6.3**   6/8/2022 10:58:01 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**   *SC* **165.3.7.2.3**   *P* **101**   *L* **32**   # 204

Tu, Mike   Broadcom

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

The rfer_timer is 312500 bit times based on 45.2.3.87.2. For 25GBASE-T1, this translates to 12.5usec. Allow +- 1% in timer uncertainty.

SuggestedRemedy

Change 1st sentence to: "Timer that is triggered every 12.5us +- 1%."

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.3.7.2.4**   *P* **102**   *L* **47**   # 227

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.3.7.3**   *P* **107**   *L* **43**   # 228

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.3.9**   *P* **112**   *L* **4**   # 229

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.3.9**   *P* **112**   *L* **6**   # 230

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.3.9.2**   *P* **112**   *L* **24**   # 231

Zimmerman, George   CME Consulting/various

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

The MultiGBASE-T1 OAM functions are… should refer to 25GBASE-T1 - here the other one is called MultiGBASE-T1 (cl 149) so it is doubly confusing

SuggestedRemedy

change the both instances of MultiGBASE-T1 in the sentence to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.3.9.2.1**   *P* **112**   *L* **26**   # 232

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change header to 25GBASE-T1 OAM frame structure, and change first sentence (L29) to "The 25GBASE-T1 OAM frame…"

Proposed Response   *Response Status* **O**

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

Cl **165**
SC **165.3.9.2.1**

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6/8/2022 10:58:01 AM

Cl **165**   *SC* **165.4.1**   *P* **114**   *L* **50**   # 233

Zimmerman, George   CME Consulting/various

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

    MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

    Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.4.2.1**   *P* **116**   *L* **7**   # 234

Zimmerman, George   CME Consulting/various

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

    MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

    Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.4.2.2**   *P* **116**   *L* **12**   # 245

Zimmerman, George   CME Consulting/various

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

    "a four-level modulated signal" - it can also generate zero…

SuggestedRemedy

    Insert new sentence after first sentence - "The PMA Transmit function also generates a zero output symbol when required for training, test, or EEE operation."

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.4.2.3**   *P* **116**   *L* **53**   # 246

Zimmerman, George   CME Consulting/various

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

    "The loc_rcvr_status variable is expected to become NOT_OK when the link partner's tx_mode changes to SEND_Z from any other value (see the PHY Control state diagram in Figure 165-28)." - Note that the receiver (which this describes) needs to understand the difference between SEND_Z and QUIET when in EEE LPI quiet-refresh signaling.

SuggestedRemedy

    Insert new sentence after quoted sentence - "Note that during quiet-refresh signalling, QUIET is represented by periods of zeros, and this should not, in itself, trigger the loc_rcvr_status variable to indicate NOT_OK."

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.4.2.4.5**   *P* **119**   *L* **32**   # 235

Zimmerman, George   CME Consulting/various

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

    MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

    Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.4.2.4.10**   *P* **121**   *L* **5**   # 250

Razavi Majomard, seid alireza   Marvell

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

    maximum time is 40-0.384

SuggestedRemedy

    maximum time is 20-0.384 as described in majomard_tahir_jonsson_3cy_01a_06_07_22.pdf, slide 4

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 12 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *SC* **165.4.2.4.10**   6/8/2022 10:58:01 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**   *SC* **165.4.2.4.10**   *P* **121**   *L* **18**   # 251

Razavi Majomard, seid alireza   Marvell

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

maximum time is 40

SuggestedRemedy

maximum time is 20 as described in
majomard_tahir_jonsson_3cy_01a_06_07_22.pdf,slide 4

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.4.2.5**   *P* **121**   *L* **39**   # 236

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.4.2.6**   *P* **122**   *L* **39**   # 237

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.4.2.6**   *P* **123**   *L* **20**   # 247

Wu, Peter   Marvell

Comment Type   **TR**   *Comment Status* **X**

a fixed value of 16, " It was agreed on in the motion at the meeting on Jan 22, 2022
https://www.ieee802.org/3/cy/public/jan22/Wu_3cy_01a_0122.pdf - Page 6.

SuggestedRemedy

a fixed value of 16

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.4.2.6**   *P* **123**   *L* **31**   # 248

Wu, Peter   Marvell

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

"TBD" is still used as description

SuggestedRemedy

An integer value that counts the number of frames of SEND_S signal being sent at SLAVE

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.4.2.7**   *P* **126**   *L* **7**   # 249

Graba, Jim   Broadcm

Comment Type   **TR**   *Comment Status* **X**

Update Refresh Monitor TBD length of time without a Refresh.

SuggestedRemedy

Change "nominally equal to TBD ms" to "nominally equal to 1.597 ms".

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.4.3.1**   *P* **126**   *L* **21**   # 264

Jonsson, Ragnar   Marvell

Comment Type   **TR**   *Comment Status* **X**

EEE LPI signaling needs to be updated

SuggestedRemedy

Text on slide 5 of jonsson_etal_3cy_01a_06_07_22

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 13 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *SC* **165.4.3.1**   6/8/2022 10:58:01 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**   *SC* **165.4.4.1**   *P* **128**   *L* **25**   # 252

Razavi Majomard, seid alireza   Marvell

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

timing_lock_OK is not defined

SuggestedRemedy

In the TRAINING state, whenever slave operating in loop timing lockes the Master timing refrence, it sets timing_lock_OK=1.

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.4.4.2**   *P* **128**   *L* **52**   # 265

Jonsson, Ragnar   Marvell

Comment Type   **TR**   *Comment Status* **X**

Replace TBD with actual value

SuggestedRemedy

The TBD value should be 1.59744 ms

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.5.1**   *P* **131**   *L* **41**   # 205

Tu, Mike   Broadcom

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

For 25GBASE-T1, the output test clock frequency should be increased to improve measurement accuracy.
Propose to use 14.0625MHz / 16 = 878.90625MHz as the output frequency.

SuggestedRemedy

Replace in entire D1.2:
1. Change all "TX_TCLK_175" to "TX_TCLK_879"
2. Change all "175.78125MHz" to "878.90625MHz"

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.5.1**   *P* **132**   *L* **8**   # 207

Tu, Mike   Broadcom

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

The test mode 6 output waveform should be the same as for 10GBASE-T1. We need to increase the number of samples by 2.5X for 25GBASE-T1.

SuggestedRemedy

Change to "… a continuous pattern of 320 {+1} symbols followed by 320 {-1} symbols …"

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.5.2**   *P* **134**   *L* **6**   # 190

Wienckowski, Natalie   General Motors

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

fix figure and Title of Figure 165-35

SuggestedRemedy

Delete text in the Figure: 50GBASE-T2: 2x
100GBASE-T4: 4x
Change the figure title to: 25GBASE-T1 link

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.5.3.1**   *P* **135**   *L* **24**   # 208

Tu, Mike   Broadcom

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

Remove the editorial note

SuggestedRemedy

Remove the editorial note

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 14 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *SC* **165.5.3.1**   6/8/2022 10:58:01 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**   *SC* **165.5.3.2**   *P* **135**   *L* **40**   # 209

Tu, Mike   Broadcom

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

Keep 38dB SNDR requirement for 25GBASE-T1

SuggestedRemedy

1. Remove editorial note from line 34 to 36
2. Change the last sentence to "… shall exceed 38dB in 25GBASE-T1 mode."

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.5.3.3**   *P* **135**   *L* **49**   # 210

Tu, Mike   Broadcom

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

For 25GBASE-T1, the jitter requirements should be 0.4x of the corresponding limits for 10GBASE-T1.

SuggestedRemedy

1. Change all "TX_TCLK_175" to "TX_TCLK_879"
2. Change page 135 start of line 53 from "… 1/S ps" to "… 0.4ps".
3. Change page 135 line 54 from "… shall be less than 10/S ps" to "… shall be less than 4 ps".
4. Change page 136 line 2 from "… shall be less than 2/S ps" to "... shall be less than 0.8 ps".
5. Change page 136 line 4 from "... than 20/S ps" to "... than 8 ps".
6. Change page 136 line 6 from "... an interval of 1ms +- 10%" to "... and interval of 0.4ms +- 10%"

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.5.3.3.1**   *P* **136**   *L* **16**   # 211

Tu, Mike   Broadcom

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

For 25GBASE-T1, the jitter requirements should be 0.4x of the corresponding limits for 10GBASE-T1.

SuggestedRemedy

1. Replace all scaling factor "S" by "2.5", then use the actual calculated numbers. For example "1/S" will become "0.4".
2. On line 18, change from "… an interval of 1 ms +- 10%" to "… an interval of 0.4 ms +- 10%".

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.5.3.3.1**   *P* **136**   *L* **28**   # 206

Tu, Mike   Broadcom

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

In Table 165-14, change to new MDI output square wave frequency.

SuggestedRemedy

Change "TX_TCLK_175" to "TX_TCLK_879"

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.5.3.3.2**   *P* **136**   *L* **43**   # 212

Tu, Mike   Broadcom

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

For 25GBASE_T1, replace scaling factor "S" by "2.5".

SuggestedRemedy

Replace all scaling factor "S" by "2.5", then use the actual calculated numbers. For example "1 x S MHz" becomes "2.5 MHz", and "68 / S ns" becomes "27.2 ns".

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.5.4.2**   *P* **139**   *L* **37**   # 267

Kadry, Haysam   Ford Motor Company

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

Fill in table, at this point alien crosstalk is sames as 802.3ch

SuggestedRemedy

In first empty row 25GBASE-T1 | 3500 | −152
Delete two remaining rows

Proposed Response   *Response Status* **O**

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

Cl **165**
SC **165.5.4.2**

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6/8/2022 10:58:01 AM

Cl **165**   *SC* **165.5.5.3.1**   *P* **141**   *L* **38**   # 268

Kadry, Haysam   Ford Motor Company

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

Add equation for max IL

SuggestedRemedy

1.05*[0.06109*(f/1000)+0.3404*(f/1000)^0.45]+0.2*sqrt(f/2500), 10≤f≤9000, f is in MHz

Proposed Response   *Response Status*   **O**

Cl **165**   *SC* **165.5.5.3.1**   *P* **141**   *L* **41**   # 269

Kadry, Haysam   Ford Motor Company

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

Add equation for min IL

SuggestedRemedy

0.95*[0.06109*(f/1000)+0.3404*(f/1000)^0.45]+0.2*sqrt(f/2500),10≤f≤9000, f is in MHz

Proposed Response   *Response Status*   **O**

Cl **165**   *SC* **165.5.5.3.2**   *P* **142**   *L* **7**   # 270

Kadry, Haysam   Ford Motor Company

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

Add RL equation

SuggestedRemedy

(25   10 ≤f<1500   )
RL≥   (25−16.6*log10(f/1500)   1500≤f<3000) dB, f is in MHz
(20   3000≤f≤9000)

Proposed Response   *Response Status*   **O**

Cl **165**   *SC* **165.5.5.3.3**   *P* **142**   *L* **13**   # 271

Kadry, Haysam   Ford Motor Company

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

Add conversion loss equation

SuggestedRemedy

Mode convesion ≥ 30dB   10≤f≤9000, f is in MHz

Proposed Response   *Response Status*   **O**

Cl **165**   *SC* **165.5.5.3.4**   *P* **142**   *L* **20**   # 272

Kadry, Haysam   Ford Motor Company

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

Add crosstalk loss

SuggestedRemedy

(78   10 ≤f<215   )
XTF≥   (83−15*log10(f/100)   215≤f<9000) dB, f is in MHz

Proposed Response   *Response Status*   **O**

Cl **165**   *SC* **165.7.1**   *P* **142**   *L* **49**   # 238

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status*   **O**

Cl **165**   *SC* **165.7.1.1**   *P* **143**   *L* **3**   # 239

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status*   **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 16 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *SC* **165.7.1.1**   6/8/2022 10:58:01 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**   *SC* **165.7.1.1**   *P* **143**   *L* **3**   # 150

Hajduczenia, Marek   Charter

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

There are multiple instances of "MultiGBASE-T1" in Clause 165, but it seems that we have converged on using 25GBASE-T1, since that is what we are specyfing, with optional bonding for 50G and 100G operation.

SuggestedRemedy

Change all instances of MultiGBASE-T1 to 25GBASE-T1 in Clause 165 and Annex 165A

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.7.1.3.2**   *P* **144**   *L* **49**   # 202

Sedarat, Hossein   Ethernovia

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

The definition for ETM has to be refined for correct representation of the power of micro-reflections.

SuggestedRemedy

Use document 802d3_TFR_WGB_comments_HosseinSedarat for changes

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.7.1.3.2**   *P* **145**   *L* **44**   # 266

Jonsson, Ragnar   Marvell

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

Invalid equation refference

SuggestedRemedy

The equation reference "xxx-3" should be changed to "(165-28)

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.7.1.3.4**   *P* **146**   *L* **54**   # 203

Sedarat, Hossein   Ethernovia

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

The limit for ETM is also needs to be clear of TBDs.

SuggestedRemedy

Use document 802d3_TFR_WGB_comments_HosseinSedarat for changes

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.7.1.4**   *P* **147**   *L* **17**   # 240

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.7.1.6**   *P* **148**   *L* **52**   # 241

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.7.2**   *P* **148**   *L* **41**   # 273

Kadry, Haysam   Ford Motor Company

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

SuggestedRemedy

Remove editorial note

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 17 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *SC* **165.7.2**   6/8/2022 10:58:01 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**   *SC* **165.8**   *P* **150**   *L* **42**   # 195

Wienckowski, Natalie   General Motors

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

Delete Editorial Note.

SuggestedRemedy

Delete: Editorial Note (to be removed prior to publication): The content of this subclause has not been explicitly approved and has been included to stimulate discussion. TF participants are encouraged to carefully review this content and comment as needed.

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.8.2.1**   *P* **151**   *L* **15**   # 196

Wienckowski, Natalie   General Motors

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

Remove "S" and replace with appropriate values.

SuggestedRemedy

Change: 280S to 700 in 3 places
Change: 2800S to 7000 in 2 places
Change: Fmax to 10 000
Change: 4000 x S to 10 000

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.10**   *P* **153**   *L* **17**   # 201

Sedarat, Hossein   Ethernovia

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

The entries of table 165-17 are missing

SuggestedRemedy

Use the entries from table 105-3 for table 165-17. These entries are repeated here:

L	Bit Time	Pause Quanta	Time ns
1	25600	50	1024
2	36864	72	1474.56
4	58880	115	2355.2
8	102400	200	4096

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.11.3**   *P* **155**   *L* **17**   # 242

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.11.4.2.1**   *P* **156**   *L* **16**   # 158

Carlson, Steve   HSD Bosch Ethernovia

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

PCT15 needs to be updated to P802.3cy values

SuggestedRemedy

Change PCT15 Value/Comment to: The RS-FEC encoding takes the 8460-bit vector, consisting of tx_group130x65B, and the 10-bit OAM_field, and shall generate the 90 10-bit parity symbols (900 bits total).

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.11.4.2.8**   *P*   *L* **8**   # 159

Carlson, Steve   HSD Bosch Ethernovia

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

OAM2 needs to be updated to P802.3cy values

SuggestedRemedy

Change OAM2 Feature to: When the PCS frame is operating in interleaved mode of 2x, 4x, or 8x the first symbol (OAM<0>) shall be inserted in the first RS frame in the superframe so that the full OAM frame can be packed into eight superframes in the 2x interleaved mode, into four superframes in the 4x interleaved mode, and into two superframes in the 8x interleaved mode.

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 18 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *SC* **165.11.4.2.8**   6/8/2022 10:58:01 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**   *SC* **165.11.4.3.2**   *P* **162**   *L* **22**   # 283

Lewis, Jon   Dell Technologies

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

Value / Comment should bpoint to 165.5.6

SuggestedRemedy

Change Value / Comment to "Comply with 165.5.6"

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.11.4.3.2**   *P* **162**   *L* **25**   # 285

Lewis, Jon   Dell Technologies

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

Feature should be more descriptive

SuggestedRemedy

Change Feature to "TX_TCLK source when the PMA_CONFIG.indication parameter config is MASTER"

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.11.4.3.2**   *P* **162**   *L* **31**   # 286

Lewis, Jon   Dell Technologies

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

Feature should be more descriptive

SuggestedRemedy

Change Feature to "TX_TCLK source when the PMA_CONFIG.indication parameter config is SLAVE"

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.11.4.3.3**   *P* **163**   *L* **10**   # 284

Lewis, Jon   Dell Technologies

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

Feature doesn't specify 45.2.17.5

SuggestedRemedy

Change Feature to "If the MDIO interface is implemented, then this function shall contribute to the receive fault bit specified in 45.2.17.5 and 45.2.1.193.7."

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.11.4.3.4**   *P* **163**   *L* **39**   # 287

Lewis, Jon   Dell Technologies

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

Duplicate feature in PCF7 and PCF8 for the receiver

SuggestedRemedy

Change Feature to "Any Message Field value not listed in Table 165–7 or Table 165–8 shall not be transmitted"

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.11.4.3.5**   *P* **164**   *L* **23**   # 288

Lewis, Jon   Dell Technologies

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

Value / Comment field is incorrect

SuggestedRemedy

Change Value / Comment to "Set to an integer multiple of 32"

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 19 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *SC* **165.11.4.3.5**   6/8/2022 10:58:01 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**　　*SC* **165.11.4.3.6**　　　*P* **165**　　*L* **6**　　　# 290

Lewis, Jon　　　　　　　　　　　Dell Technologies

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

Status is incorrect

SuggestedRemedy

Change Status to "!AN:M"

Proposed Response　　　　*Response Status*　**O**

Cl **165**　　*SC* **165.11.4.3.6**　　　*P* **165**　　*L* **19**　　　# 276

Lewis, Jon　　　　　　　　　　　Dell Technologies

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

10GBASE-T1 is still listed and should be 25GBASE-T1

SuggestedRemedy

Change Feature to "25GBASE-T1 mapping of Sn[0] to Tn" and change the Value / Comment to "If Sn[0] = 0 then Tn = +1 +1 ... +1 (repeated 20 times), If Sn[0] = 1 then Tn = −1 −1 ... −1 (repeated 20 times)."

Proposed Response　　　　*Response Status*　**O**

Cl **165**　　*SC* **165.11.4.3.6**　　　*P* **165**　　*L* **22**　　　# 277

Lewis, Jon　　　　　　　　　　　Dell Technologies

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

5GBASE-T1 and 2.5GBASE-T1 not included in this clause

SuggestedRemedy

Remove PLS7 and PLS8. Renumber remaining rows.

Proposed Response　　　　*Response Status*　**O**

Cl **165**　　*SC* **165.11.4.3.6**　　　*P* **165**　　*L* **28**　　　# 278

Lewis, Jon　　　　　　　　　　　Dell Technologies

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

PLS9 doesn't match the text of 165.4.2.6.

SuggestedRemedy

Unclear of the final solution as the text shows the placeholder for <<.cy PHY>>. For now change Value / Comment to "The synchronization state diagram shall be used to synchronize<<.cy PHY>> prior to the MultiGBASE-T1 link training.

Proposed Response　　　　*Response Status*　**O**

Cl **165**　　*SC* **165.11.4.3.6**　　　*P* **165**　　*L* **31**　　　# 243

Zimmerman, George　　　　　　　CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response　　　　*Response Status*　**O**

Cl **165**　　*SC* **165.11.4.3.6**　　　*P* **165**　　*L* **36**　　　# 289

Lewis, Jon　　　　　　　　　　　Dell Technologies

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

Number of partial PHY frames doesn't match text

SuggestedRemedy

Remove " x S" from the Feature description

Proposed Response　　　　*Response Status*　**O**

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

Cl **165**
SC **165.11.4.3.6**

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6/8/2022 10:58:01 AM

Cl **165**   *SC* **165.11.4.3.6**   *P* **165**   *L* **44**   # 279

Lewis, Jon   Dell Technologies

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

send_s_timer has incorrect expiration

SuggestedRemedy

Change Value / Comment to "Expires 1.25 us +- 0.025 us after being started"

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.11.4.3.6**   *P* **165**   *L* **46**   # 280

Lewis, Jon   Dell Technologies

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

sigdet_wait_timer has incorrect expiration

SuggestedRemedy

Change Value / Comment to "Expires 5 us +- 0.025 us after being started"

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.11.4.3.6**   *P* **165**   *L* **48**   # 281

Lewis, Jon   Dell Technologies

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

Silient_wait_timer is missing from the table

SuggestedRemedy

Add row as follows: PLS14 | silent_wait_timer | 165.4.2.6.2 | Expires 1.25 us +- 0.025 us after being started." | M | Yes []

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.11.4.3.10**   *P* **166**   *L* **37**   # 282

Lewis, Jon   Dell Technologies

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

Value / Comment doesn't align with clause text

SuggestedRemedy

Change Value / Comment to "Period equal to 50 complete quiet-refresh signal periods, equivalent to <font color RED> TBD <!font color RED> ms"

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.11.4.4**   *P* **167**   *L* **1**   # 145

Hajduczenia, Marek   Charter

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

Per my homework assignment, PICS in 165.11.4.4 were reviewed against D1.2 and changes are proposed

SuggestedRemedy

Make the following changes to individual PICS items:
- change Feature in PICS item TM3, by replacing "The test modes shall only change the data symbols" to "The test modes only change the data symbols", there is no need to repeat SHALL statement the PICS covers within the text of the PICS
- insert a PICS item TM10: | TM10 | Test Mode 7 | 165.5.1 | Described in 165.5.1 | M | Yes [] | - note that it is the only test mode described today that has no mandatory requirements. This might need to be looked at separately.
- change Subclause in TES1 and TES2 from 165.5.6 to 165.5.3
- remove item TES6 and TES7 and reunumber subsequent PICS accordingly, and change TES5 to read: | TES5 | Transmitter SNDR distortion for 25GBASE-T1 | 165.5.3.2 | Exceed TBD dB | M | Yes [] | + replace statement "The transmitter SNDR distortion, as specified in 120D.3.1.6, shall exceed 38 dB in 10GBASE-T1, 36 dB in 5GBASE-T1, and 35 dB in 2.5G modes" in 165.5.3.2 with "The transmitter SNDR distortion, as specified in 120D.3.1.6, shall exceed TBD dB in 25GBASE-T1 modes"
- change Value/Comment for TES23 to read "Within the range 14 062.5 MHz ± 50 ppm"
- add a new section 165.11.4.4.4 Mated test fixtures with the following PICS items
--- | TF1 | Insertion loss | 165.5.5.3.1 | See Equation (165–17) and Equation (165–18) | M | Yes [] |
--- | TF2 | Return loss | 165.5.5.3.2 | See Equation (165–20) | M | Yes [] |
--- | TF3 | Mode conversion | 165.5.5.3.3 | See Equation (165–21) | M | Yes [] |
--- | TF4 | Crosstalk | 165.5.5.3.4 | See Equation (165–22) | M | Yes [] |

Fix capitalization issues as follows
- page 142, line 11: "The Mode Conversion of the" > "The mode conversion of the"
- page 142, line 5: "The Return loss" > "The return loss"

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 21 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *SC* **165.11.4.4**   6/8/2022 10:58:01 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**   *SC* **165.11.4.5**   *P* **169**   *L* **1**   # 149

Hajduczenia, Marek   Charter

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

Per my homework assignment, PICS in 165.11.4.5 were reviewed against D1.2 and changes are proposed

SuggestedRemedy

Make the following changes to individual PICS items:
- Change LSC2 to read: | LSC2 | Return loss | 165.7.1.3.1 | See Equation (165–24) | M | Yes[] |
- Change LSC3 to read: | LSC3 | Residual Echo Metric | 165.7.1.3.3 | See Equation (165–35) | M | Yes[] |
- Change LSC4 to read: | LSC4 | Echo Tail Metric | 165.7.1.3.4 | See Equation (165–36) | M | Yes[] |
- Change Value/Comment in LSC6 to read: "Not to exceed 94 ns at all frequencies between 2 MHz and 9000 MHz"

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.11.4.6**   *P* **169**   *L* **22**   # 148

Hajduczenia, Marek   Charter

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

Per my homework assignment, PICS in 165.11.4.6 were reviewed against D1.2 and changes are proposed

SuggestedRemedy

In PICS MDI1, change "shall be met" to "are met", there is no need to repeat SHALL statement the PICS covers within the text of the PICS

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **165.11.4.7**   *P* **169**   *L* **37**   # 147

Hajduczenia, Marek   Charter

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

Per my homework assignment, PICS in 165.11.4.7 were reviewed against D1.2 and confirmed to be correct.

SuggestedRemedy

No change to the draft needed at this time. Feel free to reject this comment, it is submitted for public record only.

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **Fig 165-13**   *P* **96**   *L* **20**   # 256

Jonsson, Ragnar   Marvell

Comment Type **TR**   *Comment Status* **X**

EEE LPI signaling needs to be updated

SuggestedRemedy

Updates on slide 10 of jonsson_etal_3cy_01a_06_07_22

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **Fig 165-14**   *P* **96**   *L* **39**   # 257

Jonsson, Ragnar   Marvell

Comment Type **TR**   *Comment Status* **X**

EEE LPI signaling needs to be updated

SuggestedRemedy

Updates on slide 10 of jonsson_etal_3cy_01a_06_07_22

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **Fig 165-20**   *P* **110**   *L* **20**   # 263

Jonsson, Ragnar   Marvell

Comment Type **TR**   *Comment Status* **X**

EEE LPI signaling needs to be updated

SuggestedRemedy

Figure on slide 7 of jonsson_etal_3cy_01a_06_07_22

Proposed Response   *Response Status* **O**

Cl **165**   *SC* **Table 165-3**   *P* **92**   *L* **8**   # 255

Jonsson, Ragnar   Marvell

Comment Type **TR**   *Comment Status* **X**

EEE LPI signaling needs to be updated

SuggestedRemedy

Updates on slide 6 of jonsson_3cy_01_06_14_22

Proposed Response   *Response Status* **O**

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

Cl **165**
SC **Table 165-3**

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6/8/2022 10:58:02 AM

Cl **165**   *SC* **Table 165-4**   *P* **97**   *L* **9**   # 259

Jonsson, Ragnar   Marvell

Comment Type   **TR**   *Comment Status*   **X**

EEE LPI signaling needs to be updated

SuggestedRemedy

Updates on slide 8 of jonsson_etal_3cy_01a_06_07_22

Proposed Response   *Response Status*   **O**

Cl **165**   *SC* **Table 165-5**   *P* **97**   *L* **45**   # 260

Jonsson, Ragnar   Marvell

Comment Type   **TR**   *Comment Status*   **X**

EEE LPI signaling needs to be updated

SuggestedRemedy

Updates on slide 9 of jonsson_etal_3cy_01a_06_07_22

Proposed Response   *Response Status*   **O**

Cl **165**   *SC* **Table 165-6**   *P* **98**   *L* **4**   # 262

Jonsson, Ragnar   Marvell

Comment Type   **TR**   *Comment Status*   **X**

EEE LPI signaling needs to be updated

SuggestedRemedy

Updates on slide 9 of jonsson_etal_3cy_01a_06_07_22

Proposed Response   *Response Status*   **O**

Cl **165A**   *SC* **165A.3**   *P* **175**   *L* **9**   # 194

Wienckowski, Natalie   General Motors

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

Delete the text for 50GBASE-T2 and 100GBASE-T4.

SuggestedRemedy

Delete: (or one lane of a 50GBASE-T2 or 100GBASE-T4 PHY)

Proposed Response   *Response Status*   **O**

Cl **165A**   *SC* **165A.5**   *P* **175**   *L* **47**   # 244

Zimmerman, George   CME Consulting/various

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

MultiGBASE-T1' should be 25GBASE-T1 (please note that page 171, annex 149B was skipped ON PURPOSE)

SuggestedRemedy

Change MultiGBASE-T1 to 25GBASE-T1

Proposed Response   *Response Status*   **O**

Cl **165A**   *SC* **165A.5**   *P* **175**   *L* **51**   # 275

Kadry, Haysam   Ford Motor Company

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

provdie crosstalk name and equation reference

SuggestedRemedy

TBD is (power sum alien near-end) specified in Equation (165–38).

Proposed Response   *Response Status*   **O**

Cl **165A**   *SC* **165A.5**   *P* **176**   *L* **8**   # 274

Kadry, Haysam   Ford Motor Company

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

Fill in table

SuggestedRemedy

```
CT    | pF | - | 0.1  | - |
Lp    | uH | - | 6.8  | - |
Cp    | pF | - | 0.24 | - |
CESD  | pF | - | 0.4  | - |
CAC   | nF | - | 22   | - |
```

Proposed Response   *Response Status*   **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165A**   Page 23 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *SC* **165A.5**   6/8/2022 10:58:02 AM
SORT ORDER: Clause, Subclause, page, line