Cl **FM**   *SC* **FM**   *P* **1**   *L* **10**   # I-14

Grow, Robert   RMG Consulting

Comment Type **E**   *Comment Status* **D**   *EZ*

It appears to me that this project is likely to get to RevCom before P802.3cw (D2.0 being the current draft). I don't find any order dependency between P802.3cw/D2.0 and P802.3cy/D3.0.

SuggestedRemedy

If Mr. Law concurs: 1. renumber to Amendment 8, 2. remove cw from list at line 28 (note that cw is not in proper order now), 3. remove cw description on page 12 and renumber cy to amendment 8.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

1. renumbered to Amendment 8,
2. removed cw from list at line 28 (note that cw is not in proper order now),
3. removed cw description on page 12 and renumber cy to amendment 8.

Cl **FM**   *SC* **FM**   *P* **2**   *L* **1**   # I-142

Wienckowski, Natalie   General Motors Company

Comment Type **E**   *Comment Status* **D**   *EZ*

Incorrect formatting.

SuggestedRemedy

Remove "bold" style from "T" in "This".

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **FM**   *SC* **FM**   *P* **7**   *L* **24**   # I-143

Wienckowski, Natalie   General Motors Company

Comment Type **E**   *Comment Status* **D**   *EZ*

Participant name is duplicated. All names of officers are removed from general list except one.

SuggestedRemedy

Remove duplicate of "Hajduczenia, Marek" in general list it is included above as the Task Force Editor-in-Chief.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **FM**   *SC* **FM**   *P* **1**   *L* **33**   # I-16

Grow, Robert   RMG Consulting

Comment Type **E**   *Comment Status* **D**   *EZ*

With a 22 Dec 2022 ballot close, it is unlikely D3.1 will be created this year.

SuggestedRemedy

A friendly reminder that in addition to the title page and header draft date the copyright year needs to be updated at page 1, line 33 and page 2 line 46, and in page footer.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **FM**   *SC* **FM**   *P* **10**   *L* **4**   # I-17

Grow, Robert   RMG Consulting

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

This boxed paragraph is published in the approved standard, so the self reference should be IEEE Std 802.3cy-202x.

SuggestedRemedy

Change P802.3cy to IEEE Std 802.3cy-202x.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **FM**   *SC* **FM**   *P* **7**   *L* **24**   # I-15

Grow, Robert   RMG Consulting

Comment Type **E**   *Comment Status* **D**   *EZ*

It looks like Merek has double billing (TF editor above list plus in the list here).

SuggestedRemedy

Delete Mr. Hajduczenia at line 24.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **FM**   Page 1 of 13
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   *SC* **FM**   1/24/2023 6:32:48 AM
SORT ORDER: Clause, Subclause, page, line

Cl **0** *SC* **0** *P* **105** *L* **11** # I-74

Jonsson, Ragnar Marvell Semiconductor, Inc.

Comment Type **E** *Comment Status* **D** EZ

There is an subscript for RE in equation (165-28)

SuggestedRemedy

Change subscript for RE from k to r: "RE_r(k)"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Changed per suggested remedy but comment is against 165.7.1.3.3

Cl **0** *SC* **0** *P* **1** *L* **0** # I-1

Hajduczenia, Marek Charter Communications

Comment Type **G** *Comment Status* **D** EZ

It seems unlikely that .3cw (Amendment #8) is approved before .3cy (Amendment #9). I suggest that the order of amendments be swapped, i.e., .3cy becomes Amendment #9 and .3cw becomes Amendment #8.

SuggestedRemedy

Change .3cy amendment number from #9 to #8 and notify .3cw of the change.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.16** *P* **24** *L* **47** # I-144

Wienckowski, Natalie General Motors Company

Comment Type **E** *Comment Status* **D** EZ

grammar

SuggestedRemedy

Change: as shown follows
To: as follows

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.246.2** *P* **27** *L* **37** # I-105

Ran, Adee Cisco Systems, Inc.

Comment Type **E** *Comment Status* **D** EZ

"165.3.2.2.20 25GBASE-T1"

Also in 45.2.1.246.3.

SuggestedRemedy

Change to "in 165.3.2.2.20 for 25GBASE-T1", in both places.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.246.2** *P* **27** *L* **38** # I-145

Wienckowski, Natalie General Motors Company

Comment Type **E** *Comment Status* **D** EZ

missing "for"

SuggestedRemedy

Insert "for" between 165.3.2.2.20 and 25GBASE-T1.
Also on P27L45.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.3.87.2** *P* **28** *L* **13** # I-39

Zimmerman, George Cisco Systems, Inc.,CME Consulting,CommScope,M

Comment Type **E** *Comment Status* **D** EZ

165.3.8 does not define the hi_rfer variable - clause 165 defines it by reference to the already referenced 149.3.8.1 so the addition is unnecessary.

SuggestedRemedy

delete "and 165.3.8"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

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 U/unsatisfied Z/withdrawn
SORT ORDER: Clause, Subclause, page, line

Cl **45**
SC **45.2.3.87.2**

Page 2 of 13
1/24/2023 6:32:48 AM

Cl **45**   *SC* **45.2.1.16**   *P* **24**   *L* **44**   # I-30

Zimmerman, George   Cisco Systems, Inc.,CME Consulting,CommScope,M

Comment Type **E**   *Comment Status* **D**   *EZ*

Table 45-19 is significantly separated from the editing instruction.

SuggestedRemedy

Change pagination (e.g., force new page before 45.2.1.16) so that Table 45-19 stays with its editing instruction and before editing instruction to insert 45.2.1.16.a

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **105**   *SC* **105.1.3**   *P* **33**   *L* **48**   # I-106

Ran, Adee   Cisco Systems, Inc.

Comment Type **E**   *Comment Status* **D**   *EZ*

The editorial instruction is unclear (a reader of this amendment may not have 802.3cz).

For consistency with the order in Figure 105-1 and the list in 105.1.2, the new paragraph for 25GBASE-T1 should appear after the paragraph for 25GBASE-AU (inserted by 802.3cz).

SuggestedRemedy

Change the editorial instruction to "Insert a new paragraph at the end of 105.1.3 (as modified by IEEE Std 802.3cz-202x) as follows".

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **105**   *SC* **105.1.3**   *P* **34**   *L* **1**   # I-108

Ran, Adee   Cisco Systems, Inc.

Comment Type **E**   *Comment Status* **D**   *EZ*

According to the Illuminati order (e.g. in Table 125–1), single twisted pair PHYs are listed after multi-pair ones of the same speed.

SuggestedRemedy

Change "before the row for 25GBASE-T" to "after the row for 25GBASE-T".

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **105**   *SC* **105.2**   *P* **34**   *L* **20**   # I-109

Ran, Adee   Cisco Systems, Inc.

Comment Type **E**   *Comment Status* **D**   *EZ*

The editorial instruction is phrased out of order; the table has been modified by 802.3cz, not the clauses.

SuggestedRemedy

Insert "(as modified by IEEE Std 802.3cz-202x)" after "Table 105-2", and delete the same phrase from the end of the instruction.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **105**   *SC* **105.5**   *P* **35**   *L* **21**   # I-110

Ran, Adee   Cisco Systems, Inc.

Comment Type **E**   *Comment Status* **D**   *EZ*

Table 105-3 is also modified by 802.3cz.

SuggestedRemedy

Insert "(as modified by IEEE Std 802.3cz-202x)" after "Table 105-3".

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.5.3.3.1**   *P* **95**   *L* **13**   # I-6

Mcclellan, Brett   Marvell Semiconductor, Inc.

Comment Type **E**   *Comment Status* **D**   *EZ*

Figure 165–25 is not configuration 3, it is configuration 1.

SuggestedRemedy

change 'configuration 3' to 'configuration 1'

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 3 of 13
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   *SC* **165.5.3.3.1**   1/24/2023 6:32:49 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**　　　*SC* **165.4.5**　　　　　*P* **90**　　　*L* **51**　　　# I-18

Grow, Robert　　　　　　　　　　　RMG Consulting

Comment Type　**E**　　　*Comment Status*　**D**　　　　　　　*EZ*

*** Comment submitted with the file image.png attached ***

The state diagram isn't required, the functionality is required.

SuggestedRemedy

NOTE--The functcioality of this state diagram is only required when the PHY supports EEE.

Proposed Response　　　*Response Status*　**W**

PROPOSED ACCEPT.

Cl **165**　　　*SC* **165.1**　　　　　*P* **36**　　　*L* **16**　　　# I-93

Rolfe, Benjamin　　　　　　　　　　Blind Creek Associates

Comment Type　**T**　　　*Comment Status*　**D**　　　　　　　*EZ*

"may" is used to describe an optional behavior (requirement) within the scope of this standard. How the standard is used is not within scope of the standard. As an informative statement this is stating a possibility with respect to the use of this standard. The correct word for that is "can".

SuggestedRemedy

Change "may" to "can"

Proposed Response　　　*Response Status*　**W**

PROPOSED ACCEPT.

Cl **165**　　　*SC* **165.1.1**　　　　　*P* **36**　　　*L* **28**　　　# I-111

Ran, Adee　　　　　　　　　　　　Cisco Systems, Inc.

Comment Type　**E**　　　*Comment Status*　**D**　　　　　　　*EZ*

"The term 'MulTiGBASE-T1' when used in this clause refers to"

Commas would make the parenthetical clearer.

SuggestedRemedy

Change to "The term 'MultiGBASE-T1', when used in this clause, refers to"

Proposed Response　　　*Response Status*　**W**

PROPOSED ACCEPT.

Cl **165**　　　*SC* **165.1.2**　　　　　*P* **36**　　　*L* **34**　　　# I-112

Ran, Adee　　　　　　　　　　　　Cisco Systems, Inc.

Comment Type　**E**　　　*Comment Status*　**D**　　　　　　　*EZ*

"The relationship… are shown" - mismatch

SuggestedRemedy

Change "are shown" to "is shown"

Proposed Response　　　*Response Status*　**W**

PROPOSED ACCEPT.

Cl **165**　　　*SC* **165.1.3**　　　　　*P* **31**　　　*L* **31**　　　# I-40

Zimmerman, George　　　　　　　Cisco Systems, Inc.,CME Consulting,CommScope,M

Comment Type　**E**　　　*Comment Status*　**D**　　　　　　　*EZ*

"an effective rate of 25 Gb/s on each pair" - there is only one pair, so "each" is redundant.

SuggestedRemedy

delete "on each pair"

Proposed Response　　　*Response Status*　**W**

PROPOSED ACCEPT IN PRINCIPLE.

The comment is actually against page 37, not 31. Deleted "on each pair"

Cl **165**　　　*SC* **165.1.3**　　　　　*P* **38**　　　*L* **12**　　　# I-41

Zimmerman, George　　　　　　　Cisco Systems, Inc.,CME Consulting,CommScope,M

Comment Type　**E**　　　*Comment Status*　**D**　　　　　　　*EZ*

"The OAM for 25GBASE-T1 information is exchanged" is awkward word order

SuggestedRemedy

Change "The OAM for 25GBASE-T1 information" to "The OAM information for 25GBASE-T1"

Proposed Response　　　*Response Status*　**W**

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general　　　*Cl* **165**　　　Page 4 of 13
COMMENT STATUS: D/dispatched A/accepted R/rejected　　RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn　　*SC* **165.1.3**　　　1/24/2023 6:32:49 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**   *SC* **165.1.3**   *P* **39**   *L* **39**   # I-10

Grow, Robert   RMG Consulting

Comment Type **E**   *Comment Status* **D**   *EZ*

The vertical interface lines are not consistent. On the left, the MII aligns with the transition
arrow on the left at lines 30 through 35, but on the right, the MDI line if extended would not
transect the line for MDI+/MDI-.

SuggestedRemedy

Adjust the MDI+/MDI- signal lines and placement of the vertical MDI line so that if
extended, it would transect the signal lines.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Adjusted the MDI+/MDI- signal lines and placement of the vertical MDI line so that it would
transect the signal lines.
Moved the vertical sync_link_control line to the left so it does not cross the MID Interface
"plane".

Cl **165**   *SC* **165.1.3**   *P* **39**   *L* **46**   # I-11

Grow, Robert   RMG Consulting

Comment Type **E**   *Comment Status* **D**   *EZ*

Putting PHY and the parenthetical text on different lines makes readability worse.

SuggestedRemedy

Put all the text on one line.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.1.3.1**   *P* **38**   *L* **35**   # I-146

Wienckowski, Natalie   General Motors Company

Comment Type **E**   *Comment Status* **D**   *EZ*

grammar

SuggestedRemedy

Change: a 8460-bit
To: an 8460-bit

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.1.3.1**   *P* **38**   *L* **35**   # I-59

Jonsson, Ragnar   Marvell Semiconductor, Inc.

Comment Type **E**   *Comment Status* **D**   *EZ*

It would be better to introduce the term of "RS-FEC input frame" here before introducing
"RS-FEC input superframe".

SuggestedRemedy

rewrite to "Next, a 10-bit OAM field is appended to form an 8460-bit RS-FEC input frame."

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Changed: Next, a 10-bit OAM field is appended to form a 8460-bit block.
To: Next, a 10-bit OAM field is appended to form an 8460-bit RS-FEC input frame.

Cl **165**   *SC* **165.1.3.1**   *P* **38**   *L* **35**   # I-58

Jonsson, Ragnar   Marvell Semiconductor, Inc.

Comment Type **E**   *Comment Status* **D**   *EZ*

"an" should be used for 8460-bit block

SuggestedRemedy

change "a 8460-bit block" to "an 8460-bit block"

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.1.3.2**   *P* **40**   *L* **17**   # I-2

Maguire, Valerie   Copperopolis

Comment Type **E**   *Comment Status* **D**   *EZ*

Enclose the id est examples in parenthesis to be consistent with the parent document.

SuggestedRemedy

Replace, "electrical parameters of the PMA, i.e., test modes and electrical specifications
for the transmitter and receiver, are specified" with, "electrical parameters of the PMA (i.e.,
test modes and electrical specifications for the transmitter and receiver) are specified".

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 5 of 13
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   *SC* **165.1.3.2**   1/24/2023 6:32:49 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165** *SC* **165.2.2.1.1**   *P* **43**   *L* **29** # I-147

Wienckowski, Natalie   General Motors Company

Comment Type **E** *Comment Status* **D**   *EZ*

grammar

SuggestedRemedy

Change: an 25GMII
To: a 25GMII
Also, P43L42, P56L45

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **165** *SC* **165.2.2.9.1**   *P* **48**   *L* **41** # I-148

Wienckowski, Natalie   General Motors Company

Comment Type **E** *Comment Status* **D**   *EZ*

incorrect format

SuggestedRemedy

Change the format for the TRUE and FALSE statements to match the remainder of the doucument, e.g. remove the "--" and add a tab between TRUE/FALSE and the description.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **165** *SC* **165.3.2.2.2**   *P* **54**   *L* **17** # I-60

Jonsson, Ragnar   Marvell Semiconductor, Inc.

Comment Type **E** *Comment Status* **D**   *EZ*

since the RS-FEC encoder/decoder and interleaver/deinterleaver are specified in different sections, it would be better to have separate function blocks in Figure 165-6 PCS TX bit ordering.

SuggestedRemedy

have separate RS-FEC Encoder and interleaver blocks in Figure 165-6 PCS TX bit ordering.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **165** *SC* **165.3.2.2.3**   *P* **55**   *L* **20** # I-62

Jonsson, Ragnar   Marvell Semiconductor, Inc.

Comment Type **E** *Comment Status* **D**   *EZ*

since the RS-FEC encoder/decoder and interleaver/deinterleaver are specified in different sections, it would be better to have separate function blocks in Figure 165-7 PCS RX bit ordering.

SuggestedRemedy

have separate RS-FEC decoder and deinterleaver blocks in Figure 165-7 PCS RX bit ordering.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **165** *SC* **165.3.2.2.3**   *P* **55**   *L* **47** # I-122

Ran, Adee   Cisco Systems, Inc.

Comment Type **T** *Comment Status* **D**   *EZ*

"The value of the data/ctrl header is shown as a binary value. Binary values are shown with the first transmitted bit (the LSB) on the left."

data/ctrl header is a single bit - there is no LSB and no "first" transmitted bit. So this sentence is meaningless and quite confusing.

Note that the value of the data/ctrl header bit is not shown in any figure in this clause; it only appears in Figure 149–8, which is referenced along with 149.3.2.2.4 in 165.3.2.2.4. Also the "notation conventions" in 165.3.2.2.3 already cover binary values. No need to repeat the same information.

SuggestedRemedy

Delete the quoted text.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 6 of 13
COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn *SC* **165.3.2.2.3**   1/24/2023 6:32:49 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**   *SC* **165.3.2.2.7**   *P* **56**   *L* **18**   # I-123

Ran, Adee   Cisco Systems, Inc.

Comment Type **T**   *Comment Status* **D**   *EZ*

In this subclause the text refers to a corresponding subclause in 149 with "shall be as specified"; also in 165.3.2.2.8; in 165.3.2.2.11 it is "shall be specified"; but in all others "is/are as specified".

This is inconsistent, and results in having arbitrary PICS items.

It seems that "shall" is unnecessary here and creates a burden for people who read the PICS (if there are any)..

SuggestedRemedy

Change all instances of references to 149.3.2.2.x to be consistent: "is/are as specified in <reference>".

Delete PICS that become unnecessary as a result of this change.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.3.2.2.11**   *P* **56**   *L* **34**   # I-102

Rolfe, Benjamin   Blind Creek Associates

Comment Type **T**   *Comment Status* **D**   *EZ*

"Ordered set control characters shall be specified for MultiGBASE-T1 PHYs in 149.3.2.2.11" is incorrect use of "shall". As written it is declaring a requirement of the standard not the implementation of the standard. The control characters "are as" specified in 149.3.2.2.11? The control characters uses shall be those specified in 149.3.2.2.11? Are we mandating those control characters (and only those) be used or simply saying it's the same as specified in the reference clause?   I'm guessing from the prior clause the later...but am probably wrong about that ;-)

SuggestedRemedy

Ordered set control characters are as specified for MultiGBASE-T1 PHYs in 149.3.2.2.11

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Changed the text to read "Ordered set control characters are as specified for MultiGBASE-T1 PHYs in 149.3.2.2.11" + deleted the associated PICS item.

Cl **165**   *SC* **165.3.2.2.15**   *P* **57**   *L* **24**   # I-124

Ran, Adee   Cisco Systems, Inc.

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

In the expression "m_{846 × L-1}" and similar ones, the spacing in the subscript is unusual, and suggests that "L-1" is evaluated first (despite having no parentheses).

Also, a dash is used instead of a minus sign.

SuggestedRemedy

In this and all similar expressions (in 165.3.2.2.15, 165.3.2.2.16, and Figure 165–8), change the dash to a minus sign (or en dash).

Preferably, remove the spaces around the multiplication sign and add spaces around the minus sign instead.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

In this and all similar expressions (in 165.3.2.2.15, 165.3.2.2.16, and Figure 165–8), changed the dash to a minus sign (or en dash).

Removed the spaces around the multiplication sign and add spaces around the minus sign instead.

Cl **165**   *SC* **165.3.2.2.16**   *P* **57**   *L* **34**   # I-61

Jonsson, Ragnar   Marvell Semiconductor, Inc.

Comment Type **E**   *Comment Status* **D**   *EZ*

There are 90 parity symbols, the index goes up to 89 not 33

SuggestedRemedy

change from p1,33 to p1,89, and from pL,33 to pL,89
needs to be updated to "m846 × L-1, m846 × L-2, …,m1, m0, P1,89, …, PL,89, …, p1,0, …, pL,0, ….."

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 7 of 13
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   *SC* **165.3.2.2.16**   1/24/2023 6:32:49 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**   *SC* **165.3.2.2.17**   *P* **58**   *L* **29**   # I-125

Ran, Adee   Cisco Systems, Inc.

Comment Type **E**   *Comment Status* **D**   *EZ*

The first sentence of this subclause states that "the symbol size is 10 bits".
The next sentences have three instances of "ten-bit" as an adjective of the symbol, after
the number of symbols.

The initial sentence is sufficient, and there is no need to write "ten-bit" every time a symbol
is mentioned; combined with the number of symbols, this does not contribute to readability.

SuggestedRemedy

Delete "ten-bit" before "RS-FEC" three times in this paragraph.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.3.2.2.17**   *P* **59**   *L* **19**   # I-128

Ran, Adee   Cisco Systems, Inc.

Comment Type **E**   *Comment Status* **D**   *EZ*

Commas should be placed before and after parentheticals.

SuggestedRemedy

Add commas after "m_845" and after "p_0".

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.3.2.2.17**   *P* **59**   *L* **50**   # I-129

Ran, Adee   Cisco Systems, Inc.

Comment Type **E**   *Comment Status* **D**   *EZ*

In Table 165-1, the ruling suggests that the first two columns are separate from others.
This should be fixed.

The table could be improved by adding a leftmost column with heading "I" and values from
0 to 12; and change column labels to "g_{i}", "g_{13+i}", "g_{26+i}", etc., such that the
content of each cell is clearly described by its row and column headings.

SuggestedRemedy

Change the column ruling to have regular line width between columns 2 and 3.

Consider improving the table as suggested in the comment.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

In Table 165-1, changed the vertical column separation line between columns 2 and 3
(from the left) to be the same weight as the rest of the inside lines of the table.

Cl **165**   *SC* **165.3.2.2.22**   *P* **61**   *L* **9**   # I-131

Ran, Adee   Cisco Systems, Inc.

Comment Type **E**   *Comment Status* **D**   *EZ*

The indented text seems to be a list of items, but is not formatted as such.

There are some other lists in the draft where this should be applied too.

SuggestedRemedy

Change formatting to a dashed list (DL). Apply elsewhere as necessary with editorial
license.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Changed formatting to a dashed list (DL).

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 8 of 13
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   *SC* **165.3.2.2.22**   1/24/2023 6:32:49 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**　　*SC* **165.3.7.3**　　　　*P* **70**　　　*L* **50**　　　# I-12

Grow, Robert　　　　　　　　　RMG Consulting

Comment Type **E**　　*Comment Status* **D**　　　　　　　*EZ*

Figure 165-14 isn't mandatory, the functionality specified in the figure can be mandatory. Also, a "NOTE" is informative text, I assume the actual normative mandatory statements about this exist somewhere in the draft.

SuggestedRemedy

NOTE—The functionality in this figure is mandatory for a PHY with the EEE capability.

Proposed Response　　*Response Status* **W**

PROPOSED ACCEPT.

Cl **165**　　*SC* **165.4.1**　　　　*P* **74**　　　*L*　　　# I-72

Jonsson, Ragnar　　　　　　　　Marvell Semiconductor, Inc.

Comment Type **E**　　*Comment Status* **D**　　　　　　　*EZ*

Figure 165-16 - send_s_sigdet output from Link Synchronization block is missing

SuggestedRemedy

Add send_s_sigdet to Figure 165-16. Figure 149–26 can be used as reference for how to add send_s_sigdet.

Proposed Response　　*Response Status* **W**

PROPOSED ACCEPT.

Cl **165**　　*SC* **165.4.2.4.5**　　　*P* **78**　　　*L* **39**　　　# I-92

Jonsson, Ragnar　　　　　　　　Marvell Semiconductor, Inc.

Comment Type **E**　　*Comment Status* **D**　　　　　　　*EZ*

With change in LPI signaling, there is 1 RS FEC frame gap between end of Refresh and Alert

SuggestedRemedy

Change "transmit alert only immediately following a refresh" to "transmit alert only in slow wake alert time slot"

Proposed Response　　*Response Status* **W**

PROPOSED ACCEPT.

Cl **165**　　*SC* **165.4.2.4.5**　　　*P* **78**　　　*L* **44**　　　# I-137

Ran, Adee　　　　　　　　　　Cisco Systems, Inc.

Comment Type **T**　　*Comment Status* **D**　　　　　　　*EZ*

"The remaining bits shall be reserved and set to 0." - reserved bits are listed in the table; "shall be reserved" is meaningless.

Also, reserved should be ignored on receipt, otherwise they can't be defined in the future.

Reserved fields are also mentioned in 165.4.2.4.7 with insufficient explanation.

SuggestedRemedy

Change the quoted sentence in 165.4.2.4.5 to "Reserved bits shall be transmitted as 0 and ignored upon receipt."

Change the last sentence in 165.4.2.4.7 to "All reserved fields are transmitted as 0 and ignored upon receipt".

Proposed Response　　*Response Status* **W**

PROPOSED ACCEPT.

Cl **165**　　*SC* **165.4.2.6**　　　*P* **81**　　　*L* **25**　　　# I-94

Rolfe, Benjamin　　　　　　　　Blind Creek Associates

Comment Type **T**　　*Comment Status* **D**　　　　　　　*EZ*

Since may is equivalent to "may or may not", I'm not sure what this line means:
"The receiver may not necessarily receive a continuous PN sequence between separate periods of the SEND_S signal."
It may or may not not necessarily? Figuring it out from context didn't work either, as the paragraph is an informative description of a possible implementation of the PN sequence generator, and then talking about what the receiver may or may not or may not not receive? Which isn't an optional behavior, but seems to just an observation? No idea what is intended.

SuggestedRemedy

Delete the sentence.

Proposed Response　　*Response Status* **W**

PROPOSED ACCEPT.

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 U/unsatisfied Z/withdrawn
SORT ORDER: Clause, Subclause, page, line

Cl **165**
SC **165.4.2.6**

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1/24/2023 6:32:49 AM

Cl **165**   *SC* **165.4.4.1**   *P* **86**   *L* **50**   # I-95

Rolfe, Benjamin   Blind Creek Associates

Comment Type   **T**   *Comment Status*   **D**   *EZ*

Incorrect use of "may". This should be "can".

SuggestedRemedy

Change "may" to "can"

Proposed Response   *Response Status*   **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.5.3**   *P* **93**   *L* **51**   # I-3

Maguire, Valerie   Copperopolis

Comment Type   **E**   *Comment Status*   **D**   *EZ*

Enclose the id est example in parenthesis to be consistent with the parent document.

SuggestedRemedy

Replace, "shall be AC-coupled, i.e., it shall present a high DC common-mode impedance at the MDI." with, "shall be AC-coupled (i.e., it shall present a high DC common-mode impedance at the MDI).".

Proposed Response   *Response Status*   **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.5.3**   *P* **93**   *L* **53**   # I-96

Rolfe, Benjamin   Blind Creek Associates

Comment Type   **T**   *Comment Status*   **D**   *EZ*

"There may be various methods for AC-coupling in actual implementations." is inappropriate use of "may". Should be "can" (stating a possibility, not a normative option).

SuggestedRemedy

Change "may" to "can"

Proposed Response   *Response Status*   **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.5.3**   *P* **94**   *L* **17**   # I-19

Chang, Jae-yong   Keysight Technologies

Comment Type   **T**   *Comment Status*   **D**   *EZ*

Unless specified otherwise, all transmitter measurements and tests defined in 165.5.3 are made at TP2 utilizing a test configuration that meets the specifications in 165.5.5.

SuggestedRemedy

Unless specified otherwise, all transmitter measurements and tests defined in 165.5.3 are made at TP2 utilizing a test system configuration that meets the specifications in 165.5.5 and a fourth-order Bessel-Thomson low-pass filter with 16 GHz @-3 dB bandwidth.

Proposed Response   *Response Status*   **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.5.5.1**   *P* **98**   *L* **35**   # I-98

Rolfe, Benjamin   Blind Creek Associates

Comment Type   **T**   *Comment Status*   **D**   *EZ*

As described in 6.4 of the IEEE SA Standards Board Operations Manual, a note to a figure is informative. So including normative language ("may") is wrong.
I think "can" is the correct word. BTW kudos for avoiding "should" here ;-).

SuggestedRemedy

Change "may" to "can"

Proposed Response   *Response Status*   **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.5.5.2**   *P* **98**   *L* **45**   # I-138

Ran, Adee   Cisco Systems, Inc.

Comment Type   **E**   *Comment Status*   **D**   *EZ*

Bad justification

SuggestedRemedy

fix it

Proposed Response   *Response Status*   **W**

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 10 of 13
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   *SC* **165.5.5.2**   1/24/2023 6:32:49 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**   *SC* **165.7.1.3.3**   *P* **104**   *L* **2**   # I-43

Zimmerman, George   Cisco Systems, Inc.,CME Consulting,CommScope,M

Comment Type **E**   *Comment Status* **D**   *EZ*

confusing word order makes it sound like the 100 ohm resistive termination is part of the example of the plug-terminated cable.

SuggestedRemedy

change "the link segment side of the MDI, e.g., the plug if the cable is terminated in a plug, with the far end terminated in 100 \Ohm resistance." to "the link segment side of the MDI with the far end terminated in 100 \Ohm resistance. For example, if the cable is terminated in a plug, the measurement is on the cabling between the (de-embedded) plug and the far end termination."

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.7.1.3.3**   *P* **104**   *L* **45**   # I-67

Jonsson, Ragnar   Marvell Semiconductor, Inc.

Comment Type **E**   *Comment Status* **D**   *EZ*

Equation 165-26 looks bad. The exponential is better represented as a function than a power of e. The relative size of sigma and the summation range makes the equation look strange.

SuggestedRemedy

Use exp(j*(2*pi*k_n)/(2*K_N)) and adjust the size of sigma.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.7.1.3.3**   *P* **105**   *L* **3**   # I-90

Jonsson, Ragnar   Marvell Semiconductor, Inc.

Comment Type **E**   *Comment Status* **D**   *EZ*

Equation 165-27 looks awkward.

SuggestedRemedy

Increase the relative size of sigma compared to the summation limits.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.7.1.3.3**   *P* **105**   *L* **9**   # I-25

Larsen, Wayne   CommScope

Comment Type **E**   *Comment Status* **D**   *EZ*

typo in subscript, apparently

SuggestedRemedy

In equation 165-28, change from RE(sub-k) to RE(sub-r)

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.7.1.3.3**   *P* **105**   *L* **12**   # I-44

Zimmerman, George   Cisco Systems, Inc.,CME Consulting,CommScope,M

Comment Type **T**   *Comment Status* **D**   *EZ*

typo obscures technical meaning of the equation - there is no "r" - subscript of RE (k) should be "r", not "k"

SuggestedRemedy

Change RE sub k to RE sub r on left hand side of Equation 165-28

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **165**   *SC* **165.7.1.3.3**   *P* **105**   *L* **40**   # I-91

Jonsson, Ragnar   Marvell Semiconductor, Inc.

Comment Type **E**   *Comment Status* **D**   *EZ*

Equation 165-32 would benefit from better formatting.

SuggestedRemedy

The subscripts and superscripts for the summation symbols need to be smaller and aligned with the respective sigma summation symbols

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165**   Page 11 of 13
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   *SC* **165.7.1.3.3**   1/24/2023 6:32:49 AM
SORT ORDER: Clause, Subclause, page, line

Cl **165**　　　*SC* **165.7.1.3.4**　　　　　*P* **105**　　　　*L* **24**　　　# I-76

Jonsson, Ragnar　　　　　　　　　　　Marvell Semiconductor, Inc.

Comment Type **E**　　　*Comment Status* **D**　　　　　　　　　　*EZ*

Confusing curly bracket in (165-30).

SuggestedRemedy

Remove the "{" in front of (165-30)

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT.

Cl **165**　　　*SC* **165.7.1.3.4**　　　　　*P* **105**　　　　*L* **42**　　　# I-77

Jonsson, Ragnar　　　　　　　　　　　Marvell Semiconductor, Inc.

Comment Type **E**　　　*Comment Status* **D**　　　　　　　　　　*EZ*

Improper capitalization of pi in (165-32)

SuggestedRemedy

Change capitalized pi in (165-32) to lower case pi

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT.

Cl **165**　　　*SC* **165.7.1.3.4**　　　　　*P* **105**　　　　*L* **43**　　　# I-46

Zimmerman, George　　　　　　　　　Cisco Systems, Inc.,CME Consulting,CommScope,M

Comment Type **E**　　　*Comment Status* **D**　　　　　　　　　　*EZ*

equation typo - lower case "pi" is meant in the denominator, not a product operator (upper case pi).

SuggestedRemedy

change "pi" in denominator of equation 165-32 to lower case.

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT.

Cl **165**　　　*SC* **165.7.1.3.5**　　　　　*P* **106**　　　　*L* **17**　　　# I-29

Larsen, Wayne　　　　　　　　　　　CommScope

Comment Type **E**　　　*Comment Status* **D**　　　　　　　　　　*EZ*

typo in reference, apparently

SuggestedRemedy

Change the reference 165.7.3.2 to 165.7.3.3. Also on line 33, change 165.7.1.3.2 to165.7.1.3.4.

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT.

Cl **165**　　　*SC* **165.7.1.3.5**　　　　　*P* **106**　　　　*L* **37**　　　# I-69

Jonsson, Ragnar　　　　　　　　　　　Marvell Semiconductor, Inc.

Comment Type **E**　　　*Comment Status* **D**　　　　　　　　　　*EZ*

The formatting of equation 165-36 needs improvement

SuggestedRemedy

The REM_Limit should be left aligned to the curly bracket, for both conditions. The range of m for the upper line should be better separated , so that it is a limit and not part of the formula.

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT.

Cl **165**　　　*SC* **165.9.2.2**　　　　　*P* **112**　　　　*L* **27**　　　# I-13

Grow, Robert　　　　　　　　　　　RMG Consulting

Comment Type **E**　　　*Comment Status* **D**　　　　　　　　　　*EZ*

In general, we should refer to implementations, not implementers.

SuggestedRemedy

"and PHY implementations conform"

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT.

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 U/unsatisfied Z/withdrawn
SORT ORDER: Clause, Subclause, page, line

Cl **165**
SC **165.9.2.2**

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1/24/2023 6:32:49 AM

Cl **165A**   *SC* **165A.1**   *P* **132**   *L* **30**   # I-57

Zimmerman, George   Cisco Systems, Inc.,CME Consulting,CommScope,M

Comment Type   **T**   *Comment Status* **D**   *EZ*

The clause 165 link segment doesn't need further definition here, and the parenthetical is confusing in context of the figure, suggesting a link longer than 11m… or that the connectors and length are requirements.

SuggestedRemedy

delete "(up to 2 in-line connectors and up to at least 11m length)"

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **165A**   *SC* **165A.1**   *P* **132**   *L* **34**   # I-70

Jonsson, Ragnar   Marvell Semiconductor, Inc.

Comment Type   **E**   *Comment Status* **D**   *EZ*

The phrase "at least" should be removed in Figure 165A-1. Otherwise, the cable can be more than 11m, which is not the intention and this would increase the echo canceler complexity

SuggestedRemedy

The words "at least" should be removed
or
replace the text in the paranthesis with "see 165.7"

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Removed "at least"

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **165A**   Page 13 of 13
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   *SC* **165A.1**   1/24/2023 6:32:49 AM
SORT ORDER: Clause, Subclause, page, line