Cl **01** *SC* **1.5** *P* **29** *L* **23** # i-5

Hajduczenia, Marek Charter Communications

Comment Type **E** *Comment Status* **D** *Editorial*

I do not believe we need abbreviation added for a term that is already defined and abbreviated in definition (1.4.389a)

SuggestedRemedy

Remove abbreviation for PLCA

Proposed Response *Response Status* **W**

PROPOSED REJECT.

The remedy is not aligned with similar examples in 802.3-2018. See Definition and Abbreviation entries for bit error ratio and BER and bit rate and BR as two examples.

Cl **45** *SC* **45.2** *P* **42** *L* **1** # i-8

Rannow, R K self

Comment Type **GR** *Comment Status* **D** *Editorial*

verbose and confusing wording throughout Subclause 45.2

SuggestedRemedy

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Comment is unclear as to whether it requests tutorial applications information or if specifications are missing. The change and insertion instructions are consistent with existing clause revisions in a new amendment.

Cl **00** *SC* **FM** *P* **12** *L* **28** # i-9

Anslow, Peter Ciena

Comment Type **E** *Comment Status* **D** *Editorial*

The Editor's note: "New front matter text needs review." should be removed.

SuggestedRemedy

Review the text and delete the note.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Delete Editor's note on lines 28-31

Cl **00** *SC* **FM** *P* **26** *L* **52** # i-10

Anslow, Peter Ciena

Comment Type **E** *Comment Status* **D** *Editorial*

"IEEE P802.3bj and IEEE P802.3bk" are not projects "running in parallel". They were completed some time ago and the amendments have been incorporated into the base standard.

SuggestedRemedy

Change "IEEE P802.3bj and IEEE P802.3bk" to: "IEEE P802.3ca and IEEE P802.3cm" (or some other current projects).

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Replace, "IEEE P802.3bj and IEEE P802.3bk"

with, "IEEE P802.3ca and IEEE P802.3cm"

Cl **147** *SC* **147.6.1** *P* **197** *L* **47** # i-22

Anslow, Peter Ciena

Comment Type **E** *Comment Status* **D** *Editorial*

"10BASE-T1S" should not be split across two lines.

SuggestedRemedy

Change the hyphen to a non-breaking hyphen (Esc - h)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change all manifestations of "10BASE-T1S" (so excluding figures and titles) in the text to use NBH in c147, to prevent this problem from resurfacing in the future (when text is changed).

Cl **147** *SC* **147.8** *P* **199** *L* **26** # i-23

Anslow, Peter Ciena

Comment Type **E** *Comment Status* **D** *Editorial*

In "The 10BASE-T1S mixing segment (1.4.332) is..." the definition for "mixing segment" has been re-numbered from 1.4.332 to 1.4.331 due to the deletion of 1.4.294 by IEEE Std 802.3bt-2018.
Also, this is an external cross-reference.

SuggestedRemedy

Change "1.4.332" to "1.4.331" and apply character tag "External".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **30** *SC* **30.3.9** *P* **38** *L* **15** # i-24

Thompson, Michael nVent

Comment Type **E** *Comment Status* **D** *Editorial*

In 12 places "behaviour" should be "behavior".

SuggestedRemedy

Change "behaviour" to "behavior" in all occurrences.

Proposed Response *Response Status* **W**

PROPOSED REJECT.

BEHAVIOUR in clause 30 is a "reserved" word and its use in this amendment is consistent with 802.3-2018.

Cl **00** *SC* **0** *P* *L* # i-26

Berger, Catherine

Comment Type **G** *Comment Status* **D** *Editorial*

This draft meets all editorial requirements.

SuggestedRemedy

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **98** *SC* **98.2.1.1.2** *P* **72** *L* **27** # i-34

Yseboodt, Lennart Signify

Comment Type **E** *Comment Status* **D** *Editorial*

"The timing parameters for DME pages shall be followed as in Table 98-1."

Bad English.

SuggestedRemedy

"The timing parameters of the DME pages shall conform to Table 98-1."

Proposed Response *Response Status* **W**

PROPOSED REJECT.

This comment is against text that is not changed by this amendment. The commenter is encouraged to submit a Maintenance request.

Cl **98** *SC* **98.2.1.1.2** *P* **72** *L* **30** # i-35

Yseboodt, Lennart Signify

Comment Type **T** *Comment Status* **D** *Editorial*

"When operating in high-speed mode, the period, T1, shall be 30.0 ns +- 0.01%."
and
"When operating in low-speed mode, the period, T1, shall be 800 ns +- 0.005%."

This requirement is already specified in Table 98-1 and made a requirement by a previous shall statement.
Not only are both of these sentences redundant, they also copy the value of a parameter out of Table 98-1 and present it in a different way.

SuggestedRemedy

Remove both sentences. Add "When operating in high|low speed mode," to the sentences that specify when transitions occur (or add this parameter to the Table).

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Replace the last 4 sentences in clause 98.2.1.1.2 (starting with, "TWhen operating in) with,

"The period, T1, shall be 30.0ns ± 0.01%.Transitions shall occur within ±0.8 ns of their ideal positions." shown in strikethough followed by,

"When operating in low-speed mode, transitions shall occur within ± 0.8 ns of their ideal positions. When operating in high-speed mode, transitions shall occur within ± 10 ns of their ideal positions." shown in underline.

Cl **147** *SC* **147.2** *P* **169** *L* **22** # i-43

Yseboodt, Lennart Signify

Comment Type **E** *Comment Status* **D** *Editorial*

In Figure 147-2, the "PCS" and "PMA" text fields have been scaled incorrectly (probably the text field was grouped with the box and scaled as a group).

SuggestedRemedy

Reformat the text to have a correct width/height ratio.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.5.3.3** *P* **65** *L* **8** # i-59

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

... using 1 Vpp operating mode (the name of the operating mode is 1.0 Vpp operating mode)

SuggestedRemedy

... using 1.0 Vpp operating mode

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Provide editorial license to change all instances of "1 Vpp operating mode" to "1.0 Vpp operating mode",

including those listed below and:
P65 L8 (45.5.3.3)
P150 L44 and L46 (Table 146-5)
P165 L30 (146.11.4.4, Item LMF1 Feature)

Cl **98** *SC* **98.5.1** *P* **73** *L* **46** # i-63

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **T** *Comment Status* **D** *Editorial*

ANSP is the abbreviation for autoneg_speed in the state diagrams, the variable name itself has to be autoneg_speed.

SuggestedRemedy

Change ANSP to autoneg_speed and define within a new paragraph ANSP - ANSP is an abbreviation for the variable autoneg-speed.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Accomodated by comment i-159.

The resolution to comment i-159 is:

Change editing instruction on P 73 L44 from "Insert variable for autoneg_speed after the variable for an_receive_idle as follows:" to "Insert variable for ANSP after the variable for an_receive_idle as follows:" and

Page 80, line 50: Change '... through the variable autoneg_speed and ...' to read '... through the variable ANSP and ...'.

Page 81, line 17: change autoneg_speed in 98.5.6.1 to ANSP, and

Figure 98-11 (Page 82 line 22): change the two references in Figure 98-11, P82 L22 from autoneg_speed to ANSP.

Cl **146** *SC* **146.3.3.1.1** *P* **118** *L* **26** # i-81

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **T** *Comment Status* **D** *Editorial*

loc_lpi_req is defined in 146.3.3.1.1 and also in 146.4.4.1, while the definition is 146.4.4.1 is the more appropriate. Should be aligned.

SuggestedRemedy

Change the description for loc_lpi_req in Clause 146.3.3.1.1 to "See 146.4.4.1" or copy text for loc_lpi_req from 146.4.4.1 to 146.3.3.1.1

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Copy text for loc_lpi_req from 146.4.4.1 to 146.3.3.1.1

Cl **146** *SC* **146.3.3.1.5** *P* **120** *L* **1** # i-83

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

The usage of the brackets in the conditional branches of Figure 146-5 is not consistent within the Figure itself and with other Clauses of 802.3cg.

SuggestedRemedy

Remove all "(" and ")" brackets within the conditional branches as they are not needed.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Order of precedence of operators is not defined in IEEE Std 802.3, so brackets are used when there are multiple operations (see clause 145 IEEE Std 802.3bt-2019 which needed to define these).
Brackets provide clarity to the reader when evaluating combined actions.

Review of other diagrams in clause 146 suggests the following change needed:
P120 L10 (Figure 146-5) change left-hand exit from SEND IDLE to "STD * (!tx_enable_mii) "

P128 L1 (Figure 146-8) change entry condition to WAIT_SCRAMBLER to add parens around the compound term of the "or":
"pcs_reset +
((!receiving) *
[(loc_rcvr_status = NOT_OK) +
(link_status = FAIL) +
(rcv_jab_detected)])"

P130 L21 (Figure 146-10) change left-hand exit condition of RECEIVE state to add parens around !receiving:
"(!receiving) +
(link_status = FAIL)"

Editor to review other added clauses for consistency and revise accordingly to add brackets/parens where needed.

Cl **146** *SC* **146.3.3.2.1** *P* **121** *L* **33** # i-85

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

The two polynomials are defined as gm(x) and gs(x) with small characters for "s" and "m". This is different to the naming in 146.3.4.3. The naming should be unified.

SuggestedRemedy

Change to gM(x) and gS(x) with M and S in subscript.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The polynomials in 146.3.4.3 are different, there is no need to unify.

Cl **146** *SC* **146.3.4.1.2** *P* **126** *L* **41** # i-89

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

This function checks whether or not the decoded data bits ... (redundant wording)

SuggestedRemedy

This function checks if the decoded data bits ...

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Delete "or not" on page 146 line 42
Insert new line after end of sentence:
Values: TRUE or FALSE

Cl **146** *SC* **146.3.4.1.2** *P* **127** *L* **1** # i-90

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

It returns a Boolean value indicating whether or not one of the four ... (redundant wording)

SuggestedRemedy

It returns a Boolean value indicating if one of the four ...

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Delete "or not" on page 147 line 1
Insert new line after end of sentence:
Values: TRUE or FALSE

Cl **146** *SC* **146.3.4.1.2** *P* **127** *L* **20** # i-92

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **T** *Comment Status* **D** *Editorial*

disparity_error is meant as function result, but it may be misinterpreted as the variable disparity error, defined in 146.3.4.1.1.

SuggestedRemedy

Change the text for CHECK_DISP to: The CHECK_DISP function checks, if the currently received triple ternary symbol is allowed for the current rx_disparity, and returns a TRUE or FALSE according to the relation:
RXn != table4B3T(inverse_table4B3T(Rxn), rx_disparity)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **146** *SC* **146.3.4.1.3** *P* **128** *L* **1** # i-94

Graber, Steffen Pepperl+Fuchs GmbH

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

The usage of the brackets in the conditional branches of Figure 146-8 is not consistent within the Figure itself and with other Clauses of 802.3cg.

SuggestedRemedy

Remove all "(" and ")" brackets within the conditional branches as they are not needed.
Convert the remaining "[" and "]" brackets to "(" and ")" brackets afterwards.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Accomodated by comment i-83.
Response to Comment i-83 is:
Order of precedence of operators is not defined in IEEE Std 802.3, so brackets are used when there are multiple operations (see clause 145 IEEE Std 802.3bt-2019 which needed to define these).
Brackets provide clarity to the reader when evaluating combined actions.

Review of other diagrams in clause 146 suggests the following change needed:
P120 L10 (Figure 146-5) change left-hand exit from SEND IDLE to "STD * (!tx_enable_mii)
"
P128 L1 (Figure 146-8) change entry condition to WAIT_SCRAMBLER to add parens around the compound term of the "or":
"pcs_reset +
((!receiving) *
[(loc_rcvr_status = NOT_OK) +
(link_status = FAIL) +
(rcv_jab_detected)])"

P130 L21 (Figure 146-10) change left-hand exit condition of RECEIVE state to add parens around !receiving:
"(!receiving) +
(link_status = FAIL)"

Editor to review other added clauses for consistency and revise accordingly to add brackets/parens where needed.

Cl **146** *SC* **146.3.4.1.3** *P* **128** *L* **5** # i-95

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **T** *Comment Status* **D** *Editorial*

The two initial conditions for the state diagram contain the old variable name "rcv_jab_detected". The new variable name is "rcv_overrun_detected".

SuggestedRemedy

Change the two occurrances of "rcv_jab_detected" in state diagram Figure 146-8 to "rcv_overrun_detected".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Accomodated by comment i-164.
Response to comment i-164 is:
PROPOSED ACCEPT.
Change rcv_jab_detected to rcv_overrun_detected in Figure 146-8 (2 instances, lines 4 & 5)

Cl **146** *SC* **146.3.4.1.3** *P* **128** *L* **25** # i-97

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

The arcs from the exit conditions of states IDLE, CHECK SSD COMMA2, CHECK SSD DISPRESET3 and CHECK SSD SSD4 are fed to a common arc entering BAD DELIMITER state. According to the style guidelines separate arcs need to be used.

SuggestedRemedy

Draw separate arcs between states IDLE and BAD DELIMITER, CHECK SSD COMMA2 and BAD DELIMITER, CHECK SSD DISPRESET3 and BAD DELIMITER, and CHECK SSD SSD4 and BAD DELIMITER.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **146** *SC* **146.3.4.1.3** *P* **129** *L* **1** # i-99

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

The usage of the brackets in the conditional branches of Figure 146-9 is not consistent with other Clauses of 802.3cg.

SuggestedRemedy

Remove all "(" and ")" brackets within the conditional branches as they are not needed.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Accommodated by comment i-83.
Response to Comment i-83 is:
Order of precedence of operators is not defined in IEEE Std 802.3, so brackets are used when there are multiple operations (see clause 145 IEEE Std 802.3bt-2019 which needed to define these).
Brackets provide clarity to the reader when evaluating combined actions.

Review of other diagrams in clause 146 suggests the following change needed:
P120 L10 (Figure 146-5) change left-hand exit from SEND IDLE to "STD * (!tx_enable_mii)
"
P128 L1 (Figure 146-8) change entry condition to WAIT_SCRAMBLER to add parens around the compound term of the "or":
"pcs_reset +
((!receiving) *
[(loc_rcvr_status = NOT_OK) +
(link_status = FAIL) +
(rcv_jab_detected)])"

P130 L21 (Figure 146-10) change left-hand exit condition of RECEIVE state to add parens around !receiving:
"(!receiving) +
(link_status = FAIL)"

Editor to review other added clauses for consistency and revise accordingly to add brackets/parens where needed.

Cl **146** *SC* **146.3.4.1.3** *P* **130** *L* **1** # i-100

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

The usage of the brackets in the conditional branches of Figure 146-10 is not consistent within the Figure itself and with other Clauses of 802.3cg.

SuggestedRemedy

Remove all "(" and ")" brackets within the conditional branches as they are not needed.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Accommodated by comment i-83.
Response to Comment i-83 is:
Order of precedence of operators is not defined in IEEE Std 802.3, so brackets are used when there are multiple operations (see clause 145 IEEE Std 802.3bt-2019 which needed to define these).
Brackets provide clarity to the reader when evaluating combined actions.

Review of other diagrams in clause 146 suggests the following change needed:
P120 L10 (Figure 146-5) change left-hand exit from SEND IDLE to "STD * (!tx_enable_mii)
"
P128 L1 (Figure 146-8) change entry condition to WAIT_SCRAMBLER to add parens around the compound term of the "or":
"pcs_reset +
((!receiving) *
[(loc_rcvr_status = NOT_OK) +
(link_status = FAIL) +
(rcv_jab_detected)])"

P130 L21 (Figure 146-10) change left-hand exit condition of RECEIVE state to add parens around !receiving:
"(!receiving) +
(link_status = FAIL)"

Editor to review other added clauses for consistency and revise accordingly to add brackets/parens where needed.

Cl **146** *SC* **146.4.4** *P* **134** *L* **25** # i-103

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

The first paragraph of Clause 146.4.4 seems to be redundant to 146.6.2 (and in part also 146.6.3).

SuggestedRemedy

Remove first paragraph of Clause 146.4.4. Likely also the second paragraph of Clause 146.6.2 can be removed as it seems to be redundant to the information in 146.6.3.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The same information (that there is both a forced mode for configuration and Auto-negotiation) is used in multiple sections because it is relevant to different contexts. In 146.4.4 it is relevant to the description of how the PHY control state diagram functions. 146.6.2 and 146.6.3 describe how master-slave configuration actually operates, and how that interacts with management registers.

Cl **146** *SC* **146.4.4.3** *P* **137** *L* **1** # i-106

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

The usage of the brackets in the conditional branches of Figure 146-14 is not consistent within the Figure itself and with other Clauses of 802.3cg

SuggestedRemedy

Remove all "(" and ")" brackets within the conditional branches as they are not needed. Convert the remaining "[" and "]" brackets to "(" and ")" brackets afterwards, if there is only one level of brackets; keep the "[" and "]" on the outer brackets, if there are encapsulated brackets.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE. Accommodated by comment i-83.
Response to Comment i-83 is:
Order of precedence of operators is not defined in IEEE Std 802.3, so brackets are used when there are multiple operations (see clause 145 IEEE Std 802.3bt-2019 which needed to define these).
Brackets provide clarity to the reader when evaluating combined actions.

Review of other diagrams in clause 146 suggests the following change needed:
P120 L10 (Figure 146-5) change left-hand exit from SEND IDLE to "STD * (!tx_enable_mii)
"

P128 L1 (Figure 146-8) change entry condition to WAIT_SCRAMBLER to add parens around the compound term of the "or":
"pcs_reset +
((!receiving) *
[(loc_rcvr_status = NOT_OK) +
(link_status = FAIL) +
(rcv_jab_detected)])"

P130 L21 (Figure 146-10) change left-hand exit condition of RECEIVE state to add parens around !receiving:
"(!receiving) +
(link_status = FAIL)"

Editor to review other added clauses for consistency and revise accordingly to add brackets/parens where needed.

Cl **146** *SC* **146.4.4.2** *P* **137** *L* **19** # i-108

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

According to the style guide the arcs from state exit conditions need to go directly to the destination state and should not be connected to another arc.

SuggestedRemedy

Connect the exit condition "silent_timer_done" of state SILENT directly to the input side of state SLAVE SILENT and not to the line of the exit condition of state SEND IDLE.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **146** *SC* **146.4.4.3** *P* **138** *L* **1** # i-109

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

The usage of the brackets in the conditional branches of Figure 146-15 is not consistent with other Clauses of 802.3cg.

SuggestedRemedy

Remove all "(" and ")" brackets within the conditional branches as they are not needed.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Accommodated by comment i-83.
Response to Comment i-83 is:
Order of precedence of operators is not defined in IEEE Std 802.3, so brackets are used when there are multiple operations (see clause 145 IEEE Std 802.3bt-2019 which needed to define these).
Brackets provide clarity to the reader when evaluating combined actions.

Review of other diagrams in clause 146 suggests the following change needed:
P120 L10 (Figure 146-5) change left-hand exit from SEND IDLE to "STD * (!tx_enable_mii)
"

P128 L1 (Figure 146-8) change entry condition to WAIT_SCRAMBLER to add parens around the compound term of the "or":
"pcs_reset +
((!receiving) *
[(loc_rcvr_status = NOT_OK) +
(link_status = FAIL) +
(rcv_jab_detected)])"

P130 L21 (Figure 146-10) change left-hand exit condition of RECEIVE state to add parens around !receiving:
"(!receiving) +
(link_status = FAIL)"

Editor to review other added clauses for consistency and revise accordingly to add brackets/parens where needed.

Cl **146** *SC* **146.4.5.2** *P* **139** *L* **21** # i-110

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

The usage of the brackets in the conditional branches of Figure 146-16 is not consistent within the Figure itself and with other Clauses of 802.3cg.

SuggestedRemedy

Remove all "(" and ")" brackets within the conditional branches as they are not needed.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE. Accommodated by comment i-83.
Response to Comment i-83 is:
Order of precedence of operators is not defined in IEEE Std 802.3, so brackets are used when there are multiple operations (see clause 145 IEEE Std 802.3bt-2019 which needed to define these).
Brackets provide clarity to the reader when evaluating combined actions.

Review of other diagrams in clause 146 suggests the following change needed:
P120 L10 (Figure 146-5) change left-hand exit from SEND IDLE to "STD * (!tx_enable_mii)
"

P128 L1 (Figure 146-8) change entry condition to WAIT_SCRAMBLER to add parens around the compound term of the "or":
"pcs_reset +
((!receiving) *
[(loc_rcvr_status = NOT_OK) +
(link_status = FAIL) +
(rcv_jab_detected)])"

P130 L21 (Figure 146-10) change left-hand exit condition of RECEIVE state to add parens around !receiving:
"(!receiving) +
(link_status = FAIL)"

Editor to review other added clauses for consistency and revise accordingly to add brackets/parens where needed.

Cl **146** *SC* **146.7.2.2** *P* **152** *L* **7** # i-116

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **T** *Comment Status* **D** *Editorial*

With Equation 146-13 the PSANEXT is calculated, it is not a limit, so it should be a "=" instead of a ">=". The same is valid for Equation 146-15 on the same page.

SuggestedRemedy

Change ">=" to "=" in Equation 146-13. Do the same for Equation 146-15 on the same page.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **146** *SC* **146.7.2.3** *P* **152** *L* **29** # i-118

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

... coupled into a 10BASE-T1L link segment, multiple ... ("is limited" is missing after "segment")

SuggestedRemedy

... coupled into a 10BASE-T1L link segment is limited, multiple ...

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **146** *SC* **146.8.5** *P* **155** *L* **43** # i-124

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

..., for an indefinite period of time. (redundant wording)

SuggestedRemedy

..., for an indefinite time.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Wording is clear.

Cl **147** *SC* **147.3.2.2** *P* **177** *L* **38** # i-128

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

..., it indicates a transmission is ongoing. (add "that")

SuggestedRemedy

..., it indicates that a transmission is ongoing.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
CRG disagrees with the commenter.
Current text is correct.
According to the IEEE style guide, 'that' is best reserved for essential clauses.

Cl **147** *SC* **147.3.2.6** *P* **179** *L* **35** # i-131

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

... of Scrn[13], Scrn[16] and TXD[i] ... (add serial comma)

SuggestedRemedy

... of Scrn[13], Scrn[16], and TXD[i] ...

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **147** *SC* **147.3.7.1.1** *P* **185** *L* **43** # i-133

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

... is being sent or an higher priority request is ... ("a/an" distinction)

SuggestedRemedy

... is being sent or a higher priority request is ...

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **147** *SC* **147.3.7.1.1** *P* **185** *L* **52** # i-134

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

... when a HB is detected on the line. ("a/an" distinction)

SuggestedRemedy

... when an HB is detected on the line. (if we alternatively decide to read this as a HEARTBEAT then on the same side in line 41 "an HB message" needs to be changed to "a HB message").

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **147** *SC* **147.3.7.1.1** *P* **185** *L* **54** # i-135

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

BEACON, COMMIT, HEARTBEAT or NONE (add serial comma)

SuggestedRemedy

BEACON, COMMIT, HEARTBEAT, or NONE

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **147** *SC* **147.9.2** *P* **203** *L* **17** # i-140

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

"." at the end of the line is too much (all other similar expressions in the draft D3.0 do not have a ".")

SuggestedRemedy

Remove "." at the end of the line.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **148** *SC* **148.4.5.1** *P* **219** *L* **25** # i-143

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

To achieve error free operation the PLCA node should be configured appropriately before transmit functions are enabled. (add comma after "appropriately")

SuggestedRemedy

To achieve error free operation the PLCA node should be configured appropriately, before transmit functions are enabled.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Wording looks correct

Cl **148** *SC* **148.4.5.1** *P* **219** *L* **28** # i-144

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

b) there is one and only one node with local_nodeID = 0 on the local collision domain, (redundant wording)

SuggestedRemedy

b) there is only one node with local_nodeID = 0 on the local collision domain,

Proposed Response *Response Status* **W**

PROPOSED REJECT.
"one and only one" is logically different from "only one". It means that you need to have one, and no more than one. If you just say "only one", you are not saying that you need exactly one, which is the intended meaning here.

Cl **148** *SC* **148.4.5.2** *P* **223** *L* **27** # i-148

Graber, Steffen Pepperl+Fuchs GmbH

Comment Type **E** *Comment Status* **D** *Editorial*

NONE, BEACON or COMMIT (add serial comma after "BEACON")

SuggestedRemedy

NONE, BEACON, or COMMIT (please also add the comma to the identical text in line 32 on the same page)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Superseded by resolution of i-373.

Propopsed resolution of comment i-373 is:
PROPOSED ACCEPT IN PRINCIPLE.
At page 223, line 23 replace
"tx_cmd Command to be conveyed to the PHY via MII. When set to NONE, no special signaling shall be conveyed. When set to BEACON or COMMIT, respective commands shall be conveyed to MII as specified in 148.4.4.1.1 and 148.4.4.1.2.
Values: NONE, BEACON or COMMIT"

with:

"tx_cmd Command for the PLCA DATA State Diagram to convey to the PHY via the MII.
Values: NONE, BEACON or COMMIT"

At page 225, line 36, replace "TX_ER" with "plca_txer".

Apply the following changes, in this order exactly:
1. In figure 148-4 replace all occurrences of "TX_ER" with "plca_txer".
2. In figure 148-4, in the NORMAL state, add "TX_ER <= plca_txer"
3. In figure 148-4, in the IDLE state, add "TX_ER <= ENCODE_TXER(tx_cmd). Replace "TXD <= 0000" with "TXD <= ENCODE_TXD(tx_cmd)"
4. In figure 148-4, in the RECEIVE, PENDING and WAIT_MAC states, add "TX_ER <= ENCODE_TXER(tx_cmd). Add "TXD <= ENCODE_TXD(tx_cmd)"
5. In figure 148-4, in the HOLD, ABORT, TRANSMIT and FLUSH states, add "TX_ER <= plca_txer".
6. In figure 148-4, in the HOLD and ABORT states, add "TXD <= 0000".

At page 228, line 10, add:
"plca_txer the conditions for generating plca_txer are the same as defined in 22.2.1.6 and 22.2.2.5 for the TX_ER MII signal. Values: TRUE or FALSE"

Replace content of subclause 148.4.6.3 with the following text:
"ENCODE_TXER
This function takes as its argument the tx_cmd variable defined in 148.4.5.2.
It returns TRUE if tx_cmd is BEACON or COMMIT. Otherwise it returns the value of the plca_txer variable, defined in 148.4.6.2

ENCODE_TXD
This function takes as its argument the tx_cmd variable defined in 148.4.5.2.
If tx_cmd is BEACON, the return value is the TXD encoding defined in Table 22-1 for the BEACON request.
If tx_cmd is COMMIT, the return value is the TXD encoding defined in Table 22-1 for the COMMIT request.
Otherwise, the return value is 0000.
"

Replace content of subclause 148.4.3.6 with the following text:
"Generation of TX_ER shall comply with the PLCA Data State Diagram specified in 148.4.6.1"

Apply the following modifications to the PICS:
At page 232, line 39, replace "Specified in 22.2.1.6" with "Specified in "148.4.6.1"
At page 233, line 44, delete the CON3 line.

Cl **98** *SC* **98B.3** *P* **235** *L* **11** # i-154

Marris, Arthur — Cadence Design Systems, Inc.

Comment Type **TR** *Comment Status* **D** *Editorial*

Put the two unchanged rows into Table 98B-1 it will make things clearer.

SuggestedRemedy

Delete "(unchanged rows not shown)" on line 11

Add the following to Table 98B-1:
A0 100BASE-T1 ability
A2 1000BASE-T1 ability

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **146** *SC* **146.3.2.1** *P* **135** *L* **22** # i-155

Zimmerman, George — ADI, APL Group, Aquantia, BMW, Cisco, Commscop

Comment Type **E** *Comment Status* **D** *Editorial*

rem_rcvr_status is defined as OK or NOT_OK where the primitive is defined 146.2.7.1 and in the state diagram (Figures 146-14 and 146-15). Here it is defined as TRUE or FALSE.

SuggestedRemedy

Change TRUE to OK and change FALSE to NOT_OK

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **147** *SC* **147.3.2.1** *P* **175** *L* **1** # i-156

Zimmerman, George — ADI, APL Group, Aquantia, BMW, Cisco, Commscop

Comment Type **E** *Comment Status* **D** *Editorial*

The PCS transmit state diagram should be in its own subclause, after the definitions of variables, constants, functions, abbreviations, and timers.

SuggestedRemedy

Create new Subclause 147.3.2.8 after 147.3.2.7 Timers, and anchor Figures 147-4 and 147-5 there.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **147** *SC* **147.3.2.6** *P* **179** *L* **27** # i-157

Zimmerman, George — ADI, APL Group, Aquantia, BMW, Cisco, Commscop

Comment Type **E** *Comment Status* **D** *Editorial*

The subclause for the self-synchronizing scrambler does not belong in the middle of the subclauses defining abbreviations and timers for the state diagram

SuggestedRemedy

Move 147.3.2.6 immediately prior to 147.3.2.8 Jabber functional requirements so that it is after all the PCS Transmit state diagram material (adjusting the numbers for any rearrangements as necessary)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **98** *SC* **98.5.1** *P* **73** *L* **46** # i-159

Zimmerman, George — ADI, APL Group, Aquantia, BMW, Cisco, Commscop

Comment Type **T** *Comment Status* **D** *Editorial*

The editing instruction refers to a variable autoneg_speed, but the variable is ANSP. This variable is also referred to by autoneg_speed in 98.5.1

SuggestedRemedy

Change editing instruction on P 73 L44 from "Insert variable for autoneg_speed after the variable for an_receive_idle as follows:" to "Insert variable for ANSP after the variable for an_receive_idle as follows:" and change autoneg_speed in 98.5.6.1 (P81 L17) to ANSP, and change the two references in Figure 98-11, P82 L22 from autoneg_speed to ANSP.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change editing instruction on P 73 L44 from "Insert variable for autoneg_speed after the variable for an_receive_idle as follows:" to "Insert variable for ANSP after the variable for an_receive_idle as follows:" and

Page 80, line 50: Change '... through the variable autoneg_speed and ...' to read '... through the variable ANSP and ...'.

Page 81, line 17: change autoneg_speed in 98.5.6.1 to ANSP, and

Figure 98-11 (Page 82 line 22): change the two references in Figure 98-11, P82 L22 from autoneg_speed to ANSP.

Cl **146** *SC* **146.3.4.1.3** *P* **128** *L* **4** # i-164

Zimmerman, George — ADI, APL Group, Aquantia, BMW, Cisco, Commscop

Comment Type **T** *Comment Status* **D** *Editorial*

Figure 146-8 has two open ended branches with conditions including rcv_jab_detected, but this variable is not defined, and appears like it should be rcv_overrun_detected.

SuggestedRemedy

Change rcv_jab_detected to rcv_overrun_detected in Figure 146-8 (2 instances, lines 4 & 5)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **146** *SC* **146.7.2.2** *P* **152** *L* **7** # i-170

Zimmerman, George — ADI, APL Group, Aquantia, BMW, Cisco, Commscop

Comment Type **E** *Comment Status* **D** *Editorial*

Equation 146-13 is a definition and should be an equality, not an inequality. Similarly in Equation 146-15.

SuggestedRemedy

Replace the inequality in equations 146-13 and 146-15 with "=".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE. Resolved with comment#116

Cl **146** *SC* **146** *P* **104** *L* **1** # i-174

Seaman, Michael — MICK SEAMAN

Comment Type **E** *Comment Status* **D** *Editorial*

There appears to be no editing instruction to add the new cclause 146.

SuggestedRemedy

Add suitable editing instruction. At the bottom of the prior page would be convenient, so as not to disrupt og 104 layout or force pagination differences when an rolled up edition is produced.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Add the following editing instruction at the top of page 104 (immediately prior to header for clause 146):
"Insert Clause 146 to Clause 148 in numeric order (see later in this amendment for the addition of corresponding annexes):"

Add the following editing instruction at the top of page 236 (immediately prior to header of Annex 146A):
"Insert Annex 146A through Annex 146B in alphanumeric order (see earlier in this amendment for the addition of corresponding clauses):"

Cl **146** *SC* **146.3.4.2** *P* **130** *L* **35** # i-178

Hoglund, David Johnson Controls Inc

Comment Type **E** *Comment Status* **D** *Editorial*

The commas are of unequal strength in the note "(the triplet (0, 0, 0) will never occur, if this triplet is being received, then the symbol synchronization in the de-interleaving block needs to be adjusted)". Changing the first comma may help.

SuggestedRemedy

Change "(the triplet (0, 0, 0) will never occur, if this triplet is being received, then the symbol synchronization in the de-interleaving block needs to be adjusted)" to "(the triplet (0, 0, 0) will never occur: if this triplet is being received, then the symbol synchronization in the de-interleaving block needs to be adjusted)".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change "(the triplet (0, 0, 0) will never occur, if this triplet is being received, then the symbol synchronization in the de-interleaving block needs to be adjusted)"

to (note deleted parenthesis)

"The code-group {0, 0, 0} should never occur. The symbol synchronization in the de-interleaving block needs to be adjusted if the code-group {0, 0, 0} is being received."

Cl **146** *SC* **146.5.3** *P* **141** *L* **25** # i-179

Hoglund, David Johnson Controls Inc

Comment Type **E** *Comment Status* **D** *Editorial*

Suggest stronger punctuation such as a semicolon for clarity.

SuggestedRemedy

Change "For a MASTER PHY this is the output of the (divided) clock oscillator, for the SLAVE PHY this is the recovered clock." to "For a MASTER PHY this is the output of the (divided) clock oscillator; for the SLAVE PHY this is the recovered clock."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **146** *SC* **146.9.2** *P* **156** *L* **35** # i-181

Hoglund, David Johnson Controls Inc

Comment Type **E** *Comment Status* **D** *Editorial*

Replace "secure" with past particple "secured" for parallelism with respect to the sentance that follows. If the comment is accepted, it also applies to identical text on page 204 line 30 in 147.10.2.

SuggestedRemedy

Replace "secure" with "secured".

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The intended meaning is not "secured" (fixed to its location), but actually is "secure".

Cl **148** *SC* **148.4.6.1** *P* **225** *L* **40** # i-187

Xu, Dayin Rockwell Automation

Comment Type **E** *Comment Status* **D** *Editorial*

Reword the text "If another node starts a transmission after meeting its own transmit opportunity, delayed data cannot be held anymore and a collision is triggered by switching to COLLIDE state."

SuggestedRemedy

Change " If another node starts a transmission after meeting its own transmit opportunity, delayed data cannot be held
anymore and a collision is triggered by switching to COLLIDE state. " to " If another node starts a transmission during the HOLD state, the delayed data is dropped and a collision is triggered by switching to COLLIDE state."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **148** *SC* **148.4.7.1** *P* **229** *L* **10** # i-194

Beruto, Piergiorgio — Canova Tech S.r.l.

Comment Type **E** *Comment Status* **D** *Editorial*

The plca_status variable should follow the same syntax as the link_status parameter in 146.2.2.1 and 147.2.5.1.

SuggestedRemedy

At page 229, line 10, replace "FALSE" with FAIL.
At page 229, line 12, replace "TRUE" with OK.
At page 229, line 15, replace "TRUE" with OK.
At page 229, line 19, replace "FALSE" with FAIL.
In figure 148-5, in the "INACTIVE" state box, change "plca_status <= FALSE" with "plca_status <= FAIL"
In figure 148-5, in the "ACTIVE" state box, change "plca_status <= TRUE" with "plca_status <= OK"
At page 229, line 52, replace "If plca_status is true" with "If plca_status is OK".
At page 229, line 53, replace "If plca_status is false" with "If plca_status is FAIL".
At page 230, line 2, replace "Values: TRUE or FALSE" with "Values: OK or FAIL".
At page 230, line 13, replace "time plca_status is maintained in TRUE state" with "time plca_status is maintained in OK state".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.3.68c.3** *P* **56** *L* **5** # i-199

Griffiths, Scott — Rockwell Automation

Comment Type **E** *Comment Status* **D** *Editorial*

Bit 3.0.8 is defined as reserved with a value of always zero in 802.3-2018. Is this the correct reference?

SuggestedRemedy

Correct reference or remove line.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Replace "3.0.8" with "0.8 (see Table 22-7)"

Cl **00** *SC* **0** *P* **11** *L* **15** # i-207

Thompson, Geoffrey — Independent Consultant

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

The following statement in the introductory material is not true: "Ethernet at 10 Mb/s was approved as an IEEE standard by the IEEE Standards Board in 1983 and subsequently published in 1985 as IEEE Std 802.3-1985." What was initially approved and published by the IEEE was not identified as Ethernet. The only mention of the word "Ethernet" in the first 802.3 standard is in an acknowledgement on page 7 of the front matter between the Working Group member listing and the Standards Board membership roster. "The IEEE 802.3 Working Group acknowledges and appreciates that many concepts embodied in this standard are based largely upon the CSMA/CD access method earlier described in The Ethernet specification as written jointly by individuals from Xerox Corporation, Digital Equipment Corporation, and Intel Corporation. Appreciation is also expressed to Robert M. Metcalfe and David R. Boggs for their pioneering work in establishing the original concepts." IEEE Std 802.3-1985

SuggestedRemedy

Change the sentence to read: The derivative at 10 Mb/s was approved as an IEEE standard by the IEEE Standards Board in 1983 and subsequently published in 1985 as IEEE Std 802.3-1985 titled Information technology-- Telecommunications and information exchange between systems-- Local and metropolitan area networks-- Specific requirements-- Part 3: Carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications.

Proposed Response *Response Status* **W**

PROPOSED REJECT.

This comment is against text that is not changed by this amendment. Further, the text in the introductory material is exactly as provided in draft 3.8 of the Framemaker amendment template and in the introduction to IEEE Std 802.3-2018. The commenter is encouraged to submit a Maintenance request.

Cl **00** *SC* **0** *P* **11** *L* **20** # i-208

Thompson, Geoffrey Independent Consultant

Comment Type **E** *Comment Status* **D** *Editorial*

This material does not address the radical change in the title done in the 2012 revision.

SuggestedRemedy

Insert the following text in front of the current text: "The title of the standard was changed to the more concise 'Standard for Ethernet' with the 2012 revision."

Proposed Response *Response Status* **W**

PROPOSED REJECT.

This comment is against text that is not changed by this amendment. Further, the text in the introductory material is exactly as provided in draft 3.8 of the Framemaker amendment template and in the introduction to IEEE Std 802.3-2018. The commenter is encouraged to submit a Maintenance request.

Cl **147** *SC* **147.1.2** *P* **167** *L* **47** # i-245

Thompson, Geoffrey Independent Consultant

Comment Type **E** *Comment Status* **D** *Editorial*

"Additionally..., additionally..." is clumsy grammar and unnecessary.

SuggestedRemedy

Change start of paragraph 2 to read: "The 10BASE-T1S PHY may also operate using half-duplex..."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change this:
====
Additionally, 10BASE-T1S PHYs supporting the full-duplex point-to-point
====
to this:
====
10BASE-T1S PHYs supporting the option of full-duplex point-to-point
====

Cl **148** *SC* **148.1** *P* **214** *L* **11** # i-263

Thompson, Geoffrey Independent Consultant

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

It appears that the new text from the last round of changes is just laid on top as a note and did not actually get integrated into the text.

SuggestedRemedy

Change para. 3 to read: "PLCA is designed to work in conjunction with CSMA/CD and can be dynamically enabled or disabled via management interface. The use of this clause in any other context is beyond the scope of this standard." and remove the floating text.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The editor could not find a reference to the note cited by the commenter, nor a WGB comment that reports the cited changes.
The commenter might be reading a modified copy of the draft.

Cl **148** *SC* **148.4.5.4** *P* **224** *L* **38** # i-271

Thompson, Geoffrey Independent Consultant

Comment Type **E** *Comment Status* **D** *Editorial*

It would be helpful to include the default value here

SuggestedRemedy

Add text: The default value specified in Clause 30 is 128.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Add text: "The default value is specified in 30.3.9.2.7"

In the editor's opinion duplicating the text could make the maintenance more complicated in the future. A reference is usually better.

Cl **148** *SC* **148.4.5.4** *P* **224** *L* **42** # i-272

Thompson, Geoffrey Independent Consultant

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

This is not a "should" in the usual standards sense of the word

SuggestedRemedy

Change "should" to "needs to be"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **148** *SC* **148.4.5.4** *P* **224** *L* **52** # i-273

Thompson, Geoffrey Independent Consultant

Comment Type **E** *Comment Status* **D** *Editorial*

It would be helpful to include the default value here

SuggestedRemedy

Add text: The default value specified in Clause 30 is 20.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Add text: The default value is specified in 30.3.9.2.5

In the editor's opinion duplicating the text could make the maintenance more complicated in the future. A reference is usually better.

Cl **148** *SC* **148.4.6.1** *P* **225** *L* **9** # i-274

Thompson, Geoffrey Independent Consultant

Comment Type **E** *Comment Status* **D** *Editorial*

Clarify

SuggestedRemedy

Change to:...transmit opportunity on the media is detected.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The RS does not detect activity on the media, but maps detected activity conveyed in MII signals from the PMA/PCS to MAC/PLS primitives.

Cl **148** *SC* **148.4.6.1** *P* **226** *L* **38** # i-275

Thompson, Geoffrey Independent Consultant

Comment Type **E** *Comment Status* **D** *Editorial*

Vertically compress state diagram.

SuggestedRemedy

Move HOLD state to the intersection of the RECEIVE and ABORT shadows. Move HOLD loop on itself from left to right side.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **148** *SC* **148.4.6.1** *P* **227** *L* **51** # i-276

Thompson, Geoffrey Independent Consultant

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

3 different arcs with different terms coming into a join.

SuggestedRemedy

Shorten each arc and terminate separately with a "To C" symbol.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **00** *SC* **0** *P* *L* # i-287

Schicketanz, Dieter University of Applied Science Reutlingen

Comment Type **G** *Comment Status* **D** *Editorial*

It will be a good standard, but at the moment there are missing so many instances, even if they can be considert editorial, that the commenter this time has to cast a negative vote .

SuggestedRemedy

The proposed changes or additions are seen at each comment.

Proposed Response *Response Status* **W**

PROPOSED REJECT.

There is no specific issue identified and no suggested remedy to implement.

Cl **01** *SC* **1.3** *P* **26** *L* **38** # i-288

Schicketanz, Dieter University of Applied Science Reutlingen

Comment Type **TR** *Comment Status* **D** *Editorial*

On link coupling attenuation limit it was decided to do the same as other limits but as being the first measurement standard specifying .1 MHz to add it in the list of references.

SuggestedRemedy

Add "IEC 62153-4-9 Ed2 Amd1: Coupling attenuation
of screened balanced cables, triaxial method" in the list if Normative references

Proposed Response *Response Status* **W**

PROPOSED REJECT.

IEC 62153-4-9 does not appear in the draft as a reference and there is no comment to add it.

Cl **01** *SC* **1.4** *P* **29** *L* **51** # i-289

Schicketanz, Dieter University of Applied Science Reutlingen

Comment Type **TR** *Comment Status* **D** *Editorial*

The definition of T1S shows the same wording as T1L. Only the reach is different. But this is not the only difference. It may be additionally a point to multipoint System and only half duplex. No optional PoDL is described. It may be also 25m long.

SuggestedRemedy

This needs some editing by a native speaker. As the commenter is not able to do this in good english he would grant editor liscence to do so

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Proposed change in the comment does not contain sufficient detail so that the CRG can understand the specific changes that satisfy the commenter.

CRG disagrees with the commenter - comment appears to desire some tutorial text on some certain aspects of Clause 147 and, possibly, Clause 104. The referenced clause provides that information and further exposition is not appropriate for the definition.

Cl **104** *SC* **104.1.3** *P* **86** *L* **16** # i-292

Schicketanz, Dieter University of Applied Science Reutlingen

Comment Type **E** *Comment Status* **D** *Editorial*

The relation of PHYs and PoDL System types is extremely difficult to follow

SuggestedRemedy

separate the sentences with bullet points (cannot be shown here)

Proposed Response *Response Status* **W**

PROPOSED REJECT.

This comment affects text and sentence structure that is not changed by this amendment. The commenter is encouraged to submit a Maintenance request.

Cl **104** *SC* **104.2** *P* **86** *L* **26** # i-293

Schicketanz, Dieter University of Applied Science Reutlingen

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

The relation of loop resistance and PoDL class types is extremely difficult to follow

SuggestedRemedy

separate the sentences with bullet points (cannot be shown here) and change loop resistances (another comment)

Proposed Response *Response Status* **W**

PROPOSED REJECT.

This comment affects text and sentence structure that is not changed by this amendment. The commenter is encouraged to submit a Maintenance request. The response to the proposal to change the loop resistances is capture in the response to comment i-295.

Cl **30** *SC* **30.2.3** *P* **35** *L* **1** # i-307

Kabra, Lokesh Synopsys, Inc.

Comment Type **E** *Comment Status* **D** *Editorial*

Object oOAM shown in Figure 30-3 of 802.3-2018 is missing in new Figure 30-3 of 802.3cg

SuggestedRemedy

Correct Figure 30-3 for missing oOAM object and its input/output connection arrows

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **30** *SC* **30.3.9.1.2** *P* **38** *L* **29** # i-309

Kabra, Lokesh Synopsys, Inc.

Comment Type **E** *Comment Status* **D** *Editorial*

The last sentence is redundant as the mapping of aPLCAStatus to plca_status variable is already specified in previous sentence

SuggestedRemedy

Remove last sentence " aPLCAStatus maps to the variable plca_status iin the PLCA Status state diagram specified in 148.4.7.1"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **30** *SC* **30.2.5** *P* **36** *L* **34** # i-312

Kabra, Lokesh — Synopsys, Inc.

Comment Type **E** *Comment Status* **D** *Editorial*

Mixing of rows in table for ACTION and ATTRIBUTES for this oPLCA object class

SuggestedRemedy

Alphabhetically Sort and place rows for ACTION below the ATTRIBUTE for oPLCA object

Proposed Response *Response Status* **W**

PROPOSED REJECT.

This comment is against text that is not changed by this amendment. The commenter is encouraged to submit a Maintenance request.

Cl **30** *SC* **30.3.9.2.3** *P* **39** *L* **4** # i-313

Kabra, Lokesh — Synopsys, Inc.

Comment Type **E** *Comment Status* **D** *Editorial*

Attributes aPLCANodeCount to aPLCABurstTimer are placed under PLCA device actions sub-section

SuggestedRemedy

Change 30.3.9.2.3 to 30.3.9.2.7 to 30.3.9.1.3 to 30.3.9.1.7 and move accordingly

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Re-number clauses 30.3.9.2.3 to 30.3.9.2.7 to 30.3.9.1.3 to 30.3.9.1.7 and move to appear after 30.3.9.1.2.

Cl **00** *SC* **FM** *P* **13** *L* **5** # i-323

Law, David — Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *Editorial*

Suggest that '... on a single balanced pair copper cable.' should be changed to read '... on a single balanced pair of conductors.'.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Replace, "on a single balanced pair copper cable."

with, "on a single balanced pair of conductors."

Cl **01** *SC* **1.4** *P* **28** *L* **48** # i-324

Law, David — Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *Editorial*

Subclause 1.4.151 of IEEE Std 802.3-2018 reads 'BASE-T1: PHYs that belong to the set of specific Ethernet PCS/PMA/PMDs that operate on a single twisted-pair copper cable, including 100BASE-T1 and 1000BASE-T1. (See IEEE Std 802.3, Clause 96 and Clause 97.)'. This definition needs to be updated to add 10BASE-TS1 and 10BASE-TL1.

SuggestedRemedy

Suggest that the following change be added to subclause 1.4 of IEEE P802.3cg:

In subclause 1.4.151 of IEEE Std 802.3-2018, the text '... that operate on a single twisted-pair copper cable, including 100BASE-T1 and 1000BASE-T1. (See IEEE Std 802.3, Clause 96 and Clause 97.)' be changed to read "... that operate on a single twisted-pair copper cable, including 10BASE-T1S, 10BASE-T1L, 100BASE-T1 and 1000BASE-T1. (See IEEE Std 802.3, Clause 96, 97, 146 and 147).'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Insert editor's instruction, "Change the Definition for 1.4.151 BASE-T1 as follows:" on page 29, line 4.

Insert the definition for clause 1.4.151 BASE-T1 from IEEE Std 802.3-2018 after the editor's instruction.

Grant editorial license to show the change of

replace, "that operate on a single twisted-pair copper cable, including 100BASE-T1 and 1000BASE-T1. (See IEEE Std 802.3, Clause 96 and Clause 97.)"

with, "that operate on a single twisted-pair copper cable, including 10BASE-T1S, 10BASE-T1L, 100BASE-T1 and 1000BASE-T1. (See IEEE Std 802.3, Clause 96, Clause 97, Clause 146, and Clause 147)."

with appropriate strikeouts and underlines.

Cl **98** *SC* **98.5.5** *P* **77** *L* **19** # i-327

Law, David Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D** *Editorial*

The variable multispeed_autoneg_reset is used in Figure 98-7 'Arbitration state diagram' but is not defined in subclause 98.5.1 'State diagram variables'.

SuggestedRemedy

Add the following variable definition to subclause 98.5.1:

multispeed_autoneg_reset
See 98.5.6.1.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **98** *SC* **98.5.5** *P* **77** *L* **23** # i-328

Law, David Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D** *Editorial*

There is no transition condition on the transition from the AN ENABLE state to the TRANSMIT DISABLE state. I note that the condition on the same transition in IEEE Std 802.3-2018 is mr_autoneg_enable = true, however since mr_autoneg_enable = false is an open arrow condition to the AN ENABLE state, the condition seems redundant, so I assume was removed to indicate an unconditional transition. If that is the case the transition should be marked with UCT (see IEEE Std 802.3-1018 subclause 21.5.3).

SuggestedRemedy

Mark the transition from the AN ENABLE state to the TRANSMIT DISABLE state, on exit from the AN ENABLE state, with 'UCT'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

On page 77, line 23: Mark the transition from the AN ENABLE state to the TRANSMIT DISABLE state, on exit from the AN ENABLE state, with 'UCT'.

On page128, line 47: Change the RSTCD condition to an UCT condition between states DATA and DATA_ERR

Cl **98** *SC* **98.5.5** *P* **77** *L* **25** # i-329

Law, David Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D** *Editorial*

There is an imbalance in the number of brackets on the transition condition from the COMPLETE ACKNOWLEDGE state to the NEXT PAGE WAIT.

SuggestedRemedy

Suggest that '... ((tx_link_code_word[NP] = 1) + (np_rx = 1)' should read '... ((tx_link_code_word[NP] = 1) + (np_rx = 1))'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **98** *SC* **98.5.6.1** *P* **81** *L* **17** # i-334

Law, David — Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D** *Editorial*

The variable autoneg_speed used in figure 98-11 is defined here by reference to subclause 98.5.1, yet I can't find a variable autoneg_speed defined in subclause 98.5.1. Based on the assignments of autoneg_speed to HSM and LSM in the HIGH-SPEED and LOW-SPEED states respectively, I suspect that autoneg_speed has been changed to ANSP in subclause 98.5.1.

SuggestedRemedy

Suggest that the following changes are made:
[1] Page 80, line 50: Change '... through the variable autoneg_speed and ...' to read '... through the variable ANSP and ...'.
[2] Page 81, line 17: Change 'autoneg_speed' to read 'ANSP'.
[3] Page 82, line 22: Change 'autoneg_speed <= HSM' to read 'ANSP <= HSM' in the HIGH-SPEED state.
[4] Page 82, line 22: Change 'autoneg_speed <= LSM' to read 'ANSP <= LSM' in the LOW-SPEED state.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Accomodated by comment i-159.

The Response to Comment i-159 is:

PROPOSED ACCEPT IN PRINCIPLE.
Change editing instruction on P 73 L44 from "Insert variable for autoneg_speed after the variable for an_receive_idle as follows:" to "Insert variable for ANSP after the variable for an_receive_idle as follows:" and

Page 80, line 50: Change '... through the variable autoneg_speed and ...' to read '... through the variable ANSP and ...'.

Page 81, line 17: change autoneg_speed in 98.5.6.1 to ANSP, and

Figure 98-11 (Page 82 line 22): change the two references in Figure 98-11, P82 L22 from autoneg_speed to ANSP.

Cl **98** *SC* **98.5.6.3** *P* **81** *L* **45** # i-335

Law, David — Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D** *Editorial*

Operation of the timers, such as the meaning of start timer, stop time and timer_done, should be defined by reference to the subclause 40.4.5.2.

SuggestedRemedy

Suggest the text 'All timers operate in the manner described in 40.4.5.2.' is inserted as the first paragraph of this subclause.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **146** *SC* **146.3.3.1** *P* **117** *L* **24** # i-343

Law, David — Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D** *Editorial*

Subclause 1.4.463 'Start-of-Stream Delimiter (SSD)' reads 'Within IEEE 802.3, a pattern of defined codewords used to delineate the boundary of a data transmission sequence on the Physical Layer stream.'.
In addition the PCS Transmit state diagram in Figure 146-5 changes state based on STD being true, with STD being an alias for symb_triplet_timer_done, and the output of the PCS Transmit state diagram is tx_symb_triplet which is defined in subclause 146.3.3.1.1 'Variables' as 'A triplet of ternary symbols generated by the PCS Transmit function after 4B3T encoding.'.

There is a similar issue with ESD (see IEEE Std 802.3-2018 subclause 1.4.242).

SuggestedRemedy

Suggest that:

[1] The text '... passes an SSD of 12 consecutive symbols ... replaces the first 16 bits of the preamble.' be changed to read '... passes an SSD of a sequence of 4 code-groups ... replaces the first 2 bytes of the preamble.'.

[2] The text '... a special code ESD ... of 12 consecutive symbols is ...' be changed to read '... a special code ESD ... of 3 code-groups is ...'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **146** *SC* **146.3.3.1.1** *P* **118** *L* **34** # i-345

Law, David Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D** *Editorial*

Suggest that the transmit symbol order of tx_symb_triplet should be provided as part of the tx_symb_triplet variable definition.

SuggestedRemedy

[1] Change 'tx_symb_triplet' to read 'tx_symb_triplet(Tan, TBn, TCn)'.
[2] Add the text 'The element TAn is the first ternary symbol transmitted; TCn is the last ternary symbol transmitted.' to the variable description after the text '... 4B3T encoding.'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **146** *SC* **146.3.3.2** *P* **121** *L* **4** # i-353

Law, David Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *Editorial*

The terms 'ternary triplet' with 20 instances, 'symbol triplet' with 11 instances 'code-group' with 10 instances and 'symbol group' with 3 instances seem to be used interchangeably throughout Clause 146 to mean a group of three ternary symbols

SuggestedRemedy

Suggest that one of these three terms is used through the Clause, and since code-group is the term defined in IEEE Std 802.3-2018 this would seem to be the prime candidate.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Replace instances of 'ternary triplet', 'symbol triplet' (including usage as tx_symbol_triplet) and 'symbol group' in clause 146 with 'code-group'.

Cl **146** *SC* **146.3.4.1.3** *P* **128** *L* **4** # i-363

Law, David Hewlett Packard Enterprise

Comment Type **TR** *Comment Status* **D** *Editorial*

The variable 'rcv_jab_detected' used in the open arrow entry to the WAIT SCRAMBLER and LINK FAILED states in Figure 146-8 'PCS receive state diagram (part a)' is not defined in subclause 146.3.4.1.1 'Variables'. On review of the draft, while I can find information about the transmit jabber, it is not clear to me where rcv_jab_detected woudlbe sourced from, or when it would be asserted.

SuggestedRemedy

Add a definition for the rcv_jab_detected variable to subclause 146.3.4.1.1 'Variables', or remove rcv_jab_detected from the open arrow entry to the WAIT SCRAMBLER and LINK FAILED states.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Accomodated by comment i-164.
Response to comment i-164 is:
PROPOSED ACCEPT.
Change rcv_jab_detected to rcv_overrun_detected in Figure 146-8 (2 instances, lines 4 & 5)

Cl **146** *SC* **146.3.4.1.3** *P* **128** *L* **5** # i-364

Law, David Hewlett Packard Enterprise

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

Subclause 146.1.3.1 'State diagram notation' states that 'The conventions of 21.5 are adopted with the extension that some states in the state diagrams use an IF-THEN-ELSE-END construct to condition which actions are taken within the state.'. Table 21-1 'State diagram operators' in IEEE Std 802.3-2018 subclause 21.5.4 'Operators' lists the characters '( )' as 'Indicates precedence'. Based on this the use of '[ ]' in state diagram transitions should be replaced with '( )'.

SuggestedRemedy

Replace the three instances of '[ ]' used to indicate precedence in Figure 146-8 state diagram transitions with '( )'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **146** *SC* **146.3.4.1.3** *P* **128** *L* **25** # i-365

Law, David Hewlett Packard Enterprise

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

Subclause 146.1.3.1 'State diagram notation' states that 'The conventions of 21.5 are adopted with the extension that some states in the state diagrams use an IF-THEN-ELSE-END construct to condition which actions are taken within the state.'. Table 21-1 'State diagram operators' in IEEE Std 802.3-2018 subclause 21.5.4 'Operators' lists the 'Not Equal To' character <http://unicode.org/cldr/utility/character.jsp?a=2260> as 'Not equals'. I assume this is what is meant by the use '!=' in Figure 146-8, based on this the use of '!=! in state diagram transitions should be replaced with the 'Not Equal To' character.

SuggestedRemedy

Replace the eight instances of '!=' used in Figure 146-8 state diagram transitions with the 'Not Equal To' character <http://unicode.org/cldr/utility/character.jsp?a=2260>.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **148** *SC* **148.4.4** *P* **218** *L* **17** # i-372

Law, David Hewlett Packard Enterprise

Comment Type **TR** *Comment Status* **D** *Editorial*

Clause 148, which specifies the PLCA Reconciliation Sublayer (RS), cannot place requirement (shall statements) on the connected PHY. Subclause 1.1.3.2 'Compatibility interfaces' of IEEE Std 802.3-2018 defines the MII as a compatibility interface. As such an implementer is permitted to implement only the Clause 148 RS, however having shall statements related to the PHY results in requirements that this RS implementer will be unable to satisfy. This can be seen in the PICS where a Clause 148 RS implementer is required to respond to questions about the PHY such as PLCA2 and PLCA3 where the status is M and the support is Yes[]. In addition a PLCA RS supports PHYs other than 10BASE-TS1.

SuggestedRemedy

[1] Change 148.4.4 'Requirements for the PHY' to read 'In order to support Physical Layer Collision Avoidance the RS has to be connected to a 10BASE-TS1 PHY.
{2] Remove requirements on the PHY from Clause 148.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement proposed remedy [1].

At page 218, line 29, change "the PHY shall encode and transmit a signal" to "the PHY encodes and transmits a signal"

At page 218, line 44, change "Upon the reception of this request, the RX_DV signal shall not be asserted" to "Upon the reception of this request, the RX_DV signal is not asserted"

At page 219, line 3, change "When the PHY receives a BEACON, it shall indicate this information" to "When the PHY receives a BEACON, it indicates this information"

At page 219, line 11, change "When the PHY receives a COMMIT from the line, it shall indicate" to "When the PHY receives a COMMIT from the line, it indicates"

Delete the following PICS entries in 148.5.3.3: PLCA2, PLCA3, PLCA4, PLCA5, PLCA8.

Cl **148** *SC* **148.4.5.2** *P* **223** *L* **25** # i-374

Law, David Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *Editorial*

Suggest that '... to the PHY via MII.' should be changed to read '... to the PHY via the MII.'.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Superseded by resolution of i-373.

Proposed Resolution of comment i-373 is:
PROPOSED ACCEPT IN PRINCIPLE.
At page 223, line 23 replace
"tx_cmd Command to be conveyed to the PHY via MII. When set to NONE, no special signaling shall be conveyed. When set to BEACON or COMMIT, respective commands shall be conveyed to MII as specified in 148.4.4.1.1 and 148.4.4.1.2.
Values: NONE, BEACON or COMMIT"

with:

"tx_cmd Command for the PLCA DATA State Diagram to convey to the PHY via the MII.
Values: NONE, BEACON or COMMIT"

At page 225, line 36, replace "TX_ER" with "plca_txer".

Apply the following changes, in this order exactly:
1. In figure 148-4 replace all occurrences of "TX_ER" with "plca_txer".
2. In figure 148-4, in the NORMAL state, add "TX_ER <= plca_txer"
3. In figure 148-4, in the IDLE state, add "TX_ER <= ENCODE_TXER(tx_cmd). Replace "TXD <= 0000" with "TXD <= ENCODE_TXD(tx_cmd)"
4. In figure 148-4, in the RECEIVE, PENDING and WAIT_MAC states, add "TX_ER <= ENCODE_TXER(tx_cmd). Add "TXD <= ENCODE_TXD(tx_cmd)"
5. In figure 148-4, in the HOLD, ABORT, TRANSMIT and FLUSH states, add "TX_ER <= plca_txer".
6. In figure 148-4, in the HOLD and ABORT states, add "TXD <= 0000".

At page 228, line 10, add:
"plca_txer the conditions for generating plca_txer are the same as defined in 22.2.1.6 and 22.2.2.5 for the TX_ER MII signal. Values: TRUE or FALSE"

Replace content of subclause 148.4.6.3 with the following text:
"ENCODE_TXER
This function takes as its argument the tx_cmd variable defined in 148.4.5.2.
It returns TRUE if tx_cmd is BEACON or COMMIT. Otherwise it returns the value of the plca_txer variable, defined in 148.4.6.2

ENCODE_TXD
This function takes as its argument the tx_cmd variable defined in 148.4.5.2.
If tx_cmd is BEACON, the return value is the TXD encoding defined in Table 22-1 for the BEACON request.
If tx_cmd is COMMIT, the return value is the TXD encoding defined in Table 22-1 for the COMMIT request.
Otherwise, the return value is 0000.
"

Replace content of subclause 148.4.3.6 with the following text:
"Generation of TX_ER shall comply with the PLCA Data State Diagram specified in 148.4.6.1"

Apply the following modifications to the PICS:
At page 232, line 39, replace "Specified in 22.2.1.6" with "Specified in "148.4.6.1"
At page 233, line 44, delete the CON3 line.

Cl **148** *SC* **148.4.5.2** *P* **223** *L* **28** # i-375

Law, David Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D** *Editorial*

Suggest that rx_cmd should be defined in terms of the PLCA RS, which this Clause is specifying, rather than the PHY. In addition, suggest that there should be a reference to Table 22-2 encodings that rx_cmd is derived from.

SuggestedRemedy

rx_cmd
Encoding present on RXD<3:0>, RX_ER, and RX_DV as defined in Table 22-2.
Values:
NONE: PLCA BEACON or COMMIT indication encoding not present on RXD<3:0>, RX_ER, and RX_DV.
BEACON: PLCA BEACON indication encoding present on RXD<3:0>, RX_ER, and RX_DV.
COMMIT: PLCA COMMIT indication encoding present on RXD<3:0>, RX_ER, and RX_DV.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **148** *SC* **148.4.5.4** *P* **224** *L* **34** # i-377

Law, David Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *Editorial*

As there are other instances of an actual counter within Figure 148-3 'PLCA Control state diagram' such as bc (see page 222, line 34) suggest that burst_timer shouldn't be defined as 'Counts the time to wait ... in bit-times.'.

SuggestedRemedy

Suggest that the text 'Counts the time to wait for the MAC to send a new packet before yielding the transmit opportunity, in bit-times.' should be changed to read 'This timer determines how long to wait for the MAC to send a new packet before yielding the transmit opportunity.'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **148** *SC* **148.4.5.4** *P* **224** *L* **40** # i-378

Law, David Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *Editorial*

Suggest that 'This timer determines how much time to wait in ...' should be changed to read 'This timer determines how long to wait in ...'.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **148** *SC* **148.4.6.1** *P* **225** *L* **46** # i-379

Law, David Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *Editorial*

It isn't entirely clear what the 'it' in the text 'When the MAC is done sending the jam bits as described in Clause 4, it waits for the ...' is. It appears it might be the MAC, but I think it is actually the PLCA Data state diagram.

SuggestedRemedy

Suggest that the text 'When the MAC is done sending the jam bits as described in Clause 4, it waits for the ...' be changed to read 'When the MAC has completed sending the jam bits as described in Clause 4, the PLCA Data state diagram waits for the ...'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **148** *SC* **148.4.6.1** *P* **226** *L* **7** # i-380

Law, David Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D** *Editorial*

The variable CRS is used in Figure 148-4 'PLCA DATA state diagram' but is missing from subclause 148.4.6.2 'PLCA Data variables'.

SuggestedRemedy

Suggest that the following definition should be added to subclause 148.4.6.2 'PLCA Data variables':

CRS
The MII signal CRS (see 22.2.2.11).

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **148** *SC* **148.4.6.1** *P* **226** *L* **27** # i-381

Law, David Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D** *Editorial*

The variables tx_cmd and rx_cmd are used in Figure 148-4 'PLCA DATA state diagram' but are missing from subclause 148.4.6.2 'PLCA Data variables'. I assume that tx_cmd and rx_cmd are the same variables as tx_cmd and rx_cmd defined in 148.4.5.2 'PLCA Control variables'.

SuggestedRemedy

Suggest that the following definitions should be added to subclause 148.4.6.2 'PLCA Data variables':

tx_cmd
See 148.4.5.2.

rx_cmd
See 148.4.5.2.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **148** *SC* **148.4.6.1** *P* **226** *L* **43** # i-382

Law, David Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D** *Editorial*

The counter recv_timer is used in Figure 148-4 'PLCA DATA state diagram' but is missing from subclause 148.4.6.4 'Timers'. I assume it is the same timer as recv_timer defined in subclause 148.4.5.4 'Timers'.

SuggestedRemedy

Suggest that the following definition should be added to subclause 148.4.5.4 'Timers':

recv_timer
See 148.4.5.4.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **148** *SC* **148.4.6.1** *P* **227** *L* **19** # i-383

Law, David Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *Editorial*

Please move the committed condition on the transition from PENDING to WAIT_MAC to be just below the PENDING state.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **148** *SC* **148.4.6.1** *P* **227** *L* **24** # i-384

Law, David Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *Editorial*

Please move the plca_txen condition on the transition from WAIT_MAC to TRANSMIT to be adjacent to the line it is associated with.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **148** *SC* **148.4.6.1** *P* **227** *L* **31** # i-385

Law, David Hewlett Packard Enterprise

Comment Type **TR** *Comment Status* **D** *Editorial*

There is no definition for the mean of the subscript n-a in relation to plca_txd.

SuggestedRemedy

Define the meaning of the subscript n-a in subclause 148.4.6.1.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

148.4.3.1.2 Change "The values ONE and ZERO are conveyed by the PLCA variables plca_txd<3>, plca_txd<2>, plca_txd<1>, and plca_txd<0>, each of which conveys"

to

"The values ONE and ZERO are conveyed by the individual bits of the four-bit variable plca_txd<3:0>. Each bit of plca_txd<3:0> conveys..."

Additionally, on page 228, line 11, change the description of plca_txd as follows:
Change from "plca_txd See 148.4.3.1.2"

to

"plca_txd<3:0> A four-bit data value conveying a nibble of data to transmit from four successive PLS_DATA.request(OUTPUT_UNIT) primitives where OUTPUT_UNIT has a value of ONE or ZERO. See 148.4.3.1.2."

Cl **148** *SC* **148.4.6.1** *P* **227** *L* **45** # i-386

Law, David Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *Editorial*

Missing 'THEN' in IF-THEN-ELSE-END construct

SuggestedRemedy

Change 'IF COL' to read 'IF COL THEN' in the FLUSH state of Figure 148-4 'PLCA DATA state diagram (continued)'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **148** *SC* **148.4.6.2** *P* **228** *L* **25** # i-387

Law, David Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *Editorial*

Suggest that cross-references to related Clause 22 subclauses be added for TXD, TX_EN, TX_ER and COL.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

At page 228, line 26, replace description of TXD with: "The MII signals TXD<3:0> specified in 22.2.2.4".

At page 228, line 29, replace description of TX_EN with: "The MII signal TXEN specified in 22.2.2.3.".

At page 228, line 32, replace description of TX_ER with: "The MII signal TXER specified in 22.2.2.5.".

At page 228, line 34, replace description of COL with: "The MII signal COL specified in 22.2.2.12".

Cl **148** *SC* **148.4.6.2** *P* **228** *L* **40** # i-388

Law, David Hewlett Packard Enterprise

Comment Type **TR** *Comment Status* **D** *Editorial*

As noted in Figure 148-2 'PLCA functions within the Reconciliation Sublayer (RS)' and elsewhere in the IEEE P802.3cg draft, the TX_CLK is sourced from the PHY. In addition the relationship between MCD, that defines the when TXD, TX_EN and TX_ER change value in the TRANSMIT state, and phase of TX_CLK needs to be defined to meet subclause 22.3.1. MCD should therefore be derived from a free-running timer that expires synchronously with the rising edge of TX_TCLK.

SuggestedRemedy

[1] Add a new subclause as follows:

148.4.6.5 Abbreviations
MCD
Alias for mii_clock_timer_done.

[2] Add a new timer to subclause 148.4.6.4 as follows:

mii_clock_timer
A continuous free-running timer that shall expire synchronously with the rising edge of TX_TCLK.
Restart time: Immediately after expiration; restarting the timer resets the condition mii_clock_timer_done.'.
Duration: see 22.2.2.1.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **147** *SC* **147.3.3.2** *P* **180** *L* **53** # i-423

Law, David — Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *Editorial*

Not sure why the variable to represent the RX_DV signal of the MII is named pcs_rxdv, RX_ER is named pcs_rxer and RXD named pcs_rxd in the PCS Receive state diagram, particularly when the Figure 147-10 'Heartbeat transmit state diagram' uses COL for the MII signal COL, CRS for CRS and RX_DV for RX_DV.

SuggestedRemedy

Suggest that in Figure 147-7 and 147-8:

[1] pcs_rxdv is renamed RX_DV.
[2] pcs_rxer is renamed RX_ER.
[2] pcs_rxd is renamed RXD.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
1. Do as the commenter's suggested remedy says (3 steps)
2. At 180/52-53 change "pcs_rxdv" to "RX_DV"
3. At 181/1 change "pcs_rxer" to "RX_ER"
4. At 181/3-4 change "pcs_rxd" to "RXD"
5. Change "pcs_txen" to "TX_EN" and "pcs_txer" to "TX_ER" in "Figure 147-4-PCS Transmit state diagram (part a)" and in "Figure 147-5-PCS Transmit state diagram (part b)"
6. At 177/6-7 change "pcs_txen" to "TX_EN"
7. At 177/12 change "pcs_txer" to "TX_ER"
8. At 177/17-18 change "pcs_txd" to "TXD"
9. At 177/43-44 change "pcs_txer = TRUE" to "TX_ER = TRUE"
10. Change "pcs_txdn" to "TXDn" in "Figure 147-5-PCS Transmit state diagram (part b)", where "n" is a lower-index letter n

Cl **148** *SC* **148.4.5.1** *P* **219** *L* **35** # i-428

Thompson, Geoffrey — Independent Consultant

Comment Type **TR** *Comment Status* **D** *Editorial*

The text calls for things to be reset to the defaults shown in the figure. There are no defaults shown in the figure.

SuggestedRemedy

Point instead to subclause 148.4.5.2 where the items are defined and add the default values there,

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Delete "When PLCA functions are disabled (plca_en = FALSE), the PLCA control variables are reset to their default
values as shown in Figure 148-3 and no special signaling is conveyed to the MII through the tx_cmd variable."

The intention was to describe what happens in Figure 148-3 / DISABLE state. Since the figure is self-explenatory the text is not needed.