

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 147 SC 147.11 P 178 L 3 # 38
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D Delay
Resolve Editor's Note

SuggestedRemedy

Replace editor's note with the following text:

"The total PHY latency in the transmit path, measured from TX_EN asserted to the first DME clock transition appearing at the MDI, shall be less than 1.6 us

The total PHY latency in the receive path, measured from the first DME clock transition of a valid packet appearing at the MDI to RX_DV asserted, shall be less than 4 us

Note that these limits don't include any latency added by the optional PLCA RS"

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.

Replace editor's note with the following text:

"The total PHY latency in the transmit path, measured from TX_EN asserted to the first DME clock transition appearing at the MDI, shall be less than 1.6 us. The total PHY latency in the receive path, measured from the first DME clock transition of a valid packet appearing at the MDI to RX_DV asserted, shall be less than 4 us. Note that these limits don't include any latency added by the optional PLCA RS."

(VM: Change from suggested remedy: Make 3 sentences into one paragraph and add "." to end of each sentence)

CI 147 SC 147.3.5 P 166 L 21 # 33
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D Editorial
Collision detection mechanism is left to the implementer. Above sentence suggests a possible implementation, but there's no need for specifying shalls

SuggestedRemedy

Remove Editor's note

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 147 SC 147.4.2 P 168 L 3 # 16
Beruto, Piergiorgio Canova Tech

Comment Type E Comment Status D Editorial
Figure referenced in editor note would be descriptive, and it's not needed.

SuggestedRemedy

Remove Editor's note.

Delete text "TBD illustrates the signal flow of the 10BASE-T1S PMA Transmit Function." from line 7

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 147 SC 147.4.3 P 169 L 9 # 17
Beruto, Piergiorgio Canova Tech

Comment Type E Comment Status D Editorial
Figure referenced in editor note would be descriptive, and it's not needed.

SuggestedRemedy

Remove Editor's note.

Delete text "TBD illustrates the signal flow of the 10BASE-T1S PMA Receive function." from line 13

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 147 SC 147.5 P 169 L 34 # 32
Beruto, Piergiorgio Canova Tech

Comment Type E Comment Status D Editorial
Editor's note served its purpose

SuggestedRemedy

Remove Editor's note

Proposed Response Response Status W
PROPOSED ACCEPT.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

Cl 147 SC 147.5.4.1 P 171 L 34 # 36
 Beruto, Piergiorgio Canova Tech
 Comment Type E Comment Status D Editorial
 Editor's note served its purpose
 SuggestedRemedy
 Remove Editor's note
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 147 SC 147.8 P 175 L 4 # 37
 Beruto, Piergiorgio Canova Tech
 Comment Type E Comment Status D Editorial
 Editor's note served its purpose
 SuggestedRemedy
 Remove Editor's note
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 148 SC 148.3 P 181 L 35 # 40
 Beruto, Piergiorgio Canova Tech
 Comment Type E Comment Status D Editorial
 Editor's note served its purpose
 SuggestedRemedy
 Remove Editor's note
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.174e P 42 L 17 # 3
 Graber, Steffen Pepperl+Fuchs GmbH
 Comment Type T Comment Status D EEE
 EEE Ability
 SuggestedRemedy
 Set bit 1.2300.10 to Reserved, Value always 0, RO (10BASE-T1S has inherent EEE Ability as there is no continuous datastream transmitted).
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 [T1S_EEE] Comment group
 Same resolution for comments 92, 120, 79, and 3
 (note - if OAM is also deleted rows from 1.2300.12:10 may be collapsed to a single reserved row under editorial license)

Cl 45 SC 45.2.1.174e P 42 L 17 # 79
 Baggett, Tim Microchip
 Comment Type T Comment Status D EEE
 As stated in the T1S Clause 147, DME requires no low-power-idle (LPI) as it is silent when not transmitting. Therefore, T1S is inherently energy efficient.
 There is no need for an EEE availability register bit since T1S has no special EEE mode.
 [T1S_LPI_REMOVAL]
 SuggestedRemedy
 Lines 17-18: Table 45-142e, Change bit 1.2300.10 (EEE Availability) to Reserved, Value always 0, RO.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 [T1S_EEE] Comment group
 Duplicate of comment 3
 (note - if OAM is also deleted rows from 1.2300.12:10 may be collapsed to a single reserved row under editorial license)

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 45 SC 45.2.1.174e.3 P 42 L 51 # 80
Baggett, Tim Microchip

Comment Type T Comment Status D EEE

As stated in the T1S Clause 147, DME requires no low-power-idle (LPI) as it is silent when not transmitting. Therefore, T1S is inherently energy efficient.

There is no need for an EEE availability register bit since T1S has no special EEE mode.

[T1S_LPI_REMOVAL]

SuggestedRemedy

Lines 51-53: Delete section 45.2.1.174e.3 EEE ability (1.2300.10) and associated text.
Note: section extends onto page 43 Line 1.

Proposed Response Response Status W

PROPOSED ACCEPT.
[T1S_EEE] Comment group - Master

CI 45 SC 45.2.1.174e.3 P 42 L 51 # 4
Graber, Steffen Pepperl+Fuchs GmbH

Comment Type T Comment Status D EEE

EEE Ability

SuggestedRemedy

Remove Chapter 45.2.1.174e.3 (see previous comment)

Proposed Response Response Status W

PROPOSED ACCEPT.
[T1S_EEE] Comment group
Duplicate of comment 80

CI 45 SC 45.2.1.174f P 43 L 52 # 81
Baggett, Tim Microchip

Comment Type T Comment Status D EEE

As stated in the T1S Clause 147, DME requires no low-power-idle (LPI) as it is silent when not transmitting. Therefore, T1S is inherently energy efficient.

There is no need for an EEE availability advertised register bit since T1S has no special EEE mode.

[T1S_LPI_REMOVAL]

SuggestedRemedy

Lines 52-53: Table 45-142f, Change bit 1.2301.0 (EEE Advertisement) to Reserved, Value always 0, RO.

Proposed Response Response Status W

PROPOSED ACCEPT.
[T1S_EEE] Comment group

CI 45 SC 45.2.1.174f.3 P 44 L 16 # 82
Baggett, Tim Microchip

Comment Type T Comment Status D EEE

As stated in the T1S Clause 147, DME requires no low-power-idle (LPI) as it is silent when not transmitting. Therefore, T1S is inherently energy efficient.

There is no need for an EEE Advertisement register bit since T1S has no special EEE mode.

[T1S_LPI_REMOVAL]

SuggestedRemedy

Lines 16-21: Delete section 45.2.1.174f.3 EEE advertisement (1.2301.0) and associated text.

Proposed Response Response Status W

PROPOSED ACCEPT.
[T1S_EEE] Comment group

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 45 SC 45.2.1.174g P 44 L 43 # 83
Baggett, Tim Microchip

Comment Type T Comment Status D EEE

As stated in the T1S Clause 147, DME requires no low-power-idle (LPI) as it is silent when not transmitting. Therefore, T1S is inherently energy efficient.

There is no need for an Link Partner EEE advertisement register bit since T1S has no special EEE mode.

[T1S_LPI_REMOVAL]

SuggestedRemedy

Lines 43-44: Table 45-142g, Change bit 1.2302.0 (Link Partner EEE Advertisement) to Reserved, Value always 0, RO.

Proposed Response Response Status W

PROPOSED ACCEPT.
[T1S_EEE] Comment group

CI 45 SC 45.2.1.174g.3 P 45 L 6 # 84
Baggett, Tim Microchip

Comment Type T Comment Status D EEE

As stated in the T1S Clause 147, DME requires no low-power-idle (LPI) as it is silent when not transmitting. Therefore, T1S is inherently energy efficient.

There is no need for a Link Partner EEE Advertisement register bit since T1S has no special EEE mode.

[T1S_LPI_REMOVAL]

SuggestedRemedy

Lines 6-11: Delete section 45.2.1.174g.3 Link Partner EEE advertisement (1.2302.0) and associated text.

Proposed Response Response Status W

PROPOSED ACCEPT.
[T1S_EEE] Comment Group

CI 45 SC 45.2.3.58d P 50 L 16 # 85
Baggett, Tim Microchip

Comment Type T Comment Status D EEE

As stated in the T1S Clause 147, DME requires no low-power-idle (LPI) as it is silent when not transmitting.

There is no need for PCS Tx LPI Received, Rx LPI Received, Tx LPI Indication, and Rx LPI Indication register bits since T1S has no special low-power-idle mode.

[T1S_LPI_REMOVAL]

SuggestedRemedy

Lines 16-17: Table 45-220d, Change bit 1.2292.11 (Tx LPI Received) to Reserved, Value always 0, RO.

Lines 18-19: Table 45-220d, Change bit 1.2292.10 (Rx LPI Received) to Reserved, Value always 0, RO.

Lines 20-21: Table 45-220d, Change bit 1.2292.9 (Tx LPI Indication) to Reserved, Value always 0, RO.

Lines 22-23: Table 45-220d, Change bit 1.2292.8 (Rx LPI Indication) to Reserved, Value always 0, RO.

Proposed Response Response Status W

PROPOSED ACCEPT.
[T1S_EEE] Comment Group

CI 45 SC 45.2.3.58d.2 P 50 L 39 # 86
Baggett, Tim Microchip

Comment Type T Comment Status D EEE

As stated in the T1S Clause 147, DME requires no low-power-idle (LPI) as it is silent when not transmitting. Therefore, T1S is inherently energy efficient.

There is no need for a PCS Tx LPI Received register bit since T1S has no special low-power-idle mode.

[T1S_LPI_REMOVAL]

SuggestedRemedy

Lines 39-45: Delete section 45.2.3.58d.2 Tx LPI Received (1.2292.11) and associated text.

Proposed Response Response Status W

PROPOSED ACCEPT.
[T1S_EEE] Comment Group

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CI 45 SC 45.2.3.58d.3 P 50 L 46 # 87
Baggett, Tim Microchip

Comment Type T Comment Status D EEE

As stated in the T1S Clause 147, DME requires no low-power-idle (LPI) as it is silent when not transmitting. Therefore, T1S is inherently energy efficient.

There is no need for a PCS Rx LPI Received register bit since T1S has no special low-power-idle mode.

[T1S_LPI_REMOVAL]

SuggestedRemedy

Lines 46-52: Delete section 45.2.3.58d.3 Rx LPI Received (1.2292.10) and associated text.

Proposed Response Response Status W

PROPOSED ACCEPT.
[T1S_EEE] Comment group
Duplicate of comment 4, 80

CI 45 SC 45.2.3.58d.4 P 51 L 1 # 88
Baggett, Tim Microchip

Comment Type T Comment Status D EEE

As stated in the T1S Clause 147, DME requires no low-power-idle (LPI) as it is silent when not transmitting. Therefore, T1S is inherently energy efficient.

There is no need for a PCS Tx LPI Indication register bit since T1S has no special low-power-idle mode.

[T1S_LPI_REMOVAL]

SuggestedRemedy

Lines 1-6: Delete section 45.2.3.58d.4 Tx LPI Indication (1.2292.9) and associated text.

Proposed Response Response Status W

PROPOSED ACCEPT.
[T1S_EEE] Comment group

CI 45 SC 45.2.3.58d.5 P 51 L 7 # 89
Baggett, Tim Microchip

Comment Type T Comment Status D EEE

As stated in the T1S Clause 147, DME requires no low-power-idle (LPI) as it is silent when not transmitting. Therefore, T1S is inherently energy efficient.

There is no need for a PCS Rx LPI Indication register bit since T1S has no special low-power-idle mode.

[T1S_LPI_REMOVAL]

SuggestedRemedy

Lines 1-6: Delete section 45.2.3.58d.5 Rx LPI Indication (1.2292.8) and associated text.

Proposed Response Response Status W

PROPOSED ACCEPT.
[T1S_EEE] Comment group

CI 78 SC 78.1.3.3.1 P 65 L 22 # 98
Baggett, Tim Microchip

Comment Type T Comment Status D EEE

As stated in the T1S Clause 147, DME requires no low-power-idle (LPI) as it is silent when not transmitting. Therefore, T1S is inherently energy efficient.

As such, recommend removing 10BASE-T1S from the EEE table in clause 78, and all Clause 45 registers relating to advertising EEE and LPI.

[MASTER COMMENT: T1S_LPI_REMOVAL]

SuggestedRemedy

Delete row for "10BASE-T1S | 147" from Table 78-1 as there is no separate EEE mode.

Proposed Response Response Status W

PROPOSED REJECT.
[T1S_EEE] Comment group

While the commenter is correct, that there is no explicit LPI mode for 10BASE-T1S, the listing in Table 78-1 is still appropriate as 10BASE-T1S supports EEE. 10BASE-T1S is the same as 10BASE-Te as far as EEE is concerned, and note that 10BASE-Te is listed in 802.3-2015 Table 78-1.

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CI 22 SC 22.2.2.11 P 28 L 34 # 48
Beruto, Piergiorgio Canova Tech

Comment Type E Comment Status D EZ

Short form RS should be used

SuggestedRemedy

Replace "Reconciliation Sublayer" with "RS"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Replace "Reconciliation Sublayer" with "RS"

(VM: Typo in Suggested Remedy)

CI 22 SC 22.2.2.11 P 28 L 42 # 49
Beruto, Piergiorgio Canova Tech

Comment Type E Comment Status D EZ

Short form RS should be used

SuggestedRemedy

Replace "Reconciliation Sublayer" with "RS"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Replace "Reconciliation Sublayer" with "RS"

(VM: Typo in Suggested Remedy)

CI 30 SC 30.5.1.1.2 P 34 L 21 # 107
Baggett, Tim Microchip

Comment Type E Comment Status D EZ

Section contains references to "twisted-pair" cable.

SuggestedRemedy

Change (two instances):

"Single twisted-pair copper cable"

to:

"Single balanced-pair copper cable"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change in two instances (one on line 21 and one on line 22) from,

Single twisted-pair copper cable

to:

Single balanced pair copper cable

CI 45 SC 45.2.1.174e.1 P 42 L 36 # 117
Brandt, David Rockwell Automation

Comment Type E Comment Status D EZ

Sub-clause misnamed

SuggestedRemedy

Change "OAM" to "Loopback" in sub-clause heading

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Implemented by Comment 91:

Resolution to comment 91 was:

Replace "10BASE-T1S OAM ability" with "10BASE-T1S Loopback ability"

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CI 45 SC 45.2.1.174e.1 P 42 L 36 # 91
Baggett, Tim Microchip

Comment Type E Comment Status D EZ

Section heading incorrectly references OAM, but text describes PMA Loopback ability and references the PMA Loopback Ability bit 1.2300.13 in Table 45-142e above.

SuggestedRemedy

Replace "10BASE-T1S OAM ability" with "10BASE-T1S Loopback ability"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 45 SC 45.5.3.3 P 58 L 54 # 63
Franchuk, Brian Emerson Automation

Comment Type E Comment Status D EZ

Operating mode voltage is wrong.

SuggestedRemedy

Change "2.4 Vpp" to "1.0 Vpp"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 146 SC 146.5.7 P 134 L 1 # 42
Beruto, Piergiorgio Canova Tech

Comment Type E Comment Status D EZ

Since this is a suggestion, as for other comments in the past we decided that the appropriate form is "can" instead of "may"

SuggestedRemedy

Replace "may" with "can"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 147 SC 147.1 P 153 L 19 # 59
Beruto, Piergiorgio Canova Tech

Comment Type E Comment Status D EZ

Typo - uppercase

SuggestedRemedy

Replace "Idle" with "idle"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 147 SC 147.1 P 153 L 22 # 60
Beruto, Piergiorgio Canova Tech

Comment Type E Comment Status D EZ

Subject is "optional support", not "functions"

SuggestedRemedy

Replace "are" with "is"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change

====

functions are described

====

to

====

is described

====

CI 147 SC 147.3.2.1 P 157 L 20 # 61
Beruto, Piergiorgio Canova Tech

Comment Type E Comment Status D EZ

Typo: double dot at end of line

SuggestedRemedy

Remove one dot

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TODO:

- Change "represents SILENCE.." to "represents SILENCE."

- Change "recovery procedure.." to "recovery procedure." -> Piergiorgio will execute this

CI 147 SC 147.3.2.3 P 159 L 1 # 46
Beruto, Piergiorgio Canova Tech

Comment Type E Comment Status D EZ

Table 147-1 might look incomplete

SuggestedRemedy

Rework table 147-1 in order to have only four columns "Name, 4B, 5B and Special function". Leave elements from '0' to 'F' with an empty "special function" field. Move elements whose name ranges from 'I' to 'N' at the bottom of the table.

Proposed Response Response Status W

PROPOSED ACCEPT.

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CI **147** SC **147.3.3** P **162** L **14** # **47**
Beruto, Piergiorgio Canova Tech

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

PCS Receive Overview chapter structure is not in line with the one of the PCS Transmit chapter. Clause numbering looks weird.

SuggestedRemedy

Replace "147.3.3 PCS Receive Overview" with "147.3.3 PCS Receive

147.3.3.1 PCS Receive overview"

Have subsequent subclauses renumbered accordingly

Proposed Response Response Status **W**

PROPOSED ACCEPT.

CI **147** SC **147.5.4.1** P **171** L **12** # **101**
Baggett, Tim Microchip

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

Figure 147-11 illustrates the test fixture which appears to be copied from the subclause 146 for T1L. A T1S multi-drop network requires two 100 Ohm edge termination resistors at each end of the bus. Each transmitter will then "see" an equivalent 50 Ohm bus impedance.

To accurately model the bus in the test fixture, a 50 Ohm equivalent resistor should be used instead of the 100 Ohm resistor.

SuggestedRemedy

Figure 147-11: Change the 100 Ohm +- 0.1% termination resistor to 50 Ohm +- 0.1%.

See Slide 2 of Baggett_Comments_072018.pdf

Proposed Response Response Status **Z**

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

CI **147** SC **147.5.4.1** P **171** L **12** # **35**
Beruto, Piergiorgio Canova Tech

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

[aesthetic] Resistor in Fig. 147-11 appears to be detached.

SuggestedRemedy

Fix figure 147-11 to have the resistor connected to the circuit

Proposed Response Response Status **W**

PROPOSED ACCEPT.

CI **147** SC **147.5.4.3** P **172** L **29** # **100**
Baggett, Tim Microchip

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

Figure 147-13 illustrates the transmitter test fixture which appears to be copied from the subclause 146 for T1L. A T1S multi-drop network requires two 100 Ohm edge termination resistors at each end of the bus. Each transmitter will then "see" an equivalent 50 Ohm bus impedance.

Since the balun presents an end termination of 100 Ohms. For the test fixture to accurately model the equivalent 50 Ohm termination of a T1S bus, a 100 Ohm termination resistor must be added in parallel at the Transmitter.

SuggestedRemedy

Figure 147-13: Add a 100 Ohm +-0.1% resistor in parallel to the pair at the Transmitter Under Test.

See Slide 3 of Baggett_Comments_072018.pdf

Proposed Response Response Status **Z**

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

CI **147** SC **147.8** P **175** L **10** # **105**
Baggett, Tim Microchip

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

The section on "Mixing segment characteristics" contains a reference to twisted-pair cabling.

SuggestedRemedy

Replace:
"single balanced twisted-pair cabling"

With:
"single balanced pair cabling"

Proposed Response Response Status **W**

PROPOSED ACCEPT.

Id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

Cl 147 SC 147.9.2 P 176 L 29 # 62
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D EZ

No need to specify "exclusive" in table 147-3 header

SuggestedRemedy

Remove "(exclusive)" from headers

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 148 SC 148.2 P 181 L 41 # 106
Baggett, Tim Microchip

Comment Type E Comment Status D EZ

Missing space

SuggestedRemedy

Insert space between "Figure 148-1" and "connects".

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 45 SC 45.2.3 P 46 L 5 # 147
Zimmerman, George CME Consulting/6 Affil

Comment Type E Comment Status D Late

Editor's note has served its purpose - being there several drafts already.

SuggestedRemedy

Delete editor's note on lines 5-10 of page 46

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 146 SC 146.7.1 P 135 L 50 # 14
HESS, DAVE CORD DATA

Comment Type T Comment Status X Link Segment

Add text:

Additionally:

a) Refer to ISO/IEC TR 11801-9906 and ANSI/TIA-568.5 for support of 10BASE-T1L over generic balanced 1-pair cabling channels.

b) ISO/IEC TR 11801-9906 and ANSI/TIA-568.5 cover reference implementation specifications and installation guidance for generic balanced 1-pair cabling channels, which support the transmission parameters specified in this clause.

SuggestedRemedy

Proposed Response Response Status W

Add: Editor's Note: ISO/IEC JTC1 SC25/WG3 is in the process of developing TR 11801-9906 in support of 10BASE-T1L over generic single balanced pair cabling and TIA TR-42 has initiated a number of projects in TR-42.1, TR-42.7, and TR-42.9 in support of 10BASE-T1L over generic single balanced pair cabling.

Cl 146 SC 146.7.1.4 P 138 L 40 # 11
Schicketanz, Dieter Reutlingen University

Comment Type T Comment Status D Link Segment

Editors note at line 40 and 48 are not needed any more. The rational is that the electromagnetic table was set in Pittsburg, and as no change to the mice table values were stated no alignment necessary. The values in table 146-5 are the same as ISO and TIA values for E1 and E2. Only the frequency range was extended to 0.1 MHz The measurements presented just confirmed the values.

SuggestedRemedy

delete both editors notes

Proposed Response Response Status W

PROPOSED ACCEPT.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI **146** SC **146.7.1.4** P **139** L **2** # **12**
 Schicketanz, Dieter Reutlingen University

Comment Type **T** Comment Status **D** Link Segment
 Table 146-5-and table 146-7 does not state max or min like in other link tables.

SuggestedRemedy

Change table 146-5 header: Minimum differential to common mode conversion.and to table 146-7 : Minimum coupling attenuation or leave the table headers and add corresponding ">" to the values in the table

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Add ">/" before all the equations in table 146-5. Add ">/" before all the values in table 146-7.

CI **146** SC **146.7.1.5** P **139** L **17** # **13**
 Schicketanz, Dieter Reutlingen University

Comment Type **T** Comment Status **D** Link Segment

The reference -4-14 is for a frequency range of 30 to 2000 MHz. The frequency range we are looking at will be given given by IEC as NP 61156-13. This was discussed in Schicketanz_050918_10SPE_01_adhoc.pdf and the inclusion of this reference was proposed by G.Zimmerman

SuggestedRemedy

Replace actual reference 62153-4-14 with NP61156 and delete TBD

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Replace IEC 62153-4-14 (TBD) with NP 61156-13, and insert Editor's note as follows: "Editor's Note (to be removed prior to publication): IEC NP 61156-13 is still in development and the specification reference will likely change prior to publication. The references will be considered for inclusion in the draft based on Task Force review of relevancy prior to publication."

CI **30** SC **30.5.1.1.4** P **34** L **28** # **50**
 Beruto, Piergiorgio Canova Tech

Comment Type **T** Comment Status **D** Management
 10BASE-T1S has no link_status defined

SuggestedRemedy

Remove "10BASE-T1S,"

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve with 52 & 54

Delete, ", 10BASE-T1S,"

(VM: Preceeding comma and space also needs to be deleted)

CI **45** SC **45.2.1.174e** P **42** L **12** # **92**
 Baggett, Tim Microchip

Comment Type **T** Comment Status **D** OAM

Table 45-142e-10BASE-T1S PMA status register defines OAM Ability bit 1.2300.11 needs removal.

See Baggett_T1S_OAM_072018.pdf

[MASTER COMMENT: OAM_REMOVAL]

SuggestedRemedy

Lines 12-16: Table 45-142e, Change bit 1.2300.11 to Reserved, Value always 0, RO.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group
 Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

Change Reserved row for 1.2300.12 to encompass 1.2300.11 as well:

Change 1.2300.12 to 1.2300.12:11

Delete row for bit 1.2300.11

(Note - if EEE bit is also removed, editor may collapse reserved row to 1.2300.12:10)

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Cl 45 SC 45.2.1.174e P 42 L 14 # 120
Brandt, David Rockwell Automation

Comment Type T Comment Status X OAM
OAM adds complexity without sufficient value

SuggestedRemedy

Change bit 1.2300.11 to: "Reserved", "Value always 0", "RO"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Duplicate of comment 92 - see comment 92

[OAM] Comment group

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

Cl 45 SC 45.2.1.174e.2 P 42 L 41 # 118
Brandt, David Rockwell Automation

Comment Type T Comment Status D OAM
OAM adds complexity without sufficient value

SuggestedRemedy

Delete sub-clause

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] - Master comment

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

Cl 45 SC 45.2.1.174e.2 P 42 L 41 # 93
Baggett, Tim Microchip

Comment Type T Comment Status D OAM
OAM Ability bit 1.2300.11 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 41-49: Delete section 45.2.1.174e.2 10BASE-T1S OAM ability (1.2300.11).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Duplicate of comment 118

[OAM] Comment group

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

Cl 45 SC 45.2.1.174e.2 P 42 L 43 # 119
Brandt, David Rockwell Automation

Comment Type E Comment Status D OAM
OAM adds complexity without sufficient value

SuggestedRemedy

Delete editors note

Proposed Response Response Status W

PROPOSED ACCEPT.

[OAM] Comment group

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

Either decision should result in removal of editor's note

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 45 SC 45.2.1.174f P 43 L 49 # 121
Brandt, David Rockwell Automation

Comment Type T Comment Status D OAM
OAM adds complexity without sufficient value

SuggestedRemedy

Change bit 1.2301.1 to: "Reserved", "Value always 0", "RO"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.2.1.174f P 43 L 49 # 94
Baggett, Tim Microchip

Comment Type T Comment Status D OAM
Table 45-142f-10BASE-T1S training register defines OAM Advertisement bit 1.2301.1 needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 49-50 : Table 45-142f, Change bit 1.2301.1 to Reserved, Value always 0, RO.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] comment group

Note - if OAM is implemented, this bit will need to be allocated in another place because 10BASE-T1S training register is deleted by another comment.

CI 45 SC 45.2.1.174f.2 P 44 L 8 # 122
Brandt, David Rockwell Automation

Comment Type T Comment Status D OAM
OAM adds complexity without sufficient value

SuggestedRemedy

Delete sub-clause

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.2.1.174f.2 P 44 L 8 # 95
Baggett, Tim Microchip

Comment Type T Comment Status D OAM
OAM advertisement bit 1.2301.1 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 8-14: Delete section 45.2.1.174f.2 10BASE-T1S OAM advertisement (1.2301.1).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Duplicate of comment 122

[OAM] Comment group

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 45 SC 45.2.1.174g P 44 L 39 # 96
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

Table 45-142g-10BASE-T1S link partner training register OAM Link Partner Advertisement bit 1.2301.1 needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 39-42: Table 45-142g, Change bit 1.2302.1 to Reserved, Value always 0, RO.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] comment group

Note - if OAM is implemented, this bit will need to be allocated in another place because 10BASE-T1S training register is deleted by another comment.

CI 45 SC 45.2.1.174g P 44 L 39 # 123
Brandt, David Rockwell Automation

Comment Type T Comment Status D OAM

OAM adds complexity without sufficient value

SuggestedRemedy

Change bit 1.2302.1 to: "Reserved", "Value always 0", "RO"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.2.1.174g.2 P 44 L 52 # 124
Brandt, David Rockwell Automation

Comment Type T Comment Status D OAM

OAM adds complexity without sufficient value

SuggestedRemedy

Delete sub-clause

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.2.1.174g.2 P 44 L 53 # 97
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

OAM Link Partner Advertisement bit 1.2301.1 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Line 53: Delete section 45.2.1.174g.2 Link partner 10BASE-T1S OAM advertisement (1.2302.1).

Note: Section extends to Page 45 Lines 1-4.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Duplicate of comment 124

[OAM] Comment group

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

Cl 45 SC 45.2.3 P 46 L 25 # 125
Brandt, David Rockwell Automation

Comment Type T Comment Status D OAM
OAM adds complexity without sufficient value

SuggestedRemedy

Consolidate Register addresses 3.2294 through 3.2303 from 4 lines, into a single line as:
Register name = "Reserved", Subclause = "".

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
[OAM] Comment group
Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT
If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

Cl 45 SC 45.2.3 P 46 L 26 # 108
Baggett, Tim Microchip

Comment Type T Comment Status D OAM
Table 45-168-PCS registers table contains OAM registers 3.2294 through 3.2303 that need removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 26-29: Delete rows for registers 3.2294 (10BASE-T1S OAM transmit), 2.2295 through 3.2298 (10BASE-T1S OAM message), 3.2299 (10BASE-T1S OAM receive), and 3.2300 through 3.2303 (Link partner 10BASE-T1S OAM message).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
Duplicate of comment 125
[OAM] Comment group
Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT
If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

Cl 45 SC 45.2.3.58f P 52 L 38 # 126
Brandt, David Rockwell Automation

Comment Type T Comment Status D OAM
OAM adds complexity without sufficient value

SuggestedRemedy

Delete sub-clause and all subordinate sub-clauses (45.2.3.58f.1 through 45.2.3.58f.8), including Table 45-220f and Editor's Notes in .6 and .7.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
[OAM] Comment group
Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT
If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

Cl 45 SC 45.2.3.58f P 52 L 38 # 109
Baggett, Tim Microchip

Comment Type T Comment Status D OAM
10BASE-T1S OAM Transmit register 3.2294 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 38-41: Delete section 45.2.3.58f 10BASE-T1S OAM transmit register (Register 3.2294).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
[OAM] Comment group
Implemented by comment 126

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT
If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 45 SC 45.2.3.58f.1 P 52 L 42 # 110
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

OAM message valid bit 3.2294.15 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 42-48 : Delete section 45.2.3.58f.1 10BASE-T1S OAM message valid (3.2294.15).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Implemented by comment 126

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.2.3.58f.2 P 52 L 49 # 111
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

OAM Toggle value bit 3.2294.14 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 49-54 : Delete section 45.2.3.58f.2 Toggle value (3.2294.14).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Implemented by comment 126

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.2.3.58f P 53 L 1 # 112
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

Table 45-220f-10BASE-T1S OAM transmit register needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 1-35: Delete Table 45-220f - 10BASE-T1S OAM transmit register bit definitions.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Implemented by comment 126

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.2.3.58f.3 P 53 L 36 # 113
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

OAM message received bit 3.2294.13 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 36-41: Delete section 45.2.3.58f.3 10BASE-T1S OAM message received (3.2294.13).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Implemented by comment 126

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 45 SC 45.2.3.58f.4 P 53 L 42 # 114
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

OAM Received message toggle value bit 3.2294.12 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 42-46: Delete section 45.2.3.58f.4 Received message toggle value (3.2294.12).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group
Implemented by comment 126

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.2.3.58f.5 P 53 L 47 # 64
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

OAM Message number bitfield 3.2294.11:8 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 47-52: Delete section 45.2.3.58f.5 Message number (3.2294.11:8)

Note: Section extends to Page 54 Lines 1-3.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group
Implemented by comment 126

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.2.3.58f.6 P 54 L 4 # 65
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

OAM Ping received bit 3.2294.3 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 4-12: Delete section 45.2.3.58f.6 Ping received (3.2294.3).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group
Implemented by comment 126

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.2.3.58f.7 P 54 L 13 # 66
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

OAM Ping transmit bit 3.2294.2 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 13-21: Delete section 45.2.3.58f.7 Ping transmit (3.2294.2).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group
Implemented by comment 126

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

Cl 45 SC 45.2.3.58f.8 P 54 L 22 # 67
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

OAM Local SNR bitfield 3.2294.1:0 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 22-26: Delete section 45.2.3.58f.8 Local SNR (3.2294.1:0).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Implemented by comment 126

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

Cl 45 SC 45.2.3.58g P 54 L 27 # 68
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

10BASE-T1S OAM message registers (3.2295 to 3.2298) description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 27-32: Delete section 45.2.3.58g 10BASE-T1S OAM message register (Registers 3.2295 to 3.2298).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Implemented by comment 127

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

Cl 45 SC 45.2.3.58g P 54 L 27 # 127
Brandt, David Rockwell Automation

Comment Type T Comment Status D OAM

OAM adds complexity without sufficient value

SuggestedRemedy

Delete sub-clause and Table 45-220g.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

Cl 45 SC 45.2.3.58g P 54 L 33 # 69
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

Table 45-220g - 10BASE-T1S OAM message register needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 33-49: Delete Table 45-220g - 10BASE-T1S OAM message register bit definitions.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Implemented by comment 127

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

Cl 45 SC 45.2.3.58h P 54 L 50 # 128
Brandt, David Rockwell Automation

Comment Type T Comment Status D OAM

OAM adds complexity without sufficient value

SuggestedRemedy

Delete sub-clause and all subordinate sub-clauses (45.2.3.58h.1 through 45.2.3.58h.4), including Table 45-220h.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

Cl 45 SC 45.2.3.58h P 54 L 50 # 70
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

10BASE-T1S OAM receive register 3.2299 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 50-53: Delete section 45.2.3.58h 10BASE-T1S OAM receive register (Register 3.2299).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Implemented by comment 128

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

Cl 45 SC 45.2.3.58h P 55 L 1 # 71
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

Table 45-220h - Link partner 10BASE-T1S OAM message register needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 1-23: Delete Table 45-220h - Link partner 10BASE-T1S OAM message register bit definitions.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Implemented by comment 128

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

Cl 45 SC 45.2.3.58h.1 P 55 L 22 # 72
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

OAM Link Partner Message valid bit 3.2299.15 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 22-29: Delete section 45.2.3.58h.1 Link partner 10BASE-T1S OAM message valid (3.2299.15).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Implemented by comment 128

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 45 SC 45.2.3.58h.2 P 55 L 30 # 73
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

OAM Link Partner toggle value bit 3.2299.14 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 30-34: Delete section 45.2.3.58h.2 Link partner toggle value (3.2299.14).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Implemented by comment 128

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.2.3.58h.3 P 55 L 35 # 74
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

OAM Link Partner message number bitfield 3.2299.11:8 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 35-38: Delete section 45.2.3.58h.3 Link partner message number (3.2299.11:8).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Implemented by comment 128

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.2.3.58h.3 P 55 L 39 # 75
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

OAM Link Partner SNR bitfield 3.2299.1:0 description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 39-43: Delete section 45.2.3.58h.4 Link partner SNR (3.2299.1:0).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Implemented by comment 128

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.2.3.58i P 55 L 44 # 115
Brandt, David Rockwell Automation

Comment Type T Comment Status D OAM

OAM adds complexity without sufficient value

SuggestedRemedy

Delete sub-clause and Table 45-220i.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

[OAM] Comment group

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT

If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 45 SC 45.2.3.58i P 55 L 44 # 76
Baggett, Tim Microchip

Comment Type T Comment Status X OAM

10BASE-T1S OAM link partner message registers (3.2300 to 3.2303) description text needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 44-50: Delete section 45.2.3.58i Link partner 10BASE-T1S OAM message register (Registers 3.2300 to 3.2303).

Proposed Response Response Status W

[OAM] Comment group
Implemented by comment 115

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT
If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.2.3.58i P 56 L 1 # 77
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

Table 45-220i-10BASE-T1L OAM receive register needs removal.

[OAM_REMOVAL]

SuggestedRemedy

Lines 1-25: Delete Table 45-220i - 10BASE-T1L OAM receive register bit definitions.

NOTE: The table title incorrectly refers to T1L rather than T1S.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
[OAM] Comment group
Implemented by comment 115

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT
If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.5.3.7 P 63 L 9 # 78
Baggett, Tim Microchip

Comment Type T Comment Status D OAM

The table includes PICS items for T1S OAM which need removal.

SuggestedRemedy

Lines 9-38: Delete rows from table referring to items RM194, RM195, RM196, RM197, RM198, RM199, and RM200.

At the top of the table (page 61, line3) change:
"Insert PICS items RM158 through RM200 into the table as follows:"
to:
"Insert PICS items RM158 through RM193 into the table as follows:"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
[OAM] Comment group

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT
If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

CI 45 SC 45.5.3.7 P 63 L 16 # 116
Brandt, David Rockwell Automation

Comment Type T Comment Status X OAM

OAM adds complexity without sufficient value

SuggestedRemedy

Delete Item RM194 through RM199 and renumber

Proposed Response Response Status W

[OAM] Comment group
Implemented by comment 78 (comment 78 includes in RM200 to the deleted rows)

Task Force to Discuss OAM and decide whether to implement OAM functionality or not.

If the decision is against OAM, ACCEPT THIS COMMENT
If not, ACCEPT IN PRINCIPLE, and make whatever register changes are proposed.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 147 SC 147.3.2.1 P 157 L 16 # 143
CORDARO, Jay Broadcom, Inc.

Comment Type TR Comment Status D OAM

[UD] add text for user-defined data in PCS Transmit Overview

SuggestedRemedy

If optional user-defined data channel is supported (UD_EN = ON), the 15 bit Ouser defined data (ud_txdata) replaces part of the packet preamble starting at the 34th bit (included) from TX_EN asserted, overriding the TXD<3:0> content as shown in figure 147-4.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Group [UD]

Requires the group to discuss

TODO:

- Insert 2 new paragraph to the end of "147.3.2.1 PCS Transmit overview" as per the content of 4 of 13 of UD.docx

- Implement and insert a new figure, describing the CRC-5, and anchor it to the next text as per the content of 4 of 13 of UD.docx

CI 147 SC 147.3.3.2 P 158 L 23 # 141
CORDARO, Jay Broadcom, Inc.

Comment Type TR Comment Status D OAM

[UD] ADD Variable for UD_EN

SuggestedRemedy

Defines whether user-defined data is enabled. If user-defined data is enabled for a packet, this variable shall be set to ON. If user-defined data is not supported for this packet, this variable shall be set to OFF. Values: ON or OFF. This variable can be set on a per-packet basis or hard-wired.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Group [UD]

Requires the group to discuss

TODO:

- Insert a new variable rx_ud_sup to under "147.3.3.1 Variables"

- Insert a description as per the content of 2 of 13 of UD.docx

CI 147 SC 147.3.3.2 P 158 L 23 # 142
CORDARO, Jay Broadcom, Inc.

Comment Type TR Comment Status D OAM

[UD] ADD Variable for UD_txdata

SuggestedRemedy

15 bits user-defined data to be sent over the packet preamble. This variable is set by MDIO or other equivalent functionality. If user-defined data is not supported or not enabled, the content of this variable is undefined

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Group [UD]

Requires the group to discuss

TODO:

- Insert a new variable ud_txdata to under "147.3.3.1 Variables"

- Insert a description as per the content of 3 of 13 of UD.docx

CI 147 SC 147.3.2.3 P 160 L 3 # 140
CORDARO, Jay Broadcom, Inc.

Comment Type TR Comment Status D OAM

[UD] Replace figure 147-4 with figure_147_4_UD_field

SuggestedRemedy

redraw Figure 147-4 with following picture

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Group [UD]

Requires the group to discuss

TODO:

- Replace figure 147-4 as per the content of 5 of 13 of UD.docx

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

Cl 147 SC 147.3.3 P 162 L 27 # 146
CORDARO, Jay Broadcom, Inc.

Comment Type T Comment Status D OAM
[ud] delete sentence and add 3 paragraphs

SuggestedRemedy

delete sentence starting "Following the SSD marker there are four states before the DATA state to accomplish this task"

add

After the last SSD is received, the PCS Receive function discards the next eight symbols which shall

instead be used to achieve lock of the self-synchronizing scrambler. Afterward, PCS Receive function decodes one more symbolcontaining the last bit needed for scrambler locking and the first three least significant bits of the optionaluser-defined field. If user-defined data is supported, the least significant user-defined bit UD_EN will be 1. The remaining bits of the optional user-defined fields are then decoded from the next three 5B symbols. If user-defined data is not supported, UD_EN=0 and the PCS receive function ignores the user-defined data bits.

During the time the PCS Receive function is decoding data for the scrambler locking and whether or not user-defined data field is supported, the special value 5 is conveyed to the MII via the pcs_rxd variable, thus rebuilding the original preamble transmitted by the MAC. Eventually the PCS Receive function switches to the DATA state where 5B symbols are being decoded and conveyed to the MAC via MII interface as appropriate.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Group [UD]

Requires the group to discuss

TODO:

- Remove "the SSD marker there are four states before the DATA state to accomplish this task."

- Add 3 new paragraphs in its place (newline before), as per the content of 8 of 13 of UD.docx (note: this shows only 2 paragraphs, but assume newline before the red text)

Cl 147 SC 147.3.3.1 P 163 L 12 # 139
CORDARO, Jay Broadcom, Inc.

Comment Type TR Comment Status D OAM
[MASTER COMMENT] [UD] Add variable for ud_rxdata

SuggestedRemedy

ud_rxdata<9:0> 15 bits user-defined data consisting of 10 bits of information and a 5-bit CRC retrieved from packet preamble if bit 0 of the user-defined data field is set to '1'. If user-defined data bit 0 is set to '0' the content of this variable is undefined. This variable is inteded to be available for reading via MDIO or similar interface.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Group [UD]

Requires the group to discuss

TODO:

- Insert a new variable ud_rxdata to under "147.3.3.1 Variables"

- Insert a description as per the content of 1 of 13 of UD.docx

- Adjust 45.2.1.147.e, Table 45-142e, 45.2.1.147.f, Table 45-142f, 45.2.3.58i and Table 45-220h as shown on pages 9-13 of 13 of UD.docx -> Valerie notified about this

Cl 147 SC 147.3.4 P 164 L 2 # 144
CORDARO, Jay Broadcom, Inc.

Comment Type TR Comment Status D OAM
[UD] Replace figure 147-8 with figure_147_8_UD_field

SuggestedRemedy

redraw Figure 147-8 with following picture

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Group [UD]

Requires the group to discuss

TODO:

- Replace figure 147-8 as per the content of 6 of 13 of UD.docx

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI **147** SC **147.3.3** P **165** L **2** # **145**
 CORDARO, Jay Broadcom, Inc.

Comment Type **TR** Comment Status **D** OAM

[UD] Replace figure 147-9 with figure_147_9_UD_field

SuggestedRemedy

redraw Figure 147-9 with following picture

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Group [UD]

Requires the group to discuss

TODO:

- Replace figure 147-9 as per the content of 7 of 13 of UD.docx

CI **147** SC **147.3.2.1** P **157** L **13** # **129**
 CORDARO, Jay Broadcom, Inc.

Comment Type **TR** Comment Status **D** PCS

[MASTER COMMENT][JJHH] Update PCS transmit to incorporate JJHH Preamble + minor text correction.

SuggestedRemedy

Upon assertion of TX_EN, the PCS Transmit function passes a group of two SYNC symbols to the PMA, followed by two SSD symbols which replaces the first 16 bits of the packet preamble. Following the second SSD, TXD<3:0> is encoded into 5B symbols using the encoding rules specified in Table 147-1, until TX_EN is deasserted.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Group [JJHH]

Requires the group to discuss whether to change the BASE-T1S preamble - if the group agrees to do this, implement the text in teh suggest remedy as shown below. If not, REJECT the comment and do nothing.

- Change if group agrees to change preamble:

====

Upon the assertion of TX_EN, the PCS Transmit function passes a group of three SYNC symbols to the PMA, followed by an SSD, which replaces the first 16 bits of the preamble. Following SSD, TXD<3:0> is encoded into 5B symbols using encoding rules specified in Table 147-1, until TX_EN is deasserted.

====

to

====

Upon assertion of TX_EN, the PCS Transmit function passes a group of two SYNC symbols to the PMA, followed by two SSD symbols which replaces the first 16 bits of the packet preamble. Following the second SSD, TXD<3:0> is encoded into 5B symbols using the encoding rules specified in Table 147-1, until TX_EN is deasserted.

====

Note: see page 1 of 11 of JJHH.docx

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI **147** SC **147.3.2.2** P **158** L **22** # **130**
CORDARO, Jay Broadcom, Inc.

Comment Type **TR** Comment Status **D** PCS

[JJHH] Insert txcnt counter

SuggestedRemedy

txcnt General purpose counter for PCS transmit function.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Group [JJHH]

Requires the group to discuss

If group agrees to change preamble, implement change below, otherwise REJECT and no change to draft.

TODO:

- Insert the variable "txcnt" right after "link_control", as follows:

====

General purpose counter for PCS transmit function.

====

Note: see page 2 of 11 of JJHH.docx

CI **147** SC **147.3.2.2** P **158** L **27** # **131**
CORDARO, Jay Broadcom, Inc.

Comment Type **TR** Comment Status **D** PCS

[JJHH] replace SSD with 'H'

SuggestedRemedy

5B symbol defined as 'H' in 4B/5B encoding (see also table 147-1)

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Group [JJHH]

Requires the group to discuss

If group agrees to change preamble, implement change below, otherwise REJECT and no change to draft.

Change:

====

5B symbol defined as 'K' in 4B/5B encoding.

====

to:

====

5B symbol defined as 'H' in 4B/5B encoding.

====

Note: see page 3 of 11 of JJHH.docx

CI **147** SC **147.3.2.2** P **158** L **32** # **132**
CORDARO, Jay Broadcom, Inc.

Comment Type **TR** Comment Status **D** PCS

[JJHH] Replace ESDERR with 'K'

SuggestedRemedy

5B symbol defined as 'K' in 4B/5B encoding (see also table 147-1)

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Group [JJHH]

Requires the group to discuss

If group agrees to change preamble, implement change below, otherwise REJECT and no change to draft.

Change:

====

5B symbol defined as 'H' in 4B/5B encoding.

====

to:

====

5B symbol defined as 'K' in 4B/5B encoding.

====

Note: see page 4 of 11 of JJHH.docx

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI **147** SC **147.3.2.3** P **158** L **42** # **133**
CORDARO, Jay Broadcom, Inc.

Comment Type **TR** Comment Status **D** PCS

[JJHH] Repace nibble with 'four bits'

SuggestedRemedy

In the PCS transmit process, this function takes as its argument four bits of input data.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Group [JJHH]

Requires the group to discuss

If group agrees to change preamble, implement change below, otherwise REJECT and no change to draft.

Change:

====

In the PCS transmit process, this function takes as its arguments one data nibble

====

to:

====

In the PCS transmit process, this function takes as its arguments four bits of input data

====

Note: see page 5 of 11 of JJHH.docx

CI **147** SC **147.3.2.3** P **159** L **8** # **134**
CORDARO, Jay Broadcom, Inc.

Comment Type **TR** Comment Status **D** PCS

[JJHH]Change Name 'K' to ESDERR See table_147_1.png

SuggestedRemedy

see comment

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Group [JJHH]

Requires the group to discuss

If group agrees to change preamble, implement change below, otherwise REJECT and no change to draft.

TODO:

- In "Table 147-1-4B/5B Encoding" change "SSD" to "ESDERR" (under K)

- In "Table 147-1-4B/5B Encoding" change "ESDERR" to "SSD" (under H)

Note: see page 6 of 11 of JJHH.docx

CI **147** SC **147.3.2.3** P **159** L **12** # **135**
CORDARO, Jay Broadcom, Inc.

Comment Type **TR** Comment Status **D** PCS

[JJHH] Change Name 'H' to SSD. See table_147_1.png

SuggestedRemedy

see comment

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Group [JJHH]

Requires the group to discuss

If group agrees to change preamble, implement change below, otherwise REJECT and no change to draft.

Already dealt with by #134

Note: see page 7 of 11 of JJHH.docx

CI **147** SC **147.3.2.3** P **160** L **17** # **136**
CORDARO, Jay Broadcom, Inc.

Comment Type **TR** Comment Status **D** PCS

[JJHH] Update Figure 147-4 see figure_147_4.png

SuggestedRemedy

Edit Figure 147-4 Remove SYNC3, Replace w/SSD1. Change SSD to SSD2

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Group [JJHH]

Requires the group to discuss

If group agrees to change preamble, implement change below, otherwise REJECT and no change to draft.

Change Figure 147-4 as per the redline text shown by 8 of 11 of JJHH.docx

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 147 SC 147.3.3 P 162 L 24 # 137
CORDARO, Jay Broadcom, Inc.

Comment Type TR Comment Status D PCS

[JJHH] Update PCS Receive text for JJHH preamble

SuggestedRemedy

The finite state machine defined in Figure 147-8 is triggered by the reception of a SYNC symbol from the PMA Receive function and waits for two SSD symbols to start regenerating the packet preamble whose start has been replaced with the SYNC, SYNC, SSD, SSD sequence by the PCS Transmit functions as described in Figure 147-4.

After the second SSD is received, the PCS Receive function discards the next nine symbols which shall instead be used to achieve lock of the self-synchronizing descrambler.

During the descrambler locking time, the special value 5 is conveyed to the MII via the pcs_rxd variable in order to rebuild the original preamble transmitted by the MAC.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Group [JJHH]

Requires the group to discuss

If group agrees to change preamble, implement change below, otherwise REJECT and no change to draft.

Replace the following 1 paragraph:

====

The finite state machine defined in Figure 147-8 is triggered by the reception of a SYNC symbol 'J' from the PMA Receive function and waits for an SSD symbol 'K' to start regenerating the packet preamble whose start has been replaced with the SYNC, SYNC, SYNC, SSD sequence by the PCS Transmit functions as described in Figure 147-4. Following the SSD marker there are four states before the DATA state to accomplish this task.

====

by the followin 2:

====

The finite state machine defined in Figure 147-8 is triggered by the reception of a SYNC symbol from the PMA Receive function and waits for two SSD symbols to start regenerating the packet preamble whose start has been replaced with the SYNC, SYNC, SSD, SSD sequence by the PCS Transmit functions as described in Figure 147-4. After the second SSD is received, the PCS Receive function discards the next nine symbols which shall instead be used to achieve lock of the self-synchronizing descrambler. During the descrambler locking time, the special value 5 is conveyed to the MII via the pcs_rxd variable in order to rebuild the original preamble transmitted by the MAC.

====

Notes:

- mind the link

- see also page 9 of 11 of JJHH.docx

CI 147 SC 147.3.3 P 162 L 27 # 44
Beruto, Piergiorgio Canova Tech

Comment Type E Comment Status D PCS

After scrambler has been added, the descriptive text is no more in line with the state diagrams.

SuggestedRemedy

Replace "Following the SSD marker there are four states before the DATA state to accomplish this task." with

"After the last SSD is received, the PCS Receive function discards the next eight symbols which shall

instead be used to achieve lock of the self-synchronizing scrambler. During the time the PCS Receive function is decoding data for locking the scrambler, the special value 5 is conveyed to the MII via the pcs_rxd variable, thus rebuilding the original preamble transmitted by the MAC.

Eventually the PCS Receive function switches to the DATA state where 5B symbols are being decoded and conveyed to the MII interface as appropriate."

Proposed Response Response Status W

PROPOSED ACCEPT.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 147 SC 147.3.4 P 164 L 2 # 138
CORDARO, Jay Broadcom, Inc.

Comment Type TR Comment Status D PCS

[JJHH] update PCS Receive state diagram figure 147-8 see figure_147_8.png

SuggestedRemedy

Redraw Figure 147-8 following picture

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Group [JJHH]

Requires the group to discuss

If group agrees to change preamble, implement change below, otherwise REJECT and no change to draft.

TODO:

- Change Figure 147-8 as per the redline text shown on page 10 of 11 of JJHH.docx

- Do the following editorial fix: change

====

The variables, functions, and timers used in Figure 147-5 are defined as below.

====

to

====

The variables, functions, and timers used in Figure 147-8 are defined as below.

====

as per page 11 of 11 of JJHH.docx

Note: mind the link

CI 30 SC 30.3.9.2 P 34 L 10 # 22
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D PLCA

Addendum to master comment [PLCA_MAX_ID]

SuggestedRemedy

Add subclause:

"30.3.9.2.3 aPLCAMaxID

ATTRIBUTE

APPROPRIATE SYNTAX:

INTEGER

BEHAVIOUR DEFINED AS:

The value of aPLCAMaxID is assigned to define the maximum number of nodes that can be handled on the PLCA network.;"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 30 SC 30.3.9.2 P 34 L 10 # 24
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D PLCA

Addendum to master comment [PLCA_TO_TIMER]

SuggestedRemedy

Add subclause:

"30.3.9.2.5 aPLCATransmitOpportunityTimer

ATTRIBUTE

APPROPRIATE SYNTAX:

INTEGER

BEHAVIOUR DEFINED AS:

The value of aPLCATransmitOpportunityTimer is assigned to define the time between PLCA transmit opportunities.;"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 30 SC 30.3.9.2 P 34 L 10 # 23
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D PLCA

Addendum to master comment [PLCA_LOCAL_NODE_ID]

SuggestedRemedy

Add subclause:

"30.3.9.2.4 aPLCALocalNodeID

ATTRIBUTE

APPROPRIATE SYNTAX:

INTEGER

BEHAVIOUR DEFINED AS:

The value of aPLCALocalNodeID is assigned to define the ID of the local node on the PLCA network.;"

Proposed Response Response Status W

PROPOSED ACCEPT.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 45 SC 45.2.3 P 46 L 12 # 25

Beruto, Piergiorgio

Canova Tech

Comment Type T Comment Status D PLCA

Addendum to master comments [PLCA_MAX_ID], [PLCA_LOCAL_NODE_ID], [PLCA_TO_TIMER]

SuggestedRemedy

In table 45-168

Change:
"3.2280 through 3.2290 | Reserved"

To:
"3.2280 through 3.2288 | Reserved"

Insert:
"3.2289 | 10BASE-T1S PLCA control | 45.2.3.58c"

Insert:
"3.2290 | 10BASE-T1S PLCA control 2 | 45.2.3.58d"

Proposed Response Response Status W

PROPOSED ACCEPT.
[PLCA_PARAMETERS] Group

CI 45 SC 45.2.3.58c P 48 L 44 # 26

Beruto, Piergiorgio

Canova Tech

Comment Type T Comment Status D PLCA

Addendum to master comments [PLCA_MAX_ID], [PLCA_LOCAL_NODE_ID]

SuggestedRemedy

Add
"45.2.3.58c 10BASE-T1S-PLCA control 1 (Register 3.2289)

The assignment of bits in the 10BASE-T1S PLCA control 1 register is shown in Table XXX."

Add table XXX (with editorial license to use the same style of already defined registers):
Bits(s) | Name | Description | RWa
3.2289.15:8 | MAX_ID | 8 bit field indicating the max number of nodes on the PLCA network | R/W
3.2290.7:0 | local_nodeID | 8 bit field indicating the local ID of the node on the PLCA network | RW

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
Register number and 45.2.3.58c are taken.
Register to be at the end of the PCS Registers for 10BASE-T1S.
Subclause, register and table numbers to be adjusted after comment resolution reorganizing 10BASE-T1S registers

Add new row for 3.2304 10BASE-T1S-PLCA control 1 register 45.2.3.58j to end of block in Table 45-168 PCS registers

Add new subclause after 45.2.3.58i and Table 45-220i:

"45.2.3.58j 10BASE-T1S-PLCA control 1 (Register 3.2304)

The assignment of bits in the 10BASE-T1S PLCA control 1 register is shown in Table 45-220j."

Add table 45-220j (with editorial license to use the same style of already defined registers):
Bits(s) | Name | Description | RWa
3.2289.15:8 | MAX_ID | 8 bit field indicating the max number of nodes on the PLCA network | R/W
3.2290.7:0 | local_nodeID | 8 bit field indicating the local ID of the node on the PLCA network | RW

ID Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 45 SC 45.2.3.58d.1 P 48 L 44 # 30
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D PLCA

Addendum to master comment [PLCA_TO_TIMER]

SuggestedRemedy

Add subclause:

"45.2.3.58d.1 TO_TIMER (3.2290.15:0)

When 10BASE-T1S PCS is in PLCA mode, bits 3.2290.15:0 define the time between

PLCA transmit opportunities expressed in bit times.

The default value of bits 3.2290.15:0 is 20."

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 45 SC 45.2.3.58c.2 P 48 L 44 # 28
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D PLCA

Addendum to master comment [PLCA_LOCAL_NODE_ID]

SuggestedRemedy

Add subclause:

"45.2.3.58c.2 local_nodeID (3.2289.7:0)

When 10BASE-T1S PCS is in PLCA mode, bits 3.2289.7:0 define the ID of the node in the network.

The default value of bits 3.2289.7:0 is 255."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Add subclause:

"45.2.3.58c.2 local_nodeID (3.2289.7:0)

When 10BASE-T1S PCS is in PLCA mode, bits 3.2289.7:0 define the PLCA transmit opportunity assigned to the PHY. See 148.4.5.2.

The default value of bits 3.2289.7:0 is 255."

CI 45 SC 45.2.3.58c.1 P 48 L 44 # 27
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D PLCA

Addendum to master comment [PLCA_MAX_ID]

SuggestedRemedy

Add subclause:

"45.2.3.58c.1 MAX_ID (3.2289.15:8)

When 10BASE-T1S PCS is in PLCA mode and local_nodeID is set to value 0, bits 3.2289.15:8 define the number of maximum nodes that can be handled on the PLCA network.

The default value of bits 3.2289.15:8 is 8."

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 45 SC 45.2.3.58c P 48 L 44 # 29
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D PLCA

Addendum to master comment [PLCA_TO_TIMER]

SuggestedRemedy

Add

"45.2.3.58d 10BASE-T1S-PLCA control 2 (Register 3.2290)

The assignment of bits in the 10BASE-T1S PLCA control 2 register is shown in Table YYY."

Add table YYY (with editorial license to use the same style of already defined registers):

Bits(s) | Name | Description | RWa

3.2290.15:0 | TO_TIMER | 16 bit field indicating the the time between PLCA transmit opportunities expressed in bit times | R/W

Proposed Response Response Status W

PROPOSED ACCEPT.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

Cl 45 SC 45.2.3.58c P 49 L 10 # 90
Baggett, Tim Microchip

Comment Type E Comment Status D PLCA

Bit PLCA reset (3.2291.12) as described in 45.2.3.58c.4 is not included in Table 45-220c.

SuggestedRemedy

Insert the following bit row into Table 45-220c:

3.2291.12 PLCA reset 1=PLCA reset 0=Normal operation R/W, SC

Update reserved bits:

3.2291.11:0

Proposed Response Response Status W

PROPOSED ACCEPT.

Resolve with comment 8 (duplicate)

Cl 45 SC 45.2.3.58c P 49 L 11 # 8
Graber, Steffen Pepperl+Fuchs GmbH

Comment Type T Comment Status D PLCA

Description for Bit 3.2291.12 (PLCA Reset) is missing.

SuggestedRemedy

Add bit 3.2291.12 to table 45-220c: Name: PLCA reset, Description: 1 = PLCA reset 0 = Normal operation, R/W: R/W, SC

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Duplicate of comment 90

Cl 148 SC 148.4.5.1 P 191 L 10 # 43
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D PLCA

Since ERI is optional we need to explicitly go from WAIT_TO state to EARLY_RECEIVE when a BEACON indication is received.

SuggestedRemedy

In figure 148-5 change the condition to switch from WAIT_TO to EARLY_RECEIVE state as follows: "plca_eri = TRUE + rx_cmd = BEACON"

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 148 SC 148.4.5.2 P 192 L 50 # 19
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D PLCA

[MASTER COMMENT: PLCA_LOCAL_NODE_ID] Editor's note has served its purpose

SuggestedRemedy

Remove Editor's note.

At line 44 replace "ID representing the PLCA transmit opportunity assigned to the PHY.

Generated by the management interface (or equivalent functionality if MDIO is not implemented)" with "ID representing the PLCA transmit opportunity number assigned to the PHY. This signal maps to aPLCALocalNodeID. When MDIO is present, the local_nodeID is configured to the content of bits 3.2289.7:0. When MDIO is not present, the functionality of bits 3.2289.7:0 can be provided by equivalent means"

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 148 SC 148.4.5.2 P 193 L 8 # 20
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D PLCA

[MASTER COMMENT: PLCA_MAX_ID] Editor's note has served its purpose

SuggestedRemedy

Remove Editor's note.

At line 2 replace "Generated by the management interface (register TBD - TO BE ALLOCATED), indicates the maximum number of PHYs that can join the multidrop network" with "Indicates the maximum number of PHYs that can join the multidrop network, reflecting the value of aPLCAMaxID. When MDIO is present, the MAX_ID is configured to the content of bits 3.2289.15:8. When MDIO is not present, the functionality of bits 3.2289.15:8 can be provided by equivalent means"

Proposed Response Response Status W

PROPOSED ACCEPT.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI **148** SC **148.4.5.4** P **193** L **40** # **21**
Beruto, Piergiorgio Canova Tech

Comment Type **T** Comment Status **D** PLCA

[MASTER COMMENT: PLCA_TO_TIMER] Resolve TBD

SuggestedRemedy

Replace "Transmit opportunity timer, configured via management interface (register TBD - TO BE ALLOCATED)." with "The transmit opportunity timer maps to aPLCATransmitOpportunityTimer. When the MDIO is present, the timer is configured to the content of bits 3.2290.15:0. When MDIO is not present, the functionality of bits 3.2290.15:0 can be provided by equivalent means"

Proposed Response Response Status **W**

PROPOSED ACCEPT.

CI **147** SC **147.1.2** P **153** L **49** # **102**
Baggett, Tim Microchip

Comment Type **E** Comment Status **D** PMA

A symbol is the shortest pulse possible in transmission (1.4.393). The Baud rate is the unit of signalling speed (1.4.110), or symbols/second. Differential Manchester encoding requires two pulses to encode each bit. Therefore the Baud rate should be 2x the bit rate.

After the 4B/5B encoding, we have 12.2 Mbit/s. After DME, we have 25 M pulses/sec or 25 MBaud.

SuggestedRemedy

Change 12.5 MBd to 25 MBd.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change

====

The 10BASE-T1S PHY utilizes two level Differential Manchester Encoding (DME) modulation transmitted at a 12.5 MBd.

====

to

====

The 10BASE-T1S PHY utilizes two level Differential Manchester Encoding (DME) modulation.

====

CI **147** SC **147.4** P **167** L **32** # **39**
Beruto, Piergiorgio Canova Tech

Comment Type **E** Comment Status **D** PMA

Add text below proposed figure

SuggestedRemedy

Add text "The reference diagrams do not explicitly show the PMA Reset function."

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Note: carry out only if #31 is also accepted

Add the following text to right under the figure implementd by #31:

====

The reference diagrams do not explicitly how the PMA Reset function.

====

CI **147** SC **147.4** P **167** L **33** # **31**
Beruto, Piergiorgio Canova Tech

Comment Type **E** Comment Status **D** PMA

Add figure

SuggestedRemedy

Add figure as in pma_block_dia.png

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Implement the figure "pma_block_dia.png"

Notes:

- The horizontal line from "PMA TRANSMIT" should not have an intermittent arrow

- Mind comments #39 too

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CI 147 SC 147.4.2 P 168 L 38 # 15
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D PMA
resolve TBDs in Table 147-2

SuggestedRemedy

Delete TBD in Min and Max column of row T2 (clock frequency tolerance is already specified in 147.5.4.5).
Change name of column "Typ" to "Nom".
Replace TBD in Min column of T3 row with "38".
Replace TBD in Max column of T3 row with "42".
Delete "40" from column Typ of row T3.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TODO:

With regards to "Table 147-2":

- add em-dash to T1/"Typ"
- add em-dash to T1/"Max"
- add em-dash to T2/"Min"
- add em-dash to T2/"Max"
- change the TBD of T3/"Min" to "38"
- change the TBD of T3/"Max" to 42"

- Add a new paragraph to right under "Table 147-2" with the following content:

====

The minimum and maximum values for parameter T2 are related to the transmit clock specification in 147.5.4.5.

====

Note: 147.5.4.5 is a link

CI 147 SC 147.5.4.1 P 171 L 3 # 18
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D PMA
resolve TBD and editor's note

SuggestedRemedy

Remove Editor's Note
replace "TBD* +- TBD%" with "1 +- 20%" at line 8

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 147 SC 147.5.4.1 P 171 L 29 # 34
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D PMA
10BASE-T1S have no configurable TX voltage levels

SuggestedRemedy

Remove text "Fixed transmitter driving levels can be selected by setting bits 1.xxxx.xx:xx (10BASE-T1S PMA/PMD Control Register) of the PHY Management register set as described in 45.2.1.xxx. If MDIO is not implemented a similar functionality shall be provided by another interface."

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 147 SC 147.5.4.3 P 172 L 25 # 99
Baggett, Tim Microchip

Comment Type T Comment Status D PMA

The transmitter output jitter should be more controlled to allow for more margin at the receiver where the signal may be degraded by interference and channel impairment. Recommend reducing the maximum allowable transmitted jitter from the current +-7.5 ns to +-5.0 ns.

SuggestedRemedy

Change:
+-7.5 ns symbol-to-symbol jitter
To:
+-5.0 ns symbol-to-symbol jitter

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change

====

than ±7.5 ns symbol-to symbol jitter

====

to

====

than ±5 ns symbol-to-symbol jitter

====

Note: space before "ns" is non-breaking

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CI 147 SC 147.5.4.5 P 173 L 31 # 103
Baggett, Tim Microchip

Comment Type E Comment Status D PMA

A symbol is the shortest pulse possible in transmission (1.4.393). The Baud rate is the unit of signalling speed (1.4.110), or symbols/second. Differential Manchester encoding requires two pulses to encode each bit. Therefore the Baud rate should be 2x the bit rate.

After the 4B/5B encoding, we have 12.2 Mbit/s. After DME, we have 25 M pulses/sec or 25 MBaud.

SuggestedRemedy

Change 12.5 MBd +-100 ppm to 25 MBd +-100 ppm.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change

====

The symbol transmission rate shall be within the range 12.5 MBd ± 100 ppm.

====

to

====

The transmit clock frequency shall be 25 MHz with a tolerance of ± 100 ppm.

====

Note: mind the non-breaking elements

CI 147 SC 147.5.4.5 P 173 L 33 # 41
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D PMA

Resolve Editor's note

SuggestedRemedy

Replace editor's note with the following text:

"147.5.4.6 Alien crosstalk noise rejection

This specification is provided to verify the receiver's tolerance to alien crosstalk noise. The test is performed

with a noise source consisting of a signal generator with Gaussian distribution, bandwidth of 20 MHz and

magnitude of -106 dBm/Hz. The receive DUT is connected to these noise sources through a resistive network,

as shown in Figure 147-XXX, with link segments as defined in 147.7 and 147.8. The noise is added at the MDI of

the DUT. The BER is expected to be less than 10⁻¹⁰, and to satisfy this specification the frame loss ratio is

less than 10⁻⁷ for 125 octet packets measured at MAC/PLS service interface."

Copy figure 146-20

Add the following text: "The PMA local loopback function is optional. If supported, the PMA shall be placed in local loopback mode when the PMA local loopback bit in MDIO register 1.0.0, defined in 45.2.1.1, or the PMA loopback bit in MDIO register 1.2294.13, defined in 45.2.1.174a.3, is set to a one (or PMA loopback mode is enabled by a similar functionality if MDIO is not implemented).

When the PHY is in the PMA local loopback mode, if the PHY supports full-duplex mode of operation, the PMA Receive function utilizes the echo signals from the unterminated MDI and decodes these signals to pass the data back to the MII Receive interface.

If the PHY supports half-duplex mode of operation, the PMA and PCS Receive functions shall pass to the MII RX the data decoded from the signal which is normally received during a transmission for the purpose of detecting collisions.

A MAC client can compare the packets sent through the MII Transmit function to the packets received from the MII Receive function to validate the 10BASE-T1L PCS and PMA functions."

Proposed Response Response Status W

PROPOSED ACCEPT.

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 45 SC 45.2.1 P 35 L 26 # 1
 Graber, Steffen Pepperl+Fuchs GmbH

Comment Type T Comment Status D Registers
 10BASE-T1S training

SuggestedRemedy

Change to Reserved and remove Subclause reference (there is no 10BASE-T1S training mode available)

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
 [T1S_TRAINING] comment group

Same resolution for comments 1 and 2.

Change row for Register address 1.2301 from:

Register address: 1.2301
 Register name: 10BASE-T1S training Subclause: 45.2.1.174f

to,
 Register address: 1.2301 through 1.2302
 Register name: Reserved
 Subclause:

Delete row for Register address 1.2302

(VM: Subclause entry is blank)

CI 45 SC 45.2.1 P 35 L 28 # 2
 Graber, Steffen Pepperl+Fuchs GmbH

Comment Type T Comment Status D Registers
 10BASE-T1S link partner training

SuggestedRemedy

Change to Reserved and remove Subclause reference (there is no 10BASE-T1S training mode available)

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
 [T1S_TRAINING] comment group
 Same resolution for comments 1 and 2.

Change row for Register address 1.2301 from:

Register address: 1.2301
 Register name: 10BASE-T1S training Subclause: 45.2.1.174f

to,
 Register address: 1.2301 through 1.2302
 Register name: Reserved
 Subclause:

Delete row for Register address 1.2302

(VM: Subclause entry is blank)

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Cl 45 SC 45.2.1.174e P 42 L 27 # 51
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D Registers

10BASE-T1S is polarity insensitive

SuggestedRemedy

Replace row 1.2300.2 with "Reserved"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
Resolve with 53

Change name for bit 1.2300.7:3 from:

Bit: 1.2300.7:3

to,

Bit: 1.2300.7:2

Delete row for bit 1.2300.2

Cl 45 SC 45.2.1.174e P 42 L 31 # 52
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D Registers

10BASE-T1S has no link_status defined

SuggestedRemedy

Replace row 1.2300.0 with "Reserved"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
Resolve with 50 & 54

Change row for bit 1.2300.0 from:

Bit(s): 1.2300.0

Name: Receive link status

Description:1 = PMA/PMD receive link up

0 = PMA/PMD receive link down

R/W: RO/LL

to,

Bit(s): 1.2300.0

Name: Reserved

Description: Value always

R/W: RO

Besides T1S is missing a register for advertising and configuring operation over mixing segment networks

In Table 45-142e, insert row below 1.2300.8:

Bit(s): 1.2300.7

Name: Multidrop ability

Description:1 = PMA/PMD has the ability to operate over a mixing segment network

0 = PMA/PMD does not have the ability to operate over a mixing segment

network

R/W: RO

Change row 1.2300.7:3 to 1.2300.6:3

Add new subclause 45.2.1.174e.5 (renumbering other clauses as appropriate)
with the following text:

"When read as one, bit 1.2300.7 indicates that the 10BASE-T1S PMA/PMD supports multidrop operation over a mixing segment network. When read as a zero, bit 1.2300.8 indicates that the 10BASE-T1S PMA/PMD does not support multidrop operation over a mixing segment network. If the 10BASE-T1S PMA/PMD supports multidrop operation, then

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it is controlled using bit 1.2299.10, otherwise bit 1.2299.10 has no effect"

In table 45-142d insert row below 1.2299.11:

Bit(s): 1.2299.10

Name: Multidrop mode

Description: 1 = Enable operation over mixing segment network

0 = Disable operation over mixing segment network

R/W: R/W

Change row 1.2299.10:0 to 1.2299.9:0

Add new subclause 45.2.1.174d.5 with the following text:

"The 10BASE-T1S PMA/PMD shall operate in multidrop mode over a mixing segment network when bit 1.2299.10 is set to a one. The default value of bit 1.2299.10 is zero. If multidrop mode is not supported according to bit 1.2300.7, writing to bit 1.2299.10 shall have no effect"

Cl 45	SC 45.2.1.174e.6	P 43	L 16	# 53
Beruto, Piergiorgio	Canova Tech			
Comment Type T	Comment Status D			Registers
10BASE-T1S is polarity insensitive				
SuggestedRemedy				
Remove subclause 45.2.1.174e.6 as a whole				
Proposed Response	Response Status W			
PROPOSED ACCEPT. Resolve with 51				

Cl 45	SC 45.2.1.174e.8	P 43	L 29	# 54
Beruto, Piergiorgio	Canova Tech			
Comment Type T	Comment Status D			Registers
10BASE-T1S has no link_status defined				
SuggestedRemedy				
Remove subclause 45.2.1.174e.8 as a whole				
Proposed Response	Response Status W			
PROPOSED ACCEPT. Resolve with 50 & 52				

Cl 45	SC 45.2.1.174f	P 43	L 36	# 5
Graber, Steffen	Pepperl+Fuchs GmbH			
Comment Type T	Comment Status D			Registers
10BASE-T1S training register				
SuggestedRemedy				
Remove complete chapter, tables and sub chapters, as there is no training mode available for 10BASE-T1S.				
Proposed Response	Response Status W			
PROPOSED ACCEPT. [T1S_TRAINING] comment group - Master				

Cl 45	SC 45.2.1.174f	P 43	L 36	# 55
Beruto, Piergiorgio	Canova Tech			
Comment Type T	Comment Status D			Registers
10BASE-T1S has no training				
SuggestedRemedy				
Remove subclause 45.2.1.174f as a whole				
Proposed Response	Response Status W			
PROPOSED ACCEPT. [T1S_TRAINING] comment group Duplicate of comment 5				

Cl 45	SC 45.2.1.174g	P 44	L 22	# 6
Graber, Steffen	Pepperl+Fuchs GmbH			
Comment Type T	Comment Status D			Registers
10BASE-T1S link partner training register				
SuggestedRemedy				
Remove complete chapter, tables and sub chapters, as there is no training mode available for 10BASE-T1S.				
Proposed Response	Response Status W			
PROPOSED ACCEPT. [T1S_TRAINING] comment group - Master Parallel to comment 5 for link partner training				

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Cl 45 SC 45.2.1.174g P 44 L 31 # 56
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D Registers

10BASE-T1S has no link partner training

SuggestedRemedy

Remove subclause 45.2.1.174g as a whole

Proposed Response Response Status W

PROPOSED ACCEPT.
[T1S_TRAINING] comment group
Duplicate of comment 6

Cl 45 SC 45.2.3 P 46 L 24 # 7
Graber, Steffen Pepperl+Fuchs GmbH

Comment Type T Comment Status D Registers

10BASE-T1S PCS status 2

SuggestedRemedy

Change to Reserved and remove Subclause reference.

Proposed Response Response Status W

PROPOSED ACCEPT.
Resolve with 45 & 10

Cl 45 SC 45.2.3.58d P 50 L 28 # 57
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D Registers

10BASE-T1S has no concept of PCS receive link

SuggestedRemedy

Replace row "3.2292.2" with "Reserved"

Proposed Response Response Status W

PROPOSED ACCEPT.
Resolve with 58 & 9

Cl 45 SC 45.2.3.58d.7 P 51 L 19 # 58
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D Registers

10BASE-T1S has no concept of PCS receive link

SuggestedRemedy

Remove subclause 45.2.3.58d.7 as a whole

Proposed Response Response Status W

PROPOSED ACCEPT.
Resolve with 57 & 9

Cl 45 SC 45.2.3.58d.7 P 51 L 23 # 9
Graber, Steffen Pepperl+Fuchs GmbH

Comment Type T Comment Status D Registers

This bit is a latching low version of bit 3.2293.10.

SuggestedRemedy

Remove this reference as PCS status 2 register is being removed from the draft.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
Resolve with 57 & 58
Implemented by comment 58 which removes all of 45.2.3.58d.7

Cl 45 SC 45.2.3.58e P 51 L 26 # 45
Beruto, Piergiorgio Canova Tech

Comment Type T Comment Status D Registers

None of the functions in PCS status register 2 are defined and appropriate for T1S.

SuggestedRemedy

Remove subclause 45.2.3.58e as a whole.
Remove 10BASE-T1S PCS status 2 entry from table 45-168

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
Implemented by comments 7 & 10

id Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced

CI 45 SC 45.2.3.58e P 51 L 26 # 10
 Graber, Steffen Pepperl+Fuchs GmbH

Comment Type T Comment Status D Registers

10BASE-T1S PCS status 2 register

SuggestedRemedy

Remove complete chapter, tables and sub chapters.

Proposed Response Response Status W

PROPOSED ACCEPT.
 Resolve with 45 & 7

CI 147 SC 147.5.2 P 170 L 29 # 104
 Baggett, Tim Microchip

Comment Type T Comment Status D Test Mode

As briefly discussed on the email list, we recommend utilizing the PCS data scrambler in the generation of the pseudo-random sequence in Test Mode 3. The input to the scrambler constant. This will simplify the design a bit by not multiple LFSR structures.

(See emails titled "Test modes in clause 147.5.1" to the mailing list in early May.)

The 4B/4B mapping is also inserted between the scrambler and DM encoder. This results in a test mode that is very close to the normal transmit function, except that it is not packetized, yielding the same transmit PSD that will be obtained in normal operation.

SuggestedRemedy

Replace:

When test mode 3 is enabled, the PHY shall transmit continually a pseudo-random sequence of +1 and -1 symbols generated by PRBS7 with the generating polynomial of $x^7 + x^6 + 1$ encoded using Differential Manchester Encoding (DME) as in 147.4.2.

With:

When test mode 3 is enabled, the PHY shall transmit continually a pseudo-random sequence of +1 and -1 symbols generated by a PRBS generated by the scrambler defined in 147.3.2.5, then encoded from 4B to 5B symbols at in 147.3.2.3 before being finally encoded using Differential Manchester Encoding (DME) as in 147.4.2. The input to the scrambler shall be a constant stream of 0's.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TODOs:

- Change "+1 and -1 symbols" to "positive and negative differential voltage levels"
- Change "PRBS7 with the generating polynomial of" to "the scrambler defined in 147.3.2.5 and"

Note: 147.3.2.5 is a link

- Add the following new sentence to the end of this paragraph: "The input to the scrambler shall be a constant stream of zeroes."