

Please configure project comments

CI 00 SC 0 P 58 L 39 # 1
 Gardner, Andrew Linear Technology Cor

Comment Type TR Comment Status A

The 100 ohm termination resistor shown in Test Fixture 1 of Figure 200-17 may be damaged by a PoDL PSE.

SuggestedRemedy

Add a low-loss AC coupling capacitor or capacitors in series with the 100 ohm resistor in Test Fixture 1 in order to prevent a PoDL PSE from potentially damaging the differential probe and/or termination resistor.

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE.

Change from

"The following fixtures or their equivalents, as shown in Figure 200-17, Figure 200-18, and Figure 200-19, in stated respective tests, shall be used for measuring the transmitter specifications."

to

"The following fixtures or their equivalents, as shown in Figure 200-17, Figure 200-18, and Figure 200-19, in stated respective tests, shall be used for measuring the transmitter specifications for data communication only."

CI 00 SC 0 P 59 L 24 # 2
 Gardner, Andrew Linear Technology Cor

Comment Type TR Comment Status A

The 50 ohm termination resistors and voltage source shown in Fixture 2 of Figure 200-18 maybe damaged by a PoDL PSE.

SuggestedRemedy

Add low-loss AC coupling capacitors in series with the 50 ohm resistors in Test Fixture 2 in order to prevent a PoDL PSE from potentially damaging the differential probe and/or termination resistors.

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE.

See Response to #1

CI 00 SC 0 P 59 L 38 # 3
 Gardner, Andrew Linear Technology Cor

Comment Type TR Comment Status A

The balun shown in Test Fixture 3 of Figure 200-19 may be damaged by a PoDL PSE.

SuggestedRemedy

Add a low-loss AC coupling capacitor or capacitors in series with the balun inputs in order to prevent a PoDL PSE from potentially damaging the balun.

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE.

See response to #1.

CI 00 SC 0 P 60 L 7 # 4
 Gardner, Andrew Linear Technology Cor

Comment Type TR Comment Status A

The droop observed with Test Fixture 1 of Figure 200-17 will underestimate the droop for a PoDL PSE/PD application by approximately a factor of two.

SuggestedRemedy

Add a note to 200.5.4.1 stating that the droop observed with Test Fixture 1 needs to be multiplied by 2 for PoDL transmitters.

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE.

See response to #1.

CI 00 SC 0 P 58 L 39 # 5
 Gardner, Andrew Linear Technology Cor

Comment Type TR Comment Status A

Test fixture 1 in Figure 200-17 does not support PoDL PDs. Other test fixtures and PHY circuits may need to be addressed as well.

SuggestedRemedy

Modify test fixture 1 or add a new test fixture that supports PoDL PDs. Show an auxiliary power connection or PSE/coupling network and reference clause 96.

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE.

See response to #1.

Please configure project comments

CI 00 SC 0 P 60 L 9 # 6
 Gardner, Andrew Linear Technology Cor

Comment Type T Comment Status A

The transmitter output droop time of 500ns appears to be overly conservative.

SuggestedRemedy

Reduce the droop time to 100ns.

The transmitter droop requirement calls for less than 45% of droop magnitude 500ns after the initial peak subsequent to a zero crossing. Referring this droop to 15ns yields approximately 1.7% of droop of 0.15dB.

The amount of inductance required in the PoDL coupling network inductors for compliance with this specification is greater than 55uH. It may not be technically feasible and/or economically feasible for these inductors to be compatible with 1000BASE-T1 PHYs. The physical bulk of these inductors may also be significant for higher current PoDL applications. Finally, the energy stored in these inductors may be discharged into the PHYs during fault conditions, and this may make EOS protection for the PHYs problematic.

Is it possible to relax the droop specification to less than 45% droop magnitude 100ns after the initial peak? This would increase the droop magnitude within a symbol period to approximately 8.2% or 0.74dB. This change would reduce the PoDL inductance from 55uH to 11uH, and may make a single inductor value feasible for both 100BASE-T1 and 1000BASE-T1 PoDL.

Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.
 See response to #1.

CI 00 SC 0 P 58 L 25 # 7
 Gardner, Andrew Linear Technology Cor

Comment Type T Comment Status A

Test mode support for PoDL PSE transmitter testing may be required.

SuggestedRemedy

Add an informative note stating that a PoDL PSE may need to be enabled during test modes. Reference clause 96 as needed.

Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.
 See response to #1.

CI 01 SC 1.4.x P 18 L 25 # 8
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A

Auto-Negotiation should be capitalized. Also the last sentence is not clear.

SuggestedRemedy

Change "auto-negotiation" to "Auto-Negotiation".

Change from
 "The start-up procedure, from link_control=ENABLE to valid data, shall be completed within 100 ms for 100BASE-T1 channel compliant 1-pair 15m UTP link segments."

to
 "The PHY-Initialization procedure, from link_control=ENABLE to tx_mode=SEND_N, shall be completed within 100 ms for 2 100BASE-T1 PHYs operating over a 100BASE-T1 compliant channel."

Response Response Status C
 PROPOSED ACCEPT.

CI 01 SC 1.4.x P 18 L 31 # 9
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A

Side-Stream scrambling is defined in 1.4.359. It does not need a separate definition, unless the definition is removed from 1.4.359.

SuggestedRemedy

Remove this definition

Response Response Status C
 PROPOSED ACCEPT.

CI 01 SC 1.4.142 P 16 L 19 # 10
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A

A code-group is defined to convey 3 bits of data, which means a code-group is two ternary symbols so it should be described as a pair or ternary symbols instead of a set of ternary symbols. Also the "A" should not be capitalized.

SuggestedRemedy

Change "For 100BASE-T1, A set of ternary PAM3 ..." to "For 100BASE-T1, a pair of ternary PAM3 ..."

Response Response Status C
 PROPOSED ACCEPT.

Please configure project comments

Cl 01 SC 1.4.163 P 16 L 40 # 11
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status X
 SSD is three code-groups

SuggestedRemedy
 Change "This mode begins with the transmission of two Start-of-Stream delimiter code-groups ..." to "This mode begins with the transmission of three Start-of-Stream delimiter code-groups ..."

Proposed Response Response Status W
 Open

Cl 01 SC 1.4.381 P 17 L 52 # 14
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A
 A code-group is two ternary pairs, or 30 ns. The definition should be changed to special this it is 15 ns for a ternary symbol or 30ns for a code-group.

SuggestedRemedy
 Change "In 100BASE-T1, this is equivalent to fifteen nanoseconds." to "In 100BASE-T1, this is equivalent to 30 ns."

Response Response Status C
 PROPOSED ACCEPT.

Cl 01 SC 1.4.183 P 16 L 50 # 12
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status X
 ESD can also include ERR_ESD3.

SuggestedRemedy
 Change "ESD consists of the code-group of 3 consecutive ternary pairs named as ESD1-3 as defined in 200.3.2.3," to "ESD consists of three code-groups named ESD1, ESD2, and ESD3 or ERR_ESD3 as defined in 200.3.2.3,"

Proposed Response Response Status W
 Open

Cl 01 SC 1.4.x P 18 L 14 # 15
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A
 If Automotive Cabling is tied specifically to 100BASE-T1, what will the cabling for 1000BASE-T1 be called?

SuggestedRemedy
 Consider a more descriptive name such as "100BASE-T1 Automotive Cable"

Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.
 Change to "100BASE-T1 Cabling"

Cl 01 SC 1.4.377 P 17 L 40 # 13
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A
 code-group should be plural

SuggestedRemedy
 Change "SSD consists of the code-group of 3 consecutive" to "SSD consists of three consecutive code-groups named SSD1-3 as defined in 200.3.

Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.
 Make sure ESD1-3 is consistant with 802.3

Please configure project comments

Cl 01 SC 1.4.x P 18 L 14 # 16
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A
 Clarifying the sentence

SuggestedRemedy

Change "Balanced 100 ohm one pair cable and associated hardware having specified transmission characteristics are provided in 200.7.1."

to
 "Balanced 100 ohm one pair cable and associated hardware whose transmission characteristics are specified in 200.7.1."

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE.
 Change from
 "Balanced 100 ohm one pair cable and associated hardware having specified transmission characteristics are provided in 200.7.1."

to
 "Single balanced twisted pair cable and associated hardware having specified transmission characteristics as provided in 200.7.1."

Cl 200 SC 200.1.2 P 24 L 27 # 17
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A

The subclause name should be "Relationship of 100BASE-T1 to other standards" and should include a figure of the OSI model. The text in this subclause is more suited for an "Operation of 100BASE-T1" subclause. The sentence "The 100BASE-T1 PHY provides features that are comparable to the standard Ethernet product specified in IEEE 802.3" should be removed.

SuggestedRemedy

Change the subclause name to "Relationship of 100BASE-T1 to other standards", add a figure of the OSI model, remove the sentence "The 100BASE-T1 PHY provides features that are comparable to the standard Ethernet product specified in IEEE 802.3", and move the remaining text to a subclause titled "Operation of 100BASE-T1"

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE.
 Agree as long as it is consistant with other clauses.

Cl 200 SC 200.1.2.1 P 25 L 4 # 18
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A
 Missing text

SuggestedRemedy

Change the beginning of the sentence from "PCS" to "The 100BASE-T1 PCS"

Response Response Status C
 PROPOSED ACCEPT.

Cl 200 SC 200.1.2.2 P 25 L 9 # 19
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A
 Missing text

SuggestedRemedy

Change the beginning of the sentence from "PMA" to "The 100BASE-T1 PMA"

Response Response Status C
 PROPOSED ACCEPT.

Cl 200 SC 200.1.2.2 P 25 L 10 # 20
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A

They PMA usually defines the Baud rate on the line not the bit rate at the MAC.

SuggestedRemedy

Change "The PMA provides full duplex communication at 100Mb/s." to "The PMA provides full duplex communication at 66 2/3 MBd."

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE.
 Change to "The PMA provides full duplex communications at 66.666666(bar) MBd over one pair of balanced cabling up to 15 m in length."

Please configure project comments

CI 200 SC 200.1.2.3 P 25 L 16 # 21
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A
 The signaling objectives should be re-written here instead of a list of differences

SuggestedRemedy
 Write the signaling objectives here

Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.
 Should be rewritten using only the applicable text from 40.1.4, not stating the differences.

CI 200 SC 200.1.3 P 25 L 23 # 22
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A
 Why aren't the definitions from 21.5 used?

SuggestedRemedy
 If applicable, change 1.2.1 to 21.5.

Response Response Status C
 PROPOSED ACCEPT.

CI 200 SC 200.1 P 26 L 1 # 23
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A
 Figure 200-1 is referenced two pages earlier and should be moved closer to the reference.
 The text immediately after Figure 200-1 does not belong in subclause 200.1.5 Timer Specification.

SuggestedRemedy
 Move the Figure and text

Response Response Status C
 PROPOSED ACCEPT.

CI 200 SC 200.2.2 P 28 L 23 # 24
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A
 List the service primitives that are used, instead of the service primitives that are not used.

SuggestedRemedy
 List the service primitives that are used, instead of the service primitives that are not used.

Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.
 Remove the current list of "NOT used" primitives and replace with a list of primitives that are used.

CI 200 SC 200.2.3 P 29 L 35 # 25
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A
 The transmitter also sends zeros during training

SuggestedRemedy
 Change "The 100BASE-T1 transmitter sends code-groups that represent an MII data stream, control information or idles." to "The 100BASE-T1 transmitter sends code-groups that represent an MII data stream, control information, idles, or zeros."

Response Response Status C
 PROPOSED ACCEPT.
 Change from "The 100BASE-T1 transmitter sends code-groups that represent an MII data stream, control information or idles."
 to
 "The 100BASE-T1 transmitter sends code-groups that represent an MII data stream, control information, idles, or zeros."

CI 200 SC 200.3.2.2.2 P 36 L 17 # 26
 Estes, Dave Spirent Communicatio

Comment Type E Comment Status A
 Missing reference

SuggestedRemedy
 Change "As shown in ," to "As shown in Figure 200-5,"

Response Response Status C
 PROPOSED ACCEPT.

Please configure project comments

CI 200 SC 200.3.2.3 P 36 L 38 # 27
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status A
 Missing reference
 SuggestedRemedy
 Change "As shown in ," to "As shown in Figure 200-5,"
 Response Response Status C
 PROPOSED ACCEPT.

CI 200 SC 200.3.2.3.1 P 38 L 48 # 30
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status A
 The colons after ERR_ESD3, ESD2, ESD3, SSD3, and tx_data[2:0] are not necessary
 SuggestedRemedy
 Remove the colons after ERR_ESD3, ESD2, ESD3, SSD3, and tx_data[2:0]
 Response Response Status C
 PROPOSED ACCEPT.

CI 200 SC 200.3.2.3 P 36 L 43 # 28
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status A
 The sentences on lines 43-46 are not needed. The definitions for STD and PUDR are already included.
 SuggestedRemedy
 Remove the sentences "When implementing the PCS Transmit State Diagrams shown in Figure 200-6, it should be interpreted similarly to Clause 40. For example, STD is an alias for symb_timer_done, and PUDR stands for PMA_UNITDATA.request(tx_symb_vector), a signal to PMA Transmit indicating tx_symb_vector is available."
 Response Response Status C
 PROPOSED ACCEPT.

CI 200 SC 200.3.2.3.1 P 39 L 9 # 31
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status A
 The values for some ESD and SSD vectors are listed and others are not. All values should be listed.
 SuggestedRemedy
 Add the value (0,0) to ESD1, SSD1, and SSD2.
 Response Response Status C
 PROPOSED ACCEPT.

CI 200 SC 200.3.2.3 P 37 L 8 # 29
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status A
 Figure 200-5 should not be split across two pages
 SuggestedRemedy
 Move the figure so that it is contained on one page
 Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.
 Agreed that images should not be split across multiple pages. This will be addressed during "the great figure reformation"

CI 200 SC 200.3.2.3.1 P 40 L 8 # 32
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status A
 Add the reference for the definition
 SuggestedRemedy
 Change "as specified in Section Generation of ternary pair (TAn, TBn)." to "as specified in 200.3.2.4.5"
 Response Response Status C
 PROPOSED ACCEPT.

Please configure project comments

Cl 200 SC 200.3.2.3.1 P 40 L 12 # 33
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status A
 100BASE-T1 does not have a Carrier Sense function
 SuggestedRemedy
 Remove the sentence "Also used by the Carrier Sense process."
 Response Response Status C
 PROPOSED ACCEPT.

Cl 200 SC 200.3.2.3.1 P 40 L 19 # 34
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status A
 Wrong reference
 SuggestedRemedy
 Change 200-6 to 200-5
 Response Response Status C
 PROPOSED ACCEPT.

Cl 200 SC 200.3.2.3.1 P 40 L 40 # 35
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status D
 xmt_err is not used by 100BASE-T1
 SuggestedRemedy
 Remove the definition for xmt_err
 Proposed Response Response Status W
 Open

Cl 200 SC 200.3.2.3.1 P 40 L 23 # 36
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status A
 The tx_error definition is in the wrong place and has the wrong reference
 SuggestedRemedy
 Correct the location of tx_error and change the reference to figure 200-5.
 Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.
 tx_error formatting needs to be fixed

Cl 200 SC 200.3.2.3.3 P 41 L 3 # 37
 Estes, Dave Spirent Communicatio
 Comment Type T Comment Status X
 symb_timer controls the timing of the PCS State Diagrams and should be the time for one code-group not the time for one ternary symbol.
 SuggestedRemedy
 Change "Duration: 15 ns nominal" to "Duration: 30 ns nominal"
 Proposed Response Response Status W
 Open

Cl 200 SC 200.3.2.4.3 P 42 L 14 # 38
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status A
 The definition can be simplified if all bits are defined here instead of reference Clause 40
 SuggestedRemedy
 Change the definition to Scn[2:0] = [0 0 0] if (tx_mode = SEND_Z) or Syn[2:0] else
 Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.
 Use applicable text from Clause 40

Cl 200 SC 200.3.2.4.4 P 42 L 27 # 39
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status A
 The first two sentences are not necessary because the bits are defined here
 SuggestedRemedy
 Remove "The bits Sdn[2:0] performs analogous function to 40.3.1.3.4, but uses local definition of tx_data[2:0] specific to this document. The tx_data[2:0] is a three bit vector after 4B3B conversion, and it not analogous to TXD[7:0] used in 40.3.1.4."
 Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.
 Change from
 "The bits Sdn[2:0] performs analogous function to 40.3.1.3.4, but uses local definition of tx_data[2:0] specific to this doc- ument. The tx_data[2:0] is a three bit vector after 4B3B conversion, and is not analogous to TXD[7:0] used in 40.3.1.4."
 to
 "The tx_data[2:0] is a three bit vector after 4B3B conversion."

Please configure project comments

CI 200 SC 200.3.2.4.5 P 42 L 47 # 40
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status A
 This sentence is not necessary
 SuggestedRemedy
 Remove "The bits Sdn[2:0] perform analogous function to 40.3.1.3.5, but specific ternary pair is used in this document."
 Response Response Status C
 PROPOSED ACCEPT.

CI 200 SC 200.3.2.4.10 P 44 L 39 # 41
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status A
 typo
 SuggestedRemedy
 Change "illustrated in the Figure 200-8" to "illustrated in Figure 200-8"
 Response Response Status C
 PROPOSED ACCEPT.

CI 200 SC 200.3.4.2.10 P 45 L 22 # 42
 Estes, Dave Spirent Communicatio
 Comment Type T Comment Status A
 The ternary ordering should be a fixed ordering. Allowing either TA then TB or TB then TA will require more processing and make the link-up process slower. Non-fixed ordering will create four possibilities (TA then TB with the correct polarity, TA then TB with flipped polarity, TB then TA with correct polarity, and TB then TA with flipped polarity) that the slave PHY must examine and two possibilities (TA then TB and TB then TA) that the master PHY must examine before a link can be established. The Figure illustrates that the ordering is fixed as TA then TB.
 SuggestedRemedy
 Remove the text "or (TBn, TAn) with TBn followed by TAn" to require that the ternary ordering is TA then TB.
 Response Response Status C
 PROPOSED REJECT.
 Reason: The impact on the startup time would be insignificant. Prefer to keep the draft as is for implementation flexibility.

CI 200 SC 200.3.3.1 P 47 L 28 # 43
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status A
 Remove "totally"
 SuggestedRemedy
 Remove "totally"
 Response Response Status C
 PROPOSED ACCEPT.

CI 200 SC 200.3.3.1.2 P 48 L 40 # 44
 Estes, Dave Spirent Communicatio
 Comment Type E Comment Status X
 typo
 SuggestedRemedy
 Change "four consecutive vectors" to "six consecutive vectors"
 Proposed Response Response Status W
 Open

CI 01 SC 1.4.142 P 16 L 19 # 90
 Mitsuru, Iwaoka Yokogawa Electric Cor
 Comment Type E Comment Status A
 A capital "A" after a comma.
 SuggestedRemedy
 Uncapitalize the "A".
 Response Response Status C
 PROPOSED ACCEPT.

CI 01 SC 1.4.313 P 17 L 6 # 91
 Mitsuru, Iwaoka Yokogawa Electric Cor
 Comment Type E Comment Status A
 A duplicated "and".
 SuggestedRemedy
 Remove the redundant "and".
 Response Response Status C
 PROPOSED ACCEPT.

Please configure project comments

Cl 45 SC P 23 L 1 # 92
 Mitsuru, Iwaoka Yokogawa Electric Cor
 Comment Type E Comment Status A
 Table 00-1 in age 23 is not the part of this amendment.
 SuggestedRemedy
 Remove Table 00-1 and the first paragraph of page 23.
 Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.
 Table is left in intentionally but should not be between Clause 45 and Clause 200. Move to front of draft.

Cl 200 SC 200.3.2.4.5 P 42 L 50 # 93
 Mitsuru, Iwaoka Yokogawa Electric Cor
 Comment Type E Comment Status A
 "ternary symbol (0,0)" shall be "ternary symbol pair (0,0)".
 SuggestedRemedy
 As in comment.
 Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.
 Change from
 "ternary symbol (0,0)"
 to
 "ternary symbol pair (0,0)"

Cl 200 SC 200.2 P 27 L 1 # 94
 Mitsuru, Iwaoka Yokogawa Electric Cor
 Comment Type E Comment Status A
 Missing "-", i.e., "100BASET1" should be "100BASE-T1".
 SuggestedRemedy
 As in comment.
 Response Response Status C
 PROPOSED ACCEPT.

Cl 200 SC 5.1.1 P 56 L 38 # 95
 Mitsuru, Iwaoka Yokogawa Electric Cor
 Comment Type E Comment Status A
 IEC62132-4 and IEC61967-4 are referred in this Amendment. It is necessary to add these documents to 1.3.
 SuggestedRemedy
 As in comment.
 Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.
 Add references to Subclause 1.3 for IEC62132-4 and IEC61967-4. Get full titles off IEC online catalog

Cl 200 SC 200.2 P 27 L 10 # 96
 Mitsuru, Iwaoka Yokogawa Electric Cor
 Comment Type T Comment Status A
 I could not find any reason for not supporting LPI.
 SuggestedRemedy
 Add optional support of LPI.
 If LPI is not supported, it is necessary to add "with the exceptions that the optional timers associated with LPI" to the 200.1.5 (Page 25, Line 32).
 Response Response Status C
 PROPOSED REJECT.
 LPI is not a current objective of P802.3bw

Cl 200 SC 200.1.2.3 P 25 L 17 # 97
 Mitsuru, Iwaoka Yokogawa Electric Cor
 Comment Type T Comment Status D
 100BASE-T1 signaling shall share an objective m) of 40.1.4.
 SuggestedRemedy
 Replace "and i)" by "i), and m)".
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Modify to reflect only necessary text from 40.1.4

Please configure project comments

CI 00 SC 0 P 57 L 27 # 98
 Wienckowski, Natalie General Motors

Comment Type ER Comment Status D
 Usually the clock tolerance is specified as 100 ppm; however, in section 200.5.2 it is specified as 0.01%. While both are the same tolerance it can be confusing to see this two different ways.

ppm used in 200.5.1.3, 200.5.4.5, 200.5.5.2

0.01% used in 200.5.2

SuggestedRemedy

Be consistent and use only 100ppm or 0.01% throughout the entire document.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
 Keep consistent metric for clock tolerance. Use ppm. Change draft accordingly.

CI 00 SC 0 P 64 L 50 # 99
 Wienckowski, Natalie General Motors

Comment Type T Comment Status D

1-pair UTP cable is not the correct name to use.

200.7 also uses one-pair balanced cabling and balanced copper cabling.

Need to look for UTP throughout the document and replace it with the correct term.

SuggestedRemedy

Should use the cable name defined in the 1TPCE Objectives, "single balanced twisted pair".

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
 Remove "(1-pair UTP cable)"

Also, change "Link segment" to "Link Segment"

CI 00 SC 0 P L # 100
 Wienckowski, Natalie General Motors

Comment Type TR Comment Status D
 In many cases "should" has been used when "shall" is the proper term.

Should is a preferred behavior, shall is a required behavior.

SuggestedRemedy

Replace should with shall in the following locations:

- section - page - line
- 200.3.2.3 - 36 - 42
- 200.3.3.4 - 49 - 33
- 200.3.3.5 - 50 - 6
- 200.5.2 - 57 - 22
- 200.5.4.2 - 60 - 34
- 200.5.5.3 - 65 - 17
- 200.7.1.1 - 67 - 7

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

- section - page - line
- 200.3.2.3 - 36 - 42 = Change to "shall"
- 200.3.3.4 - 49 - 33 = Actually change "shall" on line 32 to "should"
- 200.3.3.5 - 50 - 6 = Change to "shall"
- 200.5.2 - 57 - 22 = Change to "shall"
- 200.5.4.2 - 60 - 34 = Change to "shall"
- 200.5.5.3 - 65 - 17 = Change to "shall"
- 200.7.1.1 - 67 - 7 = Change to "shall"

CI 200.3 SC P 48 L 41 # 101
 Wienckowski, Natalie General Motors

Comment Type E Comment Status D

final line in definition is not indented

SuggestedRemedy

indent all lines of the definition

Proposed Response Response Status W

PROPOSED ACCEPT.

Please configure project comments

Cl 200.3 SC P 50 L 5 # 102
 Wienckowski, Natalie General Motors
 Comment Type ER Comment Status D
 Incorrect subject - verb agreement.
 conversion is the subject, which is singular
 SuggestedRemedy
 change are to is
 The conversion from pcs_rxclk domain signals to MII signals is shown in Figure 200-11.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 200.3 SC P 47 L 28 # 103
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D
 Probably don't want to use "totally"
 Note that, in Figure 200-9, there are totally 4 states after SSD3...
 SuggestedRemedy
 Note that, in Figure 200-9, there are a total of 4 states after SSD3...
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 200.4 SC P 50 L 44 # 104
 Wienckowski, Natalie General Motors
 Comment Type ER Comment Status D
 It is not necessary to say how this is almost the same as something else, commentary, not technical.
 SuggestedRemedy
 Delete the sentence: This functionality is analogous to 40.4 for 1000BASE-T but for a single channel only (versus four channels in 1000BASE-T).
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 200.4 SC P 50 L 48 # 105
 Wienckowski, Natalie General Motors
 Comment Type ER Comment Status D
 It is not necessary to say how this is almost the same as something else, commentary, not technical.
 SuggestedRemedy
 Delete the sentence: The PMA sublayer functions are analogous to Clause 40, and apply to the use of a single channel operation only, and the supports for optional LPI function is not included.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE. Change from
 "The PMA sublayer functions are analogous to Clause 40, and apply to the use of a single channel operation only, and the supports for optional LPI function is not included."
 to
 "The PMA sublayer functions apply to the use of single channel operation."

Cl 200.4 SC P 50 L 52 # 106
 Wienckowski, Natalie General Motors
 Comment Type ER Comment Status D
 It is not necessary to say how this is almost the same as something else, commentary, not technical. Also, the markings in the figure which show the difference will not exist in the final document.
 SuggestedRemedy
 Delete the phrase: notes differences from the PMA diagram in Figure 40-14 in Clause 40.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Apply commentors suggested remedy. Combine this sentence with sentence above.

Cl 200.4 SC P 51 L 52 # 107
 Wienckowski, Natalie General Motors
 Comment Type ER Comment Status D
 It is not necessary to say how this is almost the same as something else, commentary, not technical. Also, the markings in the figure which show the difference will not exist in the final document.
 SuggestedRemedy
 Delete the sentence: The PMA Transmit function is analogous to 40.4.2.2.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Please configure project comments

CI 200.4 SC P 52 L 27 # 108
 Wienckowski, Natalie General Motors

Comment Type ER Comment Status D
 It is not necessary to say how this is almost the same as something else, commentary, not technical. Also, the markings in the figure which show the difference will not exist in the final document.

SuggestedRemedy
 Delete the sentence: The PMA Receive function is similar to 40.4.2.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 200.4 SC P 53 L 5 # 109
 Wienckowski, Natalie General Motors

Comment Type ER Comment Status D
 It is not necessary to say how this is almost the same as something else, commentary, not technical.

SuggestedRemedy
 Delete the sentence: The 100BASE-T1 PHY Control function is analogous to 40.4.2.4 but as stated, no auto-negotiation is used.

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 200.4 SC P 53 L 12 # 110
 Wienckowski, Natalie General Motors

Comment Type ER Comment Status D
 It is not necessary to say how this is almost the same as something else, commentary, not technical.

SuggestedRemedy
 Delete the sentence: Figure 200-15 illustrates the differences between the 100BASE-T1 PHY Control and Figure 40-16a.

Or replace with the sentence: Figure 200-15 illustrates the 100BASE-T1 PHY Control.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change from
 "Figure 200-15 illustrates the differences between the 100BASE-T1 PHY Control and Figure 40-16a."
 to
 "Figure 200-15 illustrates the 100BASE-T1 PHY Control."

CI 200.4 SC P 54 L 4 # 111
 Wienckowski, Natalie General Motors

Comment Type ER Comment Status A
 It is not necessary to say how this is almost the same as something else, commentary, not technical.

SuggestedRemedy
 Delete the sentence: This function adopts 40.4.2.5 and the associated Figure 40-17 with the exception that Auto-Negotiation is not supported.

Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.
 Agree that text needs to be changed. Language will be worked out by Mehmet and editor.

Please configure project comments

CI 200.4 SC P 54 L 41 # 112
 Wienckowski, Natalie General Motors

Comment Type E Comment Status A
 It is not necessary to say how this is almost the same as something else, commentary, not technical.

SuggestedRemedy
 Delete the sentence: This function shall comply with Figure 40-17 Link Monitor state diagram, with the exceptions that in NOTE 1, the maxwait_ timer reference is to Figure 200-15, and NOTE 2 does not apply.

Add: NOTE 1—maxwait_timer is started in PHY Control state diagram (see Figure 200-15).

Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.
 See response to #66

CI 200.4 SC P 55 L 16 # 113
 Wienckowski, Natalie General Motors

Comment Type E Comment Status D
 missing CR between end of link_status and start of loc_rcvr_status

SuggestedRemedy
 Add missing carriage return

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 200.4 SC P 55 L 50 # 114
 Wienckowski, Natalie General Motors

Comment Type E Comment Status A
 Incorrect grammar. Not sure if it is referring to multiple PCS code groups or a single PCS code group

SuggestedRemedy
 Either: when transmission of sequences of code-groups representing PCS code groups in PCS

OR: when transmission of sequences of code-groups representing a PCS code group in PCS

Response Response Status C
 PROPOSED ACCEPT IN PRINCIPLE.

Change from
 "SEND_N: This value is continuously asserted when transmission of sequences of code-groups representing an PCS codes groups in PCS transmit function, control information, or idle mode is to take place."

to
 "SEND_N: This value is continuously asserted when code-group sequences representing a PCS code group in PCS transmit function, control information, or idle mode are transmitted."

CI 200.4 SC P 56 L 8 # 115
 Wienckowski, Natalie General Motors

Comment Type ER Comment Status D
 3rd line in definition is not indented

SuggestedRemedy
 indent all lines of definition

Proposed Response Response Status W
 PROPOSED ACCEPT.

Please configure project comments

CI 200.5 SC P 56 L 53 # 116

Wienckowski, Natalie General Motors

Comment Type ER Comment Status D

It is not necessary to say how this is almost the same as something else, commentary, not technical.

SuggestedRemedy

Delete the sentence: These test modes are analogous to 40.6.1.1.2, and reflect test modes for The 100BASE-T1 PHY.

Modify the next sentence to read: The test modes for The 100BASE-T1 PHY described below in Table 200-4 ...

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change from

"These test modes are analogous to 40.6.1.1.2, and reflect test modes for The 100BASE-T1 PHY. The test modes described below in Table 200-4 are provided to allow for testing of the transmitter waveform, transmitter distortion, transmitted jitter, and transmitter droop."

to

"The test modes for the 100BASE-T1 PHY described in Table 200-4 are provided to allow for testing of the transmitter waveform, transmitter distortion, transmitted jitter, and transmitter droop."

CI 200.5 SC P 58 L 23 # 117

Wienckowski, Natalie General Motors

Comment Type TR Comment Status A

The complete test is defined in this section, but it refers to 40.6 for the resistor tolerance only.

40.6 does not include a tolerance specification for the 100 Ohm or 50 Ohm resistors.

What is the required tolerance to ensure no false fails of the tests?

SuggestedRemedy

Replace: The tolerance of resistors should comply with 40.6.

With: The maximum tolerance of the resistors shall be (1%, 0.1%, etc.)

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE.

Change form

"The tolerance of resistors should comply with 40.6."

to

"The tolerance of the resistors shall be +/- 0.1%."

CI 200.5 SC P 59 L 54 # 118

Wienckowski, Natalie General Motors

Comment Type ER Comment Status D

It is not necessary to say how this is almost the same as something else, commentary, not technical.

SuggestedRemedy

Delete the sentence: This specification is analogous to 40.6.1.2.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 200.5 SC P 60 L 31 # 119

Wienckowski, Natalie General Motors

Comment Type ER Comment Status D

It is not necessary to say how this is almost the same as something else, commentary, not technical.

SuggestedRemedy

Delete the sentence: This specification is analogous to 40.6.1.2.4.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 200.5 SC P 60 L 33 # 120

Wienckowski, Natalie General Motors

Comment Type TR Comment Status A

Improve wording of : The peak distortion values measured at minimum 10 different equally-spaced phases of a single symbol period should be less than 15 mV.

If this is a requirement, "shall" is the proper term, not "should".

SuggestedRemedy

The peak distortion values, measured at a minimum of 10 different, equally-spaced phases of a single symbol period, shall be less than 15 mV.

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE.

Change to "The peak distortion values, measured at a minimum of 10 equally-spaced phases of a single symbol period, shall be less than 15 mV."

Please configure project comments

Cl 200.5 SC P 62 L 26 # 121
 Wienckowski, Natalie General Motors
 Comment Type ER Comment Status D
 It is not necessary to say how this is almost the same as something else, commentary, not technical.
 SuggestedRemedy
 Delete the phrase: , similar to 1000BASE-T,
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 200.5 SC P 64 L 42 # 122
 Wienckowski, Natalie General Motors
 Comment Type ER Comment Status D
 It is not necessary to say how this is almost the same as something else, commentary, not technical.
 SuggestedRemedy
 Delete the phrase: This specification is analogous to 40.6.1.3.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 200.5 SC P 65 L 14 # 123
 Wienckowski, Natalie General Motors
 Comment Type E Comment Status D
 poor wording
 You have tolerance to something, not of something.
 SuggestedRemedy
 This specification is provided to verify the DUT's tolerance to alien crosstalk noise.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change from
 "This specification is provided to verify the DUT's tolerance of alien crosstalk noise."
 to
 "This specification is provided to verify the DUT's tolerance to alien crosstalk noise."

Cl 200.5 SC Figure 200-23 P 65 L 32 # 124
 Wienckowski, Natalie General Motors
 Comment Type T Comment Status D
 Resistor tolerance is always provided in %, not parts per x.
 SuggestedRemedy
 1 Resistor matching to 0.1%
 NOTE: This requires 0.05% resistors, is this what is intended, or is it expected that 0.1% resistors are used?

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change from
 "Resistor matching to 1 part in 1000"
 to
 "Resistor tolerances of +/- 0.1%"

Cl 200.6 SC P 66 L 4 # 125
 Wienckowski, Natalie General Motors
 Comment Type ER Comment Status A
 It is not necessary to explain why this link cannot do something done in another.
 SuggestedRemedy
 Delete: In 1000BASE-T, MASTER-SLAVE resolution is attained during the Auto-Negotiation process (see Clause 28). However, the latency for this process is not acceptable for some applications.
 Response Response Status C
 PROPOSED ACCEPT.

Please configure project comments

CI 200.7 SC P 66 L 25 # 126
 Wienckowski, Natalie General Motors

Comment Type TR Comment Status A

The spec states: two inline connectors

The 1TPCE Objectives states: up to four inline connectors

SuggestedRemedy

Change the text to say: four inline connectors

Change Figure 200-24 to show four inline connectors and change the text in the figure to do the same.

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE.

Change from

"two inline connectors and two end connectors."

to "four inline connectors and two end connectors."

Also change other references to "2 inline connectors"

CI 200.7 SC P 67 L 32 # 127
 Wienckowski, Natalie General Motors

Comment Type TR Comment Status A

Who decides this?

The insertion loss for the path from PHY to MDI connector, including choke or any extra low-pass filters, might be separately specified from cabling system.

SuggestedRemedy

Either say:

will be separately specified

OR: make it clear this is included in the requirement.

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE.

Remove "The insertion loss for the path from PHY to MDI connector, including choke or any extra low-pass filters, might be separately specified from cabling system."

CI 200.7 SC P 68 L 5 # 128
 Wienckowski, Natalie General Motors

Comment Type E Comment Status D

There is a comma separating the subject and verb.

SuggestedRemedy

Remove the , after pair

Alternatively, add a comma before on if it is desired to separate the clause "on the same cable pair".

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change from

"Echo from the local transmitter on the same cable pair, is caused by the hybrid function for bidirectional data transmission in the 100BASE-T1 duplex channel and by the impedance discontinuities in the link segment."

to

"Echo from the local transmitter on the same cable pair is caused by the hybrid function for bidirectional data transmission in the 100BASE-T1 duplex channel and by the impedance discontinuities in the link segment."

CI 200.7 SC P 68 L 18 # 129
 Wienckowski, Natalie General Motors

Comment Type TR Comment Status A

The spec states: two inline connectors

The 1TPCE Objectives states: up to four inline connectors

SuggestedRemedy

Change the text to say: four inline connectors, equally spaced at 3 meter

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE.

Need to modify more language than just the "2 inline connectors." Mehmet to follow up with new language.

Other references to "2 inline connectors" in draft should be changed to "4 inline connectors"

Please configure project comments

CI 200.8 SC P 68 L 40 # 130
 Wienckowski, Natalie General Motors

Comment Type TR Comment Status A

This statement: These connectors shall not degrade the signals, in terms of the insertion loss or return loss, worse than a 15 meter 1-pair UTP cable.

Implies that the connectors can have the same insertion loss and return loss as a 15 meter cable.

SuggestedRemedy

Should include specific return loss and insertion loss allowances for the connector.

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE.

Change from
 "The mechanical interface to the balanced cabling could be a 2-pin connector or a multi-pin connector. The connectors shall not degrade the signals, in terms of the insertion loss or return loss, worse than a 15 meter 1-pair UTP cable."

to
 "The mechanical interface to the balanced cabling is a 2-pin connector or a balanced configuration in a multi-pin connector."

CI 200.8 SC P 68 L 45 # 131
 Wienckowski, Natalie General Motors

Comment Type E Comment Status D

Where can the Cabling system characterists be found?

SuggestedRemedy

Add a reference to 200.7.1

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 200.8 SC P 69 L 4 # 132
 Wienckowski, Natalie General Motors

Comment Type ER Comment Status A

Missing ")" after dB.

SuggestedRemedy

Add missing ")"

Response Response Status C

PROPOSED ACCEPT IN PRINCIPLE.
 Make equation references in body consistant.

Remove "(dB", but include "(RL)". Same goes for other parameter abbreviations.

CI 200.9 SC P 69 L 13 # 133
 Wienckowski, Natalie General Motors

Comment Type E Comment Status D

It is not needed to say what other requirement this is similar to.

SuggestedRemedy

Remove: This delay constraint specification is analogous to 40.11.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 200b. SC Figure 200B-1 P 75 L # 134
 Wienckowski, Natalie General Motors

Comment Type E Comment Status D

The figure is not labeled and includes selection box around 100BASE-T1 PCS Transmit.

SuggestedRemedy

Label the figure and remove selection box.

Proposed Response Response Status W

PROPOSED ACCEPT.

Please configure project comments

Cl **200b.** SC **Figure 200B-2** P **76** L #

Wienckowski, Natalie General Motors

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

The figure is not labeled and there are green squiggles.

SuggestedRemedy

Label the figure and remove the green squiggles.

Proposed Response Response Status **W**

PROPOSED ACCEPT.

Cl **Annex** SC P **75** L **9** #

Wienckowski, Natalie General Motors

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

Improve wording of: ...functionality without having the need to have link partner.

SuggestedRemedy

Change wording to: ... functionality without the need for a link partner.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change from

"The 100BASE-T1 PHY supports two loopback test modes to assist MAC to test PHY functionality without having the need to have link partner."

to

"The 100BASE-T1 PHY supports two loopback test modes to assist the MAC in testing the PHY functionality without the need for a link partner."