

IEEE 802.3bv D3.0 GEPOF Initial Sponsor ballot comments

Cl 0 SC 0 P L # i-16
 Alessi, Julie
 Comment Type E Comment Status X
 Draft meets all editorial requirements.
 SuggestedRemedy
 Proposed Response Response Status O

Cl 0 SC 0 P1 L3 # i-36
 Grow, Robert Knowledge Developme
 Comment Type E Comment Status X
 Can probably update year for IEEE Std 802.3bn and IEEE Std 802.3bz to 2016
 SuggestedRemedy
 If draft is produced after 22 September and the SASB approves these projects, update year to 2016.
 Proposed Response Response Status O

Cl 0 SC 0 P L # i-3
 Anslow, Peter Ciena Corporation
 Comment Type ER Comment Status X
 The draft contains numerous Editor's notes regarding publication order.
 Now that the assumed publication order is decided, these should all be removed.
 SuggestedRemedy
 Remove all such editor's notes and modify the draft (if necessary) to account for the publication order:
 IEEE P802.3bw - Amendment 1
 IEEE P802.3by - Amendment 2
 IEEE P802.3bq - Amendment 3
 IEEE P802.3bp - Amendment 4
 IEEE P802.3br - Amendment 5
 IEEE P802.3bn - Amendment 6
 IEEE P802.3bz - Amendment 7
 IEEE P802.3bu - Amendment 8
 IEEE P802.3bv - Amendment 9
 Proposed Response Response Status O

Cl 0 SC 0 P1 L30 # i-37
 Grow, Robert Knowledge Developme
 Comment Type E Comment Status X
 Update for recirculation ballot.
 SuggestedRemedy
 Change initial Sponsor ballot to Sponsor recirculation ballot
 Proposed Response Response Status O

Cl 0 SC 0 P2 L45 # i-39
 Grow, Robert Knowledge Developme
 Comment Type E Comment Status X
 Somehow, we lost the boilerplate material anchored to the bottom of this page
 SuggestedRemedy
 Restore
 Proposed Response Response Status O

Cl 0 SC 0 P1 L1 # i-38
 Grow, Robert Knowledge Developme
 Comment Type E Comment Status X
 2nd MEC requested review for front matter for being current.
 SuggestedRemedy
 We somehow lost the bottom of page 2 boilerplate, restore. Copyright paragraph on title page disagrees with IEEE FrameMaker templates which disagrees with the style manual -- refer to publication editors for answer on which is most current.
 Proposed Response Response Status O

Cl 0 SC 0 P12 L8 # i-40
 Grow, Robert Knowledge Developme
 Comment Type ER Comment Status X
 Descriptions for 802.3bn and 802.3bu are not current
 SuggestedRemedy
 Update with descriptions in current drafts.
 Proposed Response Response Status O

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Cl 0 SC 0 P91 L48 # i-29
 RAN, ADEE Intel

Comment Type E Comment Status X

Inconsistent use of italics in the text and the equations. I found this first in 115.5.6 but it appears in several other places.

Also, the equations contain 0, 1, 2, 3 as indices, but these are not placed in subscripts as is customary; and all terms includes subscript "n" which seems redundant.

This makes the equation difficult to follow.

SuggestedRemedy

Make consistent use of italics (in variable names, not in numbers) across the draft.

in 115.5.6, consider making the numerical indices be subscripts, and consider removing the "n" index from all terms.

Proposed Response Response Status O

Cl 0 SC 0 P107 L # i-1
 Kobayashi, Shigeru Tyco Electronics Japa

Comment Type E Comment Status X

The vertical axis of Figure 114-37, -38, and -39 is wrong.

SuggestedRemedy

It should be "Transfer function magnitude" followed by the tables 114-13, -14, and -15.

Proposed Response Response Status O

Cl 1 SC 1.4.91 P19 L52 # i-2
 Anslow, Peter Ciena Corporation

Comment Type E Comment Status X

Should be "and" rather than "," in "See IEEE Std 802.3, Clause 55, Clause 115."
 Same issue in 1.4.401

SuggestedRemedy

Change to "See IEEE Std 802.3, Clause 55 and Clause 115." here and in 1.4.401

Proposed Response Response Status O

Cl 45 SC 45.2.1 P23 L45 # i-4
 Anslow, Peter Ciena Corporation

Comment Type ER Comment Status X

In Table 45-3, register names do not end with "register"

SuggestedRemedy

In Table 45-3, change "BASE-H PMA/PMD control register" to "BASE-H PMA/PMD control"

Proposed Response Response Status O

Cl 45 SC 45.2.1.6 P24 L12 # i-5
 Anslow, Peter Ciena Corporation

Comment Type ER Comment Status X

There are multiple problems with the changes shown to Table 45-7.
 The Editor's note starting on line 12 says that: "IEEE Std 802.3bv did not fully expand the 11xxx value, Failing to include 10xxx=reserved". Clearly, 10xxx is not part of 11xxx.
 The only thing that is relevant here is that the P802.3bq amendment is inserting "1 1 0 1 0 x = reserved" (not 11011x=reserved as stated in part 2 of the Editor's note).
 Footnote a to Table 45-7 is "R/W = Read/Write, RO = Read only" not as shown in the draft.
 Footnote b to Table 45-7 has been inserted by IEEE Std 802.3bp-2016

SuggestedRemedy

Remove both editor's notes.
 Show "1 1 0 1 0 x = reserved" in strikethrough font and show:
 "1 1 0 1 0 1 = reserved"
 "1 1 0 1 0 0 = BASE-H PMA/PMD"
 as being inserted. (Note lower case r in reserved to match the base standard)
 Show footnote b as inserted by IEEE Std 802.3bp-2016. (The only way I have found to do this is to apply the footnote to somewhere in the heading row and make the font for the "b" white)
 Show the new footnote as footnote c in underline font as it is being added with a "Change" editing instruction.
 Add "." to the end of the new footnote.

Proposed Response Response Status O

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Cl 45 SC 45.2.1.6 P24 L17 # i-41
 Grow, Robert Knowledge Developme

Comment Type ER Comment Status X

Base text should be updated to be P802.3bq as highlighted in Editors Note #2.

SuggestedRemedy

Update editing instruction, add base text line for 11010x = reserved below current line 27, strike through the x and add underscore 1, current line 27 text should have strike through Reserved removed and everything remaining should be underscore.

Proposed Response Response Status O

Cl 45 SC 45.2.1.10 P25 L6 # i-42
 Grow, Robert Knowledge Developme

Comment Type E Comment Status X

Though assignment of amendment number allows deletion of most or the clause 45 editor's notes, if any thing is retained (e.g., context to aid reader) this should retain a reminder to review base text when P802.3bz is published.

SuggestedRemedy

Delete Editor's note paragraphs about amendment order. Retain context information. Add additional information about checking bz after publication because it has "zero" instead of "0".

Proposed Response Response Status O

Cl 45 SC 45.2.1.10.aaaa P25 L28 # i-6
 Anslow, Peter Ciena Corporation

Comment Type E Comment Status X

Editing instructions for new subclauses go above the subclause heading.
http://www.ieee802.org/3/WG_tools/editorial/requirements/words.html includes:
 "For insert, the only other amendments included in the editing instruction are those that affect the insert point". In this case it is sufficient to list IEEE Std 802.3bz-201x.

SuggestedRemedy

Move the editing instruction above the heading and only cite IEEE Std 802.3bz-201x.

Proposed Response Response Status O

Cl 45 SC 45.2.3.47a P28 L34 # i-7
 Anslow, Peter Ciena Corporation

Comment Type E Comment Status X

Editing instruction is not sufficiently precise.

SuggestedRemedy

Change to "Insert 45.2.3.47a after 45.2.3.47 as follows:"

Proposed Response Response Status O

Cl 45 SC 45.2.3.47a.1 P29 L35 # i-8
 Anslow, Peter Ciena Corporation

Comment Type E Comment Status X

Sentence would be improved if re-arranged and too many "and"s

SuggestedRemedy

Change to: "Bit 3.500.15, together with bits 3.500.14 (TXO_PHYT), 3.500.13 (TXO_MERT), and 3.500.12 (TXO_MSGT), indicates the status of the 1000BASE-H OAM transmission channel (see 115.9.2).

Proposed Response Response Status O

Cl 45 SC 45.2.3.47a.5 P30 L1 # i-11
 Anslow, Peter Ciena Corporation

Comment Type E Comment Status X

In the text "Register bits 3.501.11:0 and Registers 3.501 through 3.508", "Register bits" should just be "Bits" (All bits are part of registers).
 Similar issue in other places in the draft.

SuggestedRemedy

Change to "Bits 3.501.11:0 and Registers 3.501 through 3.508"
 In the heading of 45.2.3.47b.3 make the equivalent change.
 On page 35, line 10 change "Register bits 3.522.15:0 is a 16-bit counter" to "Bits 3.522.15:0 are a 16-bit counter"
 On page 37, line 33 change "to register bits 1.900.3:0" to "to bits 1.900.3:0"
 On page 72, line 1 change "register bit 1.0.15" to "bit 1.0.15"
 On page 119, line 50 change "register bit 1.0.15" to "bit 1.0.15"
 On page 120, line 31 change "register bit 1.0.15" to "bit 1.0.15"
 On page 121, line 49 change "register bits 3.518.12:10" to "bits 3.518.12:10"
 On page 121, line 53 change "register bit 1.0.15" to "bit 1.0.15"
 On page 139, line 28 change "register bits 3.518.12:10" to "bits 3.518.12:10"

Proposed Response Response Status O

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Cl 45 SC 45.2.3.47b P30 L30 # i-9
 Anslow, Peter Ciena Corporation

Comment Type **TR** Comment Status **X**
 Comment #58 against P802.3bx D2.0
http://www.ieee802.org/3/bx/comments/P8023-D2p0-Comments_Final_byID.pdf#page=16
 Changed all reserved rows to say "Value always 0" in the description column

SuggestedRemedy
 Change "Ignore on read" to "Value always 0" in Tables 160b, 160c, 160d, 160e, 160f

Proposed Response Response Status

Cl 45 SC 45.2.3.47d.8 P34 L11 # i-10
 Anslow, Peter Ciena Corporation

Comment Type **E** Comment Status **X**
 This says "Bit 3.1.11 is a copy of bit 3.519.8". Since bit 3.1.11 was defined long before bit 3.519.8 it seems better to say "Bit 3.519.8 is a copy of bit 3.1.11".
 Same issue for other "copy" bits.

SuggestedRemedy
 Change "Bit 3.1.11 is a copy of bit 3.519.8" to "Bit 3.519.8 is a copy of bit 3.1.11".
 Make the equivalent change in 45.2.3.47d.9, 45.2.3.47d.10, 45.2.3.47d.11, PICS item RM151, and PICS item 153

Proposed Response Response Status

Cl 45 SC 45.5.3.6 P38 L8 # i-12
 Anslow, Peter Ciena Corporation

Comment Type **ER** Comment Status **X**
 To be meaningful, item *BHOAM "1000BASE-H OAM channel implementation" needs an entry in the "Subclause" column.
 "45.2.3.47a" seems appropriate.

SuggestedRemedy
 Add "45.2.3.47a" to the Subclause column.

Proposed Response Response Status

Cl 45 SC 45.5.3.7 P38 L31 # i-43
 Grow, Robert Knowledge Developme

Comment Type **TR** Comment Status **X**
 2nd MEC flagged the draft for RAC review. This stimulated me to look at the draft again from the RAC perspective, but this is a personal comment, not a comment from the RAC.
 PICS item could agree more closely with referenced text

SuggestedRemedy
 Change "OUI" to "OUI or Company ID".

Proposed Response Response Status

Cl 78 SC 78.1.4 P41 L5 # i-44
 Grow, Robert Knowledge Developme

Comment Type **E** Comment Status **X**
 P802.3bz also inserts after 1000BASE-T1

SuggestedRemedy
 Add (before 2.5GBASE-T inserted by IEEE Std 802.3bz-20xx) for clarity.

Proposed Response Response Status

Cl 78 SC 78.1.4 P41 L10 # i-45
 Grow, Robert Knowledge Developme

Comment Type **E** Comment Status **X**
 Update Editor's note

SuggestedRemedy
 P802.3bz has editorial errors that might be fixed in publication. While the instruction for the Table 78-1 insert was updated between D3.1 and D3.3, similar required updates were not done to the Table 78-2 and Table 78-4 inserts. As currently written, the latter two inserts will put 2.5G and 5G terms of P802.3bz and P802.3cb in the midst of 1000BASE table rows.

Proposed Response Response Status

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Cl 78 SC 78.2 P41 L40 # i-14
 Anslow, Peter Ciena Corporation

Comment Type ER Comment Status X

1.2.6 states "Unless otherwise stated, numerical limits in this standard are to be taken as exact, with the number of significant digits and trailing zeros having no significance."

SuggestedRemedy

In the additions to Table 78-2 change "1.30" to "1.3" in 6 places.

Proposed Response Response Status O

Cl 78 SC 78.4.1 P41 L14 # i-13
 Anslow, Peter Ciena Corporation

Comment Type E Comment Status X

Editor's note says "The same issue and changes are applicable to Table 45-2." Table 45-2 is "Devices in package registers bit definitions" and is not being modified by this amendment.

SuggestedRemedy

If editor's note is not removed, change to "Table 78-2".

Proposed Response Response Status O

Cl 115 SC 115.1.6 P46 L19 # i-23
 RAN, ADEE Intel

Comment Type T Comment Status X

The interface between the PCS and the PMA is not defined in this draft.

Based on Figure 115-3 it seems that the PCS transmit sends a stream of symbols to the PMA; but from Figure 115-5 it seems that it sends several streams, and it is not clear where the serialization and muxing belongs.

Also, figure 115-3 contains "control signals" bi-directional arrows between the PCS transmit function and the PMA, and between the PCS receive function and the PMA. These control signals are not explicitly mentioned anywhere; it is not clear what are and whether they should go in both directions.

Defining the PCS and the PMA as different sublayers requires a clear interface between them - otherwise their implementations cannot be separated.

Consider the sublayer separation in clause 55 as an example: detailed PMA service interface (55.2.2) and all signals between sublayers shown in a diagram (Figure 55-4). Most clauses follow this principle.

SuggestedRemedy

Define the service interface between the PCS and the PMA formally in the text. The "control signals" would then be the service interface excluding the transmitted/received symbols.

This should be aligned with the specification of where the serialization of blocks belongs - PCS or PMA:

- If it is in the PCS, the PMA should not do any multiplexing, only encode symbols based on the control signals
- If it is in the PMA (which makes more sense), the PMA should probably receive wholes block from the PCS, and serialize them to symbols and then encode the symbols based on the control signals.

Proposed Response Response Status O

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CI 115 SC 115.2 P47 L9 # i-17
 RAN, ADEE Intel

Comment Type T Comment Status X

The term "PAM16 codewords" is used here (3 times) and in 115.6.4.1, but 115.2.1 uses "MLCC codeword" for the same thing. Consistency is preferable.

SuggestedRemedy

Change "PAM16 codeword" to "MLCC codeword" consistently.

Proposed Response Response Status O

CI 115 SC 115.2.1 P47 L24 # i-46
 Grow, Robert Knowledge Developme

Comment Type ER Comment Status X

MEC has requested review of usage of "guarantee", "ensure", etc. Specific MEC review comments include:

115.6.4.8, item 2) uses "guarantee" with a "may" statement. Please consider replacing "guarantee" with "help ensure" or "establish" or "make certain null frequency deviation is achieved" in the following sentence: "In order to guarantee null frequency deviation between the transmitter and the clock used to sample the transmit waveform, the test instrument and the device under test may share the same clock reference."

115.9.3, second item 3). Consider changing "guarantee" to "maintain" in "...reading the register 3.517 last to guarantee the integrity of the 1000BASE-H OAM message."

115.8.1, in the second list, change "ensure" to "help ensure", i.e., "The duplex cable is split to help ensure:"

SuggestedRemedy

115.3.7.2, p.83, l.12 change "guarantee" to "enable"

115.6.4.8, p.103, l.32 change "In order to guarantee" to "To reduce"

115.8.1, p.112, l.50 change "guarantee" to "provide"

115.9.3, p.116, l.43 change "to guarantee the" to "is necessary for"

115.2.1, p.47, l.24 change "ensure that the receivers are synchronized and the equalizers are aligned" to "allow receivers to maintain synchronization and equalizers to maintain alignment"

115.8.1, p.113, l.24 change "ensure" to "enable"

115.12.1, p.122, l.45 change "ensured" to "claimed"

115.14.16, p.140, l.27 change "ensured" to "claimed"

Proposed Response Response Status O

CI 115 SC 115.2.1 P47 L29 # i-18
 RAN, ADEE Intel

Comment Type E Comment Status X

"(The top part of the figure provides detail on the beginning of a Transmit Block and the bottom part of the figure the end of a Transmit Block.)"

This information should be part of the figure. It is not obvious from just looking at the figure without the text.

SuggestedRemedy

Add a text frame in figure 115-4 and move this text into it.

Proposed Response Response Status O

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Cl 115 SC 115.2.1 P47 L31 # i-22
 RAN, ADEE Intel

Comment Type T Comment Status X

From the sentence "The symbols of all the sub-blocks shall be transmitted at the nominal rate" and the "symbols streams" mentioned in P48 L25, one can deduce that each "data path" by itself is a stream of symbols generated at the nominal rate.

This is obviously not true; since the sub-blocks are concatenated to create the transmit block, the symbol rate of each "data path" is lower than the nominal rate.

Architecturally, as figure 115-4 shows, the sub-blocks are concatenated to form the transmit block, which is then serialized to symbols at the nominal rate. This is the simplest way to describe the process (the alternative is "muxing" as shown in figure 115-5, but it requires the data paths to pause when they are not selected - this is more difficult to specify).

SuggestedRemedy

Change
 "The symbols of all the sub-blocks shall be transmitted at the nominal rate"
 to
 "The sub-blocks are concatenated and then transmitted serially as symbols at the nominal rate, in the order indicated in figure 115-4".

Delete parenthesized text (subject of another comment), and the sentence before the parentheses, as it becomes redundant.

In the paragraph on P48 L25, change
 "so the four symbol streams are multiplexed to produce the temporal order indicated in Figure 115-4"
 to
 "so the sub-blocks are arranged to produce the transmission order indicated in Figure 115-4".

Proposed Response Response Status O

Cl 115 SC 115.2.1 P48 L29 # i-21
 RAN, ADEE Intel

Comment Type T Comment Status X

It is not obvious from this figure where the PMA starts.

115.3.1 says that the THP encoder (and implicitly decoder too) is part of the PMA, so at the interface to the PMA the payload data path is encoded as PAM16 symbols.

In addition, the PMA function is to serialize the transmit block provided by the PCS; describing it as a multiplexer between data paths would require each of these data paths to pause or insert dummy symbols when not selected.

SuggestedRemedy

Arrange Figure 115-5 somewhat differently:

Show the PMA as a distinct rectangle, with the power scaling sub-blocks included, as well as the THP block. (currently there is a shaded polygon, it is not clear that this is the PMA)

Show the PCS as a separate rectangle including all PCS sub-blocks, with the interface being a transmit block (as defined in 115.2.1).

Change the label inside the PMA from "multiplexer" to "serializer".

Proposed Response Response Status O

Cl 115 SC 115.2.4.1 P53 L32 # i-32
 RAN, ADEE Intel

Comment Type T Comment Status X

"Shall be" is inappropriate for a nominal bit rate; the bit rate is derived from the GMII clock frequency.

SuggestedRemedy

Change "shall be" to "is" and delete the corresponding PICS item.

Proposed Response Response Status O

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Cl 115 SC 115.2.4.3.2 P60 L20 # i-25
 RAN, ADEE Intel

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

In Equation (115-6), s1 appears as a factor of both x and x². This seems incorrect.

SuggestedRemedy

Change the factor of x² to s2.

Proposed Response Response Status

Cl 115 SC 115.2.4.3.5 P61 L20 # i-26
 RAN, ADEE Intel

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

What is the meaning of "t" in the superscripts? is it a variable? I don't see it defined anywhere.

If it is just a label for transformation, consider removing it or modifying the labels somehow, since the multiple levels of subscripts and superscripts create very small text size.

SuggestedRemedy

Define what t means.

Consider removing it or rearranging the labels to avoid creating extremely small text.

Proposed Response Response Status

Cl 115 SC 115.2.5 P63 L27 # i-33
 RAN, ADEE Intel

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

"the resulting bits belonging to that codeword shall be marked as corrupt"

How are bits marked as corrupt? Is it done by signaling RX_ER on the GMII?

Behavior stated as "shall" should be clearly verifiable.

SuggestedRemedy

Clarify what the behavior should be.

Proposed Response Response Status

Cl 115 SC 115.3.1.1 P65 L33 # i-24
 RAN, ADEE Intel

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

"The coefficients of the finite-impulse-response (FIR) feedback filter c(i) are dynamically adapted using the PHD per 115.3.6"

This subclause is part of the transmit function; the transmit function does not adapt the coefficients by itself - it modifies them based on the requests from the link partner. The link partner may or may not perform this "dynamic adaptation".

SuggestedRemedy

Change
 "are dynamically adapted using the PHD per 115.3.6"
 to
 "are set from the PHD received from the PHD received from the link partner (see 115.3.6).

Proposed Response Response Status

Cl 115 SC 115.3.3.1 P67 L3 # i-27
 RAN, ADEE Intel

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

Equation (115-22) has two expressions for x(n).

It is confusing since it seems as if x(n) can take two values, while in fact the values are equal (but this is only obvious after reading the long text in the paragraph below).

SuggestedRemedy

Change to a single expression (the first one seems sufficient).

Proposed Response Response Status

Cl 115 SC 115.3.3.2 P67 L27 # i-28
 RAN, ADEE Intel

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

This subclause does not specify or define anything relevant to the specification. The text and equation does not provide sufficient information for implementing a receiver.

It seems out of place in a standard text.

SuggestedRemedy

Delete this subclause.

Proposed Response Response Status

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Cl 115 SC 115.3.3.2 P67 L37 # i-19
 RAN, ADEE Intel

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

In the second line of equation 115-23, the index l1 appears in two summation operators.

SuggestedRemedy

Change the index to l2 in the second summation operator.

Proposed Response Response Status **O**

Cl 115 SC 115.3.3.2 P67 L46 # i-20
 RAN, ADEE Intel

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

The received signal does not contain the end-to-end channel. It is created by, or is affected by the channel.

SuggestedRemedy

Change "contains" to "is created by" or "includes the effect of".

Proposed Response Response Status **O**

Cl 115 SC 115.6 P L # i-47
 Stassar, Peter Huawei Technologies

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

The test results in perezaranda_3bv_1b_0916 appear to show that the optical interface specifications in P802.3bv draft 3.0 need significant further refinement, so that a set of devices, when meeting these requirements, will operate satisfactorily in the field on worst case versions of standard POF, and that, when they fail these requirements, they do not operate in the field.

Such a robust specification is extremely important to protect the user in home applications against inadequate equipment.

I remain therefore unconvinced that this optical specification is sufficiently complete and therefore have the opinion that the Task Force has not completed its work.

SuggestedRemedy

Perform further testing to enable a refinement and increase of quality of the specification.

Proposed Response Response Status **O**

Cl 115 SC 115.6.3.1 P98 L30 # i-35
 Perez De Aranda Alonso, Ruben Knowledge Developme

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

In http://www.ieee802.org/3/bv/public/Sep_2016/perezaranda_3bv_1b_0916.pdf are provided measurement results of the transmitter distortion parameters for new 3 PMD implementations. Results for a total number of 4 implementations are presented in a wide range of temperature of operation. All of the implementations are able to establish Gigabit link with BER < 10⁻¹² in automotive range of temperatures. Based on those measurement results, it is proposed to do a refinement of the specifications of HD3 and HD4 parameters to allow more implementations. The presentation shows that this refinement does not have relevant impact on the expected receiver sensitivity and discussion on the selection of the new values is provided.

SuggestedRemedy

In Table 115-8, change HD3 max value from -26 to -23. In the same table, change HD4 max value from -36 to -34.

Proposed Response Response Status **O**

Cl 115 SC 115.6.4.5 P102 L32 # i-30
 RAN, ADEE Intel

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

Equation number reset to 1.

SuggestedRemedy

Apply correct format so that equation numbers continue (this should be 115-30).

Proposed Response Response Status **O**

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CI 115 SC 115.6.4.8 P103 L17 # i-15
 Anslow, Peter Ciena Corporation

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

The multi-vendor interoperability of this PHY is critically dependent on the ability of the specification to define a suitable quality for the worst case transmitter. It is very difficult without a physical implementation to assess whether the transmitter distortion measurement defined here does this adequately.

I can't find any presentations on the P802.3bv web pages that show any correlation between the performance of transmitters in actual links and the transmitter distortion measurement defined here.

While there is no rule that requires this to be done, it has been seen as a requirement in other projects before new specification methods have been accepted. See for instance, http://www.ieee802.org/3/bm/public/nov14/petrilla_01b_1114_optx.pdf#page=8 which has plots of receiver sensitivity vs the newly proposed TDEC transmitter quality metric.

SuggestedRemedy

As this measurement method is crucial to multi-vendor interoperability of these PHY types, please provide some measurement results showing the correlation between link performance and the transmitter distortion measurements that show that HD2 of -20 dB, HD3 of -26 dB, HD4 of -36 dB, and RD of -40 dB are attainable using transmitters that work in conformant links and that transmitters with HD2 of worse than -20 dB or HD3 of worse than -26 dB or HD4 of worse than -36 dB or RD of worse than -40 dB do not work in conformant links.

Proposed Response Response Status **O**

CI 115 SC 115.7 P108 L10 # i-31
 RAN, ADEE Intel

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

What does "includes up to at least 50 m length" mean when defining a channel type? It is an oxymoron, since "up to" are "at least" are antonyms.

In 802.3bv we have a similar task of describing the defined cable assemblies. The following text is used there:

"Cable assembly long (CA-25G-L): Cable assembly that supports links between two PHYs that operate in RS-FEC mode with error correction enabled on both receivers, with achievable cable length of at least 5 m"

(similarly for other cable assembly types)
 and

"NOTE--It may be possible to construct compliant cable assemblies longer than indicated. Length of a cable assembly does not imply compliance to specifications."

SuggestedRemedy

Considering using similar language to the text above, using "achievable" instead of "up to", and clarifying with a note that length is not the specification.

Proposed Response Response Status **O**

CI 115 SC 115.14.5 P130 L35 # i-34
 RAN, ADEE Intel

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

PMA10 value/comment says ""transmit" but it relates to receive.

SuggestedRemedy

In value/comment, change "transmit" to "receive".

Proposed Response Response Status **O**