

IEEE P802.3bz D2.0 2.5G/5GBASE-T Initial Working Group ballot comments

Cl 30 SC 30 P 27 L 1 # 313  
 Hajduczenia, Marek Bright House Network

Comment Type ER Comment Status D  
 General comment on Clause 30 - most (if not all) objects modified by this project are also being modified by P802.3bp, which is not listed in editorial notes

SuggestedRemedy  
 This is the format of editorial note used in P802.3bp: Insert the following new entry in APPROPRIATE SYNTAX (as modified by IEEE Std 802.3bw-2015, IEEE Std 802.3by-201X and IEEE Std 802.3bq-201X) after the entry for "1000BASE-T":  
 Consider using a similar text, given that .3bz is running point behind all of these projects

Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Add "IEEE Std 802.3bp-201x, " after "IEEE Std 802.3bq-201x, " in editing instructions for: 30.3.2.1.2, 30.3.2.1.3, 30.5.1.1.2, (P27, L13, 27, and 48) and 30.6.1.1.5 (P29 L9)

Cl 45 SC 45.2.3.1 P 38 L 15 # 320  
 Hajduczenia, Marek Bright House Network

Comment Type ER Comment Status D  
 Entry for 3.0.5:2 exists in base 802.3 standard. Please show existing row + changes to content so that changes can be rolled in correctly by staff editor

SuggestedRemedy  
 Per comment

Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Change editing instruction to include "(as modified by IEEE Std 802.3by-201x)",  
 show change edits (strikeout (SO) & underline(UL)) from IEEE 802.3by-201x:

Changing (SO & UL): 1 x x x = Reserved  
 to: 1 1 x x = Reserved  
 Inserting (UL): 1 0 1 x = Reserved  
 Inserting (UL): 1 0 0 1 = Reserved  
 Inserting (UL): 1 0 0 0 = 5 Gb/s  
 Inserting (UL): 0 1 1 1 = 2.5Gb/s  
 Changing (SO & UL): 0 1 1 x = Reserved  
 to: 0 1 1 0 = Reserved

Cl 45 SC 45.2.7.10.4ca P 44 L 26 # 299  
 Anslow, Pete Ciena

Comment Type E Comment Status D  
 Editing instruction should be more specific.

SuggestedRemedy  
 Change "Insert four new clauses after 45.2.7.10.4c, inserted by IEEE Std 802.3bq-201x, as shown:" to "Insert 45.2.7.10.4ca through 45.2.7.10.4cd after 45.2.7.10.4c, as inserted by IEEE Std 802.3bq-201x, as follows:"

Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 (difference is parentheses around ref to 802.3bq)

Change "Insert four new clauses after 45.2.7.10.4c, inserted by IEEE Std 802.3bq-201x, as shown:" to "Insert 45.2.7.10.4ca through 45.2.7.10.4cd after 45.2.7.10.4c (as inserted by IEEE Std 802.3bq-201x) as follows:"

Cl 126 SC 126.7.3.1 P 164 L 25 # 266  
 Zimmerman, George CME Consulting/Aqua

Comment Type TR Comment Status D ALSNR  
 ALSNRcriteria procedure is unclear in multiple places. Text has been clarified by consensus in parallel discussions in TIA. Additionally, lab measurements have shown need to adjust passing criteria to model real-world performance, which is better than this criterion currently suggests

SuggestedRemedy  
 Presentation to be provided, aligning base text with text contributed to TIA TSB-5021, and adjusting criteria for passing.

Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Task Force to review with presentation zimmerman\_3bz\_02\_0316.pdf

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Cl 126 SC 126.7.3.1 P 166 L 30 # 369  
 Hajduczenia, Marek Bright House Network  
 Comment Type ER Comment Status D ALSNR  
 Strange symbols above R in Equations 31, 32 in term PSFEXT\_PSDNRN,Rf() - seems like an odd dash is present, when zoomed in  
 SuggestedRemedy  
 Please confirm it is supposed to be there, and if so, mark is clearly - right now it looks like an accidental insertion fo some symbol  
 If it is intended to be an arrow, it is not readable right now (font too small, too close to R itself)  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Nomenclature to be adjusted, see comment 266.

Cl 126 SC 126.7.3.1 P 165 L 1 # 368  
 Hajduczenia, Marek Bright House Network  
 Comment Type ER Comment Status D ALSNR  
 Eq 126-25 and 126-26 are very busy - consider breakign them into two lines for simpler read - font is very small, especially on Eq 26  
 SuggestedRemedy  
 Per comment  
 There are also other equations in the same section where font on some elemnts is too small (see e.g. 31, 32 exponents)  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Editor to reformat equations 126-25 and 126-26 as necessary to maintain adequat font size, as part of rework, see comment 266

Cl 126 SC 126.7.3.1 P 165 L 8 # 399  
 Yseboodt, Lennart Philips  
 Comment Type E Comment Status D ALSNR  
 Equation 126-26 is of smaller font than other Equations and so wide it bumps the Equation number out of the way.  
 SuggestedRemedy  
 Suggest to use normal font size and use an array to split this equation over multiple vertical lines.  
 A split at the minus and plus signs seems natural.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Editor to reformat equation to use normal 10pt font as part of rework, see comment 266

Cl 125 SC 125.2.2 P 62 L 3 # 339  
 Hajduczenia, Marek Bright House Network  
 Comment Type TR Comment Status D Architecture  
 Technically wrong - it is not interface being mapped, but data transferred across interface being mapped. "maps the XGMII interface to 64B/65B blocks"  
 SuggestedRemedy  
 Change "maps the XGMII interface to 64B/65B blocks" to "maps data transferred across the XGMII interface to 64B/65B blocks"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.7.3.1 P 164 L 33 # 205  
 McClellan, Brett Marvell  
 Comment Type T Comment Status D ALSNR  
 100MHz is for 2.5G, should also state 200MHz for 5G  
 SuggestedRemedy  
 Change "below 100 MHz"  
 to "below 100 MHz for 2.5GBASE-T and 200MHz for 5GBASE-T."  
 Proposed Response Response Status W  
 PROPOSED REJECT.  
 Full text is: "NOTE—While disturbing signals may contain higher frequencies, the received power, which determines the power back off, is dominated by the power below 100 MHz." The effect described is due to the insertion loss of the cabling and is not a function of the PHY type.

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Cl 125 SC 125.4 P 63 L 1 # 342  
 Hajduczenia, Marek Bright House Network

Comment Type TR Comment Status D Architecture  
 Subclause with no text - is there any specific requirement associated with Table 125-3?

SuggestedRemedy  
 Please add at least text describing what Table 125-5 contains, and consider adding a "shall" statement for this table - right now it is hard to figure out what the purpose of this table is, seems out of context

Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Add text: under 125.4  
 Predictable operation of the MAC Control PAUSE operation (Clause 31, Annex 31B) demands that there be an upper bound on the propagation delays through the network. This implies that MAC, MAC Control sublayer, and PHY implementers must conform to certain delay maxima, and that network planners and administrators conform to constraints regarding the cable topology and concatenation of devices. Table 125-3 contains the values of maximum sublayer delay (sum of transmit and receive delays at one end of the link) in bit times as specified in 1.4 and pause\_quanta as specified in 31B.2. If a PHY contains an Auto-Negotiation sublayer, the delay of the Auto-Negotiation sublayer is included within the delay of the PMD and medium.  
 See 31B.3.7 for PAUSE reaction timing constraints for stations at operating speeds of 2.5 Gb/s and 5 Gb/s.  
 [TASK FORCE TO DISCUSS PARTICULAR TEXT TO ADD TO 31B.3.7 FOR 2.5 Gb/s and 5 Gb/s]

Cl 125 SC 125.1.3 P 60 L 31 # 338  
 Hajduczenia, Marek Bright House Network

Comment Type T Comment Status D Architecture  
 Wrong title of Figure 125-1

SuggestedRemedy  
 Should be: "2.5GBASE-T and 5GBASE-T PHYs relationship to the ISO/IEC Open Systems Interconnection (OSI) reference model and the IEEE 802.3 Ethernet model"

Proposed Response Response Status W  
 PROPOSED REJECT.  
 This figure is where other 2.5G and 5G PHYs will be added. Figure 126-1 is the one with teh title suggested by the commenter

Cl 125 SC 125.2.2 P 62 L 4 # 340  
 Hajduczenia, Marek Bright House Network

Comment Type T Comment Status D Architecture  
 Simplify and improve on clarity fo text: "64B/65B blocks encoded in a 2048-bit LDPC frame. This LDPC frame is then mapped to 512 gray-coded PAM16 symbols for transfer to the 4-lane PMA."

SuggestedRemedy  
 Change to: "64B/65B blocks. Individual 64B/65B blocks are then encoded into a 2048-bit LDPC frame, which is then mapped into 512 gray-coded PAM16 symbols transfered into a 4-lane PMA."

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 125 SC 125.1.3 P 59 L 37 # 337  
 Hajduczenia, Marek Bright House Network

Comment Type T Comment Status D Architecture  
 Given that there is only one 2.5 and one 5G PHY, statement in lines 37-39 is not necessary

SuggestedRemedy  
 Strike text in lines 37-39, there is one instance of each PHY type today.

Proposed Response Response Status W  
 PROPOSED REJECT.  
 There is already a project which will add to this list.

Cl 126 SC 126.4.1 P 115 L 50 # 236  
 Zimmerman, George CME Consulting/Aqua

Comment Type E Comment Status D BQ ALIGN  
 Test in NOTE2 is a full sentence but does not have a "." at the end. (BQ ALIGN, i-59)

SuggestedRemedy  
 Please scrub existing NOTES and Footnotes and make sure that full sentences are followed by a period.

Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 126 SC 126.4.5.1 P 132 L 10 # 241  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 Inconsistent right margin and justification for the variable definitions. Line breaks seem to be present where they should not. (BQ ALIGN, i-90)  
 SuggestedRemedy  
 Apply paragraph formatting suitable for a list of variables as in other lists in this draft  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.4.2.5.6 P 122 L 44 # 240  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type T Comment Status D BQ ALIGN  
 The phrasing "Any other value shall not be transmitted and shall be ignored at the receiver" is imprecise. A device that ignores only 1 value not listed would comply. I suspect "all" is what is really intended. (BQ ALIGN, i-LATE)  
 SuggestedRemedy  
 Change "Any other value shall not be transmitted and shall be ignored at the receiver" to read  
 "No other value shall be transmitted, and all other values shall be ignored at the receiver."  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.3.2.2 P 84 L 44 # 225  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 65B bits? (BQ ALIGN, i-66)  
 SuggestedRemedy  
 Change "the 65B bits are scrambled" to "the 65B encoded bits are scrambled"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.4.2.5 P 120 L 31 # 239  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 The InfoField is denoted IF. While there is nothing wrong with this statement, the only use of "IF" instead of InfoField is twice in the following sentence. Is it necessary? (BQ ALIGN, i-115)  
 SuggestedRemedy  
 Remove the sentence, "The InfoField is denoted IF." and change the "IF" and "IFs" with "Infofield" and "Infofields" respectively  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.3.2.2.10 P 89 L 48 # 226  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type ER Comment Status D BQ ALIGN  
 EEE "compliant" PHYs? It is an optional capability. (BQ ALIGN, i-69)  
 SuggestedRemedy  
 Change "EEE compliant PHYs" to "PHYs that support EEE" p89 L48 and on p93 L48  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.3.2.2.17 P 92 L 36 # 227  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type T Comment Status D BQ ALIGN  
 "The use of the auxiliary bit is for vendor-specific communication is outside the scope of this document." It is not clear what these sentence mean in the context of the LDPC encoder. They do not seem to be encoded. Is the encoder required or expected to use specific values or are they left to implementation choice? The decoder behavior should be stated in the decoder subclause, not the encoder subclause. The descriptive language of this section covers more than just the encoder but also the LDPC frame structure. (BQ ALIGN, i-71)  
 SuggestedRemedy  
 Change title of 126.3.2.2.17 to "LDPC framing and LDPC encoder"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 126 SC 126.3.2.2.8 P 88 L 50 # 228  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 "to account for self-synchronizing scrambler error propagation" - this may be the motivation for this rule (part of the rule), but should not be the rule itself. For people unfamiliar with "self-synchronizing scrambler error propagation" this adds an unnecessary confusion. (BQ ALIGN, i-67)  
 SuggestedRemedy  
 Delete "to account for self-synchronizing scrambler error propagation"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.4.2.3.1 P 118 L 26 # 237  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 period at the end of the sentence should be a colon. (BQ ALIGN, i-113)  
 SuggestedRemedy  
 See comment  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.3.5 P 99 L 48 # 232  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 "R" label in the box seems to refer to the refresh cycle, but it is not readily apparent. The detailed description of "Pair A" does not include "R". (BQ ALIGN, i-79)  
 SuggestedRemedy  
 Change "refresh" on pair A to "refresh (R)"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.3.6.2.2 P 104 L 32 # 235  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type T Comment Status D BQ ALIGN  
 There is no reference to register 1.147.2 in this draft. It appears in the base document but only points to the variable list in clause 55. A reference to clause 126 should be added. In addition, it would be better to define the functionality here, not just in clause 45. Since MDIO is optional, other means to access this variable may be provided. Similar issue exists for fr\_enable (1.147.0) in 126.4.5.1. It is defined in 45.2.1.79.6 and does not reference clause 126. (BQ ALIGN, i-82)  
 SuggestedRemedy  
 Change the first paragraph of the definition to:  
 "If fast retrain is supported, this variable controls the block type the PMA sends on the receive path during fast retrain. If MDIO is supported, this variable is set based on the value in 1.147.2:1 as follows".  
 Append a paragraph: "If MDIO is not supported, an equivalent method of controlling fast retrain functionality should be provided".  
 Bring in 45.2.1.79.5 and add a reference to 126.3.6.2.2.  
 Apply similar change to 45.2.1.79.6 and 126.4.5.1.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.3.6.2.2 P 102 L 48 # 234  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type T Comment Status D BQ ALIGN  
 "when the lfer\_cnt exceeds 16" but lfer\_cnt is defined as "Count up to a maximum of 16" so it cannot exceed 16. Figure 126-13 sets hi\_lfer true at 16 (BQ ALIGN, i-80)  
 SuggestedRemedy  
 Change "exceeds" to "reaches"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.3.5.2 P 101 L 26 # 233  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 Change "-41dBm" to "-41 dBm" (missing space) (BQ ALIGN, i-126)  
 SuggestedRemedy  
 See comment (add space)  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 126 SC 126.3.2 P 97 L 9 # 229  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 Missing terminating period (BQ ALIGN, i-76)  
 SuggestedRemedy  
 Add a period afer "126.5.2"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.3.4 P 98 L 1 # 230  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 The italics vs. Roman font type in Figure 126-11 is inconsistent both internally and with regards to the text preceding it. As a result the italics distract rather than help. In the text, n is a variable that appears in italics, but in the figure it sometime is and sometimes isn't. Likewise, Scr is not italicized (not a variable) in the text, but in the figure it sometimes is and sometimes isn't.  
 The number "1" appears italicized in the figure within "n-1", it looks like the letter l. Numbers should never be italicized.  
 The word "otherwise" is in italics although it is not a variable. (BQ ALIGN, i-77)  
 SuggestedRemedy  
 Make the variable "n" always italicized in Figure 126-11.  
 If "Scr" is a variable then make it consistently italicized (and likewise for Sa, Sb, Sc, Sd) in the figure and in the clause text; otherwise make it consistently Roman.  
 Make everything else Roman.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.5.3.3 P 148 L 39 # 245  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 "The SLAVE mode RMS period jitter test shall be run using the test configuration shown in Figure 126-3" sounds a lot like a requirement on a person, not a conforming device. Behavior of people is outside the scope of this standard. (BQ ALIGN, i-LATE)  
 SuggestedRemedy  
 Change "shall be run to "is measured" (consistent with elsewhere in the standard  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.3.4.2 P 99 L 2 # 231  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type TR Comment Status D BQ ALIGN  
 "If requested by the link partner, the PCS shall reset the training mode scrambler every 16384 periods..."  
 This functionality is deprecated for 10G. Should it exist here? (BQ ALIGN, i-78)  
 SuggestedRemedy  
 Delete the second sentence on P 99  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.4.2.4 P 119 L 39 # 238  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 pairs BI\_DA, BI\_DB, BI\_DC, and BI\_DB. Second instance of "BI\_DB" should be "BI\_DD". (BQ ALIGN, i-114)  
 SuggestedRemedy  
 Change second "BI\_DB" to "BI\_DD"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 30 SC 30.5.1.1.25 P 28 L 34 # 254  
 Zimmerman, George CME Consulting/Aqua

Comment Type E Comment Status D BQ ALIGN

Base text does not agree with P802.3bz draft 3.1. There is no 'PHY event counter' defined in IEEE Std 802.3-2015 subclause 55.4.5.1 'State diagram variables' or subclause 113.4.5.4 'Counters'. Instead I think the reference should be to fr\_tx\_counter defined in IEEE Std 802.3-2015 subclause 55.4.5.4 'Counters' and subclause 113.4.5.4 'Counters'. In addition, while the size of the counter isn't explicitly stated in its definition in IEEE Std 802.3-2015 subclause 55.4.5.4 or subclause 113.4.5.4, in both cases it is stated that it 'is reflected in MDIO register 1.147.10:6 specified in 45.2.1.79.2' which implies it is a five bit counter.

Since the aLDFastRetrainCount attribute is defined as a counter with a maximum increment rate of 1000 counts per second, it will have to be considerable bigger than five bits to allow a reasonable polling speed through a management protocol without loss of information.

Based on this aLDFastRetrainCount can be derived by the local management agent from fr\_tx\_counter, or from the LD fast retrain count register, but can't be mapped to them directly.

A similar set of issues exist for 30.5.1.1.25 aLPFastRetrainCount. (BQ ALIGN, i-170)

SuggestedRemedy

Change base text to align with 802.3bz D3.1.

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 45 SC 45.5.3.9 P 51 L 39 # 265  
 Zimmerman, George CME Consulting/Aqua

Comment Type E Comment Status D BQ ALIGN

"add" is not a valid editing instruction (BQ ALIGN, i-8)

SuggestedRemedy

Change "and add rows" to "and insert rows"

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 45 SC 45.2.7.14a P 49 L 35 # 264  
 Zimmerman, George CME Consulting/Aqua

Comment Type E Comment Status D BQ ALIGN

"RW" is used in Table 45-211a (BQ ALIGN, i-122)

SuggestedRemedy

In the second and third row of the table change "RW" to "R/W" and change the footnote at the bottom of the table to "R/W = Read/Write, RO = Read only".

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 45 SC 45.2.7.14 P 47 L 19 # 263  
 Zimmerman, George CME Consulting/Aqua

Comment Type E Comment Status D BQ ALIGN

Base text to match IEEE P802.3bz D3.1 - "All of the bits in the EEE LP ability register are read-only. A write to the EEE LP ability register shall have no effect. Except for 10GBASE-T, members of the MultiGBASE-T PHY set exchange the EEE ability in the Infocfield during link training. For these PHYs, the EEE LP ability register is updated after link is established. For all other PHYs, wWhen the AN process has been completed, this register shall reflect the contents of the link partner's EEE advertisement register. The assignment of bits in the EEE link partner ability register and the correspondence with the bits in the Next Page messages are shown in Table 45-211." (BQ ALIGN, i-34)

SuggestedRemedy

Change base text to match IEEE P802.3bz D3.1

Proposed Response Response Status W  
 PROPOSED ACCEPT.

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CI 45 SC 45.2.7.13 P 46 L 35 # 262  
 Zimmerman, George CME Consulting/Aqua

Comment Type E Comment Status D BQ ALIGN

Base text to match IEEE P802.3bq D3.1 - The non-underlined text does not match the original content of 45.2.7.13 (as of IEEE Draft P802.3/D3.2). The original text includes "or sent as part of the 10GBASE-T and 1000BASE-T technology message code as defined in 28C.11". (BQ ALIGN, i-33)

SuggestedRemedy

Change paragraph text to read (base text from IEEE P802.3bq D3.1, \U denotes underlined text inserted by 802.3bz) : "This register defines the EEE advertisement for several device types. Devices that use Clause 28 Auto-Negotiation send EEE advertisement in the Unformatted Next Page following a EEE technology message code as defined in 28C.12 as part of the 10GBASE-T and 1000BASE-T technology message code as defined in 28C.11. Devices that use Clause 73 Auto-Negotiation send EEE advertisement in the unformatted code field of Message Next Page with EEE technology message code as defined in 73A.4. 25GBASE-T and 40GBASE-T EEE advertisement is exchanged in the Infofield during training as defined in 113.4.2.5.10. \U For 2.5GBASE-T and 5GBASE-T, the EEE advertisement is exchanged in the InfoField during training as defined in 126.4.2.5.10.\U The assignment of bits in the EEE advertisement register and the correspondence with the bits in the Next Page messages or in the training Infofield are shown in Table 45-210."

Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 45 SC 45.2.7.11.7bc P 46 L 17 # 261  
 Zimmerman, George CME Consulting/Aqua

Comment Type E Comment Status D BQ ALIGN

when read as 1 bit "is used to indicate" where where when read as 0 just "indicates". be consistent. (BQ ALIGN, i-31)

SuggestedRemedy

Replace "is used to indicate" with "indicates" in 45.2.7.11.bc and 45.2.7.11.bd

Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 45 SC 45.2.3.1.2 P 38 L 40 # 295  
 Anslow, Pete Ciena

Comment Type E Comment Status D BQ ALIGN

"The speed of the loopback is selected by the PCS control 1 (Register 3.0) defined in 45.2.3.1." is already being inserted by the P802.3bq draft.

SuggestedRemedy

Remove the underline from "The speed of the loopback is selected by the PCS control 1 (Register 3.0) defined in 45.2.3.1."

Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 45 SC 45.2.7.11.2 P 45 L 47 # 260  
 Zimmerman, George CME Consulting/Aqua

Comment Type E Comment Status D BQ ALIGN

Base text to match text of IEE P802.3bq draft 3.1 - In both of these long conditional sentences, the logic structure is "if (master/slave) and (complete) and if (no fault)...". The second "if" is confusing and should not be there. Also, what if either "AN complete" is 0 or "fault" is 1? (BQ ALIGN, i-30)

SuggestedRemedy

Change based text to match IEEE P802.3bq D3.1 - change "and if" to "and" twice in this subclause. Append the following text: "In all other cases, neither SLAVE mode nor MASTER mode has been selected".

Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 45 SC 45.2.1.79.2 P 38 L 6 # 259  
 Zimmerman, George CME Consulting/Aqua

Comment Type E Comment Status D BQ ALIGN

Base text to match text of IEE P802.3bq draft 3.1 - The fr\_tx\_counter is defined in subclause 55.4.5.4 'Counters' of IEEE Std 802.3-2015. (BQ ALIGN, i-173)

SuggestedRemedy

text '... fr\_tx\_counter as defined in 55.4.5.1 for 10GBASE-T ...' should be changed to read '... fr\_tx\_counter as defined in 55.4.5.4 for 10GBASE-T ...'.

Proposed Response Response Status W  
 PROPOSED ACCEPT.



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Cl 45 SC 45.2.1.79.1 P 37 L 47 # 258  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 Base text to match text of IEE P802.3bq draft 3.1 - The fr\_rx\_counter is defined in subclause 55.4.5.4 'Counters' of IEEE Std 802.3-2015. (BQ ALIGN, i-172)  
 SuggestedRemedy  
 text '... fr\_rx\_counter as defined in 55.4.5.1 for 10GBASE-T ...' should be changed to read '... fr\_rx\_counter as defined in 55.4.5.4 for 10GBASE-T ...'.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.78 P 37 L 34 # 257  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 Base text to match text of IEEE P802.3bq draft 3.1 - Missing space between value and units.  
 Missing period at the end of this paragraph. (BQ ALIGN, i-26)  
 SuggestedRemedy  
 Change "1.25ns" to "1.25 ns".  
 Change "2.5ns" to "2.5 ns".  
 Add period after the last word.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.4.6.2 P 139 L 1 # 243  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 Inconsistencies in font size and text box styles in individual state diagrams, e.g., when comparing Figure 126-27 and Figure 126-28 (BQ ALIGN, i-60)  
 SuggestedRemedy  
 Please align font sizes and text box styles at least within this amendment.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 30 SC 30.5.1.1.4 P 28 L 38 # 255  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type ER Comment Status D BQ ALIGN  
 Make consistent with modifications in 802.3by and 802.3bq (BQ ALIGN, i-74)  
 SuggestedRemedy  
 Add editing instruction to: Change the eighth paragraph of 30.5.1.1.4 (as modified by IEEE Std 802.3by-201X and IEEE Std 802.3bq-201X) as follows: "For \U 2.5 Gb/s, 5 Gb/s, \U 10 Gb/s \U,\U and 25 Gb/s the enumerations map..."  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.4.5.1 P 133 L 47 # 242  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 The definition of THP\_next starts with "THP is a variable..." Should it be THP\_next? (BQ ALIGN, i-116)  
 SuggestedRemedy  
 Change "THP" to "THP\_next". Additionally, the same issue occurs in the THP\_tx definition.  
 Change "THP" to "THP\_tx" there too.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 30 SC 30.3.2.1.3 P 27 L 26 # 253  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 Text needs updated based on the approval of IEEE Std 802.3bw last year and the likelihood that IEEE P802.3bq will be the third amendment to IEEE Std 802.3-2015, and it is yet unclear what additionally bz will follow. (BQ ALIGN, i-166)  
 SuggestedRemedy  
 The text '... (as modified by IEEE Std 802.3bw-201X, IEEE Std 802.3by-201X and TBD) ...' be changed to read '... (as modified by IEEE Std 802.3bw-201X, IEEE Std 802.3by-201X, IEEE Std 802.3bq-201X, and TBD ) ...'.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 30 SC 30.3.2.1.2 P 27 L 12 # 252  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 IEEE Std 802.3bw has been approved by the SASB, so this should be "IEEE Std 802.3bw-2015" (BQ ALIGN, i-2)  
 SuggestedRemedy  
 Change all instances of "IEEE Std 802.3bw-201x" to "IEEE Std 802.3bw-2015" throughout the draft  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 28 SC 28.3.1 P 25 L 8 # 251  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 In the editing instruction "the first list" should be "in the first list", subclause numbers are not preceded by "subclause", and the location should be specified. (BQ ALIGN, i-1)  
 SuggestedRemedy  
 Change the editing instruction to: "Insert rows for 25Gig T and 40GigT in the first list in 28.3.1 below the row for 10GigT as follows:  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.8.2.2 P 169 L 26 # 250  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 Change "Test- Mode 5" to "Test mode 5" to be consistant with other instances of "test mode" throughout the draft (BQ ALIGN, i-120)  
 SuggestedRemedy  
 See comment  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.7.2 P 158 L 35 # 249  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 Incorrect table format for Tables 126-18 and 126-19 (BQ ALIGN, i-62)  
 SuggestedRemedy  
 Please apply proper style (and fix offending line thickness) The same observation applies to both tables 126-18 and 126-19.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.5.4.4 P 151 L 32 # 248  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 injected into each MDI inputs (should be a singular sense?) (BQ ALIGN, i-143)  
 SuggestedRemedy  
 Change to "injected into each MDI input"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.5.4.3 P 151 L 24 # 247  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 Change "6dBm" to "6 dBm" (missing space) (BQ ALIGN, i-118)  
 SuggestedRemedy  
 See comment (add space)  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 126 SC 126.5.4.1 P 150 L 48 # 246  
 Zimmerman, George CME Consulting/Aqua

Comment Type E Comment Status D BQ ALIGN

the requirement "shall be satisfied" is going to be very hard to validate as no specification for "satisfaction" are given in this standard. I think the "shall" belongs in the previous sentence, and here we mean that the requirement is demonstrated by the frame error ration given. (BQ ALIGN, i-LATE)

SuggestedRemedy

Change "are received" to "shall be received"  
 Change "This specification shall be satisfied by" to "This specification can be verified by"

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 00 SC 0 P 147 L 21 # 244  
 Zimmerman, George CME Consulting/Aqua

Comment Type ER Comment Status D BQ ALIGN

Figure 126-34 title includes "need to update". What does this mean? (BQ ALIGN, i-91)

SuggestedRemedy

Delete (need to update)

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.2.2.11.1 P 81 L 21 # 224  
 Zimmerman, George CME Consulting/Aqua

Comment Type ER Comment Status D BQ ALIGN

Semantics details of primitives are missing. Also in 126.2.2.12.1 (BQ ALIGN, i-55)

SuggestedRemedy

Add pcs\_data\_mode values to 126.2.2.11.1  
 (after line 21)  
 The pcs\_data\_mode parameter can take on one of two values of the form:  
 TRUE = PHY is in state PCS\_Data (see Figure 126-26)  
 FALSE = PCS is not in state PCS\_Data (see Figure 126-26).  
 Similarly fr\_active values to 126.2.2.12.1, for values:  
 TRUE = PHY is currently performing a fast retrain  
 FALSE = PHY is not currently performing a fast retrain

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.65.1 P 36 L 8 # 256  
 Zimmerman, George CME Consulting/Aqua

Comment Type E Comment Status D BQ ALIGN

In "Change text of clauses 45.2.1.65.1 and 45.2.1.65.2 ...", 45.2.1.65.1 and 45.2.1.65.2 are not clauses. (2 instances) (BQ ALIGN, i-5)

SuggestedRemedy

Delete the word clauses, used multiply throughtout this section (L8, L17)

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 1 SC 1.4 P 21 L 50 # 213  
 Zimmerman, George CME Consulting/Aqua

Comment Type E Comment Status D BQ ALIGN

We normally place reference to something having been modified by another amendment in parenthesis, we usually end editing instructions with 'as follows:'. (BQ ALIGN, i-162)

SuggestedRemedy

Suggest the text '... as inserted by IEEE Std 802.3by-201X' be changed to read '...(as inserted by IEEE Std 802.3by-201X) as follows:'. And editor to search and scrub the draft to maintain consistency in editing instructions

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.1.6 P 73 L 8 # 217  
 Zimmerman, George CME Consulting/Aqua

Comment Type E Comment Status D BQ ALIGN

"specifically specified" is redundant. (BQ ALIGN, i-53)

SuggestedRemedy

Change to "unless specified"

Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 126 SC 126.1 P 65 L 28 # 216  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type T Comment Status D BQ ALIGN  
 It is not immediately clear that advertising lack of support for fast retrain is done in autonegotiation. Only looking at 45.2.7.10 reveals that. Clause 45 is optional, and gthe way auto-negotiation is controlled can be different, perhaps with a different register address or without any register. (BQ ALIGN, i-40)  
 SuggestedRemedy  
 Change "advertising lack of support in register 7.32" to "advertising lack of support during auto-negotiation".  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 1 SC 1.4.74a P 20 L 37 # 215  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 Superflous comma between IEEE Std 802.3 and Clause (multiple instances) (BQ ALIGN, i-18)  
 SuggestedRemedy  
 Remove the comma, editor to scrub for multiple instances, P20 L37, 40, 46, 52; P21 L5 and L46  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 1 SC 1.4 P 21 L 52 # 214  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 Isn't BASE-T Ethernet 'PCS/PMA' just a 'BASE-T PHY'? (BQ ALIGN, i-164)  
 SuggestedRemedy  
 Change base text to align with 802.3bq D3.1, changing '... of specific BASE-T Ethernet PCS/PMA's at ...' to read '... of specific BASE-T PHY's at ...'  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.1.3 P 67 L 11 # 219  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 "two second retrain" is confusing. "Second" is a unit, and according to the style guide should be abbreviated. (BQ ALIGN, i-43)  
 SuggestedRemedy  
 Change "two second" to "two-second"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.1.3.2 P 70 L 46 # 221  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 "discrete time value" can be confusing. (BQ-ALIGN, i-49)  
 SuggestedRemedy  
 change to "discrete-time value"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.1.3.3 P 72 L 4 # 222  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D BQ ALIGN  
 "Infofield" occurs several times in the draft, and is used here for the first time in Clause 126. 802.3bq d3p1 now defines this term in Clause 1.4, without reference to 802.3bz. Capitalization is inconsistent across the draft. Also "link startup" is vague, Infofields are used in training mode. (BQ ALIGN, i-51)  
 SuggestedRemedy  
 Import definition of infofield (1.4.237a) into draft as inserted by 802.3bq, which change instruction to insert cross reference to Clause 126. Change all "InfoField" to "Infofield" in draft.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 126 SC 126.1.3.1 P 70 L 24 # 220  
 Zimmerman, George CME Consulting/Aqua

Comment Type E Comment Status D BQ ALIGN

"Details of the PCS function are covered in 126.3" This sentence does not seem to belong in this paragraph, which deals with the PMA. The former several paragraphs deal with the PCS transmit operation (as a summary/overview). The next two paragraph summarize the receiver operation and include "The PCS functions and state diagrams are specified in 126.3". Reference to the detailed description should be put at the end. (BQ ALIGN, i-48)

*SuggestedRemedy*

Merge the two sentences "Details of the PCS function are covered in 126.3" and "The PCS functions and state diagrams are specified in 126.3", and move the result to a separate paragraph ending this subclause.

Move the sentence "The interface to the PMA is an abstract message-passing interface specified in 126.2" to this final paragraph too.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 1 SC 1.4.x P 20 L 11 # 286  
 Trowbridge, Steve Alcatel-Lucent

Comment Type E Comment Status D BV comment

Lots of precediing projects have used PAM modulation, and none have felt compelled to define "pulse amplitude modulation" as a term. PAM is defined as an acronym.

*SuggestedRemedy*

Delete the definition of pulse amplitude modulation

Proposed Response Response Status Z

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Cl 45 SC 45.53.2.1.8 P 29 L 26 # 287  
 Trowbridge, Steve Alcatel-Lucent

Comment Type T Comment Status D BV comment

Not clear why a whole lot of new EEE control and status need to be defined and why the existing bits used for other PHY types (e.g., PCS status register 1) couldn't have been reused for the corresponding functions

*SuggestedRemedy*

Use the same PCS status and control register bits as are used for other PHY types rather than allocating new bits. In particular, PCS status 1 register, EEE control and capability register, EEE advertisement register

Proposed Response Response Status Z

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Cl 126 SC 126.7 P 157 L 50 # 375  
 Maguire, Valerie Siemon

Comment Type T Comment Status D Cabling

This application was also designed for operation over Class E.

*SuggestedRemedy*

Replace, "2.5G/5GBASE-T is designed to operate over ISO/IEC 11801 Class D 4-pair balanced cabling that meets the additional requirements specified in this subclause."

with, "2.5G/5GBASE-T is designed to operate over ISO/IEC 11801 Class D or Class E 4-pair balanced cabling that meets the additional requirements specified in this subclause."

Proposed Response Response Status W

PROPOSED REJECT.

The minimum requirements (link segment transmission parameters) are based on Cat5e, operation on other classes of cabling may be supported if the link segment meets the requirements of 126.7.

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Cl 126 SC 126.7 P 157 L 50 # 376  
 Maguire, Valerie Siemon  
 Comment Type T Comment Status D Cabling  
 Recognize support of 2.5G/5GBASE-T with TIA cabling.  
 SuggestedRemedy  
 Insert new second sentence as follows, "2.5G/5GBASE-T is also designed to operate over ANSI/TIA-568-C.2 Category 5e or Category 6 4-pair balanced cabling that meets the additional requirements specified in this subclause."  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 See comment#380

Cl 126 SC 126.11 P 171 L 43 # 223  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type TR Comment Status D Cabling  
 Equation 44-1 and Table 44-3 are specific to 10 Gb/s. For other bit rates, the calculation should be modified. See Equation 80-1, which defines cable delay in ns per meter. (BQ ALIGN, i-97)  
 SuggestedRemedy  
 Replace sentence: "Equation (44-1) specifies the calculation of bit time per meter of electrical cable and Table 44-3 can also be used to convert electrical cable delay values specified relative to the speed of light or in nanoseconds per meter." with the following: "Equation (80-1) specifies the calculation of delay per meter of electrical cable, which may be converted to bit times using 2.5BT per ns for 2.5GBASE-T, and 5BT per ns for 5GBASE-T (see Table 125-5)."  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.  
 TASK FORCE TO DISCUSS  
 (Editor's note - this one is a little different than the rest of the BQ ALIGN comments as it proposes a different remedy along the same principle)

Cl 126 SC 126.7.1 P 158 L 16 # 378  
 Maguire, Valerie Siemon  
 Comment Type T Comment Status D Cabling  
 Recognize support of 5GBASE-T with TIA cabling. Note: Please insert "/ Category 6" TIA reference if Maguire comment to add Class E here is accepted.  
 SuggestedRemedy  
 Replace, "5GBASE-T is an ISO/IEC 11801-2002 Class D application,"  
 With, "5GBASE-T is an ISO/IEC 11801-2002 Class D and ANSI/TIA-568-C.2 Category 6 application,"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.

Recognize support of 5GBASE-T with TIA cabling. See comment#380

Cl 126 SC 126.7.2 P 159 L 17 # 379  
 Maguire, Valerie Siemon  
 Comment Type T Comment Status D Cabling  
 Since ISO/IEC 11801 Class D and ANSI/TIA-568-C.2 Category 5e do not specify signal-to-alien crosstalk ratio, this statement is not correct. In light of Table 126-18 and other text in this clause and clause 126.7.1, a statement of this type also seems unnecessary.  
 SuggestedRemedy  
 Delete, "The link segment transmission parameters for 2.5GBASE-T are equivalent to ISO/IEC 11801 Class D and ANSI/TIA-568-C.2 Category 5e."  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 See resolution to comment#380

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Cl 126 SC 126.7.2 P 159 L 19 # 380  
 Maguire, Valerie Siemon

Comment Type T Comment Status D Cabling

In light of Table 126-19 and other text in this clause and clause 126.7.1, this statement seems redundant and unnecessary. Consider with other Maguire comment addressing the sentence on line 17 of page 159.

*SuggestedRemedy*

Delete, "The link segment transmission parameters for 5GBASE-T are equivalent to ISO/IEC 11801 Class D and ANSI/TIA-568-C.2 Category 5e specifications with the upper frequency extended to 250 MHz and appropriate adjustments for length when applicable as specified in ISO/IEC TR 11801-9904 and TIA TSB-5021."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Delete: The link segment transmission parameters for 2.5GBASE-T are equivalent to ISO/IEC 11801 Class D and ANSI/TIA-568-C.2 Category 5e. The link segment transmission parameters for 5GBASE-T are equivalent to ISO/IEC 11801 Class D and ANSI/TIA-568-C.2 Category 5e specifications with the upper frequency

Move TIA ISO/IEC TR and 5021 references under additionally:

Additionally:

- a) 2.5GBASE-T is an ISO/IEC 11801-2002 Class D and ANSI/TIA-568-C.2 Category 5e application, with additional installation requirements and transmission parameters specified in this clause.
- b) 5GBASE-T is an ISO/IEC 11801-2002 Class D and ANSI/TIA-568-C.2 Category 5e application, with additional installation requirements and transmission parameters specified in this clause, including extended frequency performance beyond that specified for Class D and Category 5e.
- c) For 5GBASE-T, adjustments for length when applicable are specified in ISO/IEC TR 11801-9904 and TIA TSB-5021.
- d) For 2.5G/5GBASE-T, supported cabling types and distances are listed in Table 126-18 and Table 126-19 respectively.

Cl 126 SC 126.7.1 P 158 L 8 # 381  
 Maguire, Valerie Siemon

Comment Type TR Comment Status D Cabling

The first sentence in this subclause is incorrect in that 2.5G/5GBASE-T requires something more than ISO/IEC 11801:2002 Class D cabling. Also, Class E is not mentioned.

*SuggestedRemedy*

Delete "2.5G/5GBASE-T requires 4 pair Class D cabling with a nominal impedance of 100 W., as specified in ISO/IEC 11801:2002." Delete "Additionally:". Remove the a), b) and c) bullets. Move the sentence starting with "Operation to the end of the subclause. Insert Class E reference in two locations. Like this:

2.5GBASE-T is an ISO/IEC 11801-2002 Class D/ Class E application, with additional installation requirements and transmission parameters specified in this clause. 5GBASE-T is an ISO/IEC 11801-2002 Class D/ Class E application, with additional installation requirements and transmission parameters specified in this clause, including extended frequency performance beyond that specified for Class D Channels. The use of shielding is outside the scope of this specification.

Operation on other classes of cabling may be supported if the link segment meets the requirements of 126.7.

Proposed Response Response Status W

PROPOSED REJECT.

The bullets under additionally state the "additions" to Class D.

See comment#380 for addition of TIA references,

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Cl 126 SC 126.7.2 P 158 L 23 # 382  
 Maguire, Valerie Siemon

Comment Type TR Comment Status D Cabling

This sentence is extremely unclear and does not appear to address the 2.5GBASE-T link segment.

SuggestedRemedy

Replace, "A link segment consisting of up to 100 m of Class D with extended frequency specifications for 5GBASE-T that meets the transmission parameters of this subclause provides a reliable medium."

With, "A link segment consisting of up to 100 m of 4-pair balanced that meets the transmission parameters of this subclause provides a reliable medium for support of 2.5G/5GBASE-T."

A link segment consisting of up to 100 m of Class E or up to 100 m of Class F that meets the transmission parameters of this subclause provides a reliable medium.

Proposed Response Response Status W

PROPOSED REJECT.

This sentence is consistent and leads into the bullets following additionally...P158 L12

Additionally:

a) 2.5GBASE-T is an ISO/IEC 11801-2002 Class D application, with additional installation requirements and transmission parameters specified in this clause.

b) 5GBASE-T is an ISO/IEC 11801-2002 Class D application, with additional installation requirements and transmission parameters specified in this clause, including extended frequency performance beyond that specified for Class D Channels.

Cl 126 SC 126.7.2 P 158 L 40 # 383  
 Maguire, Valerie Siemon

Comment Type TR Comment Status D Cabling

Class EA/Category 6A, Class F, and Class FA also support 2.5GBASE-T.

SuggestedRemedy

Add three new rows to the end of Table 126-18 to align with the last three rows in Table 55-17 of 802.3-2015. Here are the items in non-tabular and non-formatted (e.g. "A" should be subscript in two locations) form:

Class EA/ Category 6A 100 m ISO/IEC 11801:2002/Amendment 1 /ANSI/TIA-568-C.2

Class F 100 m ISO/IEC TR 24750

Class FA 100 m ISO/IEC 11801:2002 Amendment 1

Proposed Response Response Status W

PROPOSED REJECT. PROPOSED REJECT.

The minimum requirements (link segment transmission parameters) are based on Cat5e, operation on other classes of cabling may be supported if the link segment meets the requirements of 126.7.

Cl 126 SC 126.7.2 P 159 L 12 # 384  
 Maguire, Valerie Siemon

Comment Type TR Comment Status D Cabling

Class EA/Category 6A, Class F, and Class FA also support 5GBASE-T.

SuggestedRemedy

Add three new rows to the end of Table 126-18 to align with the last three rows in Table 55-17 of 802.3-2015. Here are the items in non-tabular and non-formatted (e.g. "A" should be subscript in two locations) form:

Class EA/ Category 6A 100 m ISO/IEC 11801:2002/Amendment 1 /ANSI/TIA-568-C.2

Class F 100 m ISO/IEC TR 24750

Class FA 100 m ISO/IEC 11801:2002 Amendment 1

Proposed Response Response Status W

PROPOSED REJECT.

The minimum requirements (link segment transmission parameters) are based on Cat5e, operation on other classes of cabling may be supported if the link segment meets the requirements of 126.7.



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Cl 1 SC 1.4.127a P 20 L 50 # 409  
 Grow, R0bert RMG Consulting

Comment Type TR Comment Status D Cabling

We went to significant work a few revision ago to remove all references to Category 5 and 5e cabling. They should not be reintroduced.

SuggestedRemedy

Remove definition. Remove all other references to Category 5e cabling.

Proposed Response Response Status W

PROPOSED REJECT.

The 2.5 Gb/s and 5 Gb/s PHYs are required to operate over Category 5e as stated in the objectives.

- Define a 2.5 Gb/s PHY for operation over
- Up to at least 100m on four-pair Class D (Cat5e) balanced copper cabling on defined use cases and deployment configurations
- Define a 5 Gb/s PHY for operation over
- Up to 100m on four-pair Class D (Cat5e) balanced copper cabling on defined use cases and deployment configurations

Cl 126 SC 126.7.2.2 P 159 L 42 # 277  
 Moffitt, Bryan Commscope

Comment Type E Comment Status D Cabling

Nominal and Characteristic are very specific words, improperly used here. Nominal has a different meaning than a frequency dependent spec. Impedance is not a constant across the frequency range and the nominal generally refers to an idealized asymptotic impedance. It is a statement of design and manufacturing intent and not a spec across a frequency range. See similar usage in TIA-568-C.2 section B.7.1.1 and C.4.10.8.4.4.

SuggestedRemedy

Change:  
 The nominal differential characteristic impedance of each link segment duplex channel, which includes cable cords and connecting hardware, is 100Ohm for all frequencies between 1 MHz and 250 MHz.  
 TO:  
 The nominal differential characteristic impedance of each link segment duplex channel, which includes cable cords and connecting hardware, is 100 Ohm.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 00 SC 0 P L # 208  
 Brillhart, Theodore Fluke Electronics Corp

Comment Type T Comment Status D Cabling

ISO/IEC 11801-2002 is not the most recent and complete edition of this industry standard. I believe it is considered "best practice" to reference the most recent edition, which is ISO/IEC 11801 Edition 2.2 2011. This edition is inclusive of all ISO/IEC 11801-2002 ammendments and corrigenda, and represents the most accurate version of the subject matter as determined by its developers.

SuggestedRemedy

Global change:  
 From: ISO/IEC 11801-2002  
 To: ISO/IEC 11801 Edition 2.2 2011

Proposed Response Response Status W

PROPOSED REJECT.

While ISO/IEC 11801:2002 together with its two amendments are sometimes referred to informally as 11801-2011, the most recent correct bibliographic reference is ISO/IEC 11801:2002, and the amendments are referenced separately in the bibliography of IEEE Std 802.3-2015.

Cl 126 SC 126.7.2.4.1 P 160 L 22 # 281  
 Thompson, Geoff GraCaSI S.A.

Comment Type E Comment Status D Cabling  
 Grammar

SuggestedRemedy

Change "Since" to "As".

Proposed Response Response Status W

PROPOSED REJECT.  
 Consistent with language used in other BASE-T PHYs e.g., 55.

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Cl 126 SC 126.7.2.1 P 159 L 26 # 280  
 Thompson, Geoff GraCaSI S.A.

Comment Type **TR** Comment Status **D** Cabling

Insertion loss does not fully account for the cabling between PMDs

*SuggestedRemedy*

Change "channel" to "link segment" throughout sub-clause

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

In subclause 126.7 Link segment characteristics add duplex channel to link segment definition.

The term "link segment" used in this clause refers to four twisted pairs operating in full duplex termed "duplex channels".

Cl 126 SC 126.7.1 P 158 L 20 # 374  
 Maguire, Valerie Siemon

Comment Type **T** Comment Status **D** Cabling

While it's likely that the term "shielding" is used here to refer to a type of cabling, it could be misinterpreted to mean other types of metallic isolation between cables (e.g. metal conduit). Either way, this bullet is superfluous and unnecessary.

*SuggestedRemedy*

Delete, "c)The use of shielding is outside the scope of this specification."

Proposed Response Response Status **W**

PROPOSED ACCEPT.

Cl 126 SC 126.7.2 P 159 L 3 # 271  
 Flatman, Alan Independent

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

Link segment lengths in Table 126-19 should be "up to 100m"

*SuggestedRemedy*

Insert "up to" in both cases

Proposed Response Response Status **W**

PROPOSED REJECT.

Table 126-19— footnotes include suggested text i.e., (a and b)Supported link segments up to 100 m.

Usage consistent with 55.7.2.

Cl 126 SC 126.7.1 P 158 L 13 # 377  
 Maguire, Valerie Siemon

Comment Type **T** Comment Status **D** Cabling

Recognize support of 2.5GBASE-T with TIA cabling. Note: Please insert "/Category 6" TIA reference if Maguire comment to add Class E here is accepted.

*SuggestedRemedy*

Replace, "2.5GBASE-T is an ISO/IEC 11801-2002 Class D application,"

With, "2.5GBASE-T is an ISO/IEC 11801-2002 Class D and ANSI/TIA-568-C.2 Category 5e application,"

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment#380

Cl 1.3 SC P L 24 # 207  
 Brillhart, Theodore Fluke Electronics Corp

Comment Type **T** Comment Status **D** Cabling

ISO/IEC 11801-2002 is not the most recent and complete edition of this industry standard. I believe it is considered "best practice" to reference the most recent edition, which is ISO/IEC 11801 Edition 2.2 2011. This edition is inclusive of all ISO/IEC 11801-2002 amendments and corrigenda, and represents the most accurate version of the subject matter as determined by its developers.

*SuggestedRemedy*

Insert the following normative reference in alphanumeric order:  
 ISO/IEC 11801 Edition 2.2 2011, Information technology – Generic cabling for customer premises

Proposed Response Response Status **W**

PROPOSED REJECT.

See comment#208.

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Cl 126 SC 126.8.1 P 168 L 5 # 400  
 Yseboodt, Lennart Philips  
 Comment Type E Comment Status D Cabling  
 Figure 126-38 of the MDI connector does not contain a labeling of the pin numbers.  
 SuggestedRemedy  
 Add pin numbers. See Figure 33-8 in 802.3-2012 Clause 33.  
 Proposed Response Response Status W  
 PROPOSED REJECT.  
 Pin 1 is indicated. Text and figure are identical to Clauses 45, 55, and 113. (Figure 33-8 is the outlier)

Cl 126 SC 126.7.2.4.2 P 161 L 3 # 282  
 Thompson, Geoff GraCaSI S.A.  
 Comment Type E Comment Status D Cabling  
 Grammar  
 SuggestedRemedy  
 Change "Since" to "As".  
 Proposed Response Response Status W  
 PROPOSED REJECT.  
 Consistent with language used in other BASE-T PHYs e.g., 55.

Cl 126 SC 126.7.2 P 158 L 31 # 269  
 Flatman, Alan Independent  
 Comment Type E Comment Status D Cabling  
 Link segment lengths in Table 126-18 should be "up to 100m"  
 SuggestedRemedy  
 Insert "up to" in both cases  
 Proposed Response Response Status W  
 PROPOSED REJECT.  
 Table 126-18— footnotes include suggested text i.e., (a and b)Supported link segments up to 100 m.  
 Usage consistent with 55.7.2.

Cl 126 SC 126.7.2.4.5 P 163 L 6 # 283  
 Thompson, Geoff GraCaSI S.A.  
 Comment Type E Comment Status D Cabling  
 Grammar  
 SuggestedRemedy  
 Change "Since" to "As".  
 Proposed Response Response Status W  
 PROPOSED REJECT.  
 Consistent with language used in other BASE-T PHYs e.g., 55.

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Cl 126 SC 7.2 P 159 L 18 # 209  
 Brillhart, Theodore Fluke Electronics Corp

Comment Type TR Comment Status D Cabling

Statements that link segment transmission parameters for 2.5GBASE-T and 5GBASE-T are equivalent to ISO/IEC 11801 Class D and ANSI/TIA-568-C.2 Category 5e will lead to ambiguity with regard to requirements for impedance balance characteristics like TCL (a.k.a. Unbalance Attenuation). The aforementioned parameters are specified by the referenced ISO/IEC cabling standard but not the ANSI/TIA standard for this cabling category/class. Implementers of 802.3 are left wondering whether, or when, to account for the minimum performance of these parameters for implementation of the 2.5G/5GBASE-T standard

Additional considerations for the TG:

Given that the vast majority of installed Class D and Category 5e cabling is of an unshielded construction (UTP), and given that impedance balance is the primary noise rejection mechanism for these constructions, then it follows that clear minimum performance requirements for these properties are needed for consistent implementation of any system utilizing UTP link segments. A presentation has been submitted to aid in visualizing the various requirements and proposals for impedance balance that exist within the 802.3bz transmission system, and should be considered along with this comment.

SuggestedRemedy

Insert a new sub-clause within clause 126.7.2 with specific requirements for TCL and ELTCTL that are equivalent to the ISO/IEC Class D requirements for these parameters found in ISO/IEC 11801 Edition 2.2 2011. This should include the restriction to UTP cabling.

(Note: it would be considered freindly to the commentor if requirements for TCL found in ISO/IEC 11801:2002, or any minimum limits rationalized by the TG were to be substituted.)

Proposed Response Response Status W

PROPOSED REJECT.

Resolve with comment#380 that deletes word equivalently.

Additionally,

>The link segment parameters in 126.7.2 are stated unambiguously. The link segment parameters sufficiently characterize the transmission characteristics.

>Channel TCL is not specified in ANSI/TIA-568-C.2-2009 for Category 5e.

Cl 126 SC 127.7.2.1 P 159 L 36 # 212  
 Shariff, Masood CommScope

Comment Type T Comment Status D Cabling

The correct terminology is work area cords, equipment cords and connections.

including work area and equipment cables plus connector losses within each duplex channel.

SuggestedRemedy

including work area and equipment cords plus connection losses within each duplex channel.

Proposed Response Response Status W

PROPOSED REJECT.

In BASE-T PHY specifications "connector" is well understood.

Cl 00 SC 0 P 159 L 29 # 366  
 Hajduczenia, Marek Bright House Network

Comment Type T Comment Status D Cabling

in Eq 126-11, we have a term "4x0.04" which is not collapsed for some reason.

SuggestedRemedy

Change to 0.16 and avoid the need for unexplicable multiplication

Strike statement: "The factor of 4 in Equation (126-11) corresponds to the number of connectors in the duplex channel." below the equation - it adds nothing to the validity of the equation or its understanding

Proposed Response Response Status W

PROPOSED REJECT.

The format of the equation is used elsewhere in IEEE Std 802.3-2015 to enable the understanding of the component composition of the cabling topology. The number of connectors in a link are recognized to impact the link segment performance see 55B.1.1 Alien crosstalk mitigation.

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Cl 126 SC 126.7.2.4.1 P 160 L 52 # 367  
 Hajduczenia, Marek Bright House Network

Comment Type T Comment Status D Cabling

Unnecessary requirement: "Calculations that result in NEXT loss values greater than 60 dB shall revert to a requirement of 60 dB minimum."

SuggestedRemedy

Either update equations showing min(60,current equation), or alternatively (preferred):  
 - strike text in line 52/53  
 - change "The power sum loss between a duplex channel and the three adjacent disturbers shall meet the values determined using Equation (126–13)." to "The power sum loss between a duplex channel and the three adjacent disturbers shall meet the values determined using Equation (126–13), or 60 dB, whichever is smaller."  
 - change "Additionally, the power sum of the individual NEXT loss of each 5GBASE-T duplex channel shall meet the values determined using Equation (126–14)." to "The power sum of the individual NEXT loss of each 5GBASE-T duplex channel shall meet the values determined using Equation (126–14), or 60 dB, whichever is smaller."  
 Update PICS as needed  
 Similar changes in 126.7.2.4.2

Proposed Response Response Status W

PROPOSED REJECT.

Although the commentor may provide more efficient language to specify the minimum, the current language is consistent with other BASE-T specifications and cabling standards for this parameter.

Cl 126 SC 126.7.2.1 P 159 L 29 # 273  
 Flatman, Alan Independent

Comment Type T Comment Status D Cabling

Formula 126-11 is the TIA insertion loss for a Cat 5e channel. ISO/IEC Class D insertion loss is slightly higher at very low frequencies (I think below 3MHz). At 1MHz, TIA IL = 2.2dB and ISO/IEC IL = 4dB.

SuggestedRemedy

Need to evaluate the impact of higher IL for ISO/IEC Class D at very low frequencies.

Proposed Response Response Status W

PROPOSED REJECT.

Commenter has not provided sufficient information to make changes to the specifications.

Cl 126 SC 126.1 P 65 L 8 # 348  
 Hajduczenia, Marek Bright House Network

Comment Type T Comment Status D Cabling

What is the purpose of listing some "users"? "The 2.5GBASE-T PCS, PMA, and baseband medium specifications are intended for users who want 2.5Gb/s performance over balanced twisted-pair structured cabling systems. The 5GBASE-T PCS, PMA, and baseband medium specifications are intended for users who want 5Gb/s performance over balanced twisted-pair structured cabling systems."

SuggestedRemedy

Change the text to read as follows: "The 2.5GBASE-T PCS, PMA, and baseband medium specifications are intended for operation over balanced twisted-pair structured cabling systems. The 5GBASE-T PCS, PMA, and baseband medium specifications are intended for operation over balanced twisted-pair structured cabling systems."

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 1 SC 1.3 P 20 L 23 # 210  
 Shariff, Masood CommScope

Comment Type E Comment Status D Cabling

Incorrect title for TIA TSB-5021

SuggestedRemedy

Use correct title

Guidelines for the use of installed category 5e and category 6 cabling to 61 support 2.5GBASE-T and 5GBASE-T

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TIA TSB-5021: Guidelines for the Assessment and Mitigation of Installed Cabling to Support 2.5GBASE-T and 5GBASE-T

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Cl 126 SC 126.5.4.3 P 151 L 17 # 276  
 Moffitt, Bryan Commscope

Comment Type E Comment Status D CMRR

Calibration is generally a thing that is done ahead of measurement, although it can also be applied post-measurement (but not here). The use of terms in this clause does not appear correct in that "held" and "calibrated" seem incoherent. It also appears to preclude the concerns about equipment frequency switching transients that were discussed and agreed to be avoided in adhoc.

SuggestedRemedy

Change this sentence:

A sine wave with the amplitude held constant over the whole frequency range from 80 MHz to 1000 MHz, with the amplitude calibrated so that the signal power measured at the output of the clamp does not exceed 6dBm, is used to generate the external electromagnetic field and corresponding currents.

To:

A sine wave with the amplitude controlled over the whole frequency range from 80 MHz to 1000 MHz, this control and the calibration that ensures the signal power measured at the output of the clamp does not exceed 6dBm, is used to generate the external electromagnetic field and corresponding currents.

Proposed Response Response Status W

PROPOSED REJECT.  
 Commenters proposed remedy does not help clarity.  
 Task Force to Discuss

Cl 126 SC 126.1.1 P 65 L 36 # 350  
 Hajduczenia, Marek Bright House Network

Comment Type T Comment Status D Editorial

"2.5G/5GBASE-T" - given that both PHYs operate at gigabit speeds, it would make more sense to show it as "2.5/5GBASE-T", simialr to what we have in EPON (10/10G-EPON) or multi-rate PHYs (10/100/1000BASE-T)

SuggestedRemedy

Change all instances of "2.5G/5GBASE-T" to "2.5/5GBASE-T" - whole draft

Proposed Response Response Status W

PROPOSED REJECT.  
 Nomenclature for 2.5G/5GBASE-T is consistent for multigigabit BASE-T PHYs as well as opticals (because you can and will have 1000/2.5GBASE-T PHYs)

Cl 126 SC 126.1.3 P 66 L 36 # 352  
 Hajduczenia, Marek Bright House Network

Comment Type E Comment Status D Editorial

Megasymbols per second or Msymbols/s ... both are used currently

SuggestedRemedy

Consider using "Msymbol/s", similarly to "Mb/s" used consistently in the base standard today  
 Scrub Clause 126

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.  
 Change to MBaud (MBd) as per editorial staff instruction

Cl 126 SC 126.11 P 171 L 36 # 291  
 Chalupsky, David Intel Corp.

Comment Type E Comment Status D Editorial

delay constraints are in paragraph text. Would be better to have in a table for easy incorporation of new req's from P802.3cb and any future amendments.

SuggestedRemedy

put delay constraints in a table like other clauses. I know this is an "AIP" at best because I'm not giving you exact instructions...

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.  
 Editor to model a table on Table 105-3 in 802.3bq D3.1.

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Cl 45 SC 45.2.1 P 31 L 33 # 415  
 Grow, R0bert RMG Consulting

Comment Type E Comment Status D Editorial

P802.3bn is defining 1.17, P802.3bw did define 1.18, P802.3by did define 1.19, I can't find an amendment that defines 1.20. Therefore the cited row does not exist as shown

SuggestedRemedy

P802.3by has a 1.20 through 1.29 reserved row. To help everyone from trying to reconstruct this, you should only be specifying the document the cited row occurs in. Therefore, if you stay on 1.21, you need to add a 1.20 reserved row and the changed row as 1.20 through 1.29

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.  
 802.3bs has been allocated 1.20 per the Chief Editor, but is behind this project.

Change editing instruction to read "Insert a reserved row for bit 1.20 and a row for bit 1.21 into Table 45-3, (as modified by IEEE Std 802.3bw-2015, IEEE Std 802.3bn-201x, IEEE Std 802.3bq-201x, IEEE Std 802.3bp-201x and IEEE Std 802.3by) adjust remaining reserved block as shown: (unchanged rows not shown):"

add reserved row for 1.20 to table above 1.21

Cl 125 SC 125.1.4 P 61 L 19 # 389  
 Lusted, Kent Intel

Comment Type ER Comment Status D Editorial

Table 125-2 lists the speed in the title. This is inconsistent with the other nomenclature and clause correlation tables in the base standard.

SuggestedRemedy

remove "(2.5GBASE and 5GBASE)"

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 4 SC 4.4.2 P 23 L 14 # 394  
 Marris, Arthur Cadence Design Syst

Comment Type TR Comment Status D Editorial

There is no need to add a new column as it is the same as the rightmost column.

SuggestedRemedy

Delete new column and modify heading of rightmost column to include 2.5 Gb/s and 5 Gb/s

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.  
 Task force to discuss balancing simplicity, as the commenter suggests, with the clarity of speeds clearly increasing across the table left to right.

Cl 45 SC 45 P 31 L 1 # 314  
 Hajduczenia, Marek Bright House Network

Comment Type ER Comment Status X Editorial

General comment on Clause 45 - some registers modified by this project are also being modified by P802.3bp, which is not listed in editorial notes

SuggestedRemedy

Consider extending editorial notes to include references to all amendments touching on selected Clause 45 registers - this will add clarity for reader to know which amendments to go and read for details, and also facilitate work for editor folding all amendments together.

Proposed Response Response Status W

Add IEEE Std 802.3bp-201x to editing instruction on 45.2.1,  
 Add IEEE Std 802.3bw-2015, IEEE Std 802.3bp-201x, and IEEE Std 802.3by-201x to editing instruction on 45.2.1.6 (Table 45-7),  
 Add IEEE Std 802.3bw-2015 and IEEE Std 802.3bp-201x to editing instruction on 45.2.7 (Table 45-200),

Add "(as modified by IEEE Std 802.3bq-201x)" to editing instruction on 45.5.3.2

Add "(as modified by IEEE Std 802.3bw-2015, IEEE Std 802.3by-201x, IEEE Std 802.3bq-201x, and IEEE Std 802.3bp-201x)" to editing instruction on 45.5.3.3, and insert PMA \*25T:M to status (base text from bq) on MM111 and MM112

Add "(as modified by IEEE Std 802.3bq-201x and IEEE Std 802.3bp-201x)" to editing instruction for 45.5.3.9.

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Cl 45 SC 45.2.3.4 P 39 L 3 # 321  
 Hajduczenia, Marek Bright House Network  
 Comment Type ER Comment Status D Editorial  
 Since you are changing existing table, show new rows in underline (this is new text) rather than imply that this text already existed (no markup)  
 SuggestedRemedy  
 Per comment  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 This is an insert rows instruction - should be without underline, per style manual.  
 Change editing instruction to read "Insert two rows below Reserved row and change Reserved row as shown (unchanged rows not shown)."

Cl 126 SC 126.1.3 P 66 L 36 # 218  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type E Comment Status D Editorial  
 Here "Megasympols per second" is used. Later in the subclause it is Msymbol/s. Consistency is preferred. In many other clauses (including clause 40) the unit used is Baud, with the relevant abbreviation being GBd. It is well understood terminology. Further, IEEE editorial staff has now directed the use of the term Baud and the abbreviation Bd. (BQ ALIGN, i-42) - DIFFERENT RESOLUTION  
 SuggestedRemedy  
 Adopt consistent terminology within the clause. While BQ originally chose Msymbols/s, adopt direction of editorial staff and use MBd. (P66 L36, L37, L44, L45; P70 L38)  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.1.2 P 66 L 16 # 390  
 Lusted, Kent Intel  
 Comment Type ER Comment Status D Editorial  
 Figure 126-1 lists the speed in the PCS. This is inconsistent with the other architectural diagrams in the base standard.  
 SuggestedRemedy  
 Remove "2.5GBASE-T" and "5GBASE-T" from the two PCS blocks in the figure.  
 Proposed Response Response Status W  
 PROPOSED REJECT.  
 This is a rare clause where 2 speeds are defined, and is modeled on 40/100G in some respects for that reason. See Figure 80-1, where PCSs are called out by speed. Additionally, in this case, other than the speed, the two PCSs are identical and both connect to the same MII - removing the speed distinction would be both incorrect and confusing to the reader.

Cl 126 SC 126.1.3.1 P 70 L 16 # 354  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D Editorial  
 "adds 325 LDPC check bits" - are these "check bits" or "parity bits"?  
 SuggestedRemedy  
 it seems like "parity bits" are used more prevailigly in other PHYs  
 Proposed Response Response Status W  
 PROPOSED REJECT.  
 All other PHYs with this code (there are 3) use "check bits".

Cl 4 SC 4.4.2 P 23 L 8 # 312  
 Hajduczenia, Marek Bright House Network  
 Comment Type T Comment Status D Editorial  
 It \*seems\* that parameters for 2.5G and 5G PHY are the same as for 25G, 40G, and 100G - is there any specific reason for showing an explicit new column?  
 SuggestedRemedy  
 Consider merging 2.5G and 5G into 25G, 40G, and 100G column  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 (duplicate of comment 394)  
 Task force to discuss balancing simplicity, as the commenter suggests, with the clarity of speeds clearly increasing across the table left to right.



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Cl 30 SC 30 P 27 L 12 # 411  
 Grow, R0obert RMG Consulting

Comment Type ER Comment Status D Editorial

This is where the current concept of citing amendments that have modified the same "part" of the document shows its problems. What constitutes a "part" is ill-defined, confusing to the reader/reviewer, and inconsistent. With few exceptions, the other amendment have nothing to do with the insertion point for items in an amendment. This amendment does likely insert after 1000BASE-T1 items because it is inserting at the end of the 1000 block for many items. All other amendments are only distracting to the editing instruction.

SuggestedRemedy

Follow the WG Chair's determination of what we should do after discussion within the WGAC and with editors. If there is no change to the current style of treating SYNTAX as a "part", you need to list five amendments for the attributes on this page.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 30 SC 30.3.2.1.2 P 27 L 12 # 412  
 Grow, R0obert RMG Consulting

Comment Type TR Comment Status D Editorial

The enumeration in SYNTAX are not in alphabetical order (nor alphanumeric). Insert must be specified as to the specific enumeration it follows to be unambiguous.

SuggestedRemedy

"insert after 1000BASE-T1 (inserted by IEEE Std 802.3bp-20xx)"

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 45 SC 45.2.3.7 P 40 L 34 # 323  
 Hajduczenia, Marek Bright House Network

Comment Type E Comment Status D Editorial

No LH registers shown in Table 45-124

SuggestedRemedy

Remove LH acronym from under table 45-124

Proposed Response Response Status W

PROPOSED REJECT.

Base text in 802.3-2015 has LH for the table, and this adds. Footnote is from the existing text.

Cl 45 SC 45.2.3.9a P 41 L 3 # 324  
 Hajduczenia, Marek Bright House Network

Comment Type ER Comment Status D Editorial

Editorial note does not mention what amendment this subclause (45.2.3.9a) comes from - it is not in base standard right now

SuggestedRemedy

Modify editorial note to identify what amendment this subclause came from. In Table 45-125a, show markup for row 3.21.1, since it is newly inserted text

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change editing instruction on P41 L1 to "Modify Table 45-125a in subclause 45.2.3.9a (inserted by IEEE Std 802.3bq-201x) as follows:"

Do not underline 3.21.1, this is an insert.

Cl 45 SC 45.2.3.9a P 41 L 16 # 325  
 Hajduczenia, Marek Bright House Network

Comment Type E Comment Status D Editorial

No RW entries in Table 45-125a

SuggestedRemedy

Remove "Read/Write, " from note a) under Table 45-125a

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 30 SC 30.3.2.1.3 P 27 L 26 # 413  
 Grow, R0obert RMG Consulting

Comment Type TR Comment Status D Editorial

The enumeration in SYNTAX are not in alphabetical order (nor alphanumeric). Insert must be specified as to the specific enumeration it follows to be unambiguous.

SuggestedRemedy

"insert after 1000BASE-T1 (inserted by IEEE Std 802.3bp-20xx)"

Proposed Response Response Status W

PROPOSED ACCEPT.

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Cl **A** SC **A** P **185** L **1** # **343**  
 Hajduczenia, Marek Bright House Network  
 Comment Type **E** Comment Status **D** Editorial  
 Remove Annex A, nothing there  
 SuggestedRemedy  
 Per comment  
 Proposed Response Response Status **W**  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Add Editor's Note (to be removed prior to Sponsor ballot): Annex A will be removed from the draft if there are no new bibliography additions by the completion of Working Group ballot.

Cl **125** SC **125.1.3** P **60** L **13** # **388**  
 Lusted, Kent Intel  
 Comment Type **ER** Comment Status **D** Editorial  
 Figure 125-1 lists the speed in the PCS. This is inconsistent with the other architectural diagrams in the base standard.  
 SuggestedRemedy  
 Remove "2.5GBASE-T" and "5GBASE-T" from the two PCS blocks in the figure.  
 Proposed Response Response Status **W**  
 PROPOSED REJECT.  
 This is a rare clause where 2 speeds are defined, and is modeled on 40/100G in some respects for that reason. See Figure 80-1, where PCSs are called out by speed. Additionally, in this case, other than the speed, the two PCSs are identical and both connect to the same MII - removing the speed distinction would be both incorrect and confusing to the reader.

Cl **30** SC **30.3.2.1.3** P **27** L **26** # **414**  
 Grow, R0obert RMG Consulting  
 Comment Type **TR** Comment Status **D** Editorial  
 The enumeration in SYNTAX are not in alphabetical order (nor alphanumeric). Insert must be specified as to the specific enumeration it follows to be unambiguous.  
 SuggestedRemedy  
 "insert after 1000BASE-T1 (inserted by IEEE Std 802.3bp-20xx)"  
 Proposed Response Response Status **W**  
 PROPOSED ACCEPT.

Cl **FM** SC **FM** P **10** L **15** # **408**  
 Grow, R0obert RMG Consulting  
 Comment Type **ER** Comment Status **D** Editorial  
 I prefer this location for notification to the reviewer what amendments were considered when writing this amendment.  
 SuggestedRemedy  
 Either fix here or in the note at the bottom of page 19. Based on ballot stage, the amendments ahead in balloting are bw (approved), by, bq, bp, bn, br, bu. P802.3bv is at the same balloting stage, and the bv editor has for preceding amendment purposes assumed it will be approved currently with bz but will be designated Amendment 9. That means that for now bz does not have to also include bv in its considerations, but should the other seven amendments.

Proposed Response Response Status **W**  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Note at the bottom of page 19. Editor to confer with 802.3 leadership on order of amendments.

Cl **1** SC **1.5** P **22** L **4** # **310**  
 Hajduczenia, Marek Bright House Network  
 Comment Type **E** Comment Status **D** Editorial  
 No need for 1.5, when there are no new abbreviations being added  
 SuggestedRemedy  
 Strike 1.5 and all its content  
 Proposed Response Response Status **W**  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Task force to discuss adding ALSNR Alien Limited SNR, and whether any others are needed

Cl **45** SC **45.2.7** P **43** L **1** # **329**  
 Hajduczenia, Marek Bright House Network  
 Comment Type **ER** Comment Status **D** Editorial  
 Row for 7.63 is being inserted, but text it not marked up.  
 SuggestedRemedy  
 Please underline text in row for entry 7.63  
 Same in Table 45-207, lines 7.32.8 through 7.32.5, which are inserted into table  
 Proposed Response Response Status **W**  
 PROPOSED REJECT.  
 Row is an Insert command, no underline per style guide.

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Cl 45 SC 45.2.7.14aa P 47 L 42 # 330  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D Editorial  
 There is an editorial instruction and then editorial note to clarify the editorial instruction  
 SuggestedRemedy  
 Remove the Editor's Note - it is contradictory to the editorial instruction above it  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Incorporate Editor's note into editing instruction to make it clear where the new clauses go.  
 Our current clause numbering scheme for inserting new clauses doesn't provide for a clause to be inserted between x.x.1 and x.x.1a (inserted by another amendment).

Cl 1 SC 1.5 P 22 L 6 # 410  
 Grow, R0obert RMG Consulting  
 Comment Type T Comment Status D Editorial  
 You now have an abbreviation.  
 SuggestedRemedy  
 Remove the note.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 What is there is a placeholder for the form of an abbreviation - consider whether there are new abbreviations at the end of comment resolution, and, if not, remove the note.

Cl 45 SC 45.2.7.14a P 49 L 33 # 331  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D Editoruak  
 In Table 45-211a, rows 7.64.3 and 7.64.2 should be shown in underline, since they are inserted  
 SuggestedRemedy  
 Per comment  
 Similarly, in Table 45-211b, for row 7.65.3 and 7.65.2  
 Proposed Response Response Status W  
 PROPOSED REJECT.  
 These are insert instructions. No underline.

Cl FM SC FM P 2 L 1 # 407  
 Grow, R0obert RMG Consulting  
 Comment Type E Comment Status D EZ  
 Punctuation and grammar. Starts with a sentence fragement (no verb, not full stop).  
 SuggestedRemedy  
 Delete "This amendment" following the sentence fragement.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT. (duplicate comment)

Cl 126 SC 126.3.2.2.8 P 89 L 6 # 419  
 Trowbridge, Steve Alcatel-Lucent  
 Comment Type E Comment Status D EZ  
 Several sloppy things in Figure 126-8 should be cleaned up. The words "Bit Position:" has the colon on the wrong side of the line for the box it is in. The character designations for the control block formats (e.g., C0C1C2C3/C4C5C6C7) aren't centered in the boxes and some run up against the line on the right.  
 SuggestedRemedy  
 Tidy up the figure  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.7.2 P 159 L 11 # 272  
 Flatman, Alan Independent  
 Comment Type E Comment Status D EZ  
 Notes a) and b) are identical.  
 SuggestedRemedy  
 Use only Note a)  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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CI 126 SC 126.7.2 P 158 L 39 # 270  
 Flatman, Alan Independent  
 Comment Type E Comment Status D EZ  
 Notes a) and b) are identical.  
 SuggestedRemedy  
 Use only Note a)  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 126 SC 126.3.2 P 83 L 10 # 418  
 Trowbridge, Steve Alcatel-Lucent  
 Comment Type E Comment Status D EZ  
 Several sloppy things in the drawing of Figure 126-5. The arrowheads for scr\_status and PMA\_UNITDATA.request overlap the dashed boxes next to them with which they are unrelated. The gap in the vertical line at the left for PCS is too wide - consider making PCS vertical text and even it out in the gap.  
 SuggestedRemedy  
 Tidy up the figure  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 126 SC 126.12.1 P 173 L 1 # 304  
 Anslow, Pete Ciena  
 Comment Type E Comment Status D EZ  
 126.12.1 through 126.12.1.2 should be on the same page as the 126.12 heading  
 SuggestedRemedy  
 Fix the pagination.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 126 SC 126.7.2.4.1 P 160 L 25 # 202  
 McClellan, Brett Marvell  
 Comment Type TR Comment Status D EZ  
 This paragraph describes MDNEXT loss, but should discuss NEXT loss.  
 SuggestedRemedy  
 Replace this paragraph with the following text:  
 "In order to limit the crosstalk at the near end of a link segment, the differential pair-to-pair near-end crosstalk (NEXT) loss between a duplex channel and the other three duplex channels is specified to meet the bit error rate specified in 126.5.4.1. The NEXT loss between any two 2.5GBASE-T duplex channels of a link segment shall meet the values determined using Equation (126-13). The NEXT loss between any two 5GBASE-T duplex channels of a link segment shall meet the values determined using Equation (126-14). The factor of 2 in Equation (126-13) and Equation (126-14) corresponds to the number of connectors at the near-end of the duplex channels."  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 126 SC 126.7.3.1 P 165 L 8 # 203  
 McClellan, Brett Marvell  
 Comment Type E Comment Status D EZ  
 font size is wrong  
 SuggestedRemedy  
 fix font size  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Editor to reformat equation as necessary and provide consistent font size.

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Cl 126 SC 126.6.1.2 P 154 L 21 # 204  
McClellan, Brett Marvell

Comment Type T Comment Status D EZ  
change U25 to match 802.3bq

SuggestedRemedy

change "Reserved, transmit as 0"  
to "25GBASE-T ability  
(1 = support of 25GBASE-T and 0 = no support)"  
add "Defined in 45.2.7.10.4b" under description

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.  
Accept comment proposed remedy.

Additionally, U12 and U11 base text need alignment to 802.3bq D3.1. Since Clause 126 is new, there is no need to show edit, text for U12 and U11 should read MultiGBASE-T, without strikeout text or underline markings.

Cl 126 SC 126.1.3 P 69 L 19 # 417  
Trowbridge, Steve Alcatel-Lucent

Comment Type E Comment Status D EZ  
The vertical lines with the arrowheads on the left hand side for PCS and PMA don't line up.

SuggestedRemedy

Nudge the PCS line to the left or the PMA line to the right so they line up.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 126 SC 126.1.2 P 66 L 5 # 416  
Trowbridge, Steve Alcatel-Lucent

Comment Type E Comment Status D EZ

Several sloppy things in the drawing of Figure 126.1. The shaded vertical lines on either side of "HIGHER LAYERS" are different widths. The dotted line at the bottom of the PHYSICAL box in the ISO stack and the MEDIUM symbol doesn't line up with the boxes it attaches to on either side, and overlaps the MEDIUM box.

SuggestedRemedy

Zoom in close and nudge the elements of this figure to line up.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl FM SC FM P 1 L 32 # 406  
Grow, R0obert RMG Consulting

Comment Type E Comment Status D EZ  
Messed up copyright information. It appears that the FM variable copyright year was not updated to 2016.

SuggestedRemedy

Fix whatever is required to get correct copyright year wherever it appears.

Proposed Response Response Status W

PROPOSED ACCEPT.  
(duplicate comment)

Cl FM SC FM P 1 L 2 # 405  
Grow, R0obert RMG Consulting

Comment Type E Comment Status D EZ

There is an approved amendment with others to come. (Only based on ballot stage P802.,3bz will be Amendment 8 or9.) Amendments also are listed here.

SuggestedRemedy

Rather than attempting to track approval order, I'd recommend simply a comma followed by <approved amendments to be added during publication preparation>

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 126 SC 126.7.2 P 159 L 13 # 274  
Malicoat, David HPE

Comment Type E Comment Status D EZ

Notes a) and b) are identical.

SuggestedRemedy

Consolidate 'a' and 'b' to a single noe for Table 126-19

Proposed Response Response Status W

PROPOSED ACCEPT.

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Cl 45 SC 45.2.1.78 P 37 L 34 # 319  
 Hajduczenia, Marek Bright House Network

Comment Type E Comment Status D EZ

Two editorial issues:  
 (1) missing "," after "e.g."  
 (2) missing space between numeral and unit in "1.25ns for 10GBASE-T"

SuggestedRemedy

(1) Make sure there is "," after "e.g." in text that is being added or modified (minor change)  
 (2) Make sure that units and numerals are separated with a non-breakable space  
 There are multiple instances for each fix

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 28C SC 28C.11 P 188 L 19 # 346  
 Hajduczenia, Marek Bright House Network

Comment Type E Comment Status D EZ

Extra space not shown in strike-through in "55.6.1, and 113.6.1"

SuggestedRemedy

Show one of spaces in strike-through either before or after "and"

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 28C SC 28C.11 P 188 L 15 # 345  
 Hajduczenia, Marek Bright House Network

Comment Type E Comment Status D EZ

missing serial comma after "Clause 126 (2.5G/5GBASE-T)" in line 15

SuggestedRemedy

Per comment

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 28B SC 28B.3 P 187 L 14 # 344  
 Hajduczenia, Marek Bright House Network

Comment Type E Comment Status D EZ

Editor's note in line 14 is not needed

SuggestedRemedy

Remove, editorial instruction is clear already

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 125 SC 125.2.3 P 62 L 9 # 341  
 Hajduczenia, Marek Bright House Network

Comment Type E Comment Status D EZ

Incorrect text format - no visible separation between two paras

SuggestedRemedy

Please apply "T,Text" style to both paragraphs in lines 8-16

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.1 P 65 L 21 # 349  
 Hajduczenia, Marek Bright House Network

Comment Type E Comment Status D EZ

"2.5Gb/s or 5Gb/s" - missing space between numeral and unit

SuggestedRemedy

Change to "2.5 Gb/s or 5 Gb/s", make sure non-breaking space is used  
 Scrub the draft as a whole

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 125 SC 125.1.2 P 59 L 24 # 336  
 Hajduczenia, Marek Bright House Network

Comment Type E Comment Status D EZ

Text in lines 24 -31 does not use proper formatting

SuggestedRemedy

Please apply proper lettered list style

Proposed Response Response Status W  
 PROPOSED ACCEPT.

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CI 126 SC 126.1.2 P 66 L 26 # 351  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 Text: "\*\* XGMII IS OPTIONAL" seems too close to caption of the figure - consider moving it upwards and right, where XGMII is defined  
 SuggestedRemedy  
 Per comment  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 45 SC 45.5.3.2 P 51 L 14 # 333  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 Unnecessary "," in Subclause column entries for \*2.5T and \*5T entries  
 SuggestedRemedy  
 Per comment  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 45 SC 45.2.7.14b.a P 50 L 38 # 332  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 Text in 45.2.7.14b.a and 45.2.7.14b.b seems to be larger by 2 points than in other subclauses  
 SuggestedRemedy  
 Please apply proper style (T,Text) in para in 45.2.7.14b.a and 45.2.7.14b.b  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 45 SC 45.2.7 P 42 L 49 # 328  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 One more broken editorial note  
 SuggestedRemedy  
 please pull it together into a single text block. No need to separate "Insert" from the rest of the text  
 Same on page 44, line 3  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 45 SC 45.2.3.13.5 P 42 L 3 # 327  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 It seems that 45.2.3.13.5 is also modified by .3bq, but the note does not account for it  
 SuggestedRemedy  
 Modify the note to indicate that this text is modified as previously modified by .3bq  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Change editing instruction to state "as modified by IEEE Std 802.3bq-201x"

CI 45 SC 45.2.3.13.4 P 41 L 52 # 326  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 Odd green markup in "10GBASE-T, and"  
 SuggestedRemedy  
 take a look at PDF and remove green underline  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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CI 45 SC 45.2.3.6 P 40 L 14 # 322  
 Hajduczenia, Marek Bright House Network  
 Comment Type TR Comment Status D EZ  
 "Select 2.5GBASE-R PCS type" - I do not believe you're adding 2.5GBASE-R type  
 SuggestedRemedy  
 Change "Select 2.5GBASE-R PCS type" to "Select 2.5GBASE-T PCS type"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 125 SC 125.2.2 P 62 L 4 # 302  
 Anslow, Pete Ciena  
 Comment Type E Comment Status D EZ  
 "gray-coded" should be "Gray-coded"  
 SuggestedRemedy  
 Change "gray-coded" to "Gray-coded"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 45 SC 45.2.1.6 P 33 L 11 # 372  
 Chacon, Geoffrey Hewlett Packard Enter  
 Comment Type E Comment Status D EZ  
 Missing -T from 2.5GBASE-T PMA  
 SuggestedRemedy  
 Replace 2.5GBASE-PMA for 2.5GBASE-T PMA  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 45 SC 45.2.1.4 P 32 L 23 # 402  
 Remein, Duane Futurewei Technologie  
 Comment Type E Comment Status D EZ  
 Odd structure for Ed Inst  
 "Change Reserved row and  
 Insert rows below it in Table 45-6 to include speeds of 2.5Gb/s and 5Gb/s as shown  
 (unchanged rows not  
 shown):."  
 SuggestedRemedy  
 Remove line feed & period after colon.

Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 126 SC 126.4.6.1 P 138 L 38 # 397  
 Yseboodt, Lennart Philips  
 Comment Type E Comment Status D EZ  
 In Figure 126-26 there are arrows going to a label called "I".  
 The drawing of this label is assymetric.  
 SuggestedRemedy  
 Make label drawing symmetric.

Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 126 SC 126.6 P 152 L 33 # 393  
 Marris, Arthur Cadence Design Syst  
 Comment Type E Comment Status D EZ  
 grammar  
 SuggestedRemedy  
 change "makes" to "make"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.



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Cl 4 SC 4.4.2 P 23 L 54 # 391  
 Marris, Arthur Cadence Design Syst  
 Comment Type E Comment Status D EZ  
 No page number  
 SuggestedRemedy  
 Add page numbers on pages 23 and 24  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 46 SC 46.1 P 53 L 7 # 334  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 It is "subclause" and not "Clause"  
 SuggestedRemedy  
 Change all instances of the word "Clause" to "Subclause/subclause" (as needed) when referencing second and lower heading numbers - there are multiple instances in the draft  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 1 SC 1.4.277b P 22 L 1 # 387  
 Lusted, Kent Intel  
 Comment Type E Comment Status D EZ  
 Since Clause 126 and Clause 113 have references to the specific BASE-T PHYs with the clause, it would be useful to add a "(10GBASE-T)" after Clause 55.  
 SuggestedRemedy  
 add a "(10GBASE-T)" after Clause 55.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.12 P 172 L 1 # 371  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 Seems like tables for PICS were moved from page 172 to 173 for some reason.  
 SuggestedRemedy  
 Please bring initial tables to under 126.12  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 113A SC 113A P 191 L 1 # 347  
 Hajduczenia, Marek Bright House Network  
 Comment Type ER Comment Status D EZ  
 Remove Annex 113A since it has no content. All comments on Annex 113A should be directed to 3bq, where the Annex is currently included  
 SuggestedRemedy  
 Per comment  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.7 P 157 L 51 # 364  
 Hajduczenia, Marek Bright House Network  
 Comment Type TR Comment Status D EZ  
 "effective data rate of 625 Mb/s in each direction simultaneously" - likely, per pair, otherwise the aggregate of 2.5Gbps is not achieved  
 SuggestedRemedy  
 Change "effective data rate of 625 Mb/s in each direction simultaneously" to "effective data rate of 625 Mb/s per pair, in each direction simultaneously"  
 Same change in line 52 for 1250 Mb/s data rate  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 45 SC 45.2.3.6 P 40 L 13 # 373  
 Chacon, Geoffrey Hewlett Packard Enter  
 Comment Type E Comment Status D EZ  
 Change 2.5GBASE-R PCS for 2.5GBASE-T PCS  
 SuggestedRemedy  
 Change 2.5GBASE-R PCS for 2.5GBASE-T PCS  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 1 SC 1.4.131a P 21 L 42 # 211  
 Shariff, Masood CommScope  
 Comment Type E Comment Status D EZ  
 1.4.131aCategory 8 balanced cabling:  
 Need a space after 131a  
 SuggestedRemedy  
 1.4.131a Category 8 balanced cabling:  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.1.3.3 P 71 L 26 # 360  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 Avoid the use of "will" - change "that will be mapped into a single 64B/65B block" to "that is then mapped into a single 64B/65B block"  
 SuggestedRemedy  
 Make sure there are no unnecessary instances of "will" outside of FM.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 See BQ ALIGN comments

Cl 126 SC 126.1.3.1 P 149 L 9 # 357  
 Hajduczenia, Marek Bright House Network  
 Comment Type T Comment Status D EZ  
 Reference to Figure 126-6 would be very helpful here, since that is where the transmit direction is shown  
 SuggestedRemedy  
 Change "In the transmit direction" to "In the transmit direction (see Figure 126-6)" - make sure link is live  
 In line 26, Change "In the receive direction" to "In the receive direction (see Figure 126-7)" - make sure link is live  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.5.3.4 P 149 L 10 # 355  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 "The masks are shown graphically in Figure 126-36" - clearly, these are shown graphically on a figure ...  
 SuggestedRemedy  
 Change to "These masks are shown in Figure 126-36"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl FM SC P 2 L 46 # 386  
 Lusted, Kent Intel  
 Comment Type E Comment Status D EZ  
 Update copyright date to 2016  
 SuggestedRemedy  
 Update copyright date to 2016  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 125 SC 125.1.4 P 61 L 23 # 301  
 Anslow, Pete Ciena  
 Comment Type E Comment Status D EZ  
 In Table 125-2, "46" should be a cross-reference  
 SuggestedRemedy  
 In Table 125-2, make "46" a cross-reference  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 00 SC 0 P L # 292  
 Anslow, Pete Ciena  
 Comment Type E Comment Status D EZ  
 copyright\_year variable should be 2016 in all clause files  
 SuggestedRemedy  
 change copyright\_year variable to 2016 in all clause files  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 00 SC 0 P 3 L 0 # 288  
 Chalupsky, David Intel Corp.  
 Comment Type E Comment Status D EZ  
 correct nomenclature: there are many instances of "2.5/5GBASE-T" as well as "2.5G/5GBASE-T". 2.5G/5GBASE-T is preferred  
 SuggestedRemedy  
 replace all instances of "2.5/5G/BASE-T" with 2.5G/5GBASE-T. This appears in the header, ToC, section headings, state diagrams, as well as throughout the text.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.8.2.2 P 169 L 28 # 284  
 Thompson, Geoff GraCaSI S.A.  
 Comment Type ER Comment Status D EZ  
 "Editor's Note (to be removed prior to WG ballot)" hasn't been.  
 SuggestedRemedy  
 Remove editor's note.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.14g P 34 L 34 # 318  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 These are subclauses, not clauses  
 SuggestedRemedy  
 Change "clauses" to "subclauses" on page 34, line 34  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.7.2 P 159 L 13 # 279  
 Thompson, Geoff GraCaSI S.A.  
 Comment Type E Comment Status D EZ  
 Two footnotes have same content.  
 SuggestedRemedy  
 Consolidate into single footnote.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.6 P 33 L 13 # 294  
 Anslow, Pete Ciena  
 Comment Type E Comment Status D EZ  
 "2.5GBASE-PMA" should be "2.5GBASE-T PMA"  
 SuggestedRemedy  
 Change "2.5GBASE-PMA" to "2.5GBASE-T PMA"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 45 SC 45.2.3.7.1a P 40 L 38 # 296  
 Anslow, Pete Ciena  
 Comment Type E Comment Status D EZ  
 Editing instruction should be more specific.  
 SuggestedRemedy  
 Change "Insert new clause after 45.2.3.7.1 as follows:" to "Insert 45.2.3.7.1a and 45.2.3.7.1b after 45.2.3.7.1 as follows:"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.7.2 P 158 L 41 # 278  
 Thompson, Geoff GraCaSI S.A.  
 Comment Type E Comment Status D EZ  
 Two footnotes have same content.  
 SuggestedRemedy  
 Consolidate into single footnote.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 45 SC 45.2.3.9a P 41 L 1 # 297  
 Anslow, Pete Ciena  
 Comment Type E Comment Status D EZ  
 Incorrect editing instruction. 45.2.3.9a is being inserted by P802.3bq  
 SuggestedRemedy  
 Delete "Insert 3 new clauses and Table 45-125a after 45.2.3.9.11 as shown:"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 00 SC 0 P all L 99 # 289  
 Chalupsky, David Intel Corp.  
 Comment Type E Comment Status D EZ  
 change copyright to 2016  
 SuggestedRemedy  
 change copyright date in footer to "2016"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 78 SC 78.2 P 57 L 34 # 300  
 Anslow, Pete Ciena  
 Comment Type E Comment Status D EZ  
 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 Table 78–2 remove the trailing zeros from "12.80" and "6.40"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 1 SC 1.4.131a P 21 L 40 # 293  
 Anslow, Pete Ciena  
 Comment Type E Comment Status D EZ  
 Editing instruction should say where this definition can be found.  
 SuggestedRemedy  
 Change "Change definition for Category 8 balanced cabling, as shown:" to "Change 1.4.131a as inserted by IEEE Std 802.3bq-201x, as follows:"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 1 SC 1.4.131a P 21 L 40 # 308  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 Category 8 definition does not exist in 802.3bx standard and it is an addition to existing standard. Editorial instruction seems to imply it is already in the base standard  
 SuggestedRemedy  
 Change editorial instruction in line 40 to read: "Change definition for Category 8 balanced cabling, as added by P802.3XXXX-201X, as shown:" - update project reference + year for the specific amendment that added this definition in the first place.  
 Likely, P802.3bq is the source of this text

Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Change editing instruction to read:  
 "Change definition for Category 8 balanced cabling, (as inserted by IEEE 802.3bq-201x) as shown:"

Cl 45 SC 45.2.1.10.a P 34 L 27 # 317  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 No editorial note for 45.2.1.10.a  
 SuggestedRemedy  
 Please insert editorial note before 45.2.1.10.a, or extend editorial note on page 34, line 15 to include reference to a new subclause being added  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Insert editing instruction to "Insert new subclause, 45.2.1.10.a before 45.2.1.10.1 as follows: " prior to header for 45.2.1.10.a (P34 L27)

Cl 45 SC 45.2.1.4 P 32 L 43 # 316  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 Incorrect editorial note - these are subclauses. Also, no reference where they are expected to be inserted at  
 SuggestedRemedy  
 Change "Insert two new clauses following 45.2.1.4 as follows:" to "Insert two following subclauses before 45.2.1.4.1 as follows:"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 45 SC 45.2.1.4 P 32 L 24 # 315  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 Editorial note broken into two lines  
 SuggestedRemedy  
 Change the note to read: "Change Reserved row and insert rows below the Reserved row in Table 45-6 to include speeds of 2.5Gb/s and 5Gb/s as shown (unchanged rows not shown):"  
 Mark rows 1.4.14 and 1.4.13 with underline (this is inserted text versus text already in place)  
 Similar issue in 45.2.3.7 (text broken into two lines) + missing underline for register 3.8.12  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 4 SC 4.4.2 P 23 L 5 # 311  
 Hajduczenia, Marek Bright House Network  
 Comment Type ER Comment Status D EZ  
 Two editorial issues:  
 (1) no subheading 4.4 is shown (and should be)  
 (2) changes to table 4-2 are not shown in underline (and should be)  
 SuggestedRemedy  
 (1) Insert missing subheading 4.4 with title name  
 (2) show changes to Table 4-2 in underline  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 45 SC 45.2.3.9a.a P 41 L 21 # 298  
 Anslow, Pete Ciena  
 Comment Type E Comment Status D EZ  
 Editing instruction should be more specific.  
 SuggestedRemedy  
 Change "Insert 2 new clauses after 45.2.3.9a and before 45.2.3.9a.1, both inserted by IEEE Std 802.3bq-201x, as shown:" to "Insert 45.2.3.9a.a and 45.2.3.9a.b before 45.2.3.9a.1, as inserted by IEEE Std 802.3bq-201x, as follows:"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 (difference is parentheses around ref to 802.3bq)  
 Change "Insert 2 new clauses after 45.2.3.9a and before 45.2.3.9a.1, both inserted by IEEE Std 802.3bq-201x, as shown:" to "Insert 45.2.3.9a.a and 45.2.3.9a.b before 45.2.3.9a.1 (as inserted by IEEE Std 802.3bq-201x) as follows:"

Cl 1 SC 1.4.277b P 22 L 1 # 309  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D EZ  
 Just for symmetry - definition includes statement: "for both 25GBASE-T and 40GBASE-T", it might be better to emphasize the fact that Clause 126 specifies both 2.5G and 5G BASE-T  
 SuggestedRemedy  
 Change "2.5GBASE-T and 5GBASE-T" to "for both 2.5GBASE-T and 5GBASE-T"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl FM SC FM P 10 L 17 # 307  
 Hajduczenia, Marek Bright House Network  
 Comment Type ER Comment Status D EZ  
 Missing summaries of other ongoing projects  
 SuggestedRemedy  
 Please implement comment #i-55 from P802.3bp D3.0  
 ([http://www.ieee802.org/3/bp/comments/8023bp\\_D30\\_approved.pdf](http://www.ieee802.org/3/bp/comments/8023bp_D30_approved.pdf))  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl **FM** SC **FM** P **2** L **1** # **306**  
 Hajduczenia, Marek Bright House Network  
 Comment Type **E** Comment Status **D** EZ  
 Unnecessary "This amendment"  
 SuggestedRemedy  
 Remove "This amendment"  
 Proposed Response Response Status **W**  
 PROPOSED ACCEPT.  
 "This amendment to IEEE Std 802.3-2015 This amendment defines Ethernet Media"  
 (delete second occurrence)

Cl **126** SC **126.12.1.2** P **173** L **20** # **305**  
 Anslow, Pete Ciena  
 Comment Type **E** Comment Status **D** EZ  
 "IEEE Std 802.3-201x" should be "IEEE Std 802.3bz-201x"  
 SuggestedRemedy  
 Change "IEEE Std 802.3-201x" to "IEEE Std 802.3bz-201x" in two places  
 Proposed Response Response Status **W**  
 PROPOSED ACCEPT.

Cl **126** SC **126.7.2** P **158** L **41** # **275**  
 Malicoat, David HPE  
 Comment Type **E** Comment Status **D** EZ  
 Notes a) and b) are identical.  
 SuggestedRemedy  
 Consolidate 'a' and 'b' to a single noe for Table 126-18  
 Proposed Response Response Status **W**  
 PROPOSED ACCEPT.

Cl **126** SC **126.1** P **65** L **9** # **303**  
 Anslow, Pete Ciena  
 Comment Type **E** Comment Status **D** EZ  
 There should be a non-breaking space (Ctrl space) between a number and its unit.  
 SuggestedRemedy  
 Insert a non-breaking space in 2.5Gb/s and 5Gb/s (two instances each)  
 Proposed Response Response Status **W**  
 PROPOSED ACCEPT.

Cl **126** SC **126.4.6.2** P **139** L **16** # **398**  
 Yseboodt, Lennart Philips  
 Comment Type **E** Comment Status **D** Formatting  
 In Figure 126-27 the assignment to variables in the states is not done with  
 the proper arrow symbol, but with "<=".  
 SuggestedRemedy  
 Replace by assignment operator (such as done in Fig 126-28).  
 Proposed Response Response Status **W**  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Implemented by comment 243 (BQ ALIGN i-60) which redraws the figure in frame with the  
 proper assignment operator

Cl **126** SC **126.4.2.2.1** P **117** L **29** # **396**  
 Yseboodt, Lennart Philips  
 Comment Type **E** Comment Status **D** Formatting  
 "xpr\_slave = (array of 9 and -9)"  
 Alignment of this data is poor and should be formatted in a proper grid.  
 SuggestedRemedy  
 Use a table without a header, or a Figure to line up the data in a proper grid.  
 Proposed Response Response Status **W**  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Editor to work on alignment, subject to not risking introducing errors to the text.

Cl **126** SC **126.1.1** P **65** L **38** # **385**  
 Hidaka, Yasuo Fujitsu Laboratories of  
 Comment Type **E** Comment Status **D** Formatting  
 The parameter S is defined only in the text.  
 Since this is an important parameter, it is better to define in a table.  
 SuggestedRemedy  
 Add a table to define the parameter S.  
 Proposed Response Response Status **W**  
 PROPOSED REJECT.  
 It only has two values and it is called out prominently in its own section up front. No need  
 for a table.

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Cl 126 SC 126.4.2.2.1 P 117 L 8 # 395  
 Yseboodt, Lennart Philips  
 Comment Type E Comment Status D Formatting  
 "xpr\_master = (array of 9 and -9)"  
 Alignment of this data is poor and should be formatted in a proper grid.  
 SuggestedRemedy  
 Use a table without a header, or a Figure to line up the data in a proper grid.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Editor to work on alignment, subject to not risking introducing errors to the text.

Cl 126 SC 126.6.2 P 156 L 51 # 363  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D Formatting  
 Variable value comparison: "link\_status\_2p5GigT=FAIL" or "link\_status\_2p5GigT = FAIL"  
 (with spaces around = sign)???

SuggestedRemedy  
 Pick one style, use consistently. For example, P802.3bp uses = with surrounding non-breakable spaces to control text flow

Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Include (nonbreakable) spaces around = sign

Cl 126 SC 126.6.1.1 P 153 L 6 # 361  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D Formatting  
 Incorrect table format - heading row is not emphasized correctly

SuggestedRemedy  
 Please apply proper IEEE table style to Table 126–15, the same as used in Table 126–16

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.7.2 P 158 L 31 # 365  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D Formatting  
 Odd format of Table 126-18 and 126-19

SuggestedRemedy  
 Please apply official IEEE style for this table - not sure what is used right now, but it looks different than other tables in the draft

Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.1.3 P 69 L 1 # 353  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D Formatting  
 Figure 126–3 uses dashed boxes to indicate EEE optional functions and transitions.  
 Consider using dashed lines instead, since it is not whole blocks, but rather some signals / transitions that are optional.

SuggestedRemedy  
 For example, change line type for fr\_active from solid to dashed, and remove the associated box. Apply to all optional transitions / signals on this figure  
 The same comment applies to Figure 126–4, Figure 126-5

Proposed Response Response Status W  
 PROPOSED REJECT.  
 Figure is consistent with other MultiGBASE-T family PHY figures. Changing would make it inconsistent and raise confusion.

Cl 126 SC 126.6.2 P 156 L 49 # 362  
 Hajduczenia, Marek Bright House Network  
 Comment Type E Comment Status D Formatting  
 Inconsistent formatting for lists: "SB0...SB10" and in most locations lists are shown as "SB0, ..., SB10" - please update for consistency, at least within this draft

SuggestedRemedy  
 Per comment

Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 126 SC 126.10 P 171 L 19 # 290  
 Chalupsky, David Intel Corp.  
 Comment Type T Comment Status D Labeling  
 many product could not fit this amount of information on the faceplate in human readable form  
 SuggestedRemedy  
 change "and" to "or" in "(and supporting documentation)"  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.1 P 32 L 12 # 392  
 Marris, Arthur Cadence Design Syst  
 Comment Type E Comment Status D Management  
 It should be "x11x" that is struck out  
 SuggestedRemedy  
 Change x1xx to x11x  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Align with 802.3by, and it is unlikely 802.3bs will precede 802.3bz.  
 Change x1xx to x11x in strikeout, as per comment  
 Additionally:  
 1. Change editing instruction to delete "and IEEE Std 802.3bs-201x"  
 2. Change 0 1 0 1 = 400Gb/s to  
 0 1 0 1 = Reserved

Cl 126 SC 126.8.1 P 167 L 50 # 370  
 Hajduczenia, Marek Bright House Network  
 Comment Type T Comment Status D MDI  
 Is there anything new about the connectors from what is done for 1000BASE-T/10GBASE-T over twisted pair?  
 SuggestedRemedy  
 If not, suggest to point to existing spec, rather than repeat text  
 Proposed Response Response Status W  
 PROPOSED REJECT.  
 Mechanical interface is identical, but is repeated here for clarity.

Cl 126 SC 126.8.2.2 P 169 L 23 # 401  
 Yseboodt, Lennart Philips  
 Comment Type E Comment Status D MDI  
 In Equation 126-38 it seems a closing curly brace has been forgotten.  
 SuggestedRemedy  
 Add closing curly brace.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.  
 (Editor's note - IEEE Std 802.3-2015 clauses are quite inconsistent on this issue)

Cl 126 SC 126.8.2.2 P 169 L 20 # 268  
 Bains, Amrik Cisco Systems  
 Comment Type T Comment Status D MDI  
 Clause 126.8.2.2 specifies MDI impedance balance to be same for 2.5G and 5G derived from Clause 55 but scaled for bandwidth of 250MHz instead of 500MHz. Since 2.5G BW requirement is 150MHz, current specification is too conservative, adds complexity/cost. Refer to "bains\_3bz\_01\_0316" contribution for details  
 SuggestedRemedy  
 Add 2.5G Impedance Balance parameters as on slide 10 of bains\_3bz\_01\_0316.pdf as well as NOTE on slide 10 to the end of clause 128.8.2.2.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Task force to discuss with presentation

Cl 126 SC 126.3.2.2.8 P 88 L 41 # 201  
 McClellan, Brett Marvell  
 Comment Type T Comment Status D PCS  
 this section defines invalid blocks that may be seen at the receiver, not the transmitter  
 SuggestedRemedy  
 Move this section to 126.3.2.3.3, and retitle "Invalid blocks"  
 add text "Invalid blocks are replaced by error." as the first sentence of the section.  
 After item (e) add the following:  
 "The PCS Receive function shall check the integrity of the LDPC parity bits defined in 126.3.2.2.17. If the check fails the PHY frame is invalid."  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.  
 (see comment r01-11 on 802.3bq D3.1)



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Cl 126 SC 126.3.2.2.14 P 91 L 12 # 206  
 McClellan, Brett Marvell  
 Comment Type T Comment Status D PCS  
 invalid blocks only appear at the receiver, not the transmitter  
 SuggestedRemedy  
 delete "It is also sent when invalid blocks are received."  
 Proposed Response Response Status W  
 PROPOSED ACCEPT. (see also comment r01-12 on BQ D3.1)

Cl 126 SC 126.1.3.2 P 71 L 6 # 359  
 Hajduczenia, Marek Bright House Network  
 Comment Type T Comment Status D PCS  
 What is this magic "it" ??? ... "It determines whether the PHY operates in a normal ... "  
 SuggestedRemedy  
 Please clarify what "it" is and at best - replace it with the full name of the element that performs this function  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 Replace "It" by "PHY Control"

Cl 126 SC 126.1.3.1 P 149 L 18 # 358  
 Hajduczenia, Marek Bright House Network  
 Comment Type T Comment Status D PCS  
 Given that requirements in 126.5.3.4 are based on a mandatory compliance with equation, there is no need to mention some requirements in here  
 SuggestedRemedy  
 Change "The 97 zero-bits are then replaced with vendor-defined random data, with the only requirement that the bits be sufficiently random to not produce spectral tones, and effect meeting the transmit PSD mask defined in Clause 126.5.3.4." to "The 97 zero-bits are then replaced with vendor-defined random data. See 126.5.3.4 for transmit PSD mask definition."  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 126 SC 126.5.3.4 P 149 L 29 # 356  
 Hajduczenia, Marek Bright House Network  
 Comment Type TR Comment Status X PMA  
 Unclear note: "UpperPSDf□□maxPSD1f□□Equation55-96-□□□"  
 SuggestedRemedy  
 Clarify what the intention of reference to Equation 55-9 is and what "-6)" is for  
 Proposed Response Response Status W  
 Change to:  
 UpperPSD(f) <= max ( PSD1(f), (Equation 55-9) - 6 dB ) )

Add clarifying text on line 11, prior to "The masks are shown..." inserting sentence:  
 "In the highest frequency segment, the PSD mask is the maximum of the PSD specified for 2.5G/5GBASE-T, or 6 dB less than that specified in Clause 55 by Equation 55-9."

Cl 126 SC 126.5.3.5 P 150 L 35 # 267  
 Zimmerman, George CME Consulting/Aqua  
 Comment Type T Comment Status D PMA  
 Does the frequency requirement also apply to SLAVE PHYs? (related to BQ unsatisfied comment i-93)  
 SuggestedRemedy  
 Change "When the transmitter is" to  
 "For a MASTER PHY, when the transmitter is"  
 A specification for the SLAVE is not required during either during normal operation, MASTER in LPI, or SLAVE in LPI.  
 During normal operation and SLAVE in LPI the SLAVE has no trouble tracking since the MASTER is always transmitting.  
 When MASTER is in LPI the loop timing of the SLAVE is not in open loop since the MASTER has to send refresh signal periodically  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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CI 126 SC 126.9.4 P 170 L 42 # 285  
 Thompson, Geoff GraCaSI S.A.

Comment Type TR Comment Status D PoE

This clause is badly out of date as it does not include consideration of encountering PoE voltages from cross connect or mid-span

SuggestedRemedy

Rewrite to include mid-span consideration. I suggest that you collaborate w/ P802.3bt on this effort.

Proposed Response Response Status W

PROPOSED REJECT.  
 For compatibility with a PSE, see 126.8.2.3 (P169, L51)

This clause (126.9.4) is entitled Telephony voltages, not general voltages which may be encountered, and not PoE. This clause is substantively identical to the same topic in Clause 40, for a PHY which IS specified for PoE, and no additional text was considered warranted by 802.3at, maintenance or the revision projects since 2009.

Additionally, as of this amendment, PoE is only specified for 10BASE-T, 100BASE-TX, and 1000BASE-T. 802.3bt may propose otherwise.

CI 46 SC 46.1.3 P 53 L 39 # 335  
 Hajduczenia, Marek Bright House Network

Comment Type E Comment Status D XGMII

All previous lists are created with increasing order, i.e., 2.5, 5, and 10 - this one is done in inverse for some reason

SuggestedRemedy

Change "data rates of 10 Gb/s, 5 Gb/s, and 2.5 Gb/s" to "data rates of 2.5 Gb/s, 5 Gb/s, and 10 Gb/s"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 46 SC 46.1 P 53 L 20 # 404  
 Remein, Duane Futurewei Technologie

Comment Type TR Comment Status D XGMII

This statement make it sound like the 10G RS will always support 3 rates.  
 "It is capable of supporting 2.5 Gb/s, 5 Gb/s, and 10 Gb/s operation"  
 This is not true for all existing 10G RS layers.  
 Similar issue line 9, pg 53 line 39,

SuggestedRemedy

Rephrase so it is clear that 2.5 & 5 G are optional  
 "It is capable of supporting 10 Gb/s operation and optional rates of 2.5 Gb/s, and 5 Gb/s."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.  
 According to this amendment, support of at least one of the rates is required - 10Gb/s is not mandatory. See requirement at line 40: "A compliant device may implement any subset of these rates."

Change L20 to read:  
 "It is capable of supporting at least one of the following rates of operation: 2.5 Gb/s, 5 Gb/s, or 10 Gb/s.  
 No change necessary to L39.

CI 46 SC 46.1.3 P 53 L 44 # 403  
 Remein, Duane Futurewei Technologie

Comment Type T Comment Status D XGMII

Here you are removing a requirement "PHYs that provide an XGMII shall support the 10 Gb/s MAC data rate" but I don't see a complementary change in the PICS.  
 In 2015 edition of the Std PICS reads:  
 G1 PHY support of MAC data rate 46.1.3 Support MAC data rate of 10 Gb/s  
 PHY:M Yes [ ]  
 N/A [ ]

In your draft changes to this requirement do not show G1 changing from Mandatory ("M") to Optional ("O")

SuggestedRemedy

Please update the PICS to show M in strikeout and O in underline requirement.

Proposed Response Response Status W

PROPOSED ACCEPT.