

IEEE P802.3bz D1.0 2.5/5GBASE-T 1st Task Force review comments

Cl 113A SC 113A.2 P 191 L 27 # 194
Moffitt, Bryan CommScope

Comment Type E Comment Status D EZ

Clarity that the Annex 40B clamp can be used with Annex 113 instructions

SuggestedRemedy

change
"(Note – The larger inner diameter clamp is described here; see Annex 40B for the description of an alternate clamp for use with smaller diameter cable types)."
to
(Note – A larger inner diameter clamp is described here; see Annex 40B for the description of an alternate clamp to be used with this methodology on smaller diameter cable types).

Proposed Response Response Status W

PROPOSED ACCEPT.
BQ

Cl 113A SC 113A.2 P 193 L 43 # 195
Moffitt, Bryan CommScope

Comment Type E Comment Status D EZ

This is not shown in the figure

SuggestedRemedy

replace:
"As shown in Figure 113A–2 the inner conductor on the bottom half of the clamp extends slightly (~0.1mm)above the dielectric to ensure there is good electrical connection"
With:
"The inner conductor on the bottom half of the clamp extends slightly (~0.1mm) above the dielectric to ensure there is good electrical connection"

Proposed Response Response Status W

PROPOSED ACCEPT.
BQ

Cl 113A SC 113A.3 P 195 L 24 # 204
Moffitt, Bryan CommScope

Comment Type E Comment Status D EZ

redundant with page 194 line 54

SuggestedRemedy

delete:
The signal generator shall be capable of providing a sine wave signal of 1 MHz to 2000 MHz.

Proposed Response Response Status W

PROPOSED ACCEPT.
BQ

Cl 113A SC 113A.3 P 195 L 3 # 203
Moffitt, Bryan CommScope

Comment Type E Comment Status D EZ

Item j) refers to nothing and appears to be an editing mistake

SuggestedRemedy

delete j)

Proposed Response Response Status W

PROPOSED ACCEPT.
BQ

Cl 125 SC 125.2.1 P 67 L 48 # 162
Lo, William Marvell Semiconductor

Comment Type ER Comment Status D EZ

Reference to clause 44 is incorrect

SuggestedRemedy

Change Clause 44 to Clause 46

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 126 SC P 108 L 45 # 224
Zimmerman, George CME Consulting

Comment Type E Comment Status D EZ

it's should be its (802.3bq d2p2 comment 221 from Alon Regev)

SuggestedRemedy

see comment, align with bq

Proposed Response Response Status W

PROPOSED ACCEPT.

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Cl 126 SC 126.1.3 P 73 L 17 # 175
 McClellan, Brett Marvell
 Comment Type T Comment Status D EZ
 the boxes indicating EEE are supposed to be dashed lines, this also applies to Figure 126-4 on page 79
 SuggestedRemedy
 change boxes to dashed lines
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 (beat on frame)

Cl 126 SC 126.1.3.2 P 75 L 8 # 176
 McClellan, Brett Marvell
 Comment Type T Comment Status D EZ
 "The latter occurs when either one or both of the PHYs that share a link segment are not operating reliably."
 This sentence is not entirely accurate and was incorrectly carried forward from Clause 40 into Clause 55.
 SuggestedRemedy
 delete the sentence
 Proposed Response Response Status W
 PROPOSED ACCEPT.
 Recommend commenter file maintenance request on clause 55 as well
 BQ

Cl 126 SC 126.2.4.5.15 P 131 L 40 # 225
 Zimmerman, George CME Consulting
 Comment Type T Comment Status D EZ
 rem_rcvr status (line break) should be rem_rcvr_status (802.3bq d2p2 comment 227 from Alon Regev)
 SuggestedRemedy
 change rem_rcvr status to rem_rcvr_status (align with BQ)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 126 SC 126.3 P 87 L 18 # 218
 Zimmerman, George CME Consulting
 Comment Type E Comment Status D EZ
 Minor clean up on figures brought from 10GBASE-T. See 802.3bq D2p2 ballot comments 157-163 by Stephen Trowbridge. (BQ)
 SuggestedRemedy
 Clean up figures aligned with BQ resolution of comments
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 126 SC 126.3.2.2.15 P 95 L 28 # 178
 McClellan, Brett Marvell
 Comment Type T Comment Status D EZ
 there is no transcoder
 SuggestedRemedy
 delete "transcoder!"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 126 SC 126.3.2.2.16 P 95 L 33 # 179
 McClellan, Brett Marvell
 Comment Type T Comment Status D EZ
 There is no transcoder, so this text was incorrectly carried over from 802.3bq.
 SuggestedRemedy
 replace "The payload of the PCS PHY frame tx_aggregated<3207:0> is scrambled to tx_scrambled<3207:0> with a self-synchronizing scrambler."
 with "The payload of the PCS PHY frame is scrambled with a self-synchronizing scrambler."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

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Cl 126 SC 126.3.2.2.16 P 95 L 33 # 165
 Lo, William Marvell Semiconductor

Comment Type TR Comment Status D EZ

Cut and paste error from 802.bq. Does not apply to 802.3bz
 There is no transcoding step aggregating 3208 bits.

SuggestedRemedy

Change:
 frame tx_aggregated<3207:0> is scrambled to tx_scrambled<3207:0> with
 to
 frame is scrambled to with

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
 See comment 179

Cl 126 SC 126.3.2.2.21 P 98 L 28 # 223
 Zimmerman, George CME Consulting

Comment Type E Comment Status D EZ

"a analogous manner" should be "an analogous manner" (802.3bq d2p2 comment 220 from
 Alon Regev)

SuggestedRemedy

change "a analogous manner" to "an analogous manner" (align with bq)

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 126 SC 126.3.4.1 P 102 L 9 # 180
 McClellan, Brett Marvell

Comment Type T Comment Status D EZ

Figure 126-11 is missing these symbols: n, Sa_n, Sb_n, Sc_n, Sd_n, TA_n, TB_n, TC_n,
 TD_n
 refer to Figure 55-13 for comparison

SuggestedRemedy

add these symbols back in the figure

Proposed Response Response Status W

PROPOSED ACCEPT.
 Also missing in 802.3bq (both clause 55 and 113)
 BQ

Cl 126 SC 126.3.5.3 P 105 L 33 # 166
 Lo, William Marvell Semiconductor

Comment Type T Comment Status D EZ

Need to zero out info field

SuggestedRemedy

Change:
 as is shown in Figure 126-11
 to:
 as is shown in Figure 126-11 with the exception that the InfoField consists of
 a sequence of 128 zeros.

Proposed Response Response Status W

PROPOSED ACCEPT.
 (track resolution of same comment in 802.3bq)

Cl 126 SC 126.3.6.2.2 P 108 L 16 # 226
 Zimmerman, George CME Consulting

Comment Type T Comment Status D EZ

"!tx_refresh_active" should be "!tx_refresh_active" (802.3bq d2p2 comment 226)

SuggestedRemedy

change to !tx_refresh_active (remove space between tx and underscore)

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 126 SC 126.3.6.2.2 P 108 L 31 # 181
 McClellan, Brett Marvell

Comment Type E Comment Status D EZ

fr_sigtype and definition has extra indentation

SuggestedRemedy

change to match indentation of the other variables.

Proposed Response Response Status W

PROPOSED ACCEPT.

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Cl 126 SC 126.3.6.4 P 118 L 33 # 183
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 Figure 126-18 has several line breaks with hyphens in the middle of variables and may confuse the reader. The line breaks do not occur in Figure 55-20.
 SuggestedRemedy
 eliminate the line breaks.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 126 SC 126.4.2.5.10 P 128 L 34 # 184
 McClellan, Brett Marvell
 Comment Type E Comment Status D EZ
 missing space
 SuggestedRemedy
 change "PMA_Coeff_Exchstate" to "PMA_Coeff_Exch state"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 126 SC 126.4.2.5.11 P 128 L 46 # 185
 McClellan, Brett Marvell
 Comment Type T Comment Status D EZ
 text uses ~= to indicate 'not equal to'. Is this defined in 802.3?
 SuggestedRemedy
 change '~=' to 'not equal to'
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change to '~=' to 'is not equal to'
 BQ

Cl 126 SC 126.4.6.3 P 144 L 20 # 227
 Zimmerman, George CME Consulting
 Comment Type T Comment Status D EZ
 maxwait_time_done should be maxwait_timer_done (802.3bq d2p2 comment 228 by Alon Regev)
 start_link_fail_sig_timer should be start link_fail_sig_timer (126.4.6.5) (bq comment 229)
 PMA_CONFIG.indicate should be PMA_CONFIG.indication (2 instances) (bq comment 230)
 SuggestedRemedy
 see comment, align with bq resolutions
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 126 SC 126.6.2 P 159 L 36 # 189
 McClellan, Brett Marvell
 Comment Type T Comment Status D EZ
 Register 7.33 is not called the "2.5GBASE-T status register or the 5GBASE-T status register"
 SuggestedRemedy
 change "2.5GBASE-T status register or the 5GBASE-T status register" to "MultiGBASE-T AN status register"
 also applies to line 43
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 126 SC 126.7 P 160 L 5 # 190
 McClellan, Brett Marvell
 Comment Type T Comment Status D EZ
 effective data rate per lane is 625 Mb/s for 2.5GBASE-T and 1250 for 5GBASE-T
 SuggestedRemedy
 change "626" to "625" and "1626" to "1250"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

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Cl 126 SC 126.7.2 P 160 L 1 # 191
 McClellan, Brett Marvell
 Comment Type T Comment Status D EZ
 missing 5GBASE-T
 SuggestedRemedy
 change "Table 126-19 lists the supported cabling types and distances."
 to "Table 126-19 lists the 5GBASE-T supported cabling types and distances."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 28D SC 28D.9 P 189 L 20 # 193
 McClellan, Brett Marvell
 Comment Type T Comment Status D EZ
 parameters are also exchanged during link training in the Infocfield.
 SuggestedRemedy
 add "and information provided by theexchange of Infocfields during link training."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 30 SC 30.2.1 P 25 L 10 # 234
 Zimmerman, George CME Consulting
 Comment Type T Comment Status D EZ
 Rather than just listing a cross-reference to the subclause where the register can be found to support this attribute, suggest that the behaviour be updated to follow the more usual format (see subclause 30.5.1.1.22 'aSNROpMarginChnID' for an example). (802.3bq d2p2 comment 169 by David Law)
 SuggestedRemedy
 Editor to review clause 30 editing instructions for format and change as appropriate. (align with BQ)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 30 SC 30.3.2.1.2 P 25 L 12 # 231
 Zimmerman, George CME Consulting
 Comment Type T Comment Status D EZ
 Remove unchanged legacy text and reformat clause 30 edits per 802.3bq ballot comment 164 from David Law
 SuggestedRemedy
 See 802.3bq D2p2 response to comment 164
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 30 SC 30.3.2.1.2 P 25 L 9 # 233
 Zimmerman, George CME Consulting
 Comment Type E Comment Status D EZ
 The editing instruction should appear under the subclause heading of the subclause they apply to, not above (see pdf page 57 and 58 of 2014 IEEE-SA Standards Style Manual). This seems to have been followed throughout the draft, except in the case of the Clause 30 changes and some Clause 45 chnages.
 (802.3bq D2p2 comment 168 by David Law)
 SuggestedRemedy
 Ensure editing instruction are under the subclause heading of the subclause they apply to.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 45 SC 45.1 P 31 L # 172
 Lo, William Marvell Semiconductor
 Comment Type T Comment Status D EZ
 802.3-2012_SECTION4.pdf page 43 or
 P8023_D3p2_SECTION4.pdf page 44 line 16
 Need to change
 Implementations that operate at speeds of 10 Gb/s and above.
 to
 Implementations that operate at speeds of 2.5 Gb/s and above.
 SuggestedRemedy
 See above
 Proposed Response Response Status W
 PROPOSED ACCEPT.

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Cl 45 SC 45.2.1 P 32 L 2 # 236
 Zimmerman, George CME Consulting
 Comment Type E Comment Status D EZ
 in editorial instructions, "through" is misspelled as "though" (802.3bq d2p2 comment 219 by Alon Regev)
 SuggestedRemedy
 Change "1.145 though 1.146" to "1.145 through 1.146" (align with bq)
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.10 P 36 L 13 # 150
 Lo, William Marvell Semiconductor
 Comment Type TR Comment Status D EZ
 Need to add text to the new 1.11.14 bit
 SuggestedRemedy
 45.2.1.10.1a 2.5G/5G extended abilities (1.11.14)
 When read as a one, bit 1.11.14 indicates that the PMA/PMD has 2.5G/5G extended abilities listed in register 1.21. When read as a zero, bit 1.11.14 indicates that the PMA/PMD does not have 2.5G/5G extended abilities.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 45 SC 45.2.1.4 P 33 L 28 # 142
 Jones, Peter Cisco
 Comment Type T Comment Status D EZ
 Looking at 45.2.1.4 PMA/PMD speed ability (Register 1.4) Table 45-6—PMA/PMD speed ability register bit definitions as amended by 802.3bx, it looks like each new speed needs a subclause, e.g.
 45.2.1.4.1 100G capable (1.4.9)
 When read as a one, bit 1.4.9 indicates that the PMA/PMD is able to operate at a data rate of 100 Gb/s.
 When read as a zero, bit 1.4.9 indicates that the PMA/PMD is not able to operate at a data rate of 100 Gb/s.
 SuggestedRemedy

Add 45.2.1.4.x clauses that read like
 45.2.1.4.n 2.5G capable (1.4.13)
 When read as a one, bit 1.4.13 indicates that the PMA/PMD is able to operate at a data rate of 2.5 Gb/s.
 When read as a zero, bit 1.4.13 indicates that the PMA/PMD is not able to operate at a data rate of 2.5 Gb/s.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 (see 174)

Cl 45 SC 45.2.1.4.1a P 33 L 39 # 174
 Lo, William Marvell Semiconductor
 Comment Type TR Comment Status D EZ
 Need to add text to the new 1.4.14 and 1.4.13 bits
 SuggestedRemedy
 45.2.1.4.1a 5G capable (1.4.14)
 When read as a one, bit 1.4.14 indicates that the PMA/PMD is able to operate at a data rate of 5 Gb/s. When read as a zero, bit 1.4.14 indicates that the PMA/PMD is not able to operate at a data rate of 5 Gb/s.
 45.2.1.4.1b 2.5G capable (1.4.13)
 When read as a one, bit 1.4.13 indicates that the PMA/PMD is able to operate at a data rate of 2.5 Gb/s. When read as a zero, bit 1.4.13 indicates that the PMA/PMD is not able to operate at a data rate of 2.5 Gb/s.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

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Cl 45 SC 45.2.1.6 P 33 L 54 # 235
 Zimmerman, George CME Consulting

Comment Type E Comment Status D EZ

note for Table 45-7 needs to stay with table.

SuggestedRemedy

change frame properties to keep table and note together on same page.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 45 SC 45.2.7.10.4d P 49 L 41 # 153
 Lo, William Marvell Semiconductor

Comment Type TR Comment Status D EZ

The link to 113.4.2.5.10 is incorrect
 The same problem also occurs in line 48

SuggestedRemedy

The link should be change to to 126.4.2.5.10 in both instances

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 45 SC 45.2.7.11.7d P 51 L 24 # 154
 Lo, William Marvell Semiconductor

Comment Type T Comment Status D EZ

Add a clarifying sentence since fast retrain ability is not advertised during auto-neg.
 Also applies to 45.2.7.11.7e

SuggestedRemedy

Add following to both places at end of both paragraphs.

This bit is valid only after link is established.

Proposed Response Response Status W

PROPOSED ACCEPT.
 BQ

Cl 45 SC 45.2.7.14a P 53 L 5 # 155
 Lo, William Marvell Semiconductor

Comment Type TR Comment Status D EZ

The paragraph in line 5 to 7 should be deleted for 2 reasons

1) It should not be 2.5G and 5G specific since bits 2 to 15 can be used for EEE abilities for other PHYs in the future.

2) EEE ability in 2.5G and 5GBASE=T are exchanged during training and not with next pages.

SuggestedRemedy

Delete paragraph in line 5 to 7 and replace with the following:

EEE advertisement 2 register is a continuation of EEE advertisement 1 register.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 46 SC 46.1 P 59 L 11 # 186
 McClellan, Brett Marvell

Comment Type E Comment Status D EZ

missing space

SuggestedRemedy

change "to10 Gb/s" to "to 10 Gb/s"

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 46 SC 46.1.3 P 59 L 30 # 187
 McClellan, Brett Marvell

Comment Type E Comment Status D EZ

inconsisten use of comma with 'and'

SuggestedRemedy

change "10 Gb/s, 5 Gb/s and 2.5 Gb/s"
 to "10 Gb/s, 5 Gb/s, and 2.5 Gb/s"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
 Editor to check and align with IEEE style guide (use comma)

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Cl 78 SC 78.3 P 63 L # 161
Lo, William Marvell Semiconductor

Comment Type TR Comment Status D EZ

P8023_D3p2_SECTION6.pdf page 40 line starting in line 26 makes a blanket statement about EEE capabilities being exchanged during Auto-Negotiation. This is not true for 2.5/5/40GBASE-T

The suggested remedy does not include the 40GBASE-T text.

SuggestedRemedy

Change line 26 from
The EEE capability shall be advertised....
to
With the exception of 2.5GBASE-T and 5GBASE-T the EEE capability shall be advertised....

Add to the end of the first paragraph:
The EEE capability for 2.5GBASE-T and 5GBASE-T shall be advertised during link training according to clause 126.4.2.5.10.

Add to the end of the second paragraph:
The same applies to 2.5GBASE-T and 5GBASE-T except the EEE capabilities are exchanged and resolved during link training instead of during Auto-Negotiation.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
Include 40GBASE-T text as well
BQ