Cl **113** *SC* **113.4.2.2.1** *P* **818** *L* **52** # 232

Zimmerman, George — CME Consulting, Inc.

Comment Type **T** *Comment Status* **D** *64B/65B*

The text states encoding is 64/65B encoding technique. Needs updating to reflect transcoding and RS-LDPC encoding [TECH]

SuggestedRemedy

replace "encoded using the 64B/65B encoding technique" with "encoded using the mixed 512B/513B, 64B/65B RS-LDPC encoding used in normal data mode".

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Consider resubmitting with other 64B/65B comments during WG ballot

Cl **113** *SC* **113.3.6.2.1** *P* **803** *L* **24** # 231

Zimmerman, George — CME Consulting, Inc.

Comment Type **T** *Comment Status* **D** *64B/65B*

65B BLOCKs aren't necessarily sent to the LDPC encoder directly anymore - they go to the 512B/513B transcoder and the LDPC framer.
This effects EBLOCK_T (line 24), LBLOCK_T (line 29), and IBLOCK_T (line 38) [TECH-INF]

SuggestedRemedy

change EBLOCK_T, LBLOCK_T, and IBLOCK_T definitions to read "sent to the 512B/513B transcoder and LDPC framer"

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Consider resubmitting with other 64B/65B comments during WG ballot

Cl **113** *SC* **113.3.2.2.24** *P* **794** *L* **50** # 217

Zimmerman, George — CME Consulting, Inc.

Comment Type **E** *Comment Status* **D** *64B/65B*

Text reflects fixed, single block-size encoding, needs updating to mixed block sizes and RS encoding. [TECH-INF]

SuggestedRemedy

Delete reference to 64/B/65B and add in RS encoding so it reads: "then it contains 6 full LDPC frames each composed entirely of RS-LDPC-encoded LP_IDLE blocks"

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Consider resubmitting with other 64B/65B comments during WG ballot

Cl **113** *SC* **113.3.2.2.23** *P* **794** *L* **29** # 215

Zimmerman, George — CME Consulting, Inc.

Comment Type **E** *Comment Status* **D** *64B/65B*

Discussion needs updating to reflect mixed block sizes. [TECH-INF]

SuggestedRemedy

Rewrite - 113.3.2.2.23 LDPC framer (delete 65B)
The LDPC framer adapts between the mixed 513bit-wide and 65-bit wide blocks and the 4D-PAM16..."

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Consider resubmitting with other 64B/65B comments during WG ballot

Cl **113** *SC* **113.5.4.6.9** *P* **856** *L* **1** # 248

Shariff, Masood — CommScope

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

This sub-clause is not needed and may not jive with the previous clause.

The FEXT coupling into a disturbed channel from all the disturbing channels is coumputed as a power sum FEXT and the IL of the disturbed channel (victim) is subtracted from this to get to PSACRF

SuggestedRemedy

Delete subclause 113.5.4.6.9

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Equation 113-29 provides calculation for PSACRF. Equation 113-28 is the limit.

Cl **113** *SC* **113.5.4.6.2** *P* **852** *L* **26** # 251

Shariff, Masood — CommScope

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

Correct typos in equation 113-15

SuggestedRemedy

Change first term to 24 + 3log(f/25)

Change second term to 8 - 10log(f/1000)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.7.4** *P* **181** *L* **41** # 172

Lackner, Hans — QoSCom GmbH

Comment Type **ER** *Comment Status* **D** *Cabling*

In the clause 'Noise environment' there is under f) line 41 a good explanation on alien noise. But the reference to clause 113.7.3 assumes that the disturbing channels all carry the same signals e.g. 40GBAST-T. As other protocols may have higher transmitting power this should be mentioned here.

SuggestedRemedy

Add at the end of f):
This assumes the realistic case of all disturbers carrying the same signals. If different see remedies in ISO/IEC TR 11801-9901.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The commented text does not reference what signals may be carried by disturbers. The reference to 113.7.3 speaks to the transfer function seen by ANY alien crosstalk disturbers.

Cl **113** *SC* **113.7.1** *P* **863** *L* **51** # 179

HESS, DAVE — CORD DATA

Comment Type **TR** *Comment Status* **D** *Class I/Class II*

include Class II within:
"4 pairs of ISO/IEC 11801 Class I balanced cabling"

SuggestedRemedy

revise to:
"4 pairs of ISO/IEC 11801-1 Class I or Class II balanced cabling"

Proposed Response *Response Status* **W**

PROPOSED REJECT.
See comment#183

Cl **113** *SC* **113.7** *P* **863** *L* **36** # 183

HESS, DAVE — CORD DATA

Comment Type **TR** *Comment Status* **D** *Class I/Class II*

include Class II within:
"40GBASE-T is designed to operate over ISO/IEC 11801 Class I 4-pair balanced cabling that meets the additional requirements specified in this subclause."

SuggestedRemedy

revise to:
"40GBASE-T is designed to operate over ISO/IEC 11801-1 Class I and Class II 4-pair balanced cabling that meets the additional requirements specified in this subclause."

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The cabling system used to support 40GBASE-T requires 4 pairs of ISO/IEC 11801 Class I balanced cabling
with a nominal impedance of 100 ohms. Operation on other classes of cabling may be supported if the link
segment meets the requirements of 113.7. Table 113–20 lists the supported cabling types and distances referencing Class II

Cl **113** *SC* **113.7** *P* **863** *L* **37** # 244

Belopolsky, Yakov Bel Stewart

Comment Type **T** *Comment Status* **D** *Class I/Class II*

The sub-clause states "40GbBASE-T is designed to operate over ISO/IEC 11801 Class 1 4-pair balanced cabling that meets the additional requires specified in this sub-clause"
The sub-clause 113.7.1 lines 52 and 53 says "Operation on other classes of cabling may be supported if the link segment meets the requirements of 113.7"
These two statements need to be combined in the 113.7 (and the second statement removed from 113.7.1)

SuggestedRemedy

Include in 113.7 40GbBASE-T is designed to operate over ISO/IEC 11801 Class 1 4-pair balanced cabling that meets the additional requires specified in this sub-clause. Operation on other classes of cabling may be supported if the link segment meets the requirements of this sublcause"

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The suggested text is essentially given in 113.7.1 which addresses cabling system characteristics.

113.7.1 Cabling system characteristics
The cabling system used to support 40GBASE-T requires 4 pairs of ISO/IEC 11801 Class I balanced cabling
with a nominal impedance of 100 ohms. Operation on other classes of cabling may be supported if the link
segment meets the requirements of 113.7.

Cl **113** *SC* **113.7.1** *P* **864** *L* **2** # 180

HESS, DAVE CORD DATA

Comment Type **TR** *Comment Status* **D** *Class I/Class II*

include Class II within: "a) 40GBASE-T uses a star topology with Class I balanced cabling used to connect PHY entities."

SuggestedRemedy

revise to: "a) 40GBASE-T uses a star topology with ISO/IEC 11801-1 Class I or Class II balanced cabling used to connect PHY entities."

Proposed Response *Response Status* **W**

PROPOSED REJECT. See comment#183

Cl **113** *SC* **113.7.1** *P* **864** *L* **3** # 181

HESS, DAVE CORD DATA

Comment Type **TR** *Comment Status* **D** *Class I/Class II*

include Class II within: "b) 40GBASE-T is an ISO/IEC 11801 Class I application"

SuggestedRemedy

revise to: "b) 40GBASE-T is an ISO/IEC 11801-3 Class I and Class II application"

Proposed Response *Response Status* **W**

PROPOSED REJECT.
See comment#183

Cl **113** *SC* **113.5.4.3** *P* **850** *L* **16** # 237

Zimmerman, George CME Consulting, Inc.

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

Editor's note informing of the ad hoc has done its job, and the ad hoc work has converged so as not to add new normative requirements.

SuggestedRemedy

Replace existing editor's note with: Editor's note (to be removed prior to publication): While this requirement includes no normative requirements, commenters are encouraged to confirm the source-adjustment criteria, measurement points, and levels used with the clamp methodology in this subclause.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Refer to CMR Ad hoc Report for recommendation
cibula_3bq_01_0315.pdf (expected)

Cl **45** *SC* **45.2.1** *P* **727** *L* **17** # 198

Zimmerman, George CME Consulting, Inc.

Comment Type **E** *Comment Status* **D** *ED-COORD*

Table 45-3 and globally Wording of 10GBASE-T/40GBASE-T status is long, inconstent with existing style and will likely get longer. [STYLE]

SuggestedRemedy

Change 10GBASE-T/40GBASE-T register and bit names to 10G/40GBASE-T globally. If later speeds are added, add as, for example, 10G/25G/40GBASE-T...

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.
Editorial coordination asked for this naming style change prior to WG ballot so as not to be too wordy

Cl **113** *SC* **113.6.1.2** *P* **859** *L* **24** # 227

Zimmerman, George — CME Consulting, Inc.

Comment Type **E** *Comment Status* **D** *ED-COORD*

Editor's note on bit allocations accomplished by Chief Editor's coordination. [ED COORD]

SuggestedRemedy

Delete Editor's note

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.10** *P* **730** *L* **12** # 199

Zimmerman, George — CME Consulting, Inc.

Comment Type **ER** *Comment Status* **D** *ED-COORD*

Table 45-14, and 45.2.1.10.9 40GBASE-T ability inappropriately placed in PMA/PMD extended abilities register 1.11 - should use 40G/100G Extended Abilities and register 1.13 for 40G Extended Ability to indicate 40GBASE_T [ED COORD]

SuggestedRemedy

Replace section 45.2.1.10 edit, edit to table 45-14 and section 45.2.1.10.9 with edits to 45.2.1.12 40G/100G PMA/PMD extended ability register (Register 1.13), Table 45-16 (bit 6), and inserting 45.2.1.12.10 after 45.2.1.12.9 and renumbering subsequent instead (text remains the same, just registers are moved).

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.3.13** *P* **735** *L* **11** # 200

Zimmerman, George — CME Consulting, Inc.

Comment Type **E** *Comment Status* **D** *ED-COORD*

Section header, descriptive paragraph and Table 45-128, and section 45.2.3.13.1, .4, .5, .14 wordy title not in current style and extensible "BASE-R, 10GBASE-T, and 40GBASE-T receive link status" [STYLE]

SuggestedRemedy

Change register and bit names in all places to "BASE-R and 10G/40GBASE-T receive link status"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.3.9** *P* **734** *L* **36** # 204

Zimmerman, George — CME Consulting, Inc.

Comment Type **ER** *Comment Status* **D** *ED-COORD*

Table 45-125:
Table is in Subclause 45.2.3.9 - not 45.2.3.7.6, editing
Bit allocation in table to be moved to per Chief Editor coordination [ED COORD]

SuggestedRemedy

Remove change to reserved bits 3.20.11:10
Change second row edit to change bit 3.20.7 from Reserved to 40GBASE-T EEE
Insert in editing instruction that Table 45-125 is in subclause 45.2.3.9

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.6** *P* **728** *L* **19** # 196

Zimmerman, George — CME Consulting, Inc.

Comment Type **ER** *Comment Status* **D** *ED-COORD*

40GBASE-T PMA/PMD type section of 100101 is allocated to 40GBASE-ER4 in 802.3bx D2.1 in register 1.7 [ED COORD]

SuggestedRemedy

Move 40GBASE-T type selection to 100110 in register 1.7

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.1.3** *P* **760** *L* **44** # 209

Zimmerman, George — CME Consulting, Inc.

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

Megasymbols should be plural [TYPO]

SuggestedRemedy

Change "3200 Megasymbol per second" to "3200 Megasymbols per second"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.3.2.2.9** *P* **784** *L* # 255
McClellan, Brett Marvell

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

"Note: For 40Gbps Transmission, 64 bit alignment is required, making block formats 0x2D, 0x33, 0x66, and 0x55 are not allowed."
Grammar correction.

SuggestedRemedy

change to
"Note: For 40Gbps Transmission, 64 bit alignment is required, making block formats 0x2D, 0x33, 0x66, and 0x55 invalid."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.7.1** *P* **863** *L* **52** # 184
HESS, DAVE CORD DATA

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

punctuation missing

SuggestedRemedy

add full stop after "100 'ohm'"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **80** *SC* **80.4** *P* **753** *L* **9** # 205
Zimmerman, George CME Consulting, Inc.

Comment Type **ER** *Comment Status* **D** *EZ*

Table 80-3 is misreferenced - is 80-5 in 802.3bx [XREF]

SuggestedRemedy

Change Table 80-3 to Table 80-5

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.3.2.2.16** *P* **789** *L* **3** # 264
Wu, Peter Marvell

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

Figure 113-10 The table boxes still show [FORMAT]

SuggestedRemedy

Clean up figure to remove outer boxes

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Editor to resubmit comment as "clean up formatting on Figure 113-10" on first WG ballot draft

Cl **113** *SC* **113.5.4.6.2** *P* **852** *L* **26** # 263
Wu, Peter Marvell

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

Equation 113-15, The size of the equation box is too small, letter "R" and "B" are half shown. [FORMAT]

SuggestedRemedy

Increase size of equation box to fully show text

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **81** *SC* **81.3.4** *P* **755** *L* **53** # 207
Zimmerman, George CME Consulting, Inc.

Comment Type **ER** *Comment Status* **D** *EZ*

Text incorrectly references Figure 8-11, should be 81-11. [XREF]

SuggestedRemedy

Change reference to 81-11 (should be xref, not external)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **28D** *SC* **28D.8** *P* **718** *L* **25** # 262

McClellan, Brett Marvell

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

[TECH-INF] "40GBASE-T adds new message codes to be transmitted during Auto-Negotiation."
40GBASE-T did not define a new message page. The message page was defined for 10GBASE-T in Clause 55.

SuggestedRemedy

delete this item

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.5** *P* **743** *L* **34** # 203

Zimmerman, George CME Consulting, Inc.

Comment Type **ER** *Comment Status* **D** *EZ*

Referenced sections incorrect for RM37 - 40 [XREF]

SuggestedRemedy

Replace 45.2.3.17 by 45.2.3.13 , 45.2.3.18 by 45.2.3.14

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.5** *P* **743** *L* **17** # 202

Zimmerman, George CME Consulting, Inc.

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

PCS option *CT for PCS implementation is not 10GBASE-T AND 40GBASE-T PCS, it is "OR" - note this option is used to identify regsiters later.

SuggestedRemedy

Change "and 40GBASE-T" to "or 40GBASE-T".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **01** *SC* **1.4** *P* **20** *L* **22** # 175

HESS, DAVE CORD DATA

Comment Type **ER** *Comment Status* **D** *EZ*

update "ISO/IEC 11801 Edition 3", 2 times

SuggestedRemedy

use "ISO/IEC 11801-1 Edition 3"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See response comment#193

Cl **01** *SC* **1.4** *P* **20** *L* **30** # 176

HESS, DAVE CORD DATA

Comment Type **ER** *Comment Status* **D** *EZ*

update "ISO/IEC 11801 Edition 3", 2 times

SuggestedRemedy

use "ISO/IEC 11801-1 Edition 3"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE. See response comment#193

Cl **113** *SC* **113.1** *P* **759** *L* **12** # 177

HESS, DAVE CORD DATA

Comment Type **ER** *Comment Status* **D** *EZ*

update "ISO/IEC 11801 Edition 3"

SuggestedRemedy

use "ISO/IEC 11801-1 Edition 3"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE. See response comment#193

Cl **01** *SC* **1.3** *P* **20** *L* **11** # 193

HESS, DAVE CORD DATA

Comment Type **ER** *Comment Status* **D** *EZ*

update reference:
"ISO/IEC 11801 Edition 3 (draft), Information technology - Generic cabling for customer premises.2"

SuggestedRemedy

use "ISO/IEC 11801-1 Edition 3 (draft), Information technology - Generic cabling for customer premises.2"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Update all ISO/IEC/TIA references

Cl **80** *SC* **80.1.5** *P* **752** *L* **23** # 194

Zimmerman, George CME Consulting, Inc.

Comment Type **ER** *Comment Status* **D** *EZ*

Table 80-2 doesn't have row added indicated in the Editing instruction and Editor's note

SuggestedRemedy

Implement editors note adding 40GBASE-T to Table 80-2, and remove editor's note (retain Editing Instruction)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **81** *SC* **81.1** *P* **754** *L* **8** # 195

Zimmerman, George CME Consulting, Inc.

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

Extraneous). [TYPO]

SuggestedRemedy

Remove). before figure 81-1

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **28D** *SC* **28D.8** *P* **718** *L* **26** # 257

McClellan, Brett Marvell

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

[TECH-INF] "40GBASE-T adds 10GBASE-T full duplex capabilities to the priority resolution table (see 28B.3)."
should be 40GBASE-T instead of 10GBASE-T

SuggestedRemedy

change 10GBASE-T to 40GBASE-T

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.3.14** *P* **737** *L* **1** # 201

Zimmerman, George CME Consulting, Inc.

Comment Type **ER** *Comment Status* **D** *EZ*

Table 45-129 needs 40GBASE-T added to title [TYPO]

SuggestedRemedy

Change title to read:
"Table 45-129-BASE-R and 10G/40GBASE-T PCS status 2 register bit definitions"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **01** *SC* **1.4** *P* **20** *L* **18** # 261

McClellan, Brett Marvell

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

[XREF] Clause 98 should have been changed to Clause 113.

SuggestedRemedy

change Clause 98 to Clause 113
repeat for multiple instances throughout the document

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.3.2.2** *P* **778** *L* **43** # 210
Zimmerman, George CME Consulting, Inc.

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

capitalization of "Mixed" [TYPO]

SuggestedRemedy

replace "Mixed" with "mixed"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.3.7.2** *P* **809** *L* **36** # 256
McClellan, Brett Marvell

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

[FORMAT] unnecessary page break before errored_block_count

SuggestedRemedy

remove page break

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.3.2.2** *P* **778** *L* **46** # 211
Zimmerman, George CME Consulting, Inc.

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

auxiliary channel bit is singular [STYLE]

SuggestedRemedy

replace "auxiliary channel bit are added" with "auxiliary channel bit is added"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **78** *SC* **78.4** *P* **749** *L* **1** # 258
McClellan, Brett Marvell

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

page 749 line 1
"78.4 Protocol implementation conformance statement (PICS) proforma for Clause 78, clause title4"
Is this section necessary? I don't see any change from the base document.

SuggestedRemedy

delete section 78.4

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.8.2.2** *P* **873** *L* **49** # 259
McClellan, Brett Marvell

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

[TECH-INF] paragraph is repeated

SuggestedRemedy

delete lines 40 through 47

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.12** *P* **876** *L* # 260
McClellan, Brett Marvell

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

[TECH-INF] incorrect clause reference

SuggestedRemedy

change Clause 55 to Clause 113

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.3.1.2** *P* **733** *L* **28** # 197
Zimmerman, George CME Consulting, Inc.

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

extra space and wordiness in text: "40GBASE-T o r 10GBASE-T or the..." [STYLE]

SuggestedRemedy

Replace with "40GBASE-T, 10GBASE-T or the..."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **28D** *SC* **28D.8** *P* **718** *L* **30** # 253
McClellan, Brett Marvell

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

[FORMAT] "40GBASE-T supports Asymmetric Pause as defined in Annex 28B."
This sentence should be item j in the list.

SuggestedRemedy

move sentence to end of list as item j

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.3.2.2.20** *P* **791** *L* **44** # 268
Wu, Peter Marvell

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

tx_RSmessage<1495:0> should be tx_RSmessage<1487:0> [TYPO]

SuggestedRemedy

Change tx_RSmessage<1495:0> to tx_RSmessage<1487:0>

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.
Checked with prior text, typo left over from d1p1p1.

Cl **113** *SC* **113.5.4.4** *P* **851** *L* **8** # 238
Zimmerman, George CME Consulting, Inc.

Comment Type **ER** *Comment Status* **D** *EZ*

Figure 113-39 references "98.7 complaint link segment" [XREF]

SuggestedRemedy

Update figure to reference "113.7 compliant link segment"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.4.3.1** *P* **831** *L* **41** # 235
Zimmerman, George CME Consulting, Inc.

Comment Type **ER** *Comment Status* **D** *EZ*

Table 113-14 table title still says "needs update", left over as editor's instruction from draft 0.8, although update was completed going from draft 0.8 to 1.0. [NOTE]

SuggestedRemedy

Delete "(needs update)" in title of Table 113-14

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.4.2.4** *P* **820** *L* **39** # 233
Zimmerman, George CME Consulting, Inc.

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

It is now RS AND LDPC decoding [TECH-INF]

SuggestedRemedy

Change to read "after RS-FEC and LDPC decoding, "

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.12** *P* **876** *L* **9** # 230
Zimmerman, George CME Consulting, Inc.

Comment Type **ER** *Comment Status* **D** *EZ*

Title says PICS for Clause 55, should be 113 [XREF]

SuggestedRemedy

Replace "Clause 55" with "Clause 113"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.5.4.6.14** *P* **857** *L* **47** # 226
Zimmerman, George CME Consulting, Inc.

Comment Type **ER** *Comment Status* **D** *EZ*

Note refers to 802.3an and to only some of the places ACRF is used, should refer to Clause 55.7, and to clause 113 in general.

Note is also in 113.7.3.2.1, page 870, line 49[XREF]

SuggestedRemedy

Replace 802.3an with Clause 55.7, and 113.7.2.4.4, 113.7.2.4.5, 113.7.2.4.6, and 113.7.3.2.1 with "Clause 113" in both 113.5.4.6.14 and 113.7.3.2.1

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **78** *SC* **78.1.4** *P* **747** *L* **25** # 224
Zimmerman, George CME Consulting, Inc.

Comment Type **ER** *Comment Status* **D** *EZ*

Table 78-1 incorrectly references clause 98, should be 113 [XREF]

SuggestedRemedy

Replace reference to clause 98 with clause 113

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **78** *SC* **78.4** *P* **749** *L* **2** # 254
McClellan, Brett Marvell

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

[FORMAT] "78.4 Protocol implementation conformance statement (PICS) proforma for Clause 78, clause title4"
unnecessary text on this line

SuggestedRemedy

delete ", clause title"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.
(no changes to PICs for clause 78 expected)

Cl **113** *SC* **113.5.4.6.2** *P* **855** *L* **7** # 250
Shariff, Masood CommScope

Comment Type **ER** *Comment Status* **D** *EZ*

Incorrect refernce

SuggestedRemedy

Change Equation (113-45) to Equation (113-26)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.5.4.6.2** *P* **855** *L* **33** # 249
Shariff, Masood CommScope

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

Correct typo

SuggestedRemedy

Change mini to mimimum.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.5.4.6.10** *P* **856** *L* **22** # 243
Zimmerman, George CME Consulting, Inc.

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

Editor's note has done its job flagging spec for comment[NOTE]

SuggestedRemedy

Remove editor's note.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.3.5.3** *P* **803** *L* **2** # 219
Zimmerman, George CME Consulting, Inc.

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

extraneous dash after "Figure 113-26". [TYPO]

SuggestedRemedy

Delete dash

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.3.5.3** *P* **802** *L* **38** # 218
Zimmerman, George CME Consulting, Inc.
Comment Type **E** *Comment Status* **D** *EZ*
typo - teh for the [TYPO]
SuggestedRemedy
replace 'teh' with 'the'
Proposed Response *Response Status* **W**
PROPOSED ACCEPT.

Cl **99** *SC* **99** *P* **4** *L* **22** # 220
Zimmerman, George CME Consulting, Inc.
Comment Type **ER** *Comment Status* **D** *EZ*
40GBASE-T spec, Clause 98 is now clause 113 [XREF]
SuggestedRemedy
Replace reference to Clause 98 with Clause 113.
Proposed Response *Response Status* **W**
PROPOSED ACCEPT.

Cl **01** *SC* **1.4.x** *P* **20** *L* **18** # 221
Zimmerman, George CME Consulting, Inc.
Comment Type **ER** *Comment Status* **D** *EZ*
40GBASE-T definition references Clause 98, should now be Clause 113 (occurs three times, here and on lines 23 and 31) [XREF]
SuggestedRemedy
Replace three referneces to Clause 98 with references with Clause 113
Proposed Response *Response Status* **W**
PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.62.1** *P* **730** *L* **34** # 222
Zimmerman, George CME Consulting, Inc.
Comment Type **E** *Comment Status* **D** *EZ*
Typo - BSE-T instead of BASE-T [TYPO]
SuggestedRemedy
Replace 40GBSE-T with 40GBASE-T
Proposed Response *Response Status* **W**
PROPOSED ACCEPT.

Cl **113** *SC* **113.7** *P* **863** *L* **36** # 178
HESS, DAVE CORD DATA
Comment Type **ER** *Comment Status* **D** *EZ Check*
update "ISO/IEC 11801 Edition 3"
SuggestedRemedy
use "ISO/IEC 11801-1 Edition 3"
Proposed Response *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.
See response comment#193

Cl **113** *SC* **113.8.2.3** *P* **874** *L* **20** # 229
Zimmerman, George CME Consulting, Inc.
Comment Type **E** *Comment Status* **D** *EZ Check*
Figure referenced for MDI fault tolerance is 40-34 in 802.3bx draft 2.1 [XREF]
SuggestedRemedy
Replace 40-33 with 40-34
Proposed Response *Response Status* **W**
PROPOSED ACCEPT.
Check with 802.3bx editor

Cl **113** *SC* **113.7.1** *P* **864** *L* **3** # 190
HESS, DAVE CORD DATA
Comment Type **ER** *Comment Status* **D** *EZ Check*
update: "b) 40GBASE-T is an ISO/IEC 11801 Class I application"
SuggestedRemedy
use: "b) 40GBASE-T is an ISO/IEC 11801-3 Class I application"
Proposed Response *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.
See response comment#193

Cl **113** *SC* **113.7** *P* **863** *L* **41** # 185
HESS, DAVE CORD DATA

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

update "ISO/IEC Technical Requirements 11801-99-1 40GBASE-T Cabling Guidelines"

SuggestedRemedy

use "ISO/IEC TR 11801-9901 Technical Report: Guidelines for Cabling for 40GBASE-T"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE. See response comment#193

Cl **113** *SC* **113.7** *P* **863** *L* **46** # 187
HESS, DAVE CORD DATA

Comment Type **ER** *Comment Status* **D** *EZ Check*

update "ISO/IEC 11801 Edition 3"

SuggestedRemedy

use "ISO/IEC 11801-1 Edition 3"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE. See response comment#193

Cl **113** *SC* **113.7** *P* **863** *L* **46** # 186
HESS, DAVE CORD DATA

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

Editor's note, update "ISO/IEC Technical Requirements 11801-99-1 40GBASE-T Cabling Guidelines"

SuggestedRemedy

use "ISO/IEC TR 11801-9901 Technical Report: Guidelines for Cabling for 40GBASE-T"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE. See response comment#193

Cl **113** *SC* **113.7.1** *P* **864** *L* **2** # 189
HESS, DAVE CORD DATA

Comment Type **ER** *Comment Status* **D** *EZ Check*

update "a) 40GBASE-T uses a star topology with Class I balanced cabling used to connect PHY entities."

SuggestedRemedy

update "a) 40GBASE-T uses a star topology with ISO/IEC 11801-1 Class I balanced cabling used to connect PHY entities."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Add ISO reference per comment#193

Cl **113** *SC* **113.7.1** *P* **864** *L* **4** # 191
HESS, DAVE CORD DATA

Comment Type **ER** *Comment Status* **D** *EZ Check*

update "ISO/IEC 11801 cabling"

SuggestedRemedy

use "ISO/IEC 11801-1 cabling"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE. See response comment#193

Cl **113** *SC* **113.7.1** *P* **863** *L* **51** # 188
HESS, DAVE CORD DATA

Comment Type **ER** *Comment Status* **D** *EZ Check*

update "ISO/IEC 11801 Edition 3"

SuggestedRemedy

use "ISO/IEC 11801-1 Edition 3"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE. See response comment#193

Cl **113** *SC* **113.5.4.6.5** *P* **853** *L* **39** # 252

Shariff, Masood — CommScope

Comment Type **T** *Comment Status* **D** *HOLES*

MDEXT equations for direct attach link segments need to be updated with simpler worst case equations.

SuggestedRemedy

Replace lines 39 on page 853 through line 22 of page 854 with worst case equations and text from draft 3.1 Annex D of TIA-568-C.2-1 Category 8 standard.

The power sum NEXT loss between a duplex channel and three adjacent disturber channels shall meet the values determined using table yy.

Frequency (MHz) | PSNEXT (dB)
1 f < 250 | 79.4-18.5log(f)
250 f < 331 | 90.65-23.2log(f)
331 f < 500 | 105.26-29log(f)
500 f 2000 | 129.5-38log(f)

)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Replace lines 39 on page 853 through line 22 of page 854 with worst case equations and text from draft 3.1 Annex D of TIA-568-C.2-1 Category 8 standard.

The power sum NEXT loss between a duplex channel and three adjacent disturber channels shall meet the values determined using table yy.

Frequency (MHz) | PSNEXT (dB)
1 </= f < 250 | 79.4-18.5log(f)
250 </= f < 331 | 90.65-23.2log(f)
331 </= f < 500 | 105.26-29log(f)
500 </= f </= 2000 | 129.5-38log(f)

Cl **80** *SC* **80.4** *P* **753** *L* **14** # 206

Zimmerman, George — CME Consulting, Inc.

Comment Type **TR** *Comment Status* **D** *HOLES*

Maximum Pause Quanta is listed as TBD. According to note, the value should be 50 (computed as 25600 * 25ps per BT / (12.8 ns per quanta * 1000ps/ns)) [TECH]

SuggestedRemedy

Replace TBD with 50.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.1** *P* **759** *L* **26** # 208

Zimmerman, George — CME Consulting, Inc.

Comment Type **T** *Comment Status* **D** *HOLES*

Make optional support of fast retrain the norm. Reasoning:
-IF FR were a mandatory capability, you would logically disable it when it is undesired. there is a management "fr_enable" bit - the enable bit, right now, effects only one side and, as the note says, causes the link drop if the partner initiates a fast retrain.
-One would like the ability to disable FR on a link basis, getting both sides to agree not to try FRs. The advertisement in autoneg of FR support is the currently defined way to do this. Therefore, in order to set a link most conveniently and reliably not to FR, you want to not advertise support for it in autoneg.
This is equivalent from an interoperability standpoint of working with PHYs that do or do not support autoneg.
The easiest solution is to leave FR as it is, and perhaps add a note that implementation of FR is recommended, and using the 'FR supported' bit in autoneg is the recommended method for disabling it. [TECH-INF]

SuggestedRemedy

Delete Editor's note
Accept text "40GBASE-T PHYs may optionally support a fast retrain mechanism."
Insert sentence following this stating "Implementation of the fast retrain option is recommended. Configurations wishing to disable fast retrain on the link may do so by advertising lack of support in Clause 28 AutoNegotiation, thus preventing the link partner from attempting fast retrain and potentially dropping the link."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **78** *SC* **78.1.3.3.1** *P* **747** *L* **12** # 216

Zimmerman, George — CME Consulting, Inc.

Comment Type **T** *Comment Status* **D** *HOLES*

Subclause 78.1.3.3.1 specifies "Fast wake support is mandatory for PHYs with an operating speed of 40 Gb/s or greater that implement EEE." - Fast wake is not supported for 40GBASE-T. - Are BASE-T PHYs different? [TECH]

SuggestedRemedy

Either:
a) Insert "Except for BASE-T PHYs" to 78.1.3.3.1 so that it states, "Except for BASE-T PHYs, fast wake support is mandatory for PHYs with an operating speed ..."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.
Discussed in PHY ad hoc, see ad hoc report zimmerman_3bq_01_0315.pdf

Cl **113** *SC* **113.5.4.6.4** *P* **852** *L* **48** # 247

Shariff, Masood — CommScope

Comment Type **T** *Comment Status* **D** *HOLES*

Direct attach NEXT loss equations need to be updated with simpler worst case equations.

SuggestedRemedy

Replace lines 48 of page 852 through line 28 of page 853 with worst case NEXT loss equations from draft 3.1 Annex D of TIA-568-C.2-1 Category 8 standard.

The NEXT loss between any two duplex channels of a direct attach cable assembly link segment shall meet the values determined using table xx.

Frequency
(MHz)NEXT
(dB)
1 f < 250 82.9-18.5log(f)
250 f < 383 93-22.72log(f)
383 f < 500 109-28.92log(f)
500 f 2000 133.5-38log(f))

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Replace lines 48 of page 852 through line 28 of page 853 with worst case NEXT loss equations from draft 3.1 Annex D of TIA-568-C.2-1 Category 8 standard.

The NEXT loss between any two duplex channels of a direct attach cable assembly link segment shall meet the values determined using table xx.

Frequency
(MHz)NEXT
(dB)
1 </= f < 250 82.9-18.5log(f)
250 </= f < 383 93-22.72log(f)
383 </= f < 500 109-28.92log(f)
500 </= f 2000 133.5-38log(f)
Calculations that result in values greater than
65 dB shall revert to 65 dB.

Cl **113** *SC* **113.8.1** *P* **872** *L* **3** # 182

HESS, DAVE CORD DATA

Comment Type **TR** *Comment Status* **D** *MDI*

include Class II component specific reference within:
"Eight-pin connectors meeting the requirements of IEC 60603-7-51 (published) with the improved characteristics and frequency extensions specified in IEC 60603-7-81 shall be used as the mechanical interface to the balanced cabling. The plug connector shall be used on the balanced cabling and the jack on the PHY."

SuggestedRemedy

revise to:
"Eight-pin connectors meeting the requirements of IEC 60603-7-51 (published) with the improved characteristics and frequency extensions specified in IEC 60603-7-81 shall be used as the mechanical interface to the balanced cabling. The eight-pin connectors specified in IEC 61076-3-110 shall be used as the alternative mechanical interface to the balanced cabling. The respective plug connector shall be used on the balanced cabling and the jack on the PHY."

Proposed Response *Response Status* **W**

PROPOSED REJECT.
At this point, there has been no consensus in TF to add additional mechanical interface (MDI). For committee discussion.

Cl **113** *SC* **113.8.1** *P* **852** *L* **7** # 270

Shariff, Masood CommScope

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

Need to provide an update on the status of the MDI reference to IEC 60603-7-81

SuggestedRemedy

Add the following text below line 7:
Editor's Note to be removed before publication: The CDV for the proposed IEC 60603-7-81 standard was approved following the closing of the ballot on 2015-02-06 as documented in "Voting Result 48B/2403/CDV". The resultant document will be circulated as an FDIS where no technical changes are allowed.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Many of the ISO/IEC/TIA references are in revision. IEEE receives ongoing status via liaison; status for each should not be given in draft.

Cl **113** *SC* **113.8.1** *P* **182** *L* **4** # 174

Lackner, Hans QoSCom GmbH

Comment Type **TR** *Comment Status* **D** *MDI*

line 4 says:
characteristics and frequency extensions specified in IEC 60603-7-81 shall be used as the mechanical. The 'shall' would mean it is the only one to be used.

In the interim meeting in Kanata Canada September 2014 the accepted motion #12 says:
Motion #12 (Motion #7 reconsidered):
Move that 802.3bq include the RJ-45 as reflected in IEC 60603-7-51 (published)
with the improved characteristics and frequency extensions specified in 60603-7-81 (currently CDV draft) as an MDI interface.

The secretary & Editor then noted that he understood the language of the motion not to preclude additional MDI's should they be offered in the future.

SuggestedRemedy

to reflect the motion and the comment on this issue:
change in line 4 the word shall to should.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The text implemented was approved as resolution to comment #119 (and in principle comments 4 & 108) on draft 1.0 in November 2014.

Cl **113** *SC* **113.8.2.2** *P* **183** *L* **1854** # 173

Lackner, Hans — QoSCom GmbH

Comment Type **T** *Comment Status* **D** *MDI*

As some values of the channels specified can only be made if shields are used, the MDI connection has to be also a shielded design. When using shields the symmetry mechanisms are different. The values in Formula 113-54 are by far too high.
Additionally the good explanation on how to measure this does not belong into the main body of this standard.

SuggestedRemedy

Change in Formula 113-54
48 to 40 and
44to 35,7
Add to editors note in line 33 that lines 38-54 will be removed prior to publication.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The text regarding the measurment of MDI balance is typically included in 802.3 BASE-T standards, and was cleaned up during comment resolution at the January meeting.

In practical multi-speed systems, MDI balance will need to be met under 500MHz for unshielded cabling if 1000 & 10GBASE-T operation is to be supported. Shielded MDIs exist for these systems.

Technical contributions on the impact of the balance specification are welcomed, but have not been presented.

Cl **113** *SC* **113.8.1** *P* **872** *L* **6** # 192

HESS, DAVE — CORD DATA

Comment Type **ER** *Comment Status* **D** *MDI*

Paragraph 1, Separate info into two paragraphs, first for normative reference info, second for informative illustration info:

SuggestedRemedy

Start new, second paragraph with last sentence:

"These connectors are depicted (for informational use only) in Figure 113–40 and Figure 113–41. The assignment of PMA signals to connector contacts for PHYs is shown in Table 113–21."

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Separating information into two paragraphs is not necessary for purpose of distinguishing normative from informative; text is clear as written.

Cl **113** *SC* **113.8.1** *P* **872** *L* **3** # 246

Belopolsky, Yakov — Bel Stewart

Comment Type **TR** *Comment Status* **D** *MDI*

40GBASE-T is intended to operate over the cabling that meets the requirements of the ISO/IEC 111801 standard that includes Class I and Class II channels and in fact recognizes that components of categories 6a and 7a or better can support such transmission.
The IEC 60603-7-81 is not published, very limited technical data is available for such connectors Connectors with mechanical interface specified in the IEC61076-3-110 have a better balance (no-split pair issues) and support more robust channel transmission performance. Numerous presentations were given to IEEE illustrating the superior transmission performance. The reliance on the only one connector type will result in the limited deployment of the 40GBASE-T technology
Figures 113-40 & 113-41: The informational figures 113-40 and 113-41 are misleading.

SuggestedRemedy

Remove pictures 113-40 and 113-41
Line 6 remove the sentence starting with "These connectors are depicted…."

Line 4 add "Eight -pin connectors meeting the requirements of IEC 61076-3-110 (published) shall be used as an alternative mechanical interface to the balanced cabling"

Proposed Response *Response Status* **W**

PROPOSED REJECT. See response comment#182.

Cl **113** *SC* **113.7** *P* **863** *L* **41** # 245

Belopolsky, Yakov — Bel Stewart

Comment Type **T** *Comment Status* **D** *MDI*

The sentence "All implementations of the balanced cabling link segment specification shall be compatible at the MDI" is not clear. Are these implementations are to be compatible to each other ? or to be compatible to the MDI interface? Or to be compatible to the requirements of this sub-clause

SuggestedRemedy

Remove the sentence

Proposed Response *Response Status* **W**

PROPOSED REJECT. The language is used here and in 802.3an and other BASE-T PHY specifications to ensure compatibility of the balanced cabling at the MDI. The MDI connectors is used as the mechanical interface to the balanced cabling. The cabling plug connector shall be used on the balanced cabling; see 113.8.1.

Cl **113** *SC* **113.5.4.6.4** *P* **852** *L* **52** # 241

Zimmerman, George CME Consulting, Inc.

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

Editor's note explained resolution to comment in draft 1.1.1 - can be deleted now.
Also delete similar editor's note in 113.5.4.6.5 (pg 853, line 43), [NOTE]

SuggestedRemedy

Delete Editor's notes in 113.5.4.6.4 and 113.5.4.6.5.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.7.2.5** *P* **17** *L* **869** # 228

Zimmerman, George CME Consulting, Inc.

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

Editor's note has accomplished its task flagging the specification for comment

SuggestedRemedy

Delete editor's note

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **78** *SC* **78.1** *P* **747** *L* **11** # 223

Zimmerman, George CME Consulting, Inc.

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

Editor's note is superfluous, also editorrs notes on lines 48, and page 748 line 24 [NOTE]

SuggestedRemedy

Remove editor's notes

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.3.2.2.5** *P* **784** *L* **36** # 213

Zimmerman, George CME Consulting, Inc.

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

Figure 113-9 Note that the figure shows values which are not allowed for 40G - this may escape the reader on the first WG ballot cycle, that this was done to avoid having to replace the figure when we put in 25G. [NOTE]

SuggestedRemedy

Add editor's note after Figure:
"Editor's Note (to be removed prior to publication): Figure 113-9 shows the full set of 32 bit block alignments in the anticipation of updating the document to include a 25Gbps rate which may be 32 bit alignment."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.4.2.5.14** *P* **826** *L* **48** # 234

Zimmerman, George CME Consulting, Inc.

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

Editor's note flagging issue has done its job flagging the issue for 2 drafts, with no change. [NOTE]

SuggestedRemedy

Delete editor's note on startup PBO

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.
Discussed in PHY ad hoc, see ad hoc report zimmerman_3bq_01_0315.pdf

Cl **113** *SC* **113.3.2.2.4** *P* **782** *L* **18** # 265

Wu, Peter Marvell

Comment Type **E** *Comment Status* **D** *RS-FEC*

The "two zero" block is not aligned with other blocks. [FORMAT]

SuggestedRemedy

Clean up figure 113-8, aligning blocks.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Editor to resubmit comment as "clean up formatting on Figure 113-8" on first WG ballot draft

Cl **113** *SC* **133.3.2.2.20** *P* **791** *L* **16** # 214

Zimmerman, George — CME Consulting, Inc.

Comment Type **TR** *Comment Status* **D** *RS-FEC*

Approve editor's correction of RS-FEC labeling from 198,192 to 192, 186. [TECH]

SuggestedRemedy

Make RS-FEC(192,186) approved text, and remove editor's note

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.3.2.2.5** *P* **782** *L* **4** # 212

Zimmerman, George — CME Consulting, Inc.

Comment Type **E** *Comment Status* **D** *RS-FEC*

Figure 113-8 shows direct encoding to 512-513 coding, text and preceding figures describe first encoding to 64B/65B then transcoding. [TECH-INF]

SuggestedRemedy

Move box labeled 65/65 Coding in line, and branch out one down to 512B/513B Transcoding and from the side, "From 49th and 50th XLGMII Transfers".

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Editor to resubmit comment as "align Figure 113-8 with text, showing two-stage encoding, first 64B/65B, then transcoding" on first WG ballot draft

Cl **113** *SC* **113.3.2.2.4** *P* **782** *L* **29** # 266

Wu, Peter — Marvell

Comment Type **E** *Comment Status* **D** *RS-FEC*

Figure 113-8
Line 33, 37 the two arrows are only partially shown
Line 29, two lines not aligned. [FORMAT]

SuggestedRemedy

Clean up alignment on figure.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Editor to resubmit comment as "clean up formatting on Figure 113-8" on first WG ballot draft

Cl **113** *SC* **113.3.2.2.4** *P* **782** *L* **28** # 267

Wu, Peter — Marvell

Comment Type **E** *Comment Status* **D** *RS-FEC*

FIgure 113-8 The RS parity bits should be pointed at after the "two random filled bits". [FORMAT]

SuggestedRemedy

Point at RS parity bits

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Editor to resubmit comment as "add references to RS and LDPC check bits, similar to d1p1p1" during first WG ballot draft

Cl **113** *SC* **113.5.4.6.1** *P* **852** *L* **2** # 240

Zimmerman, George — CME Consulting, Inc.

Comment Type **T** *Comment Status* **D** *TBD*

Remove TBDs next to equations 113-13 and 113-14 (line 12) and 113-15 (113.5.4.6.2, line 26). Here, TBD acts as an informational Editor's note, and has been there now for 2 cycles [TBD]

SuggestedRemedy

Delete TBD by equation 113-13
Delete TBD by equation 113-14
Delete TBD by equation 113-15

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.5.4.6.1** *P* **851** *L* **52** # 239

Zimmerman, George — CME Consulting, Inc.

Comment Type **ER** *Comment Status* **D** *TBD*

We are sure that the values referenced will be in Equation 113-13, the TBD here is inappropriate

SuggestedRemedy

Remove "(TBD)" in text

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.5.4.6.13** *P* **857** *L* **14** # 225

Zimmerman, George — CME Consulting, Inc.

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

Remove TBDs next to equations 113-31 and 113-33 (113.5.4.6.14, page 858, line 2).
Here, TBD acts as an informational Editor's note, and has been there now for 2 cycles [TBD]

SuggestedRemedy

Delete TBD in Eq 113-31
Delete TBD in Eq 113-32

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.5.4.6.7** *P* **855** *L* **24** # 242

Zimmerman, George — CME Consulting, Inc.

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

Remove TBDs next to equations 113-27 and 113-28 (113.5.4.6.8, line 48) and 113-29(113.5.4.6.9, page 856 line 7).
Here, TBD acts as an informational Editor's note, and has been there now for 2 cycles [TBD]

SuggestedRemedy

Delete TBD in Eq 113-27
Delete TBD in Eq 113-28
Delete TBDE in Eq 113-29

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **113** *SC* **113.5.4.4** *P* **851** *L* **1** # 269

Wu, Peter — Marvell

Comment Type **T** *Comment Status* **D** *Tech-Other*

The -154dBm/Hz was scaled from 802.3an number of -141.9dBm/Hz, it should be shifted by 10*log10(4) = 6dB instead of 12dB. It should be -147.9dBm/Hz [TECH]

SuggestedRemedy

Change -154dBm/Hz to -147.9dBm/Hz

Proposed Response *Response Status* **Z**

REJECT.

This comment was WITHDRAWN by the commenter.

Checked levels and calculations in detail, cross check follows below: PSANEXT and AFEXT coupling has been improved ~20dB (each), TX power decreased by 4dB, lowering AXT by ~24 dB at each freq, Frequency expansion by 4X increases ANEXT by 9dB, and AFEXT by 12dB, resulting in a 12 to15 dB improvement in AXT PSD levels, consistent with 12 dB shift.

Cl **113** *SC* **113.5.2** *P* **844** *L* **37** # 236

Zimmerman, George — CME Consulting, Inc.

Comment Type **T** *Comment Status* **D** *Tech-Other*

when loop timing was made mandatory (this text should have been changed to reflect that, see comment 83 on draft 1.0, accepted to make loop timing mandatory), and bit should have been noted as 10G only in Table 113-18[TECH]

SuggestedRemedy

Delete "Test mode 3 is optional for a PHY that does not support loop timing" on line 37
delete "on a phys that supports loop timing" on line 37-38,
delete "that supports loop timing" on line 40.
Change PIC PME9 (page 884, line 22) to be Mandatory, delete N/A, and language in "Note" column.
Change bit U17 in Table 113-18 (page 860, line 30) to read "Advertise PHY capable of loop timing (mandatory for 40GBASE-T)"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.