Cl **158** *SC* **158.8.2** *P* **71** *L* **38** # 1

Dawe, Piers Nvidia

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

"the test pattern defined in Table 158-11": but the test patterns definitions are in Table 158-10. They are identified, listed, specified or given in Table 158-11. Section 8 uses a mixture of "defined" (old way) and "specified" (new way).

SuggestedRemedy

Change "defined" to "specified" here, in 158.8.3, 158.8.4 and 158.8.7. Similarly in 159 and 160.

Proposed Response *Response Status* **O**

Cl **158** *SC* **158.8.1.1** *P* **71** *L* **13** # 2

Dawe, Piers Nvidia

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

10GBASE-W?

SuggestedRemedy

Either add 10GBASE-W variants of these PMDs or delete the right-most column of Table 158-10, Test patterns, including note b.

Proposed Response *Response Status* **O**

Cl **158** *SC* **158.8.1** *P* **72** *L* **6** # 3

Dawe, Piers Nvidia

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

Table layout

SuggestedRemedy

Make the table wider so that each entry fits in one row, like tables 159-9 and 160-10

Proposed Response *Response Status* **O**

Cl **160** *SC* **160.7.4** *P* **118** *L* **25** # 4

Dawe, Piers Nvidia

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

Too much duplication

SuggestedRemedy

Refer to other clauses, for several subclauses here

Proposed Response *Response Status* **O**

Cl **FM** *SC* **FM** *P* **20** *L* **44** # 5

Dawe, Piers Nvidia

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

It's been years since P802.3bj and IEEE P802.3bk were amendment projects.

SuggestedRemedy

Replace these with the current list of amendment projects. Pages 11 and 12 show some of them. P802.3cr, P802.3cu, P802.3cp, P802.3ck, and more.

Proposed Response *Response Status* **O**

Cl **44** *SC* **44.3** *P* **25** *L* **6** # 6

Dawe, Piers Nvidia

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

8023.ch

SuggestedRemedy

802.3ch

Proposed Response *Response Status* **O**

Cl **158** *SC* **158.6.2** *P* **69** *L* **33** # 7

Dawe, Piers Nvidia

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

A 10GBASE-BR20 transmitter may transmit -8 dBm with 2 dB TDP. The loss may be 15 dB, and there is another 1 dB in the budget for other penalties. So the receiver may see -23 dB with 3 dB of penalties after FEC. The SRS condition is -22.7 dB with 2.7 dB of VECP. As the response to D2.1 comment 37 says "Tests for 10GBASE-R are more conservative than SEC": VECP (designed for 1e-12 PMDs) is more conservative than SEC (designed for 5e-5 PMDs), so the stressed signal when measured with VECP is better than when measured with the same number of dB of SEC, so the receiver is under-stressed and, contrary to the conclusion in that response, the link is not shown to close. There is a gap in the budget.

SuggestedRemedy

If the method of creating the stress is very tightly defined, one might be able to get correlation between VECP and SEC, but it would be hard work for no significant benefit. For 10GBASE-BR20, change from a VECP calibration to an SEC-based method following Clause 114 or 159.

Proposed Response *Response Status* **O**

Cl **108** *SC* **108.2** *P* **46** *L* **14** # 8

Dawe, Piers Nvidia

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

Energy detect and deep sleep? 78 e.g. 78.1.3.3.1 and 108.1.3.2 and 108.2, and note b to Table 78-1

SuggestedRemedy

Should not apply for 10GBASE-BR20, so not needed for 10G RS-FEC. Remove.

Proposed Response *Response Status* **O**

Cl **108** *SC* **108.5.4.2** *P* **52** *L* **29** # 9

Dawe, Piers Nvidia

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

Text is compressed (at least in the diff version)

SuggestedRemedy

Proposed Response *Response Status* **O**

Cl **108** *SC* **108.6.3** *P* **53** *L* **1** # 10

Dawe, Piers Nvidia

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

Should RS-FEC Enable be mandatory for these PHYs? 802.3by introduced it, 802.3cc didn't modify it.

SuggestedRemedy

Proposed Response *Response Status* **O**

Cl **157** *SC* **157.1.4** *P* **59** *L* **6** # 11

Dawe, Piers Nvidia

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

In tables 157-3, 4 and 5

SuggestedRemedy

Add "PMD" after PMD type name in the three right-most sub-columns.

Proposed Response *Response Status* **O**

Cl **158** *SC* **158.1.1** *P* **63** *L* **43** # 12

Dawe, Piers Nvidia

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

BER with and without FEC

SuggestedRemedy

Text needs to be changed so that it is clear that the limit for 10GBASE-BR10 and 10GBASE-BR40 is 1e-12, and for 10GBASE-BR20 it's 5e-5 provided that...
"When FEC is implemented" is not right: FEC is used or not according to PHY type, withot any option.

Proposed Response *Response Status* **O**

Cl **158** *SC* **158.6.1** *P* **68** *L* **41** # 13

Dawe, Piers Nvidia

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

Please make it easier to find TDP in the table

SuggestedRemedy

Change "Transmitter and dispersion penalty (max)" to "Transmitter and dispersion penalty (TDP) (max)", as in Table 159-6.

Proposed Response *Response Status* **O**

Cl **160** *SC* **160.6.1** *P* **113** *L* **28** # 14

Dawe, Piers Nvidia

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

It is very unwise to delete the limit on K = 10log10(Ceq), and also unwise to to add the over/under-shoot and transmitter power excursion (max) limits (see the latest P802.3cu draft). These three limits protect the receiver from different stressful signals that the ideal reference receiver with infinite resolution and perfect linearity reports have acceptable TDECQ, but real receivers designed to realistic cost and power objectives struggle with.

SuggestedRemedy

Reinstate the limit on K = 10log10(Ceq).
Add over/under-shoot and transmitter power excursion (max) limits as in the latest P802.3cu draft.

Proposed Response *Response Status* **O**

Cl **158** *SC* **158.8.6** *P* **72** *L* **39** # 15

Dawe, Piers Nvidia

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

If there is only one entry in a list, we don't need a list

SuggestedRemedy

Change
"with the following exception:
a) The optical return loss shall be"
to "with the exception that the optical return loss shall be"

Proposed Response *Response Status* **O**

Cl **158** *SC* **158.8.7** *P* **72** *L* **48** # 16

Dawe, Piers Nvidia

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

corner bandwidth and filter nominal reference frequency fr are wrong for 10 Gb/s.

SuggestedRemedy

Proposed Response *Response Status* **O**

Cl **158** *SC* **158.8.9** *P* **73** *L* **33** # 17

Dawe, Piers Nvidia

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

The amount of applied sinusoidal jitter in Table 158-12 is wrong for 10 Gb/s.

SuggestedRemedy

Proposed Response *Response Status* **O**

Cl **108** *SC* **108.5** *P* **50** *L* **20** # 18

Marris, Arthur Cadence Design Systems

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

There needs to be a description of the reverse gearbox function and of transmit bit ordering for 10GBASE-R

SuggestedRemedy

Please insert the equivalent of 74.7.4.1.1 and Figure 74-6 from the base standard

Proposed Response *Response Status* **O**

Cl **108** *SC* **108.4** *P* **50** *L* **11** # 19

Slavick, Jeff Broadcom

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

Clause 108 is 10GBASE-R and 25GBASE-R RS-FEC sublauyer, there is no 10GBASE-R RS-FEC sublayer.

SuggestedRemedy

Remove the new paragraph that has been added. Bring in the original paragraph from 108.4 and change "25GBASE-R" to "10GBASE-R and 25GBASE-R", delete the "or 983.04ns" and change "105.5" to "44.3 and 105.5"

Proposed Response *Response Status* **O**

Cl **108** *SC* **108.2** *P* **44** *L* **47** # 20

Slavick, Jeff Broadcom

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

There are more than one RS-FEC available in the IEEE standard. So stating that 108.2 defines the service interface for "the RS-FEC sublayer" is wholely accurate.

SuggestedRemedy

Make the first sentence of 108.2 read as follows "This subclause specifies the services provided by the 10GBASE-R and 25GBASE-R RS-FEC sublayer."

Proposed Response *Response Status* **O**

Cl **108** *SC* **108.2.2** *P* **49** *L* **9** # 21

Slavick, Jeff Broadcom

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

This is a 10GBASE-R and 25GBASE-R RS-FEC sub clause, there is no longer a 25GBASE-R RS-FEC. So the service interface definition is based upon the usage case.

SuggestedRemedy

Change "The 25GBASE-R FEC" to "For 25GBASE-R PHYs the FEC" in the first sentence of the first paragraph.
Remove 25GBASE-R from the 3rd and 4th paragraphs.

Proposed Response *Response Status* **O**

Cl **108** *SC* **108.2** *P* **44** *L* **51** # 22

Slavick, Jeff Broadcom

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

10GBASE-R and 25GBASE-R are PCS blocks.

SuggestedRemedy

Add the word PHYs after both 10GBASE-R and 25GBASE-R to the second sentence of the second paragraph of 108.2. And in the 3 paragraph of 108.2

Proposed Response *Response Status* **O**

Cl **108** *SC* **108.2** *P* **44** *L* **52** # 23

Slavick, Jeff Broadcom

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

The last two sentences of the 2nd paragraph don't provide any additional information.

SuggestedRemedy

Remove them.

Proposed Response *Response Status* **O**

Cl **108** *SC* **108.2** *P* **45** *L* **6** # 24

Slavick, Jeff Broadcom

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

The orignal text for this section explicitly calls out only the C2C link as a viable AUI extensions.

SuggestedRemedy

Change the 4th paragraph to be "The PCS may be connected to the 10GBASE-R and 25GBASE-R FEC using an optional physical instantiation of the PMA service interface (see Clause 51 and Annex 109A), in which case a PMA is the client of the FEC service interface.

Proposed Response *Response Status* **O**

Cl **108** *SC* **108.2.1** *P* **46** *L* **7** # 25

Slavick, Jeff Broadcom

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

While the sub-heading implies this is for 10G operations, make it clearly stated.

SuggestedRemedy

Add "for 10GBASE-R PHYs" after the word interface of the first sentence of 108.2.1

Proposed Response *Response Status* **O**

Cl **108** *SC* **108.3** *P* **50** *L* **4** # 26

Slavick, Jeff Broadcom

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

Thisi is the 10G and 25G RS-FEC sublayer there is not a 10G and a 25G one.

SuggestedRemedy

Change the editors note for 108.3 to be "Change 108.3 as follows:" and make the contents of 108.3 be "For 10GBASE-R PHYs the 10GBASE-R and 25GBASE-R RS-FEC sublayer is a client of the 10GBASE-R PMA subylayer defined in Clause 51. For 25GBASE-R PHYs the 10GBASE-R and 25GBASE-R RS-FEC sublayer is a client of the 25GBASE-R PMA sublayer defined in Clause 109."

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.110** *P* **34** *L* **38** # 27

Slavick, Jeff Broadcom

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

There are more than one RS-FEC available in the IEEE standard. So removing the description of which one this bit enables in the description can cause confusion.

SuggestedRemedy

Change "The" to "Clause 108" for both instances

Proposed Response *Response Status* **O**

Cl **FM** *SC* **FM** *P* **1** *L* **32** # 28

Anslow, Pete Independent

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

The copyright_year variable should be set to "2020" in all clauses in the book. This is not the case for the front matter

SuggestedRemedy

set the copyright_year to 2020 in the front matter

Proposed Response *Response Status* **O**

Cl **44** *SC* **44.3** *P* **25** *L* **14** # 29

Anslow, Pete Independent

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

In the new row in Table 44-2, "24576" should have a space as a thousands separator.

SuggestedRemedy

Change "24576" to "24 576"

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.110** *P* **34** *L* **38** # 30

Anslow, Pete Independent

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

The name of bit 1.200.2 has been changed from "25G RS-FEC Enable" to "RS-FEC Enable" here and in Table 108-1. However, the name has not been changed in 45.2.1.110.1 where the bit is defined.

SuggestedRemedy

Bring 45.2.1.110.1 in to the draft change the name and make other changes as appropriate.

Proposed Response *Response Status* **O**

Cl **108** *SC* **108.7.4.2** *P* **55** *L* **9** # 31

Anslow, Pete Independent

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

For item RF3 the status "BEC*(SR or LR or ER):M" should be "BEC*(SR or LR or ER or BR20):M"

SuggestedRemedy

Proposed Response *Response Status* **O**