Cl **58**   *SC* **58.7.5**   *P* **2698**   *L* **23**   # R1-LATE-1

Dawe, Piers   Nvidia

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

As OMA is normative in 58.4.1, 59.3.1, 59.4.1, 60.4.1, 60.5.1 and 60.6.1, there should be a normative non-optional definition of OMA for these clauses.

SuggestedRemedy

If it was intended that OMA would be derived from extinction ratio and mean power as 58.7.5 and 58B.2 imply, 58B.2 (formerly 58.7.6), 59.7.6 and 60.9.6 should be normative and not optional.
If it was intended that OMA should be defined directly and, when measured, measured directly, 58.7.5, 59.7.5 and 60.9.5 should be normative and not optional.

Proposed Response   *Response Status*   **O**

Cl **83E**   *SC* **83E.3.4.1.1**   *P* **6663**   *L* **43**   # R1-LATE-2

Dawe, Piers   Nvidia

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

The long introduction to, and definition of, bounded uncorrelated jitter, unbalances the paragraph, yet it is identical to text in 83E.3.3.2.1. P802.3ck refers back instead of repeating. For reference, the second instance of this in P802.3ck is reduced to "Bounded uncorrelated jitter may not be available in all stressed pattern generators or bit error ratio testers. It can be generated as described in 120G.3.3.5.2."

SuggestedRemedy

Change "random jitter, and bounded uncorrelated jitter to a clean signal" to "random jitter, and bounded uncorrelated jitter (see 83E.3.3.2.1) to a clean signal". Delete "Bounded uncorrelated jitter provides ... limit of the pattern generator external modulator input.
Similarly in 120E.3.4.1.1:
Change "random jitter, and bounded uncorrelated jitter to a clean signal" to "random jitter, and bounded uncorrelated jitter (see 120E.3.3.2.1) to a clean signal". Delete "Bounded uncorrelated jitter provides ... limit of the pattern generator external modulator input.

Proposed Response   *Response Status*   **O**

Cl **52**   *SC* **52.5.3**   *P* **2390**   *L* **40**   # R1-LATE-3

Dawe, Piers   Nvidia

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

Missing space in Illustrative10GBASE-S

SuggestedRemedy

Insert space

Proposed Response   *Response Status*   **O**

Cl **FM**   *SC* **FM**   *P* **1**   *L* **1**   # R1-LATE-4

Dawe, Piers   Nvidia

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

fIEEE

SuggestedRemedy

Delete f

Proposed Response   *Response Status*   **O**

Cl **38**   *SC* **38.2.1**   *P* **1519**   *L* **19**   # R1-LATE-5

Dawe, Piers   Nvidia

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

Outdated statement that TP1 and TP4 "are not readily testable" or "will not typically be accessible". With SFP+ and QSFP, they are commonly accessible and testable at least up to 10G/lane. Avoiding "will".

SuggestedRemedy

In 38.2.1, delete "(these are not readily testable in a system implementation)". In 87.5.1, delete "(these test points will not typically be accessible in an implemented system)". Consider making the same change in 53.4.1.

Proposed Response   *Response Status*   **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   Comment ID **R1-LATE-5**   Page 1 of 4
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   3/7/2022 9:20:22 AM
SORT ORDER: Comment ID

Cl **92**　　　*SC* **92.8.4.4.3**　　　*P* **3740**　　　*L* **45**　　　# R1-LATE-6

Dawe, Piers　　　　　　　　　　Nvidia

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

More on the use of Tr in receiver interference tolerance: making a distinction by name between "transition time", a property of a signal with a particular state of emphasis and observation filter, and "rise time" which is not defined so specifically by its name. Clarifying what is meant for RIT calibration in 92.8.4.4.3 and 136.9.4.2.3. It would be helpful to make any corrections in 136 and 137 now because P802.3ck's 162 and 163 are so similar.

120B.3.2 handles Tr well: "Equation (93A-46), where Tr is calculated as Tr = 1.09 x Trm - 4.32 ps and Trm is the measured 20% to 80% transition time of the signal at TP0a. Trm is measured using the method in 86A.5.3.3, with the exception that the observation filter bandwidth is 33 GHz instead of 12 GHz. Trm is measured with the transmit equalizer turned off ..."
120D.3.2.1 is clear too.
110.8.4.2.3 is very clear (although I wonder if the effect of the 33 GHz observation filter should be backed out with an RSS formula relating Tr to Trm):
"where Tr is the 20% to 80% transition time at the Tx test reference. Tr is measured using the method in 86A.5.3.3, with the exception that the observation filter bandwidth is 33 GHz instead of 12 GHz. Tr is measured with the transmit equalizer turned off (i.e., coefficients set to the preset values, see 72.6.10.2.3.1)."
111.8.3.1 is similar to 120B.3.2.
137.9.3 follows 120D.3.2.

SuggestedRemedy

In 92.8.4.4.3 step d, change "where Tr is the 20 to 80% transition time (see 86A.5.3.3) of the signal as measured at TP0a" to "where Tr is the 20% to 80% rise time of the test transmitter's signal as if measured at TP0a without an observation filter and with no transmit equalization (see 86A.5.3.3)".
In 136.9.4.2.3 step d, change "Tr is measured using the method in 120E.3.1.5 with the transmit equalizer turned off" to "Tr is the 20% to 80% rise time as if measured using the method in 120E.3.1.5 without an observation filter and with the transmit equalizer turned off".
In 120B.3.2, 120D.3.2.1 and 111.8.3.1, change "Trm is the measured 20% to 80% transition time" to "Trm is the measured 20% to 80% rise time".
In 110.8.4.2.3, change "Tr is the 20% to 80% transition time" to "Tr is the 20% to 80% rise time".

Proposed Response　　　　*Response Status* **O**

Cl **1**　　　*SC* **1.3**　　　*P* **29**　　　*L* **8**　　　# R1-LATE-7

Dawe, Piers　　　　　　　　　　Nvidia

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

Subclause 1.3, Normative references, has grown to 11 pages long with no subdivision. It could be more user-friendly.

SuggestedRemedy

Please divide it with subclauses, e.g.
1.3.1　ANSI to ETSI
1.3.2　IEC
1.3.3　IEEE and IETF
1.3.4　ISO and ISO/IEC
1.3.5　ITU-T
1.3.6　MATLAB to TIA

Proposed Response　　　　*Response Status* **O**

Cl **1**　　　*SC* **1.4**　　　*P* **187**　　　*L* **8**　　　# R1-LATE-8

Dawe, Piers　　　　　　　　　　Nvidia

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

Subclause 1.4, Definitions, is 41 pages long with 590 subclauses (so many that they aren't shown in the pdf bookmarks), and it will continue to grow. It is hard to find something there except by string search with correct spelling.

SuggestedRemedy

Please divide it with subclauses, e.g.
1.4.1　1 to 8　　186 entries, 13 pages
1.4.2　A to G　　164 entries, 12 pages
1.4.3　H to M　　59 entries, 5 pages
1.4.4　N to S　　140 entries, 9 pages
1.4.5　T to Z　　41 entries, 3 pages
If Frame can deliver 1.4.0 ... 1.4.8 1.4.A ... 1.4.Z (some such as 1.4.3 are not needed), that would be even more user-friendly.
e.g. with subclauses, e.g. same grouping as 1.4,
1.5.1　1 to 8
1.5.2　A to G
1.5.3　H to M
1.5.4　N to S
and/or by adding a narrow first column with each digit and letter at its first entry.

Proposed Response　　　　*Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Comment ID

Comment ID **R1-LATE-8**　　Page 2 of 4
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Cl **1**   *SC* **1.5**   *P* **227**   *L* **49**   # R1-LATE-9

Dawe, Piers   Nvidia

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

Subclause 1.5, Abbreviations, is 7 pages long with maybe 360 entries and no subdivision. If trying to find something except by string search with correct spelling, this means a lot of scrolling.

SuggestedRemedy

Please divide it up:
e.g. with subclauses, e.g. same grouping as 1.4,
1.5.1   1 to 8
1.5.2   A to G
1.5.3   H to M
1.5.4   N to S
and/or by adding a narrow first column with each digit and letter at its first entry.

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.3.4**   *P* **1973**   *L* **23**   # R1-LATE-10

Dawe, Piers   Nvidia

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

Space before "50G capable"
ncrement-

SuggestedRemedy

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.3**   *P* **2147**   *L* **35**   # R1-LATE-11

Dawe, Piers   Nvidia

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

i
ncrement-

SuggestedRemedy

Make the column wider

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.1.178**   *P* **1896**   *L* **8**   # R1-LATE-12

Dawe, Piers   Nvidia

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

The document uses "sync" hundreds of times, "synch" twice, "s1_synch" (a state machine variable in 115.3.5 PHY control for 1000BASE-RHA, 1000BASE-RHB, and 1000BASE-RHC) 7 times and PMAMON_SYNCH once, in Figure 115-30, PHY quality monitor state diagram.

SuggestedRemedy

Change synch to sync here and in 101.3.2.2

Proposed Response   *Response Status* **O**

Cl **FM**   *SC* **FM**   *P* **12**   *L* **16**   # R1-LATE-13

Dawe, Piers   Nvidia

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

Font size changes from 8.5 point to 9

SuggestedRemedy

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Comment ID

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Cl **120E**   *SC* **120E.3.4.1.1**   *P* **6853**   *L* **23**   # R1-LATE-14

Dawe, Piers   Nvidia

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

The terms "module BER" and "module bit errors" appear here and nowhere else. When this was written in 2016, QSFP-DD was new and it was still reasonable to think: one module, one AUI. Five years later, multiple AUIs per module are commonplace and the phrase is ambiguous. Recently, P802.3ck has reworded its draft to avoid "module BER" term and "host BER" (it doesn't use "module bit errors"), and it would be helpful if equivalent text changes were made in 120E.

SuggestedRemedy

Change:
the module BER may be calculated by placing the module under test into local loopback (see 120.5.9) and feeding the module output into a compliant host or its equivalent. The BER may then be calculated using the host's PCS Reed-Solomon decoder error counters (see 119.3.1), as the number of FEC symbol errors divided by the number of received bits.
to:
the BER for the AUI under test may be calculated by placing the module under test into local loopback (see 120.5.9) and feeding the module output into a compliant host or its equivalent. The BER for the AUI under test may then be calculated using the host's PCS Reed-Solomon decoder error counters (see 119.3.1), as the number of FEC symbol errors divided by the number of received bits.

For consistency (see below), change:
pattern 3, the module bit errors may be counted using a PMA
to:
pattern 3, the bit errors for the AUI under test may be counted using a PMA

In 120E.3.3.2.1, change:
pattern 3, the host BER may be calculated using the host's PMA test pattern checker (see 120.5.11.2.2). If the test is performed with pattern 5 or a valid 200GBASE-R/400GBASE-R signal, the BER may be calculated
to:
pattern 3, the BER for the AUI under test may be calculated using the host's PMA test pattern checker (see 120.5.11.2.2). If the test is performed with pattern 5 or a valid 200GBASE-R/400GBASE-R signal, the BER for the AUI under test may be calculated

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   Comment ID **R1-LATE-14**   Page 4 of 4
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   3/7/2022 9:20:23 AM
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