

Proposed Responses

IEEE P802.3cy D2.21 10G+ Auto Task Force 2nd Working Group recirculation ballot comments

Cl **FM** SC **FM** P10 L3 # 822

Grow, Robert RMG Consulting  
 Comment Type **E** Comment Status **D** OOS

This boxed paragraph is part of the published standard, so the self reference should be IEEE Std, not a project designation

*SuggestedRemedy*

Replace "P802.3cy" with "IEEE Std 802.3cy-202x"

Proposed Response Response Status **W**

PROPOSED REJECT.

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Cl **1** SC **1.4.128a** P22 L7 # 823

Grow, Robert RMG Consulting  
 Comment Type **E** Comment Status **D** OOS

Grammar, "a" should have been deleted in editing out "network".

*SuggestedRemedy*

"...specification for 25 Gb/s Ethernet ..."

Proposed Response Response Status **W**

PROPOSED REJECT.

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Cl **165** SC **165.1** P36 L11 # 824

Grow, Robert RMG Consulting  
 Comment Type **E** Comment Status **D** OOS

PHY is not the acronym for Physical Layer, the cited sublayers are appropriately a Physical Layer device. (See Figure 165-1.)

*SuggestedRemedy*

25GBASE-T1 Physical Layer device (PHY)

Proposed Response Response Status **W**

PROPOSED REJECT.

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Cl **165** SC **165.1.3.1** P38 L35 # 813

Dawe, Piers Nvidia  
 Comment Type **E** Comment Status **D** OOS

tx\_group130x65B - as it's 65 bits, lower case b would avoid ambiguity

*SuggestedRemedy*

Change tx\_group130x65B to tx\_group130x65b (6 instances)

Proposed Response Response Status **W**

PROPOSED REJECT.

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Cl 165 SC 165.1.3.1 P38 L48 # 821

Dawe, Piers Nvidia  
 Comment Type T Comment Status D OOS

"In the training mode (see 165.4.2.4), the PCS transmits and receives PAM2 training frames to synchronize to the PHY frame..." but "PHY frame" is not defined.

SuggestedRemedy

Change to "synchronize to the PHY frame..." to "synchronize to the RS-FEC superframes that follow, ..."

Proposed Response Response Status W

PROPOSED REJECT.

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Cl 165 SC 165.2.2.2 P45 L3 # 825

Grow, Robert RMG Consulting  
 Comment Type E Comment Status D OOS

The defined terms master PHY and slave PHY are lower case in 1.4.389 and 1.4.535 definitions. This amendment should follow that precedent. Reconsider if MASTER and SLAVE should be all caps.

SuggestedRemedy

Change MASTER PHY and SLAVE PHY to master PHY and SLAVE PHY throughout. (Pages 45, 63, 65, 81, 91, 97, 117.)

Proposed Response Response Status W

PROPOSED REJECT.

This comment does not apply to the substantive changes between IEEE P802.3cy D2.1 and D2.21. Hence it is not within the scope of the recirculation ballot.

Cl 165 SC 165.2.2.4.3 P46 L26 # 819

Dawe, Piers Nvidia  
 Comment Type E Comment Status D OOS

This says that the effect of receipt of this primitive, PMA\_UNITDATA.indication(rx\_symb), is unspecified. That's not correct.

SuggestedRemedy

Change "is unspecified" to "is specified in 165.3.2.3.1".

Proposed Response Response Status W

PROPOSED REJECT.

This comment does not apply to the substantive changes between IEEE P802.3cy D2.1 and D2.21. Hence it is not within the scope of the recirculation ballot.

Cl 165 SC 165.3.2.2.16 P57 L34 # 810

Dawe, Piers Nvidia  
 Comment Type E Comment Status D OOS

pL,33

SuggestedRemedy

pL,89 ?

Proposed Response Response Status W

PROPOSED REJECT.

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Cl 165 SC 165.3.2.2.16 P58 L3 # 811

Dawe, Piers Nvidia  
 Comment Type E Comment Status D OOS

#1 #2 #L

SuggestedRemedy

1 2 L (as in other figures, e.g. 65B block, 165B block 2 ...)

Proposed Response Response Status W

PROPOSED REJECT.

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Cl 165 SC 165.3.2.2.17 P58 L27 # 815  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status D OOS  
 Galois Field  
 SuggestedRemedy  
 Galois field  
 Proposed Response Response Status W  
 PROPOSED REJECT.  
 This comment does not apply to the substantive changes between IEEE P802.3cy D2.1 and D2.21. Hence it is not within the scope of the recirculation ballot.

Cl 165 SC 165.3.2.2.17 P58 L39 # 812  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status D OOS  
 Need to define all the items in the equation (except well-known functions and operators, and j here which is just a counter). Also, "alpha is a primitive element of the finite field defined by the primitive polynomial 0x409 = x^10 + x^3 + 1" is too vague; it's not clear if it means that alpha is defined by 0x409 (how), or that the finite field is defined by 0x409, or that alpha is 0x409, or what.  
 SuggestedRemedy  
 Add: "In this subclause, x is the indeterminate variable."  
 Change "In Equation (165-1), alpha is a primitive element of the finite field defined by the primitive polynomial 0x409 = x^10 + x^3 + 1."  
 to an unambiguous definition, e.g.  
 "In Equation (165-1), alpha, a primitive element of the finite Galois field GF(2^10), is the primitive polynomial 0x409 = x^10 + x^3 + 1."  
 Proposed Response Response Status W  
 PROPOSED REJECT.  
 This comment does not apply to the substantive changes between IEEE P802.3cy D2.1 and D2.21. Hence it is not within the scope of the recirculation ballot.

Cl 165 SC 165.3.2.2.17 P58 L49 # 809  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status D OOS  
 This says "mi,0 is the first bit transmitted" while on the next page "c935 = m845 is transmitted first". Seems contradictory.  
 SuggestedRemedy  
 Maybe this means: For each 10-bit message symbol mi, mi,0 is the first bit transmitted. Similarly for pi,0 on the next page.  
 Proposed Response Response Status W  
 PROPOSED REJECT.  
 This comment does not apply to the substantive changes between IEEE P802.3cy D2.1 and D2.21. Hence it is not within the scope of the recirculation ballot.

Cl 165 SC 165.3.2.2.17 P59 L34 # 814  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status D OOS  
 GF add and GF multiply are not defined, although one can guess that GF means Galois field. Unfortunately, other clauses have used these terms without defining them, so we can't just point elsewhere in 802.3.  
 SuggestedRemedy  
 Please define or give a reference for Galois field addition and Galois field multiplication.  
 Proposed Response Response Status W  
 PROPOSED REJECT.  
 This comment does not apply to the substantive changes between IEEE P802.3cy D2.1 and D2.21. Hence it is not within the scope of the recirculation ballot.

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IEEE P802.3cy D2.21 10G+ Auto Task Force 2nd Working Group recirculation ballot comments

Cl 165 SC 165.3.2.2.17 P59 L54 # 808

Dawe, Piers Nvidia  
 Comment Type E Comment Status D OOS

Unfortunate page break splitting so many columns in the table.

*SuggestedRemedy*

Increase the orphan rows setting so the table stays on one page

Proposed Response Response Status W

PROPOSED REJECT.

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Cl 165 SC 165.3.2.3.1 P63 L1 # 807

Dawe, Piers Nvidia  
 Comment Type E Comment Status D OOS

"It obtains block lock to the PHY frames during PAM2 training using synchronization bits provided in the training frames" but "PHY frame" is not defined. As we are in training, there will be training frames present.

*SuggestedRemedy*

Change "PHY frames" to "training frames"

Proposed Response Response Status W

PROPOSED REJECT.

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Cl 165 SC 165.3.7.3 P68 L21 # 817

Dawe, Piers Nvidia  
 Comment Type E Comment Status D OOS

Following D2.1 comment 785, there are three more 65B blocks to be changed to 64B/5B blocks.

Names can be more consistent.

Also, "65B RS-FEC" is a confusing name, as the FEC doesn't really operate on 65-bit blocks but on a 9360-bit payload, and 165.3.2.2.17 says "the particular Reed-Solomon code is denoted as RS-FEC(936,846)". There are two "64B/65B RS-FEC", three "65B RS-FEC frame" and 4 other "65B RS-FEC"

*SuggestedRemedy*

Change "65B transmitted blocks" to "64B/65B transmit(ted) blocks", "65B transmit block" to "64B/65B transmit(ted) block", "65B received blocks" to "64B/65B received blocks".

Here, "65B RS-FEC" can be changed to "RS-FEC".

Change the three "65B RS-FEC frame" to "RS-FEC frame"

Rename the remaining "65B RS-FEC" e.g. to RS-FEC(936,846).

With editorial licence.

Proposed Response Response Status W

PROPOSED REJECT.

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Cl 165 SC 165.4 P73 L16 # 816

Dawe, Piers Nvidia  
 Comment Type E Comment Status D OOS

802.3 specs define the sublayers in top-to-bottom order. Compare Clause 149, for example.

*SuggestedRemedy*

Swap 165.5 PMA electrical specifications and 165.4 Physical Medium Attachment (PMA) sublayer

Proposed Response Response Status Z

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

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Cl 165 SC 165.4.2.4.10 P79 L43 # 818

Dawe, Piers Nvidia  
 Comment Type E Comment Status D OOS

After cleaning up "Partial PHY frame count" (D2.1 comment 786), the draft uses "partial frame" 27 times and "partial PHY frame" three times

SuggestedRemedy

Change the three remaining "partial PHY frame" to "partial frame"

Proposed Response Response Status W

PROPOSED REJECT.

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Cl 165 SC 165.5.2 P93 L25 # 820

Dawe, Piers Nvidia  
 Comment Type E Comment Status D OOS

Do the wavy lines across the connectors represent other pairs in a multilane PHY as in Figure 136-2, or provision for other "alien crosstalk" signals in a bigger connector? 165.8.1 says "2-pin connector with a shield". Figure 136-2 shows Signal\_i shield and Link shield. Also, the diagonal line and "25GBASE-T1" don't help. The figure title says it's 25GBASE-T1, pointers usually have arrowheads, and words such as "cable" or "bulk cable" would better represent the two signal lines.

SuggestedRemedy

Delete the wavy lines, "25GBASE-T1" and diagonal line. Add the shield.

Proposed Response Response Status W

PROPOSED REJECT.

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Cl 165 SC 165.5.3.3 P95 L6 # 804

Dawe, Piers Nvidia  
 Comment Type E Comment Status D OOS

In the explanation "this is equivalent...", "at least" should be deleted following the change to make the bandwidth at line 5 a value rather than a one-sided limit.

SuggestedRemedy

Delete "at least"

Proposed Response Response Status W

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Cl 165 SC 165.11.4.2.5 P118 L10 # 806

Dawe, Piers Nvidia  
 Comment Type E Comment Status D OOS

PICS uses "frame" twice and "PHY frame" 4 times. The normative material it refers to in 165.3.6.1 uses "RS-FEC frame" 10 times or more, "frame" once.

SuggestedRemedy

Here, change all "frame" and "PHY frame" to "RS-FEC frame". In 165.3.6.1, change "four frames after" to "four RS-FEC frames after".

Proposed Response Response Status W

PROPOSED REJECT.

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Cl 165 SC 165.11.4.5 P128 L 28 # 805

Dawe, Piers

Nvidia

Comment Type E Comment Status D OOS

Maximum link delay in PICS is out of date

SuggestedRemedy

Change 94 to 60

Proposed Response Response Status W

PROPOSED REJECT.

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Note that this issue is only associated with the PICS comment field synchronization and the technical content of the draft is correct as is.