

Comments Received

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

Cl **FM** SC **FM** P**10** L**3** # **822**  
 Grow, Robert RMG Consulting  
 Comment Type **E** Comment Status **X**  
 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 **O**

Cl **165** SC **165.1.3.1** P**38** L**35** # **813**  
 Dawe, Piers Nvidia  
 Comment Type **E** Comment Status **X**  
 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 **O**

Cl **1** SC **1.4.128a** P**22** L**7** # **823**  
 Grow, Robert RMG Consulting  
 Comment Type **E** Comment Status **X**  
 Grammar, "a" should have been deleted in editing out "network".  
 SuggestedRemedy  
 "...specification for 25 Gb/s Ethernet ..."  
 Proposed Response Response Status **O**

Cl **165** SC **165.1.3.1** P**38** L**48** # **821**  
 Dawe, Piers Nvidia  
 Comment Type **T** Comment Status **X**  
 "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 **O**

Cl **165** SC **165.1** P**36** L**11** # **824**  
 Grow, Robert RMG Consulting  
 Comment Type **E** Comment Status **X**  
 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 **O**

Cl **165** SC **165.2.2.2** P**45** L**3** # **825**  
 Grow, Robert RMG Consulting  
 Comment Type **E** Comment Status **X**  
 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 **O**

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Cl 165 SC 165.2.2.4.3 P46 L26 # 819  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status X  
 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 O

Cl 165 SC 165.3.2.2.16 P57 L34 # 810  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status X  
 pL,33  
 SuggestedRemedy  
 pL,89 ?  
 Proposed Response Response Status O

Cl 165 SC 165.3.2.2.16 P58 L3 # 811  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status X  
 #1 #2 #L  
 SuggestedRemedy  
 1 2 L (as in other figures, e.g. 65B block, 165B block 2 ...)  
 Proposed Response Response Status O

Cl 165 SC 165.3.2.2.17 P58 L27 # 815  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status X  
 Galois Field  
 SuggestedRemedy  
 Galois field  
 Proposed Response Response Status O

Cl 165 SC 165.3.2.2.17 P58 L39 # 812  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status X  
 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 O

Cl 165 SC 165.3.2.2.17 P58 L49 # 809  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status X  
 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 O

Cl 165 SC 165.3.2.2.17 P59 L34 # 814  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status X  
 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 O

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Cl 165 SC 165.3.2.2.17 P59 L54 # 808  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status X  
 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 O

Cl 165 SC 165.3.2.3.1 P63 L1 # 807  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status X  
 "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 O

Cl 165 SC 165.3.7.3 P68 L21 # 817  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status X  
 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 O

Cl 165 SC 165.4 P73 L16 # 816  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status X  
 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 O

Cl 165 SC 165.4.2.4.10 P79 L43 # 818  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status X  
 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 O

Cl 165 SC 165.5.2 P93 L25 # 820  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status X  
 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 O

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Cl 165 SC 165.5.3.3 P95 L6 # 804  
Dawe, Piers Nvidia  
Comment Type E Comment Status X  
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 O

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Cl 165 SC 165.11.4.2.5 P118 L10 # 806  
Dawe, Piers Nvidia  
Comment Type E Comment Status X  
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 O

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Cl 165 SC 165.11.4.5 P128 L28 # 805  
Dawe, Piers Nvidia  
Comment Type E Comment Status X  
Maximum link delay in PICS is out of date  
SuggestedRemedy  
Change 94 to 60  
Proposed Response Response Status O