

Proposed Responses

IEEE P802.3cs D2.1 SuperPON Task Force 2nd Working Group recirculation ballot comments

CI 1 SC 1.4.245c P22 L34 # 235
 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope,
Comment Type E Comment Status D
 Use of abbreviations - I believe this is the first use of the abbreviation EQ in IEEE Std 802.3. While the previous definition (inserted by .3ca) defined Equalization Time, and inserted an abbreviation in 1.5 for EQ, it forgot to expand the first use, which is in the definition of EQT on line 34. To the reader outside this particular amendment set, EQ has a lot of general meanings (e.g., equalization), so spelling it out will improve clarity, in my opinion. While technically, EQT is actually an abbreviation (in 1.5) and the defined term should be envelope quantum time, it is never used in its spelled out form that I can find, so I suggest just inserting the expansion of EQ and letting EQT - the unit, be just as it is.

SuggestedRemedy
 Suggest change "transmit one EQ" to "transmit one envelope quantum (EQ)".

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 1 SC 1.4.275a P22 L40 # 236
 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope,
Comment Type E Comment Status D
 FSR is defined as though it is a property of "an optical filter" - this doesn't appear to make sense with the usages of FSR in many places. FSR is a 'channel set' (either one or 2), and FSR seems to be the frequency range of a mux "so they may be designed to have a free spectral range (FSR) significantly wider than the defined frequencies of operation" in other places. In the second case, it appears the previous draft's definition (range of frequencies, rather than spacing) seemed more appropriate. Which is it?

SuggestedRemedy
 Suggest revert the text, or split the terminology. Editor to review usage.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Page 96, line 29, change "so they may be designed to have a free spectral range (FSR) significantly wider than the defined frequencies of operation" to "so they may be designed to have a much wider free spectral range (FSR)"

Page 99, line 36 strike "and their repetition frequency is referred to as the free spectral range (FSR)" - this is a redefinition of the term for no good reason.

Capitalization alignment: change all instances of "FSR Set" to "FSR set".

CI 45 SC 45.2.1.23a.1 P25 L36 # 237
 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope,
Comment Type T Comment Status D
 This change for the ONU, while appropriate, necessitates another change in the description of the bit in Table 45-26a which is not in this draft (but is in .3ca). This currently says "1 = Downstream differential encoding enabled
 0 = Downstream differential encoding disabled". It needs to be aligned.

SuggestedRemedy
 Add table 45-26a to the draft, and, in the description of bit 1.29.15, change "enabled" to "enabled/active", and change "disabled" to "disabled/inactive"

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 56 SC 56.1.2 P36 L25 # 238
 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope,
Comment Type E Comment Status D
 There is no editing instruction "Add". Given the marking, Change was appropriate. Also, there are a whole bunch of missing lines between the header (EFM supports the following systems:) and item d.

SuggestedRemedy
 Suggest editing instruction be replaced with "Change lettered list in 56.1.2, as modified by IEEE Std 802.3ca-2020, to add new item d as shown (unchanged list items not shown)"

Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 164 SC 164.2.4.2 P46 L3 # 239
 Dawe, Piers Nvidia
Comment Type TR Comment Status D
 As 1.4.160a says, the DWDM channel (black link) extends from MDI to MDI.

SuggestedRemedy
 Make the box with rounded corners wider so its sides are just inside the dashed MDI lines. It's OK to show things over/under the black link (the PMD test points aren't actually in the black link, but are alternative connections to the PMDs when they are out of service).

Proposed Response Response Status W
 PROPOSED ACCEPT.

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CI 164 SC 164.2.7.2 P51 L12 # 240
 Dawe, Piers Nvidia
 Comment Type T Comment Status D
 Apply the changes of D2.1 comment 221 (Table 164-6) to Table 164-8
 SuggestedRemedy
 Put Minimum mean input power and Receiver OSNR tolerance next to each other. Use a single note for both: "Receiver OSNR tolerance is defined at the minimum mean input power with OLT transmitter extinction ratio of 8.2 dB (see 164.2.9.5)"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 164 SC 164.2.9.7 P53 L22 # 243
 Dawe, Piers Nvidia
 Comment Type T Comment Status D
 Need to spell out what "according to 158.8.7 divided by 4" means
 SuggestedRemedy
 Bandwidth of scope filter response and jitter corner frequency of CRU are 1/4 those for 10G.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change "158.8.7 divided by 4 for 2.5G signal" to "and bandwidth of scope filter response and jitter corner frequency of CRU are 1/4 those for 10G."

CI 164 SC 164.2.9.9 P53 L48 # 245
 Dawe, Piers Nvidia
 Comment Type TR Comment Status D
 This says "See 75.7.12" and "See ITU-T G.698.2, section 7.4.3". These two references give very different ways of defining receiver performance which need to be combined or reconciled. 75.7.12 is stressed sensitivity per 52.9.9 for 10 Gb/s PHYs, with chromatic dispersion that might not apply here.
 SuggestedRemedy
 Refer directly to 52.9.9, with the appropriate residual chromatic dispersion (as 164.2.9.14? or a table like 52.9.10.2 Channel requirements), OSNR level as "Receiver OSNR tolerance" in Table 164-6 or 8, any qualifications for 2.5G.
 52.9.9 refers to the applied sinusoidal jitter in 52.8.1, which is convenient but it may need qualification for 2.5G. You'll need a definition of OSNR: you could start with G.698.2, 7.4.2, but that's rather loose.
 You should consider if you want to put residual CD, SJ and OSNR all together in a single stressed receiver definition, or create two stressed receiver criteria.
 Also you should consider what the receiver is supposed to do with the entry "Minimum OSNR" in Table 164-6 or 8.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

P802.3cs does not use receiver sensitivity in any of the PMD tables, therefore that parameter is likely just an unnecessary copy/paste from .3ca. The changes were therefore as follows:
 - remove from the title of the section the words "sensitivity and",
 - remove the first paragraph, and
 - modify the second paragraph to read: "See ITU-T G.698.2, section 7.4.3, using a noise bandwidth of 12.5 GHz instead of 0.1 nm."
 - update the PICS table (164.2.12.9), by removing the line of the OM8 requirement and update entries for OM9 and OM10, since they both use 164.2.9.10 as reference

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IEEE P802.3cs D2.1 SuperPON Task Force 2nd Working Group recirculation ballot comments

CI **164A** SC **164A** P96 L32 # **241**

Dawe, Piers

Nvidia

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

This Annex 164A is informative and following D2.1 comment 208, some normative language was changed, but there is more to do. Avoid "specification" and required". Editorial: position of "only".

SuggestedRemedy

Change "The recommended specifications" to "The recommended characteristics" or "The recommendations".

Change the title of Table 164A-2 from "Specifications for the flat-top AWG based MUX/DEMUX" to "Recommendations for the flat-top AWG based MUX/DEMUX".

Similarly (text and table) in 164A.2.2, 164A.2.3, 164A.2.4 and 164A.3.

Change "... CAWGs are required only at the ..." to "... CAWGs are used/employed/appropriate/beneficial only at the ...".

Change "Gain clamping is therefore required to avoid" to "Gain clamping is therefore used to avoid".

"(DCF) is required... a DCM is only required for the (US) upstream direction" to "(DCF) is used... a DCM is used/present for the (US) upstream direction only" and so on, except e.g. "high extinction ratio required for the downstream OLT transmitter" to "high extinction ratio of the downstream OLT transmitter" (although as this and a couple more are referring to normative requirements in normative sections, they could be left as is). In "the required upstream powers", "the required power levels", "minimum required downstream power", can "required" just be deleted?

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change "The recommended specifications" to "The recommendations".

Change the title of Table 164A-2 from "Specifications for the flat-top AWG based MUX/DEMUX" to "Recommendations for the flat-top AWG based MUX/DEMUX".

Similarly (text and table) in 164A.2.2, 164A.2.3, 164A.2.4 and 164A.3.

Change "... CAWGs are required only at the ..." to "... CAWGs are used/employed/appropriate/beneficial only at the ...".

Change "Gain clamping is therefore required to avoid" to "Gain clamping is therefore used to avoid".

"(DCF) is required... a DCM is only required for the (US) upstream direction" to "(DCF) is used... a DCM is used/present for the (US) upstream direction only" and so on, except e.g. "high extinction ratio required for the downstream OLT transmitter" to "high extinction ratio of the downstream OLT transmitter" (although as this and a couple more are referring to normative requirements in normative sections, they could be left as is).

In "the required upstream powers", "the required power levels", "minimum required

downstream power", can "required" just be deleted?

CI **164A** SC **164A.2.1** P97 L13 # **244**

Dawe, Piers

Nvidia

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

Unwanted new-line

SuggestedRemedy

Remove

Proposed Response Response Status **W**

PROPOSED ACCEPT.

CI **164A** SC **164A.2.5** P99 L20 # **242**

Dawe, Piers

Nvidia

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

Repetition of "FBG DCMs are likely to be channelized"

SuggestedRemedy

Could change "FBG DCMs are likely to be channelized. Therefore, it is important" to "As FBG DCMs are likely to be channelized, it is important"

Proposed Response Response Status **W**

PROPOSED ACCEPT.

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: Clause, Subclause, page, line

CI **164A**
SC **164A.2.5**

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