

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

Cl 1 SC 1.4 P20 L14 # 137
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 Missing definition of EPON (as an architecture, to match EPON definitions we already have in Clause 1 in base standard), where we do not specify really ONU, but EPON
 SuggestedRemedy
 Rename all existing definitions of "ONU" in 1.4 with "EPON", e.g., 25/10G-ONU becomes 25/10G-EPON
 Replace in all existing definitions of "ONU", "An EPON ONU" with "An EPON architecture"
 Proposed Response Response Status O

Cl 1 SC 1.4 P20 L14 # 138
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 Missing definition for all new PMDs (EPON speeds) we are adding
 SuggestedRemedy
 Add a new definition:
 Clause 141 EPON: An EPON architecture operating at a number of different downstream and upstream speeds, i.e., 25G/10G, 25G/25G, 50G/10G, 50G/25G, or 50G/50G. This term collectively refers to 25/10G-EPON, 25/25G-EPON, 50/10G-EPON, 50/25G-EPON, and 50/50G-EPON architectures.
 Replace all instances of 100G-EPON in Clause 141 with "Clause 141 EPON"
 Proposed Response Response Status O

Cl 1 SC 1.4 P20 L25 # 136
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 Missing 50/10G-ONU combination
 SuggestedRemedy
 Insert a new definition of 50/10G-ONU (before 50/25G-ONU): An EPON ONU supporting the maximum sustained throughput of 50 Gb/s in downstream direction and 10 Gb/s in upstream direction (asymmetric rate).
 Proposed Response Response Status O

Cl 1 SC 1.4 P20 L36 # 152
 Harstead, Ed Nokia
 Comment Type ER Comment Status X
 100G ONUs out of scope
 SuggestedRemedy
 Delete 1.4.7a, .8a, .9a, .10a (100G ONU definitions)
 Proposed Response Response Status O

Cl 1 SC 1.4 P20 L36 # 158
 Brown, Alan ADTRAN, Inc.
 Comment Type E Comment Status X
 Motion #9 during Nov. 2017 TF meeting removed Objective for 100G.
 SuggestedRemedy
 Delete Definitions 1.4.7a, 1.4.8a, 1.4.9a, and 1.4.10a.
 Proposed Response Response Status O

Cl 1 SC 1.4 P20 L36 # 134
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 All 100G variants of the PMD need to be removed
 SuggestedRemedy
 Remove the following definitions: 100/25G-ONU, 100/50G-ONU, 100/100-ONU, 100G-ONU; from Table 2-1, remove three last lines covering 100G variations
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

Cl 1 SC 1.4 P21 L8 # 171
 Kramer, Glen Broadcom

Comment Type T Comment Status X

Previous definition of grant was clear in that a grant resulted in an upstream burst from the ONU. Now, with .3ca combining multiple LLID transmissions into a single burst, the definition of a Grant became somewhat ambiguous. Under current definition, Grant causes transmission of one envelope, but we need a term that describes the entire ONU transmission (all envelopes that form one burst).

SuggestedRemedy

Adopt the following definitions:

1. Grant: The term Grant refers to a single transmission window allocated to an ONU. A grant includes one or more envelope allocations. The OLT conveys a grant to the ONU using one or multiple GATE MPCPDUs, all having the same StartTime values. There is one-to-one correspondence between the grants issued to an ONU and upstream bursts transmitted by that ONU, i.e., a grant issued to an ONU results in a single upstream burst transmitted by that ONU.
2. Envelope Allocation: a transmission window allocated to a single LLID (including GLID). A single GATE MPCPDU can carry up to seven envelope allocations
3. Envelope: an upstream transmission that corresponds to an envelope allocation received from the OLT. The order of envelopes in an upstream burst shall match order of envelope allocations received in corresponding GATE MPCPDU(s). An envelope carries data belonging to a specific LLID (excluding GLID), i.e., the data or idles sourced from a specific MAC. An envelope starts with an Envelope Start Header (ESH) and continues uninterrupted for the number of EQs represented by the EnvLength parameter.

Proposed Response Response Status O

Cl 1 SC 1.4.1a P20 L16 # 10
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X

Section numbers incorrect.

SuggestedRemedy

Align to P8023_D3p2_SECTION1 numbering

Proposed Response Response Status O

Cl 1 SC 1.4.7a P20 L36 # 11
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

100G-EPON stuff. We are no longer planning 4 channel ONU or OLT.

SuggestedRemedy

Remove definitions for 100/x-ONUs (1.4.7a to 1.4.10a)

Proposed Response Response Status O

Cl 1 SC 1.4.12a P21 L3 # 12
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X

missing article "at appropriate"

SuggestedRemedy

change to "at the appropriate"

Proposed Response Response Status O

Cl 1 SC 1.4.13a P21 L6 # 13
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X

missing period

SuggestedRemedy

add after "(Envelope Continuation Header)"

Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

Cl 1 SC 1.4.15a P21 L11 # 14
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 Definition for LLID conflicts with 1.4.313 in revision
 SuggestedRemedy
 Show as update to 1.4.313 to read:
 Logical Link Identifier (LLID): A numeric identifier assigned to a P2MP association between an OLT and ONU established through the Point-to-Point Emulation sublayer. Each P2MP association is assigned a unique LLID. The P2MP association is bound to an ONU DTE, where a MAC would observe a private association. In {100G-EPON} a collective term that refers to Physical Layer ID, Management Link ID, User Link ID, and Group Link ID.
 Proposed Response Response Status O

Cl 1 SC 1.4.17a P21 L18 # 15
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 I'm not aware of any power budget tables in Section 1.4
 SuggestedRemedy
 Convert 25/10GBASE-PR, 25GBASE-PR, 50/25GBASE-PR, and 50GBASE-PR definitions to proper format of form:
 IEEE 802.3 Physical Layer specifications for a xx Gb/s downstream yy Gb/s upstream point-to-multipoint link over one single-mode optical fiber. (See IEEE Std 802.3, Table 56-1, Clause 141, Clause 142, Clause 143, and Clause 144).
 Proposed Response Response Status O

Cl 1 SC 1.4.17a P21 L19 # 139
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 Table 2-1 is missing entry for 50/10GBASE-PR
 SuggestedRemedy
 Add a new row before 50/25GBASE-PR with the following content:
 50/10GBASE-PR | 2 | 1 (10 Gbs/)
 Proposed Response Response Status O

Cl 1 SC 1.4.17a P21 L19 # 140
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 Table 2-1 is missing entry for 50GBASE-PR
 SuggestedRemedy
 Add a new row after 50/25GBASE-PR with the following content:
 50GBASE-PR | 2 | 2
 Proposed Response Response Status O

Cl 1 SC 1.4.17a P21 L27 # 159
 Brown, Alan ADTRAN, Inc.
 Comment Type E Comment Status X
 Motion #9 during Nov. 2017 TF meeting removed Objective for 100G.
 SuggestedRemedy
 Delete 100G rows from Table 2-1--Power Budgets.
 Proposed Response Response Status O

Cl 1 SC 1.4.18a P21 L32 # 160
 Brown, Alan ADTRAN, Inc.
 Comment Type E Comment Status X
 This clause is empty.
 SuggestedRemedy
 Remove empty clause, unless it is to serve as a placeholder, in which case add an editorial comment to that effect indicating needed content. This should be done for all empty clauses, including the following:
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

Cl 1 SC 1.5 P21 L38 # 16
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 abbreviation for ABBR is not needed
 SuggestedRemedy
 remove.
 Proposed Response Response Status O

Cl 56 SC 56 P25 L1 # 19
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 Open Table 56-1 and add entries for 25/10GBASE-PR, 25GBASE-PR, 50/25GBASE-PR, and 50GBASE-PR.
 SuggestedRemedy
 per comment
 Proposed Response Response Status O

Cl 1 SC 1.5 P21 L38 # 17
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 Abbreviations should be in alphabetical order
 SuggestedRemedy
 sort properly
 Proposed Response Response Status O

Cl 141 SC 141 P23 L2 # 18
 Remein, Duane Huawei Technologies
 Comment Type TR Comment Status X
 100G-EPON stuff. It does not appear we will be doing 100G-EPON just yet.
 SuggestedRemedy
 Remove all instances of 100G-EPON from the draft except in page headers. May be replaced by; nothing (as in this title), "25-EPON and 50G-EPON", or "25-EPON or 50G-EPON" as dictated by context.
 Proposed Response Response Status O

Cl 1 SC 1.5 P21 L38 # 161
 Brown, Alan ADTRAN, Inc.
 Comment Type E Comment Status X
 "ABBR" and "expanded version" are not intended to be included in the draft. The document 802.3-2017 already includes an appropriate introduction.
 SuggestedRemedy
 Remove the line containing the quoted text.
 Proposed Response Response Status O

Cl 141 SC 141 P25 L1 # 162
 Brown, Alan ADTRAN, Inc.
 Comment Type E Comment Status X
 Motion #9 during Nov. 2017 TF meeting removed Objective for 100G.
 SuggestedRemedy
 Rename clause: change "25G- EPON, 50G-EPON, and 100G-EPON" to "25G- EPON and 50G-EPON".
 Proposed Response Response Status O

Cl 1 SC 1.5 P21 L38 # 135
 Hajduczenia, Marek Charter Communicatio
 Comment Type E Comment Status X
 "ABBR expanded version" should be removed it is left over from template
 SuggestedRemedy
 Per comment
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 141 SC 141 P25 L1 # 173
 Harstead, Ed Nokia
 Comment Type ER Comment Status X
 Section title refers to 100G EPON *PMD*
 SuggestedRemedy
 Remove text "100G-EPON"
 Proposed Response Response Status O

CI 141 SC 141.1 P25 L8 # 163
 Brown, Alan ADTRAN, Inc.
 Comment Type E Comment Status X
 Motion #9 during Nov. 2017 TF meeting removed Objective for 100G.
 SuggestedRemedy
 Change "25, 50, or 100 Gb/s," to "25 or 50 Gb/s".
 Proposed Response Response Status O

CI 141 SC 141.1 P25 L7 # 141
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 Overview mentions 100G but not 10G
 SuggestedRemedy
 Change:
 operating at the line rate of 25, 50, or 100 Gb/s, in either downstream or in both
 downstream and upstream directions.
 To:
 operating at the line rate of 25 or 50 Gb/s in the downstream direction and the line rate of
 10, 25, or 50 Gb/s in the upstream direction.
 Proposed Response Response Status O

CI 141 SC 141.1.1 P25 L16 # 21
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 Per IEEE Style Guide italics font is reserved for variable names.
 SuggestedRemedy
 Use normal font for upstream and downstream
 Proposed Response Response Status O

CI 141 SC 141.1 P25 L7 # 20
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 Assuming you will want to use this abbreviation, add "(EPON)" after "Ethernet Passive
 Optical Networks".
 SuggestedRemedy
 per comment
 Proposed Response Response Status O

CI 141 SC 141.1.2 P25 L22 # 144
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 Definition of medium power budget is not consistent with the discussion at the last F2F
 meeting - 24dB Channel Insertion loss assumed distance of 20km, not 10km
 SuggestedRemedy
 Change:
 with the split ratio of at least 1:16 and the distance of at least 20 km or a PON with the split
 ratio of at least 1:32 and the distance of at least 10 km.
 To:
 with the split ratio of at least 1:16 and the distance of at least 20 km.
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 141 SC 141.1.2 P25 L22 # 22
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 Missing article "supports P2MP" (also in line 25).
 SuggestedRemedy
 "supports a P2MP"
 Proposed Response Response Status O

CI 141 SC 141.1.3 P25 L33 # 23
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 "for PON" s/b plural (Also line 35)
 SuggestedRemedy
 "for PONs"
 Proposed Response Response Status O

CI 141 SC 141.1.3 P25 L36 # 142
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 Definition of PR-A power budget is open-ended
 SuggestedRemedy
 Change:
 PR-A power budget describes asymmetric-rate PHY for PON operating at 25 Gb/s or 50 Gb/s in the downstream direction and 10 Gb/s and above in the upstream direction, over a single SMF
 To:
 PR-A power budget describes asymmetric-rate PHY for PON operating at 25 Gb/s in the downstream direction and 10 Gb/s in the upstream direction, or 50 Gb/s in the downstream direction, and 10 or 25 Gb/s in the upstream direction, over a single SMF
 Proposed Response Response Status O

CI 141 SC 141.1.3 P26 L3 # 143
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 Table 141-1 is missing basic information on individual power budgets and associated data rates
 SuggestedRemedy
 Use hajduczenia_3ca_4_0518.pdf for table structure and data updates.
 Proposed Response Response Status O

CI 141 SC 141.1.4 P26 L41 # 24
 Remein, Duane Huawei Technologies
 Comment Type TR Comment Status X
 100G-EPON stuff. The TF needs to make a decision regarding support of 50/10Gb/s devices. Suggested solution assumes it is removed. If the TF decides to keep this variant then there are numerous places in the draft that list the PMD where 50/10GBASE-PR should be added.
 SuggestedRemedy
 Strike all instance of 50/10G*:
 pg. Line Phrase
 3 3 "50/10 Gb/s,"
 26 41 "50/10G-EPON" (move the and in list)
 34 39 "50/10GBASE-PR20-D" (3 instances in draft)
 35 45 "50/10GBASE-PR30-D" (3 instances in draft)
 Proposed Response Response Status O

CI 141 SC 141.2 P27 L1 # 145
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 Figure 141-1 shows 4 x 25GMII, providing 100G connectivity. Per updated objectives, we support 50G only
 SuggestedRemedy
 Change Figure 141-1 per hajduczenia_3ca_5_0518.pdf, were the number of supported PHY instances is shown to be 1 or 2. With the dashed line, it can be used pretty much for any number of PHY instances supported by the PMD and MPRS.
 Similar figure can be used in Clauses 142, 143, and 144 with proper shading to show specific sublayer(s) defined in the given Clause.
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 141 SC 141.2 P28 L6 # 25
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 "Such PMDs are further distinguished by appending a digit after the suffix D or U." Looks like two digits to me that indicate power budget as explained in 141.1.3 quite well. Could change "a digit" to "two digits" or just drop the whole para, seems a bit late to make this point in any case.
 SuggestedRemedy
 Strike para.
 Proposed Response Response Status O

CI 141 SC 141.2.1.1 P28 L40 # 26
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 Do we really need to list PMD names in section titles (e.g., {PMD_X} & {(NG)-type})? I think not.
 SuggestedRemedy
 Strike "{PMD_X}", "{(NG) type}", and "{PMD_Y}" from the draft.
 Proposed Response Response Status O

CI 141 SC 141.3 P26 L3 # 153
 Harstead, Ed Nokia
 Comment Type TR Comment Status X
 Nominal wavelengths missing in Table 141-1
 SuggestedRemedy
 UW0=1270 nm, UW1=1300 nm, UW2=1320 nm, DW0=1358 nm, DW1=1324 nm. Or, is this redundant with Table 141-5, -6?
 Proposed Response Response Status O

CI 141 SC 141.3 P26 L3 # 154
 Harstead, Ed Nokia
 Comment Type TR Comment Status X
 Wavelengths tolerances missing in Table 141-1
 SuggestedRemedy
 UW0=+/-10 nm, UW1=+/-10 nm, UW2=+/-2 nm, DW0=+/-2 nm, DW1=+/-2 nm. Or, is this redundant with Table 141-5, -6?
 Proposed Response Response Status O

CI 141 SC 141.3 P29 L28 # 27
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 More placeholders "{(NG-EPON type)}"
 SuggestedRemedy
 Replace 8x with "25G-EPON and 50G-EPON"
 Proposed Response Response Status O

CI 141 SC 141.3 P30 L19 # 155
 Harstead, Ed Nokia
 Comment Type ER Comment Status X
 Multiple references to 100G-EPON PMD at this line and following
 SuggestedRemedy
 Replace with 25G- and 50G-EPON PMDs
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

Cl 141 SC 141.3.1 P29 L41 # 28
 Remein, Duane Huawei Technologies

Comment Type TR Comment Status X

We should align text with the channelized PMD.

SuggestedRemedy

Given the single channelized PMD interfaces with multiple PMAs the PMD service interface naming should reflect this. Change "PMD_UNITDATA." to "PMD_UNITDATAch." and "PMD_SIGNAL." to "PMD_SIGNALch." and add the following to the end of para at pg. 29 line 40 "Where "ch" represents the PMA Channel; 1 for 2." Change "between the PMA and PMD entities" to "between the PMAch and PMD entities" at pg. 29 line 38. The 7 instances of "{TBD, depending on the structure of PMA}" in Cl 141.3.x will be dealt with in a separate comments.

Proposed Response Response Status O

Cl 141 SC 141.3.1.2 P29 L52 # 29
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

"Clause 201" s/b Cl 142 (2 instances).

SuggestedRemedy

Change to: "Clause 142" with live link to clause.

Proposed Response Response Status O

Cl 141 SC 141.3.1.2 P30 L1 # 30
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

Replace "{TBD, depending on the structure of PMA}" with:

SuggestedRemedy

The semantics of the service primitive are PMD_UNITDATAch.request(tx_bit). The data conveyed by PMD_UNITDATAch.request is a continuous stream of bits. The tx_bit parameter can take one of two values: ONE or ZERO. The Clause 142 PMA continuously sends the appropriate stream of bits to the PMD for transmission on the medium, at a nominal signaling speed of 25.7812 GBd in the case of 25G-EPON or 50G-EPON OLT and ONU PMDs. The {Clause 77} PMA continuously sends the appropriate stream of bits to the PMD for transmission on the medium, at a nominal signaling speed of 10.3125 GBd in the case of 25/10G-EPON ONU PMDs. Upon the receipt of this primitive, the PMD converts the specified stream of bits into the appropriate signals at the MDI.

Proposed Response Response Status O

Cl 141 SC 141.3.1.3 P30 L6 # 31
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

Replace "{TBD, depending on the structure of PMA}" with:

SuggestedRemedy

The semantics of the service primitive are PMD_UNITDATAch.indication(rx_bit). The data conveyed by PMD_UNITDATA.indication is a continuous stream of bits. The rx_bit parameter can take one of two values: ONE or ZERO. The PMD continuously sends a stream of bits to the Clause 142 PMA corresponding to the signals received from the MDI, at the nominal signaling speed of 25.7812 GBd in the case of 25G-EPON or 50G-EPON OLT and ONU PMDs or to the {Clause 77} PMA at the nominal signaling speed of 10.3125 GBd in the case of 10/1G-EPON OLT PMDs.

Proposed Response Response Status O

Cl 141 SC 141.3.1.4 P30 L10 # 32
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

Replace "{TBD, depending on the structure of PMA}" with:

SuggestedRemedy

In the upstream direction, this primitive is generated by the Clause 142 PMA to turn on and off the transmitter according to the granted time. A signal for laser control is generated as described in 142.x.x.x for the Clause 142 PCS. The semantics of the service primitive are PMD_SIGNALch.request(tx_enable). The tx_enable parameter can take on one of two values: ENABLE or DISABLE, determining whether the PMD transmitter is on (enabled) or off (disabled). The Clause 142 PMA generates this primitive to indicate a change in the value of tx_enable. Upon the receipt of this primitive, the PMD turns the transmitter on or off as appropriate.

Proposed Response Response Status O

Cl 141 SC 141.3.1.5 P30 L14 # 33
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

Replace "{TBD, depending on the structure of PMA}" with:

SuggestedRemedy

This primitive is generated by the PMD to indicate the status of the signal being received from the MDI. The semantics of the service primitive are PMD_SIGNALch.indication(SIGNAL_DETECT). The SIGNAL_DETECT parameter can take on one of two values: OK or FAIL, indicating whether the PMD is detecting light at the receiver (OK) or not (FAIL). When SIGNAL_DETECT = FAIL, PMD_UNITDATAch.indication(rx_bit) is undefined. The PMD generates this primitive to indicate a change in the value of SIGNAL_DETECT. If the MDIO interface is implemented, then PMD_global_signal_detect shall be continuously set to the value of SIGNAL_DETECT. NOTE—SIGNAL_DETECT = OK does not guarantee that PMD_UNITDATAch.indication(rx_bit) is known good. It is possible for a poor quality link to provide sufficient light for a SIGNAL_DETECT = OK indication and still not meet the specified bit error ratio. PMD_SIGNALch.indication(SIGNAL_DETECT) has different characteristics for upstream and downstream links, see 141.x.x.

Proposed Response Response Status O

Cl 141 SC 141.3.2 P30 L19 # 164
 Brown, Alan ADTRAN, Inc.

Comment Type E Comment Status X

Motion #9 during Nov. 2017 TF meeting removed Objective for 100G.

SuggestedRemedy

Change "100G-EPON PMDs" to "25G-EPON PMDs and 50G-EPON PMDs".

Proposed Response Response Status O

Cl 141 SC 141.3.3 P30 L37 # 34
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

Replace "{TBD, depending on the structure of PMA}" with:

SuggestedRemedy

The PMD Transmit function shall convey the bits requested by the PMD service interface message PMD_UNITDATAch.request(tx_bit) to the MDI according to the optical specifications in Clause 141. In the upstream direction, the flow of bits is interrupted according to PMD_SIGNAL.request(tx_enable). This implies three optical levels, 1, 0, and dark, the latter corresponding to the transmitter being in the OFF state. The higher optical power level shall correspond to tx_bit = ONE.

Proposed Response Response Status O

Cl 141 SC 141.3.4 P30 L41 # 35
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

Replace "{TBD, depending on the structure of PMA}" with:

SuggestedRemedy

The PMD Receive function shall convey the bits received from the MDI according to the optical specifications in Clause 141 to the PMD service interface using the message PMD_UNITDATAch.indication(rx_bit). The higher optical power level shall correspond to rx_bit = ONE.

Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 141 SC 141.3.5.1 P30 L47 # 36
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X
 Replace "{TBD, depending on the structure of PMA}" with:

SuggestedRemedy

The PMD Signal Detect function for the continuous mode downstream signal shall report to the PMD service interface, using the message PMD_SIGNALch.indication(SIGNAL_DETECT), which is signaled continuously. PMD_SIGNALch.indication is intended to be an indicator of the presence of the optical signal. The value of the SIGNAL_DETECT parameter shall be generated according to the conditions defined in Table 141-4 for 25G-EPON and 50G-EPON PMDs. The ONU PMD receiver is not required to verify whether a compliant 25G-EPON or 50G-EPON signal is being received.

Proposed Response Response Status O

CI 141 SC 141.3.5.2 P31 L1 # 146
 Hajduczenia, Marek Charter Communicatio

Comment Type T Comment Status X
 Figure 141-2 has reference to 10G-EPON in the title

SuggestedRemedy

Change title of Figure 141-2 to read "Clause 141 EPON block diagram"

Proposed Response Response Status O

CI 141 SC 141.3.5.2 P31 L31 # 37
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X
 We can at least fix the figure title

SuggestedRemedy

Change "10GBASE-PR and 10/1GBASE-PRX block diagram" to "25-EPON and 50G-EPON block diagram"

Proposed Response Response Status O

CI 141 SC 141.3.5.2 P31 L37 # 38
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X
 100G-EPON stuff. If only we were doing a 100G-EPON.

SuggestedRemedy

Change "100G-EPON" to "25G-EPON or 50G-EPON" in 2 places in this para.

Proposed Response Response Status O

CI 141 SC 141.3.5.3 P31 L49 # 165
 Brown, Alan ADTRAN, Inc.

Comment Type E Comment Status X
 Motion #9 during Nov. 2017 TF meeting removed Objective for 100G.

SuggestedRemedy

Change "100G-EPON PMD" to "25G-EPON PMD" over "50G-EPON PMD", stacked in column.

Proposed Response Response Status O

CI 141 SC 141.5.1 P34 L52 # 157
 Harstead, Ed Nokia

Comment Type TR Comment Status X
 Value for Average launch power, each channel (min) is in wrong field (max)

SuggestedRemedy

Move "4.8" to Average launch power, each channela (min)

Proposed Response Response Status O

CI 141 SC 141.5.2 P34 L40 # 156
 Harstead, Ed Nokia

Comment Type TR Comment Status X
 Missing channel wavelength ranges in Table 141-9. Same for Table 141-10, -11, -12, -13

SuggestedRemedy

Add as abovie. Or remove (redundant with Table 141-5, -6).

Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

Cl 141 SC 141.6 P36 L47 # 39
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 More placeholders.
 SuggestedRemedy
 Change first "{XXX}" to "medium" and second to "25-EPON or 50G-EPON"
 Proposed Response Response Status O

Cl 141 SC 141.6.2 P39 L3 # 40
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 Even more placeholders.
 SuggestedRemedy
 Change {PMD-types} to "25-EPON or 50G-EPON"
 Proposed Response Response Status O

Cl 141 SC 141.7.1. P40 L49 # 147
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 Wavelengths for insertion loss measurement are now defined
 SuggestedRemedy
 Change:
 Insertion loss for SMF fiber optic cabling (channel) is defined at {TBD, NG-EPON wavelengths},
 To:
 Insertion loss for SMF fiber optic cabling (channel) is defined at 1270 nm, 1300 nm, 1320 nm, 1342 nm, or 1358 nm,
 Proposed Response Response Status O

Cl 141 SC 141.7.2 P41 L3 # 148
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 Section on allocation for penalties is TBD right now
 SuggestedRemedy
 Use the following text derived from 75.7.2:
 All the receiver types specified in Clause 141 are required to tolerate a path penalty not exceeding 1 dB to account for total degradations due to reflections, intersymbol interference, mode partition noise, laser chirp and detuning of the central wavelength, including chromatic dispersion penalty. All the transmitter types specified in Clause 141 introduce less than 1 dB of optical path penalty over the channel. The path penalty is a component of transmitter and dispersion penalty (TDP), which is specified in Table 141-7, Table 141-8, Tale 141-11, and Table 141-12 and described in 52.9.10, with the measurement procedure defined in 114.7.5.1, 114.7.5.3, and 114.7.5.4.
 Proposed Response Response Status O

Cl 141 SC 141.7.3 P41 L7 # 149
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 Section on test patterns is TBD right now
 SuggestedRemedy
 The test patterns used in this clause shall be the same as those used for 100GBASE-SR4, as described in 95.8.1 and shown in Table 95-9, with the exception that pattern 5, the scrambled idle test pattern defined in 82.2.11, is encoded by Clause 108 RS-FEC for 25GBASE-LR and 25GBASE-ER. The multi-lane testing considerations described in 95.8.1.1 do not apply. Table 114-9 shows the test patterns to be used in each measurement, unless otherwise specified, and also lists references to the subclauses in which each parameter is defined.
 Effectively, the text from 25GBASE-R is proposed to be reused as the baseline.
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 141 SC 141.7.15.1 P42 L37 # 41
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X

Slightly confusing "Treceiver_settling is denoted as the time beginning from the time that the optical power in the receiver at TP7 reaches the conditions specified in 141.7.12 and ending at the time that ..."

SuggestedRemedy

Precede the first time with "elapsed" and change 2nd & 3rd time to moment so the phrase reads "Treceiver_settling is denoted as the elapsed time beginning from the moment that the optical power in the receiver at TP7 reaches the conditions specified in 141.7.12 and ending at the moment that ..."

Proposed Response Response Status O

CI 141 SC 141.7.15.1 P43 L49 # 42
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

While I realize that the following sentence is directly taken from the standard in CI 75 it should be removed, or at least converted into a complete sentence. Can anyone even tell me what it is intended to mean and what value it adds to the standard?
 "A non-rigorous way to describe this test setup would be (using a transmitter with a known Ton)."

SuggestedRemedy

Strike.

Proposed Response Response Status O

CI 141 SC 141.7.15.1 P43 L53 # 43
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X

Use of "reassuring" isn't very comforting (a synonym).

SuggestedRemedy

Change to confirming

Proposed Response Response Status O

CI 141 SC 141.8.2 P44 L9 # 166
 Brown, Alan ADTRAN, Inc.

Comment Type E Comment Status X

Motion #9 during Nov. 2017 TF meeting removed Objective for 100G.

SuggestedRemedy

Change "100G-EPON" to "25G-EPON and 50G-EPON" in these locations (page/line):
 44/9, 44/28, 44/36

Proposed Response Response Status O

CI 141 SC 141.8.5 P44 L39 # 44
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

Replace "{list NG-EPON PMDs}" with

SuggestedRemedy

- 25/10GBASE-PR20-D
- 25GBASE-PR20-D
- 50/25GBASE-PR20-D
- 50GBASE-PR20-D
- 25/10GBASE-PR30-D
- 25GBASE-PR30-D
- 50/25GBASE-PR30-D
- 50GBASE-PR30-D

Proposed Response Response Status O

CI 141 SC 141.9.1 P45 L2 # 45
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

Why the reference to CI 75?

SuggestedRemedy

Change "Table 75B-1 and Table 75B-2" to "TBD"

Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 141 SC 141.9.3 P45 L18 # 150
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 Nominal wavelengths are missing in Table 141-15
 SuggestedRemedy
 Add nominal wavelengths: 1270 nm, 1300 nm, 1320 nm, 1342 nm, 1358 nm and add columns are needed
 Proposed Response Response Status O

CI 142 SC 142.2.1 P49 L31 # 47
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 Why define an abbreviation if you don't use it?
 SuggestedRemedy
 Change "physical coding sublayers" to "PCS" and on line 32 change "point-to-multipoint physical" to P2MP".
 Proposed Response Response Status O

CI 141 SC 141.9.3 P45 L41 # 167
 Brown, Alan ADTRAN, Inc.
 Comment Type E Comment Status X
 Motion #9 during Nov. 2017 TF meeting removed Objective for 100G.
 SuggestedRemedy
 Change "100G-EPON" to "25G-EPON or 50G-EPON" in these locations (page/line): 45/41
 Proposed Response Response Status O

CI 142 SC 142.2.1 P49 L46 # 48
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 Update to Figure 142-1.
 SuggestedRemedy
 See remain_3ca_1_0518.pdf (also available in visio).
 Proposed Response Response Status O

CI 142 SC 142.1 P49 L7 # 46
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 Abbreviations are to be properly introduced.
 SuggestedRemedy
 Change "FEC" to "forward error correction (FEC)". On line 41 change "forward error correction (FEC)" to "FEC"
 Proposed Response Response Status O

CI 142 SC 142.2.2.2.1 P53 L5 # 133
 Hajduczenia, Marek Charter Communicatio
 Comment Type T Comment Status X
 Content of 142.2.2.2.1 is missing
 SuggestedRemedy
 Use hajduczenia_3ca_3_0518.pdf for text and drawing of the upstream burst structure
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 142 SC 142.2.2.5.1 P53 L38 # 128
 Laubach, Mark Broadcom Inc.

Comment Type TR Comment Status X

Motion #6 from the March 2018 Rosemont, IL Task Force meeting, adopted slide 6 of kramer_3ca_1_0318.pdf as part of the improved alignment motion. However, the adopted updated parity matrix, puncturing, information word and parity word sizes were sized for the "New Code" option on slide 9, which is slightly different than slide 6. These changes adjust the information word size and shortening to match slide 6. Note that the actual parity code matrix is the same, no changes. For the May TF meeting, laubach_3ca_1_0518.pdf summarizes performance impact of these small adjustments.

SuggestedRemedy

Page 53:
 Line 38: change "14328" to "14392"
 Line 39: change "264" to "200"
 Line 44: change "16888" to "16952"
 Line 47: change "0.8484" to "0.849"

Page 56:
 Line 52: change "264" to "200"
 Line 53: change "0.8484" to "0.849"

Proposed Response Response Status O

CI 142 SC 142.2.2.5.1 P54 L8 # 131
 Laubach, Mark Broadcom Inc.

Comment Type TR Comment Status X

In Figure 142-3, the circled "+" should be a mux symbol to combine "M+P-bit LDPC parity" with "M-bit parity" and "K-bit user", not to serially add them. Also need to correct a box label in the figure and formula in the text to be clear on use of de-interleaved info as input to the encoder.

SuggestedRemedy

- 1) Change "circle-+" symbol to a mux symbol (see original submitted draft word file). For clarity, label the bottom arrow (that comes from the far left) with "K-bit information" aligned under "M-bit parity"
- 2) Change the box text "Information Bit Interleaver" to "Information Bit De-interleaver"
 Corresponding text change Page 57, Line 19:
- 3) Change "<pi>" symbol to "<pi>-1" where the "-1" is a superscript.

Proposed Response Response Status O

CI 142 SC 142.2.2.5.2 P54 L49 # 129
 Laubach, Mark Broadcom Inc.

Comment Type TR Comment Status X

In Table 142-1, a few of the values have errors from the source material. (Verified from both the original .docx (pdf) file and the .txt file.)

SuggestedRemedy

- Page 54: Line 49, Col C7: change "204" to "104"
- Page 54: Line 51, Col C5: change "01" to "-1"
- Page 56, Line 23, Col C5: change "235" to "135"
- Page 56, Line 32, Col C7: change "259" to "159"

Proposed Response Response Status O

CI 142 SC 142.2.2.5.2 P57 L6 # 49
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X

There is no reference to Figure 142-2

SuggestedRemedy

Add reference in text.

Proposed Response Response Status O

CI 142 SC 142.2.2.5.3 P57 L22 # 130
 Laubach, Mark Broadcom Inc.

Comment Type TR Comment Status X

Should be "parity" and not "info".

SuggestedRemedy

Change subscript "info" to "parity"

Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 142 SC 142.2.2.5.3 P57 L27 # 132
 Laubach, Mark Broadcom Inc.

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

Following motion #6 from the November 2017 Orlando meeting, the Omega256 interleaver text needs to be added to the draft. The text has been submitted in "han_3ca_1_0518.pdf". The submitted file "han_3ca_2_0518.txt" contains the binary seed code values suitable for making available (similar to the LDPC parity code matrix) via download from an IEEE web site.

SuggestedRemedy

Add the draft text from "han_3ca_1_0518.pdf" beginning with new subclause 142.2.2.5.4.

Proposed Response Response Status **O**

CI 142 SC 142.2.3 P57 L34 # 50
 Remein, Duane Huawei Technologies

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

Why define an abbreviation if you don't use it?

SuggestedRemedy

Change "physical coding sublayers" to "PCS"

Proposed Response Response Status **O**

CI 142 SC 142.3.1 P61 L41 # 168
 Powell, Bill Nokia

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

Ambiguity in differential encoder figure 142-7 (register input/output vs. Control)

SuggestedRemedy

Proposed change to Figure 142-7 in Red on Slide 3, Section A, of powell_3ca_1_0518

Proposed Response Response Status **O**

CI 142 SC 142.3.2 P61 L3 # 169
 Powell, Bill Nokia

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

Ambiguity in differential decoder figure 142-8 (register output vs. Control)

SuggestedRemedy

Proposed change to Figure 142-8 in Red on Slide 3, Section B, of powell_3ca_1_0518

Proposed Response Response Status **O**

CI 143 SC 143.1 P65 L12 # 51
 Remein, Duane Huawei Technologies

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

Is this really true? "It is acceptable for only one MAC to be connected to this MPRS"
 Now that we have PLID, MLID and ULIDs it would seem to me that the minimum number of MACs is 3.

SuggestedRemedy

Strike the sentence.

Proposed Response Response Status **O**

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 143 SC 143.1 P65 L15 # 52
 Remein, Duane Huawei Technologies

Comment Type TR Comment Status X

100G-EPON stuff. We have decided not to pursue 100G-EPON using 4x25G. The draft still reflects our earlier thinking that we would support 4x25G as is illustrated here "This concept is expanded in this clause to allow multiple MACs to interface with up to four PHYs requiring up to four 25 Gigabit Media Independent Interfaces (25GMIIs)." The longer we put off fixing this the more difficult it will be to get it correct. I suggest we for the most part adopt a slightly ambiguous wording to the maximum number of 25GMII/PHYS we support in this standard.

SuggestedRemedy

Change from:

"This concept is expanded in this clause to allow multiple MACs to interface with up to four PHYs requiring up to four 25 Gigabit Media Independent Interfaces (25GMIIs)." to
 "This concept is expanded in this clause to allow multiple MACs to interface with multiple PHYs requiring multiple 25 Gigabit Media Independent Interfaces (25GMIIs)."

pg. 65 Line 46 change from:

"b) The MPRS converts between the MAC serial data stream and the parallel data paths of up to four 25GMIIIs servicing separate PHYs." to:

"b) The MPRS converts between the MAC serial data stream and the parallel data paths to multiple 25GMIIIs servicing separate PHYs."

pg. 68 line 2 Change from:

"The 100G-EPON MPRS is defined as a set of four parallel MPRS channels in each direction." to:

"The 100G-EPON MPRS is defined as a multiple set of parallel MPRS channels in each direction."

pg. 68 line 8 Change from:

"Compliant implementations are not required to support all four MPRS channels." To:
 "Compliant implementations are not required to support multiple MPRS channels."

pg. 68 line 10 strike the sentence that reads:

"An implementation containing all four channels supports 25 Gb/s, 50 Gb/s, and 100 Gb/s MAC data rates."

pg. 68 line 39 change:

"(N = {1,2,3,4})" to:

"(N = {1,2})"

pg. 70 line 53 strike the sentence that reads:

"Some ONUs may support all four MPRS channels in each direction."

pg. 71 line 37 Change from:

"Thus, a 100G-EPON system with four MPRS channels of 25 Gb/s each can achieve an instantaneous transmission rate of 25, 50, 75, or 100 Gb/s by varying, ..." To:

"Thus, a 100G-EPON system with two MPRS channels of 25 Gb/s each can achieve an instantaneous transmission rate of 25, or 50 Gb/s by varying, ..."

pg. 74 line 50 Change from:

"In addition to the multiple PLS service interfaces (one per MAC) and up to four 25GMIIIs" To:

"In addition to the multiple PLS service interfaces (one per MAC) and multiple 25GMIIIs"

pg. 75 line 51 Change from:

"However, for other 100G-EPON systems there may be one, two or four PLS service interfaces active at any given time." To:

"However, for other 100G-EPON systems there may be one, or two PLS service interfaces active at any given time."

pg. 85 line 3 strike "(four columns)"

Proposed Response Response Status O

CI 143 SC 143.1 P65 L18 # 53
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X

It appears the abbreviation "PCS" gets defined later in the para.

SuggestedRemedy

Change "PCS" on line 18 to read "Physical Coding Sublayer (PCS)" and on line 20 change "Physical Coding Sublayers (PCS)" to read "PCSs".

Proposed Response Response Status O

CI 143 SC 143.1 P65 L20 # 54
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

"The 100G-EPON Physical Coding Sublayers (PCS) are specified to the 25GMII, ..."? Needs to be rephrased.

SuggestedRemedy

Change to read "The 100G-EPON PCSs are specified to interface with the 25GMII, ..."

Proposed Response Response Status O

CI 143 SC 143.2.1 P67 L12 # 55
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X

Missing article "below MAC"

SuggestedRemedy

Change to "below the MAC"

Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 143 SC 143.2.2.1 P68 L20 # 56
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 100G-EPON stuff. Table 143-1 should be pruned to two channels.
 SuggestedRemedy
 Remove rows DS2, DC3, UC2, and UC3.
 Proposed Response Response Status O

CI 143 SC 143.2.3.3 P69 L46 # 57
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 "the ESH is discarded ..." well there's certainly more to it that a simple discard.
 SuggestedRemedy
 Change to "the ESH is processed by the MPRS and then discarded..."
 Proposed Response Response Status O

CI 143 SC 143.2.4.2 P72 L1 # 58
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 100G-EPON stuff. Figure 143-6, 143-7, 143-8, 143-9, 143-10, 143-11, 143-12, 143-15 need updating to show only two channels.
 SuggestedRemedy
 per comment
 Proposed Response Response Status O

CI 143 SC 143.2.4.3 P73 L6 # 59
 Remein, Duane Huawei Technologies
 Comment Type TR Comment Status X
 In referring to the ENV_Tx/Rx buffers is this statement; "The number of rows is set to 32," But in Table 143-4 and on pg. 82 line 16 EnvPam is defined as 6 bits. These should agree, if the ONU uses 6 bits and the OLT only 5 well there's a problem brewing.
 SuggestedRemedy
 Change to "The number of rows is set to 64," align Fig 143-8 to 64 (may also reduce number of columns due to separate comment).
 Proposed Response Response Status O

CI 143 SC 143.2.4.3 P73 L28 # 60
 Remein, Duane Huawei Technologies
 Comment Type TR Comment Status X
 We are inconsistent in our reference to the TX_CLK. Fig 143-10 names it TX_CLK25 and shows one per 25GMII. Table 143-2 uses TX_CLK and includes a footnote that all 25GMII's share a common clock. Section 143.4.1.3 on pg. 78 ln. 39 clearly states that "only one TX_CLK is required". TX_CLK[c] is defined on pg. 82 ln. 46 and implies there is one TX_CLK per channel; "of the TX_CLK signal for channel c".
 SuggestedRemedy
 In Fig 143-10 pull TX_CLK25 out of the 25GMII grouping to indicate it is a common signal. When TX_CLK refers to that common signal use TX_CLK25 {(pg., ln.), (73,28), (76,50), (78,39), (82,30), (82,49), (85,5), (88,38), (88,39), and ex in Table 143-2).
 On pg. 82 line 48 remove "for channel c" so the definition reads; "Each TX_CLK[c] clear on read variable is set to True on each edge, positive and negative, of the TX_CLK25 signal."
 Proposed Response Response Status O

CI 143 SC 143.2.4.4 P73 L37 # 61
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 Clarification.
 SuggestedRemedy
 Change:
 "the EPAM field is extracted and its value is used as the write pointer (row index) ..."
 to read:
 "the EPAM field is extracted and its value is used to update the write pointer (row index) ..."
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 143 SC 143.3.3 P98 L4 # 93
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 We have a mix of Discovery Window(s) and discovery window(s), we should be consistent.
 SuggestedRemedy
 Use lower case consistently.
 Proposed Response Response Status O

CI 143 SC 143.3.3 P98 L6 # 94
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 More likely the end user (SP) "The periodicity of these windows is unspecified and left up to the implementer"
 SuggestedRemedy
 Strike "and left up to the implementer"
 Proposed Response Response Status O

CI 143 SC 143.3.3 P98 L30 # 95
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 We are using EQ to mean both a number of bits (72, 4 control and 64 data) and a time period (2.56ns). Using as a time is ambiguous as it depends on the rate (2.56 ns is only correct at 25GMII which is 36-bits wide) It would be a good idea to explicitly distinguish these two uses.
 SuggestedRemedy
 Where EQ is referring to a time change to EQt and add to definitions to mean 2.56 ns.
 Proposed Response Response Status O

CI 143 SC 143.3.3 P98 L32 # 96
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 We should be specific on which types of LLIDs are allocated. "the OLT registers the ONU, allocating and assigning a new port identity (LLID), and bonding a corresponding MAC to the LLID."
 SuggestedRemedy
 Change to: "the OLT registers the ONU, allocating and assigning a new ONU (PLID) and management (MLID) port identities, and bonding a corresponding MACs to the LLIDs."
 Proposed Response Response Status O

CI 143 SC 143.3.3 P98 L35 # 97
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 We now using more than one LLID; "which contains the ONU's LLID"
 SuggestedRemedy
 Change "LLID" to "LLIDs"
 Proposed Response Response Status O

CI 143 SC 143.3.3.2 P101 L44 # 98
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 links dead (3x 144.2.2.3 on this page, and several on pg. 102, 112, 113 and possibly elsewhere)
 SuggestedRemedy
 make live
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 143 SC 143.3.3.2 P102 L3 # 99
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 "who"? ONUs are not people.
 SuggestedRemedy
 Change "who may then retry" to "which may then retry"
 Proposed Response Response Status O

CI 143 SC 143.4.1.2 P78 L4 # 63
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 Incorrect references to Tables 143-3 & 4.
 SuggestedRemedy
 Add new table per remain_3ca_2_0518.pdf and reference new table.
 Proposed Response Response Status O

CI 143 SC 143.3.3.2 P102 L13 # 100
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 The PMD is not turned on and off, the laser in the PMD is.
 SuggestedRemedy
 Change:
 "turning off the PMD" to "turning off the laser" and
 "turning on the PMD" to "turning on the laser" (line 20)
 Proposed Response Response Status O

CI 143 SC 143.4.1.2.1 P78 L11 # 64
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 epam should be in italics
 More generally we need to decide if we want to follow this guideline, that variable names appear in italics. As a past editor that did adopt this guideline I found it a royal pain and would not object to not following it (I notice in the standard that few amendments do).
 SuggestedRemedy
 Italicize "epam"
 Proposed Response Response Status O

CI 143 SC 143.4.1.1.1 P77 L3 # 62
 Remein, Duane Huawei Technologies
 Comment Type TR Comment Status X
 100G-EPON stuff. Table 143-2 and 143-3 should be pruned to two channels.
 SuggestedRemedy
 Remove row for 100G-EPON
 Proposed Response Response Status O

CI 143 SC 143.4.1.2.2 P78 L21 # 65
 Remein, Duane Huawei Technologies
 Comment Type TR Comment Status X
 The MPCP does not need to wait "for the start of next FEC codeword (for envelopes that are expected to be in a separate transmission burst)." the MPCP can start a new envelope at it's discretion.
 SuggestedRemedy
 Change to "for envelopes that are expected to be in a separate transmission bursts."
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

Cl 143 SC 143.4.1.3 P78 L37 # 66
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 It would be easier on the reader if we just reference the tables rather than the section.
 SuggestedRemedy
 Change: "143.4.1.1" to "Table 143-2 and Table 143-3"
 Proposed Response Response Status O

Cl 143 SC 143.4.3 P80 L21 # 69
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 Clarification on what CRC covers in normative table.
 SuggestedRemedy
 Change "CRC8" to "CRC8 covering bit 0-63"
 Proposed Response Response Status O

Cl 143 SC 143.4.2 P79 L15 # 67
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 In Fig 143-11 Octet 0 seems to have two extra bits before bit 8 and after bit 15. Also we seem to have lost the EPAM label (TXD-Lane0 in 2nd transfer).
 SuggestedRemedy
 Trim the line immediately before the 8 and after the 15 so they are short and don't extent top to bottom. Add EPAM label (if using the original visio file it may be hiding behind the white box representing bits 0-5).
 Proposed Response Response Status O

Cl 143 SC 143.4.3 P80 L44 # 70
 Remein, Duane Huawei Technologies
 Comment Type TR Comment Status X
 This cannot be true as wRow is a 1-bit variable. "(Number of bits matches the size of wRow)". This confusion exists because we use rRow and wRow in both the transmit and receive SDs to mean two different variable sets. In the transmit SD we only need a 1-bit variable while in the receive SD we need a 6-bit variable.
 SuggestedRemedy
 Align variable name to SD in which it is used so that:
 In section 143.4.3 change wRow to iRow (for input row) and rRow to tRow (for transmit row) in text and figures.
 In section 143.4.4 change wRow to rRow (for receive row) and rRow to oRow (for output row) in text and figures.
 at pg. 80 line 44 Change to "(Number of bits matches the size of rRow)"
 Proposed Response Response Status O

Cl 143 SC 143.4.2 P79 L35 # 68
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 Wording: "transmission of ... the transmitting MPRS"
 SuggestedRemedy
 Change to "transmission of the envelope from the sending MPRS"
 Proposed Response Response Status O

Cl 143 SC 143.4.3.2 P81 L9 # 71
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 I don't believe we have any timers in this section.
 SuggestedRemedy
 Remove the blurb about time start and stop.
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

Cl 143 SC 143.4.3.3 P81 L14 # 72
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X

Does this notation only apply to counters as indicated or does it also apply to other variables?

"The notation ++ after a counter indicates",
 "The notation -- after a counter indicates",
 "The notation -= after a counter indicates", and
 "The notation += after a counter indicates"

SuggestedRemedy

Change to "counter" to "variable" in each instance. (may want to apply this globally)

Proposed Response Response Status O

Cl 143 SC 143.4.3.4 P81 L53 # 73
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

100G-EPON stuff. We no longer have 4 channels

SuggestedRemedy

change to 1-bit integer.

Proposed Response Response Status O

Cl 143 SC 143.4.3.4 P82 L23 # 8
 Heaven, Bo Huawei

Comment Type TR Comment Status X

Need exact components of GRANT_MARGIN and its default value or maximum value

SuggestedRemedy

Add "The value includes LaserOnTime, syncTime, and Burst Delimiter that precede the first packet in the burst."

Proposed Response Response Status O

Cl 143 SC 143.4.3.4 P82 L36 # 74
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

"LinkID[c]" s/b "LinkId[c]" (or alternatively the other way around, now we have both forms).

SuggestedRemedy

Change all instances of "LinkID" to "LinkId"

Proposed Response Response Status O

Cl 143 SC 143.4.3.4 P82 L36 # 75
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X

TYPE mis-aligned

SuggestedRemedy

Indent

Proposed Response Response Status O

Cl 143 SC 143.4.3.4 P83 L2 # 76
 Remein, Duane Huawei Technologies

Comment Type TR Comment Status X

100G-EPON stuff "For 100 Gb/s devices N = 4, for 50 Gb/s devices N = 2, and for 25 Gb/s devices N = 1."

SuggestedRemedy

Change to: "For 50 Gb/s devices N = 2 and for 25 Gb/s devices N = 1."

Proposed Response Response Status O

Cl 143 SC 143.4.3.4 P83 L7 # 77
 Remein, Duane Huawei Technologies

Comment Type TR Comment Status X

100G-EPON stuff. For wCol change type to 1-bit integer

SuggestedRemedy

per comment

Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

Cl 143 SC 143.4.3.5 P83 L44 # 78
 Remein, Duane Huawei Technologies
 Comment Type TR Comment Status X
 100G-EPON stuff. EnvStartHeader() section should be updated to reflect only 2 channels
 SuggestedRemedy
 Change:
 if(EnvLeft[col+1] == GRANT_MARGIN &&
 EnvLeft[col+2] == GRANT_MARGIN &&
 EnvLeft[col+3] == GRANT_MARGIN) EnvPam = epam;
 To:
 if(EnvLeft[col+1] == GRANT_MARGIN) EnvPam = epam;
 Proposed Response Response Status O

Cl 143 SC 143.4.3.6.1 P85 L2 # 79
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 What is a "start envelope header"
 SuggestedRemedy
 Change to "envelope start header"
 Proposed Response Response Status O

Cl 143 SC 143.4.3.6.1 P85 L4 # 80
 Remein, Duane Huawei Technologies
 Comment Type TR Comment Status X
 100G-EPON stuff. "(four columns)"
 SuggestedRemedy
 Strike.
 Proposed Response Response Status O

Cl 143 SC 143.4.3.6.1 P85 L7 # 81
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 Clarification: "The process adjusts the MAC rate to account for FEC parity insertion in the PCS."
 SuggestedRemedy
 Change to read: "The process adjusts the MAC rate by inserting PARITY_PLACEHLDR EQs to account for FEC parity insertion in the PCS."
 Proposed Response Response Status O

Cl 143 SC 143.4.3.6.1 P86 L48 # 82
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 Extraneous line extending up into WRITE_EQ_TO_ENV_TX state.
 SuggestedRemedy
 In the words of the famous Pete Trowbridge "nudge the line" down so it does not interfere with the state box.
 Proposed Response Response Status O

Cl 143 SC 143.4.4 P87 L38 # 83
 Remein, Duane Huawei Technologies
 Comment Type ER Comment Status X
 Errant ref to 143.4.3.6.1
 SuggestedRemedy
 Change to 143.4.4.5.1
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 143 SC 143.4.4.3 P88 L46 # 84
 Remein, Duane Huawei Technologies
 Comment Type **TR** Comment Status **X**
 100G-EPON stuff. The TYPE for rCol should reflect 2 columns not 4
 SuggestedRemedy
 change to 1-bit integer.
 Proposed Response Response Status **O**

CI 143 SC 143.4.4.3 P89 L13 # 85
 Remein, Duane Huawei Technologies
 Comment Type **TR** Comment Status **X**
 100G-EPON stuff. "For 100 Gb/s devices N = 4, for 50 Gb/s devices N = 2, and for 25 Gb/s devices N = 1."
 SuggestedRemedy
 Change to: "For 50 Gb/s devices N = 2 and for 25 Gb/s devices N = 1."
 Proposed Response Response Status **O**

CI 143 SC 143.4.4.4 P89 L32 # 86
 Remein, Duane Huawei Technologies
 Comment Type **E** Comment Status **X**
 This editorial note has served its purpose; "EDITOR NOTE: the IsHeader() function was originally defined ..."
 SuggestedRemedy
 Strike note
 Proposed Response Response Status **O**

CI 143 SC 143.4.4.4 P89 L34 # 87
 Remein, Duane Huawei Technologies
 Comment Type **TR** Comment Status **X**
 IsMisaligned is written for an ordered set header
 SuggestedRemedy
 Replace function definition with:

```
bool IsMisaligned(EQ eq)
{
    return(( eq<39:36> == 0xF AND // Mis-aligned INTER_ENV_IDLE
    eq<71:40> == 08080808 ) // ... s.b. INTER_ENV_IDLE
    OR
    ( eq<39:36> == 0x8 AND // Misaligned Env. Header
    eq<47:40> == 0xFB )); // ... s.b. Start Control Code
}
```

 Proposed Response Response Status **O**

CI 143 SC 143.4.4.4 P90 L17 # 88
 Remein, Duane Huawei Technologies
 Comment Type **TR** Comment Status **X**
 The function, SetMacOctet is not defined.
 SuggestedRemedy
 Add in 143.3.3:
 SetMacOctet(link_id, rx_data, data_valid)
 This function shifts the eight bits in rx_data to the MAC using the PLS_DATA.indication, along with the data_valid Boolean using the PLD_DATA_VALID.indication to the MAC associated with link_id.
 Proposed Response Response Status **O**

CI 143 SC 143.4.4.4 P90 L27 # 89
 Remein, Duane Huawei Technologies
 Comment Type **E** Comment Status **X**
 This phrase does not make sense. "due to different ONUs and transport skew,"
 SuggestedRemedy
 Change to "due to different delay and transport skew for each ONU,"
 Proposed Response Response Status **O**

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

Cl 143 SC 143.4.4.5.2 P91 L39 # 90
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 Clarification to "no subsequent frames are lost due to the error"
 SuggestedRemedy
 Change to read: "no subsequent frames are lost due to the error since the next envelope continuation header will resynchronize the process for the following frame."
 Proposed Response Response Status O

Cl 144 SC 144.3.3 P98 L33 # 2
 Heaven, Bo Huawei
 Comment Type E Comment Status X
 LLID looks a not that accurate.
 SuggestedRemedy
 Change "LLID" to "PLID and MLID"
 Proposed Response Response Status O

Cl 143 SC 143.4.4.5.2 P92 L33 # 91
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 What is magical about OutEQ<16> = 1?
 SuggestedRemedy
 It represents an Envelope Start Header.
 Replace OutEQ<16> = 1 with OutEQ<16> = ES_HEADER
 Add definition to constants:
 ES_HEADER
 TYPE: integer
 Value: 1
 The value of the envelope Start Flag indicating the header is an envelope start header.
 Proposed Response Response Status O

Cl 144 SC 144.3.3 P98 L36 # 3
 Heaven, Bo Huawei
 Comment Type E Comment Status X
 as same as above
 SuggestedRemedy
 Proposed Response Response Status O

Cl 144 SC 144.1.6 P97 L18 # 92
 Remein, Duane Huawei Technologies
 Comment Type ER Comment Status X
 In 10G these were included in the variable definitions. This would be better imho than in conventions.
 SuggestedRemedy
 Move MACI & MAD I definitions to the variable definitions section.
 Proposed Response Response Status O

Cl 144 SC 144.3.3.5 P103 L24 # 101
 Remein, Duane Huawei Technologies
 Comment Type TR Comment Status X
 I find neither MAC:MADI nor MAC:MADI in 2.3.2. Same issue pg. 113 and 117.
 SuggestedRemedy
 spell out the alias so that the definition can be found in the referenced section.
 Proposed Response Response Status O

Cl 144 SC 144.3.3.5 P103 L35 # 102
 Remein, Duane Huawei Technologies
 Comment Type TR Comment Status X
 We're using new opcodes for our messages.
 SuggestedRemedy
 Change names for all Opcodes used (suggest xxx25, so DISCOVERY25). Open 31A and add new opcodes to Table 31A-1.
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 144 SC 144.3.3.5 P106 L44 # 103
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 OpcodeSpecificFunction does not seem to be used anywhere but it is defined twice; here and on pg. 114.
 SuggestedRemedy
 Remove both definitions.
 Proposed Response Response Status O

CI 144 SC 144.3.3.6 P107 L5 # 4
 Heaven, Bo Huawei
 Comment Type TR Comment Status X
 The broadcast LLID of 25G should be defined for distinguishing from 10G's in the case of coexistence with 10GEPON
 SuggestedRemedy
 Change "0x7FFE" to "0x7FFD"
 Proposed Response Response Status O

CI 144 SC 144.3.3.6 P110 L15 # 5
 Heaven, Bo Huawei
 Comment Type TR Comment Status X
 Cannot find the definition of GuardThresholdOLT
 SuggestedRemedy
 The value of 8EQs for the purpose of promoting the accuracy of upstream will be good to carry realtime service in upstream
 Proposed Response Response Status O

CI 144 SC 144.3.4.6 P115 L11 # 104
 Remein, Duane Huawei Technologies
 Comment Type TR Comment Status X
 Is there precedence for using a for loop within a state in a SD?
 SuggestedRemedy
 I could not find any. If it exists I may withdraw this comment.
 I suggest splitting the states that use the construct into two. One state would set the variables that don't need the looping and another to set those variable that do need the looping.
 Proposed Response Response Status O

CI 144 SC 144.3.4.6 P115 L47 # 105
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 "MCI:NADR" s/b "MCI:MADR"
 SuggestedRemedy
 per comment
 Proposed Response Response Status O

CI 144 SC 144.3.5 P116 L3 # 106
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 We now have multiple transmitters "...arbitrate a single transmitter ..."
 SuggestedRemedy
 Change to "... arbitrate specific transmitters ..."
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 144 SC 144.3.5 P116 L13 # 107
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 Should we also concern ourselves with the minimum maximum and maybe median maximums? "The OLT shall not issue more than the maximum supported maximum outstanding grants as advertised by the ONU during registration (see pending grants in 77.3.6.3)."
 SuggestedRemedy
 Change to: ""The OLT shall not issue to an ONU more outstanding grants than the pending grants parameter advertised during registration (see pending grants in 77.3.6.3)."
 Proposed Response Response Status O

CI 144 SC 144.3.5 P116 L17 # 108
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 "In order to maintain the watchdog timer at the ONU, grants are periodically generated." Can they be any grants to any ONU?
 SuggestedRemedy
 Add to the sentence so it reads: "In order to maintain the watchdog timer at the ONU, grants are periodically generated for that ONU."
 Proposed Response Response Status O

CI 144 SC 144.3.5.5 P118 L14 # 110
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 MCC:MACR() missing DA
 SuggestedRemedy
 Add DA to message.
 Proposed Response Response Status O

CI 144 SC 144.3.5.5 P118 L14 # 111
 Remein, Duane Huawei Technologies
 Comment Type TR Comment Status X
 The definition of MCC:MACR(DA, GATE ...) in 144.36.3.5 states for LLID[7] "Only elements j with non-zero value in associated Length[j] field of the array are used." Similar statements are made for Length, Fragment, etc. However, in the normative SD there is no accommodation for omitting zero length fields.
 Same issue in Fig 144-5 ONU GATE Reception Process state diagram pg. 119 and possibly Fig 144-11 (pg. 115), and Fig 144-12 (pg. 115).
 SuggestedRemedy
 In the SD change the "[7]" for LLID, Length, Fragment and ForceReport to "[n]". In SEND GATE state change for "(i=0;i<7;i++)" to "for (i=0;i<n;i++)".
 Add a definition for "n" as the integer number of non-zero value Length(j) fields.
 Proposed Response Response Status O

CI 144 SC 144.3.5.6 P117 L31 # 109
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 MA_CONTROL.request(DA, GATE, ChMap, StartTime, LLID[7], Length[7], Fragment[7], ForceReport[7]) is not defined in 144.3.3.5. Perhaps MCC:MACR(DA, GATE, ChMap, StartTime, LLID[7], Length[7], Fragment[7], ForceReport[7]) is being referred to.
 SuggestedRemedy
 Change to: MCC:MACR(DA, GATE, ChMap, StartTime, LLID[7], Length[7], Fragment[7], ForceReport[7])
 Proposed Response Response Status O

CI 144 SC 144.3.7 P122 L2 # 112
 Remein, Duane Huawei Technologies

Comment Type TR Comment Status X

We use normative language here for the generic MPCPDU but informative language when describing details of the specific MPCPDUs (except for LLID type and a few other parameters). It would be more precise to use informative language here and normative language with the specifics. This will also make PICs easier as there will only need to be one PICS statement per MPCPDU type rather than multiple requirements (see MP6-16 in CI 64).

SuggestedRemedy

Change:
 "The MPCPDU structure shall be as shown in Figure 144–17, and is further defined as follows:" to read
 "The MPCPDU structure is shown in Figure 144–17, with details defined as follows:"

In the opening paras for each MPCPDU type change from:
 "The mpcpdu_type MPCPDU is an instantiation of the Generic MPCPDU, and is further defined as follows:" to
 "The mpcpdu_type MPCPDU is an instantiation of the Generic MPCPDU and shall be as shown in Figure 144-xx with details defined as follows:"
 where mpcpdu_type is one of DISCOVERY GATE, REGISTER_REQ, REGISTER, REGISTER_ACK, GATE, or REPORT and xx is replace with the appropriat figure ref.

Where there is additional normative language in the description change it to be informative. For example sentences such as:
 "The mpcpdu_type MPCPDU shall be generated by a MAC Control instance ..."
 Change to:
 "The mpcpdu_type MPCPDU is generated by a MAC Control instance ..."

Proposed Response Response Status O

CI 144 SC 144.3.7 P122 L4 # 113
 Remein, Duane Huawei Technologies

Comment Type TR Comment Status X

We now have a specific LLID for MPCP traffic; the PLID. Shouldn't this be reflected in DA and SA?

SuggestedRemedy

Change "port" to "PLID" so this reads:
 a) Destination Address (DA). The DA in MPCPDU is the MAC Control Multicast address as specified in the annexes to Clause 31, or the individual MAC address associated with the PLID to which the MPCPDU is destined.
 b) Source Address (SA). The SA in MPCPDU is the individual MAC address associated with the PLID through which the MPCPDU is transmitted. For MPCPDUs originating at the OLT end, this can be the address any of the individual MACs. These MACs may all share a single unicast address, as explained in 144.1.2.

Proposed Response Response Status O

CI 144 SC 144.3.7 P122 L40 # 114
 Remein, Duane Huawei Technologies

Comment Type TR Comment Status X

We've lost all reference to the order in which bits within a field are transmitted.

SuggestedRemedy

In all MPCPDU message figures add the following note: "Octets within the frame are transmitted from top to bottom. Bits within a field or word are transmitted left to right with the leftmost bit within a field being the lsb." The arrow/note to the right of the octet numbering can then be removed.
 Note that the label "Octets" should be kept and placed above the rightmost column of numbers.

Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 144 SC 144.3.7.1 P122 L43 # 115
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 The order in which we describe MPCPDUs does not follow any logical order. We should first describe discovery & registration then proceed to Gates & Reports. In 1G & 10G Gates included discovery so there was some logic to the order.
 SuggestedRemedy
 Put MPCPDU descriptions in the following order; DISCOVERY, REGISTER_REQ, REGISTER, REGISTER_ACK, GATE, and REPORT.
 Proposed Response Response Status O

CI 144 SC 144.3.7.1 P122 L45 # 170
 Kramer, Glen Broadcom
 Comment Type TR Comment Status X
 Description of GATE message is wrong. Grants with zero length are valid and are used to request a report for a specific LLID without granting that LLID.
 Reports are not sent in the associated grants. They are sent in PLID grant.
 Transmission overhead components are not included in granted length.
 SuggestedRemedy
 Replace the text of this subclause with the text provided in the attached file kramer_3ca_3_0518.pdf.
 Proposed Response Response Status O

CI 144 SC 144.3.7.1 P124 L22 # 6
 Heaven, Bo Huawei
 Comment Type ER Comment Status X
 Should define a value for invalid LLID used for GATE with less then 7 grants
 SuggestedRemedy
 Add description such as "The value of invalid LLID is 0"
 Proposed Response Response Status O

CI 144 SC 144.3.7.1 P124 L24 # 116
 Remein, Duane Huawei Technologies
 Comment Type TR Comment Status X
 "All transmission overhead components (see TBD) are included in and thus consume part of the granted transmission slot." This was reasonable when there was a one-to-one start time and length per grant in a GATE but is it reasonable when there is one start time and multiple grant lengths? Where does the sync pattern time come from, the first grant or the last one or is it equally deducted from each?
 SuggestedRemedy
 Change to : "Burst transmission overhead components (Start of Burst and End of Burst) are not included in the grant length parameters whereas parity overhead is."
 Proposed Response Response Status O

CI 144 SC 144.3.7.1 P124 L26 # 7
 Heaven, Bo Huawei
 Comment Type TR Comment Status X
 We can learn that each ENV length of grant does not include FEC overhead and burst overhead from Figure 143-13
 SuggestedRemedy
 "All transmission overhead components (see TBD) are included in and thus consume part of the granted transmission slot." should be removed
 Proposed Response Response Status O

CI 144 SC 144.3.7.1 P124 L27 # 117
 Remein, Duane Huawei Technologies
 Comment Type TR Comment Status X
 Text for Fragmentation flag.
 SuggestedRemedy
 When this flag is set to 0 the ONU shall not fragment a frame; when set to a 1 fragmentation is allowed within the respective grant.
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

Cl 144 SC 144.3.7.1 P124 L29 # 118
 Remein, Duane Huawei Technologies
 Comment Type **TR** Comment Status **X**
 FR is normative.
 SuggestedRemedy
 change:
 "no action is required from the ONU" to "the ONU may issue a gratuitous REPORT"
 "the ONU should issue a REPORT" to "the ONU shall issue a mandatory REPORT"
 At the end of the para add "An ONU must transmit mandatory REPORTs prior to gratuitous REPORTs."
 Proposed Response Response Status **O**

Cl 144 SC 144.3.7.1 P124 L32 # 119
 Remein, Duane Huawei Technologies
 Comment Type **E** Comment Status **X**
 Oxymoronic statements have no place in a standard; "This is an empty field that is transmitted as zeroes" If the field has zeroes in it , it cannot be empty.
 Same issue at pg. 124 ln. 48, pg. 126 ln. 49, pg. 128 ln. 15, and 129 ln. 20.
 SuggestedRemedy
 Change to: "This field is transmitted as zeroes"
 Proposed Response Response Status **O**

Cl 144 SC 144.3.7.1 P124 L46 # 121
 Remein, Duane Huawei Technologies
 Comment Type **T** Comment Status **X**
 100G-EPON stuff. Table 144-1 Channel Assignment flags bits 2 & 3 should be reserved.
 SuggestedRemedy
 per comment
 Proposed Response Response Status **O**

Cl 144 SC 144.3.7.2 P124 L39 # 120
 Remein, Duane Huawei Technologies
 Comment Type **E** Comment Status **X**
 missing article
 SuggestedRemedy
 Change "- Time stamp" to "- the time stamp"
 Proposed Response Response Status **O**

Cl 144 SC 144.3.7.2 P124 L46 # 122
 Remein, Duane Huawei Technologies
 Comment Type **TR** Comment Status **X**
 Text for b)
 SuggestedRemedy
 The number of LLIDs in the ONU with non-empty queues.
 Proposed Response Response Status **O**

Cl 144 SC 144.3.7.2 P124 L47 # 123
 Remein, Duane Huawei Technologies
 Comment Type **TR** Comment Status **X**
 Text for c)
 SuggestedRemedy
 The local time, in units of EQt, at which the REPORT information was collected in the ONU.
 Proposed Response Response Status **O**

Cl 144 SC 144.3.7.2 P125 L53 # 124
 Remein, Duane Huawei Technologies
 Comment Type **TR** Comment Status **X**
 Shouldn't this be the PLID?
 SuggestedRemedy
 Change "a unicast type of LLID (see TBD)." to "the PLID of the originating ONU."
 Proposed Response Response Status **O**

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

CI 144 SC 144.3.7.3 P126 L8 # 125
 Remein, Duane Huawei Technologies
 Comment Type ER Comment Status X
 The presentation order of tables and figures seems backwards (low level details are presented before high-level details) and is opposite to that in previous sections.
 SuggestedRemedy
 Reorder section so Figure 144-20 comes before Table 144-2 & 3. Add reference to Figure 144-20 in the opening para. Edit sections 144.3.7.4, 144.3.7.5, and 144.3.7.6 similarly.
 Proposed Response Response Status O

CI 144 SC 144.3.7.3 P126 L22 # 126
 Remein, Duane Huawei Technologies
 Comment Type T Comment Status X
 Exactly where is Pending Grants configured (which imho implies provisioning).
 SuggestedRemedy
 Change "configured to buffer" to "capable of buffering"
 Proposed Response Response Status O

CI 144 SC 144.3.7.6 P130 L3 # 127
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 Errant reference to Table 144-1 s/b 144-6
 SuggestedRemedy
 per comment
 Proposed Response Response Status O

CI 144 SC 144.3.7.6 P130 L8 # 172
 Kramer, Glen Broadcom
 Comment Type T Comment Status X
 Both normal GATEs and discovery GATEs are scheduled by the same scheduler. Since normal GATEs have grant length limited to 22 bits, we should apply the same limit to the discovery grant length. This will allow the entire scheduler operate on 22-bit numbers.
 SuggestedRemedy
 Replace the text "Discovery Grant Length: This 24-bit unsigned field represents the length of the discovery grant, expressed in the units of 1 EQ."
 with text "Discovery Grant Length: This 22-bit unsigned field represents the length of the discovery grant, expressed in the units of 1 EQ."
 In Figure 14-23, show the two most-significant bits of grant length as reserved.
 Proposed Response Response Status O

CI 144 SC 144.3.7.6 P130 L40 # 9
 Dekun, Liu Huawei
 Comment Type TR Comment Status X
 page 7 and 8 is basically the same, the only difference is that all ONUs calculate the RSSI thresholds thx based on ONUs' typical launch power in page 7, while every ONU calculate the RSSI thresholds thx based on its transmitter TSSI in page 8. Considering that, if the ONU calculates the RSSI thresholds based on its typical launch power or TSSI is only an ONU's inner implementation issue, ONU can decide it by itself. So the current Table 144-6 can cover both the ways in page 7 and page 8. Only some illustration on how ONUs calculates RSSI thresholds is newly needed.
 SuggestedRemedy
 Add the following text below Table 144-6:
 th0, th1, th2 are ONU RSSI thresholds, they can be calculated by ONU based on the following equations:
 $th0 = TH0 - (ONU_Tx - OLT_Tx)$
 $th1 = TH1 - (ONU_Tx - OLT_Tx)$
 $th2 = TH2 - (ONU_Tx - OLT_Tx)$
 TH0, TH1 and TH2 are OLT receiver thresholds which are announced by OLT, the unit is in dBm.
 OLT_Tx is the OLT transmitter launch power which are announced by OLT, ONU_Tx is the ONU transmitter launch power, the unit of (ONU_Tx - OLT_Tx) is in dB.
 Proposed Response Response Status O

Comments Received Specifications and Management Parameters for 25Gb/s, 50Gb/s, and 100Gb/s Passive Optical Networks 1:

Cl 144 SC 144.3.7.7 P131 L1 # 151
Hajduczenia, Marek Charter Communicatio

Comment Type TR Comment Status X

New SYNC_PATTERN MPCPDU is needed to address the need for dynamic configuration of Sync Pattern zones (value and/or duration)

SuggestedRemedy

See hajduczenia_3ca_1_0518.pdf for motivation and hajduczenia_3ca_2_0518.pdf for all changes in Clause 144 needed to accommodate the new mechanism, including new MPCPDU, changes to existing MPCPDUs, state diagrams, and associated text. All changes to the original D1.0 MPCP Clause are marked in red, including strike-throughs where appropriate.

Proposed Response Response Status O

Cl Abstract SC Abstract P3 L4 # 1
Heaven, Bo Huawei

Comment Type T Comment Status X

Does 50G/10G include case of 2x25G downstream and 1x10G upstream.

SuggestedRemedy

How about add option of 2x25G downstream and 2 x 10G upstream(50G/20G)

Proposed Response Response Status O