

CI 00 SC 0 P L # 4280  
Remein, Duane Huawei Technologies

Comment Type E Comment Status X

Update Template per V2.5  
Changes between Version 2.4 and Version 2.5  
- base\_year variable changed from 201x to 2015  
- note regarding the number of levels in the table of contents added  
- "A full duplex MAC protocol was added in 1997." added to the Introduction section in front matter.

SuggestedRemedy

Per comment

Proposed Response Response Status O

CI 00 SC 0 P L # 4295  
Remein, Duane Huawei Technologies

Comment Type TR Comment Status X

Clause 31A Table 31A-1 lists Mac Control opcode assignments and clauses they are specific in. Clause 103 should be listed for GATE, REPORT, REGISTER\_REQ, REGISTER, and REGISTER\_ACK opcodes.

There are 9 cross references in the draft to Table 31A-1

SuggestedRemedy

Open CI 31a, Table 31A-1 and add listings for CI 103.

Make the 9 cross references to Table 31A-1 live.

Proposed Response Response Status O

CI 00 SC 0 P 0 L 0 # 4231  
Hajduczenia, Marek Bright House Networks

Comment Type TR Comment Status X

Resource Block and Resource Element are used in the document in multiple locations, yet there is NO definition of what these are, and how they are related to channel parameters.

SuggestedRemedy

Please add definitions of Resource Block and Resource Element, at best early on, to avoid having to back and forth on what these really are  
Once it is done, it would be nice to use consistent naming for these (capitalization) as well as decide whether you want to use acronyms or not - they are used sometimes right now, but not consistently.

Proposed Response Response Status O

CI 00 SC 0 P 0 L 0 # 4244  
Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X

CMP version of the draft is useless - most of figures are not marked correctly (hard to figure out which figure was added and which was removed). Also, there is no clear indication of what was modified in PICS

SuggestedRemedy

Given the the scope of recirculation is limited to changed text only, without clear CMP file it is hard to judge what was modified and what was NOT

Proposed Response Response Status O

CI 00 SC 0 P 34 L 22 # 4283  
Remein, Duane Huawei Technologies

Comment Type ER Comment Status X

We refer to the variable here as "DS\_FreqCh1" without parenthesis. However in 100.2.7.3 where it is defined it is "DS\_FreqCh(n)"

SuggestedRemedy

Change all instances of "DS\_FreqCh#" to "DS\_FreqCh(#)" where "#" is any single character 1, 2, 3, 4, 5 or n.

Proposed Response Response Status O

CI 00 SC 0 P 37 L 1 # 4292  
 Remein, Duane Huawei Technologies

Comment Type TR Comment Status X

We need a variable and register to identify which OFDM channel profile is to be copied.

*SuggestedRemedy*

In Table 101-1 Add new row

"DS copy channel ID | Profile control | 1.1910.6:4 | DS\_CpyCh10 | 6:4"

In 101.4.1.1. pg 159 line 24 change:

"This is controlled via the DS\_PrflCpy and US\_PrflCpy variables." to

"This is controlled via the DS\_PrflCpy, DS\_CpyCh and, US\_PrflCpy variables.

Create variable in 101.4.1.1.2 as follows:

"DS\_CpyCh

TYPE: 3-bit unsigned integer

This variable identifies which of the 5 downstream OFDM channel profiles (profile 1 to 5) is to be copied into the downstream profile variables."

Create new register entry as follows:

In Table 45-98g add:

"1.1910.6:4 | DS copy channel ID | Indicates which of the 5 downstream OFDM channel profiles is to be copied."

Change "1.1910.7:4" to "1.1910.7"

Add new section 45.2.1.137.3:

"45.2.1.137.4 DS copy channel ID (1.1910.6:4)

Bits 1.1910.6:4 indicate which one of the five downstream ODFM channel profiles is to be copied. These bits are a reflection of the >>DS\_CpyCh<< variable defined in 101.4.1.1.1."

>><< indicate italics text

Proposed Response Response Status

CI 00 SC 0 P 47 L 8 # 4277  
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X

EPoC Message Block or EPoC message block? we use both.

*SuggestedRemedy*

Use EPoC message block

Proposed Response Response Status

CI 01 SC 1.4 P 21 L 24 # 4279  
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X

From 802.3 2015

"1.4.400 time\_quantum: The unit of measurement for time related parameters specified in Multipoint MAC Control.

NOTE—See Clause 64 and Clause 77. The value of time\_quantum is defined in 64.2.2.1."

*SuggestedRemedy*

Add Editing instruction for 1.4.400 using proper change markings follows

"Change the note in 1.4.400 as follows

NOTE—See Clause 64, and Clause 77, and Clause 103. The value of time\_quantum is defined in 64.2.2.1."

Proposed Response Response Status

CI 01 SC 1.4.134 P 20 L 21 # 4290  
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

Align definition of channel with modifications being made in P802.3by (see <http://www.ieee802.org/3/by/public/comments/comment#104>)

"With editorial licence to coordinate with other 802.3 editors...

Change from 802.3by

"1.4.134 channel: In 10BROAD36, a band of frequencies dedicated to a certain service transmitted on the broadband medium (see IEEE Std 802.3, Clause 11). Otherwise, a defined path along which data in the form of an electrical or optical signal passes."

*SuggestedRemedy*

Change:

"Change the definition of 1.4.134 as follows:

1.4.134 channel: In 10BROAD36 and 10GPASS-XR, a band of frequencies dedicated to a certain service transmitted on the broadband medium. (See IEEE Std 802.3, Clause 11, Clause 100, and Clause 101.)"

To:

"Change the definition of 1.4.134 as modified by P802.3bby as follows:

1.4.134 channel: In 10BROAD36 >>\_ and 10GPASS-XR, <<\_ a band of frequencies dedicated to a certain service transmitted on the broadband medium. Otherwise, a defined path along which data in the form of an electrical or optical signal passes. (For 10BROAD36 >>\_ and 10GPASS-XR, <<\_ see IEEE Std 802.3, Clause 11>>\_, Clause 100, and Clause 101).<<\_)"

Where >>\_ xyz <<\_ indicates underlined text "xyz"

Proposed Response Response Status

**Cl 01**    **SC 1.4.144a**                      **P 20**                      **L 26**                      # **4297**  
 Anslow, Pete                                      Ciena

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

"comprising of" is poor english.  
 Same issue in 1.4.294b

**SuggestedRemedy**  
 Change "comprising of" to "composed of" here and also in 1.4.294b

**Proposed Response**                      **Response Status**    **O**

**Cl 01**    **SC 1.4.294b**                      **P 21**                      **L 1**                      # **4298**  
 Anslow, Pete                                      Ciena

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

"A optical" should be "An optical"  
 "fiber optical" does not occur in 802.3 whereas "fiber optic" occurs 438 times

**SuggestedRemedy**  
 Change "A optical" to "An optical"  
 Change "fiber optical" to "fiber optic"

**Proposed Response**                      **Response Status**    **O**

**Cl 01**    **SC 1.4.331**                      **P 21**                      **L 10**                      # **4299**  
 Anslow, Pete                                      Ciena

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

Deleting the definition in 1.4.331 and re-numbering will change the definition numbering from that point onwards for all subsequent amendments as well as the numbering for this draft. Since P2MP occurs 132 times within 802.3 it seems reasonable to have some explanation of the term in addition to the simple expansion in 1.5.

**SuggestedRemedy**  
 If there is an issue with the definition of P2MP network, then change the definition to be just for P2MP.  
 If the definition has to be deleted, then the numbering of subsequent definitions in the draft have to be changed.  
 See IEEE Std 802.3bk-2013 (which deleted 1.4.27) for an example of this painful process.  
 The editing instruction: "Insert the following definitions after 1.4.345 "Q" as follows:" would become: "Insert the following definitions after 1.4.344 "Q" (renumbered from 1.4.345 by the deletion of 1.4.331) as follows:" etc.

**Proposed Response**                      **Response Status**    **O**

**Cl 30**    **SC 30.3.2.1.2**                      **P 23**                      **L 15**                      # **4300**  
 Anslow, Pete                                      Ciena

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

"Clause 101" should be a cross-reference here and on line 27

**SuggestedRemedy**  
 Make "Clause 101" a cross-reference here and on line 27

**Proposed Response**                      **Response Status**    **O**

**Cl 30**    **SC 30.3.5.1.2**                      **P 1**                      **L 1**                      # **4270**  
 Laubach, Mark                                      Broadcom

**Comment Type**    **ER**                      **Comment Status**    **X**

Add cross references for Clause 103 to two places in Clause 30.

**SuggestedRemedy**  
 Insert editing directives to IEEE editor(s) for "30.3.5.1.2 aMPCPAdminState" AND "30.3.5.1.3 aMPCPMode" to add Clause 103 to cross references: i.e. change "in Clause 64 or Clause 77" to "in Clause 64, Clause 77, or Clause 103".

**Proposed Response**                      **Response Status**    **O**

**Cl 30**    **SC 30.5.1.1.2**                      **P 33**                      **L 48**                      # **4262**  
 Laubach, Mark                                      Broadcom

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

Verify clause 30 changes with experts

**SuggestedRemedy**  
 Need to talk with 802.3 Clause 30 experts for sanity check. Make this an AIP if any changes need to be made.

**Proposed Response**                      **Response Status**    **O**

Cl 45 SC 45.2. P 40 L 52 # 4315  
 Carlson, Steve High Speed Design, Inc.

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

The text states:

"Bits 1.1920.15:0 are reserved in the event the MAC address is expanded to 64 bits in the future."

It is not appropriate to suggest a future use for register bits. They should simply be marked as "reserved."

*SuggestedRemedy*

Remove 45.2.1.142.3

Proposed Response Response Status

Cl 45 SC 45.2. P 43 L 13 # 4313  
 Carlson, Steve High Speed Design, Inc.

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

In Table 45-98r— and Table 43-98q "formated" is incorrect.

*SuggestedRemedy*

Change "formated" to "formatted" in both tables.

Proposed Response Response Status

Cl 45 SC 45.2.1.4 P 29 L 20 # 4261  
 Marris, Arthur Cadence Design Syste

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

45.2.1.4.b should be inserted after 45.2.1.4.b

*SuggestedRemedy*

Make editing instruction on line 20:

"Insert 45.2.1.4.b after 45.2.1.4.a (as inserted by IEEE Std 802.3by-201x) as follows:"

Delete the "Reserved for future speeds" row from Table 45-6 so only the "10GPASS-XR capable" row remains.

Make editing instruction on line 3:

"Insert a new row in Table 45-6 below the row for 1.4.11 as inserted by IEEE Std 802.3by-201x as follows (unchanged rows not shown):"

Proposed Response Response Status

Cl 45 SC 45.2.1.4.b P 29 L 19 # 4301  
 Anslow, Pete Ciena

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

"Insert 45.2.1.4.b before 45.2.1.4.a" should be "Insert 45.2.1.4.b after 45.2.1.4.a"  
 Also, there is a spurious " at the end of the editing instruction and also at the end of the subclause text.

*SuggestedRemedy*

Change "Insert 45.2.1.4.b before 45.2.1.4.a" to "Insert 45.2.1.4.b after 45.2.1.4.a"

Delete the two spurious instances of "

Proposed Response Response Status

Cl 45 SC 45.2.1.4.b P 29 L 20 # 4184  
 Hajduczenia, Marek Bright House Networks

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

>>Insert 45.2.1.4.b before 45.2.1.4.a (as inserted by IEEE Std 802.3by-201x) as follows:"<< - extra " at the end of editorial instructions

*SuggestedRemedy*

Remove extra "

Similar change on page 29, line 25

Proposed Response Response Status

CI 45 SC 45.2.1.6 P 30 L 14 # 4185  
 Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X  
 No RO in Table 45-7

SuggestedRemedy  
 No need to include in the draft amendment

Proposed Response Response Status O

CI 45 SC 45.2.1.14a P 30 L 19 # 4302  
 Anslow, Pete Ciena

Comment Type E Comment Status X  
 The P802.3bw draft (which has completed sponsor ballot) has inserted 45.2.1.14a for register 1.18. As register 1.17 is before this, 45.2.1.14a should be 45.2.1.14aa.  
 Same issue for Table 45-17a which has to be Table 45-17aa

SuggestedRemedy  
 Renumber 45.2.1.14a to be 45.2.1.14aa and Table 45-17a to be Table 45-17aa

Proposed Response Response Status O

CI 45 SC 45.2.1.131 P 31 L 1 # 4281  
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X  
 Subclause numbering in Clause 45 will need to be adjusted depending on publication order of drafts in process.

SuggestedRemedy  
 Add the following Editor's note before Editing instruction for 45.2.1.131:  
 "Editor's Note (to be removed prior to publication): The Clause numbering in Clause 45 will need to be updated once the publication order of the various amendments is determined."

Proposed Response Response Status O

CI 45 SC 45.2.1.137.2 P 37 L 44 # 4287  
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X  
 This wording  
 "When read as zero this bit indicates no copy is to be initiated."  
 should match the formal definition in 101.4.1.2  
 "This variable is set to FALSE by the PHY on or before completion of the profile copy."

Similar issue in 45.2.1.137.5

SuggestedRemedy  
 In 45.2.1.137.2 change:  
 "When read as zero this bit indicates no copy is to be initiated."  
 To:  
 "This bit is set to zero by the PMA/PMD on or before completion of the profile copy."

In 45.2.1.137.5 change:  
 "When read as zero this bit indicates no copy is to be initiated."  
 To:  
 "This bit is set to zero by the PMA/PMD on or before completion of the profile copy."

Proposed Response Response Status O

CI 45 SC 45.2.1.141.1 P 40 L 4 # 4186  
 Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X  
 "When set to zero the associated CNU\_ID has not been assigned." - when what is set to zero?

SuggestedRemedy  
 Change "When set to zero the associated CNU\_ID has not been assigned." to "When bit 1.1915.15 is set to zero the associated CNU\_ID has not been assigned."

Proposed Response Response Status O

CI 45 SC 45.2.1.142.3 P 40 L 52 # 4187  
 Hajduczenia, Marek Bright House Networks

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

There is NO reason to indicate why something is reserved. There can be hundreds of reasons why these bits might be used and it is not the role of the TF to restrict how future amendments are done (or not)

SuggestedRemedy  
 remove 45.2.1.142.3

Proposed Response Response Status **O**

CI 45 SC 45.2.1.147 P 42 L 37 # 4188  
 Hajduczenia, Marek Bright House Networks

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

"UQ34.3 formatted number" - I believe it is "formatted" and not "formatted"

SuggestedRemedy  
 Change all instances of "formatted" to "formatted"

Proposed Response Response Status **O**

CI 45 SC 45.2.1.149 P 43 L 45 # 4189  
 Hajduczenia, Marek Bright House Networks

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

"NMW = Multi-word" - only MW is used in the table

SuggestedRemedy  
 Change "NMW" to "MW" - scrub the rest of the draft

Proposed Response Response Status **O**

CI 45 SC 45.2.1.162.1 P 48 L 28 # 4190  
 Hajduczenia, Marek Bright House Networks

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

"Bits 1.1949.15:0 through 1950.7:0 form a 24 bit value" - I believe "24 bit" is used as an adjective and should be hyphenated

SuggestedRemedy  
 Change "24 bit" to "24-bit". Also, scrub the rest of the draft for similar use cases and insert hyphens as needed

Proposed Response Response Status **O**

CI 45 SC 45.2.1.163.2 P 49 L 10 # 4303  
 Anslow, Pete Ciena

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

"0.25 dBmV/1.6MHz"  
 There should always be a (non-breaking) space between a number and its unit.  
 Also, the draft is inconsistent as to whether there are spaces either side of the /

SuggestedRemedy  
 Change this instance from "0.25 dBmV/1.6MHz" to "0.25 dBmV / 1.6 MHz" using non-breaking spaces (Ctrl space) for all four spaces to ensure that it does not break across two lines.  
 Go through the rest of the draft to make all other instances of similar text consistent.

Proposed Response Response Status **O**

CI 45 SC 45.2.1.163.2 P 49 L 10 # 4191  
 Hajduczenia, Marek Bright House Networks

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

"Response in units of 0.25 dBmV/1.6MHz." - missing space between numeric value and units in "1.6MHz"

SuggestedRemedy  
 Insert the missing space. Make sure all values in the draft have a following space before unit.  
 There are multiple instances in the draft (quick search shows at least 10 hits for problems with MHz)

Proposed Response Response Status **O**

**Cl 45**    **SC 45.2.1.165**    **P 50**    **L 1**    # **4192**  
Hajduczenia, Marek    Bright House Networks

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

Footnote separated from the table

**SuggestedRemedy**  
Please make sure footnotes do not get separated from the tables

**Proposed Response**    **Response Status**    **O**

**Cl 45**    **SC 45.2.1.166.3**    **P 51**    **L 23**    # **4193**  
Hajduczenia, Marek    Bright House Networks

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

"Bits 1.1959.14:0 indicate which CNU the CLT is to measure the received power on." - there is no information on how these CNUs are identified, i.e., what value is inserted into this register

**SuggestedRemedy**  
Provide information on how the CNU is beign identified.

**Proposed Response**    **Response Status**    **O**

**Cl 45**    **SC 45.2.7a.5.3**    **P 56**    **L 22**    # **4194**  
Hajduczenia, Marek    Bright House Networks

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

This does not read right: "Bits 12.10241.14:0 indicate which CNU on which to measure the MER and report in registers 12.10242 through 12.12287"

**SuggestedRemedy**  
Change to "Bits 12.10241.14:0 indicate the CNU on which to measure the MER and report in registers 12.10242 through 12.12287."  
Add also information on how this CNU is identified - there is no information on this right now.

**Proposed Response**    **Response Status**    **O**

**Cl 100**    **SC 100.1.3**    **P 71**    **L 46**    # **4195**  
Hajduczenia, Marek    Bright House Networks

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

"mode, is defined in clause, with downstream data rate calculation in 100.2.6.1" - which Clause is it defined in?

**SuggestedRemedy**  
Provide information on which clause the said PMD is defined in (likely, Clause 100)

**Proposed Response**    **Response Status**    **O**

**Cl 100**    **SC 100.1.4**    **P 73**    **L 3**    # **4196**  
Hajduczenia, Marek    Bright House Networks

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

Dead link: "numbered register for Clause 45 registers." - no way to check all of them in PDF

**SuggestedRemedy**  
Please scrub the draft and make sure all links are live / active.

**Proposed Response**    **Response Status**    **O**

**Cl 100**    **SC 100.2**    **P 93**    **L 34**    # **4314**  
Carlson, Steve    High Speed Design, Inc.

**Comment Type**    **ER**    **Comment Status**    **X**

Line 30 uses log (sub)10, yet line 42 uses log10. Are these supposed to be the same?

**SuggestedRemedy**  
Please clarify if line 42 is intended to be log (sub) 10.

**Proposed Response**    **Response Status**    **O**

**Cl 100**    **SC 100.2**    **P 106**    **L 1**    # **4310**  
Carlson, Steve    High Speed Design, Inc.

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

Figure 100-4 has some odd shading going on in the squares and circles.

**SuggestedRemedy**  
Redraw figure to remove shading. It looks like the drawing might be non-Frame; if so suggest redrawing it in Frame.

**Proposed Response**    **Response Status**    **O**

**CI 100**    **SC 100.2.1.3**                      **P 76**            **L 33**            # **4197**  
Hajduczenia, Marek                      Bright House Networks

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

Heading "100.2.1.3 PMD\_UNITDATA.indication" indicates that PMD\_UNITDATA.indication primitive is to be described, yet the text speaks of PMD\_SIGNAL.request primitive. Which is it? It seems (based on CMP version) that in D2.0 the text was correct, but it was modified incorrectly in D2.0

**SuggestedRemedy**  
Please revert text from D2.0 - it was correct. Current text is NOT. Current text seems to be repetition of text from 100.2.1.4 PMD\_SIGNAL.request

**Proposed Response**                      **Response Status**    **O**

**CI 100**    **SC 100.2.5**                              **P 77**            **L 22**            # **4305**  
Dawe, Piers                                      Mellanox

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

There is much more stuff than usual in the "functional specification".

**SuggestedRemedy**  
Finish 100.2 PMD functional specification with 100.2.4 PMD transmit enable function then start a new subclause.

**Proposed Response**                      **Response Status**    **O**

**CI 100**    **SC 100.2.6.3**                              **P 80**            **L 8**                # **4198**  
Hajduczenia, Marek                      Bright House Networks

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

"This variable is set to TRUE if the CNU calculation of DS\_DataRate differs from the DS\_DataRate calculation communicated from the CLT by more than 10 b/s otherwise the variable is set to FALSE" - it seems that there should be ", " or ";" before the word "otherwise" to separate two independent portions of the sentence

**SuggestedRemedy**  
Insert ";" in indicated location in the description of DS\_RateMatchFail and US\_RateMatchFail variables

**Proposed Response**                      **Response Status**    **O**

**CI 100**    **SC 100.2.7**                                      **P 80**            **L 19**            # **4199**  
Hajduczenia, Marek                      Bright House Networks

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

"Equipment conforming to this standard shall clearly mark ..." - equipment is typically labelled, not marked

**SuggestedRemedy**  
Change "Equipment conforming to this standard shall clearly mark" to "Equipment conforming to this standard shall be clearly labelled with information about the"

**Proposed Response**                      **Response Status**    **O**

**CI 100**    **SC 100.2.8.2**                              **P 82**            **L 15**            # **4200**  
Hajduczenia, Marek                      Bright House Networks

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

Wrong format for a NOTE

**SuggestedRemedy**  
Please use the proper style of text that is intended to be marked as an informative NOTE  
Multiple instances in the document

**Proposed Response**                      **Response Status**    **O**

**CI 100**    **SC 100.2.9.3**                              **P 90**            **L 21**            # **4201**  
Hajduczenia, Marek                      Bright House Networks

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

The CLT can only ensure it once: "The CLT ensures ensure the following"

**SuggestedRemedy**  
Change to "The CLT ensures the following"

**Proposed Response**                      **Response Status**    **O**



CI 100 SC 100.2.9.3.1 P 90 L 42 # 4202  
Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X

It is not clear what the purpose of Variables is here - there are no SDs to describe this function.

SuggestedRemedy

Remove, ReportedPwr is used only in this definition anyway.  
Similar observation for 100.2.11.1 - these variables are not used in any SDs and are referenced just once outside of 100.2.11. 100.3.3.1 is another example of self-serving variables with no explicit need.

Proposed Response Response Status O

CI 100 SC 100.2.9.4.2 P 93 L 34 # 4203  
Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X

Is it log<sub>10 or log10?

SuggestedRemedy

Line 30 uses log<sub>10 and here it is just log 10 - are they intended to be the same?

Proposed Response Response Status O

CI 100 SC 100.2.9.4.3 P 94 L 22 # 4205  
Hajduczenia, Marek Bright House Networks

Comment Type T Comment Status X

"P1scaled = P1 × (0.4 MHz)/(Measurement Bandwidth (MHz)) used in Table 100-7" - this is incomprehensible. If this is equation, what is the purpose of MHz in it? If it is expected to be descriptive, then these all items should be bulleted and formatted accordingly

SuggestedRemedy

Per comment

Proposed Response Response Status O

CI 100 SC 100.2.9.4.3 P 95 L 29 # 4204  
Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X

Three issues here:

- (1) equation number seems to be part of the equation itself
- (2) different multiplication characters used - note "x(0.4" where "x" is used and not a proper multiplication character
- (3) is the Round operand rounding up or down or in some other way? Use floor / ceil functions which are already defined

SuggestedRemedy

Per comment

Proposed Response Response Status O

CI 100 SC 100.2.9.5.1 P 97 L 9 # 4267  
Laubach, Mark Broadcom

Comment Type T Comment Status X

Geoff explained to me that we need to be clear with using "MDI connector" when we mean the connector versus just "MDI". In reviewing, I noticed that Table 100-11 CNU RF output requirements needs a minor adjustment and there is no MDI connector entry in table 100-3 CLT RF output requirements. I believe that fixing the two tables builds the necessary association allowing the EPoC to use "F connector" elsewhere in the text.

SuggestedRemedy

Page 99, Line 21: change "Connector" to "MDI connector" in first column of table. Duplicate this last row of Table 100-11 in Table 100-3 and insert as the last row on Page 83, Line 47.

Proposed Response Response Status O

Cl 100 SC 100.2.10.2 P 100 L 21 # 4308  
Dawe, Piers Mellanox

Comment Type TR Comment Status X

Was resolution to TR comment 4167 implemented? I see that the resolution to T comment 3910 deletes the fix made by the resolution to 4167.

*SuggestedRemedy*

Change "post-FEC frame loss ratio of 10-6 with 1500 byte MAC packets" to "less than or equal to 10-6 frame loss ratio both with both 64-byte and 2000-byte Ethernet frames". Similarly in 100.2.12.2.

Also, revise "Large bursts consisting of several 1500 byte MAC packets." in each list to agree - or put the "both 64-byte and 2000-byte Ethernet frames" in the lists only.

Be consistent with base document: MAC packets or Ethernet frames?

Proposed Response Response Status

Cl 100 SC 100.2.10.2 P 100 L 25 # 4309  
Dawe, Piers Mellanox

Comment Type TR Comment Status X

This is still very indirect as a requirement on the PMD. Compare:  
95.1.1 Bit error ratio

The bit error ratio (BER) shall be less than  $5 \times 10^{-5}$  provided that the error statistics are sufficiently random that this results in a frame loss ratio (see 1.4.223) of less than  $6.2 \times 10^{-10}$  for 64-octet frames with minimum interpacket gap when processed according to Clause 91. If the error statistics are not sufficiently random to meet this requirement, then the BER shall be less than that required to give a frame loss ratio of less than  $6.2 \times 10^{-10}$  for 64-octet frames with minimum interpacket gap when processed according to Clause 91.

*SuggestedRemedy*

Please add some guidance as to what the PMD itself is expected to do, e.g. an error ratio for the OFDM/OFDMA time domain samples at the PMA service interface. Even if this is qualified (e.g. "sufficiently random") as above it would still give the reader a starting point.

Proposed Response Response Status

Cl 100 SC 100.2.10.2 P 101 L 16 # 4307  
Dawe, Piers Mellanox

Comment Type TR Comment Status X

Was resolution to TR comment 4171 implemented? I see that the resolution to T comment 3910 deletes the fix made by the resolution to 4171, which says change to "This section describes the conditions at which the PMD, PMA, PCS in conjunction are required to meet this error ratio".

*SuggestedRemedy*

Insert "This section describes the conditions at which the PMD, PMA, PCS in conjunction are required to meet this error ratio", or better,

"This section describes the conditions at which the CLT PMD when connected to a compliant PMA and PCS is required to meet this frame loss ratio", and change subclause title to "CLT receiver error ratio performance in AWGN channel". Similarly for CNU receiver.

Proposed Response Response Status

Cl 100 SC 100.2.11 P 102 L 24 # 4263  
Laubach, Mark Broadcom

Comment Type T Comment Status X

Look at RX\_MER vs RX\_MER\_SC(n) and see if these can be made the same.

*SuggestedRemedy*

Replace RX\_MER with *<ital>RX\_MER(n)</ital>* where appropriate.

Proposed Response Response Status

Cl 100 SC 100.2.12 P 103 L 9 # 4304  
Dawe, Piers Mellanox

Comment Type E Comment Status X

100.2.11 CLT upstream receive modulation error ratio requirements follows 100.2.10 CLT receiver requirements while 100.2.12.3 Receive modulation error ratio requirements comes under 100.2.12 CNU receiver requirements.

*SuggestedRemedy*

Put 100.2.11 under 100.2.10.

Proposed Response Response Status

**Cl 100**    **SC 100.2.12.3**                      **P 106**            **L 1**                      # 4206

Hajduczenia, Marek                      Bright House Networks

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

Fancy shady background in Figure 100–4 in individual function blocks

**SuggestedRemedy**

Redraw with no colour in individual boxes and addition symbols, at best in Frame (seems like it is external drawing right now)

**Proposed Response**                      **Response Status**   

**Cl 100**    **SC 100.3.3**                      **P 118**            **L 28**                      # 4269

Laubach, Mark                      Broadcom

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

Reword as only one upstream OFDMA channel

**SuggestedRemedy**

Delete "in a specified OFDMA channel "

**Proposed Response**                      **Response Status**   

**Cl 100**    **SC 100.3.4**                      **P 110**            **L 29**                      # 4264

Laubach, Mark                      Broadcom

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

There are 10 occurrences of "OFDM Symbol Clock" in the draft. Can these now be safely changed to "OFDM Clock"?

**SuggestedRemedy**

Page 110, Line 29: change  
Page 110, Line 51: change  
Page 161, Line 47: change  
Page 162, Line 24: change  
Page 162, Line 26: change and add "frequency"  
Page 162, Line 29: change  
Page 162, Line 32: change  
Page 162, Line 42: change  
Page 162, Line 52: change and add "frequency"  
Page 190, Line 11: change

**Proposed Response**                      **Response Status**   

**Cl 100**    **SC 100.3.4**                      **P 110**            **L 29**                      # 4272

Laubach, Mark                      Broadcom

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

First uses of "OFDM Symbol Clock" in Clause 100 and 101 needs a cross reference to 101.4.3.2.

**SuggestedRemedy**

Page 110, Line 29: Add the cross reference "(see 100.3.4)" after "OFDM Symbol Clock"  
Page 161, Line 47, do the same.

**Proposed Response**                      **Response Status**   

**Cl 100A**    **SC 100A.1**                      **P 351**            **L 11**                      # 4268

Laubach, Mark                      Broadcom

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

Strengthen the relationship of the topology to the baseline channel conditions.

**SuggestedRemedy**

Change: "The normative EPoC OFDM channel parameters are based on the topology shown in Figure 100A–1" to  
"The normative EPoC baseline channel conditions and OFDM channel parameters are referenced to the topology shown in Figure 100A–1"

**Proposed Response**                      **Response Status**

CI 100A SC 100A.2 P 340 L 9 # 4265  
Laubach, Mark Broadcom

Comment Type ER Comment Status X

Fix case and TLA problems in table notes for Table 100A-1.

*SuggestedRemedy*

Line 9, NOTE 4: lower case "Frequency"  
Line 12, NOTE 7: lower case words "Reference, Live Video" and "Interference"  
Line 14, NOTE 8: lower case words "Worst Case Frequency; Good" and "Analog", expand "PAR" to "peak-to-average ratio (PAR)"  
Line 17 and 18, NOTE 10: lower case "Bandwidth" and "Levels"  
Line 18, NOTE 10: "ReDesign" comes up in searching for "ReDesign channel mode" on the web suggesting this is referencing something. AIP this comment to add an appropriate reference and/or change. (Have to check with experts to find what this means.)  
Line 20, NOTE 11: lower case "Clipping"  
Line 21, NOTE 12: lower case "Minimum"  
Line 22, NOTE 13: lower case "Single Dominant" and "Does"  
Line 23, NOTE 14: lower case "Definition, Echo"  
Line 24, NOTE 15: lower case "Basis"

Proposed Response Response Status O

CI 100A SC 100A.3 P 342 L 10 # 4266  
Laubach, Mark Broadcom

Comment Type ER Comment Status X

Fix case and TLA problems in table notes for Table 100A-2.

*SuggestedRemedy*

Line 10, NOTE 1: lower case "Loss"  
Line 12, NOTE 3: change "DS" to "downstream"  
Line 14, NOTE 4: lower case "Report"  
Line 17, NOTE 6: lower case "Upstream"  
Line 18, NOTE 7: lower case "Single Dominant"  
Line 19, NOTE 8: lower case "Definition, Echo"

Proposed Response Response Status O

CI 101 SC 101.1.4 P 122 L 34 # 4208  
Hajduczenia, Marek Bright House Networks

Comment Type TR Comment Status X

Looking at Figure 101-1, 4 out of 5 instances of CPW are marked as "CPW5" - I believe the numbers on individual CPW instances should match numbers on IDFT i.e., 2, 3, 4, and 5. The same observation applies to INTERLEAVING & PILOT INSERTION blocks, 4 out of 5 of which are also labelled as "5".

*SuggestedRemedy*

Fix numbers for CPW and INTERLEAVING & PILOT INSERTION blocks  
Similar numbering problems exist in Figure 101-3 for FFT and DE-INTERLEAVING blocks

Proposed Response Response Status O

CI 101 SC 101.1.4 P 122 L 34 # 4207  
Hajduczenia, Marek Bright House Networks

Comment Type TR Comment Status X Call

Looking at Figure 101-1, there is only one instance of PMD\_UNITDATA.request(tx\_unit), which seems to be the same for each CPW talking to PMD\_FUNCTIONS block. PMD\_UNITDATA does not have any indication which of the individual functional blocks is delivering data - how can them PMD\_FUNCTIONS make any sense of it?

*SuggestedRemedy*

Consider labelling individual instances of PMD\_UNITDATA, e.g., by changing "PMD\_UNITDATA.request(tx\_unit)" to "PMD\_UNITDATA.request(tx\_unit, lane\_nbr)" and using CPW instance number as parameter - these are just descriptive primitives  
Similar issue exists in Figure 101-3 but this time with PMD\_UNITDATA.indication(tx\_unit) primitive

Proposed Response Response Status O

CI 101 SC 101.1.4 P 125 L 45 # 4209  
Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X

Extra "\" character in "\FFT = FAST FOURIER TRANSFORM"

*SuggestedRemedy*

remove the extra "\"

Proposed Response Response Status O

CI 101 SC 101.2 P 126 L 3 # 4210  
 Hajduczenia, Marek Bright House Networks

Comment Type T Comment Status X  
 Unnecessary wordiness "The Reconciliation sublayer used for 10GPASS-XR is identical to that described in 76.2."

SuggestedRemedy  
 Change to "See 76.2."

Proposed Response Response Status O

CI 101 SC 101.3.2.1.3 P 130 L 6 # 4211  
 Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X  
 Inconsistent formatting for "DS\_PHY\_OSize" variable. I suspect it was intended to be all in italics.

SuggestedRemedy  
 Per comment

Proposed Response Response Status O

CI 101 SC 101.3.2.1.5 P 131 L 1 # 4212  
 Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X  
 It seems that from D2.0 to D2.1, font type was changed in Figure 101-6, causing problems with readability for += and -= symbols

SuggestedRemedy  
 Please use the proper font for SDs, per IEEE Style Manual, Table 1

Proposed Response Response Status O

CI 101 SC 101.3.2.1.5 P 131 L 33 # 4275  
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X  
 Figure title should include "state diagram" in the following figures:  
 Figure 101-6  
 Figure 101-7  
 Figure 101-12  
 Figure 101-13  
 Figure 101-15  
 Figure 101-16

SuggestedRemedy  
 add per comment

Proposed Response Response Status O

CI 101 SC 101.3.2.5.4 P 140 L 16 # 4273  
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X  
 Wording can be clarified on Steps 2 & 4

SuggestedRemedy  
 Change:  
 "2) If remaining B blocks in burst < BQ = 220 blocks and %>=% 101 blocks, create and encode a long codeword and shorten to remaining blocks and end the burst with this encoded codeword." to  
 "2) If remaining B blocks in burst < BQ = 220 blocks and %>=% 101 blocks, create and encode a long codeword, shortened to accommodate the remaining blocks and end the burst with this codeword."  
 and  
 "4) If remaining B blocks in burst < BQ = 76 blocks and %>=% 25 blocks, create and encode a medium codeword, shorten to remaining blocks and end the burst with this encoded codeword." to  
 "4) If remaining B blocks in burst < BQ = 76 blocks and %>=% 25 blocks, create and encode a medium codeword, shortened to accommodate the remaining blocks and end the burst with this codeword."

Proposed Response Response Status O

CI 101 SC 101.3.2.5.6 P 141 L 39 # 4213  
 Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X

Is there any specific reason to use curly brackets with ceil function in this location:  $\lceil(1800+40)/65\rceil$ .

SuggestedRemedy  
 Change to  $\lceil(1800+40)/65\rceil$

Proposed Response Response Status O

CI 101 SC 101.3.2.5.7 P 144 L 47 # 4216  
 Hajduczenia, Marek Bright House Networks

Comment Type T Comment Status X

"ARRAY\_IN[]" to the PMA using" - since you do not expect ARRAY\_IN to be empty, it should be referenced by name without empty []

SuggestedRemedy  
 Change "ARRAY\_IN[]" to the PMA using" to "ARRAY\_IN to the PMA using"

Proposed Response Response Status O

CI 101 SC 101.3.2.5.7 P 142 L 50 # 4214  
 Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X

Missing "=" symbol in "bits<1:32> the current PHY Link timestamp" - for consistency with the surrounding text

SuggestedRemedy  
 Change "bits<1:32> the current PHY Link timestamp" to "bits<1:32> = the current PHY Link timestamp"

Proposed Response Response Status O

CI 101 SC 101.3.2.5.7 P 145 L 16 # 4217  
 Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X

Incorrect format for NOTE: "Note: in the CLT the lastcodeword argument to this function is always TRUE (see Figure 101-12)." - please apply a correct style

SuggestedRemedy  
 Per comment  
 Also, three locations in 101.4.2.1.2

Proposed Response Response Status O

CI 101 SC 101.3.2.5.7 P 142 L 50 # 4215  
 Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X

The text of the PDF when copied into clipboard contains a lot of unprintable characters:  
 BurstTimeHeader()□  
 The BurstTimeHeader() function returns a 65-bit vector with the following values: □  
 bit <0> = binary 1 □  
 bits<1:32> the current PHY Link timestamp □  
 bits<33:64> = a fixed value of 0xD858E4AB. □  
 This 65-bit vector is transmitted as the first 65-bit block of an upstream burst.

SuggestedRemedy  
 This is the only draft currently in circulation that has this issue - it was not present in D2.0.  
 Please fix it!  
 Having to remove such garbage from text every time anything is copied from the document is annoying and time consuming.

Proposed Response Response Status O

CI 101 SC 101.3.2.5.8 P 146 L 17 # 4218  
 Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X Mark

ELSE, Else, or else?

SuggestedRemedy  
 Please use consistent capitalization. The same applies to UTC, TRUE, FALSE, which just makes it harder for a reader to figure out whether true and TRUE when used on the same SD are the same or not ...

Proposed Response Response Status O

CI 101 SC 101.3.3.1.6 P 153 L 30 # 4219  
 Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X

Missing "is" in "This variable used for counting bits in the Transfer from PMA process."

SuggestedRemedy

Change to "This variable is used for counting bits in the Transfer from PMA process."

Proposed Response Response Status O

CI 101 SC 101.3.3.1.8 P 154 L 19 # 4220  
 Hajduczenia, Marek Bright House Networks

Comment Type TR Comment Status X Call

Two exit conditions from PMA\_CLIENT not needed, especially that they end up in the same state anyway

SuggestedRemedy

Remove one of transitions and change condition on the other one to "PMA\_CLK \* (burstEnd = TRUE + burstEdn = FALSE)"

Proposed Response Response Status O

CI 101 SC 101.3.3.1.8 P 155 L 36 # 4221  
 Hajduczenia, Marek Bright House Networks

Comment Type T Comment Status X

If you use the if/else statement within state diagram states, it would be helpful to identify the end/start of a multi-line block with {}

SuggestedRemedy

In state DECODE\_FAIL, surround  
 tx\_code<0> □□!dataOut<loc>□  
 tx\_code<1> □□dataOut<loc>□  
 with {}

Proposed Response Response Status O

CI 101 SC 101.3.3.1.8 P 156 L 21 # 4276  
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X

Figures needing conversion to FM native format  
 101-8 CRC40 generation  
 101-17 FEC Decoder, output process state diagram (CNU)  
 101-18 Idle control character insertion process state diagram  
 101-32 Upstream symbol mapper idle loop state diagram  
 101-33 Upstream symbol mapper fill process state diagram  
 101-40 BPSK  
 101-41 16-QAM  
 101-42 8-QAM  
 101-43 32-QAM

SuggestedRemedy

Convert to native FrameMaker format.  
 See remain\_3bn\_10\_1115.pdf

Proposed Response Response Status O

CI 101 SC 101.4 P 162 L 54 # 4316  
 Carlson, Steve High Speed Design, Inc.

Comment Type TR Comment Status X

Footnote text states:

"b Nonetheless, it is expected that the CNU would be able to achieve downstream acquisition in less than 30 seconds."

SuggestedRemedy

The purpose of this footnote is unclear. The requirement from Table 101-7—Downstream time and frequency synchronization is shown as:  
 Acquisition Time < 60 seconds b.

Which is it, 30 or 60 seconds? If the requirement is 60, but the note states that 30 seconds is the real number, why not say that? Otherwise, the note simply adds confusion.

Remedy: Delete footnote b, or change the value to 30 in Table 101-7.

Proposed Response Response Status O

CI 101 SC 101.4 P 214 L 11 # 4311  
 Carlson, Steve High Speed Design, Inc.

Comment Type E Comment Status X

Figure 101-40—BPSK has black squares—are these supposed to be dots? Same for 101-41, 101-42, 101-43.

*SuggestedRemedy*

Suggest redrawing the figure in Frame to get the correct dots.

Proposed Response Response Status O

CI 101 SC 101.4.1 P 159 L 9 # 4306  
 Dawe, Piers Mellanox

Comment Type T Comment Status X

The new introductory text is welcome but it doesn't say what the PMA does.

*SuggestedRemedy*

Please add another few sentences: something like "The PMA translates a serial stream of bits to scrambled, superheated, whitened OFDM/OFDMA time domain samples and vice versa. It also provides timing, whatever else."

Proposed Response Response Status O

CI 101 SC 101.4.1.2 P 159 L 40 # 4288  
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X

Definition of DS\_CpyInP & DS\_CpyInP don't indicate when set to FALSE.

*SuggestedRemedy*

Add to each definition  
 "This variable is set to FALSE by the PMA/PMD when the copy is completed."

Proposed Response Response Status O

CI 101 SC 101.4.3.2 P 162 L 54 # 4222  
 Hajduczenia, Marek Bright House Networks

Comment Type TR Comment Status X Call

Footnote b) is completely pointless. If sub-30 second acquisition time is expected, make it a requirement. Otherwise, it is meaningless - the requirement is for up to 60 seconds. There are no shades of gray here.

*SuggestedRemedy*

Strike footnote b)

Proposed Response Response Status O

CI 101 SC 101.4.3.4.5 P 165 L 44 # 4223  
 Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X

We do avoid the use of "will" apart from some very specific cases - this is not it: "the PHY will treat the subcarrier as null"

*SuggestedRemedy*

Change "the PHY will treat the subcarrier as null" to "the PHY treats the subcarrier as null"

Proposed Response Response Status O

CI 101 SC 101.4.3.6.5 P 171 L 36 # 4224  
 Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X

CntPitSF is only used in equation 101-9 and should be defined under the equation and not in a separate subclause.

*SuggestedRemedy*

Move definition of CntPitSF variable under equation 101-9 and extend the already existign text "CntPitSF is the continuous pilot scaling factor" to include all necessary details. Update all cross references in the text (2 locations total) to point to 101.4.3.6.4

Proposed Response Response Status O



**Cl 101**    **SC 101.4.3.9.2**    **P 177**    **L 1**    # **4225**  
 Hajduczenia, Marek    Bright House Networks

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

Designations in the figure would be clearer to read if there was a multiplication symbol between J and numeric value

**SuggestedRemedy**  
Insert "x" (proper multiplication symbol) between J and preceding numeric value.

**Proposed Response**    **Response Status**    **O**

**Cl 101**    **SC 101.4.3.12.1**    **P 188**    **L 8**    # **4226**  
 Hajduczenia, Marek    Bright House Networks

**Comment Type**    **ER**    **Comment Status**    **X**    **Call**

Unnecessary redirection: values are expressed in "samples" which are later one explained to be "samples refers to OFDM Clock periods (1/204.8 MHz)"

**SuggestedRemedy**  
Change "samples" to "OFDM Clock periods (1/204.8 MHz)" since this is what they are. Apply consistently in the whole draft (another prime example is in 101.4.4.10.1)

**Proposed Response**    **Response Status**    **O**

**Cl 101**    **SC 101.4.3.13**    **P 188**    **L 46**    # **4227**  
 Hajduczenia, Marek    Bright House Networks

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

Missing full stop after "downstream Frequency Band as per Table 100–3" in Table 101-12

**SuggestedRemedy**  
Add missing "."

**Proposed Response**    **Response Status**    **O**

**Cl 101**    **SC 101.4.4.2.1**    **P 189**    **L 50**    # **4289**  
 Remein, Duane    Huawei Technologies

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

Shouldn't 204 MHz be 204.8 MHz?

**SuggestedRemedy**  
Change to 204.8 MHz

**Proposed Response**    **Response Status**    **O**

**Cl 101**    **SC 101.4.4.3.5**    **P 192**    **L 21**    # **4294**  
 Remein, Duane    Huawei Technologies

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

"This Boolean variable is used to reset the frame timing state"  
There is no such state.

"The variable is set to TRUE by the frame timing function and may be advanced or delayed when the CLT performs a write to the PhyTimingOffset variable."  
There is no such function.

**SuggestedRemedy**  
Change  
"This Boolean variable is used to reset the frame timing state. A transition from FALSE to TRUE will cause the state diagram to reset to the beginning of the RB Superframe when SCLK goes TRUE."  
to  
"This Boolean variable is used to reset the frame timing state diagram. A transition from FALSE to TRUE will cause the state diagram to reset to the beginning of the RB\_SUPERFRAME\_RESET when SCLK goes TRUE."

Not sure what to do about this:  
"The variable is set to TRUE by the frame timing function and may be advanced or delayed when the CLT performs a write to the PhyTimingOffset variable."  
There is nothing in the draft about setting this variable to TRUE

**Proposed Response**    **Response Status**    **O**

CI 101 SC 101.4.4.3.6 P 193 L 1 # 4228  
Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X

Figure 101-31 seems to contain a lot of "squeezed" text, where transition condition text is very close to the edge of the state block. Transitions out of COUNT\_RB\_SYMBOLS state are very good examples

*SuggestedRemedy*

Please move the text of transition conditions lower, so that it does not "touch" the edge of any of states or other transition lines. There is plenty of space, no need to squeeze in

Proposed Response Response Status O

CI 101 SC 101.4.4.5.1 P 195 L 37 # 4229  
Hajduczenia, Marek Bright House Networks

Comment Type TR Comment Status X

Despite various attempts, I could not locate what "FILLWORD<>" is and what it represents. It is a very odd notation. What is even more confusing is that there seem to be two notations: FILLWORD and FillWord used and it's not clear whether they are one and the same or not.

*SuggestedRemedy*

Use consistent notation if FILLWORD and FillWord are intended to be the same. Also, when referencing array, you could just say "array FillWord" or just "FillWord" with proper formatting and that will point to it being a variable, and cause reader to look for its definition.

Proposed Response Response Status O

CI 101 SC 101.4.4.5.1 P 195 L 44 # 4230  
Hajduczenia, Marek Bright House Networks

Comment Type T Comment Status X Call, Mark

Is there any specific reason why values for END enumeration are shown in ""? In all other locations, values are not marked in any specific way

*SuggestedRemedy*

Remove "" from END variable definition

Proposed Response Response Status O

CI 101 SC 101.4.4.5.1 P 196 L 17 # 4293  
Remein, Duane Huawei Technologies

Comment Type TR Comment Status X

"ICLK  
TYPE: clock"

What type of number is "clock"?

*SuggestedRemedy*

Change definition to read:

"ICLK  
TYPE: Boolean"

This clear on read variable is set to TRUE on each positive transition of a clock running a the US\_DataRate (see 100.2.6.2)."

Proposed Response Response Status O

CI 101 SC 101.4.4.9.1 P 210 L 18 # 4296  
Remein, Duane Huawei Technologies

Comment Type E Comment Status X

"Where;" clauses are using an incorrect style.

pg In EQ  
210 18 101-35  
218 16 101-38  
218 31 101-39

*SuggestedRemedy*

Use paragraph tag VariableList per current template

Proposed Response Response Status O

CI 101 SC 101.4.5.2 P 214 L 5 # 4232  
Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X

Figure 101-40, Figure 101-41, Figure 101-42, and others have black squares, which I believe were intended to be dots.

*SuggestedRemedy*

Please redraw in Frame to make squares look like proper dots

Proposed Response Response Status O

CI 101 SC 101.4.5.3 P 214 L 23 # 4233  
 Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X  
 Microprint in equations

SuggestedRemedy  
 Some of the symbols are 6-point and very hard to read. Please increase the font size!  
 The problem persists in multiple equations in the draft, especially at the end of Clause 101

Proposed Response Response Status O

CI 101 SC 101.4.6.1 P 217 L 43 # 4271  
 Laubach, Mark Broadcom

Comment Type T Comment Status X  
 Change "upstream Subcarrier Clock" to "the upstream Subcarrier Clock frequency"  
 Page 217 Line 47 insert "frequency" after "Subcarrier Clock"

SuggestedRemedy  
 As per comment.

Proposed Response Response Status O

CI 101 SC 101.5 P 218 L 1 # 4234  
 Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X  
 Title of 101.5 is incorrect - an 802.3 project cannot create extensions to 802.1AS standard

SuggestedRemedy  
 Change title of 101.5 to "Applicability of IEEE Std 802.1AS, Clause 13 for EPoC time transport"

Proposed Response Response Status O

CI 101 SC 101.5 P 218 L 1 # 4235  
 Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X  
 IEEE Std 802.1AS is not included in normative references for latest IEEE Std 802.3 and this amendment

SuggestedRemedy  
 Add reference to IEEE Std 802.1AS

Proposed Response Response Status O

CI 101 SC 101.5 P 218 L 11 # 4236  
 Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X  
 Incorrect reference to IEEE Std 802.1AS

SuggestedRemedy  
 Change "In 13.1.4 of IEEE STD 802.1AS 2011 "Time synchronization in EPON", to "In IEEE Std 802.1AS, 13.1.4,"  
 Change "defined in 802.1as, clause 13.1.4" to "defined in IEEE Std 802.1AS, 13.1.4"

Proposed Response Response Status O

CI 101 SC 101.5.1 P 218 L 8 # 4241  
 Hajduczenia, Marek Bright House Networks

Comment Type TR Comment Status X Discussed, Bill  
 The technical aspect of text in 101.5.1 is described in an unclear manner. 802.1AS does not know anything about ToD\_EPOC\_CLTXi and rather than define new variables, a simple addition should be simpler

SuggestedRemedy  
 Change equation 101-38 to read:  $ToDX_i += T\_CORR\_CLT$ .  
 Remove definitions of  $ToD\_EPOC\_CLTX_i$  and  $DiffDelay\_CLT$   
 Change definition of  $T\_CORR\_CLT$  to read: "is equal to  $0.5 \times DiffDelay$  (see 101.5.4)"  
 Change the text preceding the equation to read: "The CLT using the timing and synchronization mechanism defined in IEEE Std 802.1AS, Clause 13 shall recalculate the value of  $ToDX_i$  (see IEEE Std 802.1AS, 13.1.4) using Equation (101-38)."

Proposed Response Response Status O

Cl 101 SC 101.5.1 P 218 L 11 # 4237  
 Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X

Optional requirements??? "for EPoC the following future time at the future MPCP frame should be substituted for ToDX,i;" and "each CNUi should correct the xxx future time value received from the CLT for its own CNU PHY time delay asymmetry as follows"

SuggestedRemedy

Consider whether these two optional requirements are really required. My personal suggestion is to have them removed (changed to Present Simple tense statement instead)

Proposed Response Response Status O

Cl 101 SC 101.5.2 P 218 L 24 # 4243  
 Hajduczenia, Marek Bright House Networks

Comment Type TR Comment Status X Discussed, Bill

Based on the existign text in 101.5.2 and also equation 101-39, it is not clear what time reference value the CNU should be correcting: ToD\_EPOC\_CLTXi received from the CLT? Local time from the CNU? The way the equation is structured right now, it seems that the CNU calculates the value of ToD\_EPOC\_CLTXi, which is also calculated in 101-38.

SuggestedRemedy

The utility of equation 101-39 is unclear.

Proposed Response Response Status O

Cl 101 SC 101.5.2 P 218 L 24 # 4242  
 Hajduczenia, Marek Bright House Networks

Comment Type TR Comment Status X Discussed, Bill

There is something wrong with equation 101-39. If the left side is substituted with 101-38 we have then:  
 $ToDX,i + T\_CORR\_CLT = ToD\_EPOC\_CNUX,I + T\_CORR\_CLT$   
 Given that correction factor for CLT side is constant for the given CLT, we have  
 $ToDX,i = ToD\_EPOC\_CNUX,I$   
 which is not correct

SuggestedRemedy

I believe in equation 101-39, term "T\_CORR\_CLTi" should be "T\_CORR\_CNUi", which would be also consistent with definitions under the equation

Proposed Response Response Status O

Cl 101 SC 101.5.2 P 218 L 26 # 4240  
 Hajduczenia, Marek Bright House Networks

Comment Type T Comment Status X Discussed, Bill

What is "xxx" in "each CNUi should correct the xxx" ???

SuggestedRemedy

Seems that "xxx" can be removed without any loss of information

Proposed Response Response Status O

Cl 101 SC 101.5.3 P 218 L 38 # 4238  
 Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X Discussed

Standard do not need to explain how specific values / formulas were obtained. If the material was presented and it is publicly available, it is sufficient to have the specific calculations available there for future references

SuggestedRemedy

Remove 101.5.3

Proposed Response Response Status O

Cl 101 SC 101.5.4 P 219 L 24 # 4239  
 Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X

Variables should be defined in equations and not create sepaarte subclause for them, and then cross reference them from within definitions under equations

SuggestedRemedy

Move definitions of individual variables to where they are first defined under equations 101-38 and 101-39

Proposed Response Response Status O

**Cl 102 SC 102.2.3.1.4 P 247 L 18 # 4274**  
 Remein, Duane Huawei Technologies

**Comment Type E Comment Status X**  
 Supurfelous period in figure title

**SuggestedRemedy**  
 removed.

**Proposed Response Response Status O**

**Cl 102 SC 102.3.5.3 P 259 L 49 # 4291**  
 Remein, Duane Huawei Technologies

**Comment Type T Comment Status X**  
 US\_PhylinkMod  
 TYPE: 4 bit integer  
 But this is not an integer but a 4-bit binary enumeration.

**SuggestedRemedy**  
 Change type to binary, Change 4 bit to 4-bit

**Proposed Response Response Status O**

**Cl 103 SC 103.1 P 289 L 32 # 4282**  
 Remein, Duane Huawei Technologies

**Comment Type E Comment Status X**  
 missing space in "Clause 31and"

**SuggestedRemedy**  
 changed to "Clause 31 and"

**Proposed Response Response Status O**

**Cl 103 SC 103.2.2.1 P 297 L 5 # 4245**  
 Hajduczenia, Marek Bright House Networks

**Comment Type T Comment Status X**  
 Can DS\_FEC\_CW\_Sz be negative? Similarly, DS\_FEC\_Prty\_Sz, DS\_FEC\_Pld\_Sz, and other variables which clearly have only positive values

**SuggestedRemedy**  
 Change type to "unsigned integer"

**Proposed Response Response Status O**

**Cl 103 SC 103.2.2.1 P 297 L 6 # 4247**  
 Hajduczenia, Marek Bright House Networks

**Comment Type T Comment Status X**  
 What is the purpose of "(DS\_FEC\_Pld\_Sz + DS\_FEC\_Prty\_Sz)" statement?

**SuggestedRemedy**  
 Remove, FEC codeword is defined elsewhere (not in Clause 103)

**Proposed Response Response Status O**

**Cl 103 SC 103.2.2.1 P 297 L 11 # 4246**  
 Hajduczenia, Marek Bright House Networks

**Comment Type E Comment Status X**  
 Incorrect multiplication symbol in DS\_FEC\_CW\_Sz\_FRAC□

**SuggestedRemedy**  
 Change "\*" to proper "x" multiplication symbol

**Proposed Response Response Status O**

CI 103 SC 103.2.2.1 P 297 L 47 # 4248  
Hajduczenia, Marek Bright House Networks

Comment Type TR Comment Status X Call

No changes to time\_quantum as defined in 64.2.2.1

*SuggestedRemedy*

Change "This constant is defined in 64.2.2.1 and is 16 ns." to "See 64.2.2.1."  
Similarly, for other variables which are taken over from Clause 64/77, do not copy the text over into this clause - it is a mayhem later on for maintenance) but only reference them. If you're trying to do a completely independent clause, then do not reference back to Clause 64/77

Proposed Response Response Status O

CI 103 SC 103.2.2.1 P 297 L 50 # 4249  
Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X

Type "TYPE:Unsigned integer" should be "TYPE: unsigned integer"

*SuggestedRemedy*

Per comment

Proposed Response Response Status O

CI 103 SC 103.2.2.3 P 298 L 23 # 4250  
Hajduczenia, Marek Bright House Networks

Comment Type ER Comment Status X

Why do we need an alias to a constant?

*SuggestedRemedy*

rather than create a reference mayhem, consider shortening the name of constant and use it directly and not create two redirection levels. That is harder to read.  
Remove fecCwSz and fecPIdSz, consider shortening names of respective constants and making them more user friendly

Proposed Response Response Status O

CI 103 SC 103.2.2.3 P 300 L 16 # 4285  
Remein, Duane Huawei Technologies

Comment Type T Comment Status X

What does this mean "This variable represents octet transmission times in 128 time\_quantum. "

*SuggestedRemedy*

From 64.2.2.1 tqSize  
This constant represents time\_quantum in octet transmission times.  
VALUE: 2

From 77.2.2.1 tqSize  
This constant represents time\_quantum in octet transmission times.  
VALUE: 20

Change definition to read:  
"This variable represents 128 time\_quantum in octet transmission times."

Proposed Response Response Status O

CI 103 SC 103.2.2.7 P 303 L 1 # 4251  
Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X

Different fonts (Times and Arial) in the same SD

*SuggestedRemedy*

Compare states ADVANCE\_BY\_1 and START\_DERATING\_TIMER - I understand that either is allowed, but let's not mix them on the same SD. They just look odd.

Proposed Response Response Status O

CI 103 SC 103.2.2.7 P 304 L 22 # 4278  
Remein, Duane Huawei Technologies

Comment Type E Comment Status X

In Figure 103-9 transmitInProgress[j] = FALSE crosses a line

*SuggestedRemedy*

nudged left

Proposed Response Response Status O

CI 103 SC 103.3 P 329 L 36 # 4312  
 Carlson, Steve High Speed Design, Inc.

Comment Type E Comment Status X  
 Figure 103-26—REGISTER\_REQ MPCPDU is not referenced in the test.

SuggestedRemedy  
 Remove Figure 103-26 if it is not needed; otherwise provide a text reference.

Proposed Response Response Status O

CI 103 SC 103.3.3.1 P 311 L 26 # 4252  
 Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X  
 "8 bit" in "8 bit unsigned integer" is an adjective and should be hyphenated

SuggestedRemedy  
 Change "8 bit unsigned integer" to "8-bit unsigned integer" globally

Proposed Response Response Status O

CI 103 SC 103.3.3.1 P 312 L 17 # 4253  
 Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X  
 Dead link: "see Equation 101-31"

SuggestedRemedy  
 Per comment

Proposed Response Response Status O

CI 103 SC 103.3.3.1 P 312 L 17 # 4254  
 Hajduczenia, Marek Bright House Networks

Comment Type TR Comment Status X 101-32  
 RB\_time\_quanta is NOT defined in Equation 101-31

SuggestedRemedy  
 Please provide correct reference where the said variable is defined

Proposed Response Response Status O

CI 103 SC 103.3.5.1 P 320 L 41 # 4255  
 Hajduczenia, Marek Bright House Networks

Comment Type E Comment Status X  
 "VALUE: 0x03B9ACA0 (1 s)" - division of a value into 8 bit groups with - helps with readability

SuggestedRemedy  
 Consider changing larger hex values to 0xaa-bb-cc-dd format.  
 Here, change "VALUE: 0x03B9ACA0 (1 s)" to "VALUE: 0x03-B9-AC-A0 (1 s)"

Proposed Response Response Status O

CI 103 SC 103.3.5.2 P 321 L 1 # 4284  
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X  
 In D2.1 we replaced "BurstTimeHeader()" with "BurstTimeHeaderC()" which was incorrect.

SuggestedRemedy  
 Replace "BurstTimeHeaderC()" with "BurstTimeHeader()" (see 101.3.2.5.7)"

Proposed Response Response Status O

CI 103 SC 103.3.5.2 P 321 L 28 # 4286  
 Remein, Duane Huawei Technologies

Comment Type T Comment Status X  
 Definition of effectiveLengthC is overly complex:  
 This variable is used for temporary storage of a normalized net time value. It holds the net effective length of a grant normalized for elapsed time, and compensated for the periods required to turn the RF on and off, and waiting for receiver lock."  
 Note that RF On/Off time is always 0 as is receiver lock time.

SuggestedRemedy  
 Change to:  
 "This variable is used for temporary storage of a normalized net time value. It holds the net effective length of a grant normalized for elapsed time."

Proposed Response Response Status O

**Cl 103**    **SC 103.3.6**                    **P 328**        **L 1**                    # **4257**  
Hajduczenia, Marek                    Bright House Networks

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

If there are no changes, all text in lines 3 and 4 is irrelevant.

**SuggestedRemedy**  
Replace "MPCPDU structure and encoding in EPoC is as described in 77.3.6 with the exceptions noted below. The MPCPDU structure shall be as shown in Figure 77-31." with "See 77.3.6."

**Proposed Response**                    **Response Status**    **O**

**Cl 103**    **SC 103.3.6.1**                    **P 328**        **L 10**                    # **4256**  
Hajduczenia, Marek                    Bright House Networks

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

"The Sync Time and Discovery Information fields described in 77.3.6.1 are not used in EPoC and are always set to zero on transmit and ignored on reception." - if that is always set to zero, this should be either a requirement (if setting it to another value breaks anything) or not (then convert it just to statement, without the use of -always-)

**SuggestedRemedy**  
Depending on implementation, setting these fields into non-zero values might imply something to CLT, suggest to convert "are always set" to "shall be set"  
Similar change in 103.3.6.3 for REGISTER\_REQ description

**Proposed Response**                    **Response Status**    **O**

**Cl 103**    **SC 103.3.6.2**                    **P 328**        **L 12**                    # **4258**  
Hajduczenia, Marek                    Bright House Networks

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

If there are no changes, all text in lines 14/15 is irrelevant. Also, is there any reason to reference Clause 64 here???

**SuggestedRemedy**  
Change "The REPORT MPCPDU used in EPoC is the same as that described in 77.3.6.2 (see 64.3.6.1)." to "See 77.3.6.2."  
Similar changes also to 103.3.6.5

**Proposed Response**                    **Response Status**    **O**

**Cl 103**    **SC 103.3.6.3**                    **P 329**        **L 1**                    # **4259**  
Hajduczenia, Marek                    Bright House Networks

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

Unnecessary Figure 103-26 - it is not referenced in the text anyway.

**SuggestedRemedy**  
Remove Figure 103-26

**Proposed Response**                    **Response Status**    **O**

**Cl 103**    **SC 103.3.6.4**                    **P 329**        **L 40**                    # **4260**  
Hajduczenia, Marek                    Bright House Networks

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

Irrelevant information as far as the MPCPDU structure is concerned: "In EPoC the Sync Time field is calculated using rfOnTime, rfOffTime rather than the laserOnTime and laserOffTime used in 77.3.6.4" - this should be clear from calculations in individual SDs, based on which content of individual MPCPDU is filled in.

**SuggestedRemedy**  
Replace text in lines 41-43 with "See 77.3.6.4."  
Remove Figure 103-27

**Proposed Response**                    **Response Status**    **O**