*Cl* **00** *SC* **0** *P* *L* # 84

Anslow, Pete Ciena

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

The draft should contain the usual description of the editing instructions after the contents section:

"NOTE—The editing instructions contained in this amendment define how to merge the material contained therein into the existing base standard and its amendments to form the comprehensive standard.
The editing instructions are shown in bold italic. Four editing instructions are used: change, delete, insert, and replace. Change is used to make corrections in existing text or tables. The editing instruction specifies the location of the change and describes what is being changed by using strikethrough (to remove old material) and underscore (to add new material). Delete removes existing material. Insert adds new material without disturbing the existing material. Insertions may require renumbering. If so, renumbering instructions are given in the editing instruction. Replace is used to make changes in figures or equations by removing the existing figure or equation and replacing it with a new one. Editing instructions, change markings, and this NOTE will not be carried over into future editions because the changes will be incorporated into the base standard."

Unless it is agreed with IEEE staff that the published amendment will use color to indicate changes for the "Change" instruction, then the usual black strikethrough (to remove old material) and black underscore (to add new material) should be used. For the delete, insert, and replace instructions the text should be normal black.
If something different is used for the drafts without agreement from IEEE staff, then it is likely that a very large number of changes will have to be made during the publication process which will cause delay and is likely to introduce errors. The current scheme will also be very confusing when changes to the draft are reviewed using diff marked drafts.

Having added this section, go through the entire draft making sure that each modification has an editing instruction and that the style used for the text matches that described for that type of change.

Examples of modifications without an editing instruction in D 1.0 are:
45.2.1.11
The title of Clause 60
The title of Annex 75B
The title of Annex 75C

*SuggestedRemedy*

Add a description of the editing instructions used in the draft amendment after the contents section. Unless agreed otherwise with IEEE staff, this should be the same as used for previous IEEE 802.3 amendments.

Go through the rest of the draft ensuring that only change, delete, insert, or replace are used, that each modification has a corresponding editing instruction and that the text corresponding to each instruction matches the style in the added description.

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

*Cl* **00** *SC* **0** *P* *L* # 85

Anslow, Pete Ciena

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

The draft does not use the same numbering convention as previous IEEE 802.3 amendments. The convention is:

Where a subclause is inserted prior to the existing first subclause it is labelled [existing subclause - one level].[a through z]. Where a subclause is inserted after an existing subclause - assuming it is not the last - the new subclause it is labelled [subclause number][a through z].
For example to insert two subclauses before 43.2.1 the subclauses would be numbered 43.2.a and 43.2.b. Two subclauses between 43.2.1 and 43.2.2 would be numbered 43.2.1a and 43.2.1b. Two subclauses added after the last subclause 43.2.2 would be numbered 43.2.3 and 43.2.4.

The first example of this is the insertion of text for registers 1.12.11 through 1.12.14 in Clause 45. To be consistent with the existing Clause 45 these should be inserted above 45.2.1.11.1, so using the scheme quoted above they should be numbered 45.2.1.11.a through 45.2.1.11.d. To make this clear, the editing instruction should also include the location of the insertion. For this case it should be:
Insert 45.2.1.11.a through 45.2.1.11.d before 45.2.1.11.1 as follows:

The unmodified text of 45.2.1.11.1 through 45.2.1.11.11 should not be shown as it has not been changed.

*SuggestedRemedy*

Modify the numbering throughout the draft according to the scheme quoted above. Include the location of the insertion in each "Insert" editing instruction.

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

*Cl* **00** *SC* **0** *P* **1** *L* **1** # 75
Remein, Duane Huawei Technologies

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

While the efforts of the Editor are VERY laudable it should be noted that a large majority of the text in D1.0 does not represent material submitted as baseline before the TF. All materail initiated by the Editor should be marked as Tentative and should remain open for review by the TF.

*SuggestedRemedy*

Per comment, identify all text not approved as baseline by the TF and leave open for review in the next draft at a minimum.

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

*Cl* **00** *SC* **0** *P* **42** *L* **11** # 63
Remein, Duane Huawei Technologies

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

Tables and section headers in 60.10.5.5a - 5d should be marked as added text

*SuggestedRemedy*

Show mark-up properly. Mark-up should be against latest draft from Maintance. (or should at least be consistently either 802.3av or Maintance).

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

*Cl* **30** *SC* **30.5.1.1.2** *P* **16** *L* **22** # 2
Sugawa, Jun Hitachi, Ltd.

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

"1000BASE-PX30U" is listed twice, and "1000BASE-PX40U" is missing.

*SuggestedRemedy*

change FROM "1000BASE-PX30U" TO "1000BASE-PX40U".

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

*Cl* **30** *SC* **5.1.1.2** *P* **16** *L* **22** # 65
Remein, Duane Huawei Technologies

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

1000BASE-PX30U repeated from line 20

*SuggestedRemedy*

Change 1000BASE-PX30U to 1000BASE-PX40U

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

*Cl* **45** *SC* **45.2.1.11.1a** *P* **21** *L* **15** # 45
Remein, Duane Huawei Technologies

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

Paragraph numbering for 45.2.1.11.1a-d seems odd, verify correct numbering.

*SuggestedRemedy*

Correct numbering if needed and add note to editor to renumber subsequent paragraphs.

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

*Cl* **45** *SC* **45.2.1.6** *P* **19** *L* **26** # 14
Hajduczenia, Marek ZTE Corporation

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

"10/1GBASE-PR-U4" should be "10/1GBASE-PRX-U4"
Similarly, in line 28 on same page "10/1GBASE-PR-D4" should be "10/1GBASE-PRX-D4"

*SuggestedRemedy*

Changes per comment

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

*Cl* **45** *SC* **45.2.1.6** *P* **19** *L* **5** # 11

Hajduczenia, Marek — ZTE Corporation

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

Fix the editorial note in lines 5 and 6, changing "10/1GBASE-PR-D4" to "10/1GBASE-PRX-D4" and "10/1GBASE-PR-U4" to "10/1GBASE-PRX-U4"

*SuggestedRemedy*

Changes per comment

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

*Cl* **56** *SC* **56.1.3** *P* **23** *L* **46** # 60

Remein, Duane — Huawei Technologies

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

Editing instructions misplaced.

*SuggestedRemedy*

Move instructionf for tables 56-2 and 56-3 to immediately before the table, not a few tables away.

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

*Cl* **60** *SC* **.1** *P* **27** *L* **35** # 48

Remein, Duane — Huawei Technologies

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

Tables 60-1a and 60-1b could easily be combine if rotated so that the PMD types formed the rows and the parameters were the columns

*SuggestedRemedy*

Combine and rotate table 60-1a and 60-1b into one table.
(see 8023bk_1206_remein_1.pfd)

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

*Cl* **60** *SC* **1.4** *P* **29** *L* **37** # 73

Remein, Duane — Huawei Technologies

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

Table 60-2
Reference for 1000BASE-PX10 seems to have changed from Table 60-8 to Table 60-5 with no change to the previously referenced table.

*SuggestedRemedy*

Change back to 60-8 in two places.

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

*Cl* **60** *SC* **1.4** *P* **29** *L* **42** # 74

Remein, Duane — Huawei Technologies

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

Table 60-2
Reference for 1000BASE-PX20 seems to have changed from Table 60-9 to Table 60-8 with no change to the previously referenced table.

*SuggestedRemedy*

Change back to 60-9 in two places.

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

*Cl* **60** *SC* **10.3** *P* **41** *L* **15** # 55

Remein, Duane — Huawei Technologies

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

Missing editorial note

*SuggestedRemedy*

Add note before 60.10.3:
"Modify the table in 60.10.3 as follows"

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

*Cl* **60** *SC* **4a** *P* **30** *L* **10** # 61

Remein, Duane — Huawei Technologies

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

"Insert a new subclause, 60.4a, as shown below:" Since when have we started to number clauses with alpha-numberic?
Does this inserted clause come before or after the existing Clause 60.4?

*SuggestedRemedy*

Provide a clear indication of where the new clause is to be inserted and what it's numeric header is to be. my past experience has been this wold be something like "Insert a new subclause, 60.5, as shown below, renumbering subsequent clauses"

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

*Cl* **60** *SC* **4a** *P* **30** *L* **18** # 67

Remein, Duane — Huawei Technologies

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

The following note is not precisly correct "(e.g., a single-mode solution operating at 20.5 km meets the minimum range requirement of 0.5 m to 20 km for 1000BASE-PX30)"
If the solution only operated between 20 and 20.5 km it would not be compliant.

This comment also applies to Cl 60.4b pg 33 line 27.

*SuggestedRemedy*

Change to "(e.g., a single-mode solution operating at 0.4 m to 20.5 km meets the minimum range requirement of 0.5 m to 20 km for ..."

Note: it would be advisable to make this change to similar wordings in Cl 60.3 and 60.4.

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

*Cl* **60** *SC* **4a.1** *P* **30** *L* **36** # 68

Remein, Duane — Huawei Technologies

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

Table 60-8a, Wavelength. It seems to me that if we are to significantly tighten the line width as proposed in Table 60-8b then we can certainly tighten transmitter wavelength.

This comment also applies to Cl 60.4b.1 Table 60-8d pg 33 line 44

This comment might also impact Table 60-9 if the suggested change is modified

*SuggestedRemedy*

Change from "1480 to 1500" and "1260 to 1360" ("1290 to 1330" in Table 8d)
to "1487.5 to 1492.5" and "1300 to 1320"

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

*Cl* **60** *SC* **4a.2** *P* **31** *L* **54** # 69

Remein, Duane — Huawei Technologies

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

Missing warning text and note regarding damage threashold as in Cl 75.4.2 and Table 75-6 of 802.3av

This same comment also applies to Cl 60.4b.2 pg 35 line 49 Table 60-8f

*SuggestedRemedy*

Add the following text as a seperate paragraph in 60.4a.2:
"The damage threshold included in Table 60-8c does not guarantee direct ONU–OLT connection, which may result in damage of the receiver. If direct ONU–OLT connection is necessary, optical attenuators and/or equivalent loss components should be inserted to decrease receive power below the damage threshold."
Add the following note to Damage threashold (max) in Table 60-8c:
"Direct ONU–OLT connection may result in damage of the receiver."

Make similar additions to cl 60.4b.2 and table 60-8f with appropriate changes.

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

*Cl* **60** *SC* **4a.2** *P* **32** *L* **27** # 62
Remein, Duane Huawei Technologies

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

The figure has not been accepted by the TF and should, at the very least, be marked so.

*SuggestedRemedy*

Add editors note similar to that on Figure 60-4b

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

*Cl* **60** *SC* **4b** *P* **33** *L* **24** # 50
Remein, Duane Huawei Technologies

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

Table 60-lb?

*SuggestedRemedy*

Change to Table 60-8d.

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

*Cl* **60** *SC* **4b** *P* **33** *L* **45** # 42
Tajima, Akio♂ NEC Corporation

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

1000BASE-PX40, 10GBASE-PRX40 and 10GBASE-PR40 would be used in combination with power budget extender (PBEx) for loss budget > 33 dB. Optical amplifier is one of PBEx candidates and it is difficult to realize good performance optical amplifier with wide wavelength bandwidth such as 70 nm. Also, optical transmitter wavelength range of 1290-1330 nm cannot be realized with FP-LD.
Therefore, the wavelength range of 1000BASE-PX40-U in Table 60-8d shall be narrow as 1290-1310 nm.

*SuggestedRemedy*

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

*Cl* **60** *SC* **4b** *P* **33** *L* **45** # 41
Tajima, Akio♂ NEC Corporation

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

1000BASE-PX40, 10GBASE-PRX40 and 10GBASE-PR40 would be used in combination with power budget extender (PBEx) for loss budget > 33 dB. Optical amplifier is one of PBEx candidates and it is difficult to realize good performance optical amplifier with wide wavelength bandwidth such as 70 nm. Also, optical transmitter wavelength range of 1290-1330 nm cannot be realized with FP-LD and DFB-LD shuld be used.
Therefore, the wavelength range of 1000BASE-PX40-U in Table 60-8d shall be narrow as 1290-1310 nm.

*SuggestedRemedy*

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

*Cl* **60** *SC* **5** *P* **36** *L* **37** # 51
Remein, Duane Huawei Technologies

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

There is no change to the note and it need not be included here.

*SuggestedRemedy*

Remove the text "NOTE—The budgets include an allowance for –12 dB reflection at the receiver."

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

*Cl* **60** *SC* **5** *P* **37** *L* **1** # 52
Remein, Duane Huawei Technologies

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

It should be clear thar Table 60-9 is part of Cl 60.5 and not 60.6

*SuggestedRemedy*

Include editorial note that Table 60-9 is part of Cl 60.5. and, at the very least, the editorial note "Modify the text in 60.7.2 as follows:" should be after Table 60-11.

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

*Cl* **60** *SC* **60.1** *P* **27** *L* **13** # 12

Hajduczenia, Marek ZTE Corporation

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

Space missing in "P2MP1000BASE-X"

*SuggestedRemedy*

Change to "P2MP 1000BASE-X"

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

*Cl* **60** *SC* **60.1** *P* **27** *L* **19** # 47

Remein, Duane Huawei Technologies

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

Suggested wording improvement. The coma in the list between medium and singl-mode fiber is confusing.

*SuggestedRemedy*

Change "... 1000BASE-PX40-U, 1000BASE-PX40-D, and the medium, single-mode fiber." To "1000BASE-PX40-U, 1000BASE-PX40-D, and the single-mode fiber medium."

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

*Cl* **60** *SC* **60.1** *P* **27** *L* **29** # 66

Remein, Duane Huawei Technologies

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

We seem to be implying that PX30 & PX40 are not mutually compatible with PX10 & PX20. (Which may be true)

*SuggestedRemedy*

Add editorial note: "Compatibility of PX30 and PX40 with previous generations must be extablished".

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

*Cl* **60** *SC* **60.1** *P* **27** *L* **33** # 80

Anslow, Pete Ciena

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

This says: "Insert a new Table 60-1b, following Table 60-1a, as shown below:", but there is no Table 60-1a in IEEE Std 802.3 and the two tables 60-1a and 60-1b shown have the same title.

*SuggestedRemedy*

Leave the first table as Table 60-1 and make the newly insrted table "Table 60-1a" and make the titles different from each other.

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

*Cl* **60** *SC* **60.1** *P* **27** *L* **5** # 81

Anslow, Pete Ciena

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

The editing instruction says "Modify the text of 60.1 as shown below:" but not all of the text of 60.1 is shown.

The reference to Table 60-1 at the end of 60.1 needs changing if Table 61-1b is inserted.

*SuggestedRemedy*

Either:

show all of the text of 60.1

or change the editing instruction to "Change the text of the first two paragraphs of 60.1 as follows:" and show the whole of the text of the first two paragraphs.

Also, fix the reference to Table 60-1 at the end of 60.1

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

*Cl* **60** *SC* **60.1** *P* **27** *L* **9** # 46

Remein, Duane — Huawei Technologies

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

Suggested wording improvement. Existing text:
"The 1000BASE-PX10 and 1000BASE-PX20 PMD sublayers provide point-to-multipoint (P2MP) 1000BASE-X connections over passive optical networks (PONs) up to at least 10 km and 20 km, respectively and with a typical split ratio of 1:16. The 1000BASE-PX30 PMD sublayers provide P2MP 1000BASE-X connections over PONs up to at least 20 km, and with a typical split ratio of 1:32. The 1000BASE-PX40 PMD sublayers provide P2MP1000BASE-X connections over PONs up to at least 20 km, respectively and with a typical split ratio of 1:64."

*SuggestedRemedy*

The 1000BASE-PX10, 1000BASE-PX20, 1000BASE-PX30 and 1000BASE-PX40 PMD sublayers provide point-to-multipoint (P2MP) 1000BASE-X connections over passive optical networks (PONs). The 1000BASE-PX10 PMD sublayer provides at least 10 km reach whereas the 1000BASE-PX20, 1000BASE-PX30 and 1000BASE-PX40 PMD sublayers provide at least 20 km reach. The 1000BASE-PX10, and 1000BASE-PX20 PMD sublayers provide a typical split ratio of 1:16. The 1000BASE-PX30 PMD sublayer provided a typical split ratio of 1:32. The 1000BASE-PX40 PMD sublayer provides a typical split ratio of 1:64.

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

*Cl* **60** *SC* **60.1** *P* **28** *L* **16** # 16

Hajduczenia, Marek — ZTE Corporation

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

Note c) applied to the "Minimum channel insertion loss" parameter does not make sense for PX30 and PX40 PMDs, since there is no difference between upstream and downstream channel loss.

*SuggestedRemedy*

Remove note c) for Table 60-1b

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

*Cl* **60** *SC* **60.1** *P* **28** *L* **5** # 15

Hajduczenia, Marek — ZTE Corporation

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

PX30 and PX40 PMDs use "IEC 60793–2 B1.1, B1.3 SMF" as well as "ITU–T G.652, G.657 SMF" - support for these new fiber types was added in 802.3av.

*SuggestedRemedy*

Change "B1.1, B1.3 SMF" to "IEC 60793–2 B1.1, B1.3 SMF, ITU–T G.652, G.657 SMF"

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

*Cl* **60** *SC* **60.1.1** *P* **29** *L* **3** # 49

Remein, Duane — Huawei Technologies

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

How can goal b,c,d & e apply to all four PMDs?

*SuggestedRemedy*

Change section to read:
The following are the objectives of 1000BASE-PX10 and , 1000BASE-PX20, 1000BASE-PX30, and
1000BASE-PX40:
a) Point-to-multipoint on optical fiber.
b) BER better than or equal to 10-12 at the PHY service interface.
An objective of 1000BASE-PX10 is 1000 Mb/s up to 10 km on one single-mode fiber supporting a fiber split ratio of 1:16.
An objective of 1000BASE-PX20 is 1000 Mb/s up to 20 km on one single-mode fiber supporting a fiber split ratio of 1:16.
An objective of 1000BASE-PX30 is 1000 Mb/s up to 20 km on one single-mode fiber supporting a fiber split ratio of 1:32.
An objective of 1000BASE-PX40 is 1000 Mb/s up to 20 km on one single-mode fiber supporting a fiber split ratio of 1:64.

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

*Cl* **60** *SC* **60.10.4.5a** *P* **42** *L* **13** # 26

Hajduczenia, Marek — ZTE Corporation

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

"3000BASE" - does not exist really ... and it is spread present in 60.10.4.5a, 60.10.4.5b.

*SuggestedRemedy*

Change "3000BASE" to "1000BASE"

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

*Cl* **60** *SC* **60.4a.1** *P* **16** *L* **44** # 3

Sugawa, Jun — Hitachi, Ltd.

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

About Table 60-8a.
The Launch OMA (min) value of 1000BASE-PX30-D in dBm unit is described, but the value in mW unit is not described.

*SuggestedRemedy*

change Launch OMA(min) value of 1000BASE-PX30-D FROM "3.78(TBD)" TO "3.78(2.39)".

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

*Cl* **60** *SC* **60.4a.1** *P* **30** *L* **30** # 13

Hajduczenia, Marek — ZTE Corporation

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

In Table 60–8a, Table 60–8c, Table 60–8d and Table 60–8f merge rows with the same values, similar to what was done for Table 75–5

*SuggestedRemedy*

Per comment

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

*Cl* **60** *SC* **60.4a.1** *P* **30** *L* **45** # 17

Hajduczenia, Marek — ZTE Corporation

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

TBD value for Launch OMA (min) in mW

*SuggestedRemedy*

Change "TBD" to "2.39" (based on link model spreadsheet calculations)

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

*Cl* **60** *SC* **60.4a.1** *P* **31** *L* **16** # 39

Hajduczenia, Marek — ZTE Corporation

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

Table 60-8b is missing currently RMS spectral width for downstream wavelength range (1480 - 1500 nm), similar to what is already in place in Table 60-4 and Table 60-8 in the base document

*SuggestedRemedy*

Insert two new rows into Table 60-8b (at the end of the table) with the following content

- row 1: empty / empty / empty
- row 2: 1480 to 1500 / 0.25 / 0.21

The values were recalculated to account for a smaller epsilon value and tigher TDP values.

Modify text on page 38, lines 34-37 in the following way:
- change first TBD in this para to value of "0.095"
- change second TBD in this para to value of "0.08"
See 8023bk_1207_hajduczenia_2.xlsx for details of the calculation of the values for 1480 - 1500 nms range as well as target epsilon values (normative and informative)

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

*Cl* **60** *SC* **60.4a.1** *P* **31** *L* **16** # 38

Hajduczenia, Marek — ZTE Corporation

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

Table 60-8b corresponds to Table 75-10 as published in 802.3av and it is applicable to PX30-U PMD without any changes.

*SuggestedRemedy*

Remove the statement "(Tentative)" on page 31, line 16
Remove the editorial note, on page 31, line 41
See 8023bk_1207_hajduczenia_2.xlsx for confirmation of values calculated for epsilon of 0.095 (normative) and 0.08 (informative)

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

*Cl* **60** *SC* **60.4a.1** *P* **31** *L* **5** # 77

Nishihara, Susumu NTT

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

Transmitter and dispersion penalty (max) for PX30-D was 1.0 dB. However, it was 2.3 dB for 1000BASE-PX20-D regardless of the same wavelength range of 1480 to 1500 nm.

*SuggestedRemedy*

Change the description of "1 dB" in the column to "TBD".
Also, discuss it in TF for more appropriate value.

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

*Cl* **60** *SC* **60.4a.2** *P* **32** *L* **44** # 4

Sugawa, Jun Hitachi, Ltd.

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

About Table 60-8c

The value of Receiver sensitivity OMA(max) in dBm unit of 1000BASE-PX30U is described, but the value in micro Watt unit is not described.

*SuggestedRemedy*

CHANGE the value of Receiver sensitivity OMA(max)
FROM "-26.2" TO "-26.2(2.40)"

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

*Cl* **60** *SC* **60.4a.2** *P* **32** *L* **44** # 18

Hajduczenia, Marek ZTE Corporation

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

missing value for "Receiver sensitivity OMA (max)" in uW

*SuggestedRemedy*

Add the value "(2.39)" (based on link model spreadsheet calculations)

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

*Cl* **60** *SC* **60.4a.2** *P* **32** *L* **48** # 19

Hajduczenia, Marek ZTE Corporation

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

Missing value for "Stressed receive sensitivity (max)" parameter

*SuggestedRemedy*

Change "TBD" to "-26.00" (based on link model spreadsheet calculations)

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

*Cl* **60** *SC* **60.4a.2** *P* **32** *L* **51** # 20

Hajduczenia, Marek ZTE Corporation

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

Missing value for "Stressed receive sensitivity OMA (max)" parameter

*SuggestedRemedy*

Change "TBD (TBD)" to "-25.22 (3.01)" (based on link model spreadsheet calculations)

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

*Cl* **60** *SC* **60.4b.1** *P* **33** *L* **39** # 40

Hajduczenia, Marek ZTE Corporation

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

The downstream and upstream transmitters for PX40 PMD as baselined were based on DML devices and it is unlikely that the target power levels and distance reach can be achieved with FPLs.
Under this assumption, we should not be specifying transmitters via RMS spectral width but rather use the methodology more suitable for DML devices, i.e. use the Side Mode Supression ratio parameter, as used in 10G-EPON

*SuggestedRemedy*

Implement the following changes:
- in Table 60–8d, replace the row "RMS spectral width (max)" with "Side Mode Suppression Ratio (min)a" and insert the value of "30" for 1000BASE-PX40-D and 1000BASE-PX40-U columns (a single value can be used). Units are "dB"
- insert note "a" under table with the following text: "Transmitter is a single longitudinal mode device. Chirp is allowed such that the total optical path penalty does not exceed that found in Table 60-9". Renumber the remaining notes in the table
- Remove Table 60–8e, Figure 60–4b with associated notes
- Remove text on page 34, lines 19-21
- Remove text on page 38, lines 39-42
- Rewrite text on page 38, lines 44/45 to read as follows: "The chromatic dispersion penalty is a component of transmitter and dispersion penalty (TDP), which is specified in Table 60-3, Table 60-6, and Table 60–8a, and described in 58.7.9."

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

*Cl* **60** *SC* **60.4b.1** *P* **33** *L* **54** # 21

Hajduczenia, Marek ZTE Corporation

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

Missing value for "Launch OMA (min)" parameter expressed in (mW)

*SuggestedRemedy*

Insert values (3.10) in 1000BASE-PX40-D column
Insert values (1.90) in 1000BASE-PX40-U column
(based on link model spreadsheet calculations)

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

*Cl* **60** *SC* **60.4b.1** *P* **34** *L* **12** # 79

Nishihara, Susumu NTT

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

Transmitter and dispersion penalty (max) for 1000BASE-PX40-U should be 1.4 dB, which is the same as value for PX30-U.

*SuggestedRemedy*

Transmitter and dispersion penalty (max) for 1000BASE-PX40-U from 1.0 dB to 1.4 dB.

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

*Cl* **60** *SC* **60.4b.1** *P* **34** *L* **12** # 78

Nishihara, Susumu NTT

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

Transmitter and dispersion penalty (max) for PX40-D was 1.0 dB. However, it was 2.3 dB for 1000BASE-PX20-D regardless of the same wavelength range of 1480 to 1500 nm.

*SuggestedRemedy*

Change the description of "1 dB" in the column to "TBD".
Also, discuss it in TF for more appropriate value.

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

*Cl* **60** *SC* **60.4b.2** *P* **35** *L* **53** # 76

Nishihara, Susumu NTT

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

Receiver sensitiviy OMA values are described in more detail.

*SuggestedRemedy*

Instead of -31.2 dBm and -29.2 dBm for PX40-D and PX40-U, they should be described as -31.22 dBm and -29.22 dBm, respectively.

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

*Cl* **60** *SC* **60.4b.2** *P* **35** *L* **54** # 22
Hajduczenia, Marek ZTE Corporation

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

Missing value for "Receiver sensitivity OMA (max)" parameter expressed in (uW)

*SuggestedRemedy*

Insert values (0.76) in 1000BASE-PX40-D column
Insert values (1.20) in 1000BASE-PX40-U column
(based on link model spreadsheet calculations)

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

*Cl* **60** *SC* **60.4b.2** *P* **36** *L* **11** # 24
Hajduczenia, Marek ZTE Corporation

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

Missing value for "Stressed receive sensitivity OMA (max)" parameter

*SuggestedRemedy*

Insert values "-30.22 (0.95)" in 1000BASE-PX40-D column
Insert values "-28.22 (1.55)" in 1000BASE-PX40-U column
(based on link model spreadsheet calculations)

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

*Cl* **60** *SC* **60.4b.2** *P* **36** *L* **8** # 23
Hajduczenia, Marek ZTE Corporation

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

Missing value for "Stressed receive sensitivity (max)" parameter

*SuggestedRemedy*

Insert values "-31.00" in 1000BASE-PX40-D column
Insert values "-29.00" in 1000BASE-PX40-U column
(based on link model spreadsheet calculations)

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

*Cl* **60** *SC* **60.7.2** *P* **37** *L* **17** # 25
Hajduczenia, Marek ZTE Corporation

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

Table 60–9 contains a number of TBD values which need to be filled in based on the link model spreadsheet calculations

*SuggestedRemedy*

Replace the following instances of TBD:
- 1000BASE-PX30 column, upstream, Optical return loss of ODN (min): 20
- 1000BASE-PX30 column, downstream, Optical return loss of ODN (min): 20
- 1000BASE-PX40 column, upstream, Optical return loss of ODN (min): 20
- 1000BASE-PX40 column, downstream, Optical return loss of ODN (min): 20
- 1000BASE-PX30 column, downstream, Available power budget: 30.0
- 1000BASE-PX40 column, upstream, Available power budget: 34.0
- 1000BASE-PX40 column, downstream, Available power budget: 34.0
- 1000BASE-PX30 column, downstream, Allocation for penalties: 1
- 1000BASE-PX40 column, upstream, Allocation for penalties: 1
- 1000BASE-PX40 column, downstream, Allocation for penalties: 1

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

*Cl* **60** *SC* **7.13.1** *P* **39** *L* **18** # 54
Remein, Duane Huawei Technologies

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

Unchanged lines in the section need not be included.

*SuggestedRemedy*

remove the following text:
"Tcdr is defined in 65.3.2.1 value is less than 400 ns (defined in 60.2.2)."
and
"Tcode_group_align is defined in 36.3.2.4 value is less than 4 ten-bit code-groups."

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

*Cl* **60** *SC* **7.2** *P* **38** *L* **23** # 53
Remein, Duane Huawei Technologies

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

There is no change to the two lead in paragraphs and they should not be inlcuded.

*SuggestedRemedy*

Remove first two paragraphs.

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

*Cl* **60** *SC* **9.2** *P* **40** *L* **25** # 70

Remein, Duane — Huawei Technologies

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

While 1000BASE-PX10/20 were not origionally specified for newer fibers would they not work with these fibers? I think they would indeed work and thus the paragraph at line 29 should equally apply to all PMDs.

Might also consider updating Table 60-9 and 60-1

Note also taht Table 60-1 conflicts with Table 60-9

*SuggestedRemedy*

Strike the paragraph at line 25 adn reword the first sentance starting at line 29 to read "The fiber optic cable requirements for 1000BASE-PX10, 1000BASE-PX20, 1000BASE-PX30 and 1000BASE-PX40 are satisfied by the fibers ..."

Change Fiber Type for all entries of Tablel 60-1 and 60-9 to "B1.1, B1.3 SMF ITU-T G.652, G.657 SMF"

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

*Cl* **60** *SC* **9.2** *P* **40** *L* **31** # 71

Remein, Duane — Huawei Technologies

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

Table 75-14? I think not.

*SuggestedRemedy*

Change to Table 60-14.

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

*Cl* **75** *SC* **1** *P* **46** *L* **22** # 44

Tajima, Akio♂ — NEC Corporation

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

1000BASE-PX40, 10GBASE-PRX40 and 10GBASE-PR40 would be used in combination with power budget extender (PBEx) for loss budget > 33 dB. Optical amplifier is one of PBEx candidates and it is difficult to realize good performance optical amplifier with wide wavelength bandwidth such as 70 nm. Also, optical transmitter wavelength range of 1290-1330 nm cannot be realized with FP-LD.
Therefore, the wavelength range of 1000BASE-PX40-U in Table 75-1 shall be narrow as 1300 +/-10 nm.

*SuggestedRemedy*

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

*Cl* **75** *SC* **1** *P* **46** *L* **22** # 43

Tajima, Akio♂ — NEC Corporation

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

1000BASE-PX40, 10GBASE-PRX40 and 10GBASE-PR40 would be used in combination with power budget extender (PBEx) for loss budget > 33 dB. Optical amplifier is one of PBEx candidates and it is difficult to realize good performance optical amplifier with wide wavelength bandwidth such as 70 nm. Also, optical transmitter wavelength range of 1290-1330 nm cannot be realized with FP-LD and DFB-LD shuld be used.
Therefore, the wavelength range of 1000BASE-PX40-U in Table 75-1 shall be narrow as 1300 +/-10 nm.

*SuggestedRemedy*

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

*Cl* **75** *SC* **1.2** *P* **45** *L* **15** # 56

Remein, Duane — Huawei Technologies

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

How many "at least"s are really needed?
"... at least 1:16, at least 1:32 and at least 1:64, and distances of at least 10 km and at least 20 km."

*SuggestedRemedy*

Reword as follows:
"... split ratios of at least 1:16, 1:32, and 1:64, and distances of at least 10 km and 20 km."

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

*Cl* **75** *SC* **1.3** *P* **45** *L* **18** # 57

Remein, Duane — Huawei Technologies

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

Exactly how does one "modify as new bullet"?

*SuggestedRemedy*

Change editorial note to read:
"Add a new bullet on extended power budget class in 75.1.3, as shown below:"

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

*Cl* **75** *SC* **4.1** *P* **49** *L* **18** # 72

Remein, Duane — Huawei Technologies

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

Why is Launch OAM marked "TBD"? There is no indication in the motion that adoped this material that this figure is TBD

*SuggestedRemedy*

Remove "(TBD)"

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

*Cl* **75** *SC* **4.2** *P* **50** *L* **9** # 58

Remein, Duane — Huawei Technologies

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

Why is Receiver sensitivity OMA (max) "TBD"? There is no indication in the motion that adoped this material that this figure is TBD

This comment also applies to Table 75-11 cl 75.5.2 pg 55 line 26

*SuggestedRemedy*

Remove "(TBD)"

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

*Cl* **75** *SC* **5** *P* **51** *L* **41** # 64

Remein, Duane — Huawei Technologies

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

If a note is removed from the table the remaining notes should be renumbered

*SuggestedRemedy*

Renumber notes b-c to a-b.

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

*Cl* **75** *SC* **5.2** *P* **53** *L* **46** # 59

Remein, Duane — Huawei Technologies

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

Apparently more than modification to a table is being done.

*SuggestedRemedy*

Add editorial note to read:
"Delete Figure 75-6 and Table 75-10 as shown below"

Move note reading "Modify Table 75–11 as shown below." to below Table 75-10

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

*Cl* **75** *SC* **75.4.1** *P* **49** *L* **1** # 27

Hajduczenia, Marek ZTE Corporation

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

10GBASE–PR–D2 and 10GBASE–PR–D4 seem to share all the parameters including Launch OMA (min), which should be equal to "6.91 (4.91)", since it is calculated for ER = 9 dB. This means that 10GBASE–PR–D2 and 10GBASE–PR–D4 can be merged together

*SuggestedRemedy*

Change column "10GBASE–PR–D2, 10/1GBASE–PRX–D2" to "10GBASE–PR–D2, 10GBASE–PR–D4, 10/1GBASE–PRX–D2"

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

*Cl* **75** *SC* **75.4.1** *P* **49** *L* **18** # 5

Sugawa, Jun Hitachi, Ltd.

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

About Table 75-5
The values of average launch power(min) and Extiction ratio in 10GBASE-PR-D4 are same as the values in 10GBASE-PR-D2.
But the value of Launch OMA(min) in 10GBASE-PR-D4 is different from the value in 10GBASE-PR-D2.
The value of Launch OMA(min) is not consistent with the value of average launch power(min) and Extinction ratio.

*SuggestedRemedy*

Chnage the value of Launch OMA(min) of 10GBASE-PR-D4
FROM "5.78(TBD)" TO "6.91(4.91)"

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

*Cl* **75** *SC* **75.4.2** *P* **49** *L* **50** # 35

Hajduczenia, Marek ZTE Corporation

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

The value of "Average receive power (max)" for 10GBASE–PR–D4 is incorrect. It is -9 dBm, but based on the link model calculations, it should be -8

*SuggestedRemedy*

Change -9 to -8 for the selected parameter

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

*Cl* **75** *SC* **75.4.2** *P* **49** *L* **50** # 29

Hajduczenia, Marek ZTE Corporation

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

The value of "Stressed receive sensitivity (max)" is missing for 10GBASE–PR–D4

*SuggestedRemedy*

Change "TBD" to "-27" (based on link model spreadsheet calculations)

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

*Cl* **75** *SC* **75.4.2** *P* **50** *L* **18** # 30

Hajduczenia, Marek ZTE Corporation

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

The value of "Stressed receive sensitivity OMA (max)" is missing for 10GBASE–PR–D4

*SuggestedRemedy*

Change "TBD" to "-26.22 (2.39)" (based on link model spreadsheet calculations)

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

*Cl* **75** *SC* **75.4.2** *P* **50** *L* **8** # 6

Sugawa, Jun Hitachi, Ltd.

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

About Table 75-6

The value of Receiver sensitivity OMA(max) of 10GBASE-PR-D4 in dBm unit is described, but the value in micro Watt unit is not described.

*SuggestedRemedy*

change the value of Receiver sensitivity OMA(max) in 10GBASE-PR-D4
FROM "-28.2(TBD)" TO "-28.2(1.51)".

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

*Cl* **75** *SC* **75.4.2** *P* **50** *L* **8** # 28

Hajduczenia, Marek — ZTE Corporation

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

Need to provide value for "Receiver sensitivity OMA (max)" parameter, expressed in uW

*SuggestedRemedy*

Change "TBD" to "1.26" (based on link model spreadsheet calculations)
Modify also the value in dBM from 28.2 to 28.22, consistent with the resolution used in 802.3av

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

*Cl* **75** *SC* **75.5.1** *P* **52** *L* **13** # 10

Sugawa, Jun — Hitachi, Ltd.

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

About Table75-8

The value of Average launch power(min) of 10GBASE-PR-U4 is 2dB higher than that of 10GBASE-PR-U3. I think the transmitter which average launch power(min) of more than 6dBm is technical feasible. But I think that the economical feasibilty is not shown in extended EPON Study Group and Task Force.

*SuggestedRemedy*

I think data about the economical feasibility of the transimitter which satisfy 10GBASE-PR-U4 should be shown. For example, data about relative cost of 10GBASE-PR-U4 transceiver compared to 10GBASE-PR-U3 transceiver should be shown.

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

*Cl* **75** *SC* **75.5.1** *P* **52** *L* **18** # 31

Hajduczenia, Marek — ZTE Corporation

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

The value of Launch OMA (min) for 10GBASE–PR–U4 PMD is calculated incorrectly.

*SuggestedRemedy*

Change "4.78 (3.01)" to 6.78 (4.77)" (based on link model spreadsheet calculations)

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

*Cl* **75** *SC* **75.5.2** *P* **55** *L* **21** # 7

Sugawa, Jun — Hitachi, Ltd.

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

About Table 75-11

The value of the damage threshold is 1dB higher than the value of the average receive power(max) in 10GBASE-PR-U1, 10GBASE-PR-U3, etc.
But the value of the damage threshold(max) in 10GBASE-PR-U4 and 10/1GBASE-PRX-U4 is 4dB higher than the value of average receiver power(max).
I think the damage threshold of -5dBm is feasible for APD receiver, but I'm afraid that the damage threshold is specified as unnecesarrily high value.

*SuggestedRemedy*

change the value of the damage threshold(max) in 10GBASE-PR-U4 and 10/1GBASE-PRX-U4 from "-5" to "-8".

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

*Cl* **75** *SC* **75.5.2** *P* **55** *L* **26** # 32

Hajduczenia, Marek — ZTE Corporation

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

The value of "Receiver sensitivity OMA (max)" parameter to correspond to values calculated based on the link model

*SuggestedRemedy*

Change the value "-28.7 (TBD)" to "-27.59 (1.12)" (based on link model spreadsheet calculations)

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

*Cl* **75** *SC* **75.5.2** *P* **55** *L* **26** # 8

Sugawa, Jun — Hitachi, Ltd.

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

About Table 75-10

The value of the Receiver sensitivity OMA (max) of 10GBASE-PR-U4, 10/1GBASE-PRX-U4 in dBm unit is described, but the value in micro Watt unit is not described.

*SuggestedRemedy*

change the value of the Receiver sensitivity OMA(max) in 10GBASE-PR-U4 and 10/1GBASE-PRX-U4 from "-28.7 (TBD)" to "-28.7(1.35)".

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

*Cl* **75** *SC* **75.5.2** *P* **55** *L* **33** # 33
Hajduczenia, Marek ZTE Corporation

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

The value of "Stressed receive sensitivity (max)" parameter to correspond to values calculated based on the link model

*SuggestedRemedy*

Change the value "TBD" to "-28" (based on link model spreadsheet calculations)

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

*Cl* **75** *SC* **75.5.2** *P* **55** *L* **35** # 34
Hajduczenia, Marek ZTE Corporation

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

The value of "Stressed receive sensitivity OMA (max)" parameter to correspond to values calculated based on the link model

*SuggestedRemedy*

Change the value "TBD" to "-26.09 (2.46)" (based on link model spreadsheet calculations)

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

*Cl* **75B** *SC* **75B.2.1** *P* **65** *L* **20** # 82
Anslow, Pete Ciena

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

This says "Modify the content in Table75B-1 by inserting row for PR40 as follows:" but it is a column that has been inserted.

Same issue for Table 75B-2

*SuggestedRemedy*

Change to: "Change Table 75B-1 by inserting a column for PR40 as follows:"

Same for Table 75B-2

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

*Cl* **75B** *SC* **75B.2.1** *P* **65** *L* **37** # 36
Hajduczenia, Marek ZTE Corporation

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

Table 75B-1 has a number of missing parameters, marked as TBD.

*SuggestedRemedy*

Fill in Table 75B-1 with the following values:
- Available power budget, column PR40, US: 35.00
- Available power budget, column PR40, DS: 34.50
- Allocation for penalties, column PR40, US: 2
- Allocation for penalties, column PR40, DS: 1.5

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

*Cl* **75B** *SC* **75B.2.1** *P* **66** *L* **28** # 37
Hajduczenia, Marek ZTE Corporation

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

Table 75B-2 has a number of missing parameters, marked as TBD.

*SuggestedRemedy*

Fill in Table 75B-1 with the following values:
- Available power budget, column PRX40, US: 34.00
- Available power budget, column PRX40, DS: 34.50
- Allocation for penalties, column PRX40, US: 1
- Allocation for penalties, column PRX40, DS: 1.5

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

*Cl* **75B** *SC* **75B.2.2** *P* **67** *L* **3** # 83
Anslow, Pete Ciena

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

This says "Modify the description in Table75B.2.2 ..." but 75B.2.2 isn't a table

*SuggestedRemedy*

Change "Table75B.2.2" to "75B.2.2"

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

*Cl* **75B** *SC* **75B.2.2** *P* **67** *L* **9** # 9

Sugawa, Jun Hitachi, Ltd.

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

The sentence "The two wavelength bands overlap, thus WDM channel multiplexing cannot be used to separate the two data rates." seems to be ambiguous since three wavelength bands 1260-1360, 1290-1330, 1260-1280 appear in previous sentence.

And WDM channel multiplexing is possible if 1000BASE-PX40-U, 10GBASE-PRX-U4 compliant ONUs and 10GBASE-PR-U4 compliant ONUs are used.

*SuggestedRemedy*

change the sentence as follows:
"The 1260-1360 wavelengh bands and the 1260-1280 wavelength bands overlap, thus WDM channel multiplexing cannot be used to separate the two data rates for 1000BASE-PX10-U, 1000BASE-PX20-U, 1000BASE-PX30-U compliant ONUs and 10GBASE-PRX-U1, 10GBASE-PRX-U2, 10GBASE-PRX-U3 compliant ONUs.

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

*Cl* **99** *SC* *P* **1** *L* **32** # 1

Sugawa, Jun Hitachi, Ltd.

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

The expression of "PR(X)40" is obscure.

*SuggestedRemedy*

change the following sentence FROM
"It provides physical layer specifications and management parameters for EPON operation on point-to-multipoint passive optical networks supporting extended power budget classes of PX30, PX40 and PR(X)40."
TO
"It provides physical layer specifications and management parameters for EPON operation on point-to-multipoint passive optical networks supporting extended power budget classes of PX30, PX40, PRX40 and PR40."

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