

IEEE 802.3bk Extended EPON TF 2nd Task Force review comments

CI 00 SC 0 P L # 11
 Anslow, Pete Ciena

Comment Type ER Comment Status X

Comment #84 against D1.0 was accepted, but the part that says "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." has not been implemented.

"Modify" is not a valid editing instruction.

When Insert is used, the text to be inserted is not shown in underline font.

SuggestedRemedy

There are 51 instances of "Modify" in the draft. Replace these with "Change" except for the instance in the strikethrough footnote to Table 75-10 which is the subject of another comment.

For the text associated with the "Insert" editing instruction, show in normal (not underline) font. This applies to 45.2.1.11.a through 45.2.1.11.d, 60.4a, 60.4b, 60.10.4.5a through 60.10.4.5d, 75.10.4.4a, 75.10.4.7a, 75.10.4.9a and 75.10.4.12a.

In 56.1.3, the style of the text uses underline and strikethrough, so is appropriate to a Change editing instruction, not Insert. Replace both "Insert" editing instructions with "Change".

Replace only applies to figures or equations, so the changes to Table 60-2 and Table 75-4 should be "Change" instructions.

Proposed Response Response Status O

CI 00 SC 0 P 0 L 0 # 53
 Brown, Alan Aurora Networks

Comment Type E Comment Status X

Correct improper serial comma use throughout document.

SuggestedRemedy

A, b, c, and d is correct.

A, b, c and d is not correct.

Proposed Response Response Status O

CI 00 SC 0 P 0 L 0 # 68
 Hajduczenia, Marek ZTE Corporation

Comment Type ER Comment Status X

Page numbering in Clause 60 seems to be off by 2 pages. Please fix it in the next revision of the draft

SuggestedRemedy

Per comment

Proposed Response Response Status O

CI 45 SC 45.2.1.6 P 19 L 5 # 58
 Sugawa, Jun Hitachi, Ltd.

Comment Type E Comment Status X

"10GBASE--PR-D4" should be "10GBASE-PR-D4"

SuggestedRemedy

Changes per comment

Proposed Response Response Status O

CI 56 SC 56.1.3 P 23 L 10 # 43
 Brown, Alan Aurora Networks

Comment Type E Comment Status X

Undesireable use of comma in "includes the combination of 1000BASE-PX10-D (Passive Optical Network Downstream 10 km), plus 1000BASE-PX10-U (PON Upstream 10 km)"

SuggestedRemedy

Delete comma.

Proposed Response Response Status O

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Cl 56 SC 56.1.3 P 26 L 1 # 63
 Hajduczenia, Marek ZTE Corporation

Comment Type TR Comment Status X

In the modified Table 56-3, 1000BASE-PX30-D, 1000BASE-PX30-U, 1000BASE-PX40-D and 1000BASE-PX40-U list as mandatory (M) presence of Clause 60 1000BASE-PX20 PMD type. This is clearly incorrect, since PX30 should be listing mandatory 1000BASE-PX30 PMD, while PX40 should be listing mandatory 1000BASE-PX40 PMD.

SuggestedRemedy

Revise Table 56-3 as shown in P8023bk_1209_hajduczenia_1.pdf (changes are marked in red - two new columns and moving M entries into newly added columns accordingly). Frame source is also provided for convenience.

Proposed Response Response Status O

Cl 60 SC 60 P 27 L 1 # 44
 Brown, Alan Aurora Networks

Comment Type E Comment Status X

It appears that a space is needed in "1000BASE-PX20,1000BASE-PX30".

SuggestedRemedy

Change to "1000BASE-PX20, 1000BASE-PX30".

Proposed Response Response Status O

Cl 60 SC 60 P 29 L 32 # 40
 Brown, Alan Aurora Networks

Comment Type TR Comment Status X

Reference to "Table f" is incorrect. Two occurrences, lines 32 and 34.

SuggestedRemedy

Change references to "Table 60-8d"

Proposed Response Response Status O

Cl 60 SC 60.1 P 27 L 22 # 46
 Brown, Alan Aurora Networks

Comment Type E Comment Status X

The sentence no longer reads well, since we've added so many PMDs. "This clause specifies the following PMDs (including MDI): " blah, blah ", and the single-mode fiber medium."

SuggestedRemedy

Move list of PMDs to the end of the sentence, as in: "This clause specifies the single-mode fiber medium and the following PMDs (including MDI): " blah, blah

Proposed Response Response Status O

Cl 60 SC 60.1 P 27 L 23 # 45
 Brown, Alan Aurora Networks

Comment Type E Comment Status X

Extra space in "1000BASE-PX10-U ,". Note- It is very hard to definitively cite the line reference. It may be 23 or 24.

SuggestedRemedy

Delete extra space

Proposed Response Response Status O

Cl 60 SC 60.1 P 27 L 30 # 47
 Brown, Alan Aurora Networks

Comment Type E Comment Status X

The paragraph as written seems disjoint.

SuggestedRemedy

Break into two paragraphs before "Typically, the 1490 nm band is used to transmit".

Proposed Response Response Status O

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CI 60 SC 60.1 P 27 L 34 # 48
Brown, Alan Aurora Networks

Comment Type T Comment Status X

The pre-existing text discusses interoperability, in "A 1000BASE-PX20-D PMD is interoperable with a 1000BASEPX10-U PMD". Do we expect the new PMDs to interop, for example, PX30D interop on same PON with PX30U and PX20U? If so, we should add similar text.

SuggestedRemedy

Task Force discussion may be needed to determine answer to question above, and if positive, to suggest text.

Proposed Response Response Status O

CI 60 SC 60.1 P 27 L 35 # 84
Remein, Duane Huawei Technologies

Comment Type E Comment Status X

The text added in Draft 1.1, copied below, was not needed in the past, why is it needed now?
This allows certain upgrade possibilities from 10 km to 20 km PONs. Typically, the 1490 nm band is used to transmit away from the center of the network D and the 1310 nm band towards the center U. The suffixes D and U indicate the PMDs at each end of a link which transmit in these directions and receive in the opposite directions. The splitting ratio or reach length may be increased in an FEC enabled link. FEC refers to forward error correction for P2MP optical links and is described in 65.2. The maximum reach length is not limited by the protocol, see 64.3.3.

SuggestedRemedy

Remove the text.

Proposed Response Response Status O

CI 60 SC 60.1 P 27 L 42 # 3
Anslow, Pete Ciena

Comment Type E Comment Status X

Comment #81 added the missing text from 60.1 to the draft.
However the paragraph starting with "Two optional temperature ranges are defined;" is shown in underline font despite being unchanged.

SuggestedRemedy

Change this paragraph to normal font

Proposed Response Response Status O

CI 60 SC 60.1 P 27 L 42 # 85
Remein, Duane Huawei Technologies

Comment Type E Comment Status X

This text (copied below) has always been the case, why is it needed now? While I can understand the mention of two optional temperature ranges I find the special mention of compliance declaration especially objectionable as this is always the case and need no special mention here, far from the PICS.
"Implementations may be declared as compliant over one or both complete ranges, or not so declared (compliant over parts of these ranges or another temperature range)."

SuggestedRemedy

Remove the text "Implementations may be declared as compliant over one or both complete ranges, or not so declared (compliant over parts of these ranges or another temperature range)."

Proposed Response Response Status O

CI 60 SC 60.1 P 27 L 48 # 4
Anslow, Pete Ciena

Comment Type E Comment Status X

The editing instruction says "Insert new rows ..." but columns have been added.
An insert editing instruction has been used, but the style of the text is appropriate to a change editing instruction.
The footnotes to Table 60-1 are shown in underline font, but most of them are unmodified.

SuggestedRemedy

Change the editing instruction to: "Change Table 60-1 ..."
Use normal font for the parts of the footnotes that are unmodified.

Proposed Response Response Status O

CI 60 SC 60.1 P 27 L 48 # 90
Remein, Duane Huawei Technologies

Comment Type ER Comment Status X

The editing instructions are incorrect, the insertion is a column:
"Insert new rows in Table 60-1 for 1000BASE-PX30-U, 1000BASE-PX30-D, 1000BASE-PX40-U, and 1000BASE-PX40-D PMDs, as shown below:"

SuggestedRemedy

Replace "rows" with "columns"

Proposed Response Response Status O

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CI 60 SC 60.1 P 29 L 35 # 64
 Hajduczenia, Marek ZTE Corporation

Comment Type E Comment Status X

The text "This allows certain upgrade possibilities from 10 km to 20 km PONs. Typically, the 1490 nm band is used to transmit away from the center of the network D and the 1310 nm band towards the center U. The suffixes D and U indicate the PMDs at each end of a link which transmit in these directions and receive in the opposite directions. The splitting ratio or reach length may be increased in an FEC enabled link. FEC refers to forward error correction for P2MP optical links and is described in 65.2. The maximum reach length is not limited by the protocol, see 64.3.3." as well as text "Two optional temperature ranges are defined; see 60.8.4 for further details. Implementations may be declared as compliant over one or both complete ranges, or not so declared (compliant over parts of these ranges or another temperature range)." is part of balloted standard and was not changed in this project. As such, it should not be marked with underline.

SuggestedRemedy

Remove underline for the text listed in the body of the comment

Proposed Response Response Status O

CI 60 SC 60.1.4 P 29 L 32 # 14
 Kuang, Guohua ZTE Corporation

Comment Type T Comment Status X

There is no "Table f".

SuggestedRemedy

Change "Table f" to "Table 60-8e".

Proposed Response Response Status O

CI 60 SC 60.1.4 P 29 L 32 # 59
 Sugawa, Jun Hitachi, Ltd.

Comment Type E Comment Status X

In Table 60-2, Receive conditions of 1000BASE-PX40 is described as "Average input optical power < Signal Detect Threshold (min) in Table f at the specified receiver wavelength"

But "Table f" is not the correct reference.

SuggestedRemedy

In Table 60-2, "Table f" should be changed to "Table 60-8e"

Proposed Response Response Status O

CI 60 SC 60.1.4 P 29 L 34 # 15
 Kuang, Guohua ZTE Corporation

Comment Type T Comment Status X

There is no "Table f".

SuggestedRemedy

Change "Table f" to "Table 60-8e".

Proposed Response Response Status O

CI 60 SC 60.1.4 P 29 L 34 # 60
 Sugawa, Jun Hitachi, Ltd.

Comment Type E Comment Status X

In Table 60-2, Receive conditions of 1000BASE-PX40 is described as "Average input optical power > Receive sensitivity (max) in Table f with a compliant 1000BASE-X signal input at the specified receiver wavelength"

But "Table f" is not the correct reference

SuggestedRemedy

In Table 60-2, "Table f" should be changed to "Table 60-8e".

Proposed Response Response Status O

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Cl 60 SC 60.1.4 P 29 L 48 # 49
Brown, Alan Aurora Networks

Comment Type TR Comment Status X

Text is not clear: "The specifications for OMA have been derived from extinction ratio and average launch power (minimum) or receiver sensitivity (maximum)." This occurs in multiple locations (such as page 33, line 10).

Is derived from A and (B or C)?
Is derived from (A and B) or C?

SuggestedRemedy

Clarify meaning, then use comma(s) appropriately to convey meaning.

Proposed Response Response Status O

Cl 60 SC 60.1.4 P 31 L 32 # 65
Hajduczenia, Marek ZTE Corporation

Comment Type E Comment Status X

Broken reference in text: "Average input optical power =Signal Detect Threshold (min) in Table f at the specified receiver wavelength" - probably table 60-8e (?) should be referenced? Same in line 34

SuggestedRemedy

Per comment

Proposed Response Response Status O

Cl 60 SC 60.10 P 41 L 34 # 76
Hajduczenia, Marek ZTE Corporation

Comment Type E Comment Status X

Missing space in line 34 in "1000BASE-PX20,1000BASE-PX30" - before "1000BASE-PX30"

SuggestedRemedy

Insert the missing space

Proposed Response Response Status O

Cl 60 SC 60.10.3 P 40 L 29 # 12
Anslow, Pete Ciena

Comment Type T Comment Status X

Item "**INS" has a subclause reference of "60.3.1" in IEEE Std 802.3-2008 and the same in the revision D 3.2.
However, D1.1 has the subclause as "60.4a.1" in normal font (not underlined) which would be an unmarked change.

SuggestedRemedy

Either change the subclause to "60.3.1" or mark it as a change.

Proposed Response Response Status O

Cl 60 SC 60.10.4 P 40 L 41 # 1
Anslow, Pete Ciena

Comment Type E Comment Status X

Comment #85 against D1.0 was accepted, but the part that says "Include the location of the insertion in each "Insert" editing instruction" has not been fully implemented.

SuggestedRemedy

In 60.10.4, change:
"Insert new PICS subclauses 60.10.4.5a, 60.10.4.5b, 60.10.4.5c, and 60.10.4.5d, ..." to:
"Insert new PICS subclauses 60.10.4.5a, 60.10.4.5b, 60.10.4.5c, and 60.10.4.5d after 60.10.4.5 ..."

Proposed Response Response Status O

Cl 60 SC 60.10.4.5c P 41 L 45 # 61
Sugawa, Jun Hitachi, Ltd.

Comment Type E Comment Status X

In the value/Comments of PX40D2, "Meets specifications in Table f" is described. But "Table f" is not the correct reference.

SuggestedRemedy

"Table f" should be changed to "Table 60-8e".

Proposed Response Response Status O

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Cl 60 SC 60.10.4.5c P 41 L 46 # 26
 Kuang, Guohua ZTE Corporation
 Comment Type E Comment Status X
 There is no "Table f".
 SuggestedRemedy
 Change "Table f" to "Table 60-8e".
 Proposed Response Response Status O

Cl 60 SC 60.10.4.5c P 41 L 52 # 27
 Kuang, Guohua ZTE Corporation
 Comment Type E Comment Status X
 There is no "Table f".
 SuggestedRemedy
 Change "Table f" to "Table 60-8e".
 Proposed Response Response Status O

Cl 60 SC 60.10.4.5c P 41 L 47 # 54
 Sugawa, Jun Hitachi, Ltd.
 Comment Type E Comment Status X
 The Value/Comment of PX40D3 is described as "Meets specifications in Table f", but "Table f" is not the correct reference.
 SuggestedRemedy
 "Table f" should be changed to "Table 60-8e".
 Proposed Response Response Status O

Cl 60 SC 60.10.4.5c P 43 L 46 # 77
 Hajduczenia, Marek ZTE Corporation
 Comment Type E Comment Status X
 Wrong reference in PICS items. Is "Table f" and should be "Table 60-8e" in lines 46, 48, and 52 on page 43
 SuggestedRemedy
 Fix per comment. Make sure the inserted links are live.
 Proposed Response Response Status O

Cl 60 SC 60.10.4.5c P 41 L 50 # 55
 Sugawa, Jun Hitachi, Ltd.
 Comment Type E Comment Status X
 The Value/Comment of PX40D4 is described as "If the receiver does not meet the damage requirements in Table f then label accordingly". But "Table f" is not the correct reference.
 SuggestedRemedy
 "Table f" should be changed to "Table 60-8e".
 Proposed Response Response Status O

Cl 60 SC 60.4a P 29 L 38 # 5
 Anslow, Pete Ciena
 Comment Type E Comment Status X
 The editing instruction says "Insert a new subclause, 60.4a, after the text in 60.4.2, as shown below", but the new subclause should be after Table 60-8 and Figure 60-4.
 SuggestedRemedy
 Change to "Insert a new subclause, 60.4a, after 60.4.2, as shown below"
 Make equivalent change to editing instruction for 60.4b
 Proposed Response Response Status O

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Cl 60 SC 60.4a P 30 L 35 # 923
 Tajima, Akio NEC Corporation
 Comment Type E Comment Status X
 "The maximum" is written doubly as "The maximum The maximum RMS spectralwidth".
 SuggestedRemedy
 The maximum RMS spectralwidth
 Proposed Response Response Status O

Cl 60 SC 60.4a.1 P 30 L 36 # 51
 Brown, Alan Aurora Networks
 Comment Type E Comment Status X
 Run on sentence.
 SuggestedRemedy
 Replace "," with ";".
 Proposed Response Response Status O

Cl 60 SC 60.4a.1 P 29 L 53 # 50
 Brown, Alan Aurora Networks
 Comment Type E Comment Status X
 This paragraph is mixing singular and plural uses (two items as possessive singular "transmitter's") ("Its"). Also, not properly using serial comma (comman missing after "eye"). Also, missing article "the" before "measurement". This occurs in multiple locations, such as page 33 line 14.
 SuggestedRemedy
 Rewrite as:
 The signaling speed, operating wavelength, spectral width, average launch power, extinction ratio, return loss tolerance, OMA, eye, and TDP of the 1000BASE-PX30-D and 1000BASE-PX30-U transmitters shall meet the specifications defined in Table 60–8a per the measurement techniques described in 60.7. The RIN15OMA of the transmitters should meet the value listed in Table 60–8a per the measurement techniques described in 60.7.7. Editor to use judgement to correct other locations.
 Proposed Response Response Status O

Cl 60 SC 60.4a.1 P 32 L 25 # 66
 Hajduczenia, Marek ZTE Corporation
 Comment Type T Comment Status X
 "Optical return loss of ODN (min)" for 1000BASE-PX30-U is still TBD.
 SuggestedRemedy
 Chang ethe "TBD" to "20", following the minimum required value applicable to all other EPON PMD types. There is no reason to use a different value.
 Proposed Response Response Status O

Cl 60 SC 60.4a.1 P 30 L 25 # 16
 Kuang, Guohua ZTE Corporation
 Comment Type T Comment Status X
 In table 60-9 (page 35), the minimum Optical return of ODN is more than 20dB for PX10, PX20, PX30 and PX40.
 This value in the table 6-8a should be kept same with in table 60-9. The optical return loss (min) of ODN for 1000BASE-PX30-U should be 20 dB.
 SuggestedRemedy
 Change "TBD" to "20".
 Proposed Response Response Status O

Cl 60 SC 60.4a.1 P 33 L 17 # 67
 Hajduczenia, Marek ZTE Corporation
 Comment Type ER Comment Status X
 Remove editorial note - the text and values have been already circulated at least once and generated no negative feedback. Additionally, the values in Table 60–8b and in Figure 60-4a were taken verbatim from 802.3av specification and were never debated.
 SuggestedRemedy
 Per comment
 Proposed Response Response Status O

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CI 60 SC 60.4a.2 P 31 L 51 # 52
Brown, Alan Aurora Networks

Comment Type E Comment Status X

This paragraph is mixing singular and plural uses (two items as possessive singular "receiver's") ("lts"). Improper serial comma use. Missing article. This occurs in multiple locations, such as page 34 line 3.

SuggestedRemedy

Rewrite as:

The signaling speed, operating wavelength, overload, sensitivity, reflectance, and signal detect of the 1000BASE-PX30-D and 1000BASE-PX30-U receivers shall meet the specifications defined in Table 60–8c per the measurement techniques defined in 60.7.10. The stressed receive characteristics should meet the values listed in Table 60–8c per the measurement techniques

Editor to use judgement to correct other locations.

Proposed Response Response Status O

CI 60 SC 60.4a.2 P 32 L 5 # 86
Remein, Duane Huawei Technologies

Comment Type E Comment Status X

This cautionary statement reads wrong, surely receiver are not damaged because direct ONU-OLT connections are not guaranteed by the spec. If that were the case optical component manufacturese would never be able to make operable receivers.

"The damage threshold included inTable 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."

Similar text exists in 60.4b.2 pg 34 line 10.

SuggestedRemedy

Change to read:

"The damage threshold included in Table 60–8c does not guarantee direct ONU–OLT connection. If direct ONU–OLT connection which may result in damage of the receiver is necessary, optical attenuators and/or equivalent loss components should be inserted to decrease receive power below the damage threshold."

Make similar text changes in 60.4b.2 pg 39 line 1.

Proposed Response Response Status O

CI 60 SC 60.4a.2 P 34 L 22 # 69
Hajduczenia, Marek ZTE Corporation

Comment Type E Comment Status X

The value of "Receiver sensitivity OMA (max)" for 1000BASE-PX30-U should be formatted in two lines and it is now in just one.

SuggestedRemedy

Change
"-26.22 (2.39)"
to
"-26.22
(2.39)"

Proposed Response Response Status O

CI 60 SC 60.4b P 33 L 4 # 23
Kuang, Guohua ZTE Corporation

Comment Type T Comment Status X

The operating range for 1000BASE-PX40 is defined in Table 60-1.

SuggestedRemedy

Change "60-8d" to "60-1".

Proposed Response Response Status O

CI 60 SC 60.4b.1 P 33 L 15 # 25
Kuang, Guohua ZTE Corporation

Comment Type T Comment Status X

There is no "spectral width" in Table 60-8d.

SuggestedRemedy

Change "spectral width" to "side mode suppression ratio".

Proposed Response Response Status O

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Cl 60 SC 60.4b.1 P 33 L 27 # 20
Kuang, Guohua ZTE Corporation

Comment Type T Comment Status X

Minimum Channel insertion loss = Average launch power(max) - Average receive power(max)
PX40 DS minimum channel insertion loss is 18dB (in Table 60-1)
Average launch power (max) of 1000BASE-PX40-D is 7 dBm (in Table 60-8d)
Average receive power (max) of 1000BASE-PX40-U is -8 dBm (in Table 60-8e)
So, Minimum Channel insertion loss of PX40 DS = 7-(-8) = 15 dB, it is not meet 18 dB in Table 60-1.
Solution 1:
Increase the OLT average launch power range from 4-7dBm to 4-9 dBm
And reduce the ONU maximum average receive power from -8 dBm to -9 dBm
Correlatively, the maximum damage threshold of ONU can be reduced from -3 to -4 dBm
Minimum Channel insertion loss of PX40 DS = 9-(-9) = 18 dB

SuggestedRemedy

Change the Average launch power (max) for 1000BASE-PX40-D from "7" to "9".
See 8023bk_ZTE_201208.pdf for details.

Proposed Response Response Status O

Cl 60 SC 60.4b.1 P 33 L 29 # 17
Kuang, Guohua ZTE Corporation

Comment Type T Comment Status X

Average launch power of OFF transmitter for 1000BASE-PX10-D, 1000BASE-PX20-D and 1000BASE-PX30-D are defined less than -39 dBm.

SuggestedRemedy

Change Average launch power of OFF transmitter for 1000BASE-PX40-D from "-45" to "-39".

Proposed Response Response Status O

Cl 60 SC 60.4b.1 P 33 L 48 # 24
Kuang, Guohua ZTE Corporation

Comment Type T Comment Status X

PX40-U and PX40-D are all used DFB laser. There is no need the note for spectral width.

SuggestedRemedy

Remove Note b.

Proposed Response Response Status O

Cl 60 SC 60.4b.1 P 35 L 33 # 70
Hajduczenia, Marek ZTE Corporation

Comment Type E Comment Status X

The value of "Launch OMA (min)" for 1000BASE-PX40-U and 1000BASE-PX40-D should be formatted in two lines and it is now in just one.

SuggestedRemedy

Change
"4.78 (3.01)"
to
"4.78
(3.01)"

Change
"2.78 (1.90)"
to
"2.78
(1.90)"

Proposed Response Response Status O

Cl 60 SC 60.4b.2 P 34 L 23 # 21
Kuang, Guohua ZTE Corporation

Comment Type T Comment Status X

Minimum Channel insertion loss = Average launch power(max) - Average receive power(max)
PX40 DS minimum channel insertion loss is 18dB (in Table 60-1)
Average launch power (max) of 1000BASE-PX40-D is 7 dBm (in Table 60-8d)
Average receive power (max) of 1000BASE-PX40-U is -8 dBm (Table 60-8e)
So, Minimum Channel insertion loss of PX DS = 7-(-8) = 15 dB, it is not meet 18 dB in Table 60-1.

solution 2:

Keep the OLT average launch power, reduce the ONU maximum average receive power from -8 dBm to -11 dBm.

Minimum Channel insertion loss of PX DS = 7-(-11) = 18 dB

SuggestedRemedy

Change Average receive power (max) for 1000BASE-PX40-U from "-8" to "-11".
See 8023bk_ZTE_201208.pdf for details.

Proposed Response Response Status O

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Cl 60 SC 60.4b.2 P 34 L 23 # 18
 Kuang, Guohua ZTE Corporation

Comment Type T Comment Status X
 Minimum Channel insertion loss = Maximum Average launch power - Average receive power.
 PX40 US minimum channel insertion loss is 18dB (in Table 60-1).
 Maximum Average launch power of 1000BASE-PX40-U is 7 dBm (in Table 60-8d)
 Average receive power of 1000BASE-PX40-D is -8 dBm (in Table 60-8e)
 So, minimum channel insertion loss for PX40 US = 7 - (-8) = 15 dB, it is not meet the 18 dB in table 60-1.

SuggestedRemedy
 Change the Average receive power of 1000BASE -PX40-D from "-8" to "-11".
 Correlatively, the Damage threshold (max) of 1000BASE-PX40-D should be reduced from "-3" to "-6" dBm.
 See 8023bk_ZTE_201208.pdf for details.

Proposed Response Response Status O

Cl 60 SC 60.4b.2 P 34 L 23 # 19
 Kuang, Guohua ZTE Corporation

Comment Type T Comment Status X
 Minimum Channel insertion loss = Average launch power(max) - Average receive power(max)
 PX40 DS minimum channel insertion loss is 18dB (in Table 60-1)
 Average launch power (max) of 1000BASE-PX40-D is 7 dBm (in Table 60-8d)
 Average receive power (max) of 1000BASE-PX40-U is -8 dBm (in Table 60-8e)
 So, Minimum Channel insertion loss of PX40 DS = 7 - (-8) = 15 dB, it is not meet 18 dB in Table 60-1.
 Solution 1:
 Increase the OLT average launch power range from 4-7 dBm to 4-9 dBm
 And reduce the ONU maximum average receive power from -8 dBm to -9 dBm
 Correlatively, the maximum damage threshold of ONU can be reduced from -3 to -4 dBm
 Minimum Channel insertion loss of PX40 DS = 9 - (-9) = 18 dB

SuggestedRemedy
 Change the Average receive power of 1000BASE -PX40-U from "-8" to "-9".
 See 8023bk_ZTE_201208.pdf for details.

Proposed Response Response Status O

Cl 60 SC 60.4b.2 P 34 L 24 # 30
 Kuang, Guohua ZTE Corporation

Comment Type T Comment Status X
 If Changed Average receive power (max) for 1000BASE-PX40-U from "-8" to "-11".
 Correlatively, the maximum damage threshold of 1000BASE-PX40-U should be changed from -3 to -6 dBm
 See 8023bk_ZTE_201208.pdf for details.

SuggestedRemedy
 Change the maximum damage threshold of 1000BASE-PX40-U from "-3" to "-6".

Proposed Response Response Status O

Cl 60 SC 60.4b.2 P 34 L 24 # 29
 Kuang, Guohua ZTE Corporation

Comment Type T Comment Status X
 If reduced the 1000BASE-PX40-U maximum average receive power from -8 dBm to -9 dBm
 Correlatively, the maximum damage threshold of ONU should be changed from -3 to -4 dBm.
 See 8023bk_ZTE_201208.pdf for details.

SuggestedRemedy
 Change damage threshold for 1000BASE-PX40-U from "-3" to "-4".

Proposed Response Response Status O

Cl 60 SC 60.4b.2 P 34 L 24 # 28
 Kuang, Guohua ZTE Corporation

Comment Type T Comment Status X
 If Change the Average receive power of 1000BASE -PX40-D from "-8" to "-11".
 Correlatively, the Damage threshold (max) of 1000BASE-PX40-D should be reduced from "-3" to "-6" dBm.
 See 8023bk_ZTE_201208.pdf for details.

SuggestedRemedy
 Change the Damage threshold (max) of 1000BASE-PX40-D from "-3" to "-6".

Proposed Response Response Status O

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CI 60 SC 60.4b.2 P 34 L 36 # 22
 Kuang, Guohua ZTE Corporation

Comment Type T Comment Status X
 Power in dBm = 10 x LOG10 (Power in mW), -28.22 dBm = 1.51 uW.

SuggestedRemedy
 Change Stressed receive sensitivity OMA (max) for 1000BASE-PX40-U from "-28.22(1.55)" to "-28.22(1.51)".

Proposed Response Response Status O

CI 60 SC 60.4b.2 P 36 L 27 # 71
 Hajduczenia, Marek ZTE Corporation

Comment Type E Comment Status X
 The value of "Receiver sensitivity OMA (max)" for 1000BASE-PX40-U and 1000BASE-PX40-D should be formatted in two lines and it is now in just one. Same for "Stressed receive sensitivity OMA (max)" for both PMDs

SuggestedRemedy

Change
 "-31.22 (0.76)"
 to
 -31.22
 (0.76)

Change
 "-29.22 (1.20)"
 to
 "-29.22
 (1.20)"

Change
 "-30.22 (0.95)"
 to
 "-30.22
 (0.95)"

Change
 "-28.22 (1.55)"
 to
 "-28.22
 (1.55)"

Proposed Response Response Status O

CI 60 SC 60.5 P 35 L 6 # 87
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X
 Appears to be a dash (removed space?) instead of a white space.
 1000BASE-PX20,-1000BASE-PX30,

Same issue in table 60-9 title.

SuggestedRemedy

Please don't remove the spaces, they are needed.

Proposed Response Response Status O

CI 60 SC 60.5 P 37 L 17 # 73
 Hajduczenia, Marek ZTE Corporation

Comment Type ER Comment Status X
 Table 60-9 becomes a bit awkward to read with "Upstream" and "Downstream" in written in vertical manner. Suggest to replace "Upstream" with "US" and "Downstream" with "DS" and attach footnote to the first instance of US and DS expanding them to full word. Then "US" and "DS" can be written horizontally and not vertically.
 See Table 75B-1 for an example of how it should be done.

SuggestedRemedy

Similar change is suggested for Table 60-1, for Transmit Direction parameter

Proposed Response Response Status O

CI 60 SC 60.5 P 37 L 40 # 72
 Hajduczenia, Marek ZTE Corporation

Comment Type E Comment Status X
 missing space in "PX10, PX20,PX30, and PX40", between "PX20" and "PX30"

SuggestedRemedy

Insert the missing space per comment

Proposed Response Response Status O

IEEE 802.3bk Extended EPON TF 2nd Task Force review comments

CI 60 SC 60.7.2 P 39 L 22 # 74
 Hajduczenia, Marek ZTE Corporation
 Comment Type T Comment Status X
 Missing space in "Table 60-6,and Table 60-8a" - before "and".
 Also, probably missing also reference to Table 60-8d - TDP is also specified for PX40 PMD.
 SuggestedRemedy
 Change the text in line 22 to read "specified in Table 60-3, Table 60-6, Table 60-8a,and Table 60-8d, and described in 58.7.9"
 Proposed Response Response Status O

CI 75 SC 75.1.2 P 43 L 15 # 88
 Remein, Duane Huawei Technologies
 Comment Type E Comment Status X
 Appears to be a missing comma between 1:16 and 1:32 in "split ratios of at least 1:16 1:32, and 1:64, ..."
 SuggestedRemedy
 Add the comma to read:
 "ssplit ratios of at least 1:16, 1:32, and at least 1:64, ..."
 Proposed Response Response Status O

CI 60 SC 60.9.4 P 41 L 29 # 75
 Hajduczenia, Marek ZTE Corporation
 Comment Type E Comment Status X
 Missing space in line 29 in "PX20,1000BASE-PX30, and 1000BASE-PX40", before "1000BASE-PX30"
 SuggestedRemedy
 Insert the missing space
 Proposed Response Response Status O

CI 75 SC 75.1.3 P 45 L 18 # 6
 Anslow, Pete Ciena
 Comment Type E Comment Status X
 The editing instruction says: "Add a new bullet on extended power budget class in 75.1.3, as shown below:"
 "Add" is not a valid editing instruction. The style of the text is appropriate to a change editing instruction.
 SuggestedRemedy
 Change to:
 "Change 75.1.3 to add a new bullet on extended power budget class, as follows:"
 Proposed Response Response Status O

CI 60 SC Table 60-8d P 33 L 49 # 924
 Tajima, Akio NEC Corporation
 Comment Type T Comment Status X
 The notation of "Chirp" has broader meaning.
 SuggestedRemedy
 Add "Wavelength" at the beginning of the sentence.
 Proposed Response Response Status O

CI 75 SC 75.1.3 P 45 L 31 # 7
 Anslow, Pete Ciena
 Comment Type E Comment Status X
 The added power budget class doesn't have the same text format as the existing ones.
 SuggestedRemedy
 Change "Extended power budget class" to italic font.
 Proposed Response Response Status O

IEEE 802.3bk Extended EPON TF 2nd Task Force review comments

Cl 75 SC 75.1.3 P 45 L 31 # 78
 Hajduczenia, Marek ZTE Corporation
 Comment Type E Comment Status X
 Words "Extended power budget class" should be written in italics, following the format used in previous 3 bullets
 Additionally, missing "." at the end of line 32.
 SuggestedRemedy
 Fix the style for the selected words and add missing ".".
 Proposed Response Response Status O

Cl 75 SC 75.2.1.1 P 47 L 17 # 8
 Anslow, Pete Ciena
 Comment Type E Comment Status X
 The editing instruction says: "Modify the structure of Table 75-2 in 75.2.1.1, as shown below."
 Modify isn't a valid editing instruction - another comment proposes to change this to a "Change" editing instruction.
 Saying "the structure" is confusing as text has been added.
 SuggestedRemedy
 Change to: "Change Table 75-2 in 75.2.1.1, as follows:"
 Make the equivalent change to the editing instruction for Table 75-3
 Proposed Response Response Status O

Cl 75 SC 75.4.1 P 49 L 10 # 37
 Kuang, Guohua ZTE Corporation
 Comment Type T Comment Status X
 10/1GBASE-PRX-D4 is missing.
 SuggestedRemedy
 Change "10GBASE-PR-D4 and 10/1GBASE-PRX-D2."
 to "10GBASE-PR-D4, 10/1GBASE-PRX-D2 and 10/1GBASE-PRX-D4".
 Proposed Response Response Status O

Cl 75 SC 75.4.1 P 49 L 18 # 38
 Kuang, Guohua ZTE Corporation
 Comment Type T Comment Status X
 10/1GBASE-PRX-D4 is missing in Table 75-5.
 SuggestedRemedy
 Change "10GBASE-PR-D2, 10GBASE-PR-D4, 10/1GBASE-PRX-D2" in Table 75-5 to "10GBASE-PR-D2, 10GBASE-PR-D4, 10/1GBASE-PRX-D2, 10/1GBASE-PRX-D4".
 Proposed Response Response Status O

Cl 75 SC 75.4.1 P 49 L 49 # 39
 Kuang, Guohua ZTE Corporation
 Comment Type T Comment Status X
 Parameters in Table 75B-1 are defined for PR10, PR20, PR30 and PR40, and in Table 75B-2 are defined for PRX10, PRX20, PRX30 and PRX40.
 The note a in Table 75-5 should be changed to "Chirp is allowed such that the total optical path penalty does not exceed that found in Table 75B-1 and Table 75B-2".
 SuggestedRemedy
 Change "Table 75B-2" to "Table 75B-1 and Table 75B-2".
 Proposed Response Response Status O

Cl 75 SC 75.4.2 P 50 L 17 # 56
 Sugawa, Jun Hitachi, Ltd.
 Comment Type T Comment Status X
 In Table 75-6,
 The value of the damage threshold is 1dB higher than the value of the average receive power(max) in 10GBASE-PR-D1, 10GBASE-PR-D3, etc.
 But the value of the damage threshold(max) in 10GBASE-PR-D4 and 10/1GBASE-PRX-D4 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 unnecessarily high value.
 SuggestedRemedy
 change the value of the damage threshold(max) in 10GBASE-PR-D4 from "-5" to "-8".
 Proposed Response Response Status O

IEEE 802.3bk Extended EPON TF 2nd Task Force review comments

CI 75 SC 75.4.2 P 50 L 21 # 922
 Nishihara, Susumu NTT
 Comment Type TR Comment Status X
 In Table75-6, Receiver sensitivity OMA (max) for 10GBASE-PR-D4 should be -28.22 (1.51) instead of -28.22 (1.26).
 SuggestedRemedy
 Per comment.
 Proposed Response Response Status O

CI 75 SC 75.4.2 P 50 L 22 # 34
 Kuang, Guohua ZTE Corporation
 Comment Type T Comment Status X
 Power in dBm = 10 x LOG10 (Power in mW), -28.22 dBm = 1.51 uW.
 SuggestedRemedy
 Change the Receiver sensitivity OMA (max) for 10GBASE-PR-D4 from "-28.22(1.26)" to "-28.22(1.51)".
 Proposed Response Response Status O

CI 75 SC 75.4.2 P 50 L 39 # 79
 Hajduczenia, Marek ZTE Corporation
 Comment Type E Comment Status X
 The value "4" in line 39 was not modified under this project and should not be marked with underline
 SuggestedRemedy
 Remove the formatting of the value "4" in line 39
 Proposed Response Response Status O

CI 75 SC 75.4.2 P 51 L 1 # 91
 Remein, Duane Huawei Technologies
 Comment Type ER Comment Status X
 Table 75-7 seems to be a waste of space, in the draft 2012 spec edition it had some value, here it is just a new way to create an indirect reference (go see here, which says go see there ...).
 I realize there are a lot of references to table 75-7 but if we decided to move all parametric values out of the table it seems kind of mean hearted to keep it in just because we can't want to finish the job.

Same comment on Table 75-9 pg 53

SuggestedRemedy
 Add editorial note to remove the table and replace it with the following text.
 "PMD reveice chaaristice for 10/1GBASE-PRX-D1 are the same as 1000BASE-PX10D found in Table 60-5.
 PMD reveice chaaristice for 10/1GBASE-PRX-D2 are the same as 1000BASE-PX20D found in Table 60-8.
 PMD reveice chaaristice for 10/1GBASE-PRX-D3 are the same as 1000BASE-PX30D found in Table 60-8c.
 PMD reveice chaaristice for 10/1GBASE-PRX-D4 are the same as 1000BASE-PX40D found in Table f."

Editor to remove all references to Table 75-7 and replace with appropriate reference per above text.

May need to move notes from table also.

Proposed Response Response Status O

CI 75 SC 75.4.2 P 51 L 31 # 80
 Hajduczenia, Marek ZTE Corporation
 Comment Type E Comment Status X
 Wrong reference in "same as 1000BASE-PX40-D receive parameters (see Table f)" - "Table f" should be "Table 60-8e"
 SuggestedRemedy
 Fix per comment
 Proposed Response Response Status O

IEEE 802.3bk Extended EPON TF 2nd Task Force review comments

Cl 75 SC 75.4.2 P 51 L 32 # 13
 Anslow, Pete Ciena
 Comment Type T Comment Status X
 Table 75-7 for 10/1GBASE-PRX-D4 says "(see Table f)"
 SuggestedRemedy
 Correct this cross reference.
 Proposed Response Response Status O

Cl 75 SC 75.4.2 P 51 L 32 # 36
 Kuang, Guohua ZTE Corporation
 Comment Type E Comment Status X
 There is no "Table f".
 SuggestedRemedy
 Change "Table f" to "Table 60-8e".
 Proposed Response Response Status O

Cl 75 SC 75.4.2 P 51 L 6 # 57
 Sugawa, Jun Hitachi, Ltd.
 Comment Type E Comment Status X
 In Table 75-7, the specification of 10/1GBASE-PRX-D4 is described as "same as 1000BASE-PX40-D receive parameters (see Table f)". But "Table f" is not the correct reference.
 SuggestedRemedy
 "Table f" should be changed to "Table 60-8e".
 Proposed Response Response Status O

Cl 75 SC 75.5.1 P 53 L 39 # 81
 Hajduczenia, Marek ZTE Corporation
 Comment Type T Comment Status X
 Text on RMS spectral width seems incorrect as written right now: "The maximum RMS spectral width vs. wavelength for 10/1GBASE-PRX-U1, 10/1GBASE-PRX-U2, and 10/1GBASE-PRX-U3 PMDs are shown, respectively, in Table 60-4, Table 60-7 and, and Table 75-10 Table 60-8b, and in Table 60-4. " - there is reference to Table 60-4 which is not correct
 SuggestedRemedy
 Modify the text in lines 39 - 42 by removing the statement ", and in Table 60-4"
 Proposed Response Response Status O

Cl 75 SC 75.5.1 P 53 L 41 # 33
 Kuang, Guohua ZTE Corporation
 Comment Type T Comment Status X
 "Table 60-4" is listed twice.
 SuggestedRemedy
 Change "Table 60-8b, and in Table 60-4" to "and Table 60-8b".
 Proposed Response Response Status O

Cl 75 SC 75.5.2 P 54 L 22 # 9
 Anslow, Pete Ciena
 Comment Type E Comment Status X
 For the deleted Table 75-10, footnote "a" has some spurious extra text in strikethrough font: "Modify Table 75-11 as shown below:"
 SuggestedRemedy
 Remove the spurious text.
 Proposed Response Response Status O

IEEE 802.3bk Extended EPON TF 2nd Task Force review comments

Cl 75 SC 75.5.2 P 55 L 23 # 35
 Kuang, Guohua ZTE Corporation
 Comment Type T Comment Status X
 Power in dBm = 10 x LOG10 (Power in mW), -27.59 dBm = 1.74 uW.
 SuggestedRemedy
 Change the Receiver sensitivity OMA (max) for 10GBASE-PR-U4 and 10/1GBASE-PRX-U4 from "-27.59(1.12)" to "-27.59(1.74)".
 Proposed Response Response Status O

Cl 75 SC 75.6.2 P 56 L 22 # 31
 Kuang, Guohua ZTE Corporation
 Comment Type T Comment Status X
 There is no "Table 60-8f".
 SuggestedRemedy
 Change "Table 60-8f" to "Table 60-8e".
 Proposed Response Response Status O

Cl 75 SC 75.6.2 P 56 L 19 # 32
 Kuang, Guohua ZTE Corporation
 Comment Type T Comment Status X
 There is no "Table 60-8f".
 SuggestedRemedy
 Change "Table 60-8f" to "Table 60-8e".
 Proposed Response Response Status O

Cl 75 SC Table 75-8 P 52 L 34 # 925
 Tajima, Akio NEC Corporation
 Comment Type T Comment Status X
 "3.0 dB - TDP" is effective in the case of PR-U1 and PR-U2. In the case of PR-U4, the amount is "2.0 dB- TDP".
 SuggestedRemedy
 "3.0 dB - TDP" for 10GBASE-PR-U1 and 10GBASE-PR-U2 and "2.0 dB- TDP" for 10GBASE-PR-U4.
 Proposed Response Response Status O

Cl 75 SC 75.6.2 P 56 L 19 # 82
 Hajduczenia, Marek ZTE Corporation
 Comment Type E Comment Status X
 Incorrect reference: is "Table 60-8f" and should be "Table 60-8e"
 Similar problem on page 65, line 21
 SuggestedRemedy
 Per comment
 Proposed Response Response Status O

Cl 75A SC 75A.1 P 63 L 8 # 10
 Anslow, Pete Ciena
 Comment Type E Comment Status X
 The editing instruction says "Modify the text in 75A.1 as follows:"
 Modify isn't a valid editing instruction - another comment proposes to change this to a "Change" editing instruction.
 Only some of the text in 75A.1 is shown
 SuggestedRemedy
 Change the editing instruction to:
 "Change the third and the last paragraphs in 75A.1 as follows:"
 and show the whole of the text of those paragraphs.
 Proposed Response Response Status O

IEEE 802.3bk Extended EPON TF 2nd Task Force review comments

CI 75B SC 75B.1 P 67 L 16 # 83
 Hajduczenia, Marek ZTE Corporation

Comment Type E Comment Status X
 Missing space in "PRX30,and PRX40", before "and"
 Similar problem in line 25, same page
 Similar problem in line 51, page 68
 Similar problem in line 9, page 71 (two instances)
 Similar problem in line 9, page 69, in text "1000BASE-PX30-U,10GBASE-PRX-U1"

SuggestedRemedy
 Insert missing space.

Proposed Response Response Status O

CI 75B SC 75B.2.2 P 67 L 13 # 89
 Remein, Duane Huawei Technologies

Comment Type E Comment Status X
 The statement below is somewhat incorrect. While the WDM cannot be used in the standard because of the overlap compliant ONUs could certainly be multiplexed with WDM. For example an ONU operating at 1265nm +-5nm could be WDM'd with another that operates at 1275nm +-5nm, both ONUs would be fully compliant.

"The 1260-1360 wavelength band and the 1260-1280 wavelength band 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."

SuggestedRemedy
 Change "thus WDM channel multiplexing cannot be used to separate the two data rates" to "thus WDM channel multiplexing cannot be used to specify separation of the two data rates"

Proposed Response Response Status O

CI 99 SC 99 P 15 L 1 # 42
 Brown, Alan Aurora Networks

Comment Type ER Comment Status X
 Page 15 occurs twice in this document with distinct content. Same problem for page 16.

SuggestedRemedy
 Correct page numbering.

Proposed Response Response Status O

CI 99 SC 99 P 15 L 23 # 2
 Anslow, Pete Ciena

Comment Type E Comment Status X
 Two spaces missing in editing instructions description in "andreplace" and "existingmaterial."

SuggestedRemedy
 insert two spaces

Proposed Response Response Status O

CI 99 SC 99 P 3 L 15 # 62
 Hajduczenia, Marek ZTE Corporation

Comment Type E Comment Status X
 The text in the box says: " Media Access Control (MAC) service interface and management parameters to support time synchronization protocols" and described P802.3bf project and not P802.3bk

SuggestedRemedy
 Replace the selected text with "Physical Layer Specifications and Management Parameters for Extended Ethernet Passive Optical Networks"

Proposed Response Response Status O

CI 99 SC 99 P 5 L 51 # 41
 Brown, Alan Aurora Networks

Comment Type E Comment Status X
 As of 1 January, 2012, IEEE is no longer accepting requests for interpretations. Do IEEE, 802, or 802.3 have improved text for this section? It seems to me that we should state the fact.

SuggestedRemedy
 If no other suggested text, add
 "As of 1 January 2012, IEEE no longer accepts requests for interpretations of IEEE standards. Refer to the IEEE page on Standards Interpretations for more information."
 Note- "Standards Interpretation" should be a hyperlink to URL
<http://standards.ieee.org/findstds/interps/>.

Proposed Response Response Status O