

Cl 00 SC P L # 2379
Law, David 3Com

Comment Type T Comment Status X

This is the only use of the term 'PON Plant' - the term used elsewhere in the draft is the channel.

SuggestedRemedy

Change the text '.. the PON plant ..' to read '.. the channel ..'.

Proposed Response Response Status O

Cl 00 SC P L # 2368
Law, David 3Com

Comment Type ER Comment Status X

The abbreviations TIA, LA and APD are used in this subclause. I assume that TIA is transimpedance amplifier, LA is limiting amplifier and that APD is avalanche photo diode. TIA is in subclause 1.5 'Abbreviations' however it is defined as 'Telecommunications Industry Association', LA and APD aren't defined.

SuggestedRemedy

The simplest thing to do since these abbreviations are used only in this subclause is:

- [1] Page 71, line 53 Change '.. the TIA block.' to read '.. the transimpedance amplifier (TIA) block.'. This covers all uses in the text after this point.
- [2] In Figure 75-9, either change all instances of 'TIA' to read 'transimpedance amplifier' or add a key at the bottom of these two figures that reads 'TIA - transimpedance amplifier'.
- [3] In Figure 75-10 change 'TIA' in the title to read 'transimpedance amplifier'.
- [4] In Figures 75-9 and 75-10, either change all instances of 'LA' to read 'limiting amplifier' or add a key at the bottom of these two figures that reads 'LA - limiting amplifier'.
- [5] On page 72, line 50 change '.. fixes the APD bias ..' to read 'fixes the avalanche photo diode (APD) bias ..'. This covers all uses in the text after this point.
- [6] In Figure 75-10, either change all instances of 'APD' to read 'avalanche photo diode' or add a key at the bottom of these two figures that reads 'APD - avalanche photo diode'.

Proposed Response Response Status O

Cl 00 SC 0 P L # 2171
Woodward, Ted Telcordia Technologie

Comment Type E Comment Status X

While reading early sections (30 - 66), many questions arose regarding the justification for 6 new PHY types with different split (1:16, 1:32) and reach (10 km, 20 km) capabilities. The fact that an explicit objective for the task force was defined with these aspects did not present itself until clause 75. For purposes of the document, the definition of the objective is sufficient. Not being a part of that process, I continue to have questions about these choices, however, for which explanatory matter might be helpful.

SuggestedRemedy

Consider enumerating 10G-EPON objectives in an early part of the document, along with inclusion of more informative material or references to such in the objectives discussion in clause 75.

Proposed Response Response Status O

Cl 00 SC 0 P L # 1631
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

Throughout this draft there are many places where the readability can be improved by small editorial modifications that do not change the meaning. The attached PDF file contains suggested changes indicated using the "Text Edits" tool. Because the editing marks can be difficult to locate, each one has an associated word in the text marked with yellow highlighter. These are generally after the text edit, except where this is near the end of the paragraph. Only pages with proposed edits are included.

SuggestedRemedy

Apply these suggested changes.

Proposed Response Response Status O

Cl 00 SC 0 P L # 2047
Kramer, Glen Teknovus, Inc.

Comment Type E Comment Status X

Usage of i.e. (id est) is inconsistent

Always should be "i.e." (two periods). Depending on style, can follow with a comma.

In draft, we have
5 occurrences of "i.e."
4 occurrences of "i.e.,"
5 occurrences of "ie."

SuggestedRemedy

Use consistent style. Author's preference is "i.e.,"

Do global search and replace.

Proposed Response Response Status O

Cl 00 SC 0 P L # 181552
Lynskey, Eric Teknovus

Comment Type E Comment Status R resubmit

Mailto links still present for some cross references [MH: subclause numbers were updated, page number were not updated for D2.0].

- 1 page 10 line 17
- 1.4.95 page 12 line 28
- 30 page 13 line 18
- 45 page 16 line 19
- 56 page 27 line 18
- 66 page 37 line 18
- 66.4.2.1 page 38 line 41
- 66.4.2.2 page 39 line 3
- 66.4.2.3 page 29 line 13
- 66.5.4.5 page 40 9 locations
- 67 page 41 line 6
- 91 page 42 line 9
- 92 page 85 line 25
- 76.1.1 page 86 line 46 two locations
- 76.1.3 page 91 line 5
- 76.1.3 page 91 line 11
- 76.1.5 page 91 line 47
- 76.1.6 page 91 line 53
- 76.1.6 page 92 line 1
- 76.1.6.1.4 page 93 line 10
- 76.1.6.2.1 page 95 line 5
- 76.1.6.2.2 page 95 line 16
- 76.1.6.2.3 page 95 line 38
- 76.1.6.2.3.3 page 96 line 43
- 76.2.2.1.2 page 100 line 37
- 76.2.2.1.3 page 101 line 18
- 76.2.2.2 page 103 line 51
- 76.2.2.3 page 104 line 3
- 76.2.2.4.1 page 103 line 35
- 76.2.2.5.2 page 110 line 6
- 76.2.2.6 page 111 line 47
- 76.2.3.2.1 page 117 line 12
- 76.2.3.3.3 page 121 line 41
- 76.2.3.3.4 page 122 line 24
- 76.2.3.3.4 page 122 line 25
- 76.2.3.4 page 123 line 6
- 76.2.3.4 page 123 line 7
- 76.2.3.4.2 page 123 line 39
- 76.2.3.5 page 124 line 44
- 76.2.3.6 page 124 line 49
- 76.2.3.7 page 125 line 13
- 76.2.3.7 page 125 line 14
- 76.2.3.7.3 page 126 line 40

Cl 00 SC 0 P L # 2424
 DIAB, WAEL BROADCOM

Comment Type TR Comment Status X
 The GDMO definitions section is missing. I would request that we complete this prior to completing WG Ballot and launching SA Ballot

SuggestedRemedy
 Include Annex 30A and 30B

Proposed Response Response Status O

Cl 00 SC 0 P L # 2169
 Woodward, Ted Telcordia Technologie

Comment Type E Comment Status X
 several cross references, denoted '@@subclause xx.x.x.x' are not updated in this draft. I found enough of them so that rather than list them all, it seems better to suggest a global update at an appropriate time.

SuggestedRemedy
 correct cross references before issuing next draft

Proposed Response Response Status O

Cl 00 SC 0 P0 L0 # 2342
 Hajduczenia, Marek Nokia Siemens Network

Comment Type ER Comment Status X
 General comment: page numbers in the template got mysteriously very low. On some printers, the page numbers do not print correctly. Please bring the page numbers higher as e.g. in 802.3ay draft.

SuggestedRemedy
 Please bring the page numbers higher as e.g. in 802.3ay draft. Update the draft template as necessary

Proposed Response Response Status O

Cl 00 SC 0 P0 L0 # 2343
 Hajduczenia, Marek Nokia Siemens Network

Comment Type E Comment Status X
 Editorial notes at the beginning of the Clauses could be aligned in between the clauses to match accordingly. Please use a singular template of the editorial comments.

SuggestedRemedy
 See above.

Proposed Response Response Status O

Cl 00 SC 0 P0 L0 # 2346
 Hajduczenia, Marek Nokia Siemens Network

Comment Type ER Comment Status X
 After looking at the draft with the huge quantity of @@ markers, it makes some parts of the text hardly readable, especially when several external references follow in a short block of text.
 Proposal: stop using @@ markers and use e.g. green colour to mark external references, which are not hyperlinked.

SuggestedRemedy
 See above.

Proposed Response Response Status O

Cl 00 SC 0 P0 L0 # 2345
 Hajduczenia, Marek Nokia Siemens Network

Comment Type ER Comment Status X
 Editing instructions and Editorial notes in current version of the draft are in RED. As per IEEE style manual, point 21.1, we should be using Bold Italics. Please fix it.

SuggestedRemedy
 Change all red text blocks (editorial comments and instructions) into BOLD Italic as per IEEE Style Manual. The only red text should be only visible in markup versions signalign deletion.

Proposed Response Response Status O

Cl 00 SC 0 P0 L0 # 2344
Hajduczenia, Marek Nokia Siemens Networ

Comment Type ER Comment Status X

Use of i.e. is not consistent throughout the draft. There are cases of "i.e." (correct) but also of "i.e" or "ie." and other variations. Please hunt the offending versions and replace with "i.e."

SuggestedRemedy

See above

Proposed Response Response Status O

Cl 00 SC 0 P0 L0 # 2303
Hajduczenia, Marek Nokia Siemens Networ

Comment Type E Comment Status X

The draft makes use of terms "asymmetrical" and "asymmetric" interchangeably. Even though both are correct, it would be nice to make use of only one i.e. "asymmetric"

SuggestedRemedy

Replace all occurrence of "asymmetrical" with "asymmetric".

Proposed Response Response Status O

Cl 00 SC 0 P0 L0 # 2264
Hajduczenia, Marek Nokia Siemens Networ

Comment Type ER Comment Status X

Missing cross references in a number of places (make sure resulting links are live):

- page 12, line 29 - "@@Subclause 75.8.1@@"
- page 14, line 14 - "Clause 76"
- page 14, line 15 - "Subclause 76.2.1.1"
- page 14, line 20 - "Clause 76"
- page 14, line 21 - "Subclause 76.2.1.1"
- page 14, line 35 - "Clause 75"
- page 14, line 37 - "Clause 75"
- page 14, line 39 - "Clause 75"
- page 14, line 41 - "Clause 75"
- page 14, line 43 - "Clause 75"
- page 14, line 45 - "Clause 75"
- page 14, line 47 - "Clause 75"
- page 14, line 49 - "Clause 75"
- page 14, line 51 - "Clause 75"
- page 14, line 53 - "Clause 75"
- page 15, line 2 - "Clause 75"
- page 20, line 14 - "@@Figure 31C-2@@"
- page 25, line 21 - "Table 45-12"
- page 30, line 32 - "@@Subclause 76.2.4.1.1.1@@"
- page 38, line 20 - "@@Clause 75@@"
- page 38, line 21 - "@@Clause 76@@"
- page 38, line 26 - "Clause 77"
- page 38, line 29 - "Clause 77.4"
- page 38, line 32 - "Figure 56-2"
- page 38, line 41 - "Clause 76"
- page 38, line 47 - "Clause 76"
- page 39, line 7 - "@@Clause 76@@"
- page 39, line 29 - "@@Clause 75@@"
- page 39, line 24 - "75"
- page 39, line 27 - "75"
- page 39, line 30 - "75"
- page 39, line 33 - "75"
- page 39, line 36 - "75"
- page 39, line 39 - "75"
- page 40, line 46 - "Table 56-3"
- page 47, line 19 - "@@Subclause 77.3.3.2@@" > "Subclause 77.3.3.2" + live cross-reference link
- page 55, line 47 - "@@Subclause 77.3.2.4@@"
- page 55, line 48 - "@@Subclause 77.2.2.1@@"
- page 55, line 52 - "@@Clause 76@@"
- page 56, line 3 - "@@Clause 76@@"
- page 56, line 12 - "@@Clause 76@@"
- page 56, line 17 - "@@Clause 76@@"
- page 56, line 24 - "@@Clause 76@@"

- page 56, line 25 - "@@Clause 76@@"
- page 56, line 25 - "@@Subclause 76.3.1.1@@"
- page 56, line 30 - "@@Clause 76@@"
- page 59, line 18 - "@@Clause 76@@"
- page 62, line 32 - "@@Subclause 76.2@@" > "Subclause 76.2"
- page 62, line 39 - "@@Subclause 77.3.3.2@@" > "Subclause 77.3.3.2"
- page 63, line 37 - "@@Subclause 77.3.3.2@@" > "Subclause 77.3.3.2"
- page 68, line 16 - "@@Subclause 76.2@@" > "Subclause 76.2"
- page 71, line 33 - "@@Clause 76@@" > "Clause 76"
- page 80, line 15 - "@@Subclause 76.3.2.1@@" > "Subclause 76.3.2.1"
- page 95, line 35 - "Clause 77"
- page 109, line 37 - "@@77.3.3.2@@" > "Subclause 77.3.3.2"
- page 138, line 44 - "75.3.1.4" > "Subclause 75.3.1.4"
- page 138, line 53 - "Subcause@@75.8@@" > "Subcause 75.8"
- page 139, line 11 - "@@Figure 75-3@@" > "Figure 75-3"
- page 139, line 11 - "@@Figure 75-4@@" > "Figure 75-4"
- page 139, line 12 - "@@Subclause 75.9.16@@" > "Subclause 75.9.16"
- page 139, line 20 - "@@Figure 75-3@@" > "Figure 75-3"
- page 139, line 20 - "@@Figure 75-4@@" > "Figure 75-4"
- page 139, line 22 - "@@Subclause 75.9.15@@" > "Subclause 75.9.15"
- page 144, line 27 - "@@76.3.3@@" > "76.3.3"
- page 145, line 35 - "@@Subclause 76.2.2.4.3@@" > "Subclause 76.2.2.4.3"
- page 147, line 50 - "@@Figure 76-12@@" and "@@Figure 76-13@@" > "Figure 76-12 and Figure 76-13:"
- page 148, line 34 - "@@Figure 76-12@@" and "@@Figure 76-13@@" > "Figure 76-12 and Figure 76-13"
- page 149, line 1 - "@@Figure 76-12@@" and "@@Figure 76-13@@" > "Figure 76-12 and Figure 76-13"
- page 150, line 1 - "@@Figure 76-12@@" and "@@Figure 76-13@@" > "Figure 76-12 and Figure 76-13"
- page 150, line 32 - "76.2.3.4" > "Subclause 76.2.3.4"

Missing external reference markup on:

- page 38, line 48 - "@@Subclause 61.1.4.1.2@@" > "Subclause 61.1.4.1.2"
- page 44, line 41 - "@@46.3.4@@" > "Subclause 46.3.4"
- page 45, line 3 - "@@46.3.4.2@@" > "Subclause 46.3.4.2"
- page 45, line 13 - "@@46.3.4.3@@" > "Subclause 46.3.4.3"
- page 95, line 46 - "@@46.1.7@@" > "Subclause 46.1.7"
- page 100, line 6 - "Subclause @@77.3.3@@" > "Subclause 77.3.3"
- page 100, line 11 - "Subclause @@77.1.2@@" > "Subclause 77.1.2"
- page 100, line 47 - "Clause @@46.1.6@@" > "Clause 46.1.6"
- page 100, line 54 - "Subclause @@46.1.7@@" > "Subclause 46.1.7"
- page 101, line 1 - "Subclause @@46.1.7.3@@" > "Subclause 46.1.7.3"
- page 101, line 10 - "Subclause @@21.5@@" > "Subclause 21.5"
- page 104, line 5 - "@@65.1.3.1@@" > "Subclause 65.1.3.1"
- page 104, line 16 - "@@65.1.3.2@@" > "Subclause 65.1.3.2"
- page 104, line 38 - "Subclause @@65.1.3.3@@" > "Subclause 65.1.3.3"
- page 104, line 40 - "Table @@65-2@@" > "Table 65-2"
- page 104, line 53 - "Subclause@@ 65.1.3.3.2@@" > "Subclause 65.1.3.3.2"

- page 105, line 43 - "Subclause @@65.1.3.3.3@@" > "Subclause 65.1.3.3.3"
- page 110, line 18 - "@@49.2.13.2.3@@" > "Subclause 49.2.13.2.3"
- page 112, line 52 - "Subclause @@49.2.4@@" > "Subclause 49.2.4"
- page 113, line 3 - "Subclause @@49.2.6@@" > "Subclause 49.2.6"
- page 113, line 35 - "Subclause @@3.1.1@@" > "Subclause 3.1.1"
- page 121, line 36 - "Subclause @@49.2.7@@" > "Subclause 49.2.7"
- page 129, line 12 - "Subclause @@49.2.13.2.1@@" > "Subclause 49.2.13.2.1"
- page 132, line 35 - "Subclause @@49.2.13.2.3@@" > "Subclause 49.2.13.2.3"
- page 133, line 23 - "Subclause @@21.5@@" > "Subclause 21.5"
- page 133, line 24 - "Subclause @@21.5.2@@" > "Subclause 21.5.2"
- page 134, line 4 - "Subclause @@21.5@@" > "Subclause 21.5"
- page 134, line 5 - "Subclause @@21.5.2@@" > "Subclause 21.5.2"
- page 134, line 37 - "Subclause @@14.2.3.2@@" > "Subclause 14.2.3.2"
- page 135, line 44 - "Subclause @@49.2.10@@" > "Subclause 49.2.10"
- page 135, line 49 - "Subclause @@49.2.11@@" > "Subclause 49.2.11"
- page 136, line 14 - "Subclause @@21.5@@" > "Subclause 21.5"
- page 136, line 15 - "Subclause @@21.5.2@@" > "Subclause 21.5.2"
- page 137, line 7 - "@@49.2.13.2.3@@" > "Subclause 49.2.13.2.3"
- page 137, line 37 - "@@76.3.1@@" > "Subclause 76.3.1" - make sure hyperlink is OK
- page 137, line 39 - "@@76.3.1@@" > "Subclause 76.3.1" - make sure hyperlink is OK
- page 137, line 40 - "@@76.3.2@@" > "Subclause 76.3.2" - make sure hyperlink is OK
- page 137, line 39 - "@@65.3.1@@" > "Subclause 65.3.1"
- page 137, line 42 - "@@65.3.2@@" > "Subclause 65.3.2"

SuggestedRemedy

Add missing cross references to all clauses and subclauses in this draft.

Proposed Response

Response Status **O**

CI 00	SC 0	P1	L 56	# 1904
Dawes, Piers		Avago		

Comment Type **E**

Comment Status **X**

Page numbers are too low, won't print on some printers, and 2 lines lower than in published 802.3

SuggestedRemedy

Remove one line-feed in each of left and right page footers

Proposed Response

Response Status **O**

CI 00 SC 0 P100 L39 # 1614
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 This says "of no more than 1 TQ so as to comply", but TQ is not in the abbreviations list
 SuggestedRemedy
 Add "TQ" to the abbreviations list
 Proposed Response Response Status O

CI 00 SC 0 P101 L12 # 1615
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 Table 76-1 uses the term "Legacy (Tx: 1 Gb/s)" which suggests that 1G EPON is out of date.
 SuggestedRemedy
 change both occurrences of "Legacy (Tx: 1 Gb/s)" to "EPON (Tx: 1 Gb/s)""
 Proposed Response Response Status O

CI 00 SC 0 P101 L28 # 1616
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 Table 76-2 uses the term "Legacy (Rx: 1 Gb/s)" which suggests that 1G EPON is out of date.
 SuggestedRemedy
 change both occurrences of "Legacy (Rx: 1 Gb/s)" to "EPON (Rx: 1 Gb/s)""
 Proposed Response Response Status O

CI 00 SC 0 P107 L20 # 1617
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 Figure 76-8 includes two layers labelled "64/66b ENCODE" and "64/66b DECODE". These should be 64B/66B encode and decode.
 SuggestedRemedy
 Change "64/66b ENCODE" to "64B/66B ENCODE"
 change "64/66b DECODE" to "64B/66B DECODE"
 Proposed Response Response Status O

CI 00 SC 0 P107 L49 # 1618
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 The sentence "The transmit direction of OLT PCS is illustrated in Figure 76-8 and in Figure 76-9 for the transmit direction of the ONU PCS." is difficult to understand.
 SuggestedRemedy
 Change to "The transmit directions of the OLT PCS and the ONU PCS are illustrated in Figures 76-8 and 76-9 respectively."
 Proposed Response Response Status O

CI 00 SC 0 P108 L14 # 1619
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 Figure 76-9 includes two layers labelled "64/66b DECODE" and "64/66b ENCODE". These should be 64B/66B encode and decode.
 SuggestedRemedy
 change "64/66b DECODE" to "64B/66B DECODE"
 Change "64/66b ENCODE" to "64B/66B ENCODE"
 Proposed Response Response Status O

Cl 00 SC 0 P108 L49 # 1620
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 "associated state variables as specific in Subclause 76.2.2.1.1." would be better as
 "associated state variables as specified in Subclause 76.2.2.1.1."
 SuggestedRemedy
 change "specific" to "specified"
 Proposed Response Response Status O

Cl 00 SC 0 P115 L27 # 1623
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 Figure 76-13 contains the text "29 ,Au padding" which does not seem correct
 SuggestedRemedy
 should this be "29 "0" padding"?
 Proposed Response Response Status O

Cl 00 SC 0 P110 L37 # 1621
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 This says "The OLT PCS Idle deletion function shall implement the state machine as
 shown in Figure 76–10. The ONU PCS Idle deletion function shall implement the state
 machine as shown in Figure 76–11. Should there be a discrepancy between a state
 machines and descriptive text, the state machines prevail.." To be consistent with the
 terminology used in 802.3 the occurrences of "state machine" should be "state diagram".
 Also, there are two dots at the end.
 SuggestedRemedy
 change to "The OLT PCS Idle deletion function shall implement the state diagram as
 shown in Figure 76–10. The ONU PCS Idle deletion function shall implement the state
 diagram as shown in Figure 76–11. Should there be a discrepancy between a state
 diagrams and descriptive text, the state diagrams prevail."
 Proposed Response Response Status O

Cl 00 SC 0 P12 L28 # 1632
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 clause 1.4.95 has changed to:
 "As used in IEEE 802.3 Clause 38. Clause 52, Clause 53, Clause 58, Clause 59, Clause
 60, Clause 68 and Clause 75 for fiber optic links, the static loss of light through a link
 between a transmitter and receiver. It includes the loss of the fiber, connectors, and splices
 and optional power splitter/combiner (for details, see @@Subclause 75.8.1@@)"
 1) Clause 75.8.1 does not exist.
 2) The optional splitter/combiner is only applicable to clauses 60 and 75
 3) Listing all of the optical clauses forces all future optical amendments to modify this
 clause
 3) clause 75.9.1 (presumably the intended reference) contains:
 "Insertion loss for SMF fiber optic cabling (channel) is defined at 1270, 1310, 1577 or 1590
 nm, depending on the particular PMD. A suitable test method is described in ITU–T
 G.650.1."
 This is not suitable as a generic reference for insertion loss.

SuggestedRemedy
 Change clause 1.4.95 to:
 "As used in IEEE 802.3 for fiber optic links, the static loss of light through a link between a
 transmitter and receiver. It includes the loss of the fiber, connectors, and splices and for
 Clause 60 and Clause 75 the optional power splitter/combiner."
 Proposed Response Response Status O

Cl 00 SC 0 P114 L7 # 1622
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 Figure 76-12 contains the text "Pad, Au" which does not seem correct
 SuggestedRemedy
 should this be "Pad, 0"?
 Proposed Response Response Status O

Cl 00 SC 0 P128 L27 # 1624
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 Figure 76-20 contains the text "29 ,Au padding" which does not seem correct
 SuggestedRemedy
 should this be "29 "0" padding"?
 Proposed Response Response Status O

Cl 00 SC 0 P130 L46 # 1625
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 This says "Note that the rate of 66-bit transfers is lower then normal here."
 1) "then" should be "than"
 2) what is normal?
 SuggestedRemedy
 change to "Note that the rate of 66-bit transfers here is reduced due to the removal of the
 FEC parity blocks."
 Proposed Response Response Status O

Cl 00 SC 0 P131 L53 # 1626
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 The sentence "If the variable decode_failures is set to be 1, then all sync headers for the
 received payload blocks of the FEC codeword to take a value of {SH.0,SH.1} = 00." does
 not make sense
 SuggestedRemedy
 change to "If the variable decode_failures is set to be 1, then all sync headers for the
 received payload blocks of the FEC codeword take a value of {SH.0,SH.1} = 00."
 Proposed Response Response Status O

Cl 00 SC 0 P133 L54 # 1627
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 Figures 76-23 and 76-24 seem to have been missed out. The numbering goes straight
 from 76-22 to 76-25
 SuggestedRemedy
 Renumber Figures 76-25 onwards.
 Proposed Response Response Status O

Cl 00 SC 0 P139 L20 # 1628
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 This says "@@Figure 75-3@@ and @@Figure 75-4@@ illustrate the tests setup for the
 OLT PMA receiver (upstream) TCDR time." but Figures 75-3 and 75-4 are just the block
 diagrams of 10GBASE-PR and 10GBASE-PRX
 SuggestedRemedy
 If these are the correct figures then change the text to: "The OLT PMA receiver (upstream)
 TCDR time is measured in an arrangement as shown in Figure 75-3 and Figure 75-4."
 Proposed Response Response Status O

Cl 00 SC 0 P15 L13 # 1569
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 This says "For 1000BASE-PX, 10GBASE-R PHYs, 10GBASE-PR, or 10GBASE-PRX-U
 PHYs, a count of uncorrectable FEC blocks." which contains a spurious comma and
 "PHYs"
 SuggestedRemedy
 Change to "For 1000BASE-PX, 10GBASE-R, 10GBASE-PR or 10GBASE-PRX-U PHYs, a
 count of uncorrectable FEC blocks." by deleting the comma and "PHYs"
 Proposed Response Response Status O

Cl 00 SC 0 P17 L26 # 1633
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 The first row of the table contains "EXTENTSION (opcode 0xFFFE)". Extension is spelt incorrectly.
 SuggestedRemedy
 change to "EXTENSION (opcode 0xFFFE)"
 Proposed Response Response Status O

Cl 00 SC 0 P19 L13 # 1570
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 In many places in the draft, references have "@@" before and after them. These symbols are inappropriate in a WG draft and reduce the readability of the text. They need to be removed. The cross references that are external to the draft can be marked in some other much less intrusive way such as an alternate colour. This can still be searched for in FrameMaker.
 SuggestedRemedy
 Remove the many occurrences of "@@" through the draft. Show external cross references some other way.
 Proposed Response Response Status O

Cl 00 SC 0 P2 L1 # 2262
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 Abstract description is missing. While it is not critical for technical completeness of the draft, it is advisable to provide an abstract and a more complete list of keywords.
 SuggestedRemedy
 Use the abstract and the list of keywords as provided in 3av_0809_hajduczenia_1.pdf.
 Proposed Response Response Status O

Cl 00 SC 0 P210 L36 # 1629
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 This says "coexistence of 10G-EPON with legacy EPON."
 The term "legacy" suggests that EPON is out of date.
 SuggestedRemedy
 change to "coexistence of 10G-EPON with EPON."
 Proposed Response Response Status O

Cl 00 SC 0 P211 L45 # 1630
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 This says "A legacy 1 Gb/s ONU will". The term "legacy" suggests that EPON is out of date.
 SuggestedRemedy
 Change to "A 1 Gb/s EPON ONU will"
 Proposed Response Response Status O

Cl 00 SC 0 P23 L12 # 1571
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 The new row in this table (45-6) relating to bit 1.4.7 should be shown with underline font because it is to be added.
 SuggestedRemedy
 Show additional row for bit 1.4.7 with underline font.
 Proposed Response Response Status O

Cl 00 SC 0 P23 L37 # 1634
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 The first sentence says "When read as a one, bit 1.1.9 indicates that the PMA/PMD has P2MP abilities listed in register 1.12." This should be "bit 1.11.9" not "bit 1.1.9"
 SuggestedRemedy
 Change to "When read as a one, bit 1.11.9 indicates that the PMA/PMD has P2MP abilities listed in register 1.12."
 Proposed Response Response Status O

Cl 00 SC 0 P26 L34 # 1636
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 The second sentence starts "When read as a one,". This should be "When read as a zero,"
 This error is also present in subclauses 45.2.1.11.2 through 45.2.1.11.11
 SuggestedRemedy
 change the second sentence of subclauses 45.2.1.11.1 through 45.2.1.11.11 to start with "When read as a zero,"
 Proposed Response Response Status O

Cl 00 SC 0 P24 L5 # 1635
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 In the Bit(s) column of the second row of Table 45-7 "1.7.15:3" should be "1.7.15:5"
 SuggestedRemedy
 Change to "1.7.15:5"
 Proposed Response Response Status O

Cl 00 SC 0 P27 L11 # 1637
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 clause 45.2.1.11.6 ends "not able to operate as a 10GBASE-PR-D PMA/PMD type." This should be "not able to operate as a 10GBASE-PR-D3 PMA/PMD type."
 SuggestedRemedy
 change clause 45.2.1.11.6 to end "not able to operate as a 10GBASE-PR-D3 PMA/PMD type."
 Proposed Response Response Status O

Cl 00 SC 0 P24 L8 # 1572
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 The added text "1 1 0 1 0 = 10GBASE-PR-U3" in Table 45-7 should be shown with an underline font.
 SuggestedRemedy
 Show "1 1 0 1 0 = 10GBASE-PR-U3" in underline font
 Proposed Response Response Status O

Cl 00 SC 0 P28 L28 # 1638
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 subclause 45.2.1.88.2 states that "10GBASE-PR FEC error indication is controlled by the FEC enable error indication bit in the FEC control register (see @@Subclause 45.2.1.85.2@@)". This is in contradiction to subclause 45.2.89.1 which states that it is register 1.177.0
 SuggestedRemedy
 change the last sentence of 45.2.1.88.2 to be "10GBASE-PR FEC error indication is controlled by the FEC enable error indication bit in the FEC control register (see Subclause 45.2.1.89.1)".
 Proposed Response Response Status O

Cl 00 SC 0 P29 L32 # 1574
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

The last sentence of subclause 45.2.1.91 contains "reads of register 1.181 returns the latched value" This should be "reads of register 1.181 return the latched value"

SuggestedRemedy

Change the last sentence of subclause 45.2.1.91 to end "reads of register 1.181 return the latched value rather than the current value of the counter."

Proposed Response Response Status O

Cl 00 SC 0 P29 L9 # 1573
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

The last sentence of subclause 45.2.1.90 contains "reads of register 1.179 returns the latched value" This should be "reads of register 1.179 return the latched value"

SuggestedRemedy

Change the last sentence of subclause 45.2.1.90 to end "reads of register 1.179 return the latched value rather than the current value of the counter."

Proposed Response Response Status O

Cl 00 SC 0 P30 L10 # 1639
Anslow, Peter Nortel Networks

Comment Type ER Comment Status X

The second to last row of the amended Table 45-82 contains "3.75 thgough 3.32 767". "thgough" should be "through"

SuggestedRemedy

change the second to last row of Table 45-82 to have Register address "3.75 through 3.32 767"

Proposed Response Response Status O

Cl 00 SC 0 P30 L8 # 1575
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

The register name for address 3.74 is "10GBASE-PR and 10/1GBASE-PRX Clause 76 BER Monitor Control". Including the clause number in this name is a bad idea because future clause re-numbering would change the register name.

SuggestedRemedy

change the register name for address 3.74 to "10GBASE-PR and 10/1GBASE-PRX BER Monitor Control".
Also change the title of subclause 45.2.3.29 to "10GBASE-PR and 10/1GBASE-PRX BER Monitor Control register (Register 3.74)"

Proposed Response Response Status O

Cl 00 SC 0 P34 L20 # 1576
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

"Figiuere 56-4" should be "Figure 56-4"

SuggestedRemedy

change "Figiuere 56-4" to "Figure 56-4"

Proposed Response Response Status O

Cl 00 SC 0 P34 L28 # 1577
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

The third paragraph starts "EFM architecture is extended in Clause 75 ..." This would be better as "The EFM architecture is extended in Clause 75 ..."

SuggestedRemedy

Change the start of the third paragraph from "EFM architecture is extended in Clause 75 ..." to "The EFM architecture is extended in Clause 75 ..."

Proposed Response Response Status O

CI 00 SC 0 P34 L32 # 1578
 Anslow, Peter Nortel Networks

Comment Type E Comment Status X

The third paragraph ends "while symmetric 10 Gb/s and asymmetric EPONs are referred to as 10G-EPON." This would be better as "while the symmetric 10 Gb/s and asymmetric EPONs are referred to as 10G-EPON."

SuggestedRemedy

Change the end of the third paragraph from "while symmetric 10 Gb/s and asymmetric EPONs are referred to as 10G-EPON." to "while the symmetric 10 Gb/s and asymmetric EPONs are referred to as 10G-EPON."

Proposed Response Response Status O

CI 00 SC 0 P38 L11 # 1640
 Anslow, Peter Nortel Networks

Comment Type ER Comment Status X

section a) is garbled and very difficult to understand. It says "a) PON with a symmetric, EFM supports a nominal bit rate of 1000 Mb1 Gb/s, shared amongst the population of Optical Network Units (ONUs) attached to the P2MP topology. The P2MP PHYs use the 1000BASE-X Physical Coding Sublayer (PCS), the Physical Medium Attachment (PMA) sublayer defined in Clause 65@@Clause 60@@, and an optional FEC Forward Error Correction (FEC) function defined in Clause 65.Clause 65;"

SuggestedRemedy

change section a) to "a) PON with a nominal bit rate of 1000 Mb/s in both downstream and upstream directions (EPON), supports a nominal bit rate of 1000 Mb/s, shared amongst the population of Optical Network Units (ONUs) attached to the P2MP topology. The P2MP PHYs use the 1000BASE-X Physical Coding Sublayer (PCS), the Physical Medium Attachment (PMA) sublayer defined in Clause 65 and an optional Forward Error Correction (FEC) function defined in Clause 65;"

Proposed Response Response Status O

CI 00 SC 0 P38 L17 # 1579
 Anslow, Peter Nortel Networks

Comment Type E Comment Status X

section b) wording would be improved by changing "in downstream" to "downstream" twice and "an mandatory" to "a mandatory"

SuggestedRemedy

In section b) change "in downstream" to "downstream" twice and "an mandatory" to "a mandatory"

Proposed Response Response Status O

CI 00 SC 0 P38 L25 # 1641
 Anslow, Peter Nortel Networks

Comment Type ER Comment Status X

The draft shows the word "machines" in strikeout font and the word "diagrams" in underline font indicating that this amendment has changed these words. However 802.3ay draft 2.2 had already made this change.

SuggestedRemedy

Remove the word "machines" in strikeout font and show the word "diagrams" in normal font.

Proposed Response Response Status O

CI 00 SC 0 P38 L48 # 1642
 Anslow, Peter Nortel Networks

Comment Type ER Comment Status X

The second paragraph of 56.1.2.2 ends "This is described in @Subclause 61.1.4.1.2@@" apart from the spurious @ symbols commented on earlier, the word "Subclause" has been added but is not shown in underline font!

SuggestedRemedy

Remove the word "Subclause" or show it in underline font.

Proposed Response Response Status O

Cl 00 SC 0 P39 L22 # 1643
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 item g) starts "10/1GBASE-PRX-D2 and 10/1GBASE-PRX-U1," this should be "10/1GBASE-PRX-D2 and 10/1GBASE-PRX-U2,"
 SuggestedRemedy
 in item g) change "10/1GBASE-PRX-D2 and 10/1GBASE-PRX-U1," to "10/1GBASE-PRX-D2 and 10/1GBASE-PRX-U2,"
 Proposed Response Response Status O

Cl 00 SC 0 P40 L41 # 1646
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 Table 56-1 before ammendment by 802.3av contained four rows that are not shown in this draft revision. Since the editing instruction is "Change Table 56-1 as below", this implies deleting the four rows not shown.
 SuggestedRemedy
 show the four extra rows in the current Table 56-1 in normal font including notes b to f
 Proposed Response Response Status O

Cl 00 SC 0 P40 L32 # 1644
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 Row 17 (inc heading row) of Table 56-1 has a Name value of "10/1GBASE-PRX-U4" this should be "10/1GBASE-PRX-U3"
 SuggestedRemedy
 In row 17 (inc heading row) of Table 56-1, change the Name value from "10/1GBASE-PRX-U4" to "10/1GBASE-PRX-U3" (also fix the height of the row above)
 Proposed Response Response Status O

Cl 00 SC 0 P40 L46 # 1647
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 The text below Table 56-1 starts "Table 56 specifies the correlation between nomenclature and clauses for P2P systems, while Table 56-3specifies ...". The first Table should be 56-2 and there is a space missing between "Table 56-3" and "specifies"
 SuggestedRemedy
 Change the text below Table 56-1 to start "Table 56-2 specifies the correlation between nomenclature and clauses for P2P systems, while Table 56-3 specifies ...".
 Proposed Response Response Status O

Cl 00 SC 0 P40 L38 # 1645
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 Row 21 (inc heading row) of Table 56-1 has a Name value of "10GBASE-PR-U2" this should be "10GBASE-PR-U1"
 SuggestedRemedy
 In row 21 (inc heading row) of Table 56-1, change the Name value from "10GBASE-PR-U2" to "10GBASE-PR-U1"
 Proposed Response Response Status O

Cl 00 SC 0 P42 L1 # 1580
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 Editing instruction starts with a dot
 SuggestedRemedy
 Remove leading dot so ".Insert" becomes "Insert"
 Proposed Response Response Status O

CI 00 SC 0 P42 L32 # 1648
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 In Table 56-3 there are rows for "10GBASE-PX-D1", "10GBASE-PX-D2" and "10GBASE-PX-D3" which should be "10GBASE-PR-D1", "10GBASE-PR-D2" and "10GBASE-PR-D3"
 SuggestedRemedy
 In Table 56-3 change "10GBASE-PX-D1", "10GBASE-PX-D2" and "10GBASE-PX-D3" to "10GBASE-PR-D1", "10GBASE-PR-D2" and "10GBASE-PR-D3"
 Proposed Response Response Status O

CI 00 SC 0 P42 L39 # 1651
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 In Table 56-3 the row for "10GBASE-PR-U3" does not contain an "M" against the column "10GBASE-PR-U3" which it should.
 SuggestedRemedy
 Place an "M" in row 16 of Table 56-3 (not including headings) for "10GBASE-PR-U3" in the column for "10GBASE-PR-U3"
 Proposed Response Response Status O

CI 00 SC 0 P42 L36 # 1649
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 In Table 56-3 there is a row for "10GBASE-PR-U2" which does not exist.
 SuggestedRemedy
 Remove the row for "10GBASE-PR-U2"
 Proposed Response Response Status O

CI 00 SC 0 P44 L18 # 1581
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 Editing instruction contains word "insertign" which should be "inserting"
 SuggestedRemedy
 change "insertign" to "inserting"
 Proposed Response Response Status O

CI 00 SC 0 P42 L37 # 1650
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 In Table 56-3 the row for "10GBASE-PX-D3" (which should be "10GBASE-PR-D3") contains an "M" against the column "10GBASE-PR-U3" whereas the M should be one column to the left for "10GBASE-PR-D3"
 SuggestedRemedy
 Move the "M" in row 15 of Table 56-3 (not including headings) to the column for "10GBASE-PR-D3"
 Proposed Response Response Status O

CI 00 SC 0 P44 L45 # 1582
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 The text says "The nature of the P2MP allows for some of these fault conditions to be ignored."
 This would read better as:
 "The nature of the P2MP link allows for some of these fault conditions to be ignored."
 SuggestedRemedy
 change "The nature of the P2MP allows" to "The nature of the P2MP link allows"
 Proposed Response Response Status O

Cl 00 SC 0 P45 L21 # 1663
Anslow, Peter Nortel Networks

Comment Type TR Comment Status X

option b) starts:
"link_fault = Local Fault
If unidirectional_enable = FALSE, the RS shall continuously generate Idle control characters Remote Fault Sequence ordered_sets."
which does not make sense.

SuggestedRemedy

show "Idle control characters" in underline font and "Remote Fault Sequence ordered_sets" in strikeout font rather than underline

Proposed Response Response Status O

Cl 00 SC 0 P45 L27 # 1583
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

option c) starts:
"link_fault = Remote Fault
If unidirectional_enable = FALSE,"
but "If unidirectional_enable = FALSE," was not part of clause 46.3.4.3

SuggestedRemedy

show "If unidirectional_enable = FALSE," in underline font

Proposed Response Response Status O

Cl 00 SC 0 P45 L42 # 1584
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

The feature column contains "10 Gp/s P2MP operaiont" and the Subclause column contains "66"

SuggestedRemedy

Change feature to "10 Gb/s P2MP operation" change Subclause to "66.4"

Proposed Response Response Status O

Cl 00 SC 0 P49 L48 # 1587
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

The abbreviation EPON is not in the list of abbreviations

SuggestedRemedy

Add EPON to the list of abbreviations

Proposed Response Response Status O

Cl 00 SC 0 P50 L38 # 1585
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

The bullets at the bottom of page 50 do not line up with each other suggesting that some are sub-bullets

SuggestedRemedy

Align the bullets

Proposed Response Response Status O

Cl 00 SC 0 P50 L45 # 1586
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

The fifth bullet says "PR20 – symmetric, medium power budget, compatible with PX10 power budget defined in @@Clause 60@@"
shouldn't this be "compatible with PX20 power budget"?

SuggestedRemedy

Change the fifth bullet to "PR20 – symmetric, medium power budget, compatible with PX20 power budget defined in Clause 60;"

Proposed Response Response Status O

CI 00 SC 0 P57 L1 # 1588
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 "TP1 - TP4" and "TP5 - TP8" are ambiguous as to whether they mean TP1 through TP4 or not
 SuggestedRemedy
 Change to "TP1 through TP4" and "TP5 through TP8"
 Proposed Response Response Status O

CI 00 SC 0 P59 L25 # 1652
 Anslow, Peter Nortel Networks
 Comment Type ER Comment Status X
 Heading is "10GBASE-PR and 1000BASE-PX Signal detect functions". This subclause does not describe 1000BASE-PX
 SuggestedRemedy
 Change heading to "10GBASE-PR and 10/1GBASE-PRX Signal detect functions"
 Proposed Response Response Status O

CI 00 SC 0 P57 L3 # 1589
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 "TP1 and TP4 and TP5 and TP8" is poor english.
 SuggestedRemedy
 Change to "TP1, TP4, TP5 and TP8"
 Proposed Response Response Status O

CI 00 SC 0 P61 L30 # 1591
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 The title of Figure 75-5 is "Relaxed PR-D type PMD specifications" this is inappropriate
 SuggestedRemedy
 change title to "Graphical representation of region of PR-D type transmitter compliance"
 Proposed Response Response Status O

CI 00 SC 0 P57 L48 # 1590
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 "TP1 - TP4" is ambiguous as to whether it means TP1 through TP4 or not
 SuggestedRemedy
 Change to "TP1 through TP4"
 Proposed Response Response Status O

CI 00 SC 0 P61 L40 # 1592
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 The text states "Either the damage threshold included in Table 75-6 and Table 75-7 shall be met,..." but only one of the damage thresholds needs to be met for a particular receiver.
 SuggestedRemedy
 Change to "Either the damage threshold included in Table 75-6 or Table 75-7 shall be met,..."
 Proposed Response Response Status O

CI 00 SC 0 P64 L23 # 1593
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 The text states "Its RIN15OMA should meet the value listed in Table 75-8 and Table 75-9 ..." but only one of the values needs to be met for a particular receiver."
 SuggestedRemedy
 Change to "Its RIN15OMA should meet the value listed in Table 75-8 or Table 75-9 ..."
 Proposed Response Response Status O

CI 00 SC 0 P64 L53 # 1664
 Anslow, Peter Nortel Networks
 Comment Type TR Comment Status X
 Table 75-8 Note C states "If a laser source has a lower TDP, the minimum transmitter launch OMA (OMAm_{in}) and average minimum launch power (AVP_{min}) may be relaxed by the same amount as the TDP."
 So according to this, if my TDP is say 2.9 dB, I can relax my launch power by 2.9 dB!! This must be re-worded.
 SuggestedRemedy
 change to "If a laser source has a lower TDP, the minimum transmitter launch OMA (OMAm_{in}) and average minimum launch power (AVP_{min}) may be relaxed by the amount 3.0 - TDP."
 Proposed Response Response Status O

CI 00 SC 0 P65 L33 # 1595
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 Table 75-9 Note c states "In case FP-LD is used, RMS spectral width shall comply with Table 75-10. In case DFB laser is used, transmitter's side mode suppression ratio (min) shall be 30 dB." This is poor english.
 SuggestedRemedy
 Change to "If the transmitter employs a Fabry-Perot laser, the RMS spectral width shall comply with Table 75-10. If the transmitter employs a DFB laser, the side mode suppression ratio (min) shall be 30 dB."
 Proposed Response Response Status O

CI 00 SC 0 P65 L33 # 1596
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 Table 75-9 Note c uses the abbreviation "DFB". This is not in the list of abbreviations.
 SuggestedRemedy
 Add "DFB" to the list of abbreviations
 Proposed Response Response Status O

CI 00 SC 0 P66 L24 # 1594
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 The title of Figure 75-6 is "Relaxed PR-U type PMD specifications" this is inappropriate
 SuggestedRemedy
 change title to "Graphical representation of region of PR-U type transmitter compliance"
 Proposed Response Response Status O

CI 00 SC 0 P69 L32 # 1597
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 Table 75-12 Note e is "The available power budget assumes input BER from the PMD service interface of 10-3. The required BER of 10-12 at the PCS service interface is achieved by the FEC function of the PCS." This is written from the point of view of the FEC function in the PCS, but the clause is about the PMD not the PCS. Should be re-worded.
 SuggestedRemedy
 Change Note e to "The available power budget assumes a BER at the PMD service interface of 10-3. The required BER of 10-12 at the PCS service interface is achieved by the FEC function of the PCS."
 Also, use a non-breaking - (Ctrl-q Shift-p) so that the 12 does not appear on a different line from 10-
 Proposed Response Response Status O

Cl 00 SC 0 P70 L25 # 1598
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

Table 75-13 Note e is "The available power budget assumes input BER from the PMD service interface of 10-3. The required BER of 10-12 at the PCS service interface is achieved by the FEC function of the PCS." This is written from the point of view of the FEC function in the PCS, but the clause is about the PMD not the PCS. Should be re-worded.

SuggestedRemedy

Change Note e to "The available power budget assumes a BER at the PMD service interface of 10-3. The required BER of 10-12 at the PCS service interface is achieved by the FEC function of the PCS."
Also, use a non-breaking - (Ctrl-q Shift-p) so that the 12 does not appear on a different line from 10-

Proposed Response Response Status O

Cl 00 SC 0 P70 L44 # 1653
Anslow, Peter Nortel Networks

Comment Type ER Comment Status X

The first paragraph of 75.6.1.1. refers to Figure 75-7. This should be Figure 75-8

SuggestedRemedy

Change reference to Figure 75-8

Proposed Response Response Status O

Cl 00 SC 0 P71 L34 # 1654
Anslow, Peter Nortel Networks

Comment Type ER Comment Status X

This states that "The 10 Gb/s upstream transmission uses the 1260 - 1280 nm wavelength band, as specified in @@Clause 76@@ but the wavelengths are specified in clause 75

SuggestedRemedy

change to "The 10 Gb/s upstream transmission uses the 1260 - 1280 nm wavelength band, as specified in Clause 75"

Proposed Response Response Status O

Cl 00 SC 0 P72 L5 # 1655
Anslow, Peter Nortel Networks

Comment Type ER Comment Status X

Figure 75-9 uses the abbreviations "TIA", "PON", "LA". PON and LA are not in the abbreviations list. "TIA" is there but it stands for "Telecommunications Industry Association"!

SuggestedRemedy

Add the abbreviations "TIA", "PON", "LA" to the abbreviations list.

Proposed Response Response Status O

Cl 00 SC 0 P73 L50 # 1599
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

The text states "Therefore, damage threshold (max) of the 1/10 Gb/s dual-rate receiver shall comply with the 10 Gb/s receiver specification in Table 75-6, even when receiving 1 Gb/s signal."

- 1) it is inappropriate to use "shall" in an informative clause
- 2) why should the receiver have to comply with the 10G damage threshold when actually receiving a 1G signal?

SuggestedRemedy

Change to "Therefore, the damage threshold (max) of the 1/10 Gb/s dual-rate receiver should comply with the 10 Gb/s receiver specification in Table 75-6."

Proposed Response Response Status O

Cl 00 SC 0 P74 L12 # 1600
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

In Figures 75-11 and 75-12 the "Slope =" label is corrupted

SuggestedRemedy

Change to "Slope = -20 dB/dec"

Proposed Response Response Status O

CI 00 SC 0 P74 L48 # 1601
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

Tables 75-14 and 75-15 have a Note "These are preliminary jitter values based on simulations @BER = 10-12 and need to be finalized." This information should be shown in an Editor's note stating "to be removed prior to release"

SuggestedRemedy

Move these notes in to an "Editor's note"

Proposed Response Response Status O

CI 00 SC 0 P75 L36 # 1602
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

The Note to Table 75-16 refers to "802.3ah" which will have been replaced by a revision of 802.3

SuggestedRemedy

change the note to: "These values are reproduced from Table 60-11 and may be revised if supported by new data." or better yet, delete it altogether.

Proposed Response Response Status O

CI 00 SC 0 P76 L21 # 1656
Anslow, Peter Nortel Networks

Comment Type ER Comment Status X

Reference is made to G.650.1 which is not in the references section

SuggestedRemedy

Add a reference to G.650.1

Proposed Response Response Status O

CI 00 SC 0 P76 L27 # 1659
Anslow, Peter Nortel Networks

Comment Type T Comment Status X

The TDP (max) in Table 75-8 is 3.0 dB and the note to this table says that the transmitter power can be reduced if TDP is smaller than this, but subclause 75.9.2 states "All the transmitter types specified in Clause 75 introduce less than 1 dB of optical path penalty over the PON plant. An increase in the optical path penalty is acceptable, provided that any increase in optical path penalty over 1 dB is compensated by an increase of the minimum transmitter OMA"

These seem to be inconsistent.

SuggestedRemedy

Modify subclause 75.9.2 to be consistent with the Tables or
Modify the tables to be consistent with subclause 75.9.2

Proposed Response Response Status O

CI 00 SC 0 P76 L43 # 1603
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

This says "The center wavelength and spectral width (RMS) shall meet specifications according to ANSI/TIA/EIA-455-127 under modulated conditions ..." which reads as if the specifications are from ANSI/TIA/EIA-455-127 rather than the measurement methods.

SuggestedRemedy

change to "The center wavelength and spectral width (RMS) shall meet the specifications when measured according to ANSI/TIA/EIA-455-127 under modulated conditions ..."

Proposed Response Response Status O

CI 00 SC 0 P76 L49 # 1604
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

Note 2 is "The 20 dB width for SLM lasers is taken as 6.07 times the RMS width." but the 20 dB width is not used

SuggestedRemedy

Delete Note 2

Proposed Response Response Status O

CI 00 SC 0 P77 L35 # 1605
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 The text says "Extinction ratio shall meet specifications according to IEC 61820-2-2 with the port transmitting ..." which reads as if the specifications are from IEC 61820-2-2 rather than the measurement methods.
 SuggestedRemedy
 Change to "The extinction ratio shall meet the specifications when measured according to IEC 61820-2-2 with the port transmitting ..."
 Proposed Response Response Status O

CI 00 SC 0 P77 L43 # 1606
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 The second sentence is "A description of OMA measurements for 10 Gb/s PHYs shall be compliant with the description found in @@Subclause 52.9.5@@.". This seems to be placing a requirement on a description rather than a measurement.
 SuggestedRemedy
 Change to "The OMA measurements for 10 Gb/s PHYs shall be compliant with the description found in Subclause 52.9.5."
 Proposed Response Response Status O

CI 00 SC 0 P78 L3 # 1607
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 The first sentence is: "The required transmitter pulse shape characteristics are specified in the form of a mask of the transmitter eye diagram as shown in Figure 75-13 and Figure 75-14."
 However it is unclear which diagram relates to which transmitter types.
 SuggestedRemedy
 "The required transmitter pulse shape characteristics are specified in the form of a mask of the transmitter eye diagram as shown in Figure 75-13 for 1 Gb/s PHYs and Figure 75-14 for 10 Gb/s PHYs."
 Proposed Response Response Status O

CI 00 SC 0 P79 L39 # 1608
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 This says "The sensitivity shall be met for the bit error ratio defined in Table 75-6, Table 75-7, and Table 75-11 as appropriate." but only one table applies to a particular PMD
 SuggestedRemedy
 Change "and" to "or" to give "The sensitivity shall be met for the bit error ratio defined in Table 75-6, Table 75-7, or Table 75-11 as appropriate."
 Proposed Response Response Status O

CI 00 SC 0 P79 L45 # 1609
 Anslow, Peter Nortel Networks
 Comment Type E Comment Status X
 This says "the receiver shall meet the specified bit error ratio at the power level and signal quality defined in Table 75-6, Table 75-7, and Table 75-11 as appropriate," but only one table applies to a particular PMD
 SuggestedRemedy
 Change "and" to "or" to give "the receiver shall meet the specified bit error ratio at the power level and signal quality defined in Table 75-6, Table 75-7, or Table 75-11 as appropriate,"
 Proposed Response Response Status O

Cl 00 SC 0 P80 L 30 # 1660
Anslow, Peter Nortel Networks

Comment Type T Comment Status X

This says "The 10GBASE-PR and 10/1GBASE-PRX environmental specifications are as defined in @@Subclause 52.10.1@@ for general safety, and as defined in @@Subclause 52.10.2@@ for laser safety."

Subclause 52.10.1 says "All equipment meeting this standard shall conform to IEC-60950:1991." This reference is ridiculously out of date. IEC-60950 has been superseded by IEC 60950-1.

Subclause 52.10.2 only refers to IEC 60825-1 (Safety of Laser Products-Part 1: Equipment classification and requirements.) and not to the much more relevant (and much easier to understand) IEC 60825-2 (Safety of laser products-Part 2: Safety of optical fibre communication systems OFCS)

SuggestedRemedy

Replace 75.10.1 with:

75.10.1 General safety

All equipment subject to this clause shall conform to IEC 60950-1.

75.10.2 Laser safety

100GBASE-LR4 and 100GBASE-ER4 optical transceivers shall conform to Class 1 laser requirements as defined in IEC 60825-1 and IEC 60825-2, under any condition of operation. This includes single fault conditions whether coupled into a fiber or out of an open bore.

Conformance to additional laser safety standards may be required for operation within specific geographic regions.

Laser safety standards and regulations require that the manufacturer of a laser product provide information about the product's laser, safety features, labeling, use, maintenance, and service. This documentation explicitly defines requirements and usage restrictions on the host system necessary to meet these safety certifications.

Proposed Response Response Status O

Cl 00 SC 0 P80 L 44 # 1610
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

The second paragraph starts: "Reference @@Annex 67A@@ for additional environmental information." which is unclear.

SuggestedRemedy

Change to "See Annex 67A for additional environmental information."

Proposed Response Response Status O

Cl 00 SC 0 P82 L 18 # 1657
Anslow, Peter Nortel Networks

Comment Type ER Comment Status X

Table 75-20 footnote c contains "calculated using spectral attenuation modelling method (5.4.4) included in G.650.1 (06/2004) and the matrix coefficients included in Appendix III herein" but the 802.3av draft does not contain an Appendix III

SuggestedRemedy

change to "calculated using spectral attenuation modelling method (5.4.4) included in G.650.1 (06/2004) and the matrix coefficients included in Appendix III therein"

Proposed Response Response Status O

Cl 00 SC 0 P82 L 31 # 1658
Anslow, Peter Nortel Networks

Comment Type ER Comment Status X

Reference is made to "(G.671 am 1)" but G.671 is not in the references

SuggestedRemedy

Add G.671 to the references

Proposed Response Response Status O

Cl 00 SC 0 P87 L19 # 1611
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

FN5 to FN8 are:
FN5 Signal detect function
FN6 Signal detect parameter
FN7 Signal detect function
FN7 Signal detect function
FN8 Signal detect parameter

- 1) these would be easier to understand if ONU and OLT were added
- 2) FN7 appears twice

SuggestedRemedy

Change to:
FN5 ONU signal detect function
FN6 ONU signal detect parameter
FN7 OLT signal detect function
FN8 OLT signal detect function
FN9 OLT signal detect parameter

Proposed Response Response Status O

Cl 00 SC 0 P92 L6 # 1612
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

value/comment "2 m to 5 meters in length" is not consistent.

SuggestedRemedy

change to "2 m to 5 m in length"

Proposed Response Response Status O

Cl 00 SC 0 P93 L23 # 1661
Anslow, Peter Nortel Networks

Comment Type T Comment Status X

value/comment is "Conforms to IEC-60950"
IEC-60950 has been superseded by IEC 60950-1.

SuggestedRemedy

change to "Conforms to IEC-60950-1"

Proposed Response Response Status O

Cl 00 SC 0 P93 L25 # 1662
Anslow, Peter Nortel Networks

Comment Type T Comment Status X

value/comment is "Conform to Class 1 laser requirements defined in IEC 60825-1"
This only refers to IEC 60825-1 (Safety of Laser Products-Part 1: Equipment classification and requirements.) and not to the much more relevant (and much easier to understand) IEC 60825-2 (Safety of laser products-Part 2: Safety of optical fibre communication systems OFCS)

SuggestedRemedy

change to "Conforms to Class 1 laser requirements defined in IEC 60825-1 and IEC 60825-2"

Proposed Response Response Status O

Cl 00 SC 0 P98 L3 # 1613
Anslow, Peter Nortel Networks

Comment Type E Comment Status X

This says "In legacy EPON architectures, the GMII is the interface used ..."
The term "legacy" suggests that EPON is out of date.

SuggestedRemedy

change to "In EPON architectures, the GMII is the interface used ..."

Proposed Response Response Status O

Cl 01 SC 1.3 P13 L11 # 1909
Dawes, Piers Avago

Comment Type TR Comment Status X

Watch out for clashes with 802.3ba

SuggestedRemedy

Make sure that we have names to distinguish the low overhead R FEC (perhaps call that K-FEC or KR FEC?) from the strong Reed-Solomon FEC (perhaps call that P-FEC or PR FEC?). Check register numbers don't clash

Proposed Response Response Status O

Cl 01 SC 1.4 P12 L15 # 1816
 D'Ambrosia, John Force10 Networks
 Comment Type E Comment Status X
 "10GBASE-PR" is repeated twice
 SuggestedRemedy
 delete redundant "10GBASE-PR"
 and bold text
 Proposed Response Response Status O

Cl 01 SC 1.4 P12 L15 # 2102
 Kramer, Glen Teknovus, Inc.
 Comment Type E Comment Status X
 Labels repeated twice:
 line 15 - 10GBASE-PR:10GBASE-PR:
 line 20 - 10/1GBASE-PRX:10/1GBASE-PRX:
 SuggestedRemedy
 Remove one lable on each line
 Proposed Response Response Status O

Cl 01 SC 1.4 P12 L15 # 1674
 Jessica, Jiang Salira
 Comment Type E Comment Status X
 Duplicate word " 10GBASE-PR:"
 SuggestedRemedy
 Remove the additinal word
 Proposed Response Response Status O

Cl 01 SC 1.4 P12 L15 # 1665
 Marris, Arthur Cadence
 Comment Type E Comment Status X
 Duplicate definition names 10GBASE-PR:10GBASE-PR and 10/1GBASE-PRX:10/1GBASE-PRX
 SuggestedRemedy
 Delete one of them.
 Proposed Response Response Status O

Cl 01 SC 1.4 P12 L15 # 2263
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 PMD definition is doubled for 10GBASE-PR. The same is true for 10/1GBASE-PRX in line 20. Remove the double PMD definitions from line 15 and 20
 SuggestedRemedy
 Replace line 15 with "10GBASE-PR: IEEE 802.3 Physical Layer specification for a 10 Gb/s symmetric point-to-"
 Replace line 20 with "10/1GBASE-PRX: IEEE 802.3 Physical Layer specification for a 10 Gb/s downstream, 1"
 Proposed Response Response Status O

Cl 01 SC 1.4 P12 L20 # 1817
 D'Ambrosia, John Force10 Networks
 Comment Type E Comment Status X
 10/1GBASE-PRX is repeated twice.
 SuggestedRemedy
 delete extra 10/1GBASE-PRX. Bold remaining text
 Proposed Response Response Status O

Cl 01 SC 1.4 P12 L 20 # 1675
 Jessica, Jiang Salira
 Comment Type E Comment Status X
 Duplicate word "10/1GBASE-PRX:"
 SuggestedRemedy
 Remove the duplicate word
 Proposed Response Response Status O

Cl 30 SC 3.2.1.3 P14 L 20 # 1689
 Joergensen, Thomas Vitesse Semiconducto
 Comment Type E Comment Status X
 There is nothing names 10/1GBASE-PR
 SuggestedRemedy
 Replace 10/1GBASE-PR with 10GBASE-PR
 Proposed Response Response Status O

Cl 01 SC 1.4 P12 L 30 # 1907
 Dawes, Piers Avago
 Comment Type T Comment Status X
 Possible confusion between time-quantum and pause_quantum
 SuggestedRemedy
 add definitions for both
 Proposed Response Response Status O

Cl 30 SC 30.11 P16 L 1 # 1914
 Dawes, Piers Avago
 Comment Type E Comment Status X
 Time-wasting blank pages: this document insists on starting new clauses on even numbered pages, as if we were going to receive a printed copy eventually. 802.3ay doesn't.
 SuggestedRemedy
 Start each clause on the next available page. Format > Page Layout > Pagination > Delete Empty Pages
 Proposed Response Response Status O

Cl 01 SC 1.4.95 P12 L 29 # 1908
 Dawes, Piers Avago
 Comment Type E Comment Status X
 "Subclause 75.8.1"
 SuggestedRemedy
 In general, delete every "Subclause". In 1.4 Definitions only, use the format "(See IEEE 802.3, Clause n.)"
 Proposed Response Response Status O

Cl 30 SC 30.2 P14 L 13 # 2252
 Ganga, Ilango Intel
 Comment Type ER Comment Status X
 Missing cross references throughout this clause. Add cross references.
 Page 14, line 23 Why is 30.4 listed here withouth any changes? Add changes if appropriate
 Page 14, line 31 Editing instruction not very clear. Possible remedy "Insert the following after ..."
 Page 15, line 16-30 if appropriate update subclauses 30.6 to 30.11. Are these placeholders without any text.
 SuggestedRemedy
 As per comment
 Proposed Response Response Status O

Cl 30 SC 3.2.1.2 P14 L 14 # 1688
 Joergensen, Thomas Vitesse Semiconducto
 Comment Type E Comment Status X
 There is nothing like 10/1GBASE-PR
 SuggestedRemedy
 Replace 10/1GBASE-PR with 10GBASE-PR
 Proposed Response Response Status O

Cl 30 SC 30.3.2.1.2 P14 L14 # 2266
 Hajduczenia, Marek Nokia Siemens Networ

Comment Type E Comment Status X
 Reference to 10GBASE-PR PCS is not precise enough. Lines 14 and 20 are affected. Since 10/1GBASE-PRX is referenced to 76.2.1.1, 10GBASE-PR should reference to 76.2.1.2.

SuggestedRemedy
 Change "Clause 76" to "Subclause 76.2.1.2" in line 14 and line 20 on page 14.

Proposed Response Response Status O

Cl 30 SC 30.3.2.1.2 P14 L14 # 1676
 Jessica, Jiang Salira

Comment Type E Comment Status X
 symmmetric 10G Phy type should be "10GBASE-PR"

SuggestedRemedy
 change "10/1GBASE-PR" to "10GBASE-PR"

Proposed Response Response Status O

Cl 30 SC 30.3.2.1.2 P14 L14 # 2265
 Hajduczenia, Marek Nokia Siemens Networ

Comment Type T Comment Status X
 10/1GBASE-PR is not a correct PMD name - 10GBASE-PR is. Lines 14 and 20 are affected with the same problem.

SuggestedRemedy
 Change "10/1GBASE-PR" to "10GBASE-PR" in line 14 and 20

Proposed Response Response Status O

Cl 30 SC 30.3.2.1.2 P14 L20 # 1677
 Jessica, Jiang Salira

Comment Type E Comment Status X
 symmmetric 10G Phy type should be "10GBASE-PR"

SuggestedRemedy
 change "10/1GBASE-PR" to "10GBASE-PR"

Proposed Response Response Status O

Cl 30 SC 30.3.5 P L # 1910
 Dawes, Piers Avago

Comment Type T Comment Status X
 There are several MPCP managed object definitions that refer to 65.1 (allegedly 65.1.2.3.2), including 1000 Mb/s counters (but see 30.2.1: maximum counter speed will scale by 10 by default, which may be OK)

SuggestedRemedy
 Modify them as appropriate to refer to 76.1 also

Proposed Response Response Status O

Cl 30 SC 30.3.5.1.4 P L # 1911
 Dawes, Piers Avago

Comment Type E Comment Status X
 Text says "as specified in 65.1.2.3.2.:". There is no 65.1.2.3.2.

SuggestedRemedy
 Please advise what it should be. If it's too late to be fixed in P802.3ay, please fix in .3av.

Proposed Response Response Status O

Cl 30 SC 30.3.7 P L # 1912
 Dawes, Piers Avago
 Comment Type T Comment Status X
 There are several OMPEmulation managed object definitions that refer to 65.1.3.
 SuggestedRemedy
 Modify them as appropriate to refer to 76.1.6.2 also
 Proposed Response Response Status O

Cl 30 SC 30.5 P14 L 26 # 1913
 Dawes, Piers Avago
 Comment Type TR Comment Status X
 This heading "30.5 Layer management for 10 Mb/s, 100 Mb/s, 1000 Mb/s and 10 Gb/s medium attachment units (MAUs)" is not as in 802.3-2005_REV_D2p3
 SuggestedRemedy
 Change to "30.5 Layer management for medium attachment units (MAUs)", scrub the document for any other changes.
 Proposed Response Response Status O

Cl 30 SC 30.5.1.1.15 P15 L 13 # 1679
 Jessica, Jiang Salira
 Comment Type E Comment Status X
 Should use "10/1GBASE-PRX-U" PHY
 SuggestedRemedy
 change "10GBASE-PRX-U" to "10/1GBASE-PRX-U"
 Proposed Response Response Status O

Cl 30 SC 30.5.1.1.15 P15 L 7 # 2267
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type ER Comment Status X
 Incorrect PMD name. 10GBASE-PRX does not exist. The same problem exists in line 13, page 15, subclause 30.5.1.1.16
 SuggestedRemedy
 Change "10GBASE-PRX" to "10/1GBASE-PRX" in line 7. The same problem exists in line 13, page 15, subclause 30.5.1.1.16.
 Proposed Response Response Status O

Cl 30 SC 30.5.1.1.15 P15 L 7 # 1678
 Jessica, Jiang Salira
 Comment Type E Comment Status X
 Should use "10/1GBASE-PRX-U" PHY
 SuggestedRemedy
 change "10GBASE-PRX-U" to "10/1GBASE-PRX-U"
 Proposed Response Response Status O

Cl 30 SC 30.5.1.1.15 P15 L 8 # 2258
 Ganga, Ilango Intel
 Comment Type TR Comment Status X
 These FEC corrected blocks counter and FEC uncorrected blocks counter is newly defined for PR (.3av, 45.2.1.90). Provide reference to appropriate subclause in 45 where this attribute maps to. Currently these attribute maps to FEC counters in backplane and PX.
 SuggestedRemedy
 Per comment
 Proposed Response Response Status O

Cl 30 SC 30.5.1.1.2 P14 L 34 # 2411
Mandin, Jeff PMC Sierra

Comment Type T Comment Status X

The description text for the management parameter PMD types is precisely the same for the -D types as it is for the -U types.

SuggestedRemedy

Add the words "tx" and "rx" after "downstream" and "upstream" as appropriate for each of the PMD types

Proposed Response Response Status O

Cl 30 SC 5.1.1.16 P15 L 10 # 2161
Barrass, Hugh Cisco

Comment Type T Comment Status X

The name of the object does not match the register

"uncorrectable" vs "uncorrected"

SuggestedRemedy

Change the object name from "aFECUncorrectableBlocks" to "aFECUncorrectedBlocks"

Also change in the text.

Proposed Response Response Status O

Cl 31A SC P17 L 13 # 2249
Ganga, Ilango Intel

Comment Type E Comment Status X

Provide reference to appropriate clause in third column of table 31-A1

SuggestedRemedy

Per comment

Proposed Response Response Status O

Cl 31A SC 31.1 P L 12 # 1915
Dawes, Piers Avago

Comment Type TR Comment Status X

31.1 Overview says "Non-realtime, or quasistatic control (e.g., configuration of MAC operational parameters) is provided by Layer Management." The new 31A and 31C appears to be an attempt to overturn that, and not restricted to PON.

SuggestedRemedy

Needs proper debate in 802.3. If we agree that we want to do go ahead, the sentence quoted would need changing.

Proposed Response Response Status O

Cl 31A SC 31.6 P L 42 # 1916
Dawes, Piers Avago

Comment Type T Comment Status X

If MAC Control is to be used for disparate purposes, with different ports implementing different functions, we could do with a PICS so that the implementer can declare which he supports and doesn't support.

SuggestedRemedy

Add text and a PICS with an option for each MAC Control function: PAUSE, Clause 64 MPCP, Clause 77 MPCP (And in its own draft, if it doesn't go into Clause 57, "EXTENSION")

Proposed Response Response Status O

Cl 31A SC 31A P17 L 1 # 1920
Dawes, Piers Avago

Comment Type TR Comment Status X

Why are we introducing another management signalling method in MAC Control? Isn't Clause 57 provided for management signalling?

SuggestedRemedy

Decide whether this alternative management signalling method should go in 31 and annexes or 57, reply to comment with the reason.

Proposed Response Response Status O

Cl 31A SC 31A P17 L1 # 1917
Dawes, Piers Avago

Comment Type TR Comment Status X

This proposed new "Organization Specific Extension" MAC Control capability is outside the PAR. As written, it is not contained to EPON/10G-EPON. It appears to be allowing a way of management that's in contradiction to Clause 30 and possibly Clauses 45 and 57. I don't know what the security implications of opening up another communication channel like this are. This channel seems to be available to just anyone with an OUI for absolutely any purpose: is that what we want? Is there a similar issue of phone-company management practices in WiFi or WiMax, and is this approach consistent? Needs to go to the 802 exec. No voter can use the same criterion for deciding to vote for or against this as he would in deciding to vote for or against the in-scope (10G, 10/1G) material - it's a completely different topic which needs a different ballot, hence different draft. Also the MAC Control material in the draft is very incomplete.

SuggestedRemedy

Remove the material related to MAC Control EXTENSION to a separate draft. Prepare a PAR for it.

Proposed Response Response Status O

Cl 31A SC 31A P17 L1 # 1919
Dawes, Piers Avago

Comment Type TR Comment Status X

The proposed 31A and 31C have nothing to do with the objectives

SuggestedRemedy

Remove the material related to MAC Control EXTENSION to a separate draft. Prepare objective(s) for it, or decide to abandon it, or let 802.3 or another study group or task force address the question.

Proposed Response Response Status O

Cl 31A SC 31A P17 L1 # 1918
Dawes, Piers Avago

Comment Type TR Comment Status X

This proposed new "Organization Specific Extension" MAC Control capability appears to fail two of the five criteria: "Compatible managed object definitions" - it seems to be intended to enable a non-compatible management and/or OAM transport method, and similarly "One unique solution per problem (not two solutions to a problem)": it seems intended to enable a management method in competition with Clause 30 and maybe Clause 57. While this may or may not be a good thing to do, trying to slip it through inside a draft about something else, in a system in which the only meaningful yes/no decision is before this stage in P802.3av's progress, is not acceptable. Needs to be properly debated in 802.3 and go to the 802 exec. No voter can use the same criterion... as above. Also the MAC Control material in the draft is very incomplete.

SuggestedRemedy

Remove the material related to MAC Control EXTENSION to a separate draft. Prepare separate five criteria responses for it, asking for exemptions if appropriate.

Proposed Response Response Status O

Cl 31A SC 31A P17 L11 # 1922
Dawes, Piers Avago

Comment Type T Comment Status X

Bad English and flat wrong: this reserved range does not run through FF-FD because the next possible address is not in the range, as stated in the next row. It stops at FF-FD.

SuggestedRemedy

Change "00-07 through FF-FD" to "00-07 to FF-FD"

Proposed Response Response Status O

Cl 31A **SC 31A** **P17** **L 30** # 1923
 Dawes, Piers Avago

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

"Organizationally-Unique Identifier that determines the format and semantics of the Value field and its subfields, if any are defined.": this seems far too open-ended.

SuggestedRemedy
 Either remove the OUI field and change from "Organization-Specific Extension" to something specific for ITU-T style management, or whatever is really wanted. Or restrict the possible OUIs to one, the ITU-T OUI. Restrict the scope as appropriate, e.g. to PON and DSL ports only.

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

Cl 31A **SC 31A** **P17** **L 8** # 1921
 Dawes, Piers Avago

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

Most of the rest of the table needs modifying to refer to the new MPCP.

SuggestedRemedy
 Per comment

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

Cl 31C **SC 2** **PNA** **L 29** # 2170
 Woodward, Ted Telcordia Technologie

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

The methods for assigning, administering, and policing organizationally unique identifiers are not described in the draft -- if they are already stipulated, can a reference be provided? Perhaps they are described in pre-existing text (same methods used to administer MAC identifiers)?

SuggestedRemedy
 provide reference to mechanism for administering organizationally unique identifiers if it is defined, or define one if it has not been provided already.

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

Cl 31C **SC 31C** **P19** **L 1** # 1924
 Dawes, Piers Avago

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

If you create a new MAC Control category you need to...

SuggestedRemedy
 Create a new managed object on 30.2 (including Figure 30-3), counters and material in Table 30-1 and (I think) a new 30.12

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

Cl 31C **SC 31C.3.1** **P20** **L 19** # 1925
 Dawes, Piers Avago

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

Font too small

SuggestedRemedy
 Change 7 point to 8 point wherever practical

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

Cl 45 **SC 2.1** **P22** **L 16** # 2160
 Barrass, Hugh Cisco

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

Table 45-3

FEC registers not in the table.

SuggestedRemedy
 Add register for FEC control/status.

1.310 10GBASE-PR FEC ability
 1.311 10GBASE-PR FEC control register
 1.312, 1.313 10GBASE-PR FEC corrected blocks counter
 1.314, 1.315 10GBASE-PR FEC uncorrected blocks counter

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

Cl 45 **SC 2.1.10.1** **P23** **L 37** # **1761**
 KIMURA, Mitsunobu Hitachi Communicatio

Comment Type **E** *Comment Status* **X**
 "bit 1.1.9 indicates" should be "bit 1.11.9 indicates".

SuggestedRemedy
 "bit 1.11.9 indicates"

Proposed Response *Response Status* **O**

Cl 45 **SC 2.1.88** **P28** **L 14** # **1691**
 Joergensen, Thomas Vitesse Semiconducto

Comment Type **T** *Comment Status* **X**
 I don't se the reason to have the 10GBASE-PR FEC ability bit, as it always must be one.

SuggestedRemedy
 Change register bit 1.176.0 to "Reserved"

Proposed Response *Response Status* **O**

Cl 45 **SC 2.1.88** **P27** **L 45** # **2159**
 Barrass, Hugh Cisco

Comment Type **T** *Comment Status* **X**
 The register number assigned is entirely arbitrary, however 802.3ba is adding 80 registers to the backplane FEC & startup areas. It would be much simpler for 802.3ba if these registers could be placed contiguously therefore 802.3av should use a higher register allocation.

SuggestedRemedy
 Change register 1.176 (& others) to 1.310 (and above).

Change subclause numbers appropriately.

Proposed Response *Response Status* **O**

Cl 45 **SC 2.1.90** **P29** **L 1** # **2162**
 Barrass, Hugh Cisco

Comment Type **T** *Comment Status* **X**
 As far as I can see, this register is identical to the one used to show the 10GBASE-KR (& soon the HSE) FEC counts. Is there any reason to define a new & different register for the same function. It also seems that the two registers share the same MIB object, so it's hard to justify separate registers.

SuggestedRemedy
 Delete registers 178 - 181.

Proposed Response *Response Status* **O**

Cl 45 **SC 2.1.88** **P27** **L 46** # **2163**
 Barrass, Hugh Cisco

Comment Type **T** *Comment Status* **X**
 There is already a register that contains the FEC ability, there is no reason why backplane FEC ability & PR FEC ability can't be in the same register.

The different FECs can be identified by specific bits in the register.

SuggestedRemedy
 Delete the new register & subclause.

Make change instructions to add the bits to register 1.170.

Similar changes for the control register (delete 1.177, change existing register 1.171)

Proposed Response *Response Status* **O**

Cl 45 **SC 45** **P22** **L** # **1926**
 Dawes, Piers Avago

Comment Type **E** *Comment Status* **X**
 Consider that 802.3ba will probably have to define additional PMA registers, perhaps by creating additional MMDs for separated PMA and PMD, and/or stacked PMAs

SuggestedRemedy
 If it is clear what is going to happen you may wish to do the same

Proposed Response *Response Status* **O**

Cl 45 SC 45 P27 L # 1976
 Dawes, Piers Avago
 Comment Type T Comment Status X
 You have put the FEC inside the PCS yet in Clause 45 it is controlled by PMA/PMD registers
 SuggestedRemedy
 Put the FEC registers in the PCS area (3.n), or perhaps in its own MMD
 Proposed Response Response Status O

Cl 45 SC 45.2.1 P22 L 20 # 1974
 Dawes, Piers Avago
 Comment Type TR Comment Status X
 You have omitted the strong FEC register from the table: per clause 76 they should not be 1.n registers
 SuggestedRemedy
 Add entries for FEC registers in 45.2.3 PCS registers Table 45-82, or perhaps in a FEC MMD. Avoid register/bit clashes with P802.3ba.
 Proposed Response Response Status O

Cl 45 SC 45.2.1 P29 L 54 # 2272
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type TR Comment Status X
 Subclause 45.2.1 is missing FEC functionality description for 10/1GBASE-PRX PMDs, which are essentially asymmetric and use 1 Gb/s link, where FEC is not mandatory. A list of changes is provided in 3av_0809_hajduczenia_2.pdf.
 Special thanks to all people participating in the revision of the document:
 @@@
 SuggestedRemedy
 Add Subclauses 45.2.1.92 through 45.2.1.95 as presented in 3av_0809_hajduczenia_2.pdf.
 Proposed Response Response Status O

Cl 45 SC 45.2.1.11 P25 L 33 # 1818
 D'Ambrosia, John Force10 Networks
 Comment Type E Comment Status X
 Table 45-12 is broken.
 SuggestedRemedy
 tie 45-12 on Page 25 to rest of table on p 26.
 Proposed Response Response Status O

Cl 45 SC 45.2.1.11.1 P26 L 34 # 1975
 Dawes, Piers Avago
 Comment Type T Comment Status X
 "10/ new-line 1GBASE-PRX-D1"
 SuggestedRemedy
 Either change to e.g. "10_1GBASE-PRX-D1" or use the Frame document option to stop line splits after /
 Proposed Response Response Status O

Cl 45 SC 45.2.1.4 P23 L 25 # 2268
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 Line 27 is also affected.
 "1Gb/s" is missing a space - change to "1 Gb/s"
 SuggestedRemedy
 "1Gb/s" is missing a space - change to "1 Gb/s". Change also in line 27
 Proposed Response Response Status O

Cl 45 SC 45.2.1.88 P28 L14 # 1758
 Hirth, Ryan Teknovus
 Comment Type T Comment Status X
 SuggestedRemedy
 Proposed Response Response Status O

Cl 45 SC 45.2.1.88 P28 L19 # 2269
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 Subclauses 45.2.1.88.1 and 45.2.1.88.2 do not follow the structure of the remainder of definitions in subclause 45.2.1 i.e. definitions start from 1.176.0 while should start from 1.176.1 to keep consistency with the other subclauses.
 SuggestedRemedy
 Change current subclause 45.2.88.1 to 45.2.88.2 (register 1.176.1)
 Change current subclause 45.2.88.2 to 45.2.88.1 (register 1.176.0)
 Proposed Response Response Status O

Cl 45 SC 45.2.1.89 P28 L40 # 1977
 Dawes, Piers Avago
 Comment Type TR Comment Status X
 Need an entry for strong FEC enable (even if in 10G-EPON it's always on)
 SuggestedRemedy
 In the table for 10GBASE-PR FEC control register bit definitions, insert a row for strong FEC enable, 1 = enabled. You can make it read-only.
 Proposed Response Response Status O

Cl 45 SC 45.2.1.89 P28 L46 # 2270
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 Subclauses 45.2.1.89.1 and 45.2.1.89.2 do not follow the structure of the remainder of definitions in subclause 45.2.1 i.e. definitions start from 1.177.0 while should start from 1.177.1 to keep consistency with the other subclauses.
 SuggestedRemedy
 Change current subclause 45.2.89.1 to 45.2.89.2 (register 1.177.1)
 Change current subclause 45.2.89.2 to 45.2.89.1 (register 1.177.0)
 Proposed Response Response Status O

Cl 45 SC 45.2.1.89.1 P28 L49 # 2408
 Mandin, Jeff PMC Sierra
 Comment Type T Comment Status X
 The description of the "FEC enable error indication" management parameter describes how the parameter is implemented in the PCS (ie. it creates an invalid value in the 2 bit sync header).
 Instead, it should describe the parameter from the management perspective ie. the parameter affects whether the receiver keeps or discards certain packets.
 SuggestedRemedy
 Modify 45.2.1.89.1 to read as follows:
 45.2.1.89.1 FEC enable error indication (1.177.0)
 This bit instructs the 10GBASE-PR FEC decoder to indicate decoding errors to the upper layers (see @@Subclause 45.2.1.84.2@@ and @@Subclause 74.8.3@@).
 When written as a one, the receiving PCS replaces 66B blocks received in uncorrectable FEC codewords with /E/ (ie. error codes). As a consequence, the receiving MAC discards any packet which includes data that was received in an uncorrectable FEC codeword (even though the packet itself might or might not contain errors).
 When written as a zero, the receiving PCS does not modify 66B blocks received in uncorrectable FEC codewords. As a consequence, the receiving MAC performs regular processing on a packet that includes data that was received in an uncorrectable FEC codeword (though the packet itself may contain errors which might or might not be detected by the MAC FCS).
 Proposed Response Response Status O

Cl 45 SC 45.2.1.89.2 P28 L49 # 181561
Lynskey, Eric Teknovus

Comment Type T Comment Status R resubmit

The two references in this subclause need to be updated.

SuggestedRemedy

Replace 45.3.2.84.2 with 45.2.1.88.2.
Replace 74.8.3 with 76.2.3.3.

Response Response Status C

== Resolution from Denver 0806 Meeting ==
REJECT.

This comment was WITHDRAWN by the commenter. To be resubmitted by TF Chair against next draft

Replace 45.2.1.84.2 with active link to 45.2.1.88.2
Replace 74.8.3 with active link to 76.2.3.3

=====

Cl 45 SC 45.2.1.90 P29 L # 1979
Dawes, Piers Avago

Comment Type TR Comment Status X

Description of reading a pair of registers, different to the other pair of registers forming a counter.

SuggestedRemedy

See text in 54.2 "In the case of two registers that together form a 32-bit counter...". Unless you have a strong reason to be different, refer to that, swap the two registers, and mark the registers "MW = Multi-word". See 45.2.6.12 10P/2B TPS-TC coding violations counter (Registers 6.25, 6.26) for an (the?) example. I've made this a TR to encourage you to agree what to do with the working group chair or his delegate, not because I think this is the only possible remedy. Liaise with P802.3ba.

Proposed Response Response Status O

Cl 45 SC 45.2.1.90 P29 L1 # 2330
Hajduczenia, Marek Nokia Siemens Networ

Comment Type T Comment Status X

Subclause 45.2 says "In the case of two registers that together form a 32-bit counter, whenever the most significant 16-bit register of the counter is read, the 32-bit counter value is latched into the register pair, the value being latched before the contents of the most significant 16 bits are driven on the MDIO interface and the contents of both registers is cleared to all zeros. A subsequent read from the least significant 16-bit register will return the least significant 16 bits of the latched value, but will not change the contents of the register pair. Writing to these registers has no effect. Counters that adhere to this behaviour are marked in their bit definition tables with the tag "MW = Multi-word". The registers 1.178, 1.179, 1.180, 1.181 should be marked as WM instead of NR. A detailed list of changes in the field "Suggested Remedy"

SuggestedRemedy

List of changes:
In subclause 45.2.1.90, Table 45-67, register 1.178.15:0, column R/W: RO, MW
In subclause 45.2.1.90, Table 45-67, register 1.179.15:0, column R/W: RO, MW
In subclause 45.2.1.91, Table 45-68, register 1.180.15:0, column R/W: RO, MW
In subclause 45.2.1.91, Table 45-68, register 1.181.15:0, column R/W: RO, MW
Replace footnote to Table 45-67, Table 45-68 from "aRO = Read only, NR = Non Roll-over" to "aRO = Read only, MW = Multi-Word"
Remove the following text from 45.2.1.90: "Registers 1.178, 1.179 are used to read the value of a 32-bit counter. When registers 1.178 and 1.179 are used to read the 32-bit counter value, the register 1.178 is read first, the value of the register 1.179 is latched when (and only when) register 1.178 is read and reads of register 1.179 returns the latched value rather than the current value of the counter."
Remove the following text from 45.2.1.91: "Registers 1.180, 1.181 are used to read the value of a 32-bit counter. When registers 1.180 and 1.181 are used to read the 32-bit counter value, the register 1.180 is read first, the value of the register 1.181 is latched when (and only when) register 1.180 is read and reads of register 1.181 returns the latched value rather than the current value of the counter."

Proposed Response Response Status O

Cl 45 SC 45.2.1.90 P29 L4 # 181562
 Lynskey, Eric Teknovus
 Comment Type T Comment Status R resubmit
 Reference to Clause 74.
 [GK] Also page 28 line 54 and page 29 line 27
 SuggestedRemedy
 Remove the sentence.
 Response Response Status C

== Resolution from Denver 0806 Meeting ==
 REJECT.

This comment was WITHDRAWN by the commenter. To be resubmitted by TF Chair against next draft

Change reference to 76.2.3.3.2

Add to 76.2.3.3.2
 FEC_corrected_blocks_counter
 TYPE: 32 bit non Roll-over counter
 A corrected block is an FEC block that has invalid parity, and has been corrected by the FEC decoder. FEC_corrected_blocks_counter counts once for each corrected FEC blocks processed when decode_done and decode_success are True. This counter is provided by a management interface that may be mapped to the 45.2.1.90 register (1.178, 1.179).

=====

Cl 45 SC 45.2.1.90 P29 L5 # 1978
 Dawes, Piers Avago
 Comment Type T Comment Status X
 It's not PHY reset; MMDs can be reset independently
 SuggestedRemedy
 Depending where the register ends up, PCS reset or whatever, or MMD reset.
 Proposed Response Response Status O

Cl 45 SC 45.2.1.91 P29 L26 # 2103
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 Clause refers to an incorrect PHY
 SuggestedRemedy
 10GBASE-R should be 10GBASE-PR
 Proposed Response Response Status O

Cl 45 SC 45.2.1.91 P29 L27 # 181563
 Lynskey, Eric Teknovus
 Comment Type T Comment Status R resubmit
 Reference to Clause 74.
 SuggestedRemedy
 Remove the sentence.
 Response Response Status C

== Resolution from Denver 0806 Meeting ==
 REJECT.

This comment was WITHDRAWN by the commenter. To be resubmitted by TF Chair against next draft

Change reference to 76.2.3.3.2

Add to 76.2.3.3.2
 FEC_uncorrected_blocks_counter
 TYPE: 32 bit non Roll-over counter
 An uncorrected block is an FEC block that has invalid parity, and has not been corrected by the FEC decoder.
 FEC_uncorrected_blocks_counter counts once for each uncorrected FEC blocks processed when decode_done is True and decode_success is False. This is a 32-bit counter. This variable is provided by a management interface that may be mapped to the 45.2.1.91 register (1.174, 1.175).

=====

CI 45 SC 45.2.1.92 P16 L28 # 1692
 Lin, Rujian Shanghai Luster Terab

Comment Type E Comment Status X
 In Table 45-69, for Bit(s)1.182.1, Description "In the OLT, this bit always has a value of 1" is incorrect.

SuggestedRemedy
 Change to "In the ONU, this bit always has a value of 1"

Proposed Response Response Status O

CI 45 SC 45.2.1.92 P16 L31 # 1693
 Lin, Rujian Shanghai Luster Terab

Comment Type E Comment Status X
 In Table 45-69, for Bit(s)1.182.0, Description "In the ONU, this bit always has a value of 1" is incorrect.

SuggestedRemedy
 Change to "In the OLT, this bit always has a value of 1"

Proposed Response Response Status O

CI 45 SC 45.2.188 P27 L46 # 2257
 Ganga, Ilango Intel

Comment Type TR Comment Status X
 Register 1.176 through 1.179 is not listed in 45.2.1 (Table 45-3) in 802.3av document. This is a reserved field in 802.3-2008 (802.3ay/D2.3). IEEE 802.3ba has used the register range 1.176 through 1.309, with the assumption that 802.3av is using register 1.310 to 1.319.

Reconcile the difference with 802.3ba. List the PR FEC registers in Table 45-3 so it is understood that 802.3av is using these registers.

SuggestedRemedy
 As per comment

Proposed Response Response Status O

CI 45 SC 45.2.188 P28 L4 # 2253
 Ganga, Ilango Intel

Comment Type ER Comment Status X
 Table 45-65 through 45-68 is already used in 802.3-2008 (.3ay/2.3) for WIS registers.

Hence use a dummy number (alpha numeric) for new tables (to avoid conflict with existing tables) and provide renumbering instructions as appropriate.

SuggestedRemedy
 Per comment

Proposed Response Response Status O

CI 45 SC 45.2.3 P30 L20 # 2271
 Hajduczenia, Marek Nokia Siemens Networ

Comment Type E Comment Status X
 Missing space in row 8, for 0010 10/1Gb/s.
 Is "10/1Gb/s", should be "10/1 Gb/s".

SuggestedRemedy
 Is "10/1Gb/s", should be "10/1 Gb/s" (missing space)

Proposed Response Response Status O

CI 45 SC 45.2.3 P30 L6 # 2254
 Ganga, Ilango Intel

Comment Type ER Comment Status X
 Provide table title with Table number for the PCS registers listed in this page.

SuggestedRemedy
 As per comment.

Proposed Response Response Status O

Cl 45 SC 45.2.3.29 P30 L27 # 181564
Lynskey, Eric Teknovus

Comment Type T Comment Status R resubmit

There is some missing description of the BER monitor behavior. Back in 3av_0801_mandin_2.pdf, the idea was to set the hi_ber flag in the 10GBASE-R and 10GBASE-T status register. If we still want to do that, then we need to add and show the modified register definition. The other option would be to create a new register only for PR and PRX. Since we've added register 3.74, it may make sense to put this functionality here and update the Clause 76 text as appropriate. Also, 10GBASE-R and 10GBASE-T have another register that represents a latched version of the high BER flag. We need to decide if we want this functionality, too.

SuggestedRemedy

Create new 10GBASE-PR and 10/1GBASE-PRX BER Monitor Status register modeled after 10GBASE-R status and 10GBASE-R status 2 registers.

Response Response Status C

== Resolution from Denver 0806 Meeting ==
REJECT.

This comment was WITHDRAWN by the commenter. To be resubmitted by commenter against next draft

=====

Cl 45 SC 45.2.3.29 P30 L30 # 1680
Jessica, Jiang Salira

Comment Type E Comment Status X

"10GBASE-R" should be "10GBASE-PR"

SuggestedRemedy

change "10GBASE-R" to "10GBASE-PR"

Proposed Response Response Status O

Cl 45 SC 45.2.3.29 P30 L30 # 2104
Kramer, Glen Teknovus, Inc.

Comment Type T Comment Status X

subclause refers to incorrect PHY

SuggestedRemedy

10GBASE-R should be 10GBASE-PR

Proposed Response Response Status O

Cl 45 SC 45.2.3.29 P30 L32 # 181553
Lynskey, Eric Teknovus

Comment Type E Comment Status R resubmit

Cross reference refers to subclause that doesn't exist.

SuggestedRemedy

Replace with 76.2.3.4 and provide linked cross reference so it will update and be correct if subclause numbering changes.

Response Response Status C

== Resolution from Denver 0806 Meeting ==
REJECT.

This comment was WITHDRAWN by the commenter. To be resubmitted by TF Chair against next draft

Replace with active link.

=====

Cl 45 SC 45.5 P31 L4 # 2255
Ganga, Ilango Intel

Comment Type ER Comment Status X

Update appropriate PICS tables as applicable to 802.3av

SuggestedRemedy

Per comment

Proposed Response Response Status O

Cl 56 SC 1 P34 L19 # 2418
 DIAB, WAEL BROADCOM
 Comment Type ER Comment Status X
 Two different styles are used to reference the 1Gb/s and 10G EPON systems. Please make consistant
 SuggestedRemedy
 Change 10G-EPON to 10Gb/s EPON
 Proposed Response Response Status O

Cl 56 SC 1.3 P39 L12 # 1690
 Joergensen, Thomas Vitesse Semiconducto
 Comment Type E Comment Status X
 In items c) to h) the split ratio is defined to be "at least" 1/16 and 1/32. I think that 1/16 and 1/32 are the maximum split ratios
 SuggestedRemedy
 Delete "at least" or replace it with "up to"
 Proposed Response Response Status O

Cl 56 SC 1.2 P38 L11 # 2422
 DIAB, WAEL BROADCOM
 Comment Type TR Comment Status X
 1000 Mb1 Gb/s is incorrect
 SuggestedRemedy
 Change to 1000 Mb/s,
 Proposed Response Response Status O

Cl 56 SC 1.3 P40 L # 2421
 DIAB, WAEL BROADCOM
 Comment Type TR Comment Status X
 The replacement of Table 56-1 is missing the Cu PMDs. In 802,3-2005 those appear on the next page a continued table, perhaps that is why they were missed.
 SuggestedRemedy
 Please add the 4 Cu PMDs back
 Proposed Response Response Status O

Cl 56 SC 1.2 P38 L12 # 1762
 KIMURA, Mitsunobu Hitachi Communicatio
 Comment Type E Comment Status X
 "bit rate of 1000Mb1 Gb/s" is wrongly typed.
 SuggestedRemedy
 "bit rate of 1 Gb/s"
 Proposed Response Response Status O

Cl 56 SC 1.3 P40 L46 # 1763
 KIMURA, Mitsunobu Hitachi Communicatio
 Comment Type E Comment Status X
 "while Table 56-3specifies" needs a space.
 SuggestedRemedy
 "while Table 56-3 specifies"
 Proposed Response Response Status O

Cl 56 SC 1.2 P38 L21 # 2419
 DIAB, WAEL BROADCOM
 Comment Type T Comment Status X
 Under section (b) there is no mention of what PCS is used for the case of 1Gb/s upstream
 SuggestedRemedy
 Please add the reference and pointer to the appropriate clauses
 Proposed Response Response Status O

Cl 56 SC 1.3 P40 L47 # 2165
 Bennett, Michael LBNL
 Comment Type E Comment Status X
 Table 56-3specifies ... needs a space inserted between the "3" and "s"
 SuggestedRemedy
 replace with the follwing text
 Table 56-3 specifies
 Proposed Response Response Status O

Cl 56 SC 1.3 P42 L # 2423
 DIAB, WAEL BROADCOM
 Comment Type TR Comment Status X
 Tale 56-3 has incorrect PMD names for 10GBASE PMDs
 SuggestedRemedy
 Change PX to PR
 Proposed Response Response Status O

Cl 56 SC 1.3 P42 L15 # 1764
 KIMURA, Mitsunobu Hitachi Communicatio
 Comment Type E Comment Status X
 "10G-EPN" is not defined abbreviation.
 SuggestedRemedy
 "10G-EPON"
 Proposed Response Response Status O

Cl 56 SC 56.1 P34 L19 # 1980
 Dawes, Piers Avago
 Comment Type TR Comment Status X
 You can't reasonably call any PON "symmetric"; as 64.1 says, "P2MP is an asymmetrical medium based on a tree (or tree-and-branch) topology" (and see footnote a to Table 56-1), and as 76 says "The architecture is asymmetrical, based on a tree and branch topology". Also, the 1000BASE-PX is just as "symmetric" (or not) as 10GBASE-PR. Calling 1000BASE-PX "legacy" is pejorative; 802.3 has not decided to mark it as not recommended.
 SuggestedRemedy

In nearly every case, just delete "symmetric" and "asymmetric" and "legacy". Occasionally substitute "10G", "10/1G" or "10 Gb/s" or "1 Gb/s" and so on. This will make the document more readable as well as more correct.

Proposed Response Response Status O

Cl 56 SC 56.1 P34 L19 # 2273
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 Is "1Gb/s", should be "1 Gb/s" (missing space)
 SuggestedRemedy
 Is "1Gb/s", should be "1 Gb/s" (missing space)
 Proposed Response Response Status O

Cl 56 SC 56.1 P34 L20 # 2294
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 Spelling error. Is "Figuire", should be "Figure"
 SuggestedRemedy
 Spelling error. Is "Figuire", should be "Figure"
 Proposed Response Response Status O

Cl 56 **SC 56.1** **P34** **L 20** # **1993**
 Alan, Brown Wave7 Optics, Inc.
Comment Type **E** *Comment Status* **X**
 Correctly spell "Figure".
SuggestedRemedy
 Correctly spell "Figure".
Proposed Response *Response Status* **O**

Cl 56 **SC 56.1** **P34** **L 20** # **1749**
 LANDRY, MATTHEW SILICON LABS
Comment Type **E** *Comment Status* **X**
 "Figure" misspelled.
SuggestedRemedy
 Replace "Figiuere" with "Figure"
Proposed Response *Response Status* **O**

Cl 56 **SC 56.1** **P34** **L 20** # **1666**
 Marris, Arthur Cadence
Comment Type **E** *Comment Status* **X**
 Spelling 'Figure'
SuggestedRemedy
 Figure
Proposed Response *Response Status* **O**

Cl 56 **SC 56.1** **P34** **L 31** # **1981**
 Dawes, Piers Avago
Comment Type **T** *Comment Status* **X**
 Terminology: line 12 says "EFM also introduces the concept of Ethernet Passive Optical Networks (EPONs)": I think this is how the world will use the term: any 802.3 PON is an EPON. While line 34 says "In the following clauses, the symmetric 1 Gb/s EPON is referred to as EPON, while symmetric 10 Gb/s and asymmetric EPONs are referred to as 10G-EPON."
SuggestedRemedy
 Where necessary, this document needs to say "1G-EPON" rather than just "EPON". See another comment about "symmetric". So, "In the following clauses, the 1 Gb/s EPON is referred to as 1G-EPON, while 10 Gb/s EPONs are referred to as 10G-EPON, and EPONs with 10 Gb/s in the downstream direction and 1 Gb/s upstream are referred to as 10/1G-EPON."
Proposed Response *Response Status* **O**

Cl 56 **SC 56.1** **P34** **L 619** # **1694**
 Lin, Rujian Shanghai Luster Terab
Comment Type **E** *Comment Status* **X**
 In Subclause 56.1 Overview, Subclause 56.1.1 is absent.
 Although the text in line 19 reads "Shown in Figure 56-1", Figure 56-1 is absent.
SuggestedRemedy
 Add "Subclause 56.1.1 Ethernet in the First Mile Topology".
 Add Figure 56-1--The Relationship between EFM and OSI Reference Model on Page 34.
Proposed Response *Response Status* **O**

Cl 56 SC 56.1 P35 L2 # 1982
Dawes, Piers Avago

Comment Type ER Comment Status X

Lots of SHOUTY ALL-CAPITALS! Style guide says a standard should have consistent figures: ALL CAPS or not. The overwhelming majority of 802.3 figures use mixed upper and lower case, as does ISO/IEC 7498-1. I have looked for a reason why a layer diagram should be different and found none - only a hypothesis that the original one was done a very long time ago and has been copied and copied while the document style and the style guide have evolved. There are good reasons for leaving old material alone (time, risk of corruption) but that doesn't apply to diagrams introduced or changed in an active project.

SuggestedRemedy

Change Fig 56-2, 76-6, 76-8, 31C-1 and all similar figures to mixed upper and lower case. In layer diagrams, consider underlining "OSI Reference Model layers" and "LAN CSMA/CD layers" to distinguish these headings from the layers they refer to.

Proposed Response Response Status O

Cl 56 SC 56.1 P35 L2 # 1983
Dawes, Piers Avago

Comment Type ER Comment Status X

Font too small. Should be 8 point where space allows: see style guide. You've got the space here and the text will get shorter when you use lower case appropriately

SuggestedRemedy

Change all the 7 point text to 8 point in this and similar figures, also 76-8 and similar.

Proposed Response Response Status O

Cl 56 SC 56.1 P35 L49 # 2274
Hajduczenia, Marek Nokia Siemens Network

Comment Type E Comment Status X

Inconsistent figure caption. 10G-EPON is used in captions of Figure 65-3 and Figure 56-4. Figure 56-2 caption should read as follows "Architectural positioning of EFM: P2MP symmetric EPON architecture (1 Gb/s downstream, 1 Gb/s upstream)"

SuggestedRemedy

Change Figure 56-2 caption to read as follows "Architectural positioning of EFM: P2MP symmetric EPON architecture (1 Gb/s downstream, 1 Gb/s upstream)"

Proposed Response Response Status O

Cl 56 SC 56.1.2 P38 L10 # 1984
Dawes, Piers Avago

Comment Type T Comment Status X

Claiming that there are "two systems" is too phoney. Apart from the several budget options, there are obviously three. Editorial and other corrections and (IMHO) improvements.

SuggestedRemedy

For P2MP optical fiber topologies, EFM defines three EPON families: a) 1G-EPON with a nominal bit rate of 1 Gb/s, shared amongst the population of Optical Network Units (ONUs) attached to the P2MP topology. The 1 Gb/s P2MP PHYs use the 1000BASE-X Physical Coding Sublayer (PCS) of 36.2 and 65.2.2, the Physical Medium Attachment (PMA) sublayer of 36.3 and 65.3, and an optional forward error correction (FEC) function defined in 65.2.3; b) 10G-EPON with a nominal bit rate of 10 Gb/s. The 10 Gb/s P2MP PHYs use the PCS of Clause 66 and 76.2, including a mandatory FEC function and the PMA of Clause 51 and 76.3; c) 10/1G-EPON with a nominal bit rate of 10 Gb/s in the downstream direction and 1 Gb/s upstream, using a combination of the sublayers for 1G-EPON and 10G-EPON.

Proposed Response Response Status O

Cl 56 SC 56.1.2 P38 L11 # 1750
LANDRY, MATTHEW SILICON LABS

Comment Type E Comment Status X

There appears to be some error in wording or simply confusion on my part: "PON with a symmetric, EFM supports a nominal bit rate of 1000 Mb1 Gb/s ..."

The first clause seems incomplete. The Mb-Gb part seems muddled.

SuggestedRemedy

If the wording is correct and I am just misunderstanding, do nothing. If not, correct as appropriate.

Proposed Response Response Status O

Cl 56 SC 56.1.2 P38 L11 # 1802
 Flatman, Alan LAN Technologies
 Comment Type E Comment Status X
 This sentence does not make sense.
 SuggestedRemedy
 Improve wording to make sense.
 Proposed Response Response Status O

Cl 56 SC 56.1.2 P38 L11 # 2015
 Frazier, Howard Broadcom
 Comment Type ER Comment Status X
 extraneous words "EFM supports a".
 SuggestedRemedy
 delete extraneous words "EFM supports a".
 Proposed Response Response Status O

Cl 56 SC 56.1.2 P38 L12 # 1695
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 PON with a symmetric, EFM supports a nominal bit rate of 1000 Mb1 Gb/s,
 SuggestedRemedy
 Corrected to "PON with a symmetric EFM supports a nominal bit rate of 1000 Mb/s",
 Proposed Response Response Status O

Cl 56 SC 56.1.2 P38 L12 # 2275
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type ER Comment Status X
 Incorrect text in the bullet a, reading "PON with a symmetric, EFM supports a nominal bit rate of 1000 Mb1 Gb/s,". Text needs to be changed as provided in the suggested remedy.
 SuggestedRemedy
 Change "PON with a symmetric, EFM supports a nominal bit rate of 1000 Mb1 Gb/s, " to "PON with a symmetric, nominal bit rate of 1000 Mb/s, "
 Proposed Response Response Status O

Cl 56 SC 56.1.2 P38 L12 # 1681
 Jessica, Jiang Salira
 Comment Type E Comment Status X
 typo "1000 Mb1 Gb/s"
 SuggestedRemedy
 remove "b1"
 Proposed Response Response Status O

Cl 56 SC 56.1.2 P38 L14 # 2276
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 Double hyphen in the PMD name. Is "1000BASE--X", should be "1000BASE-X"
 SuggestedRemedy
 Is "1000BASE--X", should be "1000BASE-X"
 Proposed Response Response Status O

Cl 56 SC 56.1.2 P38 L15 # 1751
LANDRY, MATTHEW SILICON LABS

Comment Type E Comment Status X

Regarding "Clause 65@@Clause 60@@" I am not sure why the 'external' link does not match the 'local' reference. Further, why is there both a local reference and an external link?

On line 16 there appear to be two local links, which both agree in number. And on line 21 there is only an external link. Line 48 has lopsided ampersand delimiters.

I believe I understand wanting to mark external links with ampersands. I don't fully comprehend the unpredictable use of local links concurrent with external links, especially when they sometimes don't agree.

SuggestedRemedy

Check links for proper reference, and eliminate unneeded links, either local or external.

Proposed Response Response Status O

Cl 56 SC 56.1.2 P38 L15 # 2277
Hajduczenia, Marek Nokia Siemens Networ

Comment Type ER Comment Status X

Lines 15 through 17 are affected.
Text "layer defined in Clause 65@@Clause 60@@", and an optional FEC Forward Error Correction (FEC) function defined in Clause 65.Clause 65;" contains several errors:
- Doubled reference to Clause 65
- Reference to Clause 65 and then 60.
Change the indicated block of text as proposed in the suggested remedy.

SuggestedRemedy

Suggest to change the text:
"layer defined in Clause 65@@Clause 60@@", and an optional FEC Forward Error Correction (FEC) function defined in Clause 65.Clause 65;"
to
"layer defined in @@Clause 65@@, and an optional FEC Forward Error Correction (FEC) function defined in @@Clause 65@@;"

Proposed Response Response Status O

Cl 56 SC 56.1.2 P38 L1617 # 1696
Lin, Rujian Shanghai Luster Terab

Comment Type E Comment Status X

the Physical Medium Attachment(PMA) sublayer defined in Cause 65 @@Clause 60@@,

SuggestedRemedy

Corrected to "the Physical Medium Attachment(PMA) sublayer defined in Cause 65 ,

Proposed Response Response Status O

Cl 56 SC 56.1.2 P38 L20 # 1687
Jessica, Jiang Salira

Comment Type ER Comment Status X

The sentence is not very clear on the following:
1) PCS is not only 10GBASE-R
2) mandatory FEC is applied only for 10Gbps data.

Suggest to rephrase the sentence.

SuggestedRemedy

Proposed Response Response Status O

Cl 56 SC 56.1.2 P38 L20 # 2278
Hajduczenia, Marek Nokia Siemens Networ

Comment Type T Comment Status X

10G-EPON does not use 10GBASE-R PCS but defined its own PCS i.e. 10GBASE-PR.
Change reference to "10GBASE-R" PCS to "10GBASE-PR" PCS

SuggestedRemedy

Change "use the 10GBASE-R PCS" to "use the 10GBASE-PR PCS defined in @@Clause 76@@".
Make sure that the "@@Clause 76@@" is changed to a live cross reference link.

Proposed Response Response Status O

Cl 56 SC 56.1.2 P38 L21 # 1667
 Marris, Arthur Cadence
 Comment Type E Comment Status X
 Spelling 'an'
 SuggestedRemedy
 Replace 'an' with 'a'
 Proposed Response Response Status O

Cl 56 SC 56.1.2.1 P38 L27 # 1697
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 state diagrams,
 SuggestedRemedy
 state diagrams
 Proposed Response Response Status O

Cl 56 SC 56.1.2 P38 L46 # 2396
 Law, David 3Com
 Comment Type T Comment Status X
 A 'frame' or 'MAC frame' is from the Destination Address to Frame Check Sequence inclusive, a 'packet' or 'MAC packet' is a MAC frame plus Preamble, Start Frame Delimiter and Extension.
 Based on this the LLID replaces the first two bytes of a packet.
 SuggestedRemedy
 Change the text 'It achieves this by prepending a Logical Link Identification (LLID) to the beginning of each data frame, replacing two octets of the preamble.' to read 'It achieves this by providing a Logical Link Identification (LLID) in each packet by replacing two octets of the preamble.'
 Proposed Response Response Status O

Cl 56 SC 56.1.2.1 P38 L28 # 2004
 Frazier, Howard Broadcom
 Comment Type E Comment Status X
 "The issues related with coexistence..." s/b "The issues related to coexistence...".
 SuggestedRemedy
 change as suggested.
 Proposed Response Response Status O

Cl 56 SC 56.1.2 P41 L14 # 2259
 Chalupsky, David Intel Corp.
 Comment Type E Comment Status X
 This sentence (which begins at line 14) is not clear "PON with a symmetric, EFM supports a nominal bit rate of 1000 Mb1 Gb/s, shared amongst the population of Optical Network Units (ONUs) attached to the P2MP topology."
 SuggestedRemedy
 Not sure what the intent was, but if I interpret this correctly, replace the first sentence (starting at line 14) with "PON with a symmetric nominal bit rate of 1 Gb/s, shared amongst the population of Optical Network Units (ONUs) attached to the P2MP topology."
 Proposed Response Response Status O

Cl 56 SC 56.1.2.1 P38 L31 # 1698
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 more ONUs
 SuggestedRemedy
 more Optical Network Units(ONUs)
 Proposed Response Response Status O

CI 56 SC 56.1.2.1 P38 L 32 # 2279
Hajduczenia, Marek Nokia Siemens Networ

Comment Type E Comment Status X

Text refers to Figure 56-2 only, while Figure 56-3 and 56-4 were added. Text "Every P2MP topology consists of one Optical Line Terminal (OLT) plus one or more ONUs, as shown in Figure 56-2." needs an update, as suggested in the remedy.

SuggestedRemedy

Change
"Every P2MP topology consists of one Optical Line Terminal (OLT) plus one or more ONUs, as shown in Figure 56-2."
to
"Every P2MP topology consists of one Optical Line Terminal (OLT) plus one or more ONUs, as shown in Figure 56-2, Figure 56-3 and Figure 56-4, for EPON, symmetric 10G-EPON and asymmetric 10G-EPON, respectively."
Make sure that the links to Figures are live cross references.

Proposed Response Response Status O

CI 56 SC 56.1.2.1 P38 L 38 # 1699
Lin, Rujian Shanghai Luster Terab

Comment Type E Comment Status X

XGMII, are

SuggestedRemedy

XGMII are

Proposed Response Response Status O

CI 56 SC 56.1.2.2 P38 L 40 # 2280
Hajduczenia, Marek Nokia Siemens Networ

Comment Type T Comment Status X

Lines 40 and 41 are affected.
Statement about extending 10GBASE-R PCS is not true, since 10G-EPON defines its own PCS. Text "while extensions to the Clause 46 RS for P2MP topologies are described in Clause 76" needs thus extensions as provided in the suggested remedy.

SuggestedRemedy

Change
"while extensions to the Clause 46 RS for P2MP topologies are described in Clause 76"
to
"while RS for 10G-EPON P2MP topologies is described in Clause 76"
Make sure "Clause 76" is a live cross reference.

Proposed Response Response Status O

CI 56 SC 56.1.2.2 P38 L 43 # 2005
Frazier, Howard Broadcom

Comment Type E Comment Status X
extraneous "RS".

SuggestedRemedy

delete

Proposed Response Response Status O

CI 56 SC 56.1.2.2 P38 L 43 # 1700
Lin, Rujian Shanghai Luster Terab

Comment Type E Comment Status X
the Reconciliation Sublayer(RS) RS for P2P Emulation

SuggestedRemedy

RS for P2P Emulation

Proposed Response Response Status O

Cl 56 SC 56.1.3 P34 L 34 # 1754
 Hirth, Ryan Teknovus
 Comment Type E Comment Status X
 10/1GBASE-PRX-U4 should be 10/1GBASE-PRX-U3
 SuggestedRemedy
 change "U4" to "U3"
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P39 L 10 # 1994
 Alan, Brown Wave7 Optics, Inc.
 Comment Type E Comment Status X
 List begins with "c)".
 SuggestedRemedy
 Change list to begin with "a)".
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P39 L 1025 # 1701
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 c) d) e) f) g) h)
 SuggestedRemedy
 Re-order as a) b) c) d) e) f).
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P39 L 16 # 2394
 Law, David 3Com
 Comment Type T Comment Status X
 Doesn't the combination of a 10GBASE-PR-D3 PHY and a 10GBASE-PR-U3 PHY
 produce a PR30 power budget, similarly doesn't the combination of a 10/1GBASE-PRX-
 D3 PHY and a 10/1GBASE-PRX-U3 PHY produce a PRX30 power budget.
 SuggestedRemedy
 On line 16 change '.. PR10 power budget ..' to read '.. PR30 power budget ..'.
 On line 25 change '.. PRX10 power budget ..' to read '.. PRX30 power budget ..'.
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P39 L 16 # 2000
 Alan, Brown Wave7 Optics, Inc.
 Comment Type ER Comment Status X
 Third list item references incorrect power budget.
 SuggestedRemedy
 Correct "PR10 power budget" to "PR30 power budget".
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P39 L 16 # 1702
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 10GBASE-PR-D3 and 10GBASE-PR-U3, creating a PR-10 power budget,
 SuggestedRemedy
 Corrected to "10GBASE-PR-D3 and 10GBASE-PR-U3, creating a PR-30 power budget",
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P39 L16 # 2023
 Frazier, Howard Broadcom
 Comment Type TR Comment Status X
 "PR10 power budget" s/b "PR30 power budget"
 SuggestedRemedy
 change as suggested
 Proposed Response Response Status

Cl 56 SC 56.1.3 P39 L22 # 2001
 Alan, Brown Wave7 Optics, Inc.
 Comment Type ER Comment Status X
 Fifth list item references incorrect PMD.
 SuggestedRemedy
 Correct "10/1GBASE-PRX-U1" to "10/1GBASE-PRX-U2".
 Proposed Response Response Status

Cl 56 SC 56.1.3 P39 L19 # 1682
 Jessica, Jiang Salira
 Comment Type E Comment Status X
 typo "10/1GBASE-PR-U1" should be "10/1GBASE-PRX-U1"
 SuggestedRemedy
 change "10/1GBASE-PR-U1" to "10/1GBASE-PRX-U1"
 Proposed Response Response Status

Cl 56 SC 56.1.3 P39 L22 # 1683
 Jessica, Jiang Salira
 Comment Type E Comment Status X
 typo "10/1GBASE-PRX-U1" should be "10/1GBASE-PRX-U2"
 SuggestedRemedy
 change "10/1GBASE-PRX-U1" to "10/1GBASE-PRX-U2"
 Proposed Response Response Status

Cl 56 SC 56.1.3 P39 L2 # 1712
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 There is no sentence describing Table 56-1
 SuggestedRemedy
 Add one sentence to describe Table 56-1
 Proposed Response Response Status

Cl 56 SC 56.1.3 P39 L25 # 1704
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 10/1GBASE-PRX-D3 and 10/1GBASE-PRX-U3, creating a PRX10 power budget,
 SuggestedRemedy
 Corrected as "10/1GBASE-PRX-D3 and 10/1GBASE-PRX-U3, creating a PRX30 power budget",
 Proposed Response Response Status

Cl 56 SC 56.1.3 P39 L22 # 1703
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 10/1GBASE-PRX-D2 and 10/1GBASE-PRX-U1, creating a PRX20 power budget,
 SuggestedRemedy
 Corrected as "10/1GBASE-PRX-D2 and 10/1GBASE-PRX-U2, creating a PRX20 power budget",
 Proposed Response Response Status

Cl 56 SC 56.1.3 P39 L25 # 2024
 Frazier, Howard Broadcom
 Comment Type TR Comment Status X
 "PRX10 power budget" s/b "PRX30 power budget"
 SuggestedRemedy
 change as suggested
 Proposed Response Response Status

Cl 56 SC 56.1.3 P39 L 29 # 2393
Law, David 3Com

Comment Type T Comment Status X

The text about associated PMDs should be included before the list, in addition this subclause is discussion Physical layer signaling systems, not just PMDs, so that should be reflected in the introduction to the lettered list.

SuggestedRemedy

Change the text:

'.. FEC capability, as defined in @@Clause 76@@. The family of P2MP Physical Layer signaling systems includes the following series of PMD combinations:'

to read:

'.. FEC capability, as defined in @@Clause 76@@. All of these systems employ the PMD defined in Clause 75. This family of P2MP Physical Layer signaling systems includes the following series of PHY combinations:'.

Proposed Response Response Status O

Cl 56 SC 56.1.3 P39 L 5 # 2261
Chalupsky, David Intel Corp.

Comment Type E Comment Status X

incomplete description: the sentence "Additionally, EFM introduces a family of Physical Layer signaling systems which are derived from 10GBASE-R, but which include extensions to the RS, PCS and PMA, along with a mandatory FEC capability, as defined in @@Clause 76@@" omits the fact that the upstream data in the PRX types use 1000BASE-X.

SuggestedRemedy

replace sentence with "Additionally, EFM introduces a family of Physical Layer signaling systems which are derived from 10GBASE-R and 1000BASE-X, but which include extensions to the RS, PCS and PMA, along with a mandatory FEC capability, as defined in @@Clause 76@@".

Or place the 1Gb reference in the following sentence:

"Additionally, EFM introduces a family of Physical Layer signaling systems which are derived from 10GBASE-R, but which include extensions to the RS, PCS and PMA, along with a mandatory FEC capability, as defined in @@Clause 76@@. The family of P2MP Physical Layer signaling systems utilizes 10GBASE-R signalling for the downstream direction while supporting both 10GBASE-R and 1000BASE-X upstream signalling in the following series of PMD combinations:"

Proposed Response Response Status O

Cl 56 SC 56.1.3 P39 L 6 # 2281
Hajduczenia, Marek Nokia Siemens Networ

Comment Type T Comment Status X

Lines 6 - 7 are affected.
Statement about extending 10GBASE-R RS, PCS and PMA is not true since 10G-EPON defines its own PCS and RS. Text "which are derived from 10GBASE-R, but which include extensions to the RS, PCS and PMA, along with a mandatory FEC capability, as defined in @@Clause 76@@" needs thus extensions as provided in the suggested remedy.

SuggestedRemedy

Change
"which are derived from 10GBASE-R, but which include extensions to the RS, PCS and PMA, along with a mandatory FEC capability, as defined in @@Clause 76@@"
to
"which are derived from 10GBASE-R, but include new 10GBASE-PR RS, PCS and PMA, featuring a mandatory FEC capability, as defined in @@Clause 76@@"

Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L1 # 2107
 Kramer, Glen Teknovus, Inc.
 Comment Type TR Comment Status X
 The proposed new table 56-1 misses 4 PMD types listed in 802.3ay D2.2
 SuggestedRemedy
 Add rows for
 10PASS-TS-O
 10PASS-TS-R
 2BASE-TL-O
 2BASE-TL-R
 See 802.3ay D2.2, page 5
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L24 # 2392
 Law, David 3Com
 Comment Type T Comment Status X
 Why is the Receive rate being used for the Rate column, for example for 10/1GBASE-PRX-D1 the rate is listed as 1000MB/s.
 SuggestedRemedy
 For each of the dual-rate PHYs list both the TX and RX rate, for example for the 10/1GBASE-PRX-D1 PHY list:
 10Gb/s transmit
 1000Mb/s receive
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L23 # 1705
 Lin, Rujian Shanghai Luster Terab
 Comment Type T Comment Status X
 In Table 56-1,
 10/1GBASE-PRX-D1 OLT 1000 Mb/s
 SuggestedRemedy
 Add: Table 56-1 Title
 Correction: 10/1GBASE-PRX-D1 OLT 10 Gb/s
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L25 # 1706
 Lin, Rujian Shanghai Luster Terab
 Comment Type T Comment Status X
 10/1GBASE-PRX-U1 ONU 10 Gb/s
 SuggestedRemedy
 Correction: 10/1GBASE-PRX-U1 ONU 1000 Mb/s
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L23 # 1753
 Hirth, Ryan Teknovus
 Comment Type E Comment Status X
 The rates for the 10/1GBASE-PRX PHYs are reversed. A "D" type PHY operates at 10Gbps and a "U" type PHY operates at 1Gbps.
 SuggestedRemedy
 Swap 1000Mb/s with 10Gb/s for PRX-D1 - D3.
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L26 # 1707
 Lin, Rujian Shanghai Luster Terab
 Comment Type T Comment Status X
 10/1GBASE-PRX-D2 OLT 1000 Mb/s
 SuggestedRemedy
 10/1GBASE-PRX-D2 OLT 10 Gb/s
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L 28 # 1708
 Lin, Rujian Shanghai Luster Terab
 Comment Type T Comment Status X
 10/1GBASE-PRX-U2 ONU 10 Gb/s
 SuggestedRemedy
 Correction: 10/1GBASE-PRX-U2 ONU 1000 Mb/s
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L 29 # 1709
 Lin, Rujian Shanghai Luster Terab
 Comment Type T Comment Status X
 10/1GBASE-PRX-D3 OLT 1000 Mb/s
 SuggestedRemedy
 Correction: 10/1GBASE-PRX-D3 OLT 10 Gb/s
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L 31 # 2105
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 Incorrect PMDs are listed in this table
 SuggestedRemedy
 10/1GBASE-PRX-U4 should be 10/1GBASE-PRX-U3
 10GBASE-PR-U2 does not exist. Remove the row.
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L 32 # 1995
 Alan, Brown Wave7 Optics, Inc.
 Comment Type E Comment Status X
 Delete non-specified physical layer signaling systems from Table 56.1. Lines 32 and 38.
 SuggestedRemedy
 Delete table row containing "10/1GBASE-PRX-U4".
 Delete table row containing "10/1GBASE-PR-U2".
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L 32 # 1710
 Lin, Rujian Shanghai Luster Terab
 Comment Type T Comment Status X
 10/1GBASE-PRX-U4 ONU 10 Gb/s
 SuggestedRemedy
 Correction: 10/1GBASE-PRX-U3 ONU 1000 Mb/s
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L 32 # 1684
 Jessica, Jiang Salira
 Comment Type E Comment Status X
 in the column of Name, "10/1GBASE-PRX-U4" does not exist
 SuggestedRemedy
 change to "10/1GBASE-PRX-U3"
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L 37 # 1985
 Dawes, Piers Avago
 Comment Type T Comment Status X
 10GBASE-PR-U2: does it exist?
 SuggestedRemedy
 Delete row? Also problem in Table 56-3.
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L 38 # 1685
 Jessica, Jiang Salira
 Comment Type E Comment Status X
 In the name column, "10GBASE-PR-U2" does not exist
 SuggestedRemedy
 change to "10GBASE-PR-U1"
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L 38 # 1711
 Lin, Rujian Shanghai Luster Terab
 Comment Type T Comment Status X
 10GBASE-PR-U2 ONU 10 Gb/s
 SuggestedRemedy
 Correction: 10GBASE-PR-U1 ONU 10 Gb/s
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L 43 # 2391
 Law, David 3Com
 Comment Type T Comment Status X
 The change instructions and this table could be misread as meaning that the rows for 10PASS-TS and 10BASE-TL (see IEEE Std 802.3-2005 page 5) which is not correct.
 SuggestedRemedy
 Make it clear these rows are not to be deleted.
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L 46 # 1713
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 Table 56 specifies.....
 SuggestedRemedy
 Table 56-2 specifies.....
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L 46 # 2106
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 "Table 56 specifies the correlation between nomenclature and clauses for P2P systems, while Table 56-3 specifies the correlation between nomenclature and clauses for P2MP systems."

There is no table 56
 SuggestedRemedy
 Use "Table 56-2 specifies the correlation between nomenclature and clauses for P2P systems, while Table 56-3 specifies the correlation between nomenclature and clauses for P2MP systems."
 Insert space after 56-3
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L 46 # 2282
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type ER Comment Status X
 Reference to Table 56 is unclear. Change line 40 as suggested in remedy field. Missing space in line 47 after "Table 56-3"
 SuggestedRemedy
 Change "Table 56 specifies the correlation" to "Table 56-2 specifies the correlation". Make sure link to "Table 56-2" is a live cross-reference.
 Change "while Table 56-3specifies " to "while Table 56-3 specifies ". Make sure link to "Table 56-3" is a live cross-reference.
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L 47 # 2006
 Frazier, Howard Broadcom
 Comment Type E Comment Status X
 missing space in "Table 56-3specifies".
 SuggestedRemedy
 insert a space
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P40 L 6 # 1809
 D'Ambrosia, John Force10 Networks
 Comment Type E Comment Status X
 the "@" signs in the table
 SuggestedRemedy
 delete @'s
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P42 L # 2390
 Law, David 3Com
 Comment Type T Comment Status X
 100BASE-LX10 and 1000BASE-LX10 are both footnoted as 'Symmetric' yet the 10GBASE-PR PHYs, which subclause 75.2.1.2 defines as Symmetric, is not so footnoted - this is confusing.
 Further in Clause 65 of IEEE Std 802.3-2005 it is stated that 'The architecture is asymmetrical, based on a tree and branch topology utilizing passive optical splitters.', so if the PON architecture is asymmetric it is odd to have 75.2.1.2 define 'Symmetric, 10Gb/s power budgets (PR type).
 This confusion is being caused by a lack of clarity between symmetric (P2P) and asymmetric (PON) architectures and symmetric (10GBASE-PR) and asymmetric (10/1GBASE-PRX) data rate PHYs which operate on an asymmetric architectures.
 SuggestedRemedy
 One option would be to remove the use of the term asymmetric architecture from Clause 64 and 65 - for example Clause 56 doesn't use that terminology in relation to PONs - then all is required is another annotation for this table.
 If if symmetric and asymmetric is still going to be used in both meanings qualify the new use with the words 'data rate'.
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P42 L 10 # 2364
 Law, David 3Com
 Comment Type E Comment Status X
 Add PMD to the end of the header text in all the columns from 10/1GBASE-PRX-D1 through to 10GBASE-PR-U3.
 SuggestedRemedy
 Change '10/1GBASE-PRX-D1' to read '10/1GBASE-PRX-D1 PMD'.
 Add 'PMD' to end of all other column headings.
 To '10GBASE-PR-U3' to read '10GBASE-PR-U3 PMD'.
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P42 L 10 # 1756
 Hirth, Ryan Teknovus
 Comment Type E Comment Status X
 in column 77 "10G-EPN P2MP MPMCS" should read "10G-EPON P2MP MPMC"
 SuggestedRemedy
 change "10G-EPN P2MP MPMCS" to "10G-EPON P2MP MPMC"
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P42 L 11 # 1996
 Alan, Brown Wave7 Optics, Inc.
 Comment Type E Comment Status X
 Missing comma.
 SuggestedRemedy
 Add comma as in "PMA, FEC".
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P42 L31 # 1755
 Hirth, Ryan Teknovus
 Comment Type E Comment Status X
 10GBASE-PX PHYs in table should read 10GBASE-PR.
 SuggestedRemedy
 change 10GBASE-PX-D1 to 10GBASE-PR-D1.
 change 10GBASE-PX-D2 to 10GBASE-PR-D2.
 change 10GBASE-PX-D3 to 10GBASE-PR-D3.
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P42 L32 # 2283
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type T Comment Status X
 Incorrect PMD names in Table 56-3 i.e.
 10GBASE-PX-D1
 10GBASE-PX-D2
 10GBASE-PX-D3
 Use the final format of Table 56-3 as provided in 3av_0809_hajduczenia_3.pdf
 SuggestedRemedy
 Change
 10GBASE-PX-D1 > 10GBASE-PR-D1
 10GBASE-PX-D2 > 10GBASE-PR-D2
 10GBASE-PX-D3 > 10GBASE-PR-D3
 Use the final format of Table 56-3 as provided in 3av_0809_hajduczenia_3.pdf
 Proposed Response Response Status O

Cl 56 SC 56.1.3 P42 L38 # 1686
 Jessica, Jiang Salira
 Comment Type E Comment Status X
 In table 56-3,
 1) in nameenclature column, 10GBASE-PX-D1,2,3 should be 10GBASE-PR-D1,2,3
 2) 10GBASE-PR-U2 does not exist
 3) the last two rows, the "M"s also need to modified.
 SuggestedRemedy
 1) change "10GBASE-PX-D1,2,3" to "10GBASE-PR-D1,2,3"
 2) delete the row of "10GBASE-PR-U2", i.e., the 3rd row from the bottom
 3) adjust the middle "M" for the last two rows.
 Proposed Response Response Status O

Cl 56 SC 56-1 P35 L1 # 1806
 D'Ambrosia, John Force10 Networks
 Comment Type E Comment Status X
 inconsistencies between this figure and how things are done in architectural positioning diagrams elsewhere in 802.3:
 1. use of lower case text
 2. reference to clause #'s in diagram
 3. drawing of interface between RS and PCS.
 SuggestedRemedy
 make all text caps
 delete clause # references in diagrams
 just have a single column connecting the two interfaces, not a box then column, then box.
 Proposed Response Response Status O

Cl 56 SC 56-1 P36 L1 # 1807
D'Ambrosia, John Force10 Networks

Comment Type E Comment Status X

inconsistencies between this figure and how things are done in architectural positioning diagrams elsewhere in 802.3:

1. use of lower case text
2. reference to clause #'s in diagram
3. drawing of interface between RS and PCS.

SuggestedRemedy

make all text caps
delete clause # references in diagrams
just have a single column connecting the two interfaces, not a box then column, then box.

Proposed Response Response Status O

Cl 56 SC 56-1 P37 L1 # 1808
D'Ambrosia, John Force10 Networks

Comment Type E Comment Status X

inconsistencies between this figure and how things are done in architectural positioning diagrams elsewhere in 802.3:

1. use of lower case text
2. reference to clause #'s in diagram
3. drawing of interface between RS and PCS.

SuggestedRemedy

make all text caps
delete clause # references in diagrams
just have a single column connecting the two interfaces, not a box then column, then box.

Proposed Response Response Status O

Cl 56 SC Table 56-3 P42 L # 2415
DIAB, WAEL BROADCOM

Comment Type E Comment Status X

EPON is not spelled correctly in the last column

SuggestedRemedy

Please fix spelling

Proposed Response Response Status O

Cl 66 SC 4.2.1 PNA L40 # 2173
Woodward, Ted Telcordia Technologie

Comment Type E Comment Status X

first paragraph of 66.4.2.1 appears as though it should be formatted as an editorial remark

SuggestedRemedy

reformat this paragraph

Proposed Response Response Status O

Cl 66 SC 4.2.1 PNA L44 # 2186
Woodward, Ted Telcordia Technologie

Comment Type T Comment Status X

This paragraph describes an extension of the local fault and remote fault behavior with and without a unidirectional capability. In the bi-directional case, it appears to eliminate any difference between the behavior under local or remote fault conditions, issuing IDLE characters in both cases.

SuggestedRemedy

Verify whether the behavior of the bi-directional PHY under conditions of local and remote fault are as desired. Consider including a diagram.

Proposed Response Response Status O

Cl 66 SC 4.2.3 PNA L20 # 2187
Woodward, Ted Telcordia Technologie

Comment Type T Comment Status X

The behavior in case '(b)' of this section is inconsistent with that described in 66.4.2.1. There also seems to be an editorial error -- the phrase 'idle control characters' seems like it should be deleted to make the inserted text sensible. If this is done, case (c) on line 27 is now consistent with case (b), but remains inconsistent with 66.4.2.1.

SuggestedRemedy

Clarify case (b), and harmonize this section with 66.4.2.1. It seems like this section is the correct one with the edit suggested above. Also consider a diagram indicating desired behavior for local / remote fault in the uni-directional and bi-directional case.

Proposed Response Response Status O

Cl 66 SC 5.4.5 PNA L4 # 2188
 Woodward, Ted Telcordia Technologie

Comment Type T Comment Status X

There is a table in this section without a table number. Also, the table describes identical bi-directional link behavior under local fault and remote fault conditions,(cases PF4 and PF5). Is this correct?

SuggestedRemedy
 Number the table, and make changes to PF4 and PF7 entries so that bi-directional links can distinguish a local fault from a remote fault.

Proposed Response Response Status O

Cl 66 SC 66.3.1 P44 L17 # 1668
 Marris, Arthur Cadence

Comment Type E Comment Status X

Spelling insertign

SuggestedRemedy
 inserting

Proposed Response Response Status O

Cl 66 SC 66.4 P44 L21 # 1986
 Dawes, Piers Avago

Comment Type T Comment Status X

This is really confusing. If 66.4 is all new for 10G-EPON, put it in 76.1, RS for 10GE-EPON. not 66. Also, what's the difference between this and 66.3?

SuggestedRemedy
 Move to 76.1. Add an informative NOTE in 66.3 pointing out that 10G RS for P2MP is different, referring to this. Add a NOTE in this saying that when link_fault = Local Fault, while 66.3 allows unidirectional transmission of frames in RF, 10G-EPON requires idles, optionally with unidirectional transmission of frames in idles. (if that is the case!)

Proposed Response Response Status O

Cl 66 SC 66.4.2.1 P44 L31 # 1669
 Marris, Arthur Cadence

Comment Type T Comment Status X

It is not clear what is being changed in 802.3av. It seems that idle is now sent instead of remote fault on local fault which does not seem right.

SuggestedRemedy
 Redraft this subclause so it is understandable.

Proposed Response Response Status O

Cl 66 SC 66.4.2.3 P45 L21 # 1670
 Marris, Arthur Cadence

Comment Type T Comment Status X

b) Idle control characters not under-lined. Remote fault not struck through.

SuggestedRemedy
 As above

Proposed Response Response Status O

Cl 66 SC 66.4.2.3 P45 L21 # 2025
 Frazier, Howard Broadcom

Comment Type TR Comment Status X

The words "Remote Fault Sequence ordered_sets" should appear with strikethroughs.

SuggestedRemedy
 strikethrough the offending words

Proposed Response Response Status O

Cl 66 SC 66.4.2.3 P45 L21 # 1987
 Dawes, Piers Avago
 Comment Type T Comment Status X
 "RS shall continuously generate Idle control characters Remote Fault Sequence ordered_sets."
 SuggestedRemedy
 Which is it? Idles or RF?
 Proposed Response Response Status O

Cl 66 SC 66.5 P45 L43 # 2007
 Frazier, Howard Broadcom
 Comment Type E Comment Status X
 spelling mistake "operaiont" in "Feature" column.
 SuggestedRemedy
 ficks speling.
 Proposed Response Response Status O

Cl 66 SC 66.5 P45 L42 # 2284
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 Incorrect speed designation in item XP2MP
 Is "10 Gp/s" should be "10 Gb/s"
 SuggestedRemedy
 Is "10 Gp/s" should be "10 Gb/s"
 Proposed Response Response Status O

Cl 66 SC 66.5 P45 L43 # 2071
 Kramer, Glen Teknovus, Inc.
 Comment Type E Comment Status X
 Typos
 "10 Gp/s P2MP operaiont"
 SuggestedRemedy
 Change
 1) Gp/s --> Gb/s
 2) operaiont --> operation
 Proposed Response Response Status O

Cl 66 SC 66.5 P45 L42 # 1803
 Flatman, Alan LAN Technologies
 Comment Type E Comment Status X
 Typo (operaiont)
 SuggestedRemedy
 Change to "operation".
 Proposed Response Response Status O

Cl 66 SC 66.5.3 P45 L42 # 2260
 Chalupsky, David Intel Corp.
 Comment Type E Comment Status X
 typo "operaiont"
 SuggestedRemedy
 change to "operation"
 Proposed Response Response Status O

Cl 66 **SC 66.5.4.5** **P46** **L 6** # **2285**
 Hajduczenia, Marek Nokia Siemens Networ

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

Lines 6 - 7 are affected.
 In item PF2, reference is made to 10 Gb/s P2MP RS, which references to Clause 46. It is incorrect, since 10 Gb/s P2MP RS is a new RS, defined in Clause 76.

SuggestedRemedy
 Change Value/Comment for item PF1 to read "See Clause 76".
 Make sure link to "Clause 76" is a live cross-reference

Proposed Response *Response Status* **O**

Cl 67 **SC** **P47** **L 19** # **2072**
 Kramer, Glen Teknovus, Inc.

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

grammar

SuggestedRemedy
 Insert "in" after "and"

Proposed Response *Response Status* **O**

Cl 67 **SC 67.6.3** **P46** **L 15** # **2155**
 Remein, Duane Alcatel-Lucent

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

Format of editing instructions inconsistent with other clauses.

SuggestedRemedy
 Align format with other clauses.

Proposed Response *Response Status* **O**

Cl 75 **SC 1.1** **P49** **L 50** # **1765**
 KIMURA, Mitsunobu Hitachi Communicatio

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

"Optical network Unit (ONU)" of "network" shoule be "Network".

SuggestedRemedy
 "Optical Network Unit (ONU)"

Proposed Response *Response Status* **O**

Cl 75 **SC 1.3** **PNA** **L 17** # **2189**
 Woodward, Ted Telcordia Technologie

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

Optical performance specifications (see also sections 75.4 and 75.5) seem pretty aggressive for several of the PHY types. I have not made a careful study of it, but it seems like only one of the receiver sensitivity specifications in Table 75-6, 75-7, and 75-8 can be met with a PIN detector, with the others requiring an APD. However, I can see that power budgets (OLT and ONU launch and receive levels) have been carefully designed so that PR-10, PR-20 and PRX-10, PRX-20 classes could be met with the PIN ONU receiver. So it seems that a lot of thought went into these power budget classes. I think more clarifying information about these would be appropriate, and this section or 75.4 / 75.5 would be the place to put it.

SuggestedRemedy
 Provide additional explanatory materials on the 3 power budget classes and intended use.

Proposed Response *Response Status* **O**

Cl 75 **SC 1.4** **PNA** **L 1** # **2174**
 Woodward, Ted Telcordia Technologie

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

Table 75-1 does not reference what B.1.1 , B.1.3 Fiber types are.

SuggestedRemedy
 Add reference to ITU documents, as in Table 75-20, or perhaps reference Table 75-20.

Proposed Response *Response Status* **O**

Cl 75 SC 3.2 PNA L7 # 2175
Woodward, Ted Telcordia Technologie

Comment Type E Comment Status X

In Table 75-3, the TP labels are unique between downstream and upstream paths (e.g. TP1-4 are defined in the downstream direction, and TP5-8 in the upstream). In Table 75-4, TP labels are not unique (e.g. TP1-4 are defined in the downstream direction, and TP1-4 are again defined in the upstream direction). The latter therefore requires that downstream and upstream be used whenever TP nomenclature is used.

SuggestedRemedy

Harmonize the definition of test points in the upstream and downstream direction. The use of unique testpoint identifiers is suggested. Make appropriate corrections to the text.

Proposed Response Response Status O

Cl 75 SC 4 P60 L1 # 1766
KIMURA, Mitsunobu Hitachi Communicatio

Comment Type E Comment Status X

The title of the Subclause has a period("."). Also titles of Subclause 75.5 and 75.6 have periods.

SuggestedRemedy

Every title of Subclause should not have a period.

Proposed Response Response Status O

Cl 75 SC 5 P64 L7 # 1767
KIMURA, Mitsunobu Hitachi Communicatio

Comment Type E Comment Status X

"PR10, PR20, PR30" should be "PR10, PR20, and PR30". Also, in L8, "PRX10, PRX20, PRX30" has the same issue.

SuggestedRemedy

L7: "PR10, PR20, and PR30"
L8: "PRX10, PRX20, and PRX30"

Proposed Response Response Status O

Cl 75 SC 5 P68 L18 # 1768
KIMURA, Mitsunobu Hitachi Communicatio

Comment Type E Comment Status X

Comment "c" doesn't have a period (".").

SuggestedRemedy

A period is needed.

Proposed Response Response Status O

Cl 75 SC 6 P69 L27 # 1769
KIMURA, Mitsunobu Hitachi Communicatio

Comment Type E Comment Status X

Comment "a" doesn't have a period(".").

SuggestedRemedy

A period is needed.

Proposed Response Response Status O

Cl 75 SC 6 P69 L29 # 2166
Bennett, Michael LBNL

Comment Type E Comment Status X

In footnote d:
Nominal distance refers to the expected maximum distance a PMD will be capable of achieving in a typical ODN, numerous ODN implementation practices may result ** is ** longer or shorter distances being actually achievable in ** users** network.

"is" should be "in" and users' should be user's

SuggestedRemedy

replace "is" with "in" and "users'" should be a user's

Proposed Response Response Status O

Cl 75 SC 6 P70 L 20 # 1770
 KIMURA, Mitsunobu Hitachi Communicatio
 Comment Type E Comment Status X
 Comment "a" doesn't have a period (".").
 SuggestedRemedy
 A period is needed.
 Proposed Response Response Status O

Cl 75 SC 6 P70 L 23 # 2167
 Bennett, Michael LBNL
 Comment Type E Comment Status X
 Footnote d "is" should be "in" and "users" should be "user's"
 SuggestedRemedy
 replace "is" with "in" and "users" with "user's"
 Proposed Response Response Status O

Cl 75 SC 6 PNA L 10 # 2176
 Woodward, Ted Telcordia Technologie
 Comment Type E Comment Status X
 Table 75-12 and Table 75-13 do not provide a source reference to fiber Types B1.1, B1.3.
 SuggestedRemedy
 include reference to Table 75-20, or to appropriate ITU documents
 Proposed Response Response Status O

Cl 75 SC 6.1.1 P70 L 49 # 2168
 Bennett, Michael LBNL
 Comment Type E Comment Status X
 sub-sets should not be hyphenated
 SuggestedRemedy
 replace sub-sets with subsets
 Proposed Response Response Status O

Cl 75 SC 7 PNA L 43 # 2177
 Woodward, Ted Telcordia Technologie
 Comment Type E Comment Status X
 This section has a lot of good implementation detail. This is informative, but may be too
 emphatic in stipulating solutions. For example, "There are three implementation choices in
 this regard..." should be changed to suggest that there are 'at least three', and not to imply
 that these are the only solutions.
 SuggestedRemedy
 change ' There are three implementation choices .. ' to ' Three exemplary implementation
 choices ... are:'
 Proposed Response Response Status O

Cl 75 SC 75 P49 L # 1927
 Dawes, Piers Avago
 Comment Type T Comment Status X
 Most multi-clause projects are ordered DOWN the layer stack: MAC then RS the PCS and
 so on. This draft orders the three or four sublayers in 76 from top down also.
 SuggestedRemedy
 Swap Clause 77 with Clause 75
 Proposed Response Response Status O

Cl 75 SC 75 P49 L 1 # 1928
 Dawes, Piers Avago
 Comment Type T Comment Status X
 Title is FAR too long. One should try to keep the title so that it is just one line long in the
 contents All PONs are long wavelength. All PONs are asymmetric. Is the medium part of
 the PMD sublayer? Titles don't have to explain: compare Clause 68.
 SuggestedRemedy
 Physical Medium Dependent (PMD) sublayer, type 10GBASE-PR and 10/1GBASE-PRX
 or PMD sublayer and medium, type 10GBASE-PR and 10/1GBASE-PRX or PMD
 sublayer, type 10GBASE-PR and 10/1GBASE-PRX Make appropriate changes to 75.12,
 75.12.1, 75.12.2.2.and 75.12.4
 Proposed Response Response Status O

Cl 75 SC 75.1.1 P49 L48 # 2008
Frazier, Howard Broadcom

Comment Type E Comment Status X

This paragraph would benefit from a sprinkling of definite articles.

SuggestedRemedy

Rewrite paragraph as follows:

EPONs operate over a point-to-multipoint (P2MP) topology, also called a tree or trunk-and-branch topology. The device connected at the root of the tree is called an Optical Line Terminal (OLT) and the devices connected as the leaves are referred to as Optical network Units (ONUs). The direction of transmission from the OLT to the ONUs is referred to as the downstream direction, while the direction of transmission from the ONUs to the OLT is referred to as the upstream direction.

Proposed Response Response Status O

Cl 75 SC 75.1.4 P50 L30 # 2395
Law, David 3Com

Comment Type T Comment Status X

Is it correct that 'PRX-type power budgets are also called asymmetric.', I didn't think it was the power budget that was asymmetric, I thought it was the data rate that was asymmetric - for example 56.1.3 (page 39, line 19) states '.. PRX10 power budget, with asymmetric 10 Gb/s downstream and 1 Gb/s upstream data rates ..'.

Further Table 75-1 'Power budgets defined in Clause 75' doesn't differentiate between -U PHYs and -D PHYs as far as I can see so the budgets are all symmetric.

SuggestedRemedy

On line 30 delete the text 'PRX-type power budgets are also called asymmetric.', on line 32 'PR-type power budgets are also called symmetric.', on line 38, 40 and 42 'asymmetric.', on line 43, 45 and 47 'symmetric,'.

Proposed Response Response Status O

Cl 75 SC 75.1.4 P50 L37 # 2073
Kramer, Glen Teknovus, Inc.

Comment Type E Comment Status X

Align bullets in the bulleted list

SuggestedRemedy

see above

Proposed Response Response Status O

Cl 75 SC 75.1.4 P50 L38 # 2286
Hajduczenia, Marek Nokia Siemens Networ

Comment Type E Comment Status X

Lines 38-47 are affected. The bullets are not aligned correctly - align them.

SuggestedRemedy

Align the individual bullets in lines 38-47.

Proposed Response Response Status O

Cl 75 SC 75.1.4 P50 L45 # 1714
Lin, Rujian Shanghai Luster Terab

Comment Type E Comment Status X

PX10 power budget

SuggestedRemedy

Correction: PX20 power budget

Proposed Response Response Status O

Cl 75 SC 75.1.4 P50 L45 # 2026
Frazier, Howard Broadcom

Comment Type TR Comment Status X

"PX10" s/b "PX20".

SuggestedRemedy

change as suggested in comment.

Proposed Response Response Status O

CI 75 SC 75.1.4 P51 L16 # 2158
 Effenberger, Frank Huawei Technologies,

Comment Type T Comment Status X

This comment concerns the downstream wavelength for the PR10, PR20, PRX10, and PRX20 PMDs, which is currently specified at 1580 to 1600nm. When this was selected, it was thought that it would enable cheaper transmitters. However, there are a couple of issues that argue against this wavelength choice:

1. The 1590nm sources seem to be less available than the 1577nm sources, so any cost savings due to the wider window will be cancelled out by this effect.
2. The use of wavelengths beyond 1580nm has become increasingly uncertain, since the fibers and couplers are not fully specified at those wavelengths.

We should also consider that if we use a single downstream wavelength for all PMD types, then early volumes will be increased and the manufacturing community will be given a clearer message on what wavelength sources to build.

SuggestedRemedy

Change the downstream wavelength range for all PMD types to 1574 to 1580nm. This occurs in Table 75-1, 75-5, 75-11, 75-12, 75-13, and 75-20, and throughout section 75.6.1.1.

Proposed Response Response Status O

CI 75 SC 75.1.4 P51 L24 # 2027
 Frazier, Howard Broadcom

Comment Type TR Comment Status X

What does a minimum reach of less than or equal to 0.5 m mean? Zero meters is less than 0.5, so is zero meters allowed? If 0.5 m is really the minimum, then the less than or equal sign should be removed. If zero meters is allowable, then the minimum should be zero meters.

SuggestedRemedy

Pick one, either 0.5 m or 0 m, as the minimum reach.

Proposed Response Response Status O

CI 75 SC 75.1.4 P51 L4 # 2365
 Law, David 3Com

Comment Type E Comment Status X

This is Clause 75.

SuggestedRemedy

Change the text 'Power budgets defined in Clause 75' to read 'Power budgets'.

Proposed Response Response Status O

CI 75 SC 75.11.1 P81 L22 # 1804
 Flatman, Alan LAN Technologies

Comment Type T Comment Status X

Quote International standard for insertion loss measurement.

SuggestedRemedy

Specify IEC 61280-4-2:2000 (fibre optic communication subsystem basic test procedures; fibre optic cable plant; single-mode fibre optic cable plant attenuation) instead of ANSI/TIA/EIA-526-7.

Proposed Response Response Status O

CI 75 SC 75.11.1 P81 L22 # 1934
 Dawes, Piers Avago

Comment Type T Comment Status X

We should reference international standards where available. Is there is an ITU-T equivalent to ANSI/TIA/EIA-526-7 [B15], method A-1?

SuggestedRemedy

If so, reference the ITU-T equivalent, add to 1.3 if not present, and if you are good citizens, change any other clauses that use this

Proposed Response Response Status O

Cl 75 SC 75.11.2 P81 L 29 # 1805
 Coleman, Doug Corning
 Comment Type TR Comment Status X
 Need to specify the low-water peak single-mode fiber ITU standard. Also, need to specify the bend-insensitive single-mode fiber ITU standard.
 SuggestedRemedy
 ITU G.652 should be changed to ITU G.652.D, and ITU G.657 should be included as an acceptable fiber optic cable specification in this subclause.
 Proposed Response Response Status O

Cl 75 SC 75.12 P83 L 1 # 2018
 Frazier, Howard Broadcom
 Comment Type ER Comment Status X
 I cannot find a PICS entry corresponding to the damage threshold requirement stated in 75.7.
 SuggestedRemedy
 Add an appropriate PICS entry for this shall statement.
 Proposed Response Response Status O

Cl 75 SC 75.11.2 P81 L 29 # 2164
 Swanson, Steve Corning
 Comment Type TR Comment Status X
 Specify low-water peak single-mode fiber ITU standard per G.652D and specify the bend-insensitive single-mode fiber ITU standard per G.657.
 SuggestedRemedy
 SuggestedRemedy: reference to "ITU G.657" as an acceptable fiber optic cable specification in this subclause.
 Proposed Response Response Status O

Cl 75 SC 75.12.4 P86 L 2 # 2080
 Kramer, Glen Teknovus, Inc.
 Comment Type E Comment Status X
 Page break in the middle of the title
 SuggestedRemedy
 Remove the page break.
 Proposed Response Response Status O

Cl 75 SC 75.11.3 P82 L 35 # 1819
 Dudek, Mike JDSU
 Comment Type TR Comment Status X
 Decreasing the split ratio while increasing the fiber length is not supported by the other specifications. Excess chromatic dispersion in long lengths could occur and is not covered by the optical budget (eg a split ratio of 2:1 could allow 60km of fiber)
 SuggestedRemedy
 Remove "or vice versa" on line 35, and change the sentence before to "The only requirements are that the resulting channel insertion loss is with the limits specified in Table 75-1 and the maximum reach in table 75-1 is not exceeded" and remove the > or = in table 75-1. Alternatively introduce an absolute maximum chromatic dispersion limit for the fiber connection, and use this maximum chromatic dispersion in the TDP tests.
 Proposed Response Response Status O

Cl 75 SC 75.12.4.13 P92 L 1 # 1935
 Dawes, Piers Avago
 Comment Type E Comment Status X
 Make PICS match clause
 SuggestedRemedy
 Change title to "Definitions of optical parameters and measurement methods"
 Proposed Response Response Status O

Cl 75 SC 75.2 P52 L1 # 1810
D'Ambrosia, John Force10 Networks

Comment Type E Comment Status X

inconsistencies between this figure and how things are done in architectural positioning diagrams elsewhere in 802.3:
1. use of lower case text
2. reference to clause #'s in diagram
3. drawing of interface between RS and PCS.

SuggestedRemedy

make all text caps
delete clause # references in diagrams
just have a single column connecting the two interfaces, not a box then column, then box.

Proposed Response Response Status O

Cl 75 SC 75.2 P52 L18 # 2389
Law, David 3Com

Comment Type T Comment Status X

I believe that the OLT incorporates the MDI.

SuggestedRemedy

Show the OLT bracket reaching the Fibre (see Figure 56-2) - need to do this for all OLTs and ONUs figures.

Proposed Response Response Status O

Cl 75 SC 75.2 P53 L1 # 1811
D'Ambrosia, John Force10 Networks

Comment Type E Comment Status X

inconsistencies between this figure and how things are done in architectural positioning diagrams elsewhere in 802.3:
1. use of lower case text
2. reference to clause #'s in diagram
3. drawing of interface between RS and PCS.

SuggestedRemedy

make all text caps
delete clause # references in diagrams
just have a single column connecting the two interfaces, not a box then column, then box.

Proposed Response Response Status O

Cl 75 SC 75.2 P54 L26 # 2287
Hajduczenia, Marek Nokia Siemens Networ

Comment Type E Comment Status X

In line 26, there is reference to "Clause 75.2.1" in text "shown in Clause 75.2.1 below". It is incorrect - 75.2.1 is a Subclause.
The same is true for line 27 and the text "given in Clause 75.4 and". Change "given in Clause 75.4 and" to "given in Subclause 75.4 and"
The same is true for line 27 and the text "are presented in Clause 75.5"
Change "are presented in Clause 75.5" to "are presented in Subclause 75.5"

SuggestedRemedy

Change "shown in Clause 75.2.1 below" to "shown in Subclause 75.2.1 below"
Make sure that the link is live.
Change "given in Clause 75.4 and" to "given in Subclause 75.4 and"
Make sure that the link is live.
Change "are presented in Clause 75.5" to "are presented in Subclause 75.5"
Make sure that the link is live.

Proposed Response Response Status O

Cl 75 SC 75.2 P54 L27 # 2357
Law, David 3Com

Comment Type E Comment Status X

75.2.1 is a subclause, not a Clause.

SuggestedRemedy

Change 'Clause' to 'subclause' in the following locations:

Page 54, line 27
Page 54, line 28 (twice)

Check for and correct other instances throughout the draft.

Proposed Response Response Status O

Cl 75 SC 75.2.1 P54 L 34 # 2358
Law, David 3Com

Comment Type E Comment Status X

75.2.1 is a subclause, not a section.

SuggestedRemedy

Change 'section' to 'subclause' in the following locations:

- Page 54, line 35.
- Page 60, line 3.
- Page 64, line 3.

Check for and correct other instances throughout the draft.

Proposed Response Response Status O

Cl 75 SC 75.2.1 P54 L 34 # 2359
Law, David 3Com

Comment Type E Comment Status X

I believe these are termed 'power budget' elsewhere in the draft, not 'end-to-end power budget'.

SuggestedRemedy

Check the text 'The end-to-end power budget ..' to read 'The power budget ..'.

Proposed Response Response Status O

Cl 75 SC 75.2.1.1 P54 L 40 # 2074
Kramer, Glen Teknovus, Inc.

Comment Type E Comment Status X

Text should say "...to achieve the power budgets shown in Table 75-1". (answers which power budget, not how to achieve them)

SuggestedRemedy

remove "as". Same on page 55, line 4.

Proposed Response Response Status O

Cl 75 SC 75.3.1 P55 L 30 # 2404
Law, David 3Com

Comment Type TR Comment Status X

This PMD service interface subclause states that it is an interface '.. between the PMA and PMD entities.' which is supported by the layer diagrams found in 75-1 and 75-2 which shows the PMA interfacing to the PMD.

Subclause 75.3.1.4 therefore can't be correct stating that the PMD_SIGNAL.request is generated by the PCS, it has to be generated by the PMA, although that signal may just be a pass through of a signal generated by the PCS.

Further subclause 76.3.1.1 specifies PMD_SIGNAL.request is an addition to the PMA interface which would seem to again imply that the PMA drives this signal.

SuggestedRemedy

Add signals to the PMA interface to correctly carry this signal through. For example 76.3.1.1 defines the signal but there needs to be text in 76.3 to describe the operation of this signal.

Proposed Response Response Status O

Cl 75 SC 75.3.1.1 P55 L 44 # 1929
Dawes, Piers Avago

Comment Type T Comment Status X

This sentence "An upper bound to the delay through the PMD is required for predictable operation of the MAC Control MPCP operation" is well past its sell-by date. If the fibre path can be tens of kilometres long, the 4 time-quanta or 40 m worth of the PMD is hardly significant. But, isn't there a requirement that the delay through the PMD should not change too rapidly?

SuggestedRemedy

Delete the offending sentence (you don't have to replace it with anything; standards don't have to give their reasons). Refer to 76.1.3.2.

Proposed Response Response Status O

CI 75 SC 75.3.1.1 P55 L45 # 1931
 Dawes, Piers Avago
 Comment Type T Comment Status X
 "A description of the overall system delay constraints can be found in @@Subclause 77.3.2.4@@". It can't.
 SuggestedRemedy
 Point somewhere else: not sure where. Delete "@@Subclause". Make the cross-references between the new clauses and remove those @@.
 Proposed Response Response Status O

CI 75 SC 75.3.1.1 P55 L45 # 1930
 Dawes, Piers Avago
 Comment Type T Comment Status X
 "The PMD shall introduce a constant transmit delay of not more than 4 time-quanta and constant receive delay of not more than 4 time-quanta." How constant is constant enough?
 SuggestedRemedy
 ?
 Proposed Response Response Status O

CI 75 SC 75.3.1.1 P55 L46 # 2288
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 There is already a formalized way of denoting time_quanta. Text "constant receive delay of not more than 4 time-quanta" needs alignment.
 Change "constant receive delay of not more than 4 time-quanta" to "constant receive delay of not more than 4 time_quanta".
 SuggestedRemedy
 Change "constant receive delay of not more than 4 time-quanta" to "constant receive delay of not more than 4 time_quanta".
 Proposed Response Response Status O

CI 75 SC 75.3.1.4 P56 L25 # 2009
 Frazier, Howard Broadcom
 Comment Type E Comment Status X
 missing "the" before "@@Clause 76@@@ PCS"
 SuggestedRemedy
 insert "the"
 Proposed Response Response Status O

CI 75 SC 75.3.1.5 P56 L46 # 2010
 Frazier, Howard Broadcom
 Comment Type E Comment Status X
 I think that the word "see" should be inserted right before the cross-reference at the end of this note.
 SuggestedRemedy
 as per comment.
 Proposed Response Response Status O

CI 75 SC 75.3.2 P57 L21 # 2384
 Law, David 3Com
 Comment Type T Comment Status X
 The signal_detect should be shown connected to blocks in Figures 75-3 and 75-4, see Figures 36-10 and 51-3 for the use of this signal in the respective PMAs.
 SuggestedRemedy
 Connect signal_detect signal_detect here and in Figure 75-4.
 Proposed Response Response Status O

Cl 75 SC 75.3.2 P57 L3 # 2028
Frazier, Howard Broadcom

Comment Type TR Comment Status X

The introduction of two new conventions for identifying test points is bound to cause confusion. The previous TP1 through TP4 convention served us well since 802.3z, with only a minor modification for EPON in 802.3ah. I think that introducing TP5 through TP8, plus the rectangles and ovals, will not stand the test of time. How do you represent a rectangle or oval in a spreadsheet or a datasheet?

SuggestedRemedy

Revert to the test point identification convention established in 802.3ah Clause 60.

Proposed Response Response Status O

Cl 75 SC 75.3.3 P58 L41 # 2016
Frazier, Howard Broadcom

Comment Type ER Comment Status X

I believe that we follow the convention of saying "in this clause", rather than "in Clause XX" when we are making a reference to the entire clause from within that clause.

SuggestedRemedy

correct as per comment. Also on line 50.

Proposed Response Response Status O

Cl 75 SC 75.3.5.2 P59 L21 # 2362
Law, David 3Com

Comment Type E Comment Status X

Change the text '.. Clause 75 type PMDs.' to read '.. 10GBASE-PR and 10/1GBASE-PRX type PMDs.'.

SuggestedRemedy

See comment.

Proposed Response Response Status O

Cl 75 SC 75.3.5.2 P59 L23 # 2385
Law, David 3Com

Comment Type T Comment Status X

I assume that a 10/1GBASE-PRX-D PMD receiver doesn't need to verify if a valid 10GBASE-PR signal is being received either.

SuggestedRemedy

Change the text '.. not required to verify whether a compliant 1000BASE-PX signal is being received.' to read '.. not required to verify whether a compliant 10GBASE-PR or 1000BASE-PX signal is being received.

Proposed Response Response Status O

Cl 75 SC 75.3.5.3 P59 L45 # 2387
Law, David 3Com

Comment Type T Comment Status X

The damage threshold would seem to be just one example that would need to be considered for a dual-rate OLT that has the split in the electrical domain. Take for example the signal detect function found in 75.3.5.3. Which of the two columns do I choose from Table 75-4, the 10GBASE-PR-D or the 10/1GBASE-PRX-D column.

Now 'dual-rate' operation could reasonably be confused with 10/1GBASE-PRX operation since that PHY type supports two rates - even though that is actually asymmetric operation.

Now for 10/1GBASE-PRX-D PHYs Table 75-4 states that when optical power is below threshold Signal_detect = FAIL, when above threshold with a valid 1000BASE-PX signal Signal_detect = OK and under 'All other conditions' Signal_detect is Unspecified.

This would seem to permit setting Signal_detect = FAIL when the optical power is above threshold with a valid 10GBASE-PR signal which doesn't seem correct.

The inverse is true if the 10GBASE-PR column is chosen.

SuggestedRemedy

Provide full information on dual-rate operation, particularly in the case of an electrical split where, in effect, a new PMD is required.

Proposed Response Response Status O

Cl 75 SC 75.4 P60 L3 # 2017
 Frazier, Howard Broadcom
 Comment Type ER Comment Status X
 The word "Subclause" should never appear in a cross-reference to a subclause, regardless of whether the cross-reference is to a subclause within the current clause, or to a subclause of another clause.
 SuggestedRemedy
 Please delete the word "Subclause" from all cross-references.
 Proposed Response Response Status O

Cl 75 SC 75.4.2 P62 L13 # 2029
 Frazier, Howard Broadcom
 Comment Type TR Comment Status X
 The damage threshold is only 1 dB above the average receive power, which doesn't seem like enough margin. In 802.3ah the margin was 5 dB for PX10 and 10 dB for PX20.
 SuggestedRemedy
 Set the damage threshold at least 5 dB above the average receive power.
 Proposed Response Response Status O

Cl 75 SC 75.4.1 P61 L5 # 1715
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 Shaded area indecates compliant part.
 SuggestedRemedy
 Correction: Shaded area indecates the compliant part.
 Proposed Response Response Status O

Cl 75 SC 75.5 P64 L6 # 2289
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 Lines 6-10 are affected.
 Text "The operating ranges for PR10, PR20, PR30 power budget classes are defined in Table 75-1. The operating ranges for PRX10, PRX20, PRX30 power budget classes are defined in Table 75-1. A PR10, PR20, PR30, PRX10, PRX20 or PRX30 compliant transceiver operates over the media types listed in Table 75-20 according to the specifications described in Subclause 75.11." contains reference to individual power budgets. There is no need for that. Generic power budget names can be used, as in 75.4.

Cl 75 SC 75.4.2 P61 L43 # 2011
 Frazier, Howard Broadcom
 Comment Type E Comment Status X
 Need a couple more definite articles in this paragraph. Insert the word "The" before "Damage threshold" in two places.
 SuggestedRemedy
 as per comment.
 Proposed Response Response Status O

SuggestedRemedy
 Change
 "The operating ranges for PR10, PR20, PR30 power budget classes are defined in Table 75-1. The operating ranges for PRX10, PRX20, PRX30 power budget classes are defined in Table 75-1. A PR10, PR20, PR30, PRX10, PRX20 or PRX30 compliant transceiver operates over the media types listed in Table 75-20 according to the specifications described in Subclause 75.11."
 to
 "The operating ranges for PR power budget classes are defined in Table 75-1. The operating ranges for PRX power budget classes are defined in Table 75-1. A PR and PRX compliant transceiver operates over the media types listed in Table 75-20 according to the specifications described in Subclause 75.11."
 Make sure all the links are live.
 Proposed Response Response Status O

Cl 75 SC 75.5.1 P64 L53 # 181523 Hamano, Hiroshi Fujitsu Labs.

Comment Type T Comment Status R resubmit

In Footnote C, word preciseness should be cared. Not only "laser source", but the total "transmitter" affects TDP value. Power can be relaxed not by "the same amount" as the TDP, but "the same decrement" as the TDP. What should be indicated here is "the more tightened TDP, the more relaxed power.

SuggestedRemedy

Change "laser source" to "transmitter". Change "the same amount" to "the same decrement". And Footnote C will be as follows If a transmitter has a lower TDP, the minimum transmitter launch OMA (OMAMin) and average minimum launch power (AVPmin) may be relaxed by the same decrement as the TDP.

Response Response Status C

== Resolution from Denver 0806 Meeting == REJECT.

This comment was WITHDRAWN by the commenter. To be resubmitted by TF Chair against next draft

(was "E" changed to "T")

Change "laser source" to "transmitter". Change "the same amount" to "the same decrement". New text of footnote c) will read as follows: "If a transmitter has a lower TDP, the minimum transmitter launch OMA (OMAMin) and average minimum launch power (AVPmin) may be relaxed, decrementing them by the same value as TDP. @@ "min" in AVPmin and OMAMin must be subscripted@@

Cl 75 SC 75.5.1 P65 L5 # 1716 Lin, Rujian Shanghai Luster Terab

Comment Type E Comment Status X

Shaded area indecates compliant part.

SuggestedRemedy

Correction: Shaded area indecates the compliant part.

Proposed Response Response Status O

Cl 75 SC 75.5.1 P66 L14 # 181526 Hamano, Hiroshi Fujitsu Labs.

Comment Type E Comment Status R resubmit

In Figure 75-6, relaxed power level indication suffix seems incorrect in "Apostrophe" placement.

SuggestedRemedy

Change "AVP 'min" to "AVP' min".

Response Response Status C

== Resolution from Denver 0806 Meeting == REJECT.

This comment was WITHDRAWN by the commenter. To be resubmitted by TF Chair against next draft.

Cl 75 SC 75.5.1 P66 L9 # 1800 Hamano, Hiroshi Fujitsu Labs.

Comment Type E Comment Status X

In Figure 75-6, 'ER = 9 dB' dashed line is partially hidden behind the hatching pattern. It looks strange, if there is no specific meaning to do so.

SuggestedRemedy

Change the placement order to show the dashed line in front.

Proposed Response Response Status O

Cl 75 SC 75.5.2 P67 L46 # 2030 Frazier, Howard Broadcom

Comment Type TR Comment Status X

In Table 75-11, there is only 1 dB margin between average receive power (max) and the damage threshold. I think this is too small. 802.3ah had a margin of 5 dB for PX10 and 10 dB for PX20.

SuggestedRemedy

set the damage threshold at least 5 dB above the average receiver power (max).

Proposed Response Response Status O

Cl 75 SC 75.6 P69 L30 # 1717
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 ...in a typical ODN, numerous ODN implementation practices may result is
 SuggestedRemedy
 Correction:...in a typical ODN. Numerous ODN implementation practices may result in
 Proposed Response Response Status O

Cl 75 SC 75.6 P70 L15 # 1799
 Hamano, Hiroshi Fujitsu Labs.
 Comment Type E Comment Status X
 In Table 75-13, 'Channel insertion loss (min)' line alone is messy, compared to 'Channel insertion loss (max)', and not consistent with Table 75-12.
 SuggestedRemedy
 Combine US and DS columns into one for each power budget class.
 Proposed Response Response Status O

Cl 75 SC 75.6 P70 L23 # 1718
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 ...in a typical ODN, numerous ODN implementation practices may result is
 SuggestedRemedy
 Correction:...in a typical ODN. Numerous ODN implementation practices may result in
 Proposed Response Response Status O

Cl 75 SC 75.6.1 P70 L40 # 181525
 Hamano, Hiroshi Fujitsu Labs.
 Comment Type E Comment Status R resubmit
 Figure number reference is incorrect.
 That in Line 47 is also the same.
 SuggestedRemedy
 Change "Figure 75-7" to "Figure 75-8".
 Response Response Status C

== Resolution from Denver 0806 Meeting ==
 REJECT.

This comment was WITHDRAWN by the commenter. To be resubmitted by TF Chair against next draft.

=====

Cl 75 SC 75.6.1 P70 L40 # 2291
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type ER Comment Status X
 Incorrect reference to Figure 75-5. Figure 75-8 should be linked in this place. The same is true for reference in line 46.
 SuggestedRemedy
 Change reference to Figure 75-7 to Figure 75-8 (the one on page 71). Make sure that both changes (in line 40 and 41) are live.
 Proposed Response Response Status O

Cl 75 SC 75.6.1 P71 L19 # 181530
 Hamano, Hiroshi Fujitsu Labs.
 Comment Type T Comment Status R resubmit
 In Figure 75-8, PRX10, PRX20, PRX30 upstream wavelength band illustration for 10G-EPON is missing.
 SuggestedRemedy
 See Supplement 3av_0807_hamano_1.pdf.
 Response Response Status C
 == Resolution from Denver 0806 Meeting ==
 REJECT.
 This comment was WITHDRAWN by the commenter. To be resubmitted by TF Chair against next draft.
 Editors suggest to further separate PR and PRX type PMD wavelength allocation plan for complete clarity. Otherwise, bands will overlap in the US channel.

=====
 Cl 75 SC 75.6.1.1 P70 L47 # 2388
 Law, David 3Com
 Comment Type T Comment Status X
 Cross-reference error.
 Figure 75-5 is '10/1GBASE-PRX-U3 transmitter spectral limits' whereas Figure 75-8 is the 'Wavelength allocation plan for (a) EPON and (b) 10G-EPON.' that seems to be referenced.
 SuggestedRemedy
 Change '..in Figure 75-7.' to read '.. in Figure 75-8.'
 Proposed Response Response Status O

Cl 75 SC 75.6.1.1 P70 L51 # 2373
 Law, David 3Com
 Comment Type ER Comment Status X
 This paragraph of this subclause should be moved to an informative annex relate to dual-rate operation as this is the only case this would apply.
 SuggestedRemedy
 Delete the text 'An OLT supporting both downstream channels may multiplex the output of the two transmitters using a WDM coupler, while an ONU selects the relevant downstream channel using an optical filter.' from here and place in the dual-rate operation informative annex.
 Proposed Response Response Status O

Cl 75 SC 75.6.1.1 P71 L1 # 2290
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type TR Comment Status X
 Figure 75-8 has some issues:
 - EPON wavelength plan is not needed
 - PRX upstream channel is not depicted properly
 Suggested to replace Figure 75-8 with the contents of 3av_0809_hajduczenia_3.pdf
 SuggestedRemedy
 Suggested to replace Figure 75-8 with the contents of 3av_0809_hajduczenia_3.pdf.
 Proposed Response Response Status O

Cl 75 SC 75.6.1.1 P71 L1 # 2075
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 1G EPON is not in scope of clause 75. Figure 75-8 part (a) should depict wavelength map of PRX devices and part (b) should depict wavelength map of PR devices
 SuggestedRemedy
 Modify Figure 75-8 per comment
 Proposed Response Response Status O

Cl 75 SC 75.6.1.2 P71 L34 # 2292
Hajduczenia, Marek Nokia Siemens Networ

Comment Type T Comment Status X

Incorrect reference to Clause 76. In text "specified in @@Clause 76@@", reference to clause 75 should be used. Clause 76 does not specify PMD parameters.

SuggestedRemedy

Change "specified in @@Clause 76@@" to "specified in @@Clause 75@@".
Make sure that the link is live.

Proposed Response Response Status O

Cl 75 SC 75.6.1.2 P71 L36 # 2031
Frazier, Howard Broadcom

Comment Type TR Comment Status X

The second paragraph of this subclause is tutorial in nature and should be deleted.

SuggestedRemedy

delete the 2nd paragraph of 75.6.1.2.

Proposed Response Response Status O

Cl 75 SC 75.6.1.2 P71 L37 # 2406
Law, David 3Com

Comment Type TR Comment Status X

It is very confusing to use the term 'dual-rate' operation to mean something other than 10/1Gb/s operation supported by 10/1GBASE-PRX PHYs. What is described here seems instead to be dual-mode operation - or coexistence of EPON and 10GEAPON - although it is not clear if dual-rate refers to [a] the coexistence of 10GBASE-PR and 10/1GBASE-PRX, [b] the coexistence of 10GBASE-PRX with 1000BASE-PX, [c] 10/1GBASE-PRX and 1000BASE-PX or [d] any of the above.

Also it is not clear why it has to be stated that TDMA techniques have to be used specifically in the case of coexistence to avoid collisions since, as far as I understood, TDMA always has to be used in PONs to avoid collisions.

Finally the term channel is used to refer to the Fibre optic cable plant - see for example Figure 75-3 and Table 75-1 (channel insertion loss).

SuggestedRemedy

Change the text 'An OLT supporting both upstream channels must use TDMA techniques to avoid collisions between transmissions originating from different ONUs, resulting in a dual-rate, burst mode transmission as discussed in Subclause 75.7.' to read 'For implementation information related to an OLT that supports both upstream wavebands see subclause 75.7.'. The details of the coexistence should be described in that subclause.

Elsewhere in the draft change 'dual-rate' to read 'coexistence'.

Proposed Response Response Status O

Cl 75 SC 75.7 P71 L41 # 2032
Frazier, Howard Broadcom

Comment Type TR Comment Status X

This entire subclause, while well written and informative, is tutorial in nature. It discusses implementation choices, not interoperability requirements.

The exception is the shall statement in the last paragraph of the subclause which deals with the damage threshold of a dual rate receiver. A shall statement should not appear in a subclause that is labeled "informative", so this requirement should be moved to a normative subclause.

SuggestedRemedy

Delete the subclause and move the damage threshold requirement to a normative subclause.

Proposed Response Response Status O

CI 75 SC 75.7 P71 L42 # 2402
Law, David 3Com

Comment Type TR Comment Status X

Subclause 75.7 contains informative information related to a number of implementation options - however any other implementation that meets the normative portions of the standard is conformant.

Further clause 10.1 of the 2007 IEEE Style Manual states:

10.1 Normative and informative clauses

Normative text means information that is required to implement the standard and is therefore officially part of the standard. Informative text is provided for information only and is therefore not officially part of the standard.

The draft standard shall contain normative text in the main clauses of the document, including footnotes to tables (see 15.5), and in normative annexes. Informative text shall be placed in notes (to text, tables, and figures), in footnotes within text, and in informative annexes. Interspersed normative and informative text is not allowed. Identification of normative or informative text shall be reviewed during the ballot of a document. Therefore it is important that the working group consult an IEEE Standards project editor early with any questions.

SuggestedRemedy

Move subclause 75.6 to be an informative Annex. For the same reasons also move subclause 77.4, which has related dual-rate information, to an informative Annex.

Proposed Response Response Status O

CI 75 SC 75.7 P71 L46 # 2347
Law, David 3Com

Comment Type E Comment Status X

TDMA does not appear in IEEE 802.3 definitions (1.4) nor the abbreviations (1.5).

SuggestedRemedy

Add TDMA to 1.4 and 1.5 or change the text as follows:

[1] Line 37 change '.. upstream channels must use TDMA techniques ..' to read '.. upstream channels must use time slicing techniques ..'.

[2] Line 46 change '.. both data rates via TDMA.' to read '.. both data rates through allocating them different time slots.'.

Proposed Response Response Status O

CI 75 SC 75.7 P71 L50 # 2348
Law, David 3Com

Comment Type E Comment Status X

The term 'stack' isn't defined in IEEE 802.3 or used anywhere else, I assume this is a reference to the 7 layer model, besides this text is a discussion of implementation options rather than the architectural model.

SuggestedRemedy

Change the text '.. point in the stack it is ..' to read '.. point in the implementation it is ..'

Proposed Response Response Status O

CI 75 SC 75.7 P72 L44 # 2367
Law, David 3Com

Comment Type ER Comment Status X

The three implementations listed as three examples, there are not necessarily the only three choices, any implementation that meets the normative requirements of this standard is an acceptable choice.

SuggestedRemedy

Change the text 'There are three implementation choices ..' to read 'Some implementation choices ..'.

Proposed Response Response Status O

CI 75 SC 75.7 P72 L46 # 2349
Law, David 3Com

Comment Type E Comment Status X

We use the term 'implementation' rather than 'design'.

SuggestedRemedy

On page 72, lines 46 and 50, and on page 73 lines 2 and 4 change the text 'This design ..' to read 'This implementation ..'.

Proposed Response Response Status O

Cl 75 SC 75.7 P73 L3 # 2350
 Law, David 3Com
Comment Type E Comment Status X
 The text has already stated that this is the most complex, it is up to the implemented to judge what the cost benefit is for them.
SuggestedRemedy
 Delete the text 'and it is unclear if the benefits outweigh the costs.'
Proposed Response Response Status O

Cl 75 SC 75.7 P73 L33 # 2369
 Law, David 3Com
Comment Type ER Comment Status X
 These figures illustrate implementations since the show specific components such as avalanche photo diodes.
SuggestedRemedy
 In the title of figure 75-10 change the text '.. architectures:' to read '.. implementations:'.
Proposed Response Response Status O

Cl 75 SC 75.7 P73 L41 # 2377
 Law, David 3Com
Comment Type T Comment Status X
 I'm not sure that the deliver of such information would be a layer violation, what instead is a violation is the assumption that information is available at that layer - which it is not.
 In addition there are a couple of typos, 'MAC Client level' should read 'MAC Client', 'PMD layer' should read 'PMD sublayer'.
SuggestedRemedy
 Change '.. such information is available only at the MAC Client level and its delivery to the PMD layer would violate the stack layering restrictions.' to read '.. such information is available only to the MAC Client and is not available to PMD sublayer.'
Proposed Response Response Status O

Cl 75 SC 75.7 P73 L46 # 2351
 Law, David 3Com
Comment Type E Comment Status X
 The text at the start of this paragraph states that it describes 'One of the simplest methods ..' and this last sentence could be added to ever paragraph in this informative information, other implementations can be used. This sentence is therefore not required.
SuggestedRemedy
 Delete the text 'Other implementation specific methods to control the APD-TIA speed are also possible, though are not discussed in this document.'
Proposed Response Response Status O

Cl 75 SC 75.7 P73 L50 # 2403
 Law, David 3Com
Comment Type TR Comment Status X
 You cannot have a shall statement in the middle of a subclause that is labeled informative - it also unfair to hide this conformance requirement here since it is actually an exception condition to conformance requirements stated elsewhere in relation to Tables 75-6 and 60-5.
SuggestedRemedy
 Move the content of lines 50 through 54 to subclause 75.4.2 which already addresses damage thresholds in its second paragraph.
Proposed Response Response Status O

Cl 75 SC 75.8 P74 L1 # 2293
 Hajduczenia, Marek Nokia Siemens Networ
Comment Type E Comment Status X
 Figures 75-11 and 75-12 are affected.
 There are strange character in place of "-" sign in the slope description.
 Replace "Slope = ,Äi20 dB/d" with "Slope = -20 dB/d"
SuggestedRemedy
 Replace "Slope = ,Äi20 dB/d" with "Slope = -20 dB/d" in Figures 75-11 and 75-12.
Proposed Response Response Status O

Cl 75 SC 75.8 P74 L1 # 2370
Law, David 3Com

Comment Type ER Comment Status X

Subclause 75.8 contains informative information related jitter. Clause 10.1 of the 2007 IEEE Style Manual states:

10.1 Normative and informative clauses

Normative text means information that is required to implement the standard and is therefore officially part of the standard. Informative text is provided for information only and is therefore not officially part of the standard.

The draft standard shall contain normative text in the main clauses of the document, including footnotes to tables (see 15.5), and in normative annexes. Informative text shall be placed in notes (to text, tables, and figures), in footnotes within text, and in informative annexes. Interspersed normative and informative text is not allowed. Identification of normative or informative text shall be reviewed during the ballot of a document. Therefore it is important that the working group consult an IEEE Standards project editor early with any questions.

SuggestedRemedy

Move subclause 78.5 to an informative Annex.

Proposed Response Response Status O

Cl 75 SC 75.8 P74 L12 # 2076
Kramer, Glen Teknovus, Inc.

Comment Type E Comment Status X

Corrupted labels in Figures 75-11 and 75-12

SuggestedRemedy

Correct font

Proposed Response Response Status O

Cl 75 SC 75.8 P74 L12 # 2353
Law, David 3Com

Comment Type E Comment Status X

Typo.

SuggestedRemedy

Both Figure 75-11 and 75-12 have a font issue with the text related to the slope value.

Proposed Response Response Status O

Cl 75 SC 75.8 P74 L12 # 1798
Hamano, Hiroshi Fujitsu Labs.

Comment Type E Comment Status X

In Figure 75-11 and Figure 75-12, illegal characters are used.

SuggestedRemedy

They should be 'Slope = -20 dB/dec'.

Proposed Response Response Status O

Cl 75 SC 75.8 P74 L13 # 2002
Alan, Brown Wave7 Optics, Inc.

Comment Type ER Comment Status X

Garbage characters describe slope in Figure 75-11.

SuggestedRemedy

Correct the figure.

Proposed Response Response Status O

Cl 75 SC 75.8 P74 L25 # 2003
Alan, Brown Wave7 Optics, Inc.

Comment Type ER Comment Status X

Garbage characters describe slope in Figure 75-12.

SuggestedRemedy

Correct the figure.

Proposed Response Response Status O

CI 75 SC 75.8 P74 L34 # 1759
 Hirth, Ryan Teknovus
 Comment Type T Comment Status X
 The downstream jitter budgets should be updated with the results from the jitter adhoc.
 SuggestedRemedy
 update table 75-14. remove note "These are preliminary jitter values based on simulations @BER=10-12 and need to be finalized"
 Proposed Response Response Status O

CI 75 SC 75.8 P74 L4 # 2352
 Law, David 3Com
 Comment Type E Comment Status X
 Typo.
 SuggestedRemedy
 Change 'For PR10, PR20, PR30 upstream jitter transfer function ..' to read 'For PR10, PR20, PR30 the upstream jitter transfer function ..'.
 Proposed Response Response Status O

CI 75 SC 75.8 P74 L47 # 2077
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 Either add new values based on a new contribution or keep existing values, if there are no new contributions. In either case, the statement "These are preliminary jitter values based on simulations @BER = 10-12 and need to be finalized" should not be part of the standard.
 SuggestedRemedy
 Remove the sentence "These are preliminary jitter values based on simulations @BER = 10-12 and need to be finalized"
 The same on page 75, line 15
 Proposed Response Response Status O

CI 75 SC 75.8 P74 L48 # 2371
 Law, David 3Com
 Comment Type ER Comment Status X
 The first sentence of the notes to Table 75-14 belongs in an editions note and not in a note to the table.
 SuggestedRemedy
 Move the text 'These are preliminary jitter values based on simulations @BER = 10-12 and need to be finalized.' to an editors note.
 Make the same change for Table 75-15, Page 75, line 15 and Table 75-16, Page 75, line 36.
 Proposed Response Response Status O

CI 75 SC 75.8 P74-76 L37 # 1719
 Lin, Rujian Shanghai Luster Terab
 Comment Type ER Comment Status X
 75.8 Jitter at TP1-TP8 for PR10,PR20,PR30,PRX10,PRX20,PRX30(informative)
 The text, Figures and Tables from line 3, page 74 to line 7, page 76 are arranged improperly, making the paragraphs difficult to be read and understood.
 So this subcause needs modification. In addition, Figure 75-11 and Figure 75-12 look the same. They can be merged into one figure with the value of P and fc specified differently in Table 75-17 for PR10,PR20,PR30 and in Table 75-18 for PRX10,PRX20,PRX30
 SuggestedRemedy
 Propose to modify subcause 75.8 as shown in a file named 3av_0809_lin_1.
 Proposed Response Response Status O

CI 75 SC 75.8 P75 L1 # 1760
 Hirth, Ryan Teknovus
 Comment Type T Comment Status X
 The upstream jitter budgets should be updated with the results from the jitter adhoc.
 SuggestedRemedy
 update table 75-15. Remove note "These are preliminary jitter values based on simulations @BER10-12 and need to be finalized."
 Proposed Response Response Status O

CI 75 SC 75.8 P75 L35 # 2078
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 Either add new values based on a new data or keep existing values, if there is no new data. In either case, the statement "These numbers are reproduced from IEEE 802.3ah specifications @@Table 60-11@@ and may be revised if supported by new data" should not be part of the standard.
 SuggestedRemedy
 Remove the sentence
 Proposed Response Response Status O

CI 75 SC 75.9 P76 L10 # 2378
 Law, David 3Com
 Comment Type T Comment Status X
 The text reads 'In measuring TP1 and TP5 it is ..', in measuring what, I assume Jitter.
 SuggestedRemedy
 Change to read 'When measuring Jitter at TP1 and TP5 it is ..'.
 Proposed Response Response Status O

CI 75 SC 75.9 P76 L11 # 2354
 Law, David 3Com
 Comment Type E Comment Status X
 Make the frequency specifications parenthetical;, and use i.e. rather than viz.
 SuggestedRemedy
 Change the text '.. frequencies viz. 4 MHz for 10.3125 GBd receiver and 637 kHz for 1.25 GBd receiver are ..' to read '.. frequencies (i.e., 4 MHz for 10.3125 GBd receiver and 637 kHz for 1.25 GBd receiver) are ..'.
 Proposed Response Response Status O

CI 75 SC 75.9 P76 L12 # 2355
 Law, David 3Com
 Comment Type E Comment Status X
 Typo, section should be subclause, and definitive is redundant, shall's define what is authoritative or not.
 SuggestedRemedy
 Change '.. The following sections describe definitive patterns and test procedures..' to read '.. The following subclauses describe patterns and test procedures ..'.
 Proposed Response Response Status O

CI 75 SC 75.9.1 P76 L20 # 1932
 Dawes, Piers Avago
 Comment Type T Comment Status X
 Would anyone really measure at 1270, 1577 or 1590 nm, or would he use the usual wavelengths of 1310 and 1550 nm, and predictive equations for the other wavelengths?
 SuggestedRemedy
 ?
 Proposed Response Response Status O

CI 75 SC 75.9.11 P79 L36 # 1720
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 Receiver sensitivity is defined for the random pattern test frame, or.....
 SuggestedRemedy
 Correction: Receiver sensitivity is defined using the random pattern test frame, or.....
 Proposed Response Response Status O

Cl 75 SC 75.9.4 P76 L43 # 1933
Dawes, Piers Avago

Comment Type T Comment Status X

ANSI/EIA/TIA-455-127 is obsolete (There is an IEC spec in preparation but I don't think it will be final in time for this project and can't say if it is appropriate).

SuggestedRemedy

Replace with TIA-455-127-A, adjust the PICS. Add to 1.3 Normative references, TIA-455-127-A-2006, FOTP-127-A-Basic Spectral Characterization of Laser Diodes. If you are good citizens, in 1.3, delete "ANSI/EIA/TIA-455-127-1991, FOTP-127-Spectral Characterization of Multimode Laser Diodes." and make appropriate changes to 38.6.1, 52.9.2, 58.7.2, 59.7.2 and 60.7.2 (I can tell you what I think those changes are)

Proposed Response Response Status O

Cl 75 SC 75.9.9 P78 L24 # 2079
Kramer, Glen Teknovus, Inc.

Comment Type T Comment Status X

Figures 75-13 and 75-14 are different, but have the same titles and no further explanation in text.

SuggestedRemedy

Add text to the titles to explain that the figures represent different line rates.

Proposed Response Response Status O

Cl 75 SC 8 PNA L35 # 2190
Woodward, Ted Telcordia Technologie

Comment Type T Comment Status X

Tables 75-14 and Table 75-13 contain different allocations for jitter, with the upstream jitter allocation being more stringent than the downstream jitter allocation at TP3 and TP7. Why is this? Further, it is noted that a downstream external modulator is assumed to meet the jitter budget. Is it therefore necessary to also use an external modulator to meet the upstream jitter budget? If so, this can raise economic feasibility concerns. Is it ever possible to meet jitter budgets with directly modulated lasers? What BER should be used in the jitter simulation -- 1e-3 or 1e-12? It is stated that this is a preliminary table, so this is a comment intended to assist in the revision.

SuggestedRemedy

Clarify upstream and downstream jitter budgets, need for external modulator, the appropriate BER level for the jitter data, and results when a directly modulated laser is used in simulations.

Proposed Response Response Status O

Cl 75 SC 8 PNA L9 # 2178
Woodward, Ted Telcordia Technologie

Comment Type E Comment Status X

Figures 75-11 and 75-12 appear to have formatting errors in slope indications.

SuggestedRemedy

correct formatting bug

Proposed Response Response Status O

Cl 75 SC 9.12 PNA L44 # 2191
Woodward, Ted Telcordia Technologie

Comment Type T Comment Status X

In this section it is stated "If stressed receiver compliance is necessary...", but in the 3 tables referenced, it is stated that stressed receiver performance is mandatory. Why would stressed receiver performance NOT be needed? This should be clarified.

SuggestedRemedy

Clarify whether stressed receiver performance is mandatory or not.

Proposed Response Response Status O

Cl 75 **SC 9.15** **PNA** **L 15** # **2179**
 Woodward, Ted Telcordia Technologie

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

Several specifications are included that are appropriate to burst mode receiver operation. For clarity, it might be helpful to relabel these sections or include a note that collects these into 'burst mode receive parameters'

SuggestedRemedy
 Consider reference to relevant parameters for burst mode receive operation.

Proposed Response *Response Status* **O**

Cl 76 **SC** **P152** **L** # **2048**
 Kramer, Glen Teknovus, Inc.

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

Empty page at the end of Annex 76A

SuggestedRemedy
 Remove empty page

Proposed Response *Response Status* **O**

Cl 75 **SC 9.2** **P76** **L 23** # **1771**
 KIMURA, Mitsunobu Hitachi Communicatio

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

In the title of 75.9.2, "10G EPON PMDs" should be "10G-EPON PMDs".

SuggestedRemedy
 "10G-EPON PMDs"

Proposed Response *Response Status* **O**

Cl 76 **SC** **P97** **L 52** # **1773**
 KIMURA, Mitsunobu Hitachi Communicatio

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

Title of Figure 76-2 has a period (".").

SuggestedRemedy
 The period should be removed.

Proposed Response *Response Status* **O**

Cl 75 **SC 9.2** **P76** **L 31** # **1772**
 KIMURA, Mitsunobu Hitachi Communicatio

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

"Table 75-5, Table75-8, Table75-9" needs "and".

SuggestedRemedy
 "Table 75-5, Table75-8, and Table75-9"

Proposed Response *Response Status* **O**

Cl 76 **SC** **P99** **L 27** # **1774**
 KIMURA, Mitsunobu Hitachi Communicatio

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

Titles od Figure 76-3 and 76-4 have periods (".").

SuggestedRemedy
 The periods should be removed.

Proposed Response *Response Status* **O**

Cl 76 **SC 1.1** **PNA** **L 1** # **2180**
 Woodward, Ted Telcordia Technologie

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

Figure 76-1 has a typographical error in the legend indicating that hatched region is "described in Clause 76Clause 75"

SuggestedRemedy
 remove extraneous Clause 75 reference

Proposed Response *Response Status* **O**

Cl 76 **SC 1.2.3** **PNA** **L 39** # 2192
 Woodward, Ted Telcordia Technologie

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

This section appears incomplete and does not describe much about dual rate mode. Perhaps it is intended for most of this discussion to take place in clause 77, but more could probably be said about dual rate mode in both this clause as well as in clause 75. Further, the related figure 76-4 has typographical formatting corrections in the MAC descriptions.

SuggestedRemedy
 Describe dual rate mode options more completely. Correct formatting errors in Fig. 76-4

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

Cl 76 **SC 1.6** **P101** **L 3** # 1775
 KIMURA, Mitsunobu Hitachi Communicatio

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

A period is missed.

SuggestedRemedy
 A period should be placed.

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

Cl 76 **SC 1.6.1.3** **PNA** **L 6** # 2181
 Woodward, Ted Telcordia Technologie

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

repeated word '...bound the the XGMII'

SuggestedRemedy
 Substitute 'to' for duplicate word

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

Cl 76 **SC 1.6.1.5** **P102** **L 39** # 1776
 KIMURA, Mitsunobu Hitachi Communicatio

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

A period is missed.

SuggestedRemedy
 A period should be placed.

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

Cl 76 **SC 2** **PNA** **L 1** # 2193
 Woodward, Ted Telcordia Technologie

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

The requirement for FEC resident in the ONU elements has a cost implication. While it does not have to be explicitly included in the standard itself, an economic validation that this feature can be done at reasonable cost is appropriate. Probably this has been done and is recorded in task force contributions, but I thought it was important enough to be worth mentioning here.

SuggestedRemedy
 Ensure adequate economic feasibility for mandatory burst mode FEC enabled ONU elements has been provided.

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

Cl 76 **SC 2.2.1.5** **P110** **L 39** # 1777
 KIMURA, Mitsunobu Hitachi Communicatio

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

"a state machines" and "the state machines" should be replaced as "a state diagram" and "the state diagram".

SuggestedRemedy
 "a state diagram"; "the state diagram".

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

Cl 76 SC 2.2.4 PNA L8 # 2194
Woodward, Ted Telcordia Technologie

Comment Type T Comment Status X

If the OTN long-haul optical transmission network is any indication, proprietary FEC extensions may arise. What provision, if any, is available for organizational specific extension or alternative FEC instantiations? What should be avoided in particular? Mention should be made of whether such extension is possible and supported by the standard, and if so, how it would be indicated.

SuggestedRemedy

Extend this section to include a explanation of whether proprietary coding alternatives are supported in any manner, or disallowed. If allowed, how are such extensions to be indicated and what types of implementation would be very problematic (e.g. 'do's and don'ts)

Proposed Response Response Status O

Cl 76 SC 2.2.4.1 P113 L29 # 1778
KIMURA, Mitsunobu Hitachi Communicatio

Comment Type E Comment Status X

Font of "P(x)" is not proper.

SuggestedRemedy

Font of "P(x)" should be the same one as of the equation after "vector".

Proposed Response Response Status O

Cl 76 SC 2.2.5 P116 L19 # 1779
KIMURA, Mitsunobu Hitachi Communicatio

Comment Type E Comment Status X

Two periods are shown.

SuggestedRemedy

A period should be removed.

Proposed Response Response Status O

Cl 76 SC 2.2.5 P117 L46 # 1780
KIMURA, Mitsunobu Hitachi Communicatio

Comment Type E Comment Status X

Two spaces are shown between "by two".

SuggestedRemedy

A space should be removed.

Proposed Response Response Status O

Cl 76 SC 2.2.5 PNA L12 # 2195
Woodward, Ted Telcordia Technologie

Comment Type T Comment Status X

Figure 76-15. Minimum and maximum burst lengths were not immediately apparent. This figure seems like a good place to indicate both minimum and maximum (if defined) burst durations.

SuggestedRemedy

Indicate minimum / maximum burst durations on the figure, or in related text in this section

Proposed Response Response Status O

Cl 76 SC 2.2.5.1 P118 L41 # 1781
KIMURA, Mitsunobu Hitachi Communicatio

Comment Type E Comment Status X

The last word of the sentence "A 66-bit ..." is "transmissino" and has no period.

SuggestedRemedy

Should be "transmission."

Proposed Response Response Status O

Cl 76 **SC 2.3.3** **PNA** **L 36** # 2182
Woodward, Ted Telcordia Technologie

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

Features discussed in Clause 45.2.1 related to FEC monitoring and statistics are not discussed in this section, and it seems like they should be.

SuggestedRemedy
Include discussion of FEC monitoring and reporting capabilities to be supported, or make reference thereto.

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

Cl 76 **SC 2.3.4** **PNA** **L 51** # 2183
Woodward, Ted Telcordia Technologie

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

This section describes BER monitoring capability, but does not clarify that this is a measure of the uncorrected native BER, since it is measuring on the synch headers, which do not have FEC coverage. It would be helpful to the reader to explicitly note that this is a measure of uncorrected BER.

SuggestedRemedy
include informative sentence indicating that this feature provides measure of uncorrected native BER.

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

Cl 76 **SC 2.3.4.4** **P134** **L 51** # 1782
KIMURA, Mitsunobu Hitachi Communicatio

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

The first word of the sentence is "TThe".

SuggestedRemedy
Should be "The".

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

Cl 76 **SC 2.3.7.1** **P136** **L 24** # 1783
KIMURA, Mitsunobu Hitachi Communicatio

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

Between the words "Subclause" and "76.2.2.1.1", there is no space.

SuggestedRemedy
Should be "Subclause 76.2.2.1.1."

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

Cl 76 **SC 3** **P137** **L 29** # 1784
KIMURA, Mitsunobu Hitachi Communicatio

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

"100BASEPX" is shown. A hyphen should be placed between BASE and PX.

SuggestedRemedy
Should be "1000BASE-PX".

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

Cl 76 **SC 3.2.1.1** **PNA** **L 33** # 2184
Woodward, Ted Telcordia Technologie

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

colon is followed by new paragraph. It's not clear if there is some content missing or this was a formatting error.

SuggestedRemedy
adjust formatting or content appropriately.

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

Cl 76 SC 4.3 P141 L27 # 1785
 KIMURA, Mitsunobu Hitachi Communicatio

Comment Type E Comment Status X
 In the "Item" cell, "FECEncoder" is shown. A hyphen should be placed between FEC and Encoder.

SuggestedRemedy
 Should be "FEC-Encoder".

Proposed Response Response Status O

Cl 76 SC 4.4.7 P144 L1 # 1786
 KIMURA, Mitsunobu Hitachi Communicatio

Comment Type E Comment Status X
 In the title of 76.4.4.7, "state machines" is shown.

SuggestedRemedy
 Should be "state diagrams".

Proposed Response Response Status O

Cl 76 SC 76 P95 L1 # 1936
 Dawes, Piers Avago

Comment Type T Comment Status X
 Title is FAR too long. One should try to keep the title so that it is just one line long in the contents Should mention FEC as it is such an important feature here

SuggestedRemedy
 Change title to "RS, PCS with FEC, and PMA, for 10G-EPON"

Proposed Response Response Status O

Cl 76 SC 76 P95 L1 # 2308
 Hajduczenia, Marek Nokia Siemens Networ

Comment Type E Comment Status X
 In Clause 76, term "Reconciliation sublayer" is used interchangeably with "Reconciliation Sublayer". Align the capitalization for all terms and then align them through the whole draft.

SuggestedRemedy
 In Clause 76, term "Reconciliation sublayer" is used interchangeably with "Reconciliation Sublayer". Align the capitalization for all terms and then align them through the whole draft.

Proposed Response Response Status O

Cl 76 SC 76 P95 L30 # 1937
 Dawes, Piers Avago

Comment Type T Comment Status X
 Need to mention FEC in the introduction to this clause. PMA = Physical Medium Attachment not Physical Media Attachment

SuggestedRemedy
 This Clause describes the Reconciliation Sublayer (RS), Physical Coding Sublayer (PCS) with mandatory RS(255, 223) FEC), and Physical Medium Attachment (PMA) sublayer used with 10GBASE-PR and 10/1GBASE-PRX point-to-multipoint (P2MP) networks.

Proposed Response Response Status O

Cl 76 SC 76.1 P95 L37 # 1938
 Dawes, Piers Avago

Comment Type T Comment Status X
 "76.1 Reconciliation Sublayer (RS)": need a more specific title, as there are many RSs

SuggestedRemedy
 76.1 Reconciliation Sublayer (RS) for 10G-EPON

Proposed Response Response Status O

Cl 76 **SC 76.1** **P96** **L1** # 1812
 D'Ambrosia, John Force10 Networks

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

inconsistencies between this figure and how things are done in architectural positioning diagrams elsewhere in 802.3:
 1. use of lower case text
 2. reference to clause #'s in diagram
 3. drawing of interface between RS and PCS.

SuggestedRemedy
 make all text caps
 delete clause # references in diagrams
 just have a single column connecting the two interfaces, not a box then column, then box.

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

Cl 76 **SC 76.1** **P97** **L1** # 1813
 D'Ambrosia, John Force10 Networks

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

inconsistencies between this figure and how things are done in architectural positioning diagrams elsewhere in 802.3:
 1. use of lower case text
 2. reference to clause #'s in diagram
 3. drawing of interface between RS and PCS.

SuggestedRemedy
 make all text caps
 delete clause # references in diagrams
 just have a single column connecting the two interfaces, not a box then column, then box.

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

Cl 76 **SC 76.1.1** **P95** **L40** # 2012
 Frazier, Howard Broadcom

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

Decapitalize "Subclause".

SuggestedRemedy
 per comment.

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

Cl 76 **SC 76.1.1** **P95** **L41** # 2081
 Kramer, Glen Teknovus, Inc.

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

grammar

Sentence uses "at one data rate" and "in another data rate"

SuggestedRemedy
 Replace "in" with "at"

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

Cl 76 **SC 76.1.1** **P95** **L42** # 1724
 Lin, Rujian Shanghai Luster Terab

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

receive in...

SuggestedRemedy
 Correction: receiving at

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

Cl 76 **SC 76.1.1** **P96** **L15** # 2150
 Lynskey, Eric Teknovus

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

In Figure 76-1, the dotted line separating PCS and FEC does not go across the entire box. In Figure 76-2, it does. Please make consistent.

SuggestedRemedy
 Extend dotted line through entire box.

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

Cl 76 **SC 76.1.1** **P96** **L45** # **2019**
 Frazier, Howard Broadcom

Comment Type **ER** **Comment Status** **X**
 in Figure 76-1, "Clause 76Clause75" should be "Clause 76".

SuggestedRemedy
 Delete extraneous "Clause 75".

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

Cl 76 **SC 76.1.1** **P96** **L45** # **2149**
 Lyskey, Eric Teknovus

Comment Type **E** **Comment Status** **X**
 In Figure 76-1, the label incorrectly includes Clause 75. The PMD is not highlighted in the figure.

SuggestedRemedy
 Remove "Clause 75".

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

Cl 76 **SC 76.1.2** **P98** **L3** # **2020**
 Frazier, Howard Broadcom

Comment Type **ER** **Comment Status** **X**
 Please don't use the word "bridge" to describe the interface between the MAC and the PHY. "Bridge" has a specific meaning in IEEE 802 standards.

SuggestedRemedy
 delete the words "used to bridge" in two places in this paragraph.

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

Cl 76 **SC 76.1.2.3** **P98** **L37** # **2304**
 Hajduczenia, Marek Nokia Siemens Networ

Comment Type **E** **Comment Status** **X**
 Style of this paragraph is significantly different than the style of other paragraphs in the draft. Apply the same style as in paragraph 76.1.2.1 for example.

SuggestedRemedy
 Apply the same style to paragraph 76.1.2.3 as in paragraph 76.1.2.1 for example.

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

Cl 76 **SC 76.1.2.3** **P98** **L39** # **2082**
 Kramer, Glen Teknovus, Inc.

Comment Type **E** **Comment Status** **X**
 The paragraph in this section seems to use a style different from other sections (line spacing is different)

SuggestedRemedy
 Check the style and make consistent

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

Cl 76 **SC 76.1.2.3** **P99** **L1820** # **1725**
 Lin, Rujian Shanghai Luster Terab

Comment Type **E** **Comment Status** **X**
 In ONU parts of Figure 76-3(a) and (b), Characters TX and RX are positioned wrong.

SuggestedRemedy
 Correction: In ONU parts of Figure 76-3(a) and (b), the positions of TX and RX are interchanged.

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

Cl 76 SC 76.1.2.3 P99 L 31 # 2013
 Frazier, Howard Broadcom
 Comment Type E Comment Status X
 If Figure 76-4, there are some strange characters in the rectangles across the top of the figure. I can't tell what they should be.
 SuggestedRemedy
 replace with correct characters.
 Proposed Response Response Status O

Cl 76 SC 76.1.2.3 P99 L 31 # 2305
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type ER Comment Status X
 There are funny characters in Figure 76-4 in MAC name. It says currently "1G,ÄiMAC" or "10G,ÄiMAC" whereas it should say "1G-MAC" or "10G-MAC", respectively.
 SuggestedRemedy
 Change "1G,ÄiMAC" and "10G,ÄiMAC" to "1G-MAC" and "10G-MAC", respectively, in Figure 76-4.
 Proposed Response Response Status O

Cl 76 SC 76.1.2.3 P99 L 32 # 181546
 Lynskey, Eric Teknovus
 Comment Type E Comment Status R resubmit
 Figure 76-4 has corrupted speed labels for MACs.
 SuggestedRemedy
 Replace speeds with the following (left to right):
 1G-1G, 1G-1G, 10G-1G, 10G-1G, 10G-10G, 10G-10G
 OR
 1 Gb/s, 1 Gb/s, 10/1 Gb/s, 10/1 Gb/s, 10 Gb/s, 10 Gb/s
 Response Response Status C
 == Resolution from Denver 0806 Meeting ==
 REJECT.
 This comment was WITHDRAWN by the commenter. To be resubmitted by TF Chair against next draft.
 (was against c76)
 =====

Cl 76 SC 76.1.2.3 P99 L 52 # 2083
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 Primitive name is not correct
 SuggestedRemedy
 PLS.DATA should be PLS_DATA
 Proposed Response Response Status O

Cl 76 SC 76.1.3 P100 L 10 # 2084
Kramer, Glen Teknovus, Inc.

Comment Type ER Comment Status X

These two paragraphs repeat the same thing. Change the text as shown in the remedy.

The statement about single PLS_DATA.request primitive being active at any time is only important for the OLT, since this is where the multiple MAC connect to single (X)GMII. Move this statement after the OLT sentence.

SuggestedRemedy

Perlace 2nd and 3rd paragraphs with the following text:

"As described in Subclause @@77.1.2@@, multiple MACs within an OLT are bound to a single XGMII, in case of a symmetric OLT, or to an XGMII transmit path and a GMII receive path, in case of an asymmetric OLT. Correspondingly, only one PLS_DATA.request primitive is active at any time.

At the ONU, the MAC is either bound to an XGMII, in case of a symmetric ONU, or to an XGMII receive path and a GMII transmit path, in case of an asymmetric ONU."

Proposed Response Response Status O

Cl 76 SC 76.1.3 P100 L 15 # 2366
Law, David 3Com

Comment Type E Comment Status X

Paragraph 2 states 'At the ONU the MAC is either bound to an XGMII or to an XGMII receive path and a GMII transmit path.'

Paragraph 3 then states 'For 10G links, the mechanism is extended to allow the MAC to be bound to a single XGMII, or to a GMII transmit path and an XGMII receive path (in the case of an asymmetric ONU) ..'

Paragraph 3 seems to be a restatement of content in paragraph 2.

SuggestedRemedy

Delete paragraph 3.

Proposed Response Response Status O

Cl 76 SC 76.1.3 P100 L 24 # 2397
Law, David 3Com

Comment Type T Comment Status X

A 'frame' or 'MAC frame' is from the Destination Address to Frame Check Sequence inclusive, a 'packet' or 'MAC packet' is a MAC frame plus Preamble, Start Frame Delimiter and Extension.

Based on this there are a number of changes suggested below:

SuggestedRemedy

Page 100, line 24: Change '.. within the preamble identify the MAC to which this frame should be directed.' to read '.. within the preamble identify the MAC to which this packet should be directed.'. (See IEEE Std 802.3as-2006 Figure 3-1).

Page 101, line 3: Chnage '.. to defer the MAC between frames in order ..' to read '.. to defer the MAC between packets in order ..' (See IEEE Std 802.3as-2006 4.2.3.2.1).

Page 102, line 5: Change '.. enough time is inserted between frames transmitted by different ..' to read '.. enough time is inserted between packets transmitted by different ..'. (See IEEE Std 802.3as-2006 4.2.3.2.2)

Page 108, line 40: Change '.. the minimum IPG has been preserved between two adjacent frames.' to read '.. the minimum IPG has been preserved between two adjacent packets.'. (See IEEE Std 802.3as-2006 4.2.3.2.2)

Page 108, line 43: Chnage '.. start of the first frame in a burst, such ..' to read '.. start of the first packet in a burst, such ..' as I believe that it is a burst of packets that are sent by ONUs to the OLT.

Page 109, line 39: Chnage '.. that precede the first frame in the burst.' to read '.. that precede the first packet in the burst.'

Page 136, line 8: Change '.. inserted between MAC frames and not necessarily ..' to read '.. inserted between packets and not necessarily ..'.

Page
Proposed Response Response Status O

Cl 76 **SC 76.1.3.1** **P100** **L 30** # **2085**
 Kramer, Glen Teknovus, Inc.
Comment Type **E** **Comment Status** **X**
 grammar
SuggestedRemedy
 Insert commans after the "chip-to-chip" and "independence"
Proposed Response **Response Status** **O**

Cl 76 **SC 76.1.3.2** **P100** **L 39** # **1939**
 Dawes, Piers Avago
Comment Type **E** **Comment Status** **X**
 "TQ" is used just once in normative text, and twice in PICS 75.12.3
SuggestedRemedy
 Here, spell it out: one time-quantum (16 ns). Can leave PICS as is because there's a reference to a subclause that makes it clear
Proposed Response **Response Status** **O**

Cl 76 **SC 76.1.3.1** **P100** **L 32** # **2306**
 Hajduczenia, Marek Nokia Siemens Networ
Comment Type **E** **Comment Status** **X**
 Do not divide the PMD names, especially the name of PRX type PMDs. It makes the reading harder, e.g. "media independence so that an identical media access controller may be used with all 10GBASE-PR and 10/1GBASE-PRX PHY types."
 Another example on page 105, line 52, page 107 line 44, page 124 line 2
SuggestedRemedy
 Force a line break before the PMD name if it does not fit in the line completely.
Proposed Response **Response Status** **O**

Cl 76 **SC 76.1.3.2** **P100** **L 39** # **2021**
 Frazier, Howard Broadcom
Comment Type **ER** **Comment Status** **X**
 Don't use the abbreviation TQ for time_quantum.
SuggestedRemedy
 change "TQ" to "time_quantum" and add a cross-reference to 72.2.2.1
Proposed Response **Response Status** **O**

Cl 76 **SC 76.1.3.2** **P100** **L 37** # **2086**
 Kramer, Glen Teknovus, Inc.
Comment Type **T** **Comment Status** **X**
 From simulations it does not appear that RS, PCS, and PMA can have delay variability of no more than 1 TQ.
 Need to clarify that this variability is in one direction, not round-trip.
SuggestedRemedy
 Change the text as follows:
 "The MPCP relies on strict timing based on the distribution of timestamps. The actual delay is implementation dependent, but, to comply with this mechanism, an implementation shall maintain a combined delay variation through RS, PCS, and PMA sublayers of no more than 2 TQ in the transmit direction and no more than 2 TQ in the receive direction."
Proposed Response **Response Status** **O**

Cl 76 **SC 76.1.3.2** **P100** **L 40** # **2374**
 Law, David 3Com
Comment Type **ER** **Comment Status** **X**
 The abbreviation TQ is used here and in two PICS entries, and is not defined anywhere.
SuggestedRemedy
 Either define in list of abbreviations or expand out to be time_quantum as used elsewhere.
Proposed Response **Response Status** **O**

Cl 76 SC 76.1.6 P101 L0 # 2307
Hajduczenia, Marek Nokia Siemens Networ

Comment Type E Comment Status X

Table 76-1 and Table 76-2 are affected. There are unusually large spaces between individual tables and blocks of surrounding text. Please remove extra spaces and align the Frame styles, if necessary.

SuggestedRemedy

Please remove extra spaces between Table 76-1 and Table 76-2 and the accompanying text. Align Frame styles, if necessary.

Proposed Response Response Status O

Cl 76 SC 76.1.6 P101 L 3034 # 1726
Lin, Rujian Shanghai Luster Terab

Comment Type T Comment Status X

In Table 76-2, the following rows
OLT Asymmetric(Rx:10Gb/s) XGMII RXD<31:0>,RXC<3:0>,RX_CLK
ONU Asymmetric(Rx:1Gb/s) GMII RXD<7:0>,RX_ER,RX_DV,RX_CLK
are incorrect.

SuggestedRemedy

Correction:
OLT Asymmetric(Rx:1Gb/s) GMII RXD<7:0>,RX_ER,RX_DV,RX_CLK
ONU Asymmetric(Rx:10Gb/s) XGMII RXD<31:0>,RXC<3:0>,RX_CLK

Proposed Response Response Status O

Cl 76 SC 76.1.6.1 P101 L36 # 2413
Mandin, Jeff PMC Sierra

Comment Type TR Comment Status X

There's been much discussion about the carrier sense logic in the RS. Among other considerations, the following is apparent:

* Carrier sense creates timestamp variation of 1.6 TQ, which greater than the 1 TQ specified by 1G (cf. 65.3.3). With properly defined FEC_overhead functions, it should be possible to reduce the FEC-insertion-related timestamp variation to 0.

* In the ONU, the carrier sense mechanism assumes insertion of parity on a constant basis. But the data detector resets where the parity is inserted for each burst.

* Carrier Sense can interact with delays in the stack to result in insertion of extra IDLEs between bursts - leading to suboptimal use of bandwidth

SuggestedRemedy

- 1. Delete subclause 76.1.6.1
- 2. On page 101, line 1: Delete the paragraph:

"As discussed in Subclause @@46.1.7.3@@, the PLS_CARRIER.indication primitive is not used for 10 Gb/s operation. However, 10G-EPON operation extends the 10 Gb/s RS by using the PLS_CARRIER.indication primitive to defer the MAC between frames in order to allow the PCS to insert FEC parity octets"

- 3. Revise the FEC_Overhead functions as described in 3av_0809_mandin_2.pdf

Proposed Response Response Status O

Cl 76 SC 76.1.6.1.2 P101 L47 # 2398
Law, David 3Com

Comment Type T Comment Status X

A 'frame' or 'MAC frame' is from the Destination Address to Frame Check Sequence inclusive, a 'packet' or 'MAC packet' is a MAC frame plus Preamble, Start Frame Delimiter and Extension. Hence CARRIER_STATUS should be based on packets and not frames.

Also should be clear that CARRIER_ON is asserted at the beginning of every packet transmission.

SuggestedRemedy

Change the text '.. assumes the value CARRIER_ON at the beginning of every frame and assumes the value of CARRIER_OFF after frame transmission is complete..' to read '.. assumes the value CARRIER_ON at the beginning of every packet transmission and assumes the value of CARRIER_OFF after packet transmission is complete ..'.

Proposed Response Response Status O

Cl 76 SC 76.1.6.1.3 P102 L5 # 2087
Kramer, Glen Teknovus, Inc.

Comment Type E Comment Status X

Use consistent primitive naming

SuggestedRemedy

use PLS_CARRIER.indication (lower case "i")

Proposed Response Response Status O

Cl 76 SC 76.1.6.1.4 P101 L12 # 2309
Hajduczenia, Marek Nokia Siemens Networ

Comment Type E Comment Status X

"The notation -= after a counter indicates that the counter value is to be decremented by the following value. The notation += after a counter indicates it is to sum itself with the following value." - these two definitions should be symmetric.

SuggestedRemedy

Change "The notation -= after a counter indicates that the counter value is to be decremented by the following value. The notation += after a counter indicates it is to sum itself with the following value." to "The notation -= after a counter indicates it is to subtract the following value from its value. The notation += after a counter indicates it is to add the following value to its value."

Proposed Response Response Status O

Cl 76 SC 76.1.6.1.5 P101 L15 # 2310
Hajduczenia, Marek Nokia Siemens Networ

Comment Type T Comment Status X

The use of terms "XGMII transfer column" and "column" in this subsection should be clarified. It is suggested to add a new constant:

column_size

This constant represents the size of the XGMII transfer column in the units of bytes.

VALUE: 4

Modify the following definitions as proposed:

block_size > This constant represents the size of the FEC codeword, expressed in the units of column_size.

parity_cnt > This variable counts the amount of parity data to be inserted by the PCS. This variable is expressed in the units of column_size.

parity_ratio > The number of parity data columns to be inserted at the end of the given FEC codeword. This variable is expressed in the units of column_size.

SuggestedRemedy

Add a new constant:

column_size

This constant represents the size of the XGMII transfer column in the units of bytes.

VALUE: 4

Modify the following definitions as proposed:

block_size > This constant represents the size of the FEC codeword, expressed in the units of column_size.

parity_cnt > This variable counts the amount of parity data to be inserted by the PCS. This variable is expressed in the units of column_size.

parity_ratio > The number of parity data columns to be inserted at the end of the given FEC codeword. This variable is expressed in the units of column_size.

Proposed Response Response Status O

Cl 76 SC 76.1.6.1.6 P103 L30 # 1752
LANDRY, MATTHEW SILICON LABS

Comment Type E Comment Status X

Logical equalities (=, <, >, etc.) should have operational precedence over logical AND (*), but it would be good to use parentheses to ensure no misunderstanding.

SuggestedRemedy

Replace terms like "CARRIER_STATUS = CARRIER_ON * parity_cnt > 0 * C_TYPE(col) = C" with "(CARRIER_STATUS = CARRIER_ON) * (parity_cnt > 0) * (C_TYPE(col) = C)"

This could apply to all state diagrams.

Proposed Response Response Status O

Cl 76 SC 76.2.1.1 P106 L 26 # 2151
 Lynskey, Eric Teknovus

Comment Type E Comment Status X

Figure 76-6 is incorrect. The box to the left of the PCS box should be labeled as the transmit function. The box to the right of the PCS box should be labeled as the receive function.

SuggestedRemedy

Replace with "10GBASE-PR Transmit Function" and "1000BASE-PX Receive function".

Proposed Response Response Status O

Cl 76 SC 76.2.1.2 P107 L 24 # 1941
 Dawes, Piers Avago

Comment Type T Comment Status X

If the FEC sub-sublayer does rate increase/decrease then the Idle Deletion / Idle Insertion does the opposite, so that the line rate and the RS rate are in the usual proportion.

SuggestedRemedy

In this and the next figure, either remove the "(rate increase)" and "(rate decrease)" or insert balancing ones in Idle Deletion and Idle Insertion

Proposed Response Response Status O

Cl 76 SC 76.2.2 P107 L 47 # 2312
 Hajduczenia, Marek Nokia Siemens Networ

Comment Type T Comment Status X

"For both 10GBASE-PR and 10/1GBASE-PRX, the ONU PCS always operates in a burst mode." - this sentence is misleading. It may seem ONU operates in burst mode in DS direction as well.

SuggestedRemedy

Change
 "For both 10GBASE-PR and 10/1GBASE-PRX, the ONU PCS always operates in a burst mode."
 to
 "For both 10GBASE-PR and 10/1GBASE-PRX, the ONU PCS always operates in a burst mode in transmit direction."

Proposed Response Response Status O

Cl 76 SC 76.2.2 P107 L 49 # 2088
 Kramer, Glen Teknovus, Inc.

Comment Type E Comment Status X

The sentence doesn't read right:

"The transmit direction of OLT PCS is illustrated in Figure 76-8 and in Figure 76-9 for the transmit direction of the ONU PCS"

SuggestedRemedy

rephrase as

"Figure 76-8 illustrates the transmit direction of OLT PCS Figure 76-9 illustrates the transmit direction of the ONU PCS."

Proposed Response Response Status O

Cl 76 SC 76.2.2.1 P108 L 36 # 1942
 Dawes, Piers Avago

Comment Type T Comment Status X

Process and character names aren't ALL CAPS, although states are, and processes and functions can be treated as proper nouns. Not sure if base document is consistent about idle (or Idle) characters (or control characters). Missing "to".

SuggestedRemedy

76.2.2.1 Alignment and Idle control character deletion The Idle Deletion process is responsible for deleting excess Idle characters to allow the parity data to be inserted

Proposed Response Response Status O

Cl 76 SC 76.2.2.1 P108 L 38 # 2313
 Hajduczenia, Marek Nokia Siemens Networ

Comment Type E Comment Status X

Why is IDLE DELETION process capitilized ? Idle Insertion or Carrier Sense was not ...

SuggestedRemedy

Change "IDLE DELETION" to "Idle Deletion" in all occurences.

Proposed Response Response Status O

CI 76 SC 76.2.2.1 P108 L 49 # 2089
 Kramer, Glen Teknovus, Inc.
 Comment Type E Comment Status X
 typo
 SuggestedRemedy
 "specific" should be "specified"
 Proposed Response Response Status O

CI 76 SC 76.2.2.1 P108 L 52 # 2090
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 These sentences are technically incorrect:

 "State diagram variables follow the conventions of @@Subclause 21.5.2@@ except when the variable has a default value. Variables in a state diagram with default values evaluate to the variable default in each state where the variable value is not explicitly set."

 Conventions of 21.5 are used without exceptions.
 SuggestedRemedy
 Remove these sentences.
 Also, do the same at these locations:

 page: 133 line: 25
 page: 134 line: 4
 page: 136 line: 14
 Proposed Response Response Status O

CI 76 SC 76.2.2.1.2 P109 L 39 # 2400
 Law, David 3Com
 Comment Type T Comment Status X
 The 'variable' DelayBound is never assigned a value in the state diagram and has a default value of 0x010F. It would therefore appear to be a constant.

 Alternatively this might be an implementation dependant value that the implementer has to set. If that is the case this needs to be explained in more detail, for example what units is the delay represented in.
 SuggestedRemedy
 If this is a constant, move to subclause 76.2.2.1.1, remove the exception to subclause 21.5.2 found in 76.2.2.1 as this was the only variable with a default.

 If this is a value that has to be set by the implementer state this, describe the calculation in detail , and provide the units this value is being measured in.
 Proposed Response Response Status O

CI 76 SC 76.2.2.1.4 P110 L 24 # 181547
 Lynskey, Eric Teknovus
 Comment Type E Comment Status R resubmit
 Typo in definition for DelCount.
 SuggestedRemedy
 Replace "than" with "that".
 Response Response Status C

 == Resolution from Denver 0806 Meeting ==
 REJECT.

 This comment was WITHDRAWN by the commenter. To be resubmitted by TF Chair against next draft.

 Resubmit
 =====

Cl 76 **SC 76.2.2.1.5** **P110** **L36** # 2118

Lynskey, Eric Teknovus

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

The first two sentences of this subclause are redundant to the requirements of 76.2.2.1. It's a good reminder of which state machine is used by the OLT and ONU, but it is not necessary to restate the requirement here.

SuggestedRemedy

Remove the word "shall" from both sentences and replace "implement" with "implements" in both sentences.

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

Cl 76 **SC 76.2.2.1.5** **P110** **L39** # 2014

Frazier, Howard Broadcom

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

extra full stop at the end of the sentence.

SuggestedRemedy

delete a full stop.

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

Cl 76 **SC 76.2.2.1.5** **P110** **L39** # 2314

Hajduczenia, Marek Nokia Siemens Networ

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

"the state machines prevail.." - double dot at the end of the sentence. Remove one.

SuggestedRemedy

Remove one of the dots at the end of this sentence "the state machines prevail.."

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

Cl 76 **SC 76.2.2.1.5** **P110** **L39** # 2091

Kramer, Glen Teknovus, Inc.

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

extra period at the end of the paragraph

SuggestedRemedy

see comment

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

Cl 76 **SC 76.2.2.1.5** **P111** **L1** # 2341

Hajduczenia, Marek Nokia Siemens Networ

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

Figure 76-11 and Figure 76-12 are broken for certain cases:
 (1) when FEC word begins at bit 1 of preamble, and
 (2) frame is of size < FEC_DSize
 See 3av_0809_hajduczenia_8.pdf for details

SuggestedRemedy

State machines need revision taking into consideration conclusions from 3av_0809_hajduczenia_8.pdf. No ready state machines are submitted as part of this comment.

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

Cl 76 **SC 76.2.2.1.5** **P111** **L1** # 2331

Hajduczenia, Marek Nokia Siemens Networ

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

Figure 76-10 (page 111) and Figure 76-11 (page 112) are affected. Variable DelCount is used in the state diagram and it is never initialized. Other counters are initialized in the INIT state on both figures. See also 3av_0809_hajduczenia_8.pdf relative to its impact on MPCP timestamp jitter.

SuggestedRemedy

Add "DelCount <= 0" to state INIT in Figure 76-10 and Figure 76-11.

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

Cl 76 SC 76.2.2.1.5 P111 L15 # 2414
Mandin, Jeff PMC Sierra

Comment Type TR Comment Status X

The transmit path IDLE deletion processes assume that there will be a full 72bit vector consisting of 8 IDLEs in the "undeletable" IPG.

This is not the case eg. consider the case where the Deficit IDLE Count algorithm reduced the IPG to 10 so that it appears thus: DTIIIIII IIIISDDD.

In any event the check is not needed, as IDLE deletion must ensure that precisely the correct number of IDLEs is deleted during each interpacket period.

SuggestedRemedy

- 1. Figure 76-10 (pg 111 line 16)

Modify the exit condition that reads:

```
"T_TYPE(tx_raw) = (C+E) *
IdleCount >= MinIpg *
DelCount > 0"
```

to

```
"T_TYPE(tx_raw) = (C+E) *
DelCount > 0"
```

- 2. Figure 76-11 (pg 112 line 26)

Modify the exit condition that reads:

```
"T_TYPE(tx_raw) = (C+E) *
IdleCount >= MinIpg *
DelCount > 0"
```

to

```
"T_TYPE(tx_raw) = (C+E) *
DelCount > 0"
```

Proposed Response Response Status O

Cl 76 SC 76.2.2.1.5 P111 L16 # 181551
Lynskey, Eric Teknovus

Comment Type E Comment Status R resubmit

Some state diagrams throughout the draft use "else" as an exit condition and some use "ELSE". We should be consistent. Clause 77 uses "else", so perhaps that is the way to go. If we choose "else", figures affected would be 76-19, 76-26, 76-27. If we choose "ELSE", figures affected would be 76-10, 76-11, and 76-18.

SuggestedRemedy

Select one method and be consistent throughout clause.

Response Response Status C

== Resolution from Denver 0806 Meeting ==
REJECT.

This comment was WITHDRAWN by the commenter. To be resubmitted by TF Chair against next draft.

Replace "ELSE" with "else" in all figures.

=====

Cl 76 SC 76.2.2.1.5 P112 L16 # 2399
Law, David 3Com

Comment Type T Comment Status X

The use of the 'if(test)' and the 'else' construct isn't supported by subclause 21.5 which subclause 76.2.2.1 states this state diagram follows.

Subclause 21.5 doesn't define 'if' construct. Subclause 1.2, which is referenced by 21.5. does define an 'if' construct in Figure 1-2 but it is of the form [action] (condition), as an example:

[reset PLS functions] (if no_collision)

The 'ELSE' defined in Table 21-1 is for use on a transition out of a state diagram (see 21.5.3, item e) - 'A branch taken when other exit conditions are not satisfied: ELSE'.

SuggestedRemedy

Either:

[1] Reconstruct the state diagram to follow subclause 21.5

or

[2] Locally define the constructs 'if', 'else' used here, as is already done for the exception for default values for variables. If this is done I would prefer that they were uppercase and that a 'then' construct also be locally defined.

or

[3] Preferably add an 'IF', 'THEN', 'ELSE' construct to 21.5 that can be used within state boxes.

Proposed Response Response Status O

Cl 76 SC 76.2.2.4 P113 L7 # 1943
Dawes, Piers Avago

Comment Type T Comment Status X

Hiding the light under a bushel

SuggestedRemedy

Refer to 76A

Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L12 # 1945
Dawes, Piers Avago

Comment Type T Comment Status X

"Galois Field"?

SuggestedRemedy

Explain, give reference, or tell your story without mention of it.

Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L12 # 1944
Dawes, Piers Avago

Comment Type T Comment Status X

Please give a reference for a more complete discussion of RS(255, 223). Is G.975 relevant?

SuggestedRemedy

Per comment

Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L12 # 1946
Dawes, Piers Avago

Comment Type T Comment Status X

"non-binary"? Does this mean anything, here?

SuggestedRemedy

Delete?

Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L13 # 2092
 Kramer, Glen Teknovus, Inc.
 Comment Type E Comment Status X
 grammar
 SuggestedRemedy
 replace the hyphen with a comma in
 "The code is systematic - meaning..."
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L17 # 1948
 Dawes, Piers Avago
 Comment Type TR Comment Status X
 Explain what x is - or avoid this kind of language
 SuggestedRemedy
 Per comment
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L17 # 2376
 Law, David 3Com
 Comment Type ER Comment Status X
 Please follow subclause 17.3 'Presentation of equations' found in the IEEE-SA Style Manual [<http://standards.ieee.org/guides/style/section6.html#915>].
 SuggestedRemedy
 Need to define the following by adding to the 'where:' list:
 G(x) and x
 Similarly, the equations on lines 21, 27 and 29 should add a 'where:' list and need to define all variables, functions and vectors - for example on line 21 L(x) is used but not defined.
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L17 # 1947
 Dawes, Piers Avago
 Comment Type T Comment Status X
 If you need to use a capital pi
 SuggestedRemedy
 Add it to the table of symbols, return updated table to WG chair and vice-chair
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L21 # 1949
 Dawes, Piers Avago
 Comment Type T Comment Status X
 "alpha is equal to 0x02 and is a root of the binary primitive polynomial $x^8+x^4+x^3+x^2+1$ "
 SuggestedRemedy
 Just the same as RS(255,239) in 65.2.3.1? Are you sure?
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L21 # 1950
 Dawes, Piers Avago
 Comment Type T Comment Status X
 "alpha is equal to 0x02 and is a root of the binary primitive polynomial $x^8+x^4+x^3+x^2+1$ "
 SuggestedRemedy
 What does this mean? I believe "0x02" is just 2, in fancy clothes. What does "2 is a root of the binary primitive polynomial $x^8+x^4+x^3+x^2+1$ " mean?
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L23 # 1951
 Dawes, Piers Avago
 Comment Type TR Comment Status X
 Explain what L is
 SuggestedRemedy
 Per comment
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L 23 # 1952
 Dawes, Piers Avago
 Comment Type T Comment Status X
 If this equation is any more than window dressing, give it an equation number
 SuggestedRemedy
 Per comment
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L 34 # 1955
 Dawes, Piers Avago
 Comment Type T Comment Status X
 "Note -": it's not clear if this is normative text, or an informative NOTE
 SuggestedRemedy
 Make it normative: we need all possible help to make bit-ordering clear!
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L 32 # 1954
 Dawes, Piers Avago
 Comment Type TR Comment Status X
 Unless you know that errors are independent (possibly a tolerable approximation for PON, certainly not true for a heavily equalised copper link), it's very useful to have some ability to detect some uncorrected errors, for good mean time to false packet acceptance in all circumstances. I believe RS codes are good for this.
 SuggestedRemedy
 Add normative text (possibly at 76.2.3.3) for error detection ability of a compliant implementation, greater than error detection capability, add PICS
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L 35 # 1956
 Dawes, Piers Avago
 Comment Type T Comment Status X
 "d0 is identified as the LSB and d7 is identified as the MSB"
 SuggestedRemedy
 State whether this applies to a parity octet also
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L 32 # 1953
 Dawes, Piers Avago
 Comment Type TR Comment Status X
 "The code has a correction capability of up to sixteen symbols." In a block, presumably. Are you expecting that a compliant implementation shall have that capability?
 SuggestedRemedy
 Add normative text (possibly at 76.2.3.3) for correction ability of a compliant implementation (could be less than 16), add PICS
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P113 L 35 # 1957
 Dawes, Piers Avago
 Comment Type E Comment Status X
 "MSB bit": repetition
 SuggestedRemedy
 MSB
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.1 P114 L 7 # 1757
 Hirth, Ryan Teknovus
 Comment Type E Comment Status X
 funny character in diagram after "Pad"
 SuggestedRemedy
 fix text in diagram
 Proposed Response Response Status O

CI 76 SC 76.2.2.4.1 P114 L7 # 1958
 Dawes, Piers Avago
 Comment Type E Comment Status X
 Strange characters after "Pad ,"
 SuggestedRemedy
 If you have found a way to import a drawing into Frame, please tell me! Fix the odd characters, 3 or 4 occurrences
 Proposed Response Response Status O

CI 76 SC 76.2.2.4.1 P114 L7 # 1997
 Alan, Brown Wave7 Optics, Inc.
 Comment Type E Comment Status X
 Garbage characters describe padding in Figures 76-12, 76-13, and 76-20.
 SuggestedRemedy
 Correct the figures.
 Proposed Response Response Status O

CI 76 SC 76.2.2.4.1 P114 L7 # 2315
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 Figure 76-12 is affected. Strange characters in Figure "Pad ,Äú" around line 7
 SuggestedRemedy
 Replace the corrupted text in Figure 76-12 with "Pad" or anything else that is deemed necessary.
 Proposed Response Response Status O

CI 76 SC 76.2.2.4.2 P114 L40 # 2316
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 "padding bits to the 27 65-bit blocks" seems confusing when two numbers go after each other. Change to "padding bits to the 27 (twenty-seven) 65-bit blocks"
 SuggestedRemedy
 Change "padding bits to the 27 65-bit blocks" to "padding bits to the 27 (twenty-seven) 65-bit blocks"
 Proposed Response Response Status O

CI 76 SC 76.2.2.4.2 P114 L41 # 1959
 Dawes, Piers Avago
 Comment Type TR Comment Status X
 "This data is then FEC-encoded, resulting in the 32-byte parity portion of the FEC codeword." Apart from some waffly jargon in 76.2.2.4.1, there is no information given for how to create the parity. This standard is supposed to be unambiguous, and in English (or state machine notation). It's not a patent; it needs to be intelligible to customers and testers, not just those very "skilled in the art".
 SuggestedRemedy
 Add a section with a blow-by-blow recipe for creating the parity portion.
 Proposed Response Response Status O

CI 76 SC 76.2.2.4.2 P115 L27 # 2096
 Kramer, Glen Teknovus, Inc.
 Comment Type E Comment Status X
 Corrupted text in Figure 76-13 in box "padding"
 Same in Figure 76-20.
 SuggestedRemedy
 restore to the original text
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.3 P116 L1 # 1961
 Dawes, Piers Avago
 Comment Type E Comment Status X
 Formating
 SuggestedRemedy
 Formatting
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.3 P116 L5 # 1960
 Dawes, Piers Avago
 Comment Type TR Comment Status X
 You say "The FEC encoder prepends a 2 bit sync header to each group of 64 parity bits to construct a properly formed 66-bit codeword"
 SuggestedRemedy
 But you don't say in which order the bits and bytes are transmitted. Add that information, relating it to blocks 1 to 4 in Fig 76-13.
 Proposed Response Response Status O

Cl 76 SC 76.2.2.4.3 P116 L8 # 2317
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 "appended following the 27 66-bit data blocks and transmitted to the PMA." seems confusing when two numbers go after each other. Change to "appended following the 27 (twenty-seven) 66-bit data blocks and transmitted to the PMA."
 SuggestedRemedy
 Change "appended following the 27 66-bit data blocks and transmitted to the PMA." to "appended following the 27 (twenty-seven) 66-bit data blocks and transmitted to the PMA."
 Proposed Response Response Status O

Cl 76 SC 76.2.2.5 P117 L24 # 2124
 Lynskey, Eric Teknovus
 Comment Type T Comment Status X
 Figure 76-15 does not show the end of burst delimiter.
 SuggestedRemedy
 Add end of burst delimiter to figure.
 Proposed Response Response Status O

Cl 76 SC 76.2.2.5 P117 L24 # 2157
 Remein, Duane Alcatel-Lucent
 Comment Type T Comment Status X
 Sync Pattern not 0x55 in Figure 76-15 and following paragraph
 SuggestedRemedy
 Remove "(0x55)" from Sync Pattern in Figure 76-15.
 Line 42 Change "The ONU burst transmission begins with a synchronization pattern 0x55 (transmission bit sequence 1010 ...)"
 to "The ONU burst transmission begins with a Synchronization Pattern (see Subclause 76.2.2.5.1)"
 Proposed Response Response Status O

Cl 76 SC 76.2.2.5 P117 L28 # 2318
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 Figure 76-15 is affected. One of the captions on the figure says "First codeword starts with 2 66-bit blocks containing IDLE". It seems confusing when two numbers go after each other. Change the text to "First codeword starts with two 66-bit blocks containing IDLE"
 SuggestedRemedy
 Change "First codeword starts with 2 66-bit blocks containing IDLE" to "First codeword starts with two 66-bit blocks containing IDLE"
 Proposed Response Response Status O

Cl 76 SC 76.2.2.5 P117 L42 # 2093
 Kramer, Glen Teknovus, Inc.

Comment Type T Comment Status X
 Synch pattern is not 0x55 anymore

SuggestedRemedy
 1) remove text "0x55 (transmission bit sequence 1010...)"
 2) remove "(0x55...)" in Figure 76-15

Proposed Response Response Status O

Cl 76 SC 76.2.2.5 P118 L1 # 1671
 Feng, Dongning Huawei Technologies

Comment Type T Comment Status X
 The end of burst delimiter pattern has been changed from all zeroes at the last meeting.

SuggestedRemedy
 Change "The ONU burst transmission ends with a burst terminator pattern of 3 blocks of all zeroes"
 To
 "The ONU burst transmission ends with a burst terminator pattern of 3 blocks of END_BURST_DELIMITER."

Proposed Response Response Status O

Cl 76 SC 76.2.2.5 P118 L1 # 2198
 Hirano, Kengo NEC Corporation

Comment Type T Comment Status X
 The ONU burst transmission ends with a burst terminator pattern of 3 blocks of all zeroes (see Figure 76-16).

SuggestedRemedy
 SuggestedRemedy:

Proposed Response Response Status O

Cl 76 SC 76.2.2.5 P118 L1 # 2320
 Hajduczenia, Marek Nokia Siemens Networ

Comment Type TR Comment Status X
 "The ONU burst transmission ends with a burst terminator pattern of 3 blocks of all zeroes" - it is not true any more since the ONU at the end of a burst transmits Burst Terminator as decided at the last meeting. Change the text to "The ONU burst transmission ends with a END_BURST_DELIMITER pattern of length TERMINATOR_LENGTH".

SuggestedRemedy
 Change "The ONU burst transmission ends with a burst terminator pattern of 3 blocks of all zeroes" to "The ONU burst transmission ends with a END_BURST_DELIMITER pattern of length TERMINATOR_LENGTH"

Proposed Response Response Status O

Cl 76 SC 76.2.2.5 P118 L12 # 2153
 Lynskey, Eric Teknovus

Comment Type E Comment Status X
 In Figure 76-16, the term "Burst Terminator" is not defined. It should try to match the actual names used by the state diagrams.

SuggestedRemedy
 Replace with End of Burst Delimiter.

Proposed Response Response Status O

Cl 76 SC 76.2.2.5 P118 L2 # 2319
 Hajduczenia, Marek Nokia Siemens Networ

Comment Type E Comment Status X
 Why is Figure 76-16 in the middle of accompanying text? Please move it to the top of the page or under the block of text, whichever is deemed better.

SuggestedRemedy
 Please move Figure 76-16 to the top of the page or under the block of text, whichever is deemed better.

Proposed Response Response Status O

Cl 76 SC 76.2.2.5 P118 L21 # 1727
 Lin, Rujian Shanghai Luster Terab

Comment Type E Comment Status X
 Figure 76-11). Otherwise, the burst may occasionally be required to transmit and extra 4 bytes of data,

SuggestedRemedy
 Correction: Figure 76-14). Otherwise, the burst may occasionally be required to transmit extra 4 bytes of data,

Proposed Response Response Status O

Cl 76 SC 76.2.2.5 P118 L24 # 1965
 Dawes, Piers Avago

Comment Type T Comment Status X
 Missing subclause headers?

SuggestedRemedy
 I think there should be another subclause title here, State variables, and Constants, Variables and so on should be subordinate to it.

Proposed Response Response Status O

Cl 76 SC 76.2.2.5 P118 L24 # 1963
 Dawes, Piers Avago

Comment Type T Comment Status X
 Missing subclause headers?

SuggestedRemedy
 I think there should be two subclause titles here, 76.2.2.6 Detailed functions and state diagrams and 76.2.2.6.1 State diagram conventions

Proposed Response Response Status O

Cl 76 SC 76.2.2.5 P118 L25 # 1964
 Dawes, Piers Avago

Comment Type E Comment Status X
 Subclause

SuggestedRemedy
 subclause

Proposed Response Response Status O

Cl 76 SC 76.2.2.5.1 P118 L31 # 2409
 Mandin, Jeff PMC Sierra

Comment Type T Comment Status X
 As has been discussed in the past, it's desirable that the "synchronization pattern" be made configurable so that a pattern suitable to the particular OLT implementation may be used.

SuggestedRemedy
 Add a new field "Sync Pattern" to the REGISTER MPCPDU and modify the definition of the current Sync Pattern to indicate that is the default Sync Pattern.

Detailed changes are illustrated in 3av_0908_mandin_1.pdf.

Proposed Response Response Status O

Cl 76 SC 76.2.2.5.1 P118 L33 # 2156
 Remein, Duane Alcatel-Lucent

Comment Type T Comment Status X
 BURST_DELIMITER and SP are currently defined as a constants. The value of these constants is optimized for the currently expected implementaions and topologies of the burst mode receiver which is not a mature technology. It would be good to define these as variables rather than a constants with a default value as defined on line 36/37 and 53/54.

SuggestedRemedy
 Redefine as variables (Move definition to sub clause 76.2.2.5.2 and reword as variables)
 Update Discovery processing (c77.3.3) to include communication of these variables to ONU in Discovery Gate.
 Add new registers to c45

see presentation 3av_0809_remein_1.pdf (frame file is available).

Proposed Response Response Status O

Cl 76 SC 76.2.2.5.1 P118 L37 # 2125
 Lynskey, Eric Teknovus
 Comment Type T Comment Status X
 If it is shown in hex, the upper two bits of the burst delimiter should be the hex representation of a 2-bit value.
 SuggestedRemedy
 Change from 8 to 2. Similarly for the end of burst delimiter, change from 4 to 1.
 Proposed Response Response Status O

Cl 76 SC 76.2.2.5.1 P118 L42 # 2123
 Lynskey, Eric Teknovus
 Comment Type T Comment Status X
 There is a discrepancy between the text on line one of this page and the definition of END_BURST_DELIMITER.
 SuggestedRemedy
 Change END_BURST_DELIMITER to have value of 0x0.
 Proposed Response Response Status O

Cl 76 SC 76.2.2.5.1 P118 L39 # 1672
 Feng, Dongning Huawei Technologies
 Comment Type T Comment Status X
 The definition of constant END_BURST_DELIMITER should include the transmission bit sequence.
 SuggestedRemedy
 END_BURST_DELIMITER
 TYPE: 66-bit unsigned
 A 66-bit value used to identify the end of the upstream burst transmissino
 Value: 0x 4 55 55 55 55 55 55 55 55(transmission bit sequence: 10 1010 1010 1010 1010 1010 1010 1010 1010 1010 1010 1010 1010 1010 1010 1010)
 Proposed Response Response Status O

Cl 76 SC 76.2.2.5.1 P119 L4 # 2321
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type TR Comment Status X
 In definition of TERMINATOR_LENGTH, there is reference to end of burst terminator containing only zeros. It is not true any more.
 SuggestedRemedy
 Change "Number of blocks containing zeroes that are transmitted at the end of each burst." to "Number of END_BURST_TERMINATOR blocks transmitted at the end of each burst."
 Proposed Response Response Status O

Cl 76 SC 76.2.2.5.1 P118 L41 # 2152
 Lynskey, Eric Teknovus
 Comment Type E Comment Status X
 Typo.
 SuggestedRemedy
 Replace "transmissino" with "transmission."
 Proposed Response Response Status O

Cl 76 SC 76.2.2.5.2 P119 L13 # 2094
 Kramer, Glen Teknovus, Inc.
 Comment Type E Comment Status X
 Capitalization
 SuggestedRemedy
 Capitalize D in detector
 Proposed Response Response Status O

Cl 76 **SC 76.2.2.5.2** **P119** **L 35** # 2095
 Kramer, Glen Teknovus, Inc.

Comment Type **T** **Comment Status** **X**
 Variable Transmitting is not ONU-specific. Change its description as shown in the remedy

SuggestedRemedy
 Use
 "Boolean variable indicating whether the device is transmitting or not. At the ONU, the default value of Transmitting is false. At the OLT, this variable is always set to true."

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

Cl 76 **SC 76.2.2.5.3** **P120** **L 1** # 1962
 Dawes, Piers Avago

Comment Type **TR** **Comment Status** **X**
 This standard is supposed to be written in English, or state machine notation, or, only when desperate, specified programming languages with references so that the reader can find what the syntax actually means (Pascal and Matlab have been used), and that code should if possible be executable by a machine. You can't just insert snippets of unattributed pseudo-code in I don't know what syntax.

SuggestedRemedy
 If this pseudo-code fragment says anything that the preceding sentence doesn't, replace it with another sentence, in English. If it doesn't, delete it. Similarly in 76.2.3.1.3, 76.2.3.3.3

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

Cl 76 **SC 76.2.2.6** **P123** **L 12** # 2298
 Hajduczenia, Marek Nokia Siemens Network

Comment Type **TR** **Comment Status** **X**
 In Figure 76-18, in exit conditions from state TRANSMIT_BURST_PREAMBLE, Laser On Time should be added to the right side of conditional expressions. Otherwise, the state machine burst will be shorter by Laser On Time and OLT may not synchronize properly.

SuggestedRemedy
 In Figure 76-18:
 (1) change "CLK * SyncBlockConut < SyncLengh" to "CLK * SyncBlockConut < (SyncLengh + Laser On time) "
 (2) change "CLK * SyncBlockConut = SyncLengh" to "CLK * SyncBlockConut = (SyncLengh + Laser On time)"

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

Cl 76 **SC 76.2.25** **P117** **L 24** # 1673
 Tajima, Akio NEC Corporation

Comment Type **E** **Comment Status** **X**
 In Figure 76-15 and Line 42, Sync Pattern 0x55 is incorrect.

SuggestedRemedy
 Change Sync Pattern from "0x55" to "0x 4 BF 40 18 E5 C5 49 BB 59".

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

Cl 76 **SC 76.2.3** **P124** **L 6** # 2322
 Hajduczenia, Marek Nokia Siemens Networ

Comment Type **T** **Comment Status** **X**
 "For both 10GBASE-PR and 10/1GBASE-PRX, the OLT PCS always operates in a burst mode." - this sentence is misleading. It may seem OLT operates in burst mode in DS direction as well.

SuggestedRemedy
 Change
 "For both 10GBASE-PR and 10/1GBASE-PRX, the OLT PCS always operates in a burst mode."
 to
 "For both 10GBASE-PR and 10/1GBASE-PRX, the OLT PCS always operates in a burst mode in receive direction."

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

Cl 76 **SC 76.2.3.1** **P124** **L 15** # 2130
 Lynskey, Eric Teknovus

Comment Type **T** **Comment Status** **X**
 There is no PICS for this shall statement. A PICS should be added or the shall should be removed.

SuggestedRemedy
 Replace start of sentence with "The OLT synchronizer forms a bit stream..."

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

Cl 76 SC 76.2.3.1.3 P125 L41 # 181549
Lynskey, Eric Teknovus

Comment Type E Comment Status R resubmit

Confusing notation here. We should use the special symbols and operators found on page 10.

SuggestedRemedy

Replace "<>" with "not equal to" symbol.

Response Response Status C

== Resolution from Denver 0806 Meeting ==
REJECT.

This comment was WITHDRAWN by the commenter. To be resubmitted by TF Chair against next draft.

Ctrl-q 9 Symbol

=====

Cl 76 SC 76.2.3.1.3 P125 L50 # 2412
Mandin, Jeff PMC Sierra

Comment Type TR Comment Status X

There are several somewhat related issues relating to synchronization in the receive path:

* 76.2.3.1.3 uses a function called "BlockFromGearbox()" but the gearbox element operates in the transmit direction only.

* Also in 76.2.3.1.3: function "appendFromInbuffer()" checks whether a 66B block is data or parity by checking whether "rx_coded<0> <> rx_coded<1>". But with this method a bit error can easily make data appear to be parity or vice versa.

* In 802.3, statements in state diagrams are regarded as executing instantaneously. So when the text in 76.2.3.3.3 states:

"BlockToDescrambler

Function that sends the next rx_coded_corrected<0..65> block to the scrambler. It does not return until the transfer is completed."

...the statement that "It does not return until the transfer is completed" needs to be clarified or deleted.

SuggestedRemedy

These issues were noted as part of the IDLE insertion discussion and need to be resolved accordingly.

Proposed Response Response Status O

Cl 76 SC 76.2.3.1.4 P127 L1 # 2410
Mandin, Jeff PMC Sierra

Comment Type T Comment Status X

Likelihood of false detection of end-of-burst is remote.

However it can be made even more remote by checking for it only in the beginning of a FEC codeword

SuggestedRemedy

Revised the Rx synchronization state diagram to check for EOB only at the beginning of a FEC codeword.

This change can be applied to a revised synchrononation state diagram that has been fixed to not use BlockFromGearbox().

Proposed Response Response Status O

Cl 76 SC 76.2.3.1.4 P127 L3 # 2109
Lynskey, Eric Teknovus

Comment Type E Comment Status X

There is no PICS for this shall statement. A PICS should be added or the shall should be removed. A PICS item should be added as item SM5 in 76.4.4.7.

SuggestedRemedy

SM5,
OLT synchronizer,
76.2.3.1.4,
Meets the requirements of Figure 76-19,
OLT:FEC:M,
Yes[] No[]

Proposed Response Response Status O

Cl 76 SC 76.2.3.2 P127 L49 # 2131
Lynskey, Eric Teknovus

Comment Type T Comment Status X

If the previous comment for the OLT synchronizer is accepted, then the same should be done for the ONU.

SuggestedRemedy

Replace start of sentence with "The OLT synchronizer forms a bit stream...". Remove PICS item SM3.

Proposed Response Response Status O

Cl 76 SC 76.2.3.2 P128 L27 # 2323
Hajduczenia, Marek Nokia Siemens Network

Comment Type E Comment Status X

Figure 76-20 is affected. Strange characters in Figure "Pad ,Äú" around line 27 and 34

SuggestedRemedy

Replace the corrupted text in Figure 76-20 with "Padding" or anything else that is deemed necessary (both occurrences).

Proposed Response Response Status O

Cl 76 SC 76.2.3.2 P128 L33 # 2154
Lynskey, Eric Teknovus

Comment Type E Comment Status X

Text in the first block of the FEC frame line has been corrupted.

SuggestedRemedy

Replace ",Au" with "0".

Proposed Response Response Status O

Cl 76 SC 76.2.3.2.3 P130 L6 # 2324
Hajduczenia, Marek Nokia Siemens Network

Comment Type E Comment Status X

Space missing between Type and variable type for FEC_cnt variable.

SuggestedRemedy

Replace "Type:8 bit unsigned" with "Type: 8 bit unsigned"

Proposed Response Response Status O

Cl 76 SC 76.2.3.3 P130 L36 # 2325
Hajduczenia, Marek Nokia Siemens Network

Comment Type E Comment Status X

"The FEC decoder corrects or confirms the correctness of the 27 66-bit blocks contained" seems confusing when two numbers go after each other. Change to "The FEC decoder corrects or confirms the correctness of the 27 (twenty seven) 66-bit blocks contained"

SuggestedRemedy

Change "The FEC decoder corrects or confirms the correctness of the 27 66-bit blocks contained" to "The FEC decoder corrects or confirms the correctness of the 27 (twenty seven) 66-bit blocks contained"

Proposed Response Response Status O

Cl 76 SC 76.2.3.3 P130 L 36 # 2401
 Law, David 3Com
 Comment Type T Comment Status X
 I think the frame being refereed to here is a FEC frame and not an IEEE 802.3 frame.
 SuggestedRemedy
 Change the text '.. contained in the frame based ..' to read '.. contained in the FEC frame based ..'.
 Proposed Response Response Status O

Cl 76 SC 76.2.3.3 P130 L 46 # 1728
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 transfers is lower then normal here. This is corrected in the idle insertion step
 SuggestedRemedy
 Correction: transfers is lower than normal here. This will be corrected in the idle insertion step
 Proposed Response Response Status O

Cl 76 SC 76.2.3.3 P130 L 50 # 1968
 Dawes, Piers Avago
 Comment Type TR Comment Status X
 As a previous comment: need normative specifications for an implementation's decoding ability, and (stronger) error detecting ability.
 SuggestedRemedy
 Add normative text for correction ability of a compliant implementation (could be less that 16), and for error detection capability, greater than error detection capability. Add PICS.
 Proposed Response Response Status O

Cl 76 SC 76.2.3.3 P131 L 53 # 2097
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 Unconventional notation {SH.0, SH.1}
 SuggestedRemedy
 Use SH<1:0> or sync_header<1:0>
 Same is on page 143, line 45
 Proposed Response Response Status O

Cl 76 SC 76.2.3.3.3 P133 L 9 # 181550
 Lynskey, Eric Teknovus
 Comment Type E Comment Status R resubmit
 Pseudo-code could be made easier to read.
 SuggestedRemedy
 Start "else" branch on new line.
 Response Response Status C

== Resolution from Denver 0806 Meeting ==
 REJECT.

This comment was WITHDRAWN by the commenter. To be resubmitted by TF Chair against next draft.

=====

Cl 76 SC 76.2.3.3.4 P133 L 20 # 1967
 Dawes, Piers Avago
 Comment Type T Comment Status X
 "The FEC Decoding function shall be implemented in the PCS as depicted in Figure 76-22." Figure 76-22 is titled "FEC Decoder state diagram" but it isn't; there is nothing about implementing the FEC Decoding function, only how to set/unset persist_dec_fail.
 SuggestedRemedy
 "The FEC Decoding function in the PCS shall determine persist_dec_fail as depicted in Figure 76-22." Figure 76-22 persist_dec_fail state diagram
 Proposed Response Response Status O

Cl 76 SC 76.2.3.3.4 P133 L20 # 1966
 Dawes, Piers Avago
 Comment Type T Comment Status X
 Have some paragraphs got lost or mis-ordered? We have The body of this Subclause..."
 here and on the next page.
 SuggestedRemedy
 Per comment
 Proposed Response Response Status O

Cl 76 SC 76.2.3.4.4 P134 L51 # 1729
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 TThe BER Monitor
 SuggestedRemedy
 Correction: The BER Monitor
 Proposed Response Response Status O

Cl 76 SC 76.2.3.3.4 P133 L27 # 2111
 Lynskey, Eric Teknovus
 Comment Type E Comment Status X
 PICS item SM4 has incorrect reference.
 SuggestedRemedy
 SM4,
 FEC decoder,
 76.2.3.3.4,
 Meets the requirements of Figure 76-22,
 FEC:M
 Yes[] No[]
 Proposed Response Response Status O

Cl 76 SC 76.2.3.7 P136 L8 # 1730
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 in the same locations
 SuggestedRemedy
 Correction: at the same locations
 Proposed Response Response Status O

Cl 76 SC 76.2.3.3.4 P133 L30 # 2098
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 State diagram in Figure 76-22 is missing transition "BEGIN"
 SuggestedRemedy
 Add this transition into INIT state
 Proposed Response Response Status O

Cl 76 SC 76.2.3.7.1 P136 L17 # 2099
 Kramer, Glen Teknovus, Inc.
 Comment Type TR Comment Status X
 This section is missing the definition of FIFO_II_SIZE
 SuggestedRemedy
 use the following definition
 FIFO_II_SIZE
 TYPE: 16-bit unsigned
 This constants represents the size of Idle Insertion FIFO buffer. This buffers should be of
 the size sufficient to fill the gaps introduced by removing the parity blocks from a MAC
 frame of the maximum size.
 Value: 42
 (I am not sure if explanation is needed, but here it is:
 Max frame = 2000 bytes
 FEC codewords per frame = CEILING[(2000+IPG+PRE)/216] = 10
 Gap (in 66-b blocks) per frame = 10*4 = 40.
 Add 2 for extra margin = 42)
 Proposed Response Response Status O

Cl 76 **SC 76.2.3.7.1** **P136** **L 24** # **2326**
Hajduczenia, Marek Nokia Siemens Networ

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

Space missing between "Subclause" and "76.2.2.1.1". Insert the space as necessary.

SuggestedRemedy
Change "Subclause76.2.2.1.1" to "Subclause 76.2.2.1.1"

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

Cl 76 **SC 76.2.3.7.2** **P136** **L 26** # **2034**
Kramer, Glen Teknovus, Inc.

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

Definition of RX_CLK is missing

SuggestedRemedy
Add the following definition:

RX_CLK
TYPE: boolean
This variable represents the TX_CLK signal defined in Subclause 46.3.2.1

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

Cl 76 **SC 76.2.3.7.2** **P136** **L 31** # **2100**
Kramer, Glen Teknovus, Inc.

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

input and output processes of Idle Insertion have been combined into one, but the description of FIFO_II has not been updated.

SuggestedRemedy
replace this text:
"This FIFO is internal to the Idle Insertion function and is shared by input on output processes of Idle Insertion. Upon initialization, all elements of this array are set to contain 72-bit vectors representing // characters. FIFO_II is a zero-based array of size sufficient to hold maximum size frame."

with this text:

"This FIFO is internal to the Idle Insertion process. Upon initialization, all elements of this array are set to contain 72-bit vectors representing // characters. FIFO_II is a zero-based array of size FIFO_II_SIZE (See 76.2.3.7.1)."

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

Cl 76 **SC 76.2.3.7.2** **P136** **L 53** # **2033**
Kramer, Glen Teknovus, Inc.

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

1) Definition of variable VectorCount is missing
2) Variable RxVecorCount is defined, but not used in state diagram

SuggestedRemedy
1) Remove definition of RxVectorCount
2) Add definition of VectorCount, as shown below:

VectorCount
TYPE: 16-bit unsigned
This variable tracks the number of of 72-bit vectors stored in the FIFO_II.

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

Cl 76 SC 76.2.3.7.5 P137 L21 # 2133
 Lynskey, Eric Teknovus
 Comment Type T Comment Status X
 There is no PICS for this shall statement.
 SuggestedRemedy
 Item,
 Idle insertion,
 76.2.3.7.5,
 Meets the requirements of Figure 76-26,
 M,
 Yes[] No[]
 Proposed Response Response Status O

Cl 76 SC 76.3 P137 L28 # 2383
 Law, David 3Com
 Comment Type T Comment Status X
 State where the 1000BASE-PX PMA specification is found, also typo.
 SuggestedRemedy
 Change the text '.. and 1000BASEPX, as shown in Table 76-5.' to read '.. and 1000BASE-
 PX defined is subclause 65.3.2, as shown in Table 76-5.'
 Proposed Response Response Status O

Cl 76 SC 76.3 P137 L24 # 2382
 Law, David 3Com
 Comment Type T Comment Status X
 Suggest that the title of this subclause would be clearer if it simply read '10GBASE-PR and
 10/1GBASE-PRX PMA' since this is in fact what is defined by this subclause and its
 subclauses, also the current title doesn't say what PMA this is the extensions to.
 SuggestedRemedy
 Change 'Extensions to PMA for 10GBASE-PR and 10/1GBASE-PRX' to read '10GBASE-
 PR and 10/1GBASE-PRX PMA'.
 Proposed Response Response Status O

Cl 76 SC 76.3 P137 L29 # 2035
 Kramer, Glen Teknovus, Inc.
 Comment Type E Comment Status X
 Typo
 SuggestedRemedy
 1000BASEPX should be 1000BASE-PX
 Proposed Response Response Status O

Cl 76 SC 76.3 P137 L28 # 2327
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 Incorrect PMD name. There is no 1000BASEPX PMD. Change to "1000BASE-PX"
 SuggestedRemedy
 Change "1000BASEPX" to "1000BASE-PX"
 Proposed Response Response Status O

Cl 76 SC 76.3 P137 L29 # 1731
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 1000BASEPX
 SuggestedRemedy
 Correction: 1000BASE-PX
 Proposed Response Response Status O

Cl 76 SC 76.3 P137 L 39 # 2360
 Law, David 3Com
 Comment Type E Comment Status X
 Suggest that 'As specified in Clause 51 with extensions defined in @@76.3.1@@ below' in the receive function column should be changed to read 'Identical to 10GBASE-PR-U. This parallels the text used in the Transmit function two lines below.
 SuggestedRemedy
 See comment.
 Proposed Response Response Status O

Cl 76 SC 76.3 P137 L 40 # 2036
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 Wrong PMA name in table 76-5, on line 40
 SuggestedRemedy
 10GBASE-PR-U should be 10GBASE-PR-D
 Proposed Response Response Status O

Cl 76 SC 76.3 P137 L 40 # 2381
 Law, David 3Com
 Comment Type T Comment Status X
 The 10GBASE-PR-U PHY is already covered by the first line of Table 76-5 so I think this line should read 10GBASE-PR-D.
 SuggestedRemedy
 Change '10GBASE-PR-U' to read '10GBASE-PR-D'.
 Proposed Response Response Status O

Cl 76 SC 76.3 P137 L 40 # 2300
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type T Comment Status X
 In Table 76-5, the Line 3 of the column "PMA" should contain "10GBASE-PR-D" and not "10GBASE-PR-U"
 SuggestedRemedy
 Replace "10GBASE-PR-U" with "10GBASE-PR-D" in Table 76-5, Line 3 of column "PMA".
 Proposed Response Response Status O

Cl 76 SC 76.3.1.1 P137 L 52 # 2037
 Kramer, Glen Teknovus, Inc.
 Comment Type E Comment Status X
 definition on PMD_SIGNAL.request(tx_enable) is broken across two pages.
 SuggestedRemedy
 There should be a setting in Framemaker to keep lines of a paragraph together. Either use this setting, or insert blank lines to move the line "PMD_SIGNAL.request(tx_enable)" to the enxt page
 Proposed Response Response Status O

Cl 76 SC 76.3.1.1 P138 L 42 # 2328
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type ER Comment Status X
 Text "It is generated by the PCS's data detector (see 75)" seems to have incomplete reference. Which subclause is meant in here ? Probably data detector subclause in Clause 76 should be referenced (76.2.2.5) though it is not clear.
 SuggestedRemedy
 Fix the incomplete reference in this line. Probably data detector subclause in Clause 76 should be referenced (76.2.2.5) though it is not clear.
 Proposed Response Response Status O

Cl 76 SC 76.3.2 P139 L11 # 2386
 Law, David 3Com
 Comment Type T Comment Status X
 Since this PMD parameter is related to a 10GBASE-PR-D PHYs acquiring lock to the incoming signal, and therefore inside a OLT, the electrical signal after the PMD is TP8, not TP4 (see Figures 75-3).
 SuggestedRemedy
 On line 11, line 16 and line 24:
 Change '.. at TP4 ..' to read '.. at TP4 for a 10/1GBASE-PRX-D PHY, or TP8 for a 10GBASE-PR-D PHY, ...',
 Proposed Response Response Status O

Cl 76 SC 76.3.2 P139 L20 # 2405
 Law, David 3Com
 Comment Type TR Comment Status X
 I think this subclause and it's subclauses should be moved to an informative Annex. TCDR is not a normative value, there is no shall statement related to its value, nor can there be as it is measured in relation to TP4 (which I think should be TP8 for a 10GBASE-PR-D PHY - see other comment) which, as stated in subclause 75.3.2, the electrical specifications of the PMD service interface (TP4 or TP8) are not system compliance points.
 SuggestedRemedy
 Move this text to an informative Annex.
 Proposed Response Response Status O

Cl 76 SC 76.3.2.1 P139 L16 # 2038
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 synchronization pattern is not 0x55 anymore
 SuggestedRemedy
 Replace:
 "appearance of a valid synchronization pattern (0x55...) at TP4."
 with:
 "appearance of a valid synchronization pattern (as defined in 76.2.2.5.1) at TP4."
 Proposed Response Response Status O

Cl 76 SC 76.3.2.1.1 P139 L20 # 2039
 Kramer, Glen Teknovus, Inc.
 Comment Type E Comment Status X
 typo
 SuggestedRemedy
 "tests" should be "test"
 Proposed Response Response Status O

Cl 76 SC 76.3.2.1.1 P139 L20 # 2363
 Law, David 3Com
 Comment Type E Comment Status X
 I don't think either 75-3 or 75-4 test setup, they are labeled as block diagrams and I don't see any test equipment in these figures
 SuggestedRemedy
 Correct the text 'Figure 75-3 and Figure 75-4 illustrate the tests setup ..'.
 Proposed Response Response Status O

Cl 76 SC 76.3.6.1 P202 L12 # 2122
 Lynskey, Eric Teknovus
 Comment Type T Comment Status X
 Several meetings ago, we decided to let the OLT calculate FEC overhead and let the ONU report data and IPG, rounded up to the nearest TQ. We should be more explicit on defining this mechanism.
 SuggestedRemedy
 Change sentence to read "The laserOnTime, syncTime, laserOffTime, burst delimiter, initial IDLE blocks, FEC overhead, and burst terminator are included in and thus consume part of the Grant #n length."
 Proposed Response Response Status O

Cl 76 SC 76.4 P140 L1 # 2040
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 No point of listing every single PMD subtype in the subclause title
 SuggestedRemedy
 Use
 "76.4 Protocol implementation conformance statement (PICS) proforma for Clause 76, Reconciliation Sublayer (RS), Physical Coding Sublayer (PCS), and Physical Media Attachment (PMA) for point-to-multipoint media, types 10GBASE-PR and 10/1GBASE-PRX"
 Proposed Response Response Status O

Cl 76 SC 76.4.2.2 P141 L5 # 2042
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 Incorrect clause name
 SuggestedRemedy
 "point-to-point" should be "point-to-multipoint"
 Proposed Response Response Status O

Cl 76 SC 76.4.3 P141 L26 # 2113
 Lynskey, Eric Teknovus
 Comment Type E Comment Status X
 There is no "FEC" option, yet this option is used in a number of PICS items, such as FE1 and FE2. The FEC option needs to be added here, or the FECEncoder and FECDecoder options need to be used throughout the PICS.
 SuggestedRemedy
 Combine FECEncoder and FECDecoder into a single PICS option, FEC.
 Proposed Response Response Status O

Cl 76 SC 76.4.3 P141 L27 # 2041
 Kramer, Glen Teknovus, Inc.
 Comment Type E Comment Status X
 Inconsistent item names
 *FECEncoder and *FEC-Decoder
 SuggestedRemedy
 Either use hyphen or not in both cases
 Proposed Response Response Status O

Cl 76 SC 76.4.3 P141 L27 # 1969
 Dawes, Piers Avago
 Comment Type E Comment Status X
 76.1.2.4
 SuggestedRemedy
 76.2.2.4
 Proposed Response Response Status O

Cl 76 SC 76.4.3 P141 L29 # 1970
 Dawes, Piers Avago
 Comment Type E Comment Status X
 76.2.3.2
 SuggestedRemedy
 76.2.3.3
 Proposed Response Response Status O

Cl 76 SC 76.4.4.2 P142 L 6 # 2147
Lynskey, Eric Teknovus

Comment Type T Comment Status X

How do we handle requirements that are inherited from a different clause and not written in this clause? Do we keep the PICS or not? Items FS1 and FS2 point to non-existent variables. These variables are defined in Clause 65 and inherited here, but are not otherwise present in the document.

SuggestedRemedy

Remove items FS1 and FS2.

Proposed Response Response Status O

Cl 76 SC 76.4.4.3 P142 L 20 # 2127
Lynskey, Eric Teknovus

Comment Type T Comment Status X

How do we handle requirements that are inherited from a different clause and not written in this clause? Do we keep the PICS or not? In this case, there are requirements for items PM1, PM2, PM7, and PM8. However, if you go to the subclauses listed, you then will get bounced to another clause entirely.

SuggestedRemedy

If having requirements by reference is ok, then no change is needed. If not, then remove items PM1, PM2, PM7, and PM8. Or, perhaps have a single item that says all of the other requirements from Clause 65 are met.

Proposed Response Response Status O

Cl 76 SC 76.4.4.4 P143 L 12 # 2108
Lynskey, Eric Teknovus

Comment Type E Comment Status X

Reference in item DD2 is incorrect.

SuggestedRemedy

Replace with 76.2.2.5.4.

Proposed Response Response Status O

Cl 76 SC 76.4.4.4 P143 L 14 # 2129
Lynskey, Eric Teknovus

Comment Type T Comment Status X

There is no PICS item for the OLT data detector, and only one state diagram is mentioned for the ONU data detector.

SuggestedRemedy

Replace item DD3 and add item DD4:

DD3,
ONU State diagrams,
76.2.2.5.6,
Meets the requirements of Figure 76-17 and Figure 76-18b.
ONU:M,
Yes[] No[]

DD4,
OLT State diagrams,
76.2.2.5.6,
Meets the requirements of Figure 76-17 and Figure 76-18a.
OLT:M,
Yes[] No[]

Proposed Response Response Status O

Cl 76 SC 76.4.4.5 P143 L21 # 2044
Kramer, Glen Teknovus, Inc.

Comment Type T Comment Status X

Incorrect PICs requirement

"If the minimum IPG was transmitted after a frame, then 4 IDLE control character are deleted for every 27 vectors transmitted."

We delete 4 vectors containing idles, not 4 idles. This has been corrected in clause text, but is missed in PICS.

SuggestedRemedy

replace

"If the minimum IPG was transmitted after a frame, then 4 IDLE control character are deleted for every 27 vectors transmitted."

with

"If the minimum IPG was transmitted after a frame, then 4 vectors containing IDLE control character are deleted for every 27 vectors transmitted."

Proposed Response Response Status O

Cl 76 SC 76.4.4.5 P143 L22 # 2128
Lynskey, Eric Teknovus

Comment Type T Comment Status X

There is no associated "shall" requirement for PICS item AIC1. We either need to add a requirement or should remove the PICS item. Also, it is not clear what this item is trying to describe. It is an ONU specific item, but the only ONU specific function in this block of text refers to the alignment of the start character. It seems that the behavior described by this item should be fully covered by compliance with the state machine, and therefore this item is not necessary.

SuggestedRemedy

Remove item AIC1.

Proposed Response Response Status O

Cl 76 SC 76.4.4.5 P143 L27 # 2043
Kramer, Glen Teknovus, Inc.

Comment Type T Comment Status X

Incorrect function name (in two places)

SuggestedRemedy

"Idle Detection" should be 'Idle Deletion"

Proposed Response Response Status O

Cl 76 SC 76.4.4.6 P143 L38 # 2134
Lynskey, Eric Teknovus

Comment Type T Comment Status X

I cannot find the shall statement associated with PICS item FE1.

SuggestedRemedy

Add a shall or remove item FE1.

Proposed Response Response Status O

Cl 76 SC 76.4.4.6 P143 L41 # 2112
Lynskey, Eric Teknovus

Comment Type E Comment Status X

Subclause reference is incorrect for PICS item FE2.

SuggestedRemedy

Replace with 76.2.3.3.

Proposed Response Response Status O

Cl 76 SC 76.4.4.7 P144 L5 # 2132
 Lynskey, Eric Teknovus
 Comment Type T Comment Status X
 I cannot find the shall statement associated with PICS item SM1. I did a search on all locations of Figure 76-12 and did not see anything with a "shall". A requirement should be added or the PICS item should be removed.
 SuggestedRemedy
 Remove item SM1.
 Proposed Response Response Status O

Cl 76 SC 76.4.4.9 P144 L27 # 2126
 Lynskey, Eric Teknovus
 Comment Type T Comment Status X
 Item DV1 seems to be incorrect. It points to a non-existent subclause and is inconsistent with the requirement of 76.3.1.3.2.
 SuggestedRemedy
 Replace subclause with 76.3.1.3.2. Reword value/comment to refer to one time_quantum instead of 16-bit times.
 Proposed Response Response Status O

Cl 76 SC 76.4.4.7 P144 L5 # 2045
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 Missing clause number for item SM1
 SuggestedRemedy
 Use 76.2.2.4
 Proposed Response Response Status O

Cl 76 SC 76.4.4.9 P144 L27 # 2046
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 "Combined delay variation through RS, PCS, and PMA sublayers is limited to 16 bit times"
 The clause text specified this delay variability as 1 TQ. 1 time_quantum is 160 bit times, not 16, as it was in 1G EPON.
 AAlso note that another comment suggested to make this time bigger.
 SuggestedRemedy
 Replace "16 bit times" with "1 time_quantum"
 Proposed Response Response Status O

Cl 76 SC 76.4.4.7 P144 L7 # 2110
 Lynskey, Eric Teknovus
 Comment Type E Comment Status X
 Item SM2 should be reworked to reference the ONU and have the subclause updated.
 SuggestedRemedy
 SM2,
 ONU synchronization,
 76.2.3.2.5,
 Meets the requirements of Figure 76-21,
 ONU:FEC:M,
 Yes[] No[]
 Proposed Response Response Status O

Cl 76A SC 3 P145 L47 # 1787
 KIMURA, Mitsunobu Hitachi Communicatio
 Comment Type E Comment Status X
 A word "ie." is shown. Maybe "i.e." is more correct.
 SuggestedRemedy
 Should be "i.e."
 Proposed Response Response Status O

Cl 76A **SC 76A.6** **P149** **L 6** # **2022**
 Frazier, Howard Broadcom

Comment Type **ER** **Comment Status** **X**
 Table 76A-4 is very hard to read.

SuggestedRemedy
 Delete the "0x" before each entry.

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

Cl 77 **SC 1.5** **PNA** **L 30** # **2185**
 Woodward, Ted Telcordia Technologie

Comment Type **E** **Comment Status** **X**
 Seems like a typo "(a<b or a-b)" and similarly on the following two lines.

SuggestedRemedy
 Correct extra '!' in these 3 lines

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

Cl 76A **SC 76A.6** **P149** **L 7** # **2148**
 Lynskey, Eric Teknovus

Comment Type **E** **Comment Status** **X**
 Table 76A-4 is and Table 76A-5 are somewhat difficult to read. It would be nice if the "n = X" column could always be on one line. Also, it seems unnecessary to have "0x" in every other cell.

SuggestedRemedy
 Adjust column width so the first column fits on a single line. Remove "0x" from other cells. If necessary, add a footnote stating that the values in those cells are hex.

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

Cl 77 **SC 2.2** **P163** **L 14** # **1792**
 KIMURA, Mitsunobu Hitachi Communicatio

Comment Type **E** **Comment Status** **X**
 Between the words "ONU the", a comma is needed.

SuggestedRemedy
 Should be "ONU, the".

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

Cl 76A **SC 9** **P150** **L 33** # **1791**
 KIMURA, Mitsunobu Hitachi Communicatio

Comment Type **E** **Comment Status** **X**
 The Subclause referred as "76.2.3.4" should be revised.

SuggestedRemedy
 Should be "76.2.2.4" in D2.0.

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

Cl 77 **SC 3.2.1** **PNA** **L 44** # **2197**
 Woodward, Ted Telcordia Technologie

Comment Type **T** **Comment Status** **X**
 Suggest to add note generalizing the comment that an ONU utilizing PAUSE feature may still receive SCB traffic. In fact, an ONU using PAUSE feature will not be able to impact any non-unique traffic (e.g. any extension of multi-cast groups, etc.) Going further into just how bad the use of a PAUSE feature in a network with significant propagation delay is a good idea in general.

SuggestedRemedy
 Extend the note on PAUSE to indicate, for example, that 'ONU PAUSE commands will not affect SCB traffic, or any non-unique traffic to an ONU. Therefore, an ONU may continue receiving data frames even after issuance of a PAUSE request.'

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

Cl 77 **SC 3.3.5** **P183** **L 34** # 1793
 KIMURA, Mitsunobu Hitachi Communicatio

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

"Discovery Process is in the OLT." of "is" not needed in this sentence.

SuggestedRemedy
 Should be "Discovery Process in the OLT."

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

Cl 77 **SC 3.3.5** **P184** **L 22** # 1794
 KIMURA, Mitsunobu Hitachi Communicatio

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

The sentence "This parameter represents is the MAC address of the OLT." is incomplete.

SuggestedRemedy
 Should be "This parameter represents the MAC address of the OLT."

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

Cl 77 **SC 3.3.5** **P184** **L 49** # 1795
 KIMURA, Mitsunobu Hitachi Communicatio

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

A period (".") is missed.

SuggestedRemedy
 Should be "is in the OLT."

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

Cl 77 **SC 3.4.5** **P191** **L 18** # 1796
 KIMURA, Mitsunobu Hitachi Communicatio

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

Sentences of L18 and L19 are not placed properly. These explain "report_list".

SuggestedRemedy
 Sentences of L18 and L19 should be placed right after L17.

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

Cl 77 **SC 3.6.1** **P202** **L 5** # 1797
 KIMURA, Mitsunobu Hitachi Communicatio

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

"valid Length, Start Time pairs" is shown. The comma could be replaced as "and".

SuggestedRemedy
 Should be "valid Length and Start Time pairs".

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

Cl 77 **SC 77.1** **P153** **L 20** # 2407
 Mandin, Jeff PMC Sierra

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

Clause 77 should point back to Clause 64 where possible

SuggestedRemedy
 Replace the introductory sections of clause 77 with text that says eg. "Principles of Multipoint MAC Control is described in 64.x.x.x"

Do this in the following subclauses: 77.1, 77.2.1

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

Cl 77 **SC 77.1.2** **P154** **L 52** # 1998
 Alan, Brown Wave7 Optics, Inc.

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

References to figures should not include period. There are multiple similar references throughout this section. Similar figure references in this document use unique numeric only figure identifiers.

SuggestedRemedy
 Preferred remedy is to use distinct figure numbers, as in "Figure 77-2" and "Figure 77-3". Failing that, use figure references without period, as in "Figure 77-2a" and "Figure 77-2b" because that is what the figures themselves use.

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

Cl 77 **SC 77.1.2** **P156** **L1** # 1814
 D'Ambrosia, John Force10 Networks

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

inconsistencies between this figure and how things are done in other diagrams elsewhere in 802.3:
 1. use of lower case text
 2. reference to clause #'s in diagram
 3. drawing of interface between RS and PCS.

SuggestedRemedy
 make all text caps
 delete clause # references in diagrams
 just have a single column connecting the two interfaces, not a box then column, then box.

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

Cl 77 **SC 77.1.2** **P157** **L1** # 1815
 D'Ambrosia, John Force10 Networks

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

inconsistencies between this figure and how things are done in other diagrams elsewhere in 802.3:
 1. use of lower case text
 2. reference to clause #'s in diagram
 3. drawing of interface between RS and PCS.

SuggestedRemedy
 make all text caps
 delete clause # references in diagrams
 just have a single column connecting the two interfaces, not a box then column, then box.

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

Cl 77 **SC 77.2.1** **P54** **L1** # 2049
 Kramer, Glen Teknovus, Inc.

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

Two separate bullet lists have continuous numbering

SuggestedRemedy
 Restart bullet numbering for the transmit operation

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

Cl 77 **SC 77.2.2** **P163** **L30** # 2137
 Lynskey, Eric Teknovus

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

In some figures, such as Figure 77-15, the MA_DATA.request primitive is shown with its parameters. In other figures, such as Figure 77-6, no parameters are shown. A consistent method should be decided upon.

SuggestedRemedy
 Show parameters in the following figures: 77-3, 77-6, 77-7, 77-8,

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

Cl 77 **SC 77.2.2.1** **P165** **L45** # 2295
 Hajduczenia, Marek Nokia Siemens Networ

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

tailGuard constant value is not correct. The text says "This constant holds the value used to reserve space at the end of the upstream transmission at the ONU in addition to the size of last MAC service data unit (m_sdu) in units of octets. Space is reserved for the MAC overheads including: preamble, SFD, DA, SA, Length/Type, FCS, and minimum inter-packet gap.". Simple calculation amounts to 38 bytes and not 42: 8 (preamble) + 12 (DA+SA) + 2 (size/type) + 4 (FCS) + 12 (IPG) = 38. Unless calculation is incorrect, value should be changed from 42 to 38.

SuggestedRemedy
 Change value from 42 to 38, following the calculation 8 (preamble) + 12 (DA+SA) + 2 (size/type) + 4 (FCS) + 12 (IPG) = 38. If other components are included in the tailGuard and not listed, update the description of the variable accordingly.

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

Cl 77 **SC 77.2.2.4** **P168** **L14** # 2425
 Lynskey, Eric Teknovus

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

The FEC overhead function needs to be updated to take into account the new mechanism for calculating overhead.

SuggestedRemedy
 Update formula per 3av_0807_kramer_3.pdf.

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

CI 77 SC 77.2.2.4 P168 L21 # 2297
 Hajduczenia, Marek Nokia Siemens Networ

Comment Type TR Comment Status X

For FEC encoder adds 32 parity octets for each block of 216 data or control octets, $((frameLen+preLen+ipgLen)/colSize \times blockSize)$ should be multiplied by 32 in the formula. But the parityRatio is 8. Eg. $(512+8+12)/(4*54)*8 = 16$ [blocks]. Should be $(512+8+12)/(4*54)*8*4 = 64$ [bytes].

SuggestedRemedy

Change "parityRatio" to "parityRatio*colSize" in final multiplication for the formula to read $((frameLen+preLen+ipgLen)/(colSize \times blockSize)) \times (parityRatio \times colSize)$

Proposed Response Response Status O

CI 77 SC 77.2.2.7 P171 L7 # 2333
 Hajduczenia, Marek Nokia Siemens Networ

Comment Type T Comment Status X

Figure 77-10 is affected. Transition between states WAIR FOR RECEIVE and PARSE OPCODE has a condition but a condition does not seem to have any logical operators included. Currently it reads "MAC:MA_DATA.indication(DA, SA, data_rx, receiveStatus) Length/Type = MAC_Control_type"

SuggestedRemedy

Change description (Figure 77-10) of the transition condition between states WAIR FOR RECEIVE and PARSE OPCODE from "MAC:MA_DATA.indication(DA, SA, data_rx, receiveStatus) Length/Type = MAC_Control_type" to "MAC:MA_DATA.indication(DA, SA, data_rx, receiveStatus) * Length/Type = MAC_Control_type"

Proposed Response Response Status O

CI 77 SC 77.2.2.7 P171 L8 # 2144
 Lynskey, Eric Teknovus

Comment Type T Comment Status X

This comment is against Figure 77-10. The MA_DATA.indication primitive needs to include the Length/Type field. The same change should be made in two places on line 8 and also on line 12.

SuggestedRemedy

MA_DATA.indication(DA, SA, {Length/Type, data_rx}, receiveStatus)

Proposed Response Response Status O

CI 77 SC 77.2.2.7 P171 L9 # 2145
 Lynskey, Eric Teknovus

Comment Type T Comment Status X

The exit condition from WAIT FOR RECEIVE to PARSE OPCODE is missing an operator between the two conditions. These two conditions should have an AND between them.

SuggestedRemedy

MA_DATA.indication(...) * Length/Type = MAC_Control_Type

Proposed Response Response Status O

CI 77 SC 77.2.2.7 P172 L8 # 2146
 Lynskey, Eric Teknovus

Comment Type T Comment Status X

This comment is against Figure 77-11. The MA_DATA.indication primitive needs to include the Length/Type field. The same change should be made in two places on line 8 and also on line 12.

SuggestedRemedy

MA_DATA.indication(...) * Length/Type = MAC_Control_Type

Proposed Response Response Status O

CI 77 SC 77.2.2.7 P173 L9 # 2135
 Lynskey, Eric Teknovus

Comment Type T Comment Status X

This comment is against Figure 77-12. There are three parameters that are part of the MA_DATA.request primitive: DA, SA, and data_tx. In the 2005 version of the standard, there were four parameters that were passed in the TransmitFrame function: DA, SA, Length/Type, and data_tx. The way it is currently written, the Length/Type field is included in the data_tx parameter. This means that the indices are off by the length of the Length/Type field. The Length/Type field should be explicitly added into the primitive such that the data parameter is the concatenation of Length/Type and data_tx.

SuggestedRemedy

On lines 9 and 36, replace with MA_DATA.request(DA, SA, {Length/Type, data_tx}).

Proposed Response Response Status O

Cl 77 SC 77.2.2.7 P174 L28 # 2302
Hajduczenia, Marek Nokia Siemens Networ

Comment Type TR Comment Status X

In Figure 77-13, a 10G ONU must transmit an integral number of FEC words in its grant time. So nextTxTime should be nextTxTime = FEC_Overhead_Max(sizeof(data_tx) + tailGuard) / (colSize x parityRatio) x ((parityRatio + blockSize) x colSize), which further simplifies to nextTxTime = FEC_Overhead_Max(sizeof(data_tx) + tailGuard) / parityRatio x (parityRatio + blockSize). This assures that integral number of FEC words is transmitted in the grant allocated for it. Otherwise, part of the FEC word may be transmitted out of the grant slot.

SuggestedRemedy

Change current definition of nextTxTime to "nextTxTime = FEC_Overhead_Max(sizeof(data_tx) + tailGuard) / parityRatio x (parityRatio + blockSize)"

Proposed Response Response Status O

Cl 77 SC 77.2.2.7 P174 L9 # 2136
Lynskey, Eric Teknovus

Comment Type T Comment Status X

This comment is against Figure 77-13. The MA_DATA.request parameters need to be modified (see comment against Figure 77-12 for details).

SuggestedRemedy

On lines 9 and 37, replace with MA_DATA.request(DA, SA, {Length/Type, data_tx}).

Proposed Response Response Status O

Cl 77 SC 77.2.2.7 P172 L18 # 2338
Hajduczenia, Marek Nokia Siemens Networ

Comment Type E Comment Status X

Figure 77-11 is affected. In state PARSE TIMESTAMP, the first line of code seem s to be bold.

SuggestedRemedy

Unbold it :)

Proposed Response Response Status O

Cl 77 SC 77.2.2.7 P172 L18 # 2050
Kramer, Glen Teknovus, Inc.

Comment Type E Comment Status X

In state diagram in Figure 77-11, in state PARSE TIMESTAMP, the first line of code looks bold.

SuggestedRemedy

Check and unbold

Proposed Response Response Status O

Cl 77 SC 77.3.2.3 P176 L27 # 181541
Remein, Duane Alcatel-Lucent

Comment Type E Comment Status R resubmit

Invalid reference @@76.1.2.3.3.2@@

SuggestedRemedy

Change to:
@@76.1.6.2.3.2@@

Response Response Status C

== Resolution from Denver 0806 Meeting ==
REJECT.

This comment was WITHDRAWN by the commenter. To be resubmitted by TF Chair against next draft.

Resubmit

=====

Cl 77 SC 77.3.2.4 P176 L35 # 1973
Dawes, Piers Avago

Comment Type T Comment Status X

What does "MAC stack" mean? The word "stack" does not appear at all in 802.3 Section 1 or Section 4.

SuggestedRemedy

Replace "MAC stack" with whatever the proper term is.

Proposed Response Response Status O

Cl 77 **SC 77.3.3** **P177** **L 10** # 2051
 Kramer, Glen Teknovus, Inc.

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

SuggestedRemedy
 "on" should be "of"

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

Cl 77 **SC 77.3.3** **P177** **L 25** # 2052
 Kramer, Glen Teknovus, Inc.

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

"Note that the echoed parameter values i.e. required OLT synchronization time and laser on/off times are delivered to the registering ONU for confirmation purposes only and their utilization is not prescribed in this specification."

This sentence is technically incorrect. According to the state diagram in Figure 77-22, the ONU should use the syncTime value it receives in the REGISTER message, even if this value is different from what it was in the discovery GATE. Same for laser on/off time.

SuggestedRemedy
 Delete this sentence to be consistent with the state machine.

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

Cl 77 **SC 77.3.3** **P177** **L 25** # 2334
 Hajduczenia, Marek Nokia Siemens Networ

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

Description of the Discovery Process is inconsistent with the actual state diagram behaviour. The text "Note that the echoed parameter values i.e. required OLT synchronization time and laser on/off times are delivered to the registering ONU for confirmation purposes only and their utilization is not prescribed in this specification." does not make sense since the said parameter s are parsed in the state diagram and used (e.g. syncTime value as per Figure 77-22). The same applies to laserOn / laserOff times

SuggestedRemedy
 Delete the offending sentence.

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

Cl 77 **SC 77.3.3** **P177** **L 3** # 1732
 Lin, Rujian Shanghai Luster Terab

Comment Type **E** **Comment Status** **X**
 where multiple ONUs can access the PON simultaneously,

SuggestedRemedy
 Correction: when multiple ONUs can access the PON simultaneously,

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

Cl 77 **SC 77.3.3** **P179** **L 1** # 2332
 Hajduczenia, Marek Nokia Siemens Networ

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

Figure 77-15 contains MA_DATA.request primitive with parameters, while other figures, e.g. Figure 77-6 contains no parameters. One method of presentation should be selected and used consistently throughout the clause.

SuggestedRemedy
 Decide if MA_DATA.request primitive is to be used with parameters or without them and use it consistently through the whole clause.

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

Cl 77 **SC 77.3.3.5** **P182** **L 19** # 2340
 Hajduczenia, Marek Nokia Siemens Networ

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

Format of the Message definition is unreadable. Clause 64.3.3.5 contains much more readable version of the same type of definitions.

SuggestedRemedy
 Please use more readable format of the Message definitions as per Clause 64.3.3.5. Update Frame templates if necessary

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

Cl 77 SC 77.3.3.5 P183 L19 # 2114
Lynskey, Eric Teknovus

Comment Type E Comment Status X

Unnecessary shall statement. Statements with the word "shall" should be reserved for requirements. There is no need to apply the shall to only one of the parameters of the message.

SuggestedRemedy

Replace with "...and speed(s) at which the registration attempt is made."

Proposed Response Response Status O

Cl 77 SC 77.3.3.6 P185 L36 # 2138
Lynskey, Eric Teknovus

Comment Type T Comment Status X

This comment is against Figure 77-18. The MA_DATA.request primitive needs to include the MAC Control value in the Length/Type field. Also, there is no data variable in this state diagram, but rather a data_tx variable.

SuggestedRemedy

MA_DATA.request(DA, SA, {MAC_Control_type, data_tx}).

Proposed Response Response Status O

Cl 77 SC 77.3.3.6 P186 L19 # 2301
Hajduczenia, Marek Nokia Siemens Networ

Comment Type TR Comment Status X

As shown in Figure 77-19, discoveryInformation, laserOnTime and laserOffTime should be parsed from data_rx instead of data_tx.

SuggestedRemedy

In Figure 77-19:

- (1) change "discoveryInformation <= data_tx[64:79]" to "discoveryInformation <= data_rx[64:79]"
- (2) change "laserOnTime <= data_tx[80:87]" to "laserOnTime <= data_rx[80:87]"
- (3) change "laserOffTime <= data_tx[88:95]" to "laserOffTime <= data_rx[88:95]"

Proposed Response Response Status O

Cl 77 SC 77.3.3.6 P186 L47 # 2139
Lynskey, Eric Teknovus

Comment Type T Comment Status X

This comment is against Figure 77-20. The MA_DATA.request primitive needs to include the MAC Control value in the Length/Type field. Also, there is no data variable in this state diagram, but rather a data_tx variable.

SuggestedRemedy

MA_DATA.request(DA, SA, {MAC_Control_type, data_tx}).

Proposed Response Response Status O

Cl 77 SC 77.3.3.6 P187 L1 # 2296
Hajduczenia, Marek Nokia Siemens Networ

Comment Type TR Comment Status X

Figure 77-22 and Figure 77-28 need an update. Motivation for change is presented in 3av_0809_hajduczenia_6.pdf: General outline of the problem:
 (1) if ONU DBA client denies registration, NACK state is entered on Figure 77-22. Variable "registered" is false.
 (2) in the result of a denied registration, this ONU should send a REGISTER_ACK MPCPDU with NACK flag set. For this, a time slot is necessary
 (3) OLT allocates a slot for this ONU to send a REGISTER_ACK MPCPDU with NACK flag set. GATE MPCPDU with this slot reaches an ONU and is dropped (register flag is false, discovery is also false).
 (4) ONU cannot effectively send a REGISTER_ACK MPCPDU with NACK flag set.
 See suggested remedy field for suggested remedy.

SuggestedRemedy

Add a new variable to 77.3.3.2:

register_nack
TYPE: Boolean

This variable indicates whether registration was denied by ONU DBA client. It is set to true in NACK state on Figure 77-22 and set to false otherwise.

Modify Figure 77-22:

- (1) add „register_nack <= false" in state WAIT
- (2) add „register_nack <= true" in state NACK

Modify Figure 77-28:

modify condition
 „else if (!discovery * registered * grant_number > 0)"
 to read
 „else if (!discovery * (registered + register_nack) * grant_number > 0)"

Proposed Response Response Status O

Cl 77 **SC 77.3.3.6** **P187** **L 14** # **2140**
 Lynskey, Eric Teknovus

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

This comment is against Figure 77-21. The MA_DATA.request primitive needs to include the MAC Control value in the Length/Type field. Also, there is no data variable in this state diagram, but rather a data_tx variable. The same change should be made on lines 14 and 41.

SuggestedRemedy
 MA_DATA.request(DA, SA, {MAC_Control_type, data_tx}).

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

Cl 77 **SC 77.3.3.6** **P188** **L 35** # **2141**
 Lynskey, Eric Teknovus

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

This comment is against Figure 77-22. The MA_DATA.request primitive needs to include the MAC Control value in the Length/Type field. Also, there is no data variable in this state diagram, but rather a data_tx variable. The same change should be made on lines 16, 35, 36, and 48.

SuggestedRemedy
 MA_DATA.request(DA, SA, {MAC_Control_type, data_tx}).

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

Cl 77 **SC 77.3.4.5** **P190** **L 47** # **2053**
 Kramer, Glen Teknovus, Inc.

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

Grammar in the first sentence does not look right:

"The parameter valid, is a Boolean array with length of 8, '0' or false indicates that the corresponding status field is not present (the length of status field is 0),while '1' or true indicates that the corresponding status field is present (the length of status field is 2 octets). The index of the array is meant to reflect the same numbered priority queue in the IEEE 802.1P nomenclature."

SuggestedRemedy
 Use this text:

"The parameter valid is a Boolean array of length of 8. The index of an element of this array reflects the numbered priority queue in the IEEE 802.1P nomenclature. An element with the value of '0' or false indicates that the corresponding status field is not present (the length of status field is 0),while '1' or true indicates that the corresponding status field is present (the length of status field is 2 octets)"

Same change should be made on page 191, line 13

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

Cl 77 **SC 77.3.4.6** **P192** **L 21** # **2142**
 Lynskey, Eric Teknovus

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

This comment is against Figure 77-25. The MA_DATA.request primitive needs to include the MAC Control value in the Length/Type field. Also, there is no data variable in this state diagram, but rather a data_tx variable. The same change should be made in two places on line 22.

SuggestedRemedy
 MA_DATA.request(DA, SA, {MAC_Control_type, data_tx}).

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

Cl 77 SC 77.3.5.2 P194 L49 # 2116
 Lynskey, Eric Teknovus
 Comment Type E Comment Status X
 Typo.
 SuggestedRemedy
 Replace "date" with "data".
 Proposed Response Response Status O

Cl 77 SC 77.3.5.6 P197 L43 # 2143
 Lynskey, Eric Teknovus
 Comment Type T Comment Status X
 This comment is against Figure 77-25. The MA_DATA.request primitive needs to include the MAC Control value in the Length/Type field. Also, there is no data variable in this state diagram, but rather a data_tx variable. The same change should be made in two places on line 43.
 SuggestedRemedy
 MA_DATA.request(DA, SA, {MAC_Control_type, data_tx}).
 Proposed Response Response Status O

Cl 77 SC 77.3.6 P200 L2 # 2054
 Kramer, Glen Teknovus, Inc.
 Comment Type E Comment Status X
 wrong order of words
 SuggestedRemedy
 "shown as" should be "as shown"
 Proposed Response Response Status O

Cl 77 SC 77.3.6.1 P201 L31 # 2299
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type T Comment Status X
 In Figure 77-13, the length of field "pad/reserved" for a regular granting GATE MPCPDU is 15-39. This is incorrect following simple calculations:
 (1) calculation of the maximum pad size:46 (payload size) - 2 (Opcode) - 4 (timestamp) - 1 (flags) = 39 bytes;
 (2) calculation of the minimum pad size :46 (payload size) - 2 (Opcode) - 4 (timestamp) - 1 (flags) - 4 x 6 bytes (slot start + slot length) = 15 bytes;

SuggestedRemedy
 Change the length of field "pad/reserved" from "13-39" to "15-39" for regular granting GATE MPCPDU only.
 Proposed Response Response Status O

Cl 77 SC 77.3.6.1 P202 L1 # 2336
 Hajduczenia, Marek Nokia Siemens Networ
 Comment Type E Comment Status X
 Table 77-3 should go after Table 77-4, which is referred to in text first.
 SuggestedRemedy
 Place Table 77-3 after Table 77-4 and replace their numbers accordingly.
 Proposed Response Response Status O

Cl 77 SC 77.3.6.1 P202 L1115 # 1734
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 Paragraphs:
 c) Grant #n Length.
 d) Grant #n Start Time.
 SuggestedRemedy
 Propose to inter-change the order of the two paragrapns as:
 c) Grant #n Start Time.
 d) Grant #n Length.
 according the order of GATE MPCPDU from top to bottom
 Proposed Response Response Status O

CI 77 SC 77.3.6.1 P202 L18 # 2335
Hajduczenia, Marek Nokia Siemens Networ

Comment Type TR Comment Status X

Invalid description of the SyncTime in the GATE MPCPDU description. The text " During the synchronization time the ONU shall send a synchronization pattern of 0x55 (transmission bit sequence 1010 ...) followed by a burst delimiter and idle blocks as defined in @@Subclause 76.2.3.5@@" is not correct any more since the synchronization pattern was altered. See 76.2.3.5 for correct sync pattern.

SuggestedRemedy

Modify the sentence "During the synchronization time the ONU shall send a synchronization pattern of 0x55 (transmission bit sequence 1010 ...) followed by a burst delimiter and idle blocks as defined in @@Subclause 76.2.3.5@@" to read "During the synchronization time the ONU shall send a synchronization pattern followed by a burst delimiter and idle blocks as defined in @@Subclause 76.2.3.5@@".

Proposed Response Response Status O

CI 77 SC 77.3.6.1 P202 L18 # 2056
Kramer, Glen Teknovus, Inc.

Comment Type T Comment Status X

"During the synchronization time the ONU shall send a synchronization pattern of 0x55 (transmission bit sequence 1010 ...) followed by a burst delimiter and idle blocks as defined in @@Subclause 76.2.3.5@@".

Sync pattern has been changed

SuggestedRemedy

Use

"During the synchronization time the ONU shall send a synchronization pattern followed by a burst delimiter and idle blocks as defined in @@Subclause 76.2.3.5@@".

Proposed Response Response Status O

CI 77 SC 77.3.6.1 P202 L3 # 2055
Kramer, Glen Teknovus, Inc.

Comment Type E Comment Status X

Missing hyphen

- line 3: "8 bit flag"
- line 11: "16 bit unsigned field"
- line 15: "32 bit unsigned field."
- line 18: "16 bit value"
- line 25: "16 bit flag"

- Also on page 206
- line 6: "8 bit flag"
- line 7: "8 bit value"
- line 10: "16 bit flag"

SuggestedRemedy

The above should be:

- line 3: "8-bit flag"
- line 11: "16-bit unsigned field"
- line 15: "32-bit unsigned field."
- line 18: "16-bit value"
- line 25: "16-bit flag"

- Also on page 206
- line 6: "8-bit flag"
- line 7: "8-bit value"
- line 10: "16-bit flag"

Proposed Response Response Status O

Cl 77 SC 77.3.6.1 P202 L33 # 2057
Kramer, Glen Teknovus, Inc.

Comment Type E Comment Status X

Sentence is difficult to read:
"The GATE MPCPDU shall be generated by a MAC Control instance mapped to an active ONU, and as such shall be marked with a unicast type of LLID, except when the discovery flag is set where the MAC Control instance is mapped to all ONUs and such frame is marked by the appropriate broadcast LLID (Subclause 77.3.2.3)."

SuggestedRemedy

Split into two sentences, as shown below:

"The GATE MPCPDU shall be generated by a MAC Control instance mapped to an active ONU, and as such shall be marked with a unicast type of LLID, except when the MPCPDU is a discovery GATE, as indicated by the discovery flag being set to true. For the discovery procedure, a MAC Control instance is mapped to all ONUs, and therefore the discovery GATE MPCPDU is marked with the appropriate broadcast LLID (Subclause 77.3.2.3)."

Proposed Response Response Status O

Cl 77 SC 77.3.6.1 P202 L38 # 1735
Lin, Rujian Shanghai Luster Terab

Comment Type E Comment Status X

Table 77-3--GATE MPCPDU Discovery Information Fields

SuggestedRemedy

Changed to:
Table 77-4--GATE MPCPDU Discovery Information Fields

Proposed Response Response Status O

Cl 77 SC 77.3.6.1 P202 L4 # 1733
Lin, Rujian Shanghai Luster Terab

Comment Type E Comment Status X

The Number of grants field

SuggestedRemedy

Modified to:
As presented in Table 77-3, the Number of grants field

Proposed Response Response Status O

Cl 77 SC 77.3.6.1 P203 L1 # 1736
Lin, Rujian Shanghai Luster Terab

Comment Type E Comment Status X

Table 77-4--GATE MPCPDU Number of Grants/Flags Fields

SuggestedRemedy

Changed to:
Table 77-3--GATE MPCPDU Number of Grants/Flags Fields

According to the order of Gate MPCPDU from top to bottom. It is better to position Table 77-3--GATE MPCPDU Number of Grants/Flags Fields prior to Table 77-4--GATE MPCPDU Discovery Information Fields.

Proposed Response Response Status O

Cl 77 SC 77.3.6.12 P202 L51 # 1999
Alan, Brown Wave7 Optics, Inc.

Comment Type E Comment Status X

The readability of many tables in this document could benefit by consistent formatting. This table, as an example, is missing the darker solid outline at its bottom, which may cause confusion for the reader thinking that the table at the top of the next page is a continuation (until comparing the two table titles).

SuggestedRemedy

Add darker solid outline consistently for all tables.

Proposed Response Response Status O

Cl 77 SC 77.3.6.2 P204 L8 # 2121
Lynskey, Eric Teknovus

Comment Type T Comment Status X

Several meetings ago, we decided to let the OLT calculate FEC overhead and let the ONU report data and IPG, rounded up to the nearest TQ. We should be more explicit on defining this mechanism.

SuggestedRemedy

"The reported length shall be adjusted and rounded up to the nearest time_quantum to account for the necessary inter-frame spacing and preamble. FEC overhead is not included in the reported length."

Proposed Response Response Status O

Cl 77 **SC 77.3.6.3** **P206** **L 6** # **1737**
 Lin, Rujian Shanghai Luster Terab

Comment Type **E** **Comment Status** **X**
 b)Flags.....for the registration.

SuggestedRemedy
 Modified to:
 b)Flags.....for the registration, as presented in Table 77-6.

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

Cl 77 **SC 77.3.6.4** **P207** **L 47** # **1738**
 Lin, Rujian Shanghai Luster Terab

Comment Type **E** **Comment Status** **X**
 d) Flags. this is..... for the registration.

SuggestedRemedy
 Modified to
 d) Flags. This is..... for the registration, as presented in Table 77-8.

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

Cl 77 **SC 77.3.6.4** **P208** **L 13** # **2117**
 Lynskey, Eric Teknovus

Comment Type **T** **Comment Status** **X**
 The definition of sync time for the REGISTER message does not match that of the GATE message. It still contains the Clause 64 definition. The sentence starting "During the synchronization time..." should match the text on page 202 line 19.

SuggestedRemedy
 "During the synchronization time the ONU shall send a synchronization pattern of 0x55 (transmission bit sequence 1010...) followed by a burst delimiter and idle blocks as defined in Subclause 76.2.3.5.

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

Cl 77 **SC 77.3.6.5** **P209** **L 2127** # **1739**
 Lin, Rujian Shanghai Luster Terab

Comment Type **E** **Comment Status** **X**
 b) Flags. This is.....for the registration. Echoed assigned port. This field holds a 16 bit unsigned value reflecting the LLID for the port assigned following registration.
 c) Echoed Sync Time. This is
 d) Pad/Reserved. This is.....

SuggestedRemedy
 modified to:
 b) Flags. This is.....for the registration, as presented in Table 77-9.
 c) Echoed assigned port. This field holds a 16 bit unsigned value reflecting the LLID for the port assigned following registration.
 d) Echoed Sync Time. This is
 e) Pad/Reserved. This is.....

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

Cl 77 **SC 77.4.1** **P210** **L 38** # **2060**
 Kramer, Glen Teknovus, Inc.

Comment Type **E** **Comment Status** **X**
 Speed-specific should have a hyphen

SuggestedRemedy
 Add on lines 38, 42, and line 44 on page 211

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

Cl 77 **SC 77.4.1** **P210** **L 43** # **1740**
 Lin, Rujian Shanghai Luster Terab

Comment Type **E** **Comment Status** **X**
 that may co-exist on the same PON.

SuggestedRemedy
 Correction:
 that may co-exist in the same PON.

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

Cl 77 SC 77.4.1 P211 L12 # 1741
 Lin, Rujian Shanghai Luster Terab

Comment Type E Comment Status X
 discovery windows by sending discovery GATE MPCPDUs on both the 1 GfB/s and 10 Gb/s downstream broadcast channels.

SuggestedRemedy
 Correction:
 discovery windows by sending discovery GATE MPCPDUs in both the 1 GfB/s and 10 Gb/s downstream broadcast channels.

Proposed Response Response Status O

Cl 77 SC 77.4.1 P211 L18 # 2059
 Kramer, Glen Teknovus, Inc.

Comment Type T Comment Status X
 Table footnote is confusing

SuggestedRemedy
 replace:
 "Two discovery GATE MPCPDUs are transmitted in the downstream broadcast channel:"
 with
 "Two discovery GATE MPCPDUs are transmitted in two separate downstream broadcast channels:"

Proposed Response Response Status O

Cl 77 SC 77.4.1 P211 L1920 # 1742
 Lin, Rujian Shanghai Luster Terab

Comment Type E Comment Status X
 transmitted on the 1Gb/s downstream broadcast channel and another one the LLID of 0x7FFE transmitted on the 10 Gb/s downstream broadcast channel.

SuggestedRemedy
 modified to:
 transmitted in the 1Gb/s downstream broadcast channel and another one the LLID of 0x7FFE transmitted in the 10 Gb/s downstream broadcast channel.

Proposed Response Response Status O

Cl 77 SC 77.4.1 P211 L27 # 2337
 Hajduczenia, Marek Nokia Siemens Networ

Comment Type T Comment Status X
 Figure 77-36 is affected. It is not clear at the moment what is what - some captions under each options should be added. See Suggested Remedy for proposal of captions

SuggestedRemedy
 Add captions for individual cases:
 Case (a) Discovery window opened for 1 Gb/s upstream transmission
 Case (b) Discovery window opened for 10 Gb/s upstream transmission
 Case (c) Discovery window opened for 1 Gb/s and 10 Gb/s upstream transmission

Proposed Response Response Status O

Cl 77 SC 77.4.1 P211 L27 # 2061
 Kramer, Glen Teknovus, Inc.

Comment Type T Comment Status X
 Figure 77-36 is not very clear.

SuggestedRemedy
 Add a sub-caption to each diagram:
 (a) Discovery window opened for 1 Gb/s upstream transmissions
 (b) Discovery window opened for 10 Gb/s upstream transmissions
 (c) Discovery window opened for 1 Gb/s amd 10Gb/s upstream transmissions

Proposed Response Response Status O

Cl 77 SC 77.4.1 P211 L4041 # 1743
 Lin, Rujian Shanghai Luster Terab

Comment Type E Comment Status X
 Figure 77-36--Combinations of.....coexisting on the same PON.

SuggestedRemedy
 Modified to:
 Figure 77-36--Combinations of.....coexisting in the same PON.

Proposed Response Response Status O

Cl 77 SC 77.4.1 P211 L6 # 2063
Kramer, Glen Teknovus, Inc.

Comment Type TR Comment Status X

Values in table 77-10 contradic values in table 77-3. Table 77-3 says that the Discovery Information with all bits set to '0' means that the OLT is capable of 1Gb/s only and is opening 1Gb/s window.

Table 77-10 says that for 1G/1G discovery, the values of Discovery Information field should be '1010' (for bits of interest)

For Discovery Information field being all zeroes field to mean 1Gb/s discovery was necessary when we wanted to combine clause 93 (77 now) and clause 64 into one. It is not necessary anymore. We can simply state that the Discovery Information field is not present in the 1G/1G messages, as we currently do for laser on and laser off times.

SuggestedRemedy

1) Change tables 77-3 and 77-10 as shown in 3av_0809_kramer_1.pdf

Proposed Response Response Status O

Cl 77 SC 77.4.1 P211 L7 # 2058
Kramer, Glen Teknovus, Inc.

Comment Type T Comment Status X

The meaning of the first column in table 77-11 should be clarified.

SuggestedRemedy

Change column caption to read;

"ONU types targeted by discovery GATE [DS/US transmission speed]"

Proposed Response Response Status O

Cl 77 SC 77.4.2 P211 L44 # 2068
Kramer, Glen Teknovus, Inc.

Comment Type TR Comment Status X

We need to be more explicit about which LLID is used in registration by various ONUs.

SuggestedRemedy

Suggest the following text to be added after the Table 77-11:

"The ONU generates the REGISTER_REQ MPCPDU with the same LLID as the discovery GATE MPCPDU it responds to, i.e., 1Gb/s ONU (per Clause 64) will use LLID 0xFFFF, while the 10/1Gb/s ONUs and 10/10Gb/s ONUs will use LLID 0xFFFE."

Proposed Response Response Status O

Cl 77 SC 77.4.2 P211 L4546 # 1744
Lin, Rujian Shanghai Luster Terab

Comment Type E Comment Status X

transmitted by the OLT on the 1 Gb/s broadcast channel.

SuggestedRemedy

Modified to:
transmitted by the OLT in the 1 Gb/s broadcast channel.

Proposed Response Response Status O

Cl 77 SC 77.4.2 P211 L47 # 2069
Kramer, Glen Teknovus, Inc.

Comment Type T Comment Status X

"Operation and registration of these ONUs remains the same as previously, since no changes have been made to the existing 1 Gb/s discovery process."

It may be unclear to readers what "previously" means.

SuggestedRemedy

Change this sentence to:

"Operation and registration of these ONUs is defined in Clause 64."

Proposed Response Response Status O

CI 77 SC 77.4.2 P212 L4 # 2065
 Kramer, Glen Teknovus, Inc.
 Comment Type E Comment Status X
 typo
 SuggestedRemedy
 Remove word "based" in
 "The ONU should attempt to register based during the discovery window announced as supporting the highest speed common to both the OLT and ONU."
 Proposed Response Response Status O

CI 77 SC 77.4.2 P212 L4 # 1748
 Lin, Rujian Shanghai Luster Terab
 Comment Type E Comment Status X
 The ONU should attempt to register based during the discovery window.....
 SuggestedRemedy
 Correction:
 The ONU should attempt to register during the discovery window.....
 Proposed Response Response Status O

CI 77 SC 77.5.3 P214 L19 # 2066
 Kramer, Glen Teknovus, Inc.
 Comment Type TR Comment Status X
 The PICS statement CC1 is incorrect. The shall statement in 77.3.2.4 only refers to the MAC delay variation.
 SuggestedRemedy
 Remove "and PHY"
 Proposed Response Response Status O

CI 77 SC 77.5.4.1 P214 L27 # 2067
 Kramer, Glen Teknovus, Inc.
 Comment Type T Comment Status X
 The PICS comment should be clarified and better match the shall statement.
 SuggestedRemedy
 Use this text:
 "Not grant more than one message every 1024 time_quanta to a single ONU"
 Proposed Response Response Status O

CI 77 SC 77.5.4.4 P216 L15 # 2115
 Lynskey, Eric Teknovus
 Comment Type E Comment Status X
 The value/comment for item MP5 is incorrect. The 0x55 pattern and burst delimiter is transmitted during the synchronization time.
 SuggestedRemedy
 Replace value/comment with, "Transmit sync pattern (0x55...), BD, and IDLE."
 Proposed Response Response Status O

CI 99 SC P1 L2 # 2070
 Kramer, Glen Teknovus, Inc.
 Comment Type E Comment Status X
 Typo
 SuggestedRemedy
 Amendement = Amendment
 Same on line 30
 Proposed Response Response Status O

CI 99 SC P1 L2 # 1989
 Alan, Brown Wave7 Optics, Inc.
 Comment Type E Comment Status X
 Correctly spell "Amendment".
 SuggestedRemedy
 Correctly spell "Amendment" in line 2 and line 30.
 Proposed Response Response Status O

CI 99 SC P1 L32 # 2101
 Kramer, Glen Teknovus, Inc.
 Comment Type E Comment Status X
 Text still shows D1.802
 SuggestedRemedy
 Update to latest draft version
 Proposed Response Response Status O

CI 99 SC P1 L29 # 2247
 Ganga, Ilango Intel
 Comment Type E Comment Status X
 It appears that the description here has not been updated since the Task Force review.
 Update the text in this paragraph as appropriate.
 SuggestedRemedy
 As per comment
 Proposed Response Response Status O

CI 99 SC P2 L1 # 2246
 Ganga, Ilango Intel
 Comment Type E Comment Status X
 Add abstract of this amendment 802.3av here
 SuggestedRemedy
 As per comment
 Proposed Response Response Status O

CI 99 SC P1 L30 # 1801
 Kawatsu, Yasuaki Hitachi Cable Ltd
 Comment Type E Comment Status X
 This draft is a amendment of IEEE ...
 SuggestedRemedy
 I think this part can be corrected as "This draft is an amendment"
 Proposed Response Response Status O

CI 99 SC P2 L1 # 1991
 Alan, Brown Wave7 Optics, Inc.
 Comment Type E Comment Status X
 The Abstract requires a description.
 SuggestedRemedy
 Enter an appropriate project description.
 Proposed Response Response Status O

CI 99 SC P1 L30 # 1990
 Alan, Brown Wave7 Optics, Inc.
 Comment Type E Comment Status X
 Start of 2nd sentence of paragraph was lost.
 SuggestedRemedy
 Add "It " to the 2nd sentence.
 Proposed Response Response Status O

CI 99 SC P2 L1 # 2416
 DIAB, WAEL BROADCOM
 Comment Type E Comment Status X
 Abstract information is missing.
 SuggestedRemedy
 Please insert
 Proposed Response Response Status O

CI 99 SC P2 L4 # 2417
 DIAB, WAEL BROADCOM
 Comment Type E Comment Status X
 Would suggest adding additional keywords
 SuggestedRemedy
 Add 10GEAPON
 Proposed Response Response Status O

CI 99 SC 0 P3 L15 # 2248
 Ganga, Ilango Intel
 Comment Type E Comment Status X
 On page 3 line 15, Update Amendment name here
 Also on page 6 line 20, update the list with WG members at the start of initial WG ballot.
 SuggestedRemedy
 As per comment
 Proposed Response Response Status O

CI 99 SC P3 L10 # 1988
 Alan, Brown Wave7 Optics, Inc.
 Comment Type E Comment Status X
 Correctly spell "consecutively".
 SuggestedRemedy
 Correctly spell "consecutively".
 Proposed Response Response Status O

CI 99 SC 99 P10 L1 # 1906
 Dawes, Piers Avago
 Comment Type E Comment Status X
 No contents
 SuggestedRemedy
 Insert Contents pages after participants and before special symbols
 Proposed Response Response Status O

CI 99 SC P3 L8 # 1992
 Alan, Brown Wave7 Optics, Inc.
 Comment Type E Comment Status X
 "One exceptions"
 SuggestedRemedy
 Correct to "One exception".
 Proposed Response Response Status O

CI 99 SC 99 P3 L8 # 1905
 Dawes, Piers Avago
 Comment Type E Comment Status X
 consciously
 SuggestedRemedy
 consciously There are a few other typos: run the spell checker.
 Proposed Response Response Status O