

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

Comment Type TR Comment Status R [TO BE PROCESSED], GDMO
 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

Response Response Status U
 REJECT.
 According to Motion #4 from November 2007 802.3 WG meeting, GDMO should be defined by a separate project after Clause 30 is completed. Please refer http://www.ieee802.org/3/minutes/nov07/minutes_1107.pdf.

Cl 00 SC 0 P L # 2420
 DIAB, WAEL BROADCOM

Comment Type TR Comment Status R [TO BE PROCESSED]
 The nomenclature used for the Gigabit technologies is inconsistent with EFM and 802.3.

SuggestedRemedy
 Please change all references of 1GBASE to 1000BASE including in the 10/1GBASE so it is 10G/1000BASE

Response Response Status U
 REJECT.
 The nomenclature for all new PHYs was approved by the TF and presented to the 802.3 working group without significant opposition.
 This is a new PMD name and does not need to use same units as 1000BASE PMDs.
 10/1GBASE provides most concise name for the PMD capabilities.

Vote:
 Approve this Response
 For: 28
 Against: 0
 Abstain: 0

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

Comment Type TR Comment Status R [TO BE PROCESSED], PAR scope
 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.

Response Response Status U
 REJECT.
 802.3 considered it and chartered 802.3av TF to implement it as "a service to humanity". This mechanism was added by directive of the 802.3 WG - please see motion number #3 in minutes_0708.pdf.

Cl 31A SC 31A P17 L30 # 1923
 Dawe, Piers Avago

Comment Type TR Comment Status R [TO BE PROCESSED]
 "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.

Response Response Status U
 REJECT.
 802.3 considered it and chartered 802.3av TF to implement it as "a service to humanity". This mechanism was added by directive of the 802.3 WG - please see motion number #3 in minutes_0708.pdf.

Cl 31A SC 31A.1 P17 L12 # 1915
Dawe, Piers Avago

Comment Type **TR** Comment Status **R** [TO BE PROCESSED]

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.

Response Response Status **U**

REJECT.
[Subclause number was fixed]
[Page number was fixed]
Annex 31A and 31C are not an attempt to overturn that "Non-realtime, or quasistatic control". It will be used for real-time control.

Cl 56 SC 56.1 P34 L19 # 2418
DIAB, WAEL BROADCOM

Comment Type **ER** Comment Status **R** [3E PROCESSED], See#2274

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

Response Response Status **U**

REJECT.
Use 10G-EPON per comment #971 from March 2008.

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

Comment Type **TR** Comment Status **A** PR20 - PX20

"PX10" s/b "PX20".

SuggestedRemedy

change as suggested in comment.

Response Response Status **U**

ACCEPT.
See comment #1586

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

Comment Type **TR** Comment Status **A** SSED], Test point description

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.

Response Response Status **U**

ACCEPT IN PRINCIPLE.
See comment #2175
TF believes that having unique identifiers for test points in downstream and upstream direction is less ambiguous.

Cl 75 SC 75.4.2 P62 L13 # 2029
Frazier, Howard Broadcom

Comment Type **TR** Comment Status **R** [CESSED], Damage threshold

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.

Response Response Status **U**

REJECT.
During the discussions on the PMDs, it was decided that 1 dB damage threshold was acceptable. Higher values would prohibit design of 29 dB CHIL PMDs.

Accept this response

Yes: 22
No: 0
Abstain: 2

Cl 75 **SC 75.5.2** **P67** **L 46** # 2030
 Frazier, Howard Broadcom

Comment Type **TR** **Comment Status** **R** *CESSSED], Damage threshold*

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).

Response **Response Status** **U**

REJECT.
 See comment #2029 for rationale

Cl 75 **SC 75.6.1.2** **P71** **L 36** # 2031
 Frazier, Howard Broadcom

Comment Type **TR** **Comment Status** **R** *CESSSED], Informative Annexes*

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

SuggestedRemedy
 delete the 2nd paragraph of 75.6.1.2.

Response **Response Status** **U**

REJECT.
 This text helps readers in selecting relevant section of this specification and is useful for this reason.

I accept this resolution
 Yes: 26
 No: 0
 Abstain: 1

[Editorial note: See comment #2373.]

Cl 75 **SC 75.6.1.2** **P71** **L 37** # 2406
 Law, David 3Com

Comment Type **TR** **Comment Status** **A** *], joint, Informative Annexes*

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'.

Response **Response Status** **U**

ACCEPT IN PRINCIPLE.

Where appropriate replace term "channel" with "data rate".

In the draft, 10/1GBASE-PRX is referred to as "asymmetric-rate" PHY. The term "dual-rate" is exclusively reserved for OLT Rx being able to receive 10G and 1G signals. TF believes that term "dual rate" is more specific than term "coexistence" and should be retained.

Implement together with #2373 and #2347.

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

Comment Type TR Comment Status A Informative Annexes, Hidden sha

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.

Response Response Status U

ACCEPT IN PRINCIPLE.

This section is informative and deemed useful, thus should be retained.

"Shall" statement was removed per comment #1599. Section can be moved to a separate annex pending resolution to comment #2373.

Cl 76 SC 76.1.6.1.6 P103 L30 # 2256
Ganga, Ilango Intel

Comment Type ER Comment Status A [TO BE PROCESSED], Else

Update state diagram with conventions/notations defined in 1.2 (also see 21.5).

Replace else statement, pseudo code, etc., with appropriate logic.

Applies to Fig 76-5, Fig 76-10, Fig 76-11, Fig 76-19

SuggestedRemedy

As per comment

Response Response Status U

ACCEPT IN PRINCIPLE.

"else" to be replaced with "ELSE" in all state diagrams

Cl 76 SC 76.2.2.4.1 P113 L17 # 2376
Law, David 3Com

Comment Type ER Comment Status R PROCESSED], FEC_Formula

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.

Response Response Status U

REJECT.

This formula does not represent an equation used for calculation but rather it is a illustration of a mathematical model use to generate parity data. This representation is very similar to the ones used in Clause 74.7.4.4, Clause 65.2.3.1 and C3.2.9.

Cl 76 SC 76.2.2.4.1 P113 L17 # 1948
Dawe, Piers Avago

Comment Type TR Comment Status R PROCESSED], FEC_Formula

Explain what x is - or avoid this kind of language

SuggestedRemedy

Per comment

Response Response Status U

REJECT.

See resolution to comment #2376.

Cl 76 SC 76.2.2.4.1 P113 L23 # 1951
Dawe, Piers Avago

Comment Type TR Comment Status R PROCESSED], FEC_Formula

Explain what L is

SuggestedRemedy

Per comment

Response Response Status U

REJECT.

See resolution to comment #2376.

Cl 76 SC 76.2.2.4.2 P114 L41 # 1959
Dawe, Piers Avago

Comment Type TR Comment Status R [TO BE PROCESSED]

"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.

Response Response Status U

REJECT.

Parity value is unambiguously defined in c76.2.2.4.1 FEC Algorithm (RS(255, 223)). Format of the parity field is illustrated in c76A.

Cl 76 SC 76.2.2.4.3 P116 L5 # 1960
Dawe, Piers Avago

Comment Type TR Comment Status R [TO BE PROCESSED]

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.

Response Response Status U

REJECT.

The PCS to PMA interface is a parallel interface and as such there is not "first" and "last" bit.

Cl 76 SC 76.2.2.5.3 P120 L1 # 1962
Dawe, Piers Avago

Comment Type TR Comment Status A [TO BE PROCESSED]

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

Response Response Status U

ACCEPT IN PRINCIPLE.

Insert at end of 76.1.6.1.4

"Code examples given in c76 adhere to the style of the "C" programming language."

Move 76.1.6.1.4 to new subclause 76.2.1.3