Cl **00** *SC* *P* *L* # **44**

Part **General**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

A number of tasks need to be performed for the initial Sponsor Ballot.

SuggestedRemedy

1. IEEE Std 802.3ah-2004 with accepted changes should be merged into a new consolidated edition.
2. New front matter should be added, and though not part of the balloted draft be available for comment and correction.
3. Approved maintenance changes must be merged into the Sponsor Ballot consolidated edition.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Item 1 - IEEE Std 802.3ah-2004 should be merged into the consolidated edition prior to re-circulation ballot.
Item 2 & 2 - These will be completed prior to sponsor ballot.

Cl **00** *SC* *P* *L* # **43**

Part **P802.3ah**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

The approved draft P802.3ah/D3.3 has now been superceeded by the published standard.

SuggestedRemedy

Please apply all changes in response to comments against P802.3ah/D3.3 received in the ballot against IEEE Std 802.3ah-2004, and substitute the approved standard in any recirculation ballot.

Response *Response Status* **C**

ACCEPT.

Cl **00** *SC* *P* **1** *L* **1** # **45**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

There is no table of contents in the consolidated edition produced for the ballot, but there were formatting errors in the TOC of IEEE Std 802.3-2002 when published.

SuggestedRemedy

Add to the list of publication checks for this revision.

Response *Response Status* **C**

ACCEPT.

Cl **00** *SC* *P* **1** *L* **19** # **46**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

The SECTION ONE note needs to include Annex 4A added by IEEE Std 802.3ah needs to be added to this list.

SuggestedRemedy

Recommend adding now in anticipation of the merge of IEEE Std 802.3ah prior to Sponsor Ballot. (Rather than including it on a list of to do items for SB).

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

IEEE Std 802.3ah-2004 is being merged at this point. This comment will be passed on to the publications editor.

Response from publications editor: Done

Cl **00** *SC* *P* **General** *L* # **33**

Part **CR 1113**

Pat Thaler Agilent Technologies, I

Comment Type **TR** *Comment Status* **A**

The suggested change adds unnecessary complexity. We fully discussed the possibility of this option during the development of the standard and decided not to include it. It provides no additional utility as the PMD and PCS are always provided as a pair.

SuggestedRemedy

Do not make the change in this maintenance request.

Response *Response Status* **C**

ACCEPT.

The change request 1113 is withdrawn by the submitter and will be removed from the package.

Cl **00** *SC* **0** *P* **?** *L* **?** # **79**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

'List of special symbols' table has gone AWOL from the staff editor's copy.

SuggestedRemedy

Insert this page, remembering that balloted drafts of ak and ah added more symbols. Include the symbols added by .3ak (lower case lambda and omicron, upper case omega) and .3ah (lower case alpha, beta, gamma, epsilon (in alphabetical order); and square root. Update the template on the web. I suggest that this table can form a FrameMaker "endmatter" item.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Combine version from IEEE Std 802.3ak-2004 and IEEE Std 802.3ah-2004 to ensure completeness.

This comment will be passed on to the publication editor.

Response from publications editor:
This will be done prior to final publication.

Cl **00** *SC* **All** *P* **506 et seq.** *L* **9** # **78**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

Annexes don't have any but top level bookmarks. As some annexes are normative, they deserve as good referencing as the main body.

SuggestedRemedy

Use multilevel bookmarks throughout whole document.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed onto the publication editor.

Response from publications editor:
This will be done prior to final publication.

Cl **00** *SC* **All** *P* **All** *L* **-** # **77**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

The pdf bookmarks are presented as an expanded tree. To make use of them one first has to fold up many of them. The trees should be fully un-expanded at all levels when one opens the document.

SuggestedRemedy

Make the pdf bookmarks fully un-expanded at all levels when one opens the document.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed onto the publication editor.

Response from publications editor:
This will be done prior to final publication.

Cl **00** *SC* **All** *P* **All** *L* **-** # **76**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

I believe the standard is published as one pdf file but can also be downloaded in three pdf files - see http://standards.ieee.org/getieee802/802.3.html . How do the pdf links work in the split/combined versions? Can they be got to work both ways?

SuggestedRemedy

Refer to staff editor.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed on to the publication editor.

Response from publications editor:
We are incapable of making the links between separate PDFs at this time.

Cl **00** *SC* **many** *P* *L* **53-54** # **114**

Part **Std 802.3, also P802.3ah, request #1112<CR>**

Peter Bradshaw Intersil Corpn (formerly

Comment Type **E** *Comment Status* **A**

Maintenance Request #1112 asked that the footnotes to a number (about 9) of PICS headings be corrected, so that 'proforma in this annex' be replaced by 'proforma in this subclause' for all those PICS statements NOT in an Annex. The following occurrences have NOT been corrected (I have listed the section headings that have the incorrect footnote attached; the original listing was of the clause nearest to the footnote):
43.7
46.5
47.6
48.7
49.3
50.6
51.10
52.15
53.15

The following should have 'proforma in this clause' replaced by 'proforma in this subclause' (the
first two are from #1112, the others newly found in 802.3ah):
16.6
18.5
57.7 (**)
58.10 (**)
59.10 (**)
60.10 (**)
61.10 (**)
62.4 (**)
63.4 (**)
64.4 (**)
65.4 (**)
66.4 (**)

The following should have 'proforma in this clause' replaced by 'proforma in this annex'
61B.5 (**)

The correct form may be found at the following locations:
8.8 (the prototype!)
14.10
15.8
17.5
22.7
23.12
24.8
25.5
26.5
27.7

28.5
31.8
32.8
35.5
36.7
37.5
38.12
39.8
40.12
41.6
45.5 (*)
54.10

31B.4
43B.6
62A.5
62B.5
63A.5
63B.5

Further notes:
(*) this also has the 'any may' error, to be replaced by 'and may', from request # 1138
(**) These are new, not included in the list in request #1112. I suggest the editors fix it NOW, before it spreads further!

SuggestedRemedy

This is easy for an Editor to do; either of two scenarios:
1.) merely search the document for the expression 'proforma in this annex'. Look at the nearby clause numbers; if it is an Annex, do nothing, but if not, change 'annex' to 'subclause'. It took me
about three minutes to find the above list of errors. The newer errors require a search for 'proforma in this clause', so scenario 2 may be better.
2.) merely search the document for the expression 'proforma in this'; look at the next word, and see if it is correct (subclause or annex), and fix it if not.

Response *Response Status* **C**

ACCEPT.

This comment will be passed on to the publication editor.

Response from publications editor: Done

Cl **01** *SC* **1.1** *P* **14** *L* **1** # **85**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

Dead link.

SuggestedRemedy

Please make the cross-references from 1.4 to 802.3 active.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed onto the publication editor.

Response from publications editor:
These will be fixed prior to publication, but not all will be active during the draft stage.

Cl **01** *SC* **1.1** *P* **3** *L* **11** # **81**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

What's the * in 'xMII*' about? Should it go with a note saying that the xMIIs are optional? Or does it relate to the note?

SuggestedRemedy

If this figure is edited for another reason - if the * relates to a missing note about optional xMII, add that note, or if the * is to go with the note, change the note format to show a * or remove this *.

Response *Response Status* **C**

ACCEPT.

It is believed that the '*' is there as there is a note related to the xMII. The figure will be edited to correct this.

Cl **01** *SC* **1.1** *P* **3** *L* **6** # **80**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **T** *Comment Status* **A**

In other instances of this figure we have been changing 'LLC - LOGICAL LINK CONTROL' to 'LLC - LOGICAL LINK CONTROL OR OTHER MAC CLIENT'. We should be consistent one way or the other.

SuggestedRemedy

Change 'LLC - LOGICAL LINK CONTROL' to 'LLC - LOGICAL LINK CONTROL OR OTHER MAC CLIENT'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Will globally replace 'LLC - LOGIC LINK CONTROL OR OTHER MAC CLIENT' with 'LLC (LOGICAL LINK CONTROL) OR OTHER MAC CLIENT' and 'LLC - LOGICAL LINK CONTROL' with 'LLC (LOGICAL LINK CONTROL) OR OTHER MAC CLIENT'.

Cl **01** *SC* **1.1.2.2** *P* *L* # **31**

Part **Std 802.3**

Pat Thaler Agilent Technologies, I

Comment Type **TR** *Comment Status* **A**

bullet f) The statement that exposing this interface is highly recommended is inconsistent with the state of current technology. It gives an incorrect impression as many – probably most – MAC's and PHYs shipped do not use it. With current technology the more common interface is XAUI. The XSBI shouldn't be recommended at all. It is often not exposed and is more specialized.

In addition, for most of the other interfaces here there are now lower pin count alternatives specified by consortia that provide similar flexibility so "highly recommended" is not justified.

SuggestedRemedy

Suggested remedy: Either remove the statement or change the recommendation to recommend that at least one of the XAUI or XGMII be implemented. (I do not make a similar suggestion for GMII/TBI because they use the same physical interface with different logic behind it so it is common for implementations to support both.) In all instances except XSBI reduce "highly recommended" to "recommended". For XSBI remove the recommendation.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Reduce 'highly recommended' to 'recommended' for XSBI, XGMII, GMII and TBI.

Cl **01** *SC* **1.1.3** *P* **5** *L* **15** # **22**

Part **Std 802.3**

Arthur Marris Cadence Design Syste

Comment Type **E** *Comment Status* **A**

"will be discussed" is a bit vague

SuggestedRemedy

replace "will be discussed" with "are decribed"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

"are described"

Cl **01** *SC* **1.2.1** *P* **5** *L* **52** # **47**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

Incommplete edit in the merge of 802.3ae at the second line of the paragraph.

SuggestedRemedy

Delete the comma after "ports".

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed on to the publication editor.

Response from publications editor: Done

Cl **01** *SC* **1.3** *P* **10** *L* **17** # **48**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

Incorrect alpha/numeric order

SuggestedRemedy

This should appear after the reference below it.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Assign to IEEE Editor to update if comment is correct.

Response from publications editor: Done

Cl **01** *SC* **1.3** *P* **10** *L* **17** # **83**

Part **Std 802.3**

Agilent

Comment Type **T** *Comment Status* **A**

IEC 61753-022-2 appears to be published now. Need to review what it says. Does it agree with the draft that was voted to be referenced as part of 802.3ae?

SuggestedRemedy

If the published standard agrees with the draft, update the reference and remove the footnote.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Modify the clause 52 and 53 references as follows:

c) IEC 61753-022-2 -- Fibre optic ... Category C -- Controlled environment, performance Class M.

This is based on the following email from e-mail from Paul Kolesar:

I've obtained the standard and checked its contents. I believe it meets the expectations of IEEE P802.3ae where referenced in clauses 52.14.4 and 53.14.3, with one possible exception that deserves clarification in the
referencing clauses. The exception has to do with the fact that 61753-022-2 specified two performance levels delineated by class designations M and N. Class M meets the 0.75 dB attenuation and 20 dB return loss requirements of 802.3 for multimode connectors, while class N does not. Class N attenuation is 1.25 dB max and has no return loss requirements. Therefore, I believe comment #83 should spawn additional action to insert a designation of Class M into the places where it is called out in clauses 52 and 53 (and any other places). I would suggest modifying the clause 52 and 53 references as follows:

c) IEC 61753-022-2 -- Fibre optic ... Category C -- Controlled environment, performance Class M.

This same issue may be present for the singlemode spec too, since it has several performance classes too. I do not have that document, however, so I cannot provide specific guidance at this time. Perhaps Steve Swanson
can assist with the particulars.

Cl **01** *SC* **1.3** *P* **10** *L* **17** # **6**

Part **802.3**

Matt Squire Hatteras Networks

Comment Type **T** *Comment Status* **A**

We're still referencing a draft document that should have been ready more than a year ago. I've searched IEC websites for 61076-3-113 and can't find any available documents.

SuggestedRemedy

Hopefully this document has been finished and made public in some way, and we can replace this draft reference with the real thing.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See comment #82.

Cl **01** *SC* **1.3** *P* **10** *L* **17** # **82**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **T** *Comment Status* **A**

IEC 61076-3-113 appears to be published now.

SuggestedRemedy

If the published standard agrees with the draft, update the reference and remove the footnote.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

The text "(draft, 48B/1327/NP, 14 March 2003.):" will be replaced with "(draft, 48B/1437/CD, 2 April 2004.)".

This is based on the following email from Howard Baumer:

Here's my suggested response: REJECT; According to the IEC web site this document is at the stage of: A2CD (Approved for 2nd Committee Draft) and is not a published document yet.

The text "(draft, 48B/1327/NP, 14 March 2003.):" could be replaced with "(draft, 48B/1437/CD, 2 April 2004.)".

Cl **01** *SC* **1.3** *P* **10** *L* **34** # **7**

Part **802.3**

Matt Squire Hatteras Networks

Comment Type **E** *Comment Status* **A**

The IEC document 61753-022-2 is available now, can we remove the footnote?

SuggestedRemedy

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See comment #83.

Cl **01** *SC* **1.3** *P* **11** *L* # **8**

Part **802.3**

Matt Squire Hatteras Networks

Comment Type **T** *Comment Status* **A**

Some of the IETF RFC references are out of date.
RFC1902 obsoleted by 2578
RFC1903 obsoleted by 2579
RFC1904 obsoleted by 2580
RFC1905 obsoleted by 3416
RFC1906 obsoleted by 3417
2233 by 2863
2271 by 2571
2272 by 2572
2273 by 2573
2274 by 2574
2275 by 2575

SuggestedRemedy

Update references to latest RFCs.

Response *Response Status* **C**

ACCEPT.

This is based on the following email from Dan Romascanu:

The updated references are accurate.

Cl **01** *SC* **1.3** *P* **11** *L* **1** # **49**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

Style issue to be referred to publication editor

SuggestedRemedy

Harmonize inconsistent style. Note that with this reference, italic is used for document names on most of this page. Consider fixing these or others as appropriate to make style consistent.

Response *Response Status* **C**

ACCEPT.

Assign to IEEE publication editor.

Response from publications editor: IETFs are handled a little differently than other standards--more like a periodical. You will notice that all the italics occur when citing an IETF publication. I have left as is for now.

Cl **01** *SC* **1.3** *P* **13** *L* **33** # **84**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **T** *Comment Status* **A**

Each publisher of a reference gets a a footnote. TIA should have one too.

SuggestedRemedy

Add footnote for TIA, with URL (http://www.tiaonline.org I believe).

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Will pass this comment on to the publications editor.

Response from publications editor: Done

Cl **01** *SC* **1.4** *P* **11** *L* **9** # **52**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

Alpha/numeric order problem. Though in correct order for RFC 1213, that isn't what leads the line.

SuggestedRemedy

For ease of use, it would be best to delete the alternate document number IETF STD 17 from here and create a new reference "IETF STD 17, see IETF RFC 1213".

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Assign to IEEE publication editor.

Response from publications editor: Done. The text now reads 'IETF RFC 1213 (IETF STD 17)'.

Cl **01** *SC* **1.4** *P* **15** *L* **19** # **50**

Part **Std 802.3**

Bob Grow Intel

Comment Type **T** *Comment Status* **A**

802.3ae did not add its port types unlike previous amendments, nor did ak.

SuggestedRemedy

10GBASE-CX4: IEEE 802.3 Physical Layer specification for 10Gb/s using 10GBASE-X encoding over four lanes over shielded balanced copper cabling. (See IEEE 802.3 Clause 54.)

10GBASE-E: IEEE 802.3 PMD specifications for 10 Gb/s serial transmission using extra long wavelength. (See IEEE 802.3 Clause 52.)

10GBASE-ER: IEEE 802.3 Physical Layer specification for 10Gb/s using 10GBASE-R encoding and 10GBASE-E optics. (See IEEE 802.3 Clauses 49 and 52.)

10GBASE-EW: IEEE 802.3 Physical Layer specification for 10Gb/s using 10GBASE-W encoding and 10GBASE-E optics. (See IEEE 802.3 Clauses 50 and 52.)

10GBASE-L: IEEE 802.3 PMD specifications for 10 Gb/s serial transmission using long wavelength. (See IEEE 802.3 Clause 52.)

10GBASE-LR: IEEE 802.3 Physical Layer specification for 10Gb/s using 10GBASE-R encoding and 10GBASE-L optics. (See IEEE 802.3 Clauses 49 and 52.)

10GBASE-LW: IEEE 802.3 Physical Layer specification for 10Gb/s using 10GBASE-W encoding and 10GBASE-L optics. (See IEEE 802.3 Clauses 50 and 52.)

10GBASE-LX4: IEEE 802.3 Physical Layer specification for 10Gb/s using 10GBASE-X encoding over four WWDM lanes over multimode fiber. (See IEEE 802.3 Clause 54.)

10GBASE-S: IEEE 802.3 PMD specifications for 10 Gb/s serial transmission using short wavelength. (See IEEE 802.3 Clause 52.)

10GBASE-SR: IEEE 802.3 Physical Layer specification for 10Gb/s using 10GBASE-R encoding and 10GBASE-S optics. (See IEEE 802.3 Clauses 49 and 52.)

10GBASE-SW: IEEE 802.3 Physical Layer specification for 10Gb/s using 10GBASE-W encoding and 10GBASE-S optics. (See IEEE 802.3 Clauses 50 and 52.)

10GBASE-R: An IEEE 802.3 physical coding sublayer for serial 10 Gb/s operation. (See IEEE 802.3 Clause 49.)

10GBASE-W: An IEEE 802.3 physical coding sublayer for serial 10 Gb/s operation that is data-rate and format compatible with SONET STS-192c. (See IEEE 802.3 Clause 49.)

10GBASE-X: An IEEE 802.3 physical coding sublayer for 10 Gb/s operation over XAUI and four lane PMDs. (See IEEE 802.3 Clause 48.)

Response *Response Status* **C**

ACCEPT.

Cl **01** *SC* **1.4** *P* **34** *L* **38** # **92**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **T** *Comment Status* **A**

Need to add a definition for 'unit interval', a term introduced in 38 and also used in 47, 48, 52, 53, 54, 58. We put off this task in 802.3ak and 802.3ah because of schedule risk; maintenance is the right forum to fix it. 'Unit interval' is a commonplace term in telecomms but not every reader is familar with it, I have found. The definition needs to cover e.g. Manchester code and/or multilane and/or multilevel transmission formats. For info: http://www.atis.org/tg2k/ has 'unit interval: In isochronous transmission, the longest interval of which the theoretical durations of the significant intervals of a signal are all whole multiples.' Can anyone improve on my attempt below?

SuggestedRemedy

Add 'unit interval' to the definitions list 1.4: 'A period of time, usually allocated for the transmission of one symbol on one channel; the inverse of the modulation rate. Not necessarily the same as bit time.'

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Add 'unit interval' to the definitions list 1.4: 'A period of time, usually allocated for the transmission of one symbol on one channel; the inverse of the modulation rate. Generally not the same as bit time (BT).'

Cl **01** *SC* **1.4.157** *P* **24** *L* **29-32** # **25**

Part **P802.3REVam/D1.0**

David W. Martin Nortel Networks

Comment Type **T** *Comment Status* **R**

A terminology issue that needs to be cleared up. The definition in this clause of IPG refers to clauses 4.2.3.2.1 and 4.2.3.2.2 and gives example values from clause 4.4.2. The 4.2.3.2 sub-clauses use the term IFS and refer to clause 4.4.2. In that table it uses the term IFG. In clause 4.2.7.2 it states that IFS is equal to IFG and also refers to clause 4.4.2.
Therefore there are three terms which clearly are equivalent: Inter-Packet Gap = Inter-Frame Spacing = Inter-Frame Gap. This is confusing. Further, having participated in 802.3 for over 5 years, I'm well aware that in conversation a distinction is made between IPG and IFG, where IPG is between FCS and PA, and IFG is between FCS and DA. In the documentation, however, both these terms and IFS are defined as between FCS and PA. So actually there is no documented term for the interval between FCS and DA. This only
adds to the confusion. I'm also aware that a prior, valiant attempt was made by an esteemed colleague to try and rectify this terminology issue, only to be dismissed using the rationale that "it hasn't prevented interoperable gear and would only confuse more people by changing it". So I'm going to propose a simple and limited effort remedy.

SuggestedRemedy

Add the following sentence to clause 1.4.157, page 24, line 32 "Note that this interval is also referred to as the Inter-Frame Gap (IFG) and Inter-Frame Spacing (IFS)."

Response *Response Status* **C**

REJECT.

Although the terms Inter-Packet Gap (IPG), Inter-Frame Gap (IFG), and Inter-Frame Spacing (IFS) have generally been used interchangeably, the risk of introducing unintended error is too great.

M Grow
S Bradshaw

Y: 12
N: 0
A: 2

Cl **01** *SC* **1.4.162** *P* *L* # **32**

Part **Std 802.3**

Pat Thaler Agilent Technologies, I

Comment Type **TR** *Comment Status* **A**

This description is applicable to the jitter in many of the 802.3 physical layers but not all of them. Specifically in the 10 Mbit/s layers we do not break jitter into these two components. Also, the random jitter in 10BASE-T (which was studied during the project though not broken out as a component in the standard) was shown to be non-deterministic.

SuggestedRemedy

Replace “Total Jitter (TJ) is composed of” with “Total Jitter (TJ) is often specified by two components:” This isn’t perfect since random jitter generically doesn’t have to be Gaussian, but it is the smallest change and I’m willing to live with the defined term, Random Jitter, being only used for the class of (lower case) random jitter that is Gaussian. I believe that in all cases where we use the term Random Jitter, that jitter component is well approximated by a Gaussian description.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See 87.

Cl **01** *SC* **1.4.162** *P* **24** *L* **44** # **87**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **T** *Comment Status* **A**

Definition of jitter might be OK for XAUI alone but it is too long, too detailed, says things that are not always the case for 10GBASE-R/W, does not reflect the W,sigma model, and uses terminology 'bit cell' which seems to have restricted applicability.

SuggestedRemedy

Shorten and correct, or delete. Here's an attempt at a shorter version: 'The variations of instants of a signal from their ideal positions in time. Jitter may be characterized by its spectral properties and its distribution in time.'

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

'The variations of signal transitions from their ideal positions in time. Jitter may be characterized by its spectral properties and its distribution in time.'

Cl **01** *SC* **1.4.164** *P* **25** *L* **6** # **88**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **T** *Comment Status* **R**

What's a 'quantum of data'? This phrase isn't used anywhere else in 802.3.

SuggestedRemedy

Get rid of it.

Response *Response Status* **C**

REJECT.

The commenter failed to provide replacement text and the current definition was one that required significant committee effort to gain consensus. In additon there is at least one other consistent useage of quantum in Section 1 of IEEE 802.3.

Cl **01** *SC* **1.4.171** *P* **28** *L* **20** # **90**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **T** *Comment Status* **R**

This definition seems too narrow: surely a section might be a whole segment, possibly with a powering DTE at one end?

SuggestedRemedy

Review.

Response *Response Status* **C**

REJECT.

The commenter failed to provide replacement text and the current definition was one that required significant committee effort to gain consensus. The commenter is encorage to discuss this definition with Geoff Thomposon who resolved this for the IEEE P802.3af Task Force.

Cl **01** *SC* **1.4.214** *P* **28** *L* **8-9** # **26**

Part **Std 802.3**

David W. Martin Nortel Networks

Comment Type **T** *Comment Status* **R**

A terminology issue that needs to be cleared up. The definition in this clause of a Packet is equivalent to the definition of a MAC Frame per clause 3. This definition of a Packet also builds on and refers to the term Data Frame which is defined in clause 1.4.103. So although all 3 terms are well defined, there is no link in clause 1.4.214 to the term MAC Frame. Thus it is not obvious that Packet = MAC Frame.

SuggestedRemedy

Insert a reference to MAC Frame and clause 3 in the
definition of clause 1.4.214 as follows: "Consists of a data frame as defined previously, preceded by the Preamble and the Start Frame Delimiter (i.e., a MAC Frame, see IEEE 802.3 clause 3), encoded as appropriate, for the Physical Layer (PHY) type."

Response *Response Status* **C**

REJECT.

See comment #25.

Cl **01** *SC* **1.4.227** *P* **25** *L* **6** # **89**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **T** *Comment Status* **A**

This definition of PCS is incomplete: 10G Ethernet has PCS too.

SuggestedRemedy

Update it. Review the next three definitions for physical (sub) layer terminology.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

The following new definitions will be used.

1.4.227 Physical Coding Sublayer (PCS): Within IEEE 802.3, a sublayer used in certain port types to couple the Media Independent Interface (MII), Gigabit Media Independent Interface (GMII) or 10 Gigabit Media Independent Interface (XGMII) and the Physical Medium Attachment (PMA). The PCS contains the functions to encode data bits for transmission via the PMA and to decode the received condition signal from the PMA.
There are several PCS structures. (For example see IEEE 802.3 Clauses 23, 24,32, 36, 40, 48 and 49.)

1.4.228 Physical Layer entity (PHY): Within IEEE 802.3, the portion of the Physical Layer between the Medium Dependent Interface (MDI) and the Media Independent Interface (MII), Gigabit Media Independent Interface (GMII) or 10 Gigabit Media Independent Interface (XGMII), consisting of the Physical Coding Sublayer (PCS), the Physical Medium Attachment (PMA), and, if present, the WAN Interface Sublayer (WIS) and Physical Medium Dependent (PMD) sublayers. The PHY contains the functions that transmit, receive, and manage the encoded signals that are impressed on and recovered from the physical medium. (For example see IEEE 802.3 Clauses 23-26, 32, 36, 40, 48-54, 58-63, 65 and 66.)

1.4.229 Physical Medium Attachment (PMA) sublayer: Within 802.3, that portion of the Physical Layer that contains the functions for transmission, reception, and (depending on the PHY) collision detection, clock recovery and skew alignment. (For example see IEEE 802.3, Clauses 7, 12, 14, 16, 17, 18, 23, 24, 32, 36, 40, 51, 62, 63 and 66.)

1.4.230 Physical Medium Dependent (PMD) sublayer: Within 802.3, that portion of the Physical Layer responsible for interfacing to the transmission medium. The PMD is located just above the Medium Dependent Interface (MDI). (For example see IEEE 802.3 Clause 25-26, 38, 39, 54, 58-60, 62 and 63.)

During the genration of this a typo was found in EFM: In 58.7.6 equation 58-5, P1 + P2 (if not already corrected) should be P0 + P1 .

Cl **01** *SC* **1.4.268** *P* **31** *L* **34** # **91**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **T** *Comment Status* **A**

The scrambler doesn't change the signaling rate (not data rate, that's irrelevant). Maybe T1 have a different definition of 'data' to 802.3's.

SuggestedRemedy

Change 'data' to 'signaling'.

Response *Response Status* **C**

ACCEPT.

Cl **01** *SC* **1.4.61** *P* **17** *L* **48** # **86**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **T** *Comment Status* **A**

Bad definition of cable assembly. This definition was judged inaccurate and withdrawn from D5.2 of 802.3ak. Clause 54 uses this phrase and can explain it.

SuggestedRemedy

Delete this definition from 1.4.

Response *Response Status* **C**

ACCEPT.

An errata will also be produced.

Cl **01** *SC* **1.4.316** *P* **38** *L* **1** # **93**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

Wrong definition of zero dispersion wavelength. Dispersion may be positive or negative, depending on wavelength.

SuggestedRemedy

Change 'where the chromatic dispersion of a fiber is at its minimum.' to 'where the chromatic dispersion of a fiber is zero.'

Response *Response Status* **C**

ACCEPT.

Cl **01** *SC* **1.5** *P* **35** *L* **23** # **53**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

Extra word -- "Circuit" isn't part of the acronym

SuggestedRemedy

Remove "Circuit"

Response *Response Status* **C**

ACCEPT.

Cl **01** *SC* **1.5** *P* **35** *L* **7** # **51**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

Style issue to be referred to publication editor

SuggestedRemedy

The capitalization style for this section changed with IEEE Std 802.3ae-2002, and the merge makes the difference in capitalization very obvious. Most of the items from 802.3ae should not be capitalized. It looks like the same problem exists with material merged from 802.3af.

Also check consistency on 802.3ah.

Response *Response Status* **C**

ACCEPT.

This comment will be passed on to the publication editor.

Response from publications editor: This is a hard one for me to judge. Usually in an acronyms subclause, the capitalization style varies. It is not as much as a style issue as how a term is usually seen in the industry. I will need a little guidance with this one. We can fix it prior to final publication.

Cl **01** *SC* **1.5** *P* **38** *L* **27** # **94**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

We've heard about gratuitous capitals, here's an Egregious capital.

SuggestedRemedy

At least put 'And' in lower case! For preference, change to 'Clock and data recovery circuit' (or follow precedent in this subclause: 'clock and data recovery circuit'). Similarly for SERDES.

Response *Response Status* **C**

ACCEPT.

Cl **02** *SC* **2.1** *P* **39** *L* **10** # **23**

Part **Std 802.3**

Arthur Marris Cadence Design Syste

Comment Type **E** *Comment Status* **A**

Redundant hyphen after "implementation"

SuggestedRemedy

Change "implementation-" to "implementation"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This is not a hyphen - it a merge error (strikeout that was not removed).

This will be passed to the publication editor.

Response from publications editor: Done

Cl **02** *SC* **Figure 2-** *P* **39** *L* **31** # **54**

Part

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

Format problem for publication editor

SuggestedRemedy

The signal names need white space behind to be able to read clearly. Perhaps just a problem with the layering of objects in the source.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed on to the publication editor.

Response from publications editor: Done

Cl **03** *SC* **3.2.3.1** *P* **46** *L* **52** # **24**

Part **Std 802.3**

Arthur Marris Cadence Design Syste

Comment Type **T** *Comment Status* **R**

It is probably worth mentioning multicast addresses associated with STP and pause here

SuggestedRemedy

Change "two" to "three"
Add "3) Reserved Multicast Address. An address used by a standard protocol; for example pause or the spanning tree protocol."

Response *Response Status* **C**

REJECT.

There are only two types of address distinguished by the I/G bit. The MAC has no knowledge of reserved M/C addresses. We regret when we add lists that have to be updated.

Cl **04** *SC* **4.2.3.3** *P* **68** *L* **17** # **10**

Part **Std 802.3**

Matt Squire Hatteras Networks

Comment Type **E** *Comment Status* **A**

Excessive and confusing conjunction of comments in "If frameSize is less than minFrameSize, then the CSMA/CD MAC sublayer shall append extra bits in units of octets (pad), after the end of the MAC client data field but prior to calculating, and appending, the FCS (if not provided by the MAC client)."

SuggestedRemedy

None of the commas except the first seem necessary, and the sentence would reach much better without them.

Response *Response Status* **C**

ACCEPT.

Cl **04** *SC* **4.2.3.4** *P* **68** *L* **38** # **9**

Part **802.3**

Matt Squire Hatteras Networks

Comment Type **E** *Comment Status* **A**

The diagram shows a "Type/Length" field, while it appears we've moved toward using "Length/Type" in the text.

SuggestedRemedy

Change diagram (or text) for consistency.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

The figure appears to be the only time where 'Type/Length' is used so this will be corrected to read 'Length/Type'.

Cl **04** *SC* **4.2.8** *P* **77** *L* **29** # **162**

Part **Std 802.3**

Benjamin Brown Independent

Comment Type **T** *Comment Status* **A**

Within procedure StartTransmit, there are 2 assignments of interest: "transmitting := true" and "lastHeaderBit := headerSize". The first assignment sets a variable that in turn initiates the inner loop of process BitTransmitter (page 79, line 40). Inside this inner loop, procedure PhysicalSignalEncap is called. Within this procedure, the variable lastHeaderBit is used. Based on the order of their original assignments, it is possible that lastHeaderBit is used before it is assigned.

SuggestedRemedy

Swap the order of the last 2 assignments in procedure StartTransmit.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Move lastHeaderBit assignment to after lastTransmitBit.

Cl **04** *SC* **Fig 4-1** *P* **56** *L* **1** # **160**

Part **Std 802.3**

Benjamin Brown Independent

Comment Type **TR** *Comment Status* **A**

Some letter/bullets used within the functional blocks of this figure are not in the appropriate blocks as described in the text of 4.1.2 and its subclauses.

There are 3 sets of changes suggested by this comment.

SuggestedRemedy

Change set 1:

Bullets "d" and "k" should be moved from the "Transmit Media Access Management" block to the "Transmit Data Encapsulation" block as they are described in the first paragraph of 4.1.2.1.1 as being part of the Transmit Data Encapsulation component of the MAC.

If there is sufficient interest in clarity, modify k) to read "Appends preamble, Start Frame Delimiter, DA, SA, Length/Type field and (optionally) FCS to all frames, and inserts PAD field for frames whose data length is less than a minimum value and for which an FCS field was not provided by the MAC client."

This would require a similar wording change to bullet "g" in 4A.1.4 of 802.3ah.

Change set 2:

Bullets "e" and "l" should be moved from the "Receive Media Access Management" block to the "Receive Data Decapsulation" block as they are described in the third paragraph of 4.1.2.1.2 as being part of the Receive Data Decapsulation function.

Actually, the preamble and SFD are discarded in procedure PhysicalSignalDecap, which is clearly part of the Receive Media Access Management function. However, the remaining fields are only looked at in the Receive Data Decapsulation function. I would support breaking this bullet into 2 parts:

"
l) For frame reception
1) Removes preamble and Start Frame Delimiter.
2) Disassembles DA, SA, Length/Type field, data, FCS, and PAD field (if necessary) from received frames into parameters."

Then put "l1" in "Receive Media Access Management" block and put "l2" in "Receive Data Decapsulation" block. This would require a similar change in Figure 4A-1 in 802.3ah to bullet "i".

Change set 3:

In Figure 4A-1 of 802.3ah, page 578, line 21, move bullet "g" from the "Receive Data Decapsulation" block back to the "Receive Media Access Management" block. This bullet corresponds to bullet "j" in figure 4-1 and as part of procedure ReceiveLinkMgmt belongs in the "Receive Media Access Management" block.

Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

1. Remove Figure 4-2.
2. Remove the bullet list in 4.1.4 and its preamble.

Reply from commenter to the response:

This seems like a radical solution to the problem. I'd like to see this comment recirculated to make sure that those who care will see what's being proposed. I'm not sure I'm in favor of this.

Cl **06** *SC* *P* **110** *L* **2** # **55**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

It appears with 100Mb/s we changed from using the form ".indication" to ".indicate" on some primitives. While I have always favored the latter active voice form, I believe ISO still uses the former passive voice form for the primitive. Supliments and amendments have even made Clause 6 slightly inconsistent. In Section 1 the indication:indicate ratio is 39:4, in Section 2 it is 21:276, in Section 3 it is 26:179 in Section 4 it is 0:171 and in P802.3ah it is 60:71.

SuggestedRemedy

Somehow, the industry has managed to do new generations of Ethernet without this being a big problem. Consider if the risk of unintended errors justifies harmonizing the usage -- either internally by changing
".indication" to ".indicate" or with ISO using the complementary change.
The BRC should not that I did not search on the words themselves which would be the bigger part of assuring harmonization.

Response *Response Status* **C**

ACCEPT.

Bob Grow to work with the editor to do this correction. Indication will be used.

Cl **06** *SC* **6.2.3** *P* **110** *L* **12** # **35**

Part **Std 802.3**

Hugh Barrass Cisco Systems

Comment Type **E** *Comment Status* **R**

Pt 1, sect 1, p 110, l 12, 6.2.3

"NOTE--In half duplex mode, all bits transferred from a MAC sublayer entity will in turn be received by the entity itself."

This is not a requirement and is not necessarily true.

SuggestedRemedy

Better to put:

"NOTE--In half duplex mode, bits transferred from a MAC sublayer entity might in turn be received by the entity itself."

Response *Response Status* **C**

REJECT.

Clause 6 only applies to 1Mb/s and 10Mb/s MAUs which do always perfom loopback. Also the text is not a requirement but instead a description of behavior.

Cl **06** *SC* **6.3.1.2.3** *P* **111** *L* **20** # **36**

Part **Std 802.3**

Hugh Barrass Cisco Systems

Comment Type **E** *Comment Status* **R**

Pt 1, sect 1, p 111, l 20, 6.3.1.2.3

"NOTE--In half duplex mode, an indication is also presented to the MAC entity that issued the request."

This is not a requirement and is not necessarily true.

SuggestedRemedy

Better to put:

"NOTE--In half duplex mode, an indication may also be presented to the MAC entity that issued the request."

Response *Response Status* **C**

REJECT.

Clause 6 only applies to 1Mb/s and 10Mb/s MAUs which do always perfom loopback. Also the text is not a requirement but instead a description of behavior.

Cl **06** *SC* **6.3.1.2.4** *P* **111** *L* **24** # **37**

Part **Std 802.3**

Hugh Barrass Cisco Systems

Comment Type **E** *Comment Status* **A**

Pt 1, sect 1, p 111, l 24, 6.3.1.2.4 (also 6.3.2.1.4, 6.3.2.2.4, 6.3.2.3.4)

"The effect of receipt of this primitive by the MAC sublayer is unspecified."

This does not make sense. If it is completely undefined then why is there a definition for it…

SuggestedRemedy

Better to put:

"The effect of receipt of this primitive by the MAC sublayer is not specified in this Clause."

Response *Response Status* **C**

ACCEPT.

Cl **15** *SC* **15.1.3.1** *P* **365** *L* **43** # **59**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

Incomplete in merge of 802.3aj, p.17 change instruction.

SuggestedRemedy

Change "rate" to "ratio".

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed on to the publication editor.

Response from publications editor: Done

Cl **15** *SC* **15.3.1.2** *P* **376** *L* **42** # **60**

Part **Std 802.3 Part 1**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

P802.3aj publication errata? Shouldn't the units be MHz*km (actually a symbol font multiplication dot)?

SuggestedRemedy

Fix. In the paragraph as well as the NOTE.

Response *Response Status* **C**

ACCEPT.

Note that this is not a publication error. This text appears as 'MHz-km' in IEEE Std 802.3-2002 and IEEE Std 802.3aj-2003 reflects this.

Cl **22** *SC* *P* *L* # **56**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

It appears with 100Mb/s we changed from using the form ".indication" to ".indicate" on some primitives. While I have always favored the latter active voice form, I believe ISO still uses the former passive voice form for the primitive. Supliments and amendments have even made Clause 6 slightly inconsistent. In Section 1 the indication:indicate ratio is 39:4, in Section 2 it is 21:276, in Section 3 it is 26:179 in Section 4 it is 0:171 and in P802.3ah it is 60:71.

SuggestedRemedy

Somehow, the industry has managed to do new generations of Ethernet without this being a big problem. Consider if the risk of unintended errors justifies harmonizing the usage -- either internally by changing ".indication" to ".indicate" or with ISO using the complementary change. The BRC should not that I did not search on the words themselves which would be the bigger part of assuring harmonization.

Response *Response Status* **C**

ACCEPT.

Bob Grow to work with the editor to do this correction. Indication will be used.

Cl **27** *SC* **Figure 27-1** *P* **64** *L* **3** # **168**

Part **1148**

Benjamin Brown Independent

Comment Type **TR** *Comment Status* **R**

The heading LAN CSMA/CD LAYERS is common to nearly every figure of this type throughout the entire document. There is no need to remove that heading from this figure.

SuggestedRemedy

Reject this request.

Response *Response Status* **U**

REJECT.

The repeater does not have other layers above it - it is entirly a physical layer device.

Reply from commenter to the response:

This label does not describe an additional layer above the physical layers in this figure. It merely provides a header describing the source of the layers below it, just like the "OSI Reference Model Layers" label simply describes the source of layers in this portion of the figure. I disagree with this response.

Cl **28A** *SC* *P* **547** *L* # **75**

Part **Std 802.3**

Pat Thaler Agilent

Comment Type **E** *Comment Status* **A**

All the values 1xxxx except for 11111 are missing from the table. These values should all be reserved.

SuggestedRemedy

I suggest replacing the bits on the last line of the table with 1 x x x x.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

In additon the unused values where the top bit is 0 will also be marked as reserved.

Cl **28A** *SC* **Annex 28A** *P* *L* # **110**

Part **Std 802.3**

David Law 3Com

Comment Type **TR** *Comment Status* **A**

Need to add the IEEE 1394c Selector filed allocation to the table found in Annex 28A.

SuggestedRemedy

See comment

Response *Response Status* **C**

ACCEPT.

Cl **28C** *SC* **28C.6** *P* **1121-2** *L* **21** # **107**

Part **CR 1121**

David Law 3Com

Comment Type **T** *Comment Status* **A**

While the new text and figure provides an excellent illustration of Message code #5, the current descriptive text is also useful and should not be removed. In addition the current new proposed text supplied in change request 1121 only places a shall on the use of message code 0x005 and places no shall on the four user codes.

Instead of replacing the current text it should be corrected and the new text and figure supplied in change request 1121 should be used to supplement and clarify the current text.

SuggestedRemedy

1. Add editing instruction to the text supplied in change request 1121 that read 'Insert the following text at the end of subclause 28C.6.'
2. Delete the first sentence of the new paragraph supplied in change request 1121 as this is a duplication of the first sentence of the current text.
3. In the last sentence of the current paragraph change the text 'The fourth and final ...' to read 'The fifth and final ...'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

The first instance of 'fourth' should be changed to 'third'. The second instance of 'fourth' is correct.

Cl **28C** *SC* **28C.6** *P* **1121-2** *L* **23** # **108**

Part **CR 1121**

David Law 3Com

Comment Type **T** *Comment Status* **A**

The text uses the example '... the manufacture-selected extension identifier for a given component is 101100011.'. Apart from this being only 9 bits when the filed is 20 bits, these 20 bits are not a manufacture-selected extension but instead is a 'user-defined user code value this is specific to the OUI transmitted'.

In addition since this value is indeed a user-defined user code associated to the OUI transmitted I don't think we need to define the bit order - it is the owner of the OUI that does that. While I don't think there are any implementations out there that use Message code #5, I'm not too sure that we need to defined the bit order here to ensure inter-operability - only the format of the OUI need be defined for inter-operability. If we do choose to defined the bit order of these 20 bits aren't we constraining the use of Message code #5 more than it has been in the past.

Assuming however that we are going to choose to define the bit order for this field the text related to the example needs to be updated to match the fugure.

SuggestedRemedy

Suggest that the text '... the manufacture-selected extension identifier for a given component is 101100011.' be changed to read '... the user-defined user code associated to the OUI is 11001110000011111100.'.

Response *Response Status* **C**

ACCEPT.

Cl **28C** *SC* **28C.6** *P* **1121-2** *L* **41** # **105**

Part **1121**

David Law 3Com

Comment Type **E** *Comment Status* **A**

The figure number, and the reference to it are incorrect. The Figure number should be 28C-1 (not 28.1) and the reference to it on line 24 should be corrected to match this.

SuggestedRemedy

Correct figure number and reference.

Response *Response Status* **C**

ACCEPT.

Cl **28C** *SC* **28C.6** *P* **28** *L* **23** # **166**

Part **CR 1121**

Benjamin Brown Independent

Comment Type **TR** *Comment Status* **A**

I agree that this text is confusing, since 9.1 of Std 802-2001 describes the OUI as consisting of 3 octets and not a 24-bit field. I'm not sure what the MSB really means without using the same terminology used in 802-2001.

However, I think the example provided by Dr. James is just as confusing. The "manufacturer-selected extension identifier" used in the example, "101100011" does not match anything in Figure 28.1 (though I think this figure should be labeled Figure 28C-1).

SuggestedRemedy

I would prefer to see this request rejected than to swap one level of confusion with another. I'm not sure if I'm simply missing something or if there's an error in the example.

If nothing else is done, I would recommend correcting the text that already resides in 28C.6 by replacing "fourth user" in the next to last sentence with "third user code".

If a clear example can be provided in subsequent circulations, I would not be against flipping my vote on this request.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See response to comment #107 & #108.

Cl **28C** *SC* **28C.7** *P* **1122-2** *L* **21** # **109**

Part **CR 1122**

David Law 3Com

Comment Type **T** *Comment Status* **A**

While the new text and figure provides an excellent illustration of Message code #6, the current descriptive text is also useful and should not be removed. In addition the current new proposed text supplied in change request 1122 only places a shall on the use of message code 0x006 and places no shall on the four user codes.

Instead of replacing the current text the new text and figure supplied in change request 1122 should be used to supplement and clarify the current text.

SuggestedRemedy

1. Add editing instruction to the text supplied in change request 1122 that read 'Insert the following text at the end of subclause 28C.7.'
2. Delete the first sentence of the new paragraph supplied in change request 1122 as this is a duplication of the first sentence of the current text.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This is duplicating the mapping of the OUI into the register bits found in 22.2.4.3.1. The mapping of the regsiter bits found in 22.2.4.3.1 to Message code #6 is already clearly defined in subclause 28C.7. Placing this mapping in two places could be confusing.

Based on this we will not merge the text from CR1122 into the draft and will remove CR1122 from the package.

Straw poll:
Y: 13
N: 1
A: 4

Cl **28C** *SC* **28C.7** *P* **1122-3** *L* **49** # **106**

Part **CR 1122**

David Law 3Com

Comment Type **E** *Comment Status* **A**

The figure number, and the reference to it are incorrect. The Figure number should be 28C-2 (not 28.1) and the reference to it on line 25 should be corrected to match this.

SuggestedRemedy

Correct figure number and reference.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See comment #109.

Cl **28C** *SC* **28C.7** *P* **31** *L* **29** # **167**

Part **CR 1122**

Benjamin Brown Independent

Comment Type **TR** *Comment Status* **A**

This figure is very different from the one recommended in Request 1121 as a change to 28C.6. It might be a good example but the two figures need to match.

SuggestedRemedy

Align these two requests with a common theme between the figures and I would consider flipping my vote. Otherwise, I'd prefer to keep the original text.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See response to comment #109

Cl **30A** *SC* **30A.1.1 et seq** *P* **560 et seq** *L* **9** # **34**

Part **Std 802.3**

Geoff Thompson Nortel Networks

Comment Type **E** *Comment Status* **A**

When the previous activity to resolve the difference in registration arc assignments was done 802.3 did not choose the option that is being called out in the 802 Overview and Architecture.
Ref: P802b/D2 cl. 12.2:
The Object Identifier value assigned to the 8802 series of standards is:
iso(1) std(0) iso8802(8802)

The next arc in the sequence shall be used to differentiate between members of the IEEE 802 family of standards, by using it as a working group designator, as follows:
iso(1) std(0) iso8802(8802) ieee802dotXX(XX)

where XX is the working group number of the IEEE 802 Working Group responsible for that standard.

For example, under this hierarchy, the value used within the standards defined by the IEEE 802.1 working group is:
iso(1) std(0) iso8802(8802) ieee802dot1(1)

and the value used within the IEEE 802.3 standards is:
iso(1) std(0) iso8802(8802) ieee802dot3(3)
802.3 - 2002 nor p802.3REVam/D1.0 is consistent with this.

SuggestedRemedy

Change the registration arc root throughout p802.3REVam/D1.0 to match the recommendation in 802b

Response *Response Status* **C**

ACCEPT.

Geoff Thompson to provide text.

Cl **30A** *SC* **30A.13.1** *P* **615** *L* **49** # **65**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

Incomplete merge edit.

SuggestedRemedy

Delete semicolon. Same issue at:
Page 615, line 52

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed on to the publication editor.

Response from publications editor: Done

Cl **30A** *SC* **30A.14.1** *P* **621** *L* **3** # **66**

Part **Std 802.3**

Bob Grow Intel

Comment Type **T** *Comment Status* **A**

Inconsistent syntax, "." instead of ";" or nothing

SuggestedRemedy

Fix at:
Page 621, line 3, 17, 31, 45
Page 622, line 6, 20
Page 626, line 19, 33, 47
Page 627, line 7, 21, 34
Page 628, line 19, 47
Page 629, line 43
Page 633, line 3, 17

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This Annex will be run through a GDMO compiler/syntax checker. In at least some of the instances the ';' is at the end of the note rather than the end of the text because the line plus the note constitute a single free text field.

Cl **30A** *SC* **30A.3.1** *P* **575** *L* **27** # **63**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

Incomplete merge edit.

SuggestedRemedy

Remove underscore from "U" in BEHAVIOUR.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed on to the publication editor.

Response from publications editor: Done

Cl **30A** *SC* **30A.7.2** *P* **585** *L* **42** # **64**

Part **Std 802.3**

Bob Grow Intel

Comment Type **T** *Comment Status* **A**

Syntax error? Though indicated as a delete in 802.3ae, multiple deletions of ";" appear to be wrong, at least inconsistent with some remaining (e.g., line 31).

SuggestedRemedy

Fix the following locations:
Page 585, line 42
Page 586, line 3, 16, 30, 43
Page 587, line 3, 16, 30, 43
Page 588, line 3
Page 589, line 17

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This Annex will be run through a GDMO compiler/syntax checker. In at least some of the instances the ';' is at the end of the note rather than the end of the text because the line plus the note constitute a single free text field.

Cl **30B** *SC* **30B.2** *P* **642** *L* **32** # **62**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

IEEE Std 802.3aj, page 64 change instruction way not implemented.

SuggestedRemedy

Change two instances or "rate" to "ratio".

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed on to the publication editor.

Response from publications editor: Done

Cl **30B** *SC* **30B.2** *P* **643** *L* **10** # **67**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

Incomplete merge edit.

SuggestedRemedy

Remove underscore.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed on to the publication editor.

Response from publications editor: Done

Cl **31B** *SC* **31B.3.4.2** *P* **684** *L* **28** # **68**

Part **Std 802.3**

Bob Grow Intel

Comment Type **T** *Comment Status* **A**

Missing merge of 802.3aj merge for 31B (pages 65, 66,)

SuggestedRemedy

Add: "data The data payload field parsed from the received frame."
At page 686, line 3, change to read "The service primitive used to indicate..."
Figure 31B-2 is not implemented. In the draft, it is also erroneously numbered 31B-1.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed on to the publication editor.

Response from publications editor: Done

Cl **31B** *SC* **31B.4.6** *P* **689** *L* **13** # **71**

Part **Std 802.3**

Bob Grow Intel

Comment Type **T** *Comment Status* **A**

Missing merge from 802.3aj

SuggestedRemedy

Change "MDI" to "MII"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed on to the publication editor.

Response from publications editor: Done

Cl **33** *SC* **33** *P* **473** *L* **4** # **28**

Part **Std 802.3**

Michael Beck Alcatel Bell n.v.

Comment Type **E** *Comment Status* **A**

The NOTE contains appropriate information for readers of the 802.3af amendment published as a stand-alone document, but it is unnecessary historical information in the context of the consolidated standard.

SuggestedRemedy

Remove the NOTE.

Response *Response Status* **C**

ACCEPT.

Cl **33** *SC* **33** *P* **473** *L* **5** # **38**

Part **Std 802.3**

Hugh Barrass Cisco Systems

Comment Type **E** *Comment Status* **A**

"NOTE--Although this clause existed in previous publications of IEEE Std 802.3, it was reserved

for future use and therefore contained no information. All information in this clause is new material."

This note is no longer appropriate or true.

SuggestedRemedy

Delete the note.

Response *Response Status* **C**

ACCEPT.

Cl **33** *SC* **33.1** *P* **473** *L* **16** # **39**

Part **Std 802.3**

Hugh Barrass Cisco Systems

Comment Type **E** *Comment Status* **A**

"these data"

The use of data as a plural is overly pedantic. Modern usage suggests that data should be treated as a substantive noun (similar to "air" or "water").

SuggestedRemedy

Change to "this data."

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed on to the publication editor.

Response from publications editor: Done

Cl **33** *SC* **33.1** *P* **473** *L* **18** # **40**

Part **Std 802.3**

Hugh Barrass Cisco Systems

Comment Type **E** *Comment Status* **A**

The bulleted list should match the style prevalent in the document.

SuggestedRemedy

Each bullet item should be terminated with a period. The trailing "and" from item d) should be removed.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed on to the publication editor.

Response from publications editor: Done. This is an inconsistency that happens a lot in this document. It comes from changes in list style by the IEEE over the last few years.

Cl **33** *SC* **33.1** *P* **473** *L* **21** # **41**

Part **Std 802.3**

Hugh Barrass Cisco Systems

Comment Type **E** *Comment Status* **A**

"Optionally, a method to classify devices based on their power needs,"

This is needlessly convoluted wording.

SuggestedRemedy

Change to:

"An optional method to classify devices based on their power needs."

Response *Response Status* **C**

ACCEPT.

Cl **33** *SC* **33.1.2** *P* **474** *L* **3** # **42**

Part **Std 802.3**

Hugh Barrass Cisco Systems

Comment Type **E** *Comment Status* **R**

"shall" appears without a corresponding PICS entry.

Given that this is in the "Overview" section, the "shall" is superfluous. Also the "where appropriate" is redundant.

SuggestedRemedy

Change to:

"All implementations of PD and PSE systems are required to be compatible at their respective Power Interfaces (PIs) when used in accordance with the restrictions of Clause 33."

Response *Response Status* **C**

REJECT.

This text appears often in the charming style of IEEE Std 802.3 and it has been decided that a PICS entry is not require for redundant shalls such as this. Note - Changing to require would not eliminate the requirement for a PICS coverage.

Cl **35** *SC* *P* *L* # **57**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

It appears with 100Mb/s we changed from using the form ".indication" to ".indicate" on some primitives. While I have always favored the latter active voice form, I believe ISO still uses the former passive voice form for the primitive. Supliments and amendments have even made Clause 6 slightly inconsistent. In Section 1 the indication:indicate ratio is 39:4, in Section 2 it is 21:276, in Section 3 it is 26:179 in Section 4 it is 0:171 and in P802.3ah it is 60:71.

SuggestedRemedy

Somehow, the industry has managed to do new generations of Ethernet without this being a big problem. Consider if the risk of unintended errors justifies harmonizing the usage -- either internally by changing ".indication" to ".indicate" or with ISO using the complementary change. The BRC should not that I did not search on the words themselves which would be the bigger part of assuring harmonization.

Response *Response Status* **C**

ACCEPT.

Bob Grow to work with the editor to do this correction. Indication will be used.

Cl **40** *SC* *P* **1115-4** *L* **1 - 54** # **171**

Part **1115**

Terry R Cobb Commscope

Comment Type **E** *Comment Status* **A**

duplicate page, the PIC changes were in what was submitted

SuggestedRemedy

none

Response *Response Status* **C**

ACCEPT.

Duplicate text will be removed, the PICS changes will be restored and recirculated.

Cl **40** *SC* **40.1** *P* **149** *L* # **72**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

Incomplete merge edit.

SuggestedRemedy

Delete space before 1995.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Will pass this comment on to the publications editor.

Response from publications editor: Done.

Cl **40** *SC* **40.12.8** *P* **248** *L* **?** # **95**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

Some or maybe all of these PICS items are characteristics of cabling not of DTE, so should be conditionally dependent.

SuggestedRemedy

Review each PICS entry in this subclause and if appropriate, change 'M' to 'INS:M'.

Response *Response Status* **C**

ACCEPT.

All items in 40.12.8 as well as MDI2,5 and 6 will be predicated by INS.

Cl **40** *SC* **40.8.3** *P* **228** *L* *#* **69**

Part **Std 802.3 Section 3**

Bob Grow Intel

Comment Type **T** *Comment Status* **D**

Use of Category 5 with ISO/IEC 11801 is inconsistent.

SuggestedRemedy

Change Category 5 to Class D (two occurances).
Also PME 20 on page 242 and MDI 5 on page 249.

Response *Response Status* **Z**

Withdrawn

In ISO/IEC 11801 Category is used when referring to components however Class is used when referring to channel.

Cl **44** *SC* **Table 44-1** *P* **3** *L* *#* **70**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

Incomplete merge edit.

SuggestedRemedy

Remove underscore from CX4 row.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed on to the publication editor.

Response from publications editor: Done.

Cl **45** *SC* **45.2.1.2** *P* **15** *L* **3 & 4** *#* **11**

Part **802.3**

Ed Turner

Comment Type **E** *Comment Status* **A**

The register is not identified by its full name in this paragraph - only 'status 1 register'. All other registers use their full name in the equivalent paragraph to this one.

SuggestedRemedy

Insert 'PMA/PMD' infront of 3 occurances of 'status 1 register'.

Response *Response Status* **C**

ACCEPT.

Cl **45** *SC* **45.2.3.10.1** *P* **49** *L* **40** *#* **12**

Part **802.3**

Ed Turner

Comment Type **E** *Comment Status* **A**

Mismatch between register bit name here, and register bit in table.

SuggestedRemedy

Change to 'Transmit test-pattern enable'

Response *Response Status* **C**

ACCEPT.

Cl **45** *SC* **45.2.3.10.2** *P* **49** *L* **49 ?** # **13**

Part **802.3**

Ed Turner

Comment Type **E** *Comment Status* **A**

Mismatch between register bit name here, and register bit in table.

SuggestedRemedy

Change to 'Test pattern select'.

Response *Response Status* **C**

ACCEPT.

Cl **45** *SC* **45.2.3.15.1** *P* **53** *L* **Last (5** # **14**

Part **802.3**

Ed Turner

Comment Type **E** *Comment Status* **A**

Incorrect reference to a bit.

SuggestedRemedy

Change 'setting bit 3.32.2 to a one' to 'setting bit 3.42.5 to a one'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

The text will be changed to read:

If the PCS supports the optional PRBS31 pattern testing advertised in bit 3.32.2 and the mandatory receive test-pattern enable bit (3.42.2) is not one, setting bit 3.42.5 to a one shall set the receive path of the PCS into the PRBS31 test-pattern mode. The number of errors received during a PRBS31 pattern test are recorded in register 3.43. Setting bit 3.42.5 to a zero shall disable the PRBS31 test-pattern mode on the receive path of the PCS. The behavior of the PCS when in PRBS31 test-pattern mode is specified in Clause 49.

Cl **45** *SC* **45.2.3.15.1** *P* **54** *L* **2** # **15**

Part **802.3**

Ed Turner

Comment Type **E** *Comment Status* **A**

Incorrect reference to a bit.

SuggestedRemedy

Change '3.32.2' to '3.42.5'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See comment #14.

Cl **45** *SC* **45.2.3.15.6** *P* **54** *L* **40 ?** # **16**

Part **802.3**

Ed Turner

Comment Type **E** *Comment Status* **A**

Incorrect reference to a bit.

SuggestedRemedy

Change '3.42.1' to '3.42.0'.

Response *Response Status* **C**

ACCEPT.

Cl **45** *SC* **45.5.4.4 (???)** *P* **part3 page 4** *L* **1** # **2**

Part **CR 1136**

Peter Bradshaw Intersil Corpn (formerly

Comment Type **E** *Comment Status* **A**

"Add the following entry to the end of the table found in subclause 45.5.4.4:"
There does not appear to be any subclause 45.5.4.4 (not in part 1 section 4, or in part 2), but the instructions do not seem to demand the addition of one. The entry item to be added (the '*ODB' line) could rationally (imho) be added to the end of the Table in clause 45.5.5.1, which does refer to the signaling format on the MDIO and MDC lines, which is the topic at issue here.

SuggestedRemedy

Add the '*ODB' item to end of Table in 45.5.5.1 instead. If it is necessary to change it to an 'SF4' item, change the reference in the EC7 item in 45.5.5.16 also to the same, as by replacing !ODB:M by !SF4:M.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

The item '*ODB' should be added to the end of the table in subclause 45.5.4.3 'Major capabilities/options' as it is an option.

The new item 'EC7' is still correct.

Cl **45** *SC* **45.5.5.1** *P* **78** *L* **28-38** # **17**

Part **Std 802.3 Part 4**

Ed Turner

Comment Type **E** *Comment Status* **A**

Should the timing information here be in the table of section 45.5.5.15 ?

SuggestedRemedy

Response *Response Status* **C**

ACCEPT.

Move timing information from 45.5.5.1 to 45.5.5.15.

Cl **45** *SC* **45.5.5.14** *P* **93** *L* **39-45** # **20**

Part **Std 802.3**

Ed Turner

Comment Type **E** *Comment Status* **R**

There's only one 'shall' for MF11 and MF12.

SuggestedRemedy

Roll MF11 and MF12 into one ?

Response *Response Status* **C**

REJECT.

Cl **45** *SC* **45.5.5.3** *P* **79** *L* **41** # **18**

Part **Std 802.3 Part 4**

Ed Turner

Comment Type **E** *Comment Status* **A**

MM12 is Missing other bits that the MMD needs to responded to (cf other MMDs).

SuggestedRemedy

Add 'and 1.8.15:14' just before 'during reset'.

Response *Response Status* **C**

ACCEPT.

Cl **45** *SC* **45.5.5.3** *P* **80** *L* **45** # **19**

Part **Std 802.3 Part 4**

Ed Turner

Comment Type **E** *Comment Status* **A**

In MM31, the word 'lane' is used when 'bit' is meant.

SuggestedRemedy

Change 'lane' to 'bit'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change 'lane zero' to 'bit 1.9.0'.

Cl **45** *SC* **45.5.5.3** *P* **part1_sectio** *L* **5 , part** # **1**

Part **CR 1135**

Peter Bradshaw Intersil Corpn (formerly

Comment Type **E** *Comment Status* **A**

In fixing the original error, I asked that 'lane 0' be replaced by 'bit 0'. My bad, the original actually had 'lane zero', and the editors changed the text to 'bit zero'. To be consistent with other similar formats (e.g. MM32 through MM42), where the bits are designated by numeric, rather than textual, values, I suggest that the original remedy be completed, i.e. the former 'lane zero' now changed to 'bit zero' be changed to 'bit 0' .

SuggestedRemedy

In 45.5.5.3, MM31, replace 'bit zero' by 'bit 0'

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See comment #19.

Cl **46** *SC* *P* *L* # **58**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

It appears with 100Mb/s we changed from using the form ".indication" to ".indicate" on some primitives. While I have always favored the latter active voice form, I believe ISO still uses the former passive voice form for the primitive. Supliments and amendments have even made Clause 6 slightly inconsistent. In Section 1 the indication:indicate ratio is 39:4, in Section 2 it is 21:276, in Section 3 it is 26:179 in Section 4 it is 0:171 and in P802.3ah it is 60:71.

SuggestedRemedy

Somehow, the industry has managed to do new generations of Ethernet without this being a big problem. Consider if the risk of unintended errors justifies harmonizing the usage -- either internally by changing ".indication" to ".indicate" or with ISO using the complementary change. The BRC should not that I did not search on the words themselves which would be the bigger part of assuring harmonization.

Response *Response Status* **C**

ACCEPT.

Bob Grow to work with the editor to do this correction. Indication will be used.

Cl **46** *SC* **46.5.3.2** *P* **115** *L* **(not nu** # **3**

Part **P802_3amD1p00_part1_section_4**

Peter Bradshaw Intersil Corpn (formerly

Comment Type **E** *Comment Status* **A**

Under 'Value/Commrent' heading, the word 'preceeded' appears. Incorrect spelling, should be 'preceded'

SuggestedRemedy

Replace 'preceeded' by 'preceded'

Response *Response Status* **C**

ACCEPT.

Cl **48** *SC* **48.1.2** *P* **134** *L* **no line** # **73**

Part **Std 802.3**

Howard Baumer Broadcom

Comment Type **E** *Comment Status* **A**

Header level 2 numbering format was left off of the line whos text is:
"Summary of 10GBASE-X sublayers." This should be header 48.1.2

SuggestedRemedy

Reaply Header Level 2 format

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Will pass this comment on to the publications editor.

Response from publications editor: Done. Made 48.1.3 instead since there was already a 48.1.2.

Cl **48** *SC* **48.2.4.2** *P* *L* # **27**

Part **CR 1118**

Tom Mathey Independent

Comment Type **T** *Comment Status* **R**

The change request to remove the requirement for "uniform" random for the ||A|| code for 8b/10b encoding needs to be rejected. There were good reasons during the draft development for this requirement. One reason that I seem to remember was to spread out the EMI energy that is present over a broader spectrum. This requirement is still valid.

Removing this text could mean that two numbers which are "random" would meet the requirements.

Simply because implementations have not followed the standard is not a good reason to then change the standard.

If I was to be present at the Ottawa meeting, I would make this disapproval a TR.

SuggestedRemedy

Do not change the draft. Perhaps more clarifying text is needed.

Response *Response Status* **C**

REJECT.

The normative state machine in Clause 48 will not produce a uniform random distribution of ||A||'s. It will however produce a good enough pseudo random non uniform distribution to spread the spectrum (see taborek_1_0500.pdf).

Cl **48** *SC* **48.2.6.1.5** *P* *L* # **173**

Part **Std 802.2**

NoName

Comment Type **E** *Comment Status* **A**

The word 'uniformly' needs to be removed from this subclause in support of CR 1118.

SuggestedRemedy

Remove 'uniformly'.

Response *Response Status* **C**

ACCEPT.

Change request 1118 will be updated.

Cl **48** *SC* **48.3.4** *P* **161** *L* # **21**

Part **Std 802.3**

Arthur Marris Cadence Design Syste

Comment Type **TR** *Comment Status* **A**

This subclause says implementing the test patterns is optional.
However the PICS item CC1 on 163 says they are mandatory.
My understanding is that the PICS is correct and the subclause wrong.

SuggestedRemedy

Delete the first sentence of the subclause and insert the following:
"A 10GBASE-X PHY shall be capable of transmitting the five test patterns defined in Annex 48A. It is recommended that capability for generating the mixed-frequency, low frequency and high frequency patterns is implemented in the PCS."

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

To do this change would make existing comformant implementation non-conformant.

We will change the PICS to match the normative text. We will consider this a technical change as a completed PICS is the representation of conformance.

Add the text 'It is recommended that the capability for generating the mixed-frequency, low frequency and high frequency patterns is implemented in the PCS." to the second paragraph of subclause 48.3.4.

Cl **48B** *SC* **48B.1.1** *P* **379** *L* **(not nu** # **4**

Part **P802_3am_D1p00_part1_section4**

Peter Bradshaw Intersil Corpn (formerly

Comment Type **E** *Comment Status* **A**

The dual Dirac mathematical model is named for Professor Paul Adrien Maurice Dirac, whose name should therefore be initial-capitalized as a proper name, especially since he was a most proper gentleman, as far as I could tell when I attended one of his lectures while he held the Lucasian chair of Mathematics at Cambridge University (previously held by Isaac Newton, subsequently by Stephen Hawking). It appears correctly on page 381, in section 48B.1.3, and on page 388, section 48B.3.2.2.1.

SuggestedRemedy

Replace 'dirac' by 'Dirac'

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed on to the publication editor.

Response from publications editor: Done.

Cl **48B** *SC* **48B.2.1** *P* **382** *L* **(not nu** # **5**

Part **P802_3am_D1p00_part1_section4**

Peter Bradshaw Intersil Corpn (formerly

Comment Type **E** *Comment Status* **A**

The dual Dirac (mathematical) model is named for Professor Paul Dirac, whose name should therefore be initial-capitalized as a proper name, especially since he was a most proper gentleman, and capital mathematician, as far as I could tell. See previous item. It appears correctly on page 381, in section 48B.1.3, and on page 388, section 48B.3.2.2.1.

SuggestedRemedy

Replace 'dirac' by 'Dirac'

Response *Response Status* **C**

ACCEPT.

Cl **4A** *SC* **4A** *P* **576** *L* **2** # **159**

Part **P802.3ah**

Benjamin Brown Independent

Comment Type **T** *Comment Status* **A**

This text makes it sound like 4A is an exact copy of Clause 4 with nothing added, only half duplex mode is dropped. This isn't exactly the case.

SuggestedRemedy

Between the 2 sentences, add the following:

"Additional functionality is included for managing physical layer congestion and for support of interframe spacing outside this sublayer."

Response *Response Status* **C**

ACCEPT.

Cl **4A** *SC* **4A.2.3.1** *P* **582** *L* **49** # **161**

Part **802.3ah<CR>**

Benjamin Brown Independent

Comment Type **E** *Comment Status* **A**

Wrong word

SuggestedRemedy

Replace "as generate" with "as generated"

Response *Response Status* **C**

ACCEPT.

Cl **4A** *SC* **4A.2.9** *P* **594** *L* **8** # **163**

Part **802.3ah**

Benjamin Brown Independent

Comment Type **TR** *Comment Status* **A**

The "italics" have been lost in function RemovePad.

SuggestedRemedy

The key words "function", "begin", "if", "then", "end", "else", "and", and "not" should all be italicized.

Response *Response Status* **C**

ACCEPT.

Cl **53** *SC* **53.15.4.3** *P* **4** *L* **22** # **164**

Part **CR 1110**

Benjamin Brown Independent

Comment Type **TR** *Comment Status* **A**

The intent of this PICS entry is to ensure that PMD_transmit_fault is set if the PMD finds a local fault on "any" transmit lane. There are multiple lanes involved, not just one.

SuggestedRemedy

Recommend a different remedy from that suggested in the request:

"Sets PMD_transmit_fault to a logical 1 if a local fault is detected on any transmit path."

Response *Response Status* **C**

ACCEPT.

[Subclause 53.15.4.3 - Page 326]

Cl **53** *SC* **53.15.4.3** *P* **5** *L* **22** # **165**

Part **CR 1111**

Benjamin Brown Independent

Comment Type **TR** *Comment Status* **A**

The intent of this PICS entry is to ensure that PMD_receive_fault is set if the PMD finds a local fault on "any" receive lane. There are multiple lanes involved, not just one.

SuggestedRemedy

Recommend a different remedy from that suggested in the request:

"Sets PMD_receive_fault to a logical 1 if a local fault is detected on any receive path."

Response *Response Status* **C**

ACCEPT.

[Subclause 53.15.4.3 - Page 326]

Cl **54** *SC* **54.10.4.5** *P* **354** *L* **?** # **97**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

Cable assembly PICS should be conditionally dependent, and some of these are not, or not wholly, applicable to cable assembly.

SuggestedRemedy

Create a major capability option (with a *) for cable assembly (see e.g. 38 or 52 for examples). Make CA1-10 and CA12 dependent on it; Move CA11 to PF series (54.10.4.1); Copy CA12 to PF series.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Move CA11 to a new PICS table 'MDI Connector' (54.8).

Cl **54** *SC* **54.5.4** *P* **336** *L* **no line** # **74**

Part

Howard Baumer Broadcom

Comment Type **TR** *Comment Status* **A**

The wording in the 3rd paragraph of 54.5.4 has the following affect on SIGNAL_DETECT: If when the received signal drops to 50mV + delta SIGNAL_DETECT=OK has to be maintained. If When the received signal drops to 50mV - delta for > 500us then SIGNAL_DETECT=FAIL must be asserted. As delta is allowed to approach 0 the final affect is that there is a single valued threshold without any deviation allowed. Because of this it is impossible to produce any PMD device compliant to this provission.

SuggestedRemedy

Change the first sentence in the third paragraph to read as follows:

The PMD shall not have aserted SIGNAL_DETECT = FAIL until the absolute differential peak-to-peak input voltage on any of the four lanes at the MDI has dropped below 175mV and has remained below 175mV for at least 250us.

Response *Response Status* **W**

ACCEPT.

Cl **54** *SC* **54.7** *P* *L* # **172**

Part **Std 802.3**

Dan Dove Agilent

Comment Type **T** *Comment Status* **A**

Somehow 802.3ak was published with a resolved comment not properly implemented into the document. In order to fully implement the will of the committee and the sponsor group, I suggest inserting the words "contains insulated conductors terminated in a connector at each end for use as a link segment between MDIs. This cable assembly" after the words "cable assembly" and before the words "is primarily..." in the first sentence of section 54.7

SuggestedRemedy

Response *Response Status* **C**

ACCEPT.

An errata will also be produced.

Cl **54** *SC* **54.7** *P* **345** *L* **?** # **96**

Part **Std 802.3**

Piers Dawe Agilent

Comment Type **T** *Comment Status* **A**

Missing words. Change 'cable assembly is primarily' to...

SuggestedRemedy

... 'cable assembly contains insulated conductors terminated in a connector at each end for use as a link segment between MDIs. This cable assembly is primarily'.

Response *Response Status* **C**

ACCEPT.

See comment #86.

Cl **60** *SC* **60.2.1** *P* **343** *L* **30** # **98**

Part **P802.3ah**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

Bad cross reference. By comparison with other clauses, '60-2' should be '60.7' (two occurrences). Similarly in 60.3.1, 60.4.1 (not 'Equation').

SuggestedRemedy

Correct four cross-references per comment.

Response *Response Status* **C**

ACCEPT.

Cl **61** *SC* **61.10.1** *P* **419** *L* **6** # **99**

Part **P802.3ah**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

Paragraph of boilerplate 'The supplier of a protocol implementation ...' is missing. Also at 62.4.1, 63.4.1. In 64.4.1, boilerplate is not in same style as other clauses, missing mention of 'IEEE Std 802.3ah-2004,' (I don't know which style is required, or if either is OK.)

SuggestedRemedy

Insert missing boilerplate in 61.10.1, 62.4.1, 63.4.1. Review wording of 64.4.1. Check normative annexes for similar issue. Check all other PICS x.x.1 just in case.

Response *Response Status* **C**

ACCEPT.

Cl **61** *SC* **61.3** *P* **396** *L* **1** # **29**

Part **P802.3ah**

Michael Beck Alcatel Bell n.v.

Comment Type **TR** *Comment Status* **A**

Throughout this subclause, the term PAF is used where PCS should be used. This is an artefact from earlier versions of the draft, where the PCS contained both the PAF and the TC, and where there was no term to designate "the upper part of the PCS regardless of whether PAF is present". Although this strange usage of the term PAF is duly announced by the sentence on page 396, line 1 ("Also the term PAF is used..."), it is misleading and should be cleaned up.

SuggestedRemedy

Delete the sentence on page 396, line 1: "Also, the term PAF is used to represent the superior function to the TC, regardless of whether the PAF actually exists."
In 61.3.1, replace "PAF" with "PCS" on page 396, line 37, and throughout the column "direction" of Table 61-9 (but NOT in the tablefootnotes).
In 61.3.3, replace "PAF" with "PCS" on page 399, lines 7 and 11.
The occurrences of "PAF" in 61.3.3.3 must NOT be changed.
In 61.3.3.7, replace "PAF (if present)" with "PCS" on page 410, lines 15 and 19.

Response *Response Status* **W**

ACCEPT.

Cl **61** *SC* **61.3.3.7.2** *P* **411** *L* **Fig 61-** # **30**

Part **P802.3ah**

Neal J. King Infineon Technologies

Comment Type **TR** *Comment Status* **A**

Chapter 61.3.3.5 describes the sync detection whereas chapter 61.3.3.7.2 describes the receive state diagram of the 64/65-octet encapsulation.
Figure 61-17 shows the sync detect state machine, figure 61-19 shows the state diagram for 64/65 octet receive function. Both state machines are coupled, the sync detection state machine provides the TC_synchronized signal to the receive function of 64/65o, the 64/65octet receive state machine provides the signals missedSync and expectedSync to the Sync detection state machine.
If the receive state machine does not find the sync pattern it looses synchronization. The 64/65 octet receive state machine finds out about the loss (in the check_sync states), the sync detect state machine moves form Synced to Freewheel_Sync_True with 1 MissedSync. If there are 3 MissedSync in a row (detected by 64/65 octet receive state machine) the Sync detect state machine moves from Freewheel_Sync_tru to Freewheel_Sync_False. In this state TC_synchronized will be deasserted by the Sync Detect State Machine which in turn brings 64/65 octet receive state machine to the state Loss_of _Sync from one of the check_sync states (very likely Check_Sync3). The Loss of Sync state however can only be left when TC_Synchronized becomes TRUE again.
Now the 64/65 octet receive state machine is in state Loss_of_Sync and the Sync detect state machine is in Freewheel_sync_false state. The Sync detect state machine needs either the expectedSync or missedSync in order to leave this state. Since the 64/65octet receive state machine is in Loss_of_sync state none of the 2 signal will be generated, both state machines are locked.

SuggestedRemedy

The 64/65-octet state machine in the receive direction must also generate the missedSync and expectedSync signal in the state LOSS_OF_SYNC every 65th byte, as it does in the CHECK_SYNC states. Therefore with every received octet, k has to be incremented. Also, k has to be set to 0 if TC_SYNCHRONIZED becomes true and the 64/65-octet function must move to the state OUT_OF_FRAGMENT.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

A new INITIALIZATION state will be created that serves to reset k<=0 at initialization and when transferring out of LOSS_OF_SYNC. This INITIALIZATION state then goes to LOSS_OF_SYNC or OUT_OF_FRAGMENT depending whether TC_synchronized=true.

INITIALIZATION
k <= 0

LOSS_OF_SYNC
B <= receiveOctet()
k <= k+1
IF((k=65)*((B=F0)+(B=0F)))
k <= 0
expectedSync = TRUE
ELSE IF (k=65)
k <= 0
missedSync = TRUE

And to include the following transitions:

from: Reset
to: INITIALIZATION
cond: UCT
replaces: Reset->LOSS_OF_SYNC

from: INITIALIZATION
to: LOSS_OF_SYNC
cond: TC_synchronized=false

from: INITIALIZATION
to: OUT_OF_FRAGMENT
cond: TC_synchronized=true

from: CHECK_SYNC1, CHECK_SYNC_2, CHECK_SYNC3
to: LOSS_OF_SYNC
(keep same CSn->LOSS_OF_SYNC transition conditions)

from: LOSS_OF_SYNC
to: LOSS_OF_SNNC
cond: TC_synchronized=false

from: LOSS_OF_SYNC
to: INITIALIZATION
cond: TC_synchronized=true

Cl **61** *SC* **61.3.3.7.2** *P* **411** *L* **Figure** # **104**

Part **P802.3ah**

Burkart Schneiderheinze Infineon Technologies

Comment Type **TR** *Comment Status* **A**

Chapter 61.3.3.5 describes the sync detection whereas chapter 61.3.3.7.2 describes the receive state diagram of the 64/65-octet encapsulation.
Figure 61-17 shows the sync detect state machine, figure 61-19 shows the state diagram for 64/65 octet receive function. Both state machines are coupled, the sync detection state machine provides the TC_synchronized signal to the receive function of 64/65o, the 64/65octet receive state machine provides the signals missedSync and expectedSync to the Sync detection state machine.
If the receive state machine does not find the sync pattern it looses synchronization. The 64/65 octet receive state machine finds out about the loss (in the check_sync states), the sync detect state machine moves form Synced to Freewheel_Sync_True with 1 MissedSync. If there are 3 MissedSync in a row (detected by 64/65 octet receive state machine) the Sync detect state machine moves from Freewheel_Sync_tru to Freewheel_Sync_False. In this state TC_synchronized will be deasserted by the Sync Detect State Machine which in turn brings 64/65 octet receive state machine to the state Loss_of _Sync from one of the check_sync states (very likely Check_Sync3). The Loss of Sync state however can only be left when TC_Synchronized becomes TRUE again.
Now the 64/65 octet receive state machine is in state Loss_of_Sync and the Sync detect state machine is in Freewheel_sync_false state. The Sync detect state machine needs either the expectedSync or missedSync in order to leave this state. Since the 64/65octet receive state machine is in Loss_of_sync state none of the 2 signal will be generated, both state machines are locked.

SuggestedRemedy

The 64/65-octet state machine in the receive direction must also generate the missedSync and expectedSync signal in the state LOSS_OF_SYNC every 65th byte, as it does in the CHECK_SYNC states. Therefore with every received octet, k has to be incremented. Also, k has to be set to 0 if TC_SYNCHRONIZED becomes true and the 64/65-octet function must move to the state OUT_OF_FRAGMENT.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See comment #30.

Cl **62** *SC* *P* *L* # **100**

Part **P802.3ah**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

Paragraph of boilerplate 'The supplier of a protocol implementation ...' is missing. Also at 62.4.1, 63.4.1. In 64.4.1, boilerplate is not in same style as other clauses, missing mention of 'IEEE Std 802.3ah-2004,' (I don't know which style is required, or if either is OK.)

SuggestedRemedy

Insert missing boilerplate in 61.10.1, 62.4.1, 63.4.1. Review wording of 64.4.1. Check normative annexes for similar issue. Check all other PICS x.x.1 just in case.

Response *Response Status* **C**

ACCEPT.

Cl **63** *SC* *P* *L* # **101**

Part **P802.3ah**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

Paragraph of boilerplate 'The supplier of a protocol implementation ...' is missing. Also at 62.4.1, 63.4.1. In 64.4.1, boilerplate is not in same style as other clauses, missing mention of 'IEEE Std 802.3ah-2004,' (I don't know which style is required, or if either is OK.)

SuggestedRemedy

Insert missing boilerplate in 61.10.1, 62.4.1, 63.4.1. Review wording of 64.4.1. Check normative annexes for similar issue. Check all other PICS x.x.1 just in case.

Response *Response Status* **C**

ACCEPT.

Cl **64** *SC* *P* *L* # **102**

Part **P802.3ah**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

Paragraph of boilerplate 'The supplier of a protocol implementation ...' is missing. Also at 62.4.1, 63.4.1. In 64.4.1, boilerplate is not in same style as other clauses, missing mention of 'IEEE Std 802.3ah-2004,' (I don't know which style is required, or if either is OK.)

SuggestedRemedy

Insert missing boilerplate in 61.10.1, 62.4.1, 63.4.1. Review wording of 64.4.1. Check normative annexes for similar issue. Check all other PICS x.x.1 just in case.

Response *Response Status* **C**

ACCEPT.

Cl **64** *SC* **64.2.2.1** *P* **480** *L* **37** # **103**

Part **P802.3**

Piers Dawe Agilent

Comment Type **E** *Comment Status* **A**

Grammar.

SuggestedRemedy

Change 'Each time_quantum is equal 16ns.' to 'Each time_quantum is 16 ns.'. While you are there, insert the space between 16 and ns.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This comment will be passed on to the publication editor.

Response from publications editor: Done.

Cl **65** *SC* **65.2.2.2.2** *P* **76** *L* **6** # **169**

Part **CR 1155**

Benjamin Brown Independent

Comment Type **TR** *Comment Status* **R**

I agree that /T/ and /R/ should not be used in the IsIdle function for the very reason provided. However, this is a very convoluted way of simply saying /I/.

SuggestedRemedy

Change the text to read:

"This function is used to determine whether tx_code-group is a code-group in /I/."

This was how it read back in D2.1, though D2.1 also used /T/ and /R/.

Beyond this change, the following needs to happen. On page 535, line 49, of 802.3ah, change the 2 instances of "/I/ or /R/" (one each in the last 2 sentences of the third paragraph of 65.2.2.1) to "/I/".

Response *Response Status* **U**

REJECT.

Not only should the laser be off for /I/ it also should be off if configuration code groups are transmitted.

Reply from commenter to the response:

If the point of this issue is to include configuration ordered_sets, then it doesn't work. Configuration ordered_sets are 4 octets in length: /K/D/D/D/. If this proposal was accepted, the /K/ and the first /D/ would return a positive response from the IsIdle function however, the latter 2 /D/s would return a negative response from the IsIdle function. This will not turn off the laser. Let's figure out what we want to accomplish then write the text to accomplish it.

Cl **A** *SC* *P* **503** *L* **25** # **61**

Part **Std 802.3**

Bob Grow Intel

Comment Type **E** *Comment Status* **A**

Typo.

SuggestedRemedy

Change "ODTR" to "OTDR"

Response *Response Status* **C**

ACCEPT.