Cl **00** *SC* **0** *P* *L* # r01-2

Rannow, R K — TE Connectivity

Comment Type **GR** *Comment Status* **R**

Excessive grammatical errors make for a confusing read. Representative example is "instantiation" as optional instantiation is confusing, contrary.

SuggestedRemedy

Replace "instantiation" with "example". Also, if text is referenced in a later or subsequent paragraph, "has" means it already occurred so this is confusing about where something is defined. Many grammatical discrepancies make the document appear confusing.

Response *Response Status* **C**

REJECT.

The comment is fairly general and the referenced text has not changed this round or this revision and is consistant with prior revisions.

The use of the word "instantiation" in this context is correct.

Cl **00** *SC* **0** *P* *L* # r01-42

Turner, Michelle

Comment Type **G** *Comment Status* **A**

This draft meets all editorial requirements

SuggestedRemedy

No action required

Response *Response Status* **C**

ACCEPT.

Cl **01** *SC* **1.4.118** *P* **74** *L* **22** # r01-16

Dawe, Piers J G — IPtronics

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

D3.0 comment i-7: REJECT.
The issue of whether to include TIA references in addition to the IEC ones was discussed during the resolution of comments #12 and #45 against D2.0 and comment #12 against D2.1 with the conclusion that only the international standard would be referenced. The Note at the end of Clause 1.3 says:
NOTE-Local and national standards such as those supported by ANSI, EIA, MIL, NFPA, and UL are not a formal part of this standard except where no international standard equivalent exists. A number of local and national standards are referenced as resource material; these bibliographical references are located in the bibliography in Annex A.

SuggestedRemedy

Remove these gratuitous TIA references.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

In order to make the definitions consistent with the specifications in the clauses:

In 1.4.118 delete "and category 3 as per ANSI/EIA/TIA-568-A-1995" and "and ANSI/EIA/TIA-568-A-1995"

In 1.4.119 delete "and ANSI/EIA/TIA-568-A-1995" in two places.

Cl **01** *SC* **1.4.186** *P* **79** *L* **21** # r01-18

Dawe, Piers J G — IPtronics

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

This says "Ethertype" (several times) yet the IEEE Registration Authority http://standards.ieee.org/develop/regauth/ethertype/index.html says "EtherType". One must be wrong.

SuggestedRemedy

Fix the draft or the web site.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This inconsistency has been addressed with the resolution of comment i-65 against draft 3.0. The document is now consistent in the use of "Ethertype". Note that the web site is inconsistent with itself in multiple places. The observation about the web site inconsistency will passed along to IEEE staff.

Cl **03** *SC* **3.2.6** *P* **106** *L* **14** # r01-32

Dawe, Piers J G IPtronics

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

This and 57A.4 say "Type interpretation" while 31.4.1.3 says "the Ethertype interpretation (see 3.2.6)".

SuggestedRemedy

Make consistent. I think both should be Ethertype or EtherType.

Response *Response Status* **C**

REJECT.

Text in this section is acceptable and contextually correct.

Cl **03** *SC* **3.2.6** *P* **106** *L* **15** # r01-17

Dawe, Piers J G IPtronics

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

"When containing an Ethertype, the Length and Type interpretations of this field are mutually exclusive." This made sense before "When containing an Ethertype" was added, but no longer.

SuggestedRemedy

Undo the change.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Delete "When containing an Ethertype,"

Cl **23** *SC* **23.1.2** *P* **103** *L* **32** # r01-19

Dawe, Piers J G IPtronics

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

1. Standard says "Since September 2003, maintenance changes are no longer being considered for this clause." and 2. project objectives are a matter of historical record and not for the maintenance meeting to "tweak".

SuggestedRemedy

Undo the change at bullet d and 23.1.4.1

Response *Response Status* **C**

REJECT.

The change done was through a revision and not a maintenance request where the scope of the document is open.

Cl **24** *SC* **24.6.1** *P* **220** *L* **11** # r01-40

Ganga, Ilango Intel Corporation

Comment Type **ER** *Comment Status* **A**

It appears there are some typos in the references to the tables. Section 24.6.1 should point to both tables 24-2 and 24-3 (not just table 24-2) and section 24.6.2 should point to 24-4 (instead of table 24-3). Note that the page and section refer to the full draft, not the change bar version. Hoping that this minor change can be considered at this time even though out of scope.

SuggestedRemedy

In 24.6.1 replace "specified in Table 24-2" with "specified in Table 24-2 and Table 24-3"
In 24.6.2 replace "specified in Table 24-3" with "specified in Table 24-4"

Response *Response Status* **C**

ACCEPT.

Cl **28C** *SC* **28C.13** *P* **733** *L* **10** # r01-3

Barrass, Hugh Cisco Systems, Inc.

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

The heading for this subclause was not updated with the correct message code to reflect the changes made in Table 28C-1.

SuggestedRemedy

Change XX to 11.

Response *Response Status* **C**

ACCEPT.

Cl **28C** *SC* **28C.13** *P* **733** *L* **15** # r01-4

Barrass, Hugh Cisco Systems, Inc.

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

The binary representation of the message code is incorrect (and does not reflect the changes made to Table 28C-1).

SuggestedRemedy

Change 1101 to 1011.

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.3.3.2** *P* **404** *L* **16** # r01-20

Dawe, Piers J G IPtronics

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

EXTENTION

SuggestedRemedy

EXTENSION ?

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

EXTENSION

Cl **31** *SC* **31.4.1.3** *P* **515** *L* **10** # r01-21

Dawe, Piers J G IPtronics

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

MAC Control of CSMA/CD LANs.

SuggestedRemedy

MAC Control of 802.3 MACs? MAC Control in CSMA/CD LANs?

Response *Response Status* **C**

REJECT.

The comment is on text that did not change or was not subject of a MBS comment and is thus out of scope

---

Cl **33** *SC* **33.2.7.5** *P* **643** *L* **52** # r01-25

Dawe, Piers J G IPtronics

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

1ms

SuggestedRemedy

1 ms (twice)

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Insert space between 1 and ms

Cl **33** *SC* **33.2.7.5** *P* **643** *L* **52** # r01-22

Dawe, Piers J G IPtronics

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

physical layer

SuggestedRemedy

Physical Layer (twice)

Response *Response Status* **C**

REJECT.

Not capitlized elsewhere in the clause when used within this context

---

Cl **38** *SC* **38.6.8** *P* **142** *L* **42** # r01-24

Dawe, Piers J G IPtronics

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

The pagination of Clause 38 in and after 38.6.8 needs some attention.

SuggestedRemedy

Set figures and tables to float as needed, and remove blank lines after 38.10.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Will discuss with publication staff for implementation upon publication

---

Cl **44A** *SC* **44A** *P* **697** *L* **9** # r01-9

Dawe, Piers J G IPtronics

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

Thank you for the sentence in 44.1.4.4 referring to 44A. The title, introduction and first 11 pages of 44A give no hint that it contains something else useful, apart from bit ordering diagrams. We need something more in the introduction to 44A.

SuggestedRemedy

Insert new sentence "... receive direction. 44A.7 illustrates the relation between data valid signals and loopback functions. The diagrams..." Also, as there are multiple diagrams and the annex title contains gratuitous capitals, change it to "Diagrams of data flow" or "Diagrams of data flow and loopback".

Response *Response Status* **C**

REJECT.

The new sentence that has been inserted in 44.1.4.4 points out that Annex 44A contains "information on the relation between data valid signals and loopback". Further modification to the draft is not necessary.

Cl **45** *SC* **45.2.1.7.4** *P* **59** *L* **33** # r01-26

Dawe, Piers J G IPtronics

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

Are the entries in this table in the standard order (which is first by increasing MAC rate, then X4 before R, then by increasing reach, or as at the end of the former Annex 30B)? Or by clause number. Or alphanumerically. Or the same order as Table 44-1 (which lacks 10GBASE-KR and 10GBASE-KX4).

SuggestedRemedy

Re-order the 10G PMA/PMD entries in tables 45-9 and 45-10.

Response *Response Status* **C**

REJECT.

The order of entries in the tables is the same as the order in the text that they replaced. If the text was acceptable before, then the table should be equally acceptable now.

Cl **45** *SC* **45.2.1.7.4** *P* **59** *L* **47** # r01-27

Dawe, Piers J G IPtronics

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

Rogue space before 40GBASE-KR4.

SuggestedRemedy

Remove space.

Response *Response Status* **C**

ACCEPT.

Cl **55** *SC* **55.12.8** *P* **695** *L* **12** # r01-29

Dawe, Piers J G IPtronics

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

55.8.2 says nothing about ANSI/TIA-568-C.2 and ISO/IEC 11801:2002.

SuggestedRemedy

Make the PICS follow the normative text (correct the subclause reference?) or remove it.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

In the Value/Comment field of PICS item MDI4, delete "Per category 6 requirements specified in ANSI/TIA-568-C.2 and ISO/IEC 11801:2002"

Cl **55** *SC* **55.4.2.5.14** *P* **635** *L* **46** # r01-1

Mcclellan, Brett Marvell Semiconducto

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

This is a pile-on to comment 66 on D3.0. Note that the same objection was made by a third commenter on D2.0. This technical change to Clause 55 was made without a survey of how it will affect existing devices in the field. There are existing devices in the field that exceed the 100ms max timing specified in this change. Setting this spec to 100ms implies that existing devices are non-compliant and may cause new devices to be non-interoperable by design with existing devices.

SuggestedRemedy

Change the recommended maximum time from 100ms to 200ms.

Response *Response Status* **C**

REJECT.

Comment #461 against D2.0 proposed to change the value from Maintenance request 1216 of the Recommended maximum time with timing_lock_OK=0 from 100ms to 200ms. This was rejected with the justification:
"Feedback from those making and testing PHYs was that 100 ms is sufficient for this and that raising the maximum to 200 ms would leave too little time in the 1 state"

Cl **55** *SC* **55.7** *P* **663** *L* **46** # r01-28

Dawe, Piers J G IPtronics

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

"twisted-pairs" is not a compound adjective so no need for a hyphen.

SuggestedRemedy

Remove the hyphen, twice. That they are twisted is not to the point here, and two lines above the unchanged text says "Each of the four pairs supports". So, remove "twisted" also (twice).

Response *Response Status* **C**

REJECT.

Draft 3.1 contains:
90 ocurrences of "twisted pair" and
174 ocurrences of "twisted-pair".

The use of the term "twisted-pair" is not incorrect in this sentence.

Cl **57** *SC* **57** *P* *L* # r01-41

Thompson, Geoff

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

Remove any references to CMIP in Clause 57

SuggestedRemedy

Just point to Annex B of .3.1.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

ACCEPT IN PRINCIPLE
- 57.6.1: Delete "CMIP protocol" from line 19
- Table 57-13 Change "Derived from the CMIP protocol encodings found in" to "As defined in"
- Table 57-13, instance 2: Delete "CMIP protocol"
- Table 57-14, 2 instances, Delete "CMIP protocol"
- Table 57-15, 2 instances, Delete "CMIP protocol"

Cl **57** *SC* **57.4.2** *P* **72** *L* **25** # r01-30

Dawe, Piers J G IPtronics

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

Item c was "Length/Type. OAMPDUs are always Type encoded, and carry the Slow_Protocols_Type field value. The use and encoding of this type is specified in Annex 57A.", but is now "c) Length/Type. OAMPDUs carry the Slow_Protocols_Type field value. The use and encoding of this Ethertype is specified in Annex 57A." First problem: text should tell the reader what to put in the Length/Type field. Not what OAMPDUs "carry" but what THIS FIELD "carries". Compare items a and b, e.g. "The SA in OAMPDUs carries" (although another word such as "contains" or is" might be better). Secondly, the first clause of the original sentence is useful information, and should not be removed just because "type" is becoming "Ethertype" - although "always" is redundant. 3.2.6 still uses the phrase "Type interpretation". Thirdly, there is nothing about this, or any other, Ethertype, in Annex 57A, and the reference is too wide.

SuggestedRemedy

Change to "Length/Type. OAMPDUs are always Type [or Ethertype: see another comment] encoded. The Length/Type field in OAMPDUs carries the Slow_Protocols_Type field value as specified in 57A.4." Or just the second sentence.
In 57A.4, change "type" to Ethertype (or EtherType - see another comment).

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change the selected text to read "Length/Type. The Length/Type in OAMPDUs carries the Slow_Protocols_Type field value as specified in 57A.4."

No changes in 57A.4 are needed.

Cl **57A** *SC* **57A.3** *P* **722** *L* **8** # r01-34

Dawe, Piers J G IPtronics

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

ISO/IEC 15802-3 does not appear in the list of normative references nor in the bibliography.

SuggestedRemedy

Add to one of them.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change the note from:
"reserved by ISO/IEC 15802-3 (MAC Bridges)"

to:
"reserved by IEEE 802.1D"

Cl **57B** *SC* **57B.1.1** *P* **726** *L* **44** # r01-35

Dawe, Piers J G IPtronics

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

Similar problems to 57.4.2 item c.

SuggestedRemedy

Change "OSSPDUs carry the Slow_Protocols_Type field value. The use and encoding of this Ethertype is specified in Annex 57A." to "OSSPDUs are always Type [or Ethertype: see another comment] encoded. The Length/Type field in OSSPDUs carries theSlow_Protocols_Type field value as specified in 57A.4." Or just the second sentence.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change the text to read: "The Length/Type in OSSPDUs carries theSlow_Protocols_Type field value as specified in 57A.4."

Cl **64** *SC* **64.3.6** *P* **330** *L* **11** # r01-31

Dawe, Piers J G IPtronics

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

Similar problems to 57.4.2 item c.

SuggestedRemedy

Change "MPCPDUs carry the MAC_Control_Type field value as specified in 31.4.1.3." to "MPCPDUs are always Type [or Ethertype: see another comment] encoded. The Length/Type field in OAMPDUs carries the MAC_Control_Type field value as specified in 31.4.1.3." Or just the second sentence.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change the text to read: "The Length/Type in MPCPDUs carries the MAC_Control_Type field value as specified in 31.4.1.3."

Cl **70** *SC* **70.1** *P* **427** *L* **28** # r01-6

Dawe, Piers J G IPtronics

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

Progressing D3.0 comment i-115: this is a PMD clause. It is here to specify a PMD. It cannot specify anything else - we have other clauses for that. The clauses needed for a complete PHY are listed in Table 70-1, and the specifications for those sublayers, including any picking a subset, must appear in those clauses. NOT here.
The draft says "The Clause 36 PCS/PMA when used with 1000BASE-KX PMD shall support full duplex operation only." But a PMD clause can't tell the PCS/PMA what to do; that's what the PCS/PMA Clause 36 is for. A similar issue came up in 802.3ba and is now fixed; do similar for this.

SuggestedRemedy

Change this to "The Clause 36 PCS/PMA when used with 1000BASE-KX PMD is required to support full duplex operation only (see 36.1.1)."
At the end of 36.1.1 Scope, add "The 1000BASE-X PCS and PMA when used with the 1000BASE-KX PMD shall support full duplex operation only."
Move the PICS item FD in 70.10.3 to 36.7.3 Major capabilities/options, and adjust the status of FDX and HDX to depend on it (one positively, one negatively).

Response *Response Status* **C**

REJECT.

This is a restatement of a prior comment and there is no additional information provided from I-115 to have this comment accepted.

Cl **71** *SC* **71.3** *P* **446** *L* **50** # r01-7

Dawe, Piers J G IPtronics

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

Progressing D3.0 comment i-116: this PMD clause says "The PCS associated with this PMD shall support the AN service interface primitive AN_LINK.indication defined in 73.9. (See 48.2.7.)" A PMD clause can't tell the PCS/PMA what to do; that's what the PCS/PMA Clause 48 is for, and already "48.2.7 Auto-Negotiation for Backplane Ethernet" says "The following requirements apply to a PCS used with a 10GBASE-KX4 PMD. Support for the Auto-Negotiation process defined in Clause 73 is mandatory. The PCS shall support the primitive AN_LINK.indication(link_status) (see 73.9). ...", with four PICS items in 48.7.4.2. A similar issue came up in 802.3ba and is now fixed; do similar for this. Also the majaor capabilities/options PICS 48.7.3 is incomplete.

SuggestedRemedy

Change this to "The PCS associated with this PMD is required to support the AN service interface primitive AN_LINK.indication defined in 73.9. (See 48.2.7.)"
In 48.2.7, change "see 73.9" to "see 71.3 and 73.9". In 48.7.3, add option for KX4. In 48.7.4.2 make AN1 conditionally mandatory depending on the KX4 option.
Delete the redundant "71.10.4.1 PCS requirements for AN service interface" including item PR1.

Response *Response Status* **C**

REJECT.

This is a restatement of a prior comment and there is no additional information provided from I-116 to have this comment accepted.

Cl **72** *SC* **72.3** *P* **469** *L* **3** # r01-8

Dawe, Piers J G IPtronics

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

Progressing D3.0 comment i-117: this PMD clause says "The PCS associated with this PMD shall support the AN service interface primitive AN_LINK.indication defined in 73.9. (See 49.2.16.)" A PMD clause can't tell the PCS what to do; that's what the PCS Clause 49 is for, and already "49.2.16 Auto-Negotiation for Backplane Ethernet" says "The following requirements apply to a PCS used with a 10GBASE-KR PMD. Support for the Auto-Negotiation process defined in Clause 73 is mandatory. The PCS shall support the primitive AN_LINK.indication(link_status) (see 73.9). ...", with four PICS items in 49.3.6.5. A similar issue came up in 802.3ba and is now fixed; do similar for this.

SuggestedRemedy

Change this to "The PCS associated with this PMD is required to support the AN service interface primitive AN_LINK.indication defined in 73.9. (See 49.2.16.)"
In 49.2.16, change "see 73.9" to "see 72.3 and 73.9". In 49.3.3, create an option "Supports 10GBASE-KR", reference 49.2.16, status optional. In 49.3.6.5, make AN1 conditionally mandatory on this.
Delete the redundant "72.10.4.1 PCS requirements for AN service interface" including item PR1.

Response *Response Status* **C**

REJECT.

This is a restatement of a prior comment and there is no additional information provided from I-117 to have this comment accepted.

Cl **72** *SC* **72.7.1.8** *P* **489** *L* **37** # r01-11

Dawe, Piers J G IPtronics

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

D3.0 comment i-139: The definition for Duty Cycle Distortion is ambiguous, because it's not clear what the pattern or sequence is. "The data pattern for jitter measurements shall be test patterns 2 or 3 as defined in 52.9.1.1.", "The duty cycle distortion test pattern shall consist of no fewer than eight symbols of alternating polarity.", "The peak-to-peak duty cycle distortion is defined as the absolute value of the difference in the mean pulse width of a 1 pulse or the mean pulse width of a 0 pulse (as measured at the mean of the high- and low-voltage levels in a clock-like repeating 0101 bit sequence) and the nominal pulse width."
Is there meant to be a difference between pattern and sequence? Is this definition meant to agree with what scopes have built in to them (mean difference between rising and falling edges of an eye)?

SuggestedRemedy

Change wording so that it is clear that Duty Cycle Distortion is equivalent to that built into scopes. Detailed remedy to follow, I hope.

Response *Response Status* **C**

REJECT.

This is a restatement of a prior comment and there is no specific remedy provided.

Cl **77** *SC* **77.3.6** *P* **704** *L* **12** # r01-33

Dawe, Piers J G IPtronics

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

Similar problems to 57.4.2 item c.

SuggestedRemedy

Change "MPCPDUs carry the MAC_Control_Type field value as specified in 31.4.1.3." to "MPCPDUs are always Type [or Ethertype: see another comment] encoded. The Length/Type field in OAMPDUs carries the MAC_Control_Type field value as specified in 31.4.1.3." Or just the second sentence.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change the text to read: "The Length/Type in MPCPDUs carries the MAC_Control_Type field value as specified in 31.4.1.3."

Cl **78** *SC* **78.1.4** *P* **26** *L* **22** # r01-36

Dawe, Piers J G IPtronics

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

Completing D3.0 comment i-106 (a PHY is not an interface). Nor is it a protocol.

SuggestedRemedy

Change title of Table 78-1 to "Clauses associated with each PHY or sublayer". In the header row, change "PHY type" to PHY type or sublayer". Change the title of Table 78-2 to "Summary of the key EEE parameters for supported PHY type or sublayer". In the header row, change "protocol" to "PHY type or sublayer". Just above Table 78-2, change "for supported PHYs" to "for supported PHYs and for XGXS".

Response *Response Status* **C**

REJECT.

It is not incorrect to describe the items listed in Table 78-1 as "interfaces".
Table 78-1 is simply helpful information as to where EEE information can be found and Table 78-2 is a summary of timing parameters across the various EEE related interfaces. There is no danger of mis-interpretation of the standard because of the wording currently used here.

Cl **80** *SC* **80.4** *P* **69** *L* **42** # r01-37

Dawe, Piers J G IPtronics

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

Completing D3.0 comment i-110: Table footnotes are normative, per style manual. Writing "Note that" confuses, adds nothing, and is equally applicable to hundreds of other footnotes. I'm sorry I missed these two before; these are now the only two "note that" in table footnotes in Section 6.

SuggestedRemedy

For footnotes a and b for Table 80-3, either turn them into Notes to a table (if informative) or delete "Note that" twice (if normative).

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Since these are table footnotes, they are normative as per 14.4 of the 2012 IEEE Standards Style Manual. In accordance with the response to comment i-110 against D3.0, delete "Note that" at the beginning of footnotes a and b to Table 80-3.

Cl **82** *SC* **82.1.2** *P* **99** *L* **26** # r01-38

Dawe, Piers J G IPtronics

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

The pagination of Clause 82 could be improved to make the clause more compact.

SuggestedRemedy

Set figures and tables to float as needed, keeping the WARNING next to Figure 82-5.

Response *Response Status* **C**

REJECT.

The pagination of the document will be reviewed by the IEEE publication editor when the approved standard is prepared for publication.

Cl **85** *SC* **85.8.3** *P* **184** *L* **28** # r01-23

Dawe, Piers J G IPtronics

Comment Type **ER** *Comment Status* **R**

Section 6 uses "AC common-mode" 13 times and "Common-mode AC" twice. SFP+ and FC-PI-5 use "AC common mode"

SuggestedRemedy

In Table 85-5 and 85A-1, change "Common-mode AC output voltage" to "AC common-mode output voltage".

Response *Response Status* **C**

REJECT.

Draft 3.1 contains:
8 ocurrences of "common mode AC" and
19 ocurrences of "AC common mode".
The meaning of the two terms pointed to by the commenter is clear, so no change is required.

Cl **85** *SC* **85.8.3** *P* **184** *L* **31** # r01-5

Dawe, Piers J G IPtronics

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

D3.0 comment i-105: "Transmitter DC amplitude" is misnamed; it is not a DC amplitude. Fibre Channel and InfiniBand call it "steady-state output voltage". As the BRC observes, it is defined as "the sum of linear fit pulse response p(k) from step 3) divided by M from step 3)". Which is NOT a DC amplitude (because it's not DC). However, compare FC-PI-5 9.7.1. It's the sum of p(k) divided by M: the same. Not a DC amplitude either. Leaving this erroneous and different name would be likely to cause confusion.

SuggestedRemedy

Rename to "Steady-state Output Voltage" (5 places in this clause).

Response *Response Status* **C**

REJECT.

The term "Transmitter DC amplitude" was in the P802.3ba draft from D2.3 onwards including all versions during Sponsor Ballot.
The method for measuring this parameter is given in great detail within the document including an expanatory footnote to the parameter in Table 85-4. Since the understanding of this parameter does not depend solely upon its name, there is no need to change it at this point to make it the same as used in another standard.

Cl **85** *SC* **85.8.3** *P* **184** *L* **44** # r01-12

Dawe, Piers J G IPtronics

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

D3.0 comment i-140 and i-143: surprisingly, random jitter (or Random Jitter) is not defined. 48B.3, Jitter output test methodologies, has some formulae for Dual Dirac method, but it is informative, written for 8B/10B not scrambled signals, and uses RJ_RMS which I think is not what is meant here. This remedy follows recent work in Fibre Channel and OIF and takes into account the difference between 8B/10B and scrambled signals..

SuggestedRemedy

Because it's not necessarily random and to avoid confusion with the different Random Jitter defined in 48B-7, in this table change "Random jitter" to "Gaussian Jitter" (with capitals).
Change footnote d to "At a BER of 10-12. See 1.4.212".
Similarly for Table 85-8 and Table 85A-1. No need to change teminology in 85.8.3.7, 83A, 83B and 86A which really do mean jitter that's random.
In Clause 1, insert 1.4.212 Gaussian Jitter: Gaussian Jitter, often called Random Jitter whether random or not, is the difference between Total Jitter and the dual-Dirac estimate of high probability (or "deterministic") jitter. It is found from a Gaussian fit to the tails of the jitter distribution of a signal. See for example Fibre Channel - Methodologies for Signal Quality Specification - MSQS, Figure 7.3 or OIF-OIF-CEI-03.0 Figure 2-17.
Add MSQS and OIF-CEI-03.0 to the normative references.

Response *Response Status* **C**

REJECT.

The term "Gaussian jitter" already appears in 2 places in D3.1 (48B.1.2 and 75C.1). This means that it would have to be established that introducing a new definition for "Gaussian Jitter" does not cause an issue with these clauses. This has not been done.

Cl **85** *SC* **85.8.3** *P* **184** *L* **46** # r01-14

Dawe, Piers J G IPtronics

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

D3.0 comment i-142: If RJ<=0.15, how can TJ-DDJ be as large as 0.25? SJ and PJ should be <<0.1. I believe that RJ is applicable when the eye has neutral emphasis (most favourable for jitter) and TJ-DDJ is applicable in any valid emphasis state.

SuggestedRemedy

Find the people who wrote this, determine what it means, document it. Or, add to table footnotes per comment.

Response *Response Status* **C**

REJECT.

The commenter was invited to seek a consensus view of whether there is a problem with this requirement and if so provide a proposed revision of the draft text to address the issue for the BRC to consider. This was not done and the BRC has not received any information to confirm that this specification is inappropriate.

Cl **85** *SC* **85.8.3** *P* **184** *L* **46** # r01-13

Dawe, Piers J G IPtronics

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

D3.0 comment i-141: surprisingly, total jitter (or Total Jitter) is not defined. This says "Total jitter at a BER of 10-12 measured per 83A.5.1...". 83A.5.1 says "Transmit jitter is defined with respect to a test procedure resulting in a BER bathtub curve such as that described in Annex 48B.3." 48B.3, Jitter output test methodologies, has some formulae for Dual Dirac method, but it is informative and written for 8B/10B not scrambled signals. This remedy follows recent work in Fibre Channel and OIF and takes into account the difference between 8B/10B and scrambled signals, but the definition works for 8B/10B also.

SuggestedRemedy

Make sure Total Jitter is capitalised (5 changes in 85, 83A, 85A.
In Clause 1, insert 1.4.38xTotal Jitter: The Total Jitter of a signal is defined as the difference between the sampling time just after the majority of the transitions of a signal at which the error rate after sampling is the specification error rate, and the sampling time just before the majority of the transitions of the signal at which the error rate after sampling is also the specification error rate. It is commonly estimated by "dual-Dirac" curve fitting and extrapolation (see for example Fibre Channel - Methodologies for Signal Quality Specification - MSQS, subclause 7.1.
In 83A.3.4.6, delete "peak-to-peak" in the first line.
Consider replacing the TJ-DDJ spec with a J9-DDJ spec - easier to measure with reasonable accuracy in a reasonable time.

Response *Response Status* **C**

REJECT.

The term "total jitter" already appears in 89 places in D3.1. This means that it would have to be established that introducing a new definition for "Total Jitter" does not cause an issue with any of the clauses where it is used. This has not been done.

Cl **85** *SC* **85.8.3** *P* **184** *L* **46** # r01-15

Dawe, Piers J G IPtronics

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

D3.0 comment i-143: I doubt that where the draft says "random jitter" it means it. I expect Random Jitter is meant. REJECTed: "Since random jitter and total jitter are not formally defined terms, the case shown here is appropriate."

SuggestedRemedy

An amusing but inadequate riposte, leaving the draft broken! Obviously the BRC needs definitions for Random Jitter and Total Jitter.
Make sure Data Dependent Jitter (which obviously has a formal definition in 85.8.3.8) has capitals there, in Table 85-5, and in 1.5 Abbreviations. See other comments for Random Jitter and Total Jitter.

Response *Response Status* **C**

REJECT.

Formal definitions of Random Jitter and Gaussian Jitter have not been introduced (comments r01-13 and r01-12) so no change of case is required for these terms.
Data dependent jitter has a measurement definition in 85.8.3.8 but no formal definition in 1.4. This is true of extinction ratio in 87.8.7, but the draft does not capitalise this as Extinction Ratio everywhere.

Cl **99** *SC* **99** *P* **5** *L* **5** # r01-39

Dawe, Piers J G IPtronics

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

Part 3: CSMA/CD Access Method and Physical Layer Specifications.

SuggestedRemedy

Part 3: Ethernet.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99** *P* **6** *L* **51** # r01-10

Dawe, Piers J G IPtronics

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

The draft still says "Errata, if any, for this and all other standards can be accessed at" an IEEE URL.
It's not so. IEEE is not the whole world; there are plenty of other standards, including ones we use, with errata elsewhere. In any case the web site denies it: "Not all of the available IEEE standards errata and or corrections are online, this list should not be considered to be comprehensive."

SuggestedRemedy

Change "all other" to "other IEEE". Get staff to correct their boilerplate. Insert space before "Users".

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

As noted in the prior ballot, your comment has been passed on to the editorial staff for consideration