Cl **99**   *SC*   *P* **1**   *L* **33**   # 1
Anslow, Pete   Ciena

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

The copyright_year variable in the frontmatter and Table of Contents should be set to 2015 rather than 201x

SuggestedRemedy

Sete the copyright_year variable in the frontmatter and TOC files to "2015"

Proposed Response   *Response Status* **O**

Cl **99**   *SC*   *P* **12**   *L* **1**   # 2
Anslow, Pete   Ciena

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

Why has the text "Special characters can be inserted via File, Utilities, Character palette using the Hex number.", Table 00-1 and "Insert new clause as follows:" been added? This is not part of the 802.3 frontmatter.

SuggestedRemedy

Remove the content of page 12.

Proposed Response   *Response Status* **O**

Cl **99**   *SC*   *P* **13**   *L* **1**   # 3
Anslow, Pete   Ciena

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

The Table of contents should start with a heading "Contents" (which also appears in the pdf bookmarks). This was correct in D1.3 but has disappeared in D1.4.

SuggestedRemedy

Put the heading back

Proposed Response   *Response Status* **O**

Cl **01**   *SC* **1.4.389**   *P* **7**   *L* **36**   # 4
Anslow, Pete   Ciena

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

Comment #3 against D1.3 pointed out that "all of the existing definitions being modified that have subclause numbers above 1.4.162" need to be increased by one.
This has been done for most of the definitions except for:
1.4.389 Start-of-Stream Delimiter (SSD):
1.4.392 symbol:

SuggestedRemedy

Change these to match the numbering in the 802.3 revision:
1.4.390 Start-of-Stream Delimiter (SSD):
1.4.393 symbol:

Proposed Response   *Response Status* **O**

Cl **01**   *SC* **1.4.87a**   *P* **8**   *L* **19**   # 5
Anslow, Pete   Ciena

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

In "Insert the following new definition into the list after 1.4.87 4B/3B:" the ending "after 1.4.87 4B/3B" should be "after 1.4.87 2-Event classification"

SuggestedRemedy

Change "after 1.4.87 4B/3B" to "after 1.4.87 2-Event classification"

Proposed Response   *Response Status* **O**

Cl **01**   *SC* **1.5**   *P* **8**   *L* **52**   # 6
Anslow, Pete   Ciena

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

The abbreviations "RBW" and "VBW" only appear once in the draft (apart from here in the abbreviations list). In this case, we do not include the abbreviation in 1.5 but expand the abbreviation where it is used instead.

SuggestedRemedy

Remove the abbreviations "RBW" and "VBW" from 1.5.
In 96.5.4.4, change:
"... should be RBW=10 kHz, VBW=30 kHz, ..." to:
"... should be resolution bandwidth = 10 kHz, video bandwidth = 30 kHz, ..."

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Comment ID* **6**   Page 1 of 7
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   4/6/2015 6:53:49 PM
SORT ORDER: Comment ID

Cl **01**   *SC* **1.5**   *P* **9**   *L* **1**   # 7

Anslow, Pete   Ciena

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

In the expansion for "TCTL", "ransverse" should be "transverse"

SuggestedRemedy

Change "ransverse" to "transverse"

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.1**   *P* **12**   *L* **2**   # 8

Anslow, Pete   Ciena

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

For the existing clauses that are being modified by the amendment, we show one heading of each level down to the heading for the text being modified. (As was shown in the 802.3 FrameMaker template).
Headings for 45.2, 45.2.3, and 45.2.3.1 are missing

SuggestedRemedy

Add the headings for 45.2, 45.2.3, and 45.2.3.1

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.1**   *P* **12**   *L* **8**   # 9

Anslow, Pete   Ciena

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

Register 1.18 has been allocated in 45.2.1.14b. This means that Table 45-3 should show the change from register:
1.17 through 1.29 Reserved

SuggestedRemedy

Add the row for 1.17 through 1.29 Reserved and show changes to allocate register 1.18 to "BASE-T1 PMA/PMD extended ability" with a cross-reference to 45.2.1.14b

Proposed Response   *Response Status* **O**

Cl **00**   *SC* **45.2.1.10**   *P* **13**   *L* **27**   # 10

Anslow, Pete   Ciena

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

Comment #9 against D1.3 corrected the Table number to 45-14. However, the editing instruction still refers to Table 45-13

SuggestedRemedy

Change the editing instruction to refer to Table 45-14.

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.1.14b**   *P* **14**   *L* **3**   # 11

Anslow, Pete   Ciena

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

The cross-reference to Table 45-16a is "Table 45-16" which is missing the "a".
Also, the table number is 45-16a, but it should be 45-17b

SuggestedRemedy

Fix the cross-reference so that it accurately reflects the table number and also change the table no to 45-17b

Proposed Response   *Response Status* **O**

Cl **45**   *SC* **45.2.1.131**   *P* **14**   *L* **30**   # 12

Anslow, Pete   Ciena

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

In Table 45-98a, the Description for bit 1.2100.15 is "Value always 1, writes ignored" and the R/W column has "R/W". If writes are ignored, then the bit is not R/W

SuggestedRemedy

Either remove ", writes ignored" from the description or change to "RO"

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Comment ID

Comment ID **12**

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4/6/2015 6:53:50 PM

Cl **45**　　*SC* **45.2.1.131.1**　　　*P* **14**　　　*L* **47**　　　# 13
Anslow, Pete　　　　　　　　　　Ciena

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

The first sentence of 45.2.1.131.1 is: "Bit 1.2100.15 returns a one to indicate that MASTER or SLAVE configuration is set manually."
The second sentence starts "In that case," which doesn't make sense because the bit is always a 1.

SuggestedRemedy

Delete the start of the sentence "In that case,"

Proposed Response　　　*Response Status*　**O**

Cl **45**　　*SC* **45.2.1.131.1**　　　*P* **14**　　　*L* **52**　　　# 14
Anslow, Pete　　　　　　　　　　Ciena

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

The first sentence of 45.2.1.131.1 is: "Bit 1.2100.14 is used to select MASTER or SLAVE operation if MASTER-SLAVE manual config enable bit 1.2100.15 is set to one."
This doesn't make sense because bit 1.2100.15 is always one.

SuggestedRemedy

Delete "if MASTER-SLAVE manual config enable bit 1.2100.15 is set to one"

Proposed Response　　　*Response Status*　**O**

Cl **96**　　*SC* **96.7.1.2**　　　*P* **60**　　　*L* **44**　　　# 15
Anslow, Pete　　　　　　　　　　Ciena

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

Incorrect font used for the equation number for Equation 96-6

SuggestedRemedy

Re-apply the Equation paragraph format.

Proposed Response　　　*Response Status*　**O**

Cl **96**　　*SC* **96.3.2.2.2**　　　*P* **28**　　　*L* **29**　　　# 16
Anslow, Pete　　　　　　　　　　Ciena

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

This says "Note, a packet includes preamble, SFD, and a MAC Frame as specified in 1.4.299" but 1.4.299 is "optical fiber cable link segment:"
the definition for "packet:" is 1.4.312

SuggestedRemedy

Change 1.4.299 to 1.4.312

Proposed Response　　　*Response Status*　**O**

Cl **96**　　*SC* **96.8.2.2**　　　*P* **63**　　　*L* **21**　　　# 17
Anslow, Pete　　　　　　　　　　Ciena

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

in "... the limit defined in Equation (96–12) ..." Equation (96–12) should be a cross-reference

SuggestedRemedy

Make "Equation (96–12)" a cross-reference

Proposed Response　　　*Response Status*　**O**

Cl **96**　　*SC* **96.5.5.3**　　　*P* **57**　　　*L* **52**　　　# 18
Anslow, Pete　　　　　　　　　　Ciena

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

in "... with a link segment as defined in 96.7.", 96.7 should be a cross-reference.

SuggestedRemedy

Make 96.7 a cross-reference.

Proposed Response　　　*Response Status*　**O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Comment ID

Comment ID **18**

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4/6/2015 6:53:50 PM

Cl **96**   *SC* **96.8.3**   *P* **63**   *L* **38**   # 19
Anslow, Pete   Ciena

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

"50 V" should not be split across two lines. Use a non-breaking space (Ctrl-space) between a number and its unit.

SuggestedRemedy

use a non-breaking space (Ctrl-space) between "50" and "V"

Proposed Response   *Response Status* **O**

Cl **96**   *SC* **96.3.2.2.2**   *P* **28**   *L* **29**   # 20
Randy Rannow

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

Was:
 Those stuff bits may be padded randomly, which is left to implementer, and shall be discarded at the receiver side upon the boundary of the last nibble at MII RX domain.

 Is:
 Those stuff bits may be padded randomly, which is left to the implementer, and shall be discarded at the receiver side upon the ... <these words appear confusing>.

SuggestedRemedy

Proposed Response   *Response Status* **O**

Cl **96**   *SC* **96.3.3.1**   *P* **40**   *L* **26**   # 21
Randy Rannow

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

Note that, in Figure 96-10a, there are total of 4 states after SSD3 detection before DATA state; meanwhile,

SuggestedRemedy

Change to
" Note that, in Figure 96-10a, there are total of 4 states after SSD3 detection and before DATA state; meanwhile,"

Proposed Response   *Response Status* **O**

Cl **96**   *SC* **96.5.1.1**   *P* **50**   *L* **34**   # 22
Randy Rannow

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

The sensitivity of the PMA's receiver to radio frequency CM RF noise may be tested according to the Direct Power Injection (DPI) method of IEC 62132-4,
 and may need to comply with more stringent requirements as agreed upon between customer and supplier

SuggestedRemedy

Change to
"The sensitivity of the PMA's receiver to CM RF noise may be tested according to the Direct Power Injection (DPI) method of IEC 62132-4,
 and may need to comply with more stringent requirements as agreed upon between customer and supplier"

Proposed Response   *Response Status* **O**

Cl **96**   *SC* **96.5.4.2**   *P* **54**   *L* **4**   # 23
Randy Rannow

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

The peak distortion is determined by sampling the differential signal output with the symbol rate clock at an arbitrary phase
 and processing a block of consecutive samples with MATLAB code given below or equivalent

SuggestedRemedy

Change to
" The peak distortion is determined by sampling the differential signal output with the symbol rate clock at an arbitrary phase
 and processing a block of consecutive samples with MATLAB code given below or an equivalent"

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Comment ID   *Comment ID* **23**   Page 4 of 7
4/6/2015 6:53:50 PM

Cl **96**　　*SC* **96.8.3**　　　　　*P* **63**　　　*L* **36**　　　*#* 24

Randy Rannow

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

The wire pair of the MDI shall, under all operating conditions, withstand without damage
the application of short circuits of
 any wire to the other wire of the same pair or Ground potential or positive voltages of up
50 V for an indefinite period of time
 and shall resume normal operation after the short circuit(s) are removed.

SuggestedRemedy

Change to
" The wire pair of the MDI shall, under all operating conditions, withstand without damage
the application of short circuits of
 any wire to the other wire of the same pair or Ground potential or positive voltages of up
50 V for an indefinite period of time
 and shall resume normal operation after the short circuit(s) is(are) removed."

Proposed Response　　　　*Response Status* **O**

Cl　　　*SC*　　　　　　*P* **12**　　　*L*　　　　*#* 25

Geoff Thompson　　　　　　　　GraCaSI S.A.

Comment Type **ER**　　*Comment Status* **X**

The remedy to my earlier comment is not complete (Ref comment #302, ER).

SuggestedRemedy

Please add the following text to page 12 (printer test page):

"The following is a list of special symbols and operators that may be used within this
standard. When printing this document, this table should be checked to see that each
printed symbol is appropriate for its description. If any of these symbols or operators fail to
print out correctly, then the correct fonts are not resident within the printer or are not being
sent within the file of this standard.

(Editor's note: This table to remain through to and including publication of the approved
standard.)"

Proposed Response　　　　*Response Status* **O**

Cl　　　*SC*　　　　　　*P* **13**　　　*L*　　　　*#* 26

Geoff Thompson　　　　　　　　GraCaSI S.A.

Comment Type **ER**　　*Comment Status* **X**

Remedy to this earlier comment (Ref comment #303, ER) is implemented incorrectly.
The page numbering (now all arabic) restarts at "Page 1" on the 13th PDF page.

SuggestedRemedy

Please make the printed page numbering match the PDF of the document throughout the
entire document.

Proposed Response　　　　*Response Status* **O**

Cl **1**　　*SC* **1.4.193**　　　　　*P* **193**　　　*L* **4**　　　*#* 27

Geoff Thompson　　　　　　　　GraCaSI S.A.

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

Response to my earlier comment #264 is satisfactory

SuggestedRemedy

Proposed Response　　　　*Response Status* **O**

Cl **1**　　*SC* **1.4.221a**　　　　　*P* **20**　　　*L* **28**　　　*#* 28

Geoff Thompson　　　　　　　　GraCaSI S.A.

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

RE resolution of Mr Grow's comment #132
The D1.4 text has the following extra and unnecessary text: "to achieve link acquisition"

SuggestedRemedy

RE resolution of Mr Grow's comment #132
Delete the extra so it reads:
"1.4.221a FORCE mode: FORCE mode is a PHY initialization procedure used for manual
configuration of MASTER-SLAVE assignment between two link partners. (See IEEE Std
802.3, 96.4.4)."

Proposed Response　　　　*Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Comment ID

Comment ID **28**　　　Page 5 of 7
4/6/2015 6:53:50 PM

Cl **0**　　　*SC* **0**　　　　　*P* **0**　　　*L* **0**　　　# 29
Geoff Thompson　　　　　　　GraCaSI S.A.

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

With the deletion of all mention of "Auto-Negotiation" and any provision therefore in response to Mr. D'Ambrosia's comment, there is no way to evaluate that the project objective: "The resulting standard will not preclude single pair auto-negotiation." is being met by the current technical proposal.

SuggestedRemedy

Add provision for Auto-Negotiation back into the draft to a sufficient extent that can at least be evaluated that it can be added at a later date on a basis that is compatible with the proposed specification.

Proposed Response　　　*Response Status* **O**

Cl **96**　　　*SC* **General**　　　*P* **0**　　　*L* **0**　　　# 30
Geoff Thompson　　　　　　　GraCaSI S.A.

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

The term vector" is broadly used throughout the draft.
It is not a defined term in 802.3.
There are a variety of definitions for the term in various dictionaries.
It is not obvious what is the appropriate definition to be used.
The closest that I can find in IEEEStd 100-1996 are the following:
vector (2) (data management) A quantity represented by an ordered set of numbers; for example, a one dimensional array. (610.5-1990)
vector unit An arithmetic unit that operates on multiple data elements at the same time.
American Heritage Dictionary Third Edition (nothing relevant)
Dictionary.com:http://dictionary.reference.com/browse/vector
4. Computers. an array of data ordered such that individual items can be located with a single index or subscript.
http://www.merriam-webster.com/dictionary/vector (nothing relevant)
Math.com: http://www.math.com/tables/oddsends/vectordefs.htm
Definition: A vector of dimension n is an ordered collection of n elements, which are called components. (Best so far.)
YourDictionary.com: http://www.yourdictionary.com/vector
2. MATH.
c. an ordered set of real numbers, each denoting a distance
　 on a coordinate axis

SuggestedRemedy

Add one of the above definitions or an appropriate equivalent for "vector" to the main definitions clause.

Proposed Response　　　*Response Status* **O**

Cl **96**　　　*SC* **96.10.4.5**　　　*P* **81**　　　*L* **7**　　　# 39
Dawe, Piers　　　　　　　　Mellanox

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

PICS needs updating to agree with normative text in 96.5.1, where the sentence with the shall says "A system integrating the 100BASE-T1 PHY shall comply with applicable local and national codes."

SuggestedRemedy

Change "100BASE-T1 PHY shall comply with applicable local and national codes, or as agreed between customer and supplier, for the limitation of electromagnetic interference" to
"100BASE-T1 PHY shall comply with applicable local and national codes for the limitation of electromagnetic interference"
Delete PICS PME2 and PME3.

Proposed Response　　　*Response Status* **O**

Cl **96**　　　*SC* **96.5.1**　　　　*P* **62**　　　*L* **25**　　　# 40
Dawe, Piers　　　　　　　　Mellanox

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

Somehow part of the sentence has got lost. Here are two examples: as far as I know, all PHYs standardised in more than 10 years say the same:
55.9.5 Electromagnetic compatibility
A system integrating the 10GBASE-T shall comply with applicable local and national codes for the limitation of electromagnetic interference.
93.10.4 Electromagnetic compatibility
A system integrating the 100GBASE-KR4 PHY shall comply with applicable local and national codes for the limitation of electromagnetic interference.

SuggestedRemedy

Change "A system integrating the 100BASE-T1 PHY shall comply with applicable local and national codes." to
"A system integrating the 100BASE-T1 PHY shall comply with applicable local and national codes for the limitation of electromagnetic interference.
Consider changing the subclause title from "EMC tests" to "Electromagnetic compatibility"

Proposed Response　　　*Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected　　RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Comment ID

Comment ID **40**

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4/6/2015 6:53:50 PM

Cl **96**   *SC* **96.6**   *P* **59**   *L* **28**   # 41

Dawe, Piers   Mellanox

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

In 802.3, management is optional (see quotation from 30.1, Management Overview, below), and the way of doing management registers and the management interface are also optional (see quotations from 80.2.7 Management interface (MDIO/MDC) and Clause 55, 10GBASE-T, below). This is desirable: some small or highly integrated products won't have an exposed MDIO interface, and some (e.g. SFP+ modules) use a different memory map and interface that provides an equivalent function to Clause 45, and can be converted by another part of the system.

This sentence "100BASE-T1 shall use the management interface as specified in Clause 45 and the PHY-Initialization which is described in the following section." joins two separate requirements with one "shall" (also it lacks a PICS). The first one, "shall use the management interface as specified in Clause 45" was a response to D1.2 comment 91 which asked "is the management interface normative or optional?" The text needs to be changed to show that Clause 45 is optional. Also, the "shall be configured" in 96.6.1 won't work, because shalls in this clause apply to just the PHY, and something else would do the configuring.

Editorial: it's the following two sections, and they should be called subclause or explicitly identified. PHY-initialization and MASTER-SLAVE configuration are the same thing. MASTER-SLAVE configuration or MASTER-SLAVE assignment? Rogue capital in "PHY-Initialization".

Apologies for not submitting this against D1.3 - I didn't notice it in time.

From 30.1 Overview
In CSMA/CD no peer management facilities are necessary for initiating or terminating normal protocol operations or for handling abnormal protocol conditions. Since these activities are subsumed by the normal operation of the protocol, they are not considered to be a function of Layer Management and are, therefore, not discussed in this clause. Implementation of part or all of Layer Management is not a requirement for conformance to any other clause of this standard.

80.2.7 Management interface (MDIO/MDC)
The optional MDIO/MDC management interface (Clause 45) provides an interconnection between MDIO Manageable Devices (MMDs) and Station Management (STA) entities.

55.3.7 PCS management
The following objects apply to PCS management. If an MDIO Interface is provided (see Clause 45), they are accessed via that interface. If not, it is recommended that an equivalent access be provided.

55.5.2 Test modes
The test modes described below shall be provided to allow for testing of the transmitter waveform, transmitter distortion, transmitted jitter, transmitter droop and BER testing. For a PHY with an MDIO management interface, these modes shall be enabled by setting bits...

55.6 Management interfaces
10GBASE-T makes extensive use of the management functions that may be provided by the MDIO (Clause 45)...

SuggestedRemedy

Change 96.6 and 96.6.1 to:
"100BASE-T1 uses the MASTER-SLAVE assignment described in 96.6.1 and 96.6.2. A method for configuring a PHY as MASTER or SLAVE shall be provided. The optional MDIO/MDC management interface (Clause 45) may be used; if not, it is recommended that an equivalent access be provided.
96.6.1 MASTER-SLAVE assignment
MASTER-SLAVE assignment for each link configuration is necessary for establishing the timing control of each PHY. In 100BASE-T1, one PHY is configured as MASTER and one PHY is configured as SLAVE to operate. In case both PHYs are configured to be MASTER or SLAVE, operation is undefined."
Add PICS for "A method for configuring a PHY as MASTER or SLAVE shall be provided."

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Comment ID* **41**   Page 7 of 7
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   4/6/2015 6:53:50 PM
SORT ORDER: Comment ID