*Cl* **00**     *SC* **0**     *P*     *L*     # 208
Brillhart, Theodore                     Fluke Electronics Corp

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

ISO/IEC 11801-2002 is not the most recent and complete edition of this industry standard. I believe it is considered "best practice" to reference the most recent edition, which is ISO/IEC 11801 Edition 2.2 2011. This edition is inclusive of all ISO/IEC 11801-2002 ammendments and corrigenda, and represents the most accurate version of the subject matter as determined by its developers.

*SuggestedRemedy*

Global change:
From: ISO/IEC 11801-2002
To: ISO/IEC 11801 Edition 2.2 2011

*Proposed Response*     *Response Status* **Z**
REJECT.

This comment was WITHDRAWN by the commenter.

While ISO/IEC 11801:2002 together with its two amendments are sometimes referred to informally as 11801-2011, the most recent correct bibliographic reference is ISO/IEC 11801:2002, and the amendments are referenced separately in the bibliography of IEEE Std 802.3-2015.

*Cl* **00**     *SC* **0**     *P*     *L*     # 292
Anslow, Pete                     Ciena

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

copyright_year variable should be 2016 in all clause files

*SuggestedRemedy*

change copyright_year variable to 2016 in all clause files

*Response*     *Response Status* **C**
ACCEPT.

*Cl* **00**     *SC* **0**     *P* **147**     *L* **21**     # 244
Zimmerman, George                     CME Consulting/Aqua

*Comment Type* **ER**     *Comment Status* **A**     *BQ ALIGN*

Figure 126-34 title includes "need to update".  What does this mean? (BQ ALIGN, i-91)

*SuggestedRemedy*

Delete (need to update)

*Response*     *Response Status* **C**
ACCEPT.

*Cl* **00**     *SC* **0**     *P* **159**     *L* **29**     # 366
Hajduczenia, Marek                     Bright House Network

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

in Eq 126-11, we have a term "4x0.04" which is not collapsed for some reason.

*SuggestedRemedy*

Change to 0.16 and avoid the need for unexplicable multiplication
Strike statement: "The factor of 4 in Equation (126–11) corresponds to the number of connectors in the duplex channel." below the equation - it adds nothing to the validity of the equation or its understanding

*Response*     *Response Status* **C**
REJECT.

The format of the equation is used elsewhere in IEEE Std 802.3-2015 to enable the understanding of the component composition of the cabling topology. The number of connectors in a link are recognized to impact the link segment performance.

*Cl* **00**     *SC* **0**     *P* **3**     *L* **0**     # 288
Chalupsky, David                     Intel Corp.

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

correct nomenclature:  there are many instances of "2.5/5GBASE-T" as well as "2.5G/5GBASE-T".  2.5G/5GBASE-T is preferred

*SuggestedRemedy*

replace all instances of "2.5/5G/BASE-T" with 2.5G/5GBASE-T.  This appears in the header, ToC, section headings, state diagrams, as well as throughout the text.

*Response*     *Response Status* **C**
ACCEPT.

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general     *Cl* **00**     Page 1 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected     RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn     *SC* **0**     3/16/2016  1:12:30 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **00**    *SC* **0**    *P* **all**    *L* **99**    # 289

Chalupsky, David    Intel Corp.

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

change copyright to 2016

*SuggestedRemedy*

change copyright date in footer to "2016'

*Response*    *Response Status* **C**

ACCEPT.

---

*Cl* **1**    *SC* **1.3**    *P* **20**    *L* **23**    # 210

Shariff, Masood    CommScope

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

Incorrect title for TIA TSB-5021

*SuggestedRemedy*

Use correct title

Guidelines for the use of installed category 5e and category 6 cabling to 61 support 2.5GBASE-T and 5GBASE-T

*Response*    *Response Status* **C**

ACCEPT IN PRINCIPLE.

TIA TSB-5021: Guidelines for the Assessment and Mitigation of Installed Cabling to Support 2.5GBASE-T and 5GBASE-T

---

*Cl* **1**    *SC* **1.4**    *P* **21**    *L* **50**    # 213

Zimmerman, George    CME Consulting/Aqua

*Comment Type* **E**    *Comment Status* **A**    *BQ ALIGN*

We normally place reference to something having been modified by another amendment in parenthesis, we usually end editing instructions with 'as follows:'. (BQ ALIGN, i-162)

*SuggestedRemedy*

Suggest the text '… as inserted by IEEE Std 802.3by-201X' be changed to read '…(as inserted by IEEE Std 802.3by-201X) as follows:'. And editor to search and scrub the draft to maintain consistency in editing instructions

*Response*    *Response Status* **C**

ACCEPT.

---

*Cl* **1**    *SC* **1.4**    *P* **21**    *L* **52**    # 214

Zimmerman, George    CME Consulting/Aqua

*Comment Type* **E**    *Comment Status* **A**    *BQ ALIGN*

Isn't BASE-T Ethernet 'PCS/PMA' just a 'BASE-T PHY'? (BQ ALIGN, i-164)

*SuggestedRemedy*

Change base text to align with 802.3bq D3.1, changing '… of specific BASE-T Ethernet PCS/PMAs at …' to read '… of specific BASE-T PHYs at …'

*Response*    *Response Status* **C**

ACCEPT.

---

*Cl* **1**    *SC* **1.4.127a**    *P* **20**    *L* **50**    # 409

Grow, R0obert    RMG Consulting

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

We went to significant work a few revision ago to remove all references to Category 5 and 5e cabling.  They should not be reintroduced.

*SuggestedRemedy*

Remove definition. Remove all other references to Category 5e cabling.

*Response*    *Response Status* **W**

REJECT.

The 2.5 Gb/s and 5 Gb/s PHYs are required to operate over  Category 5e as stated in the objectives.

•Define a 2.5 Gb/s PHY for operation over
•Up to at least 100m on four-pair Class D (Cat5e) balanced copper cabling on defined use cases and deployment configurations
•Define a 5 Gb/s PHY for operation over
•Up to 100m on four-pair Class D (Cat5e) balanced copper cabling on defined use cases and deployment configurations

---

*Cl* **1**    *SC* **1.4.131a**    *P* **21**    *L* **40**    # 293

Anslow, Pete    Ciena

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

Editing instruction should say where this definition can be found.

*SuggestedRemedy*

Change "Change definition for Category 8 balanced cabling, as shown:" to "Change 1.4.131a as inserted by IEEE Std 802.3bq-201x, as follows:"

*Response*    *Response Status* **C**

ACCEPT.

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general    *Cl* **1**    Page 2 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected    RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn    *SC* **1.4.131a**    3/16/2016  1:12:30 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **1**     *SC* **1.4.131a**          *P* **21**     *L* **40**          *#* 308
Hajduczenia, Marek              Bright House Network

*Comment Type*  **E**       *Comment Status*  **A**                          *EZ*
Category 8 definition does not exist in 802.3bx standard and it is an addition to existing standard. Editorial instruction seems to imply it is already in the base standard

*SuggestedRemedy*
Change editorial instruction in line 40 to read: "Change definition for Category 8 balanced cabling, as added by P802.3XXXX-201X, as shown:" - update project reference + year for the specific amendment that added this definition in the first place.
Likely, P802.3bq is the source of this text

*Response*            *Response Status*  **C**
ACCEPT IN PRINCIPLE.
Change editing instruction to read:
"Change definition for Category 8 balanced cabling, (as inserted by IEEE 802.3bq-201x) as shown:"

*Cl* **1**     *SC* **1.4.131a**          *P* **21**     *L* **42**          *#* 211
Shariff, Masood                 CommScope

*Comment Type*  **E**       *Comment Status*  **A**                          *EZ*
1.4.131aCategory 8 balanced cabling:

Need a space after 131a

*SuggestedRemedy*
1.4.131a Category 8 balanced cabling:

*Response*            *Response Status*  **C**
ACCEPT.

*Cl* **1**     *SC* **1.4.277b**          *P* **22**     *L* **1**          *#* 309
Hajduczenia, Marek              Bright House Network

*Comment Type*  **E**       *Comment Status*  **A**                          *EZ*
Just for symmetry - definition includes statement: "for both 25GBASE-T and 40GBASE-T", it might be better to emphasize the fact that Clause 126 specifies both 2.5G and 5G BASE-T

*SuggestedRemedy*
Change "2.5GBASE-T and 5GBASE-T" to "for both 2.5GBASE-T and 5GBASE-T"

*Response*            *Response Status*  **C**
ACCEPT.

*Cl* **1**     *SC* **1.4.277b**          *P* **22**     *L* **1**          *#* 387
Lusted, Kent                    Intel

*Comment Type*  **E**       *Comment Status*  **A**                          *EZ*
Since Clause 126 and Clause 113 have references to the specific BASE-T PHYs with the clause, it would be useful to add a "(10GBASE-T)" after Clause 55.

*SuggestedRemedy*
add a "(10GBASE-T)" after Clause 55.

*Response*            *Response Status*  **C**
ACCEPT.

*Cl* **1**     *SC* **1.4.74a**          *P* **20**     *L* **37**          *#* 215
Zimmerman, George               CME Consulting/Aqua

*Comment Type*  **E**       *Comment Status*  **A**                          *BQ ALIGN*
Superflous comma between IEEE Std 802.3 and Clause (multiple instances) (BQ ALIGN, i-18)

*SuggestedRemedy*
Remove the comma, editor to scrub for multiple instances, P20 L37, 40, 46, 52; P21 L5 and L46

*Response*            *Response Status*  **C**
ACCEPT.

*Cl* **1**     *SC* **1.4.x**          *P* **20**     *L* **11**          *#* 286
Trowbridge, Steve               Alcatel-Lucent

*Comment Type*  **E**       *Comment Status*  **D**                          *BV comment*
Lots of precediing projects have used PAM modulation, and none have felt compelled to define "pulse amplitude modulation" as a term. PAM is defined as an acronym.

*SuggestedRemedy*
Delete the definition of pulse amplitude modulation

*Proposed Response*       *Response Status*  **Z**
PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general          *Cl*  **1**          Page 3 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected     RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn          *SC*  **1.4.x**          3/16/2016  1:12:30 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **1**      *SC* **1.5**                    *P* **22**         *L* **4**           # 310

Hajduczenia, Marek                    Bright House Network

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

No need for 1.5, when there are no new abbreviations being added

*SuggestedRemedy*

Strike 1.5 and all its content

*Response*                *Response Status*  **C**

ACCEPT IN PRINCIPLE.
Add abbreviation to list, and remove Editor's note:
ALSNR  Alien Limited SNR

Delete ABBR placeholder abbreviation.

---

*Cl* **1**      *SC* **1.5**                    *P* **22**         *L* **6**           # 410

Grow, R0obert                    RMG Consulting

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

You now have an abbreviation.

*SuggestedRemedy*

Remove the note.

*Response*                *Response Status*  **C**

ACCEPT.

---

*Cl* **1.3**      *SC*                    *P*         *L* **24**           # 207

Brillhart, Theodore                    Fluke Electronics Corp

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

ISO/IEC 11801-2002 is not the most recent and complete edition of this industry standard.
I believe it is considered "best practice" to reference the most recent edition, which is
ISO/IEC 11801 Edition 2.2 2011. This edition is inclusive of all ISO/IEC 11801-2002
ammendments and corrigenda, and represents the most accurate version of the subject
matter as determined by its developers.

*SuggestedRemedy*

Insert the following normative reference in alphanumeric order:
ISO/IEC 11801 Edition 2.2 2011, Information technology – Generic cabling for customer
premises

*Proposed Response*                *Response Status*  **Z**

REJECT.

This comment was WITHDRAWN by the commenter.

See comment#208.

---

*Cl* **113A**      *SC* **113A**                    *P* **191**         *L* **1**           # 347

Hajduczenia, Marek                    Bright House Network

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

Remove Annex 113A since it has no content. All comments on Annex 113A should be
directed to 3bq, where the Annex is currently included

*SuggestedRemedy*

Per comment

*Response*                *Response Status*  **C**

ACCEPT.

---

*Cl* **125**      *SC* **125.1.2**                    *P* **59**         *L* **24**           # 336

Hajduczenia, Marek                    Bright House Network

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

Text in lines 24 -31 does not use proper formatting

*SuggestedRemedy*

Please apply proper lettered list stype

*Response*                *Response Status*  **C**

ACCEPT.

---

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: Clause, Subclause, page, line

*Cl* **125**
*SC* **125.1.2**

Page 4 of 43
3/16/2016  1:12:30 PM

*Cl* **125**     *SC* **125.1.3**          *P* **59**          *L* **37**          # 337

Hajduczenia, Marek                    Bright House Network

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

Given that there is only one 2.5 and one 5G PHY, statement in lines 37-39 is not necessary

*SuggestedRemedy*

Strike text in lines 37-39, there is one instance of each PHY type today.

*Response*                *Response Status*  **C**

REJECT.
There is already a project which will add to this list.

---

*Cl* **125**     *SC* **125.1.3**          *P* **60**          *L* **13**          # 388

Lusted, Kent                           Intel

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

Figure 125-1 lists the speed in the PCS.  This is inconsistent with the other architectural
diagrams in the base standard.

*SuggestedRemedy*

Remove "2.5GBASE-T" and "5GBASE-T" from the two PCS blocks in the figure.

*Response*                *Response Status*  **C**

REJECT.
This is a rare clause where 2 speeds are defined, and is modeled on 40/100G in some
respects for that reason.  See Figure 80-1, where PCSs are called out by speed.
Additionally, in this case, other than the speed, the two PCSs are identical and both
connect to the same MII - removing the speed distinction would be both incorrect and
confusing to the reader.

Also, there are separate PCS select bits, and separate references to the 2.5GBASE-T
PCS and 5GBASE-T PCS throughout the draft, without references to a single
2.5G/5GBASE-T PCS.

---

*Cl* **125**     *SC* **125.1.3**          *P* **60**          *L* **31**          # 338

Hajduczenia, Marek                    Bright House Network

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

Wrong title of Figure 125-1

*SuggestedRemedy*

Should be: "2.5GBASE-T and 5GBASE-T PHYs relationship to the ISO/IEC Open Systems
Interconnection (OSI) reference model and the IEEE 802.3 Ethernet model"

*Response*                *Response Status*  **C**

REJECT.
This figure is where other 2.5G and 5G PHYs will be added.  Figure 126-1 is the one with
teh title suggested by the commenter

---

*Cl* **125**     *SC* **125.1.4**          *P* **61**          *L* **19**          # 389

Lusted, Kent                           Intel

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

Table 125-2 lists the speed in the title.  This is inconsistent with the other nomenclature
and cluse correlation tables in the base standard.

*SuggestedRemedy*

remove "(2.5GBASE and 5GBASE)"

*Response*                *Response Status*  **C**

ACCEPT.

---

*Cl* **125**     *SC* **125.1.4**          *P* **61**          *L* **23**          # 301

Anslow, Pete                           Ciena

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

In Table 125–2, "46" should be a cross-reference

*SuggestedRemedy*

In Table 125–2, make "46" a cross-reference

*Response*                *Response Status*  **C**

ACCEPT.

---

*Cl* **125**     *SC* **125.2.2**          *P* **62**          *L* **3**           # 339

Hajduczenia, Marek                    Bright House Network

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

Technically wrong - it is not interface being mapped, but data transferred across interface
being mapped. "maps the XGMII interface to 64B/65B blocks"

*SuggestedRemedy*

Change "maps the XGMII interface to 64B/65B blocks" to "maps data transferred across
the XGMII interface to 64B/65B blocks"

*Response*                *Response Status*  **C**

ACCEPT.

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general        *Cl*  **125**              Page 5 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected     RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn        *SC*  **125.2.2**          3/16/2016  1:12:30 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **125**      *SC* **125.2.2**      *P* **62**      *L* **4**      # 340
Hajduczenia, Marek                    Bright House Network

*Comment Type* **T**      *Comment Status* **R**                *Architecture*
Simplify and improve on clarity fo text: "64B/65B blocks encoded in a 2048-bit LDPC
frame. This LDPC frame is then mapped to 512 gray-coded
PAM16 symbols for transfer to the 4-lane PMA."

*SuggestedRemedy*
Change to: "64B/65B blocks. Individual 64B/65B blocks are then encoded into a 2048-bit
LDPC frame, which is then mapped into 512 gray-coded PAM16 symbols transfered into a
4-lane PMA."

*Response*      *Response Status* **C**
REJECT.
Task force believes proposed change does not improve clarity and could be misinterpreted.

*Cl* **125**      *SC* **125.2.2**      *P* **62**      *L* **4**      # 302
Anslow, Pete                    Ciena

*Comment Type* **E**      *Comment Status* **A**                *EZ*
"gray-coded" should be "Gray-coded"

*SuggestedRemedy*
Change "gray-coded" to "Gray-coded"

*Response*      *Response Status* **C**
ACCEPT.

*Cl* **125**      *SC* **125.2.3**      *P* **62**      *L* **9**      # 341
Hajduczenia, Marek                    Bright House Network

*Comment Type* **E**      *Comment Status* **A**                *EZ*
Incorrect text format - no visible separation between two paras

*SuggestedRemedy*
Please apply "T,Text" style to both paragraphs in lines 8-16

*Response*      *Response Status* **C**
ACCEPT.

*Cl* **125**      *SC* **125.4**      *P* **63**      *L* **1**      # 342
Hajduczenia, Marek                    Bright House Network

*Comment Type* **TR**      *Comment Status* **A**                *Architecture*
Subclause with no text - is there any specific requirement associated with Table 125-3?

*SuggestedRemedy*
Please add at least text describing what Table 125-5 contains, and consider adding a
"shall" statement for this table - right now it is hard to figure out what the purpose of this
table is, seems out of context

*Response*      *Response Status* **C**
ACCEPT IN PRINCIPLE.
Add text: under 125.4
Predictable operation of the MAC Control PAUSE operation (Clause 31, Annex 31B)
demands that there be an upper bound on the propagation delays through the network.
This implies that MAC, MAC Control sublayer,
and PHY implementers must conform to certain delay maxima, and that network planners
and administrators conform to constraints regarding the cable topology and concatenation
of devices. Table 125–3
contains the values of maximum sublayer delay (sum of transmit and receive delays at one
end of the link) in bit times as specified in 1.4 and pause_quanta as specified in 31B.2. If a
PHY contains an Auto-Negotiation
sublayer, the delay of the Auto-Negotiation sublayer is included within the delay of the
PMD and medium.

See 31B.3.7 for PAUSE reaction timing constraints for stations at operating speeds of 2.5
Gb/s and 5 Gb/s.

Add 31B.3.7 to the draft, inserting the text proposed on slide 7 of bains_3bz_02a_0316.pdf

*Cl* **126**      *SC* **126.1**      *P* **65**      *L* **21**      # 349
Hajduczenia, Marek                    Bright House Network

*Comment Type* **E**      *Comment Status* **A**                *EZ*
"2.5Gb/s or 5Gb/s" - missing space between numercal and unit

*SuggestedRemedy*
Change to "2.5 Gb/s or 5 Gb/s", make sure non-breaking space is used
Scrub the draft as a whole

*Response*      *Response Status* **C**
ACCEPT.

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general          *Cl* **126**          Page 6 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected      RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn          *SC* **126.1**          3/16/2016  1:12:30 PM
SORT ORDER: Clause, Subclause, page, line

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*Cl* **126**  *SC* **126.1**  *P* **65**  *L* **28**  *#* 216

Zimmerman, George  CME Consulting/Aqua

*Comment Type* **T**  *Comment Status* **A**  *BQ ALIGN*

It is not immediately clear that advertising lack of support for fast retrain is done in autonegotiation.  Only looking at 45.2.7.10 reveals that.  Clause 45 is optional, and gthe way auto-negotiation is controlled can be different, perhaps with a different register address or without any register. (BQ ALIGN, i-40)

*SuggestedRemedy*

Change "advertising lack of support in register 7.32" to "advertising lack of support during auto-negotiation".

*Response*  *Response Status* **C**

ACCEPT.

---

*Cl* **126**  *SC* **126.1**  *P* **65**  *L* **8**  *#* 348

Hajduczenia, Marek  Bright House Network

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

What is the purpose of listing some "users"? "The 2.5GBASE-T PCS, PMA, and baseband medium
specifications are intended for users who want 2.5Gb/s performance over balanced twisted-pair structured
cabling systems. The 5GBASE-T PCS, PMA, and baseband medium specifications are intended for users
who want 5Gb/s performance over balanced twisted-pair structured cabling systems."

*SuggestedRemedy*

Change the text to read as follows: "The 2.5GBASE-T PCS, PMA, and baseband medium specifications are intended for operation over balanced twisted-pair structured cabling systems. The 5GBASE-T PCS, PMA, and baseband medium specifications are intended for operation over balanced twisted-pair structured cabling systems."

*Response*  *Response Status* **C**

ACCEPT.

---

*Cl* **126**  *SC* **126.1**  *P* **65**  *L* **9**  *#* 303

Anslow, Pete  Ciena

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

There should be a non-breaking space (Ctrl space) between a number and its unit.

*SuggestedRemedy*

Insert a non-breaking space in 2.5Gb/s and 5Gb/s (two instances each)

*Response*  *Response Status* **C**

ACCEPT.

---

*Cl* **126**  *SC* **126.1.1**  *P* **65**  *L* **36**  *#* 350

Hajduczenia, Marek  Bright House Network

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

"2.5G/5GBASE-T" - given that both PHYs operate at gigabit speeds, it would make more sense to show it as "2.5/5GBASE-T", simialr to what we have in EPON (10/10G-EPON) or multi-rate PHYs (10/100/1000BASE-T)

*SuggestedRemedy*

Change all instances of "2.5G/5GBASE-T" to "2.5/5GBASE-T" - whole draft

*Response*  *Response Status* **C**

REJECT.
Nomenclature for 2.5G/5GBASE-T is consistent for multigigabit BASE-T PHYs as well as opticals (because you can and will have 1000/2.5GBASE-T PHYs)

Clause 1.2.3 defines: "The data rate, if only a number, is in Mb/s, and if suffixed by a "G", is in Gb/s."

---

*Cl* **126**  *SC* **126.1.1**  *P* **65**  *L* **38**  *#* 385

Hidaka, Yasuo  Fujitsu Laboratories of

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

The parameter S is defined only in the text.
Since this is an important parameter, it is better to define in a table.

*SuggestedRemedy*

Add a table to define the parameter S.

*Response*  *Response Status* **C**

REJECT.
It only has two values and it is called out prominently in its own section up front.  No need for a table.

---

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: Clause, Subclause, page, line

*Cl* **126**
*SC* **126.1.1**

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*Cl* **126**      *SC* **126.1.2**      *P* **66**      *L* **16**      # 390
Lusted, Kent                                    Intel

*Comment Type*  **ER**      *Comment Status*  **R**                      *Editorial*
Figure 126-1 lists the speed in the PCS.  This is inconsistent with the other architectural diagrams in the base standard.

*SuggestedRemedy*
Remove "2.5GBASE-T" and "5GBASE-T" from the two PCS blocks in the figure.

*Response*              *Response Status*  **C**
REJECT.
This is a rare clause where 2 speeds are defined, and is modeled on 40/100G in some respects for that reason.  See Figure 80-1, where PCSs are called out by speed. Additionally, in this case, other than the speed, the two PCSs are identical and both connect to the same MII - removing the speed distinction would be both incorrect and confusing to the reader.

---

*Cl* **126**      *SC* **126.1.2**      *P* **66**      *L* **26**      # 351
Hajduczenia, Marek                    Bright House Network

*Comment Type*  **E**      *Comment Status*  **A**                      *EZ*
Text: "* XGMII IS OPTIONAL" seems too close to caption of the figure - consider moving it upwards and right, where XGMII is defined

*SuggestedRemedy*
Per comment

*Response*              *Response Status*  **C**
ACCEPT.

---

*Cl* **126**      *SC* **126.1.2**      *P* **66**      *L* **5**      # 416
Trowbridge, Steve                    Alcatel-Lucent

*Comment Type*  **E**      *Comment Status*  **A**                      *EZ*
Several sloppy things in the drawing of Figure 126.1. The shaded vertical lines on either side of "HIGHER LAYERS" are different widths. The dotted line at the bottom of the PHYSICAL box in the ISO stack and the MEDIUM symbol doesn't line up with the boxes it attaches to on either side, and overlaps the MEDIUM box.

*SuggestedRemedy*
Zoom in close and nudge the elements of this figure to line up.

*Response*              *Response Status*  **C**
ACCEPT.

---

*Cl* **126**      *SC* **126.1.3**      *P* **66**      *L* **36**      # 352
Hajduczenia, Marek                    Bright House Network

*Comment Type*  **E**      *Comment Status*  **A**                      *Editorial*
Megasymbols per second or Msymbols/s … both are used currently

*SuggestedRemedy*
Consider using "Msymbol/s", similarly to "Mb/s" used consistently in the base standard today
Scrub Clause 126

*Response*              *Response Status*  **C**
ACCEPT IN PRINCIPLE.
Change to MBaud (MBd) as per editorial staff instruction

---

*Cl* **126**      *SC* **126.1.3**      *P* **66**      *L* **36**      # 218
Zimmerman, George                    CME Consulting/Aqua

*Comment Type*  **E**      *Comment Status*  **A**                      *Editorial*
Here "Megasymbols per second" is used.  Later in the subclause it is Msymbol/s. Consistency is preferred.  In many other clauses (including clause 40) the unit used is Baud, with the relevant abbreviation being GBd.  It is well understood terminology.  Further, IEEE editorial staff has now directed the use of the term Baud and the abbreviation Bd. (BQ ALIGN, i-42) - DIFFERENT RESOLUTION

*SuggestedRemedy*
Adopt consistent terminology within the clause.  While BQ originally chose Msymbols/s, adopt direction of editorial staff and use MBd. (P66 L36, L37, L44, L45; P70 L38)

*Response*              *Response Status*  **C**
ACCEPT.

---

*Cl* **126**      *SC* **126.1.3**      *P* **67**      *L* **11**      # 219
Zimmerman, George                    CME Consulting/Aqua

*Comment Type*  **E**      *Comment Status*  **A**                      *BQ ALIGN*
"two second retrain" is confusing. "Second" is a unit, and according to the style guide should be abbreviated. (BQ ALIGN, i-43)

*SuggestedRemedy*
Change "two second" to "two-second"

*Response*              *Response Status*  **C**
ACCEPT.

---

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: Clause, Subclause, page, line

*Cl* **126**
*SC* **126.1.3**

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---

*Cl* **126**    *SC* **126.1.3**    *P* **69**    *L* **1**    # 353

Hajduczenia, Marek    Bright House Network

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

Figure 126–3 uses dashed boxes to indicate EEE optional functions and transitions. Consider using dashed lines instead, since it is not whole blocks, but rather some signals / transitions that are optional.

*SuggestedRemedy*

For example, change line type for fr_active from solid to dashed, and remove the associated box. Apply to all optional transitions / signals on this figure
The same comment applies to Figure 126–4, Figure 126-5

*Response*    *Response Status* **C**

REJECT.
Figure is consistent with other MultiGBASE-T family PHY figures. Changing would make it inconsistent and raise confusion.

---

*Cl* **126**    *SC* **126.1.3**    *P* **69**    *L* **19**    # 417

Trowbridge, Steve    Alcatel-Lucent

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

The vertical lines with the arrowheads on the left hand side for PCS and PMA don't line up.

*SuggestedRemedy*

Nudge the PCS line to the left or the PMA line to the right so they line up.

*Response*    *Response Status* **C**

ACCEPT.

---

*Cl* **126**    *SC* **126.1.3.1**    *P* **149**    *L* **18**    # 358

Hajduczenia, Marek    Bright House Network

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

Given that requirements in 126.5.3.4 are based on a mandatory compliance with equation, there is no need to mention some requirements in here

*SuggestedRemedy*

Change "The 97 zero-bits are then replaced with vendor-defined random data, with the only requirement that the bits be sufficiently random to not produce spectral tones, and effect meeting the transmit PSD mask defined in Clause 126.5.3.4." to "The 97 zero-bits are then replaced with vendor-defined random data. See 126.5.3.4 for transmit PSD mask definition."

*Response*    *Response Status* **C**

ACCEPT.

---

*Cl* **126**    *SC* **126.1.3.1**    *P* **149**    *L* **9**    # 357

Hajduczenia, Marek    Bright House Network

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

Reference to Figure 126–6 would be very helpful here, since that is where the transmit direction is shown

*SuggestedRemedy*

Change "In the transmit direction" to "In the transmit direction (see Figure 126-6)" - make sure link is live
In line 26, Change "In the receive direction" to "In the receive direction (see Figure 126-7)" - make sure link is live

*Response*    *Response Status* **C**

ACCEPT.

---

*Cl* **126**    *SC* **126.1.3.1**    *P* **70**    *L* **16**    # 354

Hajduczenia, Marek    Bright House Network

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

"adds 325 LDPC check bits" - are these "check bits" or "parity bits"?

*SuggestedRemedy*

it seems like "parity bits" are used more prevailigly in other PHYs

*Response*    *Response Status* **C**

REJECT.
All other PHYs with this code (there are 3) use "check bits".

---

*Cl* **126**    *SC* **126.1.3.1**    *P* **70**    *L* **24**    # 220

Zimmerman, George    CME Consulting/Aqua

*Comment Type* **E**    *Comment Status* **A**    *BQ ALIGN*

"Details of the PCS function are covered in 126.3" This sentence does not seem to belong in this paragraph, which deals with the PMA. The former several paragraphs dealt with the PCS transmit operation (as a summary/overview). The next two paragraph summarize the receiver operation and include "The PCS functions and state diagrams are specified in 126.3". Reference to the detailed description should be put at the end. (BQ ALIGN, i-48)

*SuggestedRemedy*

Merge the two sentences "Details of the PCS function are covered in 126.3" and "The PCS functions and state diagrams are specified in 126.3", and move the result to a separate paragraph ending this subclause.
Move the sentence "The interface to the PMA is an abstract message-passing interface specified in 126.2" to this final paragraph too.

*Response*    *Response Status* **C**

ACCEPT.

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general    *Cl* **126**    Page 9 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected    RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn    *SC* **126.1.3.1**    3/16/2016  1:12:31 PM
SORT ORDER: Clause, Subclause, page, line

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*Cl* **126**    *SC* **126.1.3.2**    *P* **70**    *L* **46**    # 221
Zimmerman, George    CME Consulting/Aqua

*Comment Type* **E**    *Comment Status* **A**    *BQ ALIGN*
"discrete time value" can be confusing. (BQ-ALIGN, i-49)

*SuggestedRemedy*
change to "discrete-time value"

*Response*    *Response Status* **C**
ACCEPT.

---

*Cl* **126**    *SC* **126.1.3.2**    *P* **71**    *L* **6**    # 359
Hajduczenia, Marek    Bright House Network

*Comment Type* **T**    *Comment Status* **A**    *PCS*
What is this magic "it" ??? … "It determines whether the PHY operates in a normal … "

*SuggestedRemedy*
Please clarify what "it" is and at best - replace it with the full name of the element that performs this function

*Response*    *Response Status* **C**
ACCEPT IN PRINCIPLE.
Replace "It" by "PHY Control"

---

*Cl* **126**    *SC* **126.1.3.3**    *P* **71**    *L* **26**    # 360
Hajduczenia, Marek    Bright House Network

*Comment Type* **E**    *Comment Status* **A**    *EZ*
Avoid the use of "will" - change "that will be mapped into a single 64B/65B block" to "that is then mapped into a single 64B/65B block"

*SuggestedRemedy*
Make sure there are no unnecessary instances of "will" outside of FM.

*Response*    *Response Status* **C**
ACCEPT IN PRINCIPLE.
See BQ ALIGN comments

---

*Cl* **126**    *SC* **126.1.3.3**    *P* **72**    *L* **4**    # 222
Zimmerman, George    CME Consulting/Aqua

*Comment Type* **E**    *Comment Status* **A**    *BQ ALIGN*
"Infofield" occurs several times in the draft, and is used here for the first time in Clause 126. 802.3bq d3p1 now defines this term in Clause 1.4, without reference to 802.3bz. Capitalization is inconsistent across the draft. Also "link startup" is vague, Infofields are used in training mode. (BQ ALIGN, i-51)

*SuggestedRemedy*
Import definition of infofield (1.4.237a) into draft as inserted by 802.3bq, which change instruction to insert cross reference to Clause 126. Change all "InfoField" to "Infofield" in draft.

*Response*    *Response Status* **C**
ACCEPT.

---

*Cl* **126**    *SC* **126.1.6**    *P* **73**    *L* **8**    # 217
Zimmerman, George    CME Consulting/Aqua

*Comment Type* **E**    *Comment Status* **A**    *BQ ALIGN*
"specifically specified" is redundant. (BQ ALIGN, i-53)

*SuggestedRemedy*
Change to "unless specified"

*Response*    *Response Status* **C**
ACCEPT.

---

*Cl* **126**    *SC* **126.10**    *P* **171**    *L* **19**    # 290
Chalupsky, David    Intel Corp.

*Comment Type* **T**    *Comment Status* **A**    *Labeling*
many product could not fit this amount of information on the faceplate in human readable form

*SuggestedRemedy*
change "and" to "or" in "(and supporting documentation")"

*Response*    *Response Status* **C**
ACCEPT.
Commenter is recommended to submit a maintenance request for other similar clauses in 802.3

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general    *Cl* **126**    Page 10 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected    RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn    *SC* **126.10**    3/16/2016  1:12:31 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **126**    *SC* **126.11**    *P* **171**    *L* **36**    # 291
Chalupsky, David    Intel Corp.

*Comment Type* **E**    *Comment Status* **D**    *Editorial*
delay coinstraints are in paragraph text. Would be better to have in a table for easy incorporation of new req's from P802.3cb and any future amendments.

*SuggestedRemedy*
put delay constraints in a table like other clauses. I know this is an "AIP" at best because I'm not giving you exact instructions…

*Proposed Response*    *Response Status* **Z**
REJECT.

This comment was WITHDRAWN by the commenter.

Editor to model a table on Table 105-3 in 802.3bq D3.1.

---

*Cl* **126**    *SC* **126.11**    *P* **171**    *L* **43**    # 223
Zimmerman, George    CME Consulting/Aqua

*Comment Type* **TR**    *Comment Status* **A**    *Cabling*
Equation 44-1 and Table 44-3 are specific to 10 Gb/s. For other bit rates, the calculation should be modified. See Equation 80-1, which defines cable delay in ns per meter. (BQ ALIGN, i-97)

*SuggestedRemedy*
Replace sentence: "Equation (44-1) specifies the calculation of bit time per meter of electrical cable and Table 44-3 can also be used to convert electrical cable delay values specified relative to the speed of light or in nanoseconds per meter." with the following: "Equation (80-1) specifies the calculation of delay per meter of electrical cable, which may be converted to bit times using 2.5BT per ns for 2.5GBASE-T, and 5BT per ns for 5GBASE-T (see Table 125-5)."

*Response*    *Response Status* **C**
ACCEPT.

---

*Cl* **126**    *SC* **126.12**    *P* **172**    *L* **1**    # 371
Hajduczenia, Marek    Bright House Network

*Comment Type* **E**    *Comment Status* **A**    *EZ*
Seems like tables for PICS were moved from page 172 to 173 for some reason.

*SuggestedRemedy*
Please bring initial tables to under 126.12

*Response*    *Response Status* **C**
ACCEPT.

---

*Cl* **126**    *SC* **126.12.1**    *P* **173**    *L* **1**    # 304
Anslow, Pete    Ciena

*Comment Type* **E**    *Comment Status* **A**    *EZ*
126.12.1 through 126.12.1.2 should be on the same page as the 126.12 heading

*SuggestedRemedy*
Fix the pagination.

*Response*    *Response Status* **C**
ACCEPT.

---

*Cl* **126**    *SC* **126.12.1.2**    *P* **173**    *L* **20**    # 305
Anslow, Pete    Ciena

*Comment Type* **E**    *Comment Status* **A**    *EZ*
"IEEE Std 802.3-201x" should be "IEEE Std 802.3bz-201x"

*SuggestedRemedy*
Change "IEEE Std 802.3-201x" to "IEEE Std 802.3bz-201x" in two places

*Response*    *Response Status* **C**
ACCEPT.

---

*Cl* **126**    *SC* **126.2.2.11.1**    *P* **81**    *L* **21**    # 224
Zimmerman, George    CME Consulting/Aqua

*Comment Type* **ER**    *Comment Status* **A**    *BQ ALIGN*
Semantics details of primitives are missing. Also in 126.2.2.12.1 (BQ ALIGN, i-55)

*SuggestedRemedy*
Add pcs_data_mode values to 126.2.2.11.1
(after line 21)
The pcs_data_mode parameter can take on one of two values of the form:
TRUE = PHY is in state PCS_Data (see Figure 126-26)
FALSE = PCS is not in state PCS_Data (see Figure 126-26).
Similarly fr_active values to 126.2.2.12.1, for values:
TRUE = PHY is currently performing a fast retrain
FALSE = PHY is not currently performing a fast retrain

*Response*    *Response Status* **C**
ACCEPT.

---

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: Clause, Subclause, page, line

*Cl* **126**    Page 11 of 43
*SC* **126.2.2.11.1**    3/16/2016 1:12:31 PM

*Cl* **126**   *SC* **126.3.2**   *P* **83**   *L* **10**   # 418
Trowbridge, Steve   Alcatel-Lucent

*Comment Type* **E**   *Comment Status* **A**   *EZ*
Several sloppy things in the drawing of Figure 126-5. The arrowheads for scr_status and PMA_UNITDATA.request overlap the dashed boxes next to them with which they are unrelated. The gap in the vertical line at the left for PCS is too wide - consider making PCS vertical text and even it out in the gap.

*SuggestedRemedy*
Tidy up the figure

*Response*   *Response Status* **C**
ACCEPT.

*Cl* **126**   *SC* **126.3.2**   *P* **97**   *L* **9**   # 229
Zimmerman, George   CME Consulting/Aqua

*Comment Type* **E**   *Comment Status* **A**   *BQ ALIGN*
Missing terminating period (BQ ALIGN, i-76)

*SuggestedRemedy*
Add a period afer "126.5.2"

*Response*   *Response Status* **C**
ACCEPT.

*Cl* **126**   *SC* **126.3.2.2**   *P* **84**   *L* **44**   # 225
Zimmerman, George   CME Consulting/Aqua

*Comment Type* **E**   *Comment Status* **A**   *BQ ALIGN*
65B bits? (BQ ALIGN, i-66)

*SuggestedRemedy*
Change "the 65B bits are scrambled" to "the 65B encoded bits are scrambled "

*Response*   *Response Status* **C**
ACCEPT.

*Cl* **126**   *SC* **126.3.2.2.10**   *P* **89**   *L* **48**   # 226
Zimmerman, George   CME Consulting/Aqua

*Comment Type* **ER**   *Comment Status* **A**   *BQ ALIGN*
EEE "compliant" PHYs? It is an optional capability. (BQ ALIGN, i-69)

*SuggestedRemedy*
Change "EEE compliant PHYs" to "PHYs that support EEE" p89 L48 and on p93 L48

*Response*   *Response Status* **C**
ACCEPT.

*Cl* **126**   *SC* **126.3.2.2.14**   *P* **91**   *L* **12**   # 206
McClellan, Brett   Marvell

*Comment Type* **T**   *Comment Status* **A**   *PCS*
invalid blocks only appear at the receiver, not the transmitter

*SuggestedRemedy*
delete "It is also sent when invalid blocks are received."

*Response*   *Response Status* **C**
ACCEPT. (see also comment r01-12 on BQ D3.1)

*Cl* **126**   *SC* **126.3.2.2.17**   *P* **92**   *L* **36**   # 227
Zimmerman, George   CME Consulting/Aqua

*Comment Type* **T**   *Comment Status* **A**   *BQ ALIGN*
"The use of the auxiliary bit is for vendor-specific communication is outside the scope of this document." It is not clear what these sentence mean in the context of the LDPC encoder. They do not seem to be encoded. Is the encoder required or expected to use specific values or are they left to implementation choice? The decoder behavior should be stated in the decoder subclause, not the encoder subclause. The descriptive language of this section covers more than just the encoder but also the LDPC frame structure. (BQ ALIGN, i-71)

*SuggestedRemedy*
Change title of 126.3.2.2.17 to "LDPC framing and LDPC encoder"

*Response*   *Response Status* **C**
ACCEPT.

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: Clause, Subclause, page, line
*Cl* **126** *SC* **126.3.2.2.17**   Page 12 of 43   3/16/2016 1:12:31 PM

*Cl* **126**    *SC* **126.3.2.2.8**    *P* **88**    *L* **41**    # 201
McClellan, Brett                Marvell

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

this section defines invalid blocks that may be seen at the receiver, not the transmitter

*SuggestedRemedy*

Move this section to 126.3.2.3.3, and retitle "Invalid blocks"
add text "Invalid blocks are replaced by error." as the first sentence of the section.

After item (e) add the following:
"The PCS Receive function shall check the integrity of the LDPC parity bits defined in
126.3.2.2.17. If the check fails the PHY frame is invalid."

*Response*    *Response Status* **C**

ACCEPT.
(see comment r01-11 on 802.3bq D3.1)

---

*Cl* **126**    *SC* **126.3.2.2.8**    *P* **88**    *L* **50**    # 228
Zimmerman, George                CME Consulting/Aqua

*Comment Type* **E**    *Comment Status* **A**    *BQ ALIGN*

"to account for self-synchronizing scrambler error propagation" - this may be the motivation
for this rule (part of the rule), but should not be the rule itself. For people unfamiliar with
"self-synchronizing scrambler error propagation" this adds an unnecessary confusion. (BQ
ALIGN, i-67)

*SuggestedRemedy*

Delete "to account for self-synchronizing scrambler error propagation"

*Response*    *Response Status* **C**

ACCEPT.

---

*Cl* **126**    *SC* **126.3.2.2.8**    *P* **89**    *L* **6**    # 419
Trowbridge, Steve                Alcatel-Lucent

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

Several sloppy things in Figure 126-8 should be cleaned up. The words "Bit Position:" has
the colon on the wrong side of the line for the box it is in. The character designations for
the control block formats (e.g., C0C1C2C3/C4C5C6C7) aren't centered in the boxes and
some run up against the line on the right.

*SuggestedRemedy*

Tidy up the figure

*Response*    *Response Status* **C**

ACCEPT.

---

*Cl* **126**    *SC* **126.3.4**    *P* **98**    *L* **1**    # 230
Zimmerman, George                CME Consulting/Aqua

*Comment Type* **E**    *Comment Status* **A**    *BQ ALIGN*

The italics vs. Roman font type in Figure 126-11 is inconsistent both internally and with
regards to the text preceding it. As a result the italics distract rather than help. In the text, n
is a variable that appears in italics, but in the figure it sometime is and sometimes isn't.
Likewise, Scr is not italicized (not a variable) in the text, but in the figure it sometimes is
and sometimes isn't.
The number "1" appears italicized in the figure within "n-1", it looks like the letter l.
Numbers should never be italicized.
The word "otherwise" is in italics although it is not a variable. (BQ ALIGN, i-77)

*SuggestedRemedy*

Make the variable "n" always italicized in Figure 126-11.
If "Scr" is a variable then make it consistently italicized (and likewise for Sa, Sb, Sc, Sd) in
the figure and in the clause text; otherwise make it consistently Roman.
Make everything else Roman.

*Response*    *Response Status* **C**

ACCEPT.

---

*Cl* **126**    *SC* **126.3.4.2**    *P* **99**    *L* **2**    # 231
Zimmerman, George                CME Consulting/Aqua

*Comment Type* **TR**    *Comment Status* **A**    *BQ ALIGN*

"If requested by the link partner, the PCS shall reset the training mode scrambler every
16384 periods..."
This functionality is deprecated for 10G. Should it exist here? (BQ ALIGN, i-78)

*SuggestedRemedy*

Delete the second sentence on P 99

*Response*    *Response Status* **C**

ACCEPT.

---

*Cl* **126**    *SC* **126.3.5**    *P* **99**    *L* **48**    # 232
Zimmerman, George                CME Consulting/Aqua

*Comment Type* **E**    *Comment Status* **A**    *BQ ALIGN*

"R" label in the box seems to refer to the refresh cycle, but it is not readily apparent. The
detailed description of "Pair A" does not include "R". (BQ ALIGN, i-79)

*SuggestedRemedy*

Change "refresh" on pair A to "refresh (R)"

*Response*    *Response Status* **C**

ACCEPT.

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general                *Cl* **126**    Page 13 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected    RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn    *SC* **126.3.5**    3/16/2016  1:12:31 PM
SORT ORDER: Clause, Subclause, page, line

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*Cl* **126**     *SC* **126.3.5.2**          *P* **101**          *L* **26**          # 233
Zimmerman, George                    CME Consulting/Aqua

*Comment Type* **E**          *Comment Status* **A**                    *BQ ALIGN*
Change "-41dBm" to "-41 dBm" (missing space)  (BQ ALIGN, i-126)

*SuggestedRemedy*
See comment (add space)

*Response*               *Response Status* **C**
ACCEPT.

---

*Cl* **126**     *SC* **126.3.6.2.2**          *P* **102**          *L* **48**          # 234
Zimmerman, George                    CME Consulting/Aqua

*Comment Type* **T**          *Comment Status* **A**                    *BQ ALIGN*
"when the lfer_cnt exceeds 16" but lfer_cnt is defined as "Count up to a maximum of 16" so
it cannot exceed 16.  Figure 126-13 sets hi_lfer true at 16 (BQ ALIGN, i-80)

*SuggestedRemedy*
Change "exceeds" to "reaches"

*Response*               *Response Status* **C**
ACCEPT.

---

*Cl* **126**     *SC* **126.3.6.2.2**          *P* **104**          *L* **32**          # 235
Zimmerman, George                    CME Consulting/Aqua

*Comment Type* **T**          *Comment Status* **A**                    *BQ ALIGN*
There is no reference to register 1.147.2 in this draft. It appears in the base document but
only points to the variable list in clause 55. A reference to clause 126 should be added.
In addition, it would be better to define the functionality here, not just in clause 45. Since
MDIO is optional, other means to access this variable may be provided.
Similar issue exists for fr_enable (1.147.0) in 126.4.5.1. it is defined in 45.2.1.79.6 and
does not reference clause 126. (BQ ALIGN, i-82)

*SuggestedRemedy*
Change the first paragraph of the definition to:
"If fast retrain is supported, this variable controls the block type the PMA sends on the
receive path during fast retrain. if MDIO is supported, this variable is set based on the
value in 1.147.2:1 as follows".
Append a paragraph: "If MDIO is not supported, an equivalent method of controlling fast
retrain functionality should be provided".
Bring in 45.2.1.79.5 and add a reference to 126.3.6.2.2.
Apply similar change to 45.2.1.79.6 and 126.4.5.1.

*Response*               *Response Status* **C**
ACCEPT.

---

*Cl* **126**     *SC* **126.4.1**          *P* **115**          *L* **50**          # 236
Zimmerman, George                    CME Consulting/Aqua

*Comment Type* **E**          *Comment Status* **A**                    *BQ ALIGN*
Test in NOTE2 is a full sentence but does not have a "." at the end. (BQ ALIGN, i-59)

*SuggestedRemedy*
Please scrub existing NOTEs and Footnotes and make sure that full sentences are
followed by a period.

*Response*               *Response Status* **C**
ACCEPT.

---

*Cl* **126**     *SC* **126.4.2.2.1**          *P* **117**          *L* **29**          # 396
Yseboodt, Lennart                    Philips

*Comment Type* **E**          *Comment Status* **A**                    *Formatting*
"xpr_slave = (array of 9 and -9)"
       Alignment of this data is poor and should be formatted in a proper grid.

*SuggestedRemedy*
Use a table without a header, or a Figure to line up the data in a proper grid.

*Response*               *Response Status* **C**
ACCEPT IN PRINCIPLE.
Editor to work on alignment, subject to not risking introducing errors to the text.

---

*Cl* **126**     *SC* **126.4.2.2.1**          *P* **117**          *L* **8**          # 395
Yseboodt, Lennart                    Philips

*Comment Type* **E**          *Comment Status* **A**                    *Formatting*
"xpr_master = (array of 9 and -9)"
       Alignment of this data is poor and should be formatted in a proper grid.

*SuggestedRemedy*
Use a table without a header, or a Figure to line up the data in a proper grid.

*Response*               *Response Status* **C**
ACCEPT IN PRINCIPLE.
Editor to work on alignment, subject to not risking introducing errors to the text.

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general          *Cl* **126**          Page 14 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected     RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn          *SC* **126.4.2.2.1**          3/16/2016  1:12:31 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **126**　　*SC* **126.4.2.3.1**　　　　*P* **118**　　*L* **26**　　　# 237
Zimmerman, George　　　　　CME Consulting/Aqua

*Comment Type* **E**　　*Comment Status* **A**　　　*BQ ALIGN*
period at the end of the sentence should be a colon. (BQ ALIGN, i-113)

*SuggestedRemedy*
See comment

*Response*　　　　　*Response Status* **C**
ACCEPT.

---

*Cl* **126**　　*SC* **126.4.2.4**　　　　*P* **119**　　*L* **39**　　　# 238
Zimmerman, George　　　　　CME Consulting/Aqua

*Comment Type* **E**　　*Comment Status* **A**　　　*BQ ALIGN*
pairs BI_DA, BI_DB, BI_DC, and BI_DB.  Second instance of "BI_DB" should be "BI_DD". (BQ ALIGN, i-114)

*SuggestedRemedy*
Change second "BI_DB" to "BI_DD"

*Response*　　　　　*Response Status* **C**
ACCEPT.

---

*Cl* **126**　　*SC* **126.4.2.5**　　　　*P* **120**　　*L* **31**　　　# 239
Zimmerman, George　　　　　CME Consulting/Aqua

*Comment Type* **E**　　*Comment Status* **A**　　　*BQ ALIGN*
The InfoField is denoted IF.  While there is nothing wrong with this statement, the only use of "IF" instead of InfoField is twice in the following sentence.  Is it necessary? (BQ ALIGN, i-115)

*SuggestedRemedy*
Remove the sentence, "The InfoField is denoted IF." and change the "IF" and "IFs" with "Infofield" and "Infofields" respectively

*Response*　　　　　*Response Status* **C**
ACCEPT.

---

*Cl* **126**　　*SC* **126.4.2.5.6**　　　　*P* **122**　　*L* **44**　　　# 240
Zimmerman, George　　　　　CME Consulting/Aqua

*Comment Type* **T**　　*Comment Status* **A**　　　*BQ ALIGN*
The phrasing "Any other value shall not be transmitted and shall be ignored at the receiver" is imprecise. A device that ignores only 1 value not listed would comply. I suspect "all" is what is really intended. (BQ ALIGN, i-LATE)

*SuggestedRemedy*
Change "Any other value shall not be transmitted and shall be ignored at the receiver" to read
"No other value shall be transmitted, and all other values shall be ignored at the receiver."

*Response*　　　　　*Response Status* **C**
ACCEPT.

---

*Cl* **126**　　*SC* **126.4.5.1**　　　　*P* **132**　　*L* **10**　　　# 241
Zimmerman, George　　　　　CME Consulting/Aqua

*Comment Type* **E**　　*Comment Status* **A**　　　*BQ ALIGN*
Inconsistent right margin and justification for the variable definitions. Line breaks seem to be present where they should not. (BQ ALIGN, i-90)

*SuggestedRemedy*
Apply paragraph formatting suitable for a list of variables as in other lists in this draft

*Response*　　　　　*Response Status* **C**
ACCEPT.

---

*Cl* **126**　　*SC* **126.4.5.1**　　　　*P* **133**　　*L* **47**　　　# 242
Zimmerman, George　　　　　CME Consulting/Aqua

*Comment Type* **E**　　*Comment Status* **A**　　　*BQ ALIGN*
The definition of THP_next starts with "THP is a variable..." Should it be THP_next? (BQ ALIGN, i-116)

*SuggestedRemedy*
Change "THP" to "THP_next". Additionally, the same issue occurs in the THP_tx definition. Change "THP" to "THP_tx" there too.

*Response*　　　　　*Response Status* **C**
ACCEPT.

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: Clause, Subclause, page, line
*Cl* **126**
*SC* **126.4.5.1**
Page 15 of 43
3/16/2016  1:12:31 PM

*Cl* **126**    *SC* **126.4.6.1**         *P* **138**     *L* **38**       # 397
Yseboodt, Lennart                Philips

*Comment Type* **E**      *Comment Status* **A**                          *EZ*
In Figure 126-26 there are arrows going to a label called "I".
        The drawing of this label is assymetric.

*SuggestedRemedy*
Make label drawing symmetric.

*Response*                 *Response Status* **C**
ACCEPT.

---

*Cl* **126**    *SC* **126.4.6.2**         *P* **139**     *L* **1**        # 243
Zimmerman, George                CME Consulting/Aqua

*Comment Type* **E**      *Comment Status* **A**                    *BQ ALIGN*
Inconsistencies in font size and text box styles in individual state diagrams, e.g., when
comparing Figure 126-27 and Figure 126-28 (BQ ALIGN, i-60)

*SuggestedRemedy*
Please align font sizes and text box styles at least within this amendment.

*Response*                 *Response Status* **C**
ACCEPT.

---

*Cl* **126**    *SC* **126.4.6.2**         *P* **139**     *L* **16**       # 398
Yseboodt, Lennart                Philips

*Comment Type* **E**      *Comment Status* **A**                    *Formatting*
In Figure 126-27 the assignment to variables in the states is not done with
        the proper arrow symbol, but with "<=".

*SuggestedRemedy*
Replace by assignment operator (such as done in Fig 126-28).

*Response*                 *Response Status* **C**
ACCEPT IN PRINCIPLE.
Implemented by comment 243 (BQ ALIGN i-60) which redraws the figure in frame with the
proper assignment operator

---

*Cl* **126**    *SC* **126.5.3.3**         *P* **148**     *L* **39**       # 245
Zimmerman, George                CME Consulting/Aqua

*Comment Type* **E**      *Comment Status* **A**                    *BQ ALIGN*
"The SLAVE mode RMS period jitter test shall be run using the test configuration
shown in Figure 126–3" sounds a lot like a requirement on a person, not a conforming
device. Behavior of people is outside the scope of this standard. (BQ ALIGN, i-LATE)

*SuggestedRemedy*
Change "shall be run to "is measured" (consistent with elsewhere in the standard

*Response*                 *Response Status* **C**
ACCEPT.

---

*Cl* **126**    *SC* **126.5.3.4**         *P* **149**     *L* **10**       # 355
Hajduczenia, Marek                Bright House Network

*Comment Type* **E**      *Comment Status* **A**                          *EZ*
"The masks are shown graphically in Figure 126–36" - clearly, these are shown graphically
on a figure …

*SuggestedRemedy*
Change to "These masks are shown in Figure 126–36"

*Response*                 *Response Status* **C**
ACCEPT.

---

*Cl* **126**    *SC* **126.5.3.4**         *P* **149**     *L* **29**       # 356
Hajduczenia, Marek                Bright House Network

*Comment Type* **TR**     *Comment Status* **A**                         *PMA*
Unclear note: "UpperPSDf☐☐maxPSD1f☐☐Equation55-96–☐☐☐"

*SuggestedRemedy*
Clarify what the intention of reference to Equation 55-9 is and what "-6)" is for

*Response*                 *Response Status* **C**
ACCEPT IN PRINCIPLE. Change to:
UpperPSD(f) <=  max ( PSD1(f), (Equation 55-9)  - 6 dB ) )

Add clarifying text on line 11, prior to "The masks are shown..." inserting sentence:
"In the highest frequency segment, the PSD mask is the maximum of the PSD specified for
2.5G/5GBASE-T, or 6 dB less than that specified in Clause 55 by Equation 55-9."

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general          *Cl* **126**          Page 16 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected     RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn    *SC* **126.5.3.4**       3/16/2016  1:12:31 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **126**     *SC* **126.5.3.5**          *P* **150**          *L* **35**          # 267
Zimmerman, George                    CME Consulting/Aqua

*Comment Type*   **T**        *Comment Status*  **A**                         *PMA*
Does the frequency requirement also apply to SLAVE PHYs? (related to BQ unsatisfied comment i-93)

*SuggestedRemedy*
Change "When the transmitter is" to
"For a MASTER PHY, when the transmitter is"

A specification for the SLAVE is not required during either during normal operation, MASTER in LPI, or SLAVE in LPI.
During normal operation and SLAVE in LPI the SLAVE has no trouble tracking since the MASTER is always transmitting.

When MASTER is in LPI the loop timing of the SLAVE is not in open loop since the MASTER has to send refresh signal periodically

*Response*                    *Response Status*  **C**
ACCEPT.

*Cl* **126**     *SC* **126.5.4.1**          *P* **150**          *L* **48**          # 246
Zimmerman, George                    CME Consulting/Aqua

*Comment Type*   **E**        *Comment Status*  **A**                         *BQ ALIGN*
the requirement "shall be satisfied" is going to be very hard to validate as no specification for "satisfaction" are given in this standard. I think the "shall" belongs in the previous sentence, and here we mean that the requirement is demonstrated by the frame error ration given. (BQ ALIGN, i-LATE)

*SuggestedRemedy*
Change "are received" to "shall be received"
Change "This specification shall be satisfied by" to "This specification can be verified by"

*Response*                    *Response Status*  **C**
ACCEPT.

*Cl* **126**     *SC* **126.5.4.3**          *P* **151**          *L* **17**          # 276
Moffitt, Bryan                       Commscope

*Comment Type*   **E**        *Comment Status*  **R**                         *CMRR*
Calibration is generally a thing that is done ahead of measurement, although it can also be applied post-measurement (but not here). The use of terms in this clause does not appear correct in that "held" and "calibrated" seem incoherent. It also appears to preclude the concerns about equipment frequency switching transients that were discussed and agreed to be avoided in adhoc.

*SuggestedRemedy*
Change this sentence:
A sine wave with the amplitude held constant over the whole frequency range from 80 MHz to 1000 MHz, with the amplitude calibrated so that the signal power measured at the output of the clamp does not exceed 6dBm, is used to generate the external electromagnetic field and corresponding currents.
To:
A sine wave with the amplitude controlled over the whole frequency range from 80 MHz to 1000 MHz, this control and the calibration that ensures the signal power measured at the output of the clamp does not exceed 6dBm, is used to generate the external electromagnetic field and corresponding currents.

*Response*                    *Response Status*  **C**
REJECT.
Commenters proposed remedy does not help clarity.

*Cl* **126**     *SC* **126.5.4.3**          *P* **151**          *L* **24**          # 247
Zimmerman, George                    CME Consulting/Aqua

*Comment Type*   **E**        *Comment Status*  **A**                         *BQ ALIGN*
Change "6dBm" to "6 dBm" (missing space)   (BQ ALIGN, i-118)

*SuggestedRemedy*
See comment (add space)

*Response*                    *Response Status*  **C**
ACCEPT.

*Cl* **126**     *SC* **126.5.4.4**          *P* **151**          *L* **32**          # 248
Zimmerman, George                    CME Consulting/Aqua

*Comment Type*   **E**        *Comment Status*  **A**                         *BQ ALIGN*
injected into each MDI inputs (should be a singular sense?) (BQ ALIGN, i-143)

*SuggestedRemedy*
Change to "injected into each MDI input"

*Response*                    *Response Status*  **C**
ACCEPT.

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general                    *Cl* **126**          Page 17 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected     RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn          *SC* **126.5.4.4**     3/16/2016  1:12:31 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **126**    *SC* **126.6**               *P* **152**          *L* **33**         # 393
Marris, Arthur                   Cadence Design Syst

*Comment Type* **E**     *Comment Status* **A**              *EZ*
grammar

*SuggestedRemedy*
change "makes" to "make"

*Response*            *Response Status* **C**
ACCEPT.

---

*Cl* **126**    *SC* **126.6.1.1**          *P* **153**         *L* **6**         # 361
Hajduczenia, Marek           Bright House Network

*Comment Type* **E**     *Comment Status* **A**         *Formatting*
Incorrect table format - heading row is not emphasized correctly

*SuggestedRemedy*
Please apply proper IEEE table style to Table 126–15, the same as used in Table 126–16

*Response*            *Response Status* **C**
ACCEPT.

---

*Cl* **126**    *SC* **126.6.1.2**          *P* **154**         *L* **21**       # 204
McClellan, Brett                Marvell

*Comment Type* **T**     *Comment Status* **A**              *EZ*
change U25 to match 802.3bq

*SuggestedRemedy*
change "Reserved, transmit as 0"
to "25GBASE-T ability
(1 = support of 25GBASE-T and 0 = no support)"
add "Defined in 45.2.7.10.4b" under description

*Response*            *Response Status* **C**
ACCEPT IN PRINCIPLE.
Accept comment proposed remedy.

Additionally, U12 and U11 base text need alignment to 802.3bq D3.1. Since Clause 126 is new, there is no need to show edit, text for U12 and U11 should read MultiGBASE-T, without strikeout text or underline markings.

---

*Cl* **126**    *SC* **126.6.2**          *P* **156**         *L* **49**       # 362
Hajduczenia, Marek           Bright House Network

*Comment Type* **E**     *Comment Status* **A**         *Formatting*
Inconsistent formatting for lists: "SB0...SB10" and in most locations lists are shown as "SB0, …, SB10" - please update for consistency, at least within this draft

*SuggestedRemedy*
Per comment

*Response*            *Response Status* **C**
ACCEPT.

---

*Cl* **126**    *SC* **126.6.2**          *P* **156**         *L* **51**       # 363
Hajduczenia, Marek           Bright House Network

*Comment Type* **E**     *Comment Status* **A**         *Formatting*
Variable value comparison: "link_status_2p5GigT=FAIL" or "link_status_2p5GigT = FAIL" (with spaces around = sign)???

*SuggestedRemedy*
Pick one style, use consistently. For example, P802.3bp uses = with surrounding non-breakable spaces to control text flow

*Response*            *Response Status* **C**
ACCEPT IN PRINCIPLE.
Include (nonbreakable) spaces around = sign

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general        *Cl* **126**        Page 18 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected    RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn        *SC* **126.6.2**        3/16/2016  1:12:31 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **126**  *SC* **126.7**    *P* **157**   *L* **50**   # 375

Maguire, Valerie      Siemon

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

This application was also designed for operation over Class E.

*SuggestedRemedy*

Replace, "2.5G/5GBASE-T is designed to operate over ISO/IEC 11801 Class D 4-pair balanced cabling that meets the additional requirements specified in this subclause."

with, "2.5G/5GBASE-T is designed to operate over ISO/IEC 11801 Class D or Class E 4-pair balanced cabling that meets the additional requirements specified in this subclause."

*Proposed Response*  *Response Status* **Z**

REJECT.

This comment was WITHDRAWN by the commenter.

The minimum requirements (link segment transmission parameters) are based on Cat5e, operation on other classes of cabling may be supported if the link segment meets the requirements of 126.7.

*Cl* **126**  *SC* **126.7**    *P* **157**   *L* **50**   # 376

Maguire, Valerie      Siemon

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

Recognize support of 2.5G/5GBASE-T with TIA cabling.

*SuggestedRemedy*

Insert new second sentence as follows, "2.5G/5GBASE-T is also designed to operate over ANSI/TIA-568-C.2 Category 5e or Category 6 4-pair balanced cabling that meets the additional requirements specified in this subclause."

*Response*  *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change: "2.5G/5GBASE-T is designed to operate over ISO/IEC 11801 Class D 4-pair balanced cabling that meets the additional requirements specified in this subclause."

to: "2.5GBASE-T and 5GBASE-T are designed to operate over Category 5e/Class D 4-pair balanced cabling that meets the additional requirements specified in this subclause."

*Cl* **126**  *SC* **126.7**    *P* **157**   *L* **51**   # 364

Hajduczenia, Marek     Bright House Network

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

"effective data rate of 625 Mb/s in each direction simultaneously" - likely, per pair, otherwise the aggregate of 2.5Gbps is not achieved

*SuggestedRemedy*

Change "effective data rate of 625 Mb/s in each direction simultaneously" to "effective data rate of 625 Mb/s per pair, in each direction simultaneously"
Same change in line 52 for 1250 Mb/s data rate

*Response*  *Response Status* **C**

ACCEPT.

*Cl* **126**  *SC* **126.7.1**    *P* **158**   *L* **13**   # 377

Maguire, Valerie      Siemon

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

Recognize support of 2.5GBASE-T with TIA cabling. Note: Please insert "/Category 6" TIA reference if Maguire comment to add Class E here is accepted.

*SuggestedRemedy*

Replace, "2.5GBASE-T is an ISO/IEC 11801-2002 Class D application,"

With, "2.5GBASE-T is an ISO/IEC 11801-2002 Class D and ANSI/TIA-568-C.2 Category 5e application,"

*Response*  *Response Status* **C**

ACCEPT IN PRINCIPLE.
See comment#380

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general    *Cl* **126**   Page 19 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected  RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn   *SC* **126.7.1**   3/16/2016  1:12:31 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **126**　　*SC* **126.7.1**　　　　　　*P* **158**　　*L* **16**　　　　# 378
Maguire, Valerie　　　　　　　　Siemon

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

Recognize support of 5GBASE-T with TIA cabling.  Note: Please insert "/ Category 6" TIA reference if Maguire comment to add Class E here is accepted.

*SuggestedRemedy*

Replace, "5GBASE-T is an ISO/IEC 11801-2002 Class D application,"

With, "5GBASE-T is an ISO/IEC 11801-2002 Class D and ANSI/TIA-568-C.2 Category 6 application,"

*Proposed Response*　　*Response Status*　**Z**
REJECT.

This comment was WITHDRAWN by the commenter.


Recognize support of 5GBASE-T with TIA cabling. See comment#380

*Cl* **126**　　*SC* **126.7.1**　　　　　　*P* **158**　　*L* **20**　　　　# 374
Maguire, Valerie　　　　　　　　Siemon

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

While it's likely that the term "shielding" is used here to refer to a type of cabling, it could be misinterpreted to mean other types of metallic isolation between cables (e.g. metal conduit).  Either way, this bullet is superfluous and unecessary.

*SuggestedRemedy*

Delete, "c)The use of shielding is outside the scope of this specification."

*Response*　　　　　*Response Status*　**C**
ACCEPT IN PRINCIPLE.
See comment 380 which implements this change as part of a larger remedy

*Cl* **126**　　*SC* **126.7.1**　　　　　　*P* **158**　　*L* **8**　　　　# 381
Maguire, Valerie　　　　　　　　Siemon

*Comment Type*　**TR**　　*Comment Status*　**D**　　　　　　　*Cabling*

The first sentence in this subclause is incorrect in that 2.5G/5GBASE-T requires something more than ISO/IEC 11801:2002 Class D cabling.  Also, Class E is not mentioned.

*SuggestedRemedy*

Delete "2.5G/5GBASE-T requires 4 pair Class D cabling with a nominal impedance of 100 W., as specified in ISO/IEC 11801:2002." Delete "Additionally:".  Remove the a), b) and c) bullets.  Move the sentence starting with "Operation to the end of the subclause.  Insert Class E reference in two locations.  Like this:

2.5GBASE-T is an ISO/IEC 11801-2002 Class D/ Class E application, with additional installation requirements and transmission parameters specified in this clause.  5GBASE-T is an ISO/IEC 11801-2002 Class D/ Class E application, with additional installation requirements and transmission parameters specified in this clause, including extended frequency performance beyond that specified for Class D Channels. The use of shielding is outside the scope of this specification.

Operation on other classes of cabling may be supported if the link segment meets the requirements of 126.7.

*Proposed Response*　　*Response Status*　**Z**
REJECT.

This comment was WITHDRAWN by the commenter.


The bullets under additionally state the "additions" to Class D.

See comment#380 for addition of TIA references,

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: Clause, Subclause, page, line

*Cl* **126**
*SC* **126.7.1**

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*Cl* **126**     *SC* **126.7.2**          *P* **158**     *L* **23**          # 382

Maguire, Valerie                    Siemon

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

This sentence is extremely unclear and does not appear to address the 2.5GBASE-T link segment.

*SuggestedRemedy*

Replace, "A link segment consisting of up to 100 m of Class D with extended frequency specifications for 5GBASE-T that meets the transmission parameters of this subclause provides a reliable medium."

With, "A link segment consisting of up to 100 m of 4-pair balanced that meets the transmission parameters of this subclause provides a reliable medium for support of 2.5G/5GBASE-T."

A link segment consisting of up to 100 m of Class E or up to 100 m of Class F that meets the transmission
parameters of this subclause provides a reliable medium.

*Response*                *Response Status*  **C**

ACCEPT IN PRINCIPLE.
Replace, "A link segment consisting of up to 100 m of Class D with extended frequency specifications for 5GBASE-T that meets the transmission parameters of this subclause provides a reliable medium."

With, "A link segment consisting of up to 100 m of Category 5e/Class D 4-pair balanced cabling that meets the transmission parameters of this subclause (including extended frequency specifications for 5GBASE-T) provides a reliable medium for support of 2.5GBASE-T and 5GBASE-T."

*Cl* **126**     *SC* **126.7.2**          *P* **158**     *L* **31**          # 269

Flatman, Alan                    Independent

*Comment Type*  **E**    *Comment Status*  **D**                    *Cabling*

Link segment lengths in Table 126-18 should be "up to 100m"

*SuggestedRemedy*

Insert "up to" in both cases

*Proposed Response*          *Response Status*  **Z**

REJECT.

This comment was WITHDRAWN by the commenter.

Table 126–18— footnotes include suggested text i.e., (a and b)Supported link segments up to 100 m.

Usage consistent with 55.7.2.

*Cl* **126**     *SC* **126.7.2**          *P* **158**     *L* **31**          # 365

Hajduczenia, Marek                    Bright House Network

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

Odd format of Table 126-18 and 126-19

*SuggestedRemedy*

Please apply official IEEE style for this table - not sure what is used right now, but it looks different than other tables in the draft

*Response*                *Response Status*  **C**

ACCEPT.

*Cl* **126**     *SC* **126.7.2**          *P* **158**     *L* **35**          # 249

Zimmerman, George                    CME Consulting/Aqua

*Comment Type*  **E**    *Comment Status*  **A**                    *BQ ALIGN*

Incorrect table format for Tables 126-18 and 126-19 (BQ ALIGN, i-62)

*SuggestedRemedy*

Please apply proper style (and fix offending line thickness) The same observation applies to both tables 126-18 and 126-19.

*Response*                *Response Status*  **C**

ACCEPT.

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general          *Cl* **126**          Page 21 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected     RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn          *SC* **126.7.2**          3/16/2016  1:12:31 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **126**    *SC* **126.7.2**        *P* **158**        *L* **39**        # 270

Flatman, Alan                Independent

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

Notes a) and b) are identical.

*SuggestedRemedy*

Use only Note a)

*Response*           *Response Status*  **C**

ACCEPT.

---

*Cl* **126**    *SC* **126.7.2**        *P* **158**        *L* **40**        # 383

Maguire, Valerie             Siemon

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

Class EA/Category 6A, Class F, and Class FA also support 2.5GBASE-T.

*SuggestedRemedy*

Add three new rows to the end of Table 126-18 to align with the last three rows in Table 55-17 of 802.3-2015.  Here are the items in non-tabular and non-formatted (e.g. "A" should be subscript in two locations) form:

Class EA/ Category 6A  100 m  ISO/IEC 11801:2002/Amendment 1 /ANSI/TIA-568-C.2

Class F           100 m  ISO/IEC TR 24750

Class FA         100 m  ISO/IEC 11801:2002 Amendment 1

*Response*           *Response Status*  **C**

ACCEPT IN PRINCIPLE. Add as footnote (c) to both tables 126-18 and 126-19 attached to "Cabling" (header): "A link segment consisting of up to 100m of Category 6A/Class EA or better will meet the transmission parameters of 126.7 and provide a reliable medium for 2.5GBASE-T without further qualification." (text shown is for Table 126-18, addition to Table 126-19 has 5GBASE-T)

---

*Cl* **126**    *SC* **126.7.2**        *P* **158**        *L* **41**        # 275

Malicoat, David            HPE

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

Notes a) and b) are identical.

*SuggestedRemedy*

Consolidate 'a' and 'b' to a single noe for Table 126-18

*Response*           *Response Status*  **C**

ACCEPT.

---

*Cl* **126**    *SC* **126.7.2**        *P* **158**        *L* **41**        # 278

Thompson, Geoff           GraCaSI S.A.

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

Two footnotes have same content.

*SuggestedRemedy*

Consolidate into single footnote.

*Response*           *Response Status*  **C**

ACCEPT.

---

*Cl* **126**    *SC* **126.7.2**        *P* **159**        *L* **11**        # 272

Flatman, Alan                Independent

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

Notes a) and b) are identical.

*SuggestedRemedy*

Use only Note a)

*Response*           *Response Status*  **C**

ACCEPT.

---

*Cl* **126**    *SC* **126.7.2**        *P* **159**        *L* **12**        # 384

Maguire, Valerie             Siemon

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

Class EA/Category 6A, Class F, and Class FA also support 5GBASE-T.

*SuggestedRemedy*

Add three new rows to the end of Table 126-18 to align with the last three rows in Table 55-17 of 802.3-2015.  Here are the items in non-tabular and non-formatted (e.g. "A" should be subscript in two locations) form:

Class EA/ Category 6A  100 m  ISO/IEC 11801:2002/Amendment 1 /ANSI/TIA-568-C.2

Class F           100 m  ISO/IEC TR 24750

Class FA         100 m  ISO/IEC 11801:2002 Amendment 1

*Response*           *Response Status*  **C**

ACCEPT IN PRINCIPLE.
(See resolution  in comment 383)

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general        *Cl* **126**        Page 22 of 43

COMMENT STATUS: D/dispatched  A/accepted  R/rejected    RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn      *SC* **126.7.2**        3/16/2016  1:12:31 PM

SORT ORDER: Clause, Subclause, page, line

*Cl* **126**　　　*SC* **126.7.2**　　　　　*P* **159**　　　*L* **13**　　　# 279
Thompson, Geoff　　　　　　　GraCaSI S.A.

*Comment Type* **E**　　*Comment Status* **A**　　　　　　　*EZ*
Two footnotes have same content.

*SuggestedRemedy*
Consolidate into single footnote.

*Response*　　　　　　*Response Status* **C**
ACCEPT.

---

*Cl* **126**　　　*SC* **126.7.2**　　　　　*P* **159**　　　*L* **13**　　　# 274
Malicoat, David　　　　　　　HPE

*Comment Type* **E**　　*Comment Status* **A**　　　　　　　*EZ*
Notes a) and b) are identical.

*SuggestedRemedy*
Consolidate 'a' and 'b' to a single noe for Table 126-19

*Response*　　　　　　*Response Status* **C**
ACCEPT.

---

*Cl* **126**　　　*SC* **126.7.2**　　　　　*P* **159**　　　*L* **17**　　　# 379
Maguire, Valerie　　　　　　　Siemon

*Comment Type* **T**　　*Comment Status* **A**　　　　　　　*Cabling*
Since ISO/IEC 11801 Class D and ANSI/TIA-568-C.2 Category 5e do not specify signal-to-alien crosstalk ratio, this statement is not correct. In light of Table 126-18 and other text in this clause and clause 126.7.1, a statement of this type also seems unecessary.

*SuggestedRemedy*
Delete, "The link segment transmission parameters for 2.5GBASE-T are equivalent to ISO/IEC 11801 Class D and ANSI/TIA-568-C.2 Category 5e."

*Response*　　　　　　*Response Status* **C**
ACCEPT IN PRINCIPLE.

See resolution to comment#380

---

*Cl* **126**　　　*SC* **126.7.2**　　　　　*P* **159**　　　*L* **19**　　　# 380
Maguire, Valerie　　　　　　　Siemon

*Comment Type* **T**　　*Comment Status* **A**　　　　　　　*Cabling*
In light of Table 126-19 and other text in this clause and clause 126.7.1, this statement seems redundant and unecessary. Consider with other Maguire comment addressing the sentence on line 17 of page 159.

*SuggestedRemedy*
Delete, "The link segment transmission parameters for 5GBASE-T are equivalent to ISO/IEC 11801 Class D and ANSI/TIA-568-C.2 Category 5e specifications with the upper frequency extended to 250 MHz and appropriate adjustments for length when applicable as specified in ISO/IEC TR 11801-9904 and TIA TSB-5021."

*Response*　　　　　　*Response Status* **C**
ACCEPT IN PRINCIPLE.

Delete: The link segment transmission parameters for 2.5GBASE-T are equivalent to ISO/IEC 11801 Class D and
ANSI/TIA-568-C.2 Category 5e. The link segment transmission parameters for 5GBASE-T are equivalent
to ISO/IEC 11801 Class D and ANSI/TIA-568-C.2 Category 5e specifications with the upper frequency extended to 250 MHz and appropriate adjustments for length when applicable as specified in ISO/IEC TR 11801-9904 and TIA TSB-5021."

Move TIA ISO/IEC TR and 5021 references under additionally:

Change P158 L12-19 ("Additionally:, a, b, and c") deleting the bullet on shielding and adding the TIA references to read:
 Additionally:
a) 2.5GBASE-T is an ISO/IEC 11801-2002 Class D and ANSI/TIA-568-C.2 Category 5e application, with additional installation requirements and transmission parameters specified in this clause.
b) 5GBASE-T is an ISO/IEC 11801-2002 Class D and ANSI/TIA-568-C.2 Category 5e application, with additional installation requirements and transmission parameters specified in this clause, including extended frequency performance beyond that specified for Class D and Category 5e.
C) Refer to ISO/IEC TR 11801-9904 and TIA TSB-5021 for support of 2.5GBASE-T and 5GBASE-T over installed cabling.
D) Supported cabling types and distances for 2.5GBASE-T and 5GBASE-T are listed in Table 126–18 and Table 126-19 respectively.

---

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: Clause, Subclause, page, line

*Cl* **126**
*SC* **126.7.2**

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3/16/2016  1:12:31 PM

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*Cl* **126**     *SC* **126.7.2**        *P* **159**     *L* **3**        # 271

Flatman, Alan                          Independent

*Comment Type*  **E**        *Comment Status*  **D**

Link segment lengths in Table 126-19 should be "up to 100m"

*SuggestedRemedy*

Insert "up to" in both cases

*Proposed Response*         *Response Status*  **Z**

REJECT.

This comment was WITHDRAWN by the commenter.

Table 126–19— footnotes include suggested text i.e., (a and b)Supported link segments up to 100 m.

Usage consistent with 55.7.2.

---

*Cl* **126**     *SC* **126.7.2.1**      *P* **159**     *L* **26**       # 280

Thompson, Geoff                        GraCaSI S.A.

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

Insertion loss does not fully account for the cabling between PMDs

*SuggestedRemedy*

Change "channel" to "link segment" throughout sub-clause

*Response*                  *Response Status*  **W**

ACCEPT IN PRINCIPLE.

In subclause 126.7 Link segment characteristics add duplex channel to link segment definition.

At P157 L52, change the following sentence, by appending "termed "duplex channels".":

"The term "link segment" used in this clause refers to four twisted pairs operating in full duplex termed "duplex channels"."

---

*Cl* **126**     *SC* **126.7.2.1**      *P* **159**     *L* **29**       # 273

Flatman, Alan                          Independent

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

Formula 126-11 is the TIA insertion loss for a Cat 5e channel. ISO/IEC Class D insertion loss is slightly higher at very low frequencies (I think below 3MHz). At 1MHz, TIA IL = 2.2dB and ISO/IEC IL = 4dB.

*SuggestedRemedy*

Need to evaluate the impact of higher IL for ISO/IEC Class D at very low frequencies.

*Proposed Response*         *Response Status*  **Z**

REJECT.

This comment was WITHDRAWN by the commenter.

---

*Cl* **126**     *SC* **126.7.2.2**      *P* **159**     *L* **42**       # 277

Moffitt, Bryan                         Commscope

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

Nominal and Characteristic are very specific words, improperly used here. Nominal has a different meaning than a frequency dependent spec. Impedance is not a constant across the frequency range and the nominal generally refers to an idealized asymptotic impedance. It is a statement of design and manufacturing intent and not a spec across a frequency range. See similar usage in TIA-568-C.2 section B.7.1.1 and C.4.10.8.4.4.

*SuggestedRemedy*

Change:
The nominal differential characteristic impedance of each link segment duplex channel, which includes
cable cords and connecting hardware, is 100Ohm for all frequencies between 1 MHz and 250 MHz.
TO:
The nominal differential characteristic impedance of each link segment duplex channel, which includes
cable cords and connecting hardware, is 100 Ohm.

*Response*                  *Response Status*  **C**

ACCEPT.

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general            *Cl*  **126**              Page 24 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected     RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn       *SC*  **126.7.2.2**        3/16/2016  1:12:31 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **126**        *SC* **126.7.2.4.1**              *P* **160**            *L* **22**            #  281
Thompson, Geoff                         GraCaSI S.A.

*Comment Type*  **E**        *Comment Status*  **R**                              *Cabling*
Grammar

*SuggestedRemedy*
Change "Since" to "As".

*Response*                    *Response Status*  **C**
REJECT.
Consistent with language used in other BASE-T PHYs e.g., 55.

---

*Cl* **126**        *SC* **126.7.2.4.1**              *P* **160**            *L* **25**            #  202
McClellan, Brett                        Marvell

*Comment Type*  **TR**        *Comment Status*  **A**                              *EZ*
This paragraph describes MDNEXT loss, but should discuss NEXT loss.

*SuggestedRemedy*
Replace this paragraph with the following text:

"In order to limit the crosstalk at the near end of a link segment, the differential pair-to-pair near-end crosstalk (NEXT) loss between a duplex channel and the other three duplex channels is specified to meet the bit error rate specified in 126.5.4.1. The NEXT loss between any two 2.5GBASE-T duplex channels of a link segment shall meet the values determined using Equation (126–13). The NEXT loss between any two 5GBASE-T duplex channels of a link segment shall meet the values determined using Equation (126–14). The factor of 2 in Equation (126–13) and Equation (126–14) corresponds to the number of connectors at the near-end of the duplex channels."

*Response*                    *Response Status*  **C**
ACCEPT.

---

*Cl* **126**        *SC* **126.7.2.4.1**              *P* **160**            *L* **52**            #  367
Hajduczenia, Marek                      Bright House Network

*Comment Type*  **T**        *Comment Status*  **R**                              *Cabling*
Unnecessary requirement: "Calculations that result in NEXT loss values greater than 60 dB shall revert to a requirement of 60 dB minimum."

*SuggestedRemedy*
Either update equations showing min(60,current equation), or alternatively (preferred):
- strike text in line 52/53
- change "The power sum loss between a duplex channel and the three adjacent disturbers shall meet the values determined using Equation (126–13)." to "The power sum loss between a duplex channel and the three adjacent disturbers shall meet the values determined using Equation (126–13), or 60 dB, whichever is smaller."
- change "Additionally, the power sum of the individual NEXT loss of each 5GBASE-T duplex channel shall meet the values determined using Equation (126–14)." to "The power sum of the individual NEXT loss of each 5GBASE-T duplex channel shall meet the values determined using Equation (126–14), or 60 dB, whichever is smaller."
Update PICS as needed
Similar changes in 126.7.2.4.2

*Response*                    *Response Status*  **C**
REJECT.


Although the commentor may provide more efficient language to specify the minimum, the current language is consistent with other BASE-T specifications and cabling standards for this parameter.

---

*Cl* **126**        *SC* **126.7.2.4.2**              *P* **161**            *L* **3**            #  282
Thompson, Geoff                         GraCaSI S.A.

*Comment Type*  **E**        *Comment Status*  **R**                              *Cabling*
Grammar

*SuggestedRemedy*
Change "Since" to "As".

*Response*                    *Response Status*  **C**
REJECT.

Consistent with language used in other BASE-T PHYs e.g., 55.

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general                    *Cl* **126**                Page 25 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected      RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn        *SC* **126.7.2.4.2**        3/16/2016  1:12:31 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **126**     *SC* **126.7.2.4.4**          *P* **162**          *L* **50**          # 420
Diminico, Chris                         MC Communications

*Comment Type*  **T**        *Comment Status*  **A**                          *LATE*
Typo in equation 126-21 (LATE COMMENT)

*SuggestedRemedy*
Change 67.8 to 63.8 in Equation 126-21

*Response*                *Response Status*  **C**
ACCEPT.

---

*Cl* **126**     *SC* **126.7.2.4.5**          *P* **163**          *L* **6**          # 283
Thompson, Geoff                      GraCaSI S.A.

*Comment Type*  **E**        *Comment Status*  **R**                          *Cabling*
Grammar

*SuggestedRemedy*
Change "Since" to "As".

*Response*                *Response Status*  **C**
REJECT.

Consistent with language used in other BASE-T PHYs e.g., 55.

---

*Cl* **126**     *SC* **126.7.3.1**          *P* **164**          *L* **25**          # 266
Zimmerman, George                   CME Consulting/Aqua

*Comment Type*  **TR**        *Comment Status*  **A**                          *ALSNR*
ALSNRcriteria procedure is unclear in multiple places.  Text has been clarified by
consensus in parallel discussions in TIA.  Additionally, lab measurements have shown
need to adjust passing criteria to model real-world performance, which is better than this
criterion currently suggests

*SuggestedRemedy*
Presentation to be provided, aligning base text with text contributed to TIA TSB-5021, and
adjusting criteria for passing.

*Response*                *Response Status*  **C**
ACCEPT IN PRINCIPLE.
Accept zimmerman_3bz_01_0316.pdf text for ALNSRcriteria replacement. Replace TBDs
in Table 126-23 as follows TBD1= -129 dBm/Hz, TBD2=-135 dBm/Hz. Add editors note
that review is encouraged for SNRlinkreq and noise terms. Editorial licence given to
implement.

---

*Cl* **126**     *SC* **126.7.3.1**          *P* **164**          *L* **33**          # 205
McClellan, Brett                      Marvell

*Comment Type*  **T**        *Comment Status*  **D**                          *ALSNR*
100MHz is for 2.5G,  should also state 200MHz for 5G

*SuggestedRemedy*
Change "below 100 MHz"
to "below 100 MHz for 2.5GBASE-T and 200MHz for 5GBASE-T.

*Proposed Response*            *Response Status*  **Z**
REJECT.

This comment was WITHDRAWN by the commenter.

Full text is: "NOTE—While disturbing signals may contain higher frequencies, the received
power, which determines the
power back off, is dominated by the power below 100 MHz."  The effect described is due to
the insertion loss of the cabling and is not a function of the PHY type.

---

*Cl* **126**     *SC* **126.7.3.1**          *P* **165**          *L* **1**          # 368
Hajduczenia, Marek                  Bright House Network

*Comment Type*  **ER**        *Comment Status*  **A**                          *ALSNR*
Eq 126-25 and 126-26 are very busy - consider breakign them into two lines for simpler
read - font is very small, especially on Eq 26

*SuggestedRemedy*
Per comment
There are also other equations in the same section where font on some elemnts is too
small (see e.g. 31, 32 exponents)

*Response*                *Response Status*  **C**
ACCEPT IN PRINCIPLE.
Editor to reformat equations  126-25 and 126-26 as necessary to maintain adequat font
size, as part of rework, see comment 266

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general          *Cl* **126**                Page 26 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected     RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn          *SC* **126.7.3.1**          3/16/2016  1:12:31 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **126**    *SC* **126.7.3.1**    *P* **165**    *L* **8**    # 399

Yseboodt, Lennart    Philips

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

Equation 126-26 is of smaller font than other Equations and so wide it bumps the Equation number out of the way.

*SuggestedRemedy*

Suggest to use normal font size and use an array to split this equation over multiple vertical lines.
A split at the minus and plus signs seems natural.

*Response*    *Response Status* **C**

ACCEPT IN PRINCIPLE.
Editor to reformat equation to use normal 10pt font as part of rework, see comment 266

---

*Cl* **126**    *SC* **126.7.3.1**    *P* **165**    *L* **8**    # 203

McClellan, Brett    Marvell

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

font size is wrong

*SuggestedRemedy*

fix font size

*Response*    *Response Status* **C**

ACCEPT IN PRINCIPLE.
Editor to reformat equation as necessary and provide consistent font size.

---

*Cl* **126**    *SC* **126.7.3.1**    *P* **166**    *L* **30**    # 369

Hajduczenia, Marek    Bright House Network

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

Strange symbols above R in Equations 31, 32 in term PSAFEXT_PSDNRN,Rf() - seems like an odd dash is present, when zoomed in

*SuggestedRemedy*

Please confirm it is supposed to be there, and if so, mark is clearly - right now it looks like an accidental insertion fo some symbol
If it is intended to be an arrow, it is not readable right now (font too small, too close to R itself)

*Response*    *Response Status* **C**

ACCEPT IN PRINCIPLE.
Nomenclature to be adjusted, see comment 266.

---

*Cl* **126**    *SC* **126.8.1**    *P* **167**    *L* **50**    # 370

Hajduczenia, Marek    Bright House Network

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

Is there anythign new about the connectors from what is done for 1000BASE-T/10GBASE-T over twisted pair?

*SuggestedRemedy*

If not, suggest to point to existing spec, rather than repeat text

*Response*    *Response Status* **C**

REJECT.
Mechanical interface is identical, but is repeated here for clarity.

---

*Cl* **126**    *SC* **126.8.1**    *P* **168**    *L* **5**    # 400

Yseboodt, Lennart    Philips

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

Figure 126-38 of the MDI connector does not contain a labeling of the pin numbers.

*SuggestedRemedy*

Add pin numbers. See Figure 33-8 in 802.3-2012 Clause 33.

*Response*    *Response Status* **C**

REJECT.
Pin 1 is indicated.  Text and figure are identical to Clauses 40, 55, and 113.  (Figure 33-8 is the outlier)

---

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: Clause, Subclause, page, line

*Cl* **126**
*SC* **126.8.1**

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*Cl* **126**      *SC* **126.8.2.2**           *P* **169**      *L* **20**           # 268

Bains, Amrik                         Cisco Systems

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

Clause 126.8.2.2 specifies MDI impedance balance to be same for 2.5G and 5G derived from Clause 55 but scaled for bandwidth of 250MHz instead of 500MHz. Since 2.5G BW requirement is 150MHz, current specification is too conservative, adds complexity/cost. Refer to "bains_3bz_01_0316" contribution for details

*SuggestedRemedy*

Add 2.5G Impedance Balance parameters as on slide 10 of bains_3bz_01_0316.pdf as well as NOTE on slide 10 to the end of clause 128.8.2.2.

*Response*                  *Response Status*  **C**

ACCEPT IN PRINCIPLE.
See presentation http://www.ieee802.org/3/bz/public/mar16/bains_3bz_01a_0316.pdf

Add text at P169 L18, before sentence beginning with "When…":
"MDI impedance balance is specified beyond the Nyquist frequency of the PHY to account for system performance variation."

Insert equation for MDI Impedance Balance for 2.5GBASE-T before 126-38:
48 $1 \leq f < 10$ (dB)
48 - 20log10(f/10) $10 \leq f < 20$ (dB)
42 - 15log10(f/20) $20 \leq f \leq 125$ (dB)

Label Equation 126-38 as MDI Impedance Balance for 5GBASE-T and change to:
48 $1 \leq f < 30$ (dB)
44 – 19.2log10(f/50) $30 \leq f \leq 250$ (dB)

Delete Editor's note suggesting relaxing the MDI Impedance balance.

---

*Cl* **126**      *SC* **126.8.2.2**           *P* **169**      *L* **23**           # 401

Yseboodt, Lennart                    Philips

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

In Equation 126-38 it seems a closing curly brace has been forgotten.

*SuggestedRemedy*

Add closing curly brace.

*Response*                  *Response Status*  **C**

REJECT.
Task force maintained consistency with other nearby equations in style, and other IEEE Std 802.3-2015 clauses are quite inconsistent on this issue.

---

*Cl* **126**      *SC* **126.8.2.2**           *P* **169**      *L* **26**           # 250

Zimmerman, George                    CME Consulting/Aqua

*Comment Type*  **E**      *Comment Status*  **A**                         *BQ ALIGN*

Change "Test- Mode 5" to "Test mode 5" to be consistant with other instances of "test mode" throughout the draft (BQ ALIGN, i-120)

*SuggestedRemedy*

See comment

*Response*                  *Response Status*  **C**

ACCEPT.

---

*Cl* **126**      *SC* **126.8.2.2**           *P* **169**      *L* **28**           # 284

Thompson, Geoff                      GraCaSI S.A.

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

"Editor's Note (to be removed prior to WG ballot)" hasn't been.

*SuggestedRemedy*

Remove editor's note.

*Response*                  *Response Status*  **W**

ACCEPT.

---

*Cl* **126**      *SC* **126.9.4**            *P* **170**      *L* **42**           # 285

Thompson, Geoff                      GraCaSI S.A.

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

This clause is badly out of date as it does not include consideration of encountering PoE voltages from cross connect or mid-span

*SuggestedRemedy*

Rewrite to include mid-span consideration.  I suggest that you collaborate w/ P802.3bt on this effort.

*Response*                  *Response Status*  **W**

REJECT.
For compatibilty with a PSE, see 126.8.2.3 (P169, L51)

This clause (126.9.4) is entitled Telephony voltages, not general voltages which may be encountered, and not PoE. This clause is substantively identical to the same topic in Clause 40, for a PHY which IS specified for PoE, and no additional text was considered warranted by 802.3at, maintenance or the revision projects since 2009.

Additionally, as of this amendment, PoE is only specified for 10BASE-T, 100BASE-TX, and 1000BASE-T.  802.3bt may propose otherwise.

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general          *Cl* **126**          Page 28 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected     RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn          *SC* **126.9.4**          3/16/2016  1:12:31 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **126**  *SC* **127.7.2.1**  *P* **159**  *L* **36**  # 212
Shariff, Masood  CommScope

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

The correct terminology is work area cords,  equipment cords and connections.

including work area and equipment cables plus
connector losses within each duplex channel.

*SuggestedRemedy*

including work area and equipment cords plus
connection losses within each duplex channel.

*Proposed Response*  *Response Status* **Z**
REJECT.

This comment was WITHDRAWN by the commenter.

In BASE-T PHY specifications "connector" is well understood.

---

*Cl* **126**  *SC* **7.2**  *P* **159**  *L* **18**  # 209
Brillhart, Theodore  Fluke Electronics Corp

*Comment Type* **TR**  *Comment Status* **D**  *Cabling*

Statements that link segment transmission parameters for 2.5GBASE-T and 5GBASE-T
are equivalent to ISO/IEC 11801 Class D and ANSI/TIA-568-C.2 Category 5e will lead to
ambiguity with regard to requirements for impedance balance characteristics like TCL
(a.k.a. Unbalance Attenuation). The aforementioned parameters are specified by the
referenced ISO/IEC cabling standard but not the  ANSI/TIA standard for this cabling
category/class. Implementers of 802.3 are left wondering whether, or when, to account for
the minimum performance of these parameters for implementation of the 2.5G/5GBASE-T
standard
Additional considerations for the TG:
Given that the vast majority of installed Class D and Category 5e cabling is of an
unshielded construction (UTP), and given that impedance balance is the primary noise
rejection mechanism for these constructions, then it follows that clear minimum
performance requirements for these properties are needed for consistent implementation
of any system utilizing UTP link segments. A presentation has been submitted to aid in
visualizing the various requirements and proposals for impedance balance that exist within
the 802.3bz transmission system, and should be considered along with this comment.

*SuggestedRemedy*

Insert a new sub-clause within clause 126.7.2 with specific requirements for TCL and
ELTCTL that are equivalent to the ISO/IEC Class D requirements for these parameters
found in ISO/IEC 11801 Eddition 2.2 2011. This should include the restriction to UTP
cabling.
(Note: it would be considered freindly to the commentor if requirements for TCL  found in
ISO/IEC 11801:2002, or any minimum limits rationalized by the TG were to be substituted.)

*Proposed Response*  *Response Status* **Z**
REJECT.

This comment was WITHDRAWN by the commenter.

Resolve with comment#380 that deletes word equivalently.

Additionally,
>The link segment parameters in 126.7.2 are stated unambiguously. The link segment
parameters sufficiently characterize the transmission characteristics.
>Channel TCL is not specified in ANSI/TIA-568-C.2-2009 for Category 5e.

---

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: Clause, Subclause, page, line

*Cl* **126**
*SC* **7.2**

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*Cl* **28**　　*SC* **28.3.1**　　　　*P* **25**　　*L* **8**　　# 251

Zimmerman, George　　　　CME Consulting/Aqua

*Comment Type* **E**　　*Comment Status* **A**　　　　BQ ALIGN

In the editing instruction "the first list" should be "in the first list", subclause numbers are not preceded by "subclause", and the location should be specified. (BQ ALIGN, i-1)

*SuggestedRemedy*

Change the editing instruction to: "Insert rows for 25Gig T and 40GigT in the first list in 28.3.1 below the row for 10GigT as follows:

*Response*　　　　*Response Status* **C**

ACCEPT.

---

*Cl* **28B**　　*SC* **28B.3**　　　　*P* **187**　　*L* **14**　　# 344

Hajduczenia, Marek　　　　Bright House Network

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

Editor's note in line 14 is not needed

*SuggestedRemedy*

Remove, editorial instruction is clear already

*Response*　　　　*Response Status* **C**

ACCEPT.

---

*Cl* **28C**　　*SC* **28C.11**　　　　*P* **188**　　*L* **15**　　# 345

Hajduczenia, Marek　　　　Bright House Network

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

missing serial comma after "Clause 126 (2.5G/5GBASE-T)" in line 15

*SuggestedRemedy*

Per comment

*Response*　　　　*Response Status* **C**

ACCEPT.

---

*Cl* **28C**　　*SC* **28C.11**　　　　*P* **188**　　*L* **19**　　# 346

Hajduczenia, Marek　　　　Bright House Network

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

Extra space not shown in strike-through in "55.6.1, and 113.6.1"

*SuggestedRemedy*

Show one of spaces in strike-through either before or after "and"

*Response*　　　　*Response Status* **C**

ACCEPT.

---

*Cl* **30**　　*SC* **30**　　　　*P* **27**　　*L* **1**　　# 313

Hajduczenia, Marek　　　　Bright House Network

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

General comment on Clause 30 - most (if not all) objects modified by this project are also being modified by P802.3bp, which is not listed in editorial notes

*SuggestedRemedy*

This is the format of editorial note used in P802.3bp: Insert the following new entry in APPROPRIATE SYNTAX (as modified by IEEE Std 802.3bw-2015, IEEE Std 802.3by-201X and IEEE Std 802. 3bq-201X) after the entry for "1000BASE-T":
Consider using a similar text, given that .3bz is running point behind all of these projects

*Response*　　　　*Response Status* **C**

ACCEPT IN PRINCIPLE.
Add "IEEE Std 802.3bp-201x, " after "IEEE Std 802.3bq-201x, " in editing instructions for: 30.3.2.1.2, 30.3.2.1.3, 30.5.1.1.2, (P27, L13, 27, and 48) and 30.6.1.1.5 (P29 L9)

---

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: Clause, Subclause, page, line

*Cl* **30**
*SC* **30**

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*Cl* **30**  *SC* **30**  *P* **27**  *L* **12**  # 411
Grow, R0obert  RMG Consulting

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

This is where the current concept of citing amendments that have modified the same "part" of the document shows its problems. What constitutes a "part" is ill-defined, confusing to the reader/reviewer, and inconsistent. With few exceptions, the other amendment have nothing to do with the insertion point for items in an amendment. This amendment does likely insert after 1000BASE-T1 items because it is inserting at the end of the 1000 block for many items. All otheer amendments are only distracting to the editing instruction.

*SuggestedRemedy*

Follow the WG Chair's determination of what we should do after discussion within the WGAC and with editors. If there is no change to the current style of treating SYNTAX as a "part", you need to list five amendments for the attributes on this page.

*Response*  *Response Status* **W**

ACCEPT.
According to WG Chair, list all 6 amendments expecting to precede 802.3bz
(bw, by, bq, bp, bn, br)

---

*Cl* **30**  *SC* **30.3.2.1.2**  *P* **27**  *L* **12**  # 412
Grow, R0obert  RMG Consulting

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

The enumeration in SYNTAX are not in alphabetical order (nor alphanumeric). Insert must be specified as to the specific enumeration it follows to be unambiguous.

*SuggestedRemedy*

"insert after 1000BASE-T1 (inserted by IEEE Std 802.3bp-20xx)"

*Response*  *Response Status* **W**

ACCEPT.

---

*Cl* **30**  *SC* **30.3.2.1.2**  *P* **27**  *L* **12**  # 252
Zimmerman, George  CME Consulting/Aqua

*Comment Type* **E**  *Comment Status* **A**  *BQ ALIGN*

IEEE Std 802.3bw has been approved by the SASB, so this should be "IEEE Std 802.3bw-2015" (BQ ALIGN, i-2)

*SuggestedRemedy*

Change all instances of "IEEE Std 802.3bw-201x" to "IEEE Std 802.3bw-2015" throughout the draft

*Response*  *Response Status* **C**

ACCEPT.

---

*Cl* **30**  *SC* **30.3.2.1.3**  *P* **27**  *L* **26**  # 413
Grow, R0obert  RMG Consulting

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

The enumeration in SYNTAX are not in alphabetical order (nor alphanumeric). Insert must be specified as to the specific enumeration it follows to be unambiguous.

*SuggestedRemedy*

"insert after 1000BASE-T1 (inserted by IEEE Std 802.3bp-20xx)"

*Response*  *Response Status* **W**

ACCEPT.

---

*Cl* **30**  *SC* **30.3.2.1.3**  *P* **27**  *L* **26**  # 414
Grow, R0obert  RMG Consulting

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

The enumeration in SYNTAX are not in alphabetical order (nor alphanumeric). Insert must be specified as to the specific enumeration it follows to be unambiguous.

*SuggestedRemedy*

"insert after 1000BASE-T1 (inserted by IEEE Std 802.3bp-20xx)"

*Response*  *Response Status* **W**

ACCEPT.

---

*Cl* **30**  *SC* **30.3.2.1.3**  *P* **27**  *L* **26**  # 253
Zimmerman, George  CME Consulting/Aqua

*Comment Type* **E**  *Comment Status* **A**  *BQ ALIGN*

Text needs updated based on the approval of IEEE Std 802.3bw last year and the likelihood that IEEE P802.3bq will be the third amendment to IEEE Std 802.3-2015, and it is yet unclear what additionally bz will follow. (BQ ALIGN, i-166)

*SuggestedRemedy*

The text '... (as modified by IEEE Std 802.3bw-201X, IEEE Std 802.3by-201X and TBD) ...' be changed to read '... (as modified by IEEE Std 802.3bw-201X, IEEE Std 802.3by-201X, IEEE Std 802.3bq-201X, and TBD ) ...'.

*Response*  *Response Status* **C**

ACCEPT.

---

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: Clause, Subclause, page, line

*Cl* **30**
*SC* **30.3.2.1.3**

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*Cl* **30**   *SC* **30.5.1.1.25**   *P* **28**   *L* **34**   # 254
Zimmerman, George   CME Consulting/Aqua

*Comment Type* **E**   *Comment Status* **A**   *BQ ALIGN*

Base text does not agree with P802.3bq draft 3.1.   There is no 'PHY event counter' defined in IEEE Std 802.3-2015 subclause 55.4.5.1 'State diagram variables' or subclause 113.4.5.4 'Counters'. Instead I think the reference should be to fr_tx_counter defined in IEEE Std 802.3-2015 subclause 55.4.5.4 'Counters' and subclause 113.4.5.4 'Counters'. In addition, while the size of the counter isn't explicitly stated in the its definition in IEEE Std 802.3-2015 subclause 55.4.5.4 or subclause 113.4.5.4, in both cases it is stated that it 'is reflected in MDIO register 1.147.10:6 specified in 45.2.1.79.2' which implies it is a five bit counter.
Since the aLDFastRetrainCount attribute is defined as a counter with a maximum increment rate of 1000 counts per second, it will have to be considerable bigger than five bits to allow a reasonable polling speed through a management protocol without loss of information.
Based on this aLDFastRetrainCount can be derived by the local management agent from fr_tx_counter, or from the LD fast retrain count register, but can't be mapped to them directly.
A similar set of issues exist for 30.5.1.1.25 aLPFastRetrainCount. (BQ ALIGN, i-170)

*SuggestedRemedy*

Change base text to align with 802.3bq D3.1.

*Response*   *Response Status* **C**
ACCEPT.

---

*Cl* **30**   *SC* **30.5.1.1.4**   *P* **28**   *L* **38**   # 255
Zimmerman, George   CME Consulting/Aqua

*Comment Type* **ER**   *Comment Status* **A**   *BQ ALIGN*
Make consistent with modifications in 802.3by and 802.3bq (BQ ALIGN, i-74)

*SuggestedRemedy*

Add editing instruction to: Change the eighth paragraph of 30.5.1.1.4 (as modified by IEEE Std 802.3by-201X and IEEE Std 802.3bq-201X) as follows:  "For \U 2.5 Gb/s, 5 Gb/s, \U 10 Gb/s \U,\U and 25 Gb/s the enumerations map..."

*Response*   *Response Status* **C**
ACCEPT.

---

*Cl* **4**   *SC* **4.4.2**   *P* **23**   *L* **14**   # 394
Marris, Arthur   Cadence Design Syst

*Comment Type* **TR**   *Comment Status* **A**   *Editorial*
There is no need to add a new column as it is the same as the rightmost column.

*SuggestedRemedy*

Delete new column and modify heading of rightmost column to include 2.5 Gb/s and 5 Gb/s

*Response*   *Response Status* **C**
ACCEPT IN PRINCIPLE.
Strikeout column for 25, 40 & 100 Gb/s
Change header of 2.5G & 5 Gb/s to read:
"2.5 Gb/s, 5 Gb/s, 25 Gb/s, 40 Gb/s and 100 Gb/s"

---

*Cl* **4**   *SC* **4.4.2**   *P* **23**   *L* **5**   # 311
Hajduczenia, Marek   Bright House Network

*Comment Type* **ER**   *Comment Status* **A**   *EZ*
Two editorial issues:
(1) no subheading 4.4 is shown (and should be)
(2) changes to table 4-2 are not shown in underline (and should be)

*SuggestedRemedy*

(1) Insert missing subheading 4.4 with title name
(2) show changes to Table 4-2 in underline

*Response*   *Response Status* **C**
ACCEPT.

---

*Cl* **4**   *SC* **4.4.2**   *P* **23**   *L* **54**   # 391
Marris, Arthur   Cadence Design Syst

*Comment Type* **E**   *Comment Status* **A**   *EZ*
No page number

*SuggestedRemedy*

Add page numbers on pages 23 and 24

*Response*   *Response Status* **C**
ACCEPT.

---

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: Clause, Subclause, page, line

*Cl* **4**
*SC* **4.4.2**
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*Cl* **4**    *SC* **4.4.2**    *P* **23**    *L* **8**    # 312

Hajduczenia, Marek          Bright House Network

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

It *seems* that parameters for 2.5G and 5G PHY are the same as for 25G, 40G, and 100G - is there any specific reason for showing an explicit new column?

*SuggestedRemedy*

Consider merging 2.5G and 5G into 25G, 40G, and 100G column

*Response*        *Response Status* **C**

ACCEPT IN PRINCIPLE.
Duplicate of comment 394
See comment 394 for detailed resolution merging columns.

---

*Cl* **45**    *SC* **45**    *P* **31**    *L* **1**    # 314

Hajduczenia, Marek          Bright House Network

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

General comment on Clause 45 - some registers modified by this project are also being modified by P802.3bp, which is not listed in editorial notes

*SuggestedRemedy*

Consider extending editorial notes to include references to all amendments touching on selected Clause 45 registers - this will add clarity for reader to know which amendments to go and read for details, and also facilitate work for editor folding all amendments together.

*Response*        *Response Status* **C**

ACCEPT IN PRINCIPLE. Add IEEE Std 802.3bp-201x to editing instruction on 45.2.1,
Add IEEE Std 802.3bw-2015, IEEE Std 802.3bp-201x, and IEEE Std 802.3by-201x to editing instruction on 45.2.1.6 (Table 45-7),
Add IEEE Std 802.3bw-2015 and IEEE Std 802.3bp-201x to editing instruction on 45.2.7 (Table 45-200),

Add "(as modified by IEEE Std 802.3bq-201x)" to editing instruction on 45.5.3.2

Add "(as modified by IEEE Std 802.3bw-2015, IEEE Std 802.3by-201x, IEEE Std 802.3bq-201x, and IEEE Std 802.3bp-201x)" to editing instruction on 45.5.3.3, and insert PMA *25T:M to status (base text from bq) on MM111 and MM112

Add "(as modified by IEEE Std 802.3bq-201x and IEEE Std 802.3bp-201x)" to editing instruction for 45.5.3.9.

---

*Cl* **45**    *SC* **45.2.1**    *P* **31**    *L* **33**    # 415

Grow, R0obert          RMG Consulting

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

P802.3bn is defining 1.17, P802.3bw did define 1.18, P802.3by did define 1.19, I can't find an amendment that defines 1.20. Therefore the cited row does not exist as shown

*SuggestedRemedy*

P802.3by has a 1.20 through 1.29 reserved row. To help everyone from trying to reconstruct this, you should only be specifying the document the cited row occurs in. Therefore, if you stay on 1.21, you need to add a 1.20 reserved rwo and the changed row as 1.20 through 1.29

*Response*        *Response Status* **C**

ACCEPT IN PRINCIPLE.
802.3bs has been allocated 1.20 per the Chief Editor, but is behind this project.

Change editing instruction to read "Insert a reserved row for bit 1.20 and a row for bit 1.21 into Table 45-3, (as modified by IEEE Std 802.3bw-2015, IEEE Std 802.3bn-201x, IEEE Std 802.3bq-201x, IEEE Std 802.3bp-201x and IEEE Std 802.3by) adjust remaining reserved block as shown: (unchanged rows not shown):"

add reserved row for 1.20 to table above 1.21

---

*Cl* **45**    *SC* **45.2.1.1**    *P* **32**    *L* **12**    # 392

Marris, Arthur          Cadence Design Syst

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

It should be "x11x" that is struck out

*SuggestedRemedy*

Change x1xx to x11x

*Response*        *Response Status* **C**

ACCEPT IN PRINCIPLE.
Align with 802.3by, and it is unlikely 802.3bs will precede 802.3bz.
Change x1xx to x11x in strikeout, as per comment

Additionally:
1. Change editing instruction to delete "and IEEE Std 802.3bs-201x"

2. Change 0 1 0 1 = 400Gb/s to
0 1 0 1 = Reserved

---

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: Clause, Subclause, page, line

*Cl* **45**
*SC* **45.2.1.1**

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*Cl* **45**    *SC* **45.2.1.10.a**    *P* **34**    *L* **27**    # 317

Hajduczenia, Marek    Bright House Network

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

No editorial note for 45.2.1.10.a

*SuggestedRemedy*

Please insert editorial note before 45.2.1.10.a, or extend editorial note on page 34, line 15 to include reference to a new subclause being added

*Response*    *Response Status* **C**

ACCEPT IN PRINCIPLE.
Insert editing instruction to "Insert new subclause, 45.2.1.10.a before 45.2.1.10.1 as follows: " prior to header for 45.2.1.10.a (P34 L27)

---

*Cl* **45**    *SC* **45.2.1.14g**    *P* **34**    *L* **34**    # 318

Hajduczenia, Marek    Bright House Network

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

These are subclauses, not clauses

*SuggestedRemedy*

Change "clauses" to "subclauses" on page 34, line 34

*Response*    *Response Status* **C**

ACCEPT.

---

*Cl* **45**    *SC* **45.2.1.4**    *P* **32**    *L* **23**    # 402

Remein, Duane    Futurewei Technologie

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

Odd structure for Ed Inst
"Change Reserved row and
Insert rows below it in Table 45-6 to include speeds of 2.5Gb/s and 5Gb/s as shown (unchanged rows not
shown):."

*SuggestedRemedy*

Remove line feed & period after colon.

*Response*    *Response Status* **C**

ACCEPT.

---

*Cl* **45**    *SC* **45.2.1.4**    *P* **32**    *L* **24**    # 315

Hajduczenia, Marek    Bright House Network

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

Editorial note broken into two lines

*SuggestedRemedy*

Change the note to read: "Change Reserved row and insert rows below the Reserved row in Table 45-6 to include speeds of 2.5Gb/s and 5Gb/s as shown (unchanged rows not shown):"
Mark rows 1.4.14 and 1.4.13 with underline (this is inserted text versus text already in place)
Similar issue in 45.2.3.7 (text broken into two lines) + missing underline for register 3.8.12

*Response*    *Response Status* **C**

ACCEPT.

---

*Cl* **45**    *SC* **45.2.1.4**    *P* **32**    *L* **43**    # 316

Hajduczenia, Marek    Bright House Network

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

Incorrect editorial note - these are subclauses. Also, no reference where they are expected to be inserted at

*SuggestedRemedy*

Change "Insert two new clauses following 45.2.1.4 as follows:" to "Insert two following subclauses before 45.2.1.4.1 as follows:"

*Response*    *Response Status* **C**

ACCEPT.

---

*Cl* **45**    *SC* **45.2.1.6**    *P* **33**    *L* **11**    # 372

Chacon, Geoffrey    Hewlett Packard Enter

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

Missing -T from 2.5GBASE-T PMA

*SuggestedRemedy*

Replace 2.5GBASE-PMA for 2.5GBASE-T PMA

*Response*    *Response Status* **C**

ACCEPT.

---

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: Clause, Subclause, page, line

*Cl* **45**
*SC* **45.2.1.6**

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*Cl* **45**　　*SC* **45.2.1.6**　　　　　*P* **33**　　*L* **13**　　　# 294

Anslow, Pete　　　　　　　　　　　Ciena

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

"2.5GBASE-PMA" should be "2.5GBASE-T PMA"

*SuggestedRemedy*

Change "2.5GBASE-PMA" to "2.5GBASE-T PMA"

*Response*　　　　　*Response Status* **C**

ACCEPT.

---

*Cl* **45**　　*SC* **45.2.1.65.1**　　　*P* **36**　　*L* **8**　　　# 256

Zimmerman, George　　　　　　　CME Consulting/Aqua

*Comment Type* **E**　　*Comment Status* **A**　　　　*BQ ALIGN*

In "Change text of clauses 45.2.1.65.1 and 45.2.1.65.2 ...", 45.2.1.65.1 and 45.2.1.65.2 are not clauses. (2 instances) (BQ ALIGN, i-5)

*SuggestedRemedy*

Delete the word clauses, used multiply throughtout this section (L8, L17)

*Response*　　　　　*Response Status* **C**

ACCEPT.

---

*Cl* **45**　　*SC* **45.2.1.78**　　　　*P* **37**　　*L* **34**　　　# 257

Zimmerman, George　　　　　　　CME Consulting/Aqua

*Comment Type* **E**　　*Comment Status* **A**　　　　*BQ ALIGN*

Base text to match text of IEEE P802.3bq draft 3.1 - Missing space between value and units.
Missing period at the end of this paragraph. (BQ ALIGN, i-26)

*SuggestedRemedy*

Change "1.25ns" to "1.25 ns".
Change "2.5ns" to "2.5 ns".
Add period after the last word.

*Response*　　　　　*Response Status* **C**

ACCEPT.

---

*Cl* **45**　　*SC* **45.2.1.78**　　　　*P* **37**　　*L* **34**　　　# 319

Hajduczenia, Marek　　　　　　　Bright House Network

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

Two editorial issues:
(1) missing "," after "e.g."
(2) missing space between numeral and unit in "1.25ns for 10GBASE-T"

*SuggestedRemedy*

(1) Make sure there is "," after "e.g." in text that is being added or modified (minor change)
(2) Make sure that units and numerals are separated with a non-breakable space
There are multiple instances for each fix

*Response*　　　　　*Response Status* **C**

ACCEPT.

---

*Cl* **45**　　*SC* **45.2.1.79.1**　　　*P* **37**　　*L* **47**　　　# 258

Zimmerman, George　　　　　　　CME Consulting/Aqua

*Comment Type* **E**　　*Comment Status* **A**　　　　*BQ ALIGN*

Base text to match text of IEE P802.3bq draft 3.1 - The fr_rx_counter is defined in subclause 55.4.5.4 'Counters' of IEEE Std 802.3-2015. (BQ ALIGN, i-172)

*SuggestedRemedy*

text '... fr_rx_counter as defined in 55.4.5.1 for 10GBASE-T ...' should be changed to read '... fr_rx_counter as defined in 55.4.5.4 for 10GBASE-T ...'.

*Response*　　　　　*Response Status* **C**

ACCEPT.

---

*Cl* **45**　　*SC* **45.2.1.79.2**　　　*P* **38**　　*L* **6**　　　# 259

Zimmerman, George　　　　　　　CME Consulting/Aqua

*Comment Type* **E**　　*Comment Status* **A**　　　　*BQ ALIGN*

Base text to match text of IEE P802.3bq draft 3.1 - The fr_tx_counter is defined in subclause 55.4.5.4 'Counters' of IEEE Std 802.3-2015. (BQ ALIGN, i-173)

*SuggestedRemedy*

text '... fr_tx_counter as defined in 55.4.5.1 for 10GBASE-T ...' should be changed to read '... fr_tx_counter as defined in 55.4.5.4 for 10GBASE-T ...'.

*Response*　　　　　*Response Status* **C**

ACCEPT.

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general　　　*Cl* **45**　　Page 35 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected　　RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn　　*SC* **45.2.1.79.2**　　3/16/2016  1:12:31 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **45**　　　*SC* **45.2.3.1**　　　　　*P* **38**　　　*L* **15**　　　# 320
Hajduczenia, Marek　　　　　　Bright House Network

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

Entry for 3.0.5:2 eixts in base 802.3 standard. Please show existing row + changes to content so that changes can be rolled in correctly by staff editor

*SuggestedRemedy*

Per comment

*Response*　　　　　*Response Status* **C**

ACCEPT IN PRINCIPLE.
Change editing instruction to include "(as modified by IEEE Std 802.3by-201x)",

show change edits (strikeout (SO) & underline(UL)) from IEEE 802.3by-201x:

Changing (SO & UL): 1 x x x = Reserved
to: 1 1 x x = Reserved
Inserting (UL): 1 0 1 x = Reserved
Inserting (UL): 1 0 0 1 = Reserved
Inserting (UL): 1 0 0 0 = 5 Gb/s
Inserting (UL): 0 1 1 1 = 2.5Gb/s
Changing (SO & UL): 0 1 1 x = Reserved
to: 0 1 1 0 = Reserved

*Cl* **45**　　　*SC* **45.2.3.1.2**　　　　*P* **38**　　　*L* **40**　　　# 295
Anslow, Pete　　　　　　Ciena

*Comment Type* **E**　　　*Comment Status* **A**　　　　　*BQ ALIGN*

"The speed of the loopback is selected by the PCS control 1 (Register 3.0) defined in 45.2.3.1." is already being inserted by the P802.3bq draft.

*SuggestedRemedy*

Remove the underline from "The speed of the loopback is selected by the PCS control 1 (Register 3.0) defined in 45.2.3.1."

*Response*　　　　　*Response Status* **C**

ACCEPT.

*Cl* **45**　　　*SC* **45.2.3.13.4**　　　　*P* **41**　　　*L* **52**　　　# 326
Hajduczenia, Marek　　　　　　Bright House Network

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

Odd green markup in "10GBASE-T, and"

*SuggestedRemedy*

take a look at PDF and remove green underline

*Response*　　　　　*Response Status* **C**

ACCEPT.

*Cl* **45**　　　*SC* **45.2.3.13.5**　　　　*P* **42**　　　*L* **3**　　　# 327
Hajduczenia, Marek　　　　　　Bright House Network

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

It seems that 45.2.3.13.5 is also modified by .3bq, but the note does not accoutn for it

*SuggestedRemedy*

Modify the note to indicate that this text is modified as previously modified by .3bq

*Response*　　　　　*Response Status* **C**

ACCEPT IN PRINCIPLE.
Change editing instruction to state "as modified by IEEE Std 802.3bq-201x"

*Cl* **45**　　　*SC* **45.2.3.4**　　　　　*P* **39**　　　*L* **3**　　　# 321
Hajduczenia, Marek　　　　　　Bright House Network

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

Since you are changing existing table, show new rows in underline (this is new text) rather than imply that this text already existed (no markeup)

*SuggestedRemedy*

Per comment

*Response*　　　　　*Response Status* **C**

ACCEPT IN PRINCIPLE.
This is an insert rows instruction - should be without underline, per style manual.

Change editing instruction to read "Insert two rows below Reserved row and change Reserved row as shown (unchanged rows not shown):"

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general　　　　　*Cl* **45**　　Page 36 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected　　RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn　　*SC* **45.2.3.4**　　3/16/2016  1:12:31 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **45**　　*SC* **45.2.3.6**　　　　　*P* **40**　　*L* **13**　　# 373
Chacon, Geoffrey　　　　　　　　Hewlett Packard Enter

*Comment Type* **E**　　*Comment Status* **A**　　　　　　*EZ*
Change 2.5GBASE-R PCS for 2.5GBASE-T PCS

*SuggestedRemedy*
Change 2.5GBASE-R PCS for 2.5GBASE-T PCS

*Response*　　　　　*Response Status* **C**
ACCEPT.

---

*Cl* **45**　　*SC* **45.2.3.6**　　　　　*P* **40**　　*L* **14**　　# 322
Hajduczenia, Marek　　　　　　　Bright House Network

*Comment Type* **TR**　　*Comment Status* **A**　　　　　*EZ*
"Select 2.5GBASE-R PCS type" - I do not believe you're adding 2.5GBASE-R type

*SuggestedRemedy*
Change "Select 2.5GBASE-R PCS type" to "Select 2.5GBASE-T PCS type"

*Response*　　　　　*Response Status* **C**
ACCEPT.

---

*Cl* **45**　　*SC* **45.2.3.7**　　　　　*P* **40**　　*L* **34**　　# 323
Hajduczenia, Marek　　　　　　　Bright House Network

*Comment Type* **E**　　*Comment Status* **R**　　　　　*Editorial*
No LH registers shown in Table 45-124

*SuggestedRemedy*
Remove LH acronym from under table 45-124

*Response*　　　　　*Response Status* **C**
REJECT.
Base text in 802.3-2015 has LH for the table, and this adds.  Footnote is from the existing text.

---

*Cl* **45**　　*SC* **45.2.3.7.1a**　　　　*P* **40**　　*L* **38**　　# 296
Anslow, Pete　　　　　　　　　　Ciena

*Comment Type* **E**　　*Comment Status* **A**　　　　　　*EZ*
Editing instruction should be more specific.

*SuggestedRemedy*
Change "Insert new clause after 45.2.3.7.1 as follows:" to "Insert 45.2.3.7.1a and 45.2.3.7.1b after 45.2.3.7.1 as follows:"

*Response*　　　　　*Response Status* **C**
ACCEPT.

---

*Cl* **45**　　*SC* **45.2.3.9a**　　　　*P* **41**　　*L* **1**　　# 297
Anslow, Pete　　　　　　　　　　Ciena

*Comment Type* **E**　　*Comment Status* **A**　　　　　　*EZ*
Incorrect editing instruction.  45.2.3.9a is being inserted by P802.3bq

*SuggestedRemedy*
Delete "Insert 3 new clauses and Table 45-125a after 45.2.3.9.11 as shown:

*Response*　　　　　*Response Status* **C**
ACCEPT.

---

*Cl* **45**　　*SC* **45.2.3.9a**　　　　*P* **41**　　*L* **16**　　# 325
Hajduczenia, Marek　　　　　　　Bright House Network

*Comment Type* **E**　　*Comment Status* **A**　　　　　*Editorial*
No RW entries in Table 45-125a

*SuggestedRemedy*
Remove "Read/Write, " from note a) under Table 45-125a

*Response*　　　　　*Response Status* **C**
ACCEPT.

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general　　　　　*Cl* **45**　　　　Page 37 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected　　　RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn　　*SC* **45.2.3.9a**　　3/16/2016  1:12:32 PM
SORT ORDER: Clause, Subclause, page, line

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*Cl* **45**    *SC* **45.2.3.9a**        *P* **41**    *L* **3**    # 324

Hajduczenia, Marek        Bright House Network

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

Editorial note does not mention what amendment this subclause (45.2.3.9a) comes from -
it is not in base standard right now

*SuggestedRemedy*

Modify editorial note to identify what amendment this subclause came from.
In Table 45-125a, show markup for row 3.21.1, since it is newly inserted text

*Response*    *Response Status* **C**

ACCEPT IN PRINCIPLE.
Delete editing instruction on P41 L1, as 45.2.3.9a is not inserted by 802.3bz, and the other
subclauses and the table modification have their own editing instructions.

Do not underline 3.21.1, this is an inserted row, with an Insert editing instruction.

---

*Cl* **45**    *SC* **45.2.3.9a.a**        *P* **41**    *L* **21**    # 298

Anslow, Pete        Ciena

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

Editing instruction should be more specific.

*SuggestedRemedy*

Change "Insert 2 new clauses after 45.2.3.9a and before 45.2.3.9a.1, both inserted by
IEEE Std 802.3bq-201x, as shown:" to "Insert 45.2.3.9a.a and 45.2.3.9a.b before
45.2.3.9a.1, as inserted by IEEE Std 802.3bq-201x, as follows:"

*Response*    *Response Status* **C**

ACCEPT IN PRINCIPLE.
(difference is parentheses around ref to 802.3bq)

Change "Insert 2 new clauses after 45.2.3.9a and before 45.2.3.9a.1, both inserted by
IEEE Std 802.3bq-201x, as shown:" to "Insert 45.2.3.9a.a and 45.2.3.9a.b before
45.2.3.9a.1 (as inserted by IEEE Std 802.3bq-201x) as follows:"

---

*Cl* **45**    *SC* **45.2.7**        *P* **42**    *L* **49**    # 328

Hajduczenia, Marek        Bright House Network

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

One more broken editorial note

*SuggestedRemedy*

please pull it together into a single text block. No need to separate "Insert" from the rest of
the text
Same on page 44, line 3

*Response*    *Response Status* **C**

ACCEPT.

---

*Cl* **45**    *SC* **45.2.7**        *P* **43**    *L* **1**    # 329

Hajduczenia, Marek        Bright House Network

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

Row for 7.63 is being inserted, but text it not marked up.

*SuggestedRemedy*

Please underline text in row for entry 7.63
Same in Table 45-207, lines 7.32.8 through 7.32.5, which are inserted into table

*Response*    *Response Status* **C**

REJECT.
Row is an Insert command, no underline per style guide.

---

*Cl* **45**    *SC* **45.2.7.10.4ca**        *P* **44**    *L* **26**    # 299

Anslow, Pete        Ciena

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

Editing instruction should be more specific.

*SuggestedRemedy*

Change "Insert four new clauses after 45.2.7.10.4c, inserted by IEEE Std 802.3bq-201x, as
shown:" to "Insert 45.2.7.10.4ca through 45.2.7.10.4cd after 45.2.7.10.4c, as inserted by
IEEE Std 802.3bq-201x, as follows:"

*Response*    *Response Status* **C**

ACCEPT IN PRINCIPLE.
(difference is parentheses around ref to 802.3bq)

Change "Insert four new clauses after 45.2.7.10.4c, inserted by IEEE Std 802.3bq-201x, as
shown:" to "Insert 45.2.7.10.4ca through 45.2.7.10.4cd after 45.2.7.10.4c (as inserted by
IEEE Std 802.3bq-201x) as follows:"

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general    *Cl* **45**    Page 38 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected    RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn    *SC* **45.2.7.10.4ca**    3/16/2016  1:12:32 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **45**    *SC* **45.2.7.11.2**    *P* **45**    *L* **47**    # 260
Zimmerman, George                CME Consulting/Aqua

*Comment Type*  **E**    *Comment Status*  **A**    *BQ ALIGN*

Base text to match text of IEE P802.3bq draft 3.1 - In both of these long conditional sentences, the logic structure is "if (master/slave) and (complete) and if (no fault)...". The second "if" is confusing and should not be there.
Also, what if either "AN complete" is 0 or "fault" is 1? (BQ ALIGN, i-30)

*SuggestedRemedy*

Change based text to match IEEE P802.3bq D3.1 - change "and if" to "and" twice in this subclause.
Append the following text: "In all other cases, neither SLAVE mode nor MASTER mode has been selected".

*Response*    *Response Status*  **C**

ACCEPT.

---

*Cl* **45**    *SC* **45.2.7.11.7bc**    *P* **46**    *L* **17**    # 261
Zimmerman, George                CME Consulting/Aqua

*Comment Type*  **E**    *Comment Status*  **A**    *BQ ALIGN*

when read as 1 bit "is used to indicate" where where when read as 0 just "indicates".  be consistent. (BQ ALIGN, i-31)

*SuggestedRemedy*

Replace "is used to indicate" with "indicates" in 45.2.7.11.bc and 45.2.7.11.bd

*Response*    *Response Status*  **C**

ACCEPT.

---

*Cl* **45**    *SC* **45.2.7.13**    *P* **46**    *L* **35**    # 262
Zimmerman, George                CME Consulting/Aqua

*Comment Type*  **E**    *Comment Status*  **A**    *BQ ALIGN*

Base text to match IEEE P802.3bq D3.1 - The non-underlined text does not match the original content of 45.2.7.13 (as of IEEE Draft P802.3/D3.2). The original text includes "or sent as part of the 10GBASE-T and 1000BASET technology message code as defined in 28C.11". (BQ ALIGN, i-33)

*SuggestedRemedy*

Change paragraph text to read (base text from IEEE P802.3bq D3.1, \U denotes underlined text inserted by 802.3bz) : "This register defines the EEE advertisement for several device types. Devices that use Clause 28 Auto-Negotiation send EEE advertisement in the Unformatted Next Page following a EEE technology message code as defined in 28C.12 as part of the 10GBASE-T and 1000BASE-T technology message code as defined in 28C.11. Devices that use Clause 73 Auto-Negotiation send EEE advertisement in the unformatted code field of Message Next Page with EEE technology message code as defined in 73A.4. 25GBASE-T and 40GBASE-T EEE advertisement is exchanged in the Infofield during training as defined in 113.4.2.5.10.  \U For 2.5GBASE-T and 5GBASE-T, the EEE
advertisement is exchanged in the InfoField during training as defined in 126.4.2.5.10.\U
The assignment of bits in the EEE advertisement register and the correspondence with the bits in the Next Page messages or in the training Infofield are shown in Table 45–210."

*Response*    *Response Status*  **C**

ACCEPT.

---

*Cl* **45**    *SC* **45.2.7.14**    *P* **47**    *L* **19**    # 263
Zimmerman, George                CME Consulting/Aqua

*Comment Type*  **E**    *Comment Status*  **A**    *BQ ALIGN*

Base text to match IEEE P802.3bq D3.1 - "All of the bits in the EEE LP ability register are read-only. A write to the EEE LP ability register shall have no effect. Except for 10GBASE-T, members of the MultiGBASE-T PHY set exchange the EEE ability in the Infofield during link training. For these PHYs, the EEE LP ability register is updated after link is established. For all other PHYs, wWhen the AN process has been completed, this register shall reflect the contents of the link partner's EEE advertisement register. The assignment of bits in the EEE link partner ability register and the correspondence with the bits in the Next Page messages are shown in Table 45–211." (BQ ALIGN, i-34)

*SuggestedRemedy*

Change base text to match IEEE P802.3bq D3.1

*Response*    *Response Status*  **C**

ACCEPT.

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general       *Cl* **45**    Page 39 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected     RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn       *SC* **45.2.7.14**    3/16/2016  1:12:32 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **45**   *SC* **45.2.7.14a**   *P* **49**   *L* **33**   # 331
Hajduczenia, Marek   Bright House Network

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

In Table 45–211a, rows 7.64.3 and 7.64.2 should be shown in underline, since they are inserted

*SuggestedRemedy*

Per comment
Similarly, in Table 45–211b, for row 7.65.3 and 7.65.2

*Response*   *Response Status* **C**

REJECT.
These are insert instructions. No underline.

---

*Cl* **45**   *SC* **45.2.7.14a**   *P* **49**   *L* **35**   # 264
Zimmerman, George   CME Consulting/Aqua

*Comment Type* **E**   *Comment Status* **A**   *BQ ALIGN*

"RW" is used in Table 45-211a (BQ ALIGN, i-122)

*SuggestedRemedy*

In the second and third row of the table change "RW" to "R/W" and change the footnote at the bottom of the table to "R/W = Read/Write, RO = Read only".

*Response*   *Response Status* **C**

ACCEPT.

---

*Cl* **45**   *SC* **45.2.7.14aa**   *P* **47**   *L* **42**   # 330
Hajduczenia, Marek   Bright House Network

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

There is an editorial instruction and then editorial note to clarify the editorial instruction

*SuggestedRemedy*

Remove the Editor's Note - it is contraditrory to the editorial instruction above it

*Response*   *Response Status* **C**

ACCEPT IN PRINCIPLE.
Incorporate Editor's note into editing instruction to make it clear where the new clauses go.
Our current clause numbering scheme for inserting new clauses doesn't provide for a
clause to be inserted between x.x.1 and x.x.1a (inserted by another amendment).

---

*Cl* **45**   *SC* **45.2.7.14b.a**   *P* **50**   *L* **38**   # 332
Hajduczenia, Marek   Bright House Network

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

Text in 45.2.7.14b.a and 45.2.7.14b.b seems to be larger by 2 points than in other subclauses

*SuggestedRemedy*

Please apply proper style (T,Text) in para in 45.2.7.14b.a and 45.2.7.14b.b

*Response*   *Response Status* **C**

ACCEPT.

---

*Cl* **45**   *SC* **45.5.3.2**   *P* **51**   *L* **14**   # 333
Hajduczenia, Marek   Bright House Network

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

Unnecessary "," in Subclause column entries for *2.5T and *5T entries

*SuggestedRemedy*

Per comment

*Response*   *Response Status* **C**

ACCEPT.

---

*Cl* **45**   *SC* **45.5.3.9**   *P* **51**   *L* **39**   # 265
Zimmerman, George   CME Consulting/Aqua

*Comment Type* **E**   *Comment Status* **A**   *BQ ALIGN*

"add" is not a valid editing instruction (BQ ALIGN, i-8)

*SuggestedRemedy*

Change "and add rows" to "and insert rows"

*Response*   *Response Status* **C**

ACCEPT.

---

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: Clause, Subclause, page, line

*Cl* **45**
*SC* **45.5.3.9**

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*Cl* **45**     *SC* **45.53.2.1.8**         *P* **29**     *L* **26**         # 287

Trowbridge, Steve                    Alcatel-Lucent

*Comment Type*  **T**      *Comment Status*  **D**                    *BV comment*

Not clear why a whole lot of new EEE control and status need to be defined and why the
existing bits used for other PHY types (e.g., PCS status register 1) couldn't have been
reused for the corresponding functions

*SuggestedRemedy*

Use the same PCS status and control register bits as are used for other PHY types rather
than allocating new bits. In particular, PCS status 1 register, EEE control and capability
register, EEE advertisement register

*Proposed Response*        *Response Status*  **Z**

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

---

*Cl* **46**     *SC* **46.1**         *P* **53**     *L* **20**         # 404

Remein, Duane                    Futurewei Technologie

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

This statemtnt make it sound like the 10G RS will always support 3 rates.
"It is capable of supporting 2.5 Gb/s, 5 Gb/s, and 10 Gb/s operation"
This is not true for all existing 10G RS layers.
Similar issue line 9, pg 53 line 39,

*SuggestedRemedy*

Rephrase so it is clear that 2.5 & 5 G are optional
"It is capable of supporting 10 Gb/s operation and optional rates of  2.5 Gb/s, and 5 Gb/s."

*Response*        *Response Status*  **C**

ACCEPT IN PRINCIPLE.
According to this amendment, support of at least one of the rates is required - 10Gb/s is
not mandatory.  See requirement at line 40: "A compliant device may implement any
subset of these rates."

Change L20 to read:
"It is capable of supporting at least one of the following rates of operation: 2.5 Gb/s, 5
Gb/s, or 10 Gb/s.
Change order of the data rates in L39 to 2.5Gb/s, 5Gb/s and 10Gb/s to be consistent with
other places.

---

*Cl* **46**     *SC* **46.1**         *P* **53**     *L* **7**         # 334

Hajduczenia, Marek                    Bright House Network

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

It is "subclause" and not "Clause"

*SuggestedRemedy*

Change all instances of the word "Clause" to "Subclause/subclause" (as needed) when
referencing second and lower heading numbers - there are multiple instances in the draft

*Response*        *Response Status*  **C**

ACCEPT.

---

*Cl* **46**     *SC* **46.1.3**         *P* **53**     *L* **39**         # 335

Hajduczenia, Marek                    Bright House Network

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

All previous lists are created with increasing order, i.e., 2.5, 5, and 10 - this one is done in
inverse for some reason

*SuggestedRemedy*

Change "data rates of 10 Gb/s, 5 Gb/s, and 2.5 Gb/s" to "data rates of 2.5 Gb/s, 5 Gb/s,
and 10 Gb/s"

*Response*        *Response Status*  **C**

ACCEPT.

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*Cl* **46**     *SC* **46.1.3**         *P* **53**     *L* **44**         # 403

Remein, Duane                    Futurewei Technologie

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

Here you are removing a requirement "PHYs that provide an XGMII shall support the 10
Gb/s MAC data rate" but I don't see a complementary change in the PICS.
In 2015 edition of the Std PICS reads:
G1 PHY support of MAC data rate 46.1.3 Support MAC data rate of
10 Gb/s
PHY:M Yes [ ]
N/A [ ]

In your draft changes to this requirement do not show G1 chaning from Mandatory ("M") to
Optional ("O")

*SuggestedRemedy*

Please update the PICS to show M in strikeout and O in underline requirement.

*Response*        *Response Status*  **C**

ACCEPT.

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TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general                    *Cl*  **46**                    Page 41 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected     RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn                    *SC*  **46.1.3**                    3/16/2016  1:12:32 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **78**　　*SC* **78.2**　　　　　*P* **57**　　*L* **34**　　# 300
Anslow, Pete　　　　　　　　　　Ciena

*Comment Type* **E**　　*Comment Status* **A**　　　　　*EZ*
1.2.6 states: "Unless otherwise stated, numerical limits in this standard are to be taken as exact, with the number of significant digits and trailing zeros having no significance."

*SuggestedRemedy*
In Table 78–2 remove the trailing zeros from "12.80" and "6.40"

*Response*　　　　　*Response Status* **C**
ACCEPT.

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*Cl* **A**　　*SC* **A**　　　　　*P* **185**　　*L* **1**　　# 343
Hajduczenia, Marek　　　　　　Bright House Network

*Comment Type* **E**　　*Comment Status* **A**　　　　　*Editorial*
Remove Annex A, nothing there

*SuggestedRemedy*
Per comment

*Response*　　　　　*Response Status* **C**
ACCEPT IN PRINCIPLE.
Add Editor's Note (to be removed prior to Sponsor ballot): Annex A will be removed from the draft if there are no new bibliography additions by the completion of Working Group ballot.

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*Cl* **FM**　　*SC*　　　　　*P* **2**　　*L* **46**　　# 386
Lusted, Kent　　　　　　　　　Intel

*Comment Type* **E**　　*Comment Status* **A**　　　　　*EZ*
Update copyright date to 2016

*SuggestedRemedy*
Update copyright date to 2016

*Response*　　　　　*Response Status* **C**
ACCEPT.

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*Cl* **FM**　　*SC* **FM**　　　　　*P* **1**　　*L* **2**　　# 405
Grow, R0obert　　　　　　　　RMG Consulting

*Comment Type* **E**　　*Comment Status* **A**　　　　　*EZ*
There is an approved amendment with others to come.  (Only based on ballot stage P802.,3bz will be Amendment 8 or9.) Amendments also are listed here.

*SuggestedRemedy*
Rather than attempting to track approval order, I'd recommend simply a comma followed by <approved amendments to be added during publication preparation>

*Response*　　　　　*Response Status* **C**
ACCEPT.

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*Cl* **FM**　　*SC* **FM**　　　　　*P* **1**　　*L* **32**　　# 406
Grow, R0obert　　　　　　　　RMG Consulting

*Comment Type* **E**　　*Comment Status* **A**　　　　　*EZ*
Messed up copyright information. It appears that the FM variable copyright year was not updated to 2016.

*SuggestedRemedy*
Fix whatever is required to get correct copyright year wherever it appears.

*Response*　　　　　*Response Status* **C**
ACCEPT.
(duplicate comment)

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*Cl* **FM**　　*SC* **FM**　　　　　*P* **10**　　*L* **15**　　# 408
Grow, R0obert　　　　　　　　RMG Consulting

*Comment Type* **ER**　　*Comment Status* **A**　　　　　*Editorial*
I prefer this location for notification to the reviewer what amendments were considered when writing this amendment.

*SuggestedRemedy*
Either fix here or in the note at the bottom of page 19.  Based on ballot stage, the amendments ahead in balloting are bw (approved), by, bq, bp, bn, br, bu.  P802.3bv is at the same balloting stage, and the bv editor has for preceding amendment purposes assumed it will be approved currently with bz but will be designated Amendment 9.  That means that for now bz does not have to also include bv in its considerations, but should the other seven amdendments.

*Response*　　　　　*Response Status* **W**
ACCEPT IN PRINCIPLE.
Note at the bottom of page 19.  Editor to confer with 802.3 leadership on order of amendments.
Update to include bw, by, bq, bp, bn, br.
Bu to go after the bz per the working group chair.

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TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general　　　*Cl* **FM**　　　Page 42 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected　　RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn　　*SC* **FM**　　3/16/2016  1:12:32 PM
SORT ORDER: Clause, Subclause, page, line

*Cl* **FM**　　　*SC* **FM**　　　　　　　　*P* **10**　　　　*L* **17**　　　# 307

Hajduczenia, Marek　　　　　　　Bright House Network

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

Missing summaries of other ongoing projects

*SuggestedRemedy*

Please implement comment #i-55 from P802.3bp D3.0
(http://www.ieee802.org/3/bp/comments/8023bp_D30_approved.pdf)

*Response*　　　　　*Response Status* **C**

ACCEPT.

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*Cl* **FM**　　　*SC* **FM**　　　　　　　　*P* **2**　　　　*L* **1**　　　# 407

Grow, R0obert　　　　　　　RMG Consulting

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

Punctuation and grammar.  Starts with a sentence fragement (no verb, not full stop).

*SuggestedRemedy*

Delete "This amendment" following the sentence fragment.

*Response*　　　　　*Response Status* **C**

ACCEPT. (duplicate comment)

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*Cl* **FM**　　　*SC* **FM**　　　　　　　　*P* **2**　　　　*L* **1**　　　# 306

Hajduczenia, Marek　　　　　　　Bright House Network

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

Unnecessary "This amendment"

*SuggestedRemedy*

Remove "This amendment"

*Response*　　　　　*Response Status* **C**

ACCEPT.
"This amendment to IEEE Std 802.3-2015 This amendment defines Ethernet Media"
(delete second occurence)

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general　　*Cl* **FM**　　Page 43 of 43
COMMENT STATUS: D/dispatched  A/accepted  R/rejected　　RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn　*SC* **FM**　　3/16/2016  1:12:32 PM
SORT ORDER: Clause, Subclause, page, line