*Cl* **FM**    *SC* **FM**     *P* **1**    *L* **2**    # i-116

Zimmerman, George    Commscope and Line

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

Amendment is of 802.3-2015 as amended by several amendments: e.g., "IEEE Std 802.3-2015 as amended by IEEE Std 802.3bw(TM)-2015), IEEE Std 802.3by(TM)-201X, IEEE Std 802.3bq(TM)-201X,  IEEE Std 802.3bp(TM)-201X, IEEE Std 802.3br(TM)-201X, and IEEE Std 802.3bz(TM)-201X) "

*SuggestedRemedy*

Update "Amendment of IEEE Std 802.3-2015" to include amendments preceding 802.3bu, for example: "IEEE Std 802.3-2015 as amended by IEEE Std 802.3bw(TM)-2015), IEEE Std 802.3by(TM)-201X, IEEE Std 802.3bq(TM)-201X,  IEEE Std 802.3bp(TM)-201X, IEEE Std 802.3br(TM)-201X, and IEEE Std 802.3bz(TM)-201X) "

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

PROPOSED ACCEPT.

---

*Cl* **FM**    *SC* **FM**     *P* **1**    *L* **26**    # i-114

Zimmerman, George    Commscope and Line

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

twisted pair should be hypenated when used as an adjective. "with single twisted pair IEEE 802.3 interfaces"

*SuggestedRemedy*

change "with single twisted pair IEEE 802.3 interfaces" to "with single twisted-pair IEEE 802.3 interfaces"

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

PROPOSED ACCEPT.

---

*Cl* **FM**    *SC* **FM**     *P* **2**    *L* **1**    # i-218

Gardner, Andrew    Linear Technology

*Comment Type* **ER**    *Comment Status* **D**    *ez*

There is no acknowledgement to Maxim Integrated Products, Inc. for the use of 1-wire material in Clause 104.

*SuggestedRemedy*

Add the following acknowledgment to page 2 with insertion point starting at beginning of line 1:'Portions of the material contained herein are reprinted with permission from Maxim Integrated Products, Inc., DS18B20 "Programmable Resolution 1-Wire Digital Thermometer" Data Sheet, Rev. 042208, (C) 2008.'

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

PROPOSED ACCEPT.

---

*Cl* **FM**    *SC* **FM**     *P* **2**    *L* **3**    # i-111

Zimmerman, George    Commscope and Line

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

"for the provision of power via a single twisted pair to connected Data Terminal Equipment (DTE) with IEEE 802.3 interfaces."  This amendment, as designed, isn't made to work on a single-twisted pair of a 4-pair IEEE 802.3 interface.  It is only designed for the BASE-T1, single-pair, interfaces.  (this same text occurs on P2 L3 and P12 L44)

*SuggestedRemedy*

Change "with IEEE 802.3 interfaces" to "with IEEE 802.3 single twisted-pair interfaces", on both P2L3 and P12L44.

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

PROPOSED ACCEPT.

---

*Cl* **FM**    *SC* **FM**     *P* **12**    *L* **15**    # i-1

Anslow, Peter    Ciena Corporation

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

The character after "Amendment 1" should be an em-dash.  Likewise for Amendments 2 through X

*SuggestedRemedy*

Replace "--" with em-dash (Ctrl-q Shft-q)

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

PROPOSED ACCEPT.

---

*Cl* **FM**    *SC* **FM**     *P* **12**    *L* **18**    # i-76

Law, David    Hewlett Packard Enter

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

IEEE Std 802.3by-2016, IEEE Std 802.3bq-2016 and IEEE Std 802.3bp-2016 were all approved as IEEE standards on 30th June 2016.

*SuggestedRemedy*

Change 'IEEE Std 802.3by(TM)-201x' to read 'IEEE Std 802.3by(TM)-2016', 'IEEE Std 802.3bq(TM)-201x' to read 'IEEE Std 802.3bq(TM)-2016', and 'IEEE Std 802.3bp(TM)-201x' to read 'IEEE Std 802.3bp(TM)-2016'.

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

PROPOSED 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* **FM**
*SC* **FM**

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*Cl* **FM**　　　*SC* **FM**　　　　　*P* **12**　　　*L* **37**　　　# i-136

Dove, Daniel　　　　　　　　　Linear Technology

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

DL: Since it seems likely that IEEE P802.3br and IEEE P802.3bn will be published before IEEE P802.3bu add these to the list of prior amendments.

*SuggestedRemedy*

Add the following text between the IEEE Std 802.3bp-201x entry and the IEEE Std 802.3bu-201x entry:

IEEE Std 802.3br-201X

Amendment 5--This amendment includes changes to IEEE Std 802.3-201x and adds Clause 99. This amendment adds a MAC Merge sublayer and a MAC Merge Service Interface to support for Interspersing Express Traffic over a single link.

IEEE Std 802.3bn-201X

Amendment 6--This amendment adds the physical layer specifications and management parameters for symmetric and/or asymmetric operation of up to 10 Gb/s on point-to-multipoint Radio Frequency (RF) distribution plants comprising either amplified or passive coaxial media. It also extends the operation of Ethernet Passive Optical Networks (EPON) protocols, such as Multipoint Control Protocol (MPCP) and Operation Administration and Management (OAM).

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

PROPOSED ACCEPT IN PRINCIPLE.

Duplicate comment with i-75. Remedy as per remedy for comment i-75:

Add the following text between the IEEE Std 802.3bp-201x entry and the IEEE Std 802.3bu-201x entry:

IEEE Std 802.3br-2016

Amendment 5--This amendment includes changes to IEEE Std 802.3-2015 and adds Clause 99. This amendment adds a MAC Merge sublayer and a MAC Merge Service Interface to support for Interspersing Express Traffic over a single link.

IEEE Std 802.3bn-201X

Amendment 6--This amendment adds the physical layer specifications and management parameters for symmetric and/or asymmetric operation of up to 10 Gb/s on point-to-multipoint Radio Frequency (RF) distribution plants comprising either amplified or passive coaxial media. It also extends the operation of Ethernet Passive Optical Networks (EPON) protocols, such as Multipoint Control Protocol (MPCP) and Operation Administration and Management (OAM).

IEEE Std 802.3bz-201X

Amendment 7-- This amendment includes changes to IEEE Std 802.3-2015 and adds Clause 125 and Clause 126. This amendment adds new rates of 2.5 Gb/s and 5 Gb/s and new Physical Layers for operation at 2.5 Gb/s and 5 Gb/s over balanced twisted-pair structured cabling systems.

*Cl* **FM**　　　*SC* **FM**　　　　　*P* **12**　　　*L* **37**　　　# i-75

Law, David　　　　　　　　　Hewlett Packard Enter

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

Since IEEE Std 802.3br-2016 was approved as an IEEE standard on 30th June 2016 and it seems likely that IEEE P802.3bn and IEEE P802.3bz will be published before IEEE P802.3bu add these to the list of prior amendments.

*SuggestedRemedy*

Add the following text between the IEEE Std 802.3bp-201x entry and the IEEE Std 802.3bu-201x entry:

IEEE Std 802.3br-2016

Amendment 5--This amendment includes changes to IEEE Std 802.3-2015 and adds Clause 99. This amendment adds a MAC Merge sublayer and a MAC Merge Service Interface to support for Interspersing Express Traffic over a single link.

IEEE Std 802.3bn-201X

Amendment 6--This amendment adds the physical layer specifications and management parameters for symmetric and/or asymmetric operation of up to 10 Gb/s on point-to-multipoint Radio Frequency (RF) distribution plants comprising either amplified or passive coaxial media. It also extends the operation of Ethernet Passive Optical Networks (EPON) protocols, such as Multipoint Control Protocol (MPCP) and Operation Administration and Management (OAM).

IEEE Std 802.3bz-201X

Amendment 7-- This amendment includes changes to IEEE Std 802.3-2015 and adds Clause 125 and Clause 126. This amendment adds new rates of 2.5 Gb/s and 5 Gb/s and new Physical Layers for operation at 2.5 Gb/s and 5 Gb/s over balanced twisted-pair structured cabling systems.

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

PROPOSED ACCEPT.

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general　　　　　　*Cl* **FM**　　　Page 2 of 45
COMMENT STATUS: D/dispatched  A/accepted  R/rejected　　RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn　　*SC* **FM**　　　7/19/2016  4:18:17 PM
SORT ORDER: Clause, Subclause, page, line

| | | | | |
|---|---|---|---|---|
| *Cl* **FM** | *SC* **FM** | *P* **12** | *L* **38** | *#* i-104 |

Marris, Arthur                                    Cadence Design Syst

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

Now that 802.3br has been approved add that to the list of approved amendments

*SuggestedRemedy*

Add after 802.3bp:

IEEE Std 802.3br(TM)-2016
Amendment 5 --This amendment includes changes to IEEE Std 802.3-201x and adds Clause 99. This amendment adds a MAC Merge sublayer and a MAC Merge Service Interface to support for Interspersing Express Traffic over a single link.

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

PROPOSED ACCEPT.

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| | | | | |
|---|---|---|---|---|
| *Cl* **FM** | *SC* **FM** | *P* **12** | *L* **38** | *#* i-112 |

Zimmerman, George                                    Commscope and Line

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

There are at least 3 more amendments missing which will be ahead of 802.3bu - 802.3br (Amendment 5), which was approved at the June standards board, 802.3bn and 802.3 bz, which has passed its first sponsor recirc with minimal comments.

*SuggestedRemedy*

Add IEEE Std 802.3br-201x and IEEE Std 802.3bz-201x to the amendments in front of 802.3bu.  Descriptive text may be obtained from D3.1 of IEEE Std 802.3bz. Consult IEEE 802.3 leadership for other amendments and any ordering.

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

PROPOSED ACCEPT IN PRINCIPLE.

Adopt remedy to i-75 as follows:

Add the following text between the IEEE Std 802.3bp-201x entry and the IEEE Std 802.3bu-201x entry:

IEEE Std 802.3br-2016

Amendment 5--This amendment includes changes to IEEE Std 802.3-2015 and adds Clause 99. This amendment adds a MAC Merge sublayer and a MAC Merge Service Interface to support for Interspersing Express Traffic over a single link.

IEEE Std 802.3bn-201X

Amendment 6--This amendment adds the physical layer specifications and management parameters for symmetric and/or asymmetric operation of up to 10 Gb/s on point-to-multipoint Radio Frequency (RF) distribution plants comprising either amplified or passive coaxial media. It also extends the operation of Ethernet Passive Optical Networks (EPON) protocols, such as Multipoint Control Protocol (MPCP) and Operation Administration and Management (OAM).

IEEE Std 802.3bz-201X

Amendment 7-- This amendment includes changes to IEEE Std 802.3-2015 and adds Clause 125 and Clause 126. This amendment adds new rates of 2.5 Gb/s and 5 Gb/s and new Physical Layers for operation at 2.5 Gb/s and 5 Gb/s over balanced twisted-pair structured cabling systems.

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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* **FM**
*SC* **FM**

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| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Cl* **FM** | *SC* **FM** | | *P* **12** | *L* **42** | | # | i-214 | |

Maguire, Valerie

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

The terms "twisted pair" and "twisted-pair" are often used interchangeably throughout the document. Please standardize on one style. "Twisted-pair" is recommended to align with structured cabling Standards.

*SuggestedRemedy*

Perform a global search for the term "twisted pair" and replace with "twisted-pair" where appropriate.

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

PROPOSED ACCEPT.

---

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Cl* **FM** | *SC* **FM** | | *P* **17** | *L* **1** | | # | i-105 | |

Marris, Arthur    Cadence Design Syst

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

Add new line after Ethernet in "Draft Standard for Ethernet Amendment:"

*SuggestedRemedy*

Change to:
Draft Standard for Ethernet
Amendment:

Make the same change on page 1 line 8.

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

PROPOSED ACCEPT.

---

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Cl* **FM** | *SC* **FM** | | *P* **17** | *L* **13** | | # | i-2 | |

Anslow, Peter    Ciena Corporation

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

Page 17 does not reflect the latest version of the 802.3 boilerplate.

*SuggestedRemedy*

Change "Implementors" to "Implementers".

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

PROPOSED ACCEPT.

---

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Cl* **0** | *SC* **0** | | *P* | *L* | | # | i-53 | |

Maytum, Michael    RETIRED

*Comment Type* **GR**    *Comment Status* **D**    ez

Has information-byte once and information byte once

*SuggestedRemedy*

Make consistent - suggest all to information byte

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

PROPOSED ACCEPT IN PRINCIPLE.

As per the remedy to comment i-166, "information-byte" and "information byte" will be changed to 'information' in the definition of do_classification_done (p41, line 27).

---

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Cl* **0** | *SC* **0** | | *P* | *L* | | # | i-52 | |

Maytum, Michael    RETIRED

*Comment Type* **GR**    *Comment Status* **D**    ez

Has implementation-specific two times and implementation specific once

*SuggestedRemedy*

Make consistent - suggest all to implementation-specific

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

PROPOSED ACCEPT IN PRINCIPLE.

Editor to change all instances of 'implementation specific' to 'implementation-specific'.

---

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Cl* **0** | *SC* **0** | | *P* | *L* | | # | i-51 | |

Maytum, Michael    RETIRED

*Comment Type* **GR**    *Comment Status* **D**    ez

Has falling edge three times and falling-edge once

*SuggestedRemedy*

Make consistent - suggest all to falling edge

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

PROPOSED 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* **0**　　　*SC* **0**　　　　　　*P*　　　　*L*　　　# i-50
Maytum, Michael　　　　　　　　RETIRED

*Comment Type* **GR**　　*Comment Status* **D**　　　　　　ez
Has constant voltage signature three time and constant-voltage signature twice

*SuggestedRemedy*
Make consistent - suggest all to constant-voltage signature

*Proposed Response*　　*Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Editor to change all instances of 'constant voltage signature' to 'constant-voltage signature'.

---

*Cl* **0**　　　*SC* **0**　　　　　　*P*　　　　*L*　　　# i-55
Maytum, Michael　　　　　　　　RETIRED

*Comment Type* **GR**　　*Comment Status* **D**　　　　　　ez
Has power up two times and power-up two times

*SuggestedRemedy*
Make consistent - suggest all to power-up

*Proposed Response*　　*Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Editor to change all intances of 'power-up' to 'power up'.

---

*Cl* **0**　　　*SC* **0**　　　　　　*P*　　　　*L*　　　# i-56
Maytum, Michael　　　　　　　　RETIRED

*Comment Type* **GR**　　*Comment Status* **D**　　　　　　ez
Has pull up two times and pull-up nine times

*SuggestedRemedy*
Change pull-up at and pull-up within to be pull up at and pull up within

*Proposed Response*　　*Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Editor to change all instances of 'pull up at' to 'pull-up at' and all instances of 'pull up within' to pull-up within'.

---

*Cl* **0**　　　*SC* **0**　　　　　　*P*　　　　*L*　　　# i-57
Maytum, Michael　　　　　　　　RETIRED

*Comment Type* **GR**　　*Comment Status* **D**　　　　　　ez
Figures 104-12/13/14 pull down and PULLUP

*SuggestedRemedy*
change PULLUP to PULL UP

*Proposed Response*　　*Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **0**　　　*SC* **0**　　　　　　*P*　　　　*L*　　　# i-58
Maytum, Michael　　　　　　　　RETIRED

*Comment Type* **GR**　　*Comment Status* **D**　　　　　　ez
rising edge four times and rising-edge two times

*SuggestedRemedy*
change twice rising-edge at its.. to change rising edge at its..

*Proposed Response*　　*Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **0**　　　*SC* **0**　　　　　　*P*　　　　*L*　　　# i-54
Maytum, Michael　　　　　　　　RETIRED

*Comment Type* **GR**　　*Comment Status* **D**　　　　　　ez
Has open-circuit voltage once and open circuit voltage two times

*SuggestedRemedy*
Make consistent - suggest all to open-circuit voltage

*Proposed Response*　　*Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Editor to change all instances of 'open- circuit voltage' to 'open circuit voltage'.

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* **0**
*SC* **0**

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*Cl* **0**    *SC* **0**        *P*        *L*        # i-60

Maytum, Michael              RETIRED

*Comment Type* **GR**    *Comment Status* **D**        *ez*

sub-clause three times and subclause twelve times

*SuggestedRemedy*

Be consistent change sub-clause to subclause (three times)

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

PROPOSED ACCEPT.

---

*Cl* **0**    *SC* **0**        *P*        *L*        # i-61

Maytum, Michael              RETIRED

*Comment Type* **GR**    *Comment Status* **D**        *ez*

behavior(s) eighteen times and behaviour twenty times

*SuggestedRemedy*

mixture of international and american english. Suggest using behavior throughout

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

PROPOSED REJECT.

802.3 style uses behaviour in Clause 30 and behavior everywhere else.

---

*Cl* **0**    *SC* **0**        *P*        *L*        # i-59

Maytum, Michael              RETIRED

*Comment Type* **GR**    *Comment Status* **D**        *ez*

dropout six times and drop-out twice

*SuggestedRemedy*

Make consistent - suggest all to dropout

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

PROPOSED ACCEPT.

---

*Cl* **0**    *SC* **0**        *P* **11**    *L* **40**    # i-62

Maytum, Michael              RETIRED

*Comment Type* **GR**    *Comment Status* **D**        *ez*

twisted pair cabling

*SuggestedRemedy*

change to twisted-pair cabling (like the other four instances)

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

PROPOSED ACCEPT.

---

*Cl* **0**    *SC* **0**        *P* **43**    *L* **2**    # i-63

Maytum, Michael              RETIRED

*Comment Type* **GR**    *Comment Status* **D**        *ez*

steady state one and steady-state once

*SuggestedRemedy*

change has begun steady state operation to has begun steady-state operation

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

PROPOSED ACCEPT.

---

*Cl* **0**    *SC* **0**        *P* **47**    *L* **7**    # i-64

Maytum, Michael              RETIRED

*Comment Type* **GR**    *Comment Status* **D**        *ez*

re-attempting

*SuggestedRemedy*

change to reattempting (like the other instance)

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

PROPOSED 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* **0**
*SC* **0**

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*Cl* **1**     *SC* **1.4**     *P* **18**     *L* **8**     # i-3

Anslow, Peter     Ciena Corporation

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

References to "Clause xxx" should either be cross-references or be in Forest green.
802.3 should be referred to as "IEEE Std 802.3"

*SuggestedRemedy*

In 1.4.330a, make "Clause 104" a cross-reference
In 1.4.330b, make "Clause 104" a cross-reference
In 1.4.338, apply character tag External to "Clause 33"
In 1.4.338, make "Clause 104" a cross-reference
In 1.4.415, change "IEEE 802.3" to IEEE Std 802.3"
In 1.4.415, apply character tag External to "Clause 33"

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

PROPOSED ACCEPT.

---

*Cl* **1**     *SC* **1.4**     *P* **18**     *L* **16**     # i-227

Dove, Daniel     Linear Technology

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

ROGUE: For consistency, should the definition refer to "A PoDL PSE" instead of "A PSE" ?

*SuggestedRemedy*

Change "A PSE" to "A PoDL PSE"

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

PROPOSED ACCEPT.

---

*Cl* **1**     *SC* **1.4**     *P* **18**     *L* **19**     # i-228

Dove, Daniel     Linear Technology

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

ROGUE: For consistency, should the definition refer to "A PoDL PSE" instead of "A PSE" ?

*SuggestedRemedy*

Change "A PSE" to "A PoDL PSE"

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

PROPOSED ACCEPT.

---

*Cl* **1**     *SC* **1.4**     *P* **18**     *L* **45**     # i-229

Dove, Daniel     Linear Technology

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

ROGUE: Does the second sentence for Type C PoDL System add anything useful.  It seems redundant

*SuggestedRemedy*

Remove Second sentence.

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

PROPOSED ACCEPT.

---

*Cl* **1**     *SC* **1.4.338**     *P* **1**     *L* **8**     # i-132

Dove, Daniel     Linear Technology

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

"balanced" missing

*SuggestedRemedy*

replace "twisted-pair" with "balanced twisted-pair". S&R document for consistent use of either "twisted pair" or "twisted-pair".

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

PROPOSED ACCEPT.

Remedy overlaps with comment i-214

---

*Cl* **1**     *SC* **1.4.338**     *P* **18**     *L* **24**     # i-138

Dove, Daniel     Linear Technology

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

DL: The text 'Power Sourcing Equipment (PSE)' (line 24) and 'Type 1 PD' (line 34) should be in bold.

*SuggestedRemedy*

See comment.

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

PROPOSED 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* **1**
*SC* **1.4.338**

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*Cl* **1**   *SC* **1.4.338**   *P* **18**   *L* **24**   # i-77
Law, David   Hewlett Packard Enter

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

The text 'Power Sourcing Equipment (PSE)' (line 24) and 'Type 1 PD' (line 34) should be in bold.

*SuggestedRemedy*

See comment.

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

PROPOSED ACCEPT.

---

*Cl* **1**   *SC* **1.4.338**   *P* **18**   *L* **28**   # i-78
Law, David   Hewlett Packard Enter

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

Suggest the text '... single twisted-pair (BASE-T1 PHYs), ...' should be changed to read '... single twisted-pair (BASE-T1) PHYs, ...' to match similar text on line 26.

*SuggestedRemedy*

See comment.

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

PROPOSED ACCEPT.

---

*Cl* **1**   *SC* **1.4.338**   *P* **18**   *L* **28**   # i-139
Dove, Daniel   Linear Technology

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

DL: Suggest the text '... single twisted-pair (BASE-T1 PHYs), ...' should be changed to read '... single twisted-pair (BASE-T1) PHYs, ...' to match similar text on line 26.

*SuggestedRemedy*

See comment.

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

PROPOSED ACCEPT.

---

*Cl* **1**   *SC* **1.4.338**   *P* **18**   *L* **28**   # i-115
Zimmerman, George   Commscope and Line

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

Parentheses is in the wrong place. "When used with single twisted-pair (BASE-T1 PHYs)," should be "When used with single twisted-pair (BASE-T1) PHYs,"

*SuggestedRemedy*

Change "When used with single twisted-pair (BASE-T1 PHYs)," to "When used with single twisted-pair (BASE-T1) PHYs,"

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

PROPOSED ACCEPT.

---

*Cl* **1**   *SC* **1.4.338**   *P* **18**   *L* **30**   # i-113
Zimmerman, George   Commscope and Line

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

The descriptions of PSE should note that when a single-pair device is used, it may be referred to as a PoDL PSE.

*SuggestedRemedy*

Insert "A PSE used with single twisted-pair PHYs is also referred to as a PoDL PSE." following the last sentence of 1.3.338

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

PROPOSED ACCEPT.

---

*Cl* **1**   *SC* **1.4.415**   *P* **18**   *L* **34**   # i-24
Stover, David   Linear Technology

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

"provides a Class 0, 1, 2 or 3 signature" does not follow apparent style convention.

*SuggestedRemedy*

Replace with "provides a Class 0, 1, 2, or 3 signature".

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

PROPOSED 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* **1**
*SC* **1.4.415**

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*Cl* **1**　　*SC* **1.4.418c**　　　　*P* **18**　　*L* **46**　　# i-140
Dove, Daniel　　　　　　　　　Linear Technology

*Comment Type* **E**　　*Comment Status* **D**　　　　　　　*ez*
AB: The sentence "Type C PoDL system elements are compatible with both 100BASE-T1 and 1000BASE-T1 PHYs." is redundant with the immediately preceding sentence.

*SuggestedRemedy*
Delete this sentence

*Proposed Response*　　*Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **30**　　*SC* **30.2.3**　　　　*P* **22**　　*L* **3**　　# i-141
Dove, Daniel　　　　　　　　　Linear Technology

*Comment Type* **TR**　　*Comment Status* **D**　　　　　　　*nonez*
DL: Since IEEE P802.3br is currently in its 2nd sponsor recirculation ballot it seems reasonable at this time to assume it will be approved before IEEE P802.3bu. Based on this the DTE system entity relationship diagram needs to be updated to reflect the changes being made to it by IEEE P802.3br to add support for the oMACMergeEntity.

*SuggestedRemedy*
Please replace Figure 30-3 with the new figure in IEEE_P802d3bu_Clause_30_250416.pdf attached to this comment.

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

This comment was WITHDRAWN by the commenter.

Duplicate comment with i-86.

---

*Cl* **30**　　*SC* **30.2.3**　　　　*P* **22**　　*L* **3**　　# i-86
Law, David　　　　　　　　　Hewlett Packard Enter

*Comment Type* **GR**　　*Comment Status* **D**　　　　　　　*ez*
*** Comment submitted with the file 89975600003-IEEE_P802d3bu_Clause_30_250416.pdf attached ***

Since IEEE Std 802.3br-2016 was approved as an IEEE standards on 30th June 2016 the DTE system entity relationship diagram needs to be updated to reflect the changes being made to it by IEEE P802.3br to add support for the oMACMergeEntity.

*SuggestedRemedy*
Please replace Figure 30-3 with the new figure in IEEE_P802d3bu_Clause_30_250416.pdf attached to this comment.

*Proposed Response*　　*Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **30**　　*SC* **30.2.3**　　　　*P* **22**　　*L* **28**　　# i-4
Anslow, Peter　　　　　　　　　Ciena Corporation

*Comment Type* **E**　　*Comment Status* **D**　　　　　　　*ez*
Cross-references external to the draft should be in forest green.
For a "replace" editing instruction, the figure should be as is expected to appear (as far as possible).

*SuggestedRemedy*
Make "30.14.1" forest green as it is an external cross-reference.
Make the "oPoDLPSE" text and lines black as they will be in the final standard.

*Proposed Response*　　*Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **30**　　*SC* **30.2.5**　　　　*P* **23**　　*L* **25**　　# i-142
Dove, Daniel　　　　　　　　　Linear Technology

*Comment Type* **E**　　*Comment Status* **D**　　　　　　　*ez*
sentence is incomplete

*SuggestedRemedy*
Replace "PSE, PoDL PSE and PD management" with "PSE, PD, PoDL PSE and PoDL PD management"

*Proposed Response*　　*Response Status* **W**
PROPOSED 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* **30.2.5**

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*Cl* **30**　　　*SC* **30.15**　　　　　*P* **24**　　　*L* **45**　　　# i-5
Anslow, Peter　　　　　　　　　Ciena Corporation

*Comment Type* **E**　　*Comment Status* **D**　　　　　　　*ez*
There is no need for "new sub-clause" in the editing instruction.

*SuggestedRemedy*
Change "Insert new sub-clause 30.15" to "Insert  30.15"

*Proposed Response*　　　*Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **30**　　　*SC* **30.15**　　　　　*P* **29**　　　*L* **14**　　　# i-230
Dove, Daniel　　　　　　　　　Linear Technology

*Comment Type* **E**　　*Comment Status* **D**　　　　　　　*ez*
ROGUE: Title is: acPoDLPSEAdminControl.  The "c" seems to be a mistake.

*SuggestedRemedy*
Replace "acPoDLPSEAdminControl" with "aPoDLPSEAdminControl"

*Proposed Response*　　　*Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **30**　　　*SC* **30.15.1.1.2**　　　*P* **25**　　　*L* **30**　　　# i-6
Anslow, Peter　　　　　　　　　Ciena Corporation

*Comment Type* **E**　　*Comment Status* **D**　　　　　　　*ez*
As documented in http://www.ieee802.org/3/WG_tools/editorial/requirements/words.html
"The text contained in the 'BEHAVIOUR DEFINED AS:' description must be terminated by
a semi-colon, to not do so would be a syntax error."

*SuggestedRemedy*
Add a semi-colon after the "." at the end of:
30.15.1.1.2, 30.15.1.1.3, 30.15.1.1.4, 30.15.1.1.5, 30.15.1.1.6, 30.15.1.1.7, 30.15.1.1.8,
30.15.1.1.9, 30.15.1.1.10, 30.15.1.1.11, 30.15.1.2, 30.15.1.3, 30.15.1.4

*Proposed Response*　　　*Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **30**　　　*SC* **30.15.1.1.3**　　　*P* **25**　　　*L* **52**　　　# i-143
Dove, Daniel　　　　　　　　　Linear Technology

*Comment Type* **E**　　*Comment Status* **D**　　　　　　　*ez*
DD: Semantic improvement required. See remedy.

*SuggestedRemedy*
Replace "the PSE state diagram variable pi_de- tecting or pi_classifying is true" with "either
of the PSE state diagram variables pi_de- tecting or pi_classifying is true"

*Proposed Response*　　　*Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **30**　　　*SC* **30.15.1.1.3**　　　*P* **25**　　　*L* **53**　　　# i-144
Dove, Daniel　　　　　　　　　Linear Technology

*Comment Type* **E**　　*Comment Status* **D**　　　　　　　*ez*
"expression" is not the best descriptor here.

*SuggestedRemedy*
Replace "expression" with "combination"

*Proposed Response*　　　*Response Status* **W**
PROPOSED ACCEPT.

---

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general　　　*Cl* **30**　　Page 10 of 45
COMMENT STATUS: D/dispatched  A/accepted  R/rejected　　RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn　　*SC* **30.15.1.1.3**　　7/19/2016  4:18:17 PM
SORT ORDER: Clause, Subclause, page, line

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*Cl* **30**    *SC* **30.15.1.2**    *P* **28**    *L* **33**    # i-7

Anslow, Peter                    Ciena Corporation

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

The structure for 30.9 is:
30.9 Management for DTE Power via MDI
  30.9.1 PSE managed object class
    30.9.1.1 PSE attributes
      30.9.1.1.1 aPSEID
      30.9.1.1.2 aPSEAdminState
    ...
    30.9.1.2 PSE actions
      30.9.1.2.1 acPSEAdminControl

The structure for 30.15 starts off following this:
30.15 Layer management for Power over Data Lines (PoDL) of Single Balanced Pair Ethernet
  30.15.1 PoDL PSE managed object class
    30.15.1.1 PoDL PSE attributes
      30.15.1.1.1 aPoDLPSEID
      ...
      30.15.1.1.11 aPoDLPSEMaintainFullVoltageSignatureAbsentCounter
but then changes:
    30.15.1.2 aPoDLPSEActualPower
    30.15.1.3 aPoDLPSEPowerAccuracy
    30.15.1.4 aPoDLPSECumulativeEnergy
  30.15.2 PoDL PSE actions
    30.15.2.1 acPoDLPSEAdminControl

*SuggestedRemedy*

Change the heading levels of the 5 headings so that they become:
    30.15.1.1.12 aPoDLPSEActualPower
    30.15.1.1.13 aPoDLPSEPowerAccuracy
    30.15.1.1.14 aPoDLPSECumulativeEnergy
    30.15.1.2 PoDL PSE actions
    30.15.1.2.1 acPoDLPSEAdminControl

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

PROPOSED ACCEPT.

---

*Cl* **45**    *SC* **45.2.7b**    *P* **32**    *L* **9**    # i-8

Anslow, Peter                    Ciena Corporation

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

The P802.3bq draft has inserted Table 45-211a and Table 45-211b in 45.2.7
The P802.3bp draft has inserted Table 45-211c through Table 45-211h in 45.2.7
The P802.3bn draft is inserting 7 further tables after Table 45-211h in 45.2.7a and a comment has been submitted to re-number these as Table 45-211i through Table 45-211o
Consequently, Table 45-211h through Table 45-211k in the P802.3bu draft should be Table 45-211p through Table 45-211s

*SuggestedRemedy*

Renumber Table 45-211h through Table 45-211k to be Table 45-211p through Table 45-211s

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

PROPOSED ACCEPT.

---

*Cl* **45**    *SC* **45.2.7b**    *P* **32**    *L* **19**    # i-25

Stover, David                    Linear Technology

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

The terms "PoDL PSE" and "PoDL PD" are defined and used through all sections of the draft with the exception of Clause 45.2.7b where the undefined term "Single-Pair PSE" is used.

*SuggestedRemedy*

Replace all instances of "Single-Pair PSE" in 45.2.7b with "PoDL PSE".

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

PROPOSED ACCEPT.

---

*Cl* **45**    *SC* **45.2.7b.1**    *P* **32**    *L* **32**    # i-9

Anslow, Peter                    Ciena Corporation

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

There is no need to capitalise "Enable Power Classification

*SuggestedRemedy*

Change to "Enable power classification" as per heading 45.2.7b.1.1

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

PROPOSED 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* **45.2.7b.1**

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| *Cl* **45** | *SC* **45.2.7b.1** | *P* **32** | *L* **34** | # i-10 |
|---|---|---|---|---|

Anslow, Peter                                    Ciena Corporation

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

1= PSE Enabled
0= PSE Disabled
Has a spurious indent

*SuggestedRemedy*

Remove the indent

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

PROPOSED ACCEPT.

| *Cl* **45** | *SC* **45.2.7b.2** | *P* **33** | *L* **21** | # i-11 |
|---|---|---|---|---|

Anslow, Peter                                    Ciena Corporation

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

For table entries in Clause 45 that define the state of multiple bits, the columns are headed with the bit number to clarify the order.  See for example Table 45-7 bits 1.7.5:0

*SuggestedRemedy*

In Table 45-211j rows for bits 13.1.9:7, 13.1.6:3, and 13.1.2:0 and also in Table 45-211k row for bits 13.2.2:0, add the bit number at the head of each column.

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

PROPOSED ACCEPT.

| *Cl* **45** | *SC* **45.2.7b.2.1** | *P* **33** | *L* **45** | # i-27 |
|---|---|---|---|---|

Stover, David                                    Linear Technology

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

Missing a space: "Power Denied(13.1.15)"

*SuggestedRemedy*

Replace with "Power Denied (13.1.15)".

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

PROPOSED ACCEPT.

| *Cl* **45** | *SC* **45.2.7b.2.1** | *P* **33** | *L* **45** | # i-12 |
|---|---|---|---|---|

Anslow, Peter                                    Ciena Corporation

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

Space missing in "Denied(13.1.15)"

*SuggestedRemedy*

Change to "Denied (13.1.15)"

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

PROPOSED ACCEPT.

| *Cl* **45** | *SC* **45.2.7b.2.1** | *P* **33** | *L* **47** | # i-145 |
|---|---|---|---|---|

Dove, Daniel                                    Linear Technology

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

DD: Two instances of the word "removed" were  not replaced with "denied".

*SuggestedRemedy*

Replace "removed" and replace with "denied" maintaining capitalization as required.

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

PROPOSED ACCEPT.

| *Cl* **45** | *SC* **45.2.7b.2.1** | *P* **33** | *L* **48** | # i-13 |
|---|---|---|---|---|

Anslow, Peter                                    Ciena Corporation

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

"The Power Removed bit shall be ..." should be "The Power Denied bit shall be ..."

*SuggestedRemedy*

Change "The Power Removed bit shall be ..." to "The Power Denied bit shall be ..."

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

PROPOSED ACCEPT.

| *Cl* **45** | *SC* **45.2.7b.2.4** | *P* **34** | *L* **14** | # i-28 |
|---|---|---|---|---|

Stover, David                                    Linear Technology

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

Missing a space: "Class Timeout(13.1.12)"

*SuggestedRemedy*

Replace with "Class Timeout (13.1.12)".

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

PROPOSED 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* **45.2.7b.2.4**

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*Cl* **45**    *SC* **45.2.7b.2.7**    *P* **34**    *L* **36**    # i-146
Dove, Daniel                                  Linear Technology

*Comment Type* **TR**    *Comment Status* **D**    *ez*
The PSE Type bits are explicitly defined, but do not include the values for reserved bits.

*SuggestedRemedy*
Add "Values of 1xx and 011 are reserved.

*Proposed Response*    *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **45**    *SC* **45.2.7b.2.8**    *P* **34**    *L* **40**    # i-147
Dove, Daniel                                  Linear Technology

*Comment Type* **GR**    *Comment Status* **D**    *nonez*
If a PD does not classify, but the PSE is delivering power due to detection, etc; what would the value of these bits be? I suggest a change to the register bits to include "1111 = Classification not valid", and instruction to address this change.

*SuggestedRemedy*
Update the table to include "1111 = Classification not valid" and correct the adjacent entries to reconcile that change.

Replace "Bits 13.1.6:3 report the PD Class of a detected PD as specified in 104.5.2. " with "Bits 13.1.6:3 report a value of "1111" until a valid classification has taken place, or if no PD is present. Once a valid classification has occurred, the value of these bits reflect the PD Class of an attached PD as specified in 104.5.2."

Delete "The value in this register is valid while a PD is connected, i.e., while the PSE Status (13.1.2:0) bits are reporting "delivering power"."

*Proposed Response*    *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Reconcile with i-14.

---

*Cl* **45**    *SC* **45.2.7b.2.8**    *P* **34**    *L* **42**    # i-14
Anslow, Peter                                 Ciena Corporation

*Comment Type* **T**    *Comment Status* **D**    *nonez*
To fit with the following text (which doesn't make sense) "When read as '0000' bits 13.1.2:0 a Class 0 PD is indicated," should be "When read as '0000' a Class 0 PD is indicated,".
Also, in the parts that follow, "when read as a 'xxxx'" should be  "when read as 'xxxx'".

*SuggestedRemedy*
Change "When read as '0000' bits 13.1.2:0 a Class 0 PD is indicated," to "When read as '0000' a Class 0 PD is indicated,".
Also, change "when read as a 'xxxx'" to  "when read as 'xxxx'" (i.e. delete the "a") in 8 places.

*Proposed Response*    *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Reconcile with i-147

---

*Cl* **45**    *SC* **45.2.7b.2.9**    *P* **34**    *L* **52**    # i-148
Dove, Daniel                                  Linear Technology

*Comment Type* **E**    *Comment Status* **D**    *ez*
DD: Semantic improvement required. See remedy.

*SuggestedRemedy*
Replace "When read as '011', bits 13.1.2:0 indicate that pi_detecting or pi_classifying is asserted true." with "When read as '011', bits 13.1.2:0 indicate that either pi_detecting or pi_classifying is are asserted true."

*Proposed Response*    *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **45**    *SC* **45.2.7b.2.9**    *P* **34**    *L* **54**    # i-149
Dove, Daniel                                  Linear Technology

*Comment Type* **E**    *Comment Status* **D**    *ez*
The term "expression" may not be the best term.

*SuggestedRemedy*
Replace "expression" with "combination"

*Proposed Response*    *Response Status* **W**
PROPOSED 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* **45.2.7b.2.9**

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*Cl* **45** *SC* **45.2.7b.2.9** *P* **34** *L* **54** # i-117
Zimmerman, George Commscope and Line

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

All the states are described in binary order except for Sleeping (001), which is stuck between 101 and 111. (it is OK that the reserved combination is last).

*SuggestedRemedy*

Move sentence beginning with "When read as "001"..." (L54) between sentences beginning with "When read as "000"..." and "When read as "010"..." (L51)

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

PROPOSED ACCEPT.

---

*Cl* **45** *SC* **45.2.7b.3.1** *P* **35** *L* **16** # i-151
Dove, Daniel Linear Technology

*Comment Type* **TR** *Comment Status* **D** *ez*

Update required to address value of "111" and also the validity of classification being essential to reporting this information.

*SuggestedRemedy*

Replace "Bits 13.2.2:0 report the PD Type of a detected PD as specified in 104.5.1." with "Bits 13.2.2:0 report a value of ""111"" until a valid classification has taken place, or if no PD is present. Once a valid classification has occurred, the value of these bits reflect the PD Type of an attached PD as specified in 104.5.1."

Delete "The value in this register is valid while a PD is connected, i.e., while the PSE Status (13.1.2:0) bits are reporting "delivering power"."

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

PROPOSED ACCEPT.

---

*Cl* **45** *SC* **45.2.7b.3.1** *P* **35** *L* **16** # i-150
Dove, Daniel Linear Technology

*Comment Type* **TR** *Comment Status* **D** *ez*

How does a PSE know what type of PD is attached? This can only be done via classification. Without classification, this register does not have a defined value.

*SuggestedRemedy*

Add a value of "111 = Unknown", adjust adjacent entries in the table, and add text instructing the user that "a value of 111 indicates that the PSE has not performed classification and therefore cannot indicate the proper value for the PD Type".

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

PROPOSED ACCEPT.

---

*Cl* **45** *SC* **45.2.7b.3.1** *P* **35** *L* **27** # i-15
Anslow, Peter Ciena Corporation

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

Space missing in "indicated.The"

*SuggestedRemedy*

Change to "indicated. The"

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

PROPOSED ACCEPT.

---

*Cl* **45** *SC* **45.2.7b1** *P* **32** *L* **34** # i-26
Stover, David Linear Technology

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

Indentation of "Description" cell for row "13.0.0" is irregular.

*SuggestedRemedy*

Fix indentation.

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

PROPOSED ACCEPT.

---

*Cl* **104** *SC* **104** *P* **37** *L* **3** # i-118
Zimmerman, George Commscope and Line

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

Editor's note has served its purpose, delete it

*SuggestedRemedy*

Delete editors note indicating figures converted to frame

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

PROPOSED ACCEPT.

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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* **104**
*SC* **104**

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*Cl* **104**    *SC* **104.1**        *P* **37**    *L* **10**    # i-152

Dove, Daniel                Linear Technology

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

Some minor editorial changes are required to be more accurate.

*SuggestedRemedy*

replace "balanced pair" with "balanced twisted-pair"
replace "These entities allow devices to draw/supply power using the same cabling that is used for data transmission. PoDL is intended to provide an Ethernet Physical Layer device with a single interface to both the data it requires and the power to process this data." with "These entities allow devices to \*supply/draw\* power using the same cabling that \*may be\* used for data transmission. PoDL is intended to provide a \*single balanced twisted-pair\* Ethernet Physical Layer device with a single interface to both the data it requires and the power to process this data." (Remove the \*'s from this sentence)

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

PROPOSED ACCEPT.

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*Cl* **104**    *SC* **104.1**        *P* **37**    *L* **28**    # i-153

Dove, Daniel                Linear Technology

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

I propose an addition to the sentence to make it more complete.

*SuggestedRemedy*

replace "related devices." with "related devices within a PoDL System".

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

PROPOSED ACCEPT.

---

*Cl* **104**    *SC* **104.1**        *P* **37**    *L* **33**    # i-154

Dove, Daniel                Linear Technology

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

Incorrect use of the word "systems"

*SuggestedRemedy*

replace "systems" with "devices" or "components" or "elements". The system includes all of them.

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

PROPOSED ACCEPT IN PRINCIPLE.

Replace "…of PD and PSE systems…" with "…of a PD and a PSE…"

---

*Cl* **104**    *SC* **104.1.3**        *P* **38**    *L* **44**    # i-155

Dove, Daniel                Linear Technology

*Comment Type* **TR**    *Comment Status* **D**        *nonez*

DL: Subclause 104.1.3 'PoDL system types' states that 'A PoDL system, consisting of PHYs, PSE, MDIs, link segment, and a PD is defined as Type A, Type B, or Type C.'. It then states that 'A Type A system is compatible with 100BASE-T1 PHYs, and a Type B system is compatible with 1000BASE-T1 PHYs.'. If Type is an attribute of a complete system, how can the system then be compatible with a particular PHY?
Subclause 104.4.6.3 'Power feeding ripple and transients' then states that 'When measuring the ripple voltage for a Type A PSE as specified by Table 104-3 item (4a) ...' and that 'When measuring the ripple voltage for a Type B PSE as specified in Table 104-3 item (4a) ...' and subclause 104.5.6.3 'PD ripple and transients' states that 'The ripple and transient specifications for a Type A PD shall be met for all operating ...' and ' The ripple and transient specifications for a Type B PD shall be met for all operating ...'. This implies that the Type is not defined by the system, but instead an attribute of the PSE and PD.

*SuggestedRemedy*

Either Type is an attribute of the complete system, and can only be determined by the complete system, or is an attribute of a PSE and PD, and can be determined in isolation. Please clarify which it is and then update text as necessary.

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

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Duplicate comment with i-80.

---

*Cl* **104**    *SC* **104.1.3**        *P* **38**    *L* **44**    # i-119

Zimmerman, George            Commscope and Line

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

Under this definition, a PoDL system MUST have a PHY. This was not my understanding from other discussions.  If a PoDL system can exist without a PHY, the text needs modification to allow for that.  Additionally, for consideration, perhaps there is also a Type D, which has no PHY?

*SuggestedRemedy*

Change "A PoDL system, consisting of PHYs, PSE, ... Is defined..." to "A PoDL system, consisting of PSE, MDIs, link segment, a PD, and optionally a PHY is defined..."

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

PROPOSED ACCEPT IN PRINCIPLE.

Resolved by comment i-80.

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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* **104**
*SC* **104.1.3**

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7/19/2016  4:18:18 PM

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*Cl* **104**    *SC* **104.1.3**        *P* **38**        *L* **44**      # i-80
Law, David               Hewlett Packard Enter

*Comment Type* **TR**    *Comment Status* **D**             *nonez*

Subclause 104.1.3 'PoDL system types' states that 'A PoDL system, consisting of PHYs, PSE, MDIs, link segment, and a PD is defined as Type A, Type B, or Type C.'. It then states that 'A Type A system is compatible with 100BASE-T1 PHYs, and a Type B system is compatible with 1000BASE-T1 PHYs.'. If Type is an attribute of a complete system, how can the system then be compatible with a particular PHY?
Subclause 104.4.6.3 'Power feeding ripple and transients' then states that 'When measuring the ripple voltage for a Type A PSE as specified by Table 104-3 item (4a) ...' and that 'When measuring the ripple voltage for a Type B PSE as specified in Table 104-3 item (4a) ...' and subclause 104.5.6.3 'PD ripple and transients' states that 'The ripple and transient specifications for a Type A PD shall be met for all operating ...' and ' The ripple and transient specifications for a Type B PD shall be met for all operating ...'. This implies that the Type is not defined by the system, but instead an attribute of the PSE and PD.

*SuggestedRemedy*

Either Type is an attribute of the complete system, and can only be determined by the complete system, or is an attribute of a PSE and PD, and can be determined in isolation. Please clarify which it is and then update text as necessary.

*Proposed Response*      *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

See comment i-219.

Propose changing:

"A PoDL system, consisting of PHYs, PSE, MDIs, link segment, and a PD is defined as Type A, Type B, or Type C. A Type A system is compatible with 100BASE-T1 PHYs, and a Type B system is compatible with 1000BASE-T1 PHYs. A Type C system is compatible with both 100BASE-T1 and 1000BASE-T1 PHYs."

to

"A PoDL system consists of a PSE, link segment, and a PD. A Type A or Type C PSE and Type A or Type C PD is compatible with 100BASE-T1 PHYs. A Type B or Type C PSE and Type B or Type C PD is compatible with 1000BASE-T1 PHYs. A Type C PSE and Type C PD is compatible with both 100BASE-T1 and 1000BASE-T1 PHYs."

---

*Cl* **104**    *SC* **104.1.3**        *P* **38**        *L* **44**      # i-219
Gardner, Andrew            Linear Technology

*Comment Type* **TR**    *Comment Status* **D**             *nonez*

While there are PoDL types for 100BASE-T1, 1000BASE-T1, and both 100BASE-T1/1000BASE-T1 PSEs and PDs, there is no Type for PoDL PSEs and PDs without a data entity or with a data entity other than 100BASE-T1 or 1000BASE-T1.

*SuggestedRemedy*

Add a Type D for PoDL PSEs and PDs without a data entity or with a data entity other than 100BASE-T1 or 1000BASE-T1. See gardner_3bu_02_0716.pdf for complete remedy.

*Proposed Response*      *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

TFTD after presentation gardner_3bu_02_0716.pdf.

---

*Cl* **104**    *SC* **104.1.3**        *P* **39**        *L* **15**      # i-120
Zimmerman, George          Commscope and Line

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

Note says "PSE interface elements", but aren't these both on the PSE and on the PD?

*SuggestedRemedy*

Change "PSE interface elements" to "PI interface elements"

*Proposed Response*      *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**    *SC* **104.2**        *P* **39**        *L* **22**      # i-122
Zimmerman, George          Commscope and Line

*Comment Type* **TR**    *Comment Status* **D**             *nonez*

Equation 104-1 and its description confuse the requirement on loop resistance, which is in the following paragraph (lines 32-35). The inclusion of the equation adds no requirements and introduces confusion with the actual requirement for loop resistance. The extra tutorial text is not useful, since it is dependent on parameters not used in this standard, such as R_PSE.

*SuggestedRemedy*

Delete equation 104-1 and descriptive text on page 39 lines 22-27.

*Proposed Response*      *Response Status* **W**
PROPOSED ACCEPT.

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TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general      *Cl* **104**      Page 16 of 45
COMMENT STATUS: D/dispatched  A/accepted  R/rejected    RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn     *SC* **104.2**     7/19/2016  4:18:18 PM
SORT ORDER: Clause, Subclause, page, line

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*Cl* **104**    *SC* **104.2**        *P* **39**    *L* **22**    # i-121

Zimmerman, George        Commscope and Line

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

Equation 104-1 and the descriptive text really don't describe the maximum resistance of the wire pair per unit length, but rather the average maximum per unit length (the wire could have higher resistances at some places and lower others and still satisfy Eq 104-1). The length actually falls out of the equation entirely and its inclusion only serves to confuse the reader.  What this equation really describes is the relationship of the maximum DC loop resistance to the power system parameters.

*SuggestedRemedy*

Change "The maximum DC loop resistance of the link segment wire pair (per unit length) as a function of power system parameters" to "The relationship of the maximum DC loop resistance of the link segment to the power system parameters" and change Equation 104-1 by deleting the 1/2L term and changing the units from Ohms/m to Ohms

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

PROPOSED ACCEPT IN PRINCIPLE.

See comment i-122.

---

*Cl* **104**    *SC* **104.2**        *P* **39**    *L* **29**    # i-156

Dove, Daniel        Linear Technology

*Comment Type* **TR**    *Comment Status* **D**        *nonez*

The use of (ohm/m) is lacking a parameter name.

*SuggestedRemedy*

Replace "(ohm/m)" with "Loop Resistance (ohm/m)"

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

PROPOSED ACCEPT IN PRINCIPLE.

See comment i-122.

---

*Cl* **104**    *SC* **104.2**        *P* **39**    *L* **30**    # i-82

Law, David        Hewlett Packard Enter

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

I don't believe that [Greek letter omega]/m is the result of the equation, instead it is the units of the result of the equation. However if K is a ratio as stated on line 25, then K x (1-K) x VPSE_OC(min) on the numerator will result in a voltage, when then divided by the power PPD on the denominator, will result in the inverse of current, not a resistance.

*SuggestedRemedy*

Please verify if the equation is correct.

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

PROPOSED ACCEPT IN PRINCIPLE.

See comment i-122.

---

*Cl* **104**    *SC* **104.2**        *P* **39**    *L* **30**    # i-158

Dove, Daniel        Linear Technology

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

DL: I don't believe that [Greek letter omega]/m is the result of the equation, instead it is the units of the result of the equation. However if K is a ratio as stated on line 25, then K x (1-K) x VPSE_OC(min) on the numerator will result in a voltage, when then divided by the power PPD on the denominator, will result in the inverse of current, not a resistance.

*SuggestedRemedy*

Please verify if the equation is correct.

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

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Duplicate comment with i-82.

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TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general    *Cl* **104**    Page 17 of 45

COMMENT STATUS: D/dispatched  A/accepted  R/rejected    RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn    *SC* **104.2**    7/19/2016  4:18:18 PM

SORT ORDER: Clause, Subclause, page, line

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*Cl* **104**     *SC* **104.2**          *P* **39**     *L* **30**          # i-157

Dove, Daniel                    Linear Technology

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

DL: Please format the equation following subclause 15.3 'Presentation of equations' found in the '2014 IEEE-SA Standards Style Manual' <https://development.standards.ieee.org/myproject/Public/mytools/draft/styleman.pdf>, that is the equation is presented followed by the text 'where' and then the variables are defined in a list.

*SuggestedRemedy*

See comment.

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

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Duplicate comment with i-81.

---

*Cl* **104**     *SC* **104.2**          *P* **39**     *L* **30**          # i-81

Law, David                    Hewlett Packard Enter

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

Please format the equation following subclause 15.3 'Presentation of equations' found in the '2014 IEEE-SA Standards Style Manual' <https://development.standards.ieee.org/myproject/Public/mytools/draft/styleman.pdf>, that is the equation is presented followed by the text 'where' and then the variables are defined in a list.

*SuggestedRemedy*

See comment.

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

PROPOSED ACCEPT IN PRINCIPLE.

See comment i-122.

---

*Cl* **104**     *SC* **104.2**          *P* **39**     *L* **32**          # i-159

Dove, Daniel                    Linear Technology

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

The term 'system power Class' (page 39, line 32), 'system class' (page 40, line 49) and 'Class Code' (page 40, line 12) all seem to be used interchangeably.|

*SuggestedRemedy*

I believe 'system class' is the correct term as Table 104-1 defines more than just power, and while there can be a power associated with a system class, there are other parameters associated with a system class. Please update text as required.

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

PROPOSED ACCEPT IN PRINCIPLE.

Editor to replace all instances of 'system power Class' and 'Class Code' with 'system class'.

---

*Cl* **104**     *SC* **104.2**          *P* **39**     *L* **32**          # i-83

Law, David                    Hewlett Packard Enter

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

The term 'system power Class' (page 39, line 32), 'system class' (page 40, line 49) and 'Class Code' (page 40, line 12) all seem to be used interchangeably.|

*SuggestedRemedy*

I believe 'system class' is the correct term as Table 104-1 defines more than just power, and while there can be a power associated with a system class, there are other parameters associated with a system class. Please update text as required.

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

PROPOSED ACCEPT IN PRINCIPLE.

Editor to replace all instances of 'system power Class' and 'Class Code' with 'system class'.

---

*Cl* **104**     *SC* **104.2**          *P* **39**     *L* **34**          # i-160

Dove, Daniel                    Linear Technology

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

The term "system power classes" is not used in Table 104-1. I recommend using consistent terminology.

*SuggestedRemedy*

Replace "system power classes" with "system classes".

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

PROPOSED 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* **104**
*SC* **104.2**

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*Cl* **104**    *SC* **104.2**       *P* **39**    *L* **34**    # i-89
Stover, David             Linear Technology

*Comment Type* **TR**    *Comment Status* **D**        *ez*

There is no 48V unregulated power class

*SuggestedRemedy*

Change the last part of the sentence to "and 48V regulated system power classes"

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

PROPOSED ACCEPT.

---

*Cl* **104**    *SC* **104.3**       *P* **40**    *L* **2**    # i-108
Abramson, David           Texas Instruments Inc

*Comment Type* **ER**    *Comment Status* **D**        *nonez*

There is not a single sentence in the section, just Table 104-1 with no description. We should add a sentence so the reader understand what the table is trying to convey.

*SuggestedRemedy*

Add text: "PSEs and PDs are further categorized by their system class. These classes and the relevant electrical specifications are shown in Table 104-1." to beginning of section 104.3.
Note: "sytem class" may not be the correct phrase, editorial licesense is given to pick a more correct name.

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

PROPOSED ACCEPT IN PRINCIPLE.

Add text: "PSEs and PDs are further categorized by their system class. These classes and the relevant electrical specifications are shown in Table 104-1." to beginning of section 104.3.

---

*Cl* **104**    *SC* **104.3**       *P* **40**    *L* **6**    # i-87
Goergen, Joel            Cisco Systems, Inc.

*Comment Type* **TR**    *Comment Status* **D**        *nonez*

The table lists several ampacities that are outside safe operation for multiple bundles or 24awg cables still meeting the maximum loop resistance. Class 3, 7, 8, and 9 all are outside the ampacity defined in NEC 725.144, even though all meet the power exclusion defined in 840.160 of 60 watts.

*SuggestedRemedy*

There is no environmental section describing limits and other standards to reference. Section similar to .3bt must be added.
There is no limitation on gauge and wire sizing, or reference to NEC for guidance.
Presentation to address possible text will be provided.

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

PROPOSED ACCEPT IN PRINCIPLE.

Add the following note to Table 104-1:

"NOTE - Users are cautioned to be aware of the ampacity of cabling, as installed, and local codes and regulations, e.g., ANSI/NFPA 70 – National Electric Code® (NEC®), relevant to the maximum class supported."

TFTD after presentation zimmerman_3bu_1_0716.pdf.

---

*Cl* **104**    *SC* **104.3**       *P* **40**    *L* **18**    # i-161
Dove, Daniel            Linear Technology

*Comment Type* **ER**    *Comment Status* **D**        *ez*

AB: In Table 104-1, the numeric entry "1360" does not comply with the IEEE 802 .3 numeric formatting convention.

*SuggestedRemedy*

Change to "1 360" (i.e. add a space between "1" and "3"

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

PROPOSED 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* **104**
*SC* **104.3**

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*Cl* **104**  *SC* **104.3**  *P* **40**  *L* **21**  # i-90
Stover, David  Linear Technology

*Comment Type* **T**  *Comment Status* **D**  *ez*
Table 104-3 indicates P_Class (PSE sourced power) is defined in Table 104-1; it is not.

*SuggestedRemedy*
In Table 104-1, add P_Class and populate the values in the table (TFTD). Also, change all references of P_PD to P_Class_PD.

*Proposed Response*  *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Editor to add row to Table 104-1 for P_Class and populate with PPSE max. PPSE max is the product of VPSE min and IPI max. For example in Class 5 the power sourced at the PSE PI is 11.7V X 0.339A = 3.97W.

No change to P_PD.

---

*Cl* **104**  *SC* **104.3**  *P* **40**  *L* **25**  # i-162
Dove, Daniel  Linear Technology

*Comment Type* **TR**  *Comment Status* **D**  *ez*
The word "guaranteed" seems to be an inappropriate term to include in an international standard. It suggests a warranty or promise. In addition, this term is referred to in another section as "maximum average power", which I think is a better term.

*SuggestedRemedy*
replace "guaranteed" with "maximum average".

*Proposed Response*  *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**  *SC* **104.3.3**  *P* **43**  *L* **6**  # i-216
Gardner, Andrew  Linear Technology

*Comment Type* **TR**  *Comment Status* **D**  *nonez*
The definition of power_available which is true when "the PSE is able to source the required power to the attached PD" needs to include the definition of valid PSE-PD pairings.

*SuggestedRemedy*
Propose adding a PSE-PD compatibility matrix that clearly defines what class of PSE is allowed to power the attached PD. See gardner_3bu_01_0716.pdf for complete remedy.

*Proposed Response*  *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Suggested remedy is on page x of gardner_3bu_1_0716.pdf.

---

*Cl* **104**  *SC* **104.4**  *P* **40**  *L* **34**  # i-163
Dove, Daniel  Linear Technology

*Comment Type* **E**  *Comment Status* **D**  *ez*
some minor editorial suggestions are warranted.

*SuggestedRemedy*
item b) replace "the detected" with "a detected"
item c) replace" power on the" with "power applied to a"

*Proposed Response*  *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**  *SC* **104.4**  *P* **40**  *L* **36**  # i-123
Zimmerman, George  Commscope and Line

*Comment Type* **TR**  *Comment Status* **D**  *ez*
Here's why explanatory text gets you into trouble... If one of the main function sof the PSE is to monitor the power, I assume a main function is also to remove power in case of an overload, short circuit or other fault. (also, the sentence doesn't have a period at the end)

*SuggestedRemedy*
Change "To remove the operating voltage when no longer required or when transitioning to the SLEEP state" to "To remove the operating voltage when no longer required, when transition to the SLEEP state, or when a short-circuit or other fault is detected."

*Proposed Response*  *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**  *SC* **104.4.3.1**  *P* **41**  *L* **3**  # i-164
Dove, Daniel  Linear Technology

*Comment Type* **TR**  *Comment Status* **D**  *ez*
I see an inconsistent use of the term "full voltage" or "operating voltage" in the text when "full operating voltage" has a clear meaning. Other operating voltages for instance include Vsleep.

*SuggestedRemedy*
replace "Prior to application of operating voltage" with "Prior to application of full operating voltage"
search & replace for other instances of "operating voltage" and "full voltage" and replace to ensure consistency.

*Proposed Response*  *Response Status* **W**
PROPOSED 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* **104**
*SC* **104.4.3.1**

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*Cl* **104**     *SC* **104.4.3.1**          *P* **41**          *L* **11**          # i-124
Zimmerman, George                    Commscope and Line

*Comment Type*  **TR**        *Comment Status*  **D**                              *ez*

It is important to say that the state diagram monitors the current draw as well and removes power in case of a fault.

*SuggestedRemedy*

Insert new paragraph at end of 104.4.3.1 before 104.4.3.2 "Additionally, while operating voltage is applied, the PSE monitors the current drawn and removes power if it detects an overload, short-circuit or other fault."

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

PROPOSED ACCEPT.

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*Cl* **104**     *SC* **104.4.3.3**          *P* **41**          *L* **22**          # i-125
Zimmerman, George                    Commscope and Line

*Comment Type*  **TR**        *Comment Status*  **D**                              *ez*

there is no "idle sequence" defined in the text or diagram, but there is an "idle state".

*SuggestedRemedy*

change "since the last idle sequence" to "since the last entry to the IDLE state",  make change on P41 L22 and L24 ; P42 L6 and L11

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

PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.4.3.3**          *P* **41**          *L* **23**          # i-165
Dove, Daniel                         Linear Technology

*Comment Type*  **TR**        *Comment Status*  **D**                              *ez*

A required term is missing.

*SuggestedRemedy*

replace "result of a valid 22 signature being detected or the tdet_timer timing out." with "result of a valid signature being detected, an invalid signature being detected, or the tdet_timer timing out." in both the TRUE and FALSE definitions.

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

PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.4.3.3**          *P* **41**          *L* **29**          # i-166
Dove, Daniel                         Linear Technology

*Comment Type*  **G**         *Comment Status*  **D**                              *ez*

Super-Nit-Picky - The "information byte" is not a technically correct term given that the information is a word (16 bits)?!?

*SuggestedRemedy*

delete "-byte". I think the sentence stands that way.

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

PROPOSED ACCEPT.

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*Cl* **104**     *SC* **104.4.3.3**          *P* **41**          *L* **41**          # i-167
Dove, Daniel                         Linear Technology

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

There is a reference on the TRUE description, but lacking on the FALSE description?

*SuggestedRemedy*

add a reference "(see 104.4.6.2.3)"

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

PROPOSED ACCEPT.

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*Cl* **104**     *SC* **104.4.3.3**          *P* **41**          *L* **45**          # i-168
Dove, Daniel                         Linear Technology

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

missing space

*SuggestedRemedy*

insert a space between" FALSE:" and "the"

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

PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.4.3.3**          *P* **42**          *L* **16**          # i-169
Dove, Daniel                         Linear Technology

*Comment Type*  **TR**        *Comment Status*  **D**                              *ez*

I believe that a change to terminology is required.

*SuggestedRemedy*

Replace "short circuit" with "overload".

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

PROPOSED 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* **104**
*SC* **104.4.3.3**

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*Cl* **104**     *SC* **104.4.3.3**     *P* **42**     *L* **22**     # i-126
Zimmerman, George     Commscope and Line

*Comment Type* **E**     *Comment Status* **D**     ez
Definition of overload_held simply says "latched", not giving any indication when it is released, and isn't in normal TRUE/FALSE style.

*SuggestedRemedy*
Change "Latched high version of overload_detected" to describe both TRUE and FALSE values as "overload_detected has been TRUE/FALSE since last entry to the IDLE state."

*Proposed Response*     *Response Status* **W**
PROPOSED ACCEPT.

*Cl* **104**     *SC* **104.4.3.3**     *P* **42**     *L* **23**     # i-170
Dove, Daniel     Linear Technology

*Comment Type* **TR**     *Comment Status* **D**     ez
The term "PSE is sleeping" is vague.

*SuggestedRemedy*
Replace "PSE is sleeping" with "PSE is in the SLEEP state".

*Proposed Response*     *Response Status* **W**
PROPOSED ACCEPT.

*Cl* **104**     *SC* **104.4.3.3**     *P* **42**     *L* **27**     # i-171
Dove, Daniel     Linear Technology

*Comment Type* **E**     *Comment Status* **D**     ez
Super-Nit-Picky - A PSE performs classification AT the PI, not through it. The PI is a point on a line. The channel/link-segment is a line.

*SuggestedRemedy*
Replace "through" with "at" in both definitions.

*Proposed Response*     *Response Status* **W**
PROPOSED ACCEPT.

*Cl* **104**     *SC* **104.4.3.3**     *P* **43**     *L* **20**     # i-109
Abramson, David     Texas Instruments Inc

*Comment Type* **TR**     *Comment Status* **D**     nonez
The current PSE state diagram (and associated text) never checks to see if both the PSE and PD are the same voltage before powering on. We should add the check. We may even want to make sure the PD and PSE are in the same system class category (e.g. 12V regulated).
I have chosen to fix this by changing a variable definition, we could also create a new variable and add it to the state diagram.

*SuggestedRemedy*
Change definitions for variable "valid_class" to:
TRUE: valid class information was received from the PD during SCCP and the PSE and PD voltage levels match.
FALSE: valid class information was not receivedf rom the PD during SCCP or the PSE and PD voltage levels do not match.

*Proposed Response*     *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Add the following new paragraph to the end of 104.4.5:

"Valid class information is one which returns one of the defined bit patterns in Table 104-8 with a valid CRC8 result and the PSE is able to source the voltage associated with the PD class in Table 104-1."

*Cl* **104**     *SC* **104.4.3.3**     *P* **43**     *L* **23**     # i-172
Dove, Daniel     Linear Technology

*Comment Type* **TR**     *Comment Status* **D**     ez
An odd sentence/structure "the device that contains the PSE overall state diagrams".. I think the issue is "contains". A page contains the state diagrams. A device implements the state diagrams.. or state machines based upon the state diagrams.

*SuggestedRemedy*
Replace "contains" with "implements".

*Proposed Response*     *Response Status* **W**
PROPOSED 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* **104**   *SC* **104.4.3.3**   Page 22 of 45   7/19/2016 4:18:18 PM

*Cl* **104**     *SC* **104.4.3.3**          *P* **43**          *L* **28**          # i-92
Stover, David                              Linear Technology

*Comment Type*  **T**       *Comment Status*  **D**                              *ez*
V_good, a PD parameter, is referenced here. I believe V_good_PSE is the intended
reference.

*SuggestedRemedy*
Change both references to "V_good" with "V_good_PSE".

*Proposed Response*        *Response Status*  **W**
PROPOSED ACCEPT.

*Cl* **104**     *SC* **104.4.3.3**          *P* **43**          *L* **28**          # i-91
Stover, David                              Linear Technology

*Comment Type*  **TR**      *Comment Status*  **D**                              *ez*
No DO_DETECTION state in PSE state diagram, but it is referenced here.

*SuggestedRemedy*
Change both references to "DO_DETECTION" with "DETECTION".

*Proposed Response*        *Response Status*  **W**
PROPOSED ACCEPT.

*Cl* **104**     *SC* **104.4.3.3**          *P* **43**          *L* **52**          # i-93
Stover, David                              Linear Technology

*Comment Type*  **TR**      *Comment Status*  **D**                              *ez*
TLIM_timer is not mentioned in the state diagram

*SuggestedRemedy*
T_LIM is the time duration used to derive the short circuit (overload) condition which in turn
decides the state of the variable overload_detected. The variable overload_detected is
used in the state diagram. Thus the description of TLIM_timer should be removed from the
Timers section (104.4.3.4).

*Proposed Response*        *Response Status*  **W**
PROPOSED ACCEPT.

*Cl* **104**     *SC* **104.4.3.4**          *P* **43**          *L* **31**          # i-33
Stover, David                              Linear Technology

*Comment Type*  **E**       *Comment Status*  **D**                              *ez*
Timers do not reference the symbol of the specific parameter to which they refer. In some
cases (e.g., tod_timer), the intended symbol is never referenced elsewhere in the
document.

*SuggestedRemedy*
Modify Table references in all PSE timer definitions to include the specific symbol of the
parameter to which they refer. For example, modify tod_timer definition as follows:
"A timer used to regulate a subsequent attempt to power a PD after an overload condition
that causes a fault; see T_od in Table 104-3."

*Proposed Response*        *Response Status*  **W**
PROPOSED ACCEPT IN PRINCIPLE.

Editor to add symbols next to Table cross references in all timer definitions in PSE
subclause.

*Cl* **104**     *SC* **104.4.3.4**          *P* **43**          *L* **36**          # i-231
Dove, Daniel                               Linear Technology

*Comment Type*  **E**       *Comment Status*  **D**                              *ez*
ROGUE: tclass should read tClass, according to Table 104-3

*SuggestedRemedy*
Replace tclass with tClass

*Proposed Response*        *Response Status*  **W**
PROPOSED ACCEPT.

*Cl* **104**     *SC* **104.4.3.4**          *P* **43**          *L* **46**          # i-232
Dove, Daniel                               Linear Technology

*Comment Type*  **E**       *Comment Status*  **D**                              *ez*
ROGUE: tinrush should read tInrush, according to Table 104-3

*SuggestedRemedy*
Replace tinrush with tInrush

*Proposed Response*        *Response Status*  **W**
PROPOSED ACCEPT.

TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general          *Cl* **104**          Page 23 of 45
COMMENT STATUS: D/dispatched  A/accepted  R/rejected     RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn          *SC* **104.4.3.4**          7/19/2016  4:18:18 PM
SORT ORDER: Clause, Subclause, page, line

| *Cl* **104** | *SC* **104.4.3.4** | *P* **43** | *L* **49** | # i-233 |

Dove, Daniel                    Linear Technology

| *Comment Type* **E** | *Comment Status* **D** | *ez* |

ROGUE: tmfvdo should read tMFVDO, according to Table 104-3

*SuggestedRemedy*

Replace tmfvdo with tMFVDO

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

PROPOSED ACCEPT.

| *Cl* **104** | *SC* **104.4.3.4** | *P* **44** | *L* **1** | # i-234 |

Dove, Daniel                    Linear Technology

| *Comment Type* **E** | *Comment Status* **D** | *ez* |

ROGUE: toff should read tOFF, according to Table 104-3

*SuggestedRemedy*

Replace toff with tOFF

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

PROPOSED ACCEPT IN PRINCIPLE.

Editor to replace all instances of toff with tOff.

| *Cl* **104** | *SC* **104.4.3.4** | *P* **44** | *L* **6** | # i-235 |

Dove, Daniel                    Linear Technology

| *Comment Type* **E** | *Comment Status* **D** | *ez* |

ROGUE: trestart should read tRestart according to Table 104-3

*SuggestedRemedy*

Replace trestart with tRestart

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

PROPOSED ACCEPT.

| *Cl* **104** | *SC* **104.4.3.6** | *P* **45** | *L* | # i-174 |

Dove, Daniel                    Linear Technology

| *Comment Type* **ER** | *Comment Status* **D** | *nonez* |

AB: When in the POWER_UP state, the lack of a transition when power is stable concurrent with the In-rush timer expiring (i.e. power_stable * tinrush_timer_done) indicates the state machine remains in the POWER_UP state. Such behavior appears to hang the state machine

*SuggestedRemedy*

Define the expected behavior when this situation occurs - For example, add this as another condition for the POWER_UP to POWER_ON transition

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

PROPOSED ACCEPT IN PRINCIPLE.

Propose changing the condition on the arc from the POWER_UP state to the RESTART state from "tinrush_timer_done*!power_stable" to "tinrush_timer_done"

| *Cl* **104** | *SC* **104.4.3.6** | *P* **45** | *L* **15** | # i-106 |

Abramson, David                    Texas Instruments Inc

| *Comment Type* **TR** | *Comment Status* **X** | *nonez* |

We should allow a PD that requires classification prior to the application of power to be compliant in order for PDs to be optimized (not all PDs will want to be able to withstand 50V).

*SuggestedRemedy*

See abramson_01bu_0716.pdf for text and state diagram markups.  Many changes are required to implement this comment.

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

TFTD.

| *Cl* **104** | *SC* **104.4.3.6** | *P* **45** | *L* **16** | # i-94 |

Stover, David                    Linear Technology

| *Comment Type* **TR** | *Comment Status* **D** | *nonez* |

The state machine can proceed to POWER_UP state only when power is available

*SuggestedRemedy*

change the exit condition from DETECTION_EVAL to RESTART to "(mr_invalid_signature + !power_available) * !mr_sccp_enabled". Refer to presentation for additional details

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

PROPOSED ACCEPT IN PRINCIPLE.

See gardner_3bu_1_0716.pdf for complete remedy.

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* **104**
*SC* **104.4.3.6**

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*Cl* **104**    *SC* **104.4.3.6**         *P* **45**        *L* **16**        # i-225
Stover, David                          Linear Technology

*Comment Type* **TR**      *Comment Status* **D**                          *nonez*
The state machine can proceed to POWER_UP state only when power is available.

*SuggestedRemedy*
change the exit condition from DETECTION_EVAL to POWER_UP to "mr_valid_signature * !mr_sccp_enabled * power_available". Refer to presentation for additional details.

*Proposed Response*      *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

See gardner_3bu_01_0716.pdf for complete remedy.

---

*Cl* **104**    *SC* **104.4.3.6**         *P* **45**        *L* **28**        # i-173
Dove, Daniel                          Linear Technology

*Comment Type* **ER**      *Comment Status* **D**                          *ez*
AB: The far left transition from DETECTION_EVAL to POWER_UP is missing an arrow head

*SuggestedRemedy*
Add an arrow head to this transition.

*Proposed Response*      *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

The arrow head was replaced when the PSE SD was redrawn in Framemaker native format for D3.0.

---

*Cl* **104**    *SC* **104.4.3.6**         *P* **45**        *L* **34**        # i-98
Stover, David                          Linear Technology

*Comment Type* **TR**      *Comment Status* **D**                          *nonez*
The state machine should proceed to RESTART if the power is unavailable when in POWER_ON state

*SuggestedRemedy*
Add a branch from POWER_ON to RESTART state with an exit condition - "!power_available"

*Proposed Response*      *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

See gardner_3bu_1_0716.pdf for complete remedy.

---

*Cl* **104**    *SC* **104.4.4**         *P* **47**        *L* **3**        # i-128
Zimmerman, George                      Commscope and Line

*Comment Type* **T**      *Comment Status* **D**                          *nonez*
"The PSE shall probe the PI as described in 104.4.4.1."  104.4.4.1 does not describe any probing.  It simply states the current requirements for detection and introduces table 104-2.  It contains its own Shall.  Not clear what additionally is meant by this shall. It may be to include the electrical parameters of the probing current not called out specifically by the other shall.  See comment marked GZ1 on Table 104-2.

*SuggestedRemedy*
Delete "The PSE shall probe the PI as described in 104.4.4.1."

*Proposed Response*      *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**    *SC* **104.4.4**         *P* **47**        *L* **4**        # i-175
Dove, Daniel                          Linear Technology

*Comment Type* **TR**      *Comment Status* **D**                          *ez*
The sentence doesn't clarify WHEN detection takes place.

*SuggestedRemedy*
Insert "When in the DETECTION state," prior to "The PSE shall..."

*Proposed Response*      *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**    *SC* **104.4.4**         *P* **47**        *L* **28**        # i-176
Dove, Daniel                          Linear Technology

*Comment Type* **E**      *Comment Status* **D**                          *ez*
The values of 4.05 and 5.15 in the table are of the wrong font/style

*SuggestedRemedy*
Correct the font/style.

*Proposed Response*      *Response Status* **W**
PROPOSED 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* **104**
*SC* **104.4.4**

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*Cl* **104**     *SC* **104.4.4.1**          *P* **47**     *L* **12**     # i-129
Zimmerman, George                    Commscope and Line

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

(comment GZ1) There are many parameters in Table 104-2 which are not covered by any
shall statement. The statement "shall be within the Ivalid current range, as specified in
Table 104-2" covers only the Ivalid range in the table, but looks intended to cover the whole
set of characteristics. (additionally, some of the "output characteristics" in Table 104-2 are
not output characteristics, but are the characteristics of a valid signature - these might
need their own table, not addressed in my remedy).

*SuggestedRemedy*

Change "All detection currents at the PI shall be within the Ivalid current range, as
specified in Table 104-2, when connected to a valid PD detection signature as specified in
Table 104-4." to read "The PSE PI detection state will have the electrical output
characteristics specified in Table 104-2. All detection currents at the PI shall be within the
Ivalid current range, as specified in Table 104-2, when connected to a valid PD detection
signature as specified in Table 104-4."

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

This comment was WITHDRAWN by the commenter.

---

*Cl* **104**     *SC* **104.4.4.1**          *P* **47**     *L* **12**     # i-107
Abramson, David                    Texas Instruments Inc

*Comment Type* **TR**     *Comment Status* **D**                              *nonez*

There are items in Table 104-2 that are never referenced in the text. These parameters do
not currently have a "shall" associated with them since there is not a general "shall" for the
table.

*SuggestedRemedy*

Add text: "The detection probe shall conform to Voc, Isc, Islew, and Cout as specified in
Table 104-2."
at end of section 104.4.4.1

*Proposed Response*     *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.4.5**          *P* **48**     *L* **9**     # i-16
Anslow, Peter                    Ciena Corporation

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

"Table 104-3" should be a cross-reference:
Page 48 line 9, Page 50, line 33
"Table 104-6" should be a cross-reference:
Page 59 lines 10 and 13
"Table 104-2" should be a cross-reference:
Page 71 line 12

*SuggestedRemedy*

Make "Table 104-3" a cross-reference:
Page 48 line 9, Page 50, line 33
Make "Table 104-6" a cross-reference:
Page 59 lines 10 and 13
Make "Table 104-2" a cross-reference:
Page 71 line 12

*Proposed Response*     *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.4.6**          *P* **48**     *L* **34**     # i-177
Dove, Daniel                    Linear Technology

*Comment Type* **TR**     *Comment Status* **D**                              *ez*

Output Voltage dv/dt is an inaccurate parameter name.

*SuggestedRemedy*

Replace "Output Voltage dv/dt" with "Output Slew Rate (dv/dt)"

*Proposed Response*     *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.4.6**          *P* **48**     *L* **34**     # i-29
Stover, David                    Linear Technology

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

"Output voltage dV/dt" parameter is used in the draft but the symbol "|dV_PSE/dt|" is never
referenced.

*SuggestedRemedy*

Remove unused symbol "|dV_PSE/dt|"

*Proposed Response*     *Response Status* **W**
PROPOSED ACCEPT.

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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* **104**
*SC* **104.4.6**

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*Cl* **104**      *SC* **104.4.6**           *P* **48**        *L* **44**        # i-178
Dove, Daniel                          Linear Technology

*Comment Type*  **TR**        *Comment Status*  **D**                               *ez*
Item 5 Maximum value refers to a non-existent parameter IPI_Class(max).

*SuggestedRemedy*
Replace "IPI_Class(max)" with "IPI(max)

*Proposed Response*        *Response Status*  **W**
PROPOSED ACCEPT.

---

*Cl* **104**      *SC* **104.4.6**           *P* **48**        *L* **49**        # i-30
Stover, David                         Linear Technology

*Comment Type*  **E**         *Comment Status*  **D**                               *ez*
Mixed case usage in draft, "T_Inrush" and "T_inrush". "T_Inrush" is the defined symbol.

*SuggestedRemedy*
Replace all instances of "T_inrush" with "T_Inrush".

*Proposed Response*        *Response Status*  **W**
PROPOSED ACCEPT.

---

*Cl* **104**      *SC* **104.4.6**           *P* **49**        *L* **6**         # i-31
Stover, David                         Linear Technology

*Comment Type*  **E**         *Comment Status*  **D**                               *ez*
Mixed case usage in draft, "T_OFF" and "T_Off". "T_OFF" is the defined symbol.

*SuggestedRemedy*
Replace all instances of "T_Off" with "T_OFF".

*Proposed Response*        *Response Status*  **W**
PROPOSED ACCEPT.

---

*Cl* **104**      *SC* **104.4.6**           *P* **49**        *L* **8**         # i-32
Stover, David                         Linear Technology

*Comment Type*  **E**         *Comment Status*  **D**                               *ez*
Mixed case usage in draft, "V_Sleep", "V_Sleep_PD" and "V_sleep", "V_sleep_PD".
"V_Sleep" and "V_Sleep_PD" are the defined symbols.

*SuggestedRemedy*
Replace all instances of "V_sleep" and "V_sleep_PD" with "V_Sleep" and "V_Sleep_PD",
respectively.

*Proposed Response*        *Response Status*  **W**
PROPOSED ACCEPT.

---

*Cl* **104**      *SC* **104.4.6**           *P* **49**        *L* **9**         # i-217
Gardner, Andrew                       Linear Technology

*Comment Type*  **TR**        *Comment Status*  **D**                               *nonez*
The PSE output range during SLEEP is currently specified as 3.1V to 3.45V which
translates to a +/-5% range. Suggest opening up the max limit in order reduce burden on
PSE implementation.

*SuggestedRemedy*
Propose relaxing the output range max requirement from 3.45V to 3.575V which yields a +/-
7% range for item 10 (VSleep) in Table 104-3 and corresponding item 10 (VSleep_PD) in
Table 104-6. VSleep max of 3.575V still leaves adequate margin for differentiating
Vsig_disable min of 3.6V.

*Proposed Response*        *Response Status*  **W**
PROPOSED ACCEPT.

---

*Cl* **104**      *SC* **104.4.6**           *P* **49**        *L* **14**        # i-34
Stover, David                         Linear Technology

*Comment Type*  **E**         *Comment Status*  **D**                               *ez*
Mixed case usage in draft, "T_Restart" and "T_restart". "T_Restart" is the defined symbol.

*SuggestedRemedy*
Replace all instances of "T_restart" with "T_Restart".

*Proposed Response*        *Response Status*  **W**
PROPOSED ACCEPT.

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TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general        *Cl* **104**                   Page 27 of 45
COMMENT STATUS: D/dispatched  A/accepted  R/rejected     RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn        *SC* **104.4.6**              7/19/2016  4:18:18 PM
SORT ORDER: Clause, Subclause, page, line

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|---|---|---|---|---|---|---|---|---|
| *Cl* **104** | *SC* **104.4.6** | | *P* **49** | | *L* **22** | | # | i-35 |

Stover, David · · · · · · · · · · · · · · · · · · · · Linear Technology

*Comment Type* **E** · · · · · · *Comment Status* **D** · · · · · · *ez*

Mixed case usage in draft, "I_Wakeup" and "I_wakeup". "I_Wakeup" is the defined symbol.

*SuggestedRemedy*

Replace all instances of "I_wakeup" with "I_Wakeup".

*Proposed Response* · · · · · · *Response Status* **W**

PROPOSED ACCEPT.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Cl* **104** | *SC* **104.4.6** | | *P* **49** | | *L* **27** | | # | i-36 |

Stover, David · · · · · · · · · · · · · · · · · · · · Linear Technology

*Comment Type* **E** · · · · · · *Comment Status* **D** · · · · · · *ez*

Mixed case usage in draft, "I_wakeup_bad_hi" and "I_Wakeup_bad_hi". "I_wakeup_bad_hi" is the defined symbol.

*SuggestedRemedy*

Replace all instances of "I_Wakeup_bad_hi" with "I_wakeup_bad_hi".

*Proposed Response* · · · · · · *Response Status* **W**

PROPOSED ACCEPT.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Cl* **104** | *SC* **104.4.6.1** | | *P* **49** | | *L* **39** | | # | i-220 |

Gardner, Andrew · · · · · · · · · · · · · · · · · · · · Linear Technology

*Comment Type* **TR** · · · · · · *Comment Status* **D** · · · · · · *nonez*

There is no spec for VPSE when a PSE is not delivering any power to the PI, i.e. pi_powered, pi_sleeping, pi_detecting, pi_prebiased, and pi_classifying are all FALSE.

*SuggestedRemedy*

Insert the following sentence after the first sentence in this subclause. "A PSE shall apply a voltage at the PI in the range of VDisable when in the OVERLOAD, OVERLOAD_DELAY, and DISABLED states (see 104.4.6.5)." Add new line item to Table 104-3 as follows: '21, DC output voltage during the DISABLED, OVERLOAD, and OVERLOAD_DELAY states, VDisable, V, -, 1, All, All, See 104.4.6.1'

*Proposed Response* · · · · · · *Response Status* **W**

PROPOSED ACCEPT.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Cl* **104** | *SC* **104.4.6.1** | | *P* **49** | | *L* **44** | | # | i-99 |

Stover, David · · · · · · · · · · · · · · · · · · · · Linear Technology

*Comment Type* **ER** · · · · · · *Comment Status* **D** · · · · · · *ez*

PSE states SETTLE_SLEEP is referred as SLEEP_SETTLE in error in a few places in the document

*SuggestedRemedy*

Do a global search-and-replace of SLEEP_SETTLE to SETTLE_SLEEP

*Proposed Response* · · · · · · *Response Status* **W**

PROPOSED ACCEPT.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Cl* **104** | *SC* **104.4.6.1** | | *P* **49** | | *L* **44** | | # | i-179 |

Dove, Daniel · · · · · · · · · · · · · · · · · · · · Linear Technology

*Comment Type* **TR** · · · · · · *Comment Status* **D** · · · · · · *ez*

In this subclause, there are multiple instances of "SLEEP_SETTLE" referring to the "SETTLE_SLEEP" state.

*SuggestedRemedy*

Do a Search & Replace "SLEEP_SETTLE" with "SETTLE_SLEEP" throughout the document.

*Proposed Response* · · · · · · *Response Status* **W**

PROPOSED ACCEPT.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Cl* **104** | *SC* **104.4.6.2** | | *P* **50** | | *L* **1** | | # | i-37 |

Stover, David · · · · · · · · · · · · · · · · · · · · Linear Technology

*Comment Type* **E** · · · · · · *Comment Status* **D** · · · · · · *ez*

"I_inrush is the PSE output current during the POWER_UP state". The symbol "I_inrush" is defined here, but never used anywhere in the draft. This sentence is purely explanatory, and has no purpose when the symbol is not used.

*SuggestedRemedy*

Strike the aforementioned sentence from the draft.

*Proposed Response* · · · · · · *Response Status* **W**

PROPOSED 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* **104**
*SC* **104.4.6.2**

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*Cl* **104**     *SC* **104.4.6.2.1**     *P* **48**     *L* **47**     # i-215

Gardner, Andrew                           Linear Technology

*Comment Type* **TR**     *Comment Status* **D**     *nonez*

The 50ms minimum value for TLIM in Table 104-3 is too restrictive, 10ms should be sufficiently large.

*SuggestedRemedy*

Change the minimum value of TLIM from 50ms to 10ms

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

PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.4.6.2.1**     *P* **50**     *L* **4**     # i-180

Dove, Daniel                              Linear Technology

*Comment Type* **TR**     *Comment Status* **D**     *ez*

The name of this subclause is innaccurate.

*SuggestedRemedy*

Replace "short circuit" with "overload".

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

PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.4.6.2.1**     *P* **50**     *L* **7**     # i-23

Nikolich, Paul                            IEEE member / Self E

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

The "Table 104-3" instance in this line has a link to the Table (which is a useful feature, but the other instances of "Table 104-3" in the document don't have the link.
Why are the instances of "Table 104-3" treated differently?
As a side note, it appears that the instance of "Table 104-3" with the link is not searchable using the PDF search function.

*SuggestedRemedy*

With respect to linking instances of "Table 104-3", please make them consistent.
Either do it for all of them or none of them.  Your choice.

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

PROPOSED ACCEPT IN PRINCIPLE.

Editor will link all instances of Table 104-3. Editor to check all cross references and correct linkages as necessary.

---

*Cl* **104**     *SC* **104.4.6.2.1**     *P* **50**     *L* **9**     # i-100

Stover, David                             Linear Technology

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

I_PORT is same as current sourced by PSE

*SuggestedRemedy*

Change I_PORT to I_PSE globally

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

PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.4.6.2.1**     *P* **50**     *L* **15**     # i-181

Dove, Daniel                              Linear Technology

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

This subclause does not provide direction on how the PSE sets the Overload_Detected variable to TRUE, and that makes the State Diagram more difficult to implement.

*SuggestedRemedy*

Replace "If the PSE is limiting current in the POWER_UP state, POWER_ON state, or any state when VSleep is 15 applied at the PI, power removal from the PI shall begin within TLIM of the initiation of current limiting." with "If the PSE is limiting current in any state when pi_powered, pi_sleeping or pi_prebias are true, within TLIM of the initiation of current limiting, Overload_Detect is set true and power removal from the PI shall begin."

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

PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.4.6.2.2**     *P* **50**     *L* **28**     # i-38

Stover, David                             Linear Technology

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

When referencing "min" and "max" corners of symbols, "min" and "max" should not be subscript.

*SuggestedRemedy*

Remove subscript formatting from "min" and "max" on this line.

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

PROPOSED 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* **104**
*SC* **104.4.6.2.2**

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*Cl* **104**     *SC* **104.4.6.3**          *P* **50**          *L* **46**          # i-182
Dove, Daniel                                   Linear Technology

*Comment Type* **ER**     *Comment Status* **D**                              *ez*
AB: The first usage of the term "DUT" is not defined.

*SuggestedRemedy*
Based on similar instances in 802.3-2015, change the first instance of "DUT" to "device under test (DUT)".

*Proposed Response*     *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.4.6.3**          *P* **50**          *L* **48**          # i-183
Dove, Daniel                                   Linear Technology

*Comment Type* **TR**     *Comment Status* **D**                              *ez*
There are descriptions of requirements for Type A and Type B PSEs, but not for Type C.

*SuggestedRemedy*
Replace "Type A" with "Type A or Type C"

*Proposed Response*     *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.4.6.5**          *P*           *L*           # i-221
Gardner, Andrew                                Linear Technology

*Comment Type* **TR**     *Comment Status* **D**                              *nonez*
There is no disable time spec for VPSE when a PSE is not delivering any power to the PI, i.e. pi_powered, pi_sleeping, pi_detecting, pi_prebiased, and pi_classifying are all FALSE.

*SuggestedRemedy*
Add line item to Table 104-3 as follows: '22, Disable time, TDisable, ms, -, 500, All, All, See 104.4.6.6'.

Increment existing sub-clause 104.4.6.6 to 104.4.6.7 and insert new sub-clause 104.4.6.6 as follows:

'104.4.6.6 Disable time
The specification for TDisable in Table 104-3 shall apply to the discharge time from VPSE to VDisable with a test resistor of 320 kohm attached to the PI. TDisable starts when VPSE drops 1 V below the steady-state value after the pi_powered, pi_classifying, pi_detecting, pi_prebiased, and pi_sleeping variables are cleared (see Figure 104-4). TDisable ends when VPSE less than or equal to VDisable max.'

*Proposed Response*     *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.4.6.5**          *P* **52**          *L* **2**          # i-184
Dove, Daniel                                   Linear Technology

*Comment Type* **E**     *Comment Status* **D**                              *ez*
The term "cleared" is not consistent with the logic definitions.

*SuggestedRemedy*
Replace "cleared" with "set to FALSE".

*Proposed Response*     *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.4.7**          *P* **52**          *L* **15**          # i-185
Dove, Daniel                                   Linear Technology

*Comment Type* **TR**     *Comment Status* **D**                              *ez*
The organization of this sentence is not optimal, and lacking some required logic.

*SuggestedRemedy*
Replace "Operating voltage shall be removed from the PSE PI in the absence of the PD MFVS while the PSE is operating in the POWER_ON state." with "While the PSE is operating in the POWER_ON state, full operating voltage shall be removed from the PSE PI in the absence of the PD MFVS or if Overload_Detected is true."

*Proposed Response*     *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.4.7**          *P* **52**          *L* **32**          # i-187
Dove, Daniel                                   Linear Technology

*Comment Type* **TR**     *Comment Status* **D**                              *ez*
Missing condition

*SuggestedRemedy*
Replace "in the PD detection algorithm." with "in the PD detection or classification algorithms."

*Proposed Response*     *Response Status* **W**
PROPOSED 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* **104**
*SC* **104.4.7**

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*Cl* **104** *SC* **104.5** *P* **52** *L* **29** # i-84

Law, David Hewlett Packard Enter

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

The text 'A device that is capable of becoming a PD may have the ability to draw power from an alternate power source. A PD requiring power from the PI may simultaneously draw power from an alternate power source.' appears to be duplicative to subclause 104.5.6, but less detailed in respect to the PD drawing none, some, or all of its power from its PI.

*SuggestedRemedy*

Suggest that this text in subclause 104.5 be deleted.

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

PROPOSED ACCEPT.

---

*Cl* **104** *SC* **104.5** *P* **52** *L* **29** # i-186

Dove, Daniel Linear Technology

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

The text 'A device that is capable of becoming a PD may have the ability to draw power from an alternate power source. A PD requiring power from the PI may simultaneously draw power from an alternate power source.' appears to be duplicative to subclause 104.5.6, but less detailed in respect to the PD drawing none, some, or all of its power from its PI.

*SuggestedRemedy*

Suggest that this text in subclause 104.5 be deleted.

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

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Duplicate comment with i-84.

---

*Cl* **104** *SC* **104.5.3.1** *P* **53** *L* **10** # i-39

Stover, David Linear Technology

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

Symbol reference to "t_powerdly", which does not exist. The defined symbol is "T_power_dly".

*SuggestedRemedy*

Replace reference to "t_powerdly" with "T_power_dly"

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

PROPOSED ACCEPT.

---

*Cl* **104** *SC* **104.5.3.1** *P* **53** *L* **11** # i-188

Dove, Daniel Linear Technology

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

the statement "enable MDI power" is not clear

*SuggestedRemedy*

Insert "to the load" after "MDI power".

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

PROPOSED ACCEPT.

---

*Cl* **104** *SC* **104.5.3.1** *P* **53** *L* **35** # i-189

Dove, Daniel Linear Technology

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

application of "power" is inconsistent with the actual function.

*SuggestedRemedy*

I believe this should say "application of full operating voltage". Note, other instances of "operating voltage" on this page should be caught with the S&R in my earlier comment.

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

PROPOSED 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* **104**
*SC* **104.5.3.1**

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| | | | | | | |
|---|---|---|---|---|---|---|
| *Cl* **104** | *SC* **104.5.3.3** | | *P* **53** | *L* **21** | # | i-130 |

Zimmerman, George                                     Commscope and Line

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

"Disconnect_PD" - normal style is not to capitalize variable names of this sort (voltages like "V_PD" are an exception.

*SuggestedRemedy*

Change Disconnect_PD to "disconnect_pd" on P53 L21 and Figure 104-8

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

PROPOSED ACCEPT.

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| | | | | | | |
|---|---|---|---|---|---|---|
| *Cl* **104** | *SC* **104.5.3.3** | | *P* **53** | *L* **50** | # | i-85 |

Law, David                                     Hewlett Packard Enter

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

Suggest that '... wakeup signature current is to be applied ...' should be changed to read '... wakeup signature is to be applied ...'.

*SuggestedRemedy*

See comment.

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

PROPOSED ACCEPT.

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| | | | | | | |
|---|---|---|---|---|---|---|
| *Cl* **104** | *SC* **104.5.3.3** | | *P* **53** | *L* **50** | # | i-190 |

Dove, Daniel                                     Linear Technology

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

Suggest that '... wakeup signature current is to be applied ...' should be changed to read '... wakeup signature is to be applied ...'.

*SuggestedRemedy*

See comment.

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

PROPOSED ACCEPT.

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| | | | | | | |
|---|---|---|---|---|---|---|
| *Cl* **104** | *SC* **104.5.3.3** | | *P* **54** | *L* **2** | # | i-191 |

Dove, Daniel                                     Linear Technology

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

when referencing the "wakeup signature current" I think it would be helpful to reference the actual parameter Iwakeup_PD

*SuggestedRemedy*

replace "wakeup signature current" with "wakeup signature current (Iwakeup_PD)

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

PROPOSED ACCEPT.

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| | | | | | | |
|---|---|---|---|---|---|---|
| *Cl* **104** | *SC* **104.5.3.3** | | *P* **54** | *L* **19** | # | i-192 |

Dove, Daniel                                     Linear Technology

*Comment Type* **TR**         *Comment Status* **D**                                    *ez*

Missing Variable/Term

*SuggestedRemedy*

Vpd is referred to in multiple locations, but never defined. Add "Vpd The voltage measured at the PI interface of the PD".

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

PROPOSED ACCEPT.

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| | | | | | | |
|---|---|---|---|---|---|---|
| *Cl* **104** | *SC* **104.5.3.4** | | *P* **54** | *L* **30** | # | i-43 |

Stover, David                                     Linear Technology

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

Timers do not reference the symbol of the specific parameter to which they refer. In some cases (e.g., sccp_watchdog_timer), the intended symbol (T_SCCP_watchdog) is never referenced elsewhere in the document.

*SuggestedRemedy*

Add/Modify Table references in all PD timer definitions to include the specific symbol of the parameter to which they refer. For example, modify sccp_watchdog_timer definition as follows:
"A timer used to limit the time in the DO_CLASSIFICATION state in the event serial communication
between the PSE and PD is idle or stalled; see T_SCCP_watchdog in Table 104-6."

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

PROPOSED ACCEPT IN PRINCIPLE.

Editor to add timer symbols next to Table 104-6 cross references for all timers defined in PD subclause.

---

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* **104**
*SC* **104.5.3.4**

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*Cl* **104**    *SC* **104.5.3.4**         *P* **54**      *L* **36**       # i-40
Stover, David                          Linear Technology

*Comment Type* **E**       *Comment Status* **D**                                    *ez*
Timer name "tpowerdly_timer" could be made to better reflect parameter symbol.

*SuggestedRemedy*
Replace all instances of "tpowerdly_timer" in 104.5.3 with "tpower_dly_timer".

*Proposed Response*      *Response Status* **W**
PROPOSED ACCEPT.

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*Cl* **104**    *SC* **104.5.3.6**         *P* **55**      *L* **1**        # i-222
Gardner, Andrew                        Linear Technology

*Comment Type* **TR**      *Comment Status* **D**                                    *nonez*
PD state diagram behavior in the FAULT state needs to be clarified.

*SuggestedRemedy*
Propose changing UCT to !fault_detected for arc from FAULT to DISCONNECT. Add
enable_mdi_power<=FALSE and present_mfvs<=FALSE to FAULT state assignments. Set
pd_fault<=FALSE in the DISCONNECT state. See gardner_3bu_03_0716.pdf for complete
remedy.

*Proposed Response*      *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Adopt remedy as proposed on slides x-y of gardner_3bu_3_0716.pdf.

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*Cl* **104**    *SC* **104.5.4**           *P* **54**      *L* **39**       # i-226
Dove, Daniel                           Linear Technology

*Comment Type* **GR**      *Comment Status* **D**                                    *nonez*
DA: I would like to see PDs not be required to show a valid signature during detection.
This would allow them to only be powered by PSEs that do classification.

*SuggestedRemedy*
See abramson_01bu_0516.pdf

*Proposed Response*      *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Duplicate comment with i-106.

---

*Cl* **104**    *SC* **104.5.4**           *P* **55**      *L* **39**       # i-65
Law, David                             Hewlett Packard Enter

*Comment Type* **T**       *Comment Status* **D**                                    *nonez*
Subclause 104.5.4 'PD signature' states that 'A PD shall present a valid detection signature
when VPD is less than Vsig_enable.'. Since Vsig_enable is 4.3 V max to 3.6 V min (Table
104-4), this seems to require a valid detection signature to be present from a threshold in
the range 4.3 V max to 3.6 V min and any voltage less than that threshold. Subclause
104.5.6.2 'Input current' however states that 'A PD that requires detection and power-up
shall draw current in the range of IWakeup_PD for at least TWakeup_PD when Vsleep_PD
min < VPD < Vsleep max as specified in Table 104-3 and Table 104-6.'. Since Vsleep max
is 3.5 V (Table 104-3, item 10), less than the Vsig_enable min (3.6V). These seems to be
conflicting requirements.

*SuggestedRemedy*
Please clarify.

*Proposed Response*      *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

The PD signature is enabled when VPD is in the range of Vsig_enable and it is disabled
when it is in the range of Vsig_disable. Although the detection signature is not discoverable
at the PD PI when VPD is in the range of Vsleep, it is enabled. A PD that requires wakeup
presents the wakeup signature current when VPD is in the range of Vsleep (consult PD
state diagram).

Propose changing:

"A PD shall present a valid detection signature when VPD is less than Vsig_enable."

to

"A PD shall enable a valid detection signature when VPD is in the range of Vsig_enable."

In order to clarify 104.5.4.

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TYPE: TR/technical required  ER/editorial required  GR/general required  T/technical  E/editorial  G/general                      *Cl* **104**              Page 33 of 45
COMMENT STATUS: D/dispatched  A/accepted  R/rejected    RESPONSE STATUS: O/open  W/written  C/closed  U/unsatisfied  Z/withdrawn    *SC* **104.5.4**          7/19/2016  4:18:18 PM
SORT ORDER: Clause, Subclause, page, line

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*Cl* **104**     *SC* **104.5.4**          *P* **55**          *L* **39**          # i-193

Dove, Daniel                              Linear Technology

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

DL: Subclause 104.5.4 'PD signature' states that 'A PD shall present a valid detection signature when VPD is less than Vsig_enable.'. Since Vsig_enable is 4.3 V max to 3.6 V min (Table 104-4), this seems to require a valid detection signature to be present from a threshold in the range 4.3 V max to 3.6 V min and any voltage less than that threshold. Subclause 104.5.6.2 'Input current' however states that 'A PD that requires detection and power-up shall draw current in the range of IWakeup_PD for at least TWakeup_PD when Vsleep_PD min < VPD < Vsleep max as specified in Table 104-3 and Table 104-6.'. Since Vsleep max is 3.5 V (Table 104-3, item 10), less than the Vsig_enable min (3.6V). These seems to be conflicting requirements.

*SuggestedRemedy*

Please clarify.

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

PROPOSED ACCEPT IN PRINCIPLE.

Duplicate comment with i-65. Remedy as per remedy for comment i-65.

---

*Cl* **104**     *SC* **104.5.4**          *P* **55**          *L* **45**          # i-194

Dove, Daniel                              Linear Technology

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

The text says "A valid PD detection signature shall have the characteristics of Table 104-4." which is ambiguous. Does it mean "all of the characteristics" or "at least one"?

*SuggestedRemedy*

replace with "A valid PD detection signature shall have all of the characteristics of Table 104-4."

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

PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.5.4**          *P* **55**          *L* **49**          # i-195

Dove, Daniel                              Linear Technology

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

DL: While it is correct that 'A PD that presents a signature within the limits set out in Table 104-4 is assured to pass detection.', it may however be prudent to add that it may not necessarily be powered due to the PSE not having sufficient available power (transition from CLASSIFICATION_EVAL to RESTART due to !power_avalible).

*SuggestedRemedy*

Suggest the text '... pass detection.' be changed to read '... pass detection, although may not necessarily be powered due to the PSE being unable to source the required power.'.

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

PROPOSED REJECT.

While the explanatory text is useful, it is inappropriate because it describes PSE behaviour. See 104.4.4.

---

*Cl* **104**     *SC* **104.5.4**          *P* **55**          *L* **49**          # i-66

Law, David                                Hewlett Packard Enter

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

While it is correct that 'A PD that presents a signature within the limits set out in Table 104-4 is assured to pass detection.', it may however be prudent to add that it may not necessarily be powered due to the PSE not having sufficient available power (transition from CLASSIFICATION_EVAL to RESTART due to !power_avalible).

*SuggestedRemedy*

Suggest the text '... pass detection.' be changed to read '... pass detection, although may not necessarily be powered due to the PSE being unable to source the required power.'.

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

PROPOSED REJECT.

While the explanatory text is useful, it is inappropriate because it describes PSE behaviour. See 104.4.4.

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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* **104**
*SC* **104.5.4**

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*Cl* **104**    *SC* **104.5.4**       *P* **56**     *L* **1**     # i-196
Dove, Daniel              Linear Technology

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

Subclause 104.1.2 'Relationship of PoDL to the IEEE 802.3 architecture' states that 'The Power Interface (PI) is the generic term that refers to the mechanical and electrical interface between the PSE or PD and the transmission medium.'. Based on this suggest the term 'PI' should be used rather than 'connector' when referencing a measurement point.

*SuggestedRemedy*

Suggest that that text '... measured at PD connector' should be changed to read '... measured at PD PI' here and on line 12 as well.

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

PROPOSED ACCEPT.

---

*Cl* **104**    *SC* **104.5.4**       *P* **56**     *L* **1**     # i-67
Law, David              Hewlett Packard Enter

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

Subclause 104.1.2 'Relationship of PoDL to the IEEE 802.3 architecture' states that 'The Power Interface (PI) is the generic term that refers to the mechanical and electrical interface between the PSE or PD and the transmission medium.'. Based on this suggest the term 'PI' should be used rather than 'connector' when referencing a measurement point.

*SuggestedRemedy*

Suggest that that text '... measured at PD connector' should be changed to read '... measured at PD PI' here and on line 12 as well.

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

PROPOSED ACCEPT.

---

*Cl* **104**    *SC* **104.5.6**       *P* **57**     *L* **6**     # i-197
Dove, Daniel              Linear Technology

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

Subclause 104.5.6.1 'PD input voltage' states that 'The PD shall remain off until the input voltage reaches a value in the range of VOn, as specified in Table 104-6, after a delay greater than Tpower_dly.'. For the case of a 12 V unregulated PSE 104-6 however lists Von max as 5.75 V (item 4a).

Subclause 104.5.6.1 however also states that 'The PD shall turn on or off without startup oscillation and within the first trial when a voltage in the range of VPSE (as defined in Table 104-1) is applied with a series resistance within the range of valid channel resistance.'. For the case of a 12 V unregulated PSE Table 104-1 lists VPSE(min) for a Class code 0 PSE as 5.6 V.

Based on the above it appears that a conformant class code 0 PD need not turn on until 5.75 V (Von max), yet Subclause 104.5.6.1 requires that it turn on when a PSE supplies 5.6 V through a series resistance within the range of valid channel resistance.

*SuggestedRemedy*

Please verify the respective values.

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

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Duplicate comment with i-68. Remedy as per remedy for comment i-68.

---

*Cl* **104**    *SC* **104.5.6**       *P* **57**     *L* **6**     # i-41
Stover, David              Linear Technology

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

Mixed case usage in draft, "V_On" and "V_ON". "V_On" is the defined symbol.

*SuggestedRemedy*

Replace all instances of "V_ON" with "V_On".

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

PROPOSED 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* **104**
*SC* **104.5.6**

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---

*Cl* **104**     *SC* **104.5.6**          *P* **57**          *L* **6**          *#* i-68

Law, David                                    Hewlett Packard Enter

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

Subclause 104.5.6.1 'PD input voltage' states that 'The PD shall remain off until the input voltage reaches a value in the range of VOn, as specified in Table 104-6, after a delay greater than Tpower_dly.'. For the case of a 12 V unregulated PSE 104-6 however lists Von max as 5.75 V (item 4a).

Subclause 104.5.6.1 however also states that 'The PD shall turn on or off without startup oscillation and within the first trial when a voltage in the range of VPSE (as defined in Table 104-1) is applied with a series resistance within the range of valid channel resistance.'. For the case of a 12 V unregulated PSE Table 104-1 lists VPSE(min) for a Class code 0 PSE as 5.6 V.

Based on the above it appears that a conformant class code 0 PD need not turn on until 5.75 V (Von max), yet Subclause 104.5.6.1 requires that it turn on when a PSE supplies 5.6 V through a series resistance within the range of valid channel resistance.

*SuggestedRemedy*

Please verify the respective values.

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

PROPOSED ACCEPT IN PRINCIPLE.

The values are correct. Since the open-circuit VPSE min for class 0 is 6V, the PD is assured of being able to turn on if its Von max is 5.75V. After the PD is drawing power from the PI, the VPSE may drop to as low as 5.6V and VPD may drop as low as 4.94V. The PD Voff min of 3.6V ensures that the PD will remain on.

---

*Cl* **104**     *SC* **104.5.6**          *P* **57**          *L* **13**          *#* i-69

Law, David                                    Hewlett Packard Enter

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

Subclause 104.5.6.1 'PD input voltage' states that 'Once the PD is turned on, the PD may remain on in the input voltage range less than VOn min but greater than VOff.'. Based on this I suspect that there may be an error for the unregulated 24 V class values in Table 104-6 for Von min (item 4d) which is 17.8 V and Voff (item 5d) which is 19.5 V. For this class, unlike all others, the Von min is lower that the Voff value, hence there is no range where VOn min is greater than VOff.

*SuggestedRemedy*

If these values are correct, the text is subclause 104.5.6.1 may need clarified for the unregulated 24 V class.

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

PROPOSED ACCEPT IN PRINCIPLE.

The value of Von min for the unregulated 24V class is too low and is in error.

Propose remedy on slides x-y gardner_3bu_4_0716.pdf.

---

*Cl* **104**     *SC* **104.5.6**          *P* **57**          *L* **13**          *#* i-198

Dove, Daniel                                    Linear Technology

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

DL: Subclause 104.5.6.1 'PD input voltage' states that 'Once the PD is turned on, the PD may remain on in the input voltage range less than VOn min but greater than VOff.'. Based on this I suspect that there may be an error for the unregulated 24 V class values in Table 104-6 for Von min (item 4d) which is 17.8 V and Voff (item 5d) which is 19.5 V. For this class, unlike all others, the Von min is lower that the Voff value, hence there is no range where VOn min is greater than VOff.

*SuggestedRemedy*

If these values are correct, the text is subclause 104.5.6.1 may need clarified for the unregulated 24 V class.

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

PROPOSED ACCEPT IN PRINCIPLE.

Duplicate comment with i-69. Remedy as per remedy for comment i-69.

---

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* **104**
*SC* **104.5.6**

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| *Cl* **104** | *SC* **104.5.6** | *P* **57** | *L* **30** | # i-17 |
|---|---|---|---|---|

Anslow, Peter                                          Ciena Corporation

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

The IEEE style manual says "Dashes should never be used because they can be misconstrued as subtraction signs."

*SuggestedRemedy*

Change "Classes 1-3 and 5-9" to "Classes 1 to 3 and 5 to 9"

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

PROPOSED ACCEPT.

---

| *Cl* **104** | *SC* **104.5.6** | *P* **57** | *L* **44** | # i-70 |
|---|---|---|---|---|

Law, David                                          Hewlett Packard Enter

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

There is no SLEEP and WAKEUP states that I can see in the PD state diagram.

*SuggestedRemedy*

Suggest that 'Power supply voltage during SLEEP and WAKEUP states' should be changed to read 'Power supply voltage during PD_SLEEP state'.

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

PROPOSED ACCEPT.

---

| *Cl* **104** | *SC* **104.5.6** | *P* **57** | *L* **44** | # i-199 |
|---|---|---|---|---|

Dove, Daniel                                          Linear Technology

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

DL: There is no SLEEP and WAKEUP states that I can see in the PD state diagram.

*SuggestedRemedy*

Suggest that 'Power supply voltage during SLEEP and WAKEUP states' should be changed to read 'Power supply voltage during PD_SLEEP state'.

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

PROPOSED ACCEPT.

---

| *Cl* **104** | *SC* **104.5.6** | *P* **58** | *L* **11** | # i-18 |
|---|---|---|---|---|

Anslow, Peter                                          Ciena Corporation

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

The IEEE style manual says "An em dash (--) should be used to indicate the lack of data for a particular cell in a table."

*SuggestedRemedy*

Insert an em dash (Ctrl-q Shft-q) in Table 104-6, Item 13, Min column and Table 104-7, Item 4, Min column

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

PROPOSED ACCEPT.

---

| *Cl* **104** | *SC* **104.5.6.1** | *P* **58** | *L* **22** | # i-200 |
|---|---|---|---|---|

Dove, Daniel                                          Linear Technology

*Comment Type* **TR**     *Comment Status* **D**                                    *ez*

The structure of this sentence is not optimum and lacks some specific technical content.

*SuggestedRemedy*

Replace "The PD shall remain off until the input voltage reaches a value in the range of VOn, as specified in Table 104-6, after a delay greater than Tpower_dly. " with "The PD shall remain off for a time greater than Tpower_dly after the input voltage (Vpd) reaches a value in the range of VOn, as specified in Table 104-6." Add "When the input voltage is greater than vsig_disable, then the signature is disabled."

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

PROPOSED ACCEPT.

---

| *Cl* **104** | *SC* **104.5.6.1** | *P* **58** | *L* **28** | # i-71 |
|---|---|---|---|---|

Law, David                                          Hewlett Packard Enter

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

Subclause 104.5.6.1 'PD input voltage' requires that a voltage '... is applied with a series resistance within the range of valid channel resistance. While I see that subclause 104.2 'Link segment' defines a maximum DC loop resistance, I'm not able to find a definition of the 'valid channel resistance'.

*SuggestedRemedy*

Please add a cross reference to the subclause where valid channel resistance is defined.

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

PROPOSED ACCEPT IN PRINCIPLE.

Editor to replace all instances of "channel resistance" with "DC loop resistance" and include cross reference to 104.2.

---

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* **104**
*SC* **104.5.6.1**

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*Cl* **104**    *SC* **104.5.6.1**    *P* **58**    *L* **28**    # i-201
Dove, Daniel    Linear Technology

*Comment Type* **T**    *Comment Status* **D**    *ez*
DL: Subclause 104.5.6.1 'PD input voltage' requires that a voltage '... is applied with a series resistance within the range of valid channel resistance. While I see that subclause 104.2 'Link segment' defines a maximum DC loop resistance, I'm not able to find a definition of the 'valid channel resistance'.

*SuggestedRemedy*
Please add a cross reference to the subclause where valid channel resistance is defined.

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

This comment was WITHDRAWN by the commenter.

Duplicate comment with i-68. Adopt remedy as per remedy for comment i-68:

The values are correct. Since the open-circuit VPSE min for class 0 is 6V, the PD is assured of being able to turn on if its Von max is 5.75V. After the PD is drawing power from the PI, the VPSE may drop to as low as 5.6V and VPD may drop as low as 4.94V. The PD Voff min of 3.6V ensures that the PD will remain on.

*Cl* **104**    *SC* **104.5.6.2**    *P* **58**    *L* **40**    # i-103
Stover, David    Linear Technology

*Comment Type* **ER**    *Comment Status* **D**    *ez*
V_Sleep max refers to the PD voltage

*SuggestedRemedy*
"...when V_PD is within the range of V_Sleep_PD"

*Proposed Response*    *Response Status* **W**
PROPOSED ACCEPT.

*Cl* **104**    *SC* **104.5.6.3**    *P* **58**    *L* **47**    # i-202
Dove, Daniel    Linear Technology

*Comment Type* **E**    *Comment Status* **D**    *ez*
Missing term

*SuggestedRemedy*
Replace "to the voltage at the PD PI" with "to the voltage or current at the PD PI"

*Proposed Response*    *Response Status* **W**
PROPOSED ACCEPT.

*Cl* **104**    *SC* **104.5.6.3**    *P* **59**    *L* **11**    # i-236
Dove, Daniel    Linear Technology

*Comment Type* **E**    *Comment Status* **D**    *ez*
ROGUE: No PICS entry for this shall

*SuggestedRemedy*
PICS editor to create entry for this shall

*Proposed Response*    *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Editor to add new entry to PICs table per input provided by PICS editor.

*Cl* **104**    *SC* **104.5.6.3**    *P* **59**    *L* **14**    # i-237
Dove, Daniel    Linear Technology

*Comment Type* **E**    *Comment Status* **D**    *ez*
ROGUE: No PICS entry for this shall

*SuggestedRemedy*
PICS editor to create entry for this shall

*Proposed Response*    *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Editor to add new entry to PICs table per input provided by PICS editor.

*Cl* **104**    *SC* **104.5.6.5**    *P* **59**    *L* **46**    # i-203
Dove, Daniel    Linear Technology

*Comment Type* **E**    *Comment Status* **D**    *ez*
The structure of this sentence is not optimum and lacks specifics.

*SuggestedRemedy*
Replace the sentence with "When any voltage between VPSE min and VPSE max (with Rloop_max in series) is applied to the PI of the PD, PPD is defined as shown in Equation (104-5);

*Proposed Response*    *Response Status* **W**
PROPOSED 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* **104**
*SC* **104.5.6.5**

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*Cl* **104**    *SC* **104.5.7**    *P* **60**    *L* **9**    # i-204
Dove, Daniel    Linear Technology

*Comment Type* **TR**    *Comment Status* **D**    *ez*
Missing information

*SuggestedRemedy*
Insert "signal the PSE to" between the words "In order to... and ... maintain full operating voltage". Note, delete "input" also.

*Proposed Response*    *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**    *SC* **104.5.7**    *P* **60**    *L* **12**    # i-205
Dove, Daniel    Linear Technology

*Comment Type* **TR**    *Comment Status* **D**    *ez*
extra word, missing details

*SuggestedRemedy*
replace "full input operating voltage shall" with "full operating voltage at the PI shall"

*Proposed Response*    *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**    *SC* **104.6.1**    *P* **60**    *L* **20**    # i-206
Dove, Daniel    Linear Technology

*Comment Type* **TR**    *Comment Status* **D**    *ez*
The requirement of a test voltage of greater than 5V does not prohibit or exclude 1,000,000 volts for the requirement.

*SuggestedRemedy*
replace "using at least a 5V source voltage." with "using a 5V+- 20% source voltage."

*Proposed Response*    *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**    *SC* **104.6.2**    *P* **60**    *L* **27**    # i-110
Abramson, David    Texas Instruments Inc

*Comment Type* **GR**    *Comment Status* **D**    *nonez*
There is no reason to include the fault tolerances from clause 96 in this clause. These requirements apply to the appropriate applications by their inclusion in clause 96. Leaving them in clause 104 only adds them as a requirement to applications that may not require them.

*SuggestedRemedy*
Remove sentence: "The PI shall meet the fault tolerance requirements as specified in 96.8.3."

*Proposed Response*    *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

See i-219.

---

*Cl* **104**    *SC* **104.6.2**    *P* **60**    *L* **30**    # i-19
Anslow, Peter    Ciena Corporation

*Comment Type* **E**    *Comment Status* **D**    *ez*
IEEE does not precede references to other subclauses with "sub-clause"

*SuggestedRemedy*
Change "in sub-clause 104.4" to "in 104.4" here and on Page 75, line 47

*Proposed Response*    *Response Status* **W**
PROPOSED 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* **104**
*SC* **104.6.2**

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*Cl* **104**    *SC* **104.6.3**    *P* **60**    *L* **31**    # i-207

Dove, Daniel    Linear Technology

*Comment Type* **TR**    *Comment Status* **D**    *nonez*

DL: This requirements in this subclause can't 'supersede' requirements elsewhere in IEEE Std 802.3 as 'supersede' has the special meaning that one standard has replaced the other, for example IEEE Std 802.3-2015 supersedes IEEE Std 802.3-2012 and all its amendments. I believe instead that this requirement is in addition to the 100BASE-T1 requirements for a 100BASE-T1 associated with a PoDL PD or PSE. In other words a 100BASE-T1 PHY has to always meet 96.5.4.1, but a 100BASE-T1 PHY associated with a PoDL PD or PSE has to also meet 104.6.3.1.1.

*SuggestedRemedy*

Since the last sentence of 104.1.2 states that 'The PI is encompassed within the MDI.' suggest that the subclause text be replaced with 'Subclauses 104.6.3.1 and 104.6.3.2 define additional requirements for a 100BASE-T1 PHY with a MDI that incorporates a PI.'

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

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Duplicate comment with i-72.

---

*Cl* **104**    *SC* **104.6.3**    *P* **60**    *L* **31**    # i-72

Law, David    Hewlett Packard Enter

*Comment Type* **TR**    *Comment Status* **D**    *nonez*

This requirements in this subclause can't 'supersede' requirements elsewhere in IEEE Std 802.3 as 'supersede' has the special meaning that one standard has replaced the other, for example IEEE Std 802.3-2015 supersedes IEEE Std 802.3-2012 and all its amendments. I believe instead that this requirement is in addition to the 100BASE-T1 requirements for a 100BASE-T1 associated with a PoDL PD or PSE. In other words a 100BASE-T1 PHY has to always meet 96.5.4.1, but a 100BASE-T1 PHY associated with a PoDL PD or PSE has to also meet 104.6.3.1.1.

*SuggestedRemedy*

Since the last sentence of 104.1.2 states that 'The PI is encompassed within the MDI.' suggest that the subclause text be replaced with 'Subclauses 104.6.3.1 and 104.6.3.2 define additional requirements for a 100BASE-T1 PHY with a MDI that incorporates a PI.'

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

PROPOSED ACCEPT IN PRINCIPLE.

TFTD.

---

*Cl* **104**    *SC* **104.6.3.1**    *P* **60**    *L* **34**    # i-208

Dove, Daniel    Linear Technology

*Comment Type* **TR**    *Comment Status* **D**    *nonez*

DL: I don't see a ' Type A PoDL transmitter' defined anywhere.

*SuggestedRemedy*

Based on the title of subclause 104.6.3.2 being 'MDI return loss', and assuming my comment to change this subclause to only be required for a 100BASE-T1 PHY with a MDI that incorporates a PI, suggest that:

[1] This title be changed to read 'Transmitter output droop'.
[2] The text 'With the Type A PoDL transmitter in test ... ' be changed to read 'With the transmitter in test ...'.
[3] The text 'This requirement supersedes the transmitter output droop requirement in clause 96' be deleted.

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

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Duplicate comment with i-73.

---

*Cl* **104**    *SC* **104.6.3.1**    *P* **60**    *L* **34**    # i-73

Law, David    Hewlett Packard Enter

*Comment Type* **TR**    *Comment Status* **D**    *nonez*

I don't see a ' Type A PoDL transmitter' defined anywhere.

*SuggestedRemedy*

Based on the title of subclause 104.6.3.2 being 'MDI return loss', and assuming my comment to change this subclause to only be required for a 100BASE-T1 PHY with a MDI that incorporates a PI, suggest that:

[1] This title be changed to read 'Transmitter output droop'.
[2] The text 'With the Type A PoDL transmitter in test ... ' be changed to read 'With the transmitter in test ...'.
[3] The text 'This requirement supersedes the transmitter output droop requirement in clause 96' be deleted.

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

PROPOSED ACCEPT IN PRINCIPLE.

Editor to adopt suggested remedy items [1] and [2].

TFTD item [3].

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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* **104**
*SC* **104.6.3.1**

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*Cl* **104**  *SC* **104.6.3.1.1**  *P* **60**  *L* **43**  # i-74
Law, David    Hewlett Packard Enter

*Comment Type* **E**  *Comment Status* **D**   *nonez*
Assume that 'transmitter test fixture 1' is the text fixture found in figure 96-20. If so a cross-reference should be added.

*SuggestedRemedy*
Suggest the text '... transmitter test fixture 1, ...' should be changed to read '... transmitter test fixture 1 (see Figure 96-20), ...'.

*Proposed Response*  *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**  *SC* **104.6.3.1.1**  *P* **60**  *L* **43**  # i-209
Dove, Daniel    Linear Technology

*Comment Type* **E**  *Comment Status* **D**   *nonez*
DL: Assume that 'transmitter test fixture 1' is the text fixture found in figure 96-20. If so a cross-reference should be added.

*SuggestedRemedy*
Suggest the text '... transmitter test fixture 1, ...' should be changed to read '... transmitter test fixture 1 (see Figure 96-20), ...'.

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

This comment was WITHDRAWN by the commenter.


Duplicate comment with i-73.

---

*Cl* **104**  *SC* **104.6.3.1.1**  *P* **60**  *L* **47**  # i-210
Dove, Daniel    Linear Technology

*Comment Type* **TR**  *Comment Status* **D**   *ez*
I believe this spec should apply to Type A or Type C

*SuggestedRemedy*
Replace "Type A" with "Type A or Type C"

*Proposed Response*  *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**  *SC* **104.6.3.2**  *P* **61**  *L* **24**  # i-211
Dove, Daniel    Linear Technology

*Comment Type* **TR**  *Comment Status* **D**   *ez*
The spec doesn't articulate whether it applies only to Type A, Type A and Type C

*SuggestedRemedy*
Insert "Type A and Type C" before "MDI Return Loss" in the title of the subclause. Also replace "Type A" with "Type A or Type C" in the text.

*Proposed Response*  *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**  *SC* **104.6.3.2**  *P* **61**  *L* **28**  # i-20
Anslow, Peter    Ciena Corporation

*Comment Type* **E**  *Comment Status* **D**   *ez*
"in clause 96" should be "in Clause 96" where the word "Clause" is in forest green

*SuggestedRemedy*
Change "in clause 96" to "in Clause 96" where the word "Clause" is in forest green

*Proposed Response*  *Response Status* **W**
PROPOSED ACCEPT.

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*Cl* **104**  *SC* **104.6.3.2**  *P* **61**  *L* **29**  # i-131
Zimmerman, George    Commscope and Line

*Comment Type* **T**  *Comment Status* **D**   *ez*
"Type A (100BASE-T1)..." shouldn't this requirement also apply to Type C (100BASE-T1 and 1000BASE-T1)?

*SuggestedRemedy*
Change Type A to "Type A and Type C"

*Proposed Response*  *Response Status* **W**
PROPOSED ACCEPT.

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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* **104**
*SC* **104.6.3.2**

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*Cl* **104**     *SC* **104.6.3.2**          *P* **62**          *L* **11**          # i-21
Anslow, Peter                                          Ciena Corporation

*Comment Type* **T**          *Comment Status* **D**                              *ez*
In Figure 104-11:
The title "Return loss calculated using Equation (104-3)" should be "Return loss calculated using Equation (104-6)" where "Equation (104-6)" is a cross-reference.
"frequency (Mhz)" should be "Frequency (MHz)"
"dB" should be "Return loss (dB)"

*SuggestedRemedy*
In Figure 104-11, change:
The title "Return loss calculated using Equation (104-3)" to "Return loss calculated using Equation (104-6)" where "Equation (104-6)" is a cross-reference.
"frequency (Mhz)" to "Frequency (MHz)"
"dB" to "Return loss (dB)"

*Proposed Response*          *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.7**          *P* **63**          *L* **21**          # i-44
Stover, David                                          Linear Technology

*Comment Type* **E**          *Comment Status* **D**                              *ez*
"SCCP is a current-sinking, wire-OR..." I believe the correct term is, "wired-OR".

*SuggestedRemedy*
Replace "wire-OR" with "wired-OR".

*Proposed Response*          *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.7.1.1**          *P* **63**          *L* **35**          # i-212
Dove, Daniel                                          Linear Technology

*Comment Type* **E**          *Comment Status* **D**                              *ez*
Figure 104-12 is out of place. It should be dropped below the first sentence in 104.7.1.1 to allow the reader to read the description and look at the figure simultaneously.

*SuggestedRemedy*
Move the figure per the comment.

*Proposed Response*          *Response Status* **W**
PROPOSED ACCEPT.

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*Cl* **104**     *SC* **104.7.1.1**          *P* **63**          *L* **37**          # i-213
Dove, Daniel                                          Linear Technology

*Comment Type* **E**          *Comment Status* **D**                              *ez*
Semantic improvement required. See remedy.

*SuggestedRemedy*
Replace "the PSE shall transmit the reset pulse by first pulling VPSE low and then pull-up at tRSTL. The PSE shall then go into receive mode (RX)." with "the PSE shall transmit the reset pulse by first *driving* VPSE low and then releasing to the pull-up at tRSTL. The PSE shall then go into receive mode (RX)."

*Proposed Response*          *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.7.1.2**          *P* **63**          *L* **53**          # i-45
Stover, David                                          Linear Technology

*Comment Type* **E**          *Comment Status* **D**                              *ez*
"...during a write 1 or write 0 operation." Capitalization.

*SuggestedRemedy*
"...during a Write 1 or Write 0 operation."

*Proposed Response*          *Response Status* **W**
PROPOSED ACCEPT.

---

*Cl* **104**     *SC* **104.7.1.4**          *P* **64**          *L* **4**          # i-46
Stover, David                                          Linear Technology

*Comment Type* **E**          *Comment Status* **D**                              *ez*
"All voltages are referenced to the PI minus terminal" seems strange. The only instance of definition I've found is Figure 104-3, which depicts "PI-".

*SuggestedRemedy*
"All voltages are referenced to PI- as shown in Figure 104-3."

*Proposed Response*          *Response Status* **W**
PROPOSED ACCEPT.

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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* **104**
*SC* **104.7.1.4**

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*Cl* **104**  *SC* **104.7.2.4**  *P* **67**  *L* **5**  # i-22

Anslow, Peter  Ciena Corporation

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

In Table 104-8, alternative values are given for b[15:12] and b[9:0]. However it is not clear which bits correspond to which columns

*SuggestedRemedy*

Remove "Type:" and replace it with the bit number for each column (space the columns out by adding spaces as in Table 45-77).
Remove "Class:" and replace it with the bit number for each column (space the columns out by adding spaces).

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

PROPOSED ACCEPT.

---

*Cl* **104**  *SC* **104.7.2.4**  *P* **67**  *L* **10**  # i-223

Gardner, Andrew  Linear Technology

*Comment Type* **TR**  *Comment Status* **D**  *nonez*

pd_fault bit behavior needs to be clarified.

*SuggestedRemedy*

Change name from pd_fault to pd_faulted. Change description to read "When read as a one indicates that a PD fault has been detected. This bit shall be set to true when pd_fault transitions from FALSE to TRUE. The pd_faulted bit shall be implemented with latching high behavior as defined in 45.2." Change bit type from RO to RO/LH. See gardner_3bu_03_0716.pdf for complete remedy.

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

PROPOSED ACCEPT IN PRINCIPLE.

Propose remedy on slides x-y of presentation gardner_3bu_3_0716.pdf.

---

*Cl* **104**  *SC* **104.7a**  *P* **68**  *L* **23**  # i-127

Zimmerman, George  Commscope and Line

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

This standard is missing the usual "environmental" and "general safety" sections found in other 802.3 PHY and PoE standards. Specifically the guidance for local, regional and national safety specifications.

*SuggestedRemedy*

Recommended text will be provided in a contribution, formed from a combination of the environmental sections of Clause 33 (PoE) and the BASE-T1 PHY clauses.

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

Remedy proposed in presentation zimmerman_3bu_1_0716.pdf.

---

*Cl* **104**  *SC* **104.8**  *P* **69**  *L* **1**  # i-224

Gardner, Andrew  Linear Technology

*Comment Type* **TR**  *Comment Status* **D**  *ez*

PICs need to be updated.

*SuggestedRemedy*

Update PICs as needed.

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

PROPOSED ACCEPT IN PRINCIPLE.

Editor to add new entry to PICs table per input provided by PICS editor. Editor to provide complete list of PICs changed in his proposed response.

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*Cl* **104**  *SC* **104.8.4.2**  *P* **70**  *L* **46**  # i-238

Dove, Daniel  Linear Technology

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

ROGUE The wrong table is referenced. It should be 104 -1

*SuggestedRemedy*

Replace 104 -2 with 104 - 1

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

PROPOSED ACCEPT.

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*Cl* **104**  *SC* **104.8.4.2**  *P* **72**  *L* **21**  # i-239

Dove, Daniel  Linear Technology

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

ROGUE: There is no shall associated with this entry anymore

*SuggestedRemedy*

Delete this PICS item

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

PROPOSED ACCEPT IN PRINCIPLE.

Submitted by Craig Chabot.

Cross reference needs to be updated to point to 104.4.6.5 instead of 104.4.6.4.

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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* **104**
*SC* **104.8.4.2**

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| *Cl* **104** | *SC* **104.8.4.3** | *P* **73** | *L* **30** | # i-48 |
|---|---|---|---|---|

Stover, David                 Linear Technology

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

Referenced symbol is "t_power_dly" but defined symbol is "T_power_dly".

*SuggestedRemedy*

Replace reference to "t_power_dly" with "T_power_dly".

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

PROPOSED ACCEPT.

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| *Cl* **104** | *SC* **104.8.4.3** | *P* **74** | *L* **1** | # i-240 |
|---|---|---|---|---|

Dove, Daniel                 Linear Technology

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

ROGUE: This is now split into two different shalls.  One is for Type A and the other for TypeB

*SuggestedRemedy*

PICS editor to split this into two separate PICS items

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

PROPOSED ACCEPT.

---

| *Cl* **104** | *SC* **104.8.4.3** | *P* **74** | *L* **12** | # i-49 |
|---|---|---|---|---|

Stover, David                 Linear Technology

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

Referenced symbol is "I_Hold_PD" but defined symbol is "I_hold_PD".

*SuggestedRemedy*

Replace reference to "I_Hold_PD" with "I_hold_PD".

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

PROPOSED ACCEPT.

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| *Cl* **Intro** | *SC* **Intro** | *P* **11** | *L* **5** | # i-135 |
|---|---|---|---|---|

Dove, Daniel                 Linear Technology

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

The term "Single-Pair Power over Data Lines" is inconsistent with the title of the document.

*SuggestedRemedy*

Replace  "Single-Pair Power over Data Lines "Single Balanced Twisted Pair Power over Data Lines"

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

PROPOSED ACCEPT.

---

| *Cl* **Intro** | *SC* **Intro** | *P* **17** | *L* **8** | # i-137 |
|---|---|---|---|---|

Dove, Daniel                 Linear Technology

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

The title of the amendment is not explicitly defined to support "twisted" pair despite alignment with PHY projects that only support twisted-pair.

*SuggestedRemedy*

Replace "Single Balanced Pair Ethernet" with "Single Balanced Twisted Pair Ethernet".

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

PROPOSED ACCEPT.

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| *Cl* **na** | *SC* **na** | *P* **1** | *L* **15** | # i-133 |
|---|---|---|---|---|

Dove, Daniel                 Linear Technology

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

The title of the amendment is not explicitly defined to support "twisted" pair despite alignment with PHY projects that only support twisted-pair.

*SuggestedRemedy*

Revise the title, and do S&R through document to replace "Single Balanced Pair Ethernet" with "Single Balanced Twisted Pair Ethernet". Also search for "Balanced Pair" and replace with "Balanced Twisted Pair" and search for "pair" and replace with "twisted pair" where appropriate

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

PROPOSED 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* **na**
*SC* **na**

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*Cl* **na**  *SC* **na**  *P* **9**  *L* **3**  # i-134

Dove, Daniel                           Linear Technology

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

I presume the list of sponsor ballot participants will be given to the editor and included in D3.1

*SuggestedRemedy*

Please include Sponsor Ballot participants

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

PROPOSED 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* **na**
*SC* **na**

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