Cl **1**   *SC* **1.5**   *P* **21**   *L* **37**   # 41

Jones, Peter   Cisco
Comment Type **E**   *Comment Status* **A**   *Editorial*
   Capitalization for TPS

SuggestedRemedy
   Change to "Transmit Power Signature "

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

Cl **1**   *SC* **1.5**   *P* **21**   *L* **38**   # 1

Jones, Chad   Cisco Systems, Inc.
Comment Type **E**   *Comment Status* **A**   *Editorial*
   TPS transmit power signature
   need to capitalize to match the format of the other entries.

SuggestedRemedy
   TPS Transmit Power Signature

Response   *Response Status* **C**
   ACCEPT IN PRINCIPLE.
   Consider with comment 41.
   PROPOSED ACCEPT IN PRINCIPLE.
   Transmit Power Signature is a proper noun. accept this remedy, plus align capitalization
   in the text
   (P110 L11, P113 L1, P120 L22, P120 L25, P120 L36)

Cl **30**   *SC* **30.17**   *P* **27**   *L* **5**   # 58

Zimmerman, George   CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So
Comment Type **E**   *Comment Status* **D**   *Editorial*
   remove editor's note and section if there are no management objects added.

SuggestedRemedy
   see comment.

Proposed Response   *Response Status* **W**
   PROPOSED ACCEPT IN PRINCIPLE.
   DEFER
   Revisit at conclusion of comment resolution

Cl **79**   *SC* **79.3.9.3**   *P* **37**   *L* **8**   # 42

Jones, Peter   Cisco
Comment Type **T**   *Comment Status* **A**   *EZ*
   Values for Bit 1 – PLCA status are incorrect.

SuggestedRemedy
   Change to" 1 = true, 0 = false" .

Response   *Response Status* **C**
   ACCEPT IN PRINCIPLE.
   Change to" 1 = TRUE, 0 = FALSE" .

Cl **79**   *SC* **79.3.9.3**   *P* **37**   *L* **10**   # 43

Jones, Peter   Cisco
Comment Type **T**   *Comment Status* **A**   *PLCA*
   Missing PLCA admin state

SuggestedRemedy
   Redefine Bit 2 as "PLCA admin state, 1 = enabled, 0 = disabled, 30.16.1.1.1
   Renumber D-PLCA supported and D-PLCA admin state to bits 3 & 4 respectively .
   Update reserved bits to 5-15

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

Cl **148**   *SC* **148.4.4.2**   *P* **41**   *L* **24**   # 70

Maguire, Valerie   Copperopolis; aff'l w/ CME Consulting and Cisco
Comment Type **E**   *Comment Status* **A**   *EZ*
   Functions, timers, and variables generally appear in alphabetical order in 802.3-2022
   (clause 148.4.4.2 is an exception). If this comment is accepted, I will submit a maintenance
   request to put the variables in clause 148.4.4.2 in alphabetical order.

SuggestedRemedy
   Arrange the PLCA Control variables in alphabetical order and change the Editing
   Instruction to, "Insert new variables COL, dplca_en, dplca_txop_claim, dplca_txop_end,
   dplca_txop_id, and dplca_txop_node_count into the list, in alphabetical order:"

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

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **41**   Page 1 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *Li* **24**   9/4/2024 9:00:59 AM
SORT ORDER: Page, Line

Cl **148**   *SC* **148.4.4.4**   *P* **42**   *L* **7**   # 71

Maguire, Valerie   Copperopolis; aff'l w/ CME Consulting and Cisco

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

Functions, timers, and variables generally appear in alphabetical order in 802.3-2022 (clause 148.4.4.4 is an exception). If this comment is accepted, I will submit a maintenance request to put the Timers in clause 148.4.4.4 in alphabetical order.

SuggestedRemedy

Change the Editing Instruction to, "Insert new timer append_commit_timer into the list, in alphabetical order:"

Response   *Response Status* **C**

ACCEPT.

Cl **148**   *SC* **148.4.7.1**   *P* **48**   *L* **24**   # 59

Zimmerman, George   CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So

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

No additional explanation has been forthcoming, and this guidance doesn't seem to be needed for technical completeness - delete the note.

SuggestedRemedy

Delete editor's note at P48 L24

Response   *Response Status* **C**

ACCEPT.

Cl **148**   *SC* **148.4.7.2**   *P* **48**   *L* **30**   # 73

Maguire, Valerie   Copperopolis; aff'l w/ CME Consulting and Cisco

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

Align with "148.4.4.2 PLCA Control variables" subclause header

SuggestedRemedy

Replace, "Variables" with "D-PLCA variables"

Response   *Response Status* **C**

ACCEPT.

Cl **148**   *SC* **148.4.7.2**   *P* **48**   *L* **32**   # 72

Maguire, Valerie   Copperopolis; aff'l w/ CME Consulting and Cisco

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

Functions, timers, and variables generally appear in alphabetical order in 802.3-2022.

SuggestedRemedy

Arrange the Variables in alphabetical order

Response   *Response Status* **C**

ACCEPT.

Cl **148**   *SC* **148.4.7.3**   *P* **50**   *L* **11**   # 74

Maguire, Valerie   Copperopolis; aff'l w/ CME Consulting and Cisco

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

Functions, timers, and variables generally appear in alphabetical order in 802.3-2022.

SuggestedRemedy

Arrange the Functions in alphabetical order

Response   *Response Status* **C**

ACCEPT.

Cl **168**   *SC* **168.1**   *P* **55**   *L* **12**   # 44

Jones, Peter   Cisco

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

Excess word - type.

SuggestedRemedy

Change "Functional and electrical specifications for the type 10BASE-T1M PCS, PMA, and the interface to the medium"
to "Functional and electrical specifications for the 10BASE-T1M PCS, PMA, and the interface to the medium"

Response   *Response Status* **C**

REJECT.
The PHY type is 10BASE-T1M. This is how all PHY (or PMA, PCS, or PMD) types are called out in 802.3 clause titles.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **55**   Page 2 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *Li* **12**   9/4/2024 9:00:59 AM
SORT ORDER: Page, Line

Cl **168**   *SC* **168.1**   *P* **55**   *L* **17**   # 45

Jones, Peter   Cisco

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

The text says ""The 10BASE-T1M PHY operates in a half duplex shared-medium mode capable of operating with multiple stations connected to a mixing segment."
It is really a mode?

SuggestedRemedy

Change "The 10BASE-T1M PHY operates in a half duplex shared-medium mode capable of operating with multiple stations connected to a mixing segment"
To "The 10BASE-T1M PHY operates ioperates on a half duplex shared-medium mixing segment."

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.
(fixed typo in suggested remedy, and the medium is actually full duplex, but otherwise tried to get the spirit right)
Change "The 10BASE-T1M PHY operates in a half duplex shared-medium mode capable of operating with multiple stations connected to a mixing segment"
To "The 10BASE-T1M PHY operates half duplex on a shared medium (i.e., a mixing segment)."

Cl **168**   *SC* **168.1**   *P* **55**   *L* **23**   # 101

Schreiner, Stephan   Rosenberger Hochfrequenztechnik GmbH & Co. KG

Comment Type   **T**   *Comment Status* **D**   *Mixing Segment*

"…mixing segment is compliant with 147.8 AND 168.8. " The definition of the mixing segment is very different. The measurement points, the values and the topology with the new TCI are different. For my point of view, this "AND" constraint seems not to be feasible.

SuggestedRemedy

Because T1M and T1S have the same PMA and PCS, I would assume that a T1M is interoperable with a T1S on a 147.8 link segment. Thus remove "and 168.8"

Proposed Response   *Response Status* **W**

PROPOSED REJECT.
DEFER
The proposed remedy only works if a 147.8 mixing segment is a strict subset of 168.8 mixing segments (that is, all 147.8 mixing segments comply with 168.8). If that is true, then the AND works. However, that has yet to be shown, and is probably not true. As the commenter points out, the definitions are different.

Cl **168**   *SC* **168.2**   *P* **57**   *L* **4**   # 46

Jones, Peter   Cisco

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

Language feels a little off in the following:
"over a single balanced pair of conductors forming a mixing segment."

SuggestedRemedy

Change to one of the following:
"over a mixing segment using a single balanced pair of conductors "
"over a single balanced pair of conductors mixing segment "
"over a mixing segment comprised of a single balanced pair of conductors "

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.
Change to "over a mixing segment comprised of a single balanced pair of conductors "

Cl **168**   *SC* **168.4.2.2**   *P* **62**   *L* **1**   # 75

Maguire, Valerie   Copperopolis; aff'l w/ CME Consulting and Cisco

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

Functions, timers, and variables generally appear in alphabetical order in 802.3-2022.

SuggestedRemedy

Arrange the Variables in alphabetical order

Response   *Response Status* **C**

ACCEPT.

Cl **168**   *SC* **168.4.2.3**   *P* **63**   *L* **1**   # 76

Maguire, Valerie   Copperopolis; aff'l w/ CME Consulting and Cisco

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

I would assume Constants should be in aphabetical order? There is no precedent in 802.3-2022.

SuggestedRemedy

Arrange the Constants in alphabetical order

Response   *Response Status* **C**

ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **63**   Page 3 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *Li* **1**   9/4/2024 9:00:59 AM
SORT ORDER: Page, Line

Cl **168**　　*SC* **168.4.3.2**　　　　*P* **68**　　　*L* **50**　　# 77

Maguire, Valerie　　　　　　　Copperopolis; aff'l w/ CME Consulting and Cisco

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

Functions, timers, and variables generally appear in alphabetical order in 802.3-2022.

SuggestedRemedy

Arrange the Variables in alphabetical order

Response　　　　　*Response Status* **C**

ACCEPT.

Cl **168**　　*SC* **168.4.3.3**　　　　*P* **69**　　　*L* **28**　　# 78

Maguire, Valerie　　　　　　　Copperopolis; aff'l w/ CME Consulting and Cisco

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

I would assume Constants should be in aphabetical order? There is no precedent in 802.3-2022.

SuggestedRemedy

Arrange the Constants in alphabetical order

Response　　　　　*Response Status* **C**

ACCEPT.

Cl **168**　　*SC* **168.4.4**　　　　*P* **73**　　　*L* **36**　　# 47

Jones, Peter　　　　　　　Cisco

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

"MDIO register 3.2291.14" should be green for external link.

SuggestedRemedy

Mark 3.2291.14 as external link

Response　　　　　*Response Status* **C**

REJECT.
MDIO register addresses are not cross references, and are therefore not marked as external, further, the section describing 3.2291.14 (45.2.3.72.2) is in the draft and is cross-referenced correctly.

Cl **168**　　*SC* **168.6.4.2**　　　　*P* **79**　　　*L* **2**　　# 60

Zimmerman, George　　　　CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So

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

Now that we know more about the powering, we simply need to reconcile the transmitter output droop against the inductors needed for power coupling. Simulations need to validate that the droop is consistent with cost-effective inductance envisioned for power coupling.

SuggestedRemedy

Change editor's note to read: "Commenters are encouraged to technically evaluate whether proposed transmitter output droop is consistent with economically feasible coupling circuits for power envisioned for clause 169 power."

Response　　　　　*Response Status* **C**

ACCEPT.

Cl **168**　　*SC* **168.6.4.4**　　　　*P* **80**　　　*L* **21**　　# 79

Maguire, Valerie　　　　　　　Copperopolis; aff'l w/ CME Consulting and Cisco

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

Not sure why we don't show numbers instead of (10/4.5) and (10/6.5)? Is this much precision required?

SuggestedRemedy

Replace "(10/4.5)" with "2.2" (no parens) and "(10/6.5)" with "1.5" (no parens)

Proposed Response　　　*Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
DEFER
The ratios make it clear that the ranges fit without steps or gaps. Truncating to 1 decimal place makes for discontinuous masks, but would be simpler. Task force to discuss and determine which is preferable.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general　　*Pa* **80**　　Page 4 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected　　RESPONSE STATUS: O/open W/written C/closed Z/withdrawn　　*Li* **21**　　9/4/2024 9:00:59 AM
SORT ORDER: Page, Line

Cl **168**   *SC* **168.6.5.2**   *P* **81**   *L* **15**   # 61

Zimmerman, George   CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So
Comment Type   **T**   *Comment Status*   **D**   *PMA Electrical*

The alien crosstalk rejection test needs to be inserted. The figure needs to show and be adjusted for the terminations on the mixing segment, and the noise level shouldn't change, because the alien crosstalk coupling is the same, but reference to the receive DUT's TCI and impedances need to be cleaned up.

SuggestedRemedy

Delete Editor's note at P81 L15-20, change figure 168-16 and text as per attached: zimmerman_alienxtalk.pdf. At the end of the first sentence change "present at the TCI" to "present at the receive DUT's TCI".

Proposed Response   *Response Status*   **W**

PROPOSED ACCEPT IN PRINCIPLE.
DEFER
TFTD

Cl **168**   *SC* **168.8**   *P* **82**   *L* **33**   # 80

Maguire, Valerie   Copperopolis; aff'l w/ CME Consulting and Cisco
Comment Type   **E**   *Comment Status*   **A**   *Editorial*

Propose more precise language.

SuggestedRemedy

Replace "include any TCI connecting" with "include TCIs connecting" and replace "do not include any external connection such as a stub or service loop" with "do not include external connections such as stubs or service loops".

Response   *Response Status*   **C**

ACCEPT.
Note - align with comment 2

Cl **168**   *SC* **168.8**   *P* **83**   *L* **21**   # 56

Zimmerman, George   CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So
Comment Type   **E**   *Comment Status*   **A**   *EZ*

The editor's note references the mixing segment RL, but I believe that was filled in the last draft turn. We just forgot to delete the note.

SuggestedRemedy

Delete editor's note at P83 L21 immediately before 168.8.1

Response   *Response Status*   **C**

ACCEPT.

Cl **168**   *SC* **168.8.3**   *P* **84**   *L* **22**   # 102

Schreiner, Stephan   Rosenberger Hochfrequenztechnik GmbH & Co. KG
Comment Type   **T**   *Comment Status*   **A**   *EZ*

"The mode conversion loss of EACH 10BASE-T1M mixing segment". Based on my understanding, there are not multiple mixing segments - there is only one mixing segment

SuggestedRemedy

Remove "Each"

Response   *Response Status*   **C**

ACCEPT IN PRINCIPLE.
Replace "each" with "the" (loss of the 10BASE-T1M…)

Cl **168**   *SC* **168.8.3**   *P* **84**   *L* **27**   # 81

Maguire, Valerie   Copperopolis; aff'l w/ CME Consulting and Cisco
Comment Type   **T**   *Comment Status*   **A**   *Editorial*

Mode Conversion Loss limit should be ≥

SuggestedRemedy

Replace ">" with "≥"

Response   *Response Status*   **C**

ACCEPT.

Cl **169**   *SC* **169.9**   *P* **85**   *L* **5**   # 2

Jones, Chad   Cisco Systems, Inc.
Comment Type   **E**   *Comment Status*   **A**   *Editorial*

We use "left side" and "right side in the drawing and in the text on page 84 line 38. in another section we rewrote the text to remove left and right. Since we are referring to a drawing perhaps it's ok here, but I will throw out an alternative to remove left and right

SuggestedRemedy

replace "left " with upstream and "right " with downstream in two locations, on page 84 line 38 and page 85 line 5

Response   *Response Status*   **C**

ACCEPT IN PRINCIPLE.
Note - align with comment 80
missed one instance

replace "left " with upstream and "right " with downstream in two locations, on page 84 line 38, page 85 line 5.
Replace "any TCI connecting the left and right sides of the mixing segment" with "any TCI in the mixing segment" at page 82 line 33

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **85**   Page 5 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *Li* **5**   9/4/2024 9:00:59 AM
SORT ORDER: Page, Line

Cl **168**   *SC* **168.9**   *P* **85**   *L* **34**   # 103

Schreiner, Stephan   Rosenberger Hochfrequenztechnik GmbH & Co. KG

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

"The second configuration presents a negligible stub length when the PMA attachment is an open circuit."

SuggestedRemedy

The second configuration present a negligible sub length if no PMA is attached.

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.
(fixed subject-verb agreement and typo)
Change
"The second configuration presents a negligible stub length when the PMA attachment is an open circuit."
to
"The second configuration presents a negligible stub length if no PMA is attached."

Cl **168**   *SC* **168.9.1.1**   *P* **86**   *L* **3**   # 104

Schreiner, Stephan   Rosenberger Hochfrequenztechnik GmbH & Co. KG

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

"With a DTE or simulated DTE load present at the TCI,…" - This part of sentence, which is also line 19 on the same page is already covered by by the introduction paragraph on page 85 lines 42-43. Thus, I could be removed.

SuggestedRemedy

Remove sentence

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.
It is clearer to have the text directly associated with the requirement.
Additionally, deleting the sentence from 168.9.1.1 would misalign 168.9.1.1 and 168.9.1.2.
Therefore, the redundancy is eliminated by fixing 168.9.1.

Delete 2nd and 3rd sentences of 168.9.1 (P85 L42-45).

Cl **168**   *SC* **168.9.3**   *P* **86**   *L* **37**   # 96

Paul, Michael   Analog Devices

Comment Type **T**   *Comment Status* **D**   *General Safety*

"The DTE shall withstand without damage the application of any voltages between 0 V dc and 60 V dc with the source current limited to 2000 mA" ... 2000mA may not be a good idea for DTE. DTE shouldnt be able to pass the requirement by shunting 2A with an S1B diode at the TCI. 2000mA exception is only for MPSEs

SuggestedRemedy

Remove the text "with source current limited to 2000mA"

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.
DEFER
There may be implications with regards to clause 147 devices.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **86**   Page 6 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *Li* **37**   9/4/2024 9:00:59 AM
SORT ORDER: Page, Line

Cl **169**   *SC* **169.1.2**   *P* **97**   *L* **40**   # **3**

Jones, Chad   Cisco Systems, Inc.

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

"An MPSE or MPD may or may not be co-located with a DTE, and the power may be provided over the same pairs as the data or over dedicated pairs with power only. The interface of the power entity to the medium is the MPI, with connection points MP1 and MP2 to the power trunk. When the power is provided over the same pairs as data, the MPI and the TCI are the same connection to the medium and the MPI must also meet the requirements for the TCI needed for the PHY (see, e.g., 168.9). However, when data and power are carried on separate conductors, the MPI may be separate from the TCI and the related TCI requirements do not apply."
Not sure why we are specifying operation when power is on a separate pair. This might be lingering from earlier work. The overview states: "These entities allow devices to supply/draw power using the same cabling that is used for data transmission. MPoE provides a multidrop single pair Ethernet Physical Layer device with an interface to both the power and data." as this is SPE, that single cable should be just two conductors. to me, anything beyond two conductors in therefore beyond our scope.

SuggestedRemedy

Delete the text that talks about dedicated power pairs.
change to:
"An MPSE or MPD may or may not be co-located with a DTE, and the power is provided over the same pairs as the data. The interface of the power entity to the medium is the MPI, with connection points MP1 and MP2 to the power trunk. The MPI and the TCI are the same connection to the medium and the MPI must also meet the requirements for the TCI needed for the PHY (see, e.g., 168.9)."

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
DEFER
This text was changed based on comments accepted last cycle to reflect discussions that the power protocols in clause 169 may be used on conductors not carrying data. Nowhere in clause 169 is data required for use. The overview text did not get modified with similar changes (and isn't the scope of the project - which includes power 'associated' with multidrop, not necessarily same-pair), because it properly reflects that clause 169 ALLOWS (but does not require) power to be on the same pairs as the data. TF needs to discuss whether to specifically limit to same-pair (implementing the change suggested or similar), or, whether to add further clarification to the overview text reflecting the power may be on separate pairs.

Cl **169**   *SC* **169.4.2**   *P* **100**   *L* **4**   # **64**

Zimmerman, George   CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So

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

"is required" isn't proper language. Requirements need to be identified by "shall"; however, the requirement isn't clear -and seems just to be a statement that the polarity is defined by the MPSE - that an MPSE doesn't switch polarities…

SuggestedRemedy

Change "An MPSE is required to operate in a single polarity." to "An MPSE provides a single polarity."

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
DEFER
Change "An MPSE is required to operate in a single polarity." to "An MPSE shall conform to the pinout of Table 169-2 and provide a single polarity."

Cl **169**   *SC* **169.4.3**   *P* **100**   *L* **27**   # **65**

Zimmerman, George   CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So

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

"Current shall be measured" - is a requirement on the user of the standard, and therefore inappropriate for a shall.

SuggestedRemedy

Change "shall be measured" to "is measured" at lines 27 & 35.

Response   *Response Status* **C**

ACCEPT.

Cl **169**   *SC* **169.4.3**   *P* **100**   *L* **31**   # **48**

Jones, Peter   Cisco

Comment Type **E**   *Comment Status* **D**   *EZ -Pulled*

Redundant text in the following:
"compliance to voltage specifications is met at MP1 and MP2, and both MPs shall meet the specification."

SuggestedRemedy

remove ", and both MPs shall meet the specification"

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **100**   Page 7 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *Li* **31**   9/4/2024 9:00:59 AM
SORT ORDER: Page, Line

Cl **169**　　*SC* **169.4.3**　　　　　　*P* **100**　　　*L* **33**　　　　# `49`

Jones, Peter　　　　　　　　　　　Cisco
Comment Type　**E**　　*Comment Status*　**D**　　　　　　*EZ - Pulled*

Language:
"That is, if the specification calls for the voltage to exceed a value, then the minimum of the voltages at MP1 and MP2 exceeds the threshold, whereas if the specification calls for the voltage to be below a value, then the maximum of the two MP voltages is below the value"

SuggestedRemedy

Change to:
"If the specification calls for the voltage to be above a value, or below a value, both MP1 and MP2 must meet the criteria."

Proposed Response　　　*Response Status*　**W**

PROPOSED ACCEPT.

Cl **169**　　*SC* **169.4.4.2**　　　　*P* **101**　　　*L* **22**　　　　# `50`

Jones, Peter　　　　　　　　　　　Cisco
Comment Type　**E**　　*Comment Status*　**R**　　　　　　*Editorial*

I don't get the naming of discover_low_tare_var. Why is this "tare" ?
The definition of tare is
"1: a deduction from the gross weight of a substance and its container made in allowance for the weight of the container
2: the weight of the container".
Add a little more explanatory text to definition?

SuggestedRemedy

Add explanatory text to definition of discover_low_tare variables etc to explain why "tare" makes sense here.

Response　　　　　*Response Status*　**C**

REJECT.
Commenter provides insufficient information for a remedy. Explanation of the name is unneeded provided the function is clearly specified.

For general information, a "tare" is most common in measurements of weight, but can be generalized from the definitions given, is an amount deducted from a measurement (doesn't have to be a weight).

Cl **169**　　*SC* **169.4.4.2**　　　　*P* **101**　　　*L* **25**　　　　# `90`

Law, David　　　　　　　　　　　HPE
Comment Type　**E**　　*Comment Status*　**A**　　　　　　*EZ*

Typo.

SuggestedRemedy

Delete the spaces and the second full stop after the first in '... to the mixing segment. .'.

Response　　　　　*Response Status*　**C**

ACCEPT.

Cl **169**　　*SC* **169.4.4.2**　　　　*P* **101**　　　*L* **46**　　　　# `51`

Jones, Peter　　　　　　　　　　　Cisco
Comment Type　**E**　　*Comment Status*　**A**　　　　　　*EZ*

Typo in definition for mpd_mixed_discovered

SuggestedRemedy

Change "one valid MPD supporting both Type 0 or Type 1"
to "one valid MPD supporting both Type 0 and Type 1"

Response　　　　　*Response Status*　**C**

ACCEPT.

Cl **169**　　*SC* **169.4.4.2**　　　　*P* **102**　　　*L* **17**　　　　# `16`

Jones, Peter　　　　　　　　　　　Cisco
Comment Type　**E**　　*Comment Status*　**A**　　　　　　*EZ*

Excess text in definition for overload_detected

SuggestedRemedy

Remove "This variable is set per this description."

Response　　　　　*Response Status*　**C**

ACCEPT.

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

Pa **102**
Li **17**

Page 8 of 23
9/4/2024 9:00:59 AM

Cl **169**   *SC* **169.4.4.2**   *P* **102**   *L* **27**   # 17

Jones, Peter   Cisco
Comment Type   **T**   *Comment Status*   **D**   *State Diagrams*

power_stable has a value for "The MPSE has begun steady-state operation and is ready to enter the POWER_ON state".
What does this report when the MPSE is in the POWER-ON state?

SuggestedRemedy

Review values and definitions. Do we need changes or a new value here?

Proposed Response   *Response Status*   **W**

PROPOSED ACCEPT IN PRINCIPLE.
TFTD
Looking at the state diagram, power_stable shows up as a condition that determines whether you exit INRUSH properly or exit inrush improperly, and is only checked on the transition (not in either the INRUSH or POWER-ON state), when the mpse_inrush_timer expires. This makes the state of this variable moot in the POWER-ON state, but also raises the question of whether it should be replaced by a new voltage threshold.

Cl **169**   *SC* **169.4.4.3**   *P* **102**   *L* **35**   # 18

Jones, Peter   Cisco
Comment Type   **E**   *Comment Status*   **D**   *State Diagrams*

The first para of " 169.4.4.3 Timers" includes modifications to the behaviors described in 14.2.3.2. Other clause have "Conventions in this clause " subclauses for this.

SuggestedRemedy

Move this, and similar, text to new sub-clause "169.1.2 Conventions in this clause " similar to 168.1.2.

Proposed Response   *Response Status*   **W**

PROPOSED ACCEPT IN PRINCIPLE.
Commenters proposed response with different numbering because 169.1.2 is taken, and with more content, because the bigger problem is that clause 169 uses the "IF-THEN-ELSE" construct which is another addition to the conventions of clause 21…

Insert new clause 169.1.3 Conventions in this clause, copying in the text from 168.1.2, 168.1.2.1, 168.1.2.2, and 168.1.2.3

Cl **169**   *SC* **169.4.4.3**   *P* **102**   *L* **43**   # 19

Jones, Peter   Cisco
Comment Type   **E**   *Comment Status*   **D**   *State Diagrams*

Language - "A timer used to delay measurement of the mark current after applying a high mark voltage". Is this applying or detecting?
Same question for 169.4.4.3 mark_timer and measure_timer.

SuggestedRemedy

Review definition and update if appropriate (or is it just me?)

Proposed Response   *Response Status*   **W**

PROPOSED REJECT.
Language is correct. It delays measurement until after applying the voltage. See Fig 169-3:

HIGH_MARK state and DISCOVERY_HIGH_MARK state.
HIGH_MARK does "present_mark" (which applies the voltage, Mark_timer keeps the MPSE in that state, holding off the transition to DISCOVERY_HIGH_MARK which then executes the do_discovery_high function to measure the current.
Same thing for measure_timer, DISCOVERY_LOW_PRESENT, present_low, DISCOVERY_LOW, and do_discovery_low…

Cl **169**   *SC* **169.4.4.4**   *P* **103**   *L* **10**   # 20

Jones, Peter   Cisco
Comment Type   **E**   *Comment Status*   **D**   *State Diagrams*

The first para of " 169.4.4.4 Functions" includes generic behaviours in this clause. Other clause have "Conventions in this clause " subclauses for this.

SuggestedRemedy

Move this, and similar, text to new sub-clause "169.1.2 Conventions in this clause " similar to 168.1.2.

Proposed Response   *Response Status*   **W**

PROPOSED REJECT.
This particular nomenclature is best left by the functions for clarity. It appears only one other place in IEEE Std 802.3-2022 - in clause 145 - in exactly the same way.

Cl **169**   *SC* **169.4.4.4**   *P* **103**   *L* **14**   # 82

Maguire, Valerie   Copperopolis; aff'l w/ CME Consulting and Cisco
Comment Type   **E**   *Comment Status*   **A**   *EZ*

Functions, timers, and variables generally appear in alphabetical order in 802.3-2022.

SuggestedRemedy

Arrange the Functions in alphabetical order

Response   *Response Status*   **C**

ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **103**   Page 9 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *Li* **14**   9/4/2024 9:00:59 AM
SORT ORDER: Page, Line

Cl **169** *SC* **169.4.4.4** *P* **103** *L* **18** # 21

Jones, Peter Cisco

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

Extra blank line before "do_discovery_high" and "do_discovery_low".

SuggestedRemedy

remove extra blank lines.

Response *Response Status* **C**

ACCEPT.

Cl **169** *SC* **169.4.4.4** *P* **103** *L* **28** # 22

Jones, Peter Cisco

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

Indent is wrong for one or more "Value "s of do_discovery_high, check_discovery_all, do_discovery_eval

SuggestedRemedy

Fix indents

Response *Response Status* **C**

ACCEPT.

Cl **169** *SC* **169.4.4.4** *P* **103** *L* **47** # 23

Jones, Peter Cisco

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

Missing TAB in "mpd_discovered: This:"

SuggestedRemedy

Insert tab between "mpd_discovered: " and "This"

Response *Response Status* **C**

ACCEPT.

Cl **169** *SC* **169.4.4.5** *P* **105** *L* **5** # 88

Law, David HPE

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

The first action in the DISABLED state of Figure 169–3 'Top level MPSE state diagram, part a' sets the variable 'powered' to FALSE. The variable 'powered' is, however, not defined in subclause 169.4.4.2 'Variables'. It appears that the 'mpi_powered' variable should be set to FALSE in the DISABLED state instead.

SuggestedRemedy

Change the first action in the DISABLED state from 'powered <= FALSE' to read 'mpi_powered <= FALSE'.

Response *Response Status* **C**

ACCEPT.

Cl **169** *SC* **169.4.4.5** *P* **105** *L* **9** # 57

Zimmerman, George CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So

Comment Type **T** *Comment Status* **D** *State Diagrams*

It seems reasonable that a discover_fault event should not go straight into IDLE, but rather do the full MPSE reset and backoff entering the backoff state, just like other faults such as an open_circuit. This then goes to IDLE after resetting the MPSE state and a short wait.

SuggestedRemedy

Move open-ended entry point with condition "discover_fault * mpse_enable" from entering IDLE to entering BACKOFF (similar to entry point "A").

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **169** *SC* **169.4.4.5** *P* **105** *L* **10** # 98

Paul, Michael Analog Devices

Comment Type **T** *Comment Status* **D** *State Diagrams*

A discover_fault condition leads to IDLE, which then reenters HIGH_MARK with 0 wait. Discover_fault can result in an infinitel loop

SuggestedRemedy

discover_fault and mpse_enable should enter the backoff state, or backoff state should always follow IDLE

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Consider with Comment 57
Move open-ended entry point with condition "discover_fault * mpse_enable" from entering IDLE to entering BACKOFF (similar to entry point "A").

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general *Pa* **105** Page 10 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed Z/withdrawn *Li* **10** 9/4/2024 9:00:59 AM
SORT ORDER: Page, Line

Cl **169** *SC* **169.4.4.5** *P* **105** *L* **34** # 93

Law, David   HPE
Comment Type **E** *Comment Status* **A**   *EZ*

Suggest that the transition condition text box for DISCOVERY_HIGH_MARK to BACKOFF in Figure 169–3 should be enlarged to prevent the variable 'discover_high_timer_done' from being hyphenated over two lines.

SuggestedRemedy

See comment.

Response   *Response Status* **C**

ACCEPT.

Cl **169** *SC* **169.4.4.5** *P* **105** *L* **37** # 91

Law, David   HPE
Comment Type **T** *Comment Status* **A**   *EZ*

The transition condition from the DISCOVERY_LOW state to the DISCOVERY_LOW_ALL state in Figure 169–3 'Top level MPSE state diagram, part a' reads 'discover_low_timer_done * (mark_number =' with the end of the transition condition missing.

SuggestedRemedy

Suggest that '(mark_number =' shoudl read '(mark_number = 1)

Response   *Response Status* **C**

ACCEPT.

Cl **169** *SC* **169.4.4.5** *P* **105** *L* **37** # 92

Law, David   HPE
Comment Type **E** *Comment Status* **A**   *EZ*

Suggest that the transition condition text box for DISCOVERY_LOW to DISCOVERY_LOW_ALL in Figure 169–3 should be enlarged to prevent the variable 'discover_low_timer_done' from being hyphenated over two lines.

SuggestedRemedy

See comment.

Response   *Response Status* **C**

ACCEPT.

Cl **169** *SC* **169.4.4.5** *P* **106** *L* **8** # 95

Law, David   HPE
Comment Type **T** *Comment Status* **A**   *EZ*

Subclause 169.4.4.1 'Conventions' says that 'The notation used in the state diagram follows the conventions of state diagrams as described in 145.2.5.2.'. The second paragraph of subclause 145.2.5.2 says 'Some states in the state diagrams use an IF-THEN-ELSE-END construct to condition which actions are taken within the state. If the logical expression associated with the IF evaluates TRUE all the actions listed between THEN and ELSE will be executed. In the case where ELSE is omitted, the actions listed between THEN and END will be executed. If the logical expression associated with the IF evaluates FALSE the actions listed between ELSE and END will be executed.'. In addition, subclause 1.2.1 'State diagram conventions', item b) says 'The character "<=" (left arrow) denotes assignment of the value following the arrow to the term preceding the arrow.'.

SuggestedRemedy

Based on the referenced conventions suggest that in the DISCOVERY_LOW_TYPE state:

[1] Three 'END's, each on a new line, should be added after the final assignment, 'mpd_mixed_discovered = mpd_type_discovered'.
[2] Replace the '=' with the '<=' (left arrow) symbol in the three assignments.
[3] The first instance of 'If' should be changed to read 'IF'.
[4] Consider indenting (see Figure 145–13 for an existing example).

Based on the above the actions in the DISCOVERY_LOW_TYPE state would read:

check_discovery_type
IF (mark_number = 3) THEN
  mpd_type0_discovered <= mpd_type_discovered
ELSE IF (mark_number = 4) THEN
  mpd_type1_discovered <= mpd_type_discovered
ELSE IF (mark_number = 5) THEN
  mpd_mixed_discovered <= mpd_type_discovered
END

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.
Editorial license to implement commenters resolution and review and update all state diagrams, including any updates made during comment resolution.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **106**   Page 11 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *Li* **8**   9/4/2024 9:00:59 AM
SORT ORDER: Page, Line

Cl **169**   *SC* **169.4.4.5**   *P* **106**   *L* **32**   # 94

Law, David   HPE

Comment Type **T**   *Comment Status* **A**   *State Diagrams*

The DISCOVERY_DENIED state in Figure 169–4 has no actions, its exit condition is UCT, and there are no references to it from elsewhere in the draft (e.g., a management counter isn't incremented by entry to this state). It, therefore, seems that this state is redundant and could be deleted.

SuggestedRemedy

Suggest that the DISCOVERY_DENIED state in Figure 169–4 is deleted, and the transition from the DISCOVERY_LOW_EVAL state on !discover_compatible_mpd is to 'A'.

Response   *Response Status* **C**

ACCEPT.

Cl **169**   *SC* **169.4.4.5**   *P* **106**   *L* **43**   # 89

Law, David   HPE

Comment Type **T**   *Comment Status* **D**   *State Diagrams*

The transition condition from the POWER_ON to the ERROR_DELAY state in Figure 169–3 'Top level MPSE state diagram, part a' includes the term '... + !power_available'. The variable 'power_available' is, however, not defined in subclause 169.4.4.2 'Variables'.

SuggestedRemedy

Suggest that the following variable definition is added to subclause 169.4.4.2:

power_available
Variable that is set in an implementation-dependent manner when the PSE is no longer capable of sourcing sufficient power to support the attached MPD load.
FALSE: PSE is no longer capable of sourcing power to the MPD load.
TRUE: PSE is capable of continuing to source power to the MPD load.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
(commenters suggestion with PSE changed to MPSE)
Add the following variable definition to 169.4.4.2:
the following variable definition is added to subclause 169.4.4.2:

power_available
Variable that is set in an implementation-dependent manner when the MPSE is no longer capable of sourcing sufficient power to support the attached MPD load.
FALSE: MPSE is no longer capable of sourcing power to the MPD load.
TRUE: MPSE is capable of continuing to source power to the MPD load.

Cl **169**   *SC* **169.4.4.5**   *P* **106**   *L* **44**   # 99

Paul, Michael   Analog Devices

Comment Type **T**   *Comment Status* **D**   *State Diagrams*

ttpsdo_timer_done exit from POWER_ON returns to IDLE, which allows a port to immediately re-enter discovery

SuggestedRemedy

This arc should return on arc A instead

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **169**   *SC* **169.4.5**   *P* **107**   *L* **1**   # 24

Jones, Peter   Cisco

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

Strange to have "169.4.5 MPSE overview" after 169.4.1 MPSE types, 169.4.2 MPSE pin assignments, 169.4.3 MPSE MPI and 169.4.4 MPSE state diagram.

SuggestedRemedy

Move "169.4.5 MPSE overview" to be 169.4.1

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.
This text is a description of the operation of the MPSE state diagram and appropriately belongs in 169.4.4.

Move text of 169.4.5 to 169.4.4 (after existing sentence there)

Cl **169**   *SC* **169.4.5**   *P* **107**   *L* **14**   # 25

Jones, Peter   Cisco

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

Cross reference out of place.

SuggestedRemedy

Change "an overload (see 169.4.9), short-circuit or other fault (see 169.4.10),"
To "an overload (see 169.4.9), short-circuit (see 169.4.10) or other fault,"

Response   *Response Status* **C**

REJECT.
169.4.10 relates to the 'short circuit current' which could be caused by a fault other than a short circuit (e.g., a bad MPD), and that is also what "or other fault" refers to.

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 Z/withdrawn
SORT ORDER: Page, Line

Pa **107**
Li **14**

Page 12 of 23
9/4/2024 9:01:00 AM

Cl **169**	SC **169.4.6**	P**107**	L **23**	#	26

Jones, Peter　　　　　　　　　　　　　　Cisco

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

Add additional reference to "Table 169–3—MPSE discovery parameters " to the following sentence.
"Discovery consists of a series of discover high and discover low events as defined in the state diagram in Figure 169–3 and Figure 169–4."

SuggestedRemedy

Discovery consists of a series of discover high and discover low events as defined in the state diagrams in figures 169–3 and 169–4, as well as the values in Table 169–3."

Response　　　　　　　*Response Status*　**C**

REJECT.
Discovery doesn't consist of the values. Those values are referenced by the state diagrams.

Cl **169**	SC **169.4.6**	P**107**	L **26**	#	27

Jones, Peter　　　　　　　　　　　　　　Cisco

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

I don't really understand the usage of "mark event" and "mark event voltage" here. It first shows up in "169.4.6 Discovering the presence of an MPD before powering".

SuggestedRemedy

Add an explanation of what a "mark event" and/or "mark event voltage" are.

Proposed Response　　　　　*Response Status*　**W**

PROPOSED ACCEPT IN PRINCIPLE.
DEFER - See Michael Paul's presentation

The sentence is redundant: "When the MPSE is presenting a mark event voltage in a HIGH_MARK and DISCOVERY_HIGH_MARK
state, as shown in the state diagram of Figure 169–3 and Figure 169–4, the MPSE supplies VMark voltage to
the TCI subject to the TDiscovery_high timing specification."
"presenting a mark event voltage" means "supplies Vmark voltage"…

Change "When the MPSE is presenting a mark event voltage in a HIGH_MARK and DISCOVERY_HIGH_MARK
state, as shown in the state diagram of Figure 169–3 and Figure 169–4, the MPSE supplies VMark voltage to
the TCI subject to the TDiscovery_high timing specification." to
"When the MPSE is in a HIGH_MARK or DISCOVERY_HIGH_MARK
state, as shown in the state diagram of Figure 169–3 and Figure 169–4, the MPSE supplies VMark voltage to
the TCI subject to the TDiscovery_high timing specification."

Cl **169**	SC **169.4.6**	P**107**	L **30**	#	4

Jones, Chad　　　　　　　　　　　　　　Cisco Systems, Inc.

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

there is a subscript 'i' in front of the word in.

SuggestedRemedy

delete the typo.

Response　　　　　　　*Response Status*　**C**

ACCEPT.

Cl **169**	SC **169.4.6**	P**107**	L **52**	#	28

Jones, Peter　　　　　　　　　　　　　　Cisco

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

The sentence "Unless acting as an MPD, an MPSE" doesn't cover what happens if the MPSE is acting as a device that doesn't implement MPoE (not an MPSE or MPD).
Do we need to talk about these devices?

SuggestedRemedy

Discuss, do we need to add additional text regarding nodes that don't implent MPoE? For example, do they affect discovery?

Proposed Response　　　　　*Response Status*　**W**

PROPOSED REJECT.
DEFER
No change to the draft - a device that doesn't implement MPoE can't be an MPSE or MPD… It wouldn't be subject to this clause.

Cl **169**	SC **169.4.6**	P**108**	L **41**	#	97

Paul, Michael　　　　　　　　　　　　　Analog Devices

Comment Type　**T**　　*Comment Status*　**D**　　　　　　　　*State Diagrams*

Reject discovery - open circuit max is set to 200uA. MPD Mark event current min (item 4 in table 169-7) is set to 100uA min.

SuggestedRemedy

Change Reject discovery - open circuit max to 75uA so it does not overlap MPD mark current range

Proposed Response　　　　　*Response Status*　**W**

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general　　　Pa **108**　　Page 13 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected　　RESPONSE STATUS: O/open W/written C/closed Z/withdrawn　　Li **41**　　9/4/2024 9:01:00 AM
SORT ORDER: Page, Line

Cl **169**   *SC* **169.4.8**   *P* **109**   *L* **13**   # 5

Jones, Chad   Cisco Systems, Inc.

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

TBDs in the output slew rate entry for Table 169-5. If we want to move to WG ballot, we need numbers here. I'm hoping we get a presentation or comment with reasons for replacing the TBDs with numbers, but this comment is here in case we don't. I'd ask the chair to charter an ad hoc to derive numbers to put in during this meeting.

SuggestedRemedy

If there is a comment to replace the TBDs with numbers, happy to withdraw this comment. If not, please charter an ad hoc to bring numbers back to the group to replace the TBDs.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Big Ticket Item - Technical Completeness

Cl **169**   *SC* **169.4.11.1**   *P* **110**   *L* **21**   # 66

Zimmerman, George   CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So

Comment Type **T**   *Comment Status* **D**   *State Diagrams*

"The MPSE shall not remove power from the port …" this prohibits the MPSE removing power for ANY reason if there is current above the threshold. This isn't what we mean. We WANT an MPSE to remove power if there is a fault, etc.

SuggestedRemedy

Change "The MPSE shall not remove power from the port when IMPSE is greater than or equal to IHold max continuously for at least TTPS every TTPS + TTPSDO, as defined in Table 169–5. " to "The MPSE shall not consider TPS absent, and should not remove power when IMPSE is greater than or equal to IHold max continuously for at least TTPS every TTPS + TTPSDO, as defined in Table 169–5, except as defined for entry to the ERROR_DELAY state in Figure 169-4."

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
TFTD
Consider with comment 83.
Commenters resolution may not be best wording… The functionality to remove power is described in the state diagram…

Cl **169**   *SC* **169.4.11.1**   *P* **110**   *L* **21**   # 83

Maguire, Valerie   Copperopolis; aff'l w/ CME Consulting and Cisco

Comment Type **E**   *Comment Status* **D**   *State Diagrams*

This should not be a "shall" statement.

SuggestedRemedy

Replace, "The MPSE shall not remove power…" with "The MPSE does not remove power…"

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Consider with comment 66. It isn't clear exactly what we want here, but this shouldn't be a shall statement. However, there are instances where the MPSE could remove power…

Cl **169**   *SC* **169.5.1**   *P* **110**   *L* **39**   # 29

Jones, Peter   Cisco

Comment Type **E**   *Comment Status* **R**   *MPD types*

"169.5.1 MPD system types" discusses MPDs as "as Type 0, Type 1, or Type Mixed." but does not define them. Terms should be defined before they are used.
"169.5.5.2 MPD unit load" and "169.3 System type power requirements" both contain the same passive voice definition "For Type 0 MPDs, one unit load represents 1W. For Type 1 MPDs, one unit load represents 2W."

SuggestedRemedy

Define MPD types (0, 1, or Mixed) before the terms are used, and don't repeat the definition later.

Response   *Response Status* **C**

REJECT.
MPD types are defined in the first paragraph of 169.3 and Table 169-1 (on page 99, before this):
"MPSEs and MPDs are categorized by their system type. These system types and the relevant electrical specifications are shown in Table 169–1. An MPSE may transition between types during IDLE (see Figure 169–3 and Figure 169–4)."

Cl **169**   *SC* **169.5.1**   *P* **110**   *L* **39**   # 30

Jones, Peter   Cisco

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

Typo, "PDs" should be "MPDs".

SuggestedRemedy

Change "PDs can be characterized" to "MPDs can be characterized"

Response   *Response Status* **C**

ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **110**   Page 14 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *Li* **39**   9/4/2024 9:01:00 AM
SORT ORDER: Page, Line

Cl **169**   *SC* **169.5.2**   *P* **110**   *L* **50**   # 31

Jones, Peter   Cisco
Comment Type   **E**   *Comment Status*   **A**   *EZ*
"MPDs are current sinks. See Figure 169–5." is a very short paragraph.

SuggestedRemedy
Combine with previous para.

Response   *Response Status*   **C**
ACCEPT IN PRINCIPLE.
Combine with subsequent paragraph (which is about the flow of current, and therefore makes more sense).

Cl **169**   *SC* **169.5.2**   *P* **110**   *L* **51**   # 32

Jones, Peter   Cisco
Comment Type   **E**   *Comment Status*   **D**   *Editorial*
Simplify language.

SuggestedRemedy
Change "Current at an MPD MPI is defined as positive when current flows into the higher voltage pin of the MP1 or MP2 connection and flows out of the lower voltage pin of the same MP1 or MP2 connection, respectively"
to "Current at an MPD MPI is defined as positive when current flows into the higher voltage pin of an MPI connection and flows out of the lower voltage pin of the same connection"

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

Cl **169**   *SC* **169.5.2**   *P* **111**   *L* **10**   # 33

Jones, Peter   Cisco
Comment Type   **E**   *Comment Status*   **D**   *Editorial*
Simplify language.

SuggestedRemedy
Change "Current at an MPD MPI is defined as negative when current flows out of the higher voltage pin of the MP1 or MP2 connection and flows into the lower voltage pin of the same MP1 or MP2 connection, respectively"
to "Current at an MPD MPI is defined as negative when current flows out of the higher voltage pin of an MPI connection and flows into the lower voltage pin of the same connection"

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

Cl **169**   *SC* **169.5.2**   *P* **111**   *L* **13**   # 67

Zimmerman, George   CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So
Comment Type   **T**   *Comment Status*   **D**   *Editorial - Pulled*
"Current shall be measured" - is a requirement on the user of the standard, and therefore inappropriate for a shall.

SuggestedRemedy
Change "shall be measured" to "is measured" at line 13

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

Cl **169**   *SC* **169.5.2**   *P* **111**   *L* **20**   # 6

Jones, Chad   Cisco Systems, Inc.
Comment Type   **E**   *Comment Status*   **D**   *EZ - Pulled*
Figure 169-5, V(A,B) has a greater sign after it. Not sure if it is a typo or if it suppose to indicate V(A,B) > V(C,D). In either case, something needs done to the drawing. Either we delete the > symbol, or we move V(C,D) closer to make it obvious what we are trying to say. I'd lean towards it being a typo as we don't discuss that V(A,B) has to be greater than V(C,D) [even though logically it should be].

SuggestedRemedy
delete the ">" from the drawing.

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

Cl **169**   *SC* **169.5.2**   *P* **111**   *L* **34**   # 34

Jones, Peter   Cisco
Comment Type   **E**   *Comment Status*   **R**   *MPD*
I don't get this picture. Why is +ve going in and out at MP1 and vice versa?

SuggestedRemedy
Review figure and update if appropriate (or is it just me?)

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

This comment was WITHDRAWN by the commenter.

No change to draft proposed.
TFTD
(note, if necessary, use this comment to fix typo where "MPSD DTE" should be "MPD DTE"

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 Z/withdrawn
SORT ORDER: Page, Line

Pa **111**
Li **34**

Page 15 of 23
9/4/2024 9:01:00 AM

Cl **169**   *SC* **169.5.3.2**   *P* **112**   *L* **4**   # 55

Zimmerman, George   CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So

Comment Type **T**   *Comment Status* **D**   *State Diagrams*

I believe there is no need for a separate threshold after comparing V_Mark threshold operation to Figure 145-27 in PoE, which has similar function, there is no hysteresis in the state diagram and the PoE diagram also uses only one threshold so there is no need to add VMark_th. Any hysteresis can be accomplished by implementers using the allowed variation in VDiscovery_th in Table 169-7.

SuggestedRemedy

Delete editor's note and Vmark_th at P112 Lines 4 through 10 (note and variable).

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
TFTD

Cl **169**   *SC* **169.5.3.3**   *P* **112**   *L* **27**   # 84

Maguire, Valerie   Copperopolis; aff'l w/ CME Consulting and Cisco

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

Functions, timers, and variables generally appear in alphabetical order in 802.3-2022.

SuggestedRemedy

Arrange the Variables in alphabetical order

Response   *Response Status* **C**

ACCEPT.

Cl **169**   *SC* **169.5.3.5**   *P* **114**   *L* **3**   # 54

Zimmerman, George   CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So

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

delete editor's note - remove section if still empty after comment resolution.

SuggestedRemedy

delete editor's note - remove section if still empty after comment resolution.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
DEFER
Revisit at conclusion of comment resolution

Cl **169**   *SC* **169.5.3.6**   *P* **115**   *L* **9**   # 87

Law, David   HPE

Comment Type **T**   *Comment Status* **D**   *State Diagrams*

In the 'Top level MPD state diagram', the 'present_mismatch_indication' variable is set to FALSE in the OFFLINE state; the 'present_mismatch_indicator' variable is set to TRUE in the PON_MISMATCHED_TYPE state; and the 'present_mismatch_indicator' variable is set to FALSE in the PON_NO_POWER state. Neither the 'present_mismatch_indication' variable nor the 'present_mismatch_indicator' variable are defined in subclause 169.5.3.3 'Variables'.

SuggestedRemedy

Use one of the two variable names (either 'present_mismatch_indication' or 'present_mismatch_indicator') throughout the 'Top level MPD state diagram' and add a definition of the variable to subclause 169.5.3.3 'Variables'.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Consider after comment 100 (which could delete present_mismatch_indicator). If the indicator is not deleted:

P117 L24: Change "present_mismatch_indicator" to "present_mismatch_indication" in PON_MISMATCHED_TYPE and PON_NO_POWER states

P113 L1:
Add "present_mismatch_indication' variable to 169.5.3.3 in alphanumeric order (with editorial indents to match section) as follows:
present_mismatch_indication
Controls presenting an indication that an MPD type is mismatched to the MPSE type on the mixing segment
Values:
FALSE: The MPD does not indicate a type mismatch
TRUE: The MPD indicates a type mismatch

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **115**   Page 16 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *Li* **9**   9/4/2024 9:01:00 AM
SORT ORDER: Page, Line

Cl **169**	*SC* **169.5.3.6**	*P* **115**	*L* **12**	*#* 86

Law, David — HPE

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

Subclause 169.5.3.1 'Conventions' says that 'The notation used in the state diagram follows the conventions of state diagrams as described in 145.2.5.2.'. The first row of Table 145–5 'State diagram operators in order of precedence (highest to lowest)' in subclause 145.2.5.2 of IEEE Std 802.3-2022 lists the '( )' operator as indicating precedence.

The open arrow entry condition into the IDLE state, however, uses '[]' rather than '()'.

SuggestedRemedy

Suggest that the open arrow entry condition into the IDLE state '[VMPD < VReset_MPD_max] * !mpd_reset * dte_power_required' should read '(VMPD < VReset_MPD_max) * !mpd_reset * dte_power_required' or just 'VMPD < VReset_MPD_max * !mpd_reset * dte_power_required' since the '<' has a higher precedence than '*' according to Table 145–5.

Response — *Response Status* **C**

ACCEPT.

Cl **169**	*SC* **169.5.3.6**	*P* **116**	*L* **7**	*#* 85

Law, David — HPE

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

Subclause 169.5.3.1 'Conventions' says that 'The notation used in the state diagram follows the conventions of state diagrams as described in 145.2.5.2.'. The second paragraph of subclause 145.2.5.2 of IEEE Std 802.3-2022 says that 'Some states in the state diagrams use an IF-THEN-ELSE-END construct to condition which actions are taken within the state.' and that 'If the logical expression associated with the IF evaluates TRUE all the actions listed between THEN and ELSE will be executed. In the case where ELSE is omitted, the actions listed between THEN and END will be executed.'.

Based on the above, the IF-THEN-ELSE-END construct in the DISCOVERY_LOW_TYPE_0, DISCOVERY_LOW_TYPE_1 and DISCOVERY_LOW_TYPE_MIXED states in Figure 169–7 'Top level MPD state diagram continued, part b' are missing the THEN after the IF condition.

SuggestedRemedy

Suggest that:

[1] 'IF (mpd_type = 0)' in the DISCOVERY_LOW_TYPE_0 state should read 'IF (mpd_type = 0) THEN'.
[2] 'IF (mpd_type = 1)' in the DISCOVERY_LOW_TYPE_1 state should read 'IF (mpd_type = 1) THEN'.
[3] 'IF (mpd_type = mixed)' in the DISCOVERY_LOW_TYPE_MIXED state should read ' IF (mpd_type = mixed) THEN'.

Response — *Response Status* **C**

ACCEPT.

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

Pa **116**
Li **7**

Page 17 of 23
9/4/2024 9:01:00 AM

Cl **169**   *SC* **169.5.3.6**   *P* **117**   *L* **24**   # 100

Paul, Michael   Analog Devices

Comment Type **T**   *Comment Status* **D**   *State Diagrams*

PON_MISMATCHED_TYPE state doesn't need to be a separate state from PON_NO_POWER. Both are states where the MPD has power applied, but the power is not in a useable range

SuggestedRemedy

This page of the state diagram needs to be redrawn and all conditions rechecked. This is too complicated to fix in excel. See presentation paul_da_01_2024_09_04.pdf

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
TFTD - Awaiting presentation.
The difference between PON_MISMATCHED_TYPE is the presentation of a mismatch indicator on the MPD. However, as it is right now this blinks on & off immediately in PON_NO_POWER. Either the "MISMATCHED" state needs to be deleted or the indicator needs to be latched for a period of time.
(this also may effect comment 87)

Cl **169**   *SC* **169.5.3.6**   *P* **117**   *L* **27**   # 52

Zimmerman, George   CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So

Comment Type **T**   *Comment Status* **D**   *State Diagrams*

The exit from PON_LOAD_ON to PON_NO_POWER seems incorrect. It says:
((mpd_type = 1) * (VMPD > Vtype1_th)) + ((mpd_type = 0) * (VMPD < Vtype1_th))
Vtype1_th is greater than the operating range (VPort_MPD) for type 0, so VMPD for a type 0 MPD would ALWAYS be less than Vtype1_th in operation.
Therefore, a type 0 MPD would immediately go to power off. similarly, a type 1 MPD's operating range is greater than Vtype1_th, and it would also immediately power off.
Then there is the fact that there seems to be no way for an mpd_type = mixed to power off.

I'm thinking this should be going to power off when the MPD is less than the lowest threshold (Vtype0_th), OR, it's appropriate threshold (if type 1), resulting in an undervoltage power off. However, there may be other conditions (such as overvoltage power off) to consider.

SuggestedRemedy

Change exit condition from PON_LOAD_ON to PON_NO_POWER in Figure 169-8 to:
(VMPD < Vtype0_th) + ((mpd_type = 1) * (VMPD < Vtype1_th))

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.

Cl **169**   *SC* **169.5.3.6**   *P* **117**   *L* **44**   # 53

Zimmerman, George   CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So

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

delete editor's note - it was supposed to go after draft 1.3

SuggestedRemedy

delete editor's note immediately following Figure 169-8.

Response   *Response Status* **C**

ACCEPT.

Cl **169**   *SC* **169.5.4**   *P* **118**   *L* **40**   # 7

Jones, Chad   Cisco Systems, Inc.

Comment Type **E**   *Comment Status* **A**   *Power Discovery*

We are missing text that describes how an MPD responds to the discovery events to signify the MPD Type.

SuggestedRemedy

Submitting cjones_3da_01_0924_MPD_Type_discovery.pdf as baseline text to be added after Table 169-7.

Response   *Response Status* **C**

ACCEPT.

Cl **169**   *SC* **169.5.5.2**   *P* **120**   *L* **8**   # 8

Jones, Chad   Cisco Systems, Inc.

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

MPDs consume integer units of load, known as "unit loads".
Repetitive text…

SuggestedRemedy

change to : "MPDs consume integer units of power, known as "unit loads"."

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT.
DEFER - consider after fractional unit load comment

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general *Pa* **120** Page 18 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed Z/withdrawn *Li* **8** 9/4/2024 9:01:00 AM
SORT ORDER: Page, Line

Cl **169**   *SC* **169.5.5.2**   *P* **120**   *L* **10**   # 105

Schreiner, Stephan   Rosenberger Hochfrequenztechnik GmbH & Co. KG

Comment Type **T**   *Comment Status* **D**   *Unit Loads*

For mixed Types, having a difference in the unit load equivalent power may cause confusion.

e.g. A device requires 4W and is a mixed type device it would have 4 unit loads on a type 0 segment and 2 unit loads on a type 1 segment. Thus the device would be described with two unit loads - depending on the type.

SuggestedRemedy

Assign 1W to one unit load.
Type 0 is capable of providing 16 unit loads, type 1 is capable of providing 32 unit loads.

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
DEFER
Group needs to consider possible impacts elsewhere in the draft.

Cl **169**   *SC* **169.5.5.2**   *P* **120**   *L* **10**   # 35

Jones, Peter   Cisco

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

If we want to come back later and define other MPD types that need less power (e.g., 0.25W), do we have a path to that?

SuggestedRemedy

Discuss, consider clarification.

Proposed Response   *Response Status* **W**

PROPOSED REJECT.
DEFER
No change to draft proposed.

Cl **169**   *SC* **169.5.5.2**   *P* **120**   *L* **14**   # 69

Zimmerman, George   CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So

Comment Type **T**   *Comment Status* **A**   *Unit Loads*

"The sum of unit loads on a mixing segment shall not exceed 16." is not appropriate for a requirement on a single MPD, and is a duplicate to the statement on page 99 line 15 in 169.3 System type.

SuggestedRemedy

Delete the sentence "The sum of unit loads… exceed 16." at P120 L14.

Response   *Response Status* **C**

ACCEPT.

Cl **169**   *SC* **169.5.5.3**   *P* **120**   *L* **28**   # 36

Jones, Peter   Cisco

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

The test says" An MPD that does not report TPS may have its power removed within …"
I don't understand what is really happening here. Does the power drawn from the MPSE go down? Do we remove a reservation?

SuggestedRemedy

Discuss, consider clarification.

Response   *Response Status* **C**

REJECT.
No change to draft proposed. Text is clear - if the MPD doesn't report TPS, it is permitted for the MPSE to remove its power. This sentence is simply providing description of the operation specified in the state diagram.

Cl **169**   *SC* **169.6.1.1**   *P* **121**   *L* **17**   # 37

Jones, Peter   Cisco

Comment Type **T**   *Comment Status* **D**   *General Safety*

In "169.6.1.1 Electrical isolation environments" it defines MPoE environments A,B,C.
I'm concerned that these do not cover all possibilities. What makes buildings special? If I plug two machines together with an external cable what happens then? Are A+C = (!B)?

SuggestedRemedy

Discuss, consider clarification.

Proposed Response   *Response Status* **W**

PROPOSED REJECT.
DEFER
Commenter provides insufficient information for a remedy

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **121**   Page 19 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *Li* **17**   9/4/2024 9:01:00 AM
SORT ORDER: Page, Line

Cl **169**   *SC* **169.6.1.1.1**   *P* **121**   *L* **25**   # 38

Jones, Peter   Cisco

Comment Type **E**   *Comment Status* **A**   *General Safety*

In "169.6.1.1.1 MPoE Environment A requirements", it refers to a NID. A NID is defined as "1.4.411 network interface device (NID): A device that contains a MDI or a PI."
The definition of PI is "1.4.484 Power Interface (PI): The mechanical and electrical interface between the Power Sourcing Equipment (PSE) or Powered Device (PD) and the transmission medium. In an Endpoint PSE and in a PD the Power Interface is the MDI."
PI doesn't include MPSE and MPD.

SuggestedRemedy

Update the definition of PI to include MPSE and MPD or define MPI and update the definition of NID.

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.
(think 'an' comes before MDI, not 'a') as in:
Add definition 1.4.411 to the draft, and change as follows:
1.4.411 network interface device (NID): A device that contains a</UL>n</UL> MDI</UL>, MPI,</UL> or a PI.

Cl **169**   *SC* **169.6.1.1.1**   *P* **121**   *L* **27**   # 106

Schreiner, Stephan   Rosenberger Hochfrequenztechnik GmbH & Co. KG

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

While NID is explained in the 802.3 abbreviations section as Network Interface Device, it would help the reader if it is written at the first occurence in this section.

SuggestedRemedy

On the first occurence, replace NID with Network Interface Device (NID)

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.
(added location, and rewrote sentence to singular)
at P121 L26:
change "Attachment of network segments via NIDs that have multiple instances of a balanced twisted-pair MPI requires electrical isolation between each segment and the protective ground of the NID."

to read:
"Attachment of a network segment via a Network Interface Device (NID) that has multiple instances of a balanced twisted-pair MPI requires electrical isolation between each segment and the protective ground of the NID."

Cl **169**   *SC* **169.6.1.1.1**   *P* **121**   *L* **41**   # 39

Jones, Peter   Cisco

Comment Type **T**   *Comment Status* **R**   *General Safety*

In "169.6.1.1.1 MPoE Environment A requirements", it says "An Environment A MPSE shall switch the more negative conductor. It is allowed to switch both conductors."
When does it switch the "more negative conductor"? If it "shall switch the more negative conductor", does it makes sense to then say it's allowed to switch both conductors?
Same comment against the last para of "169.6.1.1.3 MPoE Environment C requirements"

SuggestedRemedy

Discuss, consider clarification.

Response   *Response Status* **C**

REJECT.
Text is clear. Switching is required on the more negative conductor. The additional text just makes it clear that the other conductor can be switched as well, provided that the more negative conductor is switched.

Cl **169**   *SC* **169.7.1**   *P* **122**   *L* **47**   # 9

Jones, Chad   Cisco Systems, Inc.

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

last cycle I made a comment against "or as agreed to between the customer and supplier" with this justification:
Not sure why this interoperability standard is talking about agreements between the customer and supplier. This sentence is beyond the scope of an interop standard and should be deleted.
The CRG agreed and removed two other occurrences. Simply missed this one.

SuggestedRemedy

delete: " or as agreed to between the customer and supplier"

Response   *Response Status* **C**

ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **122**   Page 20 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *Li* **47**   9/4/2024 9:01:00 AM
SORT ORDER: Page, Line

Cl **169**   *SC* **169.7.3**   *P* **123**   *L* **29**   # 40

Jones, Peter   Cisco

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

Language/readability, re-order last para in "169.7.3 Installation and maintenance guidelines" .

SuggestedRemedy

Change "Automotive environmental conditions are generally more severe than those found in many commercial and industrial environments. The target automotive, industrial, or commercial environment(s) require careful analysis prior to implementation."
To " The target automotive, industrial, or commercial environment(s) require careful analysis prior to implementation. Automotive environmental conditions are generally more severe than those found in many commercial and industrial environments."

Proposed Response   *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
DEFER
Are these sentences about "target applications" really necessary or even all that informative? Will a reader know what are the "target" environments in the future?

Cl **169**   *SC* **169.7.4**   *P* **123**   *L* **35**   # 11

Jones, Peter   Cisco

Comment Type **E**   *Comment Status* **A**   *General Safety*

In "169.7.4 Patch panel considerations" it says "It is possible that the current carrying capability of a cabling cross-connect may be exceeded by a MPSE."
Is it really exceeded by the MPSE, or the combination of an MPSE and one or more MPDs?

SuggestedRemedy

Discuss, consider clarification.

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.
Change 'exceeded by a MPSE' to
'exceeded by the current capacity of the MPSE.'

Cl **169**   *SC* **169.7.5**   *P* **123**   *L* **40**   # 12

Jones, Peter   Cisco

Comment Type **T**   *Comment Status* **A**   *General Safety*

Clause 169 has a "169.7.5 Telephony voltages" subclause, as do 12.10.2, 14.7.2.4, 23.9.2.4, 32.10.2.4, 33.7.5, 40.9.2.3, and 104.8.5.
It seems like we should have equivalent subclauses in 146, 147 and 168.

SuggestedRemedy

Discuss, add new subclause if appropriate based of existing sub-clauses. 104.8.5 may be the best to copy from.

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.
Add new subclause to clause 168, with wording identical to 169.7.5, except that MPD/MPSE are replaced by DTE, and MPI by TCI.
Clause 146 would be out of scope for this project. A key difference between clause 147 and clause 168 is the plug-and-play capability, which increases this risk (clause 147 is more suited to engineered systems which wouldn't have telephony cross risk).

Cl **169**   *SC* **169.7.5**   *P* **123**   *L* **50**   # 13

Jones, Peter   Cisco

Comment Type **T**   *Comment Status* **D**   *General Safety*

"169.7.5 Telephony voltages" does not include the following text that is in 12.10.2 and 14.7.2.4 . Does it belong in 146, 147, 168, 169?

"NOTE—Wiring errors may impose telephony voltages differentially across XXXX transmitters or receivers. Because the termination resistance likely to be present across a receiver's input is of substantially lower impedance than an off-hook telephone instrument, receivers will generally appear to the telephone system as off-hook telephones. Therefore, full-ring voltages will be applied for only short periods. Transmitters that are coupled using transformers will similarly appear like off-hook telephones (though perhaps a bit more slowly) due to the low resistance of the transformer coil."

SuggestedRemedy

Discuss, add text if appropriate.

Proposed Response   *Response Status* **W**

PROPOSED REJECT.
DEFER
however, a receiver for clause 168 (or 147) has high impedance, so it is the editor's recommendation that this does not apply.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **123**   Page 21 of 23
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed Z/withdrawn   *Li* **50**   9/4/2024 9:01:00 AM
SORT ORDER: Page, Line

Cl **169** *SC* **169.7.6** *P* **124** *L* **6** # 68

Zimmerman, George CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So
Comment Type **T** *Comment Status* **A** *Editorial*

"an MPoE system shall be tested" is a requirement on the user of the standard.

SuggestedRemedy

Change "an MPoE system shall be tested according to CISPR 25 test methods, and shall meet…" to "When tested according to CISPR 25 test methods, an MPoE system shall meet…"

Response *Response Status* **C**

ACCEPT.

Cl **169** *SC* **169.7.8** *P* **124** *L* **35** # 10

Jones, Chad Cisco Systems, Inc.
Comment Type **E** *Comment Status* **A** *Environmental*

I think we should recommend the PD label the environment (see 169.6.1.1) that the PD was designed to. Add this to the Marking list.

SuggestedRemedy

Add:
g) MPoE Environment type (e.g. Environment A, B, or C)

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
(missing comma): Add:
g) MPoE Environment type (e.g., Environment A, B, or C)

Cl **169** *SC* **169.8** *P* **125** *L* **4** # 63

Zimmerman, George CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So
Comment Type **T** *Comment Status* **D** *Editorial*

PICS for clause 169 need to be filled in, per editor's note

SuggestedRemedy

delete editor's note, create PICS from shalls, descriptions, and conditions in D1p4_shalls.xlsx, with editor's license to align with comment resolution.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
DEFER
TFTD with editorial license.

Cl **J** *SC* **J.1** *P* **127** *L* **1** # 14

Jones, Peter Cisco
Comment Type **T** *Comment Status* **D** *General Safety*

Update Annex J.1 to include clause 168 and 169. It currently references Clause 33 and Clause 145. It does not reference Clause 104 and it probably should.

SuggestedRemedy

Discuss, add text if appropriate.
Change "NOTE 1—If the MDI is also a Clause 33 or Clause 145 PI then see 33.4.1 or 145.4.1 for specific requirements associated with option c)."
to "NOTE 1— If the MDI is a PI or MPI then see the relevant "Electrical isolation" subclause for specific requirements associated with option c)."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
DEFER
Clause 104 does not refer to Annex J.1 so Annex J.1 does not apply. Also, Clause 104 is out of scope for 802.3da.

The NOTE in Annex J isn't the operative text, the operative text is the text in the clause which calls out Annex J. Clauses 33 and 145 call out Annex J.1 with specific conditions. This note is calling attention to that.

This text wouldn't apply to clause 168 as annex J isn't called out.

However, those same conditions are present in 169.6.1.1.1 and 169.6.1.1.2, and so 169.6.1.1.1 (and .2) may be called out, but doesn't need to be. Suggest:
ACCEPT IN PRINCIPLE
Add Annex J to the draft, changing NOTE 1 in J.1 as follows:
Change "NOTE 1—If the MDI is also a Clause 33 or Clause 145 PI then see 33.4.1 or 145.4.1 for specific requirements associated with option c)."
to "NOTE 1— If the MDI is a PI or MPI then see the relevant "Electrical isolation" subclause for specific requirements associated with option c)."

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 Z/withdrawn
SORT ORDER: Page, Line

Pa **127**
Li **1**

Page 22 of 23
9/4/2024 9:01:00 AM

Cl **J**   *SC* **J.1**   *P* **127**   *L* **1**   # 15

Jones, Peter   Cisco

Comment Type   **E**   *Comment Status*   **R**   *General Safety*

J.1 includes the following
"NOTE 2—IEEE Std 802.3-2018 and previous revisions provided references to various editions of the IEC 60950-1 standard for guidance in performing the isolation test for options a) and b). IEC 60950-1 has been withdrawn. References to IEC standards are not essential to performing the isolation test specified in J.1. No technical change is implied by the removal of these references."
Is this note needed? We don't normally discuss what's not in the standard,

SuggestedRemedy

Remove NOTE-2.

Response   *Response Status*   **C**

REJECT.
This note is out of scope for 802.3da as it is provided for reference to point to point systems specified in 802.3-2018.

Cl **A**   *SC* **A**   *P* **127**   *L* **1**   # 62

Zimmerman, George   CME Consulting/ADI,APLGp,CSCO,MRVL,ONSmi,So

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

There have been no references offered, remove bibliography section

SuggestedRemedy

Delete Annex A from draft (all of p127)

Response   *Response Status*   **C**

ACCEPT.

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

Pa **127**   Page 23 of 23
Li   **1**   9/4/2024 9:01:00 AM