

IEEE P802.3da D1.1 Physical Layer Specifications and

CI **FM** SC **FM** P1 L1 # 20
 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe
 Comment Type **E** Comment Status **D** EZ
 Editor to check that frontmatter is current per template
 SuggestedRemedy
 Check and update as necessary
 Proposed Response Response Status **W**
 PROPOSED ACCEPT.

CI **FM** SC **FM** P1 L29 # 54
 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe
 Comment Type **E** Comment Status **D** EZ
 Editor needs to get with 802 leadership and determine order of the da amendment assuming WG ballot out of either July or September
 SuggestedRemedy
 Update editor's note P1 L28-34, and test P1 L35-38, and introduction P12 to include other amendments as necessary.
 Proposed Response Response Status **W**
 PROPOSED ACCEPT IN PRINCIPLE.
 TFTD - need to consider with timeline

CI **FM** SC **FM** P12 L28 # 21
 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe
 Comment Type **T** Comment Status **D** Editorial
 Missing description for 802.3da amendment
 SuggestedRemedy
 Change "This amendment includes [complete]" to "Amendment X- This amendment includes changes to IEEE Std 802.3-2022 and adds Clauses 168 and 169. This amendment adds Physical Layer Specifications and management parameters for enhancement of 10 Mb/s operation and optional provision of power over Single Balanced Pair Multidrop Segments, based on the 10BASE-T1S PHY specified in IEEE Std 802.3-2022 Clause 147."
 Proposed Response Response Status **W**
 PROPOSED ACCEPT IN PRINCIPLE.
 TFTD

CI **00** SC **0** P3 L5 # 2
 Maguire, Valerie Copperopolis; CME Consulting
 Comment Type **E** Comment Status **D** EZ
 Consider capitalization here as Powered Device is written as a proper noun elsewhere in the document.
 SuggestedRemedy
 Replace, "multiple powered devices" with "multiple Powered Devices".
 Proposed Response Response Status **W**
 PROPOSED ACCEPT.

CI **1** SC **1.4** P19 L11 # 97
 Jones, Chad Cisco Systems
 Comment Type **E** Comment Status **D** Power - General
 Definitions are needed for MPSE and MPD. Are there any others needed?
 SuggestedRemedy
 insert two new definitions:
 1.4.x Multidrop Powered Device (MPD): A device that is either drawing power or requesting power from an MPSE (see IEEE Std 802.3, Clause 169).
 1.4.x Multidrop Power Sourcing Equipment (MPSE): A DTE device that provides power to a mixing segment which may also carry data (see IEEE Std 802.3, Clause 169).
 Proposed Response Response Status **W**
 PROPOSED ACCEPT IN PRINCIPLE.

Modify proposed response to include appropriate numbering and to remove DTE from MPSE definition (which would mean the PSE would HAVE to be a data node).
 insert two new definitions between 1.4.405 "Multi-Channel Reconciliation Sublayer" and 1.4.406 "MultiGBASE-T"
 1.4.405a Multidrop Powered Device (MPD): A device that is either drawing power or requesting power from an MPSE (see IEEE Std 802.3, Clause 169).
 1.4.405b Multidrop Power Sourcing Equipment (MPSE): A device that provides power to a mixing segment which may also carry data (see IEEE Std 802.3, Clause 169).

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Cl 22 SC 22 P20 L1 # 22
 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe
Comment Type E Comment Status D Empty Clauses
 It appears there are no changes necessary to clause 22 - delete from the draft
SuggestedRemedy
 See comment.
Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 TFTD

Cl 22 SC 22 P20 L8 # 117
 Jones, Peter Cisco
Comment Type TR Comment Status D Editorial
 Change 802.3-2022 Figure 22(MII relationship to the ISO/IEC Open Systems Interconnection (OSI) reference model and the IEEE 802.3 CSMA/CD LAN model) to include 10BASE-T1M.
SuggestedRemedy
 Replace "10BASE-T1L, 10BASE-T1S, 100 Mb/s, 1 Gb/s" with "10BASE-T1L, 10BASE-T1S, 10BASE-T1M, 100 Mb/s, 1 Gb/s"
Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 TFTD

Cl 30 SC 30 P21 L1 # 118
 Jones, Peter Cisco
Comment Type TR Comment Status D Management
 Miscellaneous changes to clause 30 to support 10BASE-T1M.
SuggestedRemedy
 Implement proposed text for for 10BASE-T1M PHY Management definitions as shown in attached file "8023da_D1p1_peter jones clause 30 text.docx"
Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Incorporate commenter's suggestion, except new entries for PHYType, PHYList, and MAUType for 10BASE-T1M are placed after 10BASE-T1L , not after 10BASE-T1S (and variants).

Cl 30 SC 30.16.1.1.8 P21 L47 # 119
 Jones, Peter Cisco
Comment Type ER Comment Status D EZ
 Variable names are in lower case in 148.4.7.2.
SuggestedRemedy
 Change "SOFT_AGING_CYCLES" to "soft_aging_cycle"
Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 30 SC 30.16.1.1.8 P21 L48 # 23
 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe
Comment Type E Comment Status D EZ
 SOFT_AGING_CYCLES (and HARD_AGING_CYCLES) has been changed to lower case in clause 148. Need to do the same here.
SuggestedRemedy
 Change SOFT_AGING_CYCLES and HARD_AGING_CYCLES to lower case globally. (P21 L48, P22 L5, P43 L19, P43 P25, at least)
Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 30 SC 30.16.1.1.9 P22 L5 # 120
 Jones, Peter Cisco
Comment Type ER Comment Status D EZ
 Variable names are in lower case in 148.4.7.2.
SuggestedRemedy
 Change "HARD_AGING_CYCLES" to "hard_aging_cycle".
Proposed Response Response Status W
 PROPOSED ACCEPT.
 (comment 23 handles this change globally, and, hits this spot as well.)

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Cl 30 SC 30.17 P23 L11 # 37
 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe
Comment Type T Comment Status D Management
 Multidrop power is going to need management parameters. (power is not connected to MDIO, so it is managed through clause 30, see 30.15 and 30.9)
SuggestedRemedy
 Insert new subclause 30.17 Layer management for Multidrop Power over Ethernet (MPoE), with editor's note - management objects for clause 169 goes here
Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 TFTD - (note, proposals for text would be good contributions here!)
 [HOMEWORK FOR GROUP - VOLUNTEERS NEEDED]

Cl 45 SC 45.2 P24 L4 # 121
 Jones, Peter Cisco
Comment Type TR Comment Status D Management
 Editors note requests contributions to add MDIO definitions for clause 168 PHY to clause 45.
SuggestedRemedy
 Implement proposed text for for 10BASE-T1M PHY MDIO definitions as shown in attached file "8023da_D1p1_peter jones clause 45 text.docx"
Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Editorial license to align with IEEE Std 802.3-2022, rather than IEEE Std 802.3cg-2019.
 Discuss with comment 27 - need to determine whether we want a separate 10BASE-T1M ability, or combine it with 10BASE-T1S.

Cl 45 SC 45.2 P24 L5 # 24
 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe
Comment Type T Comment Status D Management
 The 10BASE-T1M PHY is the same as the 10BASE-T1S PHY, therefore it does not need new management registers, only edits to 10BASE-T1S. Change note to reflect this.
SuggestedRemedy
 Change editor's note at line 7, "The 10BASE-T1M PHY is the same as the 10BASE-T1S PHY, except that it only uses multidrop mode. Proposed text is needed to adjust the 10BASE-T1S registers (1.2297, 1.2298, and 1.2299) to include 10BASE_T1M".
 Add 1.2297, 1.2298, and 1.2299 to Table 45-3, changing the names from 10BASE-T1S to 10BASE-T1S/M, e.g., "10BASE-T1S/M PMA control" (or status, or test mode control, as appropriate).

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change editor's note at line 7 to read, "The 10BASE-T1M PHY is the same as the 10BASE-T1S PHY, except that it only uses multidrop mode. Text has been provided to adjust registers to control both 10BASE-T1S and 10BASE-T1M."

Cl 45 SC 45.2.1.16 P24 L31 # 27
 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe
Comment Type T Comment Status D Management
 Need to add 10BASE-T1M to BASE-T1 PMA/PMD registers, but as a subset of the 10BASE-T1S PHY.
SuggestedRemedy
 Add 45.2.1.16 to the draft, including Table 45-19, showing change of 1.18.3 "10BASE-T1S ability" to "10BASE-T1S/M ability". Change Description similarly.
Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Discuss with comment 121 - need to determine whether we want a separate 10BASE-T1M ability, or combine it with 10BASE-T1S.

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Cl 45 **SC 45.2.1.16.4** **P24** **L31** # **28**

Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe

Comment Type T **Comment Status D** **Management**

Need to update the text of the 10BASE-T1S ability to reflect 10BASE-T1M as well.

SuggestedRemedy

Add text of 45.2.1.16.4 to the draft, changing "10BASE-T1S" to "10BASE-T1S/M" everywhere (header & both sentences). Add new final sentence, "NOTE - 10BASE-T1S and 10BASE-T1M use the same PMA type, registers, and control, except that 10BASE-T1M only supports the multidrop mode of operation, and is defined in clause 168."

Proposed Response **Response Status W**

PROPOSED ACCEPT IN PRINCIPLE.
Discuss with comment 121 - need to determine whether we want a separate 10BASE-T1M ability, or combine it with 10BASE-T1S.

Cl 45 **SC 45.2.1.93a** **P24** **L31** # **25**

Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe

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

Template is not needed for draft

SuggestedRemedy

delete P24 L31 - P25 L49

Proposed Response **Response Status W**

PROPOSED ACCEPT.

Cl 45 **SC 45.2.1.214** **P24** **L31** # **29**

Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe

Comment Type T **Comment Status D** **Management**

Need to add BASE-T1 PMA/PMD control register with 10BASE-T1M

SuggestedRemedy

Add 45.2.1.214, Table 45-178, and 45.2.1.214.2 to the draft, changing 10BASE-T1S to 10BASE-T1S/M in Table 45-178. In 45.2.1.214.2, change "the mode of operation is 10BASE-T1S" to "the mode of operation is 10BASE-T1S or 10BASE-T1M. Note that 10BASE-T1S and 10BASE-T1M use the same PMA type, registers, and control, except that 10BASE-T1M only supports the multidrop mode of operation, and is defined in clause 168."

Proposed Response **Response Status W**

PROPOSED ACCEPT IN PRINCIPLE.
Discuss with comment 121 - need to determine whether we want a separate 10BASE-T1M ability, or combine it with 10BASE-T1S.

Cl 45 **SC 45.2.1.234** **P24** **L31** # **26**

Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe

Comment Type T **Comment Status D** **Management**

Need to add 10BASE-T1S registers to the draft

SuggestedRemedy

Add 45.2.1.234, 45.2.1.235, and 45.2.1.236 to the draft, changing the name of the register to "10BASE-T1S/M" (PMA control, PMA status or test mode control)

Proposed Response **Response Status W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolved by text proposed by comment 121.

IEEE P802.3da D1.1 Physical Layer Specifications and

CI 45	SC 45.2.1.234	P24	L31	# 30
Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe				
Comment Type	T	Comment Status	D	Management

Need to add 10BASE-T1M to the 10BASE-T1S PMA Control register.

SuggestedRemedy

Add 45.2.1.234 t (and subclauses) to the draft. Change "10BASE-T1S" to "10BASE-T1S/M" in the headers of each, and in the titles of Tables 45-196 and globally in the text.

Change 45.2.1.234.4 to read:

"For the 10BASE-T1S PMA, w<SO>W<SO>hen Auto-Negotiation is implemented and enabled, writing to this bit shall have no effect on the PHY, and the PCS multidrop variable shall be set to FALSE. If multidrop mode is not supported according to bit 1.2298.10, then writing to bit 1.2297.10 shall have no effect, and the multidrop variable shall be set to FALSE. Otherwise, if bit 1.2297.10 is set to one, the 10BASE-T1S PMA shall operate in multidrop mode, and the multidrop variable is set to TRUE; and if bit 1.2297.10 is set to zero, the multidrop variable is set to FALSE. If multidrop mode is supported according to bit 1.2298.10, then the default value of bit 1.2297.10 should be one.<new paragraph> For the 10BASE-T1M PMA, bit 1.2297.10 shall be read only set to one and writing to bit 1.2297.10 shall have no effect. "

In 168.6.6, Delete TBD at P72 L38 next to "1.2297.13", and replace (external x-ref) "45.2.1.186d.5 (TBD)" with (active x-ref) "45.2.1.234.5" (no TBD). (Including similar changes in PICS PMAE18)

Proposed Response	Response Status	W
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PROPOSED ACCEPT IN PRINCIPLE.
Most is resolved by comment 121.

In 168.6.6, Delete TBD at P72 L38 next to "1.2297.13", and replace (external x-ref) "45.2.1.186d.5 (TBD)" with (active x-ref) "45.2.1.234.5" (no TBD). (Including similar changes in PICS PMAE18)

CI 45	SC 45.2.1.235	P24	L31	# 31
Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe				
Comment Type	T	Comment Status	D	Management

Need to add 10BASE-T1M to the 10BASE-T1S PMA status register.

SuggestedRemedy

Add 45.2.1.235 (and subclauses) to the draft. Change "10BASE-T1S" to "10BASE-T1S/M" in the headers of each, and in the titles of Tables 45-197 and globally in the text.

Change 45.2.1.235.3 to read:

"For the 10BASE-T1S PMA, w<SO>W<SO>hen read as a one, bit 1.2298.10 indicates that the 10BASE-T1S PMA supports multidrop mode (see Clause 147). When read as a zero, bit 1.2298.10 indicates that the 10BASE-T1S PMA does not support multidrop mode. If the 10BASE-T1S PMA supports multidrop mode, then it is controlled using bit 1.2297.10; otherwise, bit 1.2297.10 has no effect.<new paragraph> For the 10BASE-T1M PMA, bit 1.2298.10 shall be set to one and writing to bit 1.2297.10 has no effect. "

Proposed Response	Response Status	W
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PROPOSED ACCEPT IN PRINCIPLE.
Most is resolved by comment 121, except:

Change title of Table 45-197 to "10BASE-T1S/T1M PMA status register bit definitions"

CI 45	SC 45.2.1.236	P24	L31	# 32
Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe				
Comment Type	T	Comment Status	D	Management

Need to add 10BASE-T1M to the 10BASE-T1S test mode control register

SuggestedRemedy

Add 45.2.1.236 and Table 45-198 to the draft, changing "10BASE-T1S test mode control register" to "10BASE-T1S/M test mode control register" (3 instances)
Also, in 168.6.2, delete TBD next to register number (P68 L4), and change external x-ref of "45.2.1.186f.1 (TBD)" to "45.2.1.236" (no tbd, active x-ref) on P68 L5 (including similar changes in PICS PMAE2)

Proposed Response	Response Status	W
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PROPOSED ACCEPT IN PRINCIPLE.
Most is resolved by comment 121.

Also, in 168.6.2, delete TBD next to register number (P68 L4), and change external x-ref of "45.2.1.186f.1 (TBD)" to "45.2.1.236" (no tbd, active x-ref) on P68 L5 (including similar changes in PICS PMAE2)

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CI 45 SC 45.2.3.1.2 P25 L46 # 122
Jones, Peter Cisco
Comment Type E Comment Status D Management

Rewrite paragraph(s) for clarity/brevity.

SuggestedRemedy

Replace
When the 100BASE-T1, any MultiGBASE-T, or the 5/10GBASE-R mode of operation is selected for the PCS using the PCS type selection field (3.7.3:0), the PCS shall be placed in a loopback mode of operation when bit 3.0.14 is set to a one. When bit 3.0.14 is set to a one, the 100BASE-T1, 5/10GBASE-R, or any PCS in the MultiGBASE-T set shall accept data on the transmit path and return it on the receive path. The speed of the loopback is selected by the PCS control 1 (register 3.0) defined in 45.2.3.1. The specific behavior of the 100BASE-T1 PCS during loopback is specified in 96.3.5. The specific behavior of the 5/10GBASE-R PCS during loopback is specified in 49.2. The specific behavior for the 10GBASE-T PCS during loopback is specified in 55.3.7.3. The specific behavior for the 25GBASE-T and 40GBASE-T PCS during loopback is specified in 113.3.7.3. The specific behavior for the 2.5GBASE-T or 5GBASE-T PCS during loopback is specified in 126.3.7.3. For all other port types, the PCS loopback functionality is not applicable and writes to this bit shall be ignored and reads from this bit shall return a value of zero.

With
Setting bit 3.0.14 to one for any of the following PCSs, 100BASE-T1, MultiGBASE-T, 5/10GBASE-R; places the PCS into. The PCS accepts data on the transmit path and returns it on the receive path. The speed of the loopback is selected by the PCS control 1 (register 3.0) defined in 45.2.3.1.

PCS specific behavior during loopback is defined in:

- 96.3.5 for 100BASE-T1.
- 49.2 for 5/10GBASE-R.
- 55.3.7.3 for 10GBASE-T PCS.
- 113.3.7.3 for 25GBASE-T and 40GBASE-T.
- 126.3.7.3 for 2.5GBASE-T or 5GBASE-T.

For all other PCSs, this functionality is not applicable. Writes to this bit shall be ignored and reads from this bit shall return a value of zero.

Proposed Response Response Status W

PROPOSED REJECT.

This appears to be out of scope. There is no mention of 10BASE-T1M. Suggest commenter refer to maintenance.

CI 45 SC 45.2.3.72 P24 L31 # 48
Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe
Comment Type T Comment Status D Management

Need to add 10BASE-T1M to 10BASE-T1S PCS control register definitions

SuggestedRemedy

Add 45.2.3.72 and subclauses to draft, changing "10BASE-T1S" to "10BASE-T1S/M" everywhere (headings, table captions, and text)
Change external x-ref to 45.2.3.68c.1 in 168.4.1 to 45.2.3.72 (active x-ref), and remove TBD.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

In 168.4.1, P51 L31, Change external x-ref to 45.2.3.68c.1 in 168.4.1 to 45.2.3.72 (active x-ref), and remove TBD.

(note, this assumes text is accepted as proposed by comment 121 or similar)

Editorial license to adjust reference number to point at PCS reset bit...

CI 45 SC 45.2.3.73 P24 L31 # 49
Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe
Comment Type T Comment Status D Management

Need to add 10BASE-T1M to 10BASE-T1S PCS status register definitions

SuggestedRemedy

Add 45.2.3.73 and subclauses to draft, changing "10BASE-T1S" to "10BASE-T1S/M" everywhere (headings, table captions, and text)
Add new final sentence to 45.2.3.73.2 full-duplex capability: "10BASE-T1M PHYs are not capable of full-duplex capability."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Much is resolved by comment 121, except :

Change caption for Table 45-299 to "10BASE-T1S/T1M PCS status register bit definitions" and

Add new final sentence to 45.2.3.73.2 full-duplex capability: "10BASE-T1M PHYs do not have full-duplex capability."

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Cl 45 **SC 45.2.3.74** **P24** **L31** # **50**

Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe

Comment Type T **Comment Status D** **Management**

Need to add 10BASE-T1M to 10BASE-T1S PCS diagnostic 1 & 2 register definitions

SuggestedRemedy

Add 45.2.3.74 and 45.2.3.75 and subclauses to draft, changing "10BASE-T1S" to "10BASE-T1S/M" everywhere (headings, table captions, and text)

Proposed Response **Response Status W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolved by comment 121

Cl 78 **SC 78** **P26** **L1** # **40**

Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe

Comment Type E **Comment Status D** **Empty Clauses**

There have been no proposals for EEE, and it is expected to be similar to 10BASE-T1S.
Clause 78 is therefore not needed.

SuggestedRemedy

Delete clause 78 from the draft.

Proposed Response **Response Status W**

PROPOSED ACCEPT IN PRINCIPLE.
TFTD

Cl 79 **SC 79** **P27** **L1** # **55**

Jones, Chad Cisco Systems

Comment Type E **Comment Status D** **Empty Clauses**

There are no changes in clause 79. Do we foresee changes? If not delete this clause from the draft. Otherwise, reject this comment and assign someone to lead the changes for D1.2. Need this completed ASAP so we can move to WG ballot.

SuggestedRemedy

delete clause 79 if no changes are needed.

Proposed Response **Response Status Z**

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

See comment 123

Cl 79 **SC 79.3.8** **P27** **L6** # **123**

Jones, Peter Cisco

Comment Type TR **Comment Status D** **LLDP**

LLDP TLVs were proposed and adopted in Berlin 2023.

SuggestedRemedy

Please implement changes as proposed and accepted in
https://www.ieee802.org/3/da/public/0723/jones_3da_01_061223.pdf and
https://www.ieee802.org/3/da/public/0723/jones_3da_02_061223.pdf.

Proposed Response **Response Status W**

PROPOSED ACCEPT.

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<i>Cl</i> 90	<i>SC</i> 90.1	<i>P</i> 28	<i>L</i> 7	# 124	<i>Cl</i> 147	<i>SC</i> 147.1	<i>P</i> 29	<i>L</i> 7	# 33
Jones, Peter					Zimmerman, George				
Cisco					CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe				
<i>Comment Type</i>	E	<i>Comment Status</i>	D	<i>Editorial</i>	<i>Comment Type</i>	E	<i>Comment Status</i>	D	<i>10BASE-T1S</i>
Rewrite paragraph(s) for clarity/brevity.					Probably a good idea to say something in the overview of clause 147 about clause 168.				
<i>SuggestedRemedy</i>					<i>SuggestedRemedy</i>				
Replace					Add 147.1 to the draft, inserting a new third paragraph reading "The PMA and PCS				
The TSSI is defined for the full-duplex mode of operation only. It supports MAC operation at					specifications of the 10BASE-T1S PHY when operating in multidrop mode are refined in				
various data					the 10BASE-T1M Clause 168 PHY, which only supports multidrop mode. 10BASE-T1S				
rates. The MII (Clause 22), GMII (Clause 35), XGMII (Clause 46), 25GMII (Clause 106),					and 10BASE-T1M PHYs use the same PMA and PCS control, status, and test registers."				
XLGMII					<i>Proposed Response</i>				
(Clause 81), CGMII (Clause 81), 50GMII (Clause 132), 200GMII (Clause 117), and					<i>Response Status</i> W				
400GMII (Clause 117)					PROPOSED ACCEPT IN PRINCIPLE.				
specifications are all compatible with the generic Reconciliation Sublayer (gRS) defined in					TFTD				
90.5.					(note - editor AIP'd his own text where it is more than trivial and needs group consideration).				
With					<i>Cl</i> 148	<i>SC</i> 148.2	<i>P</i> 30	<i>L</i> 5	# 34
The TSSI supports MAC operation at various data rates and is defined for:					Zimmerman, George				
•10BASE-T1S/T1M (Clause 147) in point-to-point half-duplex mode					CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe				
•10BASE-T1M (Clause 168) in half-duplex operation					<i>Comment Type</i>	E	<i>Comment Status</i>	D	<i>Editorial</i>
•other PHY types in full-duplex mode.					The text has now survived several cycles of review, it can be considered stable.				
The following are compatible with the generic Reconciliation Sublayer (gRS) defined in 90.5:					<i>SuggestedRemedy</i>				
•MII (Clause 22)					Delete the editors note P30 L5-9 at the start of 148.2.				
•GMII (Clause 35)					<i>Proposed Response</i>		<i>Response Status</i>	W	
•XGMII (Clause 46)					PROPOSED ACCEPT.				
•25GMII (Clause 106)									
•XLGMII (Clause 81)									
•CGMII (Clause 81)									
•50GMII (Clause 132)									
•200GMII (Clause 117)									
•400GMII (Clause 117)									
<i>Proposed Response</i>		<i>Response Status</i>	W						
PROPOSED REJECT.									
The new text is based on 802.3-2022, and not on 802.3-2022 as modified by 802.3de-									
2022. While the text could be made cleaner, most of the changes here are unrelated to									
802.3da and potentially open issues for working group comment.									
Commenter may consider submitting these through maintenance or through the next									
revision project.									

IEEE P802.3da D1.1 Physical Layer Specifications and

CI 148 SC 148.2 P30 L12 # 125

Jones, Peter Cisco
Comment Type E Comment Status D PLCA
Rewrite paragraph(s) for clarity/brevity.

SuggestedRemedy
Replace
The working principle of PLCA is that transmit opportunities on a mixing segment are granted in sequence based on a node ID unique to the local collision domain (set by the management entity). The method of determination of the node ID and to_timer by the management entity is beyond the scope of this standard. Node ID may be optionally allocated by the Dynamic PLCA (D-PLCA) control state diagram in 148.4.7.6. If the D-PLCA functionality is not implemented or is not enabled, node ID is allocated by the management entity using methods beyond the scope of this standard. When not using D-PLCA, proper Proper operation of the Clause 148 functionality assumes that the assigned node ID is unique in the local collision domain.
The node ID assignment value does not appear externally or in the payload packet format. The node ID assignment value is fully contained within the local collision domain.
With
PLCA grants transmit opportunities on a mixing segment in sequence based on a node ID unique to the local collision domain. This enables the mixing segment to operate collision free enabling full utilization of the media and enforces as defined worst-case access time to the media for each node. The node ID is not contained within the frames on the media. The node ID may be set by management or allocated using Dynamic PLCA (D-PLCA, 148.4.7).

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
Minor rewrite of second sentence in last paragraph to flow better. ("This enables..." changed to "This defines" - and rest of sentence reordered)

Replace
The working principle of PLCA is that transmit opportunities on a mixing segment are granted in sequence based on a node ID unique to the local collision domain (set by the management entity). The method of determination of the node ID and to_timer by the management entity is beyond the scope of this standard. Node ID may be optionally allocated by the Dynamic PLCA (D-PLCA) control state diagram in 148.4.7.6. If the D-PLCA functionality is not implemented or is not enabled, node ID is allocated by the management entity using methods beyond the scope of this standard. When not using D-PLCA, proper Proper operation of the Clause 148 functionality assumes that the assigned node ID is unique in the local collision domain.
The node ID assignment value does not appear externally or in the payload packet format. The node ID assignment value is fully contained within the local collision domain.
With
PLCA grants transmit opportunities on a mixing segment in sequence based on a node ID unique to the local collision domain. This defines a worst-case access time to each node and enables the mixing segment to operate collision free, which allows full utilization of the

media. The node ID is not contained within the frames on the media. The node ID may be set by management or allocated using Dynamic PLCA (D-PLCA, 148.4.7).

CI 148 SC 148.2 P30 L14 # 56

Jones, Chad Cisco Systems
Comment Type E Comment Status D EZ
"The method of determination of to_timer by the management entity is beyond the scope of this standard." Modified this sentence last cycle to remove "the node ID and", leaving the sentence a little awkward. I think we needed to keep "the" in front of "to_timer"

SuggestedRemedy
add the in front of to_timer: "The method of determination of the to_timer by the management entity is beyond the scope of this standard."
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
(may be overwritten by comment 125)

CI 148 SC 148.4.4.6 P34 L31 # 35

Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe
Comment Type E Comment Status D EZ
Arrow from "BURST" into "TRANSMIT" state overshoots the boundary...

SuggestedRemedy
Redraw state transition from BURST aligning arrowheads
Proposed Response Response Status W
PROPOSED ACCEPT.

CI 148 SC 148.4.4.6 P34 L31 # 57

Jones, Chad Cisco Systems
Comment Type E Comment Status D EZ
arrows from TRANSMIT to BURST and from BURST to TRANSMIT overshoots the boundary.

SuggestedRemedy
redraw such that arrowheads align to the top of the box.
Proposed Response Response Status W
PROPOSED ACCEPT.

IEEE P802.3da D1.1 Physical Layer Specifications and

Cl 148	SC 148.4.7	P38	L3	# 126	Cl 148	SC 148.4.7.1	P38	L7	# 127
Jones, Peter		Cisco			Jones, Peter		Cisco		
Comment Type E	Comment Status D		Editorial		Comment Type E	Comment Status D		PLCA	
Rewrite for clarity.					Rewrite paragraph(s) for clarity/brevity.				
SuggestedRemedy					SuggestedRemedy				
Replace "D-PLCA" with "Dynamic PLCA (D-PLCA)"					Replace				
Proposed Response					Implementations supporting the PLCA RS may optionally support D-PLCA as described in this subclause. If the D-PLCA option is implemented, it shall comply with the state diagrams in Figure 148–8 (D-PLCA Control State Diagram) and Figure 148–9 (D-PLCA Aging State Diagram). D-PLCA allows plug & play operation compared to statically configured PLCA, trading off some latency and throughput due to an increased number of collisions. D-PLCA allows nodes to start with a possibly non-unique PLCA node ID and autonomously select a unique node ID. Additionally, D-PLCA defines a method to designate a single node with ID = 0 (coordinator).				
PROPOSED ACCEPT.					With				
					D-PLCA is an optional feature of the PLCA RS that reduces the amount of configuration required to use PLCA. D-PLCA enables node to select a unique node ID automatically and defines a method to designate a single node with ID = 0 (coordinator).				
					Proposed Response				
					Response Status W				
					PROPOSED ACCEPT IN PRINCIPLE.				
					(commenter's solution deletes the 'shall' on the state diagrams)				
					Replace				
					Implementations supporting the PLCA RS may optionally support D-PLCA as described in this subclause. If the D-PLCA option is implemented, it shall comply with the state diagrams in Figure 148–8 (D-PLCA Control State Diagram) and Figure 148–9 (D-PLCA Aging State Diagram). D-PLCA allows plug & play operation compared to statically configured PLCA, trading off some latency and throughput due to an increased number of collisions. D-PLCA allows nodes to start with a possibly non-unique PLCA node ID and autonomously select a unique node ID. Additionally, D-PLCA defines a method to designate a single node with ID = 0 (coordinator).				
					With				
					D-PLCA is an optional feature of the PLCA RS that reduces the amount of configuration required to use PLCA. D-PLCA enables node to select a unique node ID automatically and defines a method to designate a single node with ID = 0 (coordinator). If the D-PLCA option is implemented, it shall comply with the state diagrams in Figure 148–8 (D-PLCA Control State Diagram) and Figure 148–9 (D-PLCA Aging State Diagram).				

IEEE P802.3da D1.1 Physical Layer Specifications and

CI 148	SC 148.4.7.1	P38	L17	# 128	
Jones, Peter		Cisco			
Comment Type	E	Comment Status	D	PLCA	
Rewrite paragraph(s) for clarity/brevity.					
SuggestedRemedy					
Replace					
If enabled, D-PLCA constantly adapts the parameters aPLCANodeCount and aPLCALocalNodeID to accommodate the current state of activity (transmit opportunity claims) of the nodes on a mixing segment. When mixing D-PLCA capable nodes with statically configured PLCA nodes, the D-PLCA capable nodes select IDs outside the space of the statically assigned ones. When D-PLCA is used, PHYs detect collisions which can occur until every node selects a unique ID.					
With					
D-PLCA adjusts aPLCANodeCount and aPLCALocalNodeID based on activity (transmit opportunity claims) of the nodes on a mixing segment. When a mixing segment contains a mixture of nodes with D-PLCA active and not active, the D-PLCA nodes select IDs outside the space of the statically assigned IDs. When D-PLCA is active, PHYs may detect collisions as part of the nodeld assignment process.					
Proposed Response		Response Status W			
PROPOSED ACCEPT IN PRINCIPLE.					
(minor change to last sentence avoid reserved word "may")					
Replace					
If enabled, D-PLCA constantly adapts the parameters aPLCANodeCount and aPLCALocalNodeID to accommodate the current state of activity (transmit opportunity claims) of the nodes on a mixing segment. When mixing D-PLCA capable nodes with statically configured PLCA nodes, the D-PLCA capable nodes select IDs outside the space of the statically assigned ones. When D-PLCA is used, PHYs detect collisions which can occur until every node selects a unique ID.					
With					
D-PLCA adjusts aPLCANodeCount and aPLCALocalNodeID based on activity (transmit opportunity claims) of the nodes on a mixing segment. When a mixing segment contains a mixture of nodes with D-PLCA active and not active, the D-PLCA nodes select IDs outside the space of the statically assigned IDs. When D-PLCA is active, PHYs detect collisions as part of the nodeld assignment process.					

CI 148	SC 148.4.7.1	P38	L26	# 58	
Jones, Chad		Cisco Systems			
Comment Type	E	Comment Status	D	Editorial	
"hard-aging-cycles and soft-aging-cycles can be configured to optimize convergence time and stability over time in different situations." Sentence isn't capitalized.					
SuggestedRemedy					
change hard to Hard. If the coice to not capitalize the sentence is bacuase the variable is named in lower case, then recraft the sentence to not have the varaible as the first word. Perhaps: "Convergence time and stability over time in different situations can be optimized by configuring hard-aging-cycles and soft-aging-cycles."					
Proposed Response		Response Status W			
PROPOSED ACCEPT IN PRINCIPLE.					
Insert "The variables " before "hard-aging-cycles" in the above					

CI 148	SC 148.4.7.2	P38	L36	# 86	
McClellan, Brett		Marvell			
Comment Type	T	Comment Status	D	PLCA State Diagrams	
curlD is used in D-PLCA Control state diagram but is missing a definition in 148.4.7.2					
SuggestedRemedy					
add definition: "curlID					
See 148.4.4.2"					
Proposed Response		Response Status W			
PROPOSED ACCEPT.					

CI 148	SC 148.4.7.3	P40	L27	# 129	
Jones, Peter		Cisco			
Comment Type	E	Comment Status	D	EZ	
Extra blank line.					
SuggestedRemedy					
remove blank line.					
Proposed Response		Response Status W			
PROPOSED ACCEPT.					

IEEE P802.3da D1.1 Physical Layer Specifications and

Cl 148 **SC 148.4.7.5** **P42** **L10** # **81**

McClellan, Brett

Marvell

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

D-PLCA Control will lockup in the WAIT_BEACON state when coordinator_role_allowed=FALSE. Details are presented in mcclellan_3da_01_031324.pdf slide 3.

SuggestedRemedy

adopt the proposal on slide 3 of mcclellan_3da_01_031324.pdf: 1- use dplca_en to prevent forcing PLCA Control to DISABLE when local_nodeID = 255,
2 – use dplca_en to exit DISABLE to RESYNC when local_nodeID ≠ 0

*Proposed Response**Response Status W*

PROPOSED ACCEPT IN PRINCIPLE.
TFTD
[PLEASE REVIEW PROPOSALS - they look ok to editor]

Cl 148 **SC 148.4.7.5** **P42** **L22** # **82**

McClellan, Brett

Marvell

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

D-PLCA Control is intended to transition from COORDINATOR to LEARNING upon BEACON detection from another node, however BEACON doesn't trigger a transition. Details are presented in mcclellan_3da_01_031324.pdf slide 6.

SuggestedRemedy

adopt the proposal on slide 6 of mcclellan_3da_01_031324.pdf: modify D-PLCA Control to allow transition to LEARNING upon BEACON detection

*Proposed Response**Response Status W*

PROPOSED ACCEPT IN PRINCIPLE.
TFTD
[PLEASE REVIEW PROPOSALS - they look ok to editor]

Cl 148 **SC 148.4.7.5** **P42** **L36** # **85**

McClellan, Brett

Marvell

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

D-PLCA Control transition from COORDINATOR to INCREASE_NODE_COUNT transition is missing condition of dplca_new_age used on alternate paths. Details are presented in mcclellan_3da_01_031324.pdf slide 16.

SuggestedRemedy

add condition: * dplca_new_age, see mcclellan_3da_01_031324.pdf slide 16.

*Proposed Response**Response Status W*

PROPOSED ACCEPT IN PRINCIPLE.
TFTD
[PLEASE REVIEW PROPOSALS - they look ok to editor]

Cl 148 **SC 148.4.7.5** **P42** **L45** # **84**

McClellan, Brett

Marvell

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

D-PLCA Control can lock up in FOLLOWER state when two nodes with the same local_nodeID continue to send packets at the same time. Details are presented in mcclellan_3da_01_031324.pdf slide 14.

SuggestedRemedy

adopt the proposal on slide 14 of mcclellan_3da_01_031324.pdf to modify PLCA Control:
1- Apply a SOFT claim on collision during transmission in COMMIT or TRANSMIT
2 – Add a return transition to COMMIT with condition: COL & ~TX_EN & packetPending
3 – Add a return transition to TRANSMIT with condition: COL & (TX_EN | CRS)

*Proposed Response**Response Status W*

PROPOSED ACCEPT IN PRINCIPLE.
TFTD
[PLEASE REVIEW PROPOSALS - they look ok to editor]

IEEE P802.3da D1.1 Physical Layer Specifications and

CI 148 SC 148.4.7.5 P42 L49 # 83

McClellan, Brett

Marvell

Comment Type T Comment Status D PLCA State Diagrams

D-PLCA Control transition from FOLLOWER to FOLLOWER is intended to pick a new local_nodeID if ID is greater than plca_node_count, however the transition condition doesn't trigger a the selection of a new local_nodeID. Details are presented in mcclellan_3da_01_031324.pdf slide 10.

SuggestedRemedy

adopt the proposal on slide 10 of mcclellan_3da_01_031324.pdf to modify PLCA control and D-PLCA control state diagrams

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TFTD

[PLEASE REVIEW PROPOSALS - they look ok to editor]

CI 168 SC 168 P46 L1 # 36

Zimmerman, George

CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe

Comment Type E Comment Status D EZ

There are no annexes yet, but editorial instruction mentions them.

SuggestedRemedy

Delete "(see later in this amendment of the addition of corresponding annexes)" from editing instruction.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 168 SC 168 P46 L4 # 59

Jones, Chad

Cisco Systems

Comment Type E Comment Status D Editorial

was going to say "delete the editors note" as it's been here since at least D0.6, but I see there is some useful stuff in there at line 24. The stuff prior to the list of items needing work can be deleted.

SuggestedRemedy

reduce editors note to just the last paragraph.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 168 SC 168 P46 L33 # 38

Zimmerman, George

CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe

Comment Type E Comment Status D Editorial

The changes to align with PHY in 802.3-2022 have been announced for several drafts now. The note is no longer needed.

SuggestedRemedy

Delete editor's note at line P46 L33.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 168 SC 168.1 P46 L48 # 132

Jones, Peter

Cisco

Comment Type E Comment Status D Mixing Segment description

Rewrite for clarity/brevity.

SuggestedRemedy

Replace "The medium supporting the operation of the" with "the mixing segment for the".

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 168 SC 168.1 P46 L50 # 133

Jones, Peter

Cisco

Comment Type E Comment Status D Editorial

Rewrite for clarity/brevity.

SuggestedRemedy

Replace "own media to operate the" with "own media for the" or "own media to use with the"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

(pick the 2nd option given)

Replace "own media to operate the" with "own media to use with the"

so the sentence now reads:

"This allows implementers to specify their own media to use with the 10BASE-T1M PHY as long as the normative requirements included in this clause are met."

IEEE P802.3da D1.1 Physical Layer Specifications and

Cl 168	SC 168.1	P46	L54	# 39
Zimmerman, George		CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe		
Comment Type	T	Comment Status	D	10BASE-T1S
Add text explaining the relationship of clause 168 and clause 147 PHYs to the end of the 3rd paragraph of 168.1 (explaining 10BASE-T1S aand 10BASE-T1M interoperability)				
SuggestedRemedy				
Insert new final sentence on 3rd paragraph of 168.1: "The PMA and PCS specifications of the 10BASE-T1S PHY when operating in multidrop mode are refined in the 10BASE-T1M Clause 168 PHY, which only supports multidrop mode. 10BASE-T1S and 10BASE-T1M PHYs use the same PMA and PCS control, status, and test registers."				
Proposed Response	Response Status		W	
PROPOSED ACCEPT IN PRINCIPLE.				
TFTD - there may be alternative ways of stating this.				

Cl 168	SC 168.1	P46	L48	# 131
Jones, Peter		Cisco		
Comment Type E	Comment Status D		Editorial	
Rewrite for clarity/brevity.				
SuggestedRemedy				
Replace “mixing segment, defined in 168.8” with “mixing segment as defined in 168.8”.				
Proposed Response	Response Status W			
PROPOSED ACCEPT.				
(note, the original was briefer... :))				

Cl 168	SC 168.1.2.1	P47	L47	# 130
Jones, Peter		Cisco		
Comment Type	E	Comment Status	D	Editorial
The "168.1.2.1 State diagram notation" text seems to be identical to that in "146.1.3.1 State diagram notation".				
SuggestedRemedy				
Move this to 21.5.5 or 21.6.				
Proposed Response	Response Status		W	
PROPOSED REJECT.				
The constructs of state diagrams in IEEE Std 802.3 use many different forms. This comment might be appropriate for a revision project where the entire standard is reviewed. Otherwise may confuse the reader on amendment. Moving it to clause 21 for just this one clause would serve no purpose and be unduly confusing to the outside reader.				

Cl 168	SC 168.2	P48	L11	# 134
Jones, Peter				
Cisco				
Comment Type	TR	Comment Status	D	10BASE-T1S
Provide text for clause 168.2				
SuggestedRemedy				
168.2 Operation of 10BASE-T1M				
The 10BASE-T1M PHY builds on the operation on the 10BASE-T1S/T1M PHY (see 148) when running half-duplex in multidrop mode. It uses half-duplex communications on a single balanced pair of conductors mixing segment, interconnecting up to at least 16 PHYs to a trunk up to at least 50m. PHYs are attached to the mixing segment using the Trunk Connection Interface (TCI) specified in 168.9. An overall effective data rate of 10 Mb/s is shared among the nodes. Larger PHY count and reach may be achieved provided the mixing segment specifications in 168.8 are met.				
The 10BASE-T1M PHY utilizes two level Differential Manchester Encoding (DME). A 17-bit self-synchronizing scrambler is used to improve the EMC performance. Following scrambling of the data, 4B/5B encoding is performed (see 168.4.2.4). DME is a self-clocked and intrinsically balanced line coding that guaranteeing very low DC baseline wander and allowing for robust clock and data recovery in noisy environments. The 4B/5B mapping and the scrambler are contained within the PCS (see 168.4) while the DME encoder/decoder is contained in the PMA (see 168.5).				
Proposed Response	Response Status W			
PROPOSED ACCEPT IN PRINCIPLE.				
(minor edits for style and clarity)				
168.2 Operation of 10BASE-T1M				
The 10BASE-T1M PHY builds on the operation on the 10BASE-T1S PHY defined in Clause 148 when the Clause 147 PHY is running half-duplex in multidrop mode. The 10BASE-T1M PHY uses half-duplex communications over a single balanced pair of conductors forming a mixing segment. The mixing segment supports interconnecting up to at least 16 PHYs on a trunk of up to at least 50m. PHYs are attached to the mixing segment using the Trunk Connection Interface (TCI) specified in 168.9. An overall effective data rate of 10 Mb/s is shared among the nodes. Larger PHY count and reach can be achieved provided the mixing segment specifications in 168.8 are met.				
The 10BASE-T1M PHY utilizes two level Differential Manchester Encoding (DME). A 17-bit self-synchronizing scrambler is used to improve the EMC performance. Following scrambling of the data, 4B/5B encoding is performed (see 168.4.2.4). DME is a self-clocked and intrinsically balanced line coding with very low DC baseline wander and allows for robust clock and data recovery in noisy environments. The 4B/5B mapping and the scrambler are contained within the PCS (see 168.4) while the DME encoder/decoder is contained in the PMA (see 168.5).				

IEEE P802.3da D1.1 Physical Layer Specifications and

CI 168	SC 168.4	P51	L19	# 135	
Jones, Peter		Cisco			
Comment Type	TR	Comment Status	D	10BASE-T1S	
Several of the sub-clauses in Clause 168 must align with the equivalent clauses in Clause 148 to enable interoperability as stated in 168.1 Overview – “The 10BASE-T1M PHY is interoperable with the Clause 147 10BASE-T1S PHY when the 10BASE-T1S PHY is in multidrop mode and the mixing segment is compliant with 147.8 and 168.8.” Copying the text between the clauses creates risk that the two clauses will unintentionally “drift apart”.					
SuggestedRemedy					
Change the sub-clauses that repeat clause 148 text to referring to equivalent sub-clauses, with exceptions noted. Sub-clauses to be considered include: 147.3.1 PCS Reset function and 168.4.1 PCS Reset function 147.3.2 PCS Transmit and 168.4.2 PCS Transmit 147.3.3 PCS Receive and 146.3.4 PCS Receive 147.3.5 Collision detection and 168.4.5 Collision detection 147.3.6 Carrier sense and 168.4.6 Carrier sense 147.4.2 PMA Transmit function and 168.5.2 PMA Transmit function 147.4.3 PMA Receive function and 168.5.3 PMA Receive function 147.5.4 Transmitter electrical specification and 168.6.4 Transmitter electrical specification 147.5.5 Receiver electrical specifications and 168.6.5 Receiver electrical specifications					
Proposed Response		Response Status		W	
PROPOSED ACCEPT IN PRINCIPLE. TFTD. This is a good idea but needs a fully thought out text proposal. Some of the clauses (e.g., PMA electricals) have been modified because clause 168 does not have point to point, but clause 147 does - hence taking some pieces out of the text. Also the PMA electrical specs are at the TCI now, which is a little different than clause 147.					
Suggest form a sub-group to look at what can be referenced clearly before working group ballot.					
[HOMEWORK FOR GROUP - Need Volunteers]					

CI 168	SC 168.4.2.1	P51	L48	# 3	
Maguire, Valerie		Copperopolis; CME Consulting			
Comment Type	T	Comment Status	D	Editorial	
Pin assignments are generally associated with conductors (e.g., see Table 169-2), not wires. For transmission, "balanced pair of conductors" is more descriptive and meaningful than "wire pair".					
SuggestedRemedy					
Grant Editorial license to do a global search and replace of existing "wire" references with an appropriate "conductor" reference. E.g., Replace "wire pair" with "conductor pair" on p51 L48, replace "two-wire" with "two-conductor" on p73 L12, replace "two-wire" with "two-conductor" on p75 L22, replace "2 wires" with "2 conductors" in Figure 168-18, replace "two-wire" with "two-conductor" on p75 L51, replace "any wire to the other wire" with "any conductor to the other conductor" on p76 L33 and in PICS TC16, replace "2-wire" with "2-conductor" on p88 L23 (Editor's Note), and replace "two-wire" with "two-conductor" on p90 L9.					
Proposed Response		Response Status		W	
PROPOSED ACCEPT.					

CI 168	SC 168.5	P65	L35	# 45	
Zimmerman, George		CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe			
Comment Type	E	Comment Status	D	Editorial	
Editor's note has been in place for sveral drafts now. It has served its purpose					
SuggestedRemedy					
Delete editor's note at P65 L35					
Proposed Response		Response Status		Z	
PROPOSED REJECT.					
This comment was WITHDRAWN by the commenter.					
this serves as one example of the minor differences between this clause and clause 147					

CI 168	SC 168.5.2	P66	L21	# 46	
Zimmerman, George		CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe			
Comment Type	E	Comment Status	D	EZ	
Editor's note was accomplished in changes to draft 1.1, no longer needed.					
SuggestedRemedy					
Delete editor's note at P66 L21					
Proposed Response		Response Status		W	
PROPOSED ACCEPT.					

IEEE P802.3da D1.1 Physical Layer Specifications and

Cl 168 SC 168.6.3 P69 L36 # 4
 Maguire, Valerie Copperopolis; CME Consulting
 Comment Type E Comment Status D EZ
 Easy is too subjective here... Improve language.
 SuggestedRemedy
 Replace, "To allow an easy synchronization of the measurement equipment," with "To facilitate synchronization of the measurement equipment,".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 168 SC 168.6.4.5 P71 L44 # 61
 Jones, Chad Cisco Systems
 Comment Type E Comment Status D Editorial
 do we still need the highlighter?
 SuggestedRemedy
 delete highlight
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Remove all highlights in the document

Cl 168 SC 168.6.4.5 P71 L45 # 52
 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe
 Comment Type T Comment Status D Test Modes
 We fixed the reference to transmitter impedance in 168.5.2, but forgot to make a similar change in the test mode text. The text in 168.5.2 (which specifies what happens when 'I' is presented to the PMA), is now all about what is presented at TC1 and TC2, saying - "Meet the insertion loss specified from TC1 to TC2 in 168.9.1.1 and the return loss specified in 168.9.1.2 at TC1 and TC2. This shall happen within 40 ns after the additional DME encoded 0 has been transmitted."
 Additionally, this section is a duplicate 'shall' on the PMA, where it should really just be a way to test the electrical characteristics presented when there is no data to transmit.

SuggestedRemedy
 Change "In test mode 4, a transmitter shall present at least the minimum parallel impedance across the TC3 (see Figure 168–17) interface of the TCI to enable meeting the electrical specifications for the TCI with a DTE in place as specified in 168.9.1." to
 "In test mode 4, the PCS shall continuously present the special 5B symbol 'I' to the PMA (see 168.5.2)."
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 TFTD
 Consider with comment 60 which also modifies this text.

Cl 168 SC 168.6.4.5 P71 L45 # 60
 Jones, Chad Cisco Systems
 Comment Type E Comment Status D Test Modes
 "...parallel impedance across the TC3 (see Figure 168–17) interface of the TCI..." TC3 is part of the TCI. TCI is the interface, TC3 is not an interface. Also, are we presenting impedance ACROSS TC3 or AT TC3? Lastly, do we need to say TC3 of the TCI?
 SuggestedRemedy
 change "...parallel impedance across the TC3 (see Figure 168–17) interface of the TCI..." to "...parallel impedance at TC3 (see Figure 168–17) ..."
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 TFTD - discuss with comment 52 which writes this text out of the draft.

IEEE P802.3da D1.1 Physical Layer Specifications and

CI 168 SC 168.6.6 P72 L38 # 136

Jones, Peter

Cisco

Comment Type TR Comment Status D Management

Replace TBDs.

The proposed resolution assumes my proposed text for clause 45 is accepted.

SuggestedRemedy

Replace "MDIO register 1.2297.13 (TBD), defined in 45.2.1.186d.5 (TBD)," with "MDIO register 1.2297.13, defined in 45.2.1.186d.5".

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See comment 30

CI 168 SC 168.8 P73 L4 # 137

Jones, Peter

Cisco

Comment Type ER Comment Status D EZ

Fix incorrect reference.

SuggestedRemedy

Replace "The 10BASE-T1M mixing segment (1.4.331)" with "The 10BASE-T1M mixing segment (1.4.403)".

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 168 SC 168.8 P73 L8 # 41

Zimmerman, George

CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe

Comment Type E Comment Status D EZ

No need for highlight on lines 8 to 12

SuggestedRemedy

Remove highlight lines 8 to 12

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 168 SC 168.8 P73 L9 # 51

Zimmerman, George

CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe

Comment Type E Comment Status D TCI nomenclature

We call out the TCI "Trunk connection interface" and then it has TC1, TC2, TC3 which are called out as just "TCx", "TCx interface", "TCx interface planes", or "TCx interface points". It gets confusing. Pick one. Suggest we remove the word "interface" in connection with TC1, TC2, or TC3 as well as "point", "plane", etc. This will make it simpler, hopefully without confusing the text.

SuggestedRemedy

P73 L8: Change "The mixing segment shall be a linear topology, with DTE attached at a TCI, where each TCI has two interfaces on the mixing segment, one interface facing in the direction of left edge termination of the mixing segment (TC1), and one facing in the direction of the right edge termination of the mixing segment (TC2), and a two-wire interface facing the PMA (and any associated stub or service loop) (TC3)" to

"The mixing segment shall be a linear topology, with DTE attached at a TCI, where each TCI has two connections along the mixing segment, one facing in the direction of left edge termination of the mixing segment (TC1), and one facing in the direction of the right edge termination of the mixing segment (TC2), and a two-wire connection facing the PMA (and any associated stub or service loop) (TC3)"

P73 L45 - (NOTE in Figure 168-17), change "the TC1 and TC2 interface points" to "TC1 and TC2"

P75 L18 - change "the TCI has two interfaces" to "the TCI has two connections"

P76 L20 - change "the other trunk interface" to "the other TC"

P75 L22 "Each TCI has one interface" to "Each TCI has one connection" and change, "and a two-wire interface" to "and a two-wire connection"

P75 L26 (Figure 168-18) delete the word "interface" from TC1, TC2 and TC3 labels

P90 L27, P90 L29, - change "interface" to "connection" (4 instances)

P100 L2, P100 L5, - change "interface" to "connection" (4 instances)

P71 L45 - change "across the TC3 (see Figure 168-17) interface of the TCI" to "across TC3 (see Figure 168-17" (note this is unnecessary if TC3 has been written out of this text by another comment)

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TFTD

Need to resolve whether to write out TC3 as a labeled point. If unused for specifications it doesn't need to be labeled, and can just be described as

"and a two-wire interface facing the PMA (and any associated stub or service loop)." (without the notation of TC3, and TC3 doesn't need to be labeled elsewhere).

IEEE P802.3da D1.1 Physical Layer Specifications and

Cl 168 **SC 168.8** **P73** **L12** # **138**

Jones, Peter Cisco

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

Rewrite for clarity/brevity.

SuggestedRemedy

Replace "The TCI is part of the mixing segment, and the requirements of 168.8 are met with TCIs in place with or without attached DTEs as specified for the particular specification."
with
"The TCI is part of the mixing segment, and the requirements of the mixing segment are met with TCIs in place with or without attached DTEs".

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

PROPOSED ACCEPT.

Cl 168 **SC 168.8** **P73** **L17** # **140**

Jones, Peter Cisco

Comment Type **ER** **Comment Status** **D** **EZ**

Fix reference to TCI sub-clause.

SuggestedRemedy

Replace "The TCI is specified in 168.8" with "The TCI is specified in 168.9".

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

PROPOSED ACCEPT IN PRINCIPLE.
Make change and make it an active x-ref.

Cl 168 **SC 168.8** **P73** **L28** # **42**

Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe

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

Replace TBD with objective length - it is just an example anyways, and not even expected to be worst case, only something that can be made within the specifications. Simulations have shown 50meters can meet the specifications.

SuggestedRemedy

Replace TBD with 50 m.

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

PROPOSED ACCEPT IN PRINCIPLE.
TFTD
(Note - editor AIP'ed his own proposal so that the group stops to consider)

Cl 168 **SC 168.8** **P73** **L30** # **44**

Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe

Comment Type **E** **Comment Status** **D** **Mixing Segment description**

It needs to be abundantly clear that the lengths and gauges of wiring are simply an example.

SuggestedRemedy

Add the following NOTE after 4th paragraph of 168.8 "NOTE - Dimensions such as length and gauge of cabling in the example given are merely examples of a what a mixing segment compliant with the specifications of 168.8 (including TCIs compliant with 168.9) could be comprised of. They are not to be confused with normative specifications or a statement that all mixing segments constructed within that length and gauge of wiring would result in compliance with 168.8 and 168.9."

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

PROPOSED ACCEPT IN PRINCIPLE.
TFTD
(Note - Editor AIP'd his own proposal so the group stops to consider).

Cl 168 **SC 168.8** **P73** **L45** # **62**

Jones, Chad Cisco Systems

Comment Type **E** **Comment Status** **D** **TCI nomenclature**

The note in fig 168-17 says TC1 and TC2 interface points. These are connection points.

SuggestedRemedy

Change note to: "...TC1 and TC2 connection points..."

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

PROPOSED ACCEPT IN PRINCIPLE.
TFTD, suggest change the note to read:
"NOTE - PMA transmit and receive specifications are met at TC1 and TC2. This applies whether or not an external stub is present."
Discuss with comment 51 (slightly different)

Cl 168 **SC 168.8** **P73** **L48** # **43**

Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe

Comment Type **E** **Comment Status** **D** **Mixing Segment description**

Make it clear that the figure is an example

SuggestedRemedy

Change title of Figure 168-17 to "Example mixing segment and reference points"

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

PROPOSED ACCEPT.

IEEE P802.3da D1.1 Physical Layer Specifications and

CI 168 SC 168.8.1 P74 L3 # 1
Maguire, Valerie Copperopolis; CME Consulting
Comment Type E Comment Status D Editorial
No need to be redundant by mentioning interfaces after TCI. Remove reference to return loss from the insertion loss clause. Language could be improved.
SuggestedRemedy
Replace, "The mixing segment insertion loss is specified including any through-path insertion loss for the TCIs. See 168.9.1 for specification of the insertion loss and return loss (reflections) at the TCI interfaces." with "Mixing segment insertion loss includes any TCI insertion loss. See 168.9.1.1 for specification of TCI insertion loss."
Proposed Response Response Status W
PROPOSED ACCEPT.

CI 168 SC 168.8.1 P74 L11 # 141
DiMinico, Christopher PHY-SI/SenTekse/MC Communications
Comment Type TR Comment Status D Mixing Segment electrical
168.8.1 Mixing Segment Insertion loss Equation (168–3)is TBD.
SuggestedRemedy
See diminico_3da_01_051524.pdf
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
TFTD - pending receipt of proposal
consider with 63

CI 168 SC 168.8.1 P74 L15 # 63
Jones, Chad Cisco Systems
Comment Type T Comment Status D Mixing Segment electrical
Take the suggestion from the Editors note and copy 147-3 as the starting point for EQ 168-3
SuggestedRemedy
copy EQ 147-3 to EQ 168-3
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
TFTD
(suggestion is reasonable, but might limit reach unnecessarily, needs to be considered with proposal from comment 141)

CI 168 SC 168.8.2 P74 L20 # 5
Maguire, Valerie Copperopolis; CME Consulting
Comment Type E Comment Status D EZ
Align structure with clause 168.8.1.
SuggestedRemedy
Insert the following two sentences as a new paragraph before the mixing segment return loss specification, "Mixing segment return loss includes any TCI return loss. See 168.9.1.2 for specification of TCI return loss."
Proposed Response Response Status W
PROPOSED ACCEPT.

CI 168 SC 168.8.2 P74 L26 # 142
DiMinico, Christopher PHY-SI/SenTekse/MC Communications
Comment Type TR Comment Status D Mixing Segment electrical
168.8.2 Mixing Segment Return loss Equation (168–4)is TBD.
SuggestedRemedy
See diminico_3da_01_051524.pdf
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
TFTD - pending receipt of proposal
consider with 64

CI 168 SC 168.8.2 P74 L30 # 64
Jones, Chad Cisco Systems
Comment Type T Comment Status D Mixing Segment electrical
Take the suggestion from the Editors note and copy 147-4 as the starting point for EQ 168-4
SuggestedRemedy
copy EQ 147-4 to EQ 168-4
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
TFTD
(may need some analysis, especially with loads that are powered - needs to be considered with proposal from 142)

IEEE P802.3da D1.1 Physical Layer Specifications and

Cl 168 **SC 168.9** **P73** **L16** # 139

Jones, Peter Cisco

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

add reference.

SuggestedRemedy

Replace "(TCI)" with "(TCI, 1.4.558a)"

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

PROPOSED ACCEPT IN PRINCIPLE.
Reference should go after earlier mention on the same page - Change P73 L5:
"The TCI is an MDI for the shared..." to
"The TCI (1.4.558a) is an MDI for the shared..."

Cl 168 **SC 168.9** **P75** **L22** # 65

Jones, Chad Cisco Systems

Comment Type **E** **Comment Status** **D** *TCI nomenclature*

"Each TCI has one interface facing each direction of the mixing segment (TC1 and TC2), and a two-wire interface facing the PMA (and any associated stub or service loop) (TC3) as shown in Figure 168–18." confusing interface with connections. TCI is the interface the TCs are connections.

SuggestedRemedy

Change the text to: "Each TCI has one connection facing each direction of the mixing segment (TC1 and TC2), and a two-wire connection facing the PMA (and any associated stub or service loop) (TC3) as shown in Figure 168–18."

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

PROPOSED ACCEPT IN PRINCIPLE.
TFTD - At least needs editorial correction of removing the comma.

See comment 51 (same text and issue, different section)
Need to resolve whether to write out TC3 as a labeled point. If unused for specifications it doesn't need to be labeled, and can just be described as
"and a two-wire interface facing the PMA (and any associated stub or service loop)."
(without the notation of TC3, and TC3 doesn't need to be labeled elsewhere).

Cl 168 **SC 168.9** **P75** **L25** # 66

Jones, Chad Cisco Systems

Comment Type **E** **Comment Status** **D** *TCI nomenclature*

Figure 168-18 has TC1,2,3 interface. TCI is the interface, TC1,2,3 are connects of this interface. Delete the word interface

SuggestedRemedy

Delete interface in three spots.

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

PROPOSED ACCEPT.
Discuss with comment 51 (same remedy)

Cl 168 **SC 168.9.1.1** **P76** **L11** # 6

Maguire, Valerie Copperopolis; CME Consulting

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

Insertion loss is not a proper noun.

SuggestedRemedy

Replace, "168.9.1.1 TCI Insertion Loss" with "168.9.1.1 TCI insertion loss"

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

PROPOSED ACCEPT.

Cl 168 **SC 168.9.1.1** **P76** **L15** # 143

DiMinico, Christopher PHY-SI/SenTekse/MC Communications

Comment Type **TR** **Comment Status** **D** *TCI electrical*

168.9.1.1 TCI Insertion Loss is TBD

SuggestedRemedy

See diminico_3da_01_051524.pdf

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

PROPOSED ACCEPT IN PRINCIPLE.
TFTD - pending receipt of proposal

IEEE P802.3da D1.1 Physical Layer Specifications and

CI 168 SC 168.9.1.2 P76 L17 # 144
 DiMinico, Christopher PHY-SI/SenTekse/MC Communications
 Comment Type TR Comment Status D TCI electrical
 168.9.1.2 TCI Return Loss is TBD
 SuggestedRemedy
 See diminico_3da_01_051524.pdf
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 TFTD - pending receipt of proposal
 Discuss with comment 53

CI 168 SC 168.9.1.2 P76 L17 # 7
 Maguire, Valerie Copperopolis; CME Consulting
 Comment Type E Comment Status D EZ
 Return loss is not a proper noun.
 SuggestedRemedy
 Replace, "168.9.1.2 TCI Return Loss" with "168.9.1.2 TCI return loss"
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 168 SC 168.9.1.2 P76 L20 # 67
 Jones, Chad Cisco Systems
 Comment Type E Comment Status D TCI nomenclature
 "...with the other trunk interface (i.e., TC2 or TC1, respectively)..." another use of interface
 when it should be connection
 SuggestedRemedy
 change to: "...with the other trunk connection (i.e., TC2 or TC1, respectively)..."
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 TFTD with comment 51 (slightly different)

CI 168 SC 168.9.1.2 P76 L23 # 53
 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe
 Comment Type T Comment Status D TCI electrical
 We need to specify the TCI return loss (TC1/TC2). Several presentations have shown
 examples of possible implementations, others have shown analysis that gets us close, but
 we need a specific proposal for the text.
 SuggestedRemedy
 Replace Equation 168-5 with an RL mask - see presentation zimmerman_3da_01_052024
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 TFTD - pending receipt of proposal
 discuss with 144

CI 168 SC 168.9.2 P76 L27 # 68
 Jones, Chad Cisco Systems
 Comment Type E Comment Status D TC3
 "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, applied across TC1 or TC2's
 BI_DA+ and BI_DA- in either polarity, under all operating conditions indefinitely." This
 statement implies that power can only be applied at TC1 or TC2. I've heard some state the
 desire to have the PSE connected at TC3. Need to add TC3 to the requirement.
 SuggestedRemedy
 Change to: "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, applied across
 TC1, TC2, or TC3's BI_DA+ and BI_DA- in either polarity, under all operating conditions
 indefinitely."
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 This adds a new TC3 requirement, and we have been specifying connection at TC1 and
 TC2. the connection to the PMA is within the device and should not need such protection if
 the requirement is met at TC1 and TC2.
 Additionally, TF to consider this in light of changes made to 147.9.4 MDI fault tolerance in
 802.3dd-2022.
 Change to: "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, applied across
 TC1 or TC2's BI_DA+ and BI_DA- in either polarity, under all operating conditions
 indefinitely."

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CI 168 SC 168.10 P77 L16 # 69

Jones, Chad Cisco Systems

Comment Type E Comment Status D Editorial

The editors note asks to consider whether 168.10 is aligned with 802.3cr-2021. Reviewing 802.3cr-2021 and comparing to 168.10, 168.10 goes much further than what's found in CR or annex J. The one thing missing is compliance to J.1, but I don't find that requirement in clause 146 or 147 of CR. Therefore, i think we can delete the editor's note.

SuggestedRemedy

delete editor's note.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 168 SC 168.12.4.6 P85 L3 # 47

Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, Marvell, OnSe

Comment Type E Comment Status D Editorial

Editor's note has been in place for sveral drafts now. It has served its purpose

SuggestedRemedy

Delete editor's note at P85 L3

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 169 SC 169.1.2 P87 L42 # 153

Paul, Michael Analog Devices

Comment Type E Comment Status D PI

Need new 169-2 Picture

SuggestedRemedy

Create new figure. Were new figures presented at Denver '24?

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

I believe from the page number and the notes, that this is meant to refer to Figure 169-1, referenced at P87 L42, and the editor's note on P88. If it is meant to refer to Figure 169-2, that DOES have a new figure from Denver, see P91 L2.

Pending proposal

See comment 70

[NEEDS HOMEWORK]

See comments on MPSE and MPD PI for guidance.

CI 169 SC 169.1.2 P88 L1 # 70

Jones, Chad Cisco Systems

Comment Type T Comment Status D PI

Need to replace Fig 169-1. replace with submission from comment author.

SuggestedRemedy

replace Fig 169-1 with submitted figure

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TFTD with figure

See MPSE and MPD PI comments for relevance

Resolve with comment 153

[NEEDS PROPOSAL]

CI 169 SC 169.2 P88 L30 # 71

Jones, Chad Cisco Systems

Comment Type E Comment Status D EZ

We should include a pointer to 168.8 for those that only come to read the PoE section so they can see the mixing segment specifications.

SuggestedRemedy

Add new sentence: "See 168-8 for a discussion of the mixing segment characteristics."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

(fixed typo of - for intended .)

Add new sentence: "See 168.8 for mixing segment characteristics."

CI 169 SC 169.3 P89 L1 # 72

Jones, Chad Cisco Systems

Comment Type T Comment Status D Power - Unit Loads

I propose a refinement of the unit load concept. With 1U = 1W for Type 0 and 2W for Type 1 but a limit of 16U on any mixing segment, we are not able to use all the available PSE power. A markup of 169.3 will be submitted as a presentation for TF review.

SuggestedRemedy

accept changes as shown in presentation.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TFTD - waiting for presentation

IEEE P802.3da D1.1 Physical Layer Specifications and

Cl 169 SC 169.3 P89 L16 # 154

Paul, Michael Analog Devices

Comment Type E Comment Status D Power - General

Editor's note is OBE

SuggestedRemedy

Remove editor's note

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 169 SC 169.3 P89 L16 # 73

Jones, Chad Cisco Systems

Comment Type E Comment Status D Power - General

Editors note regarding 24V systems. The 24V systems I'm aware of are capable of operating to at least 28V, therefore a 26V Vmin for the PSE doesn't preclude support of "24V" systems.

SuggestedRemedy

delete the editor's note.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TFTD. I think the meaning of the note relates to whether such systems will meet the market needs of known "24 V" systems, and the comment suggests that the defined PSEs won't work with systems that are capable of operating to "at least 28V" since the V_MPSE(max) is 30V...

Cl 169 SC 169.3 P89 L31 # 150

Paul, Michael Analog Devices

Comment Type T Comment Status D Power - General

Typo in table 169-1, V_{MPD,min} should be 16V

SuggestedRemedy

Change 18V to 16V

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 169 SC 169.3 P89 L33 # 151

Paul, Michael Analog Devices

Comment Type T Comment Status D Power - Unit Loads

Inconsistent values in table 169-1. $16U \cdot 1W = 16W$, $V_{MPD,min} = 16V$, $16W/16V = 1A$. So Type 0 $I_{TCI_MPSE(min)}$ must be $> 1A$, Currently set to 866mA

SuggestedRemedy

Set $I_{TCI_MPSE(min)} > 1A$, Show exact value and work in presentation

paul_da_04_20240514

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TFTD - pending presentation

Cl 169 SC 169.3 P89 L34 # 152

Paul, Michael Analog Devices

Comment Type T Comment Status D Power - Unit Loads

Inconsistent values in Table 169-1. $1A \cdot 26V = 26W$, $P_{MPSE_16U(min)}$ should be greater than 26W

SuggestedRemedy

Set $P_{MPSE_16U(min)}$ greater than 26W, show work in presentation

paul_da_04_20240514

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TFTD - pending presentation

Cl 169 SC 169.4 P89 L48 # 74

Jones, Chad Cisco Systems

Comment Type T Comment Status D Power - General

This list doesn't include a statement about policing power, i.e. removing power from an overloaded mixing segment. It only says to monitor power or to remove power when no longer needed. An overloaded system still requires power, so f) doesn't apply.

"e) To sense and recover from system faults." is a possible place to address. This is the minimum required addition. I'm happy if the TF wants to go further.

SuggestedRemedy

change to: "e) To sense, react, and recover from system faults."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Include suggested additions, and Task Force to Discuss.

IEEE P802.3da D1.1 Physical Layer Specifications and

Cl 169 SC 169.4 P90 L1 # 75

Jones, Chad Cisco Systems

Comment Type T Comment Status D PI

"An MPSE is specified by its electrical and logical behavior as seen at the MPSE TCI" - TCI is part of the mixing segment. Did we not bring forward the concept of the PI to 169? This is probably partnered with the comment against P89 L1 for a new fig 169-1. This figure must include the PI.

SuggestedRemedy

change sentence to: "An MPSE is specified by its electrical and logical behavior as seen at the MPSE PI."

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 169 SC 169.4.3 P90 L27 # 76

Jones, Chad Cisco Systems

Comment Type E Comment Status D TCI nomenclature

four more occurrences of TC1, 2 interface. (also on line 30).

SuggestedRemedy

change interface to connector in four spots. For the second occurrence in each sentence ("...of the same interface TC1 or TC2,..."), the sentence reads better if connector is moved after TC1,2 (i.e. change to "...of the same TC1 or TC2 connector,...").

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 169 SC 169.4.3 P90 L32 # 77

Jones, Chad Cisco Systems

Comment Type T Comment Status D Power - General

the sentence "For compliance, MPSE current is measured as the sum of TCI currents, TC1+TC2." seems broken to me. For example if I have 1A on TC1 and the MPD draws 100mA, that means TC2 has 900mA. And TC1+TC2 is 1.9A. Or am I missing a subtlety that the current on TC2 is negative and what I really have it 1A + (-0.9A) = 0.1A? If that later part is the case, then we may want some descriptive text to make that obvious.

SuggestedRemedy

I don't know the answer as I not sure what exactly we are trying to say, but I wanted the comment so we can find an answer and fix the text.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
OBE by comment 88

Cl 169 SC 169.4.3 P90 L32 # 88

Jones, Chad Cisco Systems

Comment Type E Comment Status D PI

the sentence "For compliance, MPSE current is measured as the sum of TCI currents, TC1+TC2." seems broken to me.
Figured out this is because the PSE is always attached to TC3, but we don't state that. Therefore, I'm suggesting that we modify the sentence on line 23 and add text to Fig 169-2.

SuggestedRemedy

line 23, through TC3: "MPSEs supply power to the mixing segment through TC3. See Figure 169-2."

Modify Fig 169-2 adding labels for TC1, TC2, TC3.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Suggest trying to write relative to the PI, located at the place thought of as TC3, and may not be exposed... (see comment 98).

Line 23, through TC3. "MPSEs supply power to the mixing segment through the PI. See Figure 169-2."

Modify Fig 169-2 adding labels for TC1, TC2, and PI (at the "base" of the T).

Add note to Figure 169-2:

"NOTE - MPSE PI may not be exposed. If it is not exposed, limits are calculated from values at TC1 and TC2."

Cl 169 SC 169.4.3 P91 L22 # 78

Jones, Chad Cisco Systems

Comment Type E Comment Status D Editorial

Editor's note to convert 169-2 to Frame at least one draft before WG ballot. That time is now. Can we get a volunteer to draw in Frame?

SuggestedRemedy

replace Figure with a Frame drawing and delete the editor's note.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TFTD - draw when figure is stable.

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CI 169 SC 169.4.4.5 P94 L6 # 79
Jones, Chad Cisco Systems
Comment Type E Comment Status D Power - State diagrams
Editor's note to convert 169-3, 169-4, and 169-5 to Frame at least one draft before WG ballot. That time is now. Can we get a volunteer to draw in Frame?
SuggestedRemedy
replace Figures with a Frame drawing and delete the editor's notes (three places).
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
TFTD - redraw when stable

CI 169 SC 169.4.5 P96 L35 # 80
Jones, Chad Cisco Systems
Comment Type T Comment Status D Power - State diagrams
this is the MPSE overview - do we want SHALLS in this section? I'd expect an overview to have no requirements. Also, I would fully expect the two shalls (on L36 and L38) to be covered in the MPSE requirements.
If we do want shalls in this section, then the last sentence on this section should be mandatory (that would be L43, replace "and removes power" with "and shall remove power"
SuggestedRemedy
replace shall with may in two places.
OR replace "and removes power" with "and shall remove power"
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
Suggest replace shall with "and removes power"

CI 169 SC 169.4.6 P96 L46 # 155
Paul, Michael Analog Devices
Comment Type T Comment Status D Power - Discovery
Discovery details need to be filled in along with descriptive text. Detailed material was presented in Paul_da_03_20240313_v0.pdf and Paul_da_01_20240124.pdf, but there were no comments filed against the sections so it has not been adopted.
SuggestedRemedy
See presentation paul_da_01_20240514
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
TFTD - pending presentation

CI 169 SC 169.4.6 P97 L5 # 87
Jones, Chad Cisco Systems
Comment Type E Comment Status D Power - Discovery
duplicate shall as this is covered in the second sentence of the preceding paragraph.
"If discovery is not completed before the TDiscovery timer expires, the current discovery cycle shall be aborted and the MPSE shall return to BACKOFF."
delete the second shall of the sentence and change return to returns
SuggestedRemedy
Change to: "If discovery is not completed before the TDiscovery timer expires, the current discovery cycle shall be aborted and the MPSE returns to BACKOFF."
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
Accept commenters proposal, but consider whether described behavior is already covered in the state diagrams for the MPSE (and if so, remove all shalls)

CI 169 SC 169.4.6 P97 L9 # 89
Jones, Chad Cisco Systems
Comment Type T Comment Status D Power - Discovery
Table 169-3, there are several TBD that we need to fill in DURING THIS CYCLE. Chair suggests forming an ad hoc to bring back initial numbers Wednesday morning for TF review.
SuggestedRemedy
replace TBDs with numbers provided by the ad hoc.
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
Consider at end of comment review.

CI 169 SC 169.4.6 P97 L39 # 8
Maguire, Valerie Copperopolis; CME Consulting
Comment Type E Comment Status D EZ
Delete column with no information.
SuggestedRemedy
Delete the "Additional Information" column in Table 169.4.
Proposed Response Response Status W
PROPOSED ACCEPT.

IEEE P802.3da D1.1 Physical Layer Specifications and

CI 169 SC 169.4.7 P97 L42 # 90
 Jones, Chad Cisco Systems
 Comment Type T Comment Status D EZ
 item 1, Ibad, in Table 169-4 has a min of 30mA and a max of 0mA. I'm no mathematician, but 0 is lower than 30 so I don't understand how 0 can be the max. was that supposed to be something like 40 or 50 instead of 0?
 SuggestedRemedy
 replace the max of 0mA with the appropriate number. Or perhaps the numbers need flipped, 0mA min and 30mA max.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change Ibad Max to -
 (see https://www.ieee802.org/3/da/public/1123/clause169_clean.pdf)

CI 169 SC 169.4.7 P97 L51 # 91
 Jones, Chad Cisco Systems
 Comment Type E Comment Status D Editorial
 the sentence "Under all conditions, an MPSE shall present an invalid MPD discovery signature with one of the attributes as specified in Table 169-4." belongs in 169.4.6.
 SuggestedRemedy
 move the sentence "Under all conditions, an MPSE shall present an invalid MPD discovery signature with one of the attributes as specified in Table 169-4." to a new paragraph just before Table 169-3.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

CI 169 SC 169.4.7 P98 L2 # 92
 Jones, Chad Cisco Systems
 Comment Type T Comment Status D Power - MPSE
 Table 169-5 has MANY TBDs. These need to fill in DURING THIS CYCLE. Chair suggests forming an ad hoc to bring back initial numbers Wednesday morning for TF review.
 SuggestedRemedy
 replace TBDs with numbers provided by the ad hoc.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Consider after resolving comments

CI 169 SC 169.4.7 P98 L3 # 10
 Maguire, Valerie Copperopolis; CME Consulting
 Comment Type E Comment Status D Editorial
 Delete column with no information.
 SuggestedRemedy
 Delete the "Additional Information" column in Table 169.5.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Delete column "Additional Information" in Table 169-5 if no text is added by other comments. Consider at end of comment resolution.

CI 169 SC 169.4.7 P98 L9 # 156
 Paul, Michael Analog Devices
 Comment Type T Comment Status D Power - MPSE
 What's up with item 2 units and values? 100mA max doesn't make sense
 SuggestedRemedy
 See presentation paul_da_02_20240514
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 TFTD - pending presentation

CI 169 SC 169.4.7 P98 L13 # 9
 Maguire, Valerie Copperopolis; CME Consulting
 Comment Type E Comment Status D EZ
 Remove unnecessary parameter capitalizations in Table 169-5.
 SuggestedRemedy
 Replace, "Output Slew Rate" with "Output slew rate" (Item 3). Replace, "MPD Maintain power" with "MPD maintain power" (Item 7).
 Proposed Response Response Status W
 PROPOSED ACCEPT.

IEEE P802.3da D1.1 Physical Layer Specifications and

CI 169 SC 169.4.7 P98 L14 # 157
Paul, Michael Analog Devices
Comment Type T Comment Status D Power - MPSE
Fill TBD for item 4 in table 169-6
SuggestedRemedy
See presentation paul_da_02_20240514
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
TFTD - Pending presentation.
(and I think it is item 4 in Table 169-5)

CI 169 SC 169.4.7 P98 L22 # 158
Paul, Michael Analog Devices
Comment Type T Comment Status D Power - MPSE
T_MPDDO TBD can be filled in for item 7 in table 169-6
SuggestedRemedy
See presentation paul_da_03_20240514
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE. TFTD - Pending presentation.
(and I think it is item 7 in Table 169-5)

CI 169 SC 169.4.7 P98 L30 # 159
Paul, Michael Analog Devices
Comment Type T Comment Status D Power - MPSE
Fill in item 11 in table 169-6
SuggestedRemedy
See presentation paul_da_02_20240514
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
TFTD - Pending presentation.
(and I think it is item 11 in Table 169-5)

CI 169 SC 169.4.8 P98 L38 # 160
Paul, Michael Analog Devices
Comment Type T Comment Status D Power - MPSE
TBD in text block
SuggestedRemedy
TBD in text section needs to link to a table symbol in Table 169-5 and have the symbol's value defined. See presentation paul_da_02_20240514
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
TFTD - Pending presentation.

CI 169 SC 169.4.8 P98 L38 # 93
Jones, Chad Cisco Systems
Comment Type T Comment Status D Power - MPSE
"TBD is the minimum continuous power that the MPSE shall be capable of supplying as defined in Table 169-5."
The TBD needs replaced with what ever number the ad hoc decides for Table 169-5. Further, this comment intends to spur discussion of putting 100W max in Table 169-5. I feel the T169-5 should have em-dashes as the max number. The max power a PSE can deliver is not required for interoperability, only the min is required. The max power delivered is an artifact of external safety standards and desired safety classifications of PSEs and PDs. We should state that a PSE shouldn't be capable of more than 100W, but I don't think it's mandatory text (i.e. no shall).

SuggestedRemedy
replaced TBD on line 38 with the numbers the ad hoc decides for T169-5. It will likely need broken into two sentences: X W is the min power for Type 0; Y W is the min power for Type 1...
replace the max number in item 2 with an em-dash. (delete 100 in two places)
add these sentences to the end of 169.4.8: "External safety requirements limit the power an MPSE can supply. Often this value is 100 W max, but an MPSE designer is encouraged to refer to the safety standards that will govern the desired installation (i.e. the target market for a given MPSE)."

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
See comments 156 and 160

add these sentences to the end of 169.4.8: "External safety requirements limit the power an MPSE can supply. Often this value is 100 W max, but an MPSE designer is encouraged to refer to the safety standards that will govern the desired installation (i.e., the target market for a given MPSE)."

IEEE P802.3da D1.1 Physical Layer Specifications and

Cl 169 SC 169.4.9 P98 L43 # 94
Jones, Chad Cisco Systems
Comment Type T Comment Status D Power - MPSE
"The cumulative duration of TCUT is measured using a sliding window of at least 1 second width."
"At least" implies the window can be longer than 1 second. If one vendor implements a 1 sec window and another implements a 5 second window, we could get different behaviors between two supposed equivalent parts. This difference in behavior leads to customer dissatisfaction and phone calls to the system vendor.
SuggestedRemedy
delete "at least: from the sentence on P98 L44, making it say "using a sliding window of 1 second width."
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
TFTD - need input from power circuitry designers on sliding window width.

Cl 169 SC 169.4.11.1 P99 L9 # 95
Jones, Chad Cisco Systems
Comment Type E Comment Status D Editorial
"MPS shall be defined as being present in the POWER_ON state when IMPSE is greater than or equal to IHold max for a minimum of TMPS." This sentence is missing a table reference. "as defined in Table 169-5."
Also, I note the text says "as defined" and "as specified". We need to pick one and be consistent. I suggest "as defined"
SuggestedRemedy
add "as defined in Table 169-5." to the end of the sentence.
Editors given guidance to search text for "as specified" and replace with as defined when referring back to a Table. Editorial license granted to modify all locations of "as specified" as needed.
Proposed Response Response Status W
PROPOSED ACCEPT.

Cl 169 SC 169.4.11.1 P99 L15 # 96
Jones, Chad Cisco Systems
Comment Type E Comment Status D Power - General
"The MPSE shall not remove power from the port when IMPD is greater than..." IMPD is not a defined variable. I assume this was meant to be Isubscript(MPD), meaning MPD current, let's just say that.
SuggestedRemedy
change to: "The MPSE shall not remove power from the port when the MPD current is greater than..."
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
There are 3 currents at the MPD. The PSE can't sense the MPD currents individually. Hence this must be the PSE's sourced current.
Change IMPD to I_MPSE (MPSE is a subscript)

Cl 169 SC 169.5.2 P99 L52 # 99
Jones, Chad Cisco Systems
Comment Type T Comment Status D PI
"MPDs draw power from the mixing segment. MPDs are current sinks. See Figure 169-6." Like the MPSE, we do not state that MPDs are only connected to TC3, and Fig 169-6 lacks TCx labels.
SuggestedRemedy
add "from TC3" to the sentence: "MPDs draw power from the mixing segment from TC3." Add labels for TC1,2,3 to Fig 169-6.
Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
See comment 98

Cl 169 SC 169.5.2 P100 L2 # 100
Jones, Chad Cisco Systems
Comment Type E Comment Status D TCI nomenclature
four more occurrences of "TCx interface". Replace interface with connection in 4 places, in sentences on P100 L1 and L4.
SuggestedRemedy
change interface to connector in four spots. For the second occurrence in each sentence ("...of the same interface TC1 or TC2,..."), the sentence reads better if connector is moved after TC1,2 (i.e. change to "...of the same TC1 or TC2 connector,...").
Proposed Response Response Status W
PROPOSED ACCEPT.

IEEE P802.3da D1.1 Physical Layer Specifications and

CI 169 SC 169.5.2 P100 L7 # 101

Jones, Chad Cisco Systems
Comment Type E Comment Status D Power - MPD

This is related to the MPSE comment made on this subject earlier, but this time the concern is valid. One of the currents on TC1 or TC2 will be a negative value, meaning the "sum" will actually be a difference. Let's be kind and add a sentence to let the reader know this.

SuggestedRemedy
add these sentences to the end of the paragraph on P100 L7: "It should be noted that one of the currents on TC1 or TC2 will be positive and one will be negative, making this "sum" a difference. This should make sense as the current used by the MPD will lower the current supplied to the output TC feeding the rest of the MPDs that follow in the mixing segment."

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
Minor change for style.

Add the following after text at P100 L10, before figure.

"NOTE - One of the currents on TC1 or TC2 will be positive and the other will be negative; making this "sum" a difference. The current used by the MPD lowers the current supplied to the output TC feeding the rest of the MPDs that follow in the mixing segment."

CI 169 SC 169.5.2 P100 L10 # 102

Jones, Chad Cisco Systems
Comment Type E Comment Status D Power - MPD

"For compliance, voltage specifications shall be met at both TC1 and TC2 independently." Does this sentence make sense for the MPD? The PD has no control over the voltage at ANY of the TC points.

SuggestedRemedy
delete the sentence.

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 169 SC 169.5.2 P100 L31 # 103

Jones, Chad Cisco Systems
Comment Type E Comment Status D Editorial

Table 169-6 requires the PD to be polarity insensitive, resolving this editor's note. Therefore, we can delete it.
SuggestedRemedy
Delete the editor's note.
Proposed Response Response Status W
PROPOSED ACCEPT.

CI 169 SC 169.5.2 P100 L37 # 104

Jones, Chad Cisco Systems
Comment Type E Comment Status D Editorial

Editor's note to convert 169-6 to Frame at least one draft before WG ballot. That time is now. Can we get a volunteer to draw in Frame?
SuggestedRemedy
replace Figure with a Frame drawing and delete the editor's note.

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
(draw figure 169-6 in frame incorporating edits from this comment resolution, and delete the Editor's note).

CI 169 SC 169.5.3 P100 L41 # 11

Maguire, Valerie Copperopolis; CME Consulting
Comment Type E Comment Status D EZ

Follow Style guidelines.
SuggestedRemedy
Replace, "MPD State Diagram" with "MPD state diagram".
Proposed Response Response Status W
PROPOSED ACCEPT.

IEEE P802.3da D1.1 Physical Layer Specifications and

CI 169 SC 169.5.3.2 P100 L52 # 105

Jones, Chad Cisco Systems

Comment Type T Comment Status D Power - MPD

Lots of TBDs in the constants section. Some of them would point to Table 169-7, but not all. Some should come from and ad hoc that should have been formed by an earlier comment. Assign defining these TBDs to that same ad hoc.

SuggestedRemedy

replace TBDs with values determined by ad hoc.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Consider after comment resolution - see comment 161.

CI 169 SC 169.5.3.2 P101 L100 # 161

Paul, Michael Analog Devices

Comment Type E Comment Status D Power - MPD

TBDs in Constants section, some need to be linked to table of MPD Power Supply Limits Table, some need to be linked to MPD Discovery Table.

SuggestedRemedy

Link relevant values to MPD Power Supply Limits table (presently Table 169-7, probably Table 169-8 in next draft). Make sure table symbols and state machine names are consistent

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Need proposal with which ones link to which.

CI 169 SC 169.5.3.2 P101 L100 # 162

Paul, Michael Analog Devices

Comment Type E Comment Status D Power - MPD

TBDs in Constants section, some need to be linked to table of MPD Power Supply Limits Table, some need to be linked to MPD Discovery Table.

SuggestedRemedy

Link relevant values to MPD Discovery table from presentation paul_da_01_20240514. (Probably Table 169-7 in next draft). Make sure table symbols and state machine names are consistent

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TFTD - pending presentation

CI 169 SC 169.5.3.3 P101 L44 # 106

Jones, Chad Cisco Systems

Comment Type T Comment Status D Power - MPD

more Table TBDs (I count at least 8) that need defined by the ad hoc.

SuggestedRemedy

replace TBDs with values determined by ad hoc.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See comment 161

CI 169 SC 169.5.3.3 P102 L2 # 12

Maguire, Valerie Copperopolis; CME Consulting

Comment Type E Comment Status D EZ

MPS is not capitalized in 169.4.11.1

SuggestedRemedy

Replace, "Maintain Power Signature" with "maintain power signature".

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 169 SC 169.5.3.4 P102 L33 # 107

Jones, Chad Cisco Systems

Comment Type E Comment Status D EZ

Vmpd should be VMPD.

SuggestedRemedy

capitalize the subscript text. Editors given editorial license to fix any other subscript capitalization errors they notice.

Proposed Response Response Status W

PROPOSED ACCEPT.

IEEE P802.3da D1.1 Physical Layer Specifications and

CI 169 SC 169.5.3.5 P103 L1 # 108

Jones, Chad Cisco Systems

Comment Type T Comment Status D Power - MPD

No text for MPD functions. Need volunteers to write this section.

SuggestedRemedy

Assign the effort to volunteers, charter ad hoc if needed.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
Consider at end of comment resolution

CI 169 SC 169.5.3.6 P103 L33 # 109

Jones, Chad Cisco Systems

Comment Type E Comment Status D Power - State diagrams

Editor's note to convert 169-7, 169-8, and 169-9 to Frame at least one draft before WG ballot. That time is now. Can we get a volunteer to draw in Frame?

SuggestedRemedy

replace Figures with a Frame drawing and delete the editor's notes (three places).

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
TFTD - redraw when stable

CI 169 SC 169.5.3.6 P105 L24 # 14

Maguire, Valerie Copperopolis; CME Consulting

Comment Type E Comment Status D EZ

Follow Style guidelines.

SuggestedRemedy

Replace, "Top Level MPD state diagram" with "Top level MPD state diagram".

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 169 SC 169.5.4 P105 L31 # 13

Maguire, Valerie Copperopolis; CME Consulting

Comment Type E Comment Status D EZ

Follow Style guidelines.

SuggestedRemedy

Replace, "MPD Discovery." with "MPD discovery".

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 169 SC 169.5.4 P105 L33 # 110

Jones, Chad Cisco Systems

Comment Type T Comment Status D Power - Discovery

No text for MPD Discovery. Need volunteers to write this section.

SuggestedRemedy

Assign the effort to volunteers, charter ad hoc if needed.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
See comment 145
Consider at end of comment resolution

CI 169 SC 169.5.4 P105 L33 # 148

Paul, Michael Analog Devices

Comment Type T Comment Status D Power - Discovery

Define Cpd during discovery as 10nF nominal.

SuggestedRemedy

Add another item in Table 169-7. See presentation paul_da_01_20240514,

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
TFTD

IEEE P802.3da D1.1 Physical Layer Specifications and

Cl 169 SC 169.5.4 P105 L33 # 145

Paul, Michael Analog Devices

Comment Type T Comment Status D Power - Discovery

MPD discovery details missing.

SuggestedRemedy

See presentation paul_da_01_20240514

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TFTD - pending presentation

Cl 169 SC 169.5.5 P106 L2 # 15

Maguire, Valerie Copperopolis; CME Consulting

Comment Type E Comment Status D EZ

Follow Style guidelines.

SuggestedRemedy

Replace, "MPD Power" with "MPD power".

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 169 SC 169.5.5 P106 L9 # 111

Jones, Chad Cisco Systems

Comment Type T Comment Status D Power - MPD

Five TBDs in T169-7. assign definition the ad hoc.

SuggestedRemedy

replace TBDs with numbers provided by the ad hoc.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See comments 146, 147, 149

TFTD - consider at end of comment resolution

Cl 169 SC 169.5.5 P106 L26 # 146

Paul, Michael Analog Devices

Comment Type T Comment Status D Power - MPD

Item 6 is TBD

SuggestedRemedy

See presentation paul_da_01_20240514. TBD value is the same threshold as V_{MPD_mark}

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TFTD - pending presentation

Cl 169 SC 169.5.5 P106 L33 # 147

Paul, Michael Analog Devices

Comment Type T Comment Status D Power - MPD

Item 9 is TBD

SuggestedRemedy

This should be known...make sure label is consistent with state machine, look for data from Paul_da_01_20240124.pdf and discovery model. See presentation paul_da_01_20240514

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TFTD - pending presentation

Cl 169 SC 169.5.5 P107 L22 # 149

Paul, Michael Analog Devices

Comment Type T Comment Status D Power - MPD

Need MPD MPS text description section

SuggestedRemedy

See presentation paul_da_03_20240514

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TFTD - pending presentation

IEEE P802.3da D1.1 Physical Layer Specifications and

Cl 169 SC 169.5.5.1 P106 L45 # 16
 Maguire, Valerie Copperopolis; CME Consulting
 Comment Type E Comment Status D EZ
 Follow Style guidelines.
 SuggestedRemedy
 Replace, "MPD Inrush" with "MPD inrush".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 169 SC 169.5.5.1 P106 L49 # 112
 Jones, Chad Cisco Systems
 Comment Type E Comment Status D EZ
 at least three occurrences of Vmpd, replace with VMPD
 SuggestedRemedy
 Replace Vmpd with VMPD.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 169 SC 169.5.5.1 P107 L3 # 113
 Jones, Chad Cisco Systems
 Comment Type E Comment Status D Power - MPD
 We should give guidance on what is meant by active indication.
 SuggestedRemedy
 Add this text to the end of the paragraph at P100 L3: "The method of active indication is left to the MPD implementor. Two examples would be a flashing LED or a message from a console port."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 169 SC 169.5.5.2 P107 L5 # 19
 Maguire, Valerie Copperopolis; CME Consulting
 Comment Type T Comment Status D EZ
 Clause 169.5.5 is already named "MPD power". Consider a more descriptive clause header.
 SuggestedRemedy
 Replace, "MPD Power" with "MPD unit load".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 169 SC 169.5.5.2 P107 L9 # 114
 Jones, Chad Cisco Systems
 Comment Type T Comment Status D Power - Unit Loads
 this section will need aligned with changes made to the MPSE section, if accepted.
 SuggestedRemedy
 comment author volunteers to submit text based on the decisions made on the comments against the MPSE section.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 TFTD - needs detailed presentation

Cl 169 SC 169.6 P107 L22 # 17
 Maguire, Valerie Copperopolis; CME Consulting
 Comment Type E Comment Status D EZ
 Follow Style guidelines.
 SuggestedRemedy
 Replace, "Additional Electrical Specifications" with "Additional electrical specifications".
 Proposed Response Response Status W
 PROPOSED ACCEPT.

IEEE P802.3da D1.1 Physical Layer Specifications and

CI 169 SC 169.6.1 P107 L26 # 115

Jones, Chad Cisco Systems

Comment Type T Comment Status D Empty Clauses

No text for the Isolation section. Need volunteers to write this section.

SuggestedRemedy

Assign the effort to volunteers, charter ad hoc if needed.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
Review at close of comment resolution

CI 169 SC 169.6.2 P107 L31 # 18

Maguire, Valerie Copperopolis; CME Consulting

Comment Type E Comment Status D EZ

Follow Style guidelines.

SuggestedRemedy

Replace, "Fault Tolerance" with "Fault tolerance".

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 169 SC 169.7 P107 L40 # 116

Jones, Chad Cisco Systems

Comment Type T Comment Status D Empty Clauses

No text for the Environmental section. Need volunteers to write this section.

SuggestedRemedy

Assign the effort to volunteers, charter ad hoc if needed.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
Review at close of comment resolution

CI 196 SC 196.5 P99 L27 # 98

Jones, Chad Cisco Systems

Comment Type E Comment Status D PI

If we decide to use the concept of PI (as suggested in an earlier comment), then it should be added here.

SuggestedRemedy

Replace MPD TCI with MPD PI on L28.

Proposed Response Response Status W

PROPOSED ACCEPT.

Show MPD PI at the location of TC3. Change sentence at line 27 from "Limits defined for an MPD are specified at the MPD TCI." to

"Limits defined for an MPD are specified at the MPD PI." - where the MPD PI is not exposed, current values are calculated from observable currents at TC1 and TC2."

Add MPD PI to figure 169-6, (in addition to TC1 and TC2) on the downward facing side of the TCI.

Add note to figure 169-6, "NOTE - MPD PI may not be exposed. If it is not exposed, limits are calculated from values at TC1 and TC2."