Cl **145**   *SC* **145.2.5**   *P*   *L*   # I-12

Ran, Adee   Intel Corporation
Comment Type   **T**   *Comment Status* **A**

There are many variables in the original amendment, in 145.2.5.4, 145.2.5.6, and
145.2.5.7, which have the suffix (X), but it is unclear what this X means.

In 145.3.3.4 (which discusses PDs) there is a clear explanation of what X means and which
values it can take, but there is nothing similar for 145.2.5.4 (which discusses PSEs).

SuggestedRemedy

Add a subclause similar to 145.3.3.4 to describe X for PSEs, or clarify this in some other
way. This should be done for several variables in the original amendment that are not listed
in this draft.

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.

Add following text (with proper formatting) to the draft:

145.2.5.2.1 Alternative designation
Alternative information is obtained by replacing the X in the desired variable or function with
the letter of the Alternative of interest. The Alternative is referred to in general as follows:
X
Generic Alternative designator. When X is used in a state diagram, its value is local to that
state diagram and not global to the set of state diagrams.
Values:
A: Alternative A
B: Alternative B

Note--The variables alt_pri and alt_sec map Alternatives to Primary and Secondary.

Cl **0**   *SC* **0**   *P*   *L*   # I-20

Sanchez Reategui, Hugo Ricardo   CONSULTANT
Comment Type   **T**   *Comment Status* **R**

From high level check, it seems a very good document. I look forward to add a little bit on
this.
FYI I deal with generators and communication requirements as part of my role and for most
of the solutions our P&C group recommends
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX for communication via
WiMAX of 1.8GHz bandwidth.

SuggestedRemedy

Response   *Response Status* **C**

REJECT.

Thank you for complementing the document. As the comment neither identifies an issue,
nor provides a proposed change, from a process perspective we are rejecting it. For further
information regarding commenting on draft IEEE-SA standards please see
<https://standards.ieee.org/content/dam/ieee-
standards/standards/web/governance/revcom/Guidelines_for_commenting_on-
draft_standards.pdf>

Cl **79**   *SC* **79.3.2**   *P* **23**   *L* **6**   # I-14

Rolfe, Benjamin   Blind Creek Associates
Comment Type   **E**   *Comment Status* **A**

Editing instruction is incorrect. As the change (deletion) is shown the editing instruction
should be "change last paragraph...".

SuggestedRemedy

Change "Delete" to "Change".

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change editing instruction to "Delete last paragraph of 79.3.2, as inserted by IEEE Std
802.3bt-2018."

Remove text on lines 8-14 of page 23.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **23**   Page 1 of 7
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   *Li* **6**   1/28/2021 11:18:38 AM
SORT ORDER: Page, Line

Cl **79**　　*SC* **79.3.2**　　　　*P* **23**　　　*L* **25**　　# I-16

Zimmerman, George　　　　CME Consulting,Analog Devices Inc.,Cisco Systems,

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

Note should be in NOTE style (frame style, and Note should be "NOTE <em-dash>"

SuggestedRemedy

Change "Note: " and text on lines 25-29 to frame NOTE- style.

Response　　　　　*Response Status* **C**

ACCEPT.

Cl **79**　　*SC* **79.3.2**　　　　*P* **23**　　　*L* **25**　　# I-1

Ran, Adee　　　　　　Intel Corporation

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

informative note should start with "NOTE" and em dash. See section 10.1 in the style manual.

SuggestedRemedy

Change "Note:" to "NOTE—" (em dash).

Response　　　　　*Response Status* **C**

ACCEPT.

Cl **79**　　*SC* **79.3.2**　　　　*P* **23**　　　*L* **25**　　# I-15

Rolfe, Benjamin　　　　Blind Creek Associates

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

The editing instruction is "insert" so we expect all the text that follows is new. Why are there change bars shown for the Note, table and paragraph following the table? As this is the initial ballot, the presence of change bars is confusing.

SuggestedRemedy

Remove extraneous change bars.

Response　　　　　*Response Status* **C**

ACCEPT.

Cl **79**　　*SC* **79.3.2**　　　　*P* **23**　　　*L* **26**　　# I-2

Ran, Adee　　　　　　Intel Corporation

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

"have greater than 12 octets" is awkward language.

SuggestedRemedy

Change to "have more than 12 octets" or "are longer than 12 octets".

Response　　　　　*Response Status* **C**

ACCEPT IN PRINCIPLE.

Change to "are longer than 12 octets".

Cl **79**　　*SC* **79.3.2**　　　　*P* **23**　　　*L* **27**　　# I-3

Ran, Adee　　　　　　Intel Corporation

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

In "12 octet TLVs" and "one valid 29 octet TLV", n-octet is a compound adjective, so a hyphen is required.

Also in many cells of Table 79–1a.

Proposed change is adding hyphens everywhere, but alternatively the table may be changed to have "number of octets in the TLV" as a column heading, and keep only numbers in the cells.

SuggestedRemedy

Change "12 octet" to "12-octet", and "29 octet" to "29-octet" in the text.

Change cells in Table 79–1a similarly.

Response　　　　　*Response Status* **C**

ACCEPT.

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

Pa **23**
Li **27**

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Cl **79**   *SC* **79.3.2**   *P* **23**   *L* **47**   # **I-17**

Zimmerman, George   CME Consulting,Analog Devices Inc.,Cisco Systems,

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

"based on the length of the first classification event or based on the length of a received Power via MDI TLV". In the first case, this is a time duration, in the second case, this is a number of octets. Using "length" for both is marginally correct, but a little confusing, since one is a physical (time) measurement and the other is logical (byte count).

SuggestedRemedy

Change "length of the first classification event" to "duration of the first classification event" on line 47.

Response   *Response Status* **C**

ACCEPT.

Cl **145**   *SC* **145.2.5.1**   *P* **26**   *L* **18**   # **I-4**

Ran, Adee   Intel Corporation

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

"When this occurs, the PSE shall not apply a voltage greater than VOff to the PI for at least Tdbo... before attempting another detection, except in the case of an open circuit..."

This sentence is complicated for an uninitiated reader. It be improved by removing a level of negation (assuming my understanding is correct).

SuggestedRemedy

Change "When this occurs, the PSE shall not apply a voltage greater than VOff " to "When this occurs, the PSE shall apply a voltage lower than or equal to VOff ".

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.

The comment resolution group believes that the proposed remedy makes a subtle technical change. As such, we have made changes to make the sentence easier to understand:

Change "shall not apply a voltage greater than Voff to the PI for at least Tdbo as defined in Table 145-16 before attempting another detection"
To: "shall not apply a voltage greater than Voff to the PI until after at least Tdbo, as defined in Table 145-16, has passed before attempting another detection"

Cl **145**   *SC* **145.2.5.1**   *P* **26**   *L* **19**   # **I-18**

Zimmerman, George   CME Consulting,Analog Devices Inc.,Cisco Systems,

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

"shall not apply a voltage greater than Voff to the PI for at least Tdbo as defined in Table 145-16 before attempting another detection" can be interpreted two ways. One way is clearer in the original text - voltages greater than Voff (for any time duration) are prohibited during the alternative b detection time (Tdbo) and after that time, another detection is performed. This was the meaning of the original struck-out text. This is also consistent with the corresponding PICS entry, PSE5 on page 42.

The other way is that the PSE shall not apply a voltage greater than Voff lasting greater than or equal to Tdbo prior to performing another detection (which can happen at any time). I believe the original text was clearer and avoided this ambiguity, and also aligns with the wording of the PICS item. I am not sure what defect in the original text is being fixed, but the unintended consequence is ambiguity.

SuggestedRemedy

Remove the strikeout of the original text from line 15 through 18, and delete the new text (underlined) on lines 18 through 20.

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change "shall not apply a voltage greater than Voff to the PI for at least Tdbo as defined in Table 145-16 before attempting another detection"
To: "shall not apply a voltage greater than Voff to the PI until after at least Tdbo, as defined in Table 145-16, has passed before attempting another detection"

Update corresponding PIC statement (PSE5) to align with text.

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

Pa **26**
Li **19**

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Cl **145**   *SC* **145.2.5.7**   *P* **30**   *L* **1**   #   I-13

Jones, Chad   Cisco Systems, Inc.

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

*** Comment submitted with the file cjones_D3p0comment.pdf attached ***

NOTE: this comment is against State Diagrams that aren't in the D3.0 document. Looking at the published standard, this comment is against Figure 145-15 on document page 144, 145 and Figure 145-16 on document page 148, 149.
Start of comment:
The single signature PSE state diagram (Figure 145-13) on page 139 allows the path from CLASSIFICATION to CLASS_PROBE to CLASS_RESET and to CLASS_EV1_LCE. This path allows a PSE to perform a class probe, performa a class reset and then immediately perform multi-event classification (without having to perform detection/CC).
Moving to the dual signature PSE state diagrams (we will talk only about the PRI diagram 145-15 since the SEC diagram is identical), at the top of page 144 we see the path is CLASSIFICATION_PRI to CLASS_PROBE_PRI. contrasting the SS SD, there are two paths out of CLASS_PROBE_PRI, and either allows the PSE to perform a class reset and them move to multi-event classification. One arc travels to CLASS_RESET_PRI, to CLASS_EV1_LCE_4PID_PRI, then to MARK_EV_LAST_PRI. Only one event is allowed in this case. If the PSE needs to perform multi-event classification, it must use the other arc back to IDLE_PRI which requires a new detection and CC. There is no technical justification to force the two PSEs 'flavors' to behave differently in this case. My comment will modify the dual signature state diagrams to allow multi-event classification immediately after a class probe.

SuggestedRemedy

See the attachment, where the changes are marked up.
the modification is shown against Figure 145-15, the same change will need made to Figure 145-16.
textual explanation:
pg 144
delete the IDLE_PRI arc from CLASS_PROBE_PRI.
delete "* (pse_avail_pwr_pri < 4)" from the arc to CLASS_RESET_PRI. [the only arc from CLASS_PROBE_PRI is to CLASS_RESET_PRI]
add an empty label arc into CLASS_EV1_LCE_PRI.
pg 145
add " * (pse_avail_pwr_pri < 4)" to the arc from CLASS_RESET_PRI to CLASS_EV1_LCE_4PID_PRI
add a new arc out to CLASS_RESET_PRI to CLASS_EV1_LCE_PRI with the exit condition: "tclass_reset_timer_pri_done * (pse_avail_pwr_pri ≥ 4)"
perform same changes to Figure 145-16 on page 148, 149.

Response   *Response Status*   **C**

ACCEPT IN PRINCIPLE.

Adopt changes shown in https://www.ieee802.org/3/cv/public/jan21/darshan_comment_I-13_01.pdf to Figure 145-15 and Figure 145-16 (and associated variables) with the following changes:

---

1. Rename "LCE_after_class_probe_flag" variable to "option_MEC_after_probe" and add to variable list in 145.2.5.4 after "option_detect_ted_sec".

2. use these definitions for the variable:
This variable indicates if multiple-event classification is allowed after a class probe in the dual-signature state diagrams.
TRUE = Allow multiple-event classification after class probe.
FALSE = Only allow single-event classification after class probe.

3. Add "option_MEC_after_probe" after "option_detect_ted_sec" in the variable list under do_initialize on page 136 of the 802.3bt admendment.

Editorial license granted for formatting and editing instructions.

Cl **145**   *SC* **145.2.5.7**   *P* **30**   *L* **32**   #   I-5

Ran, Adee   Intel Corporation

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

The assignment symbol in MEASURE_ACS_DONE is underlined. It suggests an insertion, but the whole table is replaced.

SuggestedRemedy

Remove the underline.

Response   *Response Status*   **C**

ACCEPT.

Cl **145**   *SC* **145.3.3.3.2**   *P* **32**   *L* **43**   #   I-6

Ran, Adee   Intel Corporation

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

"the PD wants to abort" reads funny. A PD is an inanimate object and doesn't have a will. The text in 145.3.6.2 does not use "want" either.

SuggestedRemedy

Change "the PD wants to abort" to "the PD is about to abort", or possibly "the PD aborts"

Response   *Response Status*   **C**

ACCEPT IN PRINCIPLE.

Change "the PD wants to abort" to "the PD is aborting"

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **32**   Page 4 of 7
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   *Li* **43**   1/28/2021 11:18:38 AM
SORT ORDER: Page, Line

Cl **145** *SC* **145.3.3.4.5** *P* **35** *L* **18** # I-7

Ran, Adee   Intel Corporation

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

It seems that the only change in this state diagram (Figure 145-27) is in the "POWERED" state, but it is not easy to locate. It would help if the editorial instruction points to the change, as done in other cases.

If there are other changes they should also be included.

Similarly in Figure 145-42.

SuggestedRemedy

Change the editorial instruction to "Change the text inside state POWERED in Figure 145-27 as follows:"

Apply similar change in Figure 145-42.

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change editorial instruction for Figure 145-27 (continued) to:
"Change Figure 145-27 (continued) as follows (see changes in POWERED state):"

Change editorial instruction for Figure 145-42 (page 39, line 1) to:
"Change Figure 145-42 as follows (see changes in left exit from PSE_POWER_REVIEW state):"

Cl **145** *SC* **145.3.8.2** *P* **36** *L* **16** # I-8

Ran, Adee   Intel Corporation

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

The inserted text creates a sentence that is logically ambiguous because it has both AND and OR with no "parentheses":

"A PD that has enabled Autoclass during Physical Layer classification and drew a power higher than Class 1 power during the period bounded by TAUTO_PD1 and TAUTO_PD2 or has requested Autoclass through DLL"

I assume the meaning is "that has either enabled Autoclass during classification and drew power, or requested Autoclass during DLL"

SuggestedRemedy

This can be improved somewhat by adding the word "either" after "that has" and a comma before the "or" (as in the comment) if my interpretation is correct.

If I got it wrong, then "either" should be placed after the "and".

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change to:

"A PD that has either enabled Autoclass during Physical Layer classification and drew a power higher than Class 1 power during the period bounded by TAUTO_PD1 and TAUTO_PD2, or has requested Autoclass through DLL"

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

Pa **36**
Li **16**

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Cl **145**   *SC* **145.5.3.2.2**   *P* **37**   *L* **7**   #   I-9

Ran, Adee   Intel Corporation
Comment Type   **T**   *Comment Status* **A**

The updated text creates a logical expression as the title of what looks like a column in a
table in the text. It's not typical to have such logical expressions outside of state diagrams,
and this condition is quite difficult to understand, as it's split across two lines.

It may help the reader if the condition is simply spelled out.

The comment also applies to pd_initial_value on page 40.

SuggestedRemedy

Insert the following paragraph after "This variable is set per this description.":
"If pd_autoclass is TRUE and pd_autoclass_cancelled is FALSE, then this variable is set to
the value 0xACAC (decimal 44204). Otherwise, it is set according to pse_allocated_pwr, as
follows:"

Delete the first "column" and the last "row" in the table following "Values:".

Apply corresponding changes to pd_initial_value.

Response   *Response Status* **C**

ACCEPT IN PRINCIPLE.

Remove first column of values table.

Change last entry of pse_allocated_pwr column to "Autoclass*".

Add note below values table that says "*If pd_autoclass is TRUE and
pd_autoclass_cancelled is FALSE, then pse_initial_value is set to the value 0xACAC
(decimal 44204)."

Change last value of pse_initial_value to "44204".

Editorial license granted to fit solution to IEEE standard style and formatting.

Make similar changes to "pd_initial_value" on page 40, line 8.

Cl **145**   *SC* **145.5.3.2.2**   *P* **37**   *L* **18**   #   I-11

Ran, Adee   Intel Corporation
Comment Type   **T**   *Comment Status* **R**

The variable pse_initial_value_alt(X) suggests that it is a function (based on input X) or
multiple variables.

Is X one of the alternatives A or B? or is it "pri"/"alt"?

Also, the "values" table has one column which lists values for two variables. It is unclear
which one should be used.

Is this "variable" actually a function?

SuggestedRemedy

Clarify the text to indicate how both variables affect the single value of the variable
pse_initial_value_alt(X).

If necessary, change the definition to a function and move it to the "functions" subclause.

Response   *Response Status* **C**

REJECT.

The CRG disagrees with the commenter. The unchanged text commented on was part of a
subclause carefully crafted during the P802.3bt project and the proposed changes would
be incorrect and inconsistent with the remainder of the subclause. The comment and
suggested remedy are not related to the change to a cross reference, which was the only
change in this section proposed by the amendment.

The CRG suspects that the confusion is a result of reading the text only in the IEEE
P802.3cv draft and not looking back at the whole standard. The meaning of alt(X) can be
found in 145.5.3.2.1 of IEEE 802.3-2018, the section directly preceding the commented text.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Pa* **37**   Page 6 of 7
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   *Li* **18**   1/28/2021 11:18:39 AM
SORT ORDER: Page, Line

Cl **145**　　　*SC* **145.5.3.2.2**　　　　　*P* **37**　　　*L* **20**　　　# I-10

Ran, Adee　　　　　　　　　　　Intel Corporation

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

"derived from pse_allocated_pwr_pri and pse_allocated_pwr_sec variables (145.2.5.6), which is used in the PSE state diagrams..."

if "which" refers to pse_allocated_pwr_pri and pse_allocated_pwr_sec, shouldn't it be "which are used"?

But I don't see these variables in any state diagram; is it actually pse_initial_value_alt(X) that is used (e.g. in Figure 145-42)? if so, the paragraph should instead start with "This variable is used in the PSE state diagrams".

Pointing to specific diagrams would be preferable.

SuggestedRemedy

Based on the answers to the question in the comment, update the text accordingly.

Consider pointing to the specific diagrams which the reader should refer to.

Response　　　　　　*Response Status*　**C**

ACCEPT IN PRINCIPLE.

Change "which is used" to "which are used".

The variables commented on are used in the referenced PSE state diagrams through the use of the do_update_pse_allocated_pwr_pri/sec function.

Cl **145**　　　*SC* **145.5.3.2.5**　　　　　*P* **39**　　　*L* **2**　　　# I-19

Zimmerman, George　　　　　　　CME Consulting,Analog Devices Inc.,Cisco Systems,

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

Font size in the figure is 6 point. this is very hard to read, and the minimum in the IEEE-SA style manual for figures is 8 point (as are the other state diagrams in the draft). Somehow this escaped notice before, even though there is plenty of room on the page.

SuggestedRemedy

Convert 6 point text in figure 145-42 to 8 point.

Response　　　　　　*Response Status*　**C**

ACCEPT.

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

Pa **39**
Li **2**

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