

IEEE P802.3at D3.2 PoEplus comments

Cl 00	SC 0	P0	L0	# 1
LANDRY, MATTHEW		SILICON LABS		

Comment Type	E	Comment Status	D	ez
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Some of the figures in the CMP document are improperly stricken with red lines.

SuggestedRemedy

The editor should be more careful when composing the CMP document.

Proposed Response	Response Status	W
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PROPOSED ACCEPT.

Cl 25	SC 25.4.4a	P18	L26	# 115
Dawe, Piers		Avago Technologies		

Comment Type	T	Comment Status	D	EZ
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A 'Type 2 device' won't make any sense to a reader of Clause 25, where there is no 'Type 2'. 'Device' is too vague for a 'shall' requirement.

SuggestedRemedy

Change 'Type 2 device' to 'Type 2 Endpoint PSE or Type 2 PD (see Clause 33)'.

Proposed Response	Response Status	W
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PROPOSED ACCEPT.

Cl 25	SC 25.4.4a.1	P19	L17	# 2
LANDRY, MATTHEW		SILICON LABS		

Comment Type	E	Comment Status	D	EZ
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The grammar could be improved a bit for this paragraph.

SuggestedRemedy

FROM:

While transmitting the Data Dependent Jitter (DDJ) packet of TP-PMD A.2, using the fixture shown in Figure 25-1, the equivalent system time constant, t , shall be greater than $2.4\mu\text{s}$ when calculated using measurement points A and B as defined in Figure 25-1. Point B is the point of maximum baseline wander droop. Point A is the point $150\mu\text{s}$ earlier in time from Point B. These measurements are to be made for the transmitter pair and observing the differential signal output at the MDI with no intervening cable.

TO:

While transmitting the Data Dependent Jitter (DDJ) packet of TP-PMD A.2, using the fixture shown in Figure 25-1, the equivalent system time constant, t , shall be greater than $2.4\mu\text{s}$ when calculated using measurement points A and B.

Point B is the point of maximum baseline wander droop. Point A is the point $150\mu\text{s}$ earlier in time from Point B. These measurements are to be made for the transmitter pair and observed on the differential signal output at the MDI with no intervening cable.

Proposed Response	Response Status	W
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PROPOSED ACCEPT IN PRINCIPLE.

Use this correction on the recommendation made in 112. OBE by 112

Cl 25	SC 25.4.4a.1	P19	L20	# 117
Dawe, Piers		Avago Technologies		

Comment Type	T	Comment Status	D	EZ
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You seem to be requiring a measurement across $160/2.4 = 67$ time constants. Tiny errors at B will destroy any confidence in the result

SuggestedRemedy

Need two points much nearer together in time?

Proposed Response	Response Status	W
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PROPOSED ACCEPT IN PRINCIPLE.

OBE 112

IEEE P802.3at D3.2 PoEplus comments

Cl 25 SC 25.4.4a.1 P19 L27 # 116
Dawe, Piers Avago Technologies

Comment Type T Comment Status D EZ

Need to explain what I_BIAS is in the context of 25.4.4a.1 (following the 'or' at line 13, can't rely on TP-PMD if it is defined there)

SuggestedRemedy

Define I_BIAS as used in Figure 25-1

Proposed Response Response Status W

PROPOSED ACCEPT.

Instruct the Editor to use their descretion to add the following text to the end of 25.4.4a.1.

"Ibias is the current I_{unb}/2 defined in clause 33."

Cl 25 SC 25.4.4a.1 P19 L35 # 4
LANDRY, MATTHEW SILICON LABS

Comment Type T Comment Status D EZ

The equation relating V(t) and V_x is not precisely correct. It applies only to the baseline wander droop time constant. Nor does it apply after the DDJ packet ceases, and the DC level returns to normal.

SuggestedRemedy

Change "1.0" scale annotation to say, "V(t)/V_x = 1.0" to make it clearer this is a normalization point.

Use a bracket to show that the V(t)=V_xexp(-t/tau) equation applies to the decay period only.

Proposed Response Response Status W

PROPOSED ACCEPT.

Start with 112 then adapt new concepts to provide the extra guidance from this comment.

Cl 25 SC 25.4.4a.1 P19 L35 # 61
Darshan, Yair Microsemi Corporation

Comment Type TR Comment Status D EZ

Draft D3.2

V(t) and V_x are not defined clearly.

Please define V(t) and V_x and specify their location to be used later for measurement and compliance tests purposes.

SuggestedRemedy

Define V(t) and V_x and specify their location to be used later for measurement and compliance tests purposes.

Please explain how to access V(t)/V_x for measuring the above?

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

OBE by 112 and 4.

V(t) is shown on the MDI in the figure. The value of V_x can be inferred from where it is shown to be 1 in the figure. This comment may already be address by the improvements made by 4.

Cl 25 SC 25.4.4a.1 P19 L39 # 60
Darshan, Yair Microsemi Corporation

Comment Type TR Comment Status D EZ

Draft D3.2

The MLT-3 upper envelope in figure 25-1 is aligned to the X axis at point B which means that point B is always zero which is not true.

SuggestedRemedy

Change the drawing to show that point B may be any value above zero but is lower than point A.

Proposed Response Response Status W

PROPOSED ACCEPT.

OBE 112

IEEE P802.3at D3.2 PoEplus comments

Cl 25 SC 25.4.4a.1 P19 L40 # 3
LANDRY, MATTHEW SILICON LABS

Comment Type E Comment Status D EZ

The variable, T, in the equation is italicized. The time period graphically indicated between A and B, T, is not italicized.

SuggestedRemedy

Italicize the "T."

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 30 SC 30.2.5 P24 L1 # 85
Vetteth, Anoop Cisco

Comment Type E Comment Status D ez

Why is the word "conditional" used to describe only PD DLL Power Classification Package and not the PSE DLL Power Classification Package

SuggestedRemedy

Be consistent

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Clarify the text so the word conditional is used for both packages

Cl 30 SC 30.9.2.1.14 P33 L17 # 120
Dawe, Piers Avago Technologies

Comment Type T Comment Status D ez

'0x' notation is not used in Clause 30. See 30.8.1.1.8 for an example.

SuggestedRemedy

Change '0xFFFF' to 'the hexadecimal value FFFF' (or maybe 'the hexadecimal value FF-FF')

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Cl 30A SC 30A.16.1 P131 L46 # 144
Thompson, Geoffrey Nortel

Comment Type ER Comment Status D ez

Lines 46 through 52

Missing commas as separators after each "GET"

SuggestedRemedy

Insert missing commas as separators after each "GET" (5 instances)

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 30B SC 30B.1 P147 L13 # 139
Thompson, Geoffrey Nortel

Comment Type E Comment Status D ez

One too many colons in "PDPoweredFrom::= ENUMERATED..."

SuggestedRemedy

Change to: "PDPoweredFrom::= ENUMERATED..."

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 30B SC 30B.1 P147 L18 # 140
Thompson, Geoffrey Nortel

Comment Type E Comment Status D ez

Missing comma
Change: "(5)"

SuggestedRemedy

To: "(5),"

Proposed Response Response Status W

PROPOSED ACCEPT.

IEEE P802.3at D3.2 PoEplus comments

CI 30B SC 30B.1 P147 L25 # 141
Thompson, Geoffrey Nortel

Comment Type E Comment Status D ez

Extra comma
Change: "(2),"

SuggestedRemedy

To: "(2)"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 33 SC 33.1.1 P35 L48 # 39
Jones, Chad Cisco

Comment Type E Comment Status D ez

"1000BASE-T without modification.Type 1 operation adds"
missing space after period.

SuggestedRemedy

change to: "1000BASE-T without modification. Type 1 operation adds"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 33 SC 33.1.4.1 P38 L1 # 29
Schindler, Fred Cisco

Comment Type E Comment Status D ez

This useful note is applicable to Type 1 and Type 2 cabling.

SuggestedRemedy

Move this sentence to the bottom of section 33.1.4.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 33 SC 33.2.4.4 P53 L49 # 14
LANDRY, MATTHEW SILICON LABS

Comment Type E Comment Status D EZ

The "pse_skips_event2" variable is not in alphabetical order.

SuggestedRemedy

Move "pse_skips_event2" to be after "pse_reset."

Proposed Response Response Status W

PROPOSED ACCEPT.

This is on page 46.

CI 33 SC 33.2.4.5 P47 L45 # 16
LANDRY, MATTHEW SILICON LABS

Comment Type E Comment Status D EZ

tinrush_timer, tme1_timer, and tme2_timer are out of alphabetical order.

SuggestedRemedy

Rearrange them so they list of timers is alphabetical.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 33 SC 33.2.4.7 P51 L13 # 96
Vetteth, Anoop Cisco

Comment Type T Comment Status D EZ

Variable temp_var is not defined

SuggestedRemedy

Define temp_var in Section 33.2.4.4

A temporary variable used to store the value of the state variable mr_pd_class_detected.

Proposed Response Response Status W

PROPOSED ACCEPT.

Editor to use their discretion when fixing this.

IEEE P802.3at D3.2 PoEplus comments

Cl 33 SC 33.2.4.7 P51 L19 # 97
Vetteth, Anoop Cisco

Comment Type T Comment Status D EZ
do_classification_2 is not defined

SuggestedRemedy
Change it to do_classification

Proposed Response Response Status W
PROPOSED ACCEPT.

Cl 33 SC 33.2.4.7 P52 L10 # 87
Vetteth, Anoop Cisco

Comment Type E Comment Status D EZ
The transition from MONITOR_OVLD to itself is not required

SuggestedRemedy
Remove this transition

Proposed Response Response Status W
PROPOSED ACCEPT.

Cl 33 SC 33.2.6.1 P53 L47 # 44
Heath, Jeff Linear Technology

Comment Type E Comment Status D EZ
First paragraph of 33.2.6.1 is grammatically and technically correct but may be misinterpreted if not read in the presence of an English Major.

SuggestedRemedy
Text Is:
The detection voltage Vport shall be within the Vvalid voltage range at the PSE PI with a valid PD detection signature connected, as specified in Table 33-4 and Table 33-14, respectively.

Text Should Be:
The detection voltage Vport shall be within the Vvalid voltage range at the PSE PI (as specified in Table 33-4) with a valid PD detection signature connected (as specified in Table 33-14).

Proposed Response Response Status W
PROPOSED ACCEPT.

Cl 33 SC 33.2.6.1 P54 L27 # 64
Darshan, Yair Microsemi Corporation

Comment Type TR Comment Status D EZ
Draft D3.2
Cgood is 150nF

SuggestedRemedy
Change to 150nF or change units to "uF"

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.

Cgood was 150 nF. Either change it back to this or use 0.150 uF. Note that mks unit normally use power of 1000. I suggest that the 150 nF value is best.

Cl 33 SC 33.2.9 P61 L30 # 32
Schindler, Fred Cisco

Comment Type E Comment Status D EZ
Typo sec should be s.

SuggestedRemedy
Typo sec should be s.

Proposed Response Response Status W
PROPOSED ACCEPT.

IEEE P802.3at D3.2 PoEplus comments

CI 33 SC 33.2.9.1 P103 L47 # 126
Dawe, Piers Avago Technologies

Comment Type TR Comment Status D EZ

Never say 'shall be measured' unless you require that each and every part made shall be measured (and therefore, per ISO 9000, records kept proving it). If it's not a military, safety-specific or installation spec, that's probably expensive overkill.

SuggestedRemedy

Get rid of all 'shall be measured' from the draft. For example, change 'The specification for VPort in Table 33-11 shall include line and temperature variations. The voltage potential shall be measured between any conductor of one power pair and any conductor of the other power pair.'

to
'If measured between any conductor of one power pair and any conductor of the other power pair, the static output voltage VPort shall meet the requirement of Table 33-11 item 1. The definition of VPort includes line and temperature variations.'

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Assume this is page 61.

CI 33 SC 33.2.9.11 P65 L38 # 101
Vetteth, Anoop Cisco

Comment Type TR Comment Status D EZ

Eq 33-2 takes precedence over Table 33-7

SuggestedRemedy

Change Table 33-7 to Eq 33-2

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 33 SC 33.2.9.12 P65 L51 # 26
LANDRY, MATTHEW SILICON LABS

Comment Type E Comment Status D EZ

"sublaue" is still misspelled.

SuggestedRemedy

Delete the word altogether.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 33 SC 33.2.9.5 P62 L31 # 27
LANDRY, MATTHEW SILICON LABS

Comment Type E Comment Status D EZ

"IPeak" is cut off on the left side of the equation.

SuggestedRemedy

Re-wrap the equation so it is visible in its entirety.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 33 SC 33.2.9.5 P62 L36 # 33
Schindler, Fred Cisco

Comment Type E Comment Status D EZ

Do not use people words for things.

SuggestedRemedy

Replace "RChan is the channel resistance, whose worst case value is RCh as defined in Table 33-1"

with

Replace " RChan is the channel loop resistance as defined in 33.1.4. This parameter has a worst-case value or Rch which is defined in Table 33-1"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 33 SC 33.3.2 P70 L1 # 37
Jones, Chad Cisco

Comment Type E Comment Status D ez

"Type 2 PDs implement both 2-Event Physical Layer classification and Data Link Layer classification"

I know we went through and removed all the links but it seems appropriate to point the reader to the classification sections the first time we mention it in the PD section.

SuggestedRemedy

Change to:

Type 2 PDs implement both 2-Event Physical Layer classification (see 33.3.5.2) and Data Link Layer classification (see 33.6).

Proposed Response Response Status W

PROPOSED ACCEPT.

IEEE P802.3at D3.2 PoEplus comments

CI 33 SC 33.3.3.5 P72 L17 # 19
LANDRY, MATTHEW SILICON LABS

Comment Type E Comment Status D ez

The rotated "VPort_PD" is, for some reason, typeset in Times New Roman.

SuggestedRemedy

Re-set it in Arial.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 33 SC 33.3.3.5 P72 L30 # 24
LANDRY, MATTHEW SILICON LABS

Comment Type TR Comment Status D ez

The DLL diagram gets kicked off as soon as the PD enters MDI_POWER1. The DLL diagram could then quickly (within a few ms) receive a PSE TLV, which sets the pse_dll_power_type to 2. This lets the PD jump from MDI_POWER1 to MDI_POWER2.

All of this can easily happen before the tpowerdly_timer would have run out. Thus the PD will enter a high power mode prior to the PSE having exited its inrush period, resulting in an overload.

SuggestedRemedy

Do not skip the MDI_POWER_DLY state. Remove the existing pse_dll_power_type transition, and change the transition from MDI_POWER1 to MDI_POWER_DLY to (pse_power_type = 2)+(pse_dll_power_type = 2).

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 33 SC 33.3.4 P73 L45 # 74
Darshan, Yair Microsemi Corporation

Comment Type TR Comment Status D ez

Draft D3.2

Table 33-14:

Change the minimum value of Rdetect from 23.8 TO 23.7 to support legacy.

Rounding up the number is not good practice for worst case.

SuggestedRemedy

Change the minimum value of Rdetect from 23.8 TO 23.7

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Although the objective of using the same number of significant digits is a good practice, its implementation appears to "change" the requirements of 802.3-2005. The original values are referenced as a part of the guardband in line 37 just above table 33-14, causing the guardband to be within the allowable range.

Change table 33-14 entries for Rdetect minimum to 23.75 and maximum to 26.25.

CI 33 SC 33.3.4 P73 L9 # 40
Jones, Chad Cisco

Comment Type E Comment Status D ez

"A Type 2 PD presents a non-valid detection signature when in a mark event state per Figure 33-18."

move this sentence. make it the third paragraph. this keeps the general PD valid and non-valid statements together then adds mark state after completing the thought.

SuggestedRemedy

move this sentence. make it the third paragraph.

Proposed Response Response Status W

PROPOSED ACCEPT.

IEEE P802.3at D3.2 PoEplus comments

CI 33 SC 33.3.7.1 P72 L2 # 20
LANDRY, MATTHEW SILICON LABS

Comment Type E Comment Status D ez

RCh is not properly subscripted.

"The PD shall turn on or off without startup oscillation and within the first trial at any load value when fed by VPort min to VPort max (as defined in Table 33-11) with RCh (as defined in Table 33-1)."

SuggestedRemedy

Properly subscript RCh.

Proposed Response Response Status W

PROPOSED ACCEPT.

See page 78 L2.

CI 33 SC 33.3.7.3 P78 L35 # 102
Vetteth, Anoop Cisco

Comment Type TR Comment Status D ez

Should be linrush and not linrush_pd

SuggestedRemedy

Change linrush_pd to linrush

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 33 SC 33.3.7.6 P80 L24 # 103
Vetteth, Anoop Cisco

Comment Type TR Comment Status D ez

The sentence says "A Type 2 PD shall meet one of the following:"

Both conditions need to be met.

SuggestedRemedy

Change to:

A Type 2 PD shall meet both the following:

Proposed Response Response Status W

PROPOSED ACCEPT.

This was the content of D3.1.

CI 33 SC 33.3.7.6 P80 L31 # 75
Darshan, Yair Microsemi Corporation

Comment Type TR Comment Status D ez

Draft D3.2

The input voltage source upper limit is missing

SuggestedRemedy

Change from:

"The input voltage source drives VPort_PD from 50 V at 2250 V/s, the.."

To:

"The input voltage source drives VPort_PD from 50 V to 56V at 2250 V/s, the..."

Proposed Response Response Status W

PROPOSED ACCEPT.

Proposed text was in D3.1 and was inadvertently left out.

CI 33 SC 33.5.1.1.2 P93 L20 # 131
Dawe, Piers Avago Technologies

Comment Type T Comment Status D ez

Sometimes text has '1' or '0', sometimes logic one or logic zero. Why the mixture?

SuggestedRemedy

In the text, change '1' or '0' to one or zero.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 33 SC 33.5.1.1.2 P93 L34 # 130
Dawe, Piers Avago Technologies

Comment Type T Comment Status D ez

Removing some clutter. Compare Clause 45.

SuggestedRemedy

Change all 'logic one' to 'one', all 'logic zero' to 'zero'

Proposed Response Response Status W

PROPOSED ACCEPT.

IEEE P802.3at D3.2 PoEplus comments

<i>Cl</i> 99	<i>SC</i> 99	<i>P</i> 10	<i>L</i> 49	# 138
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Dawe, Piers Avago Technologies

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

There is a newer version of this page

SuggestedRemedy
Ask P802.3av for it

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

<i>Cl</i> 99	<i>SC</i> 99	<i>P</i> 3	<i>L</i> 8	# 136
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Dawe, Piers Avago Technologies

Comment Type **E** *Comment Status* **X** *ez*

One exceptions, conciously

SuggestedRemedy
One exception, conciously

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

change first sentence of second paragraph on page 3 to: "One exception to IEEE style that is conciously used to simplify."

<i>Cl</i> 99	<i>SC</i> 99	<i>P</i> 4	<i>L</i> 35	# 134
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Dawe, Piers Avago Technologies

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

I doubt that errata for all the world's standards are available at this URL.

SuggestedRemedy
Change 'all other standards' to 'all other IEEE standards'

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.
