

IEEE P802.3bt D2.1 4P-PoE 1st Working Group recirculation ballot comments

Cl 30 SC 30 P 24 L 1 # 20002
 Carlson, Steven HSD/Robert Bosch

Comment Type ER Comment Status A Editorial

It appears the entire subclause from the base document has been copied into Clause 30. It is difficult to follow the change instructions and to determine what has actually changed.

SuggestedRemedy

Follow the 802.3 editorial guidelines for changes.
http://grouper.ieee.org/groups/802/3/WG_tools/editorial/requirements/words.html

Response Response Status U

ACCEPT IN PRINCIPLE.

OBE by 139
 Comment 139 has the following response:
 ACCEPT IN PRINCIPLE.

Implement suggested remedy, with "To be removed prior to Sponsor Ballot" added to note.

Cl 33 SC 33 P 41 L 4 # 20003
 Carlson, Steven HSD/Robert Bosch

Comment Type ER Comment Status R Editorial

The replacment of the entire clause with the diff against the base standard makes it extremely difficult to tell what has actually changed due to the way that FrameMaker marks changes.

SuggestedRemedy

Provide a diff that makes it easier to determine what has changed.

Response Response Status U

REJECT.

The changes are so substantial that it does warrant a complete replacement. We proceeded in the normal amendment procedure with individual editing instructions through draft 1.5 only to discover that changes were impossible to track since we had touched the entire clause in essence. The change bar was a continous strip down the right side of the page. All of the editing markups made the draft impossible to read as well.

Cl 79 SC 79 P 208 L 1 # 20004
 Carlson, Steven HSD/Robert Bosch

Comment Type ER Comment Status A Editorial

It appears the entire subclause from the base document has been copied into Clause 79. It is difficult to follow the change instructions and to determine what has actually changed.

SuggestedRemedy

Follow the 802.3 editorial guidelines for changes.
http://grouper.ieee.org/groups/802/3/WG_tools/editorial/requirements/words.html

Response Response Status U

ACCEPT IN PRINCIPLE.

OBE by 124
 Comment 124 has the following response:
 ACCEPT IN PRINCIPLE.

Editor to add note similar to that added for clause 30. Unchanged sections will not be removed until sponsor ballot.

Cl 79 SC 79.3.7.4 P 222 L 20 # 20069
 Ran, Adee Intel

Comment Type TR Comment Status A LLDP

Does "should" here mean it is only a recommendation? Is it OK to have more than one?

Also applies to 79.3.2.7, although it is in the base document.

SuggestedRemedy

Change to "shall" unless there is no problem with having more than one.

Response Response Status U

ACCEPT IN PRINCIPLE.

No change to the draft.

Having more than one is allowed but may lead to ambiguous situations therefore, it is discouraged.

IEEE P802.3bt D2.1 4P-PoE 1st Working Group recirculation ballot comments

Cl 33A SC 33A.3 P 233 L 16 # 20071
 Ran, Adee Intel

Comment Type **TR** Comment Status **R** Annex

Seems like a normative requirement in an informative annex. Also in other subclauses of 33A.

SuggestedRemedy

Make this annex normative?

Response Response Status **U**

REJECT.

These are cabling requirements and this annex was written in a way to not include normative requirements (no shalls).

Cl 0 SC 0 P 4 L 19 # 20134
 Grow, Robert RMG Consulting

Comment Type **ER** Comment Status **A** Editorial

Obsolete front matter document list.

You also need to help the reader know what you are considering the base document to be. That is done here and/or with the WG template, in the Editor's note at the bottom of page 19.

If the Maintenance TF comes up with a plan for a 2017 revision, then the current undated revision of 802.3 on p.3, l. 38 is correct, but that contradicts the title page indicating this will be an amendment to 802.3-2015.

With amendment completions scheduled for 3/17, 7/17, and 10/17 and 802.3bt scheduled for 1/18, the revision might follow 802.3bt. So if 802.3bt is an amendment to 802.3-2015, based on timelines it will be Amendment 13. For base text, you need to assume it will be a double digit amendment anyway, (the base text of a revision draft will be the same as what you would get being amendment 13). What does potentially differ between an amendment to the next revision probably using a draft as the base for your modifications) and being amendment 13 is the numbering of subclauses, figures and tables changes from 802.3-2015.

SuggestedRemedy

Assure you are using the latest front matter text when creating the next draft.

Update the document list to eliminate 802.3bk.

Make base standard year consistent (either 2015 or 201x), though I suggest writing as an amendment to 802.3-2015. The front matter of P802.3bv/D3.0 has the latest information available as of July 2016. It also though is very likely Corrigendum 1 will be approved before P802.3bt and could also be added to the P802.3bv list. You may choose to not worry about which amendments follow 802.3bv but precede 802.3bt at this time, but you need to clearly indicate what the assumptions are for how you wrote the draft (what other amendments/corrigenga were considered).

Response Response Status **U**

ACCEPT.

IEEE P802.3bt D2.1 4P-PoE 1st Working Group recirculation ballot comments

Cl 0 SC 0 P 19 L 44 # 20135
 Grow, Robert RMG Consulting
 Comment Type ER Comment Status A Editorial
 This editorial note has not been updated for this draft (P802.3bj and P802.3bk are not running in parallel).
 SuggestedRemedy
 Either delete (if information provided in front matter document list), or update to reflect the projects and drafts considered in creating this draft.
 Response Response Status U
 ACCEPT IN PRINCIPLE.
 OBE by 87
 Comment 87 has the following response:
 ACCEPT IN PRINCIPLE.
 Remove paranthesis and specific project list.

Cl 33 SC 33.1.3.1 P 44 L 27 # 20140
 Grow, Robert RMG Consulting
 Comment Type ER Comment Status A Editorial
 The note is somewhat vague but indicates the possibility that publication editors might do an update to a normative reference.
 SuggestedRemedy
 Change note to indicate update reference prior to final Sponsor ballot recirculation, and indicate if that action is conditional on approval or TSB-184-A.
 Response Response Status U
 ACCEPT IN PRINCIPLE.
 OBE by 10
 Comment 10 has the following response:
 ACCEPT.
 Suggested remedy:
 Change reference in 33.1.3.1 to TSB-184-A and delete note.

Cl 33 SC 33.1.3.1 P 44 L 27 # 20141
 Grow, Robert RMG Consulting
 Comment Type ER Comment Status A Editorial
 I find it inconsistent that a place holder for 1.3 is included in the document, yet there is no placeholder for Annex A where this note indicates a plan to either insert a bibliography entry for TSB-184-A, or update the current bibliography entry.
 SuggestedRemedy
 Add Annex A changes to the draft indicating in an editor's note the intended update or insert. If updating the reference, assure no other projects or published standards text points to existing reference.
 Response Response Status U
 ACCEPT IN PRINCIPLE.
 OBE by 88
 Comment 88 has the following response:
 ACCEPT.
 Suggested remedy:
 Add reference to TIA TSB-184-A to the normative references and delete the editor's note, and update references in document (e.g., page 44 line 26)

Cl 33 SC 33.4.3 P 160 L 53 # 20142
 Grow, Robert RMG Consulting
 Comment Type TR Comment Status A Editorial
 P802.3bz is at RevCom, so you should verify specifications against the submitted P802.3bz draft, and if P802.3bt/D2.1 is produced after 22 September, we will know the approval status of P802.3bz.
 SuggestedRemedy
 Update specifications if required, remove note if D2.1 is produced after 22 September and P802.3bz is approved by the SASB.
 Response Response Status U
 ACCEPT.

IEEE P802.3bt D2.1 4P-PoE 1st Working Group recirculation ballot comments

Cl 33 SC 33.5.1.2 P 175 L 50 # 20143
 Grow, Robert RMG Consulting

Comment Type TR Comment Status A Pres: Law1

The Editor's note highlights a technical incompleteness that should have disqualified the draft from progressing to WG ballot. While it is admirable to highlight input being needed from WG members, this should have been done prior to ballot.

SuggestedRemedy

Unfortunately, I don't think I have a solution for you, but you need one prior to the next recirculation. All that occurs to me is to deprecate the use of Clause 22 registers, require the use of Clause 45 registers (possibly including the mapped Clause 22 registers, and get the extra registers and bits in the Clause 45 register space.

Response Response Status U

ACCEPT IN PRINCIPLE.

OBE by 335
 Comment 335 has the following response:
 ACCEPT IN PRINCIPLE.

adopt changes shown in yseboodt_08_0916_management.pdf

Cl 33 SC 33.3.8 P 154 L 42 # 21078
 Darshan, Yair Microsemi

Comment Type TR Comment Status R Pres: Darshan18

This comment is marked "Inrush_mess".
 The changes made to D2.1 Table 33-31 item 6 Inrush_PD and item Inrush_PD-2P for "PD Type" column are incorrect compared to the baselines approved on this topic at:
 (a)May 2016, http://www.ieee802.org/3/bt/public/may16/darshan_01_0516_Rev006.pdf
 (b)March 2016, http://www.ieee802.org/3/bt/public/mar16/darshan_09_0316R6.pdf

The changes in D2.1 for item 7 were made as a response to comment #522 and #523 in D2.0:
 Comment #522 from David Stover was marked as editorial and should have been technical although it was justified but not addressed properly and was OBE by comment #523 from Lennart.

Comment #523 marked as ER, but actually was technical and didn't supply explanation to the requested change and the remedy was to adopt Lennart's "remedy file" for comment #523: http://www.ieee802.org/3/bt/public/sep16/yseboodt_09_0916_commentsd2p0.pdf without supplying any clear rationale.

The changes in D2.1 for item 6 were made as a response to comment #523 in D2.0:

Checking the drafts against the above baselines show that the above baselines started to be implemented on May 2016 due to March 2016 baseline
http://www.ieee802.org/3/bt/public/may16/darshan_01_0516_Rev006.pdf:
 D1.7 item 6 was implemented correctly. Item 7 was not.
 D1.8 item 6 was implemented correctly. Item 7 was not.
 D2.0 is identical to D1.8
 D2.1 both items 6 and 7 are not according to the approved baselines above due to comment #523 from D2.0.

So first thing is to update D2.1 based on the last approved baseline from March 2016, http://www.ieee802.org/3/bt/public/mar16/darshan_09_0316R6.pdf as approved with the updates made by comments up to D1.8.

Based on my discussion with Lennart he thought that there is editorial error (one row didn't have a value for the PD Type) but he didn't check the baseline so one error led to more errors and it turned to be a major technical change in D2.1.

A later argument made by Lennart of why he proposed this change was "that this is the "assigned class" so A Type 4 SS PD will request Class 7 or 8, but if it gets power demoted to Class 6, it is still a Type 4 PD." This argument is technically incorrect (any how it can't be editorial change anymore).

Here is the problem.

A Type 4 SS PD connected to Type 4 PSE will _request_ Class 7 or 8, but if it gets power demoted to Class 6, it is still a Type 4 PD and hence still need Inrush values of class 7-8 AND NOT inrush values of class 6 because PD can't change its input capacitance and inrush circuitry as function of class..it can't work..

What if A Type 4 SS PD connected to Type 2 PSE?

In this case regardless of the PD inrush needs, The PSE can supply only 0.4A to 0.45A.

So the PD may or may not work due to inrush and also due to not sufficient power so it is

IEEE P802.3bt D2.1 4P-PoE 1st Working Group recirculation ballot comments

not important if it is the assigned class or the advertised class.
 As a result, we need to restore the types that we have in the approved base line from May 2016 with the approved comments up to D1.8.
 In addition in order to prevent confusion, we may need to consider changing the title of item 6:
 From:
 " Input inrush current as function of the assigned Class, when the PD is limiting the current during the inrush period per 33.3.8.3."
 To:
 "Input inrush current when the PD is limiting the current during the inrush period per 33.3.8.3."
 The same issues with Item 7 linrush-2P.
 This will prevent the confusion that the assigned class affect PD linrush requirements.
 The main problems that I see resulting from the changes in D2.1 in Table 33-31 items 6 and 7 are:
 1.First implement the approved baseline from May 2016. We can start the discussion from this point again.
 2. PD can't change its linrush, Inrush-2P requirements as a function of its assigned class. PD linrush and Inrush-2P are designed per the advertised class. PD can't switch Input capacitors and Inrush circuitry.
 3. One undesired outcome from the changes in D2.1 that says that Type 7,8 PDs can have assigned class 0-6 is that it opens the door to Type 4 PDs that are only permitted to be class 7 and 8, to be designed for lower classes than class 7 and work only at lower classes. It doesn't mean that PD can't work with reduced power mode when there is no class 7-8 available power but this feature has nothing to do with the assigned class feature that is not relevant to linrush function.

SuggestedRemedy

Adopt darshan_18_1116.pdf.

Response *Response Status* **U**

REJECT.

Inrush by requested class results in unwanted motorboating.

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|---------------------|-------------------------|---------------------|--------------------|-----------------------|
| <i>Cl</i> 33 | <i>SC</i> 33.3.8 | <i>P</i> 154 | <i>L</i> 42 | <i>#</i> 21079 |
| Darshan, Yair | | Microsemi | | |

Comment Type **TR** *Comment Status* **R** *Pres:* Darshan18

(Resubmitting comment #522 from David Stover so we can address it properly.)
 (I am not resubmitting #523 from Lennart due to the fact that the comment and remedy was based on the assumption that it is editorial and as a result was not discussed at all and rationale was not supplied for the change. We can address it by my comment marked "linrush_mess")
 Table 33-31 item 6 Inrush_PD class 0-6: The PD Type is "ALL" but it need to be "1,2,3" since Class 6 is only valid in Type 3 PD and not Type 4.

SuggestedRemedy

Table 33-31 item 6 Inrush_PD class 0-6:
 1. Change "PD Type" from "ALL" to "1,2,3".
 2. Group to discuss if linrush and linrush-2P need to be a function of the assigned class or not. There are issues with this concept. See darshan_18_1116.pdf.

Response *Response Status* **U**

REJECT.

See 78. Inrush by requested class results in unwanted motorboating.

IEEE P802.3bt D2.1 4P-PoE 1st Working Group recirculation ballot comments

Cl 33 SC 33.2.8 P 114 L 16 # 21080
 Darshan, Yair Microsemi

Comment Type TR Comment Status R Pres: Darshan18

Table 33-19, item 6, "Total output current of both pairsets of the same polarity in the POWER_UP state as function of assigned Class".

The "assigned class" is irrelevant here due to the fact that the PD advertised class contain the information of the PD capability to consume inrush and not the assigned class.

Example 1:

PSE Type 4 that detect single-signature class 8 need to supply the Inrush current that suitable to class 8 due to the fact that if the assigned class in this case will be e.g. 6, it doesn't change the PD inrush circuitry (including its capacitance)and it remains class 8 for Inrush matters.

Example 2:

A Type 4 SS PD connected to Type 2 PSE.

In this case regardless of the PD inrush needs, The PSE can supply only 0.4A to 0.45A.

So the PD may or may not work due to inrush and also due to not sufficient power so it is not important if it is the assigned class or the advertised class.

SuggestedRemedy

1. Change to:

"Total output current of both pairsets of the same polarity in the POWER_UP state".

OR

2. Group to find good technical arguments why to keep it as it is and review case by case i.e. for each PSE class and Type.

Response Response Status U

REJECT.

See 78. Inrush by requested class results in unwanted motorboating.

Cl 33 SC 33.2.8 P 114 L 30 # 21081
 Darshan, Yair Microsemi

Comment Type TR Comment Status R Pres: Darshan18

Table 33-19, item 7, "Output current per pairset in the POWER_UP state as function of the assigned Class".

The "assigned class" is irrelevant here due to the fact that the PD advertised class contain the information of the PD capability to consume inrush-2P and not the assigned class.

Example 1:

PSE Type 4 that detect single-signature class 8 need to supply the Inrush current that suitable to class 8 due to the fact that if the assigned class in this case will be e.g. 6, it doesn't change the PD inrush circuitry (including its capacitance)and it remains class 8 for Inrush matters.

Example 2:

A Type 4 SS PD connected to Type 2 PSE.

In this case regardless of the PD inrush needs, The PSE can supply only 0.4A to 0.45A.

So the PD may or may not work due to inrush and also due to not sufficient power so it is not important if it is the assigned class or the advertised class.

SuggestedRemedy

1. Change to:

"Output current per pairset in the POWER_UP state."

OR

2. Group to find good technical arguments why to keep it as it is and review case by case i.e. for each PSE class and Type.

Response Response Status U

REJECT.

See 78. Inrush by requested class results in unwanted motorboating.