Cl **145**   *SC* **145.2.8.7**   *P* **162**   *L*   # i-21

Waters, Keith   Schneider Electric

Comment Type **TR**   *Comment Status* **R**   *Certification*

I have concerns that PSE section 145.2.8.7 does not show any testing or
certification listing requirements. This is a potential product and fire safety issue
and needs to be addressed.

SuggestedRemedy

....at least 1 second width. Testing and a third party certification listing shall be required
to confirm overload current protection will operate correctly.

Response   *Response Status* **W**

REJECT.

This comment is out of scope.

The purpose of IEEE P802.3bt is to define interoperability, it is not to define product
requirements. In respect to safety subclause 145.6.1 'General safety' of IEEE P802.3bt
states 'All equipment subject to this clause shall conform to IEC 60950-1 or IEC 62368-1.
In particular, the PSE shall be classified as a Limited Power Source in accordance with IEC
60950-1 or IEC 62368-1 Annex Q. Equipment shall comply with all applicable local and
national codes related to safety.'. It is these referenced local and national codes that define
the requirements, not IEEE P802.3bt. The need for certification is determined by the
marketplace or regulation, and may vary by geography.

Cl **145**   *SC* **145.2.8.8**   *P* **162**   *L*   # i-22

Waters, Keith   Schneider Electric

Comment Type **TR**   *Comment Status* **R**   *Certification*

I have concerns that PSE section 145.2.8.8 does not show any testing or
certification listing requirements. This is a potential product and fire safety issue
and needs to be addressed.

SuggestedRemedy

Add: Testing and a third party certification listing shall be required
to verify the PSE operates per the requirements in this section.

Response   *Response Status* **W**

REJECT.

This comment is out of scope.

The purpose of IEEE P802.3bt is to define interoperability, it is not to define product
requirements. In respect to safety subclause 145.6.1 'General safety' of IEEE P802.3bt
states 'All equipment subject to this clause shall conform to IEC 60950-1 or IEC 62368-1.
In particular, the PSE shall be classified as a Limited Power Source in accordance with IEC
60950-1 or IEC 62368-1 Annex Q. Equipment shall comply with all applicable local and
national codes related to safety.'. It is these referenced local and national codes that define
the requirements, not IEEE P802.3bt. The need for certification is determined by the
marketplace or regulation, and may vary by geography.

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: Comment ID

Comment ID **i-22**   Page 1 of 9
3/27/2018 11:45:46 AM

Cl **145**   *SC* **145.4.2**   *P* **200**   *L*   # i-23

Waters, Keith   Schneider Electric

Comment Type **TR**   *Comment Status* **R**   *Certification*

I have concerns that section 145.4.2 does not show any testing or certification listing requirements in regard to fault tolerance. This is a potential product and fire safety issue
and needs to be addressed.

SuggestedRemedy

Add to standard: Testing and a third party certification listing shall be required.

Response   *Response Status* **W**

REJECT.

This comment is out of scope.

The purpose of IEEE P802.3bt is to define interoperability, it is not to define product requirements. In respect to safety subclause 145.6.1 'General safety' of IEEE P802.3bt states 'All equipment subject to this clause shall conform to IEC 60950-1 or IEC 62368-1. In particular, the PSE shall be classified as a Limited Power Source in accordance with IEC 60950-1 or IEC 62368-1 Annex Q. Equipment shall comply with all applicable local and national codes related to safety.'. It is these referenced local and national codes that define the requirements, not IEEE P802.3bt. The need for certification is determined by the marketplace or regulation, and may vary by geography.

Cl **145**   *SC* **145.2.5.7**   *P* **129**   *L* **42**   # i-194

Peker, Arkadiy   Microsemi Corporation

Comment Type **TR**   *Comment Status* **R**   *PSE SD*

I could not find in the text allowance for the PSE to do detection and classification and if there is any implementation specific system error, to go to IDLE. I couldn't find how currently it is covered by the state machine. As a result in the state CLASS_EVAL I propose to add exit to IDLE with the condition error condition.

SuggestedRemedy

Add exit from the state CLASS_EVAL to IDLE with the condition error condition.

Response   *Response Status* **W**

REJECT.

There is a global entry into IDLE based on the variable error_condition.

Cl **145**   *SC* **145.2.5.7**   *P* **127**   *L* **33**   # i-196

Peker, Arkadiy   Microsemi Corporation

Comment Type **TR**   *Comment Status* **R**   *PSE SD*

The text allows the PSE to do detection and if there is any implementation specific system error, to go to IDLE. This is not covered by the state machine. As a result in the exit from DETECT_EVAL to IDLE , we need to add to the condition the variable error_condition.

SuggestedRemedy

"Change from:
""(pse_alternative = both) * ((det_temp = only_one) * (sig_pri NE valid) +(det_temp = both_neither) * (sig_sec NE valid) + (((CC_DET_SEQ = 0) + (CC_DET_SEQ = 3)) * (det_temp = only_one) * tdet2det_timer_done)) + (pse_alternative = a) * (sig_pri NE valid) +(pse_alternative = b) * (sig_pri = open_circuit)""
To:
""error_condition + (pse_alternative = both) * ((det_temp = only_one) * (sig_pri NE valid) +(det_temp = both_neither) * (sig_sec NE valid) + (((CC_DET_SEQ = 0) + (CC_DET_SEQ = 3)) * (det_temp = only_one) * tdet2det_timer_done)) + (pse_alternative = a) * (sig_pri NE valid) +(pse_alternative = b) * (sig_pri = open_circuit)"""

Response   *Response Status* **W**

REJECT.

There is a global entry based on error_condition into IDLE that covers this.

Cl **145**   *SC* **145.2.6**   *P* **141**   *L* **29**   # i-203

Peker, Arkadiy   Microsemi Corporation

Comment Type **TR**   *Comment Status* **A**   *PSE Detection*

We have the following text: "Also, a PSE may successfully detect a PD but then opt not to power the detected PD.". We need similar text for the classification i.e. "A PSE may successfully detect and classify a PD but then opt not to power that PD. " to be added at the end of clause 145.2.7 page 148 after line 38.

SuggestedRemedy

Add the following text in 145.2.7 page 148 after line 38: "A PSE may successfully detect and classify a PD but then opt not to power that PD. "

Response   *Response Status* **W**

ACCEPT IN PRINCIPLE.

Change existing sentence to: "Also, a PSE may successfully detect a PD or detect and classify a PD, but then opt not to power the detected PD."

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: Comment ID

Comment ID **i-203**   Page 2 of 9
3/27/2018 11:45:46 AM

Cl **145**　　*SC* **145.2.8.5**　　　　*P* **156**　　*L* **51**　　# i-204

Peker, Arkadiy　　　　　　　　Microsemi Corporation

Comment Type **TR**　　*Comment Status* **R**　　　　*Pres: Darshan9*

"Equation 145-8 contains the parts that allow us to calculate the value of Icon-2P in case of operating over 2-pairs and for the dual-signature case.
However, for the most important use case which is operating over 4-pairs.
Equation 145-8 contains the part ""Icon-2P=min(Icon - IPort-2P-other, ICon-2P-unb) when operating over 4-pairs.
-Icon is defined in Equation 145-9.
-Icon-2P_unb is defined in Table 145-16 item 5.
There is no information to find the value of Icon-2P_other in order to calculate the value of Icon-2P. As a result, the spec is broken."

SuggestedRemedy

Adopt darshan_09_0917.pdf

Response　　　　　　　*Response Status* **U**

REJECT.

No consensus for change.

Cl **145**　　*SC* **145.2.5.4**　　　　*P* **113**　　*L* **40**　　# i-249

Peker, Arkadiy　　　　　　　　Microsemi Corporation

Comment Type **TR**　　*Comment Status* **A**　　　　*PSE SD*

In the variable option_probe_alt_sec definition:
"option_probe_alt_sec
This variable indicates if the PSE will continue to detect and conditionally class on the Secondary Alternative in the event an invalid detect or class result is found on the Primary Alternative. This variable applies to CC_DET_SEQ = 3.
Values:
FALSE: PSE does not probe the Secondary Alternative if an invalid signature is found on the Primary Alternative.
TRUE: PSE does probe the Secondary Alternative if an invalid signature is found on the Primary Alternative." we have few issues:
1) The definition text says "in the event an invalid detect or class result is found" is not reflected in the text that defines the TRUE and FALSE. Only the "invalid detection" is addressed.
2) The text " if an invalid signature is found" in the TRUE and FALSE definition is not logically accurate and can lead to wrong interpretation. It should be " if an invalid signature will be found" since this variable can be set in system config phase or on the fly, but the current definition may be interpreted as this parameter can be configured only on the fly as function of the result of primary detection signature result if valid or not."

SuggestedRemedy

Change the TRUE and FALSE definition from:
"FALSE: PSE does not probe the Secondary Alternative if an invalid signature is found on the Primary Alternative.
TRUE: PSE does probe the Secondary Alternative if an invalid signature is found on the Primary Alternative."
To:
"FALSE: PSE does not probe the Secondary Alternative if an invalid detection signature or classification will be found on the Primary Alternative.
TRUE: PSE does probe the Secondary Alternative if an invalid detection signature or classification will be found on the Primary Alternative"

Response　　　　　　　*Response Status* **W**

ACCEPT IN PRINCIPLE.

Change TRUE and FALSE definitions to:
FALSE: PSE does not probe the Secondary Alternative if an invalid detection signature is found on the Primary Alternative or classification is invalid on the Primary Alternative.
TRUE: PSE does probe the Secondary Alternative if an invalid detection signature is found on the Primary Alternative or classification is invalid on the Primary Alternative.

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: Comment ID

Comment ID **i-249**　　　Page 3 of 9
3/27/2018 11:45:46 AM

Cl **145**	*SC* **145.2.5.3**	*P* **109**	*L* **42**	*#*	i-253

Peker, Arkadiy   Microsemi Corporation

Comment Type **TR**   *Comment Status* **A**   *PSE SD*

This comment is an update to the comment that requires to delete Figure 145B-3:
Per the definition of CC_DET_SEQ=0 for dual-signature, the detection need to be parallel and not staggered and this contradicts figure 145B-3 that is shown as one of the staggered detection versions. So we have two options to resolve this:
a) To delete figure 145B-3 to sync with CC_DET_SEQ=0 definition for dual-signature PDs and also update state machine which will be complicated task at this point of time. OR,
b) (Preferred) Keep Figure 145B-3, and change the ""CC_DET_SEQ=0 definition that to allow staggered detection in addition to parallel detection which currently is supported by the state machine."

SuggestedRemedy

Change "Connection Check is followed by staggered detection for a single-signature PD and parallel detection for a dual-signature PD."
To: Connection Check is followed by staggered detection for a single-signature PD and parallel or staggered detection for a dual-signature PD."

Response   *Response Status* **W**

ACCEPT.

Cl **Patents**	*SC* **Patents**	*P* **3**	*L* **46**	*#*	i-316

Crayford, Ian   Network Generation L

Comment Type **GR**   *Comment Status* **R**   *IP*

*** Comment submitted with the file 94180000003-802.3bt - Crayford Ballot Comments.xls attached ***

This is a general comment regarding Intellectual Property.
The use of PoE has been the subject of multiple litigations from NPEs (Non Practicing Entities), otherwise known as "Patent Trolls".
Two in particular, Chrimar Systems and Network 1, have litigated against a significant group of companies in the Ethernet industry who ship products that implement PoE.
Since 802.3bt increases the available power, this will no doubt attract new companies to utilize PoE in many new applications.
What assurances have been made by companies who believe they have intellectual property that relates to 802.3bt (by at least Chrimar Systems and Network 1), such that licensing under RAND terms can be secured?

SuggestedRemedy

Issue a much stronger warning indicating the use of 802,3bt may result in alleged infringement of Intellectual Property,

Response   *Response Status* **W**

REJECT.

The process for requesting an LOA for the IEEE P802.3bt project has been followed in respect to the two holders of potentially essential patent claims named in this comment, as well as for all other holders of potentially essential patent claims identified during this project.

The IEEE is not responsible for: (a) identifying Essential Patent Claims for which a license may be required; (b) determining the validity, essentiality, or interpretation of Patent Claims; or (c) determining whether any licensing terms or conditions provided in connection with submission of a Letter of Assurance, if any, or in any licensing agreements are reasonable or non-discriminatory; or (d) determining whether an implementation is a Compliant Implementation. See subclause 6.2 'Policy' of the IEEE-SA Standards Board Bylaws <http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6.2>.

Discussion or other communications regarding: (a) the status or substance of ongoing or threatened litigation; and (b) the essentiality, interpretation, or validity of Patent Claims; is prohibited during IEEE-SA standards-development meetings or other duly authorized IEEE-SA standards-development technical activities. See subclause 6.2 'Policy' of the IEEE-SA Standards Board Bylaws <http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6.2> and subclause 5.3.10.2 'Discussion of litigation, patents, and licensing' of the IEEE-SA Standards Board Operations Manual <https://standards.ieee.org/develop/policies/opman/sect5.html#5.3.10.2>.

The text contained in the 'Notice and Disclaimer of Liability Concerning the Use of IEEE Standards Documents' in respect to patents is mandated by subclause 6.3.1 'Public notice'

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: Comment ID

Comment ID **i-316**   Page 4 of 9
3/27/2018 11:45:46 AM

of the IEEE-SA Standards Board Operations Manual <https://standards.ieee.org/develop/policies/opman/sect6.html#6.3.1> and as such suggestions for change to this text should be directed to the IEEE-SA Standards Board Patent Committee Administrator at <patcom@ieee.org>.

Cl **30**　　*SC* **30.12.3.1.18q**　　*P* **53**　　*L* **38**　　# i-363
Thompson, Geoffrey　　　　　　　Individual

Comment Type　**ER**　　*Comment Status* **A**　　　　　*Management*
Incorrect distinction between analog and digital parameter (i.e. measure vs. count).

SuggestedRemedy
Change text to read: "A GET attribute that indicates the number of seconds the ..."

Response　　　　*Response Status* **W**
ACCEPT.

Cl **145**　　*SC* **145.1.3**　　*P* **97**　　*L* **49**　　# i-371
Thompson, Geoffrey　　　　　　　Individual

Comment Type　**ER**　　*Comment Status* **A**　　　　　*Editorial*
This is not the "definition" of Icable, it is the specification.

SuggestedRemedy
Change the word "defined" to "specified".

Response　　　　*Response Status* **W**
ACCEPT IN PRINCIPLE.
ACCEPT IN PRINCIPLE.

Change as follows:

"I Cable, specified in Table 145-1, is the current on one twisted pair in the balanced twisted-pair cable. ."

"I Cable is the highest nominal current on a pair for a system without pair-to-pair current unbalance. ."

This resolution is identical to comment #45.

Cl **145**　　*SC* **145.4.2**　　*P* **200**　　*L* **29**　　# i-382
Thompson, Geoffrey　　　　　　　Individual

Comment Type　**TR**　　*Comment Status* **R**　　　　　*AES*
System fault tolerance specifications should be specified here.

SuggestedRemedy
Change the opening text to read: "Each conductor pair of the link section or a PI of a PoE system shall meet the fault tolerance requirements of ...

Response　　　　*Response Status* **U**
REJECT.

We specify everything at the PI, we can't put requirements on conductor pairs of the link section.

Cl **145**　　*SC* **145.4.9**　　*P* **206**　　*L* **22**　　# i-390
Thompson, Geoffrey　　　　　　　Individual

Comment Type　**ER**　　*Comment Status* **R**　　　　　*AES*
Much of the text in this clause is superficial, unnecessary and/or redundant.

SuggestedRemedy
Clean up the text and remove any text that is not an additional requirement specific to midspans.

Response　　　　*Response Status* **U**
REJECT.

No consensus for change.

Cl **145**　　*SC* **145.4.9**　　*P* **206**　　*L* **22**　　# i-391
Thompson, Geoffrey　　　　　　　Individual

Comment Type　**TR**　　*Comment Status* **R**　　　　　*AES*
Reduce the midspan aspects of the spec to two simple statements, the effect a midspan can have on the acceptance test for a permanent link and effect a midspan can have on the acceptance test for a cord that meets standards allowances.

SuggestedRemedy
Prune the text so that the cabling acceptance tests (to be called out by reference) are the control.

Response　　　　*Response Status* **U**
REJECT.

No consensus for change.

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: Comment ID

Comment ID **i-391**　　Page 5 of 9
3/27/2018 11:45:46 AM

Cl **145** *SC* **145.2.8.5.1**   *P* **158** *L* **47** # i-392
Thompson, Geoffrey   Individual

Comment Type **ER** *Comment Status* **A**   *Pres: Yseboodt2*

This seems like an attempt to control the system imbalance (which is controlled by the combined specifications of the three elements, one of which is externally specified) from within the PSE spec.

SuggestedRemedy

This is all valuable tutorial material that would be valuable for further work on the topic so it should be moved (with suitable editing) to an informative annex.

Response   *Response Status* **W**

ACCEPT IN PRINCIPLE.

Adopt yseboodt_02_0917_Figure_145_22.pdf

This resolution is identical to comment #110.

[Editor's note added after comment resolution completed.

The full URL for the file FILE_NAME.pdf is
http://www.ieee802.org/3/bt/public/sep17/yseboodt_02_0917_Figure_145_22.pdf]

Cl **145** *SC* **145.2.8.5.1**   *P* **161** *L* **2** # i-393
Thompson, Geoffrey   Individual

Comment Type **ER** *Comment Status* **A**   *Pres: Yseboodt2*

Figure 145-22. This figure is very valuable in understanding the overall problem of resistance imbalance in a PoE system, however it doesn't help with the problem of designing a PSE when one has no control of the link section or the PD.

SuggestedRemedy

Tutorial material that would be valuable for further work on the topic. It should be moved to an informative annex.

Response   *Response Status* **W**

ACCEPT IN PRINCIPLE.

Adopt yseboodt_02_0917_Figure_145_22.pdf

This resolution is identical to comment #110.

[Editor's note added after comment resolution completed.

The full URL for the file FILE_NAME.pdf is
http://www.ieee802.org/3/bt/public/sep17/yseboodt_02_0917_Figure_145_22.pdf]

Cl **145** *SC* **145.3.8.6**   *P* **204** *L* **52** # r01-393
Lemahieu, Joris   ON Semiconductor

Comment Type **GR** *Comment Status* **R**   *Pres: Yseboodt4*

What is the benefit of defining TR3?
TR1 and TR2 cover long ("lasting more than 250 is") transients related to the switchover of backup power supplies.
TR3 is a very fast (0.71us is way below 250us and even 30us). For relatively fast transients related to load changes one would expect the initial and final voltage to be the same and having a lower intermediate voltage. If the fall and rise times are small, one would not expect the Cport to discharge and recharge much.
Peak currents way below Ilim are listed and expected to happen.
For the rest the definition seems completely arbitrary: where do the 5A 1.5ohm and 4ms come from. Also how should the 1.5ohm and 5A be interpreted for single signature and dual signature?
The definition of TR3 needs to be reworked completely anyhow.

SuggestedRemedy

I think it is better to just delete the TR3 requirement.

Response   *Response Status* **U**

REJECT.

The comment resolution group believes that deleting the requirement can lead to system interoperability issues.

Cl **145** *SC* **145.3.8.3**   *P* **209** *L* **34** # r02-69
Peker, Arkadiy   Microsemi Corporation

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

The objective of the following text is missing (charging within Tinrush) "A PSE limits the inrush current to IInrush and IInrush-2P, defined in Table 145-16, which is sufficient current to charge CPort or CPort-2P to VPort_PSE-2P when ...."

SuggestedRemedy

Change from:
"A PSE limits the inrush current to IInrush and IInrush-2P, defined in Table 145-16, which is sufficient current to charge CPort or CPort-2P to VPort_PSE-2P...."
To:
"A PSE limits the inrush current to IInrush and IInrush-2P, defined in Table 145-16, which is sufficient current to charge CPort or CPort-2P to VPort_PSE-2P within TInrush_PD max when...."

Response   *Response Status* **W**

ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Comment ID* **r02-69** Page 6 of 9
COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   3/27/2018 11:45:46 AM
SORT ORDER: Comment ID

Cl **145** *SC* **145.4.1** *P* **217** *L* **39** # r02-70

Peker, Arkadiy   Microsemi Corporation

Comment Type **TR** *Comment Status* **A** *Pres: Darshan2*

The requirement in "Dual-signature PDs shall have less than or equal to 10 uA of current between any one conductor of Mode A and any one conductor of Mode B when VPD, as defined in 145.1.3, of either Mode is less than VOff_PD min, as defined in Table 145-29. See Table 79-6f." is impossible to meet due to the following reasons:
There are diodes between some of the pins that are low impedance. It should be isolated between pairs of the same polarity that the PSE is required to support only i.e. the requirement should be the minimum requirement to keep interoperability.

SuggestedRemedy

Change from: "Dual-signature PDs shall have less than or equal to 10 uA of current between any one conductor of Mode A and any one conductor of Mode B when VPD, as defined in 145.1.3, of either Mode is less than VOff_PD min, as defined in Table 145-29. See Table 79-6f."
To: "Dual-signature PDs shall have less than or equal to 10 uA of current between any negative pairs when VPD, as defined in 145.1.3, of either Mode is less than VOff_PD min, as defined in Table 145-29. See Table 79-6f."

Response   *Response Status* **W**

ACCEPT IN PRINCIPLE.

Add sentence "The PSE shall meet all specifications related to current on the negative pair or pairs unless otherwise noted." as a new paragraph at the end of the PSE PI section (145.2.4).

On Page 217, line 39
Change: Dual-signature PDs shall have less than or equal to 10 uA of current between any one conductor of Mode A and any one conductor of Mode B when VPD, as defined in 145.1.3, of either Mode is less than Voff_PD min, as defined in Table 145-29.

To: Dual-signature PDs shall have less than or equal to 10 uA of current between any negative conductor of Mode A and any negative conductor of Mode B when VPD, as defined in 145.1.3, is less than Voff_PD min, as defined in Table 145-29, on either mode.

Cl **1** *SC* **1.4.289** *P* **24** *L* **29** # r02-85

Thompson, Geoffrey   Individual

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

The definition for "link section" has been updated in the revision of 802.3 (Ref: P802.3cj, cl. 1.4.289 quoted below) therefore the change to the base standard requested on page 24, line 29 (1.4.254) is not needed.

1.4.289 link section: The point-to-point medium connection between the active PSE Power Interface (PI) and the PD PI.

SuggestedRemedy

Remove the change to the base standard detailed on page 24, lines 28 through 31 (labeled as cl. 1.4.254) from the draft for P802.3bt.

Response   *Response Status* **W**

ACCEPT IN PRINCIPLE.

Editor to update amendment to be based on 802.3-2018 current revision.

Change definition of link section to:
link section: The portion of the link segment from the PSE to the PD.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general *Comment ID* **r02-85** Page 7 of 9
COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn 3/27/2018 11:45:46 AM
SORT ORDER: Comment ID

Cl **145**　　*SC* **145.2.8**　　　　*P* **163**　　*L* **11**　　　# r03-40

Yseboodt, Lennart　　　　　　Philips Lighting

Comment Type **TR**　　*Comment Status* **A**　　　　*PSE Power*

OOS

There is no guidance on what to do in case when a fault occurs that causes the PSE to flip to two-pair (*_SEMI_PWRON state).
Would suggest to revert back to PClass in this case.

This provides guidance both for a case where power is managed through DLL or through Autoclass.
This is only required for Class 5-8.

SuggestedRemedy

Insert new sentence on line 12:
"When the PSE assigned Class 5 through 8 prior to a fault and then transitions to PRIMARY_SEMI_PWRON or SECONDARY_SEMI_PWRON, it shall revert the allocation of power to PClass per the assigned Class."

Response　　　　　　*Response Status* **U**

ACCEPT IN PRINCIPLE.

Insert new paragraph on line 12:
"When the PSE assigned Class 5 through 8 prior to a fault and then transitions to PRIMARY_SEMI_PWRON or SECONDARY_SEMI_PWRON, it reverts the allocation of power to Pclass per the assigned Class with a maximum value of Class 4 and asserts local_system_change to update PSEAllocatedPowerValue."

Cl **145**　　*SC* **145.1.4**　　　　*P* **115**　　*L* **14**　　　# r03-69

Brillhart, Theodore　　　　　　Fluke Corporation

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

While the ISO/IEC TS 29125 Technical Specification 'Information technology -- Telecommunications cabling requirements for remote powering of terminal equipment' provides guidance for remote powering on new cabling installations and renovations ISO/IEC JTC1 SC25 WG3 is working on a revision of the ISO/IEC 14763-2 standard 'Information technology -- Implementation and operation of customer premises cabling -- Part 2: Planning and installation' which is currently in the committee draft balloting stage.

This revision to the standard will add the requirements and recommendations for the specification, planning, installation and administration of cabling intended to support currents per conductor of up to 500 mA. It mandates those requirements for all installations of cabling into new buildings and refurbishment of existing infrastructure.

Subclause 145.1.4 Cabling requirements states 'Under worst-case conditions, Type 3 operation requires a 10 degree C reduction in the maximum ambient temperature when all cable pairs are energized at ICable (see Table 145-1), or a 5 degree C reduction in the maximum ambient temperature when half of the cable pairs are energized at ICable.'

This statement is not correct since the 10 degree C reduction covers a 100 cables bundle in air (ventilated) and therefore does not correspond to worse case conditions. Instead a reference to ISO/IEC 14763-2 should be made as this provides guidance on installations in all configurations.

SuggestedRemedy

Change the second paragraph of 145.1.4 to read 'Requirements for the planning of all types of PSEs are provided in ISO/IEC CD 14763-2 supported by the information in ISO/IEC TS 29125 and TIA TSB-184-A, as well as applicable local codes and regulations, e.g., ANSI/NFPA 70 - National Electric Code(R) (NEC(R)) for more information.'

Response　　　　　　*Response Status* **W**

ACCEPT IN PRINCIPLE.

Change paragraph at line 9 to:
Cable ambient operating temperature guidelines for Type 3 and Type 4 operation are provided in ISO/IEC TS 29125 [B48]3, TIA TSB-184A [Bx1]. For Type 3 and Type 4 PoE systems, managing the temperature rise can require a reduction in the maximum number of cables bundled. See ISO/IEC TS 29125, TIA TSB-184-A, as well as applicable local codes and regulations, e.g., ANSI/NFPA 70 - National Electric Code® (NEC®) for more information.

Add as new paragraph at line 16:
Planning considerations for PoE systems are provided in ISO/IEC CD 14763-2 supported by the information in ISO/IEC TS 29125 and TIA TSB-184-A, as well as applicable local codes and regulations.

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: Comment ID

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Cl **145**　　　*SC* **145.6.5**　　　　　*P* **259**　　*L* **3**　　　# r03-70

Peker, Arkadiy　　　　　　　　　　Microsemi Corporation

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

The text "The AC component is up to 175 Vp at 20 Hz to 60 Hz with a 100 ohm source resistance." is missing the fact that the AC voltage which is the ringing voltage is not continuous and has a cadence spec (duty cycle like but with integer number of AC cycles for the on time and off time which may be in the range of 2 sec on , 4sec off or 1sec on, 4 sec off i.e. a ratio of 0.2 to 0.33) which actually significantly reduces the average power dissipation on the device when applied. In addition, the test time is not defined. It doesn't make sense that the test time is infinite since this components are became very hot and may cause fire hazard.

SuggestedRemedy

Change from: "The AC component is up to 175 Vp at 20 Hz to 60 Hz with a 100 ohm source resistance."
To:
Option 1: Without definition for test time.
 "The AC component is up to 175 Vp at 20 Hz to 60 Hz with a cadence spec per the relevant national standard with a 100 ohm source resistance."
Option 2: With definition for test time.
 "The AC component is up to 175 Vp at 20 Hz to 60 Hz with a 100 ohm source resistance with a cadence spec per the relevant national standard, for a test time duration greater than 5 minutes.

Response　　　　　*Response Status*　**W**

ACCEPT IN PRINCIPLE.

Delete 145.6.5.

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
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