Baseline Comment Bucket

Contributors

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Agenda

- Patent Policy
  - http://standards.ieee.org/board/pat/pat-slideset.pdf
- Comments

Comment Bucket Buckets

- Easy stuff
  - Comments 15, 12, 141
- Detection stuff
  - Comments 124, 13

Easy Comment 15

Cl **33**	*SC* **4.2**	*P* **67**	*L* **1**	# 15
LANDRY, MATTHEW		SILICON LABS		

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

The IEC 60060 does not have a year associated with it.

SuggestedRemedy

Please clarify the exact year of issue.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Editor to find year or seek help finding correct year.

- Reference in question:

> Each wire pair shall withstand, without damage, a 1000V common-mode impulse applied at Ecm of either polarity (as indicated in Figure 33–13). The shape of the impulse shall be (0.3/50) µs (300 ns virtual front time, 50 µs virtual time or half value), as defined in IEC 60060, where *E*cm is an externally applied AC voltage as shown in Figure 33–13.

- If no year referenced, refer to most recent year
- We should create a “year of the standard” bucket for appropriate consideration by knowledgeable parties

Easy Comment 12, 141

Cl 33 SC 3.4.1 P 56 L 32
LANDRY, MATTHEW SILICON LABS

Comment Type T *Comment Status* D

The Usage column in Table 33-10 adds no value.

SuggestedRemedy

Remove it.

Cl 33 SC 3.4.1 P 56 L 34 # 141
Schindler, Fred Cisco Systems

Comment Type TR *Comment Status* D *baseline*

Table 33-10 is not clear. Why is a range of maximum stated? Maximum is a single value per class. Some people assume the lower bound is a minimum power requirement and this is incorrect. The minimum power required to maintain PSE powering is covered in 33.3.6.

SuggestedRemedy

Only state the maximum class power allowed. Replace the third column with:
Maximum power used by the PD (W)
12.95
3.84
6.49
12.95
TBD

Table 33–10—PD power classification

Class	Usage	Range of maximum power used by the PD
0	Default, Type 1	0.44 W to 12.95 W
1	Type 1	0.44 W to 3.84 W
2	Type 1	3.84 W to 6.49 W
3	Type 1	6.49 W to 12.95 W
4	Type 2	12.95 W to 29.5 W

- "Usage" column of similar Table 33-3 was removed with D0.9/#163
- "Range of maximum power" phraseology, while technically accurate, is definitely confusing to the average reader (and customer)
- Accept both in principle, resulting in:

Class	Maximum Power Available to PD
0	12.95 W
1	3.84 W
2	6.49 W
3	12.95 W
4	29.5 W

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Detection Comment 124

Cl **33**	*SC* **2.5.1**	*P* **33**	*L* **51**	# 124
Schindler, Fred		Cisco Systems		

Comment Type **TR** *Comment Status* **D** *baseline*

The existing section on PD detection requires specific design requirements that are not necessary to ensure interoperability. Other detection methods have been disclosed:
http://www.ieee802.org/3/poep_study/public/sep05/naegeli_1_0905.pdf
The IEEE specification should ensure requirements for interoperability are in place.

This comment also affects text in section 33.3.3, p54, L18.

SuggestedRemedy

Reference the PD model shown in figure 33-10, and require that the PSE detect values of Rpd_d for all permissible values of Cpd_d as specified in table 33-2.

Remove the text requiring two values but continue to provide guidance for designs that use the two probe method.

Proposed Response *Response Status* **O**

- As Fred points out, other methods have been shown
- Other methods are actually on the market
- We define what a PD must look like and what a PSE must identify
- Why should we mandate how to do it?
- Recommend someone works on an alternate text proposal for group evaluation
- Eagerly await suggested text

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Detection Comment 13

Cl **33** *SC* **2.5** *P* **33** *L* **5** # 13

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Comment Type **TR** *Comment Status* **D** *baseline*

A PSE performing detection should be able to provide two characteristics.

(1) Probing into a short circuit won't destroy the PSE or the source of the short.

(2) Two PSEs probing the same link segment should not result in a 25kohm differential impedance.

The probing voltage (Vvalid and Voc) and short circuit current limit defined in Table 33-2 accomplish (1). A simple shall statement can accomplish (2).

Instead we have some schematics (Figs 33-8 and 33-9) and a normative statement requiring conformance to them. This sure sounds like mandating an implementation -- and unnecessarily at that.

SuggestedRemedy

Strike Figs 33-8 and 33-9 or add a NOTE mentioning that they are informative only.

Strike Thevenin shall statement on line 45.

Add the following shall: A PSE shall present a non-valid signature as defined in Table 33-9 in all detection states.

Note that current PSEs conforming to the Thevenin circuits currently mandated will still satisfy this new shall.

Proposed Response *Response Status* **O**

- Not required for current limitation
- Does not force misdetects
- Does not force detects
- PICs testable?
- Suggested remedy "shall" statement may also be difficult to test
- Eagerly await suggested text

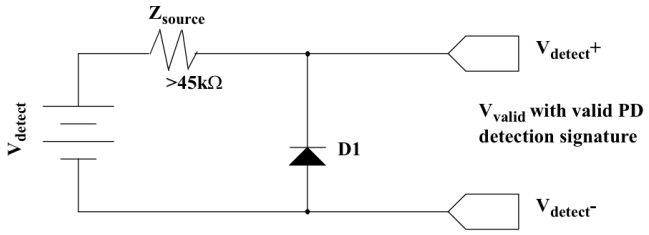

Figure 33–8—PSE detection source

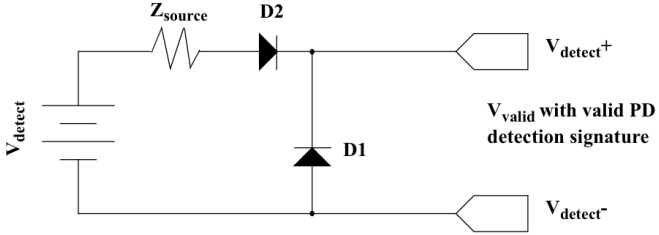

Figure 33–9—Alternative PSE detection source

The PSE shall exhibit Thevenin equivalence to one of the detection circuits shown in Figure 33–8 or Figure 33–9 in all detection states.