C/ FM SC FM P 13 L 34 # r01-1 C/ 1 SC 1.4.415 P 20 L 36 # r01-3 Anslow, Peter Ciena Corporation Anslow, Peter Ciena Corporation Comment Status A Comment Type Ε ezbucket Comment Type Ε Comment Status A ezbucket The em-dash between the amendment number and "This" should not be preceded or Comment i-3 was ACCEPT but the part: In 1.4.415, change "IEEE 802.3" to IEEE Std 802.3" followed by a space. "Amendment 3--This" is shown correctly. Amendments 4 through 8 are not. has not been implemented. SuggestedRemedy SuggestedRemedy Remove the spaces around the em-dashes in Amendments 4 through 8. In 1.4.415, change "IEEE 802.3" to IEEE Std 802.3" Response Response Status C Response Response Status C ACCEPT. ACCEPT. SC FM SC 30.2.5 C/ FM P 19 L 8 # r01-8 C/ 30 P 25 L 13 # r01-4 Dove, Daniel Linear Technology Anslow, Peter Ciena Corporation Comment Type Comment Type Comment Status A ezbucket Comment Status A ezbucket In the title "Single Balanced Twisted Pair Ethernet" does not hyphenate Twisted-Pair the cross-reference to "Table 30-10" should be underlined and the "." at the end of the despite the fact its descriptive of the type of wire. sentence is missing. SuggestedRemedy SugaestedRemedy Search/Replace "Twisted Pair" with "Twisted-Pair" where appropriate. Underline "Table 30-10" and add the "." P12L9,P19L8,P27L48, P37L51, P38L5, P41L1, P73L2, P73L8, P73L37, P74L27 Response Response Status C Response Response Status C ACCEPT. ACCEPT IN PRINCIPLE. C/ 30 SC 30.15.1.1.9 P 29 L 54 # r01-5 Editor given license where appropriate to implement suggested remedy. Ciena Corporation Anslow, Peter C/ 1 P **20** # r01-2 SC 1.4.338 L 29 Comment Type E Comment Status A ezbucket Anslow. Peter Ciena Corporation A ":" has been added after "(see 104.4.3.3)." but this is not the end of the BEHAVIOUR DEFINED AS: section (which is on the next page). Comment Type Comment Status A ezbucket SuggestedRemedy the cross-reference to "Clause 104" should be underlined. Change "(see 104.4.3.3).;" to "(see 104.4.3.3)." SuggestedRemedy Response Response Status C Underline "Clause 104" ACCEPT. Response Response Status C ACCEPT.

C/ 30 SC 30.15.1.2.1 P 31 L 14 # r01-38 C/ 104 SC 104.3 P 44 L 18 # r01-16 Gardner, Andrew Linear Technology Gardner, Andrew Linear Technology Comment Type ER Comment Status A ezhucket Comment Type Comment Status A nonezhucket The symbol 'aPoDLPSEAdminControl' is associated with an action, so the proper symbol Usage of min and max in Table 104-1 is inconsistent with regards to VPSE, PClass, and prefix is 'ac' instead of 'a'. SuggestedRemedy SuggestedRemedy Change 'aPoDLPSEAdminControl' to 'acPoDLPSEAdminControl' in 30.15.1.2.1 and Make PClass into PClass(min), PPD into PPD(max). Change foot note for VPSE(max) to read as follows: globally. Response Response Status C "VPSE(max) is the maximum allowed voltage at the PSE PI over the full range of operating ACCEPT IN PRINCIPLE. conditions." Editor given license where appropriate to implement suggested remedy. Add new footnote for PClass to read as follows: C/ 45 SC 45.2.7b.2.1 P 35 L 49 # r01-9 "PClass(min) is the minimum average available output power at the PSE PI." Dove. Daniel Linear Technology Change PPD footnote to read as follows: Comment Type Comment Status A notezbucket While possibly out of scope, it occurs to me that the first sentence is not as explicit as it "PPD(max) is the maximum average available power at the PD PI." should be and perhaps even technically incorrect. Response Response Status C SuggestedRemedy ACCEPT IN PRINCIPLE. Replace "voltage" with "application of full operating voltage" Editor given editorial license to implement suggested remedy. Response Response Status C ACCEPT. C/ 104 P 44 SC 104.3 L 18 # r01-18 Gardner, Andrew Linear Technology Cl 45 SC 45.2.7b.3 P 37 L 20 # r01-10 Comment Type TR Comment Status A ezbucket Dove. Daniel Linear Technology Pclass for Class 4 is incorrect (must've been a typo by the editor). Comment Type Ε Comment Status A ezbucket SuggestedRemedy The table is not technically correct in the fact that "1xx" is reserved, but "111" (which falls into the set of 1xx) is not reserved. I think it would be accurate to replace "1xx = Reserved" Change Pclass value for Class 4 from 11.4W to 1.14W. with two lines that explicitly show reserved values. Response Response Status C

ACCEPT.

Replace "1xx = Reserved" with 110 = Reserved, 10x = Reserved" in the table and include that information in the explanatory text by adding "Values of '10x' and '110' are reserved."

Response Status C

SuggestedRemedy

ACCEPT.

Response

to the end of the paragraph in 45.2.7b.3.2

ezbucket

C/ 104

C/ 104 SC 104.4.3.1 P 45 L 21 # r01-19

Gardner, Andrew Linear Technology

Comment Type Т Comment Status A

SC 104.4.3.3

nonezbucket

r01-20

The text "Additionally, while full operating voltage is applied, the PSE monitors the current drawn and removes power if it detects an overload, short-circuit or other fault," implies that the PSE may not monitor current drawn when applying a voltage other than the full operating voltage which is not the case.

SuggestedRemedy

Change text to read "Additionally, while voltage is applied, the PSE monitors the current drawn and removes power if it detects an overload, short-circuit or other fault."

Response Response Status C ACCEPT.

P 45 # r01-11 C/ 104 SC 104.4.3.3 L 28

Linear Technology Dove, Daniel

Comment Type Comment Status A Ε ezbucket

typo

SuggestedRemedy

replace "a" with "an" in both sentences in this definition.

Response Status C

ACCEPT IN PRINCIPLE.

Comment refers to overload detected on page 46, line 28. Change to:

"overload detected

TRUE: The PSE has detected an overload condition (see 104.4.6.2.1).

FALSE: The PSE has not detected an overload condition."

Gardner, Andrew Linear Technology Comment Type Comment Status A

P 45

L 33

The definition of detection done TRUE or FALSE states that:

"TRUE: the detection sequence has terminated since the last entry to the IDLE state either as a result of a valid signature being detected, an invalid signature being detected, or the tdet timer timing out.

FALSE: the detection sequence has not terminated since the last entry to the IDLE state either as a result of a valid signature being detected, an invalid signature being detected, or the tdet timer timing out.

But the detection state diagram in Figure 104-5 shows that detection done is TRUE when a valid signature has been detected or an invalid signature has been detected which is the result of the tdet timer timing out.

SuggestedRemedy

Change the text for detection done from:

"TRUE: the detection sequence has terminated since the last entry to the IDLE state either as a result of a valid signature being detected, an invalid signature being detected, or the tdet timer timing out.

FALSE: the detection sequence has not terminated since the last entry to the IDLE state either as a result of a valid signature being detected, an invalid signature being detected, or the tdet timer timing out."

to:

"TRUE: the detection sequence has terminated since the last entry to the IDLE state either as a result of a valid or invalid signature being detected.

FALSE: the detection sequence has not terminated since the last entry to the IDLE state either as a result of a valid or invalid signature being detected."

Response Response Status C

ACCEPT.

C/ 104 SC 104.4.3.3 P 45 L 39 # r01-21 C/ 104 SC 104.4.3.3 P 47 L 19 # r01-23 Gardner, Andrew Linear Technology Gardner, Andrew Linear Technology Comment Type Comment Status A nonezbucket Comment Type TR Comment Status A nonezbucket The definition do classification done TRUE or FALSE states that: The defnition of power available TRUE or FALSE states: TRUE: following a valid detection sequence, the PSE has concluded serial communication "TRUE: A compatible PSE class to PD class pairing exists as defined in Table 104-2 and after performing a read of the PD information and any additional implementation dependent the PSE is able to source the required voltage and power. read or write commands. FALSE: A valid PSE class to PD class pairing does not exist as defined in Table 104-2 or FALSE: following a valid detection sequence, the PSE has not concluded serial the PSE is not able to source the required voltage and power." communication after performing a read of the PD information and any additional implementation dependent read but footnote a of Table 104-2 states "An 'x' denotes a PSE to PD class pairing where or write power available is TRUE." which is inconsistent with the definition of power available. commands. SuggestedRemedy Change footnote a of Table 104-2 to read "An 'x' denotes a valid PSE to PD class pairing." But the PSE state diagram in Figure 104-4 indicates that detection of a valid PD signature is not required in order to proceed to classification. Response Response Status C SuggestedRemedy ACCEPT. Change the definition of do classification done from: C/ 104 SC 104.4.3.3 P 48 L 12 # r01-24 "...following a valid detection sequence...." Linear Technology Gardner, Andrew Comment Type Comment Status A ezbucket to: The text "12V unreg" in the row header for PD Classes 2 and 3 should be "12V reg" "...following a detection sequence..." SugaestedRemedy Response Response Status C See comment ACCEPT. Response Response Status C C/ 104 SC 104.4.3.3 P 46 L 6 # r01-22 ACCEPT. Gardner, Andrew Linear Technology Comment Type Comment Status A ezbucket The cross reference in the definition of MFVS valid is incorrect. SuggestedRemedy

Change 104.4.7 to 104.4.7.1.

Response Status C

Response

ACCEPT.

C/ 104 SC 104.4.4.1 P 52 L 20 # r01-41 C/ 104 SC 104.4.4.3 P 52 L 47 # r01-42 Gardner, Andrew Linear Technology Gardner, Andrew Linear Technology Comment Type TR Comment Status A nonezbucket Comment Type TR Comment Status D nonezbucket Meeting the new VOC limits and requiring a voltage between Vbad hi PSE min and VOC Baseline text in 104.4.4.3 requires that a PSE reject a signature voltage greater than or be detected as invalid is potentially onerous for a PSE because of: equal to Vbad hi PSE min and by implication less than VOC, but the reduction in VOC max for D3.1 and the absence of a minimum PD input capacitance may make this onerous 1) the potential for relatively high slew rates at the PI when a PD with little or no input for a PSE implementer. capacitance. SuggestedRemedy 2) the 50mV minimum 'must reject' voltage range requirement between VOC and A complete remedy will be proposed in presentation gardner 3bu 01 0916.pdf at the Vbad hi PSE min, this competes with other constraints in the existing 4.75V to 5.15V meeting in Fort Worth. range for VOC. 3) re-using VOC to delimit the upper end of the 'must reject' range. A separate parameter Proposed Response Response Status Z to specify the maximum voltage that may be applied during detection while a valid PD is REJECT. present may be needed in order to unconstrain VOC. SuggestedRemedy This comment was WITHDRAWN by the commenter. A complete remedy will be proposed in presentation gardner 3bu 01 0916.pdf at the C/ 104 SC 104.4.5 P 53 L 6 # r01-12 meeting in Fort Worth. Dove. Daniel Linear Technology Response Response Status C Comment Type Comment Status A ezbucket ACCEPT IN PRINCIPLE. Duplication of information. It would be better to point to the correct text in 104.7 On page 60, line 53 change SuggestedRemedy "A PD that does not implement classification shall enable a valid detection signature when Delete "Implementation of SCCP by a PSE is also optional." and replace with "See 104.7." VPD is less than Vsig enable min and may enable a valid detection signature when VPD is Response Response Status C less than Vsig enable max." ACCEPT. to C/ 104 SC 104.4.5 P 53 L 9 # r01-25 "Class 0 and Class 1 PDs, or PDs that do not implement classification shall enable a valid Gardner, Andrew Linear Technology detection signature when VPD is less than Vsig enable min and may enable a valid Comment Type Comment Status A ezbucket detection signature when VPD is less than Vsig enable max." Cross reference to Table 104-3 for Tclass is incorrect. Change PD3 on page 77, line 10 from: SugaestedRemedy "Present valid detection signature when classification is not implemented" Change cross reference to Table 104-4. Response Response Status C to

ACCEPT.

"Present valid detection signature when classification is not implemented or if a Class 0 or

On page 52, line 20 for item 1 (Open Circuit Voltage) in Table 104-3, Change VOC max

Class 1 PD"

value from 5.15V to 5.5V.

C/ 104 SC 104.4.6 P 53 L 37 # r01-27 C/ 104 SC 104.4.6 P 54 L 33 Gardner, Andrew Linear Technology Gardner, Andrew Linear Technology Comment Type Comment Status A ezhucket Comment Type T Comment Status A Cross references for items 3 and 4 in Table 104-4 are to Equation 104-1, but should be to The specification for item 20, Idischarge does not specify the conditions over which the current is to be measured. The min requirement also appears to be redundant with the Toff subclause 104.4.6.3. requirement as described in 104.4.6.5 and as such is unnecessarily limiting. Also there is SuggestedRemedy no max limit on Idischarge during SETTLE SLEEP. Change the cross references for items 3 and 4 in Table 104-4 from Equation 104-1 to SuggestedRemedy 104.4.6.3. Delete min requirement and add max of 24mA (Isc) for item 20 (Idischarge) in Table 104-4 Response Response Status C and change the sentence in 104.4.6.2 from ACCEPT. "A PSE operating in the SETTLE SLEEP state shall discharge the PI to the range of SC 104.4.6 P 53 L 38 C/ 104 r01-26 VSleep with a current greater than Idischarge." Gardner, Andrew Linear Technology to Comment Type T Comment Status D nonezbucket "A PSE operating in the SETTLE SLEEP state shall discharge the PI with a load of 10uF Item 3. Output slew rate of Table 104-4 has a requirement for Type A PSEs. Shouldn't this also apply to Type C PSEs as well? to a voltage within the range of VSleep with a current in the range of Idischarge". SuggestedRemedy Response Response Status C Change the Type values for item 3 to from 'A' to 'A and C'. ACCEPT IN PRINCIPLE. Proposed Response Response Status Z Change min requirement to 1.2mA and add max of 24mA for item 20 (Idischarge) in Table REJECT. 104-4 and change the sentence in 104.4.6.2 from: "A PSE operating in the SETTLE SLEEP state shall discharge the PI to the range of This comment was WITHDRAWN by the commenter. VSleep with a current greater than Idischarge." C/ 104 # r01-40 SC 104.4.6 P 54 L 14 to Gardner, Andrew Linear Technology "A PSE operating in the SETTLE SLEEP state shall discharge the PI to a voltage within Comment Type Comment Status A Ε ezbucket the range of VSleep with a current in the range of Idischarge." Font size for 'Overload delay timing' may be one point too big relative to other text in Table Modify PICS PSE18 from 104-4. SuggestedRemedy "To the range of VSleep with a current greater than Idischarge" Correct font size to be consistent with rest of Table 104-4. to Response Response Status C ACCEPT IN PRINCIPLE. "To the range of VSleep with a current in the range of Idischarge"

Editor given editorial license to implement suggested remedy.

r01-28

nonezbucket

C/ 104 SC 104.4.6 P 54 L 37 # r01-29 C/ 104 SC 104.5.6 P 62 L 6 # r01-34 Gardner, Andrew Linear Technology Gardner, Andrew Linear Technology Comment Status D Comment Type nonezbucket Comment Type Comment Status A nonezbucket The cross reference to 104.4.6.1 for item 21, VDisable, does not contain any text that Items 1 and 2, Input current and voltage slew rate, of Table 104-7 have a requirement for describes VDisable. Type A PDs. Shouldn't these requirements also apply to Type C PDs as well? SuggestedRemedy SuggestedRemedy Add the following text to 104.4.6.1: Change the values in the Type fields for items 1 and 2 from 'A' to 'A and C'. Response Response Status C "A PSE operating in the DISABLED state shall discharge the PSE PI to a voltage within the range of VDisable within a time less than TDisable max." ACCEPT IN PRINCIPLE. Proposed Response Response Status Z Change "A" to "A, C" for items 1 and 2 in Table 104-7. Editor given license to replace "A" REJECT. with "A, C" where appropriate. This comment was WITHDRAWN by the commenter. C/ 104 SC 104.5.6 P 62 L 17 # r01-33 Linear Technology Gardner, Andrew C/ 104 # r01-30 SC 104.4.6 P 54 L 43 Comment Type Comment Status A ezbucket Ε Gardner, Andrew Linear Technology Min values entries for items 4a-4e in Table 104-7 are not specified and should an em-dash. Comment Type Comment Status A Ε ezbucket SuggestedRemedy The cross reference to 104.4.6.7 for item 22, Disable time, is incorrect. Add em-dash to min value fields for items 4a-4e in Table 104-7. SuggestedRemedy Response Response Status C Change the cross reference for item 22 from 104.4.6.7 to 104.4.6.6. ACCEPT. Response Response Status C ACCEPT. C/ 104 SC 104.4.6.2.3 P 55 L 44 # r01-31 Gardner, Andrew Linear Technology Comment Type Comment Status A ezbucket The cross reference to Table 104-3 for TWakeup min is incorrect. SuggestedRemedy

Change the cross reference from Table 104-3 to Table 104-4.

Response Status C

Response

ACCEPT.

C/ 104

C/ 104 SC 104.5.6 P 62 L 41 # [r01-39]
Gardner, Andrew Linear Technology

Comment Type T Comment Status A nonezbucket

The requirement for CIN in Table 104-7 should also apply during the DISCONNECT and PD SLEEP states in order for the PSE inrush timing to be satisfied.

SuggestedRemedy

Replace "Input Capacitance during DO_DETECTION, MDI_POWER1, and MDI_POWER_DELAY states" with "Input capacitance when MDI_power_enabled = FALSE" for item 6a in Table 104-7.

Response Status C

ACCEPT IN PRINCIPLE.

Per Task Force discussion, since the max energy delivered during detection is Isc max*VOC*Tdet max = 24mA*5.5V*3.11ms = 410.52uJ, this would make an appropriate limit for the PD discharge energy.

Editor to add new PD subclause shown below and increment subsequent subclauses as needed:

"104.5.6.1 PD Discharge

At a delay of Toff max after PD disconnection from the PSE, a PD shall not source greater than 410uJ out of its PI until the VPD drops below Vsleep max."

Editor to add new PICS PD10

"PD 10, PD Discharge, 104.5.6.1, At a delay of Toff max after PD disconnection from the PSE, a PD shall not source greater than 410uJ out of its PI until VPD drops below Vsleep max, M, Yes[]"

Editor to increment subsequent PD PICS.

Editor given license to make additional changes as appropriate.

C/ 104 SC 104.5.6 P62 L41 # [r01-43

Gardner, Andrew Linear Technology

Comment Type TR Comment Status D nonezbucket

Given the new PSE detection criteria in Table 104-3 and the definition of a valid PD with a bad high signature, the absence of a minimum PD input capacitance value during detection in Table 104-5 or 104-7 may be problematic for PSE implementers.

SuggestedRemedy

A complete remedy will be proposed in presentation gardner_3bu_01_0916.pdf at the meeting in Fort Worth.

Proposed Response Status Z

REJECT.

This comment was WITHDRAWN by the commenter.

C/ 104 SC 104.5.6 P 63 L 6 # [r01-35

Gardner, Andrew Linear Technology

Comment Type TR Comment Status A nonezbucket

The max value of VSleep_PD is 3.45V which is less than the VSleep max value of 3.575V for a PSE in Table 104-4. Shouldn't the max values be the same?

SuggestedRemedy

Change the max value for VSleep PD in Table 104-7 from 3.45V to 3.575V.

Response Status C

ACCEPT.

C/ 104 SC 104.5.6.1 P61 L 50 # r01-32

Gardner, Andrew Linear Technology

Comment Type E Comment Status A ezbucket

Clause 104.5.6.1 text is split before and after Table 104-7, but Table 104-7 is part of 104.5.6.

SuggestedRemedy

Move the start of 104.5.6.1 after Table 104-7.

Response Status C

ACCEPT IN PRINCIPLE.

Editor given editorial license to implement suggested remedy.

C/ 104 SC 104.5.6.5 P 44 L 18 # r01-17 C/ 104 SC 104.8.1 Gardner, Andrew Linear Technology Gardner, Andrew Comment Type TR Comment Status A nonezbucket Comment Type TR PPD is used inconsistently. PPD is maximum power in most places. "over the range of PPD" specifies it as the actual value, as does equation 104-4 SuggestedRemedy to ISO 26262." Replace PPD with PPD(max) in most places, except where it says "over the range of SuggestedRemedy PPD", and in 104.5.6.5 including equation 104-4. Change the text in 104.8.1 from: Response Response Status C ACCEPT IN PRINCIPLE. conform to ISO 26262." Example: Change PPD in 104.5.6.4 on page 64 line 41 to PPD (max). to: Editor given license to search draft for any other instances where PPD should be replaced with PPD (max) or vice versa. Editor's note: PPD changed to PPD(max) in 104.5.6.5 PPD changed to PPD(max) in PD23 ACCEPT IN PRINCIPLE. C/ 104 SC 104.7.1.3 P 68 L 4 # r01-13 Replace Dove. Daniel Linear Technology Comment Type Ε Comment Status A ezbucket conform to ISO 26262." Typo with SuggestedRemedy Replace "PI-as" with "PI- as"; ie; insert a space between "PI-" and the word "as". requirements, refer to ISO 26262." Response Response Status C ACCEPT.

P 71 L 6 # r01-36

Linear Technology

Comment Status A nonezbucket

ISO 26262 is intended to be applied to electrical or electronic systems in "series production cars" with a maximum gross weight of 3500 kg, but the text in 104.8.1 states "All equipment subject to this clause and intended for motor vehicle applications shall conform

"All equipment subject to this clause and intended for motor vehicle applications shall

"All equipment subject to this clause and intended for motor vehicle applications shall conform to ISO 26262 if required by the given application."

Response Status C

"All equipment subject to this clause and intended for motor vehicle applications shall

"For automotive applications, systems described in this clause may be subject to additional

Move the last sentence of 104.8.1 to the first paragraph to read as

"All equipment subject to this clause shall conform to IEC 60950-1. In particular, the PSE shall be classified as a Limited Power Source in accordance with IEC 60950-1."

Delete ENV2 and renumber subsequent ENV PICS.

C/ 104 SC 104.8.5 P 72 L 15 # r01-6 C/ 104 Anslow, Peter Ciena Corporation Gardner, Andrew Comment Status A Comment Type ezbucket "a 100 source resistance" should be "a 100 omega source resistance" and 56 Vdc should not split across lines. SuggestedRemedy SuggestedRemedy change "a 100 source resistance" to "a 100 omega source resistance" [where "omega" is a capital omega] and make the space in 56 Vdc non-breaking (Ctrl-space). Response Response Status C to: ACCEPT. SC 104.8.5 P 72 L 20 # r01-7 C/ 104 Proposed Response Anslow. Peter Ciena Corporation REJECT. Comment Type Comment Status A ezbucket "shall not result preclude conformance" doesn't make sense. 104.8.1 and 104.8.2 should be cross-references.

SuggestedRemedy

Change "shall not result preclude conformance" to "shall not result in non-conformance" Make 104.8.1 and 104.8.2 cross-references.

Response Response Status C

ACCEPT IN PRINCIPLE.

Change "shall not result" to "shall not preclude". Make 104.8.1 and 104.8.2 crossreferences.

Change ENV4 Value/Comment to read

"Shall not preclude conformance with 104.8.1 and 104.8.2."

SC 104.8.5 P 72 L 20 # r01-37

Linear Technology

Comment Type E Comment Status D ezbucket

Typo in last paragraph of 104.8.5.

Change text in 104.8.5 from:

"...shall not result preclude ..."

"...shall not preclude..."

Response Status Z

This comment was WITHDRAWN by the commenter.

C/ 104 SC 104.9.3 P 74 L 16 # r01-14

Dove, Daniel Linear Technology

Comment Type TR Comment Status A nonezbucket

A number of issues are found in the PICs section

SuggestedRemedy

Incorporate changes recommended in dove 3bu 01 0916.pdf (to be submitted to P802.3bu Task Force)

Response Response Status C

ACCEPT IN PRINCIPLE.

Adopt slides 7-13 of http://www.ieee802.org/3/bu/public/sep16/dove 3bu 01 0916.pdf with editorial license.

Cl 104 SC 104.9.8 P 81 L 27 # [r01-15]

Dove, Daniel Linear Technology

Comment Type E Comment Status D ezbucket

Туро

SuggestedRemedy

Replace "s" with "a", as in "classified as a Limited Power Source".

Proposed Response Status Z

REJECT.

This comment was WITHDRAWN by the commenter.