C/ 145 SC 14	45 P 142	L 10	# i-1	C/ 1	SC 1	.4.338	P 24	L 39	# i-2
Anslow, Peter	Ciena Corpo	oration		Anslow, Pe	ter		Ciena Cor	poration	
Comment Type	TR Comment Status R		Editorial	Comment T	уре	Е	Comment Status A		Editorial
The IEEE-SA S	tandards Style Manual 13.3.2 says	An em dash ()	should be used to	IEEE S	td 802.3	3bu-2016	has modified 1.4.338.		
indicate the lac	k of data for a particular cell in a tal	ble." al tables in Claus	a 145 have blank cells	Suggested	Remedy	/			
in the min or m the rebuttal:	ax columns, which should contain a	an em-dash", but	this was rejected with	Change as follo	e the ed ws:"	liting insti	ruction to "Change 1.4.33	8 (as modified by I	EEE Std 802.3bu-2016)
"The lack of em	-dashes is intentional. The em-das	h would convey t	hat there is no relevant	Change	e the ba	ise text fo	or 1.4.338 to the text as m	odified by 802.3bu	1.
information, wh	ile the lack of the em-dash conveys	s that there is no	specific number."	Response			Response Status C		
The first examp	le of this issue is in Table 145-7.	Connection chec	to detection time"	ACCEF	PT IN PF	RINCIPL	E.		
Tcc2det has a IEEE style mar no minimum re	maximum value of 0.4 s, but the mi ual the cell should contain an em d quirement for this time. If there is s	n column is blank lash, which would some requiremen	According to the indicate that there is on the minimum (not	Change as follo	e the ed ws:"	liting insti	ruction to "Change 1.4.33	8 (as modified by I	EEE Std 802.3bu-2016)
just a number) "See 145 x x"	then an indication of this should be If this is not the case, then the cell	made via an enti should contain ai	y in the cell such as	C/ 30	SC 3	0.9.1.1.1	P 35	L 11	# i-3
SuggestedRemedv				Anslow, Per	ter		Ciena Cor	poration	
Make sure all ta	ables have an entry of em-dash or r	pointer to the requ	uirement in currently	Comment T	уре	Е	Comment Status A		Editorial
blank min or m In particular, Ta 145-30, 145-31	ax columns. ables 145-7, 145-8, 145-9, 145-10, , 145-32.	145-14, 145-16, 1	45-20, 145-27, 145-28,	aPSEA respect Same is	dminSta ). ssue for	ate is 30. r what is	9.1.1.2 not 30.9.1.1.1 (the shown as 30.9.1.1.2 throu	e editing instruction ugh 30.9.1.1.8	n is correct in this
Response	Response Status U			Suggested	Remedy	/			
REJECT.				Re-num	nber 30.	.9.1.1.1 t	hrough 30.9.1.1.8 to be 3	0.9.1.1.2 through 3	80.9.1.1.9
We will work wi	th editorial staff to try to clarify the	style guide. Here	is our opinion:	Response ACCEF	ΥТ.		Response Status C		
There is a distince of the cell blank. Eg. I indicate there is	nction between an em-dash, which For parameters that convey a range s lack of data, rather that the minim	indicates 'a lack o e, having a blank um value is open	of data', and leaving a Min' cell, does NOT -ended. An em-dash						

would convey an incorrect message. Em-dashes have been put in all cells where it is appropriate.

Cl 30	SC 30.9.1.1.	10	P 37	L <b>47</b>	# i-4	C/ 33	SC	33.4.9.1		P 65	L 3	# i-7
Ansiow, Pe	eter		liena Corporatio	n		Ansiow, Pe	eter	_		Ciena Corpo	bration	
Comment	Type E	Comment Sta	atus A		Editorial	Comment 1	Гуре	E	Comment S	Status A		Editorial
Firstly, Second	is confusing to l dly, when 30.9.1	have nested editi .1.10 is deleted,	ing instructions. what was previo	ously 30.9.1.1.11	becomes	Firstly, Second	is cont dly, as	fusing to ha 33.4.9.1.4	ave nested ed is to be re-nu	iting instructi mbered it nee	ions. eds a separate e	diting instruction.
30.9.1. There :	.1.10. are examples of	this situation in a	areviously public	shed amendment	s See IFFF Std	Suggested	Remed	dy				
802.3b	j-2014 subclaus	e 69.1.2				Change	e the e	diting instr	uction on page	e 65, line 3 to	o: "Change 33.4."	9.1 and 33.4.9.1.1
Suggested	Remedy					through	h 33.4.9	9.1.3 as fol	llows:"	0.66 lino 12	to26/07/2017 "C	hange the title and text
Chang as follo	e the editing inst ws:"	truction on page	35, line 9 to "Ch	nange 30.9.1.1.2 t	hrough 30.9.1.1.9	of 33.4 as follo	.9.1.4 a	and re-num	nber it to 33.4.	9.2 (re-numb	pering the existin	g 33.4.9.2 to 33.4.9.3)
Leave	the "Delete" edit	ting instruction or	n page 37, line 4	47 as it is.	04440/	Response			Response S	tatus C		
numbe Renum	red from 30.9.1.	1.11 by the delet	tion of 30.9.1.1.	to 30.9.1.1.10	9.1.1.10 (re- ows:"	ACCEF	PT.		-			
Response		Response Sta	itus <b>C</b>			CI 33	SC	33.4.9.1		P 65	L 15	# i-8
ACCE	РТ	Response ora				Anslow, Pe	eter			Ciena Corpo	oration	
	••					Comment 7	Туре	Е	Comment S	Status A		Editorial
Cl 30 Anslow, Pe	SC 30.12.2.1	<b>.18a</b> C	P <b>40</b> iena Corporatio	L <b>27</b> n	# i-5	item 3) item 2)	in this . This	numbered should be	d list is being r shown.	e-numbered	to item 2) by the	deletion of the original
Comment	Type E	Comment Sta	atus A		Management	Suggested	Remed	ly				
The las	st inserted subcl	ause is 30.12.2.1	1.18z15 not 30.1	12.2.1.18z12		Replac	e 2) wi	ith 3) in stri	ikethrough fon	t followed by	2) in underline f	ont.
Sunnested	Remedy					Response			Response S	tatus C		
In the e	editing instructio	n change "30.12	.2.1.18z12" to "3	30.12.2.1.18z15"		ACCEF	PT.			_		
Response		Response Sta	tus <b>C</b>			CI 33	50	22 / 0 2 2		P 67	/ 40	# :0
ACCE	PT.					Anslow Pe	tor	55.4.5.2.5		Ciena Corno	L 40	# 1-9
							T	-	0 /0		Jaton	<b>-</b> <i>v</i> · · ·
CI 30	SC 30.12.3.1	.18a	P 50	L 8	# i-6	Comment I	lype	l den en DCC	Comment S	status <b>A</b>		
Anslow, Pe	eter	C	iena Corporatio	n		through	ays ivii h 10 in	33.4.9.1)"	but there are	r operation w	/itn 2.5G/5G/10G	BASE-1 (variants 5
Comment T	Туре Е	Comment Sta	atus A		Editorial	Suggested	Romor	w				
The las The ne	st inserted subcl w subclauses sl	ause is 30.12.3.1 hould be inserted	l.18z13 not 30.1 l after 30.12.3.1	12.3.1.18z12 .18 not 30.12.2.1	.18	Change	e "varia	ants 5 throu	ugh 10 in 33.4	.9.1" to "varia	ants 3 through 5	in 33.4.9.1"
Suggested	Remedy					Response			Response S	tatus C		
In the e Also ch	editing instructio nange "30.12.2.1	n change "30.12 I.18" to "30.12.3.	.3.1.18z12" to "3 1.18"	30.12.3.1.18z13"		ACCEF	PT IN F	PRINCIPLE	Ξ.			
Response	-	Response Sta	tus <b>C</b>			Change	e as fo	llows:	andod for and	ration with 2		E T (vorianta 2 through
ACCE	PT.					5 in 33.	.4.9.1 a	and 33.4.9.	.2) are"	ration With 2.	59/59/109PAS	L-i (vananis s iniougn
						This re	solutio	n is identic	cal to commen	t #37.		

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-9

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C/ <b>33</b> Anslow, Pet	SC 33.8.1	P <b>68</b> Ciena Corpora	L <b>42</b> ation	# i-10	<i>Cl</i> <b>79</b> Anslow, P	SC <b>79.3</b> . eter	2.1	P <b>75</b> Ciena Corpor	L <b>5</b> ration	# i-13
Comment T The tex	ype E t shown is only t	Comment Status <b>A</b> the first paragraph of 33.8.1		Editorial	Comment Table here.	<i>Type</i> <b>E</b> 79-3 in the b	Com base standard	ment Status A d (IEEE Std 802.3-20	015) is different	<i>Editorial</i> from what is shown
Change Response ACCEP	e the editing inst	ruction to: "Change the first p <i>Response Status</i> <b>C</b>	paragraph of 33.	8.1 as follows:"	Suggested Chang capab In the	dRemedy ge the table t ilities/status bottom row,	itle from "MD ' change "4-7'	I power capabilities/	/status field" to "	MDI power
CI 33 Anslow, Pet	SC 33.8.2.2	P <b>69</b> Ciena Corpora	L 9 ation	# <u>i-11</u>	ACCE	PT.	Respo	onse Status C		
Comment T The tex	ype E t after "Clause 3	Comment Status A 3," should match the new Cl	ause 33 title.	Editorial	<i>Cl</i> <b>79</b> Anslow, P	SC <b>79.3</b> . eter	2.4	P <b>76</b> Ciena Corpor	L <b>42</b> ration	# <u>i-14</u>
SuggestedF Change Response ACCEP	Remedy 9 "Power over Et T.	"	Comment Type       E       Comment Status       A       E         Although the heading for 79.3.2.4 is required, the text is not being modified, so should be shown here.       SuggestedRemedy       Delete the text from 79.3.2.4							
CI 33 Anslow, Pet	SC 33.8.2.2	P <b>69</b> Ciena Corpora	L 14 ation	# i-12	Response ACCE	PT.	Respo	onse Status <b>C</b>		
Comment T The PIC Std 802	<i>ype</i> E CS is being mod 2.3bt	Comment Status A ified by the P802.3bt amende	ment, so the cor	<i>Editorial</i> formance is to IEEE	Cl <b>79</b> Anslow, P	SC 79.3. eter	2.4.1	P <b>77</b> Ciena Corpor	L 1 ration	# [i-15
SuggestedF Change Response	Remedy e "IEEE Std 802	3-201x" to "IEEE Std 802.3b Response Status <b>C</b>		Comment Althou not be	<i>Type</i> <b>E</b> ugh Table 79 shown here	Com -4 is referenc	Comment Status A Education Education Education Education Education Education Figure 1 is referenced from 79.3.2.4.1, the table resides in 79.3.2.4 so it shows a first education of the table resides in 79.3.2.4 so it shows a first education of the table resides in 79.3.2.4 so it shows a first education of the table resides in 79.3.2.4 so it shows a first education of the table resides in 79.3.2.4 so it shows a first education of table resides in 79.3			
ACCEP	T.				Delete Response ACCE	e Table 79-4	from the draf Respo	it onse Status <b>C</b>		

C/ 79 SC 79.3.2.6	P <b>78</b>	L 35	# <u>i-16</u>	C/ 145 SC 145.4	4.9.1.3 P 20	9 L 45	# <u>i-19</u>						
Comment Type E "33.3.8.2" on line 35 sl "33.2.7" on line 37 sho	Comment Status A hould be "33.3.7.2" puld be "33.2.6"		Editorial	Comment Type     E     Comment Status     A     Edi       Minus signs should be an en-dash (Ctrl-q Shift-p)     Edited and the status     Edited and the status									
SuggestedRemedy Change "33.3.8.2" on Change "33.2.7" on lin Response ACCEPT.	line 35 to "33.3.7.2" le 37 to "33.2.6" Response Status <b>C</b>			SuggestedRemedy Change to an en-d bottom row of Tabl Table 145-37 Table 145-38 Response	lash: le 145-35 Response Status	с							
C/ 79 SC 79.5.3 Anslow, Peter	P <b>90</b> Ciena Corpo	L <b>7</b> ration	# [i-17	ACCEPT. 	4.9.2.3 P 21	0 <i>L</i> 41	# <mark>i-20</mark>						
Comment Type E The table in 79.5.3 has SuggestedRemedy Add the row for "*AE" Response	Comment Status A s been modified by IEEE Std as added by 802.3br Response Status C	802.3br-2016	Editorial	Anslow, Peter <i>Comment Type</i> <b>T</b> This says "Midspa through 10 in 145. <i>SuggestedRemedy</i> Change "variants 5	Ciena ( Comment Status n PSEs intended for opera 4.9.1)" but there are only 5 5 through 10 in 145.4.9.1" t	Corporation A tion with 2.5G/5G/10GE variants in 145.4.9.1 to "variants 3 through 5	AES BASE-T (variants 5 in 145.4.9.1"						
ACCEPT.				Response	Response Status	с							
Cl 145 SC 145.2.8.8 Anslow, Peter Comment Type ER Comment #19 against However, some still re	B P 164 Ciena Corpo <i>Comment Status</i> A D2.2 resulted in many trailin main.	L 8 ration g zeros being rer	# <u>i-18</u> <i>Editorial</i> noved from the draft.	ACCEPT IN PRIN Change as follows "Midspan PSEs int 145.4.9.1 and 145. This resolution is in	CIPLE. : eended for operation with 2. 4.9.2) are additionally" dentical to comment #177.	.5G/5G/10GBASE-T (v;	ariants 3 through 5 in						
Remove any remaining Equation 145-19 (5 ins Equation 145-20 (7 ins	g trailing zeros from the draft stances) stances)	. In particular:											
Response ACCEPT.	Response Status C												

C/ 145 SC 14 Waters, Keith	5.2.8.7 P · Schr	162 L neider Electric	#	i-21	C/ 145 Waters, Keit	SC <b>145.2.8.</b> 8	8	P <b>162</b> Schneider Ele	L ectric	# [i-22
Comment Type	R Comment Status	R		Certification	Comment T	pe TR	Comment	Status R		Certification
I have concerns certification listir and needs to be	that PSE section 145.2.8. g requirements. This is a addressed.	7 does not show potential produc	any testing or t and fire safety is	sue	I have c certifica and nee	oncerns that F ion listing req ds to be addre	PSE section 14 uirements. Thi essed.	5.2.8.8 does no is is a potential	ot show any testi product and fire	ing or safety issue
SuggestedRemedy					SuggestedR	emedy				
at least 1 sec to confirm overlo	ond width. Testing and a t ad current protection will o	hird party certific perate correctly.	ation listing shall	be required	Add: Te to verify	sting and a th the PSE oper	ird party certifi ates per the re	cation listing sh quirements in tl	all be required his section.	
Response	Response Status	w			Response		Response	Status W		
REJECT.					REJEC					
This comment is	out of scope.				This cor	nment is out o	f scope.			
The purpose of I requirements. In states 'All equipi In particular, the IEC 60950-1 or national codes r the requirements marketplace or r	EEE P802.3bt is to define respect to safety subclaus nent subject to this clause PSE shall be classified as EC 62368-1 Annex Q. Equ slated to safety.'. It is thess of not IEEE P802.3bt. The egulation, and may vary by	interoperability, se 145.6.1 'Gene shall conform to a Limited Powe ipment shall cor e referenced loca need for certifica y geography.	it is not to define   eral safety' of IEEE 0 IEC 60950-1 or l r Source in accom- mply with all appli al and national co- ation is determine	product E P802.3bt EC 62368-1. dance with cable local and des that define d by the	The pur requiren states '/ In partic IEC 609 national the requ marketp	bose of IEEE I nents. In respe Il equipment s ular, the PSE 50-1 or IEC 62 codes related irements, not lace or regula	P802.3bt is to o ect to safety su subject to this o shall be classif 2368-1 Annex ( to safety.'. It is IEEE P802.3b	define interoper ibclause 145.6. clause shall con fied as a Limited Q. Equipment s s these referenc t. The need for vary by geograp	ability, it is not t 1 'General safet iform to IEC 609 d Power Source shall comply with ced local and na certification is d oby.	to define product y' of IEEE P802.3bt 350-1 or IEC 62368-1. ⇒ in accordance with n all applicable local and ational codes that define letermined by the

<i>Cl</i> <b>145</b> <i>SC</i> <b>145.4.2</b> Waters, Keith	P 200 L Schneider Electric	# i-23	C/ <b>30</b> SC <b>30.9.1.1.1</b> Yseboodt, Lennart	<i>P</i> <b>35</b> Philips Lighting	L 11 # i-25
Comment Type TR I have concerns that section	Comment Status <b>R</b> on 145.4.2 does not show any testing or	Certification	Comment Type ER The subclause numbering	Comment Status <b>A</b> of aPSEAdminState is wrong	<i>Editorial</i> J. Needs to be 30.9.1.1.2.
fire safety issue and needs to be addresse	id.	a potential product and	[Note to self: first implement numbering]	nt the other Clause 30 comm	ents, this will change all the
SuggestedRemedy			SuggestedRemedy		
Add to standard: Testing	and a third party certification listing shall b	e required.	Make aPSEAdminState su	bclause number 30.9.1.1.2.	
Response P REJECT.	Response Status W		Response R ACCEPT IN PRINCIPLE.	Pesponse Status C	
This comment is out of sc	ope.		Re-number 30.9.1.1.1 thro	ugh 30.9.1.1.8 to be 30.9.1.1	.2 through 30.9.1.1.9
The purpose of IEEE P80	2.3bt is to define interoperability, it is not to	o define product	This resolution is identical	to comment #3.	
states 'All equipment subj	ect to this clause shall conform to IEC 609	50-1 or IEC 62368-1.	C/ 30 SC 30.9.1.1.1	P 35	L 24 # i-26
In particular, the PSE sha	Il be classified as a Limited Power Source	in accordance with	Yseboodt, Lennart	Philips Lighting	
national codes related to s	3-1 Annex Q. Equipment shall comply with safety.', It is these referenced local and na	all applicable local and ional codes that define	Comment Type TR	Comment Status A	Management
the requirements, not IEE marketplace or regulation	E P802.3bt. The need for certification is de and may vary by geography.	termined by the	TOPIC: Clause 33 manage we split Clauses. This requ	ement. We deleted subclause ired updates in Clause 30.	e 33.5 and then re-instated it when
C/ <b>25</b> SC <b>25</b> Yseboodt, Lennart	P 29 L 1 Philips Lighting	# i-24	"If a Clause 22 MII or Clau specified in 33.5.1.1.6."	se 35 GMII is present, then th	his will map to the PSE Enable bit
Comment Type ER	Comment Status A	Editorial	SuggestedRemedy		
In Clause 25 we use the c Everywhere else in the dra	onstruct "Type 2 or greater PD/PSE". aft we use "Type 2, Type 3, or Type 4".		Undo strikeout and change "For Type 1 or Type 2 PSE map to the PSE Enable bit	to: s, if a Clause 22 MII or Claus specified in 33.5.1.1.6."	se 35 GMII is present, then this will
Potentially, 'or greater' cou number.	uld be misunderstood to refer to power leve	el, rather than Type	Response R	esponse Status W	
SuggestedRemedy			ACCEFT.		
Replace the construct 'Ty	be 2 or greater' by 'Type 2, Type 3, or Type	e 4' in Clause 25.			
Response	Response Status W				
ACCEPT.	•				

Comment ID i-26

-									
CI 30	SC 30.9.1.1.2	P 35	L 37	# i-27	C/ <b>30</b>	SC 30.9.1.1.	4 P 36	L <b>32</b>	# i-29
Yseboodt,	Lennart	Philips Lighting	l		Yseboodt, Le	ennart	Philips Lighting	g	
Comment <sup>-</sup>	Type <b>TR</b>	Comment Status A		Management	Comment Ty	pe TR	Comment Status A		Management
TOPIC we spli	: Clause 33 man it Clauses. This r	agement. We deleted subclau equired updates in Clause 30	use 33.5 and th	nen re-instated it when	TOPIC: 0 we split 0	Clause 33 ma Clauses. This	nagement. We deleted subcla required updates in Clause 30	use 33.5 and t ).	hen re-instated it when
"If a Cl Ability	ause 22 MII or C bit specified in 33	lause 35 GMII is present, ther 3.5.1.2.12"	n this will map	to the Pair Control	"If a Clau specified	use 22 MII or ( in 33.5.1.2.1	Clause 35 GMII is present, the 1."	n this will map	to the PSE Status bits
Suggested	Remedy				SuggestedRe	emedy			
Undo s "For Ty map to	strikeout and cha ype 1 or Type 2 F o the Pair Control	nge to: PSEs, if a Clause 22 MII or Cla Ability bit specified in 33.5.1.2	ause 35 GMII i 2.12."	s present, then this will	Undo stri "For Type map to th	keout and cha e 1 or Type 2 ne PSE Status	ange to: PSEs, if a Clause 22 MII or Cl s bits specified in 33.5.1.2.11."	ause 35 GMII	is present, then this will
Response ACCEI	PT.	Response Status W			Response ACCEPT	-	Response Status W		
CI 30	SC 30.9.1.1.3	P <b>36</b>	L <b>7</b>	# i-28	C/ 30	SC 30.9.1.1.	5 P 37	L <b>5</b>	# i-30
Yseboodt,	Lennart	Philips Lighting	l		Yseboodt, Le	ennart	Philips Lighting	g	
Comment <sup>-</sup>	Type <b>TR</b>	Comment Status A		Management	Comment Ty	pe TR	Comment Status A		Management
TOPIC we spli	: Clause 33 man it Clauses. This r	agement. We deleted subclau equired updates in Clause 30	use 33.5 and th	nen re-instated it when	TOPIC: 0 we split 0	Clause 33 ma Clauses. This	nagement. We deleted subcla required updates in Clause 30	use 33.5 and t ).	hen re-instated it when
"If a Cl specifi	ause 22 MII or C ed in 33.5.1.1.4."	lause 35 GMII is present, the	n this will map	to the Pair Control bits	"If a Clau specified	use 22 MII or ( in 33.5.1.2.1)	Clause 35 GMII is present, the )."	n this will map	to the PD Class bits
Suggested	Remedy				SuggestedRe	emedy			
Undo s "For Ty map to	strikeout and cha ype 1 or Type 2 F o the Pair Control	nge to: PSEs, if a Clause 22 MII or Cla bits specified in 33.5.1.1.4."	ause 35 GMII i	s present, then this will	Undo stri "For Type map to th	ikeout and cha e 1 or Type 2 ne PD Class b	ange to: PSEs, if a Clause 22 MII or Cl its specified in 33.5.1.2.10."	ause 35 GMII	is present, then this will
Response		Response Status W			Response		Response Status W		
ACCEI	PT.				ACCEPT				

C/ 30	SC 30.9.1.1.6	P 37	L 18	# i-31	C/ 30	SC	30.9.1.1.8	P 37		L 35	# i-33
Yseboodt,	, Lennart	Philips Lightir	ng		Yseboodt	, Lenna	rt	Philips	Lighting		
Comment	Type TR	Comment Status A		Management	Comment	Туре	TR	Comment Status	Α		Pres: Darshan5
TOPIC we sp "If a C bit spe	C: Clause 33 man lit Clauses. This r Clause 22 MII or C ecified in 33.5.1.2.	agement. We deleted subcla equired updates in Clause 3 lause 35 GMII is present, the 6."	ause 33.5 and t 0. en this will map	hen re-instated it when to the Invalid Signature	This object was modified to work with Clause 145, but was not updated after the split. "This counter is incremented when the PSE state diagram (Figure 145-13, Figur and Figure 145-16) enters the state ERROR_DELAY, ERROR_DELAY_PRI, or ERROR_DELAY_SEC."						
Suggestee	dRemedy				Suggeste	dReme	dy				
Undo "For T map t <i>Response</i> ACCE	strikeout and cha Type 1 or Type 2 F o the Invalid Signa PT.	nge to: PSEs, if a Clause 22 MII or C ature bit specified in 33.5.1.2 <i>Response Status</i> <b>W</b>	Clause 35 GMII 2.6."	is present, then this will	Repla "For T Figure For T Figure ERRO	ace by: Гуре 1 a е 33-9 е Гуре 3 a е 145-1: DR_DEL	and Type 2 enters the s and Type 4 3, Figure 1 LAY_PRI, c	PSEs, this counter is tate ERROR_DELAY PSEs, this counter is 45-15, and Figure 14 or ERROR_DELAY_S	s incremente '. 5 incremente 5-16 enters SEC."	ed when the F ed when the F the state ER	<sup>2</sup> SE state diagram in <sup>2</sup> SE state diagram in ROR_DELAY,
<i>CI</i> <b>30</b> Yseboodt,	SC <b>30.9.1.1.7</b> , Lennart	P <b>37</b> Philips Lightir	L <b>30</b>	# [i-32	Response ACCE	e EPT IN I	PRINCIPLE	Response Status	С		
Comment	Type <b>TR</b>	Comment Status A		Management	Adopt	t change	es shown ir	Darshan_05_0917_	final.pdf		
TOPIC we sp	C: Clause 33 man lit Clauses. This r	agement. We deleted subcla equired updates in Clause 3	ause 33.5 and 1 0.	hen re-instated it when	C/ <b>30</b> Yseboodt	SC , Lenna	<b>30.9.1.1.8</b> rt	P <b>37</b> Philips	Lighting	L <b>43</b>	# <u>i-34</u>
"If a C specif	Clause 22 MII or C fied in 33.5.1.2.4."	lause 35 GMII is present, the	en this will map	to the Power Denied bit	Comment	Type	TR	Comment Status	Α		Management
Suggested Undo "For T map t	<i>dRemedy</i> strikeout and cha Type 1 or Type 2 F o the Power Denie	nge to: 'SEs, if a Clause 22 MII or C ed bit specified in 33.5.1.2.4	Clause 35 GMII ."	is present, then this will	"If a C speci	C: Claus blit Claus Clause 2 fied in 3	se 33 mana ses. This re 22 MII or Cl 33.5.1.2.8."	agement. We deleted equired updates in Cl ause 35 GMII is pres	ause 30. ent, then thi	is will map to	the Overload bit
Response	)	Response Status W			Suggeste	dReme	dv				
ACCE	EPT.				Undo "For T map t	strikeou Type 1 c to the O	ut and char or Type 2 P verload bit	nge to: SEs, if a Clause 22 M specified in 33.5.1.2.	/II or Clause 8."	e 35 GMII is j	present, then this will
					Response	9		Response Status	w		

ACCEPT.

CI 30	SC 30.9.1.1.1	I P 38	L <b>3</b>	# i-35	C/ 33	SC 33.4	.9.2.3	P 67	L <b>40</b>	# i-37				
Yseboodt, L	ennart	Philips Lighting			Yseboodt,	Lennart		Philips Lighting						
Comment T	ype TR	Comment Status A		Management	Comment	Type EF	R Con	nment Status A		Editorial				
TOPIC: we split	Clause 33 mana Clauses. This re	agement. We deleted subclause equired updates in Clause 30.	e 33.5 and the	n re-instated it when	"Midsp 33.4.9 betwee	an PSEs ir 1) are addi en ports rela	tended for o tionally requi ating to differ	peration with 2.5G/5G/1 red to meet the followin ent link segments."	0GBASE-T g parameter	(variants 5 through 10 in 's for coupling signals				
specifie	d in 33.5.1.2.9."	ause 55 GMill is present, then t	uns wiii map to	the MFS Absent bit	That va	ariant list w	as split by ea	arlier baseline, there are	no items 5	through 10.				
SuggestedF	Remedy				Suggested	Remedy								
Undo st "For Typ map to t	trikeout and char pe 1 or Type 2 P the MPS Absent	nge to: SEs, if a Clause 22 MII or Clau bit specified in 33.5.1.2.9."	ıse 35 GMII is ı	present, then this will	Chang "№ 5 in 33	e as follows /lidspan PS .4.9.1 and 3	s: Es intended 33.4.9.2) are	for operation with 2.5G/"	/5G/10GBAS	SE-T (variants 3 through				
Response		Response Status W			Response		Resp	onse Status W						
ACCEP	ΥТ.				ACCE	PT.								
CI 33	SC 33.2.1	P 61	L <b>25</b>	# i-36	CI 79	SC 79		P 73	L 1	# i-38				
Yseboodt, L	ennart	Philips Lighting			Yseboodt,	Lennart		Philips Lighting						
Comment Ty TOPIC: The Chi "Avoid t meaning Where i "PSEs c 5GBASI SuggestedF	Yseboodt, Lennart       Philips Lighting         Comment Type       ER       Comment Status       A       Editorial         TOPIC: and/or       The Chicago Manual of Style says the following about the use of 'and/or':       "Avoid this Janus-faced term. It can often be replaced by 'and' or 'or' with no loss in meaning.       Where it seems needed, try 'or or both'. But also think of other possibilities."         "PSEs can be compatible with 10BASE-T, 100BASE-TX, 1000BASE-T, 2.5GBASE-T, 5GBASE-T, and/or 10GBASE-T."       Summedia						Comment Type       TR       Comment Status       A       Pres: Yseb         Dual-signature LLDP is incompletely and incorrectly defined.       SuggestedRemedy         Adopt yseboodt_04_0917_LLDP.pdf         Response       Response Status       C         ACCEPT IN PRINCIPLE.         Adopt yseboodt_04_0917_LLDP.pdf							
"PSEs o 5GBASI	can be compatibl E-T, or 10GBAS	le with 10BASE-T, 100BASE-T E-T."	X, 1000BASE-	T, 2.5GBASE-T,	C/ <b>79</b> Yseboodt.	SC <b>79.3</b> Lennart	.2.6c.3	P <b>80</b> Philips Liahtina	L <b>7</b>	# i-39				
Response		Response Status C			Comment	Type FF	Con	nment Status A		Editorial				
ACCEP "The PS 100BAS	T IN PRINCIPLE SE specification i SE-TX, 1000BAS	E. s designed to be compatible wi E-T, 2.5GBASE-T, 5GBASE-T	ith any of the fo , 10GBASE-T.'	bllowing: 10BASE-T,	The bit can ea The 'x' Suggested Repar	is labeled "l sily be misi was mean <i>Remedy</i>	PSE power p aken for "PS to denote th	airsx" in the Power state E power pair" is is an extended field.	us field have	e a confusing name that				
					objects	, Clause 7	9, Clause 14	5).	<del>-</del>					
					Response		Resp	onse Status W						
					ACCE	PT.								

Cl 79	SC 79.3.2.6c	3 P 80	L 29	# i-40	C/ 145	SC 145.	1	P 95	L 9	# i-43
r sebooul,		Philips Lighung	J		r sebooul,	Lennart		Philips Lighun	y	
Comment	Type ER	Comment Status A		Editorial	Comment	Type E	Co	omment Status A		Pres: Thompson
The b easily The 'x	its labeled "Powe be mistaken for " ' was meant to de	Classx" in the Power status Power Class". note this is an extended field	field have a co	nfusing name that can	"This c enhan deploy	clause define cement of the ment over b	es the fund the Power of alanced to	ctional and electrical cha over Ethernet (PoE) syst wisted-pair cabling."	em defined in	providing an Clause 33 for
Suggested Renar	dRemedy ne "Power Classy	" to "Power Class ext" throug	hout the draft	Clause 30 objects,	Makes standa	it seem tha lone PoE C	t Clause 1 lause.	145 is an 'add-on' to Clau	ıse 33. It isn't,	it is a complete,
Claus Do the	e 79, Clause 145) e same change fo	r Dual-signature power Class	x Mode A and	Mode B.	Suggested	Remedy				
Response	o came change ic	Response Status W			"This c	lause defin	es the fund	ctional and electrical cha	racteristics of	an enhanced Power
ACCE	PT.				over E twisted	thernet (Pol I-pair cablin	E) system g."	originally defined in Clau	use 33 for depl	oyment over balanced
CI 79	SC 79 3 2 6d	P 81	/ 16	# li-41	Response		Re	sponse Status C		
Yseboodt,	Lennart	Philips Lighting	)	" 141	ACCE	PT IN PRIN	CIPLE.			
The b easily The 'x Also,	its labeled "Powe be mistaken for " ' was meant to de Type should be ca	typex" in the System setup f power type" note this is an extended field apitalized.	ield have a cor	fusing name that can	"This over E PoE s C/ 145	clause defir thernet (Pol /stem is def SC <b>145.</b>	es the fun E) system ined in Cla	nctional and electrical cha for deployment over bala ause 33." P <b>97</b>	aracteristics of anced twisted-	an enhanced Power pair cabling. The original # i-44
Suggestee	dRemedy				Yseboodt,	Lennart		Philips Lightin	q	
Renar Claus	ne "Power typex" e 79, Clause 145)	to "Power Type ext" througho	out the draft (C	ause 30 objects,	Comment	Type TR	C	omment Status A	-	Systems
Response		Response Status W			Table	145-1, Type	4 entry lis	sts 0.96A as the nominal	current and n	umber of powered pairs
ACCE	PT.				as 20	or 4 <sup>°</sup> .				
CI 79	SC 79.3.8.1	P 85	L 15	# i-42	We on conditi	ly allow >0. ons).	6A when ir	n 4-pair mode though (w	ith the exception	on of dual-signature fault
Yseboodt,	Lennart	Philips Lighting	)		Suggested	Remedy				
Comment For th and p	<i>Type</i> <b>TR</b> e LLDP measure ower 1-10000.	<i>Comment Status</i> <b>A</b> nents, the valid values for cu	rrent are 0-200	<i>LLDP</i> 00, voltage 1-65000,	Split T Type 4 Type 4	ype 4 line ir 0.6 2 0.96 4	two: 12. 1 12	.5 (cable spec) 2.5 (cable spec)		
Why i	s current allowed	to be zero, but not the other t	wo?		Response		Re	sponse Status C		
Suggested Chang	dRemedy ge valid values for	all 3 to start at 0.			ACCE	PT.				
Response	-	Response Status W								
ACCE	PT.	,								

C/ 145 SC 145.1.3 Yseboodt, Lennart	P <b>97</b> Philips Lighting	L <b>43</b>	# [i-45	C/ <b>145</b> Yseboodt, I	SC ·	1 <b>45.2.2</b>	P <b>99</b> Philips Lighting	L <b>53</b>	# i-47
Comment Type E C There are two paragraphs "I Cable is the current on o "I Cable , defined in Table without pair-to-pair current	Comment Status <b>A</b> under Table 145-1: ne twisted pair in the bala 145-1, is the highest nomi unbalance"	nced twisted-pa	<i>Editorial</i> air cable" a pair for a system	Comment T TOPIC The Ch "Avoid meanir Where	<i>Type</i> : and/o iicago I this Jai ig. it seen	ER r Manual of nus-faced ns needed	Comment Status <b>A</b> Style says the following about t term. It can often be replaced b I, try 'or or both'. But also thin	he use of ' by 'and' or k of other	<i>Editorial</i> and/or': 'or' with no loss in possibilities."
It doesn't make sense to sa	ay where ICable is defined	d in the second	paragraph.	"PSEs 5GBAS	can be SE-T, a	compatib nd/or 10G	le with 10BASE-T, 100BASE-T BASE-T."	X, 1000BA	.SE-T, 2.5GBASE-T,
SuggestedRemedy Change as follows:				Suggested PSEs 5GBAS	Remed can be SE-T, o	ly compatib r 10GBAS	le with 10BASE-T, 100BASE-T. E-T."	X, 1000BA	SE-T, 2.5GBASE-T,
"I Cable, defined in Table 1 pair cable"	45-1, is the current on on	e twisted pair ir	n the balanced twisted-	Response ACCEF	PT IN P	RINCIPLE	Response Status <b>C</b> =.		
"I Cable is the highest nom unbalance" Response R	inal current on a pair for a	a system withou	it pair-to-pair current	"PSEs T, 2.50	can be BASE	compatib -T, 5GBAS	le with any of the following: 10E SE-T, 10GBASE-T"	BASE-T, 10	)0BASE-TX, 1000BASE-
ACCEPT IN PRINCIPLE.				C/ <b>145</b> Yseboodt,	SC ·	145.1.3.1 t	P <b>102</b> Philips Lighting	L <b>30</b>	# li-48
Unange as follows: "I Cable, specified in Table pair cable"	145-1, is the current on c	one twisted pair	in the balanced twisted-	<i>Comment T</i> "Type 3 11801:	<i>fype</i> 3 and T 2002."	ER ype 4 ope	Comment Status <b>R</b> eration requires Class D or bette	r cabling a	Cabling as specified in ISO/IEC
"I Cable is the highest nom unbalance"	inal current on a pair for a	a system withou	ut pair-to-pair current	Redun Class 3 Trying	dant rel 3 will sti to expla	ference to ill work ov ain that nu	Type. Also, not completely true er 20 ohm cable. lance in this sentence seems u	e, a Type 3 nneccesair	y system operating at
C/ 145 SC 145.1.3.1 Yseboodt, Lennart Comment Type E (	P <b>98</b> Philips Lighting Comment Status A	L <b>40</b> g	# <u>i-46</u> Editorial	Suggested "Class operati	Remed D or be on as s	ly etter cablir specified ir	ng as specified in ISO/IEC 1180 n this Clause."	1:2002 is i	required to support
Footnote starts with number It is the third footnote of the	er 3. e entire document			Response REJEC	т.		Response Status U		
Check with Editorial staff to	see if this is correct, and	fix if needed.		This co	mment	t reference	es a sentence that does not exis	st in the dra	aft.
Response R ACCEPT.	esponse Status C								

C/ 145 SC 145.2.4	P 107	L <b>40</b>	# i-49	C/ 145	SC	145.2.5		P 108	L <b>6</b>	# i-50
Yseboodt, Lennart	Philips Lighting			Yseboodt,	Lenna	rt		Philips Lighting	]	
Comment Type TR	Comment Status R		Pres: Darshan12	Comment	Туре	TR	Comment S	tatus D		Pres: Yseboodt5
A PD's diode bridge is the current unbalance. Diode specifications gener maximum spread in forwa This makes it hard to get t unbalance spec. It is however not impossib forward voltage difference used to calculate the unba What isn't taken into acco temperature, their forward A pair of parallel diodes ex	dominant, and most unpredi ally do not include informatic d voltage between samples. o a provable correct design t e, analysis over the course of s of more than 60mV are ext lance budget for the PD. unt is diode aging. As diodes voltage will begin to drift. posed to roughly the same of	catable, contrib on or guarantee hat will always i of this project ha remely rare. Th are exposed to current may be o	utor to pair-to-pair s about the meet the current as shown that diode is number has been o current and expected to age in	Clause "If the (MDIC 33.5.1 suppo corres Clause differe We sh diagra Suggested	e 33 in PSE is )), then . Wher rted, ec pondin e 145 w nt inter iould ho m mus	the base s implement the manage no phys quivalent r g to PSE s vill not def frace than owever may t be config dy	standard, subcla ented with a mar agement access sical embodimer management ca and PD control fine these specif MDIO to config aintain the requi gurable by the in	ause 33.5 says aggement interf shall use the l to of the Clause pability shall b parameters an fic registers, as ure the PSE. irement that ce mplementor of	: ace described PSE register c 22 or Clause e provided. Mi d states are d implementors rtain basic pa the PSE.	l in 22.2.4 or 45.2 lefinitions shown in 45 management is anaged objects escribed in Clause 30." a choose to use a rameters in the state
the same way (this is unce	rtain, but let's accept it for th	ne moment).		Adopt	yseboo	odt_05_09	917_manageme	nt.pdf		
If 4-pair PSEs are allowed pairset having the other po this would mean that a PD find itself powered in a wa	to provide power in polarity o larity between two PSEs, that has been exposed to a y that has one 'aged' diode c	configurations the certain current onduct, and and	hat can result in ONE configuration, would other 'new' diode in	Proposed REJEC This co	<i>Respol</i> CT. ommer	nse nt was WI <sup>-</sup>	Response St THDRAWN by t	<i>atus</i> <b>Z</b>		
parallel. By new I refer to	a diode that has not seen an	ly significant cu	rrent over it's lifetime.	C/ 145	SC	145.2.5.1	I	P 108	L <b>48</b>	# i-51
At the moment of writing the Test to determine this are	nis comment, it is unknown w planned.	what the magnite	ude of this issue is.	Yseboodt,	Lenna 	rt _		Philips Lighting	)	
SuggestedRemedy				Comment	Туре	E eterd DD in	Comment S	tatus A		Editorial
<ol> <li>Quantify this issue for the second sec</li></ol>	ne November meeting eeded to be presented then			to the state of	SISM_ diagram	START st	tate and remain Primary and Se	in that state, a condary Altern	t which point t ative become	he semi-independent active."
Response F	Response Status U			State	names	do not ne	ed the extra wo	rd state.		
A remedy was not provide	d with this comment.			Suggested Chang "If the to SIS diagra	<i>Remed</i> ge to: conned M_STA ms for	dy cted PD is ART and re the Prima	s identified as du remain in that sta ary and Seconda	ual-signature, t ate, at which p ary Alternative	ne top level st bint the semi-i become active	ate diagram will proceed ndependent state "
				Response			Response St	atus <b>C</b>		
				ACCE	PT.		·			

C/ 145 S	C 145.2.5.4	P 110	L <b>27</b>	# i-52	C/ 145 SC 145.2.5.4	P 111	L <b>30</b>	# i-54
Yseboodt, Lenr	nart	Philips Lighting			Yseboodt, Lennart	Philips Lighting		
Comment Type For variable "FALSE: TI TRUE: Th or power is	e ER e alt_pwrd_pri he PSE is not ne PSE has de being forced	Comment Status <b>A</b> , the values are described: to apply power to the Primary A tected, classified, and will pow on the Primary Alternative in T	Alternative. er a PD on the I EST_MODE."	PSE SD Primary Alternative;	Comment Type ER "det_temp: A temporary The variable is not temp SuggestedRemedy	Comment Status A variable that indicates whether ' porary, just it's use is restricted in	" າ nature.	PSE SD
Why are w	ve describing I	half of the state machine for the	e 'TRUE' value ?		Strike temporary			
SuggestedRem Replace TF TRUE: The	<i>nedy</i> RUE by: e PSE is to ap	oly power to the Primary Altern	ative.		Response ACCEPT.	Response Status W		
Same char	nge for _sec.				Cl 145 SC 145.2.5.4 Yseboodt, Lennart	P <b>112</b> Philips Lighting	L 38	# i-55
Response ACCEPT II Adopt choi Choice 1 "FALSE: TI TRUE: Th is neurosing	N PRINCIPLE ce 1 below as he PSE is not he PSE has de	Response Status U new definitons of variable: to apply power to the Primary <i>p</i> etected, classified, and will pow	Alternative. er a PD on the I	Primary Alternative,	Comment Type TR In the PSE state diagra diagram. SuggestedRemedy Remove variable. Response	Comment Status A m variable list, the variable Ilnrus Response Status W	sh-2P is not use	PSE SD ed in the state
TEST_MO	DE."	atomative, of power is being to				D442		# : 50
Cl 145 S Yseboodt, Lenr	C 145.2.5.4 nart	P <b>110</b> Philips Lighting	L <b>42</b>	# i-53	Yseboodt, Lennart	Philips Lighting	L 30	# 1-30
Comment Type Variable au SuggestedRen	e <b>T</b> utoclass_enab	Comment Status A led is not consistent with e.g. p	se_dll_enable.	Editorial	Comment Type TR In the PSE state diagra diagram. Same for IPort-2P-sec.	Comment Status <b>A</b> m variable list, the variable IPort-	-2P-pri is not us	PSE SD sed in the state
Change va	irlable autoclas	ss_enabled to autoclass_enabl	e throughout dra	art.	SuggestedRemedy			
Response ACCEPT.		Response Status C			Response ACCEPT.	Response Status W		

0/ 145	SC 145.2.5.4	P 114	L 19	# i-57	C/ 145	SC 14	5.2.5.4	P 114	L 25	# i-59
Yseboodt, L	.ennart	Philips Lighting			Yseboodt, L	ennart		Philips Lighting		
Comment T	ype E	Comment Status A		PSE SD	Comment T	уре 1	TR	Comment Status A		PSE S
"A varia Primary The wor	ble indicating if Alternative (see rd 'window' is mi	the PSE output current has bee 145.2.8.7) for at least T CUT-; ssing somewhere in that senter	en in an overlo 2P of a one se nce.	ad condition on the cond sliding time."	Topic: S Issue: w comme Aim: ge	SLIDING ve use th nts try to et everyth	ne conce make the make the make the make	ept of 'sliding windows' in our d he whole bunch consistent. he form "measure xxx using a )	raft very incor	isistently, the SLIDING window".
Suggested	Remedy	<b>.</b>			5	, <b>,</b> .	5	,	J 2 2 3	
Replace "A varia	e by: ble indicating if	the PSE output current has bee	en in an overlo	ad condition on the	In this c repeate	ase, the d in the v	descrip variable	tion of the overload rules is in description (especially not if the second seco	145.2.8.7, and ney don't mate	I should not be h perfectly like here).
Primary Same fi	Alternative (see	e 145.2.8.7) for at least T CUT-:	2P of a one se	cond sliding window."	"A varia Second	ble indic lary Alter	ating if t native (s	the PSE output current has be see 145.2.8.7) for at least T Cl	en in an overle JT-2P of a one	bad condition on the e second sliding time."
Donnonoo					SuggestedF	Remedy				
ACCEP	T IN PRINCIPL	E.			"A varia Second	ble indic	ating if t native; s	the PSE output current has be see 145.2.8.7."	en in an overle	ad condition on the
"A varia Primary	ble indicating if Alternative; see	the PSE output current has bee 145.2.8.7."	en in an overlo	ad condition on the	Response ACCEP	РТ.		Response Status W		
This res	solution is idention	cal to comment #58.			C/ 145	SC 14	5.2.5.4	P 114	L <b>37</b>	# i-60
C/ 145	SC 145.2.5.4	P 114	L <b>20</b>	# i-58	Yseboodt, L	ennart		Philips Lighting		
Yseboodt, L	ennart.	Philips Lighting			Comment T	ype E	E	Comment Status A		PSE S
Comment Ty		Comment Status A		PSE SD	"This va establis	ariable in hed by u	dicates using the	4PID and Type 3 or Type 4 du e method to generate 3 class e	al-signature P vents on the F	D has been Primary Alternative."
Issue: w	ve use the conce	ept of 'sliding windows' in our dr	aft very incons	sistently, the SLIDING	The PD	has bee	en estab	lished ?		
commer	nts try to make t	he whole bunch consistent.	v timo olidina v	window"	SuaaestedF	Remedv				
Ain. ge	t everytning in t		x time sliding v	willdow .	Replace	e bv:				
In this c repeate	ase, the descrip d in the variable	tion of the overload rules is in a description (especially not if th	145.2.8.7, and ey don't match	should not be n perfectly like here).	"This va the met	ariable in hod to ge	dicates enerate	that 4PID has been establishe 3 class events to determine th	d on the Prim e PD's Type."	ary Alternative by using
"A varia	ble indicating if	the PSE output current has her	n in an overlo	ad condition on the	Response			Response Status C		
Primary	Alternative (see	e 145.2.8.7) for at least T CUT-	2P of a one se	cond sliding time."	ACCEP	T IN PRI	INCIPLE	Ξ.		
SuggestedF	Remedy				Change	to.				
"A varia Primarv	ble indicating if Alternative; see	the PSE output current has bee 145.2.8.7."	en in an overlo	ad condition on the	"This va Primary	ariable in Alternat	dicates tive by P	that the Type of the dual-signa Physical Layer Classification."	iture PD has b	een established on the
Response		Response Status W			Change		defintio	n to:		

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-60

PSE SD

PSE SD

C/ 145	SC 145.2.5.4	P 114	L <b>45</b>	# i-61	C/ 145	SC 14	45.2.5.4	P 116	L 11	# i-63
Yseboodt,	Lennart	Philips Lighting			Yseboodt,	Lennart		Philips Lighting		
Comment	Туре Е	Comment Status A		PSE SD	Comment	Туре	ER	Comment Status A		PSE SD
"This v establi	variable indicates ished by using the	4PID and Type 3 or Type 4 dua e method to generate 3 class ev	al-signature PE vents on the Se	) has been econdary Alternative."	"pse_a assign in an ir	avail_pwr by Physi nplemen	_pri: This v ical Layer o tation-spec	variable indicates the highest classification on the Primary cific manner; see Table 145-6	power PD C Alternative.	lass the PSE may The value is determined
The Pl	D has been estab	lished ?			- Some	ethina we	ent wrona i	n this sentence what is a 'F	PD Class' ?	
Suggested	IRemedy				- We s	hould po	int out that	Table 145-6 contains restrict	tions that mu	ust be followed.
Replac "This v using t	ce by: /ariable indicates	that 4PID has been established	d on the Secor	dary Alternative by	Suggested Replac	Remedy				
Response	ine method to ger	Response Status C		ypc.	"This v	ariable ir	ndicates th	e highest Class the PSE may	/ assign to th	ne PD by Physical Layer
ACCE	PT.				classifi The va	ication or	n the Prima	ary Alternative.	Table 145-6	and set in an
					impler	nentation	-specific m	nanner."		
C/ 145	SC 145.2.5.4	P 115	L <b>53</b>	# i-62	Same	fix for pse	e avail pv	Vr sec.		
r Sebuuut,					Response			Response Status W		
Comment	Type ER	Comment Status A		PSE SD	ACCE	PT.	,			
"pse_a by Phy	avali_pwr: This va /sical Laver classi	riable indicates the highest pov	er PD Class ti d in an impler	ne PSE may assign						
manne	er; see Table 145-	-6."			C/ 145	SC 14	45.2.5.4	P 117	L <b>1</b>	# i-64
- Some	athing went wrong	n in this sentence what is a '	D Class' 2		Yseboodt,	Lennart		Philips Lighting		
- We s	should point out th	at Table 145-6 contains restric	tions that must	be followed.	Comment	Туре	TR	Comment Status A		PSE SD
Suggested	IRemedy				"pse_p	ower_up	date_pri: A	A variable that is set when the	PSEAllocat	tedPowerValue_alt(X) in
Replac	ce by:				the DL	L Slale u	lagraffi in r	-igule 145-45 has been upua	ileu.	
"This v classifi	variable indicates ication. The value	the highest Class the PSE may is restricted to the allowed ran	e assign to the ge defined in	PD by Physical Layer Table 145-6 and set in	Does r descrip	not mention tion text	on which A	Alternative this is for. The _se	c variant has	s the exact same
Boononoo	nementation-spec				Suggested	Remedy				
ACCE	рт				Chang	e to:	dete and t	A second a la state de la seconda de la s		
AUULI					the DL Alterna	ower_up L state d ative."	liagram in F	Figure 145-43 has been upda	ted, where $\lambda$	tedPowerValue_alt(X) In K is the Primary
					And fo "pse_p in the I Alterna	r pse_po oower_up DLL state ative."	wer_updat date_sec: e diagram i	e_sec: A variable that is set when th n Figure 145-43 has been up	e PSEAlloca dated, when	atedPowerValue_alt(X) e X is the Secondary
					Response		I	Response Status W		
					ACCEI	PT.				

C/ 145 Yseboodt.	SC 145.2.5.4 Lennart	P <b>118</b> Philips Lighting	L <b>29</b>	# [i-65	C/ 145 Yseboodt.	SC 145.2.5.7 Lennart	P <b>133</b> Philips Lighting	L <b>5</b>	# i-68
<i>Comment</i> "temp The v	<i>Type</i> <b>E</b> _var: A temporar ariable is not tem	<i>Comment Status</i> <b>A</b> y variable used to store the va porary, it's use is.	lue of the state	PSE SD e variable pd_class_sig."	Comment Figure "tice_t (pd_cl	<i>Type</i> <b>TR</b> 145-15, arc from ( imer_pri_done * (( ass_sig_pri = 4) *	Comment Status A CLASS_EV1_LCE_PRI to MA (class_4PID_mult_events_pri pse_avail_pwr_pri >= 4))"	RK_EV1_I * (pd_clas	PSE SD PRI: :s_sig_pri > 0)) +
Suggested Chang Same Response	dRemedy ge to: "temp_var: fix for temp_var_	A variable used to store the variable used to store the var_pri and temp_var_sec. Response Status <b>C</b>	alue of pd_cla	ss_sig."	Missir Suggested Chang	ng paren. <i>dRemedy</i> ge to:		± / I I	
ACCE C/ 145	EPT. SC <b>145.2.5.7</b>	P 125	L 1	# li-66	"tice_t (pd_cl <i>Response</i> ACCE	imer_pri_done * (( ass_sig_pri = 4) * PT.	(class_4PID_mult_events_pri (pse_avail_pwr_pri >= 4))" <i>Response Status</i> <b>W</b>	* (pd_clas	s_sig_pri > 0)) +
Comment The P within Anoth This fl http:// Suggestee Adopt Proposed REJE This c	Type TR SE state diagram Tpon referenced er option is to 'ren exibility has a nui www.ieee802.org dRemedy yseboodt_06_09 Response CT.	Comment Status D a currently requires a PSE to e at the end of detection. new' Tpon by checking is the F mber of use cases as explaine /3/bt/public/may17/lukacs_01_ 117_markhold.pdf Response Status Z FHDRAWN by the commenter	, PD is drawing and the drawing a	Pres: Yseboodt6 or go back to IDLE a correct mark current. Hold_rev1.0.pdf	C/ 145 Yseboodt, Comment Figure "ted_ti (pd_4) Missir Suggested Repla pse_a Response	SC 145.2.5.7 Lennart Type TR a 145-15, arc from 0 imer_pri_done * ter pair_cand + !alt_pv ng operator after ter dRemedy ce by: "ted_timer_p vail_pwr_pri) * (pd_	P 135 Philips Lighting Comment Status A CLASS_EVAL_PRI to POWEI d_timer_done (pd_req_pwr_pr vrd_sec)" d_timer_done. pri_done * ted_timer_done * (p _4pair_cand + !alt_pwrd_sec)" Response Status C	L 8 R_UP_PRI ri <= pse_a	# <u>i-69</u> PSE SD : ivail_pwr_pri) * r_pri <=
Cl 145 Yseboodt, Comment State at the Cause Suggester Add c Response ACCE	SC 145.2.5.7 Lennart <i>Type</i> <b>TR</b> diagram logic from end. ed by editing impl dRemedy losing paren all the PT.	P 125 Philips Lighting Comment Status A m START_DETECT to DETEC ementation mistake of yseboo ne way at the end: " (det_ten Response Status W	<i>L</i> 32 CT_EVAL is m odt_09_0317.p np = both_neit	<pre># <u>i-67</u> PSE SD issing a closing paren df (copy/paste mistake). her)))".</pre>	ACCE	PT.			

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

C/ <b>145</b>	SC 145.2.5.7	P 137	L <b>7</b>	# i-70	C/ <b>145</b>	SC 14	15.2.6	P 141	L <b>20</b>	# i-73
r seboodt,	Lennart	Philips Lighting			r seboodt, i	ennart		Philips Lighting		
Comment	Type <b>TR</b>	Comment Status A		PSE SD	Comment 7	уре	т	Comment Status A		PSE Detection
Arc log "tlce_ti (pd_cla	jic from CLASS_ mer_sec_done *	EV1_LCE_SEC to MARK_EV1 ((class_4PID_mult_events_set * pse_avail_pwr_sec >= 4))"	_SEC: c * (pd_class <sub>-</sub>	_sig_sec > 0)) +	"In any PSE ha	operatio s succes	nal state ssfully d	e, the PSE shall not apply opera etected a valid signature over th	iting power to nat pairset."	o a pairset until the
Missing	g paren.	poo_araii_piii_000 / = 1//			A PSE to be so The ter	does not ourced. m 'opera	t apply p	ower, it applies voltage and the	PD draws c	urrent, causing power
Suggested	Remedy				"In any	operatio	n state"	are 4 redundant words.		
Replac 0)) + (p	e by: "tlce_timer d_class_sig_se	_sec_done * ((class_4PID_mul c = 4) * (pse_avail_pwr_sec >=	t_events_sec 4))"	* (pd_class_sig_sec >	Suggested	Remedy				
Response	T	Response Status C			"The P detecte	SE shall d a valid	not appl I signatu	y operating voltage to a pairset re over that pairset."	until the PS	E has successfully
ACCER	21.				Response			Response Status C		
C/ 145	SC 145.2.5.7	P 140	L 1	# i-71	ACCEF	T IN PR	INCIPLE	Ξ.		
Comment	Lennart Type <b>TR</b>	Comment Status A		PSE SD	Change succes	e text to: sfully det	"The Pattected a	SE shall not apply operating vol valid signature over that pairset	tage to a pai t."	rset until the PSE has
In Figu IDLE_I	ure 145-17, MPS MPS, which is wi	monitor state diagram, the arc ong (editor mistake in earlier d	from DETEC raft when red	T_MPS goes to awing the figures).	and ad	opt stewa	art_03_0	917_final.pdf		
Suggested Make a	Remedy arc from DETEC <sup>-</sup>	□			<i>Cl</i> <b>145</b> Yseboodt, I	SC 14 ennart.	15.2.6	P <b>141</b> Philips Lighting	L <b>25</b>	# i-74
Response		Response Status <b>C</b>			Comment 1	vne l	F	Comment Status A		Editorial
ACCEF	PT.	_			"The P	SE probe	es the lin	k section in order to detect a va	alid PD deteo	tion signature. The
C/ 145	SC 145.2.5.7	P 140	L 27	# [i-72	T OL T					
Yseboodt,	Lennart	Philips Lighting			Swapp	ng the o	rder of th	nose sentences makes the text	more logical	
Comment T	Type TR	Comment Status A		PSE SD	Suggestedl Swap c	Remedy rder of s	entence	S.		
IDLE_I Same f	MPS_PRI, which for _SEC.	is wrong (editor mistake in ear	lier draft when	redrawing the figures).	Response	т		Response Status C		
Suggested	Remedv				AUCER	1.				
Make a	arc from DETEC	L_MPS_PRI go to MONITOR_N	MPS_PRI and	I same for _SEC.						
Response		Response Status C								

ACCEPT.

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

C/ 145	SC 145.2.6.1	P 141	L 36	# i-75	C/ 145	SC 1	45.2.7	P 145	L <b>43</b>	# i-78
Yseboodt, I	Lennart	Philips Lighting			Yseboodt,	Lennart		Philips Lighting		
Comment 7	Туре Е	Comment Status A		Connection Check	Comment	Гуре	ER	Comment Status A		Editorial
"PSEs the clas single-s	that will deliver p ssification of a P signature PD cor	ower on both pairsets shall com D as defined in 145.2.7 to deter figuration, a dual-signature PD	plete a connec mine if the PSE configuration, c	tion check prior to is connected to a pr neither."	"PSEs identifi	or PDs cation a	that do no nd can or	ot implement classification will hly perform as Type 1 devices.	not be able to	o complete mutual
We use	e the terms 'sour	ce power' (7x) and 'deliver powe	er' (2x).		Does r	ot apply	for Type	3 / Type 4. All of those suppo	rt classificatio	n.
Suaaested	Remedv		( )		Suggested	Remedy	/ d conton/			
Replac	e "deliver power'	by "source power" in the quote	d sentence.		Deenenee	e quote	u sement			
Response		Response Status C			ACCE	эт		Response Status C		
ACCEF	PT.				AUGE	1.				
	SC 445 2 6 2	D112	1.24	# : 70	C/ 145	SC 1	45.2.7	P 146	L <b>41</b>	# i-79
Vseboodt I	30 145.2.0.3	Philips Lighting	L <b>34</b>	# 1-76	Yseboodt,	Lennart		Philips Lighting		
Commont 7		Commont Status		Editorial	Comment	Гуре	TR	Comment Status R		PSE Power
In Tabl Detecti	e 145-8 is writter	r; "In detection state or connection check happen in multiple state	on check state	Lunonar	Topic: "N	SLIDIN( /leasure	G ments sh	ould be averaged using any sl	iding window	with a width of 1 s."
Suggested Change "In dete Response	<i>Remedy</i> e to: ection states or c	onnection check states" (two oc Response Status <b>C</b>	currences in Ta	able 145-8)	T sectior - - -	nis sente i is infor Why is t Measure The actu	ence follo mative in this a sho ements of ual power	ws after the definition of PClas nature. uld ? what ? PClass is a capability. requirement of a PSE is enco	ss and PClass ded in ICon-2	-2P. That whole P.
ACCEF	PT IN PRINCIPL	Ξ.			Suggested	Remedy	/			
delete	additional inform	ation column in table.			Remov	e quote	d sentend			
C/ 145	SC 145.2.6.7	P 145	L <b>20</b>	# i-77	REJEC	CT.				
Yseboodt, I Comment 7 "PSEs pairset: PSEs a	Lennart <i>Type</i> <b>T</b> shall determine s prior to applyin apply a voltage a	Philips Lighting Comment Status <b>A</b> whether an attached PD is a car g power to both pairsets." nd PDs can draw current.	ndidate to recei	Connection Check ve power on both	This is the spe	the only ecificatio	y mention on.	of averaging for Pclass and n	eeds to be inc	luded somewhere in
Sugaested	Remedv									
Change "PSEs pairset	e to: shall determine s prior to applyin	whether an attached PD is a car g operating voltage to both pairs	ndidate to recei sets."	ve power on both						
Response		Response Status C								
ACCEF	PT.									

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

C/ 145 SC 145.2.7	P 148	L <b>25</b>	# <u>i-80</u>	C/ 145	SC 145.2.7	.1 <i>P</i> 148	L <b>44</b>	# i-82
Yseboodt, Lennart	Philips Lighting			Yseboodt, I	ennart	Philips Lightin	g	
Comment Type T	Comment Status A		Editorial	Comment 7	уре Е	Comment Status A		Editorial
"PSEs that will deliver 4 classification on each pa PSE do not deliver powe	-pair power to a dual-signature airset." er they source power.	PD shall pe	rform Physical Layer	"Voltag and IM	es, VClass, Vl ark_LIM are sp	Mark, and VReset are specified becified in Table 145-14."	l in Table 145-	-14. Currents IClass_LIM,
SuggestedRemedy				Both se Two cri	entences refer mes against c	to the same Table, can be mer commas in those sentences.	ged.	
"PSEs that will source p Layer classification on e	ower over 4 pairs to a dual-sig each pairset."	nature PD sł	nall perform Physical	Suggested	Remedy			
Response ACCEPT.	Response Status C			Change "Voltag specifie	e to: es VClass, VN ed in Table 14	Aark, and VReset and currents 5-14."	IClass_LIM ar	nd IMark_LIM are
CL 145 SC 145 2 7	P1/8	/ 36	# [ 91	Response		Response Status C		
Yseboodt, Lennart	Philips Lighting	2 30	π [-01	ACCEF	РТ.			
Comment Type TR	Comment Status A		PSE Class	C/ 145	SC 145.2.7	.1 P 149	L <b>30</b>	# i-83
"When connected to a c	lual-signature PD, a PSE opera	ating over 4 p	pairs shall treat the	Yseboodt, I	ennart	Philips Lightin	g	
requested power over e	ach pairset independently.			Comment 7	уре Е	Comment Status A		Editorial
Redundant and untestal independently handled f A PSE is also allowed to Classification must be p	ble. The requirement on ICon-2 for each pairset. In allocate the greater of the pair erformed on both pairsets of a	P clearly stars rset power to dual-signatu	ates that power is o each pairset. are PD per line 25.	"PSEs to dete event c	that issue mor mine the PD r ount."	re class events than the class the requested Class, transition to C	ney are capab LASS_RESE	le of supporting, in order T to reset the PD's class
SuggestedRemedy				Second	l "class" is not	written with capital C.		
Remove quoted text.				Suggested	Remedy			
Response ACCEPT IN PRINCIPLE	Response Status <b>C</b> E.			Change "PSEs to dete event c	e to: that issue mor mine the PD r ount."	re class events than the Class t requested Class, transition to C	hey are capat LASS_RESE	ble of supporting, in order T to reset the PD's class
Change to: "When cont the requested power over	nected to a dual-signature PD, er each pairset independently."	a PSE opera	ating over 4 pairs treats	Response ACCEF	PT.	Response Status C		
and move it to the begin	ining of the paragraph on page	146, line 25						

C/ 145	SC 145.2.7.1	P 151	L 11	# i-84	C/ 145	SC 145.2.7.	1 <i>P</i> 1	51	L 27	# i-86
Yseboodt	, Lennart	Philips Lighting	9		Yseboodt,	Lennart	Philip	s Lighting		
Comment Table	Туре <b>Т</b> 145-14:	Comment Status A		PSE Class	<i>Comment</i> "If the period	Type <b>TR</b> PSE returns to I of at least T Re	Comment Status IDLE, it shall maintair set min before startin	<b>D</b> the PI vol g a new de	Itage in the ra	PSE SD ange of V Reset for a e."
T_CL T_CL	E2 has value 6ms E3 has value 6ms	to 30ms. to 20ms.			ls cont this 'sh	tradicted by the hall'.	state diagram, which	does not h	nave this requ	uirement, invalidating
Post	clause split, there	is no longer a reason to keep	T_CLE2.		Suggested	IRemedy				
Suggester - Rem - Ren	dRemedy nove T_CLE2 from ame T_CLE3 to T	n Table 145-14 CLE			- Add t - Prep STAR	to IDLE state (Fi end "tclass_rese T_DETECT, and	igure 145-13): "start to et_timer_done * " to th d START_CXN_CHK_	class_rese ne logic fro _DETECT.	et_timer" om IDLE to S	TART_CXN_CHK,
- Cha * Re * Re * Up	nge any mention of move tcle2 timers name tcle3 timers date usage in the	of I_CLE2 and I_CLE3 in the to tole timers state diagram	e draft to T_CLE:		Proposed REJE	Response CT.	Response Status	Z		
* Up	date text in draft (	Change T_CLE2 or T_CLE3	to T_CLE)			omment was wi	ITHDRAWN by the co	mmenter.		
Response ACCE	9 EPT IN PRINCIPL	Response Status <b>C</b> E.			C/ 145 Yseboodt,	SC 145.2.7.2 Lennart	2 P1 Philip	<b>51</b> s Lighting	L <b>32</b>	# i-87
- Rem - Ren - Cha * Re * Re * Up * Up	nove T_CLE2 from ame T_CLE3 to T nge any mention of move tcle2 timers name tcle3 timers date usage in the date text in draft (	Table 145-14 _CEV of T_CLE2 and T_CLE3 in the to tcev timers state diagram Change T_CLE2 or T_CLE3	e draft to T_CEV: to T_CEV)		Comment Topic: SLIDIN Aim: g "Avera AUTO	Type <b>T</b> SLIDING Issue: we us NG comments tr et everything in ge power is cald _Window as def	Comment Status se the concept of 'slid y to make the whole I the form "measure x culated using any slid fined in Table 145-15.	A ing window bunch cons ix using a s ing window "	vs' in our dra sistent. xx time slidin v with a width	<i>Sliding</i> ft very inconsistently, the g window". n in the range of T
Cl <b>145</b> Yseboodt	SC <b>145.2.7.2</b> , Lennart <i>Type</i> <b>E</b>	P <b>151</b> Philips Lighting Comment Status <b>A</b>	L <b>23</b>	# i-85 Editorial	Suggested Replac "/ AUTO	IRemedy ce quoted senter Average power i Window as def	nce by: s measured using a s fined in Table 145-15.	liding winc	dow with a wi	dth in the range of T
"See Can b	Annex 145B for A be more specific p	utoclass timing diagrams." ointing to figure where it is sh	own.		Response	- DT	Response Status	С		
Suggeste	dRemedy				AUUE	F1.				
Chan "See	ge to: Figure 145B-15 fo	r Autoclass timing diagrams.	n							
Response ACCE	, EPT.	Response Status C								

|--|

C/ 145	SC 145.2.7.2	2 P 151	L <b>46</b>	# i-88	C/ 145	SC 14	45.2.8	P 153	L <b>2</b>	# i-91
Yseboodt,	Lennart	Philips Lighting			Yseboodt, L	.ennart		Philips Lighting		
Comment T	Type E	Comment Status <b>A</b>	called "Autocl	Autoclass	Comment T	ype	E	Comment Status <b>A</b>	ition in Figure	PSE Power
sliding	window" but rea	ally describes the width of the wi	ndow.	ass average power	Both Fig	gure 14	5-23 and	d Equation 145-18 describe the	same thing. (	Only one of them
Suggested	Remedy				should	be leadi	ing, in ar	nother comment we picked the	Equation to b	e in the lead.
Replac	e 'Parameter' b	y "Autoclass average power slid	ng window wi	dth".	SuggestedF	Remedy		0.0	· · · · · <b>-</b> · · ·	1 (445-40) II
Response		Response Status C			Change	e to: "Se	e 145.2.	.8.6 and maximum value definit	ion in in Equa	ation (145-18).
ACCE	PT.				Response ACCEP	ΥT.		Response Status C		
Cl 145	SC 145.2.8	P 152	L <b>29</b>	# i-89	C/ 145	SC 14	45.2.8	P 153	L 16	# i-92
r sebooul, I					Yseboodt, L	ennart		Philips Lighting		
Comment	<i>lype</i> E	Comment Status A	naireat in the	Editorial	Comment T	vpe	TR	Comment Status A		PSE Inrush
	145-16, item 1,	Parameter = Output voltage per	pairset in the	FOWER_ON SIDLE .	Table 1	45-16, I	linrush (i	item 6) lists minimum values for	<sup>.</sup> dual-signatu	re PDs. Dual-signature
Suggested	Remedy	altage per pairent in DOWER OI			PDs ma	ay be sta	arted up	in a staggered fashion, making	this paramet	er meaningless. In
Постоко			N		the sam	, dual-si 1e here.	ig PDs a	are specified exclusively on a pe	er pairset basi	is only, this needs to be
Response		Response Status C			SugaestedF	Remedv	,			
ACCE	PT IN PRINCIPI	-E.			- Remo - Remo	ve the to	wo rows	for dual-signature PDs in Item	6 of Table 14 4 of Table 14	5-16 5-28
Chang	e "Output voltag	e per pairset in the POWER_ON	V state" to "Ou	tput voltage per	Response			Response Status C		
pairset Chang	in a power on s e item 2 parame	state". eter name to "Pair-to-pair voltage	e difference".		ACCEP ACCEP	T IN PR	RINCIPL	E. E.		
This re	solution is ident	ical to comment #289.			adopt c	hanges	shown i	n yseboodt 10 0917 inrush.pc	If	
C/ 145	SC 145.2.8	P <b>152</b>	L 38	# i-90	<b>T</b> to 1 a mark			, ,		
Yseboodt,	Lennart	Philips Lighting			This res	solution	is identi	cal to comment #291.		
Comment T	<i>Type</i> <b>E</b> 145-16, item 10	Comment Status A		PSE Power	C/ <b>145</b> Yseboodt, L	SC 14 ennart.	45.2.8	P <b>153</b> Philips Lighting	L <b>33</b>	# i-93
For par doesn'	rameters that de t make too muc	eal with time and are not exclusive h sense.	/e to dual-sign	ature, the "-2P" suffix	Comment T	ype	E	Comment Status A		PSE Power
Suggested	Remedy				Table 1 For par	45-16, il ameters	tem 8: T s that de	Inrush-2P. al with time and are not exclusive	ve to dual-sig	nature the "-2P" suffix
Renam	ne T_CUT-2P to	T_CUT throughout Clause 145.			doesn't	make to	oo much	i sense.	to to dual olg	
Response		Response Status C			On the	PD side	e we call	it T_Inrush_PD.		
ACCE	PT.				SuggestedF	Remedy	,			
					Renam	e T_Inru	ush-2P te	o T_Inrush in Clause 145.		
					Response ACCEP	T.		Response Status C		
TYPE: TR/ COMMENT SORT ORE	technical requir Γ STATUS: D/di DER: Comment	ed ER/editorial required GR/gel spatched A/accepted R/rejecte ID	neral required d RESPON	T/technical E/editorial G/g SE STATUS: O/open W/wr	general ritten C/closed	U/unsa	atisfied 2	Comment Z/withdrawn	ID i-93	Page 21 of 132 9/15/2017 11:41:27 AM

C/ 145	SC 145.2.8	P 154	L <b>23</b>	# i-94	C/ 145	SC ·	145.2.8.1	P 155	L 38	# i-96
Yseboodt,	Lennart	Philips Lighting			Yseboodt,	Lennart	t	Philips Lighting		
Comment	Type E	Comment Status A		Editorial	Comment	Туре	т	Comment Status A		PSE Power
Table For pa doesn	145-16, paramet arameters that de 't make too much	er 12: T_LIM-2P. eal with time and are not exclusi n sense.	ve to dual-si	nature, the "-2P" suffix	"A PS voltag	E in the e no lon	POWER_ ger meets	ON state may remove power the VPort_PSE-2P specificat	from a pairse ion."	et when the pairset
Suggested	Remedy				When	a state	name is m	entioned do not use the word	"state". Also	we need to mention the
Renar	ne T_LIM-2P to <sup>-</sup>	T_LIM throughout Clause 145.			Suggester	iy siales	5. hz			
Response		Response Status <b>C</b>			Suggested	ircemeu	У			
ACCE	PT.	-			"A PS from a	E in PO pairset	WER_ON, when the	POWER_ON_PRI, or POWE	ER_ON_SEC	c may remove power _PSE-2P specification."
C/ 145	SC 145.2.8	P 154	L <b>27</b>	# i-95	Response			Response Status C		
Yseboodt,	Lennart	Philips Lighting			ACCE	PT IN P	RINCIPLE			
Comment	Type <b>TR</b>	Comment Status A		PSE Power	In 1/5	201 0	bongo "th	DOWER ON state" to "a pa	wor on state	", ahanga "tha
While	this is not entirel	y unambiguous, the spec today	requires a P	SE to support at least	POWI	ER_UP :	state" to "a	power up state".	wer on state	, change the
this is	that classificatio	n was optional and not well und	erstood. By r	equiring at least support	This			-1.1		
for Cla	ass 3, the situatio	on was avoided that a PD was p	lugged in a r	othing ever happened		esolution	n is identic	al to comment #293.		
(eg. be	ecause it is a Cla	iss 1 only PSE).			C/ 145	SC ·	145.2.8.1	P 155	L <b>41</b>	# i-97
The si	tuation has now	changed:			Yseboodt,	Lennart	t	Philips Lighting		
- Clas	sification is man	datory es is much more prevalent in th	e standard		Comment	Туре	Е	Comment Status A		Editorial
- The	Ethernet Alliance	e logo program uses Class in th	e logo to mal	e it clear what kind of	"A PS	E that ha	as assigne	d Class 1 to 4 to a single-sign	nature PD an	id is in the POWER_ON
PSE is	s needed to powe	er a particular PD			expira	tion of T	pon. A PS	E that has assigned Class 5 t	to 8 to a sing	le-signature PD shall
There	are valid use-ca	ses for Class 1 and Class 2 onl	y PSE ports,	for which it is currently	apply	power to	both pairs	sets while in the POWER_ON	state."	-
unclea Dor th	ar if these are con	mpliant or not.	ad to ourpoo	t only Close 7	When	a state	name is m	entioned do not use the word	"state".	
Currenter	e same logic, Ty	pe 4 F 3LS Should then be allow			Suaaestea	Remed	V			
Suggested	Remeay	Itom 12:			Chan	ne to:	,			
- minir	num value of Ty	pe 3 from 15.4 to 4			"A PS	E that h	as assigne	d Class 1 to 4 to a single-sigr	nature PD ar	d is in POWER_ON may
- minir	num value of Ty	pe 4 from 90 to 75			transit Toon	A PSF 1	veen 2-pair that has as	and 4-pair power at any time signed Class 5 to 8 to a single	e, including a le-signature	fter the expiration of PD shall apply power to
Response		Response Status C			both p	airsets v	while in PC	WER_ON."	lo olgilataro i	
ACCE	PT.				Response			Response Status C		
					ACCE	PT.				

Cl 145 Yseboodt	SC 145.2.8.1	P	P 155 hilips Lightin	L <b>46</b>	# [i-98		Cl 145 Yseboodt	SC 145.2.8.3	P 156 Philips I	L <b>3</b>	# i-99
Commen	t Type E	Comment Sta	ntus A	3		Editorial	Comment	Type T	Comment Status		PSF Power
"TRis differ POW When	e, as defined in T ence between the /ER_ON state from n a state name is	Table 145-16, is repositive and the most the beginning of mentioned do not	eferenced fro negative con of POWER_U t use the wo	om 10% to 90% nductors of a pa JP." rd "state".	of the voltage airset in the		KTran 46.2 V If thes circum This m	_lo, the minimum ' and 48.05 V res e values are used istances, the calc hismatches with t	peak PSE voltages for pectively. d to calculate VTran_lo- culated PD voltages are he VTran_lo-2P specific	Type 3, Class 6 a 2p in the PD unde 37.2V and 34.5V. cation in Table 145	nd Type 4, Class 8 are r worst case 5-28 which is 36V.
Suggeste	edRemedy						Propo	sed is to change	the KTran_lo spec to so	mething that resu	Its in 36V on the PD side.
Chan "TRis differ from	ige to: se, as defined in T ence between the the beginning of F	Table 145-16, is represented by positive and the POWER_UP."	eferenced fro negative co	om 10% to 90% nductors of a pa	of the voltage airset in POWEF	R_ON	Otherv Quote "A PS	vise we might ge d text should follo E shall maintain a	t into Von/Voff PD issue ow this proposal. an output voltage no les	es. es than KTran_lo b	elow VPort_PSE-2P min
Response	е	Response Sta	tus <b>C</b>				for tra	nsient conditions			increases of 445 0.0.0
ACCI	EPT IN PRINCIPI	_E.					Transi	ents less than 30 us	us in duration may cau	and meet the requise the voltage at t	he PI to fall more than
Chan	ge "the POWER_	_ON state" to "a p	ower on stat	e"; change "the	POWER_UP s	tate" to	Currenter	_IU.			
"a po	wer up state".						Suggested	ikeniedy	lo to V/Trop 2P, it is ob	vious it is the low t	ransiant voltage because
This I	resolution is ident	ical to comment #	#296.				a mini	mum is specified	_io to v man-zr, it is ob		nansiem voltage, because
								Change item 3 in (Tran-2P for Type (Tran-2P for Type Change 'paramete Change text in 14	Table 145-16 from KTra 33 is 45.3V (MIN) 94 is 49V (MIN) 97 to read: "Output volta 5.2.8.3 to:	an_lo to VTran-2P. ge during transien	t".
							". condit 145.2. below	A PSE shall mair ions lasting more 8.8. Transients le VTran-2P."	itain an output voltage r than 30 us and less tha ess than 30 us in duration	no less than VTran an 250 us, and me on may cause the v	-2P for transient et the requirements of voltage at the PI to fall
							C	change paramete	r name in Table 145-28	, item 2 from VTra	n_lo-2P to VTran_PD-2P.
							Response		Response Status C		
							ACCE	PT IN PRINCIPL	E.		
							We ca a mini	in rename KTran mum is specified	_lo to VTran-2P, it is ob	vious it is the low t	ransient voltage, because
							C V V	Change item 3 in <sup>*</sup> (Tran-2P for Type (Tran-2P for Type Change 'parameter	Table 145-16 from KTra 3 is 45.3V (MIN) 4 is 48.4V (MIN) rr' to read: "Output volta	an_lo to VTran-2P.	t"
							C	Change text in 14	5.2.8.3 to:		

~ ...

"A PSE shall maintain an output voltage no less than Vtran-2P for transient conditions lasting more than 30 us and less than 250 us, and meet the requirements of 145.2.8.8. Transients less than 30 us in duration may cause the voltage at the PI to fall below Vtran-2P."

Change parameter name in Table 145-28, item 2 from Vtran\_Io-2P to Vtran\_PD-2P.

C/ 145	SC 145.2.8.4	P <b>156</b>	L 18	# i-100
Yseboodt, Le	ennart	Philips Li	ghting	
Comment Ty	vpe TR	Comment Status A		PSE Power

#### TOPIC: and/or

The Chicago Manual of Style says the following about the use of 'and/or':

"Avoid this Janus-faced term. It can often be replaced by 'and' or 'or' with no loss in meaning.

Where it seems needed, try 'or ... or both'. But also think of other possibilities."

"V Noise , the specification for power feeding ripple and noise in Table 145-16, shall be met for common-mode and/or pair-to-pair noise values for power outputs from (I Hold max x V Port\_PSE-2P min) to the maximum power per the PSE's assigned Class for PSEs at static operating V Port\_PSE-2P."

The use of and/or in this sentence is particularly bad as it allow TWO interpretations of the shall.

ALSO - we are using a lot of words to redundantly indicate this shall applies at any power level.

SuggestedRemedy

"V Noise , the specification for power feeding ripple and noise in Table 145-16, shall be met for common-mode and pair-to-pair noise values at static PSE output voltage."

Response Status C

### Response

ACCEPT IN PRINCIPLE.

#### Replace with:

"V Noise, the specification for power feeding ripple and noise in Table 145-16, shall be met for common-mode and pair-to-pair noise values at all static PSE output voltages."

C/ 145	SC 1	45.2.8.5	P 1	57	L 13	# <u>1-101</u>		
Yseboodt, L	ennart		Philip	s Lighting				
Comment Type TR Comment Status A						Pres: Yseboodt3		
"A minin maximu The unb - It is the - It is the	num cu m unba alance e minin e maxii	urrent of I C alance con e specificat num currer mum curre	Con-2P-unb over ou dition (see 145.2.8 ion is tied together it a PSE must be a nt a PSE may sour	ne of the pa .5.1) in the by ICon-2I ible to supp rce when c	airs of the sar POWER_ON P-unb which s oly on a pairs onnected to a	ne polarity under \ state." serves 3 distinct roles: at worst-case unbalance		
cable + PD - It is the maximum current a PD may draw when connected to a worst-case unbalance cable + PSE								
That ma	kes it	that there is	s ZERO margin be	tween PSE	E minimum ar	nd PD maximum.		

D 4 ---

. ...

### SuggestedRemedy

Adopt yseboodt\_03\_0917\_unbalancemargin.pdf which aims to create margin by introducing a new parameter that takes the role of specifying the minimum current a PSE must support on a pairset.

#### Response Response Status C

ACCEPT IN PRINCIPLE.

00 445 0 0 5

Adopt yseboodt\_03\_0917\_unbalancemargin.pdf with the following changes:

1. Use the Icon-2p-unb numbers from darshan\_03\_0917\_final.pdf for Iunbalance-2p and Icon-2p-unb

2. Put proposed subclause 145.1.1.3 content in PSE and PD unbalance section, rename as appropriate.

C/ 145	SC 1	45.2.8.5	P 157 L 14		# i-102
Yseboodt, Lennart			Philips Lighting		
Comment T	Гуре	Е	Comment Status D		Repeats

"A minimum current of ICon-2P-unb over one of the pairs of the same polarity under maximum unbalance condition (see 145.2.8.5.1) in the POWER ON state."

When a state name is mentioned do not use the word "state".

#### SuggestedRemedy

"A minimum current of ICon-2P-unb over one of the pairs of the same polarity under maximum unbalance condition (see 145.2.8.5.1) in POWER\_ON."

Proposed Response Response Status Z

REJECT.

This comment was WITHDRAWN by the commenter.

C/ 145	SC 145.2.8.5	P 157	L 14	# i-103		C/ 145	SC 1	45.2.8.5		P 158	L 10	# i-104		
Yseboodt, I	ennart	Philips Lig	phting			Yseboodt, I	ennart		P	hilips Lightii	ng			
Comment 7	ype E	Comment Status A			Editorial	Comment 7	Гуре	TR	Comment Sta	atus A		Pres: Darshan15		
Do not "A mini maximu	use combination mum current of I um unbalance co	of word state with state Con-2P-unb over one of indition (see 145.2.8.5.1)	name the pairs of the sar ) in the POWER_O	ne polarity under N state."		"I Peak effects	-2P-unb that a P	, defined SE suppo	l in Equation (1- orts on a pairse	45-12), is th t when powe	e minimum curr ering a single-sig	ent due to unbalance gnature PD over 4 pairs."		
Suggestedl Change "A mini	Remedy e to: mum current of I	Con-2P-unb over one of	the pairs of the sar	ne polarity under		What fo IPeak (	ollows is which in	a set of e turns dep	equations that opends on VPSE	lefine the va and RChar /mar17/vset	alue of IPeak-2F n) and RChan-2	P-unb as function of P.		
maximu	um unbalance co	ndition (see 145.2.8.5.1)	) in POWER_ON."			The value of IPeak-2P-unb is often lower than that of ICon-2P-unb. The PSE needs to								
Response ACCEF	ΥТ.	Response Status C				suppor 2P-unb	t ICon-2	P-unb, so	this has the ef	fect of 'clipp	ving' IPeak-2P-u	nb to be at least ICon-		
						The rea IPeak-2 If that is VPSE a	al issue a 2P-unb o s a requ and RCf	arises in t on any giv irement (a nan, both	the PD section, ven pair. and it should be parameters the	where we re e), then we c PD knows	equire a PD nev can't have IPeak nothing about.	rer to draw more than -2P-unb depend on		
						Given that there is almost no gain for PSEs to be had from being able to tune IPeak-2P- unb, the most effective solution is to make IPeak-2P-unb a fixed number.								
						Suggested	Remedy							
						- Repla	ice page	e 158, line	s 12 through 44	4 by:				
						IPeak-2	2P-unb =	= {ILIM-2F	P - 0.002					
						Response ACCEF	PT IN PF	RINCIPLE	Response Sta	tus C				
						- Repla	ice page	e 158, line	s 12 through 44	4 by:				
						IPeak-2	2P-unb =	= {ILIM-2F	P - 0.002}A					

Cl 145 Yseboodt, I	SC 145.2.8.5. Lennart	1 P 158 Philips Lighting	L <b>45</b>	# i-105	C/ <b>145</b> Yseboodt, I	SC 145.2.8. Lennart	5.1	P <b>159</b> Philips Lighting	L <b>34</b> g	# [i-107		
Comment 7 Subcla unbala The ma Make ti	<i>Type</i> <b>ER</b> use 145.2.8.5.1 t nce". ain topic here is a itle consistent wit	Comment Status A itle is "PSE PI pair-to-pair effe a current unbalance requireme h PD title 148.3.8.0	ective resistance a	<i>Editorial</i> and current	Comment 7 "A PSE load as Equatio	Type <b>TR</b> Shall not sour Shown in Figu on (145-16) and	Commer ce more than re 145-22, us l Equation (1	nt Status <b>A</b> I Con-2P-unb mir ing values of R lo 45-17)."	n on any pair w ad_min and R	Pres: Yseboodt2 hen connected to a load_max as defined in		
Suggestedi Change	Remedy e to:	t unhalanco"			<ul> <li>ICon-2P-unb is a minimum, no need to specify I Con-2P-unb min</li> <li>We should make it obvious that this shall applies when connected to a given test fixture described in the next paragraphs.</li> </ul>							
Response ACCEF CI 145	PT. SC <b>145.2.8.5.</b>	Response Status   C     1   P 159	L <b>4</b>	# [i-106	SuggestedRemedy Change quoted text to: "A PSE shall not source more than I Con-2P-unb on any pair when connected to a test fixture described in Figure 145-22, using values of R load_min and R load_max as defined in Equation (145-16) and Equation (145-17)."							
Yseboodt, I	Lennart	Philips Lighting			Response		Response	e Status C				
Comment 7	Туре Е	Comment Status A		Editorial	ACCEPT IN PRINCIPLE.							
"ICon-2 unbalai Septen	2P-unb is the cur nce and will be h	rent in the pairset with the high igher than ICon / 2." liad	hest current in ca	se of maximum	Adopt y	/seboodt_02_0	917_Figure_	145_22.pdf				
Suggested	Remedy				This re	solution is iden	tical to comm	nent #110.				
Change "ICon-2 higher	e to: 2P-unb is the hig than ICon / 2."	nest pairset current in case of	maximum unbala	ance and will be								
Response		Response Status C										
ACCEF	PT.											

C/         145         SC         145.2.8.5.1         P         160         L         1         # [i-108           Yseboodt, Lennart         Philips Lighting         Philips	Cl         145         SC         145.2.8.5.1         P 160         L 45         # i-109           Yseboodt, Lennart         Philips Lighting
Comment Type TR Comment Status A Pres: Darshan3	Comment Type T Comment Status D Pres: Yseboodt2
Table 145-17 contains the values needed to determine Rload, which is the load with which PSE unbalance is checked. Calculations show that when plugging in these numbers, some of the Classes fail to meet ICon-2P-unb. Eq. with an RPSE min=0.3 ICon-2P-unb for Class 7 (low channel conditions) is not met:	"This can be achieved by using a lower R PSE_max or higher R PSE_min than required by Equation (145-15). Lower R PSE _max values may be obtained by using smaller constant a or higher R PSE_min in Equation (145-15) in the form of R PSE_max = a x R PSE_min + b."
Class 7, low channel conditions, iport=1.195 i=0.784/0.412/0.784/0.412, VSupply=52.370	Very long/complicated way to say that it can be achieved by decreasing the difference between Rpsemin and Rpsemax.
VPSEPI=52.003 RPSE_min = 0.250 and RPSE_max = 0.446 PPD = 62.0, VLoad = 51.08, Vpd[1-4] = 52.11 52.14 0.26 0.23 = 51.92 FAILS to meet ICon-2P-unb of 0.781	SuggestedRemedy Change to: "This can be achieved by decreasing the difference between R_PSE_min and R_PSE_max as defined in Equation 145-15."
Other values of RPSE cause more errors, but all in Class 7.	Proposed Response Response Status Z
SuggestedRemedy	REJECT.
Either we need to update ICon-2P-unb, or we need to update the values in Table 145-17. Input Yair is needed.	This comment was WITHDRAWN by the commenter.
Response Response Status C ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE.	Cl 145SC 145.2.8.5.1P 161L 1# i-110Yseboodt, LennartPhilips LightingPres: Yseboodt2Comment TypeTRComment StatusAPres: Yseboodt2
Adopt the changes proposed in darshan_03_0917_final.pdf	Comparing Figure 145-22 with it's PD counterpart (Fig. 145-31), it contains a large amount of detail which is not relevant to the evaluation of Icon-2P-unb
This resolution is identical to comment #419.	SuggestedRemedy Adopt yseboodt_02_0917_Figure_145_22.pdf
	Response Response Status C ACCEPT.

C/         145         SC         145.2.8.5.1         P 161         L 6         # i-111           Yseboodt, Lennart         Philips Lighting         Philips Lighting         Philips Lighting         Philips Lighting	C/         145         SC         145.2.8.5.1         P 161         L 28         # [i-113]           Yseboodt, Lennart         Philips Lighting
Comment Type <b>TR</b> Comment Status <b>A</b> Editorial	Comment Type <b>T</b> Comment Status <b>A</b> Pres: Yseboodt2
unbalance. A different notation for the names of the current is used in each.	Rload_min/max exchange.
SuggestedRemedy	SuggestedRemedy
Change Figures 145-22, Figure 145-31, Figure 145A-2, and Figure 145A-3 such that:	Swap steps d) and e) and adjust labels accordingly.
- Currents are named "11" through "14". - i1 and i2 flow to the PD (positive) i3 and i4 flow from the DD (positive)	Response Response Status C
- is and if how from the PD (negative) - where applicable, i1 and i3 represent Alt A / Mode A	ACCEPT IN PRINCIPLE.
- where applicable, i2 and i4 represent Alt B / Mode B	Adopt yseboodt_02_0917_Figure_145_22.pdf
Update text that refers to Figure labelled currents to match.	This resolution is identical to comment #110.
Response Response Status C ACCEPT IN PRINCIPLE.	CI         145         SC         145.2.8.5.1         P 161         L 40         # [i-114]           Yseboodt, Lennart         Philips Lighting
Editorial license granted to adjust for changes to any of the figures made as a result of other comments.	Comment Type         ER         Comment Status         A         Editorial           It is unclear from Table 145-17 and Figure 145-22, that they describe a test fixture to test
C/ 145 SC 145.2.8.5.1 P 161 L 26 # i-112	PSE unbalance.
Yseboodt, Lennart Philips Lighting	Another comment improves Figure 145-22, however the title of Table 145-17 should make
Comment Type TR Comment Status A Pres: Yseboodt2	Suggested Period
In the evaluation method for Figure 145-22, item b) says: "With the PSE powered on, adjust the load to P Class_PD ."	Change title of 145-17 to read: "PSE unbalance test fixture resistances".
Which is wrong since the PSE load also comprises of the R_Ch_unb resistors.	Response Response Status C
SuggestedRemedy	ACCEPT IN PRINCIPLE.
Replace by: "Adjust to load such that a power of PClass-PD is consumed at the PD PI."	Change title of Table 145-17 to read: "PSE unbalance test fixture resistances".
Note: text may need adjustment based on yseboodt_02_0917_Figure_145_22.pdf	
Response Response Status C	
ACCEPT IN PRINCIPLE.	
Adopt yseboodt_02_0917_Figure_145_22.pdf	

This resolution is identical to comment #110.

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

C/ 145 SC 14 Yseboodt, Lennart	5.2.8.6	P <b>161</b> Philips Lighting	L <b>42</b>	# i-115	<i>Cl</i> <b>145</b> Yseboodt,
Comment Type T original text: "Th exceed the per p	Comme e maximum inrus bairset inrush tem	ent Status <b>A</b> sh current sourced b plate in Figure 145	by the PSE per -23 and Equatic	<i>PSE Inrush</i> pairset shall not on (145-18)."	<i>Comment</i> "The P
Figure 145-23 a which is leading	nd Equation (145 . Remove one.	-18) are referred in	the shall. That	gives uncertainty about	We sh that Fi
SuggestedRemedy					Suggested
Change to: The the per pairset in	maximum inrush nrush template in	current sourced by Equation (145-18).	the PSE per pa	airset shall not exceed	Replac "The P in Figu
Response	Respon	se Status C			Response
ACCEPT.					ACCE
C/ 145 SC 14	5.2.8.6	P 161	L <b>45</b>	# i-116	CI 145
Yseboodt, Lennart		Philips Lighting	9		Yseboodt.
Comment Type	rr Comme	ent Status A		PSE Inrush	Commont
"The PSE shall Table 145-16."	limit I Inrush-2P a	ind I Inrush during F	POWER_UP pe	r the requirements of	"The n unbala
Nowhere in this each other.	subclause do we	explain what these	parameters are	e and how they relate to	Seems
SuggestedRemedy					Suggester
Insert the follow "IInrush-2P is th	ing text after the p e current to which	paragraph containing the PSE limits it's	ng the quoted te pairset output o	ext: current while in	Remov
POWER_UP. III	hrush is the total	current to which the	PSE limits it's	output current while in	Response
limit, and Ilnrush	n-2P serves as th	e limit for 2-pair inru	ush, or as the in	rush unbalance limit	ACCE
When connected inrush limit for e	d to a dual-signat ach pairset indep	ure PD, only IInrusl endently."	n-2P is specified	d and serves as the	

Response

ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE.

adopt changes shown in yseboodt\_10\_0917\_inrush.pdf

Response Status C

This resolution is identical to comment #291.

C/ 145	SC ·	145.2.8.6	P 161	L <b>45</b>	# i-117
Yseboodt,	Lennar	t	Philips Lighting	)	
<i>Comment</i> "The F	<i>Type</i> 'SE inru	ER Ish maximi	<i>Comment Status</i> <b>A</b> um limit, I PSEIT-2P , is defir	ned by the follo	<i>Editoria</i> wing segments:"
We sh that Fi	ould no gure 14	t refer to th 5-23 depic	ings by relative position in th ts the Equation.	e draft. We als	o need some pointer
Suggested	Remed	y			
Replac "The F in Figu	ce by: PSE inru ire 145-	ısh maximı 23."	um limit, I PSEIT-2P , is defir	ned in Equation	145-18, and is shown
Response ACCE	PT.		Response Status C		
C/ 145 Yseboodt,	SC ·	145.2.8.6	P <b>162</b> Philips Lighting	L <b>28</b>	# [i-118
Comment	Туре	ER	Comment Status A		PSE Inrush
"The n unbala	ninimum Ince wh	n value of I en operatir	Inrush-2P includes the effecting over 4 pairs."	t of end to end	pair to pair resistance
Seems define	s like a l d (for IIr	eftover sei nrush-2P) f	ntence from earlier inrush sp or dual-signature, where unb	ecification. The alance does no	re are only min values ot play a role.
Suggested	Remed	У			

ve sentence.

Response Status C

PT.

C/ 145	SC 145.2.8.6	P 162	L 32	# i-119	C/ 145	SC 1	45.2.8.7		P 162	L <b>43</b>	# i-120
Yseboodt	, Lennart	Philips Lightir	ng		Yseboodt,	Lennart		Р	hilips Lighting	I	
Comment	t Type TR	Comment Status A		PSE Inrush	Comment	Туре	ER	Comment Sta	ntus A		Sliding
"The a) Du 2P re b) Du 2P re	minimum inrush re rring POWER_UP, quirement is 5 mA rring POWER_UP, quirement is 60 m	equirement is a function of th for pairset voltages betwee for pairset voltages betwee A.	ne pairset voltag n 0 V and 10 V, n 10 V and 30 V	e and is as follows: the minimum I Inrush- /, the minimum I Inrush-	Topic: Issue: comm A	SLIDING we use t ents try t .im: get e	a the conce to make the everything	pt of 'sliding wir ne whole bunch 1 in the form "mo	ndows' in our consistent. easure xxx us	draft very inco	nsistently, the SLIDING sliding window".
c) Du Inrus	ring POWER_UP h requirement are	for pairset voltages above 3 as defined in Table 145-16.	0 V, the minimu "	m I Inrush-2P and I	secon	The cum d width."	ulative du	ration of T CUT	-2P is measu	red with a slic	ling window of at least 1
l gue: pairse	ss what we want to et in POWER_UP.	o say is that these minimum	capabilities app	ly for each powered	T (using	his one i	s pretty C	OK, minor harmo	onization need	ded (measure	d with => measured
Suggeste	dRemedy				Suggested	lRemedy	/				
Repla	ace quoted text by:				"The c secon	umulativ d width."	e duratior	n of T CUT-2P i	s measured u	sing a sliding	window of at least 1
"The when Durin - 5m/	minimum linrush a VPSE exceeds 30 g POWER_UP, th when 0V < VPS	and IInrush-2P current capat )V. e minimum supported curre E <= 10V	in Table 145-16 applies ered pairset is:	Response ACCE	PT.		Response Sta	tus C			
- 60m	A when 10V < VP	SE <= 30V"			C/ 145	SC 1	45.2.8.8		P 162	L 54	# i-121
Response	e	Response Status C			Yseboodt,	Lennart		Р	hilips Lighting	I	
ACCI ACCI	EPT IN PRINCIPL	E. E.			Comment Type         TR         Comment Status         A         PSE Powe           "When connected to a single-signature PD, the PSE should remove power from both         Description         Description						
Repla	ace text on page 1	62 line 31-39 with:			pairsets before the current exceeds the "PSE upperbound template" on either pairset."						
"The when Durin -the r	minimum linrush a VPSE exceeds 30 g POWER_UP, th ninimum I_Inrush	and linrush-2P current capat )V. e minimum supported curre when powering a single-sign isorature PD is cat for a single-sign	in Table 145-16 applies	Let's say we have a PD (Class 5-8) that is operating in 4-pair mode, something occurs on one pairset only and the PSE flips to 2-pair mode. Per Equation 145-8, the PSE is now required to support the full assigned power over 2-pairs. Not something we really want.							
-the r when	powering a dual-s ninimum I_Inrush powering a dual-s	when powering a single-sign when powering a single-sign signature PD is 60 mA for vo	ne minimum I_Inrush-2P 10 V and 30 V."	We can fix this by re-assigning the PD to Class 4 in case of a flip to 2-pair. That way we don't violate ICable by delivering more power over 2-pair.							
	p =	.g			Suggested	lRemedy	/				
This I	resolution is idention	cal to comment #486.		<ul> <li>Add the following statement to SEMI_PWRON_PRI and SEMI_PWRON_SEC:</li> <li>"pse_allocated_pwr = min(pse_allocated_pwr, 4)"</li> </ul>						WRON_SEC:	
					Response			Response Sta	tus <b>C</b>		
					ACCE	PT.					

C/ <b>145</b> SC <b>145.2.8.8</b> Yseboodt, Lennart	P 164 Philips Lighting	L 5 # i-122	C/ 145 Ysebood	SC 145.2.8.8 It, Lennart	P <b>164</b> Philips Lighting	L <b>34</b>	# i-124			
Comment Type E "The PSE upperbound	Comment Status <b>A</b> template, I PSEUT-2P , is define	PES F d by the following segments:"	Power Commei "The	nt Type E PSE lowerbound te	Comment Status A emplate, I PSELT-2P, is define	ed by the fol	Editorial llowing segments:"			
Naming of these upper	bound templates has changed.		Nav	ng of these lowerbo	und templates has changed.					
SuggestedRemedy			Suggest	edRemedy						
Replace by: "The PSE upperbound defined by the following	templates, I_PSEUT-Type3-2P a g segments:"	nd I_PSEUT-Type4-2P, are	Rep "The by th	Replace by: "The PSE lowerbound templates, I_PSELT-Type3-2P and I_PSELT-Type4-2P, are defined by the following segments:"						
Response ACCEPT.	Response Status <b>C</b>		Respons ACC	e EPT.	Response Status C					
C/ 145 SC 145.2.8.8 Yseboodt, Lennart	P <b>164</b> Philips Lighting	L <b>32</b> # i-123	C/ 145 Ysebood	SC <b>145.2.8.8</b> It, Lennart	P 165 Philips Lighting	L7	# i-125			
Comment Type TR Topic:SLIDING Issue: we use the conc comments try to make Aim: get everythin "The PSE shall lin order to account for PS The cumulative du Oh joy, a sliding w	Comment Status <b>A</b> ept of 'sliding windows' in our dra the whole bunch consistent. Ig in the form "measure xxx using hit a pairset current to I LIM-2P fo E dV/dt transients at the pairset. uration of T LIM-2P may be meas vindow without any limitation on th	S ft very inconsistently, the SLID a a xx time sliding window". or a duration of up to T LIM-2P i ured with a sliding window." ne width.	Sliding Commen "A F 2P v Stat Suggest in "A F the p <i>Respons</i> ACC	Comment Type       E       Comment Status       A       PSE Powe         "A PSE in the POWER_ON state may remove power from a pairset without regard to TLIM-2P when the pairset voltage no longer meets the VPort_PSE-2P specification." State name does not need extra word "state"       SuggestedRemedy         "A PSE in POWER_ON may remove power from a pairset without regard to TLIM-2P when the pairset voltage no longer meets the VPort_PSE-2P specification."       Response       Response Status       C         ACCEPT IN PRINCIPLE.       Acception       C       Acception       C						
SuggestedRemedy Replace the last quoted "The cumulative d least 1 second width." Response	d sentence by: luration of T LIM-2P may be meas <i>Response Status</i> <b>C</b>	sured using sliding window of a	Rep 165, at PSE This	Replace "POWER_ON state," with "Power on states," in Figures 145-24, 145-25. On page 165, replace "A PSE in the POWER_ON state may remove power from a pairset" with "A PSE with a pairset in a power on state may remove power from that pairset" This resolution is identical to comment #303.						
ACCEPT IN PRINCIPL Replace sentences by: "The PSE shall limit a cumulative duration of at most 1 second width	pairset current to I LIM-2P for a d the current limit event may be me	luration of up to T LIM-2P. The easured using a sliding window	e of							

C/ 145 Yseboodt	SC <b>145.2.8.9</b>	P 165 Philips Lighting	L <b>12</b>	# [i-126	C/ 145 Yseboodt	SC <b>145.2.8.1</b>	1 <b>0</b> /	<b>165</b>	L 19	# i-128		
Comment	Type E	Comment Status A		PSE Power	Comment	Type TR	Comment Stat	IS A	9	PSE Power		
"The s VPort_ VPort_	pecification for T PSE-2P to VOff PSE-2P is a ran	Off in Table 145-16 shall appl of a pairset with a test resiston ge. The actual starting value f	y to the discha r of 320 kohm or Toff is give	arge time from attached to that pairset." n in the next sentence.	"The s Slew c	f issues:	/ Off in Table 145-	16 shall app	bly to the PI vo	oltage in the IDLE State."		
Suggested "The s voltage	<i>IRemedy</i> pecification for T e to VOff of a pai	Off in Table 145-16 shall apply rset with a test resistor of 320	y to the discha kohm attache	arge time from operating d to that pairset."	<ul> <li>Doesn't take 4-pair / pairsets into account</li> <li>There are more states than IDLE where this applies</li> </ul>							
Response ACCE Chang from V that pa	PT IN PRINCIPL je to: "The speci /Port_PSE-2P mi airset."	Response Status <b>C</b> E. fication for TOff in Table 145-1 in to VOff of a pairset with a te	l6 shall apply st resistor of 3	to the discharge time 320 kohm attached to	Suggested Replac "The v the PS The vc Table IDLE_	Remeay be by: E is in DISABLE dage at the corr 145-16, when the SEC, WAIT_SE	shall be equal or le ED, IDLE, TEST_E esponding pairset e PSE is in IDLE_I C, or ERROR_DEI	ss than V_( RROR_BO shall be equ PRI, WAIT_ AY_SEC."	Off, as defined TH, ERROR_ ual or less tha PRI, ERROR_	d in Table 145-16, when DELAY. n V_Off, as defined in _DELAY_PRI,		
C/ 145	SC 145.2.8.9	P 165	L 13	# i-127	Response		Response Statu	s C				
Yseboodt,	Lennart	Philips Lighting			ACCE	PT IN PRINCIPL	_E.					
Comment Type       E       Comment Status       A       Editorial         "In addition, it is recommended that the pairset be discharged when turned off."       In other places we refer to this as "power not applied" or "power removed".         SuggestedRemedy       "In addition, it is recommended that the pairset be discharged when power is removed."					"The voltage at the PI shall be equal or less than V_Off, as defined in Table 145-16, when the PSE is in DISABLED, IDLE, TEST_ERROR_BOTH, or ERROR_DELAY. The voltage at the corresponding pairset shall be equal or less than V_Off, as defined in Table 145-16, when the PSE is in IDLE_PRI, WAIT_PRI, ERROR_DELAY_PRI, IDLE_SEC, WAIT_SEC, or ERROR_DELAY_SEC."							
Response		Response Status C			C/ 145	SC 145.2.8.1	2 /	<sup>o</sup> 165	L 37	# i-129		
ACCE	PT IN PRINCIPL	E.			Yseboodt,	Lennart	Ph	lips Lighting	g			
ACCEPT IN PRINCIPLE. Suggest the following remedy instead: "In addition, it is recommended that the pairset be discharged when voltage is not applied".						Comment Type         TR         Comment Status         A         Editor           Topic:SLIDING         Issue: we use the concept of 'sliding windows' in our draft very inconsistently, the SLIDING comments try to make the whole bunch consistent.         Aim: get everything in the form "measure xxx using a xx time sliding window".						
					 16 cal	Type 4 PSEs sha culated with any	all not source more sliding window wit	power than a width up	n P Type max to 4 seconds	as defined in Table 145- s."		
					Suggested	Remedy						
					"Type measu	4 PSEs shall no red using a slidi	t source more pow ng window with a v	er than P T vidth up to 4	ype max as de l seconds."	efined in Table 145-16		
					Response		Response Statu	s C				
					ACCE	PT.						

C/ 145	SC 145.2.8.1	3 <i>P</i> 166	L <b>6</b>	# i-130	C/ 145	SC 145.3	2 P 168	L <b>43</b>	# i-132			
Yseboodt, Lennart Philips Lighting		Yseboodt,	Lennart	Philips Lig	Philips Lighting							
Comment	Туре Е	Comment Status A		Pres: Stewart1	Comment	Туре Т	Comment Status A		PD Types			
"PSEs Tpon a PD, PS detecti Staten	s, when connected after completing c SEs shall reach th ion on the same p name should not b	d to a single-signature PD, sha letection on the last pairset. Wi ne POWER_ON state for a pair pairset." pe using word "state".	l reach the P nen connecte set within T p	OWER_ON state within d to a dual-signature son after completing	"NOTEPDs that implement only Mode A or Mode B are specifically not allowed by this standard." "implementing a pairset" is ambiguous.							
Suaaestea	Remedv	Ũ			Suggested	Remeay	upport only Made A or Made	P are aposifically r	act allowed by this			
Chang	je to:				standa	ard."	apport only wode A or wode	b are specifically r	Iot allowed by this			
"PSEs after c PSEs	, when connected completing detections hall reach POW	d to a single-signature PD, sha on on the last pairset. When co ER_ON for a pairset within Too	I reach POW onnected to a	ER_ON within Tpon dual-signature PD, leting detection on the	Response Response Status C							
same	pairset."											
Response		Response Status C			C/ 145	SC 145.3	3.4 <i>P</i> 170	L 10	# i-133			
ACCE	PT IN PRINCIPL	Ε.			Yseboodt, Lennart Philips Lighting							
Change to: "PSEs, when connected to a single-signature PD, shall reach POWER_ON within Tpon after completing detection on the last pairset. When connected to a dual-signature PD, PSEs shall reach the respective power on state for a pairset within Tpon after completing detection on the same pairset."						Credit to Ken Bennet for finding this issue. See bennet_01_0917_vmarkth.pdf for full problem description. Short summary: There is no mention in our spec that a PD should implement hysteresis for V_Mark_th.						
C/ 145	SC 145.3.2	P 168	L <b>31</b>	# i-131	Without hysteresis it is possible to get spurious class/mark transitions due to the voltage drop of around 0.5V caused by the class current. It is compounded by the PD state diagram listing VMark_Th in the constants section,							
Yseboodt,	Lennart	Philips Lighting										
Comment	Type <b>TR</b>	Comment Status A		Pres: Yseboodt1	impiyir	ng the value o	cannot change while the state	e diagram is runnin	g.			
This subclause deals with what kind of input power configurations a PD must be able to handle and operate under. It does not properly cover all of the compliant configurations a PSE can have.						SuggestedRemedy - Move VReset_PD, VReset_Th, VMark_th, VOff_PD, and VOn_PD from the Constants (145.3.3.3) section to the Variable (145.3.3.4) section.						
Suggested	lRemedy				- Add t "Appro	the following to priate byster	text after the third paragraph	in 145.3.6.1.1: Id voltage is require	ed to avoid erroneous			
Adopt	yseboodt_01_09	17_pdinputpower.pdf			transitions between mark and class states when the PSE switches from a class volta							
Response		Response Status C			a mark	< voltage or vi	ca versa."					
ACCE	PT IN PRINCIPL	E.			Response		Response Status C					
Adopt	yseboodt_01_09	17_pdinputpower.pdf (v120)			ACCE	PT.						

CI 145 Yseboodt, I	SC 145.3.3.4 Lennart	P <b>170</b> Philips Lighting	L <b>25</b>	# i-134	C/ 145 SC 145.3.3 Yseboodt, Lennart	4 P 170 Philips Lighting	L 48 # i-136				
Comment 7 Variabl Suggested	<i>Type</i> <b>TR</b> le nopower is use <i>Remedv</i>	Comment Status <b>A</b> ed in state diagram, but not lister	d in variable list.	PD SD	<i>Comment Type</i> <b>T</b> Variable pd_current_ The description of TR	Comment Status A imit in the PD state diagram. UE/FALSE says "The PD is (not)	required to control the input cu	PD SD urrent."			
Add va "nopow was be at least Values FALSE	riable nopower to ver: A variable tha low VOff_PD wh t T_Reset. : : PD has not bee	o variable list as follows: at indicates the PD has been in ile being powered, since the last en in NOPOWER	NOPOWER, whi time V_PD was	ch indicates VPD below V_Reset for	What this is really about is _limiting_ the input current.         SuggestedRemedy         Replace 'control' in the text with the TRUE/FALSE values by 'limit'.         Response       Response Status         C						
Response ACCEF	PT.	Response Status C			Delete pd_current_limit.						
Cl 145 Yseboodt, I Comment T Variabl Suggested Change Response ACCER	SC 145.3.3.4 Lennart Type T le pd_autoclass_ Remedy e variable pd_aut	P 170 Philips Lighting Comment Status A enabled is not consistent with e. toclass_enabled to pd_autoclass Response Status C	<i>L</i> 38 g. pse_dll_enabl s_enable through	# [ <u>i-135</u> <i>Editorial</i> e. nout draft.	In INRUSH: pd_max_power <= i pd_current_limit <= In POWER_DELAY: pd_max_power <= r pd_current_limit <= in POWERED: pd_max_power <= r pd_current_limit <=	pu_current_innit is either redundan nrush (no limit) nin(3,pd_req_class) true (limit to I_Inrush_PD(-2P)) nin(pse_assigned_class, pd_req_c false (no limit)	class)	ower			

C/ 145	SC 145.3.3.4	P 172	L <b>5</b>	# i-137		C/ 145	SC 1	45.3.3.7	P 174	L <b>23</b>	# i-138		
Yseboodt, Lennart Philips Lighting			Yseboodt, Lennart			Philips Lighting							
Comment Type T Comment Status A PD SD					Comment 7	Гуре	TR	Comment Status A		Pres: Yseboodt7			
Variable present_det_sig: "Controls presenting the detection signature (see 145.3.4) by the PD. Values: invalid: A non-valid PD detection signature is to be applied to the PI. valid: A valid PD detection signature is to be applied to the PI over each pairset.						The variable pd_acs_req indicates if a PD saw a long class event and must do Autoclass. This variable's description is very misleading in 145.3.3.4, moreover, we don't need it because we can use "long_class_event * pd_autoclass_enabled" to get the same effect. I now also notice that Figure 145-27 doesn't work (eg. pd_acs_req is set to FALSE in							
PI "	either: Either a	a valid or non-valid PD dete	ction signature m	ay be applied to	the	IDLE_ACS, preventing it from being true in the arc from IDLE_ACS to WAIT_ACS).							
	רז. Why does valid say 'over each pairset', but invalid does not ?						SuggestedRemedy Adopt yseboodt_07_0917_pdautoclassfix.pdf						
SuggestedF	Remedy					Response			Response Status C				
Given that this is single-signature, all of these should apply on both pairsets. Change to: "Controls presenting the detection signature (see 145.3.4) by the PD over each pairset.						ACCEF Adopt y	PT IN P /sebood	RINCIPLE lt_07_091	7_pdautoclassfix.pdf (v105)				
	Values: invalid: A non- valid: A valid I either: Either a	valid PD detection signature PD detection signature is to a valid or non-valid PD deter	e is to be applied be applied to the ction signature m	to the PI. PI. ay be applied to	the	C/ 145 Yseboodt, I	SC 1 Lennart	45.3.3.7	P <b>175</b> Philips Lighting	L <b>32</b> g	# [i-139		
PI."						Comment 7	Гуре	TR	Comment Status A		PD SD		
Response ACCEP		Response Status C				PD stat VOnPD We're a This is	te diagr ) *". already consist	am: the tra "on" here, ent with ot	ansition from POWER_DEL/ so we should only check ag her POWERED states.	AY to POWERED Jainst Voff.	reads "Vpd >=		
Change to: "Controls presenting the detection signature (see 145.3.4) by the PD.						Suggestedl	Remedy	/					
	Values: invalid: A non-valid PD detection signature is to be applied to both pairsets. valid: A valid PD detection signature is to be applied to both pairsets. Either: Either a valid or non-valid PD detection signature may be applied to each					Change as follows: - POWER_DELAY ==> POWERED change to VPD > VOff_PD - POWERED ==> POWER_UPDATE change to VPD > VOff_PD							
pairset.	n					Do the	same fo	or dual-sig	nature.				
						Response			Response Status C				

ACCEPT.

C/ 145	SC 145.3.4	P 182	L 18	# i-140	C/ 145	SC	145.3.5	P 183	L 20	# i-142					
Yseboodt,	Lennart	Philips Lighting			Yseboodt,	Lennar	ť	Philips Lighting							
Comment	Type E	Comment Status A		Editorial	Comment	Туре	Е	Comment Status R		PD Signature					
"A PD compli	requesting pow ant, while a PD	er by presenting a detection sigr that presents the signature of Ta	nature outside able 145-21 is	of Table 145-20 is non- assured to fail	All but 145.3	t a few s 5 = "PD	subclause ) signature	titles are singular. e configurations"							
detecti	on."				Suggestee	dRemed	ly								
Constr	Construct of the sentence is odd: first part uses 'PD requesting', second part uses 'PD that						Change to "PD signature configuration"								
preser	its'.				Response			Response Status C							
Suggested	Remedy				REJE	CT.									
non-cc detecti Response	mpliant, while a	Response Status C	of Table 145	21 is assured to fail	The si being than c	gular ve reconfiç ne conf	ersion of tl gured on t figuration a	he clause title is misleading. It he fly or something. The plural and this is where to find their de	seems that th version impli escriptions/rec	e PD signature is es that there are more quirements.					
ACCE	PT.				C/ 145	SC	145.3.5	P 183	L <b>22</b>	# i-143					
	SC 145 2 4	D 192	1.26	# : 1 11	Yseboodt,	Lennar	ť	Philips Lighting							
Yseboodt.	Lennart	Philips Lighting	L 20	# 1-141	Comment	Туре	TR	Comment Status R		Pres: Yseboodt					
Comment Type       TR       Comment Status       D       Withdrawn         Table 145-20 on valid PD detection signature, first parameter is R_detect.       The parameter name also mentions: "(at any 1 V or greater chord within the voltage range					"A single-signature PD shall present a valid detection signature, as defined in Table 145- 20, on a given Mode when no voltage or current is applied to the other Mode, and shall present an invalid detection signature on that Mode when any voltage between 10.1 V and 57 V is applied to the other Mode. These requirements apply to both Mode A and Mode B										
This te What o 10.1V We're	ons)". xt comes straig loes it mean ? / per the conditio on the PD side	ht out of 802.3af. A resistance is a resistance and ns. of the spec. the 1V chord is a re	it needs to be	there between 2.7 and	The re check See h proble	equirem entirely ttp://ww m desc	ent only h operates w.ieee802 ription.	olds for corrupting voltages abo below 10.1V. 2.org/3/bt/public/may17/ysebood	ove 10.1V, wh	ereas connection					
for PD	S.		quironitonitoni		Suggested	Remed	ly								
Suggested	Remedy				"A sin	gle-sign	aragraph ature PD	shall present a valid detection s	signature, as	defined in Table 145-					
Delete	quoted text.				20, or	a giver	n Mode wł d detectio	en no voltage or current is app	lied to the oth	er Mode, and shall not					
Proposed REJEC	Response CT.	Response Status Z			is app NOTE entire	lied to t - A det PD det	he other N tection sig	Node. These requirements apply nature is only considered valid age range of 2.7 V to 10.1 V."	y to both Moc when it meets	le A and Mode B. s Table 145-20 over the					
This co	omment was W	ITHDRAWN by the commenter.			Response			Response Status U							
This co	omment was wit	hdrawn before the comment res	olution meeti	ng.	REJE	CT.									
						There was no consensus for change.									

Comment ID i-143

# i-1<u>42</u>

Pres: Yseboodt8

PD Signatures
C/ 145	SC 145.3.6	P 183	L 34	# i-144	C/ 145	SC 145.3.6.1	P 184	L 51	# i-147
Yseboodt, L	ennart	Philips Lighting			Yseboodt, Le	nnart	Philips Lighting		
Comment T	ype E	Comment Status A		Editorial	Comment Ty	pe T	Comment Status A		Editorial
All but a 145.3.6 SuggestedF	a few subclause 5 = "PD classifica Remedy	titles are singular. ations"			"During N DO_CLA DO_CLA DO_CLA	fultiple-Event P SS_EVENT1 a SS_EVENT3, [ SS_EVENT6 y	Physical Layer classification PI nd DO_CLASS_EVENT2 and DO_CLASS_EVENT4, DO_CL with the corresponding classifi	Ds shall pres class_sig_E .ASS_EVEN cation signal	sent class_sig_A during 8 during IT5, and tures specified in Table
Change	e to "PD classific	ation"			145-23."	00_2 1110, 1		cation signal	
Response ACCEP	PT.	Response Status C			The part state nar	during Multiple	-Event Physical Layer classific unambiguous.	cation' is red	undant. The reference to
C/ 145	SC 145.3.6	P 183	L <b>44</b>	# i-145	SuggestedRe	emedy			
Yseboodt, L	_ennart	Philips Lighting			Replace	by: Il procent close			DO CLASS EVENTS
<i>Comment T</i> "The re classific	<i>Type</i> <b>E</b> equested class o cation."	Comment Status <b>A</b> f the PD is the Class the PD adv	ertises durir	<i>Editorial</i> ng Physical Layer	and class DO_CLA signature	s_sig_B during SS_EVENT5, a s specified in T	Sig_A during DO_CLASS_E DO_CLASS_EVENT3, DO_C and DO_CLASS_EVENT6, wit able 145-23."	LASS_EVEN h the corres	NT4, ponding classification
Conitali		ovpand a little hit			Response		Response Status C		
Capital	Domodu	expand a infle bit.			ACCEPT	IN PRINCIPLE			
Suggesteur	remedy	f the PD is the Class the PD ad	vortisos duri	ng Physical Layer	ACCEPT				
classific	cation. It represe	ents the amount of power the PD	requires for	operation."	Change t	o: "PDs shall p	present class_sig_A during DC	CLASS_E	VENT1 and
Response		Response Status C			DO_CLA DO_CLA	SS_EVENT2 a SS_EVENT4, [	DO_CLASS_EVENT5, and DO	D_CLASS_EVEN	VENT6, as shown in
ACCEP	PT.				Figure 14 in Table	5-26 and Figur 145-23."	e 145-28, with the correspond	ing classifica	ation signatures specified
C/ <b>145</b> Yseboodt J	SC 145.3.6	P 184 Philips Lighting	L <b>35</b>	# i-146	This reso	lution is identic	al to comment #148.		
Comment T		Comment Status A		Editorial					
Given a 145-23 It shoul	all the changes t physically sit in d be moved to t	o the PD classification section, it 145.3.6. he Multiple-Event subclause whi	t makes little ch follows.	e sense to have Table					
Suggested	Remedy								
- Move - Move - Chang "PDs st Table 1 to read: "PDs st	Table 145-23 to Table 145-26 to ge the text on pa hall provide Mult 45-23." : hall provide Mult	subclause 145.3.6.1 before Table 145-24 ge 183, line 54 from: iple-Event Physical Layer classif iple-Event Physical Layer classif	fication as de	efined in 145.3.6.1 and efined in 145.3.6.1."					
Response		Response Status C							
ACCEF	PT.								

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

C/ 145 SC 145.3.6	.1 <i>P</i> 184	L <b>51</b>	# i-148	C/ 145	SC 145.3.6.1	P 185	L 13	# i-150
Yseboodt, Lennart	Philips Lightir	ng		Yseboodt,	Lennart	Philips Lighting		
Comment Type ER	Comment Status A		Editorial	Comment	Type TR	Comment Status A		PD SD
"During Multiple-Ever	nt Physical Layer classification	PDs shall prese	ent class_sig_A during	"The c	lefault value of pe	se_power_level is 3, which corr	esponds with	one class event."
DO_CLASS_EVENT	3, DO_CLASS_EVENT2 and DO_CLASS_EVENT2 and DO_CLASS_EVENT4, DO_	CLASS_SIG_B	5, and	The no	otion of 'default va	alues' in state diagrams is rem	oved. Senten	ce no longer adds value.
DO_CLASS_EVENT	6, with the corresponding class	sification signatu	ires specified in Table	Suggested	Remedy	-		-
145-23.				Remo	ve quoted senten	ce.		
Unlike in the Mark se	ection, we don't actually refer to	the state diagra	am in this sentence.	Response		Response Status C		
SuggestedRemedy				ACCE	PT.			
"During Multiple-Ever	nt Physical Layer classification	PDs shall prese	ent class_sig_A during		00 445 0 0 4	Dies	1.40	// <u>  , , = ,</u>
DO_CLASS_EVENT	3, DO_CLASS_EVENT4, DO_	CLASS_SIG_B	5, and	C/ 145	SC 145.3.6.1	P 185 Dhiling Lighting	L 19	# <u>1-151</u>
DO_CLASS_EVENT	6, as shown in Figure 145-26 a	and Figure 145-2	28, with the	r Sebudul,				
corresponding classi	fication signatures specified in	Table 145-23."		Comment	<i>l ype</i> IR	Comment Status A	which correct	PD SD
	Response Status C			event.	"	se_power_rever_mode( $\Lambda$ ) is 5,	which conesp	
ACCEPT IN PRINCI	PLE.			<b>T</b> 1		- har and the state of the sum and the second		
Change to: "PDs sha	all present class_sig_A during	DO_CLASS_EV	ENT1 and	i ne no		alues' in state diagrams is rem	oved. Senten	ce no longer adds value.
DO_CLASS_EVENT	2 and class_sig_B during DO_ 4. DO_CLASS_EVENT5, and	DO CLASS_EVENT	3, /ENT6. as shown in	Suggested	Remedy			
Figure 145-26 and Fi	gure 145-28, with the correspo	onding classifica	tion signatures specified	Reilio	ve quoted senten			
in Table 145-23."				Response	рт	Response Status C		
C/ 145 SC 145.3.6	.1 <i>P</i> 185	L 1	# i-149	ACCL	ΓΙ.			
Yseboodt, Lennart	Philips Lightir	ng		C/ 145	SC 145.3.6.1	P 185	L 34	# i-152
Comment Type E	Comment Status A		Editorial	Yseboodt,	Lennart	Philips Lighting		
"PDs implementing A	Autoclass shall present class si	gnature '0', as d	lefined in Table 145-23,	Comment	Туре Е	Comment Status A		Editorial
during DO_CLASS_E	EVENT_AUTO as defined in 14	45.3.6.2."		First c	olumn "PD Type"	in Table 145-24 needs to be le	eft aligned, al	so for Table 145-25
Why is 0 quoted? Cla	ass signature 0 is defined in Ta	able 145-23 and	does not need to be	Suggested	lRemedy			
quoted.				Left al	ign PD Type colu	ımn.		
SuggestedRemedy				Response		Response Status C		
Change to: "PDs implementing A	Autoclass shall present class si	gnature 0, as de	efined in Table 145-23,	ACCE	PT.			
during DO_CLASS_E	EVENT_AUTO as defined in 14	45.3.6.2."						
Response	Response Status C							
ACCEPT.								

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

Cl 145 SC 145.3.6.1 P 186 Yseboodt, Lennart Philips Light	L <b>32</b> ing	# i-153	C/ <b>145</b> Yseboodt,	SC 145.3. Lennart	8	P <b>187</b> Philips Lighti	L <b>1</b> ng	# i-154	
Comment Type       TR       Comment Status       A         In Table 145-26, Item 6, we find V_Reset_PD whic       The additional information points to 145.3.8.1, which         VReset_PD isn't mentioned abywhere in the docurr       the state diagram.         Specifically, there is a global arc into IDLE with VF         Because V_Reset_PD is a range, consistent with 6 means the PD can choose any voltage between 0° threshold.         This is wrong - the PD should return to IDLE and s than 2.81V.         SuggestedRemedy         - Change the definition of VReset_PD in 145.3.3.3         "VReset_PD max: The maximum PD reset voltage         - Change all occurrences of "VReset_PD"	th is a range betw ch says nothing a ment, with the ex D < V_Reset_PI other parameters and 2.81V and tay there whenev to read as follow (see Table 145- et PD max" in the	PD Reset ween 0V and 2.81V. about this parameter. ception that it is used in D* other_conditions. that are a range, this use this as the reset ver the voltage is less ver the voltage is less	Comment Type       ER       Comment Status       A       Edit         Table 145-28, the big PD Table, nearly every parameter has the value specified 'per the assigned Class'.       Exceptions: V_Tran_lo-2P, Voverload-2P, Tinrush_PD, Tdelay-2P, Islewrate, VNoise_PD Von_PD, Voff_PD, TClass_PD, and Vbfd.         All of the exceptions apply to both Type 3 and Type 4.       All of the others are determined by Class.         We don't need the PD Type column in this Table at all, it doesn't tell us anything new, no has it any technical significance.         SuggestedRemedy       Remove PD Type column from Table 145-28.         Response       Response Status       C						
<ul> <li>145.3.3.7</li> <li>Change the additional information in Table 145-2 Multiple-Event class signature)</li> <li>Append a paragraph to 145.3.6.1 that reads as for "V_Reset_PD, as defined in Table 145-26, is the v to IDLE, thereby resetting the class event count."</li> <li>Make the same changes for dual-signature as appendix to the same changes for dual-sig</li></ul>	6, item 6 to read ollows: oltage range in v propriate.	"See 145.3.6.1" (PD	Cl 145 Comment	se column. two rows for SC 145.3. Lennart Type E	Voverload-2P, d 6.2 Commen	one for Type 3 a P <b>187</b> Philips Lighti <i>t Status</i> <b>A</b>	and one for Type L <b>7</b> ng	e 4. # [i-155 Editorial	
Response       Response Status       C         ACCEPT IN PRINCIPLE.       -       -       Change the definition of Vreset_PD in 145.3.3.3 t       "Vreset_PD max: The maximum PD reset voltage       -       Change all occurences of "Vreset_PD" to "Vreset 145.3.3.7       -       Change the additional information in Table 145-2       Multiple-Event class signature)       -       Append a paragraph to 145.3.6.1 that reads as for "V_Reset_PD, as defined in Table 145-26, is the v IDLE."       -       Make the same changes for dual-signature as ap -       Editor to make sure Vreset_PD Max is in the con suggests otherwise).	to read as follows (see Table 145-2 _PD max" in the 6, item 6 to read ollows: oltage range in v propriate. stants list (overri	s: 26). state diagrams in "See 145.3.6.1" (PD which the PD remains in des any comment that	"A PD class s Table Why is quoted Suggested Chang "A PD class s Table Response ACCE	that impleme signature '0' n 145-27." s 0 quoted? C l. <i>IRemedy</i> le to: that impleme signature 0 no 145-27." PT.	nts Autoclass sl o earlier than T/ lass signature 0 nts Autoclass sl o earlier than TA <i>Response</i>	hall change its c ACS min and nc ) is defined in Ta hall change its c CS min and no e Status <b>C</b>	current during the later than TAC able 145-23 and current during the later than TAC	he first class event to S max, as defined in d does not need to be he first class event to S max, as defined in	

C/ 145	SC 145.3.8	P 188	L <b>21</b>	# i-156	C/ 145	SC 145	3.8	P 190	L 33	# i-158	
Yseboodt, L	_ennart	Philips Lighting			Yseboodt,	_ennart		Philips Lighting			
Comment T	ype ER	Comment Status A		PD Power	Comment	Гуре Е	Co	mment Status A		Editorial	
Table 1 defined It is not microse In gene	45-28, item 2, V in 145.2.8.3". immediately ap econds. eral pointing to th	'_Tran_lo-2P says in the additio parant that this applies to transi ne PSE section inside of the PD	nal informatio ents of no mo section for pa	n "For time duration re than 250 rameters is bad.	Note 'a "a Clas 145.3.8 The m	' under Tal is 6 and Cl 3.2)." pre approp	ole 145-28 s ass 8 PDs r riate subclar	says: nay exceed P Class_PD t use is 145.3.8.2.1.	under certain	conditions (see	
Suggested	Remedy				Suggested	Remedy					
- Repla	ce add. info by:	"See 145.3.8.1."			Chang	e 145.3.8.	2 to 145.3.8	3.2.1.			
- Add tr "During microse	a voltage transi conds."	45.3.8.1: ent, VPD may fall as low as VT	ran_lo-2P for	up to 250	Response ACCEI	PT.	Res	ponse Status C			
Note: if 2P rath	the other comm er than VTran_le	ent on KTran/VTran is accepted p-2P.	d, the parame	ter name is VTran_PD-	C/ <b>145</b> Yseboodt,	SC 145 Lennart	3.8.2	<i>P</i> <b>191</b> Philips Lighting	L <b>27</b>	# [i-159	
Response ACCEF	PT IN PRINCIPL		Comment Type ER Comment Status A Topic:SLIDING								
Replac	e add. Info by: "	See 145.3.8.1."			comments try to make the whole bunch consistent.						
C/ 145 Yseboodt, L	SC 145.3.8	P <b>188</b> Philips Lighting	L <b>51</b>	# [i-157	A r"	liding window".					
Comment 7	Type E	Comment Status A		Editorial	PDMax calcula	PowerValu ted over a	in 145.5.3 1 second sl	3.3.3, including any peak iding window."	power drawn	per 145.3.8.4 shall be	
Table I	45-26, paramet	er Tuelay-2F.			Suggested	Remedy					
For par doesn't	ameters that de make too much	al with time and are not exclusive sense.	e to dual-sign	ature, the "-2P" suffix	"The m PDMax	aximum av PowerValı	verage powe	er, P Class_PD or P Class 3.3.3, including any peak	s_PD-2P in T power drawn	able 145-28 or per 145.3.8.4 shall be	
Suggested	Remedy				Rosponso	red using a	Dec				
Renam	e Tdelay-2P to	Idelay throughout Clause 145.			ACCE						
Response ACCEF	PT.	Response Status C			ACCEI	PT IN PRIN	ICIPLE.				
					"The m PDMax averag	aximum av PowerValı ed using a	verage powe ue in 145.5.3 sliding wind	er, Pclass_PD or Pclass_ 3.3.3, including any peak low with a width of 1 seco	PD-2P in Tab power drawn nd."	ıle 145-28 or per 145.3.8.4, is	
					This re	solution is	identical to	comment #330.			

C/ 145	SC 145.3.8.2	P 191	L 32	# i-160	C/ 145	SC 145.3.8.2	2.1 <i>P</i> 191	L <b>42</b>	# i-162
Yseboodt,	Lennart	Philips Lighting			Yseboodt,	Lennart	Philips Lighting	9	
Comment	Type TR	Comment Status A			Comment	Type <b>TR</b>	Comment Status A		PD Power
"PDs tl consur	hat have success mption of PDMax	full completed DLL classification PowerValue as defined in 145.5	on, shall not exc 5.3.3.3."	ceed a power	"For C regard	lass 5 dual-signa ling actual link se	ature PDs, when additional info action DC resistance"	ormation is ava	ilable to the PD
Needs	update for dual-	signature.			Applie	s to ASSIGNED	Class.		
		erence is wrong also.			Suggestee	dRemedy			
Suggested Replac	remedy ce by:				Chang "For d	ge: ual-signature PD	s assigned to Class 5, when a	dditional"	
exceed Dual-s	Single-signature I d a power consur ignature PDs tha consumption of I	PDs that have successfully com nption of PDMaxPowerValue as t have successfully completed l 2DMaxPowerValue_mode(X) or	npleted DLL cla s defined in 145 DLL classification Mode X as de	ssification, shall not 5.3.4. on, shall not exceed a fined in 145.5.3.7."	Response ACCE	PT.	Response Status C		
Response	concumption of t	Response Status C			C/ 145	SC 145.3.8.3	P <b>192</b>	L 35	# i-163
ACCEI	PT IN PRINCIPL	E.			Yseboodt,	Lennart	Philips Lighting	)	
					Comment	Type E	Comment Status A		PD Power
exceed Dual-s	Ce by: Single-signature I d a power consur ignature PDs tha consumption of I	PDs that have successfully com nption of PDMaxPowerValue as t have successfully completed I PDMaxPowerValue_mode(X) or	npleted DLL cla s defined in 145 DLL classification n Mode X as de	ssification shall not .5.3.4. on shall not exceed a fined in 145.5.3.7."	"CPor POWI conne during indepe	t in Table 145-28 ER_ON states that cted to a single-set the POWER_UF endently, when co	is the PD input capacitance d at a PSE sees as load when o signature PD. CPort-2P in Tab P and POWER_ON states that onnected to a dual-signature F	uring the POW perating one or le 145-28 is the t a PSE sees a PD."	ER_UP and both pairsets, when PD input capacitance s load on each pairset
C/ <b>145</b> Yseboodt,	SC 145.3.8.2. Lennart	1 P 191 Philips Lighting	L <b>37</b>	# i-161	State Also, t	names do not ne for Cport-2P, we	ed the word "state" need the dual-signature state	names.	
Comment	Type TR	Comment Status A		PD Power	Suggestee	Remedy			
"For Cl the PD Applies	lass 6 and Class ) regarding actua s to ASSIGNED (	8 single-signature PDs, when a l link section DC resistance" Class.	additional inforn	nation is available to	Chang "CPor that a signat POWI	ge to: t in Table 145-28 PSE sees as loa ure PD. CPort-2F ER_UP_PRI, PO'	is the PD input capacitance d d when operating one or both P in Table 145-28 is the PD inp WER_UP_SEC, POWER_ON	uring POWER_ pairsets, when put capacitance _PRI, and POV	_UP and POWER_ON connected to a single- e during VER_ON_SEC that a
Chang	internedy ie:				PSE s	ees as load on e	each pairset independently, wh	en connected t	o a dual-signature PD."
"For si	ngle-signature Pl	Ds assigned to Class 6 or Class	s 8, when additi	onal"	Response		Response Status C		
Response		Response Status C			ACCE	PT.			
ACCEI	PT.								

C/ 145 Yseboodt, I	SC <b>145.3.8.4</b> _ennart	P <b>192</b> Philips Lighting	L <b>48</b>	# i-164	<i>CI</i> <b>145</b> Yseboodt,	SC 145.3. Lennart	8.4	P <b>193</b> Philips Lighting	L <b>29</b>	# i-166
Comment 7 "Peak of It is not Suggested	Type <b>TR</b> operating power stated that this Remedy	Comment Status <b>A</b> shall not exceed P Peak_PD." applies to single-signature PDs	only.	PD Power	Comment Topic: Issue: comme A	<i>Type</i> <b>ER</b> SLIDING we use the co ents try to ma im: get every	Comment oncept of 'sliding ke the whole bu thing in the form	t <i>Status</i> <b>A</b> g windows' in our d inch consistent. "measure xxx usi	lraft very incon ng a xx time sl	Sliding isistently, the SLIDING iding window".
"Peak o <i>Response</i> ACCEF	pperating power	for single-signature PDs shall no Response Status <b>C</b> E.	ot exceed P F	eak_PD."	"N with a <i>Suggested</i>	NOTE - The d width of 1 s." <i>Remedy</i>	uty cycle of the	peak current is ca	Iculated using	any sliding window
The sha Replac single-s	all is already con e sentence with: signature PDs."	tained in the Table 145-28. "Ppeak_PD is the maximum pe	eak operating	power and applies to	Chang "The d second <i>Response</i>	e to normal te uty cycle of th I."	ext: ne peak current <i>Response</i>	is measured using <i>Status</i> <b>C</b>	a sliding wind	ow with a width of 1
C/ 145 Yseboodt, I	SC 145.3.8.4 _ennart	P <b>192</b> Philips Lighting	L <b>52</b>	# [i-165	ACCEI C/ 145 Yseboodt	PT. SC 145.3.	8.4.1	P 193 Philips Lighting	L 39	# [i-167
Comment 7 "Peak of It is not Suggested "Peak of Posponso	<i>Type</i> <b>TR</b> operating power stated that this <i>Remedy</i> operating power	Comment Status A shall not exceed P Peak_PD-2P applies to dual-signature PDs or for dual-signature PDs shall not	nly. exceed P Pe	<i>PD Power</i> ak_PD-2P."	Comment <sup>*</sup> "For C Applie: Suggested Chang	Type TR ass 6 and Cli to assigned Remedy e:	Comment ass 8 single-sigr Class.	t <i>Status</i> <b>A</b> nature PDs and for	r Class 5 dual-	<i>PD Power</i> signature PDs,"
ACCEF	PT IN PRINCIPLI all is already con	tained in the Table 145-28.			"For si assign <i>Response</i> ACCEI	ngle-signature ed to Class 5 PT.	e PDs assigned ," <i>Response</i>	to Class 6 or Clas Status <b>C</b>	s 8, and for du	al-signature PDs
Replac and ap	e sentence with: olies to dual-sigr	"Ppeak_PD-2P is the maximum ature PDs."	ı peak operat	ng power on a pairset	C/ 145 Yseboodt, Comment	SC <b>145.3.</b> Lennart <i>Type</i> <b>E</b> requirement	8.6 Comments	P <b>194</b> Philips Lighting <i>t Status</i> <b>A</b> pairset individually	L <b>40</b>	# [ <u>i-168</u> <i>Editorial</i> dual-signature PD."
					Suggested Shorte Chang "These	Remedy r: e to: requirement	s apply to each	pairset individually	v for a dual-sig	nature PD."
					Response ACCEI	PT.	Response	Status C		
TYPE: TR/t COMMENT SORT ORE	echnical require STATUS: D/dis ER: Comment I	d ER/editorial required GR/gen patched A/accepted R/rejectec	eral required RESPON	T/technical E/editorial G/go SE STATUS: O/open W/wri	eneral tten C/closed	U/unsatisfie	d Z/withdrawn	Commen	t ID i <b>-168</b>	Page 42 of 132 9/15/2017 11:41:

:28 AM

C/ 145	SC 145.3.8.8	P 195	L 18	# i-169	C/ 145	SC 14	45.3.8.10	P 196	L 18	# i-172
Yseboodt,	Lennart	Philips Lighting			Yseboodt,	Lennart		Philips Lighting		
Comment	Type E	Comment Status A		PD Class	Comment	Туре	ER	Comment Status A		Sliding
"After within class	entering a DO_CI TClass_PD as de event."	ASS state, the PD Physical La	yer class signa ain valid for the	ture shall be valid remainder of the	Topic: Issue: comm A	SLIDING we use t ents try to tim: get e	he concep to make the everything	ot of 'sliding windows' in our dr e whole bunch consistent. in the form "measure xxx usin	aft very inco g a xx time s	nsistently, the SLIDING liding window".
Suggester	name can be mor	e specific.			"	NOTE - T	The duty c	cle of the peak current is calo	culated using	any sliding window
Chanc	ne to:				with a	width of	1 s."			
"After valid v the cla	entering a DO_CI within TClass_PD ass event."	ASS_EVENT state, the PD Ph as defined in Table 145-28 and	ysical Layer cla remain valid fo	ass signature shall be or the remainder of	Suggested Chang "The c secon	<i>Remedy</i> ge to norn luty cycle d."	, mal text: e of the pea	ak current is measured using	a sliding wind	dow with a width of 1
ACCE	PT.				Response ACCE	PT.		Response Status C		
C/ 145	SC 145.3.8.10	P 195	L <b>42</b>	# i-170		00.4				"
Yseboodt,	Lennart	Philips Lighting			C/ 145 Vseboodt	SC 14	45.3.8.10	P 197 Philips Lighting	L 1	# 1-173
Comment	Type TR	Comment Status A		PD Power						Dura Dambard
Since the eq	unbalance require	ements change with ICon-2P-ur ke this obvious.	ib, ans thus wi	th assigned Class,	Calcul show f promis	ations us that pair o ses: "PDs	sing the mo currents of s that mee	odel in Figure 145-31, Equatio iten exceed ICon-2P-unb, eve t Equation (145-26) intrinsical	n 145-27, an n though line ly meet unba	nd Equation 145-26 9 39 on page 195 lance requirements."
Repla "for Pl	ce in Equation 14	5-26: " with "for assigned Class 5"			l gues numbe	s that c ers in Equ	changes in uation 145	earlier drafts to power param -26.	eters require	us to update the magic
"for Pl	D Type 3, Class 5 D Type 3, Class 6	" with "for assigned Class 6"			Suggested	Remedy	,			
"for Pl	D Type 4, Class 7	" with "for assigned Class 7"			Don't l	know hov	v to fix this	Yair ?		
Response		Posnonso Status C			Response			Response Status C		
ACCE	PT.	Response Status			ACCE ACCE	PT IN PF PT IN PF	RINCIPLE. RINCIPLE.			
C/ 145 Yseboodt	SC <b>145.3.8.10</b>	P 195	L <b>42</b>	# <u>i-171</u>	Adopt	the chan	iges propo	sed in darshan_03_0917_fina	ll.pdf	
Commont				Editorial	This re	esolution	is identica	I to comment #419.		
Equat	ion 145-26, uses (	Comment Status A	ich is not need	led.						
Suggested Remo	<i>dRemedy</i> ve Ohm symbol ir	nside of Eq. 145-26.								
Response ACCE	PT.	Response Status C								
TYPE: TR	/technical required	d ER/editorial required GR/ger	eral required	T/technical E/editorial G/g	general			Comment	ID i-173	Page 43 of 132

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

C/ 145	SC 145.3.9	P <b>198</b>	L <b>25</b>	# i-174	C/ 145	SC	145.4.9.2.3	P 210	L <b>41</b>	# i-177
Yseboodt, I	Lennart	Philips Lighting			Yseboodt,	Lennar	t	Philips Lighting		
Comment 7	Гуре Е	Comment Status A		PD MPS	Comment	Гуре	ER	Comment Status A		AES
"NOTE Table 1 VPort_ or IPort Should	PDs may not b 145-31 during the PSE-2P min with t-2P or make oth not be IPort mir	e able to meet the IPort_MPS o e maximum allowed port voltage n series resistance RCh). Such a er such provisions to meet the N n but just IPort.	r IPort_MPS- droop (VPor a PD should i Maintain Pow	2P specification in t_PSE-2P max to ncrease its IPort min er Signature."	"Midsp 145.4.9 betwee Varian	an PSE 9.1) are en ports t list ha	Es intended additionally relating to s been split	for operation with 2.5G/5G/10 y required to meet the followin different link segments."	GBASE-T g paramet	(variants 5 through 10 in ers for coupling signals
Suggestedl	Remedy				Suggested	Remea	ly			
Change	e "IPort min" to "	IPort".			Chang	e as fol	lows:			
Response		Response Status C			"Midsp 145.4.9	an PSE ).1 and	s intended 145.4.9.2)	for operation with 2.5G/5G/10 are additionally"	GBASE-T	(variants 3 through 5 in
ACCEF	PT.				Response			Response Status C		
C/ 145	SC 145.4.2	P 201	L 1	# i-175	ACCEI	PT.				
Yseboodt, I	Lennart	Philips Lighting			C/ 145	SC	145.5	P <b>212</b>	L <b>30</b>	# i-178
Comment 7	Type E	Comment Status A		Editorial	Yseboodt,	Lennar	t	Philips Lighting		
Figure	145-32 reference	e broken.			Comment	Гуре	TR	Comment Status A		DLL
Suggested	Remedy				"Single	-signat	ure PDs ad	vertising a Class 4 signature of	r higher a	nd dual-signature PDs
Fix the	reference.				suppor	t Data al for al	Link Layer o l other devic	classification (see 145.3.6). Da	ita Link La	yer classification is
Response	<b>.</b>	Response Status C								
ACCEF	71.				Incorre Also, it	is bett	ement about er to talk ab	t dual-sig devices. out 'requested Class' than use	e the old te	erm 'advertise class
C/ 145	SC 145.4.8	P <b>206</b>	L 14	# i-176	signatu	ıre'.				
Yseboodt, I	Lennart	Philips Lighting			Suggested	Remea	ly			
Comment 7	Type ER	Comment Status A		AES	Replac	e by:		waating Class 4 as high as and	ماريما مأمس	
"Alterna current	ative A Midspan unbalance (see	PSEs that support 100BASE-T> 145A.1) less than or equal to lu	< shall enforc nb (see 145.	e link-section intra-pair 2.8.11) or meet	Class 4 Link La	f or hig yer cla	her on eithe	er Mode support Data Link Lay s optional for all other devices	er classifi	cation (see 145.3.6). Data
145.4.9	9.3.				Response	-		Response Status C		
The wo	ords 'link section'	are redundant in this sentence.			ACCEI	PT.				
Suggestedl	Remedy									
Change "Alterna unbalar	e to: ative A Midspan nce (see 145A.1	PSEs that support 100BASE-T> ) less than or equal to I unb (see	( shall enforc e 145.2.8.11)	e intra-pair current or meet 145.4.9.3."						
Response		Response Status C								
ACCEF	PT.									

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

C/ 145	SC 145.5.3	P <b>213</b>	L <b>8</b>	# i-179	C/ 145	SC ·	145.5.3.4.4	ļ	P <b>220</b>	L <b>48</b>	# i-181
Yseboodt,	Lennart	Philips Lightin	ıg		Yseboodt,	Lennar	t		Philips Lighti	ng	
Comment	Туре Е	Comment Status A		Editorial	Comment	Туре	ER	Comment S	tatus A		Editorial
Varial There Speci name	ble naming conve is a mix of Came fically, the use th s when they are u	ntion in the DLL section has elCase, lower_case_undersco e ALL_CAPS variable names used in text.	lost cohesion d ore, AND_ALL_ s can lead to co	ue to many changes. CAPS. nfusion with state	TOPIC The C "Avoid meani Where	C: and/o hicago I I this Jai ng. e it seen	r Manual of S nus-faced t ns needed,	Style says the term. It can of try 'or or b	following abo ten be replac oth'. But also	out the use of 'ar ed by 'and' or 'o think of other po	nd/or': r' with no loss in ossibilities."
Suggeste	dRemedy				In the	'nd now	vor roviow'	function:			
Renar - Use	me DLL variables CamelCase for v	per the following rules, for C ariables linked to Clause 30 (	lause 145 only: objects		"This f and/or	unction	evaluates es in the PS	the power req SE allocated p	uirements of ower value."	the PD based o	n local system changes
- Use	lower_case_und	erscore for DLL state diagram	n Internal Variat	dies and constants	Suggested	Remed	y .				
This v	vill mostly affect t	he ALLCAPS variables that v	vill be turned in	to lowercase.	"This f or cha	unction	evaluates the PSE al	the power req	uirements of r value."	the PD based o	n local system changes
Response		Response Status C			Response			Response Si	tatus C		
ACCE		.E.			ACCE	PT.		1000000			
Imple	ment suggested	remedy after all other change	s have been m	ade to clause 145.5							
(DLL)	•				C/ 145	SC ·	145.5.3.7.3	5	P <b>228</b>	L 38	# i-182
C/ 145	SC 145.5.3.3	.1 P 215	L 27	# i-180	Yseboodt,	Lennari	t		Philips Lighti	ng	
Yseboodt,	Lennart	Philips Lightin	ig		Comment	Туре	ER	Comment S	tatus A		Editorial
Comment	Type E	Comment Status A		Editorial	TOPIC The C	C: and/o hicago I	r Manual of S	Style says the	following abo	out the use of 'a	nd/or'·
Space	e is missing betw	een two variable names.		<b>L</b> 4	"Avoid	I this Ja	nus-faced t	term. It can of	ten be replac	ced by 'and' or 'o	r' with no loss in
Alight	nent on PSE_INI	TIAL_VALUE values is not er	hough to the rig	nt.	meani Where	ng. it seen	ns needed	try 'or or b	oth' But also	think of other or	nssihilities "
Suggeste	dRemedy	aan variahla namaa			Where	711 30011	is needed,		otin. Dut also		55515111165.
Also r	nore tabs before	the PSE_INITAL_VALUE val	ues.		In the	'pd_pov	ver_review_	_mode(X)' fun	iction:	the PD based o	n local system changes
Response	)	Response Status <b>C</b>			and/or	change	evaluates es in the PS	SE allocated p	ower value."	the FD based o	n local system changes
ACCE	PT.	,			Suggested	Remed	'y				
					"This f or cha	unction	evaluates the PSE al	the power req llocated powe	uirements of r value."	the PD based o	n local system changes
					Response			Response St	tatus C		
					ACCE	PT.					

C/ 145	SC 145.5.4.	1 /	<sup>⊃</sup> 230	L 36	# i-183	C/ 145	SC	145.5.4.2	P <b>2</b>	31	L 1	# i-184		
Yseboodt,	Lennart	Ph	ilips Lighting			Yseboodt, I	Lennar	rt	Philip	s Lighting				
Comment	Туре Е	Comment Stat	us A		Editorial	Comment 7	Туре	Е	Comment Status	Α		Editorial		
"During normal operation, the PSE is in the RUNNING state. If the PSE wants to initiate a change in the PD allocation, the local_system_change is asserted and the PSE enters the PSE_POWER_REVIEW state, where a new power allocation value, PSE_NEW_VALUE, is computed. If the PSE is in sync with the PD or if PSE_NEW_VALUE is smaller than PSEAllocatedPowerValue, it enters the MIRROR_UPDATE state where PSE_NEW_VALUE is assigned to PSEAllocatedPowerValue. It also updates PDRequestedPowerValueEcho and returns to the RUNNING state. If the PSE's previously stored MirroredPDRequestedPowerValue changes, a request by the PD to change its power allocation is recognized. It entertains this request only when it is in sync with the PD. The PSE examines the request by entering the PD_POWER_REQUEST state. A new power allocation value, PSE_NEW_VALUE, is computed. It also updates PDRequestedPowerValuE is assigned to PSEAllocatedPowerValuEST state. A new power allocation value, PSE_NEW_VALUE, is computed. It also updates PDRequestedPowerValuE, is assigned to PSEAllocatedPowerValuE. It also updates PDRequestedPowerValuE, is assigned to PSEAllocatedPowerValue. It also updates PDRequestedPowerValuEcho and returns to the RUNNING state." Don't use the word "state" when using state name.						MirroredPSEAllocatedPowerValue is changed or local_system_change is asserted by th PD so as to change its power allocation, the PD enters the PD_POWER_REVIEW state. In this state, the PE evaluates the change and generates an updated power value called PD_NEW_VALUE. If PD_NEW_VALUE is less than PDMaxPowerValue, it updates PDMaxPowerValue in the PD_POWER_REALLOCATION state. The PD then finally enters the MIRROR_UPDATE state where PD_NEW_VALUE is assigned to PDRequestedPowerValue. It also updates PSEAllocatedPowerValueEcho and returns to the RUNNING state. In the above flow, if PD_NEW_VALUE is greater than PDMaxPowerValue, the PD waits until it is in sync with the PSE and the PSE grants the higher power value. When this condition arises, the PD enters the PD POWER_REALLOCATION2 state. In this state, the PD assigns PDMaxPowerValue to PDRequestedPowerValue and returns to the RUNNING state." Do not use the word "state" when state names are used. <i>SuggestedRemedy</i> Replace 'the YYY state' by 'YYY'.								
Suggested	Remedy	o' by 'VVV'				Response Response Status C								
Response ACCE	PT.	Response Statu	ıs C			ACCEF	рт. SC	145A.2	Р <b>2</b>	61	L 39	# [i-185		
						Yseboodt, I	Lennar	rt	Philip	s Lighting				
						Comment 7 Rdiff is	<i>Type</i> define	E ed in equation	<i>Comment Status</i> on 145A-3 but nowł	A nere used.		Annex		
						Suggestedi Remov	Remeo /e equa	<i>dy</i> ation 145A-	3 + the sentence at	ove.				
						Response ACCEF	PT IN F	PRINCIPLE	Response Status	С				
						Operati %, whic 3.	ion usi chever	ing 4-pair re r results in t	equires Rdiff to be le he greater absolute	ess than 10 unbalance	00 mO or Rcl e. Rdiff is de	h_unb to be less than 7 fined in equation 145A-		

C/ 145A SC 145A.2 P 262 C/ 145A SC 145A.4 P 263 L 32 L 14 # i-186 # i-189 Yseboodt, Lennart Philips Lighting Yseboodt, Lennart Philips Lighting Comment Type E Comment Status A Annex Comment Type E Comment Status A **F**ditorial "NOTE--Each conductor in this Figure is the equivalent of two conductors in parallel." Missing space between "(e.g. V f1 -V f3 ). The common mode effective" SuggestedRemedy It's a drawing of a resistor, not a conductor. Add space. SuagestedRemedv Response Response Status C Change to: "NOTE--Each resistor in this Figure represents two conductors of a pair in parallel." ACCEPT. Response Response Status C C/ 145B SC 145B.1.2 P 266 L 20 # i-190 ACCEPT. Yseboodt. Lennart Philips Lighting SC 145A.3 C/ 145A P 262 # i-187 L 25 Comment Type E Comment Status A **F**ditorial Yseboodt, Lennart Philips Lighting "Figure 145B-4 illustrates a PSE implementing CC DET SEQ=1 when the connection check result is single. The power up timing may not be aligned as shown in the Figure." Comment Type E Comment Status A Annex Space missing between the two sentences. "Current unbalance can occur in positive and negative powered pairs when a PSE uses all SuggestedRemedy four pairs to deliver power to a PD." Add space. We use the terms 'source power' (7x) and 'deliver power' (2x). Response Response Status C SuggestedRemedy ACCEPT. Replace "deliver power" by "source power" in the quoted sentence. C/ 145B SC 145B.3 P 270 L 42 # i-191 Response Response Status C Yseboodt. Lennart Philips Lighting ACCEPT. Comment Type E Comment Status A Editorial C/ 145A SC 145A 2 P 262 L 33 # i-188 "PD may switch current level to class\_sig\_0 if it requests Autoclass Yseboodt, Lennart Philips Lighting PD to maintain class signature '0' if it requests Autoclass for the duration of the class event" Quotes around 0 are not needed. Comment Type E Comment Status A Annex SuggestedRemedy "Equation (145-15) is described in 145.2.8.5.1, specified for the PSE, assures that end to end pair-to-pair effective resistance unbalance will be met in the presence of all compliant Change to: unbalanced loads (Rload min and Rload max) attached to the PSE PI." "PD may switch current level to class sig 0 if it requests Autoclass Current unbalance should be met, not effective resistance unbalance. PD to maintain class signature 0 if it requests Autoclass for the duration of the class event". SuggestedRemedy Response Response Status C Change to: ACCEPT. "Equation (145-15) is described in 145.2.8.5.1, specified for the PSE, assures that pair-topair current unbalance requirements will be met in the presence of all compliant unbalanced loads (Rload min and Rload max) attached to the PSE PI." Response Response Status C ACCEPT.

IEEE P802.3bt D3.0 4-Pair PoE Initial Sponsor ballot comments

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

C/ 145										
Lowis Ion	SC 145.4.9.2.4	P 211	L <b>5</b>	# i-192	C/ 145	SC 145.2.5.	.7	P 132	L <b>4</b>	# i-195
Lewis, J011		Dell EMC			Peker, Ark	adiy		Microsemi Co	orporation	
Comment Typ	e E	Comment Status A		Editorial	Comment	Type <b>TR</b>	Comment	Status A		Pres: Stewart1
In Table 1 position in	45-37PSANE the table cell t	EXT Loss the text "1 MHz f han the text "70.5 - 20 log1	500 MHz" is at 0 (f/100)"	a different vertical	Missin iclass_	g error_conditio lim_det_pri.	on_pri at the inp	out to the state	IDLE_PRI at the	condition
SuggestedRei	nedy				Suggestea	Remedy				
Vertically	center the text	in both columns to the sam	e height		1. Cha	nge from: "iclas	ss_lim_det_pri"	to "iclass_lim_	_det_pri + error_o	condition_pri"
Response		Response Status <b>C</b>			2. Add	new variable to	o 145.2.5.4:			
ACCEPT.					A varia	ble indicating t	the status of import	plementation-s	pecific fault cond	ditions or optionally
C/ 145	SC 145 4 9 2 5	P 211	/ 19	# i-193	and the	at require the P	PSE not to source	ce power over t	he Primary Alter	mative.
Lewis. Jon		Dell EMC	- 10	<i>"</i> 1100	Values	:				
Comment Tvn	o <b>F</b>	Comment Status A		Editorial		No fault indic : A fault indicati	ation.			
In Table	45-38PSAFF	XT Loss the text "1 MHz f !	500 MHz" is at	a different vertical	Response		Posponso (	Status C		
position in	the table cell t	han the text "67 - 20 log10	(f/100)"		ACCE	эт	Response	Status C		
SuggestedRei	nedy				AUGE	••				
Vertically	center the text	in both columns to the sam	e height		C/ 145	SC 145.2.5.	.7	P <b>127</b>	L <b>33</b>	# i-196
Response		Response Status <b>C</b>			Peker, Ark	adiy		Microsemi Co	orporation	
ACCEPT.		,			Comment	Type <b>TR</b>	Comment	Status R		PSE SD
					The te	xt allows the PS	SE to do detecti	ion and if there	e is any impleme	entation specific system
C/ 145	SC 145.2.5.7	P 129	L <b>42</b>	# i-194	error, t	o go to IDLE. T	This is not cover	red by the state	e machine. As a	result in the exit from
Peker, Arkadiy	,	Microsemi Co	rporation		Suggestee					
Comment Typ	e TR	Comment Status R		PSE SD	Suggested	Remeay				
I could no	find in the text	allowance for the PSE to c	to detection an	d classification and if	"Chang	ge from: alternative = b	both) * ((det_ter	mp = only_one)	* (sig pri NF va	alid) +(det_temp =
there is an	iy implementat	on specific system error, to	) go to IDLE. I ( sult in the state	CLASS EVAL	both_r	either) * (sig_s	ec NE valid) + (	(((CC_DET_SE	$Q = 0 + (CC_D)$	ET_SEQ = 3)) *
propose to	add exit to ID	LE with the condition error	condition.		(det_te	$mp = only_one$	e) * tdet2det_tim	ner_done)) + (p	se_alternative =	a) * (sig_pri NE valid)
SuggestedRei	nedy				To:	alternative = D	$(sig_pii = op$	en_circuit)		
Add evit f	rom the state C	CLASS_EVAL to IDLE with	the condition	error condition.	""error	_condition + (p	ose_alternative	= both) * ((det_	temp = only_on	e) * (sig_pri NE valid)
Add CAR 1		Response Status W			+(det_ = 3)) *	temp = both_ne (det_temp = or	eitner) ^ (sig_se nlv_one) * tdet2	c ine valid) + (i det timer doni	((CC_DET_SEQ e)) + (pse_altern	$P = 0$ + (CC_DET_SEQ) ative = a) * (sig_pri NF)
Response					= 3))	(act_comp = 0)	,_0.10, 10012		, · (poo_anoni	
Response REJECT.					valid) -	-(pse_alternativ	ve = b) * (sig_pı	ri = open_circui	it)"""	, , <b>,</b> ,
Response REJECT.	alah al auto 1			·	valid) - Response	-(pse_alternativ	ve = b) * (sig_pi <i>Response</i> \$	ri = open_circui S <i>tatus</i> <b>W</b>	it)"""	,

There is a global entry based on error\_condition into IDLE that covers this.

C/ 145 SC 145.2.5.7	P 133 L 5	# i-198	C/ 145	SC 145.2.5.	7	P 168	L <b>40</b>	# i-202
Peker, Arkadiy	Microsemi Corporation		Peker, Arka	adiy	Mi	icrosemi Corpo	oration	
Comment Type TR	Comment Status A	Pres: Darshan4	Comment	Type <b>TR</b>	Comment Stat	tus A		Pres: Yseboodt1
Figure 145-15 doesn't h functionality as we have complete process and r page 137. It is suggeste from page Figure 145- relevant modifications. SuggestedRemedy Adopt darshap 04, 091	ave the option of using short class event when in single-signature class probe case. This cos nore power dissipation. The same applies to the id to replicate CLASSIFICATION pre-state and 13 page 128 in primary and secondary state matching 7 pdf	doing "class probe" at with more time to secondary part in CLASS_PROBE achines with the	"In the power PDs m their no The us interpre stagge sugges	text ""Single-sig is applied to eit ay require bein ominal power le se of ""simultane eted it as both p red powering is sted to remove	gnature PDs that re her PD Mode A, Pl g supplied over Mc evel."" eously"" in this text pairs where powere and allowed which "" simultaneously""	equest Class 4 D Mode B, or t ode A and Moo t is that we are ed on simultan o obviously was i in the first occ	4 or less shall be both Modes sim de B simultaneo e working over 4 eously i.e. at the s not the intent. currence and re	<ul> <li>able to operate if ultaneously. All other usly to operate at</li> <li>-pairs. Some readers e same time i.e.</li> <li>To clarify it, it is eplace ""</li> </ul>
Response	Response Status C		Simula	Bomodu	both would A and			ice.
	F		Suggested "Chan	ne text to:"" Sin	ale-signature PDs	that request C	lass 1 or loss s	hall he able to operate
adopt stewart_01_0917			if powe require level.""	er is applied to e being supplied	either PD Mode A, I over both Mode A	PD Mode B, o and Mode B t	to operate at the	Ill other PDs may ir nominal power
C/ 145 SC 145.2.5.7	P 136 L 4	# i-199	Response		Response Stat	us <b>C</b>		
Peker, Arkadiy	Microsemi Corporation		ACCE	PT IN PRINCIP	LE.			
Comment Type TR Missing error_condition iclass_lim_det_sec.	Comment Status A _sec at the input to the state IDLE_SEC at the	Pres: Stewart1 condition	Chang if powe	e text to:" Single er is applied to e	e-signature PDs th either PD Mode A,	at request Cla PD Mode B, o	ass 4 or less sha or both Modes. A	all be able to operate All other PDs may
SuggestedRemedy			level."	being supplied			to operate at the	an nominal power
"1. Change from: ""iclas 2. Add new variable to "	s_lim_det_sec"" to ""iclass_lim_det_sec + erro 145.2.5.4:	pr_condition_sec""	This is	in clause 145.3	3.2, not in clause 1	45.2.5.7 as co	mment states.	
A variable indicating the	status of implementation-specific fault conditio	ons or optionally	C/ 145	SC 145.2.6		P 141	L <b>29</b>	# i-203
other system faults that	prevent the PSE from meeting the specification	ns in Table 145-16	Peker, Arka	adiy	Mi	icrosemi Corpo	oration	
and that require the PS	not to source power over the Secondary Alter	rnative.	Comment	Type <b>TR</b>	Comment Stat	tus A		PSE Detection
FALSE: No fault indicat TRUE: A fault indication	ion. າ exists."		We ha	ve the following the detected PI	text: "Also, a PSE D.". We need simila	ar text for the c	fully detect a PI classification i.e	D but then opt not to . "A PSE may
Response	Response Status C		succes the end	sfully detect an d of clause 145	nd classify a PD bu 5.2.7 page 148 afte	t then opt not t r line 38.	to power that PI	<ol> <li>to be added at</li> </ol>
ACCEPT.			Suggested	Remedy				
			Add the and cla	e following text assify a PD but	in 145.2.7 page 14 then opt not to pov	18 after line 38 wer that PD. "	: "A PSE may s	uccessfully detect
			Response ACCEI	PT IN PRINCIP	Response Stat	us <b>W</b>		
			Chang classify	e existing sente y a PD, but ther	ence to: "Also, a PS opt not to power t	SE may succes the detected P	ssfully detect a PD."	PD or detect and

				· · · · · · · · · · · · · · · · · · ·						
C/ 145	SC 145.2.8.5	P 156	L <b>51</b>	# i-204	C/ 25	SC	25.4.5	P 29	L 29	# i-206
Peker, Ar	rkadiy	Microsemi Co	orporation		Mcclellan	, Brett		Marvell Semi	conducto	
Commen "Equ opera Howe Equa	t Type <b>TR</b> ation 145-8 contain ating over 2-pairs a ever, for the most i ation 145-8 contain ation 245-8 contain	Comment Status R hs the parts that allow us to and for the dual-signature ca mportant use case which is s the part ""Icon-2P=min(Ico	calculate the val se. operating over 4 on - IPort-2P-oth	Pres: Darshan9 ue of Icon-2P in case of I-pairs. er, ICon-2P-unb) when	Commen link p Suggeste chan	t Type aramete dRemee ge "25.4	ER ers are spe dy I.8" to "25.4	Comment Status R cified in 25.4.9 not 25.4.8 4.9"		Editorial
-Icon -Icon There Icon-	a ing over 4-pairs. i is defined in Equa -2P_unb is defined e is no information -2P. As a result. the	tion 145-9. I in Table 145-16 item 5. to find the value of Icon-2P e spec is broken."	_other in order to	o calculate the value of	Respons REJE This	e ECT. commer	nt is out of	Response Status W	encouraged to file	e a maintenance
Suggeste	edRemedy				reque	est.				
Adop	ot darshan_09_091	7.pdf			C/ 33	SC	33.4.9.1.1	P 65	L 27	# i-207
Respons	e	Response Status U			Mcclellan	, Brett		Marvell Semi	conducto	
REJE	ECT.				Commen	t Type	ER	Comment Status A		
No c	onsensus for chan	ne			typo,	change	33-48 to 3	3-18.		
		90.			Suggeste	dReme	dy			
C/ 145	SC 145.2.8	P 153	L 33	# i-205	chan	ge 33-48	8 to 33-18.			
Peker, Ar	rkadiy	Microsemi Co	orporation		Respons	Э		Response Status W		
Commen	t Type TR	Comment Status D		tpon	ACC	EPT IN	PRINCIPLE	Ξ.		
"Tabl Tinru which	le 145-16, item 8, ish. It means that e b poods to cover le	Tinrush: It is clear from the seffective Tpon is (400-50) ms	state machine the sec=350ms or (4	nat Tpon includes 400-75) ms=325mse	chan	ge 33-48	8 to 33-18			
discu To co incre reliat 802.3	uss if it sufficient fo onsider if Tpon nee ase in the 1st long pility etc. since we 3af experiments ar	r their designs and application d to be increased by approxi- class events to keep our main had so far 200msec margin d the actual spec numbers.	ximately 50mse argins as in 802 from the 600ms	e and dual-signatures. to compensate for the .3af/at. It doesn't affect ec value from the	This	resolutic	on is identio	cal to comment #235.		
Suggeste	edRemedy									
Incre	ase Tpon from 400	Omsec to 450msec or to what	at ever the group	decides.						
Proposed	d Response	Response Status Z								
REJE	ECT.									

This comment was WITHDRAWN by the commenter.

C/ <b>33</b> Mcclellan,	SC 33.4.9.1.1 Brett	Р <b>65</b> Marvell Sem	L 33 iconducto	# [i-208		C/ <b>33</b> Mcclellan,	SC 33.4.9.1.2 Brett	2 M	P 66 arvell Sem	L 10 iconducto	# i-209
Comment NEXT budge	<i>Type</i> <b>TR</b> loss in 33-18 for ets 43dB for conne	Comment Status <b>A</b> PSE midspan is 40dB at 1 ectors. 2.5G and higher ne	00MHz, however	2.5/5GBASE-T quation.	AES	Comment missin	<i>Type</i> <b>TR</b> g a requirement	Comment Sta for 10GBASE-T	tus A		Pres: Zimmerman1
Suggester line 2: line 2 deterr MHz t line 2: line 3: meet receiv device	dRemedy 5 change "2.5GBA 7 delete "For 5GB, mined by Equation to 250 MHz." 9 change "5GBAS 9 insert new parag the values determ re pairs from 1 MH es shall meet the v	SE-T" to "1000BASE-T" ASE-T, NEXT loss for Mids (145-32) when measured E-T" to "1000BASE-T" Iraph "For 5GBASE-T, NEX ined by Equation (33-18aa) Iz to 100 MHz. For 5GBAS values determined by Equa	pan PSE devices for the transmit a T loss for Midspa when measured E-T, NEXT loss for tion (33-18aa) wh	shall meet the valued receive pairs fro an PSE devices sha for the transmit an or Midspan PSE en measured for th	ues m 1 all d	Suggested insert r Add te shall m receive Response ACCEI ACCEI	Remeay new equation 33- xt " For 10GBAS peet the values d pairs from 1 MH PT IN PRINCIPL PT IN PRINCIPL changes shown o	-19 identical to 3 E-T capable mid- letermined by Eq Hz to 500 MHz." <i>Response Stat</i> E. E. on slides 5 - 7 in	3-19 excep spans, inse uation (33- tus <b>C</b> zimmerma	ot 0.040 is chang ertion loss for Mid 19) when measu n_3bt_01_0917.	jed to 0.020. dspan PSE devices ured for the transmit and pdf
transr 5GBA requir inser definit	nit and receive pa SE-T, for frequent ement reverts to the t a new equation, tions, except that "	irs from 1 MHz to 250 MHz cies that correspond to calo he minimum requirement o 33-18aa), copied from (33- 40" is changed to "43"	. For operation wi culated values gre f 65 dB." 18) with accompa	th 2.5GBASE-T an eater than 65 dB, th nied 'NEXTconn' a	d ie nd 'f'	This re <i>Cl</i> 33 Mcclellan.	solution is identi SC <b>33.4.9.1.3</b> Brett	ical to comment # 3	<sup>£</sup> 238. <i>P</i> 66 arvell Sem	L 35	# i-210
Response ACCE	EPT IN PRINCIPLE	Response Status W				Comment The re	<i>Type</i> <b>TR</b> turn loss limit at 2	Comment Sta 20MHz violates tl	<i>tus</i> <b>A</b> he RL spec	c in 126.7.2.3 for	AES 2.5G and 5G ( 17dB).
Line 2 line 2 deterr MHz t	25 change "2.5GB/ 7 delete "For 5GB/ mined by Equation to 250 MHz."	ASE-T" to "1000BASE-T" ASE-T, NEXT loss for Mids (33-XX) when measured for	pan PSE devices or the transmit an	shall meet the valu d receive pairs from	ues n 1	Suggested create 1 MH 31.5 I	<i>Remedy</i> a separate table z <f<=31.5 mhz<br="">MHz<f<=100 mh<="" td=""><td>entry for 2.5GBA 30 dB Iz 20-20log10(f/</td><td>ASE-T with</td><td>the following lim</td><td>its based on Cat5E:</td></f<=100></f<=31.5>	entry for 2.5GBA 30 dB Iz 20-20log10(f/	ASE-T with	the following lim	its based on Cat5E:
line 2 line 3 meet receiv device transr 5GBA requir inser definit	9 change "5GBAS 9 insert new parag the values determ ve pairs from 1 MH es shall meet the v nit and receive pa vSE-T, for frequent rement reverts to the t a new equation,( tions, except that "	E-1" to "1000BASE-1" (raph "For 2.5GBASE-T, NF ined by Equation (33-18aa) Iz to 100 MHz. For 5GBASI values determined by Equa irs from 1 MHz to 250 MHz cies that correspond to calc he minimum requirement o 33-18aa), copied from (33- 40" is changed to "43"	EXT loss for Mids o when measured E-T, NEXT loss fo tion (33-18aa) wh . For operation wi culated values gre f 65 dB." 18) with accompa	pan PSE devices s for the transmit an or Midspan PSE en measured for th th 2.5GBASE-T an eater than 65 dB, th nied 'NEXTconn' a	hall d ne d ne nd 'f'	Response ACCEI	РТ.	Response Stat	tus <b>W</b>		

C/ 33	SC 33.4.9.1.3	B P 66	L 37	# i-211	C/ 33	SC	33.4.9.2.4	P 67	L <b>50</b>	# i-213
Mcclellan,	Brett	Marvell Sem	iconducto		Mcclellan	, Brett		Marvell Se	miconducto	
Comment	Type TR	Comment Status A		AES	Comment	Туре	т	Comment Status A		AES
at 100	MHz the limit of ?	14dB is only 4dB margin vs	the 2.5/5G spec	;	for all	specifi	ed frequent	cies, The frequency rang	je in Table 33-20k	o exceeds the frequency
Suggestee	dRemedy				Suggeste	dRomo	dv			
create 1 MH 50 M	e a separate table Hz <f<=50 mhz<br="">1Hz<f<=250 mhz<="" td=""><td>entry for 5GBASE-T with th 30 dB 24-20log10(f/100)</td><td>ne following limi</td><td>s based on Cat6:</td><td>delete inser</td><td>e "for al t "For o</td><td>l specified f other than 5</td><td>requencies" GBASE-T or 10GBASE-</td><td>T operation, PSAI</td><td>NEXT loss for Midspan</td></f<=250></f<=50>	entry for 5GBASE-T with th 30 dB 24-20log10(f/100)	ne following limi	s based on Cat6:	delete inser	e "for al t "For o	l specified f other than 5	requencies" GBASE-T or 10GBASE-	T operation, PSAI	NEXT loss for Midspan
Response ACCE	PT IN PRINCIPL	Response Status W E.			PSE For 5 for M	devices GBASE idspan l	shall meet T capable PSE device	the values determined b midspans, PSANEXT lo s shall meet the values of T concelle midenana R	y Table 33-20b fross determined by Table SANEXT loss	om 1 MHz to 100 MHz. ble 33-20b from 1 MHz to
Create 1 MH 31.5	e a separate table Iz <f<=31.5 mhz<br="">MHz<f<=250 mh<="" td=""><td>e entry for 5GBASE-T with t 30 dB Iz 20-20log10(f/100)</td><td>he following lim</td><td>ts based on Cat5E:</td><td>shall Delet</td><td>meet the fre</td><td>equency co</td><td>etermined by Table 33-20 lumn of Table 33-20b</td><td>)b from 1 MHz to !</td><td>500 MHz."</td></f<=250></f<=31.5>	e entry for 5GBASE-T with t 30 dB Iz 20-20log10(f/100)	he following lim	ts based on Cat5E:	shall Delet	meet the fre	equency co	etermined by Table 33-20 lumn of Table 33-20b	)b from 1 MHz to !	500 MHz."
		= _0 _0.0g ! 0(., !00)			Response	9		Response Status C		
CI 33	SC 33.4.9.2.3	B P 67	L <b>40</b>	# i-212	ACCI	EPT.				
Mcclellan,	Brett	Marvell Sem	iconducto		C/ 33	SC	33.4.9.2.5	P 68	L 11	# li-214
Comment	Type ER	Comment Status A		Editorial	Mcclellan	, Brett		Marvell Se	miconducto	
(varia	nts 5 through 10 i	n 33.4.9.1) there are only 5	5 variants		Comment	Type	TR	Comment Status A		AES
Suggestee chang	dRemedy ge "(variants 5 thro	ough 10 in 33.4.9.1)" to "(va	riants 3 through	5 in 33.4.9.1)"	for all requi	specifi rements	ed frequend s for 2.5GB	cies, The frequency rang ASE-T and 5GBASE-T a	je in Table 33-20k .nd may be reduce	c) exceeds the frequency ed.
Response	9	Response Status W			Suggeste	dReme	dy			
ACCE Chang 5 in 3 This re	PT IN PRINCIPL ge as follows: Midspan PSEs in 3.4.9.1 and 33.4.9 esolution is identi	E. tended for operation with 2. 9.2) are" cal to comment #37.	5G/5G/10GBAS	E-T (variants 3 through	delete inser PSE For 5 for M 250 N shall Delet	e "for all t "For o devices GBASE dspan l /Hz. Fo meet th e the fre	I specified f other than 5 shall meet -T capable PSE device or 10GBASE ne values de equency co	irequencies" GBASE-T or 10GBASE- the values determined b midspans, PSAFEXT lo s shall meet the values o -T capable midspans, P etermined by Table 33-20 lumn of Table 33-20c	Γ operation, PSAF y Table 33-20b fr ss Jetermined by Tal SAFEXT loss for )b from 1 MHz to	EXT loss for Midspan om 1 MHz to 100 MHz. ble 33-20b from 1 MHz to Midspan PSE devices 500 MHz."
					Response ACCI	e PT.		Response Status W		

C/ 79 SC 79.3 Mcclellan, Brett	P 73 Marvell Semicor	L <b>36</b> nducto	# <u>i-215</u>	Cl 79         SC 79.3.2.1         P 75         L 13         # i-217           Mcclellan, Brett         Marvell Semiconducto         Marvell Semiconducto         Marvell Semiconducto
<i>Comment Type</i> <b>ER</b> can't have a TBD.	Comment Status A		LLDP	Comment Type         ER         Comment Status         A         Editorial           Note 2 was deleted, but "Note 3" was not renumbered.         Editorial         Editorial
SuggestedRemedy Change TBD on line 36 Change TBD on line 37	; to "8" ′ to "9"			SuggestedRemedy change "Note 2" to "Note 3" on lines 13 and 23
Response ACCEPT.	Response Status C			Response     Response Status     W       ACCEPT IN PRINCIPLE.
Cl 79 SC 79.3.2 Mcclellan, Brett Comment Type ER	P 74 Marvell Semicor Comment Status A ition in Clause 79	L 15 nducto	# [i-216 Editorial	Suggest that: [1] The entire 'Object reference' column of Table 79-3 'MDI power capabilities/status field' is deleted. [2] The two remaining notes for Table 79-3 'MDI power capabilities/status field' are deleted.
SuggestedRemedy Change "PI" to "Power	Interface (PI)"			[3] New subclauses are added to describe the "MDI power capabilities/status" fields that read as follows:
Response ACCEPT.	Response Status W			<ul> <li>79.3.2.1.1 Port class</li> <li>The "Port class" field transmitted shall indicate if the port is a PSE or a PD.</li> <li>79.3.2.1.2 PSE MDI power support</li> <li>The "PSE MDI power support" field shall indicate if MDI power is supported.</li> <li>79.3.2.1.3 PSE MDI power state</li> <li>The "PSE MDI power state" field transmitted by a PSE shall indicate if the PSE function is enabled or disabled. When disabled all PSE functions are disabled and behaviour is as if there was no PSE functionality. The value of the "PSE MDI power state" transmitted by a PSE shall indicate if the PSE function is enabled or disabled. When disabled all PSE functions are disabled and behaviour is as if there was no PSE functionality. The value of the "PSE MDI power state" transmitted by a PD is undefined.</li> <li>79.3.2.1.4 PSE pairs control ability</li> <li>The "PSE pairs control ability" field transmitted by a PSE shall indicate if the PSE has the capability to control which PSE Pinout Alternative (see 33.2.3 and 145.2.4) is used for PD detection and power. If capable the PSE Pinout Alternative used can be controlled through the pethPsePortPowerPairs attribute (see IEEE Std 802.3.1). If not the PSE Pinout Alternative used cannot be controlled through the pethPsePortPowerPairs attribute.</li> <li>This resolution is identical to comment #324.</li> </ul>

<i>Cl</i> <b>79</b> Mcclellan, E	SC Brett	79.3.8	P 83 Marvell Semic	L <b>36</b> conducto	# i-218		C/ <b>145</b> Mcclellan, E	SC 1 Brett	45.4.9.1.3	P <b>20</b> Marvel	<b>19</b> Il Semicon	L <b>41</b> ducto	# i-221	
Comment 7 "subtyp The su	<i>Type</i> be=2" is ubtype	<b>TR</b> s NOT defi for Power	Comment Status A ned for Power Via MDI Mea Via MDI Measurements was	surements s left TBD (see o	ther comment)	LLDP	Comment T The retu	ype urn loss	TR imit at 20	Comment Status MHz violates the RI	<b>A</b> L spec in 1	126.7.2.3 for 2	.5G and 5G ( 17c	AES IB).
Suggestedl change Response ACCEF	Remea e "subty PT.	<i>ly</i> /pe=2" to "	subtype=8" Response Status W				create a 1 MHz 31.5 M Response	a separa <f<=31 1Hz<f<=< td=""><td>ate table ei .5 MHz =100 MHz</td><td>ntry for 2.5GBASE- 30 dB 20-20log10(f/100) Response Status</td><td>T with the</td><td>following limits</td><td>s based on Cat5E</td><td>:</td></f<=<></f<=31 	ate table ei .5 MHz =100 MHz	ntry for 2.5GBASE- 30 dB 20-20log10(f/100) Response Status	T with the	following limits	s based on Cat5E	:
Cl 145 Mcclellan, E Comment 7 E_d_ou across	SC Brett <i>Type</i> ut is a t freque	<b>145.4.6</b> <b>TR</b> ime doma ncy. E_d	P 205 Marvell Semic <i>Comment Status</i> A in peak to peak voltage but t _out isn't measured at indivi	L 42 conducto the formula defir dual frequencies	# [ <u>i-219</u> nes E_d_out as va s.	AES rying	Cl <b>145</b> Mcclellan, E Comment T at 100M	SC 1 Brett Sype IHz the	<b>45.4.9.1.3</b> <b>TR</b> limit of 14	P 20 Marvel <i>Comment Status</i> dB is only 4dB marg	<b>19</b> Il Semicon <b>A</b> gin vs the 2	L <b>42</b> ducto 2.5/5G spec	# [i-222	AES
Suggested delete f chang "shall to "sha MHz ar 100 MH 10GBA	Remea formula ge text not ex all not nd shal Hz for 2 SE-T"	ly a (145-31) on line 38 ceed the re exceed 10 I not excee 2.5GBASE	and the text defining f and fi from: equirements Equation (145-3 mV peak-to-peak when me ed 1mV peak-to-peak when -T, 10 MHz to 250 MHz for 5	max 31)" (note the m asured in the ba measured in the 5GBASE-T, and	iissing 'of') nd from 1 MHz to band from 10 MH 10 MHz to 500 MF	10 Iz to Hz for	SuggestedF create a 1 MHz 50 MH Response ACCEP	Remedy a separa <f<=50 lz<f<=2 PT IN PI</f<=2 </f<=50 	vate table ei MHz 3 50 MHz RINCIPLE.	ntry for 5GBASE-T 30 dB 24-20log10(f/100) <i>Response Status</i>	with the fo	llowing limits b	based on Cat6:	
Response ACCEF	PT.		Response Status C				create a 1 MHz 31.5 M	a separa <f<=31 1Hz<f<=< td=""><td>ate table ei .5 MHz =250 MHz</td><td>ntry for 5GBASE-1 30 dB 20-20log10(f/100)</td><td>with the fo</td><td>llowing limits b</td><td>based on Cat5E:</td><td></td></f<=<></f<=31 	ate table ei .5 MHz =250 MHz	ntry for 5GBASE-1 30 dB 20-20log10(f/100)	with the fo	llowing limits b	based on Cat5E:	
Cl 145 Mcclellan, E	SC Brett	145.4.9.1. <sup>,</sup>	1 P 208 Marvell Semic	L <b>31</b> conducto	# i-220		C/ <b>145</b> Mcclellan, B	SC 1 Brett	45.4.9.2.3	P <b>21</b> Marvel	0 Il Semicon	L <b>41</b> ducto	# i-223	
Comment 7 NEXT I for cont Suggested change	Type loss for nectors Remed e "40" to	TR PSE mids s. <i>ly</i> o "43"	Comment Status <b>A</b> span is 40dB at 100MHz, ho	owever 2.5/5GB/	ASE-T budgets 43	<i>AES</i> dB	Comment T (variant SuggestedF change	ype s 5 thro Remedy "(varia	ER bugh 10 in / nts 5 throu	Comment Status 145.4.9.1) there are gh 10 in 145.4.9.1)"	A e only 5 va ' to "(variar	iriants nts 3 through 5	5 in 145.4.9.1)"	AES
Response ACCEF	PT.		Response Status W				Response ACCEP Change "Midspa 145.4.9	T IN PI as follo an PSE .1 and	RINCIPLE. ows: s intended 145.4.9.2)	Response Status for operation with 2 are additionally"	<b>C</b> 2.5G/5G/10	)GBASE-T (va	riants 3 through §	5 in
TYPE: TR/t COMMENT SORT ORD	technic STAT DER: C	al required US: D/disp omment II	ER/editorial required GR/ patched A/accepted R/reject	general required cted RESPON	T/technical E/ed ISE STATUS: O/o	litorial G/ge pen W/writ	This res eneral ten C/closed	solution U/unsa	is identica atisfied Z/v	al to comment #177.	Comment	ID <b>i-223</b>	Page 54 9/15/201	of 132 7  11:41:28 AM

C/ 145	SC 145.4.9.2.	4 P 210	L <b>51</b>	# <u>i-224</u>		C/ 145	SC 145.4	.9.2.5	P 211	L 11	# i-225
Mcclellar	, Brett	Marvell Sem	iconducto			Mcclellan,	Brett		Marvell Semi	iconducto	
Commen	t Type <b>T</b>	Comment Status A		ļ	AES	Comment	Туре Т	Comr	nent Status A		AES
"for a frequ	all specified frequer lency requirements	ncies", The frequency rang s for 2.5GBASE-T and 5GB	e in Table 145-3 ASE-T and may	7 exceeds the be reduced.		"for all freque	specified free	quencies", 1 ents for 2.50	he frequency range BASE-T and 5GBA	e in Table 145-38 ASE-T and may	3 exceeds the be reduced.
Suggeste	edRemedy					Suggested	Remedy				
inser PSE For 5 value mids Table Delet	delete "for all specified frequencies" insert "For other than 5GBASE-T or 10GBASE-T operation, PSANEXT loss for Midspan PSE devices shall meet the values determined by Table 145-37 from 1 MHz to 100 MHz. For 5GBASE-T capable midspans, PSANEXT loss for Midspan PSE devices shall meet th values determined by Table 145-37 from 1 MHz to 250 MHz. For 10GBASE-T capable midspans, PSANEXT loss for Midspan PSE devices shall meet the values determined by Table 145-37 from 1 MHz to 500 MHz." Delete the frequency column of Table 145-37						specified free "For other the evices shall r BASE-T cap Ispan PSE de Hz. For 10GE neet the value the frequence	quencies" an 5GBASE neet the valu able midspa evices shall r BASE-T capa es determine cy column of	T or 10GBASE-T o ues determined by 7 ns, PSAFEXT loss neet the values det ble midspans, PSA d by Table 145-38 t Table 33-20c	pperation, PSAFI Fable 145-38 fro ermined by Tabl NFEXT loss for M from 1 MHz to 5	EXT loss for Midspan m 1 MHz to 100 MHz. e 145-38 from 1 MHz to lidspan PSE devices 00 MHz."
Respons	е	Response Status C				Response		Respo	nse Status <b>C</b>		
ACC	EPT IN PRINCIPLI	Ε.				ACCE	PT.				
ldent inser PSF	ical changes in 14 t "For other than 50 devices shall meet	5.4.9.2.4: delete "for all spe GBASE-T or 10GBASE-T o t the values determined by	ecified frequencie operation, PSAN	es" EXT loss for Midspan om 1 MHz to 100 MHz		<i>Cl</i> <b>145</b> Mcclellan,	SC <b>145.4</b> Brett	.9.1.1	P <b>208</b> Marvell Semi	L <b>9</b> iconducto	# i-226
For 5 value mids	GBASE-T capable s determined by T	able 145-37 from 1 MHz to	for Midspan PS 250 MHz. For 1	E devices shall meet 0GBASE-T capable values determined by	the	Comment Most o	<i>Type</i> <b>E</b> f the text and	<i>Comr</i> I formulas in	nent Status <b>R</b> 145.4.9.1.x and 14	5.4.9.2.x are ide	AES ntical to 33.4.9.1.x and

33.4.9.2.x. Rather than repeat the same requirements, 145.4.9.1.x and 145.4.9.2.x should just reference Clause 33 instead of duplicating text and formulas.

#### SuggestedRemedy

For each subclause 145.4.9.1.x and 145.4.9.2.x delete redundant text and formulas and place a reference to the requirements in 33.4.9.1.x and 33.4.9.2.x.

Response Response Status C

REJECT.

clause 33 might get deprecated in the future.

Table 145-37 from 1 MHz to 500 MHz."

Delete the frequency column of Table 145-37

This resolution is identical to comment #243.

C/ 33 S	C 33.4.6	P 64	L 34	# i-227	C/ 145	SC 145.2.5	.8 P 13	33 L 18	# <u>i-230</u>
Mcclellan, Brett		Marvell Semic	onducto		Peker, Ark	adiy	Micros	semi Corporation	
Comment Type	TR Comme	ent Status A		AES	Comment	Type <b>TR</b>	Comment Status	R	PSE SI
E_d_out is across freq	a time domain peak to uency. E_d_out isn't	peak voltage but measured at indivi	the formula defir dual frequencies	es E_d_out as varying 	"In the missin	exit from CLA g in the condit	SS_EV2_PRI to MARK on:	_EV_LAST_PRI, the	variable option_2ev is
SuggestedRem delete form	<i>edy</i> ula (33-17a) and the t	ext defining f and fi	nax		pse_a It nee	_timer_pri_don vail_pwr_pri = ds to be the sa	e " (pd_class_sig_pri = " 4". Ime concept as in the si	temp_var_pri) * !class ingle-signature case."	3_4PID_muit_events_pri *
change te	xt on line 31 from:	nts Equation (33-1	7a)" (note the m	issing 'of')	Suggested	Remedy			
to "shall n MHz and sl 100 MHz fc 10GBASE-	ot exceed 10 mV peak nall not exceed 1mV p or 2.5GBASE-T, 10 MF T"	k-to-peak when me eak-to-peak when Iz to 250 MHz for 5	asured in the ba measured in the GBASE-T, and	nd from 1 MHz to 10 band from 10 MHz to 10 MHz to 500 MHz for	"Chan "tcle2_ pse_a To:	ge from: _timer_pri_don vail_pwr_pri =	e * (pd_class_sig_pri = <sup>.</sup> 4"	temp_var_pri) * !clas:	s_4PID_mult_events_pri *
Response	Respon	se Status C			"tcle2_ !class_	_timer_pri_don _4PID_mult_e	e * option_2ev * (pd_cla /ents_pri * pse_avail_pv	iss_sig_pri = temp_va wr_pri = 4"	ar_pri) *
ACCEPT.					Response		Response Status	С	
C/ 145 S	C 145.2.5.7	P <b>133</b>	L 13	# i-229	REJE	CT.			
Peker, Arkadiy		Microsemi Co	rporation		Setting	g class_4PID_	nult_events_x FALSE a	already enables PSE	to limit to 2 class events.
Comment Type	TR Comme	ent Status R		PSE SD	We do	not need an o	ption_ev2 for dual-signa	ature diagrams.	
"In the exit	from CLASS_EV2_PF	RI to MARK_EV2_F	PRI, the variable	option_2ev is missing	C/ 145	SC 145.2.5	. <b>8</b> P 13	37 L 13	# i-231
tcle2_timer	_pri_done *(pd_class_	_sig_pri = temp_va	_pri) * (class_4l	PID_mult_events_pri	Peker, Ark	adiy	Micros	semi Corporation	
+(pse_avai	l_pwr_pri > 4)).	as in the single-sig	nature case "		Comment	Type <b>TR</b>	Comment Status	R	PSE SI
SuggestedRem	edv	as in the single sig			"In the	exit from CLA	SS_EV2_SEC to MARK	<_EV2_SEC, the varia	able option_2ev is
Change fro "tcle2_time +(pse_avai	m: r_pri_done *(pd_class l_pwr_pri > 4))"	_sig_pri = temp_va	ar_pri) * (class_4	PID_mult_events_pri	missin ""tcle2 (class_ It need	g in the condit _timer_sec_do _4PID_mult_e <sup>,</sup> Is to be the sa	on: ne *(pd_class_sig_sec /ents_sec +(pse_avail_f me concept as in the sir	= temp_var_sec) * pwr_sec > 4))"". ngle-signature case."	
To: "tcle2_time	r pri done * (pd class	s sia pri – temp v	ar pri) * (		Suggestea	IRemedy			
(class_4PI	D_mult_events_pri * !c	option_2ev)+ (pse_	avail_pwr_pri >	4)) "	Chang	e from:"tcle2_	imer_sec_done *(pd_cl	ass_sig_sec = temp_	_var_sec) *
Response	Respon	se Status C			(class_ To: "tc	_4PID_mult_e	/ents_sec +(pse_avail_p done *(pd class sig s	owr_sec > 4))" sec = temp var sec) "	*
REJECT.					((class	_4PID_mult_e	vents_sec * !option_2ev	v) + (pse_avail_pwr_s	sec > 4))"
Setting clas We do not	ss_4PID_mult_events_ need an option_ev2 fo	_x FALSE already or dual-signature dia	enables PSE to agrams.	imit to 2 class events.	Response REJEC	CT.	Response Status	С	

Setting class\_4PID\_mult\_events\_x FALSE already enables PSE to limit to 2 class events. We do not need an option\_ev2 for dual-signature diagrams.

Comment ID i-231

PSE SD

PSE SD

C/ <b>145</b> SC <b>145.2.5</b> . Peker, Arkadiy	8 P 137 Microsemi Co	L 18 prporation	# i-232	C/ 33 SC 33.4.9 Zimmerman, George	9.1.1	Р <b>65</b> Aquantia, AD	L <b>27</b> DI, Comm	# i-235
Comment Type TR In the exit from CLAS: missing in the conditio "tcle2_timer_sec_don !class_4PID_mult_even It needs to be the sam	Comment Status R S_EV2_SEC to MARK_EV_L/ on: e * (pd_class_sig_sec = temp ents_sec * pse_avail_pwr_sec ne concept as in the single-sig	AST_SEC, the v _var_sec) * c = 4". inature case."	PSE SD ariable option_2ev is	Comment Type E there appears to be SuggestedRemedy change 33-48 to 33 Response	Com. e a typo, 33-4 3-18 Respo	ment Status A 48 should be 33-18 onse Status C		Editorial
Change from: "tcle2_timer_sec_don !class_4PID_mult_eve To:	e * (pd_class_sig_sec = temp ents_sec * pse_avail_pwr_sec	_var_sec) * ; = 4"		ACCEPT. Cl 33 SC 33.4.9 Zimmerman, George	9.1.1	P <b>65</b> Aquantia, AE	<i>L</i> <b>43</b> DI, Comm	# [i-236
"tcle2_timer_sec_don !class_4PID_mult_eve <i>Response</i> REJECT	e * option_2ev* (pd_class_sig ents_sec * pse_avail_pwr_sec Response Status <b>C</b>	_sec = temp_va c = 4"	r_sec) *	Comment Type T NEXT loss on PSE Clause 40 requirem comment in clause	Com midspan for nents which 145.4.9.1.1	ment Status A r 2.5G/5GBASE-T s predate Category 5e )	hould be based o e. (same change	AES n Category 5e, not on made in another
Setting class_4PID_m We do not need an op	ult_events_x FALSE already tion ev2 for dual-signature di	enables PSE to agrams.	limit to 2 class events.	SuggestedRemedy Change "40" to "43	" in equatior	าร 33-18		
C/ 40 SC 40.6.1.1 Zimmerman, George	P <b>71</b> Aquantia, AD	<i>L</i> <b>12</b> I, Comm	# i-234	Response ACCEPT IN PRINC ACCEPT IN PRINC	Respo CIPLE. CIPLE.	onse Status C		
Comment Type TR (related to this clause) supporting PoE, the s SuggestedRemedy Bring Clauses 55 and 126.5.1 - "A PHY with	Comment Status A Now that 2.5G/5GBASE-T at ame line needs to be added to 126 into the draft, and insert to a MDI that is a PI (see 33.1.3	nd 10GBASE-T o clauses 55 (10 new first paragra s) shall meet the	Other Clauses are added to the PHYs G) and 126 (2.5G/5G). aph in 55.5.1 and isolation requirements	Line 25 change "2.3 line 27 delete "For determined by Equ MHz to 250 MHz." line 29 change "5G line 39 insert new p meet the values de	5GBASE-T" 5GBASE-T, ation (33-XX BASE-T" to paragraph "F termined by	to "1000BASE-T" NEXT loss for Mids () when measured fo "1000BASE-T" for 2.5GBASE-T, NE Equation (33-18aa)	pan PSE devices or the transmit an EXT loss for Mids when measured	shall meet the values d receive pairs from 1 pan PSE devices shall for the transmit and

defined in 33.4.1 or 145.4.1.", Change first sentence of current first paragraph of 55.5.1 and 126.5.1 changing "The PHY" to "A PHY with a MDI that is not a PI" so that it reads: "A PHY with a MDI that is not a PI shall provide electrical isolation between the port device circuits, including frame ground (if any) and all MDI leads."

Response Response Status W

ACCEPT.

line 39 insert new paragraph "For 2.5GBASE-T, NEXT loss for Midspan PSE devices shall meet the values determined by Equation (33-18aa) when measured for the transmit and receive pairs from 1 MHz to 100 MHz. For 5GBASE-T, NEXT loss for Midspan PSE devices shall meet the values determined by Equation (33-18aa) when measured for the transmit and receive pairs from 1 MHz to 250 MHz. For operation with 2.5GBASE-T and 5GBASE-T, for frequencies that correspond to calculated values greater than 65 dB, the requirement reverts to the minimum requirement of 65 dB."

insert a new equation,(33-18aa), copied from (33-18) with accompanied 'NEXTconn' and 'f' definitions, except that "40" is changed to "43"

This resolution is identical to comment #208.

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

C/ 145	SC 145 4 9 1 1	P 208	/ 31	# i-237	C/ 33	SC 33 4 9 1	3	P 66	/ 35	# i-239		
Zimmerma	in, George	Aquantia, Al	DI, Comm	1201	Zimmerma	an, George	Aq	uantia, AD	JI, Comm	1 200		
Comment NEXT Clause comm	TypeTCommloss on PSE midspan for40 requirements which pent in clause 33.4.9.1.1)	ment Status <b>A</b> 2.5G/5GBASE-T s predate Category 5	on Category 5e, not on a made in another	Comment Type T Comment Status D Return loss on PSE midspan for 2.5G/5GBASE-T should be based on Cat 5e not on clause 40 requirements predating cat 5e. line 35 return loss limit at 20MHz violates the spec in 126.7.2.3 for 2.5G and 5G (17dB). Make consistent with Cat 5e connector return loss specifications								
Suggested	IRemedy				IOSS S	pecifications						
Chang Response ACCE chang This re	e "40" to "43" in equation <i>Respo</i> PT IN PRINCIPLE. e "40" to "43" esolution is identical to co	nt45-32 onse Status <b>C</b> mment #220.			Delete Inser with fr 1 <f<= 31.5 M Chang</f<= 	e "or 2.5G/5GB/ t new row "2.5G requency range: = 31.5 MHz at a /Hz <f<=100mh ge 5GBASE-T r</f<=100mh 	ASE-T" from 2nd rov //SGBASE-T" betwe s of: return loss value of z at a return loss value ow return loss value	w of 1st col en 10/100/ 30 dB, and alue of 20 - e (100 MHz	lumn of Table 33 /1000BASE-T ro d · 20log10(f/100) ( z<= f<= 250 MHz	3-20. w and 5GBASE-T row, dB :) from 14 dB to 20 dB		
C/ 33	SC 33.4.9.1.2	P 66	L 10	# li-238	REJE	CT.	Response Statt	<i>IS</i> <b>Z</b>				
Zimmerma	in, George	Aquantia, Al	DI, Comm		This	ommont was M		aammante	or			
Comment	Type <b>TR</b> Comi	ment Status A		AES		comment was w	IT HDRAWN by the	commente	JI.			
Missin misse	g requirement for 10GBA d in clause 33)	SE-T in clause 33	this one is OK in	clause 145, just	Cl <b>145</b> Zimmerma	SC <b>145.4.9</b> an, George	. <b>1.3</b> / Aq	P <b>209</b> Juantia, AD	L <b>37</b> )I, Comm	# i-240		
Suggested	IRemedy				Comment	Туре Т	Comment Stat	us <b>D</b>		AES		
Insert "For 10 the val pairs f	new equation 33-19a iden 0GBASE-T capable mids lues determined by Equa rom 1 MHz to 500 MHz."	ntical to 33-19 exce pans, insertion loss ation (33-19) when i	pt 0.040 is chang for Midspan PSI neasured for the	ed to 0.020. Add text E devices shall meet transmit and receive	Returi clause in 126 specif	n loss on PSE r e 40 requiremer 6.7.2.3 for 2.5G ications.	nidspan for 2.5G/5G hts predating cat 5e. and 5G ( 17dB). Ma	BASE-T s Return los ke consist	houdl be based ss limit at 20MHz ent with Cat 5e o	on Cat 5e not on z violates the RL spec connector return loss		
Response	Respo	onse Status <b>C</b>			Suggestee	dRemedy						
ACCE Adopt	PT IN PRINCIPLE.	s 5 - 7 in zimmerma	n_3bt_01_0917.	odf	Delete Inser with fr 1 <f<= 31.5 M Chang</f<= 	e "or 2.5G/5GB/ t new row "2.5G requency range: = 31.5 MHz at a //Hz <f<=100mh ge 5GBASE-T r</f<=100mh 	ASE-T" from 2nd rov 5/5GBASE-T" betwe s of: return loss value of Iz at a return loss va ow return loss value	w of 1st col en 10/100/ <sup>5</sup> 30 dB, and alue of 20 - e (100 MHz	lumn of Table 14 /1000BASE-T ro .d · 20log10(f/100) o z<= f<= 250 MHz	I5-35. w and 5GBASE-T row, dB z) from 14 dB to 20 dB		
					Proposed	Response	Response Statu	us <b>Z</b>				
					REJE	CT.						
					This c	comment was W	/ITHDRAWN by the	commente	er.			

Cl <b>33</b> Zimmerma	SC <b>33.4.9.2.3</b> an, George	P <b>67</b> Aquantia, Al	<i>L</i> <b>40</b> DI, Comm	# i-241	C/ <b>33</b> Zimmerma	SC <b>33.4.9.</b> 2	2.4	P <b>67</b> Aquantia, AI	<i>L</i> <b>50</b> DI, Comm	# i-242
Comment	Type E	Comment Status A		Editorial	Comment	Гуре Т	Comme	ent Status A		AES
"varia	nts 5 through 10"	- there are only 5 variants i	n clause 33		"for all	specified frequ	uencies", The	e frequency range	e in Table 33-20b	exceeds the frequency
Suggested	dRemedy				require	ments for 2.50	GBASE-T and	d 5GBASE-T and	I may be reduced	I. (same change in
Chang	ge "(variants 5 thro	ough 10 in 33.4.9.1)" to "(v	ariants 3 through	5 in 33.4.9.1)"	140.4.					
Response ACCE		Response Status <b>C</b> <u>=</u> .			While midspa error, t freque	we were trying In Cat 6a conr out more style. ncies.	to manage s lector PSANI A more incl	simplicity with too EXT requirements usive specificatio	many midspan v s for 2.5G/5GBA n would only hav	ariations, we gave the SE-T. This isn't an e the required
Chang "	ge as follows: Midspan PSEs int	ended for operation with 2	5G/5G/10GBAS	F-T (variants 3 through	Suggested	Remedy				
5 in 3: This r	3.4.9.1 and 33.4.9	.2) are"		- · (	In 33.4 insert ' PSE d For 5G values midspa Table 3 Delete	.9.2.4: delete <sup>1</sup> For other than evices shall me BASE-T capai determined by nns, PSANEXT 33-20b from 1 the frequency	'for all specif 5GBASE-T eet the value ble midspans / Table 33-20 loss for Mid MHz to 500 I column of Table 33	ied frequencies" or 10GBASE-T o s determined by s, PSANEXT loss b from 1 MHz to lspan PSE device MHz." able 33-20b	peration, PSANE Table 33-20b froi for Midspan PSI 250 MHz. For 10 as shall meet the	XT loss for Midspan n 1 MHz to 100 MHz. E devices shall meet the IGBASE-T capable values determined by
					Response		Respons	se Status C		
					ACCEI	PT IN PRINCI	PLE.			
					delete insert PSE d For 5G for Mid 250 Mi shall m	"for all specifie "For other that evices shall m BASE-T capa span PSE dev Iz. For 10GBA eet the values	ed frequencie n 5GBASE-T eet the value ble midspans rices shall me ASE-T capab s determined	s" or 10GBASE-T o s determined by s, PSANEXT loss eet the values det le midspans, PS/ by Table 33-20b	operation, PSAN Table 33-20b fro termined by Tabl ANEXT loss for M from 1 MHz to 50	EXT loss for Midspan m 1 MHz to 100 MHz. e 33-20b from 1 MHz to didspan PSE devices 00 MHz."

Delete the frequency column of Table 33-20b

This resolution is identical to comment #213.

C/ 145	SC 145.4.9.2.4	P 210	L 51	# i-243	CI 33	SC	33.4.9.2.5	P 68	<b>3</b> <i>1</i>	L <b>11</b> #	i-244
Zimmerm	an, George	Aquantia, ADI,	Comm		Zimmermar	n, Geo	orge	Aquan	itia, ADI, Com	'n	
Commen	t Type <b>T</b>	Comment Status A		AES	Comment 7	уре	т	Comment Status	Α		AE
"for a requi	Il specified frequenc rements for 2.5GBA	cies", The frequency range ir SE-T and 5GBASE-T and m	a Table 145-37 ay be reduced	exceeds the frequency . (same change in	line 11 frequer	"for a	II specified quirements	frequencies", The fr for 2.5GBASE-T and	requency rang d 5GBASE-T a	je in Table 33-20b e and may be reducec	xceeds the J.
55.4.		intent())			Suggestedl	Remed	dy				
While mids error frequ	e we were trying to n ban Cat 6a connecto but more style. A r encies.	nanage simplicity with too m or PSANEXT requirements f nore inclusive specification	any midspan v or 2.5G/5GBAS vould only hav	ariations, we gave the 3E-T. This isn't an e the required	delete ' insert " PSE de For 5G values	for all For oth vices BASE	specified f her than 50 shall meet -T capable nined by Ta	irequencies" GBASE-T or 10GBAS the values determin midspans, PSAFEX able 33-20b from 1 M	SE-T operation ned by Table 3 T loss for Mid 1Hz to 250 MH	1, PSAFEXT loss for 33-20b from 1 MHz t span PSE devices s tz. For 10GBASE-T	r Midspan to 100 MHz. shall meet the capable

#### SuggestedRemedy

Identical changes in 145.4.9.2.4: delete "for all specified frequencies" insert "For other than 5GBASE-T or 10GBASE-T operation. PSANEXT loss for Midspan PSE devices shall meet the values determined by Table 145-37 from 1 MHz to 100 MHz. For 5GBASE-T capable midspans, PSANEXT loss for Midspan PSE devices shall meet the values determined by Table 145-37 from 1 MHz to 250 MHz. For 10GBASE-T capable midspans, PSANEXT loss for Midspan PSE devices shall meet the values determined by Table 145-37 from 1 MHz to 500 MHz." Delete the frequency column of Table 145-37

Response

Response Status C

ACCEPT.

# ES

ρ midspans, PSAFEXT loss for Midspan PSE devices shall meet the values determined by Table 33-20b from 1 MHz to 500 MHz." Delete the frequency column of Table 33-20c

Response Response Status C

ACCEPT IN PRINCIPLE.

delete "for all specified frequencies"

insert "For other than 5GBASE-T or 10GBASE-T operation. PSAFEXT loss for Midspan PSE devices shall meet the values determined by Table 33-20b from 1 MHz to 100 MHz. For 5GBASE-T capable midspans, PSAFEXT loss

for Midspan PSE devices shall meet the values determined by Table 33-20b from 1 MHz to 250 MHz. For 10GBASE-T capable midspans, PSAFEXT loss for Midspan PSE devices shall meet the values determined by Table 33-20b from 1 MHz to 500 MHz." Delete the frequency column of Table 33-20c

This resolution is identical to comment #214.

Cl 145 SC 145 Zimmerman, George	.4.9.2.5 P 211 Aquantia, J	L <b>19</b> ADI, Comm	# [i-245	Cl <b>33</b> Zimmerman	SC <b>33.4.2</b> , George	<i>F</i> Aqu	<b>200</b> Jantia, ADI	L <b>30</b> , Comm	# i-247
Comment Type T	Comment Status A		AES	Comment Ty	/pe T	Comment Statu	is A		AES
frequency require	ecified frequencies", The frequencies", The frequencies", The frequencies for 2.5GBASE-T and 5G	BASE-T and may	be reduced.	new reie requiren Missing	evant pny clau nents of the a clauses 55 ar	ppropriate specifying	ed to the lis g clause. (S ded in 802.	st- "snall meet" See 14.3.1.2.7, 3bt	25.4, and 40.8.3.4.)"
Suggesteakemeay	offied frequencies"			SuaaestedR	emedv				
PSE devices sha For 5GBASE-T c values determine midspans. PSAF	than 5GBASE-T or 10GBASE-T Il meet the values determined I apable midspans, PSAFEXT los d by Table 145-38 from 1 MHz EXT loss for Midspan PSE devi	operation, PSAFE oy Table 145-38 fro s for Midspan PSI to 250 MHz. For 10 ces shall meet the	EXT loss for Midspan om 1 MHz to 100 MHz. E devices shall meet the 0GBASE-T capable values determined by	Add 33.4 toleranc 40.8.3.4 clause.	4.2 to the draf e requirement .)" to "shall m (See 14.3.1.2	ft and change (end c ts of the appropriate eet the fault tolerand .7, 25.4, 40.8.3.4, 58	f) first sent specifying ce requirem 5.8.2.3, and	ence from: "sh clause. (See 1 nents of the app 1 126.8.2.4"	all meet the fault 4.3.1.2.7, 25.4, and propriate specifying
Table 145-38 from Delete the freque	n 1 MHz to 500 MHz." ancy column of Table 145-38			Response ACCEP	Т.	Response Statu	s C		
Response	Response Status C			C/ 145	SC 145.2.8.	.3 F	<sup>,</sup> 156	L 8	# i-248
ACCEPT.				Picard, Jean	1	Тех	as Instrum	ents Inc	
C/ 145 SC 145	.4.2 P 200	L <b>30</b>	# i-246	Comment Ty	/pe TR	Comment Statu	is A		PSE Power
Zimmerman, George	Aquantia,	ADI, Comm		The follo	owing sentend	e does not make se	nse. In rea	lity the PSE ca	nnot really short the PI
Comment Type T	Comment Status A		AES	voltage, 0.1uF ca	all it can do is ap).	s temporarily turn of	its port (it	s only a low sid	le switch after all, with a
Not all the relevant the appropriate s 55 and 126 which	nt phy clauses are listed - "shal pecifying clause. (See 14.3.1.2. n are added in 802.3bt	meet the fault tole 7, 25.4, and 40.8.3	erance requirements of 3.4.)" Missing clauses	"The min allows a	nimum PD inp PD to operat	out capacitance CPo e for input voltage tr	rt min or C ansients wl	Port-2P min de hich cause VPI	≆fined in Table 145-28, D to drop as low as 0 V,
SuggestedRemedy					ess than 30 us	s as specified in 145	.3.8.6."		
Change (end of) f requirements of t "shall meet the fa 14.3.1.2.7, 25.4,	first sentence in 145.4.2 from: ' he appropriate specifying clause tult tolerance requirements of th 40.8.3.4, 55.8.2.3, and 126.8.2.	'shall meet the fau e. (See 14.3.1.2.7, e appropriate spec 4"	It tolerance 25.4, and 40.8.3.4.)" to cifying clause. (See	SuggestedR Use sim V". The wor	emedy ilar wording to ding becomes	o the "at" standard, r s this:	emoving "v	vhich cause VF	<sup>2</sup> D to drop as low as 0
Response ACCEPT.	Response Status C			"The min allows a 145.3.8.	nimum PD inp PD to operat 6"	out capacitance CPo e for input voltage tr	rt min or C ansients la	Port-2P min de sting less than	fined in Table 145-28, 30 us as specified in

Response

ACCEPT IN PRINCIPLE.

Replace sentence with: "See 145.3.8.6 for PD transient requirements."

Modify sentence on page 194, line 3 as follows:

A PD shall continue to operate without interruption in the presence of transients: -lasting longer than 30us and less than 250us at the PSE PI as defined in 145.2.8.3 -lasting less than 30us and causing the voltage at the PD PI to fall to not less than 34V.

Response Status C

C/ 145 SC 145.2.5.4	P 113	L <b>40</b>	# i-249	C/ 145	SC	145.2.5.7	P 13	6	L <b>20</b>	# i-250	
Peker, Arkadiy	Microsemi Corpo	ration		Peker, Ark	adiy		Micros	emi Corpor	ration		
Comment Type       TR       Comm         In the variable option_probe_alt_sec       This variable indicates if the PSI Secondary Alternative in the even Alternative. This variable applies         Values:       FALSE: PSE does not probe the the Primary Alternative.         TRUE: PSE does probe the Sec       Primary Alternative.         We be found the text that defines addressed.       2)         The text " if an invalid signatulogically accurate and can lead the will be found" since this variable current definition may be interpro-         function of the result of primary       Primary	nent Status <b>A</b> _sec definition: E will continue to detect ant an invalid detect or of s to CC_DET_SEQ = 3. Secondary Alternative condary Alternative if an wissues: e event an invalid detect the TRUE and FALSE. ure is found" in the TRL to wrong interpretation. c can be set in system c eted as this parameter	Comment There "sism" (CC_D in the p Suggested Chang "sism" (CC_D To: "sism" (CC_D Suggested (CC_D To: "sism" (CC_D Suggested (CC_D To: "sism" (CC_D Suggested (CC	Comment type       Ex       Comment status       D       Pres. Darshan4         There is redundant parenthesis in the exit from ENTRY_SEC to START_DETECT_SEC:       "sism *((!class_4PID_mult_events_sec * pwr_app_pri) + class_4PID_mult_events_sec) * (CC_DET_SEQ=0 + CC_DET_SEQ=1)"       in the part: (!class_4PID_mult_events_sec * pwr_app_pri). "         SuggestedRemedy       Change from:       "sism *((!class_4PID_mult_events_sec * pwr_app_pri) + class_4PID_mult_events_sec) * (CC_DET_SEQ=0 + CC_DET_SEQ=1)"         To:       "sism *(!class_4PID_mult_events_sec * pwr_app_pri + class_4PID_mult_events_sec) * (CC_DET_SEQ=0 + CC_DET_SEQ=1)"         To:       "sism *(!class_4PID_mult_events_sec * pwr_app_pri + class_4PID_mult_events_sec) * (CC_DET_SEQ=0 + CC_DET_SEQ=1)"         See darshan_04_0917.pdf for additional changes proposed to this condition due to other comments."         Proposed Response       Response Status       Z         REJECT.       Response       Response Status       Z								
SuggestedRemedy Change the TRUE and FALSE of "FALSE: PSE does not probe th the Primary Alternative. TRUE: PSE does probe the Sec Primary Alternative." To: "FALSE: PSE does not probe th classification will be found on the TRUE: PSE does probe the Sec classification will be found on the Response Respon ACCEPT IN PRINCIPLE. Change TRUE and FALSE defin FALSE: PSE does not probe the found on the Primary Alternative TRUE: PSE does probe the Sec	definition from: e Secondary Alternative condary Alternative if an e Secondary Alternative e Primary Alternative. condary Alternative if an e Primary Alternative" <i>nse Status</i> <b>W</b> hitions to: e Secondary Alternative e or classification is inva- condary Alternative if ar	e if an invalid signa invalid signature e if an invalid dete i invalid detection alid on the Primary i invalid detection	ature is found on is found on the ection signature or signature or ction signature is v Alternative. signature is found	This co	ommen	t was WITł	HDRAWN by the cor	nmenter.			

C/ 145	SC	145.2.5.7		P 136	L <b>20</b>	# i-251	C/ 145	SC	145.2.5.7		P 136	L <b>21</b>	# i-252	
Peker, Ark	adiy			Microsemi Co	rporation		Peker, Arka	adiy		Ν	licrosemi Cor	poration		
Comment	Туре	TR	Comment	Status A		Pres: Darshan13	Comment 7	Гуре	TR	Comment Sta	atus A		Pres: Darshan13	
In Figu CC_D machi pwr_a sism * (CC_L If Prim result, be abl The ea ENTR state v variab other o	5-16, in the e Q 0 or 1, ar ws to move = TRUE per- s_4PID_mu EQ=0 + CC ls to poweru pp_pri varia it from ENT y to handle C, also if prir revents stu once_pri (th nots that all pt.	exit from EN nd class_4F from ENTR the existin ult_events_s _DET_SEQ up, the Prim able will rem "RY_SEC i.e this problem mary perform ick at ENTR he current d related to ex	VTRY_SEC to S PID_multi_event. Y_SEC state to g condition: sec * pwr_app_p =1) ary state machin ain in FALSE, a e. will be stuck th n is to enable m med detection a Y_SEC. This so raft has only det ach other and ca	TART_DET_SEC _sec = FALSE, t START_DETEC ori) + class_4PID_ ne returns back to nd the secondary here. oving to START_ t least once and i Jultion requires th _once_sec) whic an be see in dars	<ul> <li>c), when selecting he secondary state T_SEC only if</li> <li>_mult_events_sec) *</li> <li>c) IDLE_PRI. As a v state machine won't</li> <li>DETECT_SEC from s now in IDLE_PRI e addition of new h is required also by han_04_0917.pdf. "</li> </ul>	<ul> <li>In the transfer better Print (</li></ul>								
Suggested	dReme	dy					2. To a	dd ""1	tdet_timer_p	ri_done to the	condition of t	he exit from E	NTRY_SEC to	
See di includi secon  1) Ado det or	arshan ing the dary wi dary bi d the fo	_04_0917.p possibility t ith the optio llowing varia	odf for how t to do cycles on to go to II 	he following cha of detection + c DLE_PRI/SEC a 	ange is also addre lass_probe even nd WAIT_PRI/SE	esses other issues ts on primary and EC.	""sism *((!class_4PID_mult_events_sec * ( pwr_app_pri + tdet_timer_pri_done ) ) + class_4PID_mult_events_sec) * (CC_DET_SEQ=0 + CC_DET_SEQ=1)"" . This change will allow to move to START_DETECT_SEC in case that we move from START_DETECT_PRI to IDLE_PRI due to tdet_timer_pri expiration."							
<ul> <li>det_once_pri</li> <li>This variable indicates if the PSE has probed the Primary Alternative at least once, when entering to DETECT_EVAL_PRI. Values:</li> <li>FALSE: The PSE has not probed on the Primary Alternative since entering the Primary Alternative state diagram.</li> <li>TRUE: The PSE has probed the Primary Alternative at least once since entering the Primary Alternative state diagram.</li> <li>2) Change from:</li> <li>"sism *((!class_4PID_mult_events_sec * pwr_app_pri) + class_4PID_mult_events_sec) * (CC_DET_SEQ=0 + CC_DET_SEQ=1)"</li> <li>To:</li> <li>sism * ((!class_4PID_mult_events_sec * (pwr_app_pri + det_once_pri * !det_start_pri ) ) + class_4PID_mult_events_sec) * (CC_DET_SEQ=0 + CC_DET_SEQ=0 +</li></ul>							Suggested 1. Add 2. Add START Chang "sism * (CC_D To: "sism * class_4  Due to meet th	Reme "stop_ "tdet_ DET e from ((!clas ET_SI ((!clas 4PID_ (!clas the fa he req	dy _tdet_timer_ timer_pri_do FECT_SEC I ss_4PID_mu EQ=0 + CC_ ss_4PID_mu mult_events 	pri <sup>III</sup> to the DE one to the cond by performing t llt_events_sec _DET_SEQ=1) llt_events_sec sec) * (CC_D  2 need addition at we need sing	TECT_EVAL_ dition of the ex he following of * pwr_app_pr * ( pwr_app ET_SEQ=0 + nal changes of gle independe	PRI state. kit from ENTR change: i) + class_4Pl ori + tdet_time · CC_DET_SE lue to other co nt comment for	Y_SEC to D_mult_events_sec) * er_pri_done) ) + :Q=1)" omments, and in order to or each issue which I did	
ACCE ACCE ACCE	PT IN I PT IN I	PRINCIPLE PRINCIPLE	Response	Status C			here bu darsha possibi the opt	ut may n_04_ lity to ion to	/ cause edito 0917.pdf fo do cycles of go to IDLE	or confusion of r how the abov detection + cl PRI/SEC and	how to apply e change is c ass_probe ev WAIT_PRI/SI	the remedies ombined with ents on prima EC."	of other comments, See other changes i.e. the ry and secondary with	
adopt	stewar	t_02_0917_	_final.pdf				Response			Response Sta	ntus <b>C</b>			
This re	esolutio	on is identic	al to comme	ent #254.			ACCER	PT IN PT IN	PRINCIPLE PRINCIPLE					

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

adopt stewart\_02\_0917\_final.pdf

This resolution is identical to comment #254.

C/ 145	SC 145.2.5.3	P 109	L <b>42</b>	# i-253
Peker, Arka	diy	Microsemi Co	orporation	

Comment Type TR Comment

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 Status W

Response

ACCEPT.

C/ 145	SC 145.2.5.7	P <b>136</b>	L 11	# i-254	
Peker, Arka	adiy	Microsemi Co	orporation		

Pres: Darshan13

Comment Type TR Comment Status A

In the exit from IDLE\_SEC to START\_DETECT\_SEC we have the following condition: "(!pwr\_app\_sec \* pwr\_app\_pri) + ((CC\_DET\_SEQ=3) \* option\_probe\_alt\_sec \* !det\_start\_pri \* !det\_once\_sec)"

Based on the description in page 109 lines 37-38 for CC\_DET\_SEQ and specifically, CC\_DET\_SEQ=3 for dual-signature means: Connection check is followed by staggered detection

(The analysis and simulations results for other sequences 0, 1 and 2 are covered by other comments and most of them are OK).

The staggered detection range may occur with starting the secondary detection after doing the primary detection (option 1) up to doing the secondary detection only if the primary is on (option 2). This covers the full range of possibilities.

Option 1 is normally used when class\_4PID\_mult\_events\_sec=TRUE. This currently is not covered by the state machine.

Option 2 is normally used when class\_4PID\_mult\_events\_sec=FALSE and it is covered in the 1st part of the condition: (!pwr\_app\_sec \* pwr\_app\_pri).

Option 3 is covers the case that the primary return to IDLE\_PRI due to various reasons and the secondary didn't detect even once: ((CC\_DET\_SEQ=3) \* option\_probe\_alt\_sec \* !det\_start\_pri \* !det\_once\_sec).

The current state diagram covers option 2 and 3, and does not cover option 1!

The state diagram should allow staggered detection before Primary power up, after primary power up, and during power up in case that class\_4PID\_mult\_events\_sec is set to FALSE. The proposed changes in the state diagram will allow staggered detection after Primary finished its 1st detection without affecting the previous functionality and flow, by oring the additional missing possibility (option 1). The proposed changes do not affect: a) The behavior of other "CC DET SEQ NE 3" flows.

b) Previous state diagram possibilities.

In addition, the proposed changes also required to cover multiple cycles of detection+classification until host decides to power on the port (which is covered by darshan\_04\_0917.pdf). The additional missing possibility is covered by adding the following part:

+ (class\_4PID\_mult\_events\_sec\*(CC\_DET\_SEQ=3) \* !det\_once\_sec \* det\_once\_pri ) In order to implement the addition, we need to add the following variable for the primary side (similar variable is already exist for the secondary):

"det\_once\_pri This variable indicates if the PSE has probed the Primary Alternative at least once, when entering to DETECT\_EVAL\_PRI. Values: FALSE: The PSE has not probed on the Primary Alternative since entering the Primary Alternative state diagram.

 TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
 Comment ID i-254
 Page 64 of 132

 COMMENT STATUS: D/dispatched A/accepted R/rejected
 RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
 9/15/2017 11:41:28 AM

 SORT ORDER: Comment ID
 D

TRUE: The PSE has probed the Primary Alternative at least once since entering the Primary Alternative state diagram."	C/         1         SC         1.4.418aa         P 25         L 15         # [i-256]           Lukacs, Miklos         Silicon Laboratories         Silicon Laboratories         Silicon Laboratories         Silicon Laboratories									
In the above proposed change, det_once_pri is used as a condition for starting detection in	Comment Type E Comment Status R Editoria									
det once pri is set to FALSE when sism = FALSE at ENTRY PRI.	words "power level" are missing									
det_once_pri is set to TRUE when Primary state diagram reaches to	SuaaestedRemedv									
"DETECT_EVAL_PRI", to clearly indicate that detection on primary has ended before tdet_timer_pri expired "	change the sentence to:									
Suggested Remedy	"A PD that requests Class 1 to Class 6 power level during Physical Layer classification, implements Multiple-Event classification, and accents power on both Modes simultaneously. (See IEEE									
1 Change from:										
"(!pwr_app_sec *pwr_app_pri) + ((CC_DET_SEQ=3) * option_probe_alt_sec * !det_start_pri * !det_once_sec)""	802.3, Clause 145).									
To:	Response Response Status C									
"(!pwr_app_sec *pwr_app_pri) + ((CC_DET_SEQ=3) * option_probe_alt_sec * !det_start_pri * !det_once_sec) +	REJECT.									
(class_4PID_mult_events_sec*(CC_DET_SEQ=3) * !det_once_sec * det_once_pri ) 2. Add the following variable to the variable list:	There is no need for the words "power level".									
det_once_pri This variable indicates if the PSE has probed the Primary Alternative at least once, when	C/ 1 SC 1.4.418ac P 25 L 22 # i-257									
entering to DETECT_EVAL_PRI. Values:	Lukacs, Miklos Silicon Laboratories									
FALSE: The PSE has not probed on the Primary Alternative since entering the Primary	Comment Type E Comment Status R Editoria									
TRUE: The PSE has probed the Primary Alternative at least once since entering the	words "power level" are missing									
Primary Alternative state diagram.	SuagestedRemedy									
Response Response Status C ACCEPT IN PRINCIPLE. adopt stewart 02 0917 final.pdf	change the sentence to: "A PD that requests Class 7 or Class 8 power level during Physical Layer classification, implements Multiple-Event classification, is capable of Data Link Layer classification, and accepts power on both									
	Modes simultaneously. (See IEEE 802.3, Clause 145).									
C/ 1 SC 1.4.417 P 25 L 5 # [i-255	Response Response Status C									
Lukacs, Mikios Silicon Laboratories	REJECT.									
Comment Type         E         Comment Status         R         Editorial           words "power level" are missing         Editorial         Editorial	There is no need for the words "power level".									
SuggestedRemedy										
change the sentence to: "A PD that requests Class 4 power level during Physical Layer classification, supports Multiple-Event Classification and Data Link Layer classification (see IEEE 802.3, Clause 33).										
Response Response Status C										
REJECT.										
There is no need for the words "power level".										

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

CI 33	SC 33	.3.1	P 62	L <b>8</b>	# [i-258		C/ 1	SC	1.4.313a	P <b>24</b>		L <b>35</b>	# i-260
Lukacs,	Miklos		Silicon Labo	ratories			Stewart, I	Heath		Analog	Devices I	nc.	
Commer	nt Type	G Co	omment Status A		Ger	neral	Commen	t Type	TR	Comment Status	Α		Definitions
This qual	is confusin ifiers should	g because C I be added.	lause 145 is also part	of THIS standar	d. Type 1 and Type 2		The e	existing c definition	definition of a should be	f pairset is PSE centr made bi-modal.	ic but is re	peatedly re	ferenced by the PD.
Suggest PDs for T requ	edRemedy that implen ype 1 and <sup>-</sup> ire power fr	nent only Mo Type 2 PDs. om both Mod	de A or Mode B are sp PDs that simultaneous te A and Mode B are s	pecifically not all sly specifically not a	owed by this standard	d rd	Exist Eithe IEEE	ing defini r of the t 802.3, 1	ition for pa wo valid 4- I45.2.4	irset: conductor connection	ns, Alterna	tive A or Al	ternative B, as listed in
for T	ype 1 and <sup>-</sup>	Type 2 PDs.					Suggeste	edRemea	ły				
Respons ACC	e EPT IN PR	<i>Re</i> INCIPLE.	sponse Status C				Appe The F respe	nd: PSE Alte ectively, a	rnate A an at the PD.	d Alternate B connec	tions are r	eferred to a	as Mode A and Mode B,
PDs	that implen	nent only Mo	de A or Mode B are sr	pecifically not all	owed by this standard	4	Response	е		Response Status	с		
PDs allov	that simulta	aneously req clause.	uire power from both N	Mode A and Mod	le B are specifically no	ot	ACC	EPT IN F	PRINCIPLE	<b>.</b>			
<i>Cl</i> <b>145</b> Lukacs,	SC 14 Miklos	5.2.1	P <b>99</b> Silicon Labo	L 30 ratories	# i-259		Appe The F B, res	nd: PSE Alte spectivel	rnative A a y, at the P	and Alternative B con D.	nections a	re referred	to as Mode A and Mode
Commer	nt Type	E Co	omment Status R		Edit	torial	C/ 1	SC	1.4.417	P 25		L 6	# i-261
The	"Range of r	naximum cla	ss supported" column	of table 145-2 i	s confusing.		Stewart, I	Heath		Analog	Devices I	nc.	
Clas	s 8 is not a	range, and i	t suggests that Type 4	PSE only supp	orts Class 8		Commen	t Type	Е	Comment Status	A		Definitions
Suggest	edRemedy						The	sentence	structure	does not quite work v	vith the "ar	nd". As writt	ten each clause requires
Brea	ik it to 2 col	umns for sin	gle and dual signature				a ver	b.	ucoto Clos	a 4 during Dhysical I	over elece	ification of	innorta Multipla Evant
Respons	se 	Re	sponse Status C				Class	sification	and Data	Link Layer classificat	ion (see IE	EE 802.3,	Clause 33).
REJ	ECT.						Suggeste	dRemea	ły	-			
The	reason for t	he ranges is	not single vs. dual sig	nature. It is tha	t 2-pair Type 3 can		Add '	'supports	s" before "[	Data Link Layer"			
supp Furt	ort class 3	(to replace c pair Type 3 (	ld type 1 systems), or	class 4 (to repla m of class 5 (45	ace old type 2 systems	s).	Response	е		Response Status	С		
Fina	lly, Type 4 i	s required to	support all classes (u	p to 8, 90W).			ACC	EPT IN F	PRINCIPLE				
							Repla	ace with:					
							"A PI Class	D that rec sification	quests Cla , and supp	ss 4 during Physical orts Data Link Layer	Layer class classificati	sification, s on (see IEE	upports Multiple-Event EE 802.3, Clause 33)."

CI 30	SC 30.9.1.1.4	P 36	L 15	# i-262		CI 30	SC 30.9.1.1.8	в Р <b>37</b>	L <b>41</b>	# i-264
Stewart, H	eath	Analog Devic	ces Inc.			Stewart, Hea	th	Analog	Devices Inc.	
Comment	Type <b>TR</b>	Comment Status A		Pres: Dars	han5	Comment Ty	pe E	Comment Status	Α	Pres: Darshan5
It is un	clear how the dis	parate SISM states will be	described. For ex	kample if the primary	/ is	The refe	rence to Figure	e 33-9 has been accide	entally deleted.	
powere	ed and the secon	uary is searching, what will	the returned star	e value be?		SuggestedR	emedy			
Fither	remove support f	or dual-signature PDs or co	molete their soe	cification throughout	the	Change	'(Figure 145-23	3, " to "(Figure 33-9, Fi	igure 145-13, "	
standa	ird.					Response		Response Status	С	
Response		Response Status C				ACCEP ACCEP	IN PRINCIPL	E. F.		
ACCE	PT IN PRINCIPLE PT IN PRINCIPLE					Adopt cl	anges shown i	n Darshan_05_0917_1	final.pdf	
Adopt	changes shown i	n Darshan_05_0917_final.p	odf			This res	olution is idention	cal to comment #33.		
This re	esolution is idention	cal to comment #33.				C/ <b>30</b>	SC 30.9.1.1.1	1 P 38	L <b>2</b>	# i-265
C/ 30	SC 30.9.1.1.7	P 37	L <b>25</b>	# i-263		Stewart, Hea	th	Analog	Devices Inc.	
Stewart, H	eath	Analog Devic	ces Inc.			Comment Ty	pe TR	Comment Status	Α	Pres: Darshan5
referer be ado Curren This co POWF	serowerDeniedC nces. It is not clea led. htly: punter is increment R DENIED	nted when the PSE state di	agram (Figure 3	a 2 state machine e 3 and Type 4 shou 3-9) enters the state	ld	be adde Currentl This cou 15, and ERROR	d. r: nter is increme Figure 145-16) _DELAY_SEC.	ented when the PSE st enters the state ERRC	ate diagram (Figure 14 DR_DELAY, ERROR_	45-13, Figure 145- DELAY_PRI, or
Suggested	IRemedv					SuggestedR	emedy			
Option "(Figur to	1 Change re 33-9) enters the	e state POWER_DENIED"				Option 1 "transitic tmpdo_t to	Change ns directly fron mer_done beir	n the state POWER_C ng asserted"	DN to the state IDLE du	ue to
"(Figur POWE Option "when to	e 33-9, Figure 14 R_DENIED, POV 2 Change the PSE"	5-13, Figure 145-15, or Fig VER_DENIED_PRI, or PO	ure 145-16) ente WER_DENIED_3	rs the state SEC"		"transitio POWER tmpdo_t Option 2 "when th	ns directly fron _ON_PRI, or F mer_done_pri Change e PSE"	n the state POWER_C POWER_ON_SEC to t or tmpdo_timer_done_	DN, SEMI_PWR_PRI, he state IDLE due to t _sec being asserted"	SEMI_PWR_SEC, mpdo_timer_done,
Responses	the Type T and T					to "when th	e Type 1 and 1	Type 2 PSF"		
ACCE	PT IN PRINCIPLE	Response Status C				Response		Response Status	c	
ACCE	PT IN PRINCIPLE					ACCEP ACCEP	IN PRINCIPL	E. E.	•	
Adopt	changes shown i	n Darshan_05_0917_final.p	odf			A alass ( - )		- Darshan OF 0017	fin al malf	
This re	solution is idention	cal to comment #33.				Adopt C	anges snown i	n Darsnan_05_0917_1	imal.por	
						This res	olution is identi	cal to comment #33.		
TYPE: TR/	technical required	d ER/editorial required GR	/general require	d T/technical E/edit	orial G/g	eneral		C	Comment ID i-265	Page 67 of 132

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

9/15/2017 11:41:28 AM

C/ 30	SC 30.12.2.1.8	B P 38	L <b>30</b>	# i-266	C/ 145	SC	145.2.5.4		P 113	L <b>24</b>	# i-269
Stewart, He	ath	Analog Devic	es Inc.		Stewart, He	eath			Analog Device	es Inc.	
Comment T	ype E	Comment Status A		Management	Comment	Туре	т	Comment S	tatus A		PSE SD
Google	does not think C	ontrolable is a word			option_	_class_	probe can	be utilized to l	both reduce d	issapated heat	during classification and
SuggestedF	Remedy				See st	ewart_(	0917_01.	lexibility.			
Change	Controlable to C	Controllable			Suggested	Remec	ły				
Response	_	Response Status C			Adopt	stewart	t_0917_01				
ACCEP	т.				Response			Response St	atus C		
CI 30 Stewart, He	SC <b>30.12.3.1.8</b> ath	B P 48 Analog Devic	L <b>43</b> es Inc.	# i-267	ACCEI ACCEI	PT IN F PT IN F	PRINCIPLE	E. E.			
Comment T	ype E does not think C	Comment Status A ontrolable is a word		Management	adopt s	stewart	_01_0917	_final.pdf			
Suggested	Remedy				This re	solutio	n is identic	cal to comment	: #198.		
Change	Controlable to C	Controllable			C/ 145	SC	145.2.5.4		P 114	L 32	# i-270
Response		Response Status <b>C</b>			Stewart, He	eath			Analog Device	es Inc.	
ACCEP	т.				Comment	Туре	т	Comment S	tatus A		PSE SD
C/ 145 Stewart, He	SC 145.2.4 ath	P <b>107</b> Analog Devic	<i>L</i> <b>40</b> es Inc.	# i-268	Existin possibl pd_4pa This va	g defin le proc air_can ariable	ition of pd_ edures. Th d	_4pair_cand is ne Physical Cla	out of sync w ssification pro	ith 145.2.6.7, w ocedure is miss	/hich describes 4 .ing.
Comment T	ype E	Comment Status A		PSE Types	power	on both and P	n Modes. T	This variable is	a function of	the results of D	etection, Connection
"or" imp Alternat	lies exclusivity. E	Eg the set of permitted pola	rity configures c	nly includes one	Sugaested	Remed	22, Iv				
"PSEs s	shall use only the	e permitted polarity configur	ations associate	ed with Alternative A or	Chang	e "Con	nection Ch	neck, " to "Con	nection Check	k, Physical Clas	ssification, "
Alternat "and" in	ive B" plies the selection	on can be made from A. B.	A and B.		Response			Response St	atus <b>C</b>		
Respec content	tfully I believe thi	s merits a less than one mi	nute discussion	and will withdraw if	ACCE	PT IN F	PRINCIPLE	E.			
SuggestedF	Remedy				Chang	e "Con	nection Ch	neck, " to "Con	nection Check	k, Physical Laye	er Classification, "
Change	"or" to "and"										
Response	_	Response Status C									
ACCEP	1.										

C/ 145 SC 145.2	2.5.5 <i>P</i> 119	L 10	# i-271	C/ 145	SC 145.2.5.6	6 P 122	L 13	# i-274
Stewart, Heath	Analog Devic	es Inc.		Stewart, H	eath	Analog Devi	ces Inc.	
Comment Type E	Comment Status A		Editorial	Comment	Туре Е	Comment Status A		PSE SD
There are two diffe subscript.	ering spelling of t_class_acs vs t_	classacs. Note	the _ after the t denotes	The do builds	classification_ return variable r	[pri sec] function is unique ir esponses based on the prec	that it remember eding collection	ers previous calls and of calls.
SuggestedRemedy				Suggested	IRemedy			
Globally change t_ Page 119, line 10 Page 128, lines 17	classacs_timer to t_class_acs. I and 21	Note the _ after	the t denotes subscript.	Appen Returr clears	d after "variable values are base the memory.	s for the Primary Alternative ed on all do_classification_p	." ri events until a d	detection or class reset
Response	Response Status C			Response		Response Status C		
ACCEPT IN PRIN	CIPLE.			ACCE	PT IN PRINCIPI	LE.		
Globally change "t	classacs_timer" to "tclass_acs_t	mer"		Appen	d the follwing to	the end of the pse_allocated	d_pwr_pri descri	ption:
C/ 145 SC 145.2 Stewart, Heath	2.5.5 P 119 Analog Devic	L <b>36</b> ces Inc.	# <u>i-272</u>	The re last tin determ	turned value is to the in DETECT_I	based on all previous do_cla EVAL_PRI or CLASS_RESE SE assigned Class"	ssification_pri fu T_PRI. See Tab	nction calls since the le 145-11 for a
Comment Type E sism state machine	Comment Status <b>A</b> es only have four class events.		PSE SD	Make	similar change f	or _sec.		
SuggestedRemedy	ourth"			Appen	d the following t	o the end of the pd_req_pwr	_pri description:	
Response ACCEPT.	Response Status C			The re last tin determ	turned value is the in DETECT_I ne in DETECT_I nination of the P	based on all previous do_cla EVAL_PRI or CLASS_RESE D requested Class".	ssification_pri fu T_PRI. See Tab	nction calls since the le 145-25 for a
C/ 145 SC 145.2	2.5.5 <i>P</i> 119	L <b>39</b>	# i-273	Make	similar change f	or _sec.		
Stewart, Heath	Analog Devic	es Inc.		C/ 145	SC 145 2 5 6	S P 122	/ 37	# i-275
Comment Type E	Comment Status A		PSE SD	Stewart, H	eath	Analog Devi	ces Inc.	1210
sism state machine	es only have four class events.			Comment	Туре Е	Comment Status A		PSE SD
SuggestedRemedy				The po	d_class_sig_xxx	variable returns class signat	ture not Class in	formation
Change "fifth" to "f	ourth"			Suggested	IRemedy			
Response	Response Status C			Chang	e "Class" to "cla	iss signature"		
ACCEPT.				Response ACCE	PT.	Response Status C		

C/ 145	SC 145.2.5.6	P <b>122</b>	L <b>44</b>	# i-276	C/ 145	SC ·	145.2.5.6	P 123	L 39	# i-278			
Stewart, He	eath	Analog Dev	vices Inc.		Stewart, H	leath		Analog Devices	s Inc.				
Comment 7	Туре Е	Comment Status A		PSE SD	Comment	Туре	Е	Comment Status A		PSE SD			
The do builds r	_classification_ return variable r	[pri sec] function is unique esponses based on the pre	in that it remembe eceding collection	ers previous calls and of calls.	Odd la Existir	anguage ng:	in the do_	_detect_pri definition.					
Suggested	Remedy				open_ valid	circuit: ] The PSF	The PSE h = has dete	has detected an open circuit.					
Appeno Return	d after "variable values are base	s for the Secondary Alternated on all do_classification_	ative." sec events until a	detection or class reset	invalid: Neither open circuit nor valid PD detection signature has been found.								
clears t	the memory.				Suggested	Remed	У						
Response		Response Status C			Chang Valid:	ge: The PS	E has dete	ected a PD requesting power.					
ACCEF ACCEF	PT IN PRINCIPI PT IN PRINCIPI	.E. .E.			To Valid:	The PS	E has dete	ected a valid PD signature.					
Annen	d the follwing to	the end of the nse allocat	ad nwr nri descriu	ation:	Response			Response Status C					
Арренс		the end of the pse_allocation		5001.	ACCE	PT.		,					
The ret	urned value is t	based on all previous do_cl	assification_pri fu	nction calls since the	<u></u>			D / 400					
determ	ination of the P	SE assigned Class".		ie 143-11 ioi a	C/ 145	SC ·	145.2.5.6	P 123	L 48	# <u>i-279</u>			
Malia	in ilen ek en ere f					reath T	_		S Inc.				
Make s	similar change io	or _sec.			Comment	Туре	E in the de	Comment Status A		PSE SD			
Append	d the following to	o the end of the pd_req_pv	/r_pri description:		Existir	anguage ng:	in the do						
The ret last tim	turned value is b te in DETECT_E	based on all previous do_cl EVAL_PRI or CLASS_RES	assification_pri fu ET_PRI. See Tab	nction calls since the le 145-25 for a	open_ valid: invalic	Circuit: The PSE I: Neithe	E has dete r open circ	as detected an open circuit. acted a PD requesting power. cuit nor valid PD detection sig	gnature has t	been found.			
uetenni		Diequested Class.			Suggested	Remed	У						
Make s	similar change fo	or _sec.			Chang	ge:							
This re	solution is ident	ical to comment #274.			Valid: To	The PS	E has dete	ected a PD requesting power.					
	00 445 0 5 4		1.10	"	Valid:	The PS	E has dete	ected a valid PD signature.					
C/ 145	SC 145.2.5.t			# I-277	Response			Response Status C					
Stewart, rie			nces mc.	505.05	ACCE	PT.							
The pd	<i>l ype</i> E _class_sig_xxx	variable returns class sign	ature not Class inf	Formation									
Suggested	Remedy												
Change	e "Class" to "cla	ss signature"											
Response		Response Status C											

ACCEPT.

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 Stewart,	SC <b>145.2.7.1</b> Heath	P 148 Analog Device	L <b>44</b> es Inc.	# i-280	C/ <b>145</b> Stewart, He	SC eath	145.2.7.1	P <b>149</b> Analog I	L <b>40</b> Devices Inc.	# i-282		
Commen Misp	<i>at Type</i> <b>E</b> laced comma.	Comment Status A		Editorial	Comment T Text is has alr	<i>Type</i> redunc eadv m	E lant to sta net the "PS	<i>Comment Status</i> A te machine. Because t SE in the state CLASS	he PSE is in the C EV1_LCE does n	Editorial LASS_EV1_AUTO state is ot measure I Class in the		
Suggeste Char Volta To Volta Respons ACC Char "Volt spec	edRemedy nge: ages, VClass, VMark ages VClass, VMark EPT IN PRINCIPLE nge to: ages VClass, VMar ified in Table 145-1-	<ul> <li>and VReset are specified</li> <li>and VReset are specified</li> <li><i>Response Status</i> C</li> <li>,</li> <li>,</li> <li>,</li> <li>and VReset and currents</li> <li>4."</li> </ul>	in Table 145-14 in Table 145-14 IClass_LIM and	I. I IMark_LIM are	range of class signature 0 and the " clause. SuggestedRemedy Change If the Autoclass enabled PSE in the state CLASS_EV1_LCE does not measure IClass in the range of class signature 0 and the PSE in the state CLASS_EV1_AUTO does measu IClass in the range of class signature 0 this indicates the PD will perform Autoclass; see 145.2.7.2 and 145.3.6.2. to If the Autoclass enabled PSE in the state CLASS_EV1_AUTO does measure IClass in the range of class signature 0 this indicates the PD will perform Autoclass; see 145.2.7.2 and 145.3.6.2.							
This	resolution is identic	al to comment #82.			Response			Response Status C	;			
Cl <b>145</b> Stewart, Comment Typo	SC 145.2.7.1 Heath <i>at Type</i> <b>TR</b> b.	P 149 Analog Device Comment Status A	L <b>36</b> es Inc.	# [i-281 Editorial	Chang in the r and 14	e to: If ange o 5.3.6.2	the Autocl f class sig	 ass enabled PSE in the nature 0 this indicates	e state CLASS EV the PD will perforr	1 AUTO measures Iclass n Autoclass; see 145.2.7.2		
Char	edRemedy <pre>nge T_CLE to T_LC</pre>	E indicates subscript.										
Respons ACC	e EPT.	Response Status C										

C/ 145	SC 145.2.7.2	P 151	L 44	# i-283	Cl 145 Stowart H	SC 145.3.	l	P 154	L 19	# i-285				
Stewart, Health       Analog Devices Inc.         Comment Type       E       Comment Status       A       Autoclass         The preceding paragraph and the note do not match. The preceding paragraph hooks the start of the T_AUTO_PSEx timers to a specific arc entering the POWER_ON state. The table row incorrectly hooks the timer start to _any_ entry into the POWER_ON state.         SuggestedRemedy       Change         Measured from the transition to state POWER_ON to       Measured from the transition of the POWER_UP state to the POWER_ON state.						Comment Type       TR       Comment Status       A       DLL         Data Link Layer Classification is deemed optional in Table 145-18. However, because a PSE is _allowed_ to select any one of 4 4PID inspection techniques (see 145.2.6.7), it logically follows that the PD _must_ exhibit all 4 of the 4PID characteristics. Notably, the 1st characteristic (single-signature) is enough to prove a PD is 4PID compatible, thus a single-signature PD need not comply with the remaining 3 attributes. However, a dual-signature PD has little choice but to comply with all 3 attributes (2-4). Because the PD does not know which of the aforementioned tests will be performed it must have all 2-4 attributes in order to receive 4P power.       DLL								
Mease Also o Response ACCE Chang Mease to Mease And m	ured from the transition of change line 44 same page PT IN PRINCIPLE. ge ured from the transition the ured from the transition of herge the two additional	of the POWER_UP si ge poonse Status <b>C</b> to state POWER_ON of the POWER_UP si information cells for i	ate to the POWI ate to the POWI tems 1 and 2.	ER_ON state. ER_ON state.	Suggested Chang Table "Optio Delete Page Single Class to Single DLL cl	IRemedy je 145-18, Type nal" to "Manda Table 145-18 184, Line 3 Ch -signature PD 4 or higher on -signature PD assification.	3, Dual, 1 to 3 ro ttory" , Note 2 ange s that request CI at least one of it s that request CI	w :: Data Link ass 4 or highe s Modes shall ass 4 or highe	Layer Classifica r and dual-signat provide DLL clas r and dual-signat	tion column :: from ture PDs that request ssification. ture PDs shall provide				
<i>CI</i> <b>145</b> Stewart, ⊦	SC 145.2.8 leath	P <b>153</b> Analog Devid	L <b>25</b> es Inc.	# i-284	Response ACCE	PT IN PRINCI	Response S PLE.	Status C						
Comment Item 1	<i>Type</i> <b>TR</b> Con 2 is associated with Typ	nment Status <b>A</b> be not assigned Class	;	PSE Power	delete	item D on pag	je 145, line 33							
Suggestee Delete	dRemedy e ", per the assigned Cla	ss"												
Response ACCE	Res PT IN PRINCIPLE.	oonse Status C												
Delete	e ", per the assigned Cla	ss" in item 12 on pag	e 154 (comment	says page 153).										
C/ 145 SC 145.2	2.8.12	P 165	L 33	# i-286	C/ 145	SC	145.2.5.7		P 127	L 33	# i-288			
--	--	--	--	---------------------------------------	------------------------------	----------------------	-----------------------------	---------------------------------	--	--------------------------------------	---			
Stewart, Heath		Analog Device	es Inc.		Stover, Da	ivid			Analog Devic	es Inc.				
Comment Type T	Commen	t Status D		PSE Power	Comment	Туре	ER	Comment	Status R		PSE SD			
145.6.1 states "All 62368-1. In particu	equipment subjeular, the PSE sha	ect to this clause Il be classified a	shall conform to s a Limited Pow	er Source in	Missir should	ig parei I be ins	nthesis in l serted as a	PSE SD (sho right parent	own in proposed hesis).	l change as a riç	ght square bracket;			
accordance with IE However elsewher	:C 60950-1 or IE e in 145 limited	C 62368-1 Anne power source ree	x Q." quirements are l	redundantly stated. For	Suggested	Reme	dy							
many reasons it is referenced standa	normal to avoid rds.	redundantly spec	cifying requirem	ents called out in	Chang (det_te 2)) * (/	ge to "(p emp = l	ose_alterna both_neith	ative = both) er) * (sig_se	* ((det_temp = ) c != valid) + (((C	only_one) * (sig C_DET_SEQ =	_pri != valid) + 0) + (CC_DET_SEQ =			
SuggestedRemedy					valid)	+ (pse_	_alternative	$e = b$ ) * (sig_	pri = open_circu	iit)" replacing rig	ht square bracket with			
Remove subclause	e 145.2.8.12				right p	arenthe	esis.	, , ,		,				
Page 163 Figure 1	45-25 remove lin late will thus have	es related to I_L	.PS and P_Type from 4s to infin	e,max/V_PSE.	Response			Response	Status C					
Page 164 remove	lines 21 and 29 (	both reference I	_LPS)		REJE	CT.								
Page 244 Line 17 Proposed Response	Remove PSE82.	Status 7			The a	rc conta	ains 15 ope	en parens ar	nd 15 closing pa	rens.				
REJECT.	Response				C/ 145	SC	145.2.8		P 152	L 30	# i-289			
					Stover, Da	ivid			Analog Devic	es Inc.				
This comment was	S WITHDRAWN I	by the commente	er.		Comment	Tvpe	TR	Commen	Status A		PSE Power			
C/ 145 SC 145.3	3.9	P 198	L 10	# i-287	Vport_	PSE_c	diff and Vp	ort_PSE-2P	both apply to ei	ther pairset of th	e PSE when that			
Stewart, Heath	0	Analog Device	es Inc.		pairse These	t is in a items	a power on are are no	state (POW t labeled cor	ER_ON, POWE	R_ON_PRI, PC	WER_ON_SEC).			
Comment Type E	Commen	t Status A	r row is ottribut	PD MPS	Suggested	Reme	dy							
or dual-signature F Table 145-31 does	PDs. s not follow this c	onvention	i iow is allibula		Chang with b	ge "Out oth pair	put voltage rsets in a p	e pair-to-pair bower on stat	difference" to "( te"; Change "Ou	Dutput voltage p tput voltage per	air-to-pair difference pairset in the te"			
SuggestedRemedy					Response			Response	Status C					
Change Table 145	-31 as follows				ACCE	PT IN I	PRINCIPL	E.						
Change "Class 1 to Change "Class 5 to Change "Class 1 to	o 4" to "Single-sig o 8" to "Single-sig o 5" to "Dual-sigr	gnature PD, Clas gnature PD, Clas nature PD, Class	ss 1 to 4" ss 5 to 8" 1 to 5"		Chang pairse	ge "Out t in a p	put voltage ower on st	e per pairset ate".	in the POWER_	_ON state" to "C	utput voltage per			
Response	Response	Status C			Chang	je item	2 paramet	ter name to	Pair-to-pair voit	age difference".				
ACCEPT IN PRIN	CIPLE.													
- change descriptic single-signature Pl powered pairset fo	on of item 1 to rea Ds" - change des or dual-signature l	ad: "Total input c cription of item 2 PDs".	current per the a 2 to read: "Input	ssigned Class, for current on each										

C/ 145 SC 145.2	.8 <i>P</i> 153	L 16	# i-290	C/ 145	SC	145.2.8	P 154	L <b>23</b>	# i-292
Stover, David	Analog Devic	es Inc.		Stover, Da	vid		Analog De	vices Inc.	
Comment Type T	Comment Status A		PSE Inrush	Comment	Туре	TR	Comment Status A		PSE Power
Item 6 specifies "To	otal output currentin the POWE	ER_UP state pe	r the assigned Class",	Tlim-2	p is sole	ely a functi	on of PSE Type, regardl	ess of PD assigned	d Class.
but includes rows for	or "Type 3" and "Type 4" dual-sig	gnature PDs.		Suggestea	IRemed	lv			
SuggestedRemedy				Chang	ie "Shoi	, rt circuit tin	ne limit per pairset, per th	ne assigned Class'	' to "Short circuit time
Change from "Type	3 dual-signature PD" to "Dual-s	ignature PD, Cl	ass 1 to 4"; Change	limit pe	er pairs	et".		<b>9</b>	
from "Type 4 dual-s	signature PD" to "Dual-signature	PD, Class 5".		Response			Response Status C		
Response	Response Status C			ACCE	PT IN F	RINCIPLE	i.		
				ACCE	PT IN F	PRINCIPLE			
				Delete	", per t	he assigne	ed Class" in item 12 on p	age 154 (commen	t says page 153).
adopt changes sho	wn in yseboodt_10_0917_inrush	n.pdf		201010	, po	e accigin		age (common	
This resolution is in	lantical to commant #201			This re	esolution	n is identic	al to comment #284.		
				C/ 145	SC	145.2.8.1	P 155	L 32	# i-293
C/ 145 SC 145.2	.8 P 153	L 16	# i-291	Stover, Da	vid		Analog De	vices Inc.	
Stover, David	Analog Devic	es Inc.		Comment	Tvne	TR	Comment Status A		PSE Power
Comment Type TR	Comment Status A		PSE Inrush	We ha	ve mult	inle "nowe	r on" and "nower un" sta	tas for the PSE Th	
The PSE inrush rec	quirements "I_Inrush" and "I_Inru	ush-2P" always a	apply. However, dual-	145.2.	8.1 app	ly to any p	airset in one of these sta	ites.	
signature PDs may	be powered over one or both pa	airs. For this rea	son, specifying total	Suggested	IRemed	ly			
single pairset of a 1	Tush) for dual-signature PDs is p Type 4/Class 5 dual-signature PI	D is inrushed. th	e PSE shall provide an	In 145	.2.8.1, 0	- change "th	e POWER ON state" to	"a power on state"	; change "the
I_Inrush of at least	0.65A and shall not provide an I	Inrush-2P of m	ore than 0.6A.	POWE	R_UP	state" to "a	a power up state".		
For dual-signature	PDs, output current during inrus	h should only be	e specified per-pairset.	Response			Response Status C		
SuggestedRemedy				ACCE	PT.				
Remove I_Inrush e	ntries for dual-signature PDs.								
Response	Response Status C								
ACCEPT IN PRINC	CIPLE.								
adapt abaptes she	um in vachaadt 10 0017 immel	ndf							
adopt changes sho	within yseboodi_to_oat7_infusf	i.pui							

C/ 145	SC 145.2.8.1	P 155	L 37	# i-294	C/ 145	SC	145.2.8.1	P 155	L <b>47</b>	# i-296
Stover, Dav	vid	Analog Device	es Inc.		Stover, Da	vid		Analog Devi	ces Inc.	
Comment T	<i>уре</i> <b>т</b>	Comment Status D		PSE Power	Comment	Туре	т	Comment Status A		PSE Power
"The vo 3.5V/us requirer should l	oltage transients s". This PSE requinent (145.2.8.1) be 3500 V/s. Thi	as a result of load changes u uirement seems to be the du . In another comment, I show s PSE requirement should li	up to 35mA/us al of the PD tra w that slew rate kelv reflect tha	shall be limited to ansient behavior e (TR3, Source dv/dt) t change	"TRise POWE up sta	eis re ER_ON tes.	ferenced from	omthe voltage difference the beginning of POWER_	betweencond _UP" applies to a	uctors of a pairset in the all power on and power
SuggestedF	Remedy		,	· · · · · · · · · · · · · · · · · ·	Suggested	Reme	dy DOWED C	NI atata" ta "a nawar an at	oto", obongo "th	a DOWED LID state" to
Replace	e "3.5 V/us" with	"3500 V/s".			"a pow	e the /er up s	state".	on state to a power on sta	ate ; change the	POWER_OP State to
Proposed R REJEC	Response T.	Response Status Z			Response ACCE	PT.		Response Status C		
This co	mment was WIT	HDRAWN by the commente	r.		C/ 145	SC	145.2.8.5	P 157	L 29	# i-297
This co	mment was with	drawn before the comment r	esolution meet	ina	Stover, Da	vid		Analog Devi	ces Inc.	
					Comment	Туре	Е	Comment Status A		Editorial
C/ 145	SC 145.2.8.1	P 155	L 39	# i-295	For Ec	luation	(145-10), "	when in 2-pair mode" is no	t aligned with th	e rest of the entries.
Stover, Dav	rid	Analog Device	es Inc.		Suggested	IReme	dy			
Comment T	<i>уре</i> <b>т</b>	Comment Status A		Editorial	Make	alignm	ent consiste	ent.		
"A PSE POWEF	in the POWER_ R_ON states; red	ON state may remove powe quirement applies to all.	er from a pairse	et" there are multiple	Response			Response Status C		
SuggestedF	Remedy				ACCE	PT.				
Change	e "the POWER_0	ON state" to "a power on stat	e".		C/ 145	SC	145.2.8.5	P 157	L <b>39</b>	# i-298
Response		Response Status C			Stover, Da	vid		Analog Devi	ces Inc.	
ACCEP	T IN PRINCIPLE	Ξ.			Comment	Type	ER	Comment Status A		PSE Power
In 145.2 POWEF	2.8.1, change "th R_UP state" to "a	e POWER_ON state" to "a p a power up state".	oower on state	'; change "the	Refere Suggested Replac	ence to	incorrect e dy e (145-14)"	equation		
This res	solution is identic	al to comment #293.			Response ACCE	PT.	6 (143-14)	Response Status C		

C/ 145	SC 145.2.8.5	.1 <i>P</i> 159	L <b>48</b>	# i-299	C/ 145	SC	145.2.8.6	F	<sup>,</sup> 162	L <b>1</b>	# i-302
Stover, Dav	vid	Analog Dev	rices Inc.		Stover, Day	vid		Ana	alog Devid	ces Inc.	
Comment T	Гуре <b>т</b>	Comment Status A		Unbalance	Comment	Туре	Е	Comment Statu	is A		Editorial
"The su	um of RCh_unb_	_min from the positive pairs	s and RCh_unb_ma	ax from the negative	Figure	145-23	3 is inserted	d between an equ	ation and	the variable defir	nitions for that equation.
pairs is	RChan-2P as d	escribed in Figure 145-22	and as defined by t	the link section pair-to-	Suggested	IRemed	ły				
used in	either of the cit	ed reference. This paragra	ph adds no clarity of	or value.	Move F	Figure 1	- 145-23 belo	ow the variable de	finitions f	or Equation (145-	18).
Suggestedl	Remedy				Response			Response Statu	s C		
Remov	e quoted paragr	aph.			ACCEI	PT IN F	PRINCIPLE	,			
Response		Response Status <b>C</b>			Editori	ol licon	an aronted	to move figure w	hara anar	anriata	
ACCEF	РТ.				Eulion	ariicen	se granteu	to move ligule w	nere appr	opriate.	
		<b>B</b>			C/ 145	SC	145.2.8.8	F	²1 <b>62</b>	L <b>46</b>	# i-303
C/ 145	SC 145.2.8.6	P 161	L <b>33</b>	# <u>i-300</u>	Stover, Day	vid		Ana	alog Devid	ces Inc.	
Stover, Dav	//d	Analog Dev	ices inc.		Comment	Туре	TR	Comment Statu	is <b>A</b>		PSE Power
Comment 7 We hav	<i>Type</i> <b>TR</b> /e multiple "pow	Comment Status A er on" and "power up" stat	es for the PSE. The	<i>PSE Inrush</i> e requirements in	We ha any pa	ive mult airset in	tiple "powe one of the	r on" states for th se states.	e PSE. Th	ne requirements i	n 145.2.8.8 apply to
145.2.8	8.6 apply to any	pairset in one of these stat	es.		Suggested	IRemea	ły				
Suggested	Remedy				Replac	ce "POV	WER_ON s	state," with "Powe	r on state	s," in Figures 145	5-24, 145-25. On page
Replace respect	e "POWER_UP' ively, in all locat	' and "POWER_ON" with " ions within 145.2.8.6 exce	a power up state" a pt the caption for F	and "a power on state", igure 145-23. In Figure	165, re PSE w	eplace " /ith a pa	'A PSE in tl airset in a p	he POWER_ON	state may ay remove	remove power fr power from that	om a pairset" with "A pairset"
145-23	, replace "per pa	airset in POWER_UP state	" with "per pairset i	n a power up state".	Response			Response Statu	s C		
Response	_	Response Status C			ACCEI	PT.					
ACCEF	РТ.				CI 145	22	115 2 8 8	ſ	162	1.54	# : 204
C/ 145	SC 145.2.8.6	P 162	L <b>1</b>	# i-301	Stover Da	vid	145.2.0.0	F An:	alog Devic	es Inc	# 1-304
Stover, Dav	vid	Analog Dev	rices Inc.		Comment	Tuno	т	Comment Stat			DSE Dowor
Comment 7	vpe T	Comment Status A		PSE Inrush	"Powe	r shall h	e remover	from a pairset o	fa PSF h	efore the pairset	current exceeds the
Figure 2P and linrush,	145-23 specifies Iport as shown max while Iport-	the PSE inrush upperbou apply simultaneously. In F 2P may load step up to 50	nd template; requir igure 145-23, Iport )A (>>linrush,max).	ements for both Iport- is limited to As drawn, Iport-2p is	"PSE u the "ar templa	upperbo nd" can ates whe	bund templa be read as en either 14	ate" in Figure 145 the intersection 45-24 OR 145-25	5-24, and (in this ca apply, de	Figure 145-25." R se, the max) of the pending on PSE	logue comma. Also, le PSE upperbound Type.
limited	to the lesser of t	these requirements: IInrus	h,max.		Suggested	IRemea	ły				
Suggested	Remedy				Delete	comma	a. Replace	"and" with "or" in	the refere	enced sentence.	
Remov	e IPort axis from	Figure 145-23 or specify	IPort behavior durir	ng load step.	Response			Response Statu	s C		
Response ACCEF ACCEF	PT IN PRINCIPL	<i>Response Status</i> <b>C</b> E. E.			ACCE	PT.					
adopt c	hanges shown i	n yseboodt_10_0917_inru	sh.pdf								
This res	solution is identi	cal to comment #291.									
TYPE: TR/t COMMENT SORT ORD	echnical require STATUS: D/dis ER: Comment I	d ER/editorial required G patched A/accepted R/re	R/general required ejected RESPON	T/technical E/editorial G/g SE STATUS: O/open W/wr	general itten C/closed	1 U/uns	satisfied Z/	/withdrawn	Comm	ent ID i-304	Page 76 of 132 9/15/2017 11:41

)a	SC	145.2.8.	8		P 164 Analog Dev	L1	# i-305		C/ <b>145</b> Stover Da	SC	145.2.8.13	3	P 166 Analog Dev	L <b>7</b>	# i-307
Da in in in in in in in in in in	avid <i>Type</i> ng a con d <i>Reme</i> missin PT. SC avid	E nma betv dy g comma 145.2.8.	Con ween "Eo  Resp 10	nment S quation ( ponse St	Analog Dev <i>itatus</i> <b>A</b> (145-19) Ec <i>tatus</i> <b>C</b> <i>P</i> <b>165</b> Analog Dev	ices Inc. Juation (145-20 <i>L</i> <b>19</b> rices Inc.	Edit ))" # <u>i-306</u>	torial	Stover, Da Comment "Wher pairse dual-s Suggested Replay power Response ACCE	vid Type conne ". Only ignatur <i>IReme</i> d ce "sha on sta PT IN PT IN	TR ected to a d the state r e PDs. dy III reach the te for a pair PRINCIPLE PRINCIPLE	Comment lual-signatur names POW e POWER_C rset". Response	Analog Dev <i>Status</i> <b>A</b> e PD, PSEs s /ER_ON_PRI DN state for a <i>Status</i> <b>C</b>	ices Inc. hall reach the P and POWER_C pairset" with "sh	PES Power OWER_ON state for a DN_SEC are defined for
nt s es ac	<i>Type</i> specific State is spectiv <i>Reme</i> ce "Sta 145-16	T ation for <sup>1</sup> not prop e PSE Al dy te" with " shall ap	Con VOff in T eer case. ternative state". A ply to the	nment S Table 14 . Next, th e when in Add the fi e pairset	tatus <b>A</b> 5-16 shall a his requirem n the IDLE_ following sta t voltage for	apply to the PI to nent should app PRI or IDLE_S atement: "The s	PSE Po voltage in the IDLE State ply to the pairset voltage SEC states. specification for VOff in r Secondary Alternative	ower e". e for	Chang "PSEs after c PSEs detect This re	je to: , when omplet shall re ion on esolutic	connected ing detectio ach the rea the same p on is identic	to a single- on on the las spective pov vairset."	signature PD, st pairset. Wh ver on state fo ent #130.	shall reach PO en connected to r a pairset within	WER_ON within Tpon a dual-signature PD, n Tpon after completing
e			Resp	oonse St	tatus <b>C</b>	cuvery.			C/ <b>145</b> Stover, Da	SC vid	145.2.10		P 166 Analog Dev	L <b>43</b> ices Inc.	# i-308
ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE. Replace by: "The voltage at the PI shall be equal or less than V_Off, as defined in Table 145-16, when the PSE is in DISABLED, IDLE, TEST_ERROR_BOTH, or ERROR_DELAY. The voltage at the corresponding pairset shall be equal or less than V_Off, as defined in Table 145-16, when the PSE is in IDLE_PRI, WAIT_PRI, ERROR_DELAY_PRI, IDLE_SEC, WAIT_SEC, or ERROR_DELAY_SEC." This resolution is identical to comment #128.					en I	Comment "If any from tl signat define Suggested Remo Response ACCE	Type of the ne PI." ure PD d explid Remed ve the PT.	T se conditior Not a true : ). Also, this citly in the F dy quoted stat	Comment ns exist for lo statement (fi s statement a PSE inrush a rement. Response	Status A onger than its or example, D adds little valu and PSE MPS Status C	related time lim C MPS on a sin le, as the power sections alread	PSE MPS it, the power is removed gle pairset of a dual- removal specifics are ly.			
re	SEC, \	VAIT_SE	C, or EF	RROR_E	DELAY_SE(	S."			Remo Response ACCE	PT.	quoted stat	ement. <i>Response</i>	Status C		

C/ 145	SC 145	5.2.11		P 166	L <b>47</b>	# i-309	C/ 145	SC	145.3.8		P 188	L <b>20</b>	# i-311
Stover, Dav	vid		Ar	alog Devices	Inc.		Stover, Dav	vid			Analog Devic	es Inc.	
Comment T	Туре Т	R	Comment Star	tus <b>A</b>		PSE MPS	Comment 7	Туре	Е	Comment S	Status A		PD Power
"A PSE	, dependi	ing on the	e connected Ty	pe of PD and	whether it is cor	nected to a single-	Param	eter "V	'tran_lo-2P	" is defined in	Table 145-28	, but never refe	renced in the document.
signatu TMPD0	re PD or a D values a	a dual-sig as define	nature PD, shi d in Table 145-	all use the app 16." PD DC M	Plicable IHold, IH	old-2P, TMPS and	Suggested	Remed	dy				
Type; it	t is a func	tion of PI	D assigned Cla	ss. Also missi	ing an oxford cor	nma.	Delete	"Vtran	_lo-2P" fro	om Symbol col	umn of Item 2	2.	
Suggested	Remedy						Response			Response S	tatus C		
Replace configu defined	e stateme iration, shi i in Table	ent with "/ all use th 145-16."	A PSE, depend le applicable IH	ing on the PD lold, IHold-2P	D assigned Class , TMPS, and TM	and PD signature PDO values as	ACCEF ACCEF	PT IN F PT IN F	Principle Principle	E. E.			
Response			Response Stat	us <b>C</b>			Replac	e add.	Info by: "S	See 145.3.8.1.	n		
ACCEF	PT.						This re	solutio	n is identio	cal to commen	it #156.		
C/ 145	SC 145	5.3.3.7		P 174	L 1	# i-310	C/ 145	SC	145.3.8.10	)	P 196	L <b>7</b>	# i-313
Stover, Dav	vid		Ar	alog Devices	Inc.		Stover, Dav	vid			Analog Devic	es Inc.	
Comment T	Туре Т	R	Comment Star	tus <b>D</b>		Pres: Stover1	Comment	Туре	TR	Comment S	Status A		Pres: Yseboodt3
pd_acs exampl Autocla	s_req flag le, if pd_a ass power	handling cs_req is , pd_acs	in "main" PD s set TRUE and _req will not be	tate machine PD is consec reset as FAL	has unintended quently reset pric SE.	behavior. For r to presenting	Icon-2p 2P-unb limitatio	o-unb h o for lor on on t	nas no max nger than 1 he PD.	ximum; this sta ICUT-2P min	atement ("Sing and 5% duty o	gle-signature Pl cycle") does no	Ds shall not exceed ICon- t enforce any current
Suggested	Remedy						Suggested	Remed	dy				
See sto	over_01_0	)917.pdf					Change	e "Icon	-2p-unb" to	o "Icon-2p-unt	o,min"		
Proposed F	Response		Response Stat	us <b>Z</b>			Response			Response S	tatus C		
REJEC	CT.						ACCE			Ξ.			
This co	mment w	as WITH	DRAWN by the	e commenter.			NOOLI						
This co	omment w	as withdr	awn before the	comment res	solution meeting.		Adopt y 1. Use Icon-2p 2. Put as app	yseboc the Ic p-unb propos ropriate	odt_03_09′ on-2p-unb sed subcla e.	17_unbalance numbers from use 145.1.1.3	margin.pdf wit n darshan_03 content in PS	th the following _0917_final.pdf SE and PD unba	changes: for lunbalance-2p and alance section, rename
							This re	solutio	n is identio	cal to commen	it #101.		

Cl 145 Stover, Da	SC 1 vid	145	<i>P</i> Analog Devic	L es Inc.	# i-314	Cl Patents S Crayford, Ian	C Patents	Р <b>3</b> Network Gen	L <b>46</b> eration L	# i-316
Comment <sup>·</sup>	Type	G	Comment Status A		Editorial	Comment Type	GR	Comment Status R		IP
Punctu a perio	uation us od, other	sage in eo rs do not.	quation variable definitions i	s inconsistent.	Some definitions end in	*** Comme attached **	ent submitte	d with the file 94180000003-8	302.3bt - Crayfo	ord Ballot Comments.xls
Suggested Consis Response ACCEI	IRemedy stently u PT.	y se or omi	t periods on equation variat Response Status <b>C</b>	ble definitions,	per style guidelines.	This is a ge The use of Entities), o Two in part group of co	eneral comn PoE has be therwise kno ticular, Chrir ompanies in	nent regarding Intellectual Pro- ten the subject of multiple liting own as "Patent Trolls". nar Systems and Network 1, the Ethernet industry who sho	operty. gations from NI have litigated a ip products the	PEs (Non Practicing against a significant at implement PoE.
C/ 145 Stover, Da	SC 1 vid Type	145.3.8.6 TR	P <b>194</b> Analog Devic Comment Status	L <b>30</b> ses Inc.	# [i-315	Since 802. utilize PoE What assu property th	3bt increase in many ne rances have at relates to	es the available power, this w w applications. been made by companies w 802.3bt (by at least Chrimar terms are be secured?	ill no doubt attr /ho believe the Systems and I	act new companies to y have intellectual Network 1), such that
*** Cor	mment s	submitted	with the file 94179800003-	_tr_3.png atta	ched ***	Suggested Ren	nder KAND	terms can be secured?		
Math fo attachr	or TR3 of ment for	doesn't pe r simulatic	encil out given the input cap on showcasing the problem	requirements statement. As	listed in this section. See a result, I_TR_LIM,max	Issue a mu infringeme	ich stronger nt of Intellec	warning indicating the use of tual Property,	802,3bt may r	esult in alleged
for ass	signed C	class >= 5	needs slightly increased.			Response		Response Status W		
Suggested Modify Response ACCEI	IRemedy I_TR3,I PT IN P	y max for si RINCIPLE	ingle-signature PDs assigne <i>Response Status</i> <b>C</b> E.	ed Class >= 5	from "3" to "3.1"	REJECT. The proces respect to well as for project	ss for reques the two hold all other hol	sting an LOA for the IEEE P8 ers of potentially essential pa ders of potentially essential p	02.3bt project l atent claims na batent claims id	has been followed in med in this comment, as lentified during this
Chang ITR_LI the PD To: W ms. Delete	e senter IM, as d ) shall m /hen trar table 14	nce from: efined in <sup>-</sup> neet the of nsient TR: 45-30	When transient TR3 is app Table 145-30, and perating power limits after 4 3 is applied, the PD shall m	blied, the peak I ms. eet the operat	current shall not exceed	The IEEE i may be rec Claims; or connection are reason Compliant Bylaws <ht< td=""><td>s not respon quired; (b) de (c) determin with submis able or non- Implementa tp://standar</td><td>nsible for: (a) identifying Esse etermining the validity, essen ing whether any licensing ter ssion of a Letter of Assurance discriminatory; or (d) determi tion. See subclause 6.2 'Poli ds.ieee.org/develop/policies/t</td><td>ential Patent Cla tiality, or interp ms or condition e, if any, or in a ining whether a cy' of the IEEE bylaws/sect6-7</td><td>aims for which a license retation of Patent ns provided in any licensing agreements an implementation is a -SA Standards Board .html#6.2&gt;.</td></ht<>	s not respon quired; (b) de (c) determin with submis able or non- Implementa tp://standar	nsible for: (a) identifying Esse etermining the validity, essen ing whether any licensing ter ssion of a Letter of Assurance discriminatory; or (d) determi tion. See subclause 6.2 'Poli ds.ieee.org/develop/policies/t	ential Patent Cla tiality, or interp ms or condition e, if any, or in a ining whether a cy' of the IEEE bylaws/sect6-7	aims for which a license retation of Patent ns provided in any licensing agreements an implementation is a -SA Standards Board .html#6.2>.
Add fo the effe	otnote t ective 4	o "Source -pair resis	e Resistance" in Table 145-2 stance."	29 that says "T	The source resistance is	Discussion threatened prohibited SA standard Standards 7.html#6.2 IEEE-SA S <https: sta<="" td=""><td>or other co litigation; a during IEEE rds-developi Board Bylav &gt; and subcla tandards Bo andards.ieee</td><td>mmunications regarding: (a) nd (b) the essentiality, interpr -SA standards-development ment technical activities. See vs <http: standards.ieee.org,<br="">ause 5.3.10.2 'Discussion of bard Operations Manual e.org/develop/policies/opman.</http:></td><td>the status or su etation, or valic meetings or oth subclause 6.2 (develop/policie litigation, pater /sect5.html#5.3</td><td>Ubstance of ongoing or dity of Patent Claims; is her duly authorized IEEE- ! 'Policy' of the IEEE-SA es/bylaws/sect6- nts, and licensing' of the 3.10.2&gt;.</td></https:>	or other co litigation; a during IEEE rds-developi Board Bylav > and subcla tandards Bo andards.ieee	mmunications regarding: (a) nd (b) the essentiality, interpr -SA standards-development ment technical activities. See vs <http: standards.ieee.org,<br="">ause 5.3.10.2 'Discussion of bard Operations Manual e.org/develop/policies/opman.</http:>	the status or su etation, or valic meetings or oth subclause 6.2 (develop/policie litigation, pater /sect5.html#5.3	Ubstance of ongoing or dity of Patent Claims; is her duly authorized IEEE- ! 'Policy' of the IEEE-SA es/bylaws/sect6- nts, and licensing' of the 3.10.2>.
						The text co Standards	ntained in tl Documents	ne 'Notice and Disclaimer of l	Liability Concer dated by subcl	rning the Use of IEEE ause 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

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of the IEEE-SA Standa <https: standards.ieee<br="">suggestions for change</https:>	1> and as such SA Standards Board	C/ <b>30</b> Law, David	SC 1	30.12.2.1	.18i	P <b>42</b> Hewlett Pack	<i>L</i> ard Enter	# i-319			
C/ 30 SC 30.12.2.1	.18a P 40	<i>L</i> <b>34</b>	# [i-317	Comment The aL	<i>Type</i> _ldpXdc	TR ot3LocPov	Comme verClassx/	ent Status <b>A</b> A, aLldpXdot3LocF	owerClassxB,	Pres: Yseboodt4	
Law, David	Hewlett Pack	ard Enter		aLidpXdot3RemPowerClassxA and aLidpXdot3RemPowerClassxB attributes don't seem to map to any of the TLV fields defined in subclause 79.3.2 or its subclauses.							
Comment Type E	Comment Status A		Management	Sugaested	Remed	1v					
Please format the 'FAL 802.3-2015 subclause	SE' and 'TRUE' description 30.12.2.1.20 aLldpXdot3Loc	as hanging parag Ready for an exi	graphs. See IEEE Std sting example.	Sugge	st that:	,					
SuggestedRemedy See comment.				[1] Del 22), aL al IdoX	ete attr _ldpXdc	ibutes aL t3LocPov	ldpXdot3Lo verClassxE	ocPowerClassxA( 3 (subclause 30.12	subclause 30. 2.2.1.18j, page	12.2.1.18i , page 42, line 42, line 33), 1 line 29) and	
Response ACCEPT.	Response Status C			aLldpX	(dot3Re	emPower	ClassxB (s	ubclause 30.12.3.	1.18h, page 5	1, line 41).	
C/ 30 SC 30.12.2.1	.18b P 40 Hewlett Pack	P 40 L 50		[2] Remove entries for aLldpXdot3LocPowerClassxA, aLldpXdot3LocPowerClass aLldpXdot3RemPowerClassxA and aLldpXdot3RemPowerClassxB from Table capabilities' (page 32, line 38).							
				Response			Respon	se Status C			
Comment Type E Please format the 'FAL	Comment Status A .SE' and 'TRUE' description	as hanging para	<i>Management</i> graphs. See IEEE Std	ACCE	PT IN F	PRINCIPL	.E.				
802.3-2015 subclause	30.12.2.1.20 aLldpXdot3Loc	Ready for an exi	sting example.	These	entries	have bee	en mappeo	to the TLV fields	in yseboodt_0	4_0917_LLDP.pdf which	
SuggestedRemedy				has be	en ado	pted.					
See comment.											
Response	Response Status C										
ACCEPT.											

Management

C/ 30	SC 30.12.2.1.18I	P <b>43</b>	L 6	# [	i-320
Law, David		Hewlett Pacl	kard Enter		

Comment Type TR Comment Status A

The behaviour defined for the attributes aLldpXdot3LocPowerTvpex and aLldpXdot3RemPowerTypex doesn't see to match the 'Power typex' TLV field that these attributes map to (see Table 79-9 and 79-10). Specifically, the behaviour doesn't include any reference to the single-signature and dual-signature values that Table 79-6d 'System setup field' defines for the 'Power typex' field. Rather than try to further expand the behaviour text to decode bits it would seem a better approach, since these are new attributes being added by IEEE P802.3bt, to change their syntax from 'BIT STRING ISIZE (4)]' to 'ENUMERATED value list'.

#### SuggestedRemedy

Suggest that:

[1] The 'APPROPRIATE SYNTAX:' text for the attributes aLldpXdot3LocPowerTypex and aLldpXdot3RemPowerTypex should be changed to read:

An ENUMERATED value list that has the following entries: type4dualPD Type 4 dual-signature PD type4singlePD Type 4 single-signature PD type3dualPD Type 3 dual-signature PD type3singlePD Type 3 single-signature PD type2PD Type 2 PD type1PD Type 1 PD type4PSE Type 4 PSE type3PSE Type 3 PSE type2PSE Type 2 PSE type1PSE Type 1 PSE

[2] The 'BEHAVIOUR DEFINED AS:' text for the attribute aLldpXdot3LocPowerTypex should be changed to read:

A read-only attribute that returns a value to indicate if the local system is a Type 1, Type 2, Type 3. or Type 4 PSE or PD, and in the case of a Type 3 or Type 4 PD, if it is singlesignature or dual-signature .;

[3] The 'BEHAVIOUR DEFINED AS:' text for the attribute aLldpXdot3RemPowerTypex (subclause 30.12.3.1.18), page 52, line 16) should be changed to read:

A read-only attribute that returns a value to indicate if the remote system is a Type 1, Type 2, Type 3, or Type 4 PSE or PD, and in the case of a Type 3 or Type 4 PD, if it is a singlesignature or dual-signature .:

#### Response Response Status W

ACCEPT IN PRINCIPLE.

Make following changes:

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

[1] The 'APPROPRIATE SYNTAX:' text for the attributes aLldpXdot3LocPowerTypex and aLldpXdot3RemPowerTypex should be changed to read:

An ENUMERATED value list that has the following entries: type4dualPD Type 4 dual-signature PD type4singlePD Type 4 single-signature PD type3dualPD Type 3 dual-signature PD type3singlePD Type 3 single-signature PD type2PD Type 2 PD Type 1 PD type1PD tvpe4PSE Type 4 PSE type3PSE Type 3 PSE type2PSE Type 2 PSE type1PSE Type 1 PSE

[2] The 'BEHAVIOUR DEFINED AS:' text for the attribute aLldpXdot3LocPowerTypex should be changed to read:

A read-only attribute that returns a value to indicate if the local system is a Type 1. Type 2. Type 3, or Type 4 PSE or PD, and in the case of a Type 3 or Type 4 PD, if it is a singlesignature PD or a dual-signature PD.;

[3] The 'BEHAVIOUR DEFINED AS:' text for the attribute aLldpXdot3RemPowerTypex (subclause 30.12.3.1.18), page 52, line 16) should be changed to read:

A read-only attribute that returns a value to indicate if the remote system is a Type 1, Type 2, Type 3, or Type 4 PSE or PD, and in the case of a Type 3 or Type 4 PD, if it is a singlesignature PD or a dual-signature PD.;

Comment ID i-320

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<i>Cl</i> <b>79</b> Law, David	SC 79.3.2.6c.2	P <b>45</b> Hewlett Pack	L <b>45</b> ard Enter	# i-321	C/ <b>30</b> Law, David	SC 30.12.2.1	l.18k	P <b>42</b> Hewlett Pac	L <b>3</b> kard Enter	# i-322
Comment	Туре <b>т</b> Сол	mment Status A		Management	Comment T	ype TR	Commen	t Status A		Pres: Yseboodt4
Based of PD o names	on Table 79-6d, the 'po or PSE, but there isn't a should always be place	ower typex' field can h a 'PD' or 'PSE' value. ed in inverted comma	nave various valu In addition, sugg as.	ues that indicate a Type gest that TLV field	There a manage class' fo Classx	are no attributes ed object class' or the TLV field Mode B'.	s provided in or subclause s 'Dual-signa	the subclause 30.12.3 'LLDF ture power Cla	30.12.2 'LLDP L ? Remote Syste ssx Mode A' and	ocal System Group m Group managed object d 'Dual-signature power
Suggested	Remeay				Sugaested	Remedy				
Sugge	st mat.				Suggestean	t that:				
[1] The field in Subcla Subcla	e text ' the power type dicates a PD' at the nuse 79.3.2.6c.2, page nuse 79.3.2.6c.3, page nuse 79.3.2.6c.4, page	ex is PD' should be following locations: 79, line 45. 79, line 53. 80, line 51.	changed to read	I ' the "Power typex"	[1] The (aLldpX aLldpX (aLldpX aLldpX fields 'E	following new a (dot3LocDualSi dot3LocDualSi (dot3RemDualS dot3RemDualS Dual-signature p	attributes are gPowerClass pPowerClass SigPowerClass igPowerClass ower Classx	added in the L exModeA and xModeB) and re exModeA and exModeB) man Mode A' and 'I	LDP local emote laged object clas Dual-signature p	ss to support the TLV ower Classx Mode B'.
[2] The ' the	"Dual-signature power	Classx Mode A" field	' at the followi	ng locations:						
Subcla Subcla [3] The ' the Subcla [4] The field in Subcla	tuse 79.3.2.6c.2, page tuse 79.3.2.6c.2, page text ' the dual-signa "Dual-signature power tuse 79.3.2.6c.3, page tuse 79.3.2.6c.3, page text ' the power type dicates a PSE' at the tuse 79.3.2.6c.2, page	79, line 45. 79, line 47. ture power Classx Mo Classx Mode B" field 79, line 53. 80, line 45. ex is PSE' should be e following locations: 79, line 47. 80 line 45.	de B field' she ' at the followin e changed to rea	ould be changed to read ng locations: ad ' the "Power typex"	ALIdpXo ATTRIE APPRC An ENU singleS class5 class5 class4 class3 class2 class1 BEHAV If the lo	dot3LocDualSig BUTE DPRIATE SYNT JMERATED va ignature Single Class 5 Class 5 Class 4 Class 3 Class 2 Class 1 VIOUR DEFINE cal system is a	PowerClass: AX: lue list that h e-signature P D AS: PD a read-c	xModeA as the following D	) entries: indicates if it is ;	a single-signature PD, or
Doononoo	luse 79.3.2.00.3, page				for a du	al-signature PE	D, a reau-0	ted Class for M	lode A during P	nysical Layer
ACCE	Res PT.	ponse Status C			Classifi it has d assigne	cation (see 145 etected a single ed Class for Alte	5.3.6). If the lo e-signature P ernative A (se	ocal system is a D, or if it has d ee 145.2.7).	a PSE, a read-o etected a dual-s	nly value that indicates if signature PD, the
					aLldpXo	dot3LocDualSig	PowerClass	xModeB		
					ATTRIE	BUTE				
					APPRC The sar	PRIATE SYNT	<sup>-</sup> AX: aLldpXdot3L	ocDualSigPow	erClassxModeA	
					BEHAV	IOUR DEFINE	D AS:			

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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If the local system is a PD, a read-only value that indicates if it is a single-signature PD, or for a dual-signature PD, the requested Class for Mode B during Physical Layer Classification (see 145.3.6). If the local system is a PSE, a read-only value that indicates if it has detected a single-signature PD, or if it has detected a dual-signature PD, the assigned Class for Alternative B (see 145.2.7).

### aLldpXdot3RemDualSigPowerClassxModeA

### ATTRIBUTE

APPROPRIATE SYNTAX: The same as used for aLldpXdot3LocDualSigPowerClassxModeA.

#### BEHAVIOUR DEFINED AS:

If the remote system is a PD, a read-only value that indicates if it is a single-signature PD, or if it is a dual-signature PD, its requested Class for Mode A during Physical Layer Classification (see 145.3.6). If the remote system is a PSE, a read-only value that indicates if it has detected a single-signature PD, or if it has detected a dual-signature PD, its assigned Class for Alternative A (see 145.2.7).

### aLldpXdot3RemDualSigPowerClassxModeB

#### ATTRIBUTE

#### APPROPRIATE SYNTAX:

The same as used for aLldpXdot3LocDualSigPowerClassxModeA.

### BEHAVIOUR DEFINED AS:

If the remote system is a PD, a read-only value that indicates if it is a single-signature PD, or if it is a dual-signature PD, its requested Class for Mode B during Physical Layer Classification (see 145.3.6). If the remote system is a PSE, a read-only value that indicates if it has detected a single-signature PD, or if it has detected a dual-signature PD, its assigned Class for Alternative B (see 145.2.7).

[2] Mappings for two of the new attributes are added in Table 79-9 'IEEE 802.3 Organizationally Specific TLV/LLDP Local System Group managed object class cross references'. Suggest that the following two new entries are inserted between the row 'PSE power pairx' 'aLldpXdot3LocPowerPairsx' and the row 'Power classx' 'aLldpXdot3LocPowerClassx'.

'Dual-signature power Classx Mode A' 'aLldpXdot3LocDualSigPowerClassxModeA' 'Dual-signature power Classx Mode B' 'aLldpXdot3LocDualSigPowerClassxModeB'

[3] Mappings for two of the new attributes are added in Table 79-10 'IEEE 802.3 Organizationally Specific TLV/LLDP Remote System Group managed object class cross references'. Suggest that the following two new entries are inserted between the row 'PSE

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

power pairx' 'aLldpXdot3RemPowerPairsx' and the row 'Power classx' 'aLldpXdot3RemPowerClassx' in both tables.

'Dual-signature power Classx Mode A' 'aLldpXdot3RemDualSigPowerClassxModeA' 'Dual-signature power Classx Mode B' 'aLldpXdot3RemDualSigPowerClassxModeB'

Response ACCEP	Т.	Response Status C		
CI <b>79</b>	SC 79.3.2.3	P 76	L <b>21</b>	# i-323
Law, David		Hewlett Pack	ard Enter	

Comment Type TR Comment Status A

This text reads 'Class 5 and above is communicated by the Power Class field ...'. I don't believe this is correct, I believe that the Class 5 and above is communicated by the 'Power Classx' field. In addition, suggest that TLV field names should always be placed in inverted commas.

### SuggestedRemedy

Suggest that the text 'Class 5 and above is communicated by the Power Class field ...' should be changed to read 'Class 5 and above is communicated by the "Power Classx" field ...'.

Response Status W

Response

ACCEPT.

Comment ID i-323

IIDP

CI 79	SC 79.3.2.1	P 75	L <b>8</b>	# i-324
Law, David		Hewlett Pack	ard Enter	
Comment Tv	pe TR	Comment Status A		IIDP

Comment Type **TR** Comment Status A

Note 1 to Table 79-3 states 'Port class information is implied by the support of the PSE or PD groups.'. As far as I can see there is no mention of a PD group in the last version of IETF RFC 3621 or in IEEE Std 802.3.1-2013 which deprecated IETF RFC 3621.

This table originated as Table G.1 in IEEE Std 802.1AB-2005, and was incorporated in to IEEE Std 802.3 by the IEEE Std 802.3bc-2009 Ethernet Organizationally Specific Type, Length, Values (TLVs) amendment, which added Clause 79. Based on this it seems that this note was generated as a result of comment 124 on IEEE P802.1AB draft D11 <a href="http://www.ieee802.org/1/files/private/ab-drafts/d12/80211AB-D11-dis.pdf#Page=91">http://www.ieee802.org/1/files/private/ab-drafts/d12/80211AB-D11-dis.pdf#Page=91</a>. The comment reads:

COMMENT TYPE: T CLAUSE: Annex G..3.1 PAGE: 133 LINE: 9 COMMENT START: The right columns look like missing information. COMMENT END: SUGGESTED CHANGES: Fither: 1) Fill the information in. 2) Insert an N/A notation 3) Insert an em dash, which should then be described in the glossary (802.17 did this). SUGGESTED CHANGES END:

#### **Disposition of Comment 124**

#### Add notes -

For Port Class the information is implied by the support of the PSE or PD MIB groups For MDI power support the information is implied by support of the power over Ethernet MIB. Refer to the RFC

The latest version of IETF RFC 3621, version 08 dated 22nd June 2003 <https://tools.ietf.org/html/draft-ietf-hubmib-power-ethernet-mib-08> states 'The document proposes an extension to the Ethernet-like Interfaces MIB with a set of objects for managing a Power Source Equipment (PSE).'. Looking at the first version however, version 00 dated 25th June 2001, this text reads 'The document proposes an extension to the Ethernet-like Interfaces MIB [RFC2665] with a set of objects for managing a power Ethernet Powered Device (PD) and/or Power Source Equipment (PSE).'. This text changed between version 04 date 19th December 2002 <https://tools.ietf.org/html/draft-ietf-hubmibpower-ethernet-mib-04> and version 05 dated 21st May 2003

<https://tools.ietf.org/html/draft-ietf-hubmib-power-ethernet-mib-05>. Based on this it seems the IETF RFC 3621 drafts supported both PSE and PD management up to 21st May 2003.

While the IEEE P802.3AB comment was processed in October 2004, after PD management was removed from RFC 3621, it may be possible that this had not been noted, or it may have been assumed that RFC 3621 which is titled 'Power Ethernet MIB' supported both PDs and PSEs. Regardless, it seems that the intent of the note was to describe how to determine how to set this bit by reference to attributes in the IETF RFC.

Since (a) this note references a non-existent PD group in the MIB: (b) we don't mandate implementation of any particular management protocol, or any management, a PSE may or may not implement the PSE group in the MIB, and (c) in the reminder of subclause 79.3.2 Power Via MDI TLV' we generally defined the bits through text rather than a cross reference to Objects, suggest that we do the same for the MDI power capabilities/status field.

### SuggestedRemedy

Suggest that:

[1] The entire 'Object reference' column of Table 79-3 'MDI power capabilities/status field' is deleted.

[2] The two remaining notes for Table 79-3 'MDI power capabilities/status field' are deleted.

[3] New subclauses are added to describe the "MDI power capabilities/status" fields that read as follows:

79.3.2.1.1 Port class

The "Port class" field transmitted shall indicate if the port is a PSE or a PD.

79.3.2.1.2 PSE MDI power support

The "PSE MDI power support" field shall indicate if MDI power is supported.

79.3.2.1.3 PSE MDI power state

The "PSE MDI power state" field transmitted by a PSE shall indicate if the PSE function is enabled or disabled. When disabled all PSE functions are disabled and behaviour is as if there was no PSE functionality. The value of the "PSE MDI power state" transmitted by a PD is undefined.

79.3.2.1.4 PSE pairs control ability

The "PSE pairs control ability" field transmitted by a PSE shall indicate if the PSE has the capability to control which PSE Pinout Alternative (see 33.2.3 and 145.2.4) is used for PD detection and power. If capable the PSE Pinout Alternative used can be controlled through the pethPsePortPowerPairs attribute (see IEEE Std 802.3.1). If not the PSE Pinout Alternative used cannot be controlled through the pethPsePortPowerPairs attribute.

Comment ID i-324

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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-										
ACCEPT.	Response Status W			C/ <b>145</b> Abramsor	SC n, David	145.3.2	P 1 Texas	68 s Instrume	L 43 ents Inc	# i-327
C/ 145 SC 145.3.3 Abramson, David	.4 P 170 Texas Instrum	L 26 ents Inc	# i-325	Comment extra	<i>Type</i>	ER	Comment Status	Α		Editorial
Comment Tune TP	Commont Status			Suggosto	dDomoc	47 11				
There should be a de though the variable is	finition of the variable "nopowe used in multiple places inside	r" here. There the PD state di	s no definition even agrams.	Remo by this	ove com s standa	ma in sent ard."	ence "PDs that are	sensitive t	to polarity, are	specifically not allowed
SuggestedRemedy				Response	<del>)</del>		Response Status	С		
Add "nopower" to the PD has entered NOP	variable list with the definition OWER. PD may show a	of "A control va	riable that indicates the	ACCE	EPT.		-			
valid or invalid detect current, and show MF	ion signature, and may or may PS."	not draw mark	current, draw any class	C/ <b>145</b> Abramsor	SC n, David	145.3.8.1	P 1 Texas	<mark>91</mark> s Instrume	L 15 ents Inc	# i-328
ACCEPT IN PRINCIF	Response Status <b>C</b> PLE.			Comment Desci new s	<i>Type</i> ription of state.	ER f "nopower	<i>Comment Status</i> is not in sync with	A state diag	ram which shc	<i>Editorial</i> we sa transition to a
was below Voff_PD w at least T_Reset. Values: FALSE: PD has not b TRUE: PD has been This resolution is ider	Add variable nopower to variable list as follows: "nopower: A variable that indicates the PD has been in NOPOWER, which indicates VPD was below Voff_PD while being powered, since the last time V_PD was below V_Reset for at least T_Reset. Values: FALSE: PD has not been in NOPOWER TRUE: PD has been in NOPOWER" This resolution is identical to comment #134.				Change "When VOff_PD, the P mark current, d show MPS." to: ""When the PD transitions t		has reached POWE how a valid or invali class current, and POWER_DELAY or WER and may show	R_DELAY d detectio POWERI v a valid o	AY or POWERED tion signature, and ERED and VPD fall	D and VPD falls below ad may or may not draw alls below VOff_PD, the tion signature, and may
C/ 145 SC 145.3.3	.7 P 175	L 38	# i-326	or ma	iy not dr	aw mark c	urrent, draw any cla	ss current	, and show MF	PS."
Abramson, David	Texas Instrum	ents Inc		Response	)		Response Status	С		
Comment Type TR The variable "nopowe transition back to INF	Comment Status <b>R</b> er" should be set back to FALSI RUSH from NOPOWER.	E in the INRUS	<i>PD SD</i> H state as the PD can	ACCE	EPT.					
SuggestedRemedy										
Response REJECT.	Response Status C									
The nopower provide	s an exception to skip through	he power delay	state.							

C/ 145	SC 14	5.3.6.2	P 187	L 13	# i-329	C/ 145	SC	145.3.8.8	<i>P</i> 195	L 17	# i-331
Abramson	n, David		Texas Instrum	ients Inc		Abramson	, David		l exas Inst	ruments Inc	
Comment	Туре В	ER C	Comment Status A		Editorial	Comment	Туре	ER	Comment Status A		Editorial
"The F TAUT We ha	PD shall no O_PD1 to ave a nam	ot draw mor TAUTO_P e for that ar	re power than the power D2" mount of power, its called	consumed durir	ng the time from	Why is sectio	s classi n?	fication sta	bility time in the PD powe	er section? Why	not in the classification
previo	ous senten	ce.				Suggested	dRemed	dy			
Suggested	dRemedy					Move	145.3.8	3.8 to 145.3	3.6.1.2. Also move item 7	19 in Table 145-2	8 to Table 145-26
Chang	ge sentend	ce to: "The	PD shall not draw more	than Pautoclass	_PD at any point"	Response			Response Status C		
Response	è	R	esponse Status <b>C</b>			ACCE	PT IN I	PRINCIPLI	Ξ.		
ACCE	EPT IN PR	INCIPLE.				Move 19 in	145.3.8 Table 1-	3.8 to 145.3 45-28 to Ta	3.6.1.2 after making all ot able 145-26.	her changes to 14	45.3.8.8. Also move item
Also fi The P Vrese	ixing Vrese PD shall no et_PD max	et.replace s t draw more , unless the s through D	entence with: power than Pautoclass PD successfully negotia ata Link Laver classifica	_PD at any poin ates a higher por tion as defined i	t until VPD falls below wer level, up to the PD n 145.5	C/ <b>145</b> Abramson	SC , David	145.3.8.10	P 196 Texas Inst	L <b>41</b> ruments Inc	# [ <u>i-332</u>
		, anough b				Comment	Туре	Е	Comment Status A		Editorial
C/ 145	SC 14	5.3.8.2	P 191	L 27	# i-330	Vsour	ce wou	ld be a bet	ter description of the they	venin equivalent v	ve are using (Vsource +
Abramson	n, David		Texas Instrum	nents Inc		Rsour	ce). Vi	n + Rsourd	e makes no sense.		
Comment	Type 1	rr C	Comment Status A		PD Power	Suggestee	dReme	dy			
"The r PDMa calcul	maximum axPowerVa ated over	average po alue in 145. a 1 second	wer, PClass_PD or PCla 5.3.3.3, including any pe- sliding window."	ss_PD-2P in Ta ak power drawn	ble 145-28 or per 145.3.8.4 shall be	Chang <i>Response</i> ACCE	pe all oo PT.	ccurances	of Vin in section 145.3.8. <i>Response Status</i> <b>C</b>	10 (and any relate	ed annexes) to Vsource
What/ during	/Who is thi g QC?	s a requirer	ment on? The PSE? Th	e guy in the lab	who is measuring it	C/ 145	SC	145.3.9	P <b>197</b>	L 16	# li-333
Suggestee	dRemedy					Abramson	, David		Texas Inst	ruments Inc	
Chang or PD calcul	ge to: "The MaxPower ated over a	e maximum rValue in 14 a 1 second	average power, PClass 5.5.3.3.3, including any sliding window."	_PD or PClass_ peak power dra	PD-2P in Table 145-28 wn per 145.3.8.4 is	Comment "A PD case o	<i>Type</i> shall h cable re	TR ave TMPS esistance b	Comment Status A _PD measured with a se etween the measuremen	ries resistance re t point and the PI	PD MPS presenting the worst D PI."
Response	)	R	esponse Status C			Conto			mont on monouror rotho	r than DD needs	to be rewarded
ACCE	EPT IN PR	INCIPLE.				Sente	nce pia	,	ement on measurer rathe	r than PD, needs	to be reworded.
"The r	maximum	average po	wer Polass PD or Polas	s PD-2P in Tak	le 145-28 or	Suggested	dRemed	dy "A DD -			,
PDMa avera	axPowerVa ged using	alue in 145. a sliding wi	5.3.3.3, including any pendow with a width of 1 se	ak power drawn econd."	per 145.3.8.4, is	Repla repres PI."	ce with: senting	the worst c	all meet the TMPS_PD r ase cable resistance bet	equirement with a ween the measur	ement point and the PD
						Response			Response Status C		
						ACCE	PT IN I	PRINCIPLI	Ξ.		
						Repla repres PI."	ce with: senting	: "A PD sh the worst o	all meet the TMPS_PD r ase cable resistance bet	equirement with a ween the measur	eries resistance rement point and the 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-333 Page

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C/ 145	SC 145.1.3	P <b>98</b>	L <b>2</b>	# i-334	C/ 145	SC	145.2.8.3		P 156	L 8	# i-337
Abramson	, David	Texas Instrum	ients Inc		Lemahieu,	Joris		0	N Semicondu	ctor	
Comment	Туре Е	Comment Status A		Editorial	Comment T	уре	TR	Comment Sta	tus A		PSE Power
Incons Howev	sistent language: /er, a few lines be	This clause uses "pairset Do elow (lines 10 and 15) we use	C loop resistand e "DC pairset lo	ce" op resistance".	Input V	oltage	drop to 0V	/ is excessive.			
Suggested	lRemedy				Drop to	0V du	uring 30us	spec seems to b	e written for (i	heoretical)	diode bridge at PD input.
Editor 145 ar	to change line 2 e e aligned.	to "DC pairset loop resistanc	e" and confirm	all other uses in claus	been ta	iken in	to account	t here?		eets (peak i	
Response		Response Status C			Active	oridge	s seem ver	ry popular in 802	.3bt PD soluti	ons to redu	ce dissipation in the input
ACCE	PT IN PRINCIPL	Ε.			An imn	nediate mosfel	e. e short at th t.	he input would si	gnificantly dis	charge Cpo	ort as it takes time to turn
chang	e line 10 to "RCh	is the maximum pairset DC	loop resistance	, as defined".	Suggested	Remed	ly				
Editor instan	to search docum ce is on line 15.	ent and change any usages	to "pairset DC le	oop resistance". One	Increas bridges	e mini at the	mum volta PD input.	ige level during f	irst 30us and i	make spec	compliant with active
C/ 145	SC 145.2.6.1	P 141	L <b>44</b>	# i-335	Response			Response Stat	us <b>C</b>		
Abramson	, David	Texas Instrum	ents Inc		ACCE	PT IN F	PRINCIPLE	Ξ.			
Comment	Type E	Comment Status A		Editorial	ACCER	'I IN F	PRINCIPLE	Ξ.			
Symbo	ol names should l	be included.			Replac	e sent	ence with:				
Sugaested	lRemedv				"See 1	45.3.8.	6 for PD tr	ransient requirem	nents."		
Add ",	Voc," after "oper	circuit voltage" and ", Isc," a	after "short circu	uit current".	Modify	senter	nce on pag	je 194, line 3 as	follows:		
Response		Response Status C			A PD s	hall co	ntinue to o	perate without in	nterruption in t	he presence	e of transients:
, ACCE	PT.				-lasting	less t	han 30us a	and causing the	voltage at the	PD PI to fal	Il to not less than 34V.
C/ 145	SC 145.4.9.2	P 210	L 19	# i-336	This re	solutio	n is identic	cal to comment #	248.		
Maguire, V	/alerie	The Siemon C	Company								
Comment	Туре Т	Comment Status A		AES							
Suppo in the 802.3b	ort of 2.5GBASE- case that the cab bz.	F with category 5e and suppo ling meets the additional req	ort of 5GBASE- uirements spec	T with category 6 is only ified in clause 126.7 of							
Suggested	Remedy										
Add a says, ' ISO/IE	footnote reference For defined uses C 11801-1 or AN	ing back to the 2.5GBASE-T cases (refer to IEEE Std 80. ISI/TIA-568-C.2 recommended	and 5GBASE- 2.3bz(TM)-2016 ed."	T column rows that 6). Category 6A cord in							
Response		Response Status C									
ACCE	PT IN PRINCIPL	E.									
Adopt	zimmerman_3bt_	_02_0917.pdf									

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

Cl <b>145</b> Lemahieu,	SC <b>145.3.8.6</b> Joris	P 194 ON Semicono	L <b>37</b> ductor	# i-338	C/ <b>145</b> Jones, Cha	SC <b>145.3.6.1</b> d	<i>P</i> 185 Cisco S	<i>L</i> <b>7</b> systems, Inc.	# i-340
Comment 7	Type <b>TR</b>	Comment Status A		PD Power	Comment 7	ype E	Comment Status	A	Editorial
The PE POWE (pd_cu This ne	D state diagram s RED state. rrent_limit <= FAI ew ITR_LIM spec	tates that does not need to LSE) now seems to indicate the	implement a cu opposite.	rrent limit in the	the ser line 7) f at line 8 I also, g no chai The rea	tence at line 4 sl to make one para 3. see proposed gave a second of nge to the wordin	hould be merged with a agraph. The third parage change where I've may ption that combines to ng has occured, this is one is the arrangement	the first sentence of graph would then be de the edit. one paragraph and purely editorial. t pow implies the re-	f the third paragraph (on e the remainder of the text I reorders the sentences.
Suggested	Remedy				only ap	plies to DS PDs.		the reasonable the re	st of the third paragraph
Suppre - Delete	ess the ITR_LIM r e "the peak curre o Table 145-30	equirement: nt shall not exceed ITR_LIN	1, as defined in	Table 145-30, and"	Suggested	Remedy			
ACCEF	PT IN PRINCIPLE	Response Status <b>C</b>			Single- reques signatu in Table	signature PDs sh ted Class, as de res according to e 145-25.	nall advertise class sig fined in Table 145-24. the PD Type and PD r	natures according t Dual-signature PD requested Class on	o the PD Type and PD s shall advertise class each pairset, as defined
Change ITR_LII the PD	e sentence from: M, as defined in ⊺ shall meet the op	When transient TR3 is app Fable 145-30, and perating power limits after 4	lied, the peak c ms.	current shall not exceed	The PE PD on pairset. class s	) requested Clas that pairset. Dua A dual-signature ignature on the u	s on a pairset is the m I-signature PDs may a e PD that is powered o inpowered pairset.	aximum amount of dvertise different cla over only one pairse	power requested by the ass signatures on each t shall present a valid
To: Wi ms. Delete Add foo the effe	hen transient TR3 table 145-30 otnote to "Source ective 4-pair resis	B is applied, the PD shall m Resistance" in Table 145-2 tance."	eet the operatin 29 that says "Th	g power limits within 4 e source resistance is	Alterna The PE PD on PD Typ advertis pairset, signatu presen	te option for rear o requested Clas that pairset. Sing he and PD reques class signatur as defined in Ta res on each pair t a valid class signatur	ranging: s on a pairset is the m le-signature PDs shall sted Class, as defined res according to the PD able 145-25. Dual-sign set. A dual-signature P gnature on the unpowe	aximum amount of advertise class sig t in Table 145-24. E Type and PD requ ature PDs may adv PD that is powered of red pairset.	power requested by the natures according to the Dual-signature PDs shall uested Class on each ertise different class over only one pairset shall
					Response		Response Status	<b>C</b>	
C/ 145 Lemahieu, Comment 7 Error	SC <b>145.7.3.3</b> Joris <i>Type</i> <b>E</b>	P 250 ON Semicono Comment Status A	L 16 ductor	# <u>i-339</u> PICS	ACCEF Before After "S	PT IN PRINCIPLI "The PD request Single-signature I	E. ted Class on a pairset. PDs shall advertise cla	", add "For dual-si iss signatures", ad	ignature PDs," dd "For single-signature
Suggested	Remedy	annlied' to 'Transient TP3 a	nnlied'		PDs, th by the l	e PD requested PD."	Class on either pairse	t is the maximum a	mount of power requested
Response		Response Status C	ppilou .		Resulti	ng text should re	ad:		
ACCEF	PT.				Single- reques Class c	signature PDs sh ted Class, as def on either pairset i	nall advertise class sig fined in Table 145-24. s the maximum amou	natures according t For single-signature nt of power request	o the PD Type and PD PDs, the PD requested ed by the PD.
					Dual-si reques	gnature PDs sha ted Class on eac	Ill advertise class signa h pairset, as defined ir	atures according to n Table 145-25. For	the PD Type and PD <sup>·</sup> dual-signature PDs, the

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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PD requested Class on a pairset is the maximum amount of power requested by the PD on that pairset. Dual-signature PDs may advertise different class signatures on each pairset. A dual-signature PD that is powered over only one pairset shall present a valid class signature on the unpowered pairset. C/ 145 SC 145.3.8.2 P 191 # i-341 L 27 Jones, Chad Cisco Systems, Inc. Comment Type ER Comment Status A slidina missing comma in this text: including any peak power drawn per 145.3.8.4 [comma] shall be calculated over a 1 second sliding SuggestedRemedy change to: including any peak power drawn per 145.3.8.4 shall be calculated over a 1 second sliding Response Response Status C ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE. "The maximum average power, Pclass PD or Pclass PD-2P in Table 145-28 or PDMaxPowerValue in 145.5.3.3.3, including any peak power drawn per 145.3.8.4, is averaged using a sliding window with a width of 1 second." This resolution is identical to comment #330. C/ 145 SC 145.3.8.2 P 191 L 32 # i-342 Jones. Chad Cisco Systems, Inc. Comment Type Comment Status A **F**ditorial ER unneeded comma: PDs that have successfully completed DLL classification, shall not exceed a power consumption of SuggestedRemedy change to: PDs that have successfully completed DLL classification shall not exceed a power consumption of Response Response Status C ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE. Replace by: "Single-signature PDs that have successfully completed DLL classification shall not exceed a power consumption of PDMaxPowerValue as defined in 145.5.3.4. Dual-signature PDs that have successfully completed DLL classification shall not exceed a power consumption of PDMaxPowerValue mode(X) on Mode X as defined in 145.5.3.7." This resolution is identical to comment #160.

C/ 145	SC 145.3.8.7	P 19	95	L 11	#	i-343
Jones, Chad		Cisco	Systems,	Inc.		
Comment Typ	be E	Comment Status	Α			PD Power

Chair notes... lines 11- 15, this is not information that helps ensure interoperability. It may cause more confusion to the reader than help. This was discussed in previous meetings but deferred to 3.0.

### SuggestedRemedy

delete: Limits are provided to preserve data integrity. To meet EMI standards, lower values may be needed. NOTE--The worst-case condition is when both PSE and PD generate the maximum noise allowed by Table 145-16 and Table 145-28, which may cause a higher noise level to appear at the PI than the standalone case as specified by this clause.

Response ACC	e EPT.	Response Status C		
C/ 1	SC 1.4.338	P 24	L <b>41</b>	# <u>i-344</u>
Jones, Cl	nad	Cisco Sy	/stems, Inc.	
Commen Chair	<i>t Type</i> <b>TR</b> notes the define	Comment Status A nition of PSE needs to in	clude 2.5-10G	Definitions

SuggestedRemedy

change: intended to provide a single 10BASE-T, 100BASE-TX, or 1000BASE-T device...

to: intended to provide a single 10BASE-T, 100BASE-TX, 1000BASE-T, 2.5GBASE-T, 5GBASE-T, or 10GBASE-T device...

Response Response Status C

ACCEPT IN PRINCIPLE.

### Change to:

1.4.338 Power Sourcing Equipment (PSE): A DTE or midspan device that provides the power to a single link section. PSEs are defined for use with two different types of balanced twisted-pair PHYs. When used with 2 or 4 pair balanced twisted-pair (BASE-T) PHYs, (see IEEE Std 802.3, Clause 33 or Clause 145), DTE powering is intended to provide a single 10BASE-T, 100BASE-TX, 1000BASE-T, 2.5GBASE-T, 5GBASE-T, or 10GBASE-T device with a unified interface for both the data it requires and the power to process these data. When used with single balanced twisted-pair (BASE-T1) PHYs (see IEEE Std 802.3, Clause 104), DTE powering is intended to provide a single 100BASE-T1 or 100BASE-T1 device with a unified interface for both the data it requires and the power to process these data. A PSE used with balanced single twisted-pair PHYs is also referred to as a PoDL PSE.

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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C/ 1	SC 1.4.254	P 24	L <b>30</b>	# i-345	C/ 145	SC	145.2	P <b>99</b>	L 1	# i-347
Jones, Cha	ad	Cisco Syster	ns, Inc.		Jones, Ch	ad		Cisco Syster	ns, Inc.	
Comment	Type ER	Comment Status R		Definitions	Comment	Туре	TR	Comment Status R		PSE Power
Chair r sectior change require	notes before th n (and the modifi e has disappeare ed to enable 4P o	e clause split, we found it n caiton has evolved). With th ed AND I'm not sure it in sco operation or add 10G).	ecessary to chan e clause split, ou pe of the PAR (is	ge the definition of link r rationale for the s the definition change	Chair 5 ever breaks after tl	notes nt class s all my ne ballo	. Confirm and only rules. I ra ot closes.	that it is not possible that a ⊓ uses L1 to get to >30W. I kr in out of time to research. I v	Type 3, 4 PSE now this is a ba will withdraw if	DOES NOT present 4 or ad format comment and I can find the answer
Suggested	lRemedy				Suggested	Reme	dy			
remove	e the editoral ins	tructions for 1.4.254			Make	the cha	ange to pre	event a Type 3 or 4 PSE from	m only using L	LDP to get to >30W
Response		Response Status C			Response			Response Status C		
REJEC	CT.				REJE	CT.				
The up Cl 145 Jones, Cha	SC 145.2.1	is used to clarify 4P use cas P 99 Cisco System	L 25 L 25 ns, Inc.	o midspans. # [i-346	Here i Page suppo Multip your c	s the te 148, lin rt by m le-Ever ommer	ext that pre the 28 says leans of nt Physica nt.	events that: : "A PSE shall be capable of I Layer Classification." This	f assigning the should prevent	highest Class it can the behavior stated in
Comment Chair r poweri	notes We are r ing a PD.	nissing the statement that a	PSE does not cl	hange Type once it is	<i>Cl</i> <b>145</b> Jones, Ch	SC ad	145.2.5.7	P <b>125</b> Cisco Syster	L <b>1</b> ns, Inc.	# i-348
Suggested On pag Once a	<i>IRemedy</i> ge 99, line 25, ad a PSE is reached	dd the sentence: d POWER_ON, PSE Type c	oes not change.		<i>Comment</i> Chair There	<i>Type</i> notes is the l	<b>TR</b> . PSE Stat ELSE stat	Comment Status <b>D</b> te Diagram. I cannot find a p ement in POWER ON, whe	eath to power u re alt pwrd pri	p with pse_ss_mode=0.
Response ACCE		Response Status C E.	nt "		alt_pw 2P mc is no p each c	vrd_sec ode, (wl oath to operatir	c gets set f hich my C 4P power ng point.	alse. This seems to allow a hair note indicated I needed for Class 1-4. Will withdraw	Type 3 PSE to to confirm) bu when I am edu	power up a class 1-4 in t then it implies that there ucated on how to get to
Auu se		20. FSE Type is a consta	n.		Suggested	Reme	dy			
					Chang	ge figur	e 145-13 t	o enable Class 1-4 operatio	n on either 2P	or 4P.
					Proposed	Respo	nse	Response Status Z		
					REJE	CT.				
					This c	ommer	nt was WI	THDRAWN by the comment	er.	

Cl 33 Thompsor	SC <b>33.5.1</b> n. Geoffrev	P <b>0</b> Individual	L <b>0</b>	# [i-349	Cl <b>30</b> Thompsor	SC <b>30.9.2</b> n. Geoffrev		P 38 Individual	L 19	# i-352
Comment Cl. 33 no clu Suggestee	<i>Type</i> <b>ER</b> 5.5.1, para 1 would le in 145 to look to <i>dRemedy</i>	Comment Status R d seem to be a requirement the o cl. 33 for additional requirem	at applies to ents.	<i>Management</i> cl. 145 devices but I find	Comment Comm Suggester Delete	<i>Type</i> <b>TR</b> nent is out of th <i>dRemedy</i> e this line in the	Comment the scope of the codraft	nt Status <b>R</b> e project.		Management
Add th does find th	he requirement to not have the com ne rest of them an	cl. 145 (preferred) or put in sc plete req'ts for a PSE (and PD d specify which ones.	me general ?) and you h	statement that cl. 145 have to read all of cl. 33 to	Response REJE	CT.	Response	e Status C		
Response REJE	о СТ.	Response Status C			Voter 802.3	s concern is a .1.	ctually controlle	ed by 802.3.1. Fi	urther, that objec	ct does not appear in
We ha referri requir	ave added a sente ing to "PSE" in cla rement of clause ?	ence to the beginning of clause ause 33 refer only to Type 1 ar 145 PSEs.	e 33 that not d Type 2 PS	es that requirements SEs. Thus, this is not a	Cl <b>30</b> Thompsor	SC <b>30.12.</b> n, Geoffrey	2.1.9	P <b>38</b> Individual	L <b>53</b>	# i-353
Cl 30 Thompsor Comment It wou chang prope Suggester Resto	SC 30.9.1.1 n, Geoffrey <i>Type</i> <b>TR</b> Ild appear that all ge to cl. 33. It is e r to remove. <i>dRemedy</i> ore stricken text in	<i>P</i> <b>35</b> Individual <i>Comment Status</i> <b>A</b> of the strikethrough in this clar easily possible that the affected 30.9.1.1. Consider improvem	L 8 use is incorr text could b ents to the t	# <u>i-350</u> <i>Management</i> ect as it constitutes a be improved but it is not	Comment Missir Suggester Add e Response REJE We ca Type	Type TR ng a syntax val dRemedy numeration for CT. CT. annot change t 2 PDs.	Commer ue for "Both" "Both" plus ap <i>Response</i> his field withou	nt Status R oprpriate expansione Status C ut breaking backw	on of the "BEHA vards compatibili	Management
Response ACCE	ept.	Response Status C			Cl 30 Thompsor	SC <b>30.12.</b>	2.1.18	P <b>40</b> Individual	L 18	# i-354
C/ <b>30</b> Thompsor	SC <b>30.9.1.1.</b> 1 n, Geoffrey	P <b>35</b> Individual	L <b>21</b>	# i-351	<i>Comment</i> There	<i>Type</i> <b>TR</b> is no enumera	Commer ation defined fo	nt Status <b>R</b> pr "unknown" or "r	not supported".	Management
Comment Refer	<i>Type</i> <b>TR</b> ence to control re	<i>Comment Status</i> <b>R</b> gisters in cl. 145 is missing.		Management	Suggestee Define	dRemedy e the value -1 a	as indicating "	unknown" or "not	supported".	
Suggestee Add re	<i>dRemedy</i> eference to cl. 14	5 after the reference to cl. 33.			Response REJE	CT.	Response	e Status C		
Response REJE	о СТ.	Response Status C			This c	bject value is	always defined	for purposes of I	LDP.	
The re	eference cannot b e 145 to point to.	e added as there are no comr	nent remedie	es that create a section of						

C/ 30 SC 30.12.2 Thompson, Geoffrey	.1 <i>P</i> 40 Individual	L	# i-355	Cl <b>30</b> Thompsoi	SC <b>30.12.3</b> n, Geoffrey	.1.18f	P <b>51</b> Individual	L <b>20</b>	# i-357
Comment Type E I don't understand wh SuggestedRemedy	Comment Status <b>A</b> ny each attribute has a "regula	r" version and a	Management a local LLDP version	Comment I have BOOI	<i>Type</i> <b>TR</b> e no idea of wha _EAN.	Comm at a "load co	ent Status <b>A</b> nfiguration" is, muc	h less how it car	<i>Management</i> to be dsecribed by a
Please explain.				Suggeste	dRemedy				
Response	Response Status <b>C</b>			Expar the sy	nd BEHAVIOUF /ntax.	R descriptior	n so what it referend	ces is clear and f	ully explain (repair?)
ACCEPT IN PRINCI	PLE.			Response	9	Respor	nse Status C		
Accepting this comm	ent results in no changes to th	e draft.		ACCE	EPT IN PRINCI	PLE.			
Explanation requeste One is to manage PS	d: SEs, one is to manage LLDP D	LL.		Chan A GE	ge BEHAVIOR	DEFINED A	S text to: ther the load of a d	ual-signature PD	is electrically isolated,
C/ 30 SC 30.12.3	.1.18e P 51	L 17	# i-356	as de	fined in 79.3.2.0	6d.3.			
mompson, Geomey	Individual			Also,	change BEHA\	IOR DEFIN	IED AS text in 30.12	2.2.1.18h to mat	ch.
Comment Type TR "Value"? What value?	Comment Status A ?		Management	C/ 30	SC 30.12.3	.1.18j	P 52	L <b>20</b>	# i-358
SuggestedRemedy				Inompsoi	n, Geoffrey		Individual		
Fully expand the term	n "value" to "value in units of te	erm, see: 33.n o	or 145.n."	Comment	Type E	Comm	ent Status A		Management
Response	Response Status <b>C</b>			Desci	ription insufficie	ntly precise.			
ACCEPT IN PRINCI	PLE.			Suggeste	dRemedy				
Change the BEHAVI	OR DEFINED AS text to:			Chang binary	ge text to read: /."	"The three	most significant bit	s indicate the nu	mber of the Type in
A read-only value tha For a PSE this attribu 30.9.1.1.3), for a PD	at identifies the supported PSE ute contains the value of the af the contents of this attribute a	Pinout Alterna SEPowerPairs re undefined.;	tive specified in 145.2.4. ex attribute (see	Response ACCE	e PT.	Respor	nse Status C		

C/ <b>30</b>	SC <b>30.12.3.1</b> .	18j P 52	L <b>20</b>	# i-359	C/ <b>30</b>	SC 30.12.3	.1.18n	P 53	L <b>8</b>	# i-362
mompsoi					mompson,	Geomey		nuiviuuai		
Comment Requi good	<i>Type</i> E res a slightly diffe reason.	rent software module to do	interpretation for P	<i>Management</i> SE vs. PD for no	Comment I Definiti string ti	<i>ype</i> <b>E</b> on is too terse ne value of on	. Perhaps the sy e and zero should	tatus <b>A</b> ntax should b I be defined.	e BOOLEAN. In	Management any case, if it is a bit
Suggester	dRemedy				Suggested	Remedy				
Make	syntax the same	for PSE and PD.			Expand	BEHAVIOUR	description so it	is clear and f	ully explained.	
Response	, ,	Response Status C			Response		Response St	atus C		
ACCE	PT IN PRINCIPLI	<b>≡</b> .			ACCEF	PT IN PRINCIP	PLE.	-		
Delete Make	e last two sentenc same change in 3	es of BEHAVIOR DEFINE 30.12.2.1.18I.	D AS text.		Make 3 attribut measu	0.12.1.18n a E e indicating wh rement."	BOOLEAN. Char nether the remote	ige behavior o PSE system	description to "A has completed	read-only boolean the Autoclass
Cl <b>30</b> Thompsor	SC <b>30.12.3.1.</b> n, Geoffrey	18k P 52 Individual	L <b>30</b>	# i-360	<i>Cl</i> <b>30</b> Thompson,	SC 30.12.3 Geoffrey	.1.18q	P <b>53</b> Individual	L <b>38</b>	# i-363
<i>Comment</i> Defini	<i>Type</i> <b>E</b> tion is too terse.	Comment Status A Syntax should probably be	BOOLEAN.	Management	Comment 7 Incorre	<i>ype</i> <b>ER</b> ct distinction b	Comment S between analog a	tatus <b>A</b> nd digital para	ameter (i.e. mea	Management sure vs. count).
Suggestee Expar the sy Response ACCE	dRemedy nd BEHAVIOUR d ntax. P EPT IN PRINCIPLI	escription so what it refere <i>Response Status</i> <b>C</b> <u>=</u> .	nces is clear and fu	lly explain (repair?)	Suggestedi Change Response ACCEF	Remedy e text to read: PT.	"A GET attribute Response St	that indicates atus W	s the number of	seconds the"
Make attribu	30.12.1.18k a BO ite indicating whet	OLEAN. Change behavio her the remote PD system	r description to "A re supports powering	ead-only boolean of both PD Modes."	<i>Cl</i> <b>145</b> Thompson,	SC 145.1 Geoffrey		P <b>95</b> Individual	L <b>7</b>	# i-364
Cl <b>30</b> Thompsor	SC <b>30.12.3.1.</b> n, Geoffrey	18m P 52 Individual	L 50	# i-361	Comment 7 There i a state reader	<i>ype</i> <b>ER</b> s no clear stat ment is essent to figure out h	Comment S ement of the top tial for someone r ow to structure his	tatus <b>A</b> level model o eading the sta s thinking and	f a PoE system andard for the find to parse the pro-	Pres: Thompson1 in clause 145.1. such st time in order for the oblem.
Defini string	tion is too terse. I the value of one a	Perhaps the syntax should and zero should be defined	be BOOLEAN. In a	ny case, if it is a bit	Suggested See pro	Remedy posed text in	submitted file GC	T - Proposed	d text.txt. Pick e	xisting text back up at
Suggestee	dRemedy				the sta	t of the list at	line 27.	- ( 0		
Expar	nd BEHAVIOUR d	escription so it is clear and	fully explained.		Response		Response St	atus C		
Response ACCE	9 EPT IN PRINCIPLI	Response Status <b>C</b>			adopt 1	hompson 01	0917 rtf			
Make attribu	30.12.1.18m a BO	OOLEAN. Change behavion her the remote PSE system	or description to "A r m supports Autoclas	ead-only boolean ss."	adopt	1011p301_01	_0017.10			

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

C/ 145	SC 145.1	P 95	L <b>21</b>	# i-365	C/ 145	SC	145.1	P 95	L <b>45</b>	# i-368
Ihompson	, Geoffrey	Individual			Ihompson	, Geoff	rey	Individual		
Comment	Type ER	Comment Status A		Editorial	Comment	Туре	Е	Comment Status A		Editorial
Clause appear	e 1.4 is the defin r in each clause	itions clause for the entire sta	ndard. If this lir	ne is necessary it would	Chang link, de	e: "This efining t	s clause o the PSE a	differentiates between the two and the PD as separate but re	ends of the povelated devices."	wered portion of the
Suggested	lRemedy				Suggested	Remec	ły			
Delete	line 21				To rea	d: "This	s clause o	lifferentiates between the two	ends of the pov	wered portion of the
Response		Response Status C			link, i.e	e the lin	k section	, defining the PSE and the PD	) as separate b	ut related devices."
ACCE	PT.	·			Response ACCE	PT IN F	PRINCIPL	Response Status <b>C</b> E.		
C/ 145	SC 145.1	P <b>95</b>	L <b>25</b>	# i-366	Chang	o to roc	nd. "Thia	alauna difforantiatan hatwaan	the two ends of	f the new ord partian of
Thompson	, Geoffrey	Individual			the lin	k, i.e. th	ne link se	ction, defining the PSE and th	e PD as separa	ate but related devices."
Comment	Type ER	Comment Status A		Editorial		00	4 4 5 0	- Do <b>7</b>		#
The ph	nrase "with a sin	gle interface to both the data	t requires and t	he power to process	C/ 145	SC	145.2	P 97	<i>L</i> 1	# 1-369
this da	ta" implies that	the power provided is adequa	te to do data pro	ocessing on 10GBASE-	rnompson	, Geon	rey	Individual		
Furthe	r, there are broa	ader valid uses for PoE than is	implied in the t	ext.	Comment	Туре	ER	Comment Status A		PI
Sugaested	lRemedv				I his p	aragrap	h is a pro	blem. Regarding the first sen	tence, I don't be Ω After all tha	elieve we specify, or
Chang	e text to read: ".	with a single cabling interfac	e for both the d	ata and power."	PI. Th	ius, I do	on't think	there are any statements that	express PSE s	pecs in terms of the
Response		Response Status C		·	MDI (t	hough I	confess	I did not search). If there are t	they should be	re-expressed in terms
ACCE	PT				of the ANY n	nid-spa	paroing th n to claim	e second sentence, this is a F	IUGE escape c	ause which allows
					Suggester	IRemer	hv			
C/ 145	SC 145.1e	P <b>95</b>	L <b>32</b>	# i-367	Replac	e with	"In the c	ase of a Midspan PSE PL the	interface speci	fication point is
Thompson	, Geoffrey	Individual			physic	ally sep	parate fro	m the MDI and is contained w	ithin the cabling	g portion of the data
Comment	Type ER	Comment Status A		Editorial	transm	nission	system."			
The PS	SE and PD are r	mentioned in the plural. The "r	nethod" referre	d to is only between one	Response			Response Status C		
PSE a this sta	nd PD. Dynami andard.	c negotiation between PSEs,	while possible,	is outside the scope of	ACCE	PT IN F	PRINCIPL	.E.		
Suggested	IRemedy				Replac	ce with:	In the c	ase of a Midspan PSE, the PI	is physically se	eparate from the MDI
Chang negotia	e text to read: " ate and allocate	A method for a PSE and the F power"	D to which it is	paired to dynamically	and is	contair	iea within	the cabling portion of the data	a transmission	system.
Response		Response Status C								
ACCE	PT IN PRINCIPI	LE.								
Chang dynam	e text to read: " ically negotiate	A method for a PSE and the F and allocate power"	D to which it is	connected to						
Also, c	change item d) te	o "Methods to classify a PD ba	ased on its pow	er needs.						

Comment ID i-369

ΡI

Cl <b>145</b> Thompsor	SC 145.1.3	P 97 Individual	L <b>21</b>	# i-370	C/ 145	SC 145.1.3	P 98 Individual	L 6	# i-372
Comment	Type FR	Comment Status A		Systems	Comment	Type F	Comment Status R		definitions
We ha	ave proved in TF	discussions that there can be active for there not to be a	e multiple PSEs fault.	in a valid system but	It is a equipr	fine point but Ipor nent, not cabling.	t is defined on the basis of th Therefore the definition sho	e cabling, but a uld be "Iport is	ι "port" is a feature of the total current
Suggestee	dRemedy				source	ed by a PSE or su	nk by a PD."		
Chang	ge wording to re	ad: A valid power system con	sists only of a si	ngle active PSE, a	Suggested	IRemedy			
single	PD, and the lini	k section connecting them. If sonly of a single active PSF	needed, we cou a single PD and	ld say: "A valid active	Chang	je text per comme	ent.		
conne	ecting them."	s only of a single active r or,	a single i D, and		Response		Response Status C		
Response		Response Status <b>C</b>			REJE	CT.			
ACCE	PT IN PRINCIP	LE. ad: "A valid power system co	nsists only of a s	ingle PSE sourcing	The ex polarit cabling	kisting definition is y which is importa g.	s correct and points out that t ant information to be included	his is the currend. Also, the def	nt on pairs of the same inition does not mention
power	, a single PD, a	nd the link section connecting	tnem."		C/ 145	SC 145.2.8.5	P 156	L 37	# li-373
C/ 145	SC 145.1.3	P <b>97</b>	L <b>49</b>	# i-371	Thompson	. Geoffrev	Individual	- • •	
Thompsor	n, Geoffrey	Individual			Comment	Type E	Comment Status P		DSE Dower
Comment	Type ER	Comment Status A		Editorial	lt is a	fine point but Inor	t is defined on the basis of th	e cabling but a	"nort" is a feature of
This is	s not the "definit	ion" of Icable, it is the specific	ation.		equipr	nent, not cabling.	Therefore the definition sho	uld be "Iport is	the total current
Suggestee	dRemedy				source	ed by a PSE or su	nk by a PD."		
Chang	ge the word "def	ined" to "specified".			Suggested	lRemedy			
Response	•	Response Status W			Chang	je text per comme	ent.		
ACCE	PT IN PRINCIP	LE.			Response		Response Status C		
ACCE	PT IN PRINCIP	LE.			REJE	CT.			
Chang	ge as follows:				The explorit	kisting definition is	s correct and points out that t	his is the curre	nt on pairs of the same
"I Cab pair ca	ole, specified in <sup>-</sup> able"	Table 145-1, is the current on	one twisted pair	in the balanced twisted-	cabling	g.			nition does not mention
"I Cab unbala	ble is the highest ance"	nominal current on a pair for	a system withou	t pair-to-pair current					
This r	esolution is iden	tical to comment #45.							

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

Cl 145 SC 1 Thompson, Geoffr	145.5 P 212 ev Individual	L <b>0</b>	# i-374	C/ <b>145</b> Thompson	SC 14 Geoffre	45.5 •v	P <b>212</b> Individual	L <b>0</b>	# i-376
Comment Type	TR Comment Status R		Management	Comment	Гуре	TR	Comment Status R		Management
There is no pa knew of) had in include it in cl. Scope: "The s standard with	trallel in cl. 145 to cl. 33.5. Although mplemented MDIO in cl. 33 devices 145, there is a clear requirement in cope of this project is to augment th 4-pair power and associated power	the group agreed and, therefore, th the project paper e capabilities of th management info	d that no one (that they ley didn't want to work to do so. See ne IEEE Std 802.3 rmation."	There knew c include Object - Upda	s no par f) had in it in cl. ves: - 4F te mana	allel in c nplemen 145, the PPoE PS gement	cl. 145 to cl. 33.5. Although th ted MDIO in cl. 33 devices an re is a clear requirement in the SEs will be backwards compat parameters."	e group agreed d, therefore, th e project paper ible with IEEE	d that no one (that they ley didn't want to work to do so. See 802.3-2012 PDs.
SuggestedRemed	У			Suggested	Remedy	,			
Define a paral	lel and optional equivalent to cl. 33.	5 in cl. 145.		Define	a paralle	el and op	otional equivalent to cl. 33.5 in	cl. 145.	
Response	Response Status C			Response			Response Status C		
REJECT.				REJEC	CT.				
A specific rem	edy is needed.			This do either t	bes not b he PI or	oreak inte the MDI	eroperability in any way, since I. It is an interface between a I	the 33.5 inter MAC and a PH	face is not related to Y.
to limit us from	not required to do everything in the n doing things outside of it.	scope of the proje	ect. The scope is there	C/ 145	SC 1	45.5	P 212	L <b>25</b>	# i-377
C/ 145 SC 1	145.5 P 212	L <b>0</b>	# i-375	Inompson	Geoffre	ey	Individual		
Thompson, Geoffr	ey Individual			Comment	Гуре	TR	Comment Status R		Pres: Yseboodt5
Comment Type	TR Comment Status R		Pres: Yseboodt5	The er or by r	tire text eference	for "Man to cl. 33	hagement function requiremen 3.5.	ts" is missing,	either as complete text
There is no pa	arallel in cl. 145 to cl. 33.5. Although	the group agreed	d that no one (that they	, Suggested	Remedy	,			
include it in cl.	. 145, there is a clear requirement in	the project paper	work to do so. See	Add te	xt to spe	cify how	to control and/or read the ma	nagement fund	ctions to the draft.
Scope: "5 Crite	eria - Compatibility: All enhancemer	ts will be backwa	rd compatible with IEEE	Response			Response Status <b>C</b>		
Std 802.3-201	2 Clause 33."			REJEC	CT.				
SuggestedRemedy	y lel and ontional equivalent to cl. 33	5 in cl. 145		A spec	ific and o	complete	e remedy is needed		
Response		5 in ci. 143.				oompion			
REJECT.	Response Status			This do either t	bes not b he PI or	the MDI	eroperability in any way, since I. It is an interface between a l	the 33.5 inter MAC and a PH	ace is not related to Y.
A specific and	complete remedy is needed.								
This does not either the PI o	break interoperability in any way, si r the MDI. It is an interface between	nce the 33.5 interf a MAC and a PH	ace is not related to Y.						

C/ 145	SC 145.1.3.1	P <b>98</b>	L 28	# i-378		C/ 145	SC 1	45.4.1	P 199	L 10	# i-380	
Thompson	, Geoffrey	Individual				Thompson,	Geoffre	еу	Individual			-
Comment There require there is	<i>Type</i> <b>ER</b> is no reason for ements to be sep s no reason to ha	Comment Status A 145.1.3.1 Cabling requirement arate peer clauses. There is ave separate clauses.	nts and 145.3.2 L s no difference be	Editor ink section tween the two so	rial	Comment T This cla require there sh	<i>ype</i> use co nents ( nould b	ER Infuses s and reference e elementere	Comment Status <b>D</b> ystem requirements and ele rences to element requirement specifications in 145.2, 14	ment requiremen ents) should appe 5.3 and link segn	AES ts. Only system ear here. Conversely hent so that when each stom requirement	;
Suggested Conso any ne	Remedy lidate the text of w form of the sp	the two sub-clauses into a si ecification.	ngle clause or co	onsolidate the text into	D	Alternat to elem clauses	tively, t ent nar	he requir nes (i.e.	ements could be stated as g PSE, PD, link section) so th	general requirement at it can be referr	ents with no reference ed to by the element	
Response ACCEI	PT IN PRINCIPL	Response Status <b>C</b> E.				SuggestedF See co	R <i>emed</i> y mment.					
Conso	lidate 145.1.3.1	and 145.1.3.2 into a single cla	ause.			Proposed R REJEC	Respons T.	se	Response Status Z			
<i>Cl</i> <b>145</b> Thompson	SC 145.1.3.1 , Geoffrey	P <b>98</b> Individual	L <b>28</b>	# <u>i-379</u>		This co	mment	was WI	THDRAWN by the comment	er.		
Comment The pla Cablin	<i>Type</i> <b>ER</b> acement of the c g is not a "syster	Comment Status A abling specifications in 145.1 n parameter". Placement the	I.3 System Paran ere is organizatio	Pres: Ysebood neters is wrong. nally confusing.	dt9	Cl 145 Thompson,	SC 1 Geoffre	ey	P 200 Individual	L <b>29</b>	# <u>i-381</u>	
Cabling own su	g is a full elemer ib-clause at a pe	t of the the specified 3 eleme er level with 145.2 PSE and	ent system. The o 145.3 PD.	cabling should have it	ts	This tex	<i>ype</i> ct is PS	ER E specifi	cation text, not system requi	irements.	AES	,
Suggested Move t	Remedy he specification	(whether it be by reference o	or local) for cablin	g to its own higher clause further out		SuggestedF Move th	Remedy ne text t	∕ to the PS	E specification clause, 145.	2.		
Response ACCEI	PT IN PRINCIPL	Response Status <b>C</b> E.	F			Proposed R REJEC	Respons T.	se	Response Status Z			
Adopt	vseboodt 09 09	17 introduction.pdf				This co	mment	was WI	THDRAWN by the comment	er.		
	,					Cl 145 Thompson,	SC 1 Geoffre	4 <b>5.4.2</b> ey	P <b>200</b> Individual	L <b>29</b>	# i-382	
						<i>Comment T</i> System	<i>ype</i> fault to	<b>TR</b> Dierance	Comment Status R specifications should be spe	cified here.	AES	}
						Suggestedf Change system	Remedy the op shall m	/ pening te neet the f	xt to read: "Each conductor ault tolerance requirements	pair of the link se	ection or a PI of a PoE	
						Response REJEC	т.		Response Status U			
						We spe	ecify ev	erything	at the PI, we can't put requir	ements on condu	ictor pairs of the link	
TYPE: TR/ COMMENT SORT ORI	technical require Γ STATUS: D/dis DER: Comment	d ER/editorial required GR/ patched A/accepted R/reject D	general required cted RESPON	T/technical E/editor SE STATUS: O/open	ial G/ge n W/writ	eneral tten C/closed	U/unsa	atisfied 2	Comm Z/withdrawn	ent ID i-382	Page 97 of 132 9/15/2017 11:4	: 11:29 AM

C/ 145	SC 145.4.3	P 201	L 19	# i-383	C/ 145	SC 145.4.6	P 205	L <b>31</b>	# i-386
Thompson,	, Geoffrey	Individual			I hompson,	Geoffrey	Individual		
Comment	Type ER	Comment Status A		AES	Comment	Type ER	Comment Status D		AES
Is this a	a PSE spec or a	PD spec? Which PI is it meas	sured at. Is thi	s a controlling spec (it	This is	a PSE output	specification thus should be p	art of the PSE sp	Dec.
you go	to fix it?	itant spec that is a check of ou	lei specs? Il		Suggested	Remedy			
Suaaested	Remedv				Move t	his requireme	nt to cl. 145.2.		
Define elemer then re	what portion of nt spec then move move the shall a	the system this applies to and ve it into the element that it is r and refer to the controlling eler	where to meas elated to. If it nent specs tha	sure it. If it is an is a system check spec at will remedy any failure.	Proposed I REJEC	Response CT.	Response Status Z		
Response		Response Status C			This co	omment was V	/ITHDRAWN by the commenter	er.	
ACCE	PT IN PRINCIPL	.E.			C/ 145	SC 145.4.7	P 205	L 51	# i-387
Chang	o contonco on n	aga 100 lina 2 fram; "Thia ala	una dafinan a	dditional alastriaal	Thompson	Geoffrey	Individual		
specific	cations for both	the PSE and PD."	luse dennes a		Comment	Type TR	Comment Status A		AES
to: "This c each ir	lause defines ac ndividually.	ditional electrical specification	s for the PSE	and PD that apply to	It is un have a Expres	clear whether more complet sing it in terms	this is a spec for the cabling or re requirement and be moved to s of the "PHY" and the "MDI" c	r a load spec for to the PSE or linl auses further co	the PSE. It needs to k segment clause. nfusion as which MDI is
C/ 145	SC 145.4.4	P 202	L <b>26</b>	# i-384	not spe	ecified nor is w	nat to be done for a midspan s	system.	
Thompson,	, Geoffrey	Individual			Suggested	Remedy			
Comment	Type ER	Comment Status D		AES	Clarity	and place as a	appropriate.		
This is	a PSE output s	pecification thus should be par	t of the PSE s	pec.	Response		Response Status C		
Suggested	Remedy				ACCE	PT IN PRINCI	PLE.		
Move t	his requirement	to cl. 145.2.			NEW 1	EXT TO REP	LACE THE FIRST SENTENCE	E OF 145.4	
Proposed I REJEC	Response CT.	Response Status Z			This cl (that is system	ause defines a , PSE, cabling	dditional electrical specificatio , PD and related PHYs) and th	ns for a fully con nerefore to each	nected PoE system element of such a
This co	omment was WI	THDRAWN by the commenter			Additio "Additio	nally, there sh	ould be a forward pointer to 14	15.4 at the end of PSE are in 145	f 145.2: ⊿ "
C/ 145	SC 145.4.5	P 204	L <b>44</b>	# i-385	/ taulti				
Thompson,	, Geoffrey	Individual			Additio	nally, there sh	ould be a forward pointer to 14	15.4 at the end of	f 145.3:
Comment	Type ER	Comment Status D			Additio		specifications that apply to the	PD are in 145.4	·.
This is	a PSE output sp	pecification thus should be par	t of the PSE s	pec.					
Suggested Move t	<i>Remedy</i> his requirement	to cl. 145.2.							
Proposed I	Response	Response Status Z							
REJEC	CT.								
This co	omment was WI	THDRAWN by the commenter							

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-387

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IEEE P802.3bt D3.0 4-Pair PoE	Initial Sponsor ballot comments
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Cl 145 Thompson. C	SC 145.4.8 Geoffrev	P <b>206</b> Individual	L 11	# i-388	Cl <b>145</b> Thompson. G	SC 145.4.9 Geoffrev	P <b>206</b> Individual	L <b>22</b>	# i-391
Comment Tv	ne FR	Comment Status D		AFS	Comment Tv	pe TR	Comment Status R		AES
This clau mid-spar	use is a PSE sp ns.	pec that belongs in a further s	subsection of the	PSE sub-clause for	Reduce t can have the accept	he midspan a on the accept ptance test fo	aspects of the spec to two simp otance test for a permanent link r a cord that meets standards a	ole statements, < and effect a r allowances.	the effect a midspan nidspan can have on
Suggesteuro	enieuy oppropriato po	w midenan sub clause within	145.2		SuggestedRe	emedy			
			145.2		Prune the	e text so that	the cabling acceptance tests (t	o be called out	t by reference) are the
Proposed Re	esponse -	Response Status Z			control.				. ,
REJECT					Response		Response Status U		
This com	nment was WI	THDRAWN by the commente	r.		REJECT				
C/ 145	SC 145.4.9	P 206	L <b>22</b>	# i-389	No conse	ensus for cha	nge.		
Thompson, C	Geoffrey	Individual			C/ 145	SC 145.2.8.	5.1 <i>P</i> 158	L <b>47</b>	# i-392
Comment Ty	vpe ER	Comment Status D		AES	Thompson, G	Geoffrey	Individual		
This clau	use is properly	a set of specifications for the	implementation	of a PSE option, as	Comment Ty	pe ER	Comment Status A		Pres: Yseboodt2
SuggestedRe Move to	emedy appropriate ne	ew midspan sub-clause within	145.2		This seer combined within the	ms like an atte d specificatior e PSE spec.	empt to control the system imb ns of the three elements, one o	alance (which of which is exte	is controlled by the rnally specified) from
Proposed Re	esponse	Response Status Z			SugaestedRe	emedv			
REJECT	-				This is al should be	l valuable tuto e moved (with	orial material that would be valu	uable for furthe	r work on the topic so it
This corr	nment was WI	THDRAWN by the commente	r.		Response	,	Response Status W		
C/ 145	SC 145.4.9	P 206	L <b>22</b>	# i-390	ACCEPT	IN PRINCIP	LE.		
Thompson, C	Jeoffrey	Individual			Adopt ys	eboodt_02_0	917_Figure_145_22.pdf		
Comment Ty Much of	the text in this	Comment Status R clause is superficial, unneces	ssary and/or red	AES undant.	This resc	olution is ident	tical to comment #110.		
SuggestedRe Clean up midspan	<i>emedy</i> o the text and r is.	emove any text that is not an	additional requi	rement specific to					
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

Cl 145	SC 145.2.8.5.1	P 161	L <b>2</b>	# [i-393	Cl <b>79</b> Darshan `	SC 7 Vair	79.3.2	P 81		L <b>33</b>	# i-395	
Thompson, Geoffrey       Individual         Comment Type       ER       Comment Status       A       Pres: Yseboo         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 t 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					Darshan, Comment The 4 This v Suggested In Tab bits. M Response ACCE ACCE	Yair Type PID bit n vill resolv dRemed ble 79-6c Make the PT IN P PT IN P vsebood	T need to m /e also cc y H PD 4PID PD 4PID RINCIPL RINCIPL dt 04 09	Comment Status ove to legacy TLV fie omment #130 from D2 D bit: Move this bit to D bit as the reserved b Response Status E. E. E.	<b>A</b> d in order 2.4. Fable 79-4 its. <b>C</b>	to support le	Pres: Ysebo gacy PDs. stead of the reserve	odt4
This resolu	ution is identical to	comment #110.			This r	esolutior	n is identi	cal to comment #38.				
C/ 145 S Diminico, Chris	SC <b>145.1.3</b> stopher	P 97	L <b>38</b>	# i-394	<i>Cl</i> <b>145</b> Darshan, `	SC 1 Yair	145.2.5.7	P 12	5	L <b>29</b>	# i-396	
Comment Typ For a cons dependen parameter highest cu restistancc of 4-pair c (length) fo cables in a	e <b>TR</b> Co stant power load an t on the loop resista r used to limit the nu urrent per pair (ICab e (RCh), associated tables in a bundle for all cabling topolog a cable bundle.	mment Status <b>A</b> d a worse case PSE th ance (equation 145-2). umber of 4-pair cables ble, A) derived by assu d with 100 meters of ca or all cabling lengths (I gies leads to overly per	he current per pa The current per in a cable bund ming the worse abling, is being u DCR). Assuming ssimistic limits o	Pres: Diminico air (ICable, A) is pair/conductor is a le. The 802.3bt nominal case DC loop ised to limit the number of the worse case DCR n the number of 4-pair	Comment In the (sig_ty (CC_E How ir !tdet2 It shou Suggested	Type exit from ype = sir DET_SE t can be det_time uld be !(s	T ngle) *(((C Q = 1) *(s that sig_ er_done) v sig_pri=va	Comment Status HK_EVAL to START_ CC_DET_SEQ = 0) +( sig_pri = valid) * !tdet2 pri=valid in the part (C while at this point of ti alid).	DETECT CC_DET_ det_timer C_DET_S me, no det	the condition SEQ = 3)) *!t _done). EQ = 1) *(sig tection was c	PSE s are: cc2det_timer_done - g_pri = valid) * onducted?	∃ SD +
SuggestedRer Develop ir constant p Annex to b	medy nformative Annex to power loads and wo be provided.	o characterize the curre rse case PSEs (equat	ent as a function ion 145-2). Pres	of DCR (length) for ention of proposed	Chanę <i>Proposed</i> REJE	ge "(sig_ <i>Respon</i> : CT.	pri=valid) se	" to " !(sig_pri=valid)" Response Status	Z			
ACCEPT	Res	ponse Status <b>C</b>			This c This c	comment	t was WIT t was with	THDRAWN by the corner of the conner of the c	nmenter. nment reso	olution meetir	ng.	
auopi um	11100_01_0917_1108	u.pui										

C/ 145	SC 145.2.5.7	P <b>127</b>	L <b>33</b>	# i-397	C/ 145	SC 145	.2.5.7	P 129	L <b>42</b>	# i-399
Darshan, Y	/air				Darshan, Y	rair				
Comment	Туре Т	Comment Status D		Repeats	Comment	Туре Т	C	Comment Status D		Repeats
The te error, t DETE	xt allows the PSI to go to IDLE. Th CT_EVAL to IDL	E to do detection and if there is is not covered by the state E , we need to add "+error_	e is any implement machine. As a re condition".	ation specific system sult in the exit from	l could there i curren	d not find in s any imple itly it is cove	the text al mentation ared by the	llowance for the PSE to d a specific system error, to e state machine. As a res	lo detection and go to IDLE. I co sult in the state (	classification and if ouldn't find how CLASS_EVAL I
Suggestea	lRemedy				propos	se to add ex		with the condition erorr_	_condition.	
Chang	e from:		* (air, ari 0, valid)	(dat tamp	Suggested	Remedy	atata Ol			
both r	_alternative = bo neither) * (sig_se	c ? valid) + (((CC_DET_SEQ	$(sig_pri ? valid) = 0) + (CC DET)$	F(det_temp = SEQ = 3)) *	Add e	xit from the	state CLA	ASS_EVAL to IDLE with	i the condition e	rorr_condition.
(det_te +(pse_	emp = only_one) _alternative = b)	* tdet2det_timer_done)) + (p * (sig_pri = open_circuit)"	se_alternative = a	) * (sig_pri ? valid)	Proposed REJE	<i>Response</i> CT.	Re	esponse Status Z		
"error	condition + (pse	e_alternative = both) * ((det_t	emp = only_one)	* (sig_pri ? valid)	This c	omment wa	s WITHD	RAWN by the commente	r.	
+(det_ 3)) * (c valid) -	temp = both_nei det_temp = only_ +(pse_alternative	ther) * (sig_sec ? valid) + (((( one) * tdet2det_timer_done)) a = b) * (sig_pri = open_circui	CC_DET_SEQ = 0 ) + (pse_alternativ t)"	) + (CC_DET_SEQ = e = a) * (sig_pri ?	This c	omment wa	s withdrav	wn before the comment re	esolution meetir	ıg.
Proposed	Response	Response Status 7			C/ 145	SC 145	.2.5.7	P 131	L <b>6</b>	# i-400
REJE	CT				Darshan, Y	rair				
112021					Comment	Туре Т	C	Comment Status R		PSE SD
This co	omment was WI	THDRAWN by the commente	er.		In the !powe	exit from Sl r_available_	EMI_PWR _pri and no	RON_PRI to POWER_DE ot !power_available	NIDED need to	be
			esolution meeting	•	Suggested	Remedy				
C/ 145	SC 145.2.5.7	P <b>128</b>	L 6	# i-398	Chang	ge from "!po	wer_avail	able" to " "!power_availat	ole_pri"	
Darshan, Y	/air				Response		Re	esponse Status <b>C</b>		
Comment	Туре <b>т</b>	Comment Status A		PSE SD	REJE	CT.				
In CLA the ps	SSIFICATION s e_allocated_pow	tate, the assignment pse_alle er variable definition that sta	ocated_power = 0 rts from 1 and not	is not possible per from 0.	Power	_available_	pri is only	used in the SISMs, not in	n the top-level S	D.
Suggestea	lRemedy				C/ 145	SC 145	.2.5.7	P 131	L <b>7</b>	# li-401
Chang To: ps	e from: pse_allo e_allocated_pov	cated_power<= = 0 ver<= = 1			Darshan, Y	Yair				
Response ACCE	PT IN PRINCIPL	Response Status <b>C</b> E.			Comment In the power	<i>Type</i> <b>T</b> exit from Sl _available	C EMI_PWR	Comment Status R RON_PRI to IDLE need to	be power_avai	PSE SD lable_pri and not
Add va assign	alue 0 to the varia ed to the PD".	able description of pse alloca	ted power, with te	xt "No power is	Suggested Chang	lRemedy ge from "pov	wer_availa	able" to " "power_available	e_pri"	
					Response		Re	esponse Status <b>C</b>		
					REJE	CT.		,		
					Power	_available_	pri is only	used in the SISMs, not i	n the top-level S	D.

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-401

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C/ 145	SC 145.2.5.7	P 131	L <b>21</b>	# i-402	C/ 145 SC	\$ 145.2.5.7	P <b>131</b>	L <b>39</b>	# i-404
Darshan, Y	air				Darshan, Yair				
Comment T	Гуре Т	Comment Status R		PSE SD	Comment Type	т	Comment Status D		Pres: Yseboodt7
In the e !power	exit from SEMI_P _available_sec a	WRON_SEC to POWER_DE nd not !power_available	NIDED need to	be	In the Exit fr pd_autoclas	om IDLE_A s * !tpon_tin	CS to WAIT_ACS we have the ner_done *tinrush_timer_pri_	ne following cor _done * pwr_ap	ıditions: p_pri *(!alt_pwrd_sec +
Suggested	Remedy				(tinrush_time	er_sec_done	e ^ pwr_app_sec))		
Change	e from "!power_a	vailable" to " "!power_availab	le_sec"		1) redundan	cy in the ter	m " tinrush_timer_pri_done *	pwr_app_pri. I	f pwr_app_pri is true, it
Response		Response Status C			means that	tinrush_time	r_pri_done is TRUE as well.		
REJEC	T.				2) the term ( - alt_pwrd_s	!alt_pwrd_s sec in false i	ec + (tinrush_timer_sec_don meaning that "The PSE is no	<pre>^ pwr_app_se ot to apply powe</pre>	ec)) is always TRUE.
Power_	_available_sec is	only used in the SISMs, not i	n the top-level S	D.	Alternative. - tirnush_tim	" ier_sec_don	e *pwr_app_pri indicates tha	at we POWER ι	up secondary pair and
C/ 145	SC 145.2.5.7	P 131	L <b>25</b>	# i-403	inrush is dor So, we have	ne in the sec	ondary. that if we power up/or not po	owerun	
Darshan, Y	air				It's like doing	g (X or not X	) that is always true, which re	equires to remo	ove this term
Comment 7	Type T	Comment Status R		PSE SD	completely	nd what wo	raally nood hara lat's avnan	d the whole orig	rinal torm. It is
In the e	exit from SEMI_P	WRON_SEC to IDLE need to	be power_avail	able_sec and not	equivalent to	the followir	ig two parts:		jinai term. it is
power_	available				a) pd_autoc	ass * !tpon_	timer_done *tinrush_timer_p	pri_done * pwr_	app_pri*!alt_pwrd_sec +
Suggested	Remedy				b) pd_autocl *tiprush_tim	lass * !tpon_ er sec don	timer_done *tinrush_timer_p	pri_done * pwr_	app_pri
Change	e from "power_a	vailable" to " "power_available	_sec"		I believe tha	t our intent i	s to allow Autoclass for Type	3 and 4 PSEs	supporting single-
Response		Response Status C			signature PI	Os over 4-pa	irs or Type 3 PSE supporting	g SS-PD over 2	-pairs.
REJEC	Э.	, -			There are fe	w issues:	a tha tarm " tiaruch timar ar	ri dono * nur o	nn nri "
					lf pwr app i	ori is true, it	means that tinrush timer pr	i done is TRUE	pp_pn . E as well.
Power_	_available_sec is	only used in the SISMs, not i	n the top-level S	D.	As a result,	it is sufficien	t to reduce this term from " t	inrush_timer_p	ri_done * pwr_app_pri "
					to "pwr_app "pd_autoclar	_pri", resultii ss * Itoon_tii	ng with term (a): mer, done * nwr, ann, pri*lalt	pwrd sec"	
					In part (b), th	he same cor	icept as in part (a) applies to		_sec_done *
					pwr_app_se	c i.e. If pwr_	app_sec is true, it means the	at tinrush_timer	_sec_done is TRUE as
					well.	we can redu	ce term (b) to:		
					"pd_autoclas	ss * !tpon_ti	mer_done * pwr_app_pri * pv	wr_app_sec"	
					The net res	ult is:			
					pd_autoclas	s * !tpon_tin	<pre>ner_done * pwr_app_pri*!alt_</pre>	_pwrd_sec + pd	_autoclass *
					pd autoclas	_aone pwr_ s*!tpon tin	_app_pii pwi_app_sec = her done * pwr app_pri*(!alt	pwrd sec + p	wr app sec)
					Suggested Reme	o upon_m	aono papp_p (.a.	_pa_000 . p.	app_000 /
					Change from	n.			
					"pd_autoclas	ss * !tpon_tii	mer_done *tinrush_timer_pri	_done * pwr_ar	op_pri *(!alt_pwrd_sec +
					(tinrush_time To	er_sec_done	e * pwr_app_sec))"		
					"pd_autocla	iss * !tpon_ti	mer_done * pwr_app_pri*(!a	alt_pwrd_sec +	pwr_app_sec )"

Comment ID i-404

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Proposed Response Response Status Z REJECT.	Cl 145 SC 145.2.5.7 P 133 L 5 # <u>i-406</u> Darshan, Yair							
This comment was WITHDRAWN by the commenter.	Comment Type T Comment Status D Repe	ats						
C/ 145 SC 145.2.5.7 P 132 L 4 # i-405 Darshan, Yair	Figure 145-15 doesn't have the option of using short class event when doing "class probe functionality as we have in single-signature class probe case. This cost with more time to complete process and more power dissipation. The same applies to the secondary part ir page 137. It is suggested to replicate CLASSIFICATION pre-state and CLASS_PROBE							
Missing error_condition_pri at the input to the state IDLE_PRI at the condition iclass_lim_det_pri.	from page Figure 145-13 page 128 in primary and secondary state machines with the relevant modifications.							
SuggestedRemedy	SuggestedRemedy Adopt darshan_04_0917.pdf							
<ol> <li>Change from: iclass_im_det_pri to iclass_im_det_pri + error_condition_pri</li> <li>Add new variable to 145.2.5.4:         <ul> <li>"error_condition_pri</li> <li>A variable indicating the status of implementation-specific fault conditions or optionally</li> </ul> </li> </ol>	Proposed Response Response Status Z REJECT.							
other system faults that prevent the PSE from meeting the specifications in Table 145-16 and that require the PSE not to source power over the Primary Alternative.	This comment was WITHDRAWN by the commenter.							
Values: FALSE: No fault indication. TRUE: A fault indication exists.	This comment was withdrawn before the comment resolution meeting.							
Proposed Response Response Status Z REJECT.								
This comment was WITHDRAWN by the commenter.								
This comment was withdrawn before the comment resolution meeting.								

C/ 145 SC 145.2.5.7 Darshan, Yair	P 135	L 6	# i-407	,	C/ <b>145</b> Darshan, Y	SC <b>145.2.5.7</b> ′air	7 P	135	L 10	# i-408				
Comment Type <b>T</b> State machine, CLASS_E The intent of the following IF (pd_cls_4PID_pri * (si THEN pd_4pair_cand<== END " Was to handle the followi 1) pd_4pair_cand is TRU	Comment Status D EVAL_PRI: g_rocedure: g_sec = valid) * (sig_pri = TRUE ng cases: E if both pairs have valid s	valid) + pwr_ap signature and po	p_sec) d-cls_4PID_pri is	PSE SD	Comment Type       T       Comment Status       A       PSE         In the exit from CLASS_EVAL_PRI to POWER_UP_PRI we use in the condition:       "ted_timer_pri_done * ted_timer_done       (pd_req_pwr_pri ? pse_avail_pwr_pri) * (pd_4pair_cand + !alt_pwrd_sec)".       Two issues:         a) Missing "*" afterted_timer_done.       b) The variable ted_timer_done looks that is not belong here since we are in the semi-independent state machine or the intent for this is not clear.         SuggestedRemedy									
2) pd_4pair_cand is TRU and at the same time sig_	E if both pairs have valid s _pri is valid.	signature and se	econdary pair is p	powered	Two op a) Add b) Dele	otions for remed "*" afterted_tim ete ted_timer_d	y: er_done and explai one	n why we nee	ed ted_timer	_done OR				
if we are doing the compl pd_4pair_cand <== TRUI pd_cls_4PID_pri * (sig_se pwr_app_sec	ete math we get: E if: ec = valid) * (sig_pri = vali	d) +(sig_sec = v	alid) * (sig_pri =	valid) *	Response ACCE Replac	PT IN PRINCIPI	Response Status _E.	SC	nd rea pwr	Dri c-				
Reviewing the state CLAS (a) If we are in CLASS_E (b) If pwr_app_sec is true sig_pri=valid at the same	SS_EVAL_PRI shows that VAL_PRI state, it means the it means that sec_sig=ve time that pwr_app_sec is		This resolution is identical to comment #69.											
Which means that: (c ) pwr_app_sec need to (d) pd_cls_4PID_pri neec	be multiplied by (sig_pri I to be multiplied only with	= valid) sig_sec = valid			Cr 145 Darshan, Y Comment	3C 145.2.5.7 ′air <i>Type</i> <b>T</b>	Comment Statu	135 s R	L 1 <b>U</b>	# <u> </u> -409 PSE SD				
Resulting with: IF (pd_cls_4PID_pri * (si THEN pd_4pair_cand<== END "	g_sec = valid)  + pwr_app : TRUE	_sec * (sig_pri =	= valid) )		In the "!ted_t (pd_re The va indepe	exit from CLASS imer_pri_done + q_pwr_pri > pse riable ted_time ndent state mag	S_EVAL_PRI to PO + !ted_timer_done + - avail_pwr_pri) + (! r_done looks that is chine or the intent fo	WER_DENIE pd_4pair_ca not belong h	DE_PRI we u nd * !alt_pwi here since w clear.	use in the condition: rd_sec)". e are in the semi-				
SuggestedRemedy Change from: "(pd_cls_4 To: (pd_cls_4PID_pri * (s Proposed Response	PID_pri * (sig_sec = valid) sig_sec = valid) + pwr_ap <i>Response Status</i> <b>Z</b>	r * (sig_pri = vali p_sec* (sig_pri ⊧	d) + pwr_app_se = valid))	ec)"	Suggestea Two oj a)expla b) Dele	Remedy Ditions for remed ain why we need te ted_timer_d	y: I ted_timer_done O one	2	Jour.					
REJECT. This comment was WITH	DRAWN by the comment	er.			Response REJE0	CT.	Response Status	S C						
This comment was withd	awn before the comment	resolution meet	ing.		We ne and the for ted	ed to the ted_tin en power it as a _timer to be don	ner because we car DS PD (due to a ca ne.	n't allow a PS able fault or s	E to remove come other re	e power from a SS PD eason) without waiting				

C/ 145	SC 145.2.5.7	P 135	L 37	# i-410	C/ 145	SC 145.2.5.	7 P1	<b>36</b> L	21 ;	# i-412
Darshan, Yair					Darshan,	Yair				
Comment Typ	be <b>T</b> Com	ment Status A		PSE SD	Comment	Туре Т	Comment Status	D		PSE SD
In the exit "ted_time A) The va B) in addi Ted time you don't	t from ERROR_DELA r_pri_done + option_c riable option_detect_ tion I believe it is not i interval or you dont ha do detection.	Y_PRI to IDLE we have have be the to IDLE we have the to IDLE we have the option, you a set the option, you and the option and the	ave the following om the variable have the option ire going to IDLE	g condition: list. to do detection during E_PRI and in IDLE_PRI	In the sism ` (CC_I class_ way h releva CLAS	exit from ENTR ((!class_4PID_ DET_SEQ=0 + C 4PID_mult_eve ow we do detect ow we do detect int to the issue o S EVAL PRI ar	Y_SEC to START_DE _mult_events_sec * pv CC_DET_SEQ=1). nts_sec and !class_4 ion sequence or conn f how we do 4PID. Th nd page 139 line 6 CL	ETECT_SEC we wr_app_pri) + cl PID_mult_event tection check ar te 4PID way is d ASS EVAL SE	have the following ass_4PID_mult_opt ts_sec doesn't be nd detection sequing determined in page EC.	ng condition: events_sec ) * elong here. The uence is not ge 139 line 6 in
SuggestedRe	medy	dana Lantian data	at tool as:""		Sugaeste	dRemedv			-	
To: "ted_	_timer_pri_done "	_done + option_dete	ct_ted_pri		Two c	ptions:				
Response	Respo	onse Status <b>C</b>			1. cha class_	inge from: "sism _4PID_mult_eve	* ( (!class_4PID_mul nts_sec ) * (CC_DET_	t_events_sec *   _SEQ=0 + CC_I	pwr_app_pri) + DET_SEQ=1)."	
ACCEPT	IN PRINCIPLE.				To: "s	ism * ( pwr_app_	_pri + ((CC_DET_SE	Q=0) + (CC_DE	T_SEQ=1))."	a data ating the
Remove e	extra space in "option_	_detect_ ted" on pag	je 113, line 30.		prima prima	ry for single sign ry (regardless if	ature or staggered de primary is powered) p	etection for dual- er CC_DET_SE	-signature after d EQ=0 or CC_DET	etection the Γ_SEQ=1 which
Add varial similar de	bles option_detect_ te finition to option dete	ed_pri and option_de	etect_ ted_sec to iate changes to (	variable list. Use distinguish pri and	is eve	n more flexible t	han CC_DET_SEQ=0	).		
_sec.					Proposed	Response	Response Status	Z		
C/ 145	SC 145.2.5.7	P 136	L <b>4</b>	# i-411	KEJE	GT.				
Darshan, Yair					This c	comment was W	ITHDRAWN by the co	ommenter.		
Comment Typ	pe <b>T</b> Com	ment Status D		Repeats	This c	comment was wit	thdrawn before the co	mment resolutio	on meeting.	
Missing e iclass_lim	rror_condition_sec at _det_sec.	the input to the state	e IDLE_SEC at t	he condition						
SuggestedRe	medy									
1. Change 2. Add ne "error_cor A variable other syst	e from: "iclass_lim_de w variable to 145.2.5. ndition_sec e indicating the status tem faults that preven	t_sec" to "iclass_lim 4: of implementation-s t the PSE from meet	_det_sec + erro	r_condition_sec" ditions or optionally ttions in Table 145-16						
and that r Values: FALSE: N TRUE: A	equire the PSE not to lo fault indication. fault indication exists.	source power over t	the Secondary A	lternative.						
Proposed Res	sponse Respo	onse Status Z								
REJECT.										
This com	ment was WITHDRAW	VN by the commente	er.							
This com	ment was withdrawn b	efore the comment	resolution meeti	ng.						

Cl 145 Darshan	SC Yair	145.2.5.8		P 139	L <b>6</b>	# i-413	Cl <b>145</b> Darshan Yai	SC ir	145.2.5.7	P 13	39	L 10	# i-415
Comment	Type	т	Comment St	tatus R		PSF SD	Comment Tv	'ne	т	Comment Status	R		PSF SD
This c comm State IF (po THEN	eommen eent will machine d_cls_4l pd_4pa	t rationale is be shorter. e, CLASS_E PID_sec * (s air_cand <==	EVAL_SEC: sig_sec = valid TRUE	my comment d) * (sig_pri =	regarding CLAS: • valid) + pwr_app	S_EVAL_PRI, so this	In the ex "!ted_tim (pd_req_ The varia independ	it fro ier_s _pwr_ able dent	m CLASS_ sec_done + _sec > pse_ ted_timer_ state machi	EVAL_SEC to POW !ted_timer_done + .avail_pwr_sec) + (! done looks that is n ne or the intent for t	/ER_DENI pd_4pair_c ot belong h this is not c	DE_SEC we cand * !alt_pi here since we clear.	wrd_pri)". e are in the semi-
Revie	wing the	e logic show	s that:				SuggestedRe	eme	dy				
(c) If v (d) If p at the	ve are ir owr_app same ti	n CĽASS_E <sup>v</sup> o_pri is true, me that pwr	VAL_SEC sta it means that r_app_pri is tr	ate, it means t pri_sig=valio ue.	that sec_sig=vali but it doesn't m	id. nean that sig_sec=valid	Two opti a)explair b) Delete	ons t why e teo	for remedy: y we need te d_timer_dor	ed_timer_done OR			
Resul	ting with	h changing:	(pd_cls_4PI	D_sec * (sig_	_sec = valid) * (si	g_pri = valid) +	Response			Response Status	с		
pwr_a To: p	pp_pri) d_cls_4	1PID_sec * (	(sig_pri = vali	d) + pwr_app	_pri * (sig_sec =	valid)	REJECT						
Suggested Chang	dRemed ge from:	/y " (pd_cls_4	IPID_sec * (si	ig_sec = valio	d) * (sig_pri = vali	id) + pwr_app_pri)  "	This prev powering	vents g it as	s a PSE fror s a DS PD v	n shutting down a S without waiting for th	S PD require ted_time	uiring an error er to finish.	r delay but then
Poononoo	_015_4F	ID_Sec (SI	ig_pri = valiu)	+ pwi_app_p	$\sin (\operatorname{sig}_{\operatorname{sec}} = v_{\mathrm{sec}})$	aliu)	C/ 145	SC	145.2.5.7	P 13	39	L 37	# i-416
Response	ст		Response St	atus C			Darshan, Yai	ir					
This c <i>Cl</i> <b>145</b> Darshan, `	sommen SC Yair	t was withdr 145.2.5.7	rawn before th	ne comment	resolution meetin	ng. # [i-414	Comment Ty In the ex "ted_time A) The v B) in add	pe it fro er_se ariat lition	T m ERROR_ ec_done + c ble option_c l believe it	Comment Status DELAY_SEC to ID option_detect_ted_s detect_ted_sec is m is not required since dopt have the option	A _E we have ec". issing fron e if you hav	e the followin n the variable ve the option	PSE SD ng condition: e list. to do detection during
Comment	Туре	т	Comment St	tatus R		PSE SD	IDLE_SE	EC y	ou dont do c	detection.	i, you are (	yoing to IDEL	
In the	exit from	n CLASS_E	EVAL_SEC to	POWER_UP	P_SEC we use in	the condition:	SuggestedRe	eme	dy				
(pd_re The v	eq_pwr_ ariable	sec ? pse_a ted_timer_c	avail_pwr_sec done looks th	c) * (pd_4pair at is not belo	_cand + (sig_pri ng here since we	? valid))". e are in the semi-	Change To: "ted	from _tim	: " "ted_tim er_sec_don	er_sec_done + opti e "	on_detect_	_ted_sec""	
indepe	endent s	state machir	ne or the inter	nt for this is n	ot clear.		Response			Response Status	С		
Suggestee	dRemea	ly					ACCEPT	IN I	PRINCIPLE				
Two o a) Exp b) Del	ptions folain whe	or remedy: y we need te _timer_done	ed_timer_dor e	ne OR			ACCEPT Remove	extr	PRINCIPLE a space in "	option_detect_ ted"	on page 1	13, line 30.	
Response			Response St	atus C			Add varia	ables	s option det	tect ted pri and on	tion detec	ct ted sec to	o variable list. Use
REJE	CT.						similar d	efinit	tion to option	n_detect_ ted with a	ppropriate	+ changes to	distinguish _pri and
This p power	revents ing it as	a PSE from a DS PD w	n shutting dov vithout waiting	vn a SS PD ro for the ted_t	equiring an error imer to finish.	delay but then	 This reso	olutic	on is identica	al to comment #410			

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

CLAAE	SC 445 2 5 7	D469	/ 40	# : 447		SC 4/	45 2 8	D462	1 46	# : 440																
Darshan,	Yair	r 100	L <b>40</b>	# 1-417	Darshan,	Yair	+J.Z.0	F 152	L 40	# [-419																
Comment	Туре Т	Comment Status D		Repeats	Comment	Туре	т	Comment Status A		Pres: Darshan3																
In the text "Single-signature PDs that request Class 4 or less shall be able to operate if power is applied to either PD Mode A, PD Mode B, or both Modes simultaneously. All other PDs may require being supplied over Mode A and Mode B simultaneously to operate at their nominal power level." The use of "simultaneously" in this text is that we are working over 4-pairs. Some readers						Icon-2P_unb in Table 145-16 item 5 needs some updates to sync with latest changes and to fit the test verification models accuracy. SuggestedRemedy Adopt the changes proposed in darshan_03_0917.pdf																				
													interp	interpreted it as both pairs where powered on simultaneously i.e. at the same time i.e.						Response Response Status C						
													staggered powering is not allowed which obviously was not the intent. To clarify it, it is suggested to remove " simultaneously" in the first occurrence and replace "						ACCEPT IN PRINCIPLE.							
simuli	simultaneously" with "both Mode A and Mode B" in the 2nd occurrence.						Adopt the changes proposed in darshan_03_0917_final.pdf																			
Chan	ge text to:" Single	-signature PDs that request	Class 4 or less s	hall be able to operate	C/ 145	SC 14	45.2.8	P 152	L <b>49</b>	# i-420																
if power is applied to either PD Mode A, PD Mode B, or both Modes. All other PDs may						Yair																				
require being supplied over both Mode A and Mode B to operate at their nominal power					Comment	Туре	т	Comment Status A		PSE Power																
Proposed	Response	Response Status Z			There is an error in Icon-2P_unb value in Table 145-16 item 5, class 7. The value need to																					
REJE	REJECT.					be 0.786A + 0.005A margin =0.791A instead of 0.781A. See presentation from May 2017 meeting, darshan_07_0517.pdf page 1 where the simulations of class 7 results where correct but the conclusion derived from it (not to update the spec) was is wrong.																				
This comment was WITHDRAWN by the commenter. This comment was withdrawn before the comment resolution meeting.					SuggestedRemedy																					
					Change Icon-2P_unb for class 7 from 0.781A to 0.791A.																					
C/ 145	SC 145.2.6	P 141	/ 29	# li-418	Response	•		Response Status C																		
Darshan.	Yair	1 1 1	- 20	// 1410	ACCE	PT.																				
Comment	Type T	Comment Status D		Repeats																						
We ha power succe the er	ave the following r the detected PD essfully detect and nd of clause 145.	text: "Also, a PSE may succ .". We need similar text for t d classify a PD but then opt i 2.7 page 148 after line 38.	essfully detect a he classification not to power that	PD but then opt not to i.e. "A PSE may PD. " to be added at																						
Suggeste	dRemedy																									
Add tl and c	he following text in lassify a PD but tl	n 145.2.7 page 148 after line hen opt not to power that PE	e 38: "A PSE may ). "	v successfully detect																						
Proposed	Response	Response Status Z																								
REJE	CT.																									
This c	comment was WI	THDRAWN by the comment	er.																							

This comment was withdrawn before the comment resolution meeting.

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

Cl 145 Darshan, Y	SC <b>145.2.8</b> ′air	P 154	L 16	# [i-421	<i>Cl</i> <b>145</b> Darshan, Y	SC <b>145.2.</b> ′air	8.5.1	P <b>160</b>	L <b>39</b>	# i-422	
Comment Type       T       Comment Status       A       PSE Power         Resolve first comment marked CLASS8_PPD. Table 145-16 item 11, ILIM-2P. ILIM_2P is derived from Ipeak-2P_unb. The value of 0.99 was simulated when PClass_PD was 71W and as a result, Ppeak_PD was 1.05*71W. Now it is 71.3W and Ppeak_PD was already updated in all Tables and equation but not in related parameters in Table 145-16. If Ppeak_PD for class 8 is 74.8W then ILIM-2P need to be 0.995A. If Ppeak_PD for class 8 is 74.9W then ILIM-2P need to be 0.996A.       SuggestedRemedy         After resolving the comment marked CLASS8_PPD. Adopt the following options accordingly:       Option 1:       If Ppeak_PD for class 8 is 74.8W then ILIM-2P need to be 0.995A. Option 2:       If Ppeak_PD for class 8 is 74.9W then ILIM-2P need to be 0.995A.         Response       Response Status       C					Comment Type       T       Comment Status       A       Pres: Yseboodt2         This comment is marked as LOWER02.       In the following text:       "ICon-2P-unb and Equation (145-15) are specified for total channel common mode pair resistance RChan-2P from 0.2 ? to 12.5 ? and worst-case unbalance contribution by a PD.         PSEs that support channel common mode resistance less than 0.2 ?, or if RChan is less than 0.1 ?, the PSE should meet ICon-2P-unb requirements when connected to (Rload_min - 0.5 * RChan-2P) and (Rload_max - 0.5 * RChan-2P). This can be achieved by using a lower RPSE_max or higher RPSE_min than required by Equation (145-15).         Lower RPSE _max values may be obtained by using smaller constant ? or higher RPSE_min in Equation (145-15) in the form of RPSE_max = ? * RPSE_min + ?."         The following may be improved:         1. The "total" is not required.         2. To simplify and clarify the text that explains what to do when shorter cabling than 0.2 ohm is used         3. To cimplify the use of " RPSE max = 2 * RPSE min + ?"						
ACCEPT IN PRINCIPLE. Change ILIM-2P for class 8 to 0.996A.					SuggestedRemedy         Replaced the called out text with:         "The values for ICon-2P-unb and the relationship between RPSE_max and RPSE_min (Equation (145-15)) are valid given that RChan-2P (see 145.1.3) ranges from 0.2 ? to 12.5 ? and that the PD meets 145.3.8.10. In cases where RChan-2P is less than 0.2 ?, or RChan is less than 0.1 ?, PSE compliance with ICon-2P-unb can be evaluated using Rload_min and Rload_max both reduced by 0.5 * RChan-2P. This compliance will require a reduction in the ratio of RPSE_max to RPSE_min presented by Equation (145-15). "         Response       Response Status       C         ACCEPT.       ACCEPT.						
C/ 145	SC 145.2.8.5	P 156	6 <i>L</i> 51	# i-423	C/ 145	SC 145.2.8.	5.1	P 158	L <b>46</b>	# i-425	
--	--	---	--	---	--------	--	--	--	---	---	
Darshan, Yair       Comment Type       T       Comment Status       D       Repeats         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       Proposed Response       Response Status       Z         REJECT.       This comment was WITHDRAWN by the commenter.       This comment was withdrawn before the comment resolution meeting.						Type <b>T</b> anges we did we did for pair to s the equipmen sistance unbala on due to the fa e source output of the equivaler <i>IRemedy</i> darshan_01_0S PT IN PRINCIF changes showr	Comment of when we move for pair resistance t connector as p ance for complia act that the PSE resistance, Rso the portion of the 217.pdf for deta Response S PLE.	Status <b>A</b> from "channel" e unbalance. To part of the PSI ance. In this wa i load when PS purce, when PI link section. iled analysis an Status <b>C</b> darshan_01_09	to "Link section o fix it, we need E PI and PD PI ay we don't brea E is tested for c D is tested for c nd proposed bas 917.pdf	Pres: Darshan1 " breaks some of the to add a text that when tested for pair-to- k the link section compliance and PD ompliance include the seline.	
This Cl <b>145</b> Darshan,	comment was with SC 145.2.8.5 Yair	ndrawn before the com 1 P 158	ment resolution meet	ing. # <u>i-424</u>							
Commen Icon- Equa 17 ar	<i>t Type</i> <b>T</b> 2P_unb values ne ation 145-26 (Rpd_ nd Rsource_min/m	Comment Status <b>4</b> ed to be verified when min/max) with the test ax requirements with t	A using Equation 145-1 verification models d heir defined accuracio	Pres: Darshan3 5 (Rpse_min/max) and escribed in Table 145- es (+1/-%).							
Suggeste Adop	edRemedy ot darshan_03_091	7.pdf									
Respons ACC ACC	e EPT IN PRINCIPL EPT IN PRINCIPL	Response Status <b>C</b> E. E.	;								
Adop	ot the changes prop	posed in darshan_03_0	0917_final.pdf								

This resolution is identical to comment #419.

C/ 145	SC 145.2.8.5.1	P <b>159</b>	L <b>27</b>	# i-426	C/ 145	SC	145.2.8.5.1	P 159	L <b>34</b>	# i-427
Darshan,					Darshan,	rair T	_			
Comment This c of PS and w Icon-2 In D3.	Type T C comment is not about E resistive elements t then PSE connected t P_unb in Table 145-1 0, the maximum value	comment Status A active current balancing o form Rpse_min and R o the PSE load specified 6. e of Rpse_min is not lim	. This comment i pse_max that me d in Table 145-17 ited. Rpse_max	Pres: Darshan2 is about the typical use bet equation 145-15 7, will meet the values is function of	Comment In the "A PS **load specifi 145-22	<i>Type</i> text bel E shall ** as sh ed in E 2.	T ow: not source lown in Figu quation (14	Comment Status <b>F</b> more than ICon-2P-u ure 145-22, using valu 5-16) and Equation (*	nb min on any pa les of Rload_min I45-17).", Need to	Unbalance ir when connected to a and Rload_max as o be "PSE load" as in Figure
Rpse_	_min. If Rpse_min ma	ximum value is not limit	ed, it will cause t	he following issues:	Suggested	Remea	ły			
(a) Th keep t This v (b) po	the PSE voltage at the vill result with working ower loss at extreme v	Supply open load voltage PI 50V min or 52V min outside the PSE opera values of Rpse_min which which which which which which a supply open load voltage is a supply open load voltage is	ting voltage rang ch doesn't make	E Type under load. e. sense.	Chang conne Rload	e text to cted to _max as	o "A PSE s the PSE loa s specified	hall not source more ad as shown in Figure in Equation (145-16)	han ICon-2P-unb 145-22, using va and Equation (14	) min on any pair when alues of Rload_min and 5-17)."
(c) Pe values contri	r Equation 145-15, if s of Rpse_min (startin bution of Rpse to unb	Rpse_min is increased, g at 0.5 ohms at Class 7 alance compared to the	Rpse_max is inc 7-8 and 1 ohm at channel and PD	reased and at higher class 5-6), the , resulting with the	Response ACCE	PT IN F	PRINCIPLE	Response Status C	;	
increa test ve	use of system unbalan erification model in Ta	ce at long cable which v ble 145-17.	violates Icon-2P_	unb when tested with	Adopt	yseboo	odt_02_091	7_Figure_145_22.pdf		
(d) the (e) Th	ere is no practical ben le above is not relevar	efit to increase Rpse_m t to active current balar	iin to any value. ncing.		This re	esolutio	n is identica	al to comment #110.		
See c		arsnan_02_0917.pdf.			C/ 145	SC	145.2.8.5.1	P 160	L 39	# i-428
Suggeste	dRemedy				Darshan, `	/air				
(See o Chano	calculation results in c	arshan_02_0917.pdf.) s the lower PSF commo	on mode effective	e resistance in the	Comment	Туре	т	Comment Status	<i>۱</i>	Pres: Yseboodt2
power same To: "F	red pairs of the polarity." RPSE_min is the lowe	PSE common mode ef	ffective resistanc	e in the powered pairs	This c In the mode	ommen text "IC pair res	t will be OE Con-2P-unb sistance RC	E by comment marke and Equation (145-1 han-2P" the word "tot	ed LOWER02 if L 5) are specified for all is not required	_OWER02 will be accepted. or total channel common d. Remove it.
of the	same polarity. The va	alue of Rpse_min shall b	be limited to:		Suggested	Remea	ły			
b) 0.5 The v	ohm for class 7 and 8 alue of Rpse_min is n	3. ot limited when active c	urrent balancing	is used.	Chang mode	e from pair res	"ICon-2P-u sistance RC	nb and Equation (145 han-2P" the word "tot	-15) are specified al" is not required	d for total channel common d."
Response	Re Re	esponse Status <b>C</b>			resista	ance RC	und and Eo Chan-2P" th	e word "total" is not re	pecified for chani equired."	nei common mode pair
ACCE	PT IN PRINCIPLE.				Response			Response Status	;	
Add a "Equa Class Add a "Equa	fter line 27 in page 15 tion 145-15 is only ap 6, and 0.5 ohm for Cl fter line 53 in page 19 tion 145-26 is only ap	9: plicable for R_pse_min ass 7 and Class 8. 5: plicable for R_pd_min u	up to a value of <sup>·</sup> up to a value of 1	1 ohm for Class 5 and ohm."	ACCE	PT.				

C/ 145	SC 1	145.2.8.5.1	P 161	L <b>20</b>	# i-429	C/ 145	SC	145.2.8.5.2	P 1	61	L <b>26</b>	# i-431
Darshan, Y	'air					Darshan, Y	/air					
Comment	Туре	Е	Comment Status A		Pres: Yseboodt2	Comment	Туре	Е	Comment Status	Α		Pres: Yseboodt2
The titl resista	e of figunce unt	ure 145-22 palance and	is good but not sufficiently d not just system resistant	accurate. It is systemed accurate. It is systemed accurate. This is	em effective s in sync with the	In the PI"	text "W	/ith the PSE	powered on, adjus	st the load to	PClass_PD.",	missing "at the PD
title of unbala	the clau nce" an	use "145.2. Ind the text	8.5.1 PSE PI pair-to-pair e all over clause 145.2.8.5.1	effective resistance a	and current occurrences).	Suggested	Reme	dy				
Suggested	Remed	V			,	Chang	je to: "\	With the PS	E powered on, adju	ust the PSE lo	oad to PClass	_PD at the PD PI."
Chang	e from	, Figure 145-	22PSE PI unbalance sp	ecification and syste	m resistance	Response			Response Status	С		
unbala	nce"		Di unhalance anacificatio	a and avetam offecti	va radiatanaa	ACCE	PT IN I	PRINCIPLE				
unbala	gure 14 nce"	5-22PSE	Pi unbalance specificatio	n and system effection	ve resistance	Adopt	yseboo	odt_02_0917	7_Figure_145_22.p	odf		
Response			Response Status C			This re	solutio	on is identica	al to comment #11(	h		
ACCE	PT IN P	RINCIPLE					Solutio			J.		
Adopt	yseboo	dt_02_0917	7_Figure_145_22.pdf			C/ <b>145</b> Darshan, ነ	SC ⁄air	145.2.8.5.2	P 1	61	L <b>30</b>	# i-432
This re	solutior	n is identica	al to comment #110.			Comment	Туре	Е	Comment Status	Α		Unbalance
C/ <b>145</b> Darshan, Y	SC 1 ′air	145.2.8.5.1	P 161	L <b>24</b>	# i-430	In the 16) an compo	text "R d Equa onents.	epeat steps ation (145-17 "	b) through e) for R 7) for high channel	load_min and resistance co	d Rload_max f onditions.", it is	from Equation (145- s the Rload_min/max
Comment	Туре	Е	Comment Status A		Editorial	Suggested	Reme	dy				
In the t resista	text "a) nce cor	Use Rload nditions.", it	I_min and Rload_max fro is the Rload_min/max co	m Table 145-17 for lemponents.	ow channel	Chang Equati	e to: "I on (14	Repeat step 5-16) and E	s b) through e) for quation (145-17) fo	Rload_min ar	nd Rload_max el resistance c	components from conditions."
Suggested	Remed	У				Response			Response Status	С		
Chang channe	e to "a) el resist	Use Rload ance condi	_min and Rload_max con tions."	ponents from Table	145-17 for low	ACCE	PT.					
Response			Response Status C			C/ 145	SC	145.2.8.5.3	P 1	62	L 10	# i-433
ACCE	PT.					Darshan, Y	/air					
						Comment	Туре	т	Comment Status	Α		Pres: Darshan10
						The sh consta sink	nape of ant pow	f the load ne /er sink. All (	ed to be circle and our spec is based o	not rectangu	Ilar since it is at the PD load	is constant power
						Suggested	Reme	dy				
						Adopt	the cha	anges propo	sed in darshan_10	0_0917.pdf m	arked in BLUE	
						Response ACCE	PT IN I	PRINCIPLE	Response Status	С		
						Adopt	yseboo	odt_02_091	7_Figure_145_22.p	odf		
						This re	esolutio	on is identica	al to comment #110	).		
TYPE: TR/	technic	al required	ER/editorial required GR	/general required T	/technical E/editorial G/g	jeneral				Comment IL	D i-433	Page 111 of 132

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

9/15/2017 11:41:29 AM

C/ 145	SC 145.2.8.5.2	P 161	L 18	# i-434	C/ 145	SC 145.3.5	P 183	L <b>24</b>	# i-436
Darshan, Y	/air				Darshan, Y	'air			
Comment In the resista This te a) It is b) It is the bo and th c) The P.158	Type E bottom of Figure 14 ince". ext need to be accur End-to-end pair to the boundaries of v undaries of the PSE e same for the PD a term End to End e L48 and many othe	Comment Status <b>D</b> 5-22, there is an arrow wi bair effective resistance a there the system unbalan PI to the PSE power sup and the link segment. Iffective resistance unbalar places in the spec.	th a text "End-to ng: nd not just resis ice is defined. Th oply elements the ance is describe	Pres: Yseboodt2 -end pair-to-pair tance. his helps to understand at affect the unbalance in 145.2.8.5.1 e.g.	Comment In the Table when in detect that M require apply the The pa	Type <b>T</b> text "A single-si 145-20, on a give no voltage or cu ion signature on ode when any v ements to both Mode A art "and shall pro-	Comment Status <b>R</b> gnature PD shall present a val ven Mode rrent is applied to the other Mo oltage between 10.1 V and 57 and Mode B."	id detection sig ode, and shall p V is applied to ature on that M	Pres: Yseboodt8 inature, as defined in present an invalid the other Mode. These
Suggested Chang To: "E Proposed	IRemedy Je from "End-to-end nd-to-end pair-to-pa Response	pair-to-pair resistance" ir effective resistance unt Response Status Z	palance boundar	ies"	Mode Mode any vo V from signate	A and Mode B." A and Mode B." Itage X in the r the voltage appure in the pair th	doesn't guarantee (especially ange of 2.7V to 57V that is app blied to the 2nd pair that is bein at is being detected.	te. These requi "between 10.1 blied to the 1st ng detected, wi	V and 57 V") that for pair and is higher by 1 ll be result with invalid
REJE	CT.				Suggested	IRemedy			
This control of the second sec	SC 45.2.8 Cair Type T 145-16, item 8, Tinr h. It means that effe needs to cover long s if it sufficient for the isider if Tpon need ig class events to ke	Comment Status D ush: It is clear from the s ctive Tpon is (400-50) m 1st class events, + 4 cla eir designs and applicatio o be increased by ~50ms eep our margins as in 802	L 33 L 33 Latate machine that sec=350ms or (4 ss events + desi ons in both singlese to compensat 2.3af/at. It doesn	# <u>i-435</u> <i>Repeats</i> at Tpon includes 400-75) ms=325mse gn margin. group to e and dual-signatures. e for the increase in the 't affect reliability etc.	Chang in Tab when i detect that M require apply f To: "A 145-20 preser V is ap the oth	le from: "A singl le 145-20, on a no voltage or cu ion signature or ode when any v ements to both Mode A single-signature o, on a given Mo at an invalid dete oplied to the oth her mode. These	e-signature PD shall present a given Mode rrent is applied to the other Mo oltage between 10.1 V and 57 and Mode B." e PD shall present a valid dete bede when no voltage or current ection signature on that Mode er Mode when Vx is greater by e requirements apply to both M	valid detection ode, and shall p V is applied to ction signature is applied to th when any volta at least 1V fro lode A and Mo	n signature, as defined present an invalid the other Mode. These , as defined in Table ne other Mode, and shall ge between Vx and 57 m the voltage applied to de B."
experie Suggested	ments and the actual internet in the sector	al spec numbers.	nsec value from	the 802.3ar	Response REJE0	CT.	Response Status U		
Increa	se Tpon from 400m	sec to 450msec or to what	at ever the group	decide.	There	was no consens	sus for change.		
Proposed REJE	Response I CT.	Response Status Z							
This c	omment was WITH	DRAWN by the comment	er.						
This c	omment was withdra	awn before the comment	resolution meeti	ng.					

Cl 145 Darshan	SC <b>145.3.9</b> , Yair	P 189	L <b>42</b>	# i-437	C/ <b>145</b> Darshan, Y	SC <b>145.3.8.4</b> /air	P 193	L 31	# i-439
Commer This (1.05	<i>nt Type</i> <b>T</b> comment marked 5*71.3=74.865==>	Comment Status A CLASS8_PPD. Table 145-28 74.9W.	item 12, Ppeak	<i>PD Power</i> c_PD: It should be 74.9	Comment In the powers	<i>Type</i> <b>T</b> text "The equation s of Class 1 throug	Comment Status <b>A</b> is in Table 145-28 are used t gh Class 8." . The equations	o approximat <sup>,</sup> are not in Tał	<i>PD Power</i> e the ratiometric peak ble 145-28 and are
Suggest	edRemedy				missin	g for this clause.			
Opti Cha Opti Keej	on 1 (Recommend nge from 74.8W to on 2: p it 74.8W	ed): 74.9W			Suggested 1. Cha peak p To: "E	IRemedy inge from "The eq powers of Class 1 quations 145-X an	uations in Table 145-28 are u through Class 8." Ind Equation 145-Y are used t	used to appro o approximat	ximate the ratiometric e the ratiometric peak
Respons ACC	SE SEPT IN PRINCIPL	Response Status <b>C</b> E.			powers 2. Add PPeak PPeak	the following text PD = 1.05 * PDA PD-2P = 1.05 * I	gn Class 8." and equations at the end of 1 MaxPowerValue (145-X) PDMaxPowerValue mode(X)	this paragrap	h:
Cha Also	nge from 74.8W to change Pclass_Pl	74.9W D-2p class 1 value to 3.84.			Where PDMa: PDMa:	xPowerValue as o xPowerValue_mo	defined in Table 145-22 de(X) as defined in Table 145	5-22	
C/ 145	SC 145.3.8.3	P 192	L <b>29</b>	# i-438	Response		Response Status C		
Darshan	, Yair				ACCE	PT IN PRINCIPLE			
Commer In th PCla that	nt Type <b>E</b> te text "Dual-signat ass_PD-2P and PP pairset.", It is Table	Comment Status A ure PDs assigned to Class 1, eak_PD-2P within TInrush_P e 145-28 and not Table 145-1	2, or 3 shall co D max as defin 6.	<i>Editorial</i> nform to ed in Table 145-16 on	1. Cha peak p To: "Eo powers	nge from "The eq powers of Class 1 quation 145-X and s of Class 1 throug	uations in Table 145-28 are u through Class 8." I Equation 145-Y are used to gh Class 8."	used to appro approximate	ximate the ratiometric the ratiometric peak
Suggest Cha	edRemedy nge to "Table 145-2	28".			2. Add Ppeak	the following text _PD = {	and equations at the end of	this paragrap	h:
Respons ACC	Se SEPT.	Response Status C			1.29 * 1.11 * 1.05 * } (145- Where PDMa	PDMaxPowerValu PDMaxPowerValu PDMaxPowerValu X) xPowerValue is de	ue (Class 1, 2) ue (Class 3, 4) ue (Class 5-8) efined in Table 145-22		
					Ppeak 1.29 * 1.11 * 1.05 * } (145 Where PDMa	_PD-2P = { PDMaxPowerValu PDMaxPowerValu PDMaxPowerValu -Y) xPowerValue_mod	ue_mode(X) (Class 1, 2) ue_mode(X) (Class 3, 4) ue_mode(X) (Class 5) de(X) is defined in Table 145	-22	
					3: also	, change Ppeak_F	PD class 4 (item 12) from 14	W to 14.4W	

<i>Cl</i> <b>145</b> Darshan, Y	SC <b>145.3.8.4</b> air	P 193	L <b>34</b>	# [i-440	<i>Cl</i> <b>145</b> Darshan, Y	SC <b>145.5.3</b> air	6.3	P <b>226</b>	L <b>2</b>	# i-441	
Comment 7 In the to Data Li PDMax Missing	<i>Type</i> <b>T</b> ext "These equat nk Layer classific PowerValue and g "or PDMaxPowe	Comment Status <b>A</b> ions may be used to calcula cation by substituting PClass for Autoclass by substituting erValue_mode(X)"	te PPeak_PD c s_PD or PClass g PClass_PD w	<i>PD Power</i> or PPeak_PD-2P for _PD-2P with ith PAutoclass_PD."	Comment 7 This co In the L change and ps	<i>Type</i> <b>T</b> mment is mar LDP adhoc we is made in the is_allocated_p	Comment S ked LLDP?_ADF made some ch concept of how ower_alt(X) field	Status <b>A</b> HOC_1. hanges to the P to fill in the TL\ ds.	'SE DLL state r V values of the	Pres: Yseboodt4 machine to reflect the pse_allocated_power	
Suggestedl Change	R <i>emedy</i> e from: "These e	quations may be used to ca	lculate Ppeak_l	PD or Ppeak_PD-2P for	Suggestedi Adopt y	Remedy /seboodt_04_0	)917_LLDP.pdf				
Data Li PDMax To: "Th Layer c DMaxP Pautoc	nk Layer classific PowerValue and lese equations m lassification by s owerValue_mode lass_PD."	ation by substituting Pclass for Autoclass by substituting ay be used to calculate Ppe ubstituting Pclass_PD or Pc e(X) and for Autoclass by su	_PD or Pclass_ g Pclass_PD wi ak_PD or Ppea lass_PD-2P wit ibstituting Pclas	PD-2P with th Pautoclass_PD." k_PD-2P for Data Link h PDMaxPowerValue or is_PD with	Response     Response Status     C       ACCEPT IN PRINCIPLE.     ACCEPT IN PRINCIPLE.       Adopt yseboodt_04_0917_LLDP.pdf (v153)						
Response ACCEF	PT IN PRINCIPLE	Response Status <b>C</b> E.			This re	solution is ider	ntical to commer	nt #38.			
Change Data Li PDMax	e from: "These e nk Layer classific PowerValue and	quations may be used to ca cation by substituting PClass for Autoclass by substituting	lculate PPeak_ s_PD or PClass g PClass_PD w	PD or PPeak_PD-2P for _PD-2P with ith PAutoclass_PD."							
To: "Th Layer c or DMa PAutoc	ese equations m classification by s xPowerValue_me class_PD."	ay be used to calculate PPe ubstituting PClass_PD or Po ode(X) and for Autoclass by	eak_PD or PPea Class_PD-2P w substituting PC	ak_PD-2P for Data Link ith PDMaxPowerValue Class_PD with							

Cl 145 Darshan,	SC Yair	145.5.3.6.	3	P <b>226</b>	L <b>5</b>		# i-442		C/ <b>145</b> Darshan, Y	SC ′air	145.5.3.7.4	l	P 229	9	L <b>2</b>	;	# i-443
Comment This of This of recom pse_c Suggeste 1. Chh To: ( 2. In j "pse_ An im Link I (30.1: Value FALS TRUE 3. De 4) De 5) De 6) In " "aLldj 7) In	t Type comme comme nmenda ative a dll_read dll_read ange fr !pse_d page 2: dll_read page 2: calleread ange fr !pse_d page 2: calleread auge read 2.2.1.2 s: E: Data E: Data E: Data E: Data Dete ad lete 30 dete 30 dete 30 Table dl pXdot3 Table dll_read	T nt is marke nt and prop ations regat s currently if y, see the f dy om: " (!pse all_enable_a 24 line 41 to dy ntation-sped lassification 0). a Link Layer ldpXdot3Lo .12.2.1.18b 45-50 page LocReady" 145-50 page dy_alt(X=B	Comm d LLDP?_ osed rem is or need proposed [dll_enab It(X) + !p: o change cific contr i. This val r classific cReadyA aLldpXd aLldpXd 222 in t and from e 222 in 1 )".	ent Status <b>A</b> _ADHOC_2. nedy depend on question if pse_d to be pse_dll_r remedy. ble_alt(X) + !pse se_dll_ready * (s the pse_dll_ready * (s the pse_dll_ready * (s the pse_dll_ready * (s the pse_dll_ready * (s) col variable that in riable maps into ation has not co tion has comple and aLldpXdot3 ot3LocReadyB (s) the PSE section: "pse_dll_ready_ he PSE section:	the outcome of dll_ready_alt(X) eady. In case the _dll_ready_alt() ig_type = dual) dy_alt(X) variable indicates that the the aLldpXdot3 mpleted initialization LocReadyB fro content. Change from " _alt(X=A)" to "pp Delete "aLldp>	the LLDF ) need to hat it is gr (X)) * (sig_ ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ( ) ) ) ) ) ) ) ) ( ) ) ) ) ( ) ) ) ( ) ) ) ( ) ) ) ( ) ) ) ( ) ) ( ) ) ) ) ( ) ) ( ) ) ) ( ) ) ) ) ( ) ) ) ( ) ) ) ) ( ) ) ) ) ( ) ) ) ) ( ) ) ) ) ( ) ) ) ) ( ) ) ) ) ( ) ) ) ( ) ) ) ) ( ) ) ( ) ) ) ) ( ) ) ) ) ( ) ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ) ( ) ) ( ) ) ) ) ( ) ) ) ) ( ) ) ) ( ) ) ) ( ) ) ) ) ( ) ) ) ) ( ) ) ) ) ( ) ) ) ( ) ) ) ) ( ) ) ) ) ( ) ) ) ) ( ) ) ) ) ( ) ) ) ) ( ) ) ) ) ) ( ) ) ) ) () ) ) ) ) ( ) ) ) ) ) ( ) ) ) ) ) ( ) ) ) ) ) ( ) ) ) ) ) ) ( ) ) ) ) ( ) ) ) ) ) ( ) ) ) ) ) ( ) ) ) ) ) ) () ) ) ) ) () ) ) ) ) ) ) ) () ) ) ) ) ) ) () ) ) ) ) ) () ) ) ) ) ) () ) ) ) ) ) ) ) ) ) ) () ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) )	Pres: Yseb P adhoc be specified p bing to be (type = dual)" on to: as initialized E ly attribute 30-7. bt3LocReady/ ady)" . ReadyB" and	ooodt4 oer Data A" to	Comment This cc In the chang and pc Suggested Adopt Response ACCE ACCE Adopt This re	Type ommen LDP a es mad Lreque Remec yseboc PT IN F PT IN F yseboc	T adhoc we m le in the co ested_powe dy odt_04_091 PRINCIPLE PRINCIPLE odt_04_091 on is identic	Comment : d LLDP?_AD nade some cl ncept of how er_mode(X) f 7_LLDP.pdf <i>Response</i> S 7_LLDP.pdf al to comment	Status HOC_3. hanges t to fill in fields. Status ( (v153) ht #38.	A o the PD the TLV ∿	DLL state values of th	machine to	Pres: Yseboodt4 o reflect the ested_power
Response ACCE ACCE Adop	e EPT IN EPT IN t ysebc	PRINCIPLI PRINCIPLI odt_04_09 <sup>-</sup>	Respon =. =. 17_LLDP	nse Status <b>C</b> .pdf (v153)													

This resolution is identical to comment #38.

C/ <b>145</b> SC <b>145.5.3.7.4</b> Darshan, Yair	P 229	L5 # <u>i-444</u>		C/ <b>145A</b> Darshan, Y	SC <b>145A.3</b> air		P <b>262</b>	L <b>21</b>	# i-445
Comment Type <b>T</b> Comm This comment is marked LLDP In the condition (!pd_dll_enable pd_dll_ready_mode(X) need to INITIALIZE state in case PD wa	nent Status <b>A</b> ?_ADHOC_4. _mode(X) + !pd_dll_ready be pd_dll_ready In order t int power on the unpowere	Pres: Y mode(X)) to the IDLE st o allow progressing to the ed pairset.	seboodt4 ate the	Comment 7 In the to need to effectiv resistar	ype E ext "The end to use "effective e value which nce unbalance	Comment Stat o end pair-to-pair ef for the current unb is incorrect for resis	tus <b>A</b> fective curr palance due stance unba	rent unbalance is to the fact that alance in which y	Annex s equal" there is no "current" is always we use "effective
SuggestedRemedy				Suggestedl	Remedy				
1. Change from: "(!pd_dll_enab To: (!pd_dll_enable_mode(X) + 2. In page 228 line 28 to change	le_mode(X) + !pd_dll_read !pd_dll_ready) e the pd_dll_ready_mode(	dy_mode(X))" X) variable definition to:		Change equal To "The	e from "The en " e end to end pa	d to end pair-to-pai air-to-pair current u	r effective on nbalance is	current unbalanc s equal"	e is
"pd_dll_ready An implementation-specific con Link Layer classification. This v (30.12.2.1.20)	trol variable that indicates ariable maps into the aLld	that the PD has initialized pXdot3LocReady attribute	Data	Response ACCEF	PT IN PRINCIF	Response Stat	us C		
Values: FALSE: Data Link Layer classifi TRUE: Data Link Layer classific 3) In Table 145-40 page 222, P "aLldpXdot3LocReady" and fror 4 In Table 145-40 page 222, P	cation has not completed ation has completed initia D section: Change from " n "pd_dll_ready_mode(X= D section delete the row"	initialization. lization." aLldpXdot3LocReadyA" to A)" to "pd_dll_ready)". al.ldpXdot31.ocReadyB"	)	Change equal To "The Also, e	e from "The en " e end to end pa ditor to unify u	d to end pair-to-pai air-to-pair current u se of "end to end" a	r effective on nbalance is and "end-to-	current unbalanc equal" -end" throughou	t the draft.
"pd_dll_ready_mode(X=B)"				C/ 145A	SC 145A.3		P 262	L <b>44</b>	# i-446
Response Respo	nse Status <b>C</b>			Darshan, Y	air				
ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE.				Comment 7 In the t	<i>ype</i> <b>T</b> ext "If pair-to-p	Comment Stat	tus A ely controlle	ed in a manner t	Annex hat changes effective
Adopt yseboodt_04_0917_LLD	P.pdf (v153)			in 145.2 not othe	2.8.5.1 is suita 2.8.5.1 is suita	balance, then the oble." the use of "su is use case but to u	current unba itable" is no se the metl	alance measure ot sufficiently stro hod in 145.2.8.5	ment method described ong to say that there is .1. (by the way, the use
This resolution is identical to co	mment #38.			of "sho	uld" is allowed	and is being used	more than 3	33 occurrences i	in 802.3bt)
				Suggested/ Change effectiv describ To: "If p resistar in 145. Response	Remedy e from: "If pair- e resistance to ed in 145.2.8.9 pair-to-pair balance to achieve 2.8.5.1 should	to-pair balance is a o achieve balance, to 5.1 is suitable." ance is actively con balance, then the o be used." <i>Response Stat</i>	actively cont then the cu ntrolled in a current unba	trolled in a manr rrent unbalance manner that cha alance measure	ner that changes measurement method anges effective ment method described
				ACCEF	PT.		-		

C/ <b>145A3</b> Darshan, Yai	SC <b>14</b> r	5A3.1	Р	262	L <b>51</b>	# i-447	C/ <b>145A3</b> So Darshan, Yair	C 145A3.2	Р	262	L <b>52</b>	# i-448
Comment Ty	pe	E	Comment Statu	s A		Pres: Darshan7	Comment Type	т	Comment Status	5 <b>A</b>		Pres: Darshan7
In the tex through t	t: "The he patl	effective	e resistance is the effective value o	measured f RPSE_mi	voltage Veff, div n for i1 is RPSE	ided by the current _min=Veff1 / i1 as	The verifica	tion proced from 145A.	lure of the measurer 3	nents of	Rpse_min and R	pse_max
shown in	Figure	145A-2.	". The effective re	esistance of	what?		SuggestedRem	edy				
SuggestedRe	emedy						Add the foll	owing text a	after line 54 in page	262:	· • • • • • • • • • • • • • • • • • • •	an 'n de nee'h ned hetere
The effo divided b RPSE_m	the me ective r by the c hin=Vef	ntioned te resistance urrent thr ff1 / i1 as	ext to (^^): e **Rpse_min or I rough the path e.g shown in Figure	RPSE_max g. the effect 145A-2.	** is the measur ive value of RPS	ed voltage Veff, SE_min for i1 is	*Rpse_min 1) With the through the PD PI, mea	and RPSE PSE power elements s sure the cu	_max effective resist red on and connecte shown in Figure 145. Irrents i1, i2, i3 and i	tance ver ed to a co A-2, whic 4 and the	inication procedu Instant power sin h is set to Pclass voltages Veff1,	k in the PD section s_PD measured at the Veff2, Veff3 and Veff4.
Response ACCEPT	-		Response Status	s C			2) Calculate calculating For the poss R1=RPSE_ For the neg R3=RPSE_ R4=RPSE_ 3) Verify tha Equation 14 4) Repeat s RCh_unb_r	the RPSE the followin itive pairs: min=Veff1/ max=Veff2 ative pairs: min=Veff3/ max=Veff4 at on each p I5-15. teps 1 to 3 nax, RPD_	_min and RPSE_ma g: /i1 /i2 /i4 pair of the same pola with the RCh_unb_n max. "	ax values arity, RPS min, RPD	of each pair of t SE_min and RPS 0_min swapped le	ne same polarity by E_max meets ocation with
							Response		Response Status	С		
							ACCEPT IN		_E.			
							Add the foll "Rpse_min 1) With the shown in Fi currents i1, 2) Calculate calculating For the pos R1=RPSE_ R2=RPSE_ For the neg R3=RPSE_ 3) Verify tha polarity. 4) Repeat s and RPD_n	owing text a and RPSE PSE power i2, i3 and i4 b the RPSE the followin itive pairs: min=Veff1/ max=Veff2 ative pairs: min=Veff3/ max=Veff4 at RPSE_m teps 1 to 3 nax. "	after line 54 in page _max effective resis red on and connecte 1, which is set to Pc 4 and the voltages V _min and RPSE_ma g: i1 /i2 i3 /i4 in and RPSE_max n with RCh_unb_min	262: tance ver ed to a co lass_PD 'eff1, Vefi ax values meets Eq and RPD	ification procedu nstant power sin measured at the f2, Veff3 and Vef of each pair of t quation 145-15 or 0_min exchanged	re is described below: k through the elements PD PI, measure the f4. he same polarity by n each pair of the same
							Delete Figu 110.	re 145A-2 a	and replace reference	es with n	ewly introduced	figure from comment
TYPE: TR/te	chnical	required	ER/editorial requ	uired GR/g	eneral required	T/technical E/editorial G/g	eneral		-/	Comm	ent ID i-448	Page 117 of 132

9/15/2017 11:41:30 AM

C/ 145A3 SC	145A3.2	P 263	L <b>5</b>	# i-449	C/ 145B	SC	145B	P 267	L <b>7</b>	# i-451
Darshan, Yair					Darshan, Ya	air				
Comment Type	T Comment St	atus A		Pres: Darshan7	Comment T	ype	т	Comment Status D		Pres: Darshan11
Figure 145A- a) It needs to its componen B) To describ C) Adding th d) defining fro e) Clear defin f) To correct	2 needs some improvement be in sync with Figure 14 hts in order to allow setting be the PSE load in a clear be borders of the link section of what Rpse_min and R hition of the measurement the left border of the End	ents and correcti 5-22 regarding to 9 Pclass_PD at to way. on pse_max consis s point of Veff_i to End pair to p	ions: the separation of the PD PI. st of? air resistance arr	Rload_min/max to	Figure 7 that the DETEC limited j alternat possibil SuggestedF	I 45B-0 secor TION ust to ive. W ities. Remed	6 for the st nd alternat starts only this use c /e need sh	aggered option for the dua ive rafter the Power up of the ase. The detection can sta ow it by additional drawing	l signature for C primary alternat rts also after the (145-6A), or dr	C_DET_SEQ=1, shows ive which is OK but not e detection of the primary awing that shows all
SuggestedRemed	dy				Adopt d	arsna	n_11_091	7.pat		
Replace Figu	ire 145A-2 with the new p	roposal in darsh	nan_07_0917.pdf		Proposea R	espor T	nse	Response Status Z		
Response	Response Sta	atus C			REJEC	1.				
ACCEPT IN F	PRINCIPLE.				This co	mmen	nt was WIT	HDRAWN by the commen	ter.	
Adopt yseboo	odt_02_0917_Figure_145	_22.pdf			C/ 145B	SC	145B.1.2	P <b>267</b>	L 11	# i-452
This resolutio	on is identical to comment	#110			Darshan, Ya	air				
					Comment T	ype	т	Comment Status D		Pres: Darshan11
C/ 145B SC	145B.1.1	P <b>266</b>	L7	# i-450	The title	of Fig	gure 145B	-6 is "Figure 145B-6PSE	implementing C	C_DET_SEQ=1,
Comment Type Figure 145B- detection nor This drawing	T Comment St 3, CC_DET_SEQ=0 for di staggered power on. should be deleted since it	atus <b>A</b> ual-signature is i t doesn't fit to th	parallel detection	Annex and not staggered	stagger of CC_I Connec signatur	ed por DET_S tion cl re PD,	wer on" wh SEQ=1 for heck and c , is not the	ich is correct per the draw dual-signature in page 109 letection sequences while e main issue to emphasis.	ing description l 9 line 43, CC_D if it is staggered	however per the definition ET_SEQ is about I power on or not in dual-
dual-signatur	e in page 109 line 41.				SuggestedF	Remed	dy He of Figur	a 14Eh 6 fram.		
SuggestedRemed	dy				"Figure	145B	B-6PSE ir	nplementing CC_DET_SE	Q=1, do_cxn_cł	nk result is dual,
Options: 1. Delete Figu signature.	ure 145-3 since it doesn't	fit the definitions	s in Page 109 line	e 41 for dual-	stagger To:"Fi stagger	ed por igure ed dei	wer on" 145B-6P tection and	SE implementing CC_DET I staggered power on"	_SEQ=1, do_c>	m_chk result is dual,
2. Update the	e definition for CC_DET_S	EQ=0 for dual-	signature to para	allel and staggered	Proposed R	espor	nse	Response Status Z		
Response	Response St	atus <b>C</b>			REJEC	т.				
ACCEPT IN F	PRINCIPLE.				This co	mmen	nt was WIT	HDRAWN by the commen	ter.	
Change "Con and parallel d To: Connectio parallel or sta This resolutio	nection Check is followed detection for a dual-signation on Check is followed by st aggered detection for a du on is identical to comment	l by staggered d ure PD." taggered detecti al-signature PD. #253.	letection for a sin ion for a single-si ."	gle-signature PD gnature PD and						

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

C/ 145B SC 145B.1.3 P 268 L 13 # i-453 Darshan, Yair	C/ 145B SC 145B.1.4 P 268 L 268 # [i-455 Darshan, Yair
Comment Type       T       Comment Status       D       Annex         The title of Figure 145B-9 is "Figure 145B-9PSE implementing CC_DET_SEQ=2, do_cxn_chk result is dual, staggered power on" which is correct per the drawing description however per the definition of CC_DET_SEQ=2 for dual-signature in page 109 line46, CC_DET_SEQ is about Connection check and detection sequences while if it is staggered power on or not in dual-signature PD, is not the main issue to emphasis.       SuggestedRemedy         Change the title of Figure 145B-9 from :       "Figure 145B-9PSE implementing CC_DET_SEQ=2, do_cxn_chk result is dual, staggered power on"       To : "Figure 145B-9PSE implementing CC_DET_SEQ=2, do_cxn_chk result is dual, staggered detection and staggered power on"	Comment Type       T       Comment Status       D       Pres: Darshan8         CC_DET_SEQ=3 means: Connection check is followed by staggered detection. Figure 145B-11 for dual-signature PD shows that CC_DEC_SEQ=3 is only possible when the Detection of the 2nd pairset starts after Tpon +Tx of 1st pairset which is possible but not the only possibility per CC_DET_SEQ=3 definition.       We need clearly to show that first we see CC, and then staggered detection, and then the classification and power_on can be staggered or not. We need to add Figure 145B-11A to show this possibility that shows all possibilities.         SuggestedRemedy       Adopt darshan_08_0917.pdf         Proposed Response       Response Status       Z         REJECT.       Response Status       Z
REJECT. This comment was WITHDRAWN by the commenter.	This comment was WITHDRAWN by the commenter.         C/       145       SC       145.2.5.7       P 128       L 8       # [i-456]         Darshan, Yair       Darshan, Yair       Darshan, Yair       Darshan, Yair       Darshan, Yair
Cl 145B       SC 145B.1.4       P 268       L 46       # i-454         Darshan, Yair       Comment Type T       Comment Status D       Pres: Darshan8         The title of Figure 145B-11 is "Figure 145B-11PSE implementing CC_DET_SEQ=3, do_cxn_chk result is dual", missing the remain fact that it is staggered detection per the definition of CC_DET_SEQ=3 for dual-signature in page 109 line 48.         SuggestedRemedy       Change the title of Figure 145B-9 from :       "Figure 145B-11PSE implementing CC_DET_SEQ=3, do_cxn_chk result is dual"         To : "Figure 145B-11PSE implementing CC_DET_SEQ=3, do_cxn_chk result is dual, staggered detection and staggered power on"       Proposed Response         Proposed Response       Response Status Z       REJECT.         This comment was WITHDRAWN by the commenter.       This comment was WITHDRAWN by the commenter.	Comment Type       T       Comment Status       D       PSE SD         To add optional exit from CLASS_PROBE state to IDLE. This will add flexibility to PSE by allowing many class cycles performed prior to powering on a PD.       PSE smay DET-CLASS, Then provide PD Requested Class information to host, Host then implements POWER_ON command at its leisure After repeating DET-CLASS as necessary         SuggestedRemedy       1. Add exit from CLASS_PROBE to IDLE with the condition "option_probe2idle*do_class_probe_done".       2. Change the exit from CLASS_PROBE to CLASS_RESET from: "do_class_probe_done" To: "loption_probe2idle*do_class_probe_done".         3. Add the following new variable to the variable list in 145.2.5.4: "option_probe2idle       "not pot DLE_PRI after executing do_class_probe.         TRUE: The PSE will not go to IDLE_PRI after executing do_class_probe.       TRUE: The PSE will go to IDLE_PRI after executing do_class_probe.         Proposed Response       Response Status       Z         REJECT.       This comment was WITHDRAWN by the commenter.         This comment was withdrawn before the comment resolution meeting.

C/ 145 SC 145.2.5.4 P 111 L 36 Darshan, Yair	# i-457	C/ <b>145</b> S Darshan, Yair	SC 145.2.5.7	P 128	L <b>46</b>	# i-458
Comment Type E Comment Status A In the variable description dll_4PID "dll_4PID A variable that indicates and PD have negotiated 2-pair or 4-pair power." it doesn't say with what they were negotiate etc.	Pres: Yseboodt4 s whether the PSE	Comment Typ In the exit *(pd_class missing pa	from CLASS s_sig ? 4) *((p arenthesis in	Comment Status A _EV3 MARK_EV3 "tcle3_tim se_avail_pwr ? pd_class_sig pd_class_sig+5.	ier_done * (pse g+5) +(pse_ava	PSE SD _alternative = both) il_pwr > 5))",
SuggestedRemedy Change from "dll_4PID A variable that indicates whether the PSE and PD have negotiated 2-p To: "dll_4PID A variable that indicates whether the PSE and PD have negotiated 2-p capability via the Data Link Layer."	pair or 4-pair power." pair or 4-pair power	SuggestedRei Change fr *((pse_av To: "tcle3 (pd_class Response	medy om: " "tcle3_t ail_pwr ? pd_ s_timer_done _sig+5)) +(ps	imer_done * (pse_alternative class_sig+5) +(pse_avail_pw * (pse_alternative = both) *(p e_avail_pwr > 5))" Response Status <b>C</b>	e = both) *(pd_c /r > 5))"" od_class_sig ? /	class_sig?4) 4) *((pse_avail_pwr?
Response Response Status C ACCEPT IN PRINCIPLE.		ACCEPT ACCEPT	IN PRINCIPL IN PRINCIPL	E. E.		
Change to "dll_4PID: A variable indicating the state of the PD 4PID bit type/source/priority field, as defined in Table 79-4."	t in the Power	Replace a Change lo CLASS_E tcle3_time ((pd_class CLASS_E tcle3_time	ddition ("+") i pgic as follows V3 -> MARK pr_done * (psi s_sig = 0) + (p V3 -> MARK pr_done * ((psi page sig = 0)	n MARK_EV3 and MARK_E s: _EV3 e_alternative = both) * (pd_cl sse_avail_pwr > 5)) _EV_LAST ie_alternative != both) + (pd_	V_LAST with a lass_sig != 4) * _class_sig = 4) -	sum() function. (pse_avail_pwr > 4) * + (pse_avail_pwr <= 4)

This resolution is identical to comment #459.

C/ <b>145</b> Darshan	SC Yair	145.2.5.7	I	<sup>D</sup> 128	L <b>46</b>	# i-459	<i>Cl</i> <b>79</b> Darshan.	SC <b>79.3.</b> Yair	2.6f	P 82	L <b>21</b>	# i-460
Comment In the *(pd_ the inten defin Suggeste 1. ac sum 2. CH 3. F	t Type e exit fro _class_s ++" in pd t here is ition or a edRemed Id '++' s mation. nange fro ix the sa	T m CLASS ig ? 4) *((p _class_sig to used as add anothe dy ymbol to ta pm "pd_cla me probler	Comment Stat _EV3 MARK_EV3 se_avail_pwr ? p +5 is (according t s mathematical su r symbol for math able in page 109 a uss_sig+5)" to "po n in P128, 146 in	us <b>A</b> 3 "tcle3_tim d_class_sig o page 109 um. There is nematical so and define t d_class_sig MARK EV:	er_done * (pse_ +5) +(pse_avail line 22) "a Boo s a need to eithe ummation. his symbol as m ++5)" 3 state.	PSE SD alternative = both) _pwr > 5))", lean OR" while in the er update the '+'	Comment Table incluc The a In the if he c it add for ex a) Th to cor b) It is from	Tail Type T Top-6f describ ting after the pare some issue to case PD is a can do similar a level of cor cample: here is no syn hsume more p s also not cov	es aut ohysica es that nd PS task b nplexit cing of oower t ered ir MEAS	Comment Status <b>D</b> toclass field. Per the draft, al layer autoclass after tran t appear to be not closed. E supporting LLDP: Why F by LLDP? I am asking this of ty (that can be resolved) the r handshake mechanism de than the PSE allows it to do the the state machine diagram SUPE ACS	autoclass can b isitioning to PO PD will ask for a question since in at yet is not ado efined to verify t raw, before the m at page 131 li	Pres: Yseboodt7 the requested any time WER_ON. utoclass through LLDP f PD eventually do this, Iressed in the standard. that the PD won't start PSE is ready for it ine 43, when moving
2. Change from pd_class_s 3. Fix the same problem in I Response Res ACCEPT IN PRINCIPLE. Replace addition ("+") in MAI			Response Status       To restrict to status         E.       and the overloo         n MARK_EV3 and MARK_EV_LAST with a sum() function.       Suggester						need e that ne ava nditior	at least to add new variable PD has set it's requested p ilable power to measure th h.	e "dll_autoclass power level for the PD requested	_pd_pse_ready". This te PSE to be measure power without going to
Char CLA: tcle3 ((pd_ CLA: tcle3 + ((p	nge logic SS_EV3 _timer_c class_si SS_EV3 _timer_c d_class_	as follows -> MARK_ done * (pse ig = 0) + (p -> MARK_ done * ((ps _sig != 0) *	: EV3 e_alternative = bo se_avail_pwr > 5 EV_LAST e_alternative != b (pse_avail_pwr <	th) * (pd_cl; )) oth) + (pd_ := 5)))	ass_sig != 4) * ( class_sig = 4) +	pse_avail_pwr > 4) * (pse_avail_pwr <= 4)	1. add follow "dll_a This meas the P 2. In t chang "Mirro To: "N <i>Proposed</i> REJE	d new variable ing definition: utoclass_pd_ variable indic ure and the F D requested p the state mac ge from: oredPDAutocl MirroredPDAu <i>I Response</i> CCT.	e "dll_a pse_re ates th SE ha power hine in assRe toclass	autoclass_pd_pse_ready" t eady nat PD has set it's requeste is the available power in or without going to overload/II page 131 line 43 in the ex quest" sRequest*dll_autoclass_pc <i>Response Status</i> <b>Z</b>	o the variable lised power level for der to stay power im 2p condition it from IDLE_AC	st in 145.2.5.4 with the or the PSE to be ered and to measure ." CS to MEASURE_ACS,
							This	comment was	WITH	IDRAWN by the commente	er.	

C/ 145	SC 14	5.5.3.3.3		P 217	L 19	# [i-461		C/ 145	SC	C 145.2.8	P 152	L <b>46</b>	# i-463
Darshan, Y	<i>r</i> air							Darshan,	Yair				
Comment	Туре 1	Г	Comment St	atus A			DLL	Commen	t Type	т	Comment Status R		Pres: Darshan12
Missin Mirrore	g parenthed	esis in th uestedPo	e exit from RU werValue NE	JNNING to PD TempVar"	_POWER_R	EQUEST in the p	oart"	The f that a	ollowing	g question nbalance.	has been asked regarding	diode aging and	its affect on PD_Vdiff
Suggested	Remedy							Back	ground	: finan wahal	an an ann inn an ta fan tha		
Chang To: (M	e from "M lirroredPD	lirroredPI Requeste	DRequestedP edPowerValue	owerValue NE e NE TempVar	TempVar" )			2P_u PD \	nb and /diff=60	for the PD	in terms of Icon-2P_unb a neasured at 1-10mA range	nd inexplicit des	ign requirement to keep as the highest effect on
Response			Response Sta	atus <b>C</b>				the s	stem o	current/resi	stance unbalance.	_	0
ACCE	PT.		·					The f	ollowing	g use case	has been investigated: PSE over 4-pairs. The PS	F is using Alt A	(MDI) and Alt B (X)
								result	ing with	h 1,2 and 7	,8 are positive and 3,6 and	4,5 are negativ	e. It runs this way for
C/ <b>30</b> Darshan, Y	SC <b>30</b> 7air	.9.1.1.5		P 37	L <b>4</b>	# i-462		MAN been	Y years replace	s. The PD f ed and it us	ront end is not an active br ses Alt A (MDI) and Alt B (\$	idge, it is a diod S). Now, 1,2 and	e bridge. The PSE has 4,5 are positive and 3,6
Comment	Type 1	г	Comment St	tatus A		Ma	nagement	and /	,8 are 1 liodes 1	negative. N	low we have diodes that ha	ave been aged ( them (the ones i	1,2  and  3,6)  in parallel
In the aPSEF "delive This va Suggested Chang aPSEF To: "T aPSEF Response ACCE	text " This PowerPair eringPowe ariable is o ariable is <i>IRemedy</i> ge from: "" PowerPair "his value PowerDete PT.	value is scontrol/ r" isn't ar defined ir the wron This valu scontrol/ is only va ectionSta	only valid whi Ability reportin a enumeration a page 35 line g variable to u e is only valid Ability reportin alid while a PE tus reporting f <i>Response Sta</i>	le a PD is bein ag the enumera value of variat 27. use here. while a PD is t ag the enumera D is being powe the enumeration atus <b>C</b>	g powered, th tition "deliverin ble 'aPSEPo being powere tition "deliverin ered, that is th n "delivering!	hat is the attribut ngPower", werPairsControl/ nd, that is the attr ngPower" ne attribute Power" .	e Ability'. ibute	not si quesi 1. If t in par 2. In powe Answ 1. All perm 2. Sil after functi 3. Dic other 4. As signif 5. Lift reliab 6. As time t 7. If v other	mply s iions ar he agin allel le an extra r and h rers: diodes on of c odes the param long as icantly e time c a resu which e rendor f param	witching frc re: and has an e ading to hig eme case, heats more is in the dioc s of each tw besn't have end of life ti current cond at are at th eters will e s the diode during the of a diode c dors is 10 y lt of the abo exceed the follow the a eter).	om the old diodes to the ne ffect on Vf, then we may higher unbalance. we may have a runaway s than the 'new' diode. We bridge has to have 60m' vo diodes. a memory. The performan me period due to mechanic duction. eir end of life will introduce xceed the spec. is kept with their allowed of diode defined life time with of reliable vendor can be 20 ears. The typical is somew ove, any component in the product life time like any of bove rules, the effect of ag	w ones, its mixir ave higher mism ituation as the a V maximum Vdif ce characteristic cal construction higher leakage operating conditi or without curre years. The low where between th PD or PSE need ther designs. jing should not b	Ig old with new. The atch between the diodes ged diode drops more f between any s change may changed and other issues that are current, higher VF, and ons, VF will not change ent conduction. est life time value of nese ranges. d to be selected with life be a problem for VF (or
								Suggeste	dReme	ədy			
								Seed	darshar	n_12_0917	pdf for details		
								Response REJE	e CT.		Response Status C		
								There	e was n	no remedy p	provided in the referenced	presentation.	

Cl <b>145</b> Darshan,	SC <b>145.2.5.7</b> Yair	P 133	L 13	# i-464	C/ <b>145</b> Darshan, `	SC <b>145.</b> : Yair	2.5.8	P 133	L 18	# i-466
Comment In the tcle2_ +(pse signa	<i>Type</i> <b>T</b> exit from CLASS timer_pri_done *( _avail_pwr_pri > 4 ture case.	Comment Status <b>D</b> _EV2_PRI to MARK_EV2_F (pd_class_sig_pri = temp_va 4)) is missing the variable op	PRI, the conditior ar_pri) * (class_4 ption_2ev as we	<i>Repeats</i> n: PID_mult_events_pri did in the single-	Comment In the "tcle2_ pse_a Suggested	<i>Type</i> <b>E</b> exit from CL _timer_pri_d vail_pwr_pri	C ASS_EV2 one * (pd_ = 4" is mi	omment Status A 2_PRI to MARK_EV_LA _class_sig_pri = temp_v issing parenthesis in "ps	ST_PRI, the co /ar_pri) * !class_ se_avail_pwr_pr	PSE SD ndition: _4PID_mult_events_pri * i = 4".
Suggeste Chan "tcle2 +(pse To: "tcle2 (class Proposed	dRemedy ge from: _timer_pri_done * _avail_pwr_pri > * _timer_pri_done * 5_4PID_mult_even Response	*(pd_class_sig_pri = temp_v 4))" * (pd_class_sig_pri = temp_v nts_pri * !option_2ev)+ (pse_ Response Status <b>Z</b>	/ar_pri) * (class_/ var_pri) * ( _avail_pwr_pri >	4PID_mult_events_pri 4)) "	Chang "tcle2_ pse_a To: "tcle2_ (pse_a <i>Response</i>	ge from: _timer_pri_d vail_pwr_pri _timer_pri_d avail_pwr_pr	one * (pd_ = 4" one * (pd_ i = 4)" <i>Re</i>	_class_sig_pri = temp_v _class_sig_pri = temp_v esponse Status <b>C</b>	rar_pri) * !class_ rar_pri) * !class_	_4PID_mult_events_pri * _4PID_mult_events_pri *
REJE This o This o	CT. comment was WIT	THDRAWN by the comment	er. resolution meeti	ng.	Cl 145 Darshan, ` Comment	SC 145. Yair Type T	<b>2.5.8</b> C	P 137	L 13	# [-467 Repeats
Cl 145 Darshan,	SC <b>145.2.5.8</b> Yair	P 133	L 18	# <u>i-465</u>	In the "tcle2_ (class option	exit from CL _timer_sec_ _4PID_mult_ 2ev as we	ASS_EV2 done *(pd _events_s did in the	2_SEC to MARK_EV2_S _class_sig_sec = temp_ ec +(pse_avail_pwr_sec single-signature case.	SEC, the conditi _var_sec) * c > 4))" is missir	ion: ng the variable
Comment In the "tcle2 pse_a case.	Type T exit from CLASS _timer_pri_done * avail_pwr_pri = 4"	Comment Status D _EV2_PRI to MARK_EV_LA * (pd_class_sig_pri = temp_ is missing the variable optic	AST_PRI, the corver_pri) * !class_ var_pri) * !class_ on_2ev as we did	Repeats ndition: 4PID_mult_events_pri * in the single-signature	Suggested Chang (class To: "to ?((clas	<i>Remedy</i> ge from: "tcle_4PID_mult_ cle2_timer_s ss_4PID_mu	e2_timer_s _events_s ec_done '	sec_done *(pd_class_si ec +(pse_avail_pwr_sec *(pd_class_sig_sec = te sec * !option_2ev) + (p	g_sec = temp_v c > 4))" mp_var_sec) * ise_avail_pwr_s	/ar_sec) * sec > 4))"
Suggeste Chan "tcle2 pse_a To: "tcle2 !class	dRemedy ge from: _timer_pri_done * avail_pwr_pri = 4" _timer_pri_done * 5 4PID_mult_ever	* (pd_class_sig_pri = temp_v * option_2ev * (pd_class_sig nts_pri * pse_avail_pwr_pri =	var_pri) * !class_ j_pri = temp_var_ = 4"	4PID_mult_events_pri * _pri) *	Proposed REJE This c This c	Response CT. omment was	Re s WITHDF	RAWN by the comment	er.	ing.
Proposed REJE This o	Response CT. comment was WI	Response Status Z	er.							-
This o	comment was with	ndrawn before the comment	resolution meeting	ng.						

C/ 145	SC	145.2.5.8	P 137	L 18	# i-468	C/ 145	SC	145.2.5.8	P <b>133</b>	L 18	# i-469
Darshan,	Yair					Darshan, `	<i>r</i> air				
Commen	t Type	т	Comment Status D		Repea	ats Comment	Туре	Е	Comment Status A		PSE SD
In the "tcle2 !clas as w	e exit fro 2_timer_ s_4PID_ e did in t	m CLASS_F sec_done * mult_events he single-sig	EV2_SEC to MARK_EV_LAS (pd_class_sig_sec = temp_va s_sec * pse_avail_pwr_sec = gnature case.	T_SEC, the con ar_sec) * 4" is missing the	dition: e variable option_2e	In the "tcle2_ vv !class "pse_a	exit fro _timer_: _4PID_ avail_pv	m CLASS_I sec_done * mult_event wr_sec = 4"	EV2_SEC to MARK_EV_LA (pd_class_sig_sec = temp_ s_sec * pse_avail_pwr_sec =	ST_SEC, the var_sec) * = 4" is missing	condition: g parenthesis in
Suggeste	edReme	dy				Suggested	Remed	dy			
Char "tcleź !clas To: "tcleź !clas	nge from 2_timer_ s_4PID_ 2_timer_ s_4PID_	: sec_done * _mult_event: sec_done * _mult_event:	(pd_class_sig_sec = temp_va s_sec * pse_avail_pwr_sec = option_2ev* (pd_class_sig_se s_sec * pse_avail_pwr_sec =	ar_sec) * 4" ec = temp_var_s 4"	sec) *	Chang "tcle2_ !class To: "tcle2_ !class	e from: _timer_: _4PID_ _timer_: _4PID_	: sec_done * mult_event: sec_done * mult_event:	(pd_class_sig_sec = temp_ s_sec * pse_avail_pwr_sec = (pd_class_sig_sec = temp_ s_sec * (pse_avail_pwr_sec	var_sec) * = 4" _var_sec) * = 4)"	
Proposed	d Respoi	nse	Response Status Z			Response			Response Status C		
REJI	ECT.					ACCE	PT IN F	PRINCIPLE			
This This	commer	nt was WIT⊢ nt was withd	IDRAWN by the commenter.	olution meeting.		Chang "tcle2_ !class To: "tcle2_ !class on pag	je from: _timer_: _4PID_ _timer_: _4PID_ ge 137 same fi	: sec_done * mult_event: sec_done * mult_event: (comment s ix for _pri or	(pd_class_sig_sec = temp_ s_sec * pse_avail_pwr_sec = (pd_class_sig_sec = temp_ s_sec * (pse_avail_pwr_sec ays page 133 by mistake).	var_sec) * = 4" _var_sec) * = 4)"	
						C/ <b>145</b> Darshan, <sup>v</sup>	SC ⁄air	145.2.5.8	P 128	L <b>54</b>	# <u>i-470</u>
						<i>Comment</i> The tit howev	<i>Type</i> le of fig er it is a	E jure 145-13 actually for	Comment Status <b>D</b> is: "Figure 145-13Top leve single-signature.	I PSE state d	iagram (continued)"
						Suggested	Remed	dy			
						Chang 13To	je from: p level	: "Figure 14 , single-sigr	5-13Top level PSE state di ature PSE state diagram (co	agram (contir ontinued)"	nued)" to ""Figure 145-
						Proposed REJE	<i>Respor</i> CT.	nse	Response Status Z		
						This c	ommer	nt was WITH	IDRAWN by the commenter		
						This c	ommer	nt was withd	rawn before the comment re	solution meet	ting.

C/ 145 Darshan.	SC <b>145.2.5.8</b> Yair	P 129	L <b>54</b>	# li-471	C/ 145 Darshan, Y	SC air	145.2.5.8	P 136	L 11	# i-473
Comment The t	<i>t Type</i> <b>E</b> itle of figure 145-1	Comment Status D 3 is: "Figure 145-13Top lev	el PSE state di	PSE SD agram (continued)"	Comment 7 This co	<i>ype</i> mmen	T nt is marked	Comment Status D		PSE SD
howe Suggeste Chan 13T Proposed REJE This of	ever it is actually for ed <i>Remedy</i> age from: "Figure 1 op level, single-sig <i>d Response</i> ECT. comment was WI <sup>-</sup> comment was with	or single-signature. 145-13Top level PSE state of gnature PSE state diagram (o <i>Response Status</i> <b>Z</b> FHDRAWN by the commente ndrawn before the comment r	liagram (contin continued)" r. esolution meet	ued)" to ""Figure 145- ing.	This pr way. Using ( START In the e (!pwr_a * !det_ This cc A) the f second primary second	CC_DE C_DET exit from pp_seconce_s ndition irst pa ary AN v is ON ary aft	was a dres ET_SEQ=3 ECT_SEC. m IDLE_5 cc *pwr_ap sec) = A+B n syas: rt of the cc ND power is J. This is O ter detection	ssed in other comment and i is possible if we exit from E SEC to START_DETECT_S p_pri) + ((CC_DET_SEQ=3) - undition says: go and detect s applied to primary. This all K but not cover the other ca n primary and not waiting ur	is repeated her EC we have the * option_probe sec if power is lows detection of use of CC_DET, ntil primary is C	e in shorter and clearer and from IDLE_SEC to e following conditions: e_alt_sec * !det_start_pri not applied to of secondary only if _SEQ=3 that detect DN.
Cl 145 Darshan, Comment The t howe	SC 145.2.5.8 Yair <i>t Type</i> E itle of figure 145-1 ever it is actually fo	P 130 Comment Status D 3 is: "Figure 145-13Top leve or single-signature.	L <b>54</b> el PSE state di	# i-472 PSE SD agram (continued)"	In addi B) The Curren is ON a preven sequer The so	ion, it 2nd pa tly the and it s the g ces ur ution i	doesnt allo art is OK b staggered should be li eneral case ntil power c is to add pa	w to do multiple detection+( ut doesnt resolve the issue i detection i slimited to the ca mited per th eCC_DET_SE( e of doing sequences of stag on of both alternatives. art (C) which is (CC_DET_S	classification ur in part A. ase of doing de Q definition to c ggered detectio EQ=3)*do dete	ntil power on. tection on sec only if pri only this case which will on + classification ect pri done
Suggeste Chan 13T Proposed REJE	edRemedy oge from: "Figure 1 op level, single-sig d Response ECT.	ued)" to ""Figure 145-	Suggested Change "(!pwr_ !det_st To: "(!pwr_ !det_st	Remec e from: app_s art_pri app_s art_pri	dy ec *pwr_ap * !det_onc ec *pwr_ap * !det_onc	op_pri) + ((CC_DET_SEQ=3 :e_sec)" op_pri) + ((CC_DET_SEQ=3 :e_sec) + ((CC_DET_SEQ=3	3) * option_prob 3) * option_prob 3)*do_detect_p	be_alt_sec * be_alt_sec * bri_done)"		
This of This of	comment was WI	HDRAWN by the commente	r. esolution meet	ing.	Proposed F REJEC	Respor T.	nse	Response Status Z		
					This co This co	mmen mmen	nt was WIT nt was witho	HDRAWN by the commented drawn before the comment r	er. esolution meet	ing.

C/ 145 SC 145.2.5.8 P 130 L 34 # [i-474 C/ 1/	45 SC	145.2.5.7	P 136	L 11	# i-475
Darshan, Yair Darsi	han, Yair	-	0		
Comment Type       T       Comment Status       A       PSE SD       Common Status         In the POWER_ON state we are addressing two use cases:       a) The PSE is working over 4-pairs       T         b) The PSE is working over 4-pairs and we had error on the pri for example, we are allowing the sec keep working until the sec will have error (in this case we go to IDLE) or the sec will continue to work.       T         In the case that the sec is continued to work, we need to move to SEMI_PWR_SEC state in page 131 which is done by the exit from POWER_ON to SEMI_PWR_SEC which is:       E         Now we are in SEMI_PWR_SEC and our options to exit from SEMI_PWR_SEC is when we have erro_sec (going to IDLE) or not sufficient power (going to POWER_DENIDE and then to IDLE) or thmpdo_timer_done (going to IDLE)       T         So far all is good.       T       T         Now we are in SEMI_PWR_SEC is working with single-signature PD over 2-pairs, class <	ment Type This comment narked as CC n the exit from !pwr_app_sed det_start_pri Based on the CC_DET_SE detection The analysis comments and The staggere he primary do on (option 2). Dption 1 is no covered by the Dption 2 is not he 1st part on Dption 3 is c and the second det_start_pri The current s The state diagonal proposed	T nt is marked C_DET_SE m IDLE_SE ec * pwr_ap i * !det_onc i e description i = descr	Comment Status D I as CC_DET_SEQ=3- Q=3. C to START_DETECT p_pri) + ((CC_DET_SE e_sec) al-signature means: Co ations results for other s hem are OK). range may occur with s the full range of poss d when class_4PID_mu chine. d	1 and is improvement SEC we have the C=3) * option_probu- 88 for CC_DET_SEC Innection check is for sequences 0, 1 and starting the secondary secondary detection ibilities. ult_events_sec=FAL wr_app_pri). turn to IDLE_PRI du C_DET_SEQ=3) * or 3, and does not cover ction before Primary ss_4PID_mult_even allow staggered de	PSE SD nt of the comment following condition: e_alt_sec * Q and specifically, ollowed by staggered 2 are covered by other ary detection after doing n only if the primary is JE. This currently is not SE and it is covered in the to various reasons ption_probe_alt_sec * er option 1! y power up, after primary tts_sec is set to FALSE. tection after Primary
SuggestedRemedy       f         1. Make the following changes in the exit from POWER_ON to SEMI_PWRON_SEC:       a         Change from: "semi_pwr_en * !error_sec * error_pri"       T         To: "semi_pwr_en * !error_sec * error_pri * altpwrd_sec"       a         2. Make the following changes in the exit from POWER_ON to ERROR_DELAY:       b         Change from: "(!semi_pwr_en*(error_pri+ error_sec))+(semi_pwr_en*error_pri* error_sec)"       b         To: "(!semi_pwr_en*(error_pri+error_sec))+(semi_pwr_en*error_pri*error_sec)+       b         (semi_pwr_en*(error_pri*!alt_pwrd_sec)"       c         Response       Response Status       C         ACCEPT IN PRINCIPLE.       c       c         Fix as follows:       c       c         - Arc from POWER ON to SEMI PW/RON SEC:       c       c	nished its 1s additional mis The proposed b) The behave b) Previous s n addition, the detection+cla darshan_04_ The additiona - (class_4PIE n order to im side (similar v	st detection ssing possi d changes of vior of othe tate diagram ne proposed assification (0917.pdf). al missing p D_mult_even plement the variable is a	without affecting the pr bility (option 1). do not affect: • CC_DET_SEQ ?3 flow n possibilities. d changes also required until host decides to po ossibility is covered by nts_sec*(CC_DET_SE e addition, we need to a ulready exist for the sec	to cover multiple c wer on the port (whi adding the following Q=3) * !det_once_s add the following val	and flow, by oring the ycles of ich is covered by g part: lec * det_once_pri ) riable for the primary
<ul> <li>Arc from POWER ON to ERROR DELAY:</li> <li>Arc from POWER ON to ERROR DELAY:</li> <li>(!semi pwr en * (error pri + error sec)) +</li> <li>(semi pwr en * error pri * (error sec + !alt pwrd sec))</li> </ul>	det_once_pr This variable entering to DI /alues:	ri indicates if ETECT_E∖	the PSE has probed th AL_PRI.	e Primary Alternativ	e at least once, when Page 126 of 132

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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FALSE: The PSE has not probed on the Primary Alternative since entering the Primary Alternative state diagram.

TRUE: The PSE has probed the Primary Alternative at least once since entering the Primary Alternative state diagram."

In the above proposed change, det\_once\_pri is used as a condition for starting detection in the secondary any time until power up, after primary was detected at least once. det\_once\_pri is set to FALSE when sism = FALSE at ENTRY\_PRI. det\_once\_pri is set to TRUE when Primary state diagram reaches to "DETECT\_EVAL\_PRI", to clearly indicate that detection on primary has ended before tdet timer pri expired.

#### SuggestedRemedy

1. Change from: "(!pwr\_app\_sec \*pwr\_app\_pri) + ((CC\_DET\_SEQ=3) \* option\_probe\_alt\_sec \* !det\_start\_pri \* !det\_once\_sec)" To: "(!pwr\_app\_sec \*pwr\_app\_pri) + ((CC\_DET\_SEQ=3) \* option\_probe\_alt\_sec \* !det\_start\_pri \* !det\_once\_sec) +

(class\_4PID\_mult\_events\_sec\*(CC\_DET\_SEQ=3) \* !det\_once\_sec \* det\_once\_pri ) 2. Add the following variable to the variable list:

### det\_once\_pri

This variable indicates if the PSE has probed the Primary Alternative at least once, when entering to DETECT\_EVAL\_PRI. Values:

FALSE: The PSE has not probed on the Primary Alternative since entering the Primary Alternative state diagram.

TRUE: The PSE has probed the Primary Alternative at least once since entering the Primary Alternative state diagram.

Proposed Response Response Status Z

REJECT.

This comment was WITHDRAWN by the commenter.

This comment was withdrawn before the comment resolution meeting.

CI 20	20	20	D		1	# 470
C/ 30	30	30	F		L	# 1-476
Darsnan,	Yair					
Comment	Туре	т	Comment Status	R		Yair's Checklist
Who i	s gene	rating	the SNMP MIBs based o	n cla	use 30?	
Suggeste	dReme	dy				
Group	to disc	cuss.				
Response	,		Response Status	С		

This comment is out of scope.

REJECT.

This comment does not relate to the IEEE P802.3bt draft, but instead to IEEE Std 802.3.1-2013 'IEEE Standard for Management Information Base (MIB) Definitions for Ethernet.'. At this time there has been no proposal to update the DTE Power via MDI SNMP MIB in IEEE Std 802.3.1, anybody interested in doing so should follow the process to start a project in IEEE 802.3. It should be noted that the IEEE P802.3.2 YANG Data Model Definitions Task Force <http://www.ieee802.org/3/cf/> is working on a YANG Data Model Definitions for DTE Power via MDI.

	Date	1.40	#		00 445 0 5	-	D 400	1.00	# [: 170
Darshan, Yair	P 113	L <b>40</b>	# 1-4//	C/ 145 Darshan Y	৩০ 1 <b>45.2.5</b> . air	.1	P 136	L 20	# 1-478
Darshan, Yair Comment Type T In the variable option_pro "option_probe_alt_sec This variable indicates if t Secondary Alternative in t Alternative. This variable in Values: FALSE: PSE does not protect the Primary Alternative. TRUE: PSE does probe th Primary Alternative." we full 1) The definition text says reflected in the text that due addressed. 2) The text " if an invalid logically accurate and car will be found" since this variable is variable in function of the result of primary be	<ul> <li>arshan, Yair</li> <li><i>T</i> Comment Status <b>D</b></li> <li><i>Rep</i></li> <li>In the variable option_probe_alt_sec definition:</li> <li>"option_probe_alt_sec</li> <li>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 Prim Alternative. This variable applies to CC_DET_SEQ = 3.</li> <li>Values:</li> <li>FALSE: PSE does not probe the Secondary Alternative if an invalid signature is found on the Primary Alternative.</li> <li>TRUE: PSE does probe the Secondary Alternative if an invalid signature is found on the Primary Alternative.</li> <li>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.</li> <li>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 signation 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.</li> </ul>				air Fype E s redundant pa ((!class_4PID_ ET_SEQ=0 + () coart: (!class_4FID_ Remedy e from: ((!class_4PID_ ET_SEQ=0 + () (!class_4PID_ ET_SEQ=0 + () Response CT. womment was W	Comment S arenthesis in the _mult_events_se CC_DET_SEQ=' PID_mult_events _mult_events_sec CC_DET_SEQ=' mult_events_sec CC_DET_SEQ=' Response S	Status <b>D</b> exit from EN <sup>T</sup> c * pwr_app_ 1)" _sec * pwr_app_ 1)" c * pwr_app_p 1)" tatus <b>Z</b> the comment	TRY_SEC to ST, pri) + class_4PII pp_pri). pri) + class_4PII pri + class_4PID_ er.	Repeats ART_DETECT_SEC: D_mult_events_sec) * D_mult_events_sec) * _mult_events_sec) *
SuggestedRemedy Change the TRUE and FA "FALSE: PSE does not pr the Primary Alternative. TRUE: PSE does probe th Primary Alternative." To: "FALSE: PSE does not pr classification will be found TRUE: PSE does probe th classification will be found Proposed Response REJECT.	ALSE definition from: obe the Secondary Alternative if obe the Secondary Alternative obe the Secondary Alternative on the Primary Alternative on the Primary Alternative on the Primary Alternative Response Status Z	ative if an invalid f an invalid sign ative if an invalid e. f an invalid dete e"	d signature is found on ature is found on the d detection signature or ction signature or	This co	mment was wi	thdrawn before t	he comment	resolution meeti	ng.
This comment was WITH	DRAWN by the commente	r.							
This comment was withdr	awn before the comment r	esolution meeti	ng.						

C/ 145	SC 145.2.5.7	P 136	L <b>20</b>	# i-479	C/ 145	SC 145.2.5.	7	P 136	L <b>21</b>	# i-480
Darshan,	Yair				Darshan, Y	'air				
Comment	Type <b>T</b> Con	nment Status D		Repeats	Comment T	Туре Т	Comment St	atus D		Repeats
GC_L mach pwr_a sism (CC_I If Prin result be ab The e ENTR state variab other Suggester See d includ	The possibility to do of the concept	ss_4PID_multi_event_s ENTRY_SEC state to S existing condition: ents_sec * pwr_app_pr _SEQ=1) e Primary state machine ill remain in FALSE, an iEC i.e. will be stuck the roblem is to enable mo performed detection at ENTRY_SEC. This solution rent draft has only det_ d to each other and car how the following char cycles of detection + cla	e returns back to d the secondary ere. ving to START_ least once and ution requires th once_sec) whice be see in dars	<ul> <li>b) when selecting</li> <li>c) when secondary state</li> <li>c] SEC only if</li> <li>_mult_events_sec) *</li> <li>o IDLE_PRI. As a y state machine won't</li> <li>_DETECT_SEC from is now in IDLE_PRI e addition of new while is required also by han_04_0917.pdf.</li> </ul>	The pro (CC_D In this of If STAF remain and the The pro 1) To a tdet_tir DETEC second 2. Add START "sism * class_4 allow to	((!class_4PID_ ET_SEQ=0 + C condition, when RT_DET_PRI e in FALSE white e secondary state poosed solution and stop_tdet_ti mer_pri_done w CT_EVAL_PRI. dary state mach "tdet_timer_pri_ [_DETECT_SE ((!class_4PID_ 4PID_mult_eve po move to STAF	mult_events_sec CC_DET_SEQ=1 o class_4PID_mu xit to IDLE_PRI of ch wont allow exit te machine remain for this problem mer_pri in the DI rill remain FALSE This action enable ine at the exit fro _done to the con C as follows: mult_events_sec nts_sec) * (CC_I RT_DETECT_SE	* pwr_app_r ). Ilt_events_se due to tdet_tii ting from EN' ain stuck in El is: ETECT_EVAL when movin bles the usage m ENTRY_S dition of the e c * ( pwr_app_ DET_SEQ=0 C in case that	pri) + class_4PIE ec=FALSE, and ( mer_pri_done, tl TRY_SEC to ST NTRY_SEC. L_PRI state. Thi og from START_ e of tdet_timer_ SEC to START_I exit from ENTRY _pri + tdet_timer + CC_DET_SE( at we move from	D_mult_events_sec) * CC_DET_SEQ=0 OR 1, he pwr_app_pri will CART_DETECT_SEC s action ensures that _DETECT_PRI to pri_done in the DETECT_SEC. '_SEC to _pri_done ) ) + Q=1)" . This change will START_DETECT_PRI
1) Adi det_o This v enteri FALS Alterm TRUE Prima 2) Ch: "sism (CC_I To: sism" class_ Proposed REJE This c This c	d the following variable: nce_pri variable indicates if the P ng to DETECT_EVAL_P E: The PSE has not prob ative state diagram. :: The PSE has probed t ry Alternative state diagram. :: (!class_4PID_mult_ev DET_SEQ=0 + CC_DET * ((!class_4PID_mult_ev _4PID_mult_events_sec Response Resp CT. comment was withdrawn	SE has probed the Prir RI. Values: bed on the Primary Alter he Primary Alternative a ram. ents_sec * pwr_app_pr _SEQ=1)" ents_sec * (pwr_app_p ) * (CC_DET_SEQ=0 + bonse Status <b>Z</b> WN by the commenter before the comment re	nary Alternative mary Alternative mat least once sir i) + class_4PID ri + det_once_p CC_DET_SEQ solution meetin	e at least once, when ntering the Primary nce entering the _mult_events_sec) * ri * !det_start_pri ) ) + l=1). g.	to IDLE Suggested/ 1. Add 2. Add START Changu "sism * (CC_D To: "sism * class_4 CC_D To: "sism * class_4 Due to meet th here bu darsha possibi the opt Proposed F REJEC	=_PRI due to to Remedy "stop_tdet_timer_pri T_DETECT_SE e from: '((!class_4PID_ ET_SEQ=0 + C ((!class_4PID_ 4PID_mult_eve the fact that ite the requirement ut may cause en n_04_0917.pdf lity to do cycles ion to go to IDL Response CT.	et_timer_pri expl er_pri" to the DE _done to the con C by performing mult_events_sec C_DET_SEQ=1 mult_events_sec nts_sec) * (CC_I 	ration. TECT_EVAL. dition of the e the following * pwr_app_r " c * ( pwr_app_ DET_SEQ=0 onal changes gle independ f how to apply ve change is lass_probe e WAIT_PRI/S atus <b>Z</b>	_PRI state. exit from ENTRY change: pri) + class_4PIC _pri + tdet_timer + CC_DET_SEC due to other cor lent comment fo y the remedies c combined with c vents on primary SEC.	<ul> <li>2_SEC to</li> <li>2_mult_events_sec) *</li> <li>_pri_done) ) +</li> <li>2=1)"</li> <li>nments, and in order to r each issue which I did of other comments, See ther changes i.e. the y and secondary with</li> </ul>
					This co	omment was W	ITHDRAWN by t	he commente	er.	
					This co	omment was wit	thdrawn before th	ne comment r	resolution meeting	ng.

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-480

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C/ 145	SC 145.2.5.3	P 109	L <b>42</b>	# i-481	C/ 145	SC 145.3.8.4	.1	P 193	L <b>41</b>	# i-483
Darshan,	Yair				Bennet, Ke	en				
Comment	t Type T	Comment Status D		Repeats	Comment	Туре Т	Comment Sta	atus A		PD Power
This o Per t and n	comment is an up the definition of CC not staggered and	date to the comment that re C_DET_SEQ=0 for dual-sign this contradicts figure 145B	quires to delete f nature, the detect -3 that is shown a	Figure 145B-3: tion need to be parallel as one of the staggered	"This o Pport_	PD-2P). One ex	ses all statemen ample is: ""the p	ts in this para beak power s	agraph that refe hall not exceed	rence Pport_PD (and I PPort_PD for"".
detec a) To	tion versions. So delete figure 145	we have two options to reso 3-3 to sync with CC_DET_S	lve this: EQ=0 definition	for dual-signature PDs	""Ppor input a	t_PD"" is the inputer to average power to	ut average powe be correct. "	r. The state	ments should re	eference the MAXIMUM
and a b) (Pr	also update state n referred) Keep Fig	nachine which will be compl ure 145B-3, and change th	e "CC_DFT_SFC	s point of time. OR, D=0 definition that to	Suggested	lRemedy				
allow the st	staggered detection	on in addition to parallel det	ection which cur	rently is supported by	For ea add a	ch occurrence of "_max" suffix.	Pport_PD and	Pport_PD-2P	P, either precee	d it with "maximum", or
Suggeste	dRemedy				Response		Response Sta	atus C		
Chan	ge "Connection Cl	heck is followed by staggere	ed detection for a	single-signature PD	ACCE	PT IN PRINCIPL	E.			
and p To: C parall	barallel detection fo connection Check i lel or staggered de	or a dual-signature PD." is followed by staggered de etection for a dual-signature	tection for a singl PD."	e-signature PD and	For ea add a	ch occurrence of "_max" suffix.	Pport_PD and	Pport_PD-2P	, either precee	d it with "maximum", or
Proposed	l Response	Response Status Z			Editori	al license given t	o make sure ma	ximum is ap	propriate for ea	ach occurance.
REJE	ECT.									
This o	comment was WIT	HDRAWN by the comment	er.		<i>C</i> / <b>145</b> Bennett, K	SC 145.3.8.6 en		P 194	L <b>4</b>	#  i-484
This o	comment was with	drawn before the comment	resolution meeting	ng.	Comment	Туре Т	Comment Sta	atus A		PD Power
C/ 145 Bennet, K	SC 145.3.8 Ken	P 189	L <b>7</b>	# i-482	"The s of PD subcla	entence starting Types and Cport use"". These are	with ""A single-s values that ""Int e informative sta	ignature PD rinsically me tements, and	includes CPort et the requirem d are not entirel	"" leads into a listing pents in this ly correct:
Comment	t Type <b>T</b>	Comment Status R		PD Power	1) A ty	ne 1 PD with 360	)uE can be assid	ned a class	corresponding	to Type 3 limits The
"Tabl 2P), a	e 145-28, items 10 and specifies it wit	), 11 Describe input average h a value in the Max Colum	e power by class n, inferring that it	, labels it PClass_PD(- has a range.	Type 3	B limit is 180uF, s	the Type 4 lim	it of 360uF is	s not true in this	s case.
PClas	ss_PD is a consta	nt, and a limit. Items 8 and	9 correctly conve	ey this. Items 10, 11 are	2) It's fault in	conceivable for a a PD for reason	ny of the cases s other than just	that a transie Cport."	ent could cause	a power surge and/or
ambię	guous, and may re	esult in misinterpretations of	PClass_PD."		Suggested	lRemedy				
Suggeste "1) Ir	ed <i>Remedy</i> n items 10, 11, cha	ange the description to ""Ma	iximum""input av	erage power"" And	Delete just af	the text starting ter the list of PD	at line 4 ("A sing types and capac	le signature itances.	PD includes"	) and ending at line 17,
2) Eit	her Merge the min	and max cells for items 10	, 11, or set both t	the min and the max	Response		Response Sta	ntus C		
Response		Bosponso Status			ACCE	PT.				
REJE	ECT.									
The g Also,	group feels the sta the text in section	ndard is clear as is and the 145.3.8.2 spells this require	suggested chang ement out directly	ge makes it less clear. y.						

Cl <b>145</b> Johnson,	SC Peter	145.2.8		P <b>153</b>	L <b>31</b>	# i-485	C/ <b>145</b> Johnson, I	SC 14: Peter	5.2.8.6	P <b>162</b>	L 33	# i-486
Comment Dual S Signa PD cu Class 2P ca Suggeste Unles the Ty Response ACCE ACCE adopt This r	Type Signatu ture PE irrent lin 5 Dual n go up dReme s there ype-4 D PT IN PT IN change esolutio	T re Class 5 b's are spe miting. Is Signature to 180uF dy is a justifi oual Signa PRINCIPI PRINCIPI es shown on is ident	Comment StatusAPSE Inrusha 5 Minimum I_Inrush-2P is specified as 325 mA. Class 5 Dual pecified in 145.3.8.3 as allowing up to 180uF for C_Port-2P without is there a rationale why 325mA current limiting meets the needs of a the but we require 400mA for all other cases where C_Port or C_Port- uF ?Comment TypeTComment StatusA(Re-filed comment from D 2.4) There is an inconsis current requirements a), b), and c) and Table 145-14 "minimum linrush-2P" requirements with actual value minimum linrush-2P given Single Signature PD. Ar linrush-2P or are they applicable to linrush? Item or minimum linrush-2P, but again, those boxes are blaiffable reason, I_Inrush should be 800mA and I_Inrush-2P 400mA for nature case. PLE. PLE.CPLE. PLE. PLE.CPLE. PLE. n in yseboodt_10_0917_inrush.pdfCntical to comment #291.C						stency in the thre 6. Conditions a les while Table 2 e these figures i c) says refer to T ink for Single Sig ons but could re I_Inrush when p owering a Dual n I_Inrush when owering a Dual pen powering a Sowering a Sowering a Source S	PSE Inrush ee minimum inrush and b) specify 145-16 is blank for really applicable to able 145-16 for gnature. solve the confusion: owering a Single Signature PD shall be 5 powering a Single Signature PD shall be Single Signature PD Signature PD are		
							Response ACCE Repla "The r when During -the m when -the m when	PT IN PRI ce text on p vPSE exce POWER_ inimum I_ powering a inimum I_ powering a	Res NCIPLE. Dage 162 line nrush and lir eeds 30V. UP, the min Inrush when dual-signati Inrush when dual-signati	sponse Status <b>C</b> e 31-39 with: nrush-2P current capab imum supported currer powering a single-sign ure PD is 5 mA for volt powering a single-sign ure PD is 60 mA for vo	ility as defined i nt is as follows: ature PD and th ages between 0 ature PD and th Itages between	n Table 145-16 applies e minimum I_Inrush-2P V and 10 V, e minimum I_Inrush-2P 10 V and 30 V."

C/ 145 Johnson,	SC <b>145.3.8.10</b> Peter	P 196	L <b>7</b>	# i-487	C/ 145 Johnson, F	SC 145.3.8.3 Peter	P1	92	L <b>21</b>	# i-489
Comment	Туре Т	Comment Status A		Pres: Darshan15	Comment	Type <b>T</b>	Comment Status	R		PD Inrush
The te and 5 on any and P that p	ext "Single-signatu % duty cycle, and y pair" fails to ac D class where IPe eak power must be	e PDs shall not exceed IC shall not exceed IPeak-2P count for the fact that there ak-2P_unb is a value LESS eless than continuous pow	on-2P-unb for lo -unb, as defined are many comb S than ICon-2P-u er.	nger than TCUT-2P min in Equation (145-12) vinations of PSE voltage unb. It makes no sense	Preser T_Inru At face T_Inru	nt text is "PDs sh sh_PD(max) unt value, this says sh_PD(max). B	all draw less than I_I il T_delay-2P(min), w s neither the PD nor tl ut it also suggests tha	nrush_PD /hen". ne PSE sh at a PD tha	and I_Inrush ould be curre	_PD-2P from ent limiting after s current limiting at a
Suggestee	dRemedy				low thr Is that	eshold (e.g. 100 what was mean	mA) must then drop I to this paragraph?	below that	threshold aft	er Tinrush_PD(max).
This c	reates a fundment	al dilemma because IPeak	-2P_unb is a fur	e PD To be universal	Suggesteg	Remedy				
PD cu 2P-un pair'	irrent balance, bot b. Language wou	d be: "Single-signature PE	ge, must therefo Ds shall not exce	re be restricted to Icon- ed ICon-2P-unb on any	l canno paragr I_Inrus I_Inrus	ot propose a solu aph. I would wa h_PD and I_Inru h_PD-2P(max)	ution here without a b ant to be sure that the ush_PD-2P or that the	etter under paragraph intent req	rstanding of v h is either co quires using l	what was meant by the rrectly using _Inrush_PD(max) and
Response		Response Status C			Response		Response Status	c		
ACCE					REJEC	CT.		0		
- Repl	ace page 158, line	s 12 through 44 by:			There	is no remedy pro	ovided by the comme	nt.		
IPeak This r	-2P-unb = {ILIM-2I	P - 0.002}A al to comment #104.			The in that it assign	ent is to say tha draws less than ed to it during cl	t after Tinrush_PD(m linrush_PD(-2p). Afte assification. linrush	ax) the PD er T_delay- PD(-2P) ar	) must have it -2P it can the re maximum	ts current controlled so an draw the power values.
Cl 145 Johnson,	SC 145.3.8.3 Peter	P 192	L 11	# i-488	-	-				
Comment Prese to allo	<i>Type</i> <b>T</b> nt text is "A PD ma w for large values.	Comment Status R ay limit the inrush current b "	elow I_Inrush_P	<i>PD Inrush</i> D and I_Inrush_PD-2P						
This ir a MA) with n appea	nstance is part of a K is specified but n o minimum value. ar in both MIN and	broader problem where co o MIN, and are treated as in If the parameter is truly a MAX columns of the table.	ertain parameter f they are consta constant, then i	s in certain tables have ants rather than ranges seems it should						
Suggestee	dRemedy									
The q	uick fix in this insta	ince is to use I_Inrush_PD	(max) and I_Inru	sh_PD-2P(max).						
Response	•	Response Status C								
REJE	CT.									
Comp	aant ramadu ia ina	projectant with the rest of th	a draft Comma	stor should address						

Comment remedy is inconsistant with the rest of the draft. Commenter should address issue with the draft as a whole if they would like the convention changed.

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