C/ 145 SC 145 P14	12 L 10	# i-1	C/ 1	SC	1.4.338	P 24	L 39	# [i-2
Anslow, Peter Ciena	Corporation		Anslow, P	Peter		Ciena Corp	oration	
Comment Type TR Comment Status	R	Editorial	Comment	t Type	Е	Comment Status A		Editoria
The IEEE-SA Standards Style Manual 13.3.) should be used to	IEEE	Std 802	.3bu-2016	has modified 1.4.338.		
indicate the lack of data for a particular cell i Comment #29 against P802.3bt D2.4 was: "		se 145 have blank cells	Suggeste	dRemec	ły			
in the min or max columns, which should co the rebuttal:			as fol	lows:"	Ū	ruction to "Change 1.4.33		,
"The lack of em-dashes is intentional. The e	,		Chan	ge the b	ase text fo	or 1.4.338 to the text as m	odified by 802.3bu	1.
information, while the lack of the em-dash control that makes no sense.	onveys that there is no	specific number."	Response	e		Response Status C		
The first example of this issue is in Table 14	5-7. "Connection chec	ck to detection time"	ACCE	EPT IN F	PRINCIPL	Ε.		
Tcc2det has a maximum value of 0.4 s, but IEEE style manual the cell should contain ar no minimum requirement for this time. If the	n em dash, which woule ere is some requiremer	d indicate that there is nt on the minimum (not	Chan as fol		diting inst	ruction to "Change 1.4.33	8 (as modified by I	EEE Std 802.3bu-2016)
just a number) then an indication of this sho "See 145.x.x". If this is not the case, then th		5	CI 30	SC	30.9.1.1.1	P 35	L 11	# [i-3
SuggestedRemedy			Anslow, P	Peter		Ciena Corp	ooration	
Make sure all tables have an entry of em-da	sh or pointer to the req	uirement in currently	Comment	t Type	Е	Comment Status A		Editoria
blank min or max columns. In particular, Tables 145-7, 145-8, 145-9, 14 145-30, 145-31, 145-32.	5-10, 145-14, 145-16,	145-20, 145-27, 145-28,	respe	ect).		9.1.1.2 not 30.9.1.1.1 (the shown as 30.9.1.1.2 throu	0	n is correct in this
Response Response Status	U		Suggeste				3	
REJECT.			00			hrough 30.9.1.1.8 to be 30).9.1.1.2 through 3	80.9.1.1.9
We will work with editorial staff to try to clarit	fy the style guide. Here	e is our opinion:	Response ACCE			Response Status C	-	
There is a distinction between an em-dash, cell blank. Eg. For parameters that convey a indicate there is lack of data, rather that the	range, having a blank	'Min' cell, does NOT						

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

C/ 30 SC 30.9.1.1.10 Anslow, Peter	0 P 37 Ciena Corpor	L 47 ation	# i-4	Cl 33 Anslow, Pe	SC 33.4.9.1		P 65 Ciena Corpor	L 3 ration	# [i-7
Comment Type E	Comment Status A		Editorial	Comment	Туре Е	Comment Si	tatus A		Editoria
Secondly, when 30.9.1.	ave nested editing instruction 1.10 is deleted, what was pr		I.11 becomes		is confusing to h dly, as 33.4.9.1.4				diting instruction.
30.9.1.1.10. There are examples of t 802.3bj-2014 subclause SuggestedRemedy	his situation in previously ρι 9 69.1.2	ublished amendm	nents. See IEEE Std	through	e the editing inst h 33.4.9.1.3 as fo	ollows:"		0	9.1 and 33.4.9.1.1
Change the editing instr as follows:"	ruction on page 35, line 9 to	0	1.2 through 30.9.1.1.9		.9.1.4 and re-nu				hange the title and text g 33.4.9.2 to 33.4.9.3)
Add an editing instructio numbered from 30.9.1.1	ng instruction on page 37, lin on for "aPSEMPSAbsentCou I.11 by the deletion of 30.9.1 for "aPSEMPSAbsentCount	Inter" of: "Chang 1.1.10 above) as	follows:"	Response ACCEF	PT.	Response St	tatus C		
Response ACCEPT.	Response Status C			<i>Cl</i> 33 Anslow, Pe	SC 33.4.9.1		P 65 Ciena Corpor	L 15 ration	# i-8
				Comment T	51	Comment S			Editoria deletion of the original
Anslow, Peter	Ciena Corpor	L 27 ation	# i-5	item 2)	. This should be	•	e-numbered to	o item 2) by the	
Anslow, Peter Comment Type E The last inserted subcla SuggestedRemedy		ation 30.12.2.1.18z12	Management	item 2) Suggested). This should be <i>Remedy</i> ce 2) with 3) in sti	e shown.	t followed by 2	, .	Ĵ
Anslow, Peter Comment Type E The last inserted subcla SuggestedRemedy In the editing instruction	Ciena Corpor Comment Status A suse is 30.12.2.1.18z15 not 3	ation 30.12.2.1.18z12	Management	item 2) Suggested Replac Response). This should be Remedy ce 2) with 3) in str PT. SC 33.4.9.2.3	e shown. trikethrough font <i>Response St</i>	t followed by 2	2) in underline fo	Ĵ
Anslow, Peter Comment Type E The last inserted subcla SuggestedRemedy In the editing instruction Response ACCEPT. C/ 30 SC 30.12.3.1.4 Anslow, Peter	Ciena Corpor Comment Status A nuse is 30.12.2.1.18z15 not i change "30.12.2.1.18z12" t Response Status C 18a P 50 Ciena Corpor	ation 30.12.2.1.18z12 o "30.12.2.1.18z <i>L</i> 8	Management 15" # [i-6	item 2) Suggested Replac Response ACCEF C/ 33 Anslow, Pe Comment T). This should be <i>Remedy</i> ce 2) with 3) in str PT. SC 33.4.9.2.3 eter <i>Type</i> T	e shown. trikethrough font <i>Response St</i> 3 <i>Comment St</i> SEs intended for	t followed by tatus C P 67 Ciena Corpor tatus A r operation wi	2) in underline for <i>L</i> 40 ration th 2.5G/5G/10G	ont.
Anslow, Peter <i>Comment Type</i> E The last inserted subcla <i>SuggestedRemedy</i> In the editing instruction <i>Response</i> ACCEPT. <i>CI</i> 30 <i>SC</i> 30.12.3.1. Anslow, Peter <i>Comment Type</i> E	Ciena Corpor Comment Status A nuse is 30.12.2.1.18z15 not i change "30.12.2.1.18z12" t Response Status C 18a P 50 Ciena Corpor Comment Status A	ation 30.12.2.1.18z12 o "30.12.2.1.18z <i>L</i> 8 ation	Management	item 2) Suggested Replac Response ACCEF C/ 33 Anslow, Pe Comment T). This should be <i>Remedy</i> Se 2) with 3) in str PT. SC 33.4.9.2.3 eter <i>Type</i> T ays "Midspan PS h 10 in 33.4.9.1)"	e shown. trikethrough font <i>Response St</i> 3 <i>Comment St</i> SEs intended for	t followed by tatus C P 67 Ciena Corpor tatus A r operation wi	2) in underline for <i>L</i> 40 ration th 2.5G/5G/10G	ont. # [<u>i-9</u> Editoria
Anslow, Peter Comment Type E The last inserted subcla SuggestedRemedy In the editing instruction Response ACCEPT. C/ 30 SC 30.12.3.1.* Anslow, Peter Comment Type E The last inserted subcla	Ciena Corpor Comment Status A nuse is 30.12.2.1.18z15 not i change "30.12.2.1.18z12" t Response Status C 18a P 50 Ciena Corpor	ation 30.12.2.1.18z12 o "30.12.2.1.18z <i>L</i> 8 ation 30.12.3.1.18z12	Management 15" # [i-6 Editorial	item 2) Suggested Replac Response ACCER CI 33 Anslow, Pe Comment T This sa through). This should be <i>Remedy</i> Se 2) with 3) in str PT. SC 33.4.9.2.3 eter <i>Type</i> T ays "Midspan PS h 10 in 33.4.9.1)"	e shown. trikethrough font <i>Response St</i> 3 <i>Comment Si</i> 6Es intended for " but there are c	t followed by t tatus C P 67 Ciena Corpor tatus A r operation wit only 5 variants	2) in underline for <i>L</i> 40 ration th 2.5G/5G/10G s in 33.4.9.1	ont. # [<u>i-9</u> <i>Editoria</i> BASE-T (variants 5
Anslow, Peter Comment Type E The last inserted subcla SuggestedRemedy In the editing instruction Response ACCEPT. CI 30 SC 30.12.3.1. Anslow, Peter Comment Type E The last inserted subcla The new subclauses sho SuggestedRemedy In the editing instruction	Ciena Corpor <i>Comment Status</i> A uuse is 30.12.2.1.18z15 not 3 a change "30.12.2.1.18z12" t <i>Response Status</i> C 18a <i>P</i> 50 Ciena Corpor <i>Comment Status</i> A nuse is 30.12.3.1.18z13 not 3 ould be inserted after 30.12.3 a change "30.12.3.1.18z12" t	ation 30.12.2.1.18z12 o "30.12.2.1.18z <i>L</i> 8 ation 30.12.3.1.18z12 3.1.18 not 30.12	Management 215" # [i-6 Editorial 2.2.1.18	item 2) Suggested Replac Response ACCER C/ 33 Anslow, Pe Comment T This sa through Suggested Chang Response). This should be <i>Remedy</i> se 2) with 3) in str PT. SC 33.4.9.2.3 eter <i>Type</i> T ays "Midspan PS h 10 in 33.4.9.1)" <i>Remedy</i>	e shown. trikethrough font <i>Response St</i> 3 <i>Comment St</i> SEs intended for " but there are c ough 10 in 33.4. <i>Response St</i>	t followed by t tatus C P 67 Ciena Corpor tatus A r operation wit only 5 variants .9.1" to "varia	2) in underline for <i>L</i> 40 ration th 2.5G/5G/10G s in 33.4.9.1	ont. # [<u>i-9</u> <i>Editoria</i> BASE-T (variants 5
Anslow, Peter Comment Type E The last inserted subcla SuggestedRemedy In the editing instruction Response ACCEPT. C/ 30 SC 30.12.3.1.* Anslow, Peter Comment Type E The last inserted subcla The new subclauses sho SuggestedRemedy	Ciena Corpor <i>Comment Status</i> A uuse is 30.12.2.1.18z15 not 3 a change "30.12.2.1.18z12" t <i>Response Status</i> C 18a <i>P</i> 50 Ciena Corpor <i>Comment Status</i> A nuse is 30.12.3.1.18z13 not 3 ould be inserted after 30.12.3 a change "30.12.3.1.18z12" t	ation 30.12.2.1.18z12 o "30.12.2.1.18z <i>L</i> 8 ation 30.12.3.1.18z12 3.1.18 not 30.12	Management 215" # [i-6 Editorial 2.2.1.18	item 2) Suggested, Replace Response ACCER CI 33 Anslow, Pe Comment 7 This sa through Suggested, Chang Response ACCER). This should be <i>Remedy</i> Se 2) with 3) in str PT. SC 33.4.9.2.3 eter <i>Type</i> T ays "Midspan PS h 10 in 33.4.9.1)" <i>Remedy</i> e "variants 5 thro PT IN PRINCIPL e as follows:	e shown. trikethrough font <i>Response St</i> 3 <i>Comment St</i> SEs intended for " but there are c ough 10 in 33.4. <i>Response St</i> .E.	t followed by tatus C P67 Ciena Corpor tatus A r operation wi only 5 variants .9.1" to "varia tatus C	2) in underline for <i>L</i> 40 ration th 2.5G/5G/10G s in 33.4.9.1 ints 3 through 5 i	ont. # [<u>i-9</u> <i>Editoria</i> BASE-T (variants 5

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Comment ID Comment ID i-9

Page 2 of 137 10/2/2017 3:31:20 PM

C/ 33 SC 33.8.1 Anslow, Peter	P 68 Ciena Corpor	L 42 ration	# [<u>i-10</u>	<i>Cl</i> 79 Anslow, P	SC 79.3.2.1 eter	P 7 Ciena	'5 a Corporation	L 5	# <u>i-13</u>
Comment Type E The text shown is only	Comment Status A the first paragraph of 33.8.1		Editorial	Comment Table here.		Comment Status standard (IEEE Std a		is different f	<i>Editorial</i> from what is shown
SuggestedRemedy Change the editing ins Response ACCEPT.	truction to: "Change the first Response Status C	paragraph of 33	.8.1 as follows:"	Suggested Chang capab	ge the table title f ilities/status"	from "MDI power capa nge "4-7" to "7:4"	abilities/statu	s field" to "N	MDI power
C/ 33 SC 33.8.2.2 Anslow, Peter	P 69 Ciena Corpor	L 9 ration	# i-11	Response ACCE		Response Status	С		
Comment Type E The text after "Clause	Comment Status A 33," should match the new C	lause 33 title.	Editorial	<i>Cl</i> 79 Anslow, P	SC 79.3.2.4 eter	P 7 Ciena	7 6 a Corporation	L 42	# [i-14
SuggestedRemedy Change "Power over E Response ACCEPT.	thernet" to "Power over Ethe Response Status C	ernet over 2 Pairs	5"	be sho Suggested	igh the heading f own here.			not being m	Editorial not
C/ 33 SC 33.8.2.2 Anslow, Peter	P 69 Ciena Corpor	L 14 ration	# i-12	Response ACCE		Response Status	с		
Comment Type E The PICS is being mod Std 802.3bt	Comment Status A dified by the P802.3bt amend	dment, so the co	<i>Editorial</i> nformance is to IEEE	<i>Cl</i> 79 Anslow, P	SC 79.3.2.4.		7 a Corporation	L 1	# i-15
SuggestedRemedy Change "IEEE Std 802	2.3-201x" to "IEEE Std 802.3	bt-201x"				Comment Status referenced from 79.3		able resides	<i>Editorial</i> in 79.3.2.4 so it should
Response ACCEPT.	Response Status C			Suggestee		n the draft			
				Response ACCE		Response Status	С		

C/ 79 SC 79.3.2.	6 P 78	L 35	# i-16	C/ 145 SC 145.4	.9.1.3	P 209	L 45	# i-19
Anslow, Peter	Ciena Corpo	ration		Anslow, Peter		Ciena Corpora	ation	
Comment Type E	Comment Status A		Editorial	Comment Type E	Comment	Status A		Editorial
"33.3.8.2" on line 35 "33.2.7" on line 37 st				Minus signs should	l be an en-dash (C	trl-q Shift-p)		
SuggestedRemedy				SuggestedRemedy				
Change "33.3.8.2" or Change "33.2.7" on I	n line 35 to "33.3.7.2" ine 37 to "33.2.6"			Change to an en-d bottom row of Tabl Table 145-37				
Response	Response Status C			Table 145-38	_			
ACCEPT.				Response	Response S	Status C		
C/ 79 SC 79.5.3	P 90	L7	# i-17	ACCEPT.				
Anslow, Peter	Ciena Corpo	ration		C/ 145 SC 145.4	.9.2.3	P 210	L 41	# i-20
Comment Type E	Comment Status A		Editorial	Anslow, Peter		Ciena Corpora	ation	
	as been modified by IEEE Std	802.3br-2016	Editorial	Comment Type T	Comment	Status A		AES
SuggestedRemedy				This says "Midspar through 10 in 145.4				BASE-T (variants 5
Add the row for "*AE	as added by 802.3br			SuggestedRemedy				
Response	Response Status C			Change "variants 5	through 10 in 145	.4.9.1" to "varia	ants 3 through 5	in 145.4.9.1"
ACCEPT.				Response	Response S	Status C		
C/ 145 SC 145.2.8		L 8	# i-18	ACCEPT IN PRINC	CIPLE.			
Anslow, Peter	Ciena Corpo	ration		Change as follows:				
Comment Type ER	Comment Status A st D2.2 resulted in many trailin	a zeros beina rer	Editorial	"Midspan PSEs int 145.4.9.1 and 145.			/10GBASE-T (va	ariants 3 through 5 in
However, some still r		g zeros being rei		This was shution is it				
SuggestedRemedy				This resolution is id	ientical to commen	nt #177.		
Remove any remaini Equation 145-19 (5 ir Equation 145-20 (7 ir		. In particular:						
Response	Response Status C							

C/ 145 SC 145.2.8.7 P 162 L # [i-21] Waters, Keith Schneider Electric Schneider Electric Schneider Electric Schneider Electric	C/ 145 SC 145.2.8.8 P 162 L # [i-22] Waters, Keith Schneider Electric Schneider Electric Schneider Electric Schneider Electric
Comment Type TR Comment Status R Certification	Comment Type TR Comment Status R Certification
I have concerns that PSE section 145.2.8.7 does not show any testing or certification listing requirements. This is a potential product and fire safety issue and needs to be addressed.	I have concerns that PSE section 145.2.8.8 does not show any testing or certification listing requirements. This is a potential product and fire safety issue and needs to be addressed.
SuggestedRemedy	SuggestedRemedy
at least 1 second width. Testing and a third party certification listing shall be required to confirm overload current protection will operate correctly.	Add: Testing and a third party certification listing shall be required to verify the PSE operates per the requirements in this section.
Response Response Status W	Response Response Status W
REJECT.	REJECT.
This comment is out of scope.	This comment is out of scope.
The purpose of IEEE P802.3bt is to define interoperability, it is not to define product requirements. In respect to safety subclause 145.6.1 'General safety' of IEEE P802.3bt states 'All equipment subject to this clause shall conform to IEC 60950-1 or IEC 62368-1. In particular, the PSE shall be classified as a Limited Power Source in accordance with IEC 60950-1 or IEC 62368-1 Annex Q. Equipment shall comply with all applicable local and national codes related to safety'. It is these referenced local and national codes that define the requirements, not IEEE P802.3bt. The need for certification is determined by the marketplace or regulation, and may vary by geography.	The purpose of IEEE P802.3bt is to define interoperability, it is not to define product requirements. In respect to safety subclause 145.6.1 'General safety' of IEEE P802.3bt states 'All equipment subject to this clause shall conform to IEC 60950-1 or IEC 62368-1. In particular, the PSE shall be classified as a Limited Power Source in accordance with IEC 60950-1 or IEC 62368-1 Annex Q. Equipment shall comply with all applicable local and national codes related to safety'. It is these referenced local and national codes that define the requirements, not IEEE P802.3bt. The need for certification is determined by the marketplace or regulation, and may vary by geography.

	SC 145.4.2	P 200 Schneider Ele	L	# i-23	C/ 30	SC 30.9.1.1	.1	P 35	L 11	# i-25	
Waters, Keith			ectric		Yseboodt, L			Philips Light	ing		
certification fire safety	, oncerns that secti tion listing require	Comment Status R on 145.4.2 does not show ments in regard to fault to ed.		Certification		, clause numbe self: first impl	ering of aPSE		wrong. Needs to t omments, this wi	be 30.9.1.1.2.	Editoria
SuggestedRe	emedy				SuggestedF	emedy					
Add to sta	tandard: Testing	and a third party certificat	tion listing shall I	be required.	Make a	PSEAdminSta	te subclause	number 30.9.1.	1.2.		
Response REJECT.		Response Status W			Response ACCEP	Γ IN PRINCIP	,	e Status C			
This com	nment is out of sc	ope.			Re-num	ber 30.9.1.1.1	through 30.9	9.1.1.8 to be 30.	9.1.1.2 through 3	0.9.1.1.9	
					—	olution in iden	tical to comm				
requireme	nents. In respect t	2.3bt is to define interope o safety subclause 145.6.	1 'General safet	ty' of IEEE P802.3bt					/ 24	# 1.26	
requireme states 'All In particu IEC 6095 national c the requir marketpla	nents. In respect t NI equipment subj ular, the PSE sha 50-1 or IEC 62366 codes related to s irements, not IEE lace or regulation	o safety subclause 145.6. ect to this clause shall could be classified as a Limite 3-1 Annex Q. Equipment s safety.'. It is these referen E P802.3bt. The need for , and may vary by geogram	1 'General safet nform to IEC 609 ed Power Source shall comply with ced local and na certification is d phy.	ty' of IEEE P802.3bt 950-1 or IEC 62368-1. e in accordance with h all applicable local and ational codes that define determined by the	CI 30 Yseboodt, L Comment T TOPIC:	SC 30.9.1.1 ennart pe TR Clause 33 ma	.1 <i>Commer</i> anagement. W	P 35 Philips Light <i>ht Status</i> A	lause 33.5 and th	# <u>i-26</u> <i>Mana</i> nen re-instated it w	agemen when
requirement states 'All In particu IEC 6095 national c the requir marketpla	nents. In respect t Il equipment subj ular, the PSE sha 50-1 or IEC 62366 codes related to s irements, not IEE lace or regulation SC 25	o safety subclause 145.6. ect to this clause shall cou Il be classified as a Limite 3-1 Annex Q. Equipment s safety.'. It is these referen E P802.3bt. The need for	1 'General safet nform to IEC 609 ed Power Source shall comply with ced local and na certification is d phy.	ty' of IEEE P802.3bt 950-1 or IEC 62368-1. e in accordance with h all applicable local and ational codes that define	CI 30 Yseboodt, L Comment T TOPIC: we split "If a Cla	SC 30.9.1.1 ennart //pe TR Clause 33 ma Clauses. This	.1 Commer anagement. W required upd Clause 35 GI	P 35 Philips Light <i>ht Status</i> A Ve deleted subc dates in Clause 3	ing Iause 33.5 and th 30.	Mana	when
requireme states 'All In particu IEC 6095 national c the requir marketpla	hents. In respect t All equipment subj ular, the PSE sha 50-1 or IEC 62366 codes related to s irements, not IEE lace or regulation SC 25 ennart	o safety subclause 145.6. ect to this clause shall col Il be classified as a Limite 3-1 Annex Q. Equipment s safety.'. It is these referen E P802.3bt. The need for , and may vary by geogra	1 'General safet nform to IEC 609 ed Power Source shall comply with ced local and na certification is d phy.	ty' of IEEE P802.3bt 950-1 or IEC 62368-1. e in accordance with h all applicable local and ational codes that define determined by the	CI 30 Yseboodt, L Comment T TOPIC: we split "If a Cla	SC 30.9.1.1 ennart pe TR Clause 33 ma Clauses. This use 22 MII or d in 33.5.1.1.6	.1 Commer anagement. W required upd Clause 35 GI	P 35 Philips Light <i>ht Status</i> A Ve deleted subc dates in Clause 3	ing Iause 33.5 and th 30.	<i>Mana</i> nen re-instated it w	when
requirement states 'All In particu IEC 6095 national of the requir marketpla C/ 25 Yseboodt, Len Comment Typ In Clause	hents. In respect t All equipment subjular, the PSE sha 50-1 or IEC 62366 codes related to s irements, not IEE lace or regulation SC 25 ennart /pe ER e 25 we use the c	o safety subclause 145.6. ect to this clause shall could be classified as a Limite 3-1 Annex Q. Equipment s safety.'. It is these referen E P802.3bt. The need for , and may vary by geograf P 29 Philips Lightir	1 'General safet nform to IEC 609 ad Power Source shall comply with ced local and na certification is d phy. <i>L</i> 1 ng er PD/PSE".	ty' of IEEE P802.3bt 950-1 or IEC 62368-1. e in accordance with h all applicable local and ational codes that define determined by the # i-24	C/ 30 Yseboodt, L Comment T TOPIC: we split "If a Cla specifie SuggestedF Undo st "For Tyj	SC 30.9.1.1 ennart pe TR Clause 33 ma Clauses. This use 22 MII or d in 33.5.1.1.6 emedy ikeout and ch e 1 or Type 2	.1 Commer anagement. W required upd Clause 35 Gf " ange to: PSEs, if a C	P 35 Philips Light <i>ht Status</i> A Ve deleted subc dates in Clause 3 MII is present, th	ing Iause 33.5 and th 30. nen this will map Clause 35 GMII i	<i>Mana</i> nen re-instated it w	when e bit
requirement states 'All In particu IEC 6095 national of the requiremarket platemarket C/ 25 Yseboodt, Lei Comment Typ In Clause Everywhe	hents. In respect t Il equipment subjular, the PSE sha 50-1 or IEC 62366 codes related to s irements, not IEE lace or regulation SC 25 ennart <i>tpe</i> ER e 25 we use the char lace or greater con	o safety subclause 145.6. ect to this clause shall could be classified as a Limite 3-1 Annex Q. Equipment s safety.'. It is these referen E P802.3bt. The need for , and may vary by geograp P 29 Philips Lightir Comment Status A construct "Type 2 or greate	1 'General safet nform to IEC 609 ad Power Source shall comply with ced local and na certification is d phy. <i>L</i> 1 ng er PD/PSE". 3, or Type 4".	ty' of IEEE P802.3bt 950-1 or IEC 62368-1. e in accordance with h all applicable local and ational codes that define determined by the # <u>i-24</u> Editorial	C/ 30 Yseboodt, L Comment T TOPIC: we split "If a Cla specifie SuggestedF Undo st "For Ty map to Response	SC 30.9.1.1 ennart pe TR Clause 33 ma Clauses. This use 22 MII or d in 33.5.1.1.6 emedy ikeout and ch e 1 or Type 2 he PSE Enab	.1 Commer anagement. W required upd Clause 35 Gf ." ange to: PSEs, if a C le bit specifie	P 35 Philips Light <i>ht Status</i> A Ve deleted subc dates in Clause 3 MII is present, th clause 22 MII or	ing Iause 33.5 and th 30. nen this will map Clause 35 GMII i	Mana nen re-instated it w to the PSE Enable	when e bit
requirement states 'All In particu IEC 6095 national of the require marketpla C/ 25 Yseboodt, Lei Comment Typ In Clause Everywhe	hents. In respect t Il equipment subjular, the PSE sha 50-1 or IEC 6236 codes related to size irements, not IEE lace or regulation SC 25 ennart /pe ER e 25 we use the content of the drawn lily, 'or greater' content intent of the drawn intent of the	o safety subclause 145.6. ect to this clause shall could be classified as a Limite 3-1 Annex Q. Equipment s safety.'. It is these referen E P802.3bt. The need for , and may vary by geograf P 29 Philips Lightin Comment Status A construct "Type 2 or greate aft we use "Type 2, Type 3	1 'General safet nform to IEC 609 ad Power Source shall comply with ced local and na certification is d phy. <i>L</i> 1 ng er PD/PSE". 3, or Type 4".	ty' of IEEE P802.3bt 950-1 or IEC 62368-1. e in accordance with h all applicable local and ational codes that define determined by the # <u>i-24</u> Editorial	C/ 30 Yseboodt, L Comment T TOPIC: we split "If a Cla specifie SuggestedF Undo st "For Ty map to	SC 30.9.1.1 ennart pe TR Clause 33 ma Clauses. This use 22 MII or d in 33.5.1.1.6 emedy ikeout and ch e 1 or Type 2 he PSE Enab	.1 Commer anagement. W required upd Clause 35 Gf ." ange to: PSEs, if a C le bit specifie	P 35 Philips Light at Status A Ve deleted subc dates in Clause 3 MII is present, th clause 22 MII or ed in 33.5.1.1.6."	ing Iause 33.5 and th 30. nen this will map Clause 35 GMII i	Mana nen re-instated it w to the PSE Enable	when e bit
requirement states 'All In particu IEC 6095 national c the requir marketpla C/ 25 Yseboodt, Let Comment Typ In Clause Everywhe Potentiall number. SuggestedRe	hents. In respect to a equipment subjular, the PSE sha 50-1 or IEC 6236 codes related to s irements, not IEE lace or regulation SC 25 ennart <i>type</i> ER e 25 we use the charter else in the dra lly, 'or greater' con remedy	o safety subclause 145.6. ect to this clause shall could be classified as a Limite 3-1 Annex Q. Equipment s safety.'. It is these referen E P802.3bt. The need for , and may vary by geograf P 29 Philips Lightin Comment Status A construct "Type 2 or greate aft we use "Type 2, Type 3	1 'General safet nform to IEC 609 ad Power Source shall comply with ced local and na certification is d phy. <i>L</i> 1 ng er PD/PSE". 3, or Type 4". efer to power lev	ty' of IEEE P802.3bt 950-1 or IEC 62368-1. e in accordance with h all applicable local and ational codes that define determined by the # <u>i-24</u> <i>Editorial</i> vel, rather than Type	C/ 30 Yseboodt, L Comment T TOPIC: we split "If a Cla specifie SuggestedF Undo st "For Ty map to Response	SC 30.9.1.1 ennart pe TR Clause 33 ma Clauses. This use 22 MII or d in 33.5.1.1.6 emedy ikeout and ch e 1 or Type 2 he PSE Enab	.1 Commer anagement. W required upd Clause 35 Gf ." ange to: PSEs, if a C le bit specifie	P 35 Philips Light at Status A Ve deleted subc dates in Clause 3 MII is present, th clause 22 MII or ed in 33.5.1.1.6."	ing Iause 33.5 and th 30. nen this will map Clause 35 GMII i	Mana nen re-instated it w to the PSE Enable	when e bit

C/ 30 SC 30.9.4 Yseboodt, Lennart	1.1.2	<i>P</i> 35 Philips Lightin	L 37	# i-27	C/ 30 Yseboodt,	SC 30.9.1.1	.4	P 36 Philips Lightin	L 32	# i-29
,			ig		· · ·				ig	
Comment Type TR		nt Status A		Management	Comment	Type TR	Comment	Status A		Management
TOPIC: Clause 33 we split Clauses. T	management. V his required up	We deleted subcla dates in Clause 3	ause 33.5 and th 0.	nen re-instated it when			anagement. We s required updat			nen re-instated it when
"If a Clause 22 MII Ability bit specified		MII is present, the	en this will map	to the Pair Control		lause 22 MII or ied in 33.5.1.2.		I is present, the	en this will map	to the PSE Status bits
SuggestedRemedy					Suggested	dRemedy				
Undo strikeout and "For Type 1 or Type map to the Pair Co	e 2 PŠEs, if a C			s present, then this will	"For T					s present, then this will
Response	Respons	e Status C			Response	1	Response S	Status C		
ACCEPT.	·				ACCE	PT.	·			
C/ 30 SC 30.9.4	1.1.3	P 36	L 7	# i-28	C/ 30	SC 30.9.1.1	.5	P 37	L 5	# i-30
Yseboodt, Lennart		Philips Lightin	g		Yseboodt,	Lennart		Philips Lightin	ng	
Comment Type TR	Comme	nt Status A		Management	Comment	Type TR	Comment	Status A		Management
TOPIC: Clause 33 we split Clauses. T	0			nen re-instated it when			anagement. We s required updat			nen re-instated it when
"If a Clause 22 MII specified in 33.5.1.		MII is present, the	en this will map	to the Pair Control bits		lause 22 MII or ied in 33.5.1.2.		I is present, the	en this will map	to the PD Class bits
SuggestedRemedy					Suggested	dRemedy				
Undo strikeout and "For Type 1 or Type map to the Pair Co	e 2 PŠEs, if a C			s present, then this will	"For T				lause 35 GMII is	s present, then this will
Response	Respons	e Status C			Response	1	Response S	Status C		
ACCEPT.					ACCE	PT.	·			

	SC 30.9.1.1.6	6 P 37	L 18	# i-31	C/ 30	SC 30.9.1.1.	8	P 37	L 35	# i-33
'seboodt,	Lennart	Philips Lightin	g		Yseboodt, I	ennart		Philips Lightir	ng	
Comment	Type TR	Comment Status A		Management	Comment 7	ype TR	Comment	Status A		Pres: Darshans
we spl "If a C	it Clauses. This r	agement. We deleted subcla required updates in Clause 3 clause 35 GMII is present, the .6."	0.		split. "This c and Fig	ounter is increm	nented when t ters the state	he PSE state di		ted after the Clause 45-13, Figure 145-15, AY_PRI, or
uggestea	lRemedy				Suggested	Remedy				
"For T	the Invalid Sign	nge to: PSEs, if a Clause 22 MII or C ature bit specified in 33.5.1.2 <i>Response Status</i> C		s present, then this will	Figure For Ty Figure	pe 1 and Type 2 33-9 enters the pe 3 and Type 4	state ERROR 4 PSEs, this c 145-15, and F	CDELAY. counter is incren igure 145-16 er		PSE state diagram in PSE state diagram in RROR_DELAY,
/ 30 seboodt,	SC 30.9.1.1.7 Lennart	P 37 Philips Lightin	L 30	# i-32	Response ACCEF	T IN PRINCIPL	Response .E.	Status C		
omment	Type TR	Comment Status A		Management	Adopt of	hanges shown	in Darshan_0	5_0917_final.pd	df	
	· Clause 33 man	a noment We deleted autol	waa 22 E and th	on ro instatod it whon						
		agement. We deleted subcla required updates in Clause 3			[Editor	s note added af	ter comment	resolution comp	pleted.	
we spl "If a C	it Clauses. This r	required updates in Clause 3 Clause 35 GMII is present, the	0.		- The ful	URL for the file	FILE_NAME	.pdf is	bleted. 05_0917_Final.p	df]
we spl "If a C specifi	it Clauses. This r lause 22 MII or C ied in 33.5.1.2.4."	required updates in Clause 3 Clause 35 GMII is present, the	0.		- The ful	URL for the file	e FILE_NAME g/3/bt/public/se	.pdf is		df] # [i-34
we spl "If a C specifi <i>uggested</i> Undo s	it Clauses. This r lause 22 MII or C ied in 33.5.1.2.4." <i>IRemedy</i> strikeout and cha	required updates in Clause 3 clause 35 GMII is present, the nge to:	0. en this will map t	o the Power Denied bit	The ful http://w	URL for the file ww.ieee802.org SC 30.9.1.1.	e FILE_NAME g/3/bt/public/se	.pdf is ep17/darshan_(05_0917_Final.pr 	-
we spl "If a C specifi <i>tuggested</i> Undo s "For T	it Clauses. This r lause 22 MII or C ded in 33.5.1.2.4." <i>IRemedy</i> strikeout and cha ype 1 or Type 2 F	required updates in Clause 3 clause 35 GMII is present, the	0. en this will map t Clause 35 GMII is	o the Power Denied bit	The ful http://w	URL for the file ww.ieee802.org SC 30.9.1.1. ennart	e FILE_NAME)/3/bt/public/so 8	pdf is ep17/darshan_0 P 37	05_0917_Final.pr 	# [i-34
we spl "If a C specifi Suggested Undo s "For T	it Clauses. This r lause 22 MII or C ied in 33.5.1.2.4." <i>IRemedy</i> strikeout and cha ype 1 or Type 2 F o the Power Denie	required updates in Clause 3 clause 35 GMII is present, the nge to: PSEs, if a Clause 22 MII or C	0. en this will map t Clause 35 GMII is	o the Power Denied bit	The ful http://w C/ 30 Yseboodt, I Comment 7 TOPIC	URL for the file ww.ieee802.org SC 30.9.1.1.1 ennart ype TR Clause 33 mar	e FILE_NAME y/3/bt/public/se 8 <i>Comment</i> nagement. We	pdf is ep17/darshan_0 P 37 Philips Lightir Status A	05_0917_Final.p <i>L</i> 43 ng ause 33.5 and th	-
we spl "If a C specifi uggestea Undo s "For T map to esponse	it Clauses. This r lause 22 MII or C ied in 33.5.1.2.4." <i>IRemedy</i> strikeout and cha ype 1 or Type 2 F o the Power Denie	required updates in Clause 3 clause 35 GMII is present, the nge to: PSEs, if a Clause 22 MII or C ed bit specified in 33.5.1.2.4.	0. en this will map t Clause 35 GMII is	o the Power Denied bit	The ful http://w <i>Cl</i> 30 Yseboodt, I <i>Comment T</i> TOPIC we split "If a Cla	URL for the file ww.ieee802.org SC 30.9.1.1.4 ennart ype TR Clause 33 mar Clauses. This	FILE_NAME /3/bt/public/so 8 <i>Comment</i> nagement. Wo required upda Clause 35 GM	pdf is ep17/darshan_(P 37 Philips Lightir <i>Status</i> A e deleted subcla ttes in Clause 3	05_0917_Final.p <i>L</i> 43 ng ause 33.5 and th 0.	# [i-34 Managemen
we spl "If a C specifi <i>luggestea</i> Undo s "For T map to Response	it Clauses. This r lause 22 MII or C ied in 33.5.1.2.4." <i>IRemedy</i> strikeout and cha ype 1 or Type 2 F o the Power Denie	required updates in Clause 3 clause 35 GMII is present, the nge to: PSEs, if a Clause 22 MII or C ed bit specified in 33.5.1.2.4.	0. en this will map t Clause 35 GMII is	o the Power Denied bit	The ful http://w <i>Cl</i> 30 Yseboodt, I <i>Comment T</i> TOPIC we split "If a Cla	URL for the file ww.ieee802.org <i>SC</i> 30.9.1.1. ennart ype TR Clause 33 mar Clauses. This uuse 22 MII or 0 d in 33.5.1.2.8.	FILE_NAME /3/bt/public/so 8 <i>Comment</i> nagement. Wo required upda Clause 35 GM	pdf is ep17/darshan_(P 37 Philips Lightir <i>Status</i> A e deleted subcla ttes in Clause 3	05_0917_Final.p <i>L</i> 43 ng ause 33.5 and th 0.	# [i-34 <i>Managemen</i> en re-instated it when
we spl "If a C specifi <i>luggestea</i> Undo s "For T map to Response	it Clauses. This r lause 22 MII or C ied in 33.5.1.2.4." <i>IRemedy</i> strikeout and cha ype 1 or Type 2 F o the Power Denie	required updates in Clause 3 clause 35 GMII is present, the nge to: PSEs, if a Clause 22 MII or C ed bit specified in 33.5.1.2.4.	0. en this will map t Clause 35 GMII is	o the Power Denied bit	C/ 30 The ful http://w C/ 30 Yseboodt, I Comment 7 TOPIC we split "If a Cla specifie Suggested/ Undo s "For Ty	URL for the file ww.ieee802.org SC 30.9.1.1.4 ennart ype TR Clause 33 mar Clauses. This use 22 MII or C d in 33.5.1.2.8. Remedy rikeout and cha	e FILE_NAME y/3/bt/public/se 8 <i>Comment</i> nagement. We required upda Clause 35 GM " ange to: PSEs, if a Cla	pdf is ep17/darshan_0 <i>P</i> 37 Philips Lightir <i>Status</i> A e deleted subcla tes in Clause 3 II is present, the	05_0917_Final.pr <i>L</i> 43 ng ause 33.5 and th 0. en this will map t	# [i-34 <i>Managemer</i> en re-instated it when
we spl "If a C specifi <i>Suggestea</i> Undo s "For T map to Response	it Clauses. This r lause 22 MII or C ied in 33.5.1.2.4." <i>IRemedy</i> strikeout and cha ype 1 or Type 2 F o the Power Denie	required updates in Clause 3 clause 35 GMII is present, the nge to: PSEs, if a Clause 22 MII or C ed bit specified in 33.5.1.2.4.	0. en this will map t Clause 35 GMII is	o the Power Denied bit	C/ 30 The ful http://w C/ 30 Yseboodt, I Comment 7 TOPIC we split "If a Cla specifie Suggested/ Undo s "For Ty	URL for the file ww.ieee802.org <i>SC</i> 30.9.1.1 .4 ennart <i>type</i> TR Clause 33 mar Clauses. This use 22 MII or C d in 33.5.1.2.8. <i>Remedy</i> rikeout and chap pe 1 or Type 2	e FILE_NAME y/3/bt/public/se 8 <i>Comment</i> nagement. We required upda Clause 35 GM " ange to: PSEs, if a Cla		05_0917_Final.pr <i>L</i> 43 ng ause 33.5 and th 0. en this will map t	# [<u>i-34</u> <i>Managemer</i> en re-instated it when to the Overload bit

C/30 SC 30.9.1.1.11 P 38 'seboodt, Lennart Philips Lighting	L 3	# i-35	C/ 33 S Yseboodt, Lenr	C 33.4.9.2.3	Р 67 Philips Lightin	L 40	# i-37
Comment Type TR Comment Status A	9	Management	Comment Type		Comment Status A	9	Editoria
TOPIC: Clause 33 management. We deleted subcla we split Clauses. This required updates in Clause 30 "If a Clause 22 MII or Clause 35 GMII is present, the).	nen re-instated it when	"Midspan F 33.4.9.1) a	SEs intende	d for operation with 2.5G/5G, y required to meet the follow o different link segments."		iants 5 through 10 in
specified in 33.5.1.2.9."			That varian	it list was spl	it by earlier baseline, there a	re no items 5 thro	ugh 10.
SuggestedRemedy			SuggestedRem	nedy			
Undo strikeout and change to: "For Type 1 or Type 2 PSEs, if a Clause 22 MII or C map to the MPS Absent bit specified in 33.5.1.2.9."	lause 35 GMII i	s present, then this will			ended for operation with 2.50 .2) are"	G/5G/10GBASE-1	(variants 3 through
Response Response Status C			Response		Response Status C		
ACCEPT.			ACCEPT.				
C/ 33 SC 33.2.1 P 61	L 25	# i-36	C/ 79 S	C 79	P 73	L 1	# i-38
Seboodt, Lennart Philips Lighting	g		Yseboodt, Lenr	nart	Philips Lightin	g	
Comment Type ER Comment Status A TOPIC: and/or		Editorial	Comment Type Dual-signa		Comment Status A incompletely and incorrectly	defined.	Pres: Yseboodt4
The Chicago Manual of Style says the following about "Avoid this Janus-faced term. It can often be replace meaning.			SuggestedRem Adopt yseb	2	17_LLDP.pdf		
Where it seems needed, try 'or or both'. But also t	think of other po	ossibilities."	Response		Response Status C		
"PSEs can be compatible with 10BASE-T, 100BASE 5GBASE-T, and/or 10GBASE-T."	-TX, 1000BAS	E-T, 2.5GBASE-T,	,		-		
Suggested Remedy			Adopt yseb	oodt_04_09	17_LLDP.pdf (v153)		
"PSEs can be compatible with 10BASE-T, 100BASE 5GBASE-T, or 10GBASE-T."	-TX, 1000BAS	E-T, 2.5GBASE-T,	[Editor's no	ote added afte	er comment resolution compl	leted.	
Response Response Status C					FILE_NAME.pdf is		
			http://www.	ieee802.org/	3/bt/public/sep17/yseboodt_0	04_0917_LLDP.pd	

C/ 79 SC 79.3.2 Yseboodt, Lennart	2.6c.3 P 80 Philips Lig	L 7 hting	# i-39	C/ 79 SC 7 Yseboodt, Lennart	79.3.8.1	Р 85 Philips Lighti	L 15 ng	# i-42
can easily be mista	Comment Status A SE power pairsx" in the Powe ken for "PSE power pair" o denote this is an extended		Editorial a confusing name that	and power 1-1	measuremer 0000.	Comment Status A hts, the valid values for c be zero, but not the other		LLDi 00, voltage 1-65000,
SuggestedRemedy Rename "PSE pow objects, Clause 79, Response ACCEPT.	er pairsx" to "PSE power pair Clause 145). <i>Response Status</i> C	s ext" throughout t	he draft (Clause 30	SuggestedRemed Change valid Response ACCEPT.	alues for all <i>R</i>	3 to start at 0. Response Status C		
C/ 79 SC 79.3.2 Yseboodt, Lennart	2.6c.3 P 80 Philips Lig	L 29	# [i-40	C/ 145 SC · Yseboodt, Lennart		P 95 Philips Lighti	L 9 ng	# i-43
easily be mistaken	Comment Status A ower Classx" in the Power sta for "Power Class". o denote this is an extended		Editorial onfusing name that can	enhancement deployment ov	of the Power ver balanced that Clause	nctional and electrical ch over Ethernet (PoE) sys twisted-pair cabling." 145 is an 'add-on' to Cla	stem defined in C	Clause 33 for
Clause 79, Clause	assx" to "Power Class ext" th 145). Je for Dual-signature power C <i>Response Status</i> C	-		SuggestedRemed "This clause d over Ethernet twisted-pair ca	/ efines the fur (PoE) system bling."	nctional and electrical ch n originally defined in Cla		
Cl 79 SC 79.3.2 Yseboodt, Lennart	2.6d P 81 Philips Lig	L 16 hting	# <u>i-41</u>	Response ACCEPT IN P Replace sente	RINCIPLE.	esponse Status C		
easily be mistaken	o denote this is an extended		Editorial nfusing name that can	"This clause o	lefines the fu (PoE) syster			an enhanced Power bair cabling. The original
SuggestedRemedy Rename "Power typ Clause 79, Clause	pex" to "Power Type ext" thro 145).	ughout the draft (C	lause 30 objects,					
Response ACCEPT.	Response Status C							

C/ 145 SC 145.1.3 Yseboodt, Lennart		Р 97 Philips Lightii	L 37 ng	# i-44	C/ 145 SC 145.1.3 P 97 L 43 # i-45 Yseboodt, Lennart Philips Lighting Philips Lighting Philips Lighting Philips Lighting
Comment Type TR		Status A		Syste	
Table 145-1, Type 4 en as "2 or 4".	try lists 0.96/	A as the nomina	al current and nu	mber of powered pairs	There are two paragraphs under Table 145-1:
We only allow >0.6A wh conditions).	nen in 4-pair	mode though (v	with the exceptio	n of dual-signature fau	"I Cable, defined in Table 145-1, is the highest nominal current on a pair for a system
SuggestedRemedy					without pair-to-pair current unbalance"
Split Type 4 line in two:		(achla anaa)			It doesn't make sense to say where ICable is defined in the second paragraph.
Type 4 0.6 2 Type 4 0.96 4	12.5 12.5	(cable spec) (cable spec)			SuggestedRemedy
Response	Response				Change as follows:
ACCEPT.					"I Cable, defined in Table 145-1, is the current on one twisted pair in the balanced twisted pair cable"
					"I Cable is the highest nominal current on a pair for a system without pair-to-pair current unbalance"
					Response Response Status C ACCEPT IN PRINCIPLE.
					Change as follows:
					"I Cable, specified in Table 145-1, is the current on one twisted pair in the balanced twisted pair cable"
					"I Cable is the highest nominal current on a pair for a system without pair-to-pair current unbalance"
					Cl 145 SC 145.1.3.1 P 98 L 40 # i-46
					Yseboodt, Lennart Philips Lighting
					Comment TypeEComment StatusAEditeFootnote starts with number 3. It is the third footnote of the entire document
					SuggestedRemedy Check with Editorial staff to see if this is correct, and fix if needed.
					Response Response Status C ACCEPT.

"PSEs can be compatible with 10BASE-T, 100BASE-TX, 1000BASE-T, 2.5GBASE-T, 5GBASE-T, or 10GBASE-T." What isn't taken into account is diode aging. As diodes are exposed to current and temperature, their forward voltage will begin to drift. Response Response Status C ACCEPT IN PRINCIPLE. ************************************	Machaedt Lewset Dhilles Lighting	C/ 145 SC 145.2.4 P 107 L 40 # i-49
TOPIC: add/or The Chicage 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.' 'PSEs can be compatible with 10BASE-T, 100BASE-TX, 1000BASE-T, 2.5GBASE-T, 5GBASE-T, or 10GBASE-T.' 'PSEs can be compatible with 10BASE-T, 100BASE-TX, 1000BASE-T, 2.5GBASE-T, 5GBASE-T, or 10GBASE-T.' 'PSEs can be compatible with 10BASE-T, 100BASE-T, 100BA		
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-T, 100BASE-T, 2.5GBASE-T, 5GBASE-T, or 'O'GFASE-T." SuggestedRemedy 'PSEs can be compatible with 10BASE-T, 100BASE-T, 100BASE-T, 2.5GBASE-T, 5GBASE-T, or 'O'GFASE-T." SuggestedRemedy 'PSEs can be compatible with 10BASE-T, 100BASE-T, 100BASE-T, 2.5GBASE-T, 5GBASE-T, or 'O'GFASE-T." Seponse Response Status C ACCEPT IN PRINCIPLE. 'PSEs can be compatible with any of the following: 10BASE-T, 100BASE-T, 2.5GBASE-T, 100BASE-T,		
T, 2.5GBASE-T, 5GBASE-T, 10GBASE-T Type 1 Yell	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." SuggestedRemedy "PSEs can be compatible with 10BASE-T, 100BASE-TX, 1000BASE-T, 2.5GBASE-T, 5GBASE-T, or 10GBASE-T." Response Response Status C ACCEPT IN PRINCIPLE.	 current unbalance. Diode specifications generally do not include information or guarantees about the maximum spread in forward voltage between samples. This makes it hard to get to a provable correct design that will always meet the current unbalance spec. It is however not impossible, analysis over the course of this project has shown that diod forward voltage differences of more than 60mV are extremely rare. This number has bee used to calculate the unbalance budget for the PD. What isn't taken into account is diode aging. As diodes are exposed to current and temperature, their forward voltage will begin to drift. A pair of parallel diodes exposed to roughly the same current may be expected to age in the same way (this is uncertain, but let's accept it for the moment). If 4-pair PSEs are allowed to provide power in polarity configurations that can result in OI
If 145 SC 145.1.3.1 P102 L 30 # [i-48 // seboodt, Lennart Philips Lighting Comment Type ER Comment Status R Cabling "Type 3 and Type 4 operation requires Class D or better cabling as specified in ISO/IEC 11801:2002." Cabling at the moment of writing this comment, it is unknown what the magnitude of this issue is. Redundant reference to Type. Also, not completely true, a Type 3 system operating at Class 3 will still work over 20 ohm cable. SuggestedRemedy 1. Quantify this issue for the November meeting 2. Appropriate solition, if needed to be presented then SuggestedRemedy "Class D or better cabling as specified in ISO/IEC 11801:2002 is required to support operation as specified in this Clause." A remedy was not provided with this comment. Response Response Response Status U It is clause." It is clause. It is clause.	T, 2.5GBASE-T, 5GBASE-T, 10GBASE-T"	this would mean that a PD that has been exposed to a certain current configuration, wou
Comment Type ER Comment Status R Cabling "Type 3 and Type 4 operation requires Class D or better cabling as specified in ISO/IEC Test to determine this are planned. "11801:2002." Redundant reference to Type. Also, not completely true, a Type 3 system operating at Class 3 will still work over 20 ohm cable. 1. Quantify this issue for the November meeting Trying to explain that nuance in this sentence seems unneccesairy. 2. Appropriate solition, if needed to be presented then SuggestedRemedy "Class D or better cabling as specified in ISO/IEC 11801:2002 is required to support operation as specified in this Clause." M Response Response Status U		
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State names do not need the extra word state. Variable autoclass_enabled is not consistent with e.g. pse_dll_enable. SuggestedRemedy Change to: "If the connected PD is identified as dual-signature, the top level state diagram will proceed to SISM_START and remain in that state, at which point the semi-independent state diagrams for the Primary and Secondary Alternative become active." SuggestedRemedy Response Response Status C Response Response Status C		.5 <i>P</i> 108		L 6	# i-50	C/ 145		145.2.5.4		P 110	L 27	# i-52
Clause 33 in the base standard, subclause 33 is says: "If the PSE is implemented with a management indeface described in 22.2.4 or 45.2 (If the PSE is implemented with a management indeface described in 22.2.4 or 45.2 (If the PSE is implemented with a management indeface described in 22.2.4 or 45.2 (If the PSE is implemented with a management indeface described in 22.2.4 or 45.2 (If the PSE is implemented with a management indeface described in 22.2.4 or 45.2 (If the PSE is implemented with a management indeface described in 22.2.4 or 45.2 (If the PSE is implemented with a management indeface described in Clause 30.* Clause 145 will not define these specific registers, as implementors choose to use a different interface than MDIQ to configure the PSE. Suggested/Remody Adoty sebodt, Losoft J	rseboodt, Lennart	•	0 0			Yseboodt, I	_ennar	t		1 0	g	
"If the PSE is implemented with a management interface described in 22.2.4 or 45.2. (MDIO), then the management access shall use the PSE register definitions shown in 33.5.1. Where no physical embodiment of the Clause 22 or Clause 45 management is supported, equivalent management access shall use the PSE register definitions shown in 33.5.1. Where no physical embodiment of the Clause 22 or Clause 45 management is supported, equivalent management access shall use the PSE. Clause 145 will not define these specific registers, as implementors choose to use a different infrace than MDIO to configure the PSE. Why are we describing half of the state machine for the TRUE' value ? SuggestedRemedy Adopt yseboodt_05_0917_management.pdf Reparse Status Z REJECT. Reparse Status S This comment was WITHDRAWN by the commenter. Philips Lighting C1145 SC 145.2.5.1 P 108 L 48 I_651 The connected PD is identified as dual-signature, the top level state diagram will poceed to the SISM_START state and remain in that state, at which point the semi-independent state diagrams for the Primary Alternative become active." State names do not need the extra word state. SuggestedRemedy Change to: "If the connected PD is identified as dual-signature, the top level state diagram will proceed to b SISM_START and remain in that state, at which point the semi-independent state diagrams for the Primary Alternative become active." State names do not need the extra word state. SuggestedRemedy Change to: "If the connect PD is identified as dual-signature, the top level state diagram will proceed to SISM_START and remain in that state, at whi	21				Pres: Yseboodt5							PSE SI
Clause 143 will not beline thore by beline the primary atternative. Clause 143 will not beline the duigrams that certain basic parameters in the state diagram will proceed to 55.0917_management.pdf SuggestedRemedy Adopt yseboodt_05_0917_management.pdf Proposed Response Response Status Z REJECT. This comment was WITHDRAWN by the commenter. C1 145 SC 1452.5.1 Philips Lighting Comment Type E Comment Type E Comment Type E Comment Type E Comment Type Comment Status A "If the connected PD is identified as dual-signature, the top level state diagram will proceed to SISM_START take and remain in that state, at which point the semi-independent state diagram will proceed to SISM_START and remain us that state, at which point the semi-independent tate diagrams for the Primary Alternative become active." SuggestedRemedy Comment Status A Editoria Comment Type T Comment Status A Editoria "If the connected PD is identified as dual-signature, the top level state diagram will proceed to SISM_START take and remain in that state, at which point the semi-independent state diagrams for the Primary and Secondary Alternative become active." Comment Type T Comment Status A Editoria <	"If the PSE is imple (MDIO), then the m 33.5.1. Where no p supported, equivale	emented with a management anagement access shall us hysical embodiment of the ent management capability	nt interface se the PSE Clause 22 shall be pro	register defin or Clause 45 ovided. Manag	itions shown in management is ged objects	"FALSI TRUE or pow	E: The The F er is be	PSE is no PSE has o eing forceo	ot to apply p letected, cla d on the Prir	ower to the Prima assified, and will p mary Alternative i	ower a PD on t n TEST_MODE	
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Adopt ysebood_US_0917_management.pdf Proposed Response Response Status Z REJECT. This comment was WITHDRAWN by the commenter. C1 145 SC 145.2.5.1 P 108 L 48 # i-51 Yseboodt, Lennart Philips Lighting FALSE: The PSE is not to apply power to the Primary Alternative. Comment Type E Comment Status A Editorial "If the connected PD is identified as dual-signature, the top level state diagram will proceed to the SISM_START and remain in that state, at which point the semi-independent state diagrams for the Primary and Secondary Alternative become active." Cl 145 SC 145.2.5.4 P 110 L 42 # i-53 State names do not need the extra word state. SuggestedRemedy Comment Type Comment Status A Editorial "If the connected PD is identified as dual-signature, the top level state diagram will proceed to the SISM_START and remain in that state, at which point the semi-independent state diagrams for the Primary and Secondary Alternative become active." Cl 145 SC 145.2.5.4 P 110 L 42 # i-53 SuggestedRemedy Change to: "If the connected PD is identified as dual-signature, the top level state diagram will proceed to SISM_START and remain in that state, at which point the semi-independent state diagram will proceed to SISM_START and remain in that state, at which point the semi-independent state Su	SuggestedRemedy						Jiange	101 _360.	Da a a a a a a a a a			
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	Cl 145 SC 145.2 Yseboodt, Lennart Comment Type E "If the connected P to the SISM_STAR state diagrams for t State names do no SuggestedRemedy Change to:	.5.1 <i>P</i> 108 Philips L <i>Comment Status</i> A D is identified as dual-signa T state and remain in that s the Primary and Secondary t need the extra word state.	ighting ature, the to state, at wh Alternative	op level state o ich point the s a become activ	<i>Editorial</i> diagram will proceed semi-independent ve."	"FALSI TRUE is powe TEST	E: The F ring th MODE SC Lennar Type e autoo	PSE has c le Primary ." 145.2.5.4 t T Class_ena	letected, cla Alternative Commen bled is not o	assified, and will p , or power is bein P 110 Philips Lightin at Status A consistent with e.	bower a PD on the g forced on the <i>L</i> 42 g g. pse_dll_enab	Primary Alternative in # <u>i-53</u> <i>Editoria</i> ble.
	Cl 145 SC 145.2 Yseboodt, Lennart Comment Type E "If the connected P to the SISM_STAR state diagrams for to State names do no SuggestedRemedy Change to: "If the connected P to SISM_START ar	.5.1 <i>P</i> 108 Philips L <i>Comment Status</i> A D is identified as dual-signa T state and remain in that s the Primary and Secondary t need the extra word state. D is identified as dual-signa nd remain in that state, at w	ighting ature, the to state, at wh Alternative ature, the to thich point	op level state o ich point the s become activ op level state o the semi-inde	<i>Editorial</i> diagram will proceed semi-independent ve." diagram will proceed	"FALSI TRUE is powe TEST_ C/ 145 Yseboodt, I Comment T Variabl Suggested Change Response	E: The ring the MODE SC ennar Type e autoo Remea e varial	PSE has c le Primary ." 145.2.5.4 t T Class_ena	letected, cla Alternative Commen bled is not o	assified, and will p , or power is bein P 110 Philips Lightin at Status A consistent with e.g	bower a PD on the g forced on the <i>L</i> 42 g g. pse_dll_enab	Primary Alternative in # <u>i-53</u> <i>Editoria</i> ole.
	Cl 145 SC 145.2 Yseboodt, Lennart Comment Type E "If the connected P to the SISM_STAR state diagrams for t State names do no SuggestedRemedy Change to: "If the connected P to SISM_START ar diagrams for the Pr	.5.1 <i>P</i> 108 Philips L <i>Comment Status</i> A D is identified as dual-signa T state and remain in that s the Primary and Secondary t need the extra word state. D is identified as dual-signa nd remain in that state, at w imary and Secondary Alter	ighting ature, the to state, at wh Alternative ature, the to hich point in native becc	op level state o ich point the s become activ op level state o the semi-inde	<i>Editorial</i> diagram will proceed semi-independent ve." diagram will proceed	"FALSI TRUE is powe TEST_ C/ 145 Yseboodt, I Comment T Variabl Suggested Change Response	E: The ring the MODE SC ennar Type e autoo Remea e varial	PSE has c le Primary ." 145.2.5.4 t T Class_ena	letected, cla Alternative Commen bled is not o	assified, and will p , or power is bein P 110 Philips Lightin at Status A consistent with e.g	bower a PD on the g forced on the <i>L</i> 42 g g. pse_dll_enab	Primary Alternative in # <u>i-53</u> <i>Editoria</i> ole.
	Cl 145 SC 145.2 (seboodt, Lennart Comment Type E "If the connected P to the SISM_STAR state diagrams for the State names do no SuggestedRemedy Change to: "If the connected P to SISM_START ar diagrams for the Pr	.5.1 <i>P</i> 108 Philips L <i>Comment Status</i> A D is identified as dual-signa T state and remain in that s the Primary and Secondary t need the extra word state. D is identified as dual-signa nd remain in that state, at w imary and Secondary Alter	ighting ature, the to state, at wh Alternative ature, the to hich point in native becc	op level state o ich point the s become activ op level state o the semi-inde	<i>Editorial</i> diagram will proceed semi-independent ve." diagram will proceed	"FALSI TRUE is powe TEST_ C/ 145 Yseboodt, I Comment T Variabl Suggested Change Response	E: The ring the MODE SC ennar Type e autoo Remea e varial	PSE has c le Primary ." 145.2.5.4 t T Class_ena	letected, cla Alternative Commen bled is not o	assified, and will p , or power is bein P 110 Philips Lightin at Status A consistent with e.g	bower a PD on the g forced on the <i>L</i> 42 g g. pse_dll_enab	Primary Alternative in # [<u>i-53</u> <i>Editoria</i> ole.

C/ 145 SC 145.2.5.								
	4 <i>P</i> 111	L 30	# i-54	C/ 145 SC 145.2	2.5.4	P 114	L 19	# i-57
Yseboodt, Lennart	Philips Lighting			Yseboodt, Lennart		Philips Lighting	g	
Comment Type ER	Comment Status A		PSE SD	Comment Type E	Comment	Status A		PSE SD
"det_temp: A tempora	ary variable that indicates whethe	er "						oad condition on the
The variable is not ter	nporary, just it's use is restricted	in nature.		Primary Alternative	(see 145.2.8.7) to	or at least 1 CU	I-2P of a one s	econd sliding time."
SuggestedRemedy				The word 'window'	is missing somew	here in that sen	tence.	
Strike 'temporary'				SuggestedRemedy				
Response ACCEPT.	Response Status C							oad condition on the econd sliding window."
C/ 145 SC 145.2.5.	4 P 112	L 38	# [i-55	Same fix for ovld_o	let_sec.			
seboodt, Lennart	Philips Lighting			Response	Response S	Status C		
Comment Type TR	Comment Status A		PSE SD	ACCEPT IN PRIN	CIPLE.			
In the PSE state diago diagram.	ram variable list, the variable IInr	ush-2P is not	used in the state	"A variable indicati Primary Alternative		ut current has b	een in an overl	oad condition on the
SuggestedRemedy Remove variable.				This resolution is i	dentical to comme	nt #58.		
Response ACCEPT.	Response Status C			Cl 145 SC 145.2 Yseboodt, Lennart	2.5.4	P 114 Philips Lighting	L 20	# i-58
AUGEL 1.								
C/ 145 SC 145.2.5. Yseboodt, Lennart	4 P 112 Philips Lighting	L 38	# <u>i-56</u>	Comment Type TR Topic: SLIDING			draft verv incor	PSE SD
Cl 145 SC 145.2.5. Yseboodt, Lennart Comment Type TR			PSE SD	Topic: SLIDING	concept of 'sliding ake the whole bun	windows' in our ch consistent.		nsistently, the SLIDING
Cl 145 SC 145.2.5. Yseboodt, Lennart Comment Type TR In the PSE state diag diagram. Same for IPort-2P-set	Philips Lighting <i>Comment Status</i> A ram variable list, the variable IPc		PSE SD	Topic: SLIDING Issue: we use the of comments try to m Aim: get everything In this case, the de	concept of 'sliding ' ake the whole bun g in the form "meas escription of the over	windows' in our ch consistent. sure xxx using a erload rules is ii	n xx time sliding n 145.2.8.7, and	nsistently, the SLIDING window".
Cl 145 SC 145.2.5. (seboodt, Lennart Comment Type TR In the PSE state diago diagram.	Philips Lighting <i>Comment Status</i> A ram variable list, the variable IPc c.		PSE SD	Topic: SLIDING Issue: we use the of comments try to m Aim: get everything In this case, the de repeated in the var	concept of 'sliding ' ake the whole bun g in the form "meas scription of the ov iable description (e	windows' in our ch consistent. sure xxx using a erload rules is in especially not if ut current has b	a xx time sliding n 145.2.8.7, and they don't mate een in an overl	nsistently, the SLIDING window". d should not be ch perfectly like here). oad condition on the
Cl 145 SC 145.2.5. (seboodt, Lennart Comment Type TR In the PSE state diagon diagram. Same for IPort-2P-see SuggestedRemedy Remove both variable Response	Philips Lighting <i>Comment Status</i> A ram variable list, the variable IPc c.		PSE SD	Topic: SLIDING Issue: we use the of comments try to m Aim: get everything In this case, the de repeated in the var "A variable indicati Primary Alternative	concept of 'sliding ' ake the whole bun g in the form "meas scription of the ov iable description (e	windows' in our ch consistent. sure xxx using a erload rules is in especially not if ut current has b	a xx time sliding n 145.2.8.7, and they don't mate een in an overl	nsistently, the SLIDING window". d should not be ch perfectly like here).
C/ 145 SC 145.2.5. Seboodt, Lennart Comment Type TR In the PSE state diagonal diagram. Same for IPort-2P-set SuggestedRemedy	Philips Lighting <i>Comment Status</i> A ram variable list, the variable IPc c.		PSE SD	Topic: SLIDING Issue: we use the comments try to m Aim: get everything In this case, the de repeated in the var "A variable indicati Primary Alternative SuggestedRemedy	concept of 'sliding ' ake the whole bun g in the form "meas scription of the over iable description (e ng if the PSE outp (see 145.2.8.7) for	windows' in our ch consistent. sure xxx using a erload rules is in especially not if ut current has b or at least T CU'	a xx time sliding n 145.2.8.7, and they don't mato een in an overl T-2P of a one s	nsistently, the SLIDING window". d should not be ch perfectly like here). oad condition on the
Cl 145 SC 145.2.5. (seboodt, Lennart Comment Type TR In the PSE state diagon diagram. Same for IPort-2P-see SuggestedRemedy Remove both variable Response	Philips Lighting <i>Comment Status</i> A ram variable list, the variable IPc c.		PSE SD	Topic: SLIDING Issue: we use the comments try to m Aim: get everything In this case, the de repeated in the var "A variable indicati Primary Alternative SuggestedRemedy "A variable indicati	concept of 'sliding ' ake the whole bun g in the form "meas scription of the over iable description (e ng if the PSE outp (see 145.2.8.7) for	windows' in our ch consistent. sure xxx using a erload rules is in especially not if ut current has b or at least T CU' ut current has b	a xx time sliding n 145.2.8.7, and they don't mato een in an overl T-2P of a one s	nsistently, the SLIDING window". d should not be th perfectly like here). oad condition on the econd sliding time."

C/ 145 Yseboodt,	SC 145.2.5.4 Lennart	P 114 Philips Lighting	L 25	# <mark>i-59</mark>	C/ 145 Yseboodt,	SC 14 Lennart	5.2.5.4	P 114 Philips Ligh	L 45 ting	# [i-61
Issue: comme	SLIDING we use the concept ents try to make the	Comment Status A of of 'sliding windows' in our e whole bunch consistent. e form "measure xxx using a	-		establi	ariable in	dicates 4 Ising the	Comment Status A PID and Type 3 or Type method to generate 3 cla shed ?		
repeate "A varia Secone Suggested	ed in the variable of able indicating if the dary Alternative (s IRemedy	on of the overload rules is in description (especially not if ne PSE output current has b ee 145.2.8.7) for at least T (ne PSE output current has b	they don't matc een in an overl CUT-2P of a on	h perfectly like here). Dad condition on the e second sliding time."		ce by: rariable ind he metho		nat 4PID has been establ erate 3 class events to de <i>Response Status</i> C		
	dary Alternative; s				C/ 145	SC 14	5.2.5.4	P 115	L 53	# <u>i-62</u>
Response		Response Status C			Yseboodt,	Lennart		Philips Ligh	ting	
ACCE	PT.				Comment	Туре Е	ER	Comment Status A		PSE S
Cl 145 Yseboodt, Comment ⁻ "This v	Туре Е	P 114 Philips Lighting Comment Status A PID and Type 3 or Type 4 c	-	# i-60 PSE SD D has been	by Phy manne - Some	vsical Laye er; see Tal ething wer	er classif ble 145-6 nt wrong	able indicates the highes ication. The value is dete 5." in this sentence what i it Table 145-6 contains re	rmined in an imp s a 'PD Class' ?	plementation-specific
		method to generate 3 class			Suggestea					
The PI	D has been establi	shed ?			Replac	e by:				
Suggested Replac	ce by:				classif	ication. Th	ne value	ne highest Class the PSE is restricted to the allower fic manner."		
		hat 4PID has been establish class events to determine		ary Alternative by using	Response ACCE	PT.		Response Status C		
Response ACCEI	PT IN PRINCIPLE	Response Status C								
	le to:			an actablished on the						
	variable indicates t	hat the Type of the dual-sign hysical Layer Classification.'		een established on the						

C/ 145 SC 145.2.5.4 P 116 L 11 # i-63 Yseboodt, Lennart Philips Lighting	C/ 145 SC 145.2.5.4 P 118 L 29 # i-65 Yseboodt, Lennart Philips Lighting Philips Lighting Philips Lighting Philips Lighting
Comment Type ER Comment Status A PSE "pse_avail_pwr_pri: This variable indicates the highest power PD Class the PSE may	SD Comment Type E Comment Status A PSE SD "temp var: A temporary variable used to store the value of the state variable pd class sig."
assign by Physical Layer classification on the Primary Alternative. The value is determine	ed i i i i i i i i i i i i i i i i i i i
in an implementation-specific manner; see Table 145-6."	The variable is not temporary, it's use is.
- Something went wrong in this sentence what is a 'PD Class' ?	SuggestedRemedy
- We should point out that Table 145-6 contains restrictions that must be followed.	Change to: "temp_var: A variable used to store the value of pd_class_sig." Same fix for temp_var_pri and temp_var_sec.
SuggestedRemedy	Response Response Status C
Replace by: "This variable indicates the highest Class the PSE may assign to the PD by Physical Lay classification on the Primary Alternative.	
The value is restricted to the allowed range defined in Table 145-6 and set in an	C/ 145 SC 145.2.5.7 P 125 L 1 # i-66
implementation-specific manner."	Yseboodt, Lennart Philips Lighting
Same fix for pse_avail_pwr_sec.	Comment Type TR Comment Status D Pres: Yseboodt6
Response Response Status C	The PSE state diagram currently requires a PSE to either turn on, or go back to IDLE
Response Response Status C	
ACCEPT.	within Tpon referenced at the end of detection.
ACCEPT.	within Tpon referenced at the end of detection. Another option is to 'renew' Tpon by checking is the PD is drawing a correct mark current. This flexibility has a number of use cases as explained in
ACCEPT. C/ 145 SC 145.2.5.4 P 117 L 1 # <u>i-64</u>	within Tpon referenced at the end of detection. Another option is to 'renew' Tpon by checking is the PD is drawing a correct mark current. This flexibility has a number of use cases as explained in http://www.ieee802.org/3/bt/public/may17/lukacs_01_0517_Mark&Hold_rev1.0.pdf
ACCEPT. C/ 145 SC 145.2.5.4 P 117 L 1 # i-64 Yseboodt, Lennart Philips Lighting	within Tpon referenced at the end of detection. Another option is to 'renew' Tpon by checking is the PD is drawing a correct mark current. This flexibility has a number of use cases as explained in http://www.ieee802.org/3/bt/public/may17/lukacs_01_0517_Mark&Hold_rev1.0.pdf SuggestedRemedy
ACCEPT. Cl 145 SC 145.2.5.4 P 117 L 1 # i-64 Yseboodt, Lennart Philips Lighting Comment Type TR Comment Status A PSE	within Tpon referenced at the end of detection. Another option is to 'renew' Tpon by checking is the PD is drawing a correct mark current. This flexibility has a number of use cases as explained in http://www.ieee802.org/3/bt/public/may17/lukacs_01_0517_Mark&Hold_rev1.0.pdf SuggestedRemedy Adopt yseboodt_06_0917_markhold.pdf
ACCEPT. C/ 145 SC 145.2.5.4 P 117 L 1 # i-64 Yseboodt, Lennart Philips Lighting	within Tpon referenced at the end of detection. Another option is to 'renew' Tpon by checking is the PD is drawing a correct mark current. This flexibility has a number of use cases as explained in http://www.ieee802.org/3/bt/public/may17/lukacs_01_0517_Mark&Hold_rev1.0.pdf SuggestedRemedy SD Adopt yseboodt_06_0917_markhold.pdf in Proposed Response Response Status Z
ACCEPT. Cl 145 SC 145.2.5.4 P 117 L 1 # i-64 Yseboodt, Lennart Philips Lighting Comment Type TR Comment Status A PSE "pse_power_update_pri: A variable that is set when the PSEAllocatedPowerValue_alt(X)	within Tpon referenced at the end of detection. Another option is to 'renew' Tpon by checking is the PD is drawing a correct mark current. This flexibility has a number of use cases as explained in http://www.ieee802.org/3/bt/public/may17/lukacs_01_0517_Mark&Hold_rev1.0.pdf SuggestedRemedy Adopt yseboodt_06_0917_markhold.pdf
ACCEPT. Cl 145 SC 145.2.5.4 P 117 L 1 # i-64 Yseboodt, Lennart Philips Lighting Comment Type TR Comment Status A PSE "pse_power_update_pri: A variable that is set when the PSEAllocatedPowerValue_alt(X) the DLL state diagram in Figure 145-43 has been updated." Does not mention which Alternative this is for. The _sec variant has the exact same	within Tpon referenced at the end of detection. Another option is to 'renew' Tpon by checking is the PD is drawing a correct mark current. This flexibility has a number of use cases as explained in http://www.ieee802.org/3/bt/public/may17/lukacs_01_0517_Mark&Hold_rev1.0.pdf SuggestedRemedy SD Adopt yseboodt_06_0917_markhold.pdf in Proposed Response Response Status Z REJECT.
ACCEPT. Cl 145 SC 145.2.5.4 P 117 L 1 # i-64 Yseboodt, Lennart Philips Lighting Comment Type TR Comment Status A PSE "pse_power_update_pri: A variable that is set when the PSEAllocatedPowerValue_alt(X) the DLL state diagram in Figure 145-43 has been updated." Does not mention which Alternative this is for. The _sec variant has the exact same description text. SuggestedRemedy Change to:	within Tpon referenced at the end of detection. Another option is to 'renew' Tpon by checking is the PD is drawing a correct mark current. This flexibility has a number of use cases as explained in http://www.ieee802.org/3/bt/public/may17/lukacs_01_0517_Mark&Hold_rev1.0.pdf SuggestedRemedy SD Adopt yseboodt_06_0917_markhold.pdf in Proposed Response Response Status Z REJECT. This comment was WITHDRAWN by the commenter. C/ 145 SC 145.2.5.7 P 125 L 32 # [i-67 Yseboodt, Lennart Philips Lighting
ACCEPT. C/ 145 SC 145.2.5.4 P 117 L 1 # [i-64 //seboodt, Lennart Philips Lighting Comment Type TR Comment Status A PSE "pse_power_update_pri: A variable that is set when the PSEAllocatedPowerValue_alt(X) the DLL state diagram in Figure 145-43 has been updated." Does not mention which Alternative this is for. The _sec variant has the exact same description text. SuggestedRemedy	within Tpon referenced at the end of detection. Another option is to 'renew' Tpon by checking is the PD is drawing a correct mark current. This flexibility has a number of use cases as explained in http://www.ieee802.org/3/bt/public/may17/lukacs_01_0517_Mark&Hold_rev1.0.pdf SuggestedRemedy SD Adopt yseboodt_06_0917_markhold.pdf in Proposed Response Response Status Z REJECT. This comment was WITHDRAWN by the commenter. C/ 145 SC 145.2.5.7 P 125 L 32 # [i-67 Yseboodt, Lennart Philips Lighting
ACCEPT. C/ 145 SC 145.2.5.4 P 117 L 1 # i-64 (seboodt, Lennart Philips Lighting Comment Type TR Comment Status A PSE "pse_power_update_pri: A variable that is set when the PSEAllocatedPowerValue_alt(X) the DLL state diagram in Figure 145-43 has been updated." Does not mention which Alternative this is for. The _sec variant has the exact same description text. SuggestedRemedy Change to: "pse_power_update_pri: A variable that is set when the PSEAllocatedPowerValue_alt(X)	 within Tpon referenced at the end of detection. Another option is to 'renew' Tpon by checking is the PD is drawing a correct mark current. This flexibility has a number of use cases as explained in http://www.ieee802.org/3/bt/public/may17/lukacs_01_0517_Mark&Hold_rev1.0.pdf SuggestedRemedy Adopt yseboodt_06_0917_markhold.pdf Proposed Response Response Status Z REJECT. This comment was WITHDRAWN by the commenter. CI 145 SC 145.2.5.7 P 125 L 32 # i-67 Yseboodt, Lennart Philips Lighting Comment Type TR Comment Status A PSE SE State diagram logic from START_DETECT to DETECT_EVAL is missing a closing paren
ACCEPT. C/ 145 SC 145.2.5.4 P 117 L 1 # [-64 Seboodt, Lennart Philips Lighting Comment Type TR Comment Status A PSE "pse_power_update_pri: A variable that is set when the PSEAllocatedPowerValue_alt(X) the DLL state diagram in Figure 145-43 has been updated." Does not mention which Alternative this is for. The _sec variant has the exact same description text. SuggestedRemedy Change to: "pse_power_update_pri: A variable that is set when the PSEAllocatedPowerValue_alt(X) the DLL state diagram in Figure 145-43 has been updated, where X is the Primary Alternative."	 within Tpon referenced at the end of detection. Another option is to 'renew' Tpon by checking is the PD is drawing a correct mark current. This flexibility has a number of use cases as explained in http://www.ieee802.org/3/bt/public/may17/lukacs_01_0517_Mark&Hold_rev1.0.pdf SuggestedRemedy Adopt yseboodt_06_0917_markhold.pdf in Proposed Response Response Status Z REJECT. This comment was WITHDRAWN by the commenter. C/ 145 SC 145.2.5.7 P 125 L 32 # i-67 Yseboodt, Lennart Philips Lighting Comment Type TR Comment Status A PSE SE State diagram logic from START_DETECT to DETECT_EVAL is missing a closing paren at the end.
ACCEPT. C/ 145 SC 145.2.5.4 P 117 L 1 # [-64 //seboodt, Lennart Philips Lighting Comment Type TR Comment Status A PSE "pse_power_update_pri: A variable that is set when the PSEAllocatedPowerValue_alt(X) the DLL state diagram in Figure 145-43 has been updated." Does not mention which Alternative this is for. The _sec variant has the exact same description text. SuggestedRemedy Change to: "pse_power_update_pri: A variable that is set when the PSEAllocatedPowerValue_alt(X) the DLL state diagram in Figure 145-43 has been updated, where X is the Primary Alternative." And for pse_power_update_sec: "pse_power_update_sec: A variable that is set when the PSEAllocatedPowerValue_alt(X)	within Tpon referenced at the end of detection. Another option is to 'renew' Tpon by checking is the PD is drawing a correct mark current. This flexibility has a number of use cases as explained in http://www.ieee802.org/3/bt/public/may17/lukacs_01_0517_Mark&Hold_rev1.0.pdf SuggestedRemedy SD Adopt yseboodt_06_0917_markhold.pdf in Proposed Response Response Status Z REJECT. This comment was WITHDRAWN by the commenter. C/ 145 SC 145.2.5.7 P 125 L 32 # i-67 Yseboodt, Lennart Philips Lighting in Comment Type TR Comment Status A PSE SE State diagram logic from START_DETECT to DETECT_EVAL is missing a closing paren at the end. Caused by editing implementation mistake of yseboodt_09_0317.pdf (copy/paste mistake).
ACCEPT. C/ 145 SC 145.2.5.4 P 117 L 1 # [-64 Seboodt, Lennart Philips Lighting Comment Type TR Comment Status A PSE "pse_power_update_pri: A variable that is set when the PSEAllocatedPowerValue_alt(X) the DLL state diagram in Figure 145-43 has been updated." Does not mention which Alternative this is for. The _sec variant has the exact same description text. SuggestedRemedy Change to: "pse_power_update_pri: A variable that is set when the PSEAllocatedPowerValue_alt(X) the DLL state diagram in Figure 145-43 has been updated, where X is the Primary Alternative." And for pse_power_update_sec: "pse_power_update_sec: A variable that is set when the PSEAllocatedPowerValue_alt(X) in the DLL state diagram in Figure 145-43 has been updated, where X is the Secondary	within Tpon referenced at the end of detection. Another option is to 'renew' Tpon by checking is the PD is drawing a correct mark current. This flexibility has a number of use cases as explained in http://www.ieee802.org/3/bt/public/may17/lukacs_01_0517_Mark&Hold_rev1.0.pdf SUggestedRemedy SD Adopt yseboodt_06_0917_markhold.pdf in Proposed Response Response Status Z REJECT. This comment was WITHDRAWN by the commenter. C/ 145 SC 145.2.5.7 P 125 L 32 # i-67 Yseboodt, Lennart Philips Lighting in Comment Type TR Comment Status A PSE SE State diagram logic from START_DETECT to DETECT_EVAL is missing a closing paren at the end. Caused by editing implementation mistake of yseboodt_09_0317.pdf (copy/paste mistake). SuggestedRemedy
ACCEPT. C/ 145 SC 145.2.5.4 P 117 L 1 # [-64 (seboodt, Lennart Philips Lighting Comment Type TR Comment Status A PSE "pse_power_update_pri: A variable that is set when the PSEAllocatedPowerValue_alt(X) the DLL state diagram in Figure 145-43 has been updated." Does not mention which Alternative this is for. The _sec variant has the exact same description text. SuggestedRemedy Change to: "pse_power_update_pri: A variable that is set when the PSEAllocatedPowerValue_alt(X) the DLL state diagram in Figure 145-43 has been updated, where X is the Primary Alternative." And for pse_power_update_sec: "pse_power_update_sec: A variable that is set when the PSEAllocatedPowerValue_alt(X)	within Tpon referenced at the end of detection. Another option is to 'renew' Tpon by checking is the PD is drawing a correct mark current. This flexibility has a number of use cases as explained in http://www.ieee802.org/3/bt/public/may17/lukacs_01_0517_Mark&Hold_rev1.0.pdf SuggestedRemedy SD Adopt yseboodt_06_0917_markhold.pdf in Proposed Response Response Status Z REJECT. This comment was WITHDRAWN by the commenter. C/ 145 SC 145.2.5.7 P 125 L 32 # i-67 Yseboodt, Lennart Philips Lighting in Comment Type TR Comment Status A PSE SE State diagram logic from START_DETECT to DETECT_EVAL is missing a closing paren at the end. Caused by editing implementation mistake of yseboodt_09_0317.pdf (copy/paste mistake).

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 145.2.5.7 P 133 L 5 # [i-68 /seboodt, Lennart Philips Lighting	C/ 145 SC 145.2.5.7 P 137 L 7 # i-70 Yseboodt, Lennart Philips Lighting Philips Lighting Philips Lighting Philips Lighting
Comment Type TR Comment Status A PSE 5 Figure 145-15, arc from CLASS_EV1_LCE_PRI to MARK_EV1_PRI: "tice_timer_pri_done * ((class_4PID_mult_events_pri * (pd_class_sig_pri > 0)) + (pd_class_sig_pri = 4) * pse_avail_pwr_pri >= 4))"	
Missing paren.	Missing paren.
SuggestedRemedy	SuggestedRemedy
Change to: "tlce_timer_pri_done * ((class_4PID_mult_events_pri * (pd_class_sig_pri > 0)) +	Replace by: "tlce_timer_sec_done * ((class_4PID_mult_events_sec * (pd_class_sig_sec 0)) + (pd_class_sig_sec = 4) * (pse_avail_pwr_sec >= 4))"
(pd_class_sig_pri = 4) * (pse_avail_pwr_pri >= 4))" Response Response Status C ACCEPT.	Response Response Status C ACCEPT.
	C/ 145 SC 145.2.5.7 P 140 L 1 # [-71
C/ 145 SC 145.2.5.7 P 135 L 8 # [i-69 /seboodt, Lennart Philips Lighting	Yseboodt, Lennart Philips Lighting
	Comment Type TR Comment Status A PSE
Comment Type TR Comment Status A PSE 3 Figure 145-15, arc from CLASS_EVAL_PRI to POWER_UP_PRI: "ted_timer_pri_done * ted_timer_done (pd_req_pwr_pri <= pse_avail_pwr_pri) * (pd_4pair_cand + !alt_pwrd_sec)"	
Comment Type TR Comment Status A PSE S Figure 145-15, arc from CLASS_EVAL_PRI to POWER_UP_PRI: "ted_timer_pri_done * ted_timer_done (pd_req_pwr_pri <= pse_avail_pwr_pri) *	D In Figure 145-17, MPS monitor state diagram, the arc from DETECT_MPS goes to IDLE_MPS, which is wrong (editor mistake in earlier draft when redrawing the figures). SuggestedRemedy
Comment Type TR Comment Status A PSE status Figure 145-15, arc from CLASS_EVAL_PRI to POWER_UP_PRI: "ted_timer_pri_done * ted_timer_done (pd_req_pwr_pri <= pse_avail_pwr_pri) * (pd_4pair_cand + !alt_pwrd_sec)"	 In Figure 145-17, MPS monitor state diagram, the arc from DETECT_MPS goes to IDLE_MPS, which is wrong (editor mistake in earlier draft when redrawing the figures). SuggestedRemedy Make arc from DETECT_MPS go to MONITOR_MPS.
Comment Type TR Comment Status A PSE status Figure 145-15, arc from CLASS_EVAL_PRI to POWER_UP_PRI: "ted_timer_pri_done * ted_timer_done (pd_req_pwr_pri <= pse_avail_pwr_pri) * (pd_4pair_cand + !alt_pwrd_sec)"	D In Figure 145-17, MPS monitor state diagram, the arc from DETECT_MPS goes to IDLE_MPS, which is wrong (editor mistake in earlier draft when redrawing the figures). SuggestedRemedy Make arc from DETECT_MPS go to MONITOR_MPS. Response Response Status C
Comment Type TR Comment Status A PSE S Figure 145-15, arc from CLASS_EVAL_PRI to POWER_UP_PRI: "ted_timer_pri_done * ted_timer_done (pd_req_pwr_pri <= pse_avail_pwr_pri) * (pd_4pair_cand + !alt_pwrd_sec)"	D In Figure 145-17, MPS monitor state diagram, the arc from DETECT_MPS goes to IDLE_MPS, which is wrong (editor mistake in earlier draft when redrawing the figures). SuggestedRemedy Make arc from DETECT_MPS go to MONITOR_MPS. Response Response Status C ACCEPT.
Comment Type TR Comment Status A PSE 3 Figure 145-15, arc from CLASS_EVAL_PRI to POWER_UP_PRI: "ted_timer_pri_done * ted_timer_done (pd_req_pwr_pri <= pse_avail_pwr_pri) * (pd_4pair_cand + !alt_pwrd_sec)"	In Figure 145-17, MPS monitor state diagram, the arc from DETECT_MPS goes to IDLE_MPS, which is wrong (editor mistake in earlier draft when redrawing the figures). SuggestedRemedy Make arc from DETECT_MPS go to MONITOR_MPS. Response Response Status C ACCEPT. Cl 145 SC 145.2.5.7 P 140 L 27 # i-72
Comment Type TR Comment Status A PSE S Figure 145-15, arc from CLASS_EVAL_PRI to POWER_UP_PRI: "ted_timer_pri_done * ted_timer_done (pd_req_pwr_pri <= pse_avail_pwr_pri) * (pd_4pair_cand + !alt_pwrd_sec)"	D In Figure 145-17, MPS monitor state diagram, the arc from DETECT_MPS goes to IDLE_MPS, which is wrong (editor mistake in earlier draft when redrawing the figures). SuggestedRemedy Make arc from DETECT_MPS go to MONITOR_MPS. Response Response Status C ACCEPT. C/ 145 SC 145.2.5.7 P 140 L 27 # i-72 Yseboodt, Lennart Philips Lighting
Comment Type TR Comment Status A PSE S Figure 145-15, arc from CLASS_EVAL_PRI to POWER_UP_PRI: "ted_timer_pri_done * ted_timer_done (pd_req_pwr_pri <= pse_avail_pwr_pri) * (pd_4pair_cand + !alt_pwrd_sec)"	 In Figure 145-17, MPS monitor state diagram, the arc from DETECT_MPS goes to IDLE_MPS, which is wrong (editor mistake in earlier draft when redrawing the figures). SuggestedRemedy Make arc from DETECT_MPS go to MONITOR_MPS. Response Response Status C ACCEPT. C/ 145 SC 145.2.5.7 P 140 L 27 # i-72 Yseboodt, Lennart Philips Lighting Comment Type TR Comment Status A PSE In Figure 145-18, MPS monitor state diagram, the arc from DETECT_MPS_PRI goes to IDLE_MPS_PRI, which is wrong (editor mistake in earlier draft when redrawing the figures)
Comment Type TR Comment Status A PSE S Figure 145-15, arc from CLASS_EVAL_PRI to POWER_UP_PRI: "ted_timer_pri_done * ted_timer_done (pd_req_pwr_pri <= pse_avail_pwr_pri) * (pd_4pair_cand + !alt_pwrd_sec)"	In Figure 145-17, MPS monitor state diagram, the arc from DETECT_MPS goes to IDLE_MPS, which is wrong (editor mistake in earlier draft when redrawing the figures). SuggestedRemedy Make arc from DETECT_MPS go to MONITOR_MPS. Response Response Status C ACCEPT. Cl 145 SC 145.2.5.7 P 140 L 27 # i-72 Yseboodt, Lennart Philips Lighting Comment Type TR Comment Status A PSE In Figure 145-18, MPS monitor state diagram, the arc from DETECT_MPS_PRI goes to IDLE_MPS_PRI, which is wrong (editor mistake in earlier draft when redrawing the figures Same for _SEC.

C/ 145 SC 145.2.6 Yseboodt, Lennart	P 141 Philips Lightin	L 20 g	# i-73	C/ 145 Yseboodt,	SC 145.2.0 Lennart	6.1	P 141 Philips Lightin	L 36	# i-75
	comment Status A e PSE shall not apply op	erating power to	<i>PSE Detection</i> o a pairset until the	Comment [®] "PSEs	<i>Type</i> E that will delive	er power on bot	t Status A h pairsets shall c	omplete a conr	Connection Check nection check prior to SE is connected to a
A PSE does not apply powe to be sourced. The term 'operating power' "In any operation state" are SuggestedRemedy "The PSE shall not apply of detected a valid signature of	er, it applies voltage and is not defined either. 4 redundant words. perating voltage to a pairs	the PD draws c		We us Suggested	e the terms 's Remedy ce "deliver pov	ource power' (7 ver" by "source	a dual-signature F x) and 'deliver po power" in the que <i>Status</i> C	wer' (2x).	n, or neither."
Response Re ACCEPT IN PRINCIPLE.	esponse Status C			C/ 145 Yseboodt,	SC 145.2.0 Lennart	5.3	P 143 Philips Lightin	L 34	# i-76
Change text to: "The PSE successfully detected a vali			irset until the PSE has		le 145-8 is wri	tten; "In detecti	t Status A on state or conne		Editorial
and adopt stewart_03_0917	'_final.pdf			Detect Suggested		ection check ha	ppen in multiple s	states.	
[Editor's note added after control of the full URL for the file FIL		leted.		Chang "In det		or connection c	heck states" (two	occurrences in	Table 145-8)
http://www.ieee802.org/3/bt	/public/sep17/stewart_03			Response ACCE	PT IN PRINCI	•	Status C		
C/ 145 SC 145.2.6 Yseboodt, Lennart	P 141 Philips Lightin	L 25 g	# [i-74	delete	additional info	ormation colum	n in table.		
"The PSE probes the link se			<i>Editorial</i> ction signature. The	C/ 145 Yseboodt,	SC 145.2.0 Lennart	6.7	P 145 Philips Lightin	L 20 g	# <u>i-77</u>
PSE PI is connected to a P Swapping the order of those SuggestedRemedy Swap order of sentences.	5		L.	pairset PSEs :	shall determi s prior to app apply a voltag		oth pairsets."	candidate to red	Connection Check ceive power on both
Response Re ACCEPT.	esponse Status C				e to: shall determi		attached PD is a voltage to both particular		ceive power on both
				Response ACCE	т	Response	Status C		

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 145.2.7 Yseboodt, Lennart	P 145 Philips Lighting	L 43	# i-78	C/ 145 Yseboodt,	SC 145.2.7 Lennart	Р 148 Philips Lig	L 25 hting	# i-80
	Comment Status A not implement classification will only perform as Type 1 devices		<i>Editorial</i> o complete mutual	classifi	that will deliver cation on each		nature PD shall per	Editorial
Does not apply for Typ SuggestedRemedy Remove quoted senter Response ACCEPT.	e 3 / Type 4. All of those supponce. Response Status C	ort classification	n.	Suggested "PSEs	Remedy that will source classification or	wer they source power. e power over 4 pairs to a du each pairset." <i>Response Status</i> C	ual-signature PD sh	all perform Physical
C/ 145 SC 145.2.7 Yseboodt, Lennart	P 146 Philips Lighting	L 41	# i-79	<i>Cl</i> 145 Yseboodt,	SC 145.2.7 Lennart	P 148 Philips Lig	L 36 hting	# <u>i-81</u>
Comment Type TR Topic: SLIDING "Measurements s	Comment Status R	liding window v	PSE Power with a width of 1 s."		connected to a	Comment Status A a dual-signature PD, a PSE each pairset independent		PSE Class airs shall treat the
section is informative in - Why is this a sh - Measurements o				indepe A PSE	ndently handled is also allowed ication must be	table. The requirement on d for each pairset. I to allocate the greater of t performed on both pairse	he pairset power to	each pairset.
SuggestedRemedy				00	ve quoted text.			
Remove quoted senter	nce.			Response	1	Response Status C		
Response REJECT.	Response Status U			ACCEI		LE.		
This is the only mentio the specification.	n of averaging for Pclass and n	eeds to be inc	luded somewhere in	the req	uested power of	onnected to a dual-signatur over each pairset independ ginning of the paragraph or	ently."	ting over 4 pairs treats

	C 145.2.7.1	<i>P</i> 148	L 44	# i-82	C/ 145 SC 145.2		151 <i>L</i> 11	# i-84
seboodt, Lenr	nart	Philips Lightin	g		Yseboodt, Lennart	Phil	ips Lighting	
Comment Type	E	Comment Status A		Editorial	Comment Type T	Comment Statu	s A	PSE Clas
and IMark_	LIM are spe	ark, and VReset are specified cified in Table 145-14." the same Table, can be me		4. Currents IClass_LIM,	Table 145-14: T_CLE2 has value T_CLE3 has value			
		nmas in those sentences.	5		-			
uggestedRem	nedy				Post clause split, the	ere is no longer a reas	on to keep T_CLE2.	
Change to:					SuggestedRemedy			
	√Class, VMa ∩ Table 145-1	rk, and VReset and currents 14."	IClass_LIM and	IMark_LIM are	- Remove T_CLE2 - Rename T_CLE3			
Response ACCEPT.		Response Status C			* Remove tcle2 tin * Rename tcle3 tin		CLE3 in the draft to T_CL	E:
/ 145 S	C 145.2.7.1	P 149	L 30	# i-83		aft (Change T_CLE2 o	r T_CLE3 to T_CLE)	
seboodt, Lenr	nart	Philips Lightin	g		Response	Response Status		
comment Type	E	Comment Status A		Editorial	ACCEPT IN PRINC			
to determir event coun	ne the PD red it."	class events than the class t quested Class, transition to C ritten with capital C.			* Remove tcle2 tir	to T_CEV ion of T_CLE2 and T_0	CLE3 in the draft to T_CE	EV:
uggestedRem	nedy				* Update usage in	the state diagram		
Change to:					* Update text in d	aft (Change T_CLE2 o	r T_CLE3 to T_CEV)	
	ne the PD rec	class events than the Class t quested Class, transition to C			Cl 145 SC 145.2 Yseboodt, Lennart		151 L 23	# i-85
Response		Response Status C				Comment Statu		Editor
ACCEPT.					"See Annex 145B f	or Autoclass timing dia fic pointing to figure wh	grams."	Editori
					SuggestedRemedy			
					Change to:	5 for Autoclass timing	diagrams."	
					Response	Response Status	s C	
						•		

C/ 145 SC 145.								
Vaabaadt Lannart	2.7.1 P 151 Philips Light	L 27	# i-86	C/ 145 Yseboodt, L	SC 145.2.7.2	P 151 Philips Lighting	L 46	# i-88
Yseboodt, Lennart	1 0	ung	505.00				9	
	Comment Status D s to IDLE, it shall maintain the P Reset min before starting a ne				45-15 Autoclass t	Comment Status A iming requirements, item 3 i describes the width of the v		Autoclass lass average power
Is contradicted by this 'shall'.	the state diagram, which does r	not have this requi	rement, invalidating	SuggestedF Replace	•	Autoclass average power sli	iding window wi	dth".
SuggestedRemedy				Response		Response Status C		
 Prepend "tclass_ 	e (Figure 145-13): "start tclass_ reset_timer_done * " to the logi	c from IDLE to ST	ART_CXN_CHK,	ACCEP				
Proposed Response	and START_CXN_CHK_DETE Response Status Z	CT.		C/ 145 Yseboodt, L	SC 145.2.8 ennart	P 152 Philips Lighting	L 29	# i-89
REJECT.				Comment T		Comment Status A		Editoria
This comment was	s WITHDRAWN by the commer	ter.				rameter = "Output voltage p	er pairset in the	POWER_ON state".
C/ 145 SC 145.2		L 32	# i-87	SuggestedF Replace	•	age per pairset in POWER_0	ON"	
Yseboodt, Lennart	Philips Light	ling		Response		Response Status C		
Topic:SLIDING	Comment Status A	ndows' in our draft	Sliding		T IN PRINCIPLE T IN PRINCIPLE			
Topic:SLIDING Issue: w SLIDING commen Aim: get everythin "Average power is	re use the concept of 'sliding wir ts try to make the whole bunch g in the form "measure xxx usin calculated using any sliding wir	consistent. g a xx time sliding	very inconsistently, the	ACCEP Change pairset i	T IN PRINCIPLE	per pairset in the POWER_0		utput voltage per
Topic:SLIDING Issue: w SLIDING commen Aim: get everythin "Average power is AUTO_Window as	re use the concept of 'sliding wir ts try to make the whole bunch g in the form "measure xxx usin	consistent. g a xx time sliding	very inconsistently, the	ACCEP Change pairset i Change	T IN PRINCIPLE "Output voltage n a power on stat item 2 paramete	per pairset in the POWER_C		utput voltage per
Topic:SLIDING Issue: w SLIDING commen Aim: get everythin "Average power is AUTO_Window as SuggestedRemedy Replace quoted se	re use the concept of 'sliding wir ts try to make the whole bunch g in the form "measure xxx usin calculated using any sliding wir s defined in Table 145-15."	consistent. g a xx time sliding dow with a width	very inconsistently, the window". in the range of T	ACCEP Change pairset i Change	T IN PRINCIPLE "Output voltage n a power on sta item 2 paramete olution is identica	per pairset in the POWER_C e". r name to "Pair-to-pair voltag		utput voltage per # i-90
Topic:SLIDING Issue: w SLIDING commen Aim: get everythin "Average power is AUTO_Window as SuggestedRemedy Replace quoted se "Average pow	re use the concept of 'sliding wir ts try to make the whole bunch g in the form "measure xxx usin calculated using any sliding wir s defined in Table 145-15." entence by: ver is measured using a sliding	consistent. g a xx time sliding dow with a width	very inconsistently, the window". in the range of T	ACCEP Change pairset i Change This res	T IN PRINCIPLE "Output voltage n a power on stat item 2 paramete solution is identica SC 145.2.8	per pairset in the POWER_C te". r name to "Pair-to-pair voltag al to comment #289.	ge difference".	
Topic:SLIDING Issue: w SLIDING commen Aim: get everythin "Average power is AUTO_Window as SuggestedRemedy Replace quoted se "Average pow AUTO_Window as	re use the concept of 'sliding wir ts try to make the whole bunch g in the form "measure xxx usin calculated using any sliding wir s defined in Table 145-15."	consistent. g a xx time sliding dow with a width	very inconsistently, the window". in the range of T	ACCEP Change pairset i Change This res Cl 145	T IN PRINCIPLE "Output voltage n a power on stat item 2 paramete solution is identica SC 145.2.8 ennart	per pairset in the POWER_C te". r name to "Pair-to-pair voltag al to comment #289. P 152	ge difference".	# [<u>i-90</u>
Topic:SLIDING Issue: w SLIDING commen Aim: get everythin "Average power is AUTO_Window as SuggestedRemedy Replace quoted se "Average pow	re use the concept of 'sliding wir ts try to make the whole bunch g in the form "measure xxx usin calculated using any sliding wir a defined in Table 145-15." entence by: wer is measured using a sliding a defined in Table 145-15."	consistent. g a xx time sliding dow with a width	very inconsistently, the window". in the range of T	ACCEP Change pairset i Change This res C/ 145 Yseboodt, L Comment T Table 14 For para	T IN PRINCIPLE "Output voltage n a power on stati item 2 paramete solution is identica SC 145.2.8 ennart ype E 45-16, item 10: T	per pairset in the POWER_C re". r name to "Pair-to-pair voltag al to comment #289. P 152 Philips Lighting Comment Status A _CUT-2P. with time and are not exclus	ge difference". <i>L</i> 38	# [i-90 PSE Power
Topic:SLIDING Issue: w SLIDING commen Aim: get everythin "Average power is AUTO_Window as SuggestedRemedy Replace quoted se "Average pow AUTO_Window as Response	re use the concept of 'sliding wir ts try to make the whole bunch g in the form "measure xxx usin calculated using any sliding wir a defined in Table 145-15." entence by: wer is measured using a sliding a defined in Table 145-15."	consistent. g a xx time sliding dow with a width	very inconsistently, the window". in the range of T	ACCEP Change pairset i Change This res C/ 145 Yseboodt, L Comment T Table 14 For para	T IN PRINCIPLE "Output voltage n a power on stati item 2 paramete solution is identica SC 145.2.8 ennart ype E 45-16, item 10: T ameters that deal make too much s	per pairset in the POWER_C re". r name to "Pair-to-pair voltag al to comment #289. P 152 Philips Lighting Comment Status A _CUT-2P. with time and are not exclus	ge difference". <i>L</i> 38	# [i-90 PSE Power
Topic:SLIDING Issue: w SLIDING commen Aim: get everythin "Average power is AUTO_Window as SuggestedRemedy Replace quoted se "Average pow AUTO_Window as Response	re use the concept of 'sliding wir ts try to make the whole bunch g in the form "measure xxx usin calculated using any sliding wir a defined in Table 145-15." entence by: wer is measured using a sliding a defined in Table 145-15."	consistent. g a xx time sliding dow with a width	very inconsistently, the window". in the range of T	ACCEP Change pairset i Change This res Cl 145 Yseboodt, L Comment T Table 1- For para doesn't SuggestedF	T IN PRINCIPLE "Output voltage n a power on stat item 2 paramete solution is identica SC 145.2.8 ennart ype E 45-16, item 10: T ameters that deal make too much s Remedy	per pairset in the POWER_C re". r name to "Pair-to-pair voltag al to comment #289. P 152 Philips Lighting Comment Status A _CUT-2P. with time and are not exclus	ge difference". <i>L</i> 38 g	# [i-90 PSE Power

Comment ID i-90

PSE Power

Editorial

C/ 145 SC 145.2.8 Yseboodt, Lennart	<i>P</i> 153 Philips Lighting	L 2	# i-91	C/ 145 Yseboodt, Lo	SC 145.2.8	P 153 Philips Lighting	L 33	# i-93
Comment Type E	Comment Status A		PSE Power	Comment Ty		Comment Status A		PSE Powe
Both Figure 145-23 and should be leading, in a	2.8.6 and maximum value defi d Equation 145-18 describe the nother comment we picked the	e same thing. (Only one of them	For para doesn't i	make too muc	\bar{eal} with time and are not exclusive	ve to dual-sig	nature, the "-2P" suffix
SuggestedRemedy				SuggestedR				
Change to: "See 145.2	.8.6 and maximum value defin	ition in in Equa	ation (145-18)."		•	to T_Inrush in Clause 145.		
Response	Response Status C							
ACCEPT.				Response ACCEP	г.	Response Status C		
C/ 145 SC 145.2.8 Yseboodt, Lennart	P 153 Philips Lighting	L 16	# i-92	C/ 145	SC 145.2.8	P 154	L 23	# <u>i</u> -94
Comment Type TR	Comment Status A		PSE Inrush	Yseboodt, L	ennart	Philips Lighting		
J	item 6) lists minimum values f	or dual-signatu		Comment Ty	vpe E	Comment Status A		Editoria
PDs may be started up	in a staggered fashion, makir are specified exclusively on a p	ig this paramet	ter meaningless. In	For para	<i>i</i> i	ter 12: T_LIM-2P. eal with time and are not exclusiv h sense.	ve to dual-sig	nature, the "-2P" suffix
SuggestedRemedy				SuggestedR	emedy			
- Remove the two rows	for dual-signature PDs in Iten	n 6 of Table 14	5-16	Rename	T_LIM-2P to	T_LIM throughout Clause 145.		
- Remove the two rows	for dual-signature PDs in Iten	n 4 of Table 14	5-28	Response		Response Status C		
Response	Response Status C			ACCEP	г			
ACCEPT IN PRINCIPL	.E.			10021				
Adopt changes shown	in yseboodt_10_0917_inrush.	odf						
This resolution is ident	ical to comment #291.							
[Editor's note added af	ter comment resolution comple	eted.						
The full URL for the file http://www.ieee802.org	FILE_NAME.pdf is /3/bt/public/sep17/yseboodt_1	0_0917_inrush	n.pdf]					

C/ 145 SC 1	45.2.8	P 154	L 27	# i-95	C/ 145	SC 145.2	.8.1	P 155	L 38	# i-96
seboodt, Lennart		Philips Lightir	g		Yseboodt,	Lennart		Philips Light	ng	
comment Type	TR	Comment Status A		PSE Power	Comment	Туре Т	Col	mment Status A		PSE Powe
Class 3, due to this is that clas	o the PTyp ssification v e situation	unambiguous, the spec tod e(min) parameter having a vas optional and not well u was avoided that a PD was 1 only PSE).	value of 15.4W nderstood. By r	The historic reason for equiring at least support	voltage When	e no longer r	neets the V	tate may remove pow /Port_PSE-2P specifi ned do not use the w	cation."	when the pairset we need to mention the
The situation b					Suggested	IRemedy				
- The Ethernet	is mandat of Classes Alliance Ic	ory is much more prevalent in go program uses Class in		e it clear what kind of		E in POWER		VER_ON_PRI, or PO et voltage no longer r		may remove power PSE-2P specification."
PSE is needed	d to power	a particular PD			Response		Res	ponse Status C		
unclear if these	e are comp	s for Class 1 and Class 2 c liant or not. 4 PSEs should then be all		-	In 145		e "the PO	WER_ON state" to "a	power on state";	change "the
SuggestedRemedy	/				POWE	R_UP state	' to "a pow	er up state".		
Change Table	145-16, Ite	em 13: 3 from 15.4 to 4			This re	esolution is id	lentical to	comment #293.		
		4 from 90 to 75			C/ 145	SC 145.2	.8.1	P 155	L 41	# i-97
Response		Response Status C			Yseboodt,	Lennart		Philips Light	ng	
ACCEPT.					Comment	Туре Е	Col	mment Status A		Editoria
					state r expira apply	nay transition tion of Tpon. power to bot	h between A PSE than h pairsets v	ass 1 to 4 to a single- 2-pair and 4-pair pow at has assigned Class while in the POWER_ ned do not use the w	er at any time, in 5 to 8 to a single ON state."	
					Suggested	IRemedv				
					Chang "A PSI transit Tpon.	e to: E that has as ion between	2-pair and as assigne	4-pair power at any ti ed Class 5 to 8 to a s	me, including aft	is in POWER_ON may er the expiration of D shall apply power to
					Response		Boo	nonno Statun C		
							Res	ponse Status C		

eboodt, Lennart Philips Lighting omment Type E Comment Status A Editor "TRise, as defined in Table 145-16, is referenced from 10% to 90% of the voltage difference between the positive and the negative conductors of a pairset in the POWER_ON state from the beginning of POWER_UP." When a state name is mentioned do not use the word "state". vggestedRemedy Change to: Change to:	46.2 V If these circums This mi Propos	Type T lo, the minimum and 48.05 V re values are use stances, the ca	Philips Ligh <i>Comment Status</i> A m peak PSE voltages for Ty spectively. ed to calculate VTran_lo-2p lculated PD voltages are 37 the VTran_lo-2P specificat	/pe 3, Class 6 an in the PD under 7.2V and 34.5V.	
"TRise, as defined in Table 145-16, is referenced from 10% to 90% of the voltage difference between the positive and the negative conductors of a pairset in the POWER_ON state from the beginning of POWER_UP." When a state name is mentioned do not use the word "state".	KTran_ 46.2 V If these circums This mi Propos	lo, the minimum and 48.05 V re values are use stances, the ca	m peak PSE voltages for Ty spectively. ed to calculate VTran_lo-2p lculated PD voltages are 37	in the PD under 2.2V and 34.5V.	d Type 4, Class 8 are
difference between the positive and the negative conductors of a pairset in the POWER_ON state from the beginning of POWER_UP." When a state name is mentioned do not use the word "state".	46.2 V If these circums This mi Propos	and 48.05 V re values are use stances, the ca	spectively. ed to calculate VTran_lo-2p lculated PD voltages are 37	in the PD under 2.2V and 34.5V.	
				ion in Table 145-	
"TRise, as defined in Table 145-16, is referenced from 10% to 90% of the voltage difference between the positive and the negative conductors of a pairset in POWER_ON from the beginning of POWER_UP."	N Quoted "A PSE	vise we might g I text should fol E shall maintain	the KTran_lo spec to som et into Von/Voff PD issues. low this proposal. an output voltage no less t	-	
ACCEPT IN PRINCIPLE.	lasting Transie	ents less than 3	s is and less than 250 us, an 0 us in duration may cause		
Change "the POWER_ON state" to "a power on state"; change "the POWER_UP state" to		-			
"a power up state".	Suggested	•			
This resolution is identical to comment #296.		n rename K I rai num is specifie	n_lo to VTran-2P, it is obvic d.	ous it is the low tra	ansient voltage, because
	V⁻ V⁻ Cł	Tran-2P for Typ Tran-2P for Typ hange 'parame	Table 145-16 from KTran_ be3 is 45.3V (MIN) be4 is 49V (MIN) ter' to read: "Output voltage	-	
	"A conditio 145.2.8	ons lasting mor	intain an output voltage no e than 30 us and less than less than 30 us in duration	250 us, and mee	t the requirements of
	Cł	hange paramet	er name in Table 145-28, it	em 2 from VTran	_lo-2P to VTran_PD-2P.
	Response		Response Status C		
	ACCEF	PT IN PRINCIP	LE.		
		n rename KTrai num is specifie	n_lo to VTran-2P, it is obvic d.	ous it is the low tra	ansient voltage, because
		Tran-2P for Typ Tran-2P for Typ	Table 145-16 from KTran_ pe3 is 45.3V (MIN) pe4 is 48.4V (MIN) ter' to read: "Output voltage		
	Cł	hange text in 14	45.2.8.3 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 156	L 18	# i-100
Yseboodt, L	ennart	Philips Lighting		
Comment Ty	/pe 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 145.2.8.5	P 157	L 13	# i-101
Yseboodt, L	ennart	Philips Lighting		
Comment T	vpe TR	Comment Status A		Pres: Yseboodt3

"A minimum current of I Con-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."

The unbalance specification is tied together by ICon-2P-unb which serves 3 distinct roles: - It is the minimum current a PSE must be able to supply on a pairset

- It is the maximum current a PSE may source when connected to a worst-case unbalance cable + PD

- It is the maximum current a PD may draw when connected to a worst-case unbalance cable + PSE

That makes it that there is ZERO margin between PSE minimum and PD maximum.

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.

Adopt yseboodt_03_0917_unbalancemargin.pdf with the following changes:

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

[Editor's note added after comment resolution completed.

The full URL for the file FILE_NAME.pdf's are

http://www.ieee802.org/3/bt/public/sep17/yseboodt_03_0917_unbalancemargin.pdf and http://www.ieee802.org/3/bt/public/sep17/darshan_03_0917_final.pdf]

C/ 145 SC 145.2.8.5 P 157 L 14 # [i-102] Yseboodt, Lennart Philips Lighting Philips	Cl 145 SC 145.2.8.5 P 158 L 10 # i-104 Yseboodt, Lennart Philips Lighting Philips Lighting Philips Lighting Philips Lighting
Comment Type E 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."	Comment Type TR Comment Status A Pres: Darshan15 "I Peak-2P-unb , defined in Equation (145-12), is the minimum current due to unbalance effects that a PSE supports on a pairset when powering a single-signature PD over 4 pairs." What follows is a set of equations that define the value of IPeak-2P-unb as function of IPeak (which in turns depends on VPSE and RChan) and RChan-2P. Data bits (from the value of the valu
Proposed Response Response Status Z REJECT.	See: http://www.ieee802.org/3/bt/public/mar17/yseboodt_02_0317_ipeak2punb.pdf The value of IPeak-2P-unb is often lower than that of ICon-2P-unb. The PSE needs to support ICon-2P-unb, so this has the effect of 'clipping' IPeak-2P-unb to be at least ICon- 2P-unb.
This comment was WITHDRAWN by the commenter. C/ 145 SC 145.2.8.5 P 157 L 14 # [i-103] Yseboodt, Lennart Philips Lighting	The real issue arises in the PD section, where we require a PD never to draw more than IPeak-2P-unb on any given pair. If that is a requirement (and it should be), then we can't have IPeak-2P-unb depend on VPSE and RChan, both parameters the PD knows nothing about.
Comment Type E Comment Status A Editorial Do not use combination of word state with statename "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." Editorial	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. SuggestedRemedy
SuggestedRemedy Change to: "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."	- Replace page 158, lines 12 through 44 by: IPeak-2P-unb = {ILIM-2P - 0.002 Response Response Status C
Response Response Status C ACCEPT.	ACCEPT IN PRINCIPLE. - Replace page 158, lines 12 through 44 by:

IPeak-2P-unb = {ILIM-2P - 0.002}A

C/ 145 SC 145.2 . Yseboodt, Lennart	8.5.1 P 158 Philips Light	L 45 ing	# <u>i-105</u>	C/ 145 SC 145 Yseboodt, Lennart	.2.8.5.1	P 159 Philips Lighti	L 34 ng	# i-107
Comment Type ER	Comment Status A		Editorial	Comment Type T		ent Status A		Pres: Yseboodt2
unbalance". The main topic here	5.1 title is "PSE PI pair-to-pair is a current unbalance require t with PD title 148.3.8.0		ce and current	load as shown in Equation (145-16	Figure 145-22,) and Equation	using values of R I (145-17)."	load_min and R lo	en connected to a bad_max as defined in
SuggestedRemedy Change to: "PSE pair-to-pair cu	rront unbolonco"				e it obvious that			to a given test fixture
				SuggestedRemedy				
Response ACCEPT. Cl 145 SC 145.2.	Response Status C 8.5.1 P 159	L 4	# [i-106		source more th in Figure 145-2	2, using values of I		connected to a test R load_max as defined
Yseboodt, Lennart	Philips Light	ing		Response	Respor	nse Status C		
Comment Type E	Comment Status A		Editorial	ACCEPT IN PRI	NCIPLE.			
unbalance and will I	current in the pairset with the be higher than ICon / 2."	highest current in	case of maximum	Adopt yseboodt_02_0917_Figure_145_22.pdf				
Sentence can be si	nplified.			This resolution is	identical to con	nment #110.		
SuggestedRemedy Change to:				[Editor's note add	ed after comme	ent resolution comp	oleted.	
"ICon-2P-unb is the higher than ICon / 2	highest pairset current in case	e of maximum unl	palance and will be	The full URL for t			00.0047 Eisuna	
Response	Response Status C			nπp://www.ieee80	2.org/3/bt/publ	ic/sep17/yseboodt_	_02_0917_Figure	_145_22.pat]
ACCEPT.								

C/ 145 SC 145.2.8.5.1 P 160 L 1 # i-108 Yseboodt, Lennart Philips Lighting Philips	C/ 145 SC 145.2.8.5.1 P 160 L 45 # [i-109 Yseboodt, Lennart Philips Lighting Philips Lighting Philips Lighting Philips Lighting					
Comment Type TR Comment Status A Pres: Darshan3	Comment Type T Comment Status D Pres: Yseboodt					
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. Eg, 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 Equation (145-15). Lower R PSE _max values may be obtained by using smaller constar a or higher R PSE_min in Equation (145-15) in the form of R PSE_max = a x R PSE_mir 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	SuggestedRemedy					
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	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.	Cl 145 SC 145.2.8.5.1 P 161 L 1 # [i-110 Yseboodt, Lennart Philips Lighting Philips Lighting Philips Lighting Philips Lighting					
Adopt the changes proposed in darshan_03_0917_final.pdf	Comment Type TR Comment Status A Pres: Yseboodt					
This resolution is identical to comment #419.	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.					
[Editor's note added after comment resolution completed.	SuggestedRemedy					
-	Adopt yseboodt_02_0917_Figure_145_22.pdf					
The full URL for the file FILE_NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/darshan_03_0917_final.pdf]	Response Response Status C					

		D						D		
C/ 145 Yseboodt, I	SC 145.2.8.5.1 _ennart	P 161 Philips Lightir	L 6	# <u>i-111</u>	C/ 145 Yseboodt,	SC 145.2.8. Lennart	5.1	P 161 Philips Lighting	L 28	# i-113
Comment 1		ent Status A	5	Editorial	Comment		Comment	t Status A	5	Pres: Yseboodt2
	5 145-22, Figure 145-31, F nce. A different notation fo					evaluation meth _min/max excha		145-22, step 'e' (check the currer	nt), comes after the
Suggested	Remedy				Suggested	Remedy				
	e Figures 145-22, Figure 1		A-2, and Figure 1	45A-3 such that:	Swap	steps d) and e)	and adjust lab	els accordingly.		
	- Currents are named "i1" through "i4". - i1 and i2 flow to the PD (positive)				Response		Response	Status C		
- i3 and i4 flow from the PD (negative) - where applicable, i1 and i3 represent Alt A / Mode A				ACCE	PT IN PRINCIP	LE.				
	applicable, 11 and 13 represented by applicable, 12 and 14 represented by applicable app				Adopt	yseboodt_02_0	917_Figure_1	45_22.pdf		
Update	text that refers to Figure I	abelled currents to	match.		This re	esolution is iden	tical to comme	ent #110.		
Response Response Status C ACCEPT IN PRINCIPLE.					[Edito	r's note added a	fter comment	resolution compl	eted.	
						II URL for the fil				
	al license granted to adjust omments.	for changes to an	y of the figures n	nade as a result of	http://	www.ieee802.or	g/3/bt/public/s	ep17/yseboodt_0	02_0917_Figure	_145_22.pdf]
C/ 145	SC 145.2.8.5.1	P 161	L 26	# i-112	C/ 145	SC 145.2.8.	5.1	P 161	L 40	# i-114
/seboodt, l		Philips Lightir	-	π $ -112$	2 Yseboodt, Lennart Philips Lighting		g			
Comment 1		ent Status A	5	Pres: Yseboodt2	Comment	51		t Status A		Editorial
In the e	evaluation method for Figu	re 145-22, item b)				inbalance.	e 145-17 and	Figure 145-22, tr	hat they describe	e a test fixture to test
	is wrong since the PSE loa			o resistors.				145-22, however ents of a test fixtu		e 145-17 should make ification.
Suggested	Remedy				Suggested	Remedy				
Replac					Chang	ge title of 145-17	' to read: "PSE	E unbalance test	fixture resistanc	es".
Adjust	to load such that a power	of PCIass-PD is c	onsumed at the F	20 PI."	Response		Response	Status C		
Note: to	ext may need adjustment b		_02_0917_Figur	e_145_22.pdf	ACCE	PT IN PRINCIP	LE.			
Response		se Status C			Chang	e title of Table	145-17 to read	I: "PSE unbalanc	e test fixture res	istances".
	PT IN PRINCIPLE.									
Adopt y	/seboodt_02_0917_Figure	_145_22.pdf								
This re	solution is identical to com	iment #110.								
[Editor'	s note added after comme	ent resolution comp	oleted.							
	I URL for the file FILE_NA ww.ieee802.org/3/bt/public		_02_0917_Figure	_145_22.pdf]						
COMMENT				T/technical E/editorial G/g SE STATUS: O/open W/wi		d U/unsatisfied	Z/withdrawn	Comme	nt ID i-114	Page 29 of 137 10/2/2017 3:31

10/2/2017 3:31:21 PM

C/ 145	SC 145.2.8.6	P 10	61	L 42	# i-115	C/ 145
Yseboodt, I	_ennart	Philips	s Lighting			Yseboodt, Le
Comment 7	Гуре Т	Comment Status	Α		PSE Inrush	Comment Ty
		mum inrush current s inrush template in Fig				"The PS
	145-23 and Equal s leading. Remo		ferred in th	ne shall. That	gives uncertainty about	We show that Figu
Suggested	Remedy					SuggestedR
the per		emplate in Equation ((145-18).	he PSE per pa	airset shall not exceed	Replace "The PS in Figure
Response		Response Status	С			Response
ACCEF	νт.					ACCEP
C/ 145	SC 145.2.8.6	P 10	61	L 45	# i-116	
Yseboodt, I	_ennart	Philips	s Lighting			C/ 145
Comment 7	Type TR	Comment Status	А		PSE Inrush	Yseboodt, Le
Table 1	45-16."		0		r the requirements of	Comment Ty "The mir unbaland
Nowhe each of		use do we explain wh	at these p	parameters are	e and how they relate to	Seems I
Suggested						defined
00		after the paragraph	containing	a the auoted te	ext:	SuggestedR
"IInrusł	n-2P is the curre	nt to which the PSE I	limits it's p	airset output o	current while in	Remove
					output current while in he total inrush current	Response
limit, ar during When d	nd IInrush-2P se 4-pair inrush. connected to a d		2-pair inrus	sh, or as the in	rush unbalance limit	ACCEP
Response		Response Status	С			
ACCEF	PT IN PRINCIPL	E.				

Adopt changes shown in yseboodt_10_0917_inrush.pdf

This resolution is identical to comment #291.

[Editor's note added after comment resolution completed.

The full URL for the file FILE_NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/yseboodt_10_0917_inrush.pdf]

C/ 145	SC 145.2.8.6	P 16	1	L 45	# i-117
Yseboodt, Le	ennart	Philips	Lighting		
Comment Ty	/pe ER	Comment Status	Α		Editoria
"The PS	E inrush maxim	um limit, I PSEIT-2P	, is define	ed by the follow	wing segments:"
		hings by relative posi cts the Equation.	tion in the	draft. We also	o need some pointer
SuggestedR	emedy				
	,	um limit, I PSEIT-2P	, is define	ed in Equation	145-18, and is shown
Response		Response Status	с		
ACCEP	Г.				
C/ 145	SC 145.2.8.6	P 16	2	L 28	# i-118
Yseboodt, Le	ennart	Philips	Lighting		
Comment Ty	/pe ER	Comment Status	Α		PSE Inrust
		I Inrush-2P includes ng over 4 pairs."	the effect	of end to end	pair to pair resistance
		ntence from earlier in for dual-signature, w	•		re are only min values ot play a role.
SuggestedR	emedy				
	sentence.				

e sentence.

Response Status C

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

Comment ID i-118

Page 30 of 137 10/2/2017 3:31:22 PM

C/ 145 Yseboodt,	SC 145.2.8.6	P 162 Philips Lighting	L 32	# i-119	C/ 145 Yseboodt,		145.2.8.7		P 162 Philips Lightir	L 43	# i-120
Comment		Comment Status A		PSE Inrush	Comment		ER	Comment Si		'9 	Sliding
 "The minimum inrush requirement is a function of the pairset voltage and is as follows: a) During POWER_UP, for pairset voltages between 0 V and 10 V, the minimum I Inrush-2P requirement is 5 mA. b) During POWER_UP, for pairset voltages between 10 V and 30 V, the minimum I Inrush-2P requirement is 60 mA. c) During POWER_UP for pairset voltages above 30 V, the minimum I Inrush-2P and I 						SLIDING we use ents try lim: get	G the conce to make the everything	ept of 'sliding w he whole bunc g in the form "n	indows' in ou h consistent. neasure xxx u	ising a xx time s	sistently, the SLIDING
		as defined in Table 145-16."	,			d width.					
	s what we want to t in POWER_UP.	o say is that these minimum ca	pabilities appl	ly for each powered	T using).		is pretty C	OK, minor harm	nonization nee	eded (measured	with => measured
Suggested	Remedy				Suggestea	Remed	ly				
Replac	ce quoted text by	:				umulati d width.		n of T CUT-2P	is measured	using a sliding v	window of at least 1
"The minimum linrush and IInrush-2P current capability as defined in Table 145-16 applies when VPSE exceeds 30V. During POWER_UP, the minimum supported current on each powered pairset is: - 5mA when 0V < VPSE <= 10V					Response ACCE			Response St	atus C		
	A when 10V < VF				C/ 145	SC ·	145.2.8.8		P 162	L 54	# i-121
Response		Response Status C			Yseboodt,	Lennar	t		Philips Lightir	ng	
	PT IN PRINCIPL PT IN PRINCIPL				Comment		TR	Comment S			PSE Power
	-										power from both ' on either pairset."
"The n when ` During	Replace text on page 162 line 31-39 with: 'The minimum linrush and linrush-2P current capability as defined in Table 145-16 applies when VPSE exceeds 30V. During POWER_UP, the minimum supported current is as follows: -the minimum I_Inrush when powering a single-signature PD and the minimum I_Inrush-2P when powering a dual-signature PD is 5 mA for voltages between 0 V and 10 V, -the minimum I_Inrush when powering a single-signature PD and the minimum I_Inrush-2P when powering a dual-signature PD is 60 mA for voltages between 10 V and 30 V."			one pa Per Ec	airset or quation	nly and the 145-8, the	PSE flips to 2	-pair mode.		something occurs on gned power over 2-	
when -the m			V and 10 V, e minimum I_Inrush-2P	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.					2-pair. That way we		
Which I	powering a dual o		geo between		Suggestea	Remed	ly				
This re	esolution is identi	cal to comment #486.						ement to SEMI_ iin(pse_allocate		RI and SEMI_PV	VRON_SEC:
					Response ACCE			Response St	atus C		

C/ 145 SC 145.2.8.8 Yseboodt, Lennart	P 164 L 5 Philips Lighting	# i-122	C/ 145 SC 145.2. Yseboodt, Lennart	B.8 P 164 Philips Lighting	L 34	# i-124	
					y		
·····	nment Status A te, I PSEUT-2P , is defined by the fe	PES Power	Comment Type E	Comment Status A nd template, I PSELT-2P, is defi	ined by the follo	Editoria	
	le, 11 SEOT-21, is defined by the h	Showing segments.			ined by the folic	Jwing segments.	
Naming of these upperbound t	emplates has changed.		6	erbound templates has changed.			
SuggestedRemedy			SuggestedRemedy				
Replace by: "The PSE upperbound templat defined by the following segme	es, I_PSEUT-Type3-2P and I_PSE ents:"	UT-Type4-2P, are	Replace by: "The PSE lowerbour by the following seg	nd templates, I_PSELT-Type3-2I ments:"	P and I_PSELT	-Type4-2P, are defined	
Response Resp	onse Status C		Response	Response Status C			
ACCEPT.			ACCEPT.				
C/ 145 SC 145.2.8.8	P 164 L 32	# i-123	C/ 145 SC 145.2.	8.8 <i>P</i> 165	L 7	# i-125	
Yseboodt, Lennart	Philips Lighting		Yseboodt, Lennart	Philips Lighting	g		
Comment Type TR Com	nment Status A	Sliding	Comment Type E	Comment Status A		PSE Power	
comments try to make the who			"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"				
Aim: get everytning in the	form "measure xxx using a xx time	sliding window .	SuggestedRemedy				
"The PSE shall limit a pai order to account for PSE dV/dt	rset current to I LIM-2P for a duration transients at the pairset.	on of up to T LIM-2P in	"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."				
The cumulative duration of	of T LIM-2P may be measured with	a sliding window."	Response	Response Status C			
Oh joy, a sliding window v	without any limitation on the width.		ACCEPT IN PRINC	PLE.			
SuggestedRemedy			Replace "POWER_0	ON state," with "Power on states	," in Figures 14	5-24, 145-25. On page	
Replace the last quoted senter "The cumulative duration least 1 second width."	nce by: of T LIM-2P may be measured usir	ng sliding window of at		in the POWER_ON state may r a power on state may remove p			
	onse Status C		This resolution is ide	entical to comment #303.			
ACCEPT IN PRINCIPLE.							
	current to I LIM-2P for a duration of ent limit event may be measured us						

C/ 145 SC 145.2.8		L 12	# i-126	C/ 145	SC 145.2.8.	10	P 165	L 19	# i-128	
Yseboodt, Lennart	Philips Lightin	ng		Yseboodt, Lo			Philips Lightir	ng		
Comment Type E	Comment Status A		PSE Power	Comment Ty			Status A		PSE Powe	
VPort_PSE-2P to VO VPort_PSE-2P is a r SuggestedRemedy "The specification fo	or TOff in Table 145-16 shall ap Off of a pairset with a test resist range. The actual starting value or TOff in Table 145-16 shall ap	or of 320 kohm a for Toff is given ply to the dischar	attached to that pairset." in the next sentence. ge time from operating	Slew of - 'IDLE' - Doesn'	ssues: not 'IDLE Stat t take 4-pair /	e'. pairsets into a			age in the IDLE State."	
-	pairset with a test resistor of 32	to konm attached	i to that pairset.	SuggestedRemedy						
Response Response Status C ACCEPT IN PRINCIPLE. Change to: "The specification for TOff in Table 145-16 shall apply to the discharge time					is in DISABL	ED, IDLE, TES	ST_ERROR_BO	TH, ERROR_DI	n Table 145-16, when ELAY. V_Off, as defined in	
	min to VOff of a pairset with a			Table 14	5-16, when th	ne PSE is in ID		_PRI, ERROR_E		
C/ 145 SC 145.2.8	8.9 <i>P</i> 165	L 13	# i-127	Response		Response	Status C			
Yseboodt, Lennart	Philips Lightir	ng		ACCEP	IN PRINCIP	LE.				
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				"The vol	tage at the PI	shall be equal	or less than V	Off. as defined i	n Table 145-16. when	
In other places we re SuggestedRemedy	efer to this as "power not applie	d" or "power rem	noved".	the PSE The volt Table 14	is in DISABL age at the cor I5-16, when th	ED, IDLE, TES responding pa ne PSE is in ID	ST_ERROR_BO	OTH, or ERROR_ jual or less than _PRI, ERROR_E	V_Off, as defined in	
In other places we re SuggestedRemedy "In addition, it is reco	efer to this as "power not applie ommended that the pairset be o	d" or "power rem	noved".	the PSE The volt Table 14	is in DISABL age at the cor I5-16, when th	ED, IDLE, TES responding pa ne PSE is in ID C, or ERROR	ST_ERROR_BO irset shall be eo DLE_PRI, WAIT	OTH, or ERROR_ jual or less than _PRI, ERROR_E	_DELAY. V_Off, as defined in	
In other places we re SuggestedRemedy "In addition, it is reco Response	efer to this as "power not applie ommended that the pairset be o <i>Response Status</i> C	d" or "power rem	noved".	the PSE The volt Table 14 IDLE_SI	is in DISABL age at the cor 5-16, when the EC, WAIT_SE SC 145.2.8 .	ED, IDLE, TES responding pa ne PSE is in ID C, or ERROR	ST_ERROR_BC irset shall be ec DLE_PRI, WAIT _DELAY_SEC.)TH, or ERROR_ jual or less than _PRI, ERROR_E 	_DELAY. V_Off, as defined in DELAY_PRI,	
In other places we re SuggestedRemedy "In addition, it is reco Response ACCEPT IN PRINCI Suggest the followin	efer to this as "power not applie ommended that the pairset be o <i>Response Status</i> C IPLE.	d" or "power rem	oved". power is removed."	the PSE The volt Table 14 IDLE_SI CI 145 Yseboodt, Lu Comment Ty Topic:SI Issue: w commer	is in DISABL age at the cor 15-16, when the EC, WAIT_SE SC 145.2.8. ennart upe TR IDING e use the con the try to make	ED, IDLE, TES responding pa te PSE is in ID C, or ERROR 12 Comment cept of 'sliding e the whole bur	ST_ERROR_BC irset shall be ec DE_PRI, WAIT _DELAY_SEC. P 165 Philips Lightin Status A windows' in ounch consistent.	DTH, or ERROR_ ual or less than _PRI, ERROR_E 	_DELAY. V_Off, as defined in DELAY_PRI, # [<u>i-129</u> <i>Editoria</i> asistently, the SLIDING	
In other places we re SuggestedRemedy "In addition, it is reco Response ACCEPT IN PRINCI Suggest the followin	efer to this as "power not applie ommended that the pairset be o <i>Response Status</i> C IPLE. g remedy instead:	d" or "power rem	oved". power is removed."	the PSE The volt Table 14 IDLE_SI C/ 145 Yseboodt, Lu Comment Ty Topic:SI Issue: w commer Ain	is in DISABL age at the cor I5-16, when the EC, WAIT_SE SC 145.2.8. ennart <i>pe</i> TR LIDING e use the con its try to make it: get everything pe 4 PSEs sh	ED, IDLE, TES responding pa he PSE is in ID C, or ERROR 12 Comment cept of 'sliding a the whole bur ing in the form hall not source	ST_ERROR_BC irset shall be ec DLE_PRI, WAIT _DELAY_SEC. P 165 Philips Lightir Status A windows' in ou nch consistent. "measure xxx u more power tha	DTH, or ERROR_ Jual or less than _PRI, ERROR_E <i>L</i> 37 ng r draft very incon using a xx time sl	_DELAY. V_Off, as defined in DELAY_PRI, # [<u>i-129</u> <i>Editoria</i> asistently, the SLIDING	
In other places we re SuggestedRemedy "In addition, it is reco Response ACCEPT IN PRINCI Suggest the followin	efer to this as "power not applie ommended that the pairset be o <i>Response Status</i> C IPLE. g remedy instead:	d" or "power rem	oved". power is removed."	the PSE The volt Table 14 IDLE_SI C/ 145 Yseboodt, Lu Comment Ty Topic:SI Issue: w commer Ain	is in DISABL age at the cor 15-16, when the EC, WAIT_SE SC 145.2.8. ennart pe TR IDING e use the con the try to make in: get everything pe 4 PSEs shift lated with any	ED, IDLE, TES responding pa he PSE is in ID C, or ERROR 12 Comment cept of 'sliding a the whole bur ing in the form hall not source	ST_ERROR_BC irset shall be ec DLE_PRI, WAIT _DELAY_SEC. P 165 Philips Lightir Status A windows' in ou nch consistent. "measure xxx u more power tha	DTH, or ERROR_ Jual or less than _PRI, ERROR_E <i>L</i> 37 ng r draft very incon using a xx time sl un P Type max a	_DELAY. V_Off, as defined in DELAY_PRI, # [<u>i-129</u> <i>Editoria</i> isistently, the SLIDING iding window".	
In other places we re SuggestedRemedy "In addition, it is reco Response ACCEPT IN PRINCI Suggest the followin	efer to this as "power not applie ommended that the pairset be o <i>Response Status</i> C IPLE. g remedy instead:	d" or "power rem	oved". power is removed."	the PSE The volt Table 14 IDLE_SI CI 145 Yseboodt, Lu Comment Ty Topic:SI Issue: w commer Ain "Ty 16 calcu SuggestedR "Type 4	is in DISABL age at the cor 15-16, when the EC, WAIT_SE SC 145.2.8. ennart pe TR IDING e use the con the try to make in: get everything pe 4 PSEs shall no emedy PSEs shall no	ED, IDLE, TES responding pa the PSE is in ID EC, or ERROR 12 Comment cept of 'sliding the whole bur ing in the form thall not source of sliding window	ST_ERROR_BO irset shall be en DE_PRI, WAIT _DELAY_SEC. P 165 Philips Lightin Status A windows' in ounch consistent. "measure xxx u more power that with a width u	DTH, or ERROR_ Jual or less than _PRI, ERROR_E <i>L</i> 37 ng r draft very incom Ising a xx time sl an P Type max a p to 4 seconds."	_DELAY. V_Off, as defined in DELAY_PRI, # [<u>i-129</u> <i>Editoria</i> asistently, the SLIDING iding window".	
In other places we re SuggestedRemedy "In addition, it is reco Response ACCEPT IN PRINCI Suggest the followin	efer to this as "power not applie ommended that the pairset be o <i>Response Status</i> C IPLE. g remedy instead:	d" or "power rem	oved". power is removed."	the PSE The volt Table 14 IDLE_SI CI 145 Yseboodt, Lu Comment Ty Topic:SI Issue: w commer Ain "Ty 16 calcu SuggestedR "Type 4	is in DISABL age at the cor 15-16, when the EC, WAIT_SE SC 145.2.8. ennart pe TR IDING e use the con the try to make in: get everything pe 4 PSEs shall no emedy PSEs shall no	ED, IDLE, TES responding pa the PSE is in ID EC, or ERROR 12 Comment cept of 'sliding the whole bur ing in the form thall not source of sliding window	ST_ERROR_BC irset shall be ec DLE_PRI, WAIT _DELAY_SEC. <i>P</i> 165 Philips Lightin <i>Status</i> A windows' in ounch consistent. "measure xxx u more power than w with a width u	DTH, or ERROR_ Jual or less than _PRI, ERROR_E <i>L</i> 37 ng r draft very incom Ising a xx time sl an P Type max a p to 4 seconds."	_DELAY. V_Off, as defined in DELAY_PRI, # [<u>i-129</u> <i>Editoria</i> asistently, the SLIDING iding window". s defined in Table 145-	

C/ 145 SC 145.2.8.13 P 166 L 6 # i-130 Yseboodt, Lennart Philips Lighting Philips Lighting	C/ 145 SC 145.3.2 P 168 L 43 # i-132 Yseboodt, Lennart Philips Lighting				
Comment Type E Comment Status A Pres: Stewa					
"PSEs, when connected to a single-signature PD, shall reach the POWER_ON state within Tpon after completing detection on the last pairset. When connected to a dual-signature PD, PSEs shall reach the POWER_ON state for a pairset within T pon after completing detection on the same pairset." Statename should not be using word "state".	"NOTEPDs that implement only Mode A or Mode B are specifically not allowed by this standard." "implementing a pairset" is ambiguous.				
SuggestedRemedy	SuggestedRemedy "NOTEPDs that support only Mode A or Mode B are specifically not allowed by this				
Change to:	standard."				
"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 POWER_ON for a pairset within Tpon after completing detection on the same pairset."	Response Response Status C ACCEPT.				
Response Response Status C	C/ 145 SC 145.3.3.4 P 170 L 10 # [i-133				
ACCEPT IN PRINCIPLE.	Yseboodt, Lennart Philips Lighting				
	Comment Type TR Comment Status A PD SL				
PSEs shall reach the respective power on state for a pairset within Tpon after completing detection on the same pairset." Cl 145 SC 145.3.2 P 168 L 31 # [i-131] Cl beloodt, Lennart Philips Lighting	Short summary: There is no mention in our spec that a PD should implement hysteresis fo V_Mark_th. 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,				
Comment Type TR Comment Status A Pres: Ysebood					
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 Adopt yseboodt_01_0917_pdinputpower.pdf Response Response Status C	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 Add the following text after the third paragraph in 145.3.6.1.1: "Appropriate hysteresis in the VMark_th threshold voltage is required to avoid erroneous transitions between mark and class states when the PSE switches from a class voltage to a mark voltage or vica versa."				
ACCEPT IN PRINCIPLE.	Response Response Status C				
	ACCEPT.				
Adopt yseboodt_01_0917_pdinputpower.pdf (v120)					
[Editor's note added after comment resolution completed.					
The full URL for the file FILE_NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/yseboodt_01_0917_pdinputpower.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

C/ 145 SC 145.3.3.4 Yseboodt, Lennart	P 170 Philips Lighting	L 25	# [i-134	C/ 145 SC 145.3.3 Yseboodt, Lennart	.4 P 170 Philips Lighting	L 48	# i-136
Comment Type TR Variable nopower is use SuggestedRemedy	Comment Status A d in state diagram, but not lis	ted in variable	PD SD e list.		Comment Status A imit in the PD state diagram. UE/FALSE says "The PD is (no	t) required to c	PD SD
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" Response Response Status C ACCEPT.				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 ACCEPT IN PRINCIPLE. Delete pd_current_limit. Reason: In all cases pd_current_limit is either redundant or misleading to pd_max_power			

C/ 145 SC 145.3.3.4 P 172 L 5 # i-137 Yseboodt, Lennart Philips Lighting	C/ 145 SC 145.3.3.7 P 174 L 23 # i-138 Yseboodt, Lennart Philips Lighting Philips Lighting Philips Lighting Philips Lighting			
Comment Type T Comment Status A PD SD	Comment Type TR Comment Status A Pres: Yseboodt			
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. either: Either a valid or non-valid PD detection signature may be applied to the	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 IDLE_ACS, preventing it from being true in the arc from IDLE_ACS to WAIT_ACS).			
PI."	SuggestedRemedy			
Why does valid say 'over each pairset', but invalid does not ?	Adopt yseboodt_07_0917_pdautoclassfix.pdf			
SuggestedRemedy	Response Response Status C			
Given that this is single-signature, all of these should apply on both pairsets. Change to:	ACCEPT IN PRINCIPLE.			
"Controls presenting the detection signature (see 145.3.4) by the PD over each pairset. Values:	Adopt yseboodt_07_0917_pdautoclassfix.pdf (v105)			
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.	[Editor's note added after comment resolution completed.			
either: Either a valid or non-valid PD detection signature may be applied to the PI."	The full URL for the file FILE_NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/yseboodt_07_0917_pdautoclassfix.pdf]			
Response Response Status C	Cl 145 SC 145.3.3.7 P 175 L 32 # i-139			
ACCEPT IN PRINCIPLE.	Yseboodt, Lennart Philips Lighting			
Change to:	Comment Type TR Comment Status A PD SI			
"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 both pairsets.	PD state diagram: the transition from POWER_DELAY to POWERED reads "Vpd >= VOnPD *". Wo're already "on" here, so we should only check against Voff. This is consistent with other POWERED states.			
valid: A valid PD detection signature is to be applied to both pairsets.	This is consistent with other POWERED states.			
	This is consistent with other POWERED states. SuggestedRemedy			
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				
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	SuggestedRemedy Change as follows: - POWER_DELAY ==> POWERED change to VPD > VOff_PD			
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	SuggestedRemedy Change as follows: - POWER_DELAY ==> POWERED change to VPD > VOff_PD - POWERED ==> POWER_UPDATE change to VPD > VOff_PD			

C/ 145 SC 145.3.4 Yseboodt, Lennart	P 182 Philips Lighting	L 18	# li-140	<i>Cl</i> 145 Yseboodt,	SC 145.3.5 Lennart	P 183 Philips Lighting	L 20	# <u>i-142</u>
compliant, while a PD detection." Construct of the sente presents'. SuggestedRemedy	Comment Status A er by presenting a detection sign that presents the signature of Ta nce is odd: first part uses 'PD rea over by presenting a detection si	ible 145-21 is	s assured to fail	145.3. Suggested	a few subclause 5 = "PD signature <i>Remedy</i> e to "PD signatur	-		PD Signatures
	PD that presents the signature Response Status C			being i	econfigured on t	ne clause title is misleading. It he fly or something. The plural and this is where to find their de	version imp	lies that there are more
The parameter name a conditions)". This text comes straig What does it mean ? A 10.1V per the condition We're on the PD side of for PDs. SuggestedRemedy Delete quoted text.	A resistance is a resistance and ins. of the spec, the 1V chord is a rea	eater chord w t needs to be	rithin the voltage range there between 2.7 and	20, on preser 57 V is The re check See ht proble Suggestea Chang "A sin(20, on preser	Type TR le-signature PD a given Mode wh t an invalid detect applied to the of quirement only h entirely operates tp://www.ieee802 n description. Remedy e first paragraph le-signature PD a given Mode wh t a valid detectio	of 145.3.5 to read: shall present a valid detection s en no voltage or current is app n signature on that Mode when	blied to the of hen any volta s apply to bo ove 10.1V, w dt_09_0517_ signature, as blied to the of any voltage	ther Mode, and shall age between 10.1 V and th Mode A and Mode B." /hereas connection _signature.pdf for s defined in Table 145- ther Mode, and shall not between 3.7 V and 57 V
Proposed Response REJECT.	Response Status Z			NOTE	- A detection sig	Node. These requirements appl nature is only considered valid age range of 2.7 V to 10.1 V."		
	THDRAWN by the commenter.	olution meeti	ng.	Response REJEC	CT.	Response Status U		
				There	was no consensi	us for change.		

Comment ID i-143

C/ 145 SC 145.3.6 Yseboodt, Lennart	P 183 Philips Lighting	L 34	# i-144	<i>Cl</i> 145 Yseboodt,	SC 145.3.6.1 _ennart	P 184 Philips Lighting	L 51 g	# i-147
Comment Type E All but a few subclause 145.3.6 = "PD classific SuggestedRemedy Change to "PD classific Response ACCEPT.	ations"		Editorial	DO_CI DO_CI DO_CI 145-23 The pa	Multiple-Event Ph ASS_EVENT1 and ASS_EVENT3, DC ASS_EVENT6, wi	Comment Status A ysical Layer classification F d DO_CLASS_EVENT2 an O_CLASS_EVENT4, DO_C th the corresponding classi	d class_sig_B CLASS_EVENT fication signatu	during r5, and ıres specified in Table
Cl 145 SC 145.3.6 Yseboodt, Lennart Comment Type E "The requested class of classification."	P 183 Philips Lighting <i>Comment Status</i> A f the PD is the Class the PD ac	L 44	# [i-145 <i>Editorial</i> ng Physical Layer	Suggested Replac "PDs s and cla DO_CI	Remedy e by: hall present class_ ss_sig_B during D	sig_A during DO_CLASS_ O_CLASS_EVENT3, DO_ d DO_CLASS_EVENT6, w	CLASS_EVEN	Τ4,
	expand a little bit. of the PD is the Class the PD a ents the amount of power the P <i>Response Status</i> C			ACCEI Chang DO_CI DO_CI Figure	PT IN PRINCIPLE. PT IN PRINCIPLE. e to: "PDs shall pro ASS_EVENT2 and ASS_EVENT4, DO	Response Status C esent class_sig_A during D d class_sig_B during DO_C D_CLASS_EVENT5, and D 145-28, with the correspor	CLASS_EVENT DO_CLASS_EV	ſ3, /ENT6, as shown in
C/ 145 SC 145.3.6 Yseboodt, Lennart	P 184 Philips Lighting	L 35	# i-146	This re	solution is identical	to comment #148.		
145-23 physically sit in It should be moved to t SuggestedRemedy - Move Table 145-23 to - Move Table 145-26 to - Change the text on pa	he Multiple-Event subclause w o subclause 145.3.6.1 o before Table 145-24	nich follows.						
	tiple-Event Physical Layer class Response Status C	sification as d	efined in 145.3.6.1."					
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

Yseboodt, Lennart Philips Lighting Comment Type ER Comment Status A Editorial "During Multiple-Event Physical Layer classification PDs shall present class_ sig_ A during DO_CLASS_EVENT1 and DO_CLASS_EVENT4, DO_CLASS_EVENT5, and DO_CLASS_EVENT6, with the corresponding classification signatures specified in Table 145-23." Comment Status A PC Unlike in the Mark section, we don't actually refer to the state diagram in this sentence. SuggestedRemedy The notion of 'default values' in state diagrams is removed. Sentence no longer adds value SuggestedRemedy "During Multiple-Event Physical Layer classification Signatures specified in Table 145-23." CLASS_EVENT2 and class_sig_ A during DO_CLASS_EVENT3 not DO_CLASS_EVENT2 and class_sig_ A during DO_CLASS_EVENT6, as shown in Figure 145-26 and Figure 145-28, with the corresponding classification signatures specified in Table 145-23." P185 L 19 # [-151] Change to: "PDs shall present class_sig_ A during DO_CLASS_EVENT1 And Class_S_EVENT3, and DO_CLASS_EVENT3 AD CLASS_EVENT1 and DO_CLASS_EVENT4 DO_CLASS_EVENT1 and DO_CLASS_EVENT4 DO_CLASS_EVENT1 and DO_CLASS_EVENT4 DO_CLASS_EVENT6, as shown in Figure 145-26 and Figure 145-28, with the corresponding classification signatures specified in Table 145-23." P185 L 1 # [-152] C1 145 SC 145.3.6.1 P 185 L 34 # [-152] Yseboodt, Lennart Philips Lighting Cateerr. C145 SC 145.3.6.1 P 185 L 34									
Comment Type ER Comment Status A Editorial "During Multiple-Event Physical Layer classification PDs shall present class_sig_ A during DO CLASS_EVENTS, DO CLASS_EVENT4 and CLASS_EVENT5, and DO CLASS_EVENT6, with the corresponding classification signatures specified in Table 145/23." Comment Type TR Comment Type Comment Type PC Unlike in the Mark section, we don't actually refer to the state diagram in this sentence. Suggested/Remedy Response Status C OCLASS_EVENT3, DO CLASS_EVENT3, DO CLASS_EVENT3 and DO CLASS_EVENT3, DO CLASS_EVENT4 and CLASS_EVENT5, and DO CLASS_EVENT3, DO CLASS_EVENT4 and CLASS_EVENT5, and DO CLASS_EVENT3, DO CLASS_EVENT4 and CLASS_EVENT6 and Space Busing DO CLASS_EVENT3, DO CLASS_EVENT4 and CLASS_EVENT6 and PO CLASS_EVENT3, DO CLASS_EVENT3, DO CLASS_EVENT3, and DO CLASS_EVENT3, and DO CLASS_EVENT3, and DO CLASS_EVENT3, and DO CLASS_EVENT4, and DC CLASS_EVENT4, and DC LASS_EVENT5, and DO CLASS_EVENT3, and DO CLASS_EVENT6, as shown in Figure 145/28 and Figure 145/28, with the corresponding classification signatures specified in Table 145/23." P185 L1 # [+152] C1 145 SC 145.3.6.1 P185 L34 # [+152] C2 145 SC 145.3.6.1 P185 L34 # [+152] C3 145 SC 145.3.6.1 P185 L34 # [+152] C3 145 SC 145.3.6.1 P185 L34 # [+152] C1 145 SC 145.3.6.1 P185		P 184	L 51	# i-148			P 185	L 13	# i-150
"Durig fulliple-Event Physical Layer classification PDs shall present class_sig_A during DO_CLASS_EVENT3, DO_CLASS_EVENT3, and DO_CLASS_EVENT3, and DO_CLASS_EVENT2 and class_sig_B during DO_CLASS_EVENT3 and DO_CLASS_EVENT3, and DO_CLASS_EVENT4, and DO_CLASS_EVENT5, and DO_CLASS_EVENT4, and DO_CLASS_EVENT6, as shown in Figure 145-23. 21 145 SC 145.36.1 P 185 L1 # [_149] If 189 If 18	rseboodt, Lennart	Philips Lighting			Yseboodt, Lenna	art	Philips Lighting		
DO_CLASS_EVENT1 and DO_CLASS_EVENT2 and class_sig_B during DO_CLASS_EVENT6, with the corresponding classification signatures specified in Table 145-23." Unlike in the Mark section, we don't actually refer to the state diagram in this sentence. SuggestedRemedy "Ouring Multiple-Event Physical Layer classification PDs shall present class_sig_ A during DO_CLASS_EVENT3, DO_CLASS_EVENT3, DO_CLASS_EVENT6, and DO_CLASS_EVENT3, DO_CLASS_EVENT4, DO_CLASS_EVENT6, and DO_CLASS_EVENT6, and DO_CLASS_EVENT6, and DO_CLASS_EVENT6, and DO_CLASS_EVENT6, and BO_CLASS_EVENT6, and BO_CLASS_EVENT6, and BO_CLASS_EVENT6, and BO_CLASS_EVENT6, and BO_CLASS_EVENT6, DO_CLASS_EVENT6, and BO_CLASS_EVENT6, and BO_CLASS_EVENT6					Comment Type	TR	Comment Status A		PD S
SuggestedRemedy "During Multiple-Event Physical Layer classification PDs shall present class_sig_A during DO. CLASS_EVENT3, DO. CLASS_EVENT4, DO. CLASS_EVENT5, and DO. CLASS_EVENT3, DO. CLASS_EVENT4, DO. CLASS_EVENT5, and DO. CLASS_EVENT6, as shown in Figure 145-26 and Figure 145-28, with the corresponding classification signatures specified in Table 145-23." (145 SC 145.3.6.1 P 185 L 19 # [:15] Response Response Status C ACCEPT IN PRINCIPLE. (Change to: "PDs shall present class_sig_ A during DO. CLASS_EVENT1 and DO. CLASS_EVENT2 and class_sig_ B during DO. CLASS_EVENT6, as shown in Figure 145-26 and Figure 145-28, with the corresponding classification signatures specified in Table 145-23." P185 L 1 # [:149] C/145 SC 145.3.6.1 P 185 L 1 # [:149] C/145 SC 145.3.6.1 P 185 L 1 # [:149] C/145 SC 145.3.6.1 P 185 L 1 # [:149] C/145 SC 145.3.6.1 P 185 L 1 # [:149] C/145 SC 145.3.6.1 P 185 L 34 # [:152] Comment Status A C/145 SC 145.3.6.1 P 185 L 34 # [:152] C/145 SC 145.3.6.1 P 185 L 34 # [:152] C/145 SC 145.3.6.1 P 185 L 34 # [:152] C/145 SC 145.3.6.1 P 185 L 34 # [:152] C/145 SC 145.3.6.1 P 185 L 34 # [:152] C/145 SC 145.3.6.1 P 185 L 34 # [:152] Why is 0 quoted? Class signature 0 is defined in Table 145-23 and does not need to be quoted. Editorial "PDs implementing Autoclass sh	DO_CLASS_EVENT1 DO_CLASS_EVENT3, DO_CLASS_EVENT6,	and DO_CLASS_EVENT2 and DO_CLASS_EVENT4, DO_CI	class_sig_B du _ASS_EVENT5,	iring , and	The notion of SuggestedReme	of 'default va edy	alues' in state diagrams is remo	·	
SuggestedRemedy "During Multiple-Event Physical Layer classification PDs shall present class_sig_A during DO_CLASS_EVENT3 and O.S. EVENT4 and DO_CLASS_EVENT5, and DO_CLASS_EVENT5, and DO_CLASS_EVENT4. DO_CLASS_EVENT5, and DO_CLASS_EVENT4. DO_CLASS_EVENT5, and DO_CLASS_EVENT4. DO_CLASS_EVENT4. DO_CLASS_EVENT4. DO_CLASS_EVENT4. DO_CLASS_EVENT5. and DO_CLASS_EVENT6. as shown in Figure 145-23." 7/145 S 20145.3.6.1 P185 L1 # [:149 7/145 S 20145.3.6.1 P185 L34 # [:152 7/145 S 0 quoted? Class signature 0 is defined in Table 145-23 and does not need to be quoted. Editorial Politips Lighting "PDs implementing Autoclass shall present class signature 0, as defined in Table 145-23, and does not need to be guided. Editorial First column "PD Type column. SuggestedRemedy Change to: "PDs implementing Autoclass shall pre	Unlike in the Mark sect	ion, we don't actually refer to the	ne state diagram	n in this sentence.	Response		Response Status C		
DO_CLASS_EVENT3 and DO_CLASS_EVENT3 on O_CLASS_EVENT3 on O_CLASS_EVENT4 on C_CLASS_EVENT3 on O_CLASS_EVENT3 on O_CLASS_EVENT3 on O_CLASS_EVENT3 on O_CLASS_EVENT3 on O_CLASS_EVENT4 on C_CLASS_EVENT4 on C_CLASS_EVENT3 on O_CLASS_EVENT3 on O_CLASS_EVENT4 on C_CLASS_EVENT4 on C_CLASS_	SuggestedRemedy						·····		
Response Response Status C ACCEPT IN PRINCIPLE. Change to: "PDs shall present class_sig_ A during DO_CLASS_EVENT3, DO_CLASS_EVENT3, and DO_CLASS_EVENT3, DO_CLASS_EVENT5, and DO_CLASS_EVENT6, as shown in Figure 145-28, with the corresponding classification signatures specified in Table 145-23." The notion of 'default values' in state diagrams is removed. Sentence no longer adds value of pse_power_level_mode(X) is 3, which corresponds with one class suggested/Remedy C/ 145 SC 145.3.6.1 P 185 L 1 # i-149 Yseboodt, Lennart Philips Lighting C ACCEPT. C/ 145 SC 145.3.6.1 P 185 L 1 # i-149 Yseboodt, Lennart Philips Lighting C ACCEPT. C/ 145 SC 145.3.6.1 P 185 L 34 # i-152 Yseboodt, Lennart Philips Lighting C ACCEPT. Why is 0 quoted? Class signature 0', as defined in Table 145-23, and does not need to be quoted. Suggested/Remedy Comment Type E Comment Status A Editional Suggested/Remedy Change to: "Pos implementing Autoclass shall present class signature 0, as defined in Table 145-23, during DO_CLASS_EVENT_AUTO as defined in 145.3.6.2." Comment Type E Comment Type column. Suggested/Remedy Let align PD Type colu	DO_CLASS_EVENT1 DO_CLASS_EVENT3, DO_CLASS_EVENT6,	and DO_CLASS_EVENT2 and DO_CLASS_EVENT4, DO_CI as shown in Figure 145-26 and	class_sig_B du _ASS_EVENT5, d Figure 145-28	iring , and	Yseboodt, Lenna	art	Philips Lighting	L 19	# [<u>i-151</u> PD SI
ACCEPT IN PRINCIPLE. Change to: "PDs shall present class_sig_A during DO_CLASS_EVENT1 and DO_CLASS_EVENT2 and class_sig_B during DO_CLASS_EVENT3, DO_CLASS_EVENT4, DO_CLASS_EVENT5, and DO_CLASS_EVENT6, as shown in Figure 145-263 and Figure 145-28, with the corresponding classification signatures specified in Table 145-23." C/ 145 SC 145.3.6.1 P 185 L 1 # [+149 Yseboodt, Lennart Philips Lighting Comment Type E Comment Status A Editorial "PDs implementing Autoclass shall present class signature '0', as defined in Table 145-23, during DO_CLASS_EVENT_AUTO as defined in 145.3.6.2." Why is 0 quoted? Class signature 0 is defined in Table 145-23 and does not need to be quoted. SuggestedRemedy Change to: "PDs implementing Autoclass shall present class signature 0, as defined in Table 145-23, during DO_CLASS_EVENT_AUTO as defined in 145.3.6.2." Response Response Status C ACCEPT. C/ 145 SC 145.3.6.1 P 185 L 34 # [-152] Comment Type E Comment Status A Editorial "PDs implementing Autoclass shall present class signature 0, as defined in Table 145-23, during DO_CLASS_EVENT_AUTO as defined in 145.3.6.2." Response Response Status C ACCEPT. C/ 145 SC 145.3.6.1 P 185 L 34 # [-152] Comment Type E Comment Status A Editorial "PDs implementing Autoclass shall present class signature 0, as defined in Table 145-23, during DO_CLASS_EVENT_AUTO as defined in 145.3.6.2." Response Response Status C ACCEPT.		· ·					se power level mode(X) is 3,	which corresp	onds with one class
Charge to: "PDs shall present class_sig_A during DO_CLASS_EVENT1 and DO_CLASS_EVENT2 and class_sig_B during DO_CLASS_EVENT3, DO_CLASS_EVENT4, DO_CLASS_EVENT5, and DO_CLASS_EVENT6, as shown in Figure 145-28 and Figure 145-28, with the corresponding classification signatures specified in Table 145-23." The notion of 'default values' in state diagrams is removed. Sentence no longer adds values of the present class signature 145-28. C/ 145 SC 145.3.6.1 P185 L1 # [+149] C/ 145 SC 145.3.6.1 P185 L 34 # [+152] C/ 145 SC 145.3.6.1 P185 L 34 # [+152] C/ 145 SC 145.3.6.1 P185 L 34 # [+152] C/ 145 SC 145.3.6.1 P185 L 34 # [+152] C/ 145 SC 145.3.6.1 P185 L 34 # [+152] Why is 0 quoted? Class signature 0 is defined in Table 145-23 and does not need to be quoted. SuggestedRemedy SuggestedRemedy Left align PD Type olumn. SuggestedRemedy Left align PD Type column. Response Status C ACCEPT.	•	•							
Comment Type E Comment Status A Editorial "PDs implementing Autoclass shall present class signature '0', as defined in Table 145-23, during DO_CLASS_EVENT_AUTO as defined in 145.3.6.2." Yseboodt, Lennart Philips Lighting Why is 0 quoted? Class signature 0 is defined in Table 145-23 and does not need to be quoted. Editorial Yseboodt, Lennart Philips Lighting SuggestedRemedy Change to: "PDs implementing Autoclass shall present class signature 0, as defined in Table 145-23, during DO_CLASS_EVENT_AUTO as defined in 145.3.6.2." Kesponse Response Status C Response Response Status C ACCEPT. ACCEPT.	Figure 145-26 and Figuin Table 145-23."	re 145-28, with the correspond	ling classificatio	n signatures specified	Response	oted senten			
"PDs implementing Autoclass shall present class signature '0', as defined in Table 145-23, during DO_CLASS_EVENT_AUTO as defined in 145.3.6.2." Comment Type E Comment Status A Edite Edite Why is 0 quoted? Class signature 0 is defined in Table 145-23 and does not need to be quoted. SuggestedRemedy Edite First column "PD Type" in Table 145-24 needs to be left aligned, also for Table 145-25 SuggestedRemedy SuggestedRemedy Change to: "PDs implementing Autoclass shall present class signature 0, as defined in Table 145-23, during DO_CLASS_EVENT_AUTO as defined in 145.3.6.2." Response Status C Response Response Status C ACCEPT.	rseboodt, Lennart	Philips Lighting			C/ 145 SC	145.3.6.1	P 185	L 34	# i-152
during DO_CLASS_EVENT_AUTO as defined in 145.3.6.2." First column "PD Type" in Table 145-24 needs to be left aligned, also for Table 145-25 Why is 0 quoted? Class signature 0 is defined in Table 145-23 and does not need to be quoted. First column "PD Type" in Table 145-24 needs to be left aligned, also for Table 145-25 SuggestedRemedy Left align PD Type column. Change to: Response Status C "PDs implementing Autoclass shall present class signature 0, as defined in 145.3.6.2." ACCEPT. Response Response Status C	Comment Type E	Comment Status A		Editorial	Yseboodt, Lenna	art	Philips Lighting		
quoted. Left align PD Type column. SuggestedRemedy Response Change to: "PDs implementing Autoclass shall present class signature 0, as defined in Table 145-23, during DO_CLASS_EVENT_AUTO as defined in 145.3.6.2." ACCEPT. Response Response Status C	"PDs implementing Au during DO_CLASS_EV	oclass shall present class sigr ENT_AUTO as defined in 145	ature '0', as def 3.6.2."	ined in Table 145-23,	51			eft aligned, als	<i>Editoria</i> so for Table 145-25
Change to: "PDs implementing Autoclass shall present class signature 0, as defined in Table 145-23, during DO_CLASS_EVENT_AUTO as defined in 145.3.6.2." Response Response Status C	· ·	s signature 0 is defined in Tabl	e 145-23 and do	pes not need to be	88		ımn.		
"PDs implementing Autoclass shall present class signature 0, as defined in Table 145-23, during DO_CLASS_EVENT_AUTO as defined in 145.3.6.2." Response Response Status C					Response		Response Status C		
	"PDs implementing Au			ned in Table 145-23,	ACCEPT.				
ACCEPT	Response	Response Status C							
	ACCEDT								

C/ 145	SC 145.3.6.1		L 32	# i-153	C/ 145	SC 14	45.3.8	-	P 187	L 1	# i-154
rseboodt, l		Philips Lightin	g		Yseboodt,				hilips Lightin	g	
Comment 7	• •	Comment Status A		PD Reset	Comment		ER	Comment Sta			Editoria
The ad VReset	ditional informat	b, we find V_Reset_PD which ion points to 145.3.8.1, which oned abywhere in the document oned abywhere in the document oned abywhere in the document oned abywhere in the document one d	n says nothing a	bout this parameter.	assign Except	ed Class tions: V_	'. Tran_lo-	-	2P, Tinrush_F		lue specified 'per the Islewrate, VNoise_PD,
Specifi	cally, there is a	global arc into IDLE with VPD is a range, consistent with ot						pply to both Type termined by Clas		4.	
means threshc	the PD can cho old.	ose any voltage between 0V	and 2.81V and	use this as the reset				Type column in t nificance.	his Table at	all, it doesn't te	ll us anything new, nor
than 2.	81V.	should return to IDLE and sta	ay there whenev	er the voltage is less	Suggested Remov			mn from Table 1	45-28.		
Suggestedl	•				Response	,		Response Sta			
"VRese - Chang 145.3.3	et_PD max: The ge all occurence 3.7	of VReset_PD in 145.3.3.3 to maximum PD reset voltage (is of "VReset_PD" to "VReset	see Table 145-2 t_PD max" in th	26). e state diagrams in	ACCEI	PT IN PR	n.	.E.	-	ad one for Turne	4
	ge the additiona e-Event class sig	l information in Table 145-26,	, item 6 to read	"See 145.3.6.1" (PD	Create	two rows	S TOF VOV	verload-2P, one	for Type 3 al	na one for Type	9 4.
- Apper "V_Res	nd a paragraph i set_PD, as defin	to 145.3.6.1 that reads as foll ed in Table 145-26, is the vol ing the class event count."		hich the PD transitions	<i>Cl</i> 145 Yseboodt,		45.3.6.2		P 187 Philips Lightin	L 7 g	# i-155
		ges for dual-signature as appl	ropriate.		Comment	Туре	E	Comment Sta	atus A		Editoria
Response	YT IN PRINCIPL	Response Status C			class s						e first class event to S max, as defined in
		of Vreset_PD in 145.3.3.3 to naximum PD reset voltage (s			Why is quoted	0 quoteo I.		s signature 0 is o	defined in Ta	ble 145-23 and	does not need to be
		s of "Vreset_PD" to "Vreset_	PD max" in the	state diagrams in	Suggested	Remedy					
Multiple - Apper	ge the additiona e-Event class sign nd a paragraph t	o 145.3.6.1 that reads as foll	ows:	,	class s	that impl					e first class event to 5 max, as defined in
"V_Res	set_PD, as defin	ed in Table 145-26, is the vol	ltage range in w	hich the PD remains in	Response			Response Sta	atus C		
- Make		ges for dual-signature as app reset_PD Max is in the const		des any comment that	ACCE	PT.					

C/ 145 SC	145.3.8	P 188	L 21	# i-156	C/ 145	SC	145.3.8	P 190	L 33	# <u>i-158</u>
Yseboodt, Lennai	rt	Philips Lightir	ng		Yseboodt,	Lenna	rt	Philips Lighting		
Comment Type	ER	Comment Status A		PD Power	Comment	Туре	Е	Comment Status A		Editorial
defined in 14 It is not imme microseconds	5.2.8.3". ediately appa s.	Tran_lo-2P says in the add arant that this applies to tra PSE section inside of the	ansients of no m	ore than 250	"a Cla 145.3.	iss 6 an .8.2)."		5-28 says: PDs may exceed P Class_PD ubclause is 145.3.8.2.1.	under certain	conditions (see
SuggestedRemed	dy				Suggested	dReme	dy			
		See 145.3.8.1."			Chang	ge 145	.3.8.2 to 1	45.3.8.2.1.		
 Add the follo "During a volt microseconds 	tage transie	5.3.8.1: nt, VPD may fall as low as	VTran_lo-2P for	up to 250	Response ACCE			Response Status C		
Note: if the ot 2P rather that		nt on KTran/VTran is acce 2P.	pted, the parame	eter name is VTran_PD-	C/ 145 Yseboodt,		145.3.8.2 rt	P 191 Philips Lighting	L 27	# i-159
Response ACCEPT IN F		Response Status C			Comment Topic:	<i>Type</i> :SLIDIN	ER IG	Comment Status A		Sliding
Replace add.					comm	ents try	/ to make t	ept of 'sliding windows' in our on he whole bunch consistent. g in the form "measure xxx usi	-	-
Cl 145 SC Yseboodt, Lennai	145.3.8	P 188 Philips Lightir	L 51	# i-157		Ū	, ,	-	0	C C
Comment Type	Е	Comment Status A	.9	Editorial	PDMa	axPowe	rValue in 1	erage power, P Class_PD or F 45.5.3.3.3, including any peal ond sliding window."		
Table 145-28	, parameter	Idelay-2P.			Suggested	dReme	dy			
doesn't make	e too much s	with time and are not excluence.	usive to dual-sig	nature, the "-2P" suffix	PDMa	xPowe	rValue in 1	power, P Class_PD or P Clas 45.5.3.3.3, including any peal cond sliding window."		
SuggestedRemed	-	lelay throughout Clause 14	5		Response			Response Status C		
Response ACCEPT.	•	Response Status C					PRINCIPLE PRINCIPLE	, <u>.</u>		
,0021 T.					PDMa	axPowe	rValue in 1	power, Pclass_PD or Pclass 45.5.3.3.3, including any peal window with a width of 1 sec	c power drawn	
					This re	esolutic	on is identic	cal to comment #330.		

"PDs that have successful completed DLL classification, shall not exceed a power consumption of PDMaxPowerValue as defined in 145.5.3.3.3." "For Class 5 dual-signature PDs, when additional information is available to the PD regarding actual link section DC resistance" Needs update for dual-signature PDs that have successfully completed DLL classification, shall not exceed a power consumption of PDMaxPowerValue as defined in 145.5.3.4. Applies to ASSIGNED Class. SuggestedRemedy "For Class 5 dual-signature PDs shat have successfully completed DLL classification, shall not exceed a power consumption of PDMaxPowerValue as defined in 145.5.3.4. 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 as defined in 145.5.3.4. Power consumption of PDMaxPowerValue as defined in 145.5.3.4. 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. 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 as defined in 145.5.3.4. Power C1 145 SC 145.3.8.2.1 P191 L 37 # 1-161 "For Class 6 and Class 8 ingle-signature PDs, when additional information is available to the PD input capacitance during the POWER. UP and POWER	C/ 145 SC 145.3.8.	-	L 32	# i-160	C/ 145		5.3.8.2.1	P 191	L 42	# i-162
"PDs that have successfull completed DLL classification, shall not exceed a power consumption of PDMaxPowerValue as defined in 145.5.3.3." "For Class 5 dual-signature PDs, when additional information is available to the PD regarding actual link section DC resistance" Needs update for dual-signature PDs that have successfully completed DLL classification, shall not exceed a power consumption of PDMaxPowerValue as defined in 145.5.3.4. Applies to ASSIGNED Class. Suggested/Remedy Replace by: "For dual-signature PDs that have successfully completed DLL classification, shall not exceed a power consumption of PDMaxPowerValue as defined in 145.5.3.4. ACCEPT IN PRINCIPLE. Response Response Status C 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. P192 L 35 # [163] Segonse Response Status C Comment Type E Comment Type C Comment Type TR PD POWER_ON states that a PSE sees as load on each pairset, when additional information is available to the PD State names do not need the word "state" Note CPST in Table 145-28 is the PD input capacitance during POWER_ON_SEC the PD input capacitance during power on submatin	'seboodt, Lennart	Philips Lightir	ng		Yseboodt,	Lennart		Philips Lighting	I	
consumption of PDMaxPowerValue as defined in 145.5.3.3.* regarding actual link section DC resistance* Note that subclause reference is wrong also. Suggested/Remedy Suggested/Remedy Single-signature PDs that have successfully completed DLL classification, shall not exceed a power consumption of PDMaxPowerValue as defined in 145.5.3.4. Suggested/Remedy Response Response Status C ACCEPT IN PRINCIPLE C 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. P192 L35 # [163] Note that subclause repose that have successfully completed DLL classification shall not exceed a power consumption of PDMaxPowerValue as defined in 145.5.3.4. P192 L35 # [163] Dual-signature PDs that have successfully completed DLL classification shall not exceed a power consumption of PDMaxPowerValue as defined in 145.5.3.4. P192 L35 # [163] Comment Type TR Comment Type E Comment Type P192 L35 # [163] Comment Type TR Comment Status A PD PD "Go not as inde-signature PD. Chort-2P in Table 145-28 is the PD input capacitance during the power PD. Chort-2P in Table 145-28 is the PD input capacitance during POWER_UP and POWER_UP and POWER_UP and P	Comment Type TR	Comment Status A			Comment	Туре '	TR	Comment Status A		PD Power
Note that subclause reference is wrong also. Suggested/Remedy 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.* Replace by: "Single-signature PDs that have successfully completed DLL classification shall not exceed a power consumption of PDMaxPowerValue as defined in 145.5.3.7.* Replace by: "Single-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.* CI 145 SC 145.3.8.2.1 P 191 L 37 # [161] Yseboodt, Lennart Philips Lighting Comment Type TR Con				exceed a power					ormation is ava	ilable to the PD
SuggestedRemedy SuggestedRemedy 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. Change: 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.* CI 145 SC 145.3.8.3 P 192 L 35 # [+163] Response Response Status C ACCEPT IN PRINCIPLE. CI 145 SC 145.3.8.3 P 192 L 35 # [+163] 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 as defined in 145.5.3.7.* CI 145 SC 145.3.8.1 P 191 L 37 # [+161] CI 145 SC 145.3.8.1 P 191 L 37 # [+161] State names do not need the word "state" Also, for Cport-2P, we need the dual-signature PD.* State names do not need the word "state" Also, for Cport-2P, we need the dual-signature re D.* SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, when additional" PD Power "For single-signature PDs assigned to Class 6 or Class 8, when additional" PD Power <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>GNED CI</td> <td>ass.</td> <td></td> <td></td>							GNED CI	ass.		
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." Response Status C ACCEPT. 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 as defined in 145.5.3.4. Comment Status A PD Loss 5 (145. S.C. 145.3.8.2.1 P 191 L 37 # [+161] Yeseboott, Lennart Philips Lighting Comment Status A PD Power Cornment Type TK Comment Status A PD Power "For Class 6 and Class 8 single-signature PDs, when additional information is available to the PD regarding actual link section DC resistance" PD Power Applies to ASSIGNED Class. Suggested/Remedy Change :: "For single-signature PDs sasigned to Class 8, when additional" Suggested/Remedy Change :: "For single-signature PDs assigned to Class 8, when additional" Response Status C					00					
"Single-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.* Response Response Status C 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 145.5.3.7.* Replace by: "Single-signature PDs that have successfully completed DLL classification shall not exceed a power consumption of PDMaxPowerValue as defined in 145.5.3.7.* Replace by: "Single-signature PDs that have successfully completed DLL classification shall not exceed a power consumption of PDMaxPowerValue as defined in 145.5.3.7.* Cl 145 SC 145.3.8.2.1 P 191 L 37 # i-161 Yseboodt, Lennart Philips Lighting Comment Type TR Comment Status A PD Power "For Class 6 and Class 8 single-signature PDs, when additional information is available to the PD regarding actual link section DC resistance" Applies to ASSIGNED Class. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, when additional" Single-signature PD sature PDs assigned to Class 6 or Class 8, when additional"	00 ,						ure PDs a	assigned to Class 5, when a	dditional"	
exceed a power consumption of PDMaxPowerValue as defined in 145.5.3.7." Response Response Status C 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 145.5.3.7." Replace by: "Single-signature PDs that have successfully completed DLL classification shall not exceed a power consumption of PDMaxPowerValue as defined in 145.5.3.7." Cl 145 SC 145.3.8.2.1 P 191 L 37 # [-161] Yseboodt, Lennart Philips Lighting "Content Type TR Comment Status A PD Power Yseboodt, Lennart Philips Lighting State names do not need the word "state" Also, for Cport-2P in Table 145-28 is the PD input capacitance during POWER_UP and POWER_UP Response "For Single-signature PDs sasigned to Class 6 or Class 8, when additional" PD Power	' "Single-signature					0		5		
Response Response Status C 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. PL L 35 # [+163] C/ 145 SC 145.3.8.3 P 192 L 35 # [+163] Replace by: "Single-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." C/ 145 SC 145.3.8.2.1 P 191 L 37 # [+161] C/ 145 SC 145.3.8.2.1 P 191 L 37 # [+161] Also, for Coport-2P, we need the word "state" Also, for Coport-2P, we need the word "state" Also, for Coport-2P, we need the dual-signature PD. State names. SuggestedRemedy Change to: "CPort in Table 145-28 is the PD input capacitance during POWER_UP and POWER	Dual-signature PDs th	at have successfully complet	ed DLL classific	ation, shall not exceed a	•					
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. C/ 145 SC 145.3.8.2.1 P 191 L 37 # i-161 Yseboodt, Lennart Philips Lighting Comment Type TR Comment Status A PD Power "For Class 6 and Class 8 single-signature PDs, when additional information is available to the PD regarding actual link section DC resistance" SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, when additional" AccEPT IN PRINCIPLE. Replace by: State names do not need the vord "state" Also, for Cport-2P, we need the dual-signature state names. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, when additional" AccEPT IN PRINCIPLE. Replace by: State names do not need the portang on or both pairsets, when connected to a single-signature PD. State names do not need the word "state" Also, for Cport-2P, we need the dual-signature state names. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, when additional" Model to a single-signature PDs assigned to Class 6 or Class 8, when additional" Mage Status PDS assigned to Class 6 or Class 8, when additional" Mage Status PDS assigned to Class 6 or Class 8, when additional" Mage Status PDS assigned to Class 6 or Class 8, when additional" Mage Status PDS assigned to Class 6 or Class 8, when additional" Mage Status PDS assigned to Class 6 or Class 8, when additional" Mage Status PDS assigned to Class 6 or Class 8, when additional" Mage Status PDS assigned to Class 6 or Class 8, when additional" Mage Status PDS assigned to Class 6 or Class 8, when additional" Mage Status PDS assigned to Class 6 or Class 8, when additional" Mage Status PDS a		_ ``	,		C/ 145	SC 14	5.3.8.3	P 192	L 35	# i-163
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. PD 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." Comment Type E Comment Type Comment Type Comment Type Comment Type F Comment Type Comment Type Comment Status A PD Comment Type TR Comment Status A PD Power "For Class 6 and Class 8 single-signature PDs, when additional information is available to the PD regarding actual link section DC resistance" PD Power Applies to ASSIGNED Class. SuggestedRemedy "Contage: "Contage: "For single-signature PDs assigned to Class 6 or Class 8, when additional" Response Response Status C	•	•			Yseboodt,	Lennart		Philips Lighting		
 "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 as defined in 145.5.3.7." C/ 145 SC 145.3.8.2.1 P 191 L 37 # [-161 Comment Type TR Comment Status A PD Power "For Class 6 and Class 8 single-signature PDs, when additional information is available to the PD regarding actual link section DC resistance" Applies to ASSIGNED Class. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, when additional" "For single-signature PDs assigned to Class 6 or Class 8, when additional" 					Comment	Type I	E	Comment Status A		PD Power
Yseboodt, Lennart Philips Lighting Comment Type TR Comment Status A PD Power "For Class 6 and Class 8 single-signature PDs, when additional information is available to the PD regarding actual link section DC resistance" PD Power Change to: Applies to ASSIGNED Class. SuggestedRemedy "CPort in Table 145-28 is the PD input capacitance during POWER_UP and POWER_UP and POWER_UP_RI, POWER_UP_SEC, POWER_ON_PRI, and POWER_ON_SEC that a PSE sees as load on each pairset independently, when connected to a dual-signature PD. CPort-2P in Table 145-28 is the PD input capacitance during POWER_ON_SEC that a PSE sees as load on each pairset independently, when connected to a dual-signature PD. CPort-2P in Table 145-28 is the PD input capacitance during POWER_ON_SEC that a PSE sees as load on each pairset independently, when connected to a dual-signature PD. CPort-2P in Table 145-28 is the PD input capacitance during POWER_ON_SEC that a PSE sees as load on each pairset independently, when connected to a dual-signature PD. CPORT_PRI, POWER_UP_SEC, POWER_ON_PRI, and POWER_ON_SEC that a PSE sees as load on each pairset independently.	exceed a power consu Dual-signature PDs th	mption of PDMaxPowerValue at have successfully complete	e as defined in 1 ed DLL classific	45.5.3.4. ation shall not exceed a	conne during	cted to a s the POW	single-sig ′ER_UP a	nature PD. CPort-2P in Tabl and POWER_ON states that	e 145-28 is the a PSE sees a	PD input capacitance
Comment Type TR Comment Status A PD Power "For Class 6 and Class 8 single-signature PDs, when additional information is available to the PD regarding actual link section DC resistance" Applies to ASSIGNED Class. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, when additional" Comment Type TR Comment Status A PD Power "For single-signature PDs assigned to Class 6 or Class 8, when additional" Comment Type TR Comment Status A PD Power "For single-signature PDs assigned to Class 6 or Class 8, when additional" Comment Type TR Comment Status A PD Power "For single-signature PDs assigned to Class 6 or Class 8, when additional"		-	-	# i-161						
"For Class 6 and Class 8 single-signature PDs, when additional information is available to the PD regarding actual link section DC resistance" Applies to ASSIGNED Class. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, when additional" Change to: "CPort in Table 145-28 is the PD input capacitance during POWER_UP and POWER_ that a PSE sees as load when operating one or both pairsets, when connected to a sin signature PD. CPort-2P in Table 145-28 is the PD input capacitance during POWER_UP_PRI, POWER_UP_SEC, POWER_ON_PRI, and POWER_ON_SEC that PSE sees as load on each pairset independently, when connected to a dual-signature Response Response Status C			ing				2P, we ne	ed the dual-signature state i	lames.	
the PD regarding actual link section DC resistance" Applies to ASSIGNED Class. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, when additional" "CPort in Table 145-28 is the PD input capacitance during POWER_UP and POWER_ that a PSE sees as load when operating one or both pairsets, when connected to a sin signature PD. CPort-2P in Table 145-28 is the PD input capacitance during POWER_UP_PRI, POWER_UP_SEC, POWER_ON_PRI, and POWER_ON_SEC tha PSE sees as load on each pairset independently, when connected to a dual-signature Response Response CCEPT	21		en edditionel infe		00					
Applies to ASSIGNED Class. signature PD. CPort-2P in Table 145-28 is the PD input capacitance during SuggestedRemedy POWER_UP_PRI, POWER_UP_SEC, POWER_ON_PRI, and POWER_ON_SEC that Change: "For single-signature PDs assigned to Class 6 or Class 8, when additional"				firmation is available to	"CPort	in Table				
Suggestearemedy PSE sees as load on each pairset independently, when connected to a dual-signature Change: Response Response Status C "For single-signature PDs assigned to Class 6 or Class 8, when additional" Response Response Status C	Applies to ASSIGNED	Class.			signati	ure PD. C	Port-2P i	n Table 145-28 is the PD inp	out capacitance	e during
Change: "For single-signature PDs assigned to Class 6 or Class 8, when additional" Response Response Status C	SuggestedRemedy									
ACCEPT		PDs assigned to Class 6 or C	lass 8 when add	ditional "						j
	0 0	5			ACCE	PT.				
ACCEPT.										

CI 145 SC 145.3.8.4 P 192 L 4 Yseboodt, Lennart Philips Lighting	I8 # i-164	C/ 145 SC 145.3.8.4 P 193 L 29 # i-166 Yseboodt, Lennart Philips Lighting	
Comment Type TR Comment Status A	PD P		Sliding
"Peak operating power shall not exceed P Peak_PD." It is not stated that this applies to single-signature PDs only.		Topic:SLIDING Issue: we use the concept of 'sliding windows' in our draft very inconsistently, the SLID comments try to make the whole bunch consistent. Aim: get everything in the form "measure xxx using a xx time sliding window".	Ū
"Peak operating power for single-signature PDs shall not exc	ceed P Peak_PD."	"NOTE - The duty cycle of the peak current is calculated using any sliding window	v
Response Response Status C		with a width of 1 s."	
ACCEPT IN PRINCIPLE.		SuggestedRemedy	
The shall is already contained in the Table 145-28.		Change to normal text: "The duty cycle of the peak current is measured using a sliding window with a width of second."	1
Replace sentence with: "Ppeak_PD is the maximum peak o single-signature PDs."		Response Response Status C – ACCEPT.	
C/ 145 SC 145.3.8.4 P 192 L 5	i- 165	C/ 145 SC 145.3.8.4.1 P 193 L 39 # [i-167	
/seboodt, Lennart Philips Lighting		Vseboodt Lennart Philips Lighting	
Comment Type TR Comment Status A	PD P	r C C	Power
"Peak operating power shall not exceed P Peak_PD-2P."			1 00001
		"For Class 6 and Class 8 single-signature PDs and for Class 5 dual-signature PDs"	
It is not stated that this applies to dual-signature PDs only.		"For Class 6 and Class 8 single-signature PDs and for Class 5 dual-signature PDs,"	
		"For Class 6 and Class 8 single-signature PDs and for Class 5 dual-signature PDs," Applies to assigned Class.	
	eed P Peak_PD-2P."	Applies to assigned Class. SuggestedRemedy	
SuggestedRemedy "Peak operating power for dual-signature PDs shall not exce	eed P Peak_PD-2P."	Applies to assigned Class.	
SuggestedRemedy "Peak operating power for dual-signature PDs shall not excern Response Response Status C ACCEPT IN PRINCIPLE.	eed P Peak_PD-2P."	Applies to assigned Class. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, and for dual-signature PDs	
SuggestedRemedy "Peak operating power for dual-signature PDs shall not excernance Response Response Status C ACCEPT IN PRINCIPLE. The shall is already contained in the Table 145-28.	_	Applies to assigned Class. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, and for dual-signature PDs assigned to Class 5,"	
SuggestedRemedy "Peak operating power for dual-signature PDs shall not excer Response Response Status C ACCEPT IN PRINCIPLE. The shall is already contained in the Table 145-28. Replace sentence with: "Ppeak_PD-2P is the maximum pea	_	Applies to assigned Class. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, and for dual-signature PDs assigned to Class 5," Response Response Status C ACCEPT.	
SuggestedRemedy "Peak operating power for dual-signature PDs shall not excer Response Response Status C ACCEPT IN PRINCIPLE. The shall is already contained in the Table 145-28.	_	Applies to assigned Class. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, and for dual-signature PDs assigned to Class 5," Response Response Status C ACCEPT. C/ 145 SC 145.3.8.6 P 194 L 40 # i-168	
SuggestedRemedy "Peak operating power for dual-signature PDs shall not excer Response Response Status C ACCEPT IN PRINCIPLE. The shall is already contained in the Table 145-28. Replace sentence with: "Ppeak_PD-2P is the maximum pea	_	Applies to assigned Class. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, and for dual-signature PDs assigned to Class 5," Response Response Status C ACCEPT. Cl 145 SC 145.3.8.6 P 194 L 40 # i-168 Yseboodt, Lennart Philips Lighting	ditorial
SuggestedRemedy "Peak operating power for dual-signature PDs shall not excer Response Response Status C ACCEPT IN PRINCIPLE. The shall is already contained in the Table 145-28. Replace sentence with: "Ppeak_PD-2P is the maximum pea	_	Applies to assigned Class. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, and for dual-signature PDs assigned to Class 5," Response Response Status C ACCEPT. Cl 145 SC 145.3.8.6 P 194 L 40 # i-168 Yseboodt, Lennart Philips Lighting Comment Type E Comment Status A E	ditorial
SuggestedRemedy "Peak operating power for dual-signature PDs shall not excer Response Response Status C ACCEPT IN PRINCIPLE. The shall is already contained in the Table 145-28. Replace sentence with: "Ppeak_PD-2P is the maximum pea	_	Applies to assigned Class. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, and for dual-signature PDs assigned to Class 5," Response Response Status C ACCEPT. C/ 145 SC 145.3.8.6 P 194 L 40 # i-168 Yseboodt, Lennart Philips Lighting Comment Type E Comment Status A E "These requirements apply to each pairset individually if the PD is a dual-signature PD	
SuggestedRemedy "Peak operating power for dual-signature PDs shall not excer Response Response Status C ACCEPT IN PRINCIPLE. The shall is already contained in the Table 145-28. Replace sentence with: "Ppeak_PD-2P is the maximum pea	_	Applies to assigned Class. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, and for dual-signature PDs assigned to Class 5," Response Response Status C ACCEPT. Cl 145 SC 145.3.8.6 P 194 L 40 # i-168 Yseboodt, Lennart Philips Lighting Comment Type E Comment Status A E "These requirements apply to each pairset individually if the PD is a dual-signature PD SuggestedRemedy	
SuggestedRemedy "Peak operating power for dual-signature PDs shall not excern Response Response Status C ACCEPT IN PRINCIPLE. The shall is already contained in the Table 145-28. Replace sentence with: "Ppeak_PD-2P is the maximum pea	_	Applies to assigned Class. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, and for dual-signature PDs assigned to Class 5," Response Response Status C ACCEPT. C/ 145 SC 145.3.8.6 P 194 L 40 # i-168 Yseboodt, Lennart Philips Lighting Comment Type E Comment Status A E "These requirements apply to each pairset individually if the PD is a dual-signature PD	
SuggestedRemedy "Peak operating power for dual-signature PDs shall not excern Response Response Status C ACCEPT IN PRINCIPLE. The shall is already contained in the Table 145-28. Replace sentence with: "Ppeak_PD-2P is the maximum pea	_	Applies to assigned Class. SuggestedRemedy Change: "For single-signature PDs assigned to Class 6 or Class 8, and for dual-signature PDs assigned to Class 5," Response Response Status C ACCEPT. Cl 145 SC 145.3.8.6 P 194 L 40 # i-168 Yseboodt, Lennart Philips Lighting Comment Type E Comment Status A E "These requirements apply to each pairset individually if the PD is a dual-signature PD SuggestedRemedy Shorter: Change to:	

C/ 145 Yseboodt,	SC 145.3.8.8 Lennart	<i>P</i> 195 Philips Lighting	L 18	# i-169	C/ 145 Yseboodt,	SC 145.3.8. Lennart	10 P 196 Philips Lightin	L 18 ng	# i-172
Comment	Туре Е	Comment Status A		PD Class	Comment	Type ER	Comment Status A		Sliding
"After e within class e	entering a DO_CI TClass_PD as de event."	ASS state, the PD Physical La		nature shall be valid	Topic: Issue: comm	SLIDING we use the con ents try to make	cept of 'sliding windows' in ou e the whole bunch consistent. ing in the form "measure xxx o		sistently, the SLIDING
	name can be mor	e specific.			1"	NOTE - The dut	ty cycle of the peak current is	calculated using	any sliding window
Suggested						width of 1 s."	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5	5 5
Chang "After e		_ASS_EVENT state, the PD Pł	vsical Laver	class signature shall be	Suggestea	IRemedy			
valid w the cla		as defined in Table 145-28 and					t: peak current is measured us	ing a sliding wind	low with a width of 1
Response		Response Status C			Response	u.	Poononoo Statua		
ACCE	PT.				ACCE	рт	Response Status C		
C/ 145	SC 145.3.8.10) <i>P</i> 195	L 42	# i-170	ACCL	ГІ.			
Yseboodt,		Philips Lighting			C/ 145	SC 145.3.8.	10 <i>P</i> 197	L 1	# i-173
Comment	Type TR	Comment Status A		PD Power	Yseboodt,	Lennart	Philips Lighting	ng	
		_PD_min and _max, refers to e	n 'for PD Ty		Comment	Type TR	Comment Status A		Pres: Darshan3
the equ	uation should ma	ements change with ICon-2P-u ke this obvious.	nb, ans thus	with assigned Class,	show t	hat pair current	e model in Figure 145-31, Equ s often exceed ICon-2P-unb, neet Equation (145-26) intrins	even though line	39 on page 195
Suggested	Remedy				I ques	s that change	s in earlier drafts to power par	rameters require	us to update the magic
	e in Equation 14					ers in Equation			, ,
		" with "for assigned Class 5" " with "for assigned Class 6"			Suggestea	lRemedy			
"for PD	Type 4, Class 7	" with "for assigned Class 7"			Don't k	know how to fix	this Yair ?		
"for PD	0 Type 4, Class 8	" with "for assigned Class 8"			Response		Response Status C		
Response		Response Status C			ACCE	PT IN PRINCIP	LE.		
ACCEI	21.				Adopt	the changes pr	oposed in darshan_03_0917_	final.pdf	
C/ 145	SC 145.3.8.10) <i>P</i> 195	L 42	# <u>i-171</u>		0			
Yseboodt,	Lennart	Philips Lighting			I his re	esolution is iden	itical to comment #419.		
Comment Equation		<i>Comment Status</i> A Ohm symbol inside equation w	nich is not ne	Editorial	-			pleted.	
Suggested Remov		nside of Eq. 145-26.					le FILE_NAME.pdf is g/3/bt/public/sep17/darshan_(03_0917_final.pd	if]
Response		Response Status C							
ACCEI	PT.								
		d ER/editorial required GR/ge patched A/accepted R/rejecte				l II/unsatisfied		ent ID i-173	Page 44 of 137 10/2/2017 3:31:2:

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

137 10/2/2017 3:31:22 PM

C/ 145	SC 145.3.9	P 198	L 25	# i-174	C/ 145	SC 145.4.9.2	2.3	P 210	L 41	# i-177
Yseboodt, L	ennart	Philips Lighting	1		Yseboodt, I	ennart		Philips Lightin	ng	
Comment T	ype E	Comment Status A		PD MPS	Comment 7	ype ER	Commen	t Status A		AES
Table 14 VPort_F or IPort-	45-31 during the SE-2P min with	be able to meet the IPort_MPS e maximum allowed port volta h series resistance RCh). Suc her such provisions to meet th h but just IPort.	ge droop (VPoi h a PD should	t_PSE-2P max to increase its IPort min	145.4.9 betwee		nally required to different li	to meet the follo		rariants 5 through 10 in s for coupling signals
SuggestedF	Remedy				Suggested	Remedy				
Change	"IPort min" to "	'IPort".				e as follows:	lad for an arat	ion with 2 EC/EC		ariants 3 through 5 in
Response		Response Status C				0.1 and 145.4.9			1000A3E-1 (V	anants 5 through 5 m
ACCEP	Т.				Response		Response	Status C		
C/ 145	SC 145.4.2	P 201	L 1	# i-175	ACCEF	РТ.				
Yseboodt, L		Philips Lighting	1		C/ 145	SC 145.5		P 212	L 30	# <u>i</u> -178
Comment T		Comment Status A		Editorial	Yseboodt, I	ennart		Philips Lightir	ng	
0	45-32 referenc	e broken.			Comment 7	ype TR	Commen	t Status A		DLL
SuggestedR Fix the r	Remedy reference.									dual-signature PDs r classification is
Response		Response Status C			optiona	l for all other de	evices."	. ,	,	
ACCEP	т.	· · · · · · · · · · · · · · · · · · ·			Incorre	ct statement ab	out dual-sig	devices.		
	00 4/7			<i>и</i> [Also, it	is better to talk			use the old term	n 'advertise class
C/ 145	SC 145.4.8	P 206	L 14	# i-176	signatu					
Yseboodt, L		Philips Lighting	J		Suggested Replac					
	tive A Midspan unbalance (see	Comment Status A PSEs that support 100BASE- 145A.1) less than or equal to			"Single Class 4	-signature PDs or higher on e	ither Mode su		Layer classificat	ure PDs that request tion (see 145.3.6). Data
140.4.0.	.0.				Response		Response	Status C		
The wor	ds 'link section'	are redundant in this sentend	æ.		ACCEF	PT.				
SuggestedF	Remedy									
	tive A Midspan	PSEs that support 100BASE-) less than or equal to I unb (s								
Response		Response Status C								
ACCEP	т.									

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	5.5.3	P 213 Philips Lightir	L 8	# i-179	C/ 145 Yseboodt,		145.5.3.4. 4	4	P 220 Philips Lightir	L 48	# <u>i-181</u>
Comment Type	Comment		5	Editorial	Comment		ER	Commen	t Status A	5	Editoria
There is a mix o Specifically, the	convention in the D f CamelCase, lower_ use the ALL_CAPS are used in text.	_case_undersc	ore, AND_ALL_C	CAPS.	The C "Avoic meani	d this Ja ing.	Manual of anus-faced	term. It can	often be replac	out the use of 'an ed by 'and' or 'or think of other po	' with no loss in
SuggestedRemedy					In the	'nd no	wer_review	function:			
- Use CamelCas	riables per the follow se for variables linked	d to Clause 30	objects		"This f	functior	n evaluates	the power i	requirements of d power value."	the PD based or	n local system changes
- Use lower_cas	e_underscore for DL	L state diagran	n internal variabl	es and constants	Suggested	dReme	dy				
_	affect the ALLCAPS		vill be turned into	o lowercase.				the power i llocated po		the PD based or	n local system changes
Response ACCEPT IN PR	Response S	status C			Response	-			Status C		
ACCEPTINPR	INCIPLE.				, ACCE						
	ested remedy after a	Il other change	s have been ma	de to clause 145.5							
(DLL).					C/ 145		145.5.3.7.3	3	P 228	L 38	# [i-182
C/ 145 SC 14	5.5.3.3.1	P 215	L 27	# i-180	Yseboodt,				Philips Lightir	ng	
Yseboodt, Lennart		Philips Lightir	ıg		Comment		ER	Commen	t Status A		Editoria
Comment Type				Editorial		C: and/o hicago		Style says t	he following abo	out the use of 'an	ıd/or':
	g between two variat SE_INITIAL_VALUE		nough to the righ	+			anus-faced	term. It can	often be replac	ed by 'and' or 'or	' with no loss in
SuggestedRemedy			lough to the righ		meani Where	0	ms needed	, try 'or o	r both'. But also	think of other po	ssibilities."
,	b between variable n	ames.			L. d						
	before the PSE_INIT		ues.					_mode(X)' the power i		the PD based or	n local system changes
Response	Response S	Status C							d power value."		
					Suggested	dReme	dy				
ACCEPT.										the PD based or	n local system changes
ACCEPT.					or cha	anges in	n the PSE a	illocated po	wer value."		
ACCEPT.					or cha Response	-	n the PSE a		wer value." Status C		

C/ 145 Yseboodt, Le	SC 145.5.4.1	P 230 Philips Lightir	L 36	# i-183	C/ 145 Yseboodt,	SC 145.5.4. Lennart	.2	P 231 Philips Lightir	L 1	# i-184
Comment Ty		Comment Status A	5	Editorial	Comment		Comment S		5	Editorial
change in allocatior PSE_PO a new po the PD o PSE_NE MIRROR where PS PDRequi If the PS the PD to power all The PSE examine: allocatior PSE_NE PSE_NE is assign and retur RUNNIN	in the PD n, the local_sys DWER_REVIEN DWER allocation or if SW_VALUE is se SE_NEW_VALUE estedPowerVa SE's previously o change its location is recor- s the request b n value, SW_VALUE, is SW_VALUE, is SW_VALUE hed to PSEAlloor rns to the IG state." e the word "statestatestatestatestatestatestatestat	value, PSE_NEW_VALUE, smaller than PSEAllocatedPo	d the PSE enter is computed. If owerValue, it en atedPowerValue UNNING state. dPowerValue cl uest only when _REQUEST sta	rs the the PSE is in sync with nters the e. It also updates hanges, a request by it is in sync with the PD. te. A new power DATE state where	Mirrore PD so its pow evalua chang PD_NI PDMa state. then fii PDRed the RL state. In the su until it with th PD en POWE PDRed Do not Suggested Replace	edPSEAllocated as to change ver allocation, the test he e and generate EW_VALUE is xPowerValue, if The PD nally enters the questedPowerV JNNING above flow, if P is in sync e PSE and the ters the PD ER_REALLOCA questedPowerV t use the word " <i>IRemedy</i> ce 'the YYY sta	dPowerValue is he PD enters the s an updated po- less than t updates PDMa MIRROR_UPD /alue. It also upd /alue. It also upd /alue. It also upd /alue. It also the /alue and return /alue and return /state" when stat te' by 'YYY'.	changed or loo e PD_POWER wer value calle xPowerValue ATE state whe dates PSEAlloo E is greater that higher power this state, the s to the RUNN te names are u	cal_system_cha &_REVIEW state ed PD_NEW_V. in the PD_POW ere PD_NEW_V catedPowerValu an PDMaxPower value. When thi PD assigns PD IING state."	D's previously stored inge is asserted by the e. In this state, the PD
Replace	'the YYY state	' by 'YYY'.			Response		Response S	Status C		
Response		Response Status C			ACCE	PT.				
ACCEPT	Г.				<i>Cl</i> 145A Yseboodt,	SC 145A.2 Lennart		P 261 Philips Lightir	L 39 ng	# i-185
					Comment Rdiff is		Comment S ation 145A-3 bu		ed.	Annex
					Suggestea Remov		5A-3 + the sente	nce above.		
					Response	•	Response S			
										n_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

<i>Cl</i> 145 Lewis, Jon	SC 14	5.4.9.2.4	<i>P</i> 211 Dell EMC	L 5	# i-192	C/ 145 SC Peker, Arkadiy	145.2.5.7	P 132 Microsemi Co	L 4 prporation	# i-195
Comment T	уре Е	E (Comment Status A		Editorial	Comment Type	TR	Comment Status A		Pres: Stewart
		-	T Loss the text "1 MHz f an the text "70.5 - 20 log1		a different vertical	Missing erro iclass_lim_d		_pri at the input to the state	IDLE_PRI at the	e condition
SuggestedF	Remedy					SuggestedReme	edy			
Vertical	lly center	the text in	both columns to the sam	e height				_lim_det_pri" to "iclass_lim_	_det_pri + error_	condition_pri"
Response ACCEP	PT.	R	esponse Status C				tion_pri dicating the	status of implementation-s		
Cl 145 Lewis, Jon	SC 14	5.4.9.2.5	P 211 Dell EMC	L 19	# i-193		uire the PSI	prevent the PSE from meet E not to source power over t ion.		
Comment T	Type E		Comment Status A		Editorial	TRUE: A fau				
		-	T Loss the text "1 MHz f s an the text "67 - 20 log10		a different vertical	Response ACCEPT.		Response Status C		
SuggestedF	Remedy									
Vertical	lly center	the text in	both columns to the sam	e height			145.2.5.7	P 127	L 33	# i-196
Response		R	esponse Status C			Peker, Arkadiy		Microsemi Co	orporation	
ACCEP	PT.					Comment Type	TR	Comment Status R		PSE S
<i>Cl</i> 145 Peker, Arka	SC 14	5.2.5.7	P 129 Microsemi Co	L 42	# i-194	error, to go t	o IDLE. Thi	to do detection and if there s is not covered by the state , we need to add to the cor	e machine. As a	result in the exit from
,	,	ъ (Comment Status R	poration	PSE SD	SuggestedReme	edy			
there is currently	not find ir any impl	n the text a ementation vered by th	Illowance for the PSE to c n specific system error, to e state machine. As a res with the condition error	go to IDLE. I out the state	d classification and if couldn't find how	"Change froi ""(pse_alter both_neither (det_temp =	m: native = bot) * (sig_sec only_one) *	th) * ((det_temp = only_one) : NE valid) + (((CC_DET_SE * tdet2det_timer_done)) + (p (sig_pri = open_circuit)""	$EQ = 0 + (CC_E)$	DET_SEQ = 3)) *
SuggestedF	Remedy					To:	,	(u =)		
Add exi	it from th	e state CL	ASS_EVAL to IDLE with	the condition	error condition.			e_alternative = both) * ((det_ her) * (sig_sec NE valid) + (
Response REJEC	T.	R	esponse Status W			= 3)) * (det_t	temp = only	= b) * (sig_pri = open_circui	e)) + (pse_alterr	
There is	s a global	l entry into	IDLE based on the varial	ble error_condi	tion.	Response REJECT.		Response Status W		

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

	C 145.2.5.7	P 133	L 5	# i-198	C/ 145	SC 145.2	5.7	P 168	L 40	# i-202	
Peker, Arkadiy		Microsemi Co	orporation		Peker, Ark	adiy		Microsemi Co	orporation		
Comment Type	e TR Comn	nent Status A		Pres: Darshan4	Comment	Type TR	Comm	ent Status A		Pres: Yseboodt	
functionality complete pr page 137. I from page relevant mo SuggestedRem Adopt darsh	y as we have in singl rocess and more pow It is suggested to rep Figure 145-13 page odifications.	e-signature class p ver dissipation. The licate CLASSIFICA	robe case. This a same applies to TION pre-state a		power PDs m their n The us interpr stagge sugge	is applied to nay require be ominal power se of ""simulta eted it as bot ered powering sted to remov	either PD Moo ing supplied o level."" neously"" in t n pairs where is not allowed e "" simultane	de A, PD Mode B, over Mode A and I	or both Modes si Mode B simultane are working over taneously i.e. at t was not the inten occurrence and	t. To clarify it, it is replace ""	
Response	Respo	nse Status C			Suggested	lRemedy					
adopt stewa	N PRINCIPLE.				if powe	er is applied to being suppli	either PD M	ode A, PD Mode E	3, or both Modes.	shall be able to operate All other PDs may heir nominal power	
[Editor's not	ote added after comm	ent resolution com	pleted.		Response		Respon	se Status C			
	L for the file FILE_N				ACCE	PT IN PRINC	IPLE.				
Peker, Arkadiy Comment Type	C 145.2.5.7 TR Commor_condition_sec at t	P 136 Microsemi Co nent Status A he input to the state		# i-199 Pres: Stewart1 the condition	require level."	e being suppli	ed over both		B to operate at t	All other PDs may heir nominal power	
iclass_lim_o	_det_sec.				C/ 145	SC 145.2	6	P 141	L 29	# i-203	
SuggestedRem	•				Peker, Ark	adiy		Microsemi C	orporation	E	
	from: ""iclass_lim_d		_lim_det_sec + o	error_condition_sec""	Comment	Type TR	Comm	ent Status A		PSE Detectior	
""error_con A variable in other syster and that rec	 2. Add new variable to 145.2.5.4: ""error_condition_sec A variable indicating the status of implementation-specific fault conditions or optionally 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 Secondary Alternative. 					We have the following text: "Also, a PSE may successfully detect a PD but then opt not to power the detected PD.". We need similar text for the classification i.e. "A PSE may successfully detect and classify a PD but then opt not to power that PD. " to be added at the end of clause 145.2.7 page 148 after line 38.					
Values: FALSE: No	fault indication.				Suggested	IRemedy					
	ault indication exists."	nse Status C						bage 148 after line t to power that PD		successfully detect	
ACCEPT.	Respo				Response ACCE	PT IN PRINC	,	se Status W			
								so, a PSE may sup power the detecte		a PD or detect and	

Comment ID i-203

Page 50 of 137 10/2/2017 3:31:22 PM

C/ 145 SC 1	45.2.8.5	P 156	L 51	# i-204	CI 25	SC	25.4.5	P 29	L 29	# i-206	
Peker, Arkadiy		Microsemi Corp	ooration		Mcclellan,	Brett		Marvell S	Marvell Semiconducto		
"Equation 145- operating over However, for th Equation 145-8 operating over -Icon is defined -Icon-2P_unb is	 8 contains ti 2-pairs and the most imposed of the most in Equation to the most in the second of the most in the second of the most in th	Table 145-16 item 5. find the value of Icon-2P_o bec is broken."	e. berating over 4 - IPort-2P-othe	-pairs. er, ICon-2P-unb) when	Suggested chang Response REJEC This c reques [Editor	aramete <i>IRemea</i> e "25.4. CT. ommen st.	ty 8" to "25.4 t is out of s added afte	Response Status W scope. The commenter er comment resolution c	is encouraged to f ompleted.		
REJECT.	R	esponse Status U			for info	ormatior	n on maint	enance requests see: I	http://ieee802.org/3	/maint/index.html]	
No consensus	for change.				<i>Cl</i> 33 Mcclellan,		33.4.9.1.1		L 27 emiconducto	# i-207	
C/ 145 SC 1	45.2.8	P 153	L 33	# i-205	Comment	Туре	ER	Comment Status A			
Peker, Arkadiy		Microsemi Corp	oration		typo, c	change	33-48 to 3	3-18.			
Comment Type TR Comment Status D tpon "Table 145-16, item 8, Tinrush: It is clear from the state machine that Tpon includes Tinrush. It means that effective Tpon is (400-50) msec=350ms or (400-75) ms=325mse which needs to cover long 1st class events, + 4 class events + design margin. group to discuss if it sufficient for their designs and applications in both single and dual-signatures.				at Tpon includes .00-75) ms=325mse gn margin. group to	Response	e 33-48	<i>ty</i> to 33-18. PRINCIPLE	Response Status W			
To consider if Tpon need to be increased by approximately 50mse to compensate for the increase in the 1st long class events to keep our margins as in 802.3af/at. It doesn't affect reliability etc. since we had so far 200msec margin from the 600msec value from the 802.3af experiments and the actual spec numbers."							to 33-18 n is identic	cal to comment #235.			
SuggestedRemedy	/	sec to 450msec or to what	ever the group	decides.							
Proposed Respons REJECT.	se R	Response Status Z									
This comment	was WITHD	RAWN by the commenter									

33	SC 33.4.9.1.1	P 65	L 33	# i-208		CI 33	SC :	33.4.9.1.2		P 66	L 10	# <u>i-209</u>
clellan, Bre	ett	Marvell Semi	conducto			Mcclellan,	Brett			Marvell Sem	iconducto	
mment Typ	be TR	Comment Status A			AES	Comment	Туре	TR	Comment	Status A		Pres: Zimmerman
NEXT los	in 33-18 for	PSE midspan is 40dB at 10	00MHz, however	2.5/5GBASE-T		missin	g a req	uirement fo	or 10GBASE	-T		
•		ctors. 2.5G and higher nee	eds a separate ec	luation.		Suggested	IRemea	ly				
line 27 de determine	ange "2.5GBA elete "For 5GB/ ed by Equation	SE-T" to "1000BASE-T" ASE-T, NEXT loss for Midsj (145-32) when measured f				Add te shall m	xt " For neet the	r 10GBASE e values de	-T capable	midspans, inse Equation (33-		ed to 0.020. Ispan PSE devices red for the transmit and
MHz to 25		E-T" to "1000BASE-T"				Response			Response	Status C		
line 39 ins	sert new parag values determ	raph "For 5GBASE-T, NEX ned by Equation (33-18aa) z to 100 MHz. For 5GBASE	when measured	for the transmit a				PRINCIPLE		-		
devices s transmit a	hall meet the v and receive pai	alues determined by Equat rs from 1 MHz to 250 MHz.	ion (33-18aa) wh For operation wi	en measured for the 2.5GBASE-T a	ind		•				n_3bt_01_0917.p	odf
		ties that correspond to calc me minimum requirement of		ater than 65 dB,	the	This re	esolution	n is identica	al to comme	ent #238.		
		33-18aa), copied from (33-1 40" is changed to "43"	8) with accompa	nied 'NEXTconn'	and 'f'	[Editor	's note	added afte	r comment i	resolution com	pleted.	
sponse		Response Status W							FILE_NAME B/bt/public/se		an_3bt_01_0917	.pdf]
ACCEPT	IN PRINCIPLE					C/ 33	SC	33.4.9.1.3		P 66	L 35	# i-210
		ASE-T" to "1000BASE-T" ASE-T, NEXT loss for Mids	oon DSE dovices	chall most the v		Mcclellan,		55.4.5.1.5		Marvell Sem		<i>π</i> 1-210
		(33-XX) when measured for				Comment	Type	TR	Comment	Status A		AE
MHz to 25						The re	turn los	ss limit at 20	0MHz violat	es the RL spec	c in 126.7.2.3 for	2.5G and 5G (17dB).
		E-T" to "1000BASE-T" raph "For 2.5GBASE-T, NE	XT loss for Mids	oan PSF devices	shall	Suggested	Remed	1v				
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					Ind	create 1 MH	a sepa z <f<=3< td=""><td>arate table e 1.5 MHz</td><td>entry for 2.50 30 dB 20-20log1</td><td></td><td>the following limi</td><td>ts based on Cat5E:</td></f<=3<>	arate table e 1.5 MHz	entry for 2.50 30 dB 20-20log1		the following limi	ts based on Cat5E:
transmit a	and receive pai	rs from 1 MHz to 250 MHz.	For operation wi	th 2.5GBASE-T a	Ind	Response			0	Status W		
		ties that correspond to calc the minimum requirement of		ater than 65 dB,	the	ACCEI	рт		Response	Status W		
insert a r	new equation,(3	33-18aa), copied from (33-1 40" is changed to "43"		nied 'NEXTconn'	and 'f'	ACCE	ΓΙ.					
	·	-										

Response Response Status W ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE. Create a separate table entry for 5GBASE-T with the following limits based on Cat5E: 1 MHz <f<=31.5 mhz<="" td=""> 1 MHz<f<=31.5 mhz<="" td=""> 30 dB 31.5 MHz<f<=250 mhz<="" td=""> 20-20log10(f/100) C/ 33 SC 33.4.9.2.3 P 67 L 40 Mcclellan, Brett Marvell Semiconducto Fertitorial Comment Ture ER Comment Status A</f<=250></f<=31.5></f<=31.5>						
Comment Type TR Comment Status A at 100MHz the limit of 14dB is only 4dB margin vs the 2.5/5G spec SuggestedRemedy SuggestedRemedy create a separate table entry for 5GBASE-T with the following limits based on Cat6: 1 MHz-f<=250 MHz	# i-213					
at 100MHz the limit of 14dB is only 4dB margin vs the 2.5/5G spec SuggestedRemedy create a separate table entry for 5GBASE-T with the following limits based on Cat6: 1 MHz <f<=50 mhz<="" td=""> 30 dB 50 MHz 24-20log10(t/100) Response Response Status ACCEPT IN PRINCIPLE. SGBASE-T with the following limits based on Cat5E: 1 MHz<f<=31.5 mhz<="" td=""> 30 dB 31.5 MHz 20-20log10(t/100) Create a separate table entry for 5GBASE-T with the following limits based on Cat5E: 1 MHz<f<=31.5 mhz<="" td=""> 1 MHz<f<=250 mhz<="" td=""> 30 dB 31.5 MHz 30 dB 31.5 MHz 20-20log10(t/100) C/ 33 SC 33.4.9.2.3 P 67 Accellan, Brett Marvell Semiconducto C/ 33 SC 33.4.9.2.5 P 68 C/ 33 SC 33.4.9.2.5 P 68 L11</f<=250></f<=31.5></f<=31.5></f<=50>						
SuggestedRemedy create a separate table entry for 5GBASE-T with the following limits based on Cat6: 1 MHz-f<=50 MHz	AE					
create a separate table entry for 5GBASE-T with the following limits based on Cat6: 1 MHz <f<=50 mhz<="" td=""> 30 dB 50 MHz 24-20log10(f/100) Response Response Status W ACCEPT IN PRINCIPLE. SGBASE-T with the following limits based on Cat5E: 1 MHz<f<=31.5 mhz<="" td=""> 30 dB 31.5 MHz<f<=250 mhz<="" td=""> 20-20log10(f/100) SANEXT loss For 5GBASE-T capable midspans, PSANEXT loss Create a separate table entry for 5GBASE-T with the following limits based on Cat5E: 1 MHz<f<=31.5 mhz<="" td=""> 30 dB 31.5 MHz<f<=250 mhz<="" td=""> 20-20log10(f/100) # i=212 C/ 33 SC 33.4.9.2.3 P 67 L 40 # i=212 Mcclellan, Brett Marvell Semiconducto # i=212 C/ 33 SC 33.4.9.2.5 P 68 L 11</f<=250></f<=31.5></f<=250></f<=31.5></f<=50>	eeds the frequency					
Cleate a separate table entry for SGBASE-T with the following limits based on Cato. 1 MHz <f<=250 mhz<="" td=""> 24-20log10(f/100) Response Response Status ACCEPT IN PRINCIPLE. W Create a separate table entry for 5GBASE-T with the following limits based on CatoE: 1 MHz<f<=31.5 mhz<="" td=""> 1 MHz<f<=31.5 mhz<="" td=""> 30 dB 31.5 MHz<f<=250 mhz<="" td=""> 20-20log10(f/100) C/ 33 SC 33.4.9.2.3 P 67 L 40 C/ 33 SC 33.4.9.2.3 P 67 L 40 Marvell Semiconducto C/ 33 SC 33.4.9.2.3 P 67 L 40 C/ 33 SC 33.4.9.2.5 P 68 L 11</f<=250></f<=31.5></f<=31.5></f<=250>						
Response Response Status W ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE. For 5GBASE-T capable midspans, PSANEXT loss for Midspan PSE devices shall meet the values determined by Table 33-20b from 1 MHz to 500 N 1 MHz <f<=31.5 mhz<="" td=""> 30 dB 31.5 MHz 20-20log10(f/100) 2 33 SC 33.4.9.2.3 P 67 L 40 # i-212 Mcclellan, Brett Marvell Semiconducto For 5GBASE-T C C/ 33 SC 33.4.9.2.5 P 68 L 11</f<=31.5>	delete "for all specified frequencies" insert "For other than 5GBASE-T or 10GBASE-T operation, PSANEXT loss for Midspan					
Create a separate table entry for 5GBASE-T with the following limits based on Cat5E: 1 MHz <f<=31.5 30="" db<br="" mhz="">31.5 MHz<f<=250 100)<br="" 20-20log10(f="" mhz="">C/ 33 SC 33.4.9.2.3 P 67 L 40 # i-212 Marvell Semiconducto Comment Tune ER Comment Status A Editorial</f<=250></f<=31.5>	3-20b from 1 MHz to					
C/ 33 SC 33.4.9.2.3 P 67 L 40 # i-212 ACCEPT. Mcclellan, Brett Marvell Semiconducto Editorial C/ 33 SC 33.4.9.2.5 P 68 L 11						
Cl 33 SC 33.4.9.2.5 P68 L11						
Comment Type ED Comment Status A Editorial						
(variants 5 through 10 in 33.4.9.1) there are only 5 variants	# i-214					
Comment Type TR Comment Status A	AE					
change "(variants 5 through 10 in 33.4.9.1)" to "(variants 3 through 5 in 33.4.9.1)" for all specified frequencies, The frequency range in Table 33-20b exc requirements for 2.5GBASE-T and 5GBASE-T and may be reduced.	eeds the frequency					
Response Response Status W SuggestedRemedy						
ACCEPT IN PRINCIPLE. Change as follows: "Midspan PSEs intended for operation with 2.5G/5G/10GBASE-T (variants 3 through 5 in 33.4.9.1 and 33.4.9.2) are" This resolution is identical to comment #37. ACCEPT IN PRINCIPLE. delete "for all specified frequencies" insert "For other than 5GBASE-T or 10GBASE-T operation, PSAFEXT PSE devices shall meet the values determined by Table 33-20b from 1 For 5GBASE-T capable midspans, PSAFEXT loss for Midspan PSE devices shall meet the values determined by Table 33- 250 MHz. For 10GBASE-T capable midspans, PSAFEXT loss for Mids shall meet the values determined by Table 33-20b from 1 MHz to 500 N Delete the frequency column of Table 33-20c	1 MHz to 100 MHz. 3-20b from 1 MHz to span PSE devices					
Response Response Status W ACCEPT.						

C/ 79 SC 79.3 Mcclellan, Brett	P 73 Marvell Semi	L 36 conducto	# i-215	C/ 79 SC 79.3.2.1 P 75 L 13 # i-217 Mcclellan, Brett Marvell Semiconducto Marvell Semiconducto Marvell Semiconducto Marvell Semiconducto
Comment Type ER can't have a TBD.	Comment Status A		LLDP	Comment Type ER Comment Status A Ed. Note 2 was deleted, but "Note 3" was not renumbered.
SuggestedRemedy Change TBD on line 3 Change TBD on line 3 Response ACCEPT.				SuggestedRemedy change "Note 2" to "Note 3" on lines 13 and 23 Response Response Status W ACCEPT IN PRINCIPLE.
Cl 79 SC 79.3.2 Acclellan, Brett Comment Type ER PI is used without defi SuggestedRemedy	P 74 Marvell Semi <i>Comment Status</i> A inition in Clause 79.	L 15 conducto	# [i-216 Editorial	Suggest that: [1] The entire 'Object reference' column of Table 79-3 'MDI power capabilities/status fiel is deleted. [2] The two remaining notes for Table 79-3 'MDI power capabilities/status field' are delet [3] New subclauses are added to describe the "MDI power capabilities/status" fields that
Change "PI" to "Powe Response ACCEPT.	r Interface (PI)" <i>Response Status</i> W			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 enabled or disabled. When disabled all PSE functions are disabled and behaviour is as there was no PSE functionality. The value of the "PSE MDI power state" transmitted by 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 th capability to control which PSE Pinout Alternative (see 33.2.3 and 145.2.4) is used for P detection and power. If capable the PSE Pinout Alternative used can be controlled throu the pethPsePortPowerPairs attribute (see IEEE Std 802.3.1). If not the PSE Pinout Alternative used cannot be controlled through the pethPsePortPowerPairs attribute. This resolution is identical to comment #324.

C/ 79 SC 79.3.8 P 83 L 36 # [i-218	C/ 145 SC 145.4.9.1.3 P 209 L 41 # i-221
Acclellan, Brett Marvell Semiconducto Comment Type TR Comment Status A LLDP	Mcclellan, Brett Marvell Semiconducto Comment Type TR Comment Status A
"subtype=2" is NOT defined for Power Via MDI Measurements The subtype for Power Via MDI Measurements was left TBD (see other comment) SuggestedRemedy change "subtype=2" to "subtype=8" Response Response Status W ACCEPT.	The return loss limit at 20MHz violates the RL spec in 126.7.2.3 for 2.5G and 5G (17dB). SuggestedRemedy create a separate table entry for 2.5GBASE-T with the following limits based on Cat5E: 1 MHz <f<=31.5 100)="" 20-20log10(f="" 30="" 31.5="" db="" mhz="" mhz<f<="100" response="" status="" td="" w<=""></f<=31.5>
C/ 145 SC 145.4.6 P 205 L 42 # [i-219] Marvell Semiconducto Marvell Semiconducto	ACCEPT. <i>Cl</i> 145 SC 145.4.9.1.3 <i>P</i> 209 <i>L</i> 42 # [i-222] Mcclellan, Brett Marvell Semiconducto
Comment Type TR Comment Status A AES E_d_out is a time domain peak to peak voltage but the formula defines E_d_out as varying across frequency. E_d_out isn't measured at individual frequencies. AES	Comment Type TR Comment Status A AES at 100MHz the limit of 14dB is only 4dB margin vs the 2.5/5G spec AES
SuggestedRemedy delete formula (145-31) and the text defining f and fmax change text on line 38 from: "shall not exceed the requirements Equation (145-31)" (note the missing 'of') to "shall not exceed 10 mV peak-to-peak when measured in the band from 1 MHz to 10 MHz and shall not exceed 1mV peak-to-peak when measured in the band from 10 MHz to 100 MHz for 2.5GBASE-T, 10 MHz to 250 MHz for 5GBASE-T, and 10 MHz to 500 MHz for 10GBASE-T"	SuggestedRemedy create a separate table entry for 5GBASE-T with the following limits based on Cat6: 1 MHz <f<=50 mhz<="" td=""> 30 dB 50 MHz<f<=250 mhz<="" td=""> 24-20log10(f/100) Response Response Status ACCEPT IN PRINCIPLE.</f<=250></f<=50>
· • • = · · • = ·	
	create a separate table entry for 5GBASE-T with the following limits based on Cat5E: 1 MHz <f<=31.5 30="" db<br="" mhz="">31.5 MHz<f<=250 100)<="" 20-20log10(f="" mhz="" td=""></f<=250></f<=31.5>
esponse Response Status C ACCEPT. / 145 SC 145.4.9.1.1 P 208 L 31 # i-220	1 MHz <f<=31.5 30="" db<="" mhz="" td=""></f<=31.5>
Response Response Status C ACCEPT. ACCEPT. Id 145 SC 145.4.9.1.1 P 208 L 31 # i-220 Idcclellan, Brett Marvell Semiconducto Marvell Semiconducto Comment Type TR Comment Status A AES NEXT loss for PSE midspan is 40dB at 100MHz, however 2.5/5GBASE-T budgets 43dB for connectors. SuggestedRemedy Change "40" to "43"	1 MHz <f<=31.5 mhz<="" td=""> 30 dB 31.5 MHz<f<=250 mhz<="" td=""> 20-20log10(f/100) C/ 145 SC 145.4.9.2.3 P 210 L 41 # i-223 Mcclellan, Brett Marvell Semiconducto Marvell Semiconducto Comment Type ER Comment Status A AES (variants 5 through 10 in 145.4.9.1) there are only 5 variants SuggestedRemedy change "(variants 5 through 10 in 145.4.9.1)" to "(variants 3 through 5 in 145.4.9.1)" Response Response Status C ACCEPT IN PRINCIPLE. C ACCEPT IN PRINCIPLE. C C</f<=250></f<=31.5>
Response Response Status C ACCEPT. ACCEPT. C/ 145 SC 145.4.9.1.1 P 208 L 31 # i-220 Mcclellan, Brett Marvell Semiconducto Marvell Semiconducto Comment Type TR Comment Status A AES NEXT loss for PSE midspan is 40dB at 100MHz, however 2.5/5GBASE-T budgets 43dB for connectors. SuggestedRemedy change "40" to "43" Response Response Status W Marvell Semiconducto Marvell Semiconducto	1 MHz <f<=31.5 mhz<="" td=""> 30 dB 31.5 MHz<f<=250 mhz<="" td=""> 20-20log10(f/100) C/ 145 SC 145.4.9.2.3 P 210 L 41 # i-223 Mcclellan, Brett Marvell Semiconducto Marvell Semiconducto Comment Type ER Comment Status A AES (variants 5 through 10 in 145.4.9.1) there are only 5 variants SuggestedRemedy change "(variants 5 through 10 in 145.4.9.1)" to "(variants 3 through 5 in 145.4.9.1)" Response Response Response Status C</f<=250></f<=31.5>

C/ 145 SC 145.4.9.2.4 P 210 L 51 # [i-224] Mcclellan, Brett Marvell Semiconducto Marvell Semiconducto </th <th>C/ 145 SC 145.4.9.2.5 P 211 L 11 # [i-225] Mcclellan, Brett Marvell Semiconducto Marvell Semiconducto<!--</th--></th>	C/ 145 SC 145.4.9.2.5 P 211 L 11 # [i-225] Mcclellan, Brett Marvell Semiconducto Marvell Semiconducto </th						
Comment Type T Comment Status A AES "for all specified frequencies", The frequency range in Table 145-37 exceeds the	Comment Type T Comment Status A AE "for all specified frequencies", The frequency range in Table 145-38 exceeds the						
frequency requirements for 2.5GBASE-T and 5GBASE-T and may be reduced.	frequency requirements for 2.5GBASE-T and 5GBASE-T and may be reduced.						
SuggestedRemedy	SuggestedRemedy						
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	"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 145-38 from 1 MHz to 100 MHz. For 5GBASE-T capable midspans, PSAFEXT loss for Midspan PSE devices shall meet the values determined by Table 145-38 from 1 MHz to 250 MHz. For 10GBASE-T capable midspans, PSAFEXT loss for Midspan PSE devices shall meet the values determined by Table 145-38 from 1 MHz to Delete the frequency column of Table 33-20c						
Response Response Status C	Response Response Status C						
ACCEPT IN PRINCIPLE.	ACCEPT.						
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.	C/ 145 SC 145.4.9.1.1 P 208 L 9 # i-226 Mcclellan, Brett Marvell Semiconducto Marvell Semiconducto Marvell Semiconducto Marvell Semiconducto						
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	Comment Type E Comment Status R AES Most of the text and formulas in 145.4.9.1.x and 145.4.9.2.x are identical to 33.4.9.1.x and 33.4.9.2 x Bather than repeat the same requirements. 145.4.9.1 x and 145.4.9.2 x should						

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 SC 3	33.4.6	P 64	L 34	# i-227	C/ 145	SC 14	5.2.5.8	P 133	L 18	# i-230
Mcclellan, Brett		Marvell Semi	iconducto		Peker, Ark	kadiy		Microsemi Co	rporation	
Comment Type	TR Comm	ent Status A		AES	Comment	Туре 1	ſR	Comment Status R		PSE SD
across frequer	ncy. E_d_out isn'			nes E_d_out as varying s.	missir	ng in the co	ondition	_EV2_PRI to MARK_EV_LA : (pd_class_sig_pri = temp_va		•
	y 1 (33-17a) and the 1 on line 31 from:	text defining f and	fmax		pse_avail_pwr_pri = 4". It needs to be the same concept as in the single-signature case."					
	ceed the requireme	ents Equation (33-	17a)" (note the n	nissing 'of')	Suggested	dRemedy				
MHz and shall 100 MHz for 2 10GBASE-T" <i>Response</i>	not exceed 1mV p .5GBASE-T, 10 M	beak-to-peak when	measured in the	and from 1 MHz to 10 band from 10 MHz to 10 MHz to 500 MHz for	"tcle2_ pse_a To: "tcle2_	vail_pwr_p _timer_pri_	ori = 4" _done *	(pd_class_sig_pri = temp_va option_2ev * (pd_class_sig_ ts_pri * pse_avail_pwr_pri =	pri = temp_var_	
ACCEPT.					Response	, – –		Response Status C		
C/ 145 SC 1	145.2.5.7	P 133	L 13	# i-229	REJE	CT.				
Peker, Arkadiy		Microsemi C		1 220	0	a alaaa 40				limit to O alaga avanta
Comment Type	TR Comm	ent Status R		PSE SD				It_events_x FALSE already e on_ev2 for dual-signature dia		imit to 2 class events.
		RI to MARK_EV2_	PRI, the variable	option_2ev is missing	C/ 145	SC 14	5 2 5 9	P 137	L 13	# i-231
in the condition		sia pri – temp va	ar pri) * (class 4	PID_mult_events_pri	Peker, Ark		5.2.5.0	Microsemi Co		π 1-231
+(pse_avail_p				nD_muit_events_ph	Comment		ſR	Comment Status R		PSE SD
SuggestedRemedy	•	<u> </u>	5					_EV2_SEC to MARK_EV2_	SEC, the variab	e option_2ev is
SuggestedRemedy Change from: "tcle2_timer_pri_done *(pd_class_sig_pri = temp_var_pri) * (class_4PID_mult_events_pri +(pse_avail_pwr_pri > 4))" To: "tcle2_timer_pri_done * (pd_class_sig_pri = temp_var_pri) * ((class_4PID_mult_events_pri * !option_2ev)+ (pse_avail_pwr_pri > 4)) "						missing in the condition: ""tcle2_timer_sec_done *(pd_class_sig_sec = temp_var_sec) * (class_4PID_mult_events_sec +(pse_avail_pwr_sec > 4))"". It needs to be the same concept as in the single-signature case." SuggestedRemedy Change from:"tcle2_timer_sec_done *(pd_class_sig_sec = temp_var_sec) *				
Setting class	4PID mult events	x FALSE alreadv	enables PSE to	limit to 2 class events.	Response			Response Status C		
	ed an option_ev2 f				REJE	CT.				

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

C/ 145 SC 145.2.5.8 P 137 L 18 # [i-232] Peker, Arkadiy Microsemi Corporation	C/ 33 SC 33.4.9.1.1 P 65 L 27 # i-235 Zimmerman, George Aquantia, ADI, Comm Einstein Advisority Einstein Advisority Einstein Advisority
Comment Type TR Comment Status R PSE SD In the exit from CLASS_EV2_SEC to MARK_EV_LAST_SEC, the variable option_2ev is missing in the condition: "tcle2_timer_sec_done * (pd_class_sig_sec = temp_var_sec) * !class_4PID_mult_events_sec * pse_avail_pwr_sec = 4". It needs to be the same concept as in the single-signature case."	Comment Type E Comment Status A Editorial there appears to be a typo, 33-48 should be 33-18 SuggestedRemedy change 33-48 to 33-18 Response Response Status C
SuggestedRemedy Change from:	ACCEPT.
"tcle2_timer_sec_done * (pd_class_sig_sec = temp_var_sec) * !class_4PID_mult_events_sec * pse_avail_pwr_sec = 4" To:	C/ 33 SC 33.4.9.1.1 P 65 L 43 # i-236 Zimmerman, George Aquantia, ADI, Comm Image: Comm
"tcle2_timer_sec_done * option_2ev* (pd_class_sig_sec = temp_var_sec) * !class_4PID_mult_events_sec * pse_avail_pwr_sec = 4" Response Response Status C	Comment Type T Comment Status A AES NEXT loss on PSE midspan for 2.5G/5GBASE-T should be based on Category 5e, not on Clause 40 requirements which predate Category 5e. (same change made in another
REJECT.	comment in clause 145.4.9.1.1)
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.	SuggestedRemedy Change "40" to "43" in equations 33-18
	Response Response Status C
CI 40 SC 40.6.1.1 P 71 L 12 # i-234 Zimmerman, George Aquantia, ADI, Comm Image: Comm </td <td>ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE.</td>	ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE.
Comment TypeTRComment StatusAOther Clauses(related to this clause) Now that 2.5G/5GBASE-T and 10GBASE-T are added to the PHYs supporting PoE, the same line needs to be added to clauses 55 (10G) and 126 (2.5G/5G).Other Clauses	Line 25 change "2.5GBASE-T" to "1000BASE-T" line 27 delete "For 5GBASE-T, NEXT loss for Midspan PSE devices shall meet the values determined by Equation (33-XX) when measured for the transmit and receive pairs from 1
SuggestedRemedy Bring Clauses 55 and 126 into the draft, and insert new first paragraph in 55.5.1 and 126.5.1 - "A PHY with a MDI that is a PI (see 33.1.3) shall meet the isolation requirements defined in 33.4.1 or 145.4.1." Change first sentence of current first paragraph of 55.5.1	MHz to 250 MHz." line 29 change "5GBASE-T" to "1000BASE-T" 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

126.5.1 - "A PHY with a MDI that is a PI (see 33.1.3) shall meet the isolation requirements 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 L 31 # i-237	Cl 33 SC 33.4.9.1.3 P 66 L 35 # i-239
Zimmerman, George Aquantia, ADI, Comm	Zimmerman, George Aquantia, ADI, Comm
Comment Type T Comment Status A	Comment Type T Comment Status D AES
NEXT loss on PSE midspan for 2.5G/5GBASE-T should be based on Category 5e, not on Clause 40 requirements which predate Category 5e. same change made in another comment in clause 33.4.9.1.1)	Return loss on PSE midspan for 2.5G/5GBASE-T shoudl be based on Cat 5e not on clause 40 requirements predating cat 5e. line 35 return loss limit at 20MHz violates the RL spec in 126.7.2.3 for 2.5G and 5G (17dB). Make consistent with Cat 5e connector return loss specifications
SuggestedRemedy Change "40" to "43" in equation 145-32	SuggestedRemedy
	Delete "or 2.5G/5GBASE-T" from 2nd row of 1st column of Table 33-20.
Response Response Status C ACCEPT IN PRINCIPLE.	Insert new row "2.5G/5GBASE-T" between 10/100/1000BASE-T row and 5GBASE-T row, with frequency ranges of:
change "40" to "43"	1 <f<= 30="" 31.5="" a="" and<br="" at="" db,="" loss="" mhz="" of="" return="" value="">31.5 MHz<f<=100mhz -="" 100)="" 20="" 20log10(f="" a="" at="" db<br="" loss="" of="" return="" value="">Change 5GBASE-T row return loss value (100 MHz<= f<= 250 MHz) from 14 dB to 20 dB</f<=100mhz></f<=>
This resolution is identical to comment #220.	Proposed Response Response Status Z
C/ 33 SC 33.4.9.1.2 P 66 L 10 # [i-238	REJECT.
Zimmerman, George Aquantia, ADI, Comm	This comment was WITHDRAWN by the commenter.
Comment Type TR Comment Status A AES	·
Missing requirement for 10GBASE-T in clause 33 (this one is OK in clause 145, just missed in clause 33)	C/ 145 SC 145.4.9.1.3 P 209 L 37 # [i-240] Zimmerman, George Aquantia, ADI, Comm Image: Comm I
SuggestedRemedy	Comment Type T Comment Status D AES
Insert new equation 33-19a identical to 33-19 except 0.040 is changed to 0.020. Add text "For 10GBASE-T capable midspans, insertion loss for Midspan PSE devices shall meet the values determined by Equation (33-19) when measured for the transmit and receive pairs from 1 MHz to 500 MHz."	Return loss on PSE midspan for 2.5G/5GBASE-T shoudl be based on Cat 5e not on clause 40 requirements predating cat 5e. Return loss limit at 20MHz violates the RL spec in 126.7.2.3 for 2.5G and 5G (17dB). Make consistent with Cat 5e connector return loss specifications.
Response Response Status C	SuggestedRemedy
ACCEPT IN PRINCIPLE. Adopt changes shown on slides 5 - 7 in zimmerman_3bt_01_0917.pdf	Delete "or 2.5G/5GBASE-T" from 2nd row of 1st column of Table 145-35. Insert new row "2.5G/5GBASE-T" between 10/100/1000BASE-T row and 5GBASE-T row, with frequency ranges of:
[Editor's note added after comment resolution completed.	1 <f<= 30="" 31.5="" a="" and<br="" at="" db,="" loss="" mhz="" of="" return="" value="">31.5 MHz<f<=100mhz -="" 100)="" 20="" 20log10(f="" a="" at="" db<br="" loss="" of="" return="" value="">Change 5GBASE-T row return loss value (100 MHz<= f<= 250 MHz) from 14 dB to 20 dB</f<=100mhz></f<=>
The full URL for the file FILE_NAME.pdf is	Proposed Response Response Status Z
http://www.ieee802.org/3/bt/public/sep17/zimmerman_3bt_01_0917.pdf]	REJECT.
	This comment was WITHDRAWN by the commenter.

C/ 33 SC 33.4.9.2.3	P 67	L 40	# i-241	C/ 33	SC 33.4.9.2	24	P 67	L 50	# i-242				
Zimmerman, George	Aquantia, Al			Zimmerma			Aquantia, AD						
Comment Type E "variants 5 through 10"	Comment Status A - there are only 5 variants i	n clause 33	Editorial	Comment Type T Comment Status A AE "for all specified frequencies", The frequency range in Table 33-20b exceeds the frequency									
SuggestedRemedy	SuggestedRemedy Change "(variants 5 through 10 in 33.4.9.1)" to "(variants 3 through 5 in 33.4.9.1)"						requirements for 2.5GBASE-T and 5GBASE-T and may be reduced. (same change in 145.4.9.2.4 in another comment))						
Response ACCEPT IN PRINCIPL	While we were trying to manage simplicity with too many midspan variations, we gave the midspan Cat 6a connector PSANEXT requirements for 2.5G/5GBASE-T. This isn't an error, but more style. A more inclusive specification would only have the required frequencies.												
Change as follows: "Midspan PSEs intended for operation with 2.5G/5G/10GBASE-T (variants 3 through 5 in 33.4.9.1 and 33.4.9.2) are" This resolution is identical to comment #37.					SuggestedRemedy In 33.4.9.2.4: 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 33-20b from 1 MHz to 100 MHz. For 5GBASE-T capable midspans, PSANEXT loss for Midspan PSE devices shall meet th values determined by Table 33-20b from 1 MHz to 250 MHz. For 10GBASE-T capable midspans, PSANEXT 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 33-20b								
				delete insert PSE de	"For other thar evices shall me	PLE. d frequencies" o 5GBASE-T of set the values of		Table 33-20b fror	EXT loss for Midspan n 1 MHz to 100 MHz.				
				for Mid 250 MI	lspan PSE dev Hz. For 10GBA	ices shall mee SE-T capable	t the values det midspans, PSA	ermined by Table	e 33-20b from 1 MHz to lidspan PSE devices 00 MHz."				

Delete the frequency column of Table 33-20b

This resolution is identical to comment #213.

Cl 145 SC 145.4.9.2 Zimmerman, George	.4 <i>P</i> 210 Aquantia, ADI,	L 51 Comm	# i-243	C/ 33 Zimmerman, e	SC 33.4.9.2.5 George	P 68 Aquantia, AD	<i>L</i> 11 DI, Comm	# i-244
Comment Type T	Comment Status A		AES	Comment Typ	e T	Comment Status A		AES
	ncies", The frequency range ir BASE-T and 5GBASE-T and m comment))				requirements	frequencies", The frequen for 2.5GBASE-T and 5GBA		
midspan Cat 6a connec	o manage simplicity with too m ctor PSANEXT requirements f A more inclusive specification v	or 2.5G/5GBASE	E-T. This isn't an	insert "Fo PSE devi For 5GBA	ces shall meet SE-T capable	requencies" BASE-T or 10GBASE-T op the values determined by midspans, PSAFEXT loss able 33-20b from 1 MHz to 2	Table 33-20b fro for Midspan PSE	m 1 MHz to 100 MHz. E devices shall meet the

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 Status C

Response

ACCEPT.

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 Status C

Response

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.

Comment ID i-244

/ 145 SC 145.4.9.2.5 P 211 L 19 # i-245	C/ 33 SC 33.4.2 P 200 L 30 # 1-247				
mmerman, George Aquantia, ADI, Comm	Zimmerman, George Aquantia, ADI, Comm				
omment Type T Comment Status A AES	Comment Type T Comment Status A AES				
line 11 "for all specified frequencies", The frequency range in Table 145-38 exceeds the frequency requirements for 2.5GBASE-T and 5GBASE-T and may be reduced.	New relevant phy clauses need to be added to the list- "shall meet the fault tolerance requirements of the appropriate specifying clause. (See 14.3.1.2.7, 25.4, and 40.8.3.4.)" Missing clauses 55 and 126 which are added in 802.3bt				
uggestedRemedy	SuggestedRemedy				
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 145-38 from 1 MHz to 100 MHz. For 5GBASE-T capable midspans, PSAFEXT loss for Midspan PSE devices shall meet the values determined by Table 145-38 from 1 MHz to 250 MHz. For 10GBASE-T capable	Add 33.4.2 to the draft and change (end of) first sentence from: "shall meet the fault tolerance requirements of the appropriate specifying clause. (See 14.3.1.2.7, 25.4, and 40.8.3.4.)" to "shall meet the fault tolerance requirements of the appropriate specifying clause. (See 14.3.1.2.7, 25.4, 40.8.3.4, 55.8.2.3, and 126.8.2.4"				
midspans, PSAFEXT loss for Midspan PSE devices shall meet the values determined by Table 145-38 from 1 MHz to 500 MHz." Delete the frequency column of Table 145-38	Response Response Status C ACCEPT.				
esponse Response Status C	C/ 145 SC 145.2.8.3 P 156 L 8 # i-248				
ACCEPT.	Picard, Jean Texas Instruments Inc				
/ 145 SC 145.4.2 P 200 L 30 # [i-246	Comment Type TR Comment Status A PSE Powe				
mmerman, George Aquantia, ADI, Comm	The following sentence does not make sense. In reality the PSE cannot really short the PI				
omment Type T Comment Status A AES	voltage, all it can do is temporarily turn off its port (it's only a low side switch after all, with a 0.1 uF cap).				
Not all the relevant phy clauses are listed - "shall meet the fault tolerance requirements of the appropriate specifying clause. (See 14.3.1.2.7, 25.4, and 40.8.3.4.)" Missing clauses 55 and 126 which are added in 802.3bt	"The minimum PD input capacitance CPort min or CPort-2P min defined in Table 145-28, allows a PD to operate for input voltage transients which cause VPD to drop as low as 0 V, lasting less than 30 us as specified in 145.3.8.6."				
uggestedRemedy	SuggestedRemedy				
Change (end of) first sentence in 145.4.2 from: "shall meet the fault tolerance requirements of the appropriate specifying clause. (See 14.3.1.2.7, 25.4, and 40.8.3.4.)" to "shall meet the fault tolerance requirements of the appropriate specifying clause. (See 14.3.1.2.7, 25.4, 40.8.3.4, 55.8.2.3, and 126.8.2.4"	SuggestedRemedy Use similar wording to the "at" standard, removing "which cause VPD to drop as low as 0 V". The wording becomes this:				
ACCEPT. C	"The minimum PD input capacitance CPort min or CPort-2P min defined in Table 145-28, allows a PD to operate for input voltage transients lasting less than 30 us as specified in 145.3.8.6"				

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

<i>CI</i> 145 Peker, Ar		145.2.5.4	P 113 Microsemi C	L 40	# i-249)	<i>Cl</i> 145 Peker, Ark		145.2.5.7	٨	P 136 ⁄licrosemi C	L 20	# i-250
-		тр	Comment Status A	orporation		PSE SD	Comment			Comment Sta		orporation	Dreas Darahan (
"optic This Seco Alterr	e variabl on_prob variable ndary A native. T	e_alt_sec indicates i Iternative i	the PSE will continue to d n the event an invalid detect e applies to CC_DET_SEQ	t or class result	,	the	There "sism (CC_E	is redu *((!clas)ET_SI part: (!e	s_4PID_m EQ=0 + CC class_4PID	nthesis in the e	xit from EN * pwr_app_ "	pri) + class_4PI	Pres: Darshan4 ART_DETECT_SEC: D_mult_events_sec) *
the P TRUI Prima 1) Th reflec addre 2) Th	SE: PSE rimary A E: PSE (ary Alter be definit cted in the essed. ne text "	Alternative. does probe native." we tion text sa ne text that if an invali	brobe the Secondary Altern e the Secondary Alternative e have few issues: ys "in the event an invalid c defines the TRUE and FAL d signature is found" in the an lead to wrong interpreta	if an invalid sigr letect or class re .SE. Only the "ir TRUE and FAL	nature is found o esult is found" is avalid detection" SE definition is r	not is	Chang "sism (CC_E To: "sism (CC_E	e from *((!clas)ET_SE *(!class)ET_SE arshan_	: is_4PID_m EQ=0 + CC s_4PID_mu EQ=0 + CC	C_DET_SEQ=1) ult_events_sec * C_DET_SEQ=1)	" * pwr_app_{ "	ori + class_4PID	D_mult_events_sec) * _mult_events_sec) * condition due to other
will b curre	e found' nt defini	' since this tion may b	variable can be set in syste e interpreted as this param primary detection signature	em config phase eter can be conf	or on the fly, bu	ut the	Proposed Response Response Status Z REJECT.						
"FAL the P TRUI Prima To: "FAL class TRUI	ige the T SE: PSE trimary A E: PSE of ary Alter SE: PSE ification E: PSE of	FRUE and E does not Alternative. does probe native." E does not will be fou does probe	FALSE definition from: probe the Secondary Altern the Secondary Alternative probe the Secondary Altern nd on the Primary Alternative the Secondary Alternative nd on the Primary Alternative	if an invalid sigr native if an invali ve. if an invalid dete	nature is found o d detection sign	on the ature or	This c	ommer	nt was WIT	HDRAWN by th	e comment	er.	
Chan FALS found TRUI	EPT IN lige TRU SE: PSE d on the E: PSE (does not p Primary A does probe	Response Status W E. SE definitions to: probe the Secondary Altern iternative or classification is the Secondary Alternative ive or classification is invalid	invalid on the P if an invalid dete	rimary Alternativection signature	ve.							

C/ 145	SC 145.2.5.7	P 136	L 20	# i-251
Peker, Ark	adiy	Microsemi Co	rporation	

Comment Type TR Comment Status A Pres: Darshan13 In Figure 145-16, in the exit from ENTRY_SEC to START_DET_SEC, when selecting CC_DET_SEQ 0 or 1, and class_4PID_multi_event_sec = FALSE, the secondary state machine allows to move from ENTRY_SEC state to START_DETECT_SEC only if pwr_app_pri = TRUE per the existing condition:

sism * ((!class_4PID_mult_events_sec * pwr_app_pri) + class_4PID_mult_events_sec) * (CC_DET_SEQ=0 + CC_DET_SEQ=1)

If Primary fails to powerup, the Primary state machine returns back to IDLE_PRI. As a result, pwr_app_pri variable will remain in FALSE, and the secondary state machine won't be able to exit from ENTRY_SEC i.e. will be stuck there.

The easy way to handle this problem is to enable moving to START_DETECT_SEC from ENTRY_SEC, also if primary performed detection at least once and is now in IDLE_PRI state which prevents stuck at ENTRY_SEC. This solution requires the addition of new variable det_once_pri (the current draft has only det_once_sec) which is required also by other comments that all related to each other and can be see in darshan_04_0917.pdf. "

SuggestedRemedy

See darshan_04_0917.pdf for how the following change is also addresses other issues including the possibility to do cycles of detection + class_probe events on primary and secondary with the option to go to IDLE_PRI/SEC and WAIT_PRI/SEC.

1) Add the following variable:

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.

2) 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 + det_once_pri * !det_start_pri)) + class_4PID_mult_events_sec) * (CC_DET_SEQ=0 + CC_DET_SEQ=1)."

Response Response Status C

ACCEPT IN PRINCIPLE.

adopt stewart_02_0917_final.pdf

This resolution is identical to comment #254.

[Editor's note added after comment resolution completed.

Comment ID i-251

The full URL for the file FILE_NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/stewart_02_0917_final.pdf]

C/ 145 SC 145.2.5.7 P136 L 21 # i-252 Microsemi Corporation Peker, Arkadiy

Comment Type TR Comment Status A Pres: Darshan13

In the transition between ENTRY SEC to START DET SEC we have the following condition:

"sism * ((!class 4PID mult events sec * pwr app pri) + class 4PID mult events sec) * (CC DET SEQ=0 + CC DET SEQ=1)"

In this condition, when class 4PID mult events sec=FALSE, and CC DET SEQ=0 OR 1. If START DET PRI exit to IDLE PRI due to tdet timer pri done, the pwr app pri will remain in FALSE which won't allow exiting from ENTRY SEC to START DETECT SEC and the secondary state machine remain stuck in ENTRY SEC.

The proposed solution for this problem is:

1) To add stop tdet timer pri in the DETECT EVAL PRI state. This action ensures that tdet timer pri done will remain FALSE when moving from START DETECT PRI to DETECT_EVAL_PRI. This modification is required since even if we did detection before tdet timer pri is expired, we will get tdet timer pri done anyway. This action will enables the usage of tdet timer pri done in the secondary state machine at the exit from ENTRY_SEC to START_DETECT_SEC when we will add this variable in (2). 2. To add ""tdet timer pri done to the condition of the exit from ENTRY SEC to START DETECT SEC as follows:

""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."

SuggestedRemedy

1. Add "stop tdet timer pri"" to the DETECT EVAL PRI state.

2. Add "tdet timer pri done to the condition of the exit from ENTRY SEC to

START DETECT SEC by performing the following change:

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 + tdet_timer_pri_done)) + class 4PID mult events sec) * (CC DET SEQ=0 + CC DET SEQ=1)"

Response Status C

Due to the fact that item 2 need additional changes due to other comments, and in order to meet the requirement that we need single independent comment for each issue which I did here but may cause editor confusion of how to apply the remedies of other comments. See darshan 04 0917.pdf for how the above change is combined with other changes i.e. the possibility to do cycles of detection + class probe events on primary and secondary with the option to go to IDLE PRI/SEC and WAIT PRI/SEC."

Response

ACCEPT IN PRINCIPLE.

adopt stewart 02 0917 final.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

This resolution is identical to comment #254.

[Editor's note added after comment resolution completed.

The full URL for the file FILE NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/stewart 02 0917 final.pdf]

C/ 145	SC 145.2.5.3	P 109	L 42	# i-253
Peker, Ark	adiy	Microsemi Co	rporation	
Comment	Type TR	Comment Status A		PSE SD

This comment is an update to the comment that requires to delete Figure 145B-3: Per the definition of CC_DET_SEQ=0 for dual-signature, the detection need to be parallel and not staggered and this contradicts figure 145B-3 that is shown as one of the staggered detection versions. So we have two options to resolve this:

a) To delete figure 145B-3 to sync with CC_DET_SEQ=0 definition for dual-signature PDs and also update state machine which will be complicated task at this point of time. OR, b) (Preferred) Keep Figure 145B-3, and change the ""CC DET SEQ=0 definition that to allow staggered detection in addition to parallel detection which currently is supported by the state machine."

SuggestedRemedv

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

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

Response Response Status W

ACCEPT.

C/ 145	SC 145.2.5.7	P 136	L 11	# i-254
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Peker, Arkadiy

Microsemi Corporation



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

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.

Response Response Status C

ACCEPT IN PRINCIPLE.

adopt stewart_02_0917_final.pdf

[Editor's note added after comment resolution completed.

The full URL for the file FILE_NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/stewart_02_0917_final.pdf]

Comment ID i-254

Page 66 of 137 10/2/2017 3:31:23 PM

Cl 1 SC 1.4.417 P 25 L 5 # [i-255] Lukacs, Miklos Silicon Laboratories	C/ 1 SC 1.4.418ac P 25 L 22 # i-257 Lukacs, Miklos Silicon Laboratories Silicon Laboratories
Comment Type E Comment Status R Editorial words "power level" are missing	Comment Type E Comment Status R Editorial words "power level" are missing
SuggestedRemedy	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	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).
REJECT.	Response Response Status C
	REJECT.
There is no need for the words "power level".	There is no need for the words "power level".
C/ 1 SC 1.4.418aa P 25 L 15 # [i-256] Lukacs, Miklos Silicon Laboratories	C/ 33 SC 33.3.1 P 62 L 8 # i-258 Lukacs, Miklos Silicon Laboratories
Comment Type E Comment Status R Editorial	Comment Type G Comment Status A General
words "power level" are missing SuggestedRemedy	This is confusing because Clause 145 is also part of THIS standard. Type 1 and Type 2 qualifiers should be added.
change the sentence to: "A PD that requests Class 1 to Class 6 power level during Physical Layer classification,	SuggestedRemedy
implements Multiple-Event classification, and accepts power on both Modes simultaneously. (See IEEE 802.3, Clause 145).	PDs that implement only Mode A or Mode B are specifically not allowed by this standard for Type 1 and Type 2 PDs. PDs that simultaneously require power from both Mode A and Mode B are specifically not allowed by this standard for Type 1 and Type 2 PDs.
Response Response Status C	Response Response Status C
REJECT.	ACCEPT IN PRINCIPLE.
There is no need for the words "power level".	PDs that implement only Mode A or Mode B are specifically not allowed by this standard. PDs that simultaneously require power from both Mode A and Mode B are specifically not allowed by this clause.

C/ 145 S	C 145.2.1	P 99	L 30	# i-259	C/ 1	SC 1.4.417	F	^{>} 25	L 6	# i-261
_ukacs, Miklos		Silicon Laborat	tories		Stewart, Hea	th	An	alog Device	es Inc.	
Comment Type	E	Comment Status R		Editorial	Comment Ty	pe E	Comment State	us A		Definition
Class 8 is r	not a range,	m class supported" column of and it suggests that Type 4 P			a verb.					n each clause requires ports Multiple-Event
SuggestedRem Break it to	•	r single and dual signature.					a Link Layer classif			
Response		Response Status C			SuggestedRe					
REJECT.					Add "sup	ports" before	"Data Link Layer"			
NEGEOI:					Response		Response Statu	is C		
		es is not single vs. dual signa ace old type 1 systems), or cla			ACCEPT	IN PRINCIP	LE.			
Furthermor	re, 4-pair Typ	ed to support all classes (up t	of class 5 (45W)		Replace	with:				
C/ 1 S	C 1.4.313a	P 24	L 35	# i-260						ports Multiple-Event 802.3, Clause 33)."
Stewart, Heath		Analog Device	s Inc.		C/ 30	SC 30.9.1.1	A F	^{>} 36	L 15	# i-262
Comment Type	F TR	Comment Status A		Definitions	Stewart, Hea			alog Device		# [-202
		f pairset is PSE centric but is made bi-modal.	repeatedly refe	renced by the PD.	Comment Ty	pe TR	Comment State	us A		Pres: Darshans
		irset: -conductor connections, Alter	rnative A or Alte	mative B, as listed in	It is unclear how the disparate SISM states will be described. For example if the primary is powered and the secondary is searching, what will the returned state value be? SuggestedRemedy					
SuggestedRem	nedy				Either rei standard		t for dual-signature	PDs or corr	npiete their spec	ification throughout the
	Alternate A ar y, at the PD.	nd Alternate B connections ar	e referred to as	Mode A and Mode B,	Response ACCEPT	IN PRINCIP	Response Statu LE.	ıs C		
The PSE A respectivel		nd Alternate B connections ar Response Status C	e referred to as	Mode A and Mode B,	ACCEPT	-	LE.		f	
The PSE A respectivel Response		Response Status C	e referred to as	Mode A and Mode B,	ACCEPT Adopt ch	anges showr	LE. in Darshan_05_09	17_final.pd	f	
The PSE A respectivel Response ACCEPT II	y, at the PD.	Response Status C	e referred to as	Mode A and Mode B,	ACCEPT Adopt ch	anges showr	LE.	17_final.pd	f	
The PSE A respectivel Response ACCEPT II Append: The PSE A	y, at the PD. N PRINCIPL	Response Status C E. and Alternative B connections			ACCEPT Adopt ch This reso	anges showr	LE. in Darshan_05_09	17_final.pd 33.		

	0 00 0 4 4 7	D 07	1.05	# [: 000	<u> </u>	SC 20.04.4	• •	07	1 44	# : 004
Cl 30 So Stewart, Heath	C 30.9.1.1.7	P 37 Analog Devic	L 25 es Inc.	# i-263	<i>C</i> / 30 Stewart, ⊦	SC 30.9.1.1. leath		37 Ilog Devi	L 41 ces Inc.	# i-264
references. be added. Currently: This counte POWER_D SuggestedRem Option 1 Cf "(Figure 33 to "(Figure 33 POWER_D Option 2 Cf "when the F to	owerDeniedC It is not clear er is increme DENIED. Hedy -9) enters the -9, Figure 14 DENIED, POV hange	Comment Status A Counter is only specified for ar if this was intention or if re nted when the PSE state dia e state POWER_DENIED" (5-13, Figure 145-15, or Figure NER_DENIED_PRI, or POW	eferences to Typ agram (Figure 33 ure 145-16) ente	e 3 and Type 4 should 3-9) enters the state rs the state	Suggester Chang Response ACCE Adopt This r [Edito The fu	eference to Figure dRemedy ge "(Figure 145-2 EPT IN PRINCIPL changes shown esolution is ident r's note added af ull URL for the file	in Darshan_05_09 ⁻ ical to comment #3 ter comment resolu e FILE_NAME.pdf is	cidentally), Figure s C 17_final.p 3. tion com	145-13, " odf	Pres: Darshan5
Response ACCEPT IN	N PRINCIPLI	Response Status C <u>=</u> .								
Adopt chan	iges shown i	n Darshan_05_0917_final.p	df							
This resolut	tion is identio	cal to comment #33.								
[Editor's no	te added afte	er comment resolution comp	oleted.							
		FILE_NAME.pdf is 3/bt/public/sep17/darshan_	05_0917_Final.p	df]						

C/ 30 S	SC 30.9.1.1.11	P 38	L 2	# i-265	C/ 30	SC	30.12.3.1	.8	P 48	L 43	# i-267
Stewart, Heath	า	Analog Device	es Inc.		Stewart, F	leath			Analog Devic	ces Inc.	
references be added. Currently: This count 15, and Fig	IPSAbsentCour s. It is not clear ter is incremente	Comment Status A neter is only specified for Ty if this was intention or if re ed when the PSE state dia neters the state ERROR_DE	ferences to Typ agram (Figure 1	be 3 and Type 4 should 45-13, Figure 145-	Suggeste	le does d <i>Remec</i> ge Cont	dy	Controlable Controllabl			Managemen
SuggestedRer	medy				C/ 145	SC	145.2.4		P 107	L 40	# i-268
Option 1 C "transitions		he state POWER_ON to the	ne state IDLE d	ue to	Stewart, H				Analog Devic		
tmpdo_tim to	ner_done being	asserted"			Comment	Туре	Е	Comme	nt Status A		PSE Types
Option 2 C "when the to "when the Response	Change PSE" Type 1 and Typ	tmpdo_timer_done_sec b be 2 PSE" Response Status C	eing asserted"		Altern "and" Respe conte Suggeste	ative B' implies ectfully I ntious.	the select believe th	ion can be	made from A, B,	A and B.	d with Alternative A or and will withdraw if
ACCEPT I	IN PRINCIPLE.				Response	0		Deenen	e Status C		
Adopt cha	inges shown in l	Darshan_05_0917_final.pc	df		ACCE			Respons			
This resolu	ution is identica	to comment #33.									
[Editor's no	ote added after	comment resolution comp	leted.								
		LE_NAME.pdf is bt/public/sep17/darshan_0)5_0917_Final.	odf]							
C/ 30 Stewart, Heath	SC 30.12.2.1.8 1	P 38 Analog Device	L 30 es Inc.	# i-266							
Comment Type Google do		Comment Status A ntrolable is a word		Management							
SuggestedRer Change C	medy controlable to Co	ontrollable									
Response ACCEPT.	l	Response Status C									

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 Stewart, Hea	SC 145.2.5.4 ath	P 113 Analog Devic	L 24 es Inc.	# i-269	C/ 145 Stewart, He	SC 145.2.5.5 eath	5 P 119 Analog Devi	L 10 ces Inc.	# i-271
Comment T	vpe T	Comment Status A		PSE SD	Comment	Type E	Comment Status A		Editorial
option_c	51		lissapated heat			are two differing ipt.	spelling of t_class_acs vs t_	_classacs. Note	
SuggestedR Adopt st Response	Remedy stewart_0917_0	1. Response Status C			Global Page 1	,	ssacs_timer to t_class_acs. I	Note the _ after t	he t denotes subscript.
	PT IN PRINCIPL				Response ACCE	PT IN PRINCIPI	Response Status C _E.		
•	tewart_01_0917	7_final.pdf ical to comment #198.			Global	ly change "tclas	sacs_timer" to "tclass_acs_t	imer"	
		ter comment resolution com	oleted.		C/ 145 Stewart, H	SC 145.2.5.5	5 P 119 Analog Devi	L 36 ces Inc.	# i-272
		e FILE_NAME.pdf is j/3/bt/public/sep17/stewart_0	1_0917_final.pc	Jf]	<i>Comment</i> sism s	51	Comment Status A nly have four class events.		PSE SD
Cl 145 Stewart, Hea	SC 145.2.5.4	P 114 Analog Devic	L 32 es Inc.	# i-270	Suggested Chang	<i>Remedy</i> e "fifth" to "fourt	h"		
	g definition of po	Comment Status A _4pair_cand is out of sync v			Response ACCE	PT.	Response Status C		
pd_4pai This var	ir_cand riable is used by	he Physical Classification pr y the PSE to indicate that a c This variable is a function of	connected PD is	a candidate to receive	<i>Cl</i> 145 Stewart, He	SC 145.2.5.5 eath	5 P 119 Analog Devi	L 39 ces Inc.	# i-273
Check, a	and PD 4PID; s				Comment	51	Comment Status A nly have four class events.		PSE SD
0		heck, " to "Connection Chec	k, Physical Clas	ssification, "	Suggested				
Response ACCEP	T IN PRINCIPL	Response Status C E.			Response		Response Status C		
Change	e "Connection C	heck, " to "Connection Chec	k, Physical Lay	er Classification, "	ACCE	PT.			

C/ 145	SC 145.2.5.6	P 122	L 13	# i-274	C/ 145	SC 145.2.5.		L 44	# i-276	
ewart, He	eath	Analog Devi	ces Inc.		Stewart, H	eath	Analog Devi	ces Inc.		
omment 1	Type E	Comment Status A		PSE SD	Comment	Гуре Е	Comment Status A		PSE S	
		pri sec] function is unique in esponses based on the pred					[pri sec] function is unique in responses based on the prec			
lggestedl	Remedy				Suggestea	Remedy				
Return		for the Primary Alternative d on all do_classification_p		letection or class reset	Append after "variables for the Secondary Alternative." Return values are based on all do_classification_sec events until a detection or class reset clears the memory.					
esponse		Response Status C			Response		Response Status C			
	PT IN PRINCIPL					PT IN PRINCIP PT IN PRINCIP				
	Ū	the end of the pse_allocate			Appen	d the follwing to	the end of the pse_allocated	d_pwr_pri descri	otion:	
last tim	ne in DETECT_E	ased on all previous do_cla VAL_PRI or CLASS_RESE E assigned Class".			The returned value is based on all previous do_classification_pri function calls since the last time in DETECT_EVAL_PRI or CLASS_RESET_PRI. See Table 145-11 for a determination of the PSE assigned Class".					
Make s	similar change fo	r _sec.					-			
Append	d the following to	the end of the pd_req_pw	pri description:		Makes	similar change	for _sec.			
	Ū				Appen	d the following	to the end of the pd_req_pwr	_pri description:		
last tim determ	ne in DETECT_E nination of the PE	ased on all previous do_cla VAL_PRI or CLASS_RESE D requested Class".			The returned value is based on all previous do_classification_pri function calls since the last time in DETECT_EVAL_PRI or CLASS_RESET_PRI. See Table 145-25 for a determination of the PD requested Class".					
Make s	similar change fo	r _sec.			Makes	similar change	for sec			
/ 145 ewart, He	SC 145.2.5.6 eath	P 122 Analog Devi	L 37 ces Inc.	# i-275		0	tical to comment #274.			
mment 7 The pd		Comment Status A	ture not Class inf	PSE SD	<i>Cl</i> 145 Stewart, H	SC 145.2.5.	6 P 123 Analog Devid	L 13 ces Inc.	# i-277	
	<i>Remedy</i> e "Class" to "clas	ss signature"			Comment The po		Comment Status A	ure not Class in	PSE Si	
esponse ACCEF	PT.	Response Status C			Suggestea					
					Response ACCE	PT.	Response Status C			

C/ 145 SC 145.2	5.6 <i>P</i> 123	L 39	# i-278	C/ 145 SC 145.2	2.7.1 <i>P</i> 148	L 44	# i-280
Stewart, Heath	Analog Devic		# 1-278	Stewart, Heath	Analog Dev		# 1-280
Comment Type E	Comment Status A		PSE SD	Comment Type E	Comment Status A		Editoria
	e do_detect_pri definition.			Misplaced comma			
Existing: open circuit: The P	SE has detected an open circuit	t.		SuggestedRemedy			
valid: The PSE has	detected a PD requesting powe a circuit nor valid PD detection s	er.	en found.	Change: Voltages, VClass, To	VMark, and VReset are specifi	ed in Table 145-14	ŀ.
SuggestedRemedy					/Mark, and VReset are specifie	ed in Table 145-14	
Change: Valid: The PSE has	detected a PD requesting power	۶r		Response	Response Status C		
То				ACCEPT IN PRIN	CIPLE.		
Valid: The PSE has Response ACCEPT.	detected a valid PD signature. Response Status C			Change to: "Voltages VClass, specified in Table	VMark, and VReset and currer 145-14."	nts IClass_LIM and	I IMark_LIM are
C/ 145 SC 145.2	5.6 <i>P</i> 123	L 48	# i-279	This resolution is in	dentical to comment #82.		
Stewart, Heath	Analog Devic	es Inc.		C/ 145 SC 145.2	2.7.1 <i>P</i> 149	L 36	# i-281
Comment Type E	Comment Status A		PSE SD	Stewart, Heath	Analog Dev		1201
Odd language in th Existing:	e do_detect_sec definition.			Comment Type TR	Comment Status A		Editorial
open_circuit: The P	SE has detected an open circuit			Туро.			
invalid: Neither ope	detected a PD requesting powe a circuit nor valid PD detection s		en found.	SuggestedRemedy Change T CLE to	T_LCE indicates subscript.		
SuggestedRemedy				Response	Response Status C		
Change: Valid: The PSE has To	detected a PD requesting powe	er.		ACCEPT.			
	detected a valid PD signature.						
Response	Response Status C						
Response							

C/ 145 SC 145.2.7.1 P 149	L 40 # [i-282	Cl 145 SC 145.2.7.2 P 151 L 44 # i-283						
Stewart, Heath Analog Devices Ir	ic.	Stewart, Heath Analog Devices Inc.						
Comment Type E Comment Status A	Editor	ial Comment Type E Comment Status A Autoclas						
Text is redundant to state machine. Because the PSE is has already met the "PSE in the state CLASS_EV1_LC range of class signature 0 and the " clause.								
SuggestedRemedy		SuggestedRemedy						
Change If the Autoclass enabled PSE in the state CLASS_EV1_ the range of class signature 0 and the PSE in the state IClass in the range of class signature 0 this indicates the 145.2.7.2 and 145.3.6.2.	CLASS_EV1_AUTO does measur	Change Measured from the transition to state POWER_ON to Measured from the transition of the POWER_UP state to the POWER_ON state. Also change line 44 same page						
to If the Autoclass enabled PSE in the state CLASS_EV1_ range of class signature 0 this indicates the PD will perf 145.3.6.2.		Response Response Status C ACCEPT IN PRINCIPLE.						
Response Response Status C		Change Measured from the transition to state POWER ON						
ACCEPT IN PRINCIPLE.		to						
		Measured from the transition of the POWER_UP state to the POWER_ON state.						
Change to: If the Autoclass enabled PSE in the state CI in the range of class signature 0 this indicates the PD w and 145.3.6.2.								
anu 143.3.0.2.		C/ 145 SC 145.2.8 P 153 L 25 # i-284						
		Stewart, Heath Analog Devices Inc.						
		Comment Type TR Comment Status A PSE Powe Item 12 is associated with Type not assigned Class PSE Powe PSE Powe PSE Powe						
		SuggestedRemedy Delete ", per the assigned Class"						
		Response Response Status C ACCEPT IN PRINCIPLE.						
		Delete ", per the assigned Class" in item 12 on page 154 (comment says page 153).						

CI 145 S	SC 145.3.1	P 154	L 19	# i-285		C/ 145	SC	145.2.8.12	2	P 165	L 33	# i-286
Stewart, Heath	I	Analog Device	es Inc.			Stewart, H	eath			Analog Devic	es Inc.	
Comment Type	F TR	Comment Status A			DLL	Comment	Туре	т	Comment S	Status D		PSE Powe
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. <i>SuggestedRemedy</i> Change Table 145-18, Type 3, Dual, 1 to 3 row :: Data Link Layer Classification column :: from "Optional" to "Mandatory" Delete Table 145-18, Note 2					 145.6.1 states "All equipment subject to this clause shall conform to IEC 60950-1 or IEC 62368-1. In particular, the PSE shall be classified as a Limited Power Source in accordance with IEC 60950-1 or IEC 62368-1 Annex Q." However elsewhere in 145, limited power source requirements are redundantly stated. For many reasons it is normal to avoid redundantly specifying requirements called out in referenced standards. SuggestedRemedy 							
					Remove subclause 145.2.8.12 Page 163 Figure 145-25 remove lines related to I_LPS and P_Type,max/V_PSE. Upperbound template will thus have a value of 1.3A from 4s to infinity. Page 164 remove lines 21 and 29 (both reference I_LPS) Page 244 Line 17 Remove PSE82.							
						Proposed	Respor	nse	Response S	status Z		
	Page 184, Line 3 Change Single-signature PDs that request Class 4 or higher and dual-signature PDs that request Class 4 or higher on at least one of its Modes shall provide DLL classification. to Single-signature PDs that request Class 4 or higher and dual-signature PDs shall provide DLL classification.				st	REJECT. This comment was WITHDRAWN by the commenter.						
to												
					de	C/ 145	SC	145.3.9		P 198	L 10	# i-287
Response		Response Status C				Stewart, H	eath			Analog Devic	es Inc.	
ACCEPT II	N PRINCIPL	_E.				Comment	Туре	Е	Comment S	Status A		PD MPS
delete item	n D on page	145, line 33				or dua	l-signa	ture PDs.	y describe whe follow this con		or row is attributa	ble to single-signature
						Suggestea	Remed	dy				
						Item 1 Chang Chang	je "Clas je "Clas	ss 5 to 8" t	is follows o "Single-signa o "Single-signa o "Dual-signat	ature PD, Clas	ss 5 to 8"	
						Response			Response S	tatus C		
						ACCE	PT IN I	PRINCIPL	E.			
						single-	signatu	ure PDs" -		iption of item 2	current per the a 2 to read: "Input	ssigned Class, for current on each

2/ 145 SC 145.2.5.7 P 127 L 33 # i-288							
tover, David Analog Devices Inc.	C/ 145 SC 145.2.8 P 153 L 16 # i-290 Stover, David Analog Devices Inc. Anal						
Comment Type ER Comment Status R PSE SD	Comment Type T Comment Status A PSE						
Missing parenthesis in PSE SD (shown in proposed change as a right square bracket; should be inserted as a right parenthesis).	Item 6 specifies "Total output currentin the POWER_UP state per the assigned Class but includes rows for "Type 3" and "Type 4" dual-signature PDs.						
SuggestedRemedy	SuggestedRemedy						
Change to "(pse_alternative = both) * ((det_temp = only_one) * (sig_pri != valid) + (det_temp = both_neither) * (sig_sec != valid) + (((CC_DET_SEQ = 0) + (CC_DET_SEQ =	Change from "Type 3 dual-signature PD" to "Dual-signature PD, Class 1 to 4"; Change from "Type 4 dual-signature PD" to "Dual-signature PD, Class 5".						
3)) * (det_temp = only_one) * tdet2det_timer_done))] + (pse_alternative = a) * (sig_pri != valid) + (pse_alternative = b) * (sig_pri = open_circuit)" replacing right square bracket with right parenthesis.	Response Response Status C ACCEPT IN PRINCIPLE.						
Response Response Status C REJECT.	Adopt changes shown in yseboodt_10_0917_inrush.pdf						
The arc contains 15 open parens and 15 closing parens.	This resolution is identical to comment #291.						
2/145 SC 145.2.8 P 152 L 30 # [i-289]	[Editor's note added after comment resolution completed.						
tover, David Analog Devices Inc.	The full URL for the file FILE_NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/yseboodt_10_0917_inrush.pdf]						
Comment Type TR Comment Status A PSE Power							
Vport_PSE_diff and Vport_PSE-2P both apply to either pairset of the PSE when that pairset is in a power on state (POWER_ON, POWER_ON_PRI, POWER_ON_SEC).	C/ 145 SC 145.2.8 P 153 L 16 # i-291 Stover, David Analog Devices Inc. Inc. <t< td=""></t<>						
These items are are not labeled consistently in the table.	Comment Type TR Comment Status A PSE						
SuggestedRemedy Change "Output voltage pair-to-pair difference" to "Output voltage pair-to-pair difference with both pairsets in a power on state"; Change "Output voltage per pairset in the POWER_ON state" to "Output voltage per pairset in a power on state".	The PSE inrush requirements "I_Inrush" and "I_Inrush-2P" always apply. However, dua signature PDs may be powered over one or both pairs. For this reason, specifying total output current (I_Inrush) for dual-signature PDs is problematic. For example: When a single pairset of a Type 4/Class 5 dual-signature PD is inrushed, the PSE shall provide						
Response Response Status C ACCEPT IN PRINCIPLE.	I_Inrush of at least 0.65A and shall not provide an I_Inrush-2P of more than 0.6A. For dual-signature PDs, output current during inrush should only be specified per-pairs						
	SuggestedRemedy						
Change "Output voltage per pairset in the POWER_ON state" to "Output voltage per pairset in a power on state".	Remove I_Inrush entries for dual-signature PDs.						
Change item 2 parameter name to "Pair-to-pair voltage difference".	Response Response Status C ACCEPT IN PRINCIPLE.						
	adopt changes shown in yseboodt_10_0917_inrush.pdf						
	[Editor's note added after comment resolution completed.						
	The full URL for the file FILE_NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/yseboodt_10_0917_inrush.pdf]						

C/ 145 SC 145.2.8 Stover, David	P 154 Analog Device	L 23 es Inc.	# i-292	C/ 145 SC ² Stover, David	45.2.8.1	P 155 Analog Device	L 37 es Inc.	# i-294			
Comment Type TR	Comment Status A		PSE Power	Comment Type	т	Comment Status D		PSE Powe			
Tlim-2p is solely a fun	nction of PSE Type, regardless	of PD assigned	Class.	"The voltage transients as a result of load changes up to 35mA/us shall be limited to 3.5V/us". This PSE requirement seems to be the dual of the PD transient behavior requirement (145.2.8.1). In another comment, I show that slew rate (TR3, Source dv/dt)							
SuggestedRemedy											
Change "Short circuit limit per pairset".	time limit per pairset, per the a	assigned Class"	to "Short circuit time	should be 350	0 V/s. Thi	s PSE requirement should li					
Response	Response Status C			SuggestedRemed							
, ACCEPT IN PRINCIP				Replace "3.5 \							
ACCEPT IN PRINCIP				Proposed Response Response Status Z							
Delete " per the assig	ned Class" in item 12 on page	a 154 (comment	save nade 153)	REJECT.							
Delete , per the assig	gned Class in item 12 on page	e 154 (comment	says page 155).	This comment	was WIT	HDRAWN by the commente	er.				
This resolution is iden	tical to comment #284.			T 1.1.							
C/ 145 SC 145.2.8.	1 P 155	L 32	# i-293		was with	drawn before the comment r	esolution meeting	ıg.			
Stover, David	Analog Device	es Inc.		C/ 145 SC ·	45.2.8.1	P 155	L 39	# i-295			
Comment Type TR	Comment Status A		PSE Power	Stover, David		Analog Device	es Inc.				
	wer on" and "power up" states	for the PSE. Th		Comment Type	т	Comment Status A		Editoria			
	pairset in one of these states					ON state may remove powe	er from a pairset	" there are multiple			
SuggestedRemedy				_	-	quirement applies to all.					
	"the POWER_ON state" to "a	power on state";	change "the	SuggestedRemed							
POWER_UP state" to	o "a power up state".			Change "the F	OWER_C	ON state" to "a power on stat	te".				
Response	Response Status C			Response		Response Status C					
ACCEPT.				ACCEPT IN P	RINCIPLE	Ξ.					
						e POWER_ON state" to "a p a power up state".	oower on state";	change "the			

This resolution is identical to comment #293.

C/ 145 SC 145.2.8.1	P 155	L 47	# i-296	C/ 145 SC 145.2	2.8.5.1	P 159	L 48	# i-299
Stover, David	Analog Device	s Inc.		Stover, David		Analog Devid	es Inc.	
Comment Type T	Comment Status A		PSE Power	Comment Type T	Comment S	tatus A		Unbaland
POWER_ON state from up states.	romthe voltage difference b n the beginning of POWER_U			pairs is RChan-2P pair resistance unt		ure 145-22 a for 4-pair op	nd as defined by eration in 145A.3	
SuggestedRemedy	ON state" to "a power on stat	a": change "the	POWER LIP state" to	SuggestedRemedy				
"a power up state".		e, change the	TOWER_OF State to	Remove quoted pa	aragraph.			
Response ACCEPT.	Response Status C			Response ACCEPT.	Response St	atus C		
C/ 145 SC 145.2.8.5 Stover, David	P 157 Analog Device	L 29 s Inc.	# i-297	C/ 145 SC 145.2 Stover, David		P 161 Analog Devid	L 33 ces Inc.	# [i-300
Comment Type E	Comment Status A		Editorial	Comment Type TR	Comment S	tatus A		PSE Inrus
For Equation (145-10), SuggestedRemedy	"when in 2-pair mode" is not	aligned with the	e rest of the entries.		"power on" and "pov any pairset in one o			e requirements in
Make alignment consist	tent.			SuggestedRemedy				
Response ACCEPT.	Response Status C			respectively, in all	locations within 145	.2.8.6 except	the caption for F	and "a power on state" igure 145-23. In Figure n a power up state".
C/ 145 SC 145.2.8.5 Stover, David	P 157 Analog Device	L 39 s Inc.	# i-298	Response ACCEPT.	Response St	atus C		
Comment Type ER Reference to incorrect e	Comment Status A equation		PSE Power					
SuggestedRemedy Replace "See (145-14)'	' with "See (145-11)"							
Response ACCEPT.	Response Status C							

C/ 145 SC 145.2.8.6 P 162 L 1 # [i-301	C/ 145 SC 145.2.8.8 P 162 L 46 # i-303					
Stover, David Analog Devices Inc. Comment Type T Comment Status A PSE II	Stover, David Analog Devices Inc.					
Figure 145-23 specifies the PSE inrush upperbound template; requirements for both lpd 2P and lport as shown apply simultaneously. In Figure 145-23, lport is limited to linrush,max while lport-2P may load step up to 50A (>>linrush,max). As drawn, lport-2p limited to the lesser of these requirements: Ilnrush,max.	We have multiple "power on" states for the PSE. The requirements in 145.2.8.8 apply to any pairset in one of these states. SuggestedRemedy Replace "POWER ON state." with "Power on states." in Figures 145-24. 145-25. On page					
SuggestedRemedy Remove IPort axis from Figure 145-23 or specify IPort behavior during load step.	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"					
Response Response Status C ACCEPT IN PRINCIPLE.	Response Response Status C ACCEPT.					
Adopt changes shown in yseboodt_10_0917_inrush.pdf	C/ 145 SC 145.2.8.8 P 162 L 54 # i-304 Stover, David Analog Devices Inc. Analo					
This resolution is identical to comment #291.	Comment Type T Comment Status A PSE Powe					
[Editor's note added after comment resolution completed. The full URL for the file FILE_NAME.pdf is	"Power shall be removed from a pairset of a PSE before the pairset current exceeds the "PSE upperbound template" in Figure 145-24, and Figure 145-25." Rogue comma. Also, the "and" can be read as the intersection (in this case, the max) of the PSE upperbound templates when either 145-24 OR 145-25 apply, depending on PSE Type.					
http://www.ieee802.org/3/bt/public/sep17/yseboodt_10_0917_inrush.pdf] C/ 145 SC 145.2.8.6 P 162 L 1 # [i-302	SuggestedRemedy Delete comma. Replace "and" with "or" in the referenced sentence.					
Stover, David Analog Devices Inc.	Response Response Status C					
Comment Type E Comment Status A Ed						
Figure 145-23 is inserted between an equation and the variable definitions for that equa SuggestedRemedy Move Figure 145-23 below the variable definitions for Equation (145-18).	C/ 145 SC 145.2.8.8 P 164 L 1 # i-305 Stover, David Analog Devices Inc.					
Response Response Status C ACCEPT IN PRINCIPLE.	Comment TypeEComment StatusAEditoriaMissing a comma between "Equation (145-19) Equation (145-20)"					
Editorial license granted to move figure where appropriate.	SuggestedRemedy Insert missing comma.					
	Response Response Status C ACCEPT.					

C/ 145 SC 145.2.8.	10 <i>P</i> 165	L 19	# i-306	C/ 145	SC 145.2.10		₽166	L 43	# i-308
Stover, David	Analog Devic	ces Inc.		Stover, Da	avid	Ar	alog Devid	ces Inc.	
Comment Type T	Comment Status A		PSE Power	Comment	Туре Т	Comment Stat	us A		PSE MPS
First, State is not prop	VOff in Table 145-16 shall ap er case. Next, this requireme ternative when in the IDLE_F	ent should apply	to the pairset voltage for	from t signat	he PI." Not a true ture PD). Also, th	e statement (for ex	ample, DC little value	C MPS on a single e, as the power re	he power is removed pairset of a dual- moval specifics are
Replace "State" with " Table 145-16 shall app	state". Add the following state bly to the pairset voltage for t or IDLE_SEC state, respect	he Primary or Se		Suggester Remo	dRemedy ove the quoted sta	atement.			
Response	Response Status C	ively.		Response ACCE		Response Stat	us C		
ACCEPT IN PRINCIP ACCEPT IN PRINCIP				C/ 145	SC 145.2.11		P 166	L 47	# [i-309
the PSE is in DISABLI The voltage at the corr Table 145-16, when th	shall be equal or less than V ED, IDLE, TEST_ERROR_B responding pairset shall be e le PSE is in IDLE_PRI, WAIT C, or ERROR_DELAY_SEC	OTH, or ERROR qual or less than [_PRI, ERROR_	_DELAY. V_Off, as defined in	signat TMPE	<i>Type</i> TR E, depending on ture PD or a dual- DO values as defi	Comment Stat the connected Ty -signature PD, sha	pe of PD a all use the 16." PD D0	and whether it is c applicable IHold, C MPS behavior is	PSE MPS onnected to a single- IHold-2P, TMPS and s not a function of PD omma.
This resolution is ident	tical to comment #128.			Suggeste	dRemedy	-		-	
C/ 145 SC 145.2.8 .4 Stover, David	13 P 166 Analog Devid	L 7 ces Inc.	# i-307	config	ce statement with juration, shall use d in Table 145-1	e the applicable IH	ing on the old, IHold-	PD assigned Clas 2P, TMPS, and T	ss and PD signature MPDO values as
Comment Type TR	Comment Status A		PES Power	Response)	Response Stat	us C		
pairset". Only the state	dual-signature PD, PSEs sh e names POWER_ON_PRI a			ACCE	PT.				
dual-signature PDs.				C/ 145	SC 145.3.3.7		P174	L 1	# i-310
uggestedRemedy				Stover, Da	avid	Ar	alog Devid	ces Inc.	
Replace "shall reach t power on state for a pa	he POWER_ON state for a p	airset" with "sha	Il reach the respective	Comment	Type TR	Comment Stat	us D		Pres: Stover
Response ACCEPT IN PRINCIP	Response Status C			exam	ple, if pd_acs_red	ing in "main" PD s q is set TRUE and acs_req will not be	PD is con	sequently reset p	
ACCEPT IN PRINCIP				Suggeste					
after completing detect PSEs shall reach the r	ed to a single-signature PD, s tion on the last pairset. Whe respective power on state for	n connected to a	dual-signature PD,	Proposed REJE	Response CT.	Response Stat	us Z		
detection on the same	pairset."			This c	comment was WI	THDRAWN by the	comment	ter.	
This resolution is iden	tical to comment #130.			This c	comment was with	hdrawn before the	comment	resolution meetin	g.
VDE: TD/toobnical requir	od ER/aditorial required CR	appored require	d Theophoicel Eleditorial Ch	nonorol			Comm	ant 10 : 240	Daga 90 of 12

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-310

Page 80 of 137 10/2/2017 3:31:23 PM

CI 145 SC 145.3.8 P 188 L 20 # i-3 Stover, David Analog Devices Inc. Figure 100 # i-3 Inc. Inc.	311	C/ 145 Stover, Da	SC wid	145		P Analog Devid	L ces Inc.	# i-314
Comment Type E Comment Status A	PD Power	Comment		G	Comme	nt Status A		Editorial
Parameter "Vtran_lo-2P" is defined in Table 145-28, but never referenced in the		Punctu	uation u	-	equation vari		s inconsistent. S	ome definitions end in
SuggestedRemedy		Suggestea	,					
Delete "Vtran_lo-2P" from Symbol column of Item 2.				•	nit periods or	n equation variat	ole definitions, pe	er style guidelines.
Response Response Status C ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE.		Response ACCE	-		•	e Status C		, ,
Replace add. Info by: "See 145.3.8.1." This resolution is identical to comment #156.		C/ 145 Stover, Da		145.3.8.6	6	P 194 Analog Devid	L 30 ces Inc.	# i-315
		Comment	Type	TR	Comme	nt Status A		PD Power
C/ 145 SC 145.3.8.10 P 196 L 7 # i-3	313			submitte	d with the fil	e 94179800003-	i_tr_3.png attach	ned ***
Stover, David Analog Devices Inc.		Math 6		بر فا مرم م ا			no en line en ente lin	ted in this section. Cas
Icon-2p-unb has no maximum; this statement ("Single-signature PDs shall not ex		attach	ment fo	, or simulat	ion showcas			sted in this section. See result, I_TR_LIM,max
2P-unb for longer than TCUT-2P min and 5% duty cycle") does not enforce any o limitation on the PD.	current	Suggestea	Remed	dy				
SuggestedRemedy		Modify	/ I_TR3	,max for	single-signa	ture PDs assigne	ed Class >= 5 fro	om "3" to "3.1"
Change "Icon-2p-unb" to "Icon-2p-unb,min"		Response			Respons	e Status C		
Response Response Status C		ACCE	PT IN F	PRINCIPI	.E.			
ACCEPT IN PRINCIPLE.		Chang	no oonto	nnon from	· Mhon tra	night TP2 in on	aliad the neak o	urrent shall not exceed
					Table 145-		Sileu, ille peak c	
Adopt yseboodt_03_0917_unbalancemargin.pdf with the following changes:		the PD) shall r	neet the	operating po	wer limits after 4	1 ms.	
 Use the Icon-2p-unb numbers from darshan_03_0917_final.pdf for lunbalance Icon-2p-unb 	e-2p and	To: W	/hen tra	ansient TI	R3 is applied	l. the PD shall m	eet the operating	g power limits within 4
Put proposed subclause 145.1.1.3 content in PSE and PD unbalance section as appropriate.	, rename	ms.				,		5 F - · · · · · · · · · · · · · · · · · ·
This resolution is identical to comment #101.		Delete	e table 1	45-30				
						e" in Table 145-2	29 that says "The	e source resistance is
[Editor's note added after comment resolution completed.		the eff	ective 4	4-pair res	istance."			
The full URL for the file FILE_NAME.pdf's are http://www.ieee802.org/3/bt/public/sep17/yseboodt_03_0917_unbalancemargin.p http://www.ieee802.org/3/bt/public/sep17/darshan_03_0917_final.pdf]	odf and							

<i>Cl</i> Patents <i>SC</i> Patents Crayford, Ian	Р 3 Network Gen	L 46 neration L	# i-316		<https: sugges</https: 	IEEE-SA Stan ://standards.ie stions for chan	ee.org/devel	lop/policies/ xt should be	opman/se e directed
Comment Type GR	Comment Status R		II	>	Patent	Committee A	dministrator	at <patcom< th=""><th>@ieee.org</th></patcom<>	@ieee.org
	l with the file 94180000003-	802.3bt - Crayfor	d Ballot Comments.xls		C/ 30	SC 30.12.2	2.1.18a	P 40)
attached ***					Law, David	ł		Hewle	tt Packard
	ent regarding Intellectual Pi				Comment	Туре Е	Comm	ent Status	Α
Entities), otherwise kno	en the subject of multiple liti wn as "Patent Trolls". har Systems and Network 1,	0	, U			e format the 'F/ 2015 subclaus			
	the Ethernet industry who sl				Suggestea	IRemedy			
	s the available power, this w	vill no doubt attra	ct new companies to		See co	omment.			
utilize PoE in many new applications. What assurances have been made by companies who believe they have intellectual					Response		Respor	nse Status	С
	802.3bt (by at least Chrima				ACCE	PT.			
SuggestedRemedy					C/ 30	SC 30.12.2	2.1.18b	P 40)
	warning indicating the use o	of 802,3bt may re	sult in alleged		Law, David	1		Hewle	tt Packard
infringement of Intellect	ual Property,				Comment	Туре Е	Comm	ent Status	Α
Response REJECT.	Response Status W					e format the 'F/ 2015 subclaus			
The process for reques	ting on LOA for the IEEE D	000 2ht project h	as been followed in		Suggestea	IRemedy			
	ting an LOA for the IEEE P8 ers of potentially essential p				See co	omment.			
well as for all other holders of potentially essential patent claims identified during this			Response		Respor	nse Status	С		
project.					ACCE	PT.			
may be required; (b) de Claims; or (c) determin	sible for: (a) identifying Ess termining the validity, esser ng whether any licensing te sion of a Letter of Assuranc	ntiality, or interpre erms or conditions	etation of Patent s provided in						

connection with submission of a Letter of Assurance, if any, or in any licensing agreements are reasonable or non-discriminatory; or (d) determining whether an implementation is a Compliant Implementation. See subclause 6.2 'Policy' of the IEEE-SA Standards Board Bylaws <http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6.2>.

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

https://standards.ieee.org/develop/policies/opman/sect5.html#5.3.10.2>.

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

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

g/develop/policies/ this text should be	opman/sect6. directed to tl		
a P4	0	L 34	# i-317
Hewle	ett Packard En	iter	
Comment Status	Α		Management
Response Status	С		
b <i>P</i> 4	0	L 50	# i-318
Hewle	ett Packard En	iter	
Comment Status	Α		Management
Response Status	_		
	y/develop/policies/ this text should be strator at <patcom a P 44 Hewle Comment Status and 'TRUE' desc 12.2.1.20 aLldpXc Response Status b P 44 Hewle Comment Status and 'TRUE' desc 12.2.1.20 aLldpXc</patcom 	this text should be directed to the strator at <patcom@ieee.org>. a P 40 Hewlett Packard Err <i>Comment Status</i> A and 'TRUE' description as han 12.2.1.20 aLldpXdot3LocReady Response Status C b P 40 Hewlett Packard Err <i>Comment Status</i> A and 'TRUE' description as han 12.2.1.20 aLldpXdot3LocReady</patcom@ieee.org>	g/develop/policies/opman/sect6.html#6.3.1> and this text should be directed to the IEEE-SA Stan strator at <patcom@ieee.org>. a P 40 L 34 Hewlett Packard Enter Comment Status A and 'TRUE' description as hanging paragraphs. 12.2.1.20 aLldpXdot3LocReady for an existing ex Response Status C b P 40 L 50 Hewlett Packard Enter Comment Status A and 'TRUE' description as hanging paragraphs. 12.2.1.20 aLldpXdot3LocReady for an existing ex Response Status C b P 40 L 50 Hewlett Packard Enter Comment Status A and 'TRUE' description as hanging paragraphs. 12.2.1.20 aLldpXdot3LocReady for an existing ex</patcom@ieee.org>

Comment ID i-318

Page 82 of 137 10/2/2017 3:31:23 PM

SC 30.12.2.1.18i P 42 L # [i-319	C/ 30 SC 30.12.2.1.181 P 43 L 6 # i-320
avid Hewlett Packard Enter	Law, David Hewlett Packard Enter
ent Type TR Comment Status A Pres: Yseboodt4	Comment Type TR Comment Status A Management
e aLldpXdot3LocPowerClassxA, aLldpXdot3LocPowerClassxB, dpXdot3RemPowerClassxA and aLldpXdot3RemPowerClassxB attributes don't seem to p to any of the TLV fields defined in subclause 79.3.2 or its subclauses. stedRemedy ggest that: Delete attributes aLldpXdot3LocPowerClassxA (subclause 30.12.2.1.18i , page 42, line , aLldpXdot3LocPowerClassxB (subclause 30.12.2.1.18j, page 42, line 33), dpXdot3RemPowerClassxA (subclause 30.12.3.1.18g, page 51, line 29) and dpXdot3RemPowerClassxB (subclause 30.12.3.1.18h, page 51, line 29) and dpXdot3RemPowerClassxB (subclause 30.12.3.1.18h, page 51, line 41). Remove entries for aLldpXdot3LocPowerClassxA, aLldpXdot3LocPowerClassxB, dpXdot3RemPowerClassxA and aLldpXdot3RemPowerClassxB from Table 30-7 'LLDP babilities' (page 32, line 38). Dese Response Status C CEPT IN PRINCIPLE. ese entries have been mapped to the TLV fields in yseboodt_04_0917_LLDP.pdf which a been adopted. titor's note added after comment resolution completed. e full URL for the file FILE_NAME.pdf is D://www.ieee802.org/3/bt/public/sep17/yseboodt_04_0917_LLDP.pdf]	The behaviour defined for the attributes aLldpXdot3LocPowerTypex 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 [SIZE (4)]' to 'ENUMERATED value list'. <i>SuggestedRemedy</i> 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 single-signature PD type3dualPD Type 3 single-signature PD type2PD Type 3 prese type4PSE Type 4 PSE type3PSE 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 single-signature or dual-signature.;
	[3] The 'BEHAVIOUR DEFINED AS:' text for the attribute aLldpXdot3RemPowerTypex (subclause 30.12.3.1.18j, 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 single-signature or dual-signature.;
	Response Response Status W
	ACCEPT IN PRINCIPLE.

[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 Type 4 PSE type4PSE 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 single-signature PD or a dual-signature PD.;

[3] The 'BEHAVIOUR DEFINED AS.' text for the attribute aLldpXdot3RemPowerTypex (subclause 30.12.3.1.18j, 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 single-signature PD or a dual-signature PD.;

CI 79	SC 1	79.3.2.6	6c.2	P 45	L 45	# i-321
Law, David	l			Hewlett P	ackard Enter	
Comment	Туре	т	Com	ment Status A		Management
of PD	or PSE,	but the	ere isn't a '		ue. In addition, sug	lues that indicate a Type Igest that TLV field
Suggested	Remed	'y				
Sugge	st that:					
				is PD' should llowing locations		d ' the "Power typex"
			2, page 79			
			3, page 79 4, page 80			
Subcia		.3.2.00.4	4, paye ou	, iiile 51.		
[2] The ' the	e text ' "Dual-s	the dual	al-signatur e power Cl	re power Classx lassx Mode A" fie	Mode A field' sh eld' at the follow	nould be changed to read ring locations:
			2, page 79 2, page 79			
					Mode B field' sh eld' at the follow	nould be changed to read ring locations:
			3, page 79 3, page 80			
				is PSE' should ollowing location		ead ' the "Power typex"
			2, page 79 3, page 80			
Response			Respo	onse Status C		
ACCE						

	30.12.2.1.18k	P 42 Hewlett Pack	L3	# i-322	If the local system is a PD, a read-or for a dual-signature PD, the requeste
Law, David			ard Enter		Classification (see 145.3.6). If the loc it has detected a single-signature PD
Comment Type	TR Co	omment Status A		Pres: Yseboodt4	assigned Class for Alternative B (see
managed ob	ject class' or sub TLV fields 'Dual	ded in the subclause 30 oclause 30.12.3 'LLDP I-signature power Class	Remote System	Group managed object	aLldpXdot3RemDualSigPowerClass
SuggestedReme	dy				ATTRIBUTE
Suggest that	::	en en estated in des tit			APPROPRIATE SYNTAX: The same as used for aLldpXdot3Log
(aLldpXdot3l aLldpXdot3L (aLldpXdot3l aLldpXdot3R	LocDualSigPowe .ocDualSigPower RemDualSigPow RemDualSigPowe	es are added in the LL erClassxModeA and rClassxModeB) and rer verClassxModeA and erClassxModeB) mana Classx Mode A' and 'Du	mote ged object class		BEHAVIOUR DEFINED AS: If the remote system is a PD, a read- or if it is a dual-signature PD, its requ Classification (see 145.3.6). If the rer if it has detected a single-signature P assigned Class for Alternative A (see
aLldpXdot3L	ocDualSigPower	rClassxModeA			
ATTRIBUTE					aLldpXdot3RemDualSigPowerClassx
					ATTRIBUTE
	ATE SYNTAX: RATED value list	that has the following	entries:		
singleSignat	ure Single-signa		Sharoo.		APPROPRIATE SYNTAX: The same as used for aLldpXdot3Lo
class5 class4	Class 5 Class 4				
class3	Class 3				BEHAVIOUR DEFINED AS: If the remote system is a PD, a read-
class2	Class 2				or if it is a dual-signature PD, its requ
class1	Class 1				Classification (see 145.3.6). If the ren
BEHAVIOUF	R DEFINED AS:				if it has detected a single-signature P assigned Class for Alternative B (see
				single-signature PD, or	
		requested Class for Mo			
it has detected	ed a single-signa	ature PD, or if it has de e A (see 145.2.7).		ly value that indicates if gnature PD, the	[2] Mappings for two of the new attrib Organizationally Specific TLV/LLDP I references'. Suggest that the followin power pairx' 'aLldpXdot3LocPowerPa
aLldpXdot3L	ocDualSigPower	rClassxModeB			'aLldpXdot3LocPowerClassx'.
·	0				'Dual-signature power Classx Mode A
ATTRIBUTE					'Dual-signature power Classx Mode E
-	ATE SYNTAX:				
The same as	₃ used for aLldp>	Xdot3LocDualSigPowe	rClassxModeA.		[3] Mappings for two of the new attrib Organizationally Specific TLV/LLDP
BEHAVIOUF	R DEFINED AS:				references'. Suggest that the followin

SORT ORDER: Comment ID

d-only value that indicates if it is a single-signature PD, or ested Class for Mode B during Physical Layer e local system is a PSE, a read-only value that indicates if PD, or if it has detected a dual-signature PD, the (see 145.2.7).

assxModeA

3LocDualSigPowerClassxModeA.

ead-only value that indicates if it is a single-signature PD, requested Class for Mode A during Physical Layer e remote system is a PSE, a read-only value that indicates re PD, or if it has detected a dual-signature PD, its (see 145.2.7).

assxModeB

3LocDualSigPowerClassxModeA.

ead-only value that indicates if it is a single-signature PD, requested Class for Mode B during Physical Layer e remote system is a PSE, a read-only value that indicates re PD, or if it has detected a dual-signature PD, its (see 145.2.7).

attributes are added in Table 79-9 'IEEE 802.3 DP Local System Group managed object class cross owing two new entries are inserted between the row 'PSE erPairsx' and the row 'Power classx'

de A' 'aLldpXdot3LocDualSigPowerClassxModeA' de B' 'aLldpXdot3LocDualSigPowerClassxModeB'

attributes are added in Table 79-10 'IEEE 802.3 DP Remote System Group managed object class cross owing two new entries are inserted between the row 'PSE

> Comment ID i-322 Page 85 of 137 10/2/2017 3:31:24 PM

IIDP

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'

ACCEPT.

CI 79	SC 79.3.2.3	P 76	L 21	# i-323
Law, David		Hewlett	Packard 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 Classs" field ...'.

Response

Response Status W

ACCEPT.

C/ 79 SC 79.3.2.1 P75 L 8 # i-324 Law, David Hewlett Packard Enter 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 http://www.ieee802.org/1/files/private/ab-drafts/d12/80211AB-D11-dis.pdf#Page=91. 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

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-324

Page 86 of 137 10/2/2017 3:31:24 PM

<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.

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

ACCE	PT.		Response Status	w		
C/ 145	SC	145.3.3.4	P	70	L 26	# i-325
Abramson,	David		Texa	s Instru	iments Inc	
Comment	Туре	TR	Comment Status	Α		PD SD
					ver" here. There is le the PD state dia	no definition even grams.
Suggested						
PD has valid o	s entere r invalio	ed NOPOV	<pre>/ER. PD may show signature, and mate</pre>	ма		able that indicates the urrent, draw any class
Response ACCEI	PT IN F	PRINCIPLE	Response Status	С		
"nopow was be at leas Values	ver: A v elow Vc t T_Re s:	variable tha off_PD while set.		has be		which indicates VPD vas below V_Reset for
-			NOPOWER" al to comment #13	4.		
-	solutio		NOPOWER" al to comment #13	4. 1 75	L 38	# i-326
This re	esolutio SC	n is identic	NOPOWER" al to comment #13 <i>P ·</i>	75	L 38 Iments Inc	# [i-326
This re <i>C</i> / 145	solutio SC David	n is identic	NOPOWER" al to comment #13 <i>P ·</i>	1 75 s Instru		# [i-326 PD SD
This re Cl 145 Abramson, Comment T The va	SC SC David <i>Type</i>	n is identic 145.3.3.7 TR 'nopower" s	NOPOWER" al to comment #13 <i>P ·</i> Texa <i>Comment Status</i>	I 75 s Instru R to FAL	iments Inc	
This re Cl 145 Abramson, Comment The va transiti	SOlutio SC David Type rriable ' on bac	n is identic 145.3.3.7 TR 'nopower" s k to INRUS	NOPOWER" al to comment #13 <i>P ·</i> Texa <i>Comment Status</i> should be set back	I 75 s Instru R to FAL	iments Inc	PD SD
This re Cl 145 Abramson, Comment The va transiti Suggested	Solutio SC David Type uriable ' on bac	n is identic 145.3.3.7 TR 'nopower" s k to INRUS	NOPOWER" al to comment #13 <i>P ·</i> Texa <i>Comment Status</i> should be set back	I 75 s Instru R to FAL	iments Inc	PD SD
This re Cl 145 Abramson, Comment The va transiti Suggested	SC David Type Iriable ' on bac Remec opowe	n is identic 145.3.3.7 TR 'nopower" s k to INRUS	NOPOWER" al to comment #13 <i>P ·</i> Texa <i>Comment Status</i> should be set back SH from NOPOWE	1 75 s Instru R to FAL R.	iments Inc	PD SD
This re Cl 145 Abramson, Comment The va transiti Suggested Add "n Response REJEC	Solutio SC David Type Iriable ' on bac Remec opowe	n is identic 145.3.3.7 TR 'nopower" s k to INRUS ty r <= FALSE	NOPOWER" al to comment #13 P Texa Comment Status should be set back SH from NOPOWE E" to INRUSH Response Status	r75 s Instru to FAL R. C	iments Inc	PD SD state as the PD can
This re Cl 145 Abramson, Comment The va transiti Suggested Add "n Response REJEC	Solutio SC David Type Iriable ' on bac Remec opowe	n is identic 145.3.3.7 TR 'nopower" s k to INRUS ty r <= FALSE	NOPOWER" al to comment #13 P Texa Comment Status should be set back SH from NOPOWE E" to INRUSH Response Status	r75 s Instru to FAL R. C	Iments Inc	PD SD state as the PD can
This re Cl 145 Abramson, Comment The va transiti Suggested Add "n Response REJEC	Solutio SC David Type Iriable ' on bac Remec opowe	n is identic 145.3.3.7 TR 'nopower" s k to INRUS ty r <= FALSE	NOPOWER" al to comment #13 P Texa Comment Status should be set back SH from NOPOWE E" to INRUSH Response Status	r75 s Instru to FAL R. C	Iments Inc	PD SD state as the PD can

C/ 145 SC 145.3.2	2 <i>P</i> 168	L 43	# i-327	C/ 145	SC 1	45.3.6.2	P 187	L 13	# i-329	
Abramson, David	Texas Instrum	nents Inc		Abramson	, David		Texas lı	nstruments Inc		
Comment Type ER	Comment Status A		Editorial	Comment	Туре	ER	Comment Status	۱.	Editorial	
extra comma in text.							nore power than the p	ower consumed c	luring the time from	
SuggestedRemedy					_	o TAUTO		called Pautoclass	_PD as defined in the	
	sentence "PDs that are sensitive	e to polarity, are	specifically not allowed		us sente					
by this standard."				Suggested	dRemedy	/				
Response	Response Status C			Chang	ge senter	nce to: "T	he PD shall not draw	more than Pautoc	lass_PD at any point"	
ACCEPT.				Response			Response Status	;		
C/ 145 SC 145.3.8	3.1 <i>P</i> 191	L 15	# i-328	ACCE		RINCIPLE				
Abramson, David	Texas Instrum	nents Inc		Also fi		sot ronlac	e sentence with:			
Comment Type ER	Comment Status A		Editorial					class PD at anv i	point until VPD falls below	
	wer" is not in sync with state dia	aram which sh		Vreset_PD max, unless the PD successfully negotiates a higher power level, up to the PD						
new state.	wei is not in sync with state die	agram which she		reque	sted Clas	s, throug	n Data Link Layer clas	sification as defin	ed in 145.5.	
SuggestedRemedy				C/ 145	SC 1	45.3.8.2	P 191	L 27	# i-330	
0	PD has reached POWER_DELA			Abramson	, David		Texas lı	nstruments Inc		
	ay show a valid or invalid detecti any class current, and	ion signature, ai	nd may or may not draw	Comment Type TR Comment Status A F					PD Power	
show MPS."	any class current, and					average	power, PClass_PD or	PClass PD-2P ir	Table 145-28 or	
	in POWER_DELAY or POWER								awn per 145.3.8.4 shall be	
	POWER and may show a valid			calcul	ated over	r a 1 seco	nd sliding window."			
-	rk current, draw any class curren	nt, and show wi	-5.	What/	Who is th	nis a requ	irement on? The PSE	? The guy in the	lab who is measuring it	
Response	Response Status C			during		·		0,	6	
ACCEPT.				Suggested	dRemedy	/				
									ass_PD-2P in Table 145-28	
							145.5.3.3.3, including nd sliding window."	any peak power	drawn per 145.3.8.4 is	
				Response			Response Status	;		
				ACCE	PT IN PF	RINCIPLE				

"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."

Cl 145 Abramson,	SC 145.3.8.8 David	P 195 Texas Instru	L 17 Iments Inc	# i-331	Cl 145 Abramson	SC 145.1.3	P 98 Texas Instru	L 2 ments Inc	# i-334
Comment 1		Comment Status A		Editorial	Comment	Type E	Comment Status A		Editorial
Why is section		ability time in the PD power	section? Why n	ot in the classification			This clause uses "pairset I elow (lines 10 and 15) we us		
Suggested	Remedy				Suggestee	dRemedy			
Move 1	45.3.8.8 to 145.	3.6.1.2. Also move item 19) in Table 145-28	to Table 145-26		to change line 2 to change line 2	to "DC pairset loop resistan	ce" and confirm a	Ill other uses in claus
Response		Response Status C			Response	0	Deenenee Statue		
ACCEF	PT IN PRINCIPL	Ε.			•	PT IN PRINCIPL	Response Status C		
	45.3.8.8 to 145. able 145-28 to T	3.6.1.2 after making all othe able 145-26.	er changes to 14	5.3.8.8. Also move item		-	is the maximum pairset DC	loop resistance,	as defined".
C/ 145 Abramson,	SC 145.3.8.1	D P 196 Texas Instru	L 41 ments Inc	# i-332		to search docum ce is on line 15.	ent and change any usages	s to "pairset DC lo	op resistance". One
Comment 7	Гуре Е	Comment Status A		Editorial	C/ 145	SC 145.2.6.1	P 141	L 44	# i-335
		ter description of the theve	nin equivalent we	e are using (Vsource +	Abramson	, David	Texas Instru	ments Inc	
Rsourc	e). Vin + Rsour	ce makes no sense.			Comment	Type E	Comment Status A		Editorial
Suggested					Symb	ol names should	be included.		
Change	e all occurances	of Vin in section 145.3.8.10	0 (and any related	d annexes) to Vsource	Suggestee	dRemedy			
Response		Response Status C			00	•	n circuit voltage" and ", Isc,"	after "short circui	t current".
ACCEF	PT.				Response		Response Status C		
C/ 145	SC 145.3.9	P 197	L 16	# i-333	ACCE	PT.			
Abramson,		Texas Instru	-						
Comment 1	Type TR	Comment Status A		PD MPS					
"A PD s	shall have TMPS	E_PD measured with a serie							
Senten	ice places requir	ement on measurer rather	than PD, needs t	o be reworded.					
Suggested	Remedy								
•		nall meet the TMPS_PD rec case cable resistance betw	•						
Response		Response Status C							
ACCEF	PT IN PRINCIPL	E.							
		all meet the TMPS_PD rec case cable resistance betw	•						
				d T/technical E/editorial G/g				nent ID i-335	Page 89 of 137

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

10/2/2017 3:31:24 PM

C/ 145 SC 145.4 Maguire, Valerie	.9.2 <i>P</i> 210 The Siemon	L 19 Company	# i- <u>336</u>	C/ 145 Lemahieu,	SC 145.2.8.3 Joris	P 156 ON Semicon	L 8 ductor	# i-337			
	Comment Status A SE-T with category 5e and supp cabling meets the additional red			Comment Type TR Comment Status A PSE Poil Input Voltage drop to 0V is excessive. Drop to 0V during 30us spec seems to be written for (theoretical) diode bridge at PD input							
says, "For defined	erencing back to the 2.5GBASE- uses cases (refer to IEEE Std 80 r ANSI/TIA-568-C.2 recommend	02.3bz(TM)-2016		Have diode reverse recovery and cable inductance effects (peak reverse recovery current) been taken into account here? Active bridges seem very popular in 802.3bt PD solutions to reduce dissipation in the input rectifier stage.							
Response ACCEPT IN PRINC				An immediate short at the input would significantly discharge Cport as it takes time to turn off the mosfet. SuggestedRemedy							
Adopt zimmerman		pleted		Increase minimum voltage level during first 30us and make spec compliant with active bridges at the PD input.							
The full URL for the	[Editor's note added after comment resolution completed. The full URL for the file FILE_NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/zimmerman_3bt_02_0917.pdf]					Response Response Status C ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE.					
					ce sentence with 145.3.8.6 for PD t	ransient requirements."					
				A PD -lastin	shall continue to g longer than 300	ge 194, line 3 as follows: operate without interruption i is and less than 250us at the and causing the voltage at the	e PSE PI as def	ined in 145.2.8.3			

This resolution is identical to comment #248.

C/ 145 SC	145.3.8.6	P 194	L 37	# i-338	C/ 145	SC 145.3.6.	1 <i>P</i> 185	L 7	# i-340	
Lemahieu, Joris		ON Semicone	ductor		Jones, Cha	ad	Cisco Sy	stems, Inc.		
Comment Type	TR (Comment Status A		PD Power	Comment	Туре Е	Comment Status A		Editoria	
POWERED s (pd_current_l	state. limit <= FALSI	es that does not need to E) w seems to indicate the	·	rrent limit in the	line 7) at line I also,	to make one pa 8. see propose gave a second	should be merged with th aragraph. The third paragr d change where I've made option that combines to o ding has occured, this is p	aph would then be t the edit. The paragraph and re	the remainder of the text	
SuggestedRemed			oppoonto.				ange is the arrangement r		of the third paragraph	
	e ITR_LIM requ	uirement [.]			5	oplies to DS PD	S.			
- Delete "the	peak current s	shall not exceed ITR_LIN	/I, as defined in ⁻	Table 145-30, and"	Suggested	Remedy				
- Delete Table	e 145-30					aragraphs:	aball advartice along along	aturaa according to	the DD Turne and DD	
Response		esponse Status C					shall advertise class signa defined in Table 145-24. E			
ACCEPT IN I ACCEPT IN I	-				signat		to the PD Type and PD re			
ITR_LIM, as	defined in Tab	hen transient TR3 is app ble 145-30, and ating power limits after 4		urrent shall not exceed	PD on pairse	that pairset. Du	ass on a pairset is the ma Jal-signature PDs may ad Jure PD that is powered ov a unpowered pairset.	vertise different clas	s signatures on each	
ms. Delete table of Add footnote the effective of	145-30 to "Source Re 4-pair resistar	applied, the PD shall mesistance" in Table 145-2 ace."			Alternate option for rearranging: The PD requested Class on a pairset is the maximum amount of power requested by the PD on that pairset. Single-signature PDs shall advertise class signatures according to the PD Type and PD requested Class, as defined in Table 145-24. Dual-signature PDs shall advertise class signatures according to the PD Type and PD requested Class on each pairset, as defined in Table 145-25. Dual-signature PDs may advertise different class signatures on each pairset. A dual-signature PD that is powered over only one pairset shal present a valid class signature on the unpowered pairset.					
		to comment #313.			Response		Response Status C			
	145.7.3.3	P 250	L 16	# i-339	ACCE	PT IN PRINCIP	LE.			
Lemahieu, Joris <i>Comment Type</i>	E	ON Semicone	ductor	PICS	Before	The PD reque	ested Class on a pairset	", add "For dual-sigr	nature PDs,"	
Error SuggestedRemed	•					he PD requeste	e PDs shall advertise clas d Class on either pairset i			
Change 'Trar Response		olied' to 'Transient TR3 a esponse Status C	applied'.		Result	ing text should	read:			
ACCEPT.	K				reques	sted Class, as d	shall advertise class sign lefined in Table 145-24. Fo t is the maximum amount	or single-signature F	PDs, the PD requested	
							hall advertise class signat ach pairset, as defined in			

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-340 Page 91 of 137 10/2/2017 3:31:24 PM

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	s, 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.

Respons ACC	se EPT.	Response Status (2	
C/ 1	SC 1.4.338	P 24	L 41	# i-344
Jones, C	had	Cisco S	ystems, Inc.	
<i>Commer</i> Chai	51	Comment Status A nition of PSE needs to ir	-	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

Comment ID i-344

Page 92 of 137 10/2/2017 3:31:24 PM

al '

C/ 1	SC 1.4.254	P 24	L 30	# i-345	C/ 145	SC 145.2		P 99	L 1	# i-347		
Jones, Cha	ad	Cisco System	s, Inc.		Jones, Cha	ad		Cisco Syster	ms, Inc.			
Comment	Type ER	Comment Status R		Definitions	Comment	Type TR	Commer	nt Status R		PSE Powe		
sectior chang	n (and the modif e has disappear	ne clause split, we found it ne- icaiton has evolved). With the ed AND I'm not sure it in scop operation or add 10G).	clause split, ou	r rationale for the	Chair notes Confirm that it is not possible that a Type 3, 4 PSE DOES NOT present 5 event class and only uses L1 to get to >30W. I know this is a bad format comment a breaks all my rules. I ran out of time to research. I will withdraw if I can find the answer after the ballot closes.							
Suggestea	Remedy				Suggested	Remedy						
remov	e the editoral ins	structions for 1.4.254			Make	the change to	prevent a Type	e 3 or 4 PSE from	m only using LL[DP to get to >30W		
Response REJE0		Response Status C			Response REJE	CT.	Response	e Status C				
The up Cl 145 Jones, Cha Comment	SC 145.2.1 ad	is used to clarify 4P use case P 99 Cisco System Comment Status A	L 25	o midspans. # [i-346 PSE Power	Page suppo Multip	148, line 28 s rt by means c	of		0 0	ighest Class it can he behavior stated in		
Chair i	51	missing the statement that a l	PSE does not ch		<i>Cl</i> 145 Jones, Ch	SC 145.2 . ad	.5.7	P 125 Cisco Syster	L 1 ms, Inc.	# i-348		
SuggestedRemedy On page 99, line 25, add the sentence: Once a PSE is reached POWER_ON, PSE Type does not change. Response Response Status C ACCEPT IN PRINCIPLE. Add sentence after line 26: "PSE Type is a constant."					There alt_pw 2P mc is no p	notes PSE is the ELSE s rd_sec gets s de, (which m	State Diagram. statement in PC set false. This s y Chair note ind wer for Class 1-	WER_ON, whe eems to allow a licated I needed	re alt_pwrd_pri g Type 3 PSE to p to confirm) but t	with pse_ss_mode=0. gets set true and power up a class 1-4 in then it implies that there ated on how to get to		
						SuggestedRemedy Change figure 145-13 to enable Class 1-4 operation on either 2P or 4P.						
					Proposed REJE	•	Response	e Status Z				
					This c	omment was	WITHDRAWN	by the comment	ter.			

°0 L0	# i-349	C/ 30 SC 30.9.2	P 38	L 19	# <u>i-352</u>
lividual		Thompson, Geoffrey	Individual		
us R quirement that applies to o nal requirements.	<i>Management</i> cl. 145 devices but I find	Comment Type TR Comment is out of the s SuggestedRemedy	Comment Status R scope of the project.		Managemer
		Delete this line in the d	raft		
		Response REJECT.	Response Status C		
ıs C		Voter's concern is actua 802.3.1.	ally controlled by 802.3.1. F	urther, that object	does not appear in
		C/ 30 SC 30.12.2.1 Thompson, Geoffrey	.9 P 38 Individual	L 53	# <u>i-353</u>
35 <i>L</i> 8 lividual	# [i-350	0 7	Comment Status R for "Both"		Managemen
		00 ,	Both" plus apprpriate expansi Response Status C	ion of the "BEHAV	IOUR".
er improvements to the te	əxt.	We cannot change this Type 2 PDs.	field without breaking backv	wards compatibility	with Type 1 and
us C		C/ 30 SC 30.12.2.1 Thompson, Geoffrey	.18 P 40 Individual	L 18	# [i-354
•	# [i-351	Cl 30 SC 30.12.2.1 Thompson, Geoffrey Comment Type TR			# <u>i-354</u> Managemen
Dis C − 35 <i>L</i> 21	# [i-351 Management	Cl 30 SC 30.12.2.1 Thompson, Geoffrey Comment Type TR There is no enumeratio SuggestedRemedy	Individual Comment Status R	"not supported".	
us C 235 L 21 lividual us R		Cl 30 SC 30.12.2.1 Thompson, Geoffrey Comment Type TR There is no enumeratio SuggestedRemedy	Individual Comment Status R on defined for "unknown" or "	"not supported".	
	quirement that applies to onal requirements.) or put in some general sets (and PD?) and you have the sets (and PD?) and you have the sets (and PD?) and you have the sets (and PD?) and Type 2 PS (and Type 1 and Type 2 PS (and Type 2 PS (and Type 1 and Type 2 PS (and Type 2 PS	quirement that applies to cl. 145 devices but I find nal requirements.) or put in some general statement that cl. 145 PSE (and PD?) and you have to read all of cl. 33 to nes. <i>Is</i> C hing of clause 33 that notes that requirements to Type 1 and Type 2 PSEs. Thus, this is not a P35 L 8 # [i-350]	The second state is incorrect as it constitutes a the affected text could be improved but it is notComment is out of the second state Comment is out of the second state SuggestedRemedy Delete this line in the diffected text could be improved but it is notComment is out of the second state SuggestedRemedy Delete this line in the diffected text could be improved but it is notComment is out of the second state SuggestedRemedy Delete this line in the diffected text could be improved but it is notComment is out of the second state SuggestedRemedy Delete this line in the diffected text could be improved but it is notComment is out of the second state SuggestedRemedy Delete this line in the diffected text could be improved but it is notComment is out of the second state SuggestedRemedy Add enumeration for "B Response REJECT.	The properties of the project of th	quirement that applies to cl. 145 devices but I find nal requirements.) or put in some general statement that cl. 145 SE (and PD?) and you have to read all of cl. 33 to ins. is C is C ing of clause 33 that notes that requirements to Type 1 and Type 2 PSEs. Thus, this is not a ing of clause 33 that notes that requirements to Type 1 and Type 2 PSEs. Thus, this is not a ividual us A Management th this clause is incorrect as it constitutes a ti the affected text could be improved but it is not

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/ 30 SC 30.12.2.1 P 40 L # i-355 Thompson, Geoffrey Individual Individual <t< td=""><td>Cl 30 SC 30.12.3.1.18f P 51 L 20 # i-357 Thompson, Geoffrey Individual</td></t<>	Cl 30 SC 30.12.3.1.18f P 51 L 20 # i-357 Thompson, Geoffrey Individual
Comment Type E Comment Status A Management	Comment Type TR Comment Status A Management
I don't understand why each attribute has a "regular" version and a local LLDP version	I have no idea of what a "load configuration" is, much less how it can be dsecribed by a BOOLEAN.
SuggestedRemedy Please explain.	SuggestedRemedy
Response Response Status C	Expand BEHAVIOUR description so what it references is clear and fully explain (repair?) the syntax.
ACCEPT IN PRINCIPLE.	Response Response Status C
Accepting this comment results in no changes to the draft.	ACCEPT IN PRINCIPLE.
Explanation requested:	Change BEHAVIOR DEFINED AS text to:
One is to manage PSEs, one is to manage LLDP DLL.	A GET attribute that returns whether the load of a dual-signature PD is electrically isolated,
C/ 30 SC 30.12.3.1.18e P 51 L 17 # i-356	as defined in 79.3.2.6d.3.
Thompson, Geoffrey Individual	Also, change BEHAVIOR DEFINED AS text in 30.12.2.1.18h to match.
Comment Type TR Comment Status A Management "Value"? What value?	C/ 30 SC 30.12.3.1.18j P 52 L 20 # i-358
	Thompson, Geoffrey Individual
SuggestedRemedy Fully expand the term "value" to "value in units of term, see: 33.n or 145.n."	Comment Type E Comment Status A Management Description insufficiently precise.
Response Response Status C	
ACCEPT IN PRINCIPLE.	SuggestedRemedy Change text to read: "The three most significant bits indicate the number of the Type in
Change the BEHAVIOR DEFINED AS text to:	binary."
A read-only value that identifies the supported PSE Pinout Alternative specified in 145.2.4. For a PSE this attribute contains the value of the aPSEPowerPairsx attribute (see 30.9.1.1.3), for a PD the contents of this attribute are undefined.;	Response Response Status C ACCEPT.

Cl 30 SC 30 Thompson, Geoffre	0.12.3.1.18j ^{2y}	P 52 Individual	L 20	# i-359	<i>Cl</i> 30 Thompson	SC 30.12.3. , Geoffrey	1.18n	P 53 Individual	L 8	# i-362
51	E Comme htly different softwa	ent Status A are module to do ir	nterpretation for	<i>Management</i> PSE vs. PD for no		ion is too terse.	Perhaps th	ent Status A ne syntax should be hould be defined.	e BOOLEAN. In	<i>Management</i> any case, if it is a bit
,	e same for PSE ar	nd PD.			Suggested Expan	2	description	so it is clear and fu	ully explained.	
Response ACCEPT IN PF	,	se Status C			Response ACCE	PT IN PRINCIP	•	se Status C		
	sentences of BEH ange in 30.12.2.1.1		AS text.		attribu			Change behavior o mote PSE system		
C/ 30 SC 30 Thompson, Geoffre	0.12.3.1.18k ^{ey}	P 52 Individual	L 30	# i-360	Cl 30 Thompson	SC 30.12.3. , Geoffrey	1.18q	P 53 Individual	L 38	# i-363
21	E Comme	ent Status A buld probably be B	OOLEAN.	Management	Comment Incorre			ent Status A log and digital para	meter (i.e. meas	<i>Managemen</i> s sure vs. count).
the syntax. Response ACCEPT IN PF Make 30.12.1.1	/IOUR description <i>Respons</i> RINCIPLE. 18k a BOOLEAN.	se Status C Change behavior c	lescription to "A	ully explain (repair?) read-only boolean g of both PD Modes."	Suggested Chang Response ACCE	e text to read:		ibute that indicates se Status W	the number of s	econds the"
CI 30 SC 30 Thompson, Geoffre	0.12.3.1.18m ^y	P 52 Individual	L 50	# i-361						
Definition is too		•	e BOOLEAN. In	<i>Management</i> any case, if it is a bit						
SuggestedRemedy Expand BEHA	/IOUR description	so it is clear and fu	ully explained.							
Response ACCEPT IN PF	•	se Status C								
	18m a BOOLEAN. ting whether the re			read-only boolean ass."						

C/ 145 SC 14 Thompson, Geoffrey			# i-364	C/ 145 Thompson	SC 145.1e , Geoffrey	P 95 Individual	L 32	# i-367
Comment Type	ER Comment Status	A	Pres: Thompson1	Comment	Type ER	Comment Status A		Editoria
a statement is e	ar statement of the top level n essential for someone reading out how to structure his think	the standard for the f	irst time in order for the	PSE a		mentioned in the plural. The "r ic negotiation between PSEs,		
SuggestedRemedy				Suggested	IRemedy			
See proposed to the start of the I	ext in submitted file GOT - Pr list at line 27.	oposed text.txt. Pick	existing text back up at		e text to read: ' ate and allocate	'A method for a PSE and the F	PD to which it is	paired to dynamically
Response	Response Status	с		Response		Response Status C		
ACCEPT IN PR	RINCIPLE.			ACCE	PT IN PRINCIF	PLE.		
adopt Thompso [Editor's note ad	on_01_0917.rtf dded after comment resolutio	n completed.		dynam	ically negotiate	'A method for a PSE and the F and allocate power" to "Methods to classify a PD ba		
	r the file FILE_NAME.rtf is					· · · · · · · · · · · · · · · · · · ·	•	
http://www.ieee	802.org/3/bt/public/sep17/tho	mpson_01_0917.rtf]		C/ 145	SC 145.1	P 95	L 45	# <u>i-368</u>
C/ 145 SC 14	15.1 P 95	L 21	# i-365	Thompson	, Geoffrey	Individual		
Thompson, Geoffrey				Comment	Type E	Comment Status A		Editoria
Comment Type	ER Comment Status	A	Editorial			differentiates between the two and the PD as separate but re		wered portion of the
	e definitions clause for the er	tire standard. If this li	ne is necessary it would	Suggested	IRemedy			
appear in each SuggestedRemedy	clause.					differentiates between the two n, defining the PSE and the PI		
Delete line 21				Response		Response Status C		
Response	Response Status	С		ACCE	PT IN PRINCIF	LE.		
ACCEPT.				Chang	e to read: "This	clause differentiates between	the two ends of	the powered portion of
C/ 145 SC 14	15.1 P 95	L 25	# i-366	the lin	k, i.e. the link s	ection, defining the PSE and th	ne PD as separa	te but related devices."
Thompson, Geoffrey	y Individ	ual						
Comment Type	ER Comment Status	Α	Editorial					
this data" implie T. The TF has	h a single interface to both th se that the power provided is a done no investigation to estal re broader valid uses for PoE	adequate to do data p blish whether such is t	rocessing on 10GBASE- he case or is factual.					
SuggestedRemedy								
,	read: "with a single cabling	interface for both the	data and power."					
Response ACCEPT.	Response Status							
								_
TYPE TR/technical	required ER/editorial require	d GR/apparal require	d T/technical E/editorial G/	nonoral		Comme	ont ID 1-368	Page 07 of 137

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-368

Page 97 of 137 10/2/2017 3:31:24 PM

	C 145.2	P 97 Individual	L 1	# i-369	C/ 145		145.1.3	P 97 Individual	L 49	# i-371
Thompson, Geo	•				Thompso					
Comment Type		Comment Status A			PI Commen		ER	Comment Status A		Editoria
		m. Regarding the first sen the MDI, we specify at the			2			n" of Icable, it is the specific	ation.	
PI. Thus, I	don't think the	re are any statements that	t express PSE s	specs in terms of the	Suggeste	dRemed	dy			
		d not search). If there are			Char	ge the w	vord "defin	ed" to "specified".		
		econd sentence, this is a mpliance to the standard		clause which allows	Respons	Э		Response Status W		
SuggestedRem							PRINCIPL			
00		of a Midspan PSE PI, the	a interface spec	ification point is	ACC	EPT IN F	PRINCIPL	Ε.		
physically s transmissio	separate from th	he MDI and is contained v	within the cablin	g portion of the data	Char	ge as fo	llows:			
Response	ŗ	Response Status C					cified in Ta	ble 145-1, is the current on	one twisted pair	in the balanced twisted-
	N PRINCIPLE.				pair o	able"				
Replace will		of a Midspan PSE, the P			unha	lance"				
and is conta		e cabling portion of the da		·			n is identio	cal to comment #45.		
and is conta	C 145.1.3	P 97	ta transmission	system." # [i-370	This	resolutio				# : 270
and is conta C/ 145 S(Thompson, Geo	C 145.1.3 offrey	P 97 Individual		# <u>i</u> -370	C/ 145	resolutio SC	145.1.3	P 98	L 6	# [i-372
and is conta C/ 145 S(Thompson, Geo Comment Type	C 145.1.3 offrey ER	P 97 Individual Comment Status A	L 21	# [i-370 System	This C/ 145 Thompso	resolutio SC n, Geoff	145.1.3 rey	P 98 Individual	L 6	
and is conta CI 145 SC Thompson, Geo Comment Type We have pr	C 145.1.3 offrey ER roved in TF dis	P 97 Individual Comment Status A cussions that there can be	L 21 e multiple PSEs	# [i-370 System	Cl 145 ms Commen	resolutio SC n, Geoff t Type	145.1.3 rey E	P 98 Individual Comment Status R		definitions
and is contr 7 145 St 7 hompson, Geo Comment Type We have pr only one of	C 145.1.3 offrey ER roved in TF dis them can be a	P 97 Individual Comment Status A	L 21 e multiple PSEs	# [i-370 System	Cl 145 ms Thompso Commen It is a	resolutio SC n, Geoff <i>t Type</i> i fine poi	145.1.3 rey E nt but Ipor	P 98 Individual Comment Status R t is defined on the basis of t	ne cabling, but a	<i>definitions</i> a "port" is a feature of
and is conta Cl 145 St Thompson, Geo Comment Type We have pr only one of SuggestedRem	C 145.1.3 offrey ER roved in TF dis them can be a nedy	P 97 Individual Comment Status A cussions that there can b ctive for there not to be a	L 21 e multiple PSEs fault.	# <u>i-370</u> <i>Syster</i> in a valid system but	Cl 145 ms Thompso Commen It is a equip	resolutio SC n, Geoff <i>t Type</i> i fine poi oment, no	145.1.3 rey E nt but Ipor ot cabling.	P 98 Individual Comment Status R	ne cabling, but a	<i>definitions</i> a "port" is a feature of
and is conta Cl 145 St Thompson, Geo Comment Type We have pr only one of SuggestedRem Change wo	C 145.1.3 offrey ER roved in TF dis them can be a <i>nedy</i> ording to read:	P 97 Individual Comment Status A cussions that there can b ctive for there not to be a A valid power system cor	L 21 e multiple PSEs fault. sists only of a s	# [<u>i-370</u> System in a valid system but ingle active PSE, a	Cl 145 ms Thompso Commen It is a equip	resolutio SC n, Geoff <i>t Type</i> fine poi ment, no ced by a	145.1.3 rey E nt but Ipor ot cabling. PSE or su	P 98 Individual Comment Status R t is defined on the basis of t Therefore the definition sho	ne cabling, but a	<i>definitions</i> a "port" is a feature of
and is conta 7 145 St 7 hompson, Geo Comment Type We have pr only one of SuggestedRem Change wo single PD, a power syste	C 145.1.3 offrey e ER roved in TF dis- them can be a <i>bedy</i> ording to read: and the link sec em consists on	P 97 Individual Comment Status A cussions that there can b ctive for there not to be a	L 21 e multiple PSEs fault. sists only of a s needed, we cou	# [i-370 Syster in a valid system but single active PSE, a uld say: "A valid active	This CI 145 Thompso Commen It is a equip source Suggeste	resolutio SC n, Geoff t Type fine poi oment, no ced by a cdRemed	145.1.3 rey E nt but Ipor ot cabling. PSE or su	P 98 Individual Comment Status R t is defined on the basis of t Therefore the definition sho ink by a PD."	ne cabling, but a	<i>definitions</i> a "port" is a feature of
and is conta Cl 145 St Thompson, Geo Comment Type We have pr only one of SuggestedRem Change wo single PD, a power syste connecting	C 145.1.3 offrey e ER roved in TF dis them can be a hedy ording to read: and the link sec em consists on them."	P 97 Individual Comment Status A cussions that there can be ctive for there not to be a A valid power system con ction connecting them. If ly of a single active PSE,	L 21 e multiple PSEs fault. sists only of a s needed, we cou	# [i-370 Syster in a valid system but single active PSE, a uld say: "A valid active	This Cl 145 Thompso Commen It is a equip source Suggeste Char	resolutio SC n, Geoff t Type fine poi ment, no ed by a dRemed ge text p	145.1.3 rey E nt but Ipor ot cabling. PSE or su	P 98 Individual Comment Status R t is defined on the basis of t Therefore the definition sho ink by a PD."	ne cabling, but a	<i>definitions</i> a "port" is a feature of
and is conta Cl 145 St Thompson, Geo Comment Type We have pr only one of SuggestedRem Change wo single PD, a power syste connecting Response	C 145.1.3 offrey e ER roved in TF disc them can be a bedy ording to read: and the link sec em consists on them."	P 97 Individual Comment Status A cussions that there can be ctive for there not to be a A valid power system con ction connecting them. If	L 21 e multiple PSEs fault. sists only of a s needed, we cou	# [i-370 Syster in a valid system but single active PSE, a uld say: "A valid active	This Cl 145 Thompso Commen It is a equip source Suggeste Char Respons	resolutio SC n, Geoff t Type fine poi ment, no red by a dRemed ge text p	145.1.3 rey E nt but Ipor ot cabling. PSE or su	P 98 Individual Comment Status R t is defined on the basis of t Therefore the definition sho ink by a PD."	ne cabling, but a	<i>definitions</i> a "port" is a feature of
and is conta 21 145 St Comment Type We have pr only one of SuggestedRem Change wo single PD, a power syste connecting Response	C 145.1.3 offrey e ER roved in TF dis them can be a hedy ording to read: and the link sec em consists on them."	P 97 Individual Comment Status A cussions that there can be ctive for there not to be a A valid power system con ction connecting them. If ly of a single active PSE,	L 21 e multiple PSEs fault. sists only of a s needed, we cou	# [i-370 Syster in a valid system but single active PSE, a uld say: "A valid active	This Cl 145 Thompso Commen It is a equip source Suggeste Char Respons REJE	resolutio SC n, Geoff t Type fine poi ment, no ed by a dRemed ge text p e ECT.	145.1.3 rey E nt but Ipor ot cabling. PSE or su ber comme	P 98 Individual Comment Status R t is defined on the basis of t Therefore the definition sho ink by a PD."	ne cabling, but a buld be "Iport is	<i>definitions</i> a "port" is a feature of the total current

C/ 145 SC 145.2.8.								
		L 37	# i-373	C/ 145 SC 14		P 212	L 0	# i-375
Thompson, Geoffrey	Individual			Thompson, Geoffre	У	Individual		
Comment Type E	Comment Status R		PSE Power	Comment Type	TR Co	omment Status R		Pres: Ysebood
equipment, not cablin sourced by a PSE or SuggestedRemedy				knew of) had in include it in cl.	nplemented M 145, there is a ria - Compatil	IDIO in cl. 33 devices a a clear requirement in th	nd, therefore, the project paper	
Change text per comr	nent.			SuggestedRemedy				
Response	Response Status C			Define a paralle	el and optiona	l equivalent to cl. 33.5 i	n cl. 145.	
REJECT.				Response	Re	sponse Status C		
	is correct and points out that t rtant information to be included			REJECT.				
cabling.		,		A specific and o	complete rem	edy is needed.		
C/ 145 SC 145.5 Thompson, Geoffrey	P 212 Individual	L 0	# i-374	This does not b either the PI or	reak interope the MDI. It is	rability in any way, sinc an interface between a	e the 33.5 inter MAC and a PH	face is not related to IY.
Comment Type TR	Comment Status R		Management	C/ 145 SC 14	45.5	P 212	L 0	# i-376
	cl. 145 to cl. 33.5. Although th			Thompson, Geoffre	У	Individual		
knew of) had impleme	ented MDIO in cl. 33 devices ar here is a clear requirement in th	nd, therefore, the	ey didn't want to	Comment Type	TR Co	omment Status R		Manageme
Scope: "The scope of	this project is to augment the over and associated power ma	capabilities of the	e IEEE Std 802.3	knew of) had in	nplemented M	IDIO in cl. 33 devices a	nd, therefore, th	
SuggestedRemedy				Objectives: - 4F	PPOF PSFs w	a clear requirement in th vill be backwards compa	tible with IFFF	rwork to do so. See 802 3-2012 PDs
Define a parallel and	optional equivalent to cl. 33.5 in	n cl. 145.		- Update manag				002.0 2012 1 20.
				SuggestedRemedy				
·	Response Status C						n al 145	
·	Response Status C			Define a paralle	el and optiona	l equivalent to cl. 33.5 i	n ci. 145.	
Response				Define a paralle Response	•	sponse Status C	n ci. 145.	
Response REJECT. A specific remedy is r				•	•		n ci. 145.	

C/ 145 SC 145.5	P 212	L 25	# i-377		145.1.3.1	P 98	L 28	# i-379		
hompson, Geoffrey	Individual			Thompson, Geoffi	еу	Individual				
Comment Type TR	Comment Status R		Pres: Yseboodt5	Comment Type	ER C	omment Status A		Pres: Yseboodt		
The entire text for "Manag or by reference to cl. 33.5		nts" is missing, e	either as complete text	The placement of the cabling specifications in 145.1.3 System Parameters is wrong. Cabling is not a "system parameter". Placement there is organizationally confusing. Cabling is a full element of the the specified 3 element system. The cabling should have its own sub-clause at a peer level with 145.2 PSE and 145.3 PD.						
SuggestedRemedy Add text to specify how to	control and/or road the m	anagamant funa	tions to the draft							
		anagement func		SuggestedRemed	ly					
Response / REJECT.	Response Status C					ther it be by reference o 145.4 which would bum				
A specific and complete re	emedy is needed.			Response ACCEPT IN F		esponse Status C				
This does not break interce either the PI or the MDI. It	perability in any way, since is an interface between a	e the 33.5 interfa MAC and a PH	ace is not related to Y.		-	ntroduction.pdf				
C/ 145 SC 145.1.3.1	P 98	L 28	# i-378	[Editor's note	added after co	omment resolution comp	leted.			
hompson, Geoffrey	Individual			The full URL for the file FILE_NAME.pdf is						
·····	Comment Status A		Editorial	http://www.ieee802.org/3/bt/public/sep17/yseboodt_09_0917_introduction.pdf]						
There is no reason for 14 requirements to be separa there is no reason to have	ate peer clauses. There is			Cl 145 SC Thompson, Geoffi	145.4.1 [.] ev	P 199 Individual	L 10	# i-380		
SuggestedRemedy				Comment Type	•	omment Status D		AE		
Consolidate the text of the any new form of the speci		ngle clause or co	onsolidate the text into	This clause co	onfuses syster	n requirements and elen es to element requireme		ts. Only system		
Response	Response Status C			there should b	e element spe	ecifications in 145.2, 145	.3 and link segm	ent so that when each		
ACCEPT IN PRINCIPLE.						oped and sold it supports nts could be stated as ge				
Consolidate 145.1.3.1 and	ACCEPT IN PRINCIPLE. Consolidate 145.1.3.1 and 145.1.3.2 into a single clause.					, PD, link section) so that				
				SuggestedRemed See comment						
				Proposed Respon REJECT.	se Re	esponse Status Z				
				NEGLOI.						
						RAWN by the commente				

C/ 145 SC 145.4.2	P 200	L 29	# i-381		C/ 145	SC 145.4.3	P 201	L 19	# i-383
Thompson, Geoffrey	Individual				Thompson	, Geoffrey	Individu	al	
Comment Type ER	Comment Status D			AES	Comment		Comment Status		AES
This text is PSE specif	cation text, not system requir	ements.					PD spec? Which PI is		is a controlling spec (it this is not met where do
SuggestedRemedy						to fix it?			
	SE specification clause, 145.2				Suggested	Remedy			
Proposed Response REJECT.	Response Status Z				elemer	nt spec then mo		at it is related to. If it	sure it. If it is an is a system check spec at will remedy any failure.
This comment was WI	THDRAWN by the commente	r.			Response		Response Status	•	
C/ 145 SC 145.4.2	P 200	L 29	# i-382		ACCEI	PT IN PRINCIPI	.Е.		
Thompson, Geoffrey	Individual			. = 0			age 199, line 3 from: "	This clause defines a	dditional electrical
Comment Type TR	Comment Status R specifications should be specifications	vified here		AES	to:	cations for Doth	the PSE and PD."		
SuggestedRemedy	specifications should be spec	ineu nere.				lause defines a ndividually.	dditional electrical speci	fications for the PSE	and PD that apply to
	xt to read: "Each conductor r	air of the link se	ection or a PI of a	PoE		,			
0 1 0	fault tolerance requirements of				C/ 145	SC 145.4.4	P 202		# i-384
Response	Response Status U				Thompson		Individu		
REJECT.					Comment		Comment Status		AES
We specify everything	at the PI, we can't put require	ments on condu	uctor pairs of the I	ink			pecification thus should		pec.
section.					Suggested Move t	his requirement	to cl. 145.2.		
					Proposed I	•	Response Status Z		
					REJEC	•			
					This co	omment was WI	THDRAWN by the com	menter.	
					Cl 145 Thompson	SC 145.4.5 , Geoffrey	P 204 Individu	L 44 al	# [i-385
					Comment This is		Comment Status [pecification thus should		pec.
					Suggested Move t	<i>Remedy</i> his requirement	to cl. 145.2.		
					Proposed I REJEC	,	Response Status Z		
					This co	omment was WI	THDRAWN by the com	menter.	

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

10/2/2017 3:31:24 PM

C/ 145 SC 145.4.6 Thompson, Geoffrey	P 205 Individual	L 31	# i-386		<i>Cl</i> 145 Thompson	SC 145.4.8 , Geoffrey	P 206 Individual	L 11	# i-388
	Comment Status D specification thus should be pa	art of the PSE sp	ec.	AES	<i>Comment</i> This cl mid-sp	lause is a PSE s	Comment Status D pec that belongs in a furthe	er subsection of the	AES PSE sub-clause for
SuggestedRemedy Move this requirement	t to cl 145.2				Suggestea	Remedy			
Proposed Response	Response Status Z				Move	to appropriate ne	ew midspan sub-clause with	nin 145.2	
REJECT.					Proposed	Response	Response Status Z		
					REJEC	CT.			
This comment was W	ITHDRAWN by the commente	er.			This co	omment was WI	THDRAWN by the comme	nter.	
V 145 SC 145.4.7	P 205	L 51	# i-387		C/ 145	SC 145.4.9	P 206	L 22	# i-389
hompson, Geoffrey	Individual				Thompson		Individual	L ZZ	# -369
omment Type TR	Comment Status A			AES	Comment		Comment Status D		AES
have a more complete Expressing it in terms	his is a spec for the cabling or e requirement and be moved to of the "PHY" and the "MDI" ca	o the PSE or link auses further cor	segment clause.	•	This cl	lause is properly	a set of specifications for t 2 in its own sub-clause dire		
•	hat to be done for a midspan s	system.			Suggestea	lRemedy			
IggestedRemedy					Move	to appropriate ne	ew midspan sub-clause with	nin 145.2	
Clarify and place as a					Proposed	Response	Response Status Z		
	Response Status C				REJE	CT.			
ACCEPT IN PRINCIP	LE.				This co	omment was WI	THDRAWN by the comme	nter.	
_	ACE THE FIRST SENTENCE		nantad DaE aveta	~	C/ 145	SC 145.4.9	P 206	L 22	# i-390
	dditional electrical specification PD and related PHYs) and the				Thompson		Individual		# [-390
system.					Comment		Comment Status R		AES
Additionally, there sho	ould be a forward pointer to 14	5.4 at the end of	145.2:				clause is superficial, unne	cessarv and/or red	
"Additional electrical s	pecifications that apply to the	PSE are in 145.	4."		Suggested			,	
	ould be a forward pointer to 14 precifications that apply to the				••	up the text and i	remove any text that is not	an additional requi	rement specific to
					Response		Response Status U		
					REJE	CT.			
					No cor	nsensus for char	nge.		
(PE: TR/technical require	ed ER/editorial required GR/	deneral required	T/technical E/e	ditorial G/	neneral		Com	ment ID i-390	Page 102 of 13

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 Thompson, (SC 145.4.9 Geoffrey	P 206 Individual	L 22	# i-391		Cl 145 Thompson	SC 145.2.	8.5.1	P 161 Individual	L 2	# i-393
Comment Ty	•	Comment Status R			AES	Comment		Com	ment Status A		Pres: Yseboodt2
can have	e on the accep	spects of the spec to two sim tance test for a permanent lin a cord that meets standards	k and effect a r			resista	nce imbalanc	e in a PoE	ery valuable in under system, however it c no control of the lin	loesn't help with	the problem of
SuggestedR	Remedy					Suggested	Remedy				
Prune th control.	ne text so that t	he cabling acceptance tests (to be called out	by reference) are	the		I material tha rmative anne		valuable for further w	vork on the topic	. It should be moved to
Response		Response Status U				Response		Respo	onse Status W		
REJECT	Г.					ACCEI	PT IN PRINC	IPLE.			
No cons	ensus for chan	ige.				Adopt	yseboodt_02	_0917_Figu	re_145_22.pdf		
C/ 145	SC 145.2.8.5	.1 <i>P</i> 158	L 47	# <u>i-392</u>		This re	solution is ide	entical to co	mment #110.		
Thompson, (Geoffrey	Individual				[Editor	a noto addod	oftor comp	nent resolution comp	lotod	
Comment Ty	vpe ER	Comment Status A		Pres: Yseb	boodt2	[Luitoi	S Hole added	aller comm	Tent resolution comp	neteu.	
combine		empt to control the system imits of the three elements, one of					I URL for the ww.ieee802.	_	AME.pdf is blic/sep17/yseboodt_	_02_0917_Figure	e_145_22.pdf]
	all valuable tuto	rial material that would be val suitable editing) to an information		r work on the topic	so it						
Response ACCEP ⁻	T IN PRINCIPL	Response Status W E.									
Adopt ys	seboodt_02_09	17_Figure_145_22.pdf									
This res	olution is identi	cal to comment #110.									
[Editor's	note added af	ter comment resolution comp	eted.								
		FILE_NAME.pdf is /3/bt/public/sep17/yseboodt_v	02_0917_Figure	e_145_22.pdf]							

C/ 145 SC 145.1.3 P 97 L 38 # Diminico, Christopher Diminico, Christopher<	B94 Cl 79 SC 79.3.2 P 81 L 33 # i-395 Darshan, Yair
Comment Type TR Comment Status A	res: Diminico Comment Type T Comment Status A Pres: Yseboodt
For a constant power load and a worse case PSE the current per pair (ICable dependent on the loop resistance (equation 145-2). The current per pair/conceparameter used to limit the number of 4-pair cables in a cable bundle. The 80 highest current per pair (ICable, A) derived by assuming the worse case DC I restistance (RCh), associated with 100 meters of cabling, is being used to limit of 4-pair cables in a bundle for all cabling lengths (DCR). Assuming the worse (length) for all cabling topologies leads to overly pessimistic limits on the num cables in a cable bundle. SuggestedRemedy Develop informative Annex to characterize the current as a function of DCR (constant power loads and worse case PSEs (equation 145-2). Presention of panex to be provided. Response Response Status C ACCEPT IN PRINCIPLE.	a) is The 4PID bit need to move to legacy TLV field in order to support legacy PDs. tor is a This will resolve also comment #130 from D2.4. Bbt nominal SuggestedRemedy n In Table 79-6d PD 4PID bit: Move this bit to Table 79-4 to bit 3:2 instead of the reserve bits. Make the PD 4PID bit as the reserved bits. r of 4-pair Response Response Status C ACCEPT IN PRINCIPLE. Adopt yseboodt_04_0917_LLDP.pdf (v153)
adopt diminico_01_0917_final.pdf	http://www.ieee802.org/3/bt/public/sep17/yseboodt_04_0917_LLDP.pdf]
[Editor's note added after comment resolution completed.	C/ 145 SC 145.2.5.7 P 125 L 29 # i-396
The full URL for the file FILE_NAME.pdf is	Darshan, Yair
http://www.ieee802.org/3/bt/public/sep17/diminico_01_0917_final.pdf]	Comment Type T Comment Status D PSE S
	In the exit from CXN_CHK_EVAL to START_DETECT the conditions are: (sig_type = single) *(((CC_DET_SEQ = 0) +(CC_DET_SEQ = 3)) *!tcc2det_timer_done + (CC_DET_SEQ = 1) *(sig_pri = valid) * !tdet2det_timer_done). How it can be that sig_pri=valid in the part (CC_DET_SEQ = 1) *(sig_pri = valid) * !tdet2det_timer_done) while at this point of time, no detection was conducted? It should be !(sig_pri=valid).
	SuggestedRemedy
	Change "(sig_pri=valid)" to " !(sig_pri=valid)".
	Proposed Response Response Status Z REJECT.
	This comment was WITHDRAWN by the commenter.
	,

C/ 145 SC 145.2.5.7 P 127 L 33 # [i-397]	C/ 145 SC 145.2.5.7 P 129 L 42 # i-399 Darshan, Yair
Darshan, Yair Comment Type T Comment Status D Repeats The text allows the PSE to do detection and if there is any implementation specific system error, to go to IDLE. This is not covered by the state machine. As a result in the exit from DETECT_EVAL to IDLE , we need to add "+error_condition". Repeats SuggestedRemedy Change from: "(det_temp = only_one) * (sig_pri ? valid) + (det_temp = both_neither) * (sig_sec ? valid) + (((CC_DET_SEQ = 0) + (CC_DET_SEQ = 3)) * (det_temp = only_one) * tdet2det_timer_done)) + (pse_alternative = a) * (sig_pri ? valid) + (pse_alternative = b) * (sig_pri = open_circut)" To: "error_condition + (pse_alternative = both) * ((det_temp = only_one) * (cc_DET_SEQ = 0) + (CC_DET_SEQ = 3)) * (det_temp = both_neither) * (sig_sec ? valid) + (((CC_DET_SEQ = 0) + (CC_DET_SEQ = 3)) * (det_temp = only_one) * (tdet2det_timer_done)) + (pse_alternative = a) * (sig_pri ? valid)	Darshan, Yair Comment Type T Comment Status D Repeats I could not find in the text allowance for the PSE to do detection and classification and if there is any implementation specific system error, to go to IDLE. I couldn't find how currently it is covered by the state machine. As a result in the state CLASS_EVAL I propose to add exit to IDLE with the condition erorr_condition. SuggestedRemedy Add exit from the state CLASS_EVAL to IDLE with the condition erorr_condition. Proposed Response Response Status Z REJECT. This comment was WITHDRAWN by the commenter. This comment was withdrawn before the comment resolution meeting.
<pre>valid) + (pse_alternative = b) * (sig_pri = open_circuit)" 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 P 128 L 6 # i-398 Darshan, Yair Comment Type T Comment Status A PSE SD In CLASSIFICATION state, the assignment pse_allocated_power = 0 is not possible per</pre>	Cl 145 SC 145.2.5.7 P 131 L 6 # [i-400] Darshan, Yair Comment Type T Comment Status R PSE SE In the exit from SEMI_PWRON_PRI to POWER_DENIDED need to be !power_available_pri and not !power_available PSE SE SuggestedRemedy Change from "!power_available" to " "!power_available_pri" Response Response Status C REJECT. Power_available_pri is only used in the SISMs, not in the top-level SD. PSE SE
the pse_allocated_power variable definition that starts from 1 and not from 0. SuggestedRemedy Change from: pse_allocated_power<= = 0 To: pse_allocated_power<= = 1 Response Response Response Status C ACCEPT IN PRINCIPLE. Add value 0 to the variable description of pse allocated power, with text "No power is assigned to the PD".	Cl 145 SC 145.2.5.7 P 131 L 7 # i-401 Darshan, Yair Comment Type T Comment Status R PSE SE In the exit from SEMI_PWRON_PRI to IDLE need to be power_available_pri and not power_available SuggestedRemedy Change from "power_available" to " "power_available_pri" Response Response Status C REJECT. Response Response

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

Page 105 of 137 10/2/2017 3:31:24 PM

C/ 145 SC 145.2.5.7 P 131 Darshan, Yair	L 21	# i-402	Cl 145 Darshan, Y	SC 145.2.5.7 ′air	P 131	L 39	# i-404	
Comment Type T Comment Status R In the exit from SEMI_PWRON_SEC to POWER_ !power_available_sec and not !power_available SuggestedRemedy Change from "!power_available" to " "!power_avail Response Response Status C REJECT. Power_available_sec is only used in the SISMs, no	Comment Type T Comment Status D Pres: Yseboot In the Exit from IDLE_ACS to WAIT_ACS we have the following conditions: pd_autoclass * !tpon_timer_done *tinrush_timer_pri_done * pwr_app_pri *(!alt_pwrd_sec (tinrush_timer_sec_done * pwr_app_sec)) It looks that we have two issues here: 1) redundancy in the term " tinrush_timer_pri_done * pwr_app_pri. If pwr_app_pri is true, if means that tinrush_timer_pri_done is TRUE as well. 2) the term (!alt_pwrd_sec + (tinrush_timer_sec_done * pwr_app_sec)) is always TRUE. - alt_pwrd_sec in false meaning that "The PSE is not to apply power to the Primary Alternative." - tinrush_timer_sec_done *pwr_app_pri indicates that we POWER up secondary pair and							
C/ 145 SC 145.2.5.7 <i>P</i> 131 Darshan, Yair	L 25	# i-403	inrush is done in the secondary. So, we have a condition that if we power up/or not power up.					
Comment Type T Comment Status R In the exit from SEMI_PWRON_SEC to IDLE need power_available SuggestedRemedy Change from "power_available" to " "power_availa Response Response Status C REJECT. Power_available_sec is only used in the SISMs, ne	It's like doing (X or not X) that is always true, which requires to remove this term completely In order to find what we really need here, let's expand the whole original term. It is equivalent to the following two parts: a) pd_autoclass * !tpon_timer_done *tinrush_timer_pri_done * pwr_app_pri*!alt_pwrd_sec + b) pd_autoclass * !tpon_timer_done *tinrush_timer_pri_done * pwr_app_pri *tinrush_timer_sec_done * pwr_app_sec I believe that our intent is to allow Autoclass for Type 3 and 4 PSEs supporting single- signature PDs over 4-pairs or Type 3 PSE supporting SS-PD over 2-pairs. There are few issues: In part (a), redundancy in the term " tinrush_timer_pri_done * pwr_app_pri ". If pwr_app_pri is true, it means that tinrush_timer_pri_done is TRUE as well. As a result, it is sufficient to reduce this term from 'tinrush_timer_pri_done * pwr_app_pri " to "pwr_app_pri", resulting with term (a): "pd_autoclass * !tpon_timer_done * pwr_app_pri*!alt_pwrd_sec" In part (b), the same concept as in part (a) applies to tinrush_timer_sec_done is TRUE as well. As a result, we can reduce term (b) to: "pd_autoclass * !tpon_timer_done * pwr_app_pri * pwr_app_sec" The net result is: pd_autoclass * !tpon_timer_done * pwr_app_pri * pwr_app_sec" The net result is: pd_autoclass * !tpon_timer_done * pwr_app_pri * pwr_app_sec" The net result is: pd_autoclass * !tpon_timer_done * pwr_app_pri * pwr_app_sec = pd_autoclass * !tpon_timer_done * pwr_app_pri*!alt_pwrd_sec + pd_autoclass * !tpon_timer_done * pwr_app_pri*!alt_pwrd_sec + pwr_app_sec)							
				SuggestedRemedy Change from: "pd_autoclass * !tpon_timer_done *tinrush_timer_pri_done * pwr_app_pri *(!alt_pwrd_sec (tinrush_timer_sec_done * pwr_app_sec))" To: "pd_autoclass * !tpon_timer_done * pwr_app_pri*(!alt_pwrd_sec + pwr_app_sec)"				

Comment ID i-404

Page 106 of 137 10/2/2017 3:31:24 PM

Proposed Response Response Status Z REJECT.	C/ 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 Repeats					
CI 145 SC 145.2.5.7 P 132 L 4 # i-405 Darshan, Yair Comment Type T Comment Status D Repeats Missing error_condition_pri at the input to the state IDLE_PRI at the condition iclass lim det pri. State of the state IDLE_PRI at the condition State of the state IDLE_PRI at the condition	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 in page 137. It is suggested to replicate CLASSIFICATION pre-state and CLASS_PROBE from page Figure 145-13 page 128 in primary and secondary state machines with the relevant modifications. SuggestedRemedy Adopt darshan_04_0917.pdf Proposed Response Response Status Z REJECT. This comment was WITHDRAWN by the commenter. This comment was withdrawn before the comment resolution meeting.					
SuggestedRemedy 1. Change from: "iclass_lim_det_pri" to "iclass_lim_det_pri + error_condition_pri" 2. Add new variable to 145.2.5.4: "error_condition_pri A variable indicating the status of implementation-specific fault conditions or optionally 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. Values: FALSE: No fault indication. TRUE: A fault indication exists.						
Proposed Response Response Status Z REJECT. This comment was WITHDRAWN by the commenter.						
This comment was withdrawn before the comment resolution meeting.						

C/ 145 Darshan, Ya	SC 145.2.5.7 air	P 135	L 6	# i-407	C/ 145 Darshan, Y	SC 145.2.5. ′air	7 P	135	L 10	# i-408	
Darshan, Yair Comment Type T Comment Status D PSE SD State machine, CLASS_EVAL_PRI: The intent of the following procedure: IF (pd_cls_4PID_pri * (sig_sec = valid) * (sig_pri = valid) + pwr_app_sec) THEN pd_4pair_cand<== TRUE					Darshan, Yair Comment Type T Comment Status A PSE Status 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 Two options for remedy:						
 pd_4pair_cand is TRUE if both pairs have valid signature and secondary pair is powered and at the same time sig_pri is valid. 				 a) Add "*" afterted_timer_done and explain why we need ted_timer_done OR b) Delete ted_timer_done 							
pd_4pa pd_cls_ pwr_ap	<pre>if we are doing the complete math we get: pd_4pair_cand <== TRUE if: pd_cls_4PID_pri * (sig_sec = valid) * (sig_pri = valid) +(sig_sec = valid) * (sig_pri = valid) * pwr_app_sec Reviewing the state CLASS_EVAL_PRI shows that: (a) If we are in CLASS_EVAL_PRI state, it means that pri_sig=valid. (b) If pwr_app_sec is true, it means that sec_sig=valid but it doesn't mean that sig_pri=valid at the same time that pwr_app_sec is true. Which means that: (c) pwr_app_sec need to be multiplied by (sig_pri = valid) (d) pd_cls_4PID_pri need to be multiplied only with sig_sec = valid</pre>				Response Response Status C ACCEPT IN PRINCIPLE. Replace by: "ted_timer_pri_done * ted_timer_done * (pd_req_pwr_pri <=						
(a) If we (b) If pv sig_pri= Which i					pse_avail_pwr_pri) * (pd_4pair_cand + !alt_pwrd_sec)" This resolution is identical to comment #69. C/ 145 SC 145.2.5.7 P 135 L 10 # [i-409						
					Darshan, Y Comment		Comment Status	R		PSE SD	
IF(pd_ THEN ជ END "						In the exit from CLASS_EVAL_PRI to POWER_DENIDE_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)". 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 Change from: "(pd_cls_4PID_pri * (sig_sec = valid) * (sig_pri = valid) + pwr_app_sec)"				Suggested	Remedy						
To: (pd_cls_4PID_pri * (sig_sec = valid) + pwr_app_sec* (sig_pri = valid)) Proposed Response Response Status Z					Two options for remedy: a)explain why we need ted_timer_done OR b) Delete ted timer done						
REJEC	T.				Response		Response Status	С			
This co	mment was WIT	HDRAWN by the comment	ter.		REJE	CT.					
This comment was withdrawn before the comment resolution meeting.					We need to the ted_timer because we can't allow a PSE to remove power from a SS PD and then power it as a DS PD (due to a cable fault or some other reason) without waiting for ted_timer to be done.						

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<i>Cl</i> 145 SC 145.2.5. Darshan, Yair	7 P 135	L 37	# i-410	C/ 145 Darshan, Y	SC 145.2.5.7 air	<i>P</i> 136	L 21	# <u>i-412</u>
Comment Type T In the exit from ERRC "ted_timer_pri_done + A) The variable optio B) in addition I believe Ted time interval or yo you don't do detection SuggestedRemedy Change from: " "ted_ To: "ted_timer_pri_do Response ACCEPT IN PRINCIP Remove extra space in Add variables option_	timer_pri_done + option_detec one " <i>Response Status</i> C	om the variable I have the option re going to IDLE ct_ted_pri"" e 113, line 30. tect_ ted_sec to	ist. to do detection during _PRI and in IDLE_PRI variable list. Use	Comment T In the e sism * (CC_D class_4 way ho relevar CLASS Suggested Two op 1. char class_4 To: "sis 2. Use primary primary	Type T exit from ENTRY ((!class_4PID_r ET_SEQ=0 + Cd 4PID_mult_even w we do detection to the issue of S_EVAL_PRI and Remedy etions: age from: "sism " 4PID_mult_even sm * (pwr_app_ other solution the r for single signal r (regardless if p more flexible the	Comment Status D _SEC to START_DETECT nult_events_sec * pwr_app C_DET_SEQ=1). ts_sec and !class_4PID_m on sequence or connection how we do 4PID. The 4PID d page 139 line 6 CLASS_E f ((!class_4PID_mult_even ts_sec) * (CC_DET_SEQ= ori + ((CC_DET_SEQ=0) + at doesn't block detecting t ture or staggered detection rimary is powered) per CC_ an CC_DET_SEQ=0. Response Status Z	_pri) + class_4PI ult_events_sec du check and detect way is determine VAL_SEC. ts_sec * pwr_app 0 + CC_DET_SE (CC_DET_SEQ= he secondary in p of dual-signatur	D_mult_events_sec) * pesn't belong here. The ion sequence is not ed in page 139 line 6 in _pri) + Q=1)." =1))." parallel to detecting the e after detection the
Cl 145 SC 145.2.5. Darshan, Yair Comment Type T Missing error_conditio iclass_lim_det_sec.	7 P 136 Comment Status D on_sec at the input to the state	L 4	# i-411 <i>Repeats</i> ne condition		omment was WI	THDRAWN by the commen		ng.
 Add new variable to "error_condition_sec A variable indicating t other system faults th 	he status of implementation-sp at prevent the PSE from meeti SE not to source power over th ation.	pecific fault conc ing the specifica	litions or optionally tions in Table 145-16					
Proposed Response REJECT.	Response Status Z							
	ITHDRAWN by the commente	er.						
This comment was wi	ithdrawn before the comment r	esolution meetir	ng.					

C/ 145 SC 145.2.5.8 P 139 L 6 # i-413 Darshan, Yair	C/ 145 SC 145.2.5.7 P 139 L 10 # [i-415 Darshan, Yair						
Comment Type T Comment Status R PSE SD This comment rationale is identical to my comment regarding CLASS_EVAL_PRI, so this comment will be shorter. State machine, CLASS_EVAL_SEC: If (pd_cls_4PID_sec * (sig_sec = valid) * (sig_pri = valid) + pwr_app_pri) THEN pd_4pair_cand <== TRUE	Comment Type T Comment Status R PSE SL In the exit from CLASS_EVAL_SEC to POWER_DENIDE_SEC we use in the condition: "!ted_timer_sec_done + !ted_timer_done + (pd_req_pwr_sec > pse_avail_pwr_sec) + (!pd_4pair_cand * !alt_pwrd_pri)". 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.						
 END " Reviewing the logic shows that: (c) If we are in CLASS_EVAL_SEC state, it means that sec_sig=valid. (d) If pwr_app_pri is true, it means that pri_sig=valid but it doesn't mean that sig_sec=valid at the same time that pwr_app_pri is true. Resulting with phonesing (ad also 4P) and to (a) and (b) are pri_strue with the phone prime to (b) and (b) are the same time that pwr_app_pri is true. 	SuggestedRemedy Two options for remedy: a)explain why we need ted_timer_done OR b) Delete ted_timer_done						
Resulting with changing: (pd_cls_4PID_sec * (sig_sec = valid) * (sig_pri = valid) + pwr_app_pri) To: pd_cls_4PID_sec * (sig_pri = valid) + pwr_app_pri * (sig_sec = valid)	Response Response Status C REJECT.						
SuggestedRemedy Change from: " (pd_cls_4PID_sec * (sig_sec = valid) * (sig_pri = valid) + pwr_app_pri) " To:pd_cls_4PID_sec * (sig_pri = valid) + pwr_app_pri * (sig_sec = valid)	This prevents a PSE from shutting down a SS PD requiring an error delay but then powering it as a DS PD without waiting for the ted_timer to finish.						
Response Response Status C REJECT.	C/ 145 SC 145.2.5.7 P 139 L 37 # i-416 Darshan, Yair						
This comment was withdrawn before the comment resolution meeting. Cl 145 SC 145.2.5.7 P 139 L 10 # i-414 Darshan, Yair Image: Comment Status R PSE SD In the out from CLASS EVALUATION OF THE DOWNER UP SEC we use in the condition: PSE SD	Comment Type T Comment Status A PSE SL In the exit from ERROR_DELAY_SEC to IDLE we have the following condition: "ted_timer_sec_done + option_detect_ted_sec". A) The variable option_detect_ted_sec is missing from the variable list. B) in addition I believe it is not required since if you have the option to do detection during Ted time interval or you dont have the option, you are going to IDLE_SEC and in IDLE_SEC you dont do detection.						
In the exit from CLASS_EVAL_SEC to POWER_UP_SEC we use in the condition: "ted_timer_sec_done * ted_timer_done * (pd_req_pwr_sec ? pse_avail_pwr_sec) * (pd_4pair_cand + (sig_pri ? valid))". 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 Change from: " "ted_timer_sec_done + option_detect_ted_sec"" To: "ted_timer_sec_done "						
SuggestedRemedy Two options for remedy: a) Explain why we need ted_timer_done OR	Response Response Status C ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE.						
b) Delete ted_timer_done Response Response Status C REJECT.	Remove extra space in "option_detect_ ted" on page 113, line 30. Add variables option_detect_ ted_pri and option_detect_ ted_sec to variable list. Use similar definition to option_detect_ ted with appropriate changes to distinguish _pri and _sec.						
This prevents a PSE from shutting down a SS PD requiring an error delay but then powering it as a DS PD without waiting for the ted_timer to finish.	This resolution is identical 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

C/ 145 SC 145.2.5. Darshan, Yair	7 P 168	L 40	# i-417	<i>Cl</i> 145 Darshan, Ya	SC 145.2.8 air	P 152	L 46	# i-419	
Comment Type T	Comment Status D		Repeats	Comment T	ype T	Comment Status A		Pres: Darshan	
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 interpreted it as both pairs where powered on simultaneously i.e. at the same time i.e. 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 " simultaneously" with "both Mode A and Mode B" in the 2nd occurrence. SuggestedRemedy Change text to:" 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. All other PDs may require being supplied over both Mode A and Mode B to operate at their nominal power level."					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 Response Response C ACCEPT IN PRINCIPLE. Adopt the changes proposed in darshan_03_0917_final.pdf [Editor's note added after comment resolution completed. The full URL for the file FILE_NAME.pdf is				
					ww.ieeeo02.01	g/3/bt/public/sep17/darshan_0	05_0917_111ai.pc	11]	
REJECT.	roposed Response Response Status Z REJECT.					P 152	L 49	# i-420	
This comment was W	ITHDRAWN by the commenter	er.		Comment T	ype T	Comment Status A		PSE Powe	
This comment was wi	thdrawn before the comment	resolution meetir	ng.	There is an error in Icon-2P_unb value in Table 145-16 item 5, class 7. The value need to be 0.786A + 0.005A margin =0.791A instead of 0.781A. See presentation from May 2017					
C/ 145 SC 145.2.6 Darshan, Yair	P 141	L 29	# i-418	correct	but the conclus	0517.pdf page 1 where the s sion derived from it (not to up			
	Comment Status D		Panaata	Suggested	-				
, , , , , , , , , , , , , , , , , , ,	text: "Also, a PSE may succe	ssfully detect a	Repeats	0	lcon-2P_unb f	for class 7 from 0.781A to 0.	791A.		
power the detected PI successfully detect ar the end of clause 145	i.e. "A PSE may	Response ACCEP	Ϋ́Τ.	Response Status C					
SuggestedRemedy									
Add the following text	in 145.2.7 page 148 after line then opt not to power that PD		v successfully detect						
Proposed Response	Response Status Z								
REJECT.	-								
This comment was W	ITHDRAWN by the commenter	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 SC 145.2.8 Darshan, Yair	P 154	L 16	# i-421	<i>Cl</i> 145 Darshan, Ya	SC 145.2.8.5 r	.1	P 160	L 39	# i-422	
Darshan, Yair 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 1: If Ppeak_PD for class 8 is 74.8W then ILIM-2P need to be 0.995A. If Ppeak_PD for class 8 is 74.8W then ILIM-2P need to be 0.995A. Matter 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. If Ppeak_PD for class 8 is 74.9W 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 Response Status C				Comment Type T Comment Status A Pres: Yseboc 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 PE 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 simplify the use of " RPSE_max = ? * RPSE_min + ?"						
ACCEPT IN PRINCIPLE. Change ILIM-2P for class 8 to	0.996A.			"The val (Equatio ? and th RChan is Rload_m	d the called ou ues for ICon-2I n (145-15)) are at the PD mee s less than 0.1 in and Rload_ on in the ratio	P-unb and the related valid given that F to 145.3.8.10. In c ?, PSE compliant max both reduced	RChan-2P ases when ce with ICo I by 0.5 * F RPSE_min	(see 145.1.3) ran re RChan-2P is le on-2P-unb can be RChan-2P. This c	,	

<i>Cl</i> 145 SC Darshan, Yair	C 145.2.8.5	P 156	L 51	# i-423	C/ 145 Darshan, Ya	SC 145.2.8. air	5.1	P 158	L 46	# i-425
Comment Type	т	Comment Status D		Repeats	Comment T		Comment S	Status A		Pres: Darshan1
operating ov However, fo Equation 14 operating ov -Icon is defi -Icon-2P_ur There is no	ver 2-pairs and or the most imp I5-8 contains t ver 4-pairs. ned in Equation b is defined ir information to	he parts that allow us to ca d for the dual-signature cas portant use case which is c he part "Icon-2P=min(Icon on 145-9. Table 145-16 item 5. find the value of Icon-2P_ ppec is broken.	se. operating over 4 - IPort-2P-othe	-pairs. r, ICon-2P-unb) when	work we defines pair res definitic voltage effect o Suggestedf	e did for pair to the equipmen istance unbala on due to the fa source output f the equivaler Remedy	pair resistance t connector as p ince for complia act that the PSE resistance, Rsc it portion of the	unbalance. To part of the PSI nce. In this wa load when PS purce, when PI link section.	o fix it, we need to E PI and PD PI w we don't break E is tested for co	when tested for pair-to- the link section compliance and PD mpliance include the
SuggestedRem	edy					arshan_01_08	•	,	ia proposed base	enne.
Adopt darsh	nan_09_0917.p	odf			Response		Response S	tatus C		
Proposed Resp	onse I	Response Status Z			ACCEP	PT IN PRINCIP	LE.			
REJECT.					adopt c	hanges shown	on slide 12 of c	larshan_01_09	917.pdf	
This comme	ent was WITH	DRAWN by the commente	er.		[Editor's	s note added a	fter comment re	solution comp	leted.	
	ent was withdra C 145.2.8.5.1	awn before the comment ro	esolution meetir	ng. # [i-424			e FILE_NAME.; g/3/bt/public/se;		01_0917.pdf]	
Equation 14	b values need I5-26 (Rpd_mi urce_min/max	Comment Status A to be verified when using n/max) with the test verificar requirements with their de	ation models de	scribed in Table 145-						
00	nan_03_0917.p	odf								
Response ACCEPT IN	I PRINCIPLE.	Response Status C								
Adopt the cl	hanges propos	sed in darshan_03_0917_f	inal.pdf							
This resolut	ion is identical	to comment #419.								
	te added after	comment resolution comp	leted.							
[Editor's not										

C/ 145 SC 145.2.8.5.1 P 159 L 27 # i-426 Darshan, Yair	C/ 145 SC 145.2.8.5.1 P 159 L 34 # i-427 Darshan, Yair					
Comment Type T Comment Status A Pres: Darsha	n2 Comment Type T Comment Status A Unbalance					
This comment is not about active current balancing. This comment is about the typical us of PSE resistive elements to form Rpse_min and Rpse_max that meet equation 145-15 and when PSE connected to the PSE load specified in Table 145-17, will meet the values lcon-2P_unb in Table 145-16. In D3.0, the maximum value of Rpse_min is not limited. Rpse_max is function of	In the text below: "A PSE shall not source more than ICon-2P-unb min on any pair when connected to a **load** as shown in Figure 145-22, using values of Rload_min and Rload_max as specified in Equation (145-16) and Equation (145-17).", Need to be "PSE load" as in Figure 145-22.					
Rpse_min. If Rpse_min maximum value is not limited, it will cause the following issues: (a) The internal PSE power supply open load voltage to significantly increase in order to	SuggestedRemedy					
 (a) The internal PSE power supply open load voltage to significantly increase in order to keep the PSE voltage at the PI 50V min or 52V min pending the PSE Type under load. This will result with working outside the PSE operating voltage range. (b) power loss at extreme values of Rpse_min which doesn't make sense. 	Change text to "A PSE shall not source more than ICon-2P-unb min on any pair when connected to the PSE load as shown in Figure 145-22, using values of Rload_min and Rload_max as specified in Equation (145-16) and Equation (145-17)."					
(c) Per Equation 145-15, if Rpse_min is increased, Rpse_max is increased and at higher	Response Response Status C					
values of Rpse_min (starting at 0.5 ohms at Class 7-8 and 1 ohm at class 5-6), the contribution of Rpse to unbalance compared to the channel and PD, resulting with the	ACCEPT IN PRINCIPLE.					
increase of system unbalance at long cable which violates Icon-2P_unb when tested with test verification model in Table 145-17.	Adopt yseboodt_02_0917_Figure_145_22.pdf					
(d) there is no practical benefit to increase Rpse_min to any value.(e) The above is not relevant to active current balancing.	This resolution is identical to comment #110.					
See calculation results in darshan_02_0917.pdf.	[Editor's note added after comment resolution completed.					
SuggestedRemedy						
(See calculation results in darshan_02_0917.pdf.) Change from: "RPSE_min is the lower PSE common mode effective resistance in the	The full URL for the file FILE_NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/yseboodt_02_0917_Figure_145_22.pdf]					
powered pairs of the same polarity."	C/ 145 SC 145.2.8.5.1 P 160 L 39 # i-428					
To: "RPSE_min is the lower PSE common mode effective resistance in the powered pairs						
of the same polarity. The value of Rpse_min shall be limited to:	Comment Type T Comment Status A Pres: Yseboodt2					
a) 1 ohms for class 5 and 6 b) 0.5 ohm for class 7 and 8. The value of Rpse_min is not limited when active current balancing is used.	This comment will be OBE by comment marked LOWER02 if LOWER02 will be accepted. In the text "ICon-2P-unb and Equation (145-15) are specified for total channel common					
Response Response Status C	mode pair resistance RChan-2P" the word "total" is not required. Remove it.					
ACCEPT IN PRINCIPLE.	SuggestedRemedy					
Add after line 27 in page 159: "Equation 145-15 is only applicable for R_pse_min up to a value of 1 ohm for Class 5 and Class 6, and 0.5 ohm for Class 7 and Class 8.	Change from "ICon-2P-unb and Equation (145-15) are specified for total channel common mode pair resistance RChan-2P" the word "total" is not required."					
Add after line 53 in page 195:	Response Response Status C					
"Equation 145-26 is only applicable for R_pd_min up to a value of 1 ohm."						

C/ 145 SC 145.2.8.5.1 P 161 L 20 Darshan, Yair </th <th># i-429</th> <th>C/ 145 Darshan, Ya</th> <th></th> <th>5.2.8.5.2</th> <th>P 161</th> <th>L 26</th> <th># i-431</th>	# i-429	C/ 145 Darshan, Ya		5.2.8.5.2	P 161	L 26	# i-431
Comment Type E Comment Status A The title of figure 145-22 is good but not sufficiently accurate. It is system esistance unbalance and not just system resistance unbalance. This is in a title of the clause "145.2.8.5.1 PSE PI pair-to-pair effective resistance and of unbalance" and the text all over clause 145.2.8.5.1 and 145.3.8.10 (44 occ SuggestedRemedy Change from Figure 145-22PSE PI unbalance specification and system resistance and system resistan	Comment 7 In the to PI" Suggestedh Change Response	<i>Type</i> E ext "With the Remedy e to: "With	the PSE por the PSE po <i>Re</i>		_	Pres: Yseboodt2 D.", missing "at the PD ass_PD at the PD PI."	
unbalance" To: "Figure 145-22PSE PI unbalance specification and system effective re unbalance"	resistance		PT IN PRI		gure_145_22.pdf		
Response Response Status C ACCEPT IN PRINCIPLE.		This res	solution is	identical to	comment #110.		
Adopt yseboodt_02_0917_Figure_145_22.pdf This resolution is identical to comment #110.	[Editor's note added after comment resolution completed. The full URL for the file FILE_NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/yseboodt_02_0917_Figure_145_22.pdf]						
[Editor's note added after comment resolution completed. The full URL for the file FILE_NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/yseboodt_02_0917_Figure_145_:	.22.pdf]	Cl 145 Darshan, Ya Comment T	air	5 .2.8.5.2 Co	P 161 omment Status A	L 30	# [i-432 Unbalance
C/ 145 SC 145.2.8.5.1 P 161 L 24 Darshan, Yair	# i-430		d Equation				ax from Equation (145- it is the Rload_min/max
Comment Type E Comment Status A In the text "a) Use Rload_min and Rload_max from Table 145-17 for low or resistance conditions.", it is the Rload min/max components.	<i>Editorial</i> channel		e to: "Rep		through e) for Rload		max components from ce conditions."
SuggestedRemedy Change to "a) Use Rload_min and Rload_max components from Table 145 channel resistance conditions."	5-17 for low	Response ACCEF	,	, ,	sponse Status C		
Response Response Status C ACCEPT.							

Cl 145 Darshan, Yair	SC 145.2.8.5.3	P 162	L 10	# i-433	C/ 45 Darshan, N		45.2.8	P 153	L 33	# i-435
Comment Typ	pe T Comme	nt Status A		Pres: Darshan10	Comment	Туре	т	Comment Status D		Repeat
constant p sink SuggestedRe Adopt the Response	changes proposed in da	is based on the fa	act that the PD lo	ad is constant power	Tinrus which discus To cor 1st lor since	h. It me needs t is if it su nsider if ng class we had	eans that to cover l ufficient fo Tpon ne s events t so far 20	Tinrush: It is clear from the st effective Tpon is (400-50) ms long 1st class events, + 4 clas or their designs and applicatio eed to be increased by ~50mse to keep our margins as in 802. 00msec margin from the 600m locual spec numbers.	ec=350ms or (4 s events + designs in both single e to compensate .3af/at. It doesn'	00-75) ms=325mse gn margin. group to e and dual-signatures. e for the increase in the t affect reliability etc.
ACCEPT	IN FRINCIFLL.				Suggested	Remec	dy			
Adopt yse	eboodt_02_0917_Figure_	_145_22.pdf			Increa	se Tpoi	n from 40	00msec to 450msec or to what	t ever the group	decide.
This reso	lution is identical to comr	ment #110.			Proposed REJE	'	ise	Response Status Z		
http://www	IRL for the file FILE_NAN w.ieee802.org/3/bt/public SC 145.2.8.5.2		_02_0917_Figure <i>L</i> 18	# [i-434	This c	ommen	it was wit	hdrawn before the comment r	esolution meetir	ng.
resistance This text r a) It is En b) It is the the bound and the sa c) The te	tom of Figure 145-22, the	reflect the followi ctive resistance a e system unbalan e PSE power sup ink segment. resistance unbala	ng: nd not just resist ce is defined. Th oply elements tha	ance. is helps to understand tt affect the unbalance						
	emedy rom "End-to-end pair-to-p to-end pair-to-pair effecti		palance boundari	es"						
Proposed Res		e Status Z								
REJECT.										
This com	ment was WITHDRAWN	by the commenter	er.							

C/ 145 SC 145 Darshan, Yair	.3.5 <i>P</i> 183	L 24	# i-436	C/ 145 Darshan, Y	SC 145.3.9 ⁄air		P 189	L 42	# i-437
Comment Type T	Comment Status R		Pres: Yseboodt8	Comment	Туре Т	Comment S	Status A		PD Power
In the text "A sing Table 145-20, on	gle-signature PD shall present a v a given Mode	valid detection sigr	ature, as defined in		omment markec 71.3=74.865==>		. Table 145-28	3 item 12, Ppeak	PD: It should be 74.9
•	or current is applied to the other	Mode, and shall pr	esent an invalid	Suggestea	IRemedy				
that Mode when a requirements	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."					ded): o 74.9W			
	The part "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					Response S	tatus C		
	and 57 V is applied to the other N e B." doesn't guarantee (especia			ACCE	PT IN PRINCIP	LE.			
any voltage X in t V from the voltag	he range of 2.7V to 57V that is a eapplied to the 2nd pair that is t	applied to the 1st p	air and is higher by 1	Chang	e from 74.8W to	o 74.9W			
e .	air that is being detected.			Also change Pclass_PD-2p class 1 value to 3.84.					
SuggestedRemedy				C/ 145	SC 145.3.8.	•	D 400	L 29	#
in Table 145-20,	single-signature PD shall preser on a given Mode or current is applied to the other		0	Darshan, Y		3	P 192	L 29	# i-438
detection signatu		Noue, and shall pr		Comment	Туре Е	Comment S	Status A		Editorial
requirements	that Mode when any voltage between 10.1 V and 57 V is applied to the other Mode. These				s_PD-2P and Pl		thin TInrush_F		form to d in Table 145-16 on
To: "A single-sign	nature PD shall present a valid de	staction signature	as defined in Table	Suggestea	IRemedy				
To: "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				Chang	e to "Table 145	-28".			
	present an invalid detection signature on that Mode when any voltage between Vx and 57 V is applied to the other Mode when Vx is greater by at least 1V from the voltage applied to the other mode. These requirements apply to both Mode A and Mode B."					Response S	tatus C		
					PT.				
Response	Response Status U								

REJECT.

There was no consensus for change.

C/ 145 SC 145.3.8.4	P 193	L 31	# i-439	C/ 145 SC 145	5.3.8.4	P 193	L 34	# i-440	
Darshan, Yair <i>Comment Type</i> T <i>Com</i> In the text "The equations in Ta powers of Class 1 through Class missing for this clause. <i>SuggestedRemedy</i> 1. Change from "The equations peak powers of Class 1 throug To: "Equations 145-X and Equ powers of Class 1 through Class 2. Add the following text and ev PPeak_PD = 1.05 * PDMaxPor PPeak_PD-2P = 1.05 * PDMax	ament Status A able 145-28 are used ss 8." . The equations s in Table 145-28 are h Class 8." ation 145-Y are used ss 8." quations at the end of werValue (145-X) xPowerValue_mode(X	to approximate are not in Table used to approxim to approximate f f this paragraph:	<i>PD Power</i> the ratiometric peak e 145-28 and are mate the ratiometric the ratiometric peak	Darshan, Yair Comment Type T In the text "These Data Link Layer of PDMaxPowerVal Missing "or PDMa SuggestedRemedy Change from: "T Data Link Layer of PDMaxPowerVal To: "These equat	Comme e equations may l classification by s ue and for Autocl axPowerValue_m These equations r classification by s ue and for Autocl tions may be use on by substituting e_mode(X) and for	ent Status A be used to calcula substituting PClass lass by substitutin node(X)" nay be used to ca substituting Pclass lass by substitutin d to calculate Ppe pclass_PD or Pc	ate PPeak_PD or s_PD or PClass_ g PClass_PD wit clculate Ppeak_P s_PD or Pclass_F g Pclass_PD with eak_PD or Ppeak class_PD-2P with	PD Powe PPeak_PD-2P for PD-2P with h PAutoclass_PD." D or Ppeak_PD-2P for 2D-2P with h Pautoclass_PD." _PD-2P for Data Link PDMaxPowerValue or	
Response Resp ACCEPT IN PRINCIPLE. 1. Change from "The equations peak powers of Class 1 throug To: "Equation 145-X and Equa powers of Class 1 through Class 2. Add the following text and expeak_PD = { 1.29 * PDMaxPowerValue (Cla 1.11 * PDMaxPowerValue (Cla 1.05 * PDMaxPowerValue (Cla 1.05 * PDMaxPowerValue (Cla 1.05 * PDMaxPowerValue (Cla 1.05 * MaxPowerValue (Cla 1.05 * Ma	DMaxPowerValue as defined in Table 145-22 DMaxPowerValue_mode(X) as defined in Table 145-22 DMaxPowerValue_mode(X) as defined in Table 145-22 DMaxPowerValue_mode(X) as defined in Table 145-28 CCEPT IN PRINCIPLE. Change from "The equations in Table 145-28 are used to approximate the ratiometric eak powers of Class 1 through Class 8." o: "Equation 145-X and Equation 145-Y are used to approximate the ratiometric peak owers of Class 1 through Class 8." Add the following text and equations at the end of this paragraph: peak_PD = { .29 * PDMaxPowerValue (Class 1, 2) .11 * PDMaxPowerValue (Class 3, 4) .05 * PDMaxPowerValue (Class 5-8) (145-X) /here DMaxPowerValue is defined in Table 145-22				Response Response Status C ACCEPT IN PRINCIPLE. Change from: "These equations may be used to calculate PPeak_PD or PPeak_PD Data Link Layer classification by substituting PClass_PD or PClass_PD-2P with PDMaxPowerValue and for Autoclass by substituting PClass_PD with PAutoclass_ To: "These equations may be used to calculate PPeak_PD or PPeak_PD-2P for Da Layer classification by substituting PClass_PD or PClass_PD-2P with PDMaxPower value_mode(X) and for Autoclass by substituting PClass_PD with PAutoclass_PD."				
Ppeak_PD-2P = { 1.29 * PDMaxPowerValue_mo 1.11 * PDMaxPowerValue_mo 1.05 * PDMaxPowerValue_mo } (145-Y) Where PDMaxPowerValue_mode(X) i	de(X) (Class 3, 4) de(X) (Class 5)	5-22							

3: also, change Ppeak_PD class 4 (item 12) from 14W to 14.4W

CI 145 SC 145.5.3.6.3 P 226 L 2 Darshan, Yair <th># i-441</th> <th>C/ 145 SC 145.5.3.6.3 P 226 L 5 # i-442 Darshan, Yair</th>	# i-441	C/ 145 SC 145.5.3.6.3 P 226 L 5 # i-442 Darshan, Yair						
Comment Type T Comment Status A This comment is marked LLDP?_ADHOC_1. In the LLDP adhoc we made some changes to the PSE DLL state machin changes made in the concept of how to fill in the TLV values of the pse_a and pse_allocated_power_alt(X) fields. SuggestedRemedy Adopt yseboodt_04_0917_LLDP.pdf		Comment Type T Comment Status A Pres: Ysebood This comment is marked LLDP?_ADHOC_2. This comment and proposed remedy depend on the outcome of the LLDP adhoc recommendations regarding the question if pse_dll_ready_alt(X) need to be specified per alternative as currently is or need to be pse_dll_ready. In case that it is going to be pse_dll_ready, see the proposed remedy. SuggestedRemedy 1. Change from: " (!pse_dll_enable_alt(X) + !pse_dll_ready_alt(X)) * (sig_type = dual)"						
Response Response Status C ACCEPT IN PRINCIPLE. Adopt yseboodt_04_0917_LLDP.pdf (v153) This resolution is identical to comment #38. [Editor's note added after comment resolution completed. The full URL for the file FILE_NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/yseboodt_04_0917_LLDP.pdf]		 To: (!pse_dll_enable_alt(X) + !pse_dll_ready * (sig_type = dual) 2. In page 224 line 41 to change the pse_dll_ready_alt(X) variable definition to: "pse_dll_ready An implementation-specific control variable that indicates that the PSE has initialized Data Link Layer classification. This variable maps into the aLldpXdot3LocReady attribute (30.12.2.1.20). Values: FALSE: Data Link Layer classification has not completed initialization. TRUE: Data Link Layer classification has completed initialization. 3. Delete aLldpXdot3LocReadyA and aLldpXdot3LocReadyB from Table 30-7. 4) Delete 30.12.2.1.18b aLldpXdot3LocReadyA content. 5) Delete 30.12.2.1.18b aLldpXdot3LocReadyB content. 6) In Table 145-50 page 222 in the PSE section: Change from "aLldpXdot3LocReadyA" to "aLldpXdot3LocReady" and from "pse_dll_ready_alt(X=A)" to "pse_dll_ready)". 7) In Table 145-50 page 222 in the PSE section: Delete "aLldpXdot3LocReadyB" and "pse_dll ready_alt(X=B)". 						
		Response Response Status C ACCEPT IN PRINCIPLE. Adopt yseboodt_04_0917_LLDP.pdf (v153) This resolution is identical to comment #38. [Editor's note added after comment resolution completed. The full URL for the file FILE_NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/yseboodt_04_0917_LLDP.pdf]						

C/ 145 SC 145.5.3.7.4 P 229 L 2 # [i-4	CI 145 SC 145.5.3.7.4 P 229 L 5	# i-444						
Darshan, Yair	Darshan, Yair							
Comment Type T Comment Status A Pres.	/seboodt4 Comment Type T Comment Status A	Pres: Yseboodt4						
This comment is marked LLDP?_ADHOC_3. In the LLDP adhoc we made some changes to the PD DLL state machine to reflect changes made in the concept of how to fill in the TLV values of the pd_requested and pd_requested_power_mode(X) fields.		progressing to the						
SuggestedRemedy	SuggestedRemedy							
Adopt yseboodt_04_0917_LLDP.pdf	 Change from: "(!pd_dll_enable_mode(X) + !pd_dll_ready_mode 	le(X))"						
Response Response Status C	To: (!pd_dll_enable_mode(X) + !pd_dll_ready) 2. In page 228 line 28 to change the pd_dll_ready_mode(X) varial	ble definition to:						
ACCEPT IN PRINCIPLE.	"pd_dll_ready							
Adopt yseboodt_04_0917_LLDP.pdf (v153)	An implementation-specific control variable that indicates that the Link Layer classification. This variable maps into the aLldpXdot3L (30.12.2.1.20).	An implementation-specific control variable that indicates that the PD has initialized Data Link Layer classification. This variable maps into the aLldpXdot3LocReady attribute (30.12.2.1.20).						
This resolution is identical to comment #38.	Values: FALSE: Data Link Layer classification has not completed initializa	ation						
[Editor's note added after comment resolution completed.	TRUE: Data Link Layer classification has completed initialization.	."						
The full URL for the file FILE_NAME.pdf is	 In Table 145-40 page 222, PD section: Change from "aLldpXd "aLldpXdot3LocReady" and from "pd_dll_ready_mode(X=A)" to "pd_dll_ready_mode(X=A)" to "pd_dll_ready_mode(X=A)" 							
http://www.ieee802.org/3/bt/public/sep17/yseboodt_04_0917_LLDP.pdf]	4. In Table 145-40 page 222, PD section delete the row "aLldpXd "pd_dll_ready_mode(X=B)"							
	Response Response Status C							
	ACCEPT IN PRINCIPLE.							
	Adopt yseboodt_04_0917_LLDP.pdf (v153)	Adopt yseboodt_04_0917_LLDP.pdf (v153)						
	This resolution is identical to comment #38.							
	[Editor's note added after comment resolution completed.							
	The full URL for the file FILE_NAME.pdf is http://www.ieee802.org/3/bt/public/sep17/yseboodt_04_0917_LLE	DP.pdf]						

	3 P 262	L 21	# i-445	<i>Cl</i> 145A3 <i>SC</i> 145A3.1 Darshan, Yair	P 262	L 51	# i-447			
Comment Type E	Comment Status A		Annex	Comment Type E	Comment Status A		Pres: Darshan			
need to use "effecti	I to end pair-to-pair effective current ive for the current unbalance due th is incorrect for resistance unb- ce"	e to the fact that	"current" is always	In the text: "The effective resistance is the measured voltage Veff, divided by the current through the path e.g. the effective value of RPSE_min for i1 is RPSE_min=Veff1 / i1 as shown in Figure 145A-2.". The effective resistance of what? SuggestedRemedy Change the mentioned text to (**): "The effective resistance **Rpse_min or RPSE_max** is the measured voltage Veff, divided by the current through the path e.g. the effective value of RPSE_min for i1 is RPSE_min=Veff1 / i1 as shown in Figure 145A-2.						
SuggestedRemedy										
Change from "The equal"	end to end pair-to-pair effective		e is							
Response	Response Status C			Response	Response Status C					
ACCEPT IN PRINC	, CIPLE.			ACCEPT.	, -					
C/ 145A SC 145A . Darshan, Yair	3 P 262	L 44	# i-446							
Comment Type T	Comment Status A		Annex							
In the text "If pair-to resistance to achiev in 145.2.8.5.1 is su not other choice in	p-pair balance is actively controll ve balance, then the current unb itable." the use of "suitable" is no this use case but to use the met ed and is being used more than	alance measure ot sufficiently stro hod in 145.2.8.5	hat changes effective ment method described ong to say that there is .1. (by the way, the use							
SuggestedRemedy										
	air-to-pair balance is actively con to achieve balance, then the cu 8.5.1 is suitable."									
	alance is actively controlled in a ve balance, then the current unb ld be used."									
Response	Response Status C									
	•									

ACCEPT.

Cl 145A3 SC 145J Darshan, Yair	3.2	P 262	L 52	# i-448	<i>Cl</i> 145A3 Darshan, Ya	SC 145A3. r	2	₽ 263	L 5	# i-449
Comment Type T	Comme	nt Status A		Pres: Darshan7	Comment Ty	pe T	Comment Stat	us A		Pres: Darshan7
The verification pr is missing from 1		neasurements of I	Rpse_min and F	Rpse_max	a) It nee	ds to be in s		22 regardii	ng the separatio	on of Rload_min/max to
 With the PSE p through the eleme PD PI, measure th Calculate the R calculating the foll For the positive pa R1=RPSE_min=V R2=RPSE_max=V For the negative p R3=RPSE_min=V R4=RPSE_max=V 3) Verify that on e Equation 145-15. 	PSE_max effect owered on and o nts shown in Fig e currents i1, i2 PSE_min and R owing: irs: eff1/i1 eff2/i2 airs: eff3/i3 eff4/i4 ach pair of the s to 3 with the RC	ive resistance ver connected to a co gure 145A-2, whic , i3 and i4 and the PSE_max values ame polarity, RPS	nstant power sir h is set to Pclas e voltages Veff1, of each pair of t SE_min and RPS		B) To de C) Addi d) defini e) Clear f) To co SuggestedR Replace Response ACCEP Adopt ys This res	scribe the P ng the borde ng from what definition of rrect the left emedy Figure 145A IN PRINCI eboodt_02_ olution is ide	der to allow setting F SE load in a clear w rs of the link section t Rpse_min and Rps the measurements p border of the End to A-2 with the new pro <i>Response Statu</i> PLE. 0917_Figure_145_2 ntical to comment #	ay e_max cor point of Ve End pair t posal in da <i>us</i> C 2.pdf 110.	nsist of? ff_i o pair resistance arshan_07_0917	
RCh_unb_max, R Response ACCEPT IN PRIN	Respons	e Status C					ile FILE_NAME.pdf prg/3/bt/public/sep17		_02_0917_Figur	re_145_22.pdf]
 With the PSE p shown in Figure 1 currents i1, i2, i3 a Calculate the R calculating the foll For the positive pa R1=RPSE_min=V R2=RPSE_max=\ For the negative p R3=RPSE_min=V R4=RPSE_max=\ 3) Verify that RPS polarity. 	PSE_max effect owered on and I5A-1, which is nd i4 and the vo PSE_min and R owing: irs: eff1/i1 ieff2/i2 airs: eff3/i3 ieff4/i4 E_min and RPS	ive resistance ver connected to a co set to Pclass_PD oltages Veff1, Veff PSE_max values	nstant power sir measured at the 2, Veff3 and Ve of each pair of t uation 145-15 or	Ire is described below: Ik through the elements PD PI, measure the ff4. the same polarity by n each pair of the same d with RCh_unb_max						
Delete Figure 145 110.	A-2 and replace	references with n	ewly introduced	figure from comment						

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 145B SC 145B.1.1 Darshan, Yair	P 266	L 7	# [i-450	C/ 145B Darshan, Ya	SC 145B.1. air	2	P 267	L 11	# i-452
Comment Type T	Comment Status A		Annex	Comment T	vpe T	Comment Stat	us D		Pres: Darshan11
detection nor staggere This drawing should be dual-signature in page SuggestedRemedy	e deleted since it doesn't fit to	The title of Figure 145B-6 is "Figure 145B-6PSE implementing CC_DET_SEQ=1, do_cxn_chk result is dual, staggered power on" which is correct per the drawing description however per the definiti of CC_DET_SEQ=1 for dual-signature in page 109 line 43, CC_DET_SEQ is about Connection check and detection sequences while if it is staggered power on or not in dua signature PD, is not the main issue to emphasis.							
Options:	since it doesn't fit the definiti	one in Rege 10	0 line 11 for dual	Suggested	Remedv				
signature. 2. Update the definitior detection and verify tha <i>Response</i>	n for CC_DET_SEQ=0 for du at state machine support it. Response Status C	Change the title of Figure 145b-6 from: "Figure 145B-6PSE implementing CC_DET_SEQ=1, do_cxn_chk result is dual, staggered power on" To : "Figure 145B-6PSE implementing CC_DET_SEQ=1, do_cxn_chk result is dual, staggered detection and staggered power on"							
ACCEPT IN PRINCIPL	E.			Proposed R	esponse	Response Stat	us Z		
and parallel detection f	heck is followed by staggere or a dual-signature PD."			REJEC			aammant	or.	
	is followed by staggered detection for a dual-signature		ne-signature PD and		nment was w	ITHDRAWN by the	commente	ər.	
This resolution is identi	0			C/ 145B Darshan, Ya	SC 145B.1. air	3	₽ 268	L 13	# i-453
C/ 145B SC 145B	P 267	L 7	# i-451	Comment T	уре Т	Comment Stat	us D		Annex
Darshan, Yair				The title	of Figure 145	B-9 is "Figure 145	3-9PSE ir	mplementing CC	_DET_SEQ=2,
Comment Type T Comment Status D Pres: Darshan11 Figure 145B-6 for the staggered option for the dual signature for CC_DET_SEQ=1, shows that the second alternative DETECTION starts only after the Power up of the primary alternative which is OK but not limited just to this use case. The detection can starts also after the detection of the primary alternative. We need show it by additional drawing (145-6A), or drawing that shows all					 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 				
possibilities.						jure 145B-9 from :	DET SEC)=2 do cxn chk	result is dual
SuggestedRemedy Adopt darshan_11_0917.pdf				"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"					
Proposed Response	Response Status Z								
REJECT.				Proposed R REJEC	•	Response Stat	is Z		
This comment was WI	THDRAWN by the commente	er.				ITHDRAWN by the	commente	er.	

C/ 145B SC 145B.1.4 Darshan, Yair	P 268	L 46	# i-454	<i>C</i> / 145 Darshan, Y	SC 145.2.5. ′air	,	P 128	L 8	# i-456				
Comment Type T Comme	nt Status D		Pres: Darshan8	Comment	Туре т	Comment S	atus D		PSE SI				
do_cxn_chk result is dual", missing definition of CC_DET_SEQ=3 for o	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. uggestedRemedy					To add optional exit from CLASS_PROBE state to IDLE. This will add flexibility to Pa allowing many class cycles performed prior to powering on a PD. PSEs may DET-CLASS, Then provide PD Requested Class information to host, How implements POWER_ON command at its leisure After repeating DET-CLASS as ne							
Change the title of Figure 145B-9	from :			Suggested	Remedv								
"Figure 145B-11PSE implementi To : "Figure 145B-11PSE impler staggered detection and staggered		 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" 											
Proposed Response Respons	sponse Response Status Z					e*do_class_prot		in 145 2 5 4					
REJECT.				 Add the following new variable to the variable list in 145.2.5.4: "option_probe2idle 									
This comment was WITHDRAWN	by the commente	er.		Values	S:		0	after executing	,				
C/ 145B SC 145B.1.4	P 268	L 268	# i-455					ng do_class_prol					
Darshan, Yair				Proposed I	Response	Response St	atus Z						
Comment Type T Comme	nt Status D		Pres: Darshan8	REJEC	CT.								
CC_DET_SEQ=3 means: Connec 145B-11 for dual-signature PD sho Detection of the 2nd pairset starts the only possibility per CC_DET_s	ows that CC_DEC after Tpon +Tx of	_SEQ=3 is only p	oossible when the	This comment was WITHDRAWN by the commenter. This comment was withdrawn before the comment resolution meeting.									
We need clearly to show that first classification and power_on can be show this possibility that shows all	we see CC, and the staggered or no			<i>Cl</i> 145 Darshan, Y	SC 145.2.5. 4	ŀ	P 111	L 36	# i-457				
SuggestedRemedy				Comment	Туре Е	Comment S	atus A		Pres: Yseboodt				
Adopt darshan_08_0917.pdf				In the variable description dll_4PID "dll_4PID A variable that indicates whether the PSE									
Proposed Response Respons REJECT.	e Status Z			and PD have negotiated 2-pair or 4-pair power." it doesn't say with what they were negotiate etc.									
NEGEOT.				Suggested	Remedy								
This comment was WITHDRAWN	by the commente	er.		A varia To: "dll A varia	_4PID ble that indicate	es whether the P es whether the P		0	2-pair or 4-pair power." 2-pair or 4-pair power				
					lity via the Data	-							
				Response		Response St	atus C						
				ACCE	PT IN PRINCIP	.E.							
						A variable indica d, as defined in		of the PD 4PID	bit in the Power				

C/ 145 SC 145.2.5.7 P 128 L 46 # i-458 Darshan, Yair	C/ 145 SC 145.2.5.7 P 128 L 46 # i-459 Darshan, Yair					
Comment Type T Comment Status A PSE SD In the exit from CLASS_EV3 MARK_EV3 "tcle3_timer_done * (pse_alternative = both) *(pd_class_sig ? 4) *((pse_avail_pwr ? pd_class_sig+5) +(pse_avail_pwr > 5))", missing parenthesis in pd_class_sig+5. SuggestedRemedy Change from: " "tcle3_timer_done * (pse_alternative = both) *(pd_class_sig ? 4) *((pse_avail_pwr ? pd_class_sig+5) +(pse_avail_pwr > 5))"" To: "tcle3_timer_done * (pse_alternative = both) *(pd_class_sig ? 4) *((pse_avail_pwr ? pd_class_sig+5) +(pse_avail_pwr > 5))"" To: "tcle3_timer_done * (pse_alternative = both) *(pd_class_sig ? 4) *((pse_avail_pwr ? pd_class_sig+5) +(pse_avail_pwr > 5))"" Pse source of tchure of the set of the set of the set of the set of tchure of t	Comment Type T Comment Status A PSE In the exit from CLASS_EV3 MARK_EV3 "tcle3_timer_done * (pse_alternative = both) *(pd_class_sig ? 4) *((pse_avail_pwr ? pd_class_sig+5) +(pse_avail_pwr > 5))", the "+" in pd_class_sig+5 is (according to page 109 line 22) "a Boolean OR" while in the intent here is to used as mathematical sum. There is a need to either update the '+' definition or add another symbol for mathematical summation. SuggestedRemedy 1. add '++' symbol to table in page 109 and define this symbol as mathematical summation. 2. Change from "pd_class_sig+5)" to "pd_class_sig++5)"					
Response Response Status C ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE. Replace addition ("+") in MARK_EV3 and MARK_EV_LAST with a sum() function. Change logic as follows: CLASS_EV3 -> MARK_EV3 tcle3_timer_done * (pse_alternative = both) * (pd_class_sig != 4) * (pse_avail_pwr > 4) * ((pd_class_sig = 0) + (pse_avail_pwr > 5)) CLASS_EV3 -> MARK_EV_LAST tcle3_timer_done * ((pse_alternative != both) + (pd_class_sig = 4) + (pse_avail_pwr <= 4)	3. Fix the same problem in P128, I46 in MARK_EV3 state. Response Response Status C ACCEPT IN PRINCIPLE. Replace addition ("+") in MARK_EV3 and MARK_EV_LAST with a sum() function. Change logic as follows: CLASS_EV3 -> MARK_EV3 tcle3_timer_done * (pse_alternative = both) * (pd_class_sig != 4) * (pse_avail_pwr > 4) * ((pd_class_sig = 0) + (pse_avail_pwr > 5)) CLASS_EV3 -> MARK_EV_LAST tcle3_timer_done * ((pse_alternative != both) + (pd_class_sig = 4) + (pse_avail_pwr <= 4) + ((pd_class_sig != 0) * (pse_avail_pwr <= 5)))					

Cl 79 SC 79.3.2.6f P 82 L 21 # <u>i-460</u> Darshan, Yair	C/ 145 SC 145.5.3.3.3 P 217 L 19 # i-461 Darshan, Yair
Comment TypeTComment StatusDPres: YseTable 79-6f describes autoclass field. Per the draft, autoclass can be requested any trincluding after the physical layer autoclass after transitioning to POWER_ON.The are some issues that appear to be not closed.In the case PD is and PSE supporting LLDP: Why PD will ask for autoclass through Li f he can do similar task by LLDP? I am asking this question since if PD eventually do it add a level of complexity (that can be resolved) that yet is not addressed in the star for example:a) There is no syncing or handshake mechanism defined to verify that the PD won't so to consume more power than the PSE allows it to draw, before the PSE is ready for it	ime Missing parenthesis in the exit from RUNNING to PD_POWER_REQUEST in the part" MirroredPDRequestedPowerValue NE TempVar" LDP SuggestedRemedy this, Change from "MirroredPDRequestedPowerValue NE TempVar" odard. To: (MirroredPDRequestedPowerValue NE TempVar) Response Response Status start Accept
 b) It is also not covered in the state machine diagram at page 131 line 43, when moving from IDLE_ACS to MEASURE_ACS. To resolve this, we need at least to add new variable "dll_autoclass_pd_pse_ready". variable will indicate that PD has set it's requested power level for the PSE to be mean and the PSE has the available power to measure the PD requested power without go overload/llim 2p condition. SuggestedRemedy 	C/ 30 SC 30.9.1.1.5 P 37 L 4 # <u>i-462</u> This Darshan, Yair asure Darshan, Yair
 add new variable "dll_autoclass_pd_pse_ready" to the variable list in 145.2.5.4 with following definition: "dll_autoclass_pd_pse_ready This variable indicates that PD has set it's requested power level for the PSE to be 	This variable is defined in page 35 line 27. This variable is the wrong variable to use here. SuggestedRemedy
measure and the PSE has the available power in order to stay powered and to measu the PD requested power without going to overload/Ilim 2p condition." 2. In the state machine in page 131 line 43 in the exit from IDLE_ACS to MEASURE_ change from: "MirroredPDAutoclassRequest"	aPSEPowerPairsControlAbility reporting the enumeration "deliveringPower"
To: "MirroredPDAutoclassRequest*dll_autoclass_pd_pse_ready" Proposed Response Response Status Z REJECT.	ACCEPT.

This comment was WITHDRAWN by the commenter.

C/ 145 SC 145.2.8 Darshan, Yair	P 152	L 46	# i-463	<i>Cl</i> 145 Darshan, Y	SC 145.2.5.7 air		P 133	L 13	# <u>i-464</u>
Comment TypeTComment StatusRPres: Darshan12The following question has been asked regarding diode aging and its affect on PD_Vdiff that affect unbalance. Background:Dur spec defines unbalance requirements for the PSE in terms of VPort_PSE-2P, Icon- 2P_unb and for the PD in terms of Icon-2P_unb and inexplicit design requirement to keep PD_Vdiff=60mV max measured at 1-10mA range. The PD_Vdiff has the highest effect on the system current/resistance unbalance. The following use case has been investigated: A PD is connected to a PSE over 4-pairs. The PSE is using Alt A (MDI) and Alt B (X) resulting with 1,2 and 7,8 are positive and 3,6 and 4,5 are negative. It runs this way for MANY years. The PD front end is not an active bridge, it is a diode bridge. The PSE has 					Type T exit from CLASS mer_pri_done *(avail_pwr_pri > 4 re case. Remedy from: timer_pri_done * avail_pwr_pri > 4 timer_pri_done * 4PID_mult_ever Response T.	_EV2_PRI to (pd_class_sid 4)) is missing (pd_class_s 4))" * (pd_class_s + (pd_class_s + (pd_class_s + (pd_class_s + (pd_class_s) * (pd_class_s) * (pd_class_s)	g the variable op	r_pri) * (class_4l tion_2ev as we d ar_pri) * (class_4 rar_pri) * (avail_pwr_pri > d	PID_mult_events_pri did in the single- PID_mult_events_pri
in parallel leading to higher unl 2. In an extreme case, we may power and heats more than the Answers:	If the aging has an effect on Vf, then we may have higher mismatch between the diodes parallel leading to higher unbalance. In an extreme case, we may have a runaway situation as the aged diode drops more over and heats more than the 'new' diode. Inswers: All diodes in the diode bridge has to have 60mV maximum Vdiff between any					ndrawn befor	P 133	resolution meetir	ng. # [i-465
permutations of each two diod 2. Silicon doesn't have a mem after diode end of life time peri function of current conduction. 3. Diodes that are at their end other parameters will exceed t 4. As long as the diode is kept significantly during the diode d	es. ory. The performance iod due to mechanica of life will introduce h he spec. with their allowed op	e characteristics al construction an aigher leakage cu verating condition	change may changed d other issues that are rrent, higher VF, and s, VF will not change	Darshan, Yair Comment Type T Comment Status D Repeat In the exit from CLASS_EV2_PRI to MARK_EV_LAST_PRI, the condition: "tcle2_timer_pri_done * (pd_class_sig_pri = temp_var_pri) * !class_4PID_mult_events_pri * pse_avail_pwr_pri = 4" is missing the variable option_2ev as we did in the single-signature case. SuggestedRemedy					
 5. Life time of a diode of reliable vendors is 10 years. The above, any time which exceed the product 7. If vendor follow the above ru other parameter). 	le vendor can be 20 y he typical is somewhe y component in the P t life time like any othe	years. The lowes ere between thes D or PSE need t er designs.	t life time value of se ranges. o be selected with life	pse_av To: "tcle2_	timer_pri_done * ail_pwr_pri = 4" timer_pri_done *	* option_2ev	sig_pri = temp_v * (pd_class_sig_ _avail_pwr_pri =	_pri = temp_var_	4PID_mult_events_pri * pri) *
SuggestedRemedy See darshan_12_0917.pdf for	details			Proposed F REJEC	•	Response	Status Z		
Response Resp REJECT.	oonse Status C			This cc	mment was WIT	THDRAWN b	by the commente	er.	

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 145.2.5.8 Darshan, Yair	P 133	L 18	# i-466	C/ 145 Darshan, Y	SC 145.2.5. 8 air	3	P 137	L 18	# i-468
"tcle2_timer_pri_done *	Comment Status A _EV2_PRI to MARK_EV_LAS (pd_class_sig_pri = temp_va is missing parenthesis in "pse	r_pri) * !class_	_4PID_mult_events_pri *	"tcle2_ !class_	exit from CLASS	e [*] (pd_class_s nts_sec * pse	MARK_EV_LA sig_sec = temp _avail_pwr_sec		Repeats condition: the variable option_2ev
Change from: "tcle2_timer_pri_done * pse_avail_pwr_pri = 4" To:	(pd_class_sig_pri = temp_va (pd_class_sig_pri = temp_va "	_, , _		!class_ To: "tcle2_	e from: timer_sec_done 4PID_mult_eve timer_sec_done	ents_sec * pse_ e * option_2ev*	_avail_pwr_sec	_= 4" _sec = temp_va	ır_sec) *
Response ACCEPT.	Response Status C			class_! Proposed F REJEC	,	nts_sec * pse_ Response \$: = 4"	
C/ 145 SC 145.2.5.8 Darshan, Yair	P 137	L 13	# i-467	This co	mment was WI	THDRAWN by	the commente	er.	
"tcle2_timer_sec_done (class_4PID_mult_ever	Comment Status D _EV2_SEC to MARK_EV2_S *(pd_class_sig_sec = temp_v nts_sec +(pse_avail_pwr_sec the single-signature case.	/ar_sec) *		This co	omment was wit	hdrawn before	the comment r	resolution meeti	ng.
(class_4PID_mult_ever To: "tcle2_timer_sec_d	ner_sec_done *(pd_class_sig nts_sec +(pse_avail_pwr_sec one *(pd_class_sig_sec = ten ents_sec * !option_2ev) + (ps		_ ,						
Proposed Response REJECT.	Response Status Z	5_37011_PW1_5	~~ · · //						
This comment was WI	HDRAWN by the commenter								
This comment was with	drawn before the comment re	solution meeti	ng.						

C/ 145 SC 145.2.5.8 Darshan, Yair	P 133	L 18	# i-469	C/ 145 Darshan, Y	SC 145.2.5.8 ′air	8	P 129	L 54	# i-471
Comment Type E Comm In the exit from CLASS_EV2_SE			PSE S	Comment The tit	<i>Type</i> E le of figure 145-1	<i>Comment</i> S 13 is: "Figure 14	5-13Top lev	vel PSE state dia	PSE SD gram (continued)"
ACCEPT IN PRINCIPLE. Change from: "tcle2_timer_sec_done * (pd_cla !class_4PID_mult_events_sec * To: "tcle2_timer_sec_done * (pd_cla !class_4PID_mult_events_sec * on page 137 (comment says page	pse_avail_pwr_sec ss_sig_sec = temp pse_avail_pwr_sec ass_sig_sec = temp (pse_avail_pwr_se ass_sig_sec = temp pse_avail_pwr_sec ass_sig_sec = temp (pse_avail_pwr_sec ass_sig_sec = temp (pse_avail_pwr_sec ge 133 by mistake).	<pre>c = 4" is missingvar_sec) * c = 4" o_var_sec) * c = 4)"var_sec) * c = 4)" o_var_sec) * c = 4" o_var_sec) * c = 4)"</pre>	parenthesis in	howev Suggested Chang 13To Proposed REJEO This c Cl 145 Darshan, N Comment The tit howev Suggested Chang	er it is actually for Remedy pe from: "Figure - p level, single-si Response CT. comment was With SC 145.2.5.8 Yair Type E le of figure 145-1 er it is actually for IRemedy p level, single-si	or single-signatu 145-13Top leve ignature PSE sta <i>Response St</i> ITHDRAWN by t hdrawn before tl B <i>Comment S</i> 13 is: "Figure 14 or single-signatu 145-13Top leve	ire. el PSE state (ate diagram (fatus Z the commente he commente <i>P</i> 130 <i>tatus</i> D 5-13Top lev ire. el PSE state (ate diagram (diagram (continu continued)" er. resolution meetin <i>L</i> 54 rel PSE state diag	ed)" to ""Figure 145-
Apply same fix for _pri on page ~ 	P 128	L 54	# i-470	_ REJE	•		_		
Darshan, Yair	F 120	L 34	# [1-470	This c	omment was WI	THDRAWN by t	he commente	er.	
Comment Type E Comm The title of figure 145-13 is: "Fig however it is actually for single-s		vel PSE state dia	gram (continued)"	This c	omment was witl	hdrawn before tl	he comment i	resolution meetin	ng.
SuggestedRemedy Change from: "Figure 145-13T 13Top level, single-signature P	op level PSE state		ied)" to ""Figure 145-						
This comment was WITHDRAW	N by the commenter	er.							
	-								

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 145.2.5.8 Darshan, Yair	P 136	L 11	# i-473	<i>Cl</i> 145 Darshan, Y	SC 145.2.5.8 air	3	₽130	L 34	# i-474
Darshan, Yair Comment Type T This comment is marked This problem was a drew way. Using CC_DET_SEQ=: START_DETECT_SEQ In the exit from IDLE_ (!pwr_app_sec *pwr_aq * !det_once_sec) = A+E This condition syas: A) the first part of the construction secondary AND power primary is ON. This is Construction secondary after detections In addition, it doesnt all B) The 2nd part is OK the Currently the staggered is ON and it should be prevent the general cass sequences until power The solution is to add p SuggestedRemedy Change from: "(!pwr_app_sec *pwr_a !det_start_pri * !det_on To: "(!pwr_app_sec *pwr_a)	Comment Status D d CC_DET_SEQ=3. ssed in other comment and a is possible if we exit from E SEC to START_DETECT_S pp_pri) + ((CC_DET_SEQ=3) a. condition says: go and detect is applied to primary. This al DK but not cover the other ca on primary and not waiting up ow to do multiple detection+ but doesnt resolve the issue detection i slimited to the ca imited per th eCC_DET_SEQ e of doing sequences of sta on of both alternatives. art (C) which is (CC_DET_SEQ=3)	is repeated here ENTRY_SEC and EC we have the) * option_probe_ sec if power is n lows detection of ase of CC_DET_ ntil primary is ON classification unt in part A. ase of doing dete Q definition to or ggered detection EQ=3)*do_detect 3) * option_probe	PSE SD in shorter and clearer d from IDLE_SEC to following conditions: _alt_sec * !det_start_pri tot applied to f secondary only if SEQ=3 that detect v. il power on. ection on sec only if pri hy this case which will + classification ct_pri_done alt_sec *	Darshan, Y Comment In the I a) The b) The If we w keep w continu In the c in page semi_f Now w we hav then to So far Now if <5. Th 1. The alt_pw 2. Now 3. Whe SEMI_ The sir going t Suggested 1. Mak Chang	air Fype T POWER_ON sta PSE is working PSE is working PSE is working ork over 4-pairs orking until the te to work. case that the se a 131 which is d wr_en * lerror_ a are in SEMI_ e erro_sec (goi IDLE) or tmpdo all is good. the use case is s will cause issis above use case d_sec=FALSE something hap n I have error es POWER_ON_SE pOWER_ON_SE POWER_SE POWER	Comment Stat ate we are address over 4-pairs over 2-pairs for class and we had error sec will have error c is continued to w one by the exit fron sec * error_pri. PWR_SEC and ou ng to IDLE) or not o_timer_done (goin that the port is wo ue in the state made e means per the PC i.e. only the pri is C pened and I have went on the primar SEC became true: R_ON_SEC which VER_ON_SEC. So SEC back to IDLE of SEC back to IDLE of SEC so	us A sing two us ass <5 on the pri - (in this ca rork, we ne m POWER ar options t sufficient p ing to IDLE) rking with s bine. Why DWER_ON DN. error event y, the cond semi_pwi is a proble the quest or block us SEMI_POV AY state.	te cases: for example, we a se we go to IDLE end to move to SE CON to SEMI_PN o exit from SEMI power (going to P o exit from SEMI power (going to P single-signature F con the pri. dition from POWE r_en * lerror_sec em.THE SEC wa ion is, what we have from going to WER_ON_SEC in WER_ON to SEM	PSE SE are allowing the sec) or the sec will MI_PWR_SEC state VR_SEC which is: _PWR_SEC is when DWER_DENIDE and PD over 2-pairs, class ori=TRUE and ER_ON to * error_pri and we s OFF already.so I ave to do to exit from a this case and allow
	HDRAWN by the commente		_	2. Mak Chang To:"(!s	e the following o e from:"(!semi_ emi_pwr_en*(er	changes in the exit pwr_en*(error_pri+ rror_pri+error_sec)	from POV error_sec	VER_ON to ERR())+(semi_pwr_en	*error_pri* error_sec)"
inis comment was with	drawn before the comment	resolution meetir	ıg.	· –	pwr_en*error_p	ri*!alt_pwrd_sec)"			
				Response ACCEI	PT IN PRINCIPI	Response Statu LE.	is C		
				semi p - Arc fr	om POWER ON wr en * alt pwrd om POWER ON	N to SEMI PWRON sec *!error sec * e N to ERROR DELA	rror pri		

(!semi pwr en * (error pri + error sec)) + (semi pwr en * error pri * (error sec + !alt pwrd sec))

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

PSF SD

C/ 145	SC 145.2.5.7	P 136	L 11	# i-475

Darshan, Yair

Comment Type **T** Comment Status **D**

This comment is marked as CC_DET_SEQ=3-1 and is improvement of the comment marked as CC_DET_SEQ=3.

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 ?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:

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

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.

Comment ID i-475

Page 131 of 137 10/2/2017 3:31:25 PM

SuggestedRemedy Group to discuss. "option_prot_protion_prot_prot_prot_prot_prot_prot_prot_prot	145.2.5.4 P 113 L 40 # i-477
This comment is out of scope. 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: 3="" cf="" www.ieee802.org=""></http:> is working on a YANG Data Model Definitions for DTE Power via MDI. SuggestedRem Change the "FALSE: P classificatic Proposed Resp REJECT.	ndicates if the PSE will continue to detect and conditionally class on the ternative in the event an invalid detect or class result is found on the Primary his variable applies to CC_DET_SEQ = 3.
Change the "FALSE: P the Primary TRUE: PSI Primary Alt To: "FALSE: P classification TRUE: PSI classification <i>Proposed Resp</i> REJECT.	does not probe the Secondary Alternative if an invalid signature is found on Iternative. oes probe the Secondary Alternative if an invalid signature is found on the native." we few issues: on text says "in the event an invalid detect or class result is found" is not e text that defines the TRUE and FALSE. Only the "invalid detection" is if an invalid signature is found" in the TRUE and FALSE definition is not rate and can lead to wrong interpretation. It should be " if an invalid signature since this variable can be set in system config phase or on the fly, but the ion may be interpreted as this parameter can be configured only on the fly as e result of primary detection signature result if valid or not.
Proposed Resp REJECT.	RUE and FALSE definition from: does not probe the Secondary Alternative if an invalid signature is found on lternative. oes probe the Secondary Alternative if an invalid signature is found on the
This comm	
	t was WITHDRAWN by the commenter.
This comm	t was withdrawn before the comment resolution meeting.

Cl 145 SC 145.2.5.7 Darshan, Yair	P 136	L 20	# i-478	C/ 145 Darshan, Y	SC 145.2.5.7 ′air	P 136	L 20	# i-479			
Comment Type E There is redundant parentl "sism *((!class_4PID_mult (CC_DET_SEQ=0 + CC_I in the part: (!class_4PID_r SuggestedRemedy Change from: "sism *((!class_4PID_mult (CC_DET_SEQ=0 + CC_I To: "sism *(!class_4PID_mult_ (CC_DET_SEQ=0 + CC_I	_events_sec * pwr_app_r DET_SEQ=1)" nult_events_sec * pwr_ap _events_sec * pwr_app_r DET_SEQ=1)" _events_sec * pwr_app_p	pri) + class_4PII pp_pri). pri) + class_4PII	D_mult_events_sec) * D_mult_events_sec) *	Comment In Figu CC_DI machir pwr_ar sism * (CC_D If Prim result, be able The ea ENTR state w	Type T rre 145-16, in the ET_SEQ 0 or 1, and the allows to move p_pri = TRUE p ((!class_4PID_rred) (!class_4PID_red) (!class_4PID_red) (!class_4PID_red) (!class_4PID_red) (!class_4PID_red) ary fails to powe pwr_app_pri vare to to exit from EN asy way to handled Y_SEC, also if pu- vhich prevents st	Comment Status D e exit from ENTRY_SEC to S and class_4PID_multi_event e from ENTRY_SEC state to er the existing condition: nult_events_sec * pwr_app_p C_DET_SEQ=1) rup, the Primary state machin iable will remain in FALSE, a TRY_SEC i.e. will be stuck th e this problem is to enable m rimary performed detection a uck at ENTRY_SEC. This so the current draft has only det	_sec = FALSE, START_DETE ori) + class_4PI ne returns back nd the seconda nere. oving to START t least once and lution requires	the secondary state CT_SEC only if D_mult_events_sec) * to IDLE_PRI. As a ary state machine won't T_DETECT_SEC from d is now in IDLE_PRI the addition of new			
This comment was WITHE	REJECT. This comment was WITHDRAWN by the commenter. This comment was withdrawn before the comment resolution meeting.				SuggestedRemedy See darshan_04_0917.pdf for how the following change is also addresses other issues including the possibility to do cycles of detection + class_probe events on primary and secondary with the option to go to IDLE_PRI/SEC and WAIT_PRI/SEC.						
				REJEC	CT.	Response Status Z	er.				
						ndrawn before the comment r		ing.			

C/ 145	SC 145.2.5.7	P 136	L 21	# i-480	C/ 145	SC 1	145.2.5.3		P 109	L 42	# i-481	
Darshan, Ya	air				Darshan, Yai	r						
Comment T	ype T	Comment Status D		Repeats	Comment Ty	pe	т	Comment Stat	tus D		Repea	
conditio sism * (((CC_DE In this c If STAR remain i and the	n: (!class_4PID_m ET_SEQ=0 + C0 condition, when CT_DET_PRI ex in FALSE whicl secondary state	n ENTRY_SEC to START_C nult_events_sec * pwr_app_p C_DET_SEQ=1). class_4PID_mult_events_se it to IDLE_PRI due to tdet_tir h wont allow exiting from EN e machine remain stuck in El	ori) + class_4PID c=FALSE, and C ner_pri_done, th TRY_SEC to ST		Per the and not s detectior a) To de and also b) (Prefe	definit stagge versi ete fig upda rred) ggere	tion of CC ered and th ions. So w gure 145B te state m Keep Figu ed detectio	his contradicts fig /e have two optic /-3 to sync with C achine which wil //re 145B-3, and	or dual-sign gure 145B- ons to resol C_DET_SI I be compli- change the	ature, the detect 3 that is shown a ve this: EQ=0 definition t cated task at this "CC_DET_SEC	Figure 145B-3: tion need to be parallel as one of the staggered for dual-signature PDs s point of time. OR, a=0 definition that to ently is supported by	
		for this problem is:	DDI atata Thi	a action analyzed that	SuggestedR	emedy	y					
tdet_tim DETEC seconda 2. Add "	 To add stop_tdet_timer_pri in the DETECT_EVAL_PRI state. This action ensures that tdet_timer_pri_done will remain FALSE when moving from START_DETECT_PRI to DETECT_EVAL_PRI. This action enables the usage of tdet_timer_pri_done in the secondary state machine at the exit from ENTRY_SEC to START_DETECT_SEC. Add "tdet_timer_pri_done to the condition of the exit from ENTRY_SEC to 					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."						
	_DETECT_SEC		nri i telat timor	nri dana \ \ .	Proposed Re	espon	se	Response Stat	us Z			
		nult_events_sec * (pwr_app_ ts_sec) * (CC_DET_SEQ=0 ·			REJECT							
allow to	move to STAR	T_DETECT_SEC in case that t_timer_pri expiration.			This con	nment	was WITI	HDRAWN by the	e commente	er.		
SuggestedF	Remedy				This com	nment	was with	drawn before the	comment i	esolution meetir	ng.	
2. Add " START_	'tdet_timer_pri_ _DETECT_SEC	r_pri" to the DETECT_EVAL_ done to the condition of the e by performing the following	exit from ENTRY	_SEC to	Cl 145 Bennet, Ken	SC 1	145.3.8		P 189	L 7	# [i-482	
(CC_DE To:	((!class_4PID_m ET_SEQ=0 + C0	nult_events_sec * pwr_app_p C_DET_SEQ=1)"				45-28		<i>Comment Stat</i> , 11 Describe inp a value in the M	out average		PD Power labels it PClass_PD(- has a range.	
class_4	PID_mult_even	nult_events_sec * (pwr_app_ ts_sec) * (CC_DET_SEQ=0 	+ CC_DET_SEC	Q=1)"				t, and a limit. Ite sult in misinterpre			ey this. Items 10, 11 are	
		n 2 need additional changes			SuggestedR	emedy	y					
here but darshan possibili	meet the requirement that we need single independent comment for each issue which I did here but may cause editor confusion of how to apply the remedies of other comments, See darshan_04_0917.pdf for how the above change is combined with other changes i.e. the possibility to do cycles of detection + class_probe events on primary and secondary with					"1) In items 10, 11, change the description to ""Maximum""input average power"" And 2) Either Merge the min and max cells for items 10, 11, or set both the min and the max values to the same PClass_PD value"						
	-	E_PRI/SEC and WAIT_PRI/S	EC.		Response			Response Stat	us C			
Proposed R	•	Response Status Z			REJECT	-						
REJEC ⁻ This cor		THDRAWN by the commenter	ır.					idard is clear as 145.3.8.2 spells			je makes it less clear. /.	

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

This comment was withdrawn before the comment resolution meeting.

C/ 145 SC 145.3.8.4.1 Bennet, Ken	P 193	L 41	# i-483	Cl 145 SC Johnson, Peter	145.2.8	P 153	L 31	# i-485
					_			
·····	nment Status A		PD Power	Comment Type	т	Comment Status A		PSE Inrush
"This comment addresses all Pport_PD-2P). One example ""Pport_PD"" is the input avera input average power to be cor	Dual Signature Class 5 Minimum I_Inrush-2P is specified as 325 mA. Class 5 Dual Signature PD's are specified in 145.3.8.3 as allowing up to 180uF for C_Port-2P without PD current limiting. Is there a rationale why 325mA current limiting meets the needs of a Class 5 Dual Signature but we require 400mA for all other cases where C_Port or C_Port-2P can go up to 180uF ?							
SuggestedRemedy				SuggestedReme	dy			
For each occurrence of Pport_ add a "_max" suffix.	PD and Pport_PD-2	P, either preceed	l it with "maximum", or	Unless there the Type-4 D		ble reason, I_Inrush should ure case.	be 800mA and I	I_Inrush-2P 400mA for
Response Resp	oonse Status C			Response		Response Status C		
ACCEPT IN PRINCIPLE.				ACCEPT IN	PRINCIPLI	Ξ.		
For each occurrence of Pport_ add a "_max" suffix.	PD and Pport_PD-2	P, either preceed	l it with "maximum", or	adopt change	es shown ir	n yseboodt_10_0917_inrush	.pdf	
Editorial license given to make	e sure maximum is ar	propriate for eac	ch occurance.	This resolution	on is identio	cal to comment #291.		
	•	· ·		[Editor's note	added afte	er comment resolution comp	leted.	
C/ 145 SC 145.3.8.6 Bennett, Ken	P 194	L 4	# i-484			FILE_NAME.pdf is 3/bt/public/sep17/yseboodt	10 0917 inrust	n pdfl
Comment Type T Con	nment Status A		PD Power	nap.// 00000	00002.01g/			iibai]
"The sentence starting with ""/ of PD Types and Cport values subclause"". These are inform	that ""Intrinsically me	eet the requireme	ents in this					
1) A type 4 PD with 360uF car Type 3 limit is 180uF, so the 1								
It's conceivable for any of the fault in a PD for reasons other		ent could cause	a power surge and/or					
SuggestedRemedy								
Delete the text starting at line just after the list of PD types a		PD includes")	and ending at line 17,					
Response Resp	oonse Status C							

ACCEPT.

Cl 145 SC 145.2.8.6 P 162 L 33 # [i-486] Johnson, Peter	C/ 145 SC 145.3.8.10 P 196 L 7 # i-487 Johnson, Peter					
 Comment Type T Comment Status A PSE Inrush (Re-filed comment from D 2.4) There is an inconsistency in the three minimum inrush current requirements a), b), and c) and Table 145-16. Conditions a) and b) specify "minimum linrush-2P" requirements with actual values while Table 145-16 is blank for minimum lnrush-2P given Single Signature PD. Are these figures really applicable to linrush-2P or are they applicable to linrush? Item c) says refer to Table 145-16 for minimum linrush-2P, but again, those boxes are blank for Single Signature. SuggestedRemedy Following modification has implementation implications but could resolve the confusion: a)voltages between 0 V and 10 V, the minimum I_Inrush when powering a Single Signature PD and the minimum I_Inrush-2P when powering a Dual Signature PD shall be 5 mA. b) voltages between 10 V and 30 V, the minimum I_Inrush when powering a Single Signature PD and the minimum I_Inrush-2P when powering a Dual Signature PD shall be 60 mA. c) voltages above 30 V, the minimum I_Inrush when powering a Single Signature PD and the minimum I_Inrush and I_Inrush-2P when powering a Dual Signature PD are specified in Table 145-16. 	Johnson, Peter Comment Type T Comment Status A Pres: Darshant The text "Single-signature PDs shall not exceed ICon-2P-unb for longer than TCUT-2P min and 5 % duty cycle, and shall not exceed IPeak-2P-unb, as defined in Equation (145-12) on any pair" fails to account for the fact that there are many combinations of PSE voltage and PD class where IPeak-2P_unb is a value LESS than ICon-2P-unb. It makes no sense that peak power must be less than continuous power. SuggestedRemedy This creates a fundmental dilemma because IPeak-2P_unb is a function of V_PSE and therefore only the PSE knows what IPeak-2P_unb current is, not the PD. To be universal, PD current balance, both instantaneous and average, must therefore be restricted to Icon-2P-unb. Language would be: "Single-signature PDs shall not exceed ICon-2P-unb on any pair" Response Response Status C ACCEPT IN PRINCIPLE. A C					
Response Response Status C ACCEPT IN PRINCIPLE. Accept and the state of the s	IPeak-2P-unb = {ILIM-2P - 0.002}A This resolution is identical to comment #104. CI 145 SC 145.3.8.3 P 192 L 11 # i-488 Johnson, Peter Comment Type T Comment Status R PD Inrush Present text is "A PD may limit the inrush current below I_Inrush_PD and I_Inrush_PD-2P to allow for large values" This instance is part of a broader problem where certain parameters in certain tables have a MAX is specified but no MIN, and are treated as if they are constants rather than ranges with no minimum value. If the parameter is truly a constant, then it seems it should appear in both MIN and MAX columns of the table. SuggestedRemedy					

The quick fix in this instance is to use I_Inrush_PD(max) and I_Inrush_PD-2P(max).

Response Response Status C

REJECT.

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.

C/ 145 Johnson,	SC 145. Peter	3.8.3	P 192	L 21	# i-489	
Comment	Туре Т	Con	nment Status R		PD	Inrush
			v less than I_Inrush_ ay-2P(min), when'		PD-2P from	
T_Inru low th	ush_PD(max reshold (e.g	k). But it also . 100mA) mu	r the PD nor the PSI o suggests that a PE ust then drop below paragraph?	that implements	current limiting at	
Suggeste	dRemedy					
	ot propose		ere without a better u			the
parag I_Inru	raph. I wou sh_PD and sh_PD-2P(r	I_Inrush_PD	-2P or that the inten	/ /	, 0	and
parag I_Inru	sh_PD and sh_PD-2P(n	I_Inrush_PD nax)		/ /	, 0	and

The intent is to say that after Tinrush_PD(max) the PD must have its current controlled so that it draws less than linrush_PD(-2p). After T_delay-2P it can then draw the power assigned to it during classification. linrush_PD(-2P) are maximum values.