Physical Layer & DLL classification v121

Table 33–3—Allowed PSE variable definition permutations

PSE Type	Variables	
	class_num_events	pse_dll_capable
Type 4	5	FALSE
		TRUE
	~~1~~	~~TRUE~~
Type 3	4	FALSE
		TRUE
	2^1	FALSE~~2~~
		TRUE
	1^2	FALSE~~1~~
		TRUE
Type 2	2	FALSE
		TRUE
	1	TRUE
Type 1	1	FALSE
		TRUE
	0	FALSE
		TRUE
~~Note 1—A Type 3 PSE with a guaranteed power output of 15.4W or less can be limited to one class event without requiring dll capability.~~ ~~Note 2—A Type 3 PSE with a guaranteed power output of 30W or less can be limited to two class events without requiring dll capability.~~ Note 1—A Type 3 PSE with a guaranteed power output of 15.4W or less can be limited to one class events. Note 2—A Type 3 PSE with a guaranteed power output of 30W or less can be limited to two class events.		

Table 33–8—PSE and PD classification permutations

Permutations			PSE allowed?	PD allowed?
PSE/PD Type	Physical Layer classification	Data Link Layer classification		
Type 3, or Type 4	Multiple-Event	No	Yes	No
		Yes	Yes	Yes
	1-Event	No	No	No
		Yes	No[1]	No
	None	No	No	No
		Yes	No	No
Type 2	2-Event	No	Yes	No
		Yes	Yes	Yes
	1-Event	No	No	No
		Yes	Yes	No
	None	No	No	No
		Yes	No	No
Type 1	Multiple-Event	No	No	Yes
		Yes	No	Yes
	1-Event	No	Yes	Yes
		Yes	Yes	Yes
	None	No	Yes	No
		Yes	Yes	No

NOTE 1—A Type 3 PSE that is limited to Type 1 power levels can be limited to 1-Event Physical Layer classification.

TODO: change PSE state diagram

- **Flow from CLASS_EV1 to Flag C via pse_skips_multievent**

Change section 33.2.6 (reference draft 0.2) as follows:

Subsequent to successful detection, all Type 2, Type 3 and Type 4 PSEs perform classification using at least one of the following: 2Multiple-Event Physical Layer classification; 2Multiple-Event Physical Layer classification and Data Link Layer classification; or 1-Event Physical Layer classification and Data Link Layer classification.

Subsequent to successful detection, all Type 2 PSEs perform classification using at least one of the following: 2-Event Physical Layer classification; 2-Event Physical Layer classification and Data Link Layer classification; or 1-Event Physical Layer classification and Data Link Layer classification.

Subsequent to successful detection, all Type 3 and Type 4 PSEs perform classification using at least one of the following: Multiple-Event Physical Layer classification; or Multiple-Event Physical Layer classification and Data Link Layer classification.

Change section 33.2.6.1 (reference draft 0.2) as follows:

If the result of the class event is Class 4, a Type 1 PSE shall assign the PD to Class 0; a Type 2, Type 3 or Type 4 PSE treats the PD as a Type 2 PD but may provide Class 0 power until mutual identification is complete.

If the result of the class event is Class 4, a Type 1 PSE shall assign the PD to Class 0; a Type 2 PSE treats the PD as a Type 2 PD but may provide Class 0 power until mutual identification is complete; a Type 3 or Type 4 PSE treats the PD as a Type 2 PD.

Change section 33.2.6.2 (reference draft 0.2) as follows:

If the result of the first class event is Class 4, the PSE may omit the subsequent mark and class events only if the PSE implements Data Link Layer classification. In this case, a Type 2, Type 3 or Type 4 PSE treats the PD as a Type 2 PD but may provide Class 0 power until mutual identification is complete.

If the result of the first class event is Class 4, a Type 2 PSE may omit the subsequent mark and class events only if the PSE implements Data Link Layer classification. In this case, a Type 2 PSE treats the PD as a Type 2 PD but may provide Class 0 power until mutual identification is complete; a Type 3 or Type 4 PSE shall complete the subsequent mark and class events.