DLL and Assigned Class v100

> **Info (not part of baseline)**
>
> When the PSEs allocated power changes due to a negotiation using DLL, this also affects all the parameters that depend on the assigned Class. Therefore, a mapping is needed between the PSEAllocatedPowerValue and the assigned Class.

33.2.7 PSE classification of PDs and mutual identification

With Data Link Layer classification, the PSE and PD communicate using the Data Link Layer Protocol (see 33.6) after the data link is established. The Data Link Layer classification has finer power resolution and the ability for the PSE and PD to participate in dynamic power allocation wherein allocated power to the PD may change one or more times during PD operation. Data Link Layer classification takes precedence over Physical Layer classification. After a successful DLL classification, the assigned Class changes depending on the value of the PSEAllocatedPowerValue variable, as defined in Table 33–12a. The Physical Layer classification of the PD is the maximum power that the PD draws across all output voltages and operational modes.

Insert a new Table after Table 33–12, linked to the paragraph on page 96, line 38:

Table 33–12a—Relation of assigned Class and DLL for single-signature PDs

PSEAllocatedPowerValue	Assigned Class
1 – 39	1
40 – 65	2
66 – 130	3
131 – 255	4
256 – 400	5
401 – 510	6
511 – 620	7
621 – 999	8

> **Info (not part of baseline)**
>
> We need a similar construct for dual-signature, however, DLL for dual-signature is not yet defined.

33.3.6 PD classifications

…

A Type 2, Type 3 or Type 4 PD that does not successfully observe a Multiple-Event Physical Layer classification or Data Link Layer classification shall conform to Type 1 PD power restrictions and shall provide the user with an active indication if underpowered. The method of active indication is left to the implementer.

The requested Class of the PD is the amount of power the PD requests from the PSE, as defined in 33.3.6.1 and 33.3.6.2. Depending on the number of class events produced by the PSE, the assigned Class is equal to the requested Class, or it may be lower. The PD shall conform to the assigned Class, regardless of the Class it requested.

After a successful DLL classification, the assigned Class changes depending on the value of PDMaxPowerValue variable, as defined in Table 33–22a.

PD classification behavior conforms to the state diagram in Figure 33–32.

Insert a new Table at the end of 33.3.6:

Table 33–22a—Relation of assigned Class and DLL for single-signature PDs

PDMaxPowerValue	Assigned Class
1 – 39	1
40 – 65	2
66 – 130	3
131 – 255	4
256 – 400	5
401 – 510	6
511 – 620	7
621 – 999	8

PDMaxPowerValue	Assigned Class
1 – 39	1
40 – 65	2