PD power during inrush delay v100

> **Info (not part of baseline)**
>
> There is ambiguity regarding the permitted power draw during the inrush delay phase. The issue is that in the POWER_DELAY state, pse_assigned_class is set, based on the number of class events and the PD requested Class. During this state, the variables pd_max_power and pse_assigned_class may be in conflict, where pd_max_power would be less than pse_assigned_class. Similarly, the NO_POWER states all depend on the PD obeying pd_max_power.
>
> This proposed solution addresses the ambiguity in the definition of the "the assigned Class" in 145.3.8.2. For good measure, we point to pd_max_power in a few other locations.

145.3.3.3.2 Variables

Change the definition of pd_max_power as follows:

pd_max_power

> A variable indicating the maximum power that the PD may draw from the PSE. See power classifications in Table 145–29. The values for $P_{\text{Class\_PD}}$ and $P_{\text{Peak\_PD}}$ are derived from this variable.

…

145.3.3.4.2 Variables

Change the definition of pd_max_power_mode(X) as follows:

pd_max_power_mode(X)

> A variable indicating the maximum power that the PD may draw from the PSE on Mode X. See power classifications in Table 145–29. The values for $P_{\text{Class\_PD-2P}}$ and $P_{\text{Peak\_PD-2P}}$ are derived from this variable.

145.3.8.2 Input average power

Change the 4th paragraph as follows:

$P_{\text{Class\_PD}}$ and $P_{\text{Class\_PD-2P}}$ defined in Table 145–29 are determined by the variable pd_max_power, defined in 145.3.3.3.2 per the assigned Class. The assigned PSE Class is determined by the number of class events and the PD requested Class, as shown in Table 145–11. During normal operation pd_max_power will correspond with the assigned Class. During inrush or in a NOPOWER state, the PD input power limit can be smaller or greater than PSE assigned Class. $P_{\text{Class\_PD}}$ is the maximum average PI power and applies to single-signature PDs. $P_{\text{Class\_PD-2P}}$ is the maximum average power on a pairset and applies to dual-signature PDs.