Autoclass reference time v100

Info (not part of baseline)

The Autoclass measurement time for the PSE (defined by T_{AUTO_PSE1} and T_{AUTO_PSE2}) and the Autoclass maximum power draw time for the PD (defined by T_{AUTO_PD1} and T_{AUTO_PD2}) is referenced from two different moments. The reference time for the PSE is "the transition of POWER_UP to POWER_ON", where that for the PD is "measured when V_{PD} rises above $V_{Port\_PD\text{-}2P}$ min". The PSEs time reference is not readily observable at the PI. This is unnecessarily complicated.

This baseline proposes to change both reference times to when V_{PSE} or V_{PD} crosses 30V. Regardless of what inrush scheme is used, this moment occurs near simultaneous for both devices and is observable at the PI. Timings can remain as-is.

A final issue is that currently the PD state diagram does not agree with the PD Autoclass text. While the text uses $V_{Port\_PD\text{-}2P}$ min as reference, the state diagram uses $V_{PD} > V_{Off\_PD}$ as the reference point.

145.2.5.7 State diagrams

Change Figure 145–14 as follows:

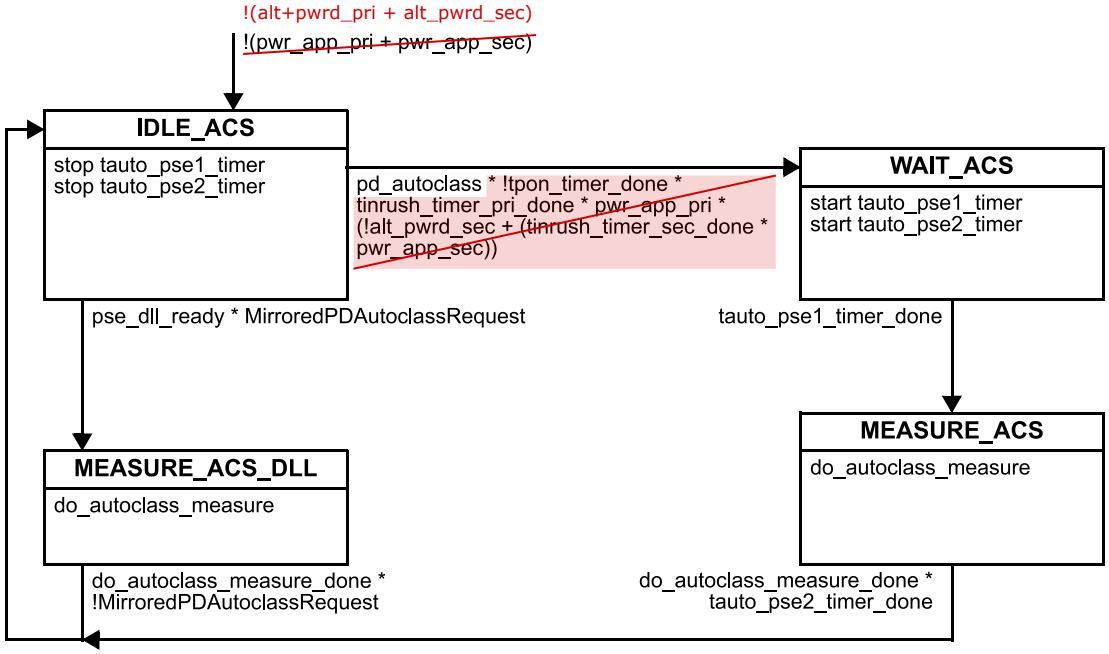

Figure 145–14—PSE Autoclass state diagram

145.2.7.2 Autoclass (optional)

. . .

T_{AUTO_PSE1} 1 and T_{AUTO_PSE2} timing is referenced from ~~the transition of the POWER_UP state to the POWER_ON state~~ when V_{PSE} exceeds 30 V.

. . .

In Table 145–15, change the 'Additional information' for Item 1 to read:

Measured from when V_{PSE} exceeds 30 V.

145.3.3.3.5 State diagrams

Change Figure 145–26 as follows:

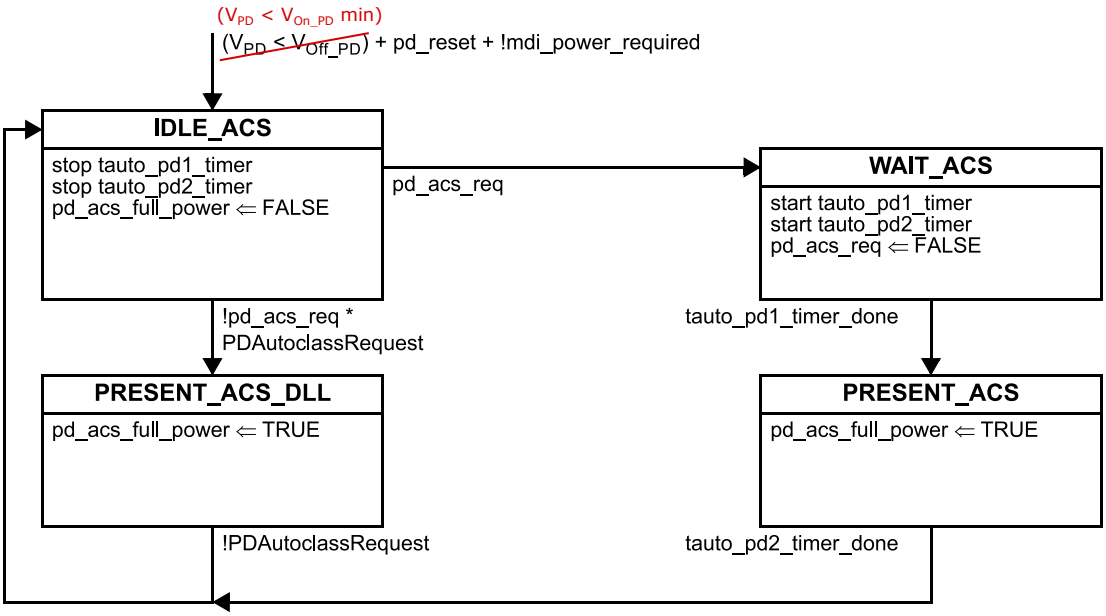

Figure 145–26—Single-signature PD Autoclass state diagram

145.3.6.2 Autoclass (optional)

. . .

After power up, a PD that implements Autoclass shall draw its highest required power, $P_{Autoclass\_PD}$, subject to the requirements on P_{Class_PD} in 145.3.8.2, throughout the period bounded by T_{AUTO_PD1} and T_{AUTO_PD2}, measured from when V_{PD} rises above ~~V_{Port_PD-2P} min~~ V_{On_PD} min.

. . .

In Table 145–28, change the 'Additional information' for Item 2 and 3 to read (merged):

Measured from when V_{PD} rises above V_{On_PD} min.