

# Autoclass reference time v100

## Info (not part of baseline)

The Autoclass measurement time for the PSE (defined by  $T_{\text{AUTO\_PSE1}}$  and  $T_{\text{AUTO\_PSE2}}$ ) and the Autoclass maximum power draw time for the PD (defined by  $T_{\text{AUTO\_PD1}}$  and  $T_{\text{AUTO\_PD2}}$ ) 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  $V_{\text{PD}}$  rises above  $V_{\text{Port\_PD-2P min}}$ ”. 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  $V_{\text{PSE}}$  or  $V_{\text{PD}}$  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  $V_{\text{Port\_PD-2P min}}$  as reference, the state diagram uses  $V_{\text{PD}} > V_{\text{Off\_PD}}$  as the reference point.

## 145.2.5.7 State diagrams

Change Figure 145-14 as follows:

" "

Do you mean the 1st time Vpse or Vpd crosses 30V? (In some compliant PDs The voltage gets to 30V and then drops quickly to zero and then ramp smoothly to steady state)

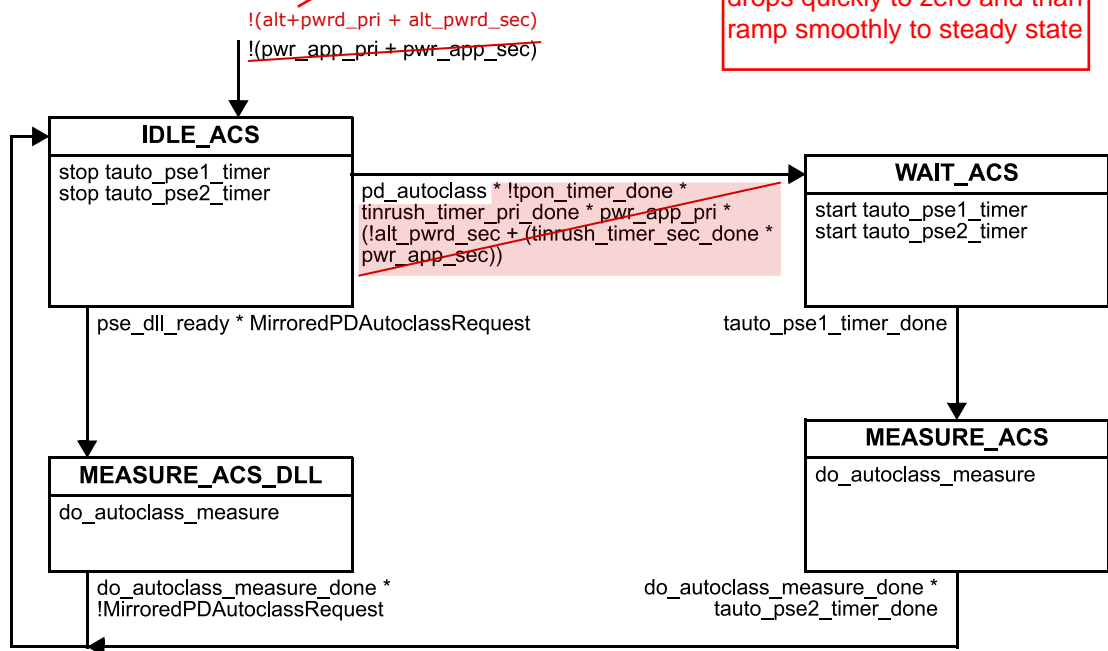


Figure 145-14—PSE Autoclass state diagram

## 145.2.7.2 Autoclass (optional)

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$T_{\text{AUTO\_PSE1}}$  and  $T_{\text{AUTO\_PSE2}}$  timing is referenced from the transition of the POWER\_UP state to the POWER\_ON state when  $V_{\text{PSE}}$  exceeds 30 V.

...

In Table 145-15, change the ‘Additional information’ for Item 1 to read:

Measured from when  $V_{\text{PSE}}$  exceeds 30 V.

### 145.3.3.3.5 State diagrams

Change Figure 145–26 as follows:

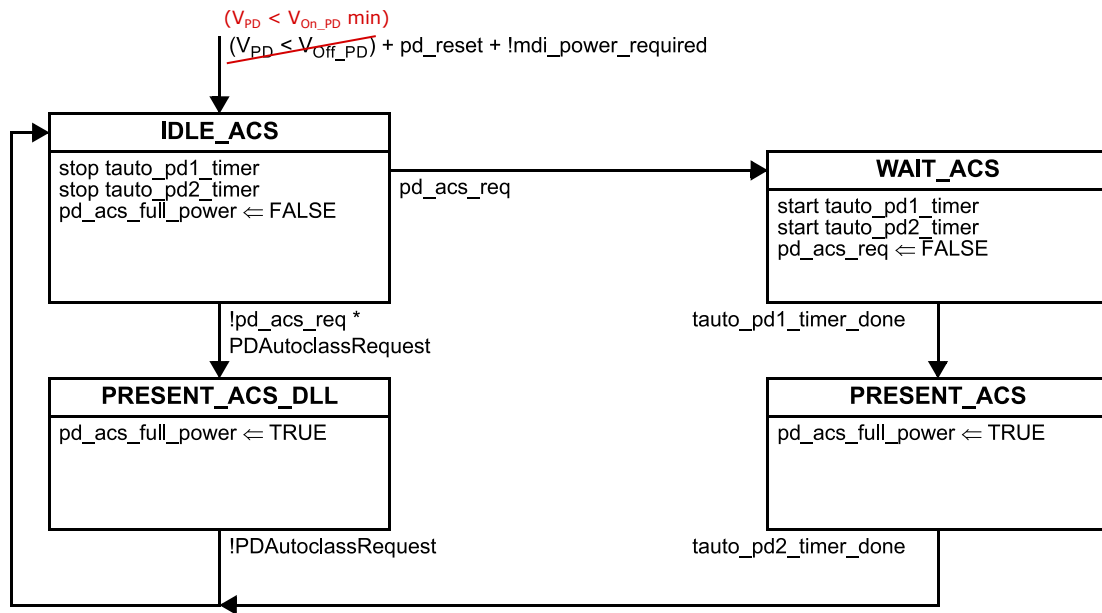


Figure 145–26—Single-signature PD Autoclass state diagram

### 145.3.6.2 Autoclass (optional)

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After power up, a PD that implements Autoclass shall draw its highest required power,  $P_{\text{Autoclass\_PD}}$ , subject to the requirements on  $P_{\text{Class\_PD}}$  in 145.3.8.2, throughout the period bounded by  $T_{\text{AUTO\_PD1}}$  and  $T_{\text{AUTO\_PD2}}$ , measured from when  $V_{\text{PD}}$  rises above  ~~$V_{\text{Port\_PD-2P min}}$~~   $V_{\text{On\_PD min}}$ .

...

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

Measured from when  $V_{\text{PD}}$  rises above  $V_{\text{On\_PD min}}$ .