PSE State Diagram Update and Corrections
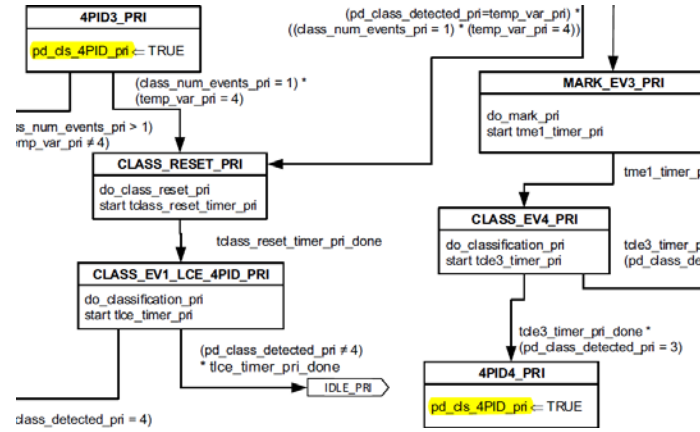
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TEXAS INSTRUMENTS

Comment 233

CLASS_EVAL_SEC

```
IF (pd_cls_4PID_sec * (sig_sec = valid) * ((sig_pri = valid) + pwr_app_pri)) THEN
    pd_4pair_cand ⇐ TRUE
END
```

- Parentheses are at wrong location.

- The first condition is applicable if the PSE does <u>parallel</u> detection and uses the <u>3-finger method</u> to determine if 4P capable; in this case, <u>both</u> signatures must show valid.

- The second condition is applicable if the PSE does <u>staggered</u> detection; if the other alternative is <u>already powered</u>, it becomes obvious that it is 4P capable since we cannot reach the CLASS_EVAL_PRI/SEC unless the pri/sec signature is valid too.

- Remedy: Replace with

  IF (pd_cls_4PID_sec * (sig_sec = valid) * (sig_pri = valid) + pwr_app_pri)

TEXAS INSTRUMENTS

Comment 234

- pd_cls_4PID_xyz is missing from the list of variables.

- pd_cls_4PID_xyz is strictly the result of a <u>very specific</u> 4PID <u>test method</u> (3-finger class and parallel detection).
  - If the PSE uses the <u>staggered</u> detection, the pd_cls_4PID_xyz will <u>never be set</u>. In this case, if the other alternate is already powered it is obvious that it is 4P capable (see comment **233** slide), and the state of pd_cls_4PID_xyz is a "don't care".

- Remedy: Insert these (similar for sec alternate)

  pd_cls_4PID_pri:

  This variable indicates 4PID and Type 3 or Type 4 dual-signature PD has been established

  by using the method to generate 3 class events on the Primary Alternative.

  > TRUE: PD is a candidate for 4-pair power.

  > FALSE: PD not a candidate for 4-pair power OR the PSE has not used the method to

  > determine 4P capability by generating 3 class events.

TEXAS INSTRUMENTS