









From CLASS SD (TBD tie-in via Classification SD updates)

```
CLASS_EVAL_PRI
IF (pd_cls_4PID_pri * (sig_pri = valid) * (sig_sec = valid)) THEN
  PD_4pair_cand <= TRUE
ELSE
  PD_4pair_cand <= FALSE
END
```

$(pd_req_pwr_pri \leq pse_avail_pwr_pri) * ted_timer_pri_done * (PD_4pair_cand + !alt_sec_pwr) + pwr_app_sec$

$(pd_req_pwr_pri > pse_avail_pwr_pri) + (!PD_4pair_cand * alt_sec_pwr) + !ted_timer_pri_done$

```
POWER_UP_PRI
Alt_pri_pwr <= TRUE
det_start_pri <= FALSE
```

$tpon_timer_pri_done$

$tinrush_timer_pri_done * pwr_app_pri * !tpon_timer_pri_done$

```
SET_PARAMETERS
set_parameter_type
```

UCT

```
POWER_ON_PRI
```

$(pd_dll_power_type \neq parameter_type)$

$pse_dll_capable * !pse_dll_enabled$

```
DLL_ENABLE
pse_dll_enabled <= TRUE
```

UCT

$tinrush_timer_pri_done * (!pwr_app_pri + (I_{Port-2P_pri} \geq I_{Inrush-2P}))$

$short_det_pri + ovld_det_pri + option_vport_lim$

```
ERROR_DELAY_PRI
start ted_timer_pri
alt_pri_pwr <= FALSE
```

$ted_timer_pri_done + option_detect_ted_pri$

$power_not_available_pri * !short_det_pri * !ovld_det_pri * !tmpdo_timer_pri_done * !option_vport_lim$

```
POWER_DENIED_PRI
```

UCT

$tmpdo_timer_pri_done * !short_det_pri * !ovld_det_pri * !power_not_available_pri * !option_vport_lim$



From CLASS SD (TBD tie-in via Classification SD updates)

```
CLASS_EVAL_SEC
IF (pd_cls_4PID_sec * (sig_sec = valid) * (sig_pri = valid)) THEN
  PD_4pair_cand <= TRUE
ELSE
  PD_4pair_cand <= FALSE
END
```

$(pd_req_pwr_sec \leq pse_avail_pwr_sec) * ted_timer_sec_done * (PD_4pair_cand + pwr_app_pri + (sig_pri \neq valid))$

$(pd_req_pwr_sec > pse_avail_pwr_sec) + (!PD_4pair_cand * !pwr_app_pri) + !ted_timer_sec_done$

```
POWER_UP_SEC
alt_sec_pwr <= TRUE
det_start_sec <= FALSE
```

tpontimer_sec_done

$tinrush_timer_sec_done * pwr_app_sec * !tpontimer_sec_done$

$(pd_dll_power_type \neq parameter_type)$

```
SET_PARAMETERS
set_parameter_type
```

UCT

```
POWER_ON_SEC
```

$pse_dll_capable * !pse_dll_enabled$

```
DLL_ENABLE
pse_dll_enabled <= TRUE
```

UCT

$tinrush_timer_sec_done * (!pwr_app_sec + (I_{Port-2P_sec} \geq I_{Inrush-2P}))$

$short_det_sec + ovld_det_sec + option_vport_lim$

```
ERROR_DELAY_SEC
start ted_timer_sec
alt_sec_pwr <= FALSE
```

$ted_timer_sec_done + option_detect_ted_sec$

$power_not_available_sec * !short_det_sec * !ovld_det_sec * !tmpdo_timer_sec_done * !option_vport_lim$

$tmpdo_timer_sec_done * !short_det_sec * !ovld_det_sec * !power_not_available_sec * !option_vport_lim$

```
POWER_DENIED_SEC
```

UCT

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