Baseline for Autoclass fixes in D1.6 v111

33.2.5.11 Type 3 and Type 4 functions

Remove the pd_autoclass variable from 33.2.5.9.

Insert new function do_autoclassification in 33.2.5.11:

do_autoclassification

> This functions returns the following variables:
>
> pd_autoclass: This variable indicates whether the PD requests Autoclass during Physical Layer classification. pd_autoclass is set to True when a class signature if '0' is detected, otherwise it is set to False.
> Values:
>> FALSE: The PD does not request Autoclass.
>> TRUE: The PD requests Autoclass.
>
> mr_pd_autoclass_detected: The PD classification signature seen during the T_{ACS} window of long first class event.
> Values:
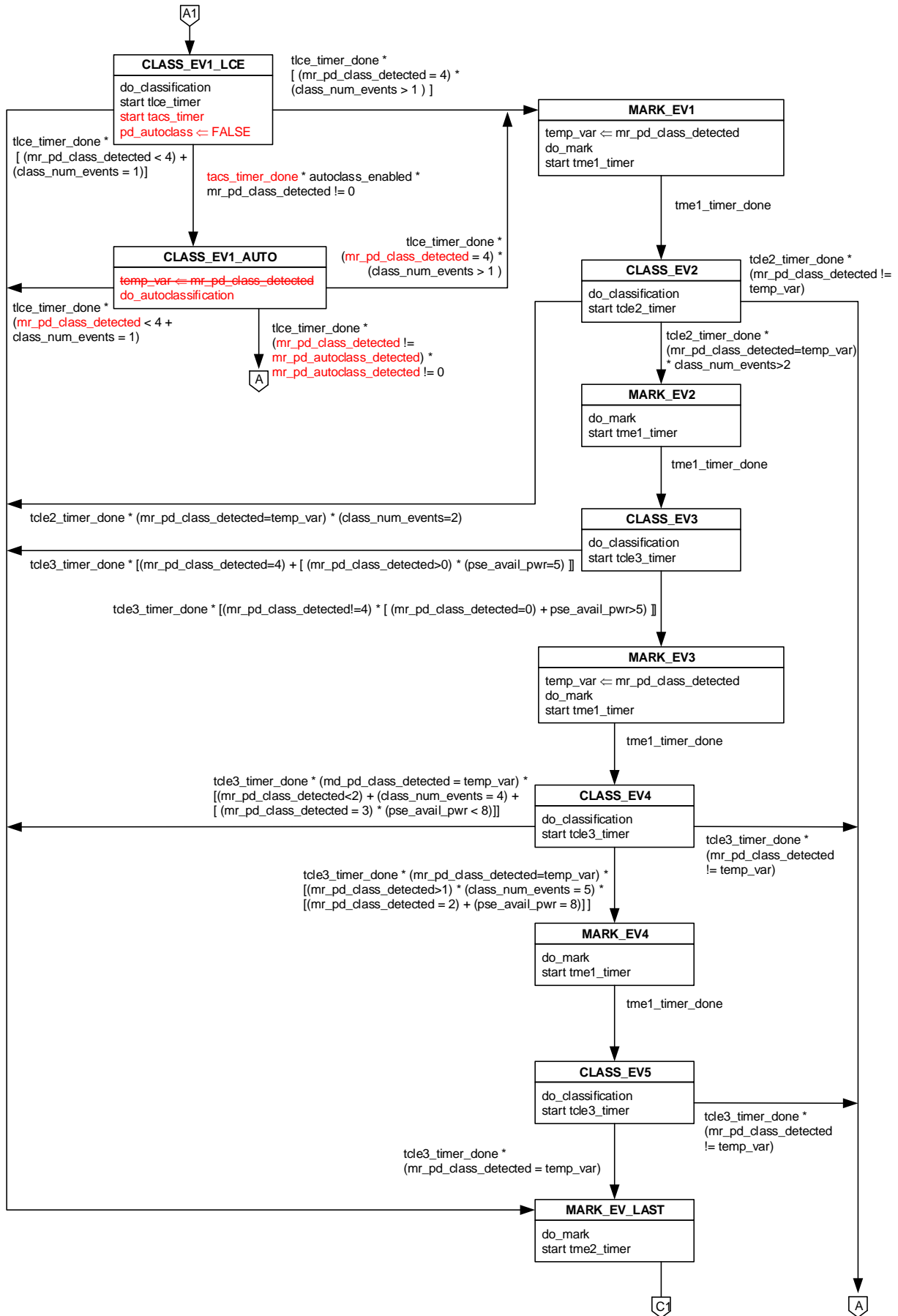>> 0:   class signature 0
>> 1:   class signature 1
>> 2:   class signature 2
>> 3:   class signature 3
>> 4:   class signature 4

33.2.5.12 Type 3 and Type 4 state diagrams

Make the following changes to Figure 33–19:

A1

CLASS_EV1_LCE

do_classification
start tlce_timer
start tacs_timer
pd_autoclass ⇐ FALSE

tlce_timer_done *
[(mr_pd_class_detected = 4) *
(class_num_events > 1)]

MARK_EV1

temp_var ⇐ mr_pd_class_detected
do_mark
start tme1_timer

tlce_timer_done *
[(mr_pd_class_detected < 4) +
(class_num_events = 1)]

tacs_timer_done * autoclass_enabled *
mr_pd_class_detected != 0

tme1_timer_done

CLASS_EV1_AUTO

temp_var ⇐ mr_pd_class_detected
do_autoclassification

tlce_timer_done *
(mr_pd_class_detected = 4) *
(class_num_events > 1)

CLASS_EV2

do_classification
start tcle2_timer

tcle2_timer_done *
(mr_pd_class_detected !=
temp_var)

tlce_timer_done *
(mr_pd_class_detected < 4 +
class_num_events = 1)

tlce_timer_done *
(mr_pd_class_detected !=
mr_pd_autoclass_detected) *
mr_pd_autoclass_detected != 0

A

tcle2_timer_done *
(mr_pd_class_detected=temp_var)
* class_num_events>2

MARK_EV2

do_mark
start tme1_timer

tme1_timer_done

tcle2_timer_done * (mr_pd_class_detected=temp_var) * (class_num_events=2)

CLASS_EV3

do_classification
start tcle3_timer

tcle3_timer_done * [(mr_pd_class_detected=4) + [(mr_pd_class_detected>0) * (pse_avail_pwr=5)]]

tcle3_timer_done * [(mr_pd_class_detected!=4) * [(mr_pd_class_detected=0) + pse_avail_pwr>5)]]

MARK_EV3

temp_var ⇐ mr_pd_class_detected
do_mark
start tme1_timer

tme1_timer_done

tcle3_timer_done * (md_pd_class_detected = temp_var) *
[(mr_pd_class_detected<2) + (class_num_events = 4) +
[(mr_pd_class_detected = 3) * (pse_avail_pwr < 8)]]

CLASS_EV4

do_classification
start tcle3_timer

tcle3_timer_done *
(mr_pd_class_detected
!= temp_var)

tcle3_timer_done * (mr_pd_class_detected=temp_var) *
[(mr_pd_class_detected>1) * (class_num_events = 5) *
[(mr_pd_class_detected = 2) + (pse_avail_pwr = 8)]]

MARK_EV4

do_mark
start tme1_timer

tme1_timer_done

CLASS_EV5

do_classification
start tcle3_timer

tcle3_timer_done *
(mr_pd_class_detected
!= temp_var)

tcle3_timer_done *
(mr_pd_class_detected = temp_var)

MARK_EV_LAST

do_mark
start tme2_timer

C1

A

33.2.7.2 PSE Multiple-Event Physical Layer classification

A Type 1 or Type 2 PSE in the state CLASS_EV1 or a Type 3 or Type 4 PSE in the state CLASS_EV1_LCE shall provide to the PI V_{Class} as defined in Table 33–15. The timing specification for Type 1 ~~and Type 2~~ PSEs shall be as defined by Table 33–15 value ~~T_{CLE1}~~ T_{pdc}, by T_{CLE1} for Type 2 PSEs, and by T_{LCE} for Type 3 or Type 4 PSEs. A Type 1 or Type 2 PSE shall measure I_{Class} and classify the PD based on the observed current according to Table 33–14. ~~The~~ A Type 3 or Type 4 PSE shall measure I_{Class} and classify the PD based on the observed current according to Table 33–14 within ~~T_{pdc}~~ T_{Class_LCE} as defined in Table 33–15. Type 3 and Type 4 PSEs may continue to monitor the current past ~~T_{pdc}~~ T_{Class_LCE}. If the Type 3 or Type 4 PSE does not measure I_{Class} in the range of ~~Class 0~~ class signature 0 before T_{ACS} min and the PSE measures I_{Class} in the range of Class 0 after T_{ACS} max this indicates the PD will perform Autoclass. (see 33.3.5.3).

…

> **Info (not part of baseline)**
>
> The below requirement doesn't work for the LCE class as it would require a measurement after 88ms. A new parameter T_{Class} is introduced. T_{Class} already exists in the PD section, but a comment will propose to rename that to T_{Class_PD}. We use T_{Class} to indicate all class measurements are to be taken after 6ms.

All measurements of I_{Class} shall be taken after T_{Class} as defined in ~~the minimum relevant class event timing of~~ Table 33–15. This measurement is referenced from the application of V_{Class} min to ignore initial transients.

Insert two new items into Table 33–15 as follows:

Item	Parameter	Symbol	Unit	Min	Max	Single- or Multiple Event	Additional information
14	Class event I_{Class} measurement timing	T_{Class}	ms	6.00		Both	
15	LCE I_{Class} measurement timing	T_{Class_LCE}	ms	T_{Class}	75.0	Multiple	

33.3.3.4 Timers

Rename 'tacs_timer' to 'tacs_pd_timer' (1 occurrence).

33.3.3.6 State diagrams

Rename 'tacs_timer' to 'tacs_pd_timer' (2 occurrences).