318:AL
319:IF
reset
!(reset)
320:BL ebi_rxd_d1 <= 0; ebi_K_d1 <= 0;
322:BL ebi_rxd_d1 <= ebi_rxd; ebi_K_d1 <= ebi_K;
Leaf_318:AL
336:AS K28_5_RX = ebi_rxd_d1 == 8'hbc;
335:AS K28_1_RX = ebi_rxd_d1 == 8'h3c;
337:AS K28_7_RX = ebi_rxd_d1 == 8'hfc;
325:AL
355:AL
339:AS COMMA_RX = K28_1_RX | K28_5_RX | K28_7_RX;
326:IF
!(reset)
reset
357:NS INVALID <= (reset)? 0 : decoder_disparity_err | decoder_coding_err;
341:AS COMMA_match = COMMA_RX & ebi_K_d1;
329:BL ebi_rxd_out <= ebi_rxd_d1; ebi_K_out <= ebi_K_d1;
327:BL ebi_rxd_out <= 0; ebi_K_out <= 0;
Leaf_355:AL
Leaf_286:AL
426:AL
Leaf_325:AL
359:AS VALID = ~INVALID;
427:BL pcs_sync_next = pcs_sync_present; good_cgs_m_init = 0; good_cgs_m_inc = 0; good_cgs_m_cnt = 0; sync_m_acquired = 0; sync_m_lost = 0; rx_even_m_init = 0; rx_even_m_set = 0; rx_even_m_clr = 0; rx_even_m_toggle = 0; running_disparity_negative_m_set = 0; running_disparity_positive_m_set = 0;
438:CS
pcs_sync_present
458:CA
561:CA
545:CA
509:CA
445:CA
525:CA
479:CA
486:CA
465:CA
535:CA
516:CA
440:CA
500:CA
553:CA
571:IF
(~signal_detect)
546:BL rx_even_m_toggle = 1; good_cgs_m_inc = 1; pcs_sync_next = (cgbad)? S_PCS_SYNC_ACQUIRED_3 : (good_cgs_done)? S_PCS_SYNC_ACQUIRED_1 : S_PCS_SYNC_ACQUIRED_2A;
446:BL sync_m_lost = sync_status;
526:BL rx_even_m_toggle = 1; pcs_sync_next = (cggood)? S_PCS_SYNC_ACQUIRED_3A : S_PCS_SYNC_ACQUIRED_4;
487:BL
466:BL
536:BL rx_even_m_toggle = 1; pcs_sync_next = (cggood)? S_PCS_SYNC_ACQUIRED_4A : S_PCS_SYNC_LOSS_OF_SYNC;
517:BL rx_even_m_toggle = 1; pcs_sync_next = (cggood)? S_PCS_SYNC_ACQUIRED_2A : S_PCS_SYNC_ACQUIRED_3;
441:BL
480:BL rx_even_m_toggle = 1; pcs_sync_next = (~ebi_K_d1 & ~cgbad)? S_PCS_SYNC_ACQUIRE_SYNC_2 : S_PCS_SYNC_LOSS_OF_SYNC;
501:BL rx_even_m_toggle = 1; pcs_sync_next = (~ebi_K_d1 & ~cgbad)? S_PCS_SYNC_ACQUIRED_1 : S_PCS_SYNC_LOSS_OF_SYNC; sync_m_acquired = ~ebi_K_d1;
571:BS pcs_sync_next = S_PCS_SYNC_LOSS_OF_SYNC;
459:BL rx_even_m_toggle = 1; pcs_sync_next = (~ebi_K_d1 & ~cgbad)? S_PCS_SYNC_ACQUIRE_SYNC_1 : S_PCS_SYNC_LOSS_OF_SYNC;
562:BL rx_even_m_toggle = 1; good_cgs_m_inc = 1; pcs_sync_next = (cgbad)? S_PCS_SYNC_LOSS_OF_SYNC : (good_cgs_done)? S_PCS_SYNC_ACQUIRED_3 : S_PCS_SYNC_ACQUIRED_4A;
510:BL rx_even_m_toggle = 1; pcs_sync_next = (cggood)? S_PCS_SYNC_ACQUIRED_1 : S_PCS_SYNC_ACQUIRED_2;
450:IF
530:IF
488:IF
467:IF
540:IF
520:IF
442:IF
((signal_detect | loopback) & COMMA_match)
!(((signal_detect | loopback) & COMMA_match))
!(cggood)
!((~rx_even & COMMA_match))
(~rx_even & COMMA_match)
!(cggood)
!(cggood)
startup_enable
554:BL rx_even_m_toggle = 1; good_cgs_m_inc = 1; pcs_sync_next = (cgbad)? S_PCS_SYNC_ACQUIRED_4 : (good_cgs_done)? S_PCS_SYNC_ACQUIRED_2 : S_PCS_SYNC_ACQUIRED_3A;
451:BL rx_even_m_set = 1; pcs_sync_next = S_PCS_SYNC_COMMA_DETECT_1;
455:BS rx_even_m_toggle = 1;
530:BS good_cgs_m_init = 1; good_cgs_m_init = 1;
493:BL rx_even_m_toggle = 1; pcs_sync_next = (~COMMA_match & ~INVALID)? S_PCS_SYNC_ACQUIRE_SYNC_2 : S_PCS_SYNC_LOSS_OF_SYNC;
489:BL rx_even_m_set = 1; pcs_sync_next = S_PCS_SYNC_COMMA_DETECT_3;
472:BL rx_even_m_toggle = 1; pcs_sync_next = (~COMMA_match & ~INVALID)? S_PCS_SYNC_ACQUIRE_SYNC_1 : S_PCS_SYNC_LOSS_OF_SYNC;
468:BL rx_even_m_set = 1; pcs_sync_next = S_PCS_SYNC_COMMA_DETECT_2;
540:BS good_cgs_m_init = 1; good_cgs_m_init = 1;
520:BS good_cgs_m_init = 1; good_cgs_m_init = 1;
442:BS pcs_sync_next = S_PCS_SYNC_LOSS_OF_SYNC;
Leaf_426:AL
286:AL
269:AL
301:AL
418:AL
368:AL
287:IF
reset
!(reset)
288:NS sync_status <= 0;
290:BL
291:IF
sync_m_acquired
!(sync_m_acquired)
291:BL sync_status <= 1;
292:IF
sync_m_lost
292:BL sync_status <= 0;
272:IF
!(reset)
reset
275:BL
276:IF
running_disparity_positive_m_set
!(running_disparity_positive_m_set)
277:IF
running_disparity_negative_m_set
276:NS running_disparity <= 1;
277:NS running_disparity <= 0;
272:NS running_disparity <= 0;
Leaf_269:AL
302:IF
!(reset)
reset
305:BL
303:NS rx_even <= 1;
306:IF
!(rx_even_m_init)
rx_even_m_init
307:IF
rx_even_m_set
!(rx_even_m_set)
306:NS rx_even <= 1;
308:IF
rx_even_m_clr
!(rx_even_m_clr)
307:NS rx_even <= 1;
309:IF
308:NS rx_even <= 0;
rx_even_m_toggle
309:NS rx_even <= ~rx_even;
Leaf_301:AL
420:NS pcs_sync_present <= (reset)? S_PCS_SYNC_RUN : pcs_sync_next;
Leaf_418:AL
369:IF
!(reset)
reset
372:BL
370:NS good_cgs <= 0;
373:IF
good_cgs_m_init
!(good_cgs_m_init)
373:NS good_cgs <= 0;
374:IF
!(good_cgs_m_cnt)
good_cgs_m_cnt
375:IF
good_cgs_m_inc
374:NS good_cgs <= 1;
375:NS good_cgs <= good_cgs + 1;
Leaf_368:AL
379:AS good_cgs_done = good_cgs == 3;
381:AS cgbad = INVALID | COMMA_match & rx_even;
383:AS cggood = ~cgbad;