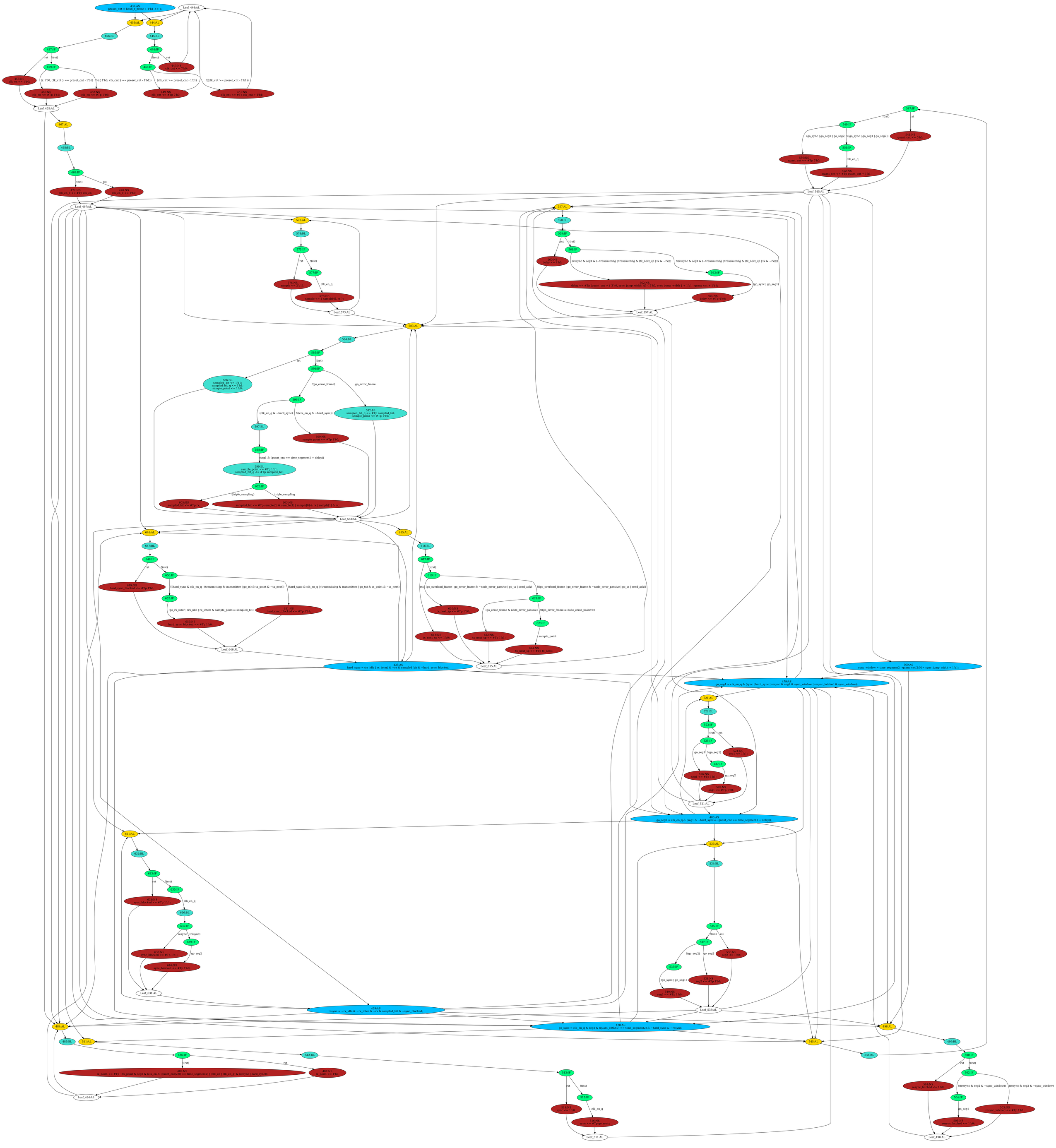
437:AS
preset_cnt = baud_r_prosc + 1'b1 << 1;
Leaf_444:AL
455:AL
444:AL
456:BL
445:BL
457:IF
446:IF
rst
!(rst)
459:IF
448:IF
447:NS
clk_cnt <= 7'b0;
458:NS
clk_en <= 1'b0;
460:NS
clk_en <= #Tp 1'b1;
462:NS
clk_en <= #Tp 1'b0;
449:NS
clk_cnt <= #Tp 7'b0;
451:NS
clk_cnt <= #Tp clk_cnt + 1'b1;
{{ 1'b0, clk_cnt } == preset_cnt - 1'b1)
!({{ 1'b0, clk_cnt } == preset_cnt - 1'b1))
(clk_cnt >= preset_cnt - 1'b1)
!((clk_cnt >= preset_cnt - 1'b1))
Leaf_455:AL
467:AL
468:BL
469:IF
472:NS
clk_en_q <= #Tp clk_en;
470:NS
clk_en_q <= 1'b0;
Leaf_467:AL
573:AL
574:BL
575:IF
577:IF
576:NS
sample <= 2'b11;
578:NS
sample <= { ssmple[0], rx };
Leaf_573:AL
583:AL
584:BL
585:IF
586:BL
sampled_bit <= 1'b1;
sampled_bit_q <= 1'b1;
sample_point <= 1'b0;
591:IF
592:BL
sampled_bit_q <= #Tp sampled_bit;
sample_point <= #Tp 1'b0;
596:IF
597:BL
598:IF
609:NS
sample_point <= #Tp 1'b0;
599:BL
sample_point <= #Tp 1'b1;
sampled_bit_q <= #Tp sampled_bit;
602:IF
600:NS
sampled_bit <= #Tp rx;
603:NS
sampled_bit <= #Tp sample[0] & sample[1] | sample[0] & rx | sample[1] & rx;
Leaf_583:AL
646:AL
647:BL
648:IF
649:NS
hard_sync_blocked <= #Tp 1'b0;
650:IF
652:IF
651:NS
hard_sync_blocked <= #Tp 1'b1;
653:NS
hard_sync_blocked <= #Tp 1'b0;
Leaf_646:AL
438:AS
hard_sync = (rx_idle | rx_inter) & ~rx & sampled_bit & ~hard_sync_blocked;
615:AL
616:BL
617:IF
619:IF
618:NS
tx_next_sp <= 1'b0;
620:NS
tx_next_sp <= #Tp 1'b0;
622:NS
tx_next_sp <= #Tp 1'b1;
621:IF
623:IF
624:NS
tx_next_sp <= #Tp tx_next;
Leaf_615:AL
557:AL
558:BL
559:IF
561:IF
560:NS
delay <= 4'h0;
562:NS
delay <= #Tp (quant_cnt > { 3'h0, sync_jump_width }) ? { 2'h0, sync_jump_width } + 1'b1 : quant_cnt + 1'b1;
563:IF
564:NS
delay <= #Tp 4'h0;
Leaf_557:AL
547:IF
549:IF
548:NS
quant_cnt <= 5'h0;
550:NS
quant_cnt <= #Tp 5'h0;
551:IF
552:NS
quant_cnt <= #Tp quant_cnt + 1'b1;
Leaf_545:AL
569:AS
sync_window = time_segment2 - quant_cnt[2:0] < sync_jump_width + 1'b1;
479:AS
go_seg1 = clk_en_q & (sync | hard_sync | resync & seg2 & sync_window | resync_latched & sync_window);
521:AL
522:BL
523:IF
525:IF
524:NS
seg1 <= 1'b1;
526:NS
seg1 <= #Tp 1'b1;
527:IF
528:NS
seg1 <= #Tp 1'b0;
Leaf_521:AL
480:AS
go_seg2 = clk_en_q & (seg1 & ~hard_sync & (quant_cnt == time_segment1 + delay));
533:AL
534:BL
535:IF
537:IF
536:NS
seg2 <= 1'b0;
539:IF
538:NS
seg2 <= #Tp 1'b1;
540:NS
seg2 <= #Tp 1'b0;
Leaf_533:AL
631:AL
632:BL
633:IF
635:IF
634:NS
sync_blocked <= #Tp 1'b1;
636:BL
637:IF
639:IF
638:NS
sync_blocked <= #Tp 1'b1;
640:NS
sync_blocked <= #Tp 1'b0;
Leaf_631:AL
439:AS
resync = ~rx_idle & ~rx_inter & ~rx & sampled_bit & ~sync_blocked;
478:AS
go_sync = clk_en_q & seg2 & (quant_cnt[2:0] == time_segment2) & ~hard_sync & ~resync;
484:AL
485:BL
511:AL
486:IF
512:BL
488:AS
tx_point <= #Tp ~tx_point & seg2 & ((clk_en & (quant_cnt[2:0] == time_segment2)) | (clk_en | clk_en_q) & (resync | hard_sync));
487:NS
tx_point <= 1'b0;
Leaf_484:AL
513:IF
515:IF
514:NS
sync <= 1'b0;
516:NS
sync <= #Tp go_sync;
Leaf_511:AL
490:AS
go_seq2 = clk_en_q & (seq1 & ~hard_sync & (quant_cnt == time_segment1 + delay));
498:AL
499:BL
500:IF
502:IF
501:NS
resync_latched <= 1'b0;
504:IF
503:NS
resync_latched <= #Tp 1'b1;
505:NS
resync_latched <= 1'b0;
Leaf_498:AL
545:AL
546:BL
!(rst)
rst
(go_sync | go_seg1 | go_seg2)
!((go_sync | go_seg1 | go_seg2))
clk_en_q
(resync & seg1 & (~transmitting | transmitting & (tx_next_sp | tx & ~rx)))
!((resync & seg1 & (~transmitting | transmitting & (tx_next_sp | tx & ~rx))))
(go_sync | go_seg1)
(hard_sync & clk_en_q | (transmitting & transmitter | go_tx) & tx_point & ~tx_next)
!((hard_sync & clk_en_q | (transmitting & transmitter | go_tx) & tx_point & ~tx_next))
(rx_overload_frame | go_error_frame & ~node_error_passive | go_tx | send_ack)
!((go_overload_frame | go_error_frame & ~node_error_passive | go_tx | send_ack))
(go_error_frame & node_error_passive)
!((go_error_frame & node_error_passive))
sample_point
(go_sync | go_seg1)
(resync & seg2 & ~sync_window)
!((resync & seg2 & ~sync_window))
(clk_en_q & ~hard_sync)
!((clk_en_q & ~hard_sync))
!(go_error_frame)
go_error_frame
(go_seg2)
!(go_seg2)
(go_seg1)
!(go_seg1)
(triple_sampling)
!((triple_sampling)
(seg1 & (quant_cnt == time_segment1 + delay))