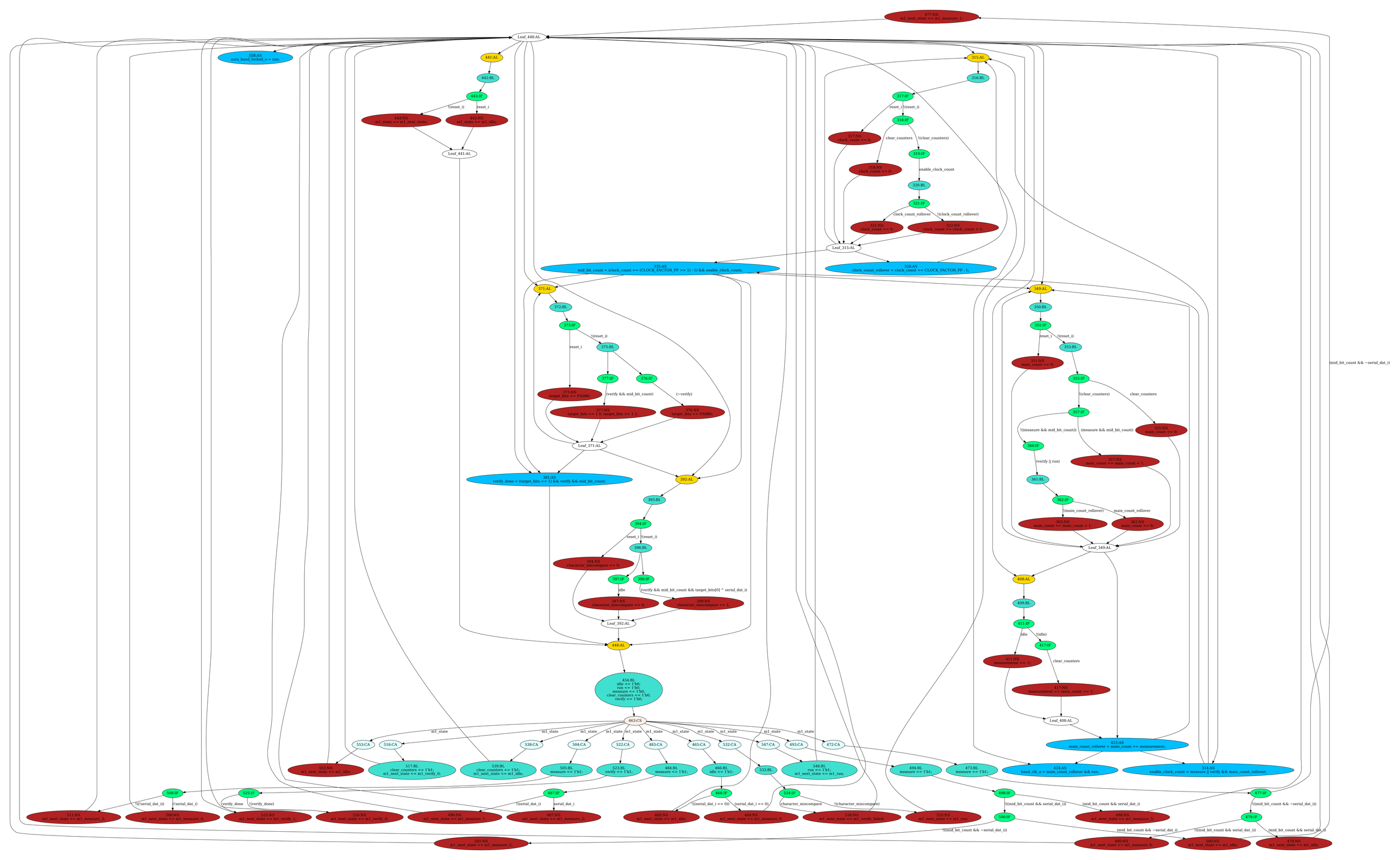
477:NS
m1_next_state <= m1_measure_1;
Leaf_448:AL
558:AS
auto_baud_locked_o = run;
441:AL
442:BL
443:IF
!(reset_i)
reset_i
444:NS
m1_state <= m1_next_state;
443:NS
m1_state <= m1_idle;
Leaf_441:AL
315:AL
316:BL
317:IF
reset_i
!(reset_i)
318:IF
317:NS
clock_count <= 0;
clear_counters
!(clear_counters)
319:IF
318:NS
clock_count <= 0;
enable_clock_count
320:BL
321:IF
clock_count_rollover
!(clock_count_rollover)
321:NS
clock_count <= 0;
322:NS
clock_count <= clock_count + 1;
Leaf_315:AL
326:AS
clock_count_rollover = clock_count == CLOCK_FACTOR_PP - 1;
335:AS
mid_bit_count = (clock_count == (CLOCK_FACTOR_PP >> 1) - 1) && enable_clock_count;
349:AL
350:BL
351:IF
reset_i
!(reset_i)
353:BL
351:NS
main_count <= 0;
355:IF
!(clear_counters)
clear_counters
357:IF
!((measure && mid_bit_count))
(measure && mid_bit_count)
355:NS
main_count <= 0;
360:IF
(verify || run)
357:NS
main_count <= main_count + 1;
361:BL
362:IF
!(main_count_rollover)
main_count_rollover
363:NS
main_count <= main_count + 1;
362:NS
main_count <= 0;
Leaf_349:AL
408:AL
409:BL
411:IF
idle
!(idle)
417:IF
411:NS
measurement <= -1;
clear_counters
412:NS
measurement <= main_count >> 1;
Leaf_408:AL
423:AS
main_count_rollover = main_count == measurement;
424:AS
baud_clk_o = main_count_rollover && run;
314:AS
enable_clock_count = measure || verify && main_count_rollover;
!(mid_bit_count && ~serial_dat_i)
471:AL
372:BL
373:IF
!(reset_i)
reset_i
375:BL
373:NS
target_bits <= 9'h086;
377:IF
376:IF
(verify && mid_bit_count)
(~verify)
377:NS
target_bits <= { 0, target_bits >> 1 };
376:NS
target_bits <= 9'h086;
Leaf_371:AL
381:AS
verify_done = (target_bits == 1) && verify && mid_bit_count;
392:AL
393:BL
394:IF
reset_i
!(reset_i)
396:BL
394:NS
character_miscompare <= 0;
397:IF
398:IF
idle
(verify && mid_bit_count && target_bits[0] ^ serial_dat_i)
397:NS
character_miscompare <= 0;
399:NS
character_miscompare <= 1;
Leaf_392:AL
448:AL
454:BL
idle <= 1'b0;
run <= 1'b0;
measure <= 1'b0;
clear_counters <= 1'b0;
verify <= 1'b0;
463:CS
m1_state
553:CA
516:CA
538:CA
504:CA
522:CA
483:CA
465:CA
532:CA
547:CA
493:CA
472:CA
553:NS
m1_next_state <= m1_idle;
517:BL
clear_counters <= 1'b1;
m1_next_state <= m1_verify_0;
539:BL
clear_counters <= 1'b1;
m1_next_state <= m1_idle;
505:BL
measure <= 1'b1;
523:BL
verify <= 1'b1;
484:BL
measure <= 1'b1;
466:BL
idle <= 1'b1;
533:BL
548:BL
run <= 1'b1;
m1_next_state <= m1_run;
494:BL
measure <= 1'b1;
473:BL
measure <= 1'b1;
508:IF
525:IF
487:IF
468:IF
534:IF
498:IF
477:IF
!(!serial_dat_i)
!serial_dat_i
(verify_done
!(verify_done)
!((serial_dat_i == 0))
(serial_dat_i == 0)
character_miscompare
!(character_miscompare)
!((mid_bit_count && serial_dat_i))
(mid_bit_count && serial_dat_i)
!((mid_bit_count && ~serial_dat_i))
511:NS
m1_next_state <= m1_measure_3;
508:NS
m1_next_state <= m1_measure_4;
525:NS
m1_next_state <= m1_verify_1;
526:NS
m1_next_state <= m1_verify_0;
490:NS
m1_next_state <= m1_measure_1;
487:NS
m1_next_state <= m1_measure_2;
469:NS
m1_next_state <= m1_idle;
468:NS
m1_next_state <= m1_measure_0;
534:NS
m1_next_state <= m1_verify_failed;
535:NS
m1_next_state <= m1_run;
560:IF
498:NS
m1_next_state <= m1_measure_3;
479:IF
!((mid_bit_count && ~serial_dat_i))
(mid_bit_count && serial_dat_i)
507:NS
m1_next_state <= m1_measure_2;
498:NS
m1_next_state <= m1_measure_0;
590:NS
m1_next_state <= m1_idle;
478:NS
m1_next_state <= m1_idle;