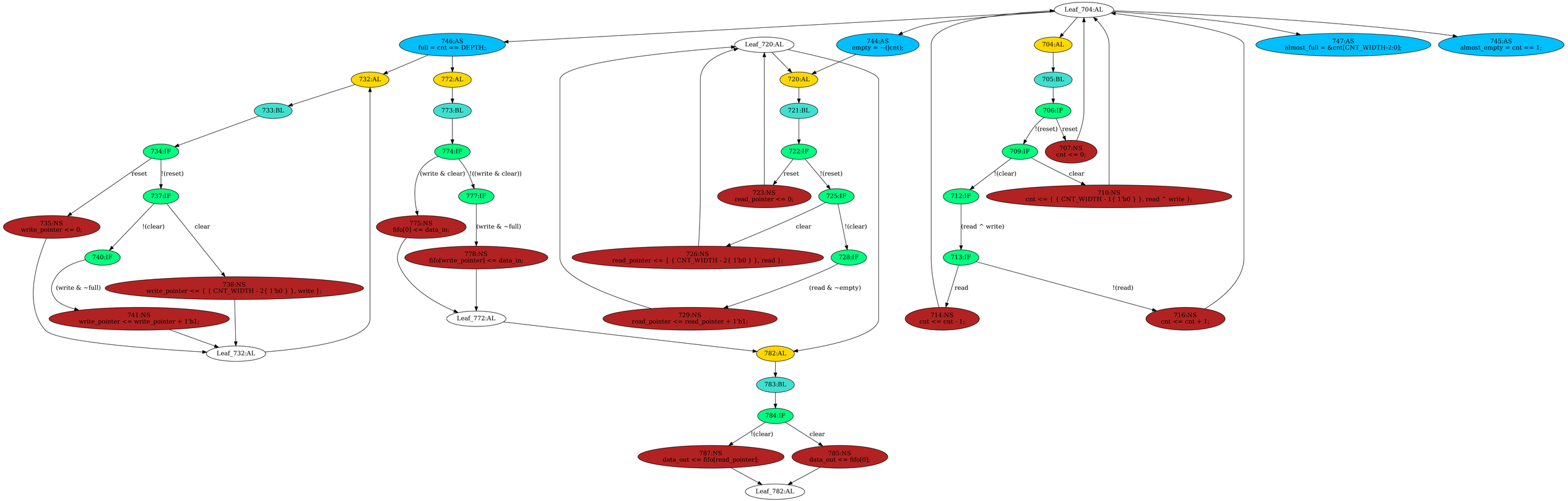
Leaf_704:AL
746:AS
full = cnt == DEPTH;
744:AS
empty = ~(|cnt);
747:AS
almost_full = &cnt[CNT_WIDTH-2:0];
745:AS
almost_empty = cnt == 1;
Leaf_720:AL
732:AL
772:AL
720:AL
704:AL
705:BL
733:BL
773:BL
721:BL
706:IF
!(reset)
reset
734:IF
774:IF
722:IF
709:IF
707:NS
cnt <= 0;
reset
!(reset)
(write & clear)
!((write & clear))
!(clear)
clear
723:NS
read_pointer <= 0;
725:IF
712:IF
710:NS
cnt <= { { CNT_WIDTH - 1{ 1'b0 } }, read ^ write };
735:NS
write_pointer <= 0;
737:IF
775:NS
fifo[0] <= data_in;
777:IF
(write & ~full)
clear
!(clear)
(read ^ write)
!(clear)
clear
740:IF
778:NS
fifo[write_pointer] <= data_in;
726:NS
read_pointer <= { { CNT_WIDTH - 2{ 1'b0 } }, read };
728:IF
713:IF
(write & ~full)
738:NS
write_pointer <= { { CNT_WIDTH - 2{ 1'b0 } }, write };
(read & ~empty)
read
!(read)
741:NS
write_pointer <= write_pointer + 1'b1;
Leaf_772:AL
729:NS
read_pointer <= read_pointer + 1'b1;
714:NS
cnt <= cnt - 1;
716:NS
cnt <= cnt + 1;
Leaf_732:AL
782:AL
783:BL
784:IF
!(clear)
clear
787:NS
data_out <= fifo[read_pointer];
785:NS
data_out <= fifo[0];
Leaf_782:AL