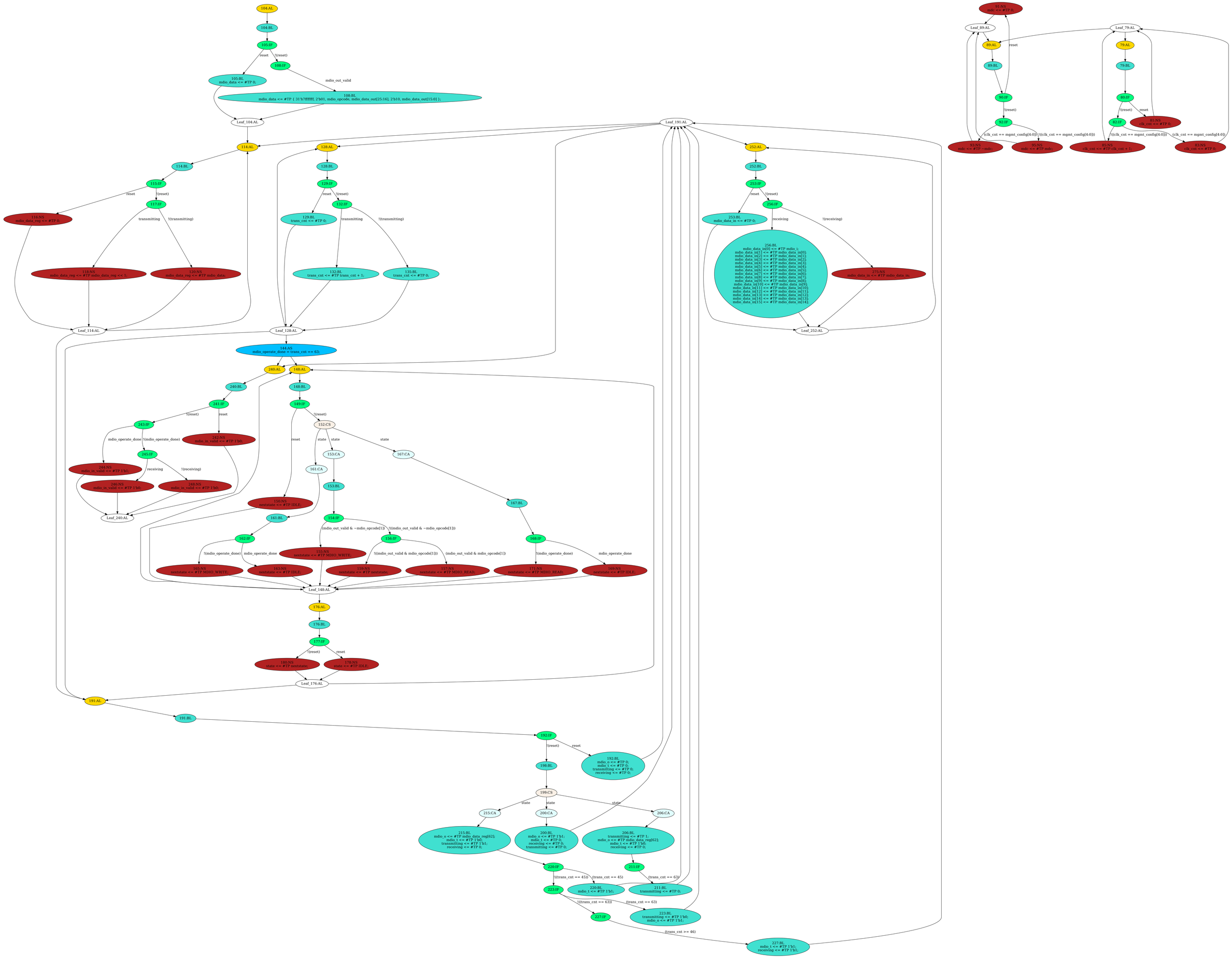
104:AL
104:BL
105:IF
reset
!(reset)
105:BL
mdio_data <= #TP 0;
108:IF
mdio_out_valid
108:BL
mdio_data <= #TP { 31'h7fffffff, 2'b01, mdio_opcode, mdio_data_out[25:16], 2'b10, mdio_data_out[15:0] };
Leaf_104:AL
Leaf_191:AL
114:AL
128:AL
252:AL
114:BL
115:IF
reset
!(reset)
117:IF
transmitting
!(transmitting)
116:NS
mdio_data_reg <= #TP 0;
118:NS
mdio_data_reg <= #TP mdio_data_reg << 1;
120:NS
mdio_data_reg <= #TP mdio_data;
128:BL
129:IF
reset
!(reset)
132:IF
transmitting
!(transmitting)
129:BL
trans_cnt <= #TP 0;
132:BL
trans_cnt <= #TP trans_cnt + 1;
135:BL
trans_cnt <= #TP 0;
252:BL
253:IF
reset
!(reset)
256:IF
receiving
!(receiving)
253:BL
mdio_data_in <= #TP 0;
256:BL
mdio_data_in[0] <= #TP mdio_i;
mdio_data_in[1] <= #TP mdio_data_in[0];
mdio_data_in[2] <= #TP mdio_data_in[1];
mdio_data_in[3] <= #TP mdio_data_in[2];
mdio_data_in[4] <= #TP mdio_data_in[3];
mdio_data_in[5] <= #TP mdio_data_in[4];
mdio_data_in[6] <= #TP mdio_data_in[5];
mdio_data_in[7] <= #TP mdio_data_in[6];
mdio_data_in[8] <= #TP mdio_data_in[7];
mdio_data_in[9] <= #TP mdio_data_in[8];
mdio_data_in[10] <= #TP mdio_data_in[9];
mdio_data_in[11] <= #TP mdio_data_in[10];
mdio_data_in[12] <= #TP mdio_data_in[11];
mdio_data_in[13] <= #TP mdio_data_in[12];
mdio_data_in[14] <= #TP mdio_data_in[13];
mdio_data_in[15] <= #TP mdio_data_in[14];
275:NS
mdio_data_in <= #TP mdio_data_in;
Leaf_114:AL
Leaf_128:AL
Leaf_252:AL
144:AS
mdio_operate_done = trans_cnt == 63;
240:AL
148:AL
240:BL
241:IF
!(reset)
reset
243:IF
mdio_operate_done
!(mdio_operate_done)
242:NS
mdio_in_valid <= #TP 1'b0;
245:IF
receiving
!(receiving)
244:NS
mdio_in_valid <= #TP 1'b1;
246:NS
mdio_in_valid <= #TP 1'b0;
248:NS
mdio_in_valid <= #TP 1'b0;
Leaf_240:AL
148:BL
149:IF
!(reset)
reset
150:NS
nextstate <= #TP IDLE;
152:CS
state
state
state
153:CA
161:CA
167:CA
153:BL
154:IF
(mdio_out_valid & ~mdio_opcode[1])
!((mdio_out_valid & ~mdio_opcode[1]))
161:BL
162:IF
!(mdio_operate_done)
mdio_operate_done
155:NS
nextstate <= #TP MDIO_WRITE;
196:IF
!((mdio_out_valid & mdio_opcode[1]))
(mdio_out_valid & mdio_opcode[1])
165:NS
nextstate <= #TP MDIO_WRITE;
163:NS
nextstate <= #TP IDLE;
159:NS
nextstate <= #TP nextstate;
157:NS
nextstate <= #TP MDIO_READ;
167:BL
168:IF
!(mdio_operate_done)
mdio_operate_done
171:NS
nextstate <= #TP MDIO_READ;
169:NS
nextstate <= #TP IDLE;
Leaf_148:AL
176:AL
176:BL
177:IF
!(reset)
reset
180:NS
state <= #TP nextstate;
178:NS
state <= #TP IDLE;
Leaf_176:AL
191:AL
191:BL
192:IF
!(reset)
reset
192:BL
mdio_o <= #TP 0;
mdio_t <= #TP 0;
transmitting <= #TP 0;
receiving <= #TP 0;
198:BL
199:CS
state
state
state
215:CA
200:CA
206:CA
215:BL
mdio_o <= #TP mdio_data_reg[62];
mdio_t <= #TP 1'b0;
transmitting <= #TP 1'b1;
receiving <= #TP 0;
200:BL
mdio_o <= #TP 1'b1;
mdio_t <= #TP 0;
receiving <= #TP 0;
transmitting <= #TP 0;
206:BL
transmitting <= #TP 1;
mdio_o <= #TP mdio_data_reg[62];
mdio_t <= #TP 1'b0;
receiving <= #TP 0;
220:IF
!((trans_cnt == 45))
(trans_cnt == 45)
211:IF
!(trans_cnt == 63)
(trans_cnt == 63)
223:IF
220:BL
mdio_t <= #TP 1'b1;
211:BL
transmitting <= #TP 0;
!((trans_cnt == 63))
(trans_cnt == 63)
227:IF
223:BL
transmitting <= #TP 1'b0;
mdio_o <= #TP 1'b1;
(trans_cnt >= 46)
227:BL
mdio_t <= #TP 1'b1;
receiving <= #TP 1'b1;
91:NS
mdc <= #TP 0;
Leaf_89:AL
Leaf_79:AL
89:AL
reset
79:AL
89:BL
79:BL
90:IF
80:IF
!(reset)
reset
!(reset)
92:IF
82:IF
81:NS
clk_cnt <= #TP 0;
((clk_cnt == mgmt_config[4:0]))
!((clk_cnt == mgmt_config[4:0]))
((clk_cnt == mgmt_config[4:0]))
(clk_cnt == mgmt_config[4:0])
93:NS
mdc <= #TP ~mdc;
95:NS
mdc <= #TP mdc;
85:NS
clk_cnt <= #TP clk_cnt + 1;
83:NS
clk_cnt <= #TP 0;