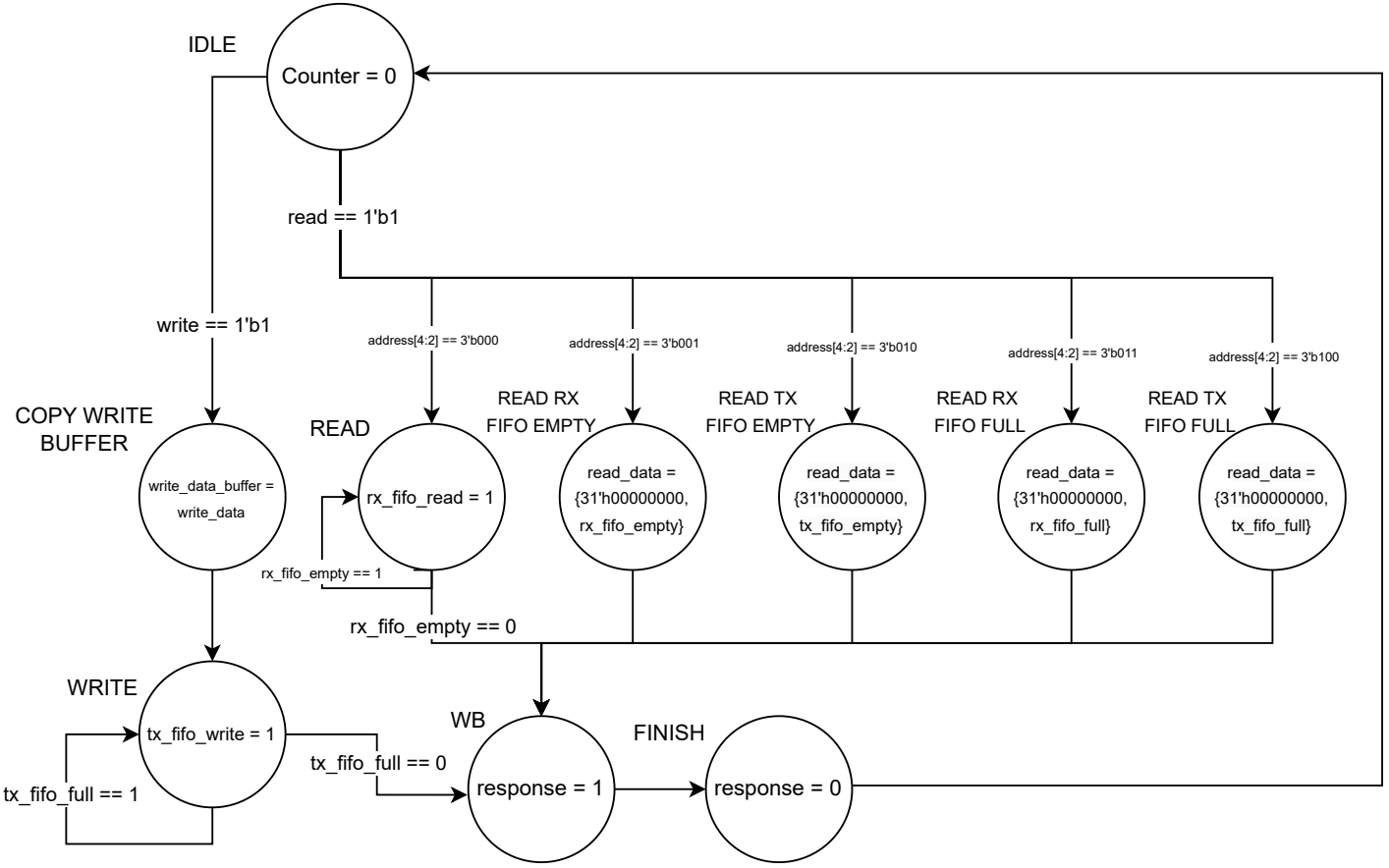
IDLE
Counter = 0
read == 1'b1
write == 1'b1
address[4:2] == 3'b000
address[4:2] == 3'b001
address[4:2] == 3'b010
address[4:2] == 3'b011
address[4:2] == 3'b100
COPY WRITE BUFFER
write_data_buffer = write_data
READ
rx_fifo_read = 1
READ RX FIFO EMPTY
read_data = {31'h00000000, rx_fifo_empty}
READ TX FIFO EMPTY
read_data = {31'h00000000, tx_fifo_empty}
READ RX FIFO FULL
read_data = {31'h00000000, rx_fifo_full}
READ TX FIFO FULL
read_data = {31'h00000000, tx_fifo_full}
rx_fifo_empty == 1
rx_fifo_empty == 0
WRITE
tx_fifo_write = 1
tx_fifo_full == 1
tx_fifo_full == 0
WB
response = 1
FINISH
response = 0