

Decoder

instruction_i

[17:0]

reset_i

Clk

Constant_kk_o

[7:0]

Constant_aaa_o

[11:0]

MUX_i_o_select_o

register_X_ID_o

[3:0]

register_Y_ID_o

[3:0]

MUX_Register_select_o

[1:0]

MUX_ALU_select_o

ALU_select_o

[5:0]

MUX_stack_select_o

Stack_enable_o

MUX_PC_select_o

[1:0]

Or_Pc_o

Store_fetch_o

RAM_enable_o