

Instruction Decoder

instruction_i

[17:0]

carry_i

zero_i

reset_i

clk_i

constant_kk_o

[7:0]

constant_aaa_o

[11:0]

mux_i_o_select_o

sIO_write_or_read_o

sIO_enable_o

mux_register_select_o

[1:0]

sRegister_X_adresse_o

[3:0]

sRegister_Y_adresse_o

[3:0]

sRegister_write_enable_o

mux_ALU_select_o

sALU_select_o

[5:0]

sALU_enable_o

mux_stack_select_o

sStack_write_or_read_o

sStack_enable_o

mux_PC_select_o

sPC_enable_o

sRAM_write_or_read_o

sRAM_enable_o

