	0 ns	200 ns	400 ns	600 ns	800 ns	1,000 ns

operand_a[7:0] 00111111
[7]
[6]
[5]
[4]
[3]
[2]
[1]
[0]

operand_b[7:0] 01111111
[7]
[6]
[5]
[4]
[3]
[2]
[1]
[0]

operation[3:0] 0000
[3]
[2]
[1]
[0]

result[7:0] 10111110
[7]
[6]
[5]
[4]
[3]
[2]
[1]
[0]

carry_out

extended_result[8:0] 010111110

	0 ns	200 ns	400 ns	600 ns	800 ns	1,000 ns
[8]						
[7]						
[6]						
[5]						
[4]						
[3]						
[2]						
[1]						
[0]						
ALU_Result[7:0]			10111110			
[7]						
[6]						
[5]						
[4]						
[3]						
[2]						
[1]						
[0]						