

### ① Initialization

**A(5:0)** 0 0 1 1 1 1 (15)

**P+B(11:0)** 0 0 0 0 0 0 0 0 1 0 0 1 (9)

### ② Add '0' to P+B(-1)

**P+B(11:-1)** 0 0 0 0 0 0 0 1 0 **0 1 0** ③ Check P+B(1:-1) based on Table 1

**>> 1** 0 0 0 0 0 0 0 0 1 0 0 1  
**0 0 0 1 1 1 1** ← **A**

**>> 1** 0 0 0 1 1 1 1 0 0 1 0 0 1  
**0 0 0 0 1 1 1 1 0 0 1 0 0** ← **-2A**

**>> 1** 0 0 0 0 1 1 1 1 0 0 1 0  
**1 1 0 0 0 1 0** ← **A**

**>> 1** 1 1 0 0 1 0 1 1 1 0 0 1 0  
**1 1 1 0 0 1 0 1 1 1 0 0 1** ← **-2A**

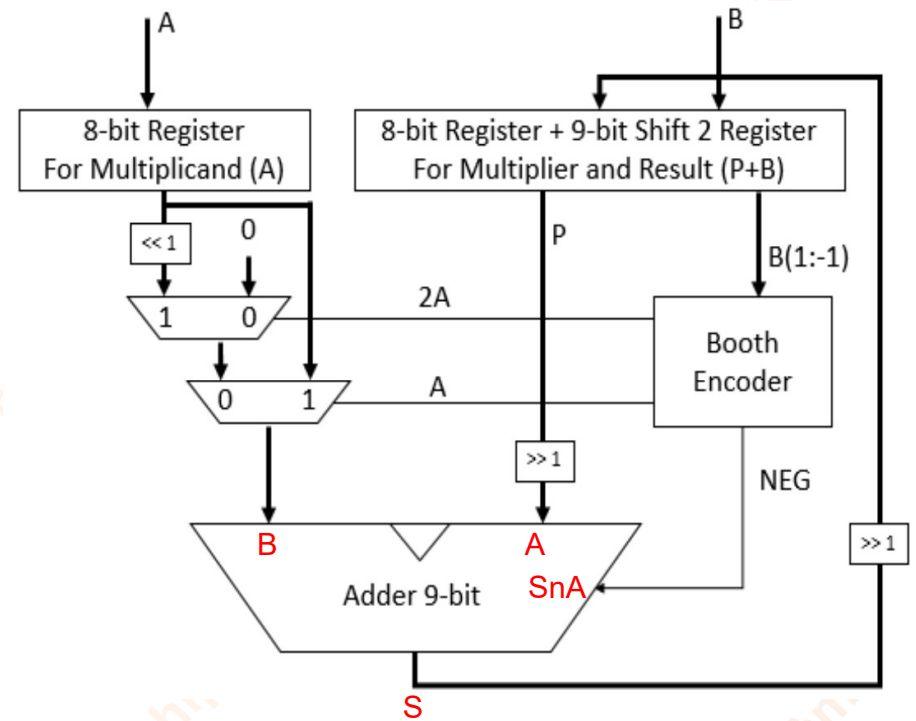
**>> 1** 1 1 1 0 0 1 0 1 1 1 0 0  
**0 0 0 1 1 1 1** ← **A**

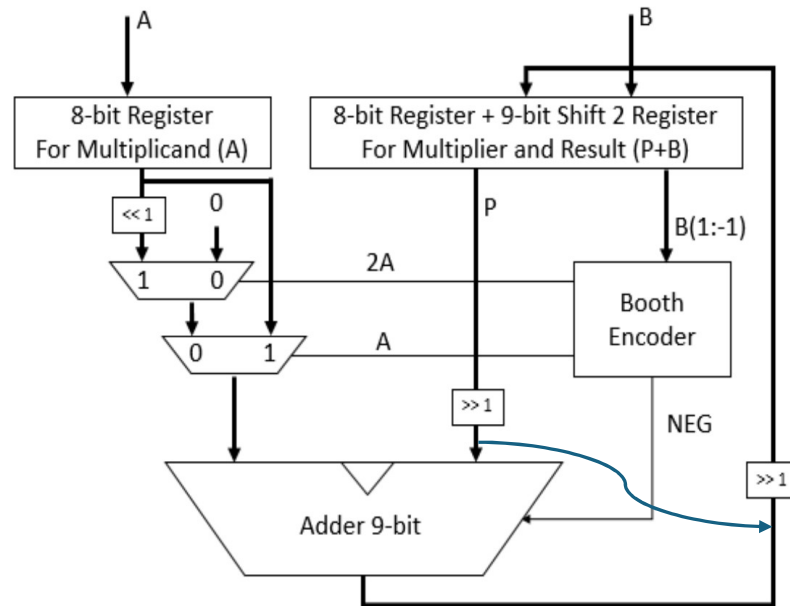
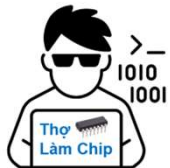
**>> 1** 0 0 0 1 0 0 0 0 1 1 1 0 0  
**0 0 0 0 1 0 0 0 0 1 1 1 0** ← **-2A**

**>> 1** 0 0 0 0 1 0 0 0 0 1 1 1 0  
**0 0 0 0 1 0 0 0 0 1 1 1 0** ← **A**

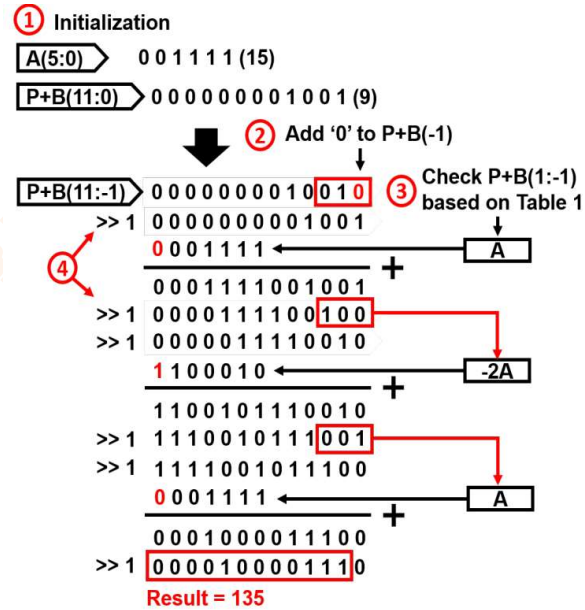
**>> 1** 0 0 0 0 1 0 0 0 0 1 1 1 0  
**0 0 0 0 1 0 0 0 0 1 1 1 0** ← **-2A**

**Result = 135**





	Msgs	
/MULT_TB/booth_mult_inst/dk	St0	
/MULT_TB/booth_mult_inst/rst_n	St1	
/MULT_TB/booth_mult_inst/load	St0	
/MULT_TB/booth_mult_inst/A	001111	001111
/MULT_TB/booth_mult_inst/B	001001	001001
/MULT_TB/booth_mult_inst/P	111100101010	000000000000 000000001001 000011110010 111001011100 000010000111 111100110001
/MULT_TB/booth_mult_inst/A_reg	001111	000000 001111
/MULT_TB/booth_mult_inst/P_B_reg	1111001010101	00000000000000 0000000010010 0000111100100 1110010111001 0000100001110 1111001100011
/MULT_TB/booth_mult_inst/P_B_reg_sra_1	111100101010	00000000000000 0000000001001 0000011110010 1111001011100 0000010000111 111100110001
/MULT_TB/booth_mult_inst/adder_S	1101101	00000000 00011111 1100101 0001000 1110011 0011010
/MULT_TB/booth_mult_inst/adder_A	1111100	00000000 00000011 1111001 0000010 1111100
/MULT_TB/booth_mult_inst/adder_B	0001111	00000000 00011111 0011110 0001111 0011110
/MULT_TB/booth_mult_inst/booth_enc_A	1	
/MULT_TB/booth_mult_inst/booth_enc_2A	0	
/MULT_TB/booth_mult_inst/booth_enc_neg	1	



	Msgs	
/MULT_TB/booth_mult_inst/dk	St0	
/MULT_TB/booth_mult_inst/rst_n	St1	
/MULT_TB/booth_mult_inst/load	St0	
/MULT_TB/booth_mult_inst/A	001111	001111
/MULT_TB/booth_mult_inst/B	001001	001001
/MULT_TB/booth_mult_inst/P	111100101010	000000000000 000000001001 000011110010 111001011100 000010000111 111100110001
/MULT_TB/booth_mult_inst/A_reg	001111	000000 001111
/MULT_TB/booth_mult_inst/P_B_reg	1111001010101	00000000000000 0000000010010 0000111100100 1110010111001 0000100001110 1111001100011
/MULT_TB/booth_mult_inst/P_B_reg_sra_1	111100101010	00000000000000 0000000001001 0000011110010 1111001011100 0000010000111 111100110001
/MULT_TB/booth_mult_inst/adder_S	1101101	00000000 00011111 1100101 0001000 1110011 0011010
/MULT_TB/booth_mult_inst/adder_A	1111100	00000000 00000011 1111001 0000010 1111100
/MULT_TB/booth_mult_inst/adder_B	0001111	00000000 00011111 00111110 0001111 0011110
/MULT_TB/booth_mult_inst/booth_enc_A	1	
/MULT_TB/booth_mult_inst/booth_enc_2A	0	
/MULT_TB/booth_mult_inst/booth_enc_neg	1	