Input Byte **IB**

31	26	25	21	20	16	15	11	10	0
COP2 010010		0 00000		IB 00011		rd		0 00000000000000	
6		5		5		5		11	

Format: IB rd

Description: input byte as signed number to rd

Operation: while (input_fifo is empty) nop

rd ← sign_extend(input_fifo.shift())

Input Byte Unsigned **IBU**

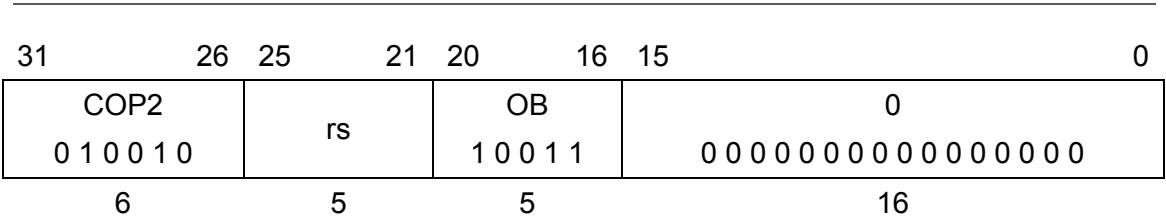| 31	26	25	21	20	16	15	11	10	0
COP2 010010		0 00000		IBU 01011		rd		0 00000000000000	
6		5		5		5		11	

Format: IBU rd

Description: input byte as unsigned number to rd

Operation: while (input_fifo is empty) nop

rd ← zero_extend(input_fifo.shift())

Output Byte OB

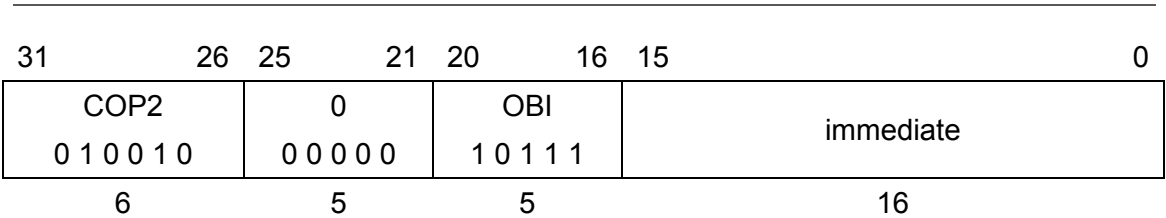| 31 26	25 21	20 16	15 0
COP2 0 1 0 0 1 0	rs	OB 1 0 0 1 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
6	5	5	16

Format: OB   rs

Description: output lowest byte of rs

Operation: while (output_fifo is full) nop
               output_fifo.push(rs[7..0])

Output Byte Immediate OBI

31 26	25 21	20 16	15 0
COP2 0 1 0 0 1 0	0 0 0 0 0 0	OBI 1 0 1 1 1	immediate
6	5	5	16

Format: OBI   *value*

Description: output lower byte of immediate value

Operation: while (output_fifo is full) nop
               output_fifo.push(immediate[7..0])