

FIG. 1

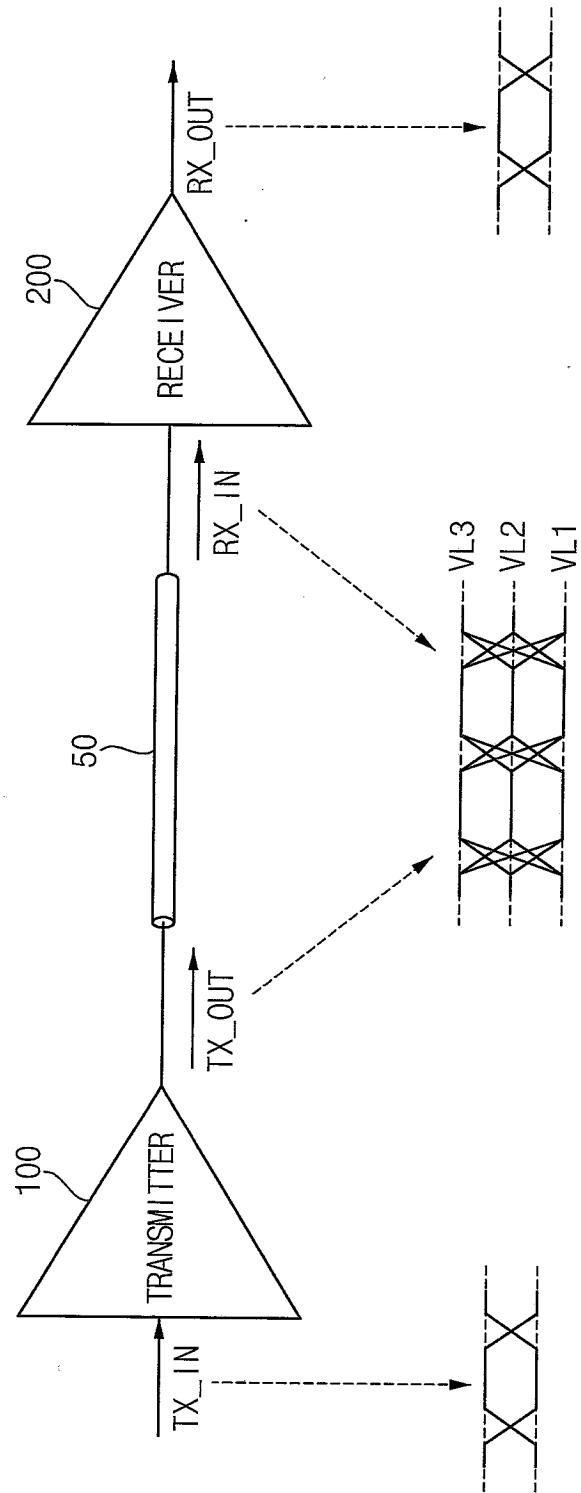


FIG. 2

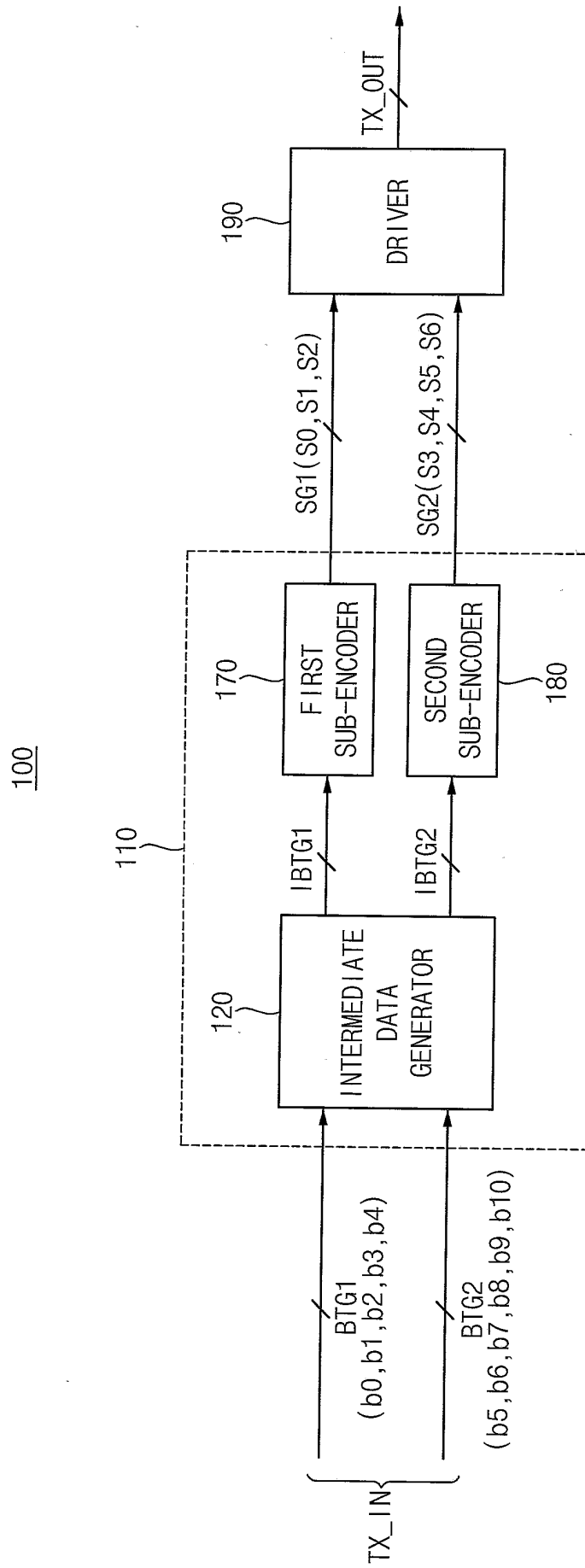


FIG. 3

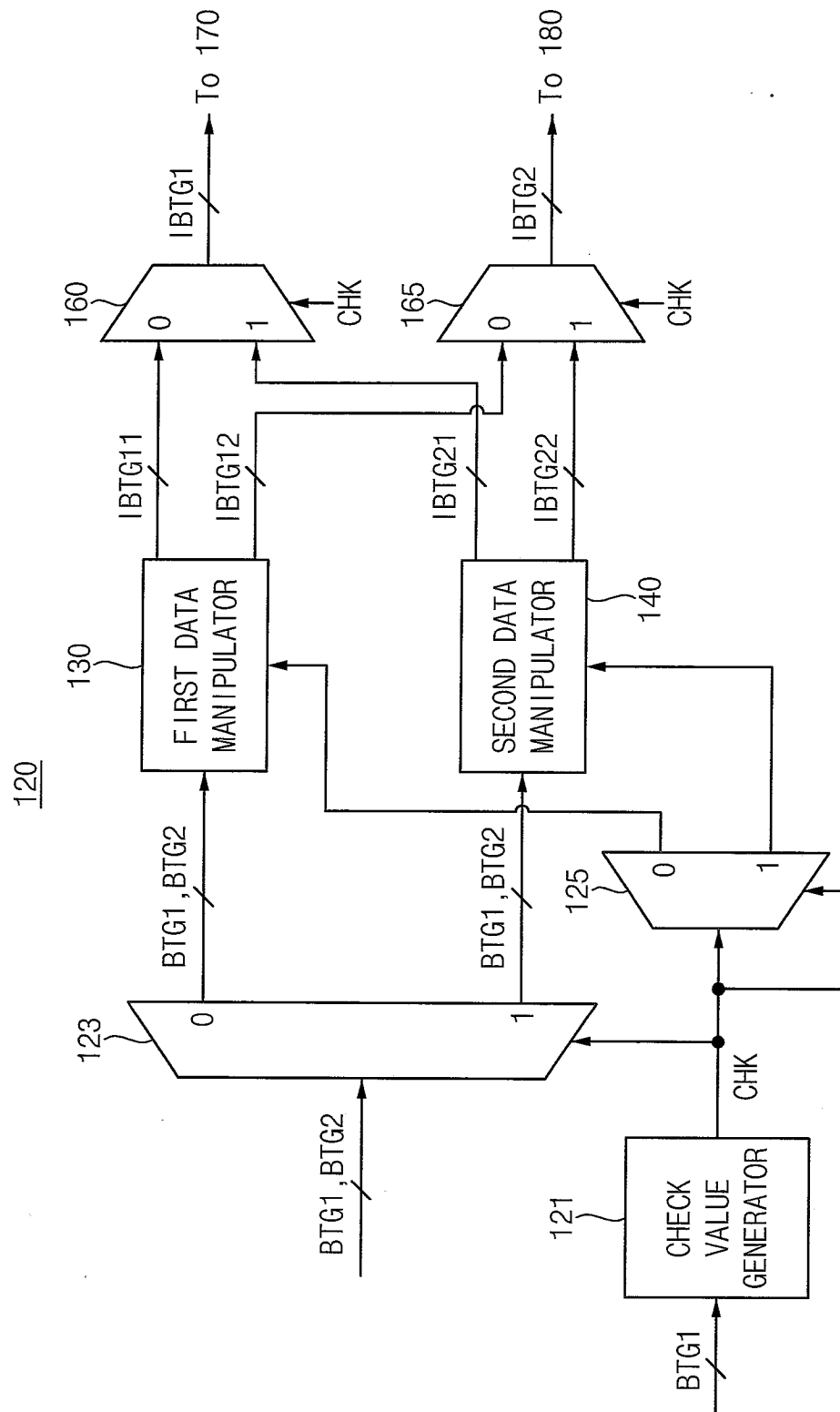


FIG. 4

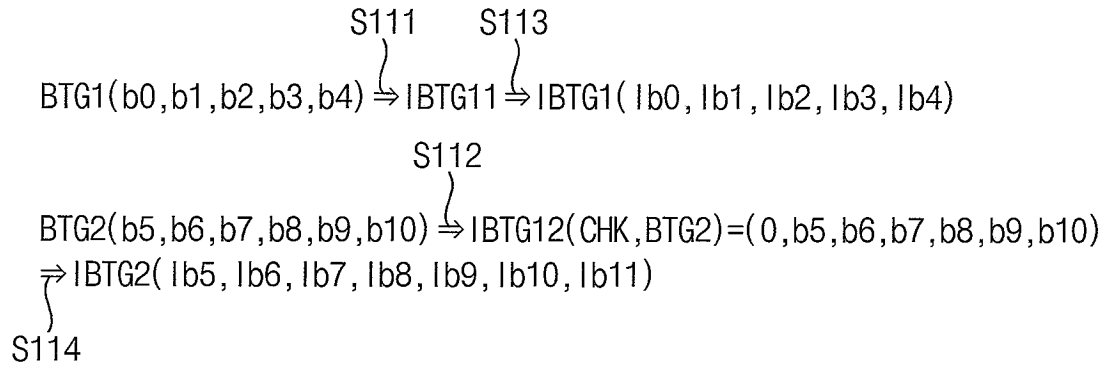


FIG. 5

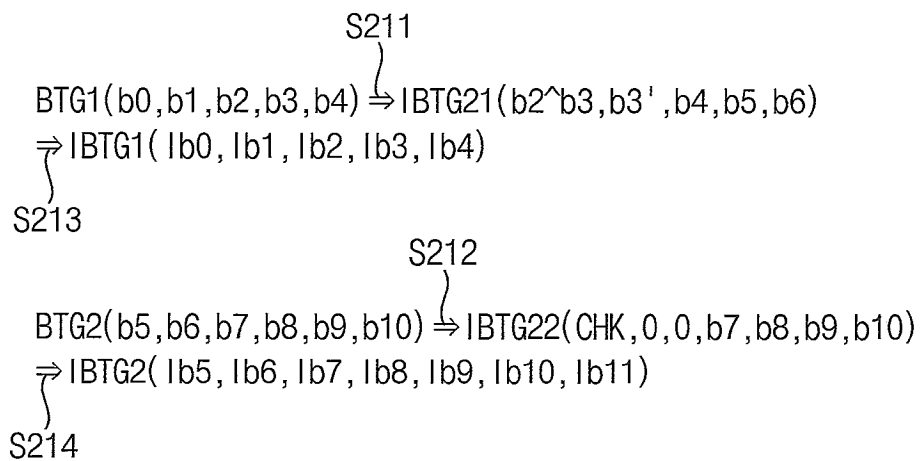


FIG. 6

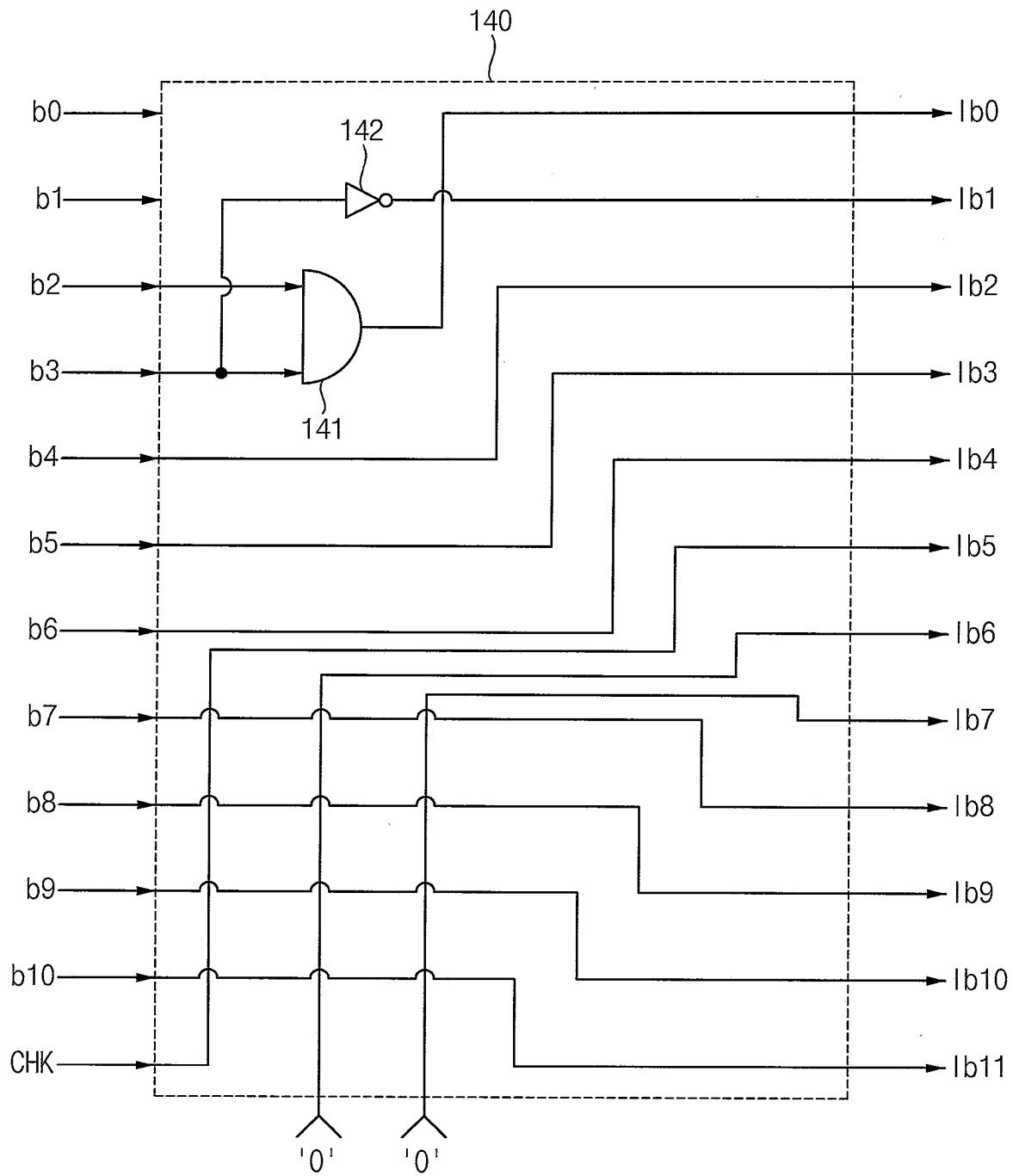


FIG. 7

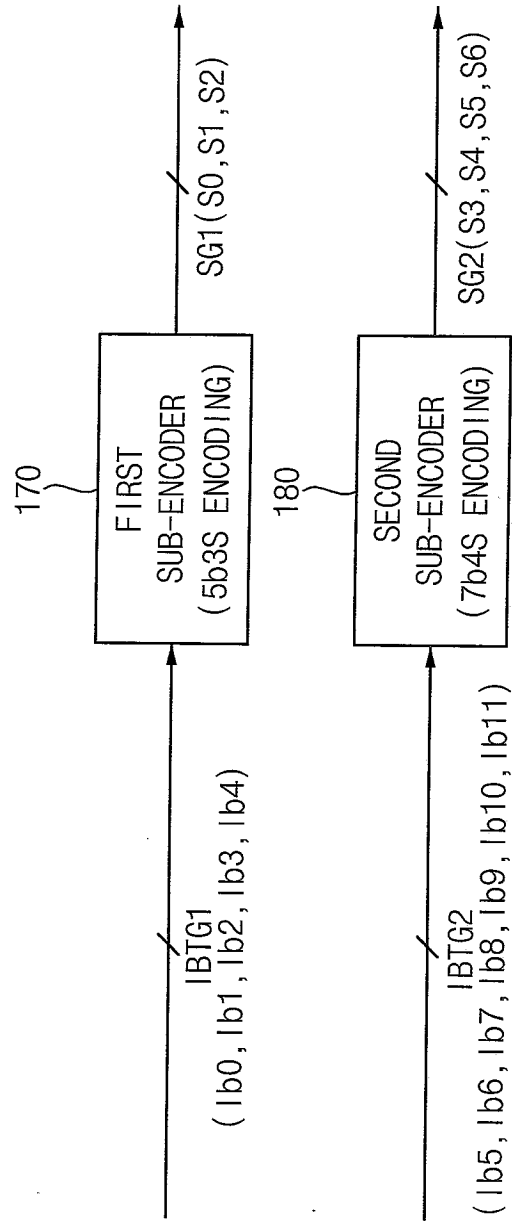


FIG. 8

LUT1

INPUT BITS lb[0:4]	S1 t[0:1]	S2 t[2:3]	S3 t[4:5]	CHK
00000	3	1	0	0
00001	3	1	1	0
00010	3	3	0	0
00011	3	3	1	0
00100	3	0	1	0
00101	3	1	3	0
00110	3	0	3	0
00111	3	3	3	0
01000	1	1	0	0
01001	1	1	1	0
01010	1	3	0	0
01011	1	3	1	0
01100	1	0	1	0
01101	1	1	3	0
01110	1	0	3	0
01111	1	3	3	0

INPUT BITS lb[0:4]	S1 t[0:1]	S2 t[2:3]	S3 t[4:5]	CHK
10000	0	1	0	0
10001	0	1	1	0
10010	0	3	0	0
10011	0	3	1	0
10100	0	0	1	0
10101	0	1	3	0
10110	0	0	3	0
10111	0	3	3	0
11000	1	0	0	0
11001	3	0	0	0
11010	X	X	X	1
11011	X	X	X	1
11100	X	X	X	1
11101	X	X	X	1
11110	X	X	X	1
11111	X	X	X	1

UNASSIGNED

FIG. 9

CHK	$lb_0 \times lb_1 \times lb_3 + lb_0 \times lb_1 \times lb_2$
t0	$lb_0' + lb_1$
t1	$lb_0 \times lb_1 \times lb_4 + lb_0'$
t2	$lb_0' \times lb_2' + lb_1' \times lb_2' + lb_2 \times lb_4$
t3	$lb_2' \times lb_3 + lb_3 \times lb_4$
t4	$lb_0' \times lb_4 + lb_1' \times lb_4 + lb_2$
t5	$lb_2 \times lb_4 + lb_2 \times lb_3$

FIG. 10A

LUT2

lb[5:11]	S3 t[6:7]	S4 t[8:9]	S5 t[10:11]	S6 t[12:13]
0000000	1	0	1	0
0000001	1	0	1	1
0000010	1	0	3	0
0000011	1	0	3	1
0000100	1	0	0	1
0000101	1	0	1	3
0000110	1	0	0	3
0000111	1	0	3	3
0001000	1	1	1	0
0001001	1	1	1	1
0001010	1	1	3	0
0001011	1	1	3	1
0001100	1	1	0	1
0001101	1	1	1	3
0001110	1	1	0	3
0001111	1	1	3	3

lb[5:11]	S3 t[6:7]	S4 t[8:9]	S5 t[10:11]	S6 t[12:13]
0010000	3	0	1	0
0010001	3	0	1	1
0010010	3	0	3	0
0010011	3	0	3	1
0010100	3	0	0	1
0010101	3	0	1	3
0010110	3	0	0	3
0010111	3	0	3	3
0011000	3	1	1	0
0011001	3	1	1	1
0011010	3	1	3	0
0011011	3	1	3	1
0011100	3	1	0	1
0011101	3	1	1	3
0011110	3	1	0	3
0011111	3	1	3	3

FIG. 10B

LUT2

lb[5:11]	S3 t[6:7]	S4 t[8:9]	S5 t[10:11]	S6 t[12:13]
0100000	0	1	1	0
0100001	0	1	1	1
0100010	0	1	3	0
0100011	0	1	3	1
0100100	0	1	0	1
0100101	0	1	1	3
0100110	0	1	0	3
0100111	0	1	3	3
0101000	1	3	1	0
0101001	1	3	1	1
0101010	1	3	3	0
0101011	1	3	3	1
0101100	1	3	0	1
0101101	1	3	1	3
0101110	1	3	0	3
0101111	1	3	3	3

lb[5:11]	S3 t[6:7]	S4 t[8:9]	S5 t[10:11]	S6 t[12:13]
0110000	0	3	1	0
0110001	0	3	1	1
0110010	0	3	3	0
0110011	0	3	3	1
0110100	0	3	0	1
0110101	0	3	1	3
0110110	0	3	0	3
0110111	0	3	3	3
0111000	3	3	1	0
0111001	3	3	1	1
0111010	3	3	3	0
0111011	3	3	3	1
0111100	3	3	0	1
0111101	3	3	1	3
0111110	3	3	0	3
0111111	3	3	3	3

FIG. 10C

LUT2

lb[5:11]	S3 t[6:7]	S4 t[8:9]	S5 t[10:11]	S6 t[12:13]
100000	0	0	1	0
100001	0	0	1	1
100010	0	0	3	0
100011	0	0	3	1
100100	0	0	0	1
100101	0	0	1	3
100110	0	0	0	3
100111	0	0	3	3
1001000	1	0	0	0
1001001	1	1	0	0
1001010	3	0	0	0
1001011	3	1	0	0
1001100	0	1	0	0
1001101	1	3	0	0
1001110	0	3	0	0
1001111	3	3	0	0

lb[5:11]	S3 t[6:7]	S4 t[8:9]	S5 t[10:11]	S6 t[12:13]
1010000	X	X	X	X
1010001	X	X	X	X
1010010	X	X	X	X
1010011	X	X	X	X
1010100	X	X	X	X
1010101	X	X	X	X
1010110	X	X	X	X
1010111	X	X	X	X
1011000	X	X	X	X
1011001	X	X	X	X
1011010	X	X	X	X
1011011	X	X	X	X
1011100	X	X	X	X
1011101	X	X	X	X
...	...	...	...	...
1111111	X	X	X	X

UNASSIGNED

FIG. 11

t6	$lb5' \times lb6' + lb8 \times lb9' + lb8 \times lb11 + lb6 \times lb8$
t7	$lb5 \times lb8 \times lb9' \times lb10 + lb5 \times lb8 \times lb10 \times lb11 + lb6' \times lb7 + lb7 \times lb8$
t8	$lb5' \times lb8 + lb8 \times lb11 + lb8 \times lb9 + lb6$
t9	$lb5 \times lb8 \times lb9 \times lb11 + lb5 \times lb8 \times lb9 \times lb10 + lb6 \times lb8 + lb6 \times lb7$
t10	$lb5' \times lb9' + lb8' \times lb9' + lb5' \times lb11 + lb8' \times lb11$
t11	$lb5' \times lb9' \times lb10 + lb8' \times lb9' \times lb10 + lb5' \times lb10 \times lb11 + lb8' \times lb10 \times lb11$
t12	$lb5' \times lb11 + lb8' \times lb11 + lb5' \times lb9 + lb8' \times lb9$
t13	$lb5' \times lb9 \times lb11 + lb8' \times lb9 \times lb11 + lb5' \times lb9 \times lb10 + lb8' \times lb9 \times lb10$

FIG. 12

200

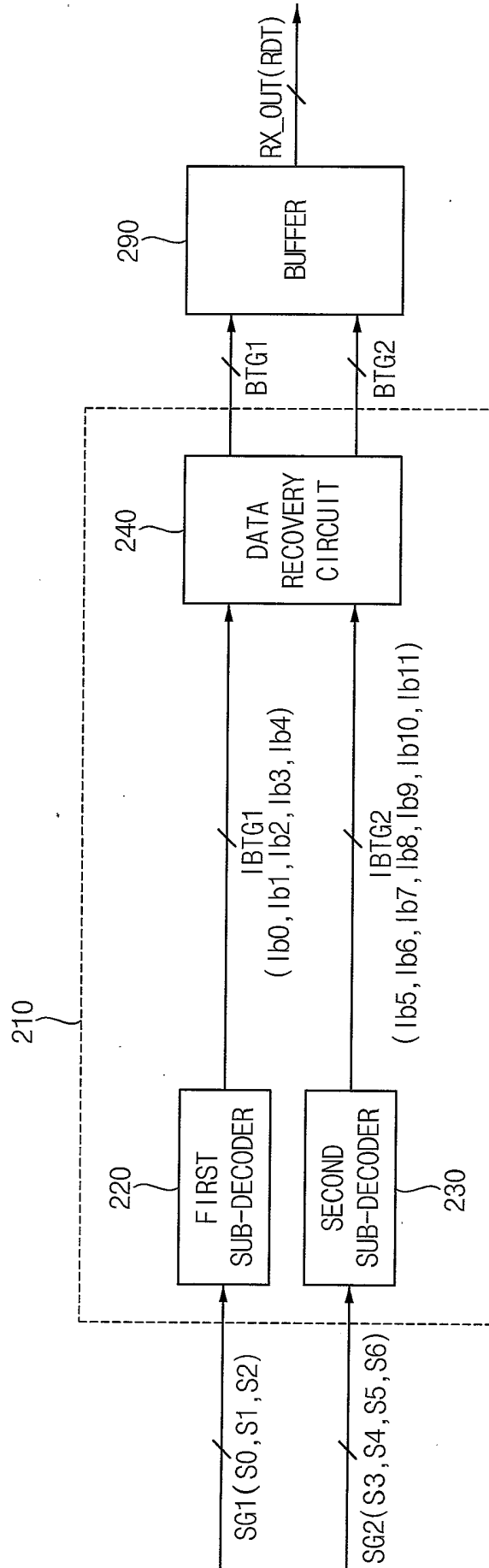


FIG. 13

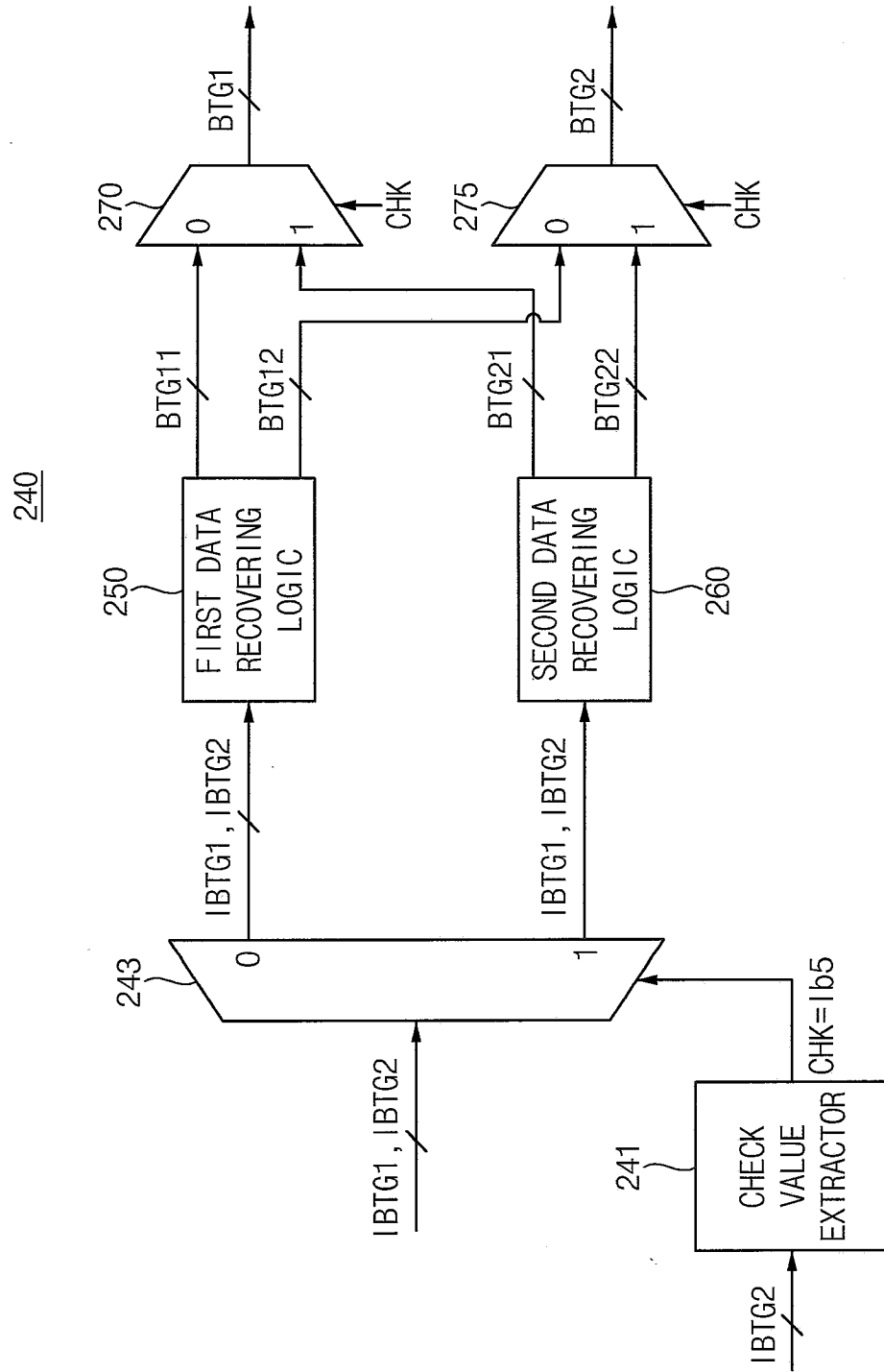


FIG. 14

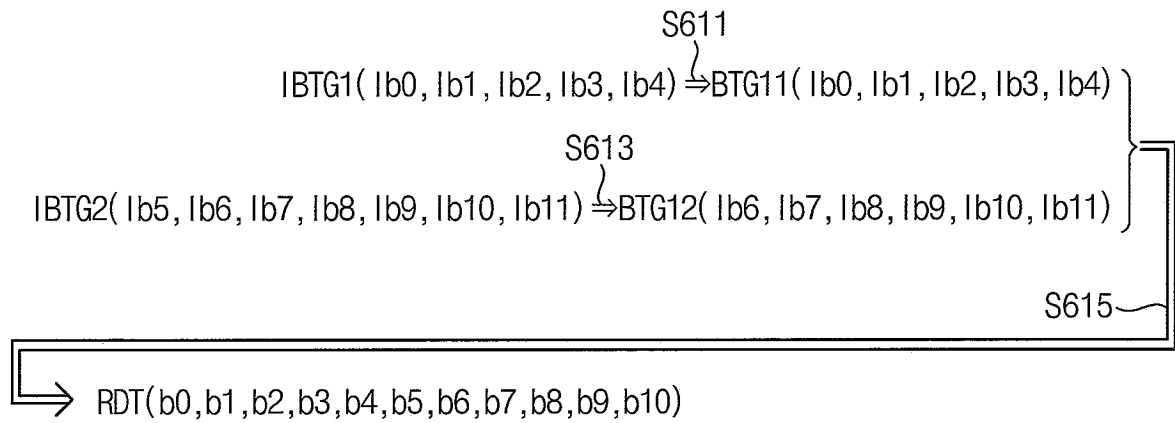


FIG. 15

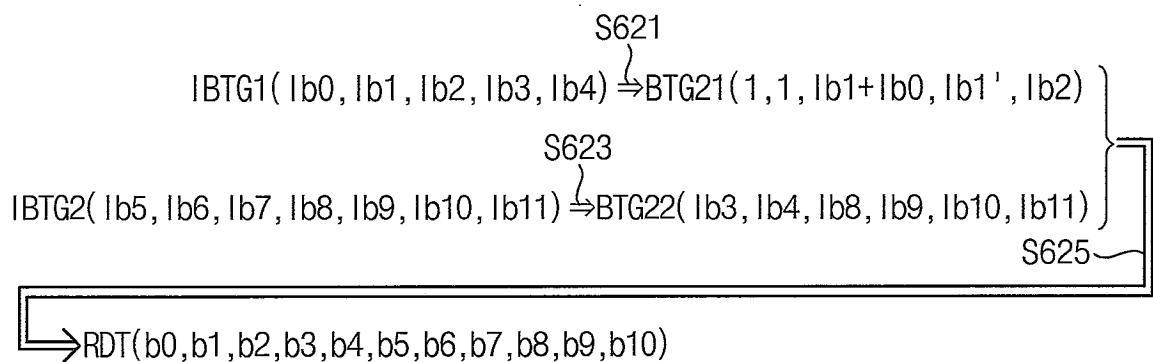


FIG. 16

lb0	$t_2' \times t_4' + t_0'$
lb1	$t_0 \times t_1' + t_2 \times t_4'$
lb2	$t_2' \times t_4' + t_5$
lb3	$t_2' \times t_5 + t_3$
lb4	$t_2 \times t_2 \times t_4' + t_2 \times t_4$

FIG. 17

lb5	$t_6' \times t_8' + t_{10}' \times t_{12}'$
lb6	$t_6' \times t_8 \times t_{10} + t_6' \times t_8 \times t_{12} + t_9 \times t_{10} + t_9 \times t_{12}$
lb7	$t_6' \times t_9 \times t_{10} + t_6' \times t_9 \times t_{12} + t_7 \times t_{10} + t_7 \times t_{12}$
lb8	$t_6 \times t_8 + t_{10} \times t_{12}$
lb9	$t_{10}' \times t_{12} + t_6' \times t_{10}' + t_9 \times t_{10}' + t_9 \times t_{13}$
lb10	$t_6' \times t_9 \times t_{10}' \times t_{12}' + t_7 \times t_{10}' \times t_{12}' + t_{10}' \times t_{13} \times t_{11}$
lb11	$t_6 \times t_8 \times t_{10}' \times t_{12}' + t_{10} \times t_{12}$

FIG. 18

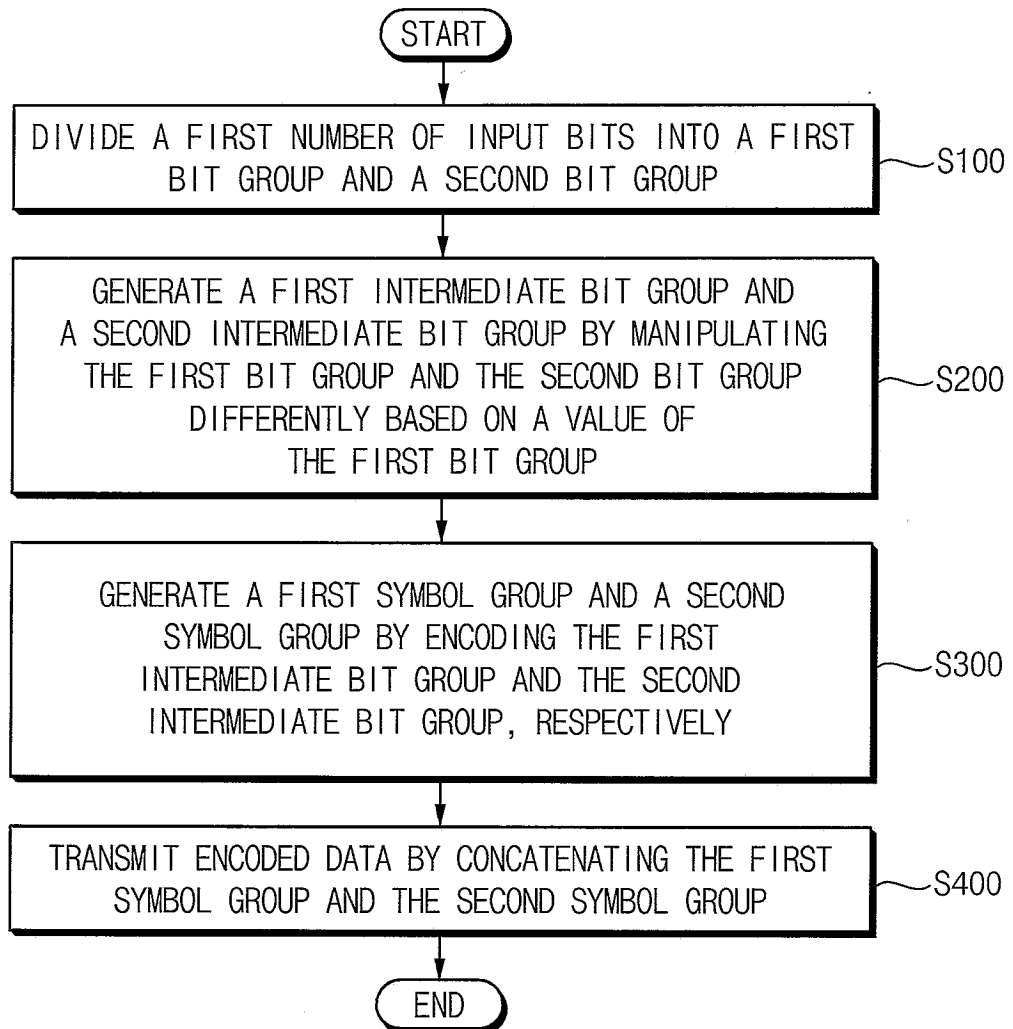


FIG. 19

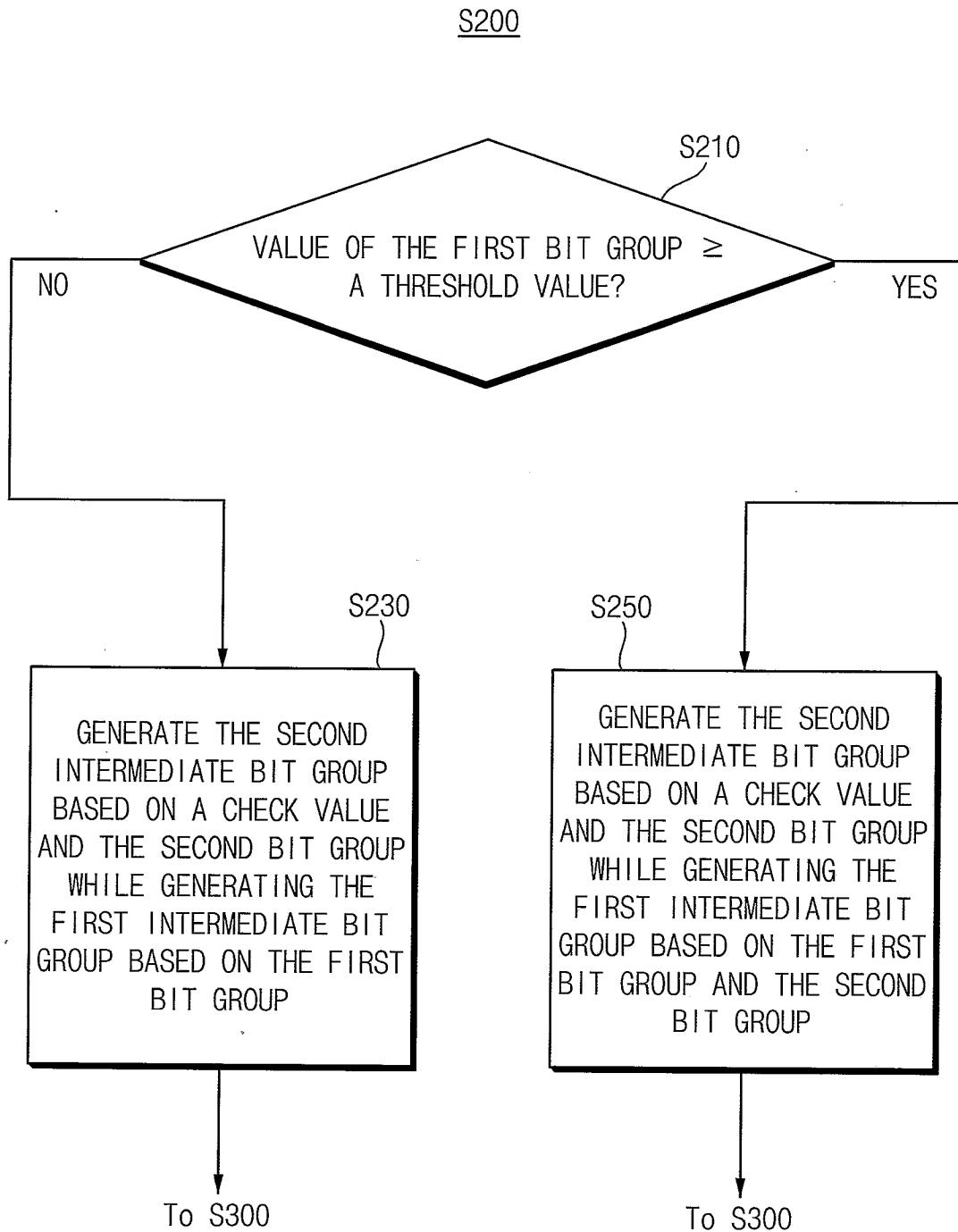


FIG. 20

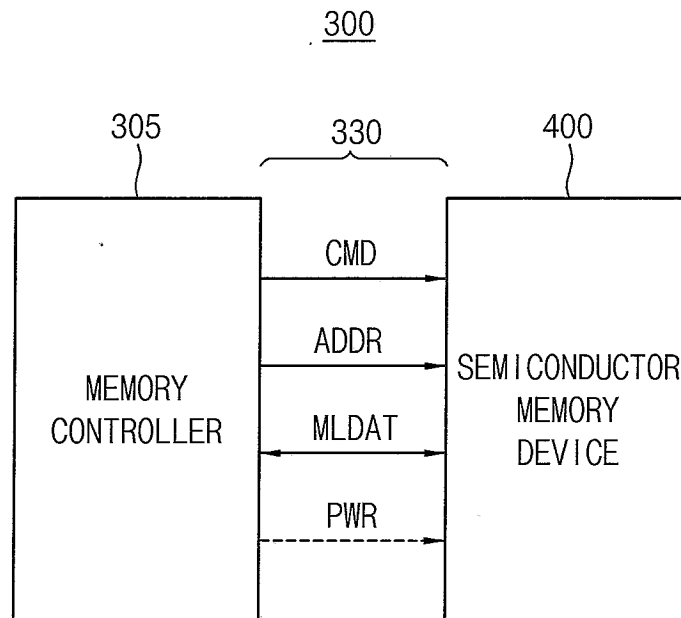


FIG. 21

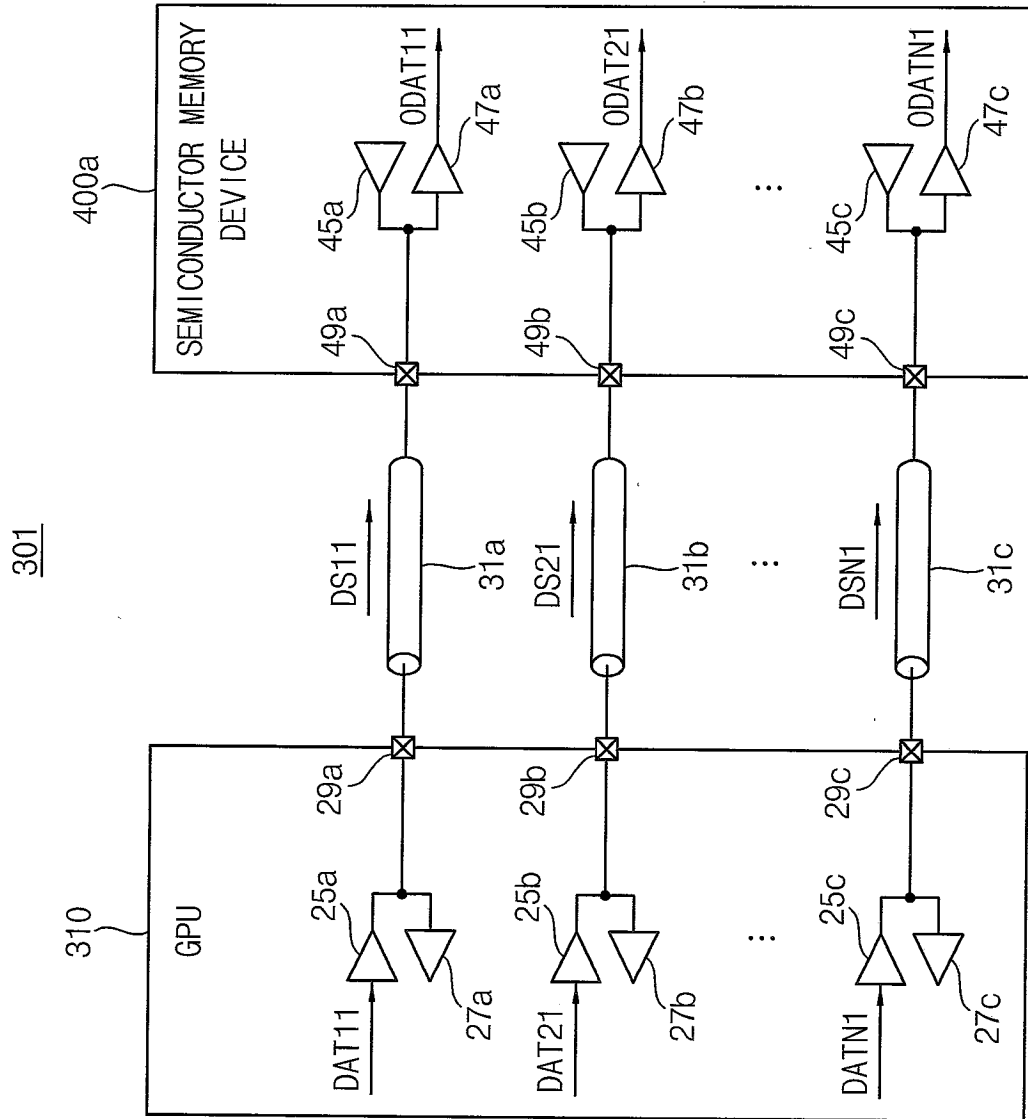


FIG. 22

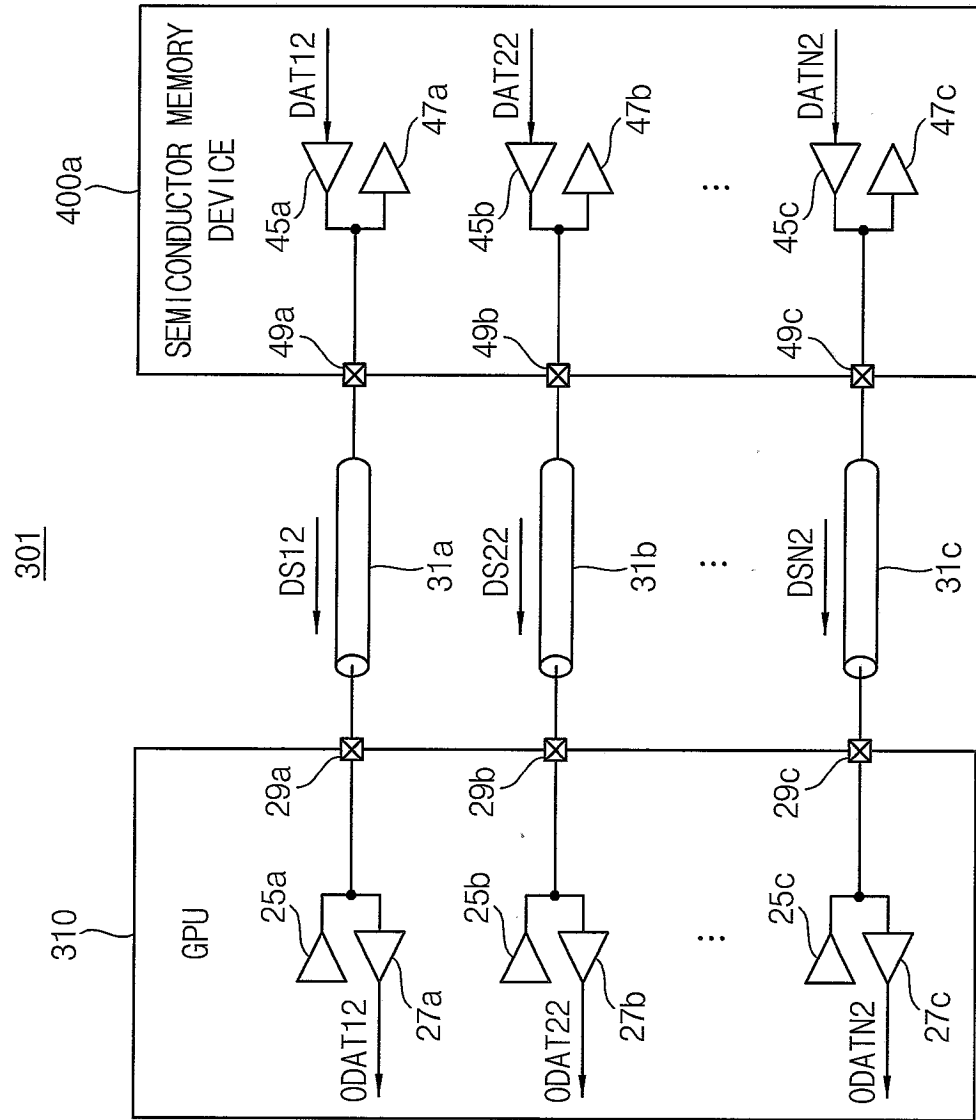


FIG. 23

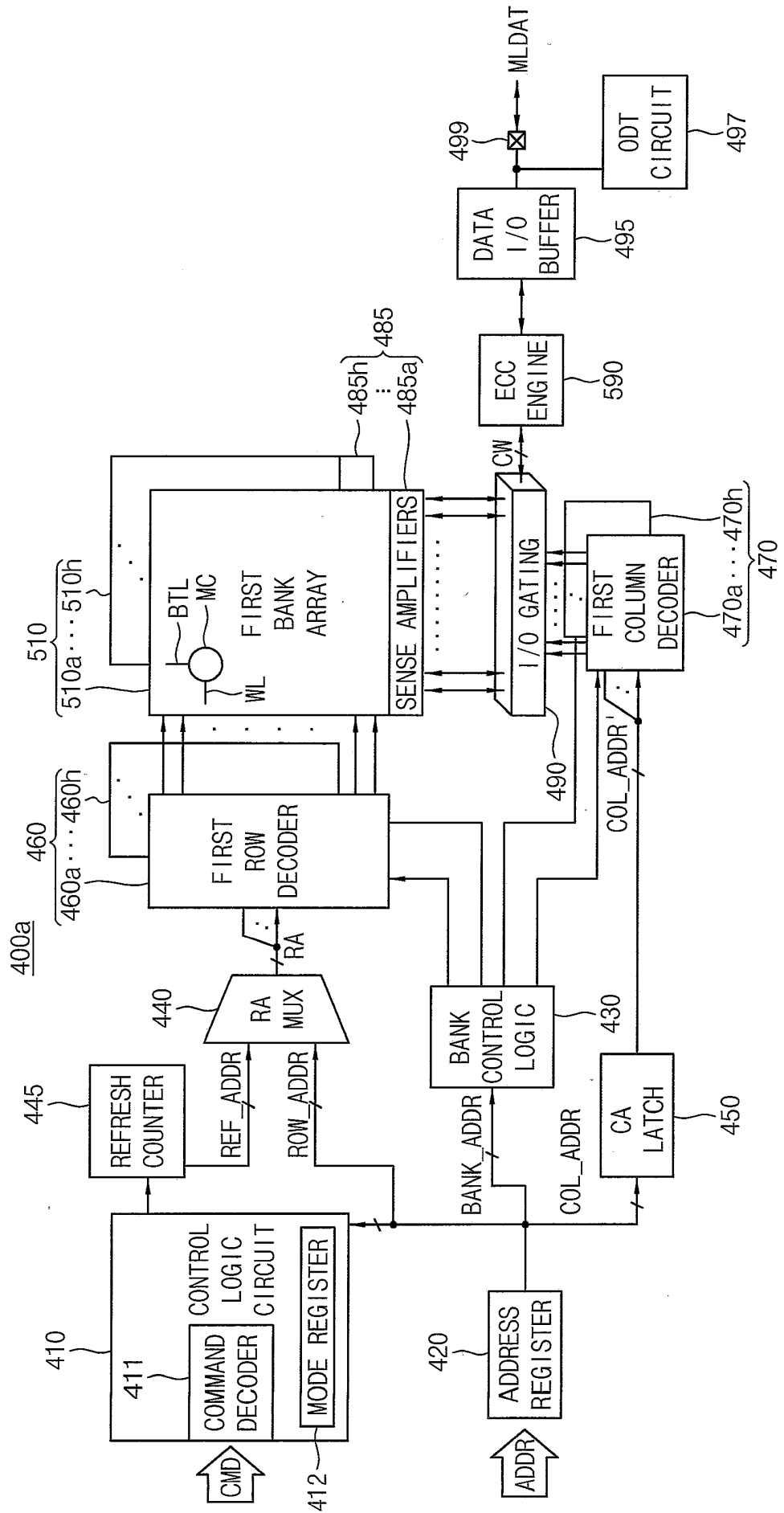


FIG. 24

510a

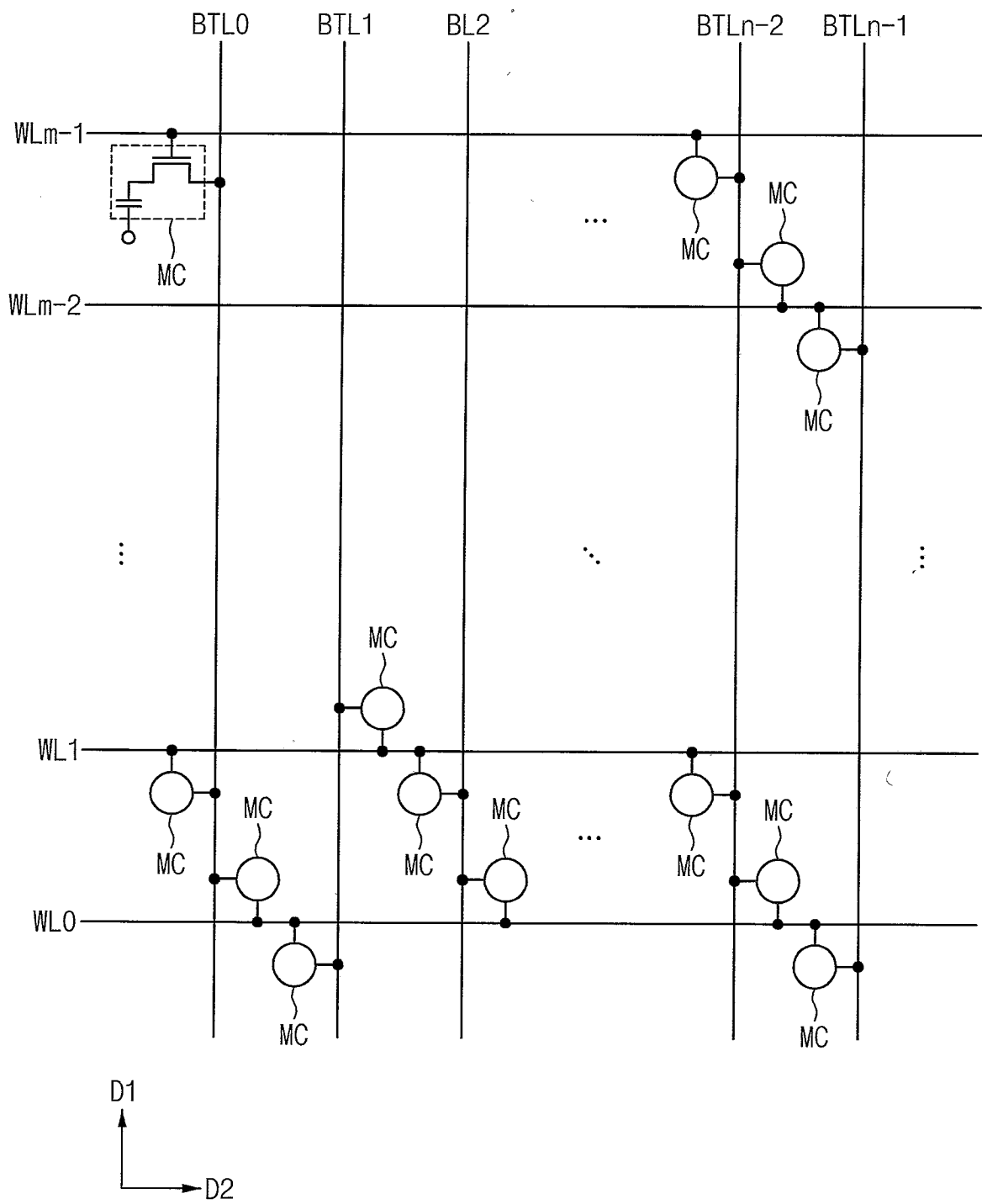


FIG. 25

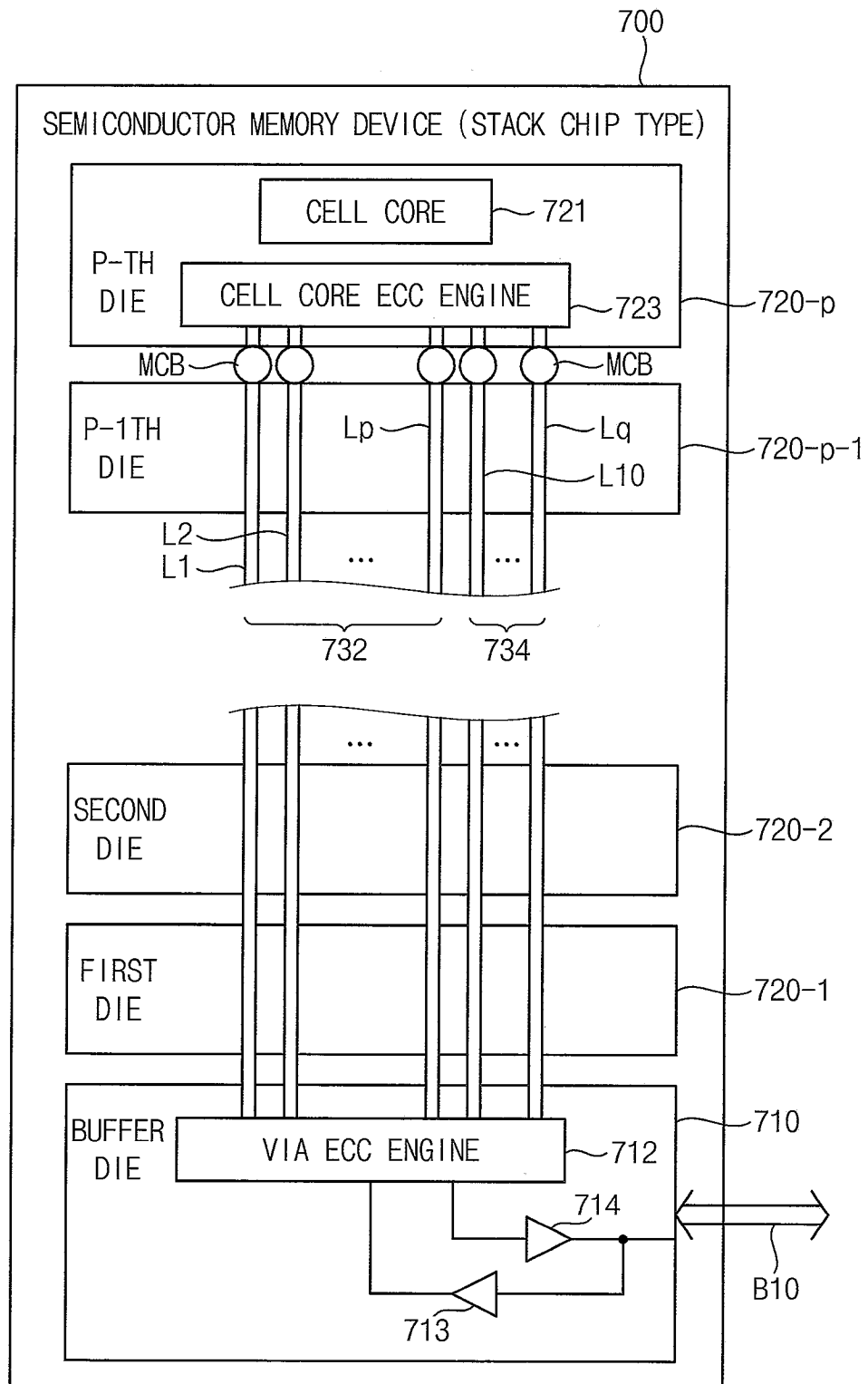


FIG. 26

