

(19)  
(12)

(KR)  
(A)

(51) 。 Int. Cl. <sup>7</sup>  
G09G 3/36

(11)  
(43)

2002 - 0005397  
2002 01 17

(21) 10 - 2001 - 0016942  
(22) 2001 03 30

(30) 2000 - 210686 2000 07 06 (JP)  
2000 - 379778 2000 12 08 (JP)

(71) 가 가  
가  
가 가 가 4 6  
가 가 가 292

(72) 가 가 가 1099 가 가  
가 가 가 1099 가 가  
가 가 292 가 가 가  
3300 가 가  
3300 가 가

(74)

:

(54)

, 가 (105); ,

(N - 1)

N

N

(109); (107); N  
가 가

2

, , , , ,

1 1

2 1

3a 3b /

4 -

5 가 가 ,

6 가 ,

7

8

9a 9b

10 1

11 1

12 2

13 2 가

14 2

15 3

16 4

17 가 ,

18	5	.		
19	5	.		
20	6	.		
21	6	.		
22	7	.		
23	7	.		
24	7	.		
25	7	.		
26	7	.		
27	7	.		
28a	28b		7	.
29	7	.		
30	8	.		
31	8	.		
32	8	.		
33	9	.		
34	9	.		
35	9	.		
36	9	.		
37	10		2	.
38	10		2	2
39	10	.		
40	10	.		
41	11	.		
42	11	.		

43a 43b 11  
 44 11  
 45a 45b 11  
 46 11  
 47 12  
 48 12

가

가

&lt; &gt;

101 :

102 :

103 :

104 : 가 /

105 :

106 :

107 :

109 :

2401 :

2402 : LVDS

2403 : LVDS IC

2404 : IC

2405 :

2406 :

2407 :

2410, 2411 :

2601 :

2602 :

2603 :

e) ( , , ) , CRT (Cathode - Ray Tub  
 , EL (Electro Luminescence) , FE (Field Emission)

가 가  
 (low - flicker) 가  
 (afterimage)

10 - 39837

4

가

가 가 , 가  
 , 256 × 255 = 65280 가 , 256 -  
 가 , 256 × 255 × 8 = 510 kbit 가 1280 × 1024 = 1587.2K  
 , 4761.6K ( , )  
 4761.6K

(N - 1)

N

, ) 가 가 (

< 1 >

1 1 . 2 1

1 2 , (101) (time - based) (103) (102)  
가 / (104) 가  
(105) (106)  
(107), (row)  
(108), (worth)  
(109), (111), (110)

(107) ( )  
(107) , DVD , TV, VCR  
(107) ( R ), ( G ), ( B )  
(111) , (110)  
(107) (106),  
(108), 가 (109),  
(105) (106) (101)  
(102) ,  
(103) (103) ,  
(101)

2 , (101) R, G, B

가 가 (101)  
가 VCR (107) (106) , 가 DVD, TV  
2 , 가 (107) 가  
A/D A/D 가  
(107) A/D  
가 (102)

(102) 1 1 ,  
 l' (103) .

(103) l', 1 li ,  
 . li (105)  
 (105) ( )  
 4 , (124) , li가 c ,  
 b ( , ) . , 4  
 ( ) , li가 , a ( )  
 , (125) (126) , (124) , (103) li (127)  
 l' 가 ( ) (104) li  
 , l" (109) .

가 , ,  
 , 3 11 , li가 .

3a (103) . 004  
 001 (111) ,  
 (112) .

3b 001 , 1 001  
 001 가 002 . 003 001 002 가 ,  
 , 001 가 005 가 004 가  
 . 가 005 , 004 003

, 006 , ,  
 가 007 가 , ,  
 , , 가 , 가  
 , , 가 , 가

I, 60%, y ( )

1

$$I = \int_0^T \exp(-\frac{t}{\tau}) dt = \Delta y \tau (1 - \exp(-\frac{T}{\tau}))$$

가, T >> , exp(- T/ ) , 가

, 1 2 .

2

$$I = \begin{cases} \Delta y \tau & \text{if } T \gg \tau \\ \Delta y \tau (1 - \exp(-\frac{T}{\tau})) & \text{else} \end{cases}$$

, T >> 가 . 가  
 (3 - 10 1 16.7ms )  
 7 가 , 1  
 , 가 , 3

4 2 , 1

tf , (c-b) yi 2 .

3

$$\Delta y_i = \frac{I}{t_f} = \frac{\Delta y}{t_f}$$

3 yi , (121)가 .  
 (122) (121) 001 (123)  
 (122) (121) , (12)  
 4) (125) , (126) (127)  
 , 가 .

, 5 6 , 5 6 ,  
 (131) 5 | |' 5 6 ,  
 6 가 y , | , (131) 4

4

$$y = f(l)$$

l 가 , y 4 .  
 y 3 , yi가 , yi가  
 y' , ( 6 y" )가 , ( 5 y" )가 ,  
 (131) f<sup>-1</sup>(y) , y' + yi , l' l" 5  
 , li , l' l" 5

5

$$\Delta t_i = f^{-1}(f(l') + \frac{\tau}{t_f}(f(l') - f(l))) - l'$$

f(l) 6 , ,  
 k , .

6

$$f(l) = kl^\gamma$$

5 6 , Δ li가 7 ,  
 2b (109) , 8 - 0 - 255 ,  
 55가 , 0 0 li , 255 2

7

$$\Delta t_i = \begin{cases} -l' & \text{if } l'^\gamma + \frac{\tau}{t_f}(l'^\gamma - l^\gamma) < 0 \\ 255 - l' & \text{else if } (l'^\gamma + \frac{\tau}{t_f}(l'^\gamma - l^\gamma))^{\frac{1}{\gamma}} > 255 \\ (l'^\gamma + \frac{\tau}{t_f}(l'^\gamma - l^\gamma))^{\frac{1}{\gamma}} - l' & \text{else} \end{cases}$$

7 , 7 , 가 , 7 ,  
 , 가 ,  
 7 , 16.3ms , 28.6ms ,  
 10.0ms ,  
 , 16.3ms 0.61 - 1.75 .

7 li , 9 8  
 9a | 9b  
 |

1.8 - 2.2 , 7 | - |  
 , 16.3ms , 16.7ms 가

8 9 , R, G B , R, G B 가 B  
 , R, G B

10 2.0 , 가 2  
 li , =2.0가 7 , 8

8

$$\Delta t_i = \begin{cases} -l' & \text{if } l'^2 + \frac{r}{l'}(l'^2 - l^2) < 0 \\ 255 - l' & \text{else if } \sqrt{l'^2 + \frac{r}{l'}(l'^2 - l^2)} > 255 \\ \sqrt{l'^2 + \frac{r}{l'}(l'^2 - l^2)} - l' & \text{else} \end{cases}$$

127 가 ( 10 ). 가 0 가  
 159 , 25 가 95 , -50

가 223 , 255 , 32  
 가 31 , 0 , -31  
 가

6 가 , 2.0 , 5  
 (131) , 가

5 6 , | y<sub>i</sub> |  
 , ( 5 li). ,  
 ( 6 li).

10 , 가 , 가 ,

(141) , 11 (142) , 11 ,

(144), (145), (146) 3

11 , (147) (148) (141) (142) i (143)  
 . (149) 가 . (144)  
 , 가 , (146)  
 , (146) (149)가 , (144)  
 (150) , 2 (109) . (148)

가 , (145) 가 .  
 가 ,  
 . , PC PC ,

< 2 >

1 가 2 가 .  
 가 , f(l) = 2.0 f(l) 8 2 . 1  
 , 가 가 .

2 , .

TV . , 1  
 . , 3 (45ms)  
 , y ). 가 ( 가 -30% 10%  
 , 1 .

2 , =1.0 , 7 . =1.0 7  
 , 9 , li .

9

$$\Delta I_i = \begin{cases} -I' & \text{if } I' + \frac{I'}{I_f}(I' - I) < 0 \\ 255 - I' & \text{else if } I' + \frac{I'}{I_f}(I' - I) > 255 \\ \frac{I'}{I_f}(I' - I) & \text{else} \end{cases}$$

9 , li , 가  
 , 8 , 9 ,

12 9 .

1 , 가 가 , 가 .  
 < 3 >  
 2 가 가 1.8 - 2.0 가 ( 107) 14 가 . 13  
 13 l l' , 14 .  
 2 , 9 가 , l'-1 가 li .  
 , 13 14 , 1.8 - 2.2 , .  
 ( 14 yi) . ( 13 yi) .

3 , 9 .  
 15 가 , 12 가 , 가 , 가 .  
 가 10 , 가 , 9 .

10

$$\Delta l_i = \begin{cases} -l' & \text{if } l' < l \text{ and } l' + \frac{\alpha l'}{l'}(l' - l) < 0 \\ \frac{\alpha l'}{l'}(l' - l) & \text{else if } l' < l \\ 255 - l' & \text{else if } l' \geq l \text{ and } l' + \frac{\alpha l'}{l'}(l' - l) > 255 \\ \frac{\alpha l'}{l'}(l' - l) & \text{else if } l' \geq l \end{cases}$$

가 r, f , 가 .  
 , 9 가 , 9 가 가 .  
 , 가 , 8 , 가 가 가 .

< 4 >

3  
가 , 10 , 가  
10 . 4

3  
|'- l 가 ,  
13 14 , 1.8 - 2.0 ,  
가 , 4 , |'- l ,  
g(l',l) 10 , g(l',l) 가

11

$$g(l',l) = 0 \quad \text{if } l' = l$$

가 , g(l',l) , 2 가 . 12

12

$$\Delta l_i = \begin{cases} -l' & \text{if } l' < l \text{ and } l' - \beta_f(l' - l)^2 < 0 \\ -\beta_f(l' - l)^2 & \text{else if } l' < l \\ 255 - l' & \text{else if } l' \geq l \text{ and } l' - \beta_{1r}(l' - l)(l' + l - 2\beta_{2r}) > 255 \\ -\beta_{1r}(l' - l)(l' + l - 2\beta_{2r}) & \text{else if } l' \geq l \end{cases}$$

2 , f, 1r, 2r 가 .

16 12

가 , 가  
9 , 가 9  
가 , 1  
8 , 가

< 5 >

17 가 ,

(501)

(502)

(503) 가  
(501)

(504) 가

, y , .  
 , 4 , 2  
 , 1 4 .  
 , 5 ,  
 .  
 18 5 . 101 109 2 ,  
 가 . 5 (511) 1 (103)  
 , lis가 lis 가 / li  
 , (109) (104) l'  
 .  
 19 가 . 141 149 19 ,  
 1 4 가 (147) (148) , (149)  
 가 (521)가 .  
 , (521) (148) , (522)  
 , (522) .  
 .  
 18 , 가 ,  
 , 1 ,  
 .  
 < 6 >  
 20 6 .  
 101 109 2 .  
 6 , (601) l' (102)  
 | , (103) , 1 4  
 , ls' , li .  
 가 l' )가 (602) l" 가 (602)가 (103)  
 ( (109) )가 (602)가 l"  
 가 , l'가 , l"  
 .  
 21 , 21 141 148 11  
 , .

6 (611) (148) 가 (147) (611)가  
 가 (613) (612)가 (612)가 (148)  
 (109)  
 가 /  
 (look)  
 (602) 1

< 7 >

22 (107)  
 (107) (105), (109),  
 (2404)가 (151) , 가 (152), (108)가  
 (153), (105) (155), (156),  
 (156) (158), (156) (10)  
 5) (159), 가 (160), (161) (156) (105)

23 (107)  
 22 (107) (162) R( ), G( ), B( )  
 (167) (163), (164) (165)  
 (108) (163) 가 (167)  
 (164)  
 (109) (163) (164)  
 (TFT)(166) 가 가 가  
 가 가 가

IC( )  
 (152) IC IC  
 IC IC  
 (151) IC

24 age Differential Signaling) (2402), LVDS 25 24 LVDS(Low Volt  
 2405), (2406), IC(2403), IC(2404), (2410, 2411)  
 (151) 가 (2407)

25 , (2401) (2401) CMO  
 S(Complementary Metal Oxide Semiconductor) LVDS  
 LVDS (2403) LVDS (2402) LVDS (2501) CMOS (2502)  
 (2404) (2404) (2405) (2406)  
 (2407) (2503, 2504)

26 (2404) (2601) (2601)  
 2a (106) (2602), (2603) (260)  
 4) (2606) (2404)  
 (2404)

C, VSYNC( ) (2601) R, G, B CLK, HSYN  
 (2602) 1 (2606)  
 (2606) (2609) / (2602)  
 ) / (2611) 1  
 (2612) (2603) (2604)

(2612) (2603) (2611)  
 (2604) (2611) (2612) (2613)  
 (2614)

27 (2603) 8  
 9 9  
 9 x 9 가

28 (2603) 28a  
 (2604) LS LE가  
 13 LS  
 A LS 가 가 TLS<sub>i</sub> LS  
 LS<sub>j+1</sub> 가 가 LE 가 가 TLS<sub>i+1</sub> LS 가 가 TLE  
 LE 가 가 28b 가 13  
 B

13

$$(TLE_{j+1} - TLE_j)(LS - TLS_i) + (TLS_{i+1} - TLS_i)(LE - TLE_{j+1}) \leq 0$$

28a , DL , TLS<sub>i</sub>, TLE<sub>j</sub> TDL<sub>i,j</sub> ,  
 TLS<sub>i+1</sub>, TLE<sub>j</sub> TDL<sub>i+1,j</sub> , TLS<sub>i</sub>, TLE<sub>j+1</sub>  
 TDL<sub>i,j+1</sub> , 14 .

14

$$DL = TDL_{i,j} + \frac{TDL_{i+1,j} - TDL_{i,j}}{TLS_{i+1} - TLS_i} (LS - TLS_i) + \frac{TDL_{i,j+1} - TDL_{i,j}}{TLE_{j+1} - TLE_j} (LE - TLE_j)$$

28b , DL TDL<sub>i+1,j</sub>, TDL<sub>i,j+1</sub> TLS<sub>i+1</sub>, TLE<sub>j+1</sub>  
 TDL<sub>i+1,j+1</sub> , 15 .

15

$$DL = TDL_{i+1,j+1} - \frac{TDL_{i+1,j+1} - TDL_{i,j+1}}{TLS_{i+1} - TLS_i} (TLS_{i+1} - LS) - \frac{TDL_{i+1,j+1} - TDL_{i+1,j}}{TLE_{j+1} - TLE_j} (TLE_{j+1} - LE)$$

14 15 , .

29 , 26 (2603) (2604)  
 , 29 , CLK .

가 , , 가 1 , .

29 가 (2602) , 8A(HEX) 8A(HEX) , C5(HEX) 8A(HEX) , C5(HEX) C5(HEX) , 8A(HEX) C5(HEX) , 4가  
 가 , 8A(HEX) C5(HEX) 가 .

27 (2603) , TLS<sub>i</sub>, TLS<sub>i+1</sub>  
 7F(HEX), 9F(HEX)가 TLE<sub>j</sub>, TLE<sub>j+1</sub> BF(HEX), DF(HEX)가  
 8A(HEX), C5(HEX) 7F(HEX), 9F(HEX), BF

(HEX), DF(HEX) 13 , 28 A ,  
 14가 . 26 , E2(HEX), D4(HEX) FF(HEX)가 D  
 L<sub>i,j</sub>, DL<sub>i+1,j</sub> DL<sub>i,j+1</sub> , E2(HEX)가 .

E2(HEX) C5(HEX) ,  
 가 , C5(HEX) 8A(HEX) 59(HEX) , 8A(HEX)

가 , (2404)

< 8 >

7 , 가 , 가  
 , 8 가 .

29 , 가 , 가  
 , C5(HEX) , C5(HEX) 가 ,  
 BE(HEX) , 14 15 ,  
 , 가 , 가 ,  
 , 가 , 가

30 (3002) , 30 , (3002)가 26 가 .  
 가 , 가 가

(3002) , 31 31 , 가  
 29 8A(HEX) 8A(HEX) 가 C5(HEX) C5(HEX) 가 ,  
 , 가

< 9 >

가 , 가 , 가 ,  
 가 , 가 ,

32 , 00(HEX) 1F(HEX) , 32 3F(HEX) , 가  
 1F(HEX) 3F(HEX) 가 5E(HEX)  
 8bit 가 , 00(HEX) FF(HEX) ,  
 가 , 32

33 32 , 1.8 - 2.2 ,  
 , 가 , 가 ,  
 , (bent line) , 가  
 , 16

16

$$DL = \begin{cases} \text{if } LE < LS : M1_i(LE - LS) \\ \text{else if } LS \leq LE < \frac{LMAX + LS}{2} : M2_i(LE - LS) \\ \text{else if } LE \geq \frac{LMAX + LS}{2} : M2_i \frac{LMAX - LS}{2} - M3_i(LE - \frac{LMAX + LS}{2}) \end{cases}$$

16 , DL , i , M1 ( , ) , M  
2, M3 ( 가 ) , LMAX , LS , LE  
34 34 9  
가 , 9

가 가 , 3 , ,

35 34 (3501) , (3502) (3501) (3503)  
(2602) (3502) (3502) 16  
가 (3504) , 가 (3505) (2611) 가

36 36 , 3  
36 C5(HEX) 8A(HEX) ,  
3 6(HEX) 34 7 (7) BF(HEX)

가 , 34 , 88/C0(HEX)가 , 가  
16 , -29(HEX) ,  
가 가 , 61(HEX)가 , 가 , 가 ,  
8A(HEX) C5(HEX) 가 , 5 , 가 , 30/  
50(HEX)가 16 , +24(HEX)가 , 가 , E  
9(HEX)가 36 , 29 31

< 10 >

32 , 가 1.8 - 2.2 , 가 , 가 가  
가 , 2  
8 가 ,

37 2 FF(HE  
X) 2 가 가 , 00(HEX)  
2 가 17

$$DL = \begin{cases} \text{if } LE < LS : A1_i (LE^2 - LS^2) \\ \text{else if } LS \leq LE : -A2_i \left\{ \left( LE - \frac{LS + LMAX}{2} \right)^2 - \left( \frac{LS - LMAX}{2} \right)^2 \right\} \end{cases}$$

17, DL (가), LMAX, A1, LS, LE, A2

18

$$DL = 0 \text{ if } LS = LE$$

17, 2, 18, 38, 2, 38, 9, 2, 3, 2, 39, 2, (3901), 38, (3902), 17, 2, 39, 35, 2, (3901), (2612), (2611) 가, (3902), (3903) 2, (3902), 2, (3904), (261), (2614), (3611), (3904) 가, 가, (3505)

40, 가 C5, 8A, 38, 7, 가, 3, 가, 2, 1/200(HEX)가, 2, 17, , -26(HEX) 가, , 8A(HEX), C5(HEX) 가, 5, 가, , 4/200(HEX), 가, +1A(HEX), , DF(HEX)

R, G, B

가 가 , , 1

19

$$H(z) = 1 + K(1-z)$$

$$K = \frac{\alpha\tau}{T_f}$$

H(z) , K , Tf ,  
19 , Tf ,  
가

41 가 (4101) 41 (4101)  
(2611) (2612) 19 (4102)  
42 가  
가 K1 가 K2  
, C5(HEX) 8A(HEX) K1 , 64(HEX)가 8A(H  
EX) C5(HEX) 가 가 K2가 , DF(HEX)rk  
가 , 가 ,

43a 43b (107) 43a  
(normally black mode)  
43b (normally white mode) 2가  
(0 - 90%)

2 , 2  
가 , 가 , 가  
가 , 가 , 1

44 2 44 43a  
43b 가 , 44 ,  
가 가

가

가

가 45

45

A, B  
가

43

44

가

46

가

가

(4602)가 41

(4602)

45a

(4601)  
KA가

45

45b

(4603)

KB가

1

(105)

< 12 >

가 47

47

(4604)가

가

7

가

(4604)

1

0

6

6

48

47

(4604)

48  
(4804)

(4802)

K X

(4801)

47  
X=1

0  
X=0

가

(460

4)

가  
1

6

가

가

가

가

48

가

(57)

1.

;

N , (N - 1) N , N

2.

가 ;

- 1) , N (N - 1) N (N  
가 ; N

가 N ; 가  
가 가

3.

가 ;

- 1) , N (N - 1) N (N  
; N

가 N ; 가  
가 가

4.

가 ;

,

,

,

.

5.

4

, ,

, ,

가

, ,

.

6.

4

, ,

;

,

,

;

가 가 /

.

7.

4

, ,

, ,

가

.

8.

5

, ,

-30% 10%

3-

9.



가 ;

;

가 ;

가

(post - change)

(pre - change)

가

14.

13

15.

14

$$DL = \begin{cases} \text{if } (TLE_{j+1} - TLE_j)(LS - TLS_i) + (TLS_{i+1} - TLS_i)(LE - TLE_{j+1}) \leq 0: \\ TDL_{i,j} + \frac{TDL_{i+1,j} - TDL_{i,j}}{TLS_{i+1} - TLS_i} (LS - TLS_i) + \frac{TDL_{i,j+1} - TDL_{i,j}}{TLE_{j+1} - TLE_j} (LE - TLE_j) \\ \text{else} \\ TDL_{i+1,j+1} - \frac{TDL_{i+1,j+1} - TDL_{i,j+1}}{TLS_{i+1} - TLS_i} (TLS_{i+1} - LS) - \frac{TDL_{i+1,j+1} - TDL_{i+1,j}}{TLE_{j+1} - TLE_j} (TLE_{j+1} - LE) \end{cases}$$

$$DL \pm 20\%$$

DL, TLE, LE, i, j, LS, TLS, TDL, (TLE<sub>i</sub> - LE < TLE<sub>i+1</sub>), (TLS<sub>i</sub> - LS < TLS<sub>i+1</sub>),

16.

13

17.

16

1.8 2.2

가 , 가 (bent - line graph)

$$DL = \begin{cases} \text{if } LE < LS : M1_i (LE - LS) \\ \text{else if } LS \leq LE < \frac{LMAX + LS}{2} : M2_i (LE - LS) \\ \text{else if } LE \geq \frac{LMAX + LS}{2} : M2_i \frac{LMAX - LS}{2} - M3_i (LE - \frac{LMAX + LS}{2}) \end{cases}$$

DL ± 20%

DL , i (가), LMAX , M1 , LS ( , LE ), M2, M3

18.

16

1.8 2.2

가 , 2 가 ,

2

$$DL = \begin{cases} \text{if } LE < LS : A1_i (LE^2 - LS^2) \\ \text{else if } LS \leq LE : A2_i \left\{ \left( LE - \frac{LS + LMAX}{2} \right)^2 - \left( \frac{LS - LMAX}{2} \right)^2 \right\} \end{cases}$$

DL ± 20%

DL (가),  $i^2$ , LMAX, A1  $^2$ , ( ), A2  $^2$ , LS, LE

19.

13 , , ,

$$H(z) = 1 + K(1 - z)$$

$$K = \frac{\alpha r}{T}$$

DL ± 20%

H(z), K, Tf, , , .

20.

13 ,

21.

13 ,

22.

13 , , 3  
- 30% 10%

23.

13 , , ,

24.

가 가

가 가

가 ,  
,

,

;

,

;

,

,

;

가

가

;

,

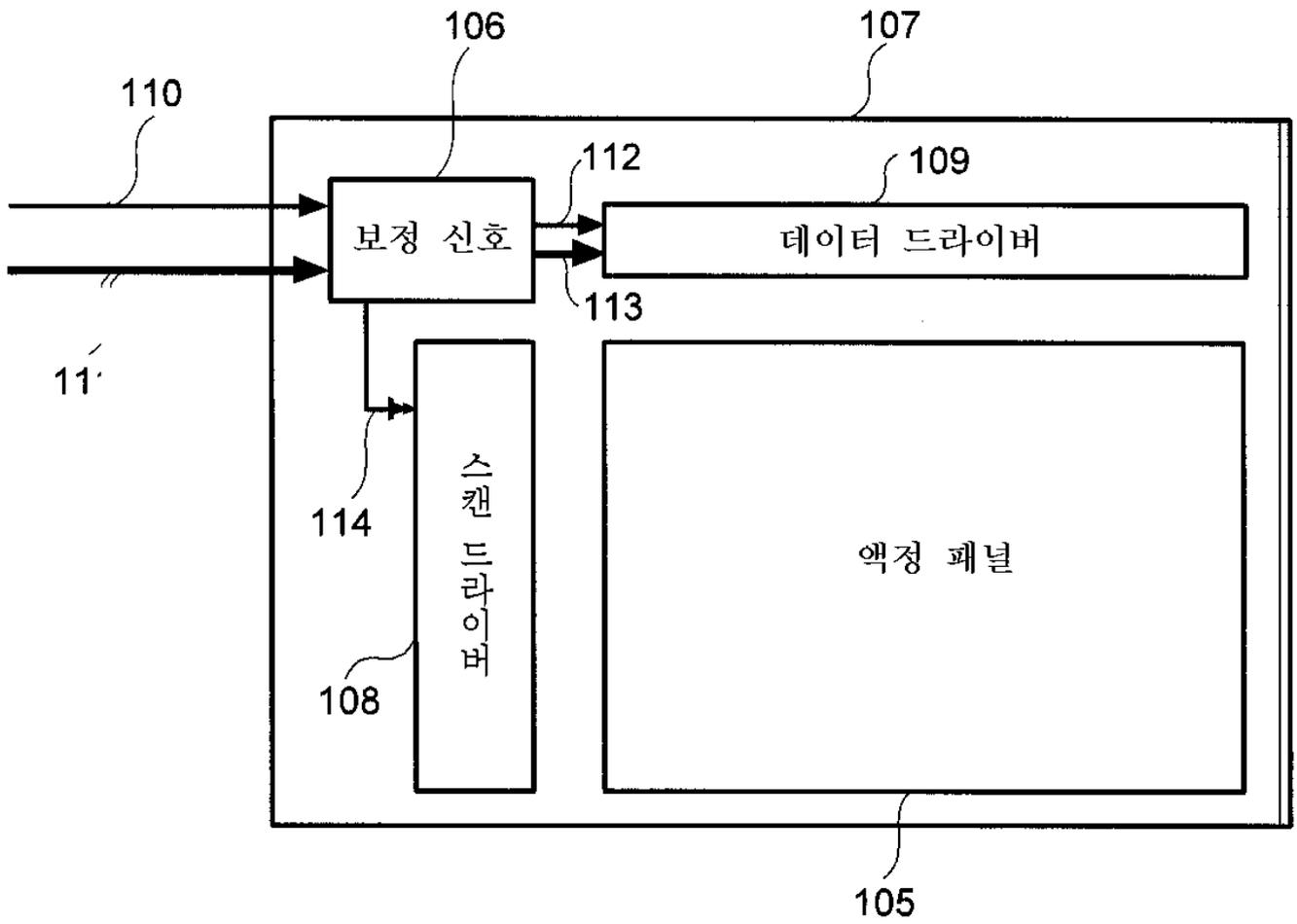
,

,

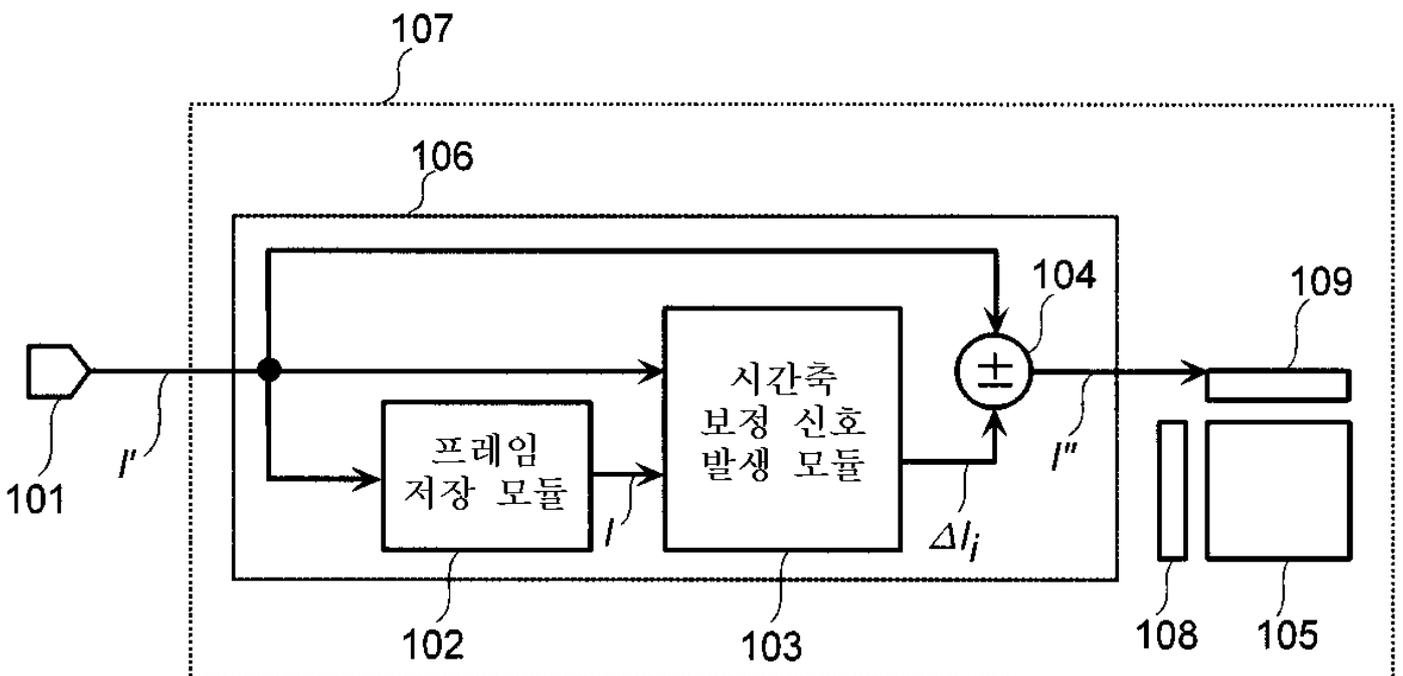
가

.

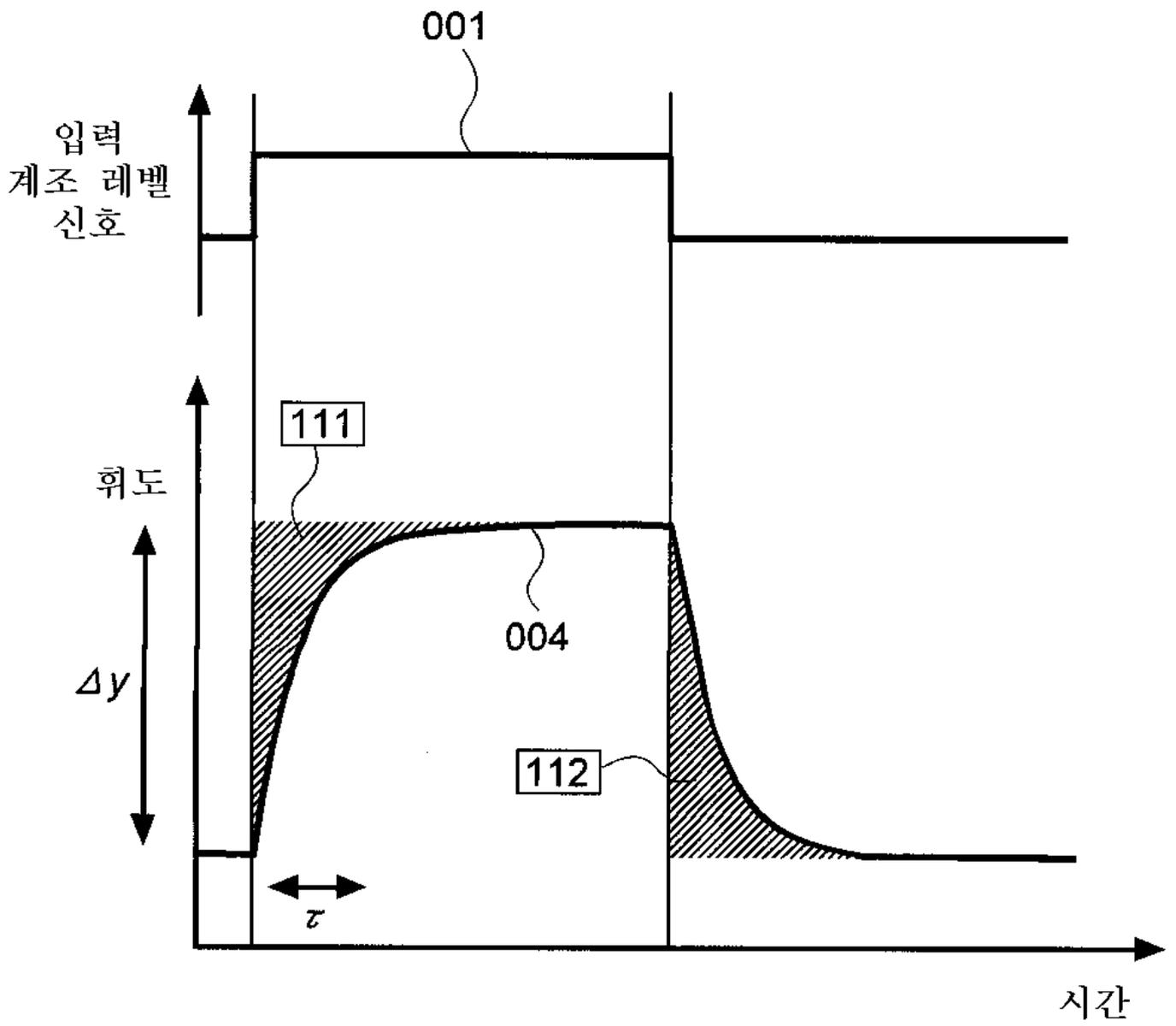
1



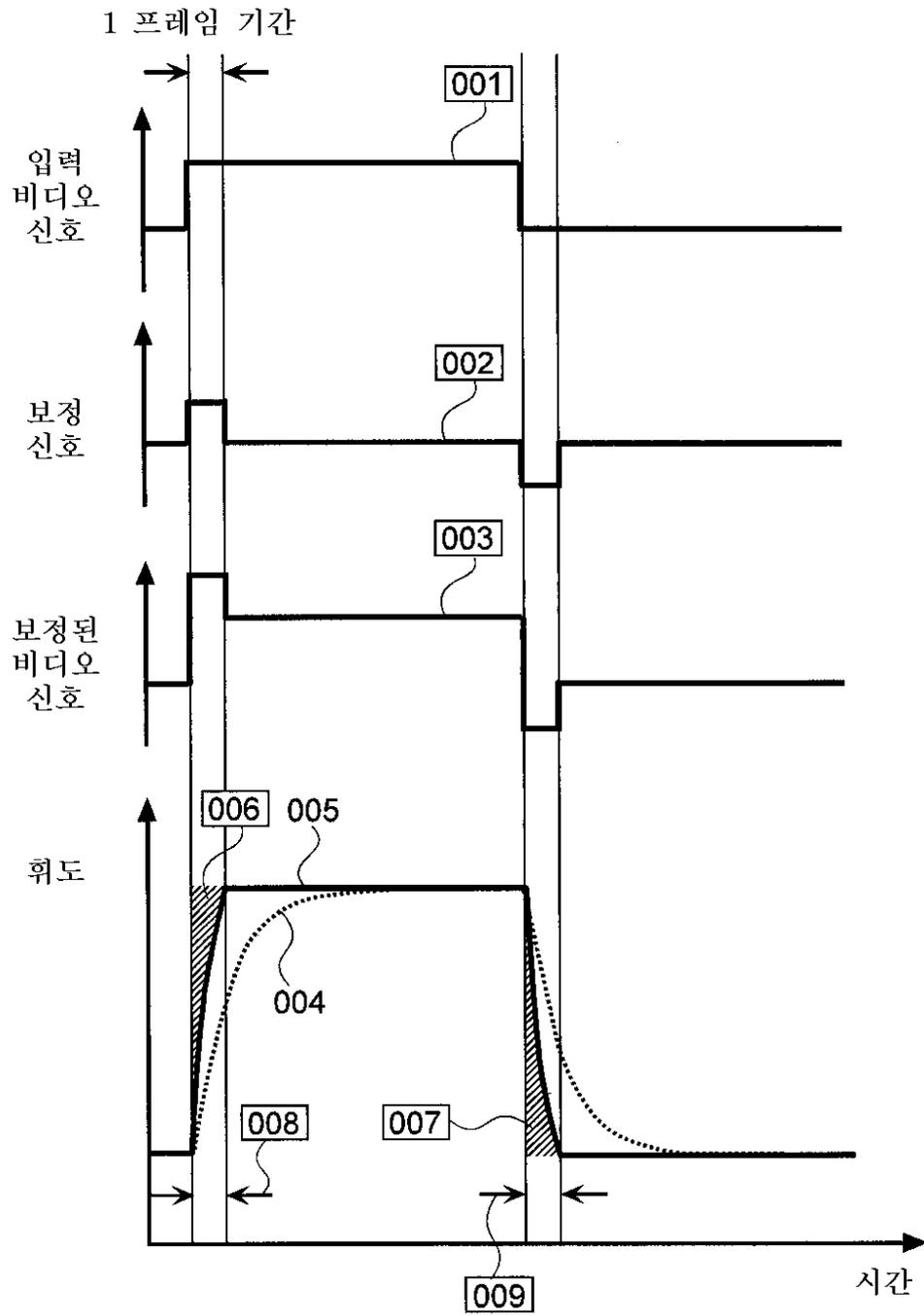
2

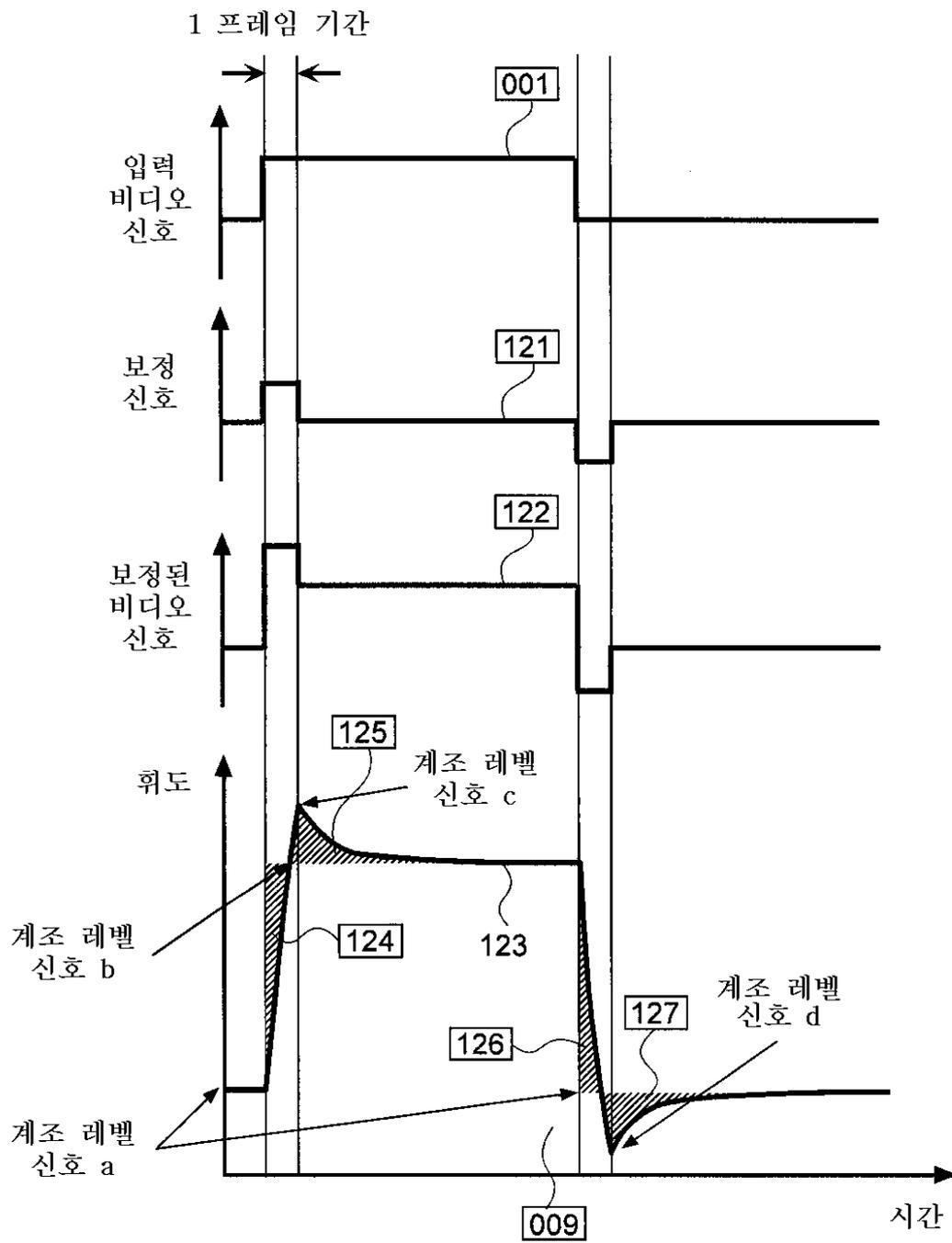


3a

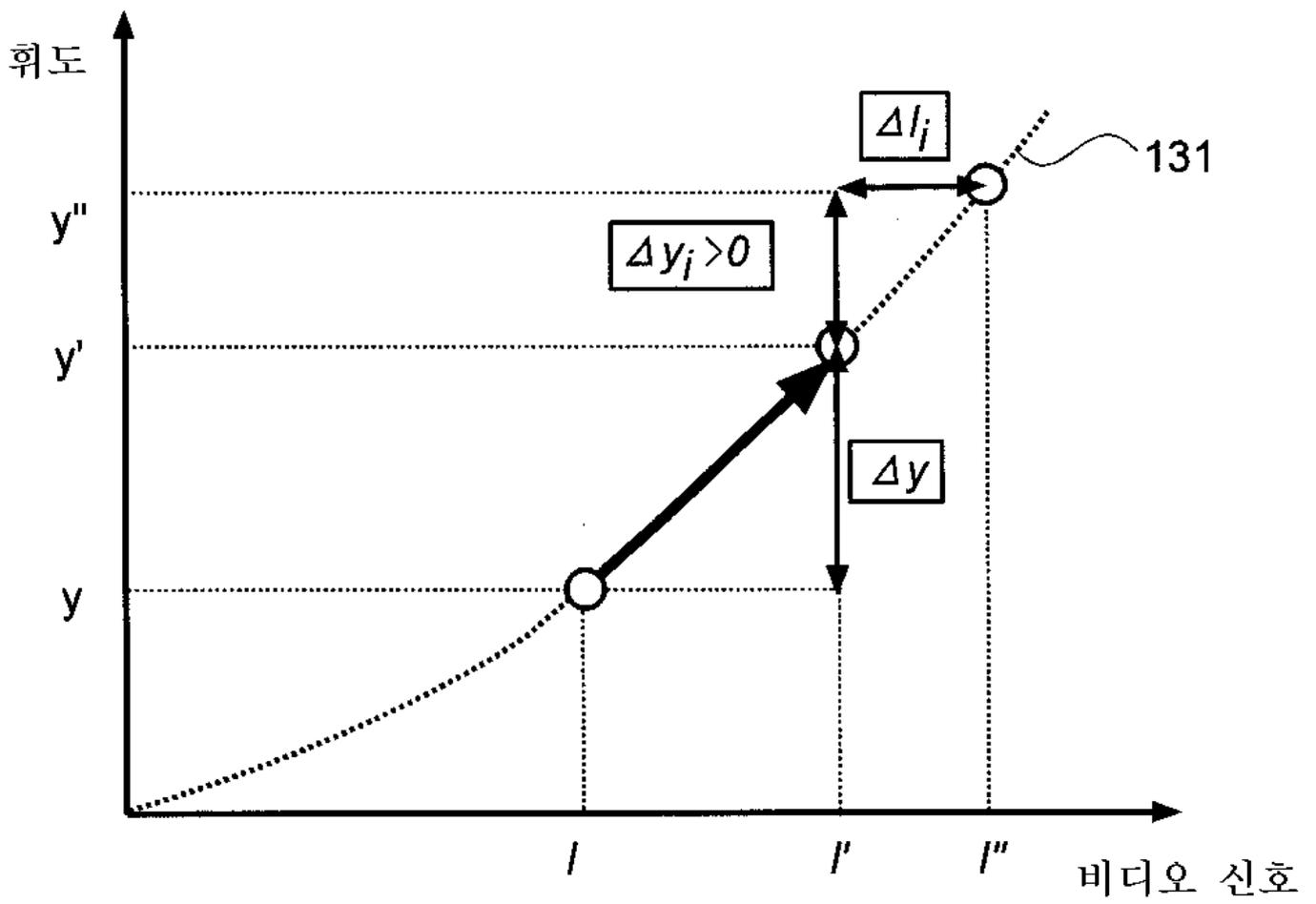


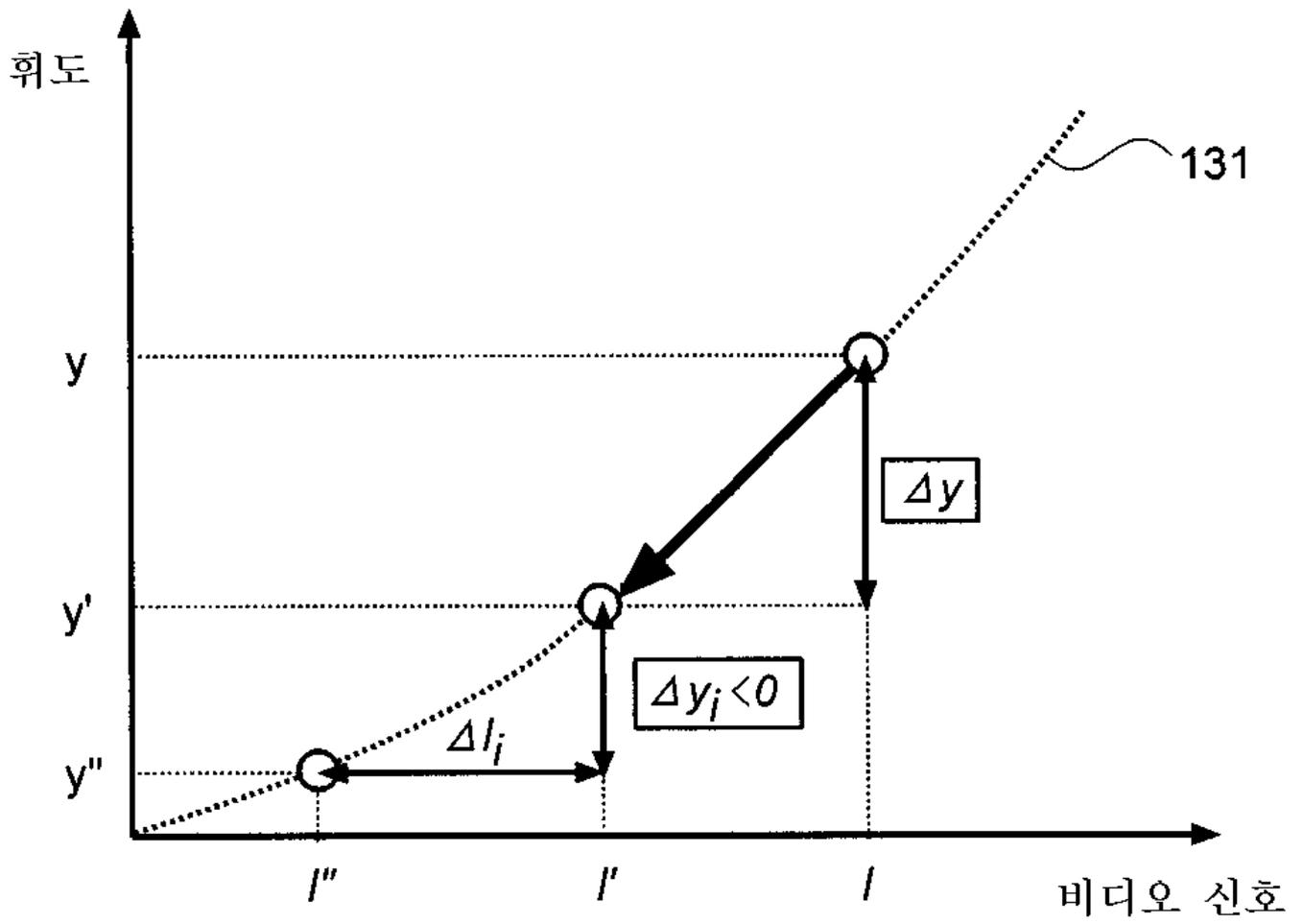
3b



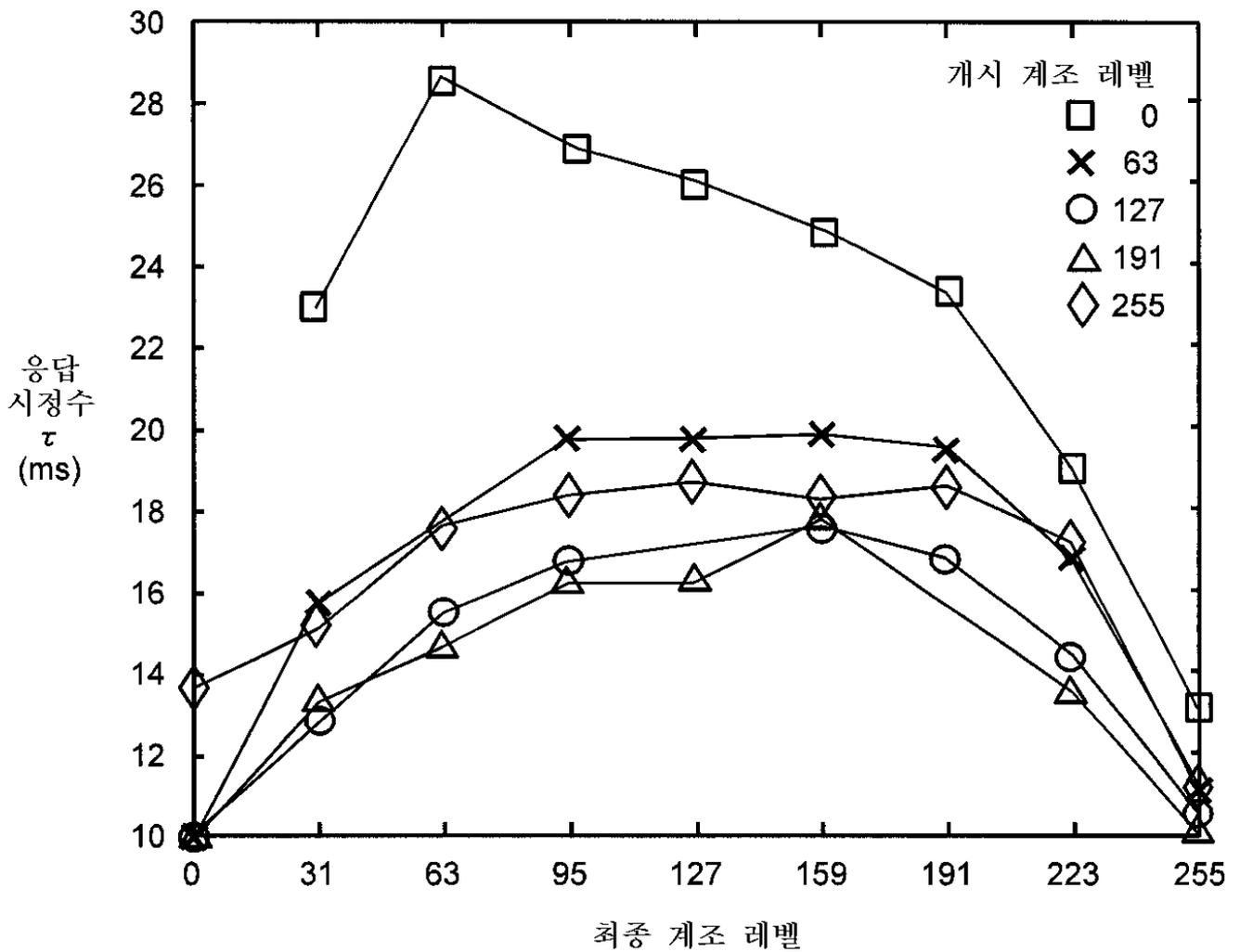


5





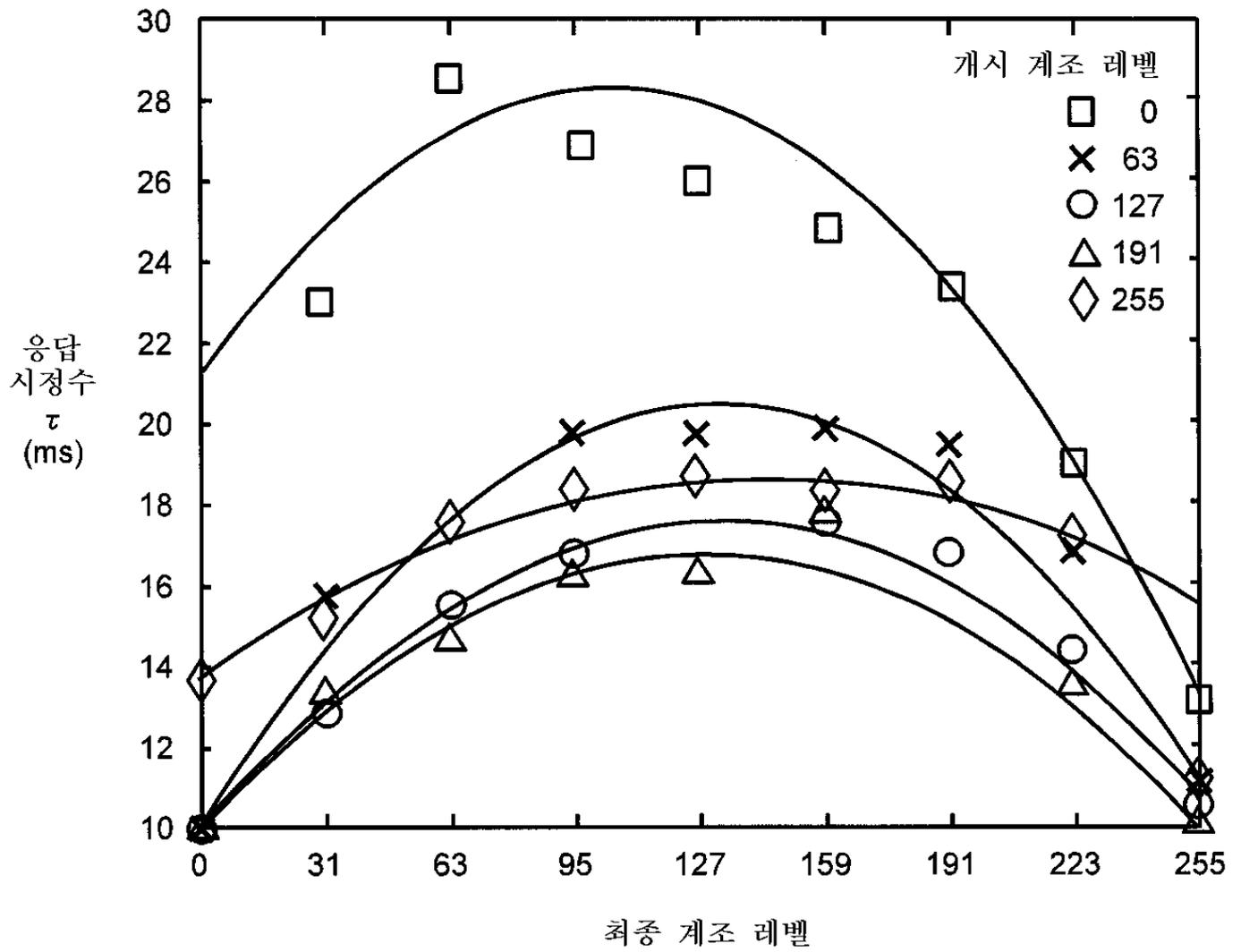
7



8

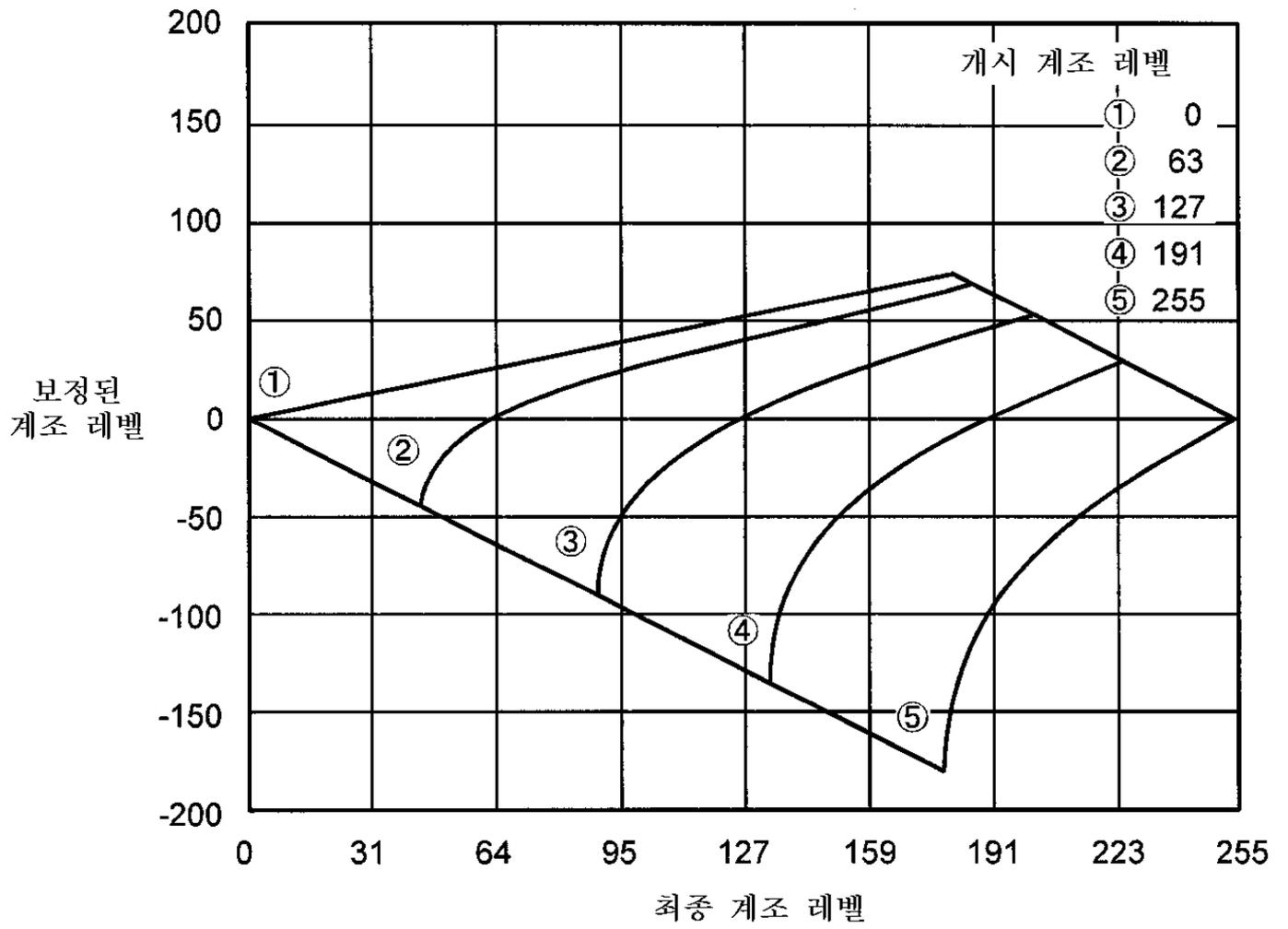
		최종 계조 레벨								
		0	31	63	95	127	159	191	223	255
개시 계조 레벨	0	-	23	29	27	26	25	23	19	13
	63	10	16	-	20	20	20	20	17	11
	127	10	13	15	17	-	18	17	14	10
	191	10	13	15	16	16	18	-	14	10
	255	14	15	18	18	19	18	19	17	-

9a

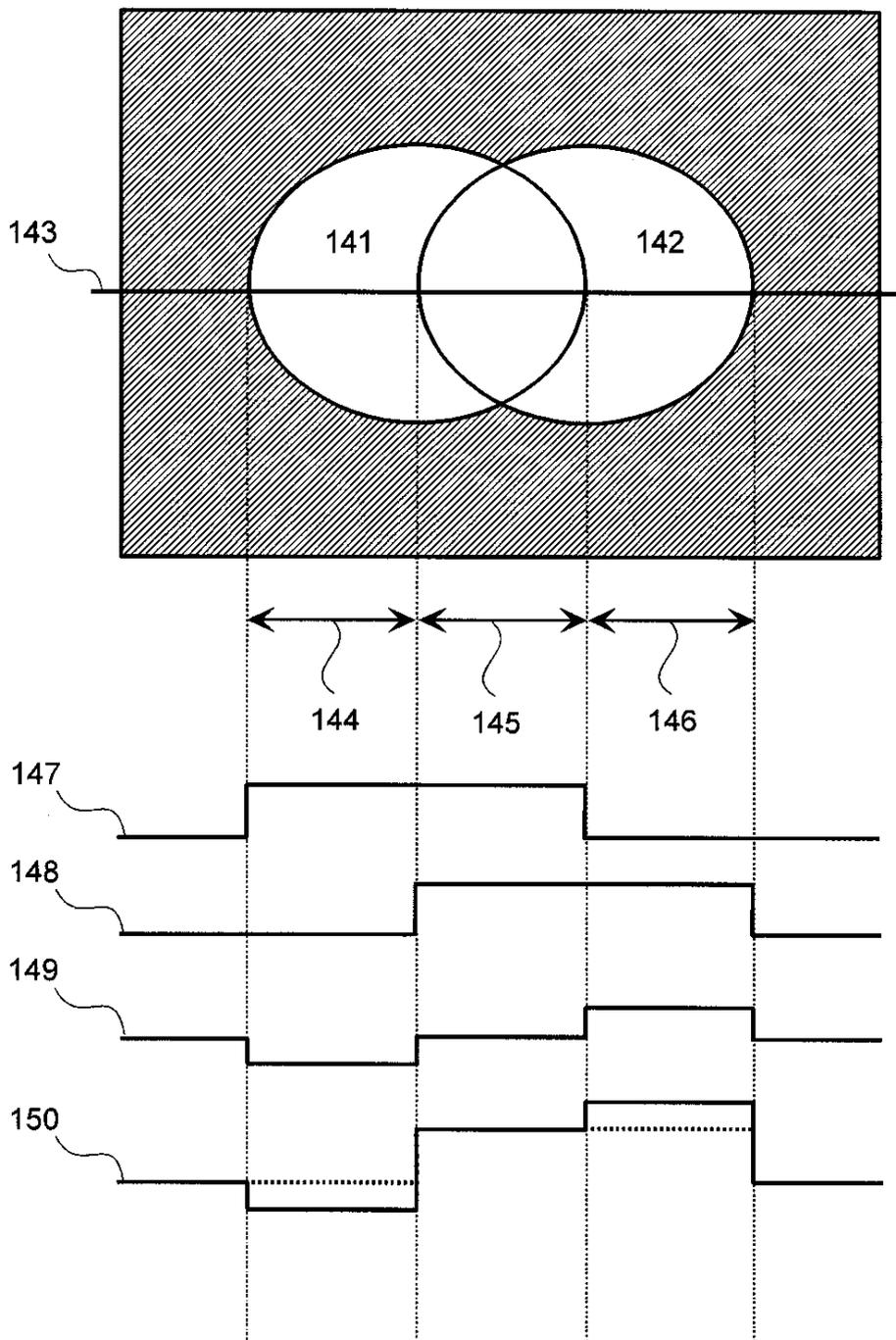


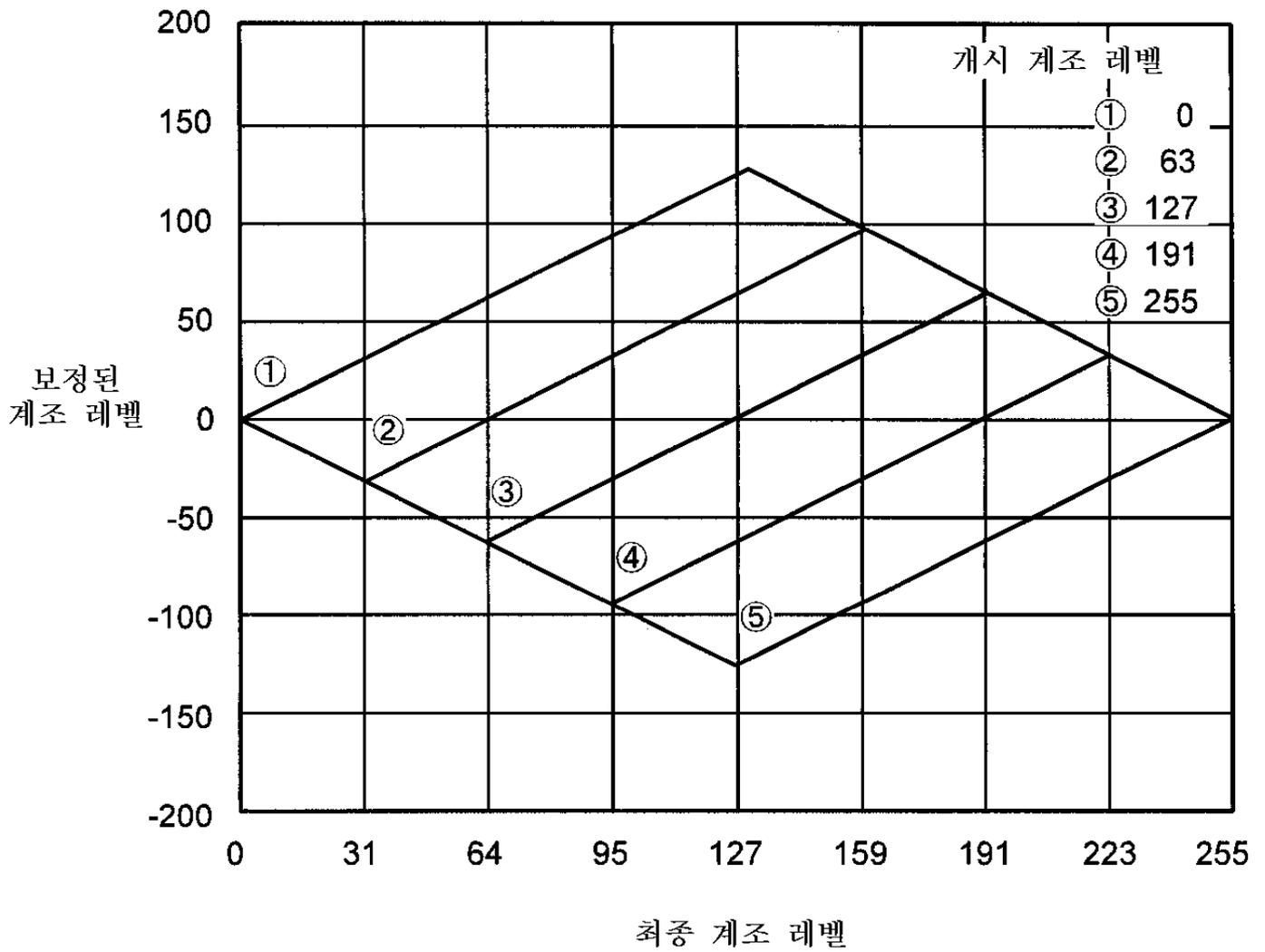
9b

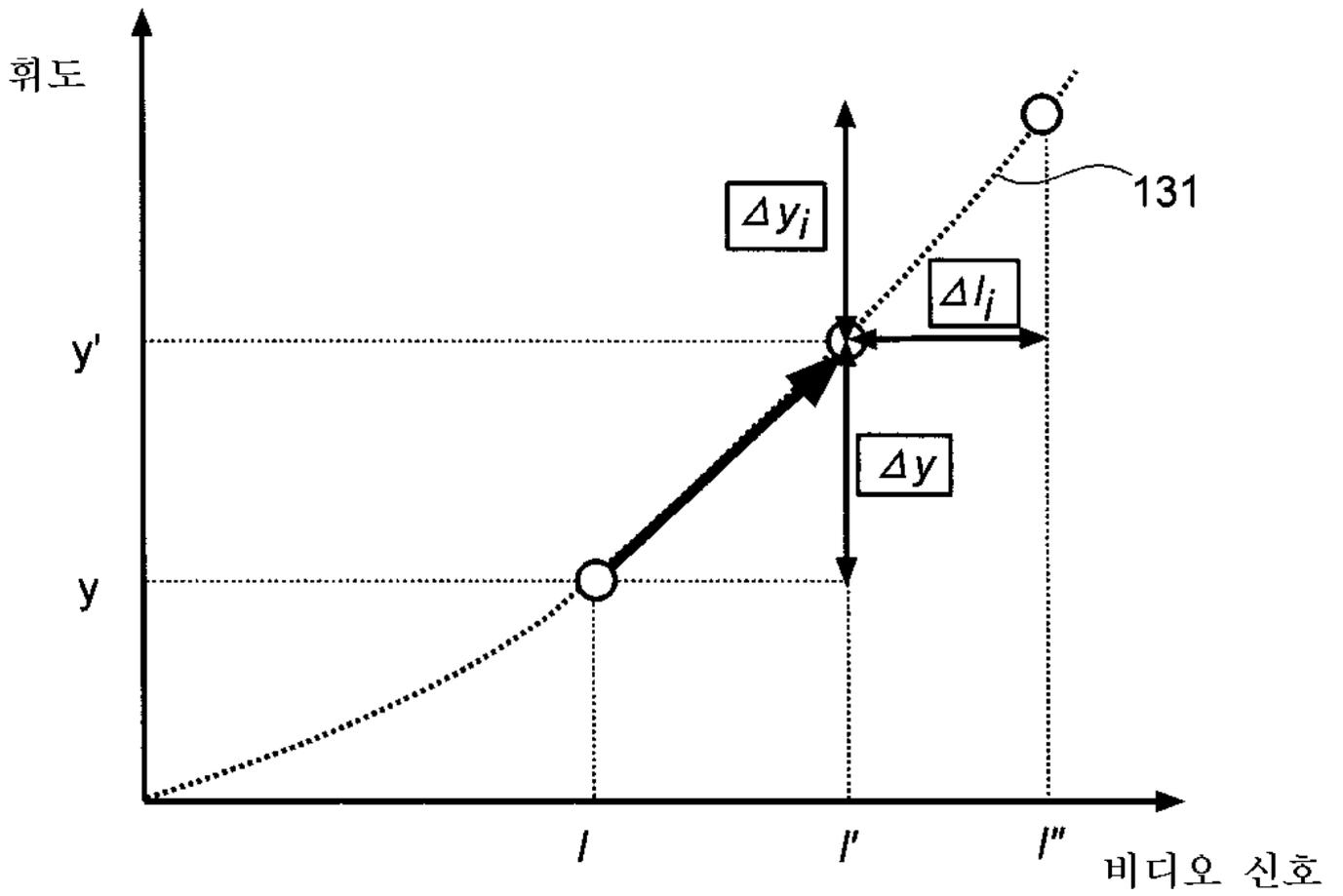
개시 계조 레벨	근사 함수
0	$-0.000618 (l-104)^2 + 27$
63	$-0.000580 (l-132)^2 + 20$
127	$-0.000458 (l-132)^2 + 17$
191	$-0.000421 (l-129)^2 + 17$
255	$-0.000258 (l-142)^2 + 18$

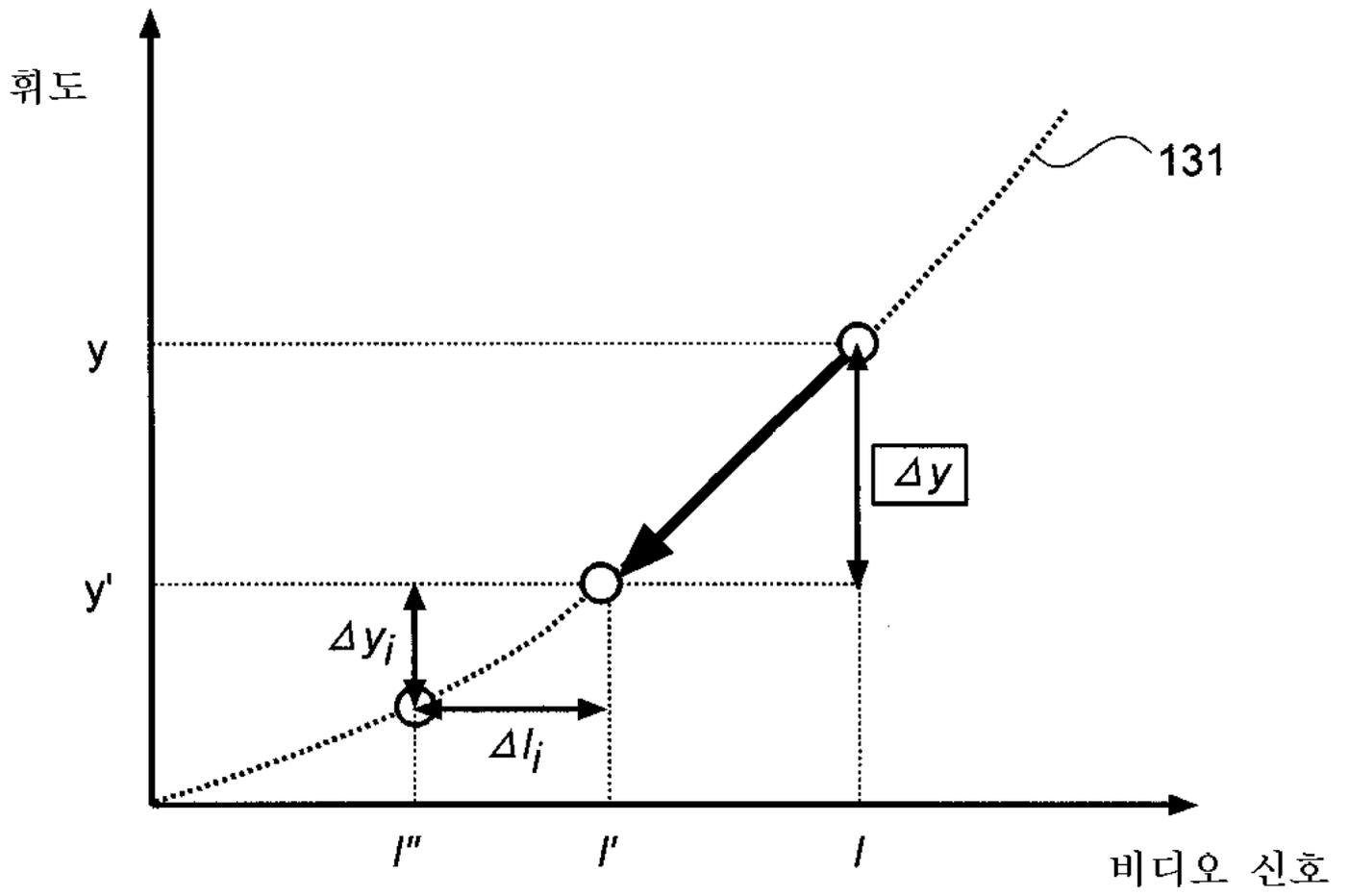


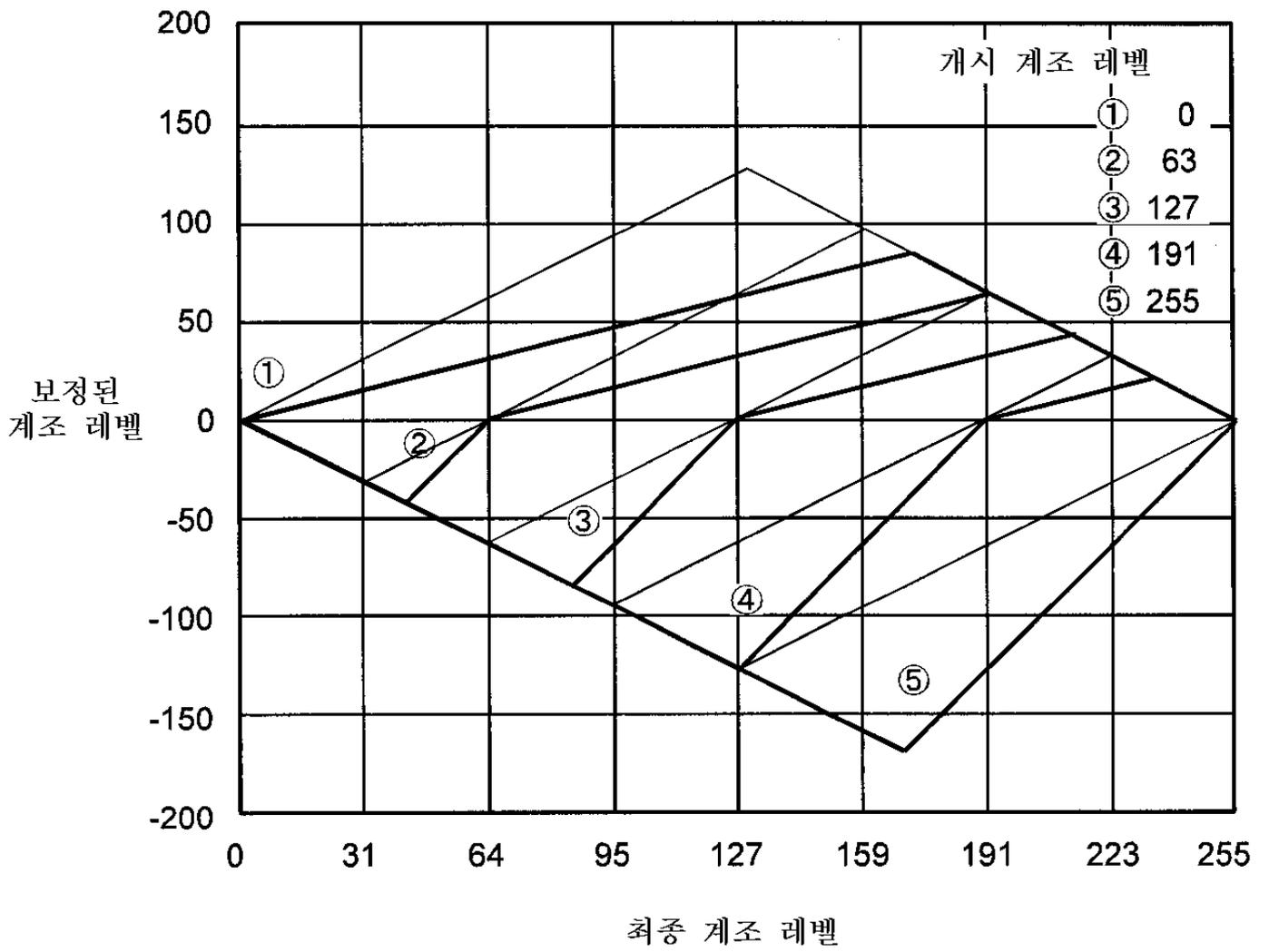
11

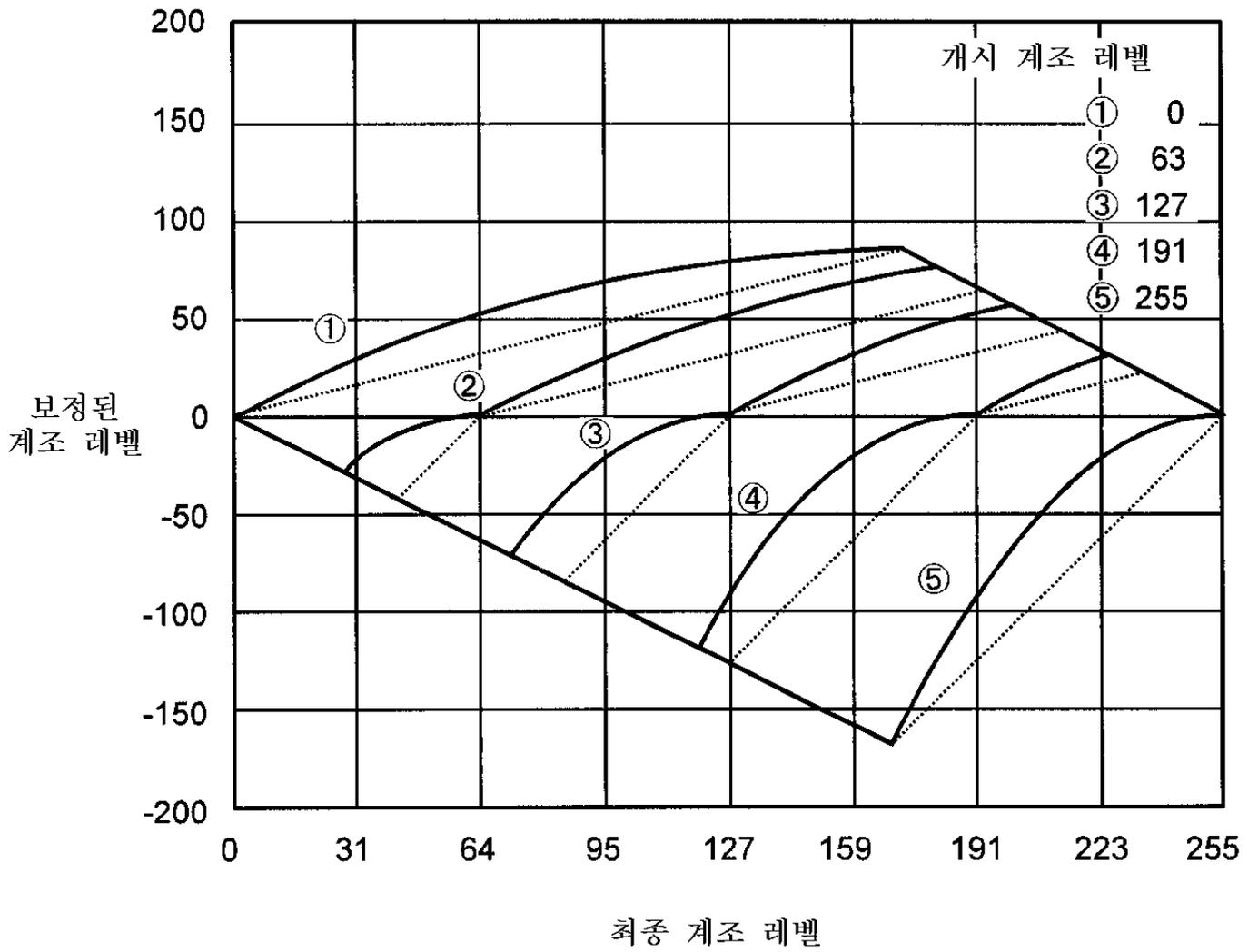




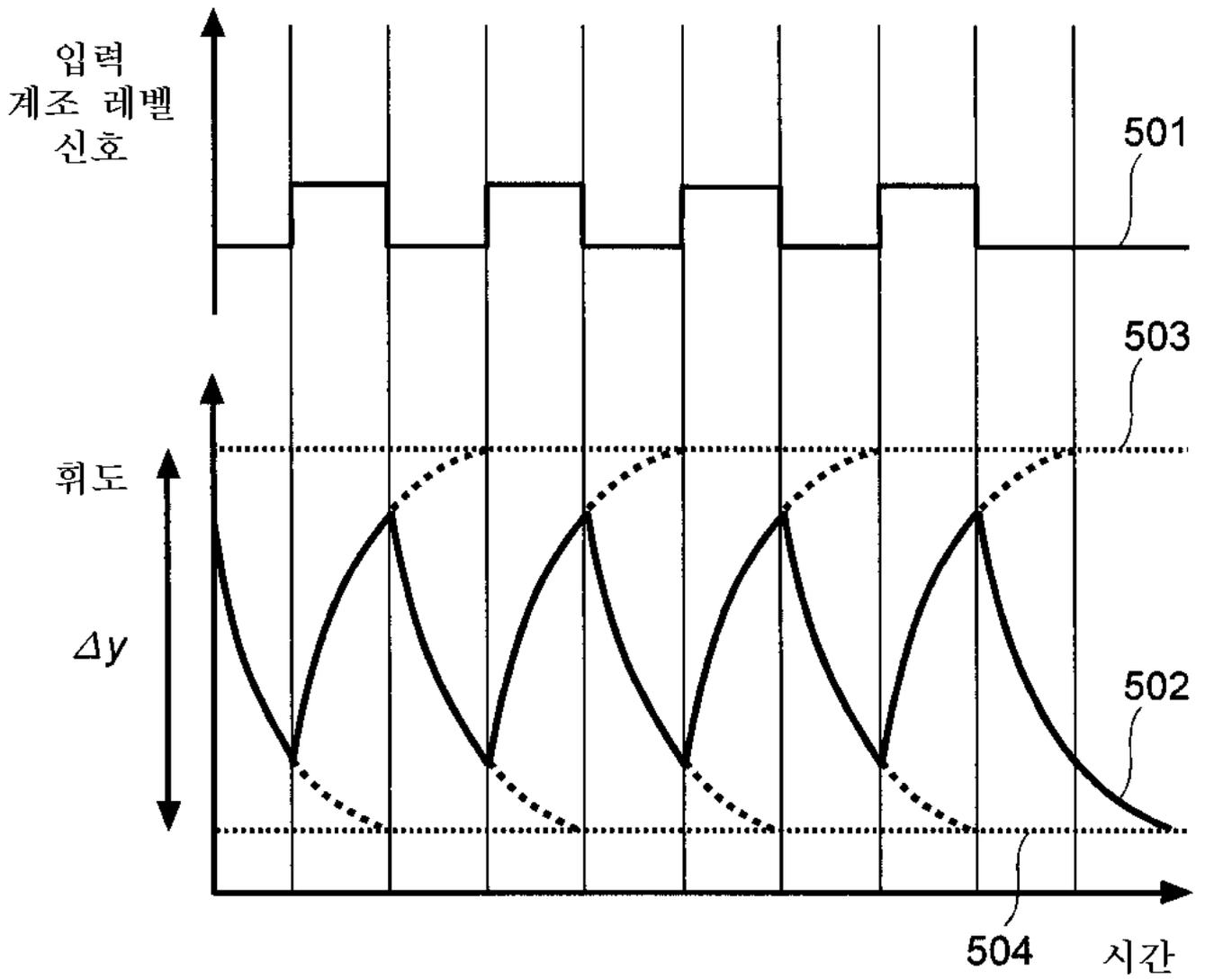




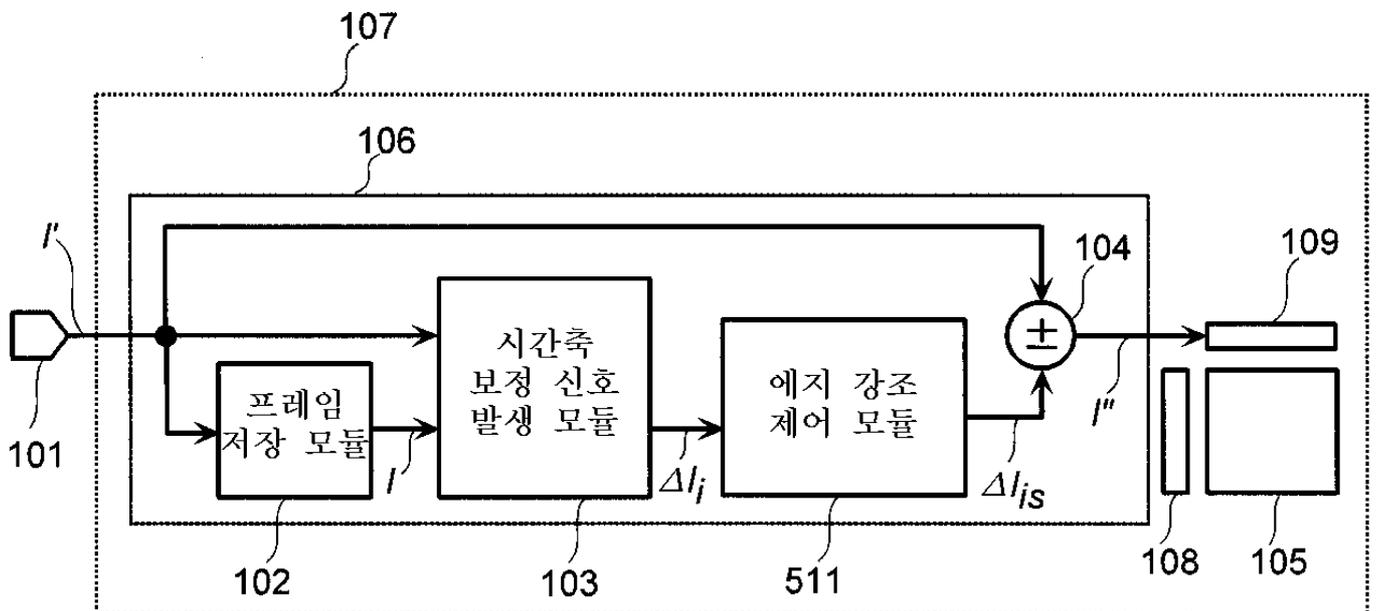




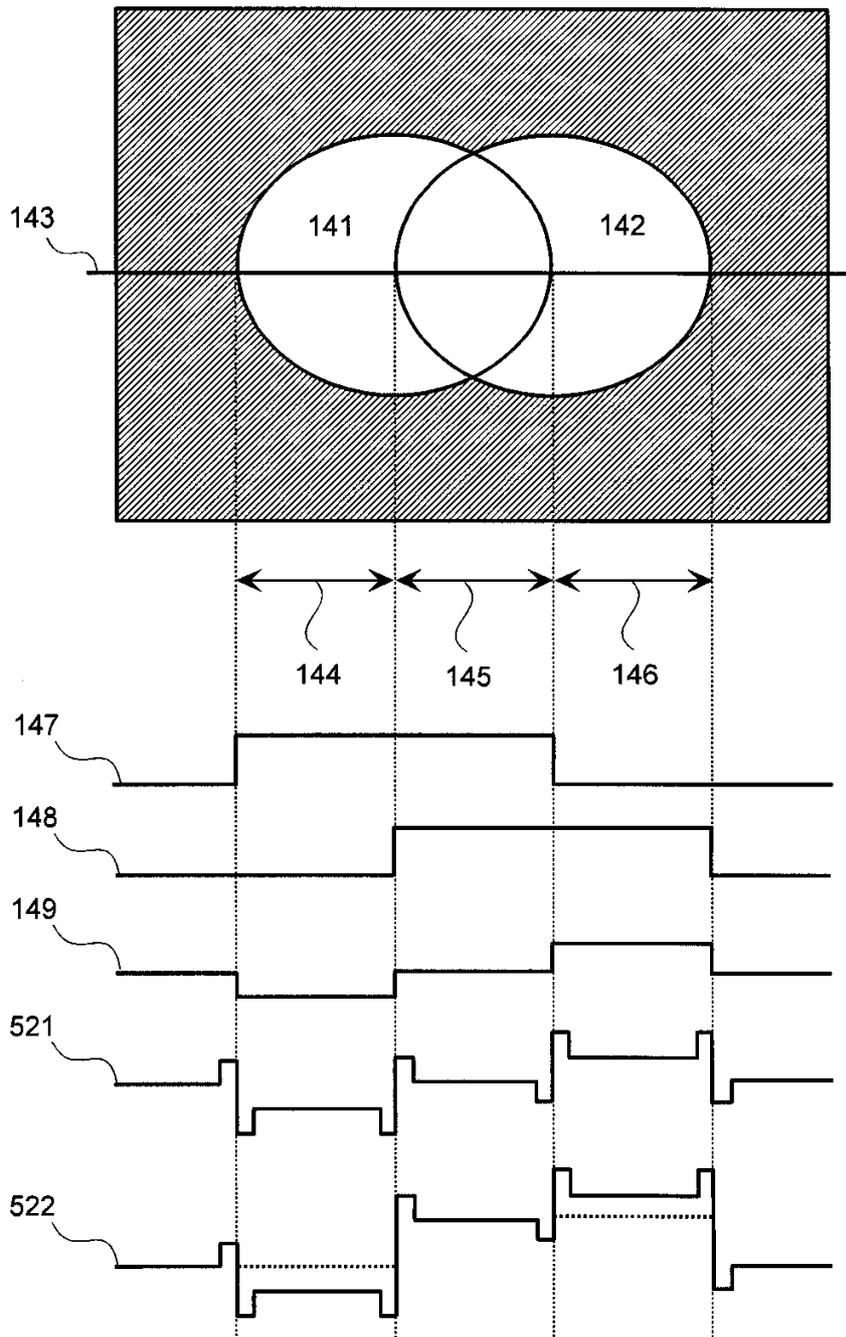
17

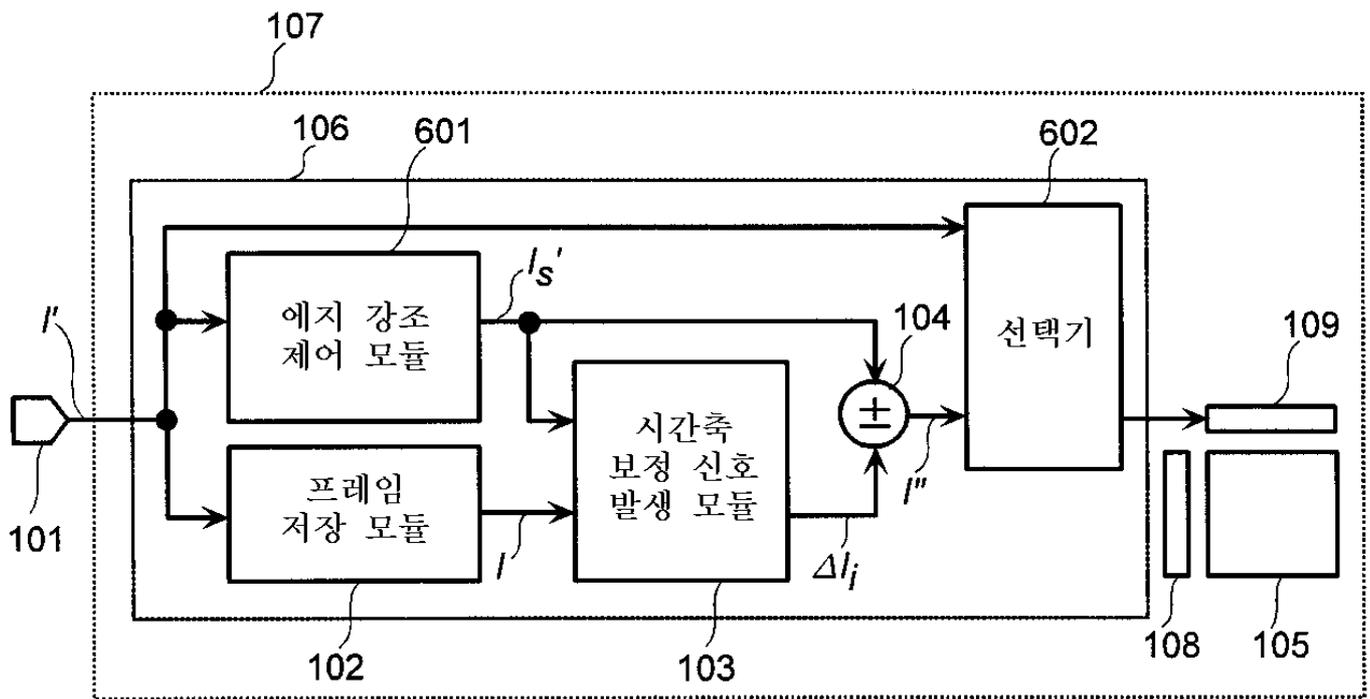


18

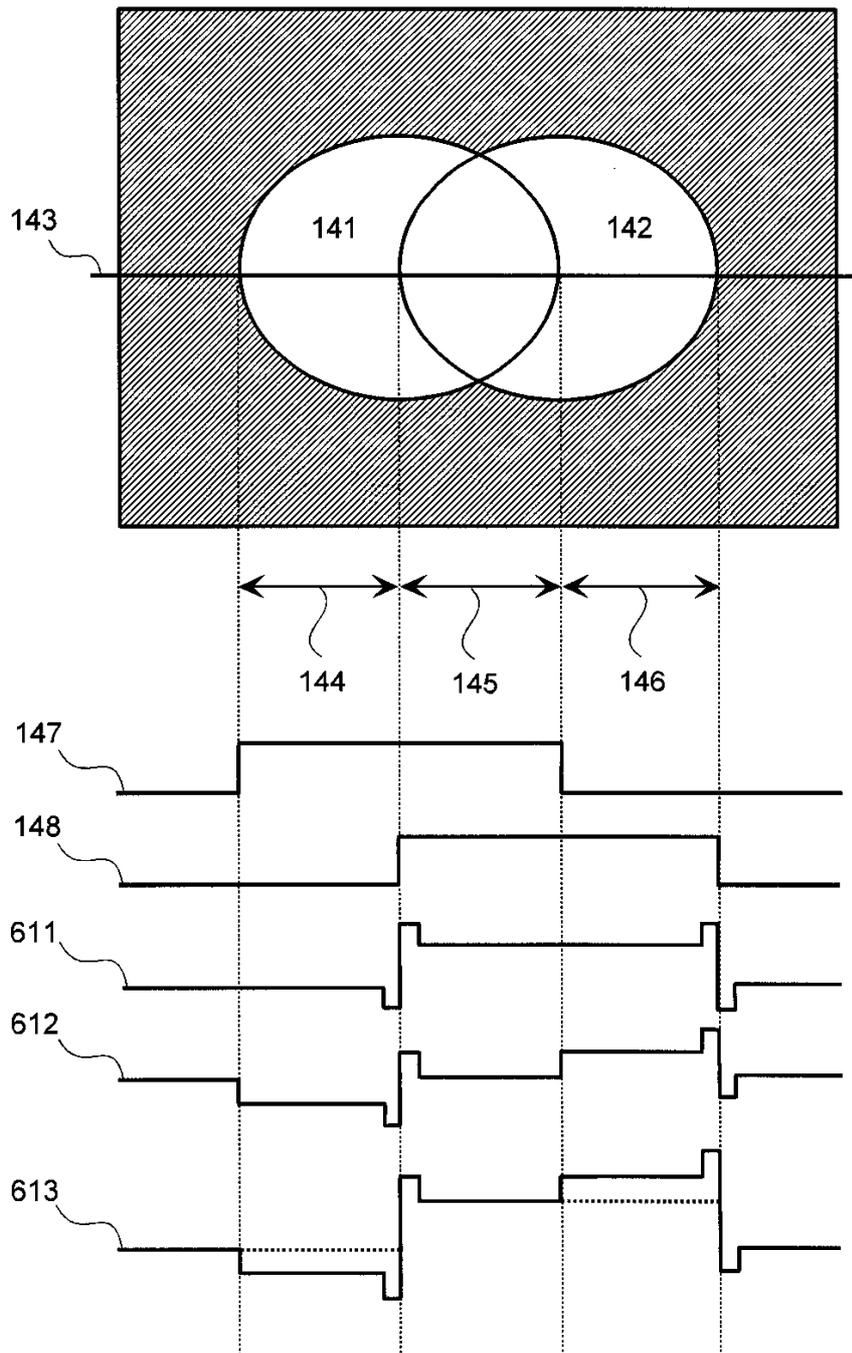


19

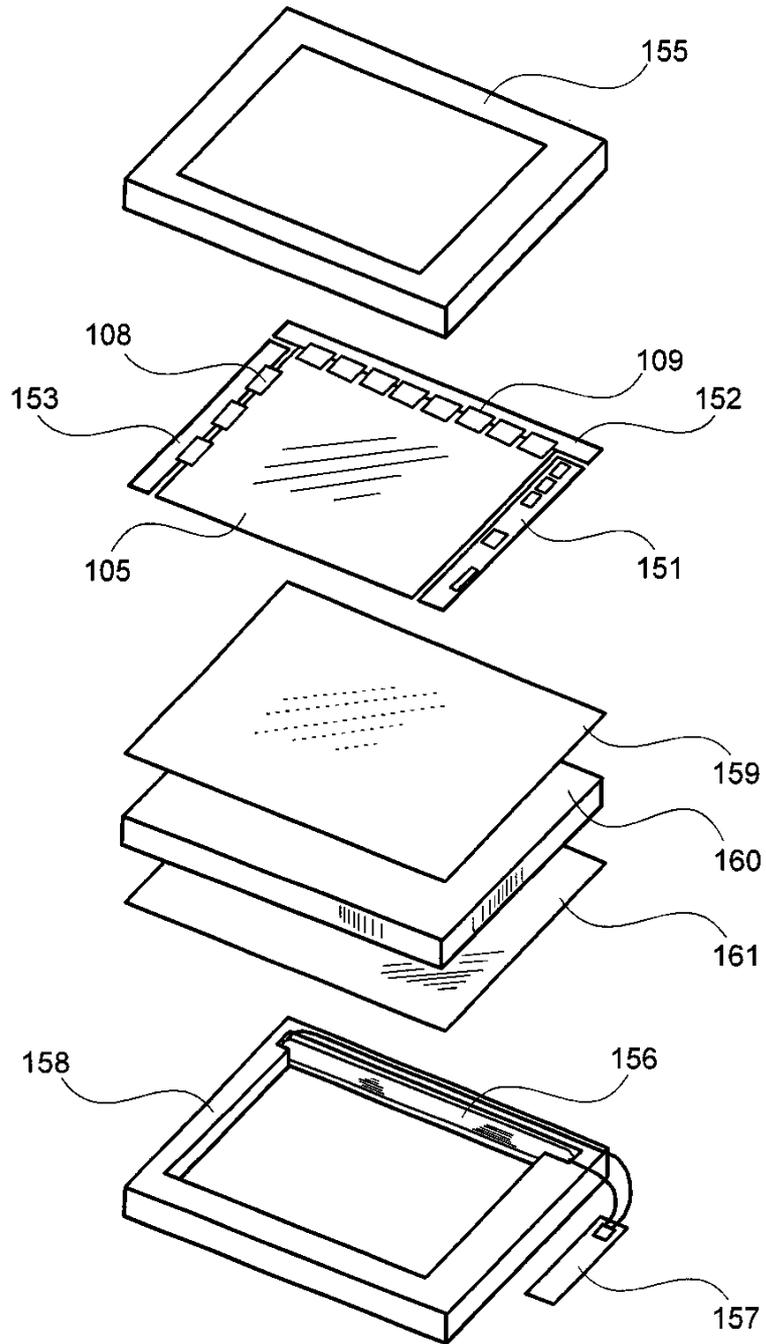




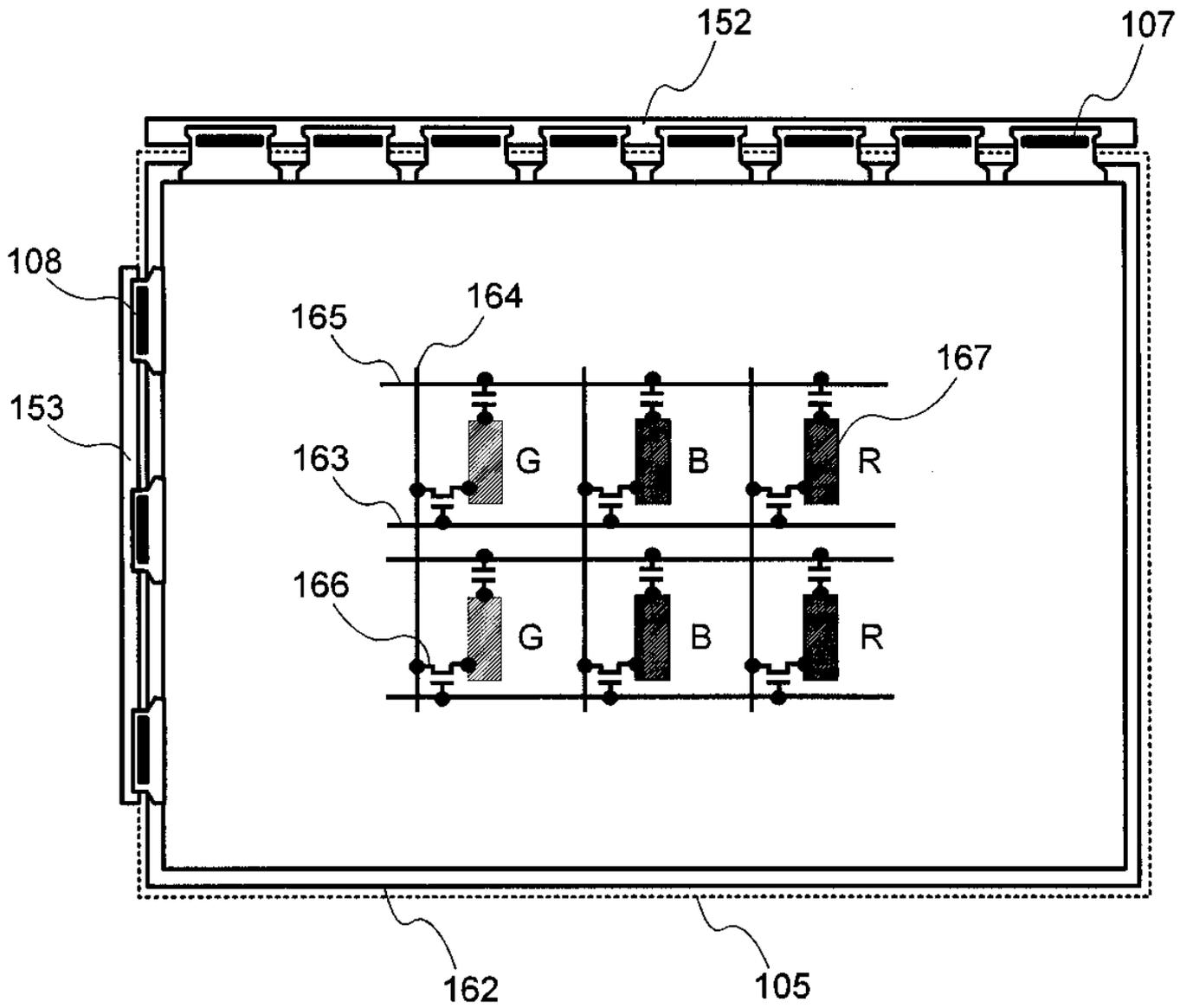
21



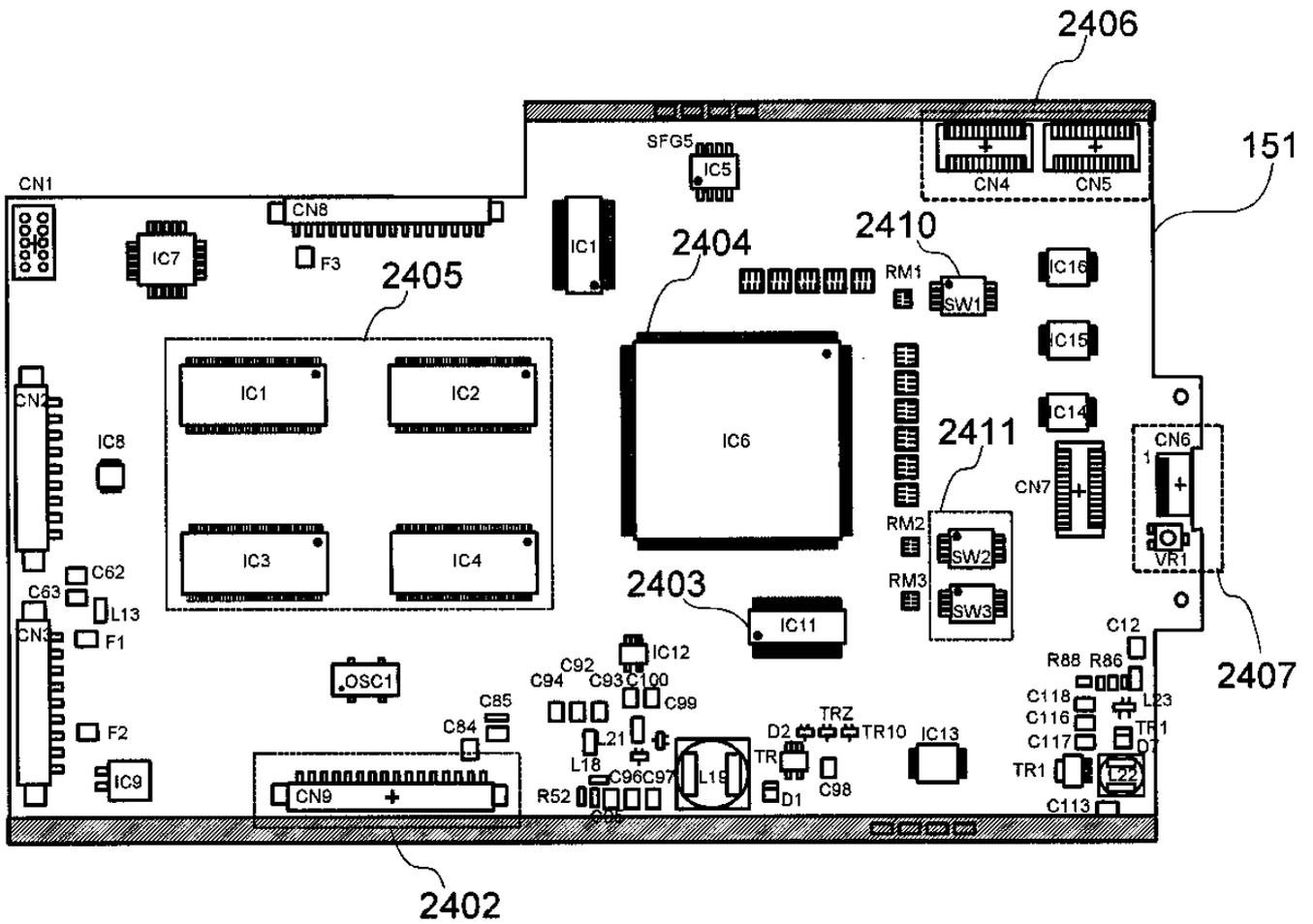
22



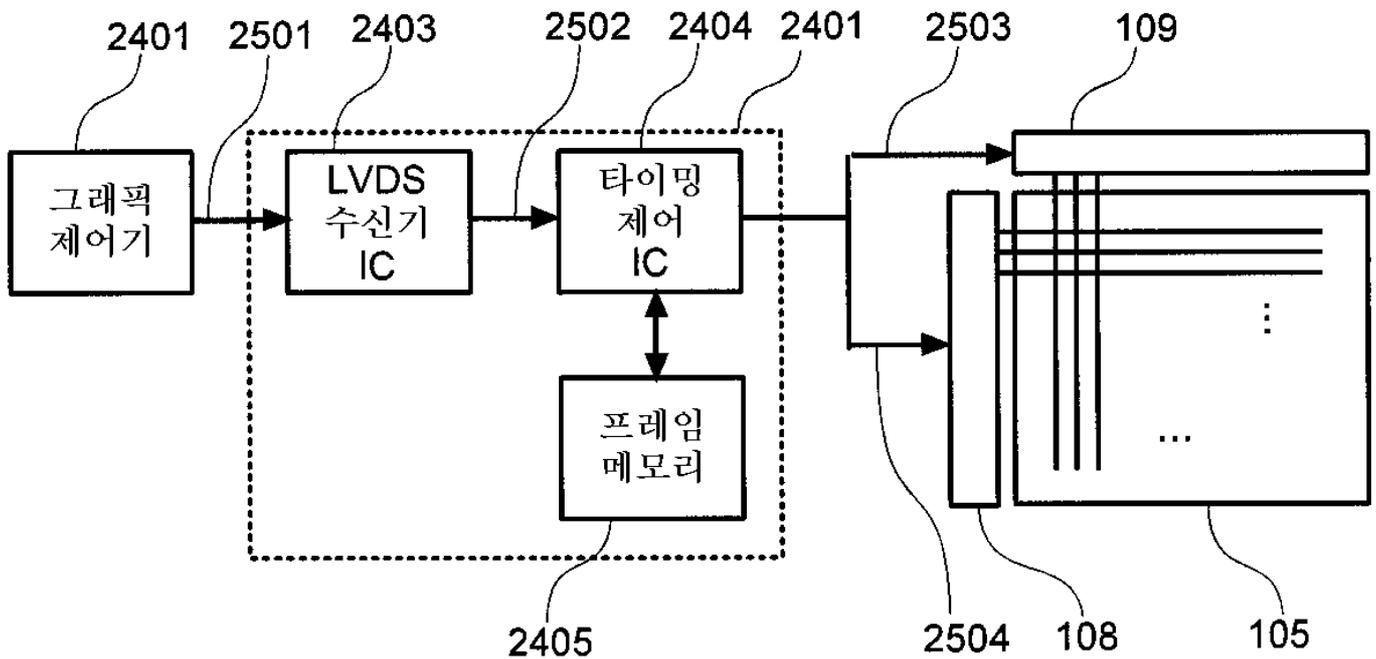
23



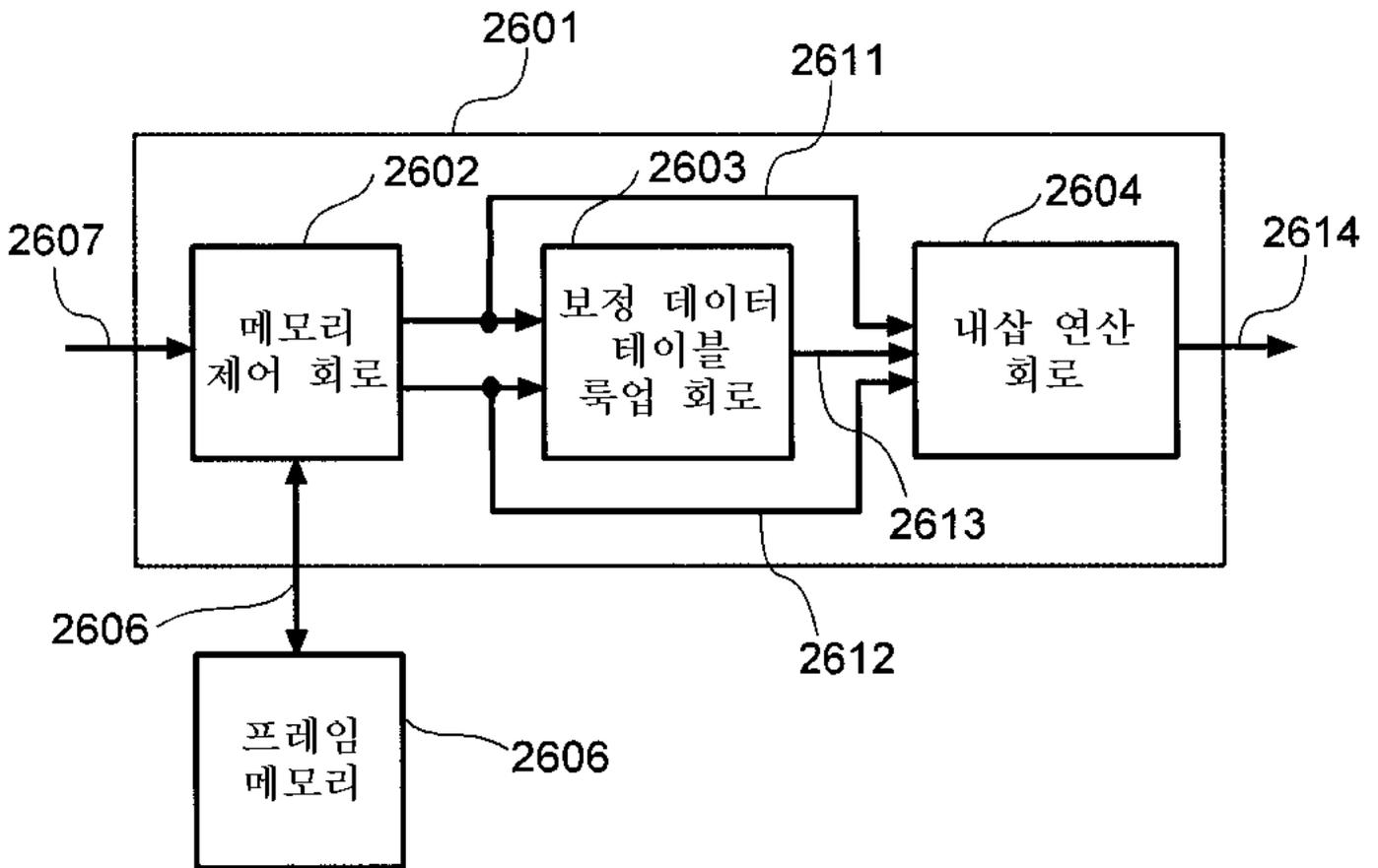
24



25



26



27

		변화 후 계조 레벨 샘플(hex)								
		(1) 00	(2) 1F	(3) 3F	(4) 5F	(5) 7F	(6) 9F	(7) BF	(8) DF	(9) FF
변화 전 계조 레벨 샘플 (hex)	(1) 00	00	60	8B	CB	EB	F3	FF	FF	FF
	(2) 1F	00	1F	6B	AB	DB	E7	FF	FF	FF
	(3) 3F	00	00	3F	8F	C8	E0	F0	FF	FF
	(4) 5F	00	00	0F	5F	AC	D3	EB	FF	FF
	(5) 7F	00	00	00	38	7F	C0	E2	FF	FF
	(6) 9F	00	00	00	1E	60	9F	D4	F7	FF
	(7) BF	00	00	00	11	4F	80	BF	E0	FF
	(8) DF	00	00	00	00	2C	5C	97	DF	FF
	(9) FF	00	00	00	00	13	3F	70	C3	FF

28a

변화 후  
계조 레벨 샘플

보정 데이터

$TLE_j$  LE  $TLE_{j+1}$

$TDL_{i,j}$   $TDL_{i+1,j}$

변화 후  
계조 레벨  
샘플

$TLS_i$

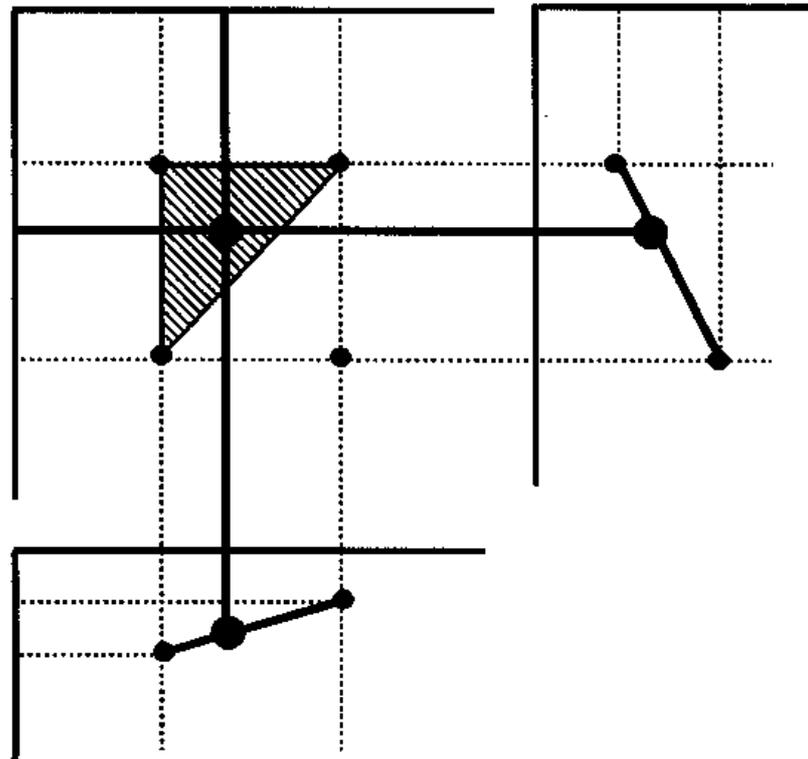
LS

$TLS_{i+1}$

보정  
데이터

$TDL_{i,j+1}$

$TDL_{i,j}$



28b

변화 후  
계조 레벨 샘플

보정 데이터

$TLE_j$  LE  $TLE_{j+1}$

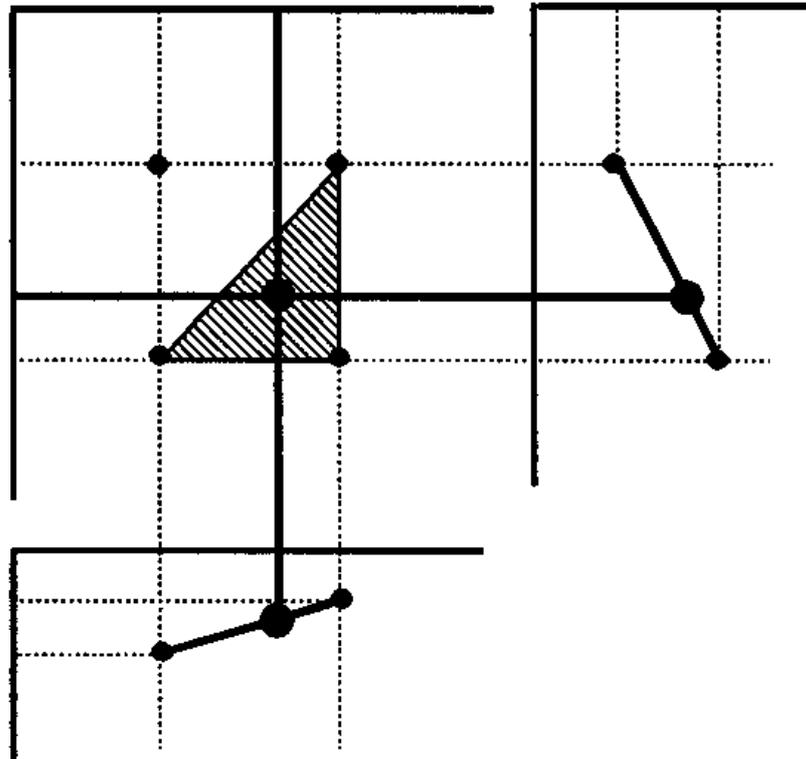
$TDL_{i,j+1}$   $TDL_{i+1,j+1}$

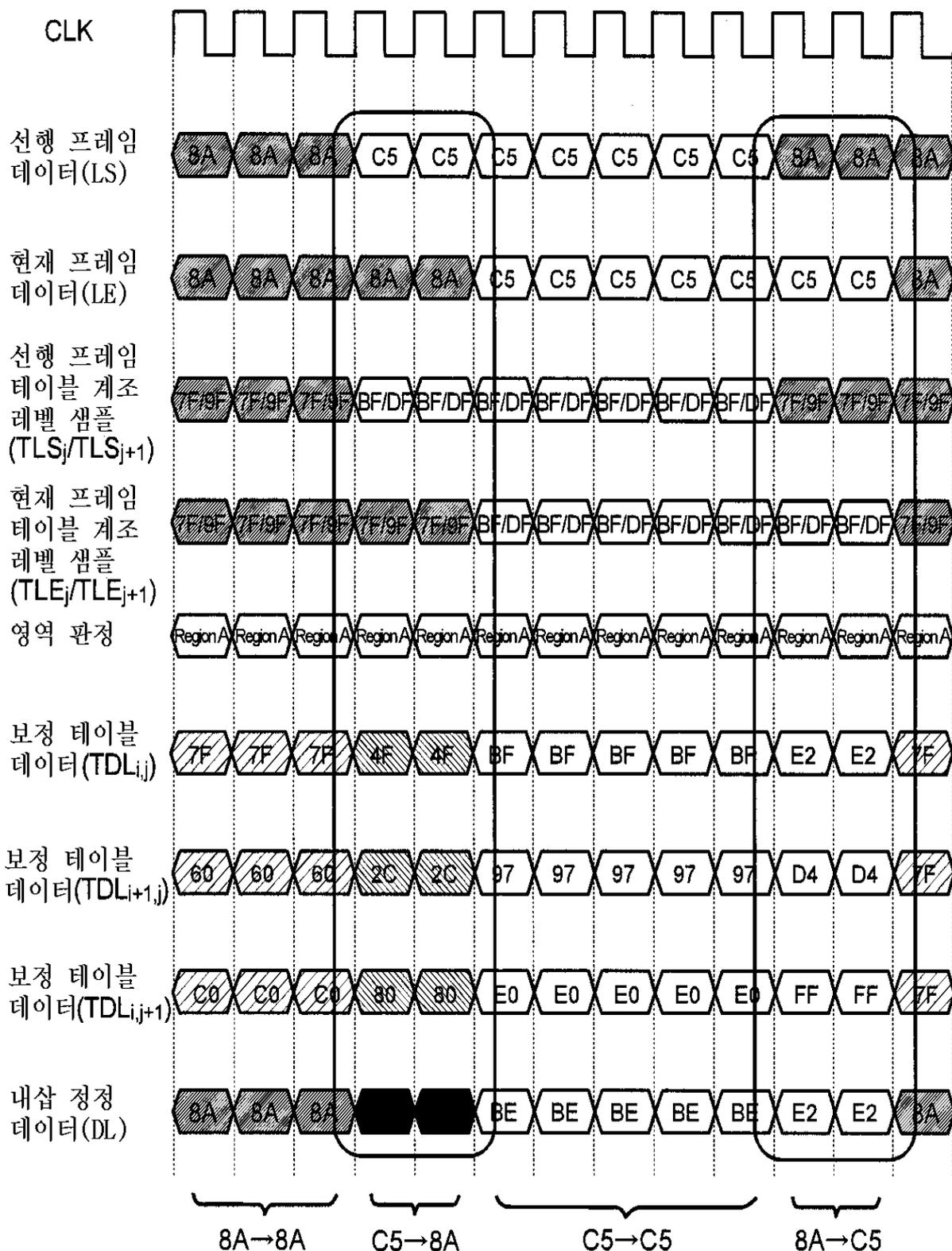
변화 후  
계조 레벨  
샘플

$TLS_i$   
LS  
 $TLS_{i+1}$

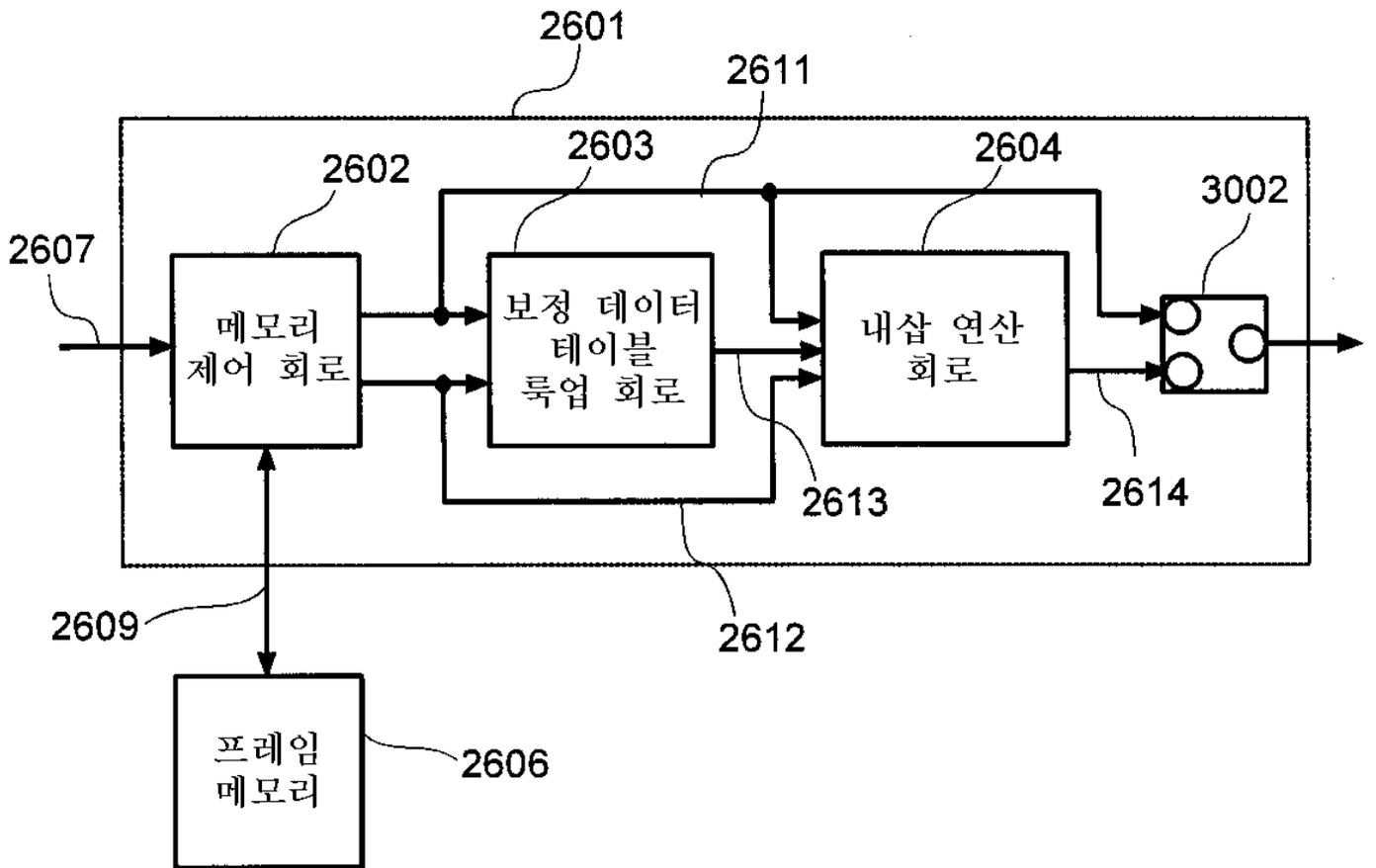
보정  
데이터

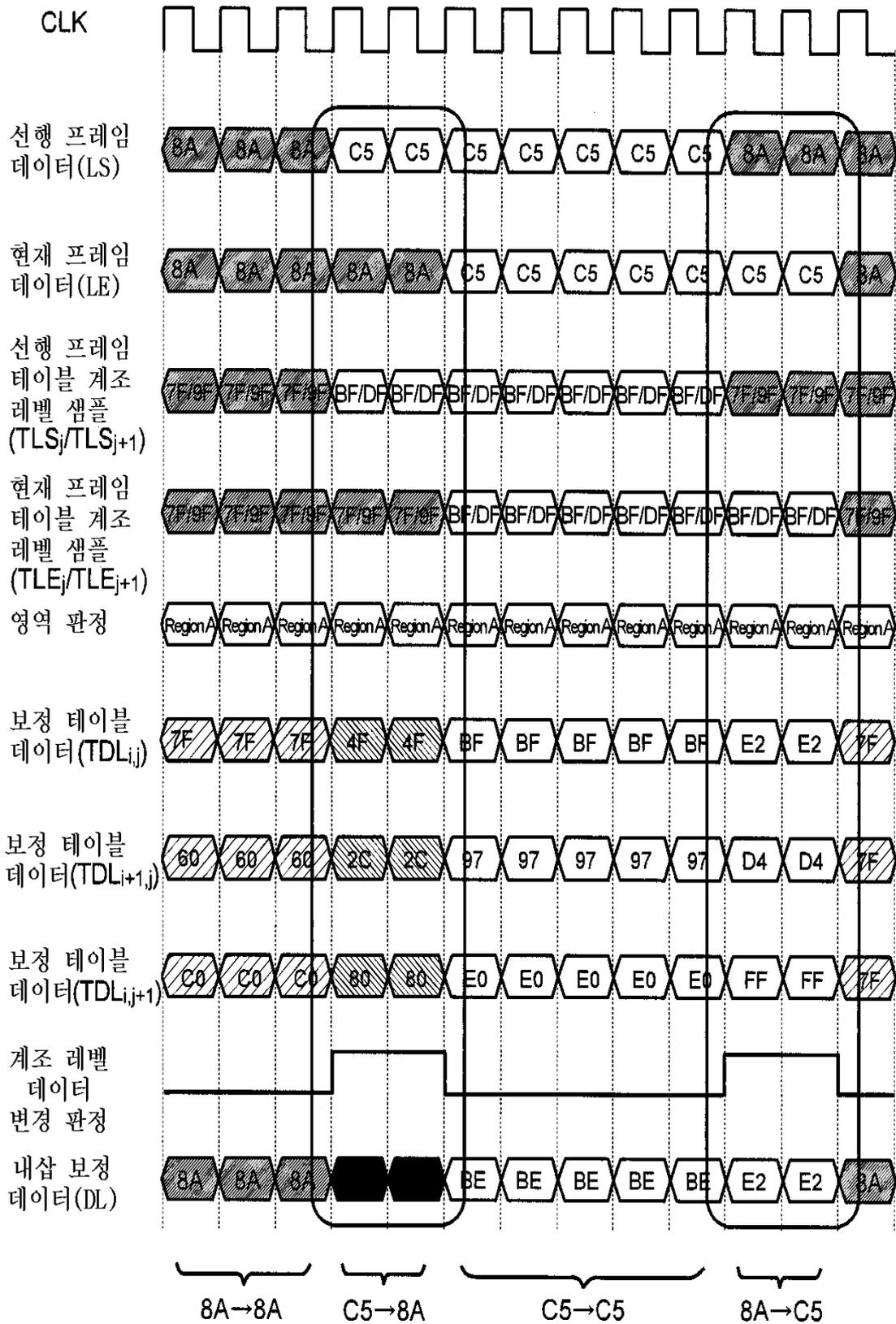
$TDL_{i+1,j+1}$   
 $TDL_{i+1,j}$

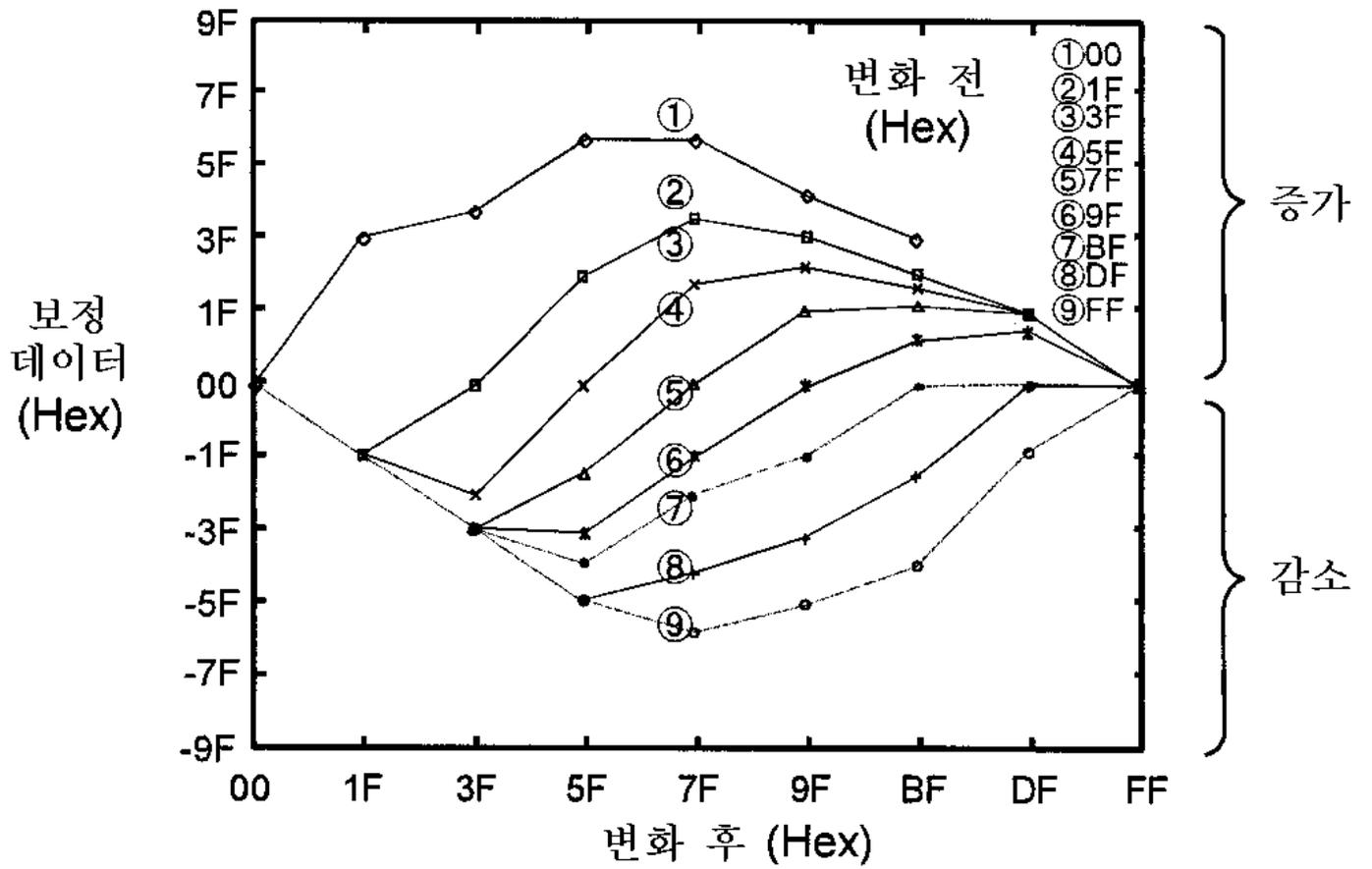


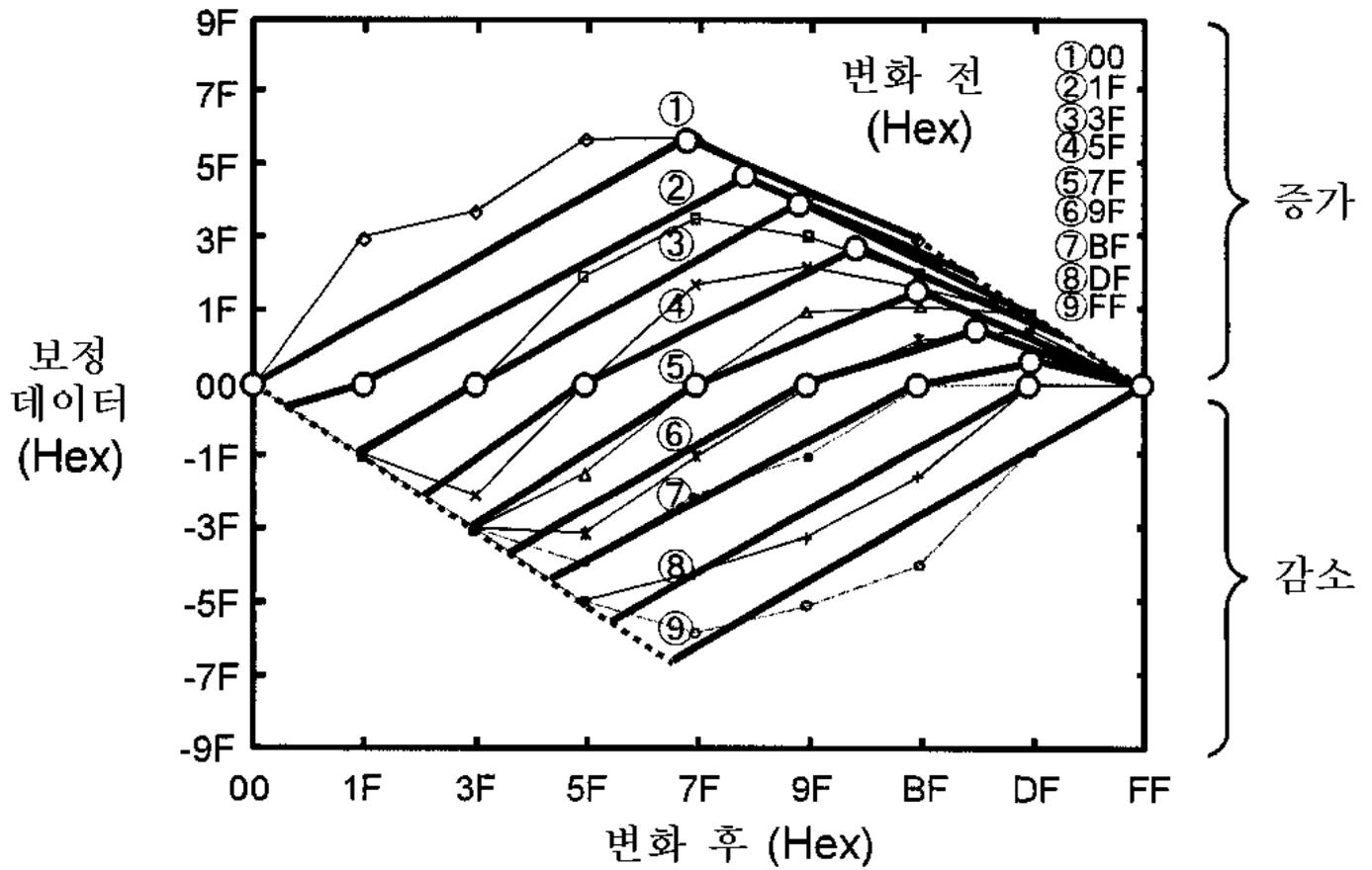


30



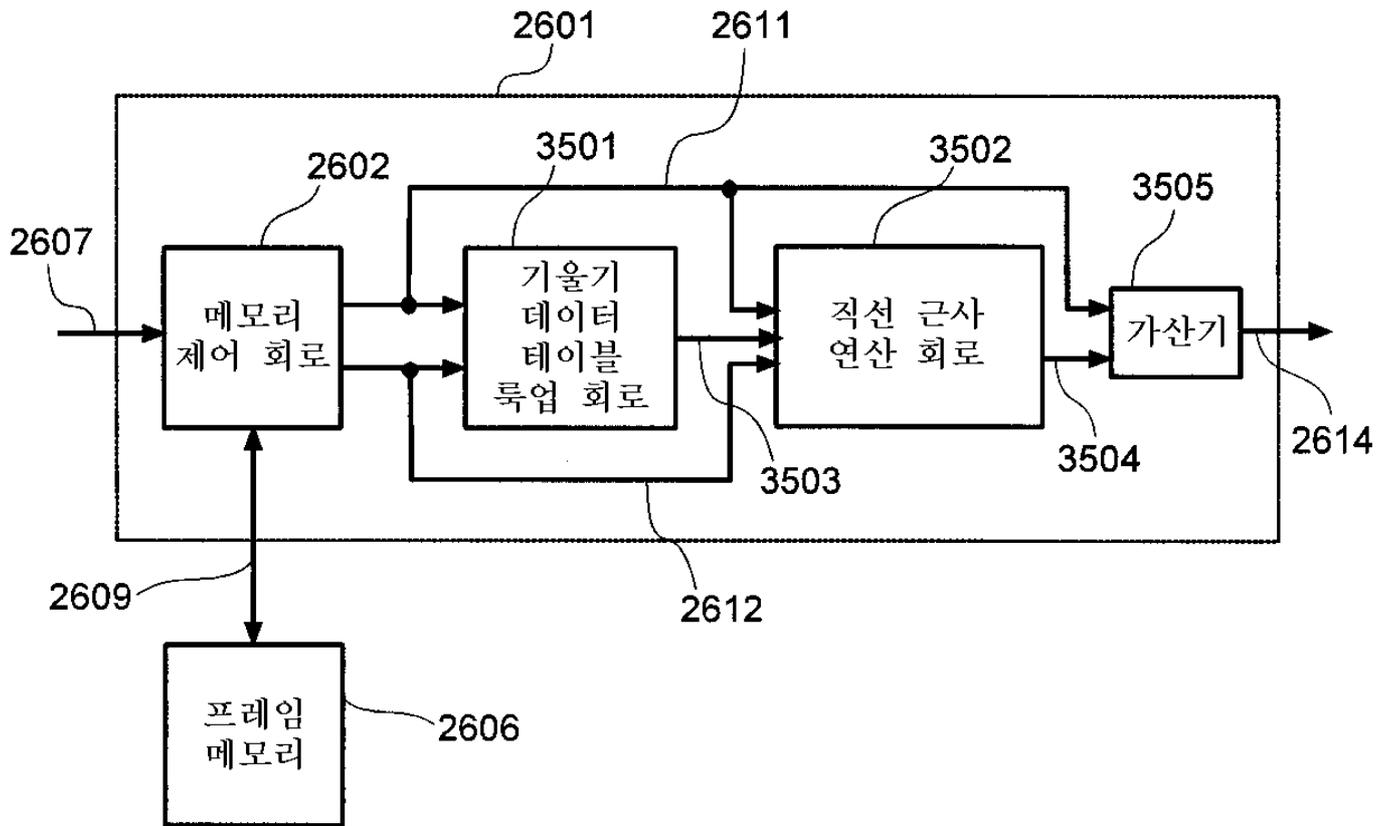


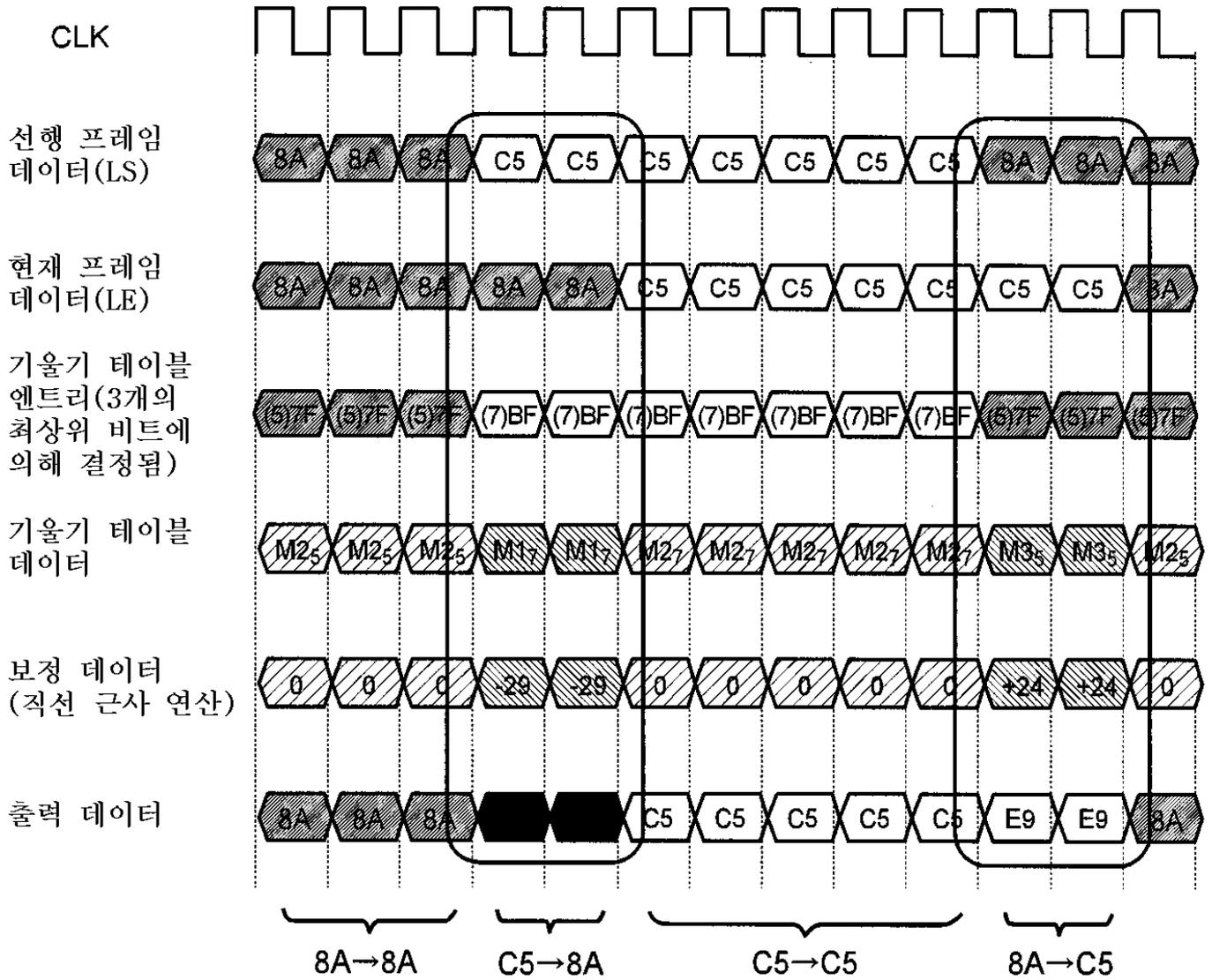


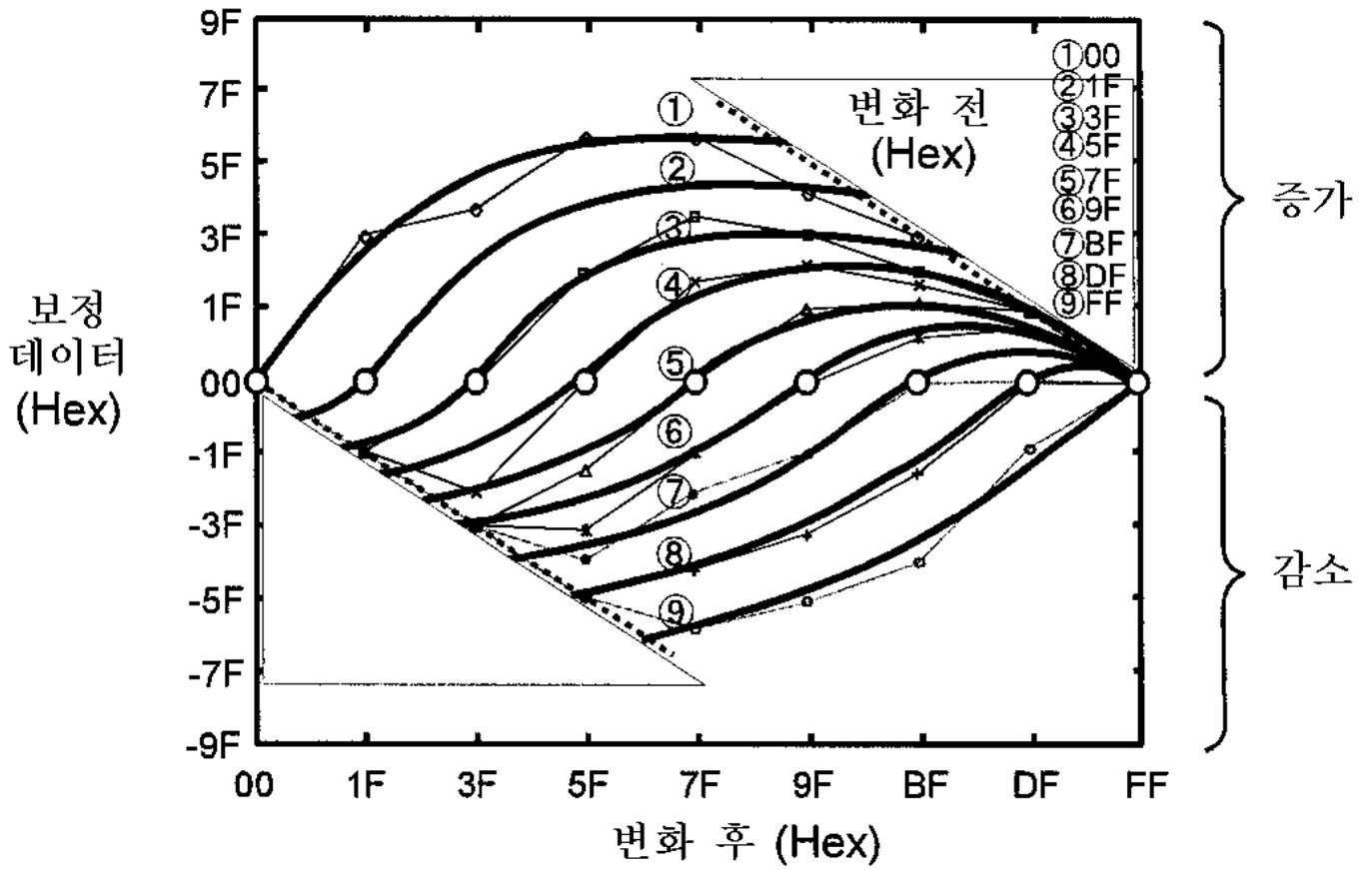


		기울기 (Hex)		
		감소	증가	
			절점 미만	절점 이상
변화 전 계조 레벨 샘플 (Hex)	(1)00	-	65/80	50/80
	(2)1F	0F/20	55/70	40/70
	(3)3F	3F/40	4F/60	30/60
	(4)5F	5F/60	35/50	30/50
	(5)7F	7F/80	28/40	4/40
	(6)9F	85/A0	1A/30	1A/30
	(7)BF	88/C0	0F/20	0F/20
	(8)DF	AF/E0	02/10	02/10
	(9)FF	F0/FF	-	-

35

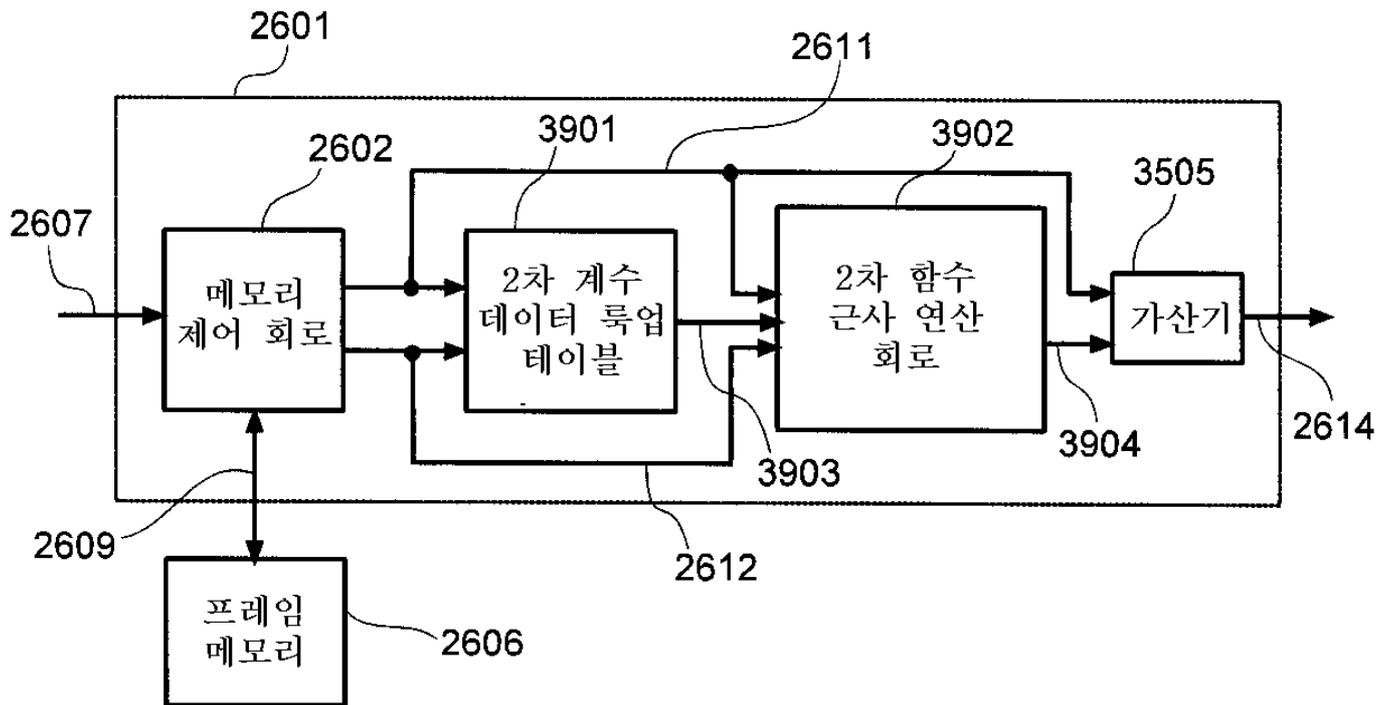


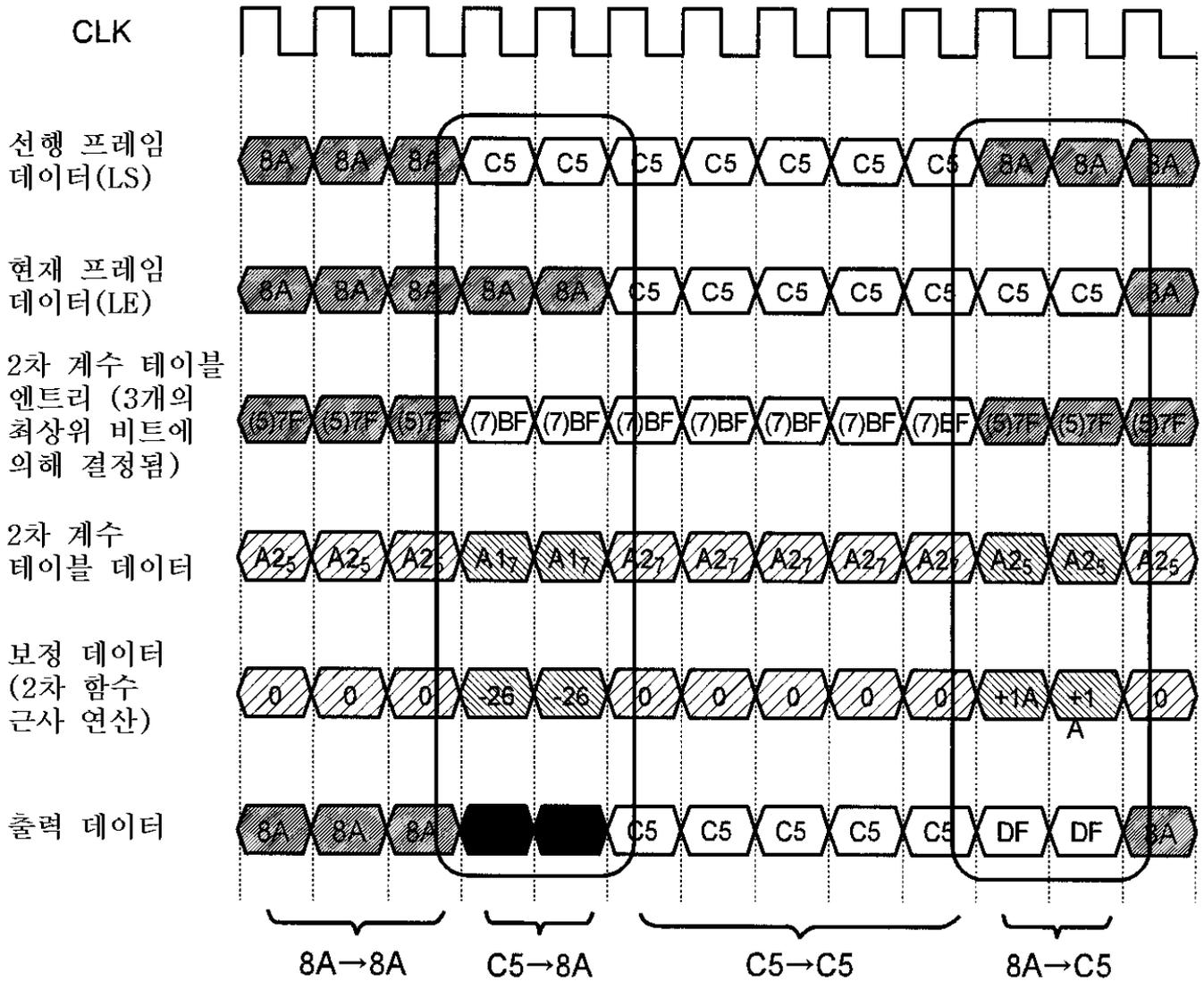




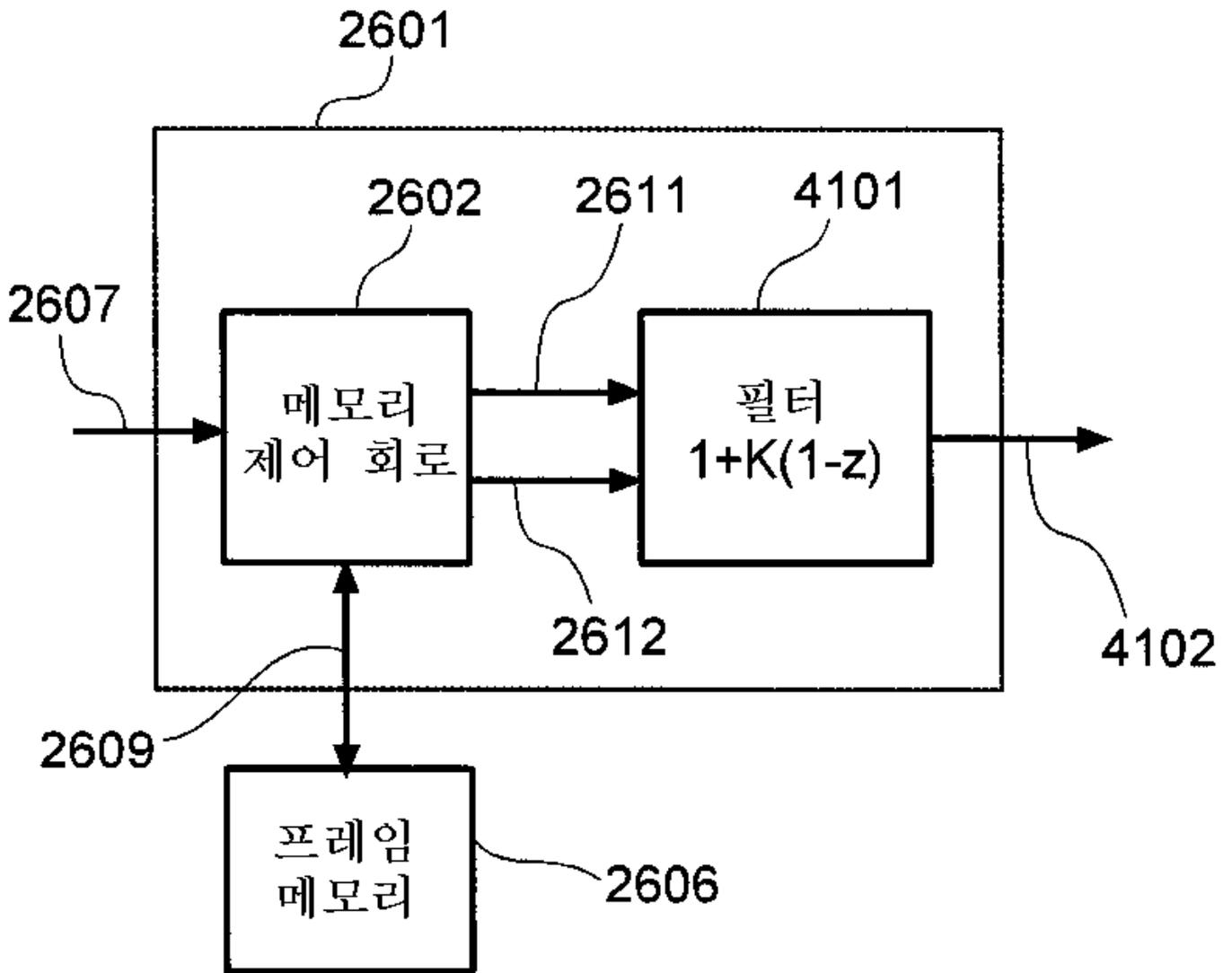
		2차 계수 (Hex)	
		감소	증가
변화 전 계조 레벨 샘플 (Hex)	(1)00	-	3/200
	(2)1F	8/200	3/200
	(3)3F	6/200	3/200
	(4)5F	4/200	4/200
	(5)7F	3/200	4/200
	(6)9F	2/200	4/200
	(7)BF	1/200	5/200
	(8)DF	1/200	A/200
	(9)FF	1/200	-

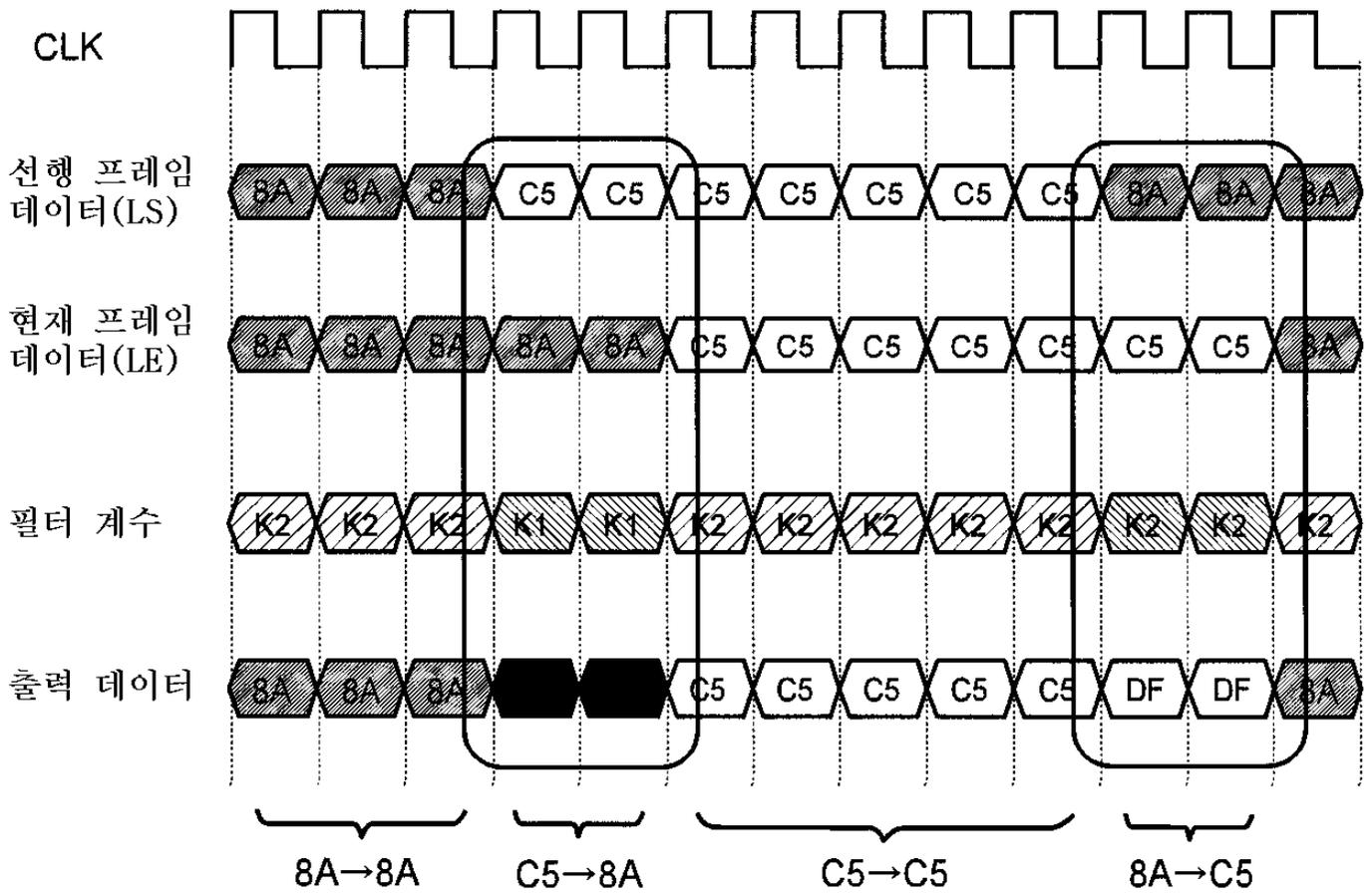
39



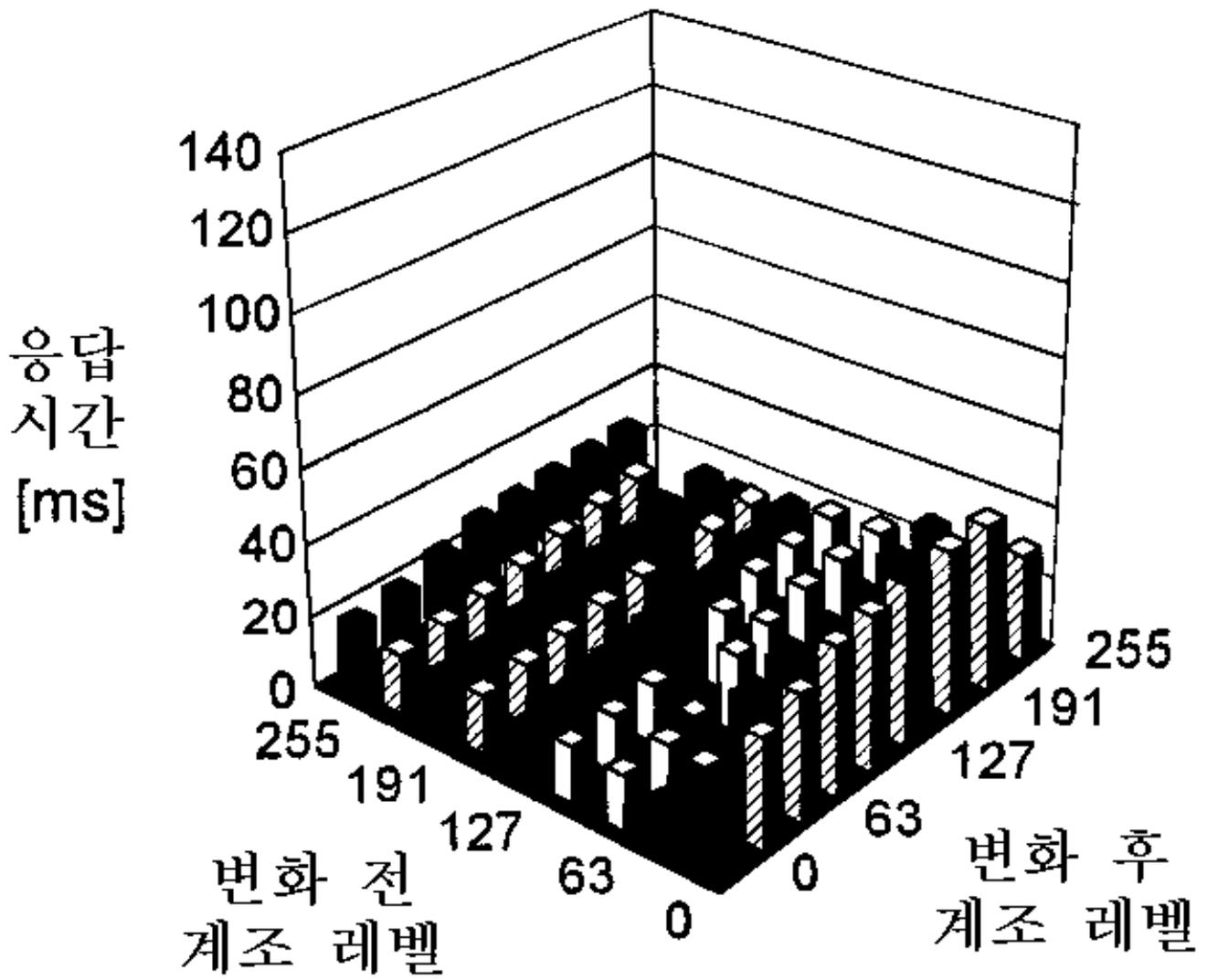


41

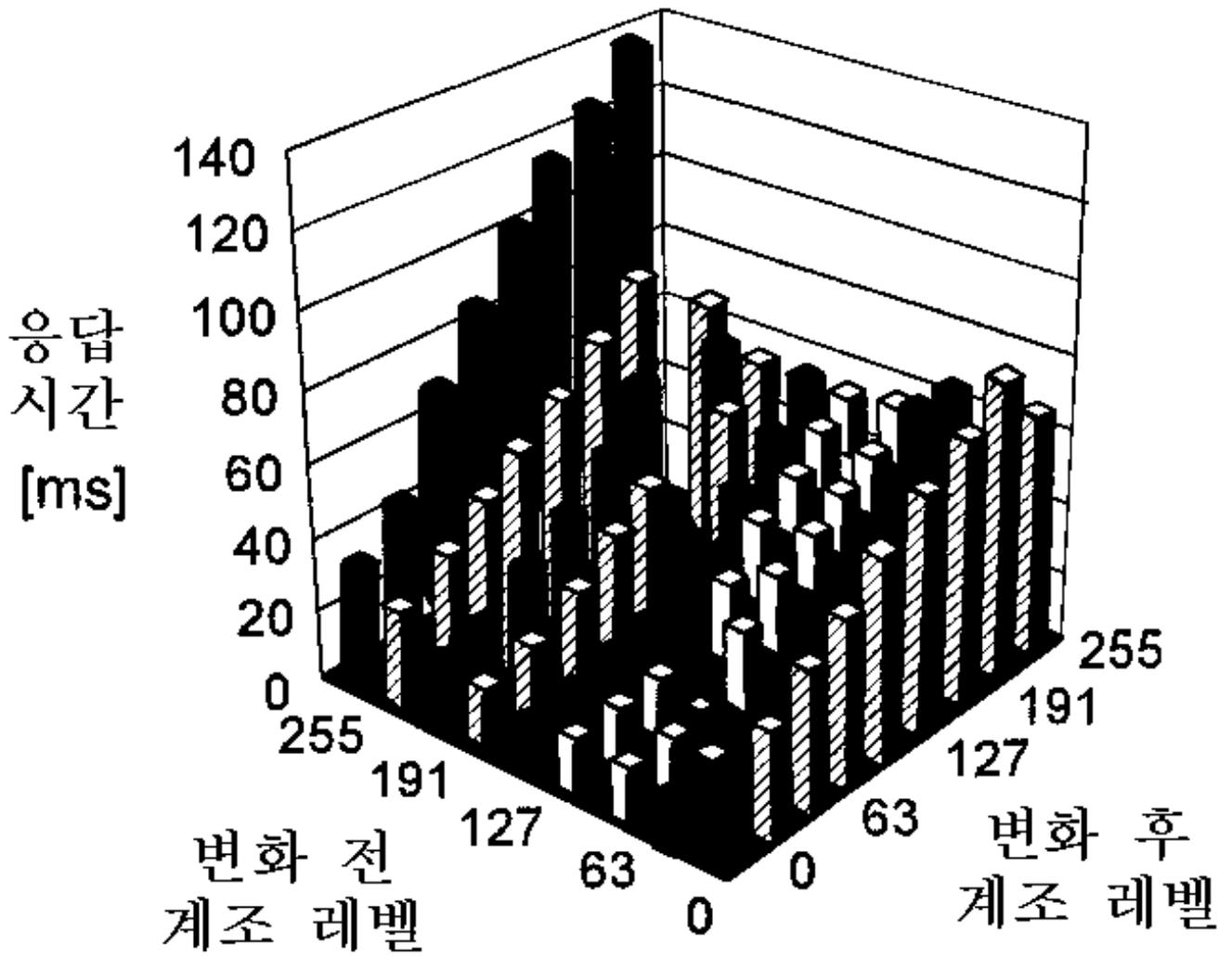




43a



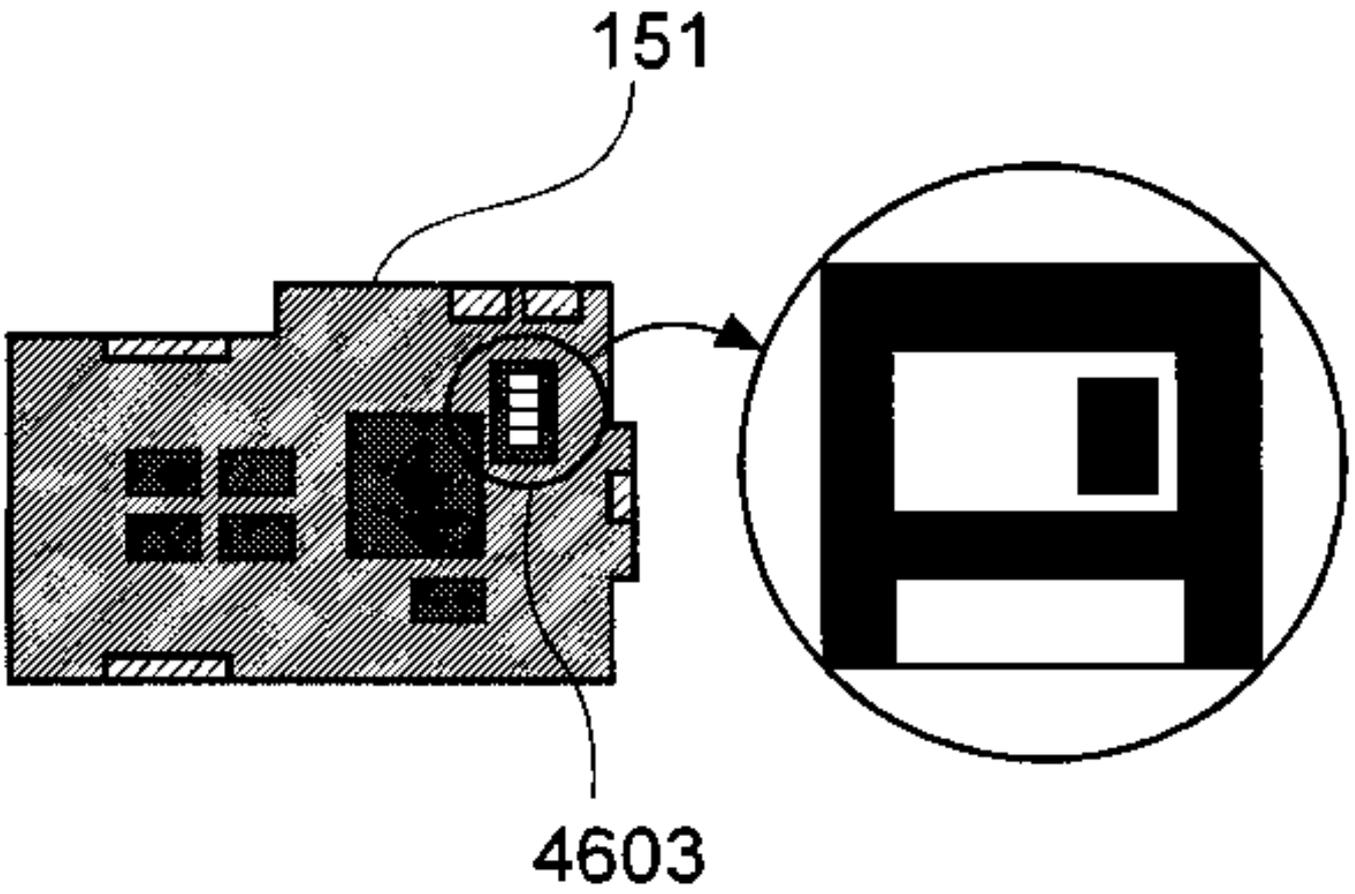
43b



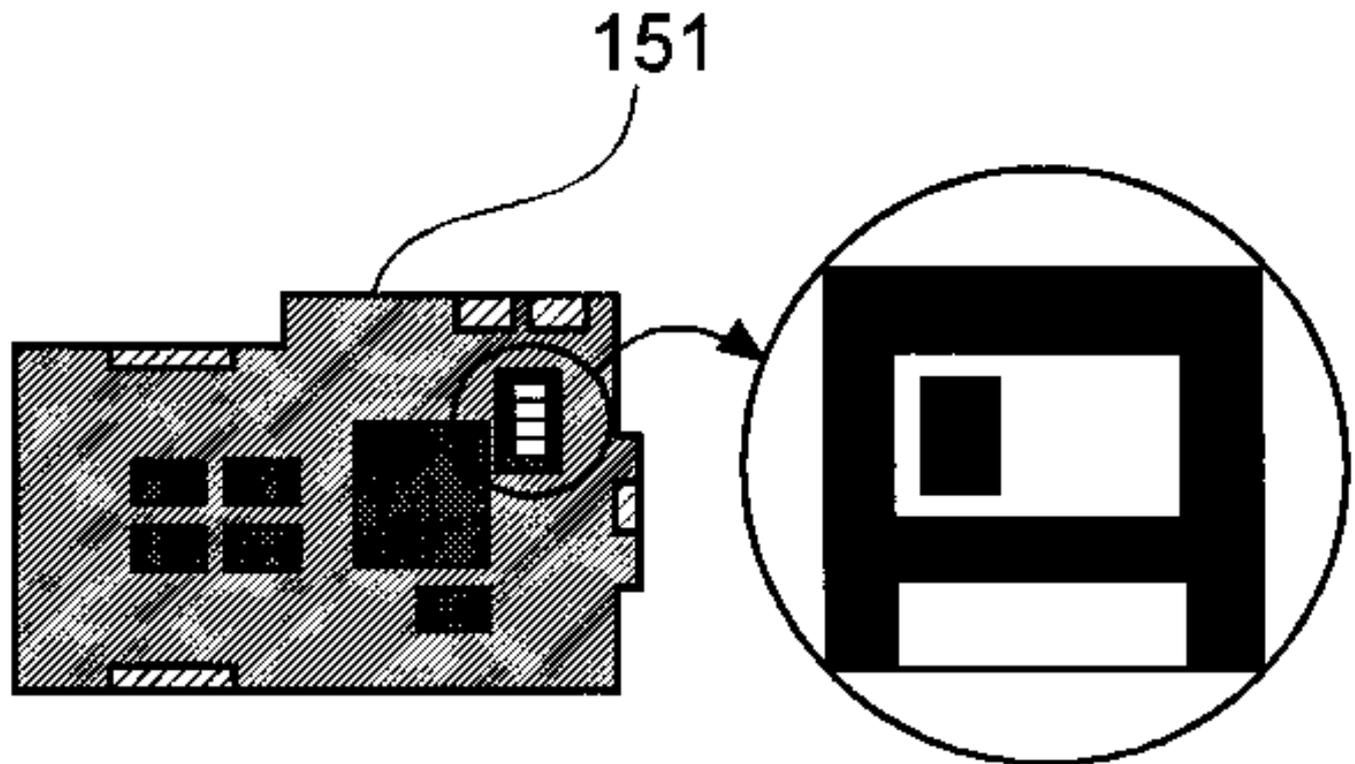
44

		시정수 $\tau$ (ms)	보정 계수 $\alpha$		필터 계수 $K$	
			감소	증가	감소	증가
특성	수평 전계	33.4	0.75	1.25	1.50	2.50
	수직 전계	16.3	1.00	0.75	1.00	0.75

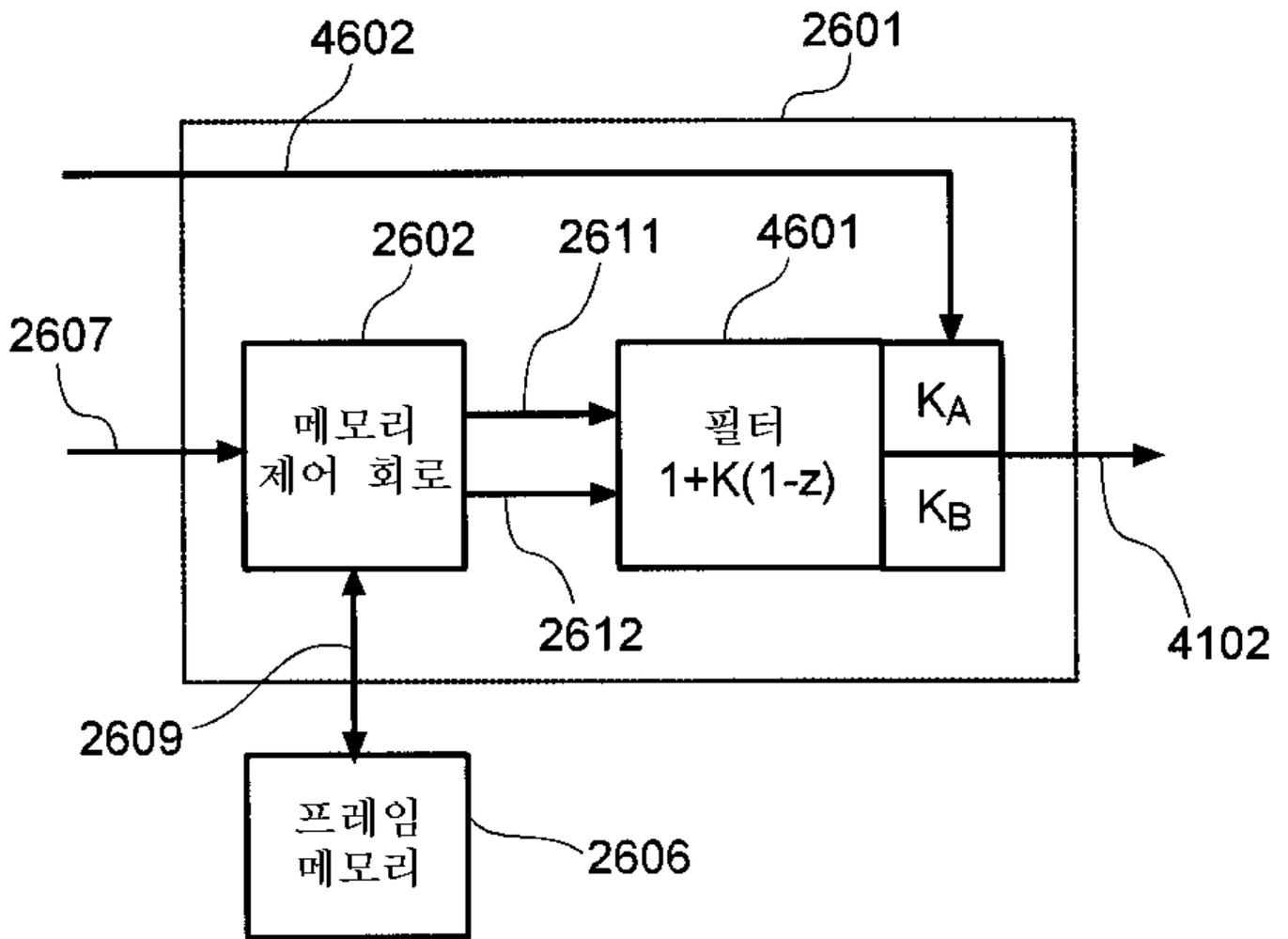
45a



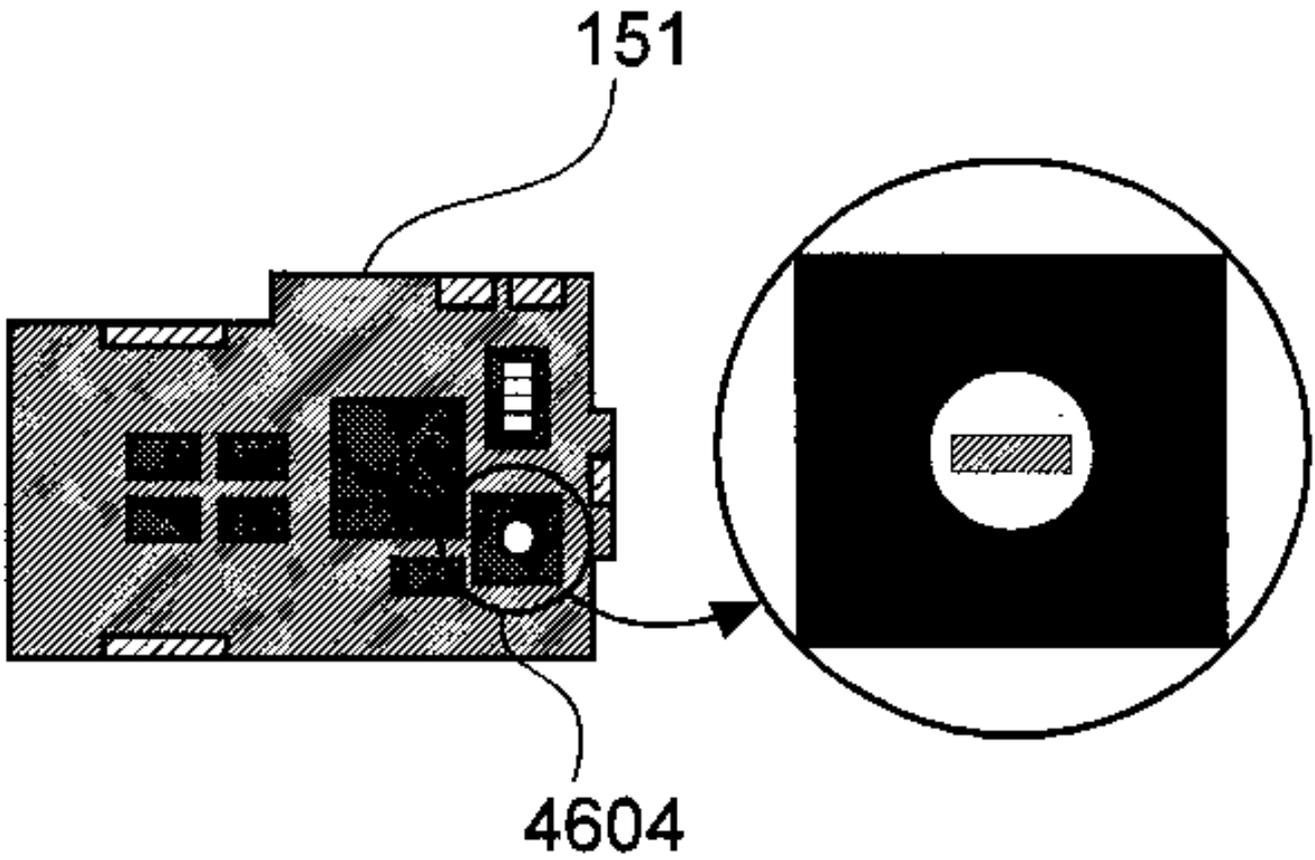
45b



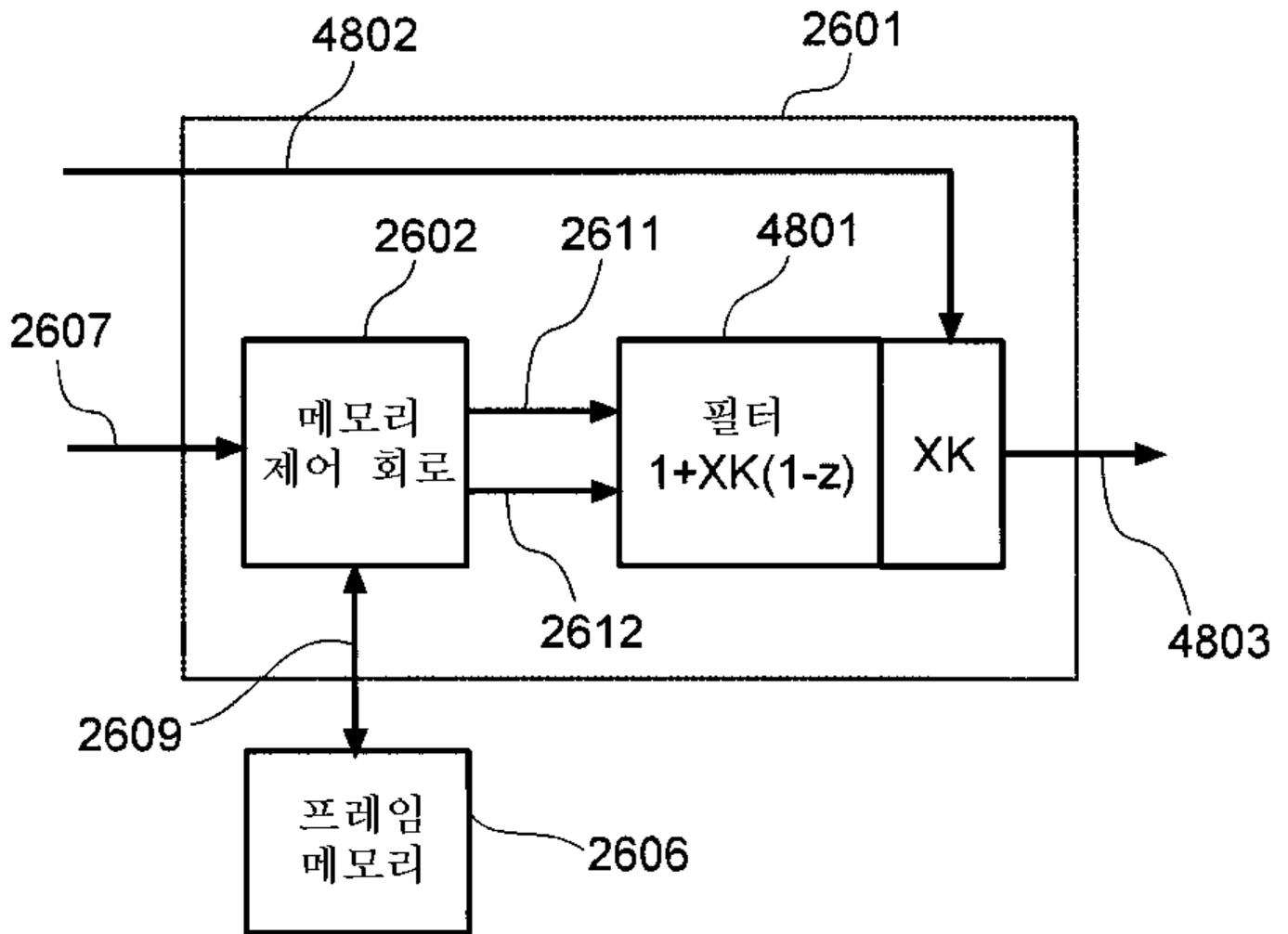
46



47



48



专利名称(译)	一种用于显示视频数据的显示设备		
公开(公告)号	<a href="#">KR1020020005397A</a>	公开(公告)日	2002-01-17
申请号	KR1020010016942	申请日	2001-03-30
[标]申请(专利权)人(译)	日立HITACHI SEISAKUSHODBA HITACHI视频与信息SYST		
申请(专利权)人(译)	株式会社日立制作所 可否怎么这地.汤赵号系统.		
当前申请(专利权)人(译)	株式会社日立制作所 可否怎么这地.汤赵号系统.		
[标]发明人	KAWABE KAZUYOSHI 가와베가즈요시 FURUHASHI TSUTOMU 후루하시쯔또무 INUZUKA TATSUHIRO 이누즈까다쯔히로 KURIHARA HIROSHI 구리하라히로시 ONO KIKUO 오노기꾸오		
发明人	가와베가즈요시 후루하시쯔또무 이누즈까다쯔히로 구리하라히로시 오노기꾸오		
IPC分类号	G09G3/36 G09G3/20 G02F1/133		
CPC分类号	G09G3/3648 G09G2320/103 G09G2340/16 G09G2320/0252 G09G3/3611 G09G2320/0223 G09G2320/0261		
代理人(译)	CHANG, SOO KIL		
优先权	2000210686 2000-07-06 JP 2000379778 2000-12-08 JP		
其他公开文献	KR100430541B1		
外部链接	<a href="#">Espacenet</a>		

#### 摘要(译)

本发明提供一种液晶显示装置，包括：液晶面板（105），其中多个图像成分以矩阵形式形成；视频数据等级信号输入，-1- Th帧和来自第N帧的输入灰度的灰度级，并通过使用校正信号产生用于校正亮度的校正信号以产生N.校正电路（107），用于校正第一帧的灰度信号；数据驱动器109，用于根据第N帧的校正输入灰度信号产生写入电位；并且扫描驱动器用于选择应用写入电位的图像分量。 2 指数方面 视频数据，灰度信号，校正信号，写入电位，边缘增强模块，

