

2

3

4

5 1

6 2 3

7 3

8 2

9 ,

10 3

11 4

12 800 x800

13 800 x800

14

15

16 40V 0V

17 0V 40V

18 800pF ()

19 800pF ()

*

*

12: 14:

40: 42:

50: 52:

80:

or) LCD가 (LCD) , STN(super twisted nematic) LCD TFT(thin film transist

STNLCD 가 , 500 가 , TFTLCD 가 LCD 가 , LCD 가 , 가 ,

LCD 1000 10 , 1

5,748,277 「DYNAMIC DRIVE METHOD AND APPARATUS FOR A BISTABLE LIQUID CRYSTAL DISPLAY」 LCD 1

000 / 가 () , 1

1 (10) , 12 , 14 , 16

, 20, 22 , 24 (Row) , 26 (Column) . 2

(28) 가 가 가 가 가 (白) 가가 (塗裝) 가가 가 / 가 가

(non-active stage)가 selection stage), 3 (evolution stage) 3 (active stage) , 1 (preparation stage), (

가, 가

가
 3 (24) (50) (26) (52) (70)
 (52) (80) (26) 가 (70) (50) (24) 가 가

4 가 /
 (30) (32) (34)(3 bit x 110) (36)(3 bit x 110)
 (38) 1 CPU (40) 5 (42)

(30)
 (CSb):
 CPU가 (DAT) '0' '1' (CLK)

(DAT):
 . CLK

(CLK):

CSb DAT ,

(RESET b):

'0'

(V7-V0):

(38) (42)
 32.0V, V4 V7 40.0V, V6 36.0V, V5
 4.0V, V0 25.5V, V3 14.5V, V2 8.0V, V1
 V2 V5 40.0V, V4 36.0V, V3 32.0V,
 28.0V, V1 8.0V, V0 OV

5 (40) SEL(2-0)

(M3-M0):

(38) (40)

(DSP):

가

'0' (40) (V0) , '1' (38)

(DIR):

/ (Row/Column):

가 '1' (38) , (40) . '0' ,

/ (CVD/DDS):

5 가 '1' (38) , '0' (40) ,

3 /4 (3/4 STG):

가 '1' (38) , 3 (40) . '0' , 4

0(D0(2-0)) 1(D1(2-0)):

(34) DIR (階調)

1 , DIR

[1]

DIR	DO(2-0)	DI(2-0)
1		
0		

(Do) (Di) SCP (34) , Di가 (34)

(SCP):

Di (34)

(LP):

(34) Di (36)

(G(109-0)):

LP, Di, (M(3-0), DSP), (32)

(30)

(32):

110, (38)

2, () Mk(109-0) G(109-0)

[2]

MK0	0	G 0	1
MK109	109	G 109	1

가 '0', LTn(2-0) ('0'), 가 '1'

(34):

3 x110 DIR, SCP

D1, D0, (34) 3, 4

[3]

DIR	D 0(2-0)	D 1(2-0)
1		
0		

[4]

DIR	
1	(D0 → G0) → (G109 → D1)
0	(D1 → G109) → (G0 → D0)

(36):

3 x110

(34)

LP

(38):

(Row/Column, CVD/DDS, 3/4STG), LTn(2-0), M(3-0),
 DSP, MK(109-0), V(7-0)
 SEL(2-0) (40) , G(109-0) ,
 (42) 110 SEL0, SEL1 SEL2 3 . 5 , 3
 (40) (42)

[5]

SEL			OUTPUT
SEL2	SEL1	SEL0	
0	0	0	V0
0	0	1	V1
0	1	0	V2
0	1	1	V3
1	0	0	V4
1	0	1	V5
1	1	0	V6
1	1	1	V7

(30) , 3
 , 8 V(7-0) 1
 2 3 , 8
 V(7-0) 1
 6 2 (ON, OFF) 3
 가 ,
 ()가 가
 7 3 , 24 , 26
 가 4 3
 8 2 (a)
 (2) , (b) (0) , (c) (2)
 , (d) (1) , (e) (2) (1) (0)
 . (c), (e)

8 가 , (V0, V4) 가 , (V1, V2) 가 ,
 8 , 가 ,
 , 4 , , 3 , ,
 , 2 , , 가 , 4 / 가 가
 , 110 . (32)
 「 」 가 , 가
 9 (12) , (8)
 10 (32) '0' , LTn(2-0) , 1
 , (32) '1' , (8)
 4 , . 3 . , 3 4 .

[6]

	3 (ms)	4 (ms)
Preparation	20	20
Pre-selection	-	0.2
selection	1	0.4
Evolution	20	20

0.2 ms()가 가 . 1ms() , 4
 10 3 ()
 , 11 4 (1) (2) 가 (0) (1) 가,
 () ,
 , 가 . ,

(50) (80)가
 0ms

$$[(0.2\text{ms} + 0.4\text{ms} \times (\dots) \div 2 + 20\text{ms})] \times 2$$

가 3

$$(\dots) + (\dots) \times (\dots) + (\dots) = 20\text{ms} + 1\text{ms} \times (\dots) + 20\text{ms}$$

가 67, 1, 3, 4

1, 25ns(SCP : 40MHz), LP LP, 8, 20μs

12, 13, 800 × 800, 54, 800 × 800

1600, (800)

14, 15, SCPc, t_c 25ns SCPr, LP LP, T, n, 800, m, 800, t_r 25ns

15, 2, 3, 2m × 3n, 50-1, 50-2, 52-1, 52-2, 52-3, 3, 56

n=500, m=600, 2, 3, ..., 500, 3, 500, 가, (52-1), (1, 2, 3, ..., 1500), (52-2), (501, 502, 503, ..., 1500), T(20 μs)

가, 2, 가, 1, (50-1), (1, 2, 3, ..., 600), (50-2), (601, 602, 603, ..., 1200), T(20 μs), 1200, 가

3, T, 2, 가, 가

(1, 0.11 mm × 0.11 mm), (C_{row}) 400pF, 600 × 800, (C_{col})

300pF .

) , 600OpF, (68 x516) (1 0.54 mmx0.54mm
800pF .

40V 0V ,

()

17
()

0V 40V

()

() 16
()

5

가 (38)

가 (42)

가

M

16

17

.5

M ,

800pF

()

18

19

16

17

800pF

()

(50)

(80)

3

(52)

(57)

1.

2.

1

2 3.

3 4.

가, /

4 5.

/

1

5 6.

가,

(轉化)

가

(進展)

5 7.

(前)

가,

가

6 8. 7

가

9.

가 6 7

가 6 7

10.

9

11.

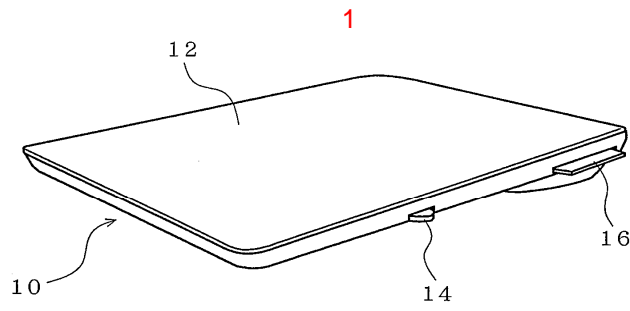
가 6 7

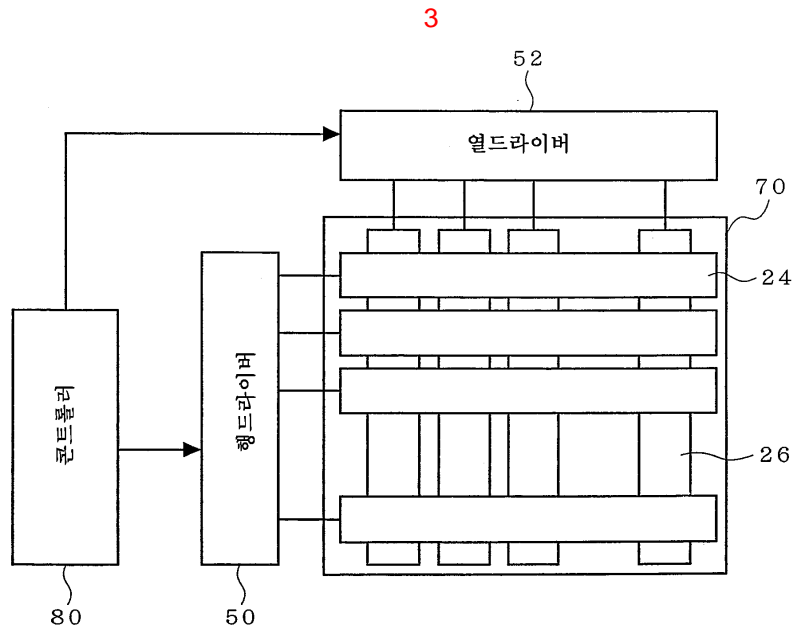
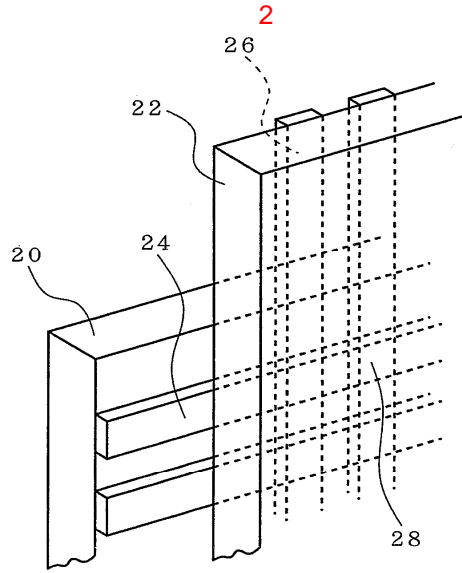
가 6 7

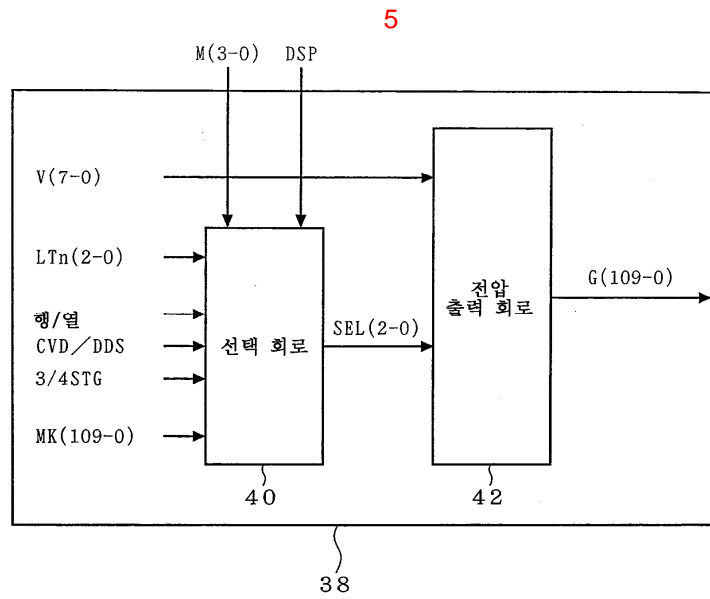
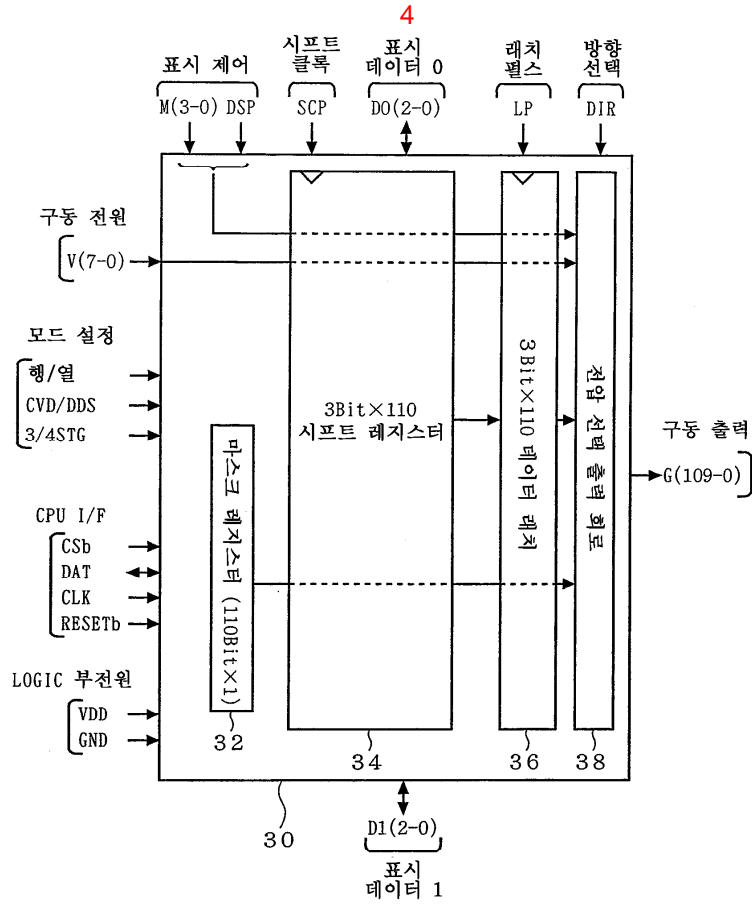
12.

9

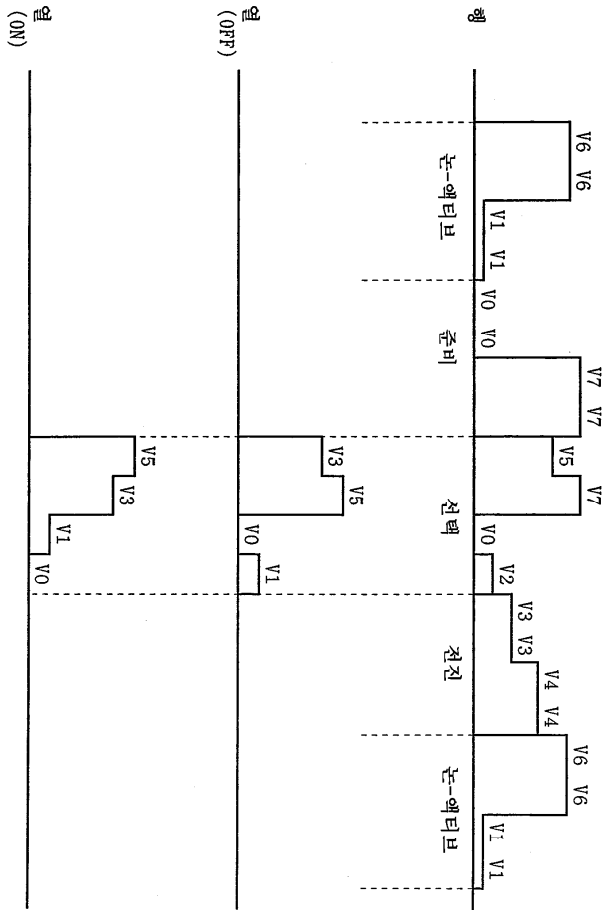
가



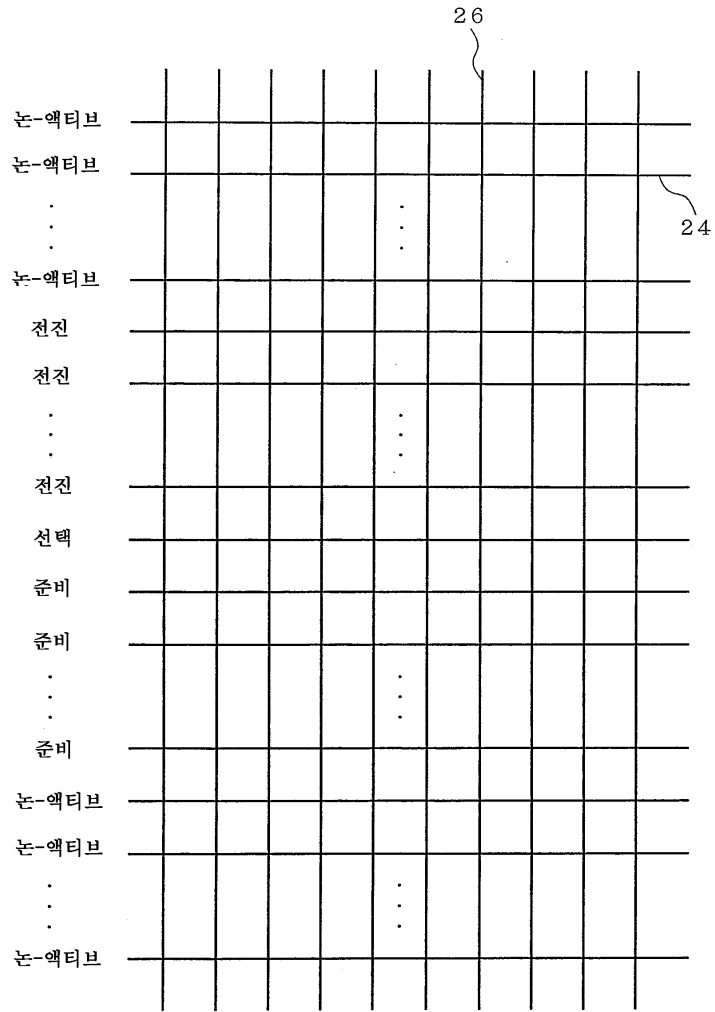




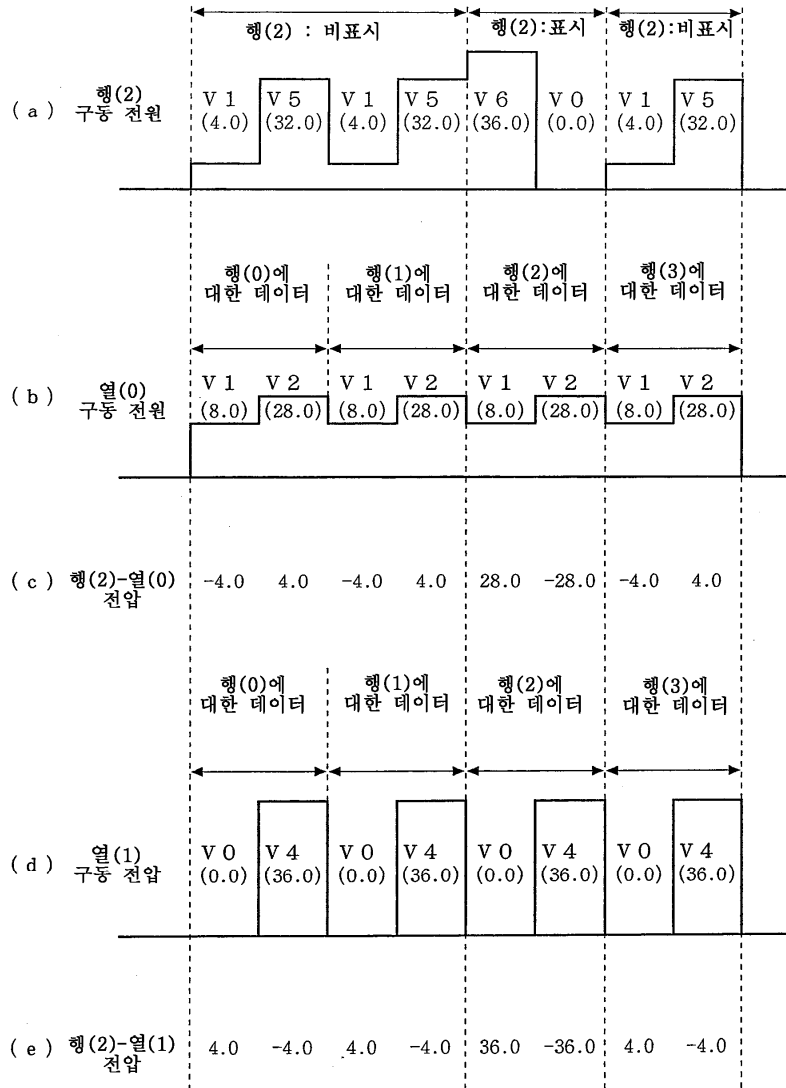
9



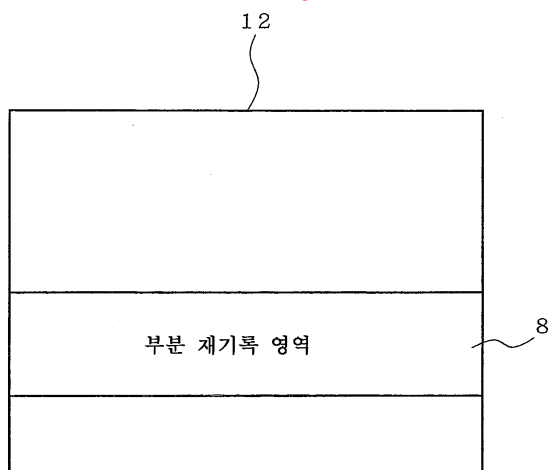
7

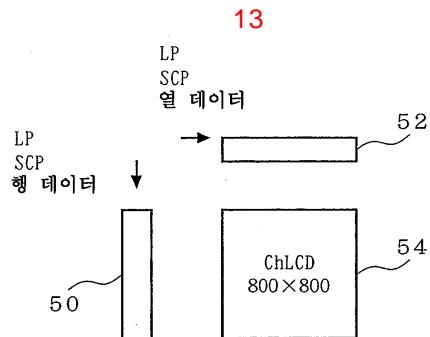
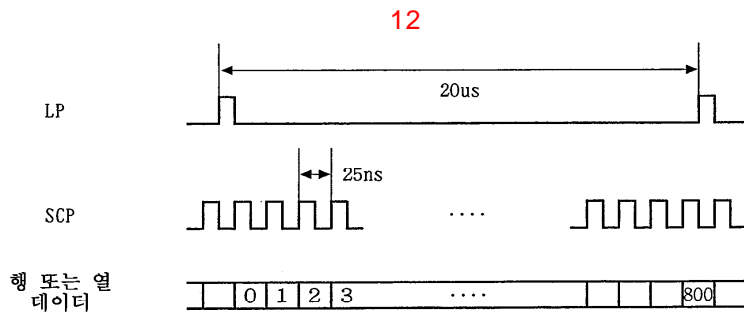
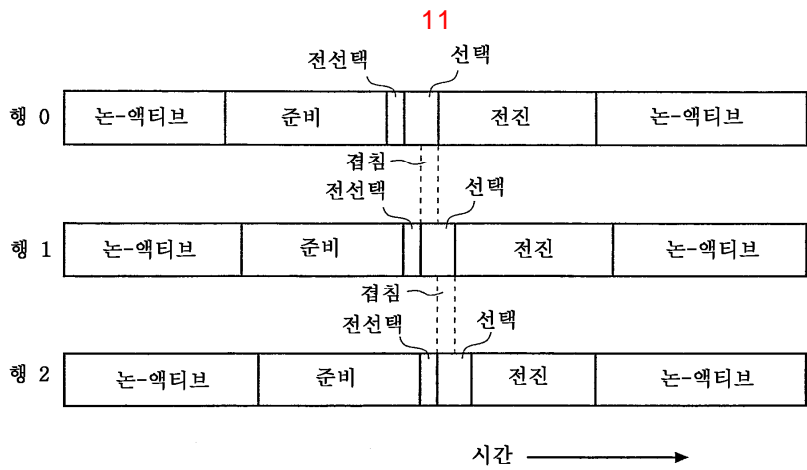
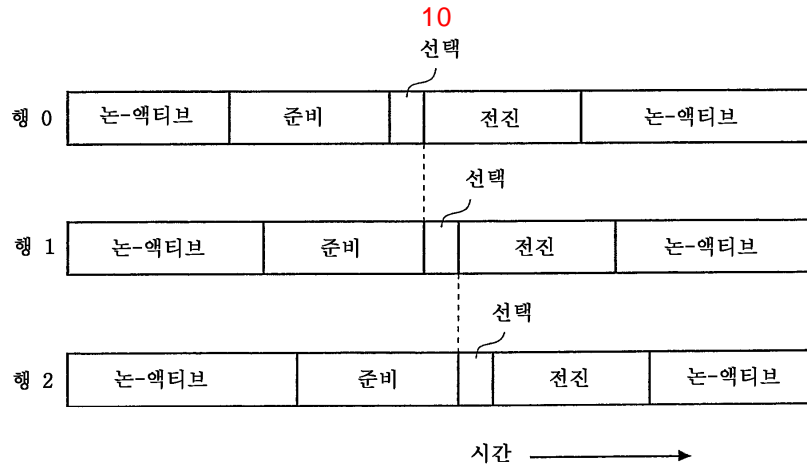


8

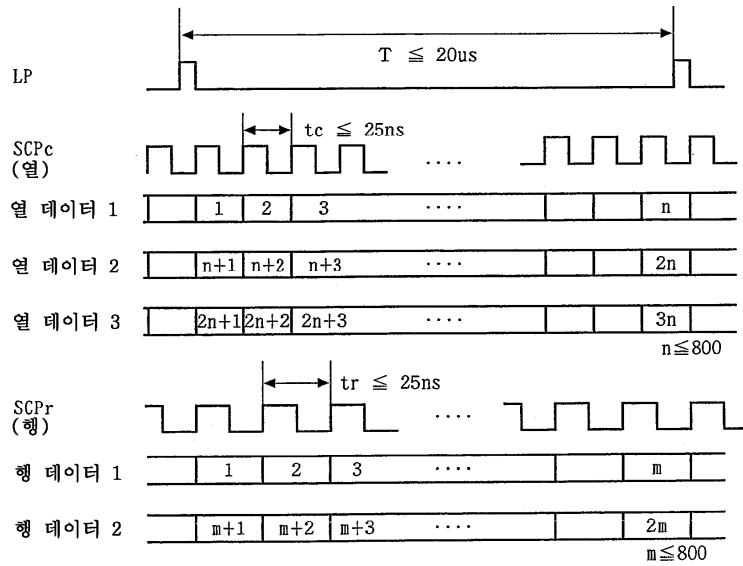


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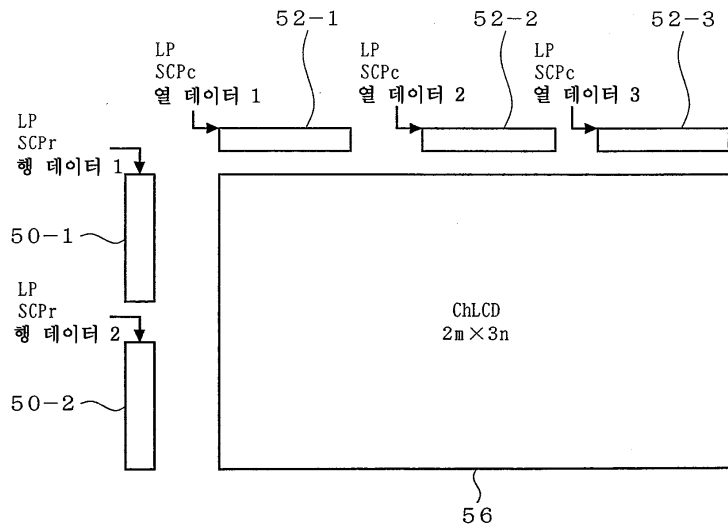




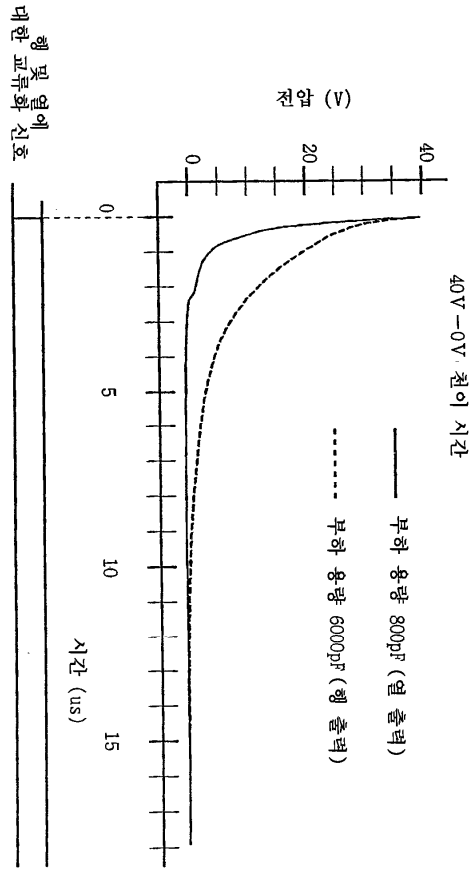
14



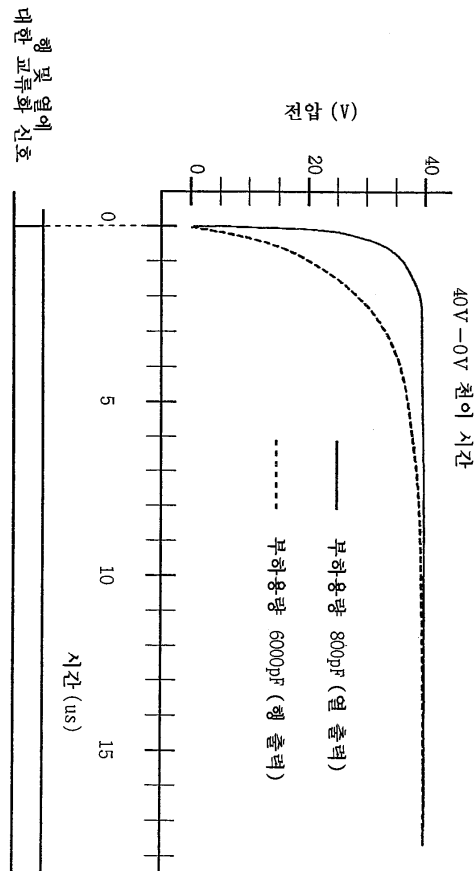
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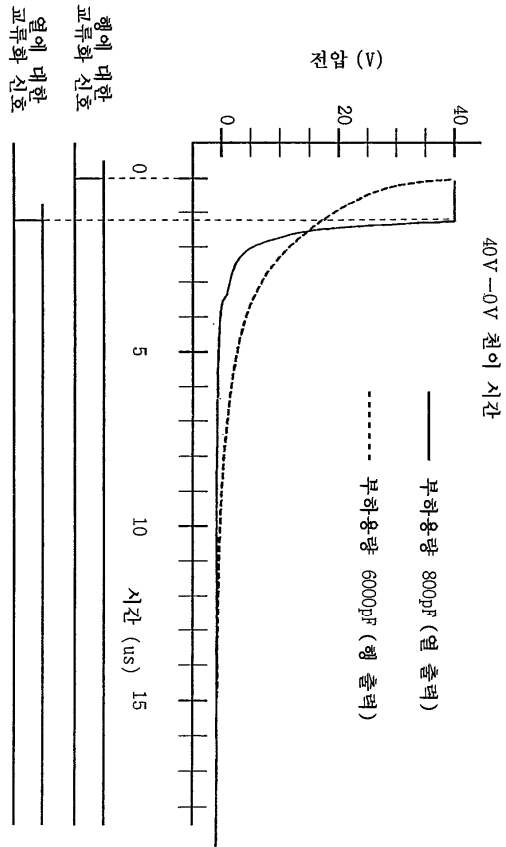
16



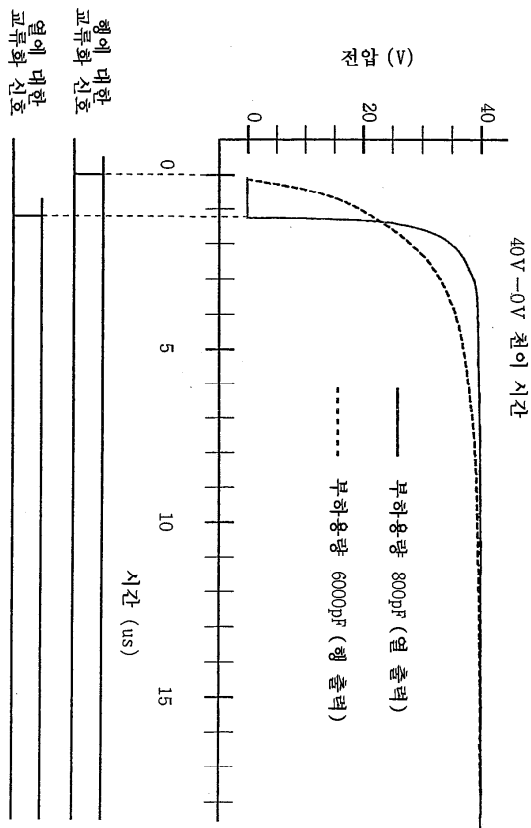
17



18



19



专利名称(译)	胆固醇液晶显示器和驱动器		
公开(公告)号	KR1020030036095A	公开(公告)日	2003-05-09
申请号	KR1020020067434	申请日	2002-11-01
[标]申请(专利权)人(译)	那纳须株式会社		
申请(专利权)人(译)	我可否去锈点)		
当前申请(专利权)人(译)	我可否去锈点)		
[标]发明人	OKAFUJI MASA HARU NIMURA KOJI TAKAMI MANABU 타카미마나부		
发明人	오카후지마사하루 니무라코지 타카미마나부		
IPC分类号	G09G3/36 G09G3/20 G02F1/133		
CPC分类号	G09G2300/0486 G09G2310/06 G09G2320/0223 G09G3/3681 G09G2310/0224 G09G3/3692 G09G3/3629		
代理人(译)	李, 何炳 李昌勋		
优先权	2001337438 2001-11-02 JP		
其他公开文献	KR100902764B1		
外部链接	Espacenet		

摘要(译)

无源矩阵驱动过程的胆甾型液晶面板驱动动态但提供合适的驱动器。输入的行数据或移位寄存器将字符串数据移位到移位时钟，门锁锁存器通过锁存脉冲锁存移位寄存器的数据，行驱动电压或输出热驱动电压的液晶面板驱动电压选择输出电路通过行数据选择驱动功率，或者包括用数据锁存器锁存的字符串数据。胆甾型液晶，存储器，像素，寄存器，锁存器。

