

(19)  
(12)(KR)  
(A)(51) 。 Int. Cl. <sup>7</sup>  
G02F 1/1345(11)  
(43)2002 - 0077033  
2002 10 11(21) 10 - 2002 - 0000694  
(22) 2002 01 07

(30) JP - P - 2001 - 00101176 2001 03 30 (JP)

(71) 가 가  
가 가 가 가 4 1 - 1(72) 가  
가 가 가 가 가 4 - 1 - 1 가 가  
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가 가 가 가 가 4 - 1 - 1 가 가

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, 1 / 2 1 / 1 (101) , 2 (102) . 가  
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| 2  | 1 |    | 1 | , |
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| 4  | 1 |    |   | , |
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| 6  |   | 3  |   | , |
| 7  | 3 |    | 1 | , |
| 8  | 3 |    | 2 | , |
| 9  | 3 |    | 2 | , |
| 10 |   | 4  |   | , |
| 11 |   | 5  |   | , |
| 12 |   | 6  |   | , |
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| 14 |   | 8  |   | , |
| 15 |   | 9  |   | , |
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| 18 |   | 12 |   | , |
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100

101 1

102 2

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111

112, 113, 114

115

116

121, 122

131 TFT

132

401

601

602

900

911

912

915

916

931 TFT

932

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 .  
 26 ( ( ) (5)  
 (3) (7) ( ( ) (6) (4)  
 (7) (5) (3) (6)  
 (4) .  
 (7) 2 (TFT: ) (1) (2)  
 . TFT(1) n MOS , 가 (4) (3)  
 , 가 (2) (8) .  
 ,  
 가 가 .  
 가 (yield) .  
 27 (912), (916) (915)가 (900) (911),  
 (916) , (GCLK) (915) (G1 G4)  
 (GSP) (G1 G4)  
 .  
 (916) 2 TFT(931) (932) . TFT(931) n  
 MOS , 가 (G1 G4) , (D1, D2) ,  
 가 (932) .  
 DI, D2) (912) 가 (V1 Vn) , 가 ( (V1 Vn)  
 가 가 .  
 (911) m 가 가 , (DCLK) (DSP)  
 (Q1 Qm) (912) (Q1 Qm) (Q1 Qm) (912)  
 (V1 Vn) (D1, D2)  
 .  
 (V1 Vn) 가 .  
 , (V1 Vn) 가 ,  
 , 가 .

[ ]

( 1 )

1                      1                      (100)                      .                      1                      (101),                      (103)  
2                      (102)                      1                      (100)                      .                      1                      (101)                      (103)  
(121)                      가                      .                      2                      (102)                      (103)                      (122)                      가                      .

5) (103) (115), (116) (112) . (11  
(G1 Gx) (116) , (GCLK) (GSP)  
(G1 Gx) .

(116) 2 MOS (G1 Gx) TFT(131) (132) TFT(131) n (D1 D3) ( )가 (132) .

$$\begin{aligned} & \text{가} \quad (D1a \quad D3a) \quad , \quad \text{가} \\ & (D1 \quad D3) \quad . \quad (BSEL1 \quad BSElm) \quad (112) \\ & . \quad (112) \quad (BSEL1 \quad BSElm) \quad , \quad (Dla \quad D \\ & 3a) \quad (D1 \quad D3) \quad . \end{aligned}$$

1 (101) (111) (113) (113)  
가 (V1, V2) , 가 (D1a D3a)  
(111) n 가 가 , 2 (DCLK) (D  
SP) (Q1 Qn) (Q1 Qn) (113)  
(113) (Q1 Qn) , (V1, V2)

(D1a D3a)

2 (102) (114) (114) 가  
 (D1 D3) , 가 (V3) (ON4) (114)  
 (114) (ON4) , (D1 D3)  
 (V3)

2 , (ON4) , (BSEL1 BSELM) 가  
 (BSEL1 BSELM) , (Q1 Qn) 가

, (V3) (ON4) , (114)가 ,  
 (D1 D3) (V3) BSEL1 1  
 n (112)가 , (D1a D3a) (D1 D3)  
 (Q1) , (113)가 , (V1) (D1a)  
 , (Q2 Qn)

(V1 V2) , (Q1) , (V3)  
 (V1) (D1 D1a)  
 , (V1) (D1 D1a) ,  
 (Q2) , (V3) (V2)  
 (D2 D2a) , (V2) (D2  
 D2a) 가 , (D3 D3a)

, 3 , (BSEL1 BSELM)  
 , (112) , (SSP) (SCLK) 2  
 , (Q1 Q2) , (V1)  
 , (V2) (V1) 가 (V2) ,  
 (D1a) (D2a) 가 (V2) (D1a)  
 (D2a) 가 (Q2 Q3)  
 가 (D2a) (D3a) 가 ,

, 1 (101) 2 (111)가 1 , (111) 2  
 , 2 (V1, V2) , 1  
 , (112) (113) (D1a D3a)  
 , (V2) , 가

, 1 (101) 2 (102) (121 122) (102)  
 , 4 (401) (Q1 Qn) (103) (D1a D3a)  
 (LP) (R, G, B) (Q1 Qn) (401) (DCLK), (DSP),

, 2 (102) (103) 2 (102)  
 (102) (114) , 2  
 , 2 (102) (V3) (401) (Q1 Qn)  
 (D1)

27 가 ,

( 2 )

5 2 (100) 2 1 ,  
 2 가 (103) (114)  
 (V3) (V4)가 ,

(V3, V4) , 1 가 3 ,  
 (D1) (D2) 가 (D1a) (D2a) 가  
 (V1, V2) 가 (D1) (D2) 가  
 (D1a) (D2a) 가 (V3)  
 가 (V1) , (V4) 가 (V2)

, (V3, V4) (D1 D3)  
 (401) (Q1 Qn) (V3, V4)  
 (D1 D3)

( 3 )

6 3 (100) 3 2 ,  
 n MOS (601) ( ) (602) ,  
 (601) 가 (G1 Gx) (Vmon) ,  
 가 (602)

7 (115) (GCLK) (GSP)  
 (G1 Gx) (701) (Vmon) (Va)  
 (601) (G1 Gx) (Va) (6  
 02)

(GSP) , (G1 Gx) (70  
 2) , (Vmon) (G1 Gx) , (Vmon)  
 (Va) , (G1 Gx) (702)  
 (Vmon) (Va)  
 (G1 Gx)

8 (GCLK), (GSP), (G1  
 Gx) 7 가 (801 802) (G1 G2) (801  
 802) 9 (G3 Gx) 가  
 9

9 (SCLK), (SSP) (Q1 Qn) 3 (ON4)  
 , (BSEL1 BSELm) (BSEL1 BSELm)  
 , (Q1 Qn)

8 G1 9 (Q1 Q2)  
 (113) (V1) (Dla) (V2)  
 (D2a) (BSEL1) (112)  
 (Dla) (D1) (D2a) (D2) (ON4)  
 (114) (D1) (V3) (D2) (V4)

2 가 (V3, V4) (G1) (D1) 가  
 , (G2) (D2) 가 (V3, V4) ( (   
 V1 V2) , (G1) (DI) (G2) (D2) 가 ,  
 (V1 V2) (G1 G2)

1) (103) TFT( ) (13

1 3 1 2 (11  
 2) (113) , , ,  
 1 (101) , (103)  
 (401) 가

( 4 )

10 4 (7) , TFT(n MOS  
 )(1) 가 (4) , (3) ( )가

(2) (5) (8) (7) (6) (7) (9)  
 (4) (3) (n MOS) (9)가  
 (31) (32) (10) (31) (32) (30)  
 (31) (34) (32) (33) (34)  
 (35)가 (34) (10) (34)  
 (10)

(5) (3)  
 (6) (4)

(6) (5)가 (9)  
 (9)가 (35)가 (10) (10)  
 (30) ( ) (9) (6) (5)  
 (30)가 (6) (7) (5)  
 (4) (3) (4) (3)  
 1 (6) (5)  
 (4) (3)

(9) (7) ( ) ( )  
 (30) (7) (4) (3) (30)  
 (9) (9) (9) , 1 (30)  
 (9) (30)

( 5 )

11 5 (n MOS) (11) 5 4 (11)  
 가 / (12) (13)  
 (9)

(13) (12) (11)  
 (30) 가 , 4 가  
 (30)

( 6 )

12 6 (9)가 (7) 6 가 5  
 (9) (6) (7) (5)  
 (7) (9) 가 가 (4)  
 (3) (31 32) (10) 가 (30)

(13) (11) (9)

5 (7) ( ) , (30)  
 (10) , (6) (5)가  
 (6) (5) (7) (4)  
 (3)

(7) ( ) , (30) (10)  
 (7) (4) (3)

(6) / (6) (5) (5) 1 (4) / (3)

( 7 )

13 7 (9)가 (15) 7 4 ( 10)  
 1) 가 TFT (9) ( ) (9) (7) TFT(  
 (8)

4 6 (30) (2) (30) 가 (2)  
 (15) (15)

( 8 )

14 8 ( 12) 가 , (15) 8 가 7 (9)가 (7)  
 ( ) 6 ( )

(7) ( ) , (2) (10)  
 (5) (6) (5)가 (6)  
 (7) (4) (3)

(7) ( ) , (2) (1)  
 0) , (7) (7) (4) (3)

( 9 )

15 9 가 (n MOS )(11) 9 7 ,  
 5 ( 11) (11) 가 / (12) (13)  
 , 가 (9)

(13) , / (12) (2) (11) ,  
 (2) . , 4  
 ( 10 )

16 10 ( 15) 가 (n MOS (11) 8 ( 14)  
 , 9 ( 15) 가 (n MOS (11) ,  
 . (12) (11)  
 , (13) (2) . , 4  
 .

( 11 )

17 11 가 9 ( 15)  
 . (7) (6) (7) (5) ,  
 (15) (9) (9) 가 (4)  
 (3) , (3) (4) , 가 (2)  
 (8) . , (9) (4)  
 (3) , (3) (4) .

(15) (9) (11) (13)가  
 , (16) (17)가 . (16) 9 ( 15) (31)  
 , (17) 9 (10) .

11b) (11) 9 CMOS , n MOS (11a) p MOS ( 11b)  
 . (44) (43) (11b) (11) ,  
 , (11a) . (44) (11)  
 (11)

(16) CMOS , n MOS (16a) p MOS (6b)  
 . (42) (41) (16b) ,  
 (16a) . (42) (16) ,  
 (16)

, (11) , (13) 0V  
 (2) . , (6) (5) (15)  
 (9) (2) . , (16) , (2)  
 (17) . , (6)  
 (5)가 (6) (5) (7)  
 (4) (3) . (6) (6)  
 (5) 1 , (6) / (5)  
 (4) / (3) .

, (2) (5)

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( 12 )

18 12 12 가 11  
 . 8 ( 14) 가 (15) (9)가 (7)  
 ( ) , ( ) .

(7) ( ) , (2) (17)  
 , (6) (5)가 (6)  
 (5) (7) (4) (3)

.

, (7) ( ) , (2) (1  
 7) , (7) (4) (3)

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, (2) (6) (5)

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( 13 )

19 13 13 가 10 ( 16)  
 . 10 (7) 4 (9)  
 (10) , 13 (7) 2  
 (9) (9) (10) (7) 2 (9)  
 (9) (10) (13) . , 2

1 (10)

( 14 )

20 14 14 가 13 ( 19)  
 . 13 (7) 2 (9)  
 (7) 2 (10)  
 (13) (7) 4 (9)  
 (10) (13) . , 4  
 (9) 1 (10) (13)

( 15 )

21 15 (7) , TFT(1) 가  
 (4) , (3) , ( )가 (2)  
 (8) . (6) (4) , (5)  
 (3) .

(7) 1 TFT(la) . TFT(la)  
 (2a) (8) (5) (13)가  
 (3) 11 ( 17) 가 (11)  
 , (16) (17)가 .

11 가 , (11) (2a) .  
 (6) TFT(la) . TFT(1a)가 ,  
 (5) (2a) (16) (2a)  
 (17) , (6)  
 (5)가 (3) (6) (5) TFT(1a)  
 (4) (3) .

(13) (2a) , (5)  
 .  
 ( 16 )

22 16 . 16 가 15 ( 21)  
 . (7) ( ) TFT(la) ( ) TFT(lb)  
 . TFT(lb) (2b) (8) .

(5) (3) (3) (16)  
 (17)가 , (11) (13)가 . {

15 가 , (11) (2a 2b)  
 . (6) TFT(1a 1b) . TFT(1a 1b)가  
 , (5) (2a 2b) (16)  
 (2a 2b) (17) . ,  
 (7) (4) .

( 17 )

23 17 . 17 11  
 . (51) (9), (30) (7)  
 (52) (52) ( 2))  
 (20) . (20) (7) (9) .  
 (9) (30) (20) , , 가

( 18 )

24 18 . 18 가 17 ( 23)  
 . (53) (8) 가 . (54)

(8) (53) (54) ( (2)) (20)  
 (20) (9) (20)  
 , (9) (9) (2)  
 (8)

17 ( 23) , (20) (6), (5)  
 (9)가 , 18  
 (6), (5) (9)가 (20) ,  
 17 (30) 가 , 18  
 , (2) 가

( 19 )

25 19 19 가 18 ( 24)  
 (54) , (7) ( (21)

(15)( (9)) , (15)  
 , (15) (15) (21)  
 , (15) 가 가 ,

( (bezel) ) 가

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( 2) 1 2 가 1

( 3) 1 가 2 , 2  
 가 1 , 가  
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( 5) 1 가 2 , 2  
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( 6) 2 1 2 , 3  
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 1 2 .

( 7) 1 1 2 2 1 2  
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( 8) 2 1 2 7  
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( 9) 1 1 2 , 2  
 1 2 3 .

( 10) 1 1 가 , 1 , 1  
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( 12) 3 ,

(a) 1 3 ,

(b) 2 , 1

( 13) 6 ,

(a) 2 1 2 1 1 2  
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(b) 1 1 2 2 1 2  
1 1 2 ,  
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( 14) 9 ,

(a) 1 1 2 2  
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(b) 1 1 1 2 1 2  
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(a) ,

(b) ,

(c) ,

(d) .

( 16) 1 ,

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가 , 가 2 가 .

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( 18) 2 , 가  
가 16 .

( 19) 2 , 가 16 .

( 20) 2 , 가 16 가

( 21) 2 , 가  
16 .

( 22) 2 3  
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( 23) 2 , 16  
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( 24) 2 , 16  
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( 25) 20 .

( 26) 20 .

( 27) 2 19  
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가 , 가 2 , 가 .

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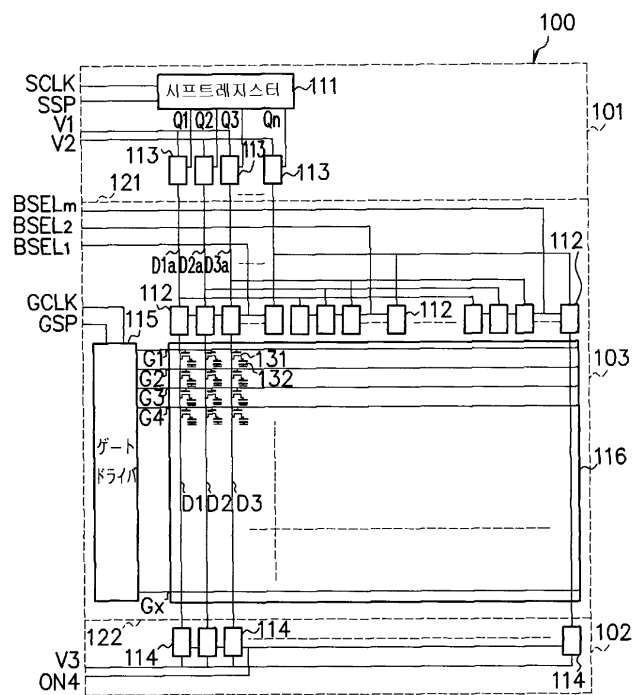
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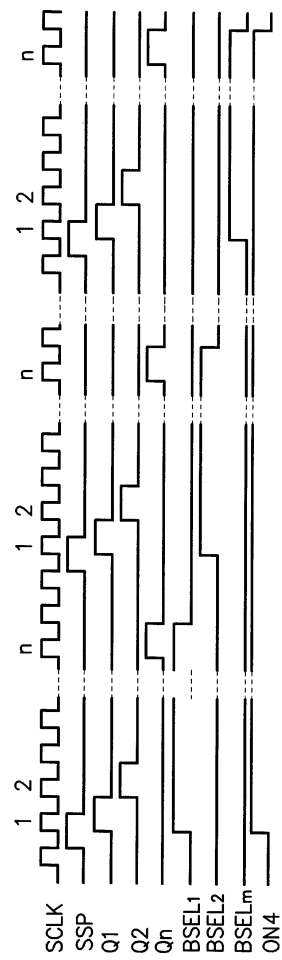
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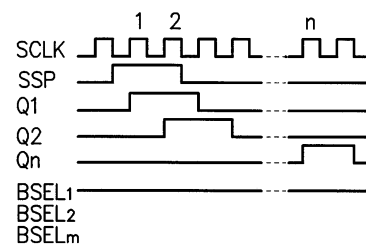
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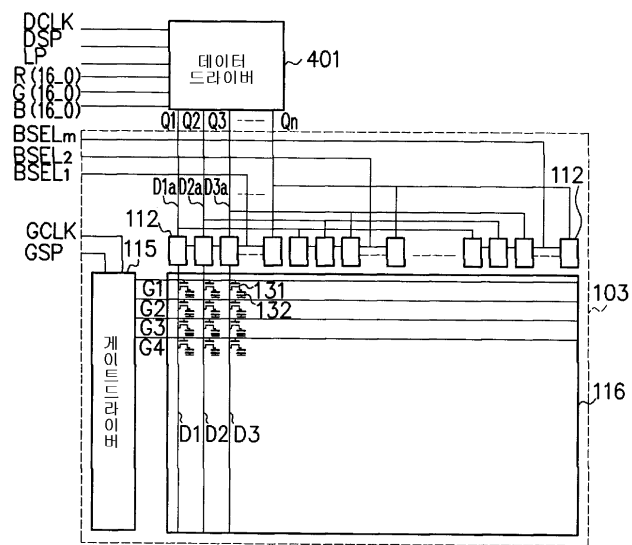
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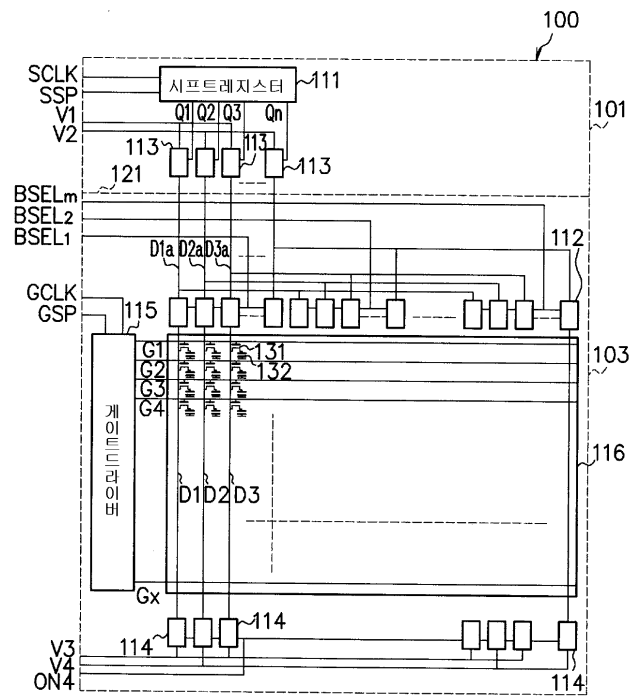
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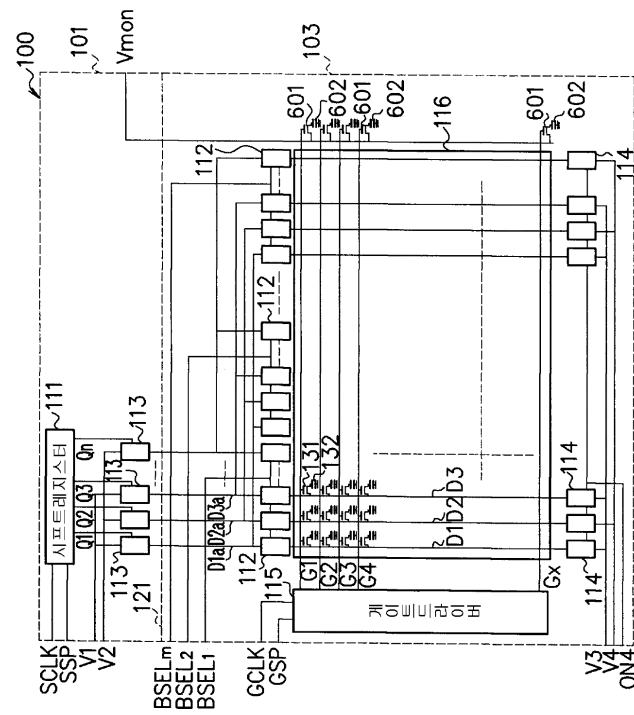
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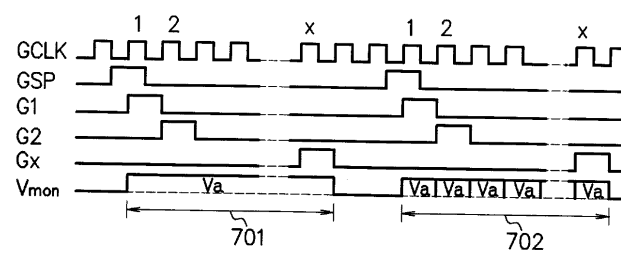
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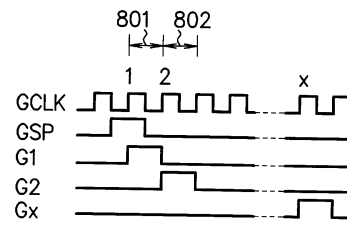
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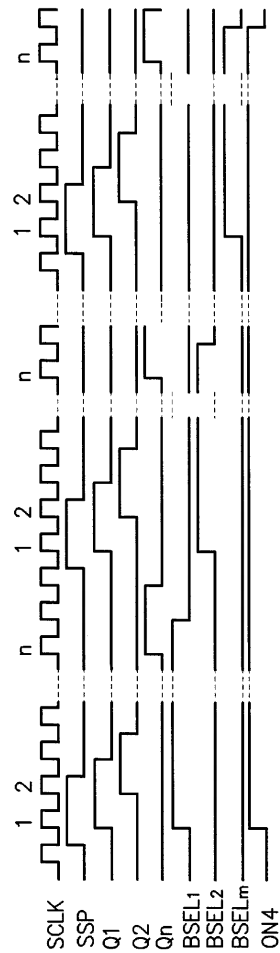
7



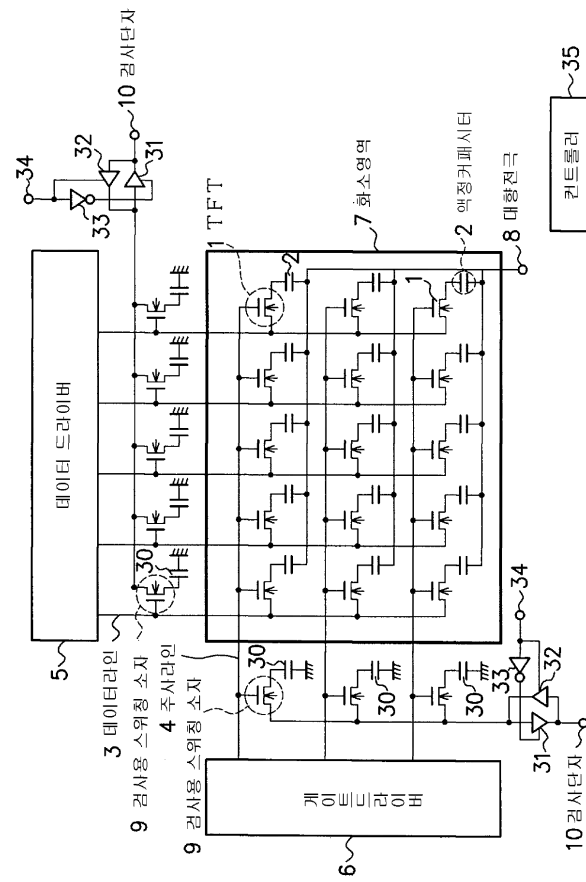
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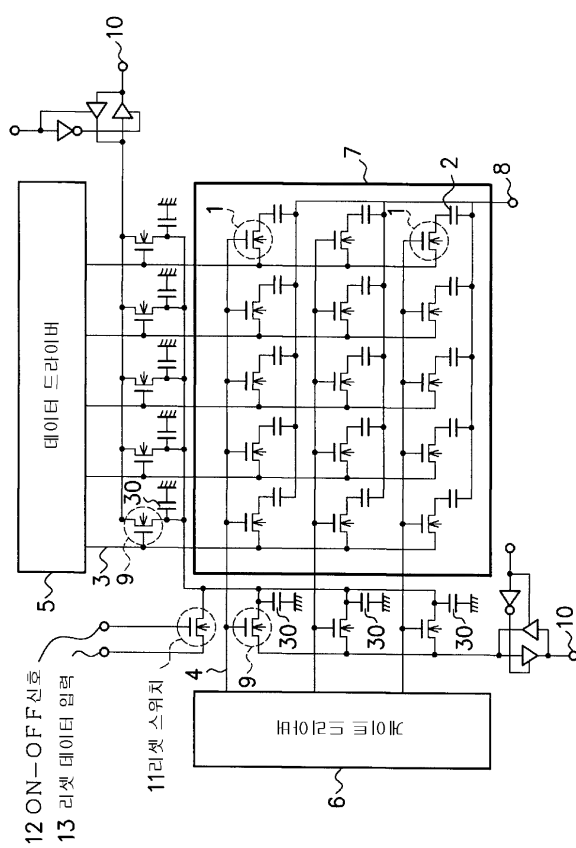


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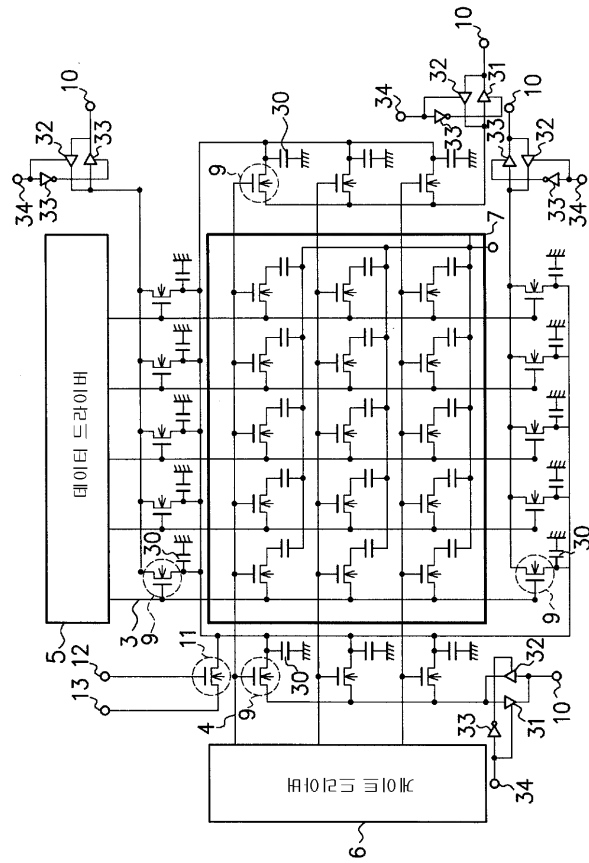


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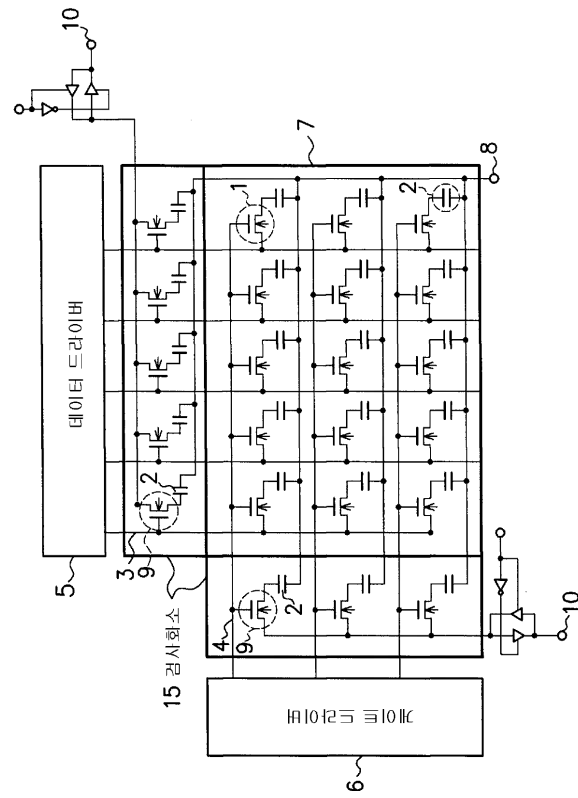




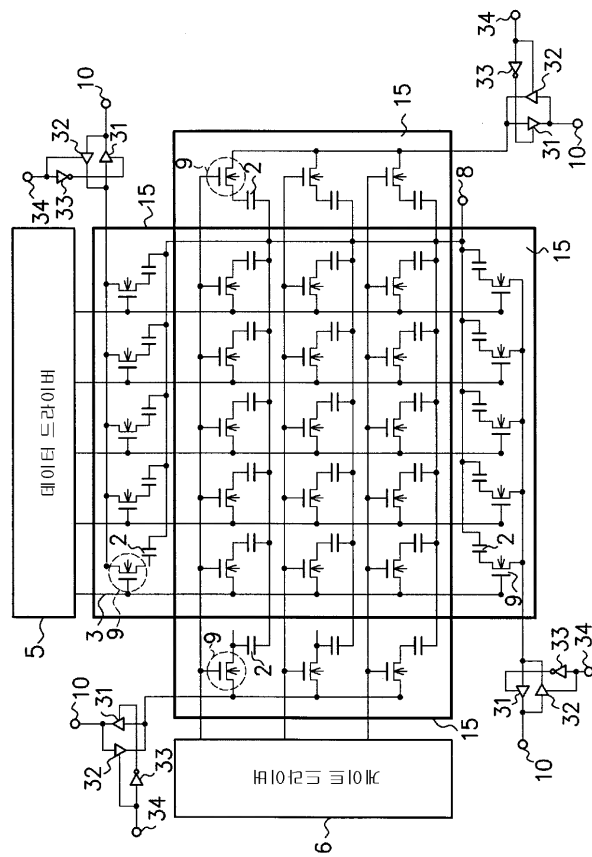
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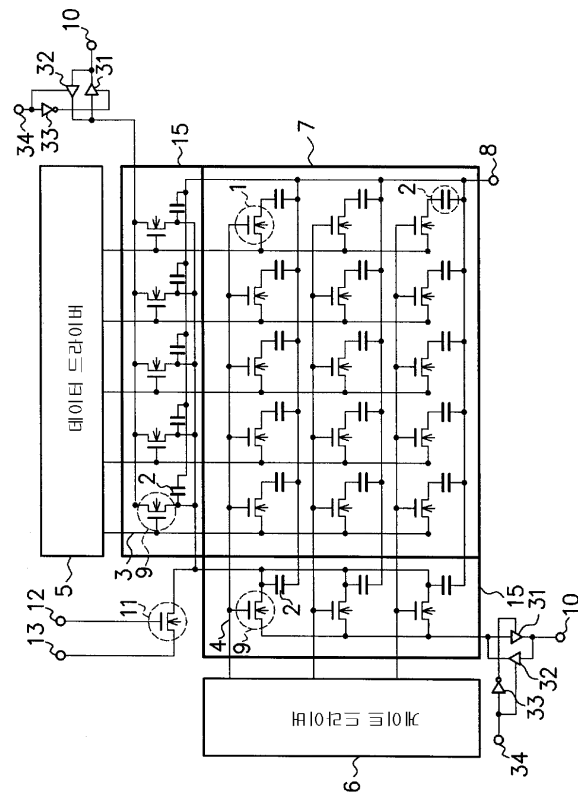
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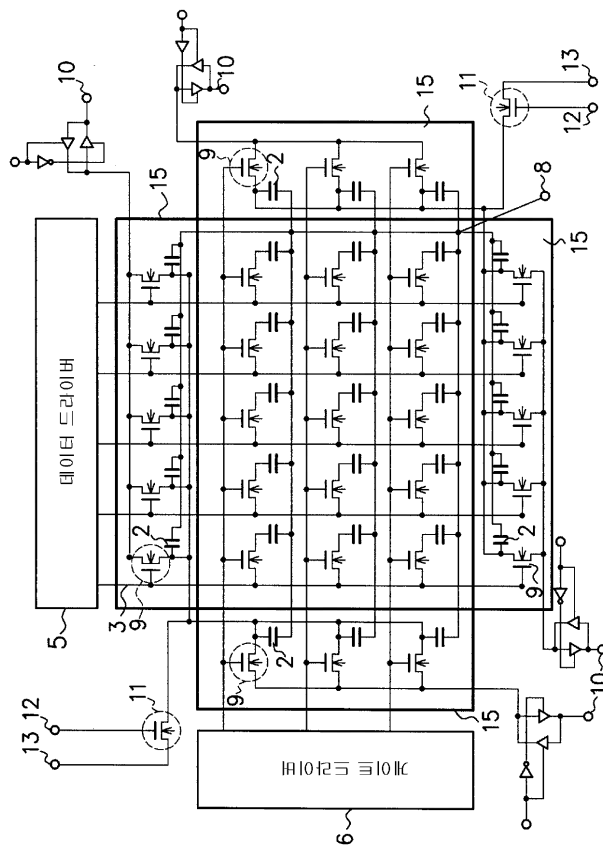
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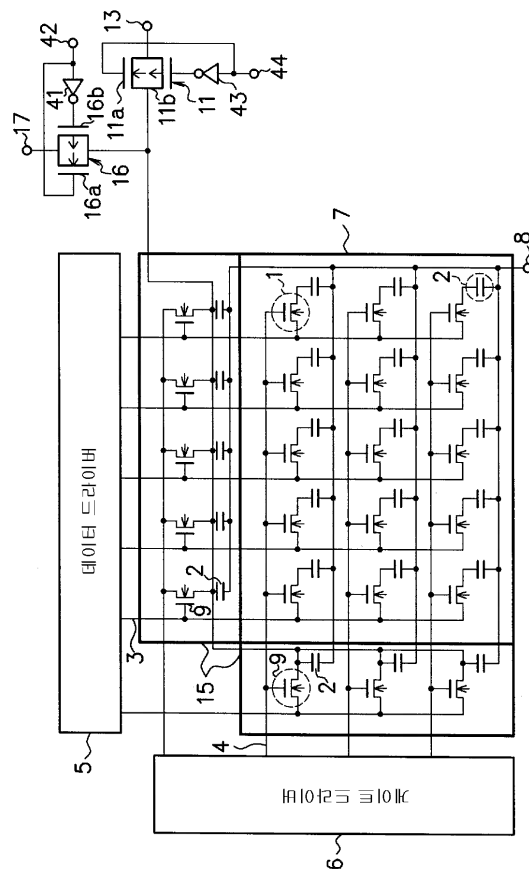
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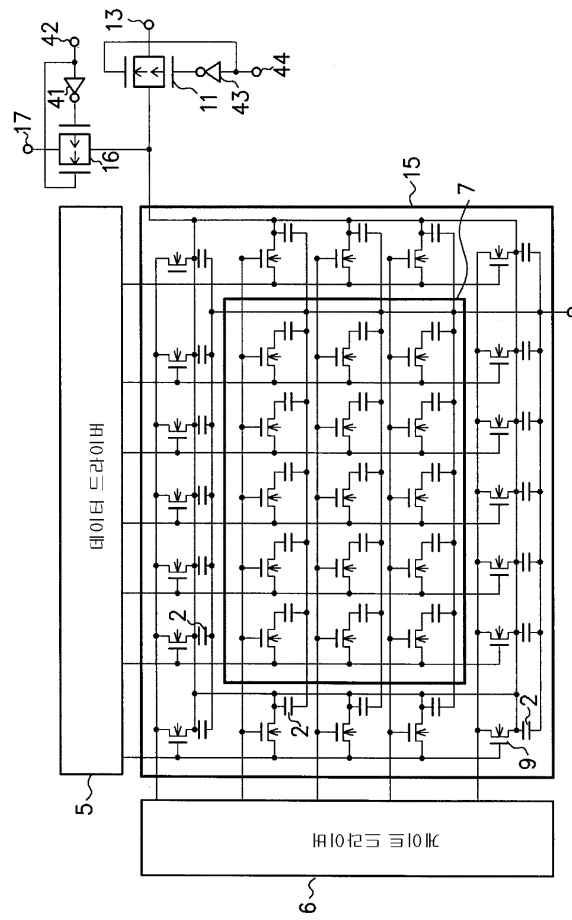
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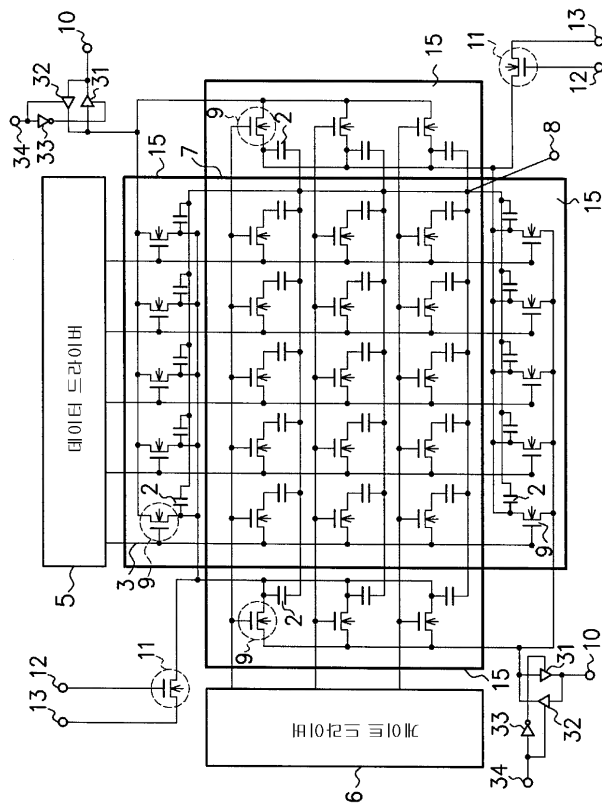
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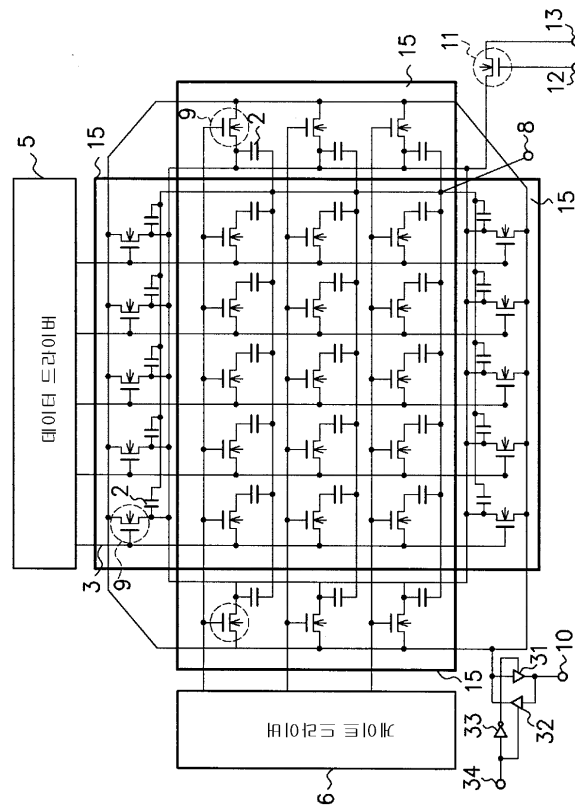
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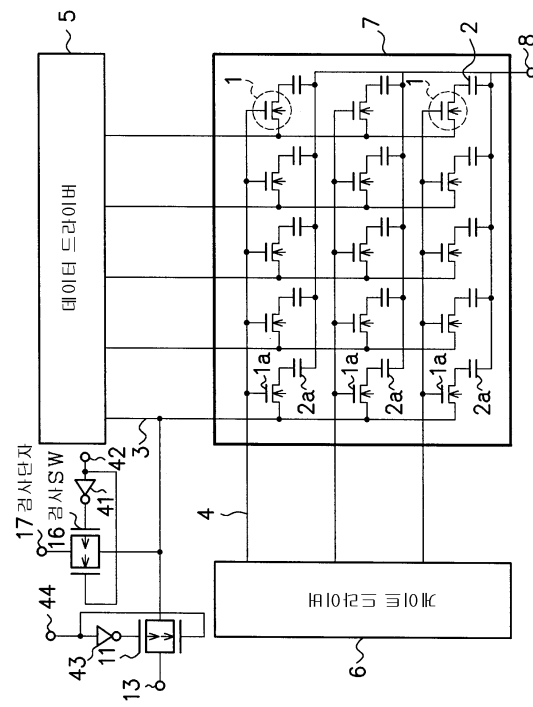
19



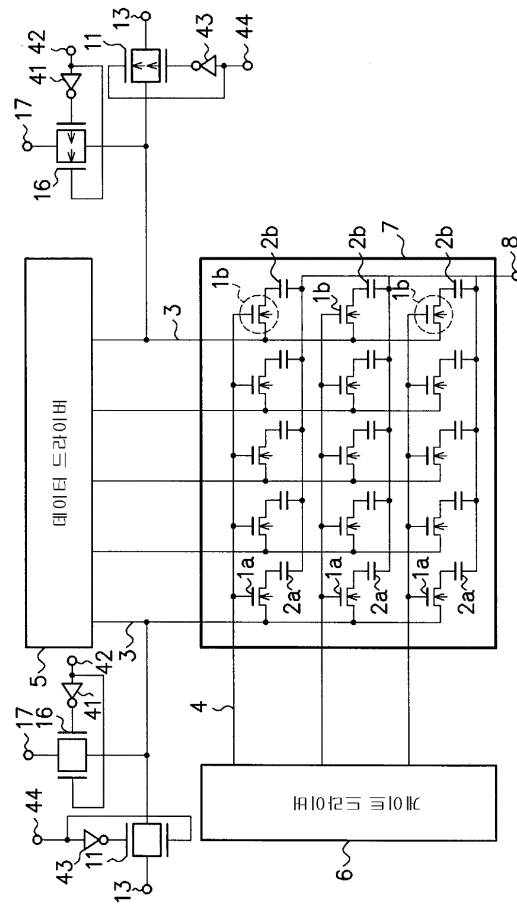
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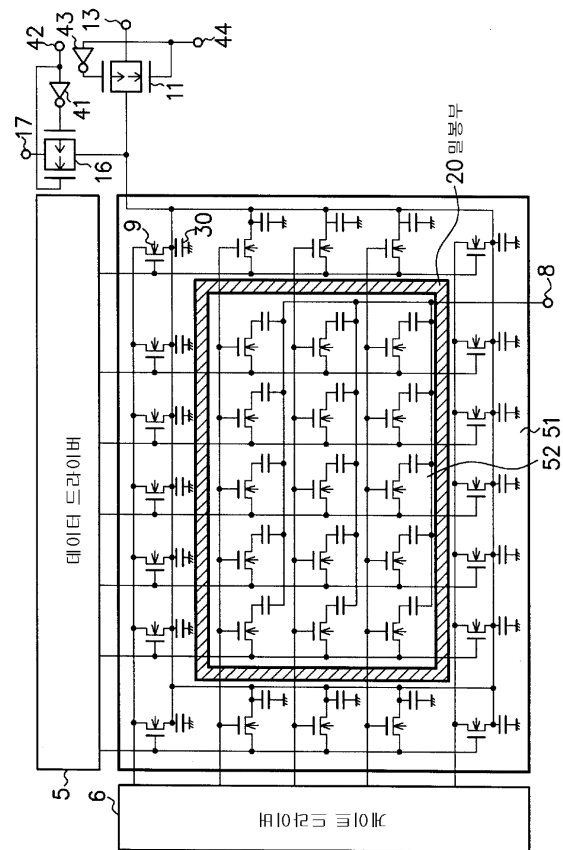


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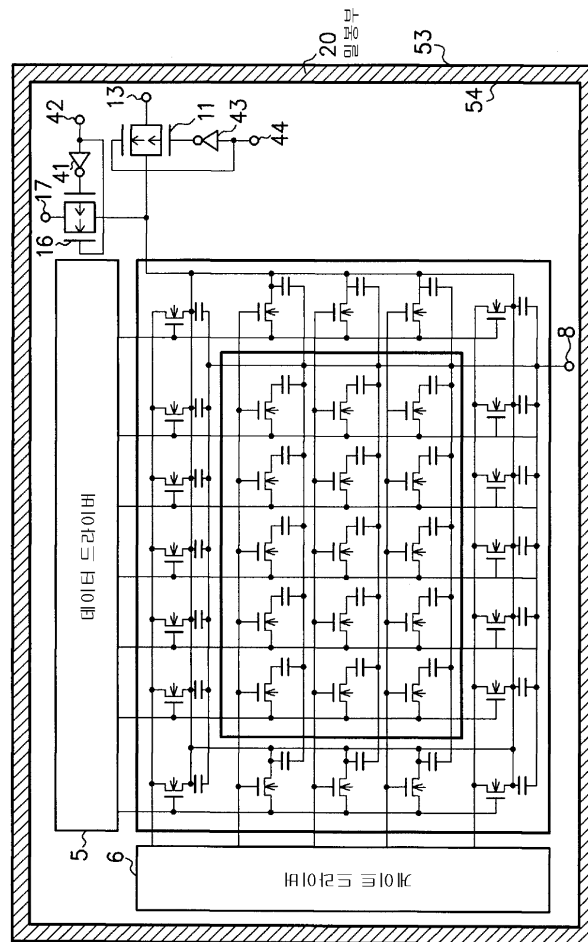


22

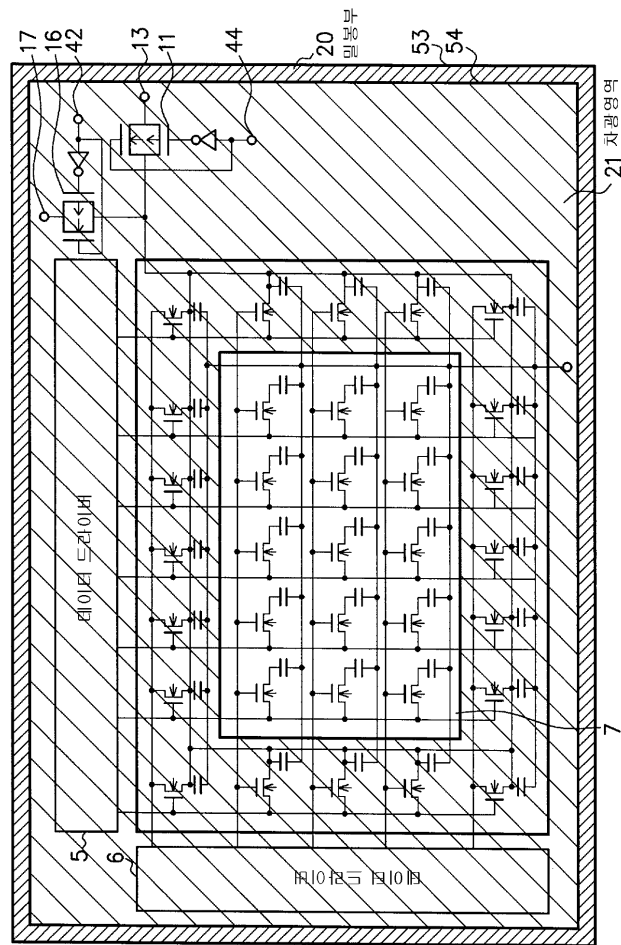




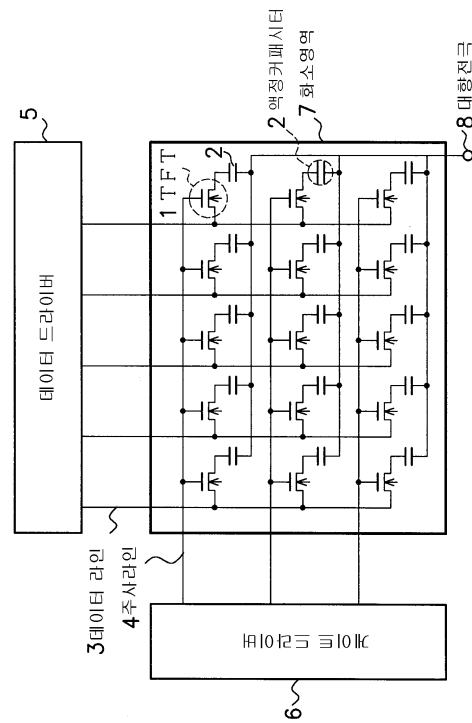
24



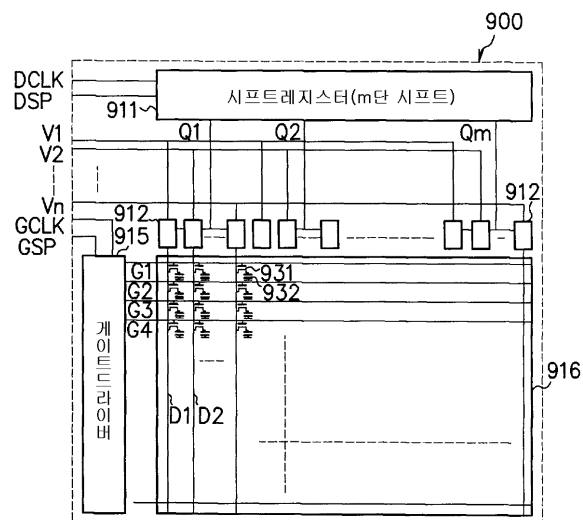
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|                |                                                                                                          |         |            |
|----------------|----------------------------------------------------------------------------------------------------------|---------|------------|
| 专利名称(译)        | 液晶显示器                                                                                                    |         |            |
| 公开(公告)号        | <a href="#">KR1020020077033A</a>                                                                         | 公开(公告)日 | 2002-10-11 |
| 申请号            | KR1020020000694                                                                                          | 申请日     | 2002-01-07 |
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| IPC分类号         | G09G3/36 G02F1/1368 G01R31/02 G09F9/30 G09F9/00 G02F1/1345 G02F1/13                                      |         |            |
| CPC分类号         | G09G2300/0408 G09G3/3688                                                                                 |         |            |
| 代理人(译)         | MOON, KI 桑                                                                                               |         |            |
| 优先权            | 2001101176 2001-03-30 JP                                                                                 |         |            |
| 其他公开文献         | KR100772617B1                                                                                            |         |            |
| 外部链接           | <a href="#">Espacenet</a>                                                                                |         |            |

# 摘要(译)

简单并提供一种能够在短时间内执行测试的液晶显示装置，但本发明的液晶显示装置是连接在一个矩阵中的二维数据线布线和扫描线和数据线和扫描线之间的开关装置第一检查电路101，包括检查电压输入和/或输出端子，用于通过第一模拟开关将检查电压输入和/或输出到数据线的一端;第二检查电路102包括检查电压输入和/或输出端子，用于将检查电压输入和/或输出到数据线的另一端。显示电路，第一检查电路和第二检查电路设置在单个基板上，并且第一检查电路可与显示电路分离。

- 1 指数方面 电容器，液晶，像素电极，扫描线，断开，短路

