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(71) 가 가
가 가 가 가 4 1 - 1(72) 가
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, / 1 1 (101) , 2 (102) . 가
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8	3		2	,
9	3		2	,
10		4		,
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1 TFT

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41, 43

42, 44

51, 52, 53, 54

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

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

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

$$\begin{array}{l} \text{(D1 D3)} \\ \cdot \\ \cdot \\ \text{3a) } \end{array} \quad \begin{array}{l} \text{(112)} \\ \cdot \\ \cdot \\ \text{(D1 D3)} \end{array} \quad \begin{array}{l} \text{가} \\ \text{(BSEL1 BSElm)} \\ \text{(BSEL1 BSElm)} \\ \cdot \end{array} \quad \begin{array}{l} \text{(D1a D3a)} \\ \text{(112)} \\ \text{(Dla D} \end{array}$$

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)
 (9) (9) , 1 (30)
 (9) (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) 가 / (12) (13)
 (11) 가 (9)

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

16 10 (15) 가 (n MOS (11) 8 (14)
 , 9 (15) 가 (n MOS (11) , (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 (44) , 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)

.

, (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)

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) (8) (51) (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) (2)
 (9) (9)
 (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)
 가 가

((bezel))

1 19 , 가

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 가

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1 2 1 , 1
 가

(2) 1 2 가 1

(3) 1 가 2 , 2
가 1 , 가
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2 3 , 3 가
가 / 1

(4) , ,
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(5) 1 가 2 , 2
1 , 1
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(6) 2 1 2 , 3
1 2 ,

1 1 2 , 2
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
2 2 , 1
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(11) , , ,
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(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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(15) 4 ,

(a) ,

(b) ,

(c) ,

(d) .

(16) 1 ,

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가 , 가 2 가 .

(17) ,

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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 16
- (23) 2 , 16
- (24) 2 , 16
- (25) 20
- (26) 20
- (27) 2 19

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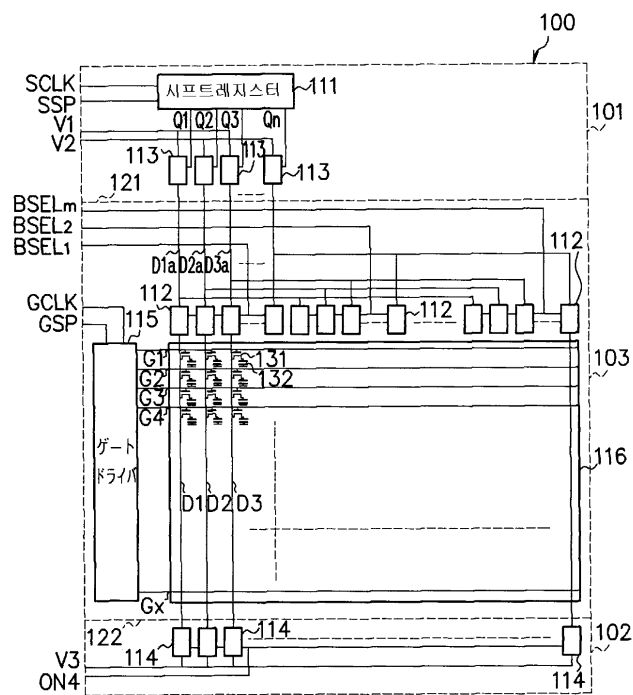
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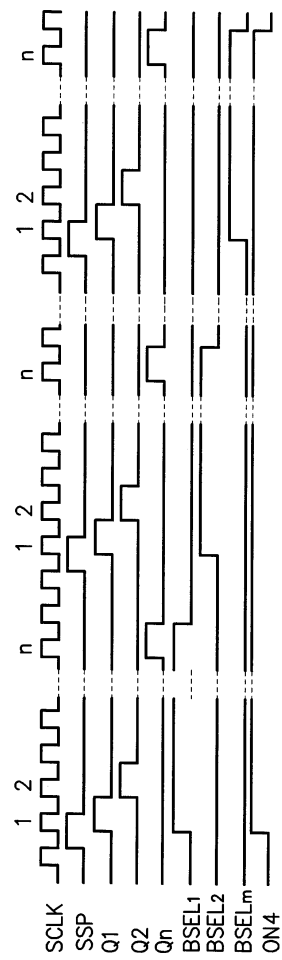
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2 3

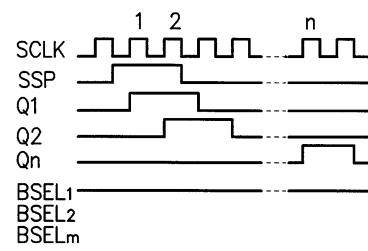
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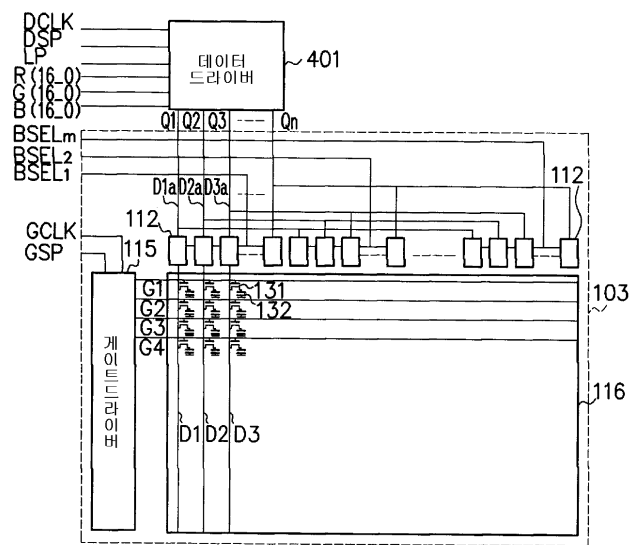
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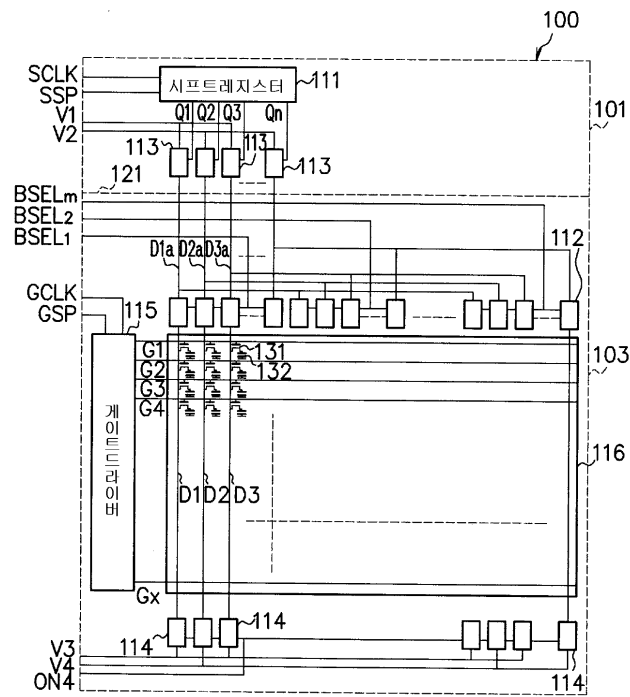
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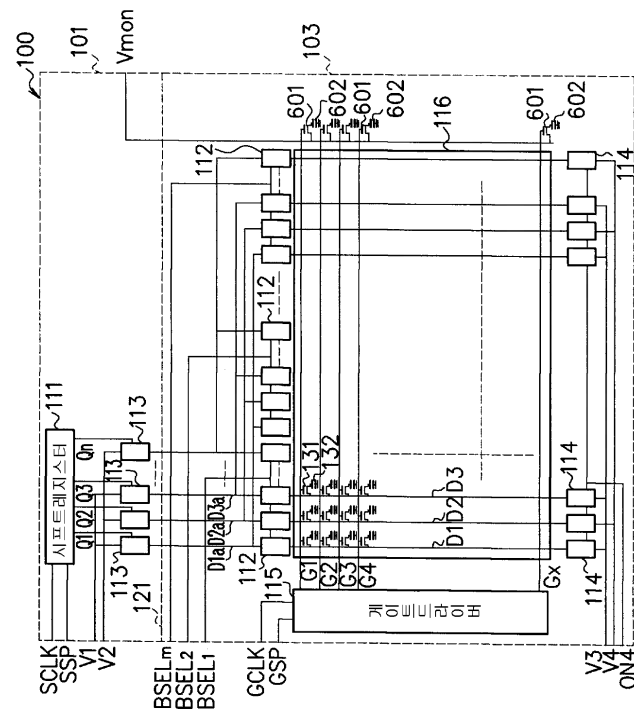
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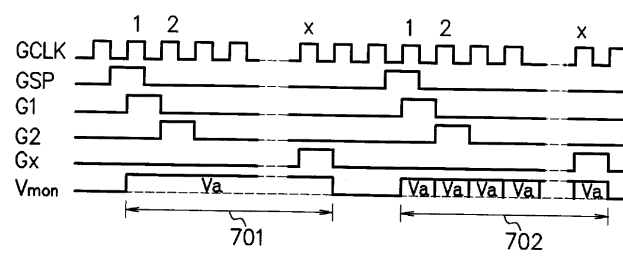
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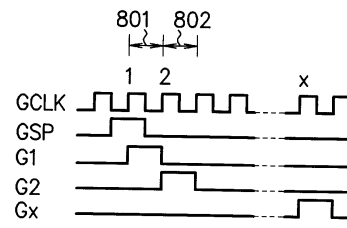
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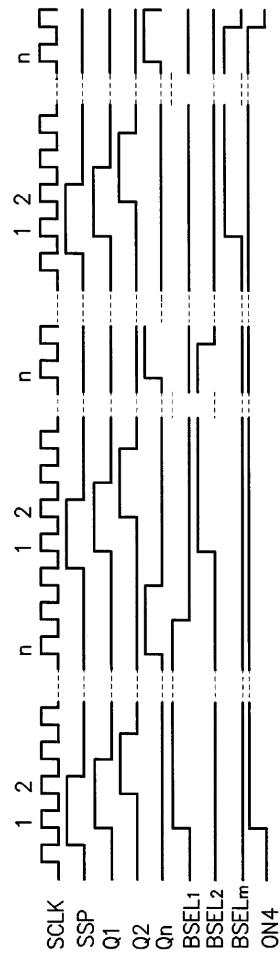
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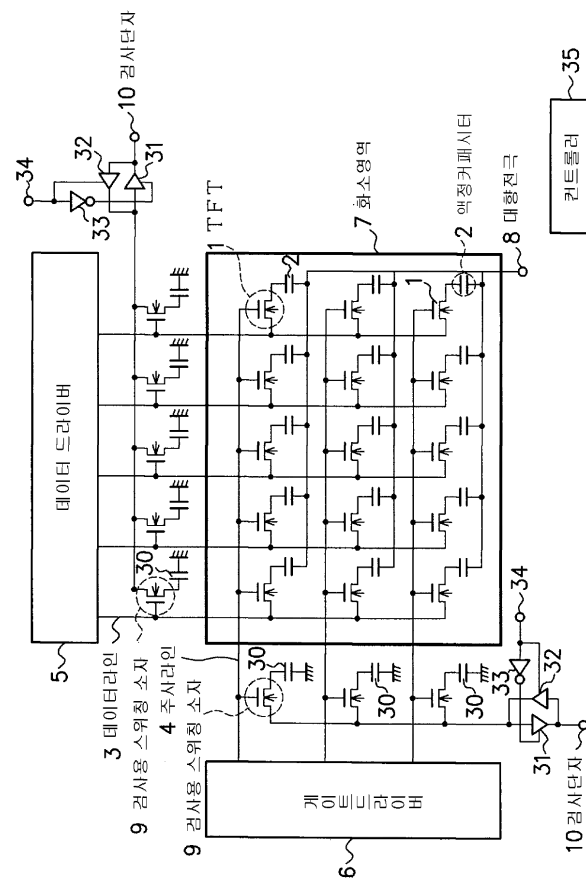
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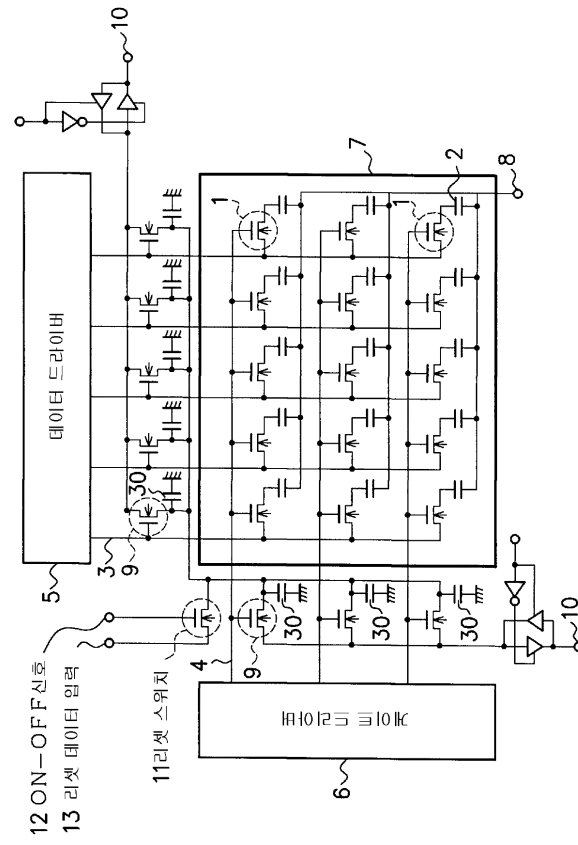
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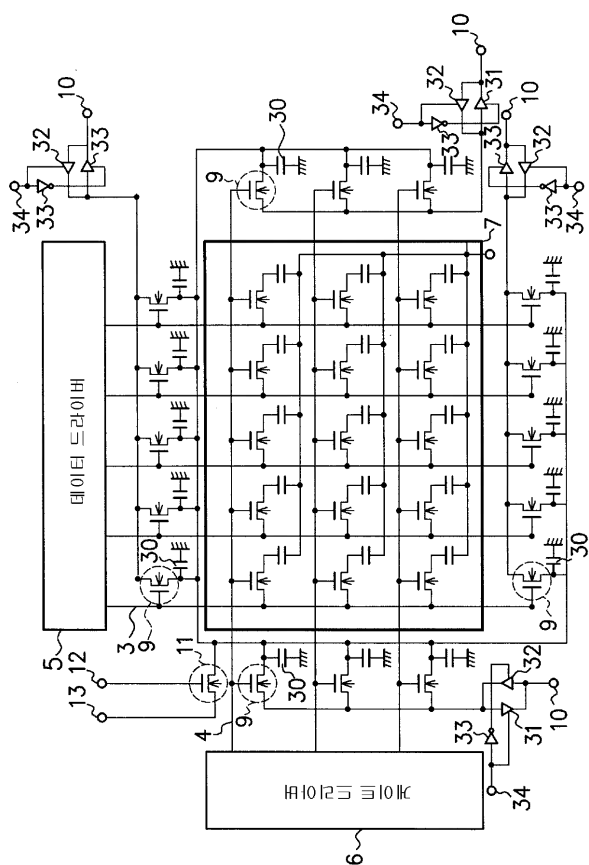
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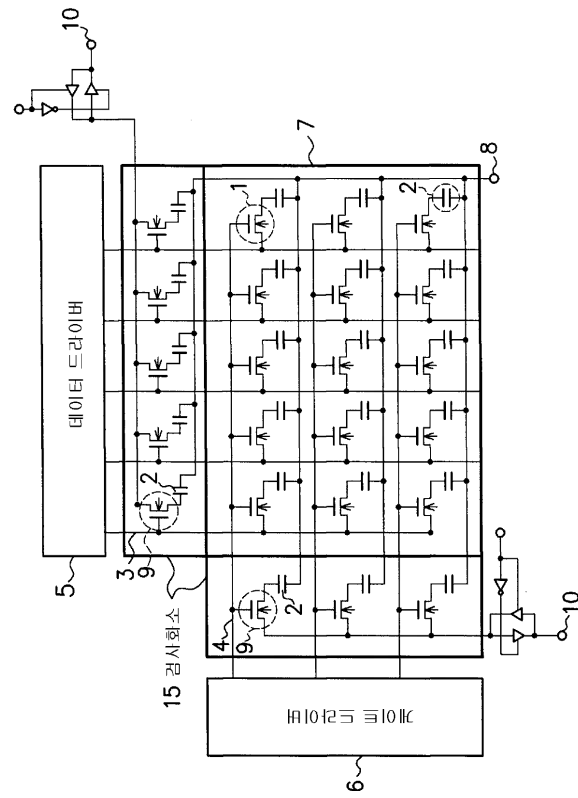
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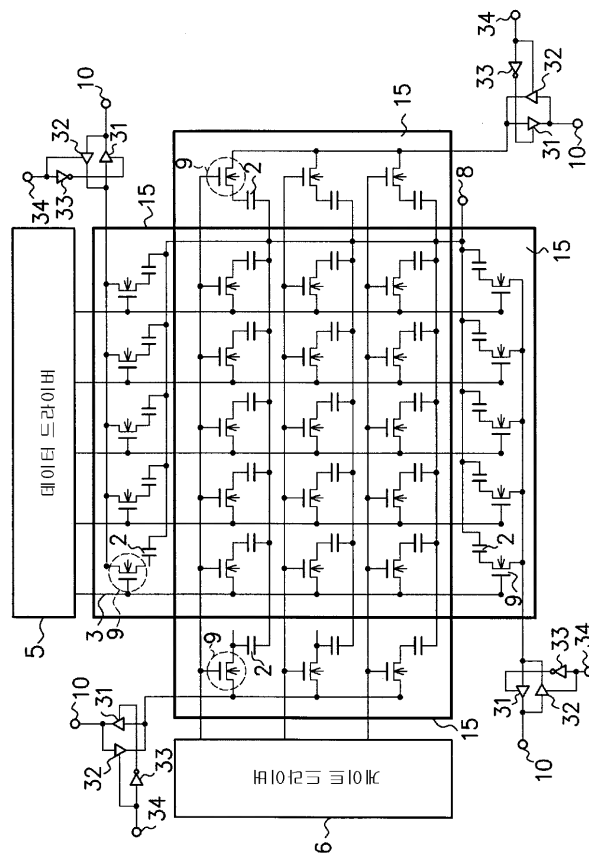
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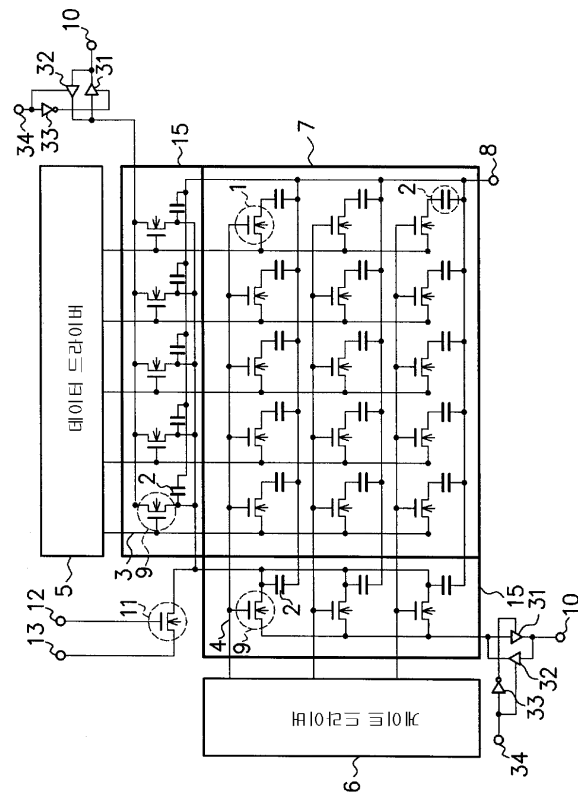
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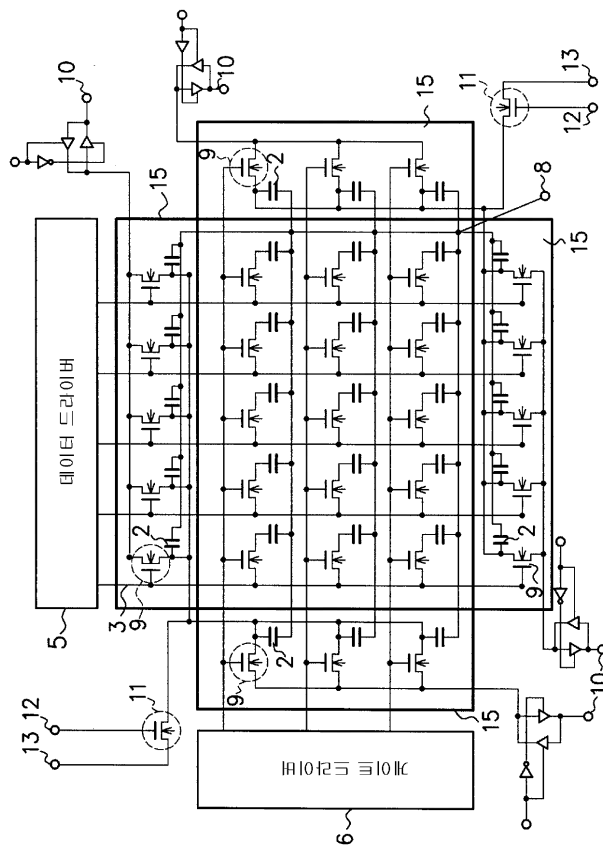
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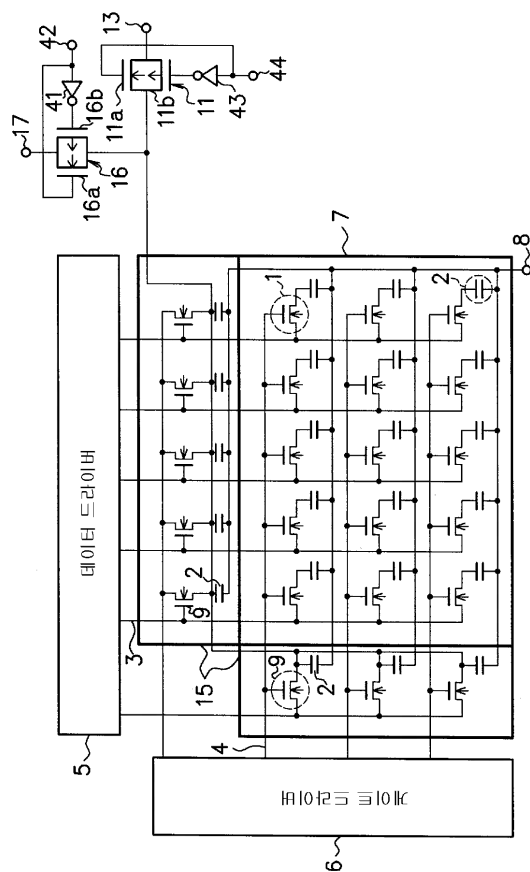
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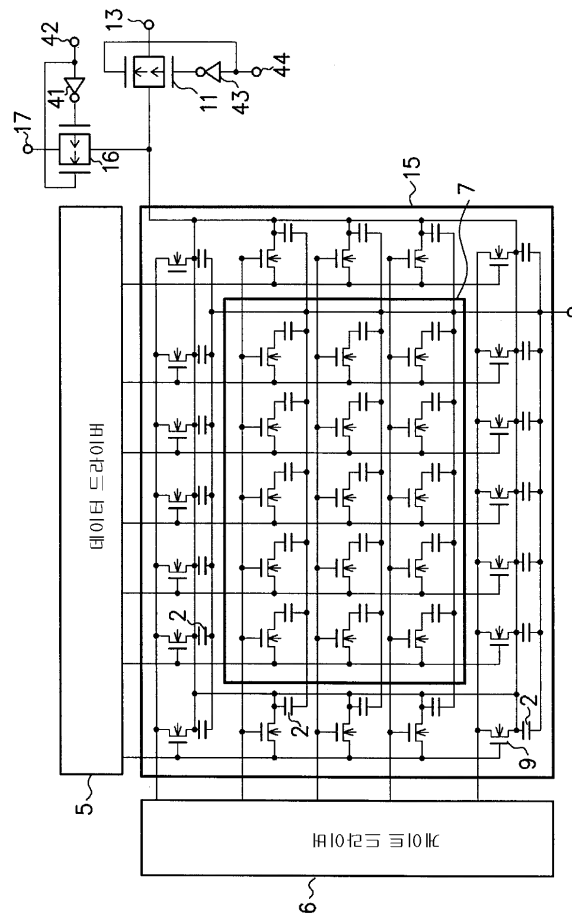
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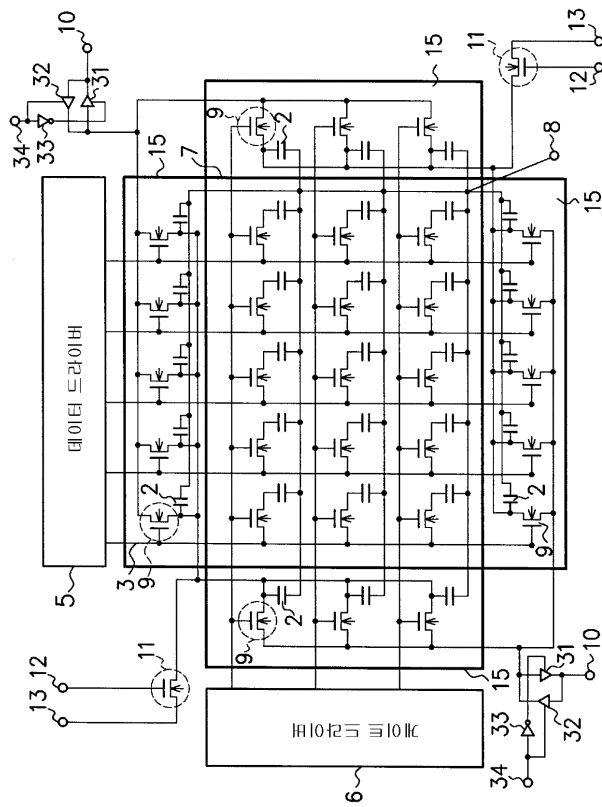
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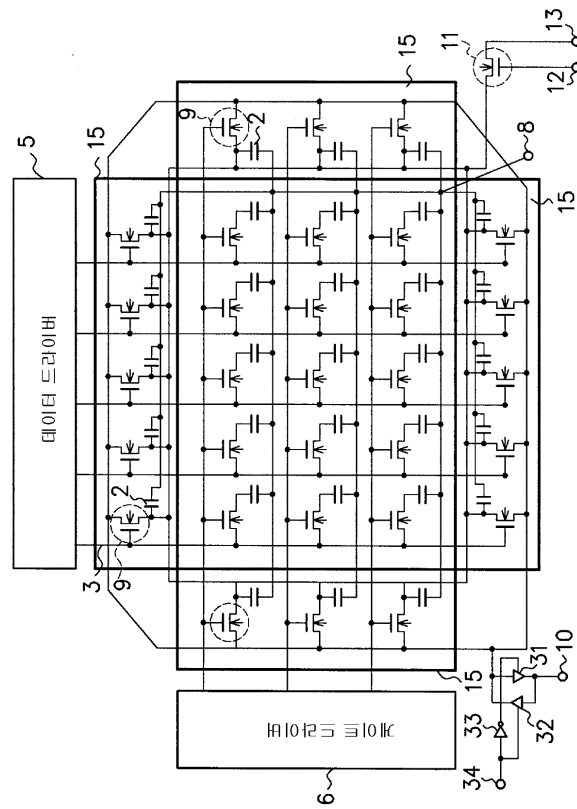
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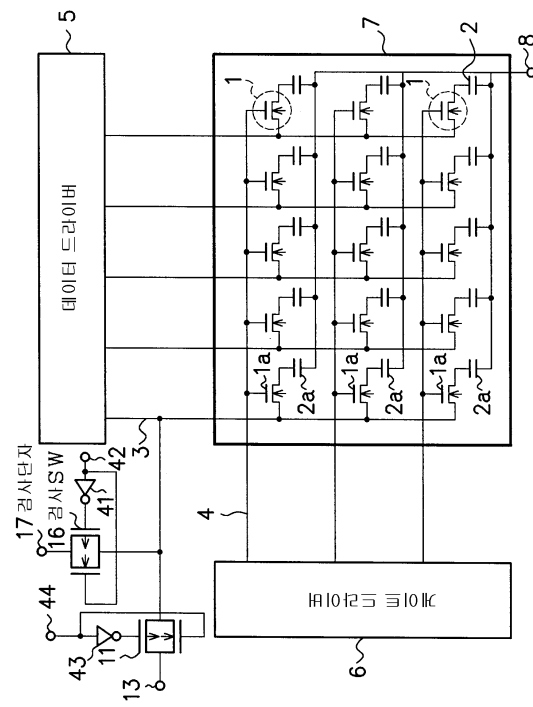
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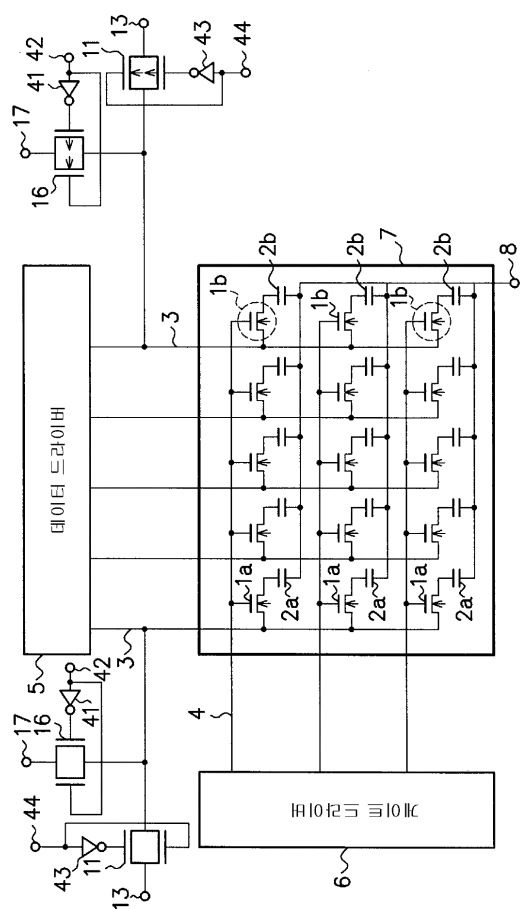


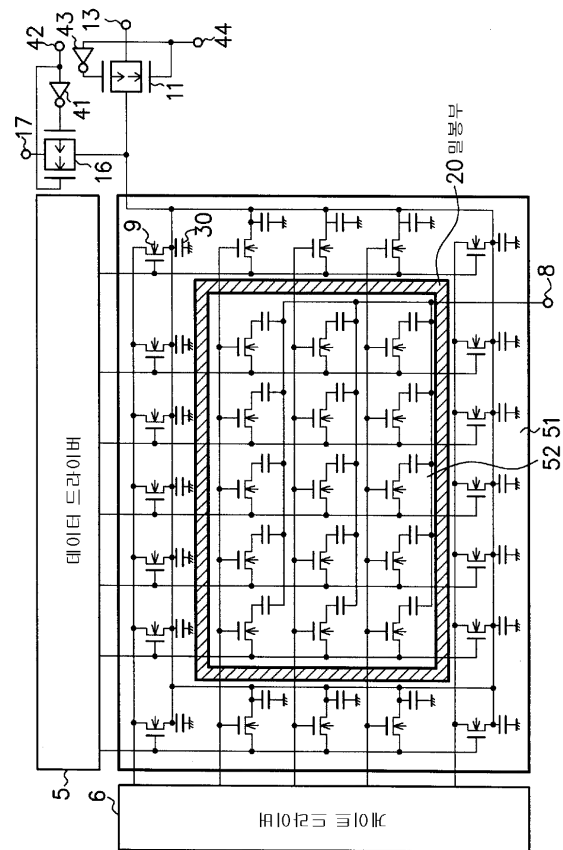
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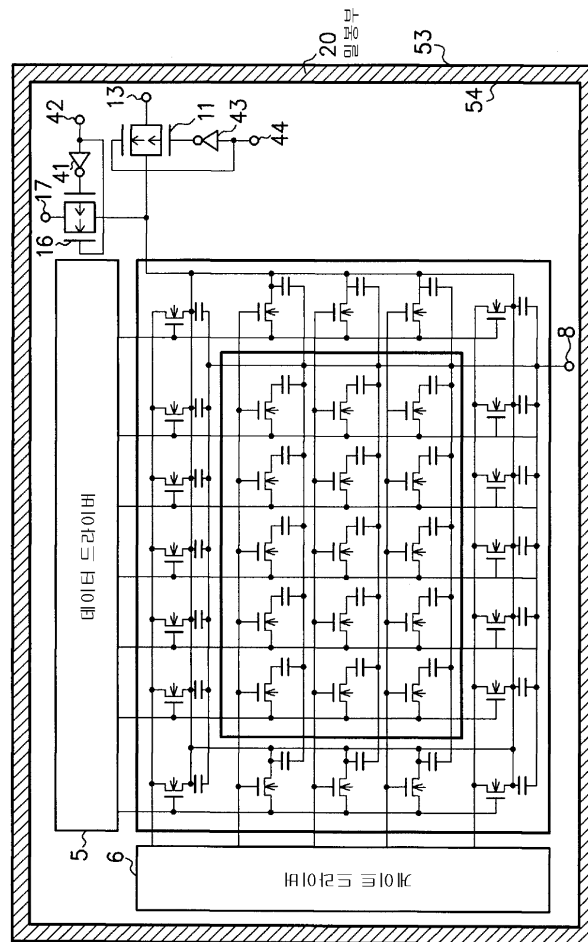
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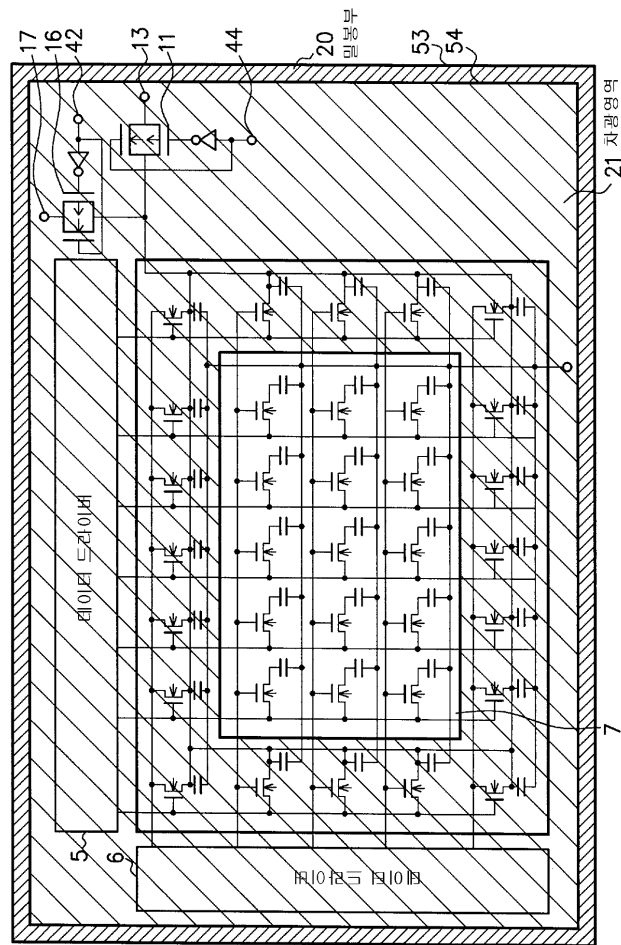




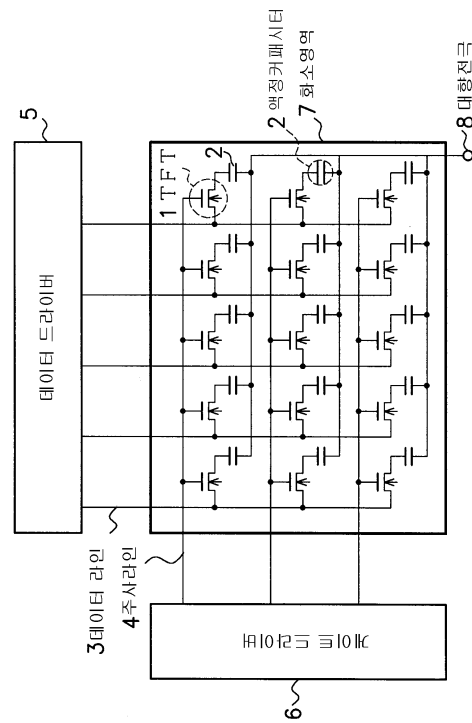
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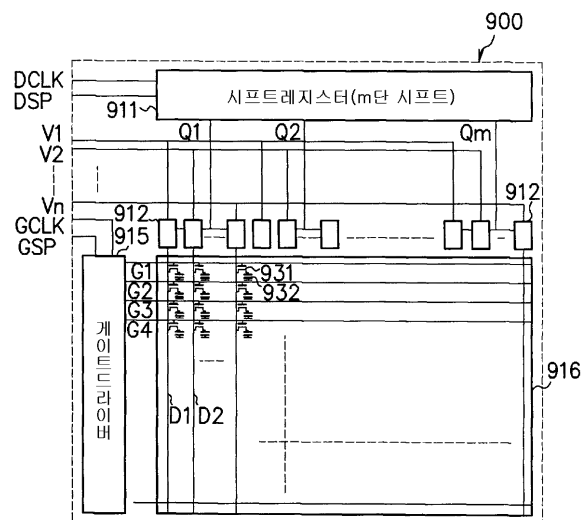
25



26



27



专利名称(译)	液晶显示器		
公开(公告)号	KR1020020077033A	公开(公告)日	2002-10-11
申请号	KR1020020000694	申请日	2002-01-07
[标]申请(专利权)人(译)	夏普株式会社		
申请(专利权)人(译)	夏普株式会社		
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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

