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(12) (A)

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(71) 가 가 가
1 6 2

(72) ,
2-11-5-502

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(74)

:

(54)

$(X_1 \quad X_m),$ $(Y_1 \quad Y_n),$
(5),
(3),
 $(E_{1,1} \quad E_{m,n})$

1

EL, , , , , , .

* *
 1: EL , 2: EL ,
 3: , 4: ,
 5: , 6: ,
 7: , 8: ,
 11: , 21: 1 ,
 22: 2 , 23: 3 ,
 24: , 25: ,
 31: 4 , 32: 5 ,
 41: , 42: ,
 43: , 45: ,
 51: , 52: EL ,
 53: , 54: ,
 - $X_1 \quad X_m$: , - $Y_1 \quad Y_n$: ,
 - I_{DATA} : , - T_{SE} : ,
 - T_{NSE} : , - $D_{1,1} \quad D_{m,n}$: .
 - $E_{1,1} \quad E_{m,n}$: , - $Z_1 \quad Z_m$:

[1]

1 EL (11) (2), EL (3), (5), EL (1) (6), (7) ,
 EL (3), (2) (5), (4) (8) (3), (5) (6) (7) (4) .
 (4) , (m × n) ($P_{1,1} \quad P_{m,n}$; , m, n) (8)
 j n) . , n ($P_{j,1} \quad P_{m,j}$; , j
 m) . , i ($P_{i,1} \quad P_{i,n}$; , i
) ($P_{i,j}$) . j (, j

(4) , m $(X_1 \dots X_m)$ $(Z_1 \dots Z_m)$ (8)
 $(X_1 \dots X_m)$ $(X_k \dots X_{k+1})$ $(Y_1 \dots Y_n)$ $(Z_1 \dots Z_m)$ (8)
 $(X_1 \dots X_m)$ (Y_j) (X_i) (Z_i) $(Y_1 \dots Y_n)$
 $(P_{i,1} \dots P_{i,n})$ $(P_{i,j} \dots P_{m,j})$ $(Z_1 \dots Z_m)$
 $(X_1 \dots X_m)$ (X_i) (Z_i) (Y_j) $(Z_1 \dots Z_m)$
 (6) (5) $(Z_1 \dots Z_m)$ $(Z_1 \dots Z_m)$
 $Z_m)$ $(P_{i,j})$ 2 6 (41) (45) $(P_{i,j})$ 2 3 2 $-$
 4 2 5 2 $-$
 6 4 $(P_{i,j}, P_{i+1,j}, P_{i,j+1}, P_{i+1,j+1})$ 가
 $(P_{i,j})$ $(nt. = cd/m^2)$ $(E_{i,j})$ $(E_{i,j})$
 (3) $(E_{i,j})$ (5) $(D_{i,j})$ (6) (7) $(D_{i,j})$ $(E_{i,j})$
 $(E_{i,j})$ EL $(E_{i,j})$ (51) (51) EL (52) (53)
 EL (52) $가$ (51) (8) EL (52)
 EL (52) EL (52) (53)
 (51) $(Y_1 \dots Y_n)$ $(X_1 \dots X_m)$ $(P_{i,j})$ (54)
 $(D_{i,j})$ $(21, 22, 23)$ (51)
 (54) (55) (54)
 1 2
 (51) 가 (51) 가 EL
 (52) (indium tin oxide; ITO), (indium zinc oxide; IZO), (indium oxide; In_2O_3),
(tin oxide; SNO_2) (zinc oxide; ZnO)
 EL (52) (51) EL (52) $(P_{i,j})$
 EL (52) $()$ (polymeric material)
 $(52B)$ (51) EL (52) 3 2 가 $(52A)$ $(52B)$
 EL (52) 3 가 EL (52) $(52B)$ (51)
 $가$ EL (52) $가$ EL (52) $가$
 EL (2) 가 가 $(P_{i,1} \dots P_{i,n})$
 EL (52) $(P_{i,1} \dots P_{i,n})$

EL (52)

EL (52)

EL (52)

(53)

(P_{1,1} P_{m,n})

(53)

(53)

(P_{1,h-1} P_{m,h-1}; , h , 2 h n)
 (P_{1,h} P_{m,h})

(53)

(53)

(P_{g-1,1} P_{g-1,n}; , g , 2 g m)
 (P_{g,1} P_{g,n})

,

(53)

(53)

(X_i),(Y_j)(Z_i)

(53)

(53)

(53)

가

EL (52)

(51)

EL

(2)

EL (52)

(51)

(8)

(53)

EL (52)

(53)

EL (52)

3)

가

(E_{i,j})
(53)

(51)

(5)

EL (52)

EL (52)

(51)

EL (52)

EL (52)

(E_{i,j}) (: nt. = cd/m²)(E_{i,j})(E_{i,j})(I_{DATA})가(D_{i,j})

(3)

(E_{i,j})(D_{i,j})(E_{i,j})(D_{i,j})

(21, 22, 23)

(24)

N- MOS

(TFT)

MOS

(21)

(21g),

(42),

(43),

(21s)

(21d)

(2

2s)

(22d)

MOS

(22)

(22g),

(42),

(43),

(2

(42),

(43),

(23s)

(23d)

MOS

(23)

(23g),

42),

3

(43),

1

(21)

(21g),

(41),

(

(45),

(44),

(21s)

(21d)

(

(21g)

(8)

(41)

(21g)

(anodizing)

(42)

(45)

(41)

(42)

(43)

(42)

(44) n⁺-Si

(43)

(21s)

(21d)

(44)

2

3

(22, 23)

1

(21)

22, 23)

(21, 22, 23)

(43)

(21,

(21, 22, 23)

(21, 22, 23)

, (41), (42), (43), (44),

(21, 22, 23) (43) (21, 22, 23)
(43) 가

(24) (24A), (24B) (24A) 3 (23) (23g)
(24B) (23) (23s) (24A, 24B)
(42) (24) (23) (23s) (23d)

6 , i (D_{i,1} D_{i,n}) 2 (22) , (22
g) i (X_i) (22d) i 5
, i (D_{i,1} D_{i,n}) 3 (23) (23d)
(26) i (Z_i) i (D_{i,1} D_{i,n})
1 (21) (21g) i (X_i) j (D
1,j D_{m,j}) (21) (21s) j (Y_i) (D

(P_{1,1} P_{m,n}) , 2 (22) (22s) , 4 (22s)
42) (25) 3 (23) (23g) (22s)
(24) (23) (23s) (24)
(21) (21d) (23) (23s), (24)
(21) (21d) (E_{i,j}) (51) (E_{i,j})
(53) (V_{SS}) (V_{SS}) 0[V]
(E_{1,1} E_{m,n}) (53)

(21, 22, 23) (43) (43A) (42)
, (X_i) (Y_j) , (Z_i) (Y_j)

(11) (CK1), (ST1) (L)가 (D_{CNT})
(CK_{DT}), (H_{SYNC}) (V_{SYNC})
(3) , (11) (CK2) (ST2)가
(G_{CNT}) (11) (V_{RST}) (7) (CK3) (6)
(11) () (7)

(CK1) (column) (CK_{DT})
, 8- (S_R), (S_G)
(ST1) (S_B) (CK1) (L)
(H_{SYNC}) (Y₁ Y_n) 1 (I_{DATA})
(3) D/A 가 (S_R),

(P_{i,1} P_{i,n})
(S_G)

(S_B) D/A

(CK2) (H_{SYNC}) 1
(ST2) (V_{SYNC})

(CK3) (Z₁ Z_m)

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

(5) m - (5) (5)
(X₁ X_m) (11) (X₁ X_m) (C
K2) (X₁) (5) ON () (X₁ X_m) (X₁ X_m)

(V_{OFF}) (5) $(X_1 \dots X_m)$ OFF (8)
 (V_{SS}) ON (V_{ON}) (5) (X_i) OFF
 (V_{SS}) 가 , (X_i) .
 (X_i) (T_{SE}) (5) ON () O
 (V_{ON}) (X_i) 가 , (X_i) (21, 22)(
 $(D_{i,1} \dots D_{i,n})$ (21, 22) . 1 (21)가 (Y_j)
 $(D_{i,j})$, (T_{NSE}) i (X_i)
 (T_{SE}) (i+1) (X_{i+1}) (T_{SE}) .
 (5) 가 OFF (V_{OFF}) $(X_1 \dots X_m)$ 가 , $(X$
 $1 \dots X_m)$ (21, 22) . (21)가 , (Y_j)
 (I_{DATA}) (X_i) (T_{SE}) (T_{SC}) .
 $(X_1 \dots X_m)$ (T_{SE}) .
(6) $(Z_1 \dots Z_m)$
(6) (CK3) $(Z_1 \dots Z_m)$
가 , (5)가 ON (V_{ON}) $(X_1 \dots X_m)$ $(Z_1 \dots Z_m)$
 (T_{SE}) , (6) (X_i) (T_N)
 (V_{LOW}) (i+1) (X_{i+1}) (T_{SE}) (V_{HIGH}) .
 (T_{SE}) , (6) 가 - (V_{LOW}) , (5) ON (V_{ON})
 (V_{OFF}) $(X_1 \dots X_m)$ (X_i) $(X_1 \dots X_m)$ (5) OF
(6) 가 - (V_{HIGH}) (V_{LOW}) ,
(5) $(X_1 \dots X_m)$ (V_{LOW}) ,
(6) 가 (V_{HIGH}) ,
(5) $(X_1 \dots X_m)$ ON (V_{ON}) .
(6) (V_{LOW}) ()
 (V_{SS}) , - (V_{LOW}) (V_{SS}) , (P
 $P_{i,1} \dots P_{i,n}$ 3 (23) i (T_{SE}) ON , -
 (V_{LOW}) (V_{SS}) 가 , $(E_{i,1} \dots E_{i,n})$ 0[V]
(6) (V_{HIGH}) ()
 (V_{SS}) , 가 - (V_{HIGH}) ,
(5) $(X_1 \dots X_m)$ OFF (V_{OFF}) 가 . $(P_{1,1} \dots P_{m,n})$
(21, 22) $(E_{1,1} \dots E_{m,n})$ (23)
 $(E_{i,1} \dots E_{i,n})$ 가 가 .
- (V_{HIGH}) 7 N- (23)
. 7 , 가
 V_{TH}); (V_{TH}) - (V_{GS}) , $(V_{DS}) <$ ()
 (V_{DS}) , - (V_{GS})
 (I_{DS}) - (V_{DS}) 가 가 7 ()
 (V_{DS}) , - (V_{TH}) , (V_{GS})
 (I_{DS}) - (V_{DS}) 가 .
7 , - $(V_{GS0} \dots V_{GS4})$ $V_{GS0} = 0[V] < V_{GS1} < V_{GS2} < V_{GS3} < V_{GS4}$
 $< V_{GS4}$, - (V_{DS}) ,
가 , 가, (I_{DS}) - (V_{GS}) 가 , (V_{TH}) 가 .
, , - (V_{DS}) , - (I_{DS})
 (V_{GS}) , - (I_{DS}) .
 (V_{DS}) .

$$- \frac{(V_{GS\text{MAX}})}{(E_{i,j})}^3 \quad (23) \quad \text{가} \quad , \quad - \quad (I_{DS})$$

$$\text{가} \quad , \quad 3 \quad (23) \quad - \quad (V_{GS}) \quad (V_{GS\text{MAX}})^3 \quad (23)$$

$$V_{\text{HIGH}} - V_E - V_{SS} \quad V_{\text{THMAX}}$$

$$\begin{aligned} & , V_E \\ & \cdot \frac{(V_{\text{THMAX}})}{(V_{\text{HIGH}})}^3 \quad (23) \quad , \quad (E_{i,j}) \\ & \cdot \frac{(V_{GS\text{MAX}})}{(V_{\text{HIGH}})}^3 \quad (23) \quad - \quad (V_{DS}) \\ & \cdot \frac{(V_{GS\text{MAX}})}{(V_{GS})}^3 \quad (23) \quad - \quad (I_{DS}) \end{aligned}$$

$$\begin{aligned} & (3) \quad (CT_1 \quad CT_n) \quad (L) \quad (S_R), \quad (Y_1 \quad Y_n) \quad (3) \quad (D_{CNT}) \quad (S_G) \quad (3) \quad 8- \\ & (S_B) \quad (3) \quad (L) \quad (I_{DATA}) \quad (CT_1 \quad CT_n) \\ & (Y_1 \quad Y_n) \quad (I_{DATA}) \quad (E_{1,1} \quad E_{m,n}) \quad (CT_1 \quad CT_n) \\ & (E_{1,1} \quad E_{m,n}) \quad (Y_1 \quad Y_n) \quad (CT_1 \quad CT_n) \\ & (7) \quad (S_1 \quad S_n) \quad (CT_1 \quad CT_n) \quad (S_1 \quad S_n) \quad (Y_1 \quad S_n) \\ & (S_1 \quad S_n) \quad (11) \quad (V_{RST}) \end{aligned}$$

$$\begin{aligned} & (S_j)(S_j)^j \quad (Y_j) \quad (23) \quad (23d)/ \quad (23s) \quad (Y_j) \\ & : \quad (I_{DATA}) \quad (CT_j) \quad ; \quad (11) \quad (S_j) \quad (V_{RST}) \quad (S_j) \\ & (11) \quad (Y_j) \quad (S_j) \quad (CT_j) \quad (11) \quad (S_j) \\ & () \quad (Y_j) \quad (V_{RST}) \quad (S_j) \quad (CT_j) \quad (Y_j) \\ & () \quad (S_j) \quad (23) \quad (23d)/ \quad (23s) \quad (Y_j) \\ & (T_{DATA}) \quad (11) \quad (V_{RST}) \end{aligned}$$

$$\begin{aligned} & (P_{i,j}) \quad 9A \quad (7) \quad EL \quad (1) \quad , j \quad (Y_j) \quad i \\ & (3d)/ \quad (23s) \quad (Y_j) \quad (T_{DATA}) \quad (T_{SE}) \quad 3 \quad (CT_j) \quad (23) \quad (2 \\ & (Y_{hsb}) \quad (6) \quad (V_{LOW}) \quad (V_{LOW}) \quad (CT_j) \quad (6) \quad (V_{SS}) \quad (Y_j) \\ & \text{가} \quad (23) \quad (23d)/ \quad (23s) \quad (Y_j) \quad (Y_j) \quad (P_{i+1,j}) \quad \text{가} \quad (Y_j) \\ &) \quad \text{가} \quad \text{가} \quad , (i+1) \quad (CT_j) \quad 0 \quad \text{가} \quad (V_{LOW}) \quad (I_{DATA}) \quad (Y_j) \\ & (I_{DATA}) \quad (Y_j) \quad \text{가} \quad (6) \quad (V_{LOW}) \quad (I_{DATA}) \quad (Y_j) \\ & (I_{DATA}) \quad \text{가} \quad (V_{lsb}) \quad , \quad (I_{DATA}) \quad (Y_j) \\ & \text{가} \quad , i \quad (Y_j) \quad (V_{hsb}) \quad (V_{lsb}) \quad (V_{DF}) \\ & , \quad (Y_j) \quad \text{가} \quad (T_{SE}) \quad , \quad (P_{i+1,j}) \\ & \text{가} \quad (V_{lsb}) \quad , \quad (P_{i+1,j}) \end{aligned}$$

(S_j) EL (1) (7) 9B
 (T_{NSE}) , (23) (23d)/ (23s) (Y_j) (i+
1) (I_{DATA}) 가 (Y_j) (T_{SE}) ,
 (V_{hsb}) (V_{hsb}) (Y_j)
 (Y_j) , (i+1) (I_{DATA}) 가
 (V_{lsb})
 (V_{RST}) (V_{hsb}) (V_{hsb})
 (I_{MAX}) (I_{DATA}) $(Y_1 \dots Y_n)$
 (T_{SE}) (I_{MAX}) $(E_{1,1} \dots E_{m,n})$
 (L_{MAX}) (V_{lsb}) (V_{hsb})
 (I_{MIN}) (I_{DATA}) $(Y_1 \dots Y_n)$
 (I_{MIN}) $(E_{1,1} \dots E_{m,n})$
 (L_{MIN}) (Y_{RST}) 0[A] (Y_{lsb}) $(E_{1,1} \dots E_{m,n})$
 (S_j) 가 (S_j) P- 4
(31) N- (32) (31) (11)
(32) (S_j) 가 () (31) (3)
 (CT_j) (Y_j) (Y_j) (32)
 (S_j) 가 (V_{RST}) (11) (31)가 (32)
(11) ()가 ()가 (31)가 (32)
()가 ()가 (31)가 (32)
4 (31) (31) P- (32)
N- (S_j) ()
(11) () 8 (5)가
 $(X_1 \dots X_m)$ ON (V_{ON}) 가 $(X_1 \dots X_m)$ OFF (V_{OFF}) (11)
가 (T_{NSE}) , (11) (T_{SE}) m (T_{NSE})
 $(S_1 \dots S_n)$: (I_{DATA}) 가
(11) () $(Y_1 \dots Y_n)$ $(Y_1 \dots Y_n)$ $(CT_1 \dots CT_n)$
()가 (Y_{RST}) (11)
 $(X_1 \dots X_m)$ (T
SE) (31) (32)
 (I_{DATA}) (23) (23d)/ (23s) $(Y_1 \dots Y_n)$
 $(CT_1 \dots CT_n)$ (11) ()가
 $(X_1 \dots X_m)$ (T_{NSE}) , (I_{DATA}) ()
(31) (23d)/ (23s) $(Y_1 \dots Y_n)$ $(Y_1 \dots Y_n)$
 (V_{RST})
 $(CT_1 \dots CT_n)$ (T_{SE}) , (I_{DATA}) $(Y_1 \dots Y_n)$
 $(Y_1 \dots Y_n)$ 가 $(Y_1 \dots Y_n)$ (T_{NSE}) , (V_{RST})
 (I_{DATA}) 가가 (I DATA
)
 (T_{SE}) , (3) (23), (21), $(Y_1 \dots Y_n)$
 $(S_1 \dots S_n)$ $(Z_1 \dots Z_m)$ $(CT_1 \dots CT_n)$
(I DATA) (I DATA) $(E_{1,1} \dots E_{m,n})$

$E_{m,n}$ (1) $(E_{1,1} \quad E_{m,n})$
 (1) (3), (5) (6)가 EL (2) EL
 8 (5) (11) (CK2)
 (X_1) m (T_{SE}) (X_m) ON (V_{ON}) (X_1) (X_m)
 (5)가 $(Z_1 \quad Z_m)$ $(D_{1,1} \quad D_{m,n})$ (V_{LOW}) $(Z_1 \quad Z_m)$ (6)
 (22s) 3 (23) (23s) 2 (22)
 가, (3) (11) (S_R) ,
 (CK1) 8- (S_B) (X_i)
 (S_G) (V_{ON}) 가 () (7) ()
 (31) (32) (I_{DATA}) (Z_i) , $(P_{i,1} \quad P_{i,n})$ (23) (23)
 d) (23s) $(Y_1 \quad Y_n)$ $(P_{i,1} \quad P_{i,n})$ (21) $(CT_1 \quad CT_n)$ (21d) (21s)
 ON (V_{ON}) 가 (X_i) , OFF (X_1)
 $X_m; X_i$) (T_{SE}) , i (D_i)
 $D_{i,n}$, 1 (21) 2 (22) ON $(D_{1,1})$
 $D_{m,n}$; $(D_{i,1} \quad D_{i,n})$, 1 (21) 2 (22) OFF가
 (V_{ON}) i (T_{SE}) (X_i) 가 $(D_{i,1} \quad D_{i,n})$
 (V_{LOW}) $(D_{1,1} \quad D_{m,n})$ 3 (23) $(Z_1 \quad Z_m)$
 2 (22) (22d) (3) (L)
 (I_{DATA}) $(CT_1 \quad CT_n)$ (7) (Z_i)
 (31) (32) (11) (7)
 $(CT_1 \quad CT_n)$ (Z_i) (Z_i)
 (V_{LOW}) $(CT_1 \quad CT_n)$ (23) 3 (23)
 (I_{DATA}) (23g) (23s) (23d) (23s) 가
 (I_{DATA}) (3) (S_R)
 (S_G) $(P_{i,1} \quad P_{i,n})$ (S_B) (T_{SE})
 (3) (23) (23g) (23s)
 (Z_i) , $(P_{i,1} \quad P_{i,n})$ (21) (21d)
 $(Y_1 \quad Y_n)$ (3) $(CT_1 \quad CT_n)$
 (I_{DATA}) $(P_{i,1} \quad P_{i,n})$ (23) (23d) (23s)
 (T_{SC}) (I_{DATA}) (24) (T_{SE})
 (T_{SC}) (I_{DATA}) (T_{NSE}) (I_D)
 ATA) $(E_{i,1} \quad E_{i,n})$
 , i (T_{SE}) , i $(D_{i,1} \quad D_{i,n})$ 1 (21) 2
 (22) ON $(Y_1 \quad Y_n)$ (3)

$(I_{DATA})_i$ $(D_{i,1} \dots D_{i,n})$ (24) $(D_{1,1} \dots D_{m,n})$ (21) $(D_{i,1} \dots D_{i,n})$ (21) (I_{DATA}) (2)
 2 (22) OFF가 , 3 (23) (I_{DATA}) (23) (I_{DATA}) 가
 4) , i , (T_{SE}) , 3 (23) (I_{DATA}) ,
 (I_{DATA}) (23) $(D_{i,1} \dots D_{i,n})$, (T_{SE})
 (T_{NSE}) , $(D_{i,1} \dots D_{i,n})$ 3 (23) (I_{DATA}) ()
 $E_{i,1} \dots E_{i,n}$, $(E_{i,1} \dots E_{i,n})$.
 , (5) m
 (I_{DATA}) (3) (S_R)
 (S_G) (S_B)
 $(D_{1,1} \dots D_{i,n})$ m $(D_{m,1} \dots D_{m,n})$.
 가 3 (23) EL (2) (4) .
 , i (T_{SE}) $(D_{i,1} \dots D_{i,n})$ (I_{DATA}) (I_{DATA})
 $(E_{i,1} \dots E_{i,n})$ (I_{DATA}) .
 i (T_{SE}) , ON (V_{ON}) (11) (CK2)가
 (G_{CNT}) (5) i (X_i) (22) ,
 (X_i) (T_{SE}) ON $(D_{i,1} \dots D_{i,n})$ 1 (X_i) 2 (21) (V_{LOW}) (Z
 1 가 Z_m 가 2 (22)가 ON , 3 (23) (23g)
 가, $(E_{i,1} \dots E_{i,n})$ (T_{NSE}) ()
 $(CT_1 \dots CT_n)$, $(D_{i,j})$, $(E_{i,1} \dots E_{i,n})$ (3)
 (I_{DATA}) (Z_i) (3) (V_{LOW}) (I_{DATA})
 $E_{i,n}$ $(CT_1 \dots CT_n)$ (T_{NSE}) () , 가 (V_{LOW}) (I_{DATA})
 (Z_i) (3) $(D_{i,j})$, (T_{SE}) ,
 $(CT_1 \dots CT_n)$ (I_{DATA}) (3) $(Y_1 \dots Y_n)$ (I_{DATA})
 $(D_{i,1} \dots D_{i,n})$, 1 (21) 2 $(P_{i,1} \dots P_{i,n})$
 (I_{DATA}) (23s) (Z_i) $(P_{i,1} \dots P_{i,n})$ $(S_1 \dots S_n)$
 $(Y_1 \dots Y_n)$ $(CT_1 \dots CT_n)$.
 (I_{DATA}) $(E_{i,1} \dots E_{i,n})$ $(D_{i,1} \dots D_{i,n})$
 (I_{DATA}) (3) ,
 (T_{NSE}) (I_{DATA}) (I_{DATA}) .
 (T_{SE}) , (I_{DATA}) 3 (23) (Z_i) , 3 (3)
 $(Y_1 \dots Y_n)$, 3 (23) $(S_1 \dots S_n)$ (23g) (23s) 가 (I_{DATA}) (24)
 (T_{SE}) , i $(D_{i,1} \dots D_{i,n})$, 1 (23)
 (Y_j) (I_{DATA}) 가 3
 (I_{DATA})

(T_{SE}) , i $(D_{i,1} \dots D_{i,n})$ (24)
 (T_{SC}) $(D_{i,1} \dots D_{i,n})$ (23)
 $(D_{i,n})$ 3 (23) (Y_j) (21) (21, 22, 23)
 (I_{DATA}) 1 (21) (Y_j) (21, 22, 23) (21)
 (I_{DATA}) 3 (23) 1 (21) (Y_j) (21, 22, 23)
 (T_{SE}) , (Z_i) (V_{SS}) (V_{LOW})
 $(E_{i,1} \dots E_{i,n})$ $(E_{i,1} \dots E_{i,n})$
 (T_{SE}) (T_{NSE}) (5)
 (X_i) (V_{ON}) (V_{OFF}) (21)
 (V_{OFF}) $(D_{i,1} \dots D_{i,n})$ 1 (21)
 $(21g)$ 2 (22) (22g) $(D_{i,1} \dots D_{i,n})$ 1 (21)
 (T_{NSE}) , i $(D_{i,1} \dots D_{i,n})$ 1 (21)
 (Z_i) $(Y_1 \dots Y_n)$ (I_{DATA})
 (T_{NSE}) , i $(D_{i,1} \dots D_{i,n})$ (24)
 (T_{SE}) $(D_{i,1} \dots D_{i,n})$ 3
 (T_{NSE}) ON $(D_{i,1} \dots D_{i,n})$ 2
 (T_{NSE}) 3 (23) (V_{GS}) (23)
 (V_{GS}) (23)
 (T_{NSE}) , (6) (Z_i) (V_{HIGH}) (V_{SS}) (T_{SE}) (23g)
 (T_{NSE}) , i $(E_{i,1} \dots E_{i,n})$ (V_{HIGH}) (T_{SE}) (23g)
 (I_{DATA}) (I_{DATA}) $(D_{i,1} \dots D_{i,n})$ $(E_{i,1} \dots E_{i,n})$
 $(E_{i,1} \dots E_{i,n})$ (I_{DATA}) 3 (23) (23d) (23s) $(E_{i,1} \dots E_{i,n})$
 (Z_i) $(E_{i,1} \dots E_{i,n})$ (23) (23d) (23s) $(E_{i,1} \dots E_{i,n})$
 (T_{NSE}) $(D_{i,1} \dots D_{i,n})$ 1 (21)
 (Y_j) (Y_j) 3 (23) (I_{DATA}) $(D_{i,1} \dots D_{i,n})$ 2 (22) (24)
 (T_{SE}) (V_{HIGH}) 3 (23) (23g) (23s) $(D_{i,1} \dots D_{i,n})$ (T_N)
 $(E_{i,1} \dots E_{i,n})$ $(E_{i,1} \dots E_{i,n})$ (T_{SE}) (T_N)
 $(E_{i,1} \dots E_{i,n})$ (V_{HIGH}) $(D_{i,1} \dots D_{i,n})$ 3 (23) $(E_{i,1} \dots E_{i,n})$
 (T_{SE}) $(D_{i,1} \dots D_{i,n})$ 3 (23) $(E_{i,1} \dots E_{i,n})$
 (I_{DATA}) $(E_{i,1} \dots E_{i,n})$ $(E_{i,1} \dots E_{i,n})$

(23) , 3 (23) (D_{i,1} D_{i,n})³
 (23s) (23s) (23d) (I_{DATA}) (T_{SE})
 (23s) (23d) (V_{HIGH}) (T_{NSE})
 (Z₁ Z_m) (I_{DATA})
 (E_{1,1} E_{m,n}) (23s) (23d)
 가 (in-plane)
 EL (1)
 (T_{NSE}) m (V_{HIGH}) (E_{i,j}) 5
 0% m 1/m EL (1)
 가 (E_{i,j}) EL (1)

(X_i) (Z_i)
 (6) (Z_i) EL (1)
 (5) EL_m
 (6) (Z₁ Z_m) (6)
 가 EL EL (1)
 가

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, 2 EL 가
 2 EL (2), EL 1 1 EL
 EL (5), (D_{1,1} D_{m,n}) (E_{1,1} E_{m,n}) (3), (4),
 (1) 가 2 EL
 2 (6) 10 EL (1) (11)
 2 EL (1) 1 , 8

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3 가 11 (P_{i,j}) (D_{i,j})
 2 (22) (22d) (Z_i) 3 (X_i)
 1 1
 (22) (22d) (22g) (X_i) (22s) 3
 (23) (23g) (22) 1 (21) 3 (23)
 , N-
 (22) 8 12A
 (T_{SE}) 가 (P_{i,1} P_{i,n}) (X_i) (X_i)
 (23) (P_{i,1} P_{i,n}) (21) ON- ()
 i,1 P_{i,n}) (23) (T_{SE}) 가 (P
 ,1 P_{i,n}) (3) (I_{DATA}) 12A (P_i
 (23) (23d) (23s) (Y₁ Y_n)
 (I_{DATA}) (3)

(S_R), (23) (I_{DATA}) (23d) (S_G) (23s) (T_{SE}) (24) (S_B) (P_{i,1} P_{i,n})

(T_{NSE}) (P_{i,1} P_{i,n}) (21) (22) (X_j)
OFF- (V_{OFF}) (V_{HIGH}) (Z₁ Z
가 (23) (23g) (23d) (23s) (T_{SE}) (I_{DATA})
24) 12B (23) (23d) (23s) (V_{HIGH}) (V_{SS})
(E_{1,1} E_{m,n})

(D_{i,j}) 1 (21), 2 (22) 3
(23) N- (E_{i,j}) P- 8

(E_{i,j}) (E_{1,1} E_{m,n}) (T_{SE}) (T_{SE}) (T_{NSE})
(E_{i,j}) (T_{NSE}) 13 (T_{SE}) i (E_{1,1} E_{m,n}) (T_{SE})
(I_{DATA}) (E_{1,1} E_{m,n}) (T_{SC}) (T_R) 13
(T_{NSE}) (V_{RST}) (Y₁ Y_n) 가 (m-1) (T_R) (T_{SE})
(T_{NSE}), (X_m) (E_{1,1} E_{m,n}) (P_{m,1} P_{m,n}) (write mode)
(Y₁ Y_n) (T_R) m 가 가 (V_{RST})
(T_{SC}) (T_R)

EL 가 가 가 가
가 LED()가
(3) (5) (6) (11) (CK3)
(CK2) (5) (6)

(I_{DATA}) (T_{SE}) 가 , ,
(T_{SE}) (23) (23g) (23s)

(5) 가, (6)

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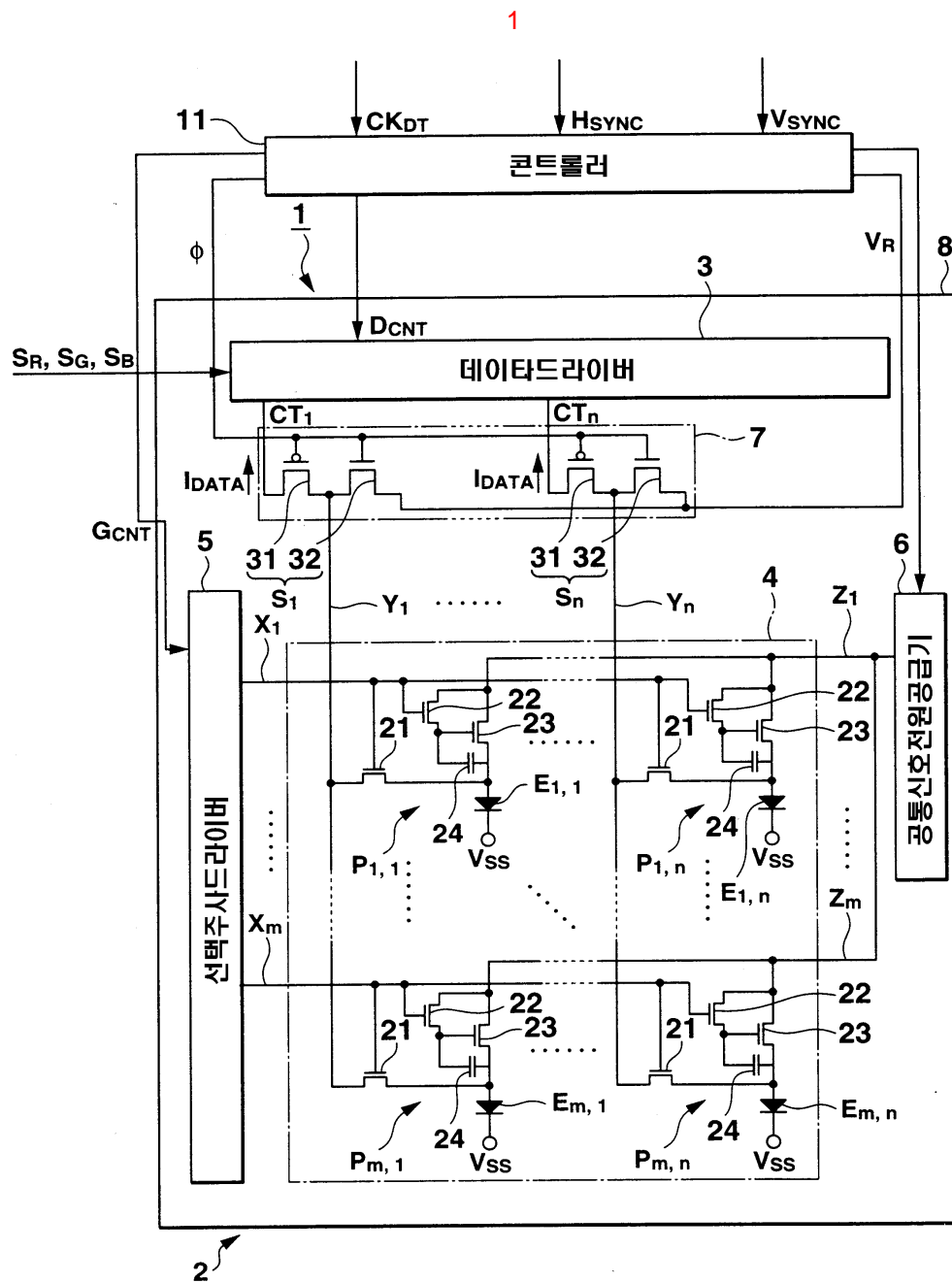
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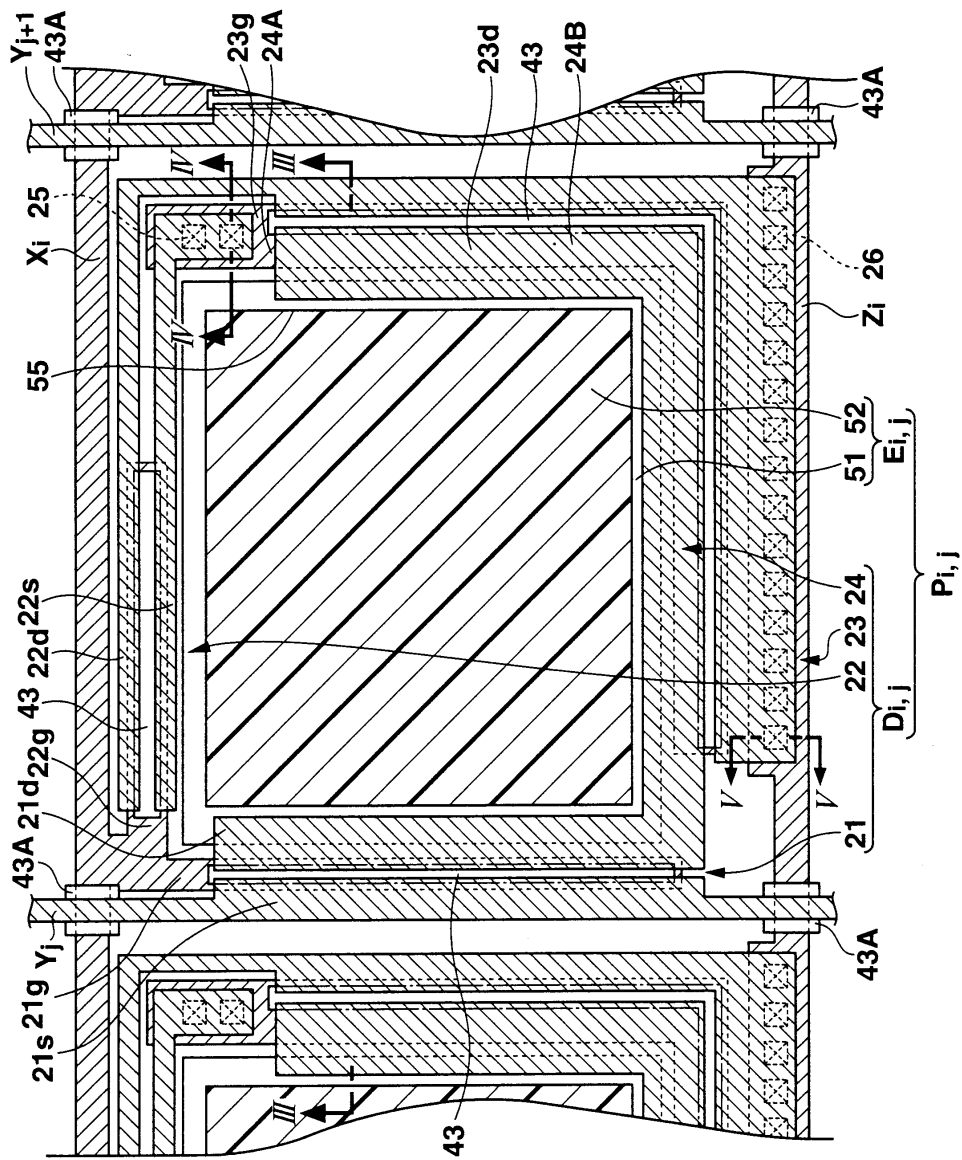
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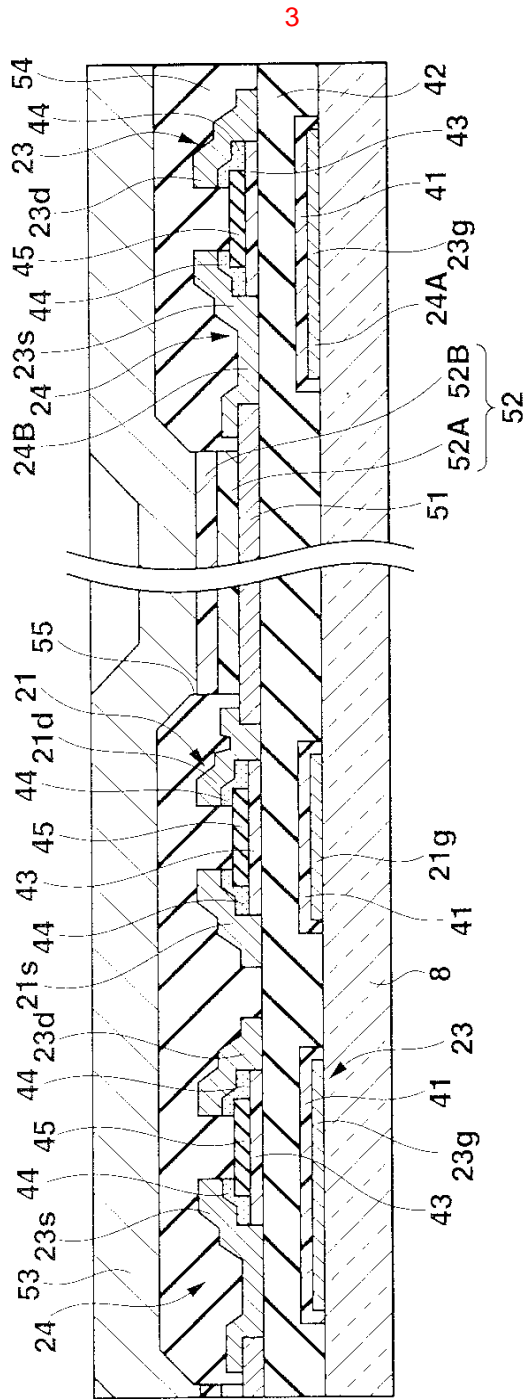
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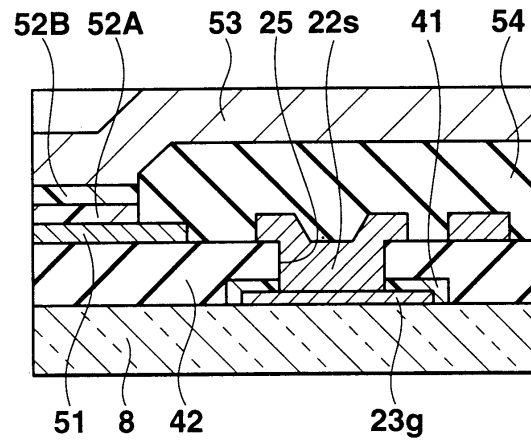


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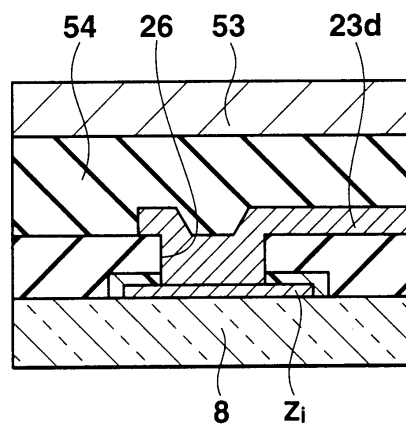




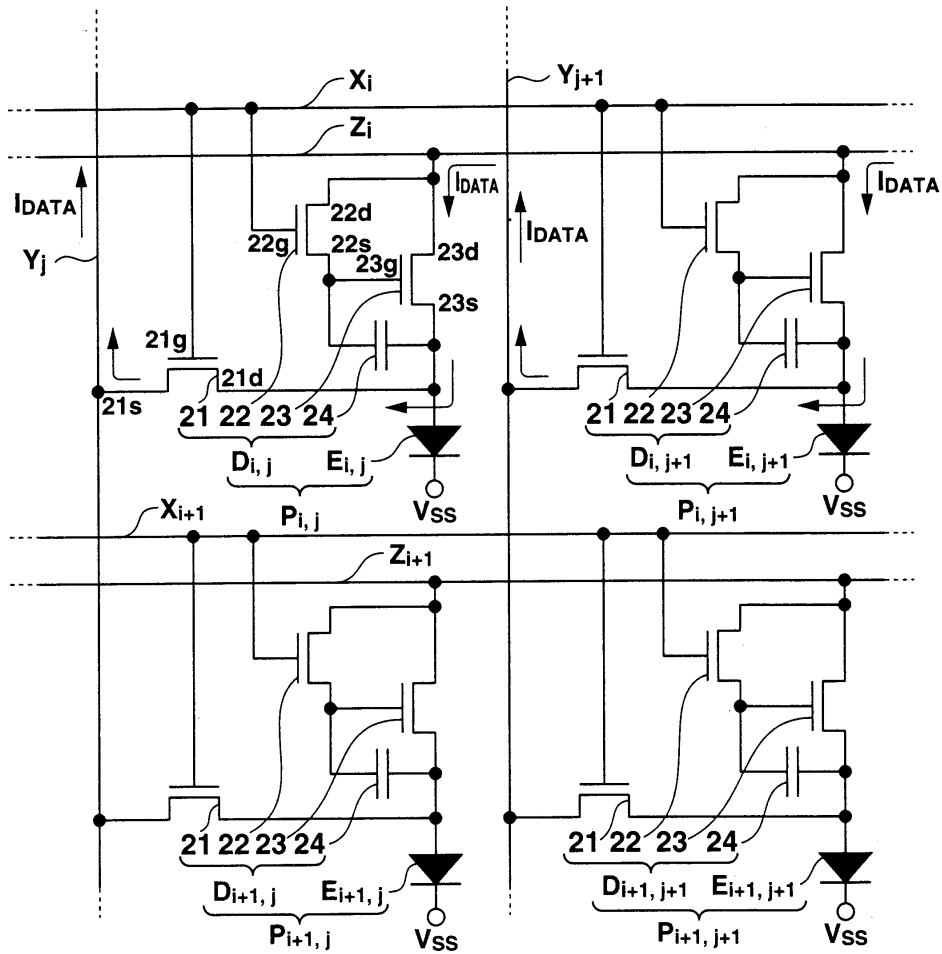
4



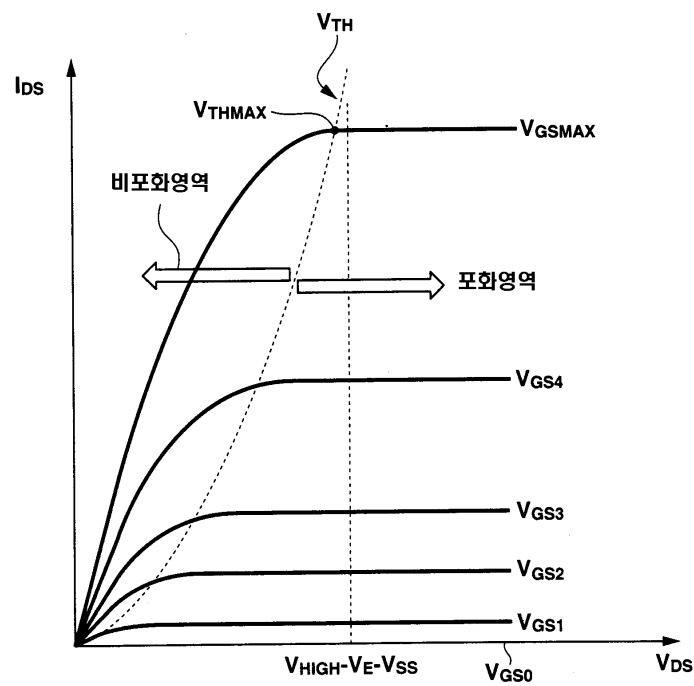
5



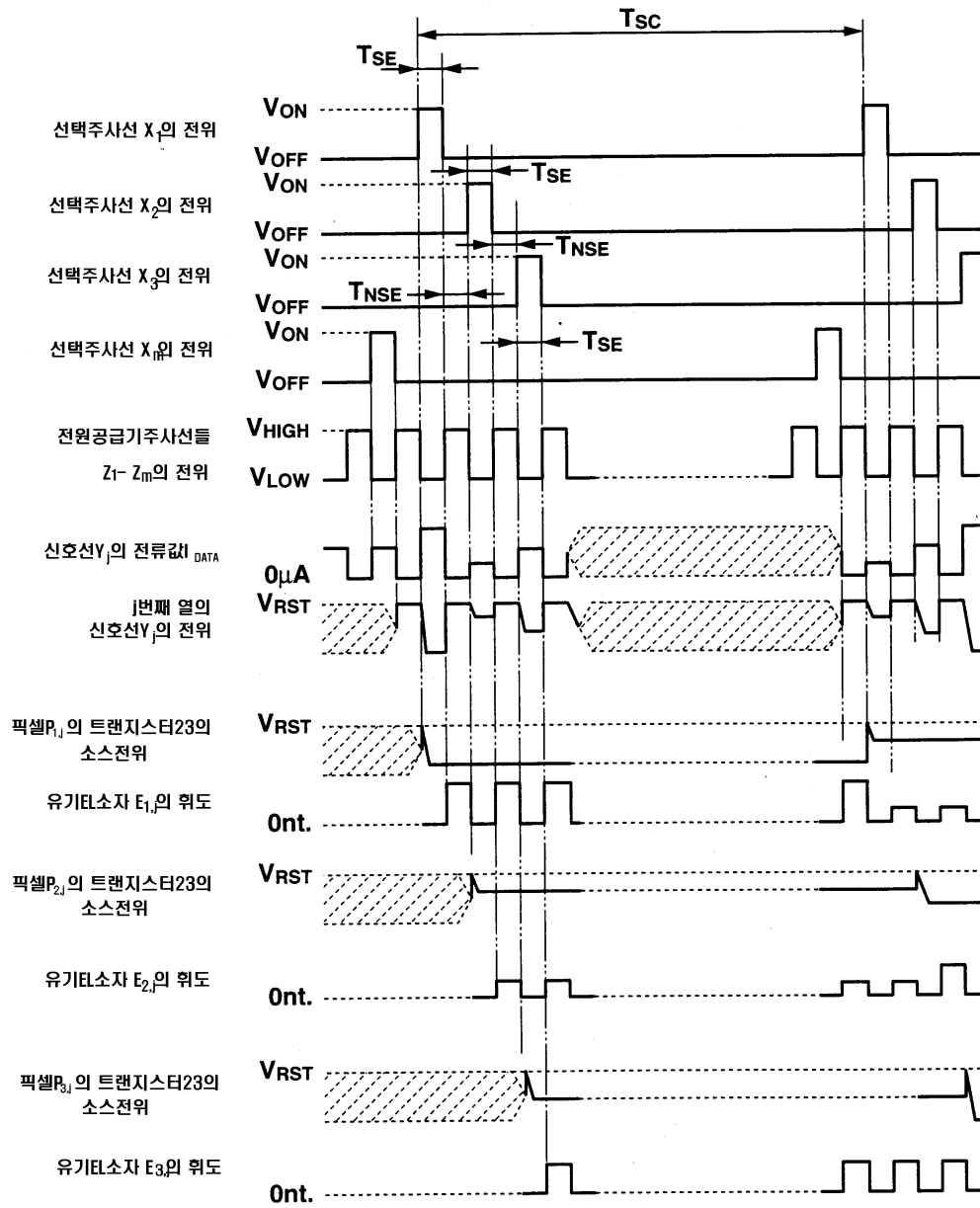
6



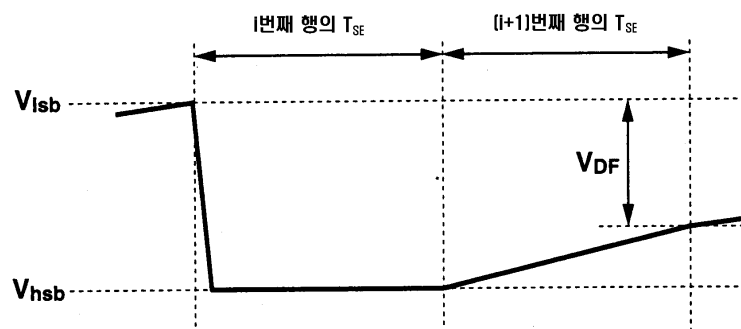
7

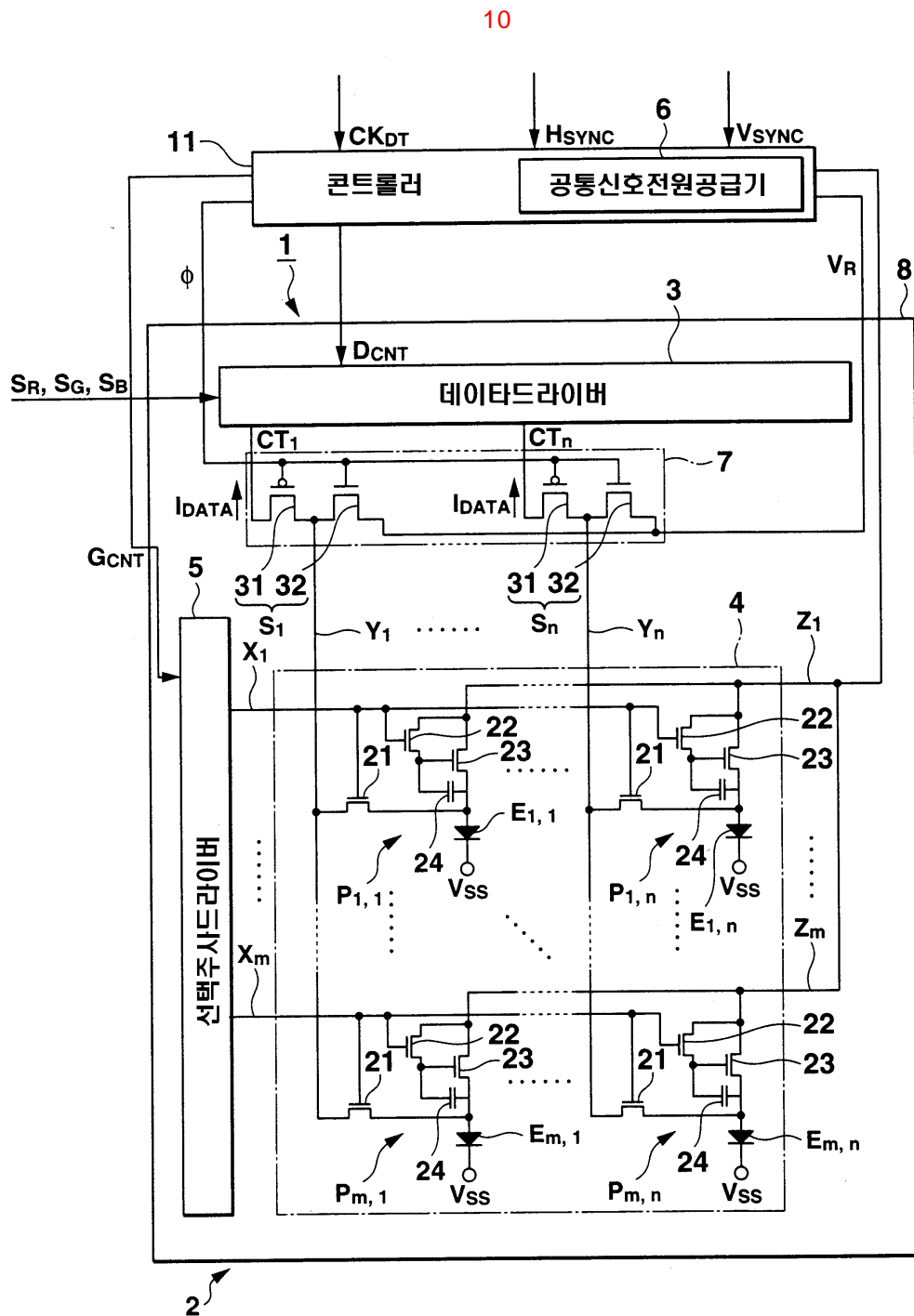
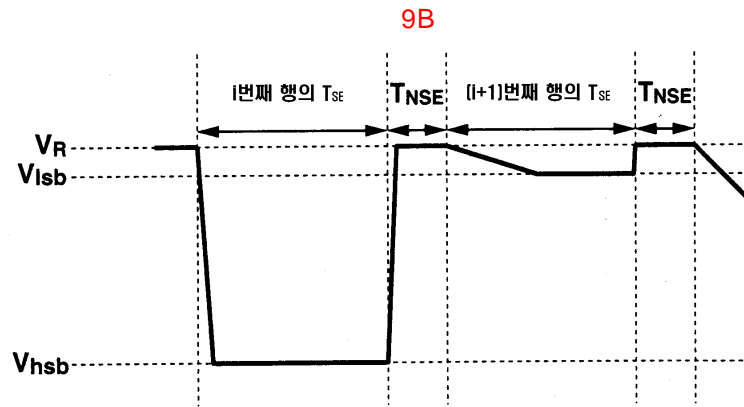


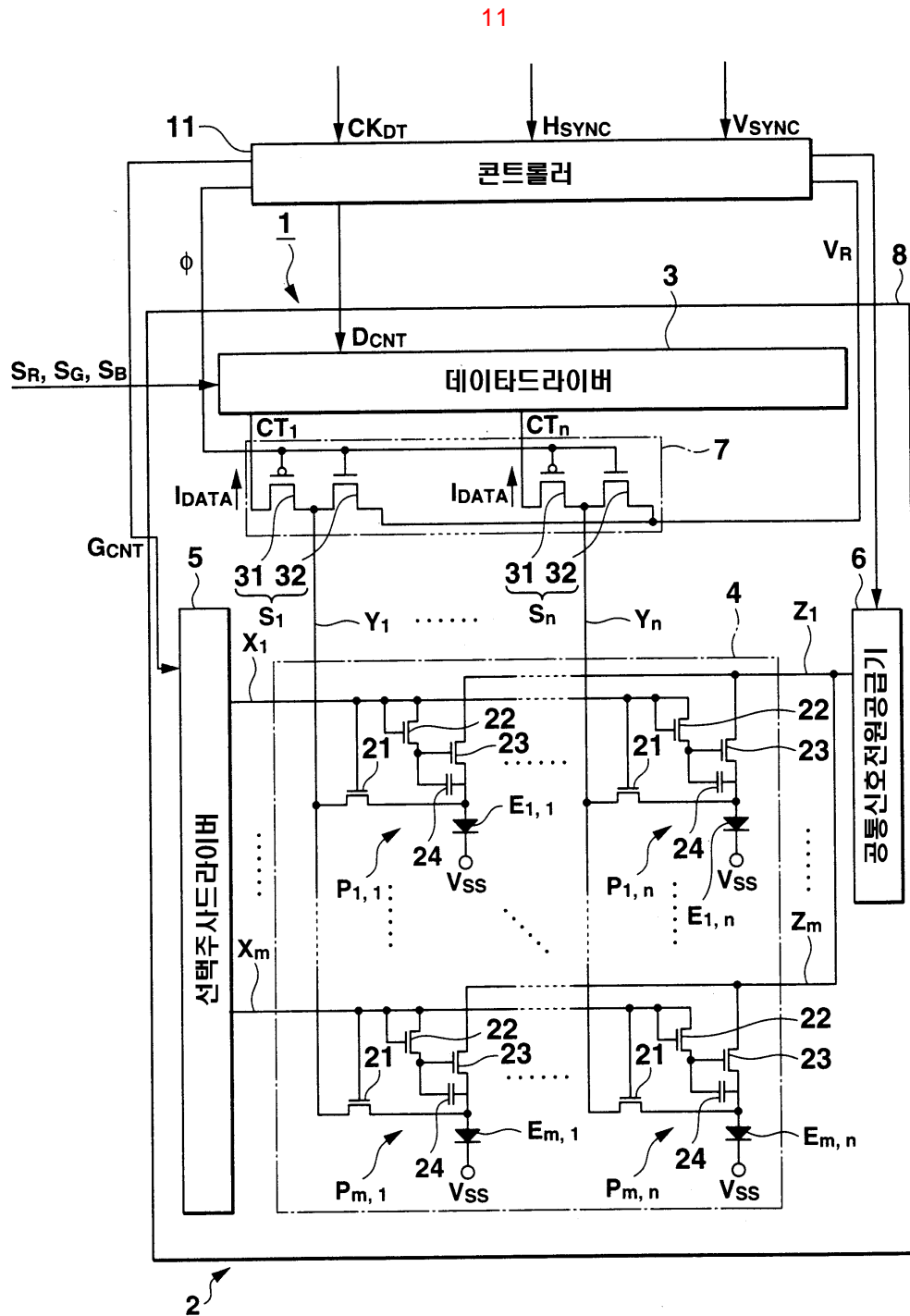
8



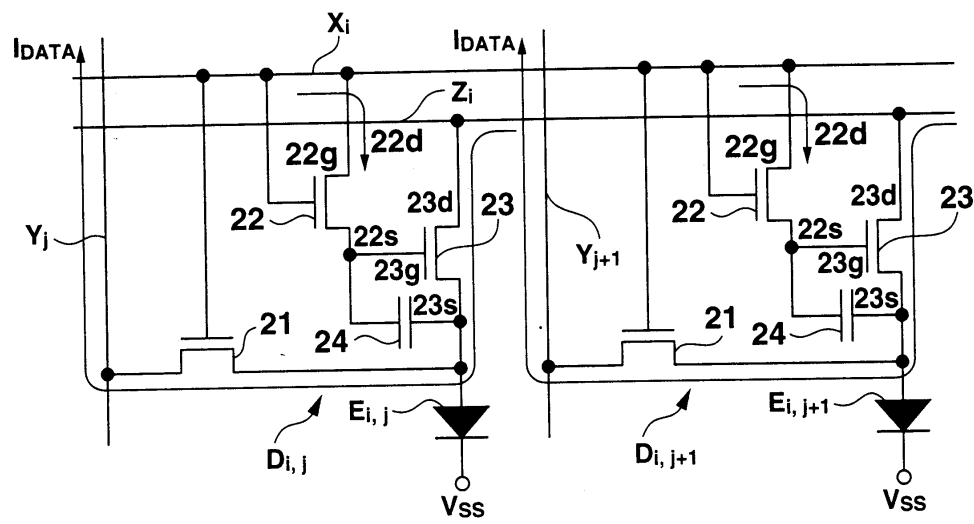
9A



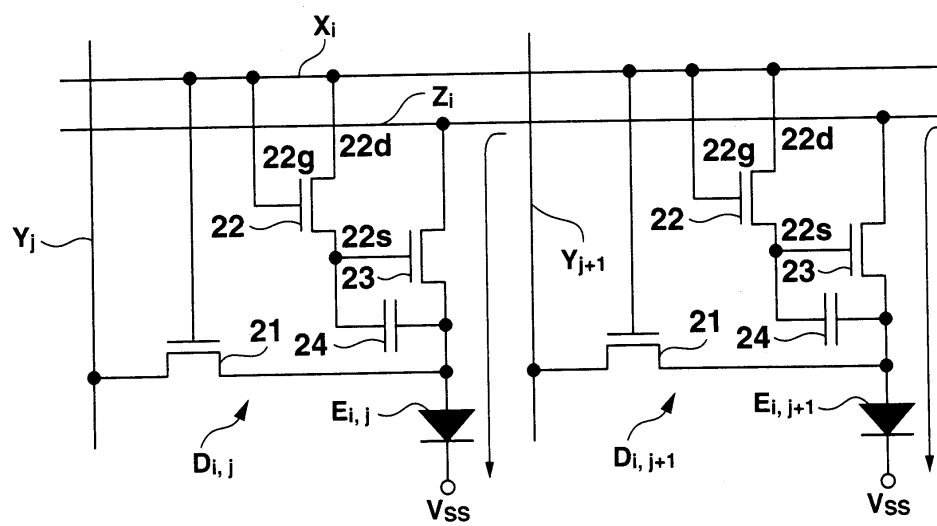




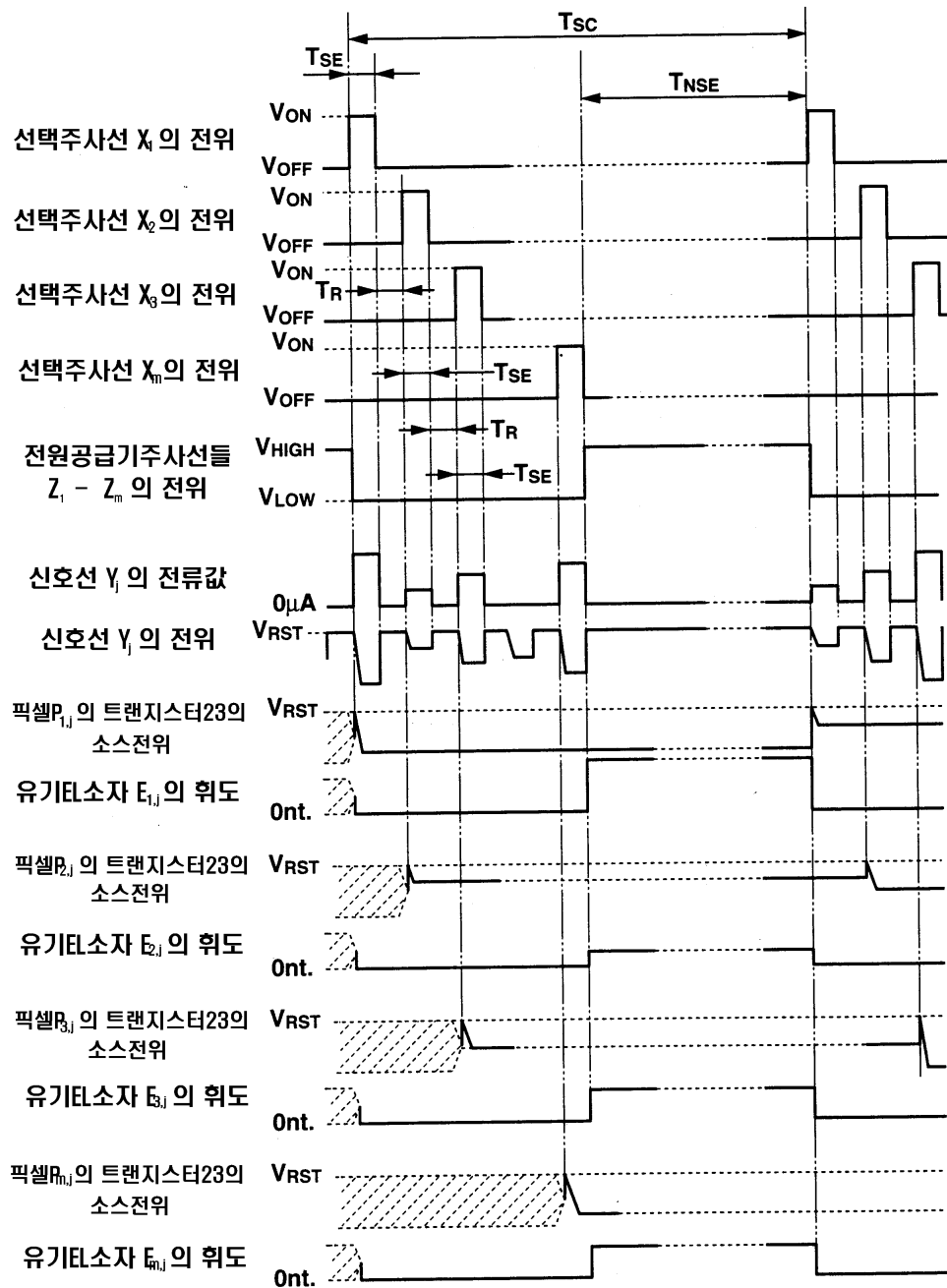
12A



12B



13



专利名称(译)	显示装置和驱动显示装置的方法		
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外部链接	Espacenet		

摘要(译)

该显示装置包括多条扫描线 (X₁至X_m)，多条信号线 (Y₁至Y_n)，扫描驱动器 (5)，顺序地向扫描线提供用于选择扫描线的选择信号，当选择扫描线时，数据驱动器 (3) 在选择时间段内向多条信号线提供指定电流，并且多个像素电路提供与流过信号线的指定电流的电流值相对应的驱动电流，根据由多个像素电路和多个像素电路提供的驱动电流来驱动发光的多个像素元件 (E_{1,1}到E_{m,n}) 以提供驱动电流 它包括用于输出电流参考电压的电源。图1 索引词 有机EL，显示器，驱动方法，亮度，偏差，像素，发射。

