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2004 05 20

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(22) 2003 11 12

(30) JP-P-2002-00329712 2002 11 13 (JP)

(71) 가 가  
1 1 1

(72) 1 1 1 가 가

(74)

:

(54)

(10) (DS) (YD, XD) (10) , (YD, XD) (10)

1

, , EL

1 EL

2 1

3 1

4 1 EL

5 1

6 1 EL

7 1 EL

8 3 D/A

9

< >

1 :

2 : DC/DC

10 : EL

11 :

12 :

13 :

20 :

21 :

22 : D/A

23 :

30 :

DS :

YD, XD :

가, EL

, EL

가

EL

가

가

EL

EL

D/A

D/A

가,

, D/A

EL

가

EL

EL

가

EL

EL

EL

가

가

EL

가

가

가

가

가

가

EL

1

EL

2

1

EL

EL

PNL

TCP

PCB

EL

PNL

PCB

EL PX,

PNL

PX

m

Y(Y1 Ym),

DS

Y

n

X(X1 Xn),

Y1 Ym

(R),

YD (G),

(B)

PX 1

PX RGB 가 EL (10), (11), Vsig (12), (13), Vsi (11),  
 Y (11) EL (10) DIDD (13), (13) P (13)  
 N EL (10) VDD, VSS (13)  
 , EL (10)가 VSS (13) (13)  
 VDD (13) X VDD (11) (12)  
 P N YD PX  
 PCB SG DATA  
 EL PNL IC 가 DATA  
 가 DC/DC (1), (2) (1) 가 CTY  
 H, LT CTY CTX CTX (1) STH, YD CK  
 CTX DATA (1) XD  
 PCB TCP EL PNL , n  
 TCP IC X1, X2, X3, ...Xn XD VSS DVSS  
 (3)  
 YD ( ) m Y  
 XD 2 STH CKH LT  
 (1) (20) DATA DATA (20),  
 (21), DATA VREF(V1 Vsig V1 Vsig X1, X2, X3, ...Xn) D/A (22), D/A (22)  
 ) RF, D/A (22)  
 3) Vsig  
 R0 Rk RF 3 AVDD (3) 가 (3)  
 VREF(V1 Vk) (30) , V1 (30) , Vk  
 D/A (22) (21) DATA Vsig  
 V1 Vk ( DAC) (23) D/A  
 D/A Vsig X  
 PX DC/DC 가 (2) VDD DVSS (11) N 가 가  
 X Y 가 Vsig가 (12) 가 , 가 (12)  
 , X (12) Vsig (12) Y 가  
 ) P X Vsig (12) P (12) (13)  
 , (12) P - Vgs가 . P

(10)  $I_{ds}$ ,  $V_{gs}$ ,  $V_{sig}$ , EL (10)  $I_{ds}$ , EL  
 가

(13) P, VDD,  $V_{sig}$ , EL (10) 4, VSS, DIDD,  $V_{sig}$ ,  
 가, 5,  $V_{sig}$

(3) VDD, EL (10) VSS, DIDD,  $I_{e1}$ , Re, AMP, AMP가, Re, V  
 e, DIDD,  $I_{e1}$ , DIDD,  $I_{e1}$ , Ve'

RF, (30) 가,  $V_k$ 가, (3)  $V_k$ , (3)  $V_{e'}$ , 4, V  
 Ve',  $V_{e'}$ 가, DIDD,  $I_{e1}$ ,  $V_k$ 가,  $V_k$ , V1, (30)  
 ,  $V_{sig}$ , 5,  $V_k$

EL,  $I_{e1}$ , 6,  $V_k$ ,  $V_k(V_{e'}, V_e)$ 가, P,  $V_k$ ,  
 (13) DIDD,  $I_{e1}$ , DIDD,  $I_{e1}$ , 가, DIDD,  $I_{e1}$

7,  $V_k$ 가, EL (10)  $I_{e1}$  가,  $I_{e1}$ ,  
 EL (10) 가, EL (10) DIDD,  $I_{e1}$

DIDD, 가

DIDD, EL, 가, 가

9, 가, , D/A, (22)가

RF가, 가, 8, IREF(11, Ik)

1, AVDD, AVDD,  $k+1$ , (3) 가, 1,  
 AVDD, D/A, (22), k, W,  
 W, 2W, 4W, 8W, 16W... 2<sup>k-1</sup> W, 1, 1, Ik, D/A, (22)

RF가, 11, Ik가, (3)

Ve' , 가 .  
 , RF가 D/A (22) ,  
 EL , , ,  
 (3) .

, DIDD DIDD , EL 가 .  
 , DIDD , EL

(57)

1.

(YD, XD) , (YD, XD)

2.

1

(YD, XD)

D/A

D/A  
 (RF) ,  
 (RF)

3.

2

(RF)

(R0 Rk)

4.

2

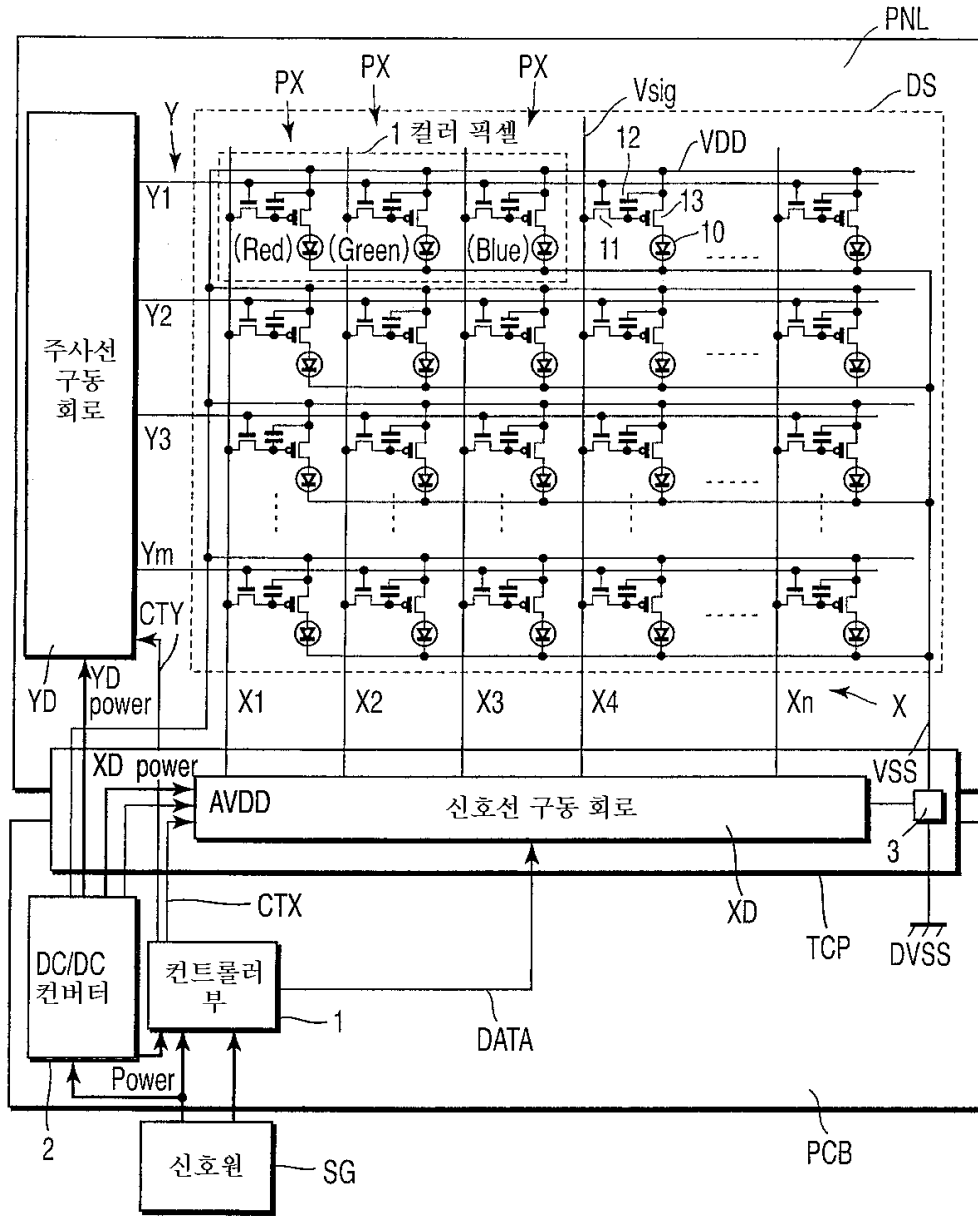
(RF)

5.

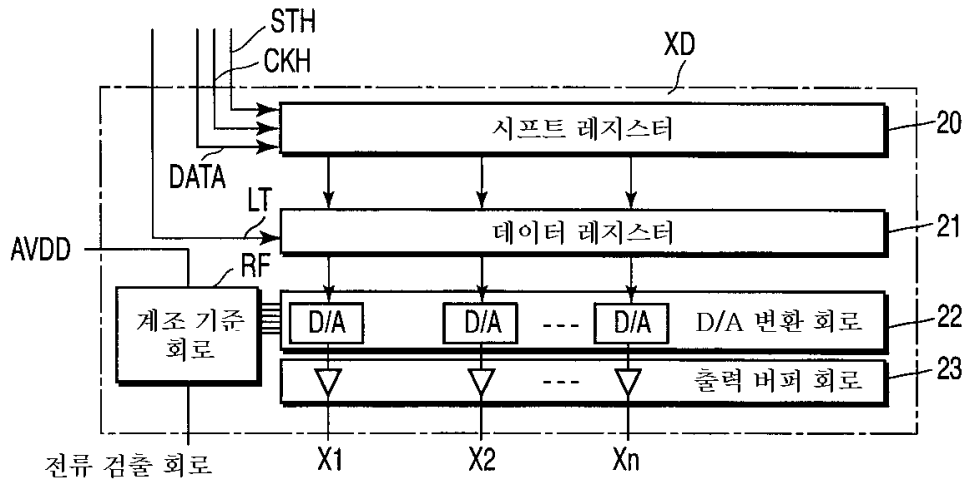
1

EL

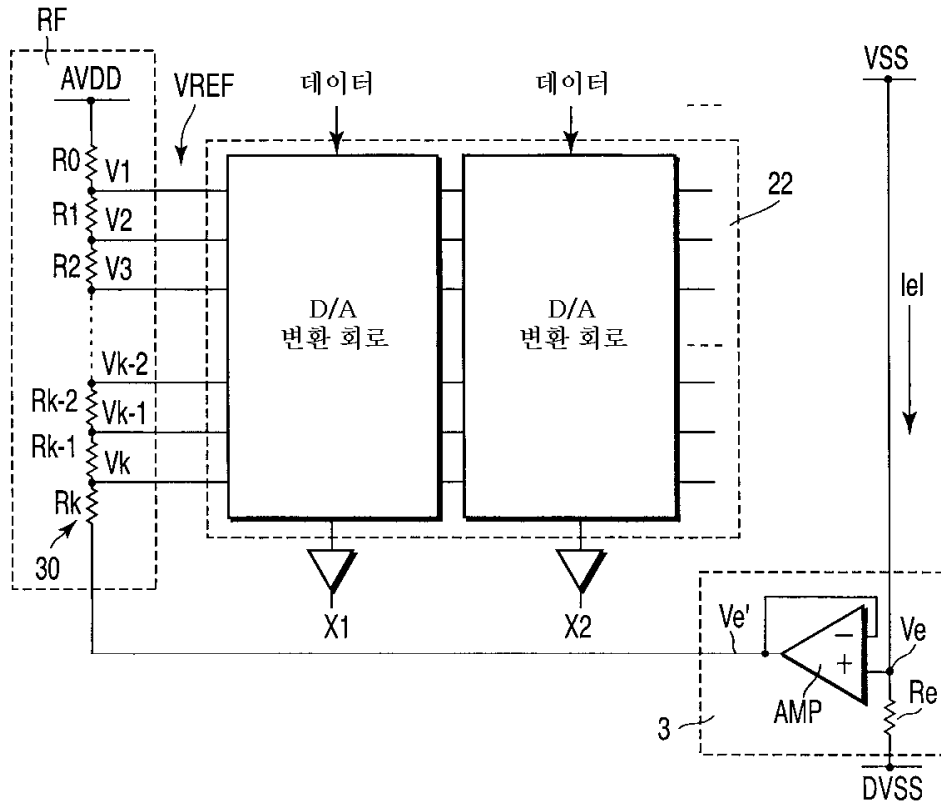
1



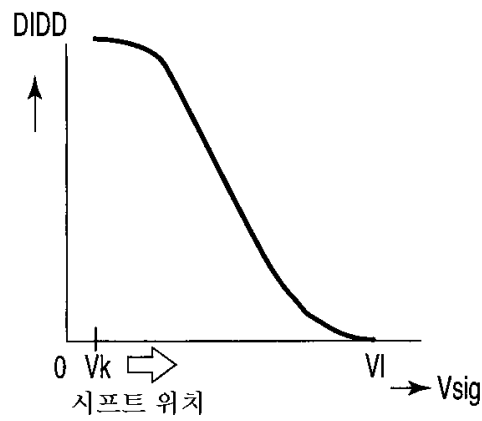
2



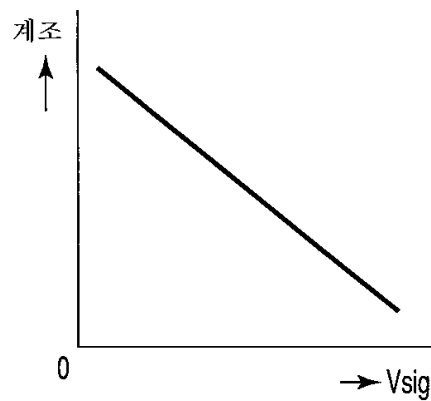
3



4



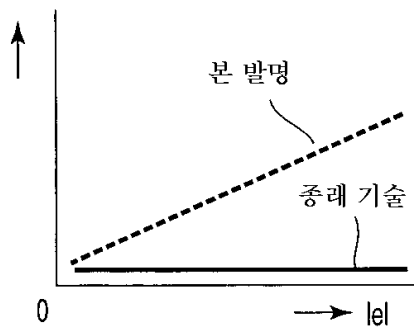
5



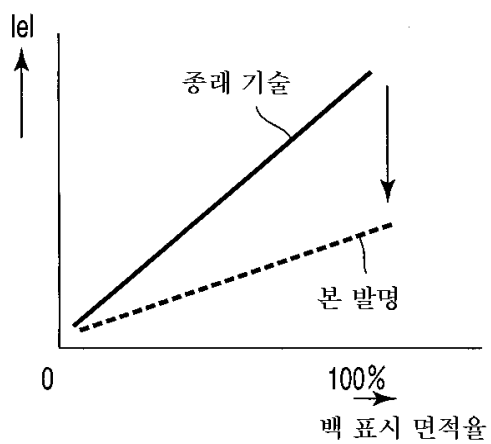


6

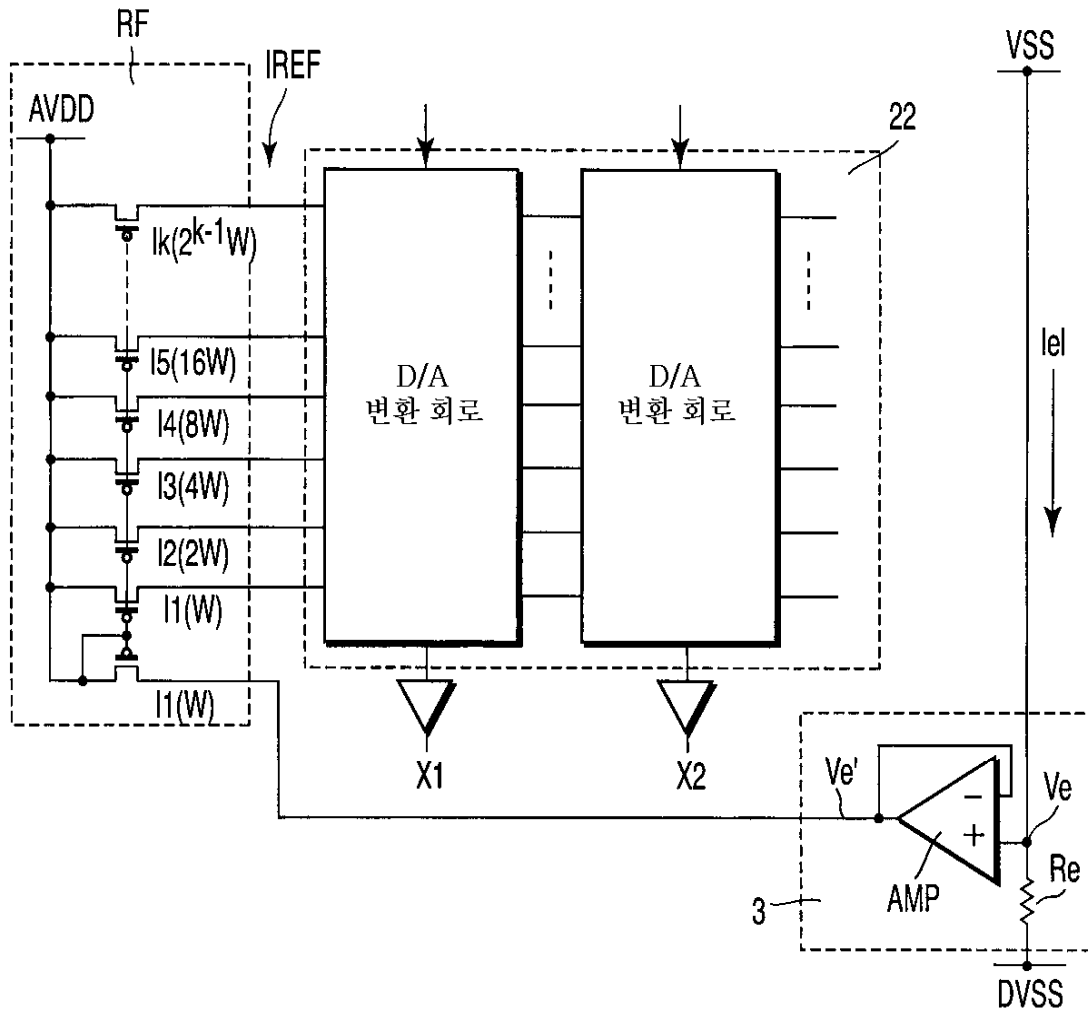
최고 계조의  
계조 기준 전압



7



8



9

