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 (12) (A)

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 (43) 2002 07 02

(21) 10 - 2000 - 0081415
 (22) 2000 12 23

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(72) 1 1630 - 17
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 1 1608 - 9202

(74)

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(54)

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2	1
3	1
4	1
5	4
6	4
7	1
8	2
9	3
10	4
11	5
12	6

\wedge \vee

10,20 : 12,22 :

14,24 : 16,26 :

CD : PE :

(Electro Luminescence; "EL")

EL ()
 . EL 1 (10) (GL,
 /GL) (DL) , (GL,GL) (DL)
 (PE) . (PE) (GL,GL)
 (DL) .

EL , (12) 가 (GL,/GL)
 (14) 가 (DL) . (12) (PE) (GL,/GL)
 . (14)

, (12) (14) (PE) 2 (16)
 (GNDL) EL (ELC) EL (ELC) 1 PMOS (Thin Fi
 (16) 1, 2 (N1,N2) (MP1) , (GL) 2 (N2) EL (ELC)
 Im Transistor; " TFT" (MP2) , 1 2 (N1,N2) (C1)
 2 PMOS TFT(MP2) , (DL) 가 가 , 1 PMOS TFT(MP1)
 TFT(MP1) (VDDL) 1 (N1) (C1) (VDD) EL (ELC)
 . , 1 PMOS TFT(MP1) 가 EL (ELC) 1 PMOS TFT(MP1) 가
 . , EL (ELC) 2 PMOS TFT(MP2) (GL) 가 3
 (GLS) 2 (N2) EL (ELC) 2 (N2) EL (ELC) , 2 PMO
 S TFT(MP2) (GLS) 가 (C1) , 2 PMOS TFT(MP2) (GL)
 가 (GLS) 가 (C1) (C1) (C1) 가
 1 PMOS TFT(MP1) , 1 PMOS TFT(MP1)
 EL 1 (N1) EL (ELC) 3 PMOS TFT(MP3) , (/GL)
 (GL) (GL) 4 PMOS TFT(MP4) 가 1 (N1) 1 (N1) 3 PMOS TFT(MP
 3) (C1) 1 PMOS TFT(MP1) (DL) , 1 (N1) , 3
 PMOS TFT(MP3) (GLS) (DL) 1 (N1) 가
 . , 3 PMOS TFT(MP3) (GL) (C1)
 4 PMOS TFT(MP4) (GL) (/GLS) 가
 1 (N1) (VDDL) 1 (N1) 1 PMOS TFT(MP1) EL (ELC)
 (VDD) 1 (N1) EL (ELC)

(16) (GL) 가 (DL)
 EL (ELC) (14) 1 EL
 . , , EL
 EL , μA (,)
 circuit) μA 4 , 1 EL IC(Integrated C

4 , EL (GL) (20) (DL) (GL) (PE) (GL) (PE) (DL) (D)

, EL (DL) (CD) (PE) () (CD) (DL) (CD)
 (PE) 가 . (CD) (PE) (PE) (CD)

EL (GL) (22) (22) (GL) (CD) (CD) (CD)
 (24) 1 (24) (CD) (PE) (DL) (PE)
 . , 4 EL
 가 . , (PE)

5 4 EL (PE) (ELC) , EL (ELC) (DL) 5 (PE) 1 (FVL)
 1 (FVL) (GND) EL (ELC) 가 , EL (DL)
 EL (ELC), 1 (N1) (VDDL) 1 (26) (26) (26)
 TFT(MP1,MP2) , 1 2 PMOS TFT(MP1,MP2) 1 2 PMO
 (N2) (VDDL) (C1) 2
 .

(C1) (VDDL) (DL) (DL) 1 PMOS
 TFT(MP1) (C1) (2 PMOS TFT(MP1,MP2)) (VDDL) (VD)
 D) EL (ELC) 가 , 1 PMOS TFT(MP1) (C1)
 , EL (ELC) (VDDL) 1 PMOS TFT(MP1) 가
 . 2 PMOS TFT(MP2) (VDDL) (DL)
 . 1 PMOS TFT(MP1) EL (ELC)

, EL (26) (GL) 3 PMOS TFT(MP3) 3 PMOS TFT(MP2) 3 4 PMOS TFT(M
 P3,MP4) 가 1 (N1) (GL) (DL)

. , 3 PMOS TFT(MP3) (VDDL)
 2 PMOS (MP2), 1 (N1) (DL)
 . 4 PMOS TFT(MP4) (GL) 가
 - 1 2 PMOS TFT(MP1,MP2) (C1)
 가 2 (N2) 1 (N1) (DL) . , 3
 4 PMOS TFT(MP3,MP4) (GL) 가
 (DL) (VDDL) 2 (N2) (DL)
 () (C1)

가, EL (26) (GL) 3 PMOS TFT(MP3)
) 가 . (GL) 3 PMOS TFT(MP3) 가
 가 . , 3 PMOS TFT(MP3) 가
 4 PMOS TFT(MP4) - . , (C1)
 . , EL (ELC) (DL)
 , 가 EL ()

6 4 (CD) . 6 (CD) (D)
 L) 2 (SVL) NMOS (MN11) (R11) NMOS
 (MN11) (Pa) 4 (24) (D)
 . NMOS (MN11) (Pa) 偈⁴
 L) (R11) 2 (SVL) , NMO
 (MN11) (Pa) (DL) (R11)
 S偈 NMOS (MN11)

, (CD) (DL) EL (ELC) (DL) 가 . EL

EL (ELC) . , (R), (G) (B) (R), (G) (B) EL (ELC) (G) EL (E)
LC) 가 . . , (CD) (R), (G) (R),
B) EL (ELC) . , EL 가 가 (R),
(G) (B) EL (ELC) .

가

, 7 12

7 1 (CD)

7	,	1	(CD)	(Pa)	(Vroot)
가	(R11)	1 NMOS	(NM11)	(DL)	가 (Vm)
2	3 NMOS	(NM12, NM13)	.	.	(Pa)
2 NMOS	(NM12)	.	1	3 NMOS	(NM11, NM13)
10	(N10)	.	2 NMOS	(N12)	가 (R11)
1 NMOS	(NM11)	.	11	(NM11)	. 가 (R11)
가	(R11)	(Pa)	(CD)	.	,
1	2 NMOS	가 (PE)	TFT	가	.
(DL)	가 (Vm)	(NM11, NM12)	.	.	(Current Repeater)
.	.	11 (N11)	.	.	.
가	(Vm)	(DL)	2	3 NMOS	(NM12, NM13)
1	(Vroot)	가 (Pa)	.	.	.
(G)	(B) EL (ELC))	.	(CD) 가	.	(R),
(CD) 가	.	가 (R),	, 가 (Vm)	.	가 (Vm)
.	(Vroot)	(G)	(B) EL (ELC))	.	.
)	가 . 가 (Vm)	가 (Pa)	.	(GND)	.
(G)	(B) EL (ELC) 가	.	(PE)	가 .	(R),

	1	(R), (Vm)	(G)	(B)	EL	(ELC)	가
(NM11, NM12)		가		.	, (Pa)	1	2 NMOS
(CD)		.		(CD)			(DL)
			(DL)		EL	(ELC)	가

8 2 (CD)

8 , 2 (CD) (Pa) (GND)
 가 (R21), 1 NMOS (NM21) (R22) , (DL) (GN)
 D) 2 3 NMOS (NM22, NM23) (Pa) (NM21, NM23)
 . . 1 3 NMOS (NM23)
 2 NMOS (NM22) 2 NMOS (NM22)
 20 (N20) 21 (N21) 가
 (R21) 1 NMOS (NM21) (CD)
 (R21) . , 가 (R21) (Pa) 가 (PE) TFT가
 . (DL) (GND) 1 2 NMOS (NM21, NM22)
 . (DL) (DL) 2 3 NMOS 21 (N21) (NM22, NM23)
 (GND) (GND) (Pa) 1 NMOS
 (NM21) (GND) (R22) 가 (P)
 E) 가 (G) (B) EL (ELC)) (CD) 가 (R22)
 (DL) (GND) , 1 NMOS (NM21) (GND) 1 NMOS (NM23)
 . , 1 NMOS (NM21) (GND) 3 NMOS (NM23)
 (DL) (R22) 3 1 NMOS (NM2) 9 3 NMOS (PE)
 1) (NM23) (GND) (R22) (R22) (R22) (R22)
 가 (R), (G) (B) EL (ELC) 가 (ELC) 가

, 2 3 (CD) (R22)
 (R), (G) 1 2 NMOS (ELC) 가 가
 (Pa) (CD) (NM21, NM22) (R22)
 EL (ELC) (DL) (CD)
 가

10 4 (CD)

10 , 4 (CD) 40 (N40) 2 NMOS
 (NM42) 1 NMOS (NM41) (DL) 4 NMOS (NM44)
 3 NMOS (NM43) (CD) 1 NMOS (NM44)
 (NM41) (Pa) 가 (R41) 가 (R41) , 가 (R11) (Pa)
 (CD) (PE) TFT가
 1 3 NMOS (NM41, NM43) 1 NMOS
 1 3 NMOS (NM41, NM43) 1 NMOS
 (NM41) (NM42) 40 (N40) 2 N

MOS (NM42) 40 (N40) (NM42) 40 (N40) (NM42) 40 (N40)
 . 40 (N40) () 가 . , 2 NMOS (NM42) 40 (N40)
 . (NM42) 가
 . 가
 . 가 . , 2 NMOS (NM42) 가
 . 40 (N40) () 가 . , 2 NMOS (NM42) 40 (N40)
 . (NM40) () 가 . , 1 NMOS (NM41) 2 NMOS (NM42)
 . 가
 . 가
 . 가 . , (Vroot) 가 (CD) 가 ()
 . , (R), (G) (B) EL (ELC)) (CD)
 . (Vroot) (Pa) () (GND) () 가 .

, 3 NMOS (NM43) 가
 - 4 NMOS (NM44) 가
 3 NMOS (NM43) (DL) 가
 4 NMOS (NM44) (DL) 40 (N40)
) , 4 NMOS (NM44) 40 (N40) (, 40 (N40)
 가 . , 3 NMOS (NM43) 4 NMOS (NM44) 가
 3 NMOS (NM43) 가
 4 NMOS (NM44) 가
 , 4 NMOS (NM44) 가 (DL) (, 40
 (N40)) 4 NMOS (NM44) 40 (N40) (, 40
 가 . , 3 NMOS (NM43) 4 NMOS (NM44) 가
 3 NMOS (NM43) 가
 4 NMOS (NM44) 가
 , 4 NMOS (NM44) 가 40
 (N40) (, (DL)) , 가 , 가 (V/m)
 가 (PE) 가 (R), (G) (B) EL (ELC) 가

, 4 (R), (G) (B) EL (ELC) 가
 , (Vm) . , (Pa) 1 NMOS (NM41)
 가 (R41) . , 4 NMOS (NM44)
 EL . (DL) (DL)
 . , 4 (CD) EL
 가 .
 가 .

4 11 12 (CD)

11 , 10 (Vroot) 가 (Vm) (GND)
 , 2 NMOS (NM42) (GND) (R52)
 (R52) 가 (PE) 가
 (CD) 가 (R), (G) (B) EL (ELC))
 . (DL) (GND)
 , (R52) , 2 NMOS (NM42)
 (GND) (R52) (DL)
 2) 4 NMOS (NM44) , 2 NMOS (NM42) (GND) (NM4)
 2) 12 4 NMOS (NM44) (R), (G) (B) EL (ELC) 가
 (PE) 가 (CD) 10
 4 (CD)

, 가 (R), (G) (B) EL / 가
 , , , , ,
 EL EL 가

가

가

(57)

1.

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가 ,

2.

1 ,

(Current Sink)

3.

1 ,

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가 가 ,

가 가 ,

가 ,

가 1 ,

1 2

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2 1

3 ,

4.

1 ,

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가 ,

가 1 ,

1 2

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2 1

3 ,

1

5.

1 ,

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가 ,

가

1 ,

1

2

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2

1

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3 ,

3

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6.

1 ,

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가

가 가 ,

가

가 ,

가 ,

가

1 ,

1

1

2 ,

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3

2

가

4 ,

1

3

1 3

7.

1 ,

,

가 ,

가 1 ,

1 2 ,

3 ,

3 2
4 ,

1 3 1 2

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2

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8.

1 ,

,

가 ,

가 1 ,

1 2 ,

3 ,

3 2
4 ,

1 3 1 2

,

4

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3 8 ,

가

10.

3 6 ,

가

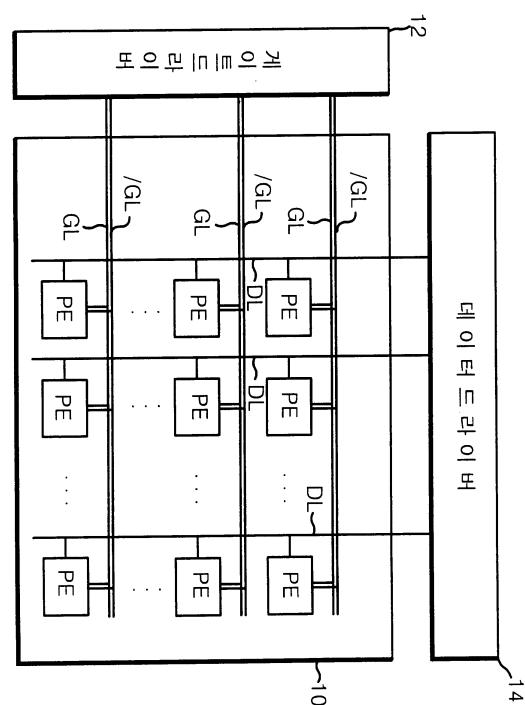
가

11.

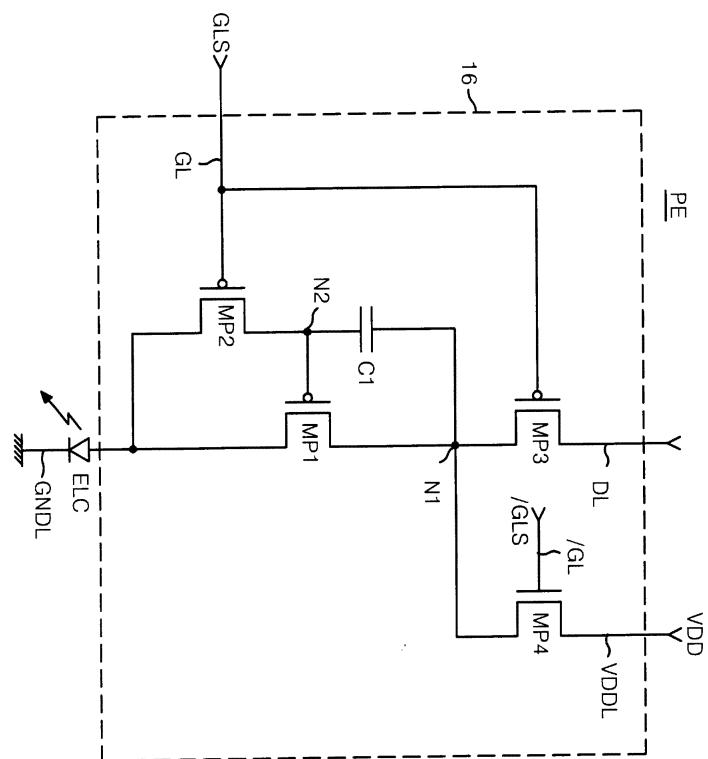
4, 5, 7 8 ,

가

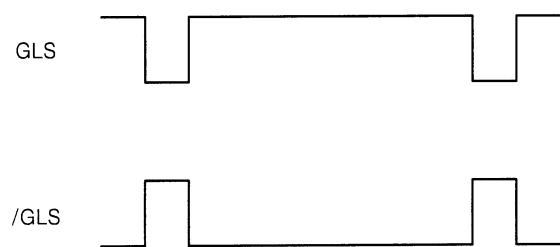
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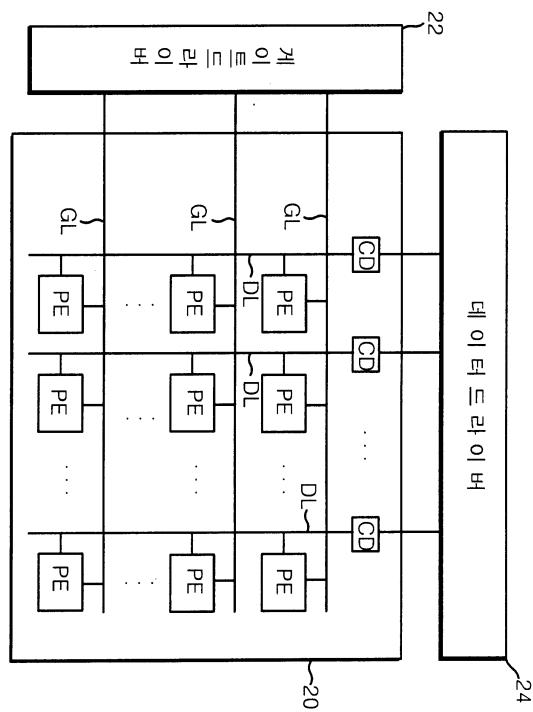
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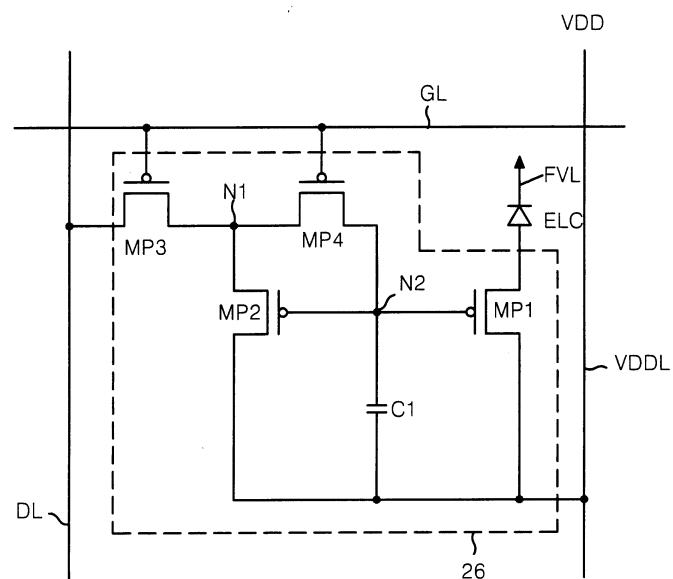
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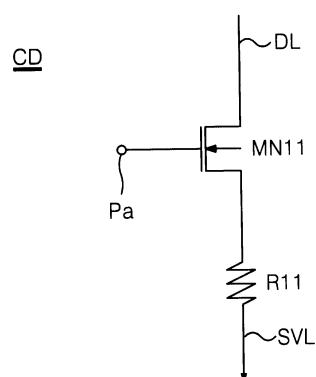
4



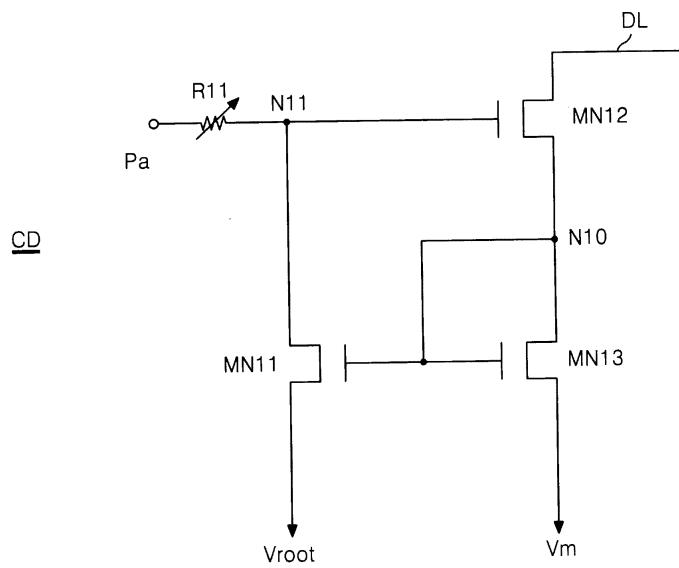
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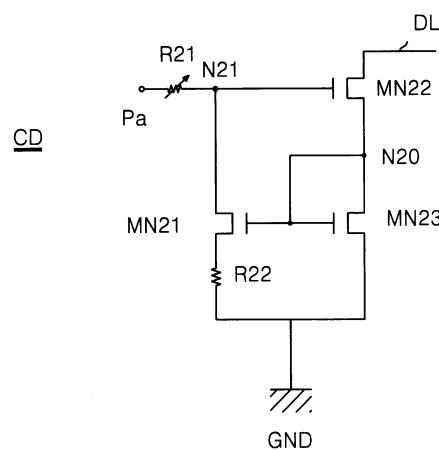
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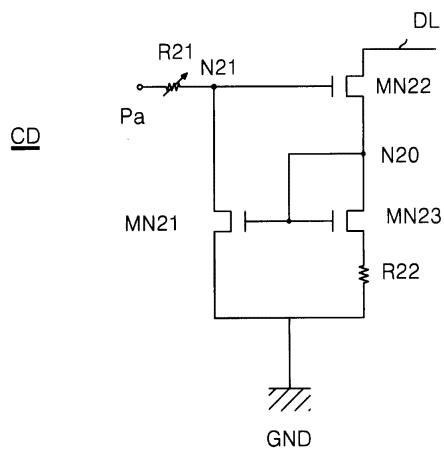
7



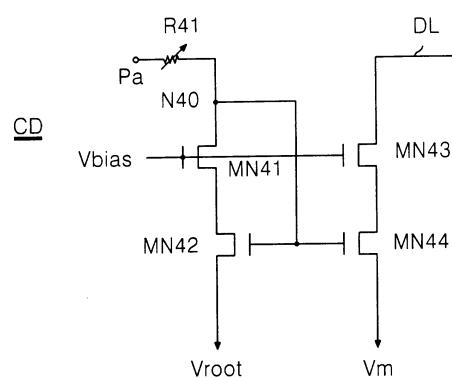
8



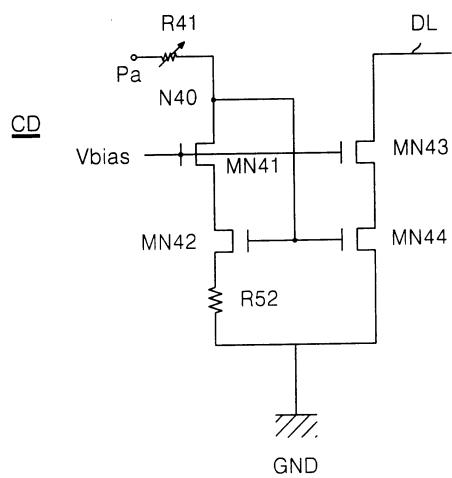
9



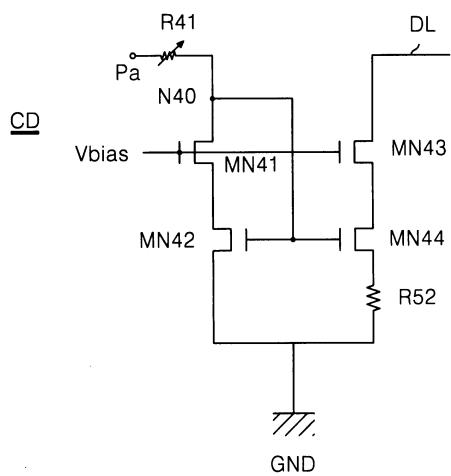
10



11



12



专利名称(译)	电致发光板		
公开(公告)号	KR1020020052134A	公开(公告)日	2002-07-02
申请号	KR1020000081415	申请日	2000-12-23
[标]申请(专利权)人(译)	乐金显示有限公司		
申请(专利权)人(译)	LG显示器有限公司		
当前申请(专利权)人(译)	LG显示器有限公司		
[标]发明人	PARK JOON KYU 박준규 BAE SUNGJOON 배성준 LEE HANSANG 이한상		
发明人	박준규 배성준 이한상		
IPC分类号	G09G3/30		
代理人(译)	KIM , YOUNG HO		
其他公开文献	KR100675318B1		
外部链接	Espacenet		

摘要(译)

目的：提供一种电致发光板，通过使用电致发光元件在相同数据的接收过程中产生相同亮度的光。

