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(71) 10504

(72) 가 가 2-15-26

가 가 6-1- 503

가 3-11-116

(74)

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(54) , O L E D , , O L
E D

OLED(Organic Light Emitting Diode) TFT (Vth) 가
(1)
0) TFT OLED , TFT , OLED
(14)

1

1 가 OLED .

2 OLED .

3a 3b .

4 TFT 50 Vth .

5 TFT 35 , 가 (+ : plus shift)

6 TFT (Vth) .

< >

10 : OLED

11 :

12 :

13 :

14 :

15 :

20 :

21 : OLED(Organic Light Emitting Diode)

22 : TFT

23 : TFT

24 :

OLED(Organic Light Emitting Diode) . ,

OLED .

OLED(EL) 가

. OLED , (Gamut)

. OLED (passive type) (active type), 2 가

, , , (cross talk)

. , TFT(Thin Film Transistor) . TFT 2가 ,

a-Si() .

TFT 가 ,

PEP(PEP:Photo Engraving Process:)가 TFT , 9

가 , TFT , 15

가 , a-Si() TFT ,

. , a-Si TFT ,

가

OLED

, OLED

1, a-Si() TFT OLED (10) (10) OLE

D (10) , m x n (11), (11) (12), (11) (13), OLED (15), m x n (12) (14), OLED (13) (11) 가 (15) , OLED (11) O

LED OLED 가

2 OLED (10) (20) 2 (20)
 , OLED(Organic Light Emitting Diode)(21), OLED(21)
 TFT TFT(22), (12)
 (13) TFT(23),
 (14) (24)

(14) TFT(22) , 15V
 , TFT(22) (Vth)
 0V TFT(22)
 가 , 가

TFT(22) , 1 μ A , 1 μ A 가
, DC 1 μ A (Duty) 50% 2 μ A ,
가 . ,

(Vth)

3a 3b (11) (20) 3a
 3b 2 가 (14) (15) (13)
 (14) (20) TFT(22) 가
 50% (3a), (3b).
 (14)
 3a 3b , TFT(22) 가
 (14) TFT(22) (24) , TFT(22) (24)
 (14)가 , 「 」 , 가
 , 가
 4 50 TFT(22) Vth (4 , (Vth) (V) , () 4 50% 4 , ((Vg) (Vd) (10V) Vth (Vd) (10V 0V) Vth 4 (Vg) (Vg) (20) (Vd) 2 가 , Vth , TFT(5 TFT(22) 35 가 () (Vth) (V) , () (Vg) , (Vd) (Vg) 10V 0V (Vd) 15V 0V (Vg) 10V 0V (Vd) (Vd) 10V 0V 가 () 5 (Vg) (Vd) (negative shift)가 , 가 , 가 , 가 5 , , n+ / , n+ , 가 , th) 가 , TFT , (V) 가 , (Vth) 가 , (Vth) / ,

, OLED
 (/)
 (Vth) (Vth) TFT (Vth) (14)
 TFT Vth
 (Vth) TFT OLED
 TFT 가 (Vth) TFT
 TFT 가 (Vth) TFT
 TFT

(Vth) , 가 (TFT) OLED
 , TFT OLED
 가 ,

(57)

1.

OLED(Organic Light Emitting Diode) ,

OLED

가

2.

1 , ,

3.

OLED(Organic Light Emitting Diode) ,

OLED

4.

3 , 가 .

5.

OLED(Organic Light Emitting Diode)

가

6.

5 , ,

가 .

7.

OLED(Organic Light Emitting Diode) ,

OLED

,

(Vth)

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OLED

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8.

7

,

0V가

OLED

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9.

OLED(Organic Light Emitting Diode)

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가

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10.

9

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11.

OLED(Organic Light Emitting Diode)

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12.

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13.

OLED(Organic Light Emitting Diode)

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OLED

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OLED

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14.

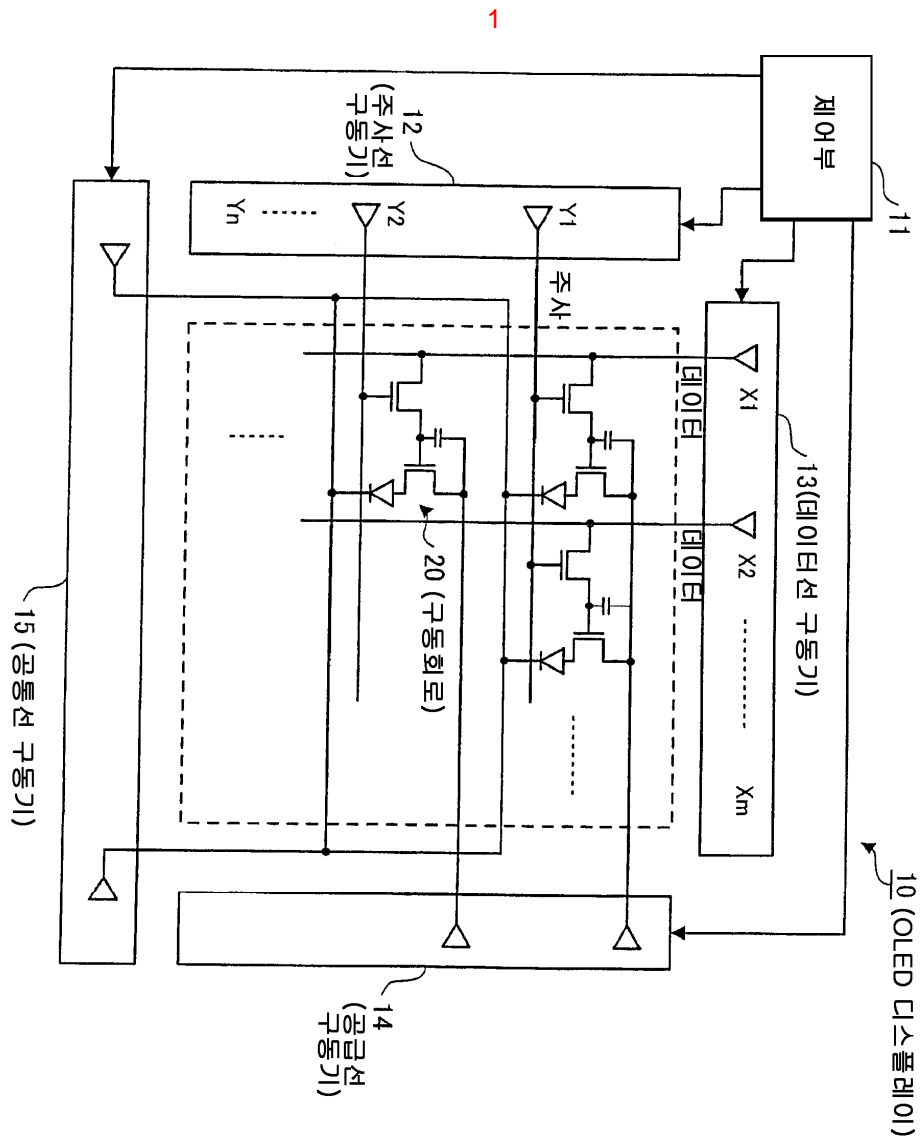
13

,

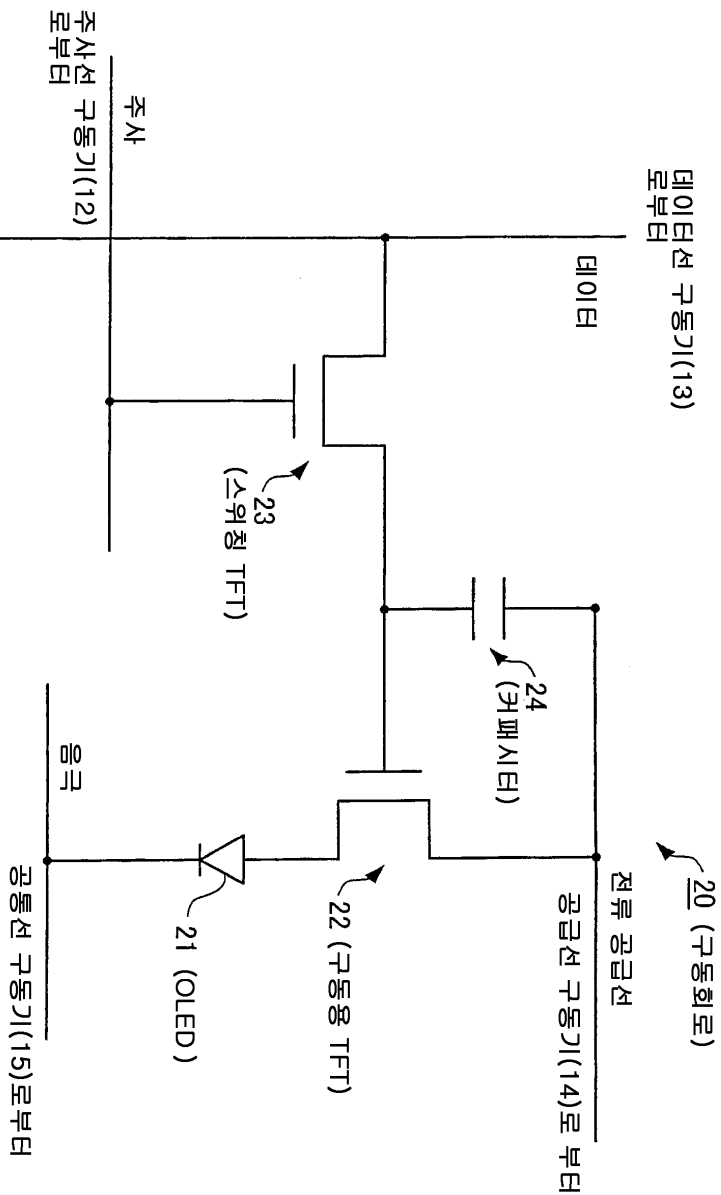
OLED

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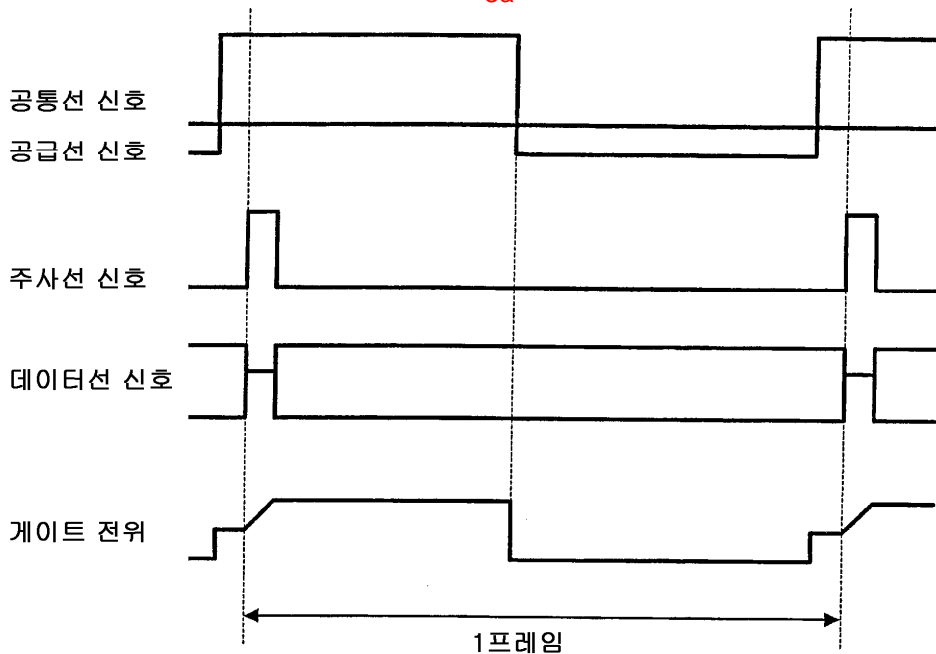
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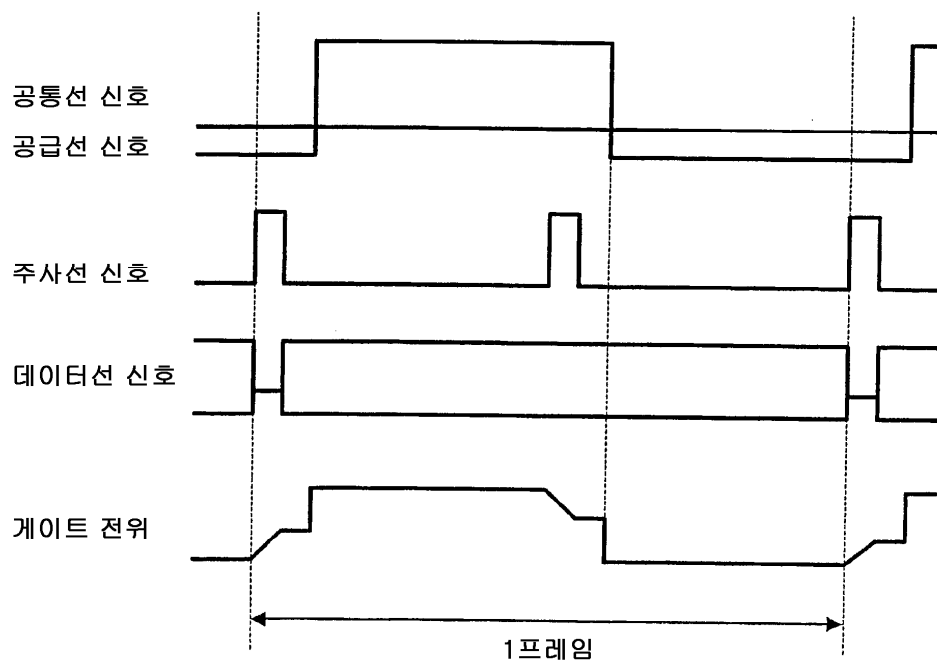
2



3a



3b



4

