

2002 - 0059432
2002 07 12

WO 2002/27700
2002 04 04

1

- 1 -

2 OELD ,

3 2 ,

4 2 ,

5 ,

6 ,

7 ,

8a 8b ,

9a 9b ,

10 ,

11 10 ,

12a 12b ,

13 ,

14 ,

15 .

0) TFT , MOS (12) 2 OELD (1

(pass - gate) (SW_1 SW_2) . " (feed - through)" ,

(C_1) (12) (+) (V_{saw}) (-)

(SW_1) (SW_1) (SW_1) (V_{sel})

(SW_2) (SW_2) (14)

V_{saw} 가 , (C_1) (12) (SW_1) 가

(V_{dat}) (14)가 .

- - - (line - at - a - time) , V_{sel} (row) (SW_1)

(SW_1)가 , (V_{dat}) (12) (C_1) 가

(SW_1)가 , (C_1) (V_{saw})

(12) V_+ 가 V_- ,

(14) LO (12) V_+ 가

V_- , (14) HI , (C_1)

(14)가 .

(stray) 20ms , (14) ns , TFT

가 .

2 , (V_{OELD}) OELD V_{OELD}

(V_{DD}) OELD

가 .

, 2 (12) .
 가 , 가
 , 0V 5V 256 , V=19.5mV 가 . ,
 ,
 2 (12) 가 3 3 2 ,
 CMOS (16) CMOS (18)가 CMOS (18) (SW₂) (16)
 ,
 (16) V_{DD} (20, 21, 23) - ,
 (20, 22, 24) , (22 24) (21
 23) (21 22) (12) (+, -)
 , (20) (V_{bias}) (18) 2 (25
 26) V_{DD} - (V_{out})
 (25 26) , (21 23)
 .
 3 7 TFT . SW₁ SW₂ TFT 9 가 .
 ,
 4 2 . 4 V_{scan} , V_{saw} V_{out} 2
 a b . V_{out} OELD 가 4a 4b V_{saw}
 4a V_{saw} , 4b V_{saw} 4a ,
 , 4b ,
 .
 V_{saw/m} , m
 m , V_{saw/m+1}
 T_{frame/M} , T_{frame} M
 , M
 가 ,
 가 .
 5 (30)
 (V_{master} V_{ref}) (30) V_{scan/m} .
 V_{saw/m} (10) 가 .
 , ,
 , TFT , 가 가 .
 , , V_{master} , V_{ref}
 , 가
 V_{scan/m} , V_{scan/m} 가 .

, R, G B
 (WG)가 , 가 (32) (34)
 (rate) 6
 7 6
 가
 8a 8b 가 8a(V_{DRV}) 8b(V_{DRV})
 가 (still)
 가 (V_{DRV})
 9a 9b
 10
 (C_{20}) 가 (V_{gray}) (C_{20}) (SW_{10} SW_{20})
 (SW_{10} SW_{20}) ($\phi 1$ $\phi 2$) (SW_{30})
 (C_{10}) (V_{scan}) (SW_{30})
 (SW_{20} , SW_{30}) (C_{10}) (36) (SW_{10})
 (36) 가 (L.P.) (36) (V_{saw}) (L.P.)
 4 (V_{gray} , $\phi 1$, $\phi 2$, V_{scan}) (V_{saw})
 11
 (V_{gray}) 0V , h ($\phi 1$ $\phi 2$) , V_s
 can . V_{scan} HI 가 , V_{scan} 0V C_{10} 가 (SW_{30})가
 , V_{scan} LO , SW_{30} . S
 W_{20} SW_{10} $V_{gray} = 0V$ 가 , $V_{gray} = 0V$ h
 $C_{10} = C_{20}$ 가 , 가 h/2가 , $V_{gray} = h$, SW_{20} SW
 10 (32) C_{10} SW_{10} , SW_{20} 가 ,
 V_{gray} 가 0V C_{20} (32) 가 , $C_{10} =$
 $V_{gray} = 0V$ h
 C_{20} 가 , h/2가 h가 (36)
 가 (L.P.) 가

TFT 가 . 0V 5V
 , 256 가
 $20\mu s$, 256 . 50 /s
 , 가 $t = 1/50 \div 256 = 78.125\mu s$,
 $V = 5 \div 256 = 19.53mV$. = 0 OLED가

12a 12b 5 (GS = 1 5) 5 (GS = 252 256) .
 (plot) 12a 12b ,
 가 (trailing edge) 가 (漂遊)
 가 .
 .
 , CRT
 . 가,
 .
 , 가 TFT
 , 가 TFT
 가
 ,
 , CD , DVD 가
 .
 , 가
 < 1: >
 , 가
 13 가 (1100)
 (1102) (1106) (1104)가 (1106)
 .
 < 2: >
 , 가 14
 가 (1200) (1202), (1204),
 (1206), (100) (100)
 .
 < 3: >
 , OEL 15
 가 .

(1300) , (CCD)
 (1300) CCD (1302) OE
 L 가 (100) C
 CD (1304) (1302) ()

OEL (100) , CCD
 가 (1308) (1300) , (1312)
 / (1314)가 (1302)
 (1430) (1440)
 (1308) (1312) / (1314)
 (1440) (1430)

13 , 14 , 15
 , ,
 가 , TV , (POS)

(57)

1.

2.

1 ,

가

3.

1 2 ,

4.

3 ,

5.

4 ,

6.

3 5 ,

7.

3 6 ,

8.

1 7 ,

9.

1 8 ,

가

10.

9 ,

11.

12.

11 ,

13.

12 ,

14.

12 ,

15.

12 14 ,

가

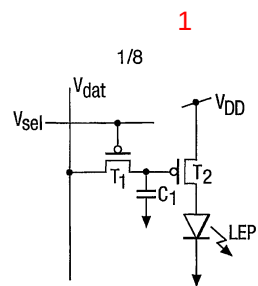
16.

15 ,

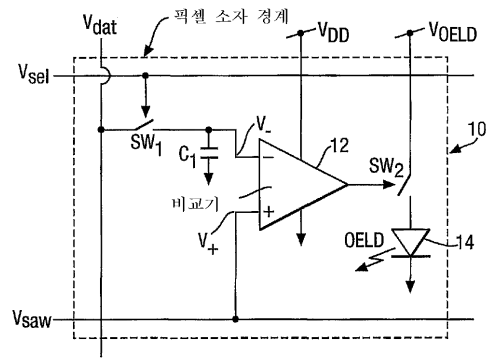
가

17.

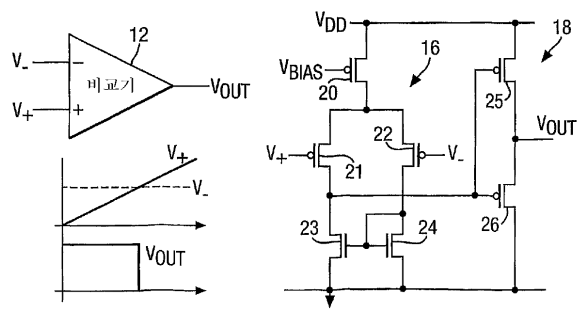
1 10



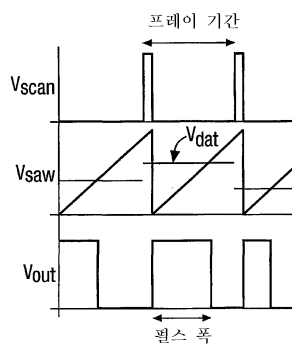
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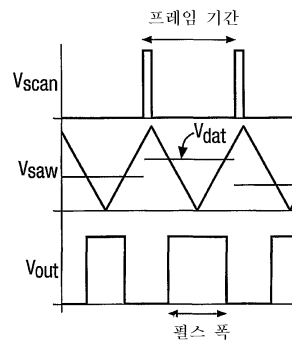
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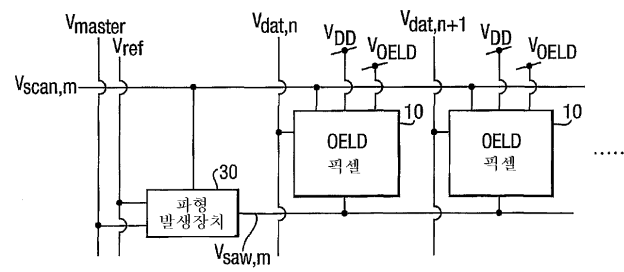
4a



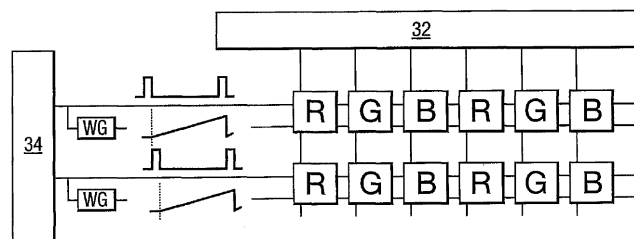
4b



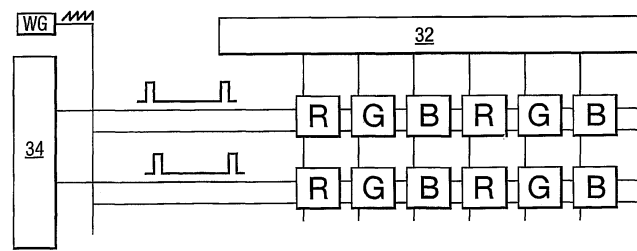
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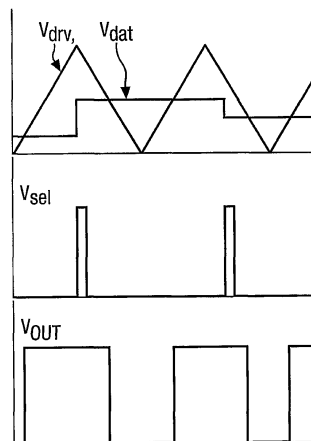
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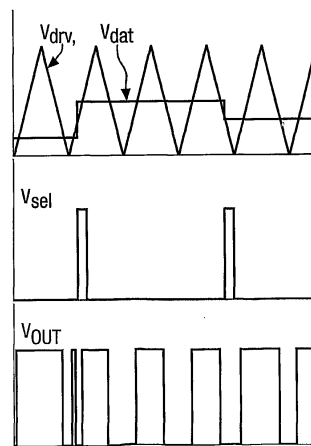
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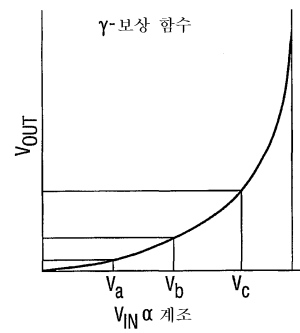
8a



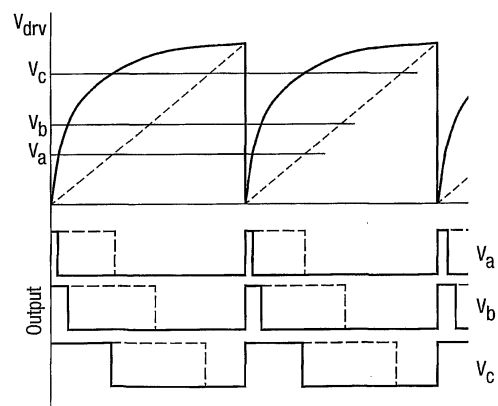
8b



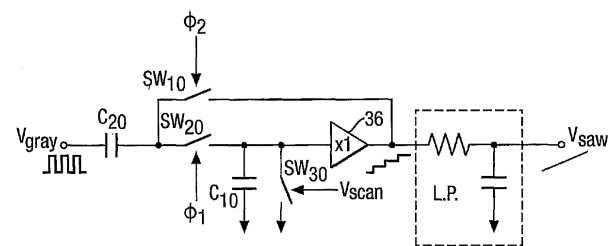
9a



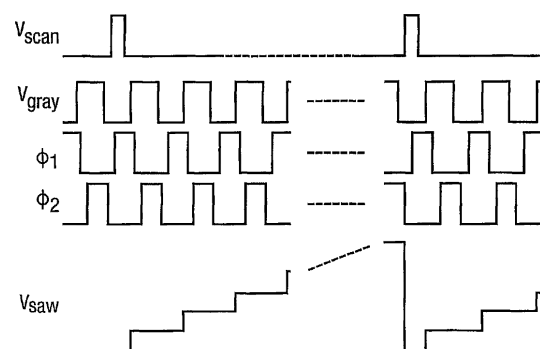
9b



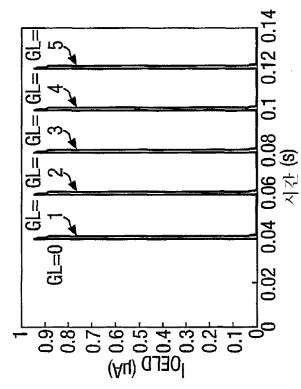
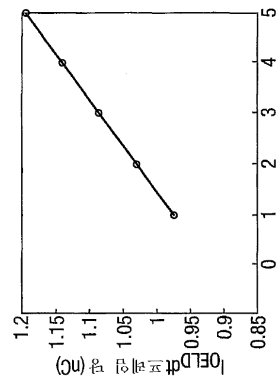
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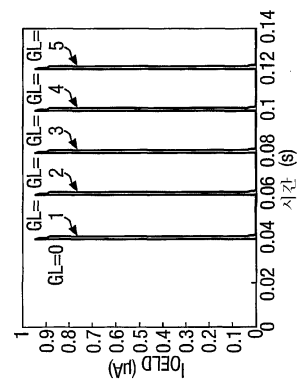
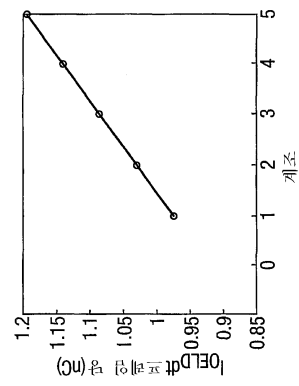
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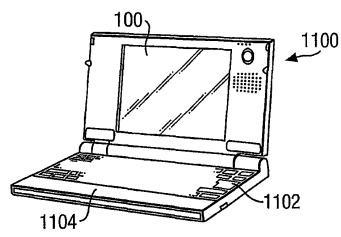
12a



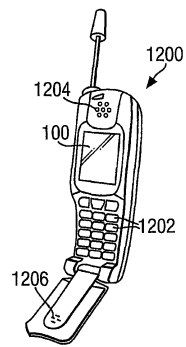
12b



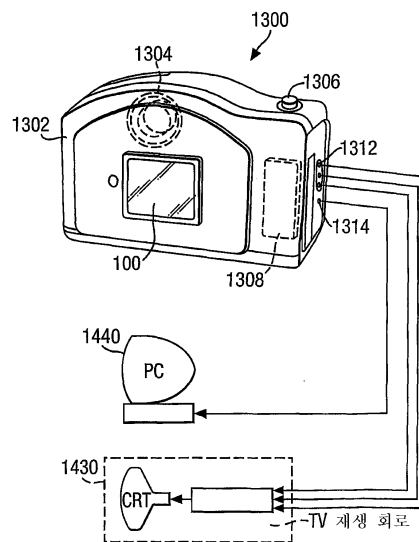
13



14



15



专利名称(译)	显示装置，驱动显示装置的方法，电子装置		
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其他公开文献	KR100547498B1		
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摘要(译)

该显示装置包括驱动电路，用于在帧周期期间调制像素导通状态的占空比。优选地，驱动电路包括比较器，更优选地，比较器由构成差分对的薄膜晶体管和反相器形成。并且在帧周期期间调制像素的占空比。显示装置优选是有机电致发光有源矩阵显示装置。 - 1 - 2 指数方面 显示装置，驱动电路，有机电致发光有源矩阵显示器，像素

