

(19) (KR)
(12) (B1)

(51) 。 Int. Cl.⁶
H01L 31/10

(45)
(11)
(24)

2004 08 09
10-0443901
2004 07 30

(21) 10-1999-0016743
(22) 1999 05 11

(65)
(43)

10-2000-0047398
2000 07 25

(30) 1019980053630 1998 12 08 (KR)

(73) . 20

(72) 941-4

1145 650-1101

32-15

958-201

(74) :

(54)

1
1 2
;
, 가 2
;

1
 2 1 - '
 3 1
 4a 4d 1 3 - '
 5 2
 6 5 - '

1 : (Glass) 170 :
 180 : 182 :
 184 : 102 :
 104 : 1 106 :
 108 : 1 110a :
 110b : 114 :
 116 : 118 : 2
 120 : 122 :
 124 : 2 126 :
 128 : A :
 B : C :

(photo sensor)
 (image reader)

(facsimile),

(digital copying machine)

가

가

(electron-hole pair)

(carrier)가

가

1 dow)가 (8) ()가 (100) (8, win
 (4) (6, (4) (6)가 (2, (2)
) (9) () (2, (2)
 (100) (8)
 2 (34), 1 (30) (4) 1 (30)
 (30')

0) , 1 (2) (4) 2 (6) 1 (1) (20)(30)(4 (40)

, 1 (20)(30)(40) (32) , (32) (6)

(26), (46) (2) (22)(24)

, 2 (4) 2 (34) , (6) (4) (4)

2)(44) (6) (16) (10) (SiN_x),

(SiO₂) (6) , BCB, (off state) ,

(40) (negative voltage) 가 (4)

2 , (34) (6) (4) (42) (4)

, (4) (2) (2) (20) 가 (22)

(2) (24) (8) (S/N)가

, 가

(4) (4) (30) 가

(8) (4) (6) (30') S/N

(S/N) 가

1 가

1 ; 1

2 ; 1

2 ; 1

1 ; 2

1 ; 2

가 2

1 2 ;

가, 1 1 가 ; 1 1 ; 1 ;

1 ; 2 ; / 2 / ; 2 ;

2 ; 2 ; 2 ; 2 ;

1 ;

1 1 ;

3 4 3 3 ;

(E) (E) (G) (G)가 (E)가 (F)가 (H)가 ;

3 (E) (52b) (80) (E) (G) (50) (width) (52a), (70) (60) (62) (82) (84) ;

(72), (74) (F) (62) (50) 1 (64) ;

(), 2 (62) (G) (width) ;

h) 3 4a 4d (E) 4a (6 ;

0) (F) 1 (64), (Cr), (Mo), (Al) (50) (T ;

i), (Sn), (W), (Cu) (92) (52b) (52a) ;

4b 1 (G) (64) (92) (E) (92) (92) (S ;

iNx) (F) 1 (SiO₂) (64) (92) (E) (92) (92) (S ;

82) 2 (84) 4c (E) (;

(74) (84) (F) 2 (62) (E) (G) (;

(Ti), (Sn), (W), (Cu) (94) (Cr), (Mo), (Al) ;

2 (E, F, G) (94) (E) (96) (4d). ;

(94) (E)가 (degradation) (96) (Cr), (Mo), (Al), BCB, (Ti), (Sn), ;

(W), (Cu) (96) (Cr), (Mo), (Al), BCB, (Ti), (Sn), ;

(E, F, G) (96) , , BCB, (G)

(E) (channel width)가 (E) (on) 가 (G) (field effect

mobility)가 가 가 , (H) (signal vs no

ise ratio) 가

2 1

2

가 2

5 5 6 2

5 5 6 (170) (170) (102)

(102) (102) 가 () ()

(102) (110a) (182)

(182) (114) (106) (180) (180)

(104) 1 (104) (180) 1

(106) (110b) (110b) (184)

(122) (118) (116) (120)

2 1 (184) / (114, 116) / (122, 120), 2 (118), (1

82) 6 / (1) 1 (102) , (104)

(106) (106) 1

1 (1) 1 (108) (102, 106) 1 (108)

(110a) (110b)

(122) (120) (114) , (116)

(116) 2 (118) 1 (120) (104)

(124) 2 (124) 2 (124) (126)

(inter layer insulator)

(110a) 2 3 (126)

(126) (128)

(C) (110b) (C) 가 (1

(C) (120) 2 (B)

18) (A) (B) (116) (114)

2 6 1 4d

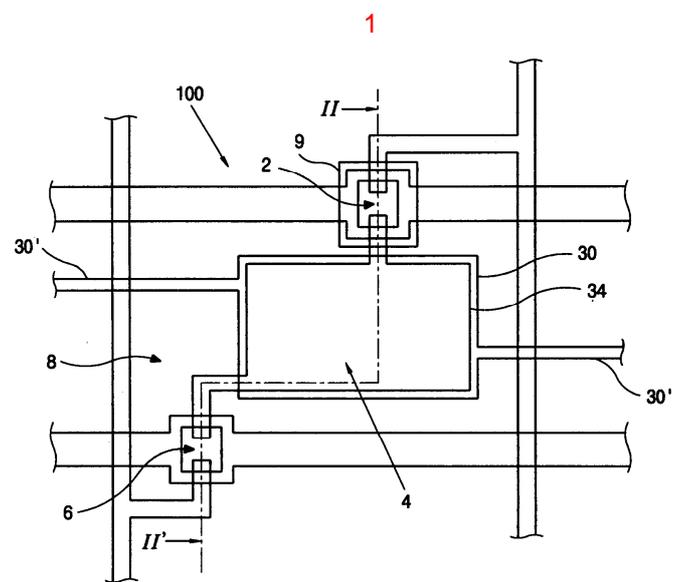
2 1 / / ;
 2 2 ; ;
 2 2 ; ;

7.
 6 , 1 가

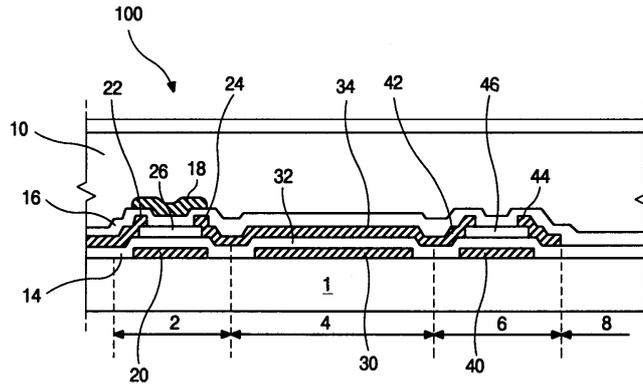
8.
 1 ;
 1 1 ; ;
 2 / 2 / ; ;
 2 2 ; ;
 2 2 ; ;

9.
 8 , 1 가

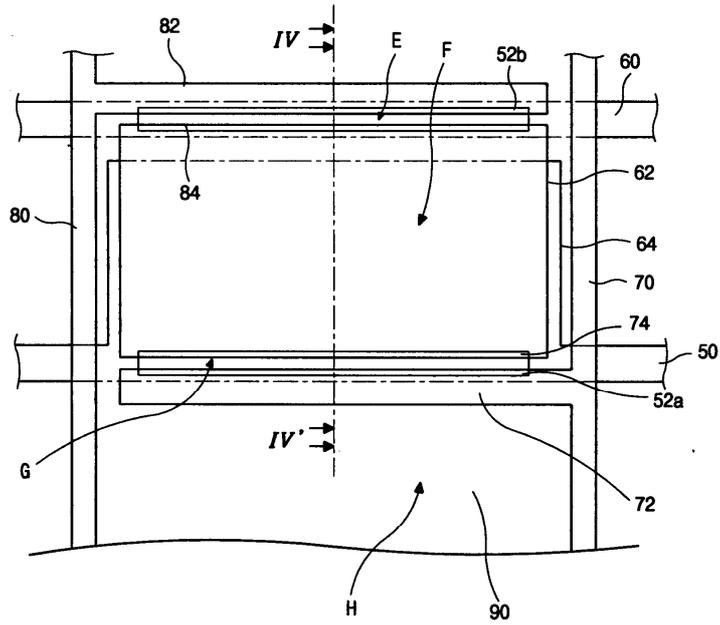
10.



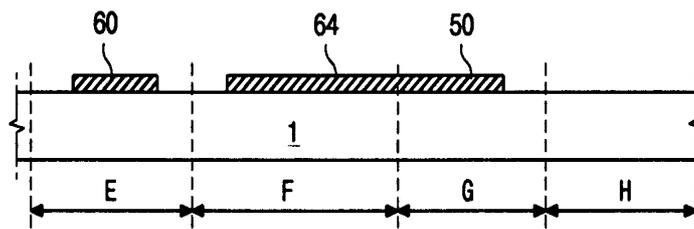
2



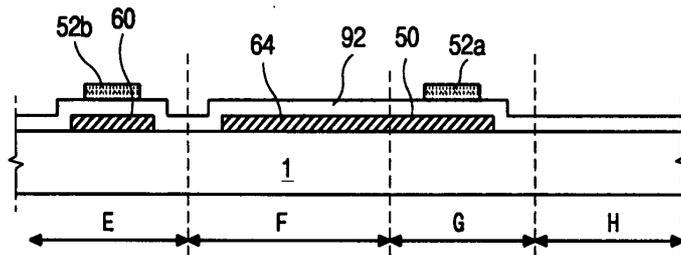
3



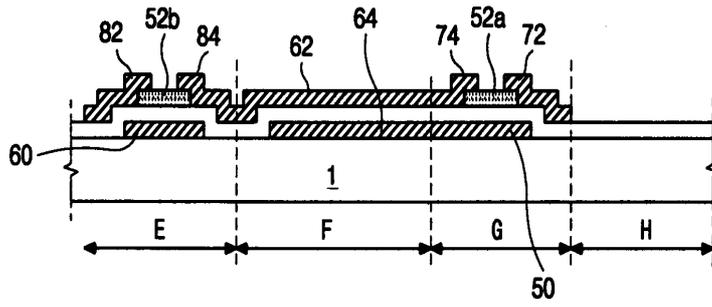
4a



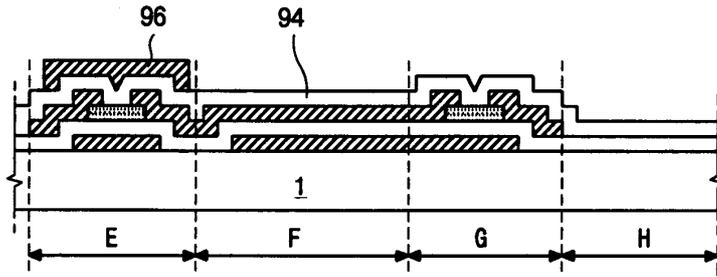
4b



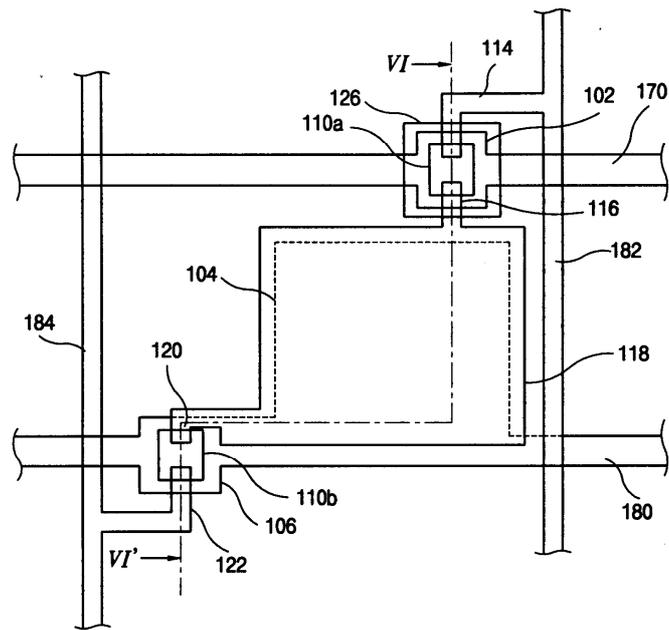
4c



4d



5



6

