

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl.⁷
G02F 1/1343

(11)
(43)

10-2004-0044122
2004 05 27

(21) 10-2003-0079349
(22) 2003 11 11

(30) JP-P-2002-00328296 2002 11 12 (JP)

(71) 가 가 2 4-1

(72) 가 3 3-5 가 가

(74)

:

(54)

(3) (2) TFT(50)가 A1 (8) (2) (8)
, A1 , (3) (100) , (8)

5

1

2 A1 A2 ,

3 AA ,

4 AA ,

5 AA (151) (2) (左端部) ,

6 5 (151) B-B' ,
 7 (8) ,
 8 (151) (3) (下端部) ,
 9 (151) ,
 10 AA ,
 11 AA ,
 12 AA ,
 13 (8) (152) .

AA : A :
 A1 : A2 :
 2 : 3 :
 6 : 8 :
 50 : TFT() 100 :
 200 :

, , 가 , 가 (導通) , 가
 , 가 , 가 ()
 , 가 , 가 (Thin Film Transistor : 「TFT」)
 , (n
 umbering) , ,

가

()

<1. >

1 (300) (400) AA, A, AA, (100)

CKB, Y D (同期) Y D, Y, 3 Y YCKB, X XCK, X (300) X (200)
DY X YCK, DX (100) (300) (400)

X Y XCK (2) XCK (3) Y YCKB Y YCK XCKB

B (400) D/A D, R, G, B AA, RG

A, 1, n(n-2), m(m-2) (3), Y (2), X

가 (2) (3) TFT(50) 가 (2) TFT(50)
6) 가 (3) TFT(50) () (挟持)

A, A1 A2 A1 A2
A1U, A1D, A1L, A1R 가 A1U, A1D가 (2)
(3) 4 가 A1L, 3 가 A1R

1 TFT(50) 가 (2) Y1, Y2, ..., Ym

(3) (2) 가 TFT(50)가 (ON) X1, X2, ..., Xn

A1 (100)가 AA , A1 (8) , AA ,
 , (8) , () .
 , (151) , ,) .
 가 .

6 , 5 B-B' (151) .
 (151) , (50A 50C) () , , ()
 50A), (50B) (50C) (160) , (2),
 (7), (8) (7) (160) (50C)
 , (51) .

(3) , 1 (161) (160) (50A)
 . , (52) 1 (161) (160)
 (50C) 2 (162) (3) (52) , 2 (162)
 52) (8) , (8) , (2) (7) (6) ()
 (8) , .

, (8) , () 가 , ,
 , (151) , AA가 , AA (8) 가 ,
 가 AA , , AA , (8)
 가 .

, 5 (8) , 「1000」 가 4 가 ,
 A1 2 A1R (8) , 「1000」 2 A1L
 R , (2) 가 가 , (8) A1 (8) AIL A1
 , 가 .

, 5 (2) 10 7 가 ,
 16 가 AA , 16 .

<4. >

8 (151) (3) , A1 (8) ,
 (8) (8) , (3) (3-998) 998 (8) ,
 「998」 , ,

, (8) 가 A1 (8) A
 1 (8) 10 , (200) 2 A1D A1 , 2 A1U
 , (3) 가 가 (8) A1 A1U A1D (8) .
 가 가 .

<5. AA >

, AA 1 S1 , (151) , (50C)
 (planar process) , (50A 50C) . , (50A) (50C)
 (ion doping) , 2 S2 , (50 A 50 C)
 (160) .

3 S3 (2), (7), (8) (photolithography)

4 S4 (2), (7), (8) 1 (161) (3)
) (52)

5 S5 (162) ITO (151)
2 (6) (152) (151) (152) AA
(152) Cr, Ni,
, ITO 50 200nm
(158) (pre-tilt angle) 가 (158)
(152)
(151) (152) (6) (158)
(155)
AA가

<6. >

<6-1 : >

AA (151) TFT
(TFT(50)) (200), (100)
(151)
(151) (151)
(6) (6)
, TFT 3
2 (3) 2 (2) (2) (3)
(2) (3) 2
가
, STN(Super Twisted
Nematic) (passive type) 가 가

, (8) (151) (152) (8) (152)
 . 13 (8) (152) BM RGB CFr, CFg CF
 b가 (152) CFr, CFg CFb , (158) (8) 가 (8) A1
 (8) (6) (8) (8) AA (8)
 AA가 (152) AA (8)
 (8) (8)

A1

(57)

1.

(dummy)

2.

1

1

2

1

2

3.

4.

3

1

2

1

2

5.

1

4

6.

1 4

가

7.

1 4

가

8.

1 4

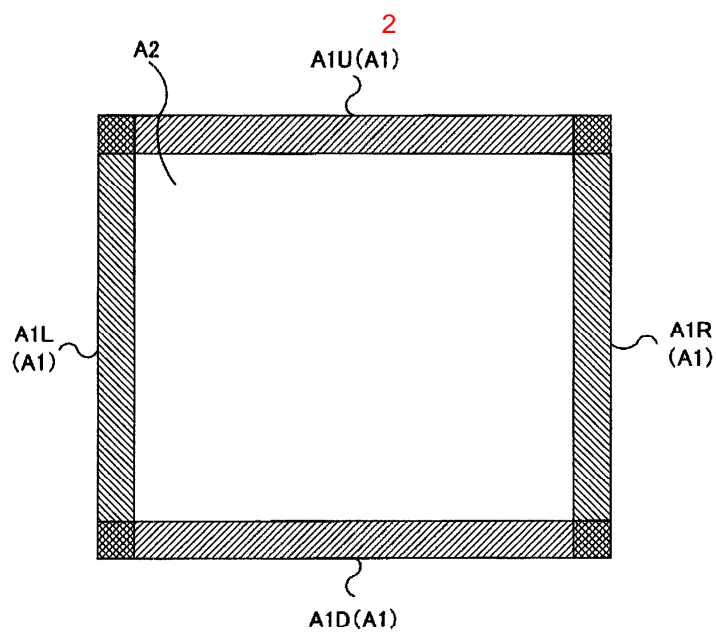
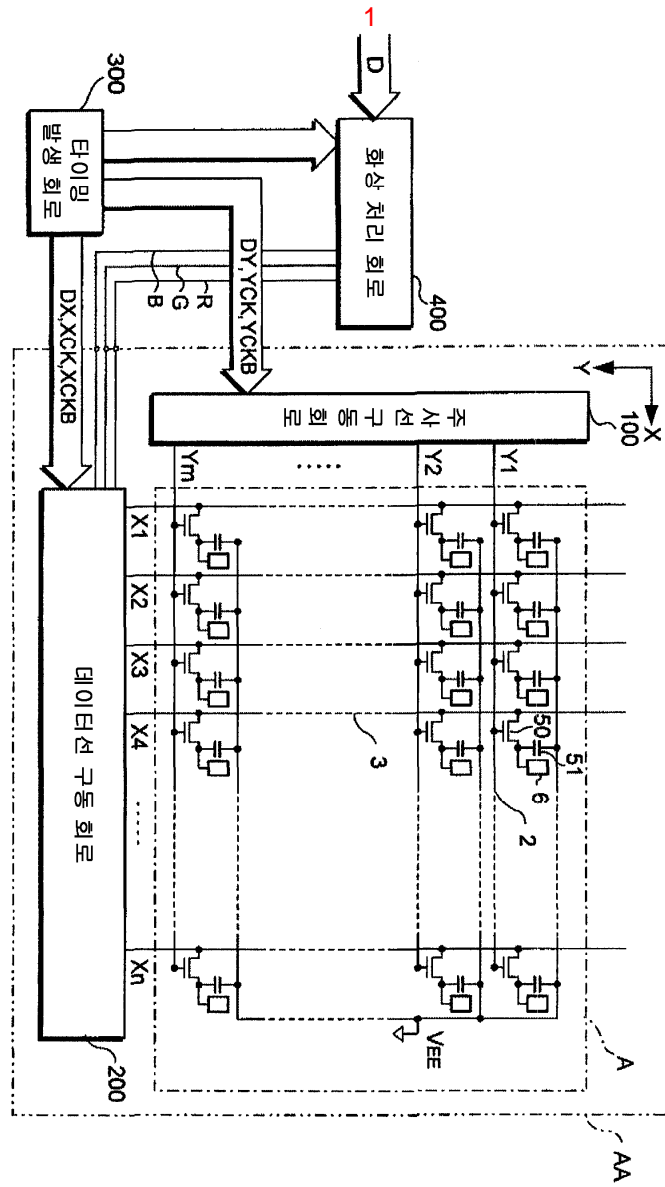
9.

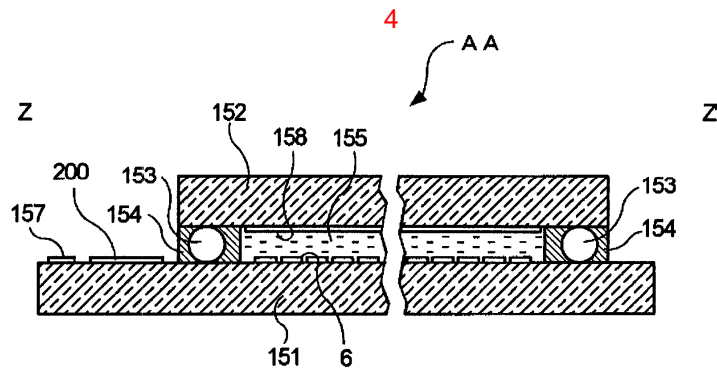
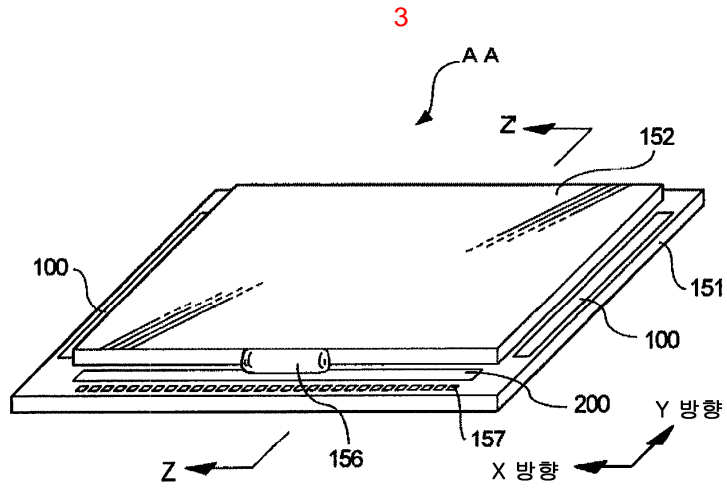
1 4

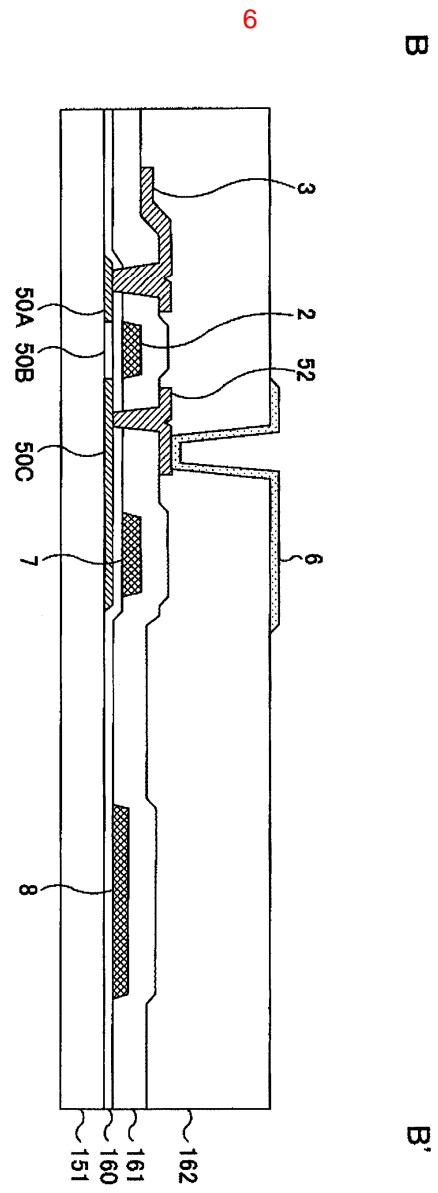
10.

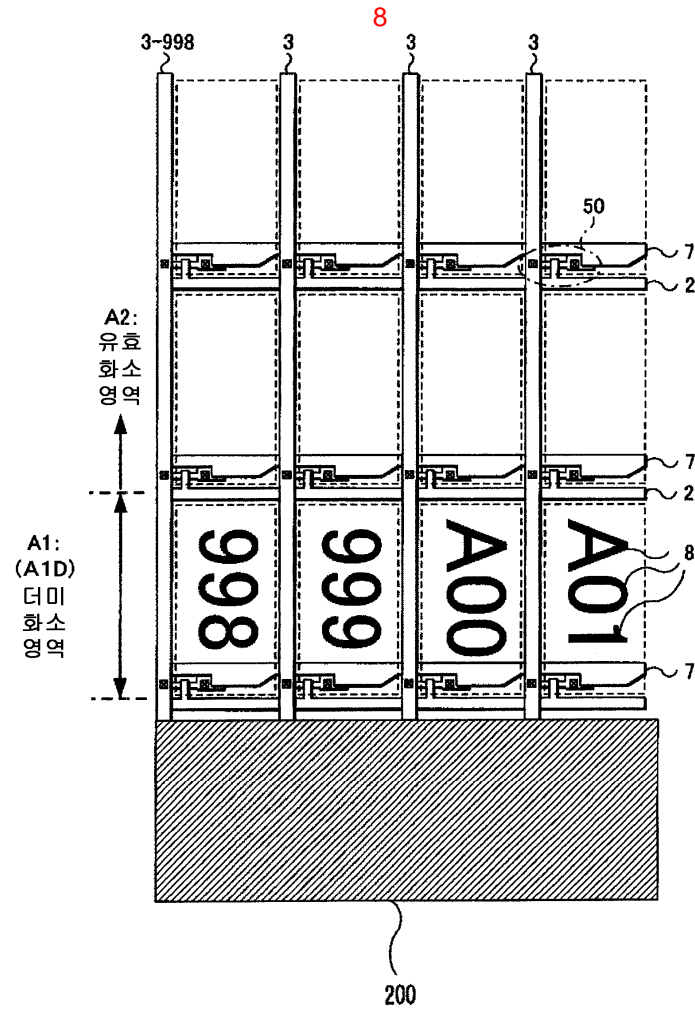
11.

1 4



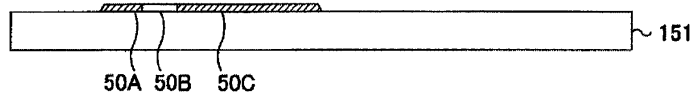






9

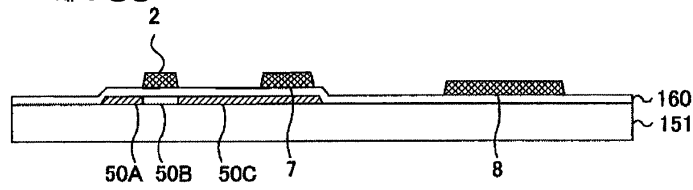
S1: 제 1 공정



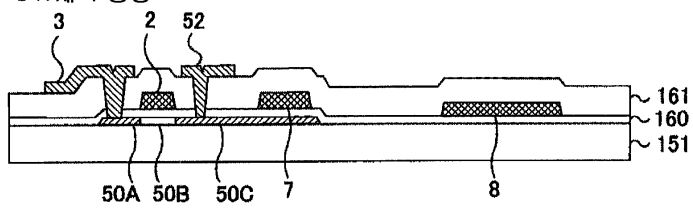
S2: 제 2 공정



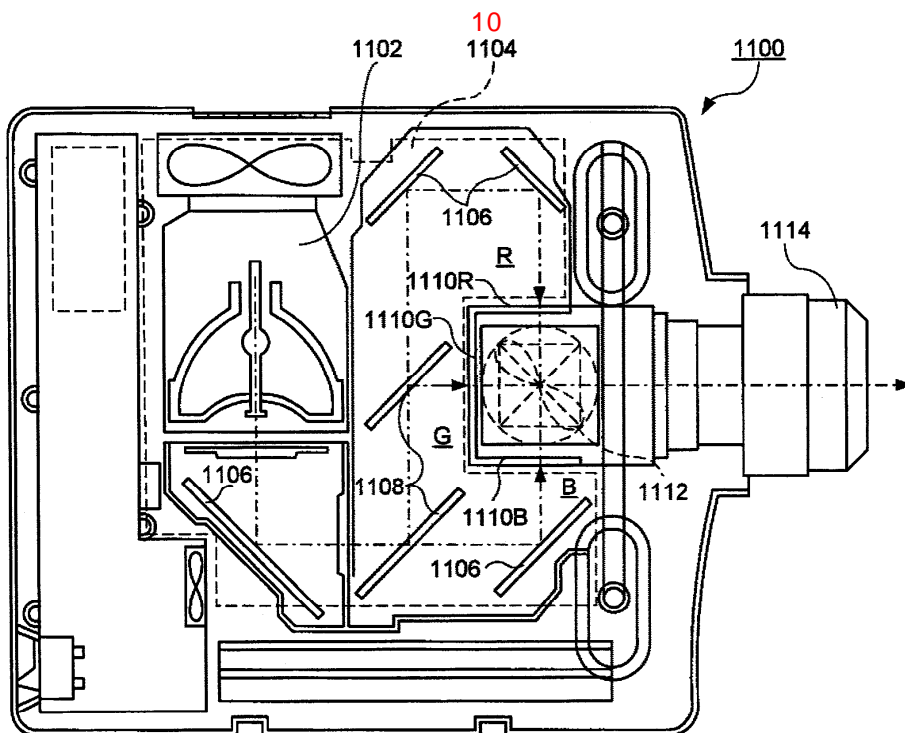
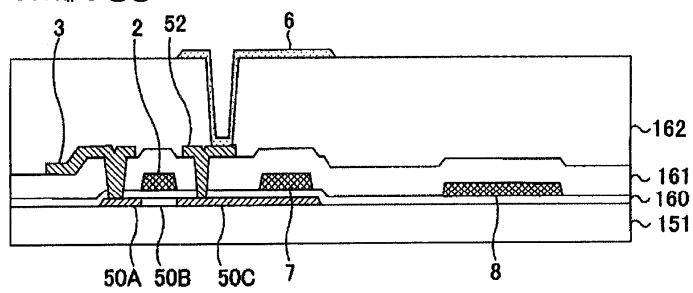
S3: 제 3 공정

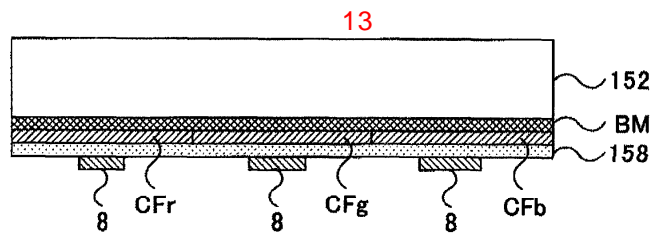
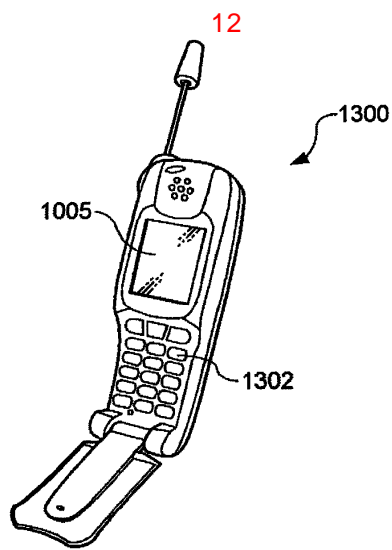
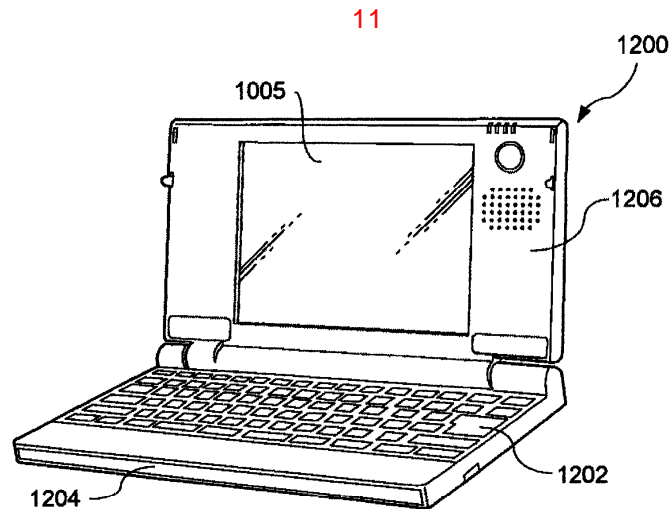


S4: 제 4 공정



S5: 제 5 공정





专利名称(译)	电光面板及其制造方法		
公开(公告)号	KR1020040044122A	公开(公告)日	2004-05-27
申请号	KR1020030079349	申请日	2003-11-11
[标]申请(专利权)人(译)	精工爱普生株式会社		
申请(专利权)人(译)	精工爱普生株式会社		
当前申请(专利权)人(译)	精工爱普生株式会社		
[标]发明人	FUJITA SHIN		
发明人	FUJITA,SHIN		
IPC分类号	G02F1/1362 G02F1/1368 G02F1/1343 G02F1/13 G09F9/00		
CPC分类号	G02F1/134309 G02F1/136286		
代理人(译)	KIM, CHANG SE		
优先权	2002328296 2002-11-12 JP		
其他公开文献	KR100627505B1		
外部链接	Espacenet		

摘要(译)

微型液晶面板减轻了亮度。它与扫描线(2)和数据线(3)的交叉点相对,并且准备了TFT(50)。哑像素区A1对图像显示没有贡献。然而,有效像素区域A2有助于图像显示。识别图案(8)表现出扫描线(2)的顺序。识别图案(8)形成在虚设像素区A1上。以这种方式,可以接近数据线(3)和扫描线驱动电路(100)。框架区域可以减少。

