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(43)2002 - 0046172
2002 06 20(21) 10 - 2001 - 0076856
(22) 2001 12 06(30) JP - P - 2000 - 0037 2000 12 08 (JP)
9773(71) 가 가
가 가 4 6

(72) 1041

가 5 - 8 - 6

(74)

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(54)

가

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가

2

가

1

1A

, 1B

2

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3

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4

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5

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6A 6B

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7

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8

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9A, 9B, 9C, 9D

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10A, 10B, 10C

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11A, 11B, 11C

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1 : 2 :

3 : 4 :

5 : 6 :

7 : 8 :

9 : 11 :

12 : () 13 :

14 : 100A : TFT

100B : 102 :

103 : 104 :

105 : 106 :

107A : 108 :

109 : 111 :

114 :

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가

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, 가

, 가 (,

IPS) 가 .

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63 - 21907 , 4345249).

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(7 - 325298 , 8 - 286194).

가 . , 2

가 ,
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가 .

가 . 가
가 가
가 가 .

1 1 , 1 2 , 1 2
1 , 1 , 2
2 , 1
(, ,)
() 2
() 2

2 TFT (가 (가 가)
, TFT (TFT
) 가 가 , TFT
가 , TFT
(, TFD) .

3 TFT (TFT (TFT
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) (, TFT
(,)
가 (,)
) .

4 (, TFT)
가
가

5 TFT ,
,
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,
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1A 1B
1A 1B I - I . 1B , 1A .

1A 1B , 1 , 2 , 3 , 4
(, 1B , 5 , 6 1
(6) .

1A 1B , (5) (3)가 . (3)
(2) , (3)
(2)가 .

(2) (3) (4) . (4)
(2) (3)
(2) (2B) (3) , (2) (3) 가 .
(3) (2) (3) 가

(4) (1)가 . (1) TFT ()
(3) 1B , (1)가 (1)
(3) 1A 1B (1)가 , (3)
(5) (1) (1)가 (5)(
(, TFT)
가

(5) (1)가 , ()
가 (1) 가 . (3)
(1)

2 1 , , 가
2 , 2 .
2 , 100A TFT (x) (y)
(102) (102) (Cr) .
(102) (103)(2 (y) (x)
) , .
, (x) (104) (102)
. (104) (104A) (104A)
(104) " H" .
(104A) (109) 가
(104) , (109)
. TFT (100A) ,
, (104) 가
, (102) (104) TFT (100A)
(SiN) (105)(13) .
(105) (103) (102) ,
(TFT) , 가 (Cadd)
. (TFT) (102)
a - Si() (106)
(106) (103A) (109A) , (102)
, (105) (stagger)
가 .
(106) (103A) (109A) (103) (109)
. (109) (104A)
, (109) y
(109) (104A) ,
, (109) (104)
" < " , (109) (104A)
(109) .

, (109), (104A), (103), (103),
 , (109), (109),
 , (109), (104A), (E), (104),
 (104), (+) θ , (104), (-) θ ,
 (E), (,) ,
 ,
 , (R), (103),
 (,) (103),
 , θ (E), (θ) (R) 가 (E) (103),
 , (109), (104),
 (104), (Cadd)가 (1
 05)
 (Cadd), (109),
 (102) 가
 가 (TFT) (109), (109) (Cadd), (103),
 (TFT)가 , (TFT)가
 , TFT (100A) (1
 08)(3) , (TFT)
 , (111)(3)
 (103) 가
 ,
 TFT (100A) (9), (100B)
 (3) (5) (3), 2 BM (3),
 (2)가
 3 2 A (1), 3 2 II - II
 A) (103), TFT (100A) (1), (100B) (3) TFT (100
 , TFT (100A) (6) (100B) (1) TFT (100A)
 TFT (100A) (100B) 2

, TFT (100A) (100B) (9)
 (1) TFT (100A)
 (100B) TFT (100A)
 가 . . , (1) TFT (100A)

3

(1) TFT (100A)

(9) 가 ,
가 ,
가 . , TFT (100A)
가 , 가 .

(6) , TFT (100A)

(100B)

TFT (100A)

TFT (100A)

TFT (100A)

가 ,

가 .

(1) , A (103) (3) (1) 2 A ,
(1) . , (103) 2
(3) 가 . (1)

4 (1) (300) (8) , (300) (8) (1) (300)가 (8A) 가 (8A) 가

$$(103) \quad \begin{array}{c} \text{가} \\ \text{가} \end{array} \quad (103) \quad \begin{array}{c} (1) \\ (8A) \end{array} \quad (300) \quad (3)$$

II - III 5 2 B (1) . 5 2 I
(103) . 5 (1) (100B) (3) , TFT (100A)

5 (1) (103) (104) 가 .
가 , 가 . , 가 가

BM, TFT 가 .

6A 6B 7 D E . 6A 7 D (1b) 6A
 6A 6B 7 IV - IV 6B 7 E (1c) (100A) (103)
 , (1b) (100B) (3) TFT (100A) (103)
 (104) (1b) 6B (1c) 6A (103) , (1c) 6A
 (1b) (1b) TFT (100A) , TFT (100A) (100B)
 (100A) (1b) TFT 6B 가 6A (1c) TFT (100A)
 , TFT (100A) (100B) 가 (1c) TFT (100A) (1b)가
 , TFT (100A) (100B) 가 (1c) TFT (100A) (1b, 1c)
 가 ,

8 (100B) (1) 8 (1)
 (3) (2) (11) (11)
 (4)() , 가 ,

8 (1b) (11) , (11)
 (1b)가 (1c) (11) (3)
 (1c) (1b)
 TFT () ,
 (1b) TFT (100B)
 , (1c) TFT 가
 (1b)가 , TFT (100B) (1c)
 TFT (1b) (1c) ,

9A, 9B, 9C, 9D (11) 9A
 ((Cr) 2) , ()
 3) , 가 .

9B (3) (12)
 , 가 (12)
 (2) (11) 9C (11) 9D
 (2), (4) .

(11) 가
 (diffraction) , 가
 가 , 가 . (11)
 (11) 가 .

10A, 10B, 10C (1) 10A (4)(
) (3) (2) (4)
 , (13) ,
 10B (14) (1) (15) (16)
 , (14) (14) (13)
 , (17) 10B 10C
 (13) (13) (14) (15)
 (polymerization)
 (17)
 (15)
 (17) 가 (1)
 (6)

11A, 11B, 11C 2 (6)
 (1) 11A (3), (2), (4)
 (13)가 (14a) (1) (15)
 (16) 11B (14b) (16)
 (14a, 14b) (17)
 (1) 11C (1)
 (1) (6)()

12 , 2
 가 (1)
 12
 (100B) TFT (100A)

12 , 12
 1 가
 12 , TFT (100A) (x) (y)
 (102) (102) (Cr)
 (102) (103)(12 (y) (x)
)
 (103) (114) (114)
 (114) () (3)
 (109) TFT (100A) 가

SiN (102) (114) TFT (100A)
 (105)(13)
 (105) (103) (102) 가 (Cadd))
 (TFT)
 (TFT) 12 (102)
 (105) a - Si() (106)
 (106) (103A) (107A) , (102)
 , (105) 가
 (x) (103) (Cr) , (103) (y)
 (103) 가 (TFT) (106)
 (TFT) (103A)
 , (103) (103A) (TFT)
 (107A)
 , TFT (100A) SiN (108)(13)
 , (108) (107A) (108A)
 , (108) ITO(Indium - Tin - Oxide) (109)
 (109) 12 , (102) (10
 3)
 , (109) (108A) (107A)
 , (109) 가 , (109) (TFT)
 (102) (2) (2)
 (Cadd)가
 (Cadd) (102) (109) (105) (108)
 , (2) (109)
 , (Cadd) (TFT)가 , (109)
 (109) TFT (100A) (111)(13)
 , (111)
 TFT (100A) (100B)
 13 12 V - V 12 F (1)
 13 (100B) , TFT (100A) (100B)가

(2) (100B) 13 , (3)가
 (3) (2)가 , (3)
 () (4) (4) (7)
 ITO , (7) (1)가 , (1)
 (7) (8) .

(1)가 (3) (102) (102)
 (103) (1) (103)

14 12 F (1) (100B) (1)
 . (1) (3) ,
 , (103) 14 (G)
 가 , (1) (103) (1)
 , (3) (1)가 .

15 , 가 ,
 15 . AR

15 , X (103) , (G, B, R)가 , 가 . Y
 (102) , 1, 2, 3,,end 가 .

(Y)() (V) , (X)()
 (H) . SUP
 () CRT()

16 . 16
 . SHD () , LCW , PNL
 , SPB , LCB , RM , BL , LCA ,
 가 가 .

(SHD) 가 (L
 CA) (BL), (SPB), (LCB), (RM) , (L
 LCB) (BL) (LCB), (RM), (SPB) (L
 , (PNL) (BL) (PCB 3)
 , (BL) .

가 , 가
가 , 가
가 가 .
가 ,
가 ,
또 ,
.

(57)

1.
1 ,
1 2 ,
1 2 ,
1 ,
2 .
2.
TFT ,
,
TFT ,
TFT TFT 가
가
3.
TFT ,
TFT ,
TFT
가 .

4.

TFT

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TFT

TFT

,

가

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5.

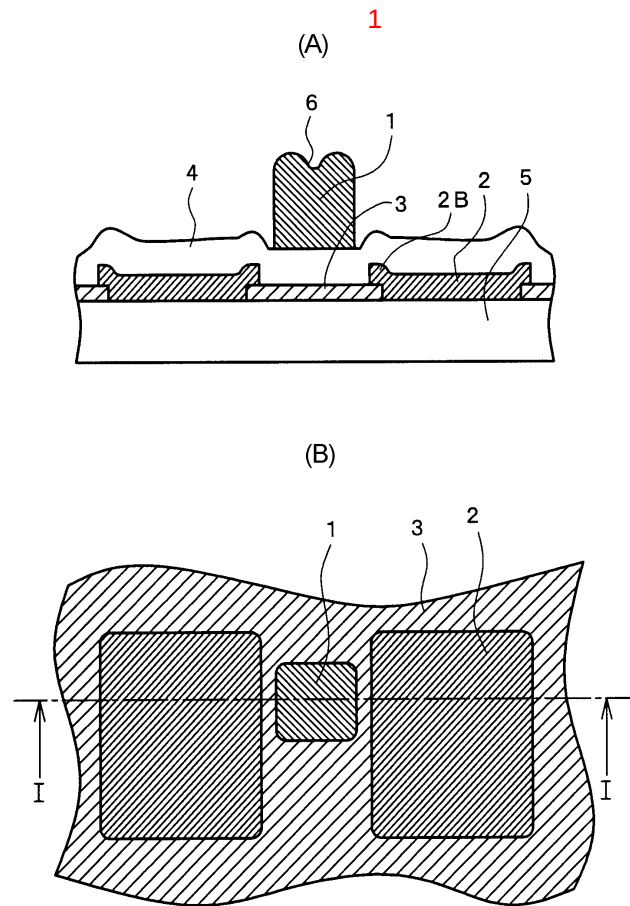
TFT

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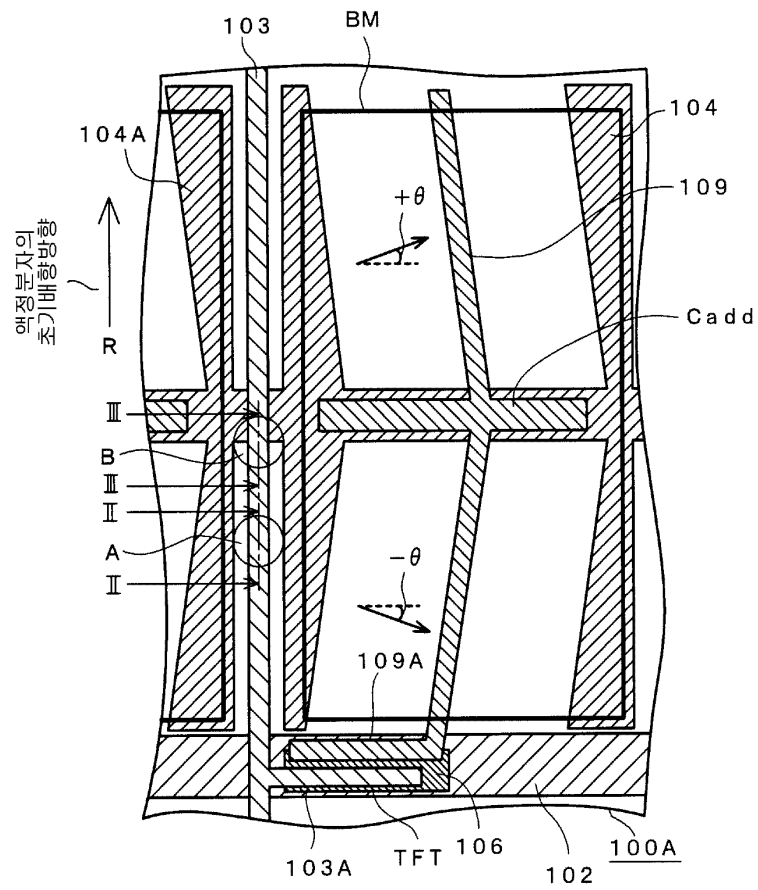
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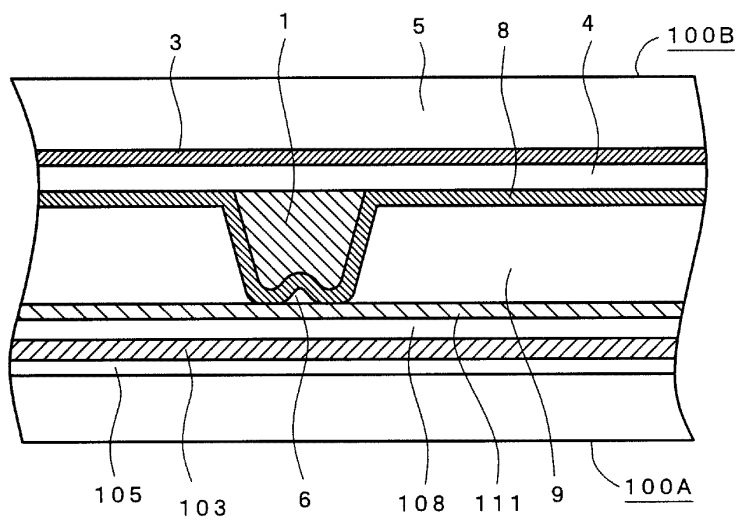
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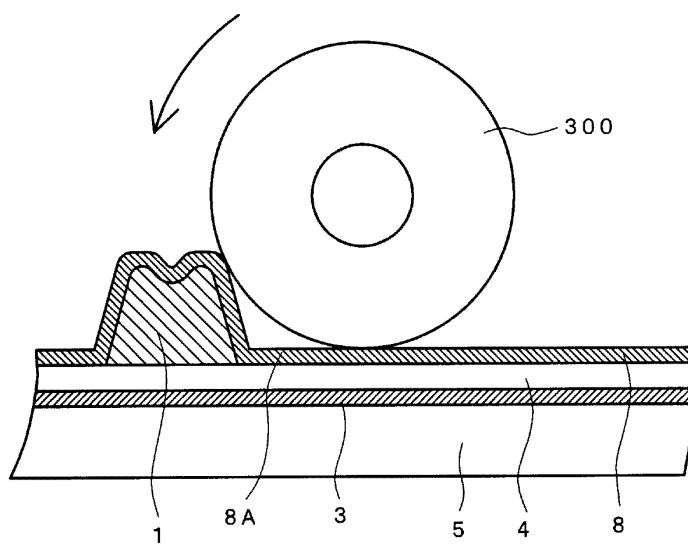
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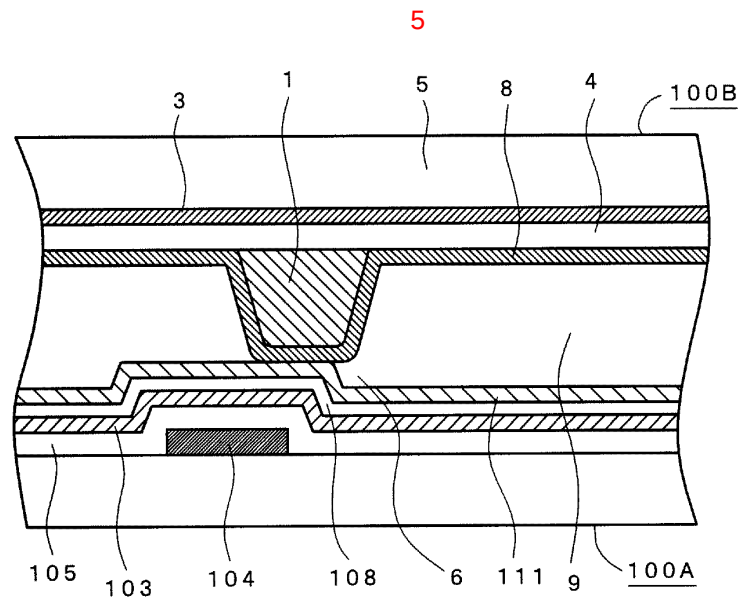


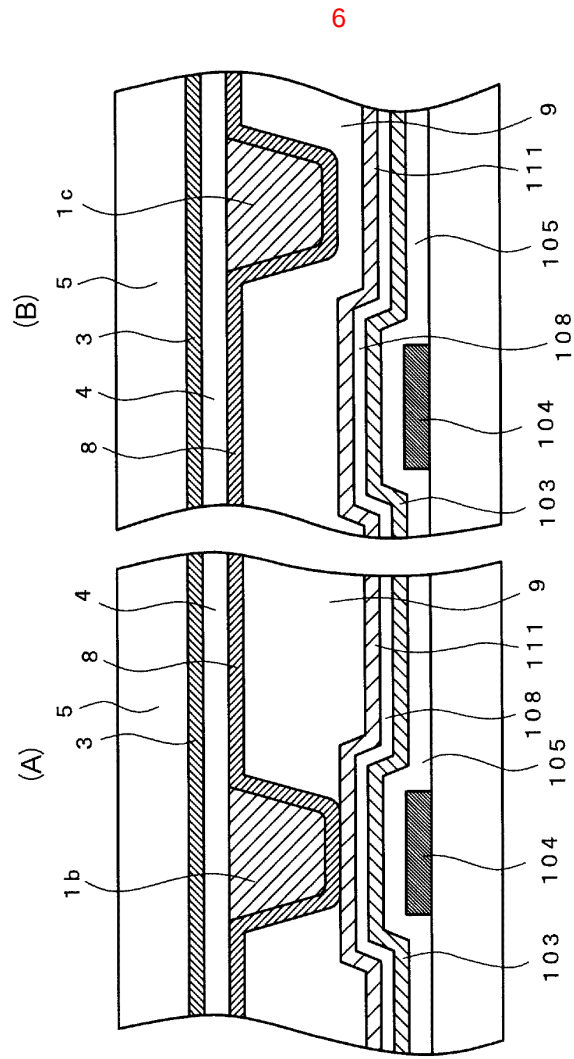
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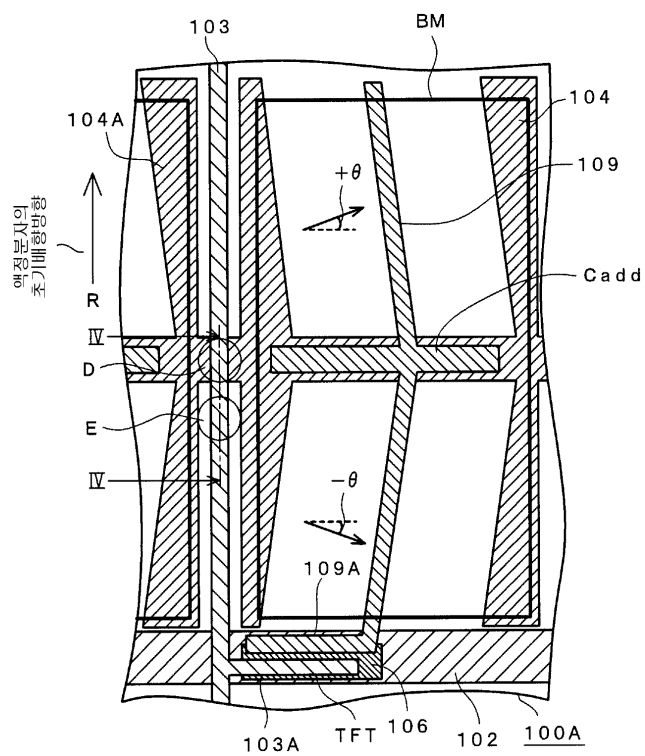
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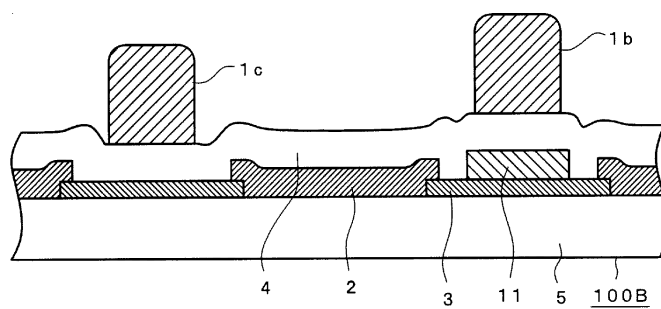




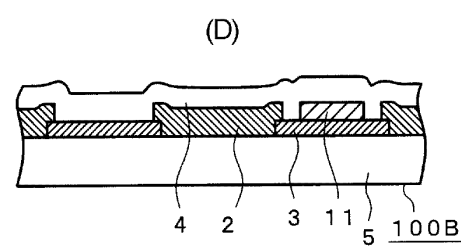
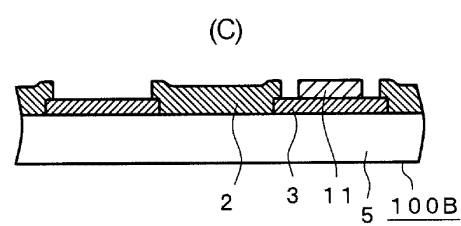
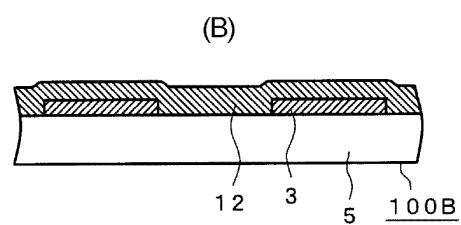
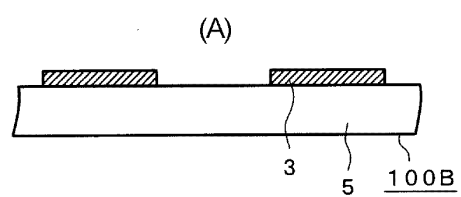
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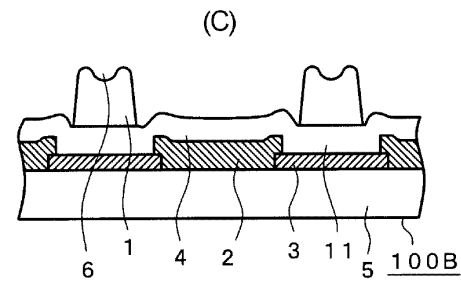
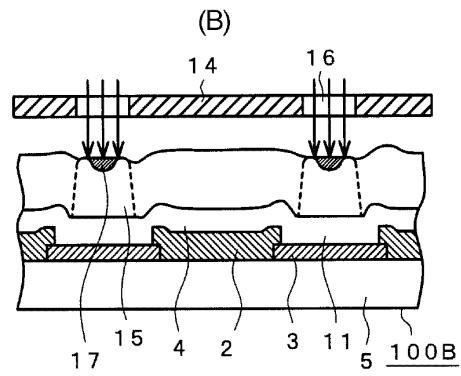
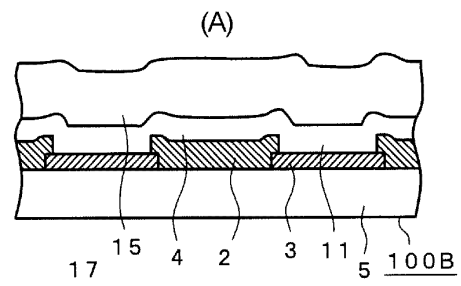
8



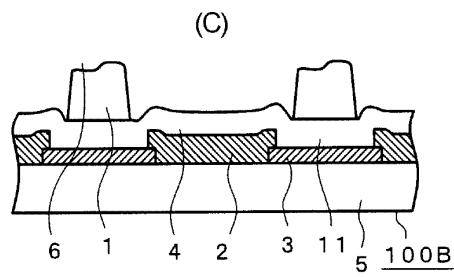
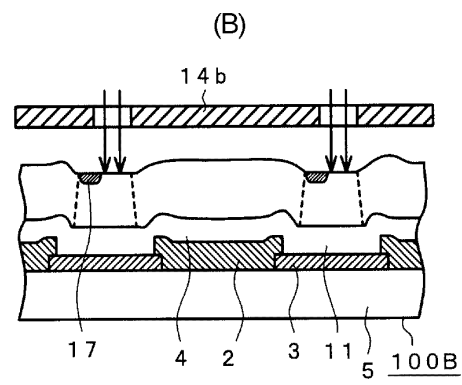
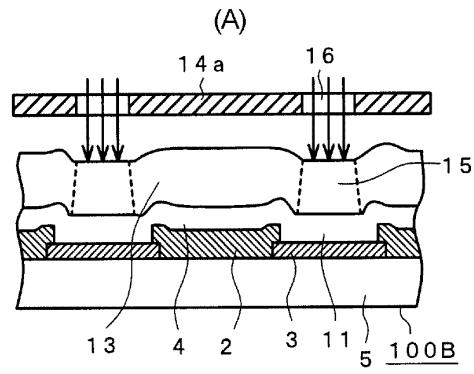
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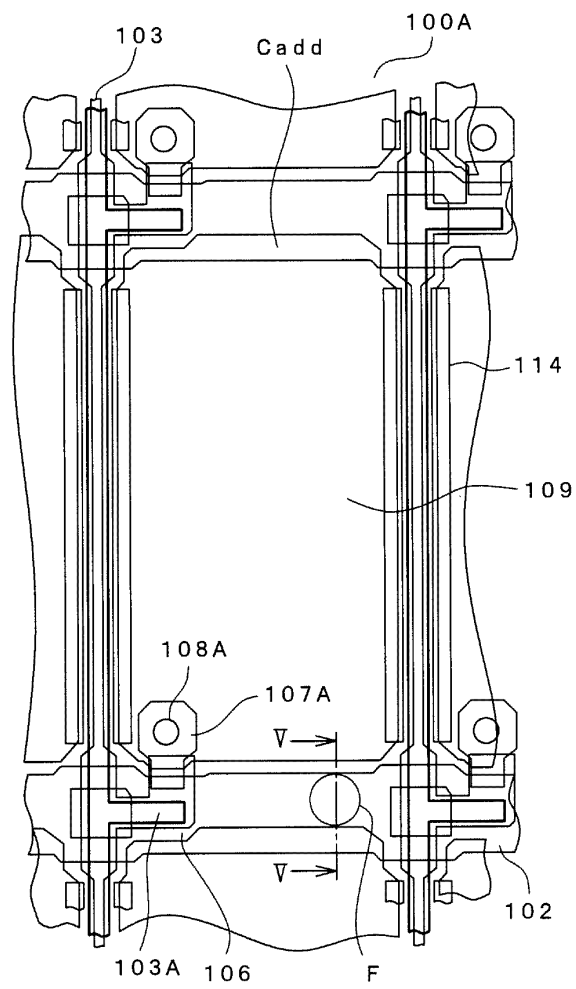
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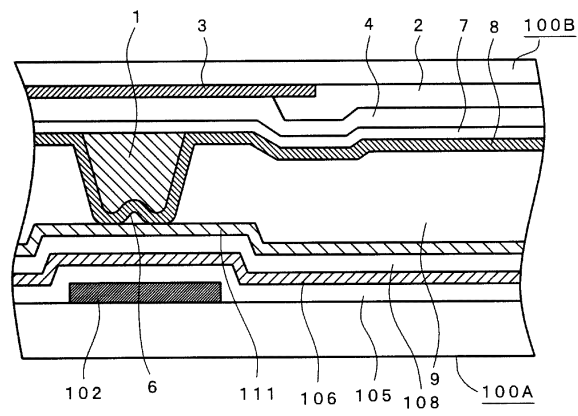
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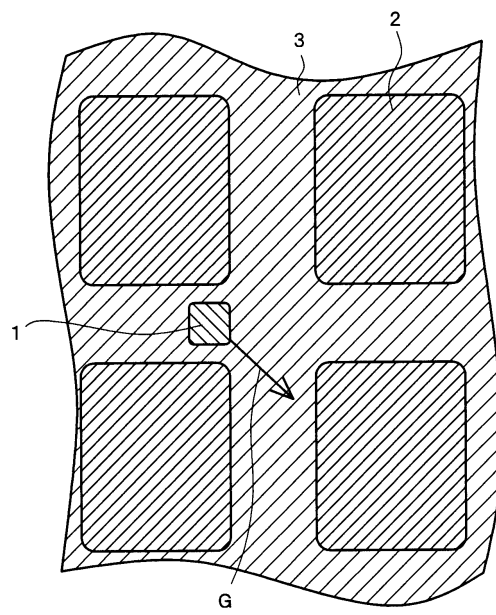
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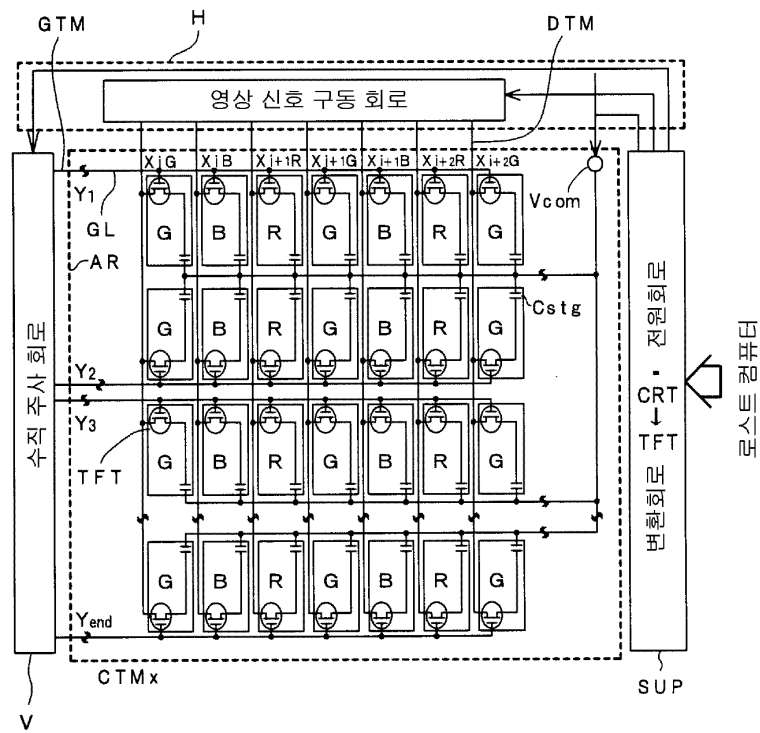
13

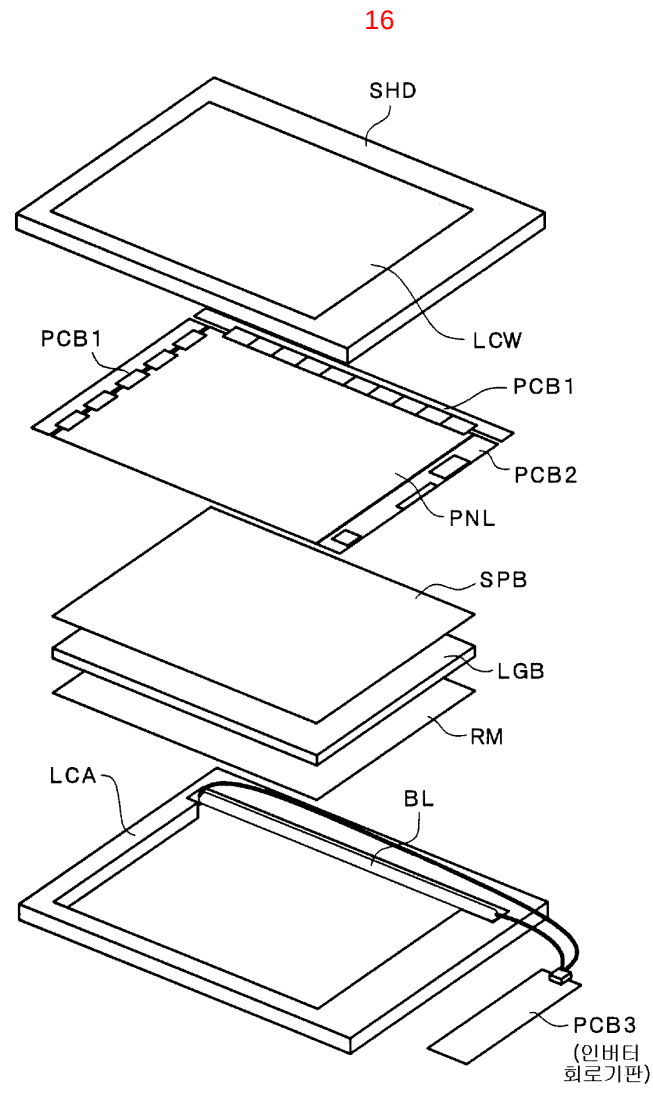


14



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专利名称(译)	液晶显示器		
公开(公告)号	KR1020020046172A	公开(公告)日	2002-06-20
申请号	KR1020010076856	申请日	2001-12-06
[标]申请(专利权)人(译)	日立HITACHI SEISAKUSHODBA		
申请(专利权)人(译)	株式会社日立制作所		
当前申请(专利权)人(译)	株式会社日立制作所		
[标]发明人	SHIMIZU HIROMASA 시미즈히로마사 HAMAMOTO TATSUO 하마모토타쯔오		
发明人	시미즈히로마사 하마모토타쯔오		
IPC分类号	G02F1/1339 G02F1/1368 G02F1/1343 G02F1/136		
CPC分类号	G02F1/13394		
代理人(译)	李钟IL		
优先权	2000379773 2000-12-08 JP		
其他公开文献	KR100489763B1		
外部链接	Espacenet		

摘要(译)

用途：通过使辅助垫片共用负载，从外部临时添加大负载时，防止垫片发生不可逆的变形。组成：从基板的参考表面具有不同高度的两种或更多种间隔物被布置成使得用于正常基板间隙保持的间隔物和仅在添加大负荷时起作用的间隔物。先前形成用于水平差异的图案以改变间隔物的高度。

