

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl.⁷
G02F 1/1339

(11)
(43)

10-2004-0099748
2004 12 02

(21)

10-2003-0031838

(22)

2003 05 20

(71)

416

(72)

2 186-294

(74)

:

(54)

가 2 , 0.3-0.6 μ m

가 10-20 μ m , 1

() , 1

, 2

13

, , ,

1 1 ,

2 1 II-II' ,

3 1 ,

4a 4b 1 ,

5a	5b	2	
			,
6	3		,
7	1		,
8	7	VII - VII'	,
9	2		,
10	1		.
11	4		,
12	11	XII - XII'	,
13	4		,
14	4		,
15	4		,
16	15	XVI - XVI'	,
17	15	XVII - VII'	,
18	4		,
19	5		.

가

가 ,

가 가

(hot press)

(spacer)

가

가

.

.

가

.

, 1 가 가 2 가 , 1

1 2 가 2
가 3 . , 1

,

가 , (R), (G), (B)

,

가

.

, 1 , 2 가
1 2 , 2 가
.

, 1 가 1
2 , 2 가 2
2 , 가

.

,

,

가

.

,

.

가 가

가

.

. , , ,

,

.

.

.

가

가

가 ,

,

가 ,

가

가

가

(bubble)가

가

$$\begin{matrix} 1 & & 1 \\ 2 & 1 & \text{II-II'} \end{matrix}$$

$$\begin{matrix} 1 & 2 & & 1 \end{matrix}$$

가 . (3) , 1 (40) A B (40) (100, 200) (100, 200) 4 (40) (310) (3)

(100, 200)
(100, 200) 가

(321, 322)가

(100, 200)

(310)

1

(3)

(40)

A B

2 (321, 322) (100, 200) 2 (321, 322)가 (100, 200)
(321, 322) 가 (100, 200)

3 1

3 가 , 1 (100) (321, 322)
가 가 (321, 322)가 (321) 2 (402) 0.3-0.6 μm (321)
(a) (b) 30-35 μm (b-c) 10-20 μm (c) 15-20 μm 600-1100 μm^2 150

-350 μm^2

(321, 322)가 (100) (322)

(321) 1
, 2 (322)

(100, 200) ()
(3)

, 1 2 (321, 322)

4a, 5a, 5b, 6, 1, 2, 3, 2

(100), 4a, (61), 1, 2, 가 e, (62), 가, (60), d, (59)

(322), 2, (321), 1, (100), 2, (62), 1

(60), 2, (100), α, (320), 2, (322), 2

가, 1, 가, 1, (321), 2, (322), 2

200μm, (d), 10-15μm, (62), 가, (60), 1, (100), 100-
(d+α), 300-400μm, 100-300mJ/cm², (60), 2, 가, 2

(59), 1, 5a, (61), 1, 가 e, 2, (62), 가, (100), (322)

(60), d, (100), 1, 가, 2, (67), 가, 2, (321)

65), 5b, (100), 2, 가, 1, (71), 가, (72), (70), 1, 2, (321, 322), (59), (73)

1, 3, (321, 322), 4a, 6, 1

(100), (R), (G), (B), 가

1, 7, VIII-VIII', 1, 9, 2, 8, 7

10, 1, (100), 가, (110), 가, (121), 가, (121), (124), (121), (129), (131), (121)

, (121) (190) (121)
가 .
(110) (SiNx) (140) (121) .
(124) (140) (150) n n+ (150)
, (150) (163, 165)가 .
(163, 165) (140) 가 (121)
(171) (171) (171) (173), (173) (1
71) , (171) (163) 가 (179), (173)
(124) (173) (165) (131)
(175) (171) (190) .
(171) 가 a-Si:C:O:H
(180) .
(180) (150) ,
. (129) (179) (180)
, (129) (179)
COG(chip on glass) .
(180) (175) (179) (182, 185)
, (140) (129) (181) .
(180) (185) (175) (190)
, ITO(indium tin oxide) IZO(indium zinc oxide) (17)
9) (180) (181, 182) (129) (82)가 (129, 179)
(81) (82) (129, 179) ,
. (100) (200) (210)
가 (220)가 , (R), (G), (B) (23
0)가 (190) (3)
(270) .
(100, 200) (3) (100, 200)
(2) (322)가 , 2 (322) , 1
(3) 가
가 (twisted nematic mode) ,
(vertical aligned mode) ,
가 OCB(optically compensated bend) .
1 (100) (322)
가 , 9 (200) .
, (322) (171) , (121)

(220) 가 (322)
 (321, 322) (230B, 230R) 10 1 2
 (321) 1cm² 200-600 2 (322) 1cm² 250-450
 1
 (100) 가
 가 (321, 322) (200)
 (R), (G), (B)
 (321, 322) (40) (100
 , 200) 10%~30% (321, 322) (100,
 200) (321, 322)
 (321, 322)가
 (321, 322)가 (100, 200) (310) (310)
 가 (310)
 (100, 200) (310) (3)
 가
 (100, 200)
 (51, 52, 53, 54, 1) 가
 (51, 52, 53, 54, 1) 가
 (100, 200) (100, 200) (3
 10) (100, 200)
 (100, 200) (40) (310)
 (310) (100, 200) (100, 200)
 (40) (51, 52, 53, 54) (40)
 4
 11 4 12 11
 XII-XII'
 11 12 4
 가 11
 (3) (40) A B (100, 200) (100, 200)
 (51, 52, 53, 54) 가 (40)
 (321, 322)가 (310) (3)
 (100, 200)가
 (100, 200) (100, 200) (310)
 (100, 200) (310)
 4 (40)
 (3) A B

, 12 (320) (100, 200) (320)가 (100, 200)
 (100, 200) (320) (100, 200) (R), (G), (B) (230)가
 (200) (R), (G), (B) (230) (R), (G), (B)
 (230) (R), (G), (B) (230) (320)가
 .

13 4 , 14 4

, 13 가 (320)가 4 (B), (G), (R) (230)가 (230) (B), (G), (R) (320) (230B) 2 (322) (230G) 1 (321) (323) (230R) (230) 1 3 (321, 322, 323) (230G, 230R) 1 3 (321, 322, 323) 2 (322) 3 (323)

4 (100, 200) () , 1 (321) (323) 가 , 2 (322) 3 (100) , 14 (320)가 4

, (320) (171) , (121) (220) (230) 가 4 가 (B, G, R) 10 , 1, 2 3 (321, 322, 323)

4 15 4 , 16 15 X VI-XVI' , 17 15 XVII-XVII' (100) , (110) 가 (121) 가 (121) (124) , (129) (121) (190) (131) 가 (110) (SiNx) (140) (121) (124) (140) (150) (150) n n+ (163, 165)가 (163, 165) (140) 가 (171) (171) (121) (171) (163) (173), (1) 73) (124) (173) (165)

(175) , (171) (179) (131) ,
 (171) (171) (190) ,
 (171) 가 a-Si:C:O:H
 (180)
 (180)
 (150)
 (129) (179) (180)
 (129) (179)
 COG(chip on glass)
 (180) (175) (179) (182, 185)
 (140) (129) (181)
 (180) (185) (175) (190)
 ITO(indium tin oxide) IZO(indium zinc oxide)
 (180) (181, 182) (129) (17)
 (81) (81) (82)가 (129, 179)
 (82)
 (100) (200) (210)
 가 (220)가 (R), (G), (B) (23)
 (190) (3)
 (270)
 (100, 200) (3) (100, 200)
 (320)가
 (3)
 가 (twisted nematic mode)
 가 (vertical aligned mode)
 가 OCB(optically compensated bend)
 (321, 322, 323) (230) 가
 18 5
 19 6 5
 6
 5
 15 (230)가 (200)
 (62) 가 (59) (61) (230)
 (64) (60) (200) (60) (62)
 (60) (230)
 (320) 1, 2, 3 (321, 322, 323)
 (320) (321)가 가 가 2 (3)
 22) 1 (321) 가 3 (323) 2 (322)

가 1, 2 3 (321, 322, 323)

가

6

16 (230)가 (200)

(59) (71) (72)

(73) 가 (70)

1, 2, 3 (321, 322, 323) 1, 2, 3 (321, 322, 323)

(B), (G), (R) (230) (320) 1

(321)가 가 가 2 (322) 1 (321)

가 , 3 (323) 2 (322) 가

1, 2 3 (321, 322, 323) 가

(200)

가

(200)

(320)가

(40) (100, 200) 10%~30% (320)

(320) (100, 200) (320)

(320)가 (320)가

(320)가 (100, 200) (310) (310)

가 (310) (100, 200)

(310) (310) (3)

(100, 200)

(51, 52, 53, 54, 11)

(51, 52, 53, 54, 11)

(100, 200) (100, 200)

(100, 200) (100, 200)

(100, 200) 가

(310) (100, 200)

(40) (100, 200) (310)

(40) (51, 52, 53, 54)

가

(57)

1.

가

2.

가 1 가 1 가 2 2

3.

2 3 2 가

4.

1 (R), (G), (B) 가

5.

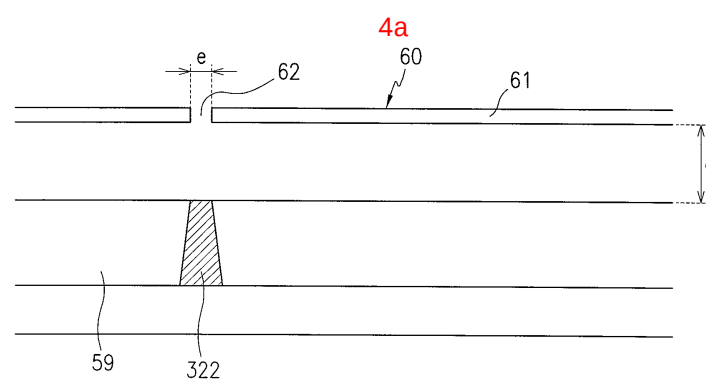
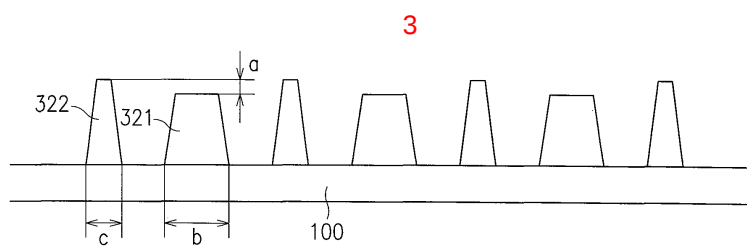
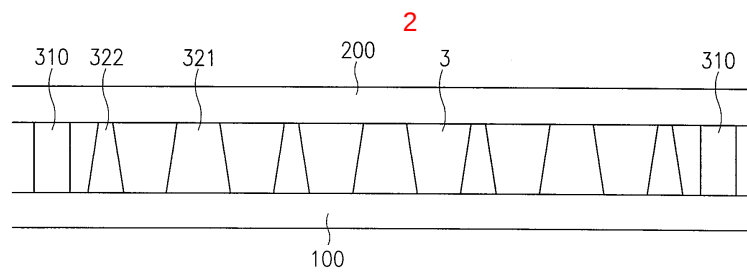
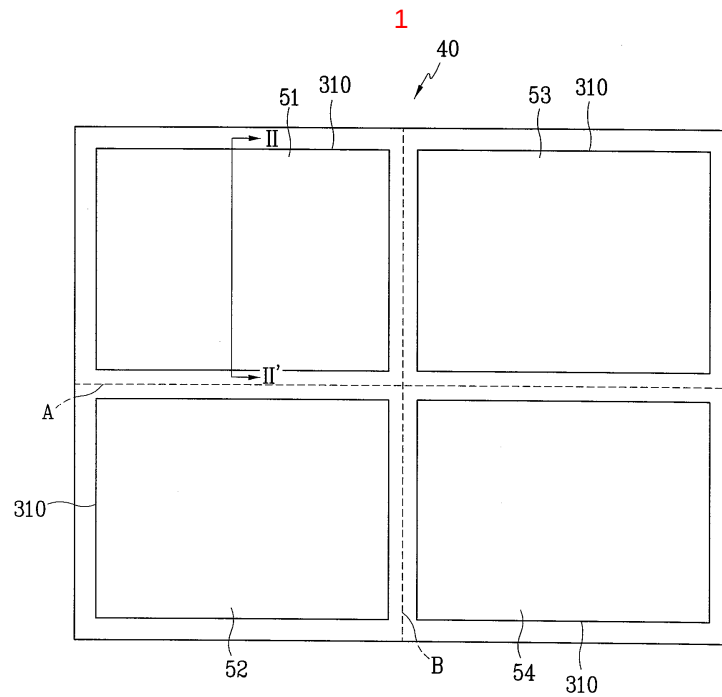
1

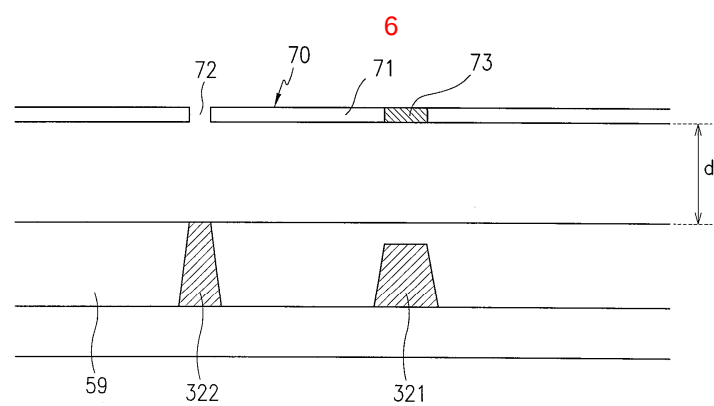
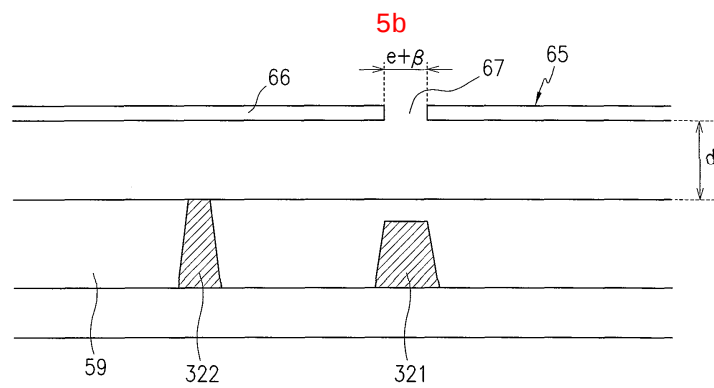
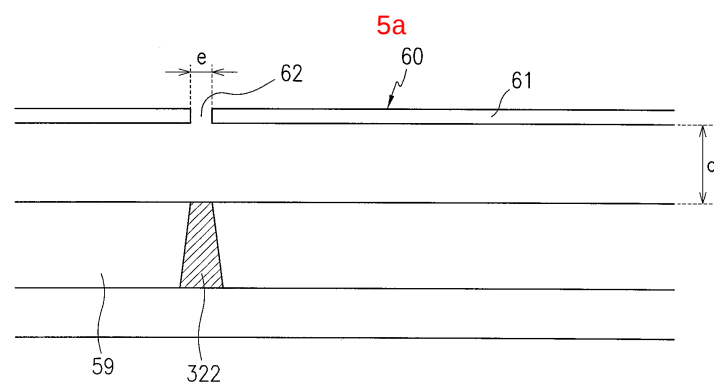
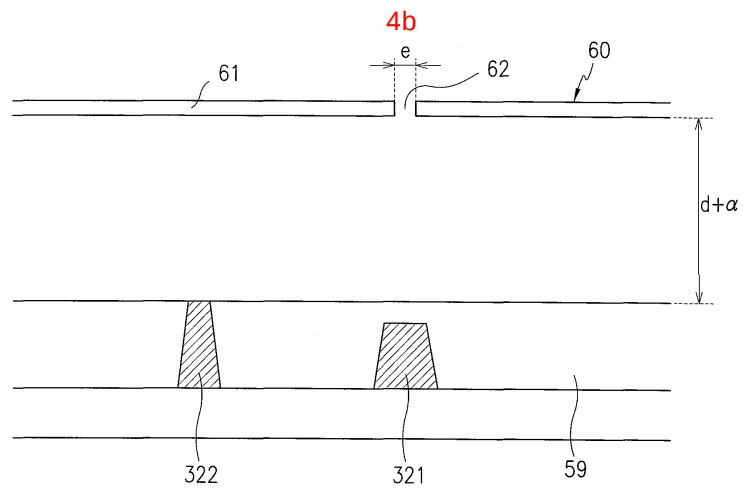
6.

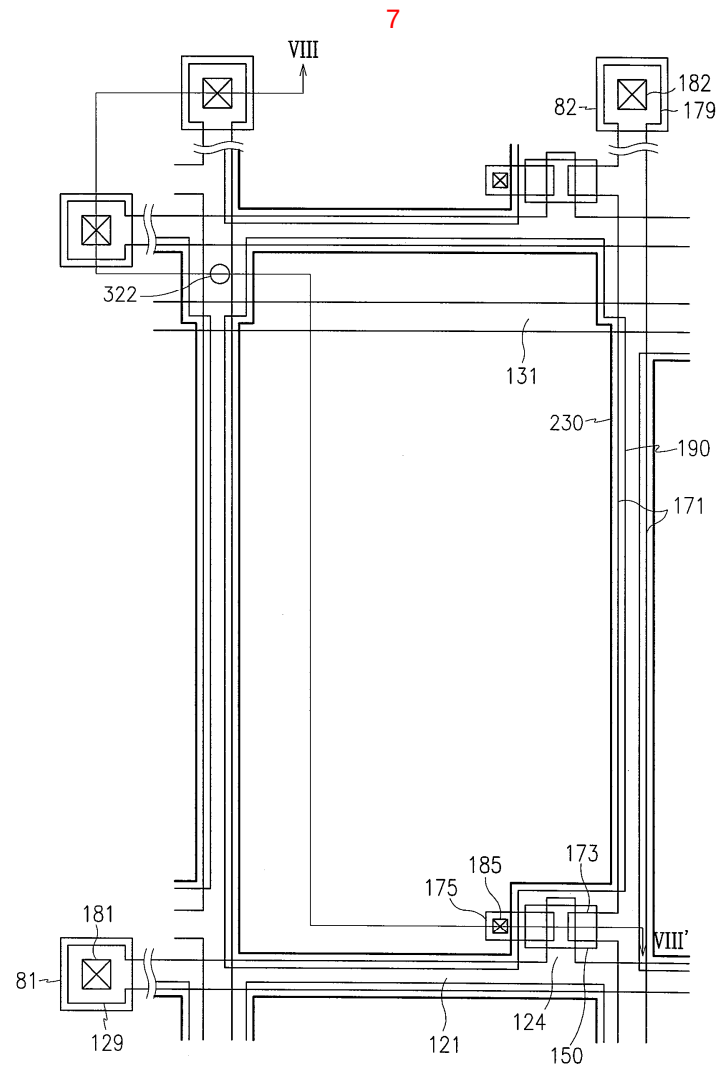
가

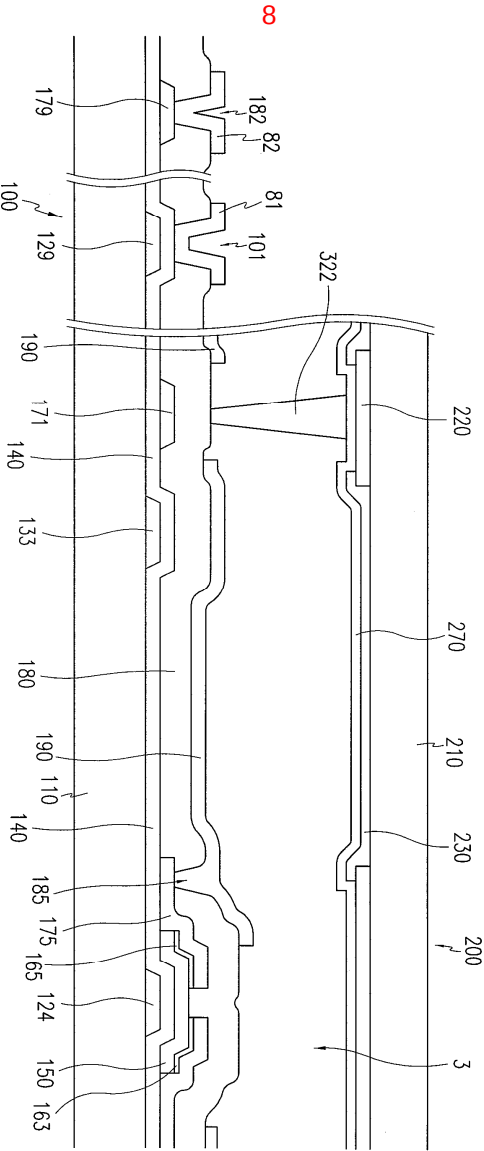
7.

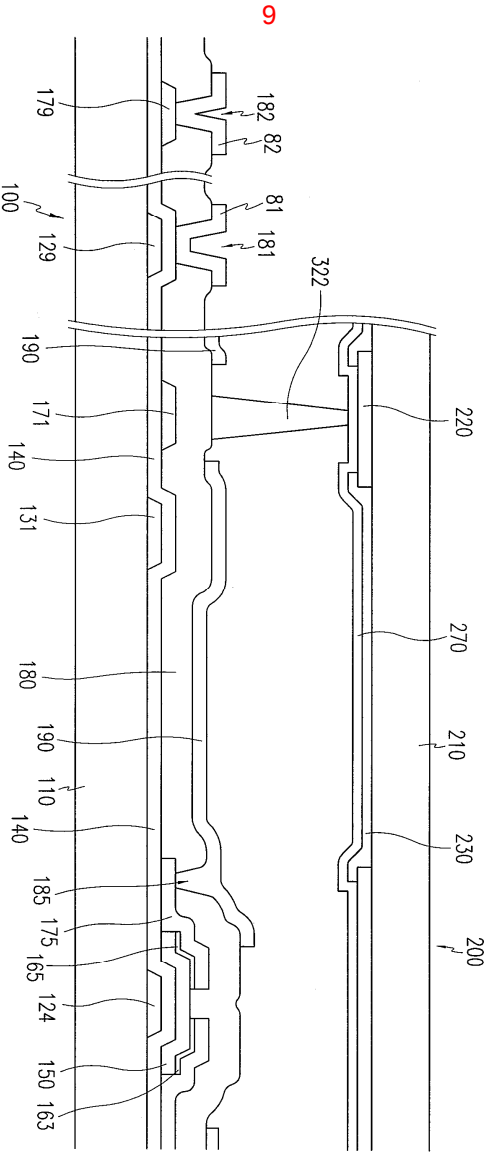
가

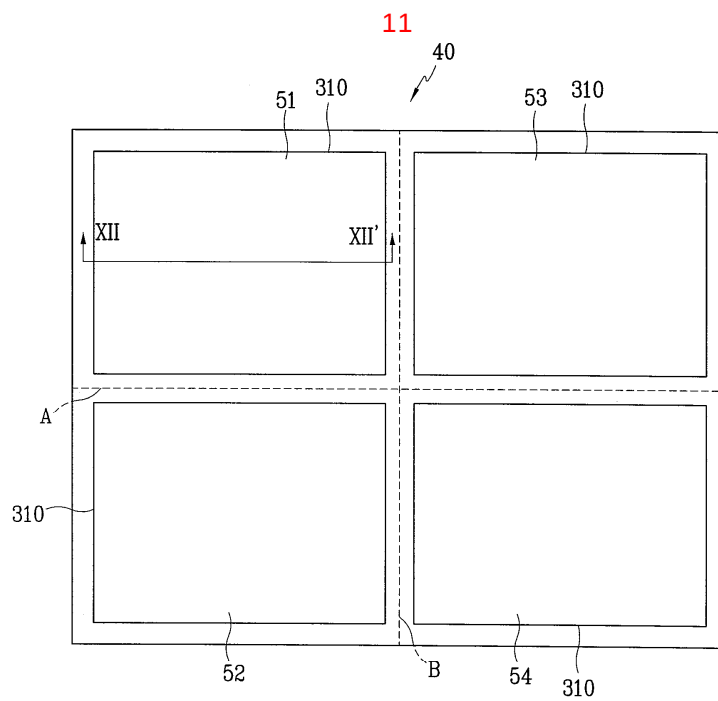
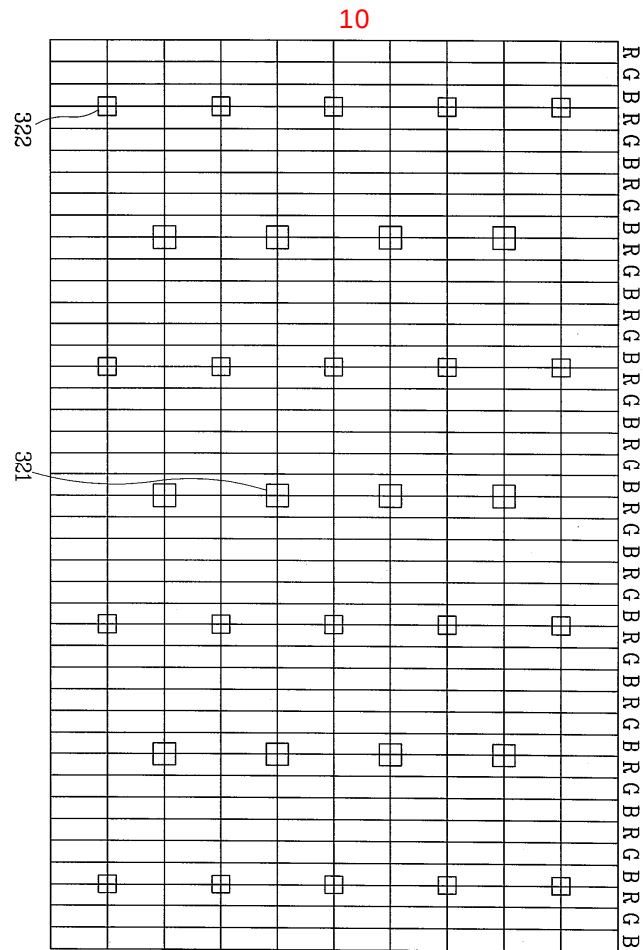


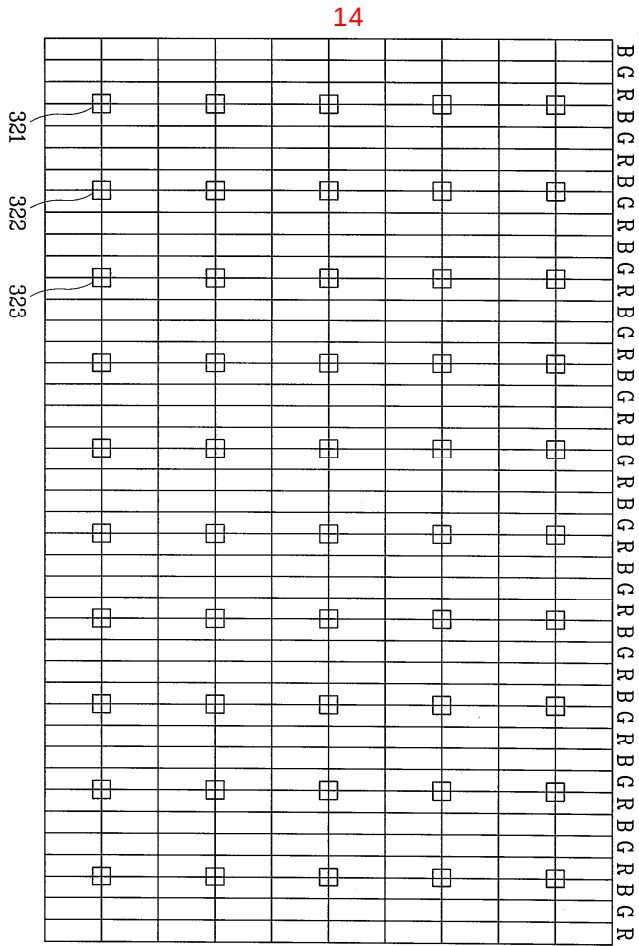
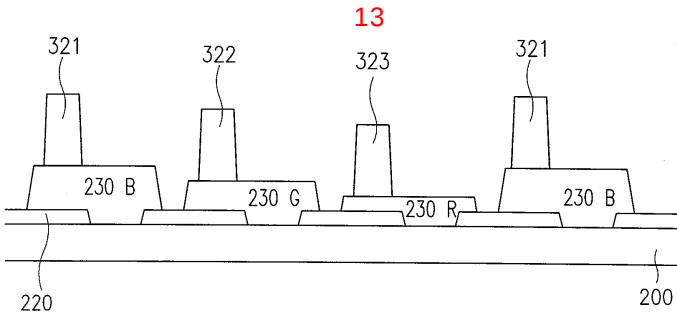
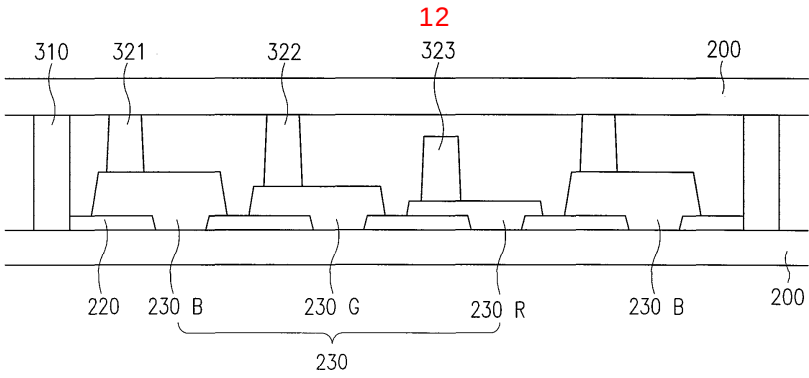




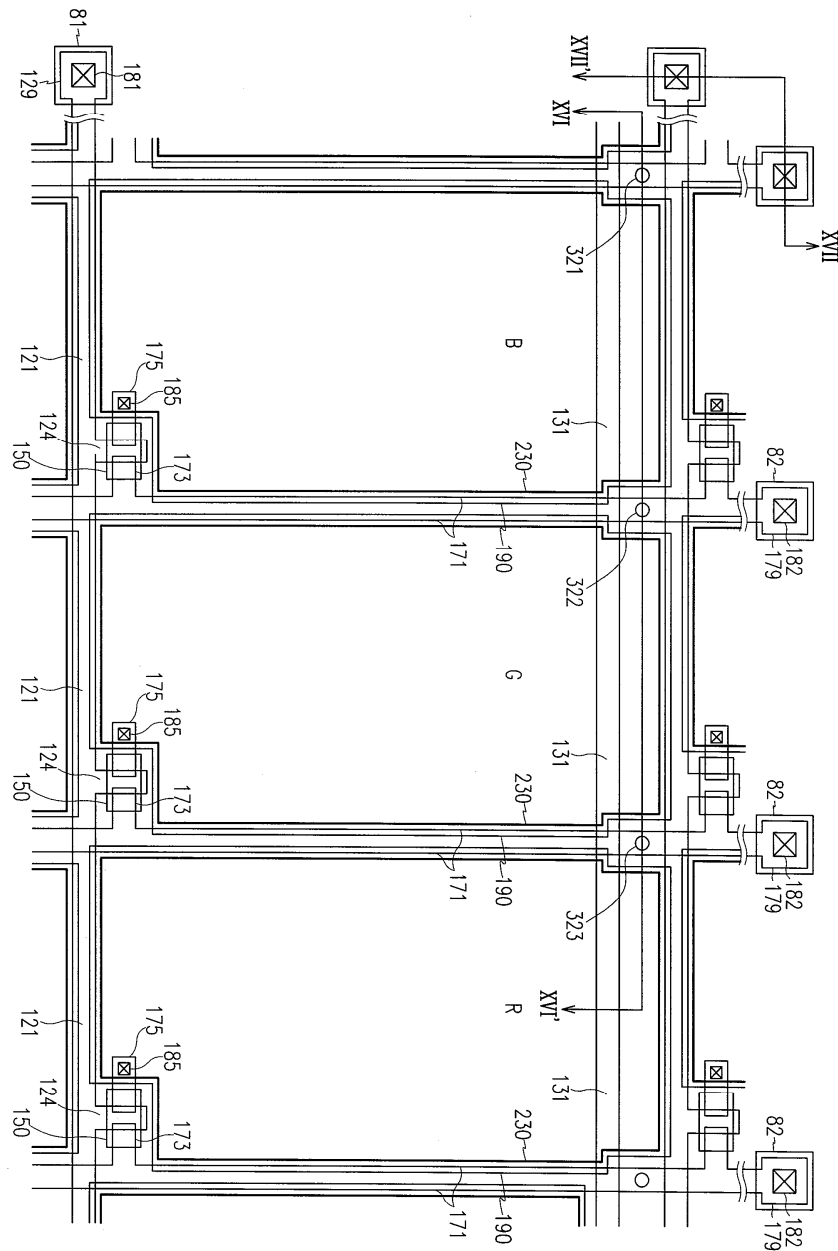




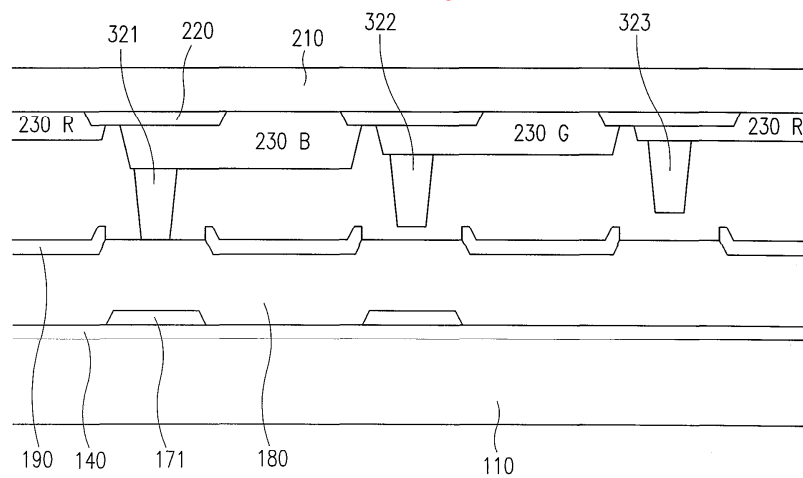


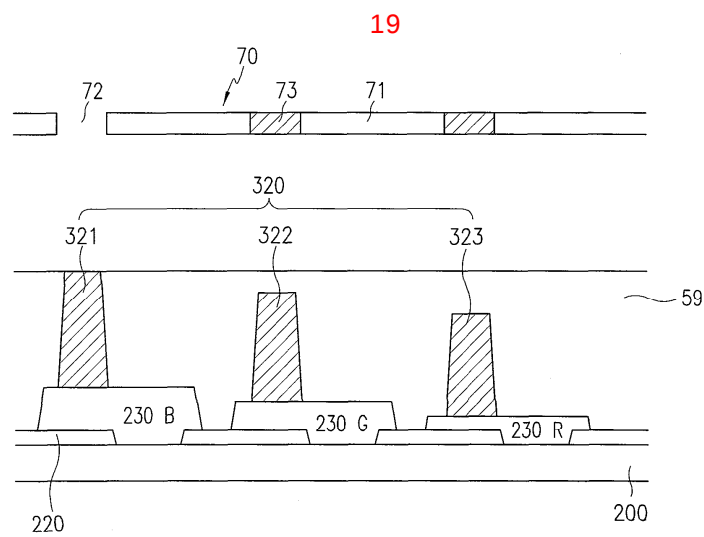
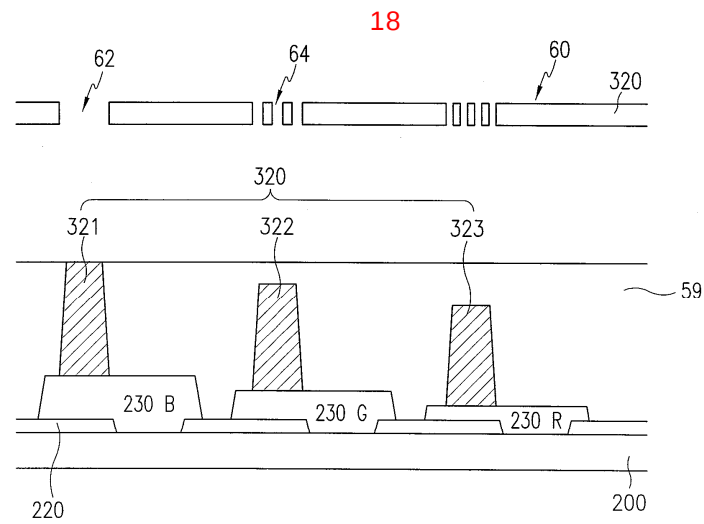
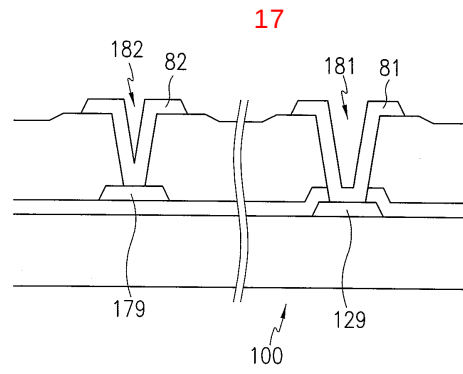


15



16





专利名称(译)	用于液晶显示装置的基板，其制造方法以及使用该基板的液晶显示装置		
公开(公告)号	KR1020040099748A	公开(公告)日	2004-12-02
申请号	KR1020030031838	申请日	2003-05-20
[标]申请(专利权)人(译)	三星电子株式会社		
申请(专利权)人(译)	三星电子有限公司		
当前申请(专利权)人(译)	三星电子有限公司		
[标]发明人	LEE JEONGHO		
发明人	LEE,JEONGHO		
IPC分类号	G02F1/1339		
CPC分类号	G02F1/13394 G02F2001/13396 G02F2001/13398		
外部链接	Espacenet		

摘要(译)

在根据本发明实施例的用于液晶显示器的显示面板上形成具有至少两个不同高度的基板间隔构件。此时，接触面的材料是衬底间距为圆形或可以具有矩形，小的高度的形状，所以第一基片部件隔开第二基板高度距离0.3-0.6μm范围比材料的直径或边长足够大范围10-20μm它是优选的。根据本发明的该实施例当使用液晶显示基板制造液晶显示装置中，第一基板间隔保持部件的和有利的用于注入小应变压缩和保持均匀的间隙的两个面板之间（单元间隙），第二基板大容易地调节液晶注入量为形成液晶物质层的间隔材料的变形量是压缩的并且可以从被压光泄漏被防止。

13 指数方面 液晶，基板间隔物，液晶面板，液晶盒间隙

