

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl. ⁷ G02F 1/1335		(11) (43)	10-2004-0081891 2004 09 23
(21)	10-2003-0016477		
(22)	2003 03 17		
(71)			
	416		
(72)			
	10 41-291,3/3		
	1314	1	124 1203
			138-203
	427-8		
	2	213	201
(74)			
	:		
(54)	-		

가

1

- 1 -

1			-	.
2	1	A - A'		.
3	2			.
4a	4d	1	-	.
5a	5d		-	.
6			-	.
7	6	B - B'		.
8	7			.
9a	9d	6	-	.
10				.
11				.
12				.
13				.
14a	14d			.
<			>	
100 :	119, 120 :			
109, 409 :	142, 150, 450 :			
145, 470 :	160, 460 :			
200 :	210 :			
300 :				

. . (MTN, Mixed Twisted Nematic)

MTN

9

ITO

(109), (110), (130)

(119) (119) (120) (130) (150) (145) (150) (160)

(160) (145) 10 (150) (145)

(150)

2 1 A-A'

2 (100) (200) (300) (100), (200)

(100) (105) (110), (110) (105)

(112), (114), (116), (120) (130)

(TFT) (TFT) (140)

(130) (100) (140) 1 (141) (152)

(152) (160) (145) (160)

(150) (Indium Tin Oxide : ITO)

(Tin Oxide : TO) (Indium Zinc Oxide : IZO) (TFT) (Cst)

(160) (152)

(160) (152) (150) (152) (160)

(150)

(200) (205) R, G, B (210)

(210) (300)

(300) (100) (200) (100)

(150) 가 (200) () 가 (200) (170) (141) (141) (300) (141) d1 (141) d2 (170) d3 , $d2 < d1 \leq d3$.

Δn (300) $\Delta nd1$ (300) $\Delta nd2$ (300) $\Delta nd3$.

(300) (d2) $1.7\mu m$ (300) (d3) $3.3\mu m$.

(300) (twist angle) 0

1 2 0 (200) (100) () () 1 가 (100) (TFT) (200) (100) 가 (150) (200) (200) () (300) 가 가

3 2 (144) (160) () (144) (145) (300) .

4a 4d 1 - ,

4a (Al), (Cr), (Cu) (W) (105) (Ta), (Ti), (Mo), (109) (109) 가 (110) .

(110) (110) , (insitu) n^+ .

o, 4b (Al), (Cr), (Cu) 4a (W) (Ta), (Ti), (M

가 (119) (119)

(120) (120) (130)

, 4c , 4 (130)

, 2 , (109) (119) (130)

(142) ITO , (141) (141)

ITO , (142) (142)

(119) () ()

(109) (109) (119)

, 4d (160) (160)

(162) (164)가 (160)

5a 5d

5a 5d

ITO

, 4a 1 4b 5a 5b

5c , (109) (119) (142)

ITO , (130) (141)

ITO , (142) (119)

(119)

, 5d (109) (119)

(160) (160)

(162) (164)가 (160)

가 (142)

6 ITO

6 () 1 (40)

(409) 2 (419) (419) (420) (430)

9) (420) (410), (130) (TFT) , (430) (4)

50) (445) (450) (450)

(460)

(460) ()

(445) (450) 가 (445)

10

(450) . (445)

7 6 B-B' .

7 (200) , (400) (200) (300) (400),

405) (400) (405) (410), (410) ((

(412), (414), (416), (420) (430)

(TFT) , (TFT) (412) , (430)

(441) (440) .

0) , (400) (440) , (441) (43

(450) , (TFT)

(444) , (444)

(452) , (452) (460) , (460)

(460) (470) .

, (450) (TFT) (TFT)

(300) 가 (450) (TFT) (460)

(300) 가 .

, (200) 2 ,

, (300) (400) (200) , (400)

가 (200) 가 (200) (300)

(470) . ,

d5 , d4<d5 d4 ,

00) , (300) (3) (d4) 1.7 μ m

, (d5) 3.3 μ m .

, (300) (twist

angle) 0 0 1 2

, (400) (200) (300)

가 , 가

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8 7 .

7 8 , (444) (460) (

444) , (145) (4

50) , 3 (460) (160) (142) (450)

, 8 .

, (300) (460) (

(145)

450) , , .

9a 9d 6 - 6 , .

9a (Al), (Cr), (Cu) (W) (405) (Ta), (Ti), (Mo),
(410) (409) (409) 가

(410) , (410) ,
(410) , (insitu) n +
(410)

o), 9b (Al), (Cr), (Cu) 9a (W) (Ta), (Ti), (M
(420) 가 (420) (419) (419) (430) .

9c , 9 (409) (419)
(442) ITO , (441) (441)
ITO ITO , (442) (442) (4
19) (V) ,
(409) (VI) ,
(442) (409) , .

9d , 9c (409) (419)
(460) (460) 가
(462) (464)가

ITO - 10 , ' '

ITO - ,

10 ,

10 ,

10 ,

10 ,

가 ITO
ITO

4

가

11

12

11

12

가 ITO
ITO

4

가

12

1

12

1

가 ITO
ITO

4

13

13

10

가 ITO
ITO

4

10 13 가

11 , 12 , 1 , 2 가

10 가

14a 14d 1 14b 8μm 14a 2 14c 5μm 3 14d 1.5μm 4

14a 1 가 1

14b 14c 2 3 1 4

1 가 3

4 가

1 2 2

[1]

	WHITE (%)	DARK (%)	C/R	White		(%)
				X	Y	
5	8.4	0.23	36.5	0.3271	0.3779	25.7
6	9.7	0.23	42.2	0.3348	0.3603	14.7
7	11.9	0.3	39.7	0.3398	0.3671	15
8	8.7	0.2	43.5	0.3310	0.3500	16.6
9	9.3	0.28	33.2	0.3280	0.3574	15
5	8.1	0.22	36.8	0.3192	0.3448	17.6
6	8.1	0.26	31.2	0.3147	0.3320	17.5
7	7.6	0.25	30.4	0.3121	0.3255	15.5

8	8.3	0.25	33.2	0.3006	0.3321	18.4
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100 , (%) , (BaSO4)

[2]

	(%)	WHITE (Cd/m ²)	DARK (Cd/m ²)	C/R	Max.C/R	White		(%)
						X	Y	
5	3.69	72	0.94	76.6	140	0.3186	0.3415	26.8
9	7.78	140.1	133	105.3	121.9	0.3239	0.333	24.9
10	7.77	144.3	133	108.5	132.9	0.3241	0.3335	25.3
11	7.78	149.6	187	800	90	0.3322	0.3393	25.2
12	7.97	154.4	185	835	119.1	0.3339	0.3409	25.6
9	7.25	138.4	099	139.8	143.7	0.3199	0.3313	27.4
10	7.55	146.1	17	859	184.1	0.3244	0.3353	26.9
11	7.38	143.1	123	116.3	264.1	0.3263	0.3364	27
12	6.8	129.3	085	152.1	230.2	0.3236	0.3353	28

1
2
5
4
1.0μm
ITO
+1.0μm
+5.0μm
1 2 6 9 5 8
0.5μm
1.5μm
ITO
+0.5μm
+3.0μm
4 2 6 8
가
5 8
5 8

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ITO - 10
ITO -

(57)

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4 5. ,
1 6. , 0
1 7. ,
8. 1 , 1 2
4 3
8 9. ,
8 10. , 1
8 11. ,
11 12. ,
10 11 ,
1 2 ,
12 -
8 13. ,
1 1 ,

$$1 \quad 2 \quad 1 \quad 2 \quad 2$$

14.

15.

16.

17.

18.

16 ,
2 ;

$$\begin{array}{ccccccc} 2 & & & 1 & & & 1 \\ & 2 & & , & & & \\ & & 1 & & 1 & & \\ & & & 2 & & - & 2 \end{array}$$

19.

20.

21.

22.

20, 1 1 ;

1 2 2 ,

1

2

-

23.

20

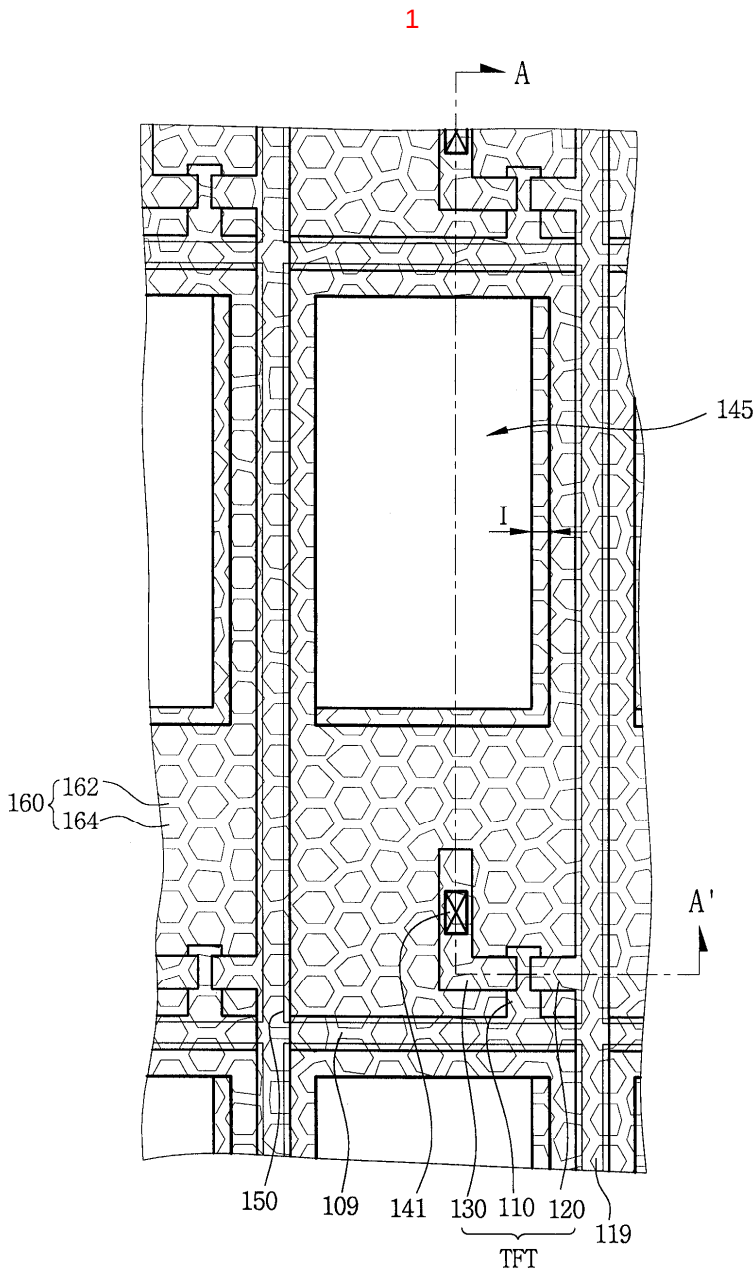
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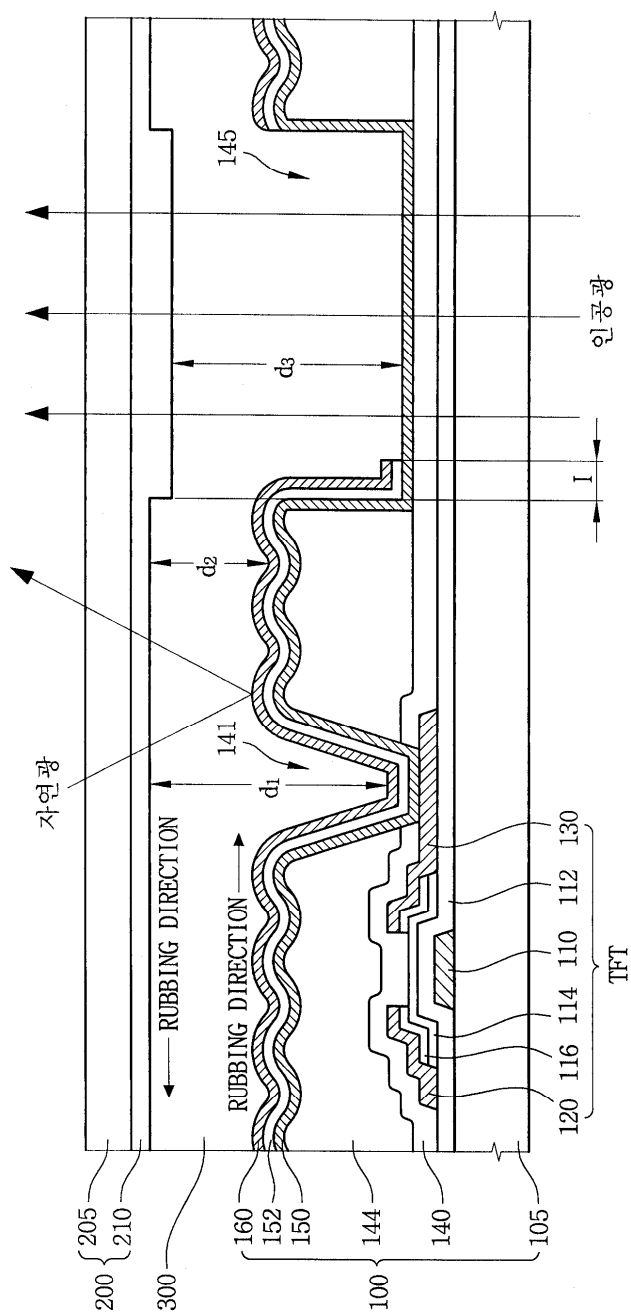
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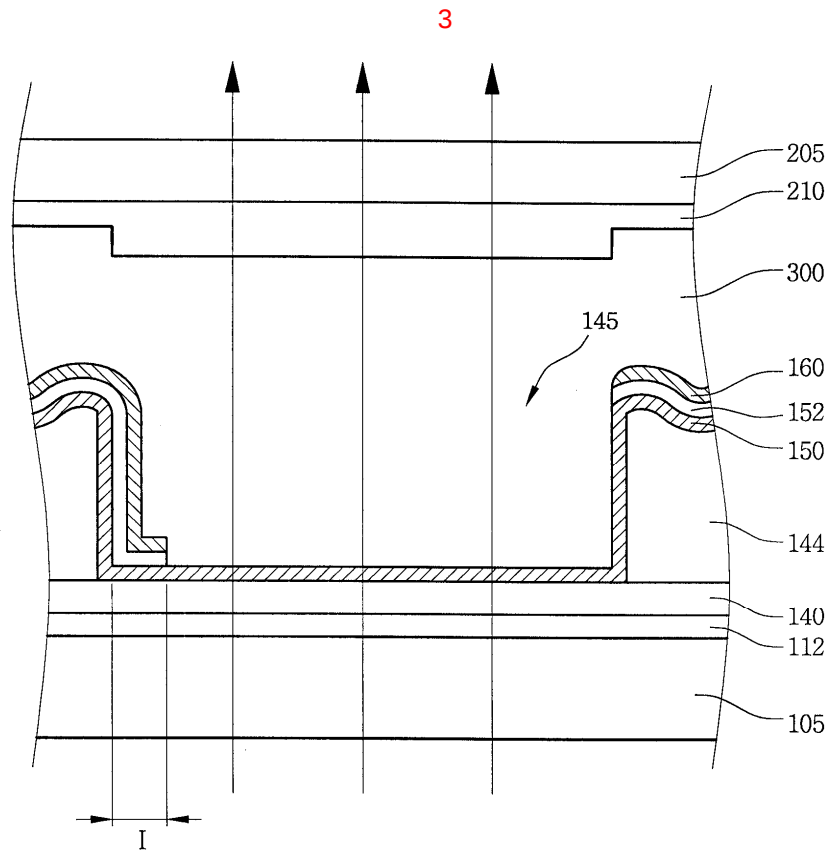
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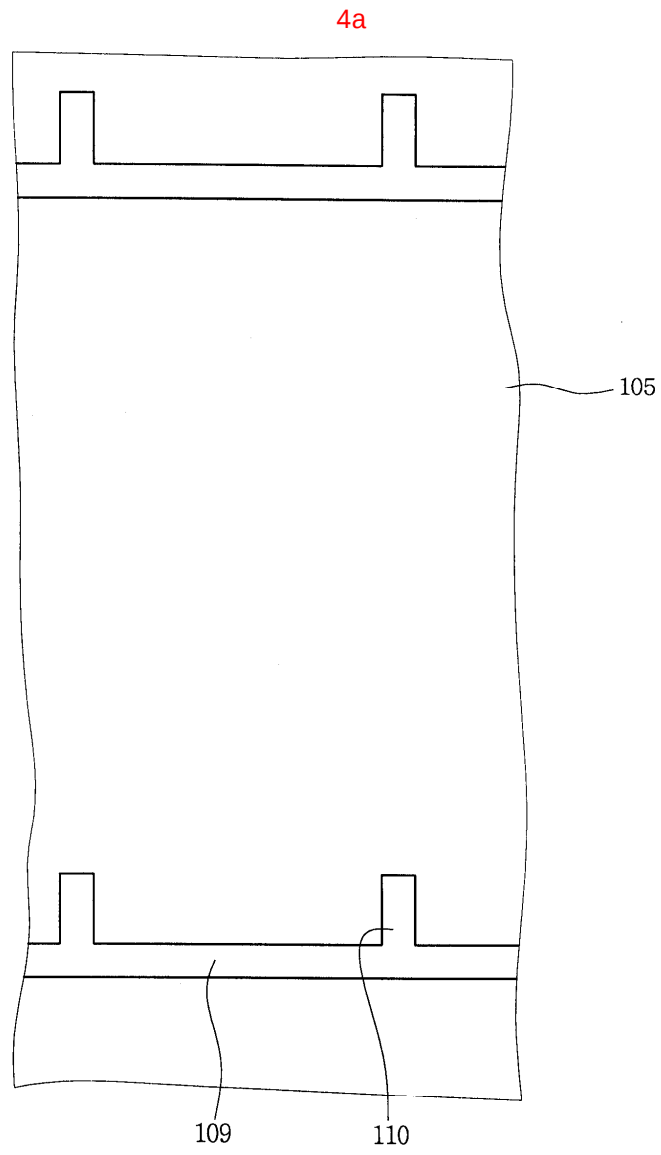
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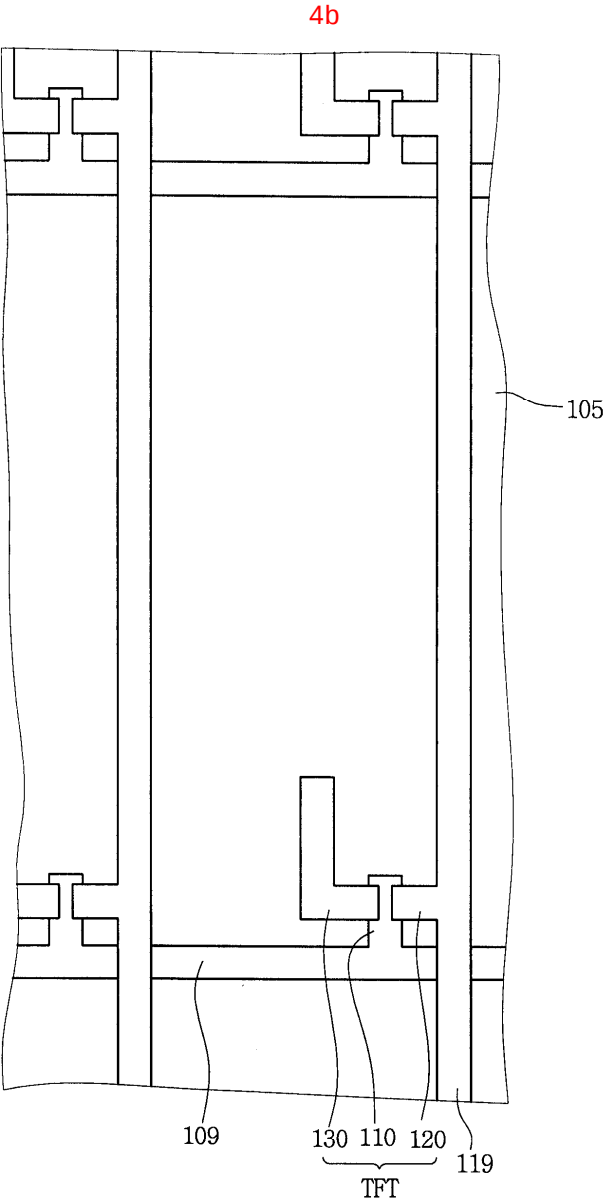
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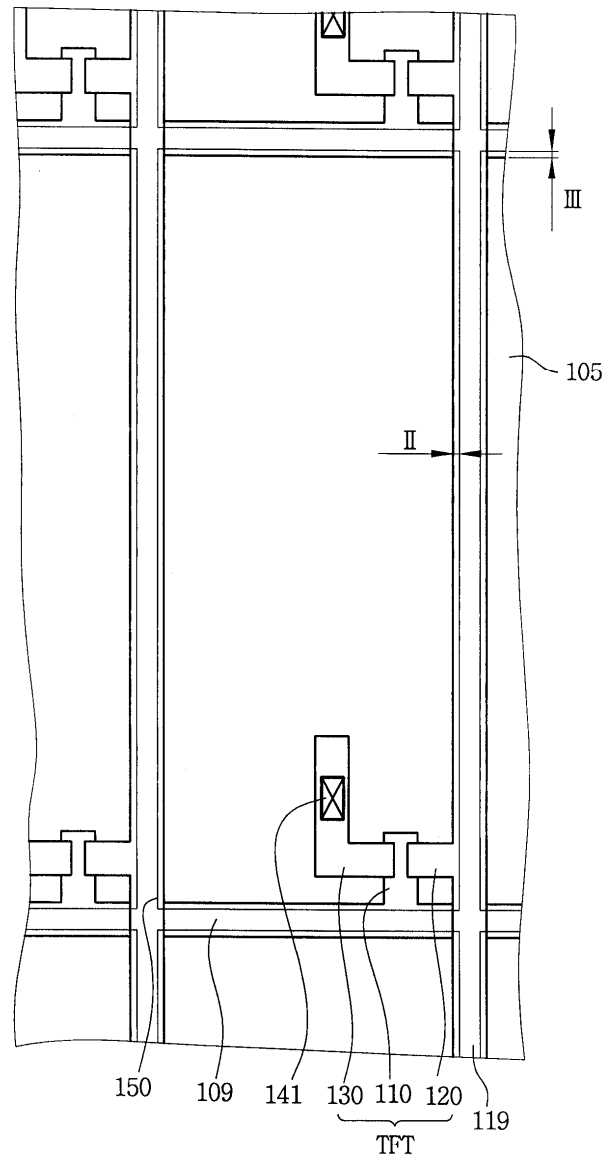




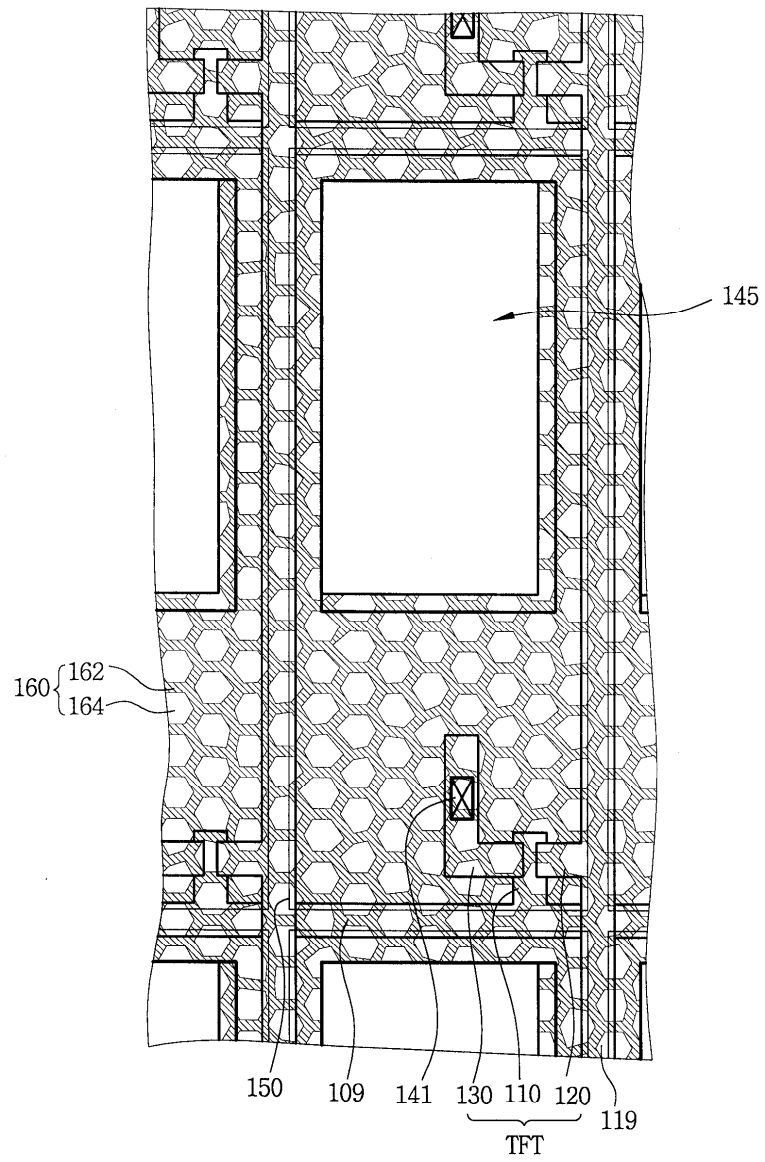




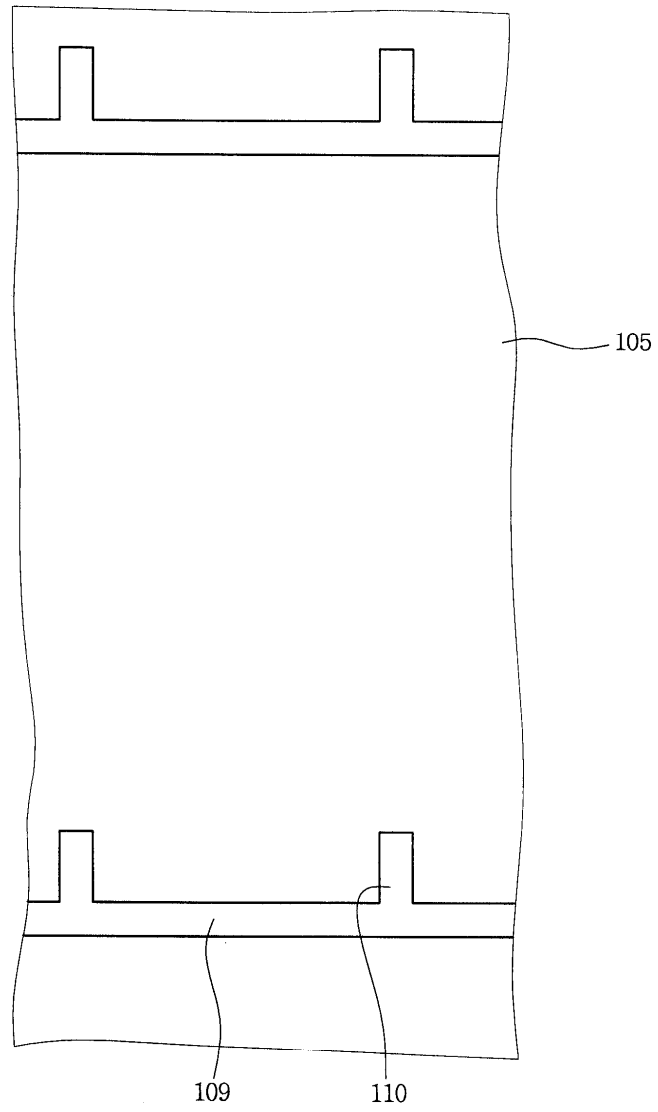
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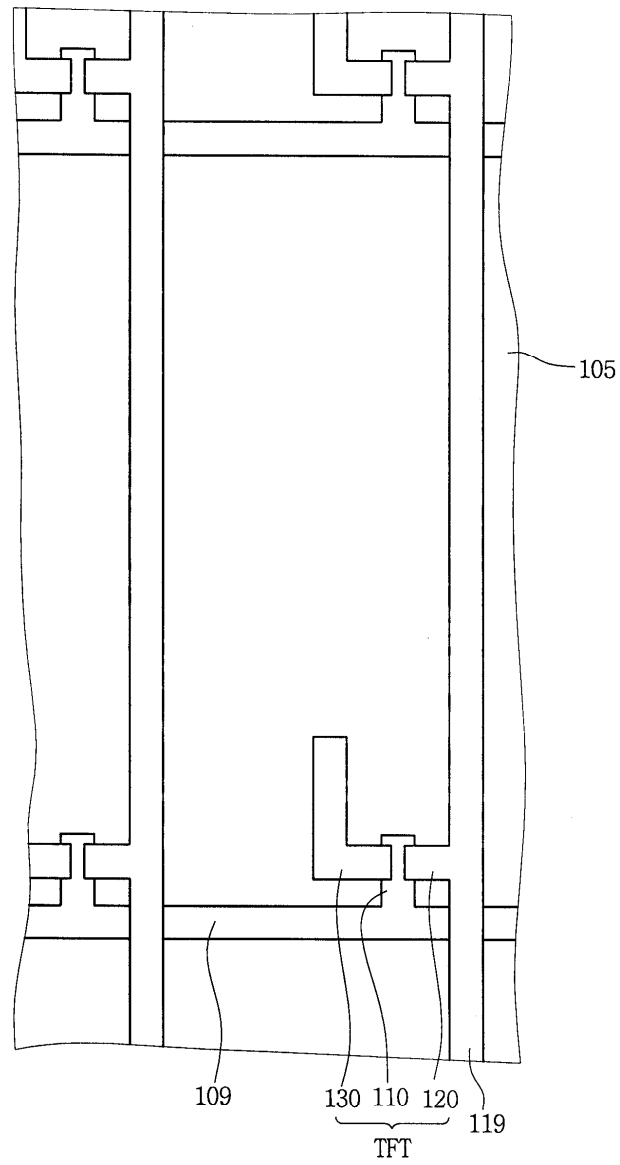
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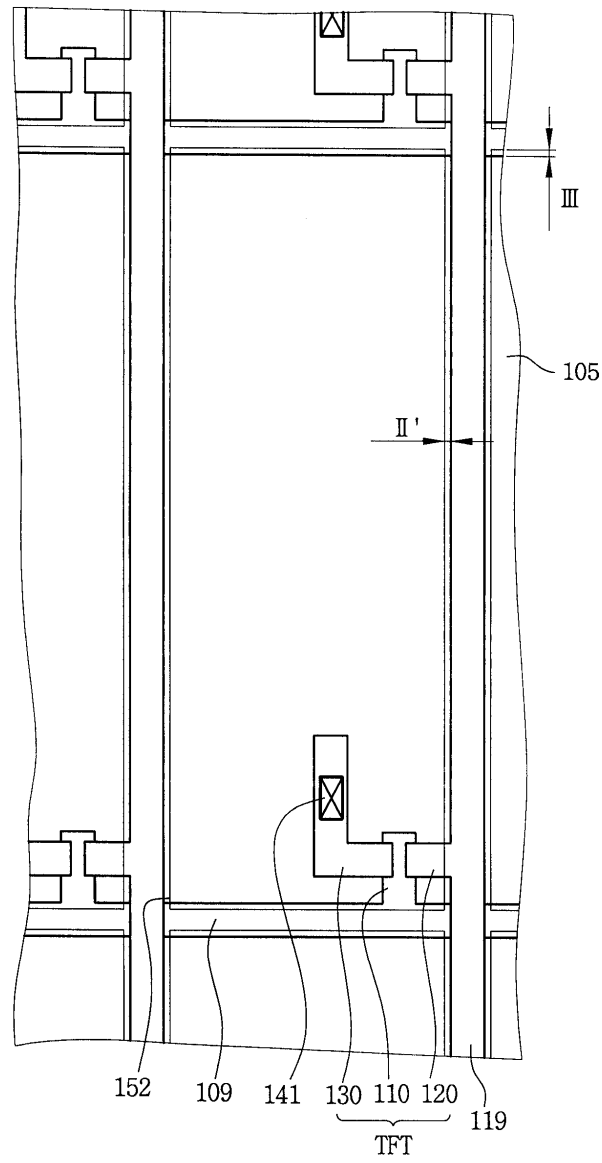
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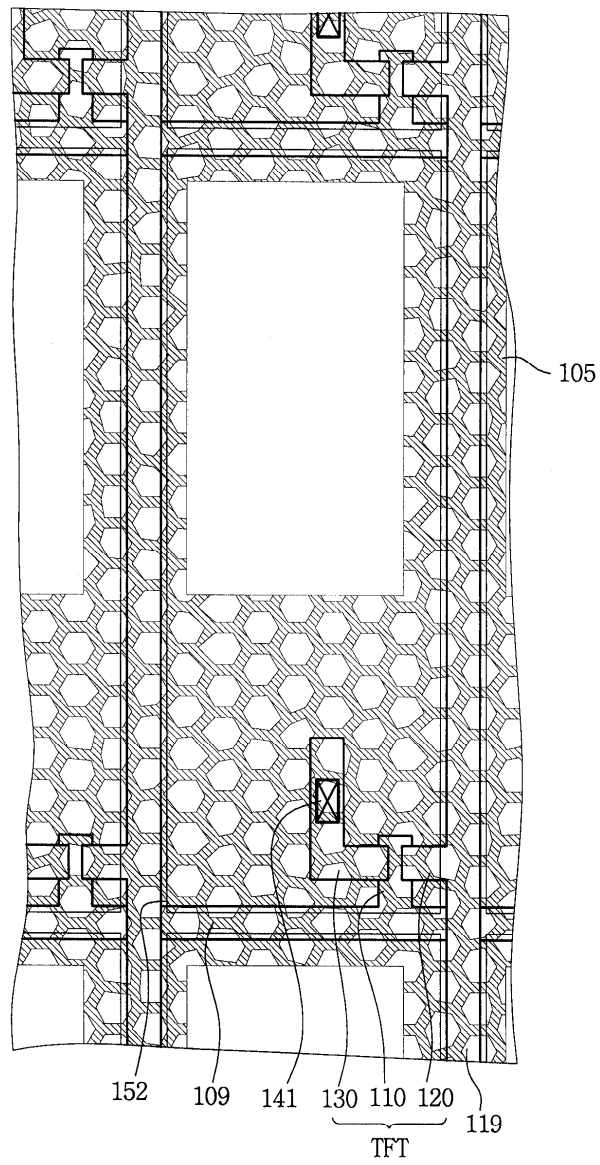
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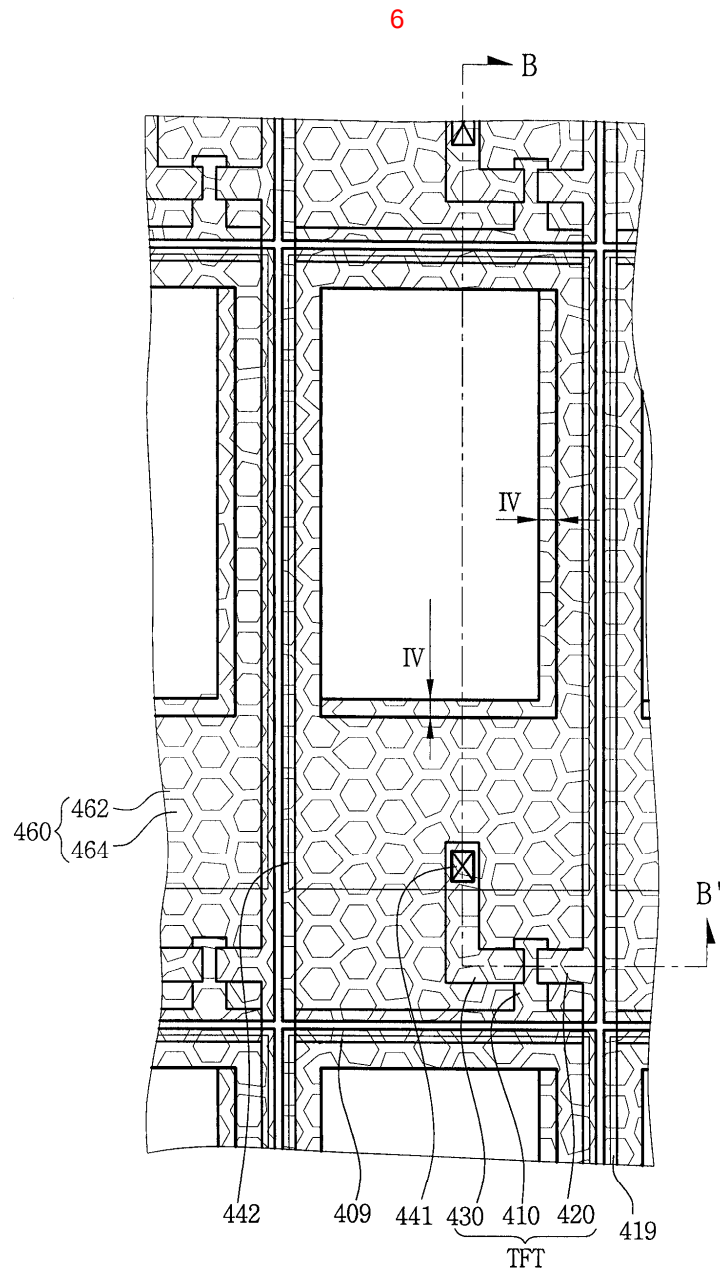


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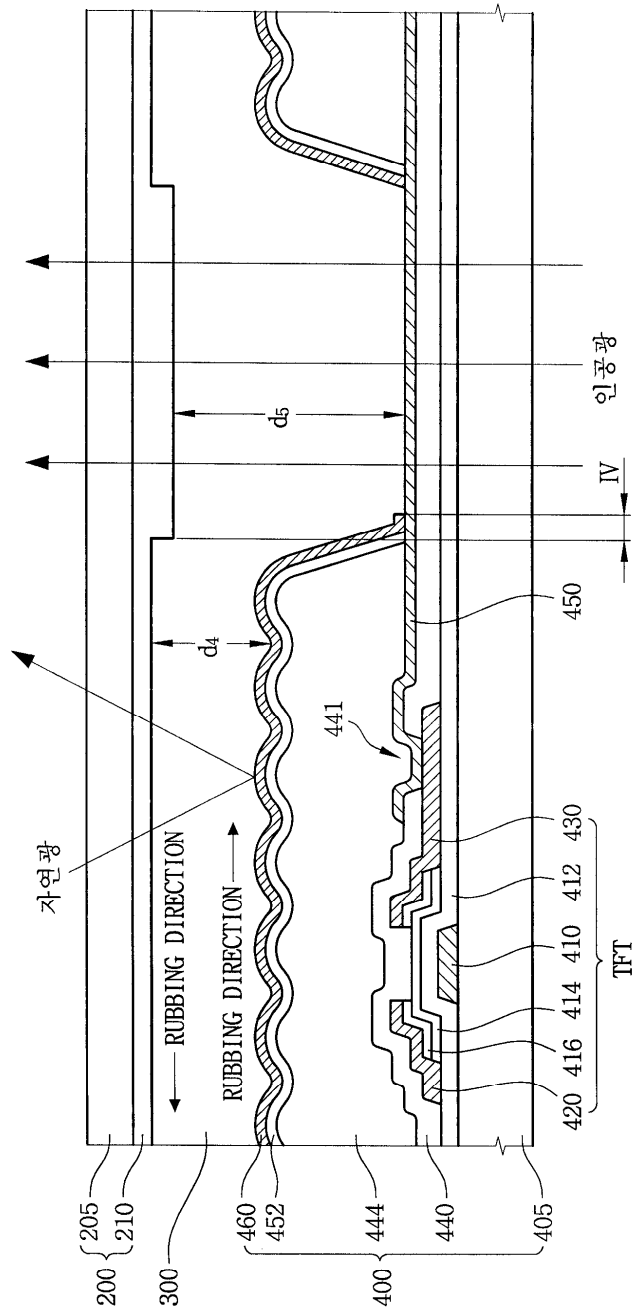


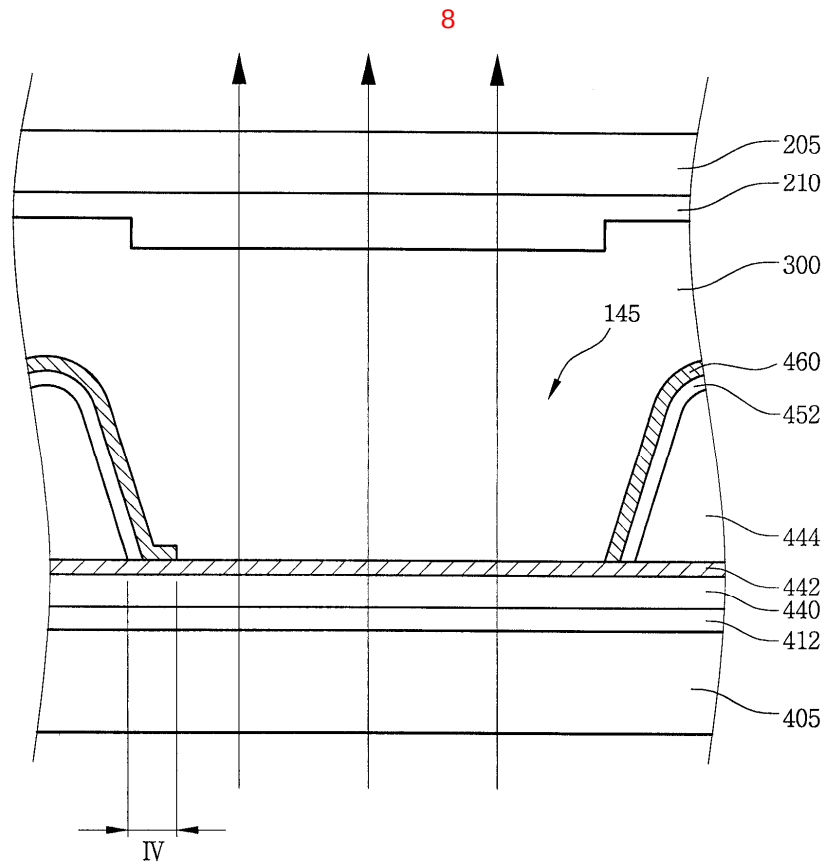
5d



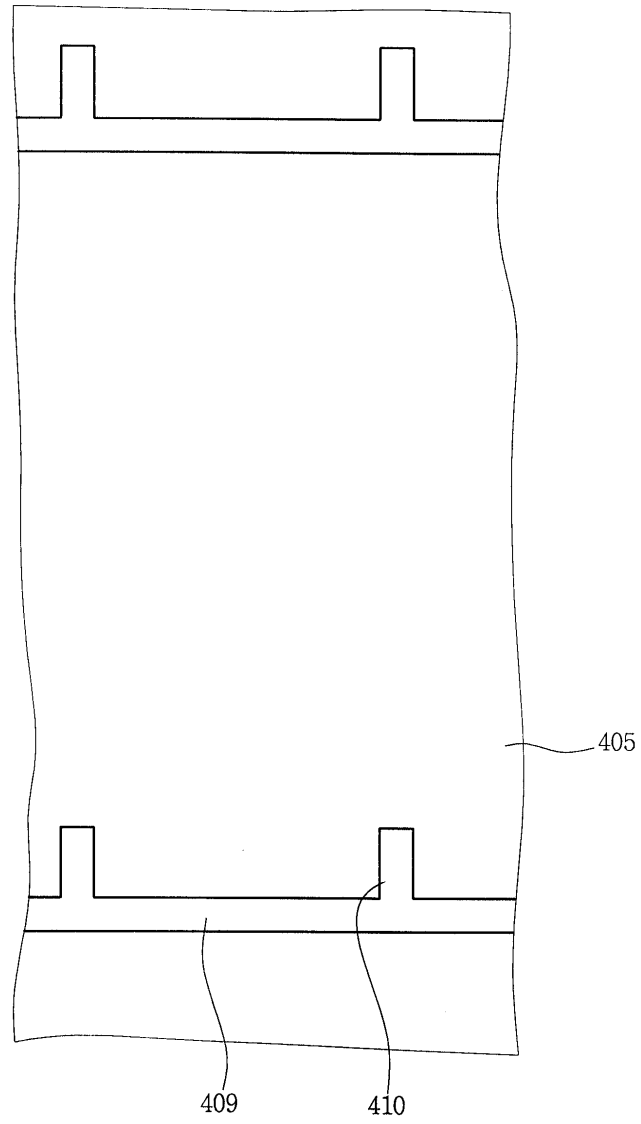


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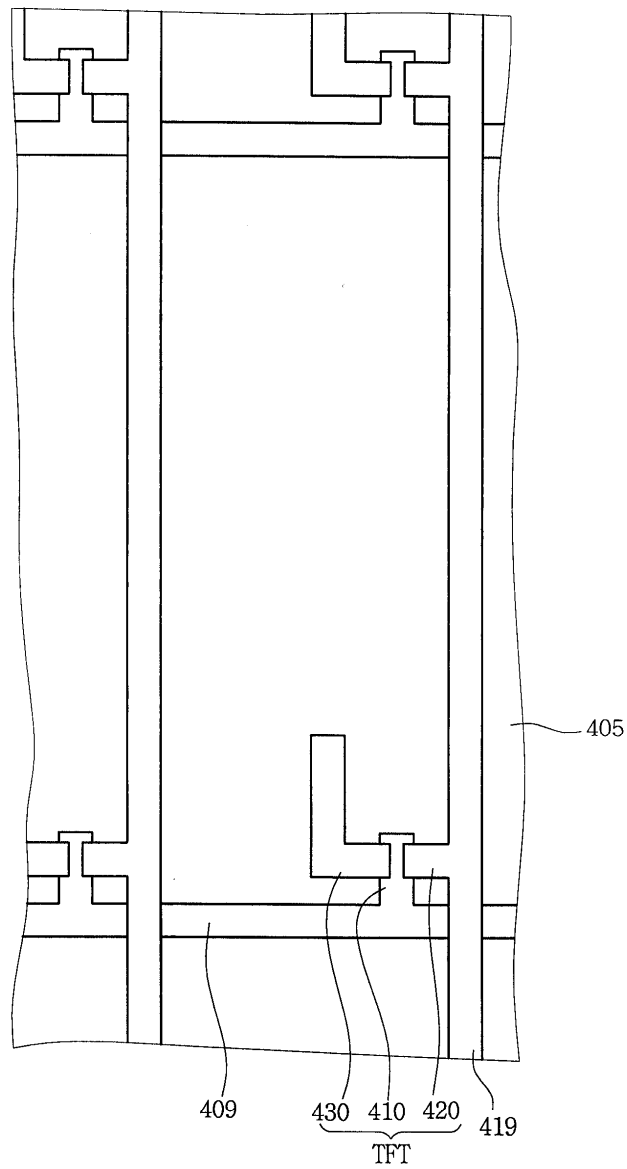




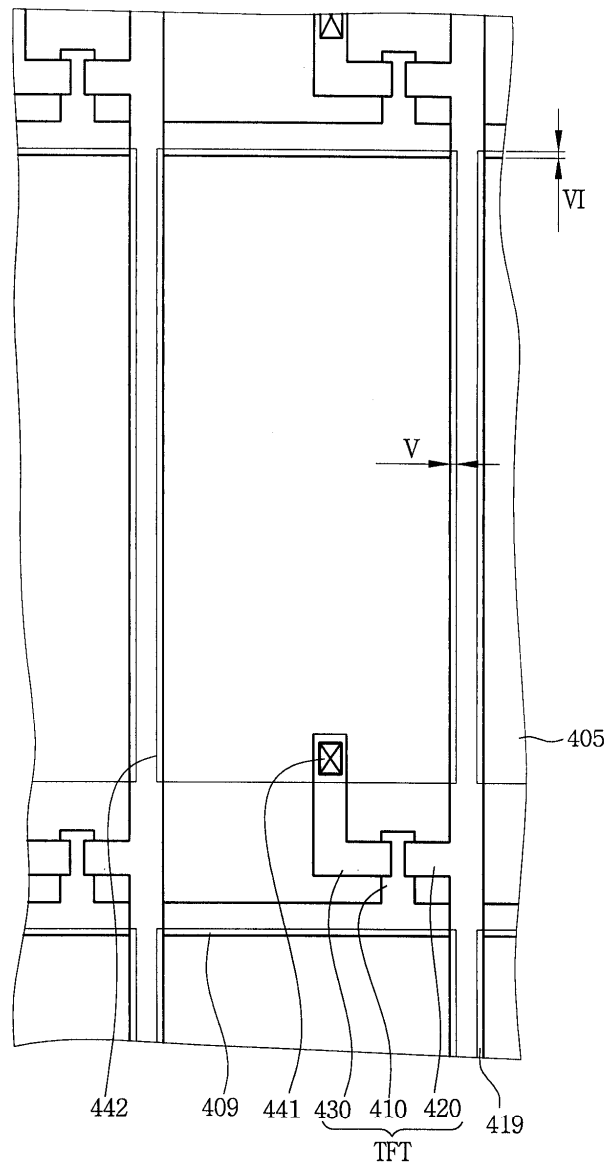
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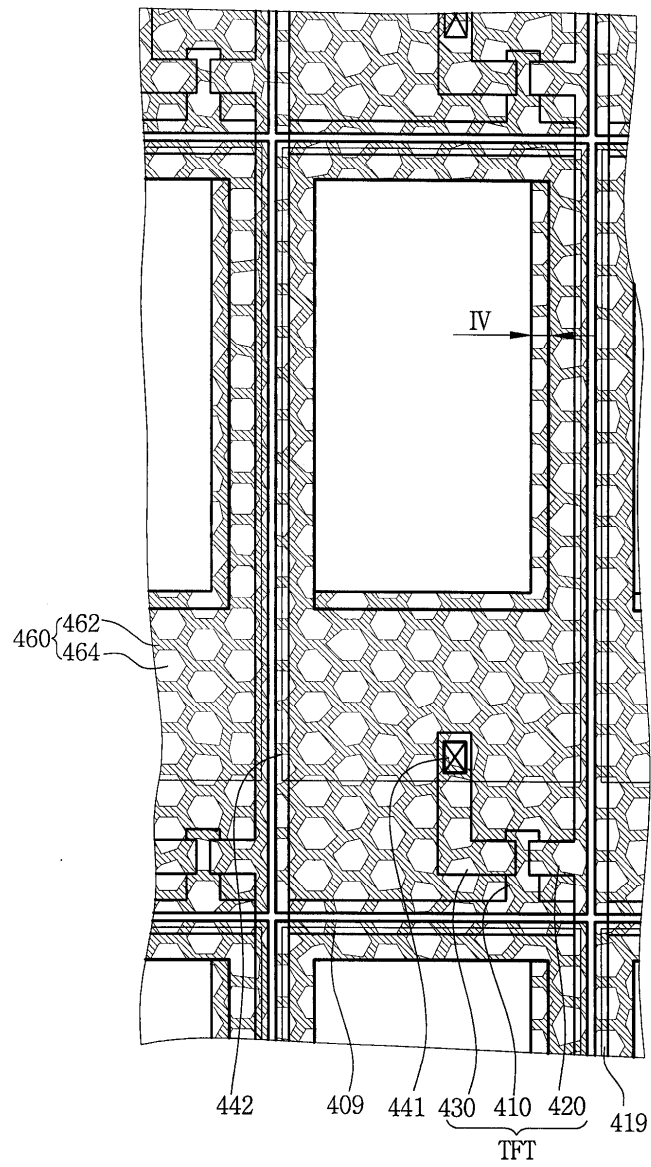
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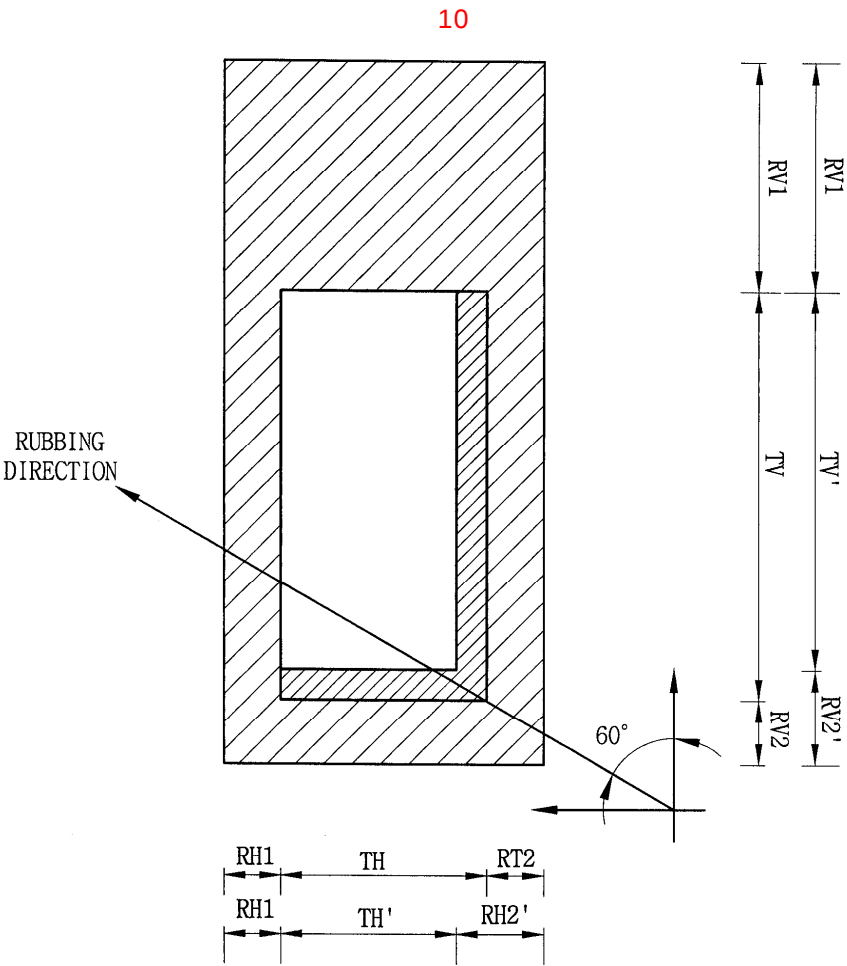


9c

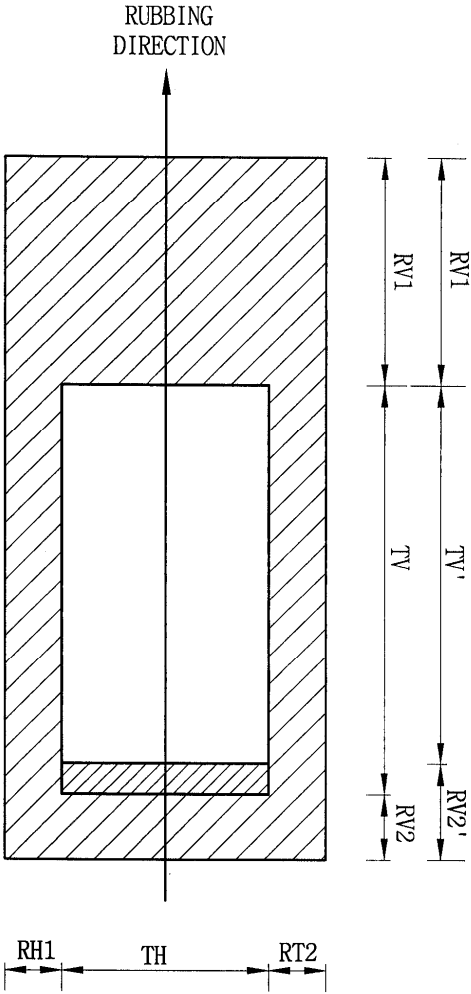


9d

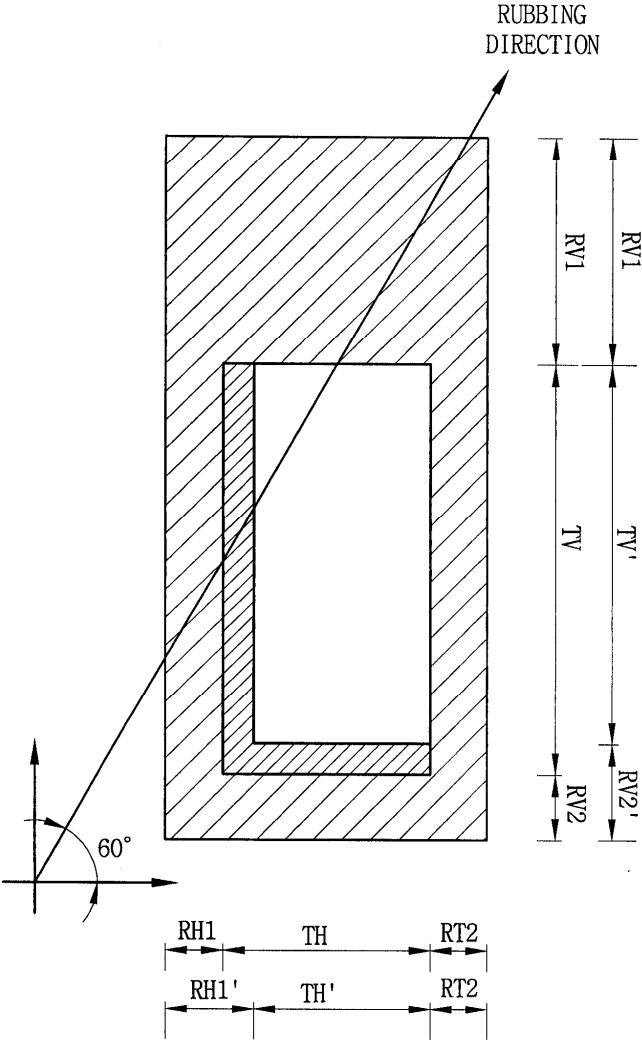




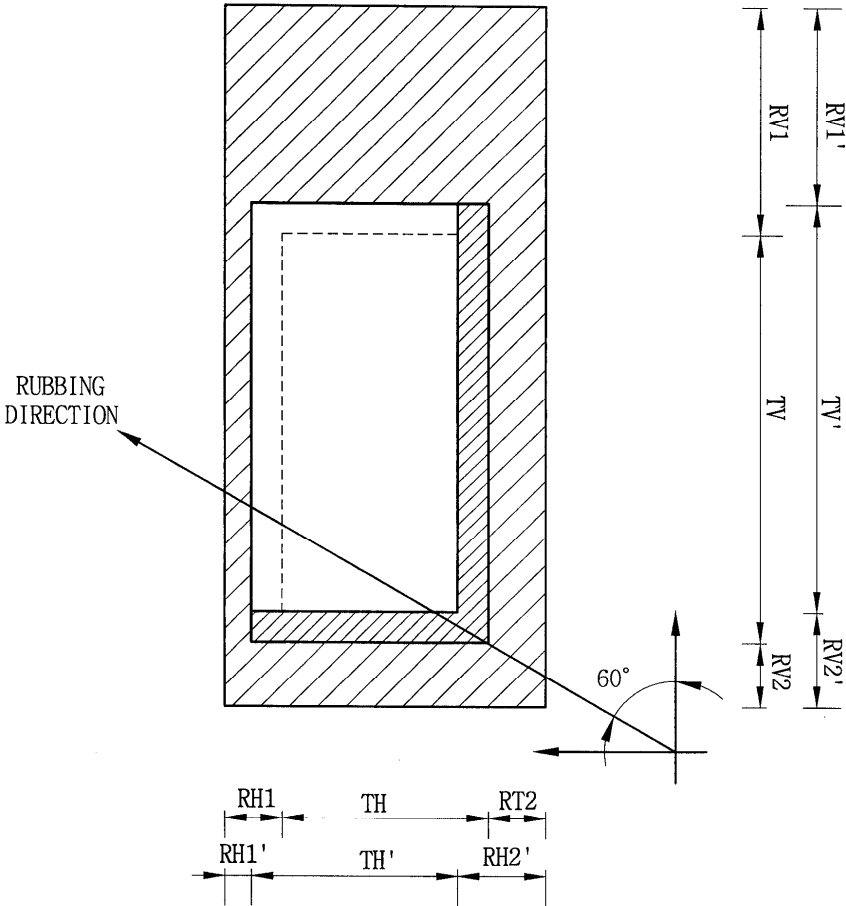
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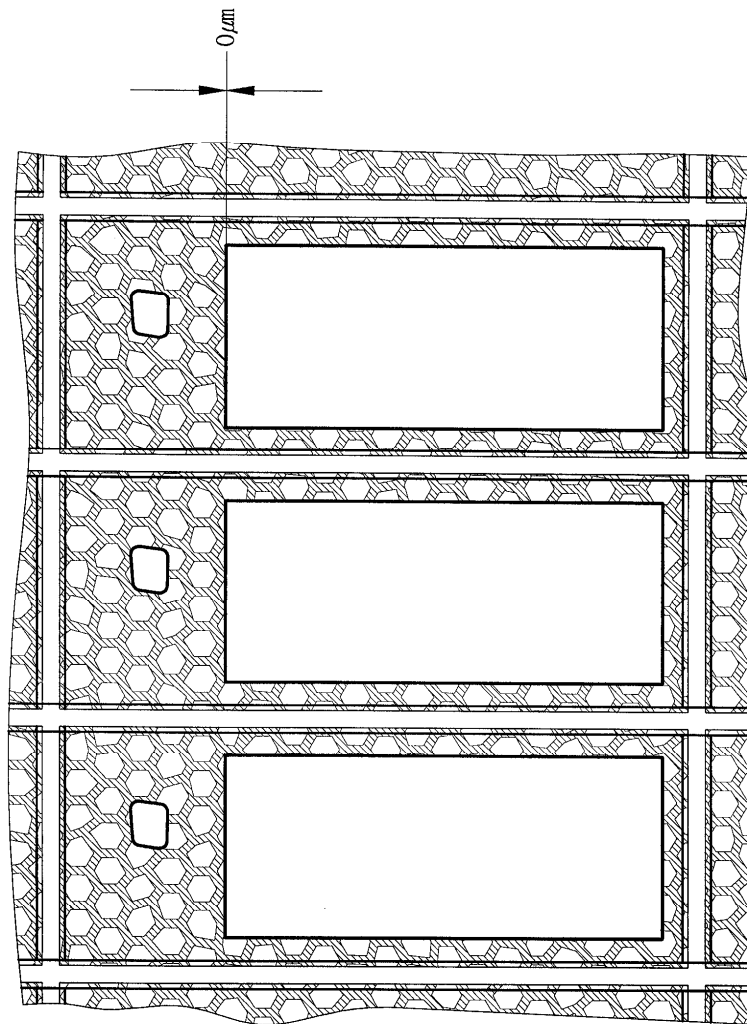
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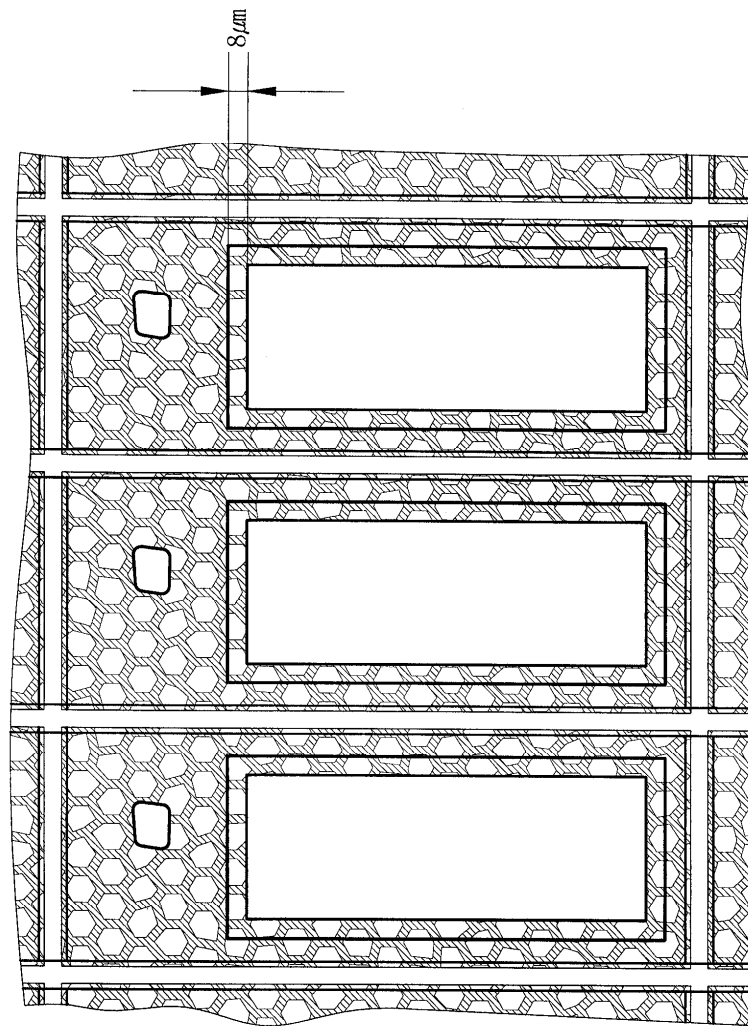
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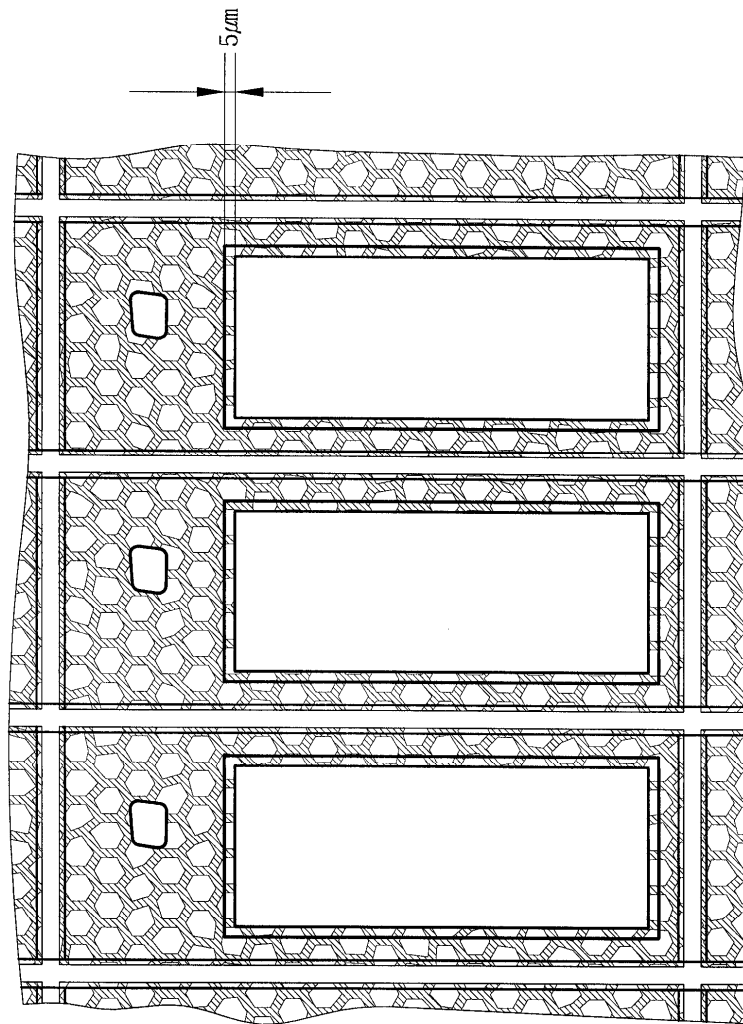
14a



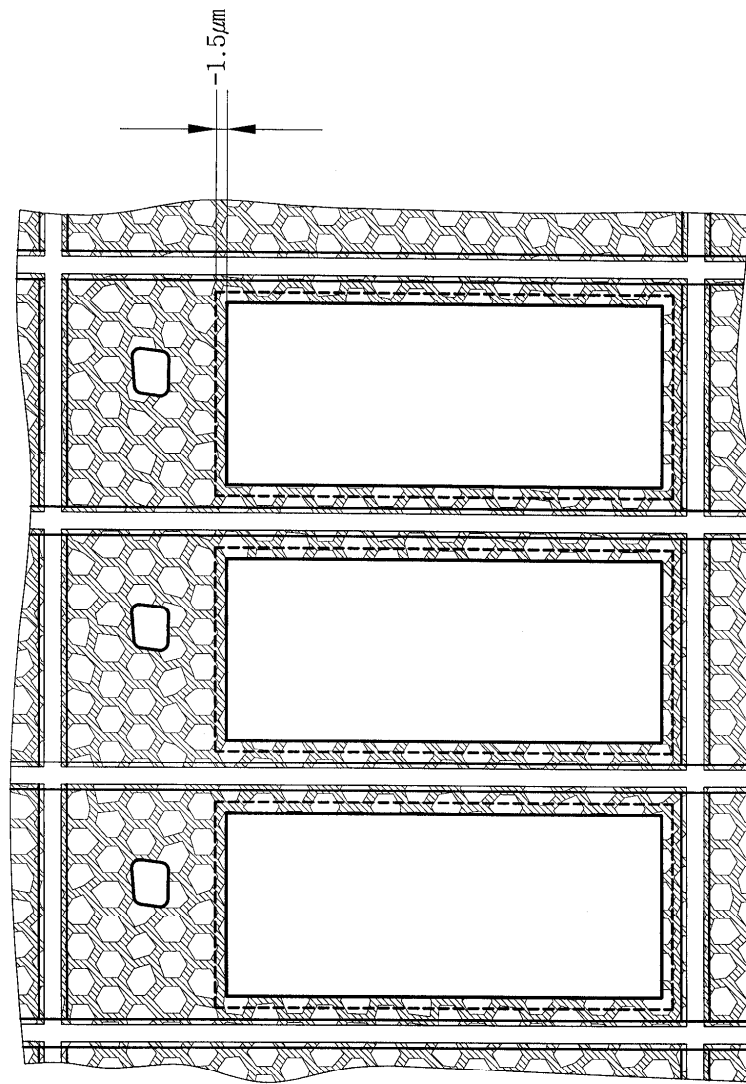
14b



14c



14d



专利名称(译)	阵列基板和具有该阵列基板的反射 - 透射型液晶显示装置		
公开(公告)号	KR1020040081891A	公开(公告)日	2004-09-23
申请号	KR1020030016477	申请日	2003-03-17
[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	KIM JAEHYUN 김재현 JANG YONGKYU 장용규 KIM SANGWOO 김상우 LEE JAEYOUNG 이재영 CHA SUNGEUN 차성은		
发明人	김재현 장용규 김상우 이재영 차성은		
IPC分类号	G02F1/1368 G02F1/1335		
CPC分类号	G02F1/1335 G02F1/1368		
代理人(译)	PARK , YOUNG WOO		
其他公开文献	KR100913299B1		
外部链接	Espacenet		

摘要(译)

公开了透射反射型LCD去除残像并提高穿透对比度。形成在像素电极上的反射区域被限定，其中在阵列面板上形成的反射器连接到开关元件并反射自然光和透射人造光的透射区域。此时，反射器从属于阵列面板的摩擦方向，并且预定部分与透射区域重叠。因此，可以去除余像。在透明模式操作中可以改善对比度。液晶，反射 - 穿透，半透射，重叠，反射器，像素电极，摩擦方向。

