

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl. ⁷ G02F 1/1343			(11) (43)	2003-0078795 2003 10 08
(21)	10-2003-0019773			
(22)	2003 03 29			
(30)	JP-P-2002-00096006	2002 03 29		(JP)
(71)	가 가 가	,		1753
(72)		5 7 1	가 가	
		5 7 1	가 가	
		5 7 1	가 가	
(74)				
	:			
(54)				

가 , 가 , 가

1b	1a	I - I	.
2	1a	.	
3a	1	1	.
3b	3a	III - III	.
4a	1a	.	
4b	2	.	
4c	4a	4b	.
5a	1	2	.
5b	5a	III - III	.
6a	1	3	.
6b	6a	III - III	.
7a	1	4	.
7b	7a	III - III	.
8a	1	5	.
8b	8a	I - I	.
9a	8a	.	
9b	.	.	
9c	9a	9b	.
10	가 () (ITO)	1a I - I, II - II	.
11a	I - I, II - II	ITO	, 1
12	1	.	
13	2	.	
14	1a	(disclination)	.
15a	13	.	
15b	.	.	
15c	15a	15b	.
16	가	.	

*

*

10 : 11 :
 12 : 13 :
 14 : 15 :
 16 : 2 18 :
 19 : 20 :
 22 : 1 23 : 1
 24 : 25 : 2
 126, 226, 326 : 227 :
 28 : 29 :
 30 : 34 :
 35 : 36 :
 32 : a-Si 33 : n+ a-Si
 39 : 40 :

IPS; In-Plain Switching)
 .
 2 가 (director)
)
 (Twisted Nematic; TN) , IPS
 IPS 가 , TN
 IPS 가 TN
 6(1994)-202127 (, 1) 9(1997)-318972
 (, 2) IPS
 1 IPS 가 ,
 , 1

$$2 \text{ IPS} \quad (\quad , \quad) \quad . \quad 2$$

2 IPS

가 , 가

가 (abnormal) 가

(longitudinal cross-talk)'

```

    ,
    (dummy)
    (terminate),

```

가, 가,

1 가 1

1 2 1 2 .

(11) (12) (13)

[1]

1 2 1 , 1b l-l , 2 1a

1b (12) (13) (10) (11), (12), (11)

(12) 2 (16), (18), (18) 가
(19) ,
(13) (18) (R) (15) 2 (118), (16)
 (G)
(318) (218), (B)
 1b
(spacing)

(11) 1 (22); (11) (28, 1a)
(36, 2) ; 1 (24), (23); 1 (35)
(34), ; 1 (23) 1 (23)
(26) 2 (25); 3 (25) 가
(224) (24) (124)
(224) (124)
(224) , ITO ,
(, 가 ,
가 , 가 ; ,)
가 , , 가 1 2 μm
(20) (11) (12) 10 30 , (13) , 2
1a (11) 가 (24),
(26), (27), 가 (28),
(30) (26) 가 1 (22) 2
(16) 가 (26) 가 (27) (comb-shaped)
) 가 , (26) (26) , (27)
, (27) (26) (27)
, (27) (27)
(10) , (27) (27) (26)
, (27) (26)

가

(26) (126) ,
 (226) .

1a , (24) (28) , (24) (28)
 (226) (24)
 (28) (226) (28) (24)
 (226) (226) (28)
 (24)

1a (226) (mesh) ITO

1b (26) (27) 가 (27)
 (13) (26) (26) (24) (24)
 (26) (28) (26) (24)
 (26) (28)

3a (28) (26) (28)
 (27) 2 (25) /
 (26) (27)

1a (35) (227) 가 (35) (27)
 가 , ,

4a 4c 1a 3 , (1) (226, 4a)
 (ITO) , (2) (227) (24, 4b) (224) (ITO) ,
 (3) (28) 1 (24, 4c) (124) 2
 (224) (227) (124)
 가 , (124) (224) (227) (124)
 4a 4c , (24) (28) 1a
 (226) (226) (227)
 TFT 가 (27) (22
 7) 가

1a , TFT 가 (12) 2
 (16) TFT (40, ,)

2 가 TFT (40) 가
 (11) (12) (relative displacement)

5a 5b 1a 1b 2 5a 2
 5b 5a III-III (23) 5a 5b
 가 (28)
 (27)

6a 6b 1a 1b 3 6a 3
 6b III-III (126)
 (26) (28)
 (26) (126) (28)

((126) 6a , TFT (30)
 (626)).
 (126) , 가 (12) (12)
 가 , 2 가 .
 , 7a 7b , 1a 1b 4 . 7a 4
 7b 7a III-III . 7b ,
 (126) (226) (126) 7a , TFT (30)
 (626)), (29) (126, 226)
 .
 (226) ITO , ITO , ITO TN LCD
 n) 가 , , ITO (20) (defective portio
 (126) , (126, 226)
 .
 8a 8b 1a 1b 5 . 8a 4
 , 8b 8a I-I 2 (25) 1b 1
 5 (226) 2 (25) 8b (226)
 2 , 2 (326) , 8b (326)
 2 (227) 가 , (25) 2 , 가
 (226, 326) . (26) (25) 가
 , .
 가 .
 9a 9c 8a 3 , (1) (226,
 9a) (ITO) , (2) 2 (9b) (227)
 (ITO) (124) 2 (224), (3) (28) 1 (226,
 (124, 9c) 2 .
 326)
 .
 가
 PS , 가 , 가 I
 , 가
 , 가
 , 가
 .
 10 11 1 TFT TFT . 1
 0 11 I-I II-II
 10 (26) (24) (26) (226)
 , 11 (24) (124) , 10 11
 , (24) 10
 1a, 1b 10 , (28) (36) 1 1
 .
 IPS (10) 가 (28) ,

가 (26) (27) , 1 (22) 2 (16) 가
 (22, 16) (226) 1a ,
 (227)
 10 TFT (126) (36)
 , TFT 2 (16)
 TFT (126) (226)
 가 가
 (126)
 가 TFT ,
 (28) (28) (226) ,
 12 (26) (126) (28) (26) (28) (28)
 (126) (26)
 가
 12 (26) (24) 12 (24)
 (26) (126)
 , 12
 12 , ITO (226) (126) (13) 가
 (126) (226) ITO 가
 (126) ITO (13) 가 (126) (
 226)
 10 (30) (36), (34) (35) (36)
 , (28) (24) (34) (24) (35)
 (28) (34) (24) (35)
 (227)
 10 , TFT (30) (35) , 2 (227) (235)
 (135) ITO (227) (224) (34) (234)
) (35) (235) TFT 가
 (234, 235) 가 (234, 235) TFT (134, 135)
 (134, 135) , 10 (234, 235) , TFT
 0.5 1.0 μ m 가 2 TFT
 TFT 가
 가 TFT (134, 135) 0.5 1.0 μ m (234, 235) (234
 , 235)
 11 1 , TFT TFT (34) (35) (124)
 (226) (ITO) 11 , 10
 2 11 10

, 10 TFT
 (36) (28) 1
 1 (22)
 (36) (28) (SiO.sub.2) (SiN_x) 1 (23)
 (22)
 , (a-Si) (32) n+ (a-Si) (33)
 1 (23)
 , (32, 33)
 , 2 (34) (134), TFT (35) (135), (24) , TFT (1
 24)
 , ITO 가 (34) (234), (35) (235), (24) (224) (27) (34) (227)
 ITO , TFT , n+ a-Si (33) a-Si (32)
 (34) (35)
 (34) (35)
 TFT (30)
 , 2 (25)
 (36) 가
 (126) (36) (126) (36)
 (126)
 ITO 가 (226) , TFT ITO
 11 가 11 가 ITO , 10 11
 [2]
 13 (2 (100) (27) (26) 가
 (27) (26) 가 (26)
 , 13 (27) (26)
 14 , (27) (26) 가 가 가
 가 가
 , 13 , 14 가

가 , , 가 , 가 가 , , 가 , (disclination) , 가 , 가 , 가 , (26) (27) , 13 , (26) (27) (26) (27) , 가 가 (anti - reverse - rotation) . 15a 15c , 15a 15c 3 , (1) 224) (227) , (226, 15a) (ITO) , (2) (24) ((8) 1 (24, 15c) (124) 2 (ITO) , (3) (2 13 (227) ITO 2 (226) 2 (226) , (526, 527) 가 , 가 , (100) . [3] 16 , 16 1 (41) 2 (44) 2 (42) 1 (227)) 2 , (24) ITO 가 (, .

(1) IPS

(2) IPS

(3) IPS

(4) IPS 가

(5) IPS 가

(6) IPS

(57)

1.

, 1 ;

1 2 ;

1 2 ,

가 ,

1

2.

1 ,

가 ,

3.

1 ,

1 ,

4.

1 ,

1 ,

1 가 ,

5.

3 ,

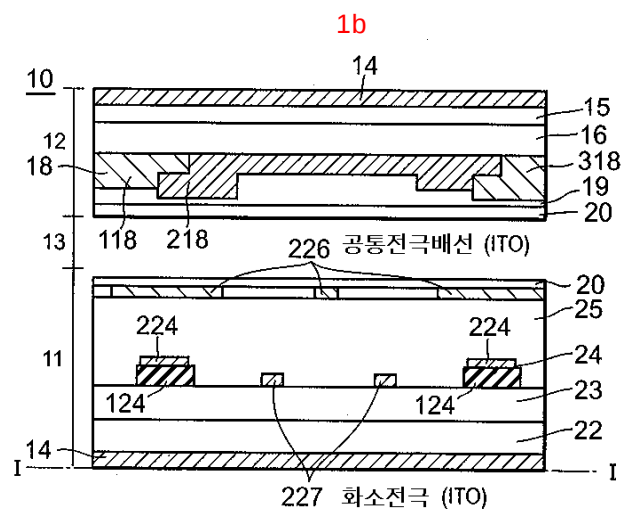
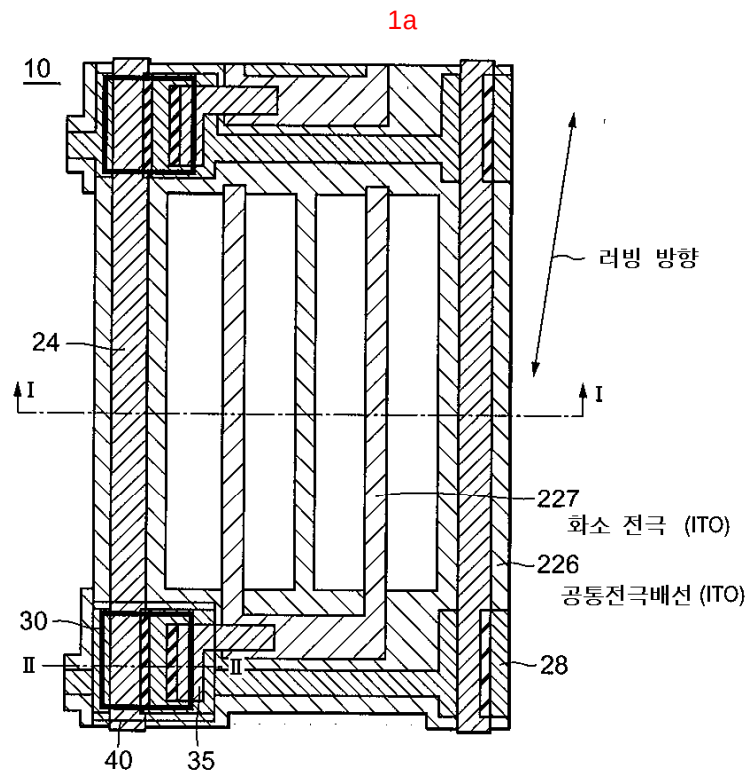
6.

5 ,

7.

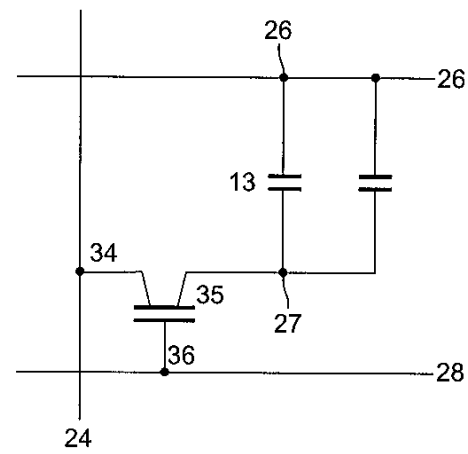
3 ,

(ITO)

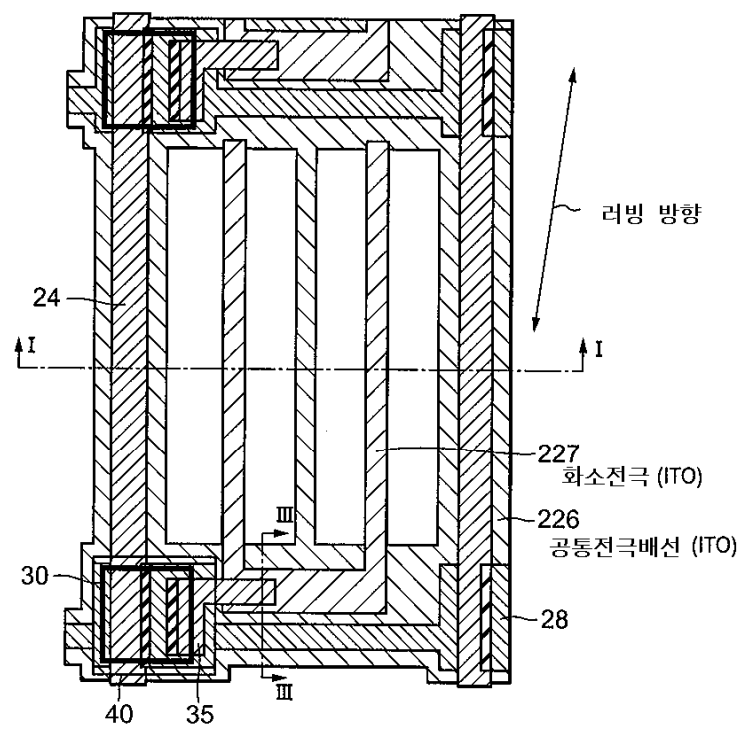


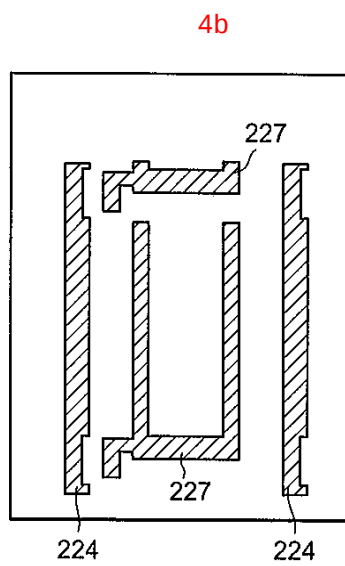
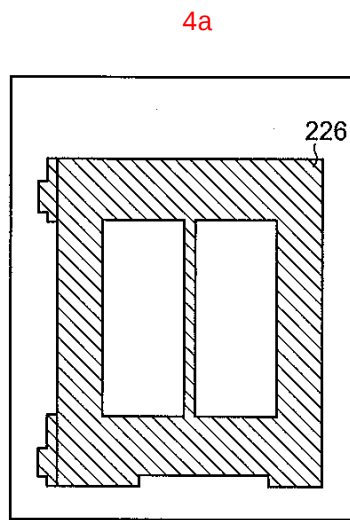
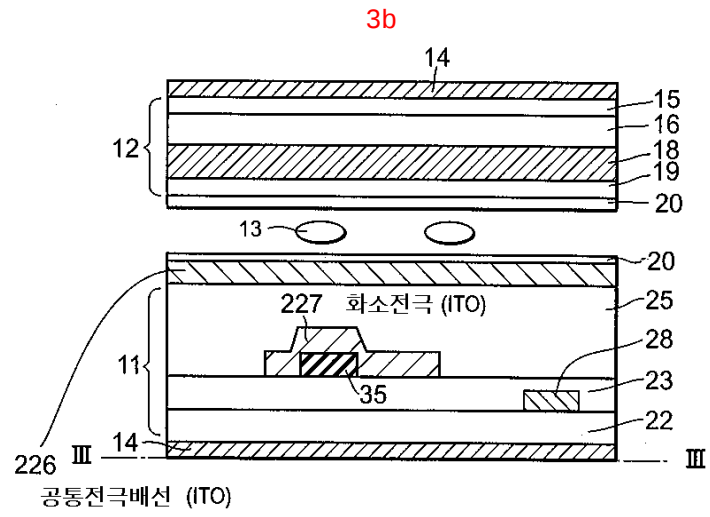
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10

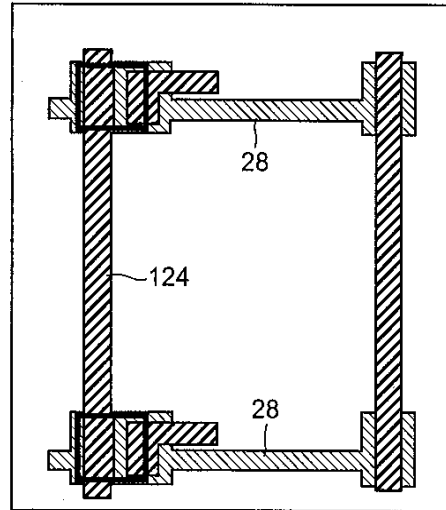


3a

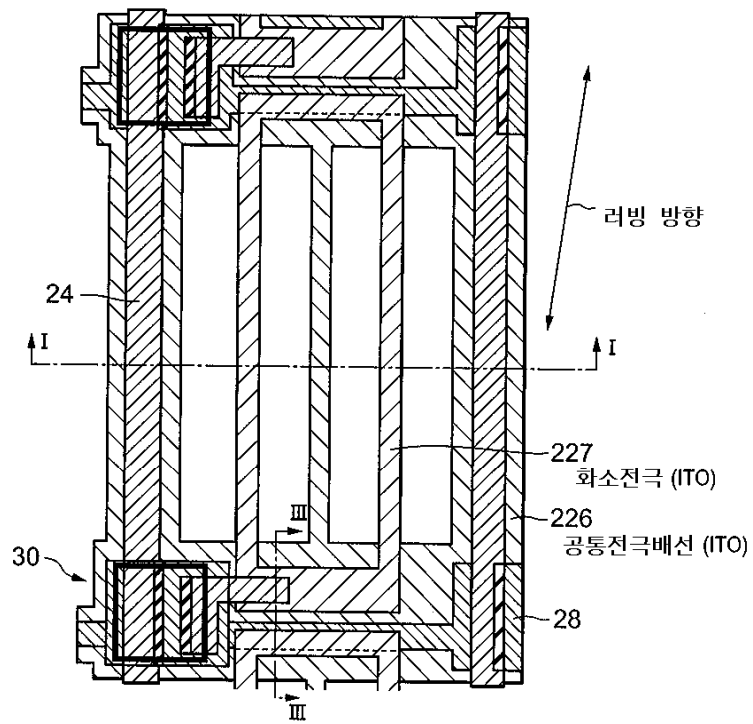


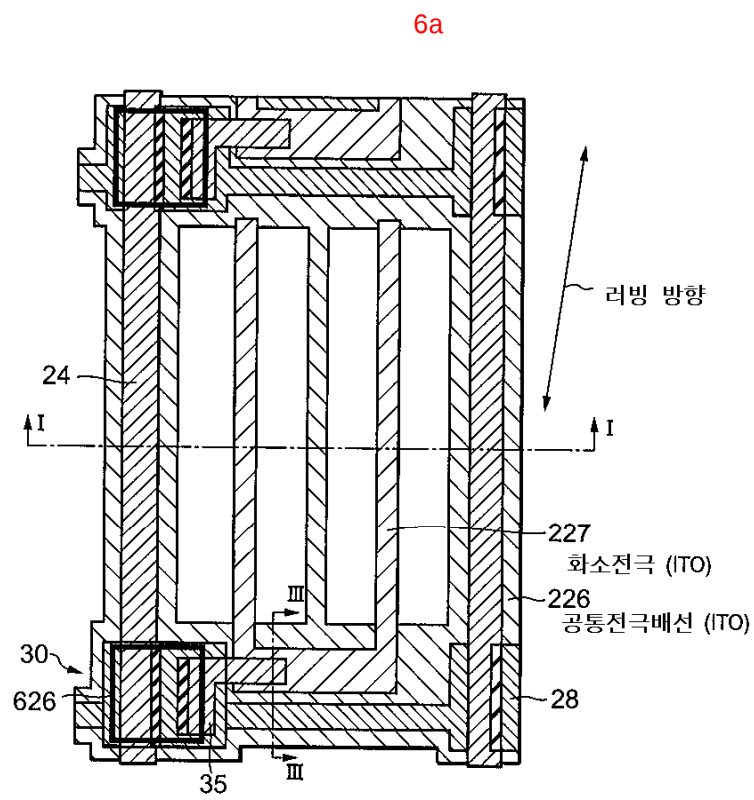
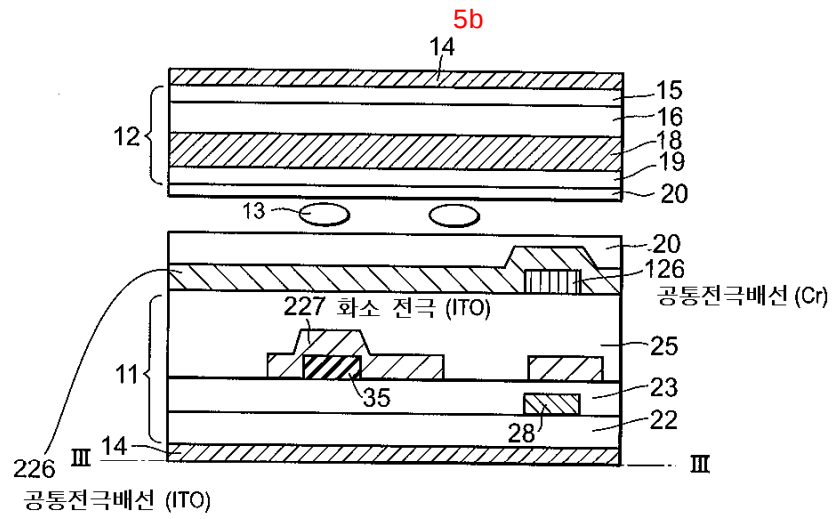


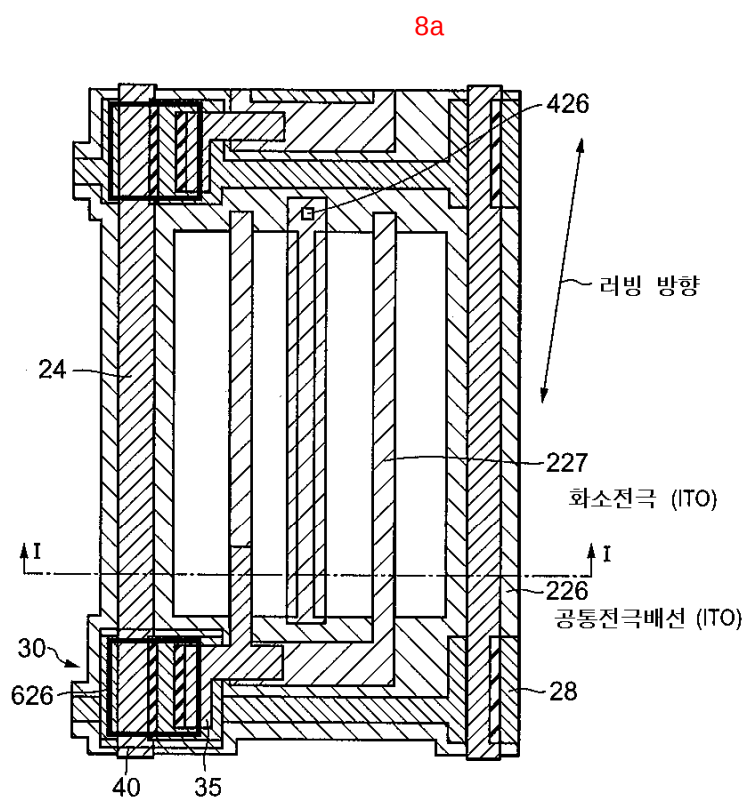
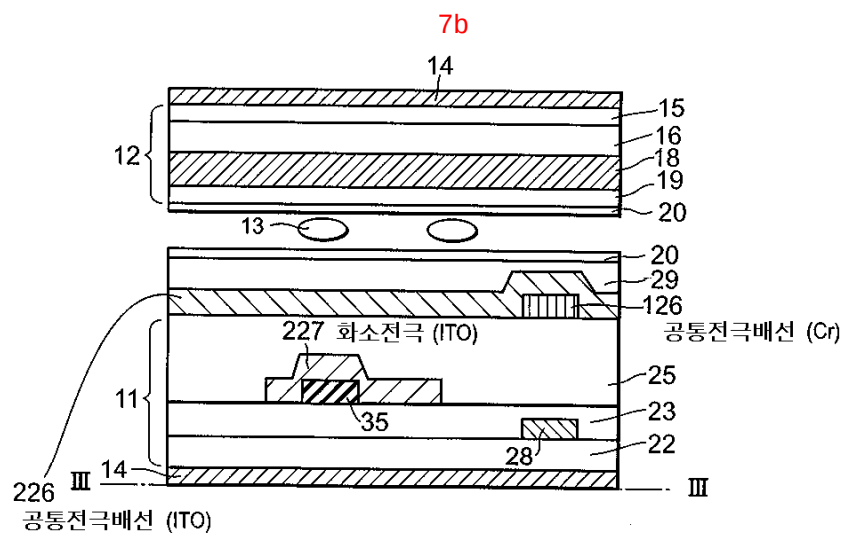
4c



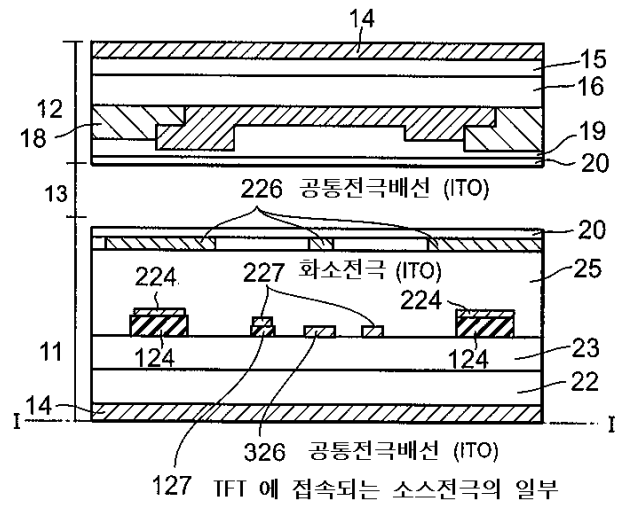
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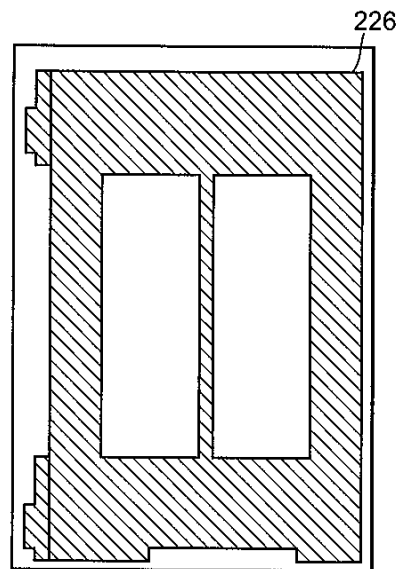




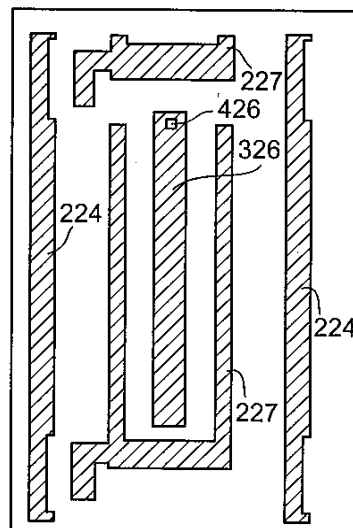
8b



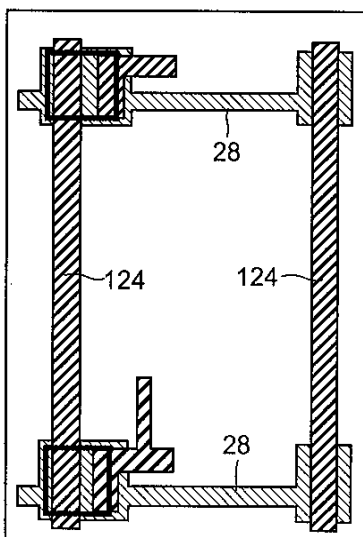
9a



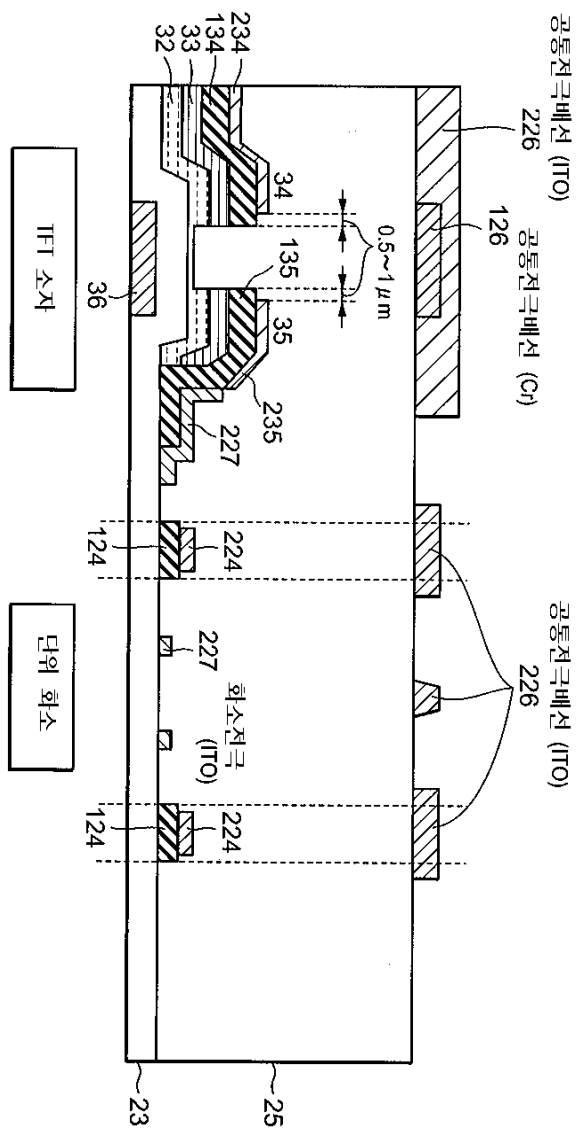
9b



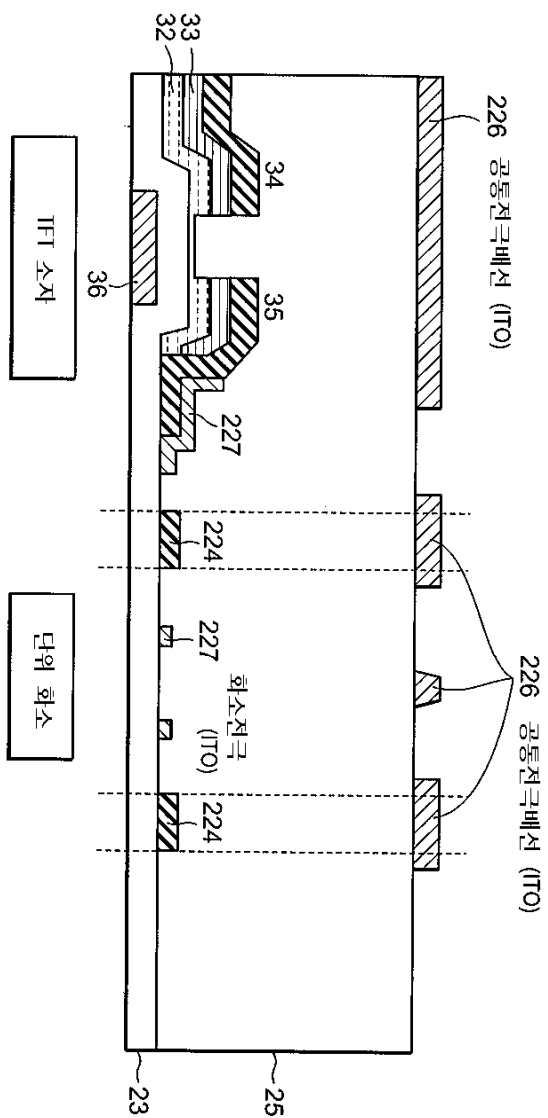
9c



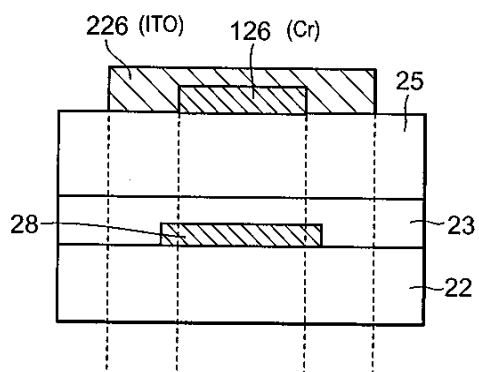
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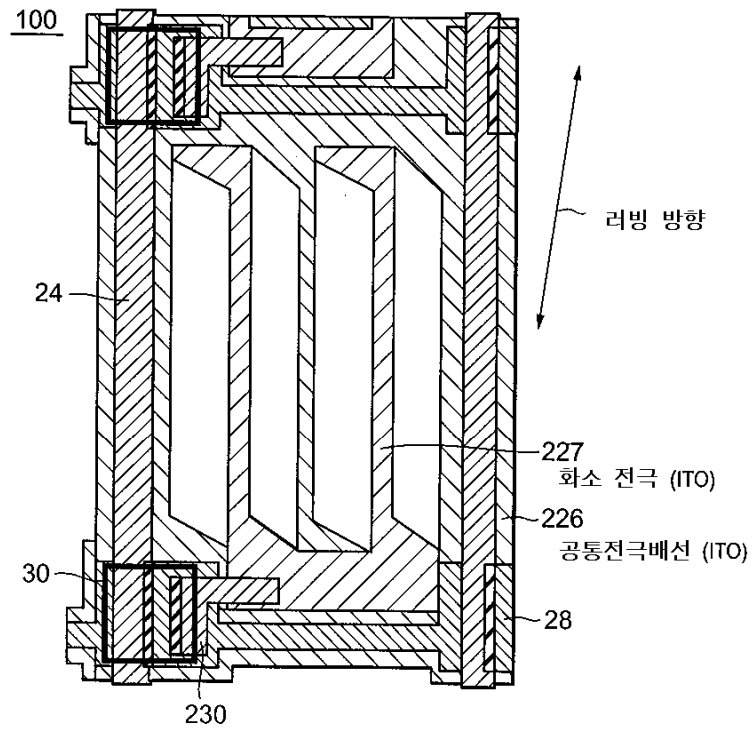
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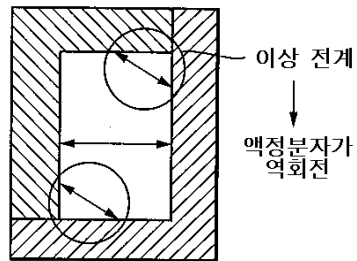
12



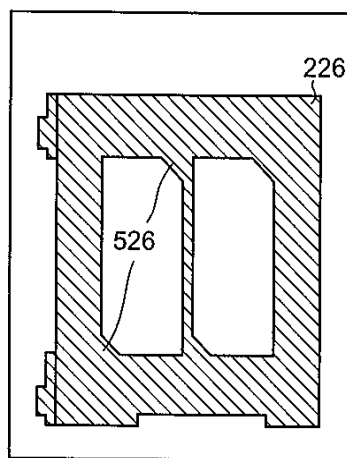
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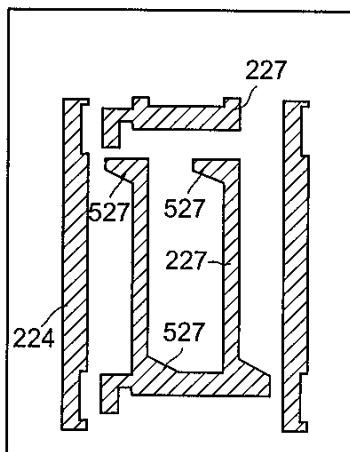
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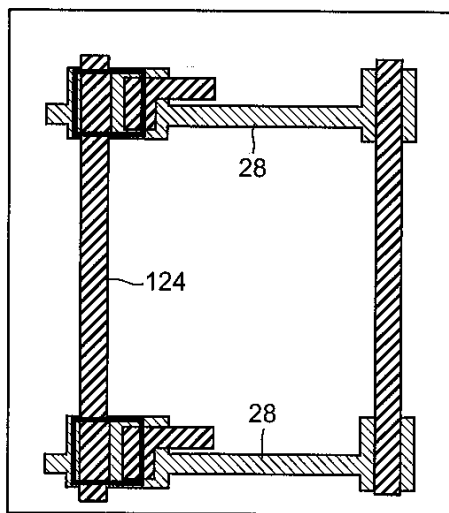
15a



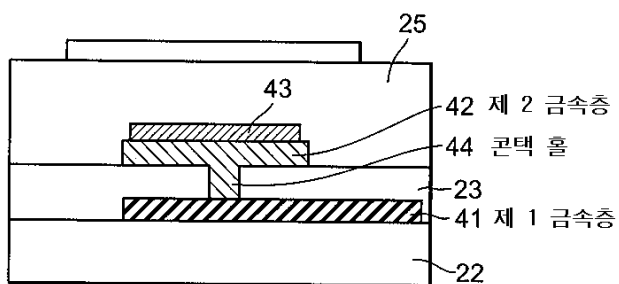
15b



15c



16



专利名称(译)	横向电场型液晶显示器		
公开(公告)号	KR1020030078795A	公开(公告)日	2003-10-08
申请号	KR1020030019773	申请日	2003-03-29
[标]申请(专利权)人(译)	NEC液晶技术株式会社		
申请(专利权)人(译)	日元号技术可否让这个夏		
当前申请(专利权)人(译)	日元号技术可否让这个夏		
[标]发明人	MATSUMOTO KIMIKAZU 마쯔모토기미카즈 ITAKURA KUNIMASA 이따구라구니마사 NISHIDA SHINICHI 니시다신이찌		
发明人	마쯔모토기미카즈 이따구라구니마사 니시다신이찌		
IPC分类号	G02F1/1362 G02F1/1368 G02F1/1343 H01L21/3205 H01L23/52 G02F1/1337 H01L29/786		
CPC分类号	G02F1/136286 G02F2001/136218 G02F1/134363		
代理人(译)	韩国专利公司		
优先权	2002096006 2002-03-29 JP		
其他公开文献	KR100510566B1		
外部链接	Espacenet		

摘要(译)

面内切换模式液晶装置具有形成在基板上的扫描线和基板，并且绝缘层的长宽度比形成的数据总线更靠近基板上的扫描线位于基板中，并且扫描线和数据总线的绝缘层插在数据总线和扫描线之间。并且包括为了覆盖扫描线和数据总线的结构而形成的透明公共电极布线。该装置的配置来自数据总线和扫描线的所有电场在公共电极线结构上垂直切割。保持装置的孔径比以形成作为透明导体的公共电极线结构。在平面切换模式下，和液晶显示器。

10

