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(73) 가 가 가 22 22

(72) 가 가 112

5-7-1

가 22-1-5-206

(74)

:

(54)

가

(Px) 1 (100A) (Tr) (1)
, 2 (100B) (Rf) 1 (1)
00A) (20) (22) (24) (Rf) 2 (100B) (1)
00B) (24) (Rf) (Tr) , (Rf) (30) 가 , 2 (1)

1

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1	(a)	1	(100)	, (b)	1
2	(100')				
3	(a)~(c)	1	(100 100')가	(100A)	
4	(a)	1	(200)	, (b)	1
5	(200')				
6			(300)		
7			(400)		
8			(500)		
9			(600)		
10			(700)		
11			(800)		
12	(a)	2	(900)		
13	(1000')		(1000)	, (b)	2
14		2	(1100)		
15		2	(1200)		
16		3	(1300)		
17		3	(1400)		
Rf)		3	(1300 1400)	(Px)	(Tr)
18		3	(1300 1400)	(Px)	(Tr)
Rf)					
19		3	(1300 1400)	(Px)	(Tr)
Rf)					
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1 :					
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3 :					
4 : TFT					
5 :					
6 :					
7 :					
8 :					
10, 42, 60, 60' :					
9, 11, 40, 62 :					
12 :					
13 :					
14 :					
15 :					
16 :					
17 :					
18, 23, 23' :					
19 :					
20 :					
21 :					
22 :					
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30, 30a :					
44 :					
46 :					
48 :					
52 :					
54 :					

60a :
60b :
64 :
70 :
80 :
90a, 90b :
94 :
100A, 200A :
100B, 100B' : ()
100, 100', 200, 200', 300, 400, 500, 600, 700, 800, 900, 1000,
1000', 1100, 1200, 1300, 1400 :
Tr :
Rf :
Px :

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 2 (가 2 가 가
 , ' ') 1/10 , ()
 , 2 가 (anti-glare effect) ,
 , 2 (가) , ()
 , 가가 ()
 , 가 가 ((moire))
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(RETARDATION:)

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2 (

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(100 100')

1 (a) (b)

(100 100')가

(a) (b)

(100A)

(100

100')

1

(a)

(b)

(Px)

(Tr)

(Rf)

가

A)

(100 100')

()

(100')

(30)

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(a)

(b)

1

(Px) (100

(100)

1 (b)

1 (a)
(100B)(100)
(24)

(100A)

(

(20)

(100A)
(Rf)

2

(22)

(100)

(Tr)

(Px) (Tr)

(Rf)

(20)

(Rf)

(20)

(1)

(22)

(20)

(100A)

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(Px),

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(Tr)

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가

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TFT(4)

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1 (a)
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TFT(4)

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TFT(4)

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TFT(4)가

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(16) (23) (21) (16)

(19) (100A) TFT(4) TFT(4) 가 (2)

(23) 가 (2), (3) (5) (5)

3) , (100A) , TFT(4) (22) (24)

(100A) (20) 가 (22) 가 가

(6) 가 10%

(100A) (100A) (24) ()

(100) (100B) 1 (a) (30) (100B) (24) (9)

(24) (10) (10) (R), (G) (B) 가 (24)

(10) (10) ()

(100B) (30) (100B) (100B) (Rf)

(Tr) (30) (100) (30) (100)

(Rf) (Tr) (Tr) (30) (100)

가 가 1 (b) (100') (100') (Rf)

(30) (Tr) (30) (100B') (30) (Rf)

(100) (100') (30) (9) (24) (9)

(30) ()

(FILLER) ()

SiO₂ ()

(24) 가

(30) () 가 (9)

(30) (30) (100 100')

200 (IPA)

(30) ()

(Rf) (30') () 1 (b)

()

0.5 μ m~2.0 μ m 가 0.5 μ m

2.0 μ m 가

가

1 μ m~8 μ m (가) 90%

2°

TOPCON (30) BM7 (), 가 (DRY FILM) (30) 가 (). 3 (30) (30) 3 (a) (40) (42) , 3 (b) (42) (44) 3 (c) (44) (46) (44) 3 (a)~(c) , (30) , (0.15 μ m) (30) () 1/10 () 1.5 μ m~10 μ m (30) () (30) () 가 () STN (30) (30) 1 μ m~2 μ m () , (30) 가 , (100 100') (24) (" ") (100 100') (Rf) (24) (dr) 1 (Tr) (24) (dt) 1/2 (24) , (23) (24) (100B 100B')) (24) (100B 1 00B') (24) (dt) 1/2 (24) 2 (Rf) (24) (dr) (Tr) (24) (24) (TN , STN , (Tr) ECB) (Px) (Rf) (100A) , (24) (Tr) (Rf) (24) (100B 100B') (30) (24) (22) (24) (24) 가 , (Tr) (Rf) (6 (25 (100 100') (24) (Tr) (Rf) 11-1 01992 (6)가 0.12~0.15 , 1/10 (100 100') (200 200') (24) () (200 200') (200A) 1 (a) (b) (10 0A) (23) (48) (23') (100 100') (200 200') (100 100') 4 (a) (200) (30) (100B) , (48) (D1) (52) (D2) , (1) (Rf) (24) (dr (= D2)) (Tr) (24) (dt) 1/2 (23') (48)
 1
 D1 + D2 = dt (D1 = D2 = dr) , 4 (b) (200') (30) (Rf) , (2) (52) (D2) , (48) (D1') (30) (D3')

(dt) 1/2 (Rf) (24) (dr (= D2)) (Tr) (24)

$D1' + D2 + D3 = dt$ ($D1' + D3 = D2 = dr$)

(24) (dt)가 15% (Rf) (24) 가 (dr) (Tr)

(22) 1 (30) (22) (23) (23) (24) (23)

(48) (20) (22) (Rf) (24) 1

5 (300) 1 (b) (100') 가 (Rf) (30) (Tr)

(300) (30) (100') 가 (24) (Tr) (30) (30)

(Tr) 6 (400) (Rf) (30) (Tr) (30) (Tr)

(30) (54) (54) (54) (30) (10) (Rf) (24)

(22) (54) (54) 가 ()

7 (500)가 (60) (60a) (Rf) (60)

a) (60b) (60) (60a) (Rf) (60)

(60a) 1.7 μm (60a) 30wt% 가

(60a) 8 (600) (60b) (60a) (60a)

60') (30) 가 (60a) (Rf) (60a)

9 #1737: (62)) (Rf) (62) (64)) ()

(가))가 2~5 μm (62) 가 0.5~1 μm (62) (62)

SiO₂) () 9

(64) (Rf) 가

(64) (62) (70) (70) (RETARD

10 (800) (70) (70) (70) 1

(100)

11 (900) (900)가 (80) PET (80) PES ()

(1 μm) 15~20wt% 가 1

7~ 9 11 가 , (가)

10 (800)가

(2) 1 가 , .
 2 () 1 () 1 2 ()
) () , 1 . 2 ()
 2 (1000 1000') 12 (a) (b) (200
 12 (a) (b) (30) (9) (1000 1000') 4 (a) (b) (200
 200') 12 (b) (30) (30) (Rf) ,
 (30) (9) (23') (30) (Rf)
 (30) (23') 가 (9) ()
 0.7mm) 가 , (30) (23') 가 (Rf)
 (23') (1000 1000') (9) (30) 1 (200
 200') 가 (9) 가 ,
 (100A, 100B) (30) (30) (30)
 1 , 가 가 (30)
 , 가 가 (가) ,
 (가) (1000) (30)
 , (1000') (90a 90b) (9) 13
 (1100) (90a) (9) 가
 (30a) (30) (9) ,
 (30a) (90a) (9) () 가
 , 가 1 , ,
 , 가 1 ,
 14 1 (1200) (1200) 9 ()
 1200) (700) (64()) (62) ()
 12 (700) (64) (Rf) , 12
 (b) (Rf) (1000') (30) 가 (Rf) (64)
 (62) (62) () SiO₂
) () (62) ,
 () (62) (62)
 14 (64) , (Rf) ,
 가 (64) (62)
 (3)
 3 2 가 2 () ()
 , 2 (가) 가 2
 , 3 , 1 2
 (20) (22)
 (1300) 15 (15 (94))
 3 12 (a) (1000)
 (1300) (94) (94)
 (1300) () 가 ()

가 (94) (日東電工社製) AGS1 AG30 (94) (94)
 30 μ m 150 μ m 47 μ m~ 52 μ m AG30 95 μ m~ 140 μ m
 1 ()가 120 μ m
 가
 가
 가
 가 (1300) 가 (100B) (30) 가 1 2
 가 (30)
 가 (1300) 가 (100B) (30)
 (Rf) (Tr) (30) (22) (30)
 (94) (Rf) (Px) (94) (Tr) (94)
) (30) 15 (1300) (100B) (30)
) (30) (100B) (100B)
 16 (1400) (90a 90b) (90a) (9)
 9) (30) (Px) (Tr) (Rf) (90a)
 (Tr) (Rf)
 17 (Tr) (Px) (Px) (Rf) (Tr)
 (Px) 가 (T1) (Tr) (T2)
 x) 가 (R1) 가 (Rf) (R2) 가 1 17 (P
 1 (Rf) (Tr) 가 9:1 2 (a~h)

[1]

	a	b	c	d	e	f	g	h
/ μ m	68	31	28	28	68	45	59	138

18 (Tr) (Px) (Tr) (Rf) 2 18
 (Px) 가 (Rf) (Tr)
 (a'~g') 2
 가 6:4 8:2 2

[2]

가 6:4

	a'	b'	c'	d'	e'	f'	g'
/μm	53	44	24	24	50	112	71

가 8:2

	a'	b'	c'	d'	e'	f'	g'
/μm	62	51	27	27	146	135	188

19 (Px) (Tr) (Px) 가 (T1) (Px)
 (Tr) (T2 T2') 가 (R1) (Rf)
 가 (R2) 3 19 가 (a'~g') 3
 (Rf) (Tr) 가 3:7, 5:5 8:2 3.5

[3]

가 3:7

	a'	b'	c'	d'	e'	f'	g'
/μm	34	80	14	14	115	50	40

가 5:5

	a'	b'	c'	d'	e'	f'	g'
/μm	59	55	26	26	114	49	40

가 8:2

	a'	b'	c'	d'	e'	f'	g'
/μm	85	28	39	39	114	50	40

(1300 1400)

(94)

가

가
 TFT(
 MIM

1/2

가

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가

가

가

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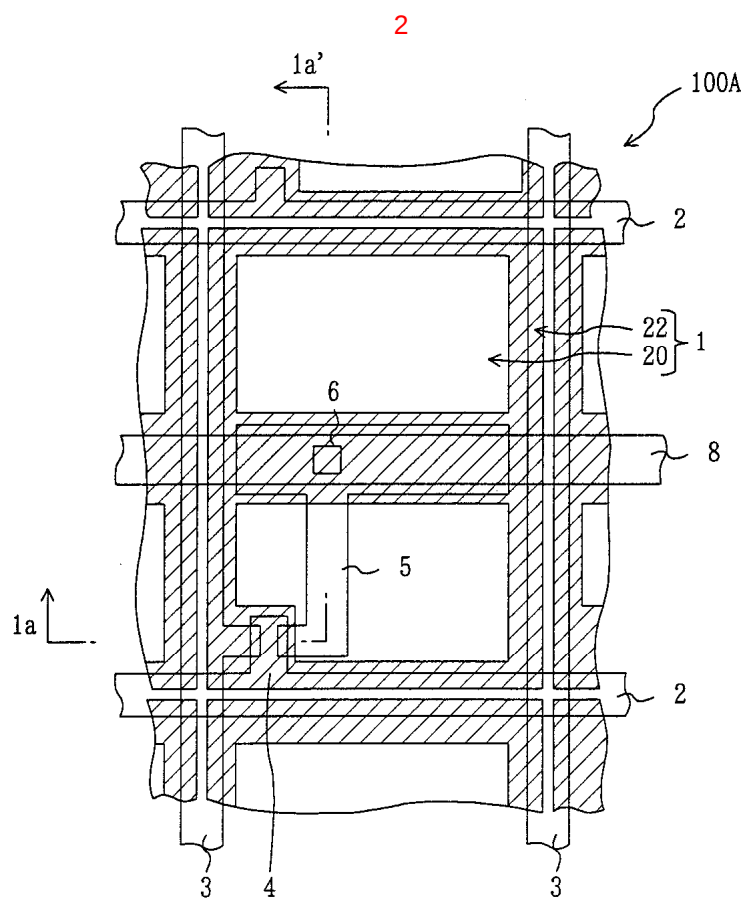
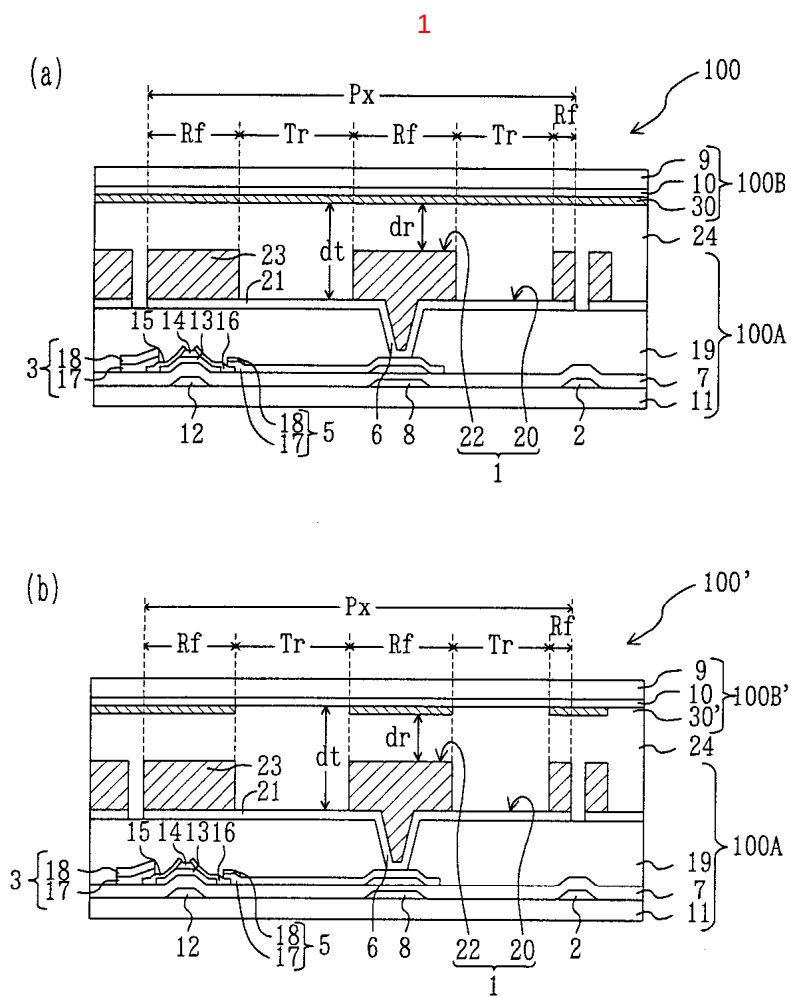
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39

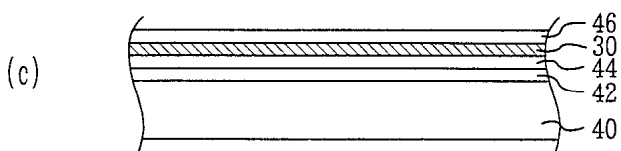
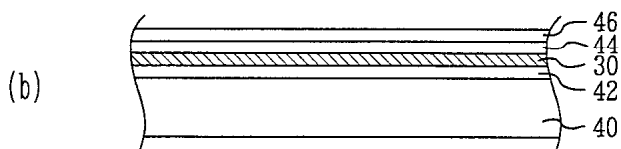
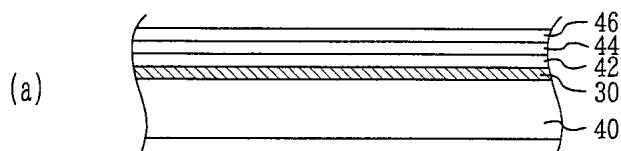
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41.

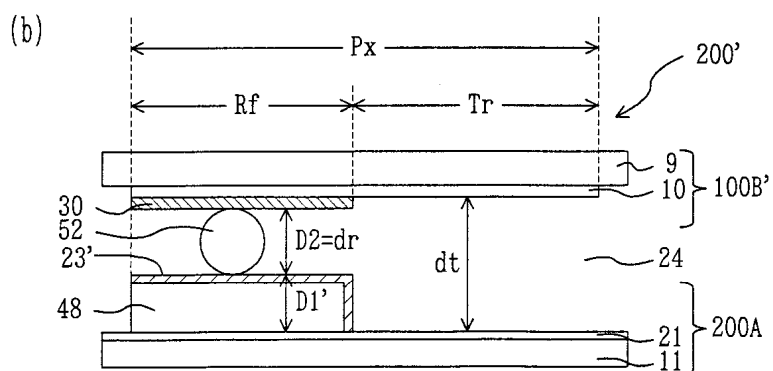
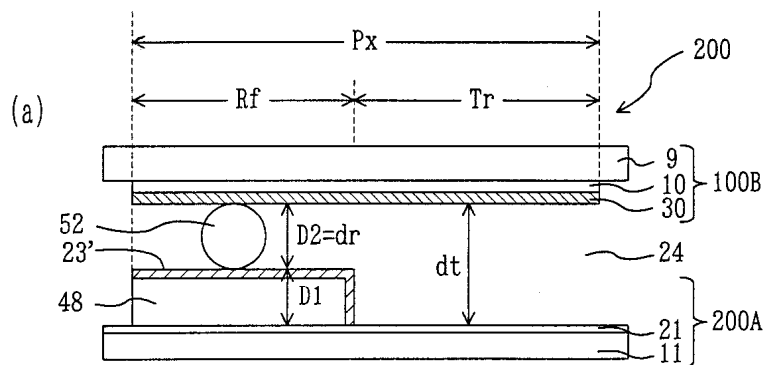
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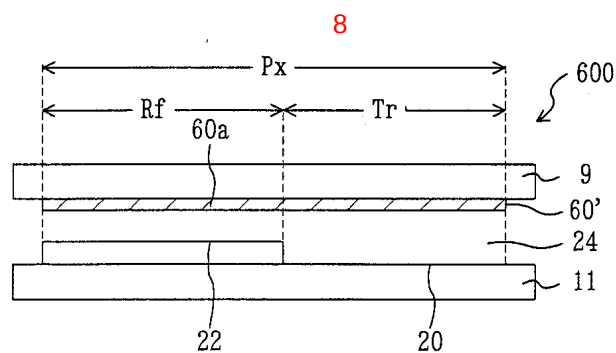
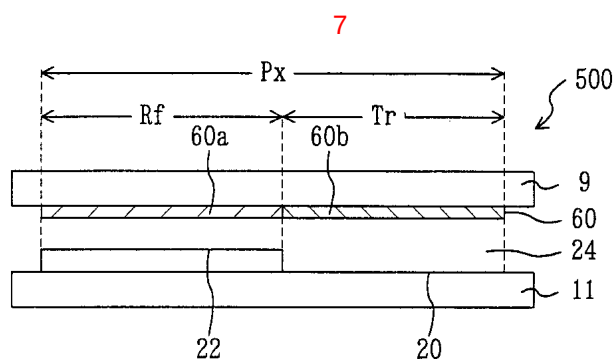
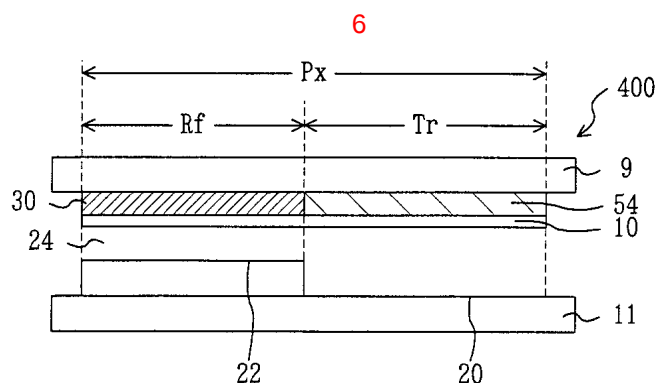
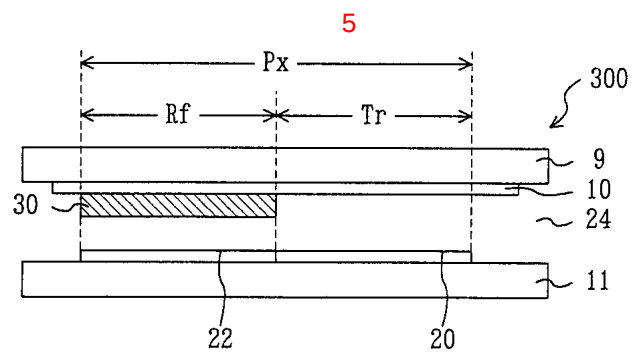


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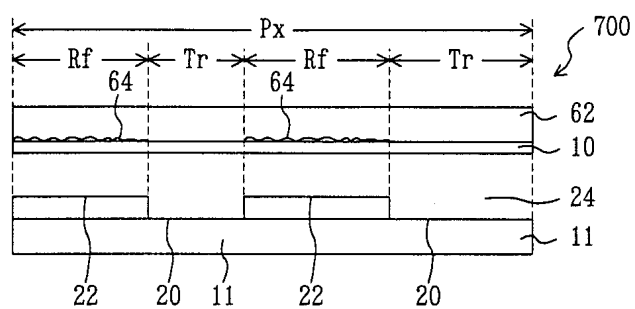


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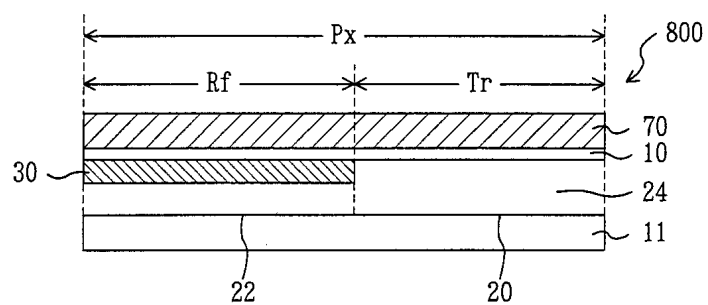




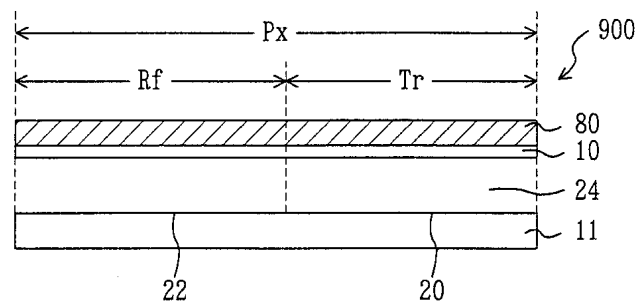
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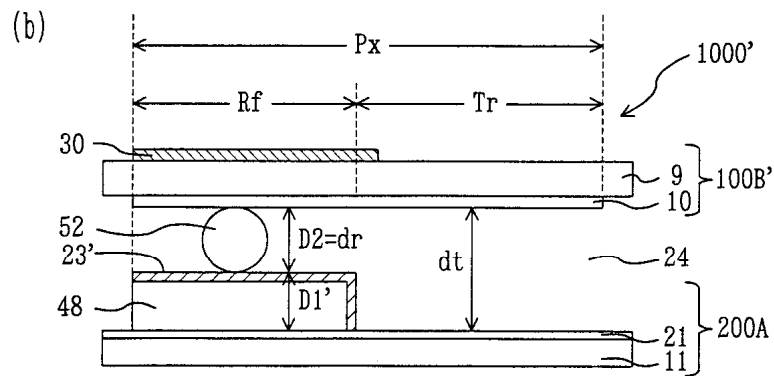
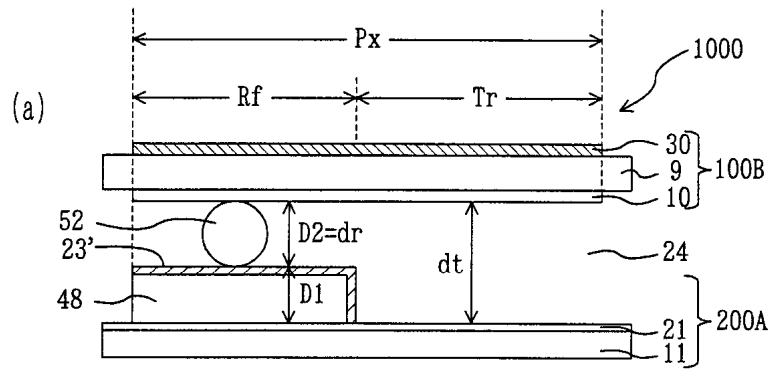
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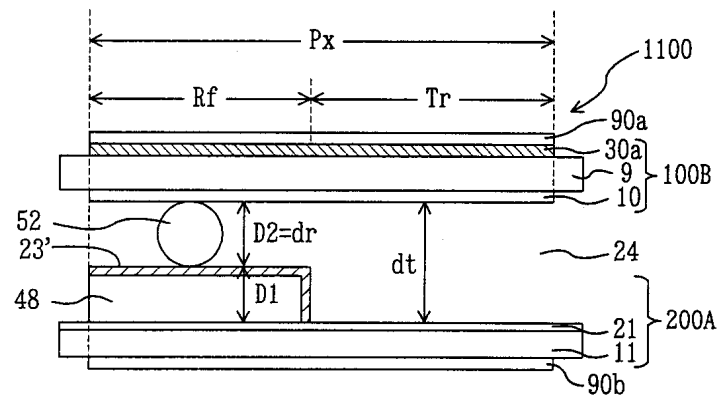
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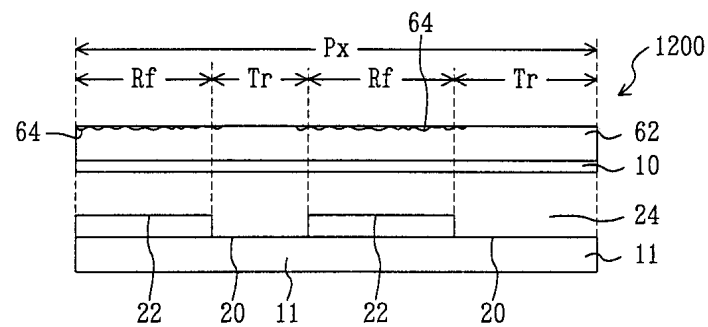
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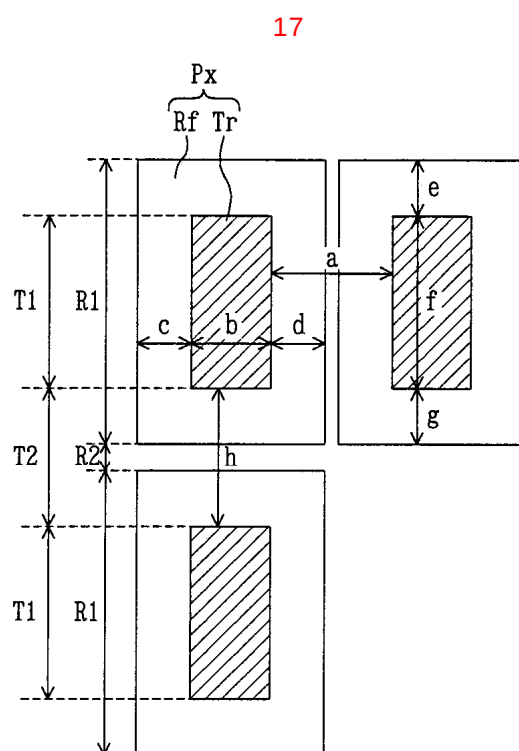
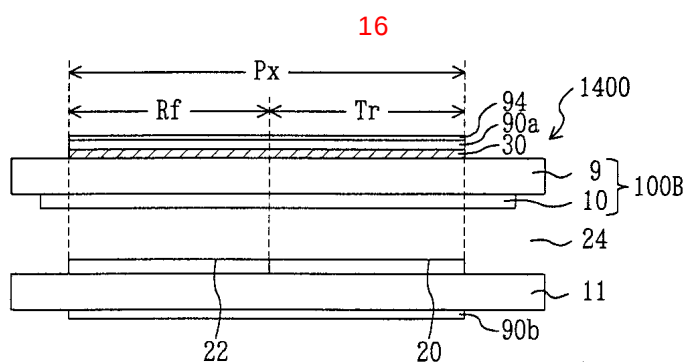
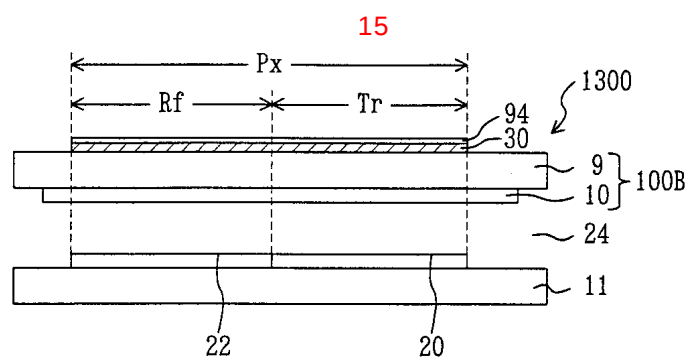


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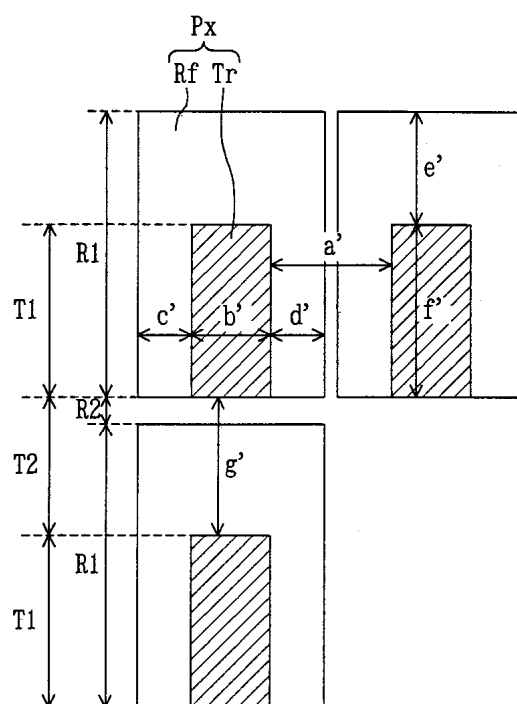


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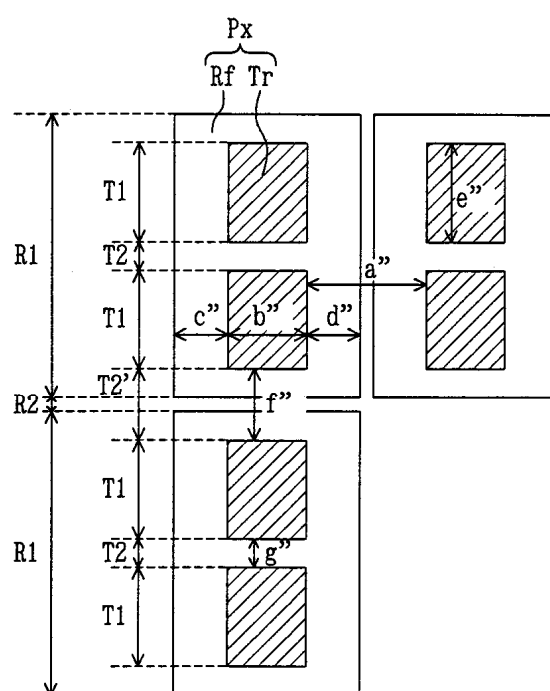




18



19



专利名称(译)	液晶显示器		
公开(公告)号	KR100449462B1	公开(公告)日	2004-09-21
申请号	KR1020010002857	申请日	2001-01-18
[标]申请(专利权)人(译)	夏普株式会社		
申请(专利权)人(译)	夏普株式会社		
当前申请(专利权)人(译)	夏普株式会社		
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发明人	후지모리고이찌 구보마스미 나루타끼요조		
IPC分类号	G02F1/1335 G02F1/1333 G02F1/1343		
CPC分类号	G02F1/133504 G02F1/133371 G02F1/133555 G02F2001/133565		
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其他公开文献	KR1020010076336A		
外部链接	Espacenet		

摘要(译)

本发明提供一种透射反射型液晶显示装置，能够精确控制液晶层的厚度，特别是反射区域内的液晶层的厚度，并实现高质量的显示。每个像素区域Px包括透射区域Tr，用于使用从第一基板100A入射的光以及用于以反射模式发光的透射区域Tr以透射模式执行显示并且反射区域Rf用于执行具有标记Rf的显示。透明电极区域20侧的第一基板100A和液晶层24上的反射电极区域22的表面是平坦的。第二基板100B在反射区域Rf中具有透明电极，在液晶层侧具有透射区域Tr，在反射区域Rf中具有光扩散层30，层24侧的表面分别在透射区域和反射区域中是平坦的。1 指数方面 液晶显示装置，反射型，透射型，透明电极，反射型，透射型，光扩散层

