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(12) (A)

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(22) 2003 01 28

(30) JP-P-2002-00019876 2002 01 29 (JP)
JP-P-2002-00369975 2002 12 20 (JP)

(71) 가 가 2 4-1

(72) 가 3 3-5 가 가
가 3 3-5 가 가
가 3 3-5 가 가

(74)
:

(54)

가 , 가 , 가 (50)
(R) (T) (R) (50)
(21) (R) (50)

3

1 1
가 .

2		TFT	
.			
3		, 2 A-A'	.
4	2	TFT	
.			
5		, 4 A-A'	.
6	3		.
7	4	TFT	
.			
8		, 7 A-A'	.
9	5	TFT	
.			
10		, 9 A-A'	.
11	6		.
12	7		.
13			.
14			.
15			.
16			.

9 : 10 : TFT

20 : 21 :

21a : 25 ;

31 : 31M :

50 : R :

T :

[illegible]

(1) 11-242226

가

가

(pretilt)가
: disclinations)

(突起物)
가

가

가

가

4

, 1

4

가

가

4

가 , 1

4

가

50°

가

가

가

가

(1)

1 1 3

(Thin Film Transistor, TFT)

1 2 TFT

2 A-A'

가

1

(9) (9) TFT(30)가 (6a) (6a)

가 (S1, S2,..., Sn) (3a) TFT(30) (6a) (3 (9)

a) T(30) (6a) (G1, G2,..., Gm)가 T(30) 가 (ON) ,

(9) (S1, S2,..., Sn) , 가 (9)

가 (70) 가 (3b) .

2 T

2 T (9)(9A (6a), (3a)

(3b) (9) (9)

(6a), (3a), (3b) ,

가 가

(6a) , T(30) , (1a) ,

(5) (9) , (1a) , ()

(8) (3a) , (3a)

(3b) , (3a) (, (3a)

1) , (6a) (6a) (前段側)()

(, (6a) 2) , 2 ,

1 (11a)

[illegible]

가 .

(21) , ,

(R) ,

(21) (R) 4

(21) 4 가 ()

(21) (R) (T) (K) (21)

(21a) (50B) (21) (21a) 4

(21a)

(2)

2 4, 5

1 2, 3

4, 5

(31) TFT (10) 1 (31M) 2

(31M) (21) (K) (6a) (31M)가 가

1 , 가 (21) (31M) (31

M) (25) (31) (21) (K) (50B) 5

(50) (50B) (21)

4 4

가 ,

(3)

3 6

1, 2

6 3, 5

1, 2 (21) (21) (31M) 6

1 (21) (K)

(21) 1, 2

4 (21) (50B)

2 (50B)가 가 (31M)가 1, 2 가 , 6 (50) , (21) , , (4) , 4 7, 8 . 7 TFT , 7 A-A' , 8 , (T) 가 , 1 가 3 (R) , 7, 8 , 2, 3 , TFT (20) , 7 (20) (T) , 1 3 (R) , (20) (R), (20) (T) , (21) , 8 , TFT (10) , (20) (R) , (20) (R) , (20) (22R) (T) , (21) (22R, 22T) (R) (T) , 가 (21) (21) , (R) (K) , (21) (20)(21a) 가 , (K) (T) , (21) (T) , (21) (9) (21) TFT (10) , ITO (9) (9) , 1 3 (21) (9) , (21a) (9) , 7 가 , 7 (9) (21) , (21a) (9) , (9N) (9) , (9) (9N) , (R) (R) (T) (9) , ITO (9C) (9) , 가 , (R), (9) (T) , (9) (9) , 8 (23) (9) (21) (21a) , (25) , (25A) , ITO (33) , TFT (10), (25) (31), (23, 33) , 가 (21) (21a) (9) , 1 3 가 , (K) 8 (50B) (50) ,

(p) , (50B) (p) , (21)

(5)

5 9, 10

4

9, 10 7, 8

4 (21) (21a) 가 (9N) , (9N) (9) (9N)

4 9, 10 (21) (21a) 가 (9N) (9N) (9)

(21) (21a) (9) (9N)

(50B) 4 5 가 (9N) , 가

(6)

6 11

4

11 8

(T) (21) (K) (T) (20) (K)

50% (21) (K) (R) , 4 (8) (21) (K)

(21) (21a) () 50° (T) (R)

(K) , (T), (R) 가 (R) 가

(7)

7 12

12 , 12 , 8

12 , TFT (10) (50) (

25) 가 (22R), (22T) (R) (22T) (21a)

25) (21) (21) (21a) (31N)

(31) (31)

TFT (10) , TFT(110)가 (111) , TFT(110) , (111s), (111d), (111s)

(111c) (114)() (112) , (113) (115)

[illegible]

(57)

1.

2.

가

3.

1 2

4.

가

5.

1 4

6.

1 2 4

가

7.

6

8.

7

(同層)

9.

7

10.

7 9

11.

7 9

(窓部)

12.

6

5 ° 50 °

13.

1 2 4

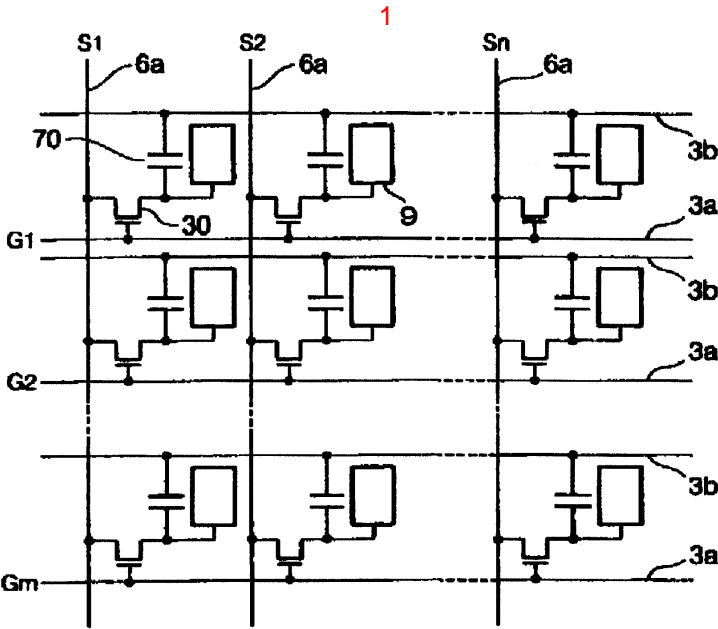
14.

1 2 4

(圖偏光)

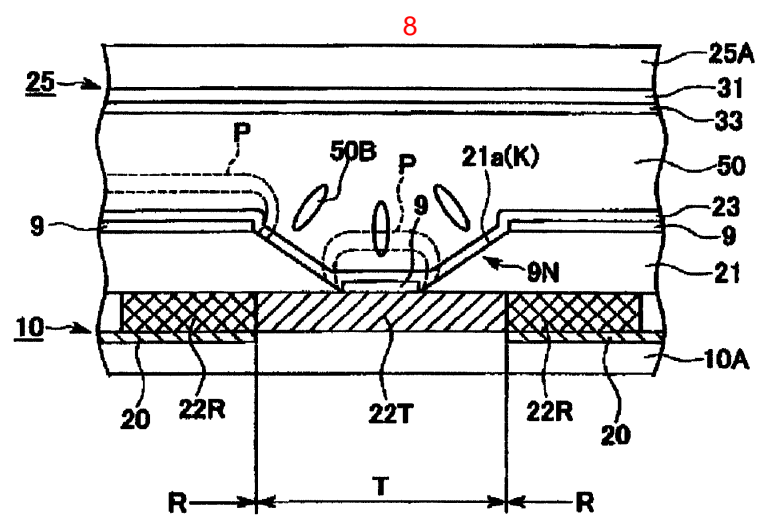
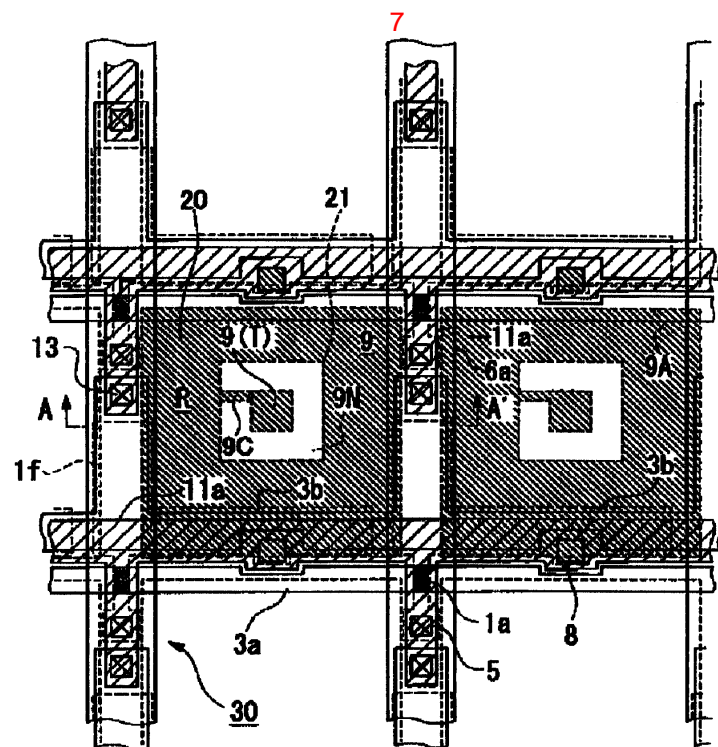
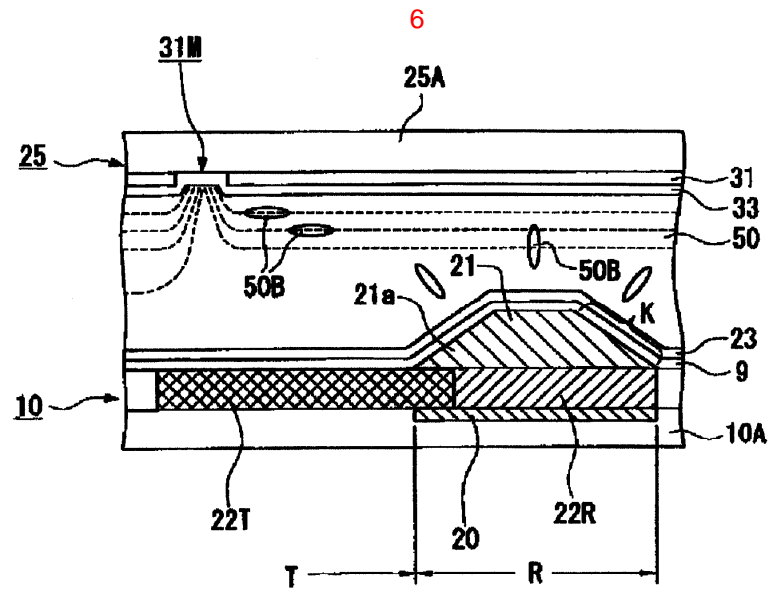
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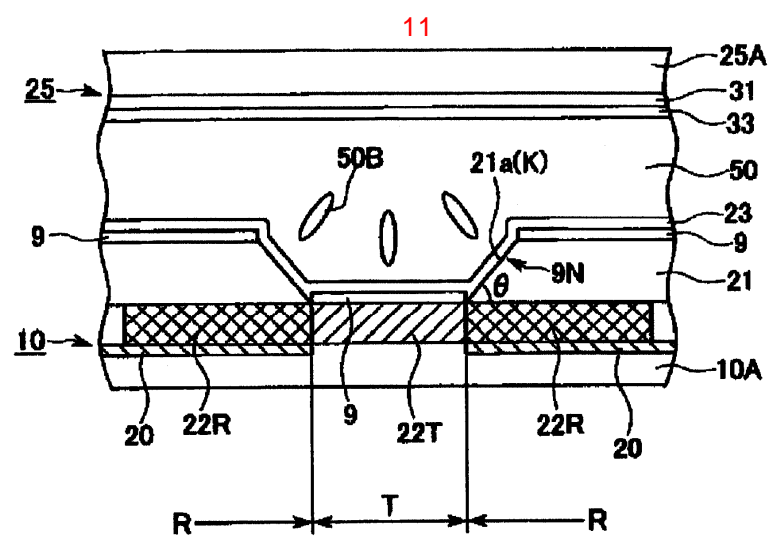
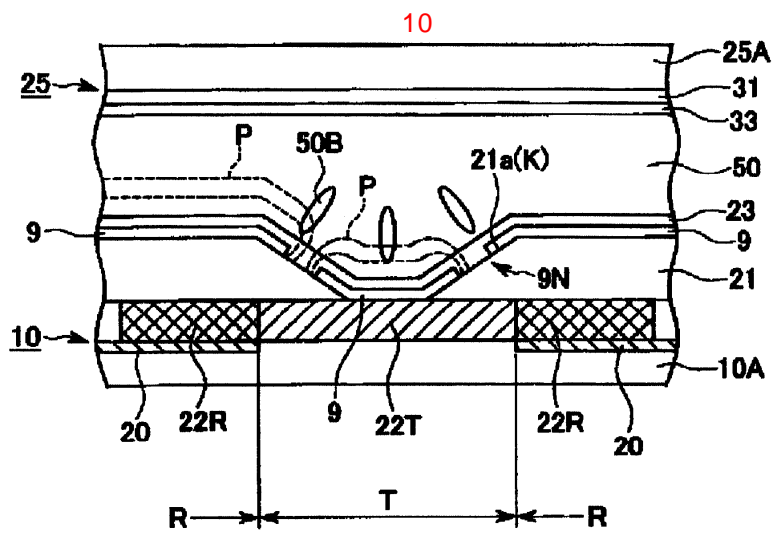
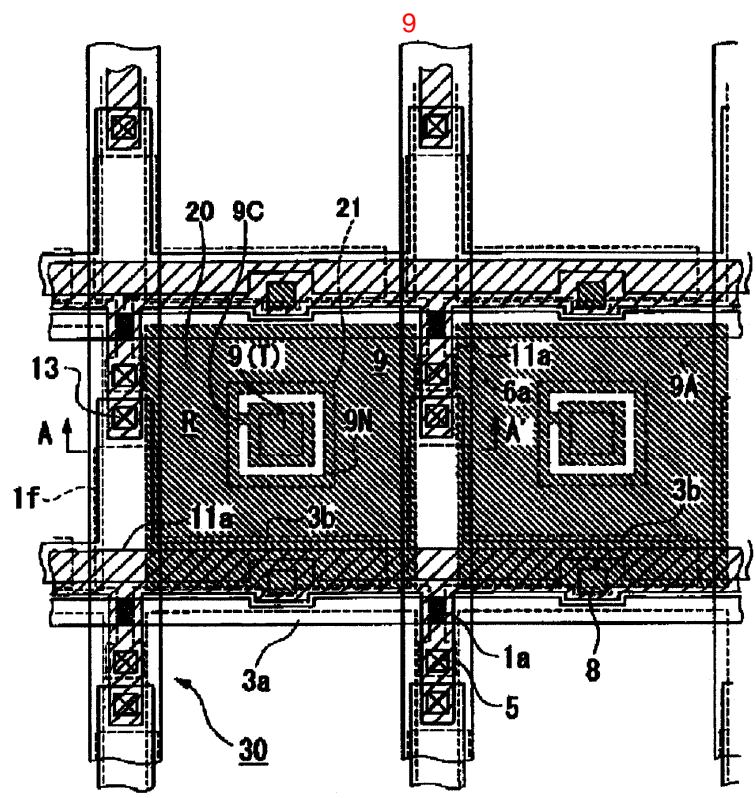
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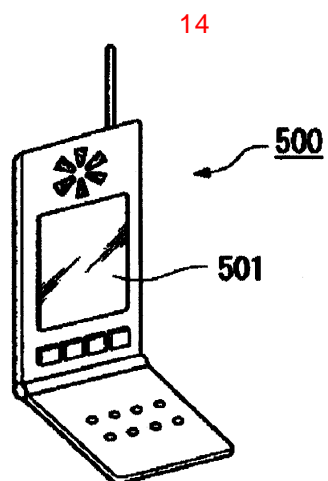
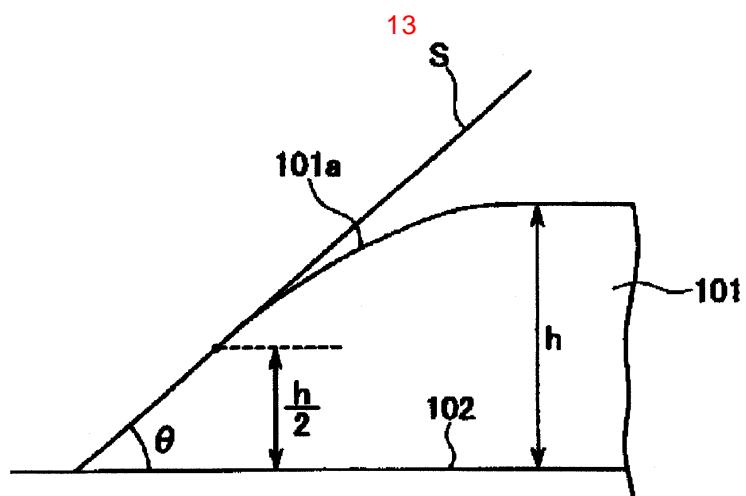
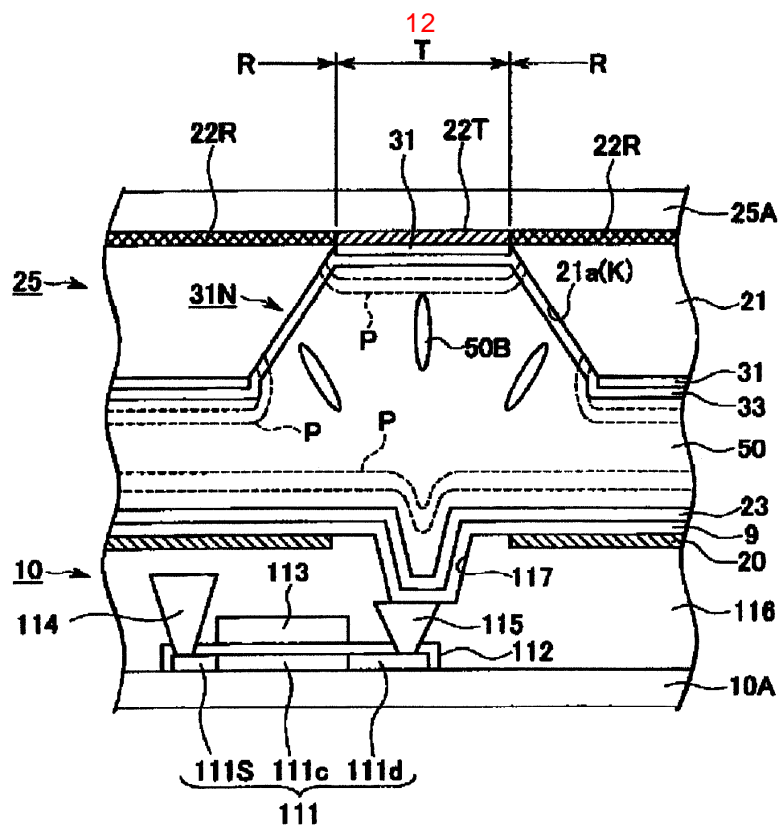


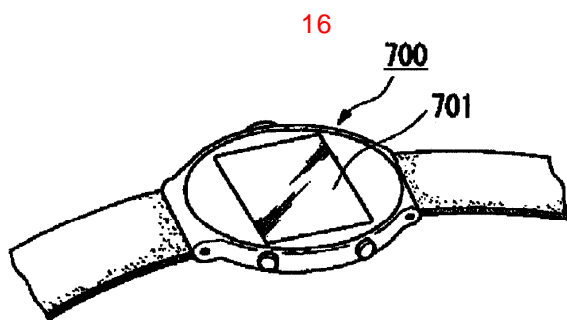
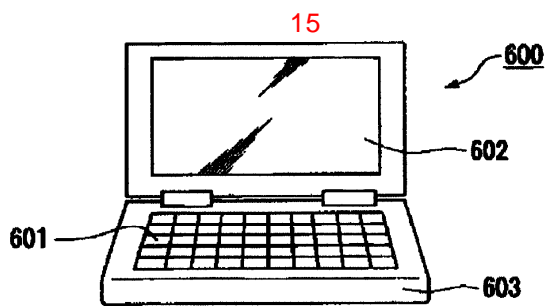












专利名称(译)	液晶显示装置和电子设备		
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摘要(译)

根据本发明，提供一种明亮，高对比度的液晶显示装置，并且可以在透射反射型液晶显示装置中获得宽视角的显示。本发明的液晶显示装置采用垂直取向模式，使用液晶层50，其初始取向状态垂直取向，并且一个点中的透射显示区域T围绕反射显示区域R并且，用于减小反射显示区域R中的液晶层50的层厚度的绝缘膜21小于透射显示区域T中的液晶层50的层厚度以及与点的中心部分中的反射显示区域R对应的区域。 3

