

1

, , , ,

- 1111
- 21
- 31
- 43
- 524
- 65
- 76VII-VII
- 826
VII-VII
- 926
VII-VII
- 1051
- 1152
- 1253
- 13
- 1413XIV-XIV
- 1513XV-XV
- 1615
- 17가16가

< >

- 1 :
- 2 :
- 3 :

4 :

5 :

6 :

7 :

8 :

9 :

100 :

101 :

102 :

103 :

104 :

106 :

121 : TFT

124 :

132 :

141 :

151 :

153 :

181 :

190 :

OA (Thin Film Transistor)

, TFT ()
 , 2
 가 OCB(Optically Compensated Birefringence)
 , VAN(Vertically Aligned Nematic), HAN(Hybrid Aligned Nematic)
 , π (SSFLC: Surface-Stabilized Ferroelectric Liquid Crystal) 가
 (AFLC: Anti-Ferroelectric Liquid Crystal) 가
 VAN (TN) 가 ,
 , VAN 가 ,
 VAN 가 , 가
 13 (2) (3) (1) (1)
 (3) (1) (3) (2) (4) (2) (2)
 (4) (3) (4) (2) 가 가
 (5)
 14 13 XIV-XIV (3) (4)
 (4)가 (2) (6) (2) , 15 13 XV-XV (4)가 (3)
 (3) 2 (4) (4) (4)
 (6) 14 2 (4)가
) 4
 , 가 (4)
 16 16 XVII-XVII (4) (3)
 (6) 14 가 (4)
 16 17 (3) 16 (4) (2)
 , 16 (5) 가 가
 , 가 (4)가 14
 , CPA(Continuous Pinwheel, Alignment) , 가
 , 가 , 가 가

1 2 , 1 2 1 , 1 2 , 1 가 2
 1 2 1 2 , 1 2 가
 , 1 2 ,
 가 .
 2 2 , 1 2 1 , 1 2 , 1 가 1 2
 1 2 1 2 , 1 2 , 1 2
 , 1 2 ,
 가
 .
 , 1 2 ,
 가 ,
 .
 , 1 , 1 ,
 , 가 , 1 ,
 , 1 ,
 가 ,
 .
 ,
 , 1 ,
 (100) .
 1 (100) , 2 1 (100) , 4 3
 , 3 1
 1 (101) , (100) (101) , (101) (102)
 , (101) (101) (102) (102) (190) (外緣) (190) (106) .
 (100) (104) (103) (106) (104) 3 ,
 (106) (103) (額緣) (141) .
 (101) (102) (132) ,
 .
 (101) (103) , 2 m m×n (1
 51), n (151) X(X1 Xn), m×n (151) Y(Y1 Ym), (151) X1 Xn
 m m×n (152) (TFT)(121) , (151)
 Y1 Ym X1 Xn ,

(152) (151) 가 n (152) (161) VCOM ,
 (101) (104) Y1 Ym (118), X1 Xn
 (119) TFT(121) Y X (151) 가
 Y
 3 (101) m×n TFT(121)가 ((111)
 (124) (124) 1 (151)
 B) (151) . m×n (151) (124) ITO (124G), (124
 (124), (151), (131)가 (151) (124) (113A)
 (190) (101) (104) (141) (111)
 SP (101) PL1 (190) (111)
)
 , (102) (153) (111) (113
 B) (153) (153) (101) (151)
 ITO (113B) , (190)
 L2가 (102) (102) P
 (190) (111)
 4 (101) (112) (111)
 (160) , TFT(121) (161) (16
 2) . TFT(121) (162) (112)
 (163), (163) (112) (112C), (112
 C) (112) (112D) (112S), (161
 112D) (188), (112S) (189) (161)
) (161) (180) (151)
 X, Y, (152) , TFT(121) (163), (188),
 (189), (180) (152), (163) (162)
 , Y, (152), (163) (163) Y
 (152) (162) (161)
 X, (188), (189), (180) Y, (152), (163),
 (162) (176) (162) (176) (177)
 (112D) (188) X (162) (189) (162)
 (176) (178) (112S) (180)
 (162) (176) (179) (161)
 X, (188), (189), (180), (176) (124)
 (151) (124) (181) (180) TFT(121) (189)
 , (124) (124)가 TFT(121) (151)
 (101) COA(Color filter On Array) COA (124) (102)
 , 가 가 (124)
 , 가 가 , 가
 , 가 가 , 가
 5 (151) (151) (1)

(1) (2) , (2) 가 (1) (3) (102) (153) , 5
(畝狀) (7)가 (3) (190) .
6 (3) , 7 6 VII-VII (4) (2)
(151) (153) , (4) 가
(2) (2) (151) (153) (151)
가
(3) (124) ITO (124) (3) (181)
(1) . RS (3)가 7 TFT(121)
(a-Si) 가 , (151) ITO , Al, Mo, Cr, Cu, Ta
가 (3) (2) (151) (1)
Al, Mo, Cu , (3)
가 (1)
(3)가 (151) (153) (3)
(101) (3) (153) (151)
(1) (153) , 가 (3) (12
4) (2) RS (3) RS (153) 가
(3)가 (1) (153) (3) 가
(151) (1) (3) (4) (3)가 45 °
3) (2) 가 0.5 μ m, 1 2 μ m 가
, 7 (3) (151) 가 (4) (1
01) (151) (153) (190) 가 가 (3) (2)
, 6 (3) (4) 20mm² 400g 5
, 60
2 가 8 가 1 가
(3) 1 가
(3) (2) (3) 가 (2) (8)가 (190)
(3) (8)
TFT(121) (8) ρ 10¹³ Ω cm ρ
(190) , 10¹² Ω cm , 10¹³ Ω cm (8)
(190) 가 (8)
(8) , (8)
(190) 10 (190) 1/3
(8) ϵ 3 , 10 (190) 1/35
(8) 가 0.1 μ m , 3.5 μ m (8) (190)
10 가 , (8) (190) (8) (190)
가 , 가 (8) 3 0.1 μ m (8)
가 , (8) 1 2 μ m (8)

가 . , 가 .

101) , 8 (151) (153) (8)가 (190) 가 가 (3) (4) (2) (3) (4) 400g 5 (102) , 6 (2) 가 (3) (20mm²) 60

(3) 3 가 9 가 2 가

0) , RS (124)가 (3) (3) (124) ITO (181) (8)가 (19) (131) (3) (3) (8) (3)가 9

가 153) (151) (190) (8)가 9 가 가 (3) (190) 1 (151) (102) (4) (2) (101) 6

(2) 가 (3) (4) 400g 5 (20mm²) 60

1 (3) (3) (151) 가 (190) (151) 14 (153) (190) (101) (102) 가 (4) (20mm²) 400g 5 180

10 5 (151) 1 가 1 가 CPA(Continous Pinwheel Alignment) (4)가

(1') (3)가 (1') 가 (4)가 (1') (3) 7 가 (124) RS (190) (151) (153) (101) (102) 6 (2) 가 (3) (4) 400g 5 90 (20mm²)

11 5 (151) 2 가 CPA(Contin (4)가
uous Pinwheel Alignment) , 가
(1') , (3)가 (151) (2) (1')
11 (1') (9)가 (124)
(3) , 7 가 (124) RS (190)
(151) 가 (151) (153)
가 가 (4) (101) (102) 6 (2) 가
(3) (4) 400g 5 , 60
(20mm²)

12 5 (151) 3 가 CPA(Contin (4)가
uous Pinwheel Alignment) , 가
(1') , (3)가 (151) (2) (1')
12 (1') (9)가
(3) , 8 가 (8)가 (190)
(3) (8) (131) (190)
(4) (101) (151) (153) (131) 가 가 (3)
(2) (102) (190) (3)
(4) , 6 (2) 가 (3)
(2
0mm²) 400g 5 , 45

2 , (3) (151) 가 (190)
(3) (8) 1 (151) (153)
(190) 가 가 (4) (101) (102) 가
, 6 (2) 가 (4)
(20mm²)
400g 5 , 300

1 2
가 가
(7)가 (102) (153) (7)
(153) (2)
(113A, 113B) (151) (153)
2 O 3 , SiO₂, SiN, Al
CVD(Chemical Vapor Deposition) ,
(가 ,)

, , CVD , LB(Langumuir - Blodgett) .

,
 .

,
 .

(57)

1.

1 1 ,
1 2 2 ,
1 2 , 1 2 가 1 2
 ,
1 1 2 가 1 2
 ,
1 2 ,
 .

2.

1 1 ,
1 2 2 ,
1 2 , 1 2 가 1 2
 ,
1 1 2 1 2
 , 1 2 ,
 .

3.

1 2 ,
1 2
 .

4.

3 ,
 가
 .

5.

4 ,

3 , 0.1 μ m .

6.

4 ,
1 2 ,

7.

3 ,
1 2 ,

8.

7 ,
1 2 0.
5 2.0 μ m .

9.

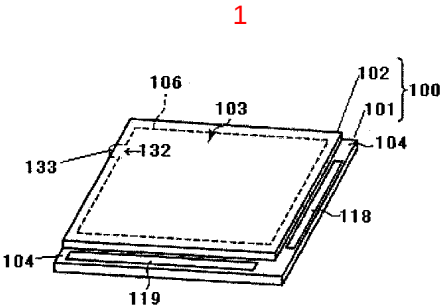
7 ,
1 1 .

10.

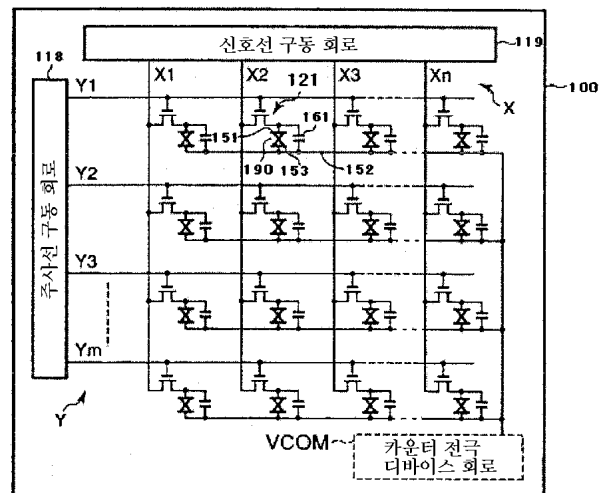
9 ,
가 .

11.

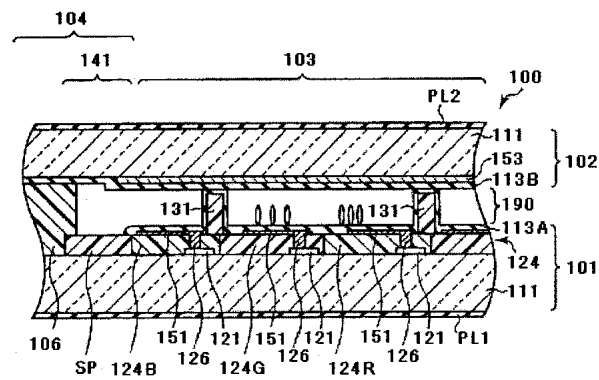
9 ,
1 1 ,
.



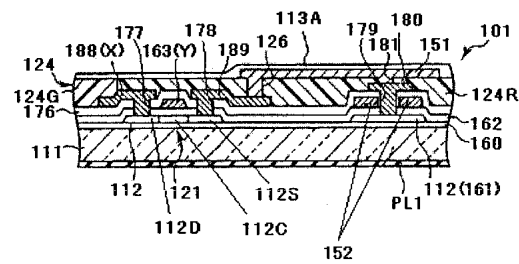
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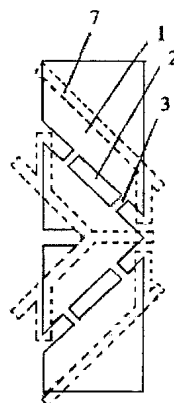
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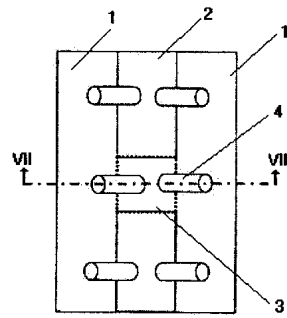
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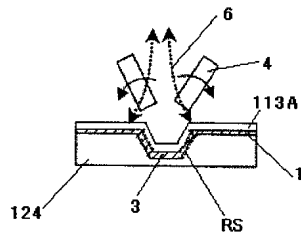
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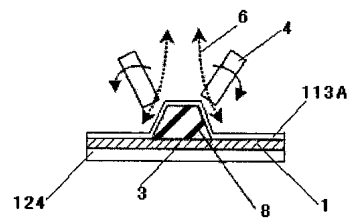
6



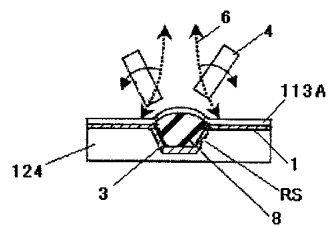
7



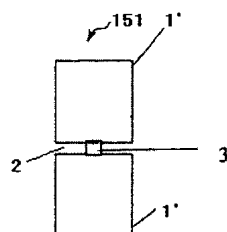
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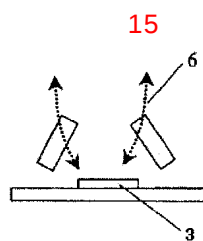
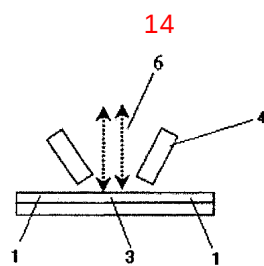
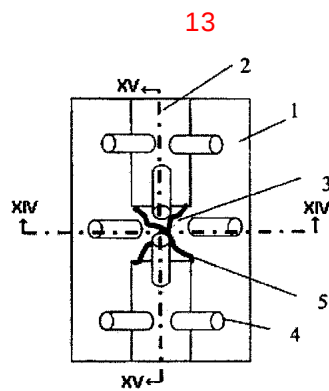
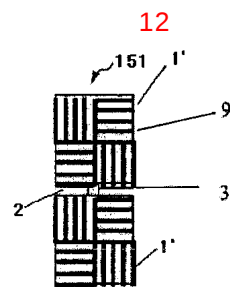
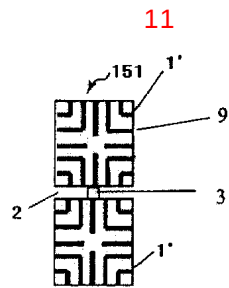


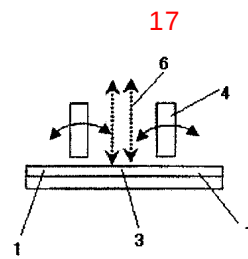
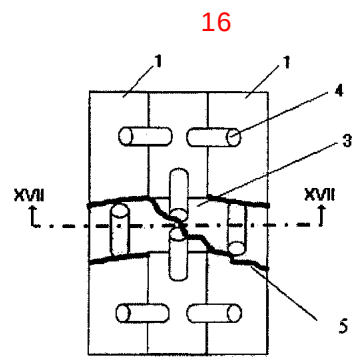
9



10







专利名称(译)	液晶显示器		
公开(公告)号	KR1020040066016A	公开(公告)日	2004-07-23
申请号	KR1020040002561	申请日	2004-01-14
申请(专利权)人(译)	可否让我这个小粉丝展示中心		
当前申请(专利权)人(译)	可否让我这个小粉丝展示中心		
[标]发明人	YAMAGUCHI TAKESHI 야마구찌다께시 NINOMIYA KISAKO 니노미야기사꼬 KAWATA YASUSHI 가와따야스시 HISATAKE YUZO 히사따께유조 FUJIYAMA NATSUKO 후지야마나쯔꼬 MURAYAMA AKIO 무라야마아끼오		
发明人	야마구찌다께시 니노미야기사꼬 가와따야스시 히사따께유조 후지야마나쯔꼬 무라야마아끼오		
IPC分类号	G02F1/1343 G02F1/1333 G02F1/133		
CPC分类号	G02F1/133707 G02F1/134336		
代理人(译)	LEE , JUNG HEE CHANG, SOO KIL		
优先权	2003006980 2003-01-15 JP		
其他公开文献	KR100623124B1		
外部链接	Espacenet		

摘要(译)

液晶显示器包括阵列面板，包括由导体和相对板组成的像素电极，包括面对像素电极的对置电极和排列的阵列面板，像素电极被夹在对置基板中间隙和具有阵列面板和相对板的液晶层处于相对电极之间没有电位差的状态，大致液晶分子垂直排列。当像素电极在像素电极和相对电极期间给出电位差时，液晶分子的指向矢具有形成在导体上的狭缝作为分类的边界，并且桥接金属丝部分彼此连接导体的相邻部分在狭缝中，由相对电极和像素电极在彼此不同的多个微小区域上重叠而规定的像素区域。当在像素电极和相对电极期间给出电势差以使得小于在多个微区域中产生的电场时，桥接线部分形成有产生的电场，如位于桥接线表面上的像素区域中一部分。导体，电介质，滤色器，液晶显示器，像素电极。

