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2002 12 12

(71)

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20

(72)

327-7

1 212

(74)

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(54)

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

2b

, , , , , ,

1 .

2a .

2b .

3 .

4a 4b .

*

*

105,205,305 : 107,207,307 :

111 : 112 :

113 : 114 :

120,130,220,230,320,330 : 122,222,322 :

124,224,324 : 132,232,332 :

134,234,334 : 140,240,340 :

(Mobile Phone), PDA(Personal Date Assistants),
 (Flat Panel Display Device)
 LCD(Liquid Crystal Display), PDP(Plasma Display Panel), FED(Field Emission Display), VFD(Vacuum Fluorescent Display)
 (LCD)가

가 TN 가 TN
 가 가 가
 (refractive anisotropy) 가

(wide viewing angle characteristic)
 (In Plane Switching Mode) 가
 IPS

1 IPS 가 (1)
 (3) (4) (n,m)
 (1) (3) (4) N(>n) M(>m)
 (10)가 (3) (4) 가 가
 (11) (11) 가 가
 (12) (12) (4) 가 가 (13)
 (14) 가
 (4) (5a 5c) (7a,7b)
 6) (7a,7b) (5a 5c) (18) (16) (16) (1)
 IPS (10)가 (5a 5c) (7a,7b) (5a 5c)
 (7a,7b) 가 가

(7a,7b) (1) 가 .
,
, (7a,7b) 가 (5a 5c) (7a,7b)
(7a,7b) (4) 가 (7a,7b) 가
(4) (cross talk)가 .
, 1 (5a) 3 (5c) 1 (7a) (4)
2 (7b) (4) (shielding)
) (4) 1 (5a) 3 (5c)
2 (4) (7a,7b) 3 (5a 5c) (4) (5a,5c) 1 .
, (5a 5c) (7a,7b) 가 , IPS .
1
,
, (4) (5a,5c) (4) (7a,7b)
(7a,7b) (4) (5a,5c)
(4) (7a,7b) 가 .

가

[illegible]

IPS

가

IPS

2 IPS 2a

2b

2a 1 (120) (111) 1 (120)

(122) (122) (112)

(113) (114) 1 (120) (passivation layer; 124)

2b 1 (120) (105a 105c) (12

2) (105a 105c) (107a,107b) (E1)가

b) (105a 105c) (107a,107b) (E1) (107a,107

2 (130) (132) (134) (132) 가

(134) R(Red), B(Blue), G(Green) (132)

Cr CrOx

(134) R,G,B 가 (photoresist) IPS

가 IPS

IPS (134)

(134) (134)

가 (134)

(134) 가

$10^{-8} \Omega \text{cm}$ 1KHz 14

(134) 2b (104) (104) (1

34) (E2)가 (104) (134) (E2) 가 (

105a 105c) (107a,107b) (140) (E1) (140) (

(E1 E2). (E2) (104) (E1) (E2) (1

E1) (107a,107b) (E1) (E2) (104)

04) (107a,107b) (E2) (104)

(107a,107b) 가 (140) (E1) (104)

가

(104) (107a,107b) (104) (134)

(E2) (104) (105a,105c) (shielding) 2

가 (104) (107a,107b) 가

(104) (134) (E2) (104) (107a,107b)

(104) (134) (E2) 가

(105a,105c) (104) (104) (107a,107b)
) (105a,105c) 가 , IPS

(105a,105c) (104)
, IPS

가 (134)

(104) (105a,105c)

, IPS

(134)

(134)

3a 3c 2 (130) (134)

, 3a $10^8 \Omega \text{cm}$, (132)가 2 (130) , R 가
1KHz 14
(134a) 3b (134a)

(134a) (138) 가 가 R (134a)
(negative) (positive)

, G B R,G,B
(134) (134) (overcoat layer)

IPS 가 2 (130) (134)
1 (120) (104) (E2)

IPS (134) IPS

2a 2b

4a 4b IPS , 2a 2b
IPS

4a (205) (207) IPS
(205a 205c) (207a,207b) (224) (240)
가 , (205a 205c) (207a,207b) (222) 1 (220)
IPS (204) (205a,205c)

1 (220) , 2 (230) (234)
(204)

b) 4a IPS 3 (205a 205c) 2 (207a,207
IPS 4 IPS 4
1) 6 (4 3) 2 (2
가) IPS

4b (305a 305c) (322) (307a,307b) 1 (320)
IPS (305a,305c) IPS
(304) (330) (334)
1 (320) (304)
(340) 가 가 IPS

ITO(Indium Tin Oxid

e) IZO(Indium Zinc Oxide)

(57)

1.

1 2 ;

1 ;

1 ;

1 1 2 ;

2 , $10^{-8} \Omega \text{cm}$ 14 ;

1 2 .

2.

1 , 1 .

3.

1 , .

4.

3 , ,

;

;

;

;

5.

4 , 1 1 2

6. 4 , 1 2 1 .
7. 4 , 1 2 .
8. 4 , 1 2 .
9. 4 , 1 2 1 .
10. 1 , 2 가 .
11. 1 2 ;
1 ;
1 ;
1 ;
2 ;
1 2 .
12. 11 , $10^{-8} \Omega \text{cm}$.
13. 11 , 1KHz 14 .
14. 1 2 ;
1 ;
1 ;
2 ;
1 2 .
15. 14 , .

16.

15 ,

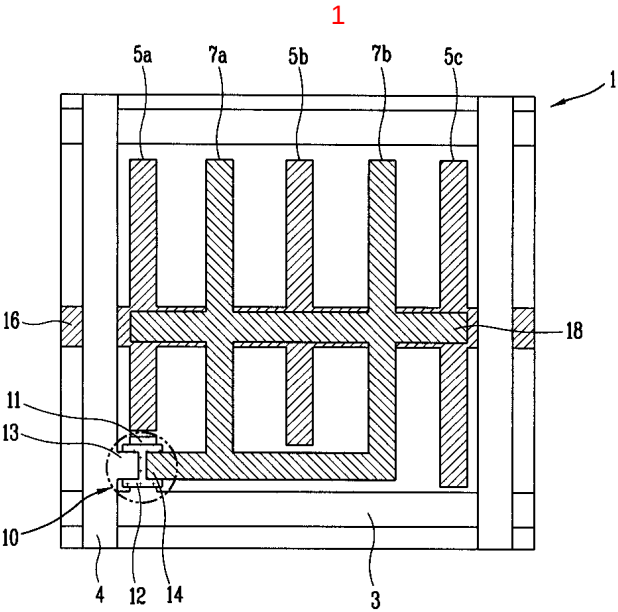
$10^{-8} \Omega \text{cm}$

17.

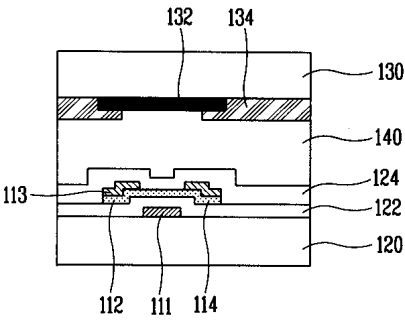
15 ,

1KHz

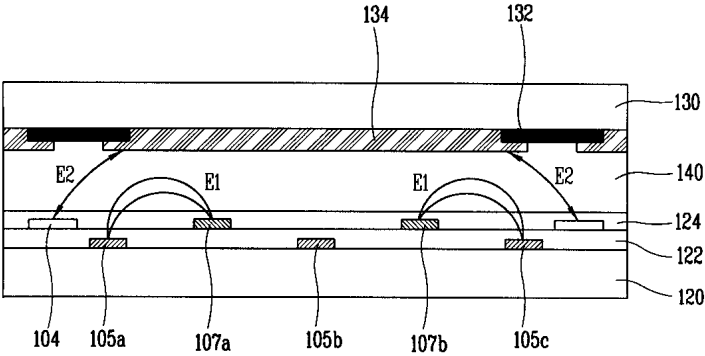
14

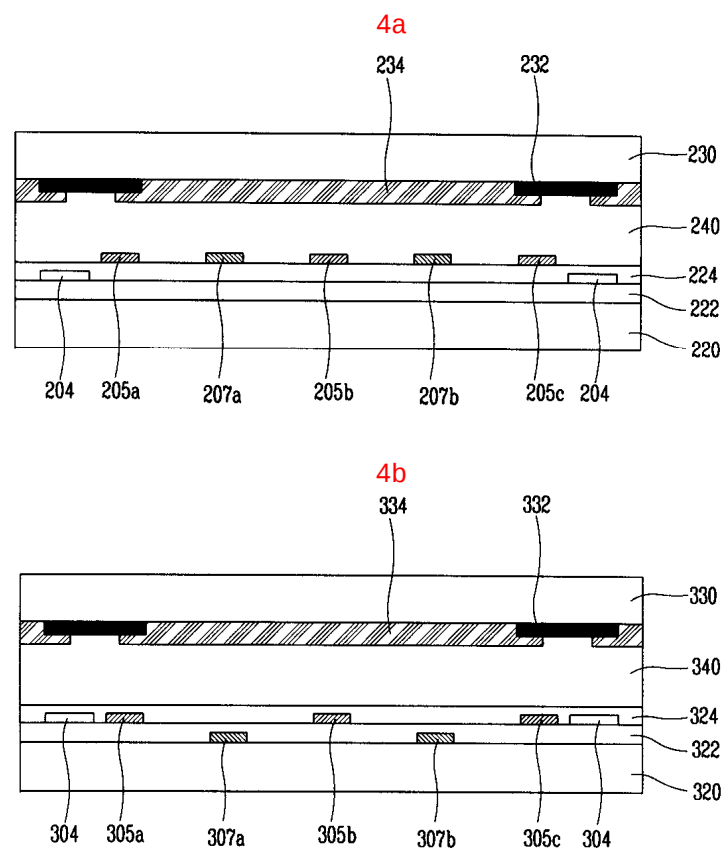
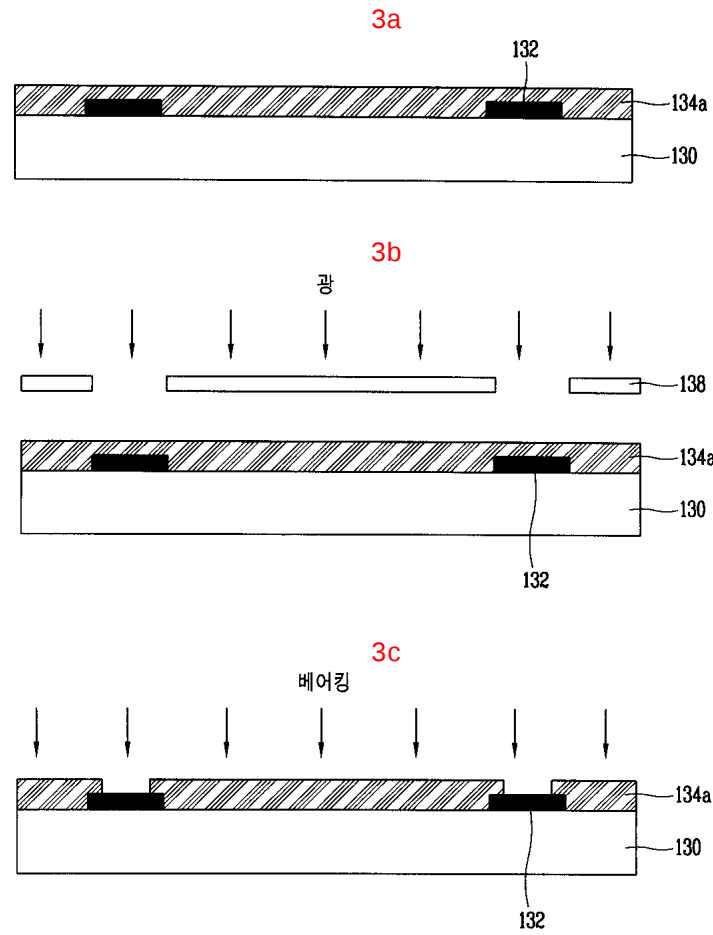


2a



2b





专利名称(译)	横向电场模式液晶显示元件		
公开(公告)号	KR1020040051346A	公开(公告)日	2004-06-18
申请号	KR1020020079259	申请日	2002-12-12
[标]申请(专利权)人(译)	乐金显示有限公司		
申请(专利权)人(译)	LG显示器有限公司		
当前申请(专利权)人(译)	LG显示器有限公司		
[标]发明人	YANG SEUNGHUN		
发明人	YANG,SEUNGHUN		
IPC分类号	G02F1/1335		
代理人(译)	PARK , JANG WON		
其他公开文献	KR100955385B1		
外部链接	Espacenet		

摘要(译)

本发明的平面内切换模式液晶显示装置包括：驱动器组件，布置在第一基板和第二基板的每个像素内，并且多个栅极线和限定多个像素数据线的数据线形成在第一基板中第一基板和至少一对电极，设置在第一基板的每个像素内，并产生平面切换和介电彩色滤光层，能够防止数据线电场和电极之间的平面切换失真它形成在第二基板中，并且在数据线和形成在第一基板和第二基板之间的液晶层之间产生电场。在平面切换模式中，低电阻，高介电常数，电介质，滤色器，电场，串扰。

