

(19) (KR)
(12) (A)

(51) 。 Int. Cl.⁷ (11) 10-2004-0060341
G02F 1/1339 (43) 2004 07 06

(21) 10-2002-0087118
(22) 2002 12 30

(71) . 20

(72) 224-1LG 204/412

1 1667-3

(74)

:

(54)

(In-Plane Switching Mode: , IPS

) , 1,
2 , 2 , 1,
2 1, 2 , 1
1, 2

9

1 TN
2 TN
3 2 - '

4		IPS			
5	4	- '	IPS		
6		IPS			
7		1	IPS		
8	7	- '	1	IPS	
9	7	- '	2	IPS	
10a	10g	2	IPS		

300 : 1 301 :

310 : 320 :

340 : 350 : 2

(IPS; In Plan Switching mode)

(Liquid Crystal Display)
(In-Plane Switching Mode: , IPS)

가 , LCD
(Liquid Crystal Display), PDP(Plasma Display Panel), ELD(Electro Luminescent Display), VFD(Vacuum Fluor
escent Display) 가 가 ,

hode Ray Tube) LCD가 가 CRT(Cat

가

가

가

가

가

1, 2

1, 2

1 (TFT) , , 가

2 (R,G,B) , ,

1 (spacer)

1, 2

가

가 가 가 , 가

(+) 가 (-)

가

1 TN

1 (1) (2) , (1) (2)

(3)

(1) (P)

(4) (4) (5) (P) (6) , (

5) (4) (5) (60 가 (T)가

(2) (P) (7) ,

R,G,B (8) , (9)

(2) (9) (9) 가 Ag 가 (

1) (9)

2 TN 3 2 I-I'

2 , (1) (2)

(1, 2)

(1) , 1 (4) (5), (6)

(T)가

(1) (100) , 2 IC(101) , (2) IC(102) (9) (4)

가

(5) (103, 104) .

(9) (2) , 1 (3 106) (7), R,G,B (8)

(3) (1, 2) (105)가 (107, 108) (109) ,

(105) 가 (105) (Hot Press)

(T) 가 TN (6) (3) (3)

(9) (6) (2) (9)

IPS 가

4 IPS , 5 4 - ' IPS

4 5 (21) (P)

(22) (22)

(25)

25) (22) (P) (29) (T)가 (22) (

(T) (22) (22a) , (24) ,

(23) (22a) (23) (25a)

(25) (25b)

(P) (25) (28) (P) (29a)

(T) (29) (29a)

(21) SiNx SiOx (26) , (26)

(polyimide) ()

(32) (21) R,G,B (33) (31) (34)

(31) (21) (35)

(21) (31)

(36)가

29) , TN , IPS (21) (21) (29a) (

6 IPS

6 , (21) (31) (30)가 (21) (34), (35) ,

(31) (32) ,

, 가 (30) 가 , 가 ,

가 ,

120~140 30 1

(Hot Press)

, ,

, 가 가

, 가 , 가

가 250 2~3 가

, ()

, ,

1, 2 , 2 1, 2 1, 2

1

, 1 IPS 가 ,

, 1 , 2 2 1,

2 , 가 2 1,

, 1 2 1

•

•

7	1	IPS	8
7	-	IPS	.

7 - '

IPS

1
(330) (C/F array, 2 (350) , (320) IPS (320) 7 , (320)
)가 1 (300) (UV) ((TFT array, (310)

가 (320) (330) (310) UV (310) UV

$\frac{1}{8}$
 $\frac{2}{8}$
 $\frac{3}{8}$
 $\frac{4}{8}$
 $\frac{5}{8}$
 $\frac{6}{8}$
 $\frac{7}{8}$
 $\frac{8}{8}$

$$, \quad (310)$$

UV . UV

, 1 IPS (310) UV ,
 UV 2 (350) (310) 1
 (300) (310) 가 UV

가 1 UV 가 UV
가 2

가¹가

UV
IPS

가

가

UV

2

9 7 - ' 2 IPS
, 1 IPS 2

2 IPS , 7 (320
)가 (320)
0) 2 (350) , (320) IPS (()가
(301) 1 (300) (UV) () (310)

가 (320) (330) (310)가 (330) (310) UV (310) UV (301) IPS (310) UV

(301) IPS

(310)

UV

1

2

(

)가 , 가 .

, UV (310) 2 (350) (310) UV
1 (300) (350) (301) UV가 (310) 1
(310) 가 . (310)

2 IPS

10a 10g 2 IPS

10a , 1 (300) (Active Area, 320) ()
(301a), ()
(301b) UV (301)
(301a), (301b) (301) Al, Mo, Cr, Al , Ti, Cu
(301) 가

10b , 1 (300) SiNx SiOx a-Si, N+ a-Si
(302) , (301a) (302) (303)

10c , ()
(304a) (304a) (304b)
(304a) (304b) Al, Mo, Cr, Al , Ti, Cu

10d , (304b) (305) ()
304b) (306) (305) , SiNx, SiOx, (30
6) Al, Mo, Cr, Al , Ti, Cu ITO, IZO ,
BCB,

10e , 2 (350) Cr, CrOx,
(330a) (330) (351)
(320) (331)

10f , (330) (310) (301)
(310) (330)
1 (300)

, , 1 (300) 2 (350)

10g , 1, 2 (310) UV

, UV (310) 2 (350) UV (301)
(310) 가 가 .

가 .

가

가	UV
UV가	1

가 , 가
가 .

(57)

1.

$$1, \quad 2 \quad ;$$

2 ;

$$1, \quad 2 \qquad 1, \quad 2$$

1 ;

1, 2

2.

1 ,

1 IPS 가 , .

3.

2 ;

2 ;

가 $2^{1, 2}$;

4.

3 ,

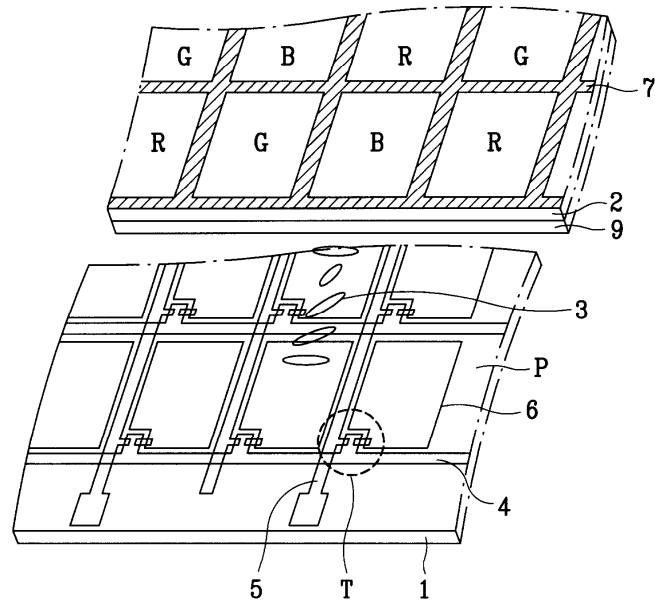
5.

3

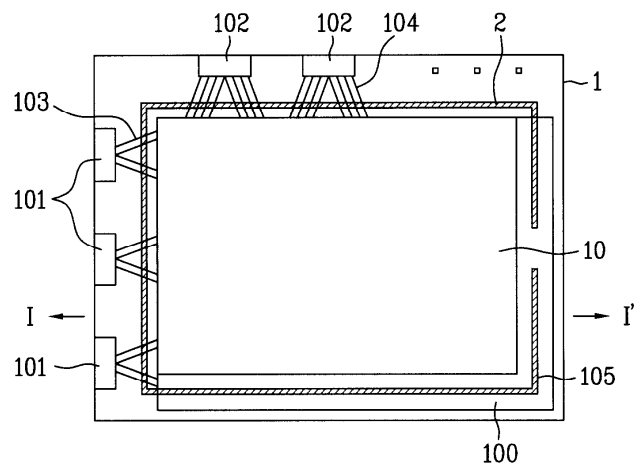
1 2 1

6.

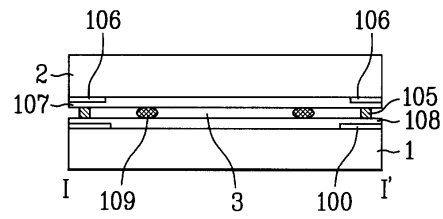
1



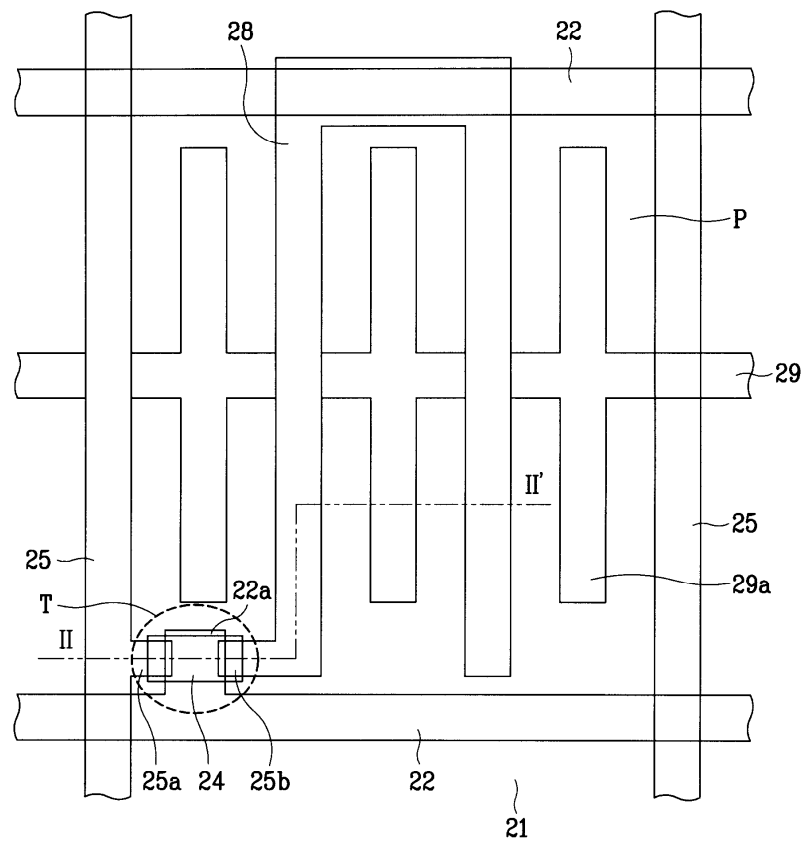
2



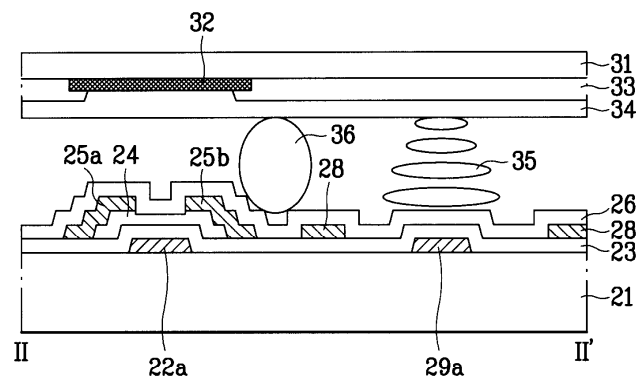
3



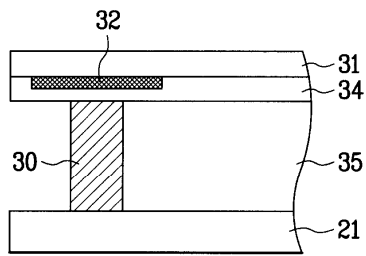
4



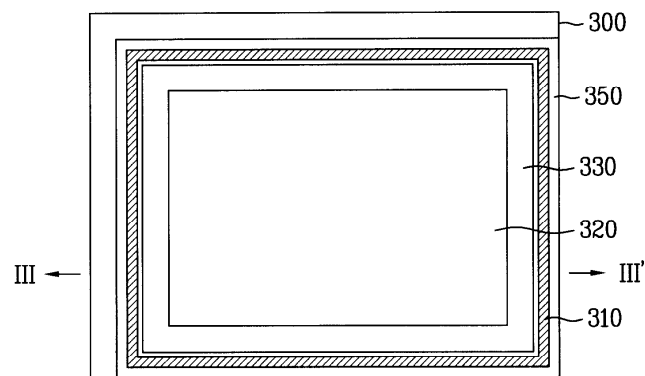
5



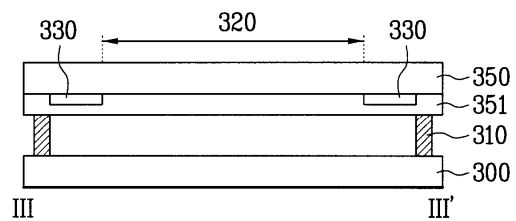
6



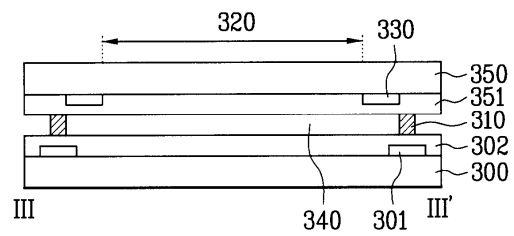
7



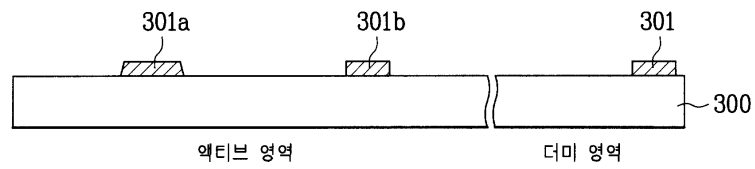
8



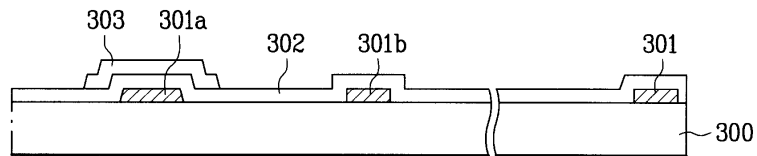
9



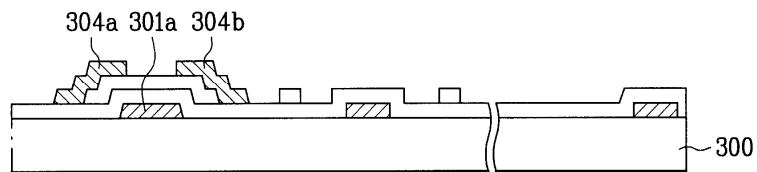
10a



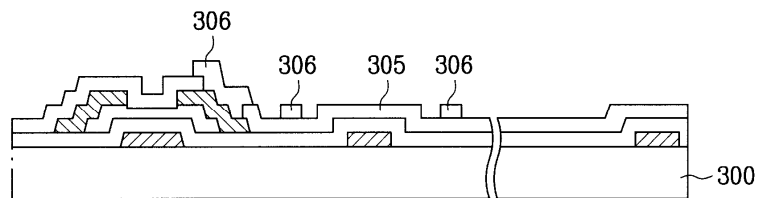
10b



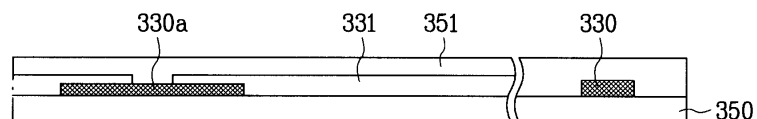
10c



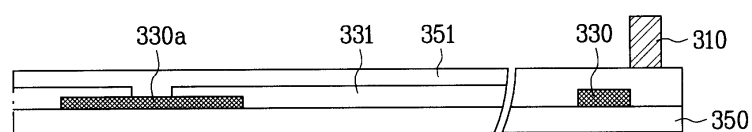
10d

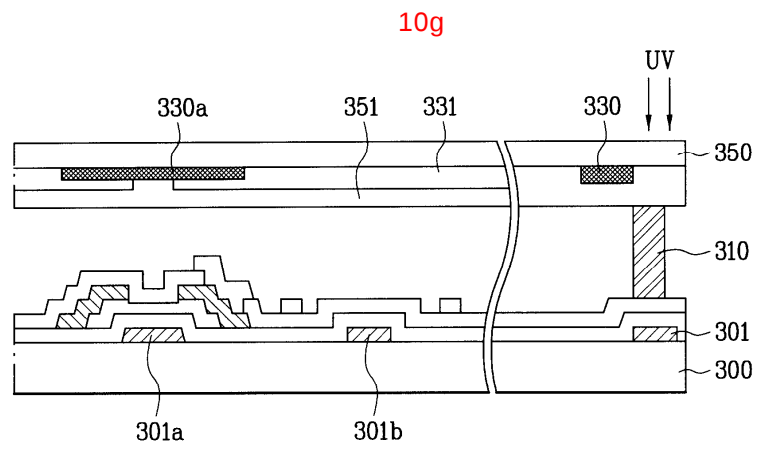


10e



10f





专利名称(译)	横向电场系统的液晶显示装置及其制造方法		
公开(公告)号	KR1020040060341A	公开(公告)日	2004-07-06
申请号	KR1020020087118	申请日	2002-12-30
[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	LEE CHANGHOON 이창훈 JI BYUNG MUN 지병문		
发明人	이창훈 지병문		
IPC分类号	G02F1/1339 G02F1/1345 G02F1/1335		
CPC分类号	G02F1/1339 G02F1/133512 G02F1/1345 G02F2202/023		
代理人(译)	金勇 新昌		
其他公开文献	KR100685925B1		
外部链接	Espacenet		

摘要(译)

本发明涉及一种适用于提高光固化密封材料的固化程度的面内切换模式的液晶显示装置(以下称为“IPS”)及其制造方法,并且分为有源区和虚设区,黑矩阵层形成在第二基板的虚设区域上;以及第二矩阵,形成在黑矩阵层的外框架部分上的第一和第二基板之间,并且,在通过光固化密封材料粘合在一起的第一和第二基板之间形成液晶层,以及在光固化密封材料和金属基板之间形成的液晶层,会的。9 指数方面 横向电场,光固化密封材料,横向电场系统的液晶显示装置,

