

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

(51) 。 Int. Cl. ⁷ G02F 1/1335	(11) (43)	10-2004-0005040 2004 01 16
(21)	10-2002-0039317	
(22)	2002 07 08	
(71)	.	20
(72)		301-2207
(74)		
:		
(54)		

(CLC color filter)

CLC

가

7

1

2

3 2

4

5

6 4 - 、

7 1 ,
8 2 .
< >
100 : 1 102 :
104 : 106 :
118 : 130 : λ /4
132 : 200 : 2
202 : 204 :

, ('CLC ')
 .
 , 가 , 가 가
 .
 , 가 ,
 .
 (Active Matrix LCD : AM-LCD)가 가 .

1 .
 , (11) (6) (, ,)(8) (7) ,
(7) (18) (5) , (P) (17)
(T) (22) , (5) (22)
(14) .
(22) , (T)가 (matrix type)
 , 가 (13) (15) .
(P) (13) (15) (P)
(17) - - (indium-tin-oxide : ITO)
 .
(11) (back light)(3)
0)가 .

(11) (30) (30)
 (8) ,
 .
 2 () ,
 (8) .
 , () (30) , (30)
 (30)
 . , 가 가 .
 , (8)
 (30) .
 가 , 가 .
 (Ch
 olesteric LC ; CLC) 가 / .
 , 2 .
 , CLC
 54) (58) (60) , 2 (54) 1 (50) (52) 2 (56) (52) (T) () ()
 1 (52) $\lambda / 4$ (QWF)(64) (66) .
 1 (52) 2 (54) (68) , (68) CLC
 (70)가 .
 1 (52) 2 (54) (72) .
 , ('CLC') 가
 , 가 . (, 가
 .)
 , 가
 , .
 , 가
 , 3 .
 3 2 .
 , (66) (66)
 , (QWP)(64) $\lambda / 4$.
 (52) (52) (72) CLC (70) (56) , () (64)
 (52) (52) (66) .
 , CLC (70) 가 .

CLC 가 , 가 CLC , (64) (68) 가
 , (70) (72) (52) (64) $\lambda/4$
 , (72) (66) (white state) (66) (72) (64) (black state)
 (72) (64) (66) (66)
 , (72)
 , / (가) 가
 , CLC
 contrast ratio) 가 (

가 (:) .
 ,
 1 2 ; 2 1 , ;
 ; $\lambda/4$; $\lambda/4$; 1 ;
 2 ;
 2 ; 1 2
 / (Cr/CrO_x)
 , 1
 2 ; 2 1 , 1 2
 ; $\lambda/4$; 1 2 1 $\lambda/4$ 2
 ; 1 2 ; 2
 ,
 -- 1 --
 1
 4 1

(118) , (100) (P) (106)

(106,118) (104) (110) (114) (116)

(T)가 .

(P) (T) (122) .

(114) (118) , (104) (106) .

(106) (118) (T) (10

2) .

(102) (black matrix) / (Cr/CrO_x)

x) 가 .

(104) 80% ,

(Cr) 50%~60% / (Cr/CrO_x) 4%

, (102)

5 (, ,) 가 CLC , (200)

(204)

, CLC (204) (202) .

, 6 ,

6 4 - ` .

, (100) / (Cr/CrO_x)

(102) .

(102) (T) ,

, (102) (Al) (AlNd)

(104) (106) .

(104) (106) (100) (SiN_x) (SiO₂)

2) 1 (108) .

a-Si:H) (104) (108) (a-Si:H) (n+

(110) (112) .

, (Cr) (W) (Mo) (Ti) (Ta)

, (112) (114) (116)

(118) .

(114,116) (100) (BCB) (acryl) (

resin) 2 (120) , (116)

, (P) (122) .

(122) - - (ITO) - - (IZO)

(100) (200) 7
4 - , 5 - ,
(.) .(

7
(200) , 1 (100) (300) 1 (100) 2 (200) , 2
(200) 1 (100) 2 (200) (T) (106) (118)
(202) CLC (204)
1 (100) (130) (132)
(T) (106) (118) (1
02) , /

,
, 가 가
, 가
, 가
, 2 가
-- 2 --
2 CLC CLC
8 2
, 2 (600) 1 (400) 1 (500) 2 (600)
(502) (504) (506) (508) (510)
(P) (T) (T) (510) (512)

1 (500) ($\lambda/4$) (514) (516)
1 CLC (500) 2 (600) CLC (602) , 2 (600)
(604) (606)
가 CLC (602)
가 ,

가 , 가

CLC (602) 가 가 CLC (604) 가
CLC (606) CLC (604) CLC (604)
(700) (602) (700) (516) (700)
(514)
2 CLC CLC
(contrast ratio)

가

(57)

1.

1 2 ;
2 1 ;
1 $\lambda / 4$;
 $\lambda / 4$;
1 2 ;
1 2 ;
1 2 ;

2.

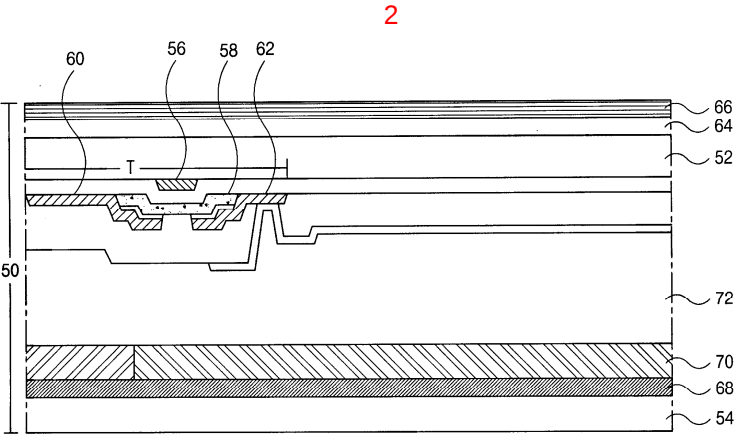
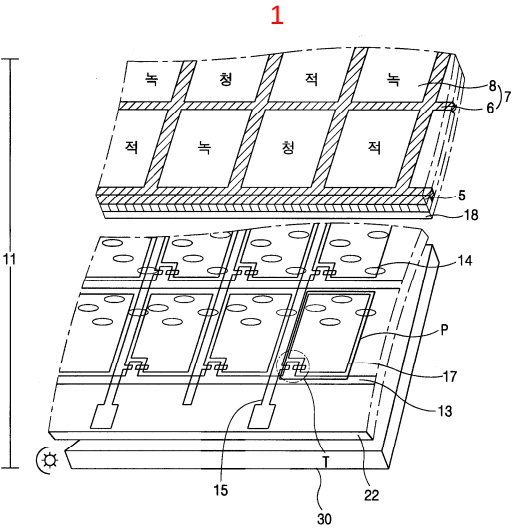
1
/ (Cr/CrO_x)

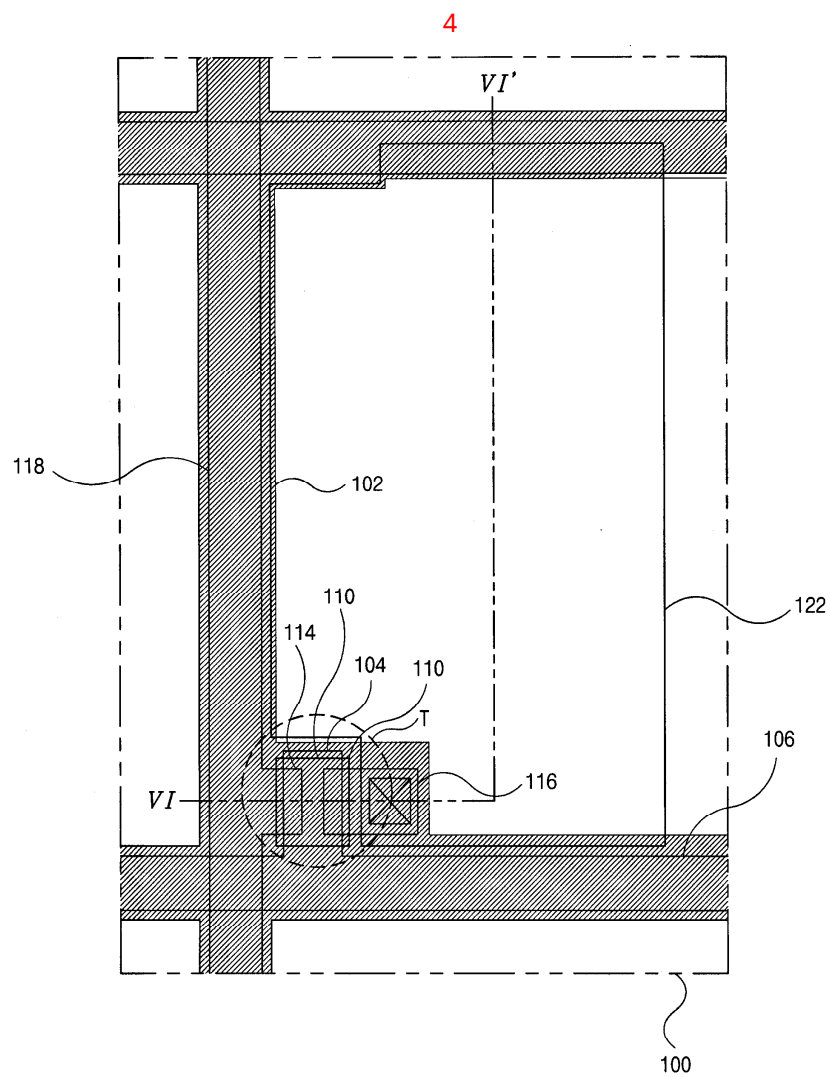
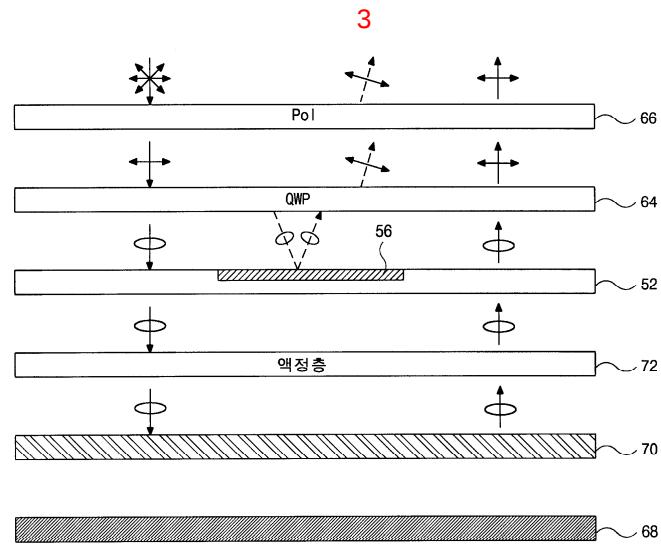
3.

1 2 ;
2 1 ;
1 2 ;
2 1 $\lambda / 4$;

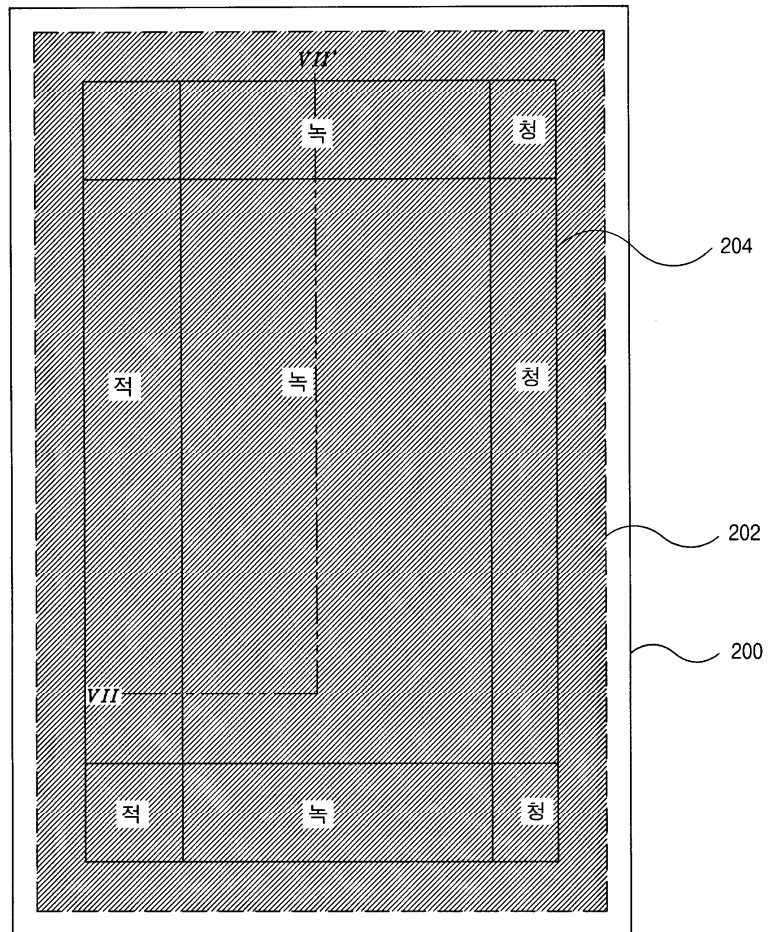
$\lambda/4$;
1 2 ;
1 2 ;

4.
1 ,
/ (Cr/CrO_x)

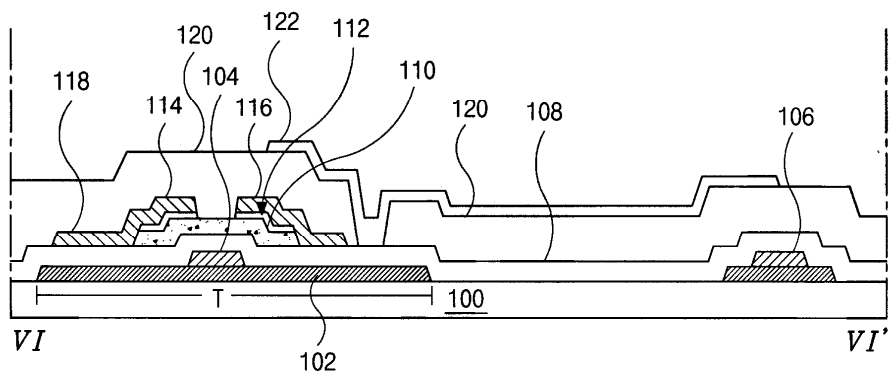




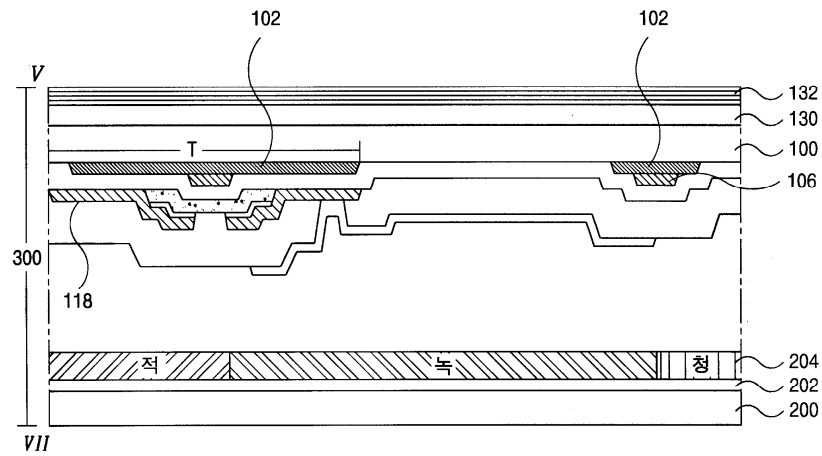
5



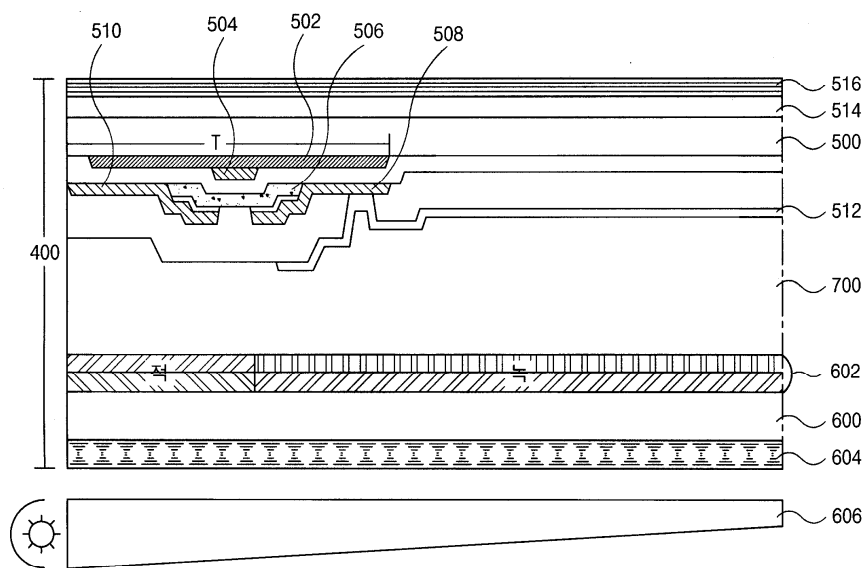
6



7



8



专利名称(译)	反射和透射液晶显示装置包括胆甾型液晶滤色器		
公开(公告)号	KR1020040005040A	公开(公告)日	2004-01-16
申请号	KR1020020039317	申请日	2002-07-08
[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	YOON SUNGHOE 윤성회		
发明人	윤성회		
IPC分类号	G02F1/1335		
CPC分类号	G02F1/133512 G02F1/133514 G02F1/133553 G02F1/13362 G02F1/136209 G02F1/136286		
代理人(译)	贞媛KI		
外部链接	Espacenet		

摘要(译)

彩色液晶显示器技术领域本发明涉及彩色液晶显示器，更具体地，涉及包括胆甾型液晶滤色器的反射和透射彩色液晶显示器。其中薄膜晶体管 and 阵列布线形成在上基板上并且CLC滤色器形成在下基板上的液晶显示装置还设置有低反射层，以防止光在形成在上基板上的金属布线上反射，这应该会降低。以这种方式，可以制造具有高对比度的高质量反射和透射液晶显示装置。 7

