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10-2004-0026422  
2004 03 31

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(22) 2002 09 24

(71) 416

(72) 486 117 1401

(74)  
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(54) -

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3

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1

2 -

3 -

4a 4b 3 - ' - '

5 xy

6 - .  
 7 .  
 8a 8i - 1  
 9a 9j - 2  
 10 - .  
 < >  
 100 : 110 :  
 120 : 122 : 1  
 124 : 2 126 :  
 200 : 212 :  
 214 : 215 :  
 216 : 218 :  
 222 : 224 :  
 230 : 232 :  
 234 : 300 :

(Liquid Crystal Display; LCD) (electric field) 가 , LCD (thin film transisto  
 가  
 r: TFT) TFT LCD가 ,  
 1 .  
 1 (14) , 16 (10), (10) (12),  
 ( )  
 LCD TFT , 가

3 R, G, B 3 ( ) (dot) R, G, B , R, G, B 3  
 RGB  
 가 가 .  
 , (R), (G) (B) 가 , , (Cyan)  
 (Magenta) , R, G, B (W) 가 .  
 , LCD (Penetration type) LCD ,  
 LCD (Reflection type) LCD , LCD -  
 LCD  
 2 -  
 2 ) , - LCD ( )  
 , , 2 가 .  
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 1 ; , , 2  
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 1 , , 2  
 1 , ; ; 2 , ,  
 , 가 ,  
 - , ,  
 - ,  
 , ,  
 3 - ' - ' , 4a 4b  
 3 4a 4b , - (110) , (110) (105)  
 R, G, B

(120) , (126)

( , R, G, B ) (110) (105) 가

, R, G, B

1 (120) (122) 2 1 (122) , (124)

( )

1 R (122R), 1 G (122G) 1 B (110) (122B)

2 (124) (124R), 2 G (124G) 2 B (110) (124B) 2 R

R, G, B 3 가

(126) (122R, 122G, 122B, 124R, 124G, 124B)

(126)

(126) ( )

SiO<sub>2</sub> Ta<sub>2</sub>O<sub>5</sub>, ZrO<sub>2</sub>, TiO<sub>2</sub> Ta<sub>2</sub>O<sub>5</sub>, ZrO<sub>2</sub>, TiO<sub>2</sub>

ITO

SiO<sub>2</sub>, TiO<sub>2</sub> (rubbing) 가

R, G, B R, G, B

(White), (Black), (Red), (Green), (Blue)  
(Primary Colors) (Color Reproduction)

RGB 5 NTSC  
, NTSC 100 가

(546.1nm), (435.8nm) (700nm),  
가 1931 (CIE: The International Commission on Illumination)

1 3 xy

$$X = \int_{380}^{780} S(\lambda) \cdot T(\lambda) \cdot x(\lambda) d\lambda$$

$$Y = \int_{380}^{780} S(\lambda) \cdot T(\lambda) \cdot y(\lambda) d\lambda$$

$$Z = \int_{380}^{780} S(\lambda) \cdot T(\lambda) \cdot z(\lambda) d\lambda$$

( ) C.I.E 1 3 S( ) , T( ) x( ), y( ), z

$$x = \frac{X}{(X+Y+Z)} = \frac{Red}{(Red+Green+Blue)}$$

$$y = \frac{Y}{(X+Y+Z)} = \frac{Green}{(Red+Green+Blue)}$$

$$z = \frac{Z}{(X+Y+Z)}$$

76 CIE LAB (space) 1931 CIE (Red) , y (Green) 가 19 (saturation: , chroma)

6 , (170) (160) (170) (150),  
 , (170) / TFT가  
 , 5 (P1 ~ P5) , 20% 40%  
 5 (170) , 1 ,  
 7 .

[ 1 ]

	(%)					
	P1	P2	P3	P4	P5	
20%	26.3	26.3	26.3	26.2	26.3	26.3
40%	21.3	21.3	21.3	21.3	21.3	21.3
20% ( )	10.7	10.7	10.7	10.6	10.6	10.7
40% ( )	8.4	8.3	8.3	8.3	8.3	8.3

1 7 , 가 , -

, -

, , 가

8a 8i - 1

, 8a , (105) , 8b , (105) R, G, B  
 (110) ( ) , (110) ,

, 8c , R 1 R (122R)  
 , (110) R 1 (Curing)  
 ) , 1 R (122R) .

, 8d , R 2 R (124R)  
 , (110) 1 R (122R) R  
 1 2 (Curing) , 2 R (124R) .

8e G (110) 1 2 R (122R, 124R) 1 G (122G) (105)  
 (Curing) 1 G (122G)

8f G (110) 1 2 R (122R, 124R) 1 G 2 G (124G) (122G) (105) G 2 G (12 G) (12 4G) (Curing)

8g B (110) 1 2 R (122R, 124R) 1 G 1 B (122B) (122G) (105) G 2 1 B ( ( 122B) (Curing)

8h B (110) 1 2 R (122R, 124R) 1 G 2 B (124B) (122G) (105) G 2 B (124B) (Curing)

8i (110), 1 2 R (122R, 124R), 1 2 G (122G, 124G) 1 2 B (122B, 122B) (126) IT (126)

9a 9j 가 1 2

9a (105) 9b (105) R, G, B (110)

9c 9e 1 R (122R) 1 B (122B) 1 G (122G) R (122R) (110) R (122R) (Curing) 1 G (122G) 1 B (122B) 1 R (122R)

9f 1 R, G, B (122R, 122G, 122B) 1 R, G, B

9g R 9f R 2 R (124R) 2 (Curing) 2 R (124R) 1

9h R 2 G

(124G) , 9g G 2  
 (Curing) 2 G (124G) ,  
 , 9i R 2 B  
 (124B) , (110) , 1 R (122R), 1 G (122G), 1  
 B (122B) , (110) B 2  
 (Curing) 2 B (124B) ,  
 , 9j (110), 1 2 R (122R, 124R), 1 2 G  
 (122G, 124G) 1 2 B (122B, 122B) (126) .  
 O , (126) , IT  
 , 가 ,  
 , R, G, B  
 R, G, B  
 , R, G, B R, G, B  
 R, G, B  
 R, G, B  
 R, G, B  
 10 - ,  
 10 , - (100), (200) (300)  
 (100) 1 (105) , 1 (105) 1 (122) ,  
 1 (122) , 2  
 (124) , 1 (122) 4a 4b 1 R (122R)  
 , 1 G (122G) , 1 B (122B) , 2 (124) 2  
 R (124R) , 2 G (124G) , 2 B (124B) .  
 (200) 2 (205) ,  
 (300) (TFT) 가 , (100)  
 , 2 (205) (Cr), (Al), (Mo) (MoW)  
 ) , ( ) 가 1 ( ,  
 (212) (TFT)  
 2 (205) , (214) (214)  
 (215) (212) (214)  
 (215) (214)  
 1 (215) 1 ( ) (216), (215)  
 2 2 ( ) (218), (218)

1 2 ( , ) (220) (220)  
 ( ) .  
 22) (214) (216) (224) (2  
 , (222) (222)  
 , (222) (224) (222) (216) (230)  
 , (230) (230) (232) ITO IZO  
 , (234) -  
 ) (230) (TFT) ( , ) ( (230) (210) (210) (220)  
 ) (220) 가 가 (210) (210)  
 (230) ITO IZO (232) (233) (232), (232) (234)  
 (233), (236)  
 , 2 1 1  
 , 1 2

(57)

1.

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 1 ;  
 , 2 -

2.

1 , , -  
 3.

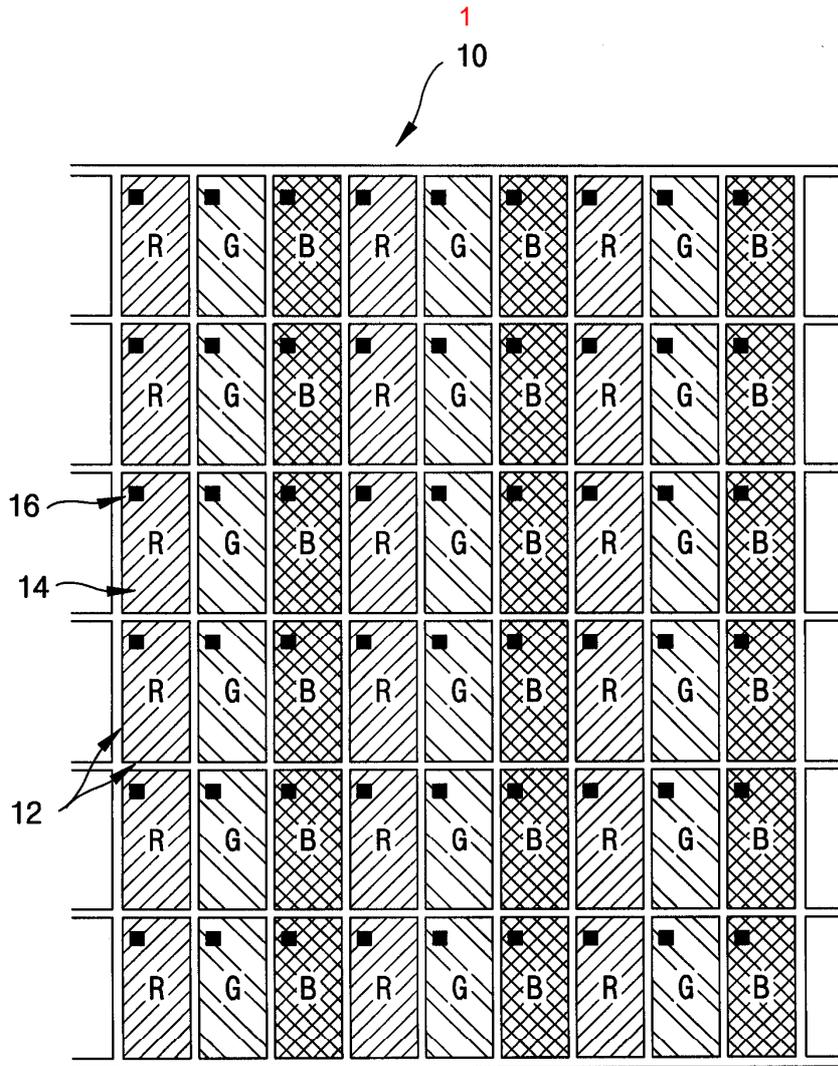
1 , - , .

**4.**  
1 , 2 1  
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**5.**  
1 , 1 , ,  
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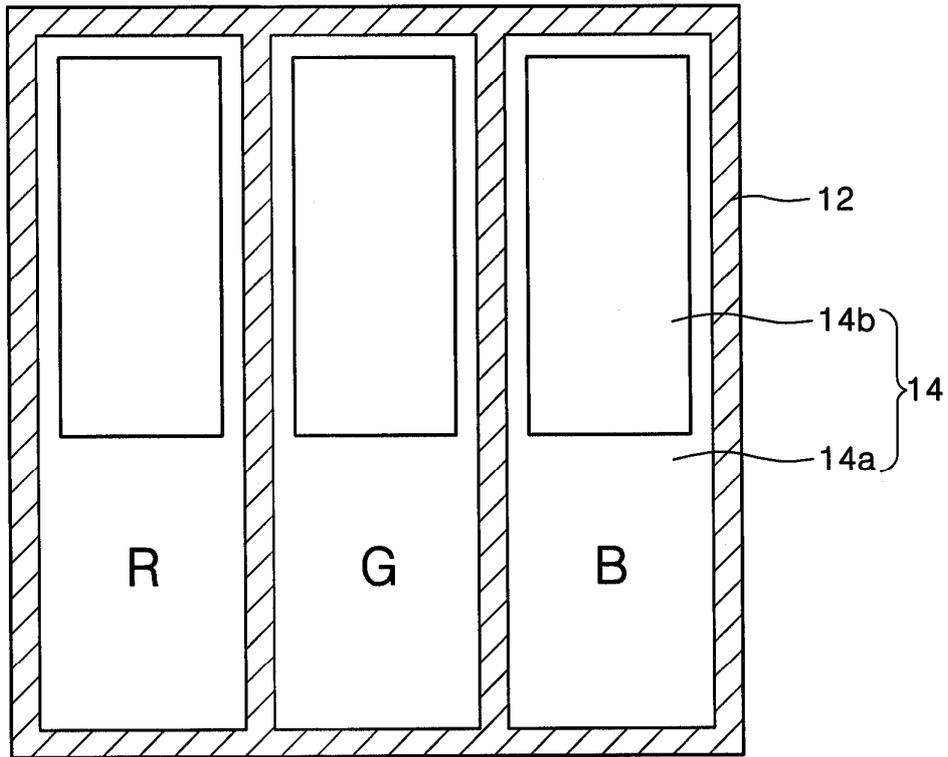
가  
- . ,

**6.**  
5 , , 가  
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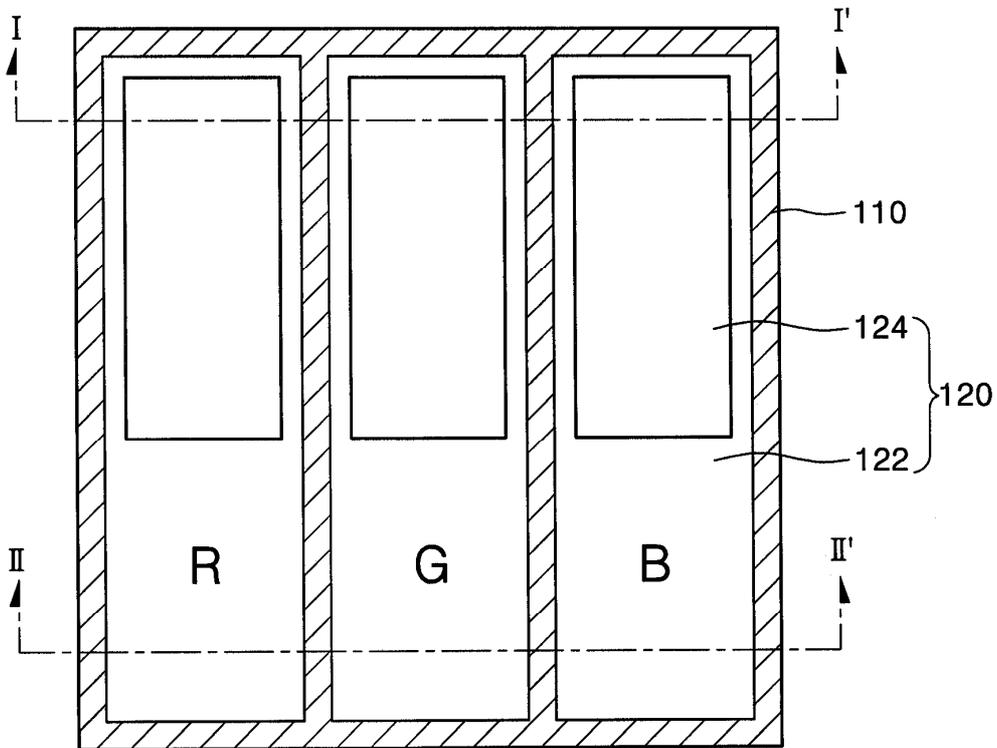
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10

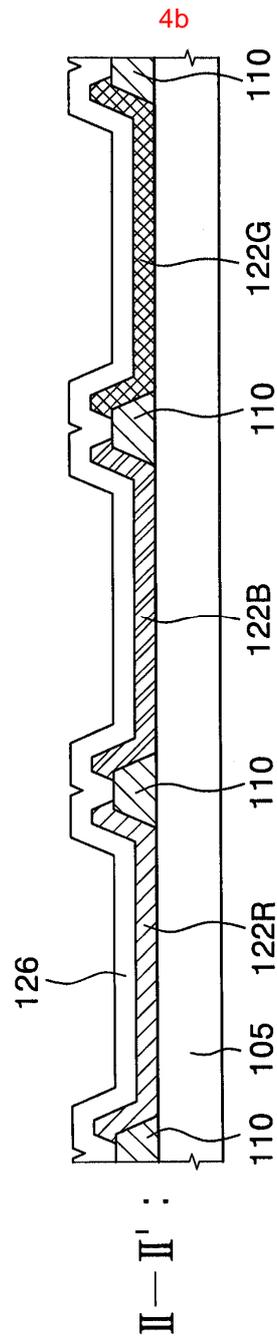


3

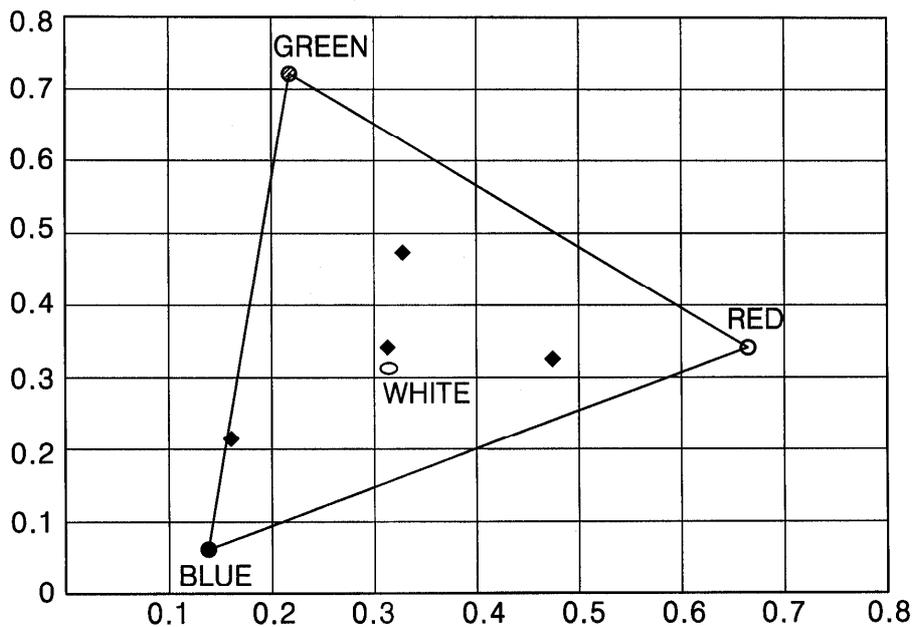
100



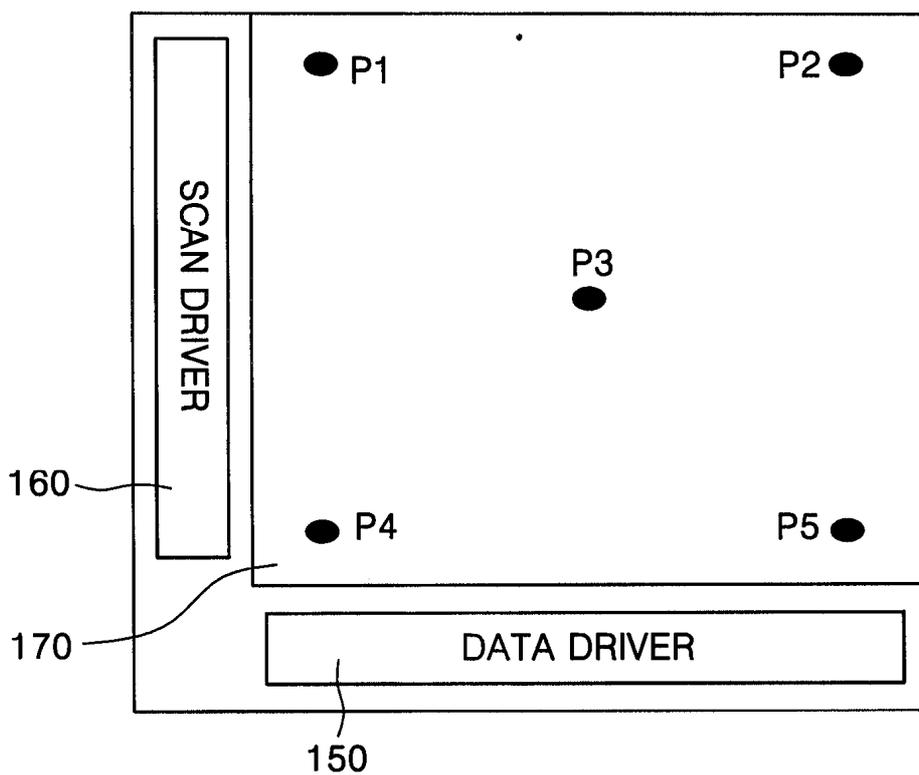




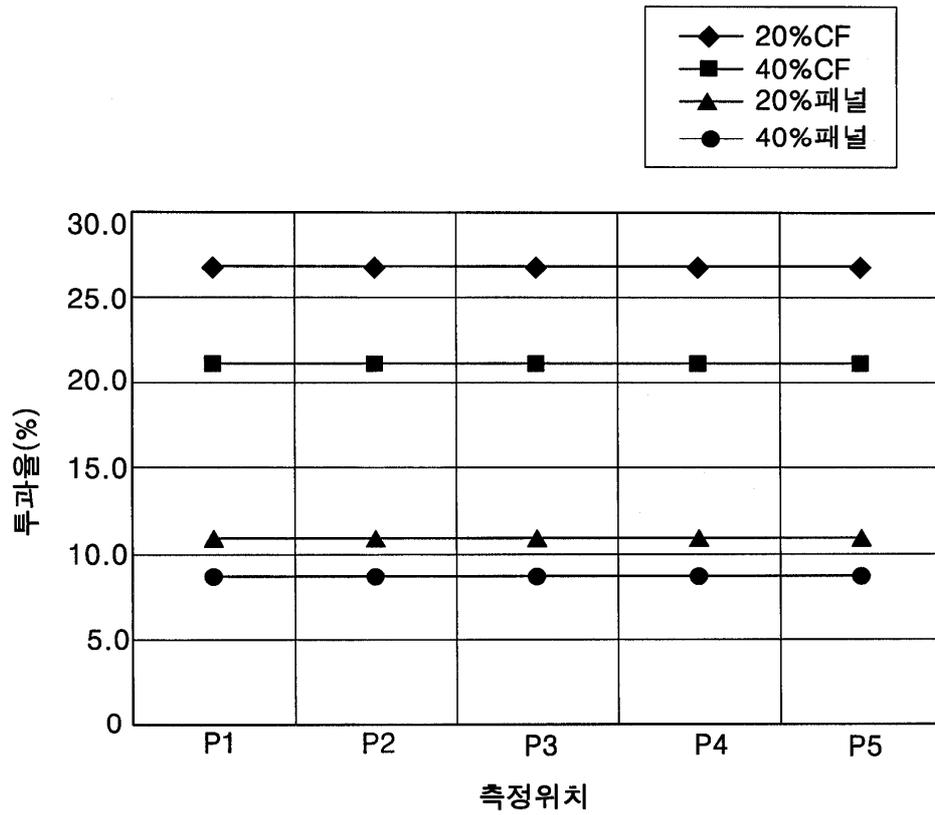
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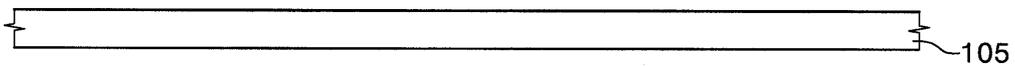
6



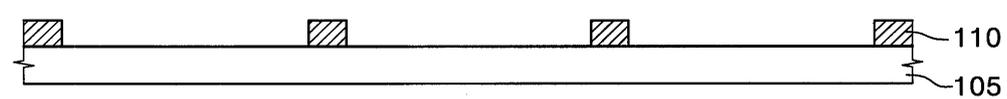
7



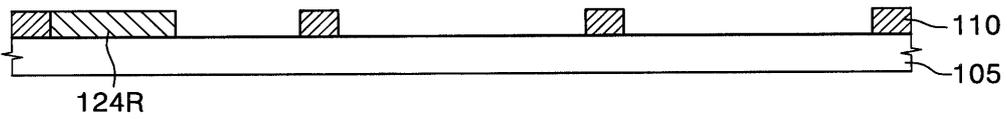
8a



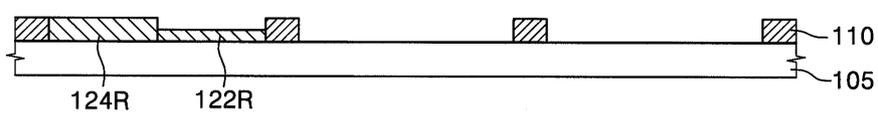
8b



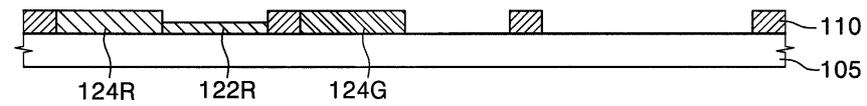
8c



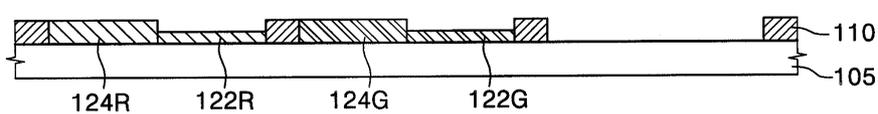
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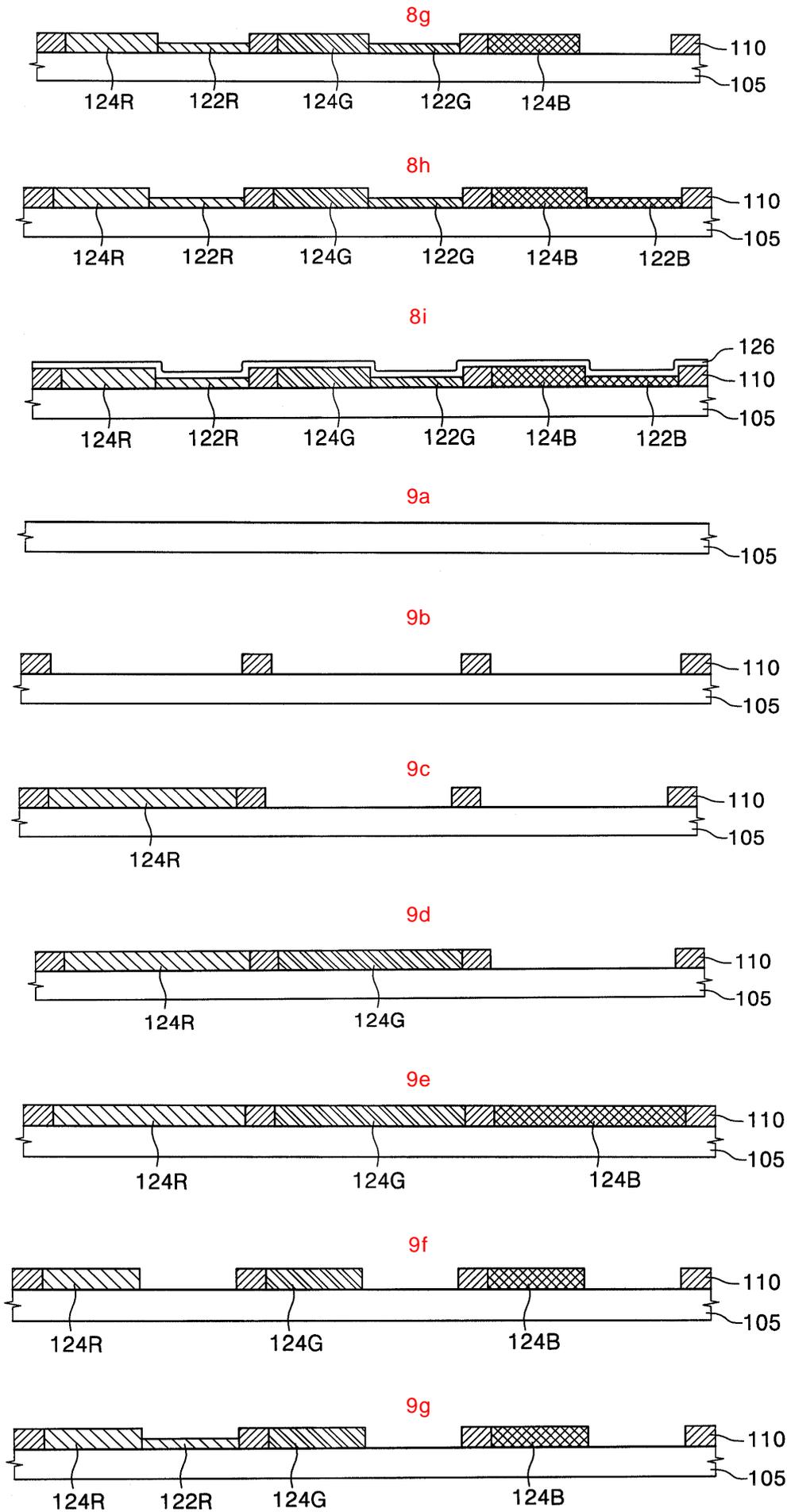


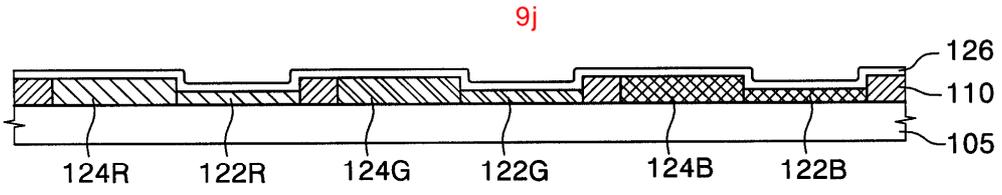
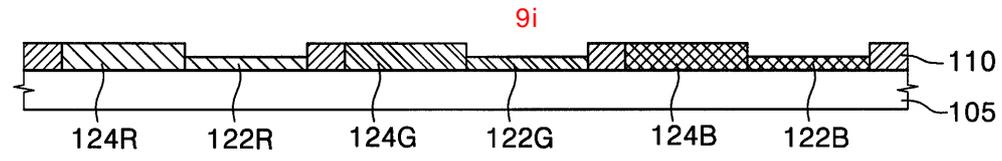
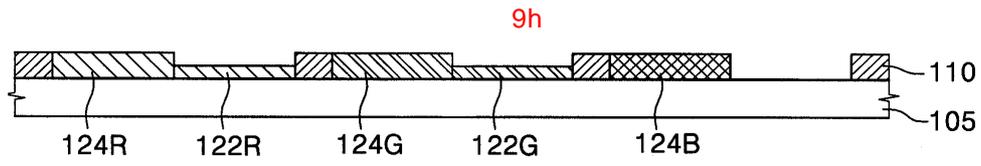
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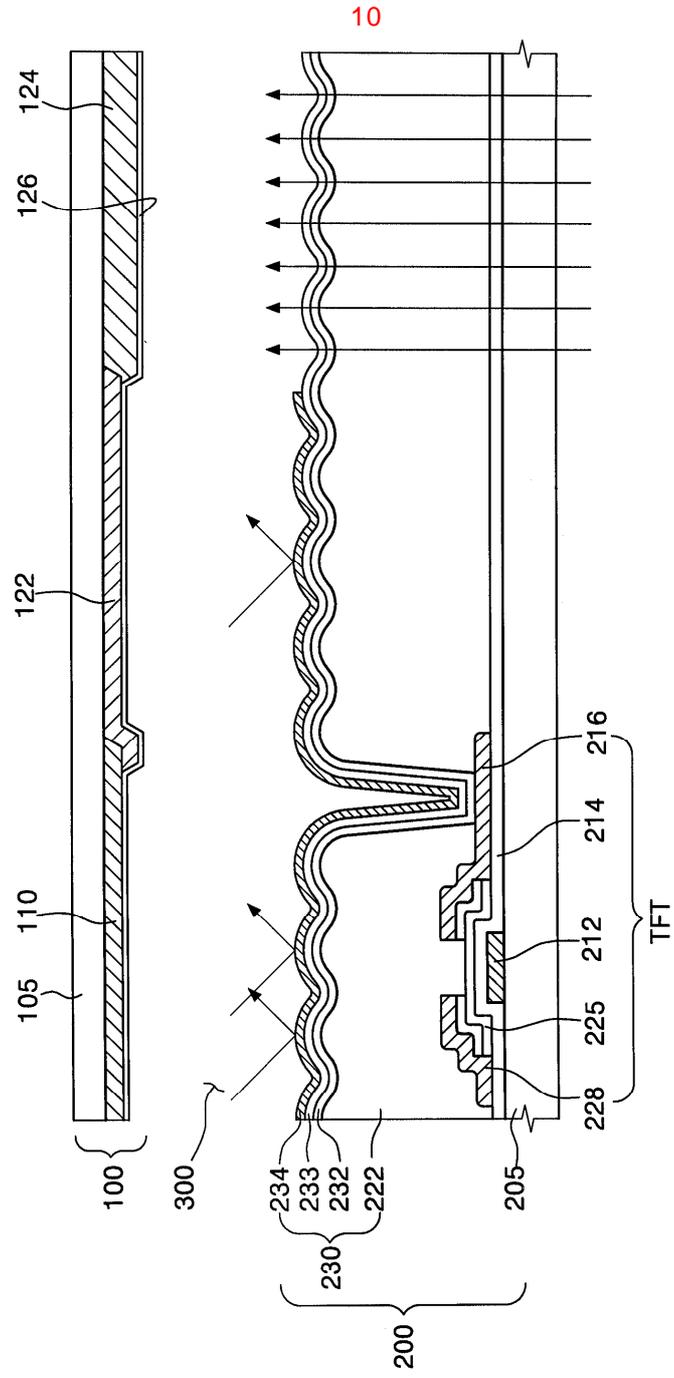


8f









专利名称(译)	一种用于反射 - 透射液晶显示装置的滤色器基板和液晶面板		
公开(公告)号	<a href="#">KR1020040026422A</a>	公开(公告)日	2004-03-31
申请号	KR1020020057887	申请日	2002-09-24
[标]申请(专利权)人(译)	三星电子株式会社		
申请(专利权)人(译)	三星电子有限公司		
当前申请(专利权)人(译)	三星电子有限公司		
[标]发明人	JUNG JIYONG		
发明人	JUNG,JIYONG		
IPC分类号	G02F1/1335		
CPC分类号	G02F1/133512 G02F1/133555 G02F1/136 G02F2001/136222 G02F2203/09		
代理人(译)	PARK , YOUNG WOO		
外部链接	<a href="#">Espacenet</a>		

摘要(译)

公开了具有用于透射区域的颜色图案的液晶显示装置的不同反射区域和反射 - 透射滤色器基板，以及具有该反射透射滤色器基板的液晶面板。第一颜色图案形成在限定透明基板中的单位像素区域的恒定区域内的反射区域上，并且根据自然光指示颜色。第二颜色图案在恒定区域内的透射区域上形成，并且根据人造光指示颜色。因此，对应于反射区域和透射区域的滤色器基板的颜色像素组成比是不同的。以这种方式，可以给出在反射区域和透射区域中相同的颜色再现性。通过独立地控制透射区域和反射区域的颜色再现性，可以增强可视性。液晶，滤色片，彩色像素，彩色图案，反射，渗透。

