

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

(51) 。 Int. Cl. <sup>7</sup> G02F 1/1335	(11) (43)	10-2004-0001695 2004 01 07
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(21)	10-2002-0036998
(22)	2002 06 28

(71) . 20

(72) 914-405

469-325/2

(74) :

(54)

가 COT .

1 2 .

가 ,

1 ,

가 ,

5d

1 ,

2 1 - ,  
3 COT ,  
4a 4b 5a 5d 3 - , 1  
6a 6b 7a 7d 3 - , 2

< >

100 : 102 :  
104 : 106 :  
108 : 110 :  
112 : 114 :  
116 : 118 : /  
119 : 2 120 :  
126 : 1 128a,b,c :  
130 : 2

COT(color filter on TFT)

가 , 가  
가 , 가  
1  
(6) (7) (11) (8) (8) (18) (8) (5) ,  
(P) (22) (5) (17) (22) (T)가 (14) (P)  
(matrix type) (22) (array substrate) (TFT) 가 (T)가  
(15) (13)

, (P) (13) (15) , (P)  
 (17) (17) .  
 (17) - - (indium-tin-oxide : ITO)  
 .  
 (C) 1 (17) (C)가 2 (13) ,  
 (13) / (30) .  
 , / (30) (17) .  
 (5) (22) (5) (22) ,  
 , 2 .  
 2 1 - , .  
 2 (22,5) , 1 (22) 2 (5) , 1  
 (14) .  
 (22) (32) (34) (36) (38)  
 (T) , (T) (40) .  
 7) (P) (T) (38) (17) , (1  
 (C)가 (13) .  
 가 (5) (13) (15) (T) (6)  
 , (22) (P) (8)가 .  
 ) , (cross talk) (15) (17  
 (A) , (13) (B) .  
 , (15) (5) (13) (17) (A,B)  
 (black matrix)(6)가 가 .  
 , (T) (6) (40)  
 (34) .  
 , (5) (22) (misalign)가 가 ,  
 (6) (margin)  
 .  
 , 가 , (A,B) (6) 가  
 가 .  
 가 .

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 ;  
 , 1 ; 1 ;  
 1 2 .  
 1 2 .  
 (SiN<sub>x</sub>) (SiO<sub>2</sub>) .  
 .  
 ;  
 ;  
 , 1 ;  
 1 2 ; 1 2  
 , ( ) .  
 1 2 .  
 .  
 (SiN<sub>x</sub>) (SiO<sub>2</sub>) .  
 , .  
 -- 1 --  
 3 .  
 , (102) (116) , (102,116)  
 (104) (108) (112,114) (T)  
 (102,116) (P) (114) (126,130)  
 (128a,128b,128c) .  
 (126,130) , 1 (126) (114)  
 (128a,128b,128c) , 2 (130) (128a,128b,128c) .  
 1 (126) (114) .  
 1 2 (126,130) (102) (C) .  
 (C) (102) 1 , 1 2 (126,130)  
 / (130) 2  
 .  
 COT (T) (120) , , ,  
 (128a,128b,128c)가 .

(120) 가 , (116) (T)

(120) ,

(102) , 1 (126) (128a,128b,128c)

, 4a 4b 5a 5d , 1

4a 4b 5a 5d 3 - 1

4a 4b , 5a 5d

4a , (100) , (102) (

104) .

(104) (102) (100) (SiN<sub>x</sub>) (SiO<sub>2</sub>)

) 1 (106)

(106) (a-Si:H) (n+a-Si:H)

(104) (106) (108) (110)

4b (Mo), (Cu), (W), (Ta) (108) (110) (100) (Cr

), (110) (112) (114) , (112) (

116) , (102) / (118)

(112,114) (100) (SiN<sub>2</sub>) (SiO<sub>2</sub>)

2 (119)

, 2 (119) ( ) (108)

2 (119) (108)

, 5a 5d

5a , 2 (119) (116) (102) (120)

0) (T) (12)

(P) (T) (114) (122)

(106)

5b (IZO) , (120)가 (100) - - (ITO

) - 1 (126)

, 1 (126) (114) / (118)

1 (126) ( ) (106)  
 , (102,104) .  
 , (102,104) (106) (106)  
 , (102) (104) (106)  
 ( ) .  
 1 (126) 5c , (P)  
 (128a,128b,128c) .  
 , (128a,128b,128c)가 (100)  
 2 (130) .  
 2 (130) (128a,128b,128c)가 1 (126)  
 ) .  
 8) , 2 (130) 1 (126) (114) / (11  
 , 5d , 1 (126) 2 (130)  
 .  
 1 .  
 , 1 2 .  
 -- 2 --  
 2 2 ,  
 ( ) .  
 , 6a 6c 7a 7d .  
 6a , (200) , (202) ( 204)  
 ) (204) (202) (200) (SiN<sub>x</sub>) (SiO<sub>2</sub>)  
 , 1 (206) .  
 , (206) (a-Si:H) (n+a-Si:H)  
 (204) (206) (208) (210) .  
 6b , (208) (210) (200) (Cr)  
 ), (Mo), (Cu), (W), (Ta) (212) (214) , (212)  
 , (216) (202) / (218) .  
 (212,214) (200) (SiN<sub>2</sub>) (SiO<sub>2</sub>)  
 2 (219) .  
 , 2 (219) ( ) (208)  
 .  
 2 (219) (208) .  
 , 7a , 2 (219)  
 , (T) (216) (202) (220)  
 .

, (T) , .

(220) , (T) (214) 가 ,

/ (224) .

) , 7b (IZO) , (220)가 (200) - - (ITO (226)

1 (226) (214) / (218) .

(214) 가 1 (214) (126) .

가

(114)

1 (226) , ( )

(206) (202,204)

1 (226) 7c (P)

(228a,228b,228c)

, (228a,228b,228c)가 (200)

2 (230)

) 2 (230) (228a,228b,228c)가 1 (226)

18) , 2 (230) 1 (226) (214) / (2

, 7d , 1 (226) 2 (230)

COT

가 .

가

가 .

(57)

1.

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,

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1

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1

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1

2

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2.

1

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1

2

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3.

1

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4.

3

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(SiN<sub>x</sub>)

(SiO<sub>2</sub>)

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5.

1

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6.

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1

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1

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1

2

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1

2

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(

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7.

6 ,

1 2

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8.

6 ,

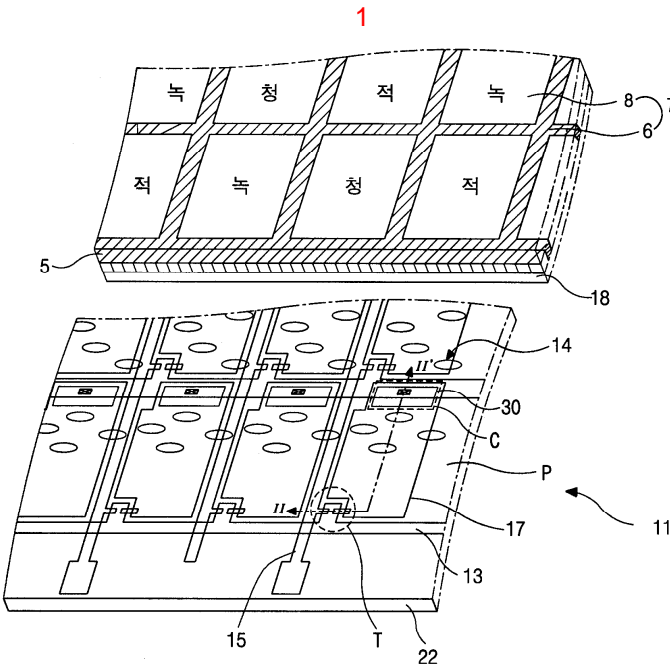
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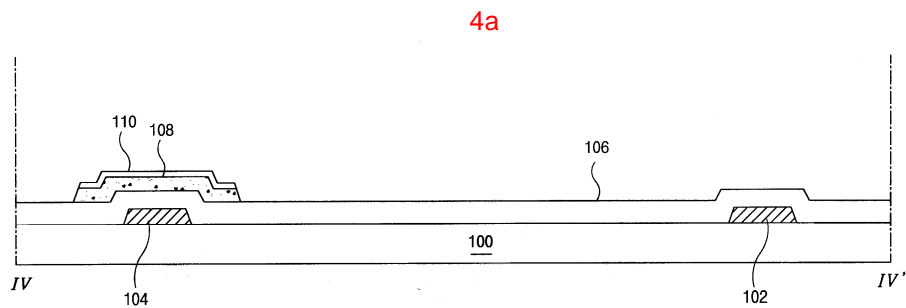
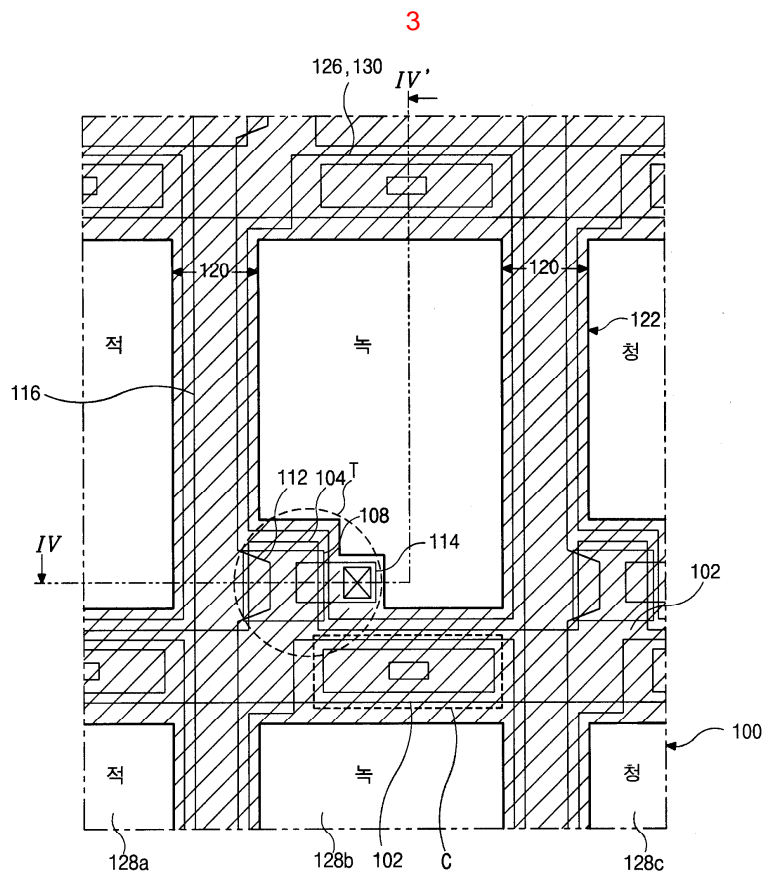
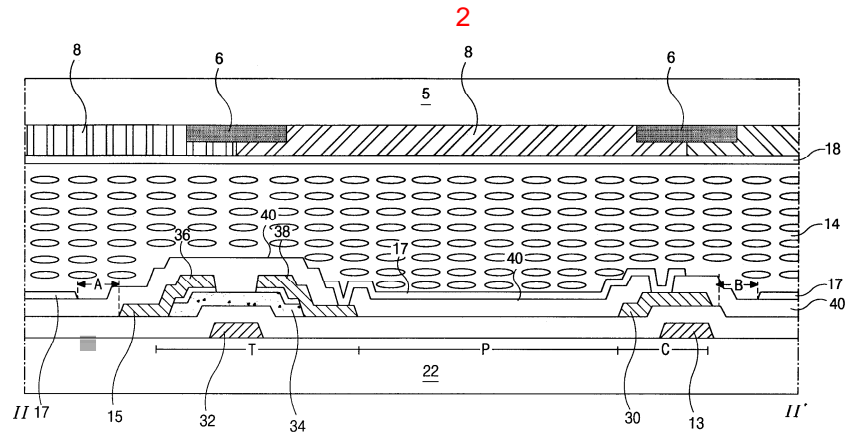
8 ,

(SiN<sub>x</sub>) (SiO<sub>2</sub>)

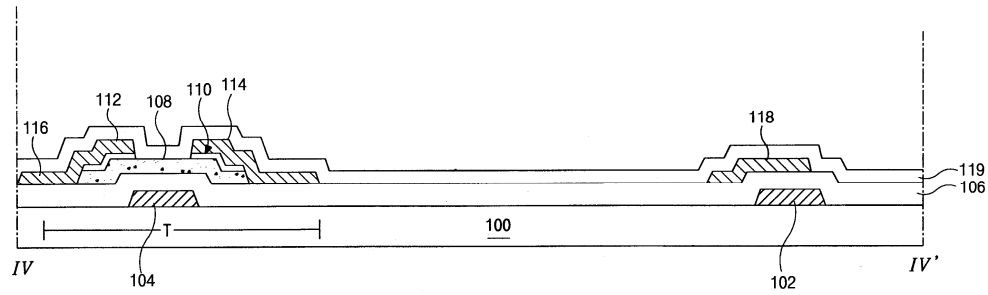
10.

6 ,

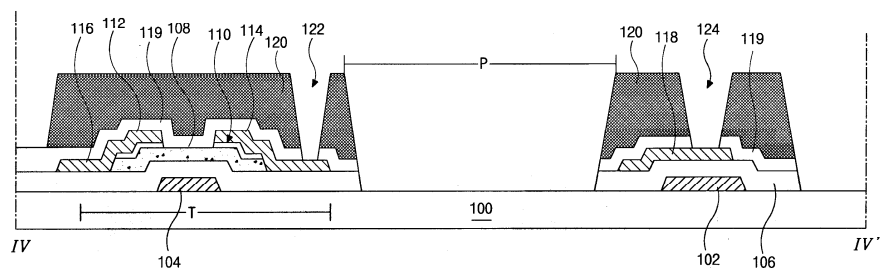
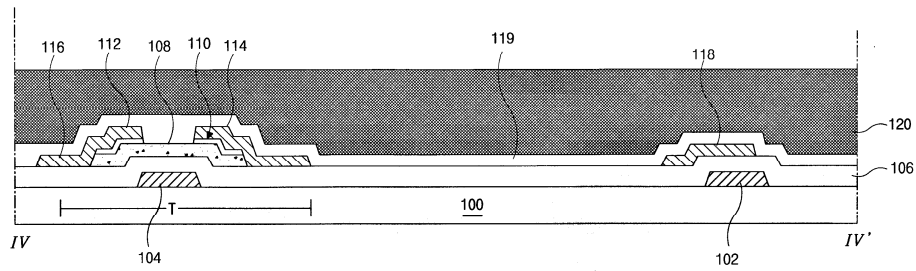




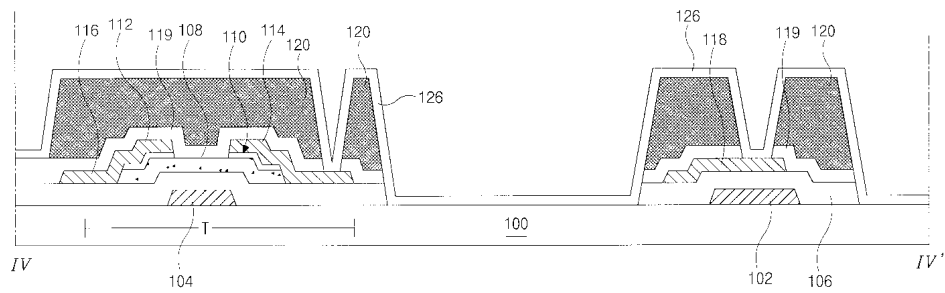
4b



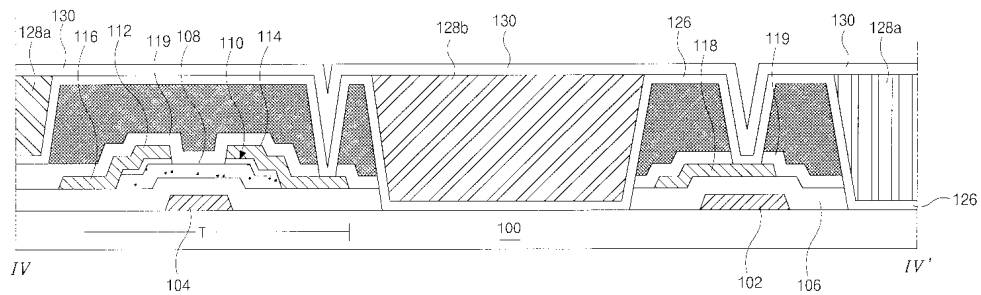
5a

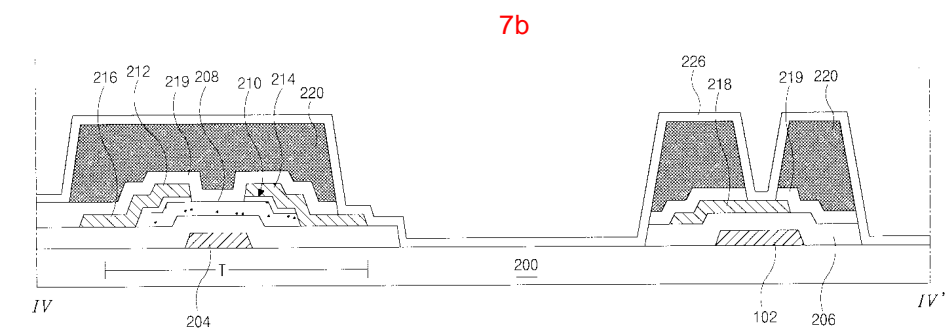
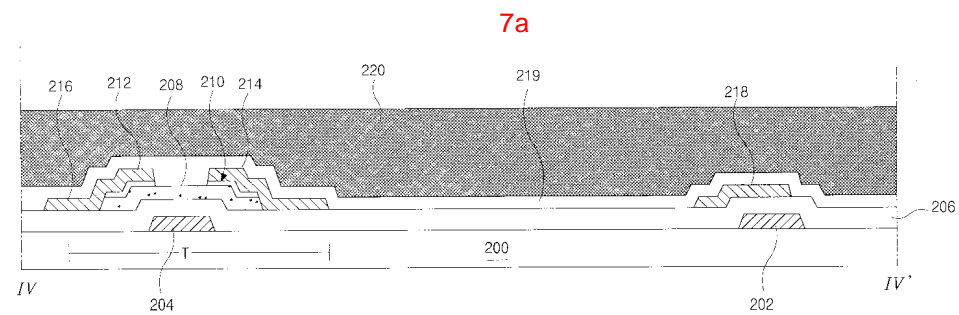
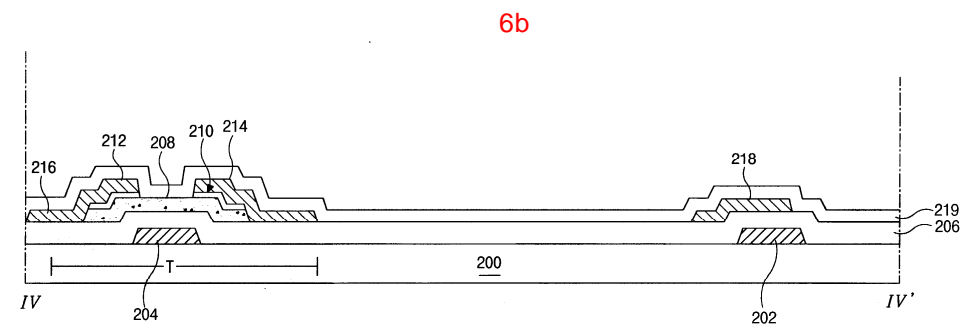
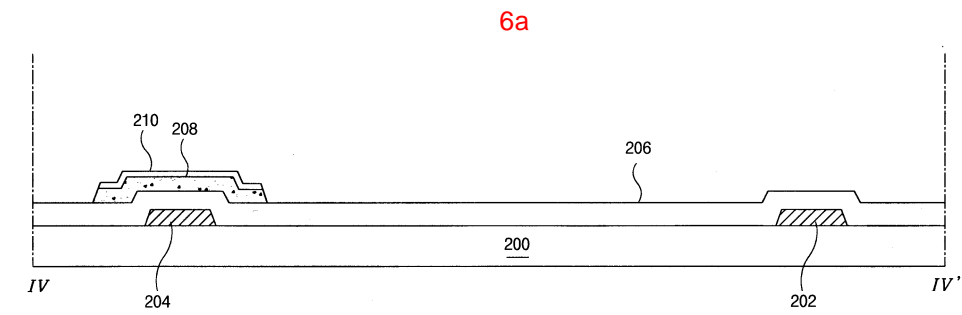
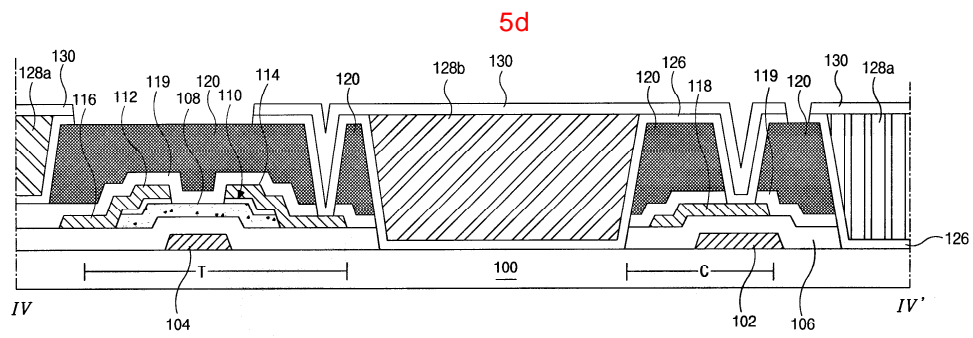


5b

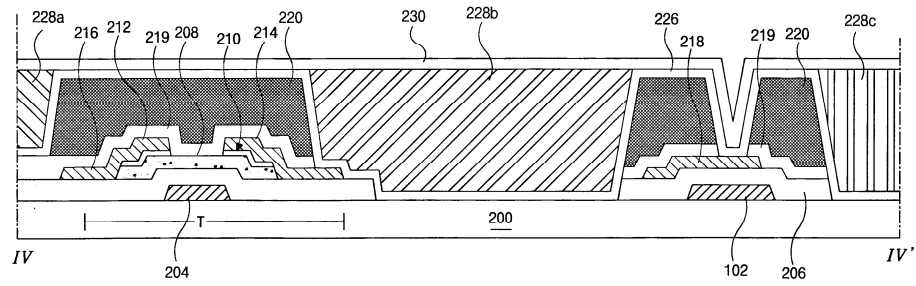


5c

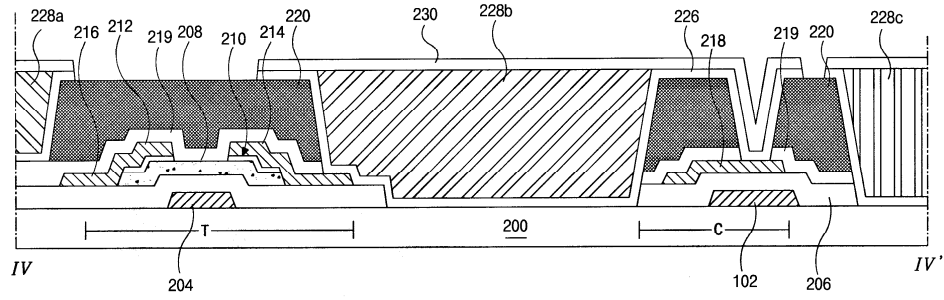




7c



7d



专利名称(译)	液晶显示装置及其制造方法		
公开(公告)号	<a href="#">KR1020040001695A</a>	公开(公告)日	2004-01-07
申请号	KR1020020036998	申请日	2002-06-28
[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	CHANG YOUNGYOUNG 장윤경 PARK SEUNGRYUL 박승렬		
发明人	장윤경 박승렬		
IPC分类号	G02F1/1335 G02B5/20 G02F1/1368 G02F1/1362		
CPC分类号	G02F1/136227 G02F2001/136222 G02F1/136209		
其他公开文献	KR100857133B1		
外部链接	<a href="#">Espacenet</a>		

#### 摘要(译)

本发明涉及一种液晶显示器，其中滤色器构成为COT结构的阵列面板中的液晶显示器。根据本发明的液晶显示器是在滤色器周围的上部中的相应的第一和第二透明电极以及在薄膜晶体管，栅极布线和数据线的上部上形成的黑色矩阵的下部。将滤色器组织成不确定的有机树脂的结构形成在阵列板的上部。以这种方式，下侧和滤色器直接包括在阵列面板中。因此，由于在设计黑矩阵时不需要考虑对准裕度，因此可以确保与对准裕度一样多的孔径比。此外，可以防止在滤色器的下部配置有第一透明电极的滤色器图案化的药液与下部的栅极布线断开的缺陷。并且黑色矩阵与阻挡光的装置一起使用，作为保护薄膜晶体管的保护膜。因此，由于不需要形成需要掩模工艺的单独保护膜，因此可以简化工艺。

