

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl. ⁷ G02F 1/136		(11) (43)	10-2004-0050237 2004 06 16
(21)	10-2002-0078008		
(22)	2002 12 09		
(71)	.	20	
(72)		1145	640-1204
		LG	103 807
(74)			
	:		
(54)			

， 가 TOC 。

(staggered) 。

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，

TOC(TFT on color filter)
가 。

4f

1 。

2 1 - 。

3 ,

4a 4f 3 - ` , 1

5 3 - ` , 2 ,

6a 6e 3 - ` , 3

.

< >

100 : 102 :

104a,b,c : 106 :

112 : 114 :

116 : 118 :

120 :

128 : 130 :

132 : 138 :

TOC(TFT on colo

r filter)

가 , 가

가 ,

가

1 .

(6) (11) (8) (8) (5) ,

(P) (7) (17) (7) (T)가 (18) (P) (13)

(22) , (5) (22) (14) .

(22) (array substrate) (TFT) 가 (T)가

(matrix type) (15) (13) (15) (P)

(P) (17) .

(17) - - (indium-tin-oxide : ITO)

(C) 1 (17) (13) (C)가 2 (13) , (30) , (30) (17) , (5) (22) , (5) (22) , 2 , 2 1 - , 2 (22,5) , 1 (22) 2 (5) , 1 (22) (32) (34) (36) (38) (T) , (T) (40) , (P) (T) (38) (17) , (1 (C)가 (13) , (5) (13) (15) (T) (6) 가 , (22) (P) (7a,7b,7c)가 , (cross talk) (15) (17 (13) (B)) (A) , (15) (13) (17) (A,B) 가 , (5) (6) (black matrix)(6)가 가 , (34) (T) (6) (40) , (5) (22) (misalign)가 가 , (6) (margin) , 가 가 , (A,B) (6) 가 가

TOC

가

 (SiN_x) (SiO_2)

1

2

가

가

1

2

(BCB) (Cr) / (Cr/CrO_x) (SiN_x)
 (SiO_2) (acryl) (resin)

1

2

 $(\text{Al}),$ $(\text{AlNd}),$ $(\text{Cr}),$ $(\text{W}),$ $(\text{Cu}),$ (Ti) (SiN_x) (SiO_2)

1

2

가

가

1

2

-- 1 --

3 TOC(TFT on color filter)

(102), (100) (102) (116)
 (102) (116) (104) (108)
 (112,114) (T)

(102,116) (P)

(102) (C_{st})
 (C_{st}) (102) 1 2

TOC (124) , , ,
 (130a,130b,130c)가 (T)
 (124) 가 , (116)
 (T)

, 4a 4f , 1

4a 4f 3 - , 1

(3 - .)

4a , (100) (T) (P) (D) / (G/S)

(T) (100) (Cr) / (Cr/CrO_x)
 (D) (G) (102)

(104a,104b, 3 104c) 가 , (P)

, (104a,104b, 3 104c) ,

(BCB) (102) (104a,104b, 3 104c)가 (100)
(acryl) (resin) (poly-imide)
(106)

(106)

(SiN_x) (SiO₂)

4b (Ti) (Cu) (106) (100) (Cr) (Mo) (W)
1 (108) (Al) (AlNd) (108) (110)
110)

1 (108) (110) 4c (112) (114) (112)
(T) (116) / (G/S)
(100) (118) (120)

(112,114) (120) (ohmic contac
t layer)

4d (112,114) (120) (100)
(a-Si:H) (112,114)
(122)

(122)

(122) (100) (SiN_x) (SiO₂)
(124)

(124) 2 (126)

(124) 2 (126) 4e (128)
(112,114) (130) (116) (P)
(130) (132)

(132) (118) 가

(132) 2 (128) (118) 1
(C_{st})가

(132)

(130) (128) (100) (BCB)
(acryl) (resin) (134) (114)
(114) (118) (134) (114)
(136) (118) (138)

4f (134) (100) - - (ITO) - -
(IZO) (118) (P) (138) (114)

1 TOC

1

1 2 1 3

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2 1 1

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2 1

5 3 - 2

(116,132)

1 (102) (112,114) (120) (104a,104b) 2

4 (128) (130) 3 (122)

2 (114) (118) (130) (P) 5 (138)

2 TOC

1 3

-- 3 --

3

1 1

6a 6e 3 TOC

6a 6e 3

6a (S) (200) (T) (P) (D) (G)/

(T,P,D,G/S) (200) (Cr) / (Cr/CrO_x)

(T) (G) (G) (202)

(204a,204b,204c) 가

(204a,204b,204c)

CB) (acryl) (202) (204a,204b,204c)가 (200) (B)

(206) (resin) (poly - imide)

(206)

(206)

6b (IZO) (206) (200) (ITO) (T)

(G/S) (208)

(Cu) (208) (200) (Cr) (Mo) (W) (Ti)

(210) (Al) (AlNd) (210) (212)

1 (210) (212) 6c (212)

(T) (212) (214) (G/S)

(200) (216) (218)

(218)

(212,214) (218) (ohmic contac

t layer)

6d (212,214) (220) (200)

(a-Si:H) (212,214)

(224)

(224)

(224) (200) (SiN_x) (SiO₂)

(226)

2 (228)

(226) 2 (228) 6e (230) (P)

(232) (212,214) (232) (230)

(234)

(234) (218) 가

(234) (230) (218) 1

(234) 2 (C_{st})가

(234) (Al)

3 TOC

1

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가 .

2 3 가 .

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(57)

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(Cr)/ (CrO_x)

7.

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(SiN_x) (BCB) (acryl) (resin)
(SiO₂)

8.

5

(a-Si:H)

9.

5

1 2 (Al), (AlNd), (Cr), (W), (Cu), (Ti)

10.

5

- - (ITO) - - (IZO)

11.

5

12.

5

2

가

1

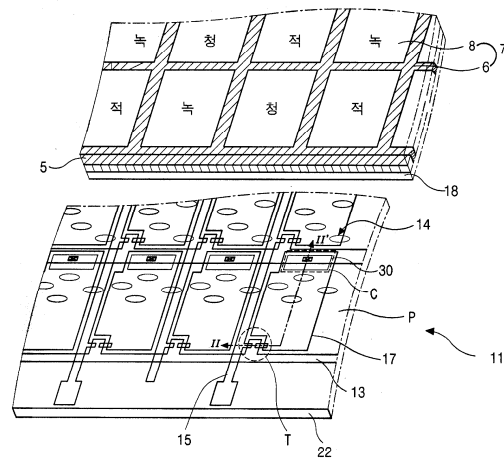
13.

가

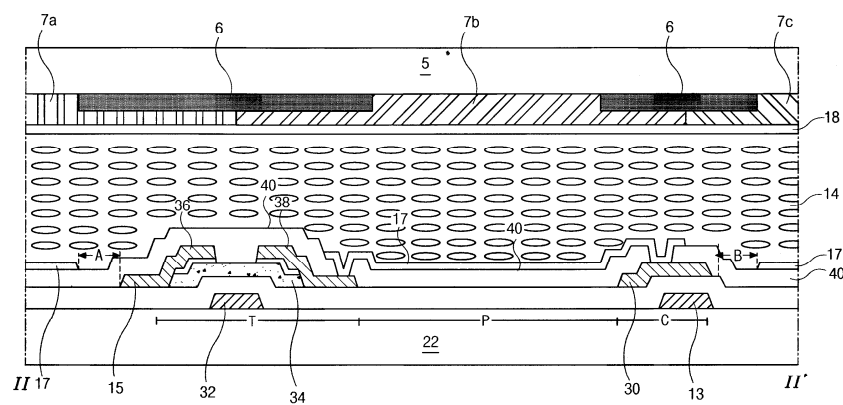
1

2

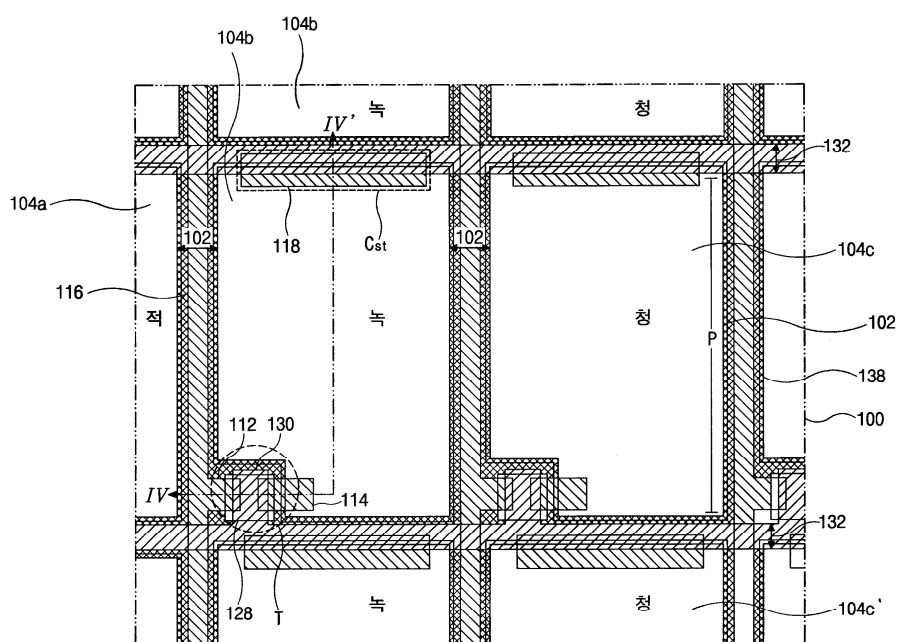
1



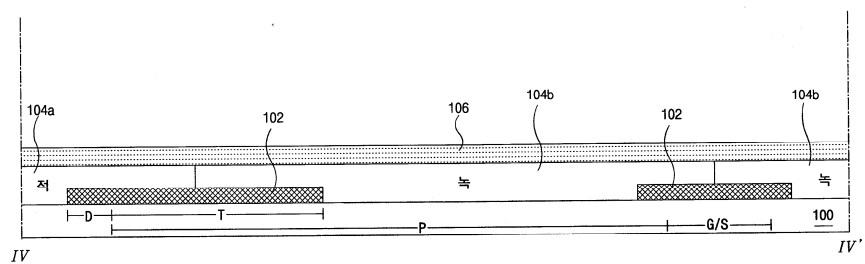
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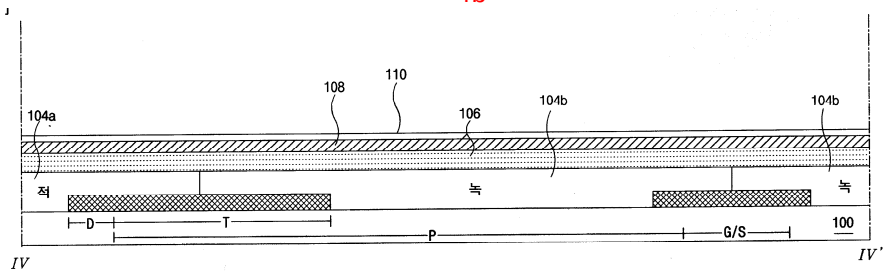
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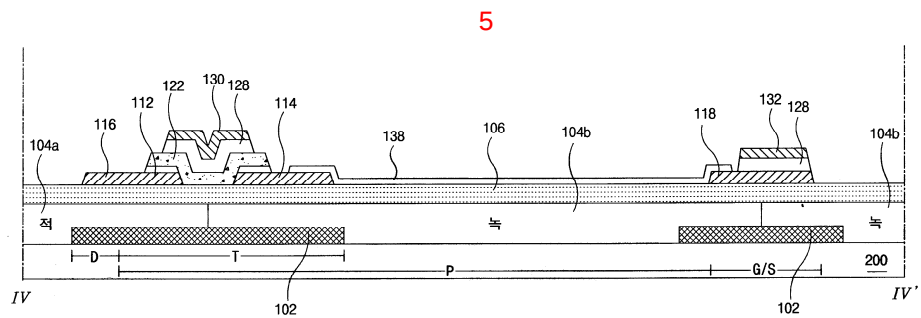
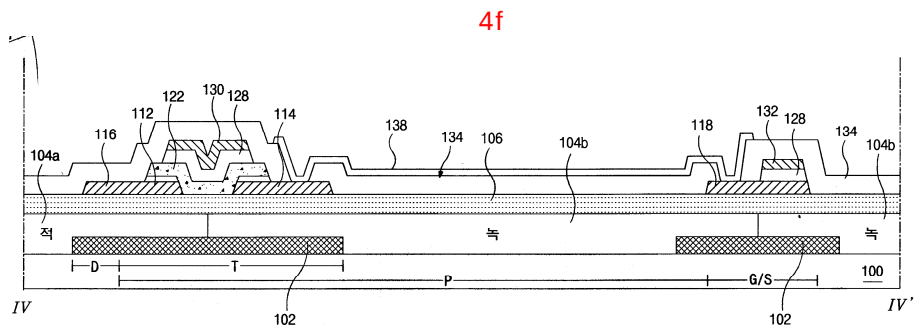
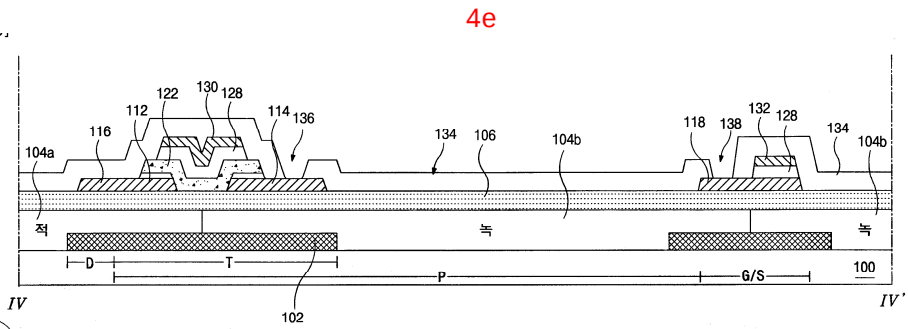
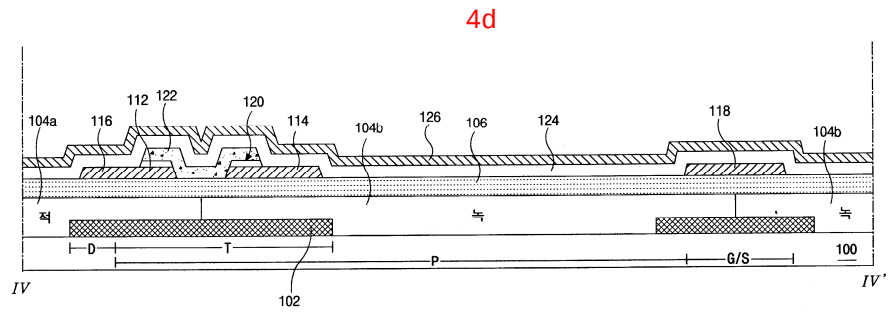
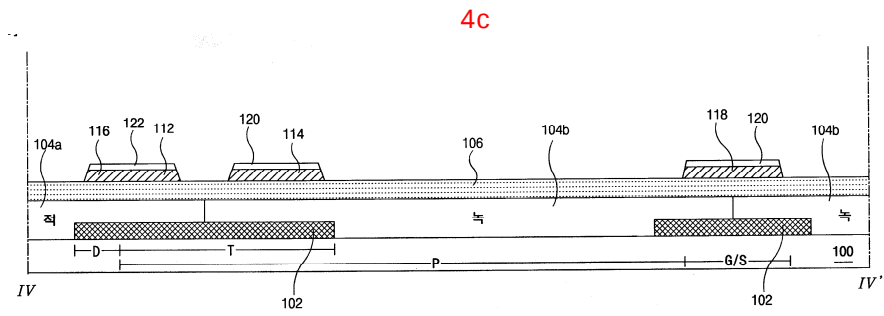


4a

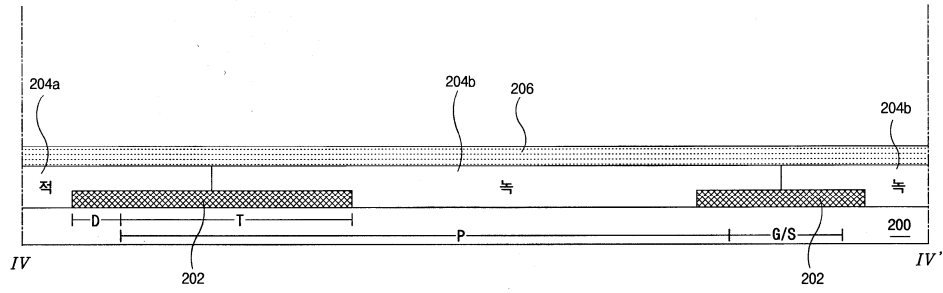


4b

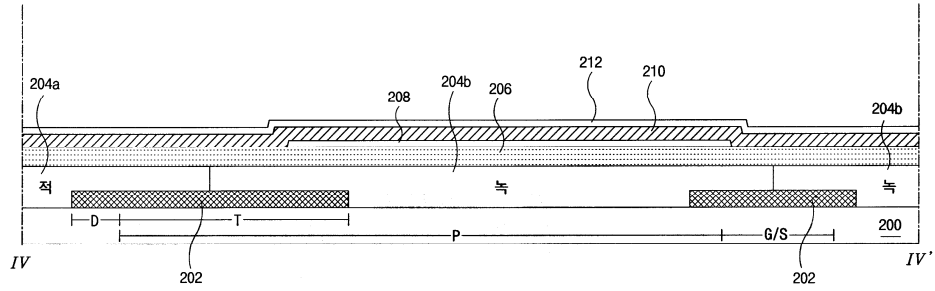




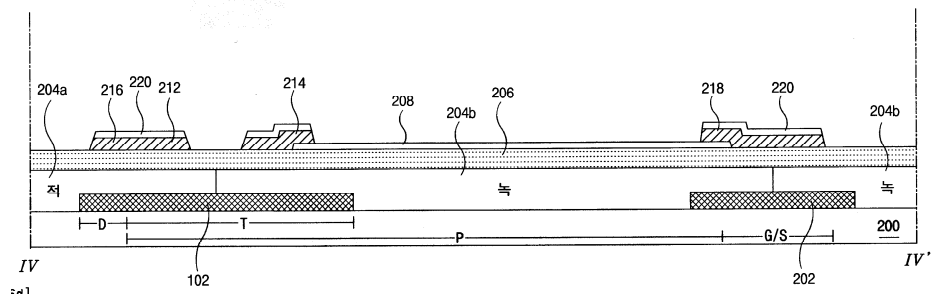
6a



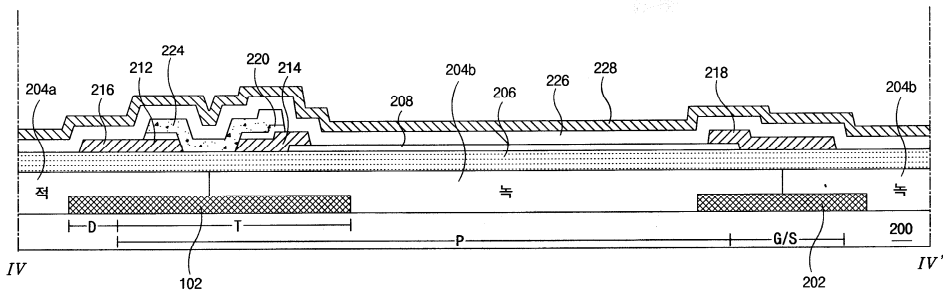
6b



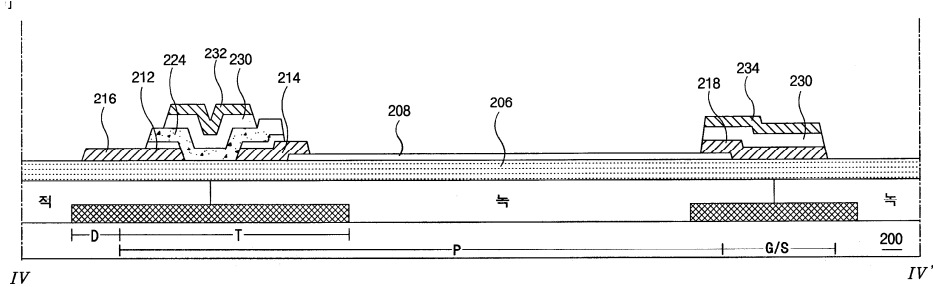
6c



6d



6e



专利名称(译)	用于液晶显示装置的阵列基板及其制造方法		
公开(公告)号	KR1020040050237A	公开(公告)日	2004-06-16
申请号	KR1020020078008	申请日	2002-12-09
[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	KIM WOONGKWON 김웅권 CHANG YOUNGYOUNG 장윤경		
发明人	김웅권 장윤경		
IPC分类号	G02F1/136		
代理人(译)	贞媛KI		
外部链接	Espacenet		

摘要(译)

液晶显示装置技术领域本发明涉及液晶显示装置，更具体地，涉及具有TOC结构的液晶显示装置，其中滤色器形成在阵列基板上。在根据本发明的用于液晶显示器的阵列基板中，首先在基板上形成滤色器，并且在滤色器上形成交错的薄膜晶体管阵列部分。此时，在与所述薄膜晶体管，包括可以被配置成与像素区域接触的透明像素电极可以形成在所述薄膜晶体管阵列部的保护膜的顶部上被配置，而没有与所述薄膜晶体管形成在接触保护膜，可以在形成薄膜晶体管阵列部分之前形成薄膜晶体管阵列部分。对于TOC的阵列基板（上滤色器TFT）结构，一液晶显示上述是，因为它被添加了薄膜晶体管阵列和滤色器和形成在基板上的黑矩阵的结构中，附接至彼此，其必须设计黑色矩阵时，可以考虑到由于不考虑余量，因此具有可以提高开口率的优点。图4f

