

(19)  
(12)

(KR)  
(A)

(51) 。 Int. Cl.7  
G02F 1/136

(11)  
(43)

10-2005-0003281  
2005 01 10

(21) 10-2003-0044000  
(22) 2003 06 30

(71) . 20

(72) 1 111 607

(74)  
:

(54)

(data D-IC)

11

1

2 1

3 4 2 - , - ,  
 5 2 ,  
 6 7 5 - , - ,  
 8 3 ,  
 9 10 8 - , - ,  
 11 1 ,  
 12a 12d 13a 13d 11 A-A,B-B  
 ,  
 14 2 ,  
 15a 15d 16a 16d 14 C-C D-D  
 ,  
 17 3 ,  
 18a 18d 19a 19d 17 E-E F-F  
 .

< >

200 : 202a,202b :

204 : 206 :

210a, 210b : 214a,214b :

216a,216b : 218 :

224 :

, IC , (data or gate sharing line structure) 가

1 .  
 (6) , (7) (11) (8) (8)  
 (P) (22) , (5) (17) (7) (T)가 (18) (P) (5) ,  
 (22) , (5) (22) (14) .



(42b) , (48) (Ts) (42b) , (Tc)  
 , (48) 가  
 , 3 4 ,  
 3 4 2 - , - .( -  
 .)  
 (Ts)가 , (30) (P1,P2) , (P1,P2)  
 (Tc)가 (Ts)  
 (Ts) (Tc) ,  
 b) (30) (Ts) (32a) , (Tc) (32  
 (32a,32b)  
 (38a,38b) (33)  
 (40a,40b)  
 2b) , (40a,40b) (Ts) (44a) (42a,42b) (44a,44b)  
 (48) (Tc) (44a) (Tc) (44a,44b) (4  
 ) (30) (Ts) (SiN<sub>x</sub>) (Tc) (SiO<sub>2</sub>) (24a,42b) (44a,44b)  
 (50)  
 (50) (P1,P2) (52,54)  
 (52,54) (Tc) (44b) (Tc)가 (P1) (52)  
 , (Ts) (Tc) (48)  
 (46)  
 , 2  
 5 2 .( 5 2  
 , 가  
 .)  
 , (60) (61) ,  
 (P) (76)  
 (P) (62a,62b) , (62a,62b) (66a,66b) ,  
 (66a,66b) (Ts) , (70a,70b) (72a,72b)  
 (Tc)가

(P) (80)

74) (Ts) (27a) (Tc) (72b) (80) (72a) (

(61) (P) (61) (P) (Tc)가

(P) (61) (C.L)

(C.L) (Cst)가 (Cst) (Tc) (C.L)

(72b) 1 (75) 2 (C.L) (Ts) (Tc) (74)

6 7 2

6 7 5 - , -

(Tc)가 (60) (P) (Ts)

(60) (Ts) (Tc) (62a,62b)

(62a,62b) (64) (a-Si:H) (66a,66b)

(n+ p+ a-Si:H)

(68a,68b)

(68a,68b) (Ts) (72b) (70a,70b) (72a,72b) (Tc) (70b)

(74)

(Ts) (70a) ((76))

Tc) (70a,70b) (72a,72b) (60) (78)

(72b)

(78) (72b) (80)

(74) (Ts) (Tc)

1 2 8 10

1 2

8  
 1 . , 가 . ) , . ( )  
 , (90) (94) , (P1,P2)  
 (110) .  
 (94) (96) .  
 (P1,P2) (Ts) (Ts)가 , (P1,P2) (Tc)가 .  
 (Ts) (P1,P2) (Tc) (114a) ,  
 (114b)  
 (P1,P2) (Ts) (Tc)  
 (114a,114b) (98) . (114a,114b)  
 (96) (C<sub>ST</sub>)가 , (96) 1  
 (D.L) 2 .  
 (P1,P2)가 (110) 가 , (P1,  
 P2) (110) (Tc) .  
 (Tc) 1 (Tc) (108a)  
 (106b) , (112) (P1)  
 가 .  
 , 9 10 , .  
 9 10 8 - , - .  
 , (90) (P1,P2) , (P1,P2)  
 (Ts) (Tc)가 .  
 , .  
 (90) , (Ts) (92a) (Tc) (92b)  
 ) .  
 , (92a,92b) ( ) , ( )  
 (96) , (96) (98) .  
 (P1,P2) (Ts,Tc) (108a,108b)  
 (P1,P2) (114) , (114)  
 , (96) (98) .  
 (92a,92b) (100) (102a,102b) ( )  
 104a,104b) (104a,104b) (106a,106b)  
 (108a,108b) , (110) , ( )  
 (Ts) (108a) (Tc) (106b) ( )  
 110) .  
 가 .

3

1

1

2

2

3

3

-- 1 --

1

3

11

1

(P1,P2) (200) (218) (204) (P1,P2) (222a,222b) (P1,P2) (Ts)가 (Ts) (P1, (222a) (Tc) (Ts) (218) (P1,P2) (218) (Tc) (218) (Ts) (210a,210b) (214a,214b) (216a,216b) (202a,202b) 가 (P1,P2) (206) (204) (P1,P2)

) 2 (206) (P1,P2) (P1,P2) (Cst)가 (206) 1 (222a,222b) (219) (219)

(Ts) (Ts) (Tc)가 (Tc)가 (P1),

224) (218) (224) (222a,222b) (Ts) (Tc) (218) (

(224) (218)

가

12a 12d 13a 13d 1

12a 12d 13a 13d 11 A-A, B-B

12a 13a (200) (P1,P2) (P1)

(Ts)

(Tc)

(P1,P2,Ts,Tc) (200) (Al) (202a,202b)

(Ts) (Tc)

(202a,202b) (204) (204)

(206)

c) (202b) (Ts) (202a) (T

x) (202a,202b) (204) (206) (200) (SiN)

(SiO<sub>2</sub>) (208)

(n+ p+a-Si:H) (208) (200) (a-Si:H) (210a,210b)

(212a,212b)

12b 13b (212a,212b) (200) (Cr),

(Mo), (W), (Ta), (Cu), (Mo)

(202a,202b) (212a,212b)

(214a,214b) (216a,216b)

12c 13c (214a,214b) (216a,216b) (200)

(BCB) (acryl) (resin) 3

(220)

(220) (Ts) (216a)

(H1,H2,H3)

12d 13d , (220) (200) - - (ITO)  
 - - (IZO) (216a) , (Tc) , (216b)  
 (Ts) (222a,222b)  
 ) , (216b) (Tc) (222a) (P1) (Tc)  
 (222a, 222b) , (P1) (Ts)  
 (216a) , (Tc) (214b)  
 (216) (224)  
 1 , 가  
 , 2 , 가  
 -- 2 --  
 2 , 3  
 14 2 가  
 , (300) (304) ,  
 (P) (318)  
 b) , (P) (302a,302b) , (302a,302b) (310,310)  
 (310a,310b) (314a,314b) (316a,316b)  
 (Ts) , (Tc)가  
 , (P) (322)  
 (324) (Ts) (316a) (Tc) (314a)  
 (Tc) (316b) (322)  
 , (P) (304)  
 (Ts) (P) (Tc)가 (302)  
 , (P) (302) (306)  
 (306) (Cst)가 , (Cst) (306)  
 1 (316b) (D.L) 2 (306) (Tc)  
 (Tc) , (314b) (Ts) (316a)  
 ) (324) , (322) (  
 (324) (318)  
 , (318) (324) (BCB) (acryl) (resin)  
 3 ( ) ( )

(318) (324)

(324) (C ST)

15a 15d 16a 16d 2

가

15a 15d 16a 16d 14 C-C D-D 2

15a 16a (300) (P) (P)

(Ts) (Tc)

(P1,P2,Ts,Tc) (300) (Al)

(Ts) (Tc)

(302a,302b) (302a,302b)

(306) (15 304)

c) (302b) (Ts) (302a) (T

x) (302a,302b) (304) (306) (300) (SiN

(SiO<sub>2</sub>) (308)

(n+ p+a-Si:H) (308) (300) (a-Si:H)

(312a,312b) (302a,302b) (310a,310b)

15b 16b (312a,312b) (200) (Cr),

(Mo), (W), (Ta), (Cu), (Mo)

(314a,314b) (302a,302b) (312a,312b)

(316a,316b)

(Ts) (314a) (318)

(Tc) (316b) (P) (306) (

D.L)

15c 16c (314a,314b) (316a,316b) (300)

(BCB) (acryl) (resin) 3

(320)

(320) (Ts) (316a)

(314a,314b) (H1,H2,H3)

15d 16d (320) (300) (ITO)

(IZO) (322)

(Tc) (316b) (322)

(322) (Ts) (316b)

(316b) (D.L) 1 (306) 2

(Cst)가

(Ts) (316a) (Tc)

(314b) (324)

(324) (318) (324)

2

3 가

-- 3 --

2

3

17 3

( , 가 .)

P2) (400) (420) (404) (P1, P2)

(404) (406) (P1,P2)

(P1,P2) (Ts) (Ts)가 (P1,P2) (Tc)가

(Ts) (P1,P2) (422b) (Tc) (422a) ,

(422a,422b) (P1,P2) (Ts) (Tc) (422a,422b)

(408)

(406) (408) (C<sub>ST</sub>)가 (D.L) 2 (406) 1

(420) (P1,P2)가 (420) 가 ,

(Tc)

(418a) (408) (426) (Tc) (416b) (426) (420) (Ts)

18a 18d 19a 19d 3

18a 18d 19a 19d 17 E-E, F-F

18a 19a (Ts) (400) (P1,P2) (P1)

(Tc)

(P1,P2,Ts,Tc) (400) (Al) (402a,402b)

(Ts) (Tc)

(402a,402b) (17 404) (408)

(406) (406)

(Ts) (402a) (T

c) (402b)

(402a,402b) (406) (408) (400)

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

410)

(410) (400) (a-Si:H)

(n+ p+a-Si:H) (402a,402b) (412a,412b)

(414a,414b)

18b 19b (414a,414b) (400) (Cr),

(Mo), (W), (Ta), (Cu), (Mo)

(402a,402b) (414a,414b)

(416a,416b) (418a,418b)

(Ts) (418a) (Tc) (418b)

(408) (422a,422b) (P1,P2)

18c 19c (416a,416b) (418a,418b) (400)

(BCB) (acryl) (resin) 3

(424)

(422) (Ts) (416a)

(Tc) (416b) (H1,H2)

18d 19d (422) (400) (ITO)

(IZO) (418a) (Tc) (416b)

(Ts) (426)

(426) (420) (408)

가

가

가

(57)

1.

;

;

,

,

,

;

,

,

,

;

;

,

,

2.

1

,

3.

1

,

4.

1

,

3

5.

1

,

6.

5

,

7.

6

,

1

2

가

8.

;

9.

8

10.

8

11.

10

- - (ITO) - - (IZO)

12.

8

(BCB) (acryl) (resin) 3

13.

;

;

;

;

14.

13 ,

15.

13 ,

16.

13 ,

3

17.

13 ,

18.

17 ,

가

19.

18 ,

1

2

가

20.

;

;

21.

20

**22.**

20

**23.**

20

(BCB)

(acryl)

(resin)

3

**24.**

20

23

**25.**

**26.**

25

**27.**

25

,

3

28.

25

,

1

2

가

29.

;

;

,

,

,

;

,

,

,

;

,

,

;

;

30.

29

,

31.

29

,

(BCB)

(acryl)

(resin)

3

32.

29

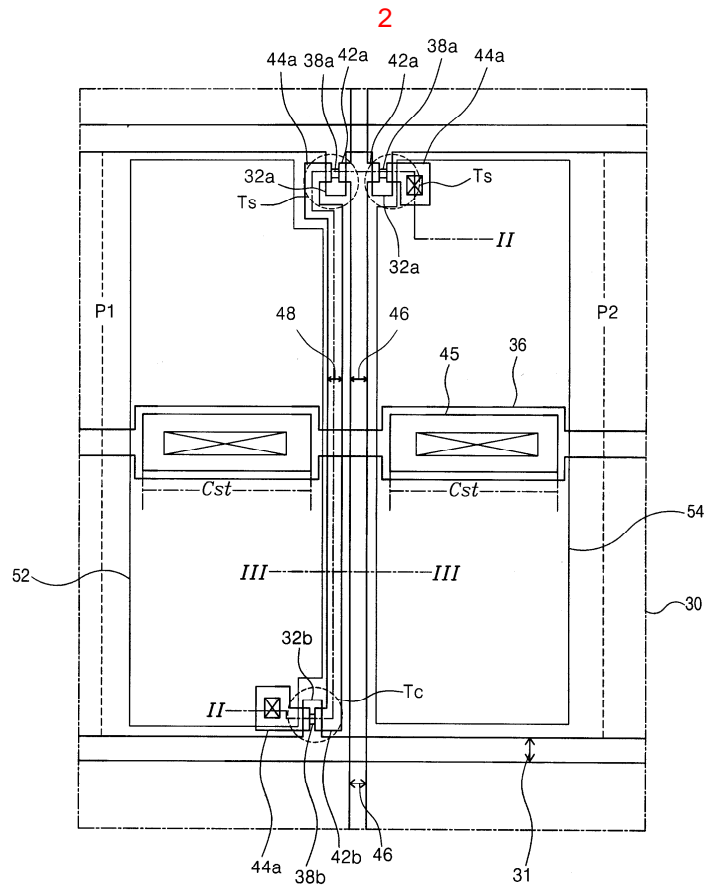
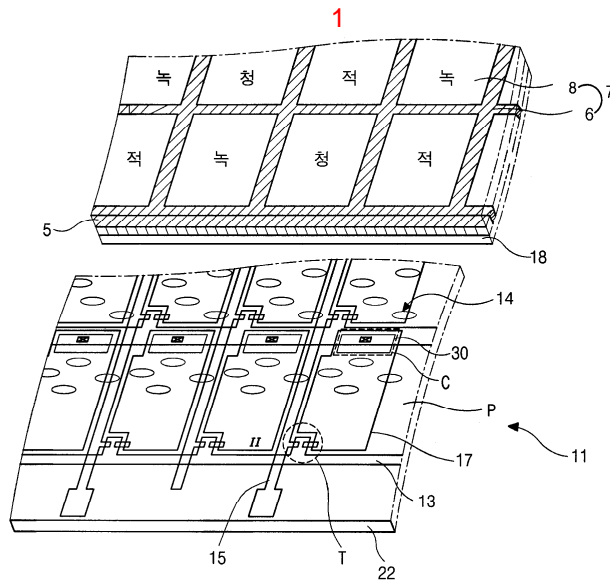
,

- -

(ITO)

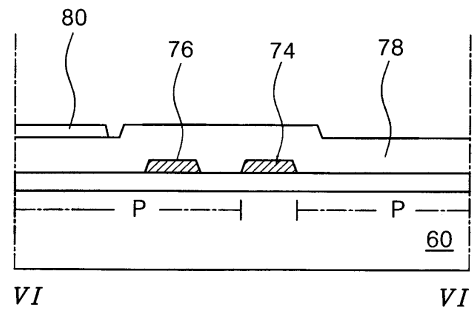
- -

(IZO)

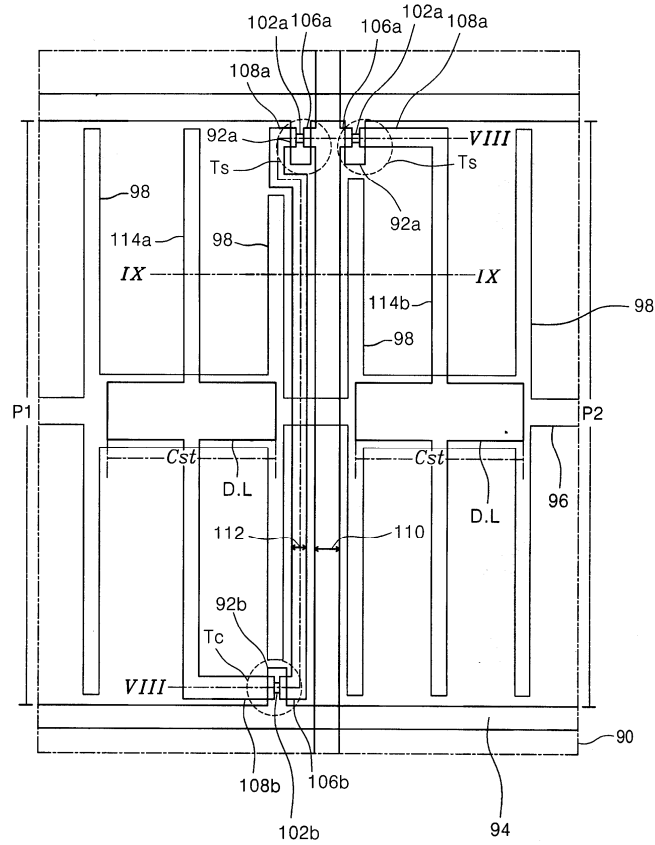




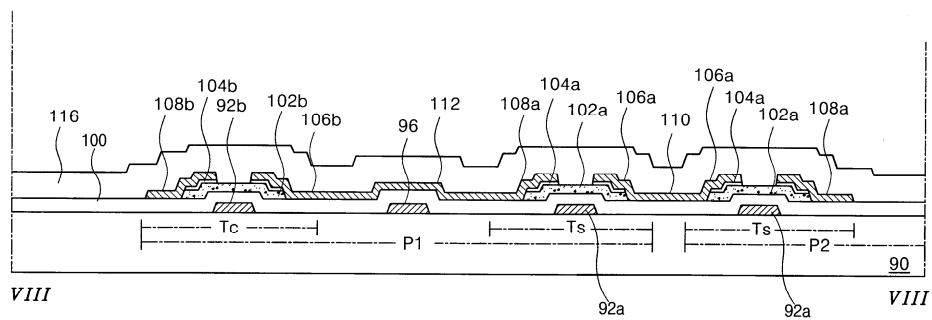
7

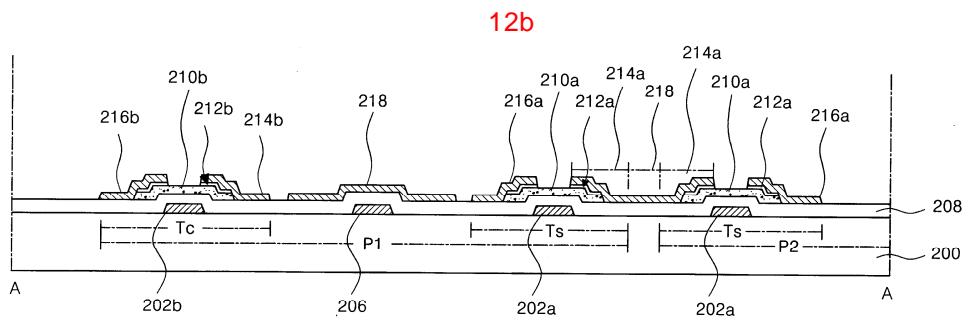
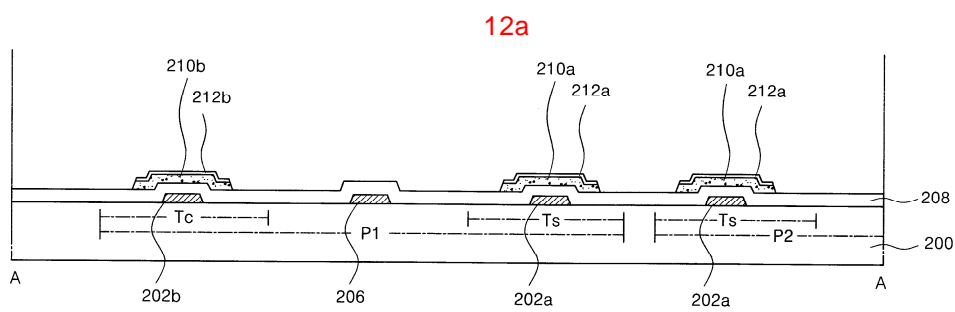
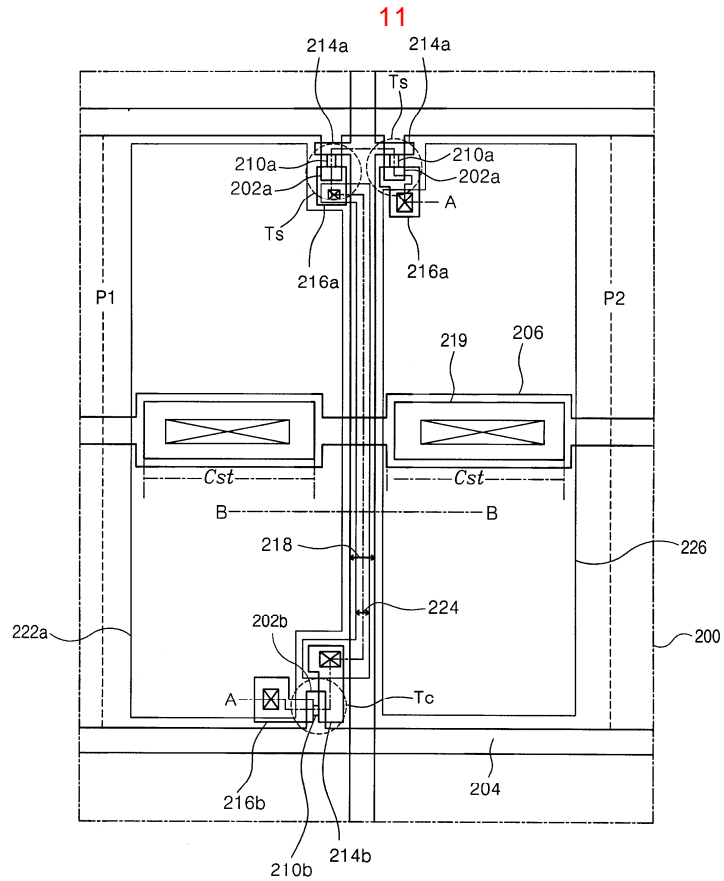
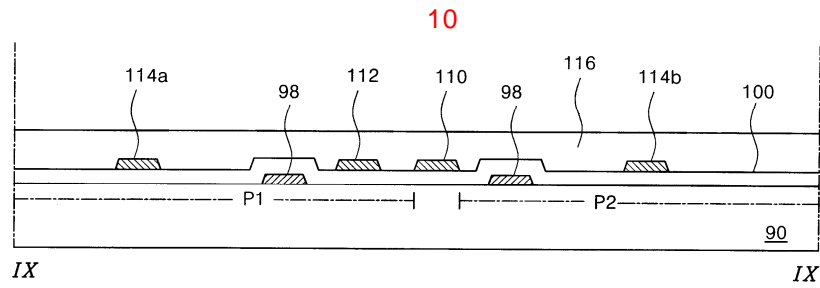


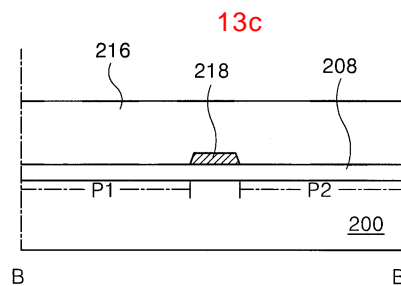
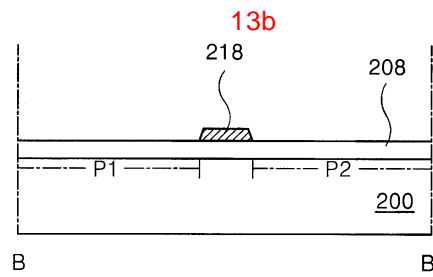
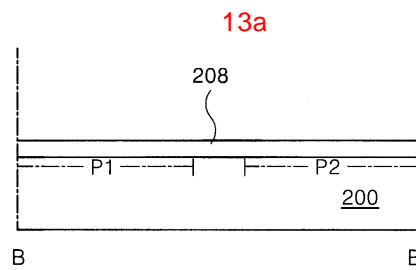
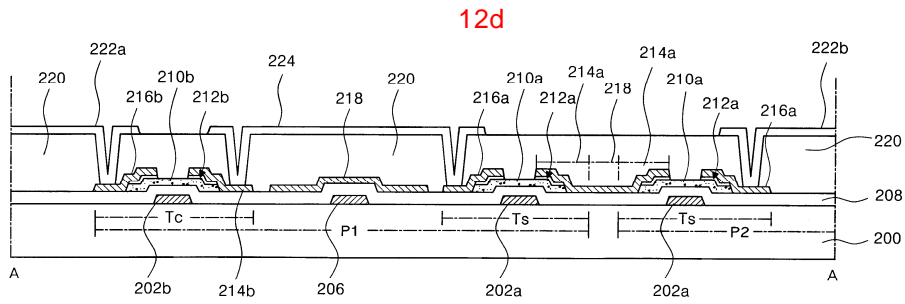
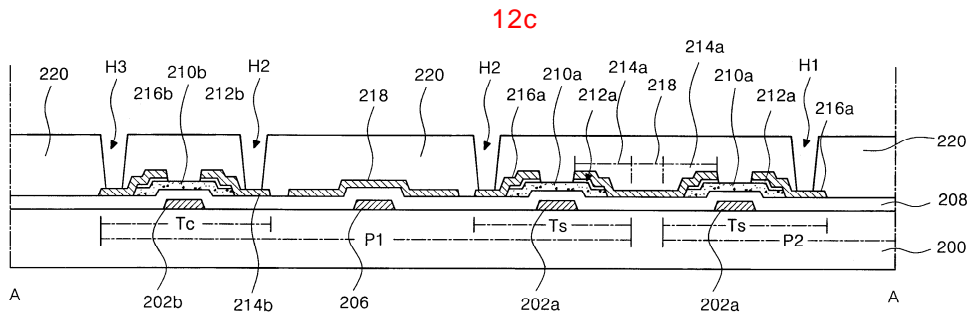
8

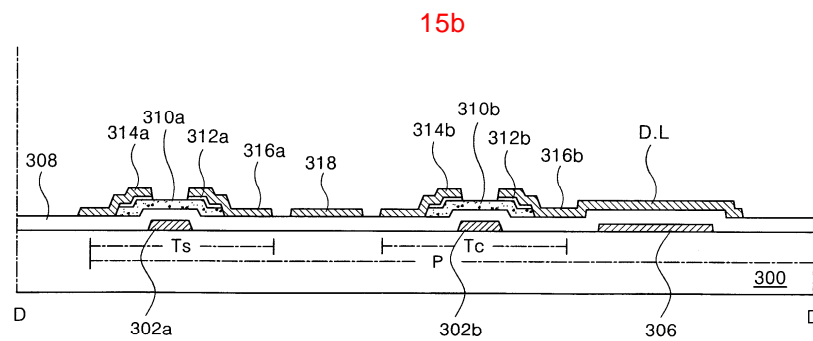
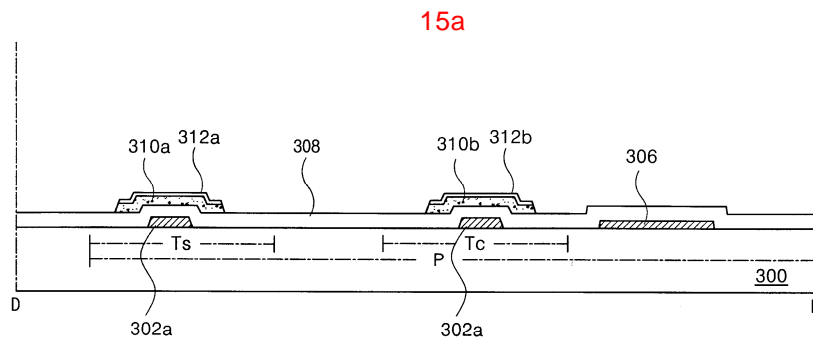
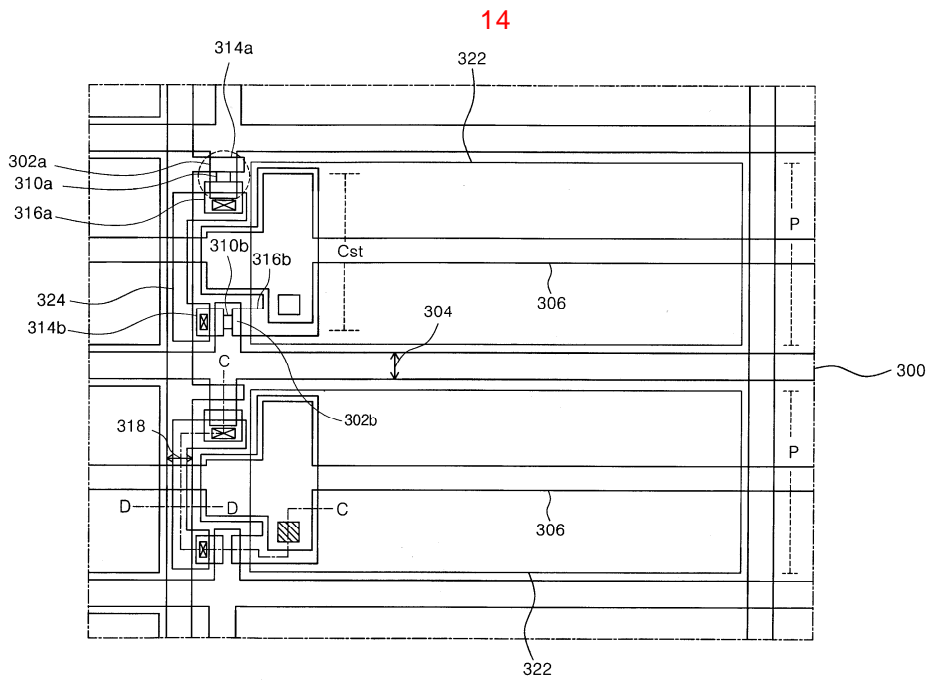
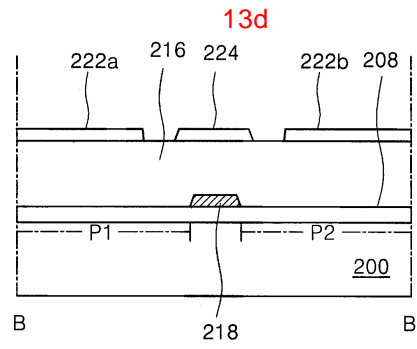


9

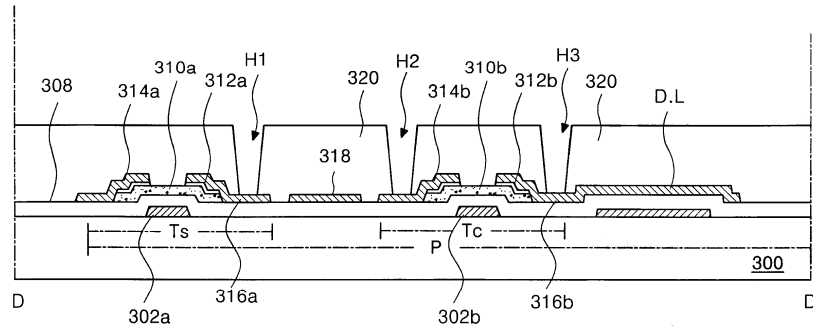




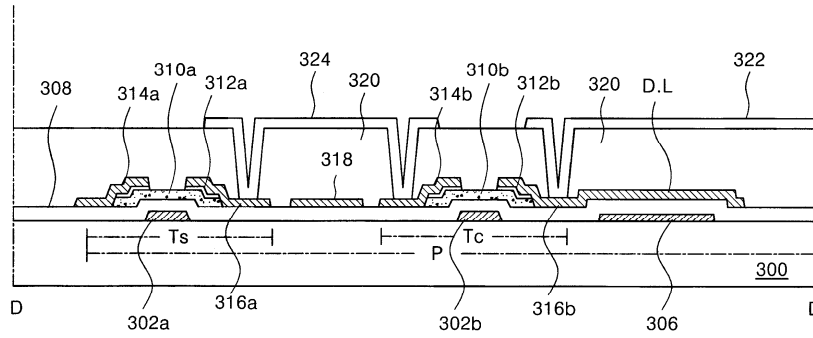




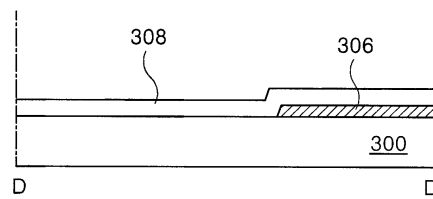
15c



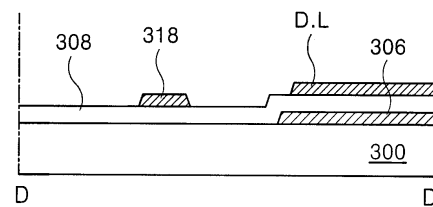
15d



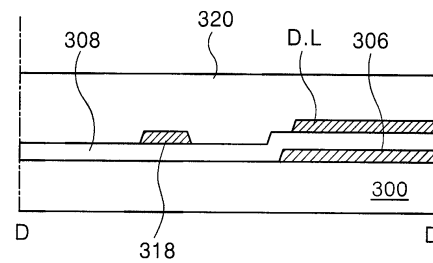
16a

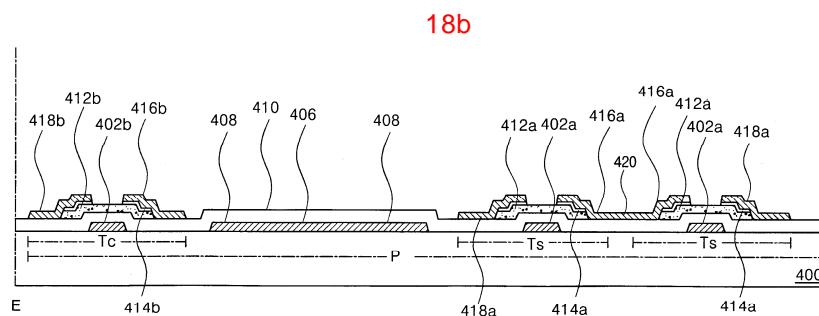
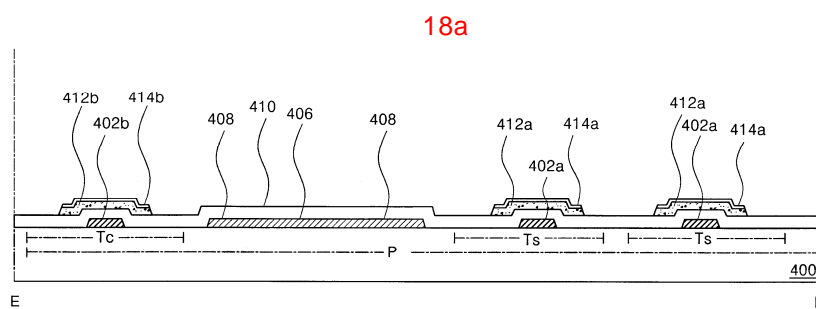
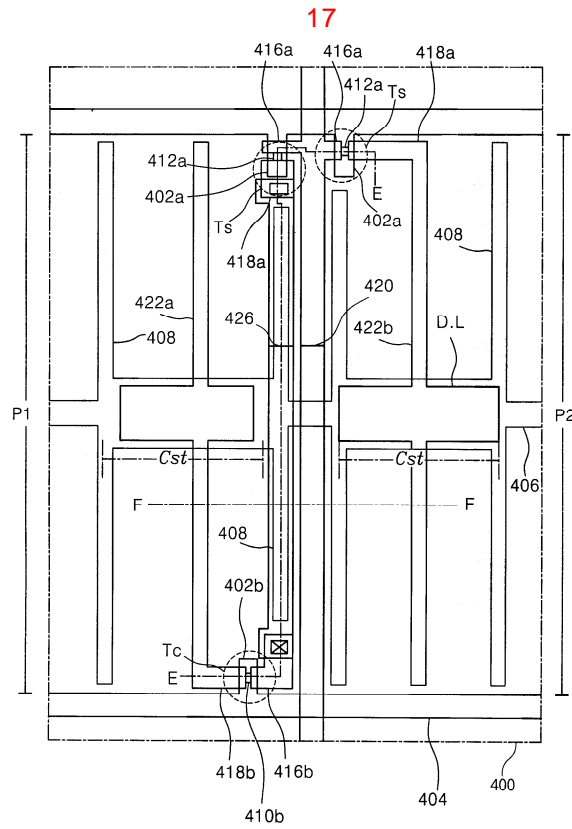
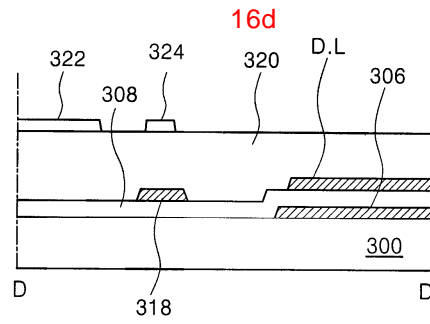


16b

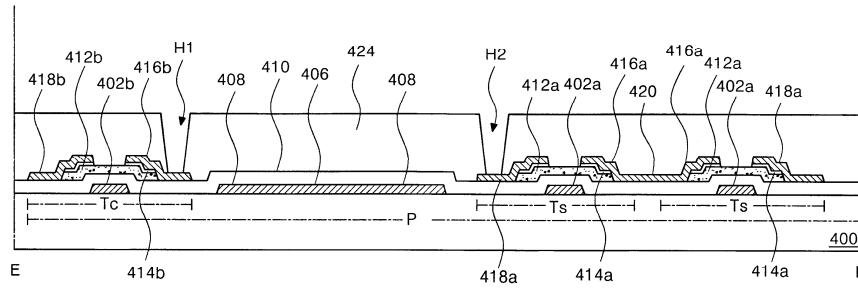


16c

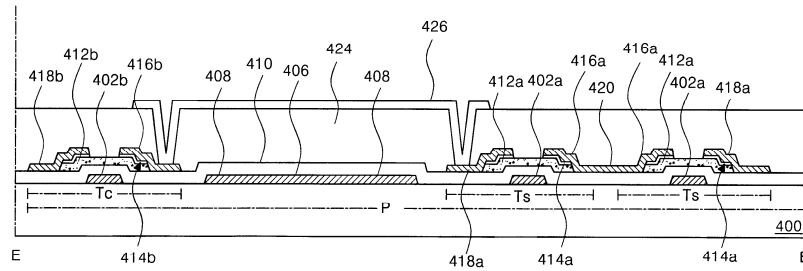




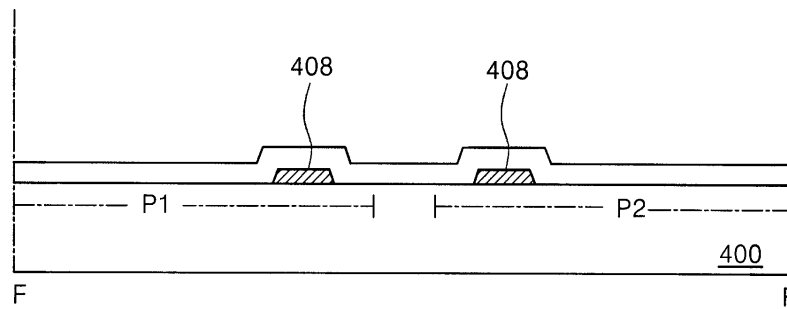
18c



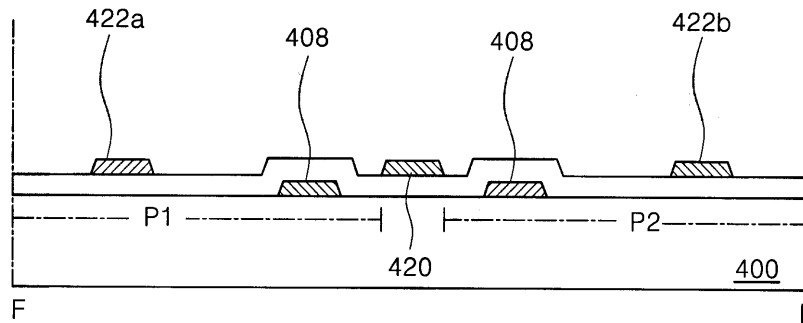
18d



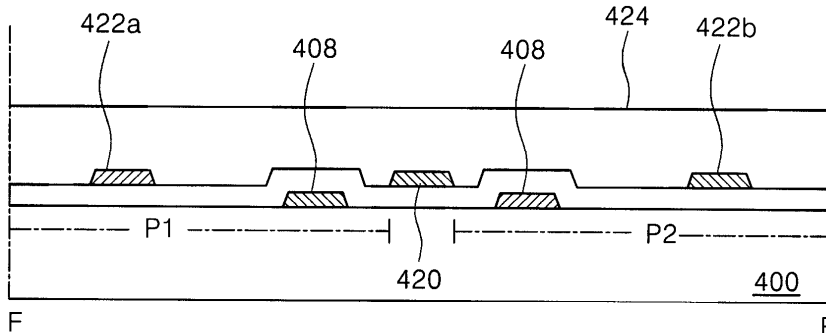
19a

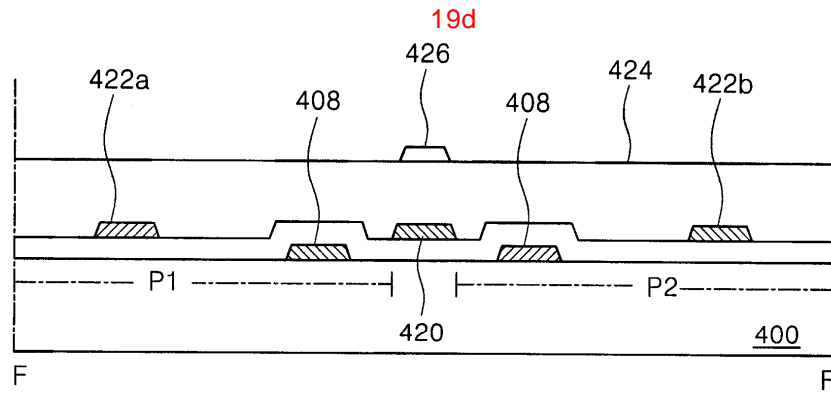


19b



19c





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	<a href="#">KR1020050003281A</a>	公开(公告)日	2005-01-10
申请号	KR1020030044000	申请日	2003-06-30
[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	CHAE GEESUNG		
发明人	CHAE, GEESUNG		
IPC分类号	G02F1/1343 G02F1/1362 G02F1/136		
CPC分类号	G02F1/13624 G02F2201/40 G02F1/134363		
其他公开文献	KR100541534B1		
外部链接	<a href="#">Espacenet</a>		

摘要(译)

本发明涉及当前驱动阵列面板的结构及其制造方法，一个数据线或栅极布线两个像素，驱动电路（数据D-IC）作为用于液晶显示器和制造的阵列基板的配置而减少其方法。除了驱动薄膜晶体管之外，阵列面板的结构更多地布置用于动力调制的薄膜晶体管。此时，用于数据线和连续球形铜薄膜晶体管的薄膜晶体管和动力调制是不对称的。因此像素确实如此。它必须组织用于连接像素中的两个设备的连接线。该配置侵占像素的区域，并且孔径比降低。本发明涉及解决该问题。并且连接布线形成成为透明金属或者有机绝缘膜被放置在该间隔中并且它重叠并且间隔形成在现有布线的上部。此时，在重叠的双折线之间的有机绝缘膜不会发生信号干扰。因此，根据本发明的配置具有减少位于驱动器中的驱动电路的结构优点。同时提高了孔径比。

