

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl.7
G02F 1/1345

(11)
(43)

10-2004-0080189
2004 09 18

(21) 10-2003-0015079
(22) 2003 03 11

(71) . 20

(72) 1369-7202

6가86 5 105

(74)
:

(54)

가 COG , 가
; ;
ACF ; ACF ;

4

1

2 1 II-II

3

4 3 IV-IV

5a 5f 1

6a 6c
 7a 7e 2
 8 2
 < >
 150 : 152 :
 170 : 180 :
 190 : ACF

(Liquid Crystal Display : LCD) , COG(Chip On Glass)
 (backlight) , 가
 가 (display)
 play : LCD)가 , (Liquid Crystal Dis
 (Cathode-Ray Tube : CRT)
 (display) .
 , 가 가 , 가
 가 (liquid crystal display panel)
 1 가
 (Active Matrix LCD : AM-LCD) .
 (10) 1 2 (1, 2) , (P) (T) .
 (12, 14) , (12) (14)
 (P) (T) , (st
 orange capacitor : Cst)가 (Clc) , (Clc)
 (10) 가 가 (12) (50a)가
)가 , 가 (14) (50b)

(12) 가 (50a) (T) / (50b)
(14) 가 .
Clc) (T) / ()
, 가 (10) 가 가
(10)
(50a, 50b : (bonding))
(Chip On Glass : COG .) 1 (1)
2 1 II-II , 1
가 ,
50 (bump : 52)
가 (50) FCB(Flexible Circuit Board)
(50) 1 (1) , 1 (1)
(Anisotropic Conduction Film : ACF
. : 60)
가
(50)
(50) ACF(60) 가
(50)가 1 (1) , 1 (1)
(70)
(70) (50) 가 (50) (6
0)
COG (70) 가 (backlight)
(50)
(70)
가 ACF(60) 가
7-225391
가
(70) 가
(70) (50) 가
(align)

가 , 가 COG , 가 .

가 , COG , 가 ;

ACF ; ACF ;

Cr CrOx ACF ;

가 ; ACF ; ACF ;

가 ; ACF ; ACF ;

가 ;

Cr CrOx , ACF ; ACF ;

가 가 ,

3 (P) (100) , 1 2 (101, 102) , (112) , (114) (T) (112, 114) , (P) (T) (Clc) ,

(Clc) (Cst)

가 1 (1) 가 (112) 가 (150a)

(150b)가 , COG (114)

(P)가 L1 , 가 L2

(150a, 150b :

(100) ()가 (100)

4 3 , 150 IV-IV

(150) , FCB (152) 가

1 (101) (150) , 1 (101) (170)

) ACF(190) , (180) ACF(190)가

(150)가

(170) 1 (101) (2 70) ,

(170)

(180) (180)

(170) (150) (172)

가 ,

1

1 , (4 170) ,

(4 180)

3 (P) 5a 5f ,

6a 6c

5a 6a 1 (101) 1 (202),

(170)

1 (Al), 가 , (Mo), (W), (Cr) 가

5b 6b (202) (204) ,

(204) (170) (180)

(204) (180) (SiNx) (SiO₂)

가 5c (A) (204) (202) (206) (208, 210)

5d (208, 210) 2 (Cr), (Mo),
(W), (Ta) (212, 214) , 2

5e (214) 1 (218) (216)
(216) (BCB) , (acryl) (resin)
(SiNX) , (SiO2)

5f 1 (101) - - (ITO) - - (IZO)
(220) 1 (218) (214)

2 (102) 가 (250) , (220)
, , (254) (252) , (240)

6b 1 (1) (202) (180)
(170) , (170) (204)

6c (180) ACF(190)
(150)

04) (170) (202) (2) (216)
(180) (180) , (216) (170) 5e 2 (216)
(180)

(204) (170) (180) (180) ,
(216) (170) (180)

(204) / (170) (202) , (180)
(216)

가 , 5d (212, 214)
(170) , 5e (216) 6b
가

2

(inverted staggered)
(coplanar)

가

(262) , (262) 7e , 1 (101) ,
(206a) (206a)

(206a) (212, 214)
(208, 210) , (A)

(A) (202) (202) ,
(208, 210) 2 3 (272, 274) (264)

(264) 2 3 (272, 274) (208, 210)
 (212, 214) , (214) 4
 (276) (216) .
 (216) 4 (276) (214) (220)
 7a 7e , 6a 6c
 7a 1 (101) (262) 1 (101)
 (262) (island) (206)
 (208, 210) (A) .
 (A) (204) 가 (202) 7b (206)
 6b 1 (101) (202)
 (170)
 7c 1 (101) (208) (210) 2 3
 (272, 274) 가 (264) , (264)
 6b (170) (180)
 (170) (180) .
 4 2 (272) (208)
 (212), 3 (274) (210) (214)
 6) (212, 214) (214) 4 (276) (21)
 7d 3 (220)
 1 (101) , 7e 2 (102) ,
 (240) 2 (102) (250) ,
 (252) , (254) .
 6c (180) ACF(190) (150)
 (212, 214) , 1 가 (170) 7c
 (180) (216)

3

1 2 (170) (180) , 3
 , 8 3 , 1 (101) , 1 (1
 01) (250) , (250) (202) , (206)
) , (204), (204) (202) (208, 210) (206)
 , (206) (A) (212) (210) (214)

0) (216) , (212, 214) 5 (287) (214) (214) 5 (278) 가 (22)

(240) 1 (101) 2 (102) , 2
 (252) (254) .

1 (250)가 1 (101) ,

BOA(Blackmatrix On Array) ,
 .(6c)

(204) (250)가 (170) (180) ,
 (216) .

(170) ACF(180) (250)가 (180) ,

가 .

가 , 가

(57)

1. COG ,

가 ; 가 ,

; ;

ACF ;

ACF ,

2. 1 ,

3. 2 ,

4.

1

5.

4

Cr CrOx

6.

4

7.

2

5

ACF

8.

2

5

9.

8

10.

가

11.

10

ACF ;

ACF

12.
10 ,

13.
12 ,

14. , 가 ;

15.
14 ,

ACF ;

ACF

16.
14 ,

17.
16 ,

18.

가

;

,

19.

18

,

Cr

CrOx

,

,

20.

18

19

,

ACF

;

ACF

21.

18

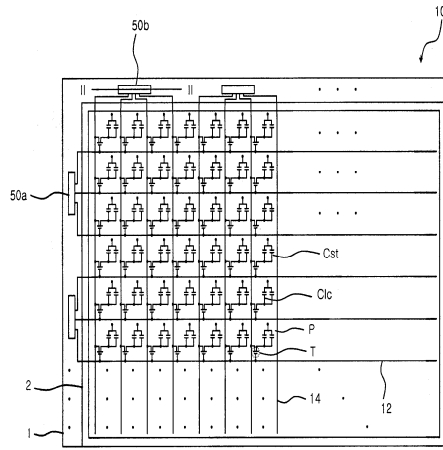
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22.

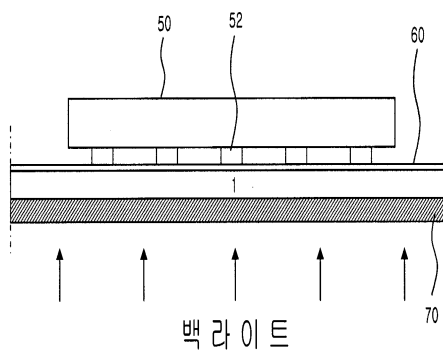
21

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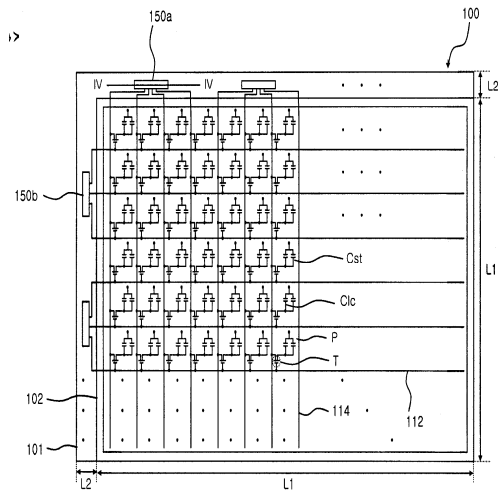
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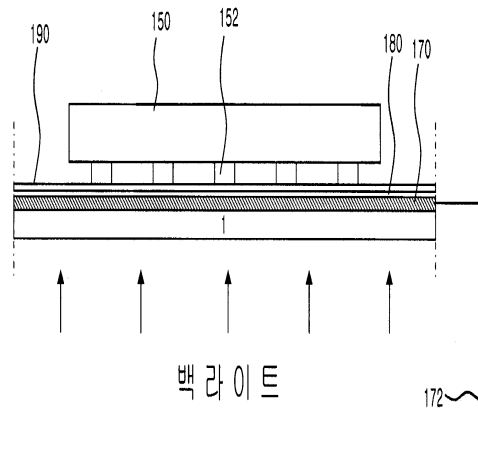
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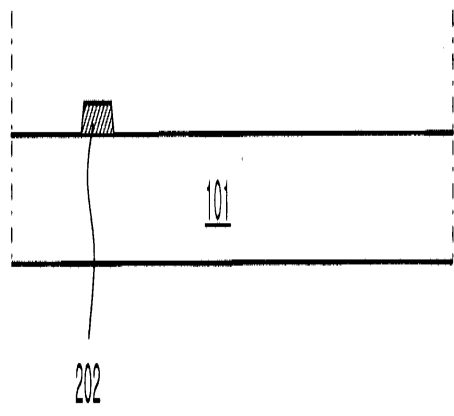
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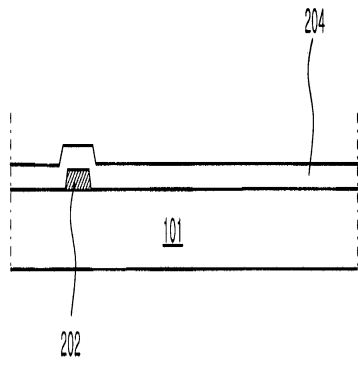
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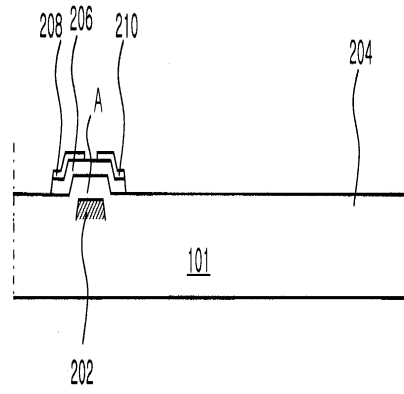
5a



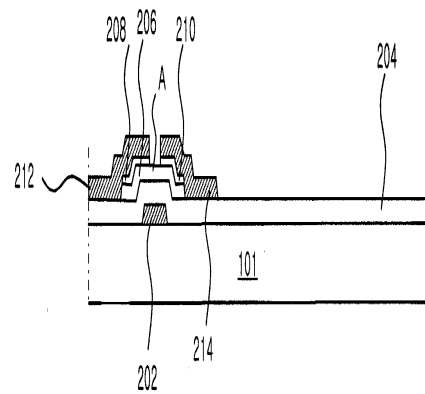
5b



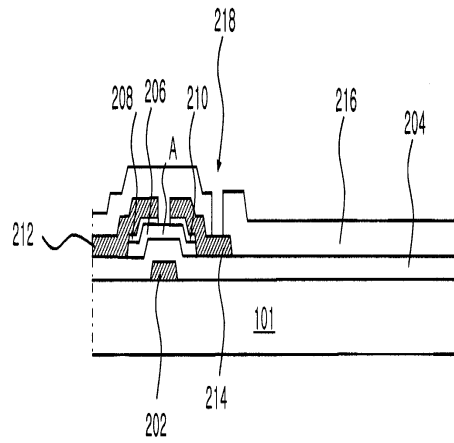
5c



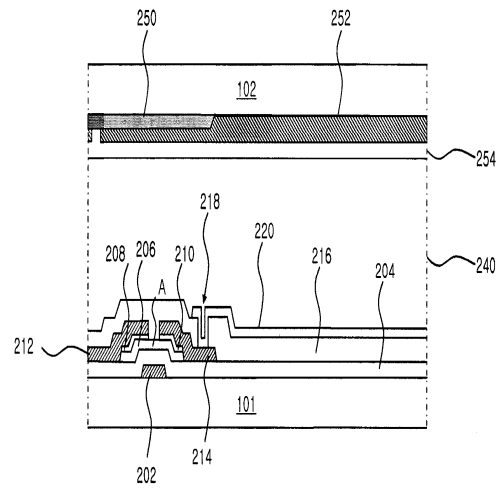
5d



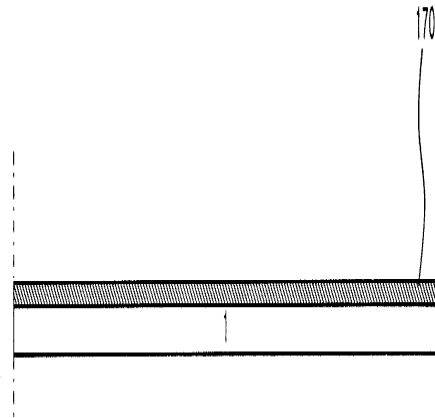
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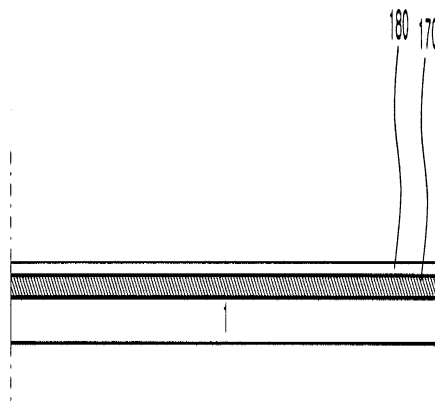
5f



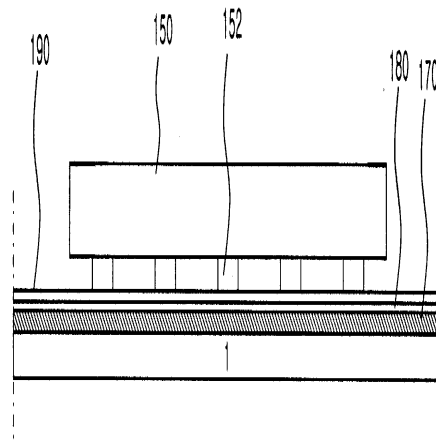
6a



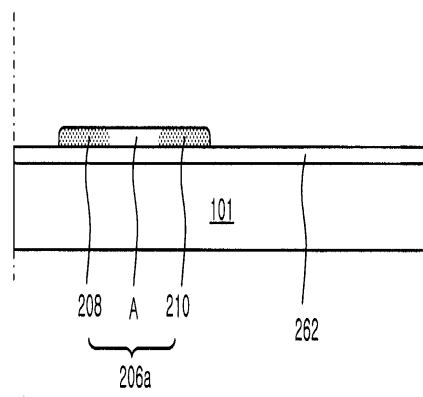
6b



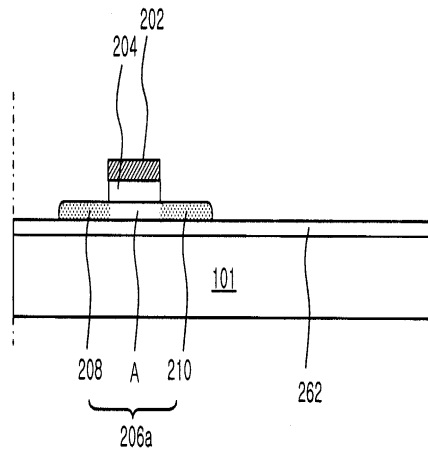
6c

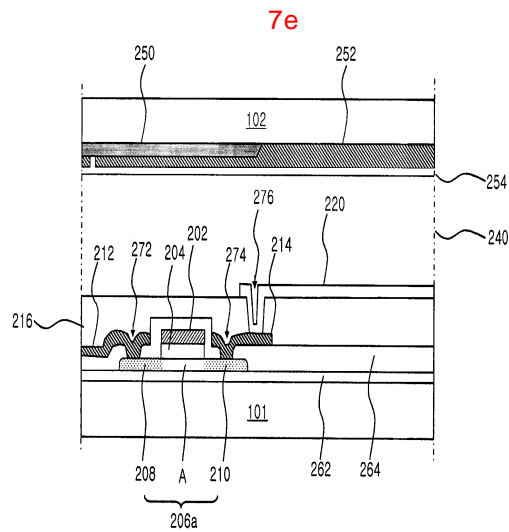
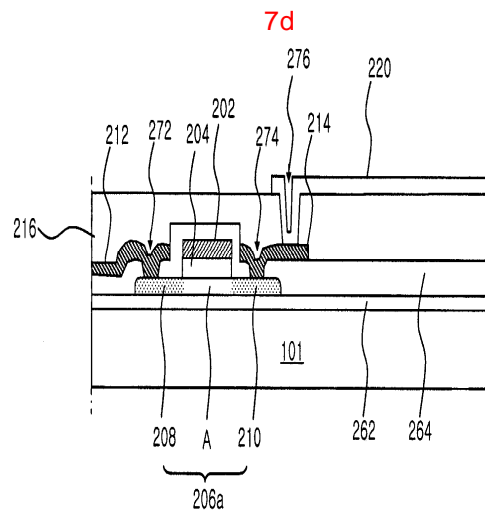
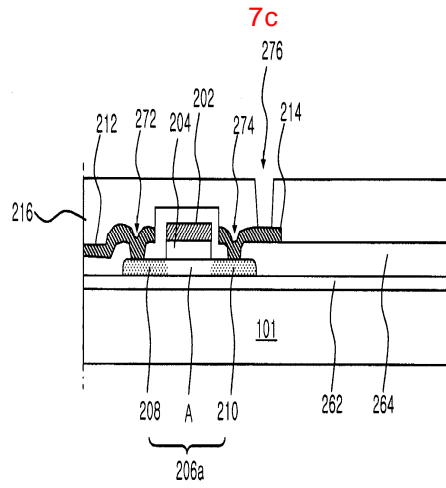


7a

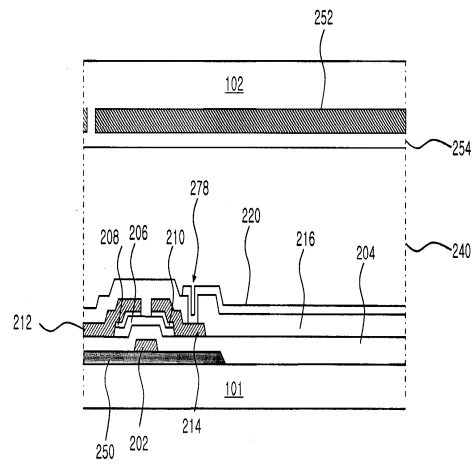


7b





8



专利名称(译)	液晶显示装置及其制造方法		
公开(公告)号	KR1020040080189A	公开(公告)日	2004-09-18
申请号	KR1020030015079	申请日	2003-03-11
[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	HONG SOONKWANG 홍순광 HWANG HANWOOK 황한옥		
发明人	홍순광 황한옥		
IPC分类号	G02F1/1345		
其他公开文献	KR100943066B1		
外部链接	Espacenet		

摘要(译)

COG结构的有源矩阵液晶显示装置包括显示区域，其中通过在一个表面上垂直布置栅极线和数据线来限定多个像素，以及沿着显示区域的至少一个边缘限定的芯片键合区域。基板与栅极连接到栅极线，漏极连接到数据线；光掩模图案沉积在基板的一个表面上以对应于芯片键合区域；ACF粘到光屏蔽图案上；并且，多个驱动器芯片接合到ACF的上部并分别连接栅极线或数据线的端部，以及制造液晶显示装置的方法。 4

