

(19) (KR)
(12) (B1)

(51) 。 Int. Cl. ⁷ (45) 2002 06 22
G02F 1/133 (11) 10 - 0341552
(24) 2002 06 10

(21) 10 - 2000 - 0031572 (65) 2001 - 0007308
(22) 2000 06 09 (43) 2001 01 26

(30) 1999 - 163263 1999 06 10 (JP)
2000 - 064746 2000 03 09 (JP)

(73) 가 가
가 가
가 22 22

(72) 가 가
가 가 244 - 2 205
1023 - 7
가
2 - 546 - 95

(74)

:

(54)

(11) IC(15) (11) IC(15) TCP(14) .
(11) IC(15) , TCP(15) IC(15) (18),
C(15) 가 1 (19a), TCP I
1), (11) 가 (20a), IC(15) (2
(22a, 22a') (16) . TCP(14) (23)
(11) .

1a

, , , ,

1a CP	1b	1	LCD	,	1	LCD	T
		.					
2a	2b	1	TCP	,	2a	TCP가	
		.					
3a	3b	1	TCP		3a	TCP가	
		.					
4a CP	4b	2	LCD	,	2	LCD	T
		.					
5a	5b	2	TCP		5a	TCP가	
		.					
6a TCP	6b	3	LCD	,	3	LCD	
		.					
7a	7b		LCD				
8a	8b		LCD				

<

1, 100, 200, 500 : LCD

10, 506 :

11, 111, 211, 501 :

12, 112, 212, 502 : TCP

13, 113, 213 : FPC

14, 114, 214, 503 : TCP

15, 35, 115, 215, 505 : IC

16 :

17 :

18a, 38a, 118a, 507 :

18b, 38b, 118b : 1

19a, 39a, 119a : 1

19b, 39b, 119b : 1

20a, 40a, 120a : 2

20b, 40b, 120b : 2

21, 21a, 21a', 41, 41a, 41a', 121, 121a, 121a' :

22a, 22a', 122a :

22b, 22b', 122b, 122b' :

23, 43, 123 :

24, 44, 124 :

25, 45, 125 :

26, 27, 46, 47, 126, 127 :

TCP가 (LCD) .

, LCD IC TCP(7a 7b LCD 7a LCD

. TCP , 7b 7a TCP(TCP) .

7a 7b , LCD (500) (501) TCP(502) TCP(503), TCP(502, 503)

(504) (501) .

7b , TCP(502) TCP(503) IC(505), IC(505)

(, IC (506), (501)

(507), IC(505) (501)

(508) (506) .

TCP(502, 503) (507) (501) (501)

, (504) IC(505) .

TCP LCD (500) , (504) TCP(502, 503) 가 ,
 , TCP , 가 TCP , TCP " ,
 " , TCP , 4 - 313731, 3 - 114820,
 10 - 214858 .

LCD TCP TCP , IC , IC (,
 IC, IC , TCP TCP)
 , TCP TCP가 .
 TCP(1 TCP 2 TCP) .
 , 가 1 IC ,
 IC .
 , 1 TCP 1 TCP , 1 2 TCP
 2 TCP .
 , TCP 가 , TCP IC
 , TCP TCP TCP .
 , TCP 가 TCP
 , .
 4 - 313731 3 - 114820 TCP
 , 가 .

가 ,
 , TCP , 가 ,
 가 ,
 , TCP , IC
 , 가 ,
 , 가 , (504) 8a
 , (504) TCP .

10 - 214858 IC TCP 8a TCP 가
 , TCP ,
 , TCP , 3

IC TCP

가 TCP TCP 가

LCD

IC

가 1

2

1 2

가

LCD LCD

() 가 (1) (2)

1 가

가

LCD

가,

가

1 1 (,) 1 1

2 2 1 2 , 1

가

1 2

LCD

< 1

1

1a LCD 1b LCD
TCP

1a , LCD (1) (11), TCP(12), FPC(13) TCP(14)
가 (11) TCP(12), FPC(13) TCP(14)
(11) 가 TFT LCD
TFT TFT , TFT / TCP
TCP

1b , TCP(14) (10) IC(15), (16),
(17) 가
LCD FPC(13) IC TCP(12) TCP(14)
LCD

, TCP(14) TCP

2a 2b TCP(14)
2a TCP(14) , 2b 2a TCP TCP가

2a TCP(14) (10) IC(15) 가 ,
IC(15) IC(15) (11) 1 (18a),
IC(15) TCP 2 (20a), (19a),
(21), (11) IC(15) (22a) 2
2a')

[illegible]

(1) :

(TCP가 2b 가) TCP FPC(13)
 (11) (18b) TCP(14)
 IC(15) 가 TCP(14) 1
 (19a) (11) 1 (19b) IC(15)

1, (TCP가 2b 가) 2 (20a)
 1 (19a) IC(15) TCP
 2 (20b) (11) (24) TCP
 (18b)

(2) :

TCP FTC(13) (11) (22b')
 (22a') (22a') (11) (22a')
 , TCP
 , (11) TCP 가
 ,

(22a') TCP 2b (25)
 (22a') TCP (22a') TCP
 (25) 가 , TCP
 , 가 , 가
 ,

, TCP (22a) (16) TCP
 (22a') TCP (11) (22a)
 (22a') 가 (22b) (22a)

(22a) TCP

, , (,) ,
 (11) (18b), 2 (20b), (21b, 21b') (25)) TC
 P (26,27) 1 (11) (19b) (22b)) TCP
 , (22a) TCP 가

(3) IC :

TCP	FTC(13)	(11)	(21b, 21b')
TCP(14)	(21a,21a')	(21a,21a')	IC(15)
			(21a,21a')
	(21a,21a')	(11)	(21b,21b')
	TCP		

(21) TCP 2b (24)

(25) (24) (25) , (24)

(, 가) . , .

, (21a') 가 (22a') , TCP
 (21a') (25) 가
 , (25) . , 가
 , ,

TCP, TCP가 TCP

3a 3b TCP(12) , TCP 3b 3a TCP가

3a, TCP(12)가 IC(35) IC(35) IC(35) (38a) TCP IC(35) IC(35) 1 (39a) IC(35) (11) 2 (40a) IC(35) TCP (41) IC (35) (50a) IC(35) (11)

(41) TCP(14) (41) IC(35) (41)

 IC(35) TCP TCP(12) (41a) (41a')

(41) 가 , TCP (41a) (41a')

$$\text{TCP}(12) \quad (43) \quad (11)$$

(41) (41a') , (43) 2
 TCP 1 , (50a) , (41) TCP 가
 TCP 가 (50a) (43) , (50a)
 , 3b , (11) 3a TCP(12)
 TCP (38b), TCP FPC(13)
 2 (40b), (39b), IC(35)
 (50b) (47)
 1 (39b) (46) (50b) (47) TCP
 (50b) (50a)
 (50a) (50b) (44) 가 (47)
 (46) 가
 2 (40b) (41b) (44) 1 (38b) T
 CP (41b) , (41b') (45) TCP (41b')
) TCP TCP 가 (
 TCP
 , (11) TCP(12)
 가
 가 TCP TCP가
 TCP 가 TCP
 IC가 FPC 가
 < 2
 가 4 5
 4a LCD 4b LCD TCP
 4a , LCD (100) (111), TCP(112), FPC(113),
 TCP(114)
 4b , TCP(114) IC(115)

, IC
FPC(113) 가 , TCP(112) TCP(114)
TCP(114) TCP
5a 5b TCP(114) TCP
5a TCP 5b 5a TCP가
5a TCP(114) IC(115)가 IC(115)
IC(115) 가 (118a), (111) IC(115)
가 1 (119a), TCP IC(115) 가
2 (120a), IC(115) (121), (111)
가 (122a)
(121) IC(115) 가
IC(115) (121) TCP IC(115) 가
(121a') (121) TCP 2가 (121a)
() , TCP(114)가 (111)
TCP(114) (121a') (123)
(121a') TCP
(122a) IC(115) ()
(122a) (122a) (123)
(122a) TCP
(111) 5b TCP(114)
TCP IC(115) 가 1
IC(115) 2 IC(115)
(121b, 121b'), (122b, 122b')가
1 (119b) (126)
7) (111) (122b) (12
(124) TCP 2 (120b) (121b)
(121b') (122b') 1 (118b) (125) TCP
(121b') (122b')
TCP (125)
TCP 가 (124) TC

P (122a) , TCP TCP TCP

TCP IC(115)

1

< 3

가

6a , LCD (200) (211), TCP(212), FPC(213),
TCP(214) GND (221)

6b , TCP(214) IC(215) (220) ,
(220) GND

3 , TCP (220) GND (221) 가 , GND
GND (221) LCD (bezel) TCP TCP
1 2

3 1 2
가 가 가 가

3

가

CP TCP 가 TCP T
TCP TCP
가

(57)

1.

IC

가 1

2 ,

,

1 2

,

2.

1 , ,

1 1 가 1 가 1 , 2

1 1 가 2 ,

1 2 .

3.

2 , 1 2 (jumper bridging)

.

4.

2 , 1 2 1 (routing line)

.

5.

4 , 2 1 , 2 1

2 .

6.

1 , 2

,

.

7.

1 , 2 1

2 .

8.

7 , 1 , 2

2 .

9.

1

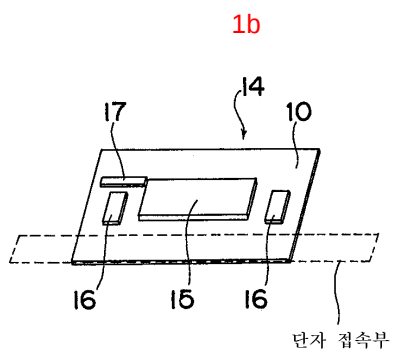
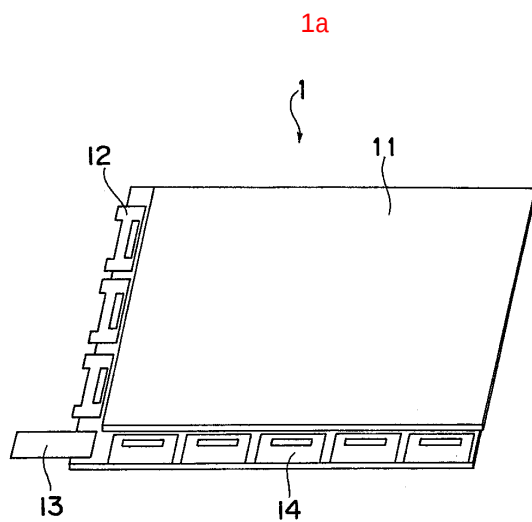
,

,

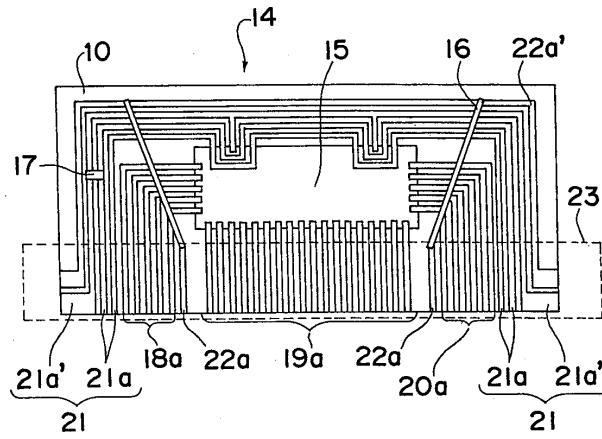
1

2

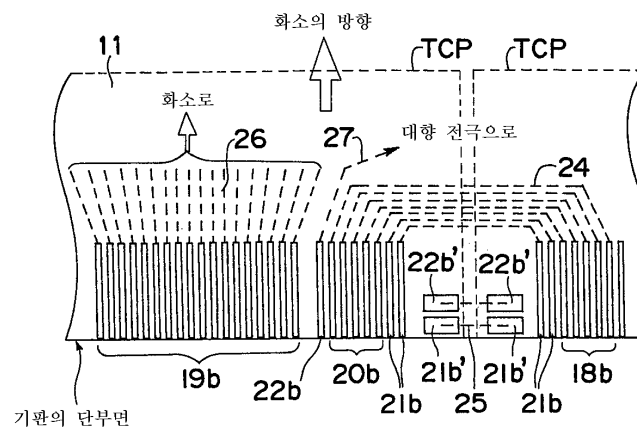
3



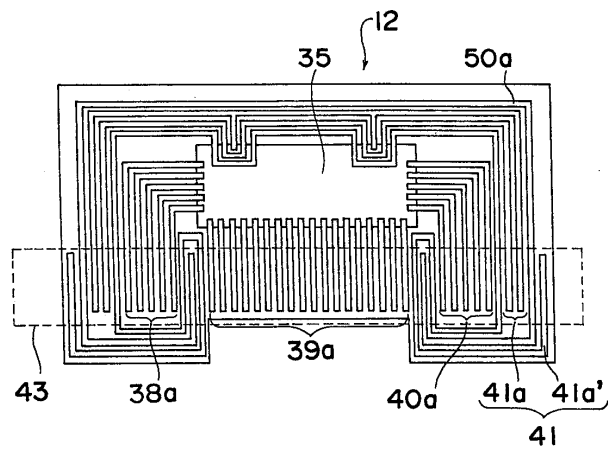
2a



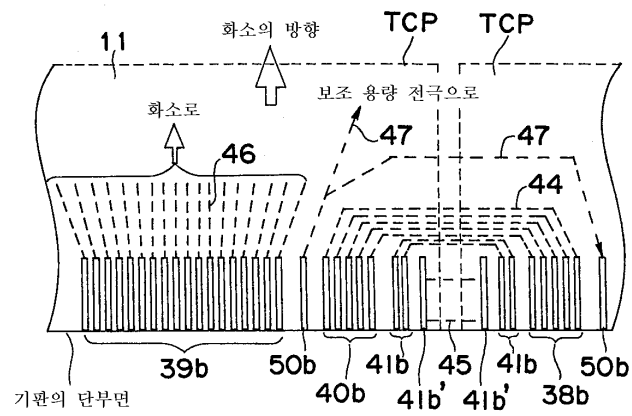
2b



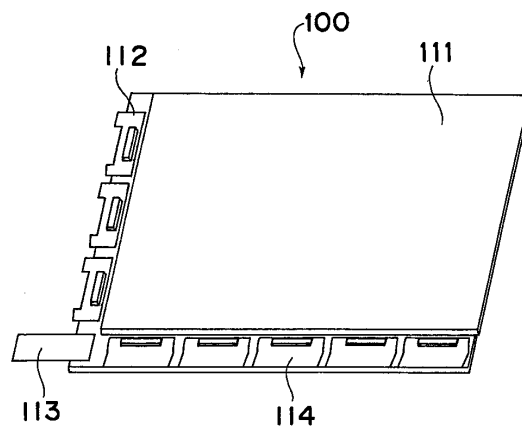
3a



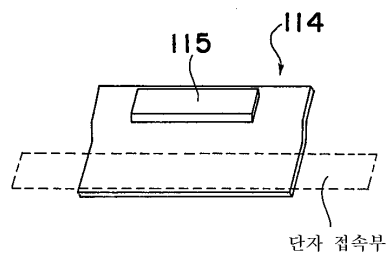
3b



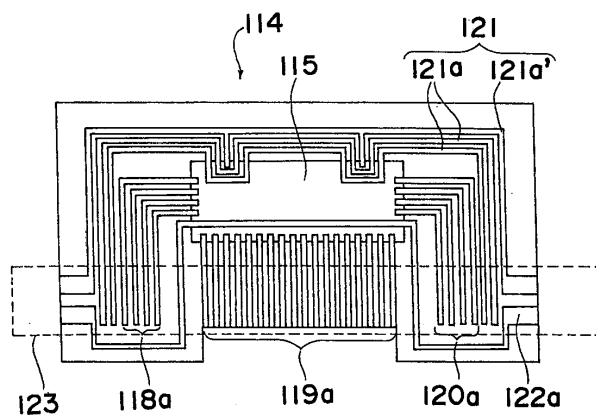
4a



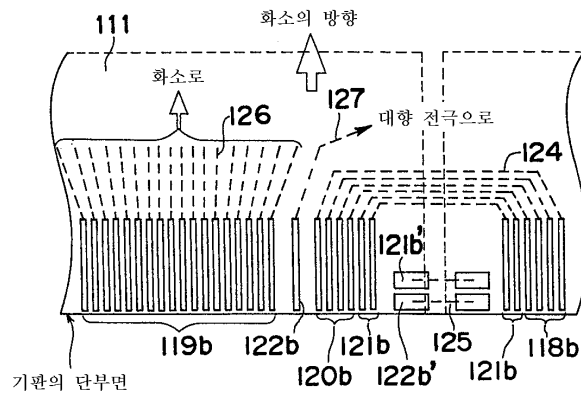
4b



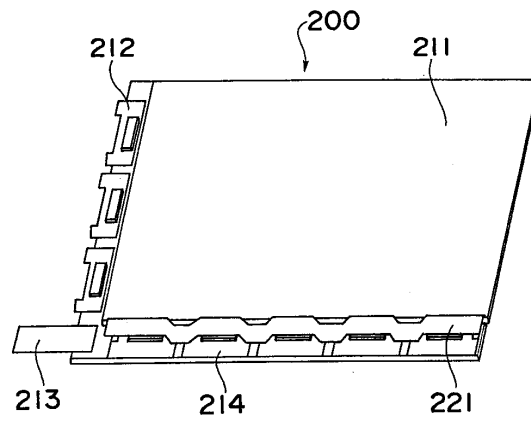
5a



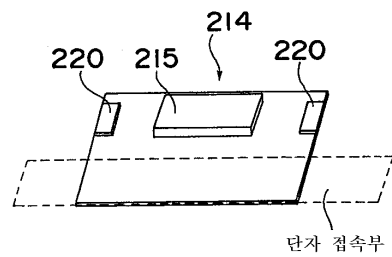
5b



6a

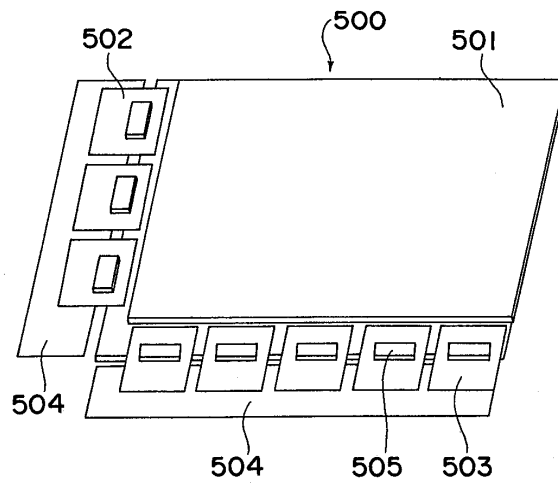


6b



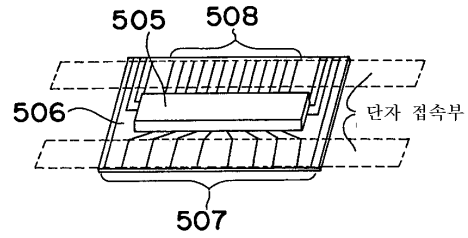
7a

(종래 기술)



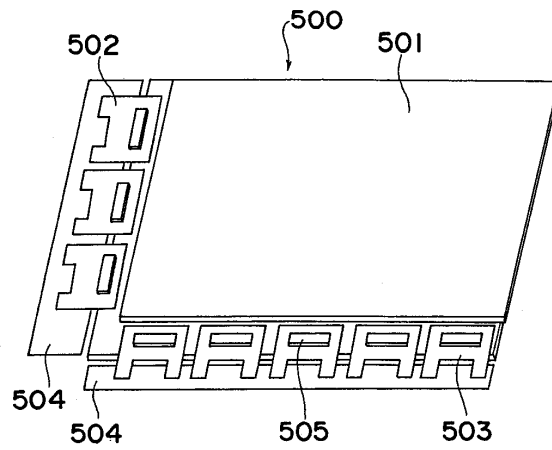
7b

(종래 기술)



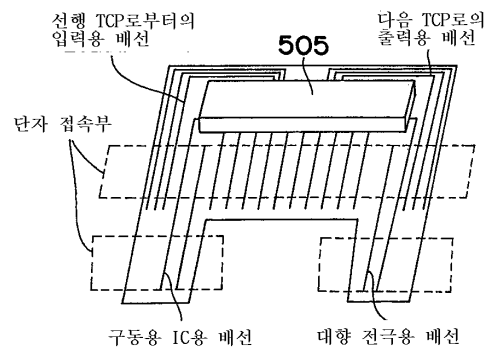
8a

(종래 기술)



8b

(종래 기술)



专利名称(译)	液晶显示器		
公开(公告)号	KR100341552B1	公开(公告)日	2002-06-22
申请号	KR1020000031572	申请日	2000-06-09
[标]申请(专利权)人(译)	夏普株式会社		
申请(专利权)人(译)	夏普株式会社		
当前申请(专利权)人(译)	夏普株式会社		
[标]发明人	SAKAKI YOICHIRO 사카키요이찌로 NAGATA KATSUNORI 나가따가쓰노리 KAWAGUCHI HISAO 가와구찌히사오		
发明人	사카키요이찌로 나가따가쓰노리 가와구찌히사오		
IPC分类号	G02F1/133		
代理人(译)	CHANG, SOO KIL		
优先权	1999163263 1999-06-10 JP 2000064746 2000-03-09 JP		
其他公开文献	KR1020010007308A		

摘要(译)

液晶显示装置包括液晶面板11和分别与液晶驱动器IC 15一起安装的多个TCP 14。在液晶驱动器IC 15周围，TCP 15具有用于向液晶驱动器IC 15输入信号的信号输入线18，

