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2002 12 20

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(22) 2002 10 01

2002 10 01

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(87)

2002 08 08

(81)

가

가

가

가

가

AP ARIPO : , 가 ,

EA :

EP :

OA OAPI : , 가 ,

(30) JP - P - 2001 - 00027509 2001 02 02 (JP)

[illegible]

(72) $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$, $\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$, $\frac{1}{4} \times \frac{1}{4} = \frac{1}{16}$, $\frac{1}{8} \times \frac{1}{8} = \frac{1}{64}$, $\frac{1}{16} \times \frac{1}{16} = \frac{1}{256}$, $\frac{1}{64} \times \frac{1}{64} = \frac{1}{4096}$, $\frac{1}{256} \times \frac{1}{256} = \frac{1}{65536}$, $\frac{1}{4096} \times \frac{1}{4096} = \frac{1}{16777216}$, $\frac{1}{65536} \times \frac{1}{65536} = \frac{1}{429496704}$, $\frac{1}{16777216} \times \frac{1}{16777216} = \frac{1}{281474976710656}$, $\frac{1}{429496704} \times \frac{1}{429496704} = \frac{1}{18446744073709551616}$, $\frac{1}{281474976710656} \times \frac{1}{281474976710656} = \frac{1}{79228162564064803096160664$

(74)

(54)

LCD, (31a) (31b), (31a) (32) (31b), (31b) (31a, 31b) IC (22) IC (21), (10) 가

2

(display portion), 1 1 2, 1 2, 1 1 2, 2 2

(LCD: Liquid Crystal Display), (PDP: Plasma Display Panel), (FED: Field Emission Display), (ELD: Organic Electroluminescent Display) 가

{ (backlight) } 가

(flushout) PDA(Personal Digital Assistant) 가

1 2 (110a) (110), (110) (120)

(110) , , M
 N (113) , (113)
 (" TFT")(117) ,
 , M $\times N$ (113)
 ()(131) , N ()(132)
 TFT(117) (131)
 (131) (end) (134)가 TFT(117)
 (132) (132) (133) (131)
 (132)

(120) (131) IC (122)
 (131) (134) (120) (132)
 IC , IC (121) (132) (133)

(134) IC (122) (131) IC
 (121) (132) (133) ,
 가 (on) TFT (113)
 (113) 가 ,
 가

가 ,
 ,
 ,
 , IC
 , IC
 ,
 , 가
 , (-) 가 (-)
 ,
 ,
 ,

1 1 2 2

1	(essence)	
2		.
3	1	.
4	3	.
5	3	.
6	2	
7	1	가

8 2 가 .
 9 3 가 .
 10 4 가 .
 11 5 가 .
 12 가 .

[1]

3 , 1 { ,
 (10)} . 4 ,
 . 5 (10a) (10), (10)
 IC (21 22)(4) .

(10){ (10a)} (11) (opposite) (16) . (11)
 (12) (13) , (12) (11) (13)
 . (16) (11)
 (16) (15) ()가 . (14) (11)
 (16) , (10a)가 가 .
 (13) (AI) , M N
 . (13) TFT(17)
 , TFT(17) (13) (12) . (10)
 . TFT TFT TFT(17) .

31b) (13) TFT(17) , 1 , (
 (32) (row by row) . TFT(17) 2 (

 , (13) M N , N
 (32) () , (12) . (32) (33)
 가 (, 4 5) . (33)
 IC (1) (21) , , (10){
 (10a)} (33)가 IC 4 5 .
 . (32)

1a) (13) N (31a) M (31b) . (3
 1b) (32) , , (3
 (31a) (31a) () . (31a)
 (31a) (31b)
 { (31b)
 (through hole)}
 (31a) (31b) . (31a), (31b),
 (32) (13) (11) , , (numera
 l) 가 .

, 2 (31b) 2 (32) " "

(31a) , 가 (4 5)
 (34) 가 (34)
 IC (2) (22) , (22)
 (10){ (10a)} (31a)
 (31a, 31b) IC 4 5
 (31a, 31b) IC (32) IC (10) (10a)
 (34) (33)
 (10) ,

IC , (15) 가 .
 (34) (31a)
 (31b) (31a 31b)
 TFT(17) (1) ,
 TFT(17) , TFT(17)
 (on - level) TFT(17) , TFT(17)
 , TFT

IC , (32)
 IC (33) (32)
 (2) TFT(17)
 TFT(17)
 (15) (13) (14) 가 ,
 (14) , 가 (10a)

31a, 31b) IC, (32) IC, (10) (10a) (

.

[2]

6, 2 (31a) 1

(31a)

N (31a) (32) (12)

(31a) (33)가

(34) 가 (31a) (31b), 6 2 3 (31a)

(31b) (31b)

(31a)

(31a) 1 (31a) { (patterning)}

(31a) (31b) (34)가 }

(31b) (31a) (31a) (31a),

(31a) (31b) (31a) (31b)

1 (31a) (31b) (10)

(31a) (31b)

(31a, 31b), (32),

7 8, 1 2 가

(C_{LC}) () , $(C_s)\{$ $(C_s$

$1)$ (13) (31b) } , $(C_{gd})\{$ (C_{gd1}) T

FT(17) (31b) (31b) (31b) 가

}가 (coupling)

- (kick - off)

1 (31a) (C_{s2}) , 7 2 3

(31a) 가 TFT(17) 가 ,

(C_{s2}) 가 , 2 3 , 2

(31a) , 3

(31a) (C_{s2}) 가

2 (31a), 3 (31a), (C_{gd2})가, 2 (31a), (C_{gd})₂가.

, TFT(17)가, TFT (13) TFT (C_{gd1} C_{gd2}) , TFT(17)가, (13) TFT { (field through) } . (V_c)(" - ") (10a) 가 가 . (10a) (V_c) 가 .

1

$$\Delta V_c = C_{gd} / (C_{gd} + C_s + C_{LC}) \times \Delta V_G$$

$\frac{V_G}{C_{gd1} + C_{gd2}}$, C_s = C_{s1} + C_{s2} , C_{gd} =
2 (8), (31b) 가 (31a)
(C_{gd2})가 , (C_{s2}) , (31a)
(C_s) ,
(V_c) 가 .
(V_c) 가 , (wiring)

[3]

9 , 3 (41), (41)
(42) 가 2 .
(41) , (V_c) 가 .
9 , (41) (31a)
(41) , (31b)
(31a) (41) , (41)
(31b) (42) . (41)
(31a) .
(42) (43)가 . TFT(17)
(43) (42) (42) (C_{s2} ')
(42) , 가 .
, TFT(17) - 가
, (43)가 ,

(31a) , (C_{s2}) 2 3 2 (C_{s2})
(41) (C_{s2}') , (41) , , 4
(41) (C_{s2} - C_{s2}') (V_c)
, (C_{s2})가 (C_{s2}')가 , 1 (C_{s2}')
(41) 가 , 1
(flicker) - (burn-in) 가 .
[4]
10 4
. 3
, (41) , (31b)
(31a) (, TFT가) (41) (31b)
, (C_{s2}) 3 2 (C_{s2}') 3
(31a) , 3 (41) .
가 , 3 1 가
가 . , (41) (31b) 가 , (3)
가 가 , (41) (31b) 가 .
4 , (34) , (41) , (34)
(31b) (41) , 10 가 (turned upside down)
[5]
11 5
. , 3 4
1 4 , (C_{s1}) , 가 TFT(17) (super imposed) C_s - { (44)} C_s , (C_{s1}) , (44) (31b) TFT(17) - (31b)

(41) , (31a) (44) . (31b) (41) .

(44) (31a) (13) (31a) (C_{s2} ') 3 (C_{s2}) , 3 (C_{s3}) 2 .

(41) (13) . , 3 4 1 가 가 . , 4 .

(32) IC (10) (31a, 31b) IC (10) (10a) . (10) (10a) .

(31a) (31b) 가 , 12 (31) IC (31) (10a) (10a) (10a) (sealed area)(10b) (10a) (31) (10a) .

(10a) . (10a) .

1 2 가 , 1 2 .

TFT가 , MOSFET 가 (C_{s1})가 1 4 C_s - C_s (C_{s1}) 5 가 , 가 가 .

(10) { " (transflective typ e)" } .

(16) 가 가 , 가 가 .

가

, ,
.

(57)

1.

- (edges) (display porti
on) ;

- 1
1 ;

- 2
2 ;

- 1 1
1 ;

- 2 2
2

, ,

1 1 , 2 2 ,
.

2.

1 , 1 2 ,
, , , 1 2 ,
, , .

3.

2 , ,
, (dummy) ,
.

4.

3 , 가
, .

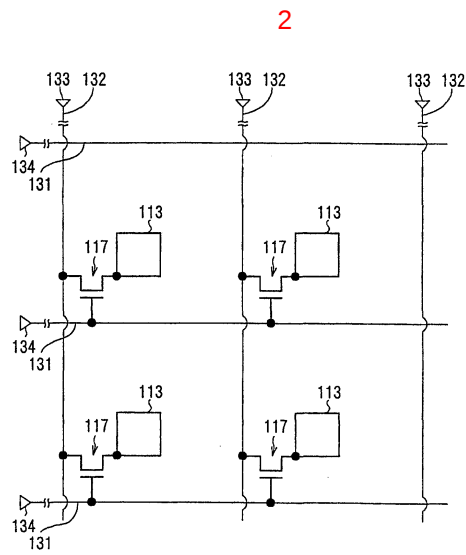
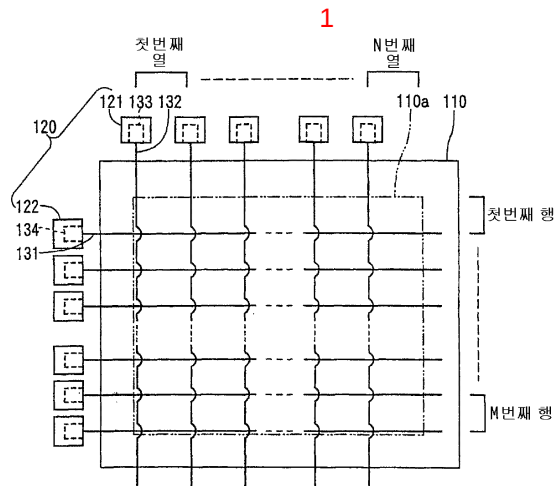
5.

3

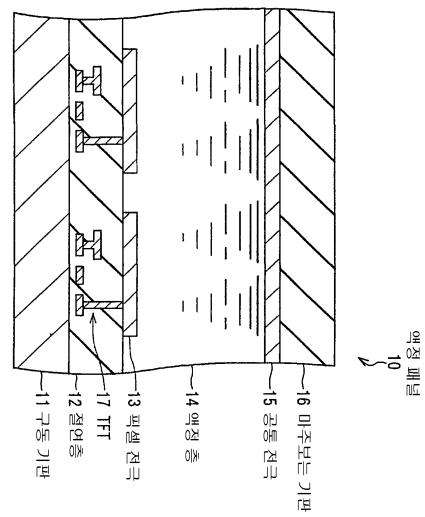
6.

1

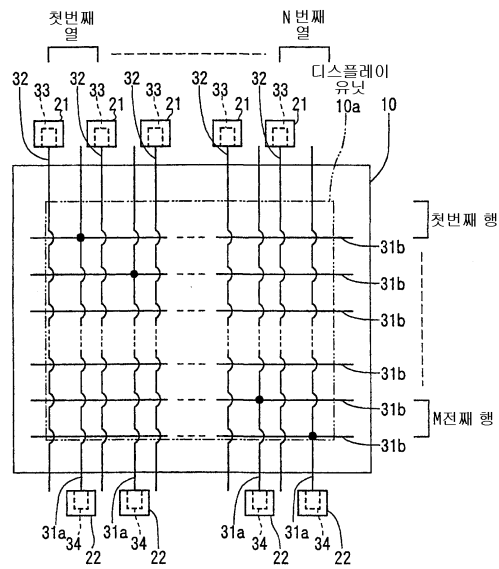
5



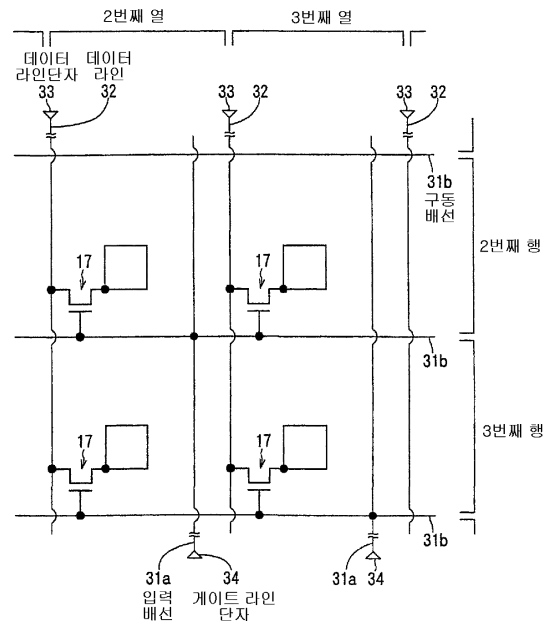
3



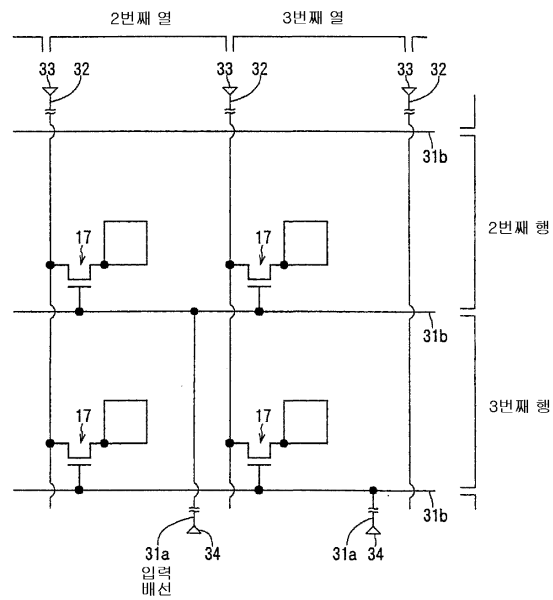
4



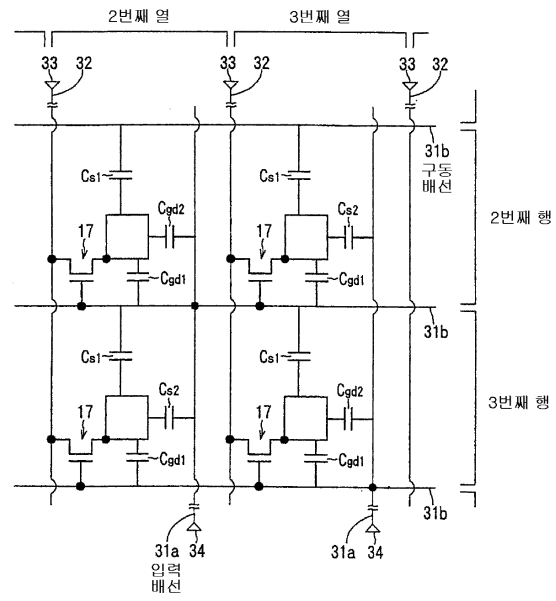
5



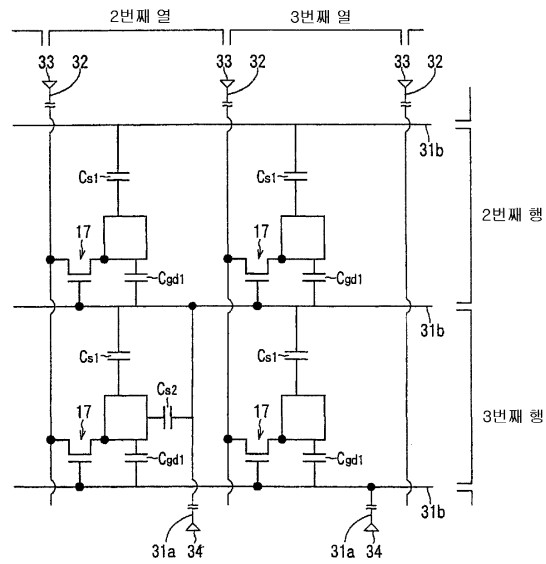
6



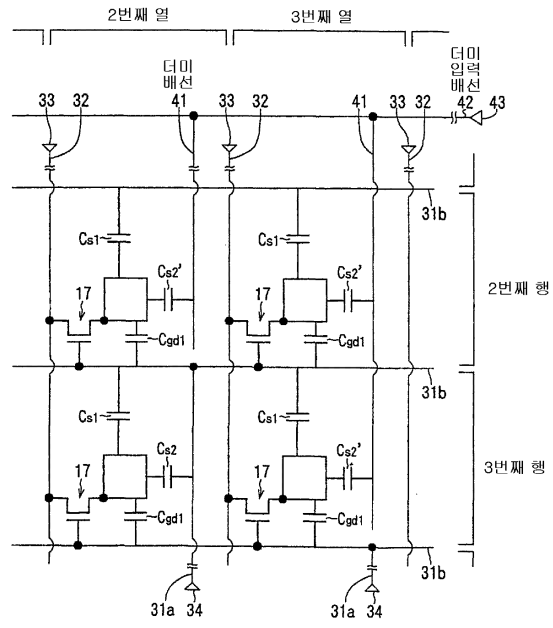
7



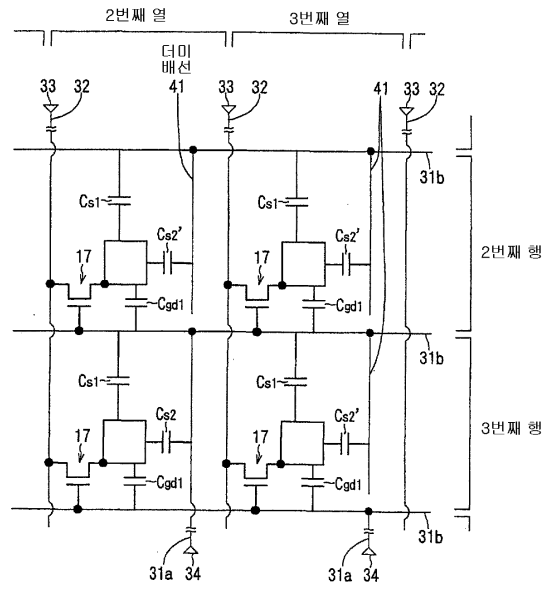
8



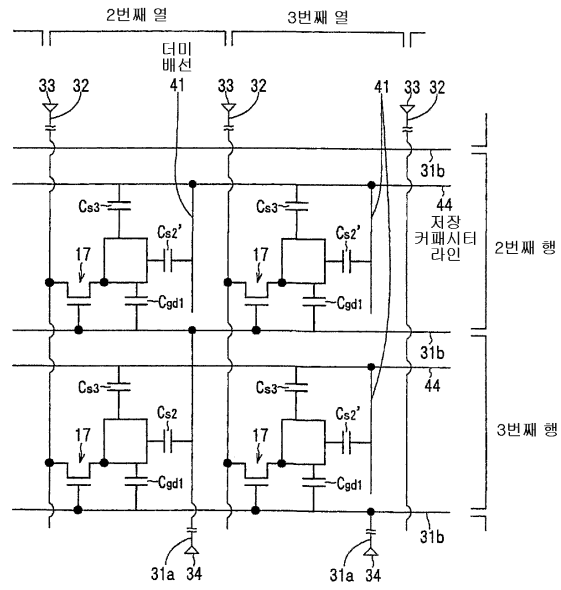
9



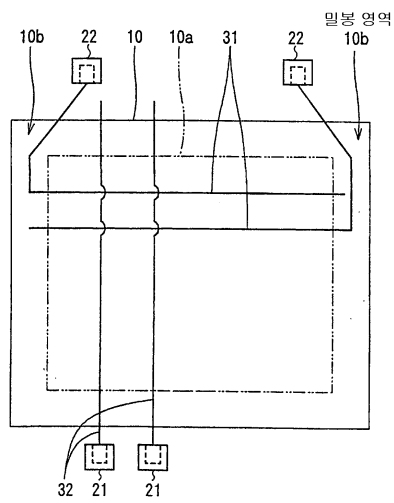
10



11



12



专利名称(译)	显示设备		
公开(公告)号	KR1020020095203A	公开(公告)日	2002-12-20
申请号	KR1020027013135	申请日	2002-01-28
[标]申请(专利权)人(译)	皇家飞利浦电子股份有限公司		
申请(专利权)人(译)	科宁欣克利凯恩菲利普斯日元.V.		
当前申请(专利权)人(译)	科宁欣克利凯恩菲利普斯日元.V.		
[标]发明人	INADA TOSHIYA		
发明人	INADA,TOSHIYA		
IPC分类号	G02F1/1368 G02F1/13 G02F1/1362 G09F9/30 G09G3/20 G09G3/36 G02F1/133		
CPC分类号	G02F1/13452 G02F1/136286 G09G3/3648 G09G3/3677 G09G2300/043 G09G2300/0876 G09G2310/0281 G09G2320/0219		
代理人(译)	MOON , KYOUNG金		
优先权	2001027509 2001-02-02 JP		
外部链接	Espacenet		

摘要(译)

在有源矩阵LCD中，栅极线组形成有输入线（31a）和驱动线（31b）。并且布线彼此电连接。它随着诸如输入线（31a）的垂直方向是数据线（32）而延伸。并且驱动配线（31b）作为水平方向延伸。因此，数据线（32）和数据线IC芯片（21）之间的电连接与栅极线（31a，31b）和栅极线IC芯片（22）之间的电连接被提供给上部和下部。各个显示设备。并且将液晶面板（10）插入该间隔中。因此，可以实现宽度相对于水平方向的窄装置，而不是传统装置。

