

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

(21) 10 - 2000 - 0034428 (65) 2001 - 0021016  
(22) 2000 06 22 (43) 2001 03 15

(30) 99 - 181949 1999 06 28 (JP)

(72) 가 2 - 3 - 2

(74)

1

(54)

( ) (Cs) ,

$$\begin{aligned}
 & (7, 7') \quad (3) \quad (\text{挟持}) \quad (1, 2) \quad (1) \\
 & . \quad \quad \quad (13) \quad \quad \quad , \quad \quad \quad \quad \quad \quad \text{TFT (11) 가} \\
 & (10) \quad \quad \quad (19) \quad \quad \quad (19) \quad \quad \quad (Cs) \\
 & 10) \quad \text{TFT (11)} \quad \quad \quad (8) \quad \quad \quad (15) \quad \quad \quad . \\
 & \quad \quad \quad \quad \quad \quad , \quad \quad \quad (10) \\
 & \quad \quad \quad \quad \quad \quad (Cs) \quad \quad \quad .
 \end{aligned}$$

1

1	1
2	
3	2
4	3
5	3
6	5
7	
8	7

1, 2 :

3 :

7, 7' :

8 :

10 : (Cs)

11 :

13 :

19 :

Cs :

가

( , TFT . )

7, 8

8

가

, 7

8 7 - 7

(31)

(32)

(33)

, ,

(34),

7 (35)

(32, 33)

(32)

(36)

(33)

(37)

, 8

(32)

(42)

(42)

(40)

(36)

TFT (38)

가

. ,

(42)

(36)

(Cs)

가

TFT (38)

(39),

(40)

(40a),

(42)

(42a)

(43)

(41),

(44)

(45)

(36)

(36)

(41)

(46)

(47)

(Cs)

(32)

(42)

(43)

(47)

가

(40)

TFT (38) 가

가

, (41)

(42)

(36)

, .

(36)

TFT (38)

7

, TFT (38)

(43)

(Cs)

,

TFT (38)

(43)

,

, 1/2

1/4

(Cs)

(Cs)

, TFT (38)

,

(Cs)

TFT (38)

(43)

,

(Cs)

(36)

(Cs)

(43)

, (Cs)

,

가

가

(Cs) 가

,

가

TFT (38) , (43) (Cs) , 가 TFT (38) , (Cs) (Cs) ,

, TFT 가 ,

# 가



, (16) , (17, 18)  
, (19) 가 (17) , (14) (18)  
(19) . (19) (17) (14) (18)  
(Cs) (15) .

(空隙部) (1) (4) (2) , , , (5, 6) , 1 ,

1 (Cs) (10) 1/3  
가 . , (Cs) (19)  
40% 가 55% .

3 4 2 . 4 , TFT  
 (11) , 3 4 3 - 3 (7') 가 .  
 . , TFT (11) (12) (13) 1  
 (13a), (14), (Cs) (20)  
 , (7') 1 (8) Cs (9)  
 (7') , (7') (Cs) .

$$\begin{array}{ccccccccc}
 & (Cs) & & (10) & TFT & (11) & & & \\
 (14) & & (21) & . & , & 1 & & & (16) \\
 , & (14) & & (17) & & (Cs) & , & & (20) \\
 (10) & & & . & , & & , & & (10) \\
 (16) & , & & (16) & & (17), & (10) & & (21)
 \end{array}$$

, (Cs) (15) (19), (10), (19),  
, (Cs) (15) (16) . , , , (19),  
, (15) (Cs) (15) . .

11) 1, (Cs) (10) TFT (11) 1 (10) .  
 , SiNx TaOx (20)  
 . . , , (7, 7') .  
 가 , (7, 7') .

2 , (Cs) (10) (8) SiNx  
가 , 1 . ,  
1 가 2 ,

5, 6 3 . 6  
, 5 6 5 - 5 가 .  
, 2 , (Cs) (10) TFT (11)  
(12) 2

, (Cs) (10) , (12) (13)  
 a), (14) . , (13) (13 a), (14),  
 (22) . , (15) (15) . ,  
 (Cs) (15) (7') (10) .  
 (16) , (19) 1

(Cs) 가 , , ,  
, TFT  
(Cs) 가 , ,  
,  
(Cs)

(capacitance)

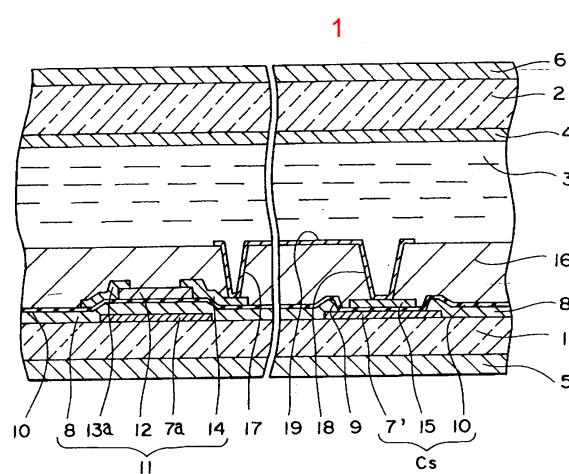
1

3.

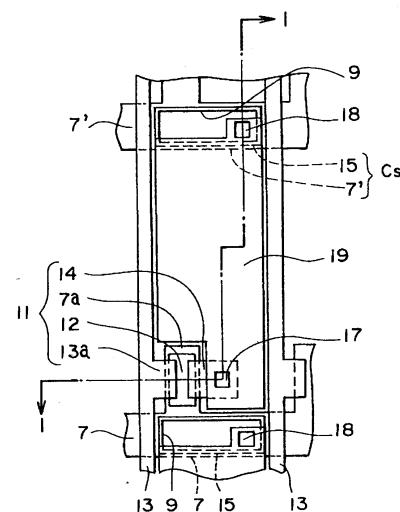
1

4.

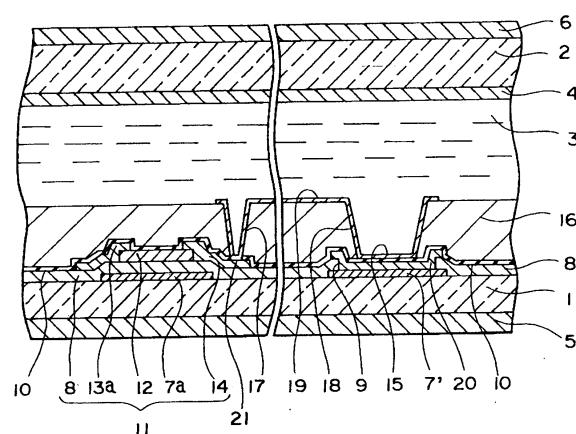
1



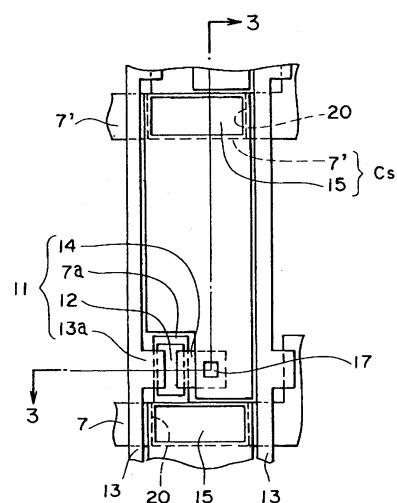
2



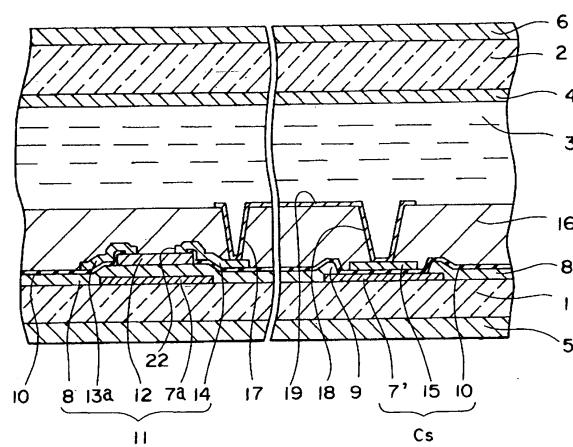
3



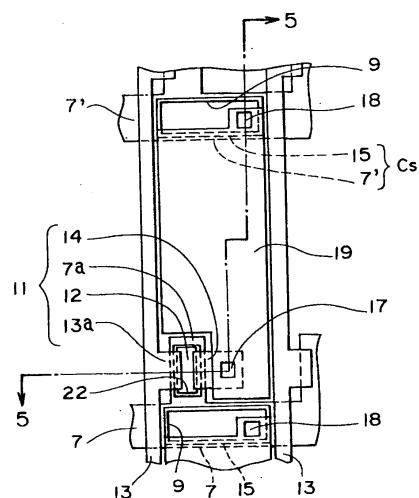
4



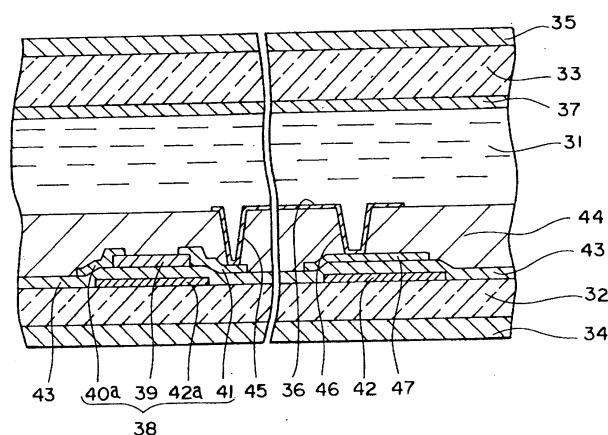
5



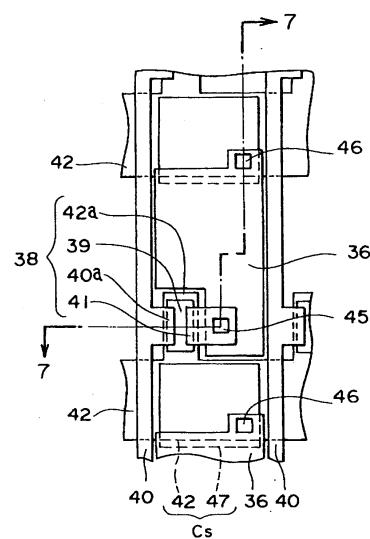
6



7



8



专利名称(译)	有源矩阵型液晶显示器		
公开(公告)号	<a href="#">KR100376338B1</a>	公开(公告)日	2003-03-15
申请号	KR1020000034428	申请日	2000-06-22
[标]申请(专利权)人(译)	阿尔卑斯电气株式会社		
申请(专利权)人(译)	阿尔卑斯电气有限公司		
当前申请(专利权)人(译)	阿尔卑斯电气有限公司		
[标]发明人	KAWAHATA KEN		
发明人	KAWAHATA,KEN		
IPC分类号	G02F1/1368 G02F1/1362 G09F9/30 H01L21/336 H01L29/786 G02F1/133 G02F1/136		
CPC分类号	G02F1/136213 H01L27/13 G02F1/136227 H01L27/12 H01L27/1255		
代理人(译)	韩国专利公司 CHO , YOUNG WON		
优先权	1999181949 1999-06-28 JP		
其他公开文献	KR1020010021016A		
外部链接	<a href="#">Espacenet</a>		

### 摘要(译)

[问题]减少存储电容器部 ( CS ) 相对相对于所述像素电极的区域的面积，并且提供比现有的液晶装置盖的更大的开口比。 [解决问题的手段]液晶层3，辊隙(挟持)一对透明基板(1,2)上的(7,7")的一侧上的透明基板(1)上的多条栅极线和多条源极线安装由相交矩阵布置在13，而这些都是为每个交叉点处的TFT(11)。和TFT(11)具有与像素电极19连接，为每个像素电极19设置的存储电容部分Cs由上电极15和下电极构成，上电极15和下电极连接到像素电极19，其间具有绝缘膜10。绝缘膜10与TFT11的栅极绝缘膜8分开形成，并且通过减小绝缘膜10的膜厚度或提高膜材料的相对介电常数来增加每单位面积的电容而形成，Cs)相对减少。 - 1 - 1 指数方面 有源矩阵类型液晶显示器

