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(12)

(KR)  
(B1)

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(45)  
(11)  
(24)

2004 04 28  
10-0427500  
2004 04 06

(21) 10-2001-0043143  
(22) 2001 07 18

(65)  
(43)

10-2002-0008062  
2002 01 29

(30) JP-P-2000-00219719 2000 07 19 (JP)

(73) 가 가 가 , . 1753

(72) 5-7-1 가 가

(74)  
:

(54)

- (in-plane switching type) (8)  
) , (5) (4) 가 (2) , (12)  
) (13) (9), (8) (9)  
(20) , (26) (27a/27b) (F) (G)  
, (27a/27b) (24)  
, (20) .

6

, , , ,

1 -  
2 1 A-A'  
3 -  
4 -  
5 3 4 B-B'

6  
7 6 E-E'  
8a 8e  
9  
10  
11  
12

(Indium Tin Oxide)

가

(black light)

가

(capacitive pixel)

(picture)

(image)

가

reen)

(blue)

3

(red)

(g

가

1

가

1

2

2

(picture)

가

(image)

가

(gap)

가

가

가

(column)

(photo-sensitive)

(micor-pearl)

가

가

(pearl)

가

가

가 가

1 2 -

(100) (3) (4) (100)  
 (10) (5), (7), (6) (2) (4)  
 (8) (2) (6) (6) (1) (10) (6)  
 (2) (1) (7) (7) (5) (6)  
 (6) (6) (2) (2) (4)  
 (offset) (11) (22) (18) (100)  
 (5), (7), (6)  
 1 (200) (12) (13) (200)  
 (H) (12) (13) (12)  
 (13) (15) (11) (15) (200)  
 (16) (17) (16) (11)  
 (11) (20) (11)  
 (18) (2) (20) (1)

9)

(micro-rod ; 23)

(micro-pearl ; 25)  
(24)

3

(23)

(24)  
- (25)

(25)  
(11)  
(11)

(25)  
- (25)  
(23) (24)  
(23)

가

- (25)

(23)

(24)

(20)

가

4

가

(23)

(spacer column ; 26)

(23)

(24)

3

(26)

(26)

(12)

(5)

(26)

(15)

(26)

(

11)

(26)

(15)

(26)

(

가

가

( 5 ),

(D)

가

가

(C)

(C)

(2)

(4)

가 (C)

가

가

1

가

1 2

(a)

(24) (b)

(c)

(d)

$\frac{1}{6 \quad 7}$

20) (13) 7 (20) 가 (20) (8) (9) (8) (8/9) (

(100) (8) (100) (10) (5) ( ) (4)

) (2) (4) (2) (22) (6)

( ) (10) (2) (6)

(7) (5) (10) (2) (2)

(2) (4) (11) (22)

(18) (100) (200) (12) (13)가 (200)

(H) (2) (H) (4) (12) (13) (13)가 (2)

(4) (2) (4) (2) (4) (13)가 (13)

(13) (dot) (13) 3

(12) (13)가 (15) (11) 'F' 'G'

(11) (2) (15) (2)

(200) (16) (17) (16)

(13) (12) (G) (13a) (13a) (13a)

(30) (30) (F) (G) (12)

0

(26) (27a/27b) (26/27a/27b) (24) (26) (F), 6  
(F) (G) (26) (26) (15) (12)  
(5) (12) (5) (12)  
(7) (26) (G)  
(27a/27b) (24) (27b) 가 (27a) (27)  
b) (27a) (24) (27a/27b) (27a)  
(27b) (31) (31) L (20)  
(31) (31)  
(8) (9) (27a/27b) (26) (31) (31)  
(24) (9) (11) (8) (20)  
(20) (31) (11) (11) (20)  
(31) (32) 가  
(27a/27b/32) (20) 가 (31)  
가 (32) (24) 가 (31)  
1 (8, 9) (8) 8a 8e  
(9) (9)  
(9) (200) (9) 가 (200)  
(H) ( ) 가  
(12) (12) (12) (F) (30) ( )  
12) (F) (G) (H) (13) (13a)  
(3가) 가 (12) (13) (13a)  
(13a) 8a (H) (G) (13), (12)  
(12), (13) (13a) 8b (15)  
(15) 가 가 가 (28)  
가 가 (28)가  
(28) (28a, 28b, 28c) 8c  
(28) (28a/28b) (loop) (27a)  
(27b) (F) (F) (F)  
(28c) (26) (28c) (G)  
(27b) (27a) (28) 8d (26),  
(G) (loop) (27a) (27a) (27b) (F) (26),  
200) (31) 가 (26) (26) (27a/  
27b) (12), / (13/13a) (15) (26) (26)  
(30) (27a/27b) 가 (26) (30) (27a/27b)  
(28) 가 (27a/27b)

가 (20)

(G) (24) (11) (27b) (G) (27a) (27a/27b)

(8) (9) (9) (8) (24) (8) 8e

f (8)가 (9) (9) (24) (24) (27a/27b) 8

(9) (8) (9) (24) (8)

(20) (20) (31) (9) (31) (32)

(24) (24) (27a/27b)

(20) (27a/27b)

(16) (17/18) (back light source ; )

(24) (20) (27a/27b) (G) (24)

(27a/27b) (20)

(27a/27b) (20)

(27a/27b) (24) 가 (G)

(27a/27b) (26) 가 (28) (27a/27b)

$\frac{2}{9}$  (27a'/27b')

2 (27a'/27b')

가 (27a'/27b')

(27a'/27b') E-E' 7 (27a/27b) (24) (31)

7a'/27b') (27a'/27b') (loop) (2)

2

(28a/28b/28c) 2 가

(8) (9) (27a'/27b')

(27a'/27b') (27a'/27b') (26)

(27a'/27b') 가 (27a'/27b')

$\frac{3}{10}$  1 2

(27C) 3 (27C) 1

(27C) 가 (27a/27b) (24) (27C)

(27C) (port) (loop)

(27C) 2

(20) (27C) (8) (9) (27C)  
(27a/27b) 1 3 2 가

4  
11 (27D) 4 1 1  
(27D) 가 1  
(27D) (27D) (27D) (27D) (24) (24)  
(27D) (27D) 2 (loop) (27D) 가 (27D)  
(27D) (27a/27b) (8/9) 1 (27D) 가 (27D)  
(24) 2 1 4

5  
12 (27E) 5 (27E) 1  
(27E) 가 1  
(27E) (27E) (27E) (24) (24) 1  
(24) (27E) (27E) (27E) (24)  
(27E) (27E) (27E) 2 (8/9)  
(27E) (27D) (27a/27b) 1 5 2

가  
가  
가  
가  
가  
가  
가

(30)  
(step)  
가

가

(8)

가

가

(looped spacer)

(micro-pearl)

2

가

가

(57)

1.

(F)

(F)

(F)

(G)

(5; 2

; 4)

(8/9)

(G)

1

(8/9)

(24)

(20)

(G)

1

2

(27a/27b; 27a

'/27b'; 27C; 27D; 27E)

(8/9)

2.

1

(27a/27b; 27a'/27b'; 27C; 27D; 27E)

3.

2

(27a/27b; 27a'/27b'; 27C)

(24)

가

4.

3

(27a/27b; 27a'/27b'; 27D; 27E)

5.

3

(27C)

6.

2

(24)

(27D; 27E)

7.

6

8.

1

(31)

9.

8

(31)

(24)

(32)

10.

9

(27a/27b; 27D; 27E)

1

(31)

2

11.

10 1 , L

12.

1 , (8/9)가

(26)

13.

12 , (F) (G)  
(G) (30)

14.

13 , (F) (12) , (12)  
(12) (12) (30) (13) , (12)

15.

1 , , 2 1

16.

1 , 2

17.

(G) (F) (F) (G) ,  
(27a/27b; 27a'/27b'; 27C; 27D; 27E) 1 2 (a) ,  
(8/9) 1 (20) (24) (b) ,  
(c) ,  
(d)

18.

17 , (a) , (200) (a-1) ,  
(200) (12/13/13a/15) (a-2) ,  
(28) (28) (a-3) ,  
(28a/28b/28c) (a-4) ,  
(27a/27b; 27a'/27b'; 27C; 27D; 27E)  
(F) (26) (28) (28a/28b/28c)  
(a-5)

19.

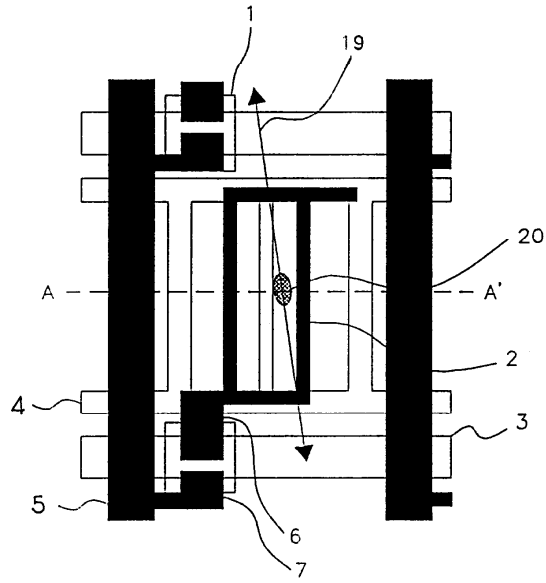
18 , (12), (12) (13),  
(30) (a-2)

20.

19 , (30) (12) (12) , (13)  
) (13a)

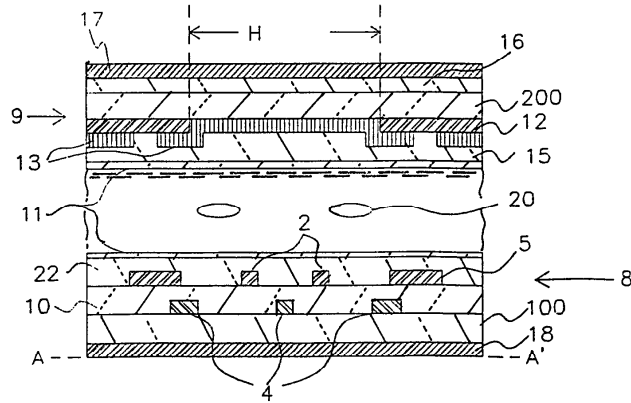
1

종래기술

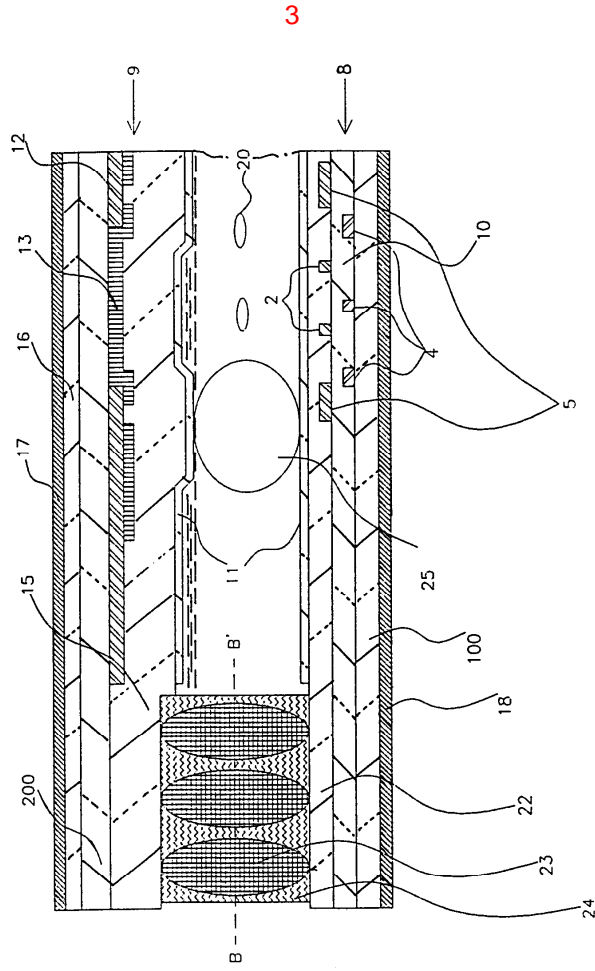


2

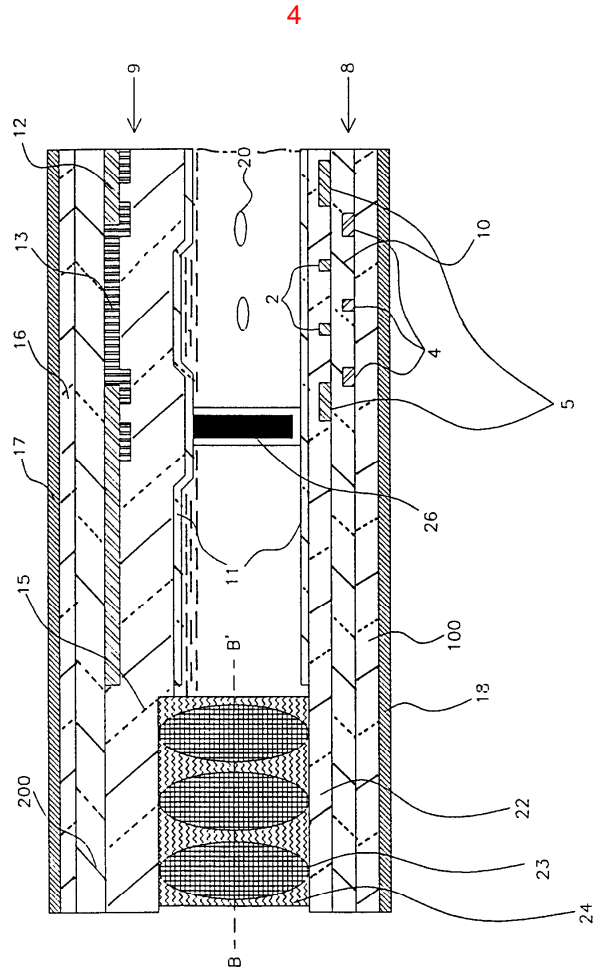
종래기술



종래기술

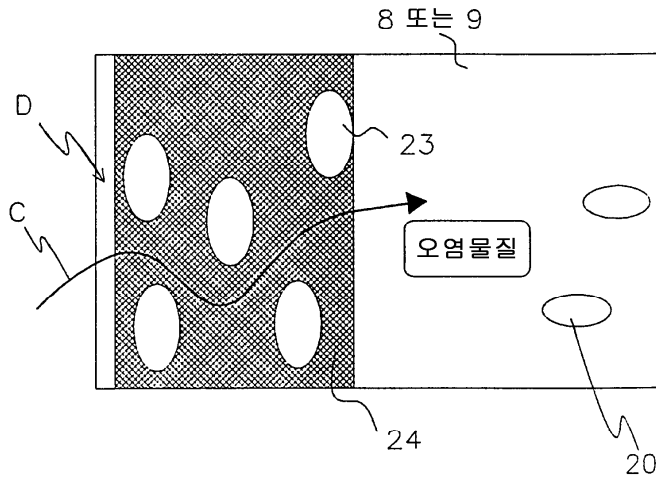


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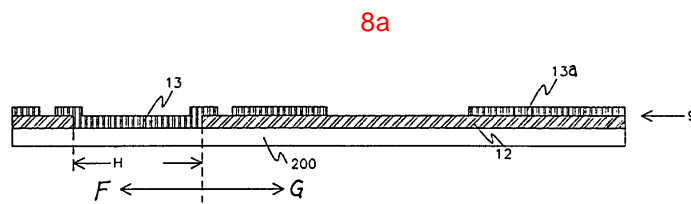
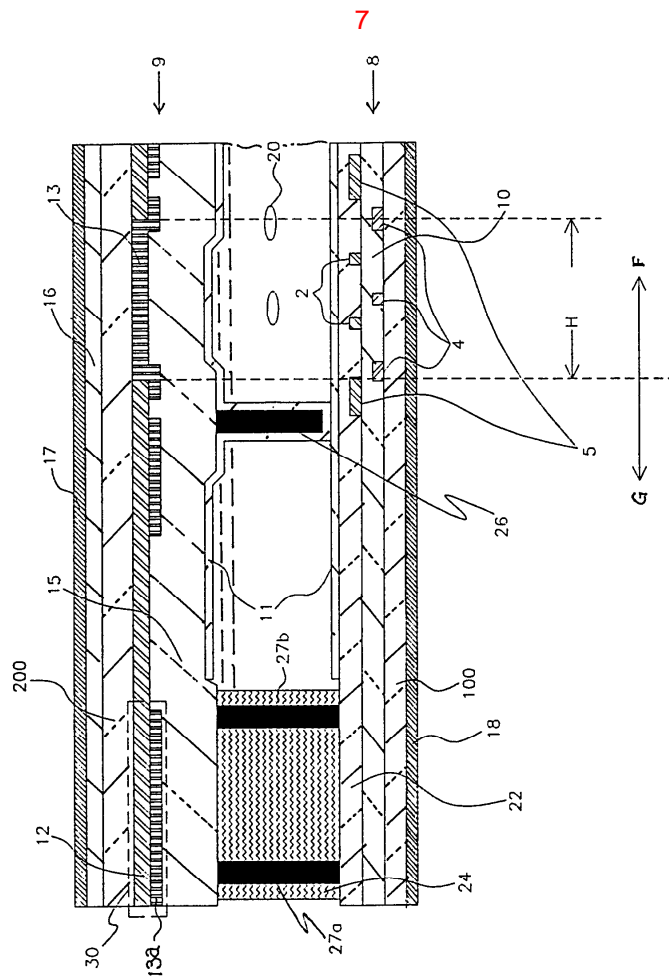
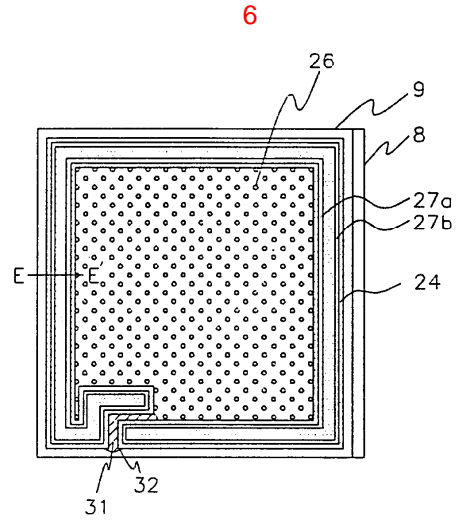


4

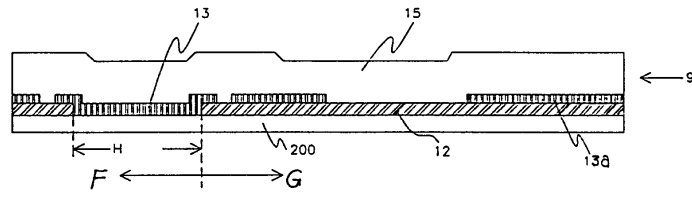
종래기술



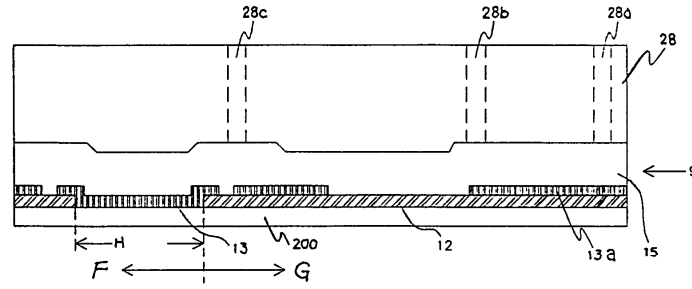
5



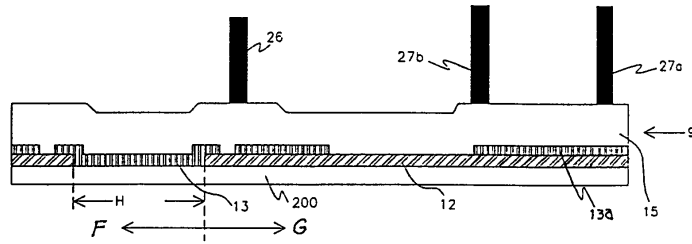
8b



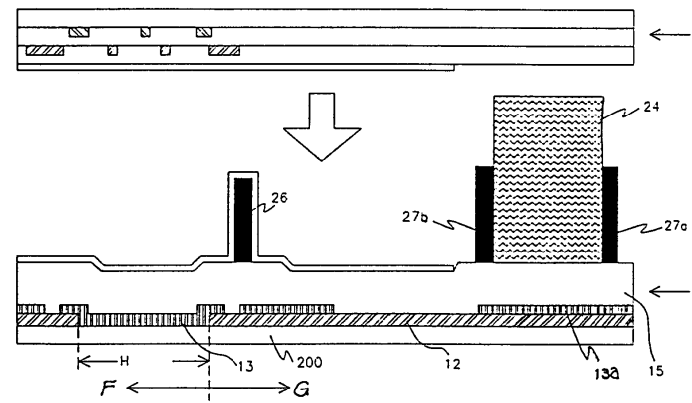
8c



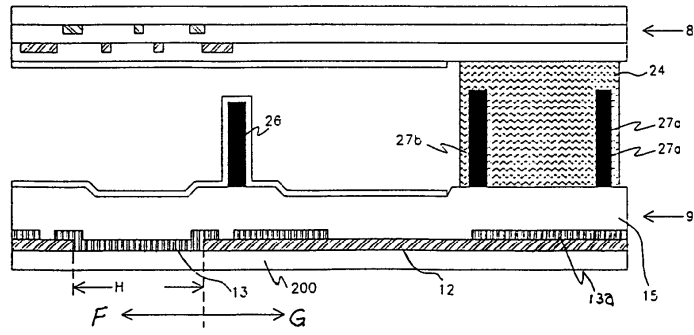
8d



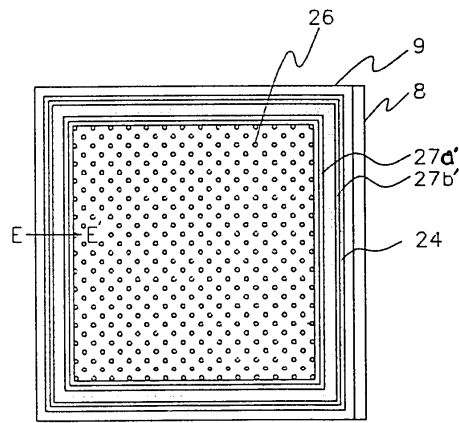
8e



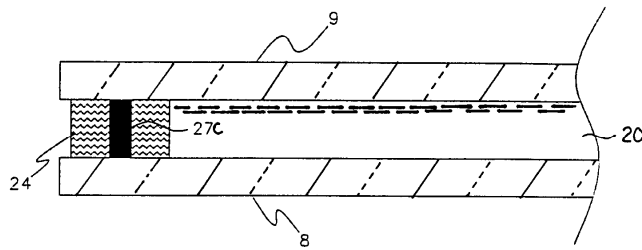
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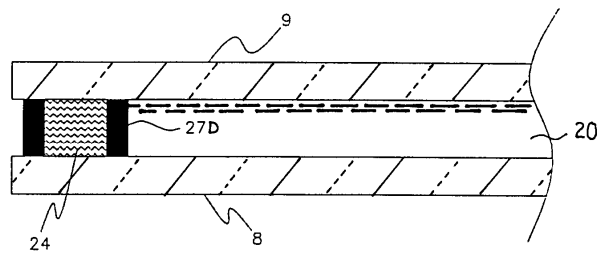
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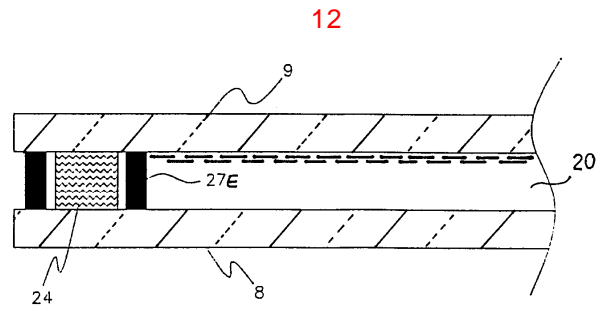


10



11





专利名称(译)	液晶显示装置及其制造方法		
公开(公告)号	<a href="#">KR100427500B1</a>	公开(公告)日	2004-04-28
申请号	KR1020010043143	申请日	2001-07-18
[标]申请(专利权)人(译)	NEC液晶技术株式会社		
申请(专利权)人(译)	日元号技术可否让这个夏		
当前申请(专利权)人(译)	日元号技术可否让这个夏		
[标]发明人	MATSUMOTO KIMIKAZU		
发明人	MATSUMOTO,KIMIKAZU		
IPC分类号	G02F1/1343 G09F9/30 G09F9/00 G02F1/1339		
CPC分类号	G02F1/134363 G02F1/13394 G02F1/1339		
优先权	2000219719 2000-07-19 JP		
其他公开文献	KR1020020008062A		
外部链接	<a href="#">Espacenet</a>		

摘要(译)

面内切换型液晶显示单元具有用于薄膜晶体管矩阵的阵列基板结构，可通过相关薄膜晶体管连接到数据线和公共电极的像素电极，用于黑矩阵的对置基板结构和滤色器填充阵列基板结构与对向基板结构之间的间隙的液晶，其中间隔柱和间隔壁分别形成在图像产生区域和框架区域中，并且间隔壁由较少侵蚀的抗侵蚀材料形成酸性清洗溶液而不是用于密封层的密封剂，用于将基板结构粘附在一起，从而防止液晶由于酸性清洗溶液而污染。

