

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl.⁷
G02F 1/1339

(11)
(43)

2003-0079429
2003 10 10

(21)

10-2002-0018460

(22)

2002 04 04

(71)

.

20

(72)

106-807

617

205-1304

108-504

(74)

:

(54)

;

가 UV ;

/ ,

2a	2d		.
3	1		.
4a	4c	3 I-I	.
5	2		.
6	3		.
7a	7c	6 I-I	.
8	4		.
9	5		.
10a	10c	9 I-I	.
11	6		.
12a	12b	7	.
13a	13d	8	.
14		UV	.
<		>	
1, 100 :	3, 200 :		
210 :	220 :		
230 :	240 :		
250 :	260 :		
270 :	280 :	2	
7, 300 : UV	5, 500 :		
9, 600 : UV	700 :		

(Liquid Crystal Display : LCD)

가 (cm)

(Flat Panel Display),

가

1) , (1) 1 , (

3) , (1,3) (5) , (

, (1,3) (5) (7)가

(1) (3) (5)

2a 2d

, 2a , (1) (3) . , (1)

[illegible]
$$\begin{aligned} & \text{,} \quad (1) \quad (3) \quad . \end{aligned}$$

2b, (1) (7), (5).

(3) () 가

(7)
가 가 , UV(Ultraviolet)
가 .

$$, \quad 2c \quad (1) \quad (3) \quad .$$
$$2d \quad UV \quad (9) \quad UV \quad (7) \quad (1)$$

(1)
(5)
(1,3)

가 가

가 가 .

가 가 가

가 UV
UV
UV
UV
1
3 1
3 (100,200) UV (100) (200)
(300)가
('A' UV 가) ()가
)가 UV (300) (260)
(100,200) ()
(100) (200)
(260)
(262)가 (262)가 (262)
(262)
(260)
UV (300)
(260) (262)

(262)가 (260) UV (300)

3 I-I ((260) (262)가)
4a 4c

4a (200) (210), (220), (230)

(100)

(200) (250)가

(250) (200) (210) (230)

(200) (250) (260)가

(260) UV (300) (230) (260)가 (

260)가 (220) (230) (260)가 (

(250), (260)

(200) (220) (230) 가 ()

(260) (200) (100)

4b (230) 4a (200)

(240)

4b IPS(In Plane Switching)

(100)

(250) (260)가 (240)

4a

4c (210) (300) 4b (240)

4b

2

5 2

5 (260) 2 (262)가

(262)가

(262) 가

1

3

6 3 .

6 (100,200) UV (100) (200) , (300)가 .

가 ('A' UV 가) ()가 , (260) (262)가 UV (260) (262) . ,

가 , (260) (270)

가 , (100,200) () .

(260) (260) (270) 가 (270)

6 I-I (260) (262)가)

7a 7c

7a , (200) (210), (220), (230)

(100) , , , ,

(200) (250)가 .

(200) (250) (260)가

(270)가 (260) (250)

7a (270) (270) , ,

(270)

(250), (260), (270)

(200) (220) (230) 가 (200) (100) ,

(260) (270)

()

7b (230) , 7a (200)

(240)

7b IPS(In Plane Switching) ,

(100)

(250), 7a (260), (270)가 (240)

7c (210) (300) , 7b (240) 7b

4

8 4
8 (260) , 4 (262)가
(262) , 가
3

5

9 5 (270)
(260) , (260)
3 , 9 I-I 10a 10c

6

11 6
11 (260) , 6 (262)가
(262) , 가
5

7

12a 12b 7 2 (280)가 7 1
(260)
,
, 1 (260) / 2 (280) (262)
(262)가
1 (270) (260) 2 (280) (260)

8

13a 13d
,
, 13a , (100) (200) , (100)
, , , , / , ,
,

(polyimide), PVA(polyvinylalcohol), (polyamic acid), (polyamide)
, PVCN(polyvinylcinnamate), PSCN(polysiloxanecinnamate), CelCN(celluloseci
nnamate)
(200)
(100) (Ag) (dot) (100, 200)
(200) 가 (Ag) (200)
, IPS(In Plane Switching) (Ag) (100)
1 7
, 2 (200)
, 2
(200)
, 13b (200), UV (300)
(Screen Printing Method), (Dispensing Method)
가
UV (300) 가 가
(100) (500) (500)
(500) UV (300)가 (300)
(500) (100)
UV (500) (300)
, 13b (100) (500) (200) UV (300) (10
0) UV (300)
, (500) UV (300) UV 가 가
(300) UV (500) UV
, UV 가
, 13c (100) (200)

(100) 180 (100) (200) (layer) (200) 가 , , , . , 13d , UV (600) UV . UV UV (300) (100) (200) 가 , UV (300) 가 가 가 UV 가 가 120 1 , UV , UV UV가 , (pretilt angle) . , 14 , UV (300) (700) 가 UV . , 가 (: scribing process) 가 (: break process) . , / 가 . , 가 가 가 . , 가 . , 가 UV 가 .

(57)

1.

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가

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UV

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2.

1

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가

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3.

1

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가

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4.

1

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가 가

5.

1

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가 가

6.

1

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가

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7.

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3 ;

3

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3

가

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UV

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8.

7 ,

3

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9.

7 ,

3

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10.

7 9

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3

가 가

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11.

7 9

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3

가 가

,

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12.

7 9

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가

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13.

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UV

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;

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UV

.

14.

13 ,

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15.

13 ,

,

가

.

16.

13 ,

,

가

.

17.

13

,

18.

13

,

UV

UV

가

19.

13

,

UV

가

가

20.

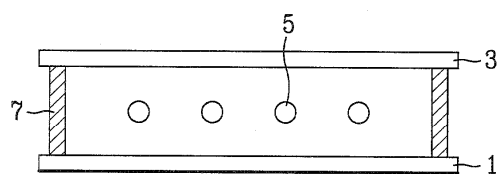
13

,

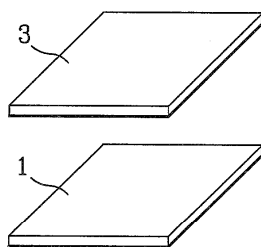
UV

가

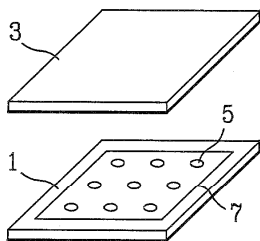
1



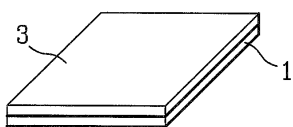
2a



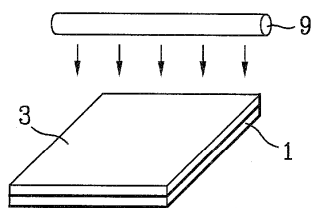
2b



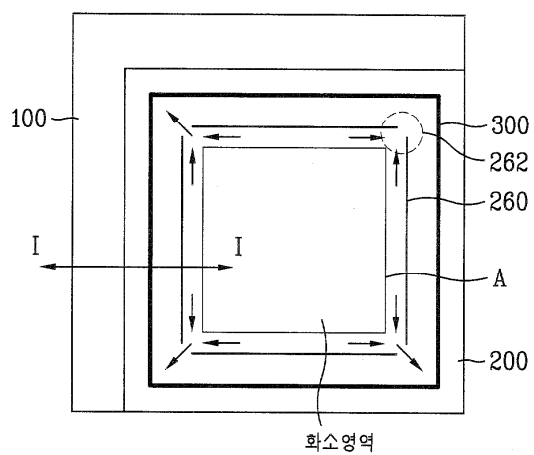
2c



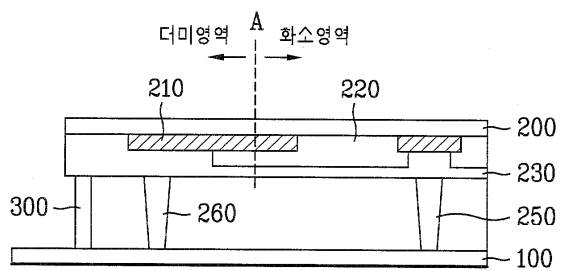
2d



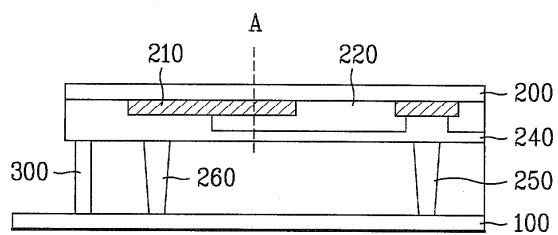
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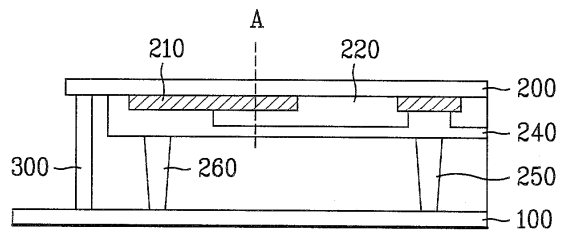
4a



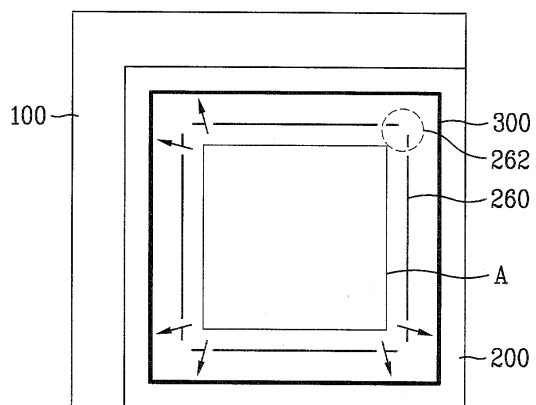
4b



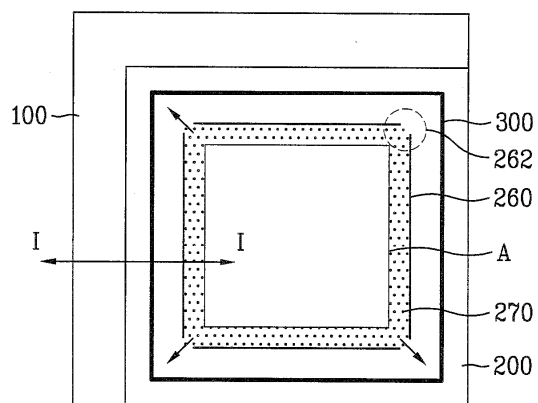
4c



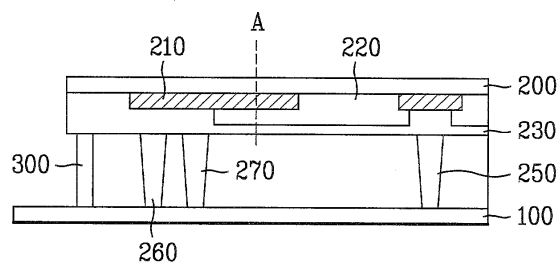
5



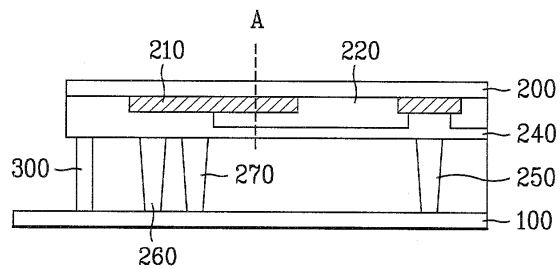
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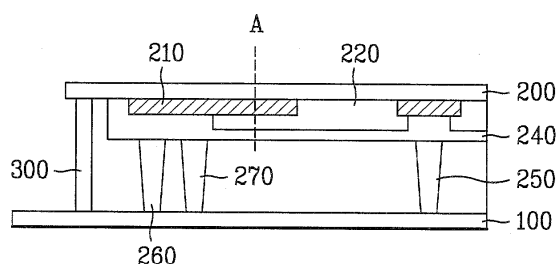
7a



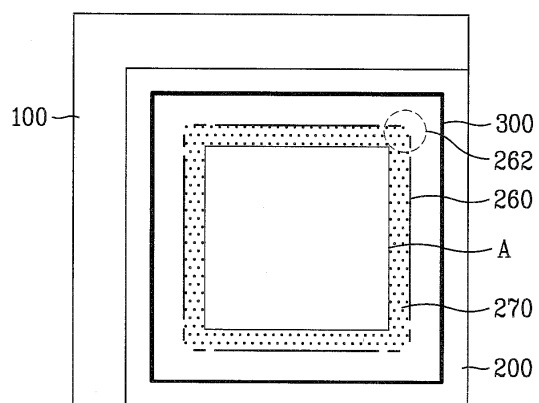
7b



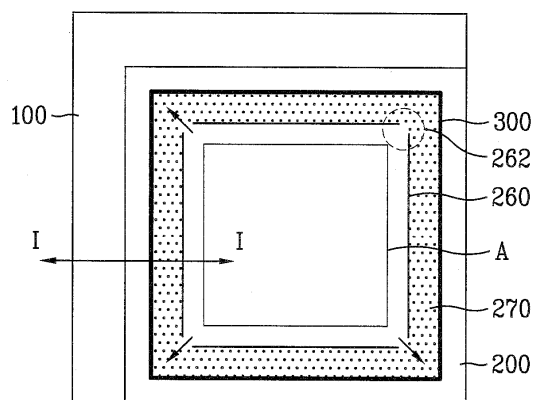
7c



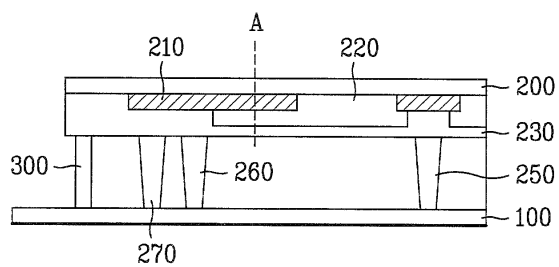
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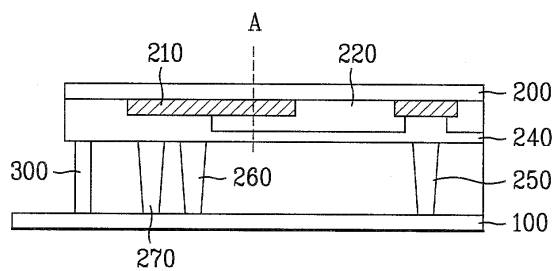
9



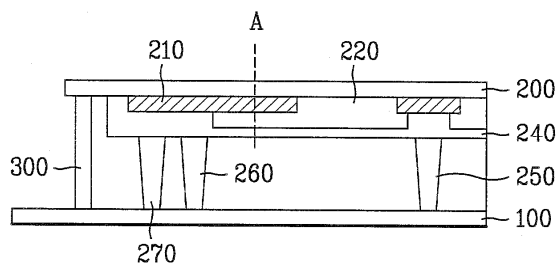
10a



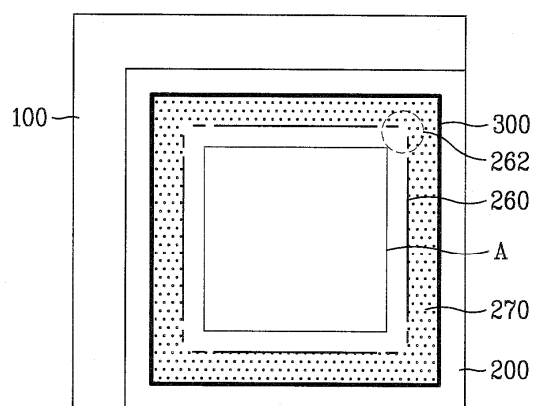
10b



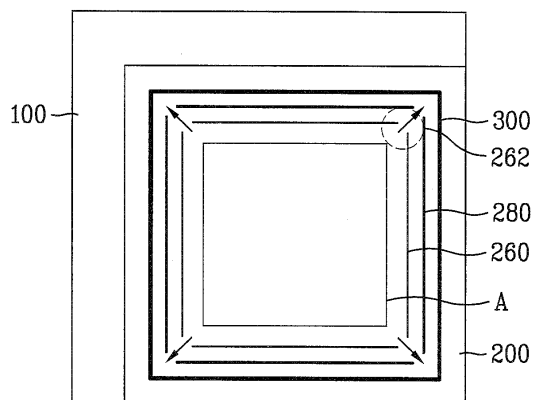
10c



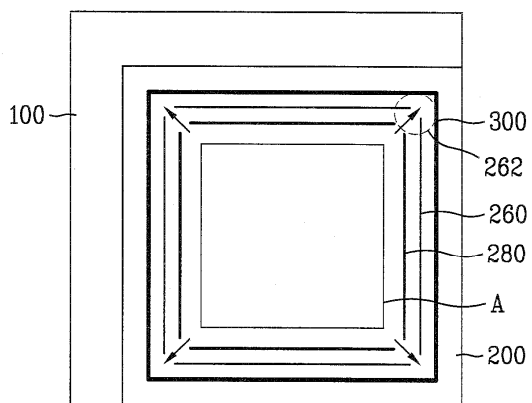
11



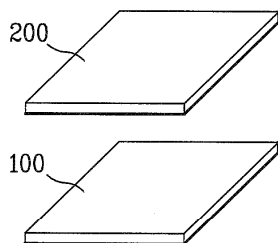
12a



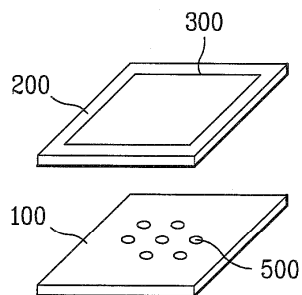
12b



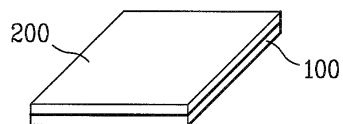
13a



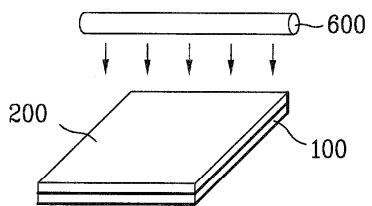
13b



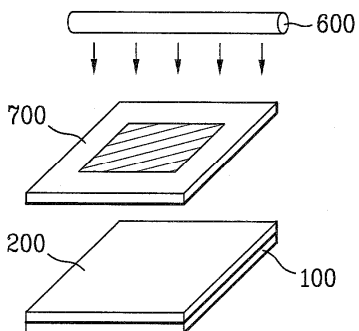
13c



13d



14



专利名称(译)	液晶显示元件及其制造方法		
公开(公告)号	KR1020030079429A	公开(公告)日	2003-10-10
申请号	KR1020020018460	申请日	2002-04-04
[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	KIM JONGWOO 김종우 HA YOUNGHUN 하영훈 KANG SUNGCHUN 강성천		
发明人	김종우 하영훈 강성천		
IPC分类号	G02F1/1339		
CPC分类号	B05D3/061 G02F1/1339 G02F1/136 G02F2001/133519 G02F2001/13398 G02F2201/121		
代理人(译)	金勇 新昌		
其他公开文献	KR100710157B1		
外部链接	Espacenet		

摘要(译)

本发明涉及下基板和上基板。在两个基板之间的像素区域中形成柱状间隔物;液晶流动控制虚拟柱状间隔物,形成在两个基板之间的虚设区域中,并具有形成在至少一个角区域中的开口;一种可UV固化的密封剂,形成在基板之间的虚设柱状间隔物的外部;并且,在两个基板之间形成液晶层。根据本发明,在虚设区域中形成具有开口和/或虚线虚设柱状间隔物的虚设柱状间隔物,平稳地控制液晶的流动以防止液晶的填充或填充区域的产生。3 指数方面 虚拟柱隔片

