

(19) (KR)  
(12) (A)

(51) 。 Int. Cl.<sup>7</sup> (11) 10-2004-0110015  
G02F 1/13357 (43) 2004 12 29

(21) 10-2003-0040128  
(22) 2003 06 20

(71) . 20

(72) 6 601 1706

(74) :  
\_\_\_\_\_

(54)  
\_\_\_\_\_

가  
가  
5 10%  
가

10

1  
2 1  
3  
4  
5 3 4

6	1	.
7	6	- ' .
8	1	.
9	1	.
10	1	.
11	2	.
12	11	- ' .
13	2	.
14	2	.
15	2	.
16	3	.
17	3	.
18	3	.
19	3	.

< >

1,,100 : 2,102 :

3,103 : 5,105:

6,106 : 8,108 :

10,110 : 11,111 :

12,112 : 14,114 :

21,221 : 23,223 :

25,125 : 120 :

121 : 123 :

, ,

.

(Back Light Unit)

가  
가

1

1 , (1) (Support Main)(14) , (14)  
(6) , (6) 가 (14) (Case Top)  
(2)

(6) (5) (3) (5) (3)  
(6) (6) (5)  
(6) (3)

tor : 'TFT' )가 . TFT (Thin Film Transis  
( )

(3)  
TFT 가 가 (Tape Carrier Package)가  
( )

(6) (5) 가 (3) 가

(14) (Mold)  
(6) 가 (14) 2 , (6)  
(6) (21), (21) (23), (12), (10)  
(10), (10) (6)  
(8)

(21) 가 (21) (25) 5 ,  
(10) (11) (10)

(23) (21) (21) (10)

(12) (10) (10) (10) (10)  
(12) , (21) (10) (10)  
(6) (6)

(10) (21) (6) (10)

(10) (10) 3 , 4  
(10)

(10) (12) (10)  
(8) (6)

(6) (8) (10)  
(10)

1 2 , 1 2  
(10) (8) (6)

(6) 가 (2)

(14) . , (2)

3 , 4

5 3 4 .

5 3 4 .

(21) (25) (10) (11) (10) (21)

3 , (10) , 4 , (21)가 (10)

(10) (21) (25) (11) (10)

(10) (21) (10) (11) (25) (10)

(10) (25) (1) (21) 가 (21)

가 가 (21)

(21) 가 (21)

6 1 .

6 , 1 (100) (114) , (114)  
 (106) , (106) 가 (114)  
 (102) .

(106) (105) (103) (105) (103)  
 , (106) (103) (105)  
 , , . , , (106) (103) (

Thin Film Transistor : 'TFT' )가 . TFT , ( ) (

, , TFT (103)  
 , TFT 가 가  
 (Tape Carrier Package)가 .

, (106) (105) 가 , (103)  
 가 .

(114) (Mold)  
 (6) 가 . (114) 7  
 (112), (110), (Light Emitting Diode Array : 'LED' .)(120)  
 (108) (105) (103)  
 ) (106) .

(100) , , 1  
 , LED (120) (1) (21) ,

(106) (106) LED (120) , LED (120)  
 (110) (110) , (110) (112) ,  
 (108) .

LED (120) (Light Emitting Diode : 'LED' .)(121) ,  
 LED(121) 가 (Printed Circuit Board : 'PCB' )(123)  
 . LED(121) . PCB(123) LED(121)  
 LED(121) . LED(121) (110)  
 (110) .

(110) 가 , 8 ,  
 , 9 ,

(110) 8 9 , (111) (110)  
 LED(121) (106) (110) (110)  
 (110) .

(112) (110) (110)  
 (106) (110) (110)  
 (112) (108) (106) . (110) (110)

(112) (110) (110) (110) (11  
 0) (110) (112) LED(121) (106) .  
 (106) (108) (110)  
 , (110) (106)  
 1 2 , 1 2

106) . , (110) (108) (

(102)  
(106) 가 (114) 가 . , (102)

8 1 1 , 9  
1

10 1 .

10 8 9 .

D 1 (100) (106) (125) LE  
(120) , LED (120) (112) , (110) (106) (110) ,  
(110) (108)

1) 1 (100) (110) LED (120) LED(12  
(111)

LED(121) 8 (110) , (110) , 9 , LE  
D(121)가 (110)

(111) LED(121) (125) (110) 10  
, (125) (110) (111) , (110) (125) (1)  
(10) 가 5 10% (125) (110) (125)  
(106)

11 2 .

2 (200) 1  
(100) 가 .

11 , 2 (200) (214) , (214)  
(206) , (206) 가 (214) (214)  
(202)

(214) 12 (212), (210), (221),  
(223) (208) (205) (203)  
(206)

2 (200) (206) (221)  
) , (221) (206) (210) , (210)  
(212) , (210) (208)

(221) 가 , (221) , ,  
가 . ,

(221) (210) (221) (210)  
(210)

(210) 가 , 13 ,  
, 14 , .

13 2 , 14  
2 .

15 2 .

15 13 14 .

(210) 가 , 13 ,  
, 14 , .

2 (200) (221) (210)  
(211) (210) .

1) (210) (210) (221) (225) (210) (221) 13 가 (21)  
(210) , 14 , (221)가 (210) ,  
.

(210) (221) (206) (210)  
(210)  
(211) (225)  
, (210) (225) (212)  
, (210) (225) (208) (206)  
.

(211) (221) (225) (210) (225) (1) (225)  
(210) (211) , (210) (225) (10) 가  
5 10% (206) , .

16 3 .

3 (300) 2  
(200) 가 .

16 , 3 (300) (314) , (314)  
(306) , (306) 가 (314)  
(302) .

3 (300) (306) 2  
(321) , (321) (306)  
(310) , (310) (312) , (310)  
(308) .

2 (321) (310) 2 ( )  
321) (310) (311) (310) .

17 3 , 18  
3 .

19 3 .

19 17 18 .

3 (300) (310) 가  
, 17 , 18 ,  
(310) (311) ,  
(310) 2 (321) (306)

2 (321) 17 (310) 18  
 , 2 (321)가 (310)  
 , (325) (311) (321) (325) (310) 19  
 (1) (10) (310) 5 10% (311) (325) (310) (3  
 25) 가 (306) ,

5 10% 가  
 가

(57)

1.

가

2.

1

3.

2

4.

3

5.

4

2

6.



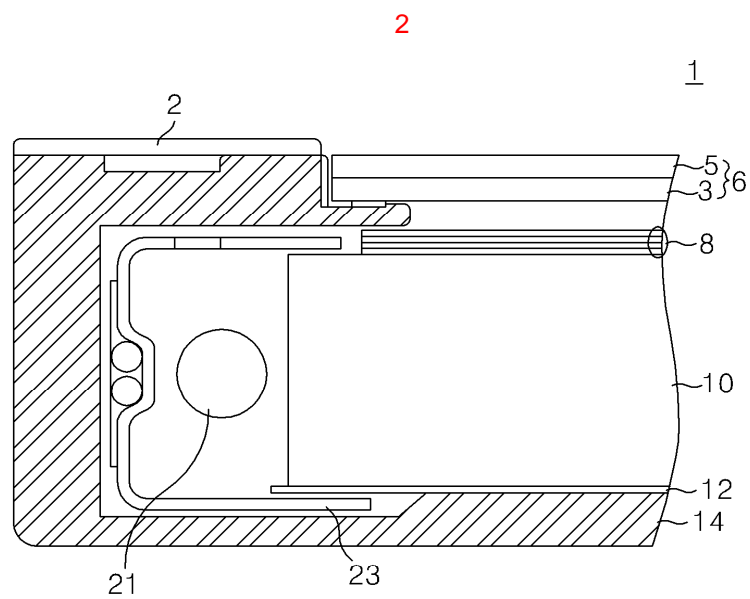
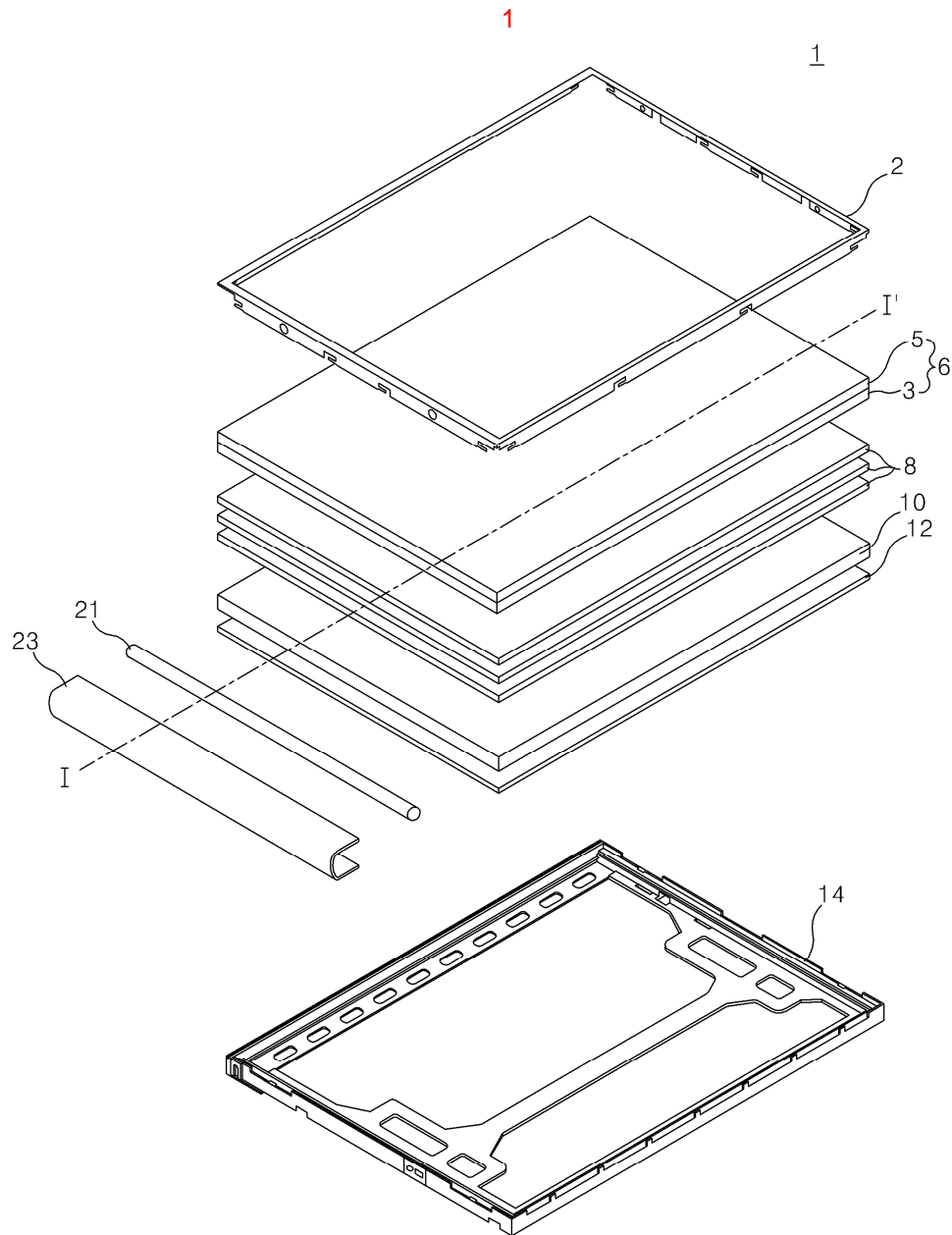
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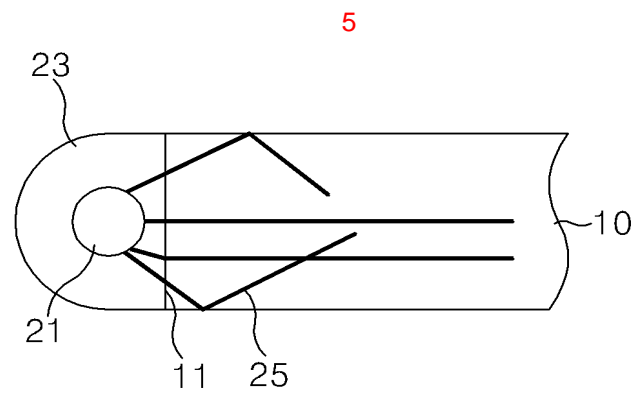
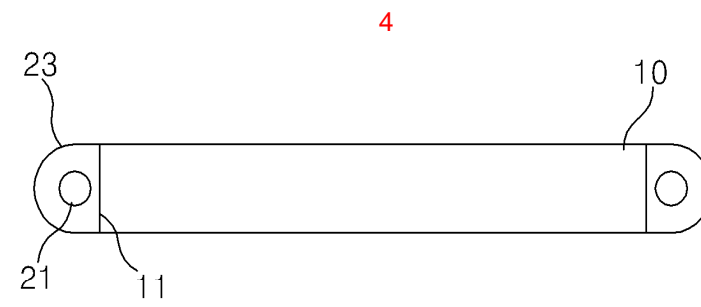
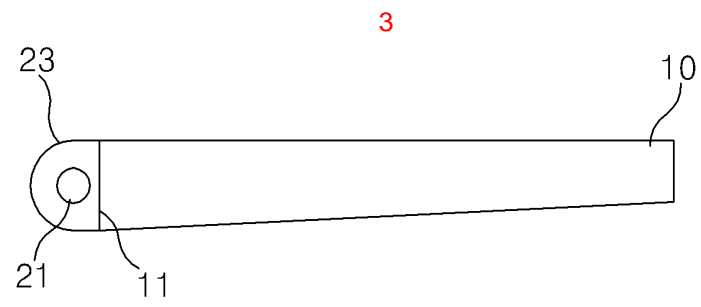
6 7. ,

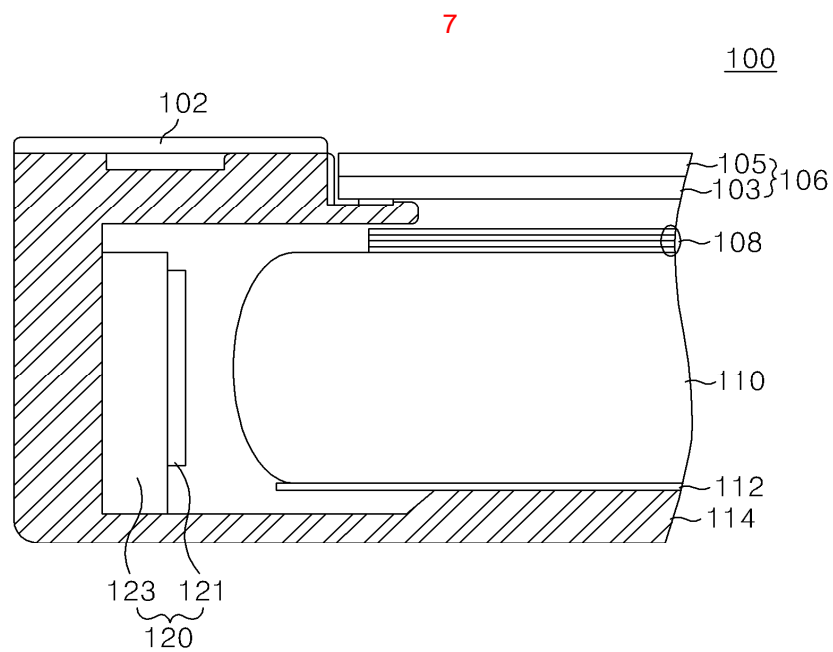
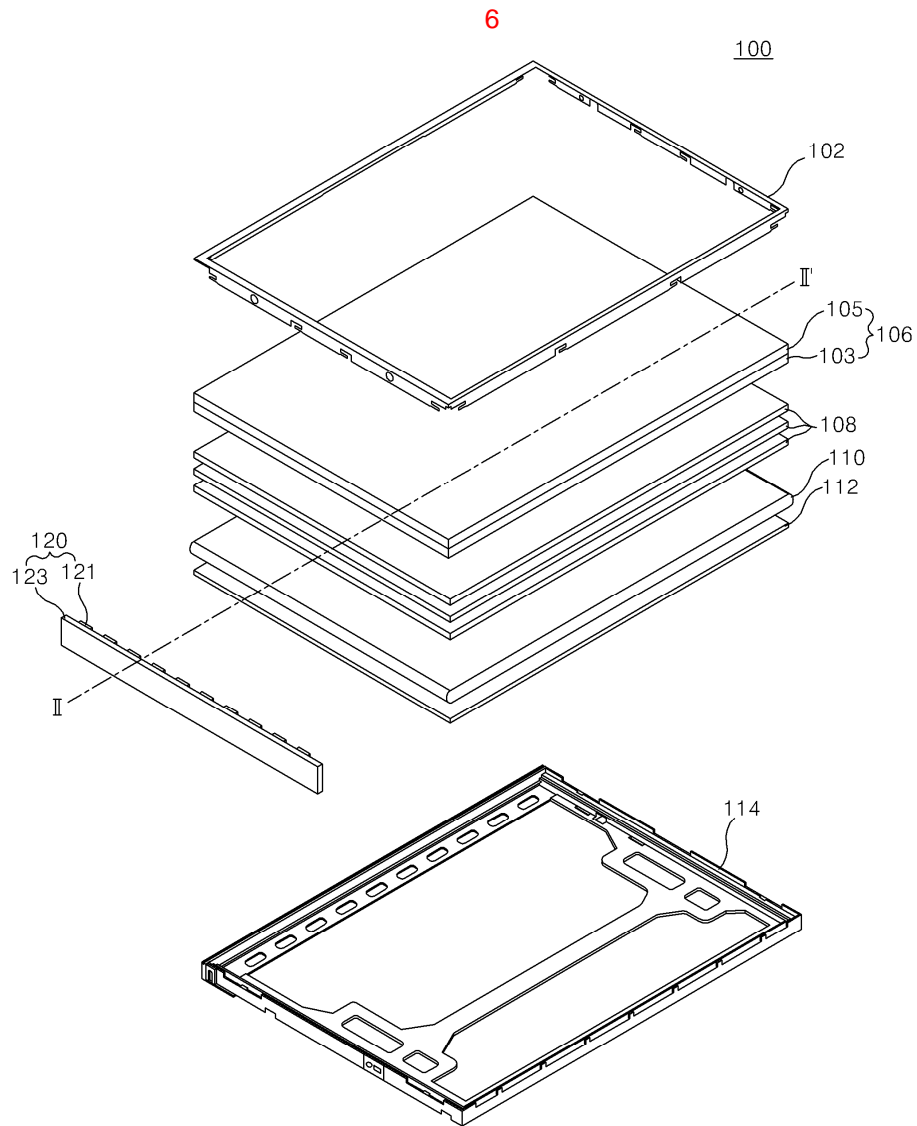
7 8. ,

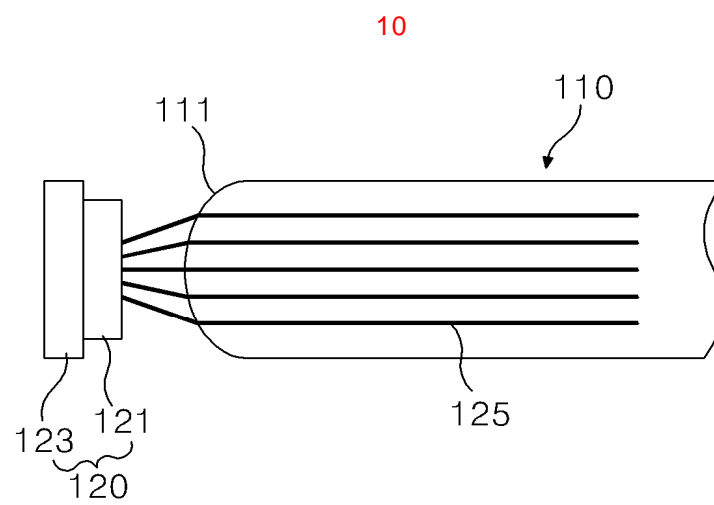
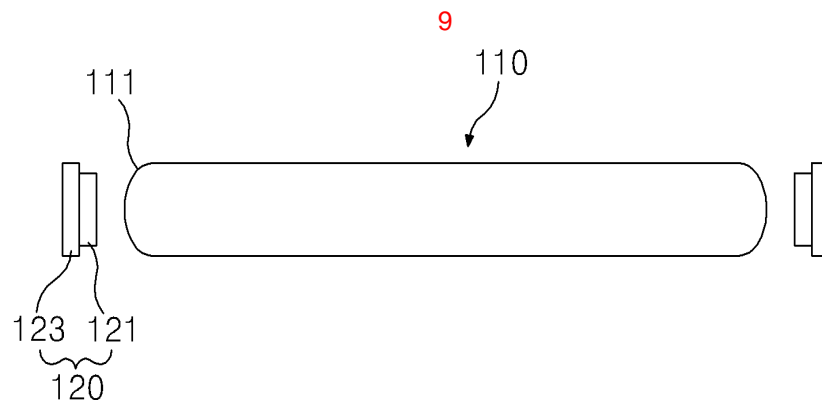
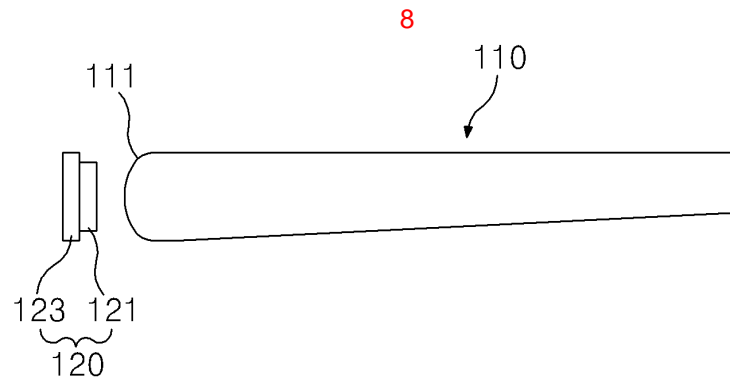
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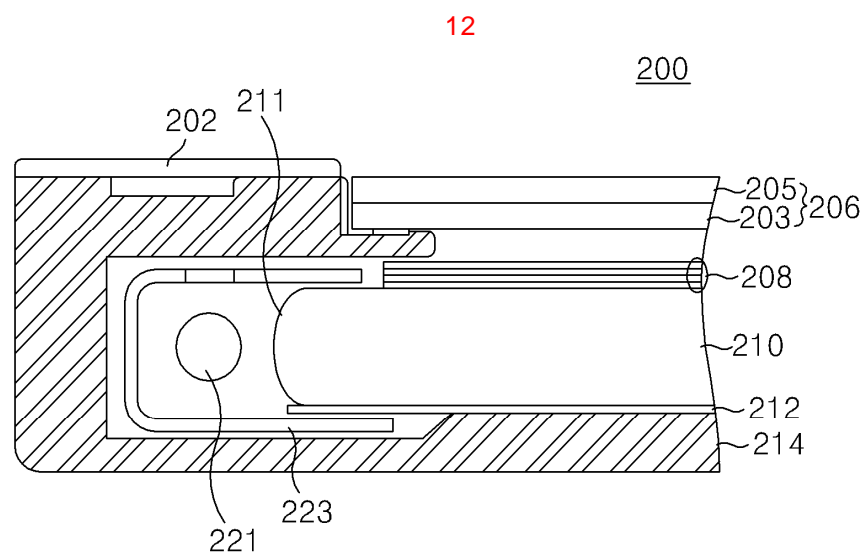
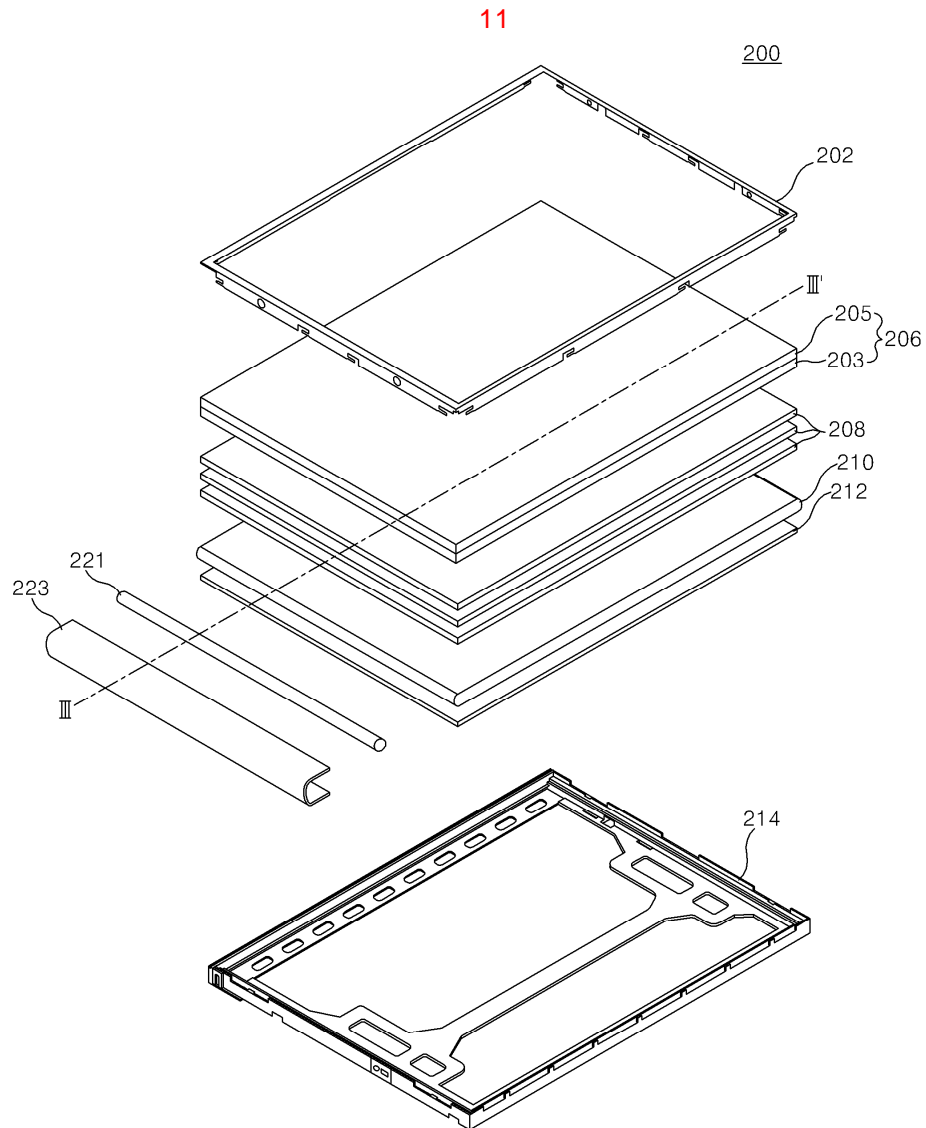
1 9. ,



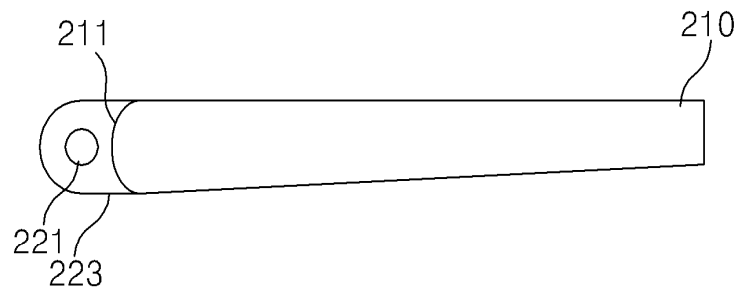








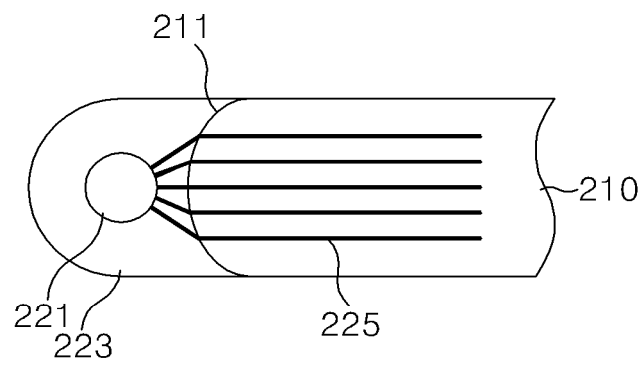
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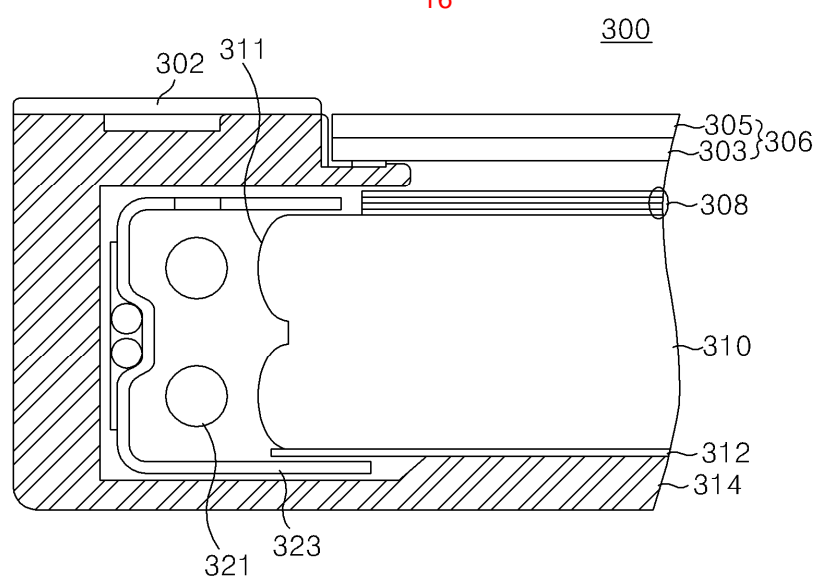
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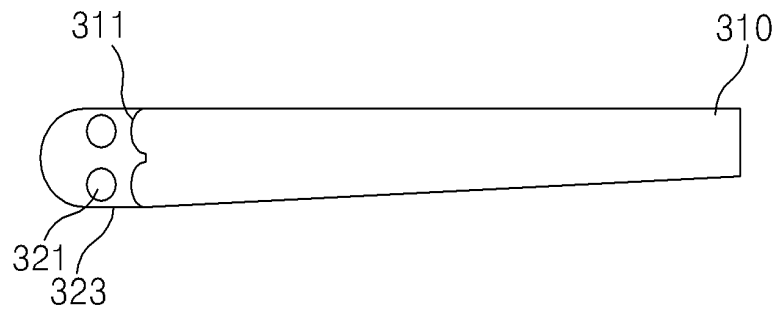
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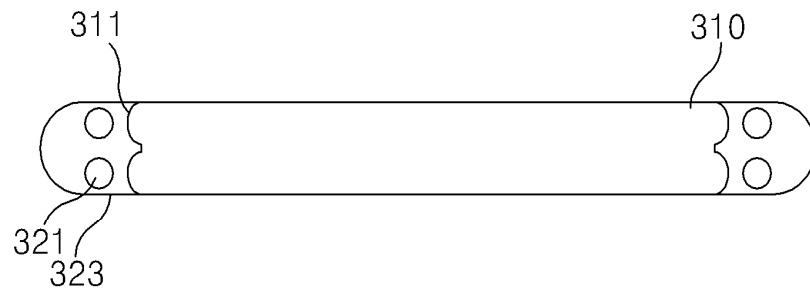
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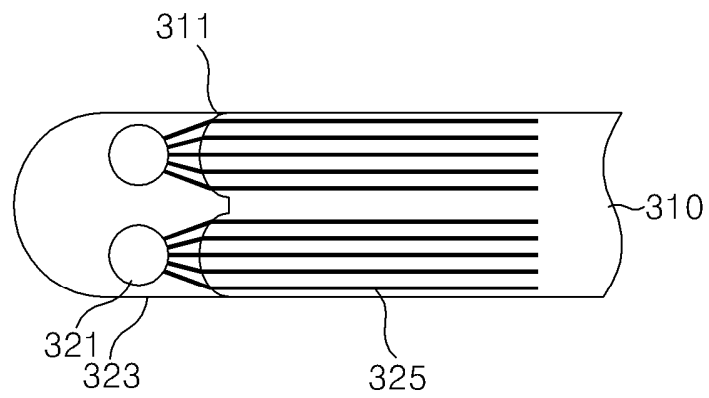
17



18



19





专利名称(译)	液晶显示模块		
公开(公告)号	<a href="#">KR1020040110015A</a>	公开(公告)日	2004-12-29
申请号	KR1020030040128	申请日	2003-06-20
[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	LIM MOOJONG 임무중		
发明人	임무중		
IPC分类号	G02F1/13357		
外部链接	<a href="#">Espacenet</a>		

#### 摘要(译)

本发明涉及一种可以实现高效率的液晶显示模块，以及低耗散的背光单元，提高了显示质量。根据本发明实施例的液晶显示模块包括液晶面板，光源产生光和导光板，导光板通过入射面将入射光引导到液晶面板，同时具有入射面至少一个凸形。通过这种配置，根据本发明优选实施例的液晶显示模块将导光板的入射面形成为膨胀形式，并且可以提高收集效率，而不是一般液晶显示模块的导光板。5~10%。如果光会聚在导光板中入射光的光入射效率增加，则可以提高液晶面板的亮度并且可以实现高效率，并且可以实现低耗散的背光单元。

