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G02F 1/13

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(43)

10-2004-0066043
2004 07 23

(21) 10-2004-0003250
(22) 2004 01 16

(30) JP-P-2003-00008869 2003 01 16 (JP)

(71) 가 가
가 가 398

(72) 가 가 398가 가

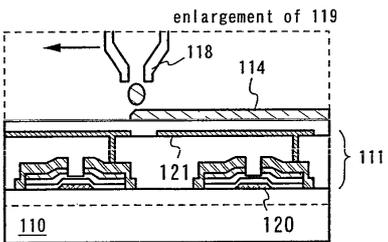
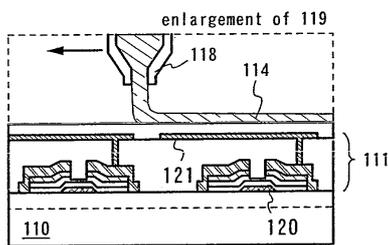
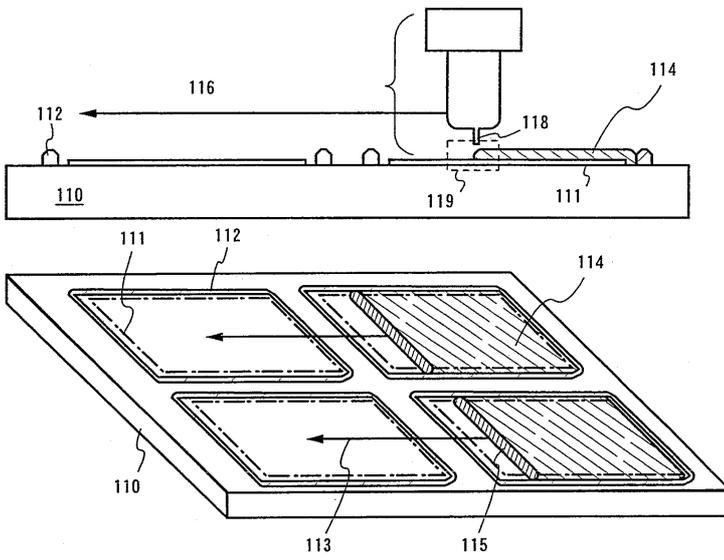
가 가 398가 가

(74)

:

(54)

가 가 , , 가 . (114)가
가 , 가 ()
· , ·



, , , ,

1a 1d 1 .

2a 2b 1 .

3a 3d 1 .

4a 4b 1 .

5a 5c 2 .

6 (1).

7a 7b (2).

8 가 (2).

9a 9c (3).

10a 10b (3).

* *

111 : 112 :

114 : 116 :

118 : 204 :

205 : 206 :

(, TFT)

가 (TFT) (IC)

가 ,

가 , 가 ,

가 ,

가 .

1(1 : US 4,691,95) (drip) .

가 가 가 , 가 . ,

가 , , 가 , (가) ,

가 , , , , ,

가 , , , , ,

가 , , , 가 , ,

320mm x 400mm, 370mm x 470mm, 550mm x 650mm, 600mm x 720mm, 680mm x 880mm, 1000m
m x 1200mm, 1100mm x 1250mm, 1150mm x 1300mm 가
m x 2100mm, 2200mm x 2600mm 2600mm x 3100mm 가
1500mm x 1800mm, 1800mm x 2000mm, 2000m
가

가 (')
가 : MLP() ML Chi
p()

()
()
가 ()

가 가
가
()

(TN) 가 90° TN

2 1 2 가

가

()

가

가

1
1

2

1

1

2

1

2

1

1

2

1

2

1

2

2

1

가

1x10² Pa

2x10⁴ Pa

1Pa

5x10⁴ Pa

()

) 1x10² Pa

2x10⁴ Pa(

가

5x10²

가

5x10³

Pa)

(20)

200

가

가

()

() 가

1 1 1 2 1 2

1 1 2

1 2

1

1a 4b 가 4

1a (114) (116) (118)

(116) 1a (112) (118) (111)

1b (114) (112)

(115) (113)

1c 1d 1a 가 가

가 1d

1c 120 TFT (121 TFT) (111)

()_ () TFT

TFT 가 가 (

() TFT

가 3 Ram

an 520cm⁻¹ (wavenumber) 가 X- , Si

(111) (220)

가 (CVD) 가 1 %

가 SiH₄, Si₂H₆, SiH₂Cl₂, SiHCl₃, SiCl₄, SiF₄ 가

가 H₂, H₂ He , Ar, Kr Ne 가

13MHz 60MHz, 1MHz 120MHz 0.1Pa 133Pa

100 250 1x10²⁰/cm³, 가 5x10¹⁹/cm³, 300 ,

ec 가 TFT (i) 1cm²/Vsec 10cm²/Vs

1x10¹⁹/cm³

가 가 가

2a 2b (211) (210) (204) 가

A 가 B

(204) (205)

(206) (205) (207) 2a

가

2a 5 가

(204) (201) (208) 5 x 10² Pa 5 x 10³ Pa (205)

1 x 10² Pa 2 x 10⁴ Pa(가 (209) (206) (201)

(207) (201)

2b (200) (212) 가

(203)

3a 3d

(34) 1 (35) 1 (35)

3a (34)) 40Pa · s 400Pa · s 1 가 (35) (32)가 ()

(34) 가 (32) 가 (32) (33) (6μm 24μm) (32)

) (33) 가 가 (32) (33)

(32)

(34) 1 (35) 2 (31) 가

(3c). (32) 가

4a 4b 가 가

4a 4b , 41 1 42 2 , 3a

44 48 49

3d 4a 4b

(48) 가 2 (44) , 1 , 2

(49) (44) 2 , 1 2

(42) 4a

, 1 2 가 , 1 (35) 2 (31) , 4b

1 (35) (3d) , 4

1 935) 2 (34) , .

2

1 5a 5c .

5a (518) 1 (510) 2 (520)

1 (510) (511) 1 (512) 2 (52

2) (514b) ()가

(514b)가 1 (512) 2 (522) (514a) 2

가 5b 가 , 가 1

2 , 1 2 1 2 , 2

가 , 가 (514c)

(5c).

1

가

1

가 6a 6b .

(600) . 600mm x 720mm, 680mm x 880mm, 1000mm x 1200mm, 1100mm x 1250mm, 1150mm x 1300mm, 1500mm x 1800mm, 1800mm x 2000mm, 2000mm x 2100mm, 2200mm x 2600mm 2600mm x 3100mm 가

Corning Inc. #7059 #1737 가 ,

가 가 (600) , 1

(,) (600) ,

Ti, Ta, W, Mo, Cr Nd , Ti, Ta, W, Mo, Cr Nd 가

가 , 가 가 , 가 , 가 가 .

Pt Cu, Al, Ag, Au, Cr, Fe, Ni

(5nm 10nm) , Ag, Au, Cu Pd

PCVD , 50nm 200nm, 150nm

100nm 150nm CVD 50nm 200nm, 100nm
(a-Si) 가 CVD

가 가 가 가 (a-Si) 가

(n p) 가 2 20nm 80nm CVD
2 2 가 2

가 가 2 2 1

가 2 (3 가)
Al, Ti, Ta, W, Mo, Cr, Nd, Cu, Ag, Au, Fe, Ni Pt

(5nm 10nm 가) Ag, Au, Cu Pd

4 가 가 1 2 가

TFT 150nm 가 CVD 150nm 가 가
가 가 가 TFT가 가 (a-Si) 가

TFT TFT, TFT TFT 가

5 가 가 가

()

TO ITO

110nm ITO(가), (In₂O₃-ZnO) (601) 6 (ZnO)

a-Si TFT, 6

(602)가 (623) , ,
 (625) (620) , ,
 (622) , ,
 가 , ,
 (607) (607) ()가 가 , ,
 (602) , , , , 가
 , , 가 , (603)
 . FPC 가 ,
 (604) (605) 가 6 (606)
 ()가 (603)
 가 , ,
 , , 가 , ,
 , , 가 , ,
 , 1 2 .
 2
 1 7a . 1
 1 7b .
 1 , TFT 1cm²/Vsec , TAB(
) COG() , 가 IC ,
 7a , 701 , 706 , 7
 04 , 707 , 705 FPC ,
 (701 706) , (707)
 1 가 , TFT 가 , 가
 , TFT가 ,
 , 8 20 80 가
 가 ,
 8 (2001), 20 (2002), 80 (2003), 가 (2004), , (2005)
 (2003) ,
 , 가 TFT가 , , CMOS

가, CPU

가 TFT가, 7b

7b, 711, 716, 712, 714

717, 1, 713, 1, 715 FPC, 2, 718

(712, 713), (711, 716), (717), (714), 2, (718)

, 1 (717) 2 (718)

1 2

1

3

() 가

), 가 9a, 9c, 10a, 10b ()

9a (2001), (2002), (2003), (2004)

9b (2201), (2202), (2203), (2204), (2205)

9c (2401), (2402), (2403), (2404), (405) DVD(), CD

10a () (3001), (3002 3003), (3004), (3005), (3006)

10b (3101), (3102), (3103)

가, 10b, 5, 20, 1/4

1 2 1 2

20 80 가

1.

1 , , , 1 , , 1 2 ,

2.

1 , 1 , 1 2 ,

3.

1 2 , , 1 1 , 2 2 , 1 2 1 2

4.

1 3 ,

5.

1 가 3 , 1

6.

1 3 ,

7.

1 2 ,

8.

1 3 , 1x10⁻² Pa

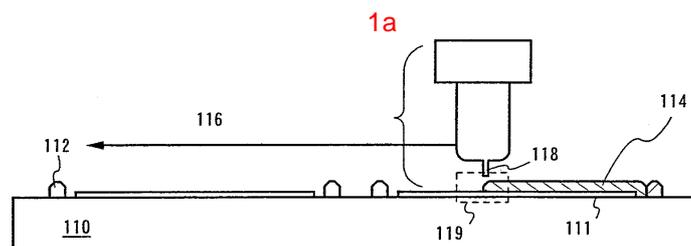
2x10⁻⁴ Pa

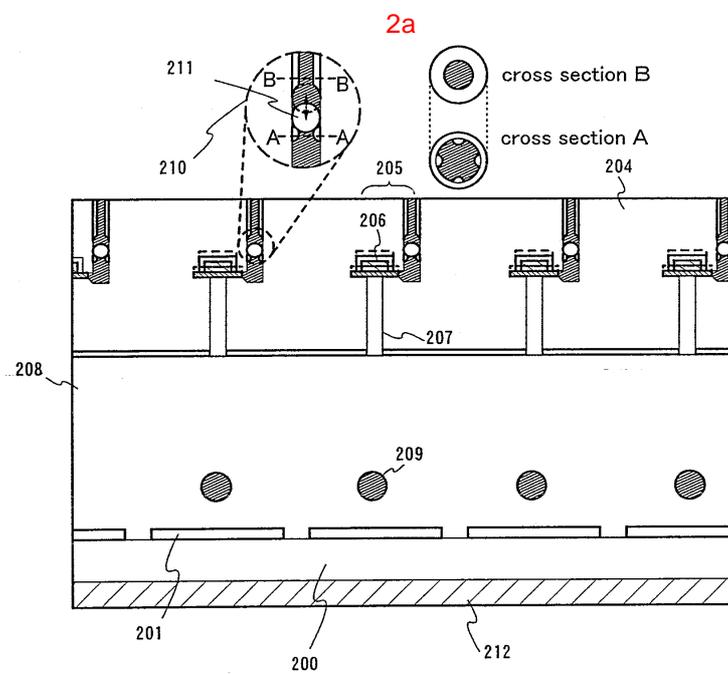
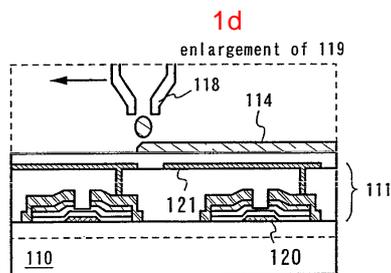
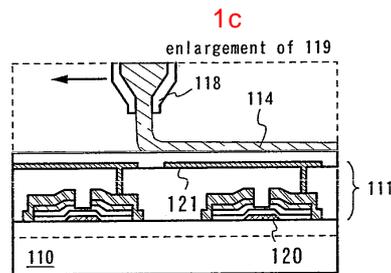
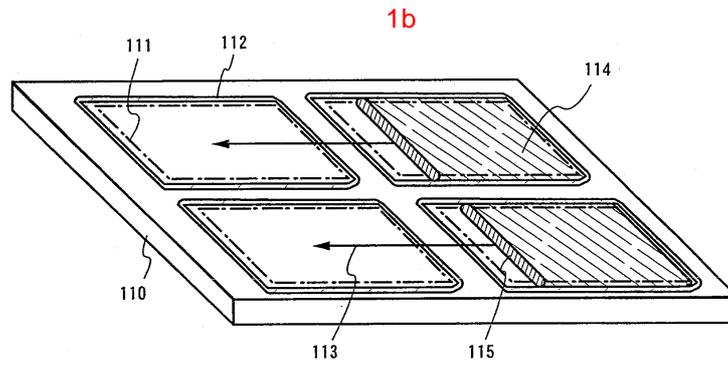
9.

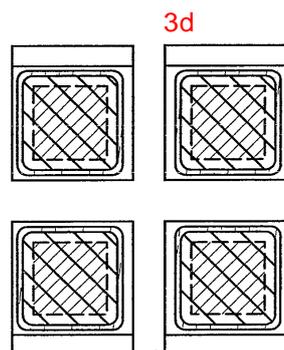
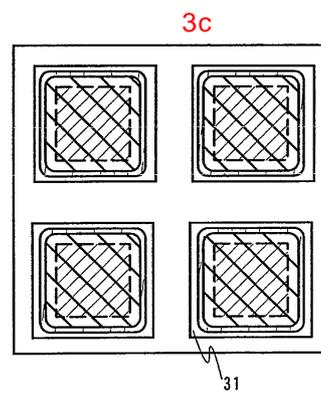
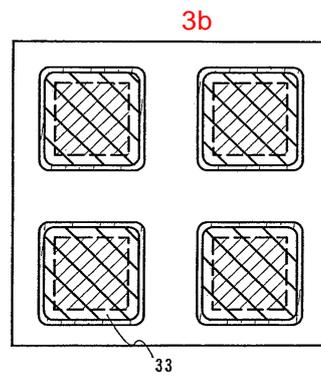
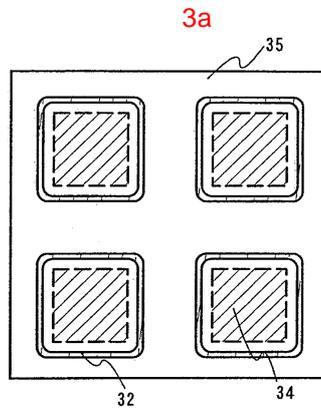
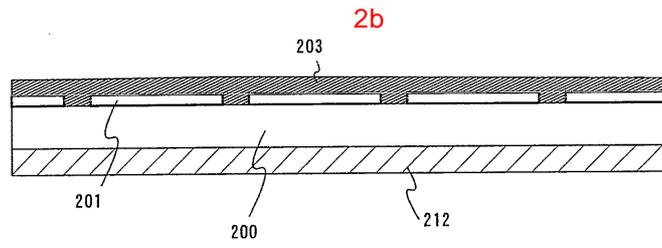
1 3 , 1Pa 5x10⁻⁴ Pa

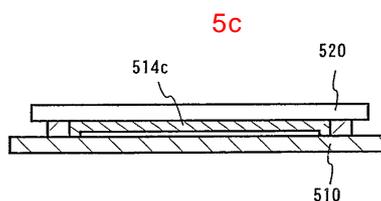
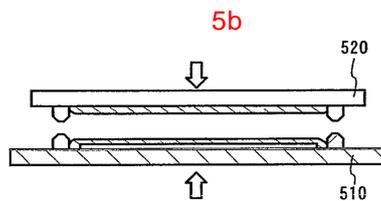
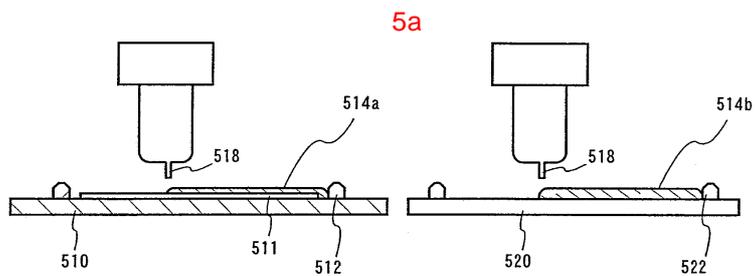
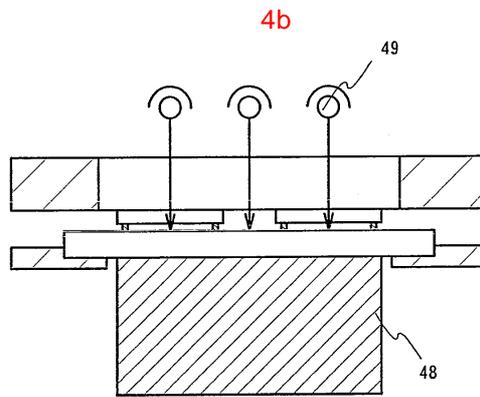
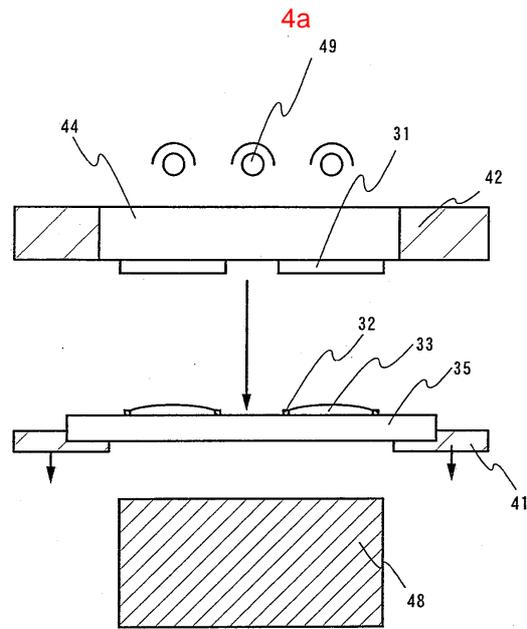
4 Pa

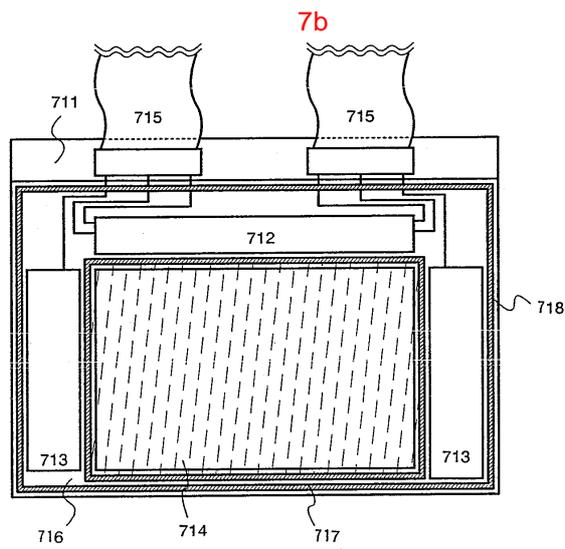
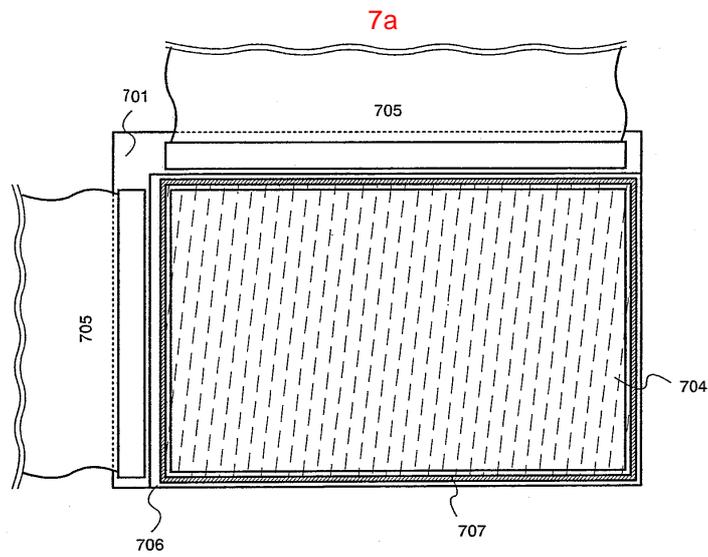
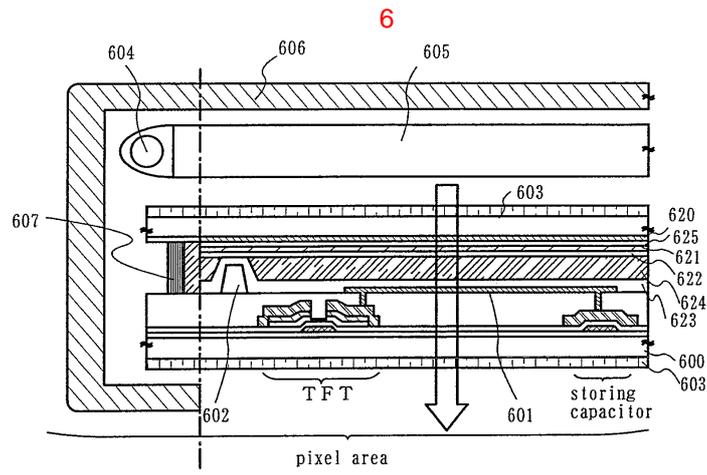
10. 1 3 , .
11. 1 3 , .
12. 1 3 , .
13. 1 3 , .
14. 1 3 , .
15. ,
1 1 2 ,
1 2 .
16. 15 , 1 2 가 .
17. 15 16 , 1 2 가 .
18. 1 3 , , CD , D
VD , .
19. 15 , , CD , DVD , .

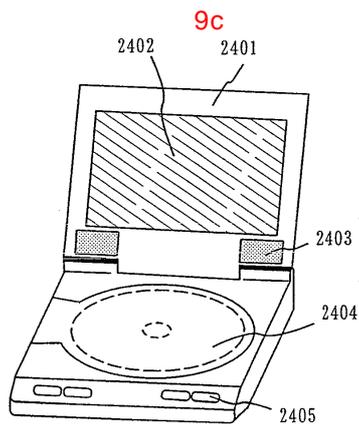
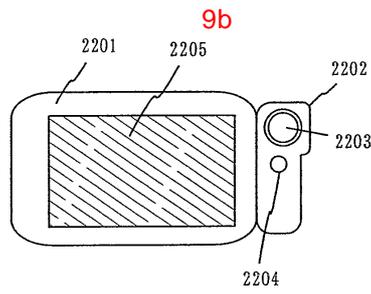
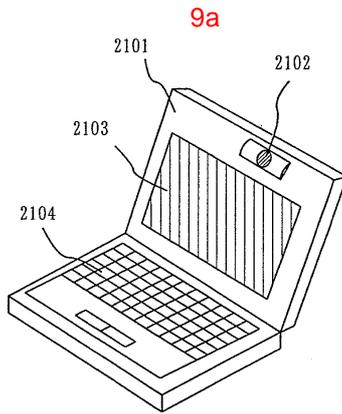
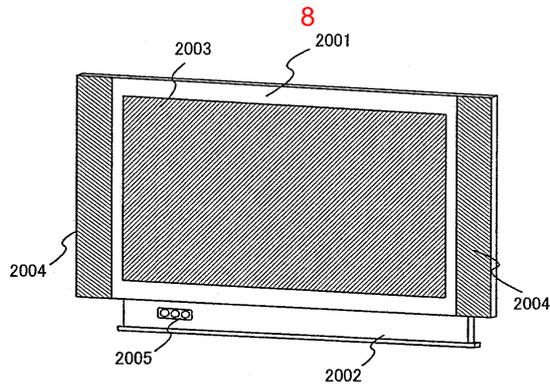


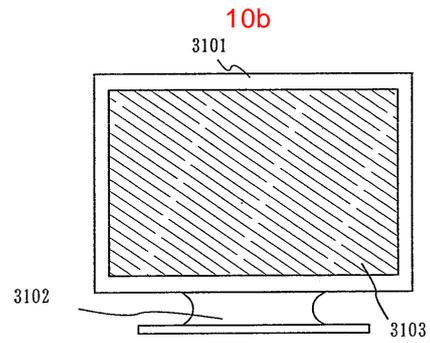
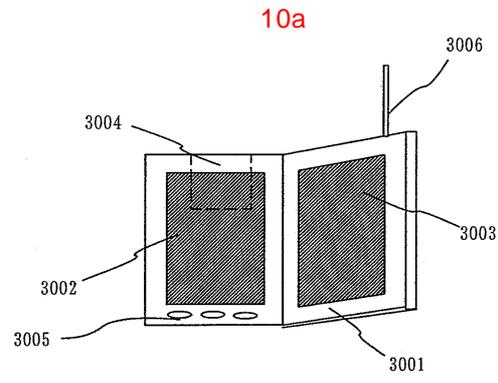












专利名称(译)	液晶显示装置及其制造方法		
公开(公告)号	KR1020040066043A	公开(公告)日	2004-07-23
申请号	KR1020040003250	申请日	2004-01-16
[标]申请(专利权)人(译)	株式会社半导体能源研究所		
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发明人	야마자키순페이 쿠와바라히데아키		
IPC分类号	G02F1/13 G02F1/1341 G02F1/1333		
CPC分类号	G02F1/133351 G02F2001/13415 G02F1/1341 Y10T156/10		
代理人(译)	李昌勋		
优先权	2003008869 2003-01-16 JP		
其他公开文献	KR101078199B1		
外部链接	Espacenet		

摘要(译)

需要制造能够实现更高清晰度的装置，以及比屏幕尺寸更大的更高孔径比提高的可靠性。此外，关于提高生产率和费用最小化的需求增加。由于本发明在具有液晶材料 (114) 的基板上的像素区域上，所以在所提供的像素电极上通过喷墨的宽侧，与相对的附着的放电 (或者，滴下 (滴落)) 板。此外，可以在对方板上进行密封材料和滴液量的每个液晶的应用。通过用喷墨形成液晶层，减少了制造过程中使用的液晶的总量。液晶材料，喷墨，像素区域，密封材料，对置板。

