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(43)

10-2005-0001953
2005 01 07

(21) 10-2003-0042963
(22) 2003 06 28

(71) . 20

(72) 45-9

(74)

:

(54)

(Metal)

, / , , 1 2 ; ,
1 ; 1 ;
1 ; 1 ;
2 ; 1 ;
; ; ,

11

, , ,

1 TN

2 (IPS)

D(Liquid Crystal Display), PDP(Plasma Display Panel), ELD(Electro Luminescent Display), VFD(Vacuum Fluorescent Display) 가 가 ,

hode Ray Tube) LCD가 가 , CRT(Cat

가

가

가

가

1, 2

가
1, 2

1 (TFT) ,

가

2 (R,G,B) ,

1

1, 2 (spacer)

가

가 가

가

가

(+)
가

(-)

가

1 TN

1 (3) (1) (2) (1) (2)

(1) (P)

5) (4) (4) (4) (5) (P) (6) (T)가 (P)

(2) R,G,B (P) (8) , (9) (7) ,
 (T) (4) (5)
 (6) - - (indium-tin-oxide : ITO)
 가 (3) (6) (3) (3) (T)
 (2) (9)
 , IPS 가
 2 IPS
 2 (11) (12) (13)
 (11) (12) (13) (15) (14) (11)
 3a 3b IPS (on)/ (off)
 , 3a (12) (13) 가 가 (off) (14) 가
 (12) (13) (12) (13) 45°
 3b (12) (13) 가 가 (on) (14) 가
 3a 45° 가 , (12) (13)
 IPS (12) (13)
 가
 , / / / 70° 가
 (13) (12)
 , (cell gap) (misalign margin)
 4a 4b IPS

4a (16) , (12) (13) 가 .
 (16) 4b 가 , (12) (13) 가 .
 , .
 5 , 6 5 - ' - ' .
 7 , 8 6 - ' - ' .
 9 , 10 9 - ' - ' .
 5 6 (60)
 (61) (64) , (61) (64) ,
 (61b) , (61b) (64)
 (61c) , (61) SiNx SiOx
 (61a) , (61a) (60) (62) (63) ,
 (62) , (61a) (64) (64a) (63) ,
 (63) (64) (64b) , (64a) (64b) (61)
 (64a) (61c) (63) (64d) , (64c) (61)
 b) (64b) (64c) (64d) , (64c) (61)
 (64b) (64d) (64c) .
 (60) (50) , (51) ,
 R,G,B (52) .
 (50) , (51) (64) (61c)
 , (64) (61) (TFT) ,
 7 8 (80)
 (81) (84) , (81) (8)
 (81b) , (81b)
 4) (81c) , (81) SiNx SiOx
 (81a) , (81a) (80) (82)
 (82) , (81a) (82)
 (83) , (83) (84)
 (84a) (84a) (84b) ,
 (81b) (83) (84c) , (84a) (84b)
 (80) (84b) (84c) 1, 2 (87a, 87b)
 (85) , 1, 2 (84b) (84c)
 (81c) (86) .
 (86)
 , .
 9 10 (100)
 (101) , (101) (101a) ,
 (101) 1 (101b) , (101a) 1
 (101b) (100) (102) , (101a)
 (102) , (101)

(104) , (104) (103)
 (104a) , (104a) (103)
 (104b) , 1 (101b) (104c) , (104) ((104b)
 104a) (104b) (100) (105) , (104) (104b)
 (100) (105) (106) , (107a) , 2 (107a) (104b)
 (104b) (104) (105) 2 (107b) , (107a) (106)
 (107b) (107c)

(100) (90) , (91) ,
 R,G,B (92) .
 (90) (91) (TFT) ,

IPS

(IPS)

가

가

가
가

가

COT

COT

가

BM

(Resin) 가 가(高價)
(Particle Source)가

(Resistivity)
가

BM

(Resin)가

(Metal)

2
 2
 2
 (Indium Tin Oxide : ITO), (Tin Oxide : TO), (Indium Tin Zinc Oxide:ITZO)
 m Zinc Oxide : IZO

(Cr), (Mo), (Cu), (Ta) (Al)

1
 2 1 1
 2

COT(Color filter On TFT array)

COT (Resin) TFT (Metal) ()

11 , 12 11 - ' - '

11 12 (120) (121) ,
 (121) (121a) , (121) (121)
 SiNx 1 (121b) , (121a) 1 (121b) (120)
 22) SiOx (122) , (121a) (1)
 (124) , (124) (123) , (121) (123)
 (124a) , (124a) (123) (123) (124b)

(125), (124) (124a) (124b) (120)
 (126), (124) (124b) (127a) (120) R,G,B
 (120) (128) (128) 1 (121a) (124a) (126) (124b)
 (TFT) 2 (130a), (129), (129) (120)
 (128) (130b), (124) 1 (127a) (124b)
 (130b) (130c) (polyimide) (
 (124) (124) (124) (126)
 (124) (124) (126) , R, G, B (126)
 30% (124) (126) , R, G, B (126)
 2 R, G, B (126) 가 9%
 30%×30%
 4) 가 (128) 2 (130a) (130b) (121) (12
 Cyclo Butene) , 3μm , BCB(Benzo
 (129) (Resin) (Metal)
 (129) (Resin) (Resin) 가 가
 (Resistivity) , (Particle)
 Source)가 가
 (129) (Cr), (Mo), (Cu), (Ta) (Al)
 (129)
 2 (130a) (121)
 (124) (130b), (130c)
 (124)
 (124) (130b), (124) (130c)
 (126) (126)
 (Margin) (124) (130b)
 (130b) 가 4μm , (130b) (126)
 ±3μm 가 , 가 (126) (126) 9μm
 3μm, (126) 가 6μm
 (124) (130b) 4μm (124) 9μm
 (124) (130b) (124)
 가 (126) (126) 가

(126) (124) (130b) (130c) (126) (126)

(130b) 2 (130a) (124)

7b) 2 (130a) (130b) 11 (121b) 2 (12)

1 (121b) (130b) (121b)

2 (130a) (130b) 1 (121b)

(124c) 1 (121b) (122) (124b)

(Storage On Common)

2 (130a) (130b) (130c) (Indium Tin Oxide : ITO), (Tin Oxide : TO), (Indium Zinc Oxide : IZO) (Indium Tin Zinc Oxide:ITZO)

(120) (110)

2 (130a), (130b) (121) (129) (124)

(110) (129) (120) TFT (Island) TFT

13a 13c

0) (121) (121a) (121) (12)

(121b) (121) (121) 1 (121b) (120) (122)

(122) (SiNx) (SiO₂)

(122) (+)

(123) (121a) (island)

(123) (120) (124) (124a)

(121) (124)

(124a) (124b) .

(124b) 1 (121b) (124c) .

(Storage On Common) .

13b , (124) (120) (125)

(125) .

R,G,B (126) (126) (124)

(126) , (124) , (124)

(126) (125) (124b) 1

(127a) .

13c , (126) (128) .

(128) , , BCB(Benzo Cyclo Butene)

1 (127a) (128) (124b)

(124c)

1 (121b) 2 (127b) (128) (126) (125)

(122)

(128) ,

(129)

(129) (Cr), (Mo), (Cu), (Ta) (Al)

(129) 가 ,

(129) , 2 (128) (130a) (130b) (130c) .

2 (130a) (121)

(130b) 2 (130a) , (124)

, 2 (130a)

, (124) (130b) , (124) (130c)

(126) (126)

(Margin) , (124) (130b)

(126) 가 (126)

(126) (126)

(126) (124) (130b) (126)
 (130b) (130c)

(126)

1b) (130b) (124) 1 (12

1 (127a) (130c) (124b)

Indium Zinc Oxide : IZO) (Indium Tin Oxide : ITO), (Tin Oxide : TO), (I
 (Indium Tin Zinc Oxide:ITZO)

) (polyimide) 2 (130a), (130b), (130c) (120

mate based material) (polysiloxane based material) , PVCN (polyvinylcinna

(120) (110) (120) (120) (110) ()

(110) (120)

(110) (120)

(110) (120)

가

가

(Resin) (Metal) 가

COT , / TFT 가

(57)

1. 1 2 ;

1

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1

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1

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2

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2.

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2

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1

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2

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7.

1

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2

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(Indium Tin Oxide : ITO),

(Tin Oxide : T

O),

(Indium Zinc Oxide : IZO)

(Indium Tin Zinc Oxide:ITZO)

8.

1

,

8 9. ,
(Cr), (Mo), (Cu), (Ta) (Al)

8 10. ,

1 11. ,
2

1 12. ,
1

1 13. ,
1

1 14. ,
, BCB(Benzo Cyclo Butene)

1 15. ,
1 , 1 2

15 16. ,
2 2 1

15 17. ,
1

18. ;
1 ;
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18

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2

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2

22.

18

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2

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23.

22

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m Zinc Oxide : IZO)

(Indium Tin Oxide : ITO), (Tin Oxide : TO),
(Indium Tin Zinc Oxide:ITZO)

(Indiu

24.

18

,

24 **25.**

25 **26.**

(Cr), (Mo), (Cu), (Ta) (Al)

24 **27.**

18 **28.**

1

18 **29.**

1

18 **30.**

, BCB(Benzo Cyclo Butene)

18 **31.**

1 ,

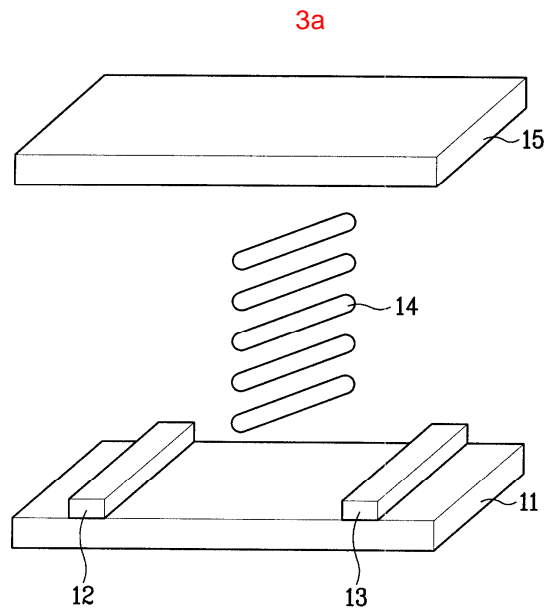
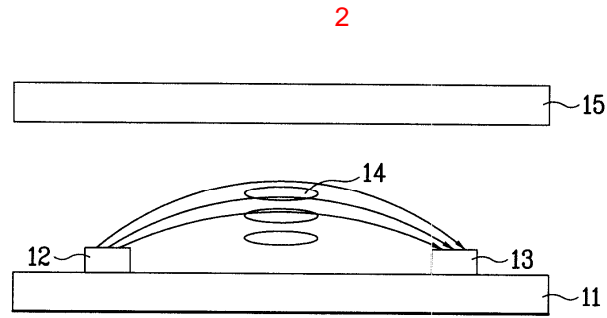
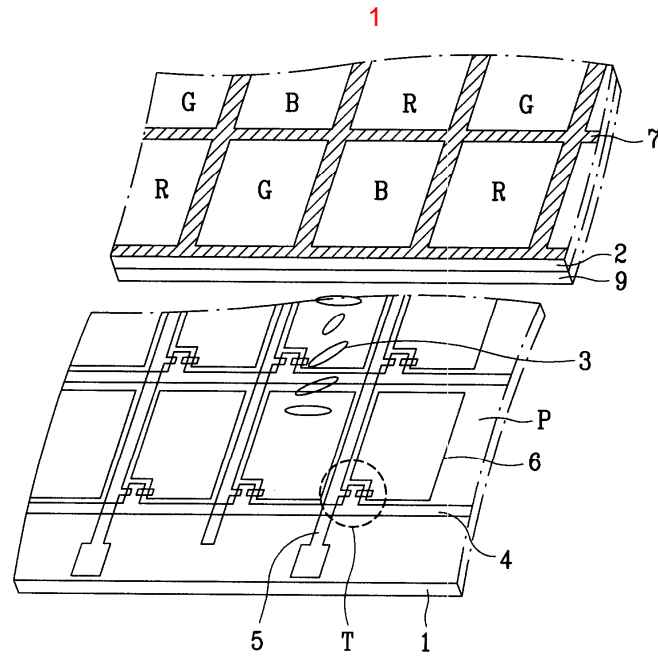
2

1

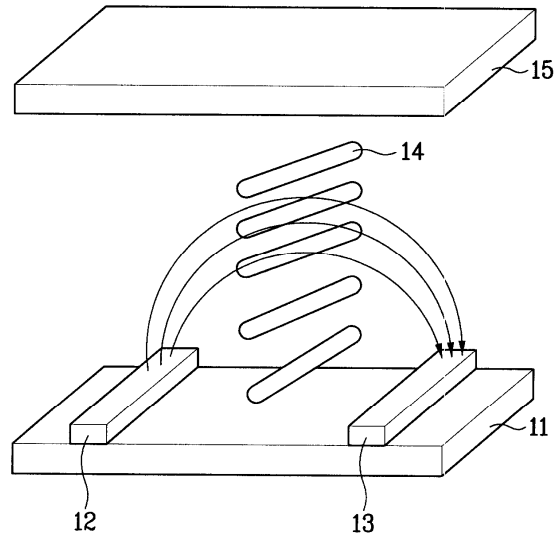
18 **32.**

1

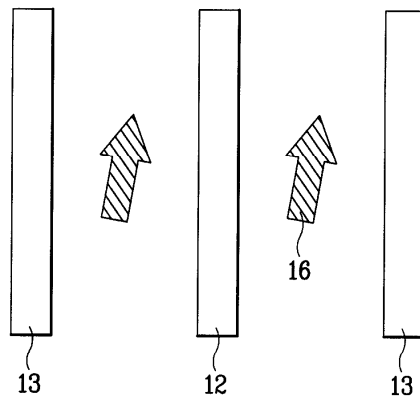
2



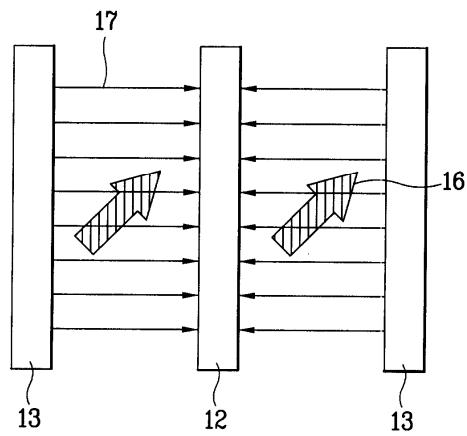
3b



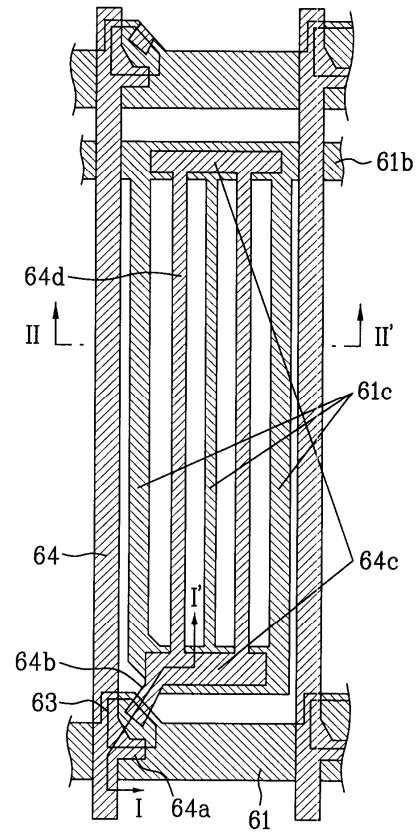
4a



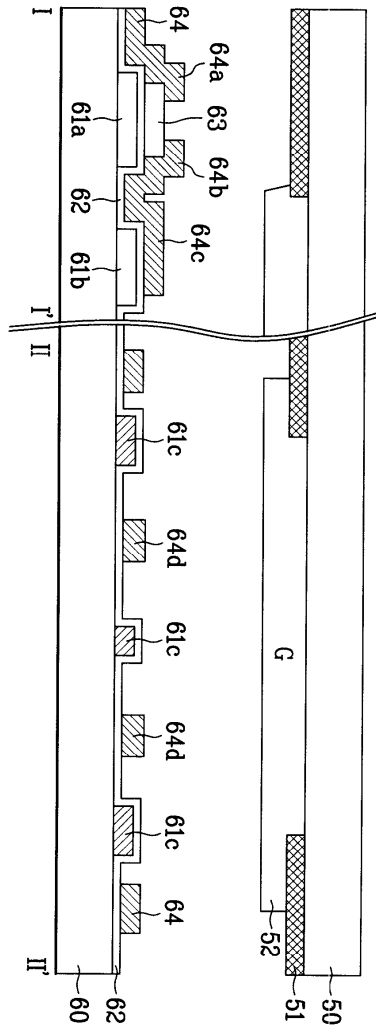
4b



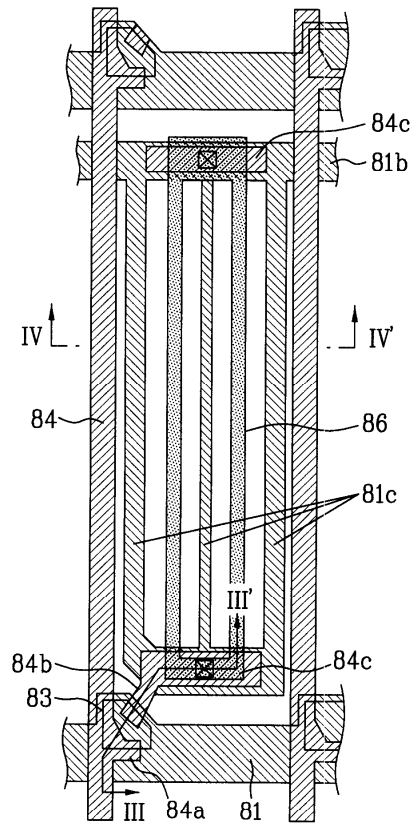
5



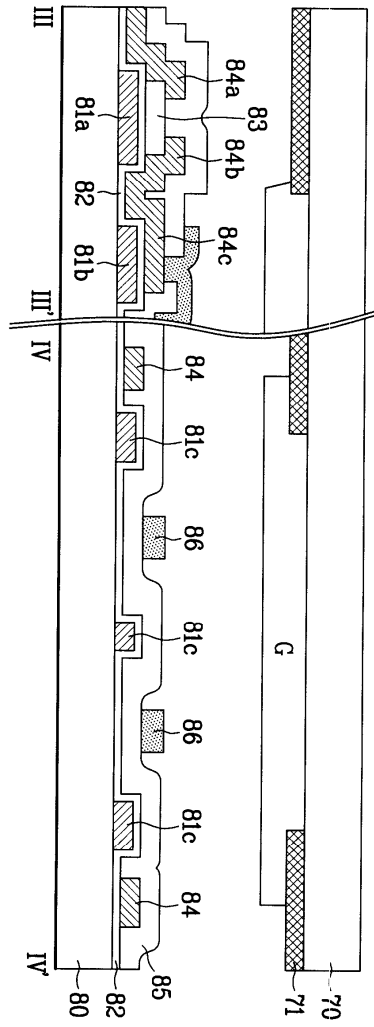
9



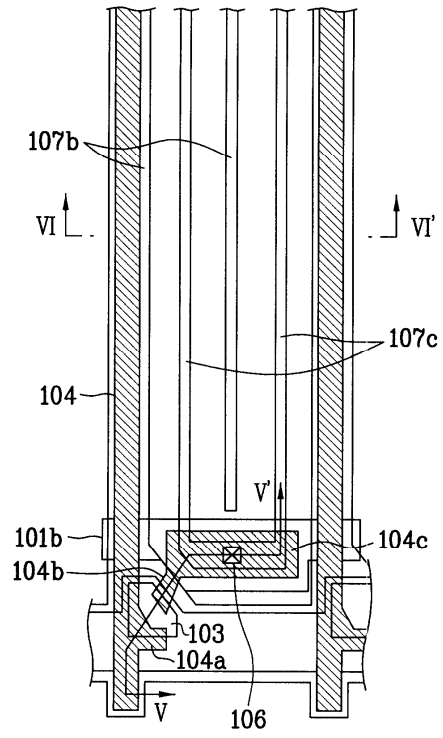
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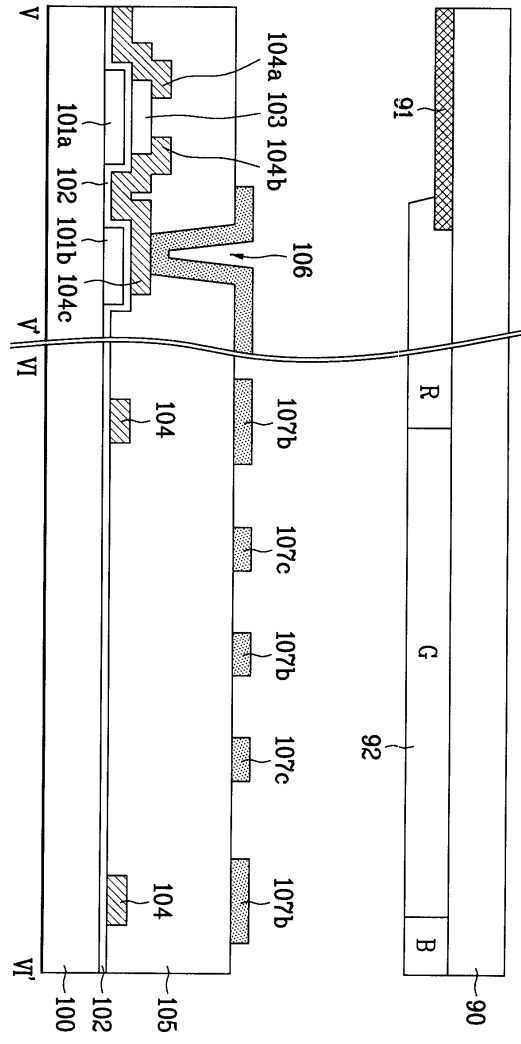
8



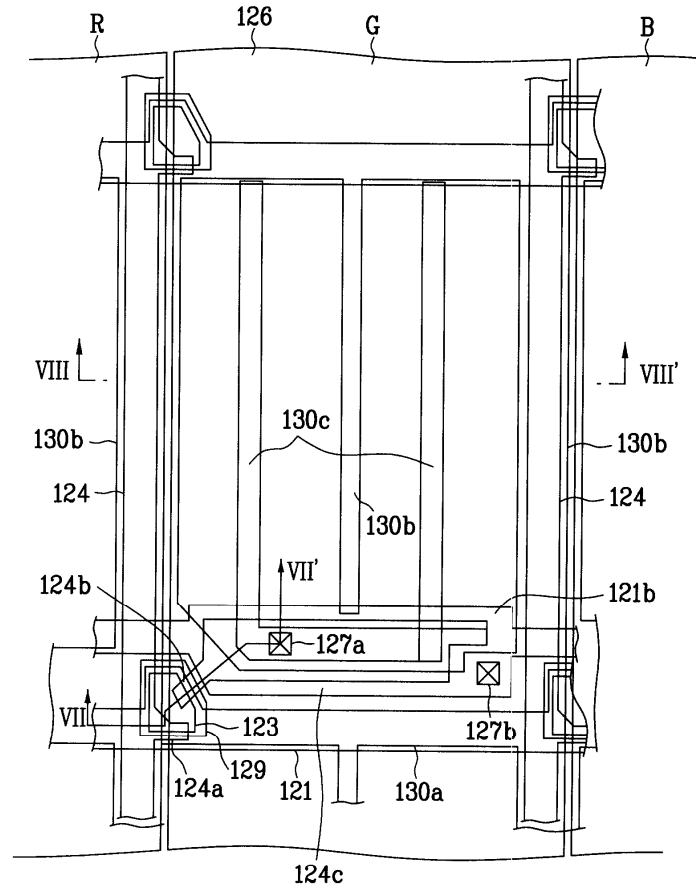
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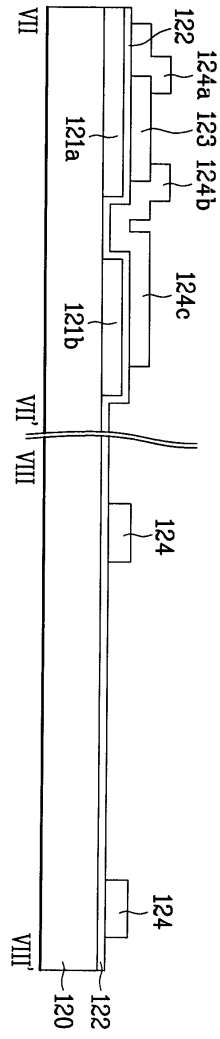
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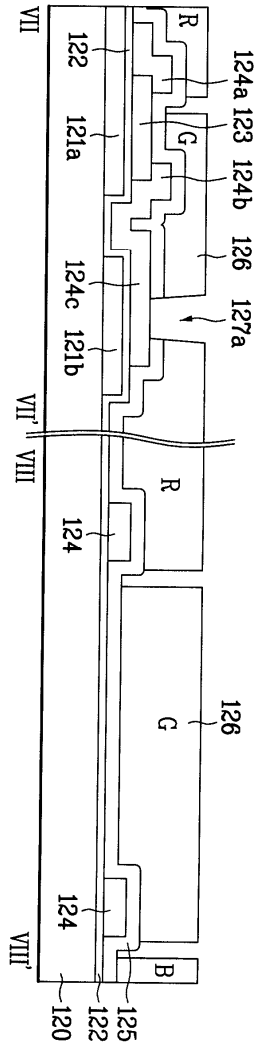
11



13a



13b



专利名称(译)	液晶显示装置及其制造方法		
公开(公告)号	KR1020050001953A	公开(公告)日	2005-01-07
申请号	KR1020030042963	申请日	2003-06-28
[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 WOOHYUN		
发明人	KIM,WOOHYUN		
IPC分类号	G02F1/1362 G02F1/1343		
CPC分类号	G02F2001/136222 G02F1/134363		
代理人(译)	金勇 新昌		
其他公开文献	KR100710166B1		
外部链接	Espacenet		

摘要(译)

用途：提供LCD（液晶显示器）及其制造方法，以减少由外部光源引起的光反射，从而提高图像质量。

