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G02F 1/133

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(11)
(24)

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10-0469310
2005 01 21

(21)	10-2000-0051670
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10-2001-0030226
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(73) 가 가 1 1 1

(72) 1 9 2 가 가

1 9 2 가 가

1 9 2 가 가

1 9 2 가 가

가 가 가 가 7-1 가 가

(74)

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(54)

1 (a) 1 ,
 1 (b) ,
 2 ,
 3 2 A-A , 가 ,
 4 2 B-B , , 가 ,
 5 2 1 ,
 6 2 2 ,
 7 2 3 ,
 8 (a) 2 4 ,
 8 (b) 8 (a) C-C ,
 9 (a) 2 5 ,
 9 (b) 9 (a) C-C ,
 10 (a) 2 6 ,
 10 (b) 10 (a) C-C ,
 11 (a) 2 7 ,
 11 (b) 11 (a) C-C ,
 12 (a)~(c) 2 ,
 13 (a) 2 ,
 13 (b) 13 (a) ,
 14 (a) 2 ,
 14 (b) 14 (a) ,
 15 (a) 2 ,
 15 (b) 15 (a) ,
 16 2 .

11 --- (), 13A --- (),
 13B --- (),
 14 --- (TFT),
 21 --- (), 22 --- ,
 24 --- (R, G, B), 25 --- ,
 26 --- , 30 --- ,
 31 --- , 32 --- ,
 33 --- , 40 --- ,
 41 --- , 52 --- ,
 61 --- , 62 --- ,
 63 --- , 70 --- (),
 75 --- TFT, 76 --- ,
 77,78,79,81 --- , 80 --- ,
 88 --- , 89 --- ,
 SP --- , Y --- ,
 X --- , CL --- ,
 CS --- , LQ --- ,
 PL1 --- (), PL2 --- (),
 L1 --- 1 , L2 --- 2 ,
 CV --- , M1-1 --- 1 ,
 M1-2 --- 1 , M1-3 --- 1 ,
 M2-1 --- 2 , M2-2 --- 2 ,

M2-3 --- 2 , 24B-X --- ,
41X --- , SP-3 --- .

(Liquid crystal display device) (inlet)

(color) (pixel electrode) (matrix)

(array substrate), (counter substrate),

(color filter), (display area)

(spacer)

(Cr), ((Mo-W)

(photolithography) (patterning) 가

가

가

1, 1, (外周), 가, (混在), 가, () 1 (a), (110), (120), (30), (110), (120), (110), (70), (11), (11), (30), (14), (30), (14), (40), (40), 24(R, G, B), (30), (14)가, (40), (11), (41), (SP), (24), (31; columnar spacer),

(30) (13A; alignment film) (30)
 (24) 3.0 μ m (30)
 (stripe) 24B, 24R 24G,
 (30) (24G, 24B, 24R) ITO(; Indium
 Tin Oxide) (24) (26; through hole) (
 14) (14) (30) (scanning line) (30)
 (signal line)
 가 1 (b) (30) (X), (30) (110) (30) (Y) (Y)
 (Thin film transistor) TFT 14 (X)
 (110) (30) (22) (70) CL
 (storage capacitance) CS 1
 (CS) (30) (61) (52)
 (X) (76) (Y) (52) (Y)
 (52) (Y) (62) (dope) (poly silicon)
 (61) (X), (Y) (52) (Y) (52)
 (X) (61) (112) (112D) (112S) (11
 2) (112C) (62) (112) (Y)
 , TFT(14) (63) (88) (X) (62) (76)
 TFT(14) (77; contact hole) (89) (112) (112D) (78) TFT(1
 4) (89) (62) (76) (112)
 (112S) (110) (76) (R), (G), (B) 24(R,
 G, B)가 (24) (30) (30) (26)
) TFT(14) (89) (62) (76) (79) (X)
 (61) (80) (30) (24) (89), (30)
 81) (80) , TFT(14) (61)
 1 (a) (SP) (41) (120)
 (31) (110) (SP)
 (31) (SP) (carbonless)
 (31) (SP) (31) 5 μ m
 (40) 24(R, G, B) (24B)
 (41) (110) (120) 24(R, G, B)
 (31) (30) (70) 1 (22) (22) (13
 (13A) (120) (21), (21) (22) (22)
 B) (22) (110) (30) ITO (1
 3B) (22) (70) 1 90 2
 (70) 2 4 32(20mm) (41)
 (110) (120) (25), (32)
 (32) LQ, LQ (32)
 (33)

0) , 2 (SP) (41) (32) (24) (7
 , (110) , 0.7mm (11) , (Y)
 , (X) , (112) (14) ,
 (11) CVD(Chemical Vapor Deposition) (amorphous Silicon)
 a-Si , a-Si (Excimer la
 ser beam) (Photo Engraving) (112) ,
 TFT(14)
 , CVD (11) (61)
 SiO_x (Silicon Oxide) , (62)
 , (62) (Ta), (Cr), (Al), (Mo), (W), (Cu)
 , (Mo-W) ,
 (Y), (62) (61)
 (52) , (Y) TFT(75) (63) ,
 (63) (112) (112S) ,
 , TFT(14) (112) (112S)
 , (11) 2 SiO₂ (76)
 (62) (76) TFT(14) (112D)
 (77) (112S) (78) , (61) (79)
 , Ta, Cr, Al, Mo, W, Cu , (Al)
 , (X) , (X) TFT(14) (88) ,
 TFT(14) (89) , (61) (80) (88)
 (spinner) , (resist)
 , 90 5 (pre bake)
 (photo mask) 365nm 150mJ/cm² ,
 (24G) (stripe pattern) (26) 15μm
 200 1 (post bake) , 60 (24R) , (26)
 , (24G), (24B) , 200
 1 , (24B) (32)
 24(R, G, B) 3μm ,
 (24) , (14) (30) (26)
 (30) (80) (81)
 (sputtering) , (24) ITO ,
 (14) (30) 0.05 0.2μm
 6μm , 90 10 , 가 (24) , (30) , (32)
 (24B) , , pH 11.5
 , 200 /min 220 , (melt) ,
 60 가 ,
 , (30) (24) 5μm (31)
) (24B) , (40) (41) , (32)
 , (24B) (SP) (24B)
 , (SP) , 2 가 LQ
 , 2 500 (32) , (rubbing) , (13A)
)

, (110) ,
 , (120) , 0.7mm (21) , ITO 100nm
 , (22) , (22) (21)
 , (13B)
 , (120) , (25) , (32)
 (70) , (110) (110)
 (120) LQ (25) , (32)
 , (33) LQ (chiral) 가 가 (32)
 atic) (nem
 (70) , 2 PL1, PL2가 (70) (110)
 (120) 가
 (SP) 2
 70 120 (24B) (32) (SP) 2
 , (24B)
 , 가 (SP)
 (gradation; (階調)),
 (pitch) 가 200 μ m , 100 μ m, 50 μ m
 2 가 (SP)
 , 5 6
 , 가 120 (SP)
 , 7 (SP) , 2
 $\times 100\mu$ m, 500 μ m \times 500 μ m 가 (SP) , 100 μ m
 , 가 , 120
 , 1 (L1) (40) (41)
 , (41) (SP) 2 (24) 2 (L2)
 (25) 가 (guard) (transfer)
 , 8 (a) (b) (32) (41) (S)
 P) (SP) 가 (32)
 , 9 (a) (b) (24B) 가 (SP) (32) (41) (24B)
 , 가 (130; cover) (CV)
 (41) (CV) (41)
 (SP) (24B)
 , 10 (a) (b) (32) (41) (SP)
 (24B) (24B) (41) 2 (L2) 1 (L1)
 (24B) 60% (24B) 가 (SP)
 , (32) (32) , 9 (a) (b)
 , 가 (130) (CV) 8 (a) (b) (41) (24B)
 가 24B-X (130) (CV) (24B-X)
 (SP) (24B)
 , 가
 , 11 (a) (b) (32) (41) (SP)
 (24B) (SP) (41) 1 (L1)

(24B) (24B) (41) 2 (L2) . ,
 (24B) 30% . (32) (24B) 가 (SP)
 , (32) , 10 (a) (b)
 , 8 (a) (b)
 가 , (130) (CV) (41) , (SP)
 , 가 (31)
 (24B) (40) (SP) , 가 ,
 , 2 ,
 1 , (32) (SP) (24) , 1 (L
 1) 2 (L2) L1 L2 1 (M1-1, M1-2) , 2 (M2-1, M2-2)
 , 1 (M1-1, M1-2) (Y) (52) , 2
 (M2-1, M2-2) (X) , 1 ,
 2 , 12 (a) , 1 (M1)
 , 1 (L1) 2 (L2) , (M1-1, M1-2)
 , 1 (M1-1, M1-2) 가 , 1500 μ m
 , 12 (b) , 2 (M2) , 1 (L1) 2 (L1)
 (L2) , (M2-1, M2-2) , 1 (L2)
 , 1 (M1-2) 2 (M2-2) , 2 (M2-1, M2-2) 1 (M1-1, M
 1-2) , 1 (L1) , 가
 , 12 (c) , 1 (L1) 2 (L2) (41-X) ,
 (41) (SP) (41)
 (25) , (32) (32) (41) (S
 P) (SP)
 , 가 ,
 , 가 ,
 , 2 ,
 , 13 (a) (b) , 1 (M1) , 1 (L1)
 2 (L2) 1 (M1) 1 (L1) , 2 (M1-1, M1-2) (L2)
 (32) , (M1-3) 10 μ m , 가 190 μ m , 13 (M1-3)
 (b) , 10 μ m , 190 μ m
 , 14 (a) (b) , 2 (M2) , 1 (L1) 2
 (L2) , (M2-1, M2-2)
 (32) 2 (M2) 1 (L1) 2 (L2)
 , (M2-3) 14 (b) , (M2-3) 가 1
 94 μ m , 가 190 μ m , (M2-3) 10 μ m ,
 6 μ m
 , 1 (L1) , , 2
 (L2) 1 (M1-2) 2 (M2-2)
 , 15 (a) (b) , 1 (L1)
 2 (L2) (SP)
 (32) , 1 (L1) 2 (L2) (SP-3)
 , (SP-3)
 , 15 (b) , (SP-3) 10 μ m ,
 , 16 , (41) (25) , (32)
)
 , (32) 2 (M2-3) (SP-3)
 , 1 (M1-3)

(32) , (SP) , 가 , 1 (L1) 2 (L2) ,
 가 1 (M1) 2 (M2) , 가
 , (24B) , (24)가 (32) (41)
 , (SP) (SP) 가 (110)
 (120) .

(57)

1. 1 , 1 , 가 ,
 1 , 가
2. 1 , .
3. 1 , .
4. 3 , .
5. 1 , .
6. 1 , 1 , .
7. 1 , 가 ,
8. 7 , .
9. 8 , .
10. 8 , 가 .
11. 7 , , .
12. 7 , 가 ,
13. 1 , 1 , ,

1 , 가

1 ,

1 2 2 , 1 2 , 1 ,

14.

13 , 1 2 , 1 2 2

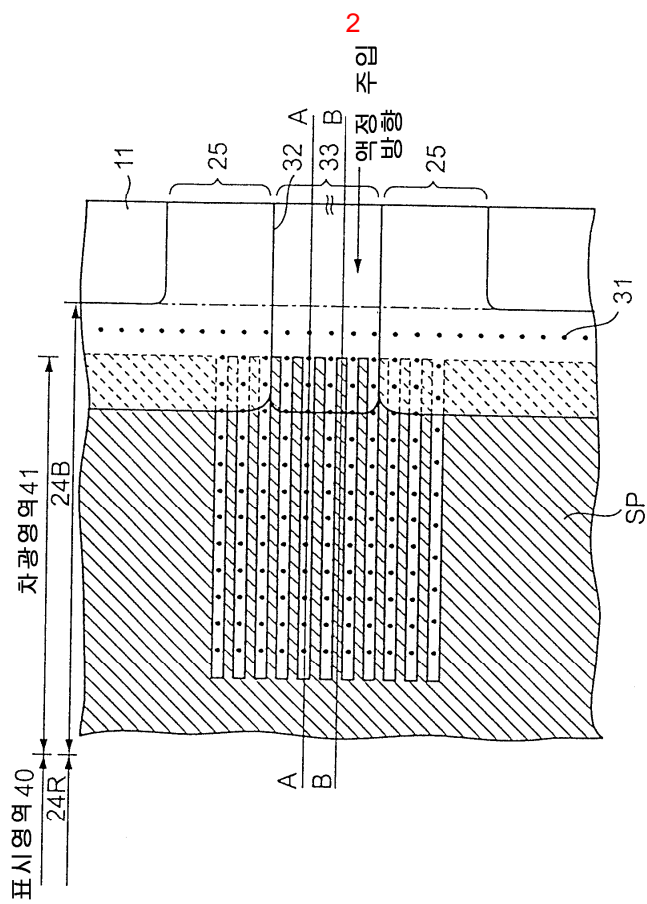
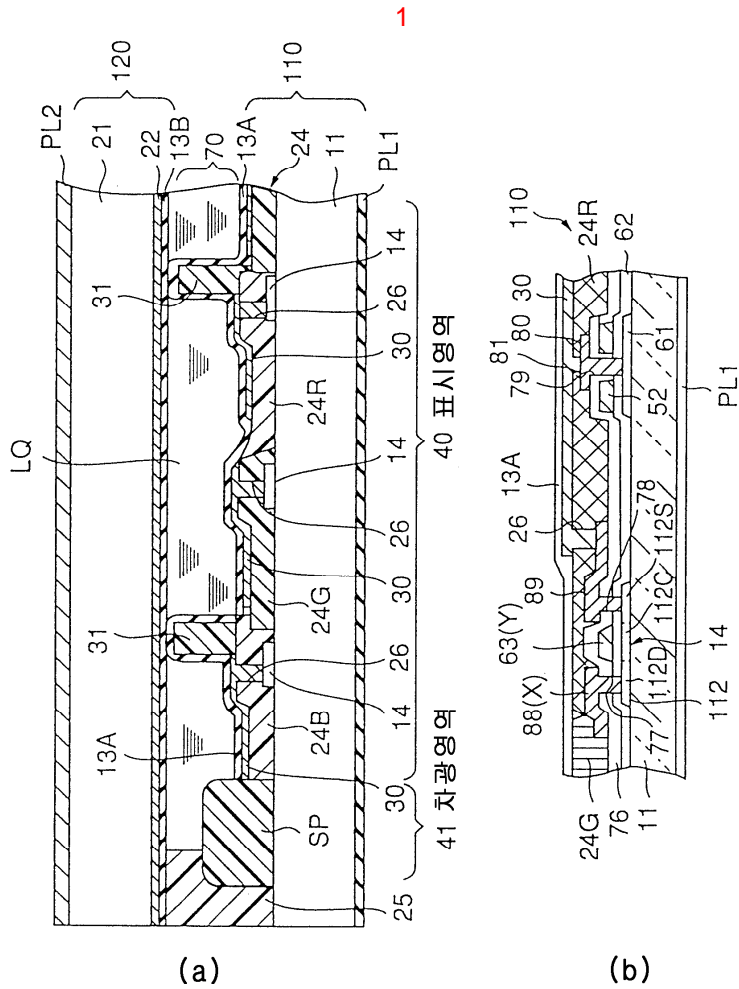
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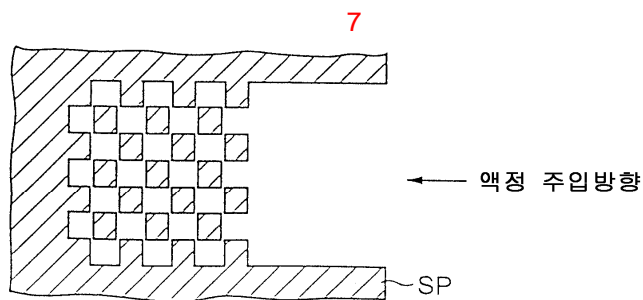
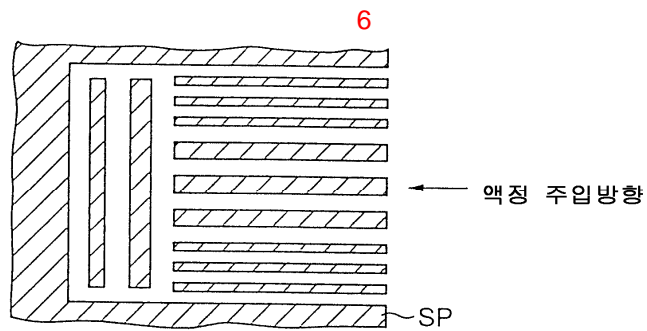
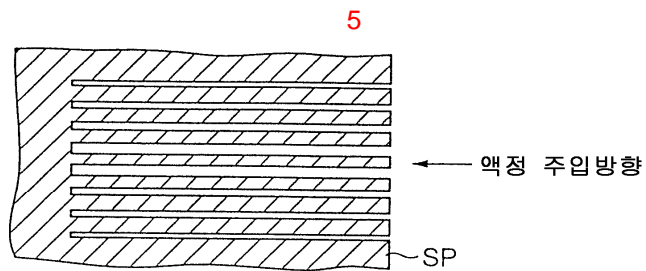
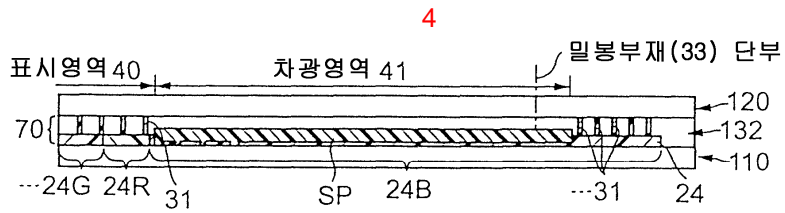
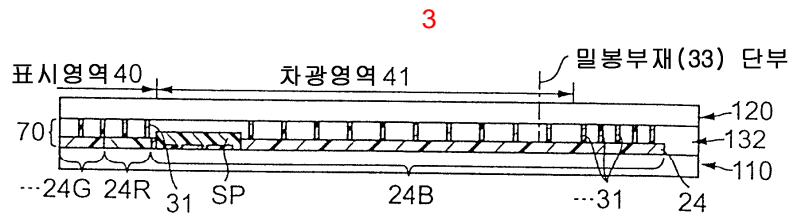
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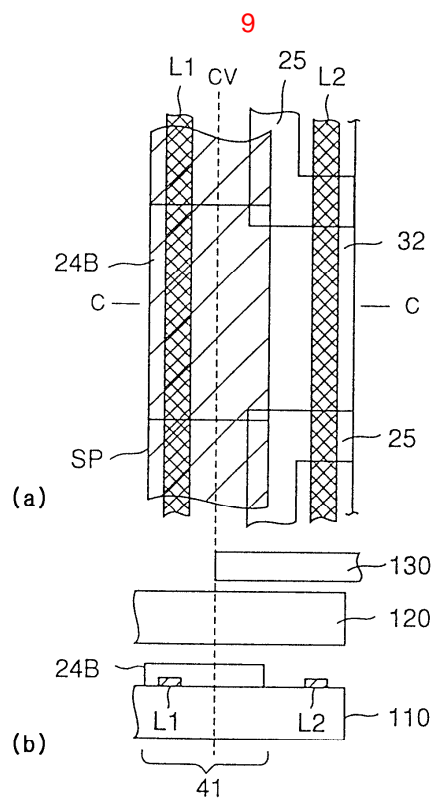
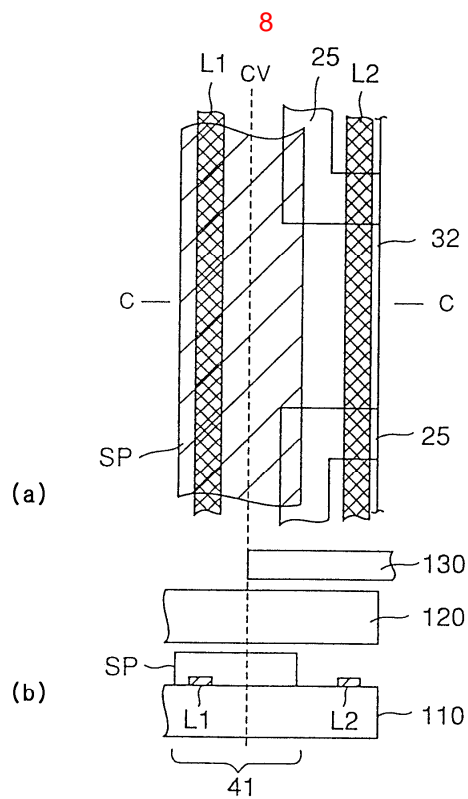
(間隙) 1

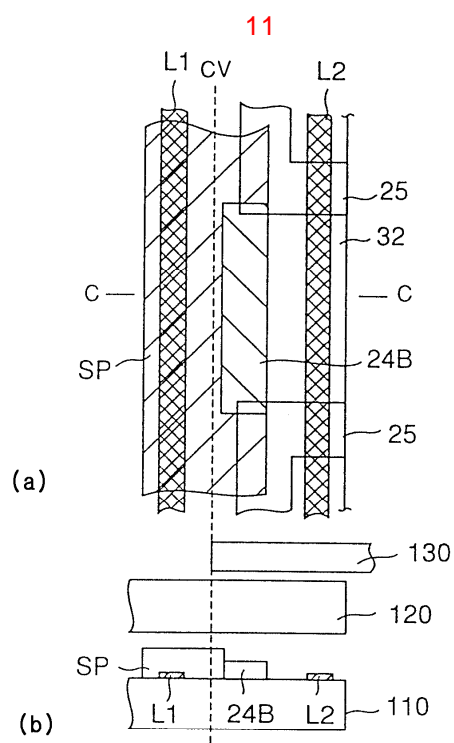
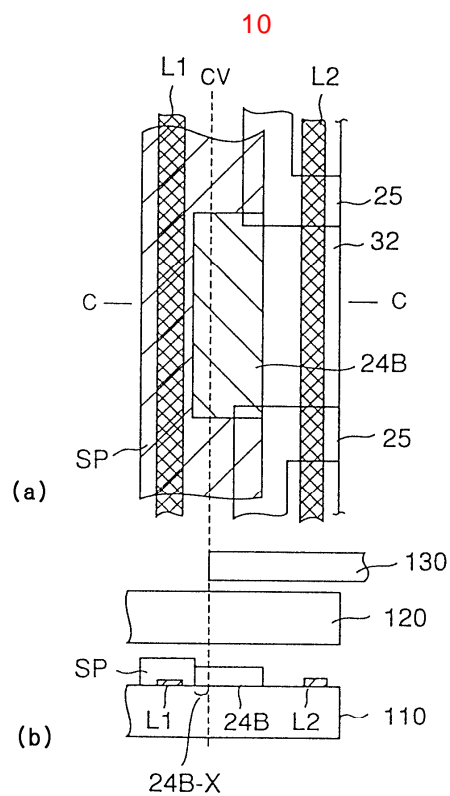
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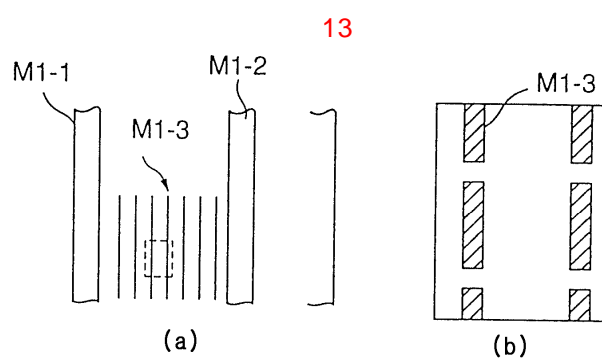
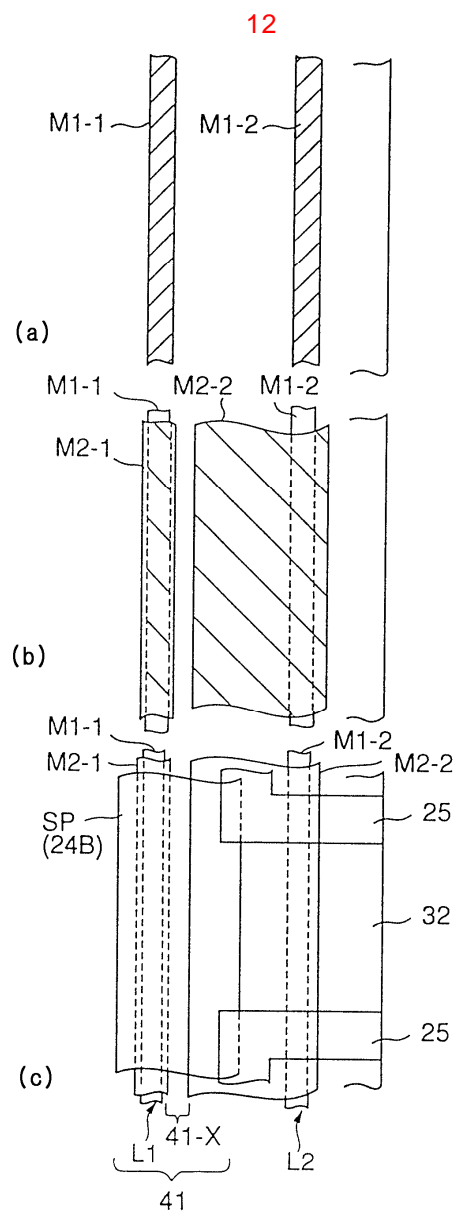
13 , 1 , , 1 , 2



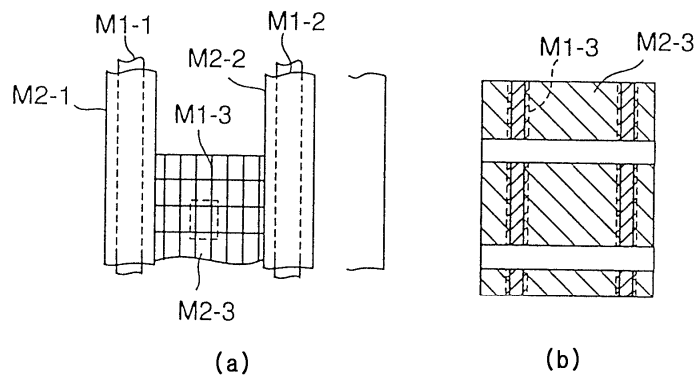




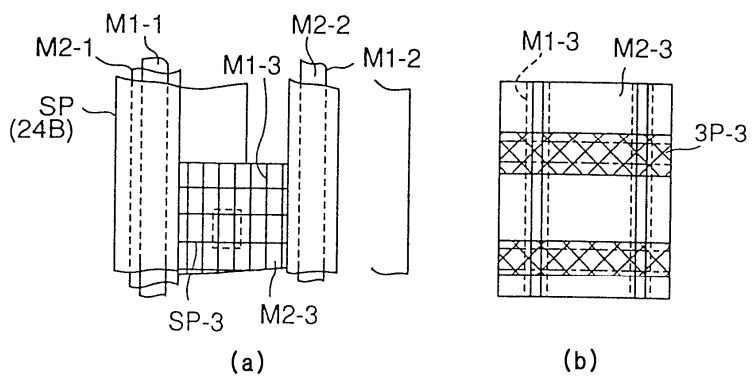




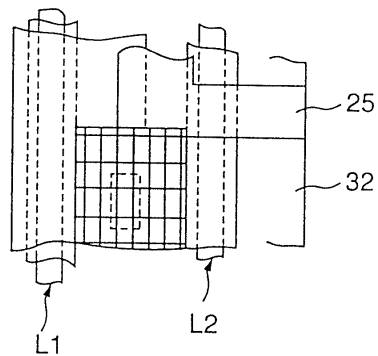
14



15



16



专利名称(译)	液晶显示器		
公开(公告)号	KR100469310B1	公开(公告)日	2005-01-31
申请号	KR1020000051670	申请日	2000-09-01
[标]申请(专利权)人(译)	株式会社东芝		
申请(专利权)人(译)	Sikki东芝股份有限公司		
当前申请(专利权)人(译)	Sikki东芝股份有限公司		
[标]发明人	MANABE ATSUYUKI 마나베아츠유키 FUKUOKA NOBUKO 후쿠오카노부코 MIYAZAKI DAISUKE 미야자키다이스케 HATO HITOSHI 하토히토시 IIZUKA TETSUYA 이이즈카데츠야		
发明人	마나베아츠유키 후쿠오카노부코 미야자키다이스케 하토히토시 이이즈카데츠야		
IPC分类号	G02F1/1339 G02F1/1341 G09F9/30 G09F9/00 G02F1/1335 G02B5/20 G02F1/1333 G02F1/133		
CPC分类号	G02F1/1333 G02F1/1341 G02F1/133514 G02F2001/133388 G02F1/133512		
代理人(译)	KIM , YOON BAE		
优先权	1999248852 1999-09-02 JP 1999324264 1999-11-15 JP		
其他公开文献	KR1020010030226A		
外部链接	Espacenet		

摘要(译)

一种液晶显示装置，包括：一对基板，夹在所述一对基板之间的液晶材料，设置在显示区域的外周上的屏蔽区域，以及设置在比所述屏蔽更外周的外边缘密封构件区域和除液晶入口外形成的区域。特别地，在该液晶显示装置中，包括预定厚度的树脂和比预定厚度薄的滤色器的屏蔽图案在入口附近的屏蔽区域中的平面上彼此共存。

