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(43)

10-2004-0058847
2004 07 05

(21) 10-2002-0085360
(22) 2002 12 27

(71) . 20

(72) 3 1049-1 401

953-3 906

(74)

:

(54)

가

가

가

4b

1

2a 2b 1 IIa-IIa IIb-IIb

3 1

4a 4b 3 IVa-IVa IVb-IVb

5		2			.
6a	6b	5	Vla-Vla	Vlb-Vlb	.
7		3			.
8a	8b	7	VIIIa-VIIIa	VIIIb-VIIIb	.
9		4			.
10a	10b	9	Xa-Xa	Xb-Xb	.

< >

110 : 1 150 : 2

124 : 126 :

128 : 134 :

136 : 140 :

140a : 142 :

144 : 152 :

154a, 154b :

156 : 160 :

172 : 174 :

(Cholesteric Liquid Crystal Color-filter)

(display)

가가 가

(pixel)가 / 가

가
7%

(battery)

가 , 가 (CLC:cholesteric liquid crystal)

(螺旋) 가 (pitch) 가

(= n(avg) · pitch) . (n(a

1.5 가 430nm 650nm가

가 (22) (32) (24) (32) (34), (36) (22) (28) (34) (22) (36) (32) (28) (37) (22) (38) (32) (42) (40a) (36) (40b) (37) (37) (22) (42) (32) (38)가 (38) (22) (32) (38)가

가 2a 2b 1 IIa-IIa IIb-IIb (26) (24) (10) (24) (50) (10) (24) (24) (28) (34, 36) (26) (24) (28) (34, 36) (32) (38)가 (black resin) (32) 가 (40a) 가 (40) (40) (36) (32) 가

, (40) (42) (42) (32)
 (40a) (36) , (42) (42) (32)
 , 2 (50) (52) (54a, 54b)가
 (54a, 54b) (56) (56)
 , (56) (42) (60)
 1 (10) (72) (74) (72) /4
 가 QWP(quarter wave plate) , (74)

가

가

1 2 , 1

1

2

50%

가

1 2 , 1

1 2

1

2

1 2

1 2 , 1 1 2 , 1
 , 1 2 ,
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 1 2 , 1 2
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 , 가 ,
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 3 1 3
 , 가 (122) (132)
 (122) (132) (122) (132)
 (134) (121) (124) (134) (134), (124)
 (136) (124) (134) (136) (136) (128)
 (128) (134) (134, 136) (136)
 , (122) (132) (144)
 , (138) (122) (138) (132)
 , (142) (142) (136)
 (142) (136) (140a) (140b) (142)
 (138) (136) (122) (138) (142)
 (132) (142) (132)
 , , 가
 4a 4b 3 IVa-IVa IVb-IVb
 , 1 (110) 2 (150) , 1 (110)
 , 2 (150)
 , 1 (110) (124) , (126)
 (124) , 1 (110) (124) (128)
 (3 122) (126) (124)
 134, 136) (134, 136) (128) (132) (126)
 (134, 136) (132) (134) (3 138)
 , (132) (134)

(132) 8 μm 가 (128)
 (134, 136)

(132) (134, 136) 가 (14
 0) (140) (136) (140a) (3 1
 38) (3 140b) 가 (140) (144) ,
 (144) 가 (144) (Cr)

(144) (142) (142)
 (140a) (136) ,
 (142) (132) (142) (144)

가 2 (150) (152) (154a, 154b) (154a, 154b)
 (154a, 154b) (156) (156)

(156) (142) (160)

1 (110) (172) (174) (172) /4
 가 QWP(quarter wave plate) (174)

1 (144) (132) (142) (144) (132)
 2) (142) 50% 가 (142) (132) 8 μm (13)
 , 4 μm 가 (132) 8 μm 4 μm (142)
) 2 μm (132) (132) (142)
 (144) (144) (140) (142) (144)

5 ,가 2 (222) (232) (222) (232) (236)
 (222) (232) 가 (224) (234), (232)
 , (228) (234) (236) (222) (232) (228)

(222) (238)

(222) (232) (244) 1 2 (246a,
 246b)가 (232) (232)

(242) (240a) (232) (242)
 222) (240b) (238) (238) (238) ()
 (242) (232)

6a 6b 5 VIa-VIa VIb-VIb
 , 1 (210) 2 (250) , 1 (210)
 , 2 (250) ,

(224) 1 (210) (224) (226)
 (224) 1 (210) (224) (224) (228)
 (226) (224) (234, 236) (234, 236)
 (228) (226)
 (234, 236) (232) ()
 (232) (234) (234, 236)
 (228)
 (232) (234, 236) 가 (24
 0) (240) (236) (240a) 가 (24
 0) () 가 (240)
 (244) 1 2 (246a, 246b)가 (244)
 , 1 2 (246a, 246b) (232)
 (244) 1 2 (246a, 246b)
 (240a) (236) , 1 2 (246a, 246b) (242) (242) (232)
 가 2 (250) (252) (254a, 254b) (254a, 254b) (256) (256)
 (256) (242) (260) 1 (210)
 (272) (274) (272) /4 가 QWP
 (274)
 (232) 2 (244)
 (232) 1 2 (246a, 246b) (232) 가 가
 8 μm 가 (244) (240) (242) (242)
 , 1 2 7 8a 8b 3
 a 7 8b 7 3 VIIIa-VIIIa VIIIb-VIIIb 8
 7 가 3 2
 8a 8b , 1 (310) 2 (350) 1
 (310) 1 (310) 2 (350)
 (318) 1 2 (316a, 316b)가
 (318) 2 (324) (326)
 (318) (324) (324) (328)
 (326) (324) (328)
 (334, 336) (334, 336)
 (328) (326) (334, 336) (334, 336)
 (332) (332) (334)
 (332) 1 2 (316a, 316b)
 (328) (334, 336)

0) (332) (334, 336) 가 (34
 0) (340) (336) (340a) 가 (34
 (344) (344) (344) (342)
 346b) (342) (340a) (336) 1 2 (346a,
 가 2 (350) (352) (354a, 354b) (354a, 354b)
 (356) (342) (360) 1 (310)
 (372) (374)
 44) 3 (324) (332) 1 2 (316a, 316b) (3
 32) 8 μm (332) (3)
 (344) (340) (342) (342)
 1 2 9 10a 10b 4
 9 4 1
 0a 10b 9 Xa-Xa Xb-Xb
 9 4 3 가
 10a 10b 1 (410) 2 (450)
 1 (410) 2 (450)
 b)가 1 (410) 1 (410) 1 2 (416a, 416
 (426) 1 2 (424) (416a, 416b) (424)
 (426) 1 2 (424) (428)
 (434, 436) (428) (434, 436) (428) (434,
 436) (428) (426) (432)
 (434) (434, 436) (432) (432) 1 2
 (416a, 416b) (428) (434, 436)
 0) (432) (434, 436) 가 (44
 0) (440) (436) (440a) 가 (44
 (444) (444) (444) (442)
 a, 446b) (442) (440a) (436) 1 2 (446
 (432)
 가 2 (450) (452) (454a, 454b) (454a, 454b)
 (456) (442) (460) 1 (410)

(472) (474) .
 44) , 4 (432) 1 2 (416a, 416b) (432) , 8 μm (4
 (432)
 (444) (440) (442) , (442)
 , 가

가

(57)

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50%

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6.

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8.

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9.

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10.

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1 1 2 ;

1 ;

1 2 ;

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11.

10 ,

1 2

12.

10 ,

1 2

13.

10 ,

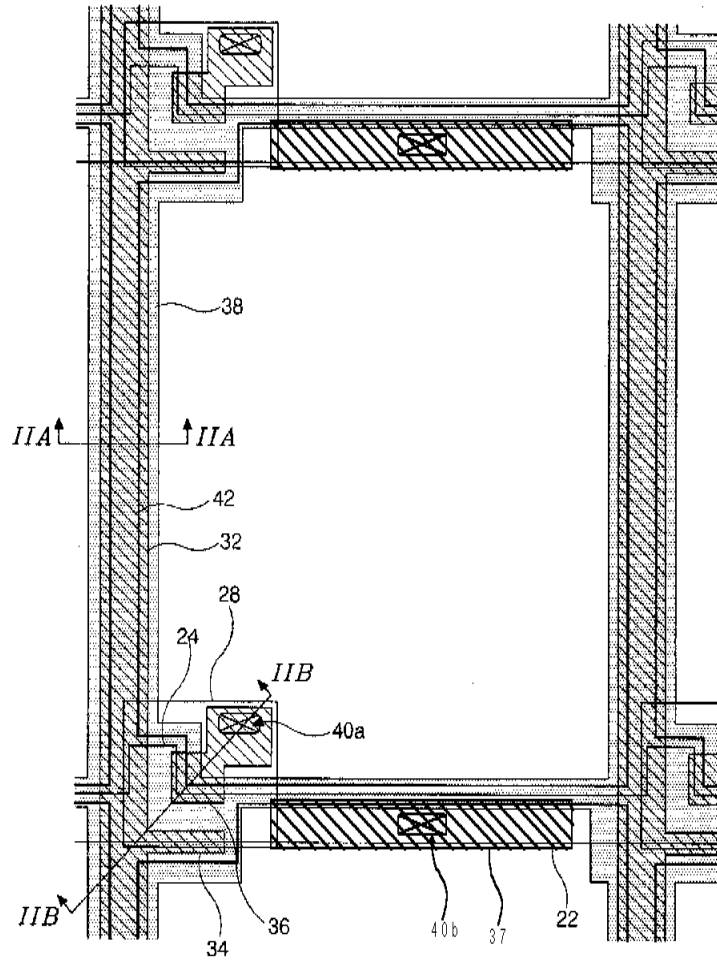
14.

10 ,

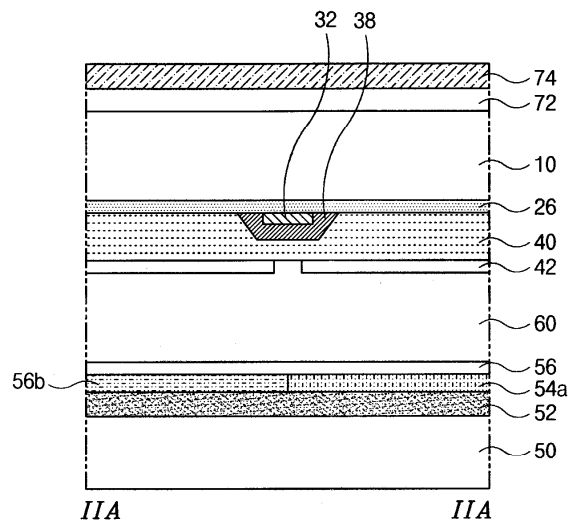
15.

10 ,

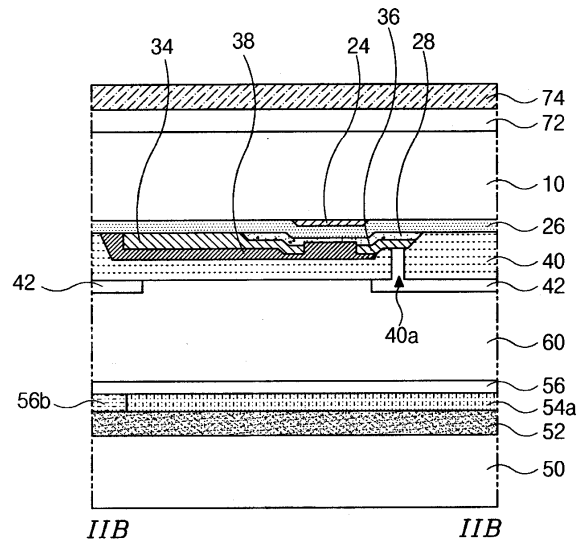
1



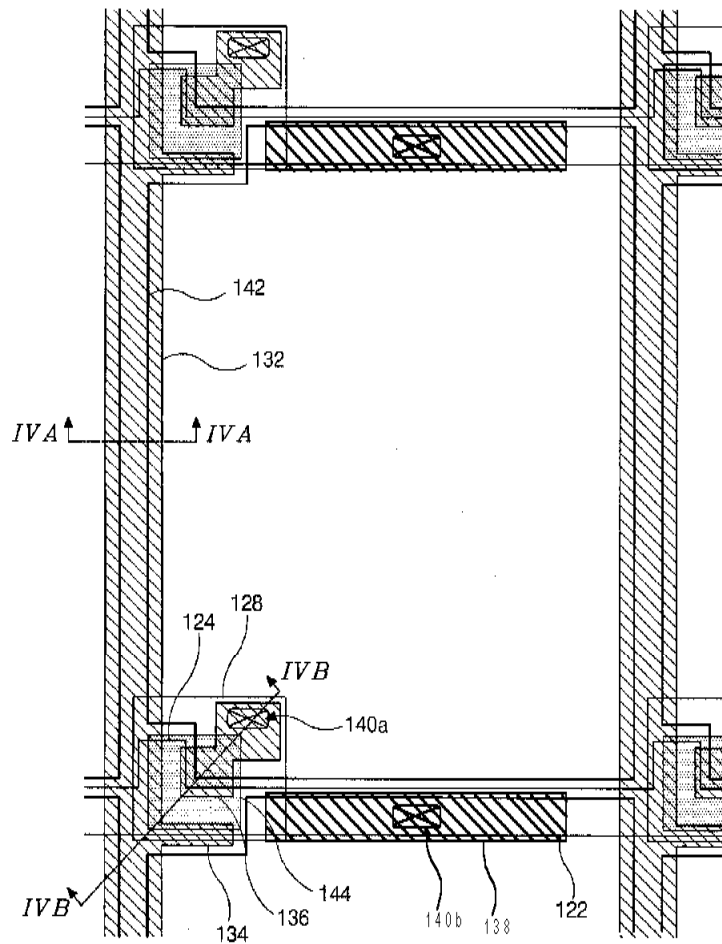
2a



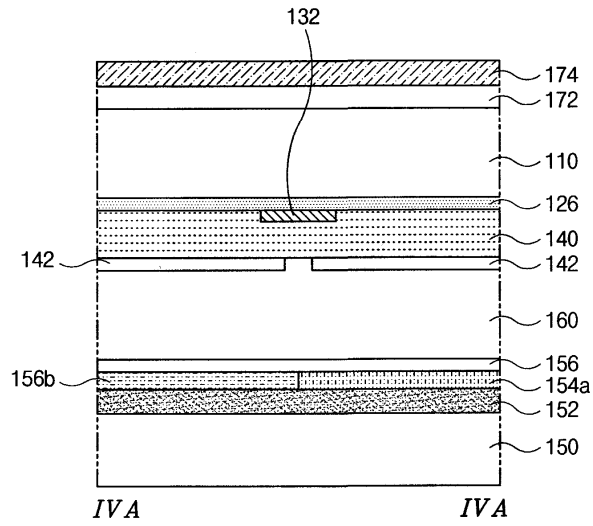
2b



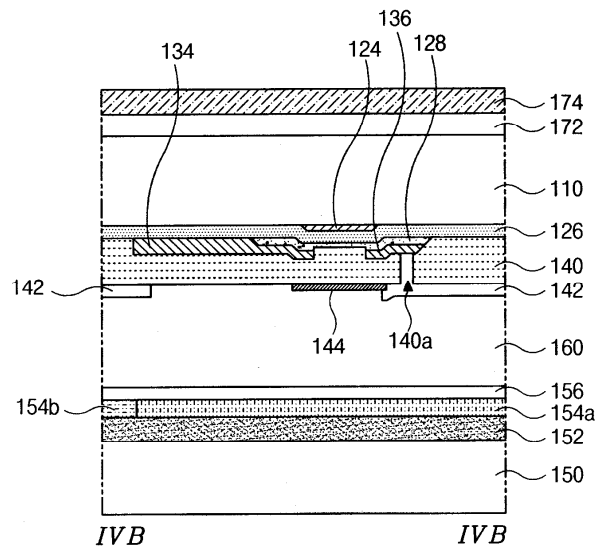
3



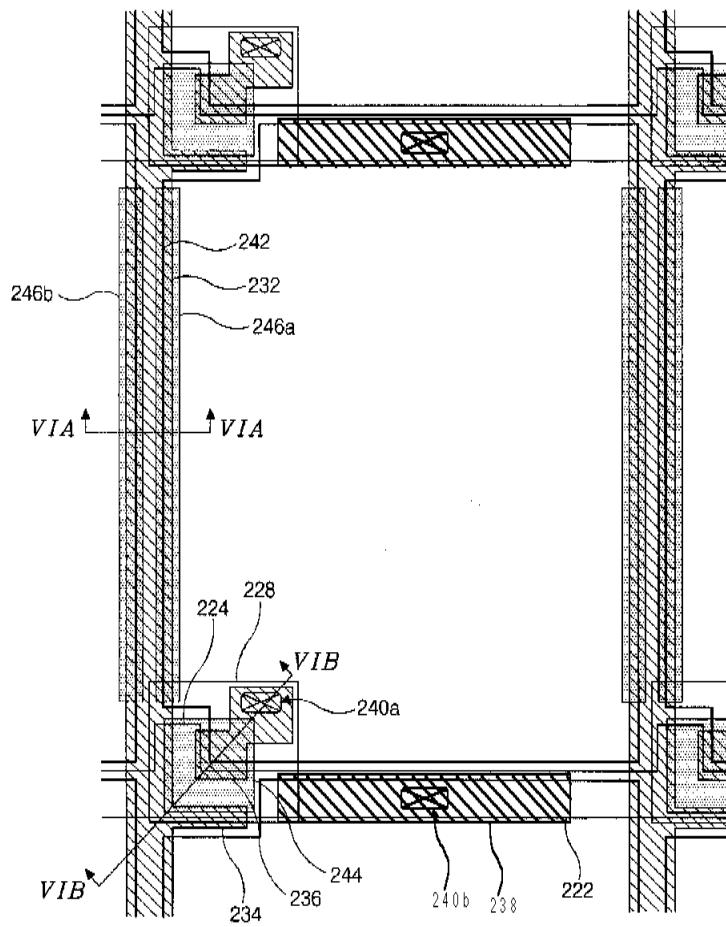
4a



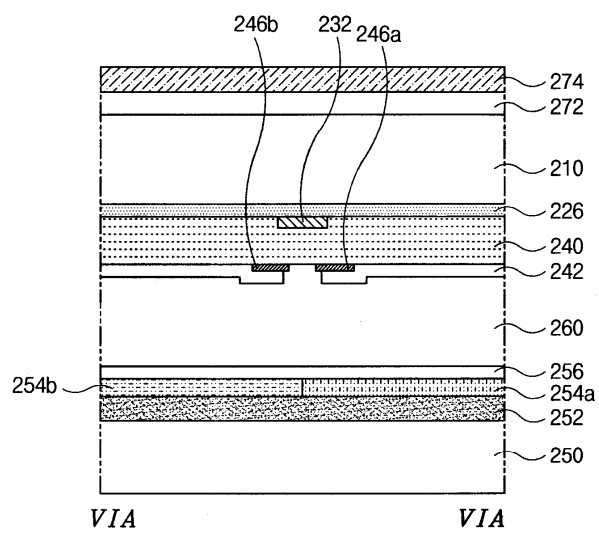
4b



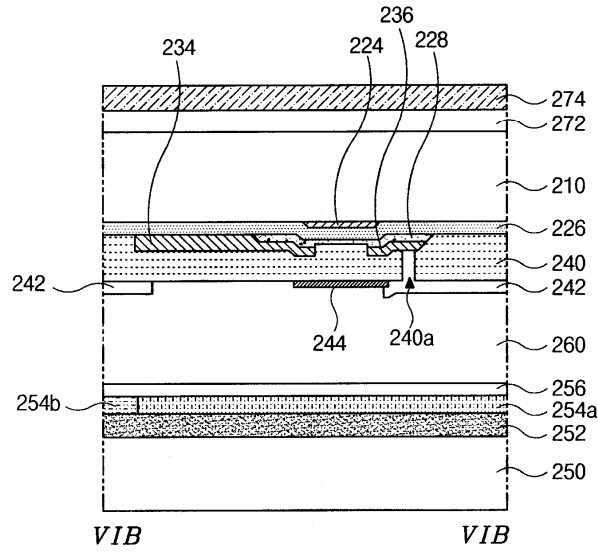
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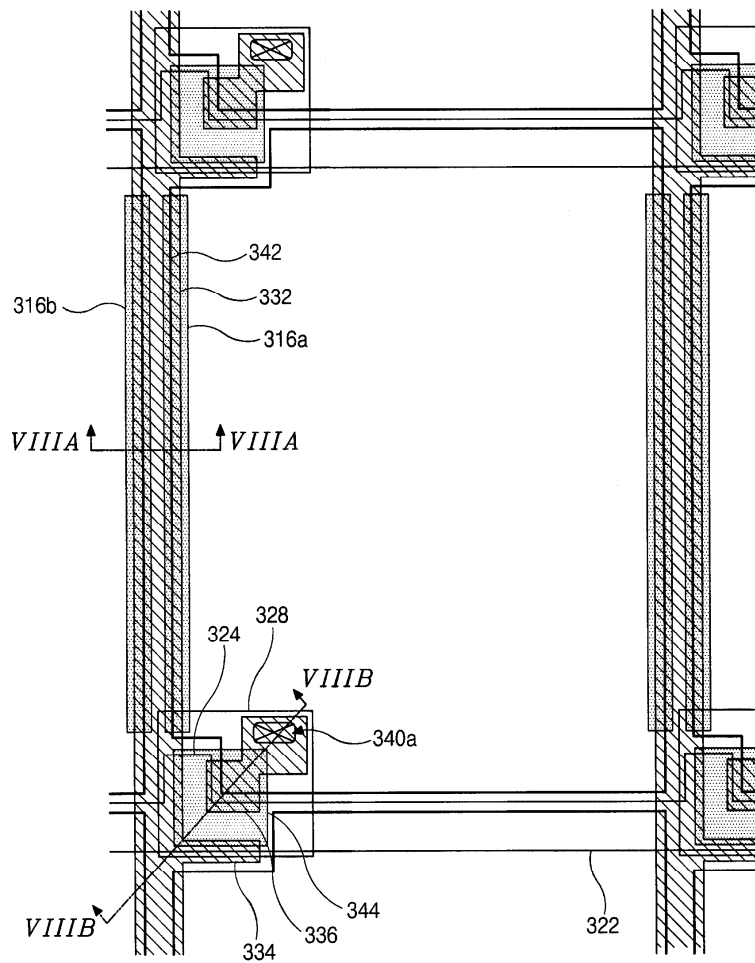
6a



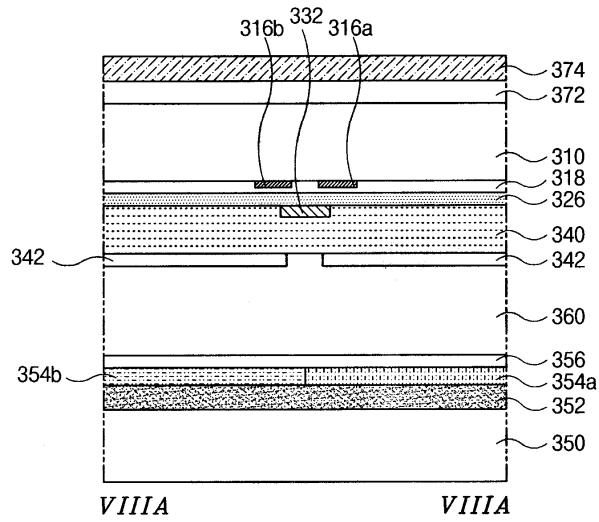
6b



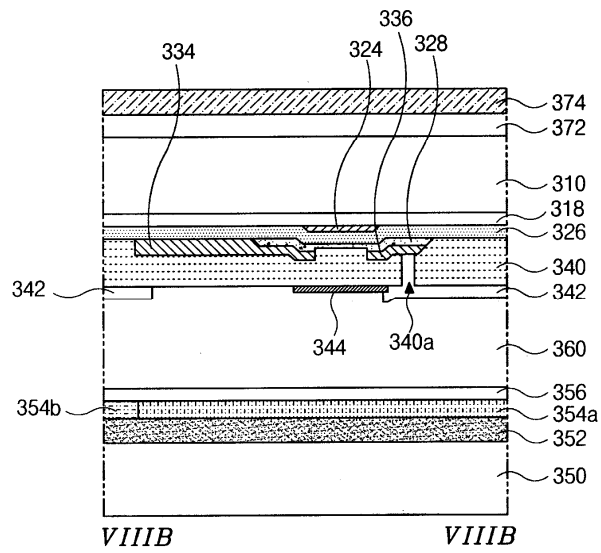
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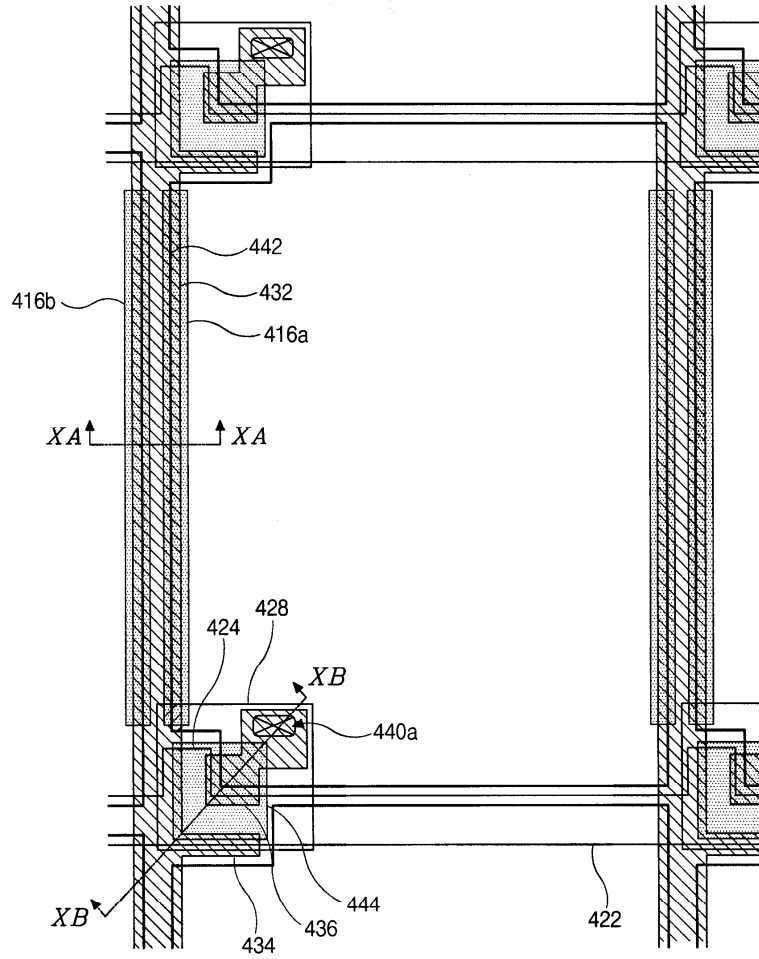
8a



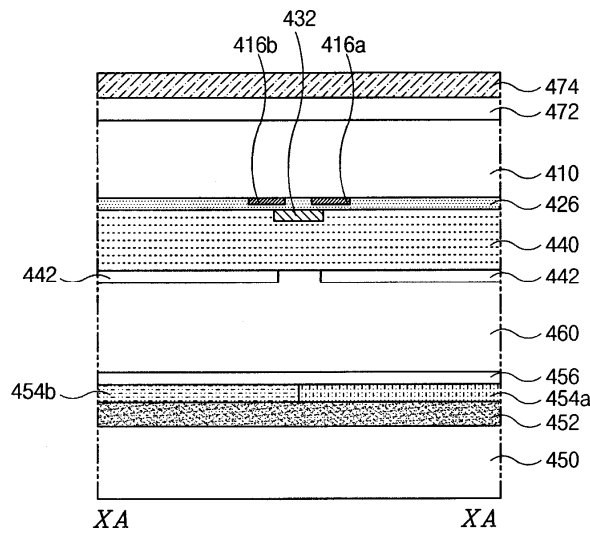
8b



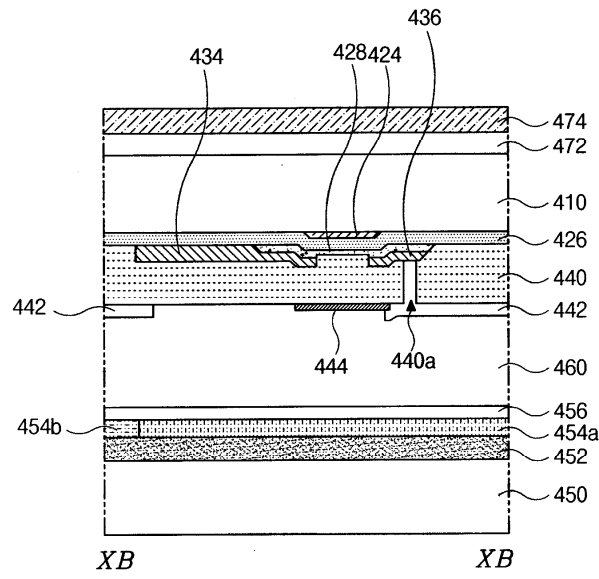
9



10a



10b



专利名称(译)	一种反射型液晶显示装置，包括胆甾型液晶滤色器		
公开(公告)号	KR1020040058847A	公开(公告)日	2004-07-05
申请号	KR1020020085360	申请日	2002-12-27
[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		
[标]发明人	MOON JONGWEON 문종원 KIM MUNCHUL 김문철		
发明人	문종원 김문철		
IPC分类号	G02F1/1335 G02F1/13363 G02F1/1362 G02F1/1368		
CPC分类号	G02F1/133553 G02F1/136209 G02F2001/133521 G02F2001/133543		
代理人(译)	정원기		
其他公开文献	KR100460085B1		
外部链接	Espacenet		

摘要(译)

反射型液晶显示装置技术领域本发明涉及一种包含胆甾型液晶彩色滤光片的反射型液晶显示装置。在包括传统的胆甾型液晶滤色器的反射型液晶显示装置中，形成黑矩阵以防止在薄膜晶体管中发生漏电流并且防止光泄漏到数据布线附近。然而，由于常规的黑矩阵由具有低电阻和高介电常数的树脂制成，所以在薄膜晶体管中可能发生漏电流。因此，在根据本发明的包括胆甾型液晶滤色器的反射型液晶显示装置中，通过形成金属材料的沟道遮光膜并加宽数据布线的宽度或形成与数据布线重叠的黑底来进行数据布线。可以防止附近的光泄漏，并且可以防止薄膜晶体管中的泄漏电流。图4b

