

(19)  
(12)

(KR)  
(B1)

(51) 。 Int. Cl. <sup>7</sup>  
G02F 1/136

(45)  
(11)  
(24)

2003 04 11  
10 - 0380141  
2003 04 01

(21) 10 - 2000 - 0056225  
(22) 2000 09 25

(65) 2002 - 0024466  
(43) 2002 03 30

(73) .  
20

(72) 2 77 201 1001

(74)  
:

(54)

가

가 . 가 ,

가 , n n - 1

가 n

, n - 1  
가 .

4

, ,

- 1 .
- 2 1 - ' .
- 3a 3d , 1 - ' .
- 4 1 .
- 5 4 - ' .
- 6 1 .
- 7 2 .
- 8 7 - ' .
- 9 3 .
- 10 9 - ' .
- 11 4 .
- 12 11 - ' .

<

- 131 : 135 :
- 155 : 151a, 151b :
- 171 : 191a, 191b :

(plate panel display) 가

(liquid crystal display)가

가

(amorphous silicon ; a - Si:H)  
가

가

(poly - Si)

가

가 100 200

가

1 2

(10)

(buffer layer ; 20)

(20)

(35)가

(31)  
(32, 33)

가

(32, 33)  
(35b, 3

5c)

(31)

(35a)

(40)

(52)

(55)

(52) 가 가

(51a, 51b)

(52) 가 (55)

(60)

(60)

(40) 가 1 2 (61, 62) 가

(60)

(71)

(72, 73)  
(71)

(71)

(51a, 51b)

(72)

2, 73)

(73)  
(61, 62)

(52)

(72)

(32, 33)

(7

1) 가

(80) (10)

(80)

(73)

3

(8

(80) 3 (81)  
(91)

(73)

5)  
on)

(55) (storage capacitor)가  
(55) (bias) 가

(35)

(35a)

(3  
(turn

3a

3d

2

3a

(10)

(20)

(30)

(30)

250

가

가

(metal induced crystallization : MIC) ,  
 (solid phase crystallization : SPC) ,

0) (20) (30) (30) (1)  
 ( , K+, Na+ ) (30)

3b (30) (52) (55) (30)  
 (40) (52) (55)  
 (ion doping)

(30) (30) (72, 73)  
 (30) (30)

(30) (32, 33, 35b, 35c) (31, 35a) 가  
 (32, 33) (31)

3 5 가 가 (32, 33) 5 가 n  
 가, 3 가 p- 가

3c (32, 33) 1 2 (61, 62) (60) (60)  
 (52) (55) (72, 73)

3d (71) (51a, 51b) (71) (72, 73) (7)  
 2, 73) (61) (32, 33)

2 (72, 73) (10) (80)  
 (91) (73) 3 (81) (71)  
 (91) (91) (51a, 51b) (71)  
 , 3 (81) (73)

pling) (51b) (71) (91) 1 (cou  
 3 μm 가 (91) (51a) (51a) 2  
 - (cross - talk) (91) (51a) (91)  
 가 가 (91)



4 1 5 4

4 5 (110) (120)

(120) (131) (131)

(132, 133) (133) (135)가

(132, 133) 가 (135b, 135c)

(131) (135a)

(140) (152) (152) (155)

(152) 가 가 (151a, 151b)

(160) (152) (155) (160)

(160) (140) 가 (135c) 1 3 (161, 162, 163) 가

(160) (171) (connecting electrode)(174)

32) (171) (151a, 151b) 1 (161) (174) (171) 2 3 (162, 163) (133)

(135b)

(180) (110) (180) (135c)

(133) 4 (181) 가

4 (180) (191a, 191b) (191b)

(181) (174) (191a, 191b) (155) 가 가 (155)

(155) (191b) (151b) (151a)

6a 6d 5 1

6a (110) (120) (130)

(130)

(120) (130)

(130)

6b (130) (152) (155)

(140) (130) (130)

(130) (132, 133, 135b, 135c) (131, 135a) 가  
 . (132, 133) (131)  
 , (135b, 135c) (135a) (135)가 .  
 , 6c (132, 133) (135c) 1 (160) ,  
 163) . (161, 162,  
 , 6d (171) (151) 1 (161) (171) (174) .  
 (174) 2 3 (162, 163) (133) (132) ,  
 (135c)  
 , 5 (172, 173) (110)  
 (180) 3 (163) (174) 4 (181) .  
 , (180) 4 (181) (174) (191a, 1  
 91b) . (191a, 191b) (155) (155)  
 (171) 가 가 (151b) , 가  
 (151a)  
 1 (131)  
 (132, 133) (171) (174) , (171)  
 133) (174) (132,  
 , 1 가 (155)  
 (191b) (151b) 가 (151a)  
 , 가  
 , 1 (171) (174) (133)  
 (191b) 가 , 가  
 (133) (191b) 가  
 2 7 8  
 7 8 , (110) (120)  
 (120) (131) (132, 13  
 3) (135)가 , (132, 133) 가  
 (135b, 135c)  
 (131) (135a)  
 (140) , (152) (155)  
 (152) (151a, 151b)  
 (152) (155) (160) . (160)  
 (140) 가 (161, 162) 가 .  
 (132) (135c) 1 2



4 11 12

11 12 (210) 가 (221) (221)  
 (222), (221) 1 (225)

(230)

(230) (241, 245)  
 (251, 252, 255)

(261) (262, 263) 2 (265)  
 (261) (221) (262, 263) (222)  
 (262) (261) (263) (

265)

(270) (261) (262, 263) 2 (265)  
 (270) 2 (265) (271) 가

(270) (281a, 281b) (281a, 281b) (265)  
 (221a) (281b) (265) 가 가  
 (281) 2 (265)

가

가

(57)

1.

N(N ) ;  
 M(M ) ;  
 N M N × M ;  
 N × M ;

;

n(1 n N)

n - 1

2.

1 ,

,

3.

2 ,

1

4.

3 ,

2

5.

1 ,

,

6.

5 ,

1

7.

6 ,

2

8.

1

1

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2

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3

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4

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9.

8

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10.

가

1

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1

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,

,

1

2

,

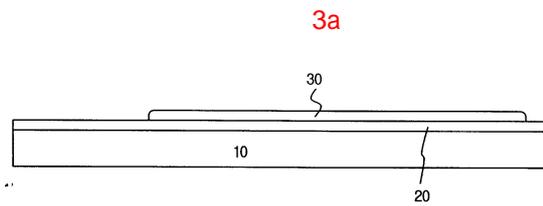
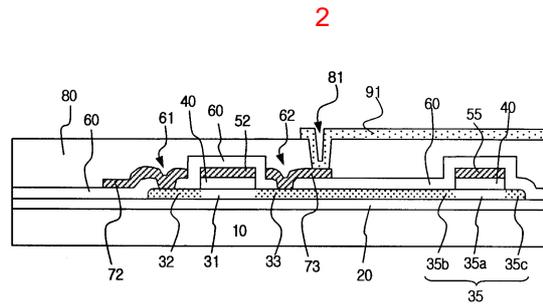
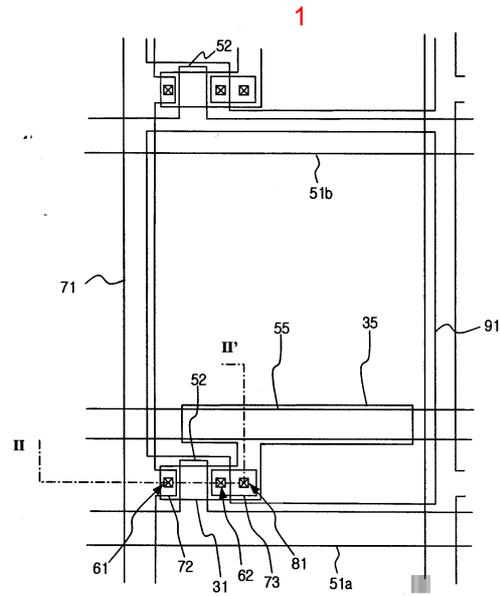
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,

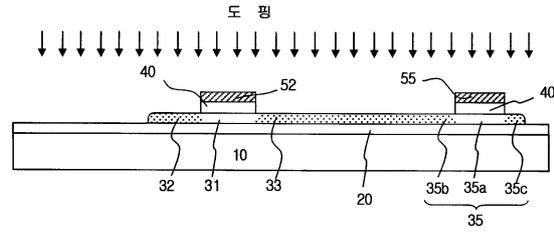
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1

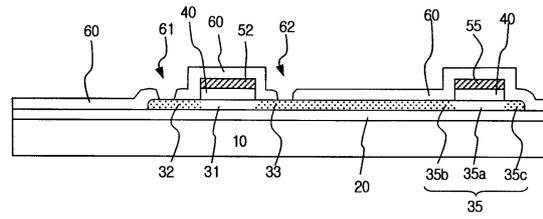
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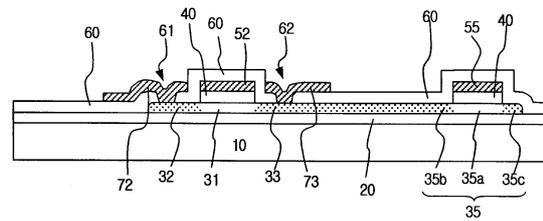
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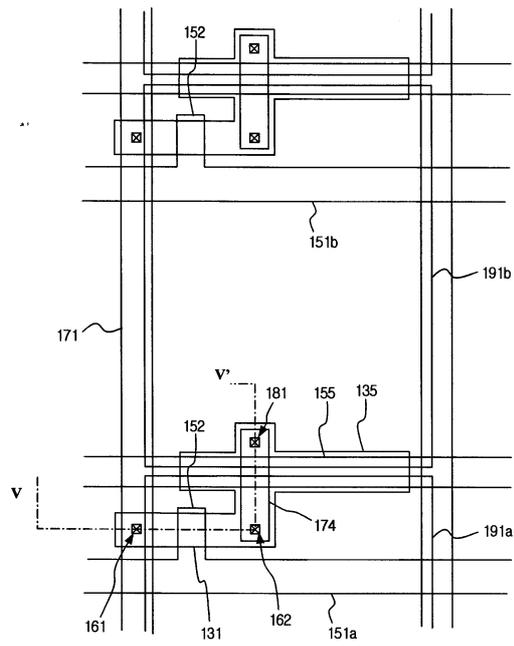
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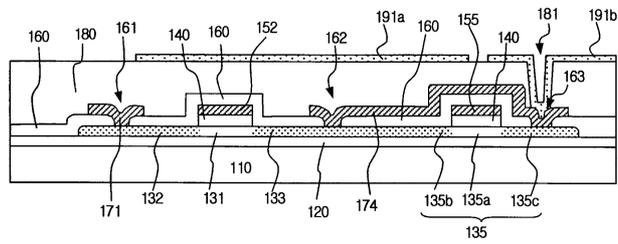
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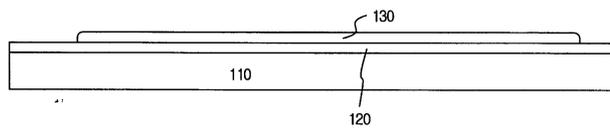
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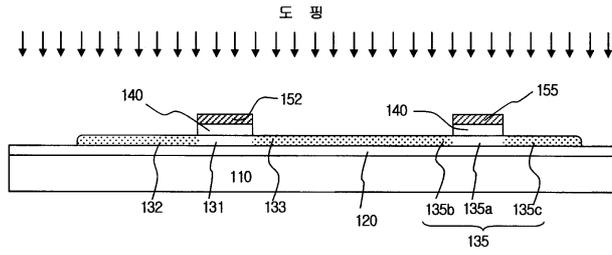
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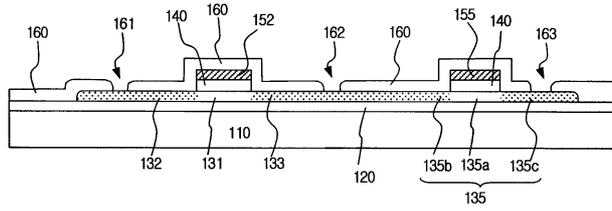
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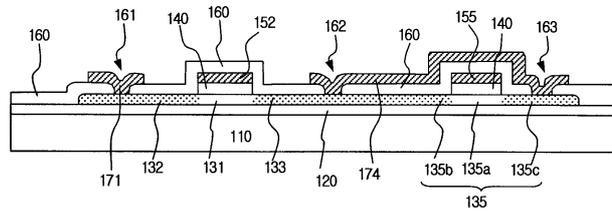
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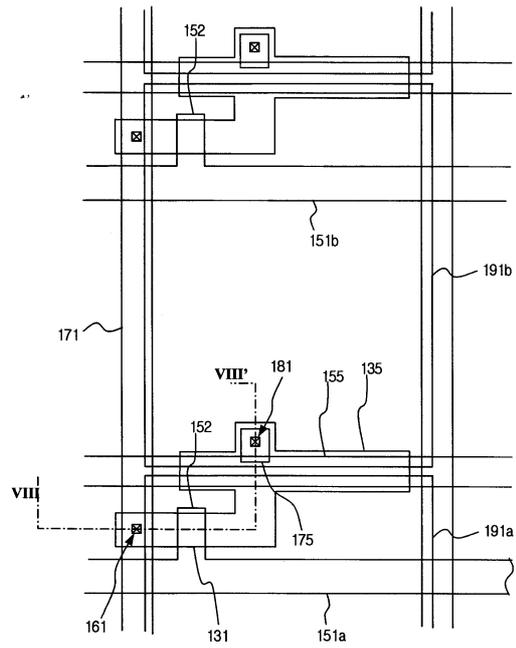
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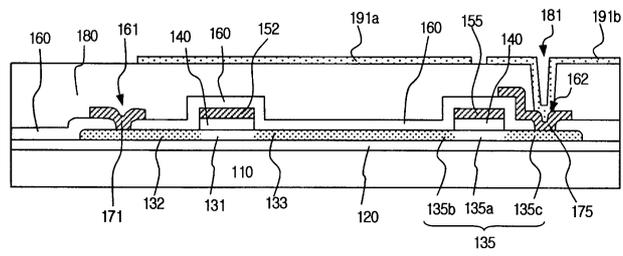
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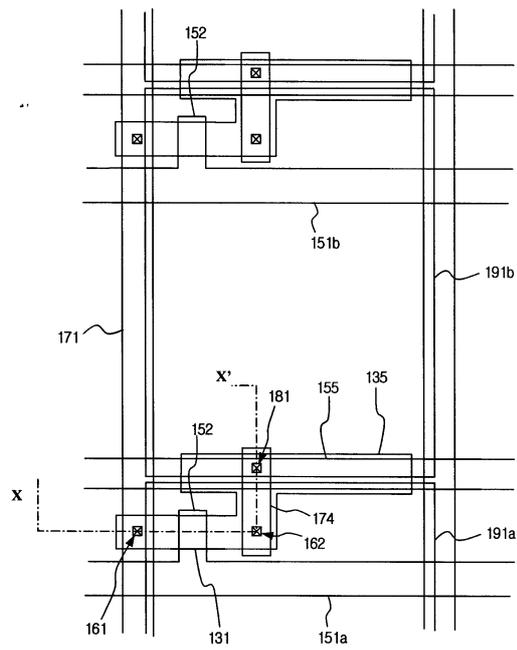
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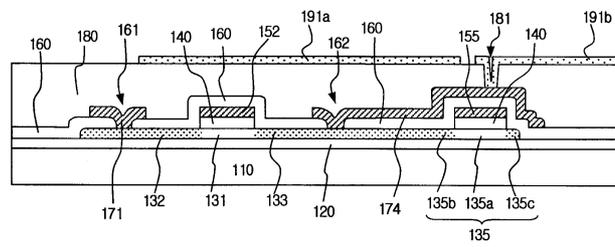
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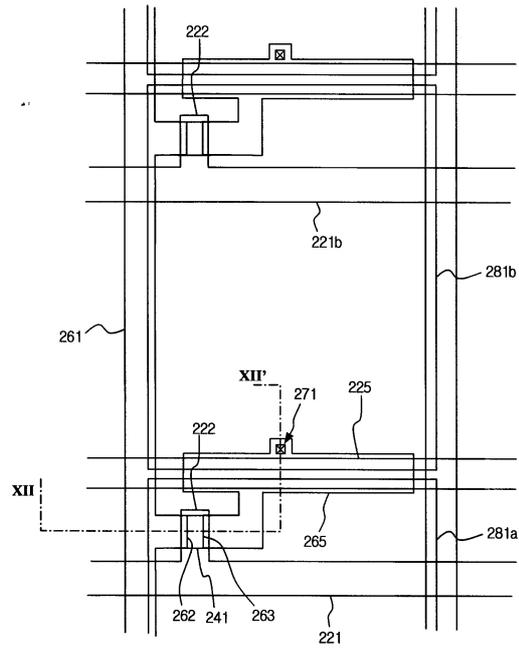
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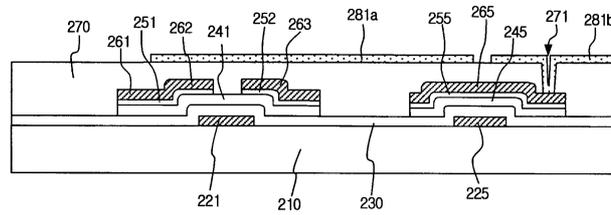
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11



12



专利名称(译)	用于液晶显示装置的阵列基板及其制造方法		
公开(公告)号	<a href="#">KR100380141B1</a>	公开(公告)日	2003-04-11
申请号	KR1020000056225	申请日	2000-09-25
[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	HA YONG MIN		
发明人	HA,YONG MIN		
IPC分类号	G02F1/1343 G02F1/1362 G02F1/136		
CPC分类号	G02F1/136213 G02F1/134336		
代理人(译)	贞媛KI		
其他公开文献	KR1020020024466A		
外部链接	<a href="#">Espacenet</a>		

摘要(译)

为了减小像素电极和栅极布线之间的寄生电容，用于向液晶显示装置的阵列基板中的像素电极施加信号，然而，在这种情况下，由于光被位于该部分的液晶分子扭曲，因此必须覆盖黑矩阵以防止这种情况，这降低了液晶显示装置的开口率。 在本发明中，存储电容器对于每个像素区域独立形成，并且每个像素电极在存储电容器的上部分开。为此，像素电极与第n行存储电容器的一部分和第(n-1)行存储电容器的一部分重叠。此时，像素电极不与用于向像素电极施加信号的第n栅极布线重叠，而是与第(n-1)栅极布线重叠。因此，可以减小寄生电容，可以提高开口率，并且可以增加存储电容。 4 指数方面 孔径比，寄生电容，存储电容

