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2004 12 08

(21) 10-2003-0034011
(22) 2003 05 28

(71) 416

(72) 250 1302

861 8 806 1601

(74)
:

(54)

1 , 2

, 가 ,

1

1

, , ,

1 1 ,

2 1 II-II' ,

3 1 III-III' ,

4a 4c 1 () ,

5a 1 () ,

5b 5a Vb-Vb' ,

6a 1 ,

6b 6a VIb-VIb' ,

7a 1 ,

7b 7a IIb- IIb' ,

8a 1 ,

8b 8a VIIIb-VIIIb' ,

9 2 ,

10 11 9 X-X' XI-XI' ,

12a ,

12b 12a XIIb-XIIb' ,

13, 14, 15 12a XIIb-XIIb' 12b ,

16a 15 ,

16b 16a XVIb-XVIb' ,

17a 16a ,

17b 17a XVIIb-XVIIb' ,

가

가

1 1 , 2 1
 II-III , 3 1 III-III III-III .
 1 (200) (100) (100, 200)
 (3) (100, 200) 가 가 (320)
 (3) (40) (100, 200) (11, 21)
 (100, 200) (100) (40)
 (200)
 (100) (110) 가 (gate line)(121)
 (121) (resistivity) (Ag) (131) (Ag alloy) (Al) (121) (131)
 (Al alloy) (Cr), (Ti)
 (Ta) 가 가 (124) (121)
 20-80 °
 (131) 가 (190)
 (175) (140) (131)
 (175) (131) (SiNx) (gate insulating layer)
 (140)
 (154)가 (140) (hydrogenated amorphous silicon) 가 (124)
 (154) (silicide) n
 n+ (163)
 (165)가 (165) (125)
 (163)
 (163) (165) (140) (171)
 Ag (175) (171) (175) Al
 (171) (121) (171) 가
 (173) (173) (175) (163, 165)
 (124)
 (154) (171) (175) (163, 165)
 (171), (173) (131) 가 (154)
 (140) (R, G, B)가 (R, G, B)
 (R, G, B)가 (171) 가
 (R, G, B) (121) (171) (125, 179)
 (R, G, B) (154)
 (R, G, B) SiOC SiOF
 4.0 가 (180)
 (180) (175) 가 (185) 가 (180)
 (R, G, B) 가 가
 (180) (171) (179) (182) 가
 (140) (121) (125) (181) 가 (181,
 182) (121) (171) ()

(180)

(180) ITO(indium tin oxide) IZO(indium zinc oxide)
 (190) (190) (185) (175)

(190) (200) (270)
 , 가 (3)

(190) (270)

(190) (121) (171) (aperture ratio)

(131) (175)

(180) (contact assistant)(81, 82)가 (81, 82)
 (181, 182) (121) (171) (129, 179)
 (81, 82) (121) (171) (129, 179)
 (190) (81, 82)

(100) (200) (110) (210)
 (121) (171) (R) (G) (B) (220) (220)

(220) 가 (121) (171)

가 (220) (121) (171) (220)

(220) (210) (190)
 (270)

(320) (220) (270) (320)
 (3) (3) (40) 가 TN (100, 200)
 (310) (11, 21) (3) (100, 200)

(200,) (100,

)

4a 4c

4a (200)
 (210) (220) (220) (200)
 (220) 가 (200)

1.5~3.0 μ m 가

(220) 가 (200)

4b (210) ITO IZO
 (270)

4c (220) (320) (100, 200) (cell gap)
) 4.0 μ m (220) 1.5 μ m (350)가 2.5 μ m 가

2 (210) (21)

가 가 가

(220) 가 (220)

8c 1 3 5a 8a 5a 8a 5b 8b 4a 8a 5a

Vb-Vb, VIb-VIb, VIIb-VIIb, VIIIb-VIIIb'

5a 5b (110) 1,
 000 3,000 (131) (121)

6a 6b (140), (150), (160)
 (doped amorphous silicon island)(161) (140) (154)

7a 7b (173) (171),
 (175) (171) (175) 가 (163, 165)
 (161) (161) (154) (154)

() 8a 8b (R, G, B) (1
 (180) (180) (140)

81, 182, 185)

1 2 , 1400 1600 ITO IZO (11)
 (190) (81, 82)

5 4

1

9 11 2

9 2 , 10 11 9

X-X' XI-XI' 9 10 11
 가 1
 9 11 2 (110)
 (140) (171)
 (131) (121) (121) (12
 1) (131) 가 (12
 190) (175) (140)
 (154) (163, 165)가
 (154) (171) (171) (175) (175)
 (154) (220)
 9 가 (121) (171)
 (220) 가
 (220)
 2 12a 17b 9
 11
 12b 12a XIIb-XIIb' 13, 14, 15 12a XIIb-XIIb'
 12b 16a 15
 17a 16a XVIIb-XVIIb' 16b 16a XVIIb-XVIIb'
 17b 17a XVIIb-XVIIb'
 12a 12b 1,000 3,000
 (121) (131)
 13 (140), (150), (160)
 1,1600 5,000 , 1600 2,000 , 11400 600
 (170) 1,1600 3,000
 (60) 1 μm 2 μm
 (210) 가 1 (61) 2 (62)
 (A) (61, 62) 가 (C) (60) 2 (62)
 가 (B) (60) (A)
 1 (61) 가 (C) 2 (62) (A)
 1 (61) 1/2 , 2 (62)
 , 4,000
 가 가 (translucent area) 가
 (transparent area) (light blocking area) (translucent area)
 (slit) (lattice pattern) 가
 olution) (res
 가가

가

, 14 (160) (B) (170) (170)
) 가 (61, 62) CeNHO3 가 172 (170)
 , 15 (B) (160) (150)
 160 (ashing) (160) (162) (172) (C) 2 (62) 2 (62) 162 (150)
 , 16 1 (61) (C) (154) 가 가
 , (C) (C) (172) (171) (175)
 165) (C) (162) (163)
 (A) (162) 1 (61) (C) (172)
 (171) (175) , 17a 17b , , (R, G, B)
 , (C) (C) 가 ,
 , (110) (R, G, B) (180)
 (175) (140) (181, 182, 185) (121) (171) (129, 179)
 81, 82) , 9 11 , 1400 1600 (190) (11)
 73) 2 (163, 165) 1 (154) (171) (1)
 (175)

가

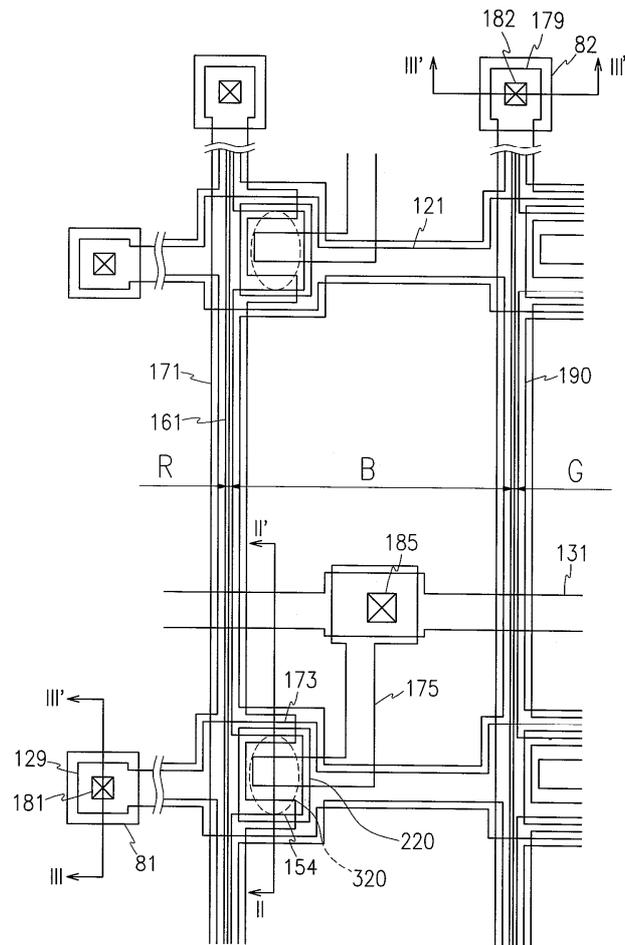
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(57)

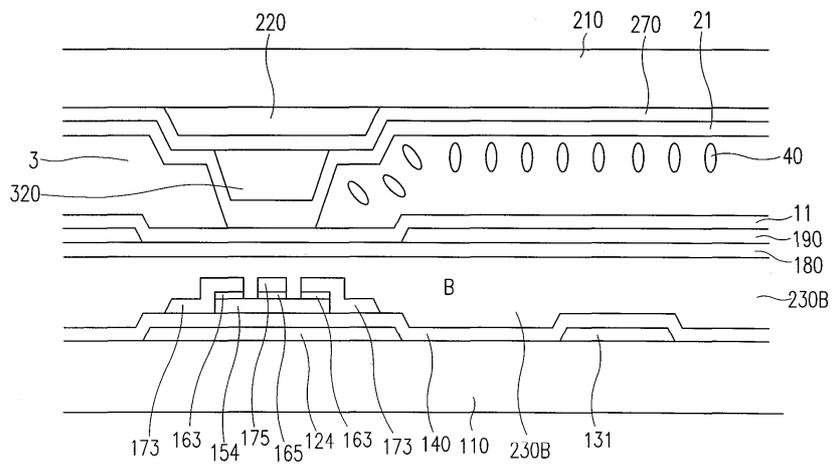
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 1 ,
 1 ,
 3 2 가 ,
 1 ,
 1 2 ,
 2 ,
 2 ,
 , 가 1 1 .

2. 1 ,
 1 ,

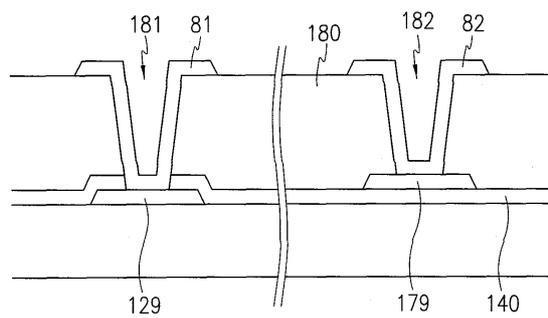
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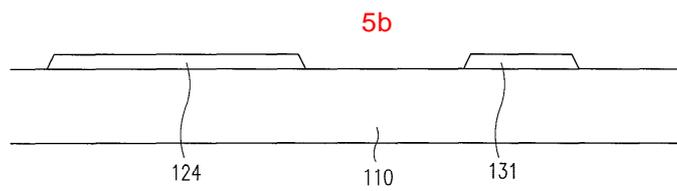
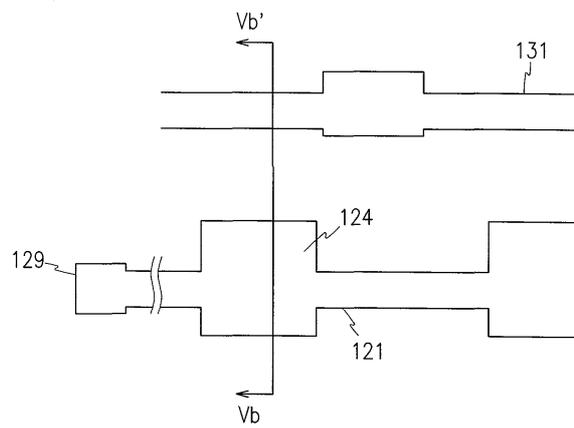
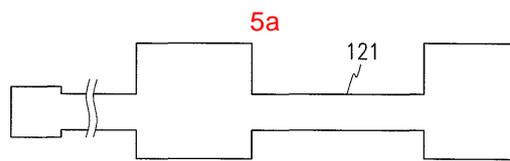
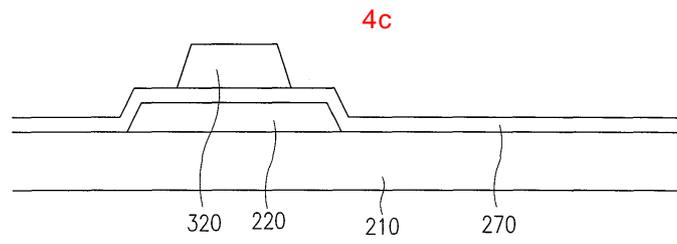
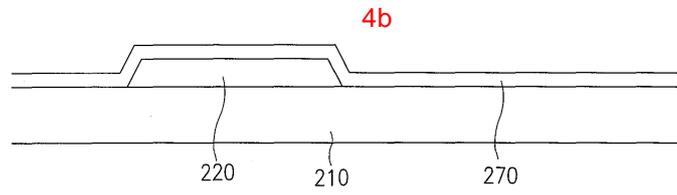
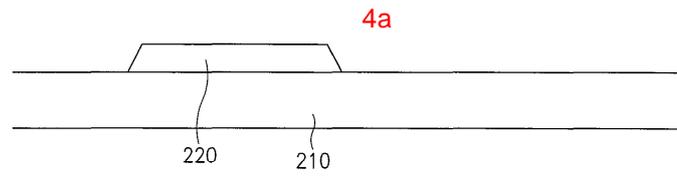


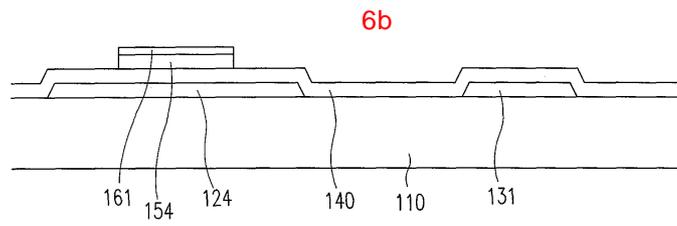
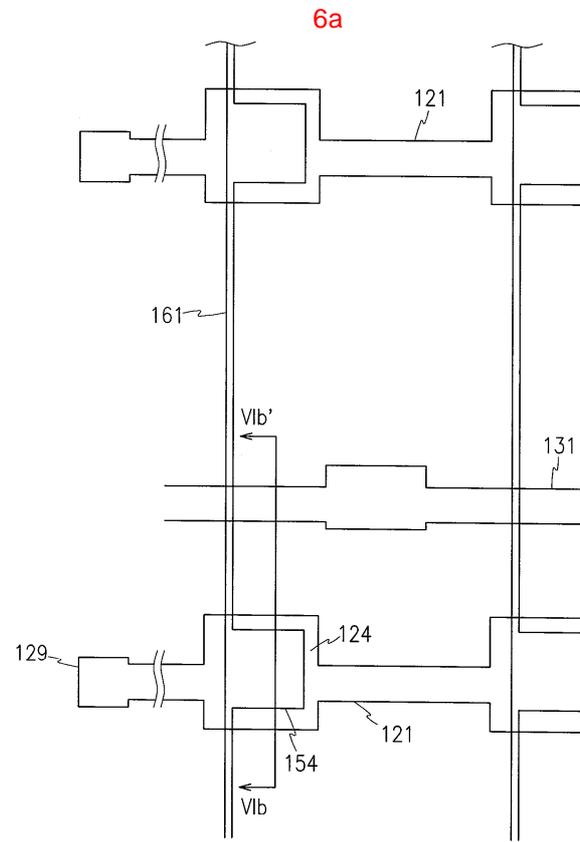
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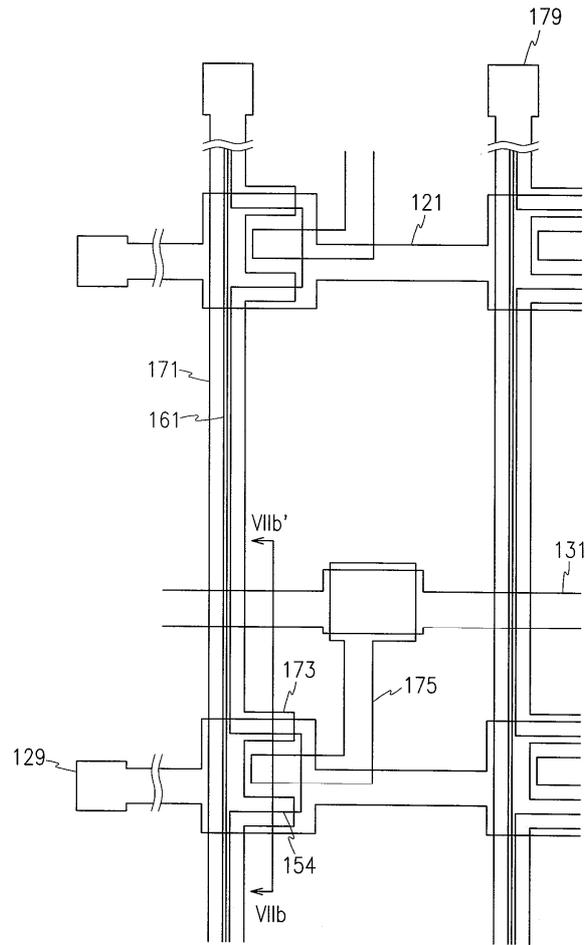
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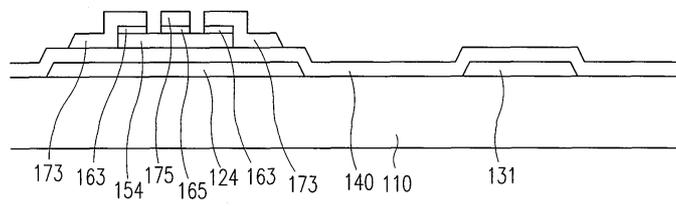




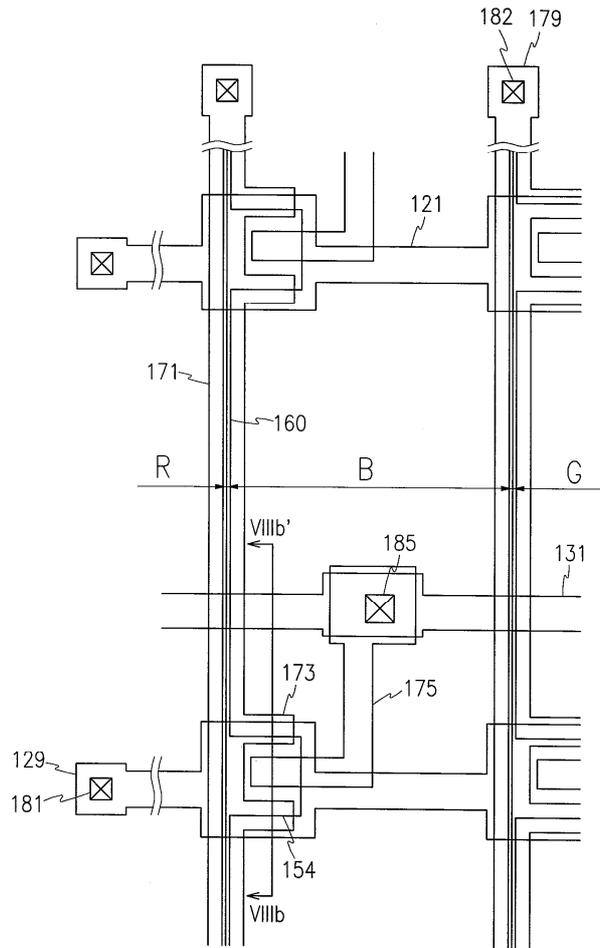
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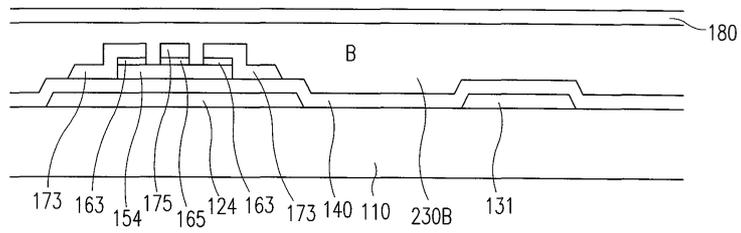
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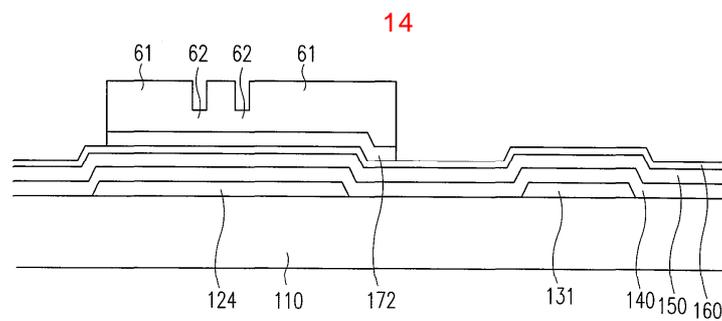
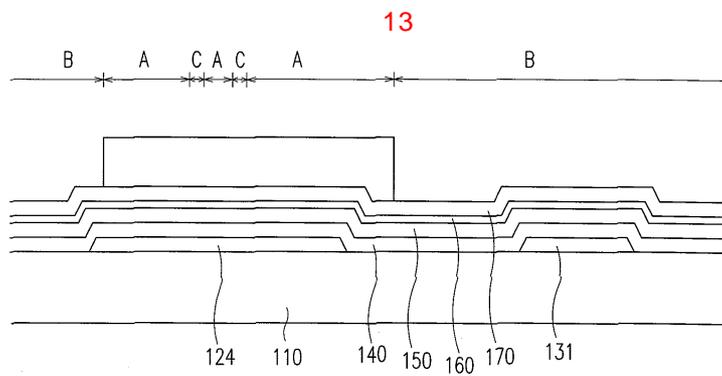
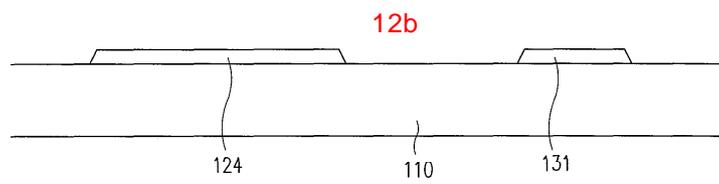
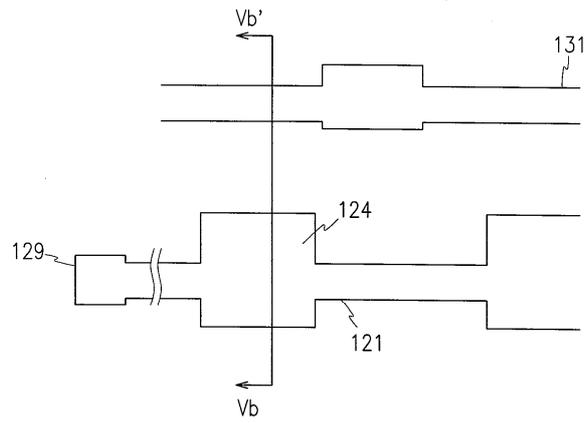
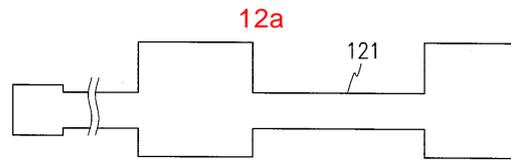


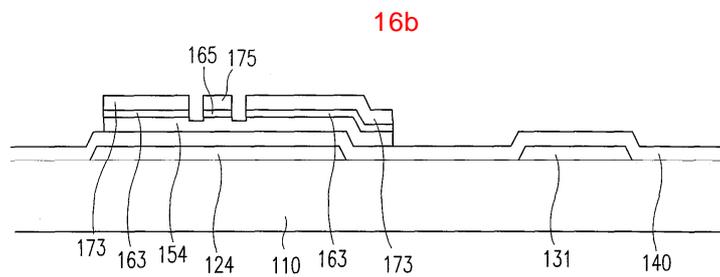
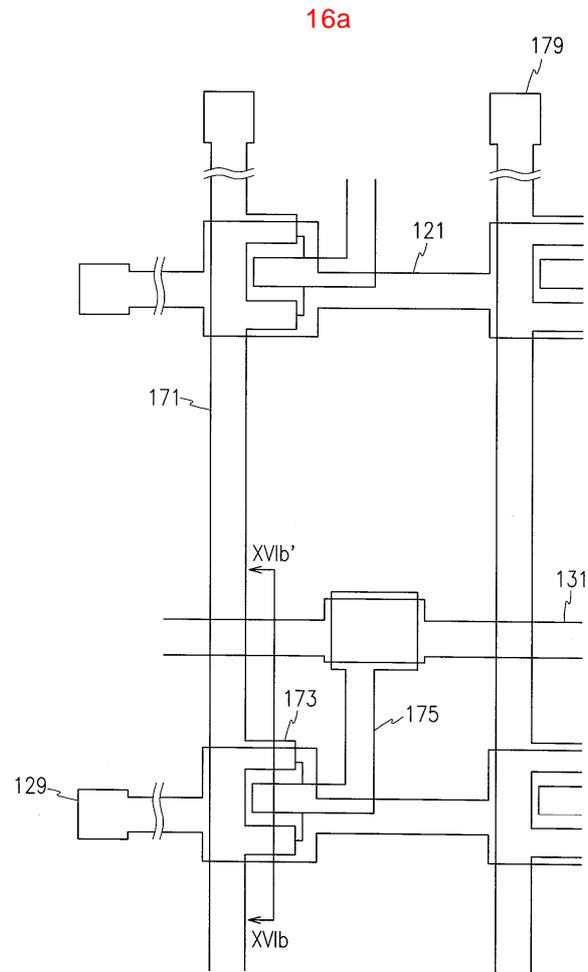
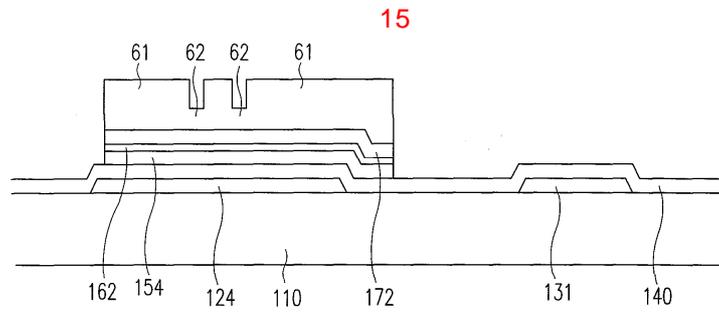
8a



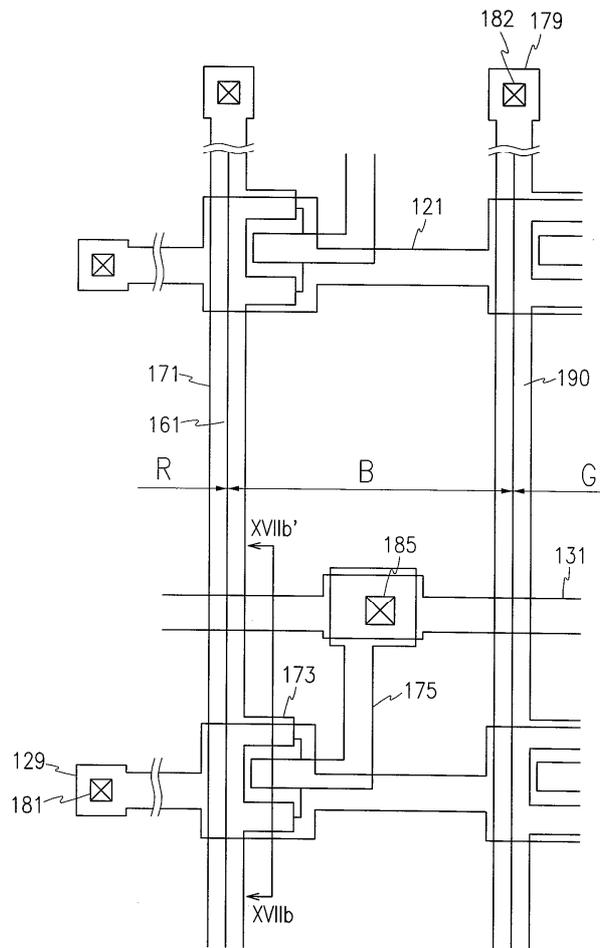
8b







17a



17b

