

(19)
(12)

(KR)
(A)

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G02F 1/136

(11)
(43)

2001 - 0104070
2001 11 24

(21) 10 - 2000 - 0025468
(22) 2000 05 12

(71)

3 416

(72)

4 5 201

303 1301

(74)

()

:

(54)

가 , 가

가 , IZO

1 ,

2 1 II - II' ,

3a, 4a, 5a 6a ,

3b, 4b, 5b 6b 3a, 4a, 5a 6a IIIb - IIIb', IVb - IVb', Vb - Vb' VIb - VIb'

7 9 .

가

가

가

가

(black matrix)

가

(black matrix) , 가 가

, 가 가 ,

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2 , 가 , 2

, 가 가

, 1 2

1 , 2 1 II - II'

, (10) (90)가 (90) 가

가 , 가 (92)
 (94) (94) (90) 가 (92) 가 (92) 가
 (94) (90) 가 (92) (40) (94) 가 (92) 가
 (22) (62) 가
 , 가 (92)가 , 가 (92) , (94)가 (94)가
 (10) 가 (90) (100) (100) 3.0 - 4.0 가
 (SiO_x) 0.5 - 3.0 μm (22, 26) (62, 65, 66)
 (90)
 (50) (Al) (Al alloy), (Mo) - (MoW)
 (Cr), (Ta), (Cu) (Cu alloy) (90) 가 (92)
 (22), (22) (26) (22, 24, 26) (24)
 (22) (82) (22, 24, 26) (82)
 (22, 24, 26) (90) 가 (92) (94) 가
 (28)
 (100) (SiN_x) (30) (22, 24, 2 (hydrogenated amorphous silic
 6) (28) (30) (40) (40) (P)
 on) n
 (ohmic contact layer) (55, 56)
 (55, 56) 가 (22)
 (90) (94) (62), (62) (55)
 가 (68), (62) (26) (65)
 (65) (62, 65, 68) (66)
 (56)
 (62, 65, 66, 68) (22, 24, 26) 가 가
 가 (55, 56) (62, 65, 66, 68) 가 (90)
 가 (92) (62, 65, 66, 68) 가 (92)
 가

(62, 65, 66, 68) (70) (70) (66)
 (76) 가 (70)
 (70) (68) (78) (40) (30)
 (24) (74) (70) (30)
 (40) (100) (72) 가 (72)
 (66) 가 (90) 가

(70) (30) (40)
 (76, 68) (70) (30) (40)
 (30, 40, 70) (22, 24, 26) (62, 65, 66, 68)
 (66) (90) 가
 (22, 24, 26) 가

(72) (100)
 m zinc oxide) (82) (82) ITO(indium tin oxide) IZO(indiu
 (76) (66)
 (82) (22)
 (24) (68) (74, 78)
 (84) (88)가 (24, 6
 8)

가 (10) (90)가 (82)
 (90)

(22) (62) 가
 (90)
 (82) 가

(10)
 [PVA(patterned vertically aligned)]
 (fringe field)

4

3a 6b 1 2

3a 3b (90) (10) 가 (92) (94)

가 (100) (Mo) (MoW)

(Cr), (Ta), (Al) (Al alloy), (22), (26) (24)

(28) (10) (22), (26) (24)

(22, 24, 26)

5a 5b (30), (40), (50)

(22, 24, 26) (22) (62),

(62) (26) (65), (62) (65)

(68) (65) (26) (65)

(66) (90) 가 (92)

(62, 65, 66, 68) 가

(62, 65, 66, 68) (50) (26)

(55, 56) (40)

6a 6b (70)

(24), (66) (68) (30) (40) (74, 76, 78) 가 (40)

(30) (90) 가 (100) (72) (72)

1 2 , ITO IZO (76)

(66) (82) (74, 78) (24)

(68) (84) (88)

(82, 84, 88) IZO (82, 84, 88) ITO

IZO IZO가 가

(74, 7

8) 5

(22, 24, 26) (62, 65, 66, 68) (70), (40) (30)
 (22, 26) (40) 가 가 (22, 26) 1 2
 (62) (65) A (66) (62) (22)
 (40) , A (10) (((40)
) 가 (90) 가 (92)가 (10) A (40) A
 가 (62) (22)

7 9 (10)

7 (40), 1 (10) (22, 26), (30),
 (55, 56), (62, 65, 66) (70)
 (10) (200) (210)

8 (62) (40) (22) (89)
 (69) , 9 (62)
 (40) (210) (211)가

7 (22) (C) (22) (D)
 (40) 가 가 D (40)
 가 , (C) (22, 26) 가
 , D (66) (62)
 8 (22, 26) (69)
 (62) (40) (22, 26)
 가 (40) , D (40)
 가 가 가

(40) (69) (10, 200) (40) (69) (6)
 2, 65, 66, 68, 1) (82) (69) (62, 65, 66, 68)
 (74, 76, 78) (72) (69) (22)
 (82) (69) (22)
 (89) , (82) (69)
 (22) (74, 76, 78) (72) (69)
 (82) (22) (69) , 9

, (40) (62) (40) (210) (211)
D

(57)

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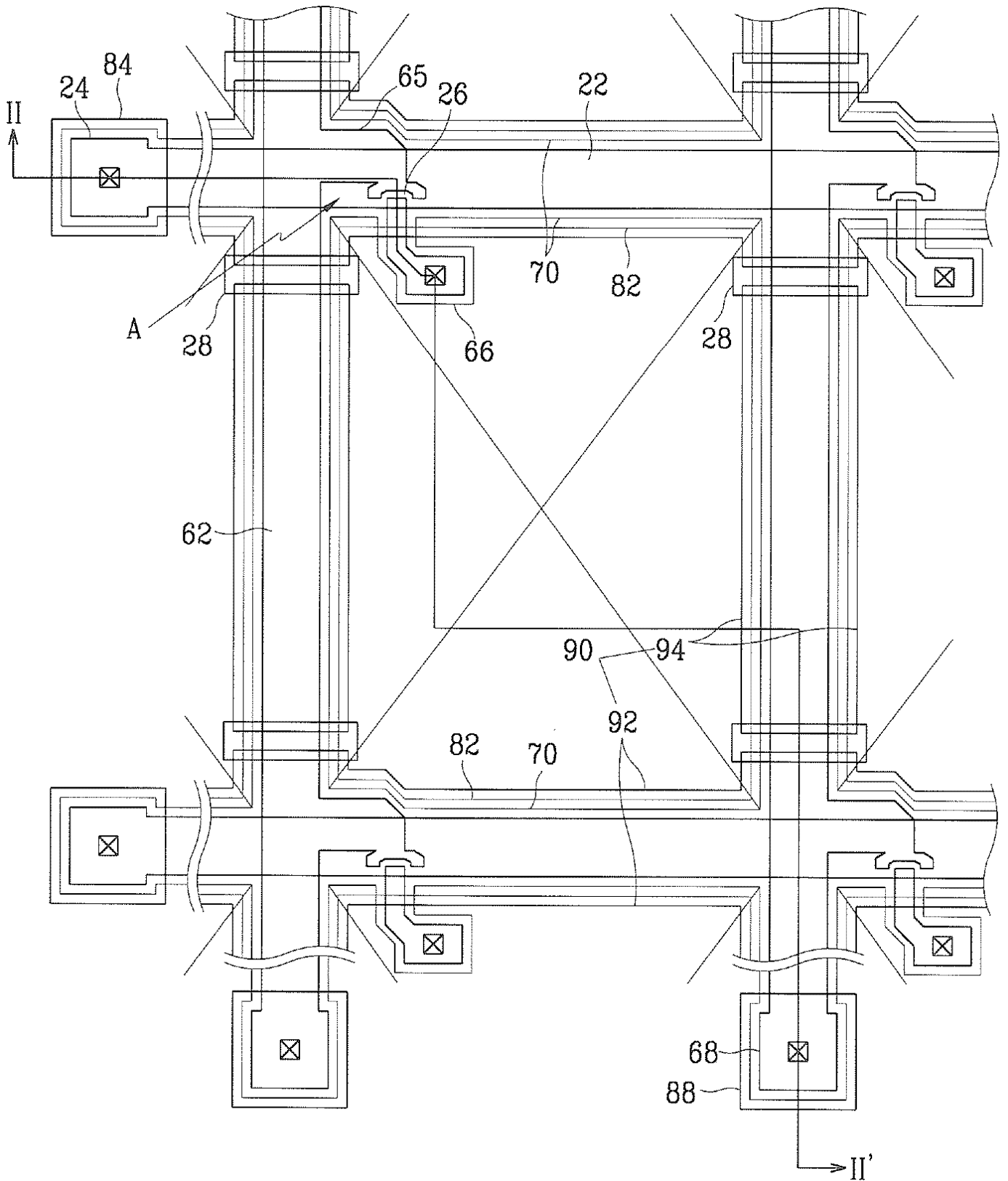
25.

24 ,

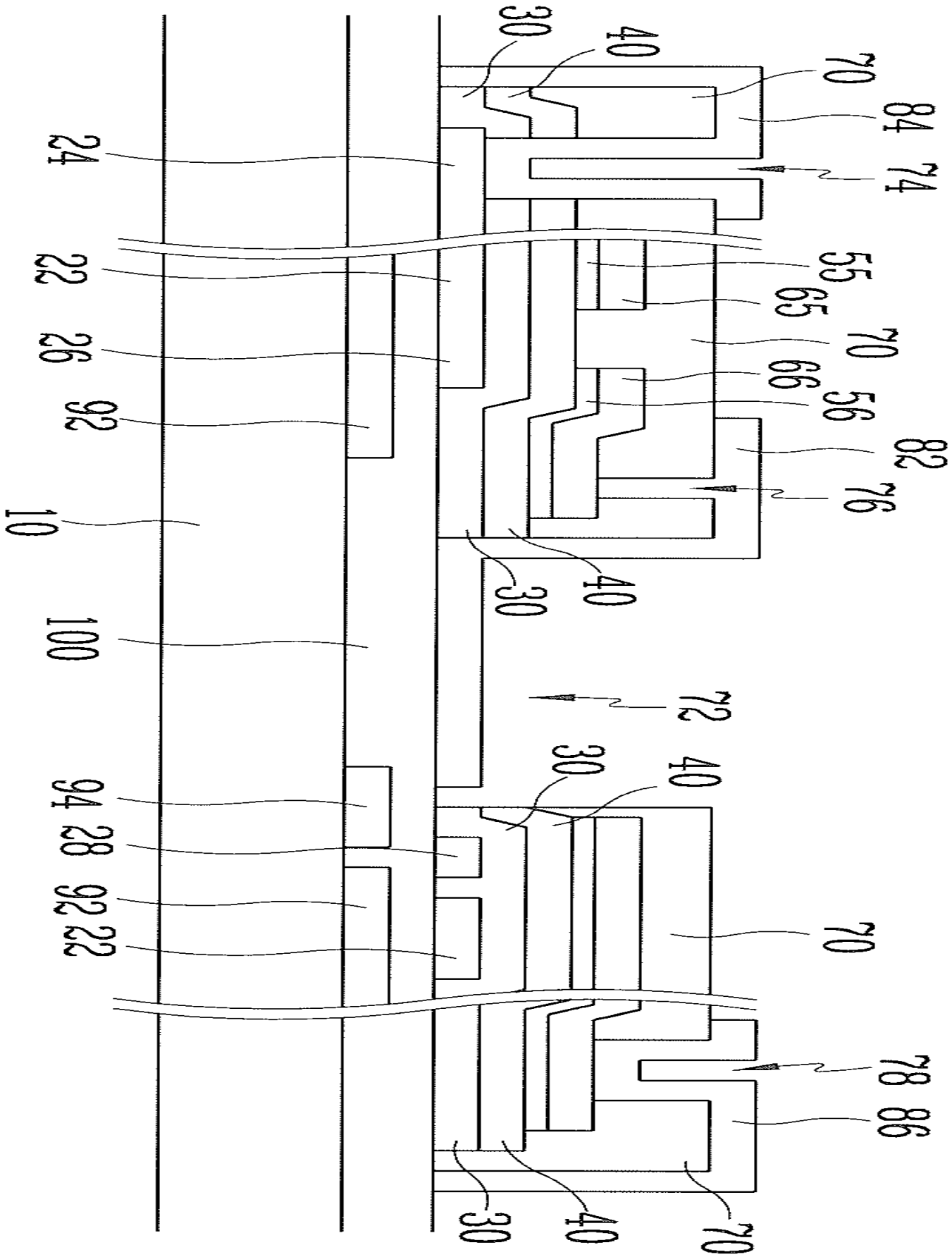
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2

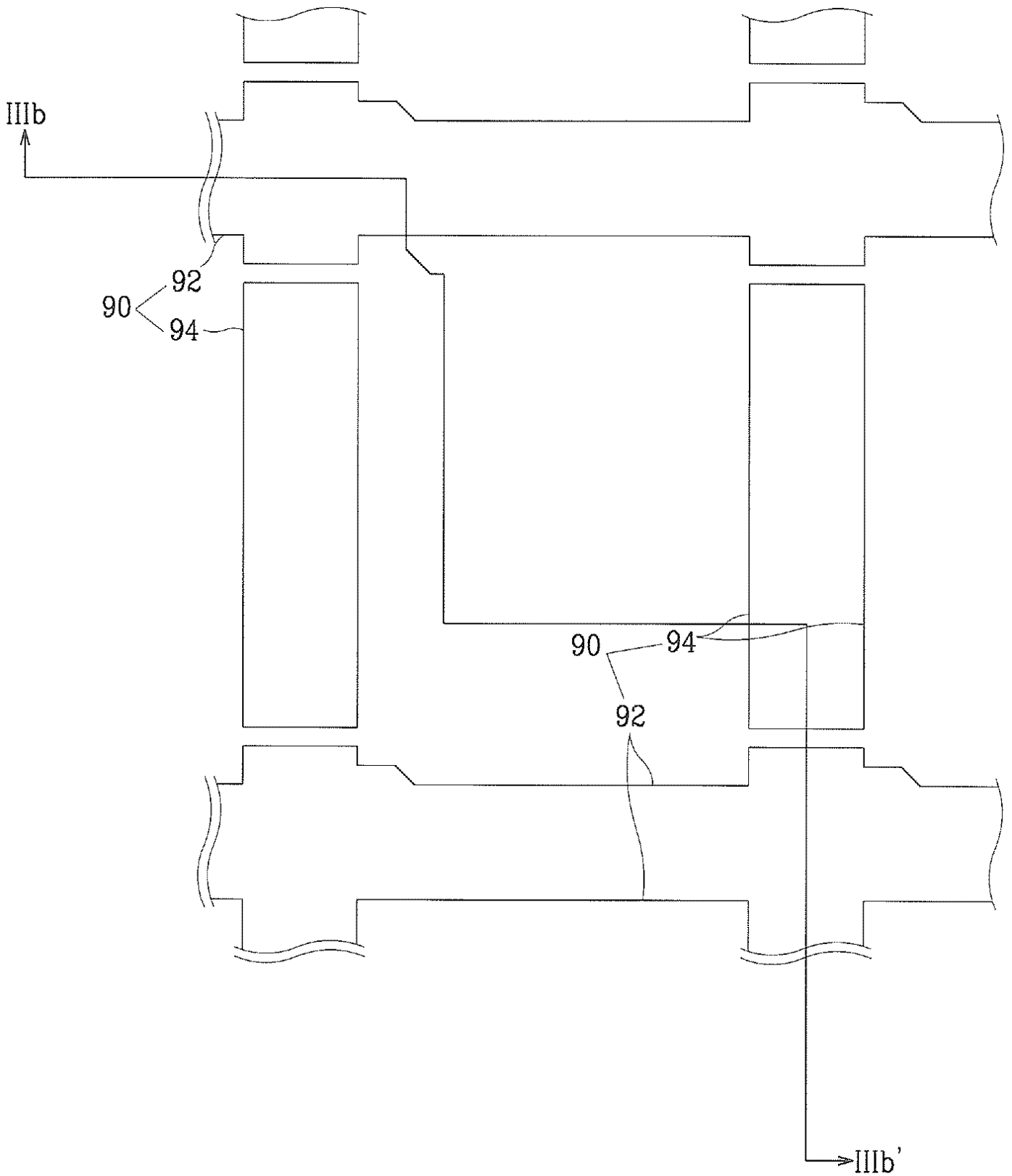
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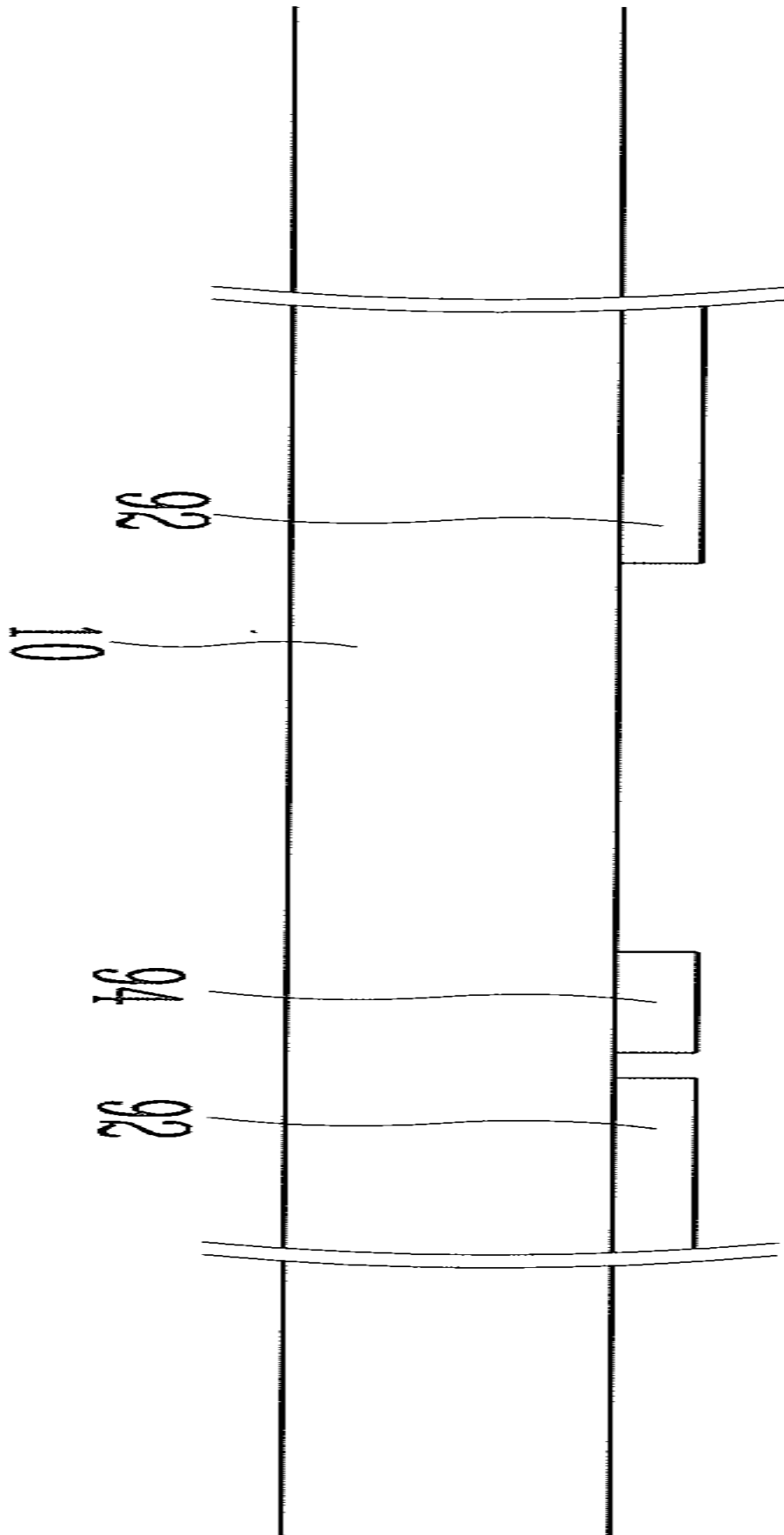
2



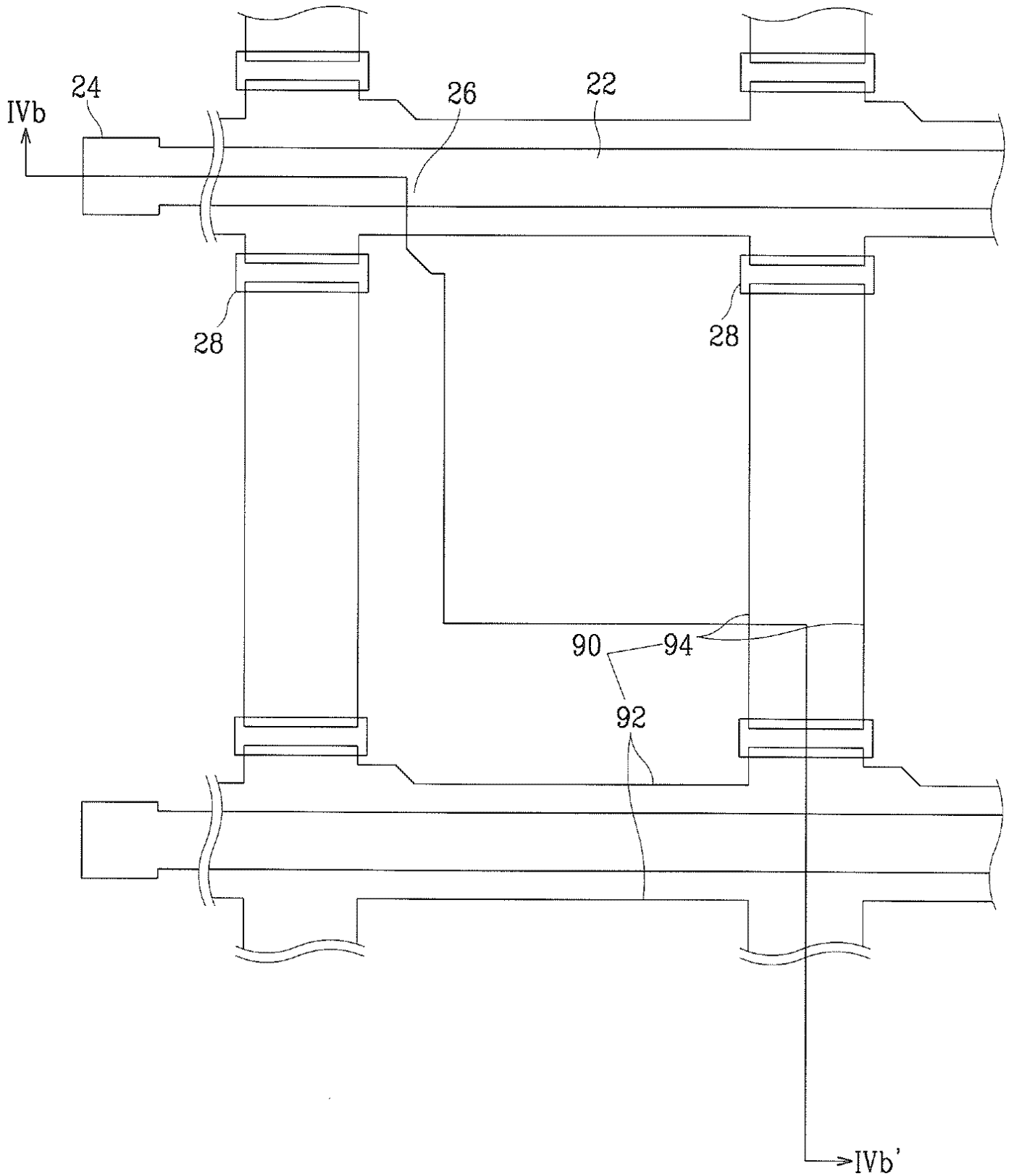
3a



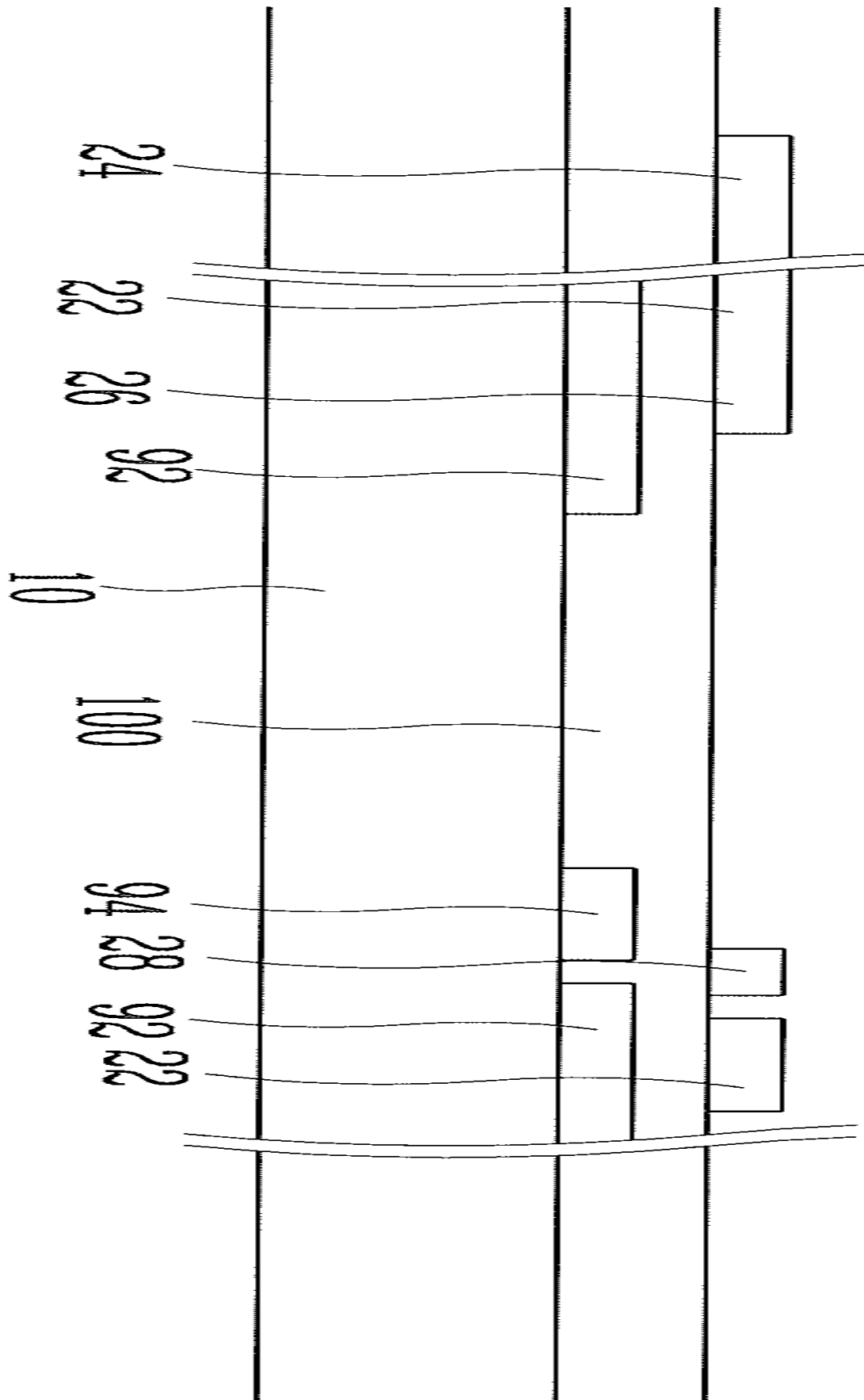
3b



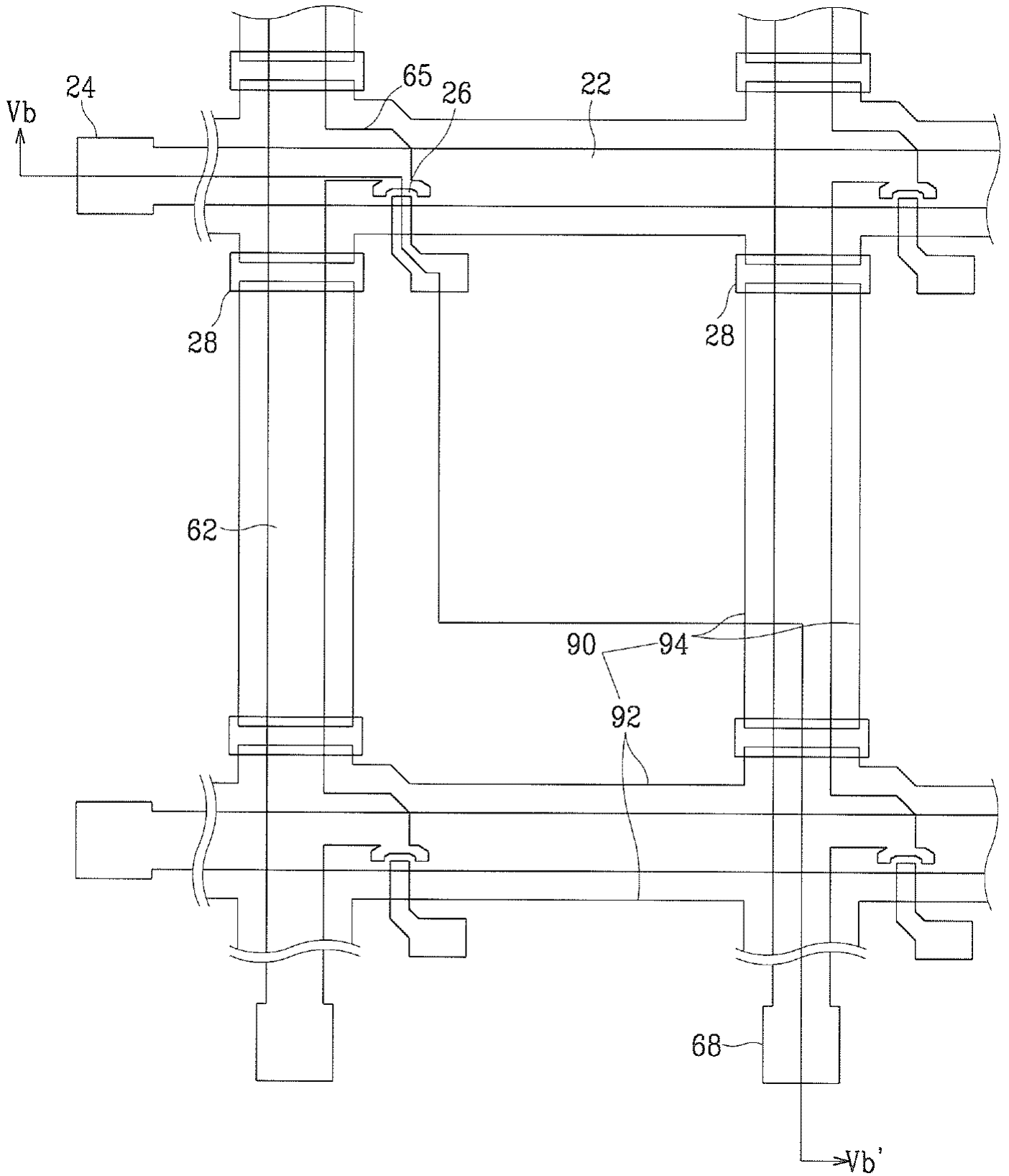
4a



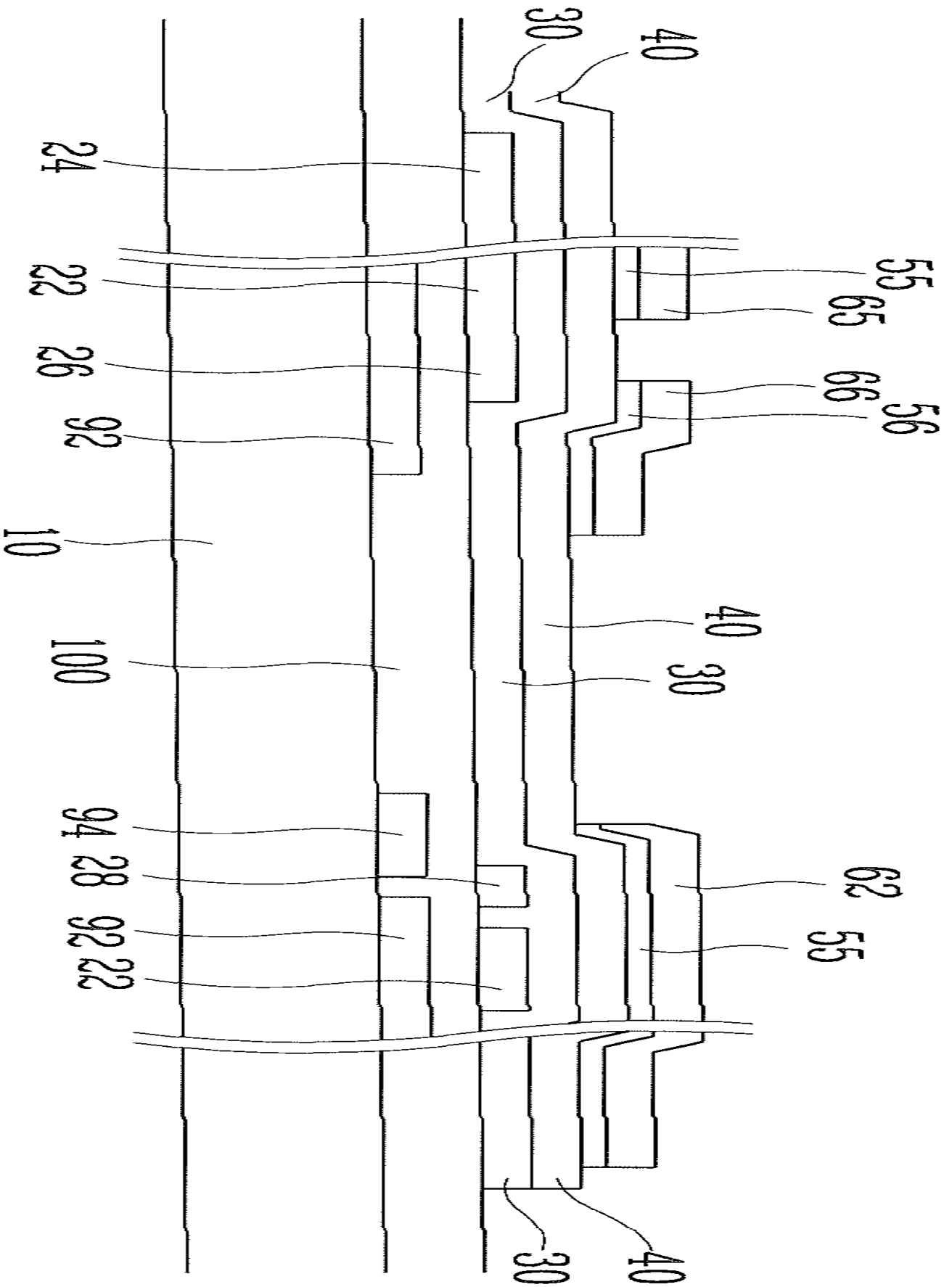
4b



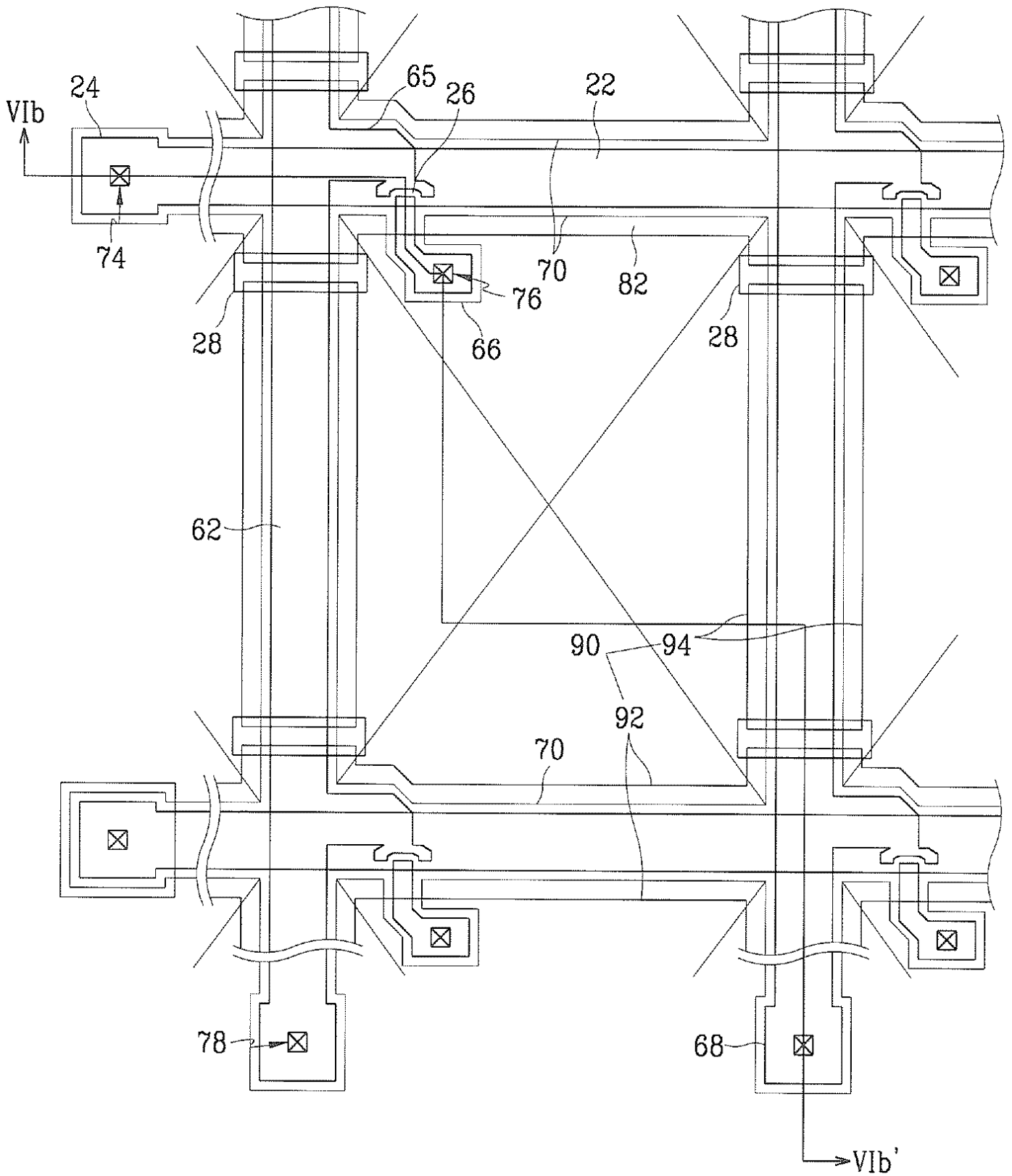
5a



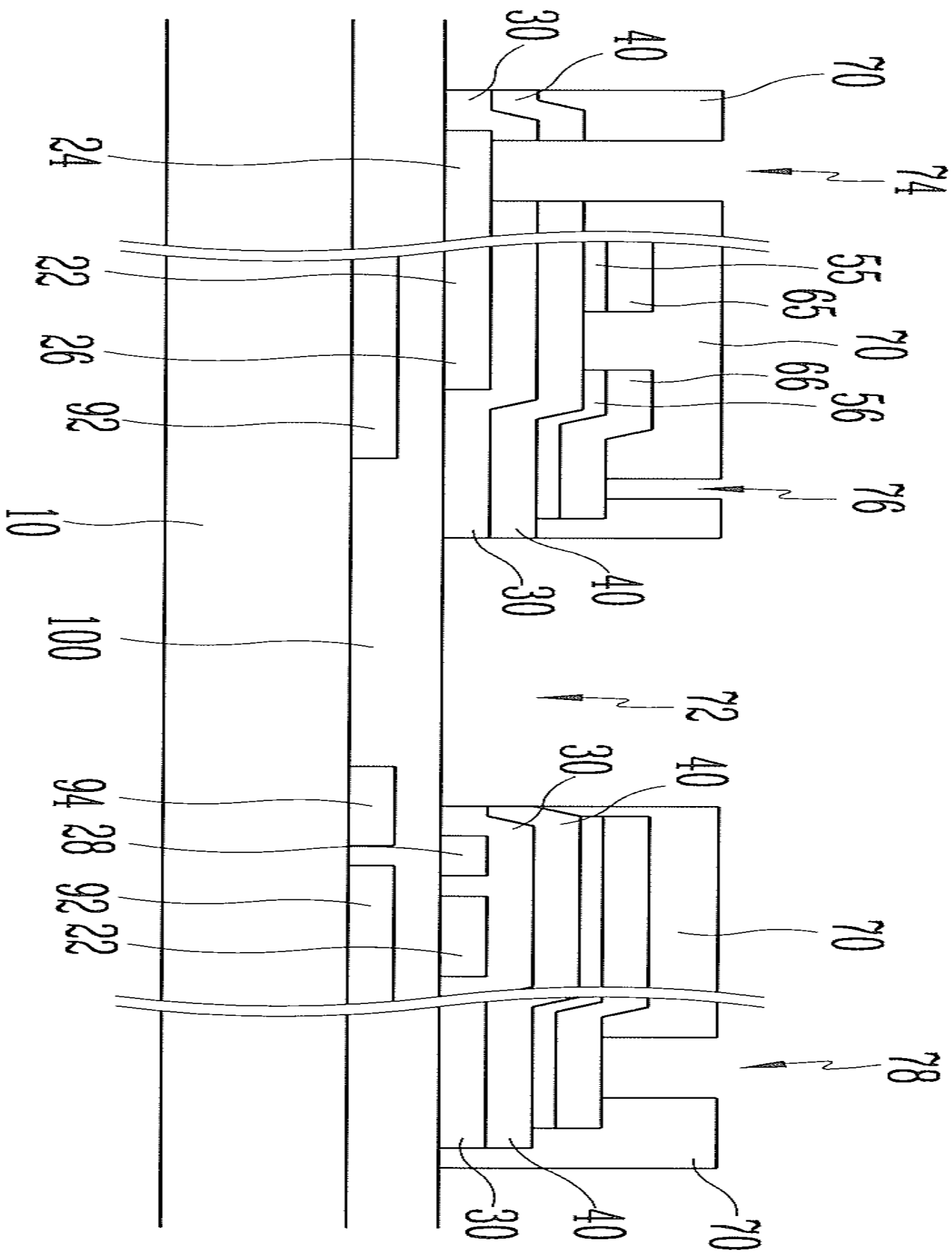
5b



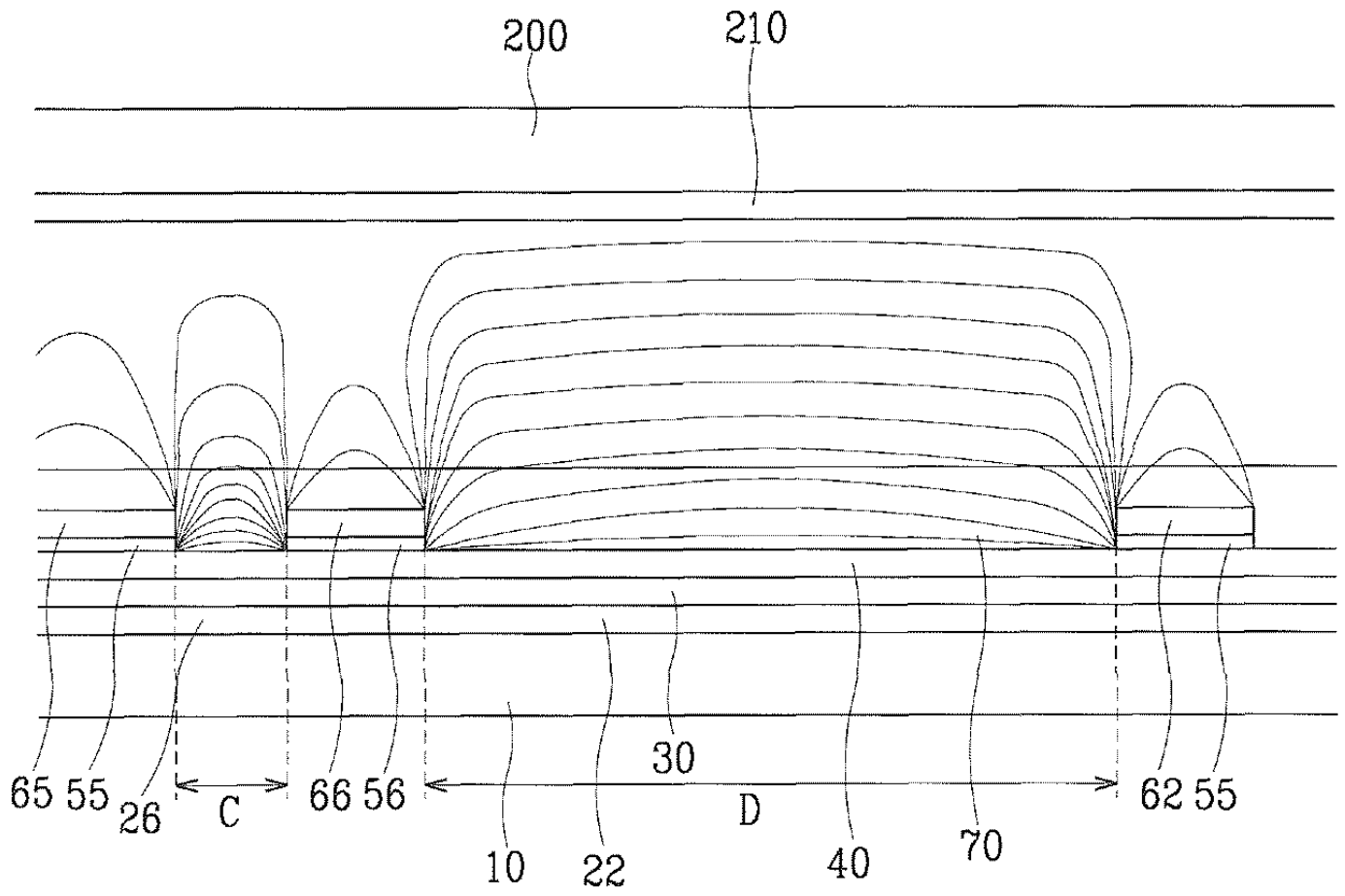
6a



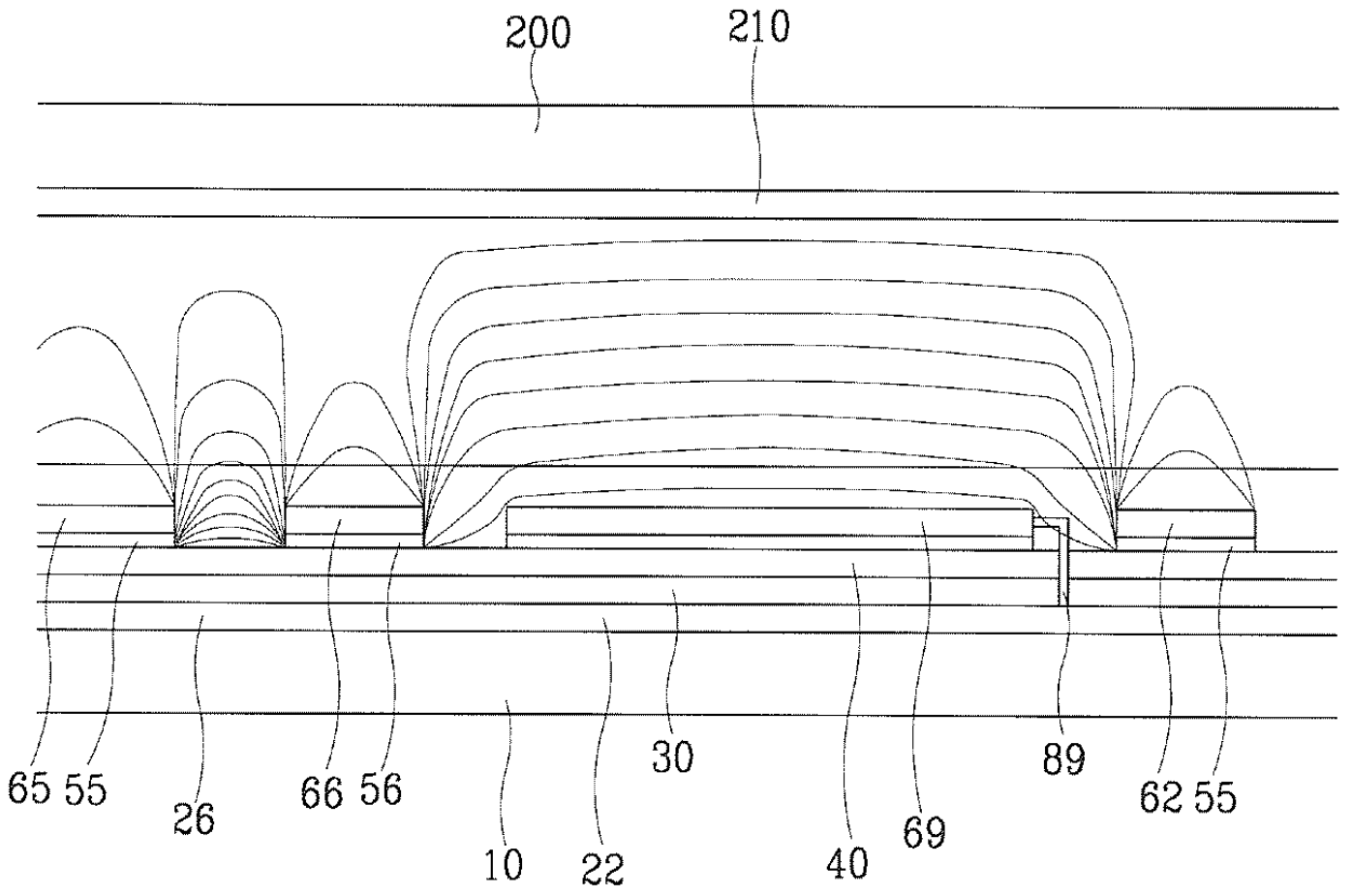
6b



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8



9

