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(43)

2003-0060052
2003 07 12

(21) 10-2002-0061695
(22) 2002 10 10

(30) JP-P-2002-00000149 2002 01 04 (JP)

(71) 가 가 가 가 4 1-1

(72) 가 가 가 가 4 1-1가 가

(74)

:

(54)

가 ,
Cs)(4) Ccs 가 (Ccs Cs Vcs) (Cs)(5) ,
Ccs MOS .

1

, , , , ,

1 가 .

2 가 .

3 1 .
 4 (a) (3 A-A) , 4 (b)
 (3 B-B) .
 5 2 .
 6 (a) (5 C-C) , 6 (b)
 (5 D-D) .
 7 3 .
 8 3 .
 9 가 .
 10 가 .
 11 , 11 (a) ()
 가 , 11 (b) Ck Ck 가 () .
 12 , 가 .

< >

1, 21, 31, 51, 71, 81 :

2, 2a 2n, 32, 52 : ()

3, 3a 3i, 33, 53 : ()

4, 4a 4i, 34, 54 : (Cs)

5, 5L, 5R, 35, 55 : (Cs)

6 : ()

7 : ()

8, 36, 56 : TFT()

9, 37, 57 : ()

10 :

11:

22a 22n :

23L, 23R :

24La 24Li, 24Ra 24Ri :

38, 58 :

39, 59 : 1

40, 41, 60, 61, 90, 92 :

42, 62 : 2

43, 63 :

44, 64a, 64b :

45, 65a, 65b, 65c :

46 : Ccs ()

47 : Ccs

66 : Ccs ()

67 : Ccs ()

72 : Cs (n-CH)

73 : Ccs (p-CH)

82 : Cs (p-CH)

83 : Ccs (n-CH)

Ccs, CcsL, CcsR : 가

Clc :

Cs :

RC1 RCm :

SC :

Vccs :

Vcom :

Vcs :

9 가 , 10 () , 1 가 () (101) (102)

(103) (102) (105) (104) (104)

(104) (105) (104)

(102) (103) 가 (102)

(107)가 (106) (103) (102)

10 TFT (108)가 (102) (103) (103) (102) (109) TFT(108)

(G) (103) (D) TFT(108) (S) Clc (109)

(109) (110) Cs (111) Cs (109) (104)

10) Vcom (110) (Cs) (109) (104) (1

(103) TFT(108)가 가 가 가 (103)

(102) Clc 가 가 Clc (103)

Cs , 1 가 (flickering) Clc , 1

(103) (TFT (109) TFT(108) (Cgs) TFT (1

(109) (Cgp) 가 (109) Cs 가

11) 가 11 (a) (104) (104) (102) (102)

12 가 11 (b) 가 (102)

11 (104) (102) (104) (102) Clc (102)

가 Ck (104) (104) (104) (104) (109) 가

(104) (104) (104)

11 가 (104) TFT(108) (109) 가

12 (104) 「(明)」 「(暗)」 가 ()

11 (a) (106)가 11 (b) (104)

(102) 12 가 Ck (104)

MOS

n-MOS

p-MOS

p-MOS

n-MOS

가

MOS

MOS

가

n-MOS

p-MOS

p-MOS

n-MOS

가

< >

1

8

1

가

() (2)

(1)

()

()

() (3)
() (4)

(3)
(4)

(2)

(5)

()

(4)

(5)

()

(5)

()

:

(4)

Vcs)

(2)

(3)

가

()
() (6)

가

(3)

(2)

() (

7)가

TFT(8)

(2)
(D)

(3)
(2)

TFT(8)

(TFT)(8)가
(G)

(3)

(11)

TFT(8)

(S)

(9)
Clc

(9)

(10)

Cs

()
Cs

(9)

(4)
(10)

(9)
Vcom

(10)
Cs

cs, (1), Ccs () (5) C
s)가 Vcs () (: Vccs) , Ccs , 1
Cs Ccs Cs
Ccs 1 Ccs Cs
(1), (5) Ccs
(4) (4) (9)
2 가 2 (21)
() (21), (10) () ,
(2a 2n) (3a 3i)
4a 4i) (3a 3i) (4a 4i) (2a 2n) ()
(5L, 5R)
(:) (4) (5L, 5R)
() () Vcs)가,
i) () (5L, 5R) () (4a 4 CcsL,
CcsR CcsL, CcsR , (4a 4i)
(2a 2n) (3a 3i) 가
(2a 2n) () 가 (SW)(22a 22n)가
(23L, 23R) (3a 3i)
(24La 24Li, 24Ra 24Ri)가
(21) , 1 2 () (6
a, 6b)가 (6a, 6b) RC1 RCm (2a 2n)
()가
1 (6a) , (22a, ..., 22n-1)
2 (6b) (22b, ..., 2
2n) 가 2, ..., n-1, n (22a) 1 (2a)
..., n-1, n (2b, ..., 2n-1, 2n) . 1 (22b, ..., 22n-1, 22n) 2,
C1 , 1 2 (22a, 22b) 가 m (R
m=n/2) RCm n-1 n (22n-1, 22n)
, 1 , 1 RC1가 , 1 2 (22a, 22b)가
(6a) (2a)
, 2 (6b) RCm가 2 (2b) 가
m RCm가 , n-1 n ()
22n-1, 22n)가 (6a) , n-1 n-1 (2n)
(2n-1) , 2 (6b) n
, (6a, 6b) (2a 2n) (22a 22n

) , (21) (2a 2n) (21) ,
 3 . , 2 2 , ,
 Li) (24L, 24R) SC () (24La 24
 (24L) (3a 3i) (24R) (24Ra 24Ri) (3a 3i)
 1 () , ()
 가 (3) 가 ()
 , (2) (3) 가
 , 1 (1) , (TFT)(8) Clc
 Cs
 2 CcsL, CcsR (21) , () (5L, 5R)
 CcsL, CcsR () ()
 : Vccs)가 : Vccs)가 Vcs 3V
 2 (21) , (5L, 5R) CcsL, CcsR Cs
 CcsL, CcsR CcsL, CcsR , 1
 1/2 CcsL, CcsR Cs 1/2
 2 CcsL, CcsR (21) , (5L, 5R)
 (4a 4i) (4a 4i)
 (9) , (4a 4i)
 3 (3 A-A) , 4 (b) , 4 (a)
) (3 B-B)
 3 (33) 1 (31) , (32)
 (33) () (Cs)(34)
 (32) (Cs)(35) .
 3) (33) (32) TFT(36)가 (3) (32)
 (32) , TFT(36) () (37) . TFT(36)
 () (37) (38) (38) (38)
)(34) (38) , 4 (a) , 1 (39) (Cs)(34)
 (38) Cs (Cs Cs , 3 , 1 Cs
 Cs , 1 (39)(4 (a)) (40) (44) TFT(36)
) () (37) , 2 (42)(4 (a)) (41) (38)
 44) , 1 (39) (92) (32) (32) ()

4 (a) (44) (33) (44) (45) (45) (43)
 () (Cs) (34) 1 (39) () () (33) (39)
 (40) (38) TFT(36) (39) (38) TFT(36) (Cs) (34) 1
 (39) (38) (Cs) (34) (38) Cs (42)
 (38) 1 (39) 2 (42) (38) 2 (42)
 (41) () () () () (37) (43) (42)
 가

3 (Cs) (34) (Cs) (Cs)
 (Cs) (35) Ccs (Cs)

4 (b) (43) Ccs Ccs () (46)
 Ccs (35) (45) Ccs (45) Ccs () (46) (Cs) ()
 39) 1 Ccs (39) Ccs (Cs) (35) 1 ()
 Ccs () (47) Ccs (47) (90) Ccs
 (46) Ccs (Cs) (47) 3 (Cs) (35)
 (Cs) (35) 2 (42) Ccs (47)

4 (b) Ccs Ccs 1 (46) (31) (43)
 (35) (Cs) (39) (35) 가 (Cs) Ccs ()
 Ccs 가 (Cs) (35)
 Ccs (Cs) ()
 (35) Ccs 1 (39) (Cs) Ccs ()

5 (5 C-C) 2 (6 (b) (5 D-D)

5 (53) 2 (51) (52)
 (52) (53) (Cs) (54)
 (53) (Cs) (55)
 (53) (52) TFT(56)가 TFT(56)
 () (57) , TFT(56) (58) (58)
 () (57) (58) (Cs) (54)

6 1 (59) (6 (a)) (60) (64a) TFT(5
 6) () (57) 2 (62) (6 (a)) (61) (58)
 64) 1 (59) (92) (52) (52) ()

1 2.

1 2 3.

MOS

3 4.

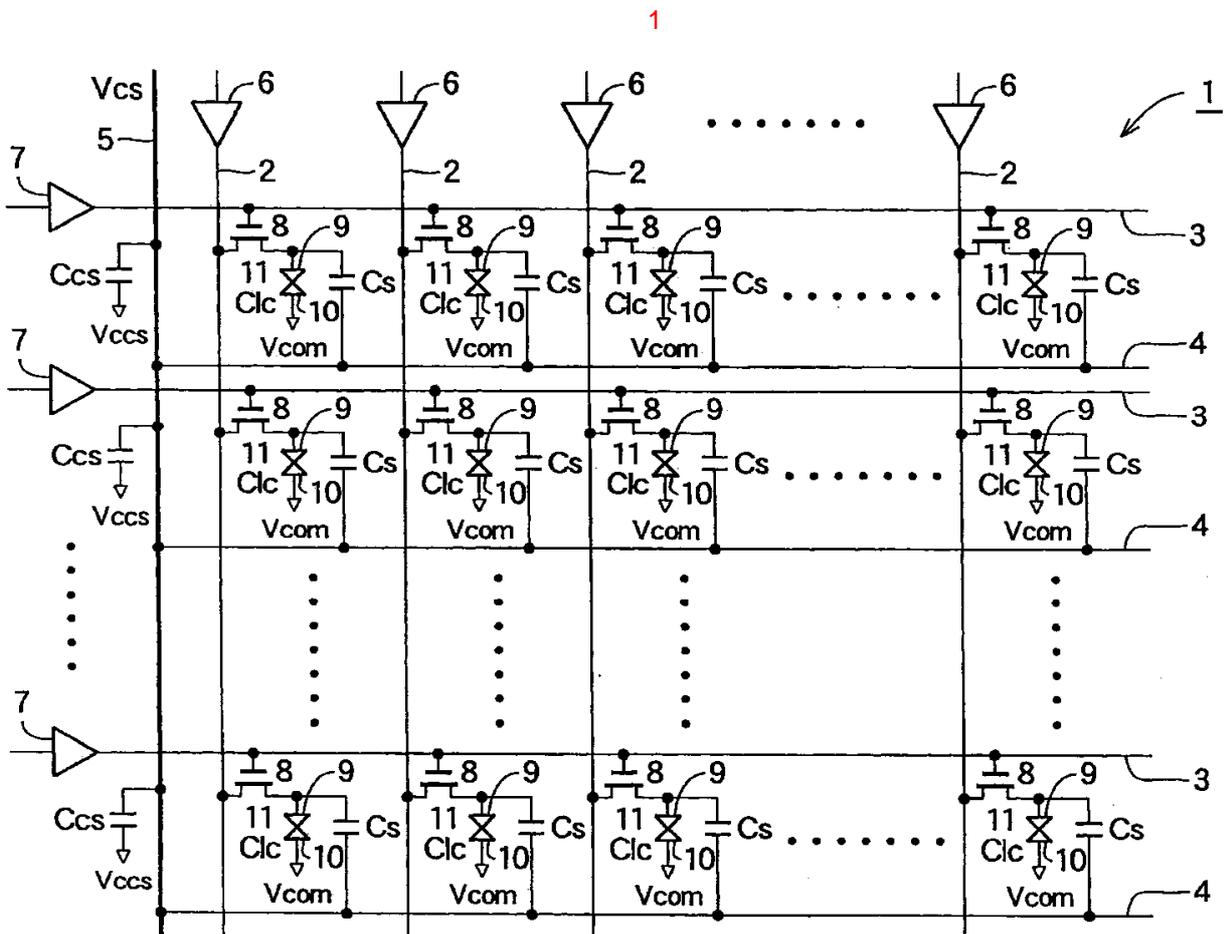
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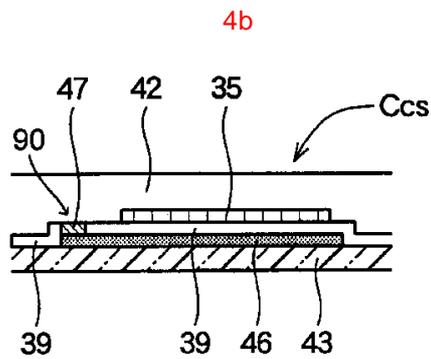
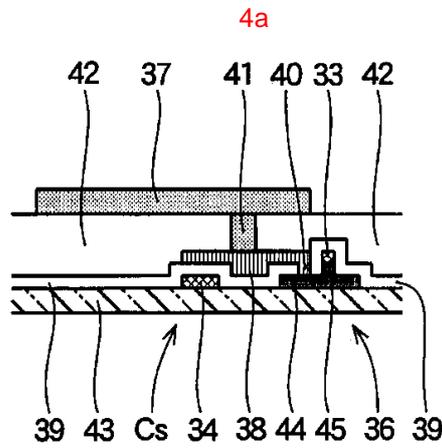
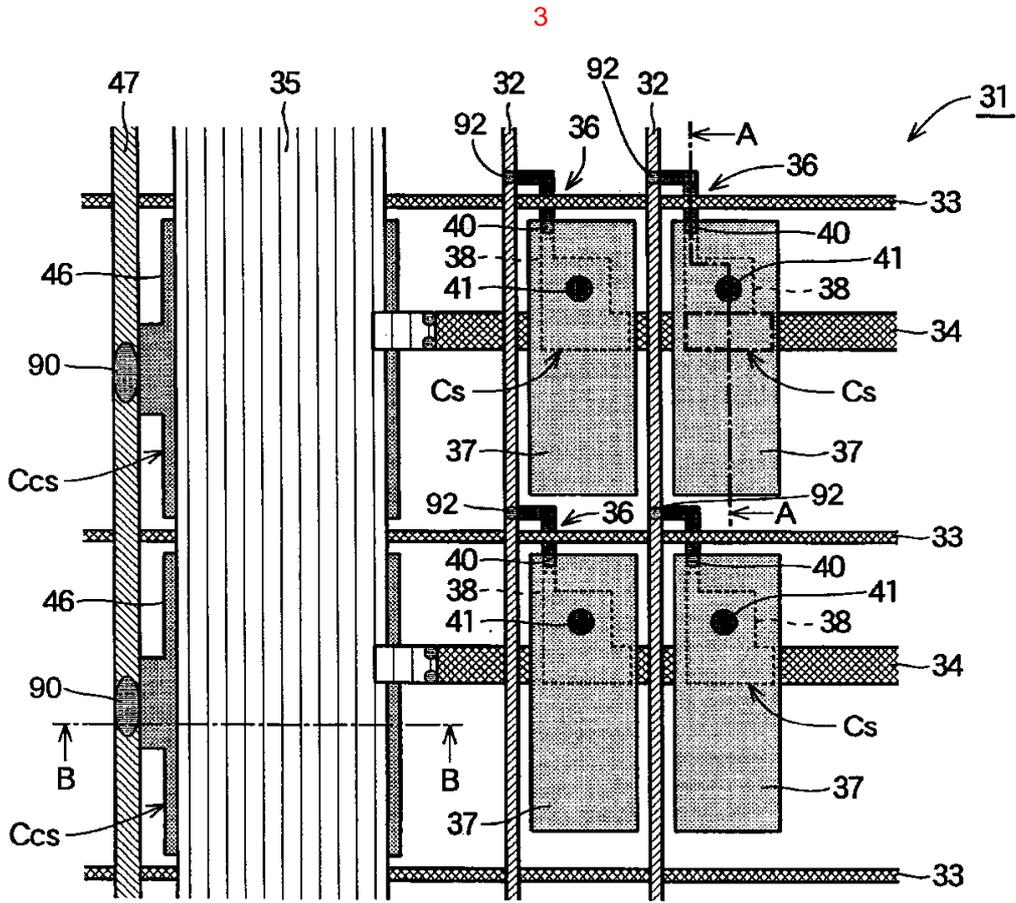
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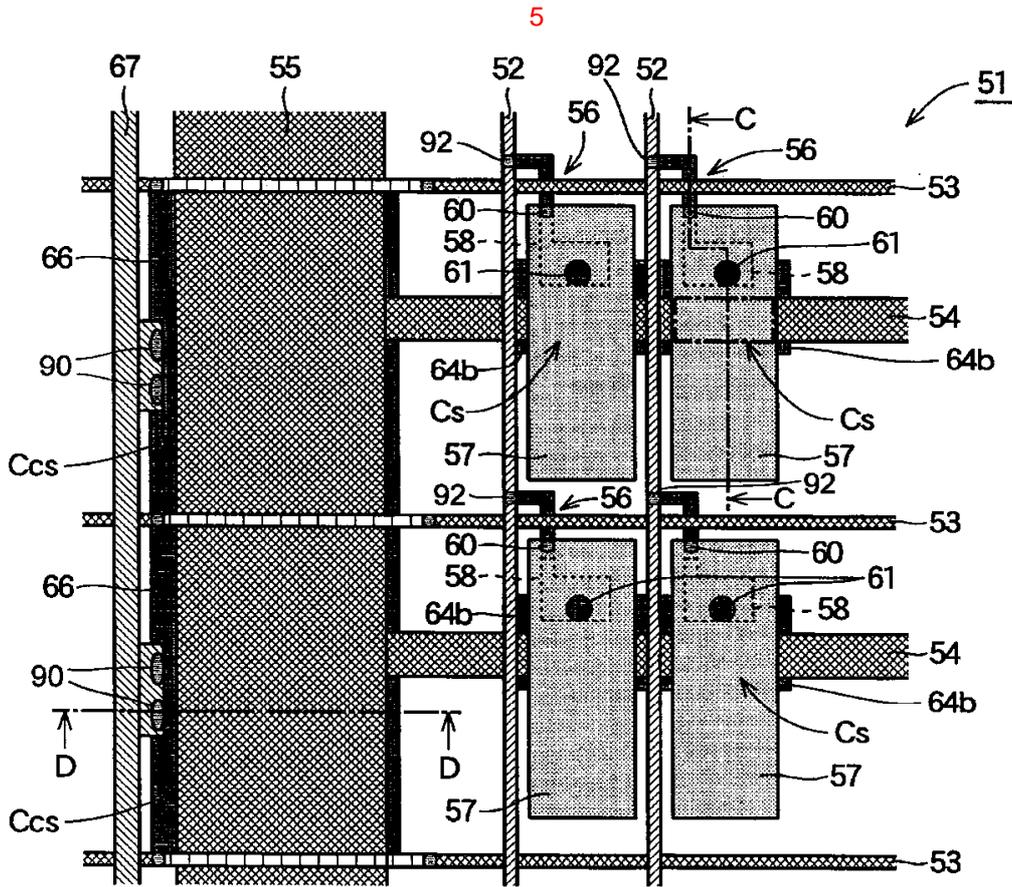
3 5.

p-MOS

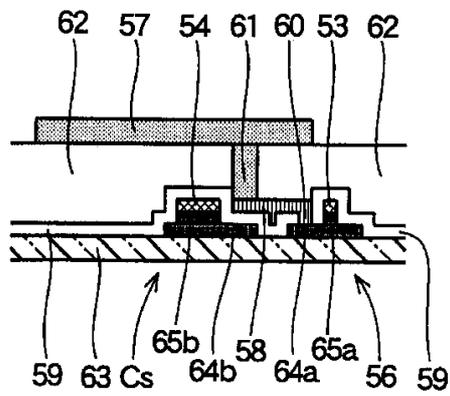
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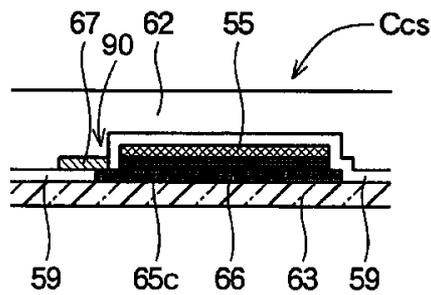


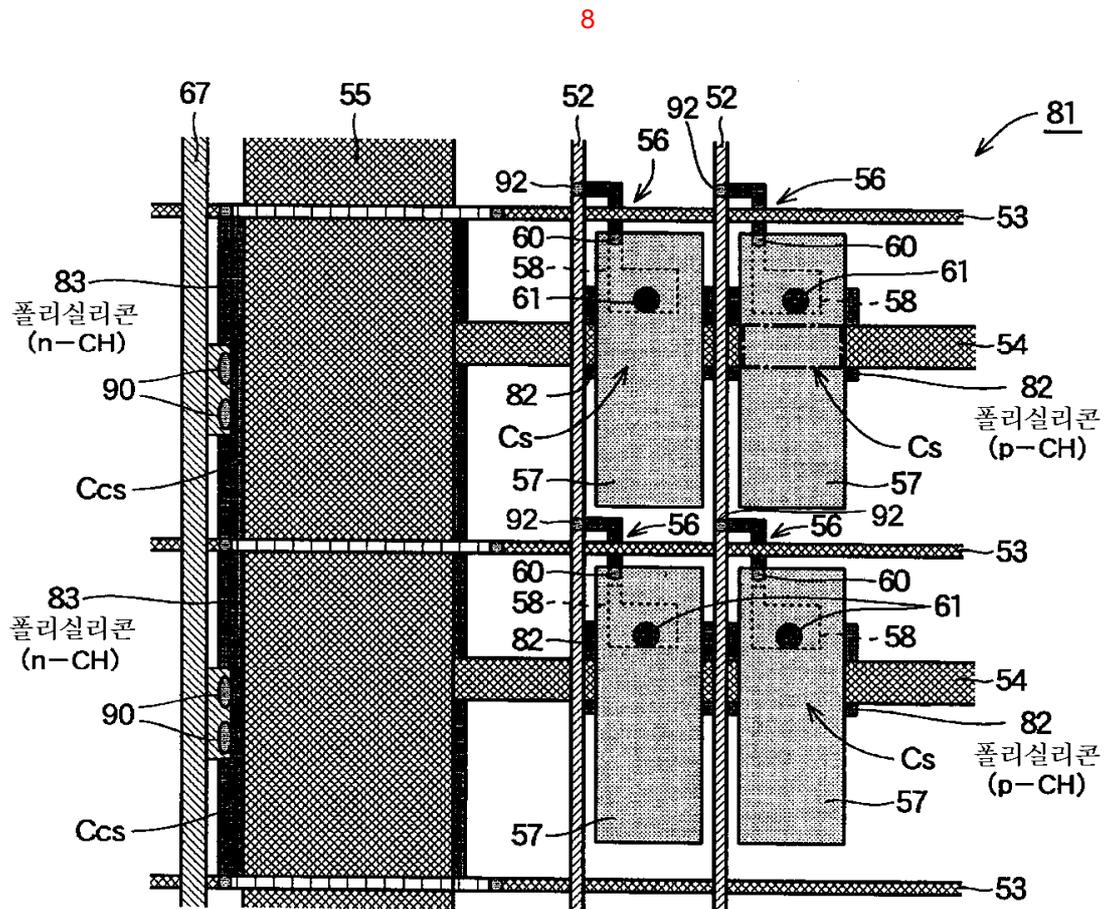
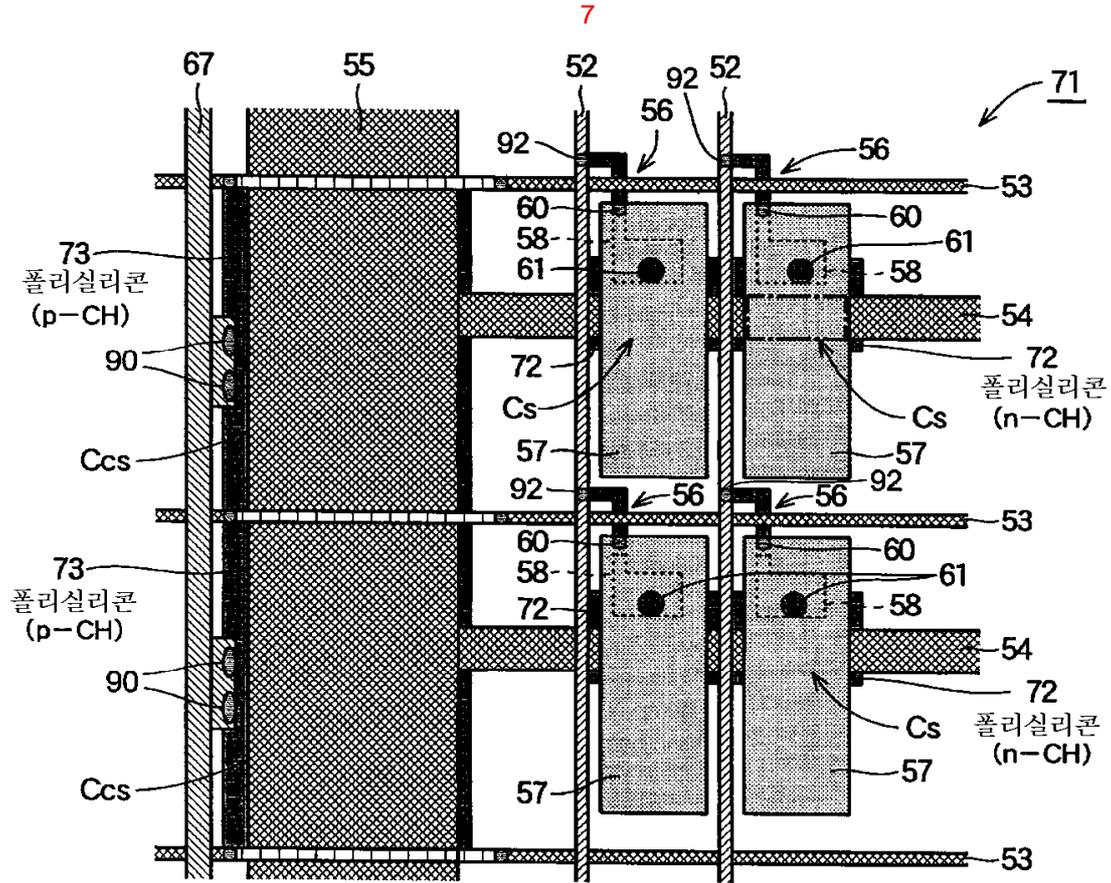


6a

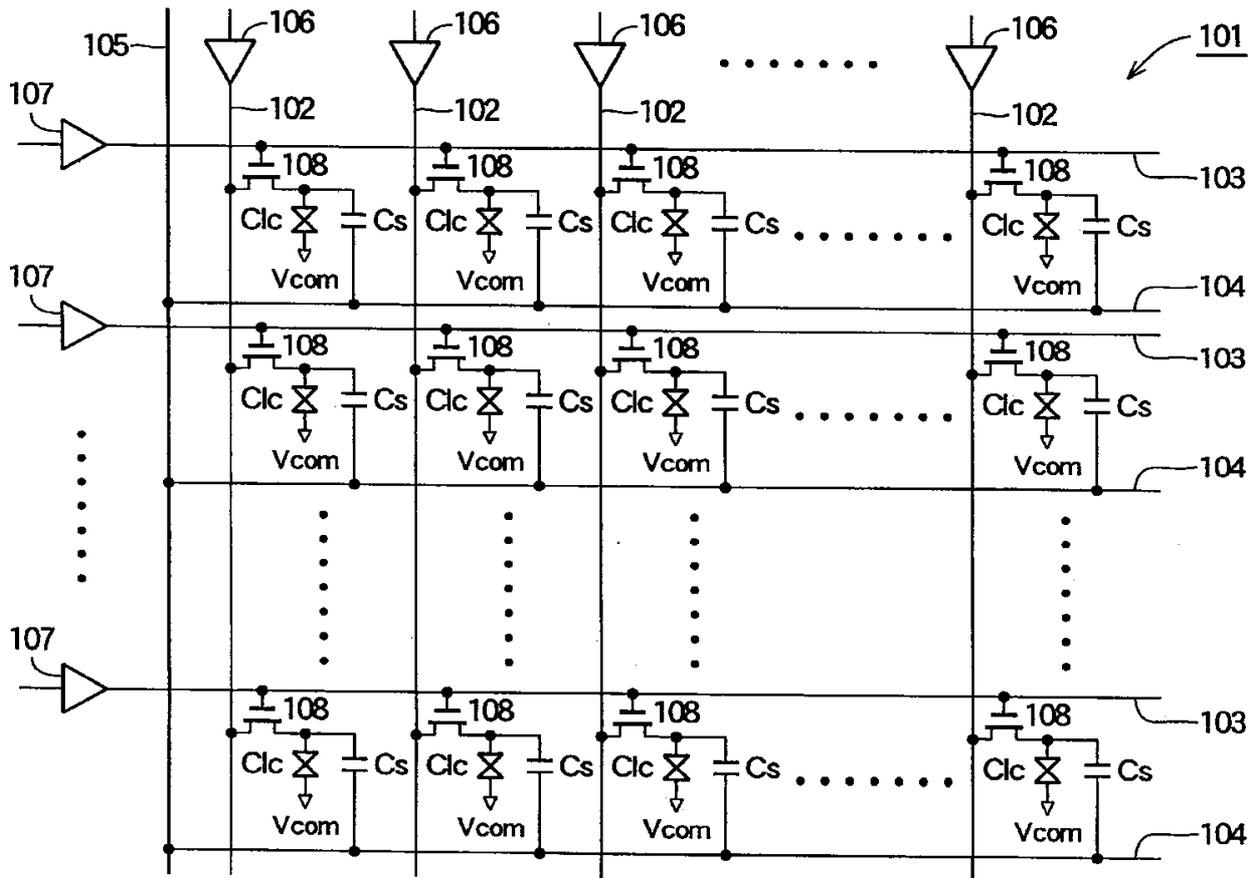


6b

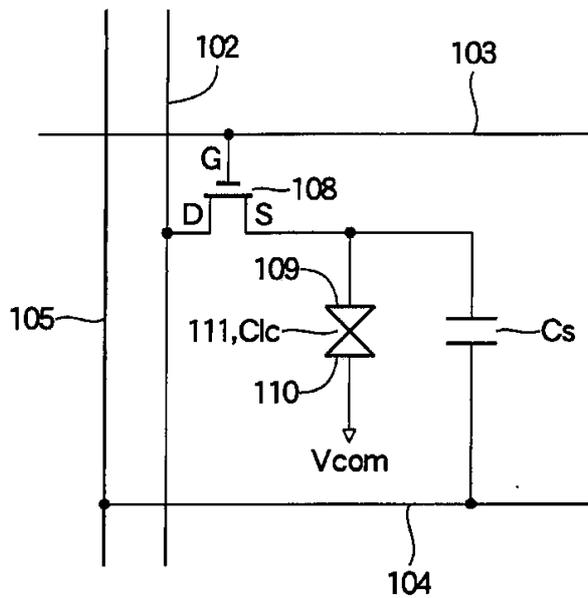




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专利名称(译)	液晶显示面板		
公开(公告)号	KR1020030060052A	公开(公告)日	2003-07-12
申请号	KR1020020061695	申请日	2002-10-10
[标]申请(专利权)人(译)	夏普株式会社		
申请(专利权)人(译)	夏普株式会社		
[标]发明人	KAI TSUTOMU		
发明人	가이쯔토무		
IPC分类号	G02F1/133 G02F1/1368 G02F1/1362 G09F9/30 G09F9/35		
CPC分类号	G02F1/136213 G02F1/136286		
代理人(译)	Jangsugil		
优先权	2002000149 2002-01-04 JP		
其他公开文献	KR100812479B1		
外部链接	Espacenet		

摘要(译)

在矩阵驱动系统形成的每个像素，以用于供给规定电位到它的每一行而形成的存储电容线的公共存储电容线，吸收经由寄生电容等的存储电容线混合的噪声的存储电容器有源液晶显示面板通过增加电容以稳定存储电容器线的电压，减小了存储电容器线的电压波动，以防止显示不均匀和串扰的发生。（垂直Cs线）4，用于向每行形成的存储电容器线（水平Cs线）4提供预定电位（存储电容器线电压Vcs），以形成为每个像素形成的存储电容器Cs的公共侧，）5，增加稳压容量Ccs。该电容Ccs通过使用公共存储电容器线（垂直Cs线）形成。电容Ccs可以以MOS结构形成。1 指数方面 显示面板，像素，存储电容，液晶电容，存储电容，对电极

