

(19)
(12)

(KR)
(A)

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(21)	10-2003-0041121		
(22)	2003 06 24		
(71)	.	20	
(72)		2 103 1201	
		5 54-35	
(74)			
	:		
(54)			

.

;

; i(i)

,

i

;

.

7

1

2

3 2

4

5	6	2		.
7				1
8a	8b	7	- '	.
9				2
10a	10b	9	- '	.

<
>

2,20 :	4,22 :
6,24 :	10,12 :
14,16 :	60,86 :
70,80 :	72,82 :
74,86 :	101,130 :
102,132 :	106,134 :
108,136 :	110,138 :
112,148 :	114,116,140,146 :
118,142 :	120,144 :

가 . 가

1

1 , (4) , (2) (2) , (2) (DL1 DLm) (6)

(GL1 GLn)

(2) (GL1 GLn) (DL1 DLm)

(TFT) , (TFT)

(6) (GL1 GLn)

(4) (R,G,B)

(DL1 GL1 GLn) 가 1 1
(DL1 DLM) .
(TFT) (GL1 GLn) (DL1 DLM
) 가 (CIC) . , (TFT
) (CIC) () .
(DL1 GL1 GLn) (DL1 DLM)
(DL1 DLM) (m) . ,
m n .
, m m (DL1 DLM)
. , (2) (DL1 DLM) ,
(4) . , m (DL1 DLM)
(Integrated Circuit : 'IC')가

, .
; i(i
) ; ,

i
;

Mo .

AINd .

i+2 .

가 i+1

i+2 .

가 i+1

(Indium-Tin-Oxide : ITO), (Indium-Zinc-Oxide : IZO)
 (Indium-Tin-Zinc-Oxide : ITZO)

2 10

2

2 (20) , (20) (DL1
 DLm/2) (22) , (20) (GL1 GLn)

(24)

(20) (GL1 GLn) (DL1 DLm/2) 1 (10
) 2 (12) , 1 (10) 1 (10) 1 (14)
 2 (12) 2 (12) 2 (16) 1
 2 (10,12) (Clc) , 1 (16) 2 (10,12)
) (Clc) 가 (Clc) , 1 2 (10,12)
) ()

1 (10) 1 (14) (DL) , 2 (12)
 2 (16) (DL) , 1 (10) 2 (10)
 2 (12) (DL) / , 1 (10) 2 (1
 2) (DL) 가 (DL)

1 (10) 2 (12) 4 , 4 1
 (10) 1 (14) (DL) , 2 (12) 2 (16)
 (DL) , 1 (10) 1 (14)
 2 (12) 2 (16)

i(i) 1 (10) 1 (14) 1 2
 (TFT1,TFT2) 1 (TFT1) i (GLi)
 i+2 (GLi+2) 2 (TFT2) 1
 (TFT1) , (DL) 2 (GLi)
 (TFT2) 1 (10) 1 (14) i (GLi)
 i+2 (GLi+2) 가 1 (10)

i 2 (12) 2 (16) 3 (TFT3)
 3 (TFT3) i (GLi) , (12)
 (DL) 3 (TFT3) 가 2 (12)
 2 (16) i (GLi)

(22) (R,G,B)
 (DL1 DLm/2) , 1 (DL1
 DLm/2) 가 (22) IC

(24) 3 (G
 L1 GLn) 1 (SP1) 2 (SP2) , 2 (SP2)
 1 (SP1)

(24) i (GLi) 2 (SP2) i+2 (GLi+

2) 1 (SP1)가 1 (TA) 2 (TB) (SP2) (SP1) 1 (TA) 2 (TB) 2 (SP)

2) 1 (SP1)가 .

1 (SP1) (GLi) 2 (SP2) i+2 (GLi+2) 1 (TA) i (GLi) 2 (SP1)가 (GLi) 2 (SP2) . 1

(TA) (SP2) i+2 (TB) i (GLi) 2 (SP1)가 (SP2) .

i (10,12) 가 1 (TA) i (GLi) 2 (SP2)가 i+2 (GLi+2) 1 (TFT1) (SP1)가 . i+2 (GLi) 1 (SP1) 1 (TFT1) (

TFT1)가 - i (GLi) 2 (SP2) 1 (SP1) 2 (TF

(TFT2) 1 (TFT1) 1 (TFT2) - 2 (TFT2) (TF

T2)가 - (DL) 1 (DA)가 2 (TFT2)

1 (10) .

가 , i (GLi) 2 (SP2) 2 (TB) 3 (TFT3) 3 (DB)가 3

가 - 3 (TFT3) 2 (12) (DL) 2 (DB)가 3

1 (DA) (12) 1 (TA) 2 (SP2) 1 (TA) (DB) 2 (TB) 2 (DB)

2 (12) (DB)가 .

2 4 (TFT) 5 .

5 (TFT) (101) (106) (106) (11

(108) (110) (110) (110) (110)

8) (120) (TFT2 TFT3)(

(120) (TFT) .)

(106) (108) (110) (114,116) (114,116) (114) (114,116)

(110) (114) (116) (114) (108) (114)

(116) N P (114,11

6) (106) (108) (110) (114,116) (102) (108) (110)

(106) (112) .(5Mask)

(TFT) (108) (110) (11

4,116) (108) (110) (114,116) (110) Cr

5 (106) AINd (108) (110)

(106) (108) (110)

2 4 (TFT) 6 .

6 (TFT) (130) (134) (134) (1

(136) (138) (138) (138)

42) (144) (TFT2 TFT3)(

(144) (TFT) .)

(134) (136) (138) (140,146) (140,146)

(138) (140) (140) (136) (140)

(146) N P (140,14

6) (134) (136) (138) (138)

(134) (140,146) (132) (136) (138)
 (148) .(4Mask)

0,146) 6 (134) (TFT) (136) (138) (14
 8) Mo (134) (134) AlNd (136) (136) (138) (13)

1 (14) 1 (TFT1)
 (GL) (GL) , i
 1 (TFT1) i i+1 (GLi, GLi+1) i+2
 7 , i 1 (TFT1)
 (GLi, GLi+1) () (GLi+2)
 1 (TFT1) (GLi+2)
 (70)가 (70) (GLi+2)
 (70) (72)가 (70) (GLi+2)

(GL) (72) (106,134) (GL)
 (72) 가 AlNd (110,138) (TFT1)
 (70) (108,136) 가 Cr Mo (70)
) (GL) 가

8a 5 5Mask

7 8a i 1 (TFT1) ()
 70) i+2 (GL) (72) (74) ()
 , (74) (120) ()
 , - - (Indium - Tin - Oxide : ITO), - - (Indium - Zinc - Oxide : IZO)
 - - (Indium - Tin - Zinc - Oxide : ITZO) .) (74) (70)
 , (60) (72) (74) i+1 (GLi+1)
 (GLi+2) (74) i+1 (GLi+1) i+2
 (72) (72) 1 (TFT) (70)
 (74)가 i+1 (GLi+1) 가

6 4Mask 8b (136) (14
 0,146) (70) (132) (140,146)

8a

9 1 (14) 1 (TFT1)
 (GL)

9 , i 1 (TFT1)
 (GLi, GLi+1) () (GLi+2)
 1 (TFT1) (GLi+2)
 (80)가 (80) (80) (GLi+2)
 (80) (82)가

(GL) (82) (106,134) (GL)
 (80) 가 AlNd 가 Cr Mo (TFT1)

10a 5 5Mask

9 10a i 1 (TFT1)
 (80) i+2 (GL) (82) (84)

(84) 가 (82) 가 i+1 (GLi+1)
가
i+2 .)

(84) (120) (80)
(84) (86) (82)
6 4Mask 10b , (136) (1
40,146) (80) (132) (140,146)
8a

가

(57)

1.

;

•
;

$$i(i \quad)$$

i

•
,

2.

1,

3.

2 ,

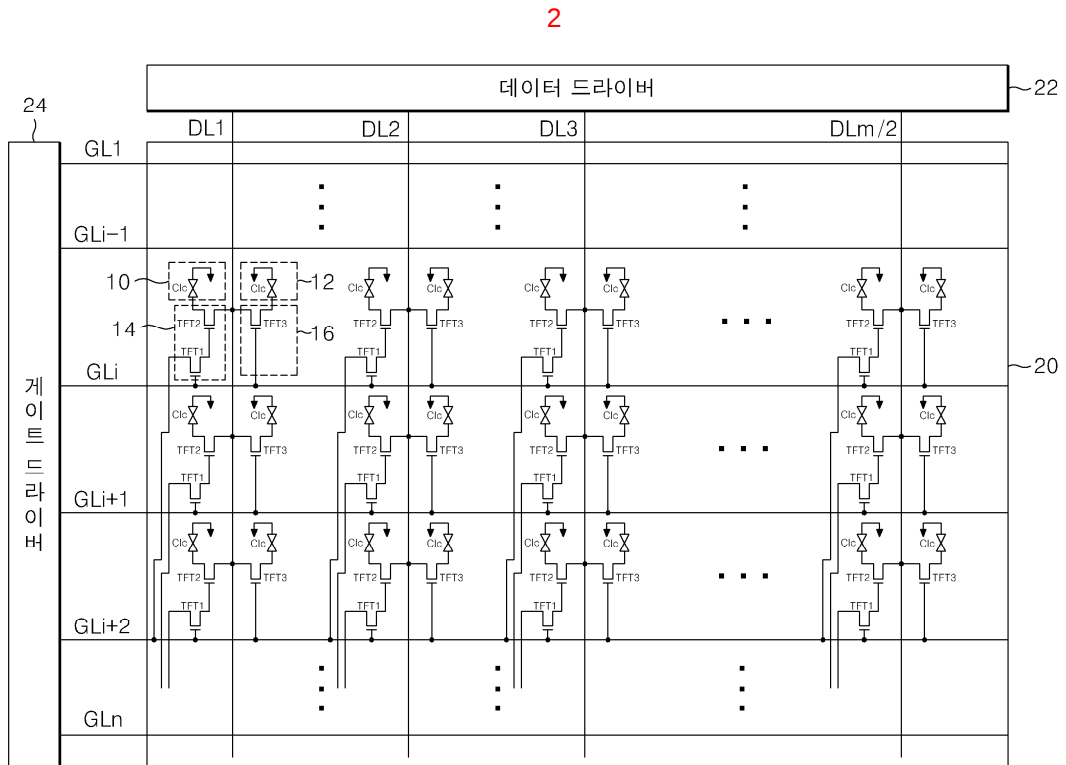
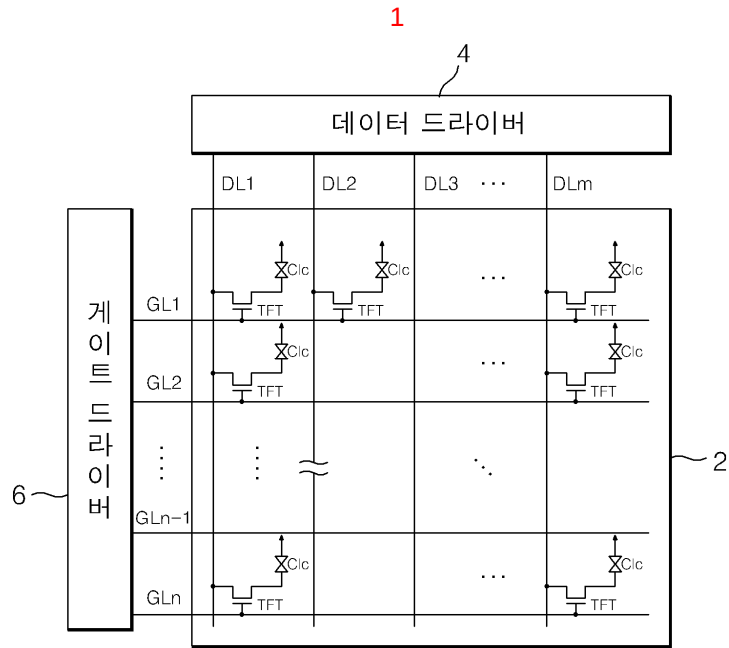
Cr Mo

4.

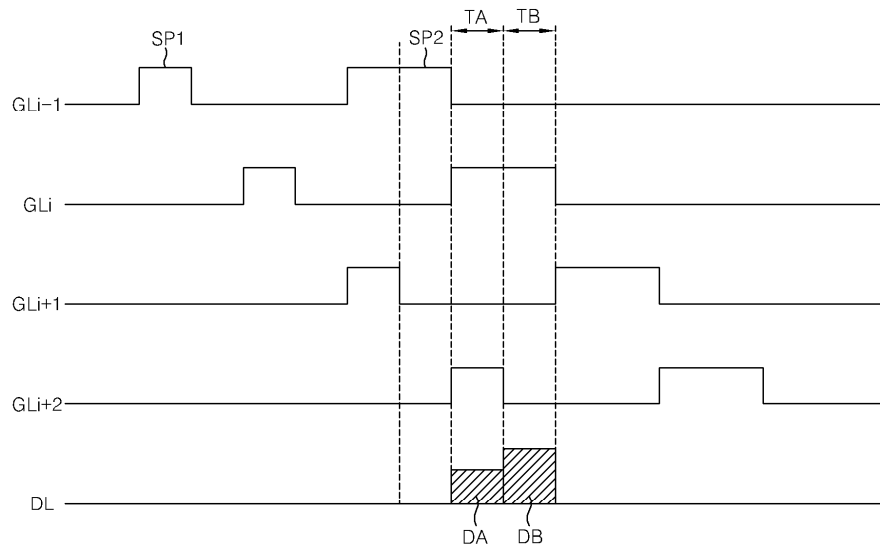
1,

5.

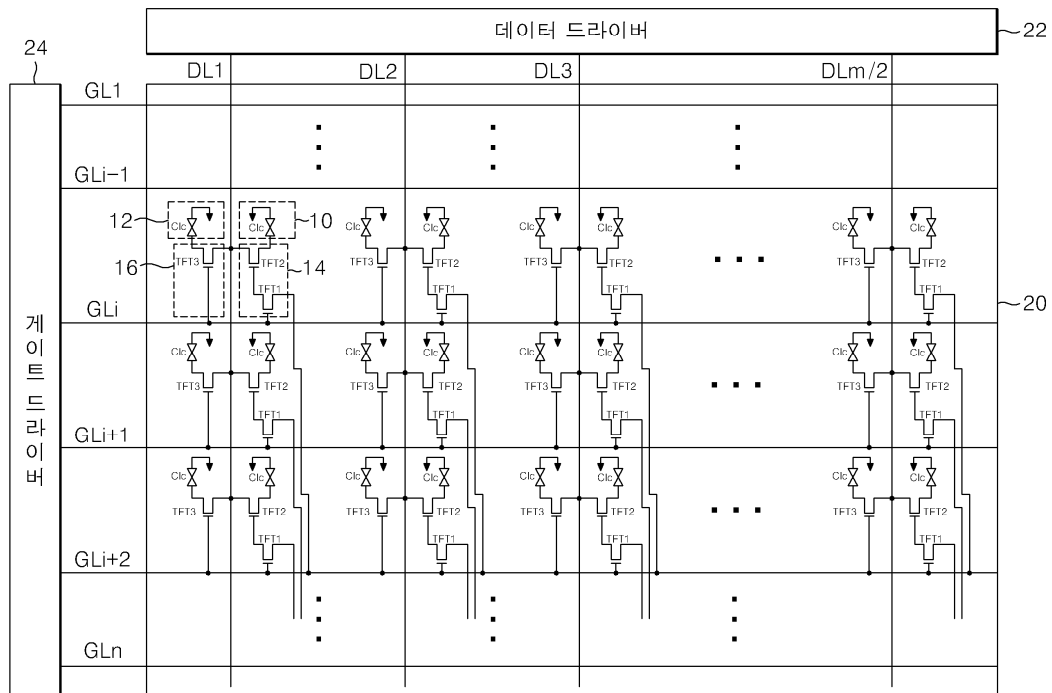
4 ,
AlNd .
6.
1 ,
i+2 .
7.
6 ,
.
8.
7 ,
가 i+1 .
9.
7 ,
i+2 .
10.
9 ,
가 i+1 .
11.
7 ,
.
12.
11 ,
- - (Indium-Tin-Oxide : ITO), - - (Indium-Zinc-Oxide : IZO)
- - (Indium-Tin-Zinc-Oxide : ITZO)
.
13.
11 ,
 ,
 .



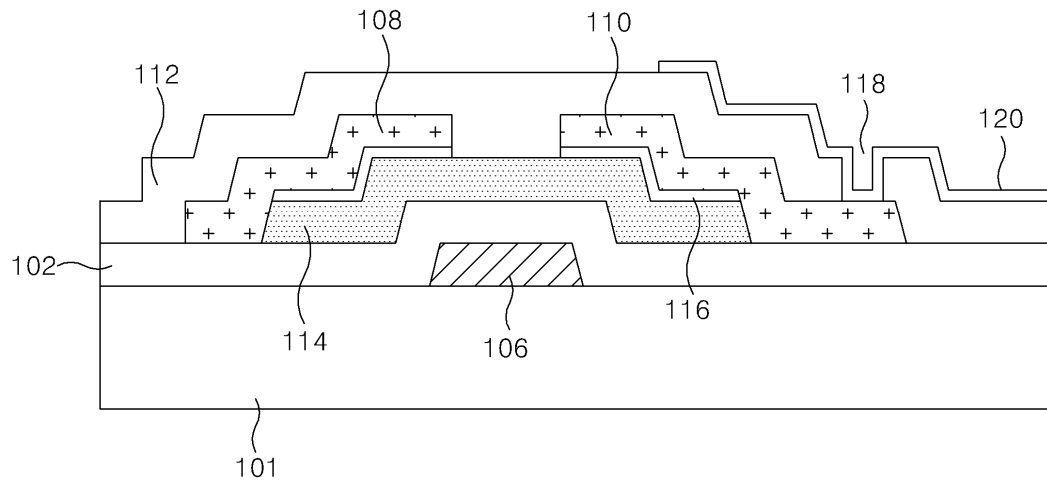
3



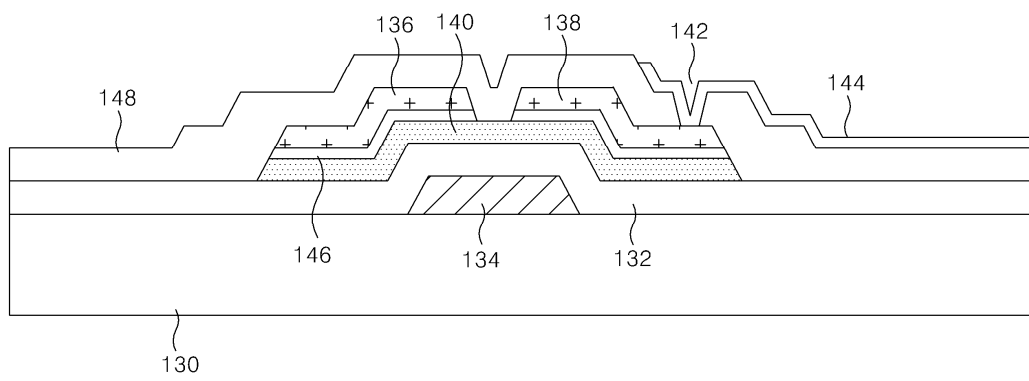
4



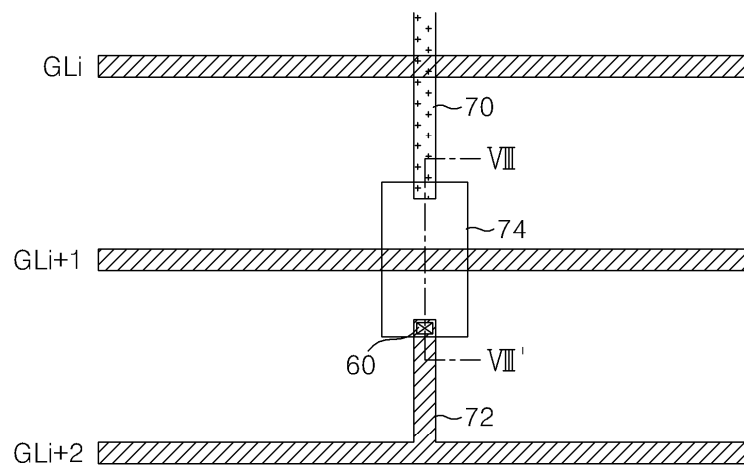
5



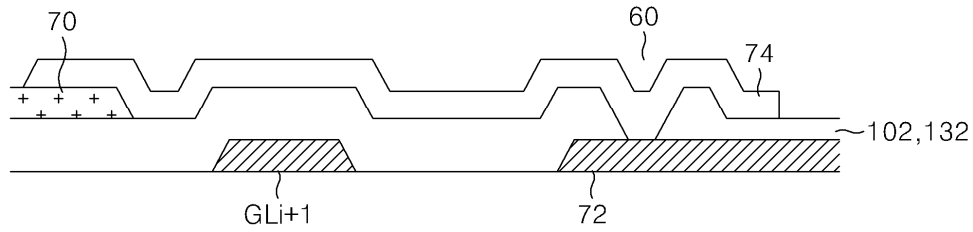
6



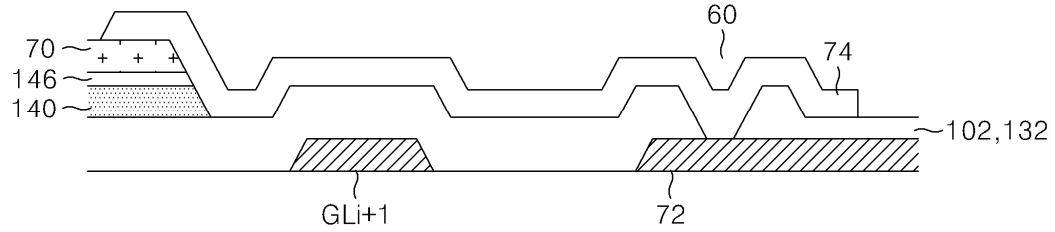
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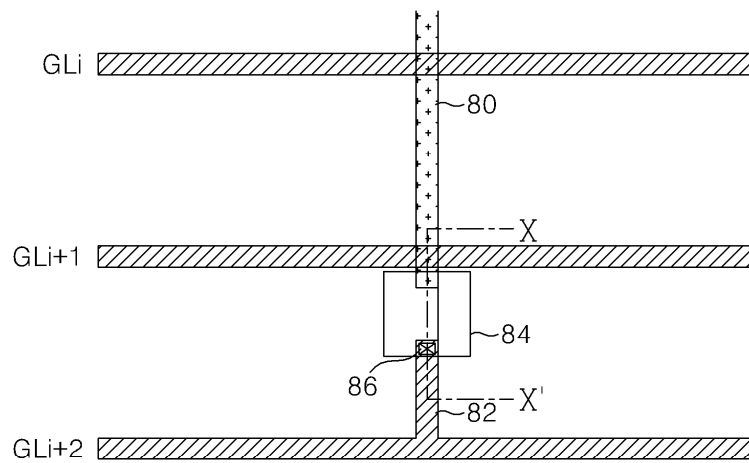
8a



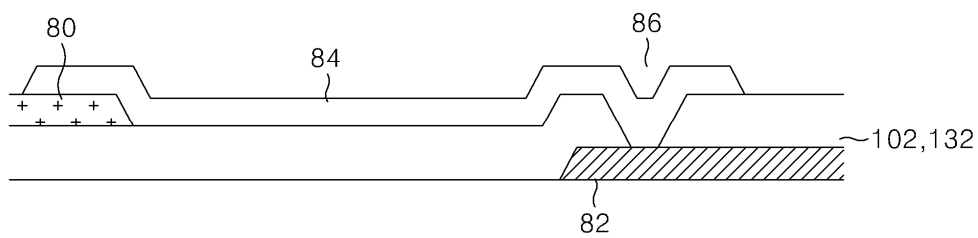
8b



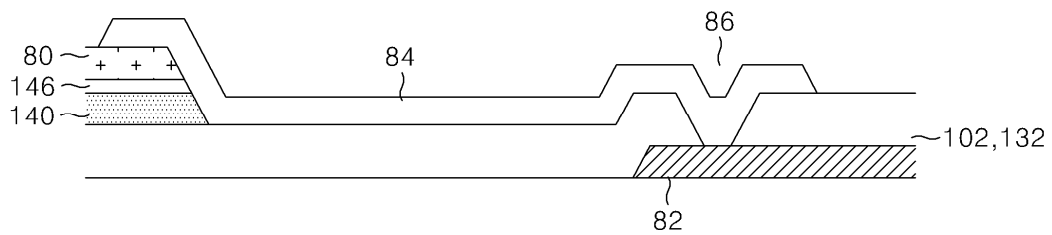
9



10a



10b



专利名称(译)	液晶显示器		
公开(公告)号	KR1020050000652A	公开(公告)日	2005-01-06
申请号	KR1020030041121	申请日	2003-06-24
[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	PARK SUNGIL 박성일 PARK KWANGSOON 박광순		
发明人	박성일 박광순		
IPC分类号	G09G3/36 G02F1/1343 G02F1/1362 G02F1/133		
CPC分类号	G02F1/1362 G09G2300/0814 G09G3/3659		
代理人(译)	金勇 年轻的小公园		
其他公开文献	KR100922794B1		
外部链接	Espacenet		

摘要(译)

本发明涉及一种液晶显示器，该液晶显示器通过减少数据线的数量而穿过至少一条栅极线，并且当源电极连接到另一条栅极线时使线电阻最小化。本发明的液晶显示器配备有在数据线和栅极线交叉处形成的液晶单元，至少一个薄膜晶体管，其分别与液晶单元形成至少一个薄膜晶体管，驱动液体晶体单元：源极突出部分：通过至少一条栅极线连接到包括除第*i*条水平线以外的另一条水平线的栅极线，源极突出部分：从分别形成有液体的任何一个薄膜晶体管延伸在*i*（*i*是自然数）数字水平线中形成的晶体单元和形成为从包括另一条水平线的栅极线延伸的栅极突出部分，以便与其连接。源突出部分。

