

(19) (KR)  
(12) (A)

(51) . Int. Cl. 7  
G02F 1/133

(11) 2002 - 0017434  
(43) 2002 03 07

(21) 10 - 2000 - 0050770  
(22) 2000 08 30

(71)

$$(72) \quad \begin{array}{cccccc} & & & 2 & 77 & 105 \quad 1001 \end{array}$$

(74)

(54)

5

(precharge), (coupling)

51,61,71 :            53,63,73 :

55,65,75 :                    57,67,77 :

(Display)  
(cross - talk)

(multi - precharge)

(Top plate)

가

R( ), G( ), B( )

가



가

가

4

가

4

$(C_{LC})$  가 ,  $m$  ,  $(D_m)$  ,  
 $(C_{LC})$  ,  $m+1$  ,  $(Cdpm)$  ,  
 $(Cdpm+1)$

가 . , ,  
 가 가 가 ,  
 $m+1$

(Cross talk)

가

1

2

1

1

가

2

1

1

5

1

5

가

$(TFT)$ ,  
 $(53),$  가

$(G_1, G_2, \dots, G_n)$  ,  
 $(C_{LC})$  가 ,  
 $(51),$   $(S_1, S_2, \dots, S_n)$  ,  
 $2$  ,  
 $(55),$   $(57)$

$$(57) \quad 1, \quad 2 \quad (\text{Vp1}, \text{Vp2}) \quad , \quad 1 \quad (\text{Vp1}) \\ (\text{D1}, \text{D3}, \dots) \quad 1 \quad (57\text{a}) \quad , \quad 2 \quad (\text{Vp2}) \\ (\text{D2}, \text{D4}, \text{D6}, \dots) \quad 2 \quad (57\text{b}) \quad .$$

S1 , S2  
(C1,C2,...,Cn)

(55) (Short) (Open) . ,

(51)

가 ,  
가 ( )

가 1, 2 (57a,57b) , (Cp)  
         . , 1 (57a) 2 (57b)

1

1 (S1,S2,...,Sn) . (C1,C2,...,Cn)

(S1,S2,...,Sn) , 가

가 6 10V 가 , 가 1 5V 가 ( ), 5.5V가 . ,

1 , (55) (S1,S2,...,Sn) , (C1,C2,...,Cn) 가  
 (S1,S2,...,Sn) .

, (57) 2 , . , (Vp1) 5.5  
 V , 2 (Vp2) 7 8V가 1 .  
 , . 2 3V가

, , 2 3V , 7 8V  
(G1) (C1,C2,...,Cn) (D1,D3,D5,...) (D2,D4,D6,...)  
가 . 가 , 가

, 가 6 10V 가 , ( V ) 2 3V  
 . . 1 5V 가 ,  
 2 3V  
 .  
 , 1 (Vp1)  
 2 (Vp2)

, 1 (Vp1) 2 (Vp2)  
 , 가 .  
 , 1 , (S1,S2,...,Sn) 1  
 , 2

1

2

6

2

1

(67)

,

(67b)

(67\_1,67\_2,...,67\_n)

, 1 (Vp1) 1 (Cp1) 1  
 (67a) 2 (Vp2) 2 (Cp2) 2  
 (67b) .

2 (Vp2) 1 (Cp1) 1 (67  
 a) 1 (Vp1) 2 (Cp2) 2 (67b)

, 1 (Vp1) 2 3V , 2 (Vp2) 7 8V  
( , 가 ).

7 , (TFT) (G1,G2,...,Gn) (D1,D2,...,Dn) ,  
 가 (63), (C<sub>LC</sub>) 가 (61),  
 (S1,S2,...,Sn) (65),  
 (67)

, (67) 1, 2 (Vp1,Vp2) , 1, 2  
 (Cp1,Cp2) 1 (Vp1) 2 (Vp2)

, (67) 1 (67a) 2 (67b)  
 (67\_1,67\_2,...,67\_n) ,

. S1 , S2  
 , (C1,C2,...,Cn)

(65) (short) (Open) (S1,S2,...,Sn) ,  
 , 가 (61)  
 가

, ,  
 2  
 , 1 (C1,C2,...,Cn)  
 (S1,S2,...,Sn)

, (S1,S2,...,Sn) , 가 ,  
 ,  
 가 10V 가 , 가 1 5V 가 , 5.5V 가  
 , (65) (S1,S2,...,Sn) ,  
 (C1,C2,...,Cn)  
 (S1,S2,...,Sn)

6

, (67)  
5.5V

2

, 1 (Vp1) 2 3V , 2 (Vp2) 7 8V

, 1 (Cp1) , 2 (Vp2) 1 (Vp1)

, (C1,C2,...,Cn)  
가 , 가 2 3V 7 8V  
가 .

, 6 10V 가 , 2 3V  
가 1 5V 가 ,  
2 3V .

, (C1,C2,...,Cn)  
1 (Cp1) , 2 (Cp2)  
(Vp1) 2 (Vp2) 1

, 7 8V 가 , 가 2  
3V .

, 6 10V 가 , 2 3V  
가 1 5V 가 , 2 3V  
. .

, (ODD field)  
(Cp2) 2 (Cp2) 가 ( EVEN field ) 1 1 (Cp1) 2 (Cp1)  
( 8a 8b ).

, 2 , (S1,S2,...,Sn) 1  
, 2

3

3 2 , 2  
3 1, 2 , 2

9 3 , 10 9 3

P , 3 N 1 (77a) ,  
 P 2 (77b) (77\_1)

, 1 (77a) 1 (Cp1)  
 (Vp1) , 2 (77b) 2 (Cp2)  
 2 (Vp2) .

1 (77a) 2 (Cp2)  
 (Vp1) , 2 (77b) 1 (Cp1)  
 2 (Vp2) .

, 2 (77b) (77c)  
 1 (77a) N , 2 (77b) P  
 .

P  
 , 가 N  
 , P N ,  
 ,

10 9 3

10 , (G1,G2,...,Gn) (D1,D2,...,Dn) ,  
 , (TFT) (C<sub>LC</sub>)가 (71),  
 가 (73), 가 (S1,S2,...,Sn) (75), 1, 2  
 (Vp1,Vp2) ,  
 가 (77)

,  
 (77) (77a) 1 (77b) 2 (77c) (77b) P  
 (71\_1,71\_2,...77\_n) , , , ,

, 1 (77a) N , 2 (77b) (77c) P  
 2 (77b) , , ,

S1 , S2  
 , (C1,C2,...,Cn)

(75)

,

, 가  
가 .

(71)

, 가  
가 ( )

3

1

(S1,S2,...,Sn)

(C1,C2,...,Cn)

(S1,S2,...,Sn)

가

가  
10V 가 , 가  
가 ),

6

1 5V 가 ( ,  
5.5V 가 .

1

(75)

(S1,S2,...,Sn)

가

(S1,S2,...,Sn)

(C1,C2,...,Cn)

(77)  
5.5V

2

, 1

(Vp1) 2 3V , 2

(Vp2) 7 8V

, 1  
(low)  
a)

(Cp1) (high)

1  
2

2  
(Vp1)  
(Vp2)

(Cp2)

1  
(77b)

7 8V

가

(C1,C2,...,Cn)  
가 , 가

2 3V

2 3V  
2 3V

1

(Cp1) (C1,C2,...,Cn)

, 2

(Cp2)

, 2 (Vp2) 2 (77b)  
 , 1 (Vp1) 1 (77a)  
 .  
 , 7 8V 가 , 가  
 2 3V  
 , 6 10V 가 , 2 3V  
 , 1 5V 가 2 3V  
 .  
 .  
 3 1 (Cp1) 2  
 (Cp2) (Cp2) 1 (Cp1)  
 2 (77) 11a 11b ).  
 , 3 (S1,S2,...,Sn) 1  
 ,  
 P 가 , 가  
 N 가 .  
 .  
 ,  
 .  
 ,  
 .  
 ,  
 .  
 (57)  
 1.  
 1 2 , ;  
 1 ;  
 ;  
 1 ;  
 2  
 .  
 2.

1 , 1

가

3.

1 ,

가

4.

3 ,

5.

1 2 ,

1 ; ;

; ;

1 ; ;

2

6.

5 ,

1

7.

5 , 가 1 ,

가 2 ,

1 1 ,

2 2

8.

7 , 1 2

9.

7 , 1 2

10.

<sup>1</sup>      <sup>2</sup> , ,

11.

10 , 1 .

12.

10

13

10 , 가 1 ,  
가 2

14

13 . 1 2

15.

10 , 1  
1 1

가 2 1 2

16.

10 , 1 1 2 1

가 1 1 2

17.

15 16 , 1, 2 N

18.

10 , 가 1  
1 1

,  
가 2 1 2  
2 ,

2

19.

10 , 가 1  
2 1

,  
가 2 1 1  
2 ,

1

20.

18 19 , 1 N , 2 P

21.

,

1 1 ;

1

가 2 2

22.

21 , 2 , 가

23.

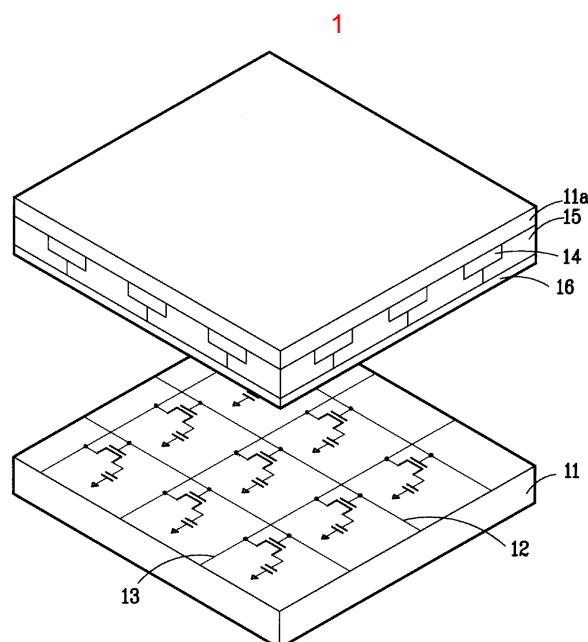
21 , 1  
가 ,

24.

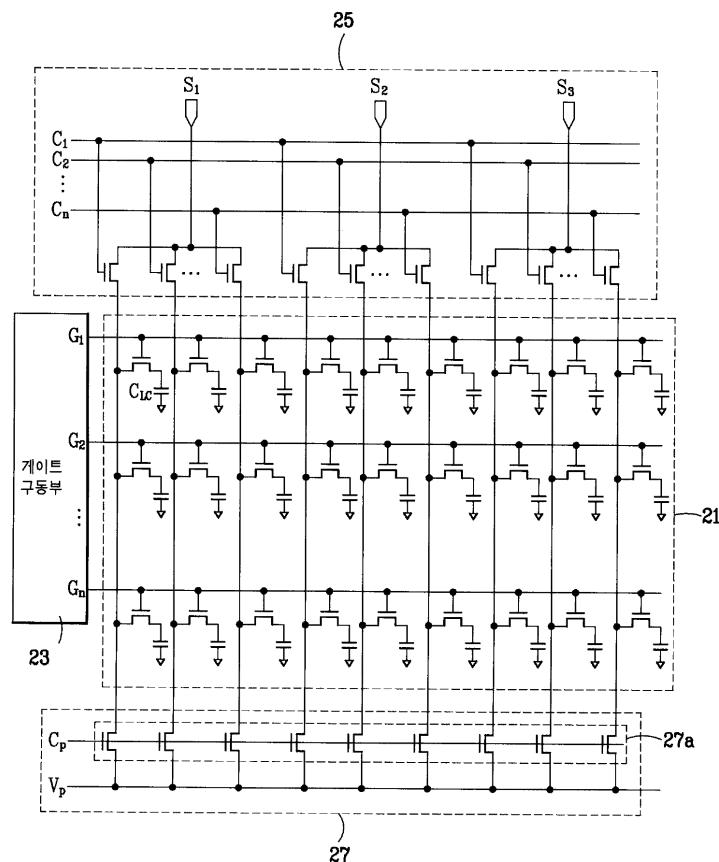
23 , ,

25.

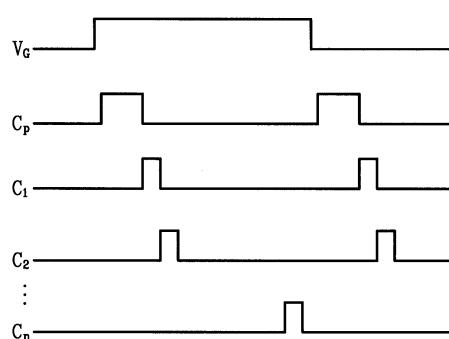
23 , ,



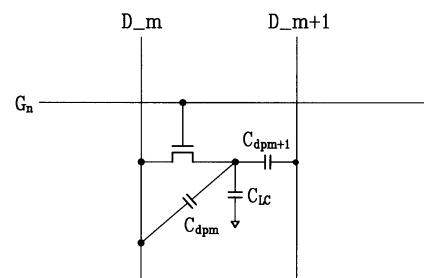
2



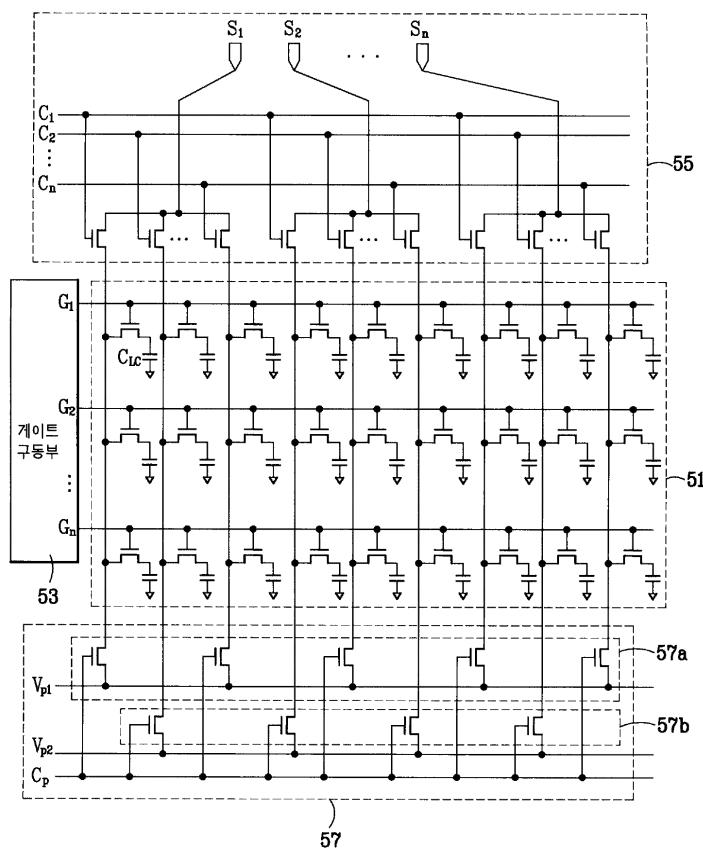
3



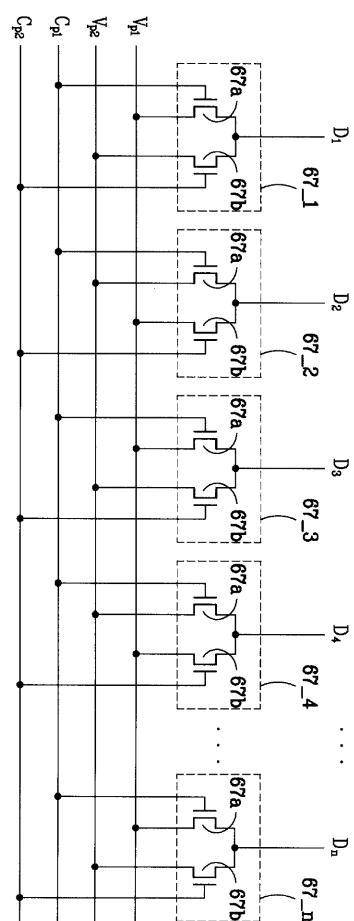
4



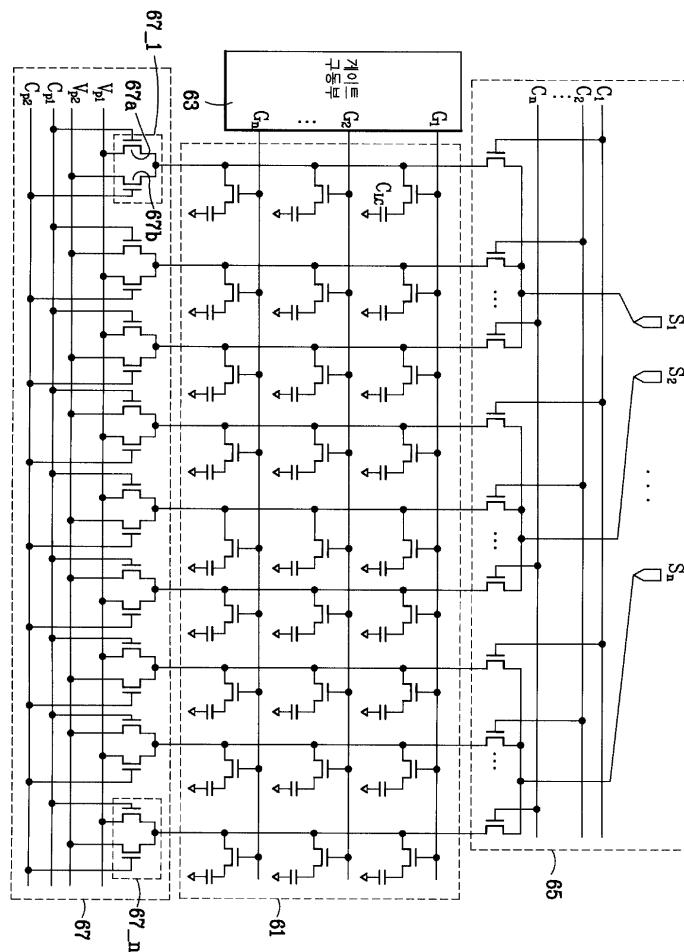
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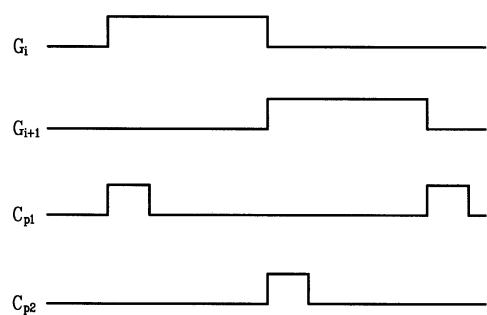
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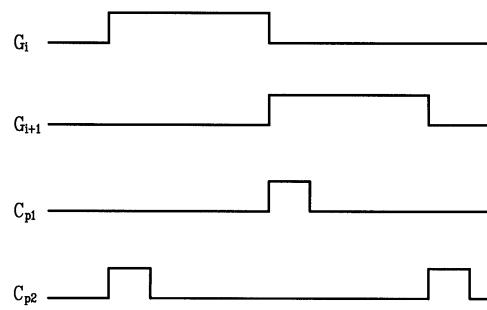
7



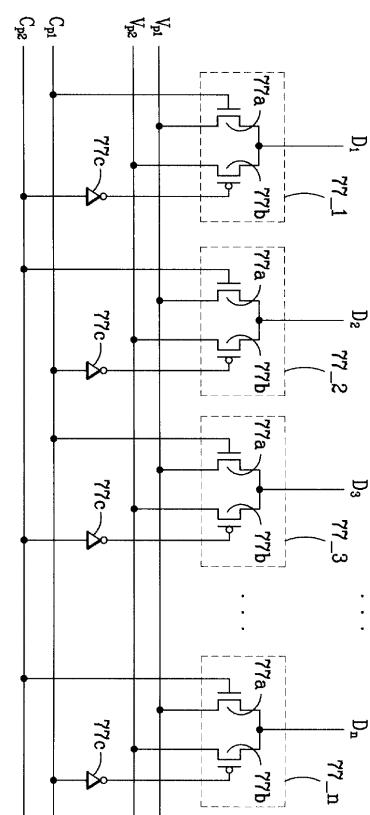
8a



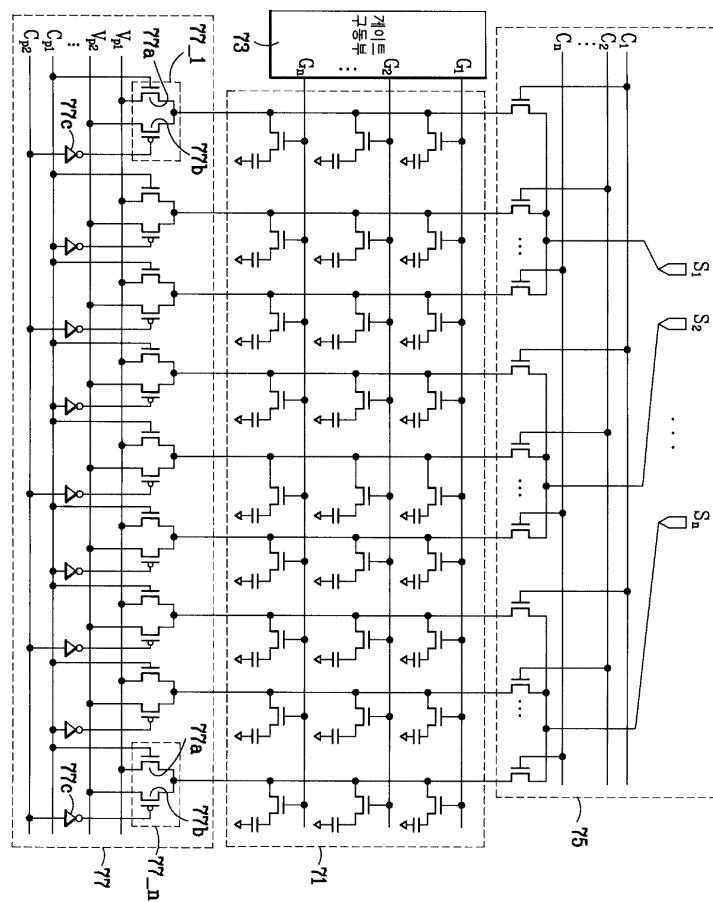
8b



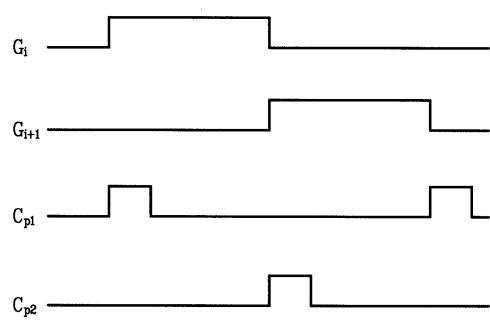
9



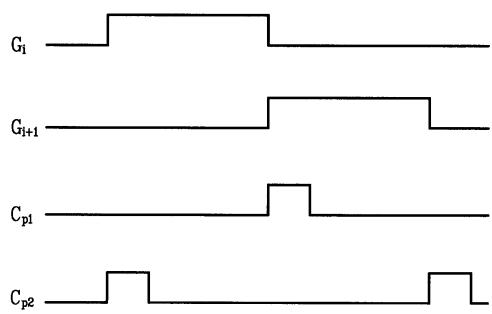
10



11a



11b



专利名称(译)	液晶显示器及其驱动方法		
公开(公告)号	<a href="#">KR1020020017434A</a>	公开(公告)日	2002-03-07
申请号	KR1020000050770	申请日	2000-08-30
[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 YONGMIN		
发明人	HA,YONGMIN		
IPC分类号	G09G3/36 G02F1/133		
CPC分类号	G09G3/3648 G09G2320/0209 G09G3/3614 G09G2310/0248		
代理人(译)	金勇 新昌		
其他公开文献	<a href="#">KR100685942B1</a>		
外部链接	<a href="#">Espacenet</a>		

### 摘要(译)

目的：提供一种液晶显示器及其驱动方法，通过防止数据留置之间的信号耦合和消除串扰来改善图像质量。

