

(19)
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2003 06 25
10-0389027
2003 06 13

(21) 10-2001-0027891
(22) 2001 05 22

(65)
(43)

2002-0088859
2002 11 29

(73) . 20

(72) 104 508

(74)
:

(54)

가

10

1
2 1
3 1
4 5

가

(V₃)
 3 가 1 (DL)
 3 (6) (16) (GL) (DL)
 TFT(T1) / () 가
 (16) (16) (DL) (16) TFT(T1) (GL)
 (Gray Scale) (Storage Capa
 citor; Cst)
 (DL) (3) () 가
 (GL) (5) (GL)
 (GL) TFT(T1)가 - 가 (8)
 가 TFT(T1) 가 가 (6)
 가 (Cst) (GLn) (GLn-1)
 4 5
 4 5 (Cst)
 4 가 (ON) 1H 가 (Cst) (+)
 (Cst) 가 (OFF) 1
 5 가 (ON) 1H 가 (Cst) (-)
 (Cst) 가 (ON) 1
 (Cst) (Cst) (GLn) (Cst)
 (GLn-1)
 20V (V) 10V 6 7 가 6 7
 1

[1]

	14.3μs
(V _{gh})	21.4V
(V _{gl})	-5V
1	15.2μs
(V _{dh})	5.24V
(V _{dl})	1.56V
(V _{com})	2.79V

가 (V_{pixel}) V_{pixel} = 가 + 가 (V)
 (V) 가 3 가 가
 2 (Rising Time)

2

$$Rising\ Time(\tau_{on}) \propto \frac{r_1 d^2}{\epsilon_0 \Delta \epsilon (V^2 - V_{th}^2)}$$

3 3 5V (GLn-1) (GLn-1)
 (V_{th} = 1.0V, V = 10V)

3

$$Rising\ Time(\tau_{on}) \propto \frac{r_1 d^2}{\epsilon_0 \Delta \epsilon (15.0^2 - 1.0^2)}$$

(GLn-1) (Vpixel) + (V) 15V가
 가 (GLn-1)
 8 (GLn-1) 가 (GLn-1)
 (SCL) (Cst) (St)
 orage Common Gate) 10 5%
 가 가

가

2 1 2 가 2
 10 14
 10 10
 (26) (DL) (23) (26) (21)
 (GL) (25) (23) (25)
 (22)
 (DL) (26) (GL) (DL) (DL) (GL)
 가 (Clc) (DL) 가 TFT가 TFT TFT (DL) (DL)
 (21) (26) (Clc) (DL) (DL) (GL)
 (22) (21) (R), (G) (B) / (H,V)
 (23) (Dclk) (22) (DGsp) (21) (23) (25)
) (Dclk) (23) (R), (G) (B) (R), (G) (B) (DL) (23)
 Dclk) (25) (23) (22) (R), (G) (B) (R), (G) (B) (DL) (23)
 (V) 1 (DL)

) 20V (Vg1) 가
 (+) (GLn-1) 2 (2H) (GLn-1) 2 (Cst) 2 (Vg2) 1
 (GLn-2) 20V (GLn-1) 2 (GLn-1) 2 (Vg2)
 (-) (GLn) 1 (Vg1, Vg2) (GLn-1) 2 (Cst) 2 (Vg2)
 (GLn) 1 (Vg1) 가 (+) 2 1 (GLn-1) 1 (H) (GLn) (-) 1
 (Vg1) (GLn-1) (Vg2) (GLn-1) (GLn) (Cst)
 1 (Vg1) 2 (Vg2) 4
 2 (Vg2) 2 x { 1 (Vg1)}
 (Cst) (GLn-1) (GLn) (Cst) (Cst)
 가 , (GLn) 1 20V (GLn-1) 2 (Cst) (V) 10V (Cst)
 (GLn) 1 (Vg1) (GLn) (Vg2) (GLn-1) 1/2
 (25) (GLn-1) (GL)

가

(57)

1.

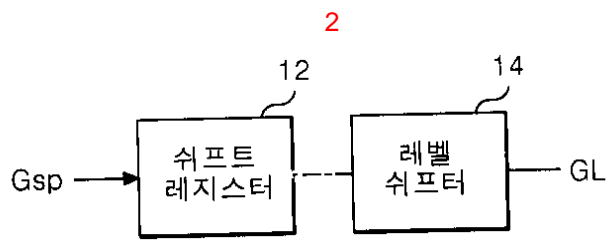
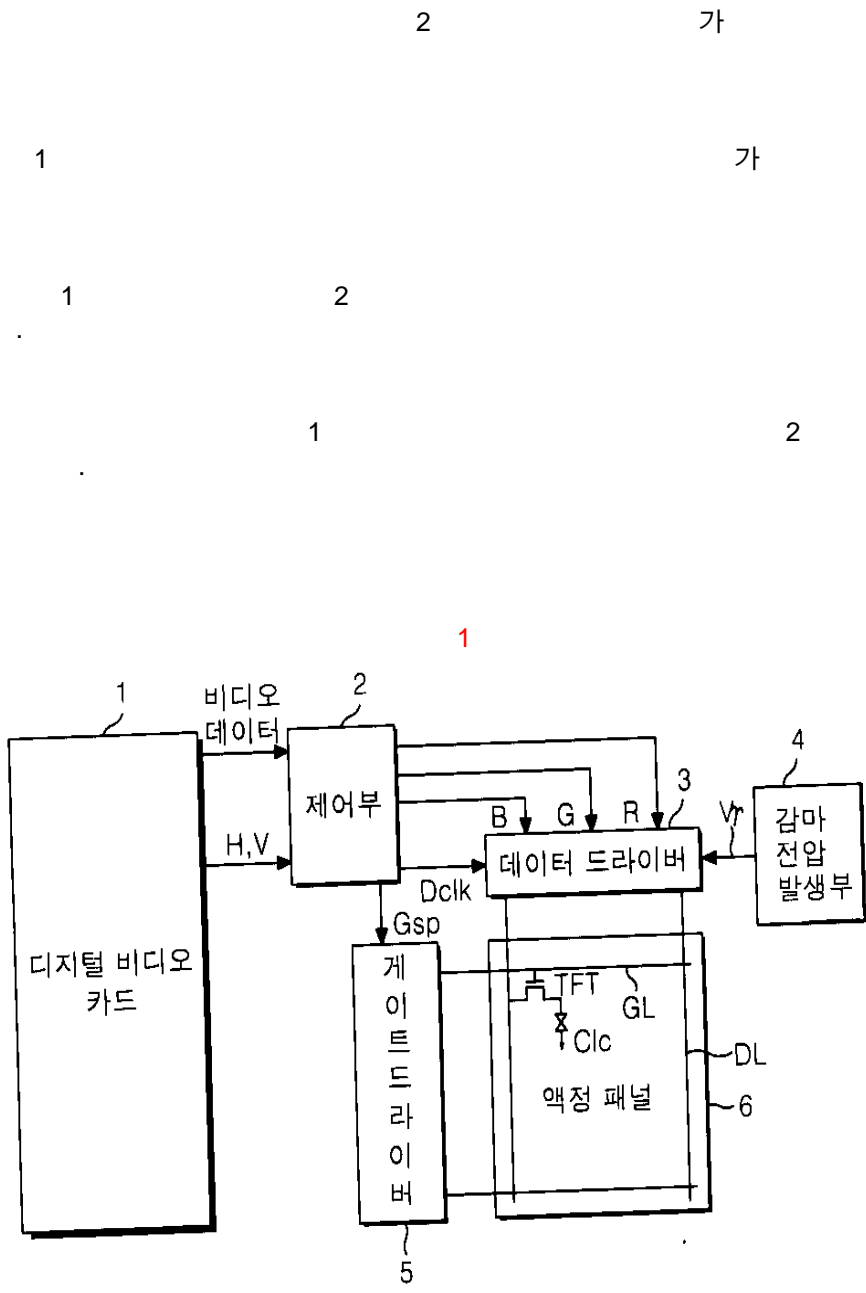
가

2.

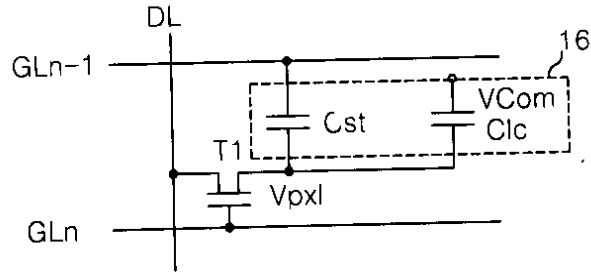
1

3.

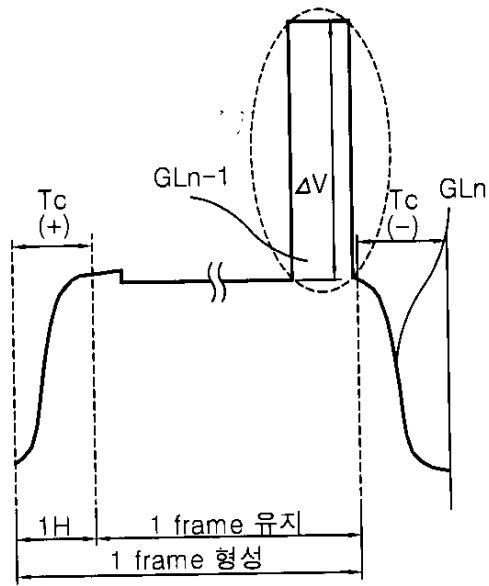
- 4.
- 3
- 5.
- 3
- 6.
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- 7.
- 6
- 8.
- 7
- 2



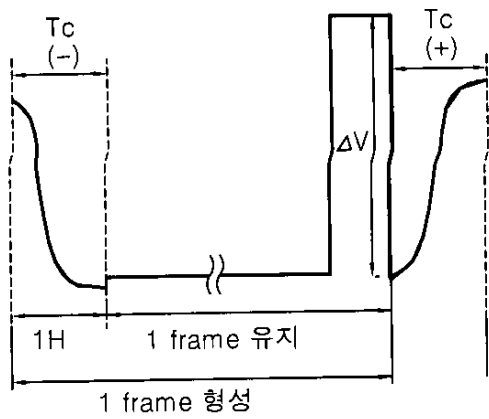
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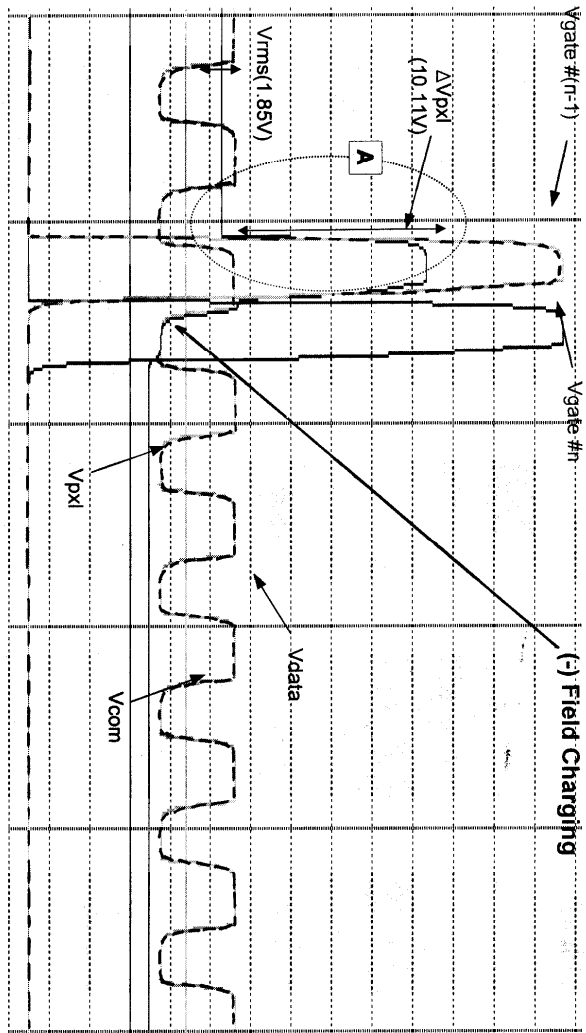


4

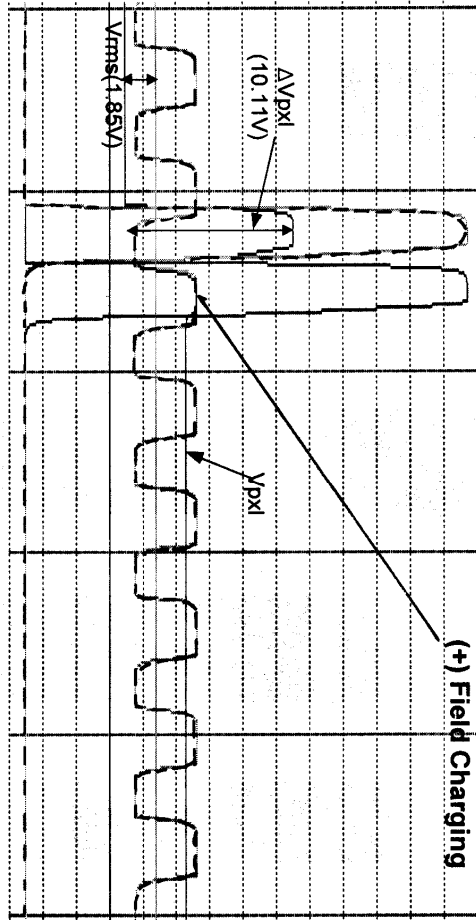


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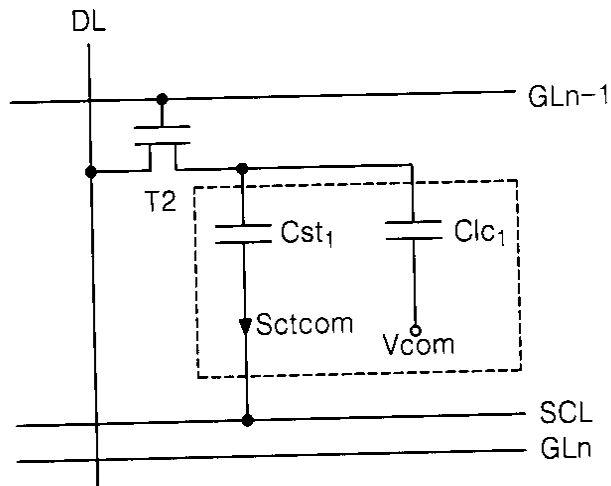
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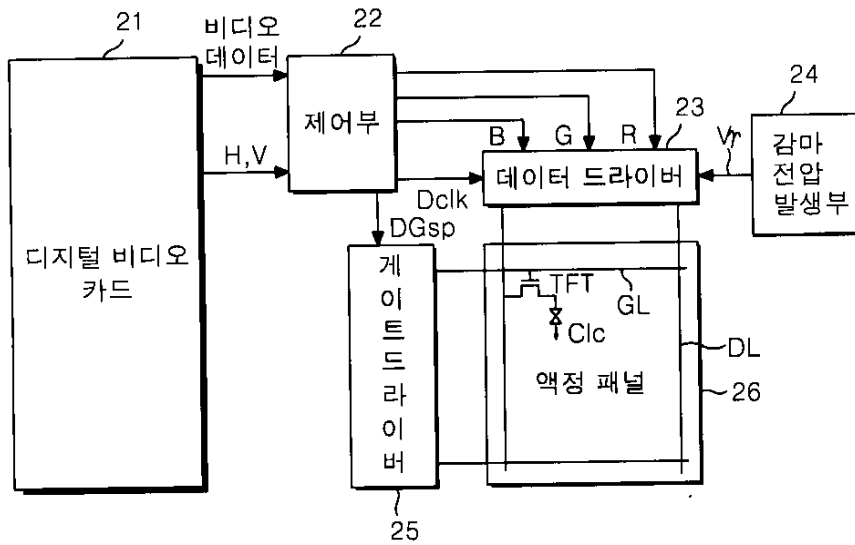
8



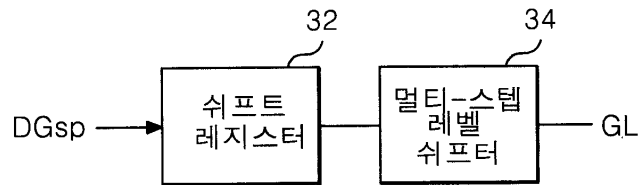
9



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11



专利名称(译)	液晶显示器及其驱动方法		
公开(公告)号	KR100389027B1	公开(公告)日	2003-06-25
申请号	KR1020010027891	申请日	2001-05-22
[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	SONG HONGSUNG		
发明人	SONG,HONGSUNG		
IPC分类号	G09G3/20 G02F1/133 G09G3/36		
CPC分类号	G09G3/3648 G09G3/3659 G09G2310/0205 G09G2300/0876		
代理人(译)	KIM , YOUNG HO		
其他公开文献	KR1020020088859A		
外部链接	Espacenet		

摘要(译)

本发明涉及液晶显示装置及其驱动方法，其通过消除前一栅极产生的闪烁效应来降低功耗。根据本发明的液晶显示器包括液晶面板，指示对应于视频信号和视频信号的图像，垂直同步信号和提供扫描信号的栅极驱动器具有数字视频卡，数据驱动器，栅极线中的两个电平由双栅极起始脉冲响应。数字视频卡产生水平同步信号。数据驱动器在控制单元中提供视频信号，使用垂直同步信号和水平同步信号产生点时钟和双门启动脉冲，数据线由点时钟响应。根据本发明，通过使用不同的两个电平的栅极电压减小剪切栅极电压的影响，可以在数据充电部分中防止闪烁和图像质量下降的产生。门上存储，低刷新和闪烁。

