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(51) 。 Int. Cl. ⁷ G09G 3/36	(11) (43)	10-2005-0000648 2005 01 06
(21)	10-2003-0041116	
(22)	2003 06 24	
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(72)		107 202
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(54)		

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2 1 가

3 1

4

5 4

6 4 1 2

7 4 1 IC .
 8 4 2 IC .
 9 4 3 IC .
 10 4 .

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2, 32 : 4, 34 :
 6, 36 : 8, 38, 40, 42 : TCP
 10, G-IC1 G-IC3 : IC 12 : TCP
 14 : IC 16 : PCB
 20, 50 : LOG 52 :
 54 : 56 :
 44 : 46 :
 48 : 60 :
 62, 64 :

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(Integrated Circuit;

, IC)

IC
TCP

TCP(Tape Carrier Package)

IC

COF(Chip On Film)

, TAB(Tape Automated Bonding)

IC COG(Chip On Glass)

PCB(Printed Circuit Board)

TAB

IC

TCP

PCB(

PCB,

PCB)

FPC

PCB

COG (Line On Glass; LOG) IC FPC(Flexible Printed Circuit) PCB

IC TCP PCB LOG PCB PCB LOG PCB->FPC->

PCB-> TCP->LOG -> , TCP TCP IC PCB->FPC->

LOG IC

가

IC(14) , PCB가 LOG 1 PCB(16) , IC(10)

PCB(16) (6) TCP(8) TCP(12) , IC(10)

(6) (2) , (4)

(6) (GL) (DL) (GL)

(DL)

IC(14) TCP(12) (6) (DL) (DL)

IC(14) IC(14) PCB(16) ()

()

IC(10) TCP(8) (6) (GL) (GL)

IC(10) (VGH) (GL)

IC(10) (VGH)

(VGL)

()

CB(16) TCP(12) (2) 가 TCP(12) LOG (20) IC(10) TCP(8)

TCP(12) IC(10) TCP(8) LOG (26) TCP(8)

IC(10)

LOG (20) (VGL), (VGH), (VCOM), (GSP),

(GND), (VCC) (24) (GOE) (22)

(GSC),

LOG (20) (2) , LOG (20) PCB

가 , LOG (26) 가 (, Gate Dim)(32)

(GSP, GSC, GOE) (Crosstalk), (VGH, VGL, VCC, GND, VCOM) (Greenish)

2 LOG (20) 가

2 LOG (20) 1 TCP(8) 1 LOG (LOG1) ,

TCP (8) 2 4 LOG (LOG2 LOG4) 1

4 LOG (LOG1 LOG4) (aΩ, bΩ, cΩ, dΩ)

TCP(8) IC(10)

IC(10) 1 IC(10) 1 LOG (LOG1) (aΩ) 2
 IC(10) 1 1 2 LOG (LOG1, LOG2) (aΩ + bΩ) 3
 IC(10) 1 3 LOG (LOG1 LOG3) (aΩ + bΩ + cΩ) 4
 IC(10) 1 4 LOG (LOG1 LOG4) (aΩ + bΩ + cΩ + dΩ)
 (GSP, GSC, GOE) (VGH, VGL, VCC, GND, VCOM)

IC(10) 1 4 (A D)
 (VG1 VG4) 가 1 4 (A D)
 D) 가 (32) (A D)

3 1 (2) (GLi GLi+3)
 (GLi GLi+3) 가 (VGH)가
 (DL) (VGL) (GLi) (VGL)
 (DL)

(VGL) (VGL) 3 IC LOG (VGL) (VGL)
 (VGL) (VGL) LOG (VGL)
 (Cst) (R) (B) (G) 가
 (Greenish)

LOG

1 2 1 2 1
 2 가 1 2 1

2, 1 2 가 1

1 2 .

1 2

가

가

1

2

1 ; 1 2

가

1 2 ; 가

4 10

4 1

4 (36) 1 3 TCP(38, 40, 42) VGL1 VGL2 IC(G-IC1 G-IC3) , 1 2 (44) , (

(36) (32) , (34)

(36)

(44) IC(G-IC1 G-IC3) (VGH), (GN D), (VCC) (VGL) (44) (46) (46) 1 2 (36) (VGL1, VGL2) (32) (34) (44) (VCOM)

1 3 IC(G-IC1 G-IC3) 1 3 TCP(38, 40, 42) LOG (36) (50) , TCP(38, 40, 42) () (44)

1 TCP(38) 1 LOG (LOG1) 5 1 2 (VGL1 , VGL2), (VGH), (VCOM), (GND), (VCC) (44) (GSP), (GSC), (GOE) 1 2 TCP(38, 40) 2 LOG (LOG2) 5 , 2 3 T

CP(42) 3 LOG (LOG3) 5 1 (VGL)

1 3 IC(G-IC1 G-IC3) (52) (VGH) (54)

(52) 2 (VGL1) (56) 2 (VGL2)

1 IC(G-IC1) 1 (VGL1)

3 IC(G-IC3) 2 (VGL2)

2 IC(G-IC2) 2 (VGL2)

1 (VGL1) 2 (VGL2)

(VGL) (52) 1 (VGL1)

(54) 2 (VGL2) 1 2 LOG (VGL1, VGL2)

VGL2) 6

1 (VGL1) LOG (LOG1+LOG2) 2

(VGL2) LOG (LOG1+LOG2+LOG3)가 1 (VGL2)

(VGL1) 2 (VGL1)

(48) 1 (VGL1)

2 (VGL2) 1 2 (VGL1, VGL2) LOG (52)

7 4 1 IC(G-IC1)

7 1 IC(G-IC1) 1 256 (GL1 GL256)

1 IC(G-IC1) (60) 1 (62)

(60) (GSP) (ST1 ST256) (GSC)

ST256) 1 256 (GSC) (ST1 ST256) (GSP) 1 256 (ST1

1 256 (ST1 ST256) (INV)

(/GOE) 1 256 (AND1 AND256)

(62) 1 256 (AND1 AND256) (60)

(GOE)가 가

(62)

(62) 1 256 (AND1 AND256) 1 256

(GL1 GL256) (LS1 LS256) 가 (VGH)

256 1 (VGL1) 1 256 (GL1 GL256)

8 4 2 IC(G-IC2)

8 2 IC(G-IC2) 257 512 (GL257 GL256)

2 IC(G-IC1) (60) 1 2 (62, 64)

(60) 7 256 (ST256)
 (GSC) 257 256 (ST257 ST512) 257
 512 (ST257 ST512) (GSC) 256 (ST256)

256 512 (ST257 ST512) (INV)
 (/GOE) 257 512 (AND257 AND512)
 1 2 (62, 64) 257 512 (AND257 AND512)
 (60) 가 1 2 (62, 64) (GOE)가

1 (62) 257 384 (AND257 AND384) 257 384
 (GL257 GL384) 257 384 (LS257 LS384)
 257 384 (LS257 LS384) 가
 (VGH) , 1 (VGL1) 257 384 (GL25
 7 GL384)

2 (64) 385 512 (AND385 AND512) 385 512
 (GL385 GL512) 385 512 (LS385 LS512)
 385 512 (LS385 LS512) 가
 (VGH) , 2 (VGL2) 385 512 (GL285
 GL512)

9 4 3 IC(G-IC3)

9 3 IC(G-IC3) 513 768 (GL513 GL768)
 , 3 IC(G-IC1) (60) 1 (62)

(60) 8 512 (ST512)
 (GSC) 513 768 (ST513 ST768) 513
 768 (ST513 ST768) (GSC) 512 (ST512)

513 768 (ST513 ST768) (INV)
 (/GOE) 513 768 (AND513 AND768)
 2 (64) 513 768 (AND513 AND768)
 (60) 가 2 (64) (GOE)가

2 (64) 513 768 (AND513 AND768) 513 768
 (GL513 GL768) 513 768 (LS513 LS768)
 513 768 (LS513 LS768) 가
 (VGH) , 2 (VGL2) 513 768 (GL513
 GL768)

10 4 (48)

10 (48) 1 (VGL1) 2
 (VGL2) (OP-AMP) (OP-AMP) 1
 (VGL1) 1 (R1) , (OP-AMP) (-5V)
 1 1 (VGL1) (VGL1) (OP-AMP)
 1 (VGL1, VGL2) 2 (VGL2) 1 2
 (-5V) 1 (-8V) 2 (GND) (VGL1, VGL
 (R3), 가 (VR), 4 (R4) 3 (R3) 가 (VR) 3
 , 2 (R2) 1 (R1) ,

1 2 1 2
1 2
가 가 , ,
LOG
가

- (57)
- 1.
- 2.
- 1 2 1
- 3.
- 2 1 2 1 2 1
- 가
- 4.
- 2 1 2 가 1 2
- 5.
- 4 1 2
- 6.
- 2

1 2

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12.

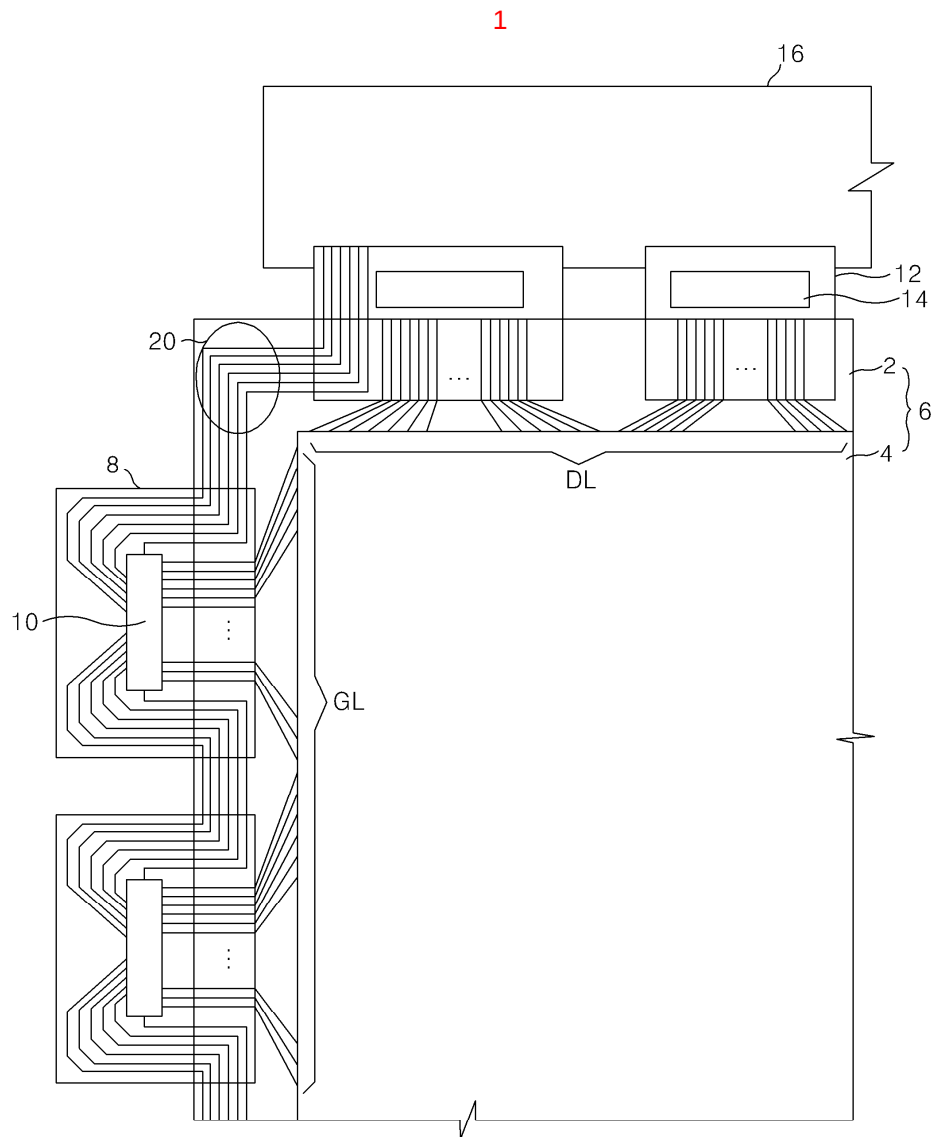
11 ,

1 2

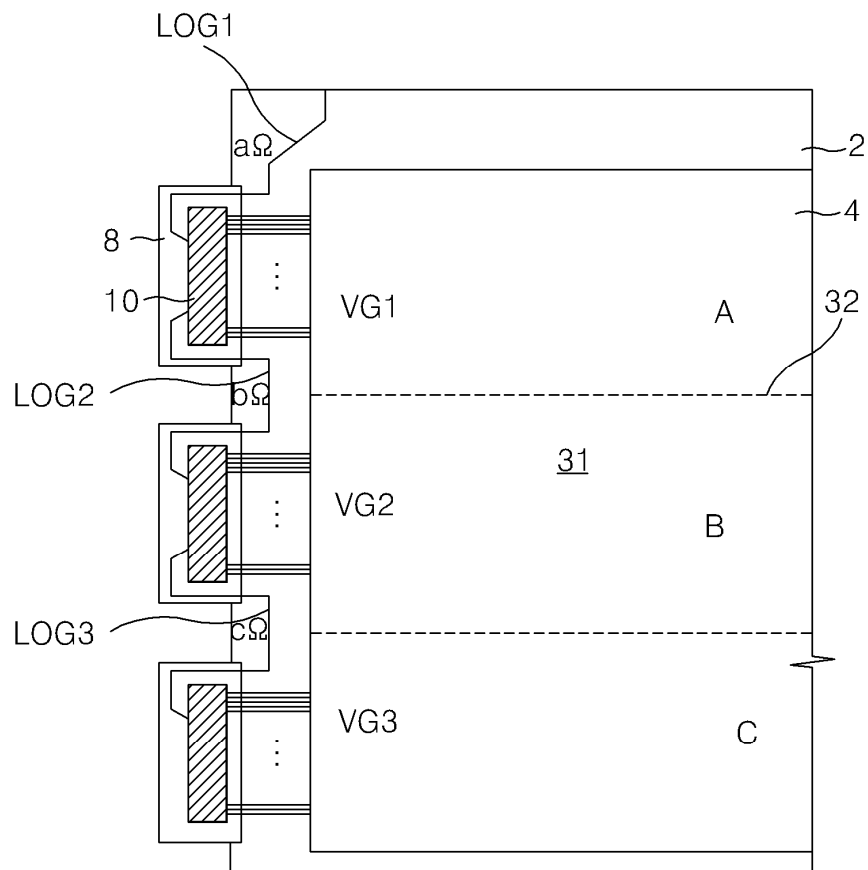
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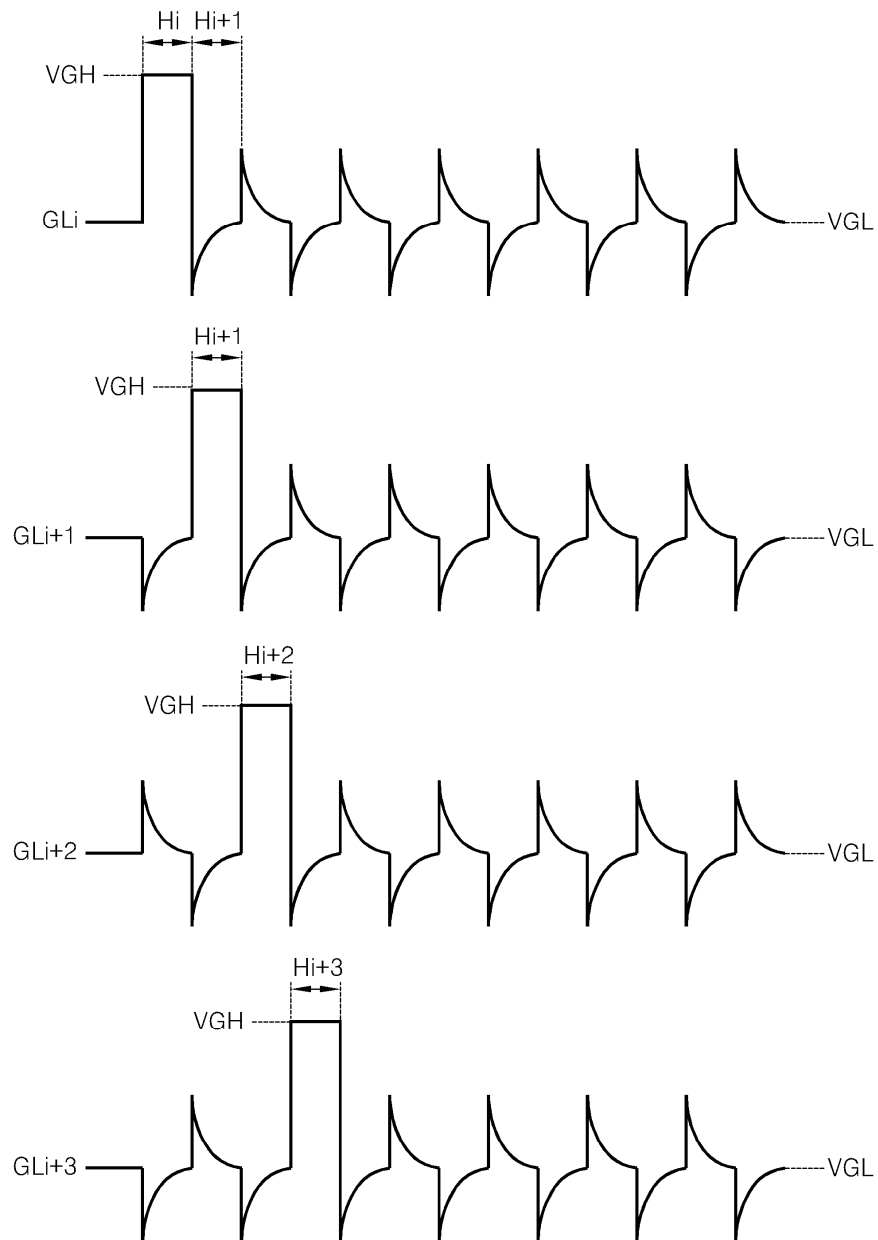
1 2



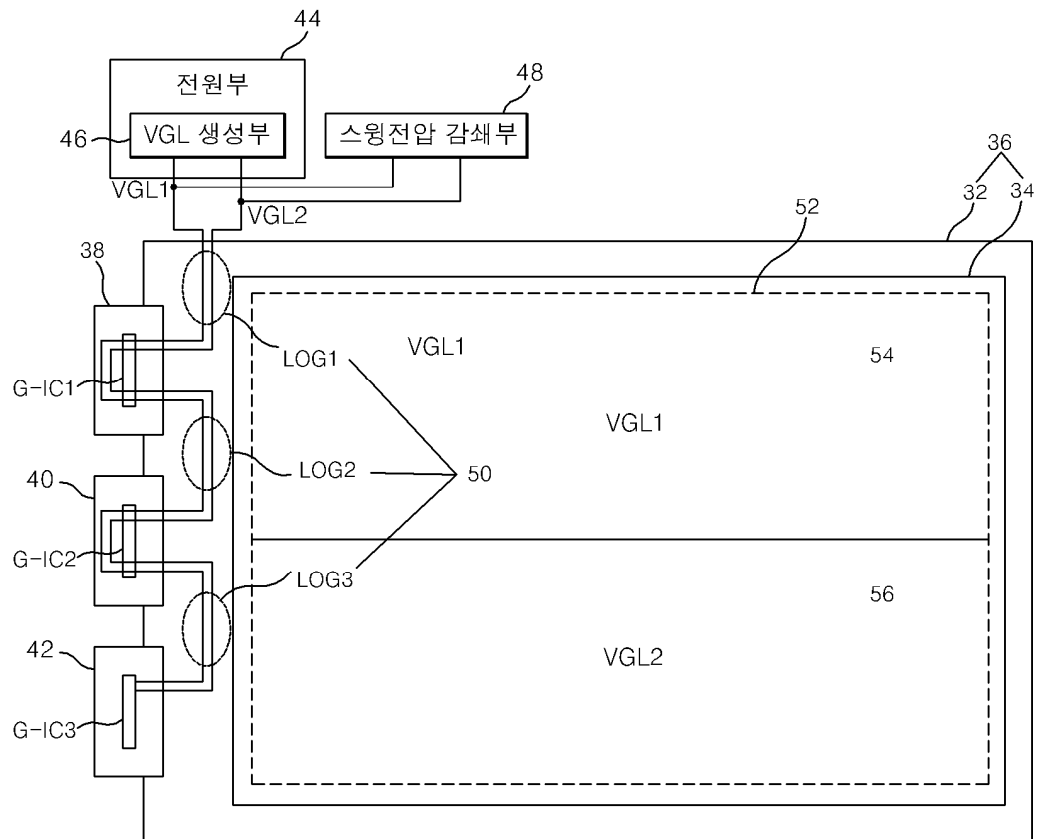
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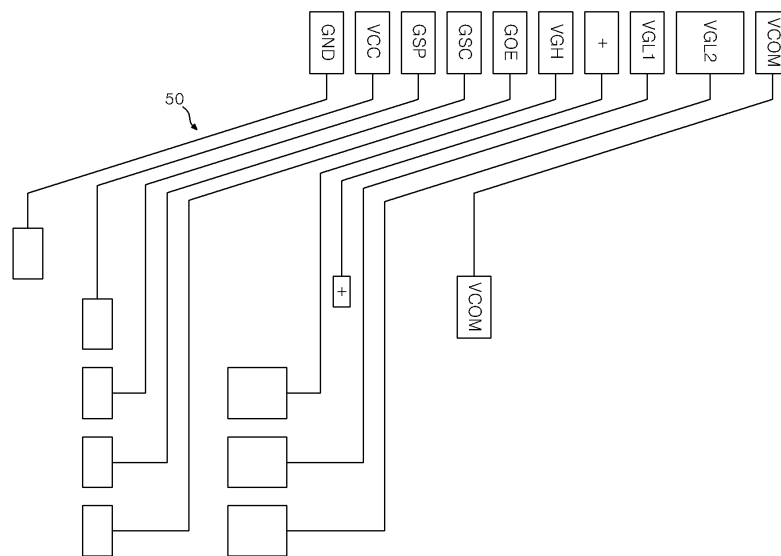
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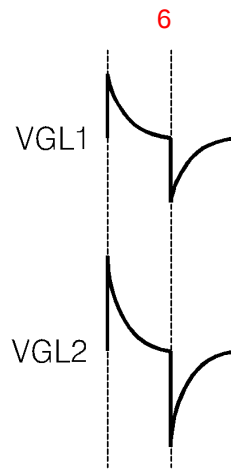


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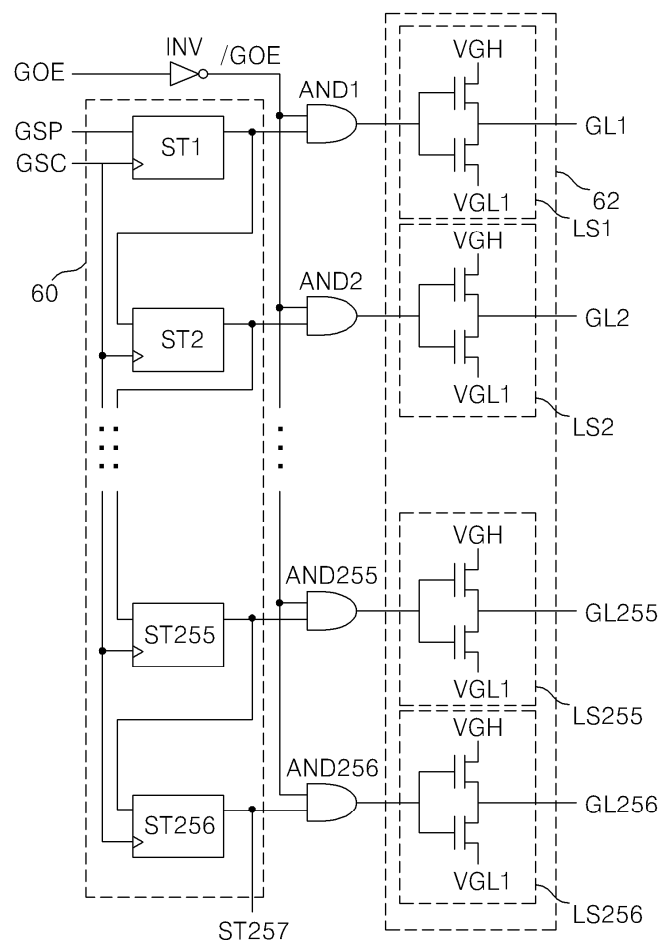
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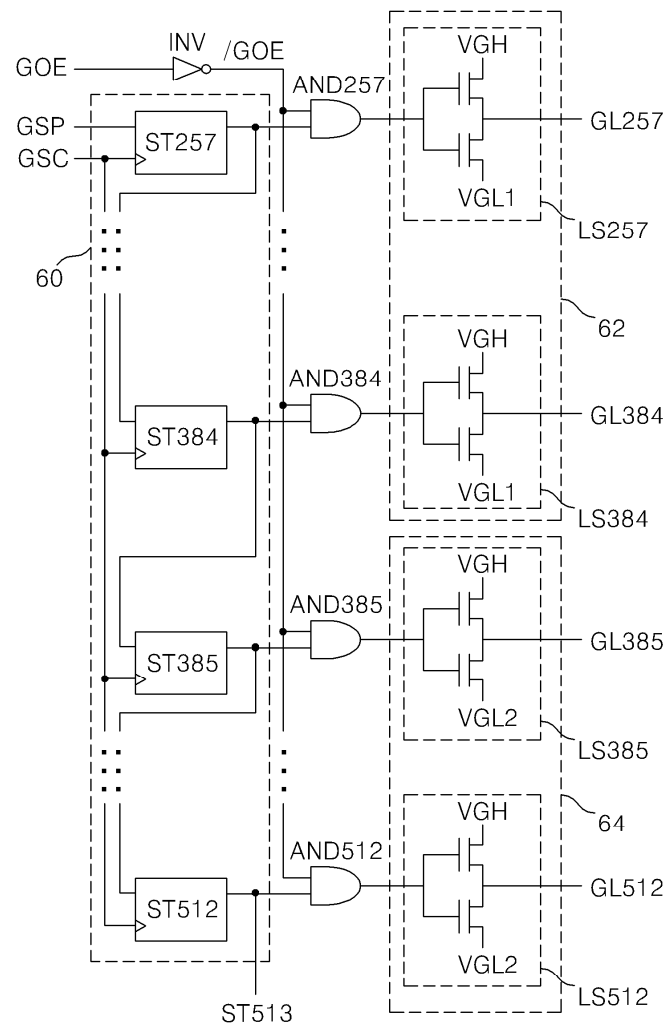
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G-IC1



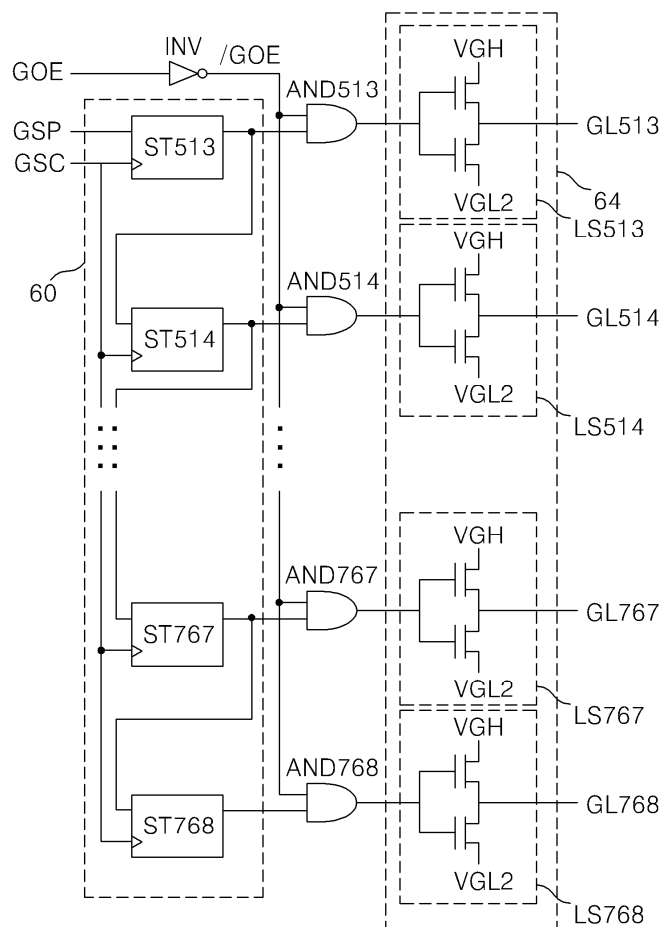
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G-IC2

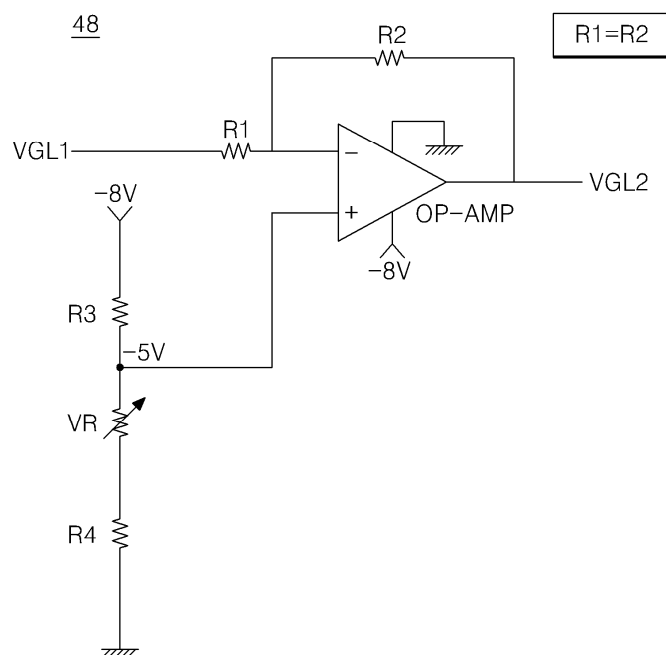


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G-IC3



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专利名称(译)	用于驱动液晶显示面板的栅极的方法和设备		
公开(公告)号	KR1020050000648A	公开(公告)日	2005-01-06
申请号	KR1020030041116	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		
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IPC分类号	G09G3/36		
CPC分类号	G09G2330/02 G09G3/3677		
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其他公开文献	KR100933447B1		
外部链接	Espacenet		

摘要(译)

本发明涉及一种用于驱动液晶显示板的栅极的装置和方法，其能够最小化由于栅极低电压的波动引起的图像质量的劣化。根据本发明的一个方面，提供了一种用于液晶显示板的栅极驱动装置，包括由栅极线和数据线的交叉点限定的液晶单元矩阵，该栅极驱动装置包括：作为薄膜晶体管中包括的薄膜晶体管的导通电压的栅极高电压被提供给相应的周期，栅极线被分成多个块，并且独立的栅极低电压被施加到薄膜晶体管，提供给栅极驱动器的关断电压。4

