

(19)
(12)

(KR)
(B1)

(51) 。 Int. Cl.7
G02F 1/1343

(45)
(11)
(24)

2004 09 18
10-0449305
2004 09 08

(21) 10-2001-0065295
(22) 2001 10 23

(65)
(43)

10-2002-0033056
2002 05 04

(30) JP-P-2000-00329592 2000 10 27 (JP)

(73) 가 가 가 22 22

(72) 1-1079-154

가 1-7-8

(74)

:

(54)

P , , TCP , TCP , TC
가 , . ,

1

1 1
2 , 1

3 , 1 TCP
 4 , 3 A-A
 5 , 3 TCP
 6 , 1 가
 7 , 1 가
 8 , 1 LSI
 9 , 8 LSI
 10 , 1 LSI
 11 , 10 LSI
 12 , 10 LSI
 13 TFT
 14 TFT
 15 TFT

< >
 101 : TFT
 102 :
 103 :
 104 :
 105 :
 GD1 GDm :
 SD1 SDn :

가
 , TFT(Thin Film Transistor) 13
 (Module) ,
 13 가
 (104) , TFT (101) (102), (103),
 (105) (102) (106)
 (103) GD1 GDm
 (104) (SD1 SDn)
 (102) , (103) (104) Nbit
 (102) (106) (102) ()
 (104) (105) (106) (103),
 (103) (GD1 GDm) (105) 6
 Bg... (GD1 GDm) LSI
 LSI , TCP(Tape Carrier Package)
 (GD1 GDm) LSI ()
 防濕) (104) (SD1 SDn) (105) 6
 Bs... (SD1 SDn) , 가 LSI
 , TCP
 , 14
 SD1 SD8) 2 (GD1, GD2) 8 (SD1 SD8) ()
 (GD1, GD2) LSI
 SD1 SD8) (112) (111) 가 , ()
 (111 112)

2) (GD1, GD2), (SD1 SD8) (10)
TCP (111, 112) (113) 114
(113) (113) (111, 112)

TCP (114) (105) ITO(Indium Tin Oxide :)
(105) (105a) , ACF (Anisotropic Conductive Film :)
(113) (111, 112) (114) (111, 112)

2) (113) (111, 112) ACF (111, 11)
(113) 15 LSI

(111, 112)
「 6-3684 (: 1994 1 14)」
(GD1, GD2) (SD1 SD8) TCP TCP (114)
TCP (114) TCP (114)

(102) (102) ACF (116)
(SD) TCP (114) (GD)

「 2000-242240 (: 2000 9 8)」
CF (105) ITO A

가
가
가
가
가

1 2
1 2
1 2
1 2
1 2

가가
가
가

< >
1 12 TFT (1) TFT (1)
(: 2), (3), (4) (5) : GD1, GD2
(3) (4) (2)

(1 : SD1 SD8) (3) (4) Nbit
(2) (3) (4))

(3) (GD1, GD2) (5) 6 ()
Bg... (4) (SD1 S

D8) (5) () Bs...

(GD1, GD2) (SD1 SD8) LSI (GD1, GD2)
 LSI TCP (Tape Carrier Package) (2 : 11)
 , TCP , TCP 가 , (SD1 SD8) LSI TCP (1 : 12)
 (3) (4) (5) (5a) (5a)
 (5) (SD1 SD8) ACF (5a) ITO (5a) (G
 D1, GD2)
 (2) 2 (6)
 (2) () (5) ()
), (SD1 SD8) SSPI, SCK, LS (2)
 (2) (GD1, GD2) GSPI GCK
 (2) DATA · RGB(RGB 6) (SD8)
 (SD1 SD8) SSPO (2) (6)
 (GD1, GD2) V_{DD}, V_{CC}, GND (2)
 (6) (SD1 SD8) V_{CC}, GND (Vref1 Vref (2)
 9) (2) (6) (5) (33)
 (2)(LSI) 1 TCP (12) , SD1
 CP TCP (12a) , (SD1) , TCP (12a) T
 (2), TCP (12a) (13) (5a) (端緣部)
 (13) () ()
 (2) SD1 (5)
 GD1, GD2 (2) SD1, SD2... , DATA · RGB,
 (6) (2),
 3) (4)가 (5) (5a) (2)
 3 , TCP (12a) (2) SD1 3 XY (SD1
 , TCP (12a) 가 (SD1 SD8)
 (SD1) (5) ITO 가 , 가
 2a) W((5a) (SD1)가 (5) , TCP (1
)가 (12a) 가
 , 3 (SD1) TCP (12a) 가
 3 (2) (LSI) (SD1)가 (21)
 23) (22) (21) ()
 (25) (22) (26)
 (23) (24)가 (2) (SD1) ,
 Au (27) (24) (2)
 , TCP (SD1)가 TCP (22)
 (12)(12a) (22) 50μm
 (23) Sn 18μm, 30μm
 (22) , TCP (12a) (2) (SD1) 5
 SD8) , W가 , L (SD1)가 5 XY , (SD1
 , TCP (12a) (2) (SD1)가 5 , TCP XY (12a) 3
 (5) 6 가 , 4 B-B 3
 (TFT 가 (5) (32...)
 : 33) 가

(32...) (33) 가 , TFT(31) (32)
 (33) (GD1, GD2) 35) 가 TFT(31)가
 TFT(31) (SD1 SD8) 가 (32) (33)
 (GD1, GD2) 가 TFT(31)가 가
 (32) (33) (SD1 SD8))
 (34)
 7 (36) ()
 36) (37) (GD1, GD2) 8 LSI (4
 (3) (GD1, GD2) 8 LSI (4
 1)((GD1))
 LSI (41) (42), (43) (44)
 (42) (42) GSP () GCK (5)
 (42) (4) 가 (5)
 (43) TFT(31) ON/OFF (44) (44)
 (44) () (44)
 (1 k) ()
 9 , GSP (1 k) 9 (42)
 , GSP 2 LSI (41)(GD1) (42)
 (2) GSPI
 , GCK (42) (42)
 GCK 2 GCK
 GSP GCK (42) 9
 (42) (1 K)
 LSI (41) (43) V_{CC} GND V_{CC} V_{DD} GND
 (43) V_{CC} GND (GD1) (次段) (GD2) GSP GSPout
 , GSP 가 가 (GD2)가 GSP GSP
 , GSP, V_{CC}, V_{DD} GND LSI () LSI (G
 D) LSI TCP LSI LSI LSI
 (4) (SD1 SD8) 10 (SD1 SD8) LSI (51)(SD1)
 (55), LSI (51) (52), (53), (54),
 (56), DA (57) (58) (2) SCK
 (52) SCK() , SSPI (52)
 SSPI (2)(2) SSPI , SSPI
 LSI (51) SPin , SSPI
 DATA · RGB (6)
 LSI (51) (52) SSPI
 (52) LSI (51) SPin LSI (51) SPout 가 SSPI
 SSPO SSPO
 SD8 (2) R, G, B (2) SSPO DATA · RGB 6
 DATA · RGB (2) /SCK (SCK)
 DATA · RGB (2) SD1 R1-6in, G1-6in, B1-6in
 DATA · RGB (53)

(54) GB 6 , (54) 18 LS가 (52) , DATA · R (2) LS
 , 가 (55) DATA · RGB 1 LS (54) , (55)
 LS가 (55) , 가 (58) , (55)
 Vref1-9 64 (2) (54) (6) , (2)
 DA (57) LSI (51) Vref1-9 RGB 6
 (58) 64 64 (5) , 10 X 1
 X₁₂₈, Y₁ Y₁₂₈, Z₁ Z₁₂₈ (5) , 1
 28 X₁ X₁₂₈, Y₁ Y₁₂₈, Z₁ Z₁₂₈ LSI (51) V_{CC} GND RGB LSI (51) 1
 , 64 (SD1 SD8) 1
 , 10 SCK, DATA · RGB, Ls, Vref, V_{CC} GND (, LSI)
 , AI (SD1 SD8) LSI LSI LSI , TCP LSI
 , TFT (1) LSI (61) TCP 12 LSI
 , SCK 가 (5)
 , TFT 가 (1) (2), GD, (1)
 SD (5) (5a) , TFT (1) , TFT (1)
 (1) , TFT (1)
 PC(TCP (12a)) LSI (51)(SD1) LSI ((2) (2)) T
 (2)(LSI) TCP SD1 1 1 LSI , TCP
 , 가 TCP (12) 가 , TCP
 (12) (5) ITO (2)가 ACF TFT (1) 가 TCP(TCP (2) : 11) (5) TCP(TCP
 : 12a) , TCP(TCP (2) : 11) (5) TCP(TCP
 , (2) (SD1) TCP (12a) ,
 (2) LSI (GD1) (TCP) , TCP (12a) (SD1)
 , 가 (2) (2) (SD1)
 , (2) (SD1 SD8)가 SD1 TCP TCP (12a)
 (5) (SD1 SD8) (2) , LSI (

「 2000-242240 (: 2000 9 8) 」

GD

(SD1)

(2)

TFT

(1)

가

가

가

(: 2)가

(6)

(2)

가

(2)

(6)

(6)

(6)가

(2)

1
(2)

(6)

) 2

2

(

	1	2	1	2	2	1	2	1	2
er Package)	1	2	가	가	1	2	가	TCP(Tape Carri	2

1 2

1

2

가

가

1

2

가

1

가

2

1

2

가

1

가

2

가

1

2

가

(가)

가

가

가
R, G, B

가

가

SCK

1

2

가

1

2

1

2

가

(57)

1.

1
1

2

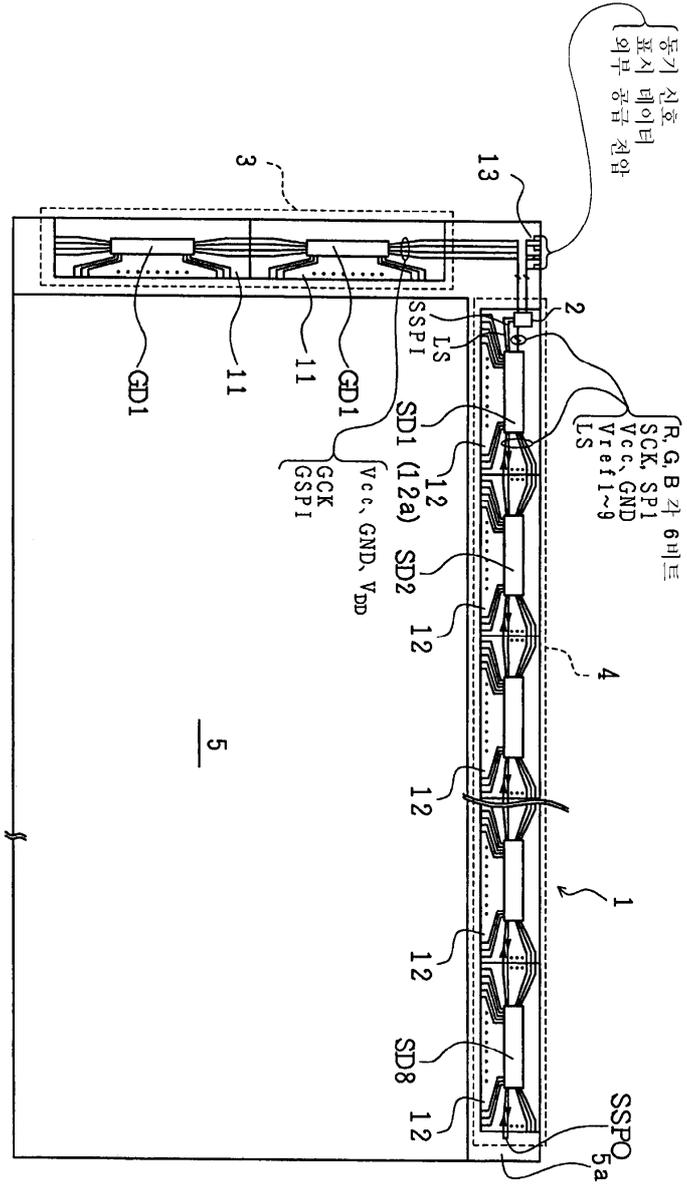
1

2

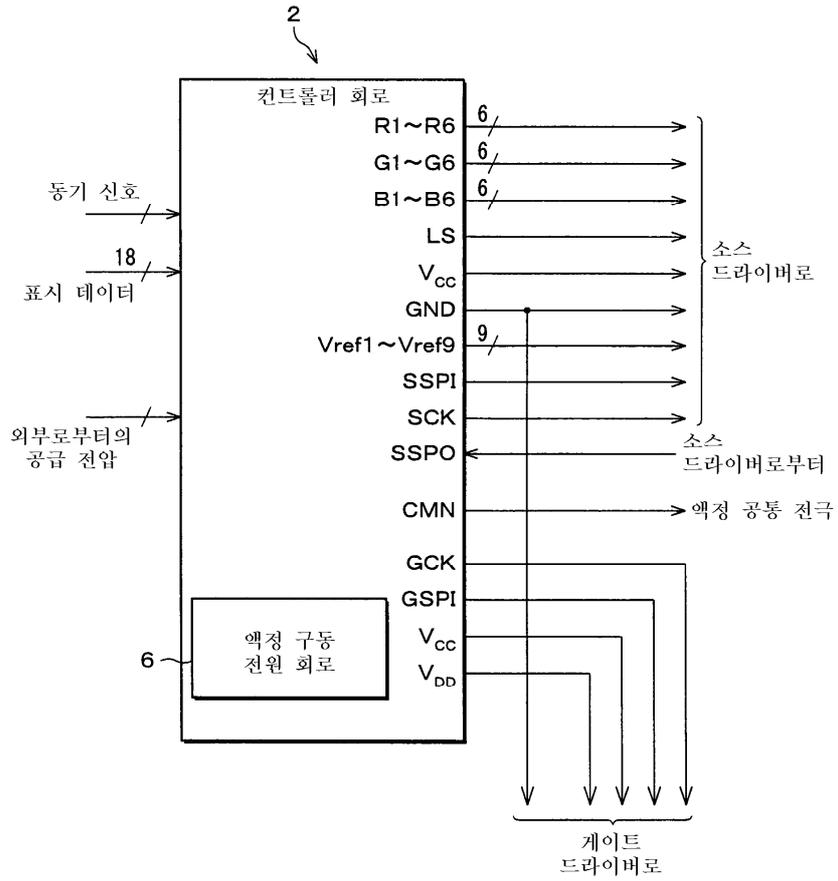
1

2

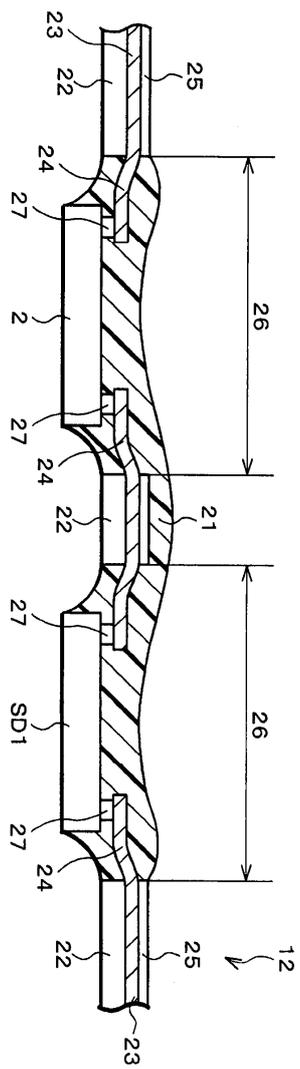
1



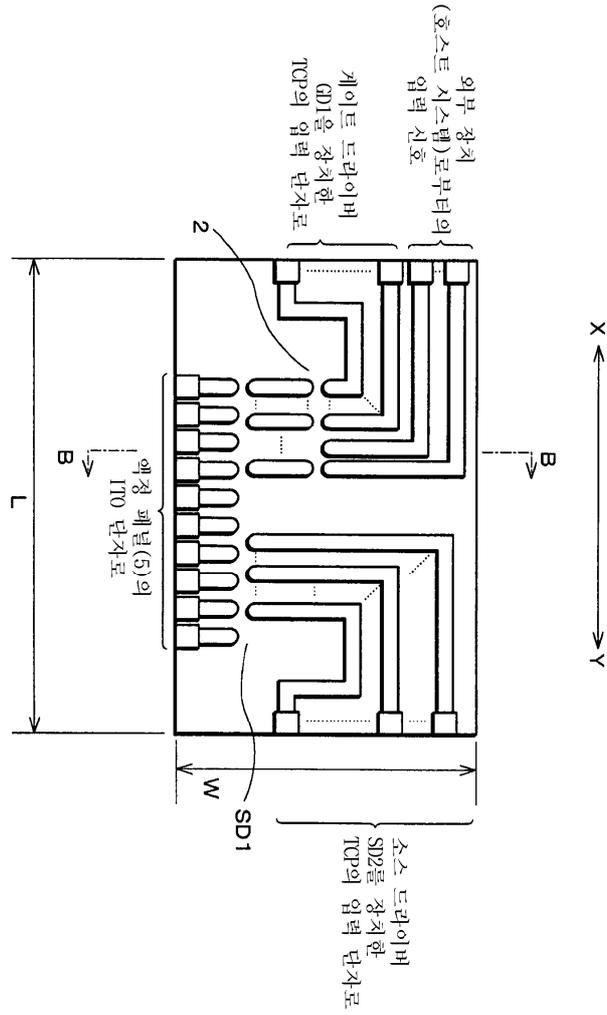
2



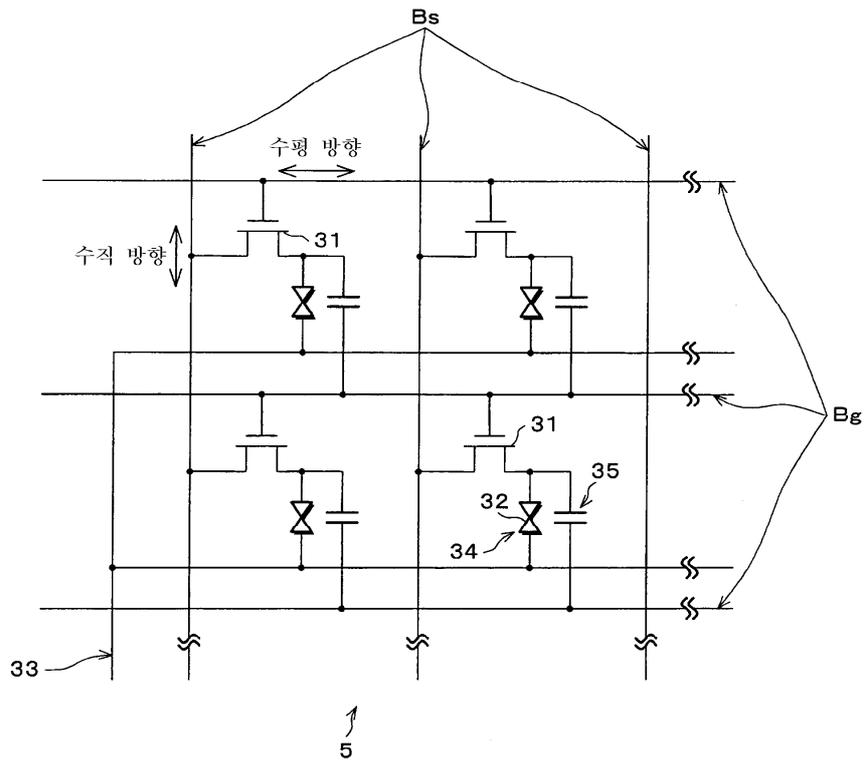
4



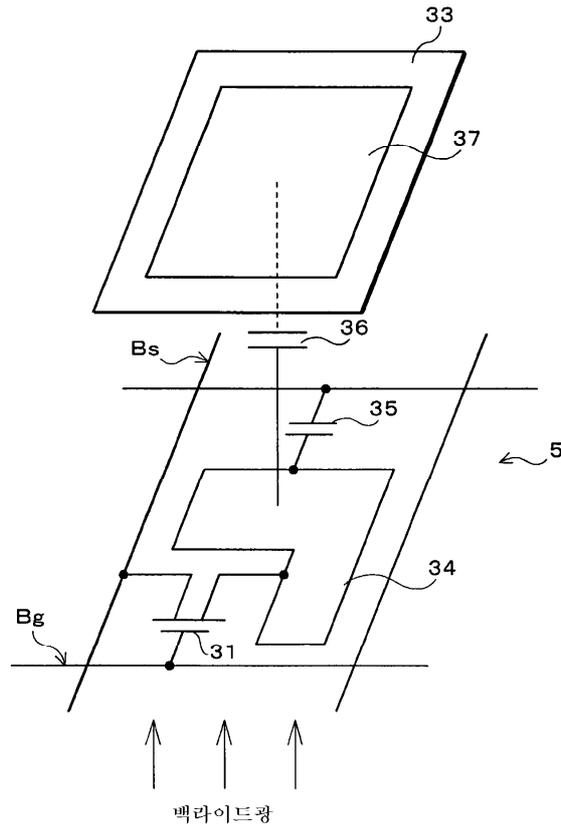
5



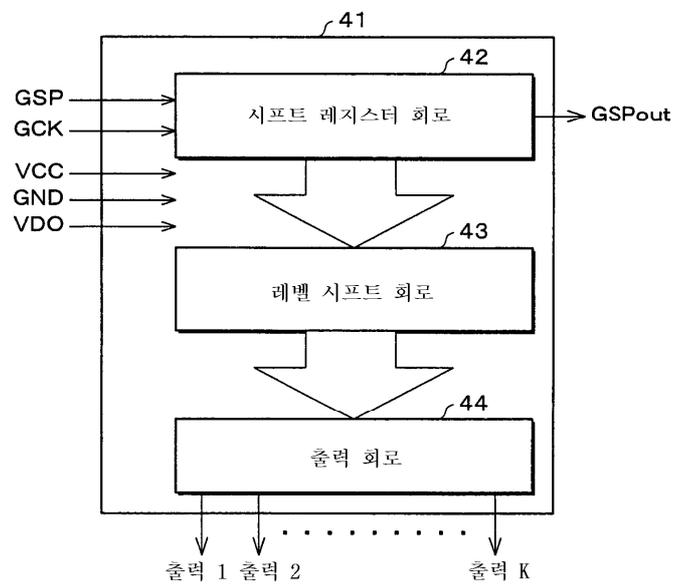
6



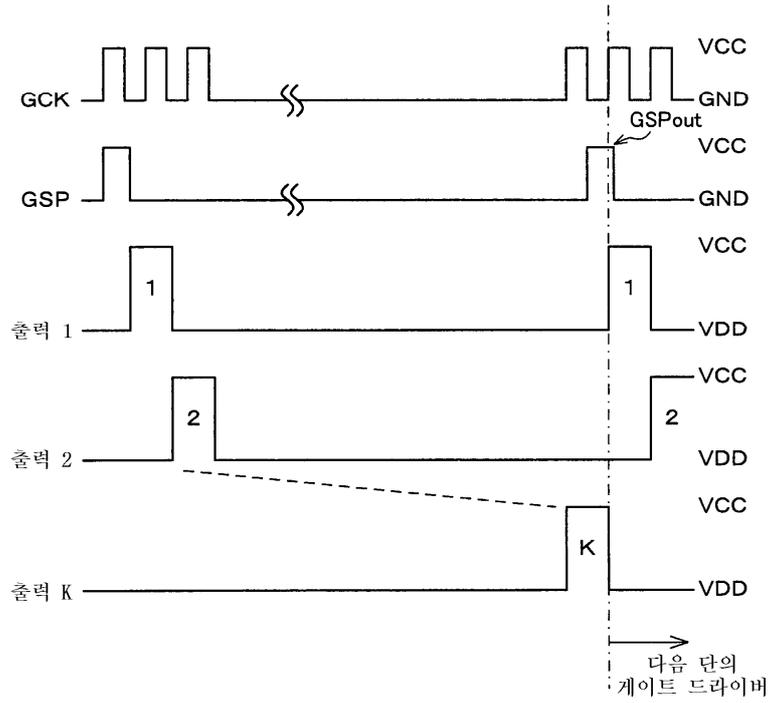
7



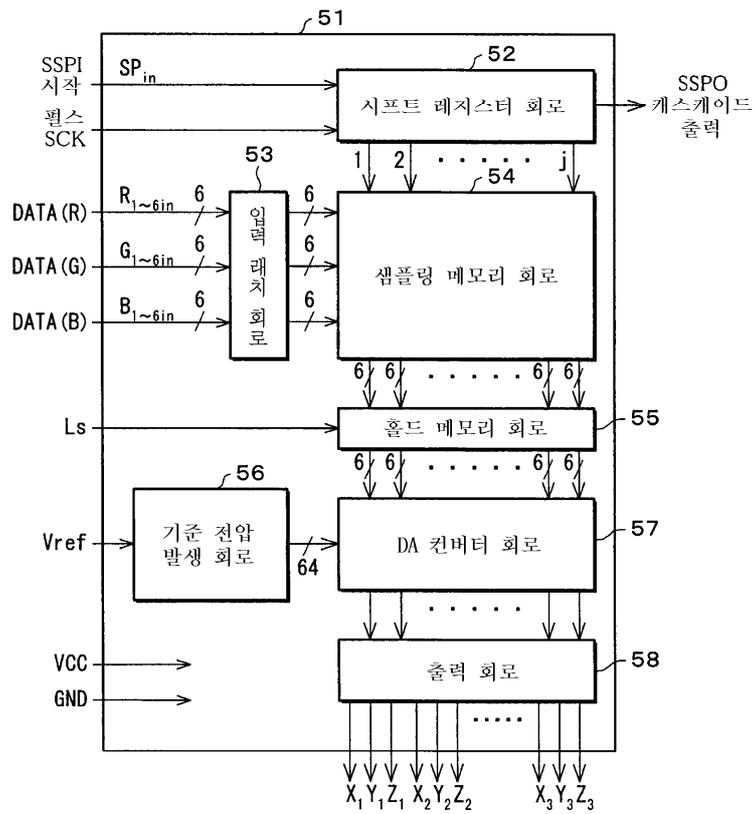
8

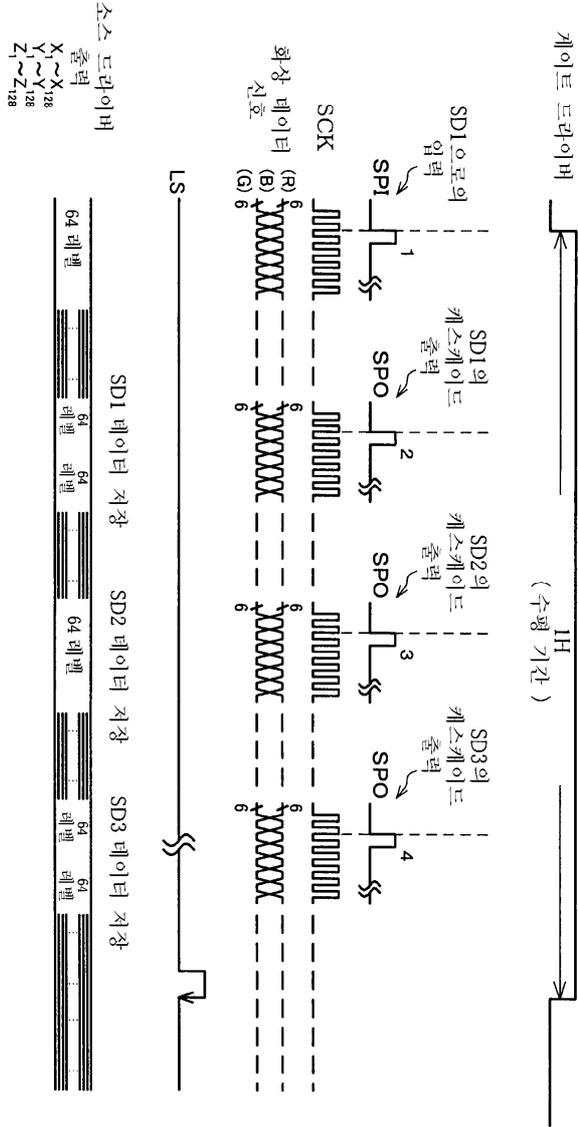


9

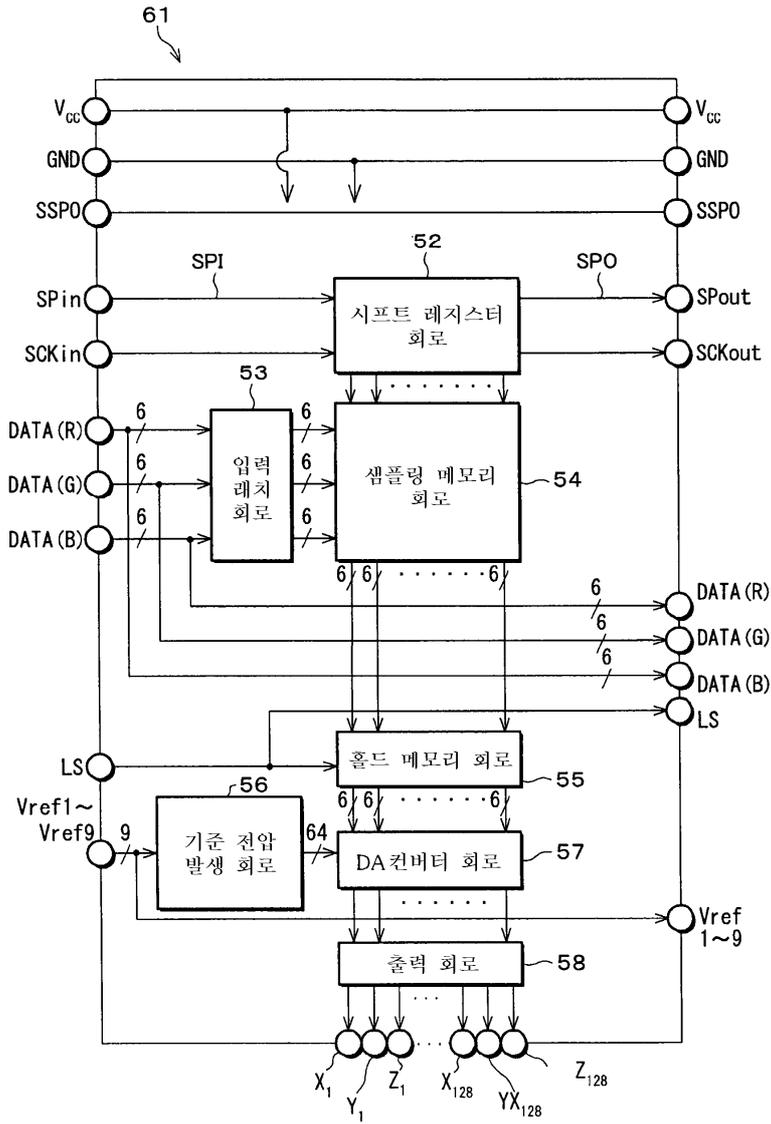


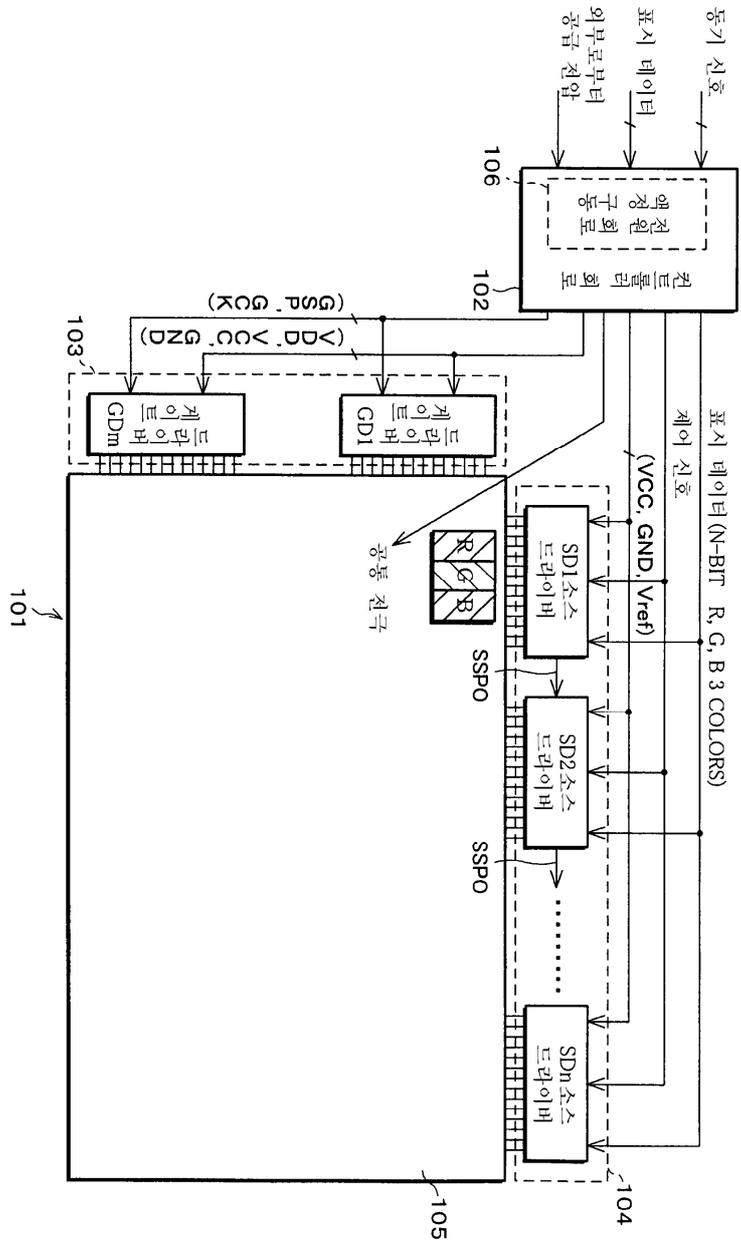
10



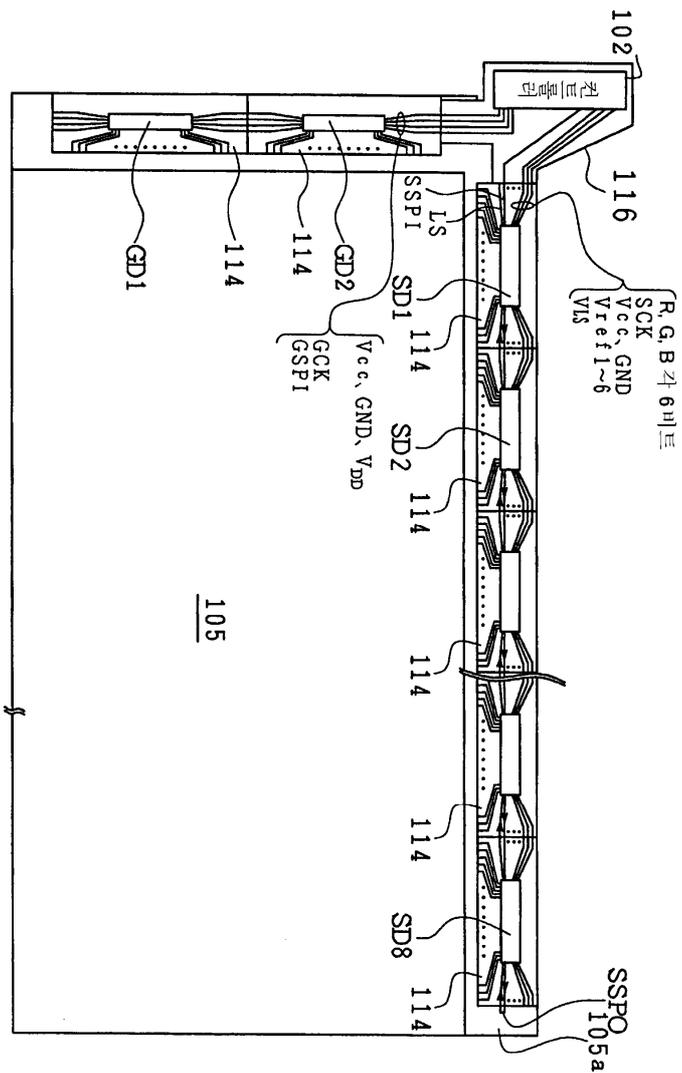


12





15



专利名称(译)	显示模块		
公开(公告)号	KR100449305B1	公开(公告)日	2004-09-18
申请号	KR1020010065295	申请日	2001-10-23
[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		
当前申请(专利权)人(译)	夏普株式会社		
[标]发明人	TANAKA SHIGEKI 다나카시게끼 OGAWA YOSHINORI 오가와요시노리		
发明人	다나카시게끼 오가와요시노리		
IPC分类号	G09G3/36 G02F1/1345 G02F1/133 G02F1/1343 G09F9/00 G09G3/20 G02F1/13		
CPC分类号	G09G3/3688 G02F1/13452		
代理人(译)	CHANG, SOO KIL		
优先权	2000329592 2000-10-27 JP		
其他公开文献	KR1020020033056A		
外部链接	Espacenet		

摘要(译)

本发明的显示模块包括由列方向上的驱动信号和行方向上的驱动信号驱动的液晶面板;用于在列方向上提供驱动信号的源极驱动器;栅极驱动器,用于沿行方向提供驱动信号;提供源驱动程序的TCP类型的电影;带有栅极驱动器的TCP型薄膜;控制器电路,用于控制栅极驱动器和源极驱动器,其与源极驱动器或栅极驱动器一起安装在TCP型膜上。利用这种结构,可以减少部件数量,实现小型化,重量减轻和成本降低。

