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141-0001 가 가 6 7-35 가 가

(74)

:

(54)

가 , ON  
, OFF 가 ,  
(17) , (12) (11) , (16)  
(19) , (13), (14), (15), CS (18), VC  
OM CI가 (20) , CS , VCOM P  
, ON/OFF ,

가

ON/OFF

ON( )/OFF( )

ON/OFF

ON

OFF

CS 'L'

VCOM

IC

(101) 가 (102)가 (103)가 (102)가 (104) (102) 가 (105) 가 (101) ( )

(105) (TG)(106), VCOM (107), CS (108) Hsync (103) (103) ON/OFF MCK, (104) Vsync,

VCOM (107) (106) VCOM (108) (104) (106) CS 가 . CS (104) 7) CS (108) ON/OFF VCOM CS 가 . VCOM (10

(105)( IC) (105) ON/OFF , VCOM CS (105) (106), VCOM (101) (108) (107), CS 가

ON 가

OFF 가

< >

가

ON/OFF

ON/OFF

PDA(Personal Digital Assistants)

, ON ,  
 , ( )가 , ON  
 , OFF ,  
 ( )가 , OFF .

- 1 1
- 2
- 3 ON
- 4 OFF
- 5 2
- 6 PDA
- 7

< >

[ 1 ]

1 1 가 ( ) (12)가  
 (11) (11) (LCD ) ,  
 (12) TFT(Thin Film Transistor; ) (51) , TFT(51) (50)  
 (52) , TFT(51) (53)  
 (52)  
 55) , TFT(51) ( ) (54) , ( ) ( )  
 (52) VCOM (56) VCOM (VCOM )  
 (53) ( ) CS (57)  
 , IH(H ) 1F(F ) , VCOM 1H 1F  
 VCOM IH 1F CS (57) CS  
 VCOM VCOM  
 , VCOM CS ,

13), (12) (11) (12) (IF) (12)  
 (TG)(14) (15)가 (12) (16)가, (12)  
 (17)가 (12) CS (18), VCOM (19) CG(C  
 (20)가  
 ontinuous Grain; )  
 Hsync, (11) ( 3.3V ) MCK,  
 PCI가 ( ) Vsync, R( ) G( ) B( ) Data (13) ( )  
 , 6.5V) ( ) (21) ( )  
 MCK, Hsync Vsync (14)  
 (15), (14) MCK, Hsync Vsync (14)  
 (16), CS Data (16) Hsync Vsync (14)  
 (18), VCOM (19) (20) PCI  
 (16) , (161), (162), DA( )  
 (DAC)(163) Sig/CS (164) HST (161)  
 (14) (14) HCK 1 가  
 13) (162) Data 1 (161) ( )  
 , (163) ( ) . DA (163) , 1 1 DA  
 (15) DA  
 DA (163) 1 Sig Sig/CS (164)  
 Sig/CS (164) , CS (18) CS 가 Sig/CS ( )  
 164) Sig CS (13) . Sig/CS PCI가 ,  
 Sig Sig CS (12) . Sig/CS (164)  
 n (55-1 55-n)  
 (17) (17)  
 (14) (14) VST 1 가  
 (12) VCK m (54-1 5  
 4-m)  
 가 (17) 가 (54-1 54-m) (12)  
 164) 가 ( ) 1 , Sig가 1 (55-1 55-n) Sig/CS ( )  
 , 1 가  
 CS (18) CS , 2 CS (57) (53)  
 , Sig/CS (164)  
 PCI가 , CS (13)  
 0V( ), 3.3V , VCOM (0V)  
 CS  
 VCOM (19) VCOM (13) VCOM (19) VC  
 PCI가 , VCOM (0V) . VCOM (19)  
 VCOM (21) (11)  
 OM VCOM (22) , (21) (11)

, 2 VCOM (56) (52) .

5) , VCOM CS , , 2 (5)  
TFT(51) (52) TFT(51)  
가 , VCOM DC , 가  
. VCOM DC VCOM (22)가 .

VCOM (22) VCOM C , C VCC1  
가 VR , C R (52)  
VCOM DC , VCOM DC , VCOM (2)  
0) (13) PCI가 (0V) , VCOM  
(22) VCOM

(18)가 CS , PCI가 CS  
(0V) , Sig/CS (0V) (164)가 CS , (20)가 VCOM  
(55-1 55-n)

CS ( (0V)가 TFT(51) (17) , 2 ,  
VCOM (56) CS (57) (52) CS VCOM (53) (0V)가 가 ,  
(52) 가 , , 가

, 1 (16) , (17) , (12) (11) ,  
(18), VCOM (19) , (13), (14), (15), CS  
가 가 , IC, 가 ,

, VCOM PCI가 , CS  
ON/OFF , , 가  
ON/OFF

, ON 3 ON , V  
CC1( , 3.3V) VDD( , 6.5V) MCK, VCC1 90% ON , V  
T11( , 1msec ) PCI가 Hsync, Vsync,  
Data (21)

, T12( , 1msec )가 , RST . P  
CI , T13( , 1 2 ) ( ) . ,

T13 CS (18)가 CS , (164)가 CS , ( ( )  
20)가 VCOM , Sig/CS , (164)가 CS ( )  
55-1 55-n) , ,  
가 T13 PCI , Sig/CS  
(164) CS (55-1 55-n) , ,

, ON , ,  
ON ( ) ,

, OFF PCI T21( , 1 2 ) , OFF , CS  
 (18)가 CS (164)가 CS (20)가 VCOM (55-1 55-n)  
 , Sig/CS  
 , RST , T22( ( , 1msec )가 , T21 , MCK, ,  
 Hsync, , Vsync, Data , PCI가 (21)  
 T23( , 1msec ) , VCC1 VDD  
 , OFF , OFF  
 ( ) ,  
 , ON/OFF ,  
 , 가 , OFF , 가  
 ON , /  
 [ 2 ]  
 5 2 , 5 , 1  
 1 , VCOM (22) (11) )  
 (11) , VCOM (22')  
 , 5 , (11) , 가 VR  
 (11) , VR C ,  
 (11) , C L VCC2  
 SW R11 (13) SW , L R12가 OFF( ) 가  
 , VCOM (22) , OFF , PCI가  
 , VCC1 (3.3V ) , VCOM 가 가  
 , R11, R12 ON/OFF VCOM (22')  
 , PCI가 SW OFF , L 가 ,  
 VCOM  
 , CS , VCOM (55-1 55-n) , Sig/CS (164)가  
 , VCOM (55-1 55-n) , VCOM CS 가  
 , CS VCOM , CS VCOM  
 ( ) ) 0V( ) , CS (55-1 55-n)  
 , (52) 가 , VCOM  
 , 0V (55-1 55-n)  
 ,  
 ) 1, 2 PDA(Personal Digital Assistants;  
 ) /

6 PDA .

PDA , (61) (62)가 가 (63)가 ,  
 (62) (61) (64)가 가 (64) 1, 2 ,  
 가 .

ON/OFF , PDA 가 , (64) ON/OFF (64) ,

, PDA / , ON/OFF 가 가

, PDA / ,

, 가 가 , IC, ON/OFF 가 ,  
 , , ON/OFF , ON/OFF

(57)

1.

가 ,  
 ON/OFF

ON/OFF

2.

1 ,  
 ON/OFF

3.

2 ,

4.

가 , ,  
 ON , ,

OFF

5.

가

ON/OFF

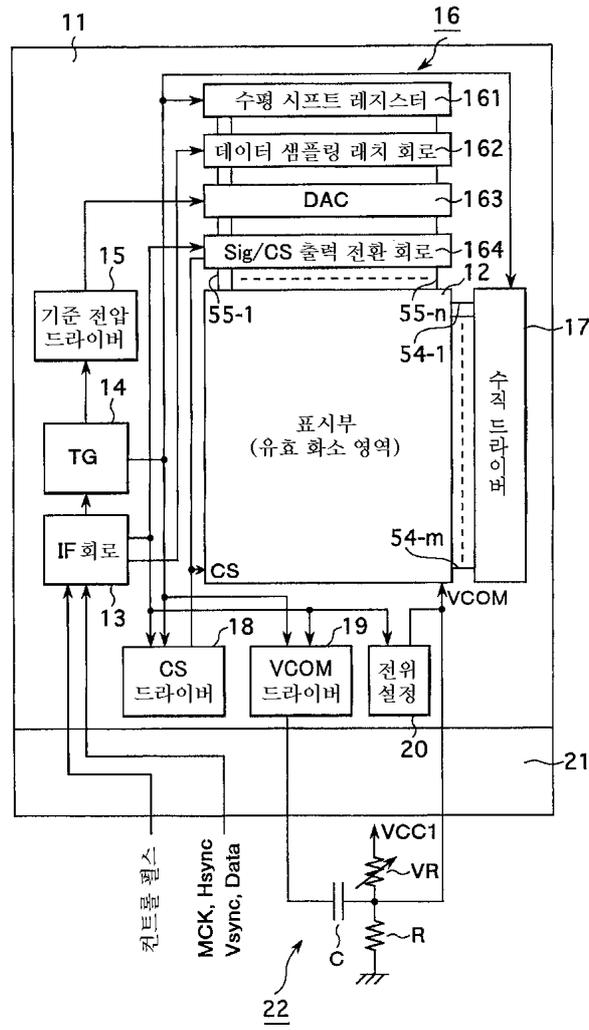
ON/OFF

6.

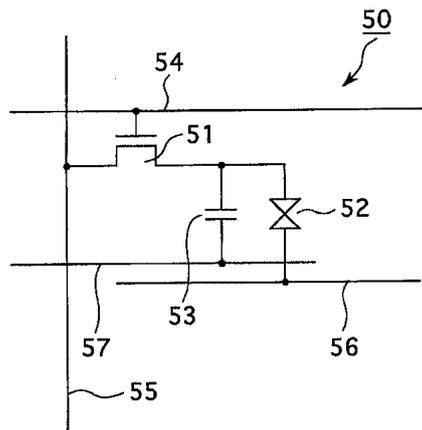
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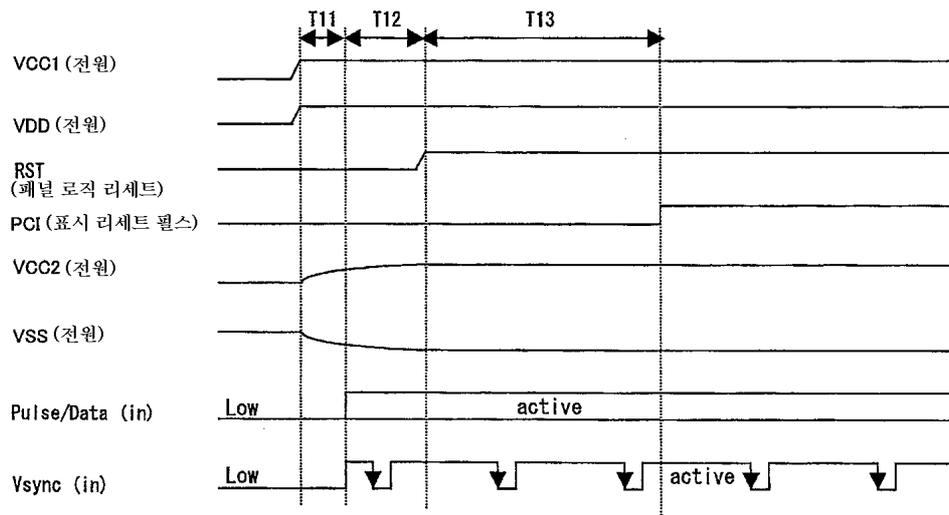
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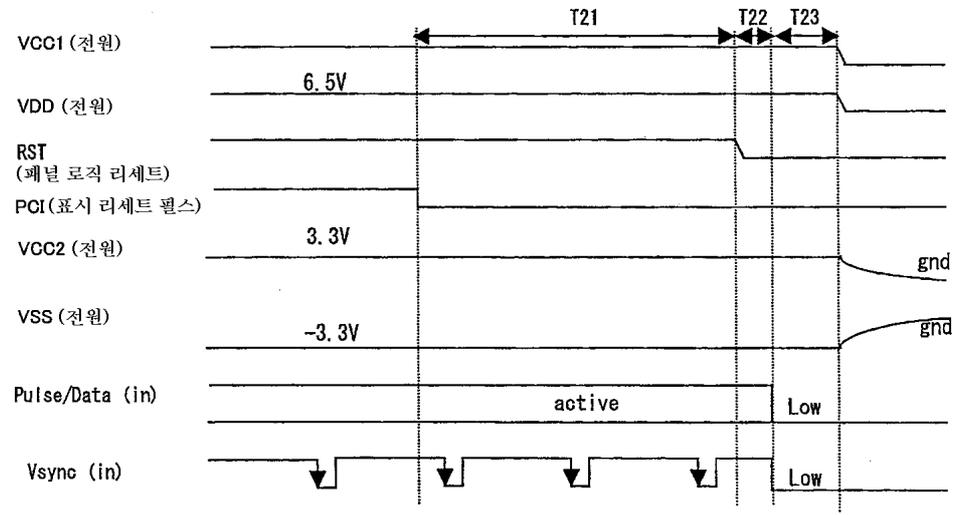
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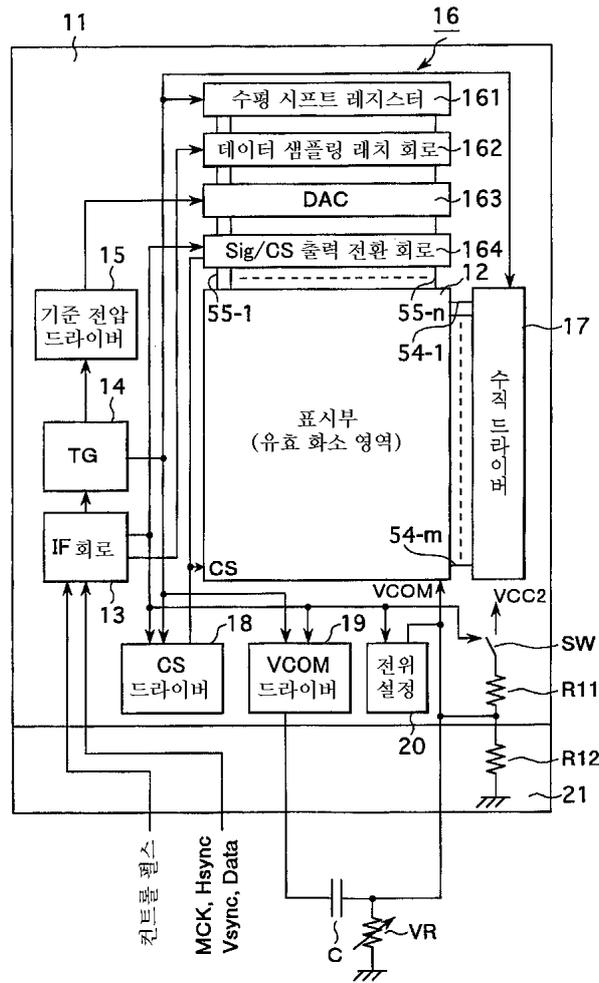
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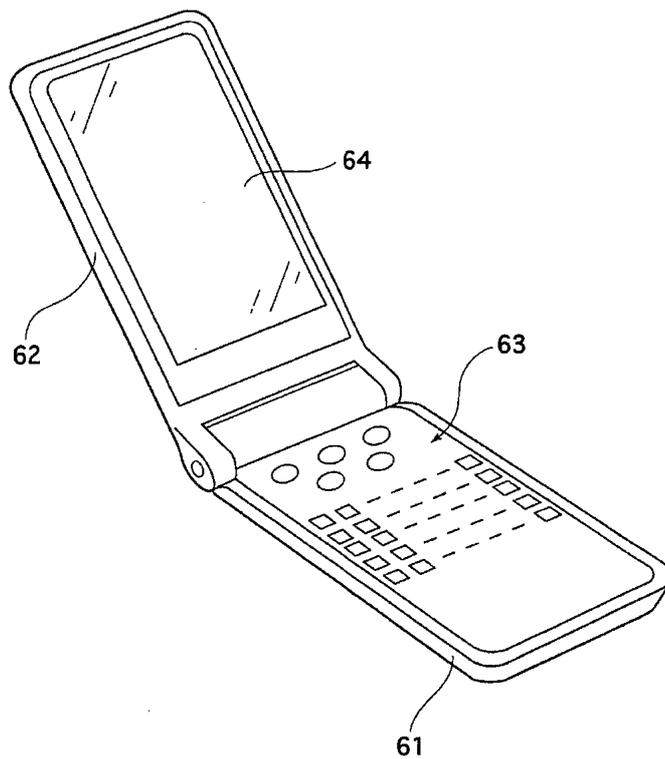
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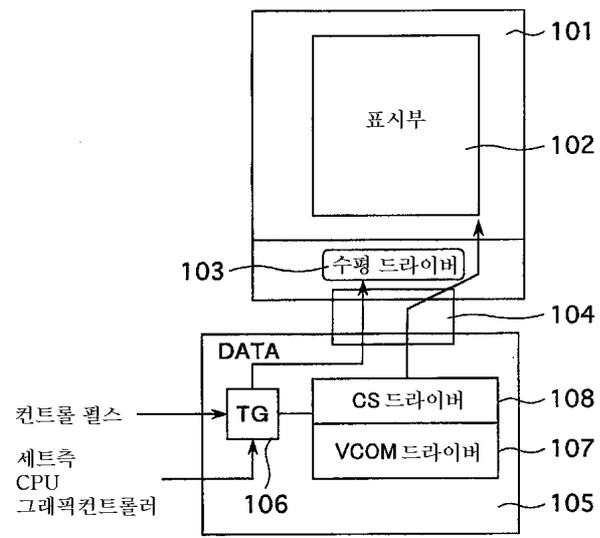
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专利名称(译)	液晶显示器，其控制方法和便携式终端		
公开(公告)号	<a href="#">KR1020050008630A</a>	公开(公告)日	2005-01-21
申请号	KR1020047001453	申请日	2003-05-30
[标]申请(专利权)人(译)	索尼公司		
申请(专利权)人(译)	索尼公司		
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[标]发明人	KIDA YOSHITOSHI 기다요시토시 NAKAJIMA YOSHIHARU 나카지마요시하루 MAEKAWA TOSHIKAZU 마에가와도시카즈		
发明人	기다,요시토시 나카지마,요시하루 마에가와,도시카즈		
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代理人(译)	Yijunghui Jangsugil		
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其他公开文献	KR101074567B1		
外部链接	<a href="#">Espacenet</a>		

摘要(译)

一种液晶显示装置及其控制方法，能够减小整个系统的尺寸和成本，在电源接通时无干扰地开始显示图像，并且在电源关闭时擦除显示而没有残留图像。还公开了一种使用液晶显示装置作为屏幕显示单元的移动终端。在显示单元(12)的玻璃基板(11)上，设置有水平驱动器(16)和垂直驱动器(17)以及外围驱动电路，例如接口电路(13)，定时发生器(14)，参考电压驱动器(15)，CS驱动器(18)，VCOM驱动器(19)和电位设置电路(20)。当从外部提供显示复位控制脉冲PCI时，将预定电位写入像素，与此同时，将CS电位和VCOM电位设置为与像素电位相同的电位。向相对电极提供相同的电位，从而以常白类型执行白色显示，以常黑类型执行黑色显示，从而防止电源接通和断开时的图像紊乱。

