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(51) 。 Int. Cl. ⁷ G02F 1/133	(11) (43)	10-2004-0051424 2004 06 18
(21)	10-2002-0079352	
(22)	2002 12 12	
(71)	20	
(72)	1112-37 204	
(74)		
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(54)		

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4a 4b
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가

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9 6 .
10 7 - .
11 2 .
12 11 / 1 .
13 11 / 2 .
14 11 / 3 .

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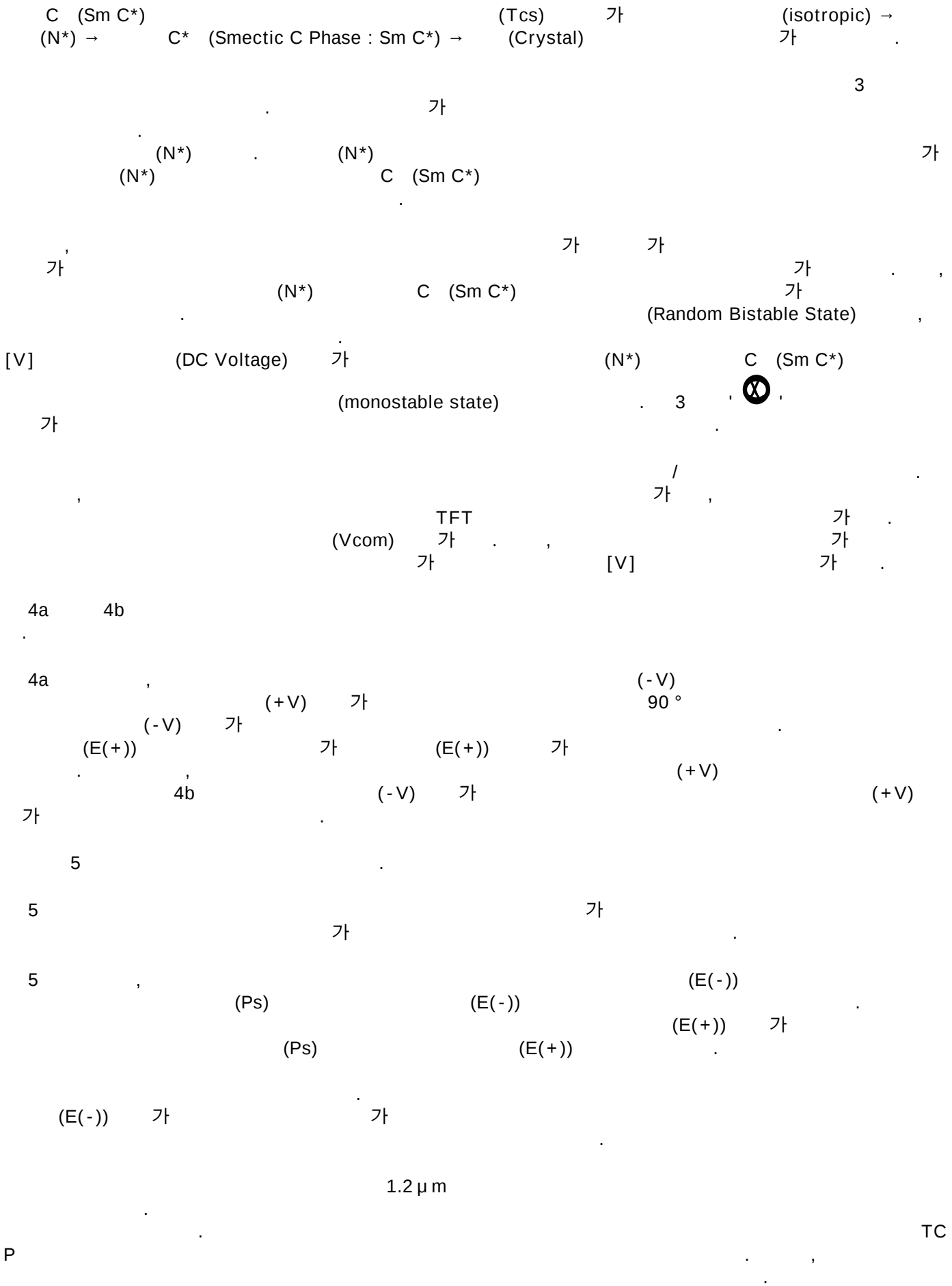
60 : 61 :
62 : 63 : TCP
64 : 65 : PCB
66 : TCP 67 :
68 : PCB 69 :
65a,68a : Vcom 65b,68b : GND

81 : 1 82 :
83 : 2 84 : -
85 : 100 :

101 : 103 :
104 : / 105 :

NT : N MOS-FET PT : P MOS-FET
D :

, (, ') ,
 ard : , 'PCB') . (Printed Circuit Bo
 , / , .
 ,
)가 , (Thin Film Transistor : 'TFT'
 /
 , (Sealant)
 가 (Tape Carrier Package : , 'TCP')
 TCP
 (Tape Automated Bonding) (Chip On Glass ; COG)
 .
 , PCB
 .
 PCB, , ,
 가 가 .
 PCB 가 TCP
 (CCFL)
 ,
 가 (Twisted Nematic Mode : 'TN'
) .
 TN 가 (Ferroelectric Liquid C
 rystal ; FLC) 가 가
 (cone)
 (Spontaneous Polarization) 가
 가
 가 (In Plane Switching) 가
 (V-Switching mode) (Half V-switching mode)
) → X (Smectic X Phase : Sm X*) → (Crystal) (isotropic) → A (Smectic A Phase : S_A
 가 가 가
 (+V) X (-V) 가 X
 1
 (NT)
 (Storage Capaciter)
 , 가
 2 (Nematic phase: N*) (Tni)
 (N*) C (Smectic C Phase : Sm C*) (Tsn),



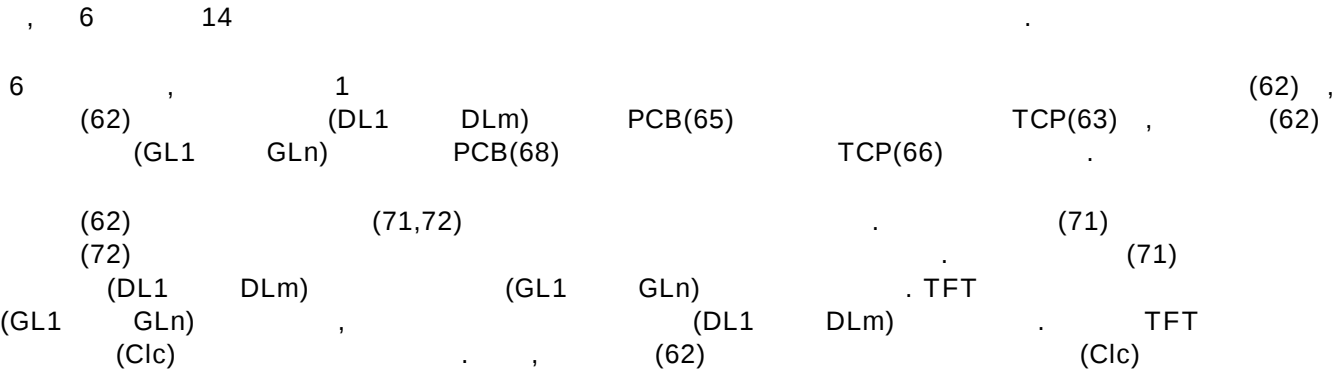
2

N MOS-FET

2

P MOS-FET

가



(Storage Capacitor : Cst)가
 (Clc) k-1
 (Clc)
 (G1 Gn-1)
 (62)
 (72)
 (73)
 (73)
 (72)
 (71)
 (Ag dot)(74)
 (Vcom)
 ()
 PCB(65)
 (60)
 TCP(63)
 TCP(66)
 (60) /
 CB(65)
 61)
 (Vdd)
 (Vss)
 6
 /
 (61)
 TCP(66)
 TCP(65)
 TCP(6)
 5)
 (62)
 (Vcom)
 Vcom (65a)가
 (60),
 (61)
 TCP(63)
 (GND)
 D (65b)가
 Vcom (65a)
 PCB(65)
 TCP(63)
 (72)
 (74)
 3.3V Vcc
 (65)
 (65)
 (69)가
 Vcc
 (60)
 (69)
 Vcc
 (69)
 6V /
 Vdd
 , 2.5
 DC Converter),
 3.3V
 (Vcom),
 -4V
 Vss
 VGL
 TCP(63)
 TCP(63)
 (72)
 (64)
 TCP(63)
 PCB(65)
 (Anisotropic Conductive Film : ACF)
 (64)
 (60)
 (DL1 DLm)
 (61)
 (82), 1 (64)
 (81), 2 7
 (83), - (70)
 (84) (85) (SSC) (Digital to Analog Convertor : 'DAC')
 (60) (SSP)
 (SSP)
 (82)
 (82)
 (CAR)
 1 (82)
 2 (83) 1 (81)
 (SOE) 1
 (VL)
 DAC(84)
 (61)
 (VH)
 DAC(84)
 (60)
 (POL)
 (VNG)
 (85) DAC(84)
 (VPG)
 (VPG,VNG)
 (D1 Dm)
 7
 'Rs'
 (64)
 (D1 Dm)
 PCB(68)
 PCB(65)
 (Vcom),
 PCB(68)
 (GND), VGH
 PCB(65)
 VGL
 가
 , Vcom
 TCP
 (66)
 a) GND (68b)가
 TCP(66)가
 TCP(66)
 TCP(66)
 (67)
 TCP(66)
 PCB(68)
 (Anisotropic Conductive Film : ACF)
 (67)
 (60)
 (GL1 GLn)
 (62)
 (12)
 100
 (N*)
 90 100
 (Tni)

60 80 (N*) C (Sm C*) (Tsn) 가 , (N*)
 C (Sm C*) (Tsn)
 Vcom (65a,68a) PCB(65) Vcc PCB(65) PCB(68)
 가 (60) GND (65b,68b) V V (61)
 , Vdd Vss Vcc
 (61) 8 Vdd Vss (R1 R5)
 (floating) (R1 R5) 가 (R5)
 (R1 R5) (VL,VH) (GMA1 GMA5) GND (65b,68b)
) 가 (61) (64) (VL,VH)
 8 (64)
 (VH) 가 GND (65b,68b) (VL) 가 Vcom (65a,68a)
 VL) 가 GND (65b,68b) (VH) 가 Vcom (65a,68a) (((VH)
 VL)
 Vcom (65a,68a) (VH) 가 GND (65b,68b) (VL) 가
 (71) (Clc) (73) Vcom (65a,68a) (74) 가
 (VH) 가 (VL) 가 , (64) (69) (Clc)
 가 가 '000000'('00000000') 가 가 (9
 4) 가 '000000'('00000000') (64) 가 가 10 (74)
) 9 GND (65b,68b) 가 (VL) (DL1
 DLm)
 , Vcom (65a,68a) (VL) 가 GND (65b,68b) (VH)
 가 (71) (Clc) (73) Vcom (65a,68a) (74)
 (Clc) (VL) 가 (VH) 가 (73)
 (69) (VGH) (VGL)
 (GL1 GLm) 0V (DL1 DLm)
 TFT (Clc) 가
 가 (64)
 2
 (64)
 11 14 2
 11 , 2 m×n (Clc) T
 , m (D1 Dm) n (G1 Gn)
 FT가 (102) , (102) (102) (D1 Dm) (103) ,
 (101) , (101) (101) (G1 Gn) / (104) , TFT
 (101) (D1 Dm) (103) , (101)
 (100) , (GND)
 / (104) (105)

(102) 6 .

(101) 6 7 (100) (64) (101)
(D1 Dm) (RGB)

(61) (60) (101) (101)

(103) (100) (G1
Gn) (103) 6 (67)

(G1 Gn) 0 1V 가 ,
(G1 Gn) 0 1V (103) 가 (G1
GN) TFT (D1 Dm) TFT TF

/ (104) (101) (D1 Dm)
Dm) , 5V (D1 Dm) Dm)
(104) (101) (D1 Dm) Dm)
(D1 Dm) (D1 Dm)

(105) (5V) (GND) / (104) (104)
(105) (GND) (5V) / (104) (105) 6
PCB(65) (100)

(100) (RGG)
(101) / (V,H) (MCLK)
(101) (103) (DDC,GDC) (DDC)
(Source Start Pulse : SSP), (Source Shift Clock : SSC), (Source Output
Enable : SOE), (Polarity : POL) (GDC) (Gate Start P
ulse : GSP), (Gate Shift Clock : GSC), (Gate Output Enabe : GOE)

(100) 6 (60)

, (105)가 (100) (105) / (100) (105)
(104)

12 14 / (104)

12 , 1 N MOS-FET(NT) , (105) N MOS-FET(NT)
(105) (111)

MOS-FET(NT) (111) MOS-FET(NT) (111) MOS-FET(NT)
(101) (111) (D1 Dm) (111)
(111) (111) (D1 Dm)

, MOS-FET(NT) (105) (5V) (105) (GND)
(5V) (D1 Dm) (D1 Dm)

13 , 2 / (104) (101) (12
 1) (105) (D) , (105) (D)
 (D) (121) (D) (101)
 (D1 Dm) (D) (121) (121)
 (121) (D1 Dm) , (111)
 (5V) (D1 Dm) (5V) (D) (105)
 , (105) (GND) (D1 Dm) (101)
 14 , 3 / (104) (101)
 (105) (131) , N MOS-FET(NT) , (105) N MOS-FET(NT)
 T) (131) (101) P MOS-FET(P)
 N MOS-FET(NT) (105) (5V) (105) (GND)
 (5V) (D1 Dm) (D1 Dm) N M
 OS-FET(NT) 13 가 (D1 Dm)
 (D)
 P MOS-FET(PT) (111) (101)
 P MOS-FET(PT) (D1 Dm) P MOS-
 FET(PT) (131) (101)
 (D1 Dm) (111)
 (101) (D1 Dm) P MOS-FET(P)
 T) (131) (D1 Dm)
 (101)

가

(57)

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2.

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N MOS-FET

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8 ,

P MOS-FET

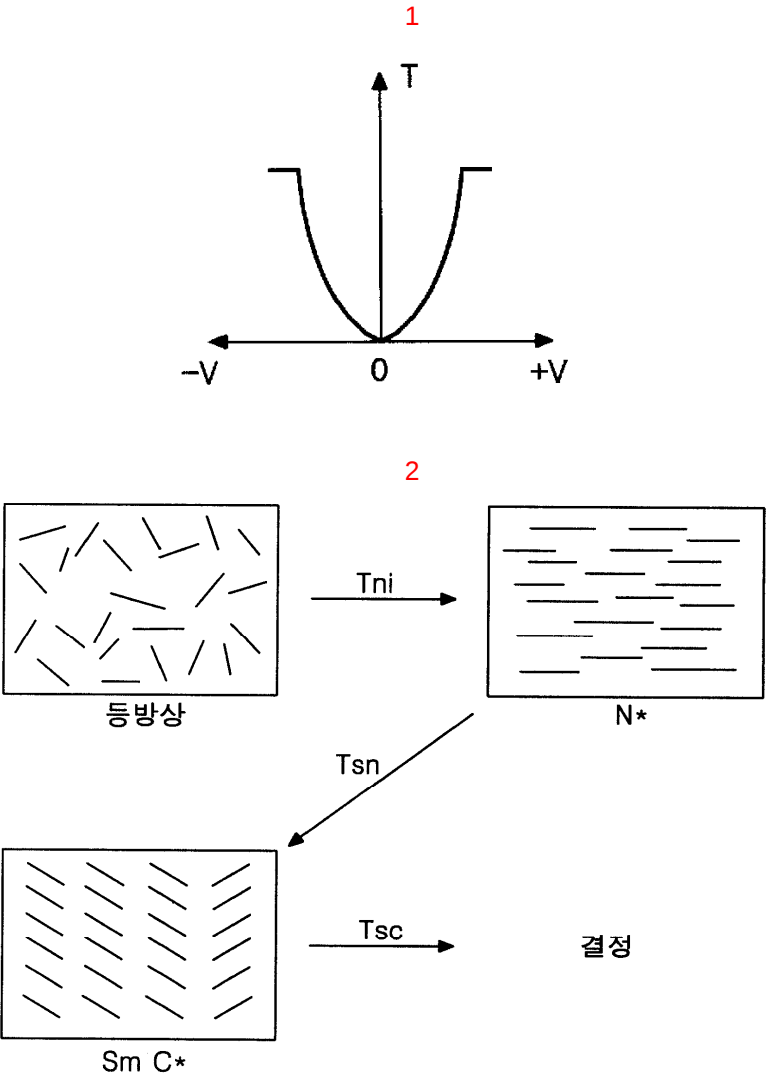
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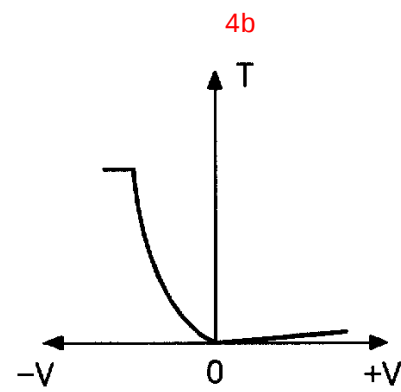
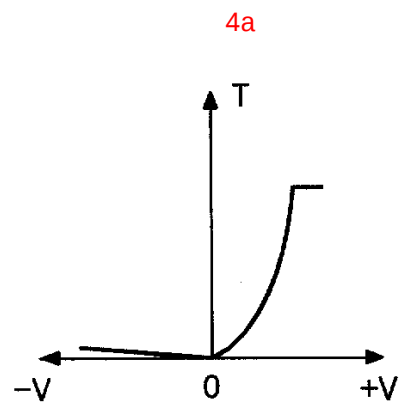
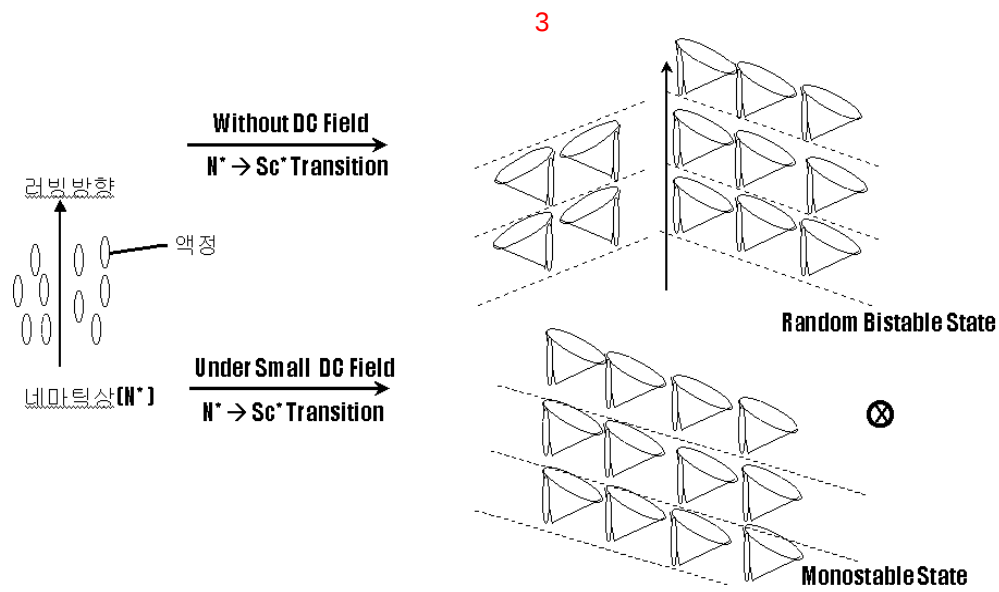
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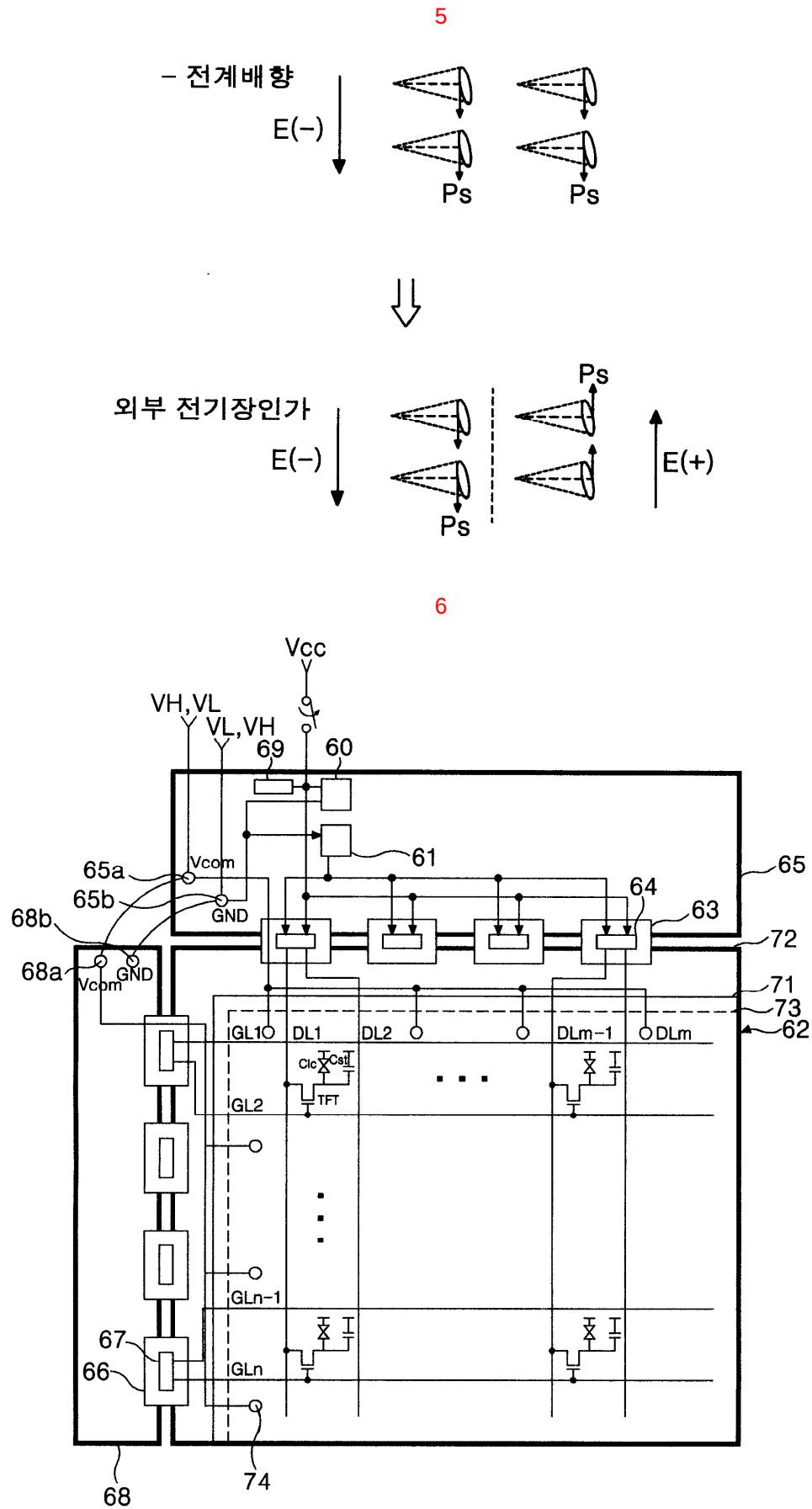
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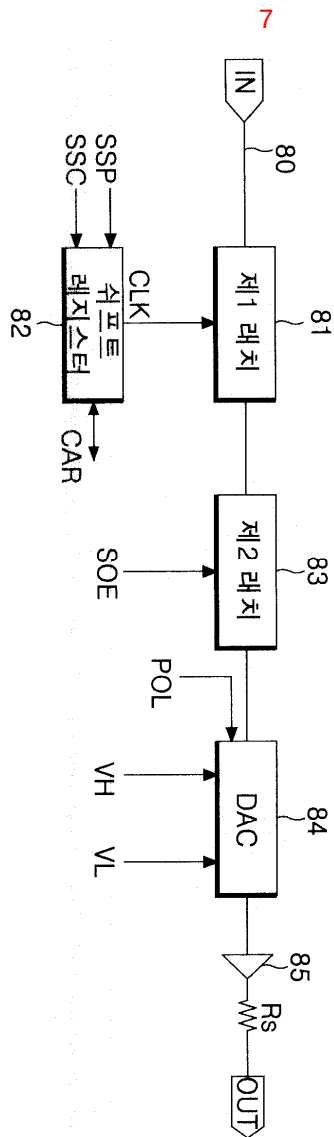
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가



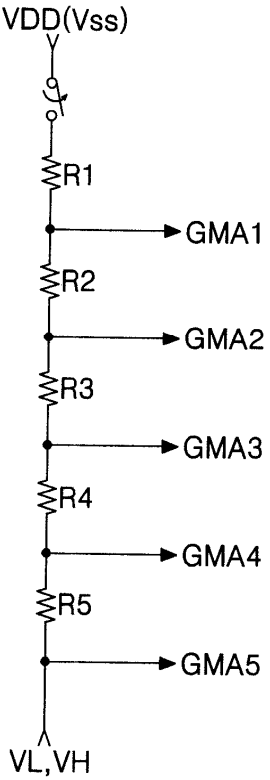




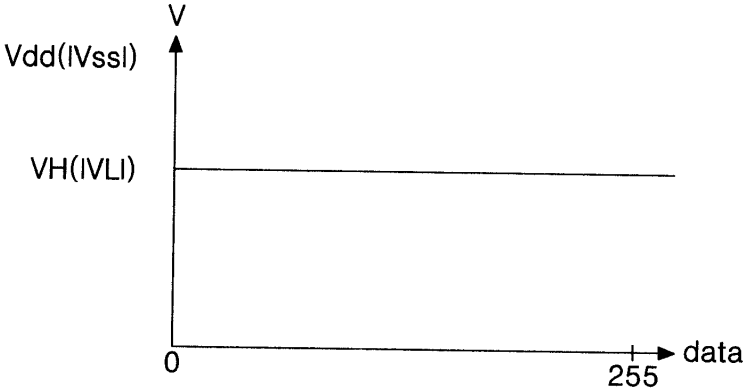


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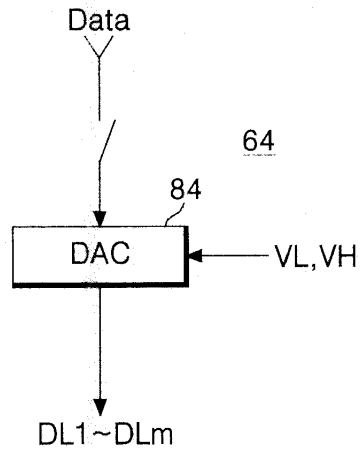
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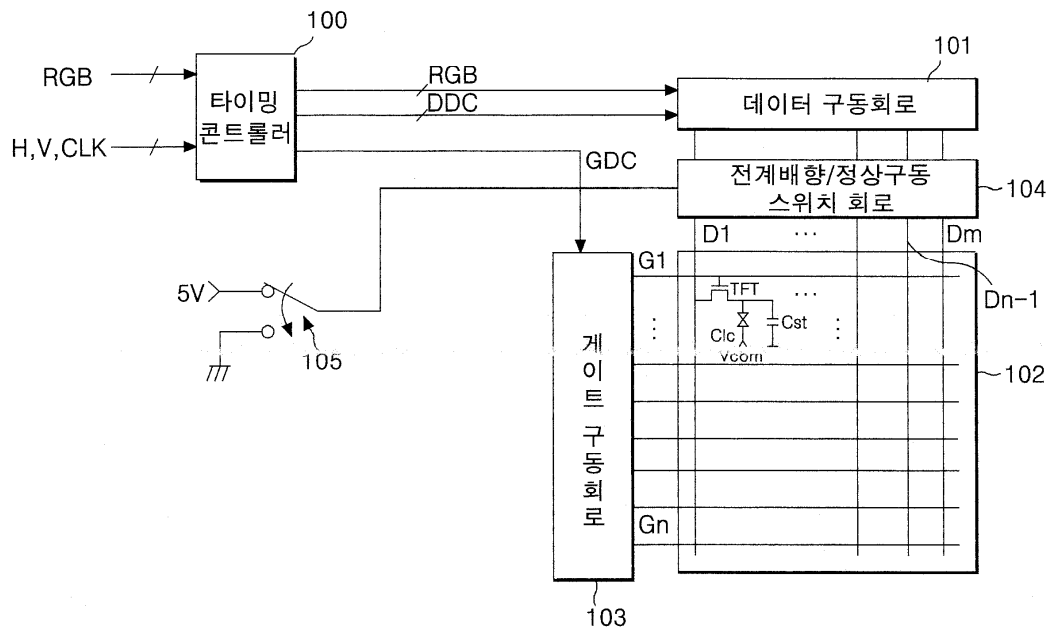
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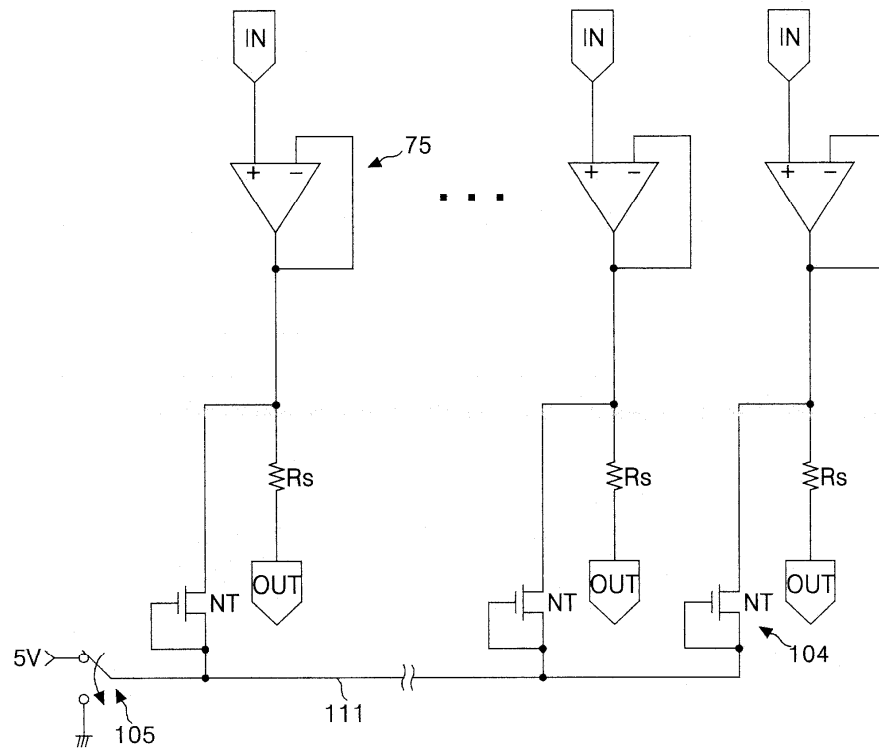
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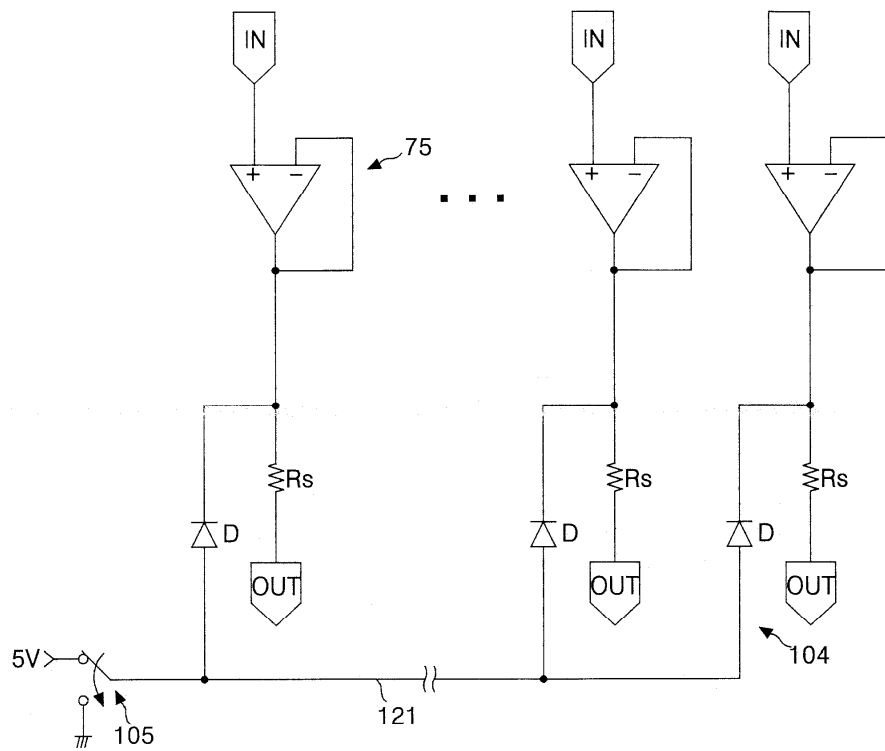
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专利名称(译)	铁电液晶的场取向方法和使用该方法的液晶显示装置		
公开(公告)号	KR1020040051424A	公开(公告)日	2004-06-18
申请号	KR1020020079352	申请日	2002-12-12
[标]申请(专利权)人(译)	乐金显示有限公司		
申请(专利权)人(译)	LG显示器有限公司		
当前申请(专利权)人(译)	LG显示器有限公司		
[标]发明人	KIM HONGCHUL 김홍철		
发明人	김홍철		
IPC分类号	G02F1/133		
其他公开文献	KR100923349B1		
外部链接	Espacenet		

摘要(译)

本发明涉及在执行的电场取向过程中驱动电路的过载的电场取向方法或用于减少损坏的铁电液晶和使用该电磁取向的液晶显示器在能够装配的状态下的液晶显示器的电场取向方法。正常启动时使用的驱动电路，包括将总线上的电压提供给数据线的开关电路，数据线包括连接到开关元件的总线，连接在数据驱动电路之间，用于向数据线提供数据和电源，用于产生电场定向电压和数据驱动电路和数据线，开关元件和电源之间以及电源和电源之间的电压，以响应总线线路上的电压从电场方向向开关元件供电正常启动时数据线和总线之间的电流路径。

