

(19)  
(12)

(KR)  
(B1)

(51) 。 Int. Cl.7  
G11C 11/40

(45)  
(11)  
(24)

2004 07 05  
10-0438773  
2004 06 24

(21) 10-2001-0053271  
(22) 2001 08 31

(65)  
(43)

10-2003-0018742  
2003 03 06

(73) 416

(72) 212 901

(74)  
:

(54) P V T

PVT	가	.	2	가	1	가	1		
				가	2				
							1		2
				PVT					

4

1			
2			
3	2		
4	2		
5a	5c	4	

1 (11), (DATA) (P11) (N11)  
 (11) (Slew-rate) 가 (13), (P11) (DATA) 가  
 (N11) 가 (15)  
 1 (17) (C) (11) (P11)  
 (17) (Voltage), (C) (Temperature)( PVT .) (N11) (Process),  
 (11) PVT (11) 가 2 가 (17) (C) ,  
 (17) 1 가 2 가 2 PVT (17) 가  
 (Tight)

, PVT  
 , PVT

, 1  
 1 2 , 1 1 2 , 2 1  
 1 1 1 1 2 2 1  
 2 2 , 1 2 1 2  
 2 2 1 2 2 1 2  
 1 2 , 1 2 , 1  
 , 2 2 1 2 , 1  
 , 1 2 1 , 1 2 1  
 2 1 1 1 2 2 1  
 1 1 1 1 2 2 1  
 2 2 , 1 2 2 1 2  
 2 2 1 2 2 1 2

2  
 1  
 2

2  
 (Phase locked loop) (100)  
 (100)  
 (Low pass filter)(23),  
 ncy detector)(25)  
 (100)가 PVT가  
 (100)가 (24) PVT  
 (VNBIAS) (200)  
 (CNT) (26), (27), (28) (26)  
 (PG) (27) 1 2 (DATA) (VPBIAS, VNBIAS) (PC) 2 (NC) (PC)  
 (28) (PG) (NC) (NG)  
 (NG) (29) (29)  
 (VPBIAS, VNBIAS) (200)가 PVT (200) PVT가 1 2  
 (28) (PG)가 (NG)가 가 가 (27)  
 (200) (28) 4  
 3 2 (24) (24) (31,32) PVT  
 3 1 2 (24) (VPBIAS, VNBIAS) (VCON) (VPBIAS, VNBIAS)  
 S) 2 (100)가 (23) (24) (Fout) PVT  
 (24) (31,32)  
 4 2 (200)  
 4 (27) 1 (271) 2 (272) 1  
 (PG) (271) 1 2 (VPBIAS, VNBIAS) (272) 1 2 (PC) (VPBIAS,  
 VNBIAS) (NC) (271) 1 (271a) 1 (271b) 1 (271a) 1 (271b) 1 (271a) 1 (271b) 1  
 271a) 1 2 (VPBIAS, VNBIAS) (PC) 2 (VNBIAS) (PG) (PG) 2  
 1b) 1 1 (PC) 1 (271a) (PG)  
 2 (272) 2 (272a) 2 (272b) 2 (272a) 1  
 2 (VPBIAS, VNBIAS) (NC) (272b) 1  
 2 (NC) 1 (VPBIAS) (NG) (NG) 2 2  
 (NC) 2 (272a) (NG)  
 1 (271)가 (PG) 2 (272)가 (NG) 2 3  
 2  
 3 1 (271a) 3 (d1 d4) 2 (272a) (d5 d8)  
 (24) (31,32) (31,32) (d1 d4)  
 (d5 d8)

6) 1 (28) (P6) (N6) (P)  
 (271) (PG) (29)  
 (N6) 2 (272) (NG)

(29)

5a 5c 4  
 5a (29) 5c 가 15pF 5b (29) 가 27pF  
 4 (NC)가 1 (271b) (P1)가 1 (PC) 2  
 (PG) 1 가 (VPBIAS) (P6)가 2 (272b) (P2,P3,P  
 5) (T1) 2 (272b) (NG) (P4)가 (NG) (272a)  
 T1 (N6) (PAD)(29) (NG)가 (NG) 5  
 1 (PC) 2 (NC)가 (272b) (N5)가  
 2 (VNBIAS) (PG) 가 (271b) (N6)가 (N1,N2,  
 N3) (T2) 1 (271b) (N4)가 (PG) (271a)  
 T2가 (N4) 가 (PG)가 (PG) 5  
 (P6) (PAD)(29) 가 (PG) 1 (NG) 1 (P  
 G) 2 (NG) (29) 가 (29) 가 (29) (P  
 가 가 가 가 가 가 가 가 가 가 가 가

PVT가 PVT 가 가

(57)

1.

1 2 ; ;  
 1 1 2 ; , 2  
 1 2 ,  
 1 2

2.

1 , 1 , 1 ;  
 1 1 2 1 2 ; 2  
 1 1 1 2 1

3.

2 , 2 , 2 ;  
 1 2 2

1 2 2 1 2

4.

5.

4 , 1 2

6.

1 2 ;

2 1 , 1 ;

7.

6 , , 1

1 2 1 ;

1 2 , 2

8.

7 , 1 , 1 ;

1 1 2 1 2 1 2 ;

1 1 1 1 2 1 2 ;

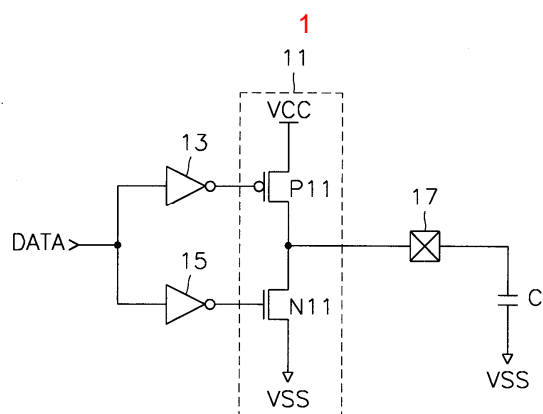
9.

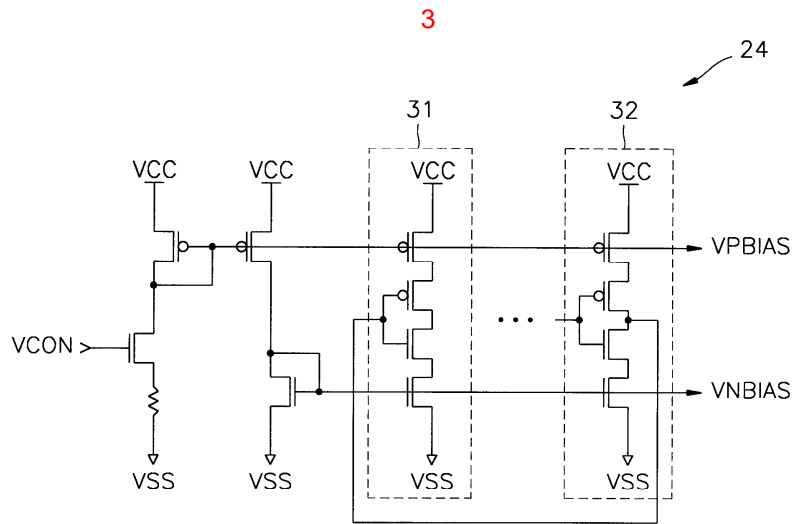
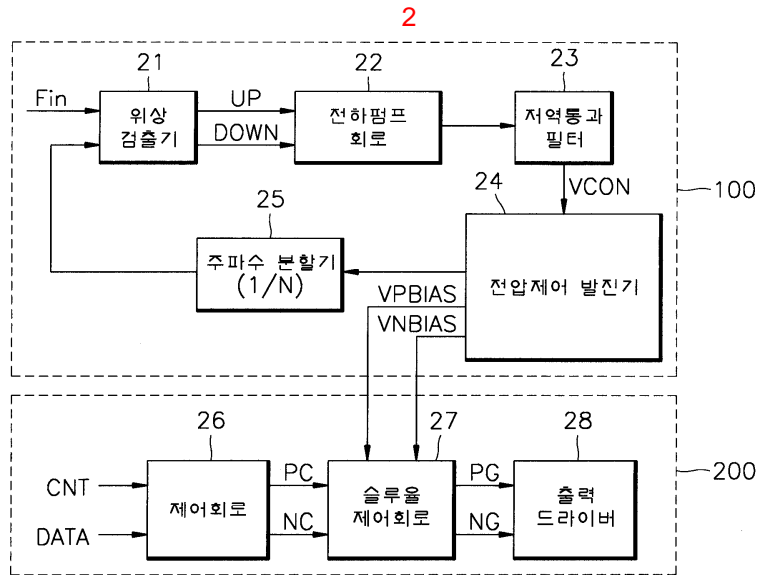
8 , 2 , 2 ;

1 1 2 2 1 2 2 ;

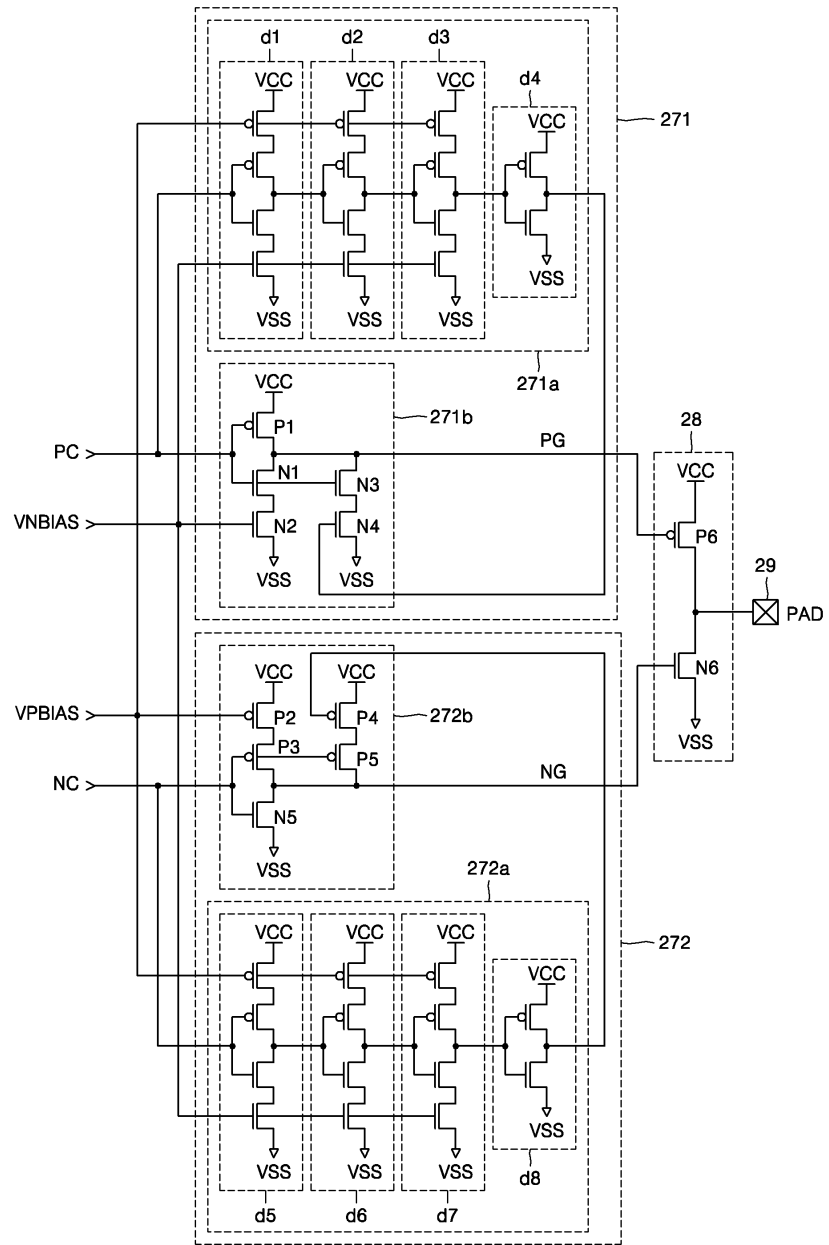
10.

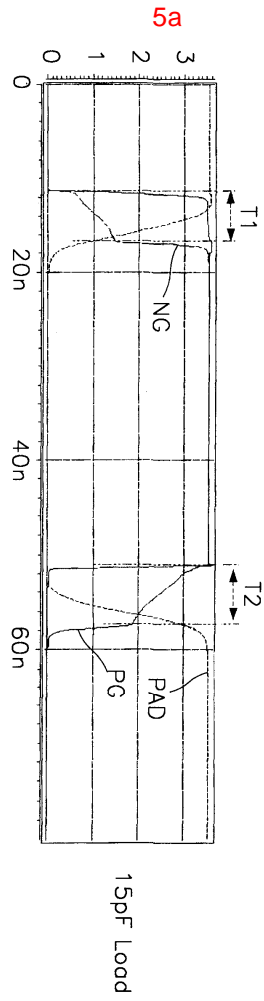
9 , 1 2



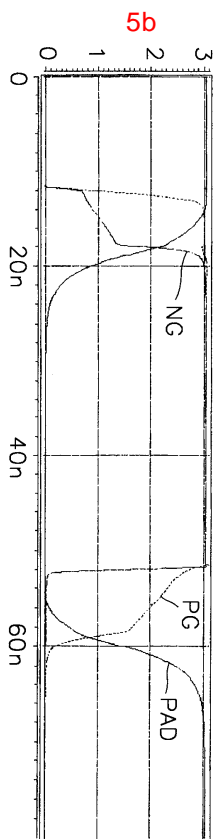


4









20pF Load

