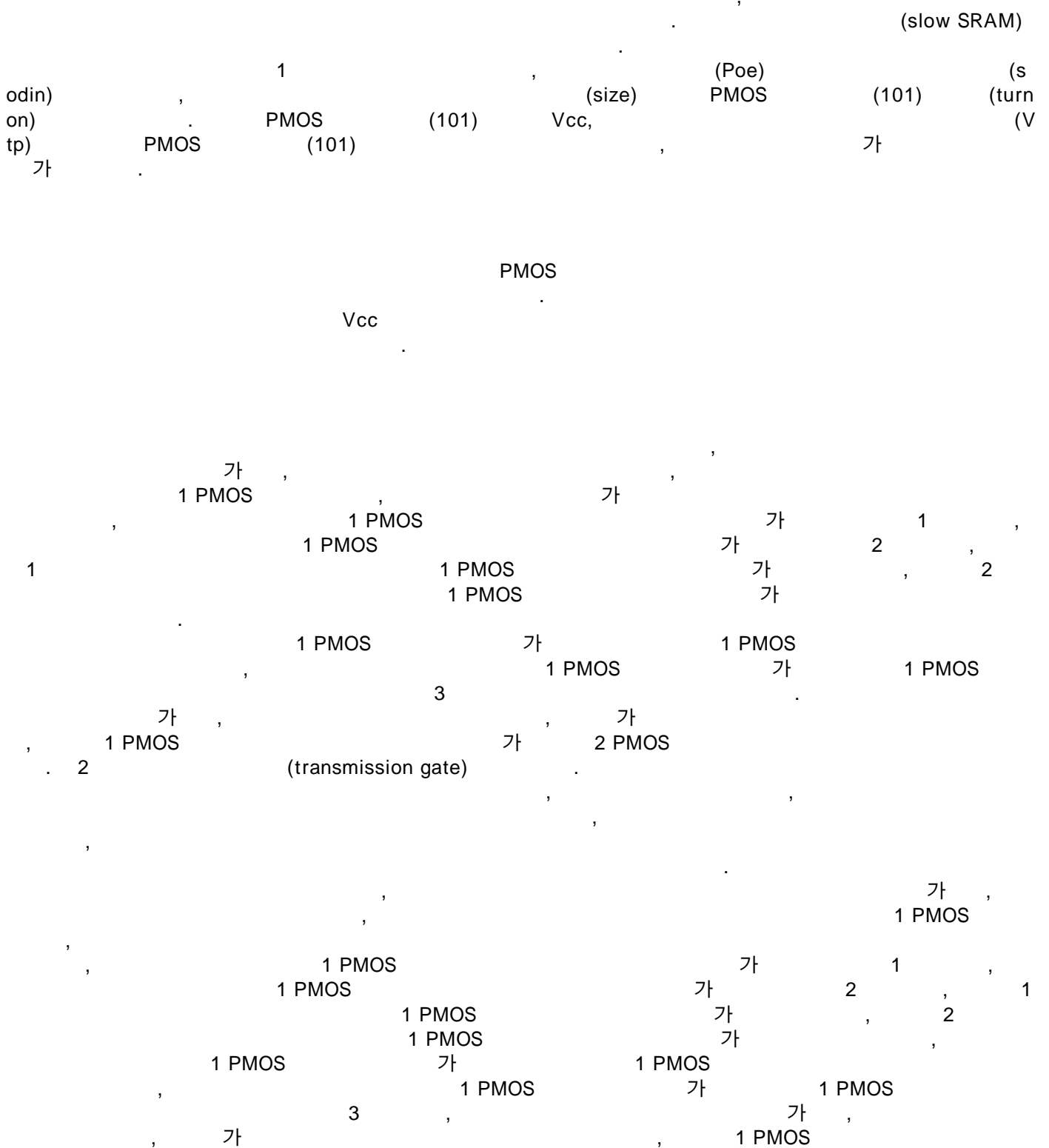


6
7



(101) (G) 가 PMOS (101)

PMOS (213) (G2) (Vgd) 가 (D2) (101)

(S2) (dout) PMOS (213) PMOS (101) (101)

가 3 (211) PMOS Vcc 가 (101) PMOS

(213)가 (dout) Vcc 가 (101) PMOS

(209) 가 1 (Peq) 2 (Poe)

3 (Poeb1) 가 1 (200) 2 (203)

(209) PMOS (101) 가 (205) (207)

(Vgd) PMOS (101) 가 (sodin)

3 (203) (301) (303) (305)

(203) (Vcc) 4 5 (205) PMOS(101)

(G1) (vref1, vref2, vref3) (301) (Vcc)

, Vcc (Vm1, Vm2, Vm3) (30)

3) (vref1, vref2, vref3) (Vcc) (

Vcc) 4 (mout)

(203) (301) 4 vref

vref1 Vcc가 1.6V , Vcc가 1.6V . vr

ef2 Vcc가 2.1V , Vcc가 2.1V . vref3 Vc

c가 2.6V , Vcc가 2.6V

Vcc가 1.6V (vref1, vref2, vref3) (L, L, L) 3 NAND(401, 403, 405) (v

vrefout1, vrefout2, vrefout3) (H, H, H) Vcc가 1.6V 2.1V (vref1, vref2, vref3) (H, L,

L) NAND(401) (vrefout1) L NAND(403, 405) (vrefout2, vrefout3) (H,

H) vrefout1 PMOS(407) (n41) Vcc가 1.8V Vtn 0.7V 가 1.

1V가 , PMOS (101) (G1)

Vcc가 2.1V 2.6V vref1 vref2가 H vref3 L vrefout2 L PMOS(4

09) (n41) Vcc가 2.5V 1.1V가 . vrefout1, 3 H PMOS(407, 4

11) . Vcc가 2.6V 가 vrefout3 L PMOS(411) Vcc가 3.

0V (n41) 0.9V가 . PMOS (101) 가

5 Vcc 5a Vcc가 2.6V Vcc가 2.6V

(vref) , Vcc가 (vref) PMOS

5a (501, 503, 505) NMOS (vref)가 4 vref3 . PMOS

MOS (507, 509, 511) 5b 1.6V 5a

가 3 vref1 . 5c 2.1V

5a , 가 3 vref2 . 1 (Peq)가 PMOS (513)

가 , PMOS (515) (517) (n51) . PMOS

(501, 503, 505) NMOS (507, 509, 511) (logic Vt) (n

51) (n53) . (n53) NAND

(517, 519) (vref) 2 (209) 2 (poe)

6 , (209)

2 RC (601, 603) 3 (poeb1) . 가 ,

(poeb1)가 (n61, n62) 6

NAND (605) NAND (n63) 6

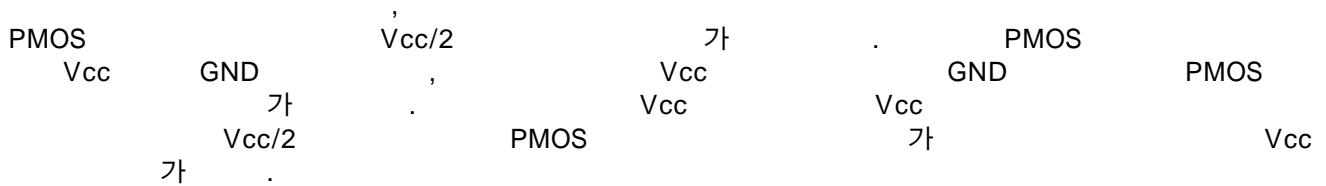
2 (poeb1) 가 (n63) 3 (poeb1)

RC (603) (n63)

7 . 4

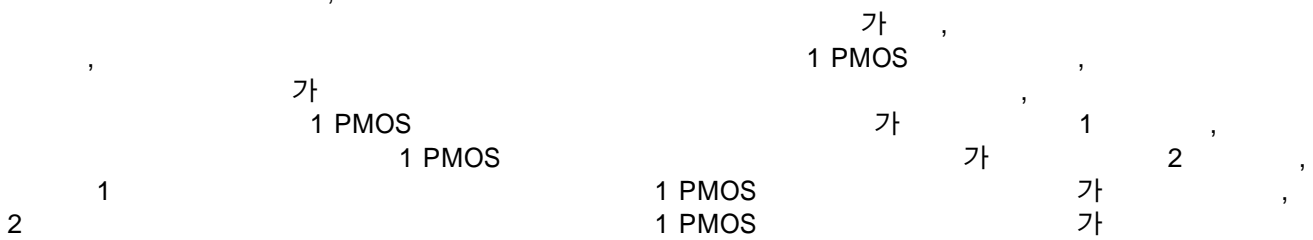
Vtp 0.7V 2 가 . Vcc 3.0V , Vtn

(t0 t1) , peq 가 H NOR (413) L PMOS(415) (n
 41) 0.9V가 (n45) , poe 가 L PMOS(417) NMOS(419)가
 (gd) (n45) (isolation) , (n45) NMOS(421) Vcc 가 가
 (t1 t2) Peq 가 L NOR (413) H PMOS(415)가 (n
 45) 0.9V (t0 t1) 가 (gd) (n45)가
 (t2 t3) poe 가 H (423) H NMOS(425, 427, 429)
 (417, 419) (gd) (n45)가 (gd) (gd) NMO
 S(425, 427, 429) (gd) (n45)가 GND (gd) 가 (n45)
 NMOS(425, 427, 429) (gd)가 Vcc 가 (n45) 가
 , 0.9V 가 (417, 419)
 (Vcc-Vtn) (n45) GND PMOS(101)
 PMOS(101) NMOS(421) PMOS(101)
 (dout) 가
 (t3 t4) poe 가 L (417, 419)
 (gd) (n45)가 , poeb1 H PMOS(415) (n45) 0.9V
 (gd) poe 가 L PMOS(433) H
 (t4 t5) poeb1 L (n45)가 (n41) , (gd)
 t5



(57)

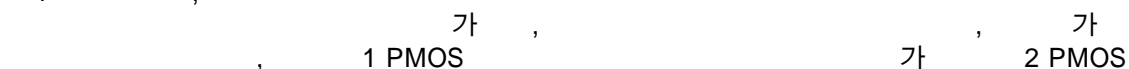
1.



2.



3.



4.

1 ,

5.

1 ,

2

(transmission gate)

6.

가

가
1 PMOS

1 PMOS
1 PMOS

가

가

1

2

2

1

1 PMOS
1 PMOS

가
가

1 PMOS

1 PMOS
가

1 PMOS

3

가
1 PMOS

가

가
2 PMOS

7.

6 ,

8.

가
1 PMOS

1 PMOS
1 PMOS

가

가

1

2

2

1

1 PMOS
1 PMOS

가
가

1 PMOS

1 PMOS
가

1 PMOS

3

가
1 PMOS

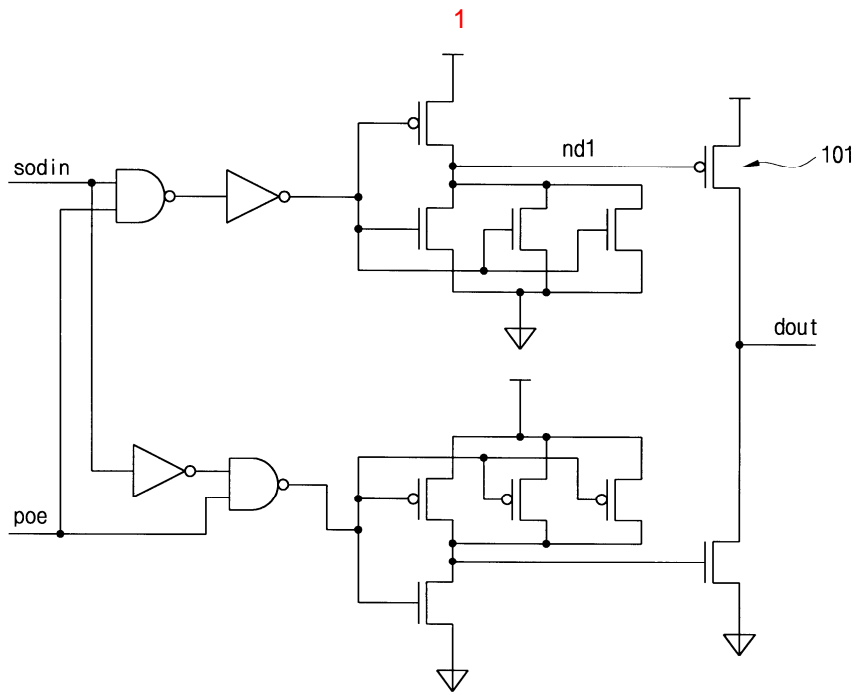
가

가
2 PMOS

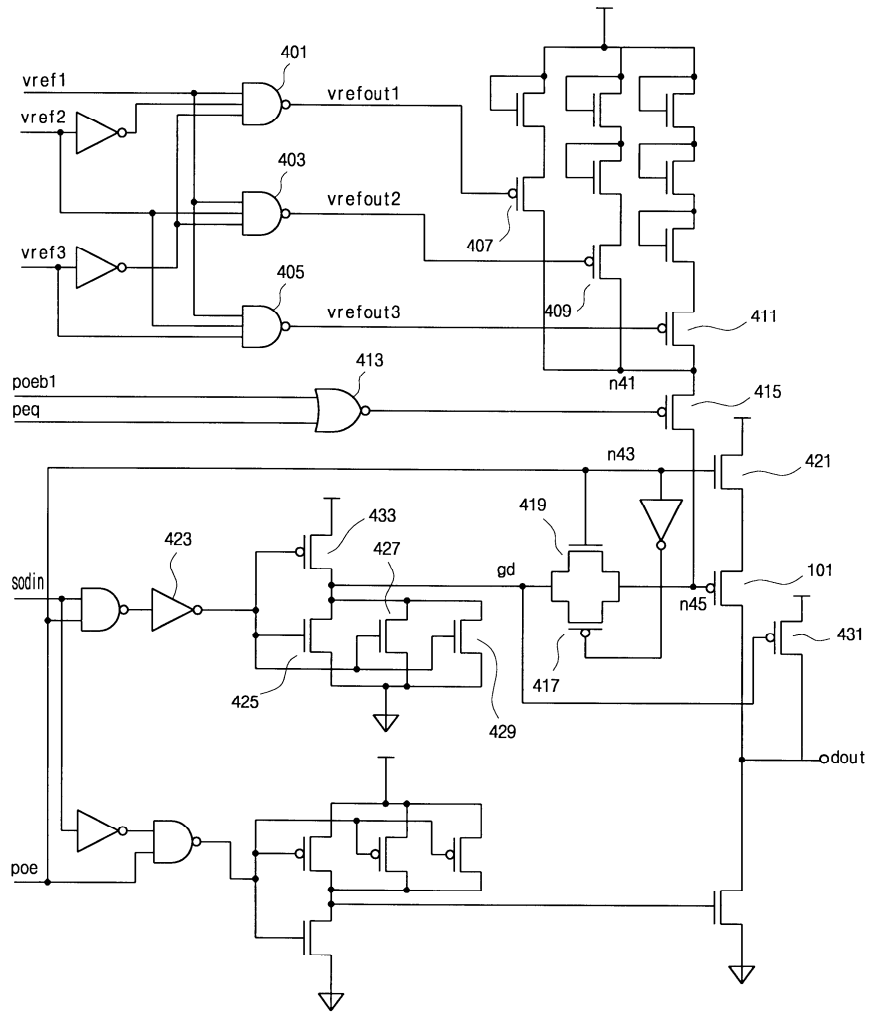
9.

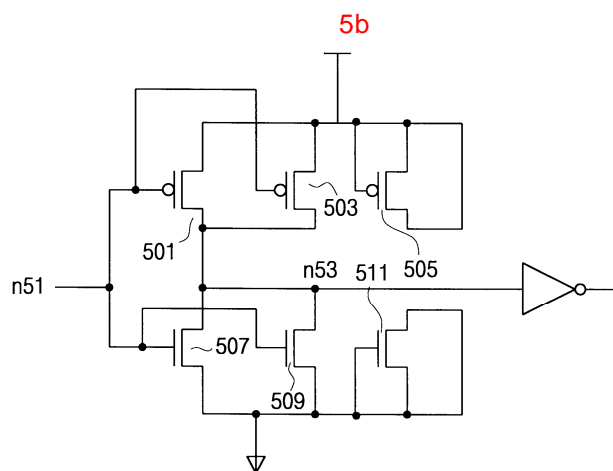
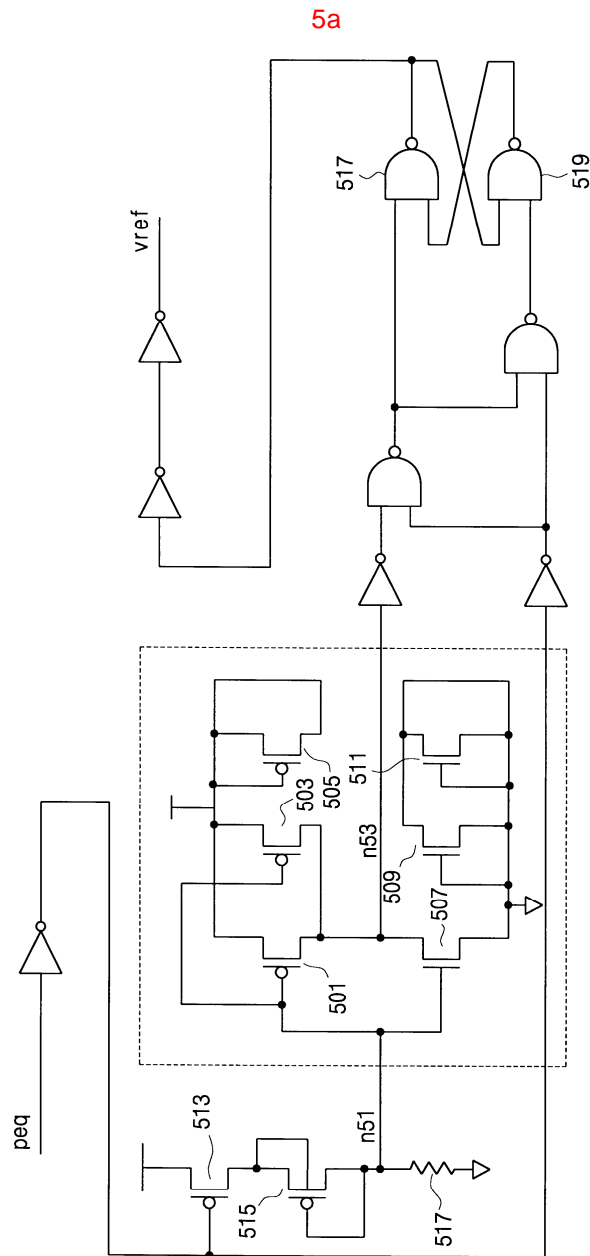
가 ,

가 , PMOS 가 , P
MOS 가 PMOS 가 ,
10. , PMOS 가 PMOS 가 PMOS
9 , PMOS 가 PMOS 가 PMOS
11. ,
9 ,

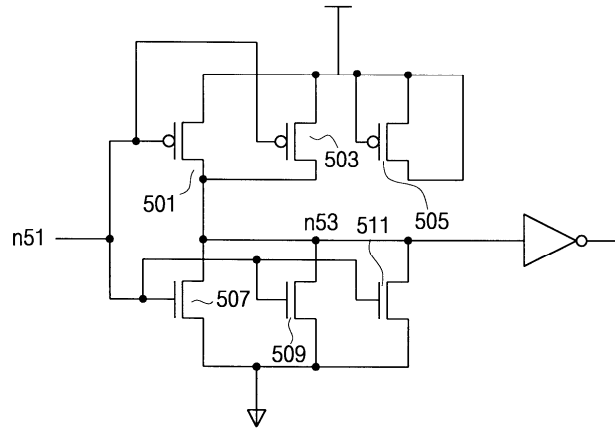


4

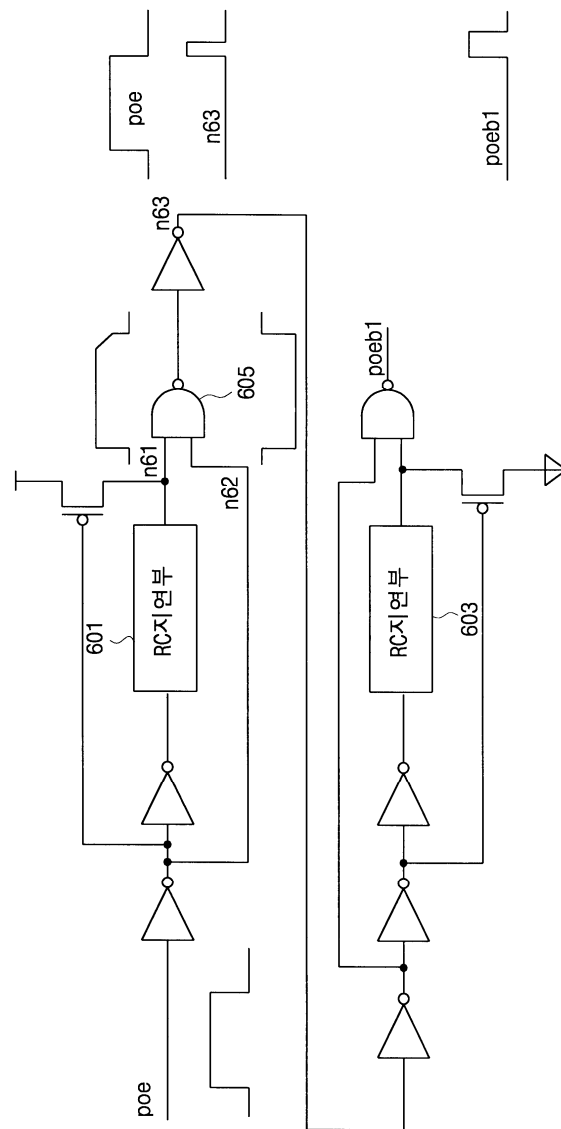




5c



6



7

