

(54)

가

3

2

LCD (liquid crystal display) 가 가 PDA (personal digital assistant) (hand - held) (combin PDA

가 (flex circuit) , 16 가 4 x 4 PDA 8

(hinge) (routing)

PDA , PDA (touch panel display) , 2 가 가 ADC 가 LCD

PDA PDA

PDA 1

(SMARTPHONE) 가 , PDA
(KEYPAD) 가 ,

2 ,
(single contact) (multiple contacts) ,
가 ,
(SPEAKERPHONE) 가 . 3 ,

3
(ADC) , 가 ,
가 , , ADC
, ADC 가
/

, 가 ,

, ,
, , / ,
가 ,

1 가 .

2 가 .

3 .

4 .

5 .

6 .

7 , .

가 , .

PDA

가
가

PDA

1

PDA

2

3

/

1 가 , (100) (100)

(102) (112) (102) LCD (104), (106), (108),

(110) (112) (114), (116), (208) (2)

(114) (114) (112) (112) 가

(100) (102) 가 (114) (112)

(118) (112) (116) (118)

(118)

(112) 가 , LCD (104) . LCD (104)

(signal strength indicator) (110)

(108) (106) 가 (110) (100) , (100)

(110) (100) , (100)

2 가 , (100) (100)

(102) LCD (104) . LCD (104) 가 PDA

, LCD (104)

Palm™ organizer

(100) (102) PDA (202), 1 (204),

2 (206) . PDA (202) (6 7)

가 (112) 가 , (108)

(112)

(112) (208) 1 (210) 2 (212) (112) 가

, 1 (210) 1 (204) , 2 (212)

2 (206) , (118) (7

)

PDA

(112) PDA (100) (100) (300) (100) (112) (102) (302), (304), (pull - up) R (302) (306) (302) (304) (304) R (304) (302) V +3. 3 volt , V R 100 kΩ , V R

(112) (208) (308) (112) 가 (308) (302) (302) (engage). (112) 가 (308) (302) (310) (disenga ge). (112) 가 (112) 가 (low) (308) (302) (310) (high) R V (310) (308) (302) (304) (304) (100) 가 (100) (304) (304) (310) 가 () (310) 가 () (304) (304)

(112) (100) (100) (102) (112) 가 (114) (112) (208) (100) (102) (112) (208) 3 (402, 404, 406) 3 (100) (102) (112)

(112) (112) 3 (402, 404, 406) () 3 (610, 612, 614) (6) (408) () (100) (102) (102) (616) (6) (100) (102) PDA (402 610) (408 (112) 가 (112) 가 (408 616) (406 614) (408 616) (112) 가 (112) 가 가

uration), (112) (against the side of one's face), (on the stand) (100) (being in the handheld config) 가 5

6 , 가 (112) (402 - 408) (610 - 616) 가 (600) (112) (100) (102) (112) (100) (102) (408, 616) (112) (402, 404, 406, 610) (100) (102)

(112) (402) R14 (118) R14 (404) (610 - 614) R13 (118) R13 (406) (610, 612, 614)

(118) (602) (602) 가 (118) (602) (604) (602) 가 (602) (602) (602) 가 (602)

(610 402) (100) (102) (112) (604) , K1 (602) R1 , K2 R2, K3 R3

(612 404) (100) (102) (112) (100) (602) R14 (602) R14 R1 , K2 R14 R3 , R14 (602) 가 (606) (100) (102) 가 (118) (118) (118) (100) 가

(614 406) (100) (102) (112) (100) 가 R13 (118)

R1 R12 (118) (602) (602) 가 (100) 가 R13 R14 (100) 가

(100) (102) (616 408), (ADC) (606), (608), PNP (620), 2 R15 R16 (408) (616) ADC (606) R15 (616) (112) ADC (606) . ADC (606) (608) . ADC (606) (

608) R16 PNP (620) PWR (608) PWR
 (118) (turn - on) (turn - off) 가 PNP (608) 가
 VS VS +3.3 volt , PNP (620)
 (620) R15 PNP
 , R14 (100) (102)

R16 PNP (608) PWR
 PNP 가 (620) PNP (620)
 R15 ADC (606) PNP (620) (118)
 가 (112) (100) (102)
 가 ADC (606) (608) (102)
 (112) 가 (100) (102) , ADC (606) VS PNP (6
 20) R15 (608)

7 , (100) (112) / (700)
 (112) (100) (102) (112) 가
 , (100) (102)
 1 (210) 1 (204) , 2 (212) 2
 (206) (118) (708)

(112) (118) 1 (210) R13 (1
 18) 2 (212) R13 (118) (118)
 (702) (702) (704) (702)
 (702) 가 (702) (704) 가 (702)
 , (702) (702) (100) (10
 2) 1 2 (204) 206), - (ADC) (706),
 (708), PNP (720), 2 R14 R15 2
 (206) 1 (204) 1 (112) ADC (706) R15
 (708) 가 , ADC (706)
 PWR R14 PNP (720) PWR
 가 (118) (708) 가 (118)
 , PNP (720) VS VS +3.3 volt ,
 PNP (720) R15

R14 , (708) PNP (720) PWR PNP (720) PNP (720) (118)
 (720) 가 , 가 VS PNP (720) , (118)
 R15 ADC (706) (112) (702) (210)
 R13 (708) 가 가
 R13 (702) (112) 가 가 (702) 가 ,
 R13 R1, K2 R13 R2, K3 (704) , K1 R3

R1 R12 (118) (702) (112)
 , R13 , (702) (100) (102) , ADC (706) VS (112)
 가 PNP (720) (708) (VEC) R15 (VR15) (708)
 (112) /

가 PDA 가 가

(57)

1.

1 ;

가 1 , 2 1

2 ;

1

2 가 2 1

2.

1 ,

3.

1 ,

4.

1 ,

1

5.

4 ,

6.

4 ,

7.

1 ,

2 , 1

8.

7 ,

9.

5 ,

1 , 1

10.

6 ,

1 , 2

11.

3 ,

1 , 3

12.

1 ,

1 , 2 PDA

13.

9 ,

1

14.

10 ,

2

15.

11 ,

3

16.

12 ,

1 2 ,

17.

가 1 2 , 1 , ;

2 1 2 , 1 , ;

가 2 1

18.

17 , 1 2 ,

19.

17 ,

20.

18 ,

1

21.

20 ,

22.

20 ,

23.

17 ,

2 1

24.

23 ,

25.

21 ,

1 , 1

26.

22 ,

, 1 2

27.

19 ,

1 , 3

28.

17 ,

1 , 2 PDA

29.

25 ,

1

30.

26 ,

2

31.

27 ,

3

32.

28 ,

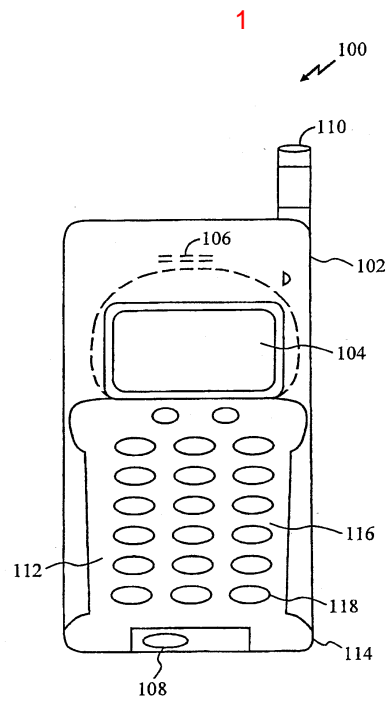
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33.

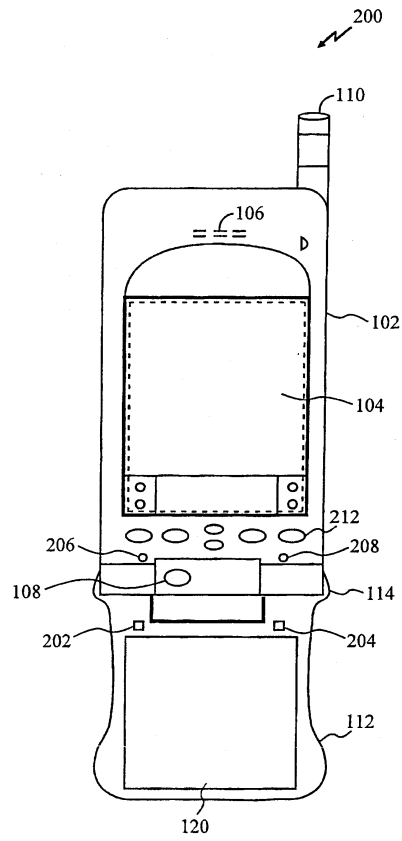
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34.

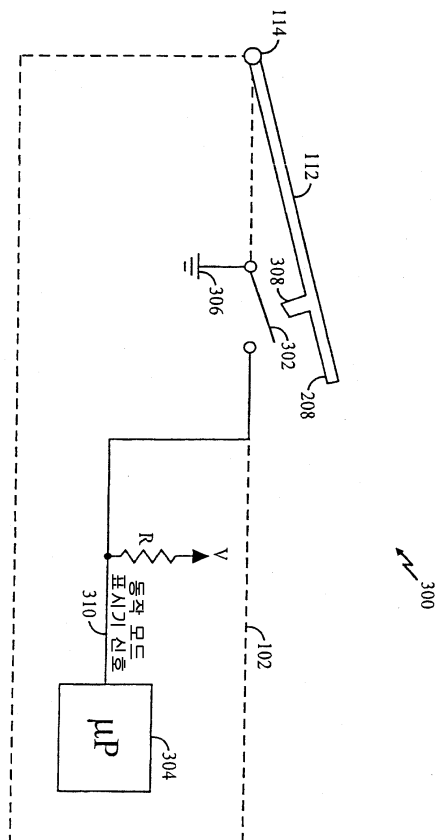
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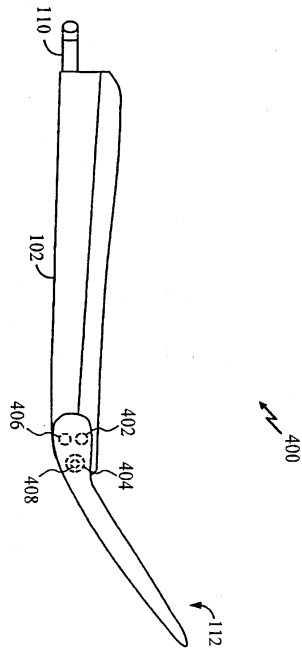
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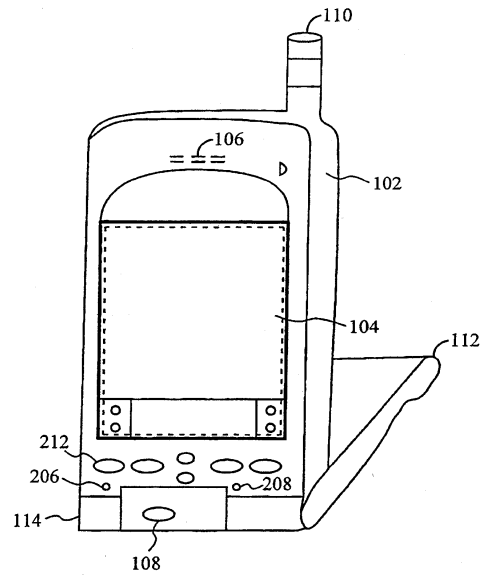
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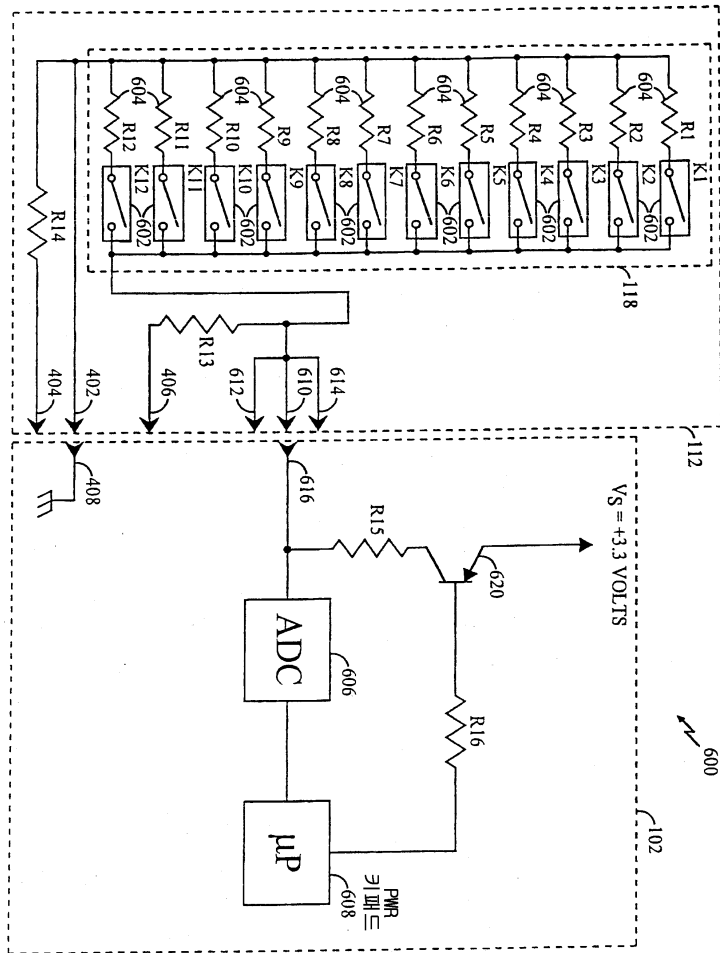
4



5



6



7

