

(19) (KR)
(12) (B1)

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(24) 2003 01 09

(21) 10 - 1996 - 0007811 (65) 1996 - 0036054
(22) 1996 03 22 (43) 1996 10 28

(30) 95 - 03501 1995 03 24 (FR)

(73) , 78141 ,

(72) , 92402 . . 329
가
, 92402 . . 329

(74)
:

(54)

, HF , , , 가 HF
(a table of values) .

1

1 (tactile designation system) .

2 5 .

6 (tactile surface) .

7 6 .

8 6 .

*

1 : 2 :

3 : 4 :

6 : 8 :

9 : 10 :

(tactile designation device) (high - resolution transparent capacitive surface) .

, , 가
가 (100 × 100mm
) , 가

signation arears) , (capacitive detection) (de
s conductive surface) 가 , 가 (continuou

- (discrete capacitive mode) (continuous capacitive mode)

- (resistive strain gauges) (deformation)

- (detection zone) ,

- ,

- , 가 ,
- , .
- .

(discrete keys)가
 (conductive supply track)
 가 , () ()

(floating)
 , (guidance),
 (height - wise)
 , (가) ,

2 205 164 1 가 2 (to
 uch point)
 가

,
 ,
 (touch surface)
 " "

, 가, (, 가)가
 , 가 , ,
 가 ,

가 가 가 ,
 ,
 , (pole)
 , , ,

1 (2) , 가 (5) (4) (3) (comm
on point) HF (가 (3) (4) (1)
(6) . (1)

(1) 2 688 957 ,
2 5 (1) (1A 1D)
(7A 7D) . (7A 7D) (8) . (5, 6 8)
(9) .

100 (2) 500kHz 50MHz 2MHz (3) ,
700pF . (1) ,
(1) , 500 20,000 (ohms) 2 4). , (1) ,
(1) , (3) .

가 , (

(1) (10) (2 3). ()
, 가 ITO(indium - tin - oxide) (11) . (10)
(12A 12D) . (11) , (1A 1D) (11) 가
(12A 12D) , 가 (13) .
(10) (14) .

(1A 1D) (1) (1
6)가 (15) , (1) (16) ,
(1) (15) (3) (11)
(printed circuit) . , (15) (16) (ap
erture: 17) , (16)가 , (17)
(16) (15) 가 , (1) (16)

4 (15) (1) (1A)
, , (19) (15) (18)
(1A) U (20)가 , 가 가
(21) . (21) (12A) (22) .

(washer) (22) (11) . (24)가 (21) (111)
 (15) (1) . (7A)가 (bonding)
 , (1A) (25)
 (26) .

6 (1) (4) ,
 (1) (1A 1D) (4) (4A)
 (27) , (4B)

(4A) 가 (28), (29), (30; DC) 가
 (31; (31A) (9)) (31)
 . (28 31) (6) .

7 (4) . t1 t4 4가
 . 2 가 m((1) (1A 1D) (e) 가), (
) , , (t1 t4) , 가
 , , (e) .

(4A) (e) (1) 가
 (1) (indeterminacy) (

8 가 , ()
 A - C) (1A) () , 가 가 ()
 . ()
 , (4A) (divider bridge) .
 (4) 가 가 , ,
 가 (1) 가 .
 , (1A) 가 ,
 가 (1A) (11))
 (4A) (1C) 가
 , (4A) (1C) (11) (1B 1D) ,
 (11) , (A - C)
 , (1A) 가 , (1B 1D)

(4B) " (guard resistor)" (가 가
 4A 가 " (linearization resistor)" .

, (1A 1D) (1) (9))
 가 . ,
 (set) (1) (1A 1D)
 (set) .
 (1)
 " " 가 (1) (1A
 1D) .
 (passasge)
 ,
 ,
 가 (31) 가 , ,
 가 (1) (Zone) 가 ,
 . 가 (1)
 , (1A 1D)
 , (9) (31)
 , 가
 ,
 (1)
 , (12) , (1A)
 1D) 4A (/
 , 가 , (9) (31)
 ,
 가 ,
 (,) 가), (,)
 .

(57)

1.

가 가
 ,

,

,

,

,

,

,

(pole)

()

,

,

,

.

2.

1 ,

500kHz 50MHz

.

3.

1 2 ,

100pF 700pF

.

4.

1 2 ,

.

5.

1 2 ,

가

.

6.

1 2 ,

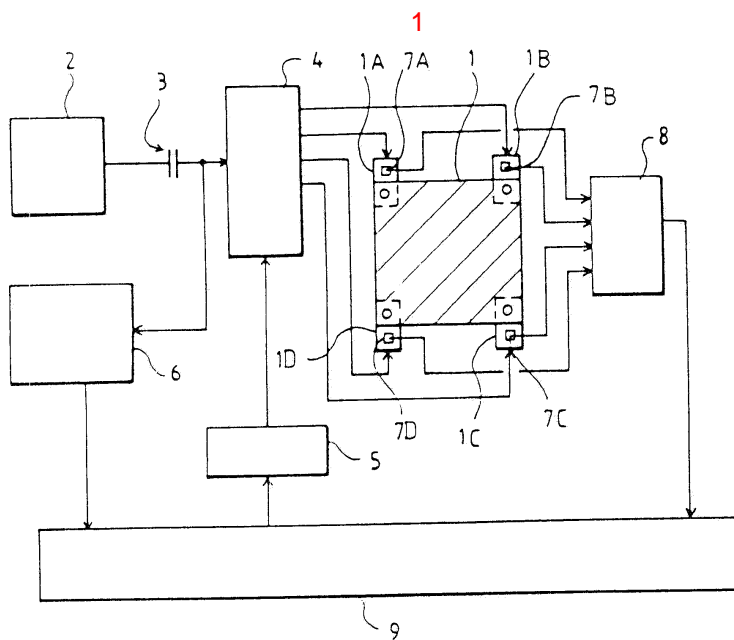
.

7.

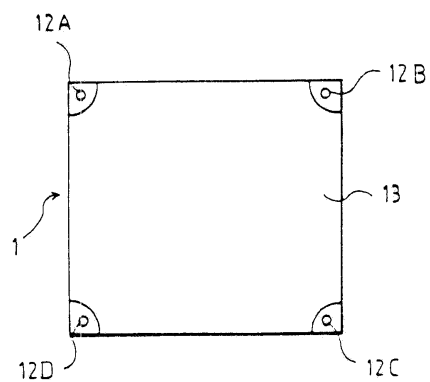
6

가 (virtual key)

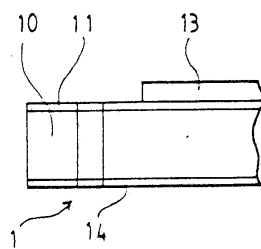
(cartesian network)



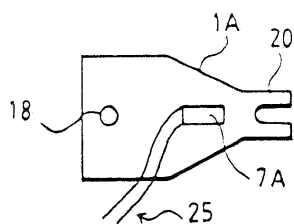
2



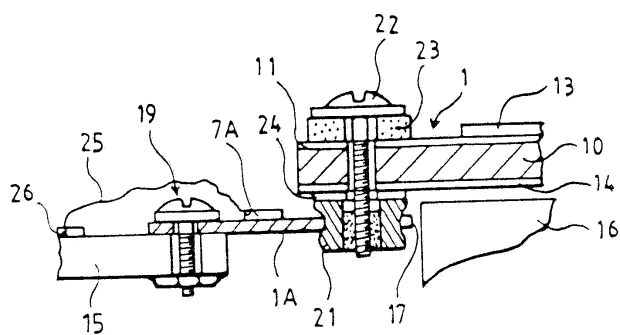
3



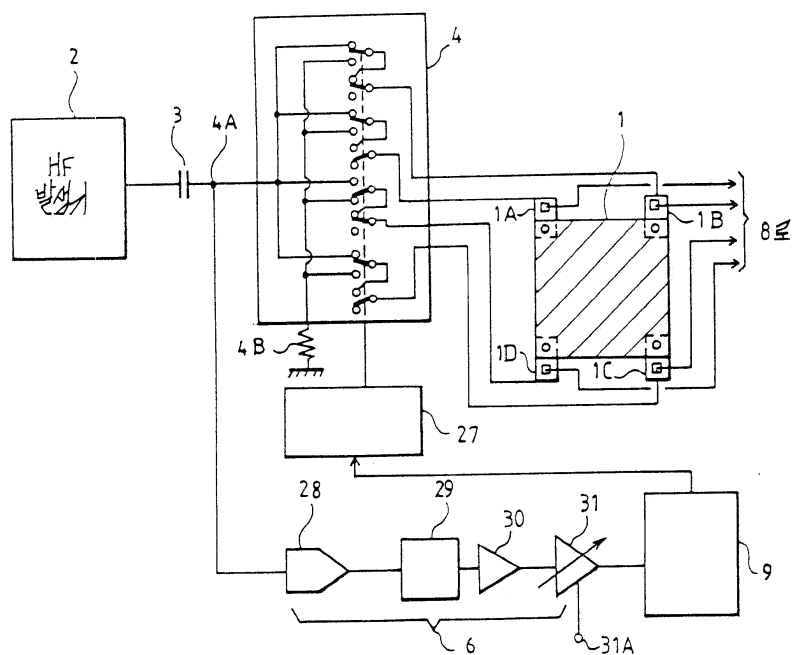
4



5



6



7

	1A	1B	1C	1D
t1	e	\bar{e}	m	\bar{m}
t2	\bar{e}	e	\bar{m}	m
t3	m	\bar{m}	e	\bar{e}
t4	\bar{m}	m	\bar{e}	e

8

