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(12)

(KR)
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H01Q 13/08

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(43)

2001 - 0086337
2001 09 10

(21)
(22)

10 - 2001 - 0002071
2001 01 13

(30)

09/483,648

2000 01 14

(US)

(71)

10500(:60462)

(72)

75032

316

60441

13151

(74)

:

(54) /

3

1

2

3 2 가 2
가 .

4 3 / .

5 .

6 4 가 .

7 6 가 .

8 3 가 가 .

9 가 .

<

22 :

24 : -

25 :

26 : RF

28, 30 :

42 :

44 :

46 :

48 :

52 :

60 :

62 :

64 : /

66 :

68 : /

70 :

80 :

82 :

, / , , .

/PCS () , 가 (/) " (sponge)" , , 가 (() (vaporized) . , 가 [(saturated)] , 가 ()] , " " [DC()] (RF) [가 / 가 (1)].

(DC) , , , , 가 .

" " [(, ,) DC] 가 DC 가 (1) 가 . ,

(,), (superstrate) , () DC 가 () 가 (,) 가 (,

) DC가 ,
 , 가 , [orthogonal polarization: ,
]
 ()
 , 가 (VSWR: voltage standing wave rat
 io) , () 가
 가 , , 0.45₀ (
 0.45)
 () 가 () ,
 ,
 , 가 ()
 가 (a) (backward radiation) , (b) . ()
 ,
 , , , , ,
 , , , , ,
 ,

1 (25) RF (26) (25) - (24)
(22) PCS (20) . (28, 30)
-
(28, 30) RF (26) . (near miss lightning strike)
DC ()가 RF

2 (48) [46: (iris)] [44: corporate feed, 多重 給電部] ((

[42: " "] (42) () [4

40) . , .

4:] .3

, (2)

. () (26)

(52) [25: 1] . (22) (28, 30)가

, , DC

(30) (24)가 ,

(24) (1) , .

3 2 () () , 2 [60: ,
 {62: radome} / (64)] . 3
 , 가 , (62)
 / (64) (,) ,
 () (static build - up)
 , 3
 , [66: " E"] (44) (various stages)
 ; (42) () / / (68)
 . /
 . (66) , IC [, () ,
 , RF , LNA(:Low Noise Amplifier)] .

RF () (DC
) / (42) () ,
 [46:] (44) (44) . 가 , (DC)
 / (42) .
 가 () (66) (44)
 .

4 / (42) . 1
 M (42) , (2) $M \times N$.
 [46: 4] (48)
 [70: " (superstrate)"] , [48: ,
 (air gap)] (floating PCB) . (70)
 PCB(printed circuit board) .

5 (55) [42: 4
] . , RF (42) 가 . 5
 , RF , [45:] . R
 F , () 가 가 .
 , () ,
 (, ,) .
 , (45) / (tap) (RF (,
) , (DC) , 가 .

6 . [75:]
 , RF , " " (,
 ,).

7 (75) , (80) (75)
 (48), (64), (52) ()
 [26:] , 6
 PCB(70) (82) .

8 (75)
 , DC (RF) (46) () (44)
 (66) 가 .

9 (66)가 , (DC)
 , () [48: (46)] () (64)
 (64) (26) RF (52) . (26)
 DC .

[64:] (48) , 가
 (Gaussian shield) " " RF(/)가
 .
 DC (1/2)
 . " (shell)" (6)
 1/100 .

, / ,

, 가 , 가

(57)

1.

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,

.

2.

1 , .

3.

1 , , 가 , .

4.

1 , , .

5.

1 , , .

6.

1 , , .

7.

1 , .

8.

7 , .

9.

1 , 2 , 2 .

10.

7 , 2 , 2 .

11.

1 , .

12.

11 , , .

13.

12 , .

14.

8 , , .

15.

8 , .

16.

7 , , , .

17.

16 , .

18.

16 , , .

19.

18 , 가 .

20.

19 , 1/1
00 .

21.

, ,

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.

22.

21 , 가 , .

23.

21 , .

24.

21 , .

25.

21 , .

26.

21 , .

27.

21 , 2 , 2 .

28.

27 , .

29.

28 , , .

30.

29 , , 가

31.

30 , 1/100

32.

,

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, ,

33.

32 , , , ,

34.

32 , 가

35.

34 , 가

36.

35 , 1/100

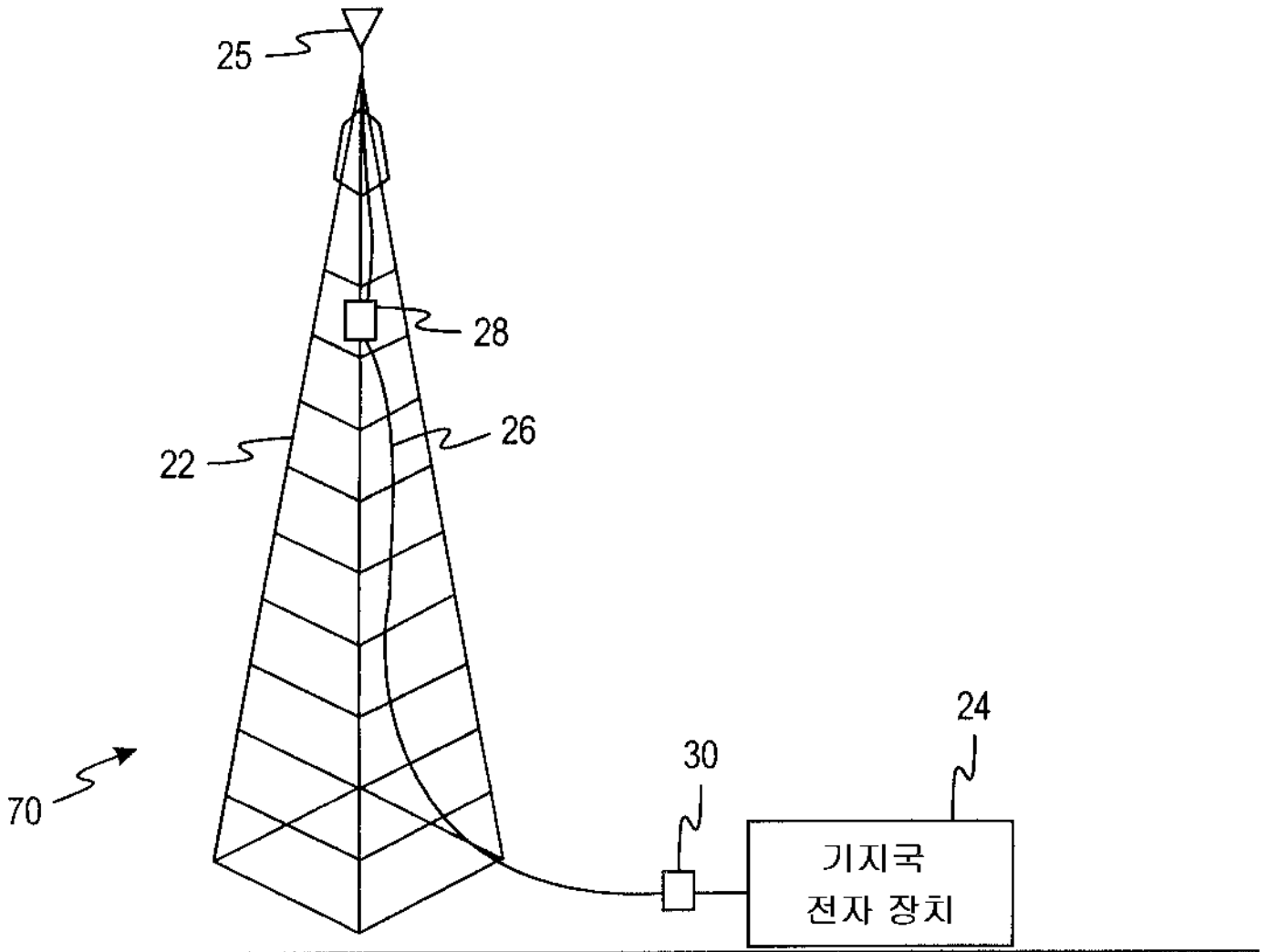
37.

33 , 가 ,

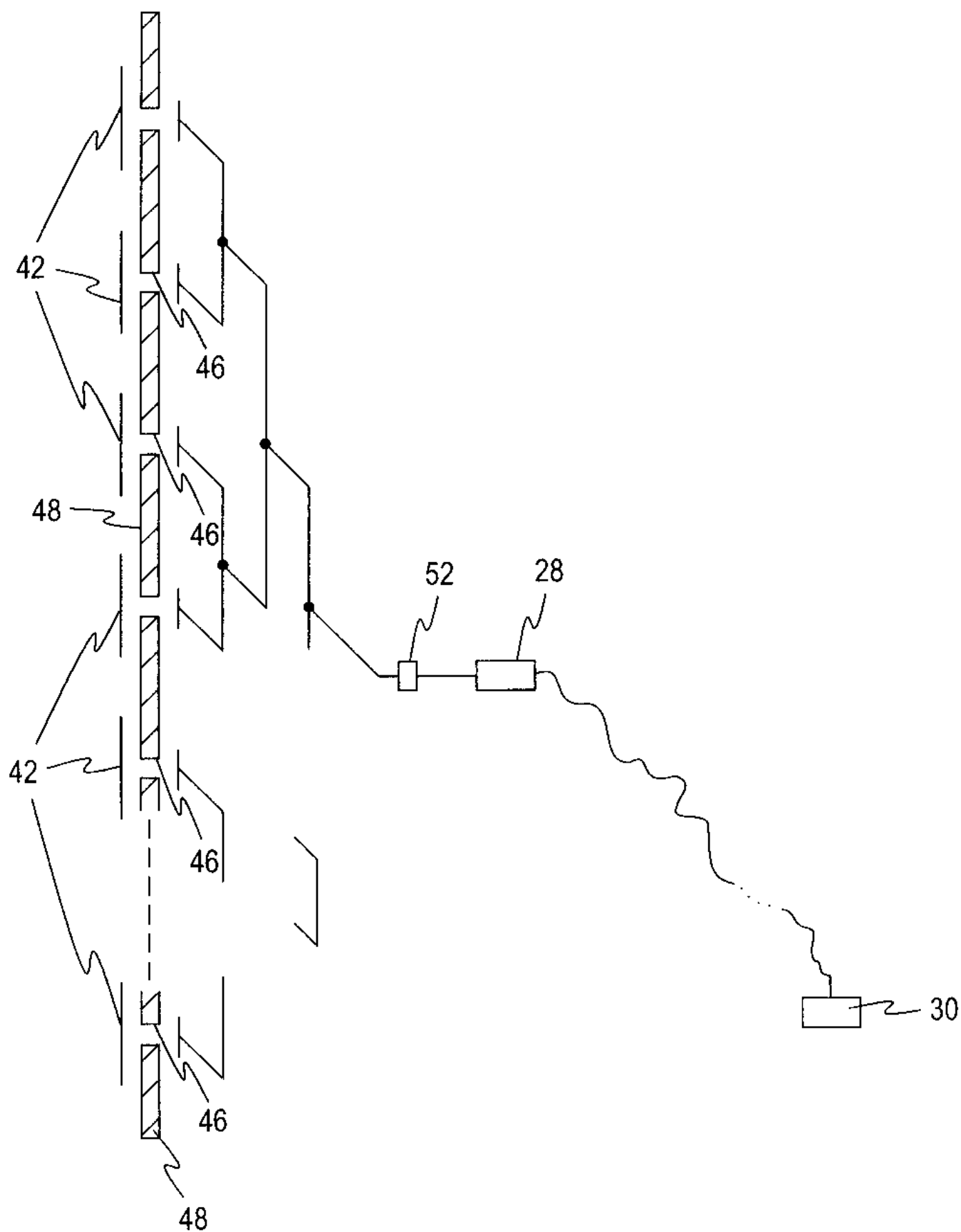
38.

1

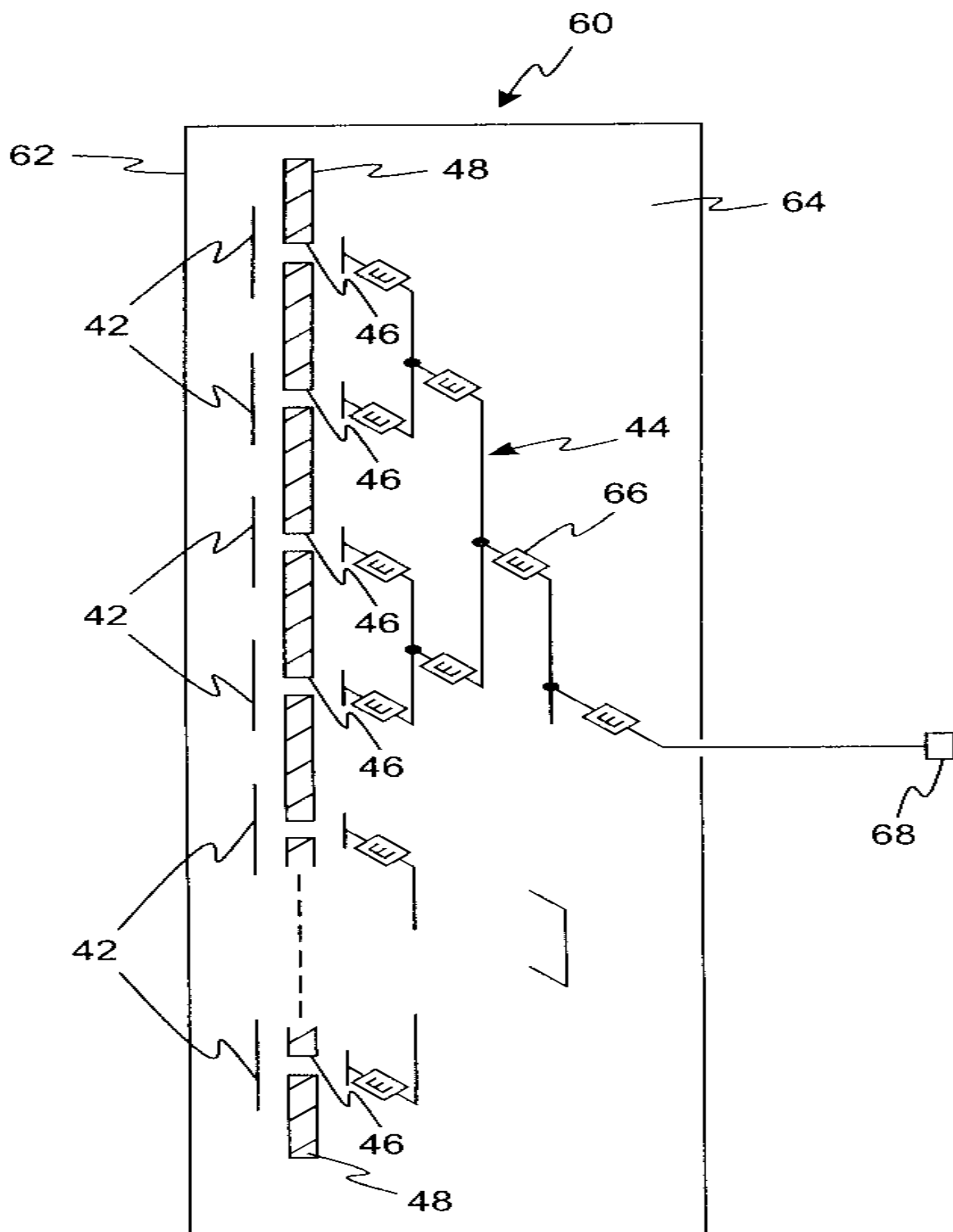
(종래 기술)



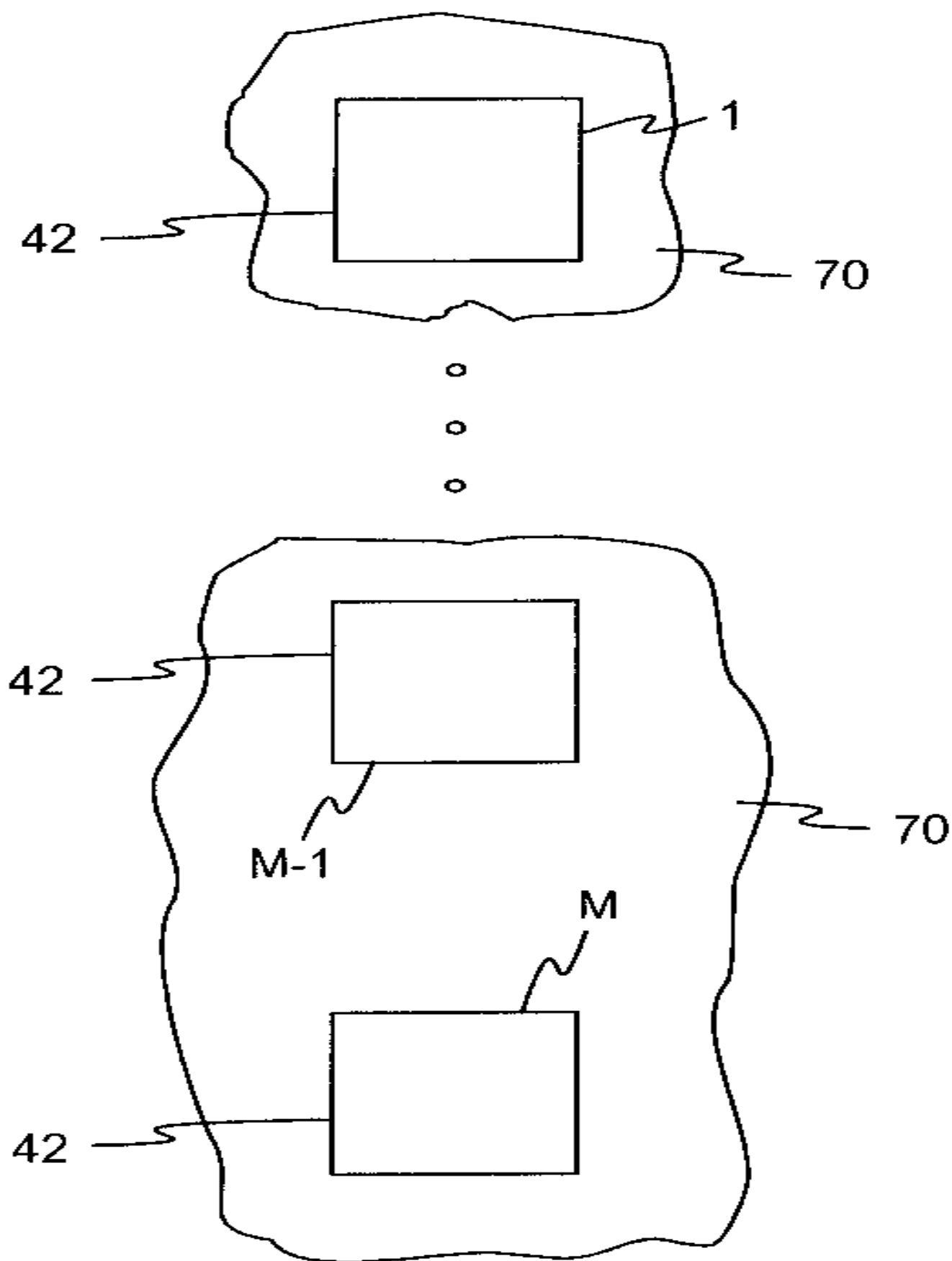
2



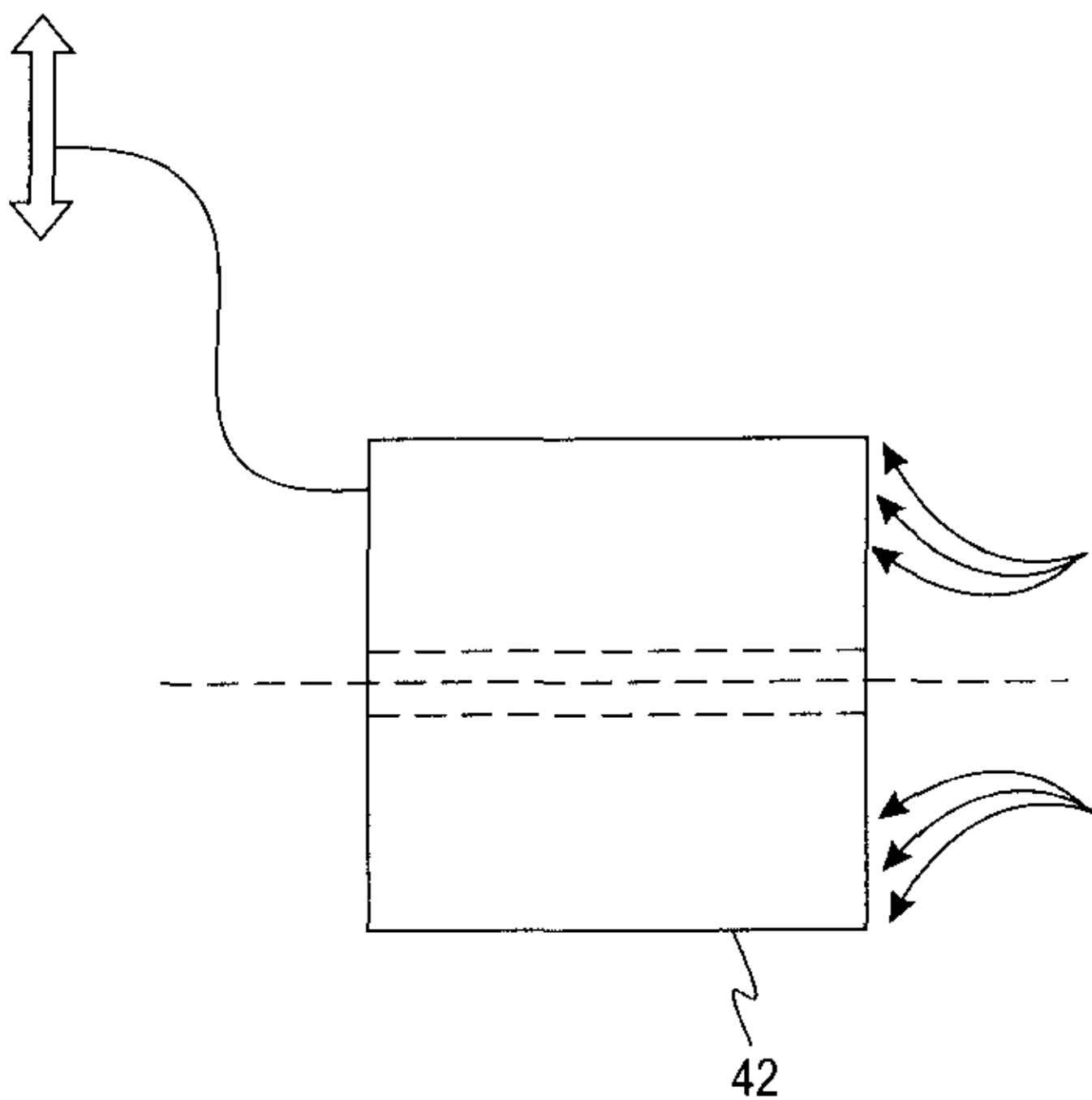
3



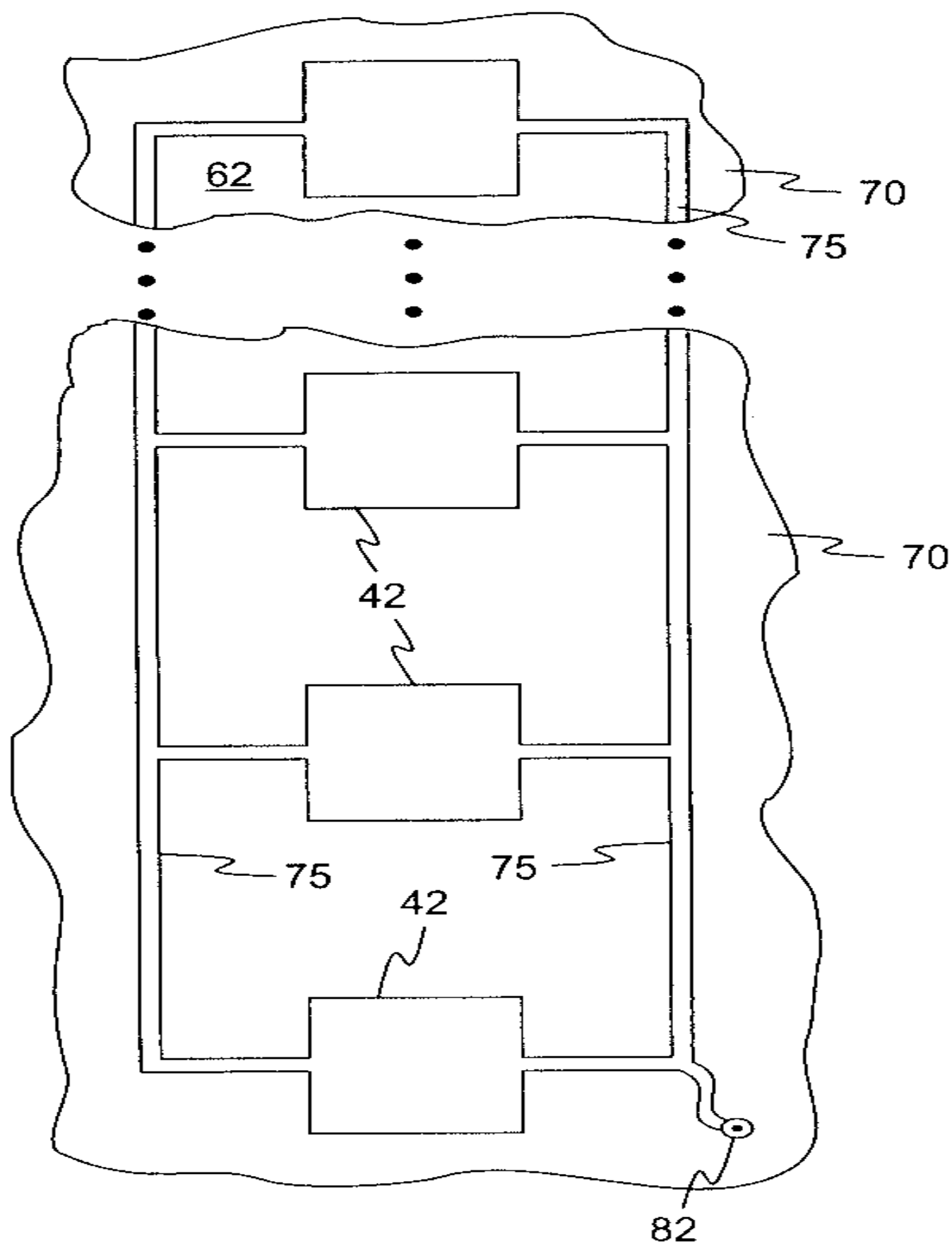
4



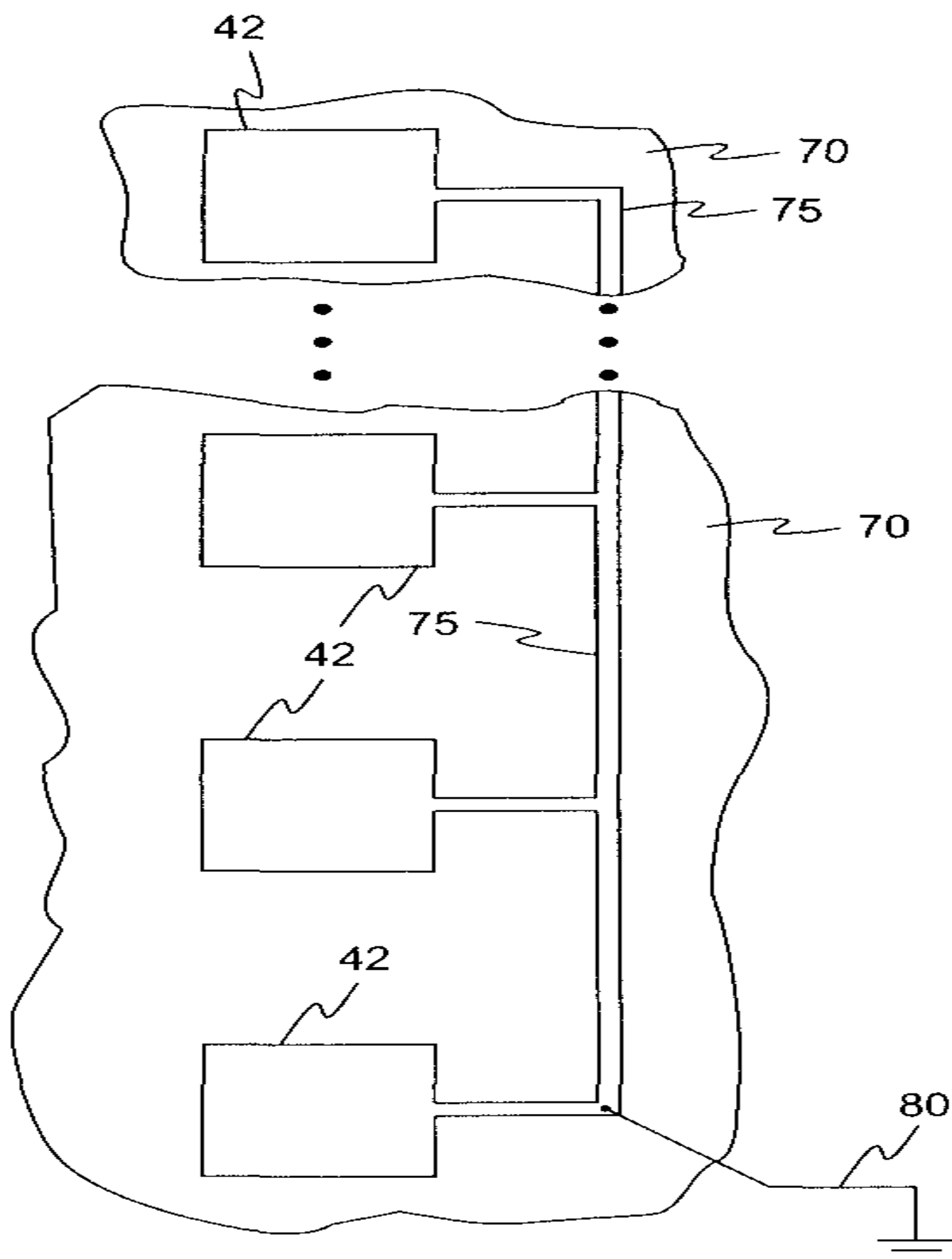
5



6



7



8

