

(19)  
(12)(KR)  
(A)(51) 。 Int. Cl. <sup>7</sup>  
A61B 8/14(11)  
(43)2001 - 0060257  
2001 07 06(21) 10 - 2000 - 0065266  
(22) 2000 11 03

(30) 99 - 314614 1999 11 05 (JP)

(71)

53188

3000

(72) 가  
가 4 7 - 127

(74)

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(54) P R F ,

PRF , 가 , (176)  
(172), 가 (174),  
, PRF 가 .

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4	1	.
5	1	.
6	1	B .
7	1	.
8	1	.
9	1	.
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12	(m)	.
13	1	.
14	13	.
15	CFM	.
16	14	.
17	14	.
18	14	.
19	14	.
20	CFM	.

PRF  
가 PRF ( , ) , PRF  
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2 CFM (Colour flow mapping) ,  
(Directional Power Doppler Imaging) DPDI , 2  
PFD (Pulsatile Flow Detection) .

CFM , DPDI , PFD , , PRF 가  
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RF DI 가 . DP

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RF D 가 . PF

, PRF PRF , PRF  
가 .

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1 (2) PZT (Ti) (2) (Zr) (2)

(2) (6) (6) (2) 가

(6) 2 (6) (602) (602) (18) (60)

(604) 가 (18) (604) / (606)

/ (606)

/ (606) (610) / (610) (606) (610)

(18)

(602) (604) (610) (6) 3

(4) 2 (206) (z) (200)

가 (200) (2) 4 (z) (202) 2 (206) (x)

가 (202) (204) 5 ( ) 2 (206)

(6) B (10) (12) (6) (12) B (10) (12) (4) 8) (12) , (10) (4) . (12) . (12) .

B (10) B (10) B (10) 6 (102) (104) . B (10) (102) (104) , A (scope) , A (104) B .

(12) . , , , , .

(12) 7 (120), MTI (122; ), (124), (126), (128) (130) .

(12) (120) , MTI (122) MTI (122) , (V) (126) MTI (24) (PW) , (T) (108) , (130) .

, (V) , (T) (4) (PW) .

(2) (2) . , .

156) (12) , 8 (152), (154), (158) . (

(152) (152) (120) . (152) (4) , (156) , 가 . (158) . , .

(132) (12) 9 (132), (134) DSP( ) MPU( ) .

(134) (126) , , (V) (132)  
 (128) (T), (8)  
 R (R) (132)  
 (134) (V) 가 , (132)  
 (V) (134) (132)

(134)  
 (134) 가 ,  
 1/30

(132) (134) (VO) (T)  
 (P)

10 , (a)  
 , (b) (c) 10(b)  
 (t1) R (t2) 가  
 (t4) (t3) (t2) (t3) 가  
 10(c) 가

(Vn) (b) (c) (134)  
 (VO) (Vn)  
 (Vn) (VO) (VO)  
 (132) (P)

<sup>1</sup>  
 $P = "k \mid Vn" - VO \mid , k$   
 ( ) 11 (Vn) (VO)  
 ( V)  
 ( V) (Vn),

<sup>2</sup>  
 $P = "m \mid Vn" - VO \mid /Vn, m$

(2) (Vn) 가 (m) 12  
 (Vn) 가

(Vth) , 가 (m) , , . 가  
(m) , , .

, (132) (T) .  
, (T)  
. , P (1) (2) , (t) , P  
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B (10) (12) (14) . (14) , B  
(10) (12) B ,  
, , .

(2), (6), (12) (14) 가,  
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(14) (140) , (142), (144),  
(146) (148) .

B (10) (12) B  
(144) , (142) (142)  
(146) , (146) (148) (142)  
. .

(16) (14) (16)  
(16) (14) , (14)  
. (16) .

(18) (6), B (10), (12), (14)  
(16) . (18) 가 .  
가 .

(18) , B (20) (18)  
(20) , (18) (20)  
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0) , B (2) , (2)  
, B B  
, B / .

B , (6) (2) (4)  
, B (10) (6)  
(102) , (104) A



, B (14) . B (142) .

(142) B (10) . B (142) .

, (6) (2) (4)

, / 가 PRF . , PRF

(12) (120) , MTI (122) MT

I , (124) , (126)

, (128) , (130)

. (132) , .

(12) (152), (154), (156), (158)

) ,

(14) (142) (12)

(142)

(148) (142) B ,

(144) , (146)

CFM , PDI (PDI) 가

DPDI( ) . PDI

PDI 가 가 가 CFM

PDI 가 가 PDI

(148) B , CFM , DPDI ,

am) . CFM 2 (tomogr

(blending ratio) 가

DPDI , 2 가

CFM

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CFM

PDI

가 CFM

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(16)

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CFM

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DPDI

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B

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PDI

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, CFM

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14 PRF

(148)

(148)

(172)

(172)

(142)

(146)

CFM

(172)

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CFM

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(A, B)

2

(A

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(172)

(AB)

CFM

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(AB)

16

PRF 가

PRF/2

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CFM

, PRF 1/2

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PRF

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(176)

(176)

(m

ax) PRF

(178)

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(178)

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PRF

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PRF

(max)

PRF'

(176)

. RF

(178)

PRF' (18) (18) (6) PRF' ,  
 / , 가  
 , CFM 가 .

PRF (178) 19 PRF (192) (194)  
 . PRF (194) PRF , PRF (192)  
 (176) (max) 가 PRF PRF (192) (

192)  
 , (max) 가 . , (max) 가  
 , (max) PRF ,  
 가 가  
 . (20) .

(AB) , 20 2 (C)  
 . (C) , (172) (C) 2 .

(174) 2 , (176) 2  
 (max) , PRF (178) PRF  
 (C) , PRF CFM  
 .

CFM DPDI PFD . DPDI P  
 FD , 가 (146) .  
 DPDI CFM 가 (AB) (C)  
 PRF가 , PRF PFD 가 .

PRF PRF PRF , CFM  
 , PRF PRF  
 , 가 2 가 ,  
 PRF 2 PRF , PRF

가  
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PRF 가 , PRF  
 . PRF 가 , PFD 가

(57)

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PRF .

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PRF .

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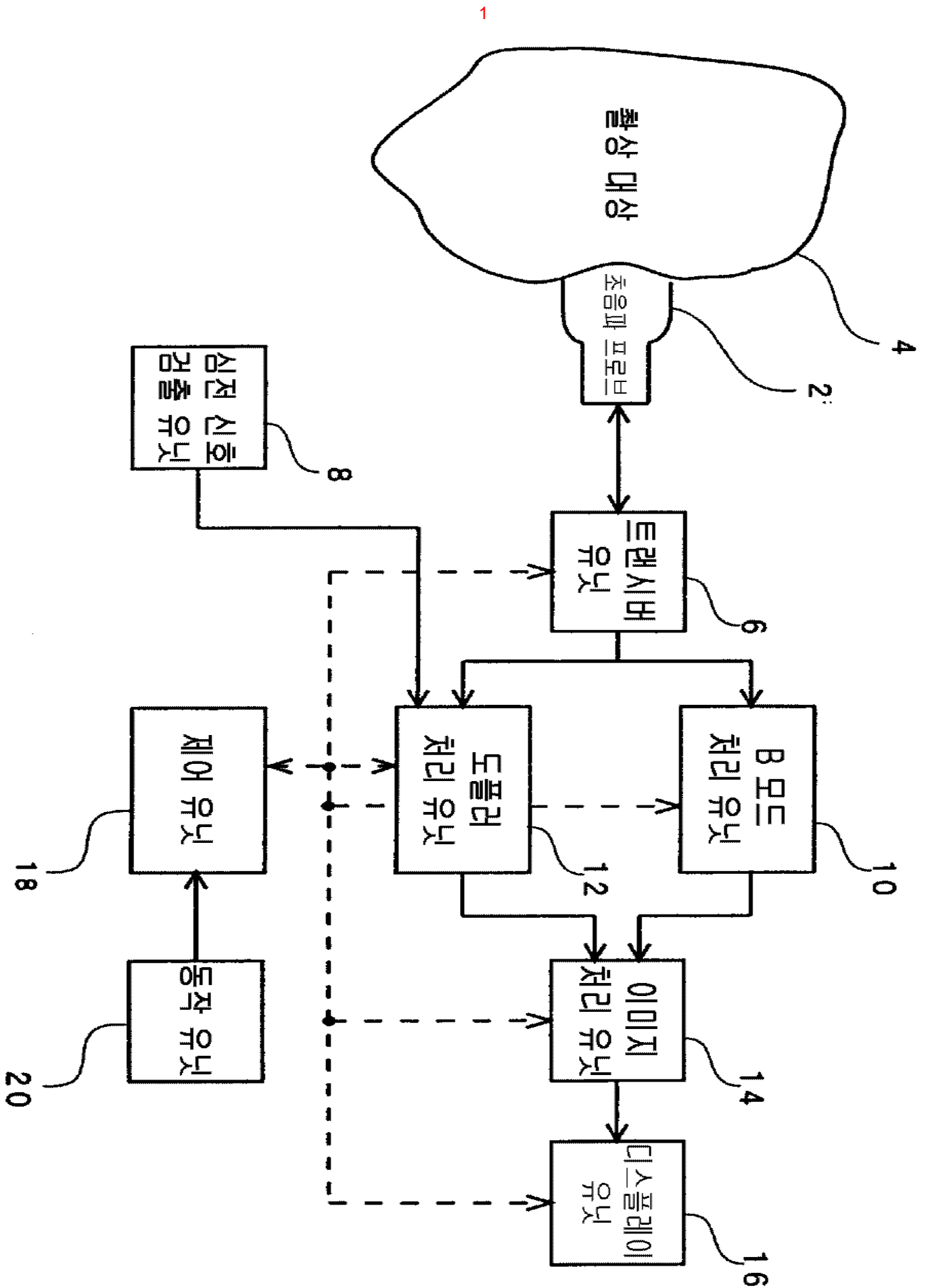
27.

25 ,

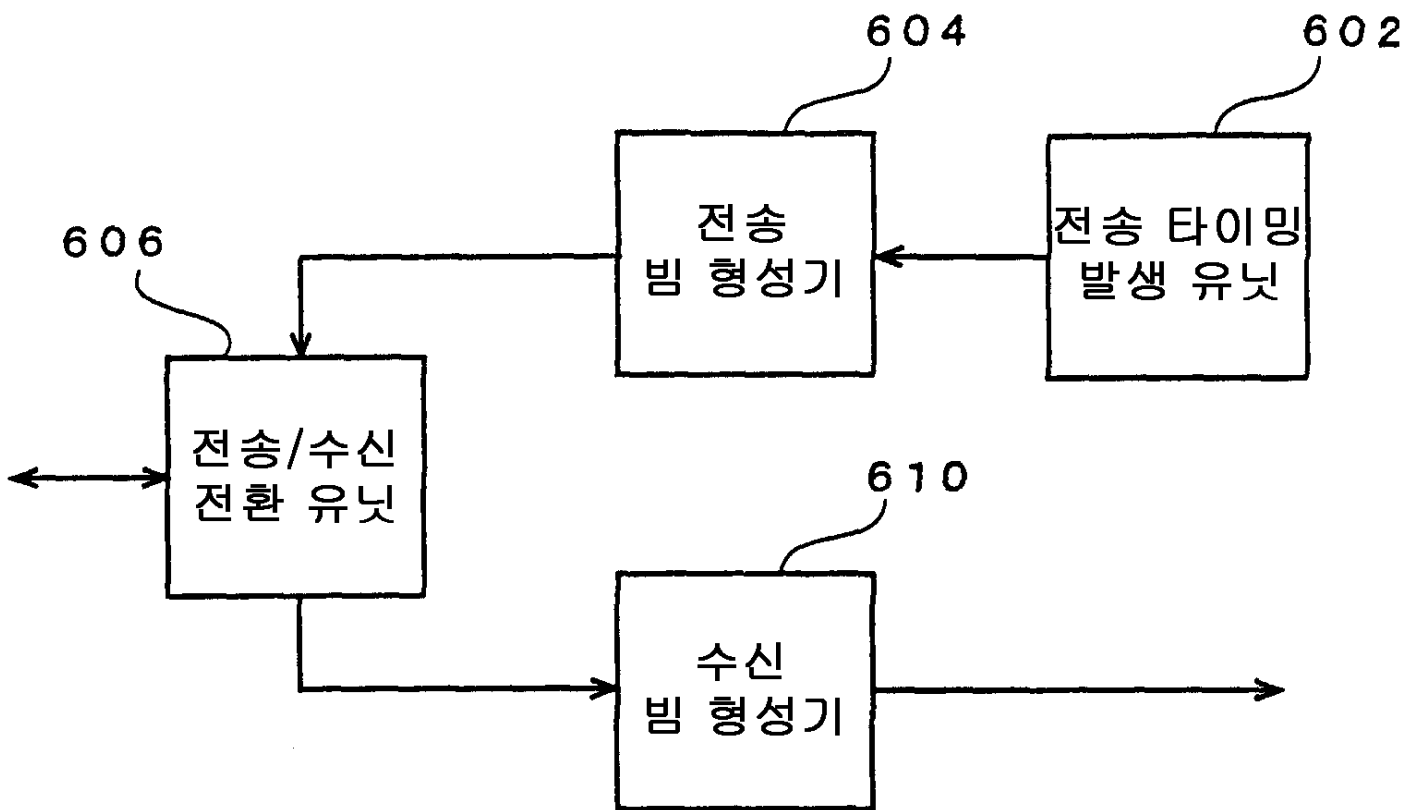
가

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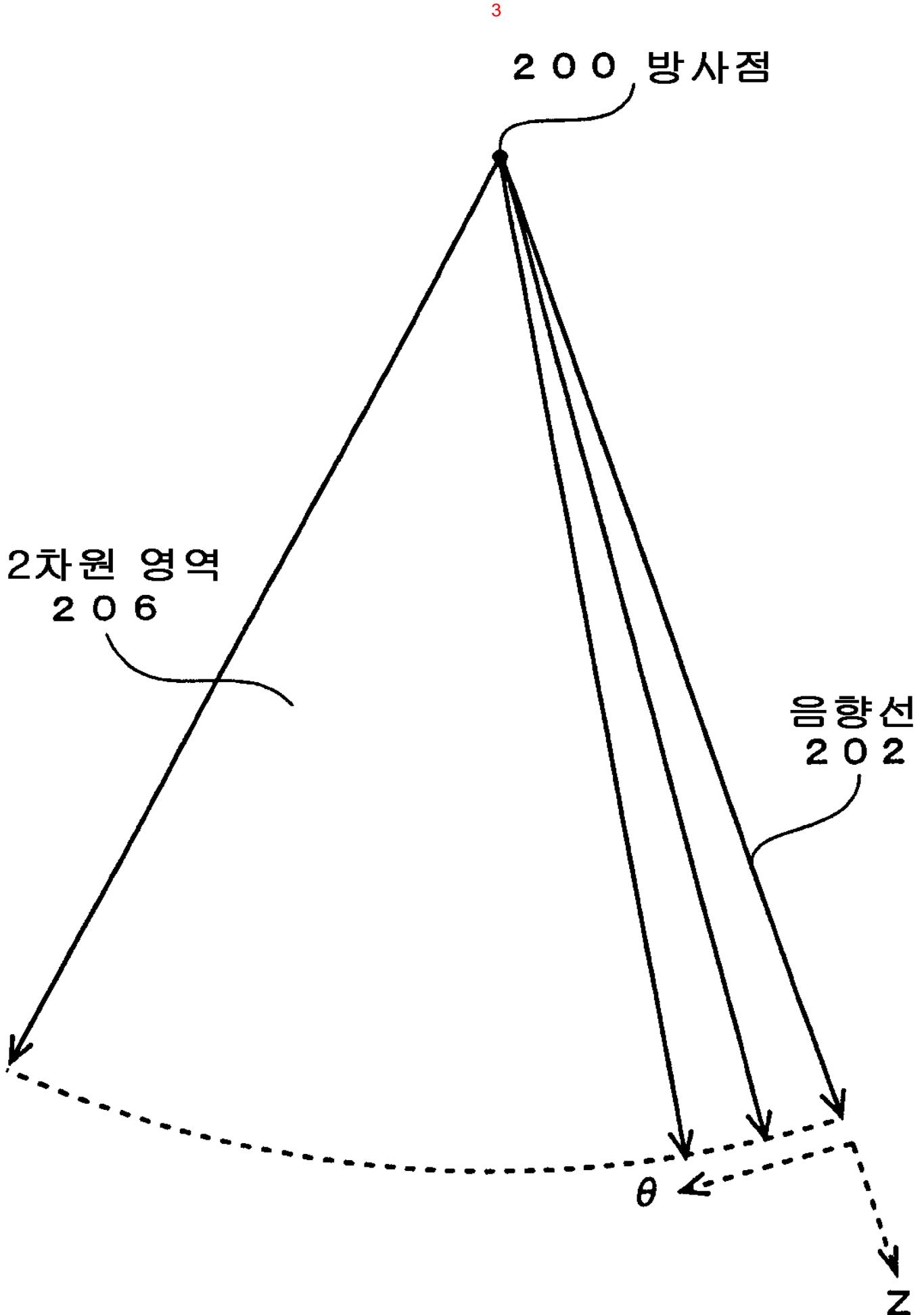
6

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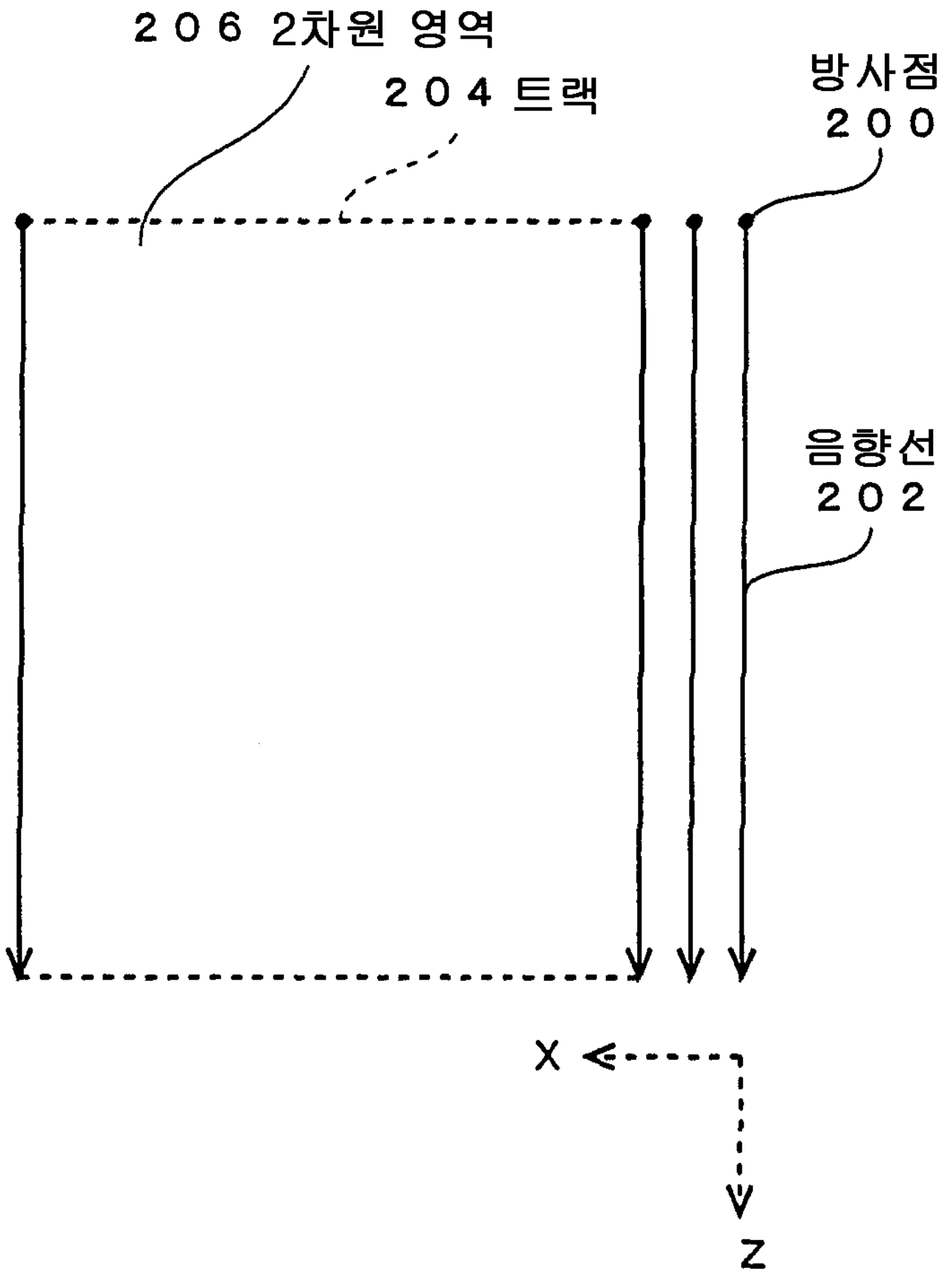
200 방사점

2차원 영역  
206음향선  
202 $\theta$ 

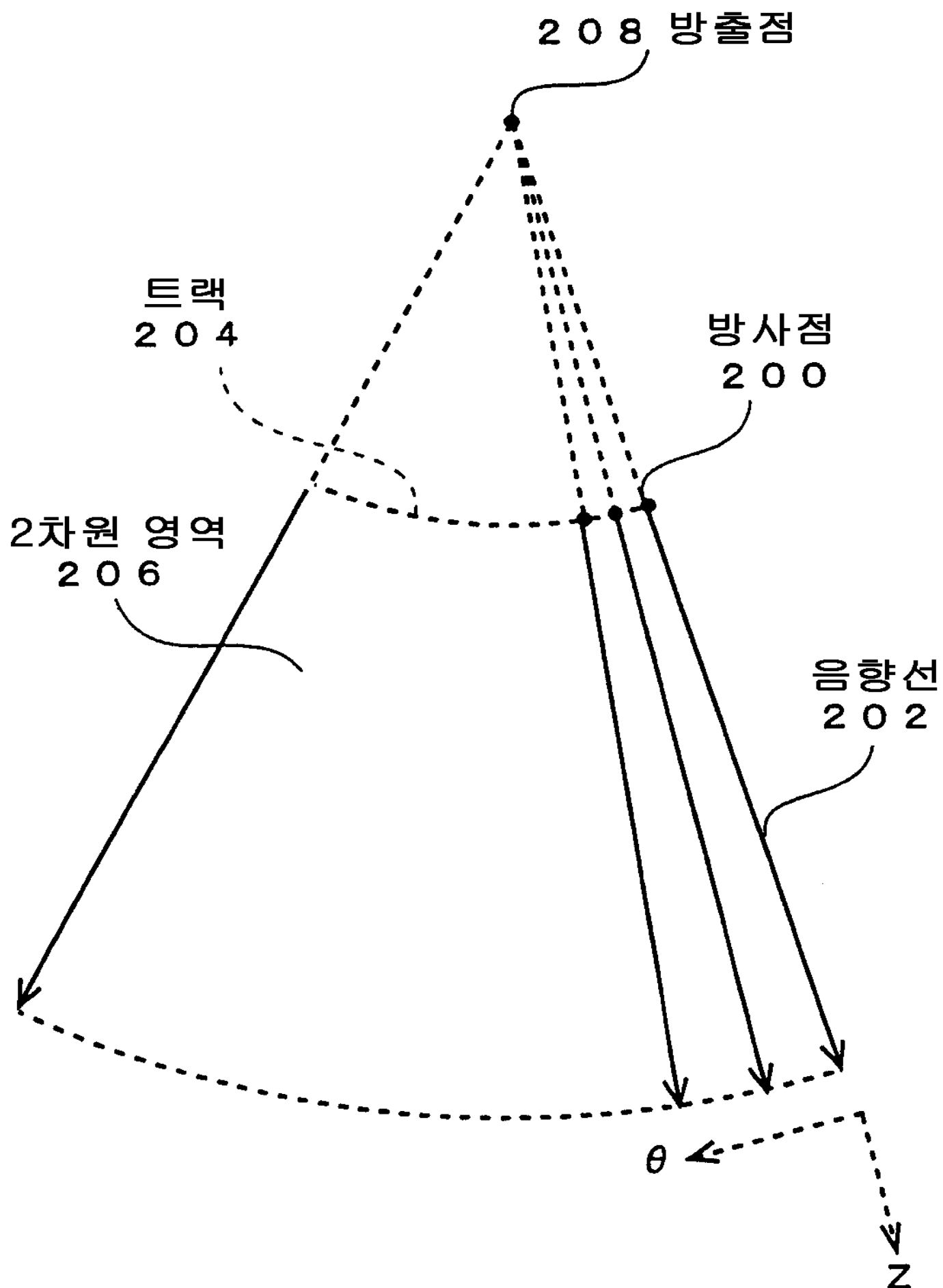
Z

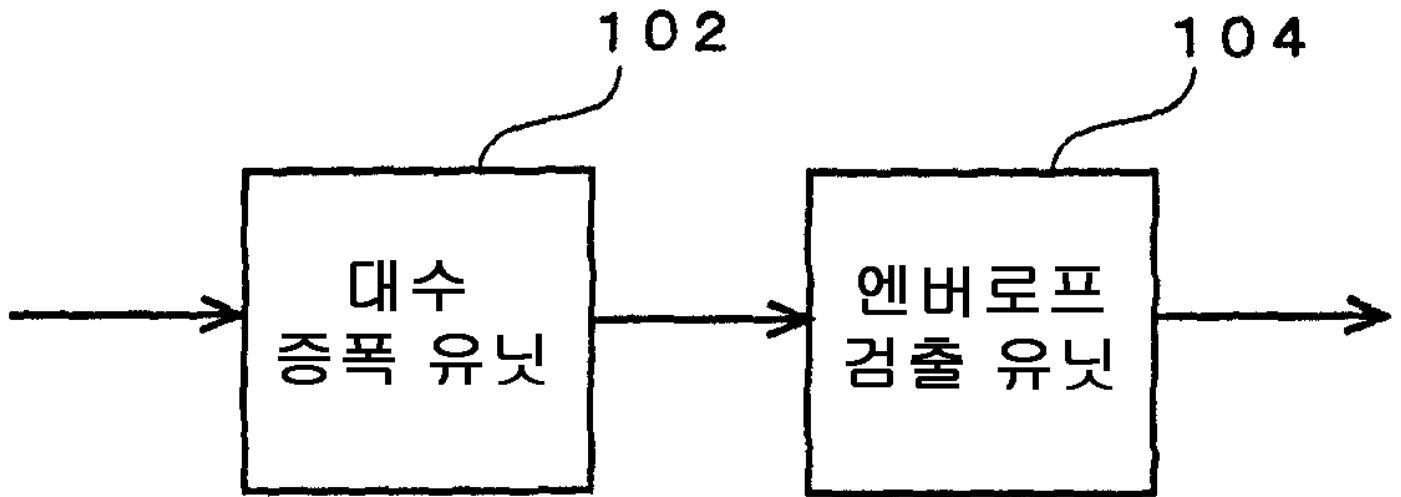


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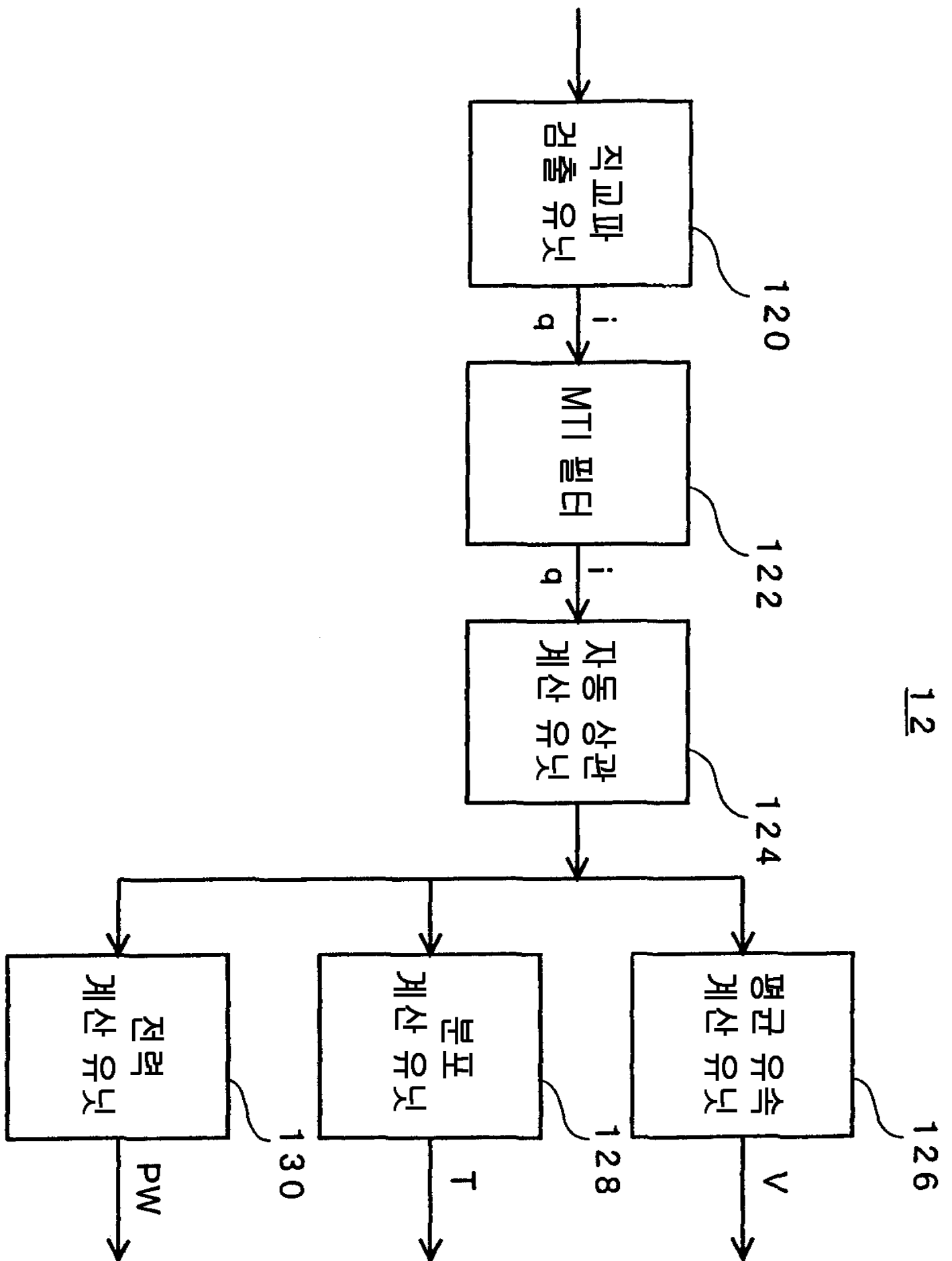


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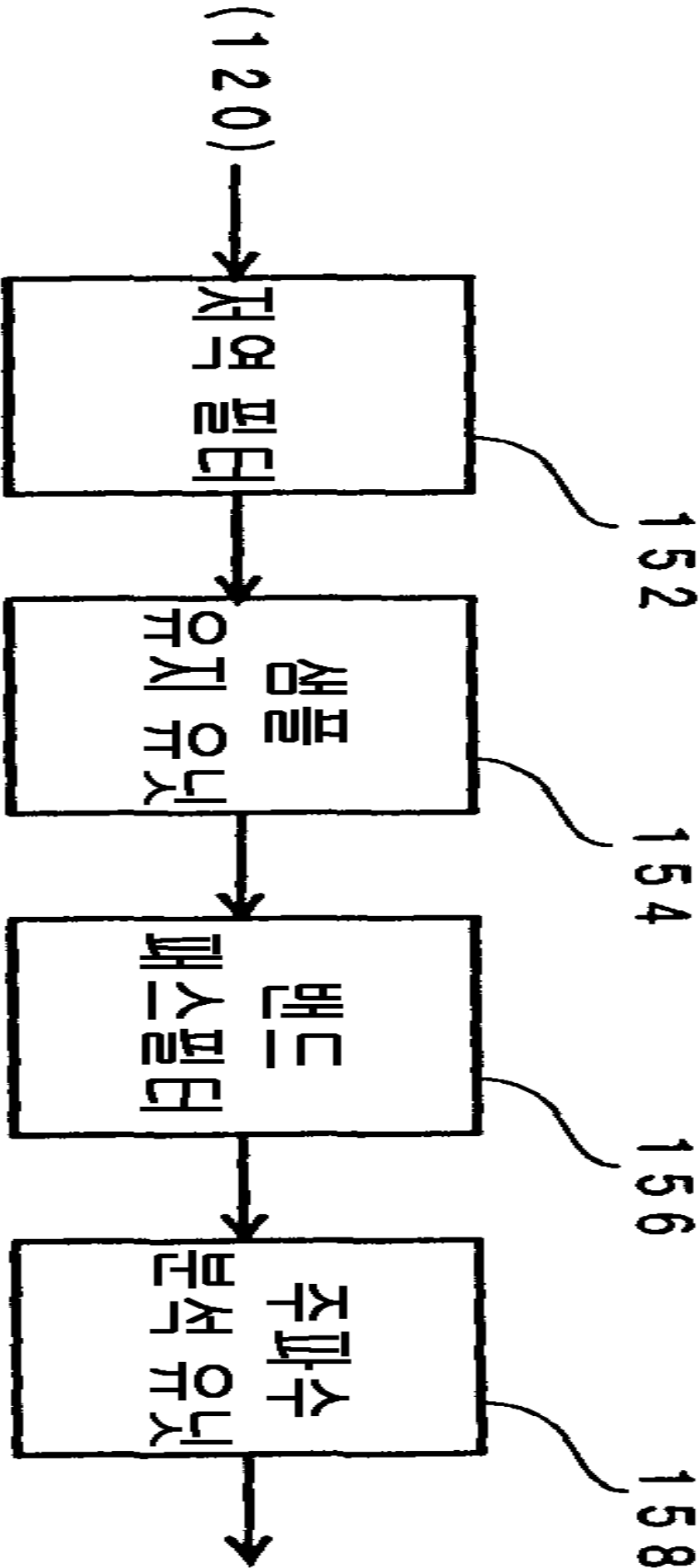


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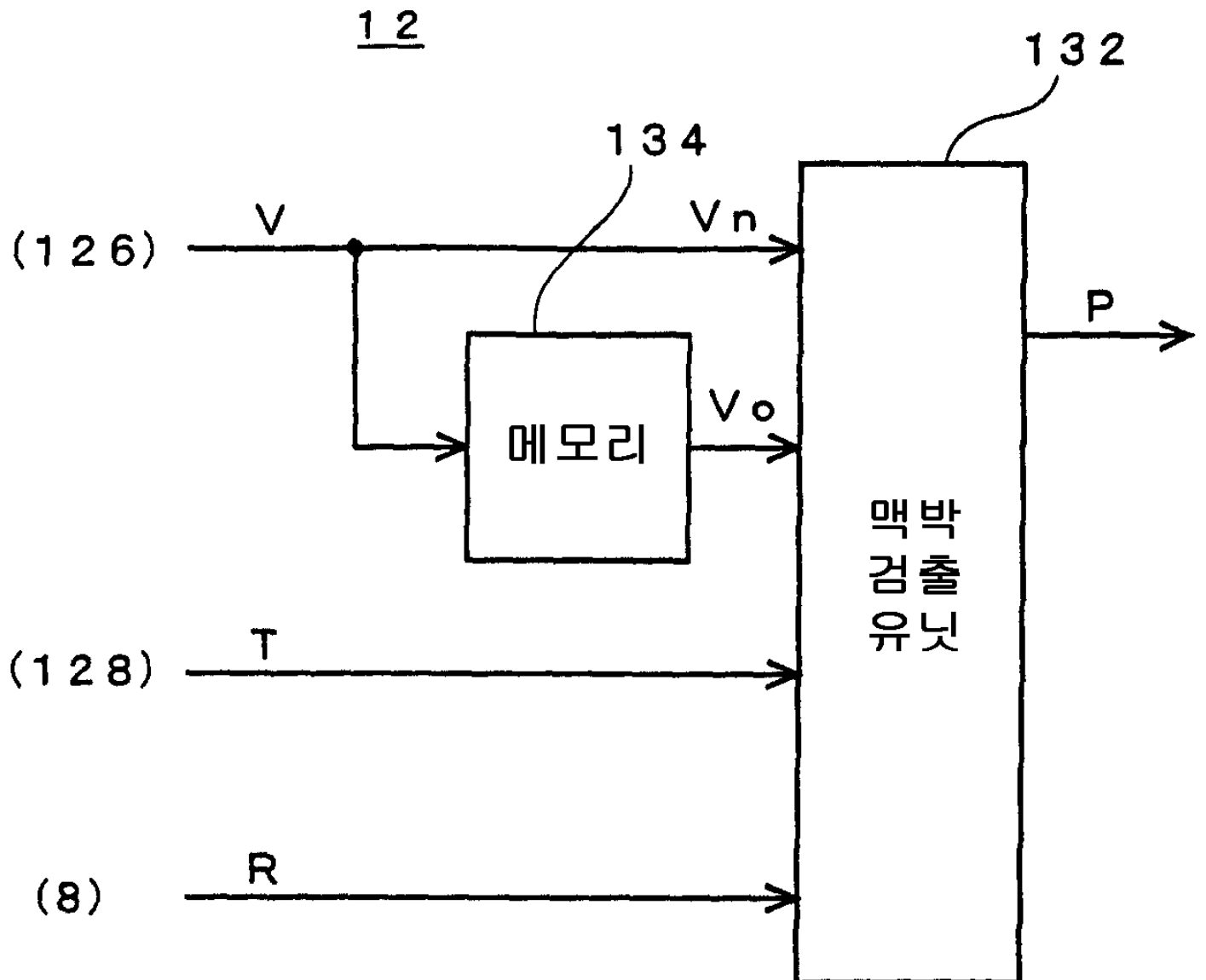


12

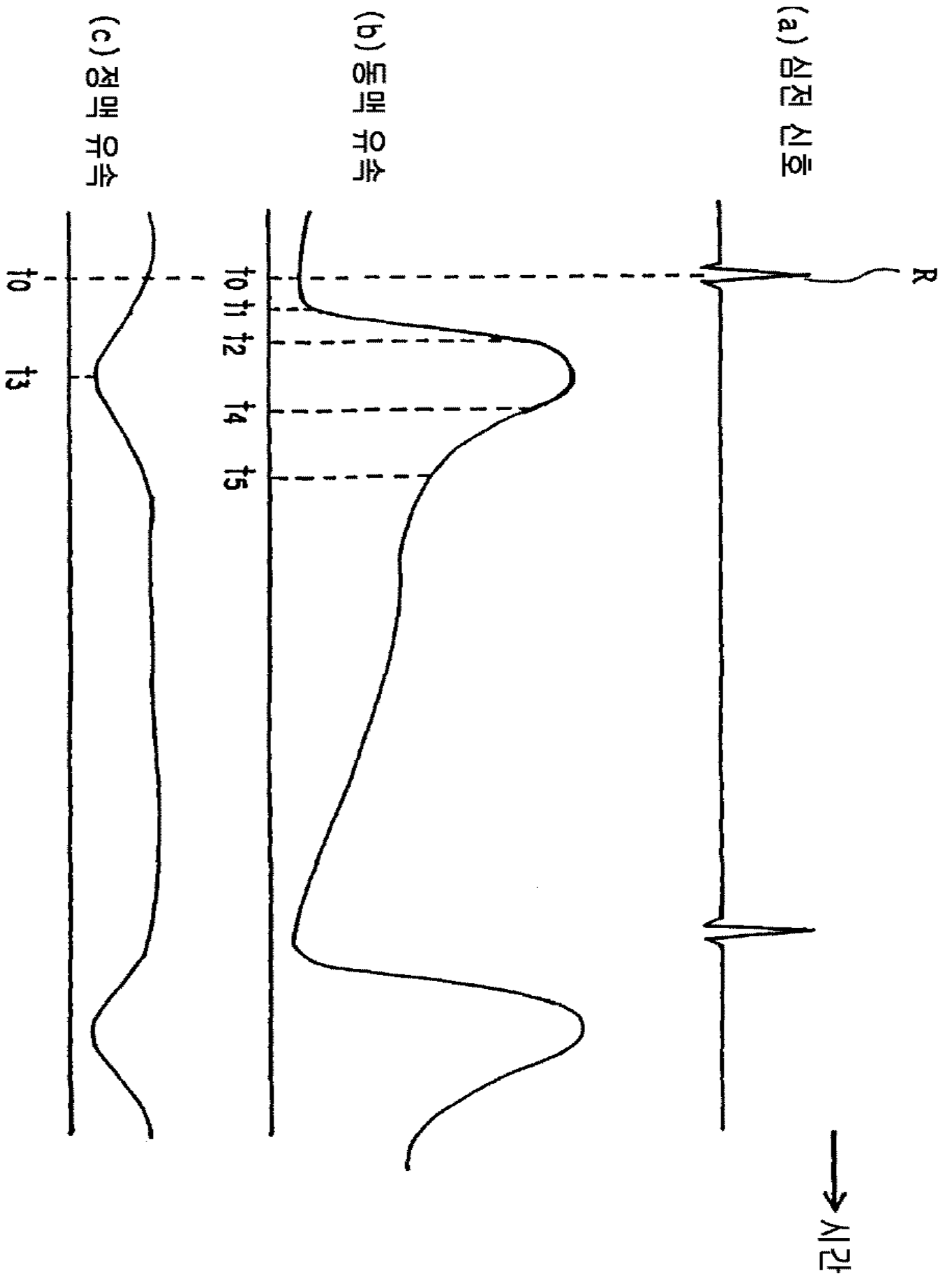




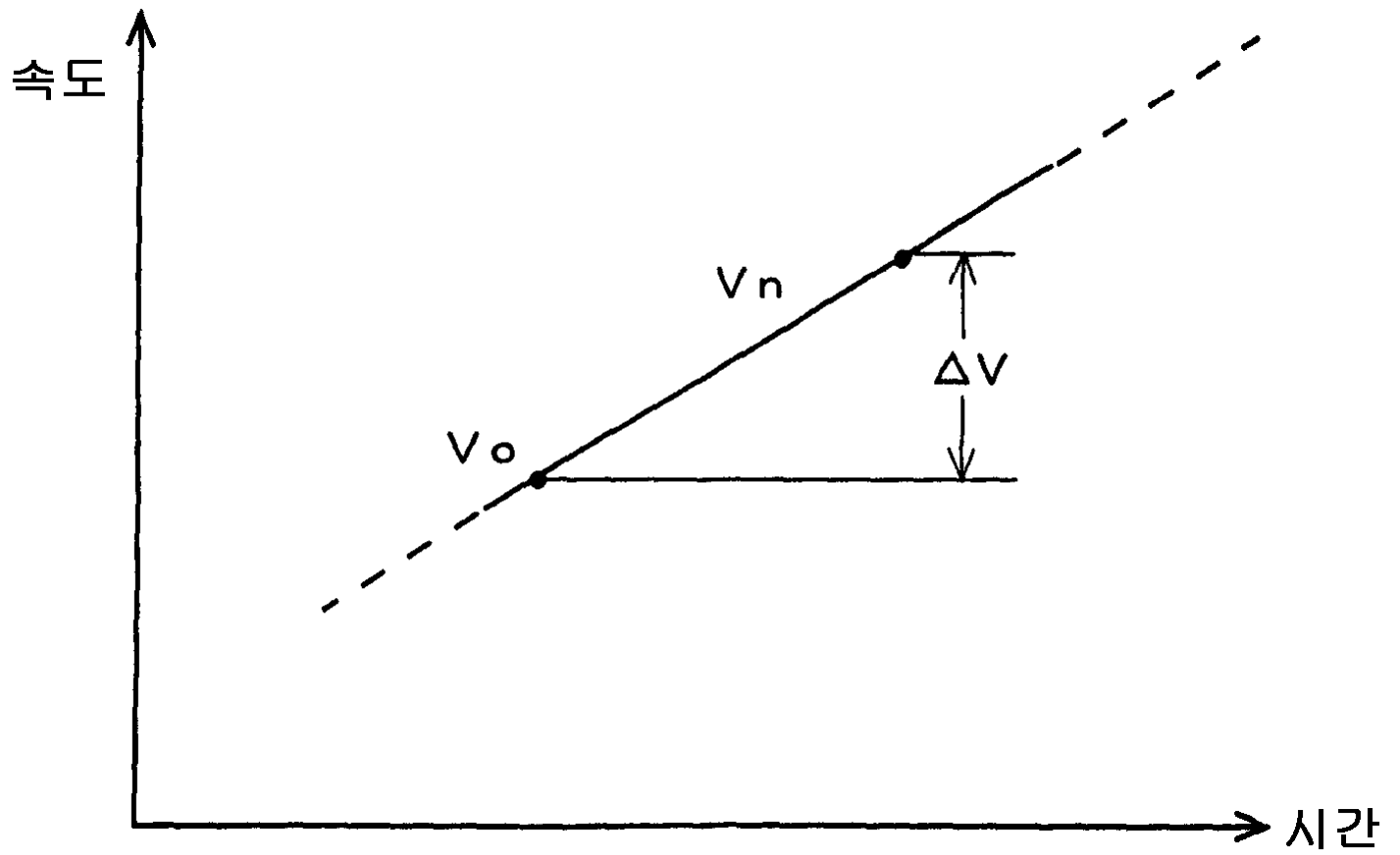
9



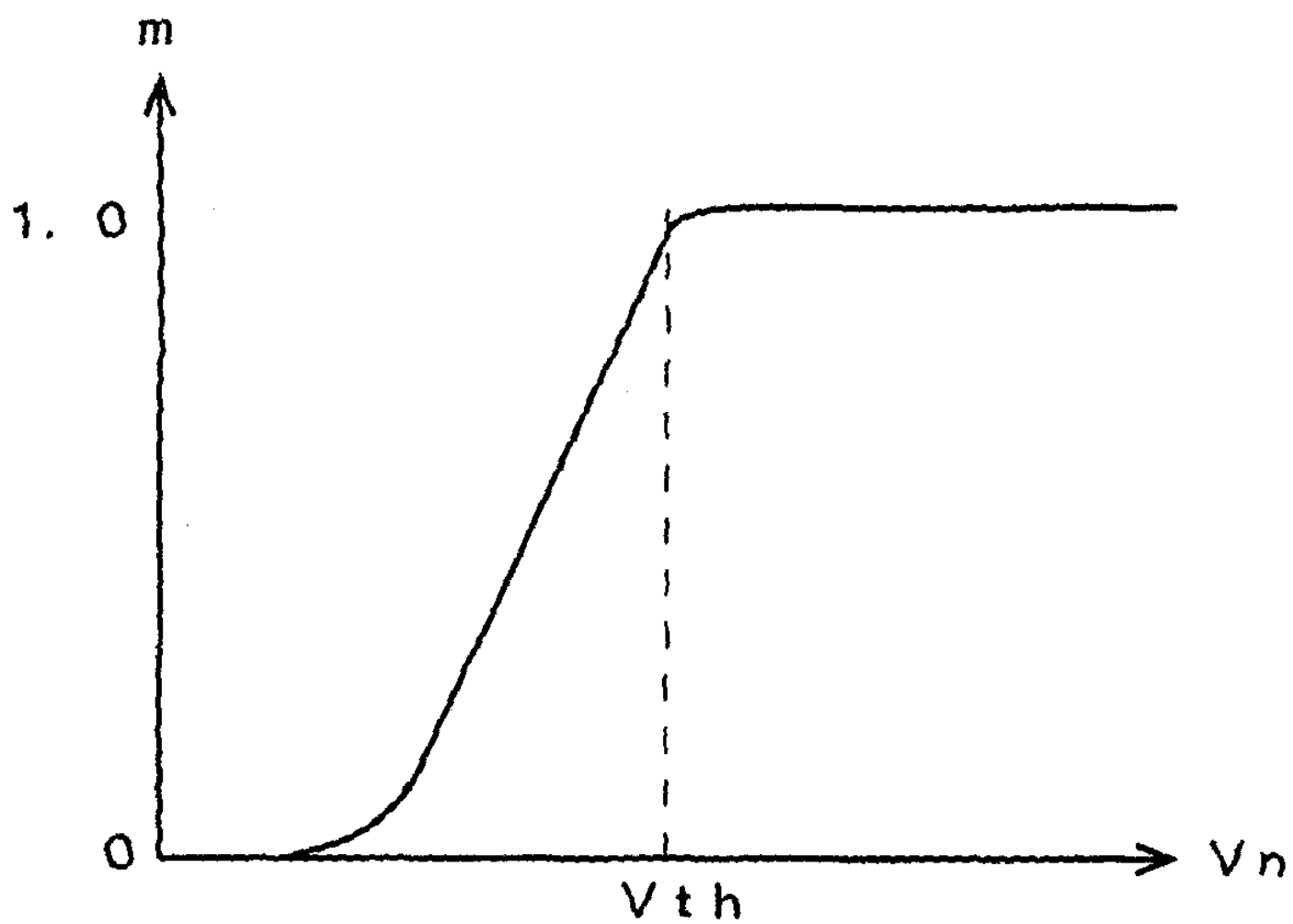
10



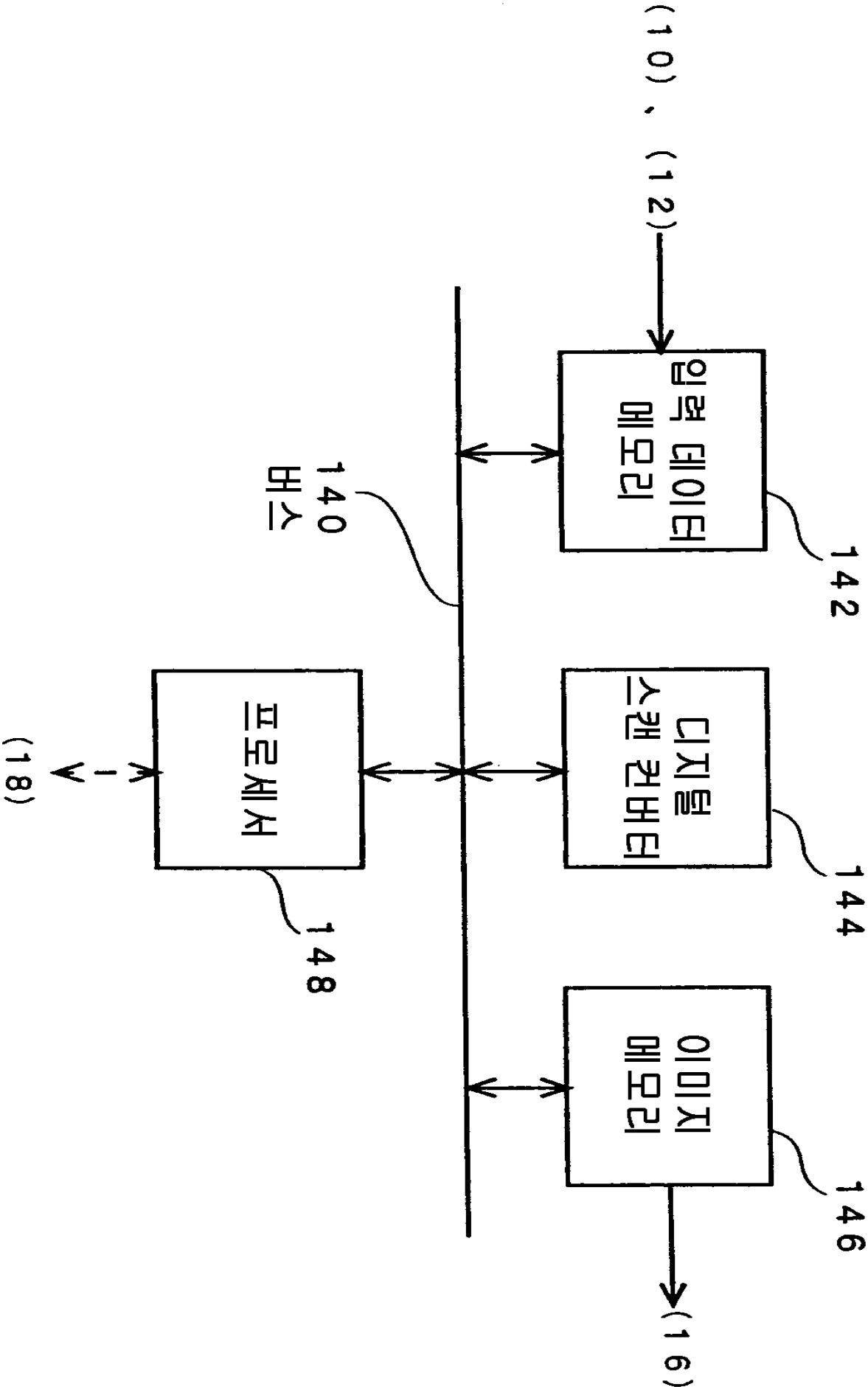
11

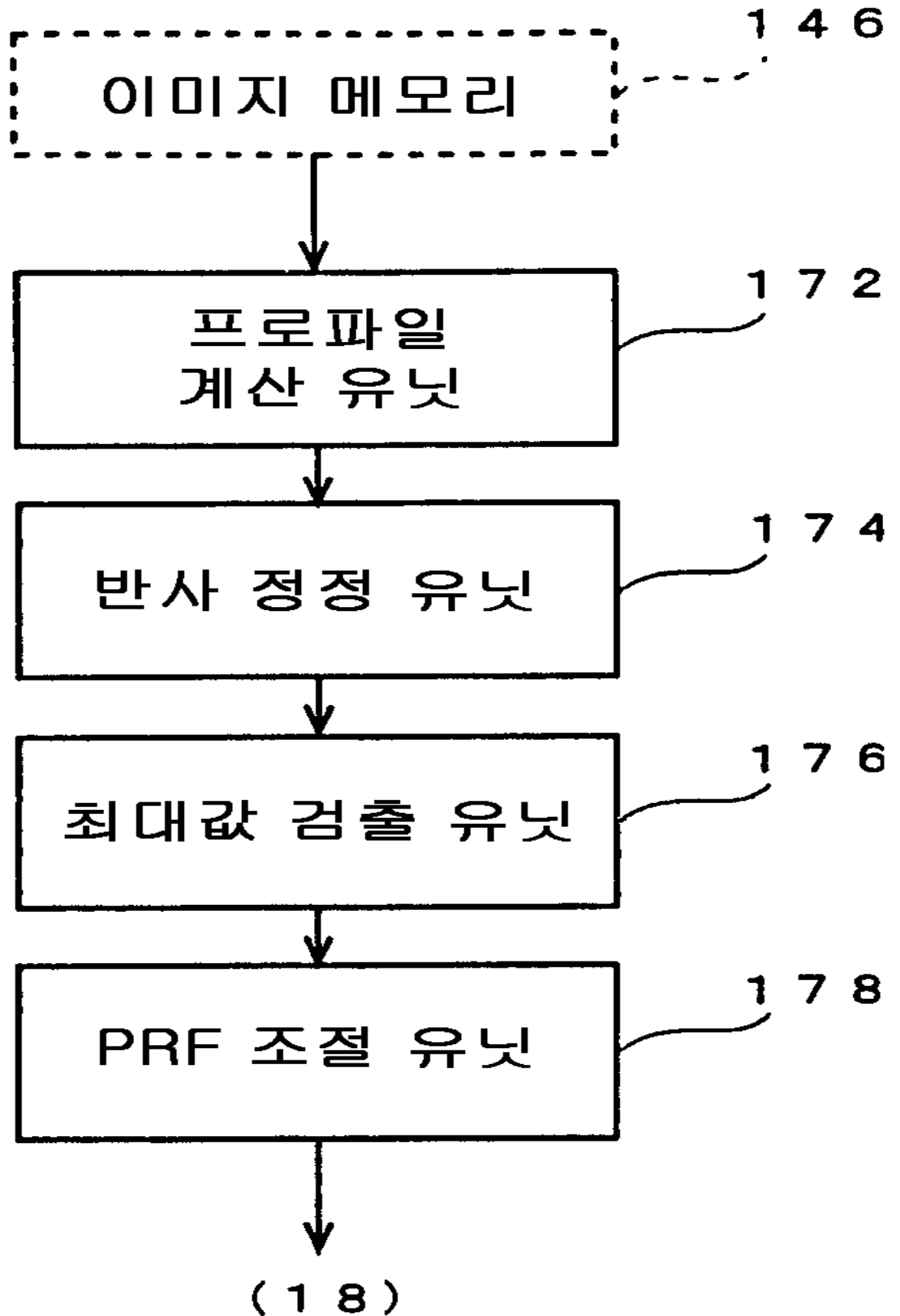


12

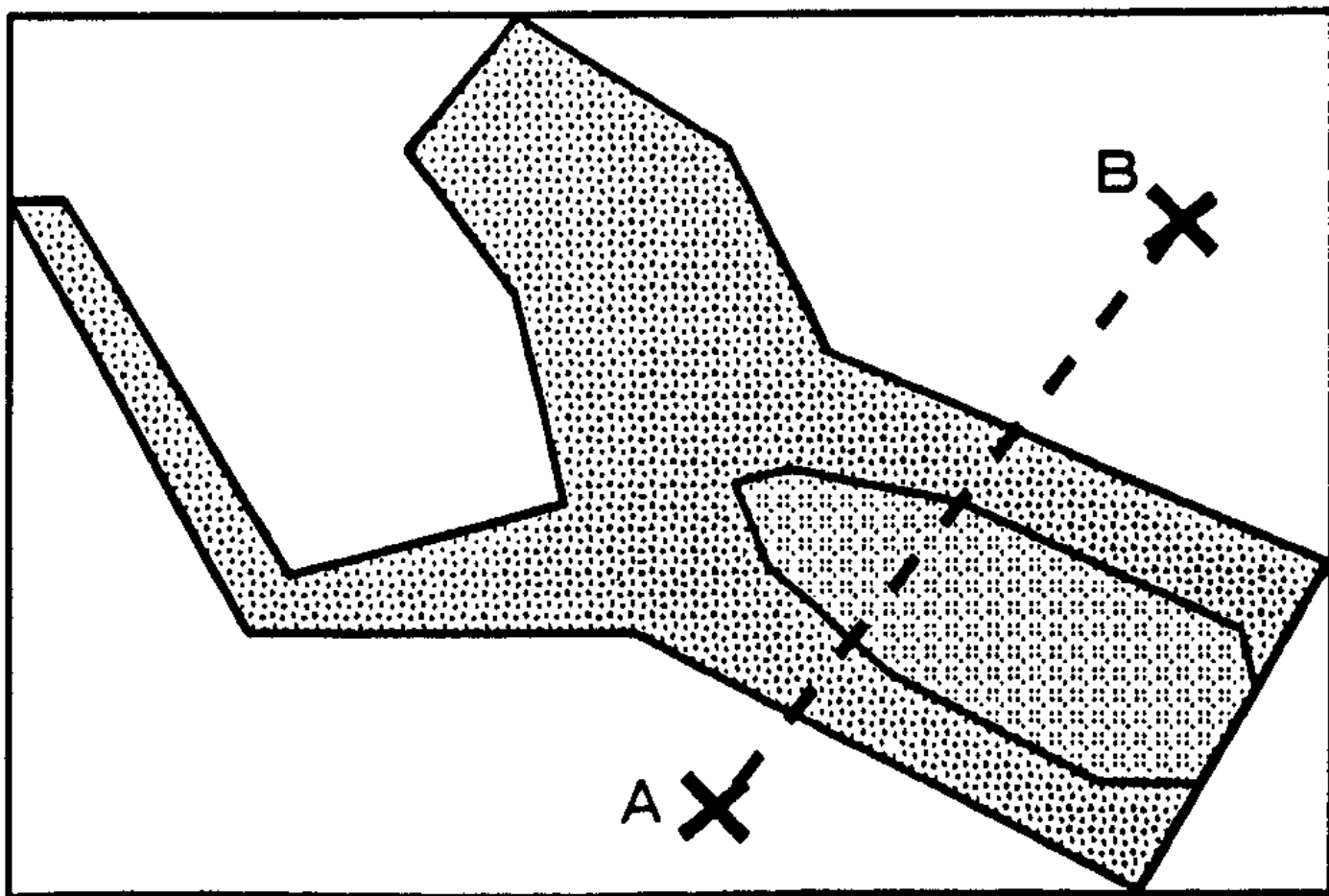


13

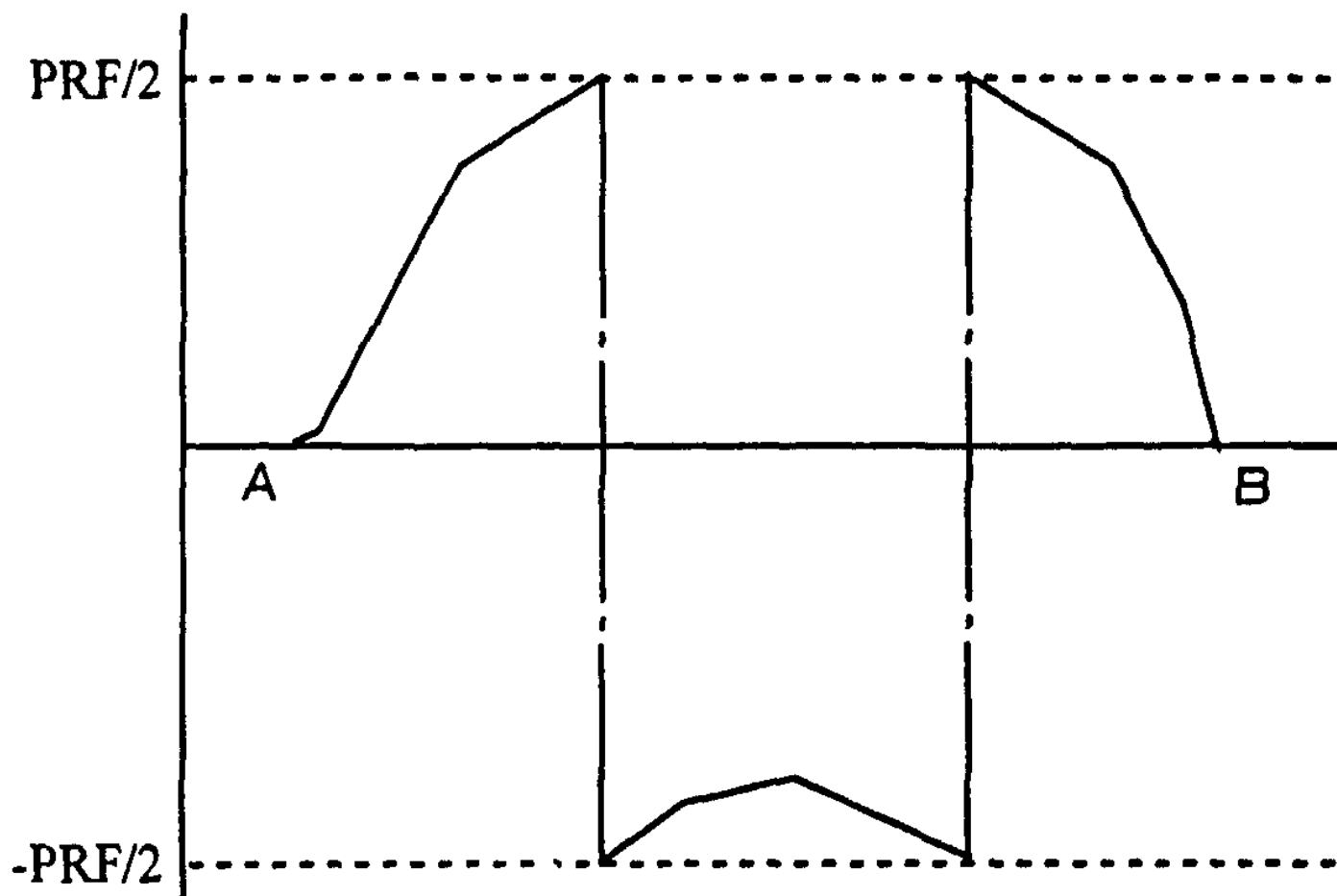


1 4 8

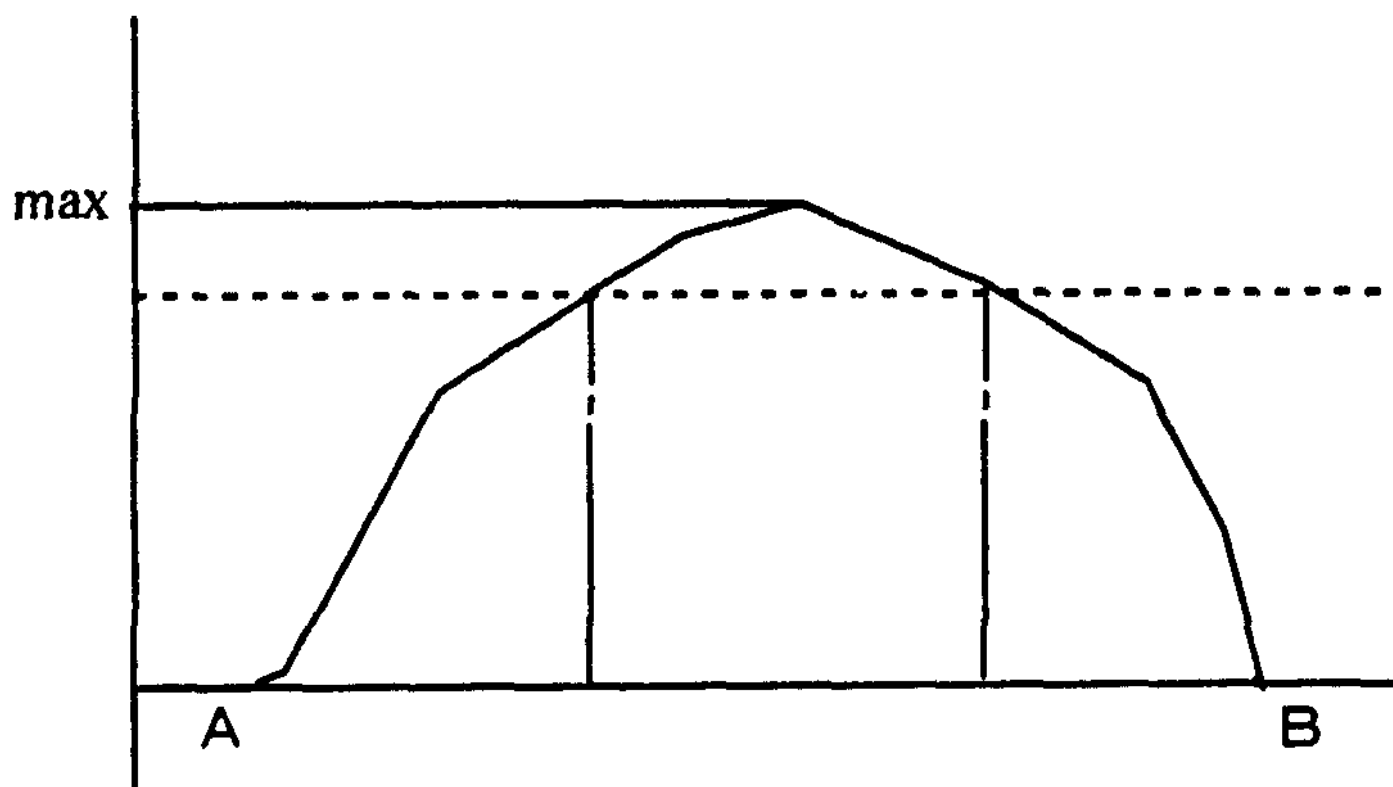
15



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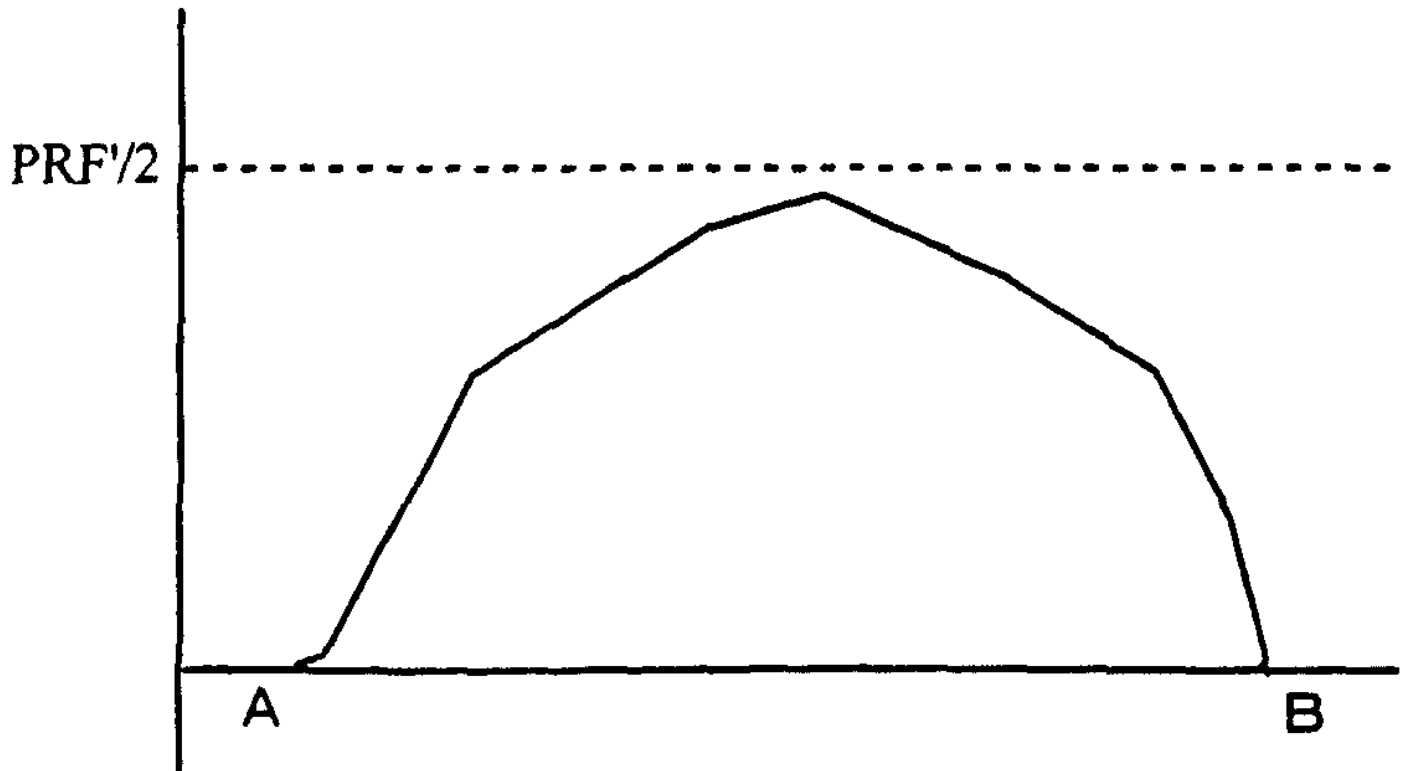


17

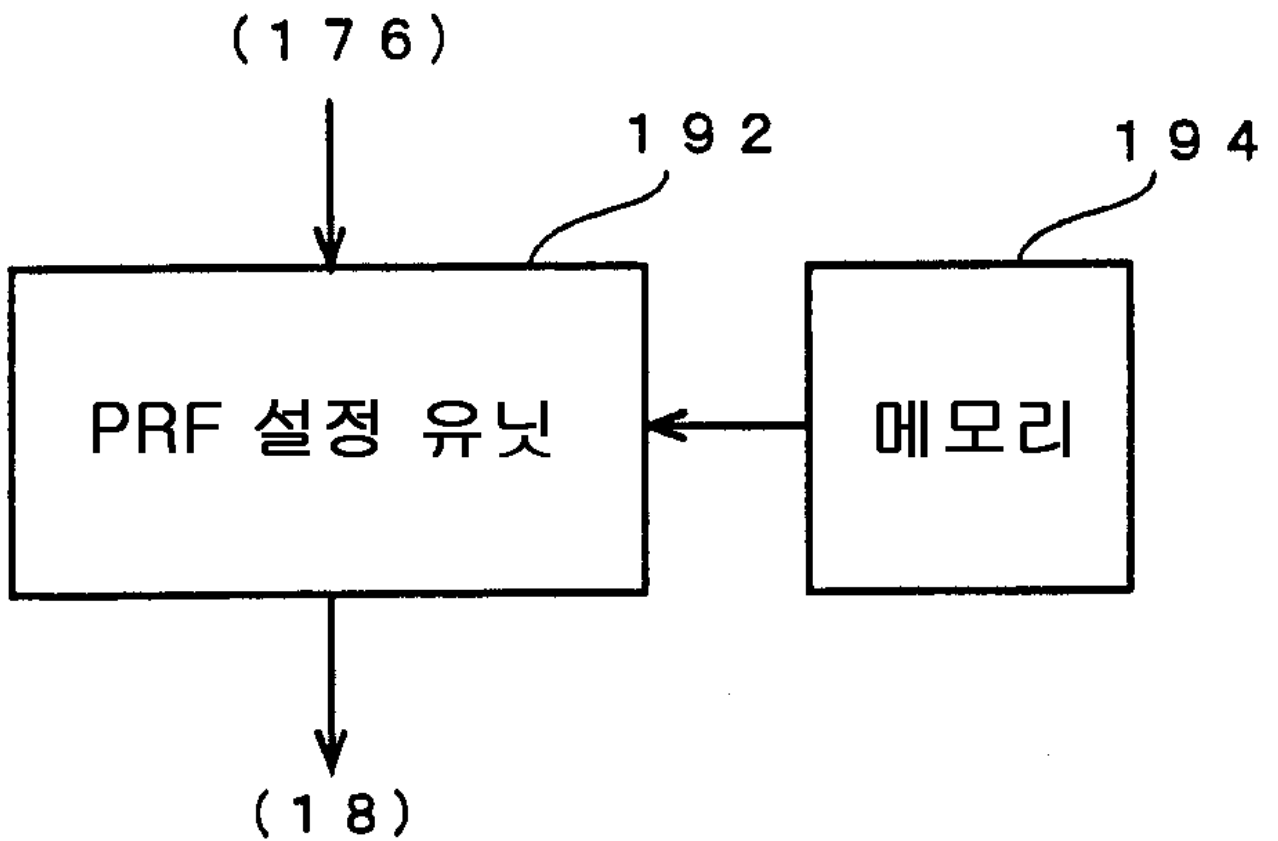




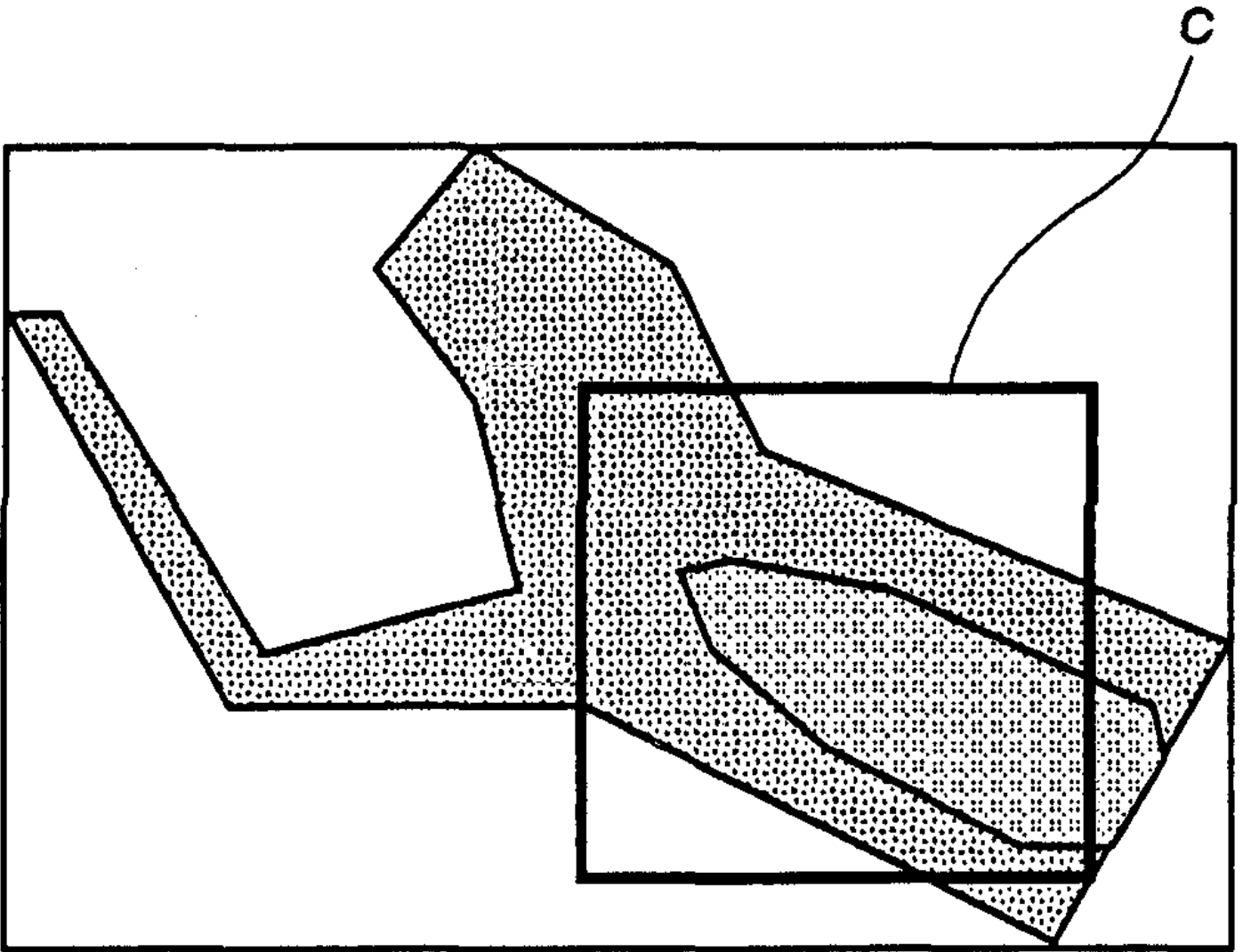
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专利名称(译)	PRF调整方法和装置，以及超声波成像装置		
公开(公告)号	<a href="#">KR1020010060257A</a>	公开(公告)日	2001-07-06
申请号	KR1020000065266	申请日	2000-11-03
申请(专利权)人(译)	지이메디컬시스템즈글로벌테크놀로지컴파니엘엘씨		
当前申请(专利权)人(译)	지이메디컬시스템즈글로벌테크놀로지컴파니엘엘씨		
[标]发明人	KATAOKA HIROAKI		
发明人	KATAOKA,HIROAKI		
IPC分类号	G01S7/524 A61B8/06 G01S G01S7/52 A61B G01S15/89 A61B8/14 G01S15/00		
CPC分类号	G01S7/52017 G01S7/5205 G01S15/8906		
代理人(译)	KIM, CHANG SE 张居正，KU SEONG		
优先权	1999314614 1999-11-05 JP		
其他公开文献	KR100749973B1		
外部链接	<a href="#">Espacenet</a>		

#### 摘要(译)

为了获得最佳PRF，基于超声回波的多普勒频移计算回波源的速度分布，计算172速度分布的分布，校正分布的反射174，（176），基于上述调整超声波传输的PRF。 1

