

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl. 7
A61B 8/00

(11)
(43)

2002 - 0055421
2002 07 08

(21) 10 - 2001 - 0085947
(22) 2001 12 27

(30) JP - P - 2000 - 00400840 2000 12 28 (JP)

(71)

53188

3000

(72)

가 4 7 - 127

(74)

:

(54) - ,

가	2	-	,	(215)	,
2	-	.	,		,
		(100)			
	(500)	,	(500)		

1 ,
2 1 ,
3 2 ,
4 2 ,
5 2 ,
6 1 B- ,
7 1 ,
8 1 ,
9 1 ,
10 1 ,
11 ,
12 ,
13 ,
14 ,
15 2 ,
16 ,
17 - ,
18 ,
19 2 ,
20 - ,
21 ,
22 ,
23 2 ,
24 - ,
25 .

2 : 4 :
 6 : 10 : B -
 12 : 16 :
 200 : 202 :
 602 : 606 :

(time - gain controlling method and apparatus),
 (echo reception)

B -

(Time - Gain Control : TGC)
 (brightness)가 TGC
 가

B -

TGC 가

(slide volume)

TGC 가

가

(1) external object)가 (touch) 2 (tablet pointer) (

(2) 가 2 (coordinate translating means) 2

(3) 2 가 가

(4) 가 2 가 2

가 가 2 가 2

가 가 가 2 가 2

3 가 (fine) 가 2

2 가 3 가 2

가

1

piezoelectric material) (2) PZT (lead zirconate titanate[Pb - Zr - Ti]) (2) () (2) (4) (abut) () (2) (6) (6) (2)가 (2) (6) (6) (2)가 (2) (6) (602) (6) (602) (604) (18) (604) (18) (604)가 (606) (606) (606) (tra nsmission aperture) (wavefront synthesis) (606) (610) (610) (606) (610)가 (18) (602) (604) (610) (4) (6) 3 (202) (fan - shape) 2 (206) (200) z - (sector scan)

(linear trajectory)(204) , (200) z - (202) 4
 , (translate) 2 (206) x -

가 (convex array)
 (200) (204) 5 2 (206) - (202)

(6) B - (10) (Doppler) (12) .
 12) B - (10) ()

B - (10) B - (10) 6
 (102), (104) TGC(Time - Gain Control) (106)

B - (10) (102) , (104)
 , TGC (106) - ,
 B - (18) A - (A - scope) , A -
 가 TGC (106) -

(12)

7 (122), (124), (12) (120), MTI(Moving Target Indication)
 (126), (128) (130)

MTI (12) (120) , MTI (122)
 MTI (122) (12) (124)
 (T) , (V) (128) (126)
 (130) (PW)

가 (12) (4) (V), (T) (PW)
 , () ,
 (2) (2)

B- (10) (12) (14)

(14) B- (10) (12) (14)

B- (14)

42) (14) 8 (CPU)(140) CPU(140) (144), (146), (148), CPU(140) (152), (DSC)(154), (156) (158)

(146) CPU(140)가 (146) CPU(140)가
가

CPU(140) (146) (144) (load) CPU(140) (148) (18)

B- (10) (12) B- (152) DSC(154) (156) (158)

(16)

(14) (16) (16) (16) 가 가 , (16) (14)

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

B- (18) (20) (20) (18) (pointing device)

(20)

(18) 9 CPU(180) CPU(180) (182) (184), (186), (188), (190), B- (192), (194), (196) (198)

(186) CPU(180)가 (186) CPU(180)가

CPU(180) (186) CPU(180)가 (184) CPU (180) (190) (6)

(20) , B- (2) (4)

(18) B - (time - sharing manner) B -

B - (6) (4) (2)
(10) (6)
(102) TGC (106)
A - A - B -

(14) B - (10) B -
(152) (152) B -
(6) (4) (2)

(12) (120) MTI (122)
MTI (124) (126)
(V) (128) (T) (130)
(PW)

(14) (12) (152) (152)

CPU(140) (152) B - DSC(154)
(156)
(V) (T) (P)
W) (PW) (T)

CPU(140) B - 가 (16) B -

B - 2 가

2

B- (16) 가 (16) (158)

10 (164)가 B- (162)가 B- (162) (16)

0) (164)가 B- (162)가 B- (162)

(ROI)(168) B- (162) (172 174) ROI(168) 2

72 174) ROI(168) 가 (1)

(160) B- (162) (gray scale)(176)

(user comment)(178)가

11 (101) (501) (101) (101)

101) (501) (101)

(201) (201) (panel)(301) (hinge)(401) (101) (401)

(301) (401) (201) (401) 가

(301) (301) 12 (201)

1) 가 (101) (20)

(201) (211) (211) 1 (20)

(211) (213) (215) (215)

(215) (click button)(217)

(215) PC()

가 , (215) 가 (stylus) 2 2 (18)

(215) 가 TGC -

(215)

(301) (311) (311) 1

(16) (311) (313) (315)

(313) LCD(Liquid Crystal Display) 가

(315)

(501) (101) (501) (501) (101)

12 (101) (501) (101) (501)

(101) (101) (501) (101) (501)

(101) (501)

13 (101) (501) (501) (501)

(551) (561)

(561) (121)가 (101) (561) (121)

(501) (101) 가

14 (561) (121) (121) (561) (101) (121)

(561) (501)

(561) (123) (123) (563) 가 (121) (123)

(563) (501) (563)

(215) (18) CPU(180)

(215), (18) TGC (106)

15 (215)가 2 (215) 2 2 (i, j)가 CPU(180) 가

(x y) 가

(j) , y (j) , CPU(180) 2 (i, j) x (i)

(i) (Gj) . CPU(180) , CPU(180) (i) . CPU(180)

16 CUP(180) CPU(180)

가 (3) 16 (1) 가

(j)

(1)

$G_j = k \cdot i$, k

(215) , , 17 가 - .

- 가 (215) .

- , B- 가 (16) TGC .

, (16) - , (16) 가 .

- 가 , (position

- type time - gain control)

18 - 가 , (5) 가

2 19 x (X1) 2 (A B)

(X1) (X1) 가 (A) (X1) 가 (B)

가 가 (i, j) , (A) , (9)

(Gj) 가 (i, j) ,

, 20 , y (j) , 가 (dot - dash line)

j) 가 가 가 가 (

가 가 (i', j') , (B) , (11)

(Gj') (i', j')

, 20 , y

(j')

가 가 (j')

가 , 가

- (16)

(1) 0 (i) (S) (X1) 21

(X1) 21 가 (2) 가 (i) 가 가 (215)

(1) (2) (1) (2)

22 (15) (i)가 (13) 가 16 18 가

2 23 x (X2 X3) 3 (C, D E) (X2) 2 (215) (X3) 3

(X2) x (C) 가 (X2) (X3) (E) 가 (X2) (X3) x (D) (X3) 가 (j) (Gj) 가 (i, j) (1) (C) (17)

가 (Gj') 가 (i', j') 가 (i', j') (D) (19)

가 (Gj'') (i'', j'') 가(i'', j'') (E) (21)

24 y (j') 가 y (j'') (16)

(1) (2) 가 25 (23) (25) 16 (1) (27) 18 (1) (2) (29) 18 (2) (31) 22

가 .

70mm x 50mm x 5mm

12
가

TGC

TGC

가

가

가

(57)

1.

(echo reception) - (a time gain) (control) -
(a surface of a tablet pointer) (an external object)가 2

2

2.

1

3.

1 ,

가 ,

4.

3 ,

5.

3 ,

6.

1 ,

2 ,

2 ,

3

2 ,

3

가

7.

1 ,

가 ,

2 ,

2

2

3

3

가

(switching)

8.

- - ,
 ,
 가 2 ,
 (coordinate translating means) ,

2 -
 - .
 9.

8 ,
 - .
 10.

8 ,
 가 ,
 - .
 11.

10 ,
 - .
 12.

10 ,
 - .
 13.

8 ,
 2 2 3 ,

2 ,
 3 가 - .

14.

8 ,

,

가 ,

,

2

2

3

,

2

3

가

- .

15.

가

2

,

,

2

-

-

가

16.

15

,

17.

15

,

가

,

18.

17

,

19.

17

,

20.

15 ,

2 , 2 3

2 ,

3 가 .

21.

15 ,

,

가 ,

,

2 , 2 2 3 3

2

가

22.

,

,

,

-

-

,

-

,

,

-

,

,

가

2

,

,

2

-

.

23.

22 ,

24.

22 ,

가 ,

25.

24 ,

26.

24 ,

27.

22 ,

2

2

3

2

3

가

28.

22 ,

가 ,

2

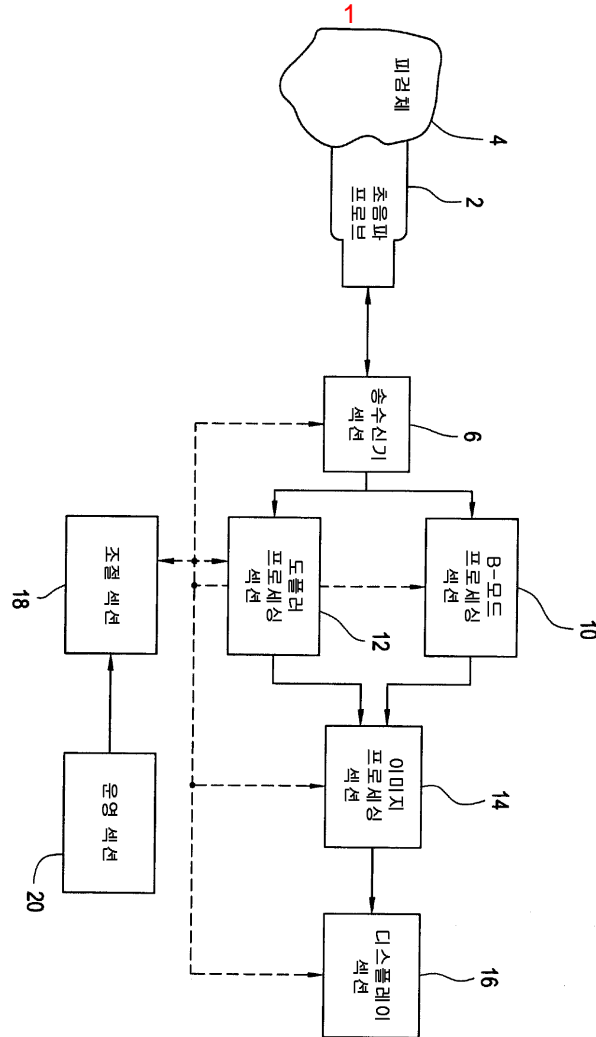
2

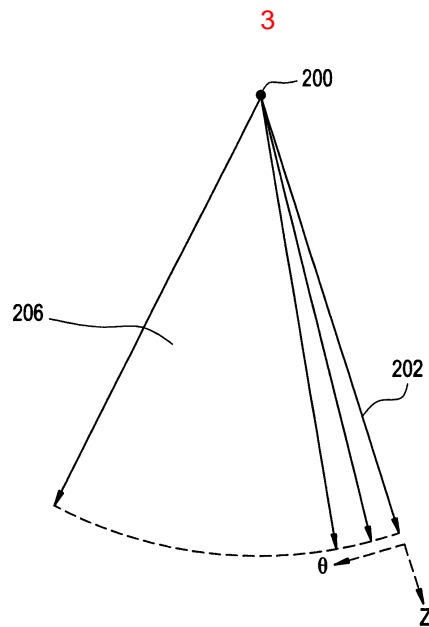
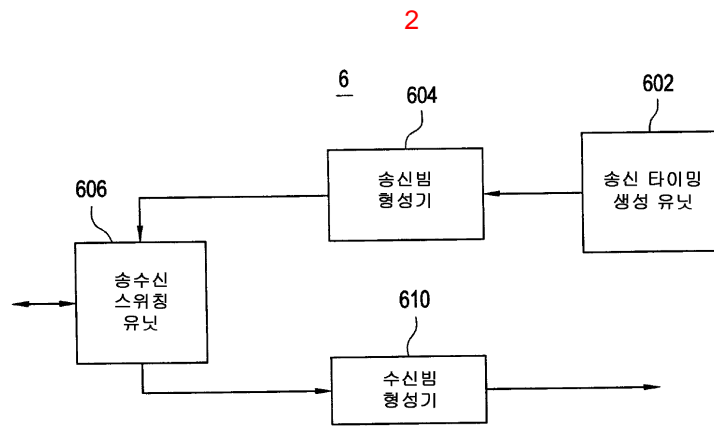
2

3

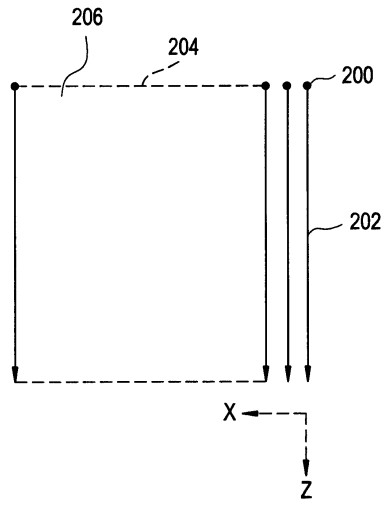
3

가

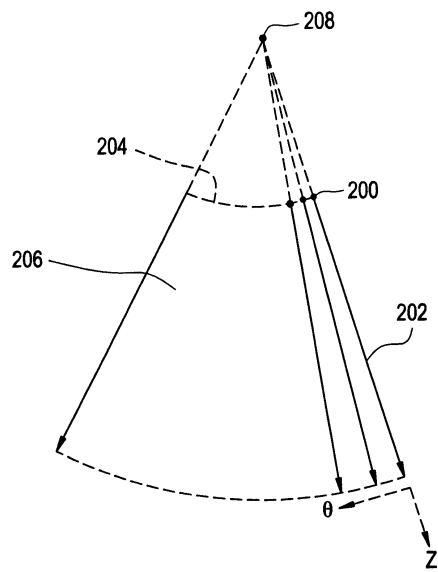


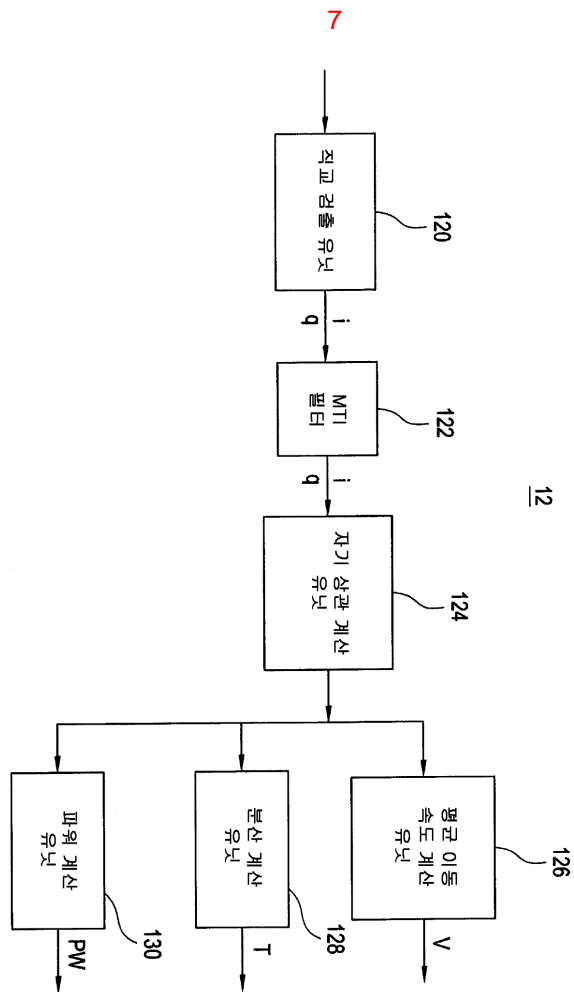
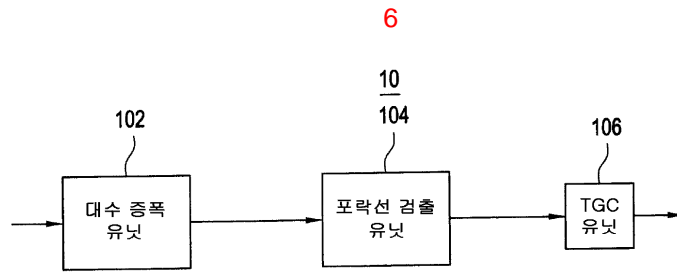


4

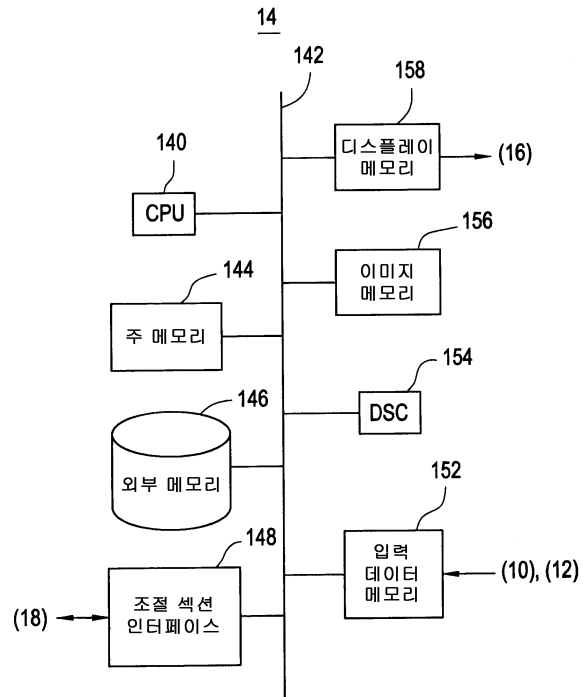


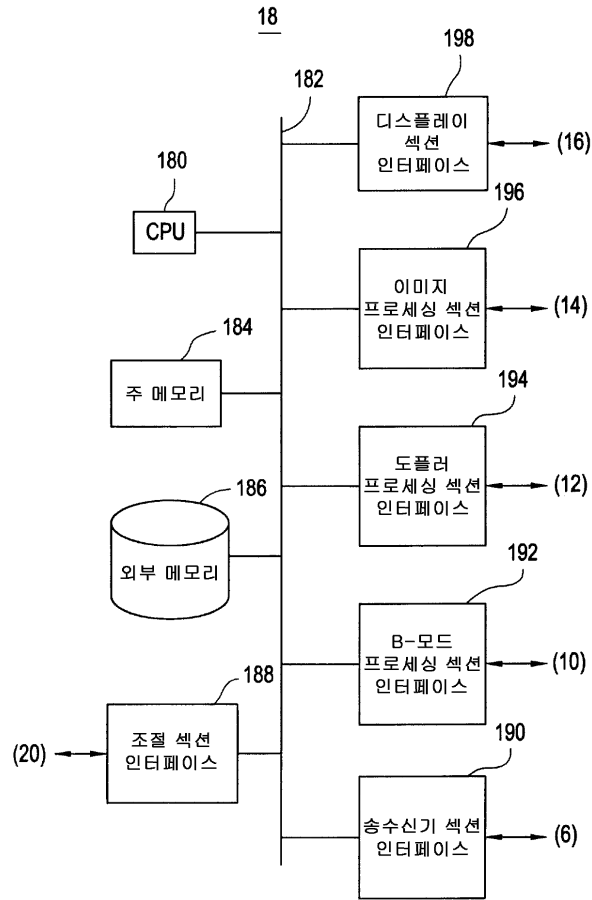
5

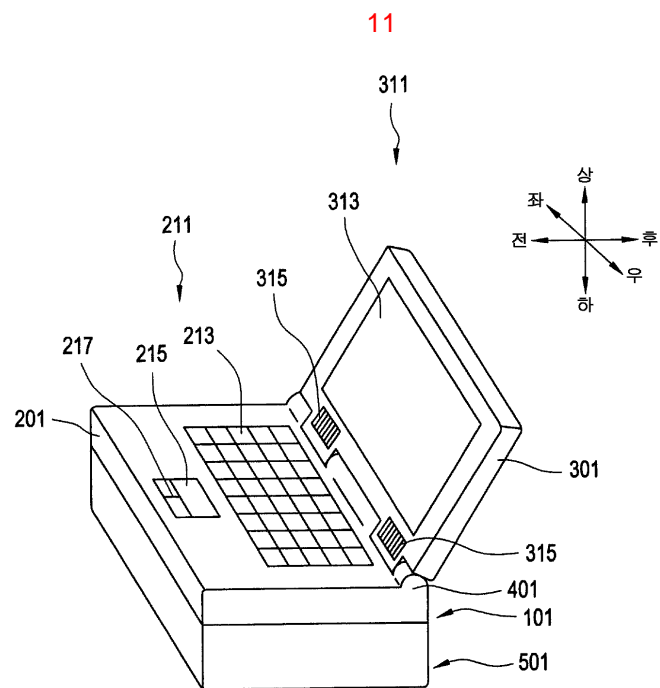
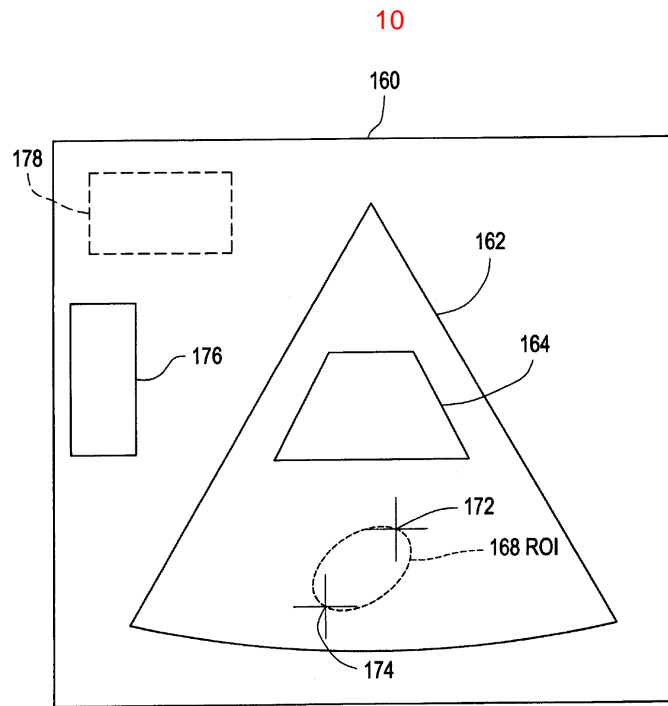




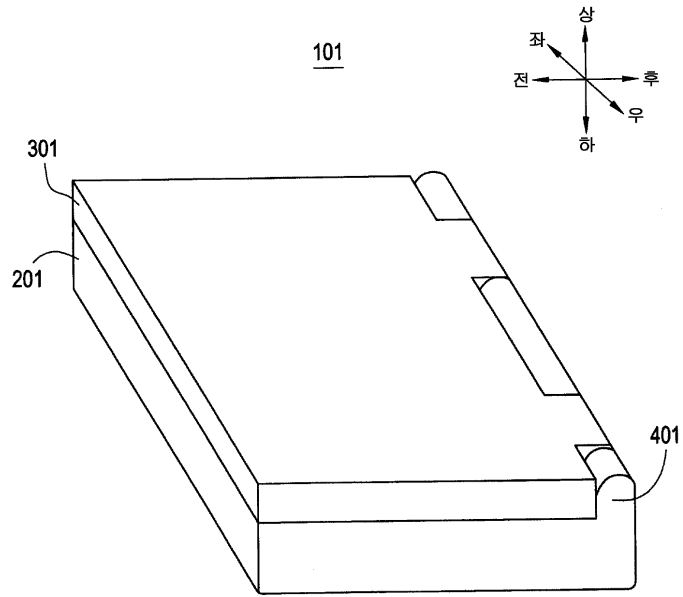
8

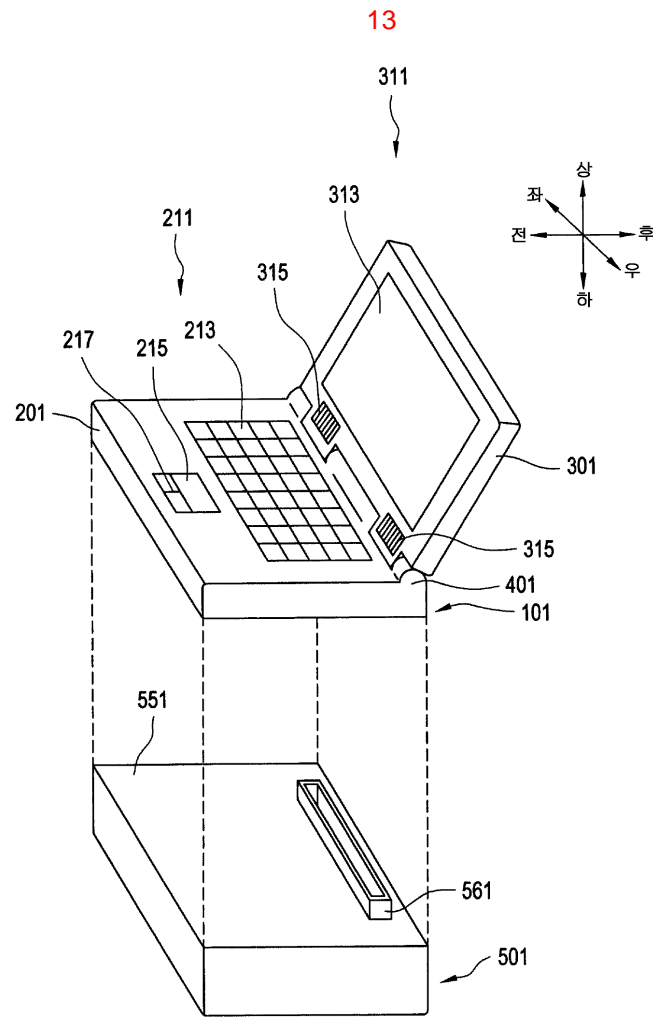




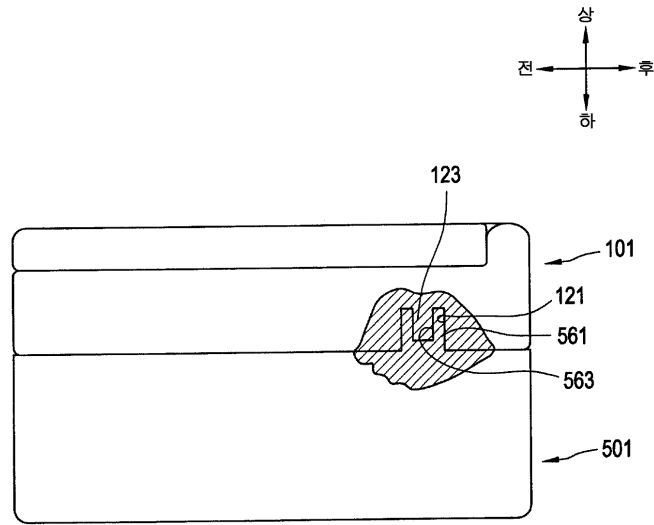


12

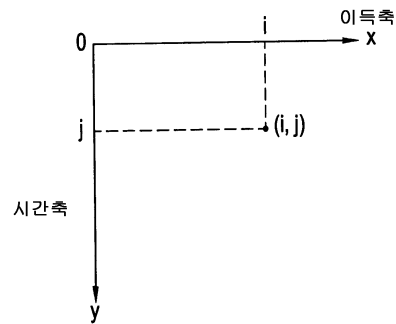




14

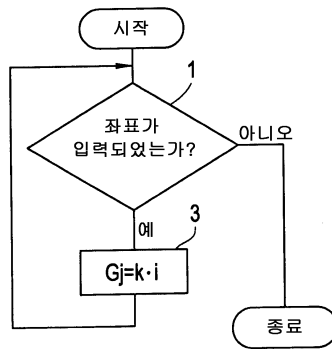


15

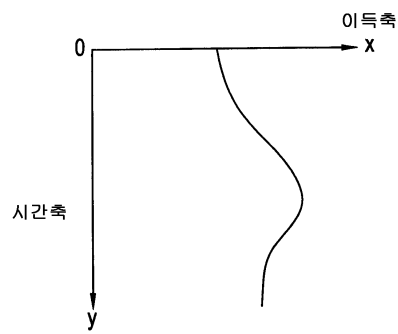


16

위치형

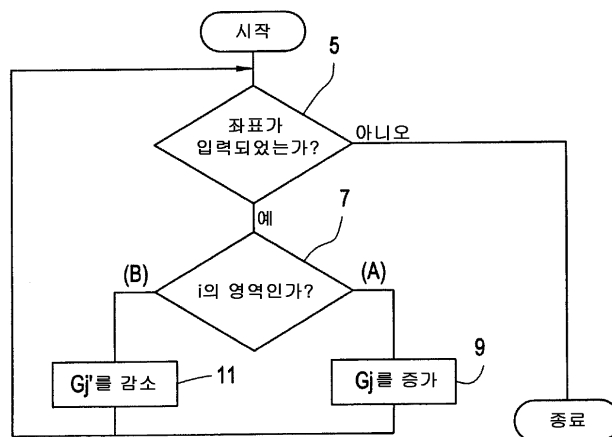


17

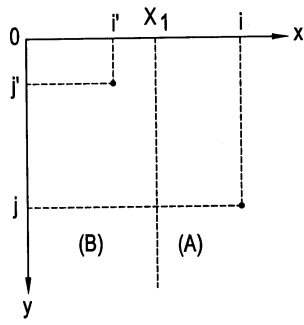


18

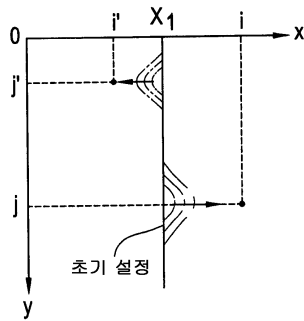
속도형



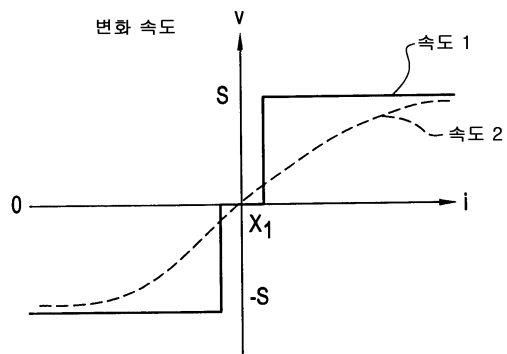
19



20

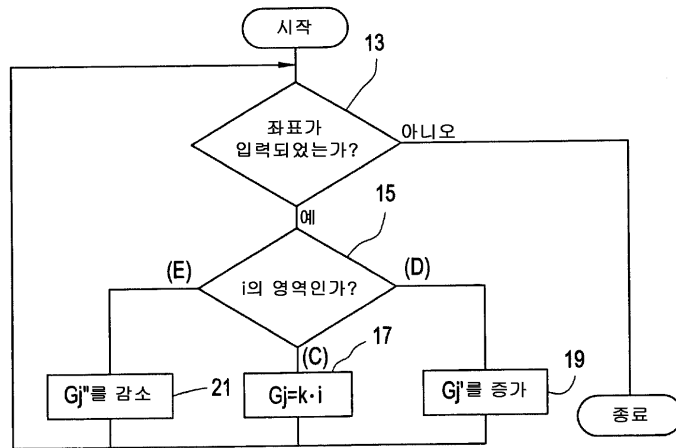


21

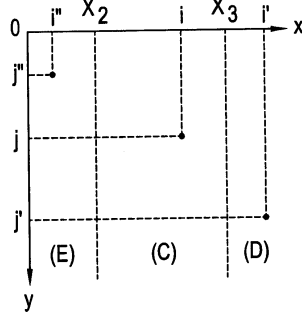


22

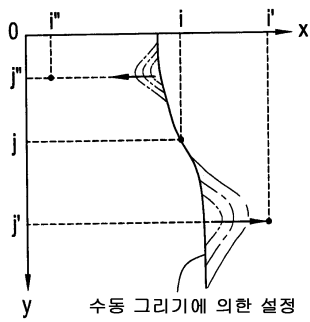
결합형



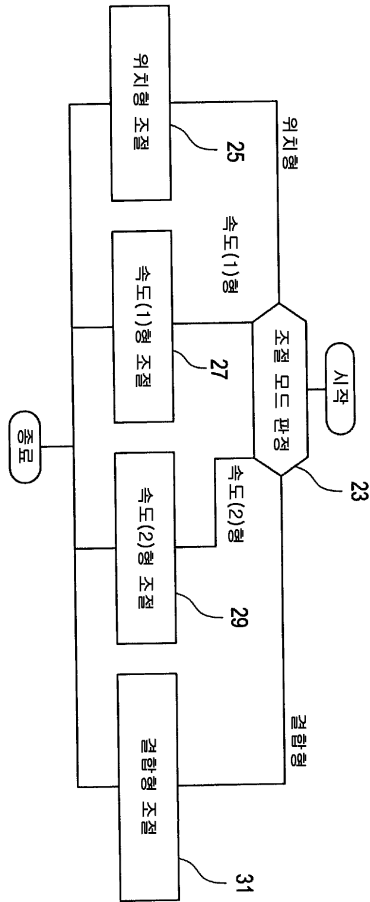
23



24



25



专利名称(译)	时间增益控制方法和装置，记录介质和超声波成像装置		
公开(公告)号	KR1020020055421A	公开(公告)日	2002-07-08
申请号	KR1020010085947	申请日	2001-12-27
申请(专利权)人(译)	지이메디컬시스템즈글로벌테크놀로지카파니엘엘씨		
当前申请(专利权)人(译)	지이메디컬시스템즈글로벌테크놀로지카파니엘엘씨		
[标]发明人	AMEMIYA SHINICHI		
发明人	AMEMIYA,SHINICHI		
IPC分类号	A61B8/00 G01S7/52 G01S15/89 A61B8/14 A61B8/06		
CPC分类号	A61B8/4411 A61B8/06 G01S15/899 A61B8/463 G01S7/52082 A61B8/13 G01S7/52055 G01S7/52033 A61B8/467 A61B8/462 A61B8/469		
代理人(译)	KIM, CHANG SE 张居正, KU SEONG		
优先权	2000400840 2000-12-28 JP		
其他公开文献	KR100829292B1		
外部链接	Espacenet		

摘要(译)

外部物体接触平板电脑指针215的表面的位置的二维坐标之一被定义为时间轴上的坐标，以便使用小的手动设定装置执行精确的时间增益调节，被定义为增益轴上的坐标，并且基于二维坐标调整时间增益。为了提供满足便携性和多样性的超声成像设备，超声成像设备包括便携式成像设备100和支撑设备500，便携式成像设备100包括超声成像装置，支撑装置500包括用于支持成像设备的扩展功能的支撑装置其中支撑装置500电气和机械地耦合以可与成像装置分离。 1

