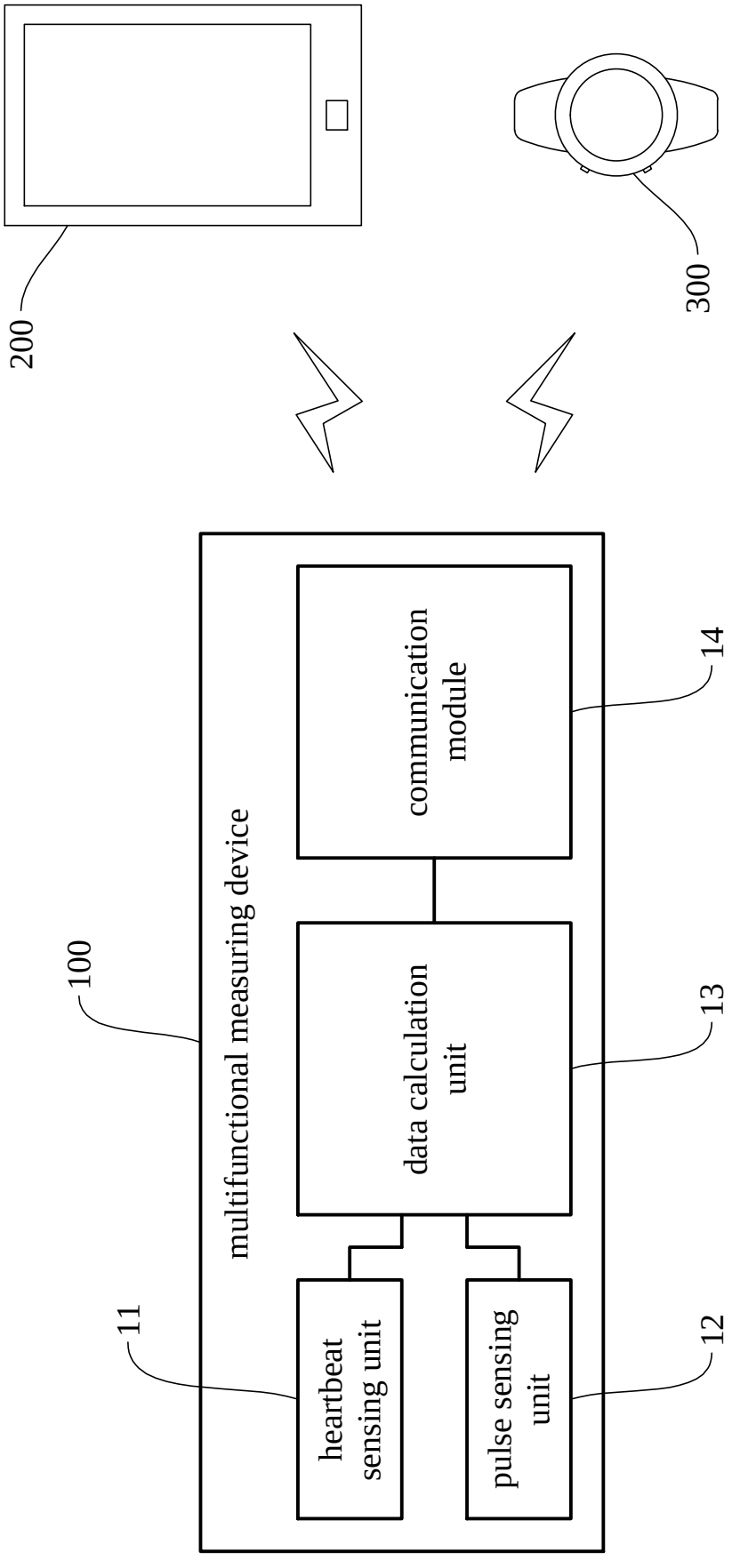

200
300
100
multifunctional measuring device
communication module
14
data calculation unit
13
heartbeat sensing unit
11
pulse sensing unit
12

Fig.1

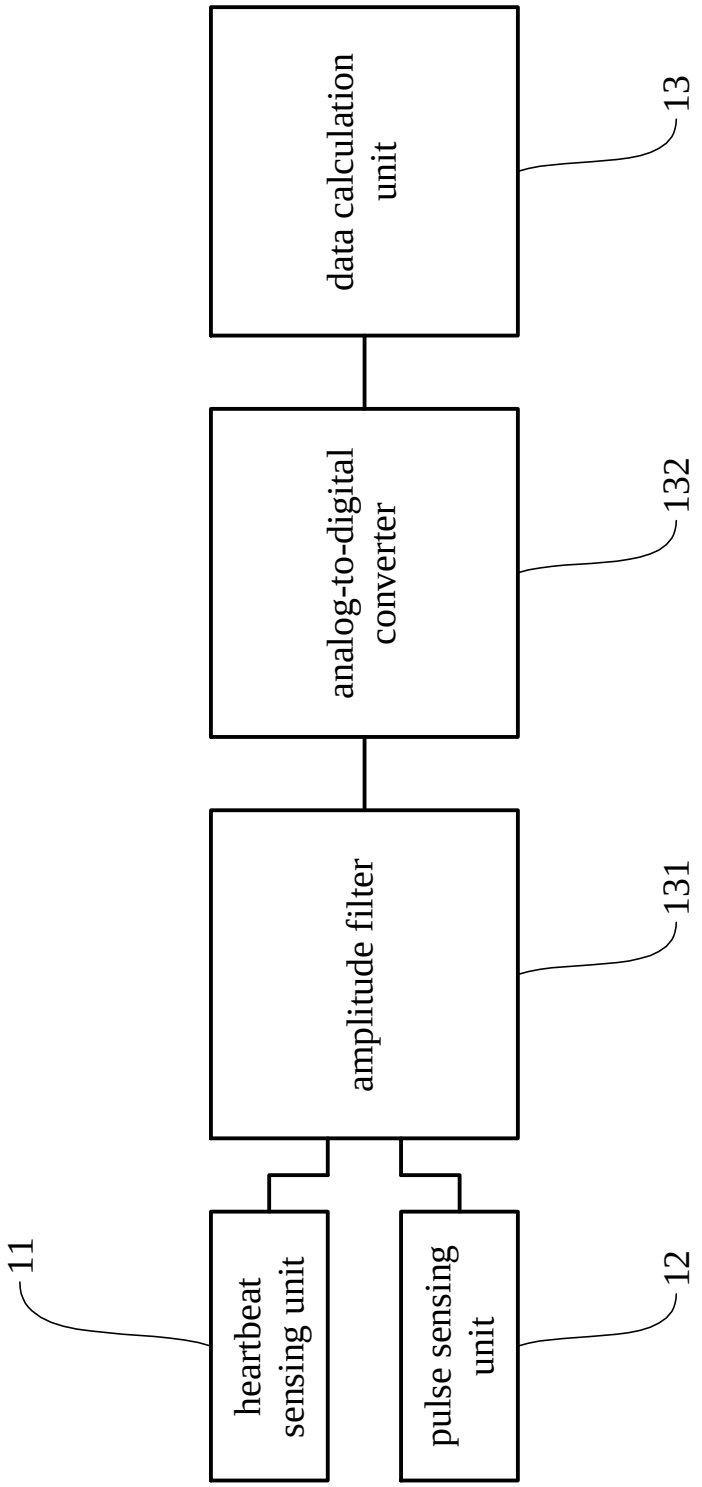

data calculation unit
13
analog-to-digital converter
132
amplitude filter
131
heartbeat sensing unit
11
pulse sensing unit
12

Fig.2

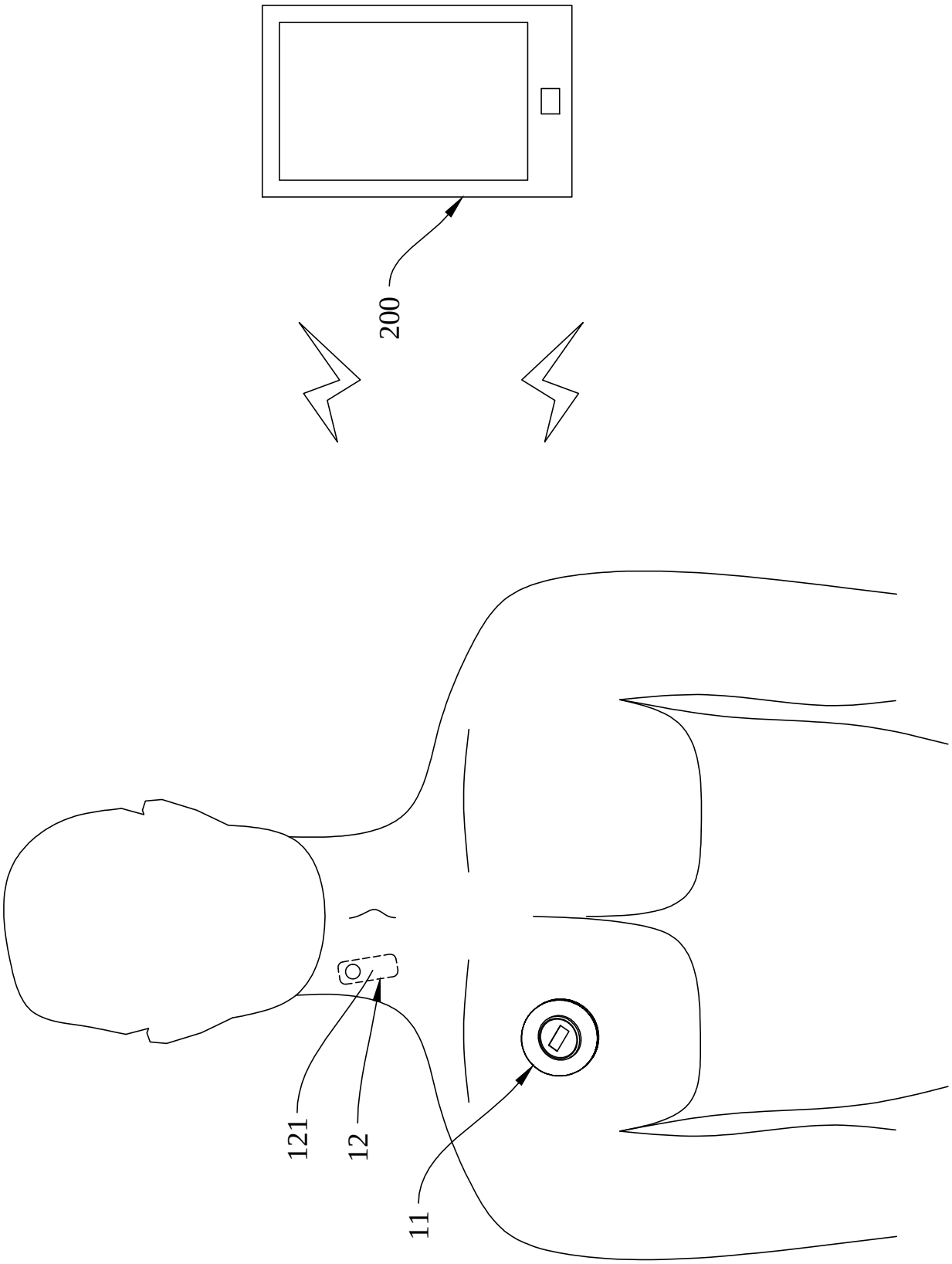


Fig.3

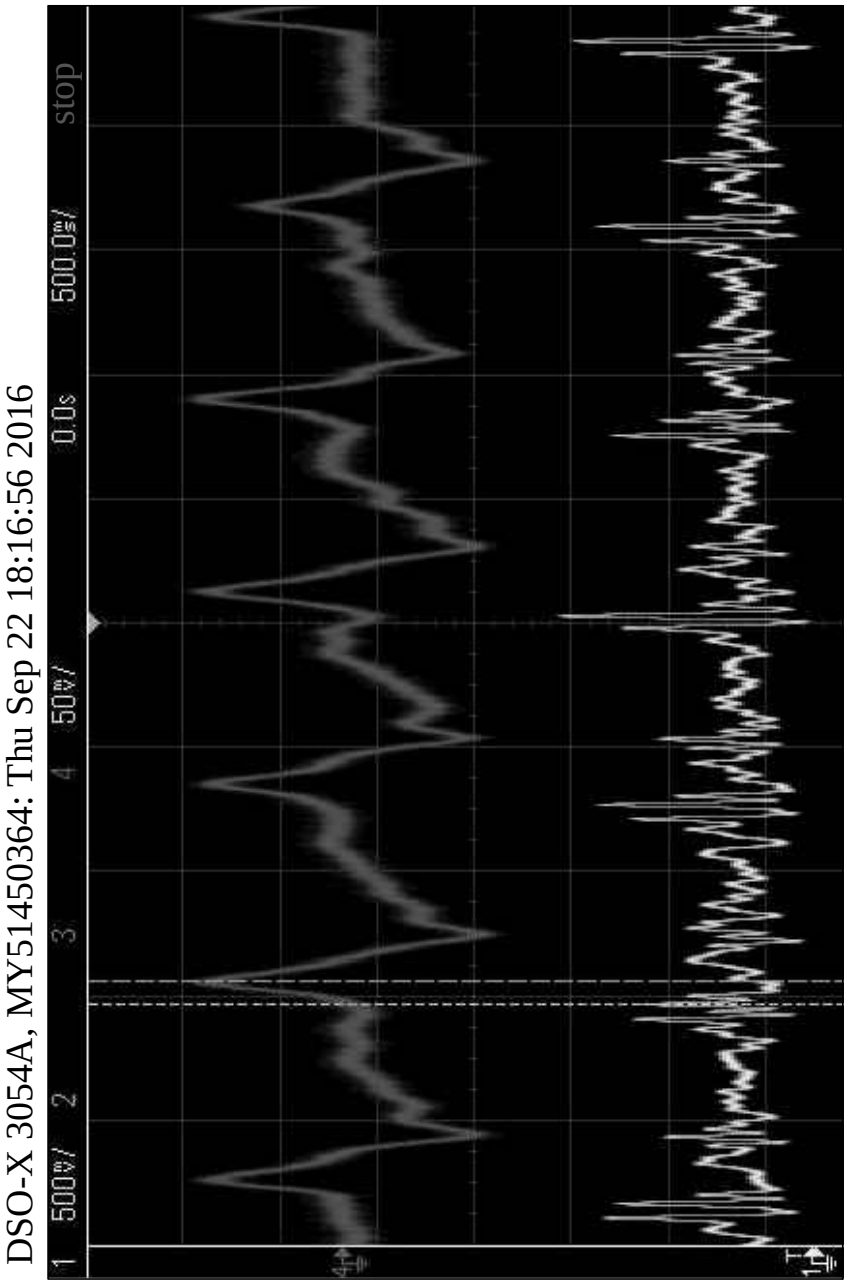

DSO-X 3054A, MY51450364: Thu Sep 22 18:16:56 2016
1 500mV/ 2 3 4 50mV/ 0.0s 500.0ms/ stop

Fig.4

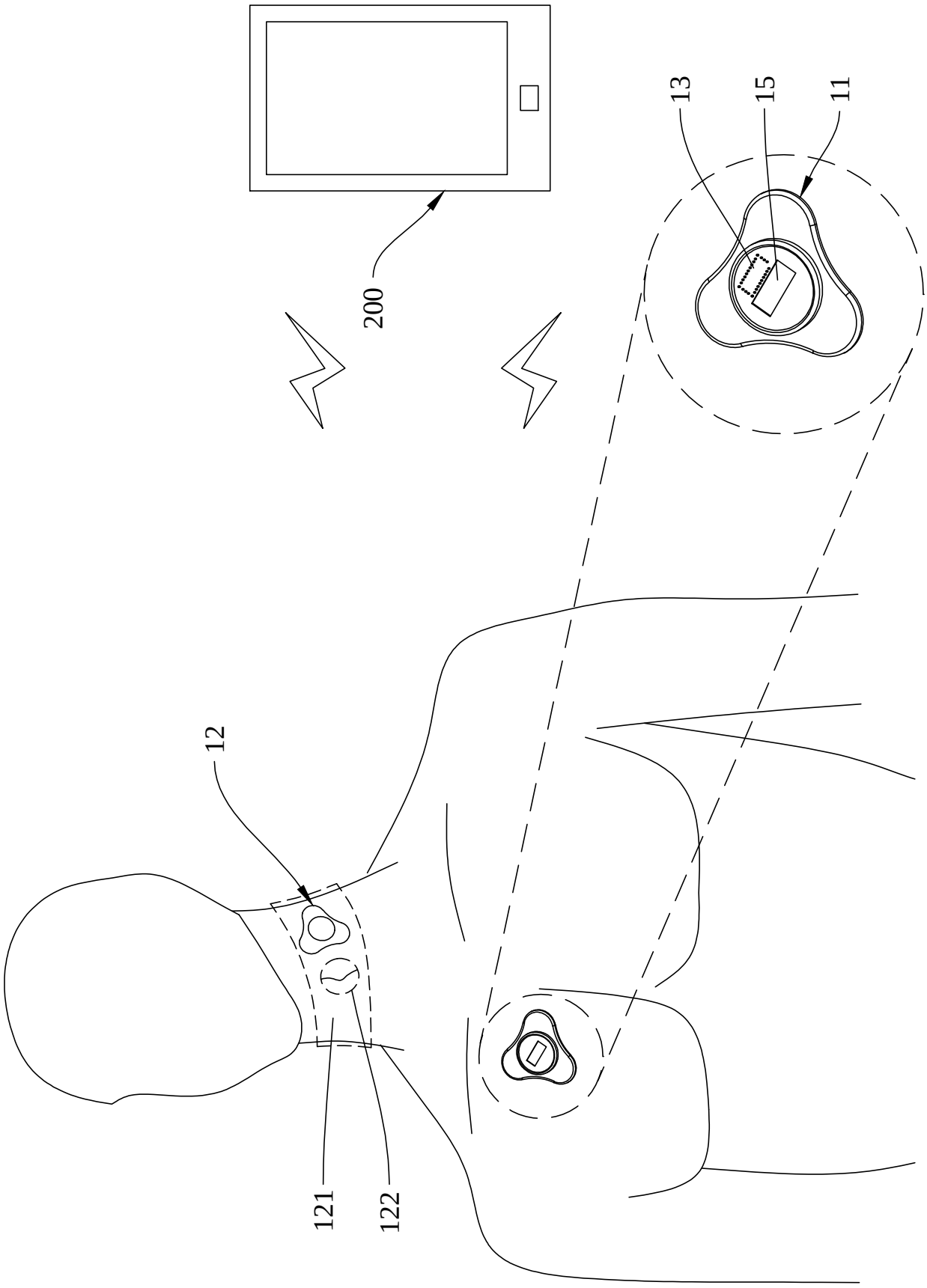


Fig.5

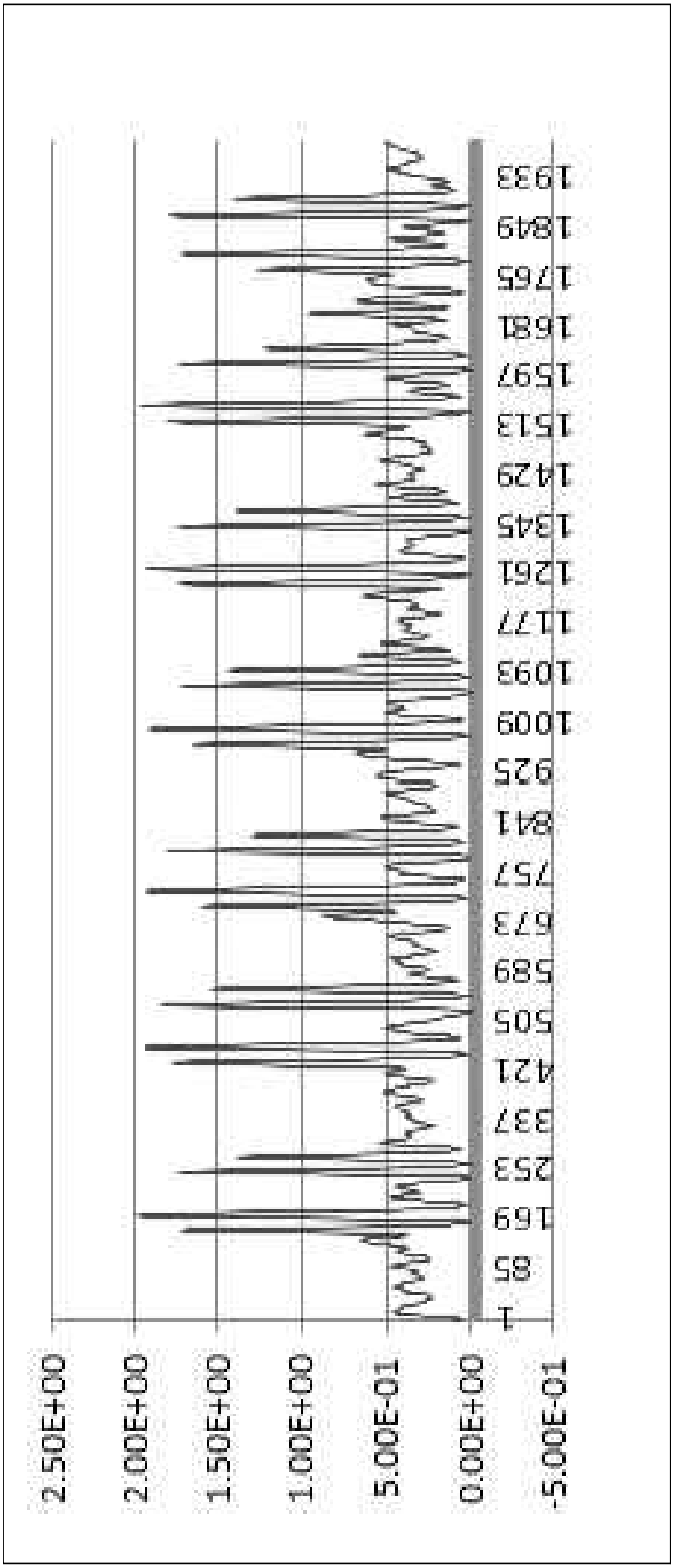

2.50E+00
2.00E+00
1.50E+00
1.00E+00
5.00E-01
0.00E+00
-5.00E-01
1
85
169
253
337
421
505
589
673
757
841
925
1009
1093
1177
1261
1345
1429
1513
1597
1681
1765
1849
1933

Fig.6

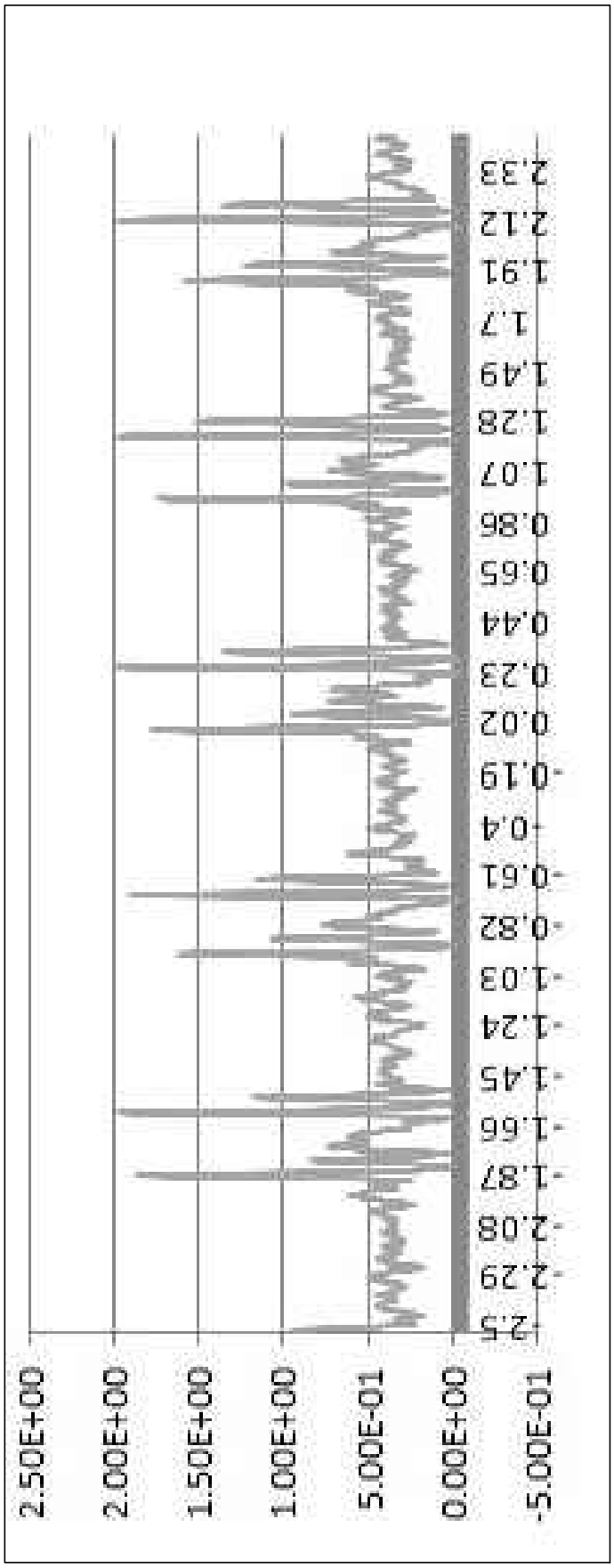
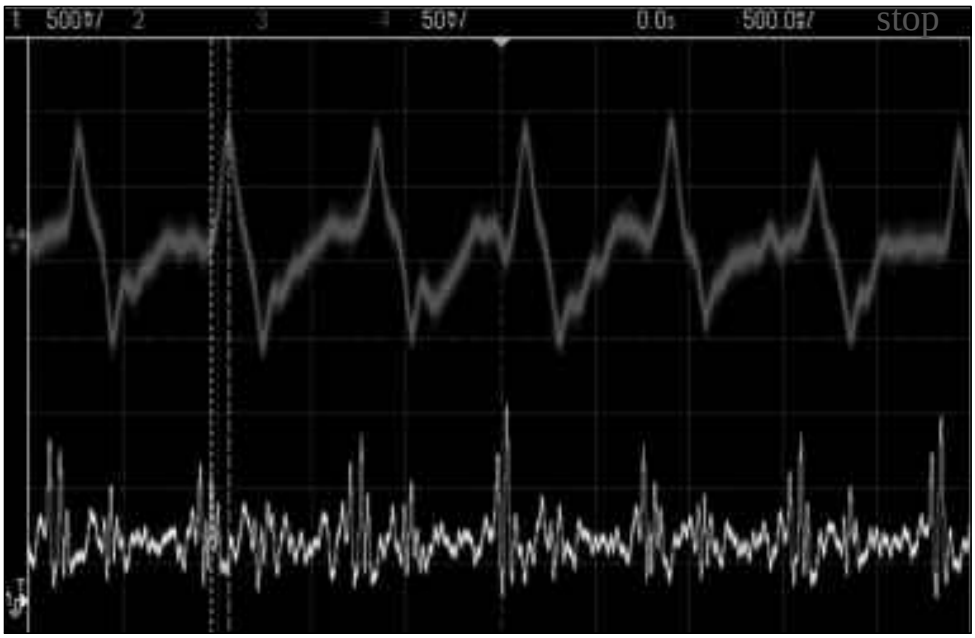

2.50E+00
2.00E+00
1.50E+00
1.00E+00
5.00E-01
0.00E+00
-5.00E-01
2.5
2.29
2.08
1.87
1.66
1.45
1.24
1.03
0.82
0.61
0.4
0.19
0.02
0.23
0.44
0.65
0.86
1.07
1.28
1.49
1.7
1.91
2.12
2.33

Fig.7

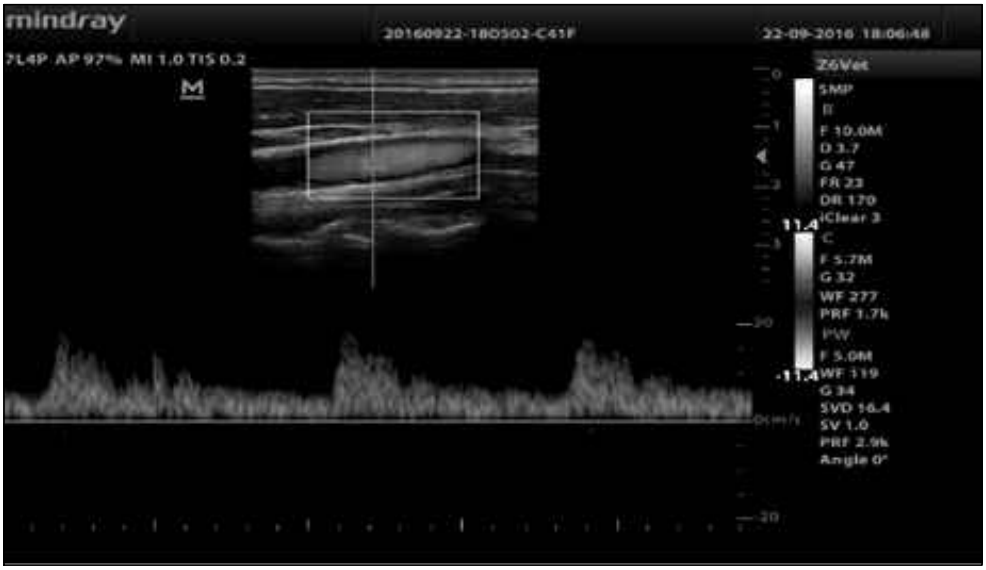
Embodiment 1



the blood flow pulse waves of the right common carotid artery

the blood flow sound waves at the aortic valve

Comparative example 1



the ultrasonic waves of the right common carotid artery

Fig.8

Replacement Sheet

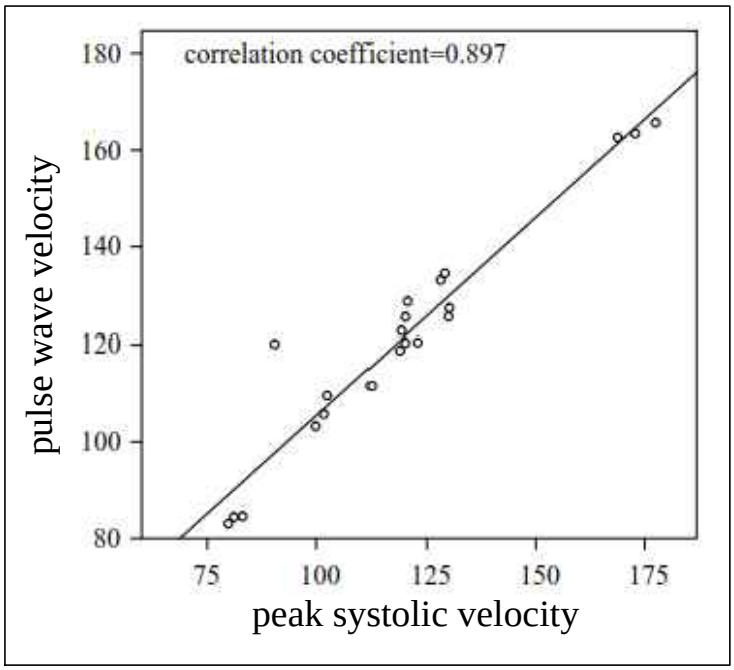

correlation coefficient=0.897
pulse wave velocity
peak systolic velocity
180
160
140
120
100
80
75
100
125
150
175

Fig.9

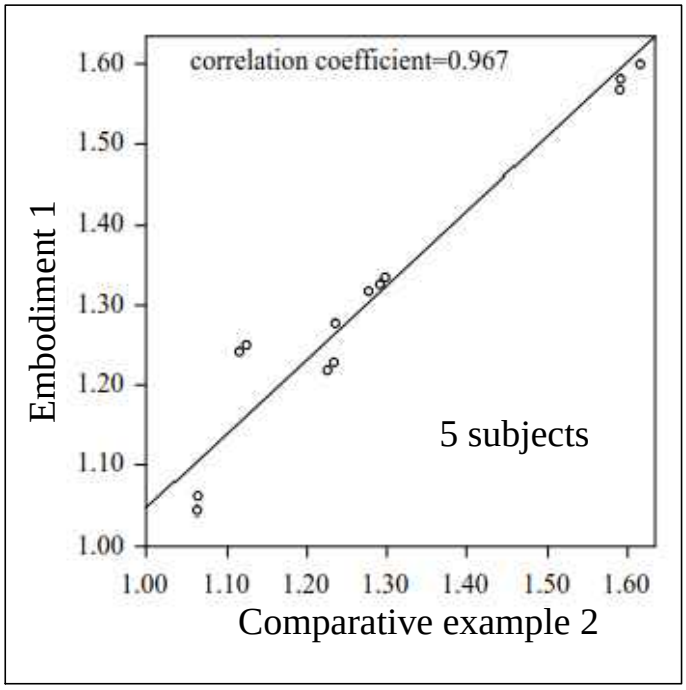

correlation coefficient=0.967
Embodiment 1
Comparative example 2
5 subjects
1.60
1.50
1.40
1.30
1.20
1.10
1.00
1.00
1.10
1.20
1.30
1.40
1.50
1.60

Fig.10

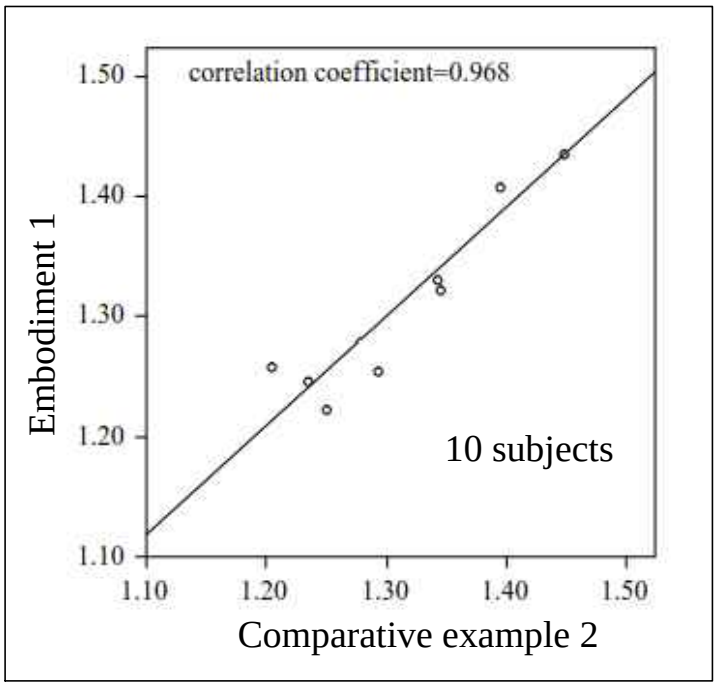


Fig.11

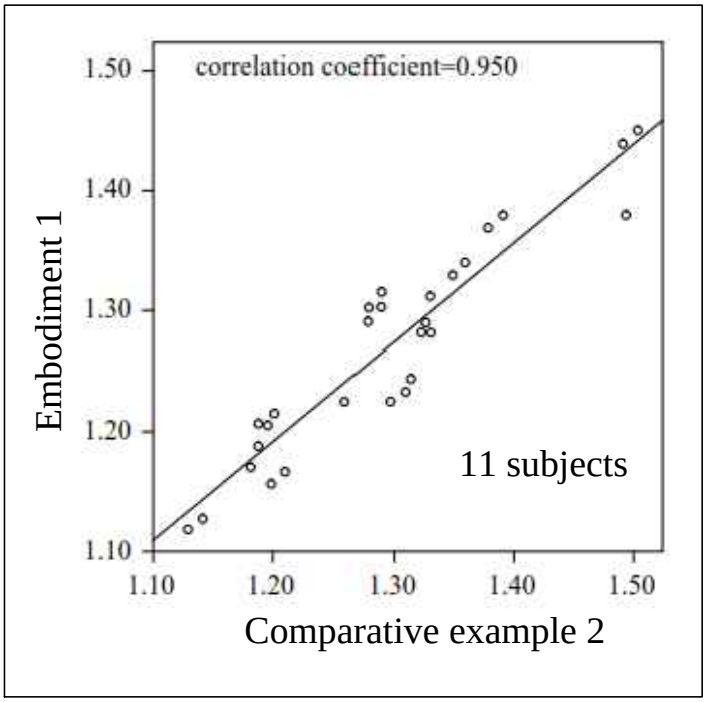


Fig.12

Replacement Sheet

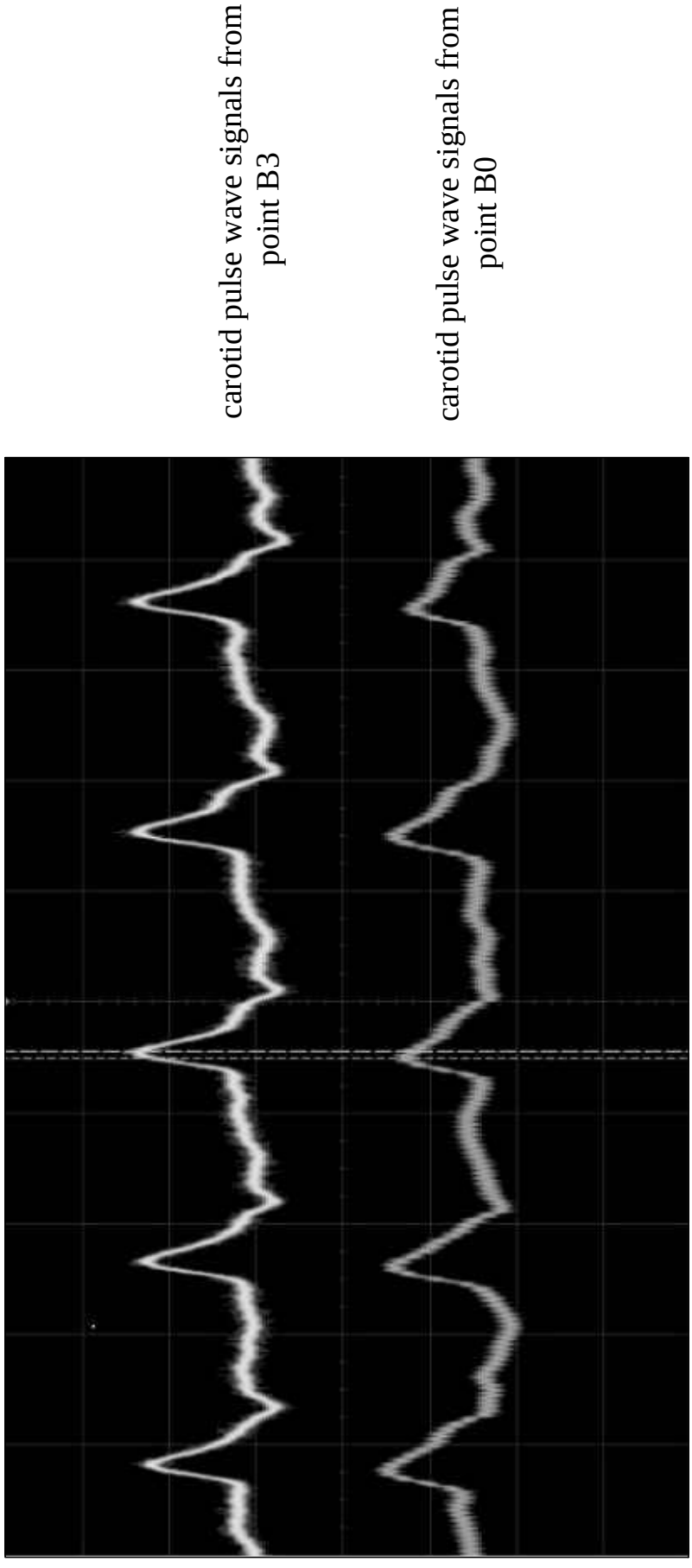

carotid pulse wave signals from point B3
carotid pulse wave signals from point B0

Fig.13