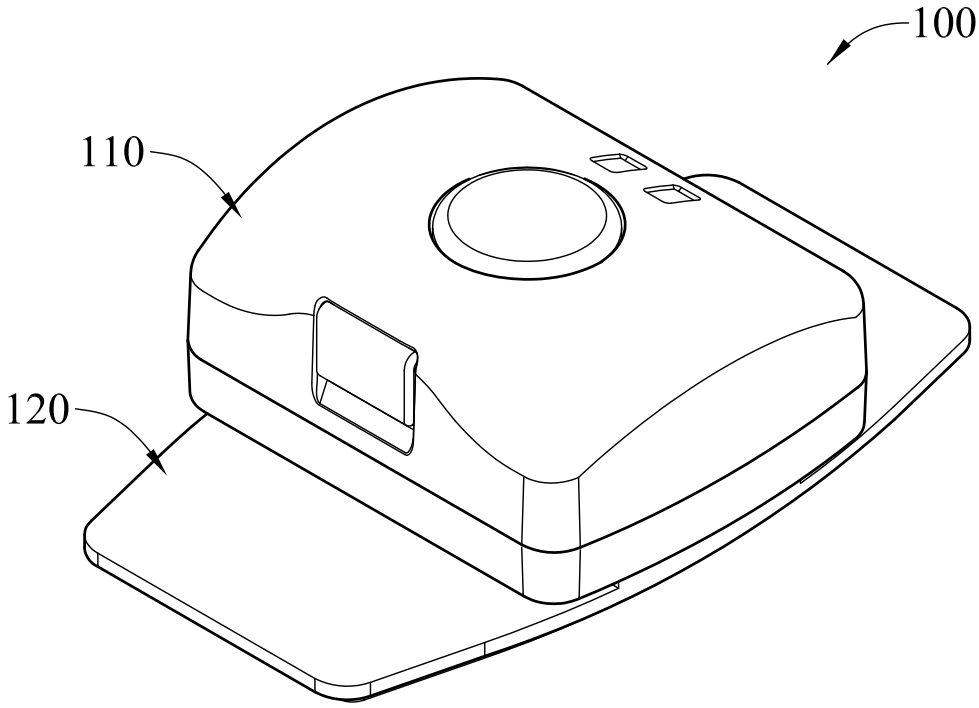


FIG. 1A

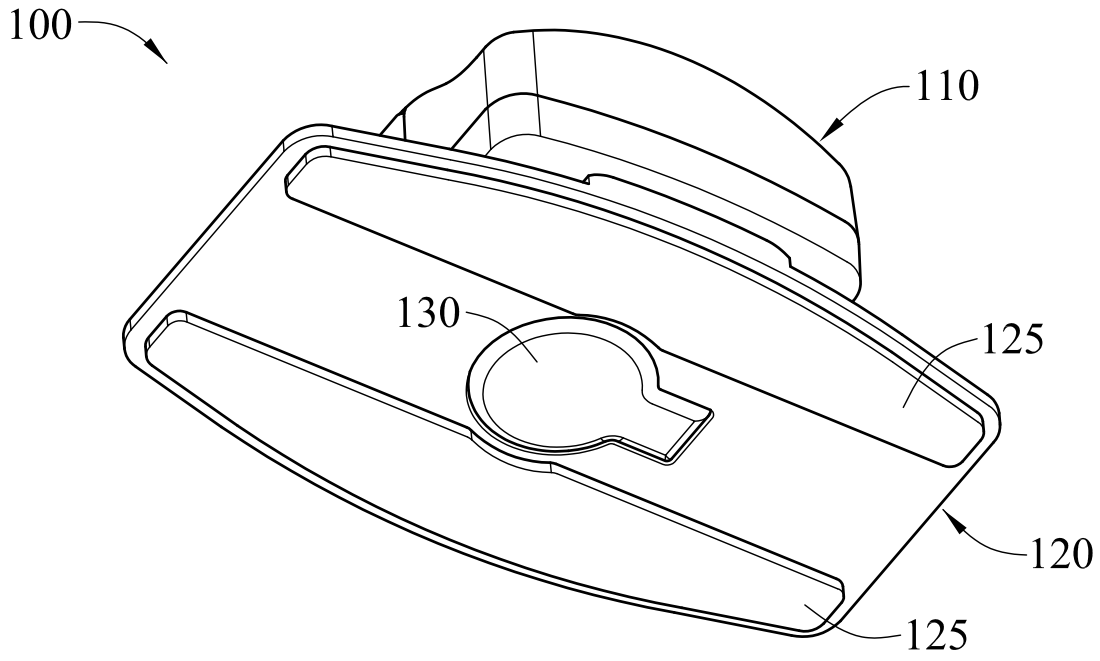


FIG. 1B

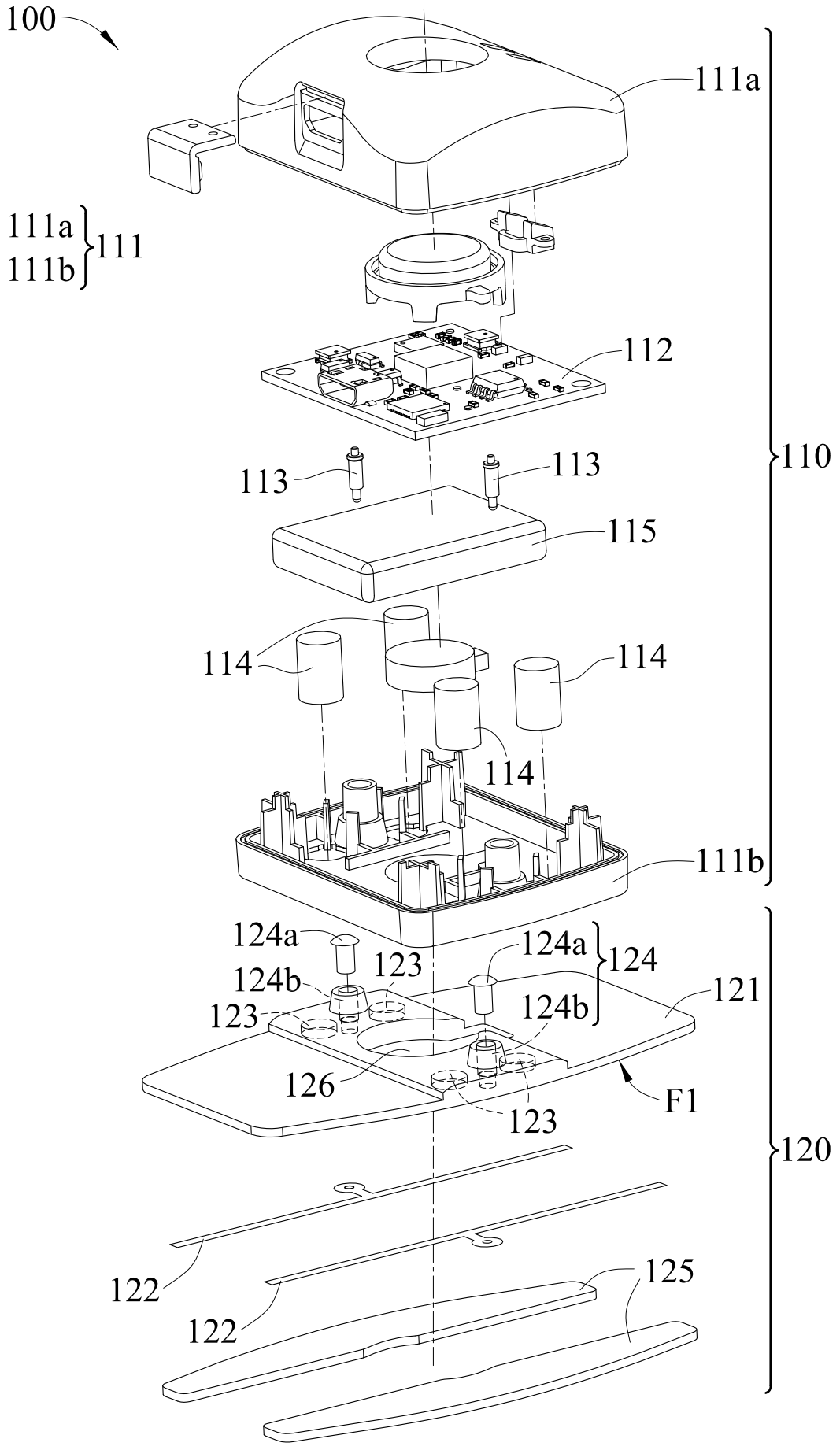

100
111a
111
111b
111a
112
110
113
113
115
114
114
114
111b
124a
124a
124
123
124b
121
123
124b
126
F1
123
120
122
125
122

FIG. 1C

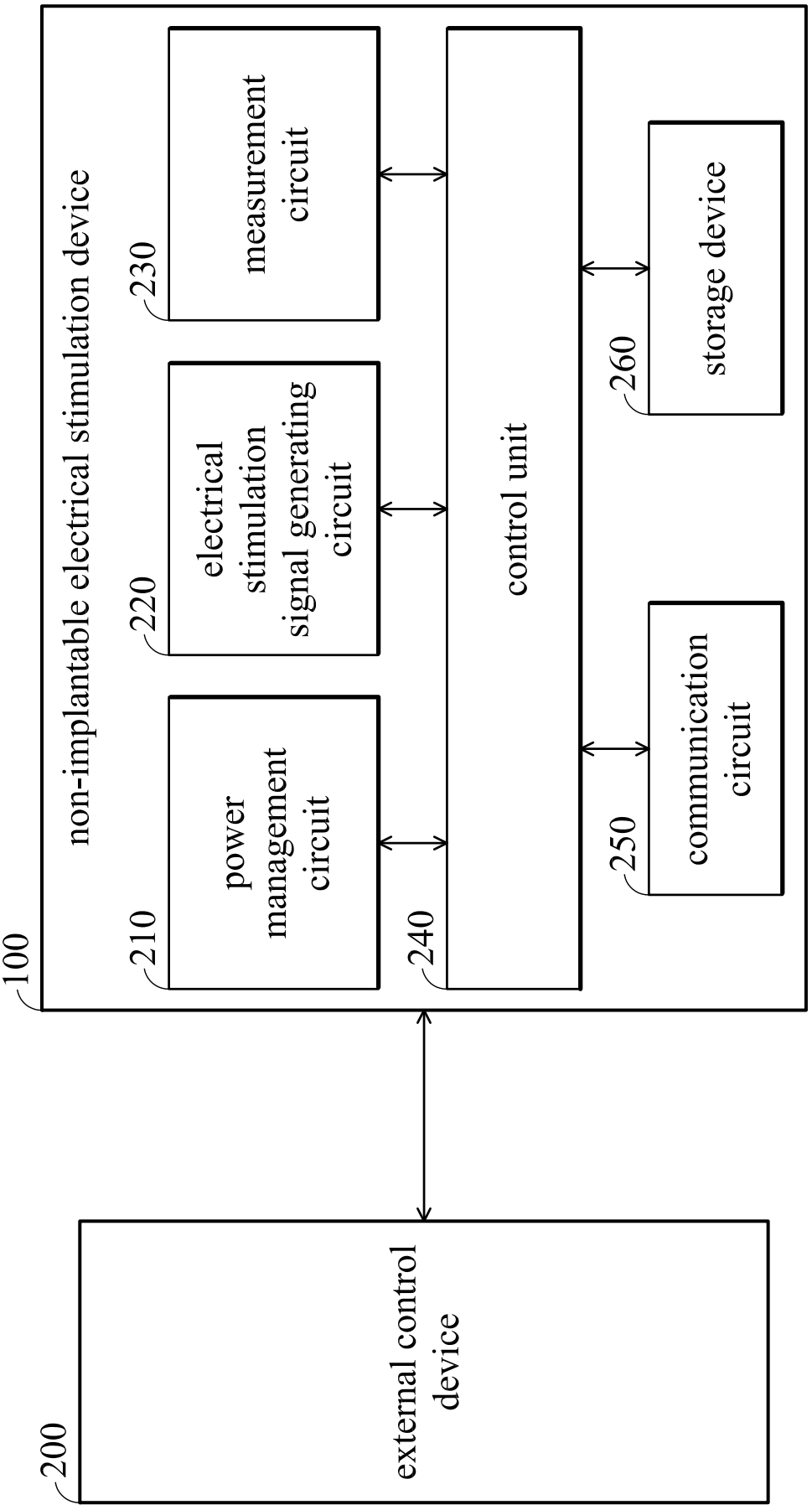

100
non-implantable electrical stimulation device
210
power management circuit
220
electrical stimulation signal generating circuit
230
measurement circuit
240
control unit
250
communication circuit
260
storage device
200
external control device

FIG. 2

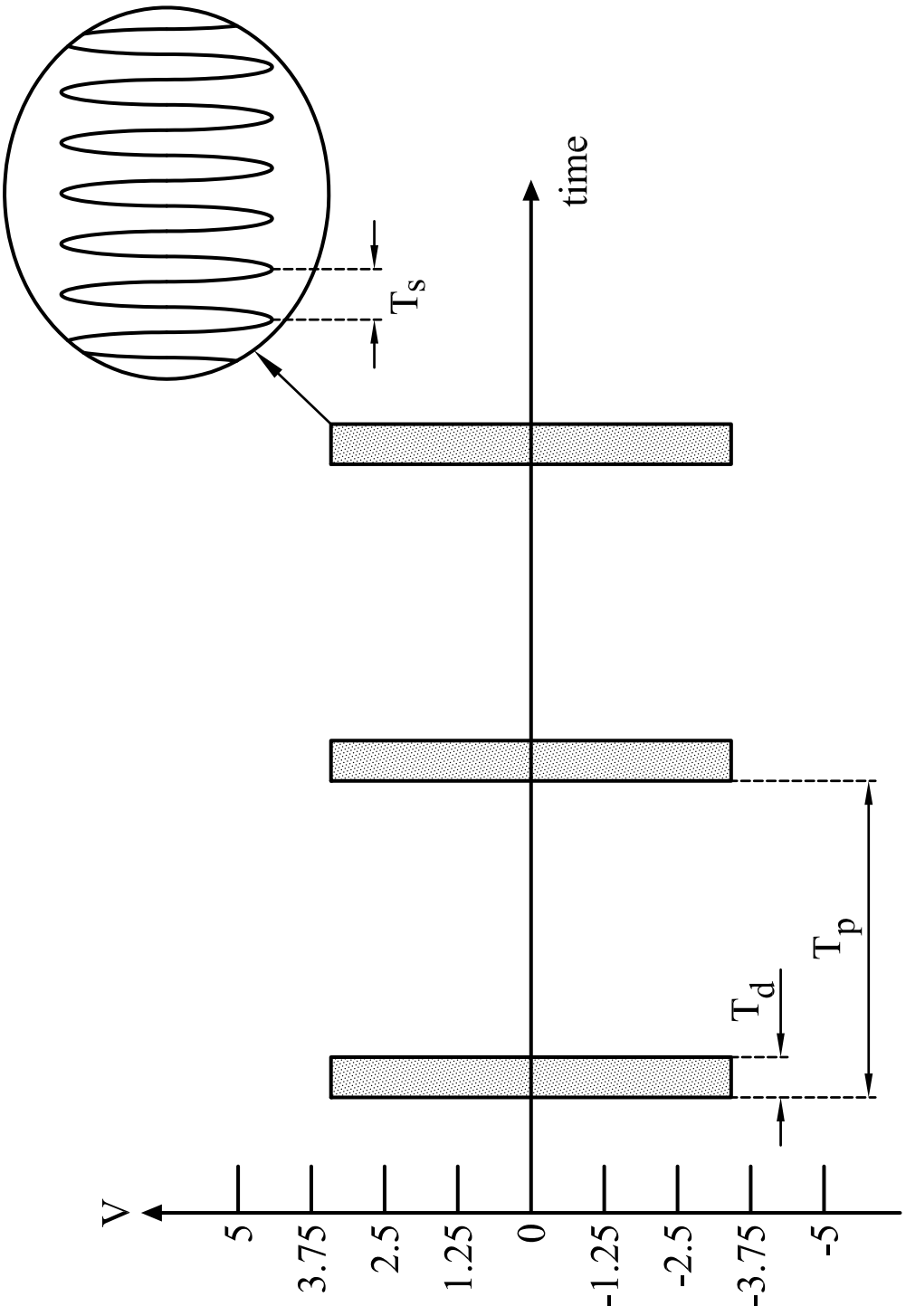


FIG. 3

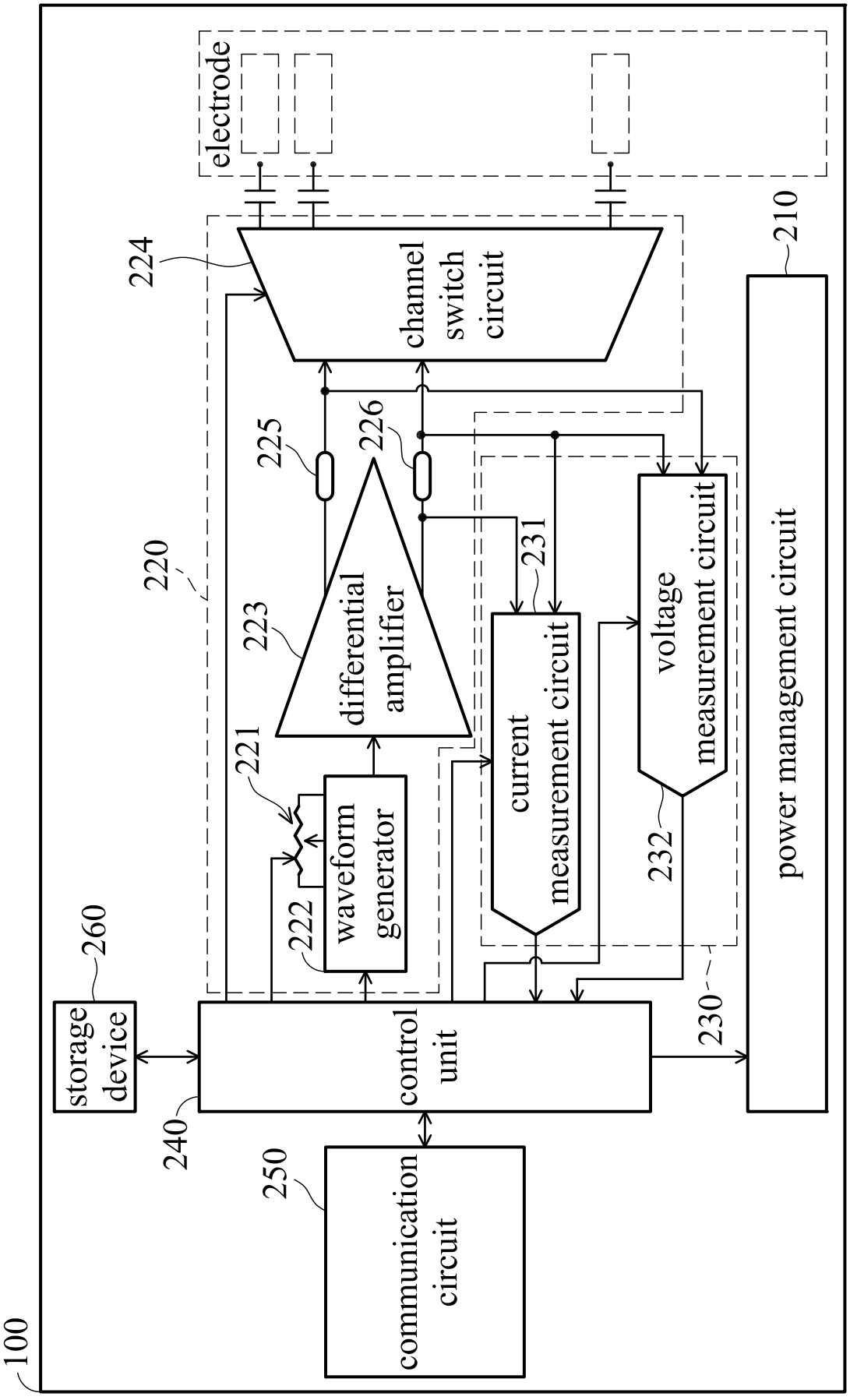

100
electrode
224
channel switch circuit
210
220
225
226
231
differential amplifier
223
221
waveform generator
222
current measurement circuit
voltage measurement circuit
232
power management circuit
260
storage device
control unit
230
240
250
communication circuit

FIG. 4

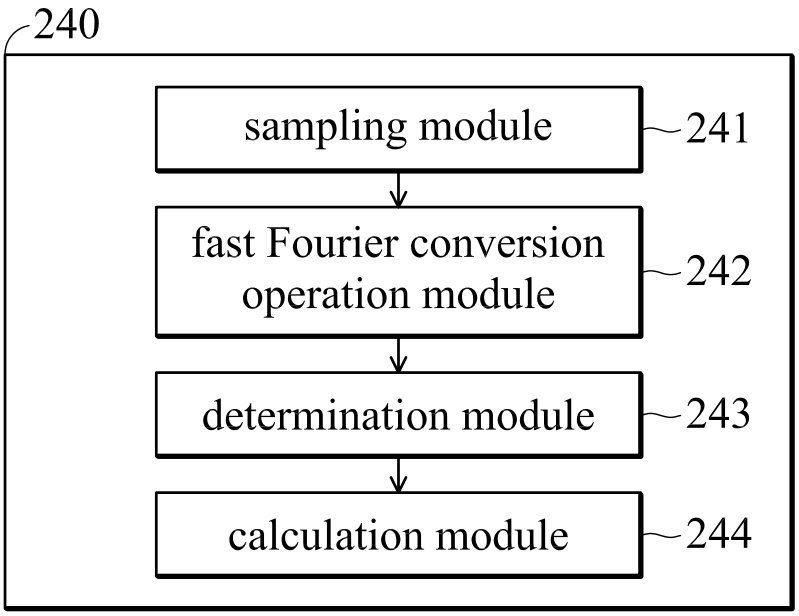

240
sampling module
241
fast Fourier conversion operation module
242
determination module
243
calculation module
244

FIG. 5

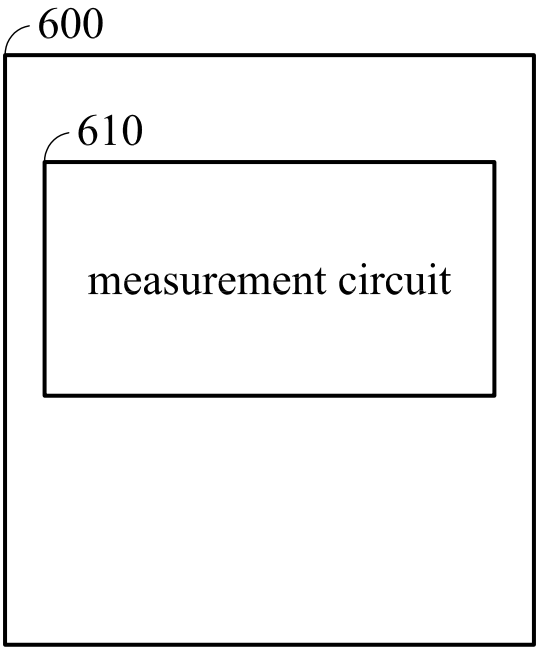

600
610
measurement circuit

FIG. 6

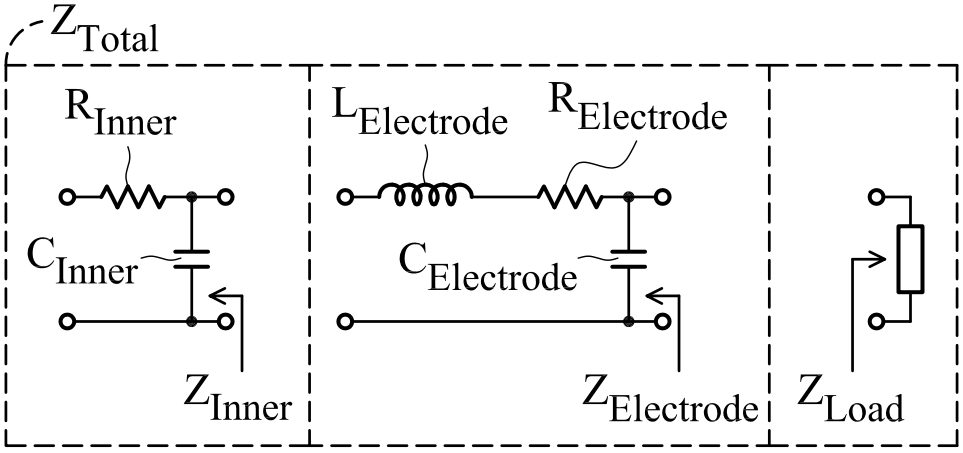

Z Total
R Inner
C Inner
Z Inner
L Electrode
R Electrode
C Electrode
Z Electrode
Z Load

FIG. 7

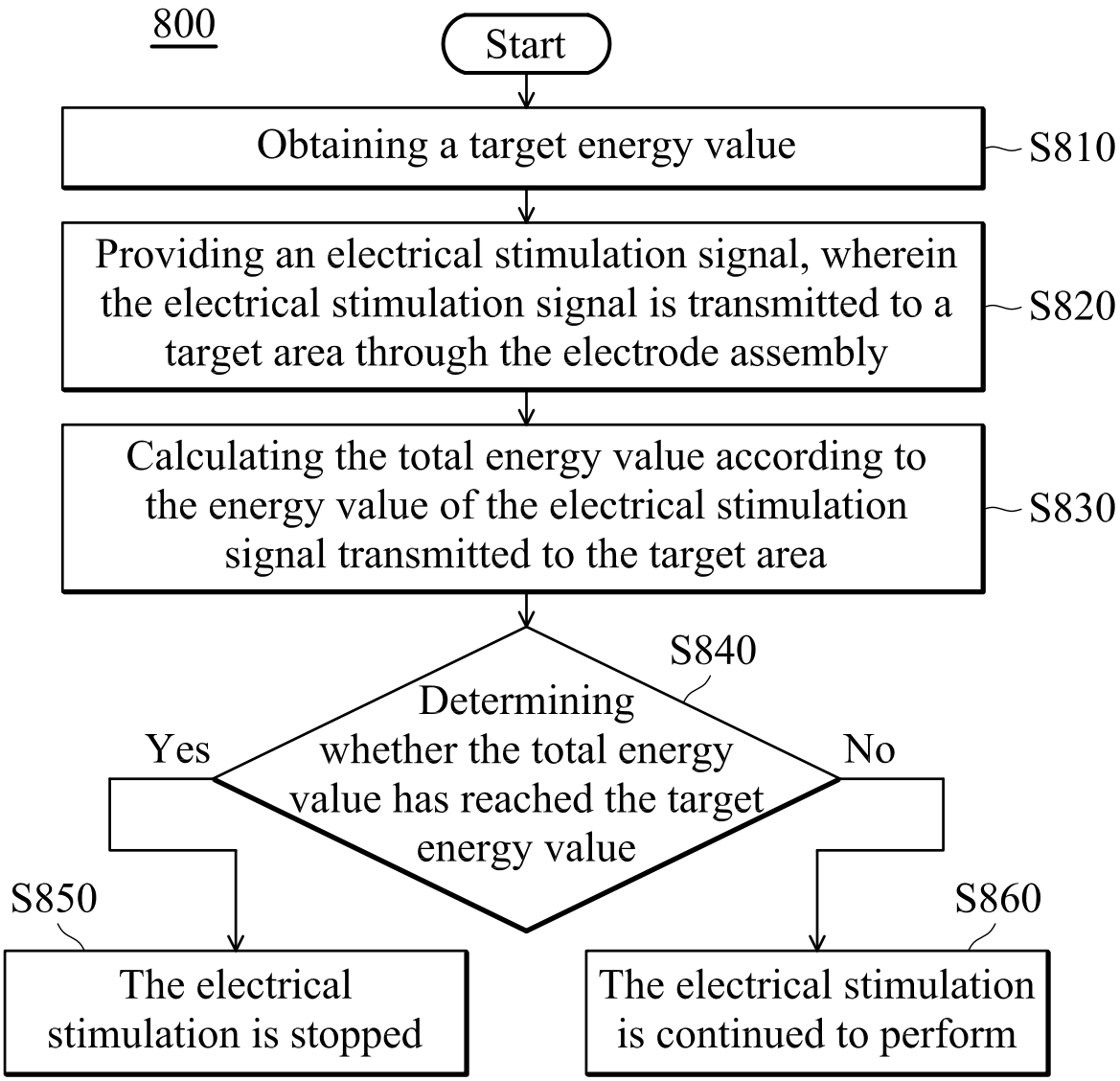

800
Start
Obtaining a target energy value
S810
Providing an electrical stimulation signal, wherein the electrical stimulation signal is transmitted to a target area through the electrode assembly
S820
Calculating the total energy value according to the energy value of the electrical stimulation signal transmitted to the target area
S830
S840
Determining whether the total energy value has reached the target energy value
Yes
No
S850
The electrical stimulation is stopped
S860
The electrical stimulation is continued to perform

FIG. 8

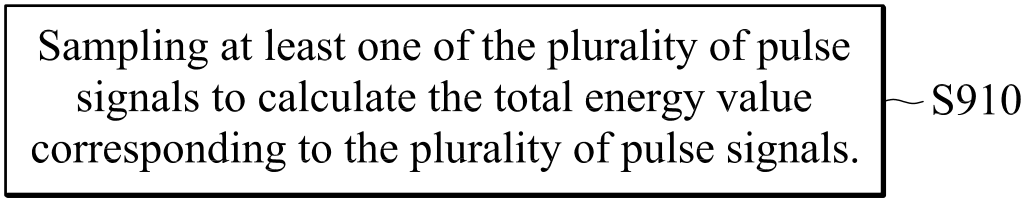

Sampling at least one of the plurality of pulse signals to calculate the total energy value corresponding to the plurality of pulse signals.
S910

FIG. 9

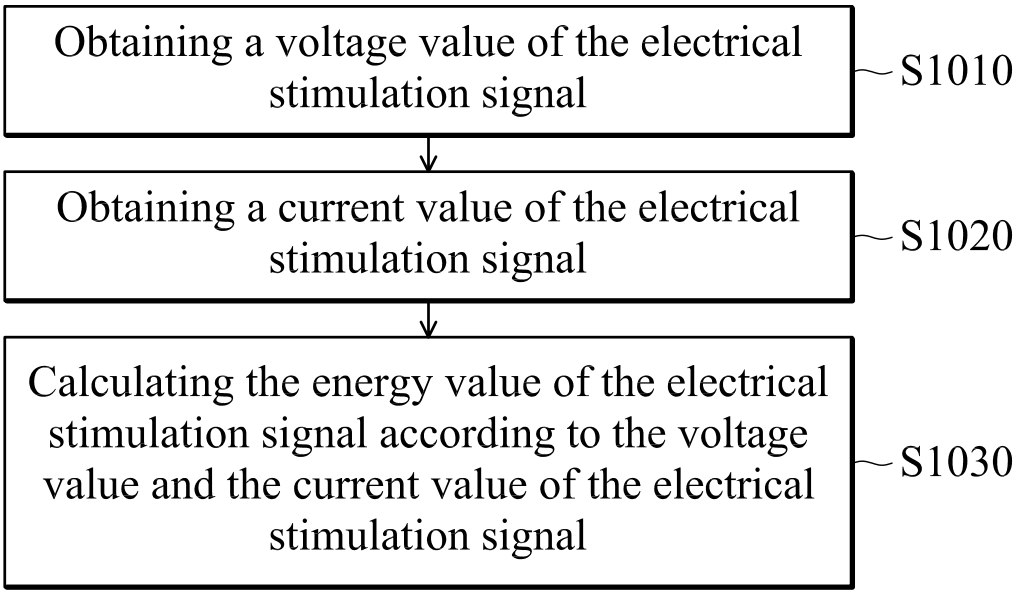

Obtaining a voltage value of the electrical stimulation signal
S1010
Obtaining a current value of the electrical stimulation signal
S1020
Calculating the energy value of the electrical stimulation signal according to the voltage value and the current value of the electrical stimulation signal
S1030

FIG. 10

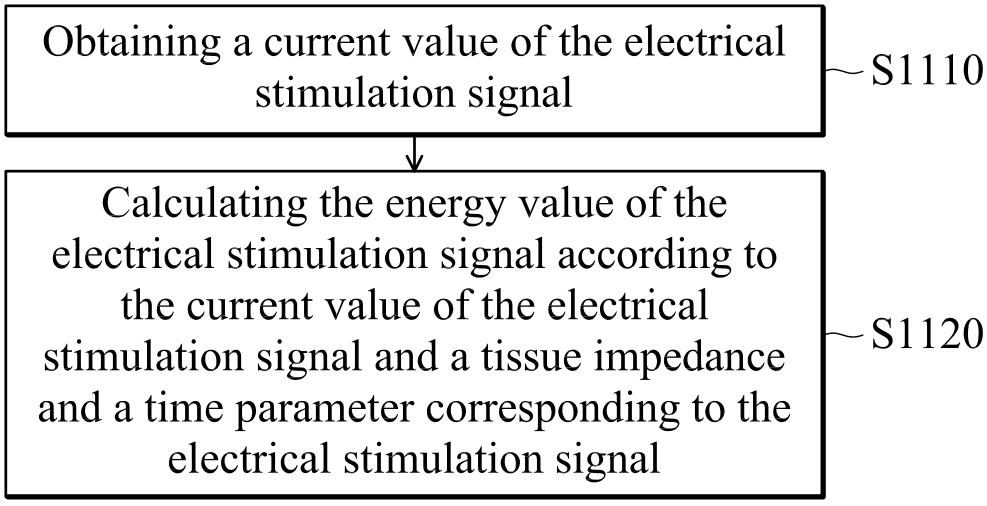

Obtaining a current value of the electrical stimulation signal
S1110
Calculating the energy value of the electrical stimulation signal according to the current value of the electrical stimulation signal and a tissue impedance and a time parameter corresponding to the electrical stimulation signal
S1120

FIG. 11