[Document Name] Claims

[Claim 1]

A portable device comprising:

a secondary battery;

a driving component driven by charged power of the secondary battery;

a charging unit configured to charge the secondary battery by an input of outside power supplied from outside;

a transformation unit configured to output the charged power of the secondary battery at a driving voltage of the driving component;

a detection unit configured to detect the input of the outside power to the charging unit; and

a switching controller configured to switch a state of the transformation unit from an operation state to a stopped state only when the input of the outside power to the charging unit is detected by the detection unit.

[Claim 2]

The portable device according to claim 1 further comprising at least one driving component identical with the driving component and at least one transformation unit identical with the transformation unit, the transformation units outputting driving voltages corresponding to the respective driving components,

the switching controller switching a state of a particular

transformation unit which is at least one of the transformation units from the operation state to the stopped state.

[Claim 3]

The portable device according to claim 2 further comprising a hearing aid function component as one of the driving components,

a transformation unit which outputs the charged power of the secondary battery to the hearing aid function component being the particular transformation unit.

[Claim 4]

The portable device according to any one of claims 1 to 3, wherein, the charging unit, the transformation units, the detection unit, and the switching controller constitute an integrated circuit substrate.

[Claim 5]

The portable device according to any one of claims 1 to 4, further comprising a power-receiving module which is configured to receive power from the outside in a contactless manner and to output the received power to the charging unit as the outside power.

[Claim 6]

The portable device according to any one of claims 1 to 3, further comprising a power-receiving module which is configured to receive power from the outside by a resonance phenomenon and to output the received power to the charging

unit as the outside power,

the charging unit, the transformation units, the detection unit, and the switching controller constituting an integrated circuit substrate, and

the integrated circuit substrate being provided in a magnetic field space which is formed by the resonance phenomenon to have a lower magnetic field strength than other parts.

[Claim 7]

A charging system comprising:

the portable device according to claim 5 or 6; and

a charger including a power-supplying module which is configured to supply power to the power-receiving module.

[Claim 8]

The charging system according to claim 7, wherein,

the portable device includes, as one of the driving components, a communication function component configured to sent state data indicating a state of the portable device, and

the charger includes:

a communication unit which enables wireless communication with the communication function component when the power-supplying module supplies the power to the power-receiving module; and

a display unit configured to display charging information based on the state data received by the communication unit.

[Claim 9]

A power source circuit substrate comprising:

a charging unit configured to charge a secondary battery by an input of outside power from outside;

a transformation unit configured to output charged power of the secondary battery at a driving voltage of the driving component;

a detection unit configured to detect the input of the outside power to the charging unit; and

a switching controller configured to switch a state of the transformation unit from an operation state to a stopped state only when the input of the outside power to the charging unit is detected by the detection unit.

[Claim 10]

The power source circuit substrate according to claim 9, further comprising at least one transformation unit identical with the transformation unit,

the switching controller switching a state of a particular transformation unit which is at least one of the transformation units from the operation state to the stopped state.

[Claim 11]

The power source circuit substrate according to claim 9 or 10, wherein, the power source circuit substrate is formed as an integrated circuit substrate.

[Claim 12]

A body mount device comprising the power source circuit substrate according to any one of claims 9 to 11.

[Claim 13]

Hearing aids comprising the power source circuit substrate according to any one of claims 9 to 11.

[Claim 14]

A power source circuit substrate comprising:

a charging unit configured to charge a secondary battery by an input of outside power from outside;

a processing unit driven by charged power of the secondary battery; and

a switching controller configured to switch a state of the processing unit from an operation state to a stopped state only when the secondary battery is charged by the charging unit.

[Claim 15]

A portable device comprising:

a secondary battery;

a driving component driven by charged power of the secondary battery;

a charging unit configured to charge the secondary battery by an input of outside power from outside; and

a switching controller configured to switch a state of the driving component from an operation state to a stopped state only when the secondary battery is charged by the charging unit.

[Claim 16]

A power-supplying method for supplying power to a secondary battery of a portable device, the portable device including:

the secondary battery;

a driving component driven by charged power of the secondary battery;

a charging unit configured to charge the secondary battery by an input of outside power from outside in a contactless manner;

a transformation unit configured to output the charged power of the secondary battery at a driving voltage of the driving component; and

a detection unit configured to detect the input of the charging unit to the outside power,

a state of the transformation unit being switched from an operation state to a stopped state when the input of the outside power to the charging unit is detected by the detection unit.

[Claim 17]

The method according to claim 14, wherein,

the portable device further includes at least one driving component identical with the driving component and at least one transformation unit identical with the transformation unit,

the transformation units outputting driving voltages corresponding to the respective driving components,

a state of a particular transformation unit which is at least one of the transformation units is switched from the operation state to the stopped state when the input of the outside power to the charging unit is detected by the detection unit.

Claims

[Claim 1]
A portable device comprising:
a secondary battery,
a driving component driven by charged power of the secondary battery,
a charging unit configured to charge the secondary battery by an input of outside power supplied from outside;
a transformation unit configured to output the charged power of the secondary battery at a driving voltage of the driving component,
a detection unit configured to detect the input of the outside power to the charging unit, a switching controller configured to switch a state of the transformation unit from an operation state to a stopped state only when the input of the outside power to the charging unit is detected by the detection unit,
at least one driving component identical with the driving component and at least one transformation unit identical with the transformation unit, the transformation units outputting driving voltages corresponding to the respective driving components,
the switching controller switching a state of a particular transformation unit which is at least one of the transformation units from the operation state to the stopped state,
a hearing aid function component as one of the driving components, and
a transformation unit which outputs the charged power of the secondary battery to the hearing aid function component being the particular transformation unit.
[Claim 2]
The portable device according to claim 1, wherein, the

charging unit, the transformation units, the detection unit, and the switching controller constitute an integrated circuit substrate.

[Claim 3]

The portable device according to claim 1 or 2, further comprising a power-receiving module which is configured to receive power from the outside in a contactless manner and to output the received power to the charging unit as the outside power.

[Claim 4]

The portable device according to claim 1, further comprising a power-receiving module which is configured to receive power from the outside by a resonance phenomenon and to output the received power to the charging unit as the outside power,

the charging unit, the transformation units, the detection unit, and the switching controller constituting an integrated circuit substrate, and

the integrated circuit substrate being provided in a magnetic field space which is formed by the resonance phenomenon to have a lower magnetic field strength than other parts.

[Claim 5]

A charging system comprising:

the portable device according to claim 3 or 4, and

a charger including a power-supplying module which is configured to supply power to the power-receiving module.

[Claim 6]

The charging system according to claim 5, wherein,

the portable device includes, as one of the driving components, a communication function component configured to sent state data indicating a state of the portable device, and

the charger includes:

a communication unit which enables wireless communication with the communication function component when the power-supplying module supplies the power to the power-receiving module, and

a display unit configured to display charging information based on the state data received by the communication unit.