Claims

[Claim 1]

A power-receiving device comprising:

a power-receiving resonance coil which receives power by a resonance phenomenon of resonance with a power-supplying module;

a power-receiving coil configured to receive the power from the power-receiving resonance coil; and

a magnetic member which at least in part overlaps the power-receiving resonance coil in a radial direction in order to increase or decrease magnetic coupling in the resonance,

wherein the magnetic member is hollow and cylindrical in shape and is provided on an inner circumference side of the power-receiving resonance coil.

[Claim 2]

The power-receiving device according to claim 1, wherein,

the power-receiving resonance coil has a coil diameter which is identical with a coil diameter of the power-supplying module and is disposed to oppose the power-supplying module, and

the magnetic member extends along the inner circumferential surface of the power-receiving resonance coil, and a one-end position on the power-supplying module side of the power-receiving resonance coil corresponds to a one-end position of the power-supplying module in a coil axis direction.

[Claim 3]

The power-receiving device according to claim 1, wherein,

the power-receiving resonance coil has a coil diameter identical with a coil diameter of the power-supplying module and is provided to oppose the power-supplying module,

the power-receiving coil is provided on a side opposite to the power-supplying module to have a coil axis corresponding to a coil axis of the power-receiving resonance coil, and

the magnetic member is formed to have a cylindrical shape along inner circumferential surfaces of the power-receiving resonance coil and the power-receiving coil,

a one-end position on the power-supplying module side of the power-receiving resonance coil corresponds to a one-end position of the power-receiving resonance coil in a coil axis direction, and

the magnetic member includes: an inner cylindrical portion in which an other-end position which is on a side opposite to the power-supplying module corresponds to an other-end position of the power-receiving coil in the coil axis direction; and a disc portion which is provided at the other end of the cylindrical portion to oppose an other-end face of the power-receiving coil.

[Claim 4]

The power-receiving device according to any one of claims 1 to 3, wherein, to the power-receiving resonance coil,

the power is supplied by the resonance phenomenon in which a transmission characteristic of the power supplied to the power-supplying module with respect to a drive frequency is peaked in a drive frequency band lower than a resonance frequency and in a drive frequency band higher than the resonance frequency.

[Claim 5]

The power-receiving device according to any one of claims 1 to 4, further comprising an electronic component which is provided in a magnetic field space formed by the resonance phenomenon to have a lower magnetic field strength than in other parts.

Claims

[Claim 1]

A power-receiving device comprising:

a power-receiving resonance coil which receives power by a resonance phenomenon of resonance with a power-supplying module;

a power-receiving coil configured to receive the power from the power-receiving resonance coil; and

a magnetic member which at least in part overlaps the power-receiving resonance coil in a radial direction in order to increase or decrease magnetic coupling in the resonance.

[Claim 2]

The power-receiving device according to claim 1, wherein, the magnetic member is provided on an inner circumference side of the power-receiving resonance coil.

[Claim 3]

The power-receiving device according to claim 2, wherein,

the power-receiving resonance coil has a coil diameter which is identical with a coil diameter of the power-supplying module and is disposed to oppose the power-supplying module, and

the magnetic member is cylindrical in shape and extends along the inner circumferential surface of the power-receiving resonance coil, and a one-end position on the power-supplying module side of the power-receiving resonance coil corresponds to a one-end position of the power-supplying module in a coil

axis direction.

[Claim 4]

The power-receiving device according to claim 2, wherein,

the power-receiving resonance coil has a coil diameter identical with a coil diameter of the power-supplying module and is provided to oppose the power-supplying module,

the power-receiving coil is provided on a side opposite to the power-supplying module to have a coil axis corresponding to a coil axis of the power-receiving resonance coil, and

the magnetic member is formed to have a cylindrical shape along inner circumferential surfaces of the power-receiving resonance coil and the power-receiving coil,

a one-end position on the power-supplying module side of the power-receiving resonance coil corresponds to a one-end position of the power-receiving resonance coil in a coil axis direction, and

the magnetic member includes: an inner cylindrical portion in which an other-end position which is on a side opposite to the power-supplying module corresponds to an other-end position of the power-receiving coil in the coil axis direction; and a disc portion which is provided at the other end of the cylindrical portion to oppose an other-end face of the power-receiving coil.

[Claim 5]

The power-receiving device according to any one of claims 1

to 4, wherein, to the power-receiving resonance coil, the power is supplied by the resonance phenomenon in which a transmission characteristic of the power supplied to the power-supplying module with respect to a drive frequency is peaked in a drive frequency band lower than a resonance frequency and in a drive frequency band higher than the resonance frequency.

[Claim 6]

The power-receiving device according to any one of claims 1 to 5, further comprising an electronic component which is provided in a magnetic field space formed by the resonance phenomenon to have a lower magnetic field strength than in other parts.