Wireless charging system

1. Description

Wireless Power Charger System

It is electromagnetic induction wireless charging system. Wireless power charger transmits 10W power to mobile. Qi (WPC) certified cell phone, which is a standard for wireless charging, or a case dedicated to wireless charging, can be used this system.

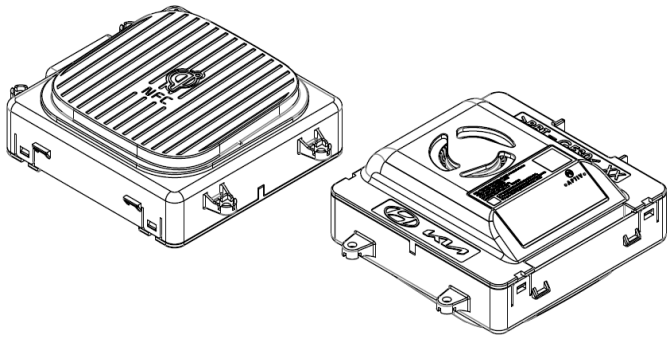
※ Reference

• Qi : One of the wireless charging standards

• WPC : Abbreviation of Wireless Power Consortium

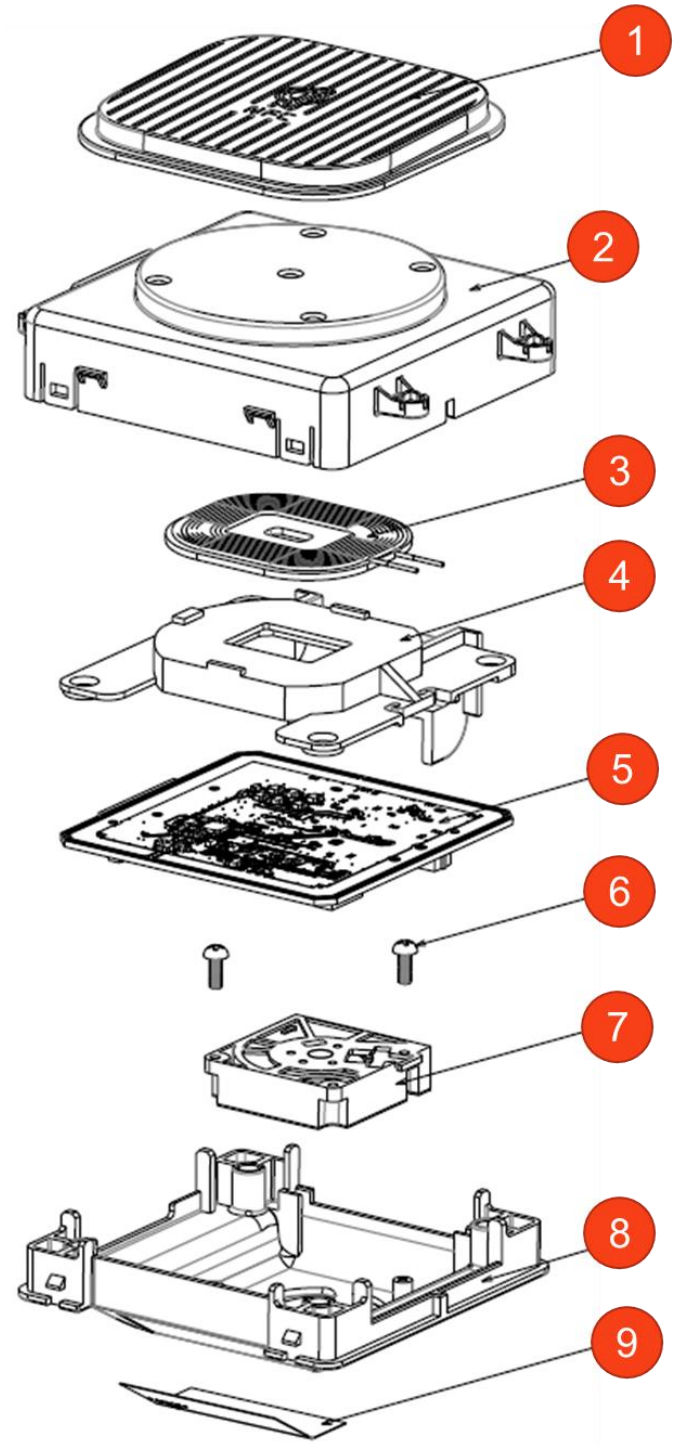
• Electromagnetic induction : When an electric current is sent through a coil (a wound-up cable), it creates a magnetic field whose action generates another electric current in a second coil

2. Product picture



3. Product organization

1) PAD
2) TOP COVER
3) COIL ASSEMBLY (MP-A13)
4) COIL SPACER
5) PCB ASSEMBLY
6) SCREW
7) FAN
8) HOUSING
9) LABEL

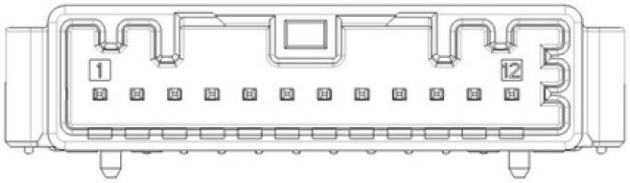


4. Product features

1) Wireless charging for automobile
2) Support high speed wireless charging (10W)
3) Apply coil cooling function by FAN
4) Apply FOD(Foreign object detection)function
5) Apply wireless charging system protection function (Over voltage, Over current, Over temperature prevention)
6) Apply Qi 1.2.4 ver

5. Connector pin description

CONNECTOR PIN ARRANGEMENT



PIN #	Description
1	Ground
2	Ground
3	PWM LED AMBER OUT
4	PWM LED GREEN OUT
5	B-CAN LOW
6	B-CAN HIGH
7	Not connected
8	L-CAN LOW
9	L-CAN HIGH
10	Not connected
11	IGN +
12	BAT +

6. How to use

6-1 Charing

1) Input IGN+, BAT+ power to Wireless charger by #11, #12 pin on connector.

2) Put mobile which support wireless charging on the wireless charger

3) Check wireless charging connection.

6-2 NFC Mode

1) Input BAT+ power to Wireless charger by #12 pin on connector.

2) Put mobile which support wireless charging on the wireless charger

3) Check that user authentication is complete

4) Vehicle can be started

7. Matching parts

Front console or Center console in automobile

WPC

8. Traceability information

1) Model name : SX2 WPC with NFC

2) Product name : Wireless Power Charger

3) Manufacturer : Aptiv Connection Systems Korea LLC

4) Address : 3, Hyundaikia-ro, Paltan-myeon, Hwaseong-si, Gyeonggi-do, Republic of Korea

9. Operating Frequency

1) Charging frequency : 128 kHz

2) NFC : 13.56 MHz

FCC warning statement:

15.19

λ. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

15.105

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part

15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does

cause harmful interference to radio or television reception, which can be determined by turning the equipment

off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

15.21

- Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment.
- This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.
- End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

FCC/ IC RF Radiation Exposure Statement:

This equipment complies with FCC/ISED radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 15cm between the radiator & your body.

This device complies with FCC/ ISED radiation exposure limits set forth for an uncontrolled environment.

IC warning statement:

RSS-Gen Issue 4 8.4

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2)

l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Co-located

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.