

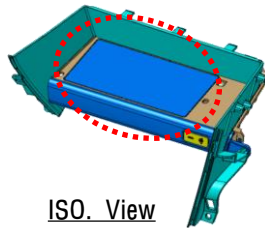
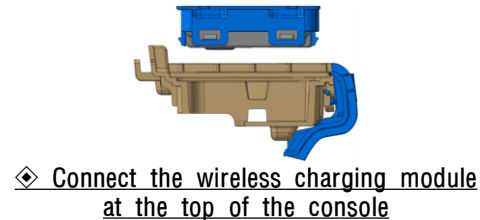


APPENDIX H

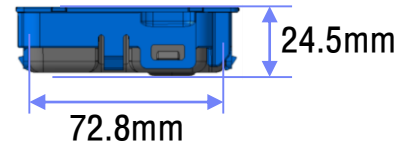
: USER'S MANUAL

1. Application

- A system that receives the battery voltage in the ACC ON state of the vehicle and drives the wireless charging system to transmit power to the target cellular phone with an output of 5W.
- Can be used with Qi certified internal mobile phone or wireless charging exclusive accessory case.



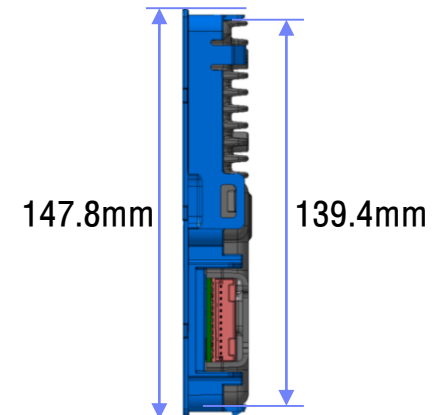
- Application method : Magnetic induction (5W)
- Module size : 80.2mm x 147.8mm x 23.2mm
- Module weight = 273.9g
- A13 Standard coil



Front. View



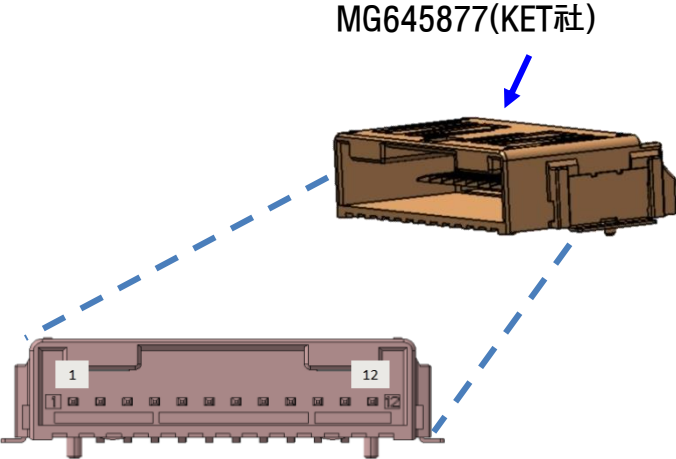
TOP. View



SIDE. View

2. User manual

➤ Wireless charging module Main Connector



No.	Signal name	Remarks
1	B+	
2	ACC	
3		
4		
5		
6		
7		
8		
9		
10		
11		
12	GND_POWER	

2. User manual

➤ Single Item Wireless Charging Module Operating Conditions

- 1) Power line connection : No.1,2 Pin(12V), No.12 Pin(GND)
- 2) Power supply
- 3) If you put a wireless rechargeable mobile phone on top of the charger

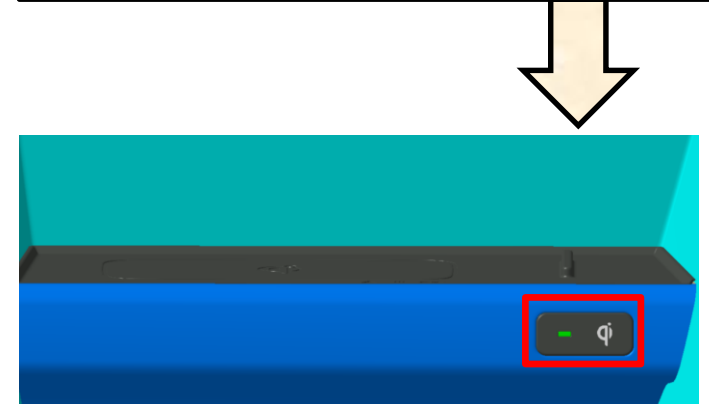
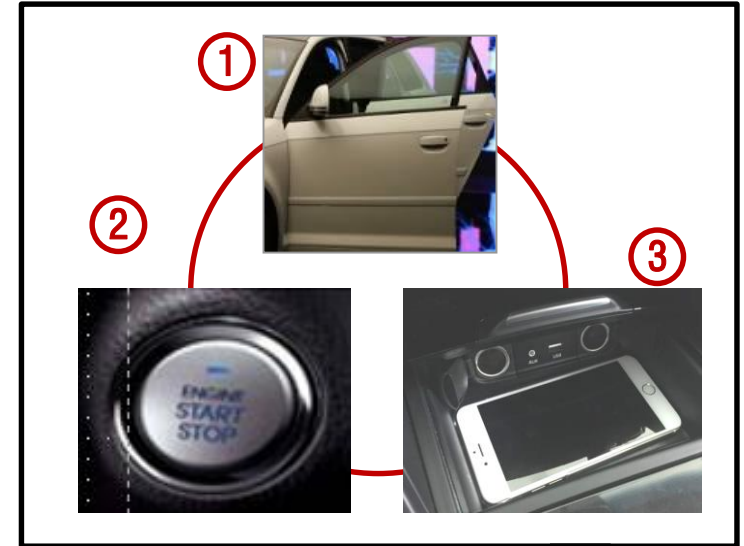
➤ Actual car wireless charging module operating condition

■ How it works

1. Close all doors of the vehicle
2. Switch the vehicle's power to ACC or higher
3. Put a wireless rechargeable cell phone on the tray

■ Development and Results

1. During normal charge operation
→ Amber LED on indicator is displayed.
2. At full charge 100%
→ Green LED on indicator is displayed.
[Green LED does not display depending on the type of mobile phone]
3. In case of internal problem
→ Amber LED on the indicator Flashes at 1 second intervals.



3. RF Specification

Frequency	Number of Hopping Channel	Spread Type (확산방식)	Modulation Type (변조방식)	Ocillation Type (발진방식)	Power [dBm]	Sensitivity [dBm]
110kHz±5kHz	NA (Do net use Hopping)	NA (No Spreading)	NA (Only receive Modulated packet From Receiver, Transmitter does not modulate)	NA (No oscillation)	5Watt (36.9dBm)	NA (Transmitter)

Data rate (전송속도)	Channel Spacing (채널 대역폭)	전원 설비	Standard (기반규격)	통신 방식	Applications
NA (Receiver side Data rate is 2kbps)	NA (No Channel)	13.5V (Vehicle Battery)	WPC 1.2	NA (One way Communication ; Rx → Tx)	Charging PAD for Automotive

4. Operation description

Item	Contents
Rated voltage	DC 13.5V
Operating voltage	DC 9V~16V
Operating temperature	Operating temperature of wireless charger system : -30℃ ~ +70℃ Operating temperature of mobile phone : 0℃ ~ +35℃
Output power	5W(5V, 1A)
Output frequency	110kHz±5kHz
Input power source	This wireless charger should be supply by limited power sources.

5. Compliance Statement

Regulatory Compliance

IMPORTANT NOTE: FCC Compliance statement

This device complies with part 18 of the FCC Rules.

IMPORTANT NOTE: FCC RF exposure statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment should be installed and operated with a minimum distance of 20 cm (7.8 inches) between the antenna and your body. Users must follow the specific operating instructions for satisfying RF exposure compliance.

Industry Canada

This device complies with RSS-216 of the Industry Canada 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.

Ce dispositif est conforme à la norme CNR-216 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

IMPORTANT NOTE: (For mobile device use)

Radiation Exposure Statement : This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

NOTE IMPORTANTE: (Pour l'utilisation de dispositifs mobiles)

Déclaration d'exposition aux radiations : Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

User's Caution Statement

Any changes or modifications to the equipment not expressly approved by the party responsible for compliance could void user's authority to operate the equipment.

Toute changement ou modifications non expressément approuvés par la partie responsable de la conformité pourraient annuler l'utilisateur `autorité de faire fonctionner cet équipement.