Drawing		
Wireless Design team	INFORMATION DOCUMENT NO.	

Title :   RELATING TO CE TYPE-APPROVAL
AS SEPARATE TECHNICAL UNIT
OF VEHICLE BLUETOOTH LOW ENERGY UNIT

목차

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Title :	NO.
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0.   GENERAL

0.1.   Make

SEOYON ELECTRONICS Co.,Ltd.

0.2.   Model No.

- Transmitter :   BLE(BLUETOOTH LOW ENERGY)

- Receiver : Cell PHONE

0.3.   Name and address of manufacturer

SEOYON ELECTRONICS Co.,Ltd.
100, Saneop-ro 156beon-gil, Gwonseon-gu, Suwon-si, Gyeonggi-do, Republic of Korea

0.4.   Address of assembly plant

SEOYON ELECTRONICS Co.,Ltd.
100, Saneop-ro 156beon-gil, Gwonseon-gu, Suwon-si, Gyeonggi-do, Republic of Korea

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2.3 Operating summary

<u>-BLE_Send</u>

① Run the Debugger application.

② BLE transmits codes over radio frequencies.

③ Debugger accepts demodulated code and demodulates it.

④ The debugger takes the demodulated signal and measures the RSSI.

<u>-BLE_Receive</u>

① Run the Debugger application.

② The Debugger sends the code via radio frequency.

③ BLE receives the demodulated code and demodulates it.

④ Debugger measures Packet whether modulated signal is transmitted to BLE UNIT.

*RSSI : Received signal strength indicator

2. PRODUCT SPECIFICATION

2.1 Scope of BLE

2.1.1 BLE : It has the RKE functions.
Data is transmitted with radio frequency

2.1.2 Debugger: Check the send / receive function of BLE UNIT through APP. (SmartRF Studio 7)

2.2 SPECIFICATIONS

2.2.1 Transmitter

ITEM	SPECIFICATION
Rated supply voltage	DC 12V
Operating voltage range	DC 9 ~ 16V
Operating temperature range	
Storage temperature range	
Modulation	GFSK
Frequency	2.4~2.48GHz
Code	Rolling Code(Hopping Algorithm)
Electric field strength	10mW ↓ (2.4~2.48GHz)

2.2.2 Debugger

Item	Specification
Rated Supply Voltage	
Operating Voltage	
Operating Temperature	-
Max Humidity	
Standby Current	

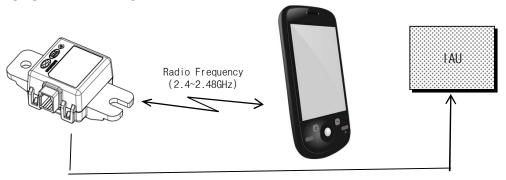| Title :	Information Document	NO.
		Date

3.   USER MANUAL

3.1   ITEM   : BLE

- This system includes BLE.

- The BLE system communicates with the DEBUGGER and measures whether the packet is sent or received.
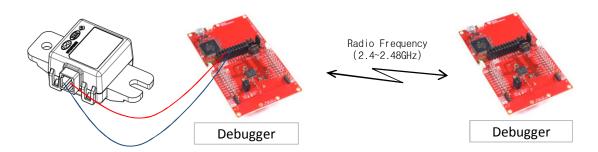
 *BLE : BLUETOOTH LOW ENERGY UNIT

3.2   SYSTEM CONSTRUCTION

3.2.1   SYSTEM IN VEHICLE

Radio Frequency
(2.4~2.48GHz)

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3.2.2   SYSTEM FOR TEST

Radio Frequency
(2.4~2.48GHz)

Debugger

Debugger

① Run the DEBUGGER application to check the communication by sending and receiving a PACKET.

FCC Information to User

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 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.

Caution

Modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Compliance Information : 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

IMPORTANT NOTE:
FCC RF Radiation Exposure Statement:

IC certification

English:

This device complies with Industry Canada's license-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.

French:

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.