

WINNERCOM

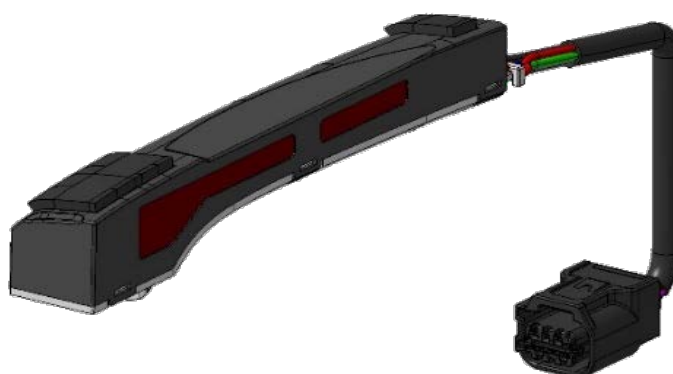
WINNERCOM



WINNERCOM

SP2 PE(QX 23MY) NFC Touch Door Handle User Manual

V 1.0



Winnercom Co., Ltd.

Contents

WINNERCOM

1. Introduction

2. NFC Door Handle Design(BOM) & Application

3. Attentions

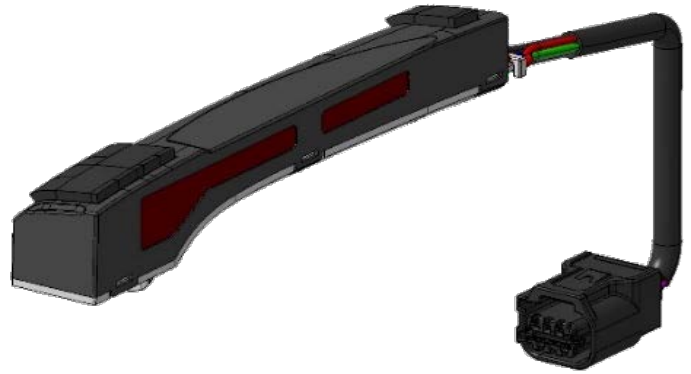
4. Specifications

5. User Information and Instructions

1. Introduction

WINNERCOM

- Door handle Module (DHS)
- NFC & Capacitive Touch
- Pocket Light LED
- Hi-Speed CAN

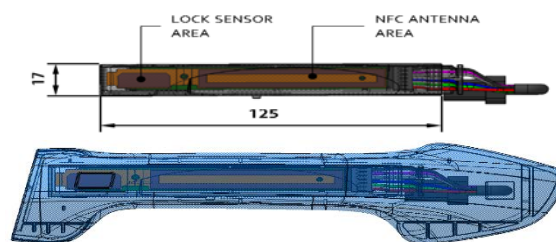


The door handle module for Automotive has a NFC Reader and lock/Unlock 2Channel Capacitive touch Sensor function.

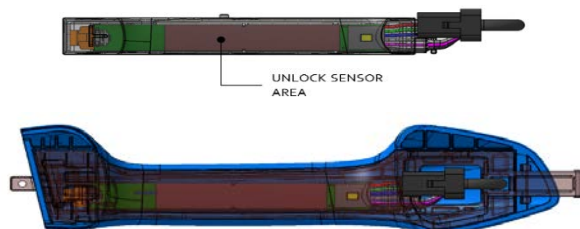
This module is installed inside of the door handle covers and will be attached to the outside door panel.

This module is communicated with CAN network which enables to connect to the car network to send the signal of lock and unlock of door and Pocket light LED On/Off control.

It receives DC power from car battery at all time.



[Door Handle Out-Side]



[Door Handle In-Side]

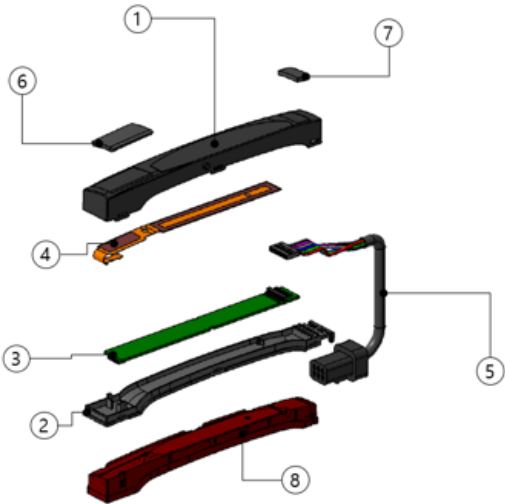
[Assembled cover and DHS]

2. NFC DHS Design(BOM) & Application

WINNERCOM

CE - NFC Touch Door Handle

Category	Feature	
System	Micom	ATSAMC21E18A-MZT Cortex M0 @48MHz RAM 32kB, ROM 256kB
	NFC Processor	3A LOGICS, TNR100
	CAN Transceiver	NXP, TJA1044GTK/3,High Speed CAN 500kpbs
Mechanical Size	125 x 17 x 15.5(h) [mm] (Length x Width x Height)	
Weight	TBD(g)	
System Interface	NFC 13.56MHz NFC-A Type 4, Digital key 2.0	
	CAN Ver. 2.0 High Speed	
	Lock: direct contact Unlock: Handle Grip contact	
진단 기능 Diagnostics	Battery Voltage : Under Voltage & Over Voltage	
	Internal Temperature : Over Heating	
Pocket Lighting	N/A	



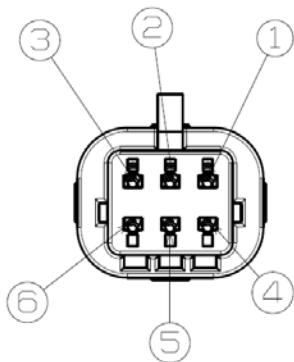
NO	Lev	SUB 부품명	협력사	재질
1	1	CASE UPPER	성신화학	PBT+GF30%
2	1	CASE LOWER	성신화학	PBT+GF30%
3	1	PCB ASSY	TBD	FR-4
4	1	FPCB	TBD	
5	2	CABLE ASSY	화성일렉컴	AVSS 0.3SQ
6	1	FOAM PAD A	한성산업	발포 EPDM
7	1	FOAM PAD B	한성산업	발포 EPDM
8	1	ANT POTTING	ESP 케미칼	UE-917 A,B



3. Attentions

WINNERCOM

- Please always mount the Door handle Module before power on the device to avoid circuit damage
- Before power on the Module, check the power supply(Fig. 1)
- Module Input Power connect to the connector(Fig. 1)



Pin #.	Name	Description	In/Out	Wire Color	I/O Level
1	V Bat(+Vcc)	Power Supply	Power	RED	Battery +
2	L_CAN(L)	CAN Low Signal	I/O	GREEN	2.5±TBD V
3	TOUCH_1	LOCK	O	GRAY	
4	TOUCH_2	UNLOCK	O	PINK	
5	L_CAN(H)	CAN High Signal	I/O	BLUE	2.5±TBD V
6	GND	Electric Ground	Power	BLACK	Gnd

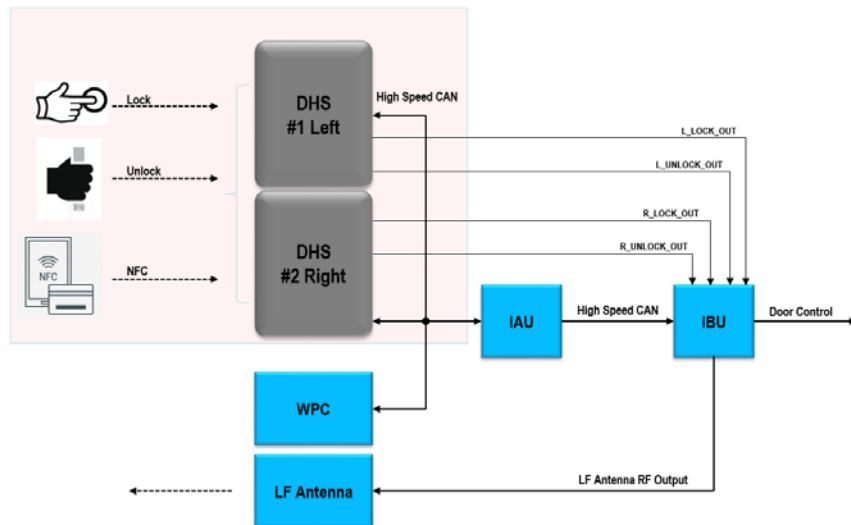
Fig. 1 Connector

4. Specifications

WINNERCOM

NFC Touch Data

Frequency Range	13.56MHz for NFC
Operating Voltage	9.0 ~ 16.0 [Vdc], Typical 12.0 [Vdc]
Current	Max 400mA @ Operation Mode
Operating Temp.	-30°C ~ 75°C
Storage Temp.	-40°C ~ 85°C



[System Block Diagram]

5. User Information and Instructions

WINNERCOM

FCC Part 15 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.

FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note: 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.



5. User Information and Instructions

WINNERCOM

Manufacturer information

Manufacturer name	WINNERCOM Co., Ltd.
Address, City:	HUMAX Village, 216, Hwangsaeul-ro, Bundang-Gu, Seongnam-si, Gyeonggi-do, South KOREA 13595
Product name (type) :	Vehicle active antenna & Touch door