



Model Name	BLP-A04-NR07	Doc. Number	EP01-15-011	Code	1.00
Date	2015.09.03	Drafter	Dongok Gang	Approver	하태양
Title	Product Specifications				

General

Original

Product Specification

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1 Overview

1.1 Product overview

This is a smart card reader that reads the data from RF tag and sends them to HOST (PC, Smart phone) through Bluetooth communication

1.2 Product specification

ITEM	Specification	Remark
CPU	CC2540F (8051) 2.4-GHz Bluetooth® low energy System-on-Chip	
Program Memory	128/256KByte FLASH	
Data Memory	8KByte SRAM	
RF Chip	SIC9410 (MIFARE, NFC Tag)	
DISPLAY	Status LED	
Communication	Bluetooth LE, USB HID	
Input voltage	USB 5V(MINI USB), Battery 3.7V	
Current specification	3.7V 550mA	
Bluetooth	Bluetooth 4.0 LE	
Battery	DC3.7V, 550, Li-Polymer, (sustained operation: 8 hours , (stand by mode : Up to 18 hours)	

1.3 Bluetooth Specification

ITEM	Specification	Remark
specification	Bluetooth® low energy (BLE) 4.0 Certified ISM 2.4GHz module.	
Profiles	embedded Bluetooth Protocols and Profiles	
Transmit Power	-23,-6,0,4dBm	
Range	10 meters line-of-sight	
Antenna	embedded antenna	



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3 Electric specification

3.1 Power specification

- Rechargeable with USB 5V
- DC3.7V, 550mAh

3.2 Current consumption (3.7V battery)

- General current consumption: 20mA
- Maximum: 80mA
- measured by USB ammeter

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4 Function specification

4.1 LED

- Battery and device status.

4.2 Battery

- Rechargeable with USB Power (5V), Use Battery (4.2V) when fully recharged
- 3.7V, 550mAh .

4.3 Bluetooth

● Advertising Packet Format

Preamble (1)	Access Address(4)	PDU Header (2)	Adv MAC Addr(6)	Adv Data (0~26)	CRC(3)
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■ Adv Data (0~10)

0x02	0x01	0x05	0x07	0x08	"BadaMR"
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■ Adv Data (11~26)

0x0F	0xFF	CID[0,1] Device ID[0..7] (10)	NFC Service UUID(2)	TxPower r (1)	Battery Level (1)
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- CID: 0x1DB2
- Device ID: unique ID
- NFC Service UUID : 0xFFB0
- TxPower: -6,0
- Battery Level: 1~100

● Scan Request Response Packet Format

Preamble (1)	Access Address(4)	PDU Header (2)	Adv MAC Addr (6)	Scan Response (0~31)	CRC(3)
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■ Scan Response

0xLL	0xFF	NFC Data Version (1)	NFC Data Length (1)	NFC Data (4~17)	Sequence Number (1)
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5 Environment specification

5.1 Use environment

- Use temperature: -10 ~ 60 °C
- Use humidity: 30 ~ 90 % (relative humidity)

5.2 Storage environment

- Storage temperature: -20 ~ 70 °C
- Storage humidity: 30 ~ 90 % (relative humidity)



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6 Certification

- FCC, KC certification required.

: 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.

Caution: 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.

This appliance and its antenna must not be co-located or operation in conjunction with any other antenna or transmitter. A minimum separation distance of 20 cm must be maintained between the antenna and the person for this appliance to satisfy the RF exposure requirements.