

# RFID READER USER MANUAL

**MODEL : IS-200**

Safety Instructions A1

Product Configuration B1~2

Full Configuration and Specifications..... B-1  
Function Description..... B-2

How to Install C1

How to Install..... C-1

How to Operate

How to Operate..... D-1

# Safety Instructions

## Cautions

-  Do not install it under direct sunlight.
-  Do not install it where the ambient temperature is too high or low.
-  Do not install it where is too humid.
-  Do not install it where the power is not stable.
-  Do not impact it externally.
-  Care must be taken not to allow water or debris infiltrated in it.
-  Do not spill alcohol or benzene over it.
-  Do not assemble or repair it.
-  Prior to use, check if the adaptor and the power are correct.

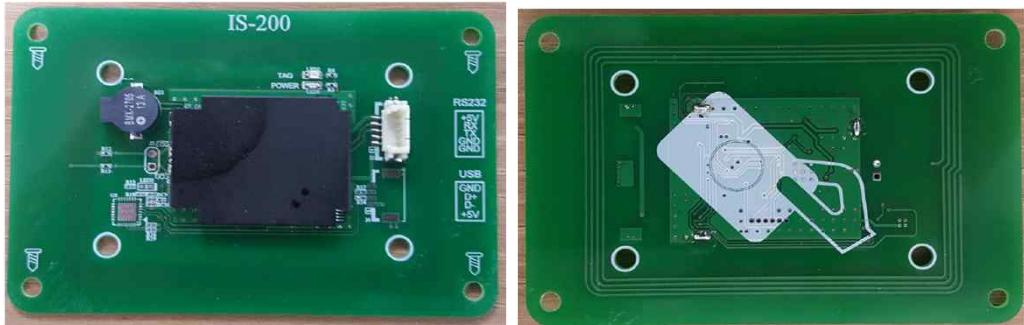


### Note

The contents in this manual are subject to change without notice for product feature enhancement.

# Product Configuration

## 1. Full Configuration and Specifications

<b>Item</b>	<b>NFC Reader Module</b>																																
<b>Name</b>	<b>IS-200</b>																																
<b>Appearance</b>																																	
<b>Components</b>	<b>1. Terminal : 1 EA</b> <b>2. Manual : 1 EA</b> <b>3. Cable : 1 EA (Terminal with Cable)</b>																																
<b>Feature</b>	<b>- RF Reader for Card Recognition</b>																																
<b>Specifications</b>	<table border="1"><thead><tr><th>Classification</th><th>Content</th><th>Remark</th></tr></thead><tbody><tr><td>CPU</td><td>32Bit ARM Core</td><td></td></tr><tr><td>Frequency</td><td>13.56MHz (Transmit/Receive)</td><td></td></tr><tr><td>Pulse</td><td>A1D</td><td></td></tr><tr><td>Communication</td><td>RS232 [115200 BPS]</td><td></td></tr><tr><td>Oscillation</td><td>X-Tal method</td><td></td></tr><tr><td>Modulation</td><td>ASK</td><td></td></tr><tr><td>Power</td><td>DC +5V</td><td></td></tr><tr><td>Output</td><td>Less than 200uV/M</td><td></td></tr><tr><td>Environment</td><td>0°C~+70°C, less than 90%</td><td></td></tr></tbody></table>			Classification	Content	Remark	CPU	32Bit ARM Core		Frequency	13.56MHz (Transmit/Receive)		Pulse	A1D		Communication	RS232 [115200 BPS]		Oscillation	X-Tal method		Modulation	ASK		Power	DC +5V		Output	Less than 200uV/M		Environment	0°C~+70°C, less than 90%	
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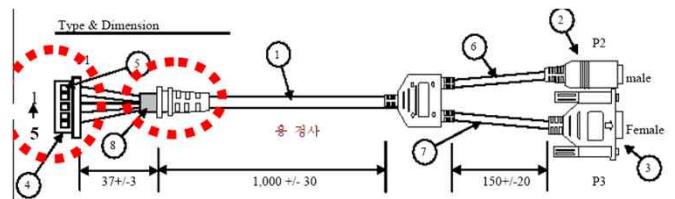
## 2. Function Description

### 1) Contents

The product supplied contains followings

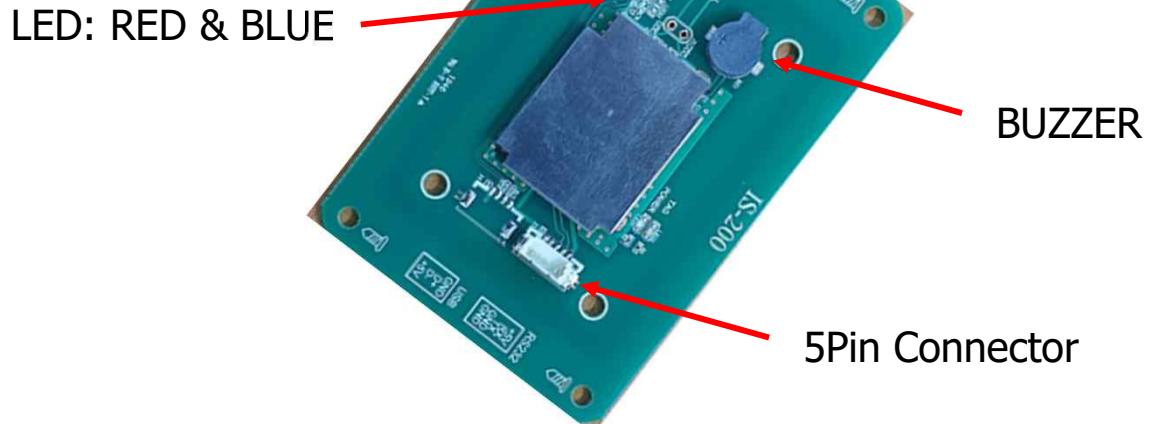


IS-200



RS232 Cable

### 2) Parts Names

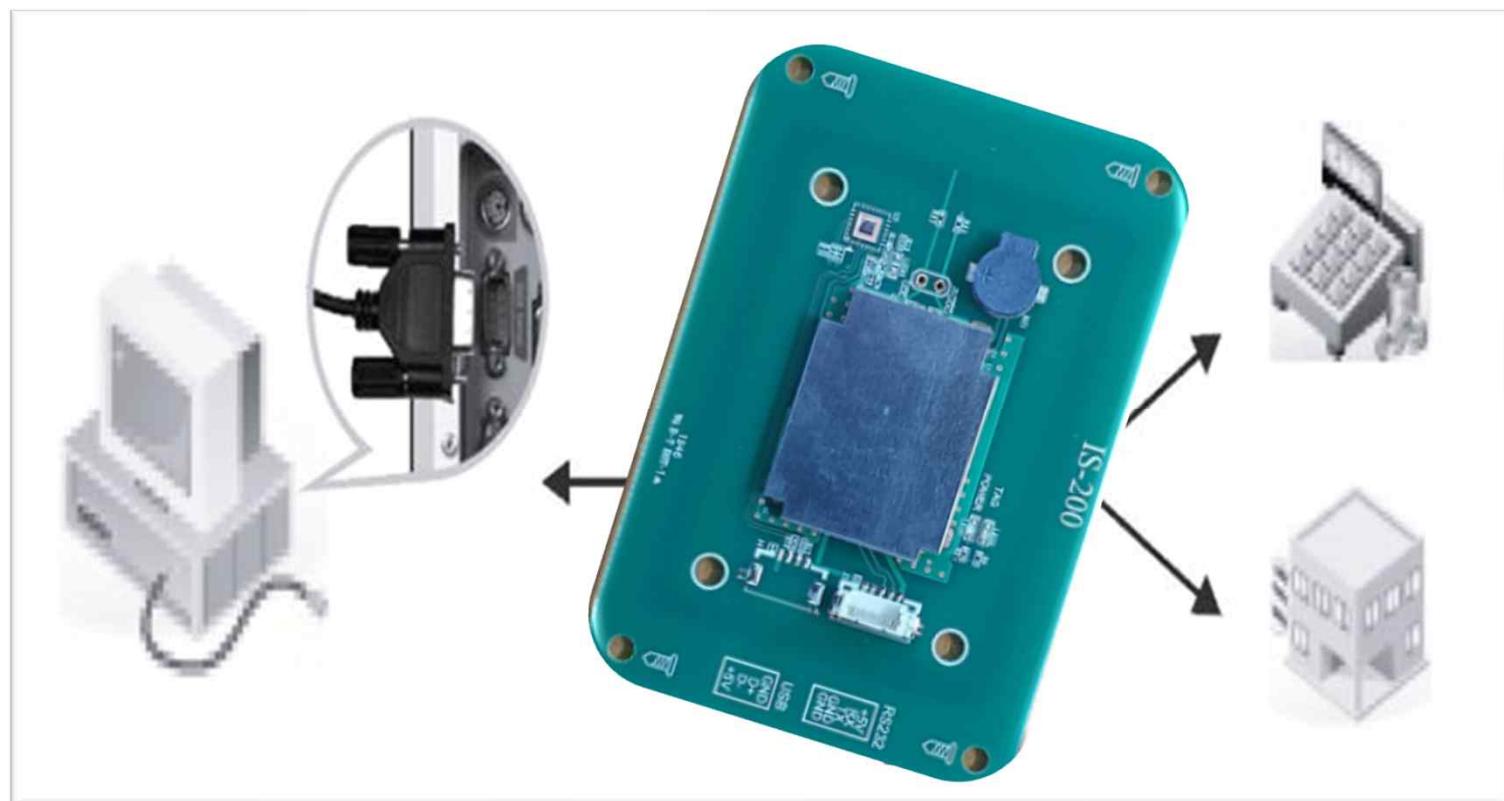


# How to Install

## 1. How to Install

- Install it on the flat side where to be used.
- Turn off the power of the external device.
- Connect the communication cable to the communication port of the external device.

(External devices : Computer or Device)



# How to Operate

- When the power is supplied, [RED] lamp is lit and it is ready to receive command from the external device.
- When the reader recognizes the card, [BULE] lamp is lit.
- When the reader recognizes the card, [Beep] buzzer sounds.

## FCC 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.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

**CAUTION:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

## FCC Radiation Exposure Statement:

This equipment complies with FCC 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.

## OEM INTEGRATION INSTRUCTIONS:

This device is intended only for OEM integrators under the following conditions:

The module must be installed in the host equipment such that 20 cm is maintained between the antenna and users, and the transmitter module may not be co-located with any other transmitter or antenna. The module shall be only used with the internal on-board antenna that has been originally tested and certified with this module. External antennas are not supported. As long as these 3 conditions above are met, further transmitter test will not be required.

However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.). The end-product may need Verification testing, Declaration of Conformity testing, a Permissive Class II Change or new Certification. Please involve a FCC certification specialist in order to determine what will be exactly applicable for the end-product.

**Validity of using the module certification:**

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization for this module in combination with the host equipment is no longer considered valid and the FCC ID of the module cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization. In such cases, please involve a FCC certification specialist in order to determine if a Permissive Class II Change or new Certification is required.

**Upgrade Firmware:**

The software provided for firmware upgrade will not be capable to affect any RF parameters as certified for the FCC for this module, in order to prevent compliance issues.

**End product labeling:**

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains FCC ID: 2BA22-IS-200".

**Information that must be placed in the end user manual:**

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning as show in this manual.