RFID Manual

[IS-4500]

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1. About This Manual

This manual explains how to use IS-4500 and its key features.

Be sure to read carefully and thoroughly understand this manual before using the product. Be sure to keep this manual at hand for future reference.

This manual can be used as a reference for customers who purchase products of Rokit healthcare or as training material for employees.

The content and the specification in this manual are subject to change without notice to improve performance of the product. Rokit healthcare is not responsible for any inaccuracies or typographical errors in this manual

2. Copyrights

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3. Key Features

IS-4500 is 13.56Mhz RFID Reader.

4. Safety Precautions

Warning

- Check the installation environment and performance of the product before using. To utilize the product effectively, read this manual first. Proceed to install and use accordingly.

- Poor handling can damage the product. Handle with care when using or moving the product. This can result in electric shock, fire, failure, and injury. If the product gets damaged or needs repair, contact the customer service center.

- Do not place under direct sunlight, near fire or in a place that generates heat. Heat may damage the product or cause it to catch on fire.

- Do not use if the cable is damaged, and do not disconnect the power while using the product.

- This can result in electric shock, fire, failure, and injury.

- Be sure to keep conductive foreign substances, such as liquid, dust, or metal debris, away from the power supply or from collecting on the cable. Do not use excessive force or anything sharp on the power connector. The connection terminal may be corroded, or short-circuited temporarily and result in an explosion or fire.

- Be sure to check the right battery type and replace a run-down battery with a new battery. Wrong handling may damage the product or cause explosion. Dispose of the wron-out battery properly in an appropriate way.

- If there are any problems with the product, stop using immediately and contact the customer service center.
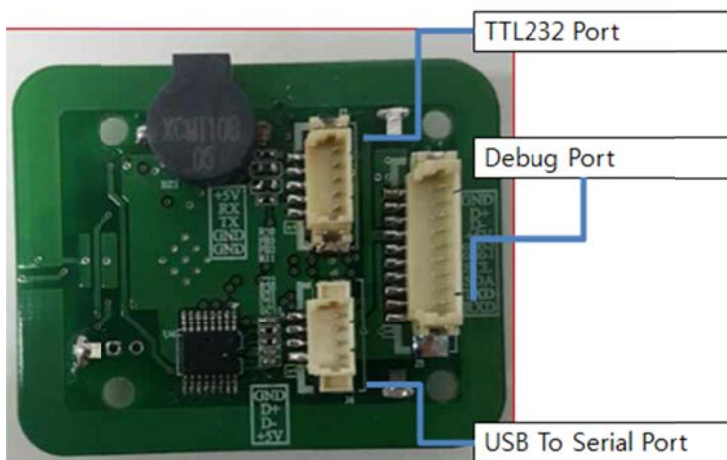
Caution

- Unauthorized installation, remodeling, repair, and disassembling are not recommended. This may result in damage to the product, and malfunctions due to unauthorized actions will void your warranty.

- If installation assistance or repair are required, contact the customer service center.

- Do not install or use the product in a dusty or dirty area. This may result in damage to the product or deteriorate performance.

- Do not install or use the product in a place with magnetic strips or electromagnetic interference. This may result in damage to the product or deteriorate performance.

- Check the wiring information and use appropriate cables. Do not attempt to connect a cable by force. This may result in damage to the product, cable, and the connector.

- Do not install or use the product in a place with strong light exposure or direct sunlight.

- The product's quality might be reduced due to sunlight, halogen, or strong light exposure.

- This product is not waterproof. Take precautions to avoid exposure to moisture.

- Do not put things on top of the product or connect any unnecessary devices. Do not paint or place any stickers on this product. This may deteriorate performance or result in the product not functioning properly.

- Do not scratch the surface, and keep it clean at all times.

5. Product Components

RFID body

Back

6. Installation

Install the product in a proper place where the conditions and environment are appropriate for installation and usage.

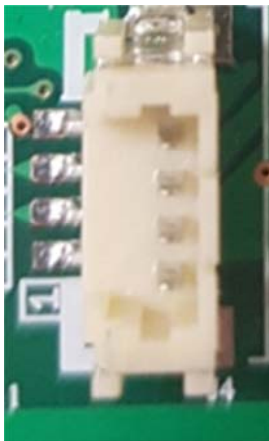Interface cable should less than 3m.

Connector Pin

J2 – TTL232 Port

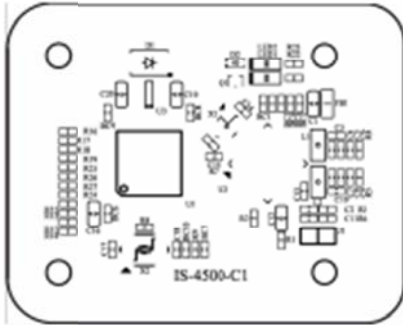| 1	GND
2	GND
3	TX
4	RX
5	5V

J4 – USB to Serial Port
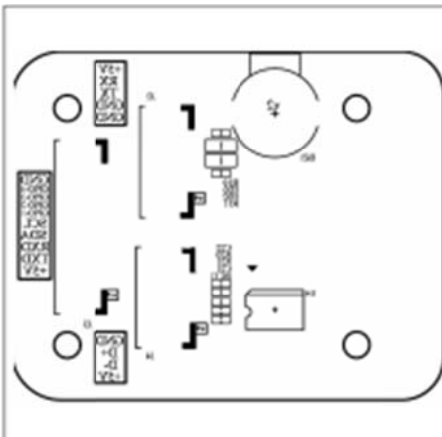

1	5V
2	D-
3	D+
4	GND

Product Components

- **PCB Top**

- **PCB Bottom**

Use the Product

Tap the adequate card to the product, the data of the card will be transferred to the host.

7. Maintenance

To keep the product in optimal condition, regular maintenance is recommended. Manage your product following the instructions below.

- It is recommended that you clean the product regularly. If the surface is dirty, it may affect the performance.

8. Product Specification

RF Frequency	13.56MHz
Power Supply	4.5 to 5.5V DC Operation
Supply Current	40mA @ 5V
Dimensions	43 * 35 * 6 mm
RF Protocol	ISO14443-A/B, ISO15693 Mifare Classic, Mifare UltraLight, Mifare Plus, Mifare NTAG, ICODE SLIX1, ICODE SLIX 2
Host Interface	TTL232, USB To Serial(FTDI USB Chip)
Antennna	50-ohm Internal antenna
RF Power	57.48dBuV/m
Read Range	50mm internal ant
Anticollision	Support(1tags)

Please contact ROKIT Healthcare (info@rokit.co.kr) for product details and inquires.

ROKIT Healthcare Inc. 12F, 9, Digital-ro 10-gil, Geumcheon-gu (Highhill Bldg, Gasan-dong), Seoul, Republic of Korea, 08514

FCC Warning statement

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.

Any changes or modifications (including the antennas) to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

IC Warning statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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;

(2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FCC module Statement

Please notice that if the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following: "Contains FCC ID:2AXLK-IS4500" any similar wording that expresses the same meaning may be used.

Manual Information to the End User

The module is limited to OEM installation ONLY.

The OEM integrator is responsible for ensuring that the end-user has no manual instruction to remove or install module.

The module is limited to installation in mobile application;

A separate approval is required for all other operating configurations, including portable configurations with respect to Part 2.1093 and difference antenna configurations.

There is requirement that the grantee provide guidance to the host manufacturer for compliance with Part 15B requirements.

IC module Statement

Please notice that if the IC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following: "Contains IC:26494-IS4500" any similar wording that expresses the same meaning may be used.

L'étiquette d'homologation d'un module d'Innovation, Sciences et Développement économique Canada devra être posée sur le produit hôte à un endroit bien en vue, en tout temps. En l'absence d'étiquette, le produit hôte doit porter une étiquette sur laquelle figure le numéro d'homologation du module d'Innovation, Sciences et Développement économique Canada, précédé du mot « contient », ou d'une formulation similaire allant dans le même sens et qui va comme suit :

Contient IC : 26494-IS4500 est le numéro d'homologation du module

Manual Information to the End User

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 shown in this manual.

KDB 996369 Items		Description
2.2	List of applicable FCC rules	Part 15 Subpart C
2.3	Summarize the specific operational use conditions	Portable use, connector for data and power input, USB-Serial port DC 5V Powered, integrated antenna
2.4	Limited module procedures	N/A – Single Modular
2.5	Trace antenna designs	N/A – Not trance antenna design
2.6	RF exposure considerations	This product complies RF Exposure. RF Exposure as host equipment are required to use other transmitter with this modular simultaneously.
2.7	Antennas	Integrated antenna, Loop type
2.8	Label and compliance information	Product has FCC ID, Host equipment shall have 'Contains FCC ID' with the FCC ID of module.
2.9	Information on test modes and additional testing requirements	Test was conducted with consideration of host equipment.
2.10	Additional testing, Part 15 Subpart B disclaimer	Product complies FCC Part 15 subpart C. Host equipment shall comply Part 15 subpart B if applicable.