

RFID-MODULE
(Model: 068-50043)

User's Manual

Ver. 1.0

Riso Kagaku Corporation

This manual describes the use, the functions and the performance of the Radio Frequency Identification System RFID-MODULE(Model:068-50043). The system is so manufactured that it can not be repaired or replaced by the user; and therefore, if there are such needs, please contact Riso Kagaku Corporation or its agent. No service work should be started before the service person has read this manual.

Features

This product uses radio frequency of 13.56 MHz to communicate with the tags or cards; thus, it should conform to any relative laws and regulations of the country or the region.

Cautions

1. Use or store this product on the temperature and humidity conditions mentioned below, so as to maintain its operational reliability.
2. Use or store this product in an environment free of explosive gases, inflammable gases, corrosive gases, oils, organic solvents, dust, salt and metal powders.
3. Keep this product free of direct shock, strong vibration or sunshine.
4. To communicate with the tags or cards, this product uses 13.56 MHz radio frequency, which may be interfered by radio waves (noises) emitted from a transceiver, a motor, a monitor, a power supply (including a power supply IC), etc. Please make sure that such interferences will not occur before using the product in a place near to these devices.
5. Take proper measures to avoid any possible electrostatic discharge to the product, which may damage the product.
6. After doing the wiring, make sure the connectors are fastened properly.

Warning

Do not alter any part of the product.

Alteration of the printed wiring board, the antennas or the connecting cables of the module may damage the control board of the printer, and is an illegal act if it causes the modular transmitter emissions out of the limits provided by laws or regulations.

Specifications

Dimensions	Less than $\phi 32\text{mm} \times 18\text{mm}$
Transmitting Frequency	13.56 MHz
Transmission field strength	Less than $500 \mu\text{V/m}$ at 3m
Operating Temperature	0 to +40 °C
Storage Temperature	-20 to +60 °C
Operating Humidity	25 to 85% RH (Without condensation)
Supply voltage	5 V dc +/- 5%

Discarding the Product

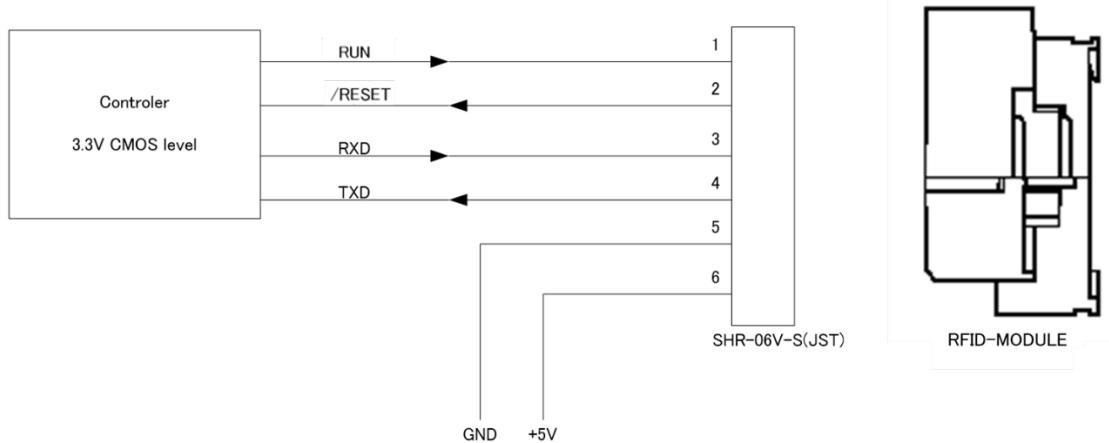
The product should be discarded as normal printed wiring boards. If you do not know how such boards should be discarded, ask Riso Kagaku Corporation, its agent or the government.

Pin Assignments

PIN No.	Description	
1	RUN	Module running signal (VIH:2.66V(min),VIL:0.66V(max))HI ACTIVE
2	/RESET	Device Reset. (VIH:2.66V(min),VIL:0.66V(max))LO ACTIVE
3	RXD	Recirve data (HOST to MODULE) (VIH:2.66V(min),VIL:0.66V(max))
4	TXD	Transfar data (Module to HOST) (VIH:2.66V(min),VIL:0.66V(max))
5	GND	Ground.
6	VCC	+5V DC ±5% (4.75V - 5.25V)

Connector: BM06B-SRSS-TBT-LF-SN (JST)

Connecting



Host Interface

Protocol: ASYNC(3.3V CMOS)

Baud rate:38400bps

Data length:8 bit

Parity : None

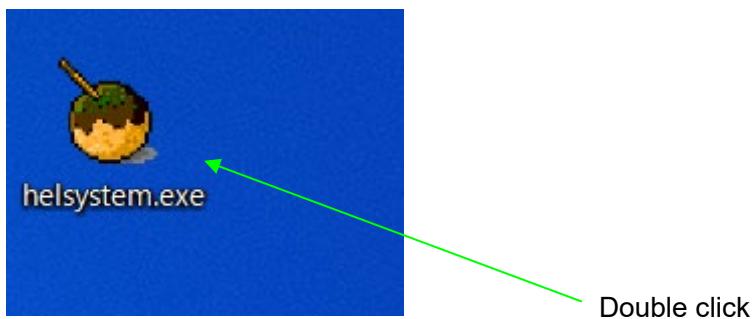
Stop bit: 1 bit

Hand Shaking: None

Voltage level : CMOS (VIH:2.66V(min),VIL:0.66V(max))

Sample Application

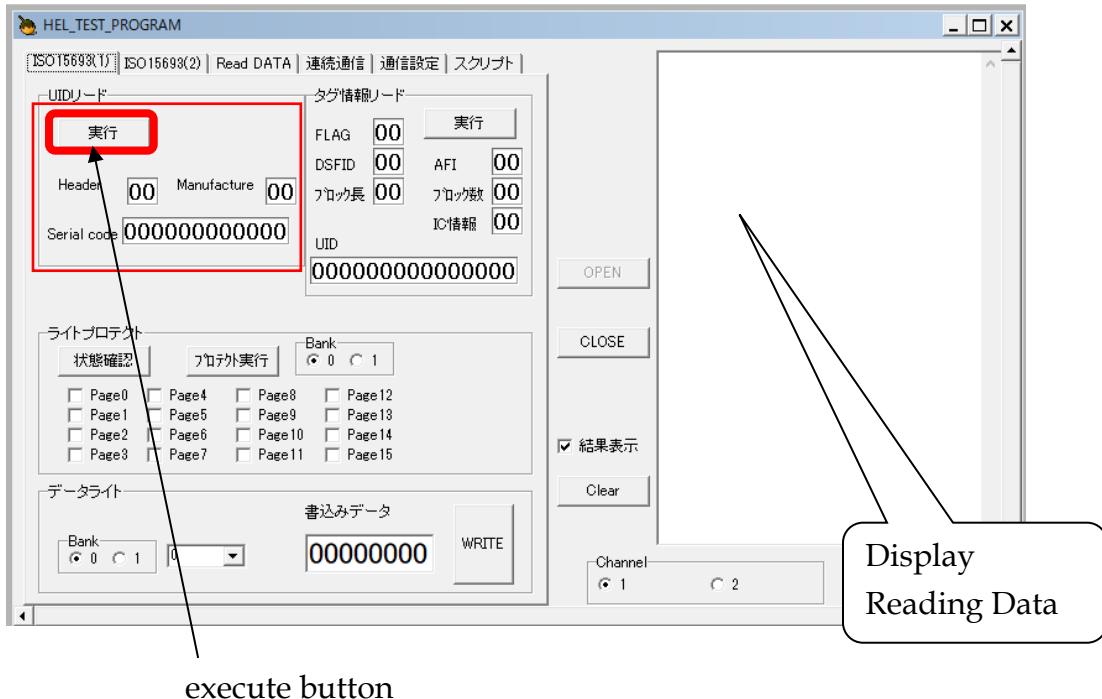
- 1) "helsystem" on desktop is double-clicked.



- 2) The execution screen is displayed.



- 3) When “execute button” is pushed, UID of tag is read.



Notice about the law and the standard

FCC ID: RPARFR61

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.

The user is cautioned that unauthorized changes or modifications not approved could void the user's authority to operate the equipment.

Canada IC: 4819A-RFR61

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.