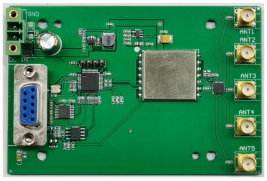
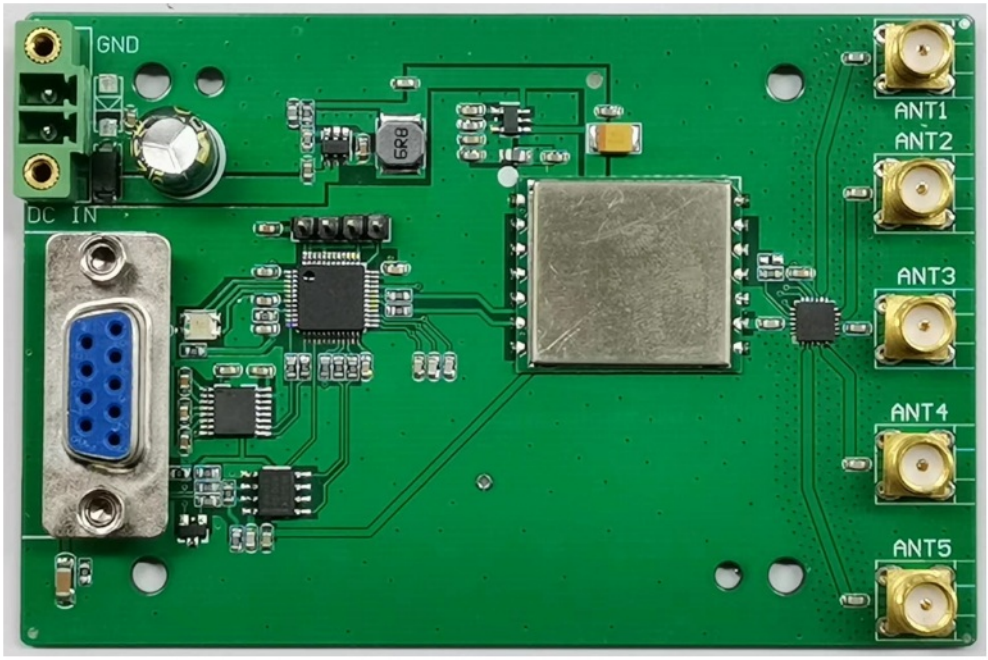


EC-LINK Automation Shenzhen Co Ltd EC-RF650 Fixed Reader-Writer Instructions

Contents

EC-LINK Automation (Shenzhen) Co. Ltd.

EC-LINK Automation Shenzhen Co Ltd EC-RF650 Fixed Reader-Writer



Product Information

The EC-RF650-C-ZM is a five-channel fixed ultra-high frequency RFID reader and writer launched by EC-LINK Automation (Shenzhen) Co. Ltd. It operates at frequencies ranging from 840MHz to 960MHz and meets the ISO 18000-6C standard. The reader has a compact appearance and outstanding read-and-write performance. It supports RS232 and RS485 interface data communication. This reader can be widely used in fields such as automated production line management, retail logistics center management, enterprise transportation management, and warehousing logistics management.

Product Functional Features

- **Working frequency band:** 840MHz – 960MHz
- **Support agreement:** ISO 18000-6C/EPC C1G2
- **Working mode:** frequency hopping
- **Output power:** maximum 500mW
- **Reading and writing distance:** greater than 3 meters, related to antenna and label specifications
- **Working power supply:** DC 7V-30V1A
- **Maximum power consumption:** 2W
- **Operation temperature:** -25- +70
- **Storage temperature:** -40- +85
- **Working humidity:** 10%~95% RH without condensation
- **Communication interface:** RS232, RS485
- **Finished size:** 95X60X14mm

Interface Definition

The EC-RF650-C-ZM has a POWER interface for an external DC9-36V power adapter and a DB9 female interface for data communication. The DB9 female interface has the following pin definitions:

Pin	Define	Illustrate
1	NC	hang in the air
2	RS_232 TXD	RS_232 send signal
3	RS_232 RXD	RS_232 receiving signal
4	NC	hang in the air
5	GND	digitally
6	RS_485 A	RS_485 A
7	RS_485 B	RS_485 B
8	NC	hang in the air

ANT Interface
The EC-RF650-C-ZM has an ANT1, ANT2, and ANT3 interface with SMA connectors for connecting antennas. The RF terminal is only connected to the antenna that needs to be used. Please do not open the software for unconnected antennas, otherwise, empty space may damage the reader/writer!

Human Machine Interface Requirements
There is an LED display light on the front of the read-write host:

- Red light on – indicates no data has been uploaded (label not read)
- Green light flashing – indicates data upload (reading label data)
- Blue light flashing – indicates software upgrade in progress

Drawing
Refer to the product manual for a drawing of the EC-RF650-C-ZM reader/writer.

Product Usage Instructions

- Connect an external DC9-36V power adapter to the POWER interface.
- Connect the reader/writer to a computer or other device using the DB9 female interface and an RS232 or RS485 cable.
- Connect an appropriate antenna to one of the ANT interfaces.
- Install the necessary software on the computer or device.
- Place RFID labels within 3 meters of the reader/writer for reading and writing.
- Observe the LED display lights on the front of the reader/writer for status information.

Note:
This device must be professionally installed. This equipment does not allow any antenna to work with the transmitter; the permitted antenna type must be specified external antennas, for example (antenna name: Planar RFID antenna, Model: EC-UHF-ANT-NF0011). This device is generally for industrial/commercial use. It must be sold to authorized dealers or installers only and cannot be sold via retail to the general public or by mail order.

EC-RF650 fixed reader/writer
EC-RF650-C-ZM is a five-channel fixed ultra-high frequency RFID reader and writer launched by EC-LINK company. It meets the ISO 18000-6C standard and operates at frequencies ranging from 840MHz to 960MHz. It

has a compact appearance and outstanding read-and-write performance, supporting RS232 and RS485 interface data communication. This reader can be widely used in fields such as automated production line management, retail logistics center management, enterprise transportation management, and warehousing logistics management.

Product Functional Features

- **Working frequency band:** 840MHz 960MHz
- **Support agreement:** ISO 18000-6C/EPC C1G2
- **Working mode:** frequency hopping
- **Output power:** maximum 500mW
- **Reading and writing distance:** greater than 3 meters, related to antenna and label specifications.
- **Working power supply:** DC 7V-30V 1A
- **Maximum power consumption:** 2W
- **Operation temperature:** -25℃- +70℃
- **Storage temperature:** -40℃- +85℃
- **Working humidity:** 10%~95% RH without condensation
- **Communication interface:** RS232 RS485
- **Finished size:** 95X60X14mm

Interface definition

1. POWER interface, external DC9-36V power adapter
2. DB9 female interface, connector definition

DB9 Definition of female interface		
Pin	Define	Illustrate
1	NC	hang in the air
2	RS_232 TXD	RS_232 send signal
3	RS_232 TXD	RS_232 receiving signal
4	NC	hang in the air
5	GND	digitally
6	RS_485 A	RS_485 A
7	RS_485 B	RS_485 B
8	NC	hang in the air

3. ANT1 ANT2 ANT3Interface, SMA connector, connecting antenna

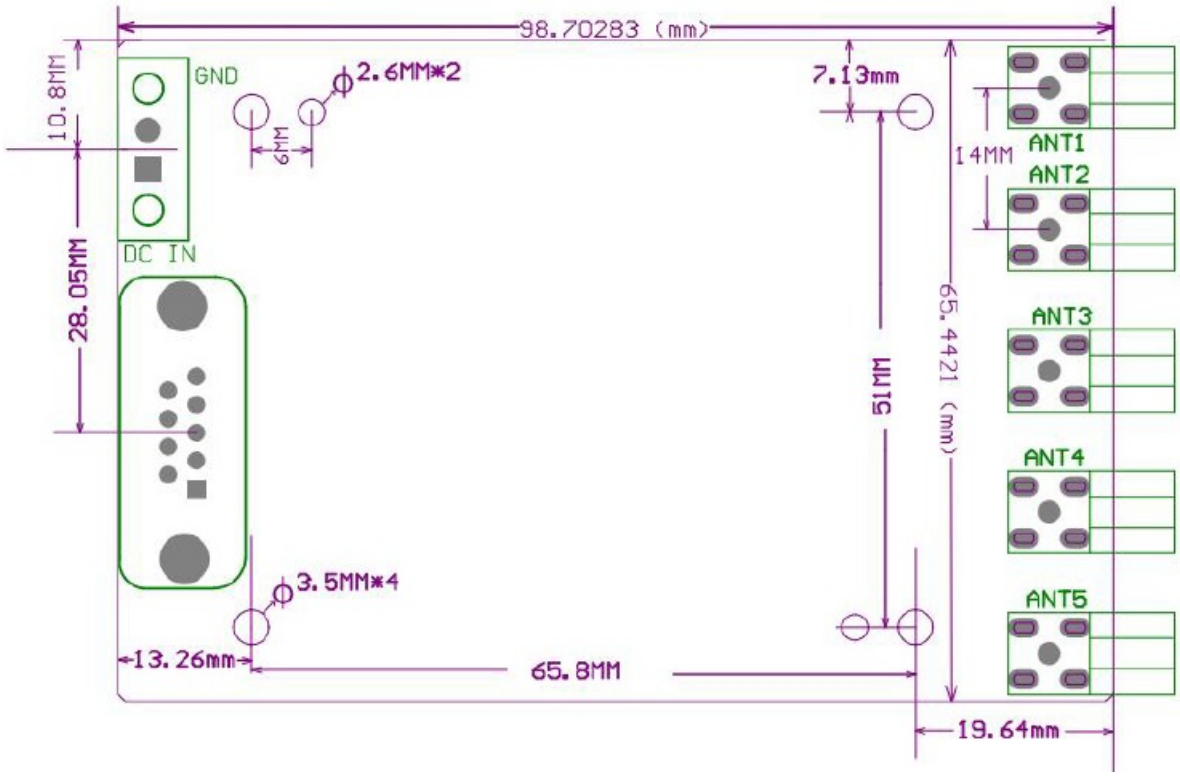
Note:
The RF terminal is only connected to the antenna that needs to be used. Please do not open the software for unconnected antennas, otherwise empty space may damage the reader/writer!

Human-machine interface requirements

There is an LED display light on the front of the read-write host, which is defined as follows:

Pilot lamp	Define
Led	Red light on – indicates no data has been uploaded (label not read)
Led	Green light flashing – indicates data upload (reading label data)
Led	Blue light flashing – indicates software upgrade in progress

Drawing



Caution:

This device must be professionally installed
This equipment does not allow any antenna to work with the transmitter; the permitted antenna type must be

specified external antennas, for example (antenna name: Planar RFID antenna, Model: EC-UHF-ANT-NF0011) device is generally for industrial/commercial use. it must be sold to authorized dealers or installers only, and cannot be sold via retail to the general public or by mail order. The equipment is an RFID technology RF product and must be installed by electrical and electronic professionals with a professional certificate

FCC Caution

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 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 the receiver.
- Connect the equipment to 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.

RF warning for Mobile devices:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body.

IC Caution

CAN ICES-003(B) / NMB-003(B)
RSS-Gen Issue 3 December 2010″&”CNR-Gen 3e éditionDécembre 2010:

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Contact Information

- **ADD:** Room2206, Building B, Shixia XintianCentury Business Center, Futian District, Shenzhen

- **Website:** http://www.eclinksz.com.
- **Tel:** 0086-755-8368 1813
- **Fax:** 0086-755-8323 5833
- **E-mail:** sales@eclink6sz.com.

Documents / Resources

	EC-LINK Automation Shenzhen Co Ltd EC-RF650 Fixed Reader-Writer [pdf] Instructions EC-RF650 Fixed Reader-Writer, EC-RF650, Fixed Reader-Writer, Reader-Writer, Writer

References

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