

Quick Start Guide

UHF Reader:RU101R-W-F-V1.0

RU100R-W-F-V1.0,UHF1-5F, UHF2-5F,UHF1-10F,UHF2-10F

Version: 2.0

1. Product Summarize

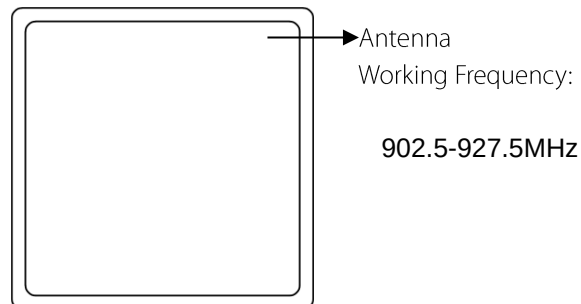
RU101R-W-F-V1.0 is a new generation of RFID UHF series products for our company's independent research and development of the long distance card reader system in the parking lot.

The product uses the industry's most cost-effective UHF card reader chip, and the part of swing card adopts the module integrated design, making the product to meet the technical requirements of the parking lot. Meanwhile, the utility model has the advantages of stable reading performance, good consistency, low working current and temperature, long service life, and small external influence, and the product adopts the waterproof outer shell design.

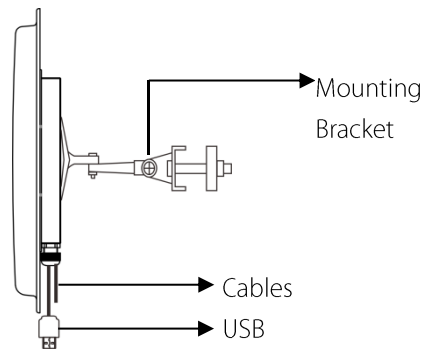
The product is also a fully meet the CE, FCC technology requirements of the product, and to obtain CE, FCC and other security certification.

2. Overview

Front View



Lateral View and Interface



Cable Definition

NO	Color	Function
1	Red	+12V
2	Black	GND
3	Purple	Trigger Point (Active-low)
4	Green	Wiegand D0
5	White	Wiegand D1

NOTE:

- 1) In "Trigger Read" work mode, the reader will not read cards before a low level signal to "Trigger Point" is delivered. "Trigger Point" is mainly used for working with the ground sensor of vehicle parking system.
- 2) In "Always Read" work mode, once the card in the effective range, the reader will output the card number via Wiegand continually.

3. Technical Parameter

Working Voltage	DC9V ~ 12V
Working Current	150mA (Always Read)
Working Temperature	-20 °C ~ +60 °C
Working Humidity	<95%(+25°C)
Interface Protocol	EPCglobal UHF Class 1Gen2/ ISO 18000-6C
Working Frequency	902.5-927.5MHz
Output Power	18dBm ~ 26dBm
Communication Interface	Wiegand 26/34; USB

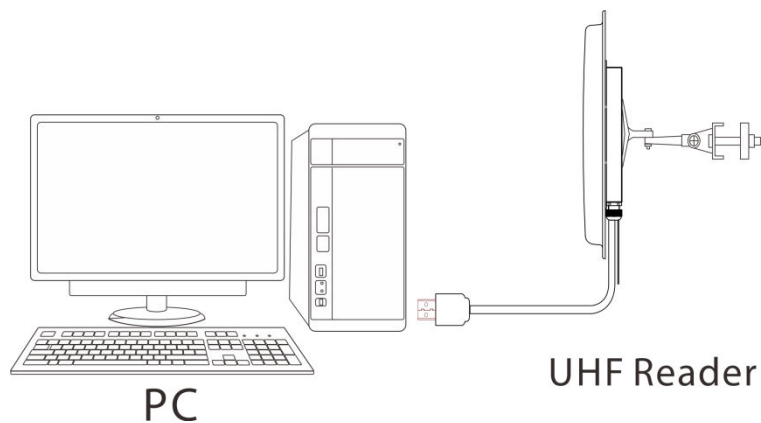
Reading Distance	>5M / >10M
Antenna Gain	8dBI(UHF5) / 12dBI(UHF10)
Dimension	260mm*260mm*65mm(UHF5)/ 445mm*445mm*70mm (UHF10)

4. Safety Precautions

- 1) The reader working voltage ranges from DC9V to DC16V, it is recommended to use DC12V /3A power supply.
- 2) Please wire according to the cable definition.

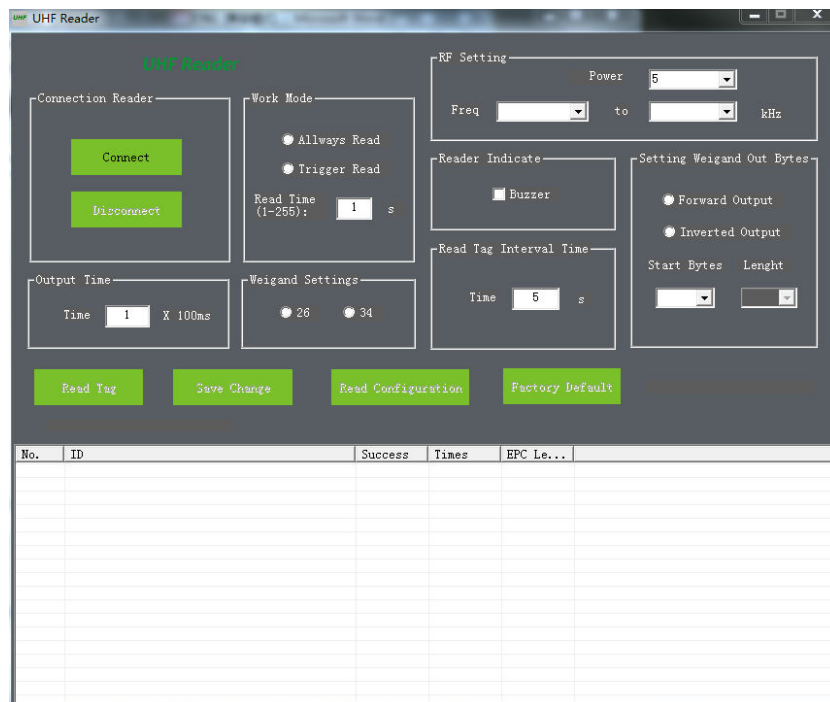
5. Modifying Setting via Demo

- 1) USB Connection



- 2) Software Introduction

Our company provides Demo, used to set the working parameters of the reader. Demo interface as shown below:



The default configuration of the reader is as follows:

Work Mode	Always Read
Communication Interface	Wiegand34(Default)/Wiegand26; USB;
Output Power	18dBm~26dBm
Working Frequency	902.5-927.5MHz

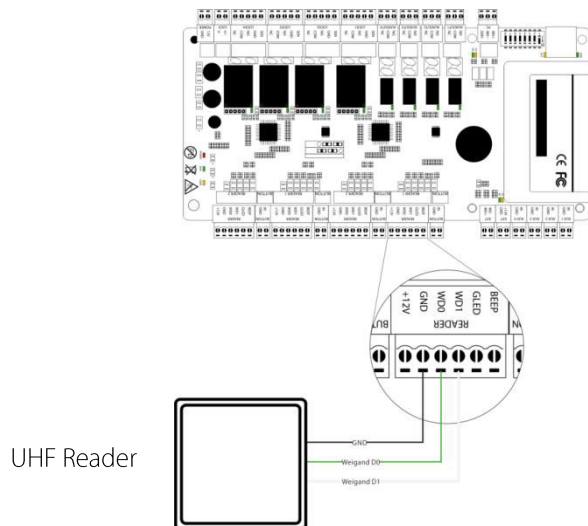
a. Demo Using Instructions

- Connect the USB port of the reader to the USB port of the computer.
- The power adapter is recommended to use the DC12V/3A specification. Power supply to reader, and the buzzer sounds once.
- In the computer to open Demo, click 'Connect', on the right side of the middle will show 'Connect Successful', and machine and demo

connection success.

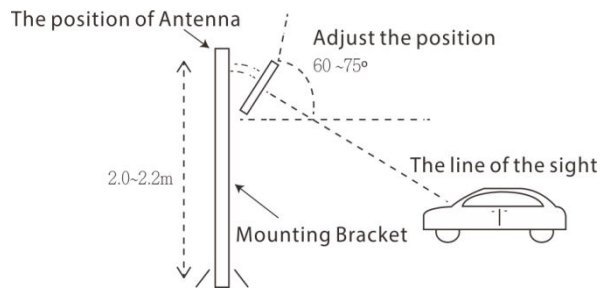
- **Wiegand Interval Time:** Sets the time interval between adjacent wiegand data.
- **Reader Indicate:** Set whether the buzzer rings when the machine is on the electricity and brush the card.
- **Work Mode:** Set the working mode of the machine, and including always read mode, trigger mode. Under trigger mode, time of reading card can be set when it is triggered once.
- **RF Setting:** Set the RF parameters of the machine, including power, spectrum. Power range is 18~26dBm.
- **Wiegand Setting:** Set the machine's wiegand output format.
- **Setting Wiegand Out Bytes:** Sets the forward or reverse output of the machine's Wiegand Data, and start output from the first few bytes.
- **Read Tag Interval Time:** Set the machine to read the card interval. Read card interval is the time when from the card is read within the scope of the card to the card is left out of the scope of the card to read the second time card.

6. Access Control Panels Connection

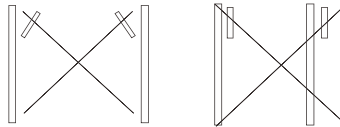


7. Installation

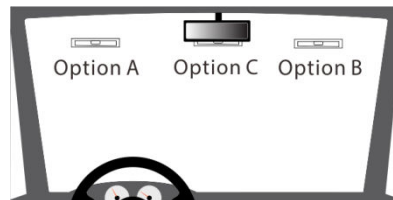
- Please install the directional antenna with lower elevation angle of 60~75 to suit the correct line of sight.



- Please install the reader according to the following chart. The reader is installed on the bracket, and the angle is adjusted according to the actual effect of swing card.
- Avoid installing the reader against to another.



- The position of the tag/card in the vehicle is as follows:



- The reader detection distance may vary depending on rain, snow or wind.



- The Reader should be away from strong magnetic field when working

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.

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.

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