Urovo Technology Co., Ltd.

FR2000 Desktop RFID (UHF) Reader User Manual

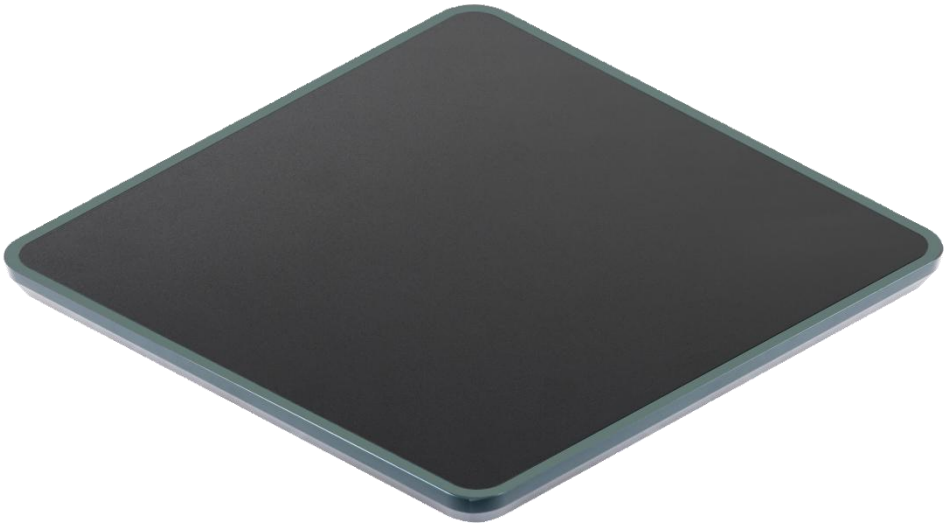
Statement

index

Chapter 1. Appearance

FR2000 is a state-of-the-art desktop UHF reader developed by Urovo Technology. This reader is versatile, supporting applications on Windows, Android, and iOS platforms. With its cutting-edge E710 RFID chip and proprietary high-efficiency signal processing algorithms, FR2000 excels in read-write capabilities across a broad reading range. Its exceptional performance allows for the precise reading of RFID tags from all directions, achieving an impressive accuracy rate of up to 99.9%.

Designed for various applications, FR2000 is ideal for retail collection, logistics, identity verification, access control, anti-counterfeiting systems, and production process control. Its adaptability and accuracy make it a reliable choice for businesses across diverse industries.



Chapter 2. Indicator Light Explanation

The indicator lights on the device display different statuses, including power on, communication status, etc.

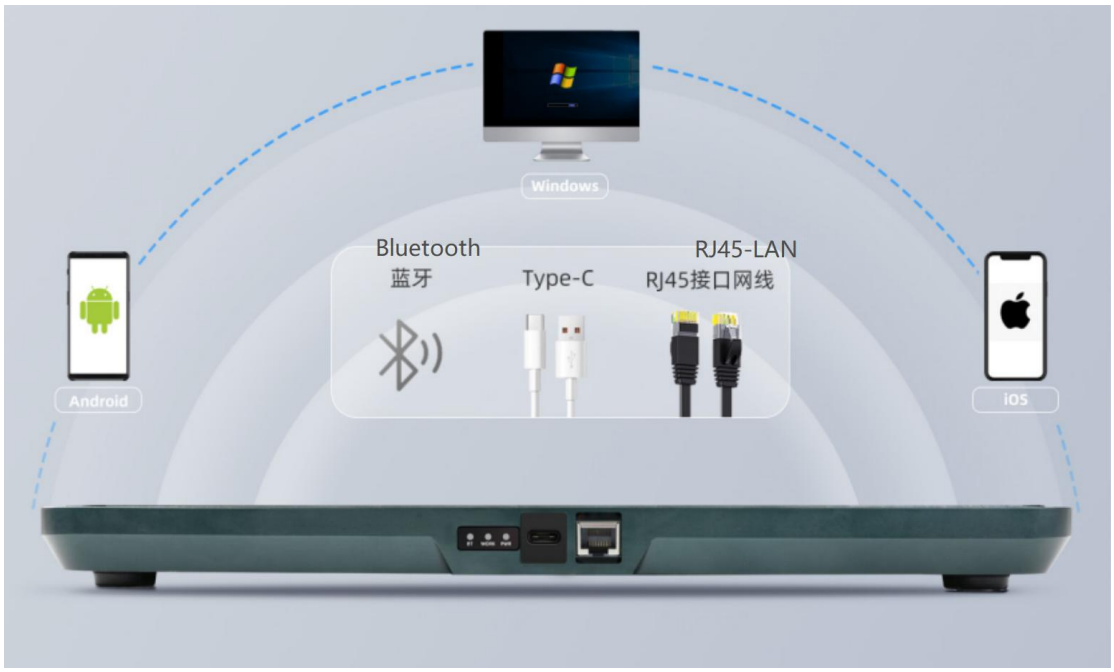
Chapter 3. Get Started

3.1 Connection

Real-time communication, interconnection

Support Type-C USB 2.0, Bluetooth BT5.0, RJ45 network port and other communication methods can be interconnected with Windows, Android, iOS and other devices with different operating systems to meet the needs of different operational scenarios.

3.2 Connection and Power Supply

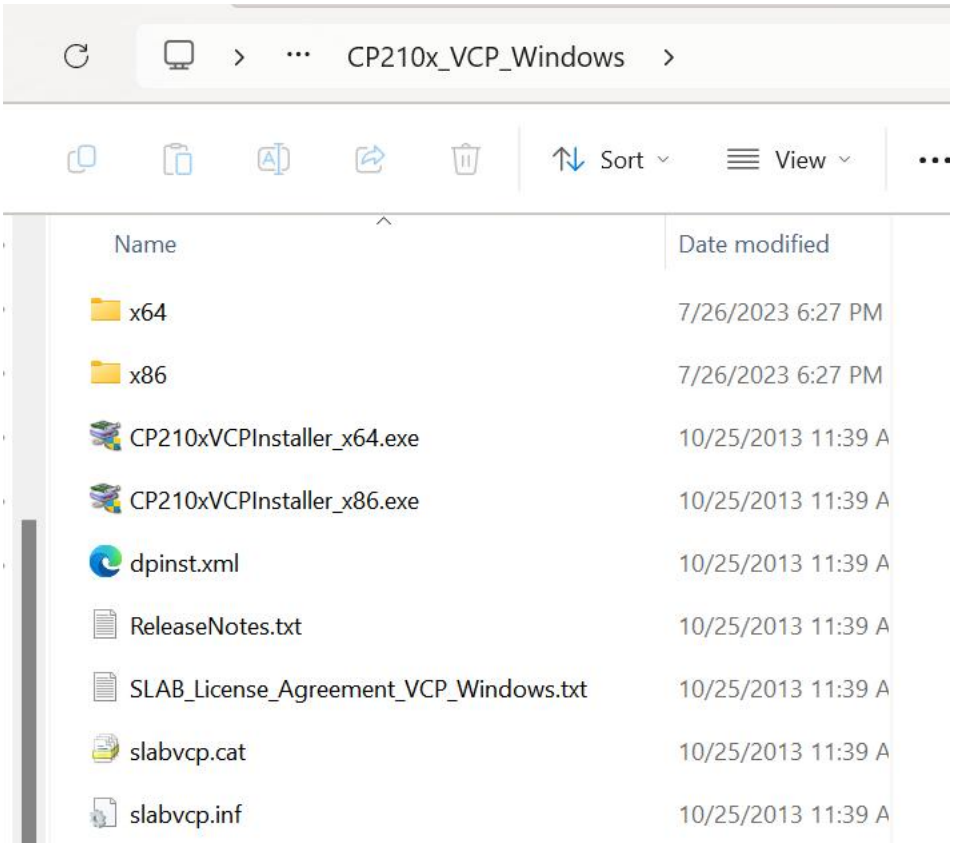


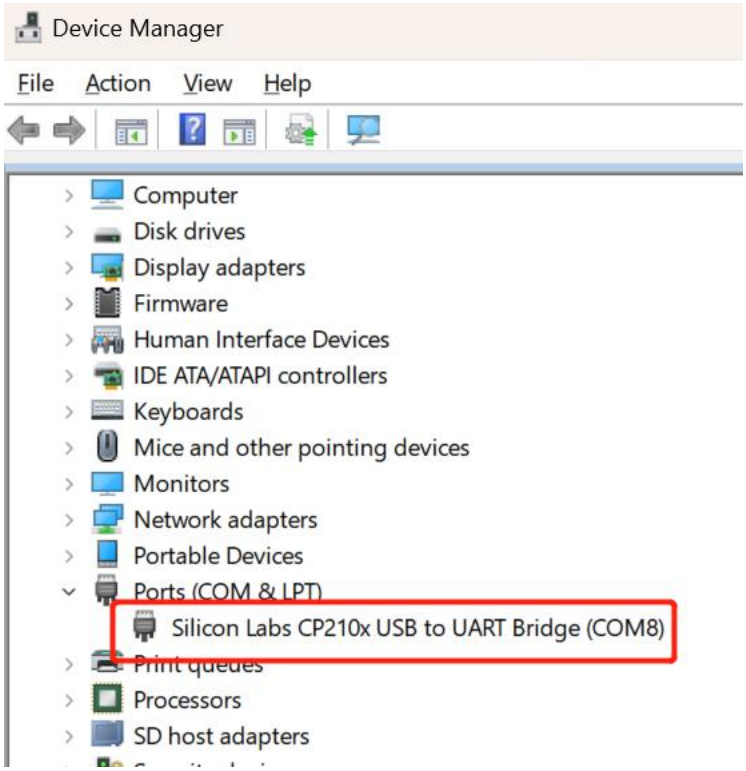
Support USB power supply, optional PoE power supply mode, a USB Type-C cable or RJ45 interface cable can complete the data transmission and power supply operations, effectively reducing deployment and maintenance costs

3.2.1 To Windows

3.2.1.1 Install the Driver

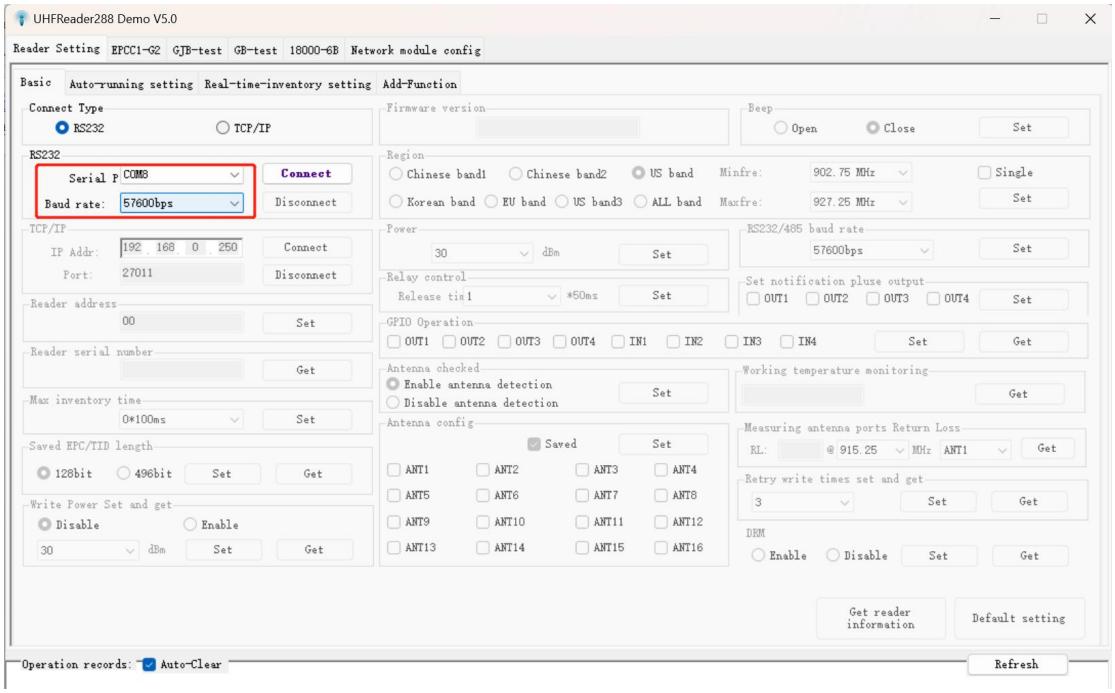
If you are using USB for data communication, install the USB driver first,



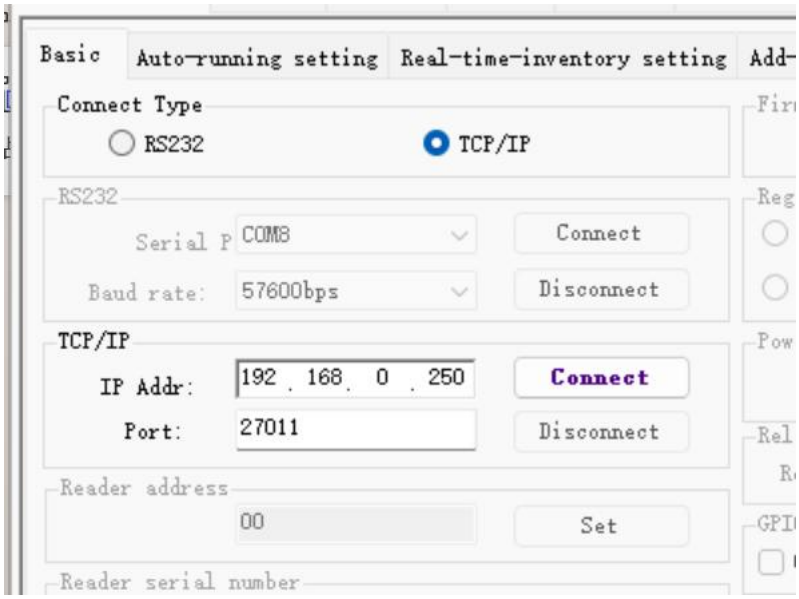


3.2.1.2 Connect

Open the “UHF Reader Pad\Demo\Demo\c#\EXE\UHFReader288Demo.exe” or some other demo
Select the com port shown in your device manager



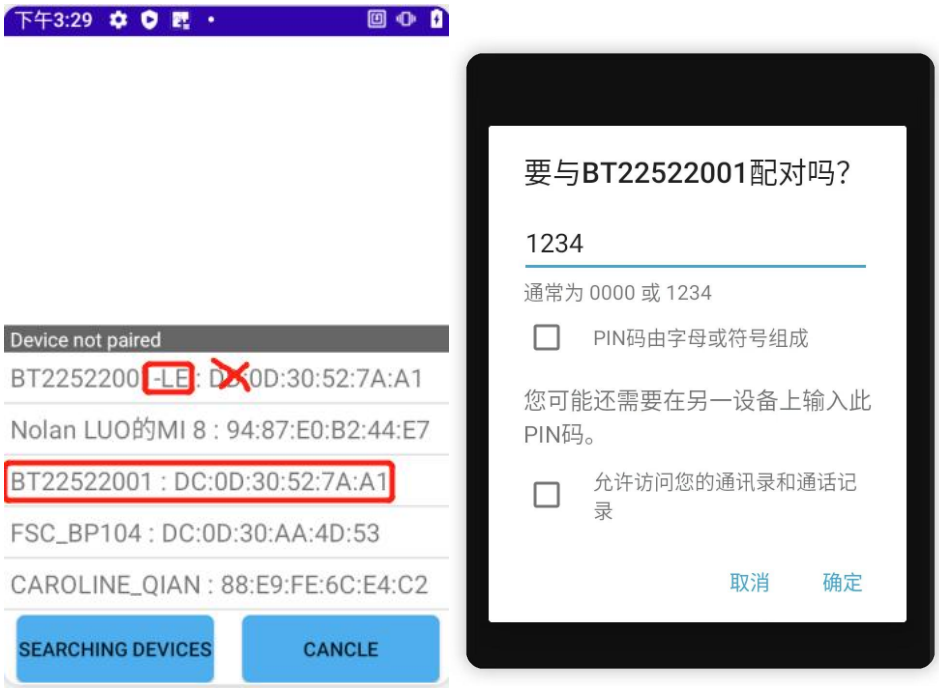
If the device have RJ45-LAN port, you can use the IP to connect the device

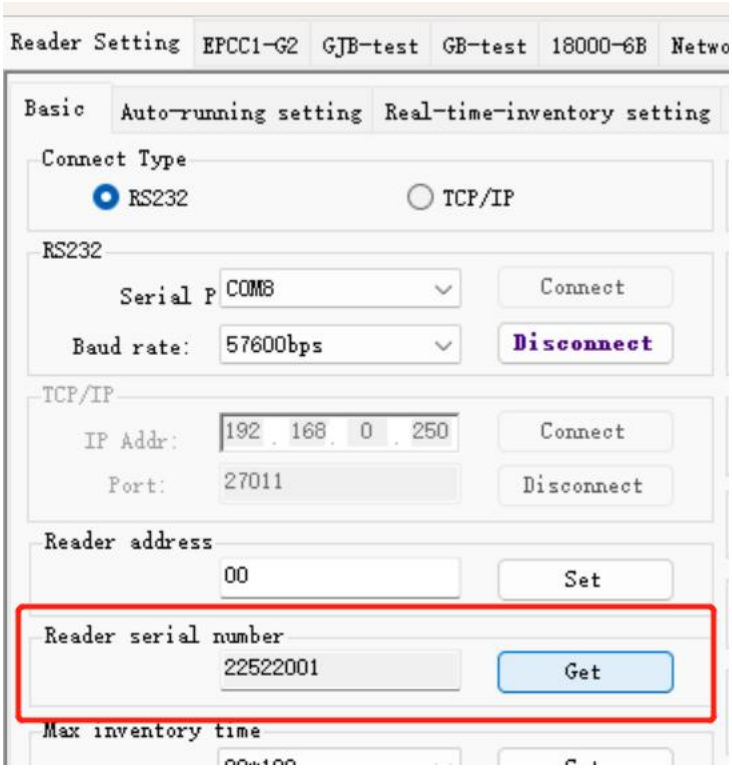


3.2.2 To Android

3.2.2.1 Search the BT of the device

You can find the name in the bottom label, or you can read it in the UHFReader288Demo.exe,
And pair to the desktop RFID bluetooth with PIN : 1234

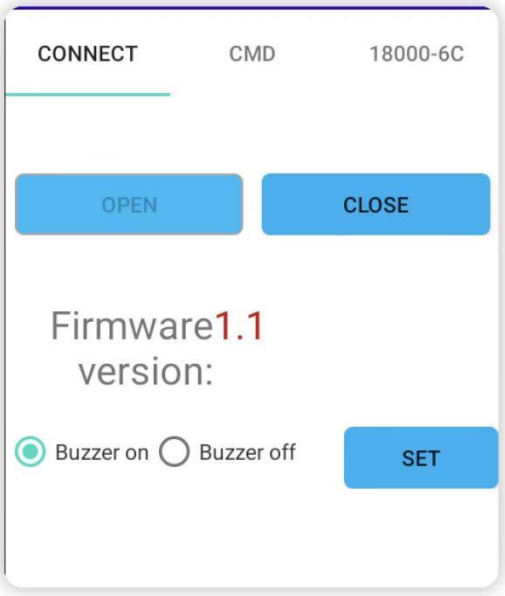




3.2.2.2 Open the APP and Demonstration

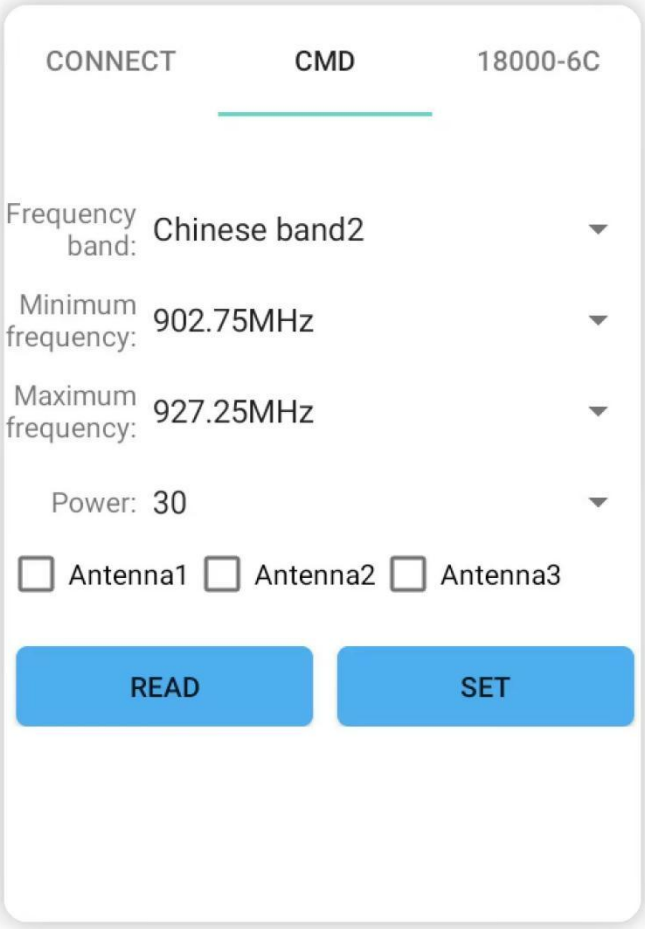
3.2.2.2.1 Connect to RFID device.

Open-connect Bluetooth, then the firmware version will be shown:



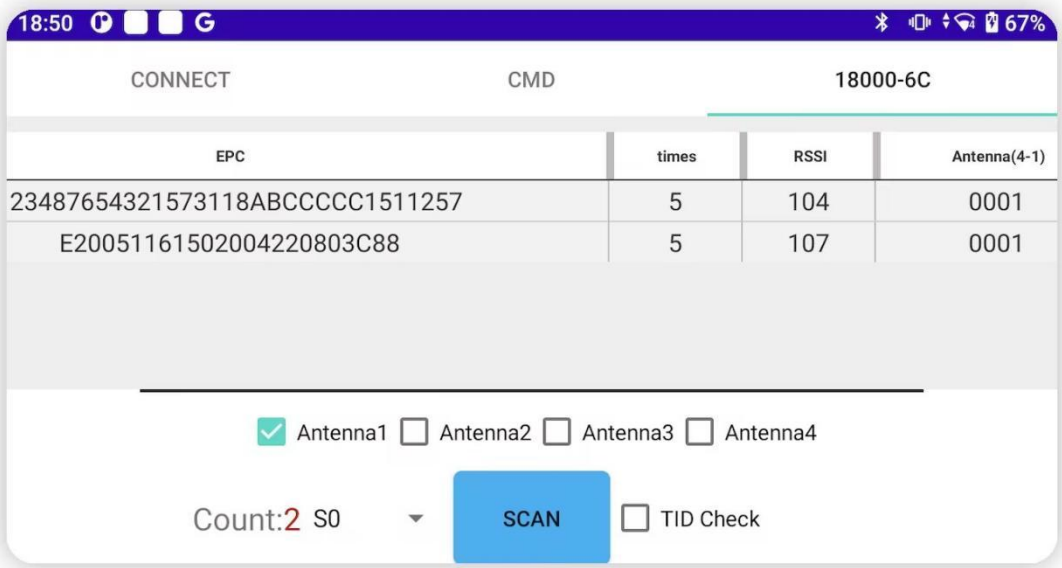
Buzzer on/off option

3.2.2.2.2 Setting page



Power(0-27dBm), only one Antenna.

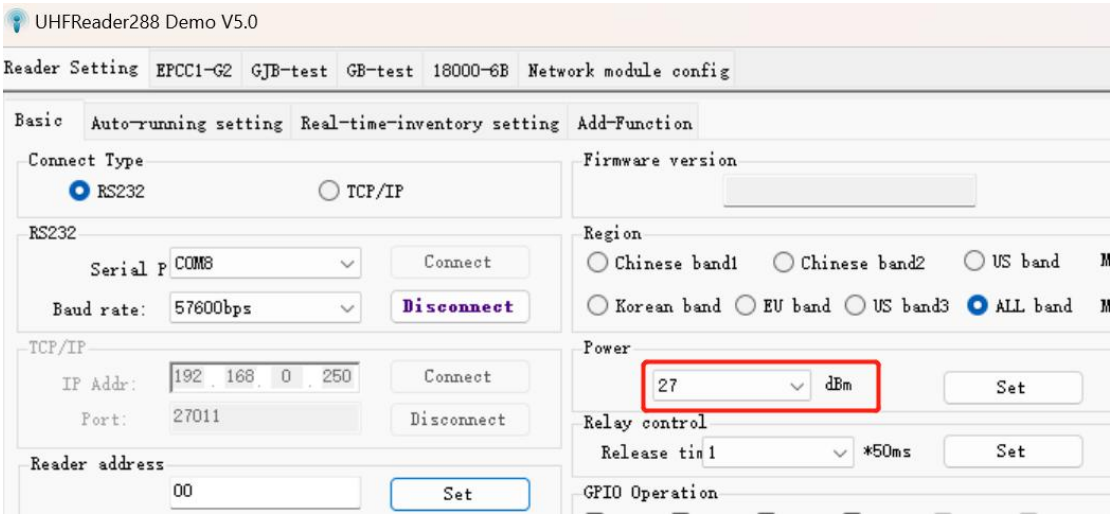
3.2.2.2.3 Reading tags



Chapter 4. Setup

4.1 Baud rate

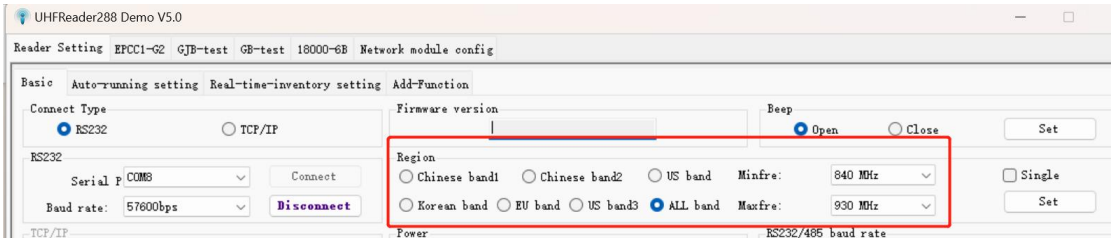
4.2 Output power (0~27dBm)



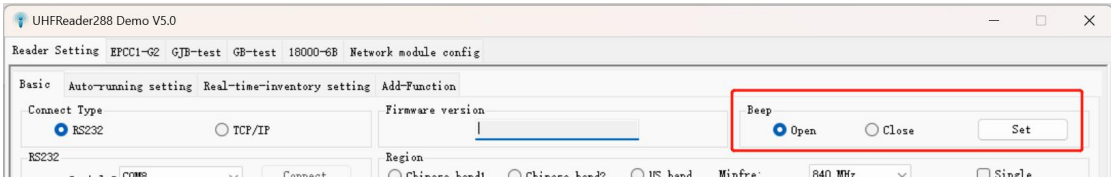
4.3 Protocol

Only support ISO18000-6C

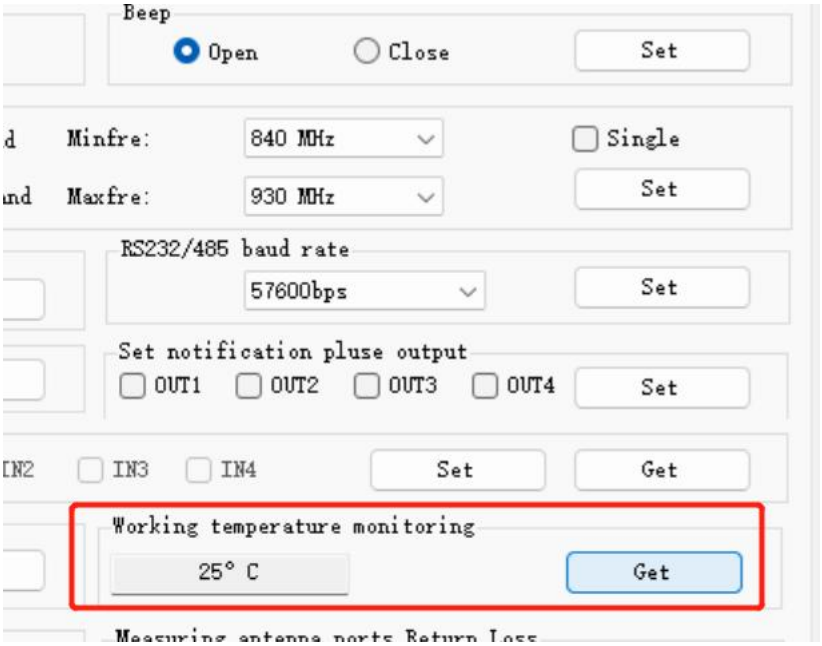
4.4 Region



4.5 Buzzer



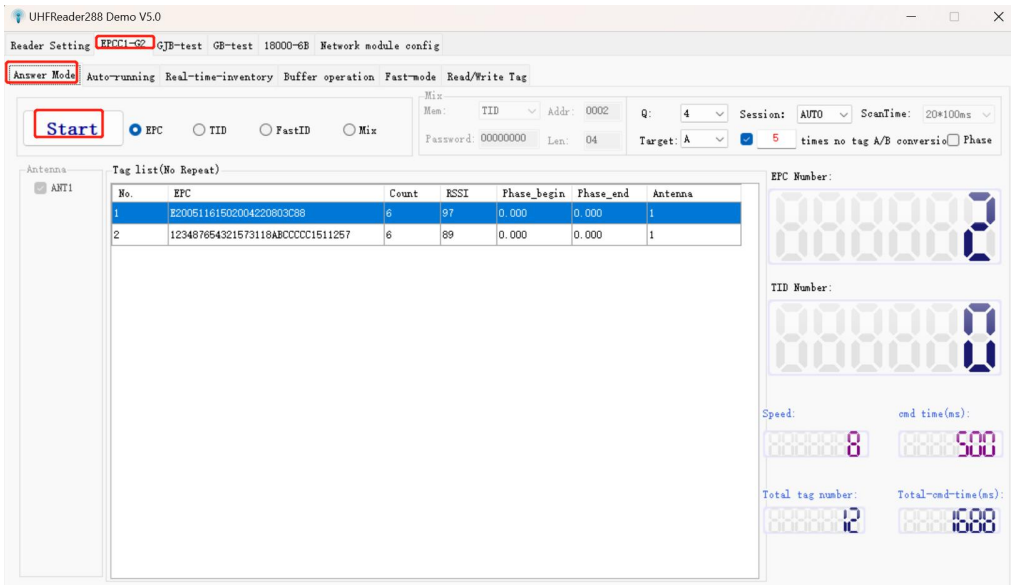
4.6 Temperature

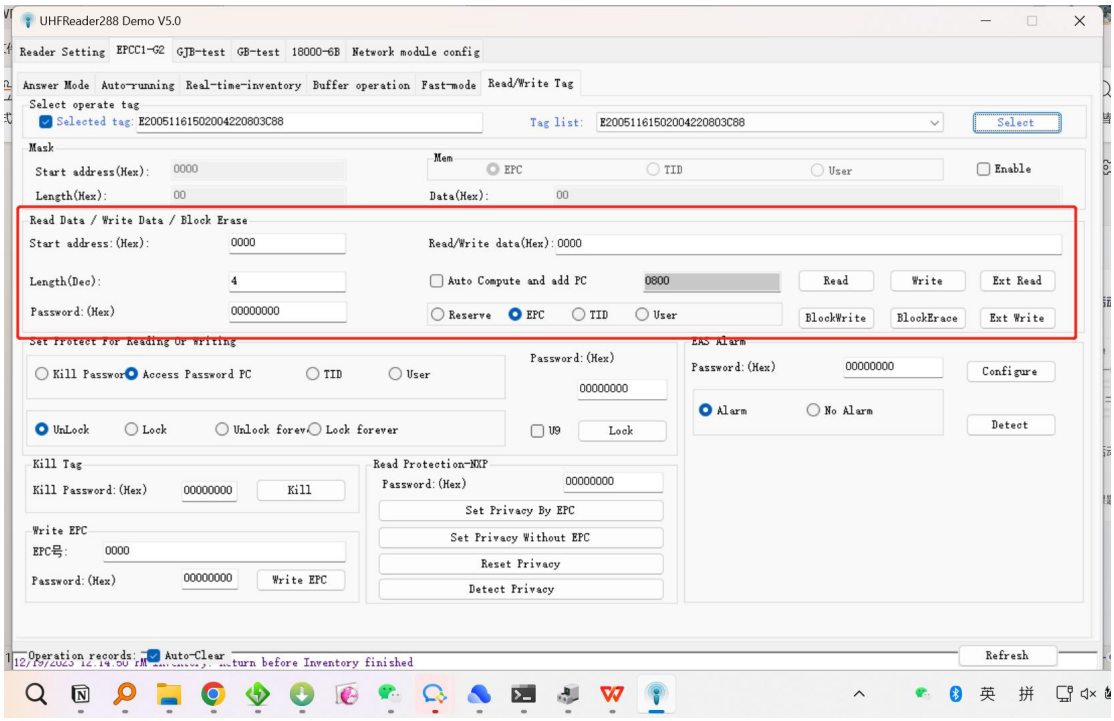


Chapter 5. RFID Tag Read and Write Operations

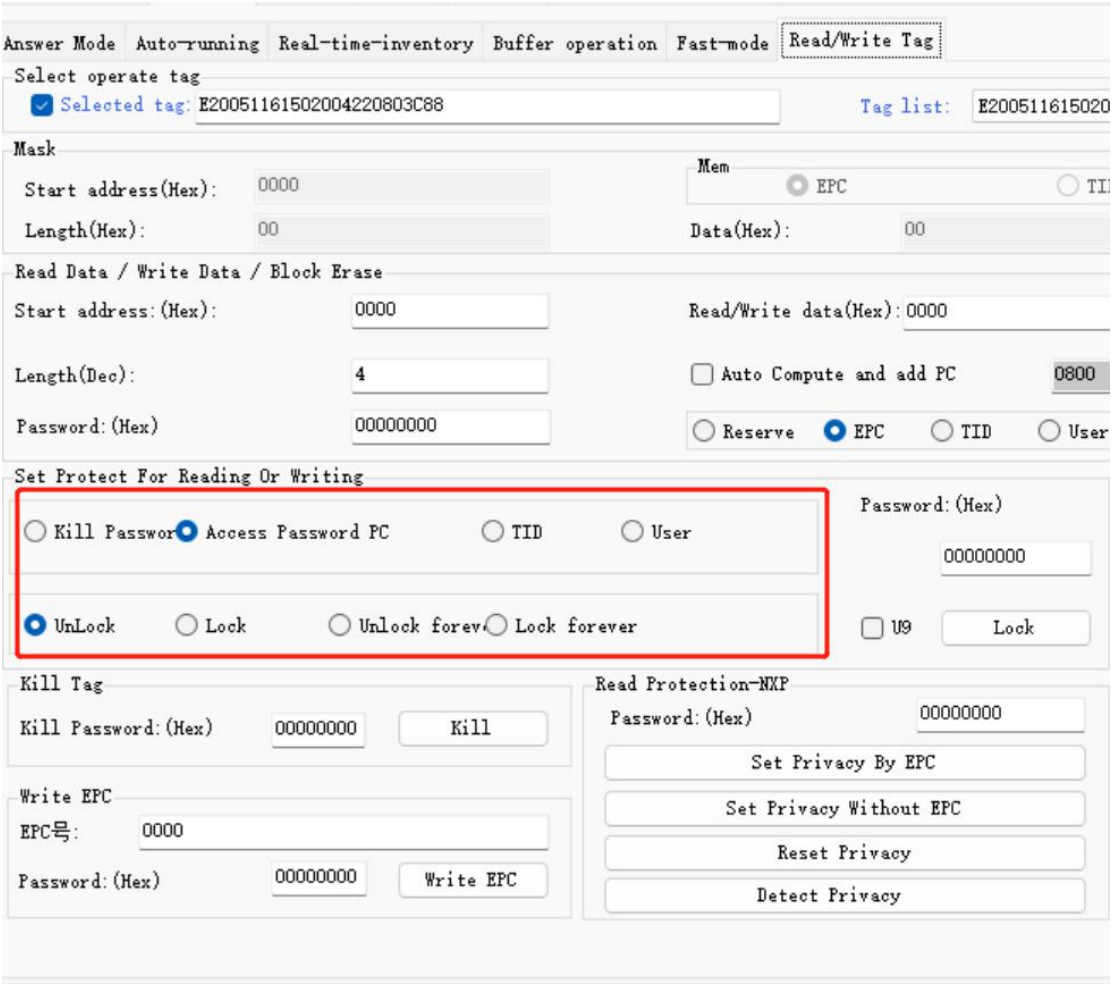
- Place the RFID tag to be read or written within the device's reading range,
- Start the software, select the read or write operation, and follow the on-screen prompts.

Noted. Default password is '00000000'.





Chapter 6. RFID Tag Lock and Kill



Chapter 7. Environmental

- Position the FR2000 on a stable surface, ensuring good ventilation in the surrounding environment.

- Avoid use in humid, high-temperature, or extreme temperature conditions to prevent affecting device performance.

Environment	Operating Temp.	-20℃ ~ +50℃
	Storage Temp.	-40 ~ +70℃
	Humidity	5%RH ~ 95%RH(No condensation)
	Sealing	IP54
	ESD	+/-15kv Air; +/-8kv contact

Chapter 8. Safety Precautions

When operating the desktop UHF reader (such as the FR2000) from Urovo Technology, it is essential to observe the following safety precautions to ensure a secure and efficient usage environment:

Electrical Safety:

Connect the UHF reader only to power sources that comply with the specified voltage and power requirements outlined in the user manual.
Avoid exposing the device to water or moisture to prevent electrical hazards.
Ventilation:

Ensure proper ventilation around the desktop UHF reader to prevent overheating. Avoid blocking ventilation openings to maintain optimal performance.
Handling and Placement:

Handle the UHF reader with care and avoid dropping it or subjecting it to physical impact.
Place the reader on a stable and flat surface to prevent accidental falls.
Cleaning:

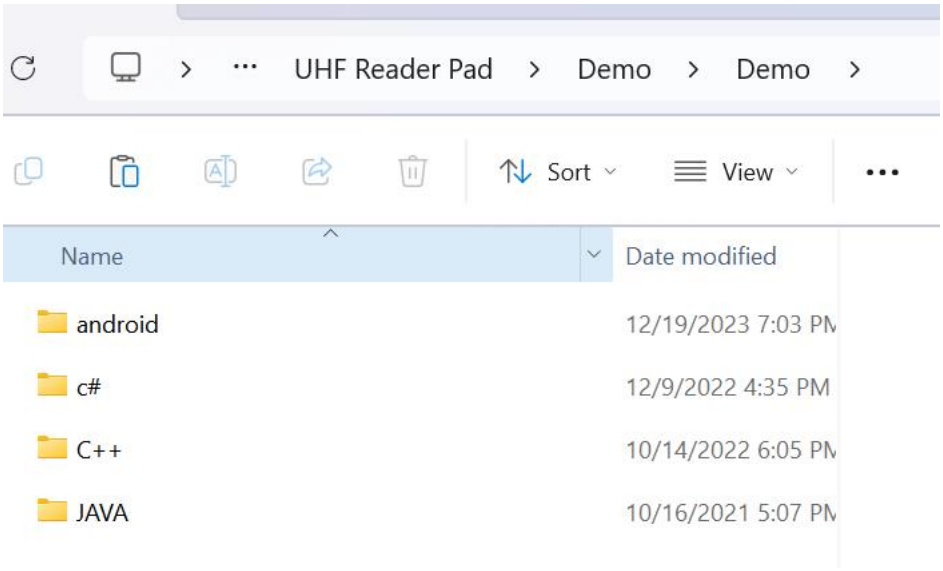
Disconnect the UHF reader from the power source before cleaning.
Use a soft, dry cloth to clean the device. Avoid using liquid or abrasive cleaners.
RFID Tags:

Exercise caution when handling RFID tags to prevent damage.
Do not place metal objects or other interference sources near the RFID reader, as they may affect its performance.
Firmware and Software Updates:

Follow the manufacturer's guidelines for firmware and software updates to ensure the device's security and optimal functionality.

Chapter 9. Develop option

Please maintain continuous communication with technical personnel to obtain development mat erials.



Chapter 10. Troubleshooting

- If you encounter issues during use, refer to the accompanying troubleshooting guide or contact the customer service team for assistance.

If you have any questions or need further support, feel free to contact our customer service team. Thank you for choosing the FR2000 Desktop RFID (UHF) Reader, and we wish you a pleasant user experience!

Will update...

Appendix 1

Specifications

Basic specifications	Model	UROVO FR2000
	Dimensions	325mmx325mmx20mm
	weight	1850g
	RFID	Based on Impinj E710 design, fully support 18000-6C (EPC CLASS1 G2) protocol tags
		840~960MHz frequency band (frequency customization optional)
		FHSS or Fix Frequency transmission, support RSSI
		RF output power up to 30dbm (adjustable)
		Built-in antenna, typical reading effective distance ＜50cm
	Power	Type-C USB 2.0 power supply (POE optional)
	Interfaces	Support Type-C USB2.0 interface (Bluetooth 5.0/RJ45 optional)
Environment	Operating Temp.	-20℃ ~ +50℃
	Storage Temp.	-40 ~ +70℃
	Humidity	5%RH～95%RH(No condensation)
	Sealing	IP54
	ESD	+/-15kv Air; +/-8kv contact

Power supply

Unless otherwise noted, the specifications shown are taken from TA=25。C and VCC=+5V operating conditions

ITEM	SYMBOL	MIN	TYP	MAX
Power Supply	VCC	4.8V	5V	5.5V
Current Dissipation	IC			2.5A

Interfaces

NAME	ITEM	DESCRIPTION	REMARK
BT	Bluetooth LED	Bluetooth detected indication	BLUE
WORK	Operation LED	Tag detected indication	GREEN
PWR	Power LED	Power on indication	RED
USB INTERFACE	USB	Type-C USB2.0	
BUZZER	BUZZER	Power on indication	

According to different situations such as model and configuration, the power supply, communication

and indicator lights of the fuselage may be slightly adjusted, please refer to the actual situation.

Accessories

	Type
Standard Accessory	Type-C cable*1