Focused on R&D and Manufacturing of RFID Intelligent Device

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UHF RFID LAPTOP READER

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1. Introduction

CK-D4L RFID laptop reader is designed to support related applications under different situation of tag read & write, such as item loan & return, tag encoding, item query, log history and etc. The device should be connected with computer through serial communication, which also can be used for tag exchange.

The reader satisfies high-speed R&W with excellent detecting rate, based on our complete patent designing and efficient signal processing algorithm.

It can be widely used for library book management, tool management, linen management and other situations needs to read and write RFID tags.

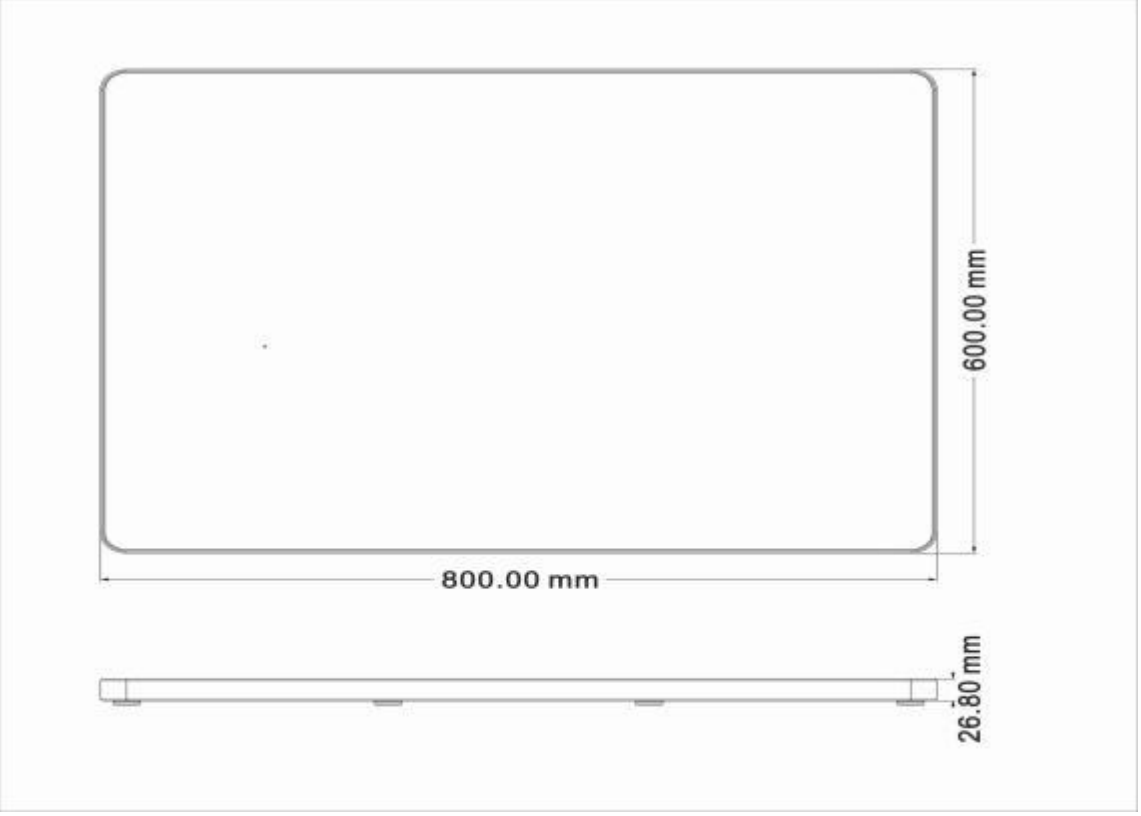
2. Features

1. Excellent detecting rate with advanced RFID tag collision processing algorithm;
2. Completely supports RFID tags meets EPC CLASS1 G2, ISO 18000-6C/6B.
3. Reliable performance on tag writing, the max output power of port is 33dBm.
4. Supports massive dense RFID tags detecting and R/W, supports EPC filtering, supports RSSI for signal strength detection.
5. Adopted with near-field antenna to control the reading distance within 30cm and 10cm for writing.
6. IoT developers can easily build and deploy customized solutions with our developer-friendly tools .

3. Specification

Specification & Parameters	
Model Number	DR-BH
Performance Parameters	
Frequency Range	902.75-927.25MHz
Air Interface Protocol	ISO 18000-6C/EPC C1G2, ISO 18000-6B
Reader Chip	Impinj R2000
Response Speed	≥40 tags/second
Reading Model	Supports dense reading
Reading Range (radius)	180mm — 400mm
Reading Distance	0-30cm
Antenna Polarization Mode	Circular polarization
Physical Parameters	
Measurement	600*800*26.8mm
Material	High-hardness aluminum profile frame High-quality carbon steel plate & Tempered glass
Communication Port	Serial communication
Weight	10kg
Operating Environment	
Operation Temperature	-20℃ ~ +70℃
Storage Temperature	-40℃ ~ +85℃
Operation Humidity	< 95% (+25℃)

4. Measurements



5. Demo & Test

1) Demo test

Run the demo and connect through serial communication COM1 (refer to IMAGE_1) and press the button of EPC to read the RFID tags on the reading area (refer to IMAGE_2).

IMAGE_1

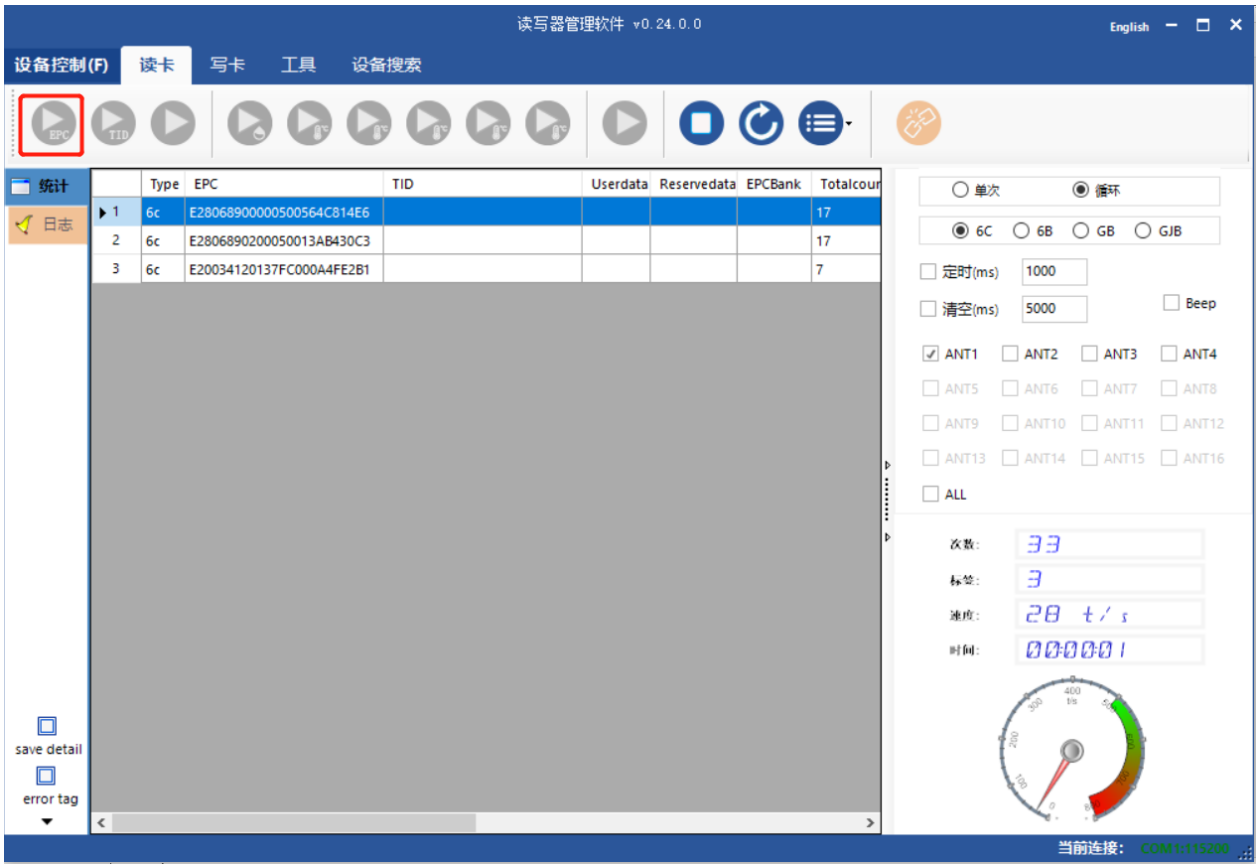


IMAGE_2

2) Adjust the RFID power

Run the demo application, choose device control > RFID configure > adjust the port power (suggested 20~30， refer to IMAGE_3)

IMAGE_3

6. Troubleshoot

The reader is designed for long-time stable operating, the errors due to electric defectives are occur rarely.

When errors happens, please check as follow:

1. When system cannot work, please check if powers are on.

- Check the light of power on the device if on.
- Check if the input power supplied by correct voltage.
- Check if the power supply wires is open or short-circuited.
- Check if the power socket contact is reliable, if the input voltage fluctuates too heavy, etc.

2．Cannot read the tags or sensitivity decreases.

● Check if the hardware works properly through DEMO.

● Check if the frequency of tags and readers are compatible.

● Check if the RFID tag is installed correctly or try to read other items with RFID tags.

● When reading sensitivity reduces please check if the output power is set too low, or check the RFID configure features is set same as delivered.

7. Support

➢ Developer and testing tools please visit www.cykeo.com

➢ Please shut down the power for any emergency and contact the manufacturer for un-handlable situations.

8.FCC WARNING

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 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.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum 20cm distance between the radiator and your body: Use only the supplied antenna.