



# USER MANUAL

## CommaCube RFID

### Introduction

CommaCube RFID is the star product of the comma technology family of wearable products 。 This product can achieve real wearable operation and data collection. It can read the UHF RFID tag, pre process the data and upload it to the mobile display terminal such as smart watch through Bluetooth 4.0 (BLE) technology. CommaCube can be integrated rapidly with Android devices by CommaQuickConnect™ technology, so that data can be transferred seamlessly to all kinds of information systems in the enterprise. Such as SAP®, ERP and so on.

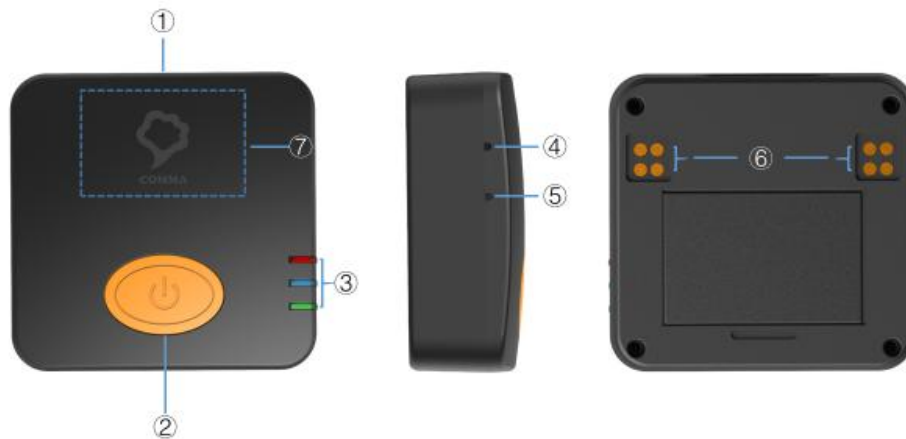
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# 1、 About Equipment

CommaCube RFID is the star product of the comma technology family of wearable products 。 This product can achieve real wearable operation and data collection. It can read the UHF RFID tag, pre process the data and upload it to the mobile display terminal such as smart watch through Bluetooth 4.0 (BLE) technology. CommaCube can be integrated rapidly with Android devices by CommaQuickConnect™ technology, so that data can be transferred seamlessly to all kinds of information systems in the enterprise. Such as SAP®, ERP and so on.

## 1、 Introduction and functional description of the appearance



### Functional interpretation of various parts of equipment

Mark	Name	Meaning
①	RFID Antenna window	The RFID Antenna is placed inside this area
②	Key button	The click key can wake up the sleeping device and perform a reading label operation. In the working state, a click key can be read at a label. Press the button to disconnect the current Bluetooth connection
③	Indicator light	Three color indicator lights, red, blue and green respectively, indicate the different circumstances. Please refer to the explanation of the meaning of the equipment light.
④	Buzzer sounding hole	Sounding holes in buzzer, prohibition of clogging
⑤	Reset Hole	With a needle like hard material for 2 seconds, will reset the device
⑥	Extension port	Used to connect the charging base and other CommaCube accessories, as detailed in the wearable accessories

⑦	RFID Antenna Area	If the device reads the RFID tag, do not cover it
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### Interpretation of the meaning of equipment indicator

Indicator light	Indicator light explain	Meaning
Red Light	Flickering slowly	Low battery power of equipment
	Always bright	The equipment is charging
	Flickering one time ( 500ms )	Read label failure
Blue Light	Flickering slowly	Waiting for a Bluetooth connection, there is no Bluetooth connection in 30 seconds, stop flashing, and enter a dormant state. The connection is successful in 30 seconds and the blue light goes out
Green Light	Flickering one time ( 20ms , At the same time with the buzzer )	Read the label complete
	Always bright	Equipment charging completion

## 2、Charging description

Put the CommaCube RFID on the charging base and charge it with the standard Micro USB interface to the charging base.

### Interpretation of the meaning of charging indicator

Device name	Charging	Charging completion
CommaCube RFID	A red light is always on	A Green light is always on



## 3、Wearable accessories

The ingenious magnetic suction design can make the CommaCube connect quickly with the parts of different forms. Users can choose the most suitable form according to their working characteristics and operation habits, give full play to the performance of CommaCube, and improve their working efficiency and experience.



**CommaGlove** accessories allow users to use CommaCube in the form of gloves. The CommaGlove gloves are made of imported sheepskin with high elasticity, durability, good air permeability and so on, so as to ensure a good user experience. Meanwhile, for users who have already worn gloves, we also provide splint fittings, which is convenient for users to fix CommaCube on existing ordinary gloves quickly and conveniently.



**CommaRing** accessories allow users to use CommaCube in the form of a ring. The unique way of wearing the double ring can significantly relieve the fatigue of the fingers when they are worn for a long time. CommaRing supports 180 degrees of rotation to facilitate users to use a variety of reading positions and reading angles in the process of use, and is compatible with the different usage habits of the left and right hands.



**CommaPalm** accessories can allow users to use CommaCube to form. The minimalist way of wearing is much easier to wear and pick. At the same time, the tailored advanced elastic materials also guarantee the comfort of the use.

## 4、Product parameters

Connection performance		
Bluetooth connectivity	Protocol	Bluetooth 4.0
	Distance	10m
	Frequency	2.4GHz-2.48GHz
Charge	Special charging base	Base using Micro USB standard interface
UHF RFID performance		
Protocol standard	EPC Class1 Gen2, ISO 18000-6C	
Read distance	≤ 1m	
Write distance	≤ 40cm	
frequency range	914.75MHz	
Environmental parameters		
Operating temperature	-20℃ ~+55℃	
Storage temperature	-40℃~ +80℃	

Humidity	5%~95% ( No condensation )
Battery performance	
Battery type	Lithium ion polymer battery
Battery capacity	400mAh
Average use time	≥ 24h

## 5、Packing detail

Name	Qty	Use for
CommaCube RFID	1	data acquisition
Charging base	1	Equipment charging
USB data line	1	Charging the power adapter or computer to recharge
Certificate	1	Certification of equipment out of factory
Warranty card	1	Use in maintenance
User guide	1	Guide to use of equipment

## 2、Maintenance service

- 1、CommaCube The mainframe is free for 1 years. Human factors and non natural disasters are excepted.
- 2、The warranty period for batteries and other accessories is half a year.
- 3、Maintenance period: after receiving the equipment, the maintenance is completed within 15 working days and sent back. (excluding postage time)
- 4、After-Sale Service Hotline : 0755-26906593

## 3、Maintenance advice

- 1、The antenna window must be kept clean, and we are exempt from the warranty against the damage caused by improper maintenance.
- 2、Avoid hard and rough objects to wear or scratch the reading window;
- 3、Please use soft cloth to remove the stains on the reading window.
- 4、It is forbidden to spray any liquid to the reading window.
- 5、It is forbidden to maliciously destroy the USB charging interface.

#### **Disclaimer of liability:**

**Thank you for choosing the smart wearable device of Shenzhen comma interconnect technology limited company. Please read carefully all the contents of this guide before you use this product, so as to make sure you know how to use the product safely, reasonably and effectively. After reading, please keep this guide properly in order to facilitate the next use.**

**Please do not disassemble the terminal or tear up the seal on the terminal, otherwise our department will not guarantee or replace the equipment.**

**The pictures in this guide are for reference only, if there is any change without notice. Please take the actual product as the criterion. For the improvement of this product, we reserve the right to modify the guide without notice at any time.**

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## **4 : FCC Statement**

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.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

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.

#### RF Exposure Information

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.



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