

1. Product Introduction

1.1 Product appearance



1.2 Basic function

CT-HCR6 communicates with terminal devices such as mobile phones through Bluetooth and completes the reading and writing function of non-contact IC cards in the mobile app. This device is compact in size and easy to operate, and can be flexibly applied to personal and merchant management operations such as campus cards, bus cards, bank cards, and small payment cards.

Communication interface: Bluetooth BLE; This product can be connected to devices that support Bluetooth BLE, such as smartphones, tablets, etc. with Bluetooth 5.0 or higher. The product supports cards with ISO14443A and ISO15693 protocols.

CT-HCR6 is a universal product of our company with high technological maturity. Users need to develop applications on the main device side, which requires the addition of underlying interfaces for communication with the product. Therefore, users require corresponding platform application development capabilities, such as Android development.

1.3 Detailed parameters

Detailed parameter table	
Product name	CT-HCR6 High frequency Bluetooth card reader
function	Read and write connected less IC cards transmit data via Bluetooth BLE
communication protocol	BLE5.0 (compatible BLE4.0)
Operating Frequency	13.56MHz
Support IC communication protocol	ISO14443A\ISO14443B\ISO15693
Support cards	ISO14443A CP, S50, S70, Ntag2xx, lcode etc
Card reading distance	3~5cm
Support card speed	106kbps、212kbps、424kpbs
Battery capacity	750mAh
Charging interface	Type C
Charging adapter	5V—500mA
charging time	120 minutes
Standby time	15 days
Continuous read and write card duration	12 hours
operation temperature	0℃~55℃
Storage temperature	-20℃~85℃

1.4 Card reading and writing characteristics

- i. Supports non-contact reading and writing of 14443A/B CPU cards, Mifare Classic 1K cards, Desfire cards, etc
- ii. It has good read-write performance for both standard and irregular cards, with a card reading distance of up to 3-5cm.
- iii. The Q value is $30 \pm 2\%$
- iv. The card reading speed can meet the business needs of the public transportation card project. Complete 1k bytes of data read or write within 1 second.
- v. Read and write 1k bytes of data without loss or error
- vi. Working frequency 13.56MHz
- vii. The electromagnetic field intensity (Hmax) on the surface of the product card reading surface is $\leq 7.5A/m$ rms
- viii. The electromagnetic field intensity (Hmin) on the surface of the product card reading surface is $\geq 1.5A/m$ rms
- ix. Supports card speeds of 106kbps, 212kbps, and 424kbps

2. Equipment status query and display

- i. Long press the power switch of the device to turn it on, and the device's working condition can be determined based on the status of the device indicator light:
- ii. Green light flashing slowly: turned on and Bluetooth broadcast on, waiting for connection;
- iii. Green light constantly on: Bluetooth connected;
- iv. The power level can be checked through the APP;

3. Other characteristics and environmental requirements

3.1 Battery charging and power consumption

Support ultra-low power automatic sleep mode;

Battery capacity: 750mAh;

Charging interface: Type C, 5V-

500mA; Charging time: 120

minutes;

Standby time: 15days;

Continuous working hours: 12hours;

3.2 system stability

The button function is normal and can be turned on and off repeatedly. Card reading and Bluetooth communication are stable. The system is overall stable, does not crash, and does not experience any abnormalities. There is a watchdog restart mechanism for exceptions.

3.3 Fall resistance

Falling from a height of 1.2 meters will not cause damage.

3.4 Power switch characteristics

5V charging. It can be charged using a power bank or a regular mobile phone charger. The switch is a touch switch, press and hold for 3 seconds to turn it on.

3.5 Environmental requirements

Charging Voltage: $5V\pm 5\%$

relative humidity: $<90\%$

Relative humidity during storage and transportation: $20\%\sim 93\%$

atmospheric pressure: $60kPa\sim 110kPa$

4. Android Bluetooth development interface

The example demo of the Android system Bluetooth operating interface provided by our company can provide source code and development references. Please contact Chilitag for the program demo and Bluetooth communication package protocol.