



## Specification

File Number: 202106160002

Type: CHIPBOND U3

Name: UHF READER

Specification: 99.5mm\*99.5mm\*19.8mm USB line length 1000mm

# CHIPBOND U3 UHF card reader

## 一. Overview and application areas

### 1. Basic Features

CHIPBOND U3 is a multi-purpose read and write UHF card issuer in the UHF band, reading the EPC number of UHF tags or cards. Combined with UHF non-contact radio frequency circuit and various codec algorithms, it supports EPCglobal UHF Class 1Gen 2/ISO 18000-6B/ ISO 18000-6C/915 cards, which can be set to read-only/read-write, and the frequency band is compatible with European and American standards. , USB communication interface. USB adopts advanced plug-and-play interface without driver core technology, and realizes connection with PC and related equipment through USB port.

## 二. Technical parameter

### 1. Basic technical parameters

Dimensions	99.5*99.5*19.8mm (tolerance±3mm) line length 1000mm (tolerance±10mm)
Electrical parameters	Working voltage: DC 5V (±4%) Standby current: Passive: 20mA-50mA Active: 40mA-90mA Card current: less than 120mA
Environmental requirements	Working temperature: -10°C ~ 50°C Storage temperature: -20°C ~ 65°C
Working frequency	902MHz — 928 MHz 865MHz — 868MHz
Working mode	Active mode / Passive mode
International standard	ISO/IEC18000 6B/6C
Communication format	USB output
Firmware version	CHIPBOND_U3_20210616_V1.01
Hardware version	CHIPBOND_U3_V1.00_20210604
Software version	CHIPBOND_U3_20210604_V1.01.hex Support SDK

## 2. Swipe distance

Number	Card type	Distance standard	REMARK
1	European standard: 915 distance test	Bare board distance: 13DB: 0-9CM Modified by demo: 20DB: 0-35CM	Remarks: 0~L(L≥Lcm)(The actual distance is related to the card used and the application environment) The higher the power, the distance will change with
2	American Standard: 915 Distance Test	Bare board distance: 13DB: 0-65CM Modified by demo: 20DB: 0-130CM)	

## 3. Test parameters

Work Status test	On state	Use regulated power supply to supply 5V voltage to the machine, and then check the working status of the machine when it is powered on	After the power is turned on, the green light will light up, and the buzzer will sound once.	√
	standby mode	Use the regulated power supply to supply 5V voltage to the machine, and then check the working status of the machine when it is in standby	The light board is always bright blue, it is qualified, otherwise it is NG	√
	Swipe status	When the machine is in standby, put the card into the machine's card , swiping area and then check the machine's working status	9481570	√
Factory Setting Tool	Set "EU/US"	Open the "CHIPBOND U3 Factory Setting Tool v1.10" tool, connect the card issuer of the product to be tested, select the module type "M610 Module", select the "European Standard" or "American Standard" option, and then click "Factory Setting" View prompt information.	1. Prompt that the factory setting is successful 2. Set the European standard frequency from 865000 to 868000 American Standard Frequency Rates 902,000 to 926,000	√
Function test	Connect DEMO	Open DEMO' CHIPBOND U3 Setup Tool v2.11", connect the card issuer of the product under test, click the "Connect" button to view the prompt information.	1. Prompt the connection is successful 2. The version number of the burned firmware is displayed below the DEMO: CHIPBOND U3-V2.01	√
	Upgrade	Use the upgrade tool provided by the chip manufacturer, install the driver, load the upgrade file, and click Upgrade	The program can be burned normally, and the test function is normal after the upgrade, it is qualified, otherwise it is NG	√
	Default factory settings	Click "Factory Default/Restore Factory Settings" in the Demo, view the prompt information and open the text document to swipe the card	If the prompt information meets the requirements, and the data obtained from the text document is consistent with the settings, it is qualified, otherwise it is NG	√

Function test	Output format selection	Set the parameters of the output format in the Demo, click "Save Configer/save settings", "Read Configer/read configuration", view the prompt information and Open a text document for swiping	If the prompt information meets the requirements, and the data obtained from the text document is consistent with the settings, it is qualified, otherwise it is NG	√
	output bit selection	Set the parameters of the start byte in the Demo, click "Save Configer/save settings", "Read Configer/read configuration", view the prompt information and Open a text document for swiping	If the prompt information meets the requirements, and the data obtained from the text document is consistent with the settings, it is qualified, otherwise it is NG	√
	European standard: 915 distance test	When the machine is in standby, put the card into the machine swiping area and record the swiping distance	If there is no blind spot in the swipe area and the distance meets the requirements, it is qualified, otherwise it is NG	√
	American Standard: 915 Distance Test	When the machine is in standby, put the card into the machine swiping area and record the swiping distance	If there is no blind spot in the swipe area and the distance meets the requirements, it is qualified, otherwise it is NG	√
	Read&Write EPC	On the read & write operation page in the Demo, put the test card into the card reader area of the card issuer, set the parameters such as start byte, length, and write EPC data, and click "Write" EPC" and "Read EPC" buttons to view the prompt information	The data content of the read card is consistent with the data content of the write card, it is qualified.	√
	Read&Write User area	On the read & write operation page in the Demo, put the test card into the card reader area of the card issuer, set the parameters such as the start byte, length, and write user area data, and click the "Write User Area" and "Read User Area" buttons to view carry display information.	The data content of the read card is consistent with the data content of the write card, it is qualified	√
	Read TID	In the Demo read & write operation page, put the test card Enter the card reader area of the card issuer, and click the "Read TID" button to view the prompt information.	Successfully read out TID data content	