SANRAY

RFID HARDWARE/RFID SOFTWARE

UHF RFID READER F5005

The new generation industrial grade UHF RFID desktop card issuing platform is based on the new generation ARM-COTEXM3 processor and adopts industrial grade design. The card issuing platform is equipped with the new generation of ultra-high frequency M2210/M2100 module developed by our company, and integrates communication interfaces such as RS232 and 100Mbps Ethernet port. Desktop card issuing platform is an RFID reader/writer device designed to cooperate with users for card issuance management applications in the background or management center. It is suitable for data initialization, tag data modification, tag function testing applications as tags in RFID integrated systems, and can also be used independently as a short-range RFID reader/writer application. The reader/writer is the longest reading distance and most stable performance ultra-high frequency reader/writer product among similar products. Ultra-high frequency supports EPC global UHF Class1 GEN2/ISO 18000-6C air interface protocol.

F5005 has communication interfaces such as Mini USB and Ethernet, as well as 6 input/output IO ports. We provide users with comprehensive software development kits (SDKs) and interfaces (APIs) on the software, which are easy to integrate with users' software. Paired with simple and easy-to-use server software, it is convenient to quickly use and configure our devices.

F5005 adopts a metal bottom shell ABS face mask design, with a simple and beautiful appearance, sturdy and durable, full of technology and modernity. The device is equipped with various communication interfaces for quick and easy connection with the host. Fast tag reading and writing speed, especially suitable for desktop application requirements.

There are currently two main products in this series

Model NO	Sensor
F5005-H	M2210 module
F5005-L	M2100 module

Product advantages

The new generation of high-performance ARM-COTEXM3 processor has more powerful product functions, built-in master-slave mode and automatic mode, with more scalability to meet more customer needs;

Adopting industrial grade chip design and adding external watchdog circuits to improve product reliability;

Integrated with network port, Mini USB, RS485 functions, and rich communication interfaces, making it convenient for users to choose the appropriate interface for connection and use. The Mini USB interface can be connected at any time for easy configuration of device parameters. If the serial and network ports are connected properly, the same label data can be read simultaneously. If the network connection is not successful, data can be transmitted through the serial port;

When the original network port connection is disconnected, it has a device buzzer alarm fault reminder function. At the same time, the indicator light is designed with a flashing alarm function;

The device is designed with 6 IO ports (4 outputs and 2 inputs) for users to expand their applications. The two input IO ports can be set to trigger the reading of EPC, and can be set to high-level trigger and reverse stop; Alternatively, the working time can be set after triggering and then automatically stopped. The card reading method can be set to read only one card and then stop, or read the card continuously;

The RF part adopts carrier suppression technology, which has strong anti-interference ability;

Provide the most comprehensive software development kit (SDK) and interface (API) to facilitate users' integrated software development;

provide server software that is easy to use and configure for our devices;

Adopting ultra-high isolation technology to perfectly solve the problem of port read through.

Definition of wiring terminal interface

PIN	NAME	Describe
1	5V	5V power output
2	RS-485-A	RS-485 communication interface
3	RS-485-B	RS-485 communication interface
4	GPIO_IN1	IO input control interface
5	GPIO_IN2	IO input control interface
6	TXD	RS-232 communication port
7	RXD	RS-232 communication port
8	GND	GROUND
9	GPIO_OUT1	GPIO port output terminal (configurable Wigan DATA0 output)
10	GPIO_OUT2	GPIO port output terminal (configurable Wigan DATA0 output)
11	GPIO_OUT3	GPIO port output terminal, which can be controlled by program to output high and low levels. The output high level is 5V and the low level is 0V. The maximum output current is 100mA. (Default output level is low level 0V)
12	GPIO_OUT4	GPIO port output terminal, which can be controlled by program to output high and low levels. The output high level is 5V and the low level is 0V. The maximum output current is 100mA. (Default output level is low level 0V)

Product Technical Parameters

Name	Parameters
Sensor	ARM-COTEXM3
Air Interface Protocol	EPC global UHF Class 1 Gen 2/ISO 18000-6C
Working frequency	840 ~ 960MHz （ Default frequency band 920 ~ 925MHz）
Support Region	China, Europe, United States, South Korea, Japan, etc
working voltage	DC12V
Working current	H series ＜2.5A L series ＜700mA
Standby current	＜50mA
output power	Software adjustable: The step interval is 1.0dB, and each channel can be individually adjusted from+5dBm to 30dBm
Maximum receiving sensitivity	-82dBm
Work temperature	-25℃ ~ +65℃
Working humidity	≤95%（+25℃）
storage temperature	-30℃ ~ +70℃
DRM mode	Support
RSSI	Support
High temperature automatic protection	Support
External watchdog	Support
GPIO port	Input IO port: 2 channels Output IO port: 4 channels
Buzzer	Support
LED indicator light	Power indicator light: 1 LED (red) Status indicator light: 1 LED (green)
communication function	Mini USB interface Network port RS-485 WIFI (optional) Bluetooth (customizable)
SIZE	338*248*28mm