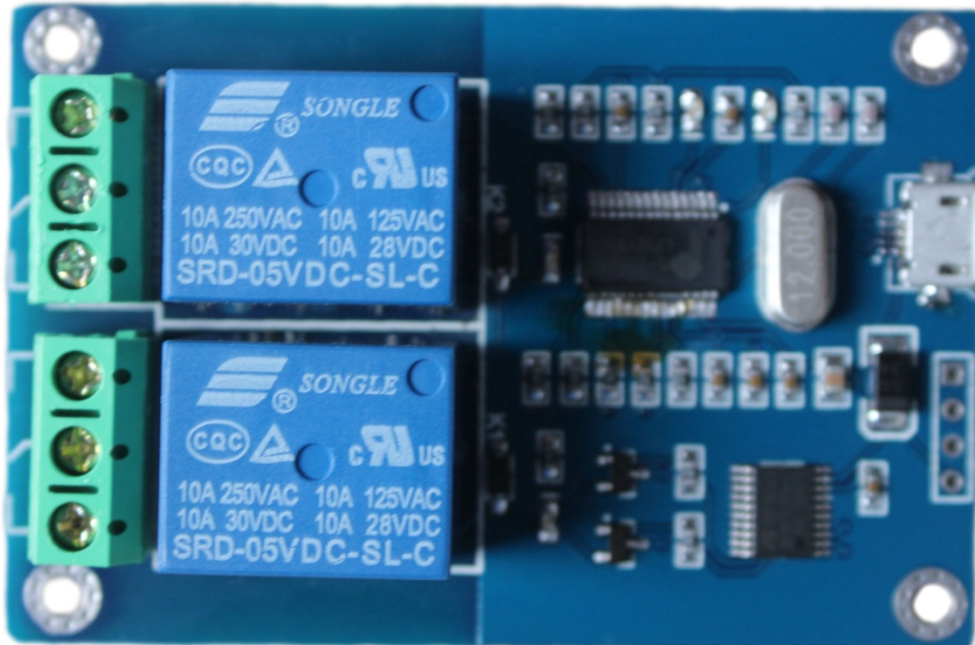




MICRO USB RELAY MODULE REFERENCE



Welcome

Welcome to use "MICRO USB RELAY" module.

The modular is produced by ICStation in 2014.

The reference is sort for ICSE012A, ICSE013A, ICSE014A a total of three types of module.

Features

1. The module have MICRO USB and serial port , so they can communicate with PC and other device conveniently.



2. The normal working voltage for modules is 5V. And module of ICSE014A have a power interface of 5V. Parameters are as follows:

	ICSE012A	ICSE013A	ICSE014A	Unit	Remark
CC	4	2	8		channel count of module
I	400	250	700	mA	working current
U	5	5	5	V	input voltage
	√	√	√		whether have serial port
	9600	9600	9600	bit/s	baud rate of serial port
F	1000	1000	1000	Hz	Module control frequency
	×	×	√		Whether have power interface

Interface

Modules all have Micro USB and serial port . Read following for details:

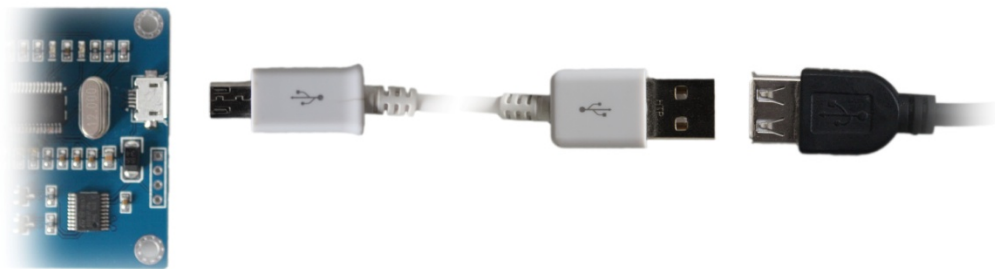
1. Micro USB: Standard micro USB mother mouth.
2. TX : Transmit
3. RX : Receive
4. 5V : Volt current condenser
5. GND : Ground
6. Power Interface : Only ICSE014A have . Interface is used when Micro USB cannot give enough power.



Usage method

1. USB usage method

Module connect with PC through USB . The connection method is as follows:



Then open "Relay Board Manager" to operate the module . Read "RelayBoardManager_Reference" for details of the software.

2. Serial port usage method

Module can communicate with other device directly through serial port .

Module can receive single byte from upper monitor (baud rate 9600):

Upper Monitor	0x50	0x51
ICSE012A		0xAB
ICSE013A		0xAD
ICSE014A		0xAC

Module will turn to normal work state after receive "0x51" . Then every data byte will control the relay directly . Each bit controls a



really ('0' mark start , '1' mark stop) . Read following for details:

Bit	ICSE012A	ICSE013A	ICSE014A	Remark
0	√	√	√	Control the relay K1
1	√	√	√	Control the relay K2
2	√	×	√	Control the relay K3
3	√	×	√	Control the relay K4
4	×	×	√	Control the relay K5
5	×	×	√	Control the relay K6
6	×	×	√	Control the relay K7
7	×	×	√	Control the relay K8

Thanks

Thank you for buying and have a nice time.