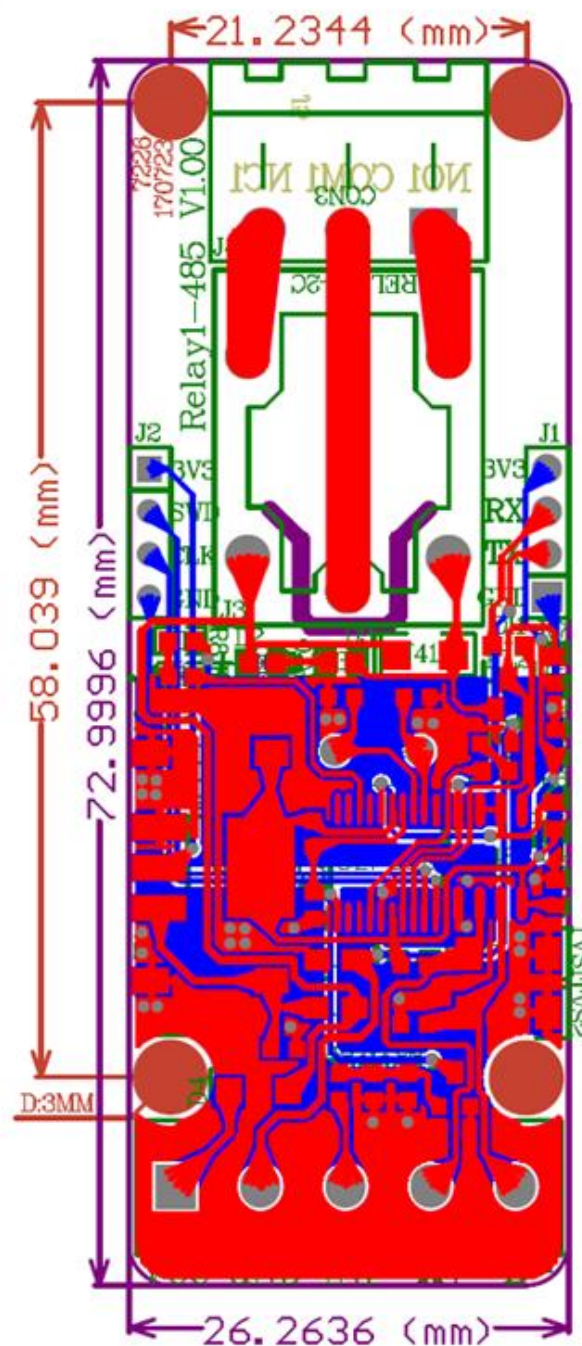
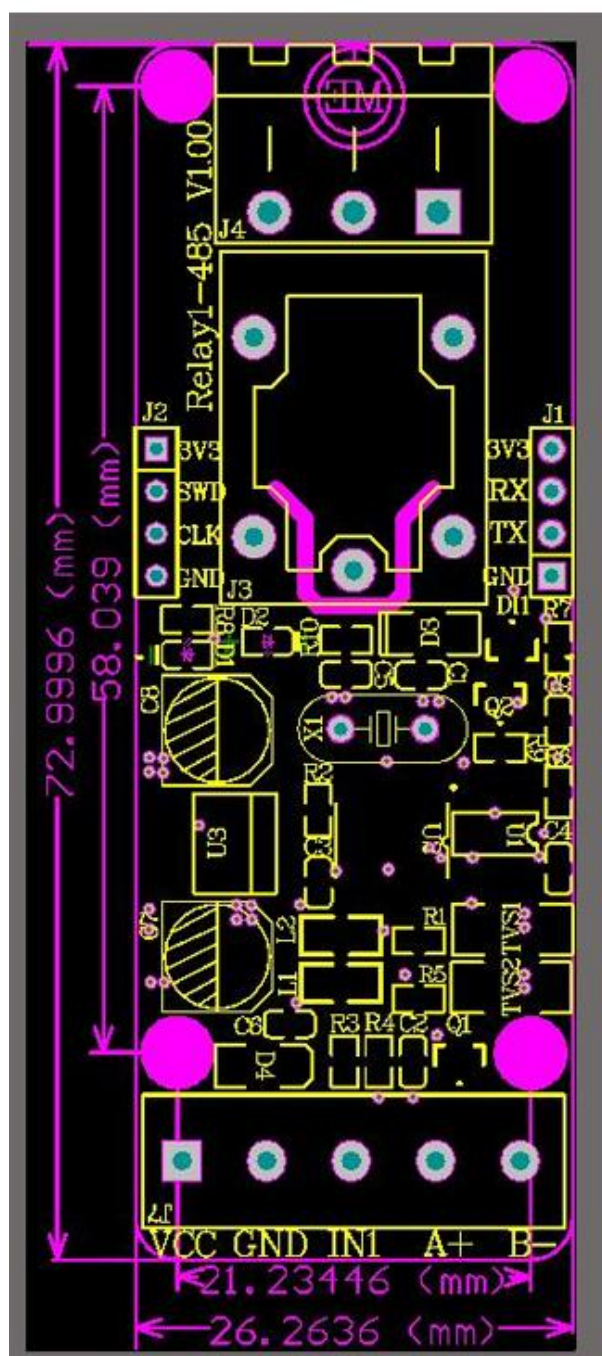
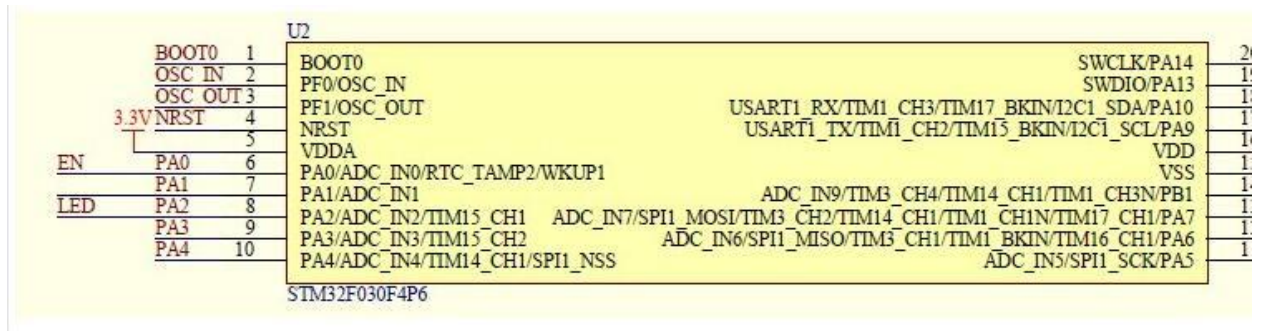


485 relay product description





Hardware resources: 1. RS485 communication interface 2. TTL communication interface 3. 1 input 4. 1 output 5.

A user LED indicator 6. A STM32F030F4 MCU 7 1 relay status indicator LED light 10.

Power terminal interface (12V power supply)

00 03 02 00 01 44 44 // 01 to address / * * * * *
* * * * * / * * * * *
* * * * *

*****/ is the meaning of each byte:

Address [1] // -----
-- -- -- 1 relay open: 01 05 00 01 01 00 9 d 1:9 a byte address byte 2: can you tell me about byte
3 4: register address byte 5 6:

Register data byte 7 8:

CRC check // = = = = =
= = = = = address [1] // -----

- No. 0 relay on: 01 05 00 00 FF 00 8C 3A0 Relay off:

01 05 00 00 00 00 CA/CD // -----
-- -- -- 1 relay open: 01 05 00 01 00 FF DD FA relay closed 1:

01 05 00 01 00 00 0 c 9 a // -----
-- -- -- 2 open relay: 01 05 00 00 02 FF relay close no. 2 d FA2:

01 00 00 6 c 0 05 00 02 a // -----
-- -- -- 3 open relay: 05 00 03 01 00 FF relay closed no. 7 c 3 a3:

05 00 03 01 00 00 3 d CA // -----

----- 4 relay open: 05 00 04 01 00 FF CD FB4 relay closed:

05 00 04 01 00 00 0 b/c / 8 -----

----- 5 relay open: 01 05 00 05 00 FF 9 c 3 b5 relay closed:

01 05 00 05 00 00 DD CB / / -----

----- 6 relay open: 01 05 00 06 00 FF 6 c # 3 b6 relay closed:

01 05 00 06 00 00 2 d CB / / -----

----- 7 relay open: 07 01 05 00 00 FF 3 d FB7 relay closed:

01 05 00 07 00 00 7C
0B//-----/*****

/ read all relay status: 01 01 00 00 00 FD 01 CA / * * * * *
* * * * * / to duck
instructions: instructions:

Turn it off as soon as it is turned on, 100MS is a unit [1 represents 100MS] Address 1:

0 relay out: 01 05 02 00 07 00 CE 42 //700MS = 7*100MS = 700MS1 Relay out: 01 05 02 01 08 00
9A 72 //800MS Return: as sent instruction 2 Address:

No. 0 relay out: 02 05 02 00 05 00 CF 11 //500MS1 relay out:
02 05 02 01 06 00 9 e 21 / / 600 / / ms = = = = =
= = = = = all:

01 0F 00 00 00 08 01 00 FE 95 All on:
01 00 00 00 0 f 8 01 FF BE D5 / * * * * *

***** / turn a single command: 0 relay flip:

01 05 00 00 55 00 F2 No. 9A1 relay flip: 01 05 00 01 55 00 A3 No. 5A2 relay flip: 01 05 00 02 55 00 53 No. 5A3 relay flip:

01 05 00 03 55 00 02 9A4 relay flip: 01 05 00 04 55 00 B3 5B5 relay flip: 01 05 00 05 55 00 E2 9B6 relay flip:

01 05 00 06 55 00 12 9B7 relay flip over: 01 05 00 07 55 00 43 5B All flip over instruction:

01 05 00 00 00 5 a F7 6 a / *****
***** / read all interface input state sent:

01 02 00 00 00 08 79 CC // Read 8 input status Return: 01 02 01 00 A1 88

2 Channel data Parameter description

Input and output cables and functions: Output: NC(normally off) COM(common pin) NO(normally on) Load 220V 10A The recommended load is less than 220V 6A 1.

Just a switch off and off, without any voltage output.

2. The opening and closing of the relay can only be controlled by the 485 communication.

3. By default, NC COM is connected. When 485 sends the open command, NC is disconnected from COM, and NO is connected to COM. The mode is otherwise on.

Input part: IN1 switch or voltage signal (3V-30V)1. Can only read the state of the switching quantity through the computer, can not control the relay, if necessary, can control the relay to communicate with the store 2. IN1 switch (no voltage signal) : IN1 VCC is 1 not 0 Hardware resources:

1. RS485 communication interface 2. TTL communication interface 3.2 optocoupler isolation input 4.2 optocoupler isolation output 5.

A user button 6. A user LED indicator 7. A power indicator 8. A STM32F030F4 MCU 9 2 relay status indicator LED lights 10.

Power terminal interface (12V power supply)Modbus RTU command baud rate: 9600 8 NONE 116 decimal send hexadecimal receive Operation steps: 1.

2. Set the address (the address of the device used for communication, the default address is 01)

/ ****
**** / set the address to:
0901 10 00 00 00 01 02 00 09 66 56 // Change current address 01 to 0900 10 00 00 00 01 02 00
09 6B C6 // Change broadcast address to 09 Read address 00 03 00 00 00 01 85

db returns:

00 03 02 00 01 44 44 // 01 to address / ****
**** / ****

****/ is the meaning of each byte:

Address [1] / --
-- -- 1 relay open: 01 05 00 01 01 00 9 d 1:9 a byte address byte 2: can you tell me about byte
3 4: register address byte 5 6:

Register data byte 7 8:

CRC check / / =====
===== address [1] / --

- No. 0 relay on: 01 05 00 00 FF 00 8C 3A0 Relay off:

01 05 00 00 00 00 CA/CD / --
-- -- 1 relay open: 01 05 00 01 00 FF DD FA1 relay closed:

01 05 00 01 00 00 0 c 9 a / --
-- -- 2 open relay: 01 05 00 00 02 FF relay close no. 2 d FA2:

01 05 00 02 00 00 6C 0 a / / -----
----- / / =====
===== all

Off: 01 0F 00 00 00 08 01 00 FE 95 All on:
01 00 00 00 0 f 8 01 FF BE D5 / * * * * *
* * * * * / read all relay status: send:

01 01 00 00 00 08 3D CC Return: 01 01 01 00 51 88 Relay All off status Return:

01 01 jan 03 November 89 relay all open / * * * * *
* * * * * / read all input switch state
sent:

01 02 00 00 00 08 79 CC // Read 8 input status Return: 01 02 01 00 A1 88

4 way data Parameter description

Relay communication: multi-unit network 485 communication, based on MBDBUS-RTU protocol, the default communication address is 1, the user can modify the address by command Note: IN1-IN4 is the switch to read the switch status through 485, not through the input control relay output.

IN1-IN4 switch status needs to read the switch status every time the computer query, can not actively send data to 485.

Note: IN1-IN4 cannot be connected to 220V(some buyers will make this mistake). The following is the wiring mode: IN1-GND (the default is high level, low level after the switch is connected) The

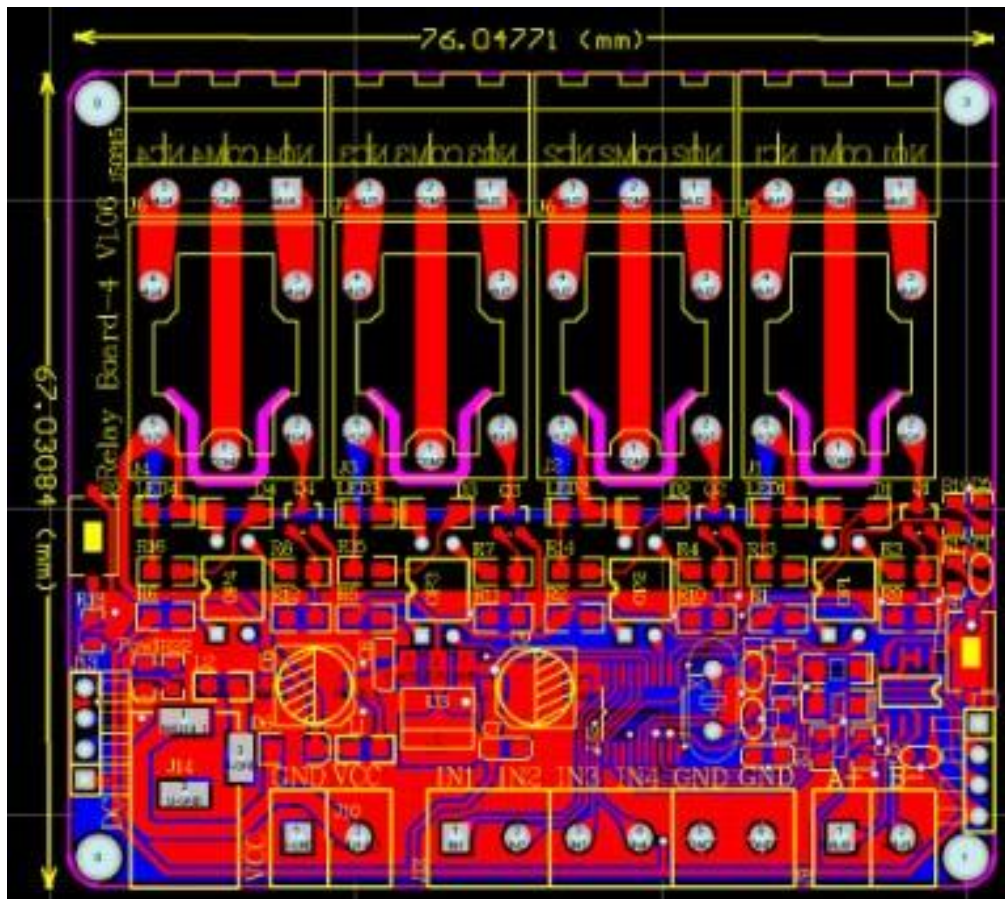
computer sends instructions to read the switch status.

IN2-GND (default is high level, low level after switch is connected) Computer sends command to read the switch status.

IN3 - GND(default is high level, low level after switch on) Computer sends command to read switch status.

IN4 - GND(default is high level, low level after switch on) Computer sends command to read switch status.

Dimensions: 76mm*67mm*17.5mm



Board resources: 1.S1 reset button 2.D5 run LED indicator

1. 4 relay output (one normally open, one normally closed)2. STM8S103F3 microcontroller 3. 4

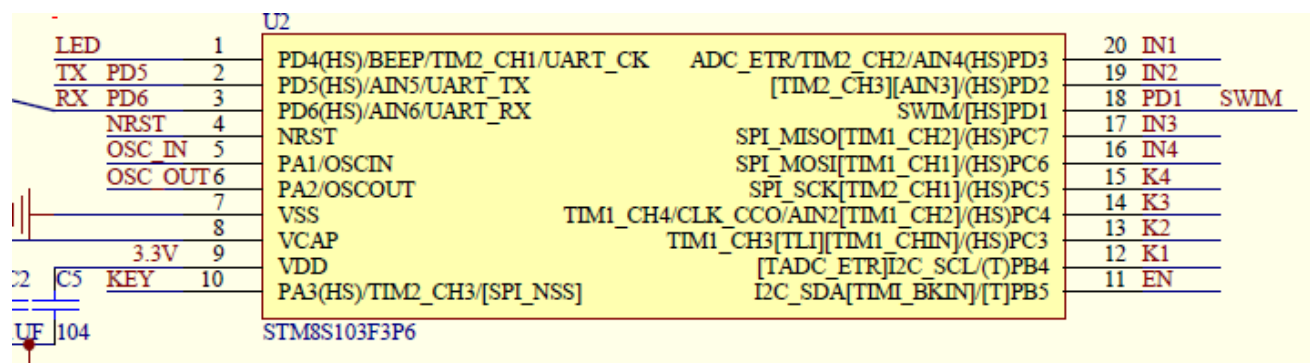
optocoupler isolation relay output 4.4 relays closed LED indicator 5.

Circular DC interface, with terminal DC interface. Convenient power connection (supply voltage 5V or 12V depending on the voltage of the relay)6. 4 input interfaces (dry node input, passive input, connected with GND)7.

One RS485 communication port.

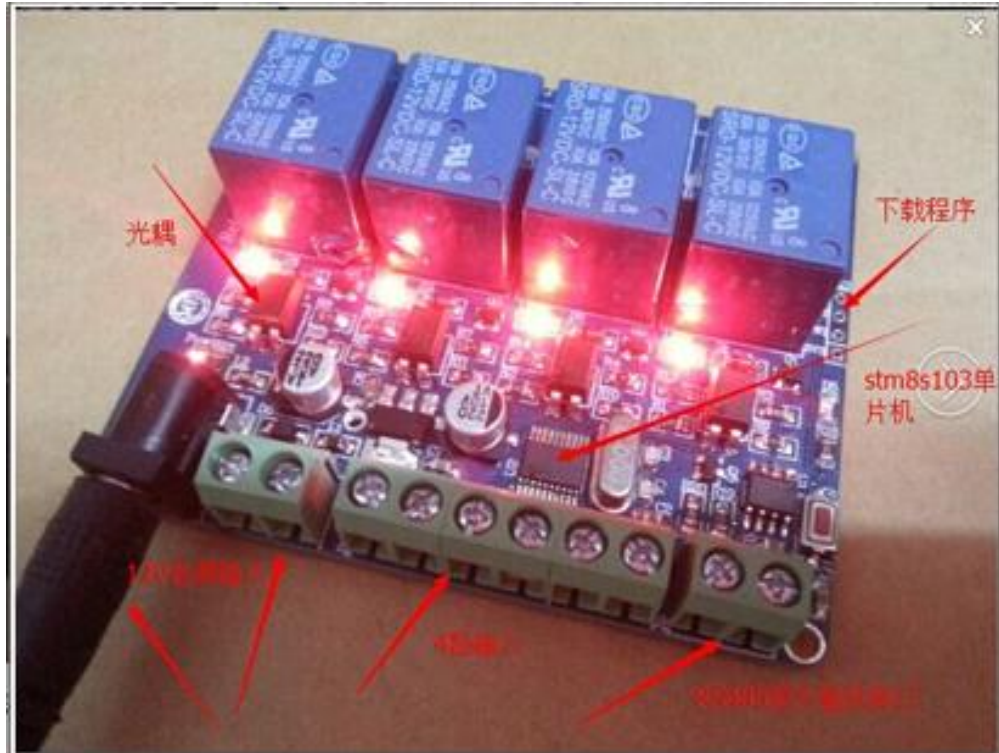
8. One power indicator 9. One user LED 10.

Reset button 11. A SWIM download interface -(STLINK-V2 download program, users can secondary development program)

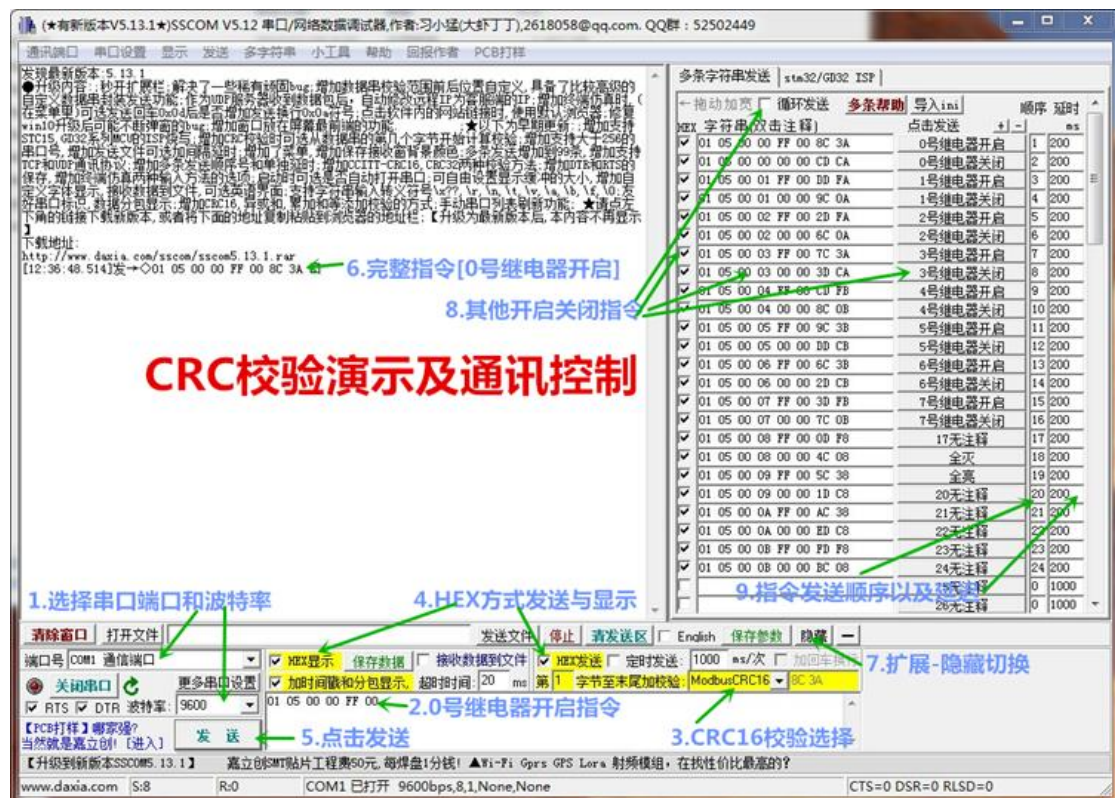


1. LED connected to the user LED2.TX RX connected to the 485 port with the TTL pin 3.KEY user key (red button on the left) 4.EN 485 user end 5. IN1-IN4 input port directly connected to the end 6. K1-K4

Relay output control 7. SWIM burning program J13



Do not provide source communication MODBUS code MODBUS RTU communication instructions:



Note: The following specific test instructions are transmitted through the network command function: 1. Set the address to 2.

Read the address 3. Read the software version 4. Read the hardware version output instruction: MODBUS-RTU communication instruction: function code: 05 is the relay output [control relay open/close] function code:

06 is the storage data [user-defined storage data, user-defined data, address number, set by the user. Is generally useless state] / * * * * *
 * * * * *
 * * * * * / Modbus

RTU instruction baud rate: 9600 8 NONE 116 base send hexadecimal receive Procedure: 1.

The software selects communication baud rate 9600 Fixed 2. Set the address (address) communications equipment instruction/address of the default setting is 1 * * * * *
* * * * * /
address range of Settings:

1-255 The following are 2 instructions for setting the address. Address 0 is the broadcast address (valid for all devices).
Set address to: 01 Send: 00 06 40 00 00 01 5c 1b Return: 01 06 00 00 00 01 48 0A Set address to:
02 Send: 00 06 40 00 00 02 1c 1a Return:

02 06 00 00 00 02 08 38 Read address 00 03 40 00 00 01 90

1 / b * * * * *
* * * * * / read software version sent: 00 00 00 03 02 01 24 / / return day **】**
【 1 b:

01 03 02 10 00 B5 84 //10 Send: 00 03 00 04 00 01 c4 1a // [Month] Broadcast read (can only be connected to one device, practical for all addresses, easy to test) Back:

01 03 02 4D 61 4C FC //4D[M] 61[A] MAR[March] Send: 00 03 00 08 00 01 04 19 // [Year] Broadcast Read (available for one device only, available for all addresses for easy testing) Back:

01 03 02 2018 A1 8E //20 18 = 2018 Send: 00 03 00 10 00 01 84 1e // [hours, minutes] // Broadcast read (can only be connected to one device, useful for all addresses, convenient testing) Back:

01 03 02 21 26 21 CE //21:26 Read hardware version (PCB version) Send: 00 03 00 20 00 01 84 11 // Broadcast read (can only connect to one device, practical for all addresses, easy to test) Return:

01 03 02 00 6A 38 6B //6A = 106 = V1.06 Send: 01 03 00 20 00 01 85 c0 Return:

01 03 02 00 6A 38 6B //6A = 106 = V1.06 / * * * * *
* * * * * / address [1] / - - - - -
- - - - -

----- relay No. 0 on: 01 05 00 00 FF 00 8C 3A0 off:

01 05 00 00 00 00 CA/CD / -----

----- 1 relay open: 01 05 00 01 00 FF DD FA relay closed 1:

01 05 00 01 00 00 0 c 9 a / -----

----- 2 open relay: 01 05 00 00 02 FF relay close no. 2 d FA2:

01 00 00 6 c 0 05 00 02 a / -----

----- 3 open relay: 05 00 03 01 00 FF relay closed no. 7 c 3 a3:

01 05 00 03 00 00 3D CA Single flip instruction: 0 relay flip: 01 05 00 00 55 00 F2 9A1 relay flip: 01
05 00 01 55 00 A3 5A2 relay flip:

01 05 00 02 55 00 53 5A3 relay flip over: 01 05 00 03 55 00 02 9A All off: 01 0F 00 00 00 08 01 00
FE 95 All on:

01 0F 00 00 00 08 01 FF BE D5 Full flip:

01 05 00 00 00 5 a F7 6 a / *****
***** / read all relay status:

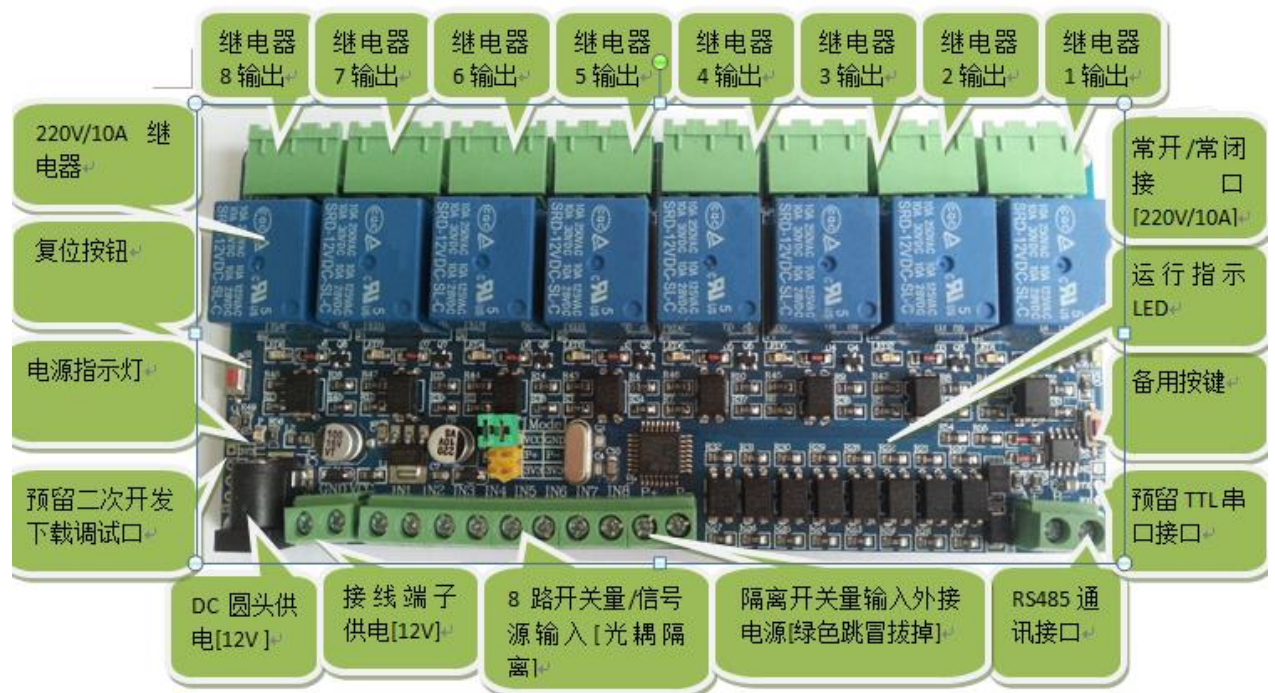
01 02 00 00 00 08 79 CC1 relay reads all channel status:

01 01 00 00 00 CC / 08 3 d *****
***** / read all interface input status 01, 02 00 00
00

00 78 0a Return: 01 02 01 01 60 48 //IN1 Press 01 02 01 02 20 49 //IN2 Press 01 02 01 04 A0 4B
//IN3 Press 01 02 01 08 A0 4E //IN4 Press

8 Channel data Parameter

description

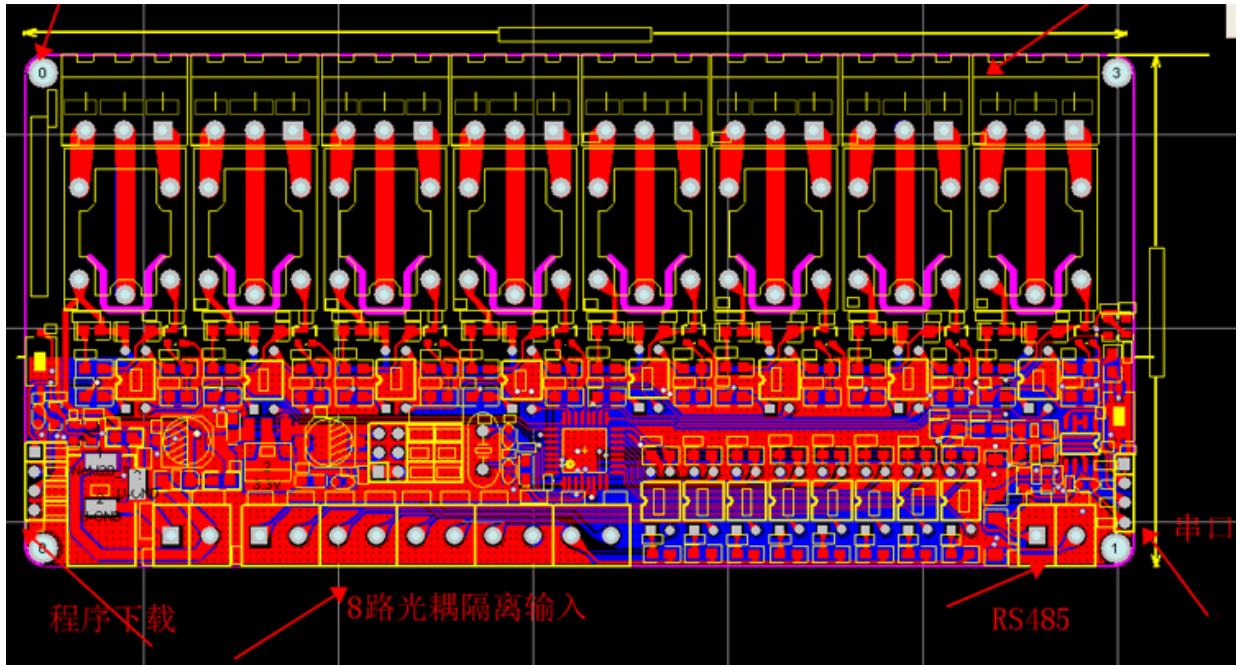


Dimensions: 143mm x 67mm Hardware resources: 1. RS485 communication port 2. TTL communication port 3. 8 optical coupling isolation input 4. 8 optical coupling isolation output 5.

A reset button 6. A user button 7. A user LED indicator 8. A power indicator 9.

A STM8S103K single chip (changed to STM8S030K in new version, 103K is the single chip 030K is ARM) 10 8 relay status indicator LED lights 11. DC power seat (12V power supply) 12.

Power terminal interface (12V power supply)



Modbus Poll - Mbpoll1

File Edit Connection Setup Functions Display View Window Help

05 06 15 16 17 22 23 TC ?

Mbpoll1

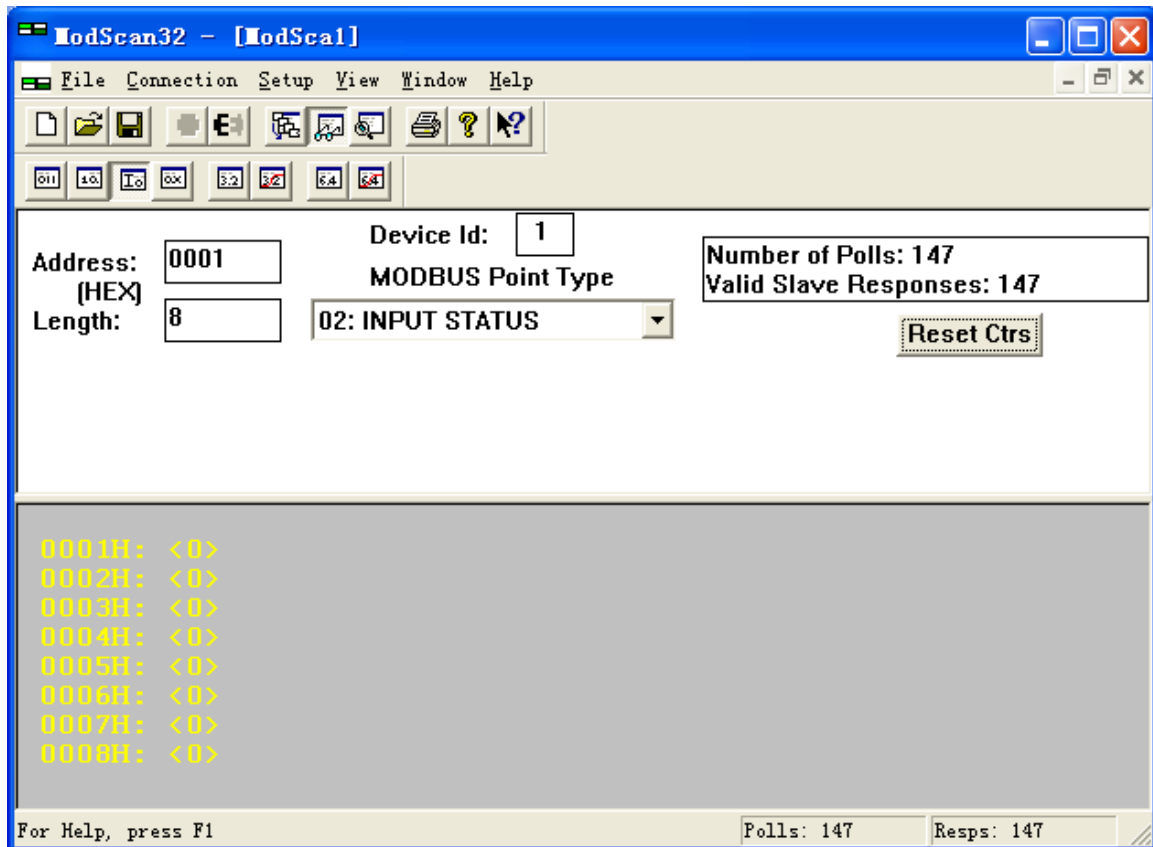
Tx = 34: Err = 0: ID = 1: F = 15: SR = 1000ms

| Alias | 00000 |
|-------|-------|
| 0 | 0 |
| 1 | 0 |
| 2 | 0 |
| 3 | 0 |
| 4 | 1 |
| 5 | 1 |
| 6 | 1 |
| 7 | 1 |
| 8 | |
| 9 | |

Communication Traffic

Exit Stop Clear Save

AK:053-01 0F 00 00 00 00 54 00
TX:054-01 0F 00 00 00 00 01 F0 FK 01
AK:055-01 0F 00 00 00 00 54 00
TX:056-01 0F 00 00 00 00 01 F0 FK 01
AK:057-01 0F 00 00 00 00 54 00
TX:058-01 0F 00 00 00 00 01 F0 FK 01
AK:059-01 0F 00 00 00 00 54 00
TX:060-01 0F 00 00 00 00 01 F0 FK 01
AK:061-01 0F 00 00 00 00 54 00
TX:062-01 0F 00 00 00 00 01 F0 FK 01
AK:063-01 0F 00 00 00 00 54 00
TX:064-01 0F 00 00 00 00 01 F0 FK 01
AK:065-01 0F 00 00 00 00 54 00
TX:066-01 0F 00 00 00 00 01 F0 FK 01
AK:067-01 0F 00 00 00 00 54 00
TX:068-01 0F 00 00 00 00 01 F0 FK 01
AK:069-01 0F 00 00 00 00 54 00
TX:070-01 0F 00 00 00 00 01 F0 FK 01
AK:071-01 0F 00 00 00 00 54 00
TX:072-01 0F 00 00 00 00 01 F0 FK 01
AK:073-01 0F 00 00 00 00 54 00
TX:074-01 0F 00 00 00 00 01 F0 FK 01
AK:075-01 0F 00 00 00 00 54 00
TX:076-01 0F 00 00 00 00 01 F0 FK 01
AK:077-01 0F 00 00 00 00 54 00



Modbus RTU instruction Baud rate: 9600 8 NONE 116 base transmit hexadecimal receive
Procedure: 1.

2. Set the address (address of the device used for communication, default address is 01)

/ *****

***** / set the address to:

0901 10 00 00 00 00 01 02 00 09 66 56// Change address 01 to 09 Set the address to:

0101 10 00 00 00 00 01 02 00 01 66 56// Change to 01 Read address 00 03 00 00 00 01 85 db Return:

00 03 02 00 01 44 44 // 01 to address / * * * * *
* * * * * / * * * * *
* * * * *

*****/ is the meaning of each byte:

Address [1] / -----
----- 1 relay open: 01 05 00 01 01 00 9 d 1:9 a byte address byte 2: can you tell me about byte
3 4: register address byte 5 6:

Register data byte 7 8:

CRC check / / =====
===== address [1] / -----

- No. 0 relay on: 01 05 00 00 FF 00 8C 3A0 Relay off:

01 05 00 00 00 00 CA/CD / -----
----- 1 relay open: 01 05 00 01 00 FF DD FA relay closed 1:

01 05 00 01 00 00 0 c 9 a / / -----
----- 2 open relay: 01 05 00 00 02 FF relay close no. 2 d FA2:

01 00 00 6 c 0 05 00 02 a / / -----
----- 3 open relay: 05 00 03 01 00 FF relay closed no. 7 c 3 a3:

05 00 03 01 00 00 3 d CA / / -----
----- 4 relay open: 05 00 04 01 00 FF CD FB4 relay closed:

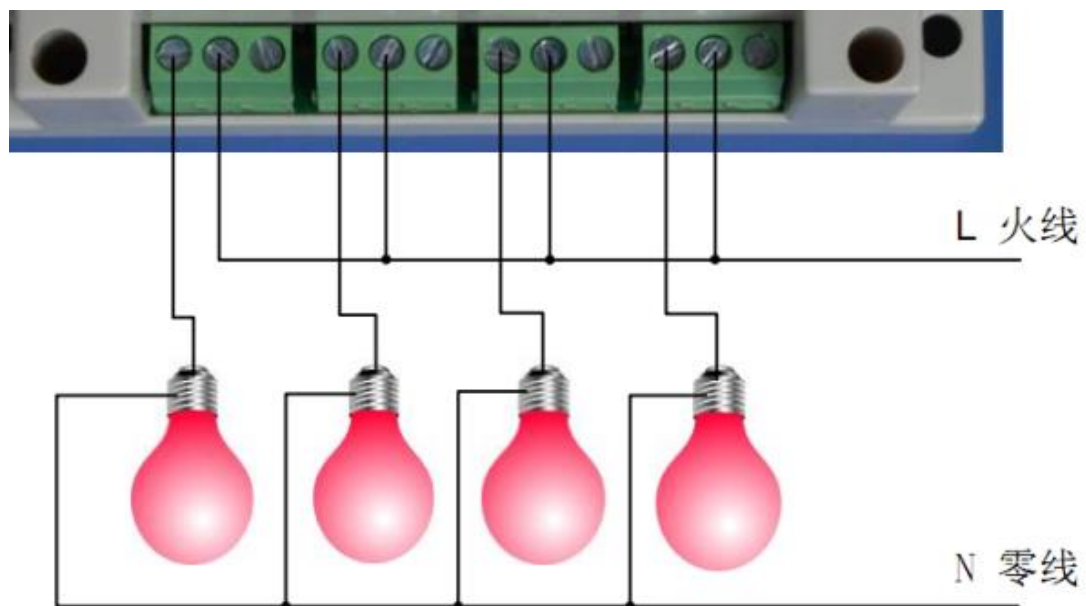
05 00 04 01 00 00 0 b/c / 8 -----
----- 5 relay open: 01 05 00 05 00 FF 9 c 3 b5 relay closed:

01 05 00 05 00 00 DD CB // -----
 ----- 6 relay open: 01 05 00 06 00 FF 6 c # 3 b6 relay closed:

01 05 00 06 00 00 2 d CB // -----
 ----- 7 relay open: 07 01 05 00 00 FF 3 d FB7 relay closed:

01 05 00 07 00 00 7C 0 b // -----
 ----- // =====
 ===== all

Off: 01 0F 00 00 00 08 01 00 FE 95 All on:
 01 0F 00 00 00 08 01 FF BE
 D5/*****/



The above picture shows 4 channels, this product is one way, the wiring method is the same, just a few different.