WHDTS ESP8266 WiFi 5V 1 Channel Relay Delay Module

This is WiFi relay module based on the ESP8266 serial module. And it controls the relay working status through the APP. Prefect kit for controlling all your household appliances with your phone wherever you are.

Features:

- IoT smart home remote control kit based on ESP8266 WiFi module and 1 channel 5V 10A 10A/250V AC 10A/30V DC relay module
- Control the relay working status through the APP
- With max. 400m transmission distance and the baud rate is 9600,8,1,0,0
- With the features of diode effusion protection and short response time

Specification:

Chip: ESP8266
Relay Module: 5V,10A/250V AC 10A/30V DC
Baud Rate: 9600,8,1,0,0
Transmission Distance: 400m (max)

Method of application:

1. ESP8266 WIFI module has three operating modes: STA, AP and STA + AP.
You can choose the operating mode according to the working mode of the module.
2. Before you use the module, you need to use the serial debugging software and USB to TTL module to send serial port command to configure the WIFI module. And please connect the RX/TX/GND pins of USB to TTL module to the module's RX/TX/GND pins.
(The default baud rate of the ESP8266 module is 115200 or 9600. When it's 115200, you need to send AT + CIOBAUD = 9600 and set the baud rate as 9600, otherwise the relay can not be properly controlled). And connect the IN +, IN- to the 5V power supply.
3. After the configuration is completed, please install the "TCP connection" APP on the Android phone. Then click "Connection" and " Open". Please be noted that the 5V power supply cannot be off, or some parameters of the WIFI module will miss.
Then press the column in grey in the interface for entering the serial command, the command name and content(open the relay module when the content is A00101A2, while close the relay when it's A00100A1).
Please send the commend in the form of hexadecimal. And you can control the on/off of the relay module by clicking the related columns.

Working Mode One: When mobile phone runs on the WIFI module, please send the command as below.
1) AT + CWMODE = 2, please select AP mode;
2) AT + RST, reset;
3) AT + CIPMUX = 1, open multiple connections;
4) AT + CIPSERVER = 1,8080, configure the TCP server and set the port number;
5) AT + CIOBAUD = 9600, set the baud rate to 9600. (Because the relay control chip works at the baud rate of 9600);
6) AT + CIFSR, check IP address under the AP mode, such as: APIP, "192.168.4.1";
7) Connect the mobile to the signal with the name of AI-THINKER or ESP8266 ;
8) Input address and port in the "TCP connection" APP, such as 192.168.4.1 and 8080;
9) Click the gray square to control the relay.

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Working Mode Two: When mobile phone and WIFI module run on the same router, please send the command as below.

1) AT + CWMODE = 1, please select STA mode;
2) AT + RST, reset;
3) AT + CWLAP, list out the available WIFI;
4) AT + CWJAP = <ssid>, <password>, connect the WiFi module to the router, and the ssid and password are the WIFI's name and password, such as: AT + CWJAP = "TP-LINK", "123456";
5) AT + CIPMUX = 1, open multiple connections;
6) AT + CIPSERVER = 1,8080, configure the TCP server and set the port number;
7) AT + CIFSR, check IP address under the STA mode, such as: STAIP, "192.168.1.102";
8) Connect the mobile phone to the router;
9) Input address and port in the "TCP connection" APP, such as: 192.168.1.102 and 8080;
10) Click the gray square to control the relay.

Tips:

1. STA + AP operating mode can work well for above two working modes.
2. ESP8266 module has the "timeout" mechanism. When the phone has not sent command to the ESP8266 WIFI module for a while (default 180S), the module will kick off the phone. You can send AT + CIPSTO = <time> on the computer to modify this period time (time range 0-7200), such as: AT + CIPSTO = 3600.
3. When you plug out WIFI module on the module, connect the RX/TX/GND pins of USB to TTL module to the module's RX/TX/GND pins and the IN +, IN- to the 5V power supply, the module can be used as a USB relay.