

Necessary hardware requirements:

Module one USB\_TLL serial board a 3.3V (300 milliamps) supply a

This module basic characteristics:

A support AP (router), STA (endpoint mode), AP + STA mode, the software switch, the new mode is active after reset

Two supply voltage 3-3.6V, peak output power 20DBM. Peak current 240 mA. This level of output power and sensitivity from the open generally about 100 m.

3 module AT command execution points the way, leads the way with a full IO.

Explained: ESP8266 internal ran LWIP agreement for the 32 MCU system. External FLASH minimum 1M. Large systems running an embedded operating system, available resources for the internal MCU FLASH and RAM, and there are five IO ports and a serial port for call. Therefore limited resources, sort, put external FLASH program, easy to read out, so the additional CPU protect their own procedures described as necessary. Things applications in general are small systems, customers do not have the operating system and has an understanding of TCP IP protocol and limited code reading capabilities. Generally have three years work experience if only engineers understood with reference to the source code, be able to develop their own practical procedures also have about half a month, ESP's open source, but to sign the NDA agreement with them. In order that we can shield inside complex systems, and quickly develop their own products, Yue Xin original internal professional engineer, for large system packaged as AT commands to control the format, that is, more than a dozen calls with serial AT commands can be completed they want things. Almost half the time, customers will be able to use AT commands to their product data sent to the internet via WIFI! Therefore the use of AT commands, simplifying the difficulty of development. And the cost does not increase! But the ability to develop strong customer exclusion, they can take advantage of the limited internal resources to develop products, eliminating the need for external MCU. External CPU recommended STM8 series (only cost a dollar or so) STM8 internal resources are abundant, things could not be better applied.

4 companies out of eight ESP8266 products, according to the appearance of the size of the antenna access, as well as the interface with the customer board (such as double-line, single-row line, pure patch semi-hole technology), to meet the needs of all customers .

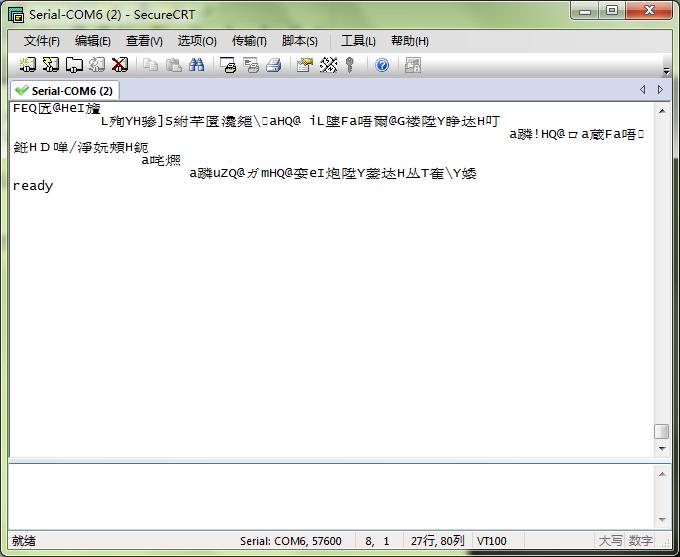
Note: For versions of AT commands, you only need to receive 3.3V power supply can be directly controlled by the serial port.

       For the full version GP0 GP2 IO port leads and CH-PD to take power in order to make the system starts properly

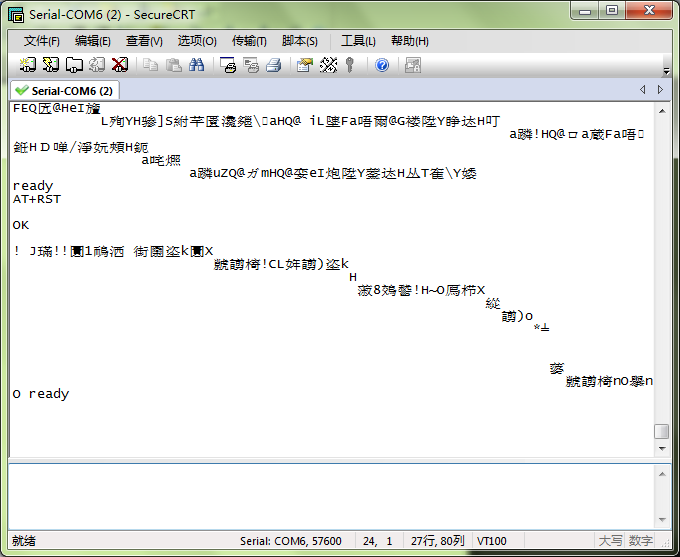
       The default is 57600 baud just work on the electrical system of the serial output of some system information on 74,880 special baud rate, so customers will find a bunch of "garbage" before output READY information. Normal

         Above basic tests for the system, after pass on the power, the serial will receive READY, representative system startup! Power and ground can not be reversed, and the gauge pressure.

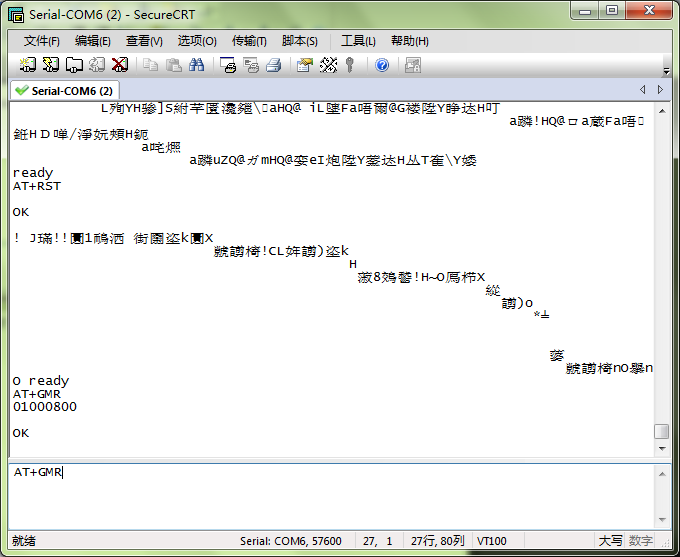
Recommended for serial monitoring software: SecureCRT Tintin serial debugging assistant.



After power system will output READY



In the bottom of the input box, enter AT + RST system soft reset.



Enter AT + GMR system version will be displayed, any instructions are executed with the Enter key, which is then finished entering AT + GMR point Enter. This instruction will be executed.

For example, following this Tintin serial port software:



Remember to select the Send button to send the new top of the line, after sending this point, the system will automatically add a carriage return character! ! ! ! ! !

This module can operate in three modes 1 STA 2 AP 3 AP + STA

Model three most cattle X work in this mode, ESP8266 after power is equivalent to a router with a terminal. That this time the customer opens a cell phone or computer, you can search for all available networks ESP8266 this and join.



As shown, beginning with ESP\_ figures behind the MAC address after a few!

This time the other devices can be connected to the router this ESP8266 formed, the router address is 192.168.4.1 connected to a fixed device, ESP8266 will dynamically assign an IP address for the device. Of course, the assigned IP address also in this segment: 192.168.4.XXX. Then they can communicate directly to the other.

Of course, in addition to other devices can connect to other routers in this ESP8266 formed, the ESP can also be a way to endpoints such as simultaneous connections to the home WIFI. And get home router to his address! Generally based 192.168.1.XX's.