

# USB to GSM module

## LC-GSM-SIM800C-2

### A. Overview

This USB to GSM is a quad-band GSM/GPRS module with stable performance, compact appearance and high cost performance, which can meet the various needs of customers. Integrated USB to serial port chip, plug directly into the computer to debug. The SIM800C operates at GSM/GPRS 850/900/1800/1900MHz and is used worldwide. It can transmit voice, SMS information and data information with low power consumption, and can be applied to various compact product design requirements.

### B. Features

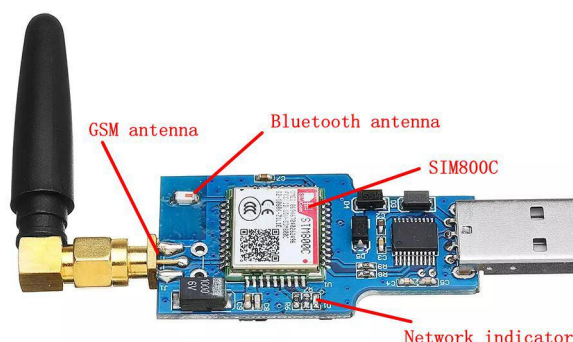
1. Onboard original SIM800C GSM/GPRS module;
2. On-board CH340T USB to serial port chip, easy to install and high compatibility;
3. Self-elastic SIM card slot design, can use mobile or Unicom's 2G/3G/4G Micro SIM and Nano card;
4. The module is powered on automatically to connect to the network, no need to press the button to control the boot, eliminating the troublesome boot process;
5. Support SMS messaging and provide management software;
6. Provide reference to the host computer source code (c#, vb) supporting materials and instructions for use;
7. Support GPRS data transmission under 2G network, which can be applied to mobile meter reading and other occasions;
8. Support Bluetooth data transmission, IEEE802.15 Bluetooth standard, 2.4GHz working frequency band;
9. Support adaptive baud rate;
10. With work indicator, no LED, no SIM card or SIM card inserted in reverse, the LED light flashes in 1 second interval, and the normal access network flashes once every 3 seconds.

### C. Hardware introduction and description

Board size: 27\*50.7mm

Board function description:

#### 1. Interface description:



## 2. Instructions for use:

1) Connect the 2.4GHz GSM antenna to the module and insert the SIM card (Note: support Micro/Nano card, support China Mobile or China Unicom mobile phone 2G/3G/4G card, but does not support 3G/4G network, does not support telecom card) Plug in the USB port of the computer. When using for the first time, you need to install the serial port driver of CH340.

2) After the module is started, the indicator light flashes once in 1 second. After a period of initialization, the indicator light changes to 3 seconds, and the module starts to work normally. Then you can control the SIM800C module with the AT command.

### 2.1 Calling

Initiate a voice call: ATD189\*\*\*\*3783; must be added a semicolon, please note!!!!

Hang up the call: ATH

Answer the call: ATA



### 2.2 Sending English text messages (TEXT mode)

Plug in the SIM card, start the module, and operate the module after the module is successfully registered (the indicator 3S lights up once, indicating that the module has been registered to the 2G network).

Send: AT+CMGF=1

Returns: AT+CMGF=1

OK

Send: AT+CSCS="GSM"

Back: AT+CSCS="GSM"

OK

Send: AT+CMGS="10086"

Back: AT+CMGS="10086"

>

Send: XXXXXX (0-9, A-Z) [XXXXX refers to Arabic numerals 0-9, English 26 letters A-Z]

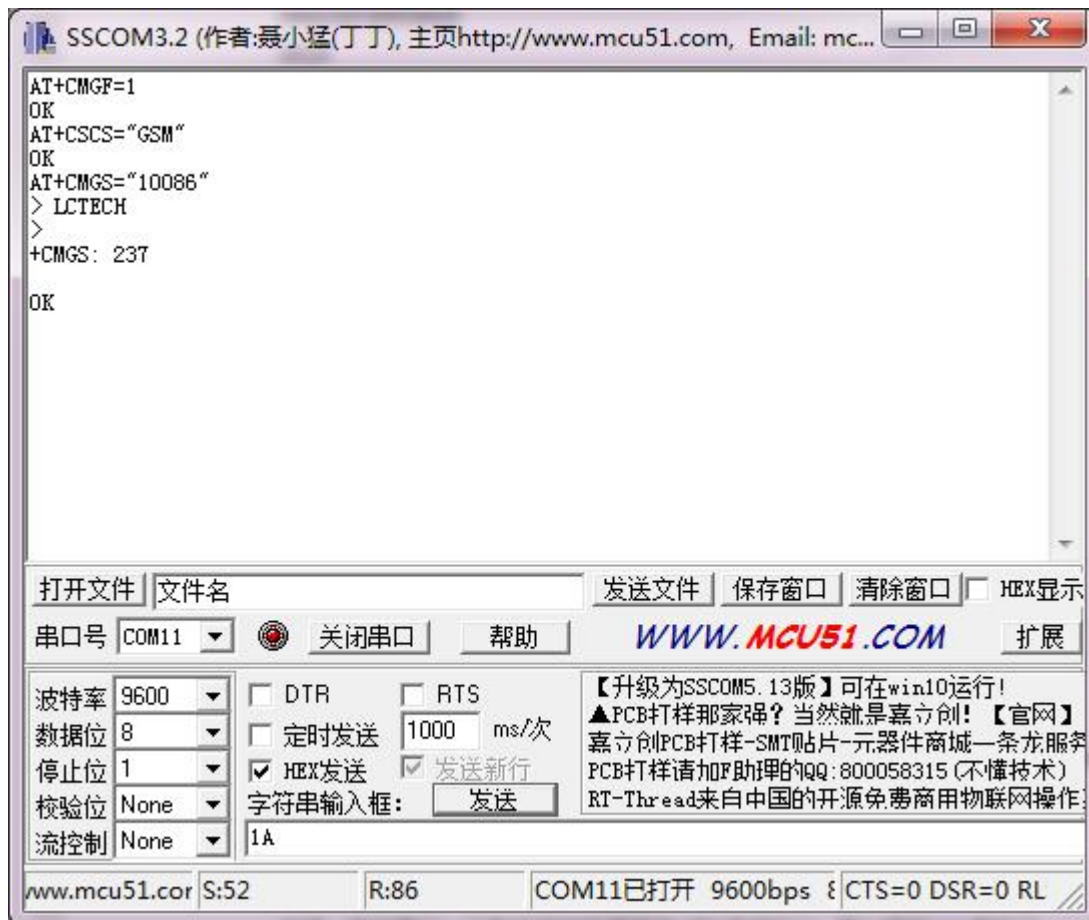
Note: XXXXXX is the content of the text message to be sent.

Returns: XXXXXX(0-9,A-Z) [XXXXX refers to Arabic numerals 0-9, English 26 letters A-Z]

Send: 1A (hexadecimal transmission)

Note: There will be a +CMGS command return after successful transmission.

For example, use the mobile phone to send SMS "LCTECH" to "10086". Proceed as follows:



## 2.3 GPRS data transmission

AT+CGCLASS="B" //Set the mobile station class to B, that is, the module supports packet switching and circuit switching mode, but not both.

return:

AT+CGCLASS="B"

OK

AT+CGDCONT=1, "IP", "CMNET" //Set PDP context flag 1, use Internet Protocol (IP) access point as "CMNET"

return:

AT+CGDCONT=1, "IP", "CMNET"

OK

AT+CGATT=1 // used to set the attachment and separation of GPRS services

return:

AT+CGATT=1

OK

AT+CIPCSGP=1, "CMNET" // set to GPRS connection, access point is "CMNET"

return:

AT+CIPCSGP=1, "CMNET"

OK

AT+CLPORT="TCP", "2000" //Set the TCP connection local port number to 2000

return:

AT+CLPORT="TCP", "2000"

OK

AT+CIPSTART="TCP", "111.68.4.142", 9090 // used to establish a TCP connection or register a UDP port number. The module will establish a TCP connection, such as the connection destination address: 111.69.4.146, port 9090, connection Success will return: CONNECT OK (Note: IP address needs to be public IP).

return:

AT+CIPSTART="TCP", "111.69.4.146", 9090

OK

CONNECT OK

AT+CIPSEND // module sends data to the server

return:

AT+CIPSEND

> SIM800C test // Data content: SIM800C test

return:

SIM800C test

→

SEND OK //Successfully sent