GTM-204M FAQ

Content

Q01：How to use AT Command to send SMS in Text mode?

A01：

1. To use AT Command: AT+CMGF=1. Set the text message to send text mode, if the reply OK representative set successfully.

2. To use AT Command: AT+CSCS="GSM". Set the message to send 7bits mode, the British dollar can reach 140 characters, if the reply OK representative set successfully.

3. To use AT Command: AT+CMGS="09XXXXXXXX". 09XXXXXXXX on behalf of the receiving end of the phone number, sent back will reply ">", then enter the characters you want to send. Then, type HEX: 1A # represents the end.

Q02：In PDU mode, how to use AT Command to send Chinese SMS?

A02：

1. To use AT Command: AT+CMGF=0.Set SMS to send in PDU mode, if the reply OK means the setting is successful.

2. To use AT Command: AT+CMGS=<length>, For example, the following PDU content length is 33.

3. Type PDU contents, for example:
   0011000A8190XXXXXXXX0008AA146CD3683C79D1628000490043005 0004400410053. Among them, 90XXXXXXXX is the phone number, for example, 0963456789, it will be 90365476986CD3683C79D16280004900430050004400410053, which is the Unicode PDU encoding of ICP DAS
   PDU format reference: http://www.gsm-modem.de/sms-pdu-mode.html or http://smstools3.kekekasvi.com/topic.php?id=288.

4. Then, type HEX: 1A # represents the end.

Q03：SMS seems to be unable to store, how to set?

A03： The GTM-204M is preset to Mobile Equipment message storage. You can use AT + CPMS? To query the current setting status. This setting is valid forever. Need to be changed to SIM card storage, if it is to use Demo code, there is no need to modify, but self-developed program please use the following AT Command set to be stored in the SIM:

To use AT Command: AT+CPMS="SM","SM","SM"

```
AT+CPMS?                          //Query the currently SMS message storage
+CPMS: "ME",0,255,"ME",0,255,"ME",0,255

OK
AT+CPMS="SM","SM","SM"            //Set SMS message storage as "SM"
+CPMS: 0,50,0,50,0,50

OK
AT+CPMS?                          //Query the currently SMS message storage
+CPMS: "SM",0,50,"SM",0,50,"SM",0,50

OK
```

Q04：Demo Code can not receive text messages, how to solve?

A04：The GTM-204M defaults to using the USB Port as a SMS notification. The AT + QURCCFG? Can be used to query the current setting status. This setting is valid forever.

- Use USB to receive newsletters:AT+QURCCFG="urcport","usbat"
- Use UART to receive SMS notifications:AT+QURCCFG="urcport","uart1"

```
AT+QURCCFG=?
+QURCCFG: "urcport",("usbat","usbmodem","uart1")

OK
AT+QURCCFG?
+QURCCFG: "urcport","usbat"

OK
AT+QURCCFG="urcport","usbmodem"
OK
AT+QURCCFG?
+QURCCFG: "urcport","usbmodem"

OK
```

Q05：How to read the SIM card message?

A05：Set the mode to Text, AT + CMGF = 1, then there are two ways to view the currently stored newsletters:

1. AT+CMGL="ALL", can display all the news content.
2. AT+CMGR= <index>, <index> for the message order.

```
AT+CMGF=1                              //Set SMS message format as text mode
OK
AT+CMGL="ALL"                          //List all messages from message storage
+CMGL: 1,"STO UNSENT","",,

<This is a test from Quectel>

+CMGL: 2,"STO UNSENT","",,

<This is a test from Quectel>

OK
```

```
+CMTI: "SM",3                          //Indicates that new message has been received and saved
                                          to <index>=3 of "SM"
AT+CSDH=1
OK
AT+CMGR=3                              //Read message
+CMGR:  "REC   UNREAD","+8615021012496",,"13/12/13,15:06:37+32",145,4,0,0,"+8613800210500",145,27

<This is a test from Quectel>

OK
```

Q06：How do I get the SMS center number?

A06：Two ways to get SMS center number:

Place your SIM card in your Andorid phone (version 4.4 or above), type ＃＃＃＃4636＃*＃* from your phone application, and find SMSC from your device information and press Refresh to get it.

1. To use AT Command: AT+CSCA? get SMS center number.

```
OK
AT+CSCA?
+CSCA: "+886932400851",145
```

Q07：Is there a way to send SMS on Linux?

A07：Linux can use SMS Server Tools 3, can be downloaded from the official website: http://smstools3.kekekasvi.com/index.php?p=packages

- Compile method:

- Setting method:

  After compiling, modify the device entry in /etc/smsd.conf for the current AT com port location and baudrate. The GTM-204M UART baudrate defaults to 115200.

- To run:

  Run: **/etc/init.d/sms3 start**

  Close: **/etc/init.d/sms3 stop**

- Send message:

  sendsms 8869xxxxxxxx 'Hello, how are you'

  8869xxxxxxxx To receive the phone number of the newsletter, replace the first 0 with the country code, for example, Taiwan is 886.

Q08:Is there any software that sends SMS on Windows?

A08:Windows demo code provided by ICP DAS can be downloaded from the official website

http://ftp.icpdas.com/pub/cd/usbcd/napdos/4g_modem/gtm-204m-4g/software/

You can also use third-party software: OZEKI NG SMS Gateway

http://www.ozekisms.com/index.php?owpn=133

The official website has a complete introduction and settings, but also provide a 15-day free trial, simply set the com port and baudrate and SMS center number to send a newsletter.
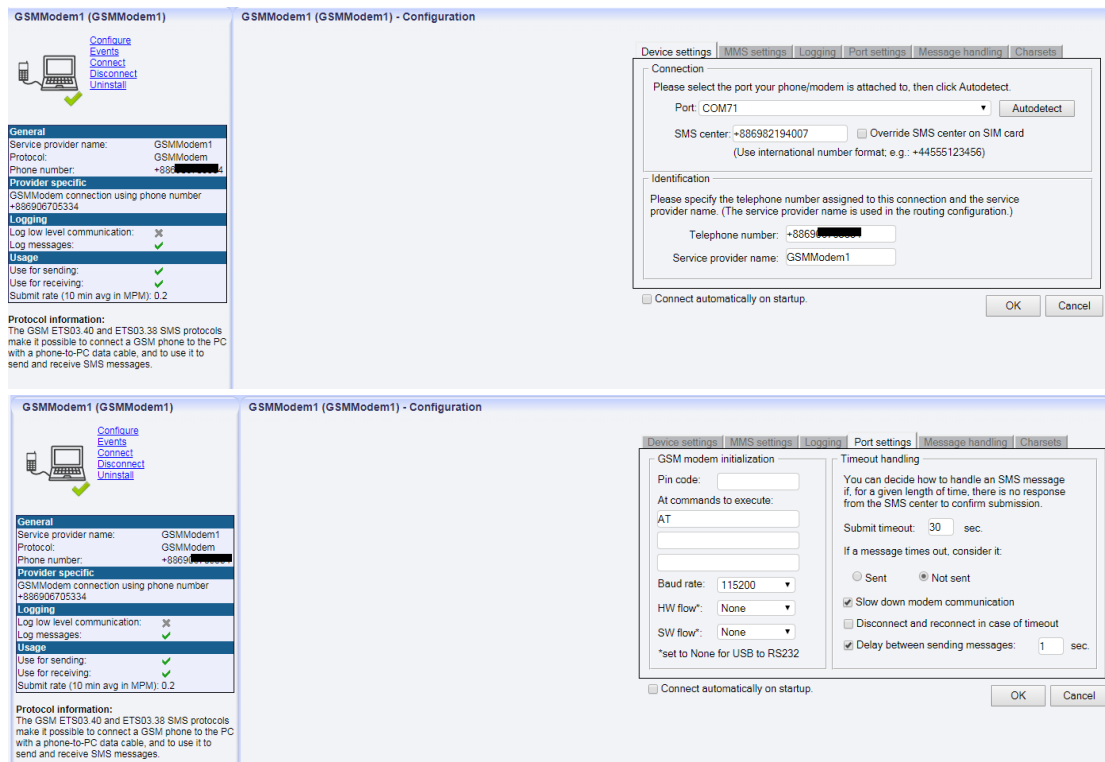
Q9:What Baud rate communication is used by the module? Can I use non-default Baud rate?

A9:GTM-204M use 115200 as the default baudrate and can only use 115200 communication via UART. However, when using USB, the module will automatically adjust the corresponding baudrate usage.

Q10:How to limit only 2G or 3G or 4G? This setting can be permanent and effective?

A10:GTM-204M default is Auto mode, it will adjust the base station registration according to the current signal condition. You can use

AT+QCFG="nwscanmode" command to ask the current setting value

- AT+QCFG="nwscanmode",0　Auto
- AT+QCFG="nwscanmode",1　2G only
- AT+QCFG="nwscanmode",2　3G only
- AT+QCFG="nwscanmode",3　4G only

This setting is permanent.

Q11：How to check the current SIM card registration status?

A11：Through AT+CREG=? To ask the current SIM card registration status, status reply code is as follows:

0	Not registered, ME is not currently searching a new operator to register to
1	Registered, home network
2	Not registered, but ME is currently searching a new operator to register to
3	Registration denied
4	Unknown
5	Registered, roaming

```
AT+CREG?
+CREG: 0,1
OK
```

For example:　　　　　　　reply: +CREG: 0,1

The status code is 1, which means it has been registered to the base station.

Q12：Will I ring the ring when I receive an incoming call? If not, how do I know if I'm calling?

A12：The module will not ring tone when it receives incoming calls, but can receive a fixed string "RING" through com port to indicate the incoming call:

```
Log
AT+CSQ
+CSQ: 26,99

OK

RING

RING

NO CARRIER
```

Q13：Can I send my voice file? If not, how can I place my voice?

A13：GTM series has a microphone function, but GTM-203 and GTM-204 are not equipped with the default, you can view the package has a headphone and microphone module, installed on their own can use the microphone to play voice.

Q14：What are the frequency bands currently supported by the 4G module? Which countries can use it?

A14：

- GTM-204M-4GE: FDD LTE: B1/B3/B5/B7/B8/B20

   Most support areas: Taiwan, Europe, Australia, Thailand
- GTM-204M-4GC: FDD LTE: B1/B3/B8

   TDD LTE: B38/B39/B40/B41

   Most support areas: China

Q15：If the scene will have USB interference problems, there are ways to avoid or prevent interference?

A15：

Can be used with ICP DAS USB-2560 products (http://www.icpdas.com/root/product/solutions/industrial_communication/converter/usb-2560.html). USB-2560 has its own isolation function to prevent interference problems.

Q16：Use Access Port under AT Command will only get the same command response, can not send instructions, how to solve it?

A16：Access Port default will not be added to the end of the original data 0D, causing the command sent directly to the original command to send back, add 0D at the end to send the normal AT Command.
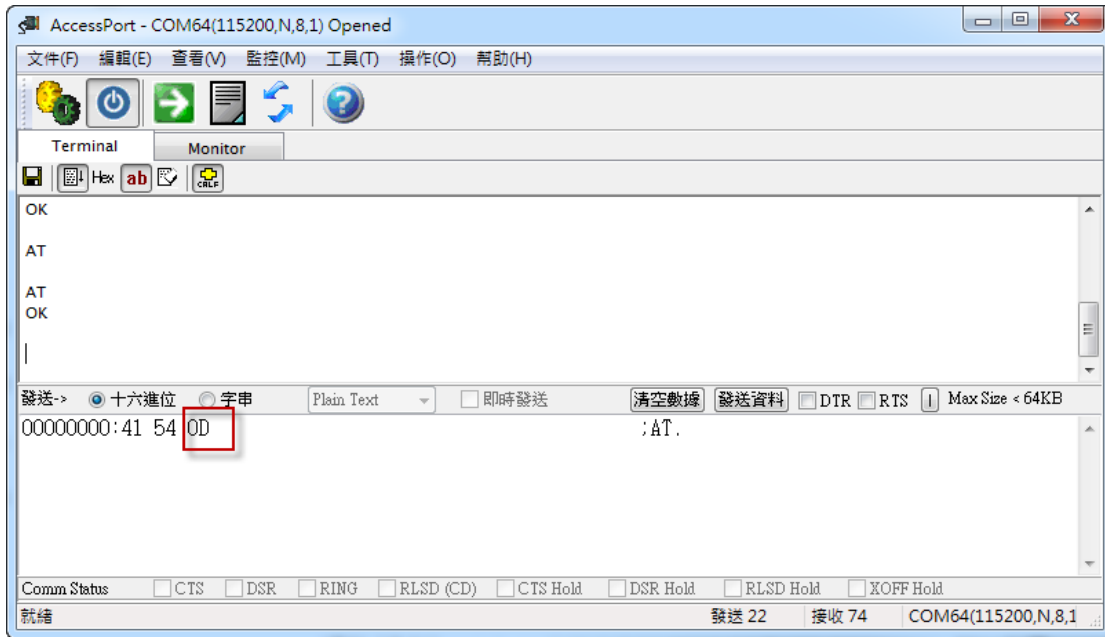
Q17：Demo code can not be normal debugging, what may be the problem?

A17：Encountered the following conditions, the Debug mode to Release mode and then re-run debugging.
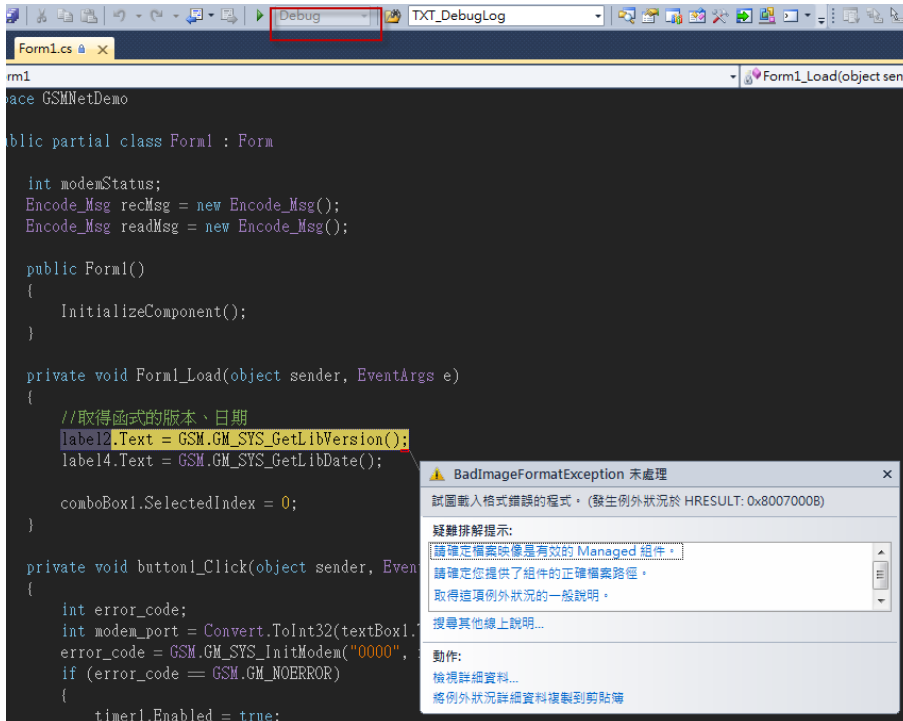
Q18：After installing the USB Driver on Windows 10, an abnormality caused the computer to be blue screen. How to solve it?

A18：This may be a driver conflict issue on Windows 10, please follow these steps:

Step1: Insert SIM card for GTM-204M, and then power on again.

Step2: Under AT Port: at + qcfg = "usbnet" to query the current setting value

If the response is:

+ QCFG: "usbnet", 0 <-This is the USB driver for GTM-204M

+ QCFG: "usbnet", 2 <- This is the driver built into Windows

To modify to use the built-in Driver of Windos, please issue the following instructions:

at + qcfg = "usbnet", 2

After completing the instructions, please power on again !!

Q19：How to send and receive long content SMS (content is greater than one sms)? Support Chinese?

A19：

1. The long SMS only supports text mode, so it only supports English SMS content.

2-1. Receive SMS: AT+QCMGR, first query the current SMS index, then read the SMS content through the instruction

Example

```
+CMTI: "SM",3          //The first message of a concatenated message comes

+CMTI: "SM",4          //The second message of a concatenated message comes

AT+QCMGR= 3            //Read the first segment of the concatenated message
+QCMGR: "REC UNREAD","+8615056913384",,"13/07/30,14:44:37+32",120,1,2
ABCD

OK
AT+QCMGR= 4            //Read the second segment of the concatenated message
+QCMGR: "REC UNREAD","+8615056913384",,"13/07/30,14:44:37+32",120,2,2
EFGH

OK
```

2-2 Send SMS: AT+QCMGS, send SMS content separately according to index

Example

```
AT+CMGF=1                           //Set SMS message format as text mode
OK
AT+CSCS="GSM"                       //Set character set as GSM which is used by the TE
OK
AT+QCMGS="15056913384",120,1,2 <CR>  //Input 120 for <uid>, and send the first segment of the
                                       concatenated SMS
>ABCD<Ctrl-Z>
+QCMGS: 190

OK
AT+QCMGS="15056913384",120,2,2 <CR>  //Send the second segment of the concatenated SMS.
>EFGH<Ctrl-Z>
+QCMGS: 191

OK
```

Q20：The module has been at stat=2, Not registered, and can be registered with another SIM card. What should I do?

A20：

Step1. Whether the PIN Code has been released.

Step2. Find the currently searchable telecommunications providers through the AT+COPS=? command, as follows:

```
AT+COPS=?
+COPS: (1,"Chunghwa Telecom","Chunghwa","46692",2),(2,"Chunghwa
Telecom","Chunghwa","46692",7),(1,"466 12","466 12","46612",7),(3,"466 05","466 05","46605",7),
(1,"Far EasTone","FET","46601",7),(3,"T Star","T Star","46689",2),(3,"T Star","T Star","46689",7),
(1,"Far EasTone","FET","46601",2),(3,"TW Mobile","TWM","46697",2),(3,"TW
Mobile","TWM","46697",7),(3,"466 05","466 05","46605",0),,(0-4),(0-2)

OK
```

Step3. According to the current SIM card carrier's instructions, for example, to connect to Chunghwa Telecom through 4G:

AT+COPS=1,2,"46692",7

Reference parameters:

Parameter

<stat>	0	Unknown
	1	Operator available
	2	Current operator
	3	Operator forbidden
<oper>	Operator in format as per <mode>	
<mode>	0	Automatic mode. <oper> field is ignored
	1	Manual operator selection. <oper> field shall be present and <Act> optionally
	2	Manually deregister from network
	3	Set only <format> (for **AT+COPS?** Read Command), and do not attempt registration/deregistration (<oper> and <Act> fields are ignored). This value is invalid in the response of Read Command.
	4	Manual/automatic selection. <oper> field shall be presented. If manual selection fails, automatic mode (<mode>=0) is entered
<format>	0	Long format alphanumeric <oper> which can be up to 16 characters long
	1	Short format alphanumeric <oper>
	2	Numeric <oper>. GSM location area identification number
<Act>	Access technology selected. Values 3, 4, 5 and 6 occur only in the response of Read Command while MS is in data service state and is not intended for the **AT+COPS** Write Command.	
	0	GSM
	2	UTRAN
	3	GSM W/EGPRS
	4	UTRAN W/HSDPA
	5	UTRAN W/HSUPA
	6	UTRAN W/HSDPA and HSUPA
	7	E-UTRAN
	100	CDMA