GSM Voice Modem

User Manual

Read First

Before operating the system, please read this manual thoroughly, and retain it for future reference.

Attention

Please not leave the GSM Voice Modem.The GSM Voice Modem can only be used after has a valid SIM card inserted. Please do not remove the shielding cover.

Warning

Hangzhou Tuolima Network Technologies Co., Ltd.will not fix the GSM Voice Modem that is opened by user.In such case, its warranty will be terminated too.

1. Summary

More and more applications emerged with the rapid development of wireless data services, such as vehicle navigation, remote monitoring, wireless Internet access, wireless POS, etc. Thus, more and more devices need to be able to do wireless communication. With this background, Hangzhou Tuolima Network Technologies Co., Ltd. develops its GSM Voice Modem. Users of this product can add wireless communication capability easily to their own products, and then, develop many applications.

The GSM Voice Modem mostly fits the need of data transfer, with SMS data communication, GPRS data navigation, Circuit Switch / Data Connectivity, TCP/IP protocol etc. Because the easy setting up in SCM (Single Chip Micyoco), it is convenient for network data communication. The GSM Voice Modem with small size, which fits both embedded application and external peripheral equipment. The AT command set and USB interface will offer easy data connection without any extra circuit control.

Traditionally, the above applications use digital cellular, CDPD or other wire-line modem to do communication, and these technologies are of the disadvantages of high communication expense, limited communication range, dial before communications, etc. When we begin to use GSM Voice Modem, all these problems disappeared.

Please read this manual carefully before your installation, and please keep this manual for further reference.

2. Interfaces

◆ 1 USB port,

◆ SIM Card Holder

3. Features

◆ Supporting both Chinese/English SMS data communication

◆ Supporting 1900 MHz GSM band, better signal quality

◆ Supporting AT Command Set

◆ Standard USB port, easy to use

◆ Industrial standard design and quality guarantee

4. Specifications

◆ Operation temperature ： -25 - +60℃

◆ Storage temperature：-35 - +80℃

◆ Humidity ： 0 - 95％ non-condense

◆ Current：standby 50mA，work 300mA

◆ Weight： 250g

5. Installation

a) Open the SIM card holder, insert in a valid SIM Card provided by GSM network operator or service provider.

b) Install the GSM Modem to your location.

c) Fix the USB cable to the GSM modem, the supplied cable will connect the unit to a PC. For other devices you may need a crossover cable.

Make sure that all connections are properly

6. Modem Basic Operation

A. Module connection with **Hyper Terminal**.

    1. Establish or Open **Hyper Terminal** from **All Programs** →   **Accessories**- →

    Communications and setting up relevant parameters. Module baud rate is 115200.
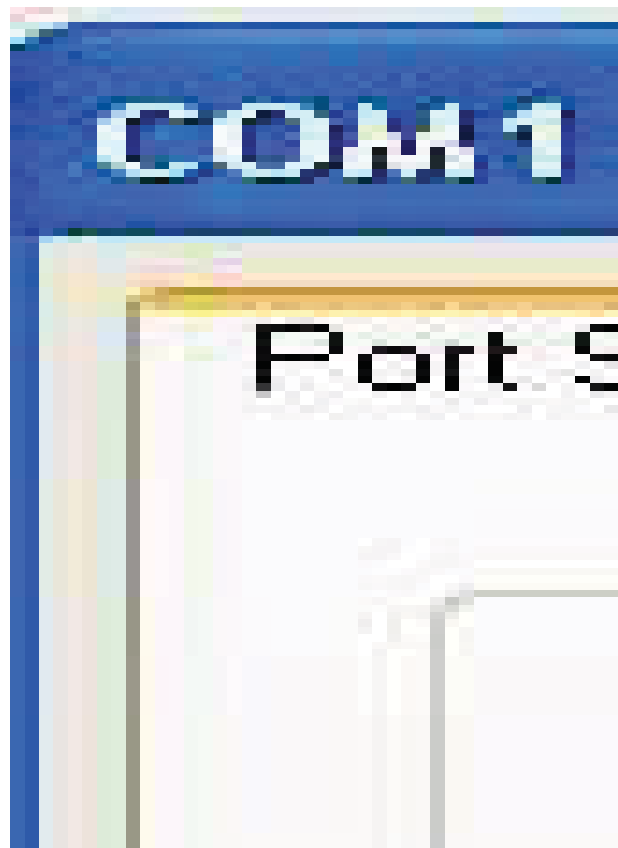
    (1). Establish connection.

(2). Setting up usage port.

(3). Setting up port parameters.

(4). Setting up **property** in **File** Menu of **Hyper Terminal**

2. You can input word "AT" then press "Enter" key, it should be response word "OK" means work property. **All commands are executed by pressing "Enter" key.**

Example as below:

3. If SIM card requires switch on password, please enter: **AT+CPIN=** "**password**"

4. Read module information

AT+CGMI （Manufacture name）

AT+CGMM （Read Module model）

AT+CGMR (Read module current SW version information)

AT+CGSN (Module serial number)

B. Dial call or receive call (Modem doesn't provide voice port even with relevant command)

1. Dial call **ATDxxxxxxxxx；** （xxxxxxxxx is phone number，example：ATD1860；）

2. Call waiting function：**AT+CCWA**

3. Hold function：**AT+CHLD=？**

4. Dial latest call number：**AT+CLCC=？**

5. Enter information once connection established（DTMF）：**AT+VTS=（0-9，#，*，A-Z）**

Dial Extension number（example：1234）：**AT+VTS=1**

AT+VTS=2

AT+VST=3

AT+VST=4

6. Receive call: **ATA**

7. Hang off call: **ATH**

8. Incoming call ID: **AT+CLIP=1**

9、SMS function：

⑴ Setting up SMS Center number：**AT+CSCA=＂+8613800XXXXXX＂，145**

SMS Center number：+8613800XXXXXX

⑵ TEXT parameter：**AT+CSMP=17，168，0，0** English format

　　　　　　　　AT+CSMP=17，168，0，0 Chinese format

⑶ Send SMS：**AT+CMGS**

⑷ Read single SMS：**AT+CMGR=1**

⑸ List multiple SMS：**AT+CMGF=1**

　　　　　　　　AT+CMGF=4

⑹ Delete SMS：**AT+CMGD**

Example 1：Send English character SMS

　　AT+CMGF=1

　　AT+CSMP=17，168，0，0

　　AT+CMGS=＂Telephone number＂

>Character information Ctrl+z

Example 2：Send Chinese character SMS

　　AT+CMGF=1

　　AT+CSMP=17，168，0，8

　　AT+CMGS=＂Telephone number＂

>Chinese character information Ctrl+z

10. Chinese character information is Unicode.

GPRS Internet Access

The below guide is an example of connecting your GSM modem to a PC and establishing a GPRS connection to the internet through standard "**Dial Up Networking**"

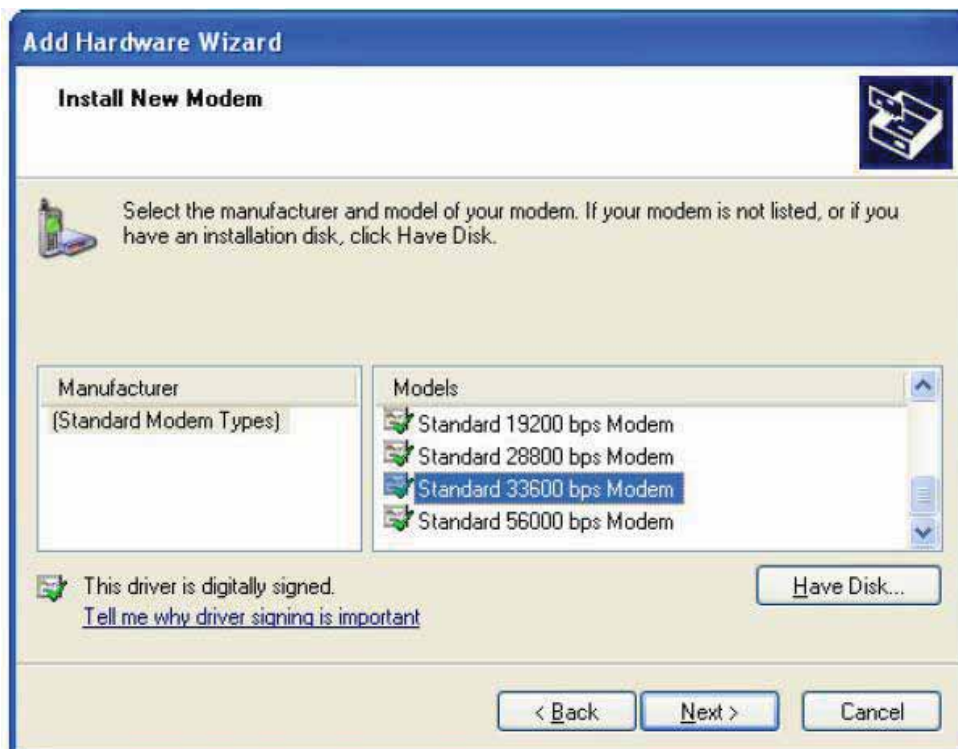Double Click the "**Phone and Modems Option**" in "**Control Panel**"
Double Click the "**Phone and Modems Option**" Icon
Select the "**Modem**" tab
Click the "**Add…**" button at the bottom of the menu

Make sure the "**Don't detect my modem; I will select it from the list**" is selected
Your next screen will ask you which modem you have, make sure "**Standard 33600 Bps**" modem is selected

You will then be greeted with a messages saying you have "**Successfully Installed Your Modem**" Select your modem from the list in your "**Phone and Modem Options**" and click the "**Properties**" button.

A new window will appear, from here you can test your modem by selecting "**Diagnostics**" to ensure you have selected the appropriate COM port.

Click on the "**Advanced**" tab and enter the setting. Please note that you will need to obtain your APN (Access Point Name) from your cell phone provider to replace the "**CMNET**" value
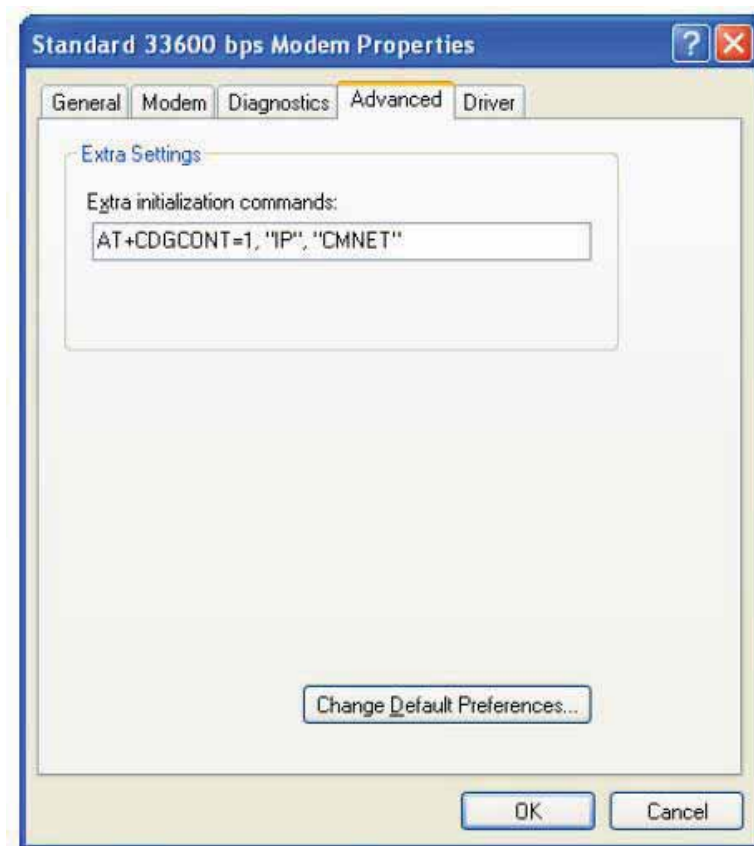
You can then establish a dial up networking connection by double clicking your "My Network Places" icon, Selecting "View My Network Connections" and "Add a New Network Connection" option.

You will also need to obtain your username and password from your ISP, your number to dial is *99#

Warning:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled

environment .This equipment should be installed and operated with minimum distance

20cm between the radiator& your body.

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for

compliance could void the user's authority to operate this equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.