F1003 GSM MODEM

USER MANUAL

Contents

Chapter 1 Brief Introduction of Product

1.1 General

F1003 GSM MODEM is based on GSM network and adopts industrial wireless GSM module. It supports SMS and CSD function. It is designed with industrial standard and has been widely used on finance, water supply, environment protection, electric power system, post, weather fields and so on.

1.2 Product Features

- ✧ Designed with industrial standard
- ✧ Support SMS and CSD function
- ✧ Support RS232
- ✧ Power range: DC 5~35V

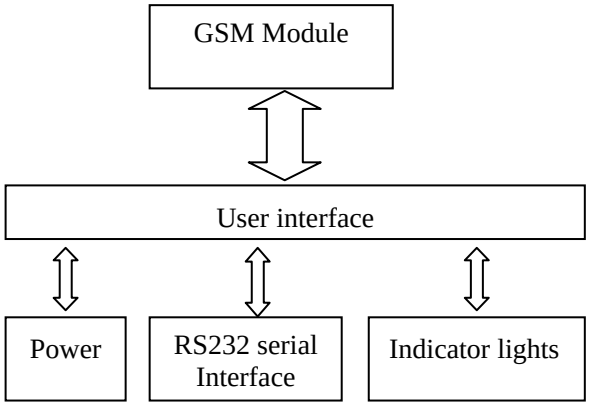
1.3 System Component

The MODEM is composed of the following parts mainly:

- ✧ Industrial GSM module
- ✧ DC/DC module
- ✧ RS232 module

1.4 Working Principle

The principle chart of the MODEM is as following:



1.5 Technical Specification

Wireless specification:

- ✧ Dual Band EGSM 900 and GSM 1800
- ✧ ETSI GSM Phase 2+
- ✧ Support DTMF
- ✧ Support SMS and CSD function
- ✧ Standard AT command interface

Interface:

- RS232 serial port, rates: 110~230400bits/s
- Indicator lights: “Power”, “ACT”, “Online”
- Antenna interface: standard SMA female interface, 50 ohm
- SIM/UIM interface: standard user card interface
- Power interface: standard 3-PIN power jack

Power supply:

- Standard power: DC 12V/0.5A
- Power range: DC 5~35V

Others:

- Operation temperature:-25~+65ºC
- Storage temperature: -40~+85ºC
- Humidity: 95% (unfreezing)
- Outline dimension: 91x58.5x22 mm

Chapter 2 Installation Introduction

2.1 General

The MODEM must be installed correctly to make it work properly.

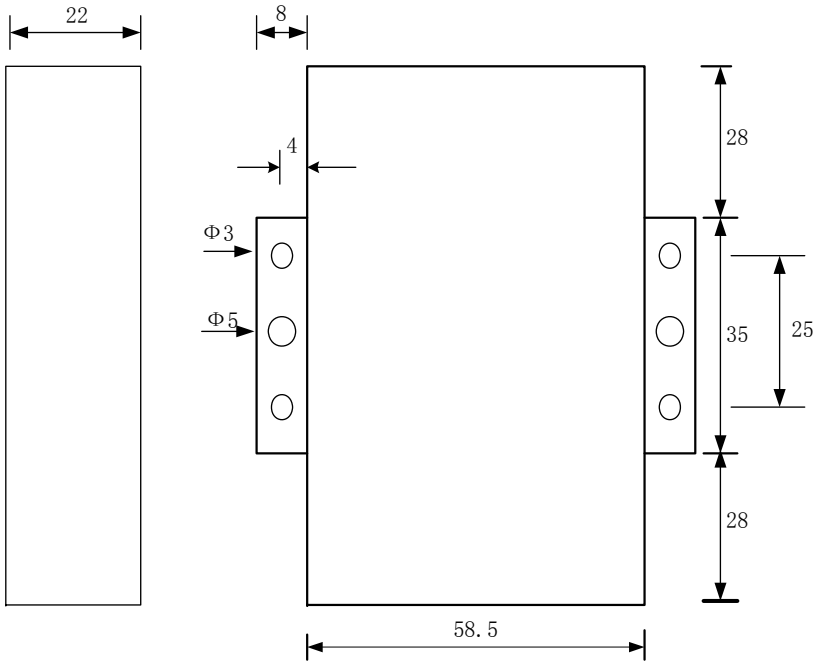
Warning: Forbid to install the MODEM when powered!

2.2 Encasement List

Name	Quantity	Remark
MODEM host	1	
Antenna	1	
Power adapter	1	
RS232 data cable	1	
Manual CD	1	
Certification card	1	
Maintenance card	1	

2.3 Installation and Cable Connection

Dimension: (unit: mm)



Installation of SIM/UIM card:

Firstly power off the MODEM, and press the out button of the SIM/UIM card outlet with a needle object. Then the SIM/UIM card sheath will flick out at once. Put SIM/UIM card into the card sheath (Pay attention to put the side which has metal point

outside), and insert card sheath back to the SIM/UIM card outlet.

Warning: Forbid to install SIM/UIM card when powered!

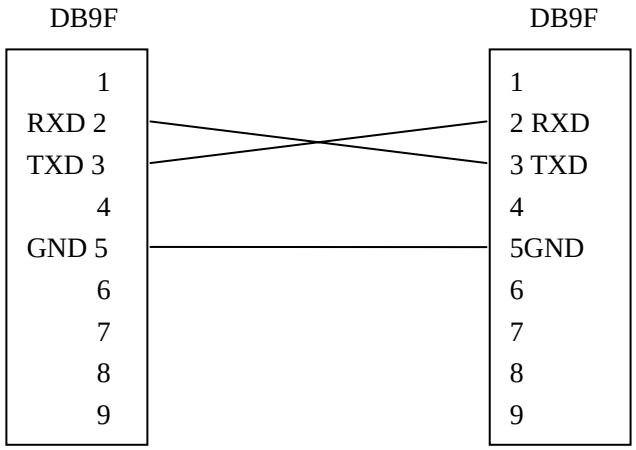
Installation of antenna:

Screw the SMA male pin of the antenna to the female SMA outlet of the MODEM tightly. Warning: The antenna must be screwed tightly, or the signal quality of antenna will be influenced!

Installation of cable:

Insert DB9F end of the RS232 data cable into the DB9M interface of MODEM, and connect the other end with user's device.

The signal connection of the RS232 data cable is as follows:



RS232 data cable

2.4 Power

The power range of the MODEM is 5~35V.

Warning: When we use other power, we should make sure that the power can supply power above 4W.

We recommend user to use the standard DC 12V/0.5A power adaptor.

2.5 Indicator Lights Introduction

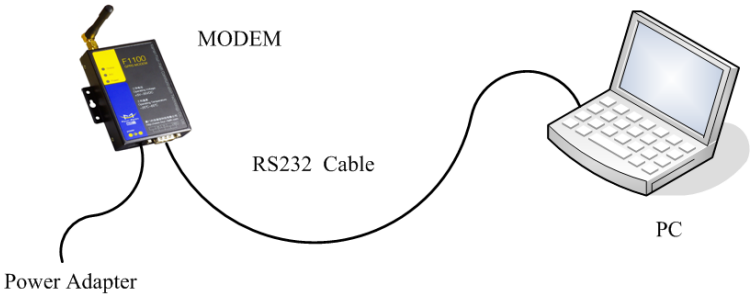
The MODEM provides three indicator lights: "Power", "ACT", "Online".

Indicator Light	State	Introduction
Power	Bright	MODEM is powered on
	Dark	MODEM is powered off
ACT	Twinkle	Data is communicating
	Dark	No data
Online	Bright/ Twinkle	MODEM has logged on network
	Dark	MODEM hasn't logged on network

Chapter 3 SMS Test

3.1 MODEM Connection

Connect Modem and PC with the shipped RS-232 cable as following:

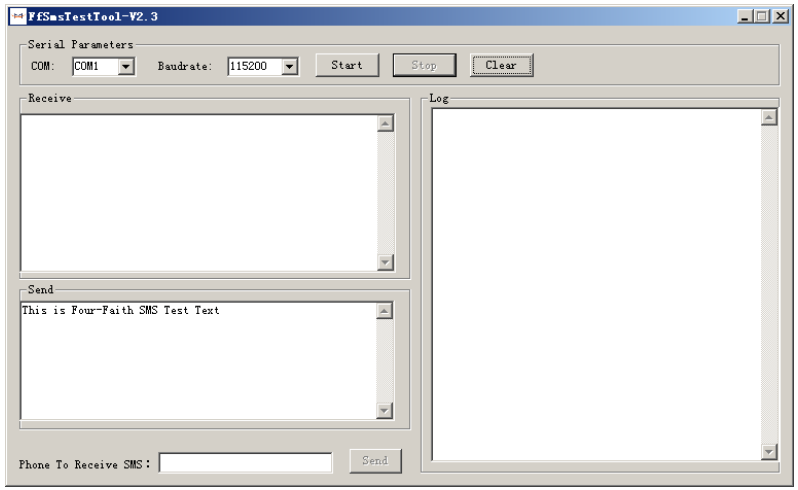


3.2 SMS Test

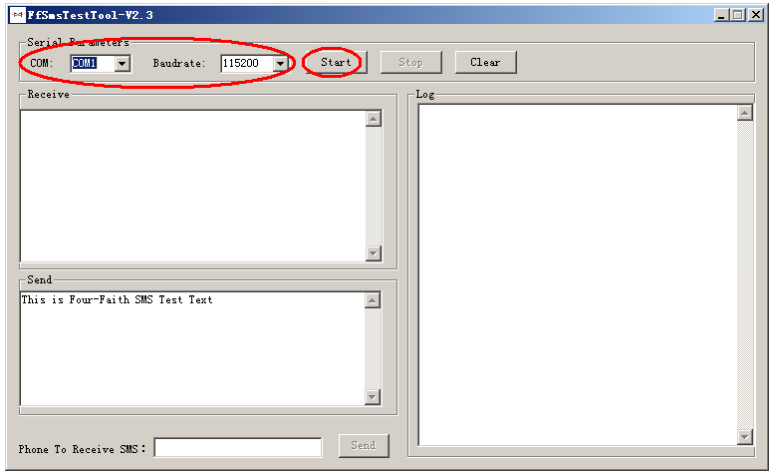
Modem can be used to send and receive SMS (Short Message Service). To simplify customer program, we supply a DLL(Dynamic Link Library) and sample program source code, all the SMS operations can be processed through simple API functions. The following describes how to test the SMS function.

1. Connect PC and Modem with the shipped RS-232 cable and power on Modem, The connection diagram please refer chapter 3.1

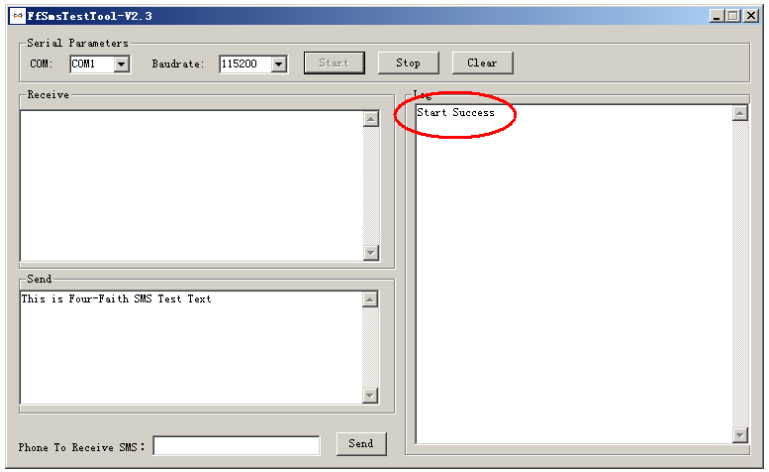
2. Run FfSmsTestTool-En.exe



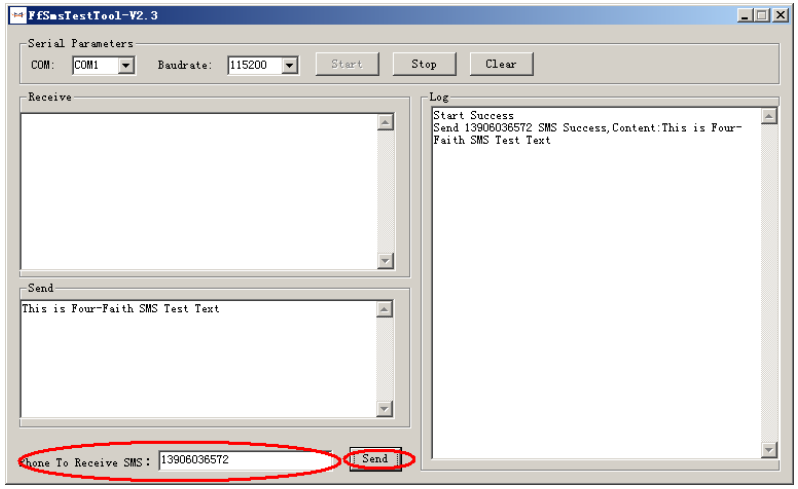
3. Choose the COM port which connect to MODEM, baud rate is 15200, click "Start" button



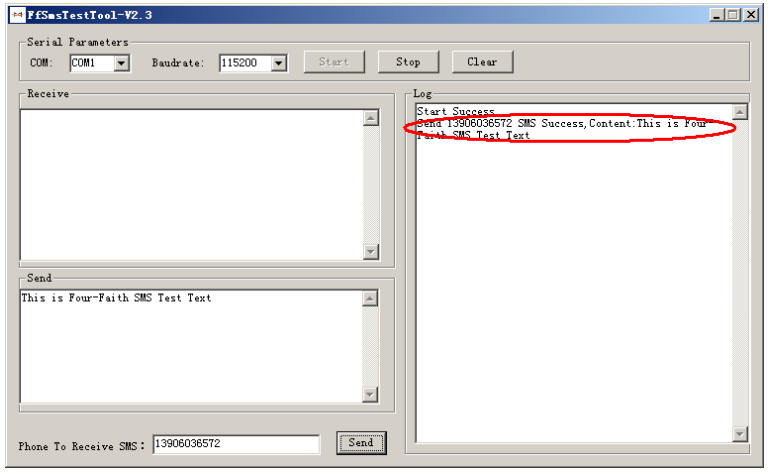
4. The tool will initiate Modem after clicking the “Start” button, If initiate success, the log column will show “Start Success”, It’s now ready for sending and receiving SMS.



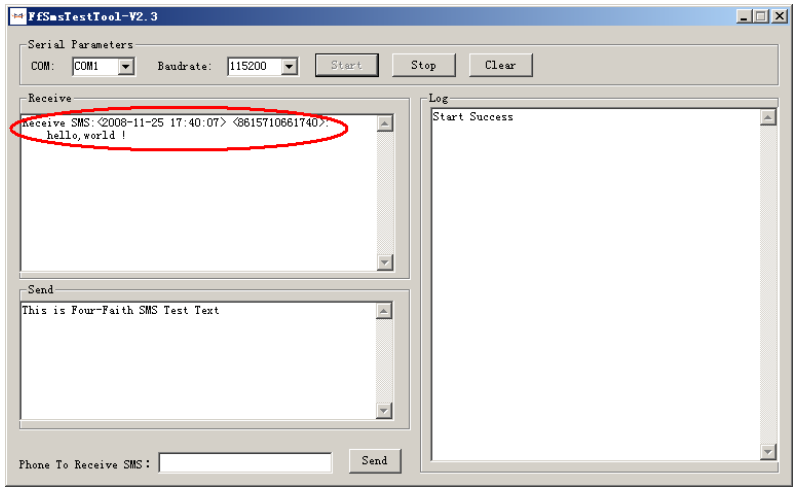
5. Input the phone to receive this test SMS, click “Send” button



6. The result state will display in the Log column



7. When received SMS, It will display in the receive column



8. Complete SMS test.