A company of SIM Tech

How to use the SIM7100 Module in Linux

Document Title:	How to use the SIM7100 module in Linux
Version:	1.0
Date:	2014-12-30
Status:	Release
Document Control ID:	How to use the SIM7100 module in Linux V1.0

General Notes

SIMCom offers this information as a service to its customers, to support application and engineering efforts that use the products designed by SIMCom. The information provided is based upon requirements specifically provided to SIMCom by the customers. SIMCom has not undertaken any independent search for additional relevant information, including any information that may be in the customer's possession. Furthermore, system validation of this product designed by SIMCom within a larger electronic system remains the responsibility of the customer or the customer's system integrator. All specifications supplied herein are subject to change.

Copyright

Contents

Version History

Date	Version	Description of change	Author
2014-12-30	V1.0	New version	

Scope

This document describes how to use the module of SIMCom SIM7100 module in Linux.

Introduction

This guide shows customers how to build linux driver with SIM7100 module. Here SIMCom takes Ubuntu OS as a reference.

Connection

How to connect to the SIM7100 module with a PC.

(1) Connect the SIM7100 by physical USB interface and power on the modem.

(2) Open the terminal and type the shell command lsusb.

```
Bus 003 Device 002: ID 1a40:0101 Terminus Technology Inc. 4-Port HUB
Bus 006 Device 002: ID 093a:2510 Pixart Imaging, Inc. Optical Mouse
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 002 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 003 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 004 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 005 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 006 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 007 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 008 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 003 Device 003: ID 1a40:0101 Terminus Technology Inc. 4-Port HUB
Bus 003 Device 007: ID 1e0e:9001 Qualcomm / Option
```

(3) SIM7100 module will be recognized by Ubuntu via USB interface(vid=1e0e,pid=9001).

(4) Type the command “sudo rmmod usbserial”, some error messages may be prompted, just ignore them.

(5) Copy GobiSerial.tar.gz to home directory and type the command “tar zxvf GobiSerial.tar.gz”

(6) Compile the driver GobiSerial. Type the command “cd GobiSerial && make”,if no error occurs, a file named “GobiSerial.ko” will be generated.

(7) Type the command “sudo modprobe usbserial && sudo insmod GobiSerial.ko” to install the driver.

(8) List the ttyUSBx devices by “ls -l /dev/ttyUSB*”

```
crw-rw---- 1 root dialout 188, 0 Sep 10 10:50 /dev/ttyUSB0
crw-rw---- 1 root dialout 188, 1 Sep 10 10:52 /dev/ttyUSB1
crw-rw---- 1 root dialout 188, 2 Sep 10 10:50 /dev/ttyUSB2
crw-rw---- 1 root dialout 188, 3 Sep 10 10:50 /dev/ttyUSB3
crw-rw---- 1 root dialout 188, 4 Sep 10 10:50 /dev/ttyUSB4
crw-rw---- 1 root dialout 188, 5 Sep 10 10:50 /dev/ttyUSB5
```

If /dev/ttyUSB0~5 are available,then device driver is installed successfully!

Intercommunication

Intercommunicate with SIM7100 with AT commands by minicom.

Now just the minicom case is demonstrated.

(1) Install the package minicom in Linux host.

(2) The USB class ttyUSB2 is the AT-port in SIM7100, so customer should configure the minicom with /dev/ttyUSB2 port.

(3) Send AT commands in minicom.

Notes: there are 6 ports for SIM7100 modules in Linux host.

1) /dev/ttyUSB0-diag port for output developing messages
2) /dev/ttyUSB1- NMEA port for GPS NMEA data output
3) /dev/ttyUSB2-AT port for AT commands
4) /dev/ttyUSB3-Modem port for ppp-dial
5) /dev/ttyUSB4-audio port
6) /dev/ttyUSB5-Virtual Net card

Figure as below following: