全球领先的物联网终端及无线数据方案提供商

MeiG Linux PPP Dial-up Guide

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1. Introduction

This document briefly introduces the PPP (point to point protocol) function of MeiG's standard module.

It includes the PPP installation process, the PPP connection process, and a PPP dial-up example.

2. Product Support

2.1 Supported Products

product	Support
SML630	Yes
SML730	Yes
SML750	Yes

2.2 Support functions

Support functions	Support
Data Services	Yes
Language Business	Yes
SMS service	Yes

3. Application Mode

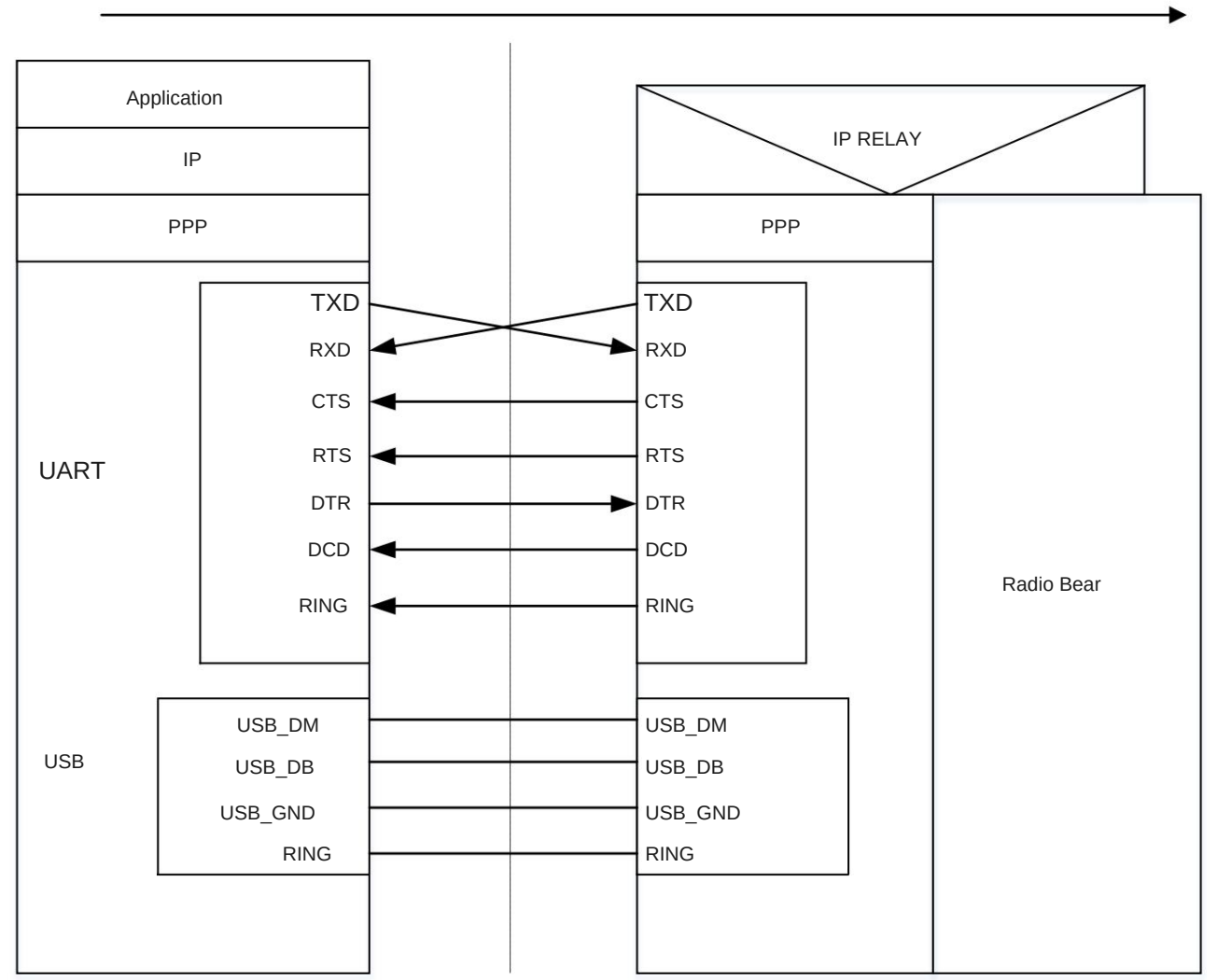


Figure 1 PPP application model

The above describes the application mode of PPP. For PPP connection, you can use the URAT interface or the USB interface.

The module side provides PPP Server function, the application side provides PPP client function, and the application side also needs to provide TCP/IP,

Http protocol, etc. When the PPP connection is established, the IP data packets on the application side can be forwarded to the network through the module.

4. PPP connection establishment process

This section gives the recommended process for establishing a PPP connection for the MeiG module. If you need to develop a PPP application,

Please read this section before posting.

4.1 Establishing a PPP Connection

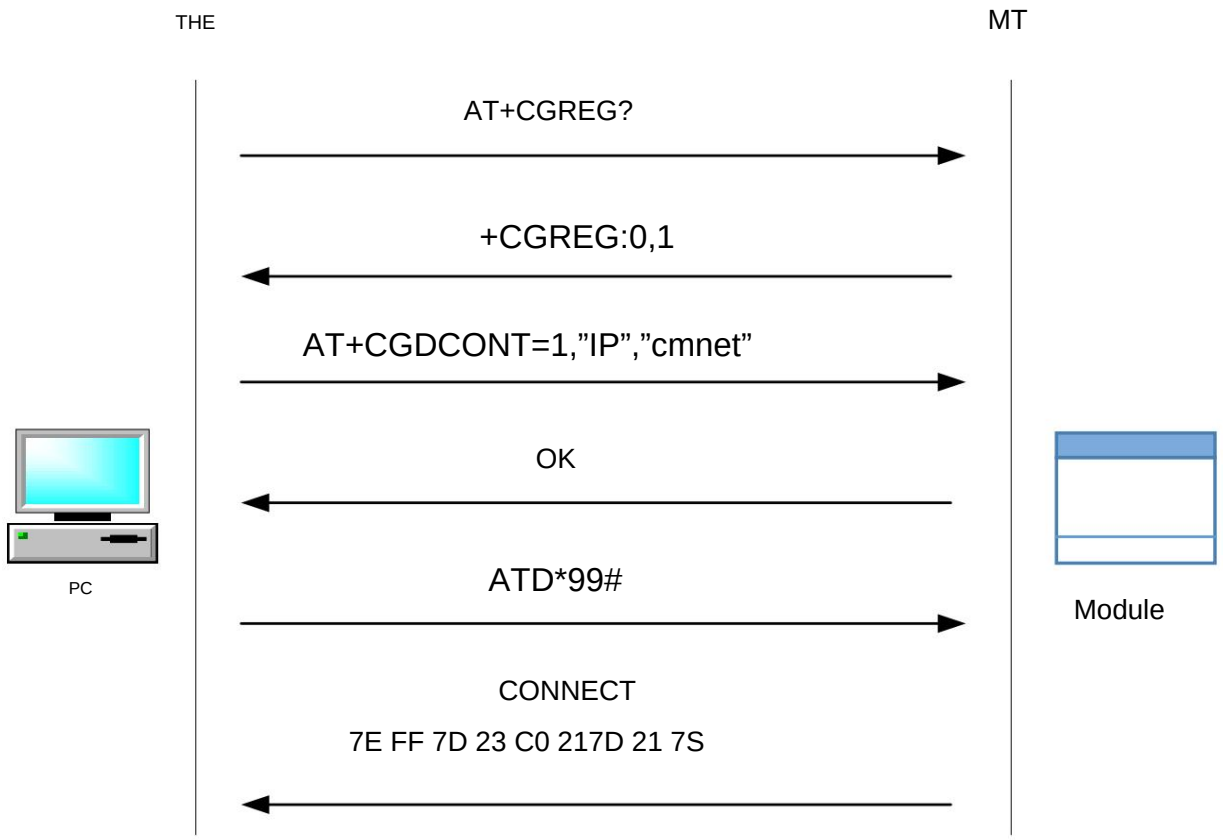


Figure 2 General process of establishing a PPP connection

After the module is registered to the GPRS network, configure the apn through AT+CGDCONT and use ATD*99# for PPP Link is established. When ATD*99# is executed, the module enters the PPP data packet interaction process.

The packet exchange process is based on the standard Point to Point Protocol. More information about Point to Point Protocol can be found in

For more information, please refer to RFC 1661.

5. PPP related configuration and dial-up

5.1 PPP Configuration

The Linux kernel needs to be configured to support PPP. Follow the steps below to configure the PPP options.

first step:

cd <kernel directory>

Step 2:

make menuconfig

Step 3:

Device Drivers --->

[*] Network device support --->

<*> PPP (point-to-point protocol) support

[*] PPP filtering

[*] PPP multilink support

<*> PPP support for async serial ports

<*> PPP support for sync tty ports

<*> PPP Deflate compression

5.2 USB-MODERM Configuration

The Linux kernel needs to be configured to support USB-modem functionality. Follow the steps below to configure the usb-moderm option:

first step:

cd <kernel directory>

Step 2:

make menuconfig

Step 3:

Device Drivers --->

[*] USB support --->

<*> USB Serial Converter support --->

[*] USB Generic Serial Driver

<*> USB drivers for GSM and CDMA modems

<*> USB Quatech Serial Driver for USB 2 devices

5.3 Adding devices to the LINUX kernel

Modify the drivers/usb/serial/option.c file and add the MeiG device's PID=0x9025, VID=0x0c56. Or

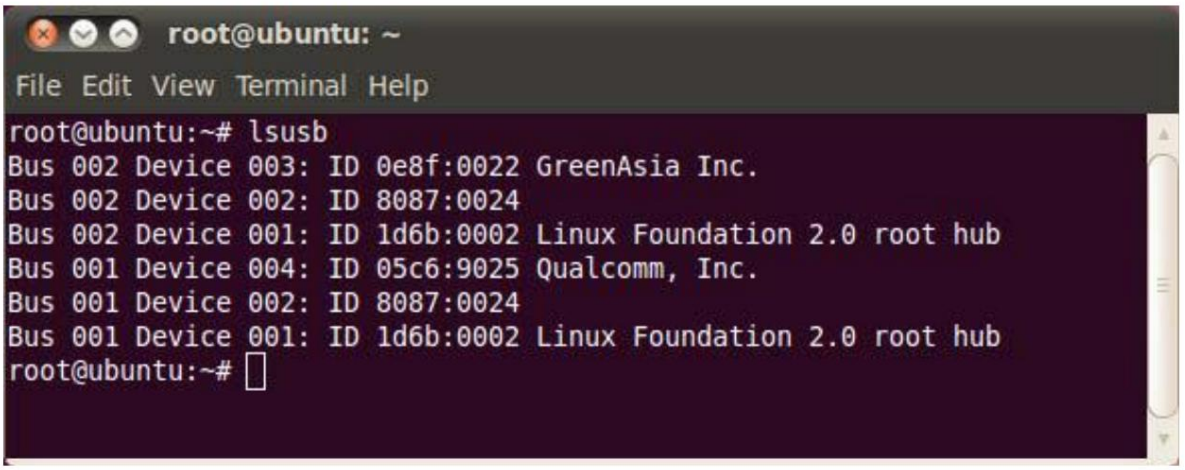
Person

PID=0xf601ÿVID=0x0c56

5.4 Module loading check

ÿ Turn on the host computer, power on the module, and check the device status through the following command:

root@ubuntu:~# lsusb

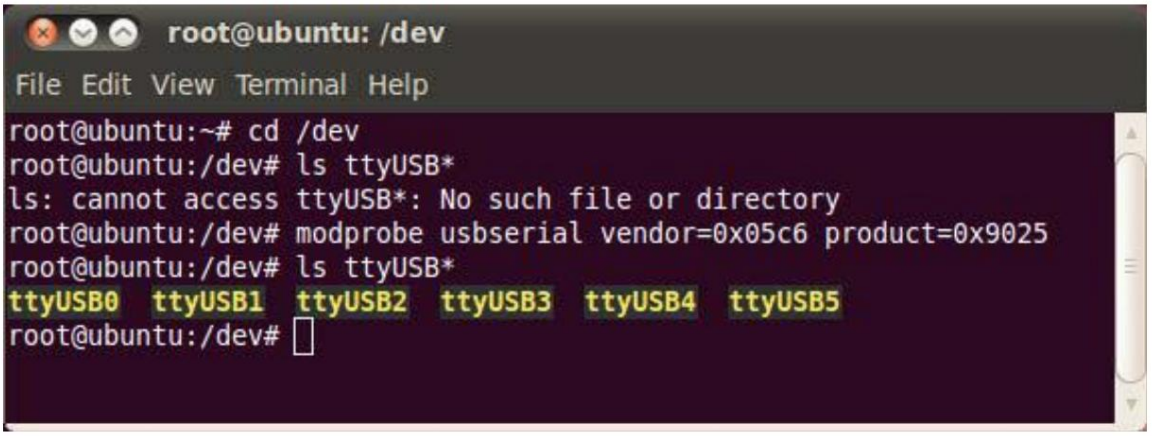


Possible returns depend on the status of the client's USB device: Note that the red font below is the MeiG module:

ID 05c6:9025 Qualcomm, Inc. or ID 05c6:non-01 Qualcomm, Inc.

ÿ Use the following command to query the USB driver loading status:

root@ubuntu:/dev# ls ttyUSB*

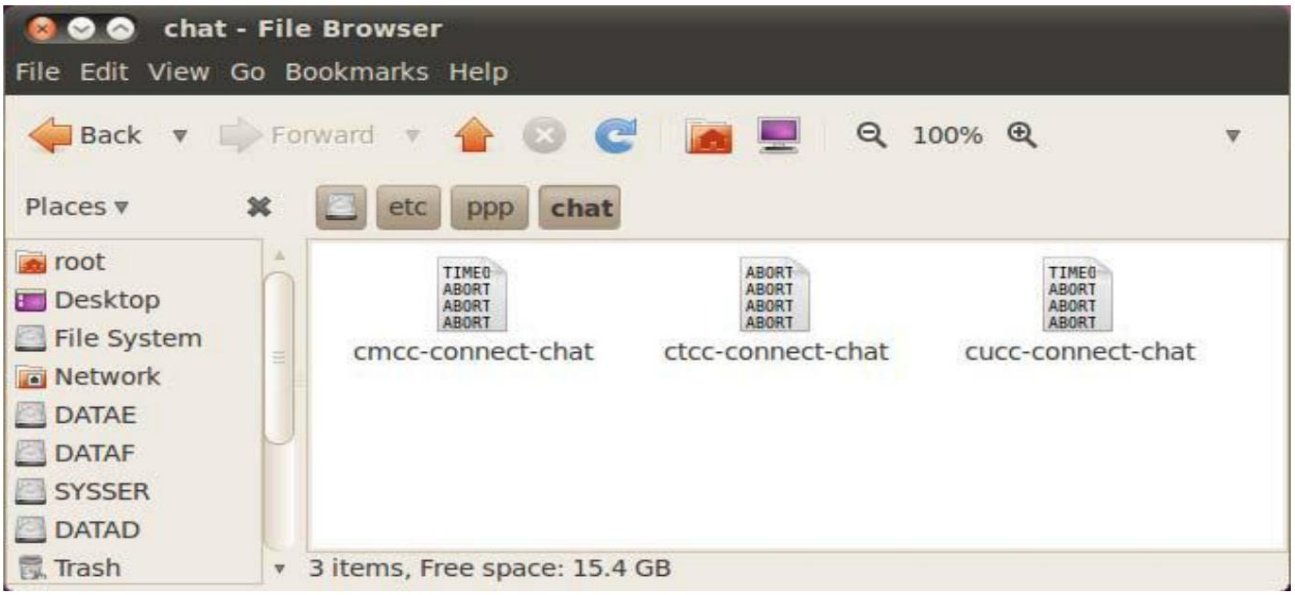


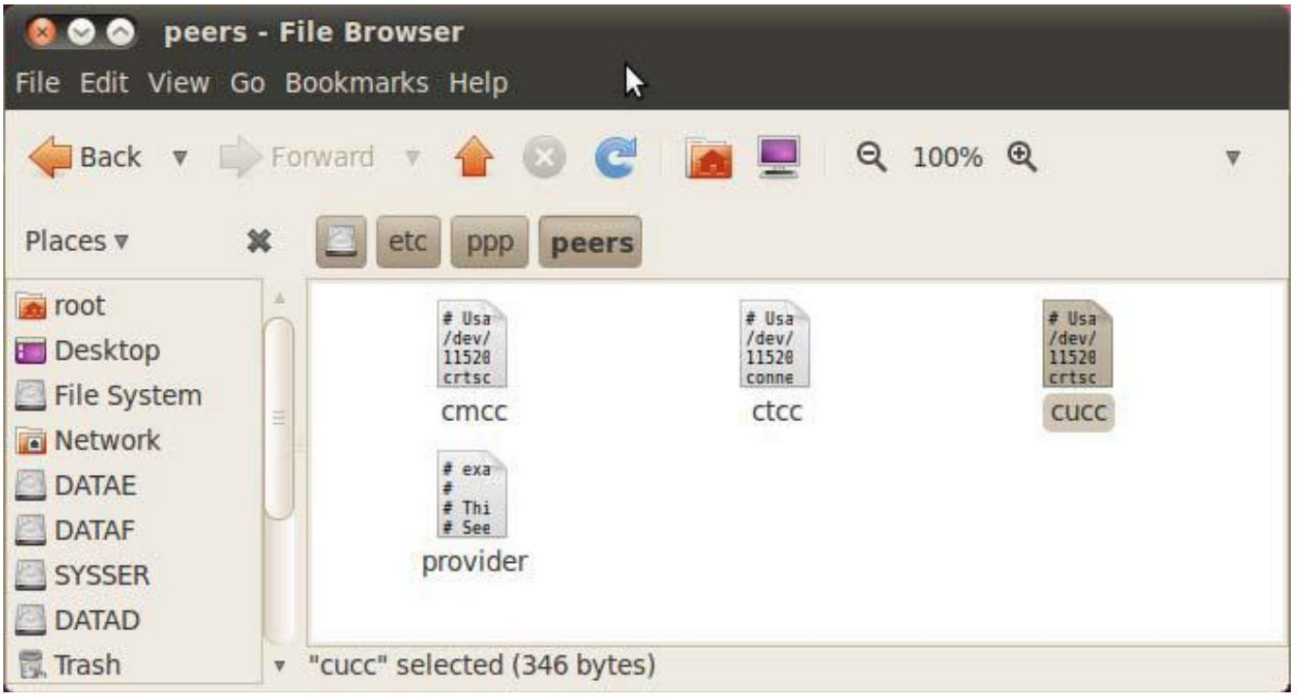
Return, there are 6 ttyUSB devices, ttyUSB1 is the MODEM port, ttyUSB2 is the AT port,

Customers do not need to pay attention to the remaining ports at present.

5.5 PPP dial-up script

ÿ Copy the contents of the attached PPP directory into the etc\ppp directory of the Linux system





ÿ PPP dial-up command

Command: pppd call cmcc

Note: Take China Mobile's SIM card as an example:

ÿ Verify dialing success

1) Check if the ppp0 device is assigned an IP address through ifconfig

2) Command: root@ubuntu:~ ping www.baidu.com

3) Access the network through a browser

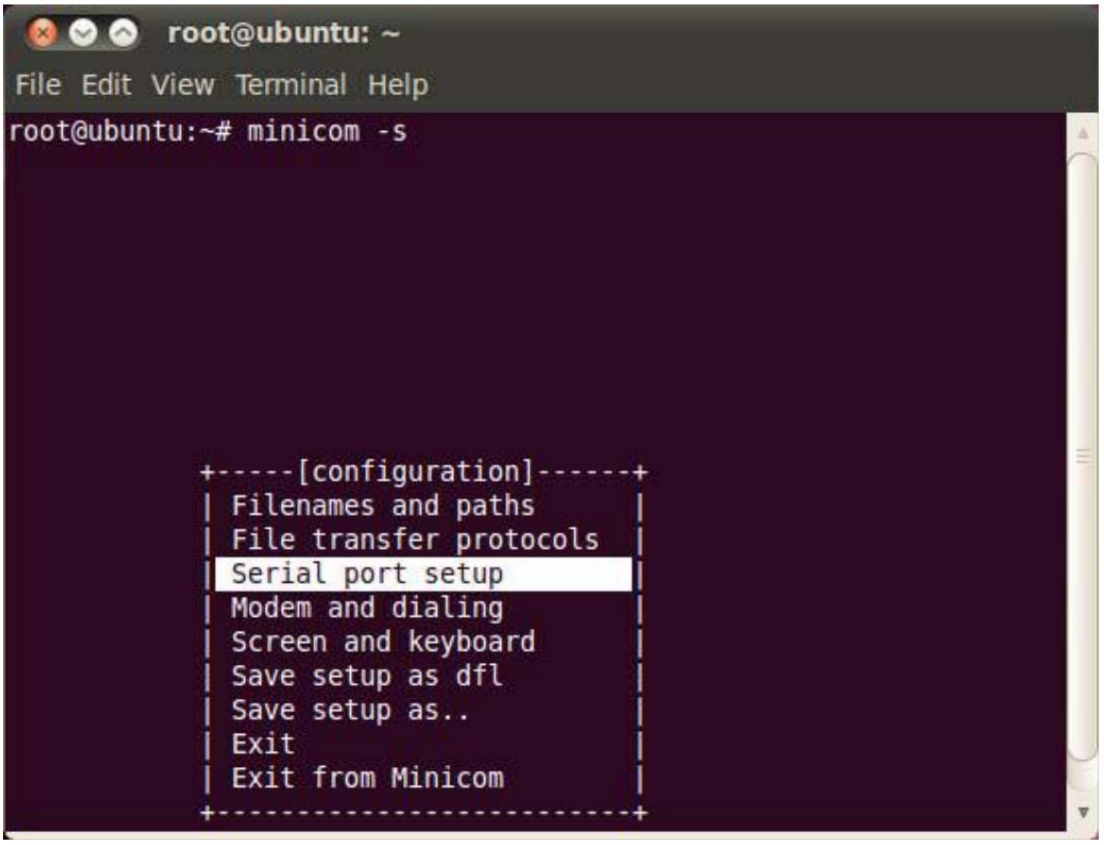
ÿ Hang up the PPP connection

Command: root@ubuntu:~ killall pppd

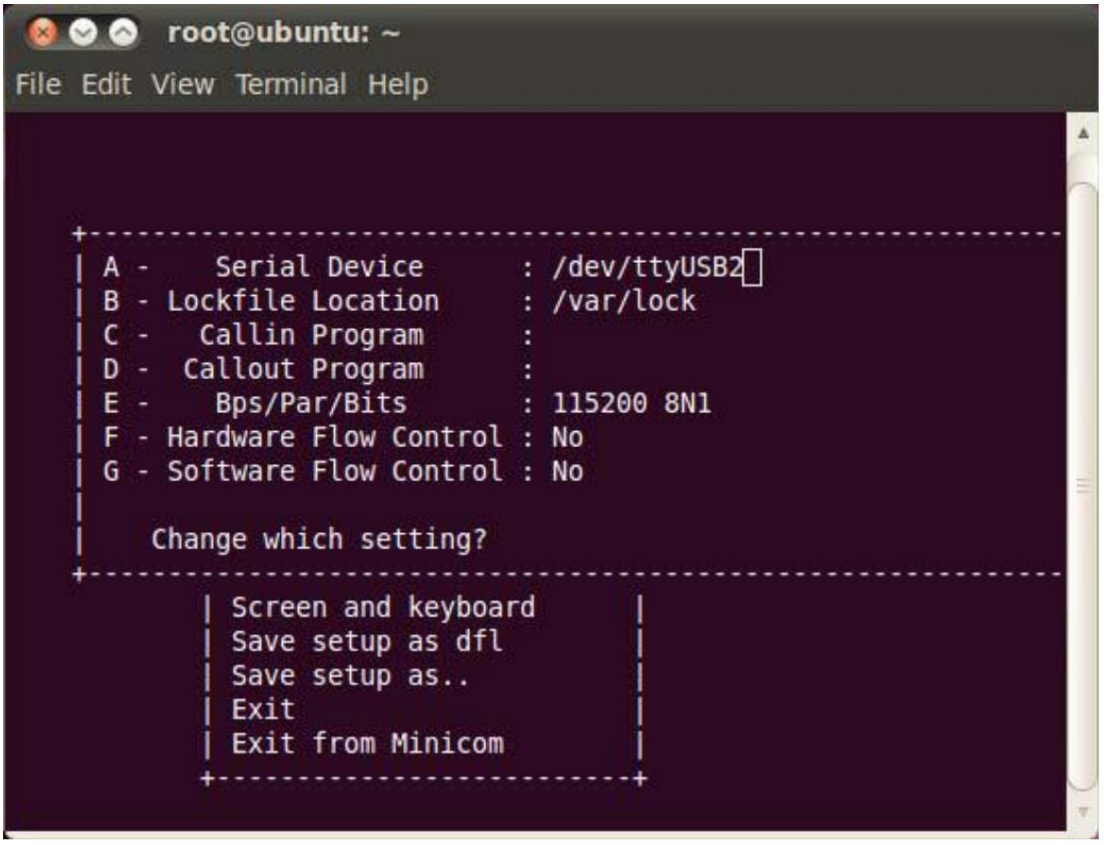
6. Serial port debugging **AT** commands under LINUX

Configure the serial port through the following command:

Command: root@ubuntu:~#minicom –s

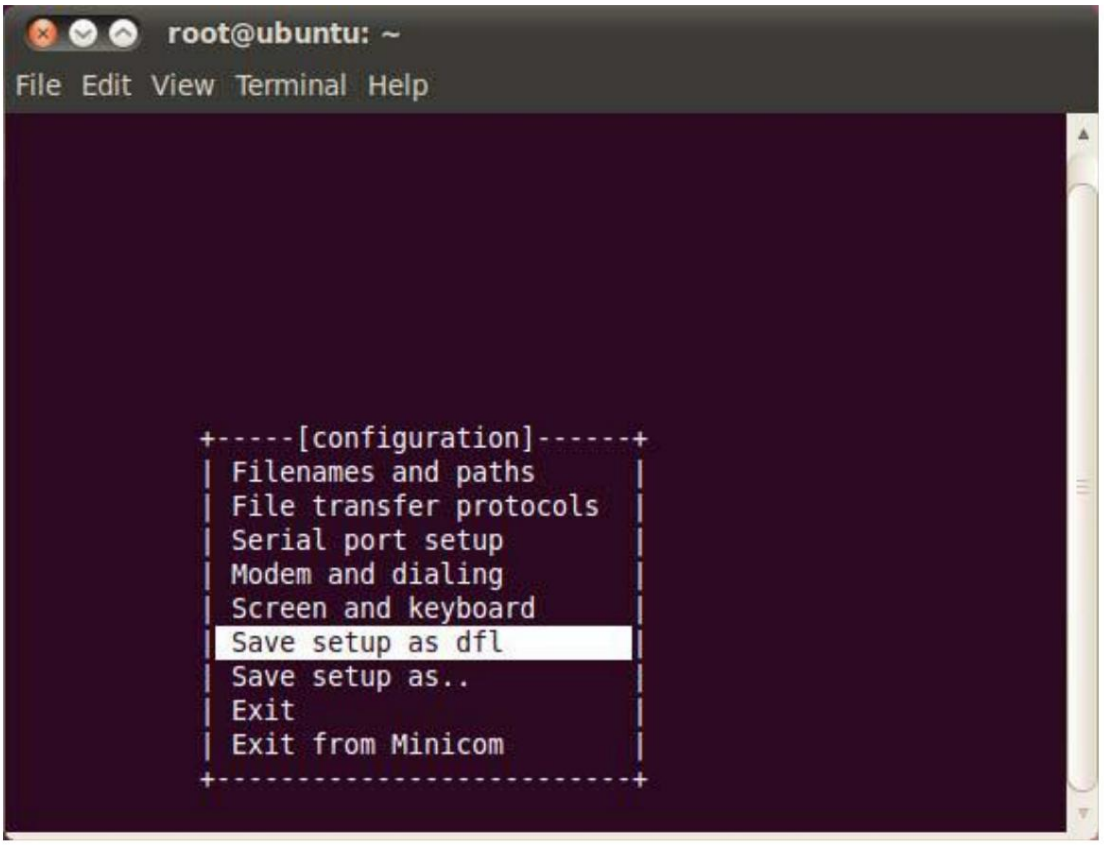


Select Serial port setup

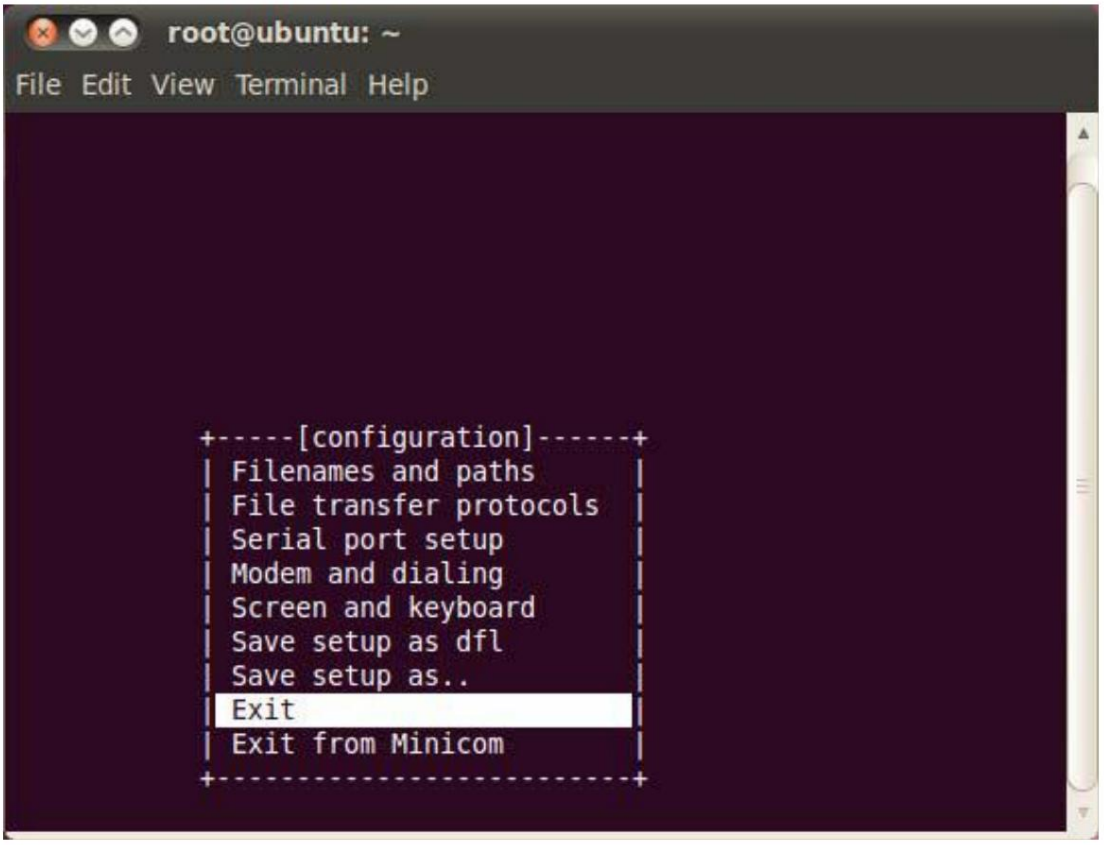


Serial Device /dev/ttyUSB2 ——This is the AT port

After the modification is completed, save it.



Exitÿ



Now you can start AT debugging: