**How to Setup Network with AIW-342**

**on Ubuntu**

**Prerequisite**

* EPC-R7200 and setup Ubuntu 18.04 from nVidia BSP on it
* AIW-342 hardware revision “LE910C4-EU-H” M.2 Card
* GNSS active anttena
* Tarball file aiw-342-xxx-peer-config.tar.bz2 and gpsd-3.23.1.tar.gz

**Network Test**

* Stop modem manager

# sudo service ModemManager stop

* Copy configuration file

decompress the tarball “aiw-342-xxx-peer-config.tar.bz2”

# tar jxvf “aiw-342-xxx-peer-config.tar.bz2”

Copy all files to /etc/ppp/peers

# sudo cp aiw-342-xxx-peer-config/\* /etc/ppp/peers/

* Open the file “aiw-342-chat” and modify the APN

# sudo vi /etc/ppp/peers/aiw-342-chat

To fill the string of your APN in the below orange rectangle.



* Load option driver to enable serial port

Change to root permission by command “su -“

# sudo su -

# modprobe option

# echo "0x1bc7 0x1252" > /sys/bus/usb-serial/drivers/option1/new\_id

# exit

* Dial out

# sudo pppd call aiw-342 &





* Check network connection

# ping -c 3 -I ppp0 8.8.8.8



**GNSS Test**

1. Remove gpsd on system

To stop/disable gpsd as default by below commands

# sudo systemctl stop gpsd

# sudo systemctl disable gpsd

# sudo systemctl stop gpsd.socket

Remove gpsd

# sudo apt-get update

# sudo apt-get remove gpsd

# sudo apt-get remove gpsd-clients

1. Install gpsd with version 3.23.1

Prepare some library and gpsd package.

# sudo apt install -y scons libncurses-dev python-dev pps-tools git-core asciidoctor python3-matplotlib build-essential manpages-dev pkg-config python3-distutils

# tar -xzf gpsd-3.23.1.tar.gz

To build gpsd

# cd gpsd-3.23.1

# sudo scons

# sudo scons install

1. Load option driver to enable serial port

Change to root permission by command “su -“

# sudo su -

# modprobe option

# echo "0x1bc7 0x1252" > /sys/bus/usb-serial/drivers/option1/new\_id

# exit

1. Steps to test with GNSS
* Start to run minicom and select the “Serial port setup”

# sudo minicom -s



* Please set serial port to /dev/ttyUSB3 and setting as below screenshot.



* Exit the setting and get into minicom console.



* Setting with GNSS in minicom
	+ Set to support active antenna



* + Set to GNSS\_ALL (gps+glonass+galileo+beidou)



* + Set unsolicited NMEA Data Configuration

For GPS、Galileo and Beidou

AT$GPSNMUN=1,0,0,1,1,1,0

AT$GPSNMUNEX=1,1,0,1,1,1

For GLONASS

AT$GPSNMUN=1,0,0,1,1,1,0

AT$GPSNMUNEX=1,1,1,0,0,0

* + Start GNSS positioning session



* Begin to run gpsd

 # sudo gpsd -n /dev/ttyUSB2

 gpsd is running in debug mode if needed.

 # sudo gpsd -D 5 -N -n /dev/ttyUSB2

* Get longitude and latitude

# cgps

