**How to Setup Network with AIW-357**

**on Ubuntu**

**Prerequisite**

* PC and setup Ubuntu 20.04.3 LTS, 5.13.0-1008-intel on it

Please refer to the below picture for checking the jumper setting of M2\_SEL1 pin1-2 to NC to support USB interface on ARK-1250.



* Tarball file “aiw-357-mbim-set-ip.tar.bz2”

**Network Test**

* Stop modem manager

# sudo service ModemManager stop

* Prepare for MBIM
	+ Install MBIM utility

# sudo apt-get install libmbim-utils

* + decompress the tarball aiw-357-mbim-set-ip.tar.bz2” and you will see the script “mbim-set-ip”

# tar jxvf “aiw-357-mbim-set-ip.tar.bz2”

* + Create the mbim configuration and copy it to /etc directory

# vi /etc/mbim-network.conf

Please fill your APN in the below orange rectangle



* Check SIM card information

# sudo mbimcli -d /dev/ttyCMBIM0 -p --query-connection-state



* Turn radio on

# sudo mbimcli -d /dev/ttyCMBIM0 -p --set-radio-state=on

Note that please wait for 1-2 minutes to let module attaching to base station after running this command.



* Start network connection

# sudo mbim-network /dev/ttyCMBIM0 start



* Start network information with connection

# sudo ./mbim-set-ip /dev/ttyCMBIM0 ccmni0

 

* Ping test

# ping -c 3 -I ccmni0 8.8.8.8



**GNSS Test**

1. Load driver to initialize COM ports with AIW-357

# sudo modprobe option

# sudo su -s

 # echo “0e8d 7129" > /sys/bus/usb-serial/drivers/generic/new\_id

# exit

# ls /dev/ttyUSB\*



1. Reboot AIW-357 module by AT command
	* Start to run minicom and select the “Serial port setup”

# sudo minicom –s



* + Please set serial setting as below screenshot.



* + Reboot module by AT command “AT+CFUN=15”

# AT+CFUN=15



1. Test with GNSS

Please use the passive antenna with GNSS.

* Start to run minicom and select the “Serial port setup”

# sudo minicom –s



* Please set serial setting as below screenshot.



* Exit the setting and get into minicom console.



* Start to run GNSS by Linux command as follow

# sudo sh -c "echo -n \"AT+ELCSSTART\r\n\" > /dev/ttyUSB1"

# sudo bash -c "echo -n -e '\x41\x54\x2b\x45\x4c\x43\x53\x53\x54\x41\x52\x54\x0d\x0a' > /dev/ttyUSB1"

* + Follow the below Linux command, you will see the longitude and latitude from module if start to run GNSS successful

# sudo cat /dev/ttyUSB1



* Stop GNSS by Linux command as follow

# sudo sh -c "echo -n \"AT+ELCSSTOP\r\n\" > /dev/ttyUSB1"

# sudo bash -c "echo -n -e '\x41\x54\x2b\x45\x4c\x43\x53\x53\x54\x4f\x50\x0d\x0a' > /dev/ttyUSB1"