**How to enable Wi-Fi/ Bluetooth with**

**EWM-W177M201E**

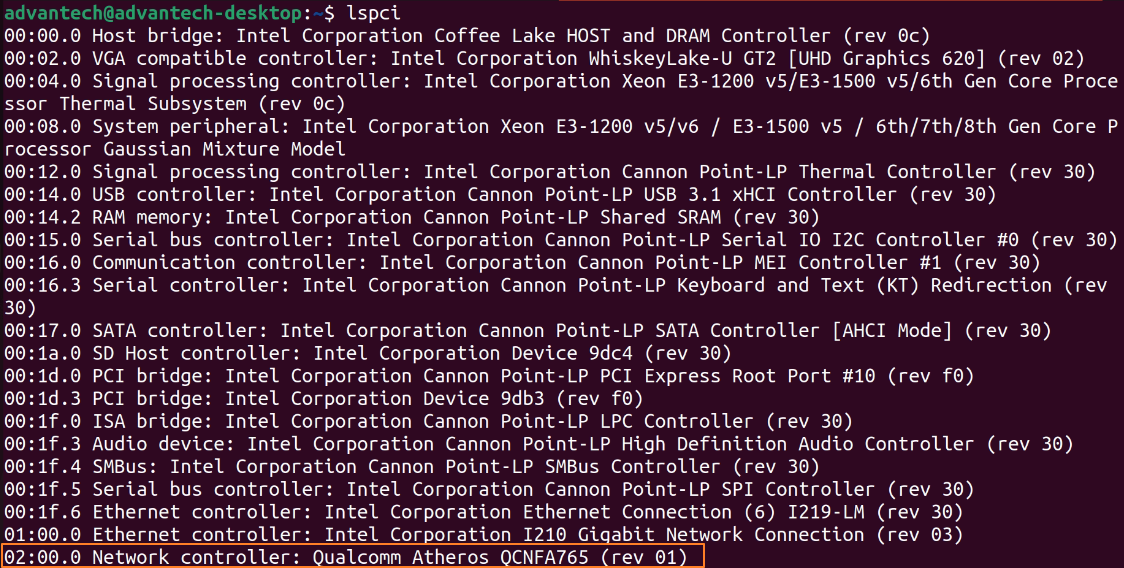
**Prerequisite**

* MIO-5373 with Ubuntu Desktop 22.04.2 LTS Linux 5.17.15 installed.

**Check Hardware Status**

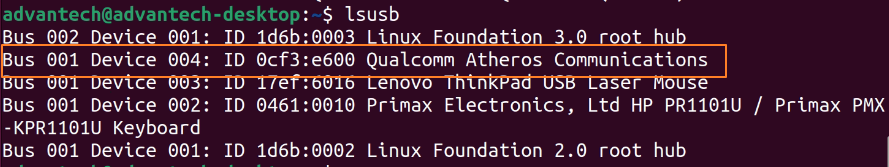
* Check the presence of Wi-Fi hardware

# lspci



* Check the presence of Bluetooth hardware

# lsusb

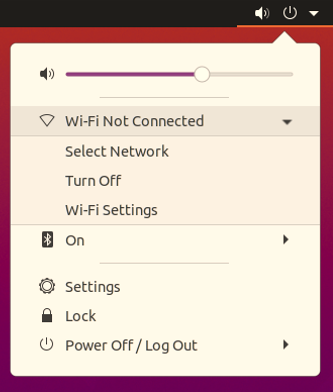


**Test**

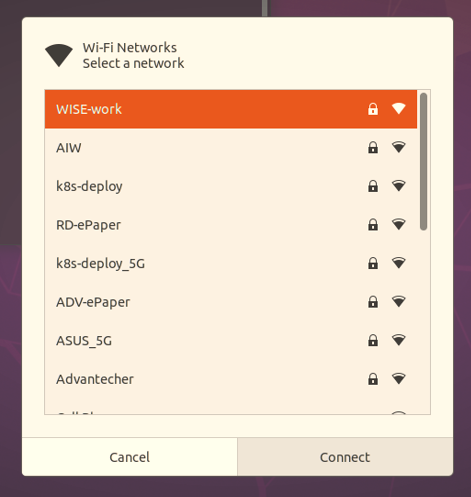
After boot up, please login user account on Ubuntu, and refer following instructions to test module.

1. **Test by GUI**
   1. **Wi-Fi**

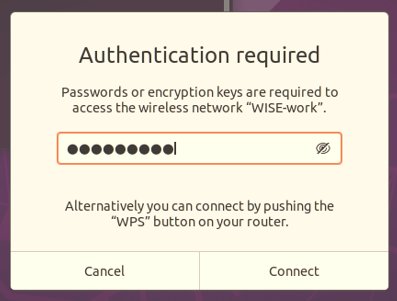
* Select the option Wi-Fi



* Select the SSID of AP



* Input your password of AP

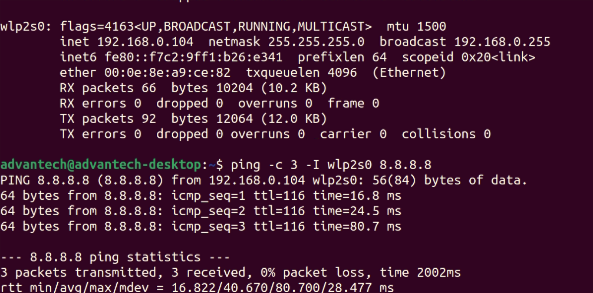


* Open the terminal to check interface and network connection
  + Check interface and you will see the interface as “wlp2sX”

# ifconfig

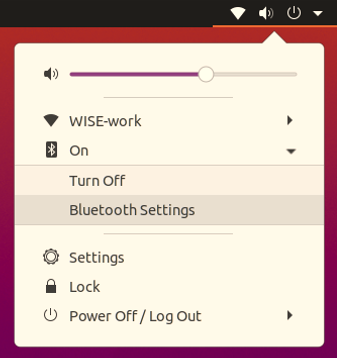
* + Check network connection after obtained IP address

# ping –c 3 8.8.8.8

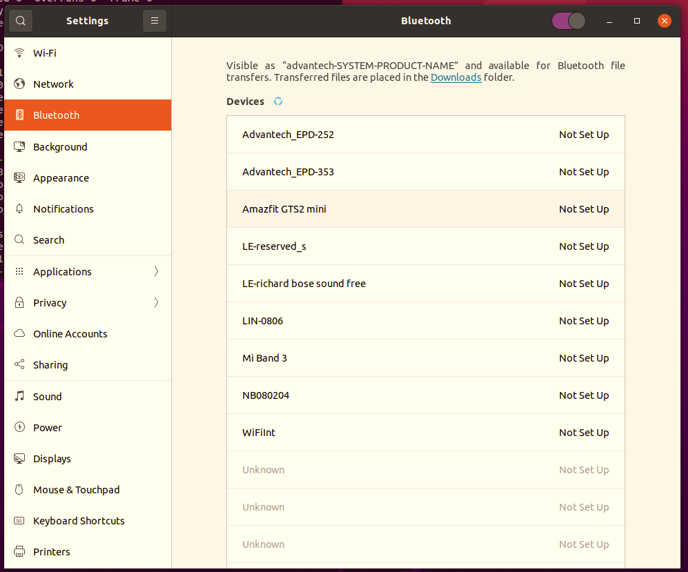


**1.2 Bluetooth**

* Select the option Bluetooth



* You will see the result in scanning as below list



1. **Test by command line**
   1. **Wi-Fi**

* Stop some services

# sudo systemctl stop wpa\_supplicant

# sudo systemctl stop NetworkManager

* Set Wi-Fi client configuration with /etc/wpa\_supplicant.conf

E.g. Follows is set with AP with SSID as “TEST” and pre-shared key as

“123456789” to connect to Wi-Fi 4 (802.11n) or Wi-Fi 5 (802.11ac) AP

ctrl\_interface=/var/run/wpa\_supplicant

ctrl\_interface\_group=0

update\_config=1

network={

ssid="TEST"

psk="123456789"

}

**Or, refer to follows to connect to Wi-Fi 6 AP**

ctrl\_interface=/var/run/wpa\_supplicant/

update\_config=1

pmf=1

sae\_pwe=1

network={

ssid="TEST"

proto=RSN

key\_mgmt=SAE

ieee80211w=2

group\_mgmt=AES-128-CMAC

psk="123456789"

}

* Enable Wi-Fi and check interface

# sudo rfkill unblock wifi

# sudo iwconfig

Note: you will see the interface like wlp2sX, e.g. wlp2s0

* Running wpa\_supplicant

# sudo wpa\_supplicant -s -B -i wlp2s0 -c /etc/wpa\_supplicant.conf

* Get IP address by DHCP and check network connection

# sudo dhclient wlp2s0

# ping -c 3 8.8.8.8

* 1. **Bluetooth**
* Enable Bluetooth

# sudo rfkill unblock bluetooth

* Check Bluetooth interface

# hciconfig -a

Note: you will see the interface like hciX, e.g. hci0

* Turn on/off scan

# sudo bluetoothctl scan on