

# BALI M.2 / EVIA M.2 USB CARD EVK

## 802.11 ac/a/b/g/n hosted Wi-Fi + BT 5.0 CARD EVK

- ❖ Unpack the Kit and make sure the following items are available.
    - 1 x Toradex Ixora board and power adapter
    - 1 x BALI/EVIA USB M.2 card
    - 1 x BALI M.2 EVB
    - 1 x USB to RS232 converter and DB9 Female Adapter
    - 2 x Micro USB cable
    - 1 x MHF4 flag antenna
  - ❖ Insert the M.2 USB card into the M.2 EVB. Connect the micro USB cable between the J7 (USB-WLAN) port of M.2 EVB and USB port of Ixora board
  - ❖ Connect the micro USB cable between the J8 (USB-BT) port of M.2 EVB and USB port of Ixora.
  - ❖ Mount Female DB9 adapter on X22 port of Ixora board and then Connect USB RS232 adapter between PC USB port and female DB9 adapter.
  - ❖ Check for the detected serial port on PC and open it using PuTTY.
- \*\*For more information see at the end of the document**
- ❖ Power the Ixora board by connecting power adaptor to X2
  - ❖ Press On/Off button SW1 on Ixora Carrier Board to power-up the board and check the LED1, it should be ON.
  - ❖ Power ON the Access Point with Known ESSID in open mode
  - ❖ After boot up, login with password "root", follow the below commands to connect to AP in **open mode**:

- \$ killall wpa\_supplicant
- \$ killall hostapd
- \$ iw dev
- \$ rfkill unblockall

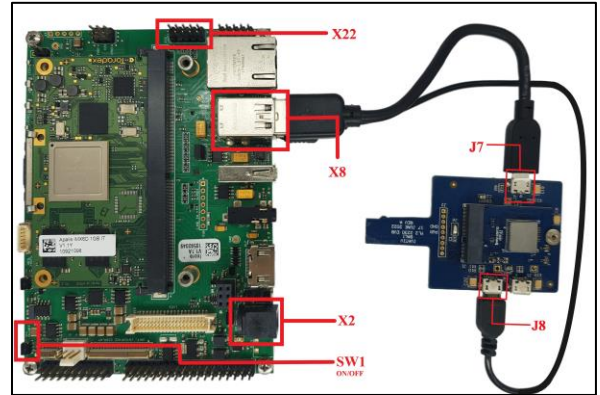
```

ivatv2@ivatv2-HP-EliteBook-8470p:~$ iw dev
phy#3
    Interface p2p0
        ifindex 9
        wdev 0x300000002
        addr 12:34:56:f8:91:01
        type managed
    Interface wlx50DE19896801
        ifindex 8
        wdev 0x300000001
        addr 10:34:56:78:91:01
        type managed
    
```

- \$ ifconfig <interface name> up
- \$ iw dev <interface name> scan
- \$ iw dev <interface name> connect <ESSID>
- \$ iw dev <interface name> link
- \$ udhcpc -i <interface name>
- \$ ping <AP\_IPv4\_Address>

❖ Follow the below commands to connect to BT peripheral

- NOTE:** EVIA doesn't support BT
- \$ hciconfig -a
  - \$ hciconfig -a hci0 up
  - \$ hciconfig -a hci0 piscan
  - \$ hcitool -i hci0 scan
  - \$ hcitool -i hci0 cc <<MAC address of BT peripheral>
  - \$ hcitool -i hci0 con



❖ Follow the below commands to connect to AP in **secure mode**:

- \$ killall wpa\_supplicant
  - \$ killall hostapd
  - \$ iw dev
  - \$ rfkill unblockall
- 
- ```

ivatv2@ivatv2-HP-EliteBook-8470p:~$ iw dev
phy#3
    Interface p2p0
        ifindex 9
        wdev 0x300000002
        addr 12:34:56:f8:91:01
        type managed
    Interface wlx50DE19896801
        ifindex 8
        wdev 0x300000001
        addr 10:34:56:78:91:01
        type managed
    
```
- \$ ifconfig wlan0 up
  - \$ iw dev wlan0 scan
  - \$ sudo vi /etc/wpa\_supplicant.conf
  - Edit and save the configuration file wpa\_supplicant.conf content as below

```

ctrl_interface=/var/run/wpa_supplicant
update_config=1
network={
ssid="replace with your network name" proto=RSN
#for WPA2-PSK
key_mgmt=WPA-PSK
auth_alg=OPEN
pairwise=CCMP
group=CCMP
psk="replace with your password"
}
    
```

- \$ wpa\_supplicant -D nl80211 -i wlan0 -c /etc/wpa\_supplicant.conf -B
- \$ iw dev <interface name> link
- \$ udhcpc -i <interface name>
- \$ ping <AP\_IPv4\_Address>

**\*\* Detecting Serial port**

- Run the below command to know detected serial port (highlighted with red box)
- \$ dmesg
- usb 1-1.6: pl2303 converter now attached to **ttyUSB0**
- Download PuTTY and open it, change the configurations as following

