

BALI/EVIA SDIO & BALI M.2/EVIA M.2 SDIO QSG with Embedded DVK

- ❖ Download the drivers from “Documents and software” tab in the below link
<https://ivativ.com/product/evia-sdio/>

- ❖ Unpack the Kit and make sure the following items are available.

- 1 x Toradex Ixora board and power adapter
- 1 x BALI/EVIA/BALI M.2/EVIA M.2 SDIO EVK
- 1 x USB to RS232 converter and DB9 Female Adapter
- 1 x Micro USB cable
- 1 x MHF4 flag antenna

- ❖ Insert the BALI SDIO EVK in X10 (micro SD card) slot of Ixora board. Connect micro USB cable between the BALI EVK J22 (BT-USB) port and any 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 page**

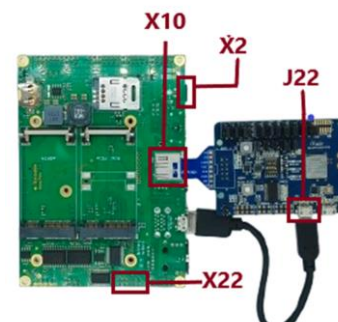
- ❖ Power the Ixora board by connecting power adaptor to X2
- ❖ Press On/Off button SW1 on Ixora Carrier Board to power-up the board and check the LED1, it should be ON.
- ❖ Power ON the Access Point with Known ESSID in open mode
- ❖ After boot up, login with password “root”, follow the below commands to connect to AP in **open mode**:

- \$ killall wpa_supplicant
- \$ killall hostapd
- \$ iw dev
- \$ rfkill unblockall
- \$ ifconfig wlan0 up
- \$ iw dev wlan0 scan
- \$ iw dev wlan0 connect <ESSID>
- \$ iw dev wlan0 link
- \$ udhpc -i wlan0
- \$ 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 -l hci0 cc <MAC address of BT peripheral>
- \$ hcitool -i hci0 con



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

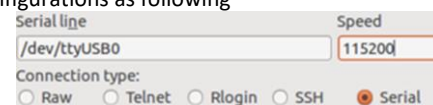
- \$ killall wpa_supplicant
- \$ killall hostapd
- \$ iw dev
- \$ rfkill unblockall
- \$ ifconfig wlan0 up
- \$ iw dev wlan0 scan
- \$ vi /etc/wpa_supplicant.conf
- Edit and save the configuration file
 wpa_supplicant.conf content as below

```
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 network password"
}
```

- \$ wpa_supplicant -D nl80211 -i wlan0 -c /etc/wpa_supplicant.conf -B
- \$ iw dev wlan0 link
- \$ udhpc -i wlan0
- \$ 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



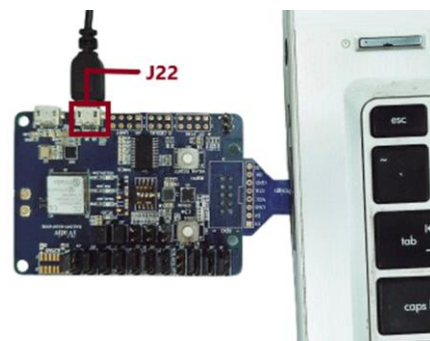
BALI/EVIA SDIO & BALI M.2/EVIA M.2 SDIO QSG with x86

802.11 ac/a/b/g/n Wi-Fi + BT 5.0

- ❖ Download the drivers from “Documents and software” tab in the below link
<https://ivativ.com/product/evia-sdio/>
- ❖ Unpack the Kit and make sure the following items are available.
 - 1 x BALI/EVIA/BALI M.2/EVIA M.2 SDIO EVK
- ❖ Boot up the Laptop/PC with the required kernel version.
- ❖ Insert the BALI SDIO EVK in SD card slot of Laptop. Connect micro USB cable between the BALI EVK J22 (BT-USB) port and any USB port of Laptop.
- ❖ Power ON the Access Point with Known ESSID in open mode
- ❖ Follow the below commands to connect to AP in **open mode**:
 - \$ sudo killall wpa_supplicant
 - \$ sudo killall hostapd
 - \$ iw dev
 - \$ sudo rfkill unblockall
 - \$ sudo ifconfig wlan0 up
 - \$ iw dev wlan0 scan
 - \$ iw dev wlan0 connect <ESSID>
 - \$ iw dev wlan0 link
 - \$ sudo dhclient wlan0 -r
 - \$ sudo dhclient wlan0 -v
 - \$ 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**:
 - \$ sudo killall wpa_supplicant
 - \$ sudo killall hostapd
 - \$ iw dev
 - \$ sudo rfkill unblockall
 - \$ sudo ifconfig wlan0 up
 - \$ iw dev wlan0 scan
 - \$ 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 network password"
}
```

- \$ sudo wpa_supplicant -D nl80211 -i wlan0 -c /etc/wpa_supplicant.conf -B
- \$ iw dev <interface name> link
- \$ sudo dhclient wlan0 -r
- \$ sudo dhclient wlan0 -v
- \$ ping <AP_IPv4_Address>