

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

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-usb/>
- ❖ 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 USB EVK
 - 1 x USB to RS232 converter and DB9 Female Adapter
 - 2 x Micro USB cable
 - 1 x MHF4 flag antenna
- ❖ Connect the micro USB cables between the BALI EVK J26 (WLAN-USB) port and USB port of Ixora board. Connect the micro USB cables between BALI EVK J22 (BT-USB) port 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 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**:

- o \$ killall wpa_supplicant
- o \$ killall hostapd
- o \$ iw dev

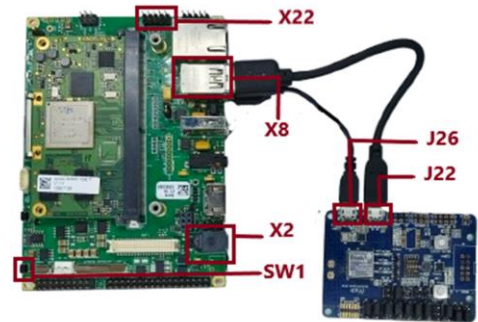
```
lvativ2@lvativ2-HP-EliteBook-8470p:~$ iw dev phy#3
Interface p2p0
    ifindex 9
    wdev 0x300000002
    addr 12:34:56:78:91:01
    type managed
Interface wlx50DE19896801
    ifindex 8
    wdev 0x300000001
    addr 10:34:56:78:91:01
    type managed
```

- o \$ rfkill unblockall
- o \$ ifconfig <interface name> up
- o \$ iw dev <interface name> scan
- o \$ iw dev <interface name> connect <ESSID>
- o \$ iw dev <interface name> link
- o \$ udhccp -i <interface name>
- o \$ ping <AP_IPv4_Address>

- ❖ Follow the below commands to connect to BT peripheral

NOTE: EVIA doesn't support BT

- o \$ hciconfig -a
- o \$ hciconfig -a hci0 up
- o \$ hciconfig -a hci0 piscan
- o \$ hcitool -i hci0 scan
- o \$ hcitool -i hci0 cc <MAC address of BT peripheral>
- o \$ hcitool -i hci0 con



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

- o \$ killall wpa_supplicant
- o \$ killall hostapd
- o \$ iw dev

```
lvativ2@lvativ2-HP-EliteBook-8470p:~$ iw dev phy#3
Interface p2p0
    ifindex 9
    wdev 0x300000002
    addr 12:34:56:78:91:01
    type managed
Interface wlx50DE19896801
    ifindex 8
    wdev 0x300000001
    addr 10:34:56:78:91:01
    type managed
```

- o \$ rfkill unblockall
- o \$ ifconfig <interface name> up
- o \$ iw dev <interface name> scan
- o \$ vi /etc/wpa_supplicant.conf
- o Edit and save the configuration file

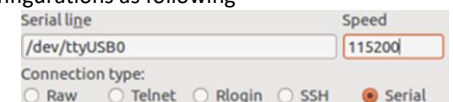
wpa_supplicant.conf content as below

```
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"
}
```

- o \$ wpa_supplicant -D nl80211 -i <interface name> -c /etc/wpa_supplicant.conf -B
- o \$ iw dev <interface name> link
- o \$ udhccp -i <interface name>
- o \$ ping <AP_IPv4_Address>

** Detecting Serial port

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



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

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- ❖ Download the drivers from “Documents and software” tab in the below link
<https://ivativ.com/product/evia-usb/>
- ❖ Unpack the Kit and make sure the following items are available.
 - 1 x BALI/EVIA/BALI M.2/EVIA M.2 USB EVK
- ❖ Boot up the Laptop/PC with the required kernel version.
- ❖ Connect the micro USB cables between the BALI EVK J26 (WLAN-USB) port and USB port of Laptop/PC. Connect the micro USB cables between BALI EVK J22 (BT-USB) port and USB port of Laptop/PC.
- ❖ Power ON the Access Point with Known ESSID in open mode
- ❖ Follow the below commands to connect to AP in **open mode**:

```

ivativ2@ivativ2-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
  
```

Interface name

- o \$ sudo killall wpa_supplicant
- o \$ sudo killall hostapd
- o \$ iw dev

- ❖ Follow the below commands to connect to BT peripheral

NOTE: EVIA doesn't support BT

- o \$ hciconfig -a
- o \$ hciconfig -a hci0 up
- o \$ hciconfig -a hci0 piscan
- o \$ hcitool -i hci0 scan
- o \$ hcitool -i hci0 cc <MAC address of BT peripheral>
- o \$ hcitool -i hci0 con



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

```

$ sudo killall wpa_supplicant
$ sudo killall hostapd
$ iw dev
ivativ2@ivativ2-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
  
```

Interface name

- o \$ sudo rfkill unblockall
- o \$ sudo ifconfig <interface name> up
- o \$ iw dev <interface name> scan
- o \$ vi /etc/wpa_supplicant.conf
- o 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"
}
```
- o \$ sudo wpa_supplicant -D nl80211 -i <interface name> -c /etc/wpa_supplicant.conf -B
- o \$ iw dev <interface name> link
- o \$ sudo dhclient <interface name> -r
- o \$ sudo dhclient <interface name> -v
- o \$ ping <AP_IPv4_Address>