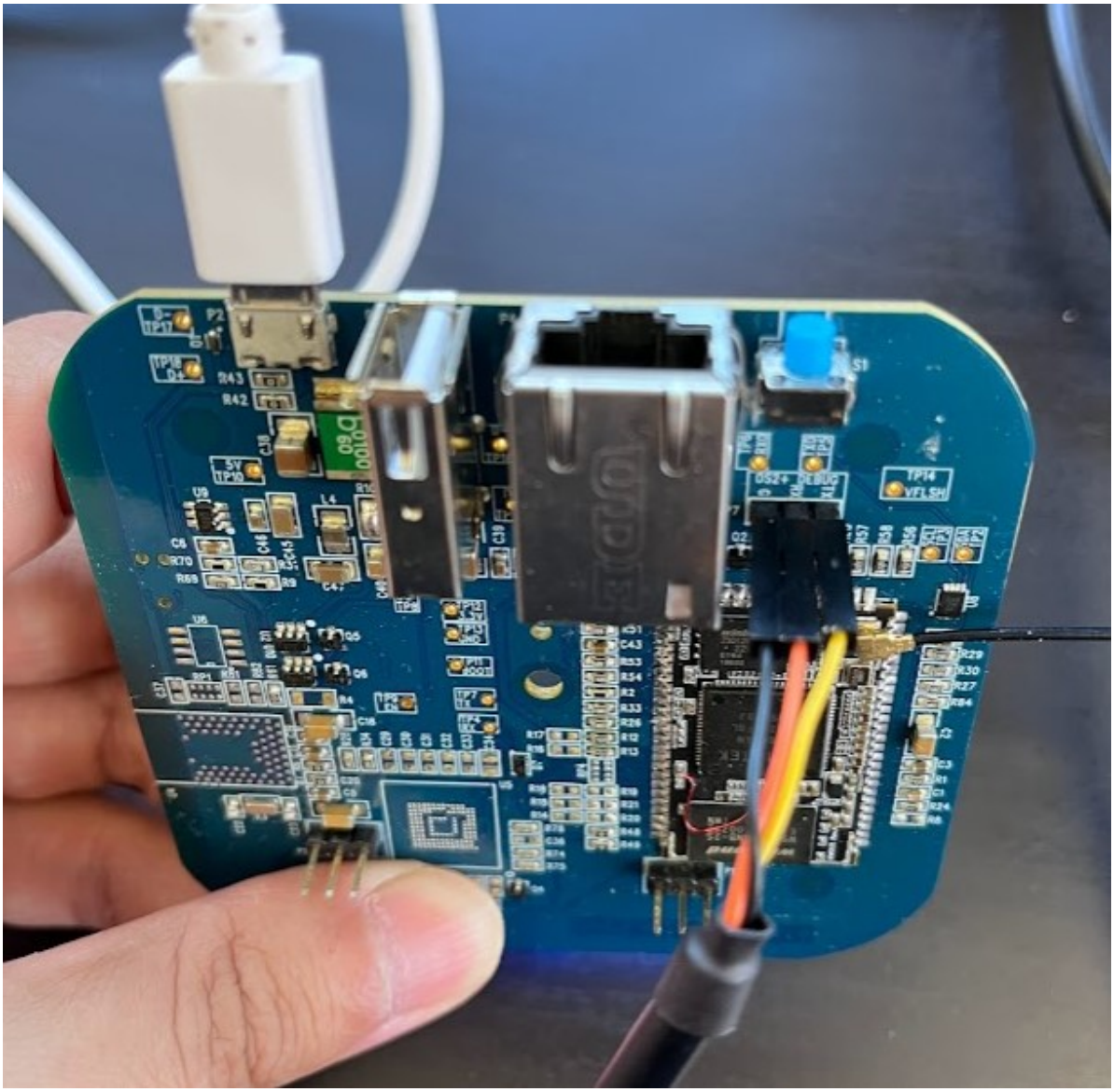
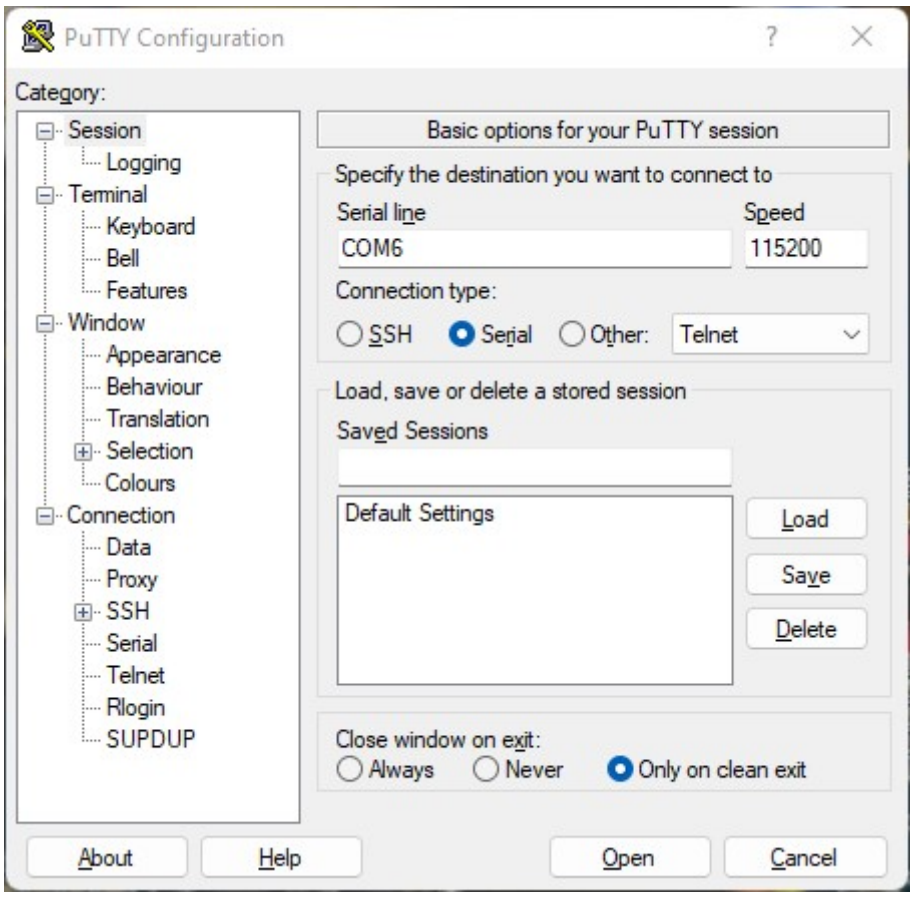
Connect UART to computer

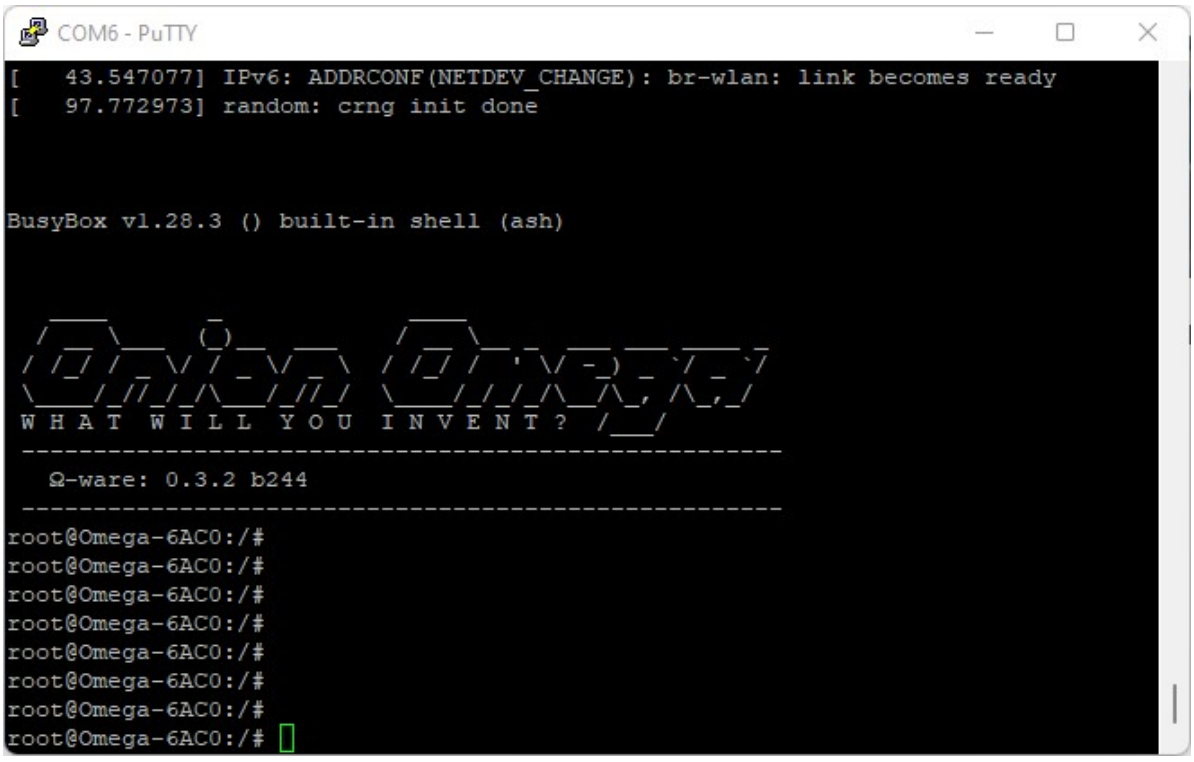
```
UART:
    Black: GND
    Orage: Rx
    Yellow: Tx
```



Launch a terminal on PC, baud rate 115200



Power up a SmartBridge board, press 'ENTER' to see command prompt '#'

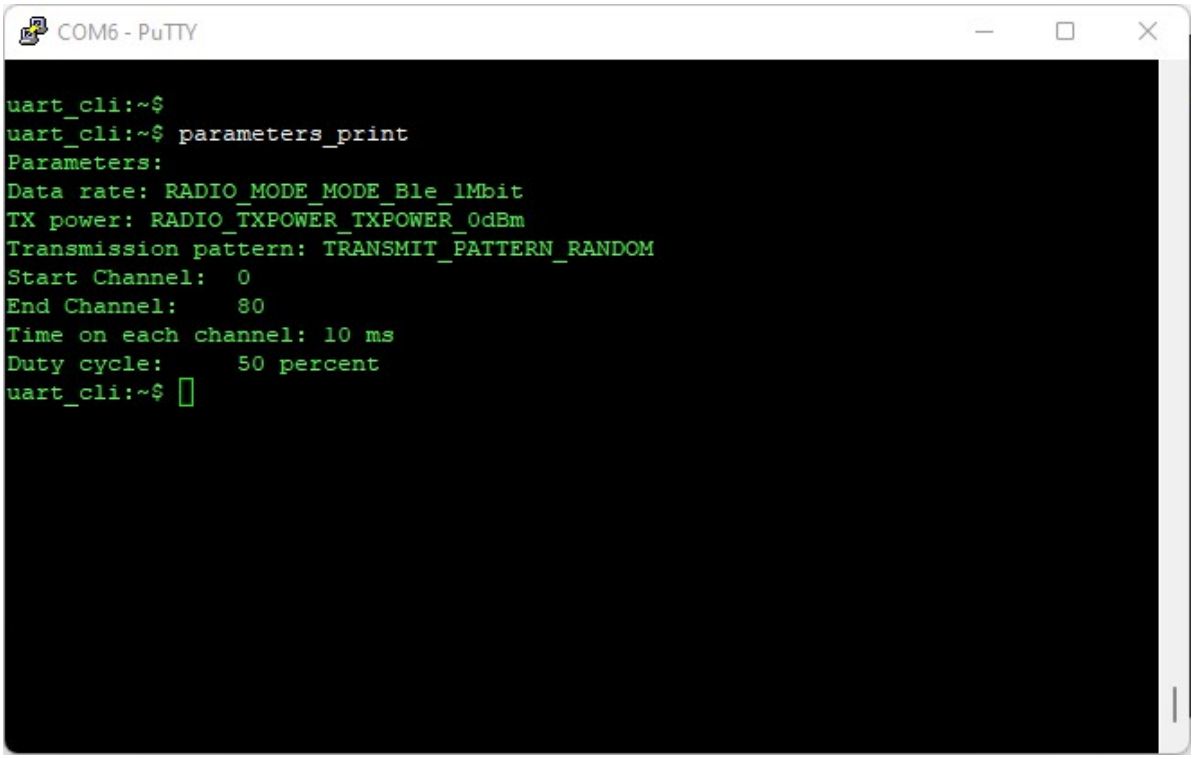


Screen UART by typing in command, and press 'ENTER' twice:

```
screen /dev/ttyS1 115200
```

Print the current settings:

```
parameters_print
```



Set output power:

```
output_power pos4dBm
```

Note: Available power setting are below in nrf52840_bitfields.h:

```
#define RADIO_TXPOWER_TXPOWER_Pos (0UL) /*!< Position of TXPOWER field. */
```

```
#define RADIO_TXPOWER_TXPOWER_Msk (0xFFUL << RADIO_TXPOWER_TXPOWER_Pos) /*!< Bit
mask of TXPOWER field. */
#define RADIO_TXPOWER_TXPOWER_0dBm (0x0UL) /*!< 0 dBm */
#define RADIO_TXPOWER_TXPOWER_Pos2dBm (0x2UL) /*!< +2 dBm */
#define RADIO_TXPOWER_TXPOWER_Pos3dBm (0x3UL) /*!< +3 dBm */
#define RADIO_TXPOWER_TXPOWER_Pos4dBm (0x4UL) /*!< +4 dBm */
#define RADIO_TXPOWER_TXPOWER_Pos5dBm (0x5UL) /*!< +5 dBm */
#define RADIO_TXPOWER_TXPOWER_Pos6dBm (0x6UL) /*!< +6 dBm */
#define RADIO_TXPOWER_TXPOWER_Pos7dBm (0x7UL) /*!< +7 dBm */
#define RADIO_TXPOWER_TXPOWER_Pos8dBm (0x8UL) /*!< +8 dBm */
#define RADIO_TXPOWER_TXPOWER_Neg40dBm (0xD8UL) /*!< -40 dBm */
#define RADIO_TXPOWER_TXPOWER_Neg30dBm (0xE2UL) /*!< Deprecated enumerator -  -40
dBm */
#define RADIO_TXPOWER_TXPOWER_Neg20dBm (0xECUL) /*!< -20 dBm */
#define RADIO_TXPOWER_TXPOWER_Neg16dBm (0xF0UL) /*!< -16 dBm */
#define RADIO_TXPOWER_TXPOWER_Neg12dBm (0xF4UL) /*!< -12 dBm */
#define RADIO_TXPOWER_TXPOWER_Neg8dBm (0xF8UL) /*!< -8 dBm */
#define RADIO_TXPOWER_TXPOWER_Neg4dBm (0xFCUL) /*!< -4 dBm */
```

Select frequency:

```
start_channel fnum
```

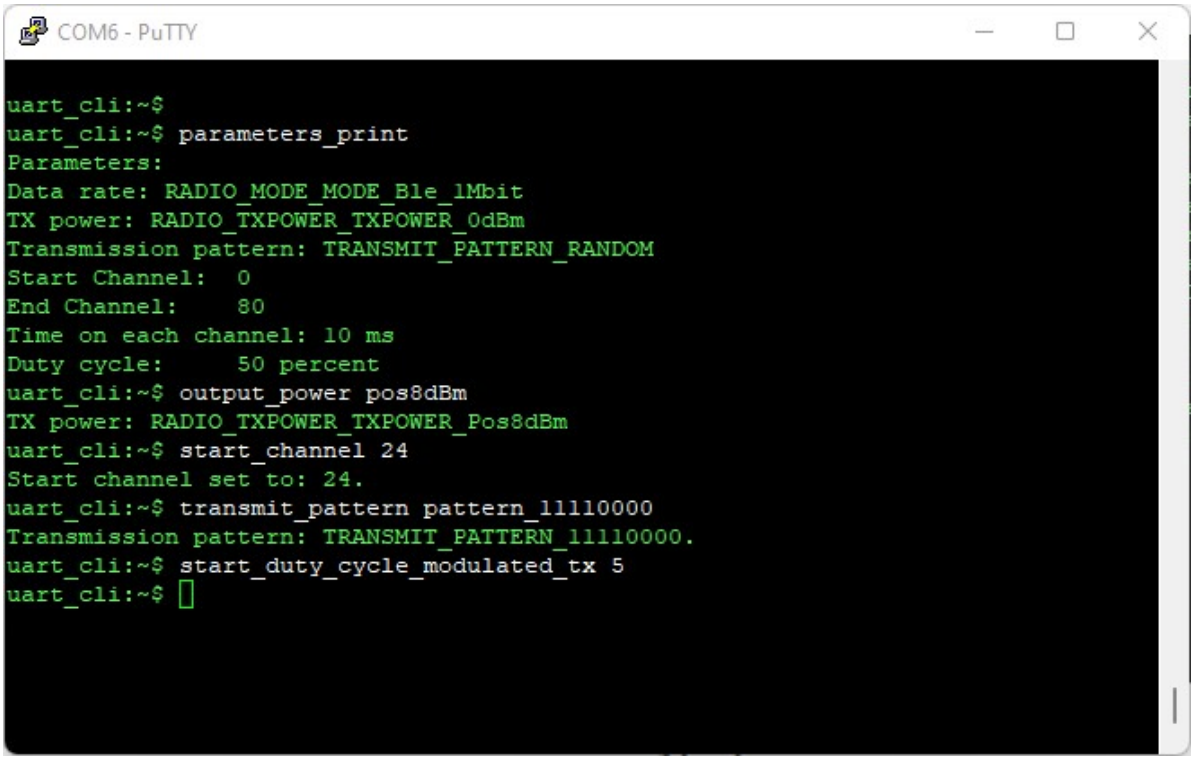
```
# The frequency will be   2400 Mhz+fnum Mhz
# For example 2424Mhz, type in 'start_channel 24'
```

Type pattern command:

```
transmit_pattern pattern_11110000
```

To start radio Tx, type:

```
start_duty_cycle_modulated_tx 100
```



Note: If the duty cycle is too low(like 5%), a lower power will be ovserved. It is recommended to use duty cycle >80%.

To stop radio Tx, type:

```
cancel
```

To start radio Rx:

```
start_rx
```

To stop radio Rx:

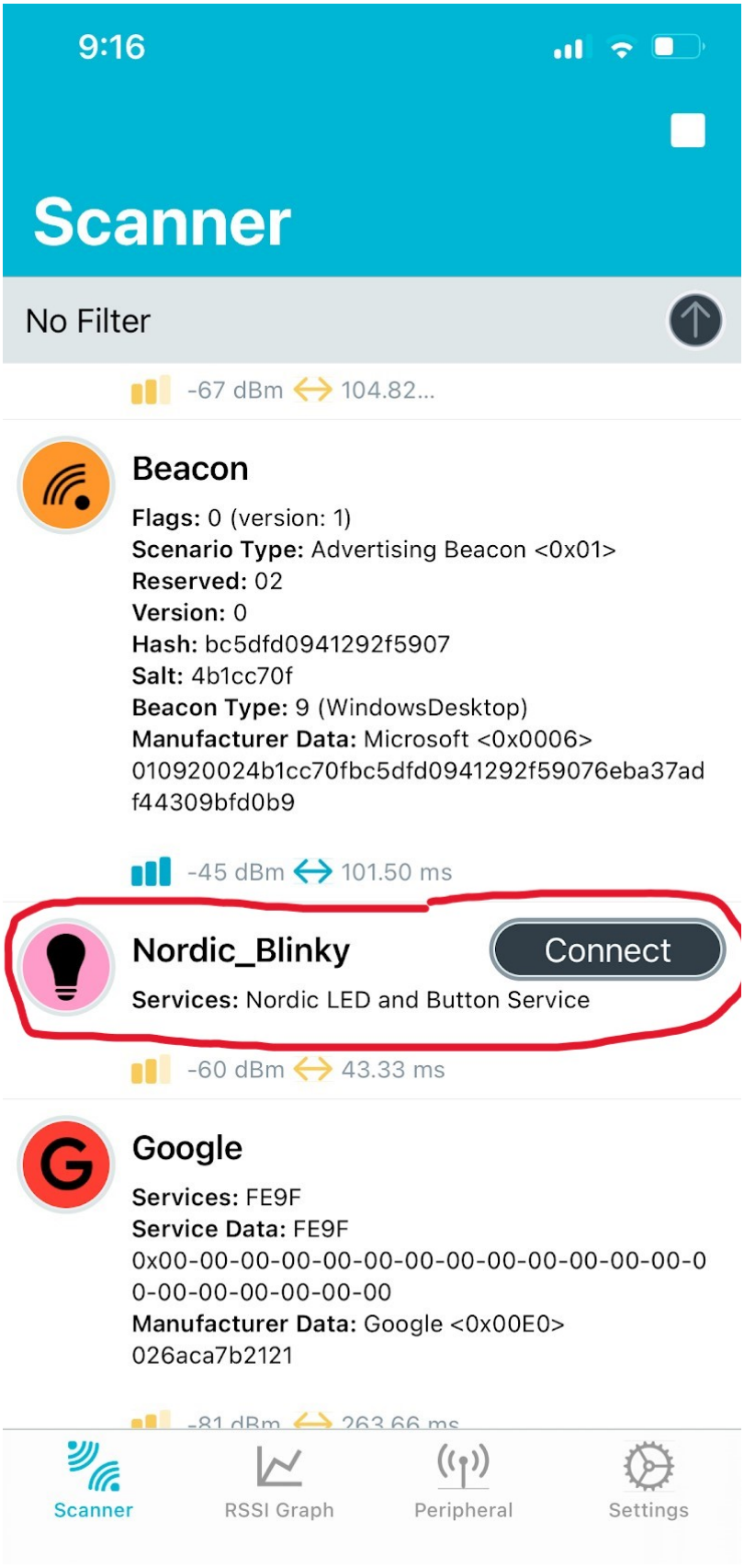
```
cancel
```

Automatic mode:

Use the hardware for automatic mode testing, the BLE_BLINKY firmware is programmed.

Download **'nRF connect'** app on a cell phone. Open the app and start scan.

You will see a device called **'Nordic_Blinky'**.


9:16
Scanner
No Filter
-67 dBm
104.82...
Beacon
Flags: 0 (version: 1)
Scenario Type: Advertising Beacon <0x01>
Reserved: 02
Version: 0
Hash: bc5dfd0941292f5907
Salt: 4b1cc70f
Beacon Type: 9 (WindowsDesktop)
Manufacturer Data: Microsoft <0x0006>
010920024b1cc70fbc5dfd0941292f59076eba37ad
f44309bfd0b9
-45 dBm
101.50 ms
Nordic_Blinky
Connect
Services: Nordic LED and Button Service
-60 dBm
43.33 ms
Google
Services: FE9F
Service Data: FE9F
0x00-00-00-00-00-00-00-00-00-00-00-00-0
0-00-00-00-00-00-00
Manufacturer Data: Google <0x00E0>
026aca7b2121
Scanner
RSSI Graph
Peripheral
Settings