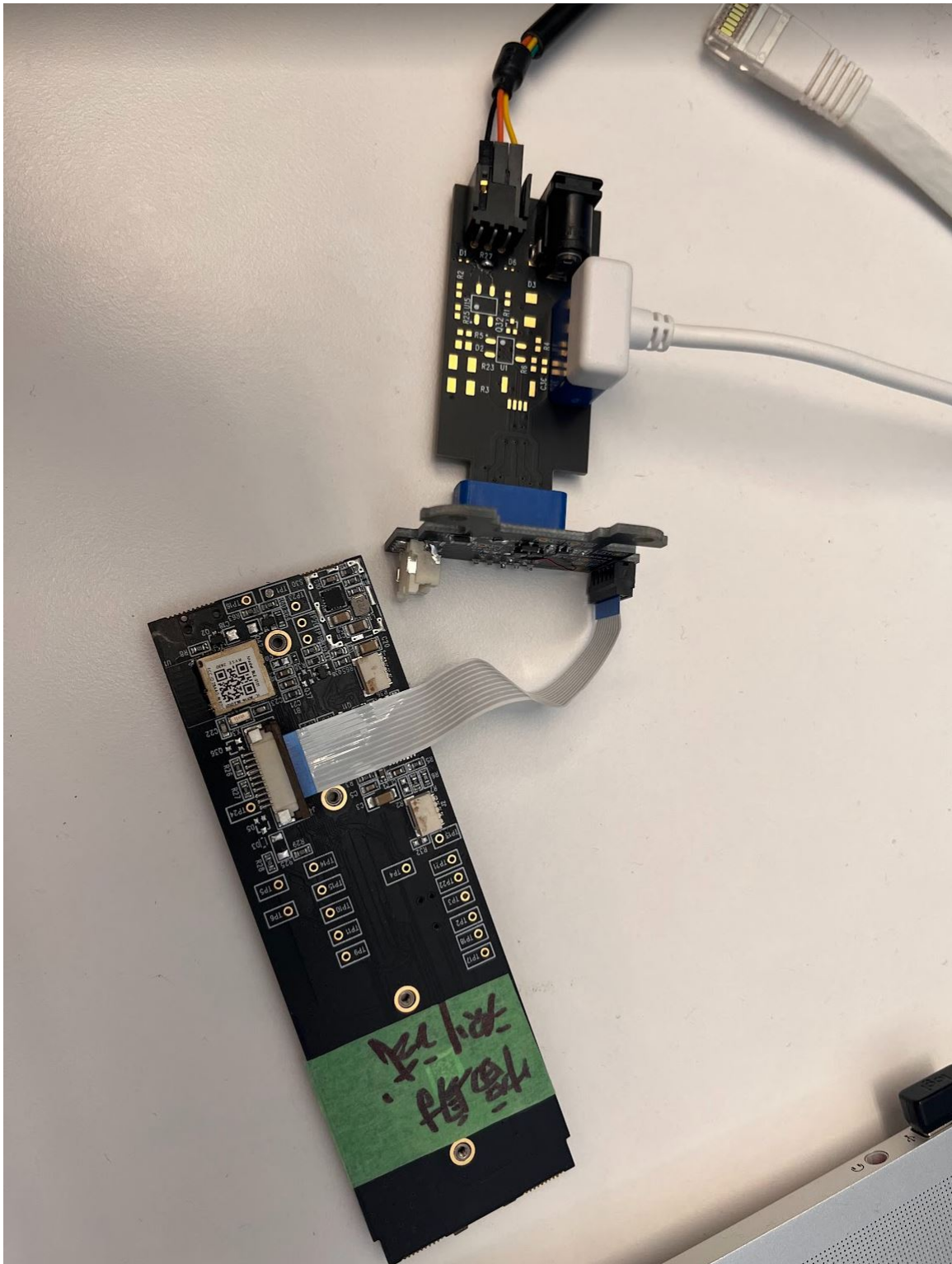


## How to connect power and uart to GR-0203 PCBA

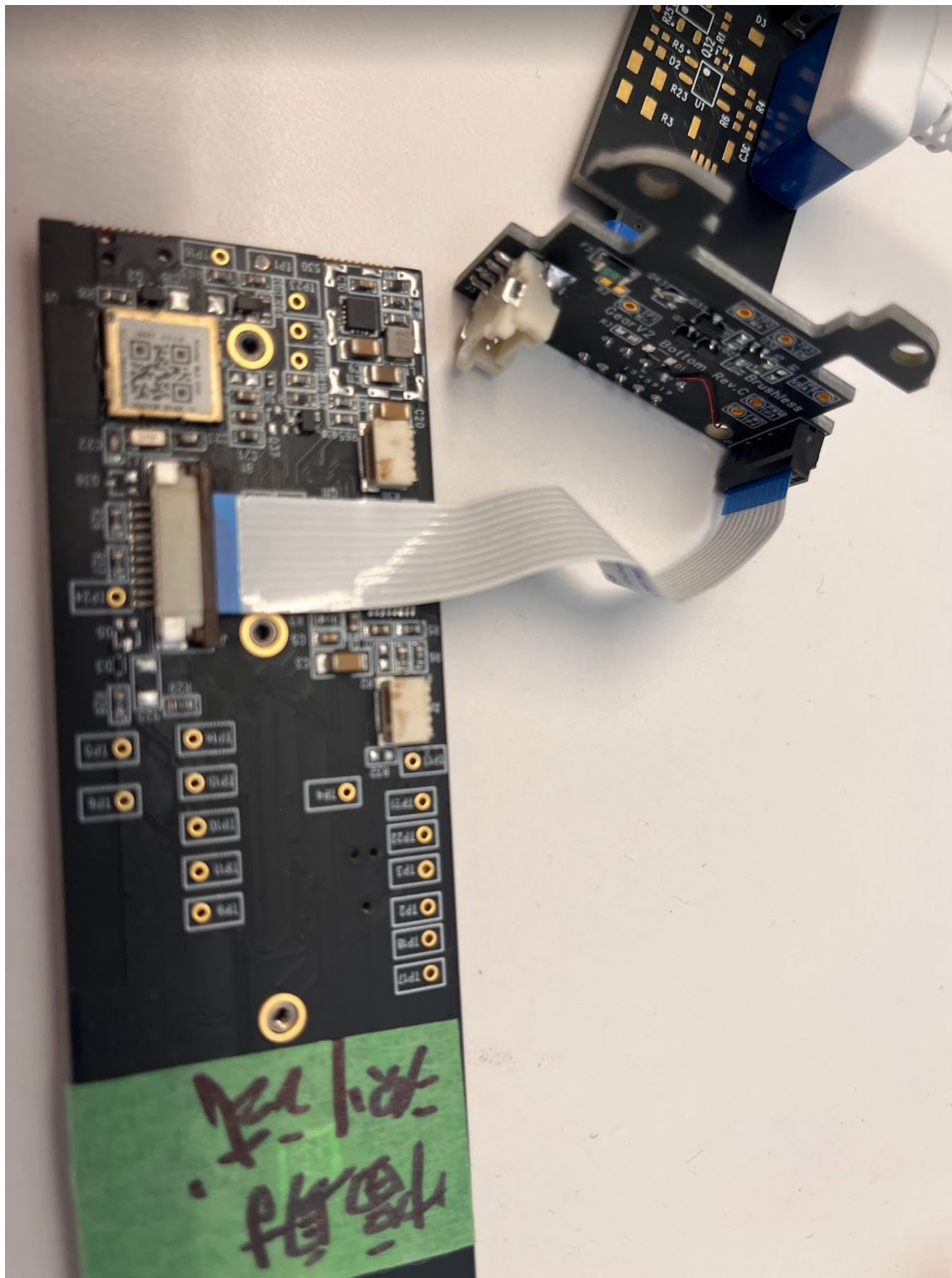
如图所示连接电源于串口线，电源电压9V-12.4V



串口线连接线序

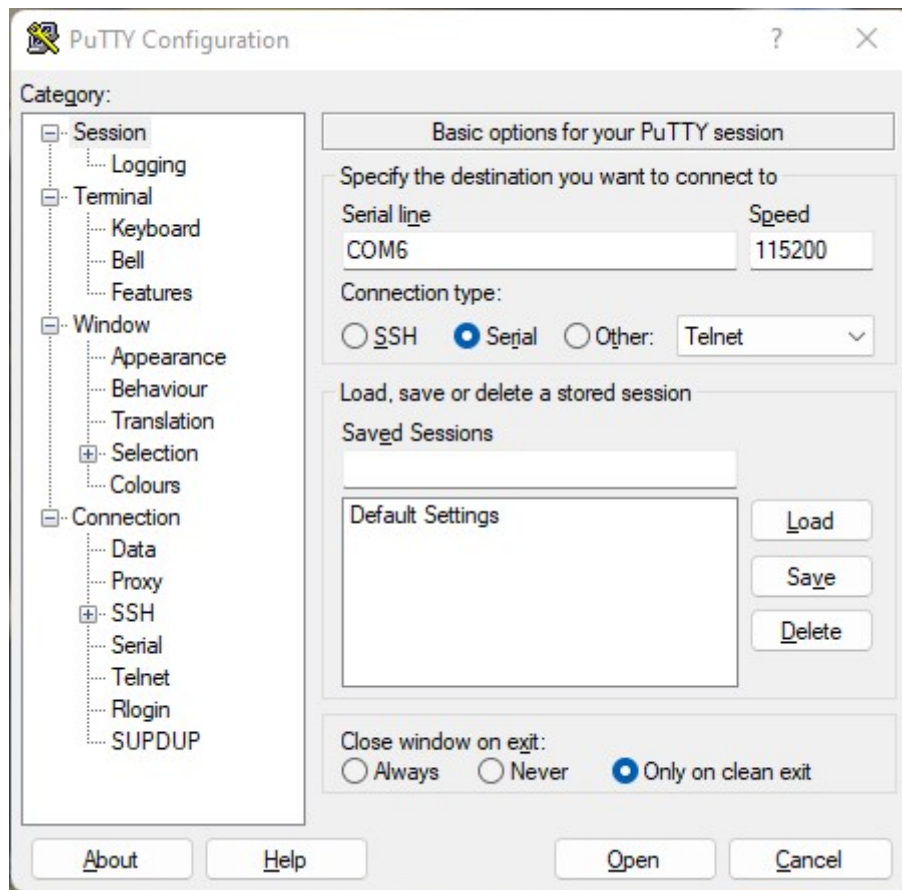


注意白色扁平线缆连接方向，接反会损坏设备。



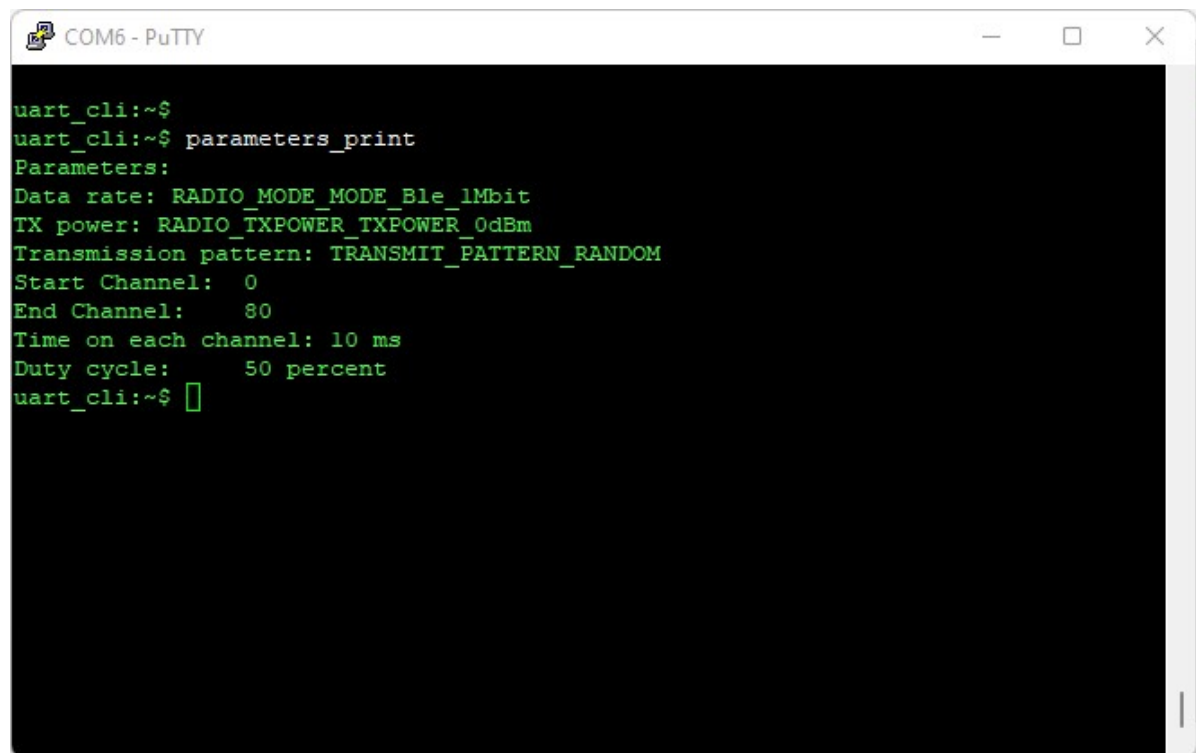
Launch a terminal on PC, baud rate 115200





**Print the current settings:**

```
parameters_print
```



## Set output power:

```
output_power pos4dBm
```

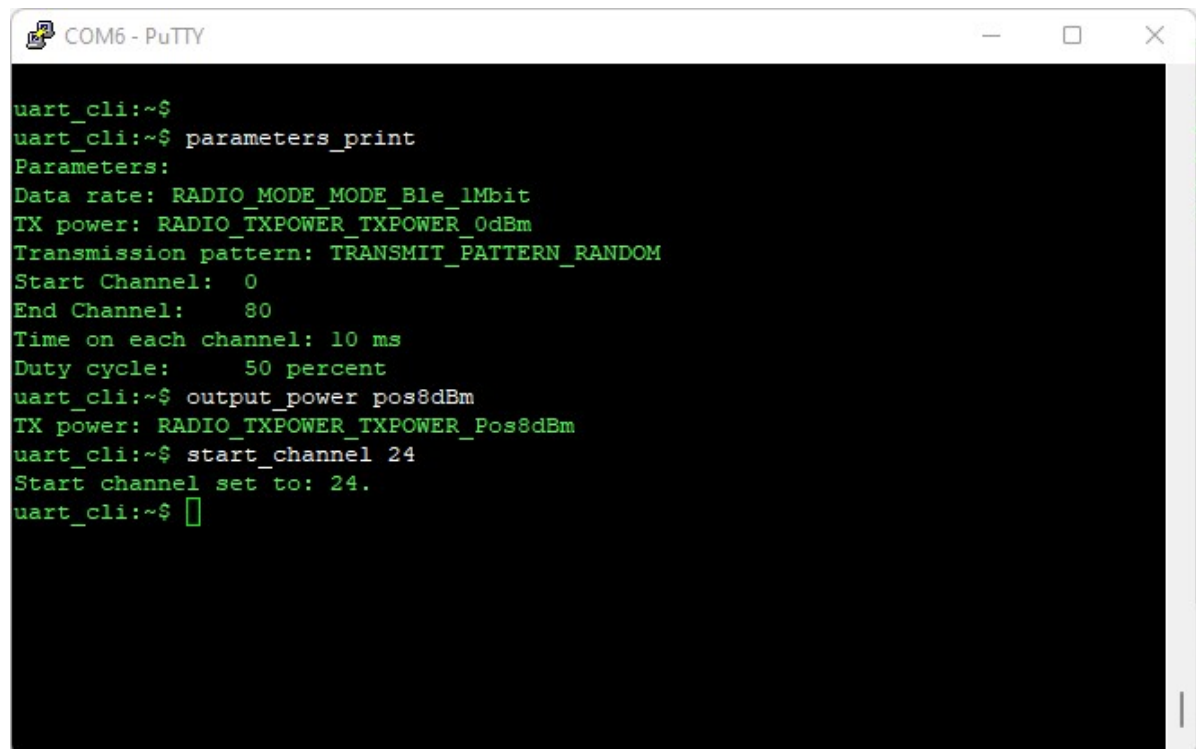
Note: Available power setting are below in nrf52840\_bitfields.h:

```
#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'
```



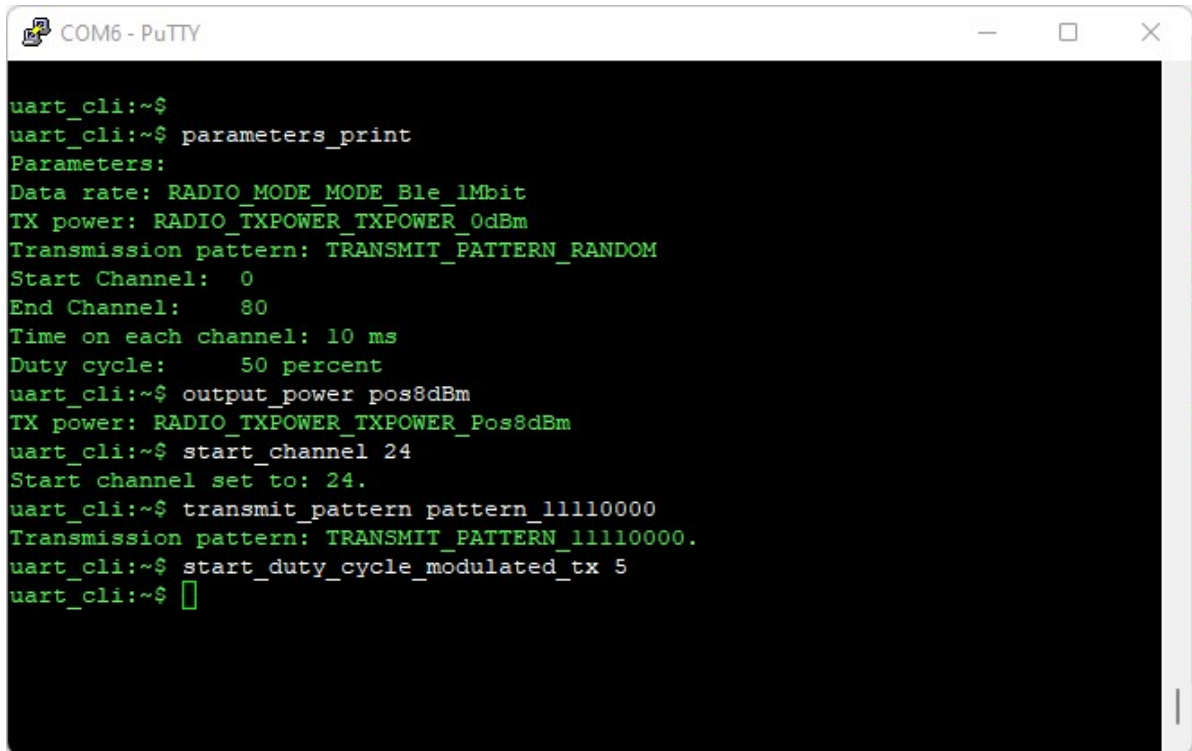
```
COM6 - PuTTY
uart_cli:~$
uart_cli:~$ parameters_print
Parameters:
Data rate: RADIO_MODE_MODE_Ble_1Mbit
TX power: RADIO_TXPOWER_TXPOWER_0dBm
Transmission pattern: TRANSMIT_PATTERN_RANDOM
Start Channel: 0
End Channel: 80
Time on each channel: 10 ms
Duty cycle: 50 percent
uart_cli:~$ output_power pos8dBm
TX power: RADIO_TXPOWER_TXPOWER_Pos8dBm
uart_cli:~$ start_channel 24
Start channel set to: 24.
uart_cli:~$
```

### Type pattern command:

```
transmit_pattern pattern_11110000
```

### To start radio Tx, type:

```
start_duty_cycle_modulated_tx 100
```



```
COM6 - PuTTY
uart_cli::~$
uart_cli::~$ parameters_print
Parameters:
Data rate: RADIO_MODE MODE_Ble_1Mbit
TX power: RADIO_TXPOWER_TXPOWER_0dBm
Transmission pattern: TRANSMIT_PATTERN_RANDOM
Start Channel: 0
End Channel: 80
Time on each channel: 10 ms
Duty cycle: 50 percent
uart_cli::~$ output_power pos8dBm
TX power: RADIO_TXPOWER_TXPOWER_Pos8dBm
uart_cli::~$ start_channel 24
Start channel set to: 24.
uart_cli::~$ transmit_pattern pattern_11110000
Transmission pattern: TRANSMIT_PATTERN_11110000.
uart_cli::~$ start_duty_cycle_modulated_tx 5
uart_cli::~$
```

Note: If the duty cycle is too low(like 5%), a lower power will be observed. 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
```