

# RF Exposure Evaluation

## FCC ID: 2AMVU-QLYX

### 1. Client Information

<b>Applicant</b>	: Shenzhen Iotton Technologies Co., Ltd.
<b>Address</b>	: Qianhai Complex A201, Qianwan Road 1, Qianhai Shenzhen-Hong Kong Cooperation Zone, Shenzhen, P.R. China
<b>Manufacturer</b>	: Shenzhen Iotton Technologies Co., Ltd.
<b>Address</b>	: Qianhai Complex A201, Qianwan Road 1, Qianhai Shenzhen-Hong Kong Cooperation Zone, Shenzhen, P.R. China

### 2. General Description of EUT

<b>EUT Name</b>	: QLYX
<b>Models No.</b>	: QLX_IO_1.1.5, QLX_IO_*****(** represents 1-digit characters, and each character can be anything ranging from 0 to 9, A to Z ,symbols like “- ”or “space”and different product models. And * is targeted at different sales territories, sales regions, sales methods, varied client groups, different market positioning and different product colors, and won't affect the product safety and electromagnetic compatibility)
<b>Model Difference</b>	: All these models are identical in the same PCB layout and electrical circuit, the only difference is model name for commercial.
<b>Product Description</b>	Operation Frequency: Bluetooth V4.0(BLE): 2402~2480 MHz
	RF Output Power: BLE: -2.106dBm
	Antenna Gain: 1.8dBi Ceramic Antenna
<b>Power Supply</b>	: DC Voltage supplied by Button battery
<b>Power Rating</b>	: DC 3.0V by Button battery
<b>Connecting I/O Port(S)</b>	: Please refer to the User's Manual

**Note:** More test information about the EUT please refer the RF Test Report.

## SAR Test Exclusion Calculations

1. FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

(1) Clause 4.3: General SAR test reduction and exclusion guidance

Sub clause 4.31: Standalone SAR test exclusion considerations

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6GHz at test separation distance  $\leq 5$  mm are determined by:

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{\text{GHz}}]} \leq 3.0 \text{ for 1-g SAR}$$

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{\text{GHz}}]} \leq 7.5.0 \text{ for 10-g SAR}$$

**2. Calculation:**

Test separation: 5mm						
BLE Mode (GFSK)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dbm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	-2.677	-2±1	-1	0.794	0.246	3.0
2.442	-2.106	-2±1	-1	0.794	0.248	3.0
2.480	-2.366	-2±1	-1	0.794	0.250	3.0

**So standalone SAR measurements are not required.**

**-----END OF REPORT-----**