

RF Exposure Evaluation

FCC ID: 2A18E-FATL03I

1. Client Information

Applicant : FUIAI Photoelectric Technology (Shenzhen) Co., Ltd.
Address : Jingkai Building 303 Room, The Silicon Valley Power Qinghu Park
C2 Building, Longhua New District, Shenzhen, China
Manufacturer : FUIAI Photoelectric Technology (Shenzhen) Co., Ltd.
Address : Jingkai Building 303 Room, The Silicon Valley Power Qinghu Park
C2 Building, Longhua New District, Shenzhen, China

2. General Description of EUT

EUT Name	:	Intelligent outdoor lamp	
Models No.	:	FA-TL03-I	
Brand Name	:	FUIAI	
Model Difference	:	N/A	
Product Description	:	Operation Frequency: BLE:2402~2480MHz	
		Number of Channel:	BLE:40 Channels
		Max Peak Output Power:	GFSK:-2.553 dBm
		Antenna Gain:	0.5 dBi PCB Antenna
		Modulation Type:	1Mbps(GFSK)
Power Supply	:	DC Voltage supplied from Host System by USB cable. DC power by Li-ion Battery.	
Power Rating	:	DC 5.0V by USB cable. DC 3.7V by 4000mAh Li-ion Battery.	
Connecting I/O Port(S)	:	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 ≤ 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 (mw)	Calculation Value	Threshold Value
2.402	-2.553	± 0.5	0.623	0.193	3.0
2.442	-3.961	± 0.5	0.451	0.141	3.0
2.480	-5.425	± 0.5	0.322	0.101	3.0

So standalone SAR measurements are not required.