RF Exposure Evaluation

FCC ID: 2AI8E-FATL03I

1. Client Information

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

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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:
   [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)]*[$\sqrt{f_{(GHz)}}$] ≤3.0 for 1-g SAR
   [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)]*[$\sqrt{f_{(GHz)}}$] ≤7.5.0 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.