

# RF Exposure Evaluation

## FCC ID: 2AK5Q-VKL-001-3M

### 1. Client Information

**Applicant** : SHENZHEN MSD SCIENCE & TECHNOLOGY CO., LTD  
**Address** : R3009, BLOCK C, SUNNY NEW GANXIAN, GONGMEN S RD, LO WU, SHENZHEN, CHINA  
**Manufacturer** : SHENZHEN MSD SCIENCE & TECHNOLOGY CO., LTD  
**Address** : R3009, BLOCK C, SUNNY NEW GANXIAN, GONGMEN S RD, LO WU, SHENZHEN, CHINA

### 2. General Description of EUT

<b>EUT Name</b>	: BLE LED STRIP LIGHT	
<b>Models No.</b>	: VKL-001-3M	
<b>Product Description</b>	Operation Frequency:	BLE: 2402~2480MHz
	Number of Channel:	BLE: 40 Channels
	Max Peak Output Power:	GFSK: 3.209 dBm
	Antenna Gain:	2 dBi PCB Antenna
	Modulation Type:	1Mbps(GFSK)
<b>Power Supply</b>	: DC Voltage Supply From The AC Adapter	
<b>Power Rating</b>	: AC Input: 100~240V 50/60Hz	
<b>Connecting I/O Port(S)</b>	: Please refer to the User's Manual	

#### Note:

More test information about the EUT please refer to 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:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 3.0 \text{ for 1-g SAR}$$
$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 7.5.0 \text{ for 10-g SAR}$$

**2. Calculation:**

Test separation: 5mm						
Bluetooth 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	2.601	3±0.5	3.5	2.239	0.694	3.0
2.441	3.158	3±0.5	3.5	2.239	0.700	3.0
2.480	3.209	3±0.5	3.5	2.239	0.705	3.0

So standalone SAR measurements are not required.

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