

# RF Exposure Requirements

---

## 1.1 Product Description for Equipment Under Test (EUT)

### Client Information

Applicant:

Address of applicant:

Manufacturer:

Address of manufacturer:

Kaifeng Weiyuan Trading Co., Ltd.

The third group of Lumu Zhang, Xingzhuang Township,  
Weishi County, Kaifeng City, Henan

Kaifeng Weiyuan Trading Co., Ltd.

The third group of Lumu Zhang, Xingzhuang Township,  
Weishi County, Kaifeng City, Henan

General Description of EUT	
Product Name:	Scorpion Wireless Bluetooth Headphones
Brand Name:	/
Model No.:	F-SL001A
Adding Model(s):	/
Rated Voltage:	Input: DC 3.7V from battery
Power Adapter:	/
Software Version:	/
Hardware Version:	/
Serial Number:	H34KK002
FCC ID:	2A8SWF-SL001A

Technical Characteristics of EUT	
Bluetooth Version:	V5.0 BLE
Frequency Range:	2402-2480MHz
RF Output Power:	-0.23dBm
Data Rate:	1Mbps
Modulation:	GFSK
Quantity of Channels:	40
Channel Separation:	2MHz
Type of Antenna:	PCB
Antenna Gain:	-0.58dBi

## 1.2 Standard Applicable

According to §1.1307(b)(1) and KDB 447498 D01 General RF Exposure Guidance v06, the following RF exposure evaluation shall to demonstrate RF exposure compliance.

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$$

Where

-f(GHz) is the RF channel transmit frequency in GHz

-Power and distance are rounded to the nearest mW and mm before calculation

-The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

## 1.3 Calculation Method

### Bluetooth

Tx frequency range: 2402~2480MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power: -0.23dBm

Maximum Tune-up Conducted Output Power: 0dBm

RF channel transmit frequency: 2480MHz

Result: 0.3150

Limit: 3.0

So the transmitter complies with the RF exposure requirements and the SAR is not required.