

# 1. RF Exposure Requirements

## 1.1 General Information

### Client Information

Applicant: Shenzhen Asmax Infinite Technology Co., Ltd.  
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Nanshan District, Shenzhen,China

Manufacturer: Shenzhen Asmax Infinite Technology Co., Ltd.  
Address of manufacturer: Room 803 Building B4, Kexing Science Park, No.15 Keyuan Road,  
Nanshan District, Shenzhen,China

### General Description of EUT:

Product Name: Intelligent Helmet Bluetooth Headset  
Trade Name: /  
Model No.: K6  
Adding Model(s): OT1155, OT1152, OT1153  
Rated Voltage: Type-C:DC5V  
Battery:DC3.7V  
Battery Capacity: 1000mAh  
Adapter Model: /  
FCC ID: 2BEH5-K6  
Equipment Type: Portable device

### Technical Characteristics of EUT:

#### Bluetooth

Bluetooth Version: V5.4 (BR/EDR mode)  
Frequency Range: 2402-2480MHz  
RF Output Power: 5.26dBm (Conducted)  
Data Rate: 1Mbps, 2Mbps, 3Mbps  
Modulation: GFSK,  $\pi/4$  DQPSK, 8DPSK  
Quantity of Channels: 79  
Channel Separation: 1MHz  
Type of Antenna: Chip Antenna  
Antenna Gain: 2.32dBi

## 1.2 RF Exposure Exemption

According to the KDB 447498 D01 v06 section 4.3.1, for 100 MHz to 6 GHz and test separation distances  $\leq 50$  mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$$\left[ \frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \right] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

## 1.3 Calculated Result

Tx frequency range: 2402-2480MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power: 5.26dBm

Tune-Up output power: 6.0dBm

RF channel transmit frequency: 2480MHz

Result: 1.23

Limit: 3.0

The exclusion thresholds is  $1.23 < 3$ , so the transmitter complies with the RF exposure requirements and the SAR is not required.