

1. RF Exposure Requirements

1.1 General Information

Client Information

Applicant: Shenzhen Youge Intelligent Co., Ltd
Address of applicant: Unit 702, unit 6, Taoyuanju 14 District, Taoyuan community,
Xixiang street, Bao'an District, Shenzhen

Manufacturer: Shenzhen Youge Intelligent Co., Ltd
Address of manufacturer: Unit 702, unit 6, Taoyuanju 14 District, Taoyuan community,
Xixiang street, Bao'an District, Shenzhen

General Description of EUT:

Product Name: Smart Watch Sleep TWS headset
Trade Name: callmusic
Model No.: X-Audio-i
Adding Model(s): /
Rated Voltage: Battery:DC3.7V
Battery Capacity: 25mAh
Adapter Model: /
FCC ID: 2BB2C-X10PRO2
Equipment Type: Portable device

Technical Characteristics of EUT:

Bluetooth

Bluetooth Version: V4.0 (BR/EDR mode)
Frequency Range: 2402-2480MHz
RF Output Power: 4.19dBm (Conducted)
Data Rate: 1Mbps, 2Mbps
Modulation: GFSK, $\pi/4$ DQPSK
Quantity of Channels: 79
Channel Separation: 1MHz
Type of Antenna: Chip Antenna
Antenna Gain: 3dBi

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 ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

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

- $f(\text{GHz})$ 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: 4.19dBm

Tune-Up output power: 5.0dBm

RF channel transmit frequency: 2480MHz

Result: 0.98

Limit: 3.0

The exclusion thresholds is $0.98 < 3$, so the transmitter complies with the RF exposure requirements and the SAR is not required.