RF Exposure Requirements

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	Shenzhen Lanxin Technology Co. LTD.
Address of applicant:	Zone B,7th Floor,Building B1,Huafeng Century Science And Technology Park,Hangcheng Avenue Xixiang street,Baoan District,Shenzhen China
Manufacturer:	Shenzhen Lanxin Technology Co. LTD.
Address of manufacturer:	Zone B,7th Floor,Building B1,Huafeng Century Science And Technology Park,Hangcheng Avenue Xixiang street,Baoan District,Shenzhen China

General Description of EUT	
Product Name:	Bluetooth headset
Brand Name:	/
Model No.:	LX-80
Adding Model(s):	/
Rated Voltage:	DC 5V or DC3.7V Battery
Power Adapter:	/
Software Version:	/
Hardware Version:	/
Serial Number:	76453HY7356
FCC ID:	2BHG4-LX-80

Technical Characteristics of EUT	
Bluetooth Version:	V5.4(BDR/EDR mode)
Frequency Range:	2402-2480MHz
RF Output Power:	3.887dBm (Conducted)
Data Rate:	1Mbps, 2Mbps
Modulation:	GFSK, Pi/4 QDPSK, 8DPSK
Quantity of Channels:	79
Channel Separation:	1MHz
Type of Antenna:	Chip
Antenna Gain:	1.70dBi

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.

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] · [√f(GHz)] ≤ 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 ≤ 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: 3.887dBm

RF channel transmit frequency: 2402MHz

Result: 0.13

Limit: 3.0

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