



RF Exposure Evaluation

FCC ID: 2BL82-X6

1. Client Information

Applicant	:	Dongguan Longshengteng Technology Co., Ltd
Address	:	Room 305, Building 17, No. 182 Kuiqing Road, Qingxi Town, Dongguan City, Guangdong Province, China
Manufacturer	:	Dongguan Longshengteng Technology Co., Ltd
Address	:	Room 305, Building 17, No. 182 Kuiqing Road, Qingxi Town, Dongguan City, Guangdong Province, China

2. General Description of EUT

EUT Name	:	Helmet Bluetooth Headset	
Model(s) No.	:	X6, X6 pro	
Model Difference	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is model name.	
Product Description	:	Operation Frequency:	Bluetooth V5.3: 2402MHz~2480MHz
	:	Antenna Gain:	1.9dBi PCB Antenna
Power Supply	:	USB Input: DC 5V DC 3.7V 800mAh 2.96Wh Rechargeable Li-ion battery	
Software Version	:	----	
Hardware Version	:	----	
Remark: The antenna gain provided by the applicant, the adapter and verified for the RF conduction test and adapter provided by TOBY test lab.			

Note: More test information about the EUT please refer 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 ≤ 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	3.501	3±1	4	2.512	0.779	3.0
2.441	2.65	2±1	3	1.995	0.623	3.0
2.480	1.033	1±1	2	1.585	0.499	3.0
Bluetooth Mode (Pi/4-DQPSK)						
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	5.429	5±1	6	3.981	1.234	3.0
2.441	4.673	4±1	5	3.162	0.988	3.0
2.480	3.059	3±1	4	2.512	0.791	3.0

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

-----END OF THE REPORT-----

