

RF Exposure Evaluation

FCC ID:2AS2T-XG-10

1. Client Information

Applicant	:	Shenzhen Xintu Century Technology Co.,Ltd
Address	:	5th Floor, Building A1, Anle Industrial Park, No.172, Hangcheng Avenue, Xixiang Street, Baoan District, Shenzhen, Guangdong, China
Manufacturer	:	Shenzhen Xintu Century Technology Co.,Ltd
Address	:	5th Floor, Building A1, Anle Industrial Park, No.172, Hangcheng Avenue, Xixiang Street, Baoan District, Shenzhen, Guangdong, China

2. General Description of EUT

EUT Name	:	Long standby hanging neck Bluetooth sports headphones
Models No.	:	XG-10
Model Difference	:	N/A
Product Description	Operation Frequency:	Bluetooth V4.2: 2402~2480 MHz
	Number of Channel:	Bluetooth: 79 Channels <small>See Note 2</small>
	RF Output Power:	Bluetooth: 5.857dBm(Pi/4-DQPSK)
	Antenna Gain:	1.15dBi Chip Antenna
	Modulation Type:	GFSK (1 Mbps) Pi/4-DQPSK (2 Mbps) 8-DPSK (3 Mbps)
Power Supply	:	DC Voltage supplied by USB Cable DC Voltage supplied by Li-ion batter
Power Rating	:	DC5V 0.5A by AC/DC Adapter. DC 3.7V by 46mAh Li-ion battery of The headset. DC 3.7V by 200mAh Li-ion battery of Charging dock.
Connecting I/O Port(S)	:	Please refer to the User's Manual

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	5.334	5±1	6	3.981	1.234	3.0
2.441	4.589	5±1	6	3.981	1.244	3.0
2.480	3.262	4±1	5	3.162	0.996	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	5.857	5±1	6	3.981	1.234	3.0
2.441	5.397	5±1	6	3.981	1.244	3.0
2.480	4.614	4±1	5	3.162	0.996	3.0
Bluetooth Mode (8-DPSK)						
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	5.817	5±1	6	3.981	1.234	3.0
2.442	5.523	5±1	6	3.981	1.244	3.0
2.480	4.894	4±1	5	3.162	0.996	3.0

Test separation: 5mm	
The worst RF Exposure Evaluation	
Worst Calculation Value	Threshold Value
1.244	3.0

The worst RF Exposure Evaluation is **1.244 / cm² < limit 3.0**, So standalone SAR measurements are not required.

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