

RF Exposure Evaluation

FCC ID:2AS2T-XG-12

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	:	True split wireless Bluetooth headset	
Models No.	:	XG-12,XG-D12 ,XG-U12 ,XG-13,XG-U13,XG-15,XG-U15,XG-17,XG-U17	
Model Difference	:	N/A	
Product Description	:	Operation Frequency:	Bluetooth: 2402~2480 MHz
		Number of Channel:	Bluetooth: 79 Channels See Note 2
		RF Output Power:	Bluetooth: 3.958dBm(GFSK)
		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	:	DC 5V by USB Cable DC 3.7V by 50mAh Li-ion battery	
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:

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}]}{\leq 3.0 \text{ for 1-g SAR}}$$

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}]}{\leq 7.5.0 \text{ for 10-g SAR}}$$

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	Thres hold Value
2.402	1.053	1±1	2	0.158	0.491	3.0
2.441	1.544	1±1	2	0.158	0.495	3.0
2.480	0.668	1±1	2	0.158	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	Thres hold Value
2.402	3.958	3±1	4	2.512	0.779	3.0
2.441	-3.550	-3±1	-2	0.631	0.197	3.0
2.480	3.384	3±1	4	2.512	0.791	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	Thres hold Value
2.402	-4.749	-4±1	-3	0.501	0.155	3.0
2.442	-3.621	-4±1	-3	0.501	0.157	3.0
2.480	-3.738	-4±1	-3	0.501	0.158	3.0

Test separation: 5mm	
The worst RF Exposure Evaluation	
Worst Calculation Value	Threshold Value
0.791	3.0

The worst RF Exposure Evaluation is **0.791 / cm² < limit 3.0**, So standalone SAR measurements are not required.

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