

# RF Exposure Evaluation

## FCC ID: 2AUD4-V3

### 1. Client Information

**Applicant** : Xiamen xingboda electronic technology co., LTD  
**Address** : 520 xinglin yuandong road, jimei district, xiamen city, China  
**Manufacturer** : Xiamen xingboda electronic technology co., LTD  
**Address** : 520 xinglin yuandong road, jimei district, xiamen city, China

### 2. General Description of EUT

<b>EUT Name</b>	:	Bluetooth Module	
<b>Models No.</b>	:	Carbon Flyer, Carbon Flyer V3	
<b>Model Difference</b>	:	All models are in the same PCB layout interior structure and electrical circuits, the only difference is the model.	
<b>Product Description</b>	:	Operation Frequency:	Bluetooth 4.0(BLE): 2402MHz~2480MHz
		Modulation Type:	BLE: GFSK
<b>Power Supply</b>	:	DC 3.7V for battery or DC 5V for PC USB port. (This report only shows the worst mode for PC USB port power.) The PC adapter : Input: 100-240V,50-60Hz,1.8A Output: 20V-3.25A	
<b>Software Version</b>	:	VERSION 2	
<b>Hardware Version</b>	:	CARBON FLYER BT PCB V3	
<b>Connecting I/O Port(S)</b>	:	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  $\leq 5$  mm are determined by:

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

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

## 2.

## Calculation:

Test separation: 5mm						
BLE 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	-1.675	-1±1	0	1	0.30997	3.0
2.442	-0.788	-1±1	0	1	0.31247	3.0
2.480	-0.443	-1±1	0	1	0.31496	3.0

So standalone SAR measurements are not required.

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