

# RF Exposure Evaluation

## FCC ID: 2AUCJ-1LOOP-1

### 1. Client Information

**Applicant** : Huzhou Dear Industry Co.Ltd.  
**Address** : 26# Wuxing Technology&Creation Park, Huzhou, Zhejiang, China  
**Manufacturer** : Huzhou Dear Industry Co.Ltd.  
**Address** : 26# Wuxing Technology&Creation Park, Huzhou, Zhejiang, China

### 2. General Description of EUT

<b>EUT Name</b>	: Smart Sensor	
<b>Models No.</b>	: 1loop-1.0,1loop-2.0,1loop-3.0,1loop-4.0,1loop-5.0,1loop-6.0	
<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 Voltage Supply from USB cable.. DC Voltage supplied by Li-ion battery.	
<b>Power Rating</b>	: DC 3.7V by 600mAh Li-ion battery	
<b>Software Version</b>	: 1.0	
<b>Hardware Version</b>	: 1.0	
<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:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 3.0 \text{ for 1-g SAR}$$
$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 7.5.0 \text{ for 10-g SAR}$$

2.

**Calculation:**

Test separation: 5mm							
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	-5.823	-6±1	-5	0.316	0.098	3.0	
2.442	-7.714	-7±1	-6	0.251	0.078	3.0	
2.480	-9.677	-9±1	-8	0.158	0.050	3.0	

**So standalone SAR measurements are not required.****-----END OF REPORT-----**