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# RF Exposure Evaluation Report

**Report No.:** CQASZ20210200158E-02  
**Applicant:** ShenZhen YingBoJingKong Technology Co., Ltd.  
**Address of Applicant:** No. 602, West of 6th Floor, Building 713, PengJi Industrial Zone, Liantang Street, Luohu District, Shenzhen, Guangdong, China  
**Equipment Under Test (EUT):**  
**EUT Name:** Wireless Bluetooth BBQ Thermometer  
**Model No.:** IBT-6XS, IBT-6T, IBT-2X, BG-BT1X  
**Test Model No.:** IBT-6XS  
**Brand Name:** N/A  
**FCC ID:** 2AZDE-IB-IBT02  
**Standards:** 47 CFR Part 1.1307  
47 CFR Part 2.1093  
KDB447498D01 General RF Exposure Guidance v06  
**Date of Receipt:** 2021-2-24  
**Date of Test:** 2021-2-24 to 2021-3-4  
**Date of Issue:** 2021-3-22  
**Test Result:** **PASS\***

\*In the configuration tested, the EUT complied with the standards specified above

**Tested By:** Jun Li  
(Jun Li)  
**Reviewed By:** Ares Liu  
(Ares Liu)  
**Approved By:** Sheek Luo  
(Sheek Luo)



## 1 Version

### Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20210200158E-02	Rev.01	Initial report	2021-3-22

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### 3 General Information

#### 3.1 Client Information

Applicant:	ShenZhen YingBoJingKong Technology Co., Ltd.
Address of Applicant:	No. 602,West of 6th Floor,Building 713,PengJi Industrial Zone, Liantang Street,Luohu District, Shenzhen,GuangDong,China
Manufacturer:	ShenZhen YingBoJingKong Technology Co., Ltd.
Address of Manufacturer:	No. 602,West of 6th Floor,Building 713,PengJi Industrial Zone, Liantang Street,Luohu District, Shenzhen,GuangDong,China
Factory:	ShenZhen YingBoJingKong Technology Co., Ltd.
Address of Factory:	No. 602,West of 6th Floor,Building 713,PengJi Industrial Zone, Liantang Street,Luohu District, Shenzhen,GuangDong,China

#### 3.2 General Description of EUT

Product Name:	Wireless Bluetooth BBQ Thermometer
All Model No.:	IBT-6XS, IBT-6T, IBT-2X, BG-BT1X
Test Model No.:	IBT-6XS
Trade Mark:	N/A
Hardware Version:	3.11
Software Version:	rev2.1
Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	BLE
Modulation Type:	GFSK
Transfer Rate:	1Mbps
Number of Channel:	40
Product Type:	<input type="checkbox"/> Mobile <input checked="" type="checkbox"/> Portable <input type="checkbox"/> Fix Location
Test Software of EUT:	Setup_SmartRF_Studio_7-2.4.1
Antenna Type:	Pcb antenna
Antenna Gain:	0dBi
EUT Power Supply:	lithium battery:DC3.7V, Charge by DC4.2V

Note:

Model No.: IBT-6XS, IBT-6T, IBT-2X, BG-BT1X

Only the model IBT-6XS was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models, with difference being color of appearance and model name.

## 4 SAR Evaluation

### 4.1 RF Exposure Compliance Requirement

#### 4.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

##### 4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

#### 4.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$$\left[ \frac{\text{max. power of channel, including tune-up tolerance, mW}}{(\text{min. test separation distance, mm}) \cdot \sqrt{f(\text{GHz})}} \right] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

$f(\text{GHz})$  is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion

2) For BLE

Measurement Data

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	0.38	-1.5±1	0.5	1.122
Middle(2440MHz)	1.77	1±1	2	1.585
Highest(2480MHz)	2.02	1±1	2	1.585

Worst case: GFSK mode						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune- up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	0.38	-1.5±1	0.5	1.122	0.348	3.0
Middle (2440MHz)	1.77	1±1	2	1.585	0.495	
Highest (2480MHz)	2.02	1±1	2	1.585	0.499	

Conclusion: the calculated value  $\leq 3.0$ , SAR is exempted.

Remark: The Max Conducted Peak Output Power data refer to report Report No.:CQASZ20210200158E-01  
BDR and BLE can not simultaneous transmitting at same time.