

Maximum Permissible Exposure Evaluation

FCC ID:2AV2D-XHBT02

1. Client Information

Applicant	:	Zhejiang Xinhe Industry and Trade Co, Ltd.
Address	:	No.2518, Juying Road, Taizhou, Zhejiang, China
Manufacturer	:	Zhejiang Xinhe Industry and Trade Co, Ltd.
Address	:	No.2518, Juying Road, Taizhou, Zhejiang, China

TB-RF-075-1.0

2. General Description of EUT

EUT Name	Intelligent heating shoulder and neck protection band	
Models No.	XHBT02	
Model Different	N/A	
Product Description	Operation Frequency:	Bluetooth V5.0: 2402~2480 MHz
	Antenna Gain:	0dBi PCB Antenna
Power Supply	DC Voltage Supply from AC/DC Adapter	
Power Rating	Adapter Model:BSYF240150V W Input: AC 100-240V~50/60Hz, 1A Output: DC 24V-1.5A	
Software Version	GT09-6-10_00BB.HEX	
Hardware Version	GT-09-BT-V1.0	
Connecting I/O Port(S)	Please refer to the User's Manual	
Remark	The antenna gain provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.	

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						
BT 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	0.904	0±1.5	1.5	1.41	0.438	3.0
2.441	-0.216	0±1.5	1.5	1.41	0.441	3.0
2.480	-1.436	0±1.5	1.5	1.41	0.445	3.0

For BT: 2402MHz~2480MHz

The MPE is calculated as **0.445 < limit 3.0**. So, the device compliance the RF Exposure requirement.

The RF Exposure Information page from the manual is included here for reference.

Note

For a more detailed features description, please refer to the RF Test Report.

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