

Shenzhen Toby Technology Co., Ltd.



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RF Exposure Evaluation FCC ID: 2BCLW-HW82

1. Client Information

Applicant	:	Shenzhen Oupinda Technology Co., Ltd.		
Address : Building 318, B, Hangcheng Smart Security Science Par Community, Hangcheng Street, Baoan District, Shenzhe		Building 318, B, Hangcheng Smart Security Science Park, Sanwei Community, Hangcheng Street, Baoan District, Shenzhen, China		
Manufacturer	:	Shenzhen Oupinda Technology Co., Ltd.		
Address	Building 318, B, Hangcheng Smart Security Science Park, Sanv Community, Hangcheng Street, Baoan District, Shenzhen, Chin			

2. General Description of EUT

EUT Name	6	smart watch					
Model(s) No.		HW82, HW83, HW85, HW86, HW88, HW89, HW81, HW80					
Model Difference		All these models are identical in the same PCB, layout and electrical circuit, the only difference is appearance color and model name.					
Product Description		Operation Frequency:	Bluetooth V5.4: 2402MHz~2480MHz				
		Antenna Gain:	0.17dBi Wire Antenna				
Power Supply		USB Input: DC 5V DC 3.8V 400mAh 1.52Wh Rechargeable Li-ion battery					
Software Version	1	freertos					
Hardware Version		MOY.MA1006.02					
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Remark:

- (1) The antenna gain provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.
- (2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- (3) The above antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.
- (4) More test information about the EUT please refer the RF Test Report.



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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:

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

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





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2. Calculation:

Test sepa	ration: 5mm						
1		BI	uetooth Mode (GFSK)	U. A. C.	E.Ser	ATT IN	
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	6.273	6±1	7	5.012	1.554	3.0	
2.441	5.971	5±1	6	3.981	1.244	3.0	
2.480	5.754	5±1	6	3.981	1.254	3.0	
N. C.		Bluet	tooth Mode (Pi/4-DQPS	К)			
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	6.693	6±1	7	5.012	1.554	3.0	
2.441	6.269	6±1	7	5.012	1.566	3.0	
2.480	6.064	6±1	7	5.012	1.579	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	Threshold Value	
2.402	7.009	7±1	8	6.31	1.956	3.0	
2.441	6.513	6±1	7	5.012	1.566	3.0	
2.480	6.276	6±1	7	5.012	1.579	3.0	

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

-----END OF THE REPORT-----

