

RF Exposure Evaluation

FCC ID: 2ATK6-KCWGP2174001

1. Client Information

Applicant	:	SHENZHEN LOOKCARE INDUSTRY CO., LTD
Address	:	5F, Bldg H, No.8 East Area, Shangxue Science and Technology Industry, Bantian St, Longgang Dist. Shenzhen, China
Manufacturer	:	SHENZHEN LOOKCARE INDUSTRY CO., LTD
Address	:	5F, Bldg H, No.8 East Area, Shangxue Science and Technology Industry, Bantian St, Longgang Dist. Shenzhen, China

2. General Description of EUT

EUT Name	:	Wellness Watch	
Model(s) No.	:	KCWGP2174001(B09MMPLC2G), KCWGD2174062(B09MMPLC2G), KCWGD2174061(B09MMPLC2G)	
Model Different	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is the model name.	
Product Description	:	Operation Frequency:	Bluetooth LE5.0: 2402MHz~2480MHz
	:	Number of Channel:	40 channels
	:	Antenna Gain:	0 dBi Wire Antenna
	:	Modulation Type:	GFSK
	:	Bit Rate of Transmitter:	Bluetooth LE:1/2Mbps
Power Supply	:	Input: DC 5V DC 3.7V by 200mAh Rechargeable Li-ion battery	
Software Version	:	V003090	
Hardware Version	:	RH189A-V01 20200405	
Remark: The antenna gain provided by the applicant, the adapter and verified for the RF conduction test and adapter provided by TOBY test lab.			

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 ≤ 5 mm are determined by:

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

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

2. Calculation:

Bluetooth LE Mode(1Mbps)						
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	-3.71	-3±1	-2	0.631	0.196	3.0
2.442	-3.48	-3±1	-2	0.631	0.197	3.0
2.480	-2.96	-2±1	-1	0.794	0.250	3.0
Bluetooth LE Mode(2Mbps)						
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	-3.65	-3±1	-2	0.631	0.196	3.0
2.442	-3.47	-3±1	-2	0.631	0.197	3.0
2.480	-2.9	-2±1	-1	0.794	0.250	3.0

Conclusion:

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.

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