

RF Exposure Evaluation

FCC ID: 2ATK6-X5

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	:	Smart Watch
Model(s) No.	:	X5, LC112, S2, LC113, LC115, LC116, LC117, LC118, LC121, LC122, LC123
Model Different	:	All these models are identical in the same PCB, layout and electrical circuit, The only difference is model name.
Product Description	:	Operation Frequency: Bluetooth V5.0(BT): 2402~2480 MHz
	:	Number of Channel: Bluetooth: 40 Channels
	:	Antenna Gain: 0 dBi Wire Antenna
	:	Modulation Type: GFSK
Power Rating	:	Input: DC5V DC 3.7V by 260mAh Rechargeable Li-ion battery
Software Version	:	V4510
Hardware Version	:	RH112T V02 20201224
Remark: The antenna gain and adapter provided by the applicant, the adapter and verified for the RF conduction test 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:

Test separation: 5mm						
Bluetooth 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	1.165	1±1	2	1.585	0.491	3.0
2.442	1.507	1±1	2	1.585	0.495	3.0
2.480	1.596	1±1	2	1.585	0.499	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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