RF Exposure Evaluation

FCC ID: 2AWAV-SMAT

1. Client Information

Applicant	:	SAIMIKA BIOTECHNOLOGY (SZ) CO.,LTD
Address	:	D602, T3 Industry Park, Baoan International Airport T3 Terminal, Shenzhen City, Guangdong Province, China
Manufacturer	:	SAIMIKA BIOTECHNOLOGY (SZ) CO.,LTD
Address	:	D602, T3 Industry Park, Baoan International Airport T3 Terminal, Shenzhen City, Guangdong Province, China

2. General Description of EUT

EUT Name	:	Smart Bracelet	
Model(s) No.	:	SMAT, SMAT1, SMAT2, SMAT3, SMAT4, SMAT5	
Model Different	:	All these models are the same PCB, layout and electrical circuit, the only difference is appearance and color.	
Product Description	:	Operation Frequency:	Bluetooth 4.2(BLE): 2402MHz~2480MHz
		Number of Channel:	Bluetooth 4.2(BLE): 40 channels
		RF Output Power:	0.457 dBm (Max)
		Antenna Gain:	1 dBi Internal Antenna
		Modulation Type:	GFSK
		Bit Rate of Transmitter:	1Mbps&2Mbps
Power Rating	:	USB Input:DC 5V DC 3.7V 90mAh by Li-ion battery	
Software Version	:	V0.08	
Hardware Version	:	V0.2	
Connecting I/O Port(S)	:	Please refer to the User's Manual	
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.

1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, China
Tel: +86 75526509301 Fax: +86 75526509195

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)]*[$\sqrt{f_{(GHz)}}$] ≤3.0 for 1-g SAR

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

2. Calculation:

Test separation: 5mm						
BLE 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	0.457	0±1	1	1.259	0.390	**3.0**
2.442	-0.240	0±1	1	1.259	0.393	**3.0**
2.480	0.013	0±1	1	1.259	0.397	**3.0**
BLE 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	0.201	0±1	1	1.259	0.390	**3.0**
2.442	-0.703	0±1	1	1.259	0.393	**3.0**
2.480	-0.957	0±1	1	1.259	0.397	**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.

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