

# RF Exposure Evaluation

## FCC ID: 2ARUI-XFIVE21SQ

### 1. Client Information

<b>Applicant</b>	:	American Exchange Time LLC
<b>Address</b>	:	NO.1441 Broadway 27th Floor, New York, NY 10018
<b>Manufacturer</b>	:	ShenZhen KY Technology Co., Ltd
<b>Address</b>	:	No:4~5 floor 4A building, Anle industry Baoan, 518126, ShenZhen, Guangdong Province, China

### 2. General Description of EUT

<b>EUT Name</b>	:	X-Five Smartwatch
<b>Model(s) No.</b>	:	900191, 900192, 900193, 900194
<b>Model Different</b>	:	All modles are based on the same circuit and structure, the differences are Appearance shape.
<b>Sample ID</b>	:	TBBJ-20210127-09-1# & TBBJ-20210127-09-2#
<b>Product Description</b>	Operation Frequency:	Bluetooth 5.0(BLE): 2402MHz~2480MHz
	Number of Channel:	Bluetooth 5.0(BLE): 40 channels
	RF Output Power:	6.970 dBm (Max)
	Antenna Gain:	1.62 dBi Wire Antenna
	Modulation Type:	GFSK
	Bit Rate of Transmitter:	1Mbps
<b>Power Rating</b>	:	Input: DC 5V DC 3.7V by 170mAh Li-ion battery
<b>Software Version</b>	:	N/A
<b>Hardware Version</b>	:	M80063.02
<b>Connecting I/O Port(S)</b>	:	Please refer to the User's Manual
<b>Remark:</b> 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  $\leq 5$  mm are determined by:

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

- [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)] \*  $\sqrt{f(\text{GHz})}$   $\leq 7.5.0$  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	6.97	6±1	7	5.012	1.554	3.0
2.442	6.74	6±1	7	5.012	1.566	3.0
2.480	6.041	6±1	7	5.012	1.579	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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