

RF Exposure Evaluation

FCC ID: 2ARUI-ITS20

1. Client Information

Applicant	:	American Exchange Time LLC
Address	:	No.1441 Broadway 27th Floor, New York, NY 10018
Manufacturer	:	American Exchange Time LLC
Address	:	No.1441 Broadway 27th Floor, New York, NY 10018

2. General Description of EUT

EUT Name	:	Smart Watch
Model(s) No.	:	8077, 7543, 7544, 7547, 7548, 7550, 7554, 7555, 7594, ,7595, 7597, 8075, 8076, 8078
Model Different	:	All these models are the same PCB, layout and electrical circuit, the only difference is Color of the bands.
Product Description	Operation Frequency:	Bluetooth 4.0(BLE): 2402MHz~2480MHz
	Number of Channel:	Bluetooth 4.0(BLE): 40 channels
	RF Output Power:	1.706 dBm (Max)
	Antenna Gain:	0 dBi Internal Antenna
	Modulation Type:	GFSK
	Bit Rate of Transmitter:	1Mbps
Power Rating	:	USB Input:DC 5V DC 3.7V 40mAh by Li-ion battery
Software Version	:	V1.9.1
Hardware Version	:	V03
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.

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						
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	1.706	1±1	2	1.585	0.491	3.0
2.442	1.539	1±1	2	1.585	0.495	3.0
2.480	1.316	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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