



RF Exposure Evaluation

FCC ID: 2BC8T-B1

1. Client Information

Applicant	:	Wellboss Technology Co., Ltd
Address	:	Block A, 1st Gaoqing road Qinghutou Town, Tangxia Area, Dongguan City, Guangdong Province, China
Manufacturer	:	Wellboss Technology Co., Ltd
Address	:	Block A, 1st Gaoqing road Qinghutou Town, Tangxia Area, Dongguan City, Guangdong Province, China

2. General Description of EUT

EUT Name	:	smart watch	
Model(s) No.	:	B1, B2, B3, B4, B5, B6, B7, B8, B9, B10, AK9, AK10, AK19, AM9, AM10, AM 11, Watch 9 Pro, Watch10 pro, T900Pro max, M8, M9, M10, M11, ultra 9, ultra 10, ultra 11, W18, W19, W20, T900, T800, S9, S10	
Model Difference	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is appearance.	
Product Description	Operation Frequency:	Bluetooth 5.2: 2402MHz~2480MHz Bluetooth 5.2(BLE): 2402MHz~2480MHz	
	Number of Channel:	Bluetooth 5.2: 79 channels Bluetooth 5.2(BLE):40 channels	
	Antenna Gain:	0dBi Wire Antenna	
	Modulation Type:	Bluetooth: GFSK, Pi/4-DQPSK, 8-DPSK Bluetooth LE: 1Mbps&2Mbps	
Power Rating	:	USB Input: DC 5V/1A DC 3.8V by 300mAh 1.14Wh Rechargeable Li-ion battery	
Software Version	:	V1.0	
Hardware Version	:	V1.0	
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:

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

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 7.5.0$ 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	6.288	6±1	7	5.012	1.554	3.0
2.441	6.403	6±1	7	5.012	1.566	3.0
2.480	5.768	5±1	6	3.981	1.254	3.0
Bluetooth Mode (Pi/4-DQPSK)						
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	5.231	5±1	6	3.981	1.234	3.0
2.441	5.369	5±1	6	3.981	1.244	3.0
2.480	4.811	4±1	5	3.162	0.996	3.0
Bluetooth Mode (8-DPSK)						
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	5.951	5±1	6	3.981	1.234	3.0
2.441	6.034	6±1	7	5.012	1.566	3.0
2.480	5.453	5±1	6	3.981	1.254	3.0
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	6.065	6±1	7	5.012	1.554	3.0
2.440	6.221	6±1	7	5.012	1.566	3.0
2.480	5.494	5±1	6	3.981	1.254	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	6.038	6±1	7	5.012	1.554	3.0
2.440	6.242	6±1	7	5.012	1.566	3.0
2.480	5.568	5±1	6	3.981	1.254	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 THE REPORT-----

