



RF Exposure Evaluation

FCC ID: 2BB6D-MAX11

1. Client Information

Applicant	:	SEHNZHEN SENBONO ELECTRICAL TECHNOLOGY CO., LTD
Address	:	Room 605, 6th Floor, LongYunTong Building, No.164 PengDa Road, LongGang Street, LongGang District, ShenZhen, China
Manufacturer	:	SEHNZHEN SENBONO ELECTRICAL TECHNOLOGY CO., LTD
Address	:	Room 605, 6th Floor, LongYunTong Building, No.164 PengDa Road, LongGang Street, LongGang District, ShenZhen, China

2. General Description of EUT

EUT Name	:	Smart Watch	
Model(s) No.	:	MAX11, MAX7, MAX12, MAX13, G20, Life3, C20s, Z40, L52pro, X01, DV05, ZW39, L52pro, PG333, PG666, GTS3, D16, F8, F10	
Model Difference	:	All PCB boards and circuit diagrams are the same, the only difference is that appearance.	
Product Description	:	Operation Frequency:	Bluetooth 5.3: 2402MHz~2480MHz Bluetooth 5.3(BLE): 2402MHz~2480MHz
		Number of Channel:	Bluetooth 5.3: 79 channels Bluetooth 5.3(BLE):40 channels
		Antenna Gain:	0.25dBi Wire Antenna
		Modulation Type:	GFSK, Pi/4-DQPSK, 8-DPSK(3Mbps) Bluetooth LE:1/2Mbps
		Bit Rate of Transmitter:	1/2/3Mbps
Power Supply	:	Input: DC 5V/1A	
Li-ion Polymer Battery	:	DC 3.7V by 260mAh Rechargeable Li-ion battery	
Software Version	:	----	
Hardware Version	:	AC02_MB_V12	
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						
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	5.245	5±1	6	3.981	1.234	3.0
2.441	5.012	5±1	6	3.981	1.244	3.0
2.480	4.406	4±1	5	3.162	0.996	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	5.481	5±1	6	3.981	1.234	3.0
2.441	5.302	5±1	6	3.981	1.244	3.0
2.480	4.721	5±1	6	3.981	1.254	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	5.646	6±1	7	5.012	1.554	3.0
2.441	5.467	5±1	6	3.981	1.244	3.0
2.480	4.976	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	5.232	5±1	6	3.981	1.234	3.0
2.440	4.959	5±1	6	3.981	1.244	3.0
2.480	4.385	4±1	5	3.162	0.996	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	5.294	5±1	6	3.981	1.234	3.0
2.440	5.049	5±1	6	3.981	1.244	3.0
2.480	4.505	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 REPORT-----

