

RF Exposure Evaluation

FCC ID: 2BFXV-KT83

1. Client Information

Applicant	:	Shenzhen Millay Century Technology Co., Ltd.
Address	:	4th Floor, Building I, No. 212 Pu'an Road, Liuyue Community, Henggang Street, Longgang District, Shenzhen, China
Manufacturer	:	Shenzhen Millay Century Technology Co., Ltd.
Address	:	4th Floor, Building I, No. 212 Pu'an Road, Liuyue Community, Henggang Street, Longgang District, Shenzhen, China

2. General Description of EUT

EUT Name	:	Smart Watch	
Model(s) No.	:	KT83	
Model Difference	:	----	
Product Description	:	Operation Frequency:	Bluetooth V5.3: 2402MHz~2480MHz
		Antenna Gain:	0.17dBi Wire Antenna
Power Rating	:	Input: DC 5V	
Li-ion Polymer Battery	:	DC 3.8V 400mAh 1.52Wh Rechargeable Li-ion battery	
Software Version	:	MOY-7802-2.0.0	
Hardware Version	:	MOY.MA1006.02	

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:

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

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

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	5.696	6±1	7	5.012	1.554	3.0
2.441	5.847	6±1	7	5.012	1.566	3.0
2.480	5.776	6±1	7	5.012	1.579	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	6.478	6±1	7	5.012	1.554	3.0
2.441	6.32	6±1	7	5.012	1.566	3.0
2.480	6.181	6±1	7	5.012	1.579	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	6.748	7±1	8	6.310	1.956	3.0
2.441	6.433	6±1	7	5.012	1.566	3.0
2.480	6.339	6±1	7	5.012	1.579	3.0

Test separation: 5mm						
Bluetooth LE 1M						
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	5.875	6±1	7	5.012	1.554	3.0
2.440	5.722	6±1	7	5.012	1.566	3.0
2.480	5.7	6±1	7	5.012	1.579	3.0

Test separation: 5mm						
Bluetooth LE 2M						
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	6.021	6±1	7	5.012	1.554	3.0
2.440	5.85	6±1	7	5.012	1.566	3.0
2.480	5.817	6±1	7	5.012	1.579	3.0

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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