

RF Exposure Evaluation

FCC ID: 2AUCJ-WCT001

1. Client Information

Applicant	:	Huzhou Dear Industry Co.Ltd.
Address	:	26# Wuxing Technology&Creation Park, Huzhou, China
Manufacturer	:	Huzhou Dear Industry Co.Ltd.
Address	:	26# Wuxing Technology&Creation Park, Huzhou, China

2. General Description of EUT

EUT Name	:	Wecount smart tracker
Model(s) No.	:	WCT001, WCT
Model Different	:	All these models are identical in the same PCB, layout and electrical circuit, The only difference is model name.
Product Description	:	Operation Frequency: Bluetooth 4.0(BLE): 2402MHz~2480MHz
		Number of Channel: Bluetooth 4.0(BLE): 40 channels
		RF Output Power: -4.505dBm (Max)
		Antenna Gain: 0.46dBi PCB Antenna
		Modulation Type: GFSK
		Bit Rate of Transmitter: 1Mbps
Power Rating	:	Input: DC4.5V 0.2A DC 1.5V*3 AAA Li-ion battery
Software Version	:	N/A
Hardware Version	:	TI CC2540F256
Remark: The antenna gain provided by the applicant, the adapter and verified for the RF conduction test 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:

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

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	-4.505	-4 ± 1	-3	0.501	0.155	3.0
2.441	-6.152	-6 ± 1	-5	0.316	0.099	3.0
2.480	-8.446	-8 ± 1	-7	0.200	0.063	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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