

RF Exposure Evaluation

FCC ID: 2AMVU-IQUTE-M3

1. Client Information

Applicant	:	Shenzhen Iotton Technologies Co.,Ltd.
Address	:	Qianhai Complex A201,Qianwan Road 1, Qianhai Shenzhen-Hongkong Cooperation Zone,Shenzhen, China
Manufacturer	:	Shenzhen Iotton Technologies Co.,Ltd.
Address	:	Qianhai Complex A201,Qianwan Road 1, Qianhai Shenzhen-Hongkong Cooperation Zone,Shenzhen, China

2. General Description of EUT

EUT Name	:	True wireless stereo earbuds	
Models No.	:	iQute M3,iQute *	
Model Difference	:	* represents 2-digit characters, and each character can be anything ranging from 0 to 9, A to Z ,symbols like "- "or "space"and different product models. All these models are identical in the same PCB layout and electrical circuit, And * is targeted at different sales territories, sales regions, sales methods, varied client groups, different market positioning and different product colors, and won't affect the product safety and electromagnetic compatibility.	
Product Description	:	Operation Frequency:	Bluetooth: 2402~2480 MHz
		RF Output Power:	Bluetooth: 0.932 dBm(Max) BLE: 2.419 dBm(Max)
		Antenna Gain:	2dBi Chip Antenna
Power Rating	:	DC 5.0V by USB. DC 3.7V by 0.185Wh Li-ion battery.	
Software Version	:	N/A	
Hardware Version	:	N/A	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

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	-0.162	0 ± 1	1	1.26	0.390	3.0
2.441	-1.985	0 ± 1	1	1.26	0.393	3.0
2.480	0.747	0 ± 1	1	1.26	0.397	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	-1.584	-1 ± 1	0	1.00	0.310	3.0
2.441	-2.958	-2 ± 1	-1	0.79	0.248	3.0
2.480	0.932	0 ± 1	1	1.26	0.397	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	-1.589	-1 ± 1	0	1.00	0.310	3.0
2.442	-2.035	-2 ± 1	-1	0.79	0.248	3.0
2.480	0.869	0 ± 1	1	1.26	0.397	3.0

BLE 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	2.419	2 ± 1	3	1.995	0.618	3.0
2.442	2.266	2 ± 1	3	1.995	0.623	3.0
2.480	1.514	2 ± 1	3	1.995	0.628	3.0

Test separation: 5mm	
The worst RF Exposure Evaluation	
Worst Calculation Value	Threshold Value
0.628	3.0

The worst RF Exposure Evaluation is **0.628 / cm² < limit 3.0**, So standalone SAR measurements are not required.

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