

RF Exposure Evaluation

FCC ID: 2AEG7IMT-B01

1. Client Information

Applicant : Shenzhen iMato Technology Co., Ltd
Address : 5th Floor, Building B, Stone Street, HuaFeng First Science Park, Gushu, Xixiang, Baoan District, Shenzhen, China
Manufacturer : Shenzhen iMato Technology Co., Ltd
Address : 5th Floor, Building B, Stone Street, HuaFeng First Science Park, Gushu, Xixiang, Baoan District, Shenzhen, China

2. General Description of EUT

EUT Name	:	bluetooth speaker
Models No.	:	IMT-B01, IMT-B03, IMT-B04, IMT-B05, IMT-B06, IMT-B07, IMT-B08, IMT-B10, IMT-B11
Model difference	:	All models are identical in the same PCB layout, interior structure and electrical circuits, The only difference is model name for commercial purpose.
Product Description	:	Operation Frequency: Bluetooth:2402~2480MHz
	:	Number of Channel: Bluetooth:79 Channels
	:	Max Peak Output Power: 8-DPSK: 5.85dBm
	:	Antenna Gain: 0 dBi PCB Antenna
	:	Modulation Type: GFSK 1Mbps(1 Mbps) π /4-DQPSK(2 Mbps) 8-DPSK(3 Mbps)
Power Supply	:	DC power by USB cable form Host System DC power by Li-ion battery
Power Rating	:	DC 5V by USB Cable from PC system. DC 3.7V by 420mAh Li-ion Battery.
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 v05r02.
 - (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 (mw)	Calculation Value	Threshold Value
2.402	3.16	± 0.5	2.32	0.72	3.0
2.441	3.37	± 0.5	2.44	0.76	3.0
2.480	3.47	± 0.5	2.49	0.79	3.0
Bluetooth Mode ($\pi/4$ -DQPSK)					
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	4.54	± 0.5	3.19	0.99	3.0
2.441	4.82	± 0.5	3.40	1.06	3.0
2.480	4.89	± 0.5	3.46	1.09	3.0
Bluetooth Mode (8-DPSK)					
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	5.49	± 0.5	3.97	1.23	3.0
2.441	5.71	± 0.5	4.18	1.31	3.0
2.480	5.85	± 0.5	4.32	1.36	3.0

So standalone SAR measurements are not required.