

RF Exposure Evaluation

FCC ID: 2AFZG-BTM98-8AA

1. Client Information

Applicant : David Audio Design & Manufacture (Shenzhen) Co., Ltd.
Address : 15A Haiyi Block Huijing Haoyuan, Shenzhen High-tech Industrial Park, Nanshan District, Shenzhen City, China
Manufacturer : David Audio Design & Manufacture (Shenzhen) Co., Ltd.
Address : 15A Haiyi Block Huijing Haoyuan, Shenzhen High-tech Industrial Park, Nanshan District, Shenzhen City, China

2. General Description of EUT

EUT Name	:	Bluetooth Module	
Models No.	:	BTM98-8AA, MM-1B, MM-2B, MM-3B, MM-4B, MM-5B, MM-6B, MM-7B, MM-8B, DT-307B, DT-308B, DT-309B, DT-310B, DT-312B, DT-313B, DT-315B, DT-316B, DT-318B , HTA-500B, HTA-700B, HTA900B	
Model Difference	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is model name for commercial.	
Product Description	:	Operation Frequency: 2402~2480MHz	
		Number of Channel:	Bluetooth 4.0 (BLE): 40 channels
		Max Peak Output Power:	2.28dBm Conducted Power
		Antenna Gain:	3 dBi Chip Antenna
		Modulation Type:	GFSK
Power Supply	:	DC Power by USB Cable.	
Power Rating	:	DC 5V by USB Cable for Host System.	
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)]* $[\sqrt{f_{\text{GHz}}}] \leq 3.0$ 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					
BLE(GFSK)					
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	2.28	± 0.5	1.897	0.588	3.0
2.442	2.19	± 0.5	1.858	0.581	3.0
2.480	1.10	± 0.5	1.445	0.455	3.0

So standalone SAR measurements are not required.