

# 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

<b>EUT Name</b>	: Bluetooth Module	
<b>Models No.</b>	: 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	
<b>Model Difference</b>	: All these models are identical in the same PCB, layout and electrical circuit, the only difference is model name for commercial.	
<b>Product Description</b>	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
<b>Power Supply</b>	DC Power by USB Cable.	
<b>Power Rating</b>	DC 5V by USB Cable for Host System.	
<b>Connecting I/O Port(S)</b>	: 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  $\leq 5$  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					
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	$\pm 0.5$	1.897	0.588	3.0
2.442	2.19	$\pm 0.5$	1.858	0.581	3.0
2.480	1.10	$\pm 0.5$	1.445	0.455	3.0

So standalone SAR measurements are not required.