

RF Exposure Evaluation

FCC ID: 2AM55-FY-35

1. Client Information

Applicant	:	New Tech Development Co.,Ltd
Address	:	Flr.3 Bldg A, JinKe Industrial Park, No.310, Wuhe Road, GuanLan Street, LongHua District, Shenzhen, China
Manufacturer	:	New Tech Development Co.,Ltd
Address	:	Flr.3 Bldg A, JinKe Industrial Park, No.310, Wuhe Road, GuanLan Street, LongHua District, Shenzhen, China

2. General Description of EUT

EUT Name	:	LED Bluetooth Speaker	
Models No.	:	FY-35, NOVABS22A, NOVABS20KK, FY-18, FY-24, FY-25, FY-27, FY-30, FY-31, FY-33, FY-34, FY-37, FY-38, FY-39A, FY-39B, FY-40, FY-41, FY-42, FY-43, FY-44, FY-45, FY-46, M-04A, M-04B, M-05A, M-05B, M-08, M-07, M-10, M-12, M-13	
Model Difference	:	All these models are the same PCB, layout and electrical circuit, the only difference is model.	
Product Description	Operation Frequency:	Bluetooth 4.2(BT): 2402MHz~2480MHz	
	RF Output Power:	GFSK:4.670dBm π/4-DQPSK:5.392dBm	
	Antenna Gain:	0dBi PCB Antenna	
Power Supply	:	DC Voltage Supply from Adapter DC Voltage supplied by Li-ion battery.	
Power Rating	:	Input: DC 5.0V by adapter DC 3.7V by 2000mAh Li-ion battery	
Software Version	:	V2.0	
Hardware Version	:	V1.0	
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	4.646	4±1	5	3.162	0.980	3.0
2.441	4.670	4±1	5	3.162	0.988	3.0
2.480	4.167	4±1	5	3.162	0.996	3.0
Bluetooth Mode (π/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	5.379	5±1	6	3.981	1.234	3.0
2.441	5.392	5±1	6	3.981	1.244	3.0
2.480	4.957	5±1	6	3.981	1.254	3.0

Test separation: 5mm		
The worst RF Exposure Evaluation		
Worst Calculation Value	Total Calculation Value	Threshold Value
Bluetooth Mode		
1.254	1.254	3.0

The worst RF Exposure Evaluation is calculated as **1.254 / cm² < limit 3.0**, So standalone SAR measurements are not required.

-----END OF REPORT-----