

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 | : | lutput: 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:

- [(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 | | | | | | |
|----------------------------------|-----------------------|------------------------------|--------------------------------------|-------------------------------------|-------------------|-----------------|
| 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 ($\pi/4$ -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 | 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 $1.254 / \text{cm}^2 < \text{limit } 3.0$, So standalone SAR measurements are not required.

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