



RF Exposure Evaluation

FCC ID: 2BMBX-NE-108

1. Client Information

Applicant	:	Shenzhen Shenghua Technology Co., LTD
Address	:	8 building, 3 floor, Hongfa Jiatli High-tech Park, Langxin Community, Shiyan Street, Baoan District, Shenzhen, China
Manufacturer	:	Shenzhen Shenghua Technology Co., LTD
Address	:	8 building, 3 floor, Hongfa Jiatli High-tech Park, Langxin Community, Shiyan Street, Baoan District, Shenzhen, China

2. General Description of EUT

EUT Name	:	TWS(true wireless stereo)earphones EDR	
Model(s) No.	:	NE-108	
Model Difference	:	----	
Product Description	:	Operation Frequency:	Bluetooth V5.0: 2402MHz~2480MHz
	:	Antenna Gain:	2.5dBi Ceramic Chip Antenna
Power Supply	:	USB Input: DC 5V/1A DC 3.7V 35mAh Rechargeable Li-ion battery	
Software Version	:	V201	
Hardware Version	:	V1.0	

Remark:

- (1) The antenna gain provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.
- (2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- (3) The above antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.
- (4) 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:

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{\text{GHz}}]} \leq 3.0 \text{ for 1-g SAR}$$

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{\text{GHz}}]} \leq 7.5.0 \text{ for 10-g SAR}$$



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	-3.043	-3 ± 1	-2	0.631	0.196	3.0
2.441	-3.687	-3 ± 1	-2	0.631	0.197	3.0
2.480	-4.317	-4 ± 1	-3	0.501	0.158	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	-1.919	-1 ± 1	0	1	0.310	3.0
2.441	-2.458	-2 ± 1	-1	0.794	0.248	3.0
2.480	-3.489	-3 ± 1	-2	0.631	0.199	3.0

Test separation: 5mm						
Bluetooth LE 1M						
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	-3.682	-3 ± 1	-2	0.631	0.196	3.0
2.440	-4.292	-4 ± 1	-3	0.501	0.157	3.0
2.480	-5.373	-5 ± 1	-4	0.398	0.125	3.0
Bluetooth LE 2M						
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	-3.477	-3 ± 1	-2	0.631	0.196	3.0
2.440	-3.958	-3 ± 1	-2	0.631	0.197	3.0
2.480	-5.240	-5 ± 1	-4	0.398	0.125	3.0

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

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

