



# RF Exposure Evaluation

## FCC ID: 2ATQ9-E96

### 1. Client Information

<b>Applicant</b>	:	Dongguan Gorsun Electronics Co., Ltd
<b>Address</b>	:	No.140 Chashi Road, Tangjiao village, Chashan Town, Dongguan, China
<b>Manufacturer</b>	:	Dongguan Gorsun Electronics Co., Ltd
<b>Address</b>	:	No.140 Chashi Road, Tangjiao village, Chashan Town, Dongguan, China

### 2. General Description of EUT

<b>EUT Name</b>	:	wireless headphone
<b>Model(s) No.</b>	:	XL-E96-AC6955F-V1.1
<b>Model Difference</b>	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is appearance color.
<b>Product Description</b>	:	Operation Frequency: Bluetooth V5.4: 2402MHz~2480MHz
	:	Antenna Gain: -0.68dBi PCB Antenna
<b>Power Supply</b>	:	USB INPUT: DC 5V DC 3.7V 300mAh 1.11Wh Rechargeable Li-ion battery
<b>Software Version</b>	:	----
<b>Hardware Version</b>	:	V1.1
<b>Remark:</b> The antenna gain provided by the applicant, the adapter and verified for the RF conduction test and adapter provided by TOBY test lab.		

**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  $\leq 5$  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	0.133	0±1	1	1.259	0.390	3.0
2.441	-0.662	0±1	1	1.259	0.393	3.0
2.480	-1.25	-1±1	0	1	0.315	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	1.001	1±1	2	1.585	0.491	3.0
2.441	0.152	0±1	1	1.259	0.393	3.0
2.480	-0.464	0±1	1	1.259	0.397	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	-1.63	-1±1	0	1	0.310	3.0
2.440	-2.528	-2±1	-1	0.794	0.248	3.0
2.480	-3.239	-3±1	-2	0.631	0.199	3.0

Test separation: 5mm						
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	-1.441	-1±1	0	1	0.310	3.0
2.440	-2.281	-2±1	-1	0.794	0.248	3.0
2.480	-3.005	-3±1	-2	0.631	0.199	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-----

