



# RF Exposure Evaluation

## FCC ID: 2ATPS-QH010

### 1. Client Information

<b>Applicant</b>	:	Dongguan Shinecon Industrial Co., Ltd
<b>Address</b>	:	NO.9 SHIBEI ROAD,TANGLI DISTRICT, FENGGANG, DONGGUAN, CHINA.
<b>Manufacturer</b>	:	Dongguan Shinecon Industrial Co., Ltd
<b>Address</b>	:	NO.9 SHIBEI ROAD,TANGLI DISTRICT, FENGGANG, DONGGUAN, CHINA.

### 2. General Description of EUT

<b>EUT Name</b>	:	Open Ear Desgin headphone	
<b>Model(s) No.</b>	:	QH-010, QH-001, QH-002, QH-003, QH-005, QH-006, QH-007, QH-008, QH-009, QH-101, WG-01, WG-02, WG-03, WG-04, WG-05, WG-06, WG-07, WG-08, WG-09, WG-103, TS19, TS20, TS21, TS18, TS22, TS23	
<b>Model Difference</b>	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is appearance.	
<b>Sample ID</b>	:	202309-0266-3-1#&202309-0266-3-2#	
<b>Product Description</b>	:	Operation Frequency:	Bluetooth 5.3: 2402MHz~2480MHz
	:	Number of Channel:	BT: 79 channels BLE: 40 channels
	:	Antenna Gain:	2.41dBi PIFA Antenna
<b>Power Rating (Earphone)</b>	:	Input: DC 5V/1A DC 3.7V by 300mAh 1.11Wh Rechargeable Li-ion battery	
<b>Power Rating (Charger Box)</b>	:	DC 3.7V by 80mAh 0.296Wh Rechargeable Li-ion battery	
<b>Software Version</b>	:	6973_V240	
<b>Hardware Version</b>	:	TS21-V3	
<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	1.951	2±1	3	1.995	0.618	3.0
2.441	2.953	3±1	4	2.512	0.785	3.0
2.480	4.163	3.5±1	4.5	2.818	0.888	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	2.889	3±1	4	2.512	0.779	3.0
2.441	3.796	3.5±1	4.5	2.818	0.881	3.0
2.480	2.611	3±1	4	2.512	0.791	3.0
Bluetooth Mode (8-DPSK)						
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	2.615	3±1	4	2.512	0.779	3.0
2.441	3.724	3.5±1	4.5	2.818	0.881	3.0
2.480	-0.221	0±1	1	1.259	0.397	3.0
Bluetooth LE Mode(1Mbps)						
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	-0.573	-1±1	0	1	0.310	3.0
2.440	0.281	0±1	1	1.259	0.393	3.0
2.480	1.564	2±1	3	1.995	0.628	3.0
Bluetooth LE Mode(2Mbps)						
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	-0.589	-1±1	0	1	0.310	3.0
2.440	0.37	0±1	1	1.259	0.393	3.0
2.480	1.623	2±1	3	1.995	0.628	3.0

**Conclusion:**

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-----

