

RF EXPOSURE REPORT



Report No.:17021728-FCC-H1

Supersede Report No.: N/A

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| Applicant | Shenzhen Qi Ying Electronics Co.,Ltd | |
| Product Name | Clip Wireless Car Audio player | |
| Main Model | QY-BK02 | |
| Test Standard | FCC 2.1093 | |
| Test Date | December 20 to December 26, 2017 | |
| Issue Date | January 09, 2017 | |
| Test Result | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail | |
| Equipment complied with the specification | <input checked="" type="checkbox"/> | |
| Equipment did not comply with the specification | <input type="checkbox"/> | |
| <i>Amos Xia</i> | <i>Deon Dai</i> | |
| Amos Xia Test Engineer | Deon Dai Engineer Reviewer | |
| This test report may be reproduced in full only Test result presented in this test report is applicable to the tested sample only | | |

Issued by:

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Laboratories Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

Accreditations for Conformity Assessment

| Country/Region | Scope |
|----------------|------------------------------------|
| USA | EMC, RF/Wireless, SAR, Telecom |
| Canada | EMC, RF/Wireless, SAR, Telecom |
| Taiwan | EMC, RF, Telecom, SAR, Safety |
| Hong Kong | RF/Wireless, SAR, Telecom |
| Australia | EMC, RF, Telecom, SAR, Safety |
| Korea | EMI, EMS, RF, SAR, Telecom, Safety |
| Japan | EMI, RF/Wireless, SAR, Telecom |
| Singapore | EMC, RF, SAR, Telecom |
| Europe | EMC, RF, SAR, Telecom, Safety |

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CONTENTS

| | | |
|---|--|---|
| 1 | REPORT REVISION HISTORY..... | 5 |
| 2 | CUSTOMER INFORMATION | 5 |
| 3 | TEST SITE INFORMATION..... | 5 |
| 4 | EQUIPMENT UNDER TEST (EUT) INFORMATION | 6 |
| 5 | FCC §2.1093 - RF EXPOSURE | 7 |

1 Report Revision History

| Report No. | Report Version | Description | Issue Date |
|-----------------|----------------|-------------|------------------|
| 17021728-FCC-H1 | NONE | Original | January 09, 2017 |
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| | | | |

2 Customer information

| | |
|------------------|---|
| Applicant Name | Shenzhen Qi Ying Electronics Co.,Ltd |
| Applicant Add | Floor 2,Building D ,Quan Yuan Fa Industrial Zone,Guan Lan Road No.73,Long Hua District,Shenzhen City ,China |
| Manufacturer | Shenzhen Qi Ying Electronics Co.,Ltd |
| Manufacturer Add | Floor 2,Building D ,Quan Yuan Fa Industrial Zone,Guan Lan Road No.73,Long Hua District,Shenzhen City ,China |

3 Test site information

| | |
|----------------------|--|
| Lab performing tests | SIEMIC (Nanjing-China) Laboratories |
| Lab Address | 2-1 Longcang Avenue Yuhua Economic and Technology Development Park, Nanjing, China |
| FCC Test Site No. | 694825 |
| IC Test Site No. | 4842B-1 |
| Test Software | EZ_EMG |

4 Equipment under Test (EUT) Information

| | |
|-------------------------------|---------------------------------------|
| Description of EUT: | Clip Wireless Car Audio player |
| Main Model: | QY-BK02 |
| Serial Model: | N/A |
| Date EUT received: | December 18,2017 |
| Test Date(s): | December 20 to December 26, 2017 |
| Antenna Gain: | Bluetooth: 0 dBi |
| Output Power: | 0.195 dBm |
| Type of Modulation: | Bluetooth: GFSK, $\pi/4$ DQPSK, 8DPSK |
| RF Operating Frequency (ies): | Bluetooth: 2402-2480 MHz |
| Number of Channels: | Bluetooth: 79CH |
| Port: | N/A |
| Input Power: | DC 3.3-4.2V Battery:3.7V 1000mAh |
| Trade Name : | N/A |
| FCC ID: | 2AOLJQY-BK02 |

5 FCC §2.1093 - RF Exposure

Standard Requirement:

According to §15.247 (i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

$$\left[\frac{(\text{max. power of channel, including tune-up tolerance, mW})}{(\text{min. test separation distance, mm})} \right] \cdot \left[\sqrt{f_{\text{GHz}}} \right] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR,}^{16} \text{ where}$$

- f_{GHz} is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation¹⁷
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

Test Result:

| Type | Test mode | CH | Freq (MHz) | Conducted Power (dBm) | Tune Up Power (dBm) |
|--------------|-----------|------|------------|-----------------------|---------------------|
| Output power | GFSK | Low | 2402 | 0.195 | -1.5±2 |
| | | Mid | 2441 | -1.558 | |
| | | High | 2480 | -3.037 | |

One antennas are available for the EUT (BT antenna).

GFSK Mode:

The maximum average output power(turn-up power) in low channel of BT is 0.5 dBm=1.12mW

The calculation results= $1.12/5 \cdot \sqrt{2.402} = 0.35 < 3$

The maximum average output power(turn-up power) in middle channel of BT is 0.5 dBm=1.12mW

The calculation results= $1.12/5 \cdot \sqrt{2.441} = 0.35 < 3$

The maximum average output power(turn-up power) in high channel of BT is 0.5 dBm=1.12mW

The calculation results= $1.12/5 \cdot \sqrt{2.480} = 0.35 < 3$

Test Result: Pass

Note: Only show the worst data(GFSK Mode).