FCC TEST REPORT

FCC ID	:	XFWCND1002-RX
Reference No.	:	TK10082167-S-F
Applicant	:	2Go Products, LLC.
Address	:	7770 Regents Rd #113-632 San Diego California 92122 United States
Product Name	:	Remote Key Finder
Model No.	:	CND1002
Date of Test	:	Aug.20, 2010 to Aug.25, 2010
Date of Issue	:	Aug.25, 2010
Standard	:	FCC PART 15, SUBPART B: 2008
Tested By	:	Jack. Lin
Reviewed By	:	Richard chen

PERPARED BY:

Shenzhen Toke Test Technology Co., Ltd.

Test Result :	**PASS ***

* The sample detailed above has been tested to the requirements of Council Directives ANSI C63.4:2003. The test results have been reviewed against the Directives above and found to meet their essential requirements.

1 Test Summary

Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission (30MHz to 5GHz)	FCC PART 15, SUBPART B: 2008	ANSI C63.4: 2003	Class B	PASS
Conducted Emission (150KHz to 30MHz)	FCC PART 15, SUBPART B: 2008	ANSI C63.4: 2003	Class B	N/A

2 Contents

3 General Information

3.1 Client Information

Applicant:	2Go Products, LLC.
Address:	7770 Regents Rd #113-632 San Diego California 92122 United States
Manufacturer:	Shenzhen C&D Electronic Co.,Ltd.
Address:	Bldg2, Xiayousong Mountaintop Industrial Dist, Long Hua Town, Bao'An District,ShenZhen City,China

3.2 General Description of E.U.T.

Product description:	Remote Key Finder
Model No.:	CND1002

Remark: the EUT have two colours,and the PCB of two colours are the same.

3.3 Details of E.U.T.

Power Supply:	Battery 3.0V

3.4 Description of Support Units

The EUT has been tested as an independent unit.

3.5 Standards Applicable for Testing

The customer requested FCC tests for Remote Key Finder. The standards used were FCC PART 15 SUBPART B.

3.6 Test Location

All Emissions tests were performed at:-

Solid Industrial (Shenzhen) Co., Ltd. at 333 Bulong Highway Buji Longgang, Shenzhen, Guangdong, China. The test facility is recognized, certified, or accredited by the following organizations:

FCC – Registration No.: 759397

Solid Industrial (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 759397, December 28, 2006.

4 Equipment Used during Test

Equipment	Brand Name	Model	Cal. Int Months	Last Cal. Date
3m Anechoic chamber				
EMC Analyzer	Agilent E7405A	MY45114943	12	2010-08
EMI Test Receiver	R&S	ESS	12	2010-08
Pre Amplifier	Anritsu	MH648A	12	2010-08
Bilog Antenna	SCHAFFNER	CBL6111C	12	2010-08
Broad-band Horn Antenna	SCHWARZBECK MESS-ELEKTROM / VULB9163	667	12	2010-08
10m Coaxial Cable with N-male Connectors	SCHWARZBECK MESS-ELEKTROM / AK 9515 H	---	12	2010-08
10m 50 Ohm Coaxial Cable with N-plug,individual length	SCHWARZBECK MESSELEKTOM / AK 9513	---	12	2010-08
Test Receiver	ROHDE&SCHWARZ/ ESPI	101155	12	2010-08
AM/FM Stereo Signal Generator	Panasonic	VP-8122A	12	2010-08
Signal Generator	R&S	SMG	12	2010-08

5 Emissions Test Results

5.1 Conducted Emission Data

Test Requirement:	FCC Part15.107
Test Method:	ANSI C63.4：2003
Test Date:	--------
Frequency Range:	150kHz to 30MHz
Class:	Class B
Limit:	66-56 dBμV between 0.15MHz & 0.5MHz 56 dBμV between 0.5MHz & 5MHz 60 dBμV between 5MHz & 30MHz
Detector:	Peak for pre-scan (9kHz Resolution Bandwidth) Quasi-Peak & Average if maximised peak within 6dB of Average Limit

5.1.1 E.U.T. Operation

Operating Environment:

Temperature:	25.5°C
Humidity:	51 % RH
Atmospheric Pressure:	1012 mbar

EUT Operation :

The EUT was tested according to ANSI C63.4：2003. The frequency spectrum from 150kHz to 30MHz was investigated.

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

5.1.2 EUT Setup

The conducted emission tests were performed using the setup accordance with the ANSI C63.4：2003, The specification used in this report was the FCC Part15 B limits.

5.1.3 Conducted Emission Test Result

Own to the EUT was used battery,so the conduction was not needed in the report.

5.2 Radiation Emission Data

Test Requirement:	FCC Part15.109
Test Method:	ANSI C63.4:2003
Test Date:	Aug.24,2010
Frequency Range:	30MHz to 2GHz
Measurement Distance:	3m
Class:	Class B
Limit:	40.0 dBμV/m between 30MHz & 88MHz
	43.5 dBμV/m between 88MHz & 216MHz
	46.0 dBμV/m between 216MHz & 960MHz
	54.0 dBμV/m zbove 960MHz
Detector:	Peak for pre-scan (120kHz resolution bandwidth)
	Quasi-Peak if maximised peak within 6dB of limit

5.2.1 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in the field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Waltek EMC Lab is ±5.03dB.

5.2.2 EUT Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.4:2003, The specification used in this report was the FCC Part15 B limits.

5.2.3 Spectrum Analyzer Setup

According to FCC Part15 B Rules, the system was tested 30 to 2000MHz.
Below 1GHz

Start Frequency ..... 30 MHz
Stop Frequency ..... 1000 MHz
Sweep Speed Auto
IF Bandwidth ..... 120 kHz
Video Bandwidth ..... 100 kHz
Quasi-Peak Adapter Bandwidth ..... 120 kHz
Quasi-Peak Adapter Mode ..... Normal
Resolution Bandwidth ..... 100 kHz

Above 1GHz

Start Frequency 1GHz
Stop Frequency 2GHz
Sweep Speed Auto
IF Bandwidth ..... 120 kHz
Video Bandwidth ..... 1 MHz
Quasi-Peak Adapter Bandwidth ..... 120 kHz
Quasi-Peak Adapter Mode ..... Normal
Resolution Bandwidth 1MHz

5.2.4 Test Procedure

The radiated emissions test.

Maximizing procedure was performed on the six (6) highest emissions to ensure EUT is compliant with all installation combinations.

All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dBμV of specification limits), and are distinguished with a "**Qp**" in the data table.
The EUT was under normal mode during the final qualification test and the configuration was used to represent the worst case results.

5.2.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

Corr. Ampl. = Indicated Reading + Antenna Factor + Cable Factor - Amplifier Gain

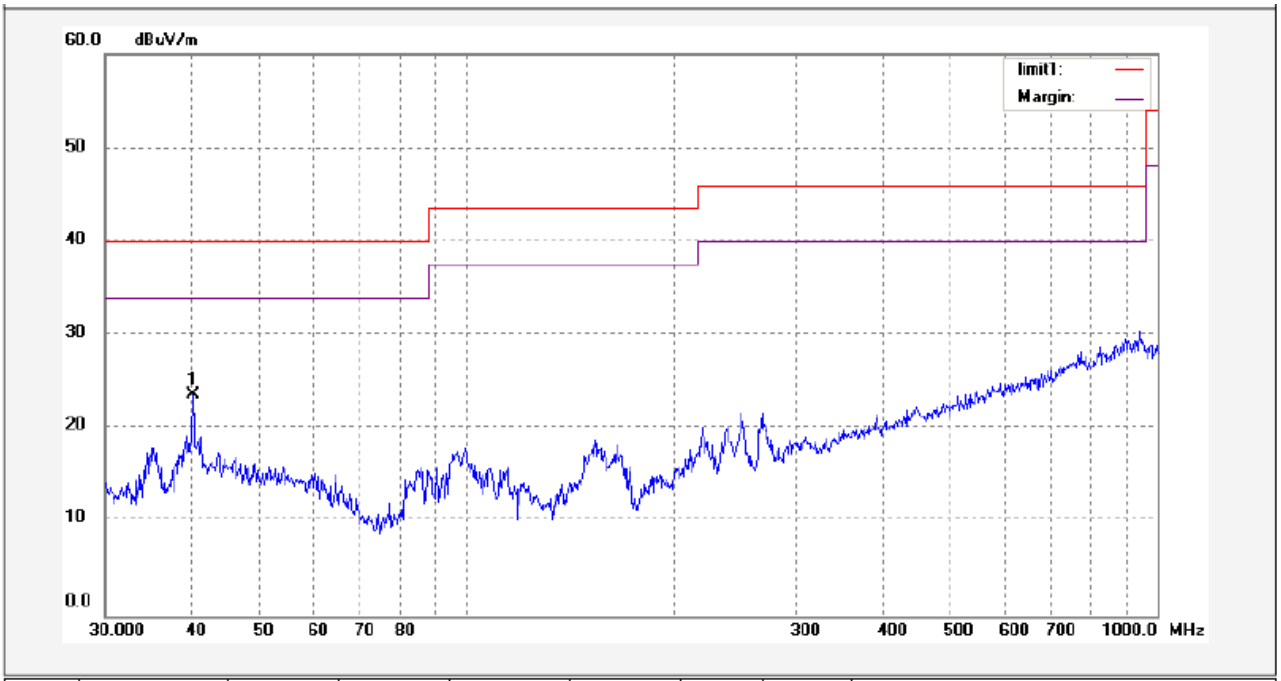
The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dBμV means the emission is 7dBμV below the maximum limit for Class B. The equation for margin calculation is as follows:
Margin = Corr. Ampl. – Class B Limit

5.2.6 Summary of Test Results

According to the data in this section, the EUT complied with the FCC Part15 B standards.

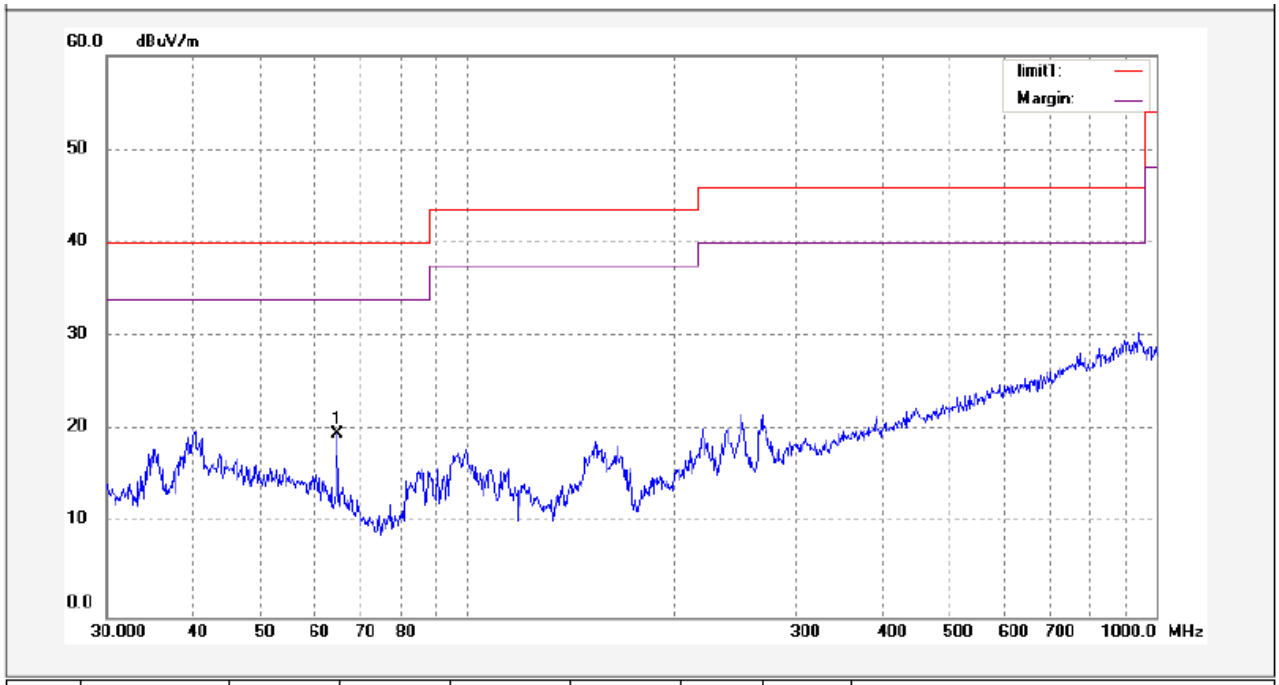
Below 1GHz

Vertical:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	40.1580	9.06	14.60	23.66	40.00	-16.34	peak	

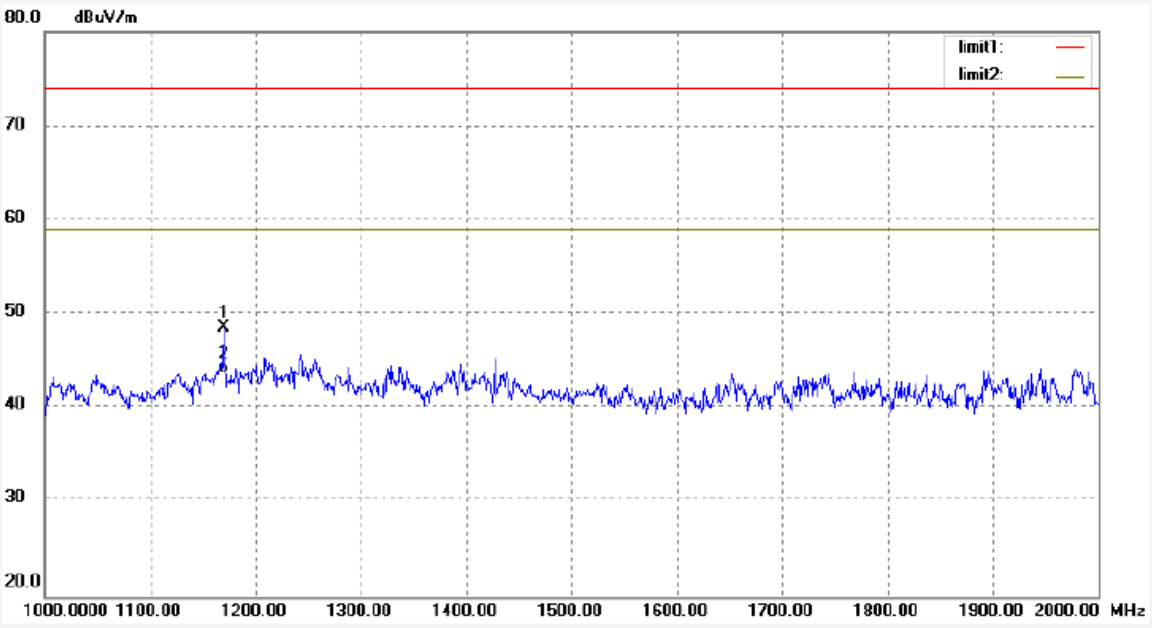
Horizontal:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	64.7587	6.87	12.68	19.55	40.00	-20.45	peak	

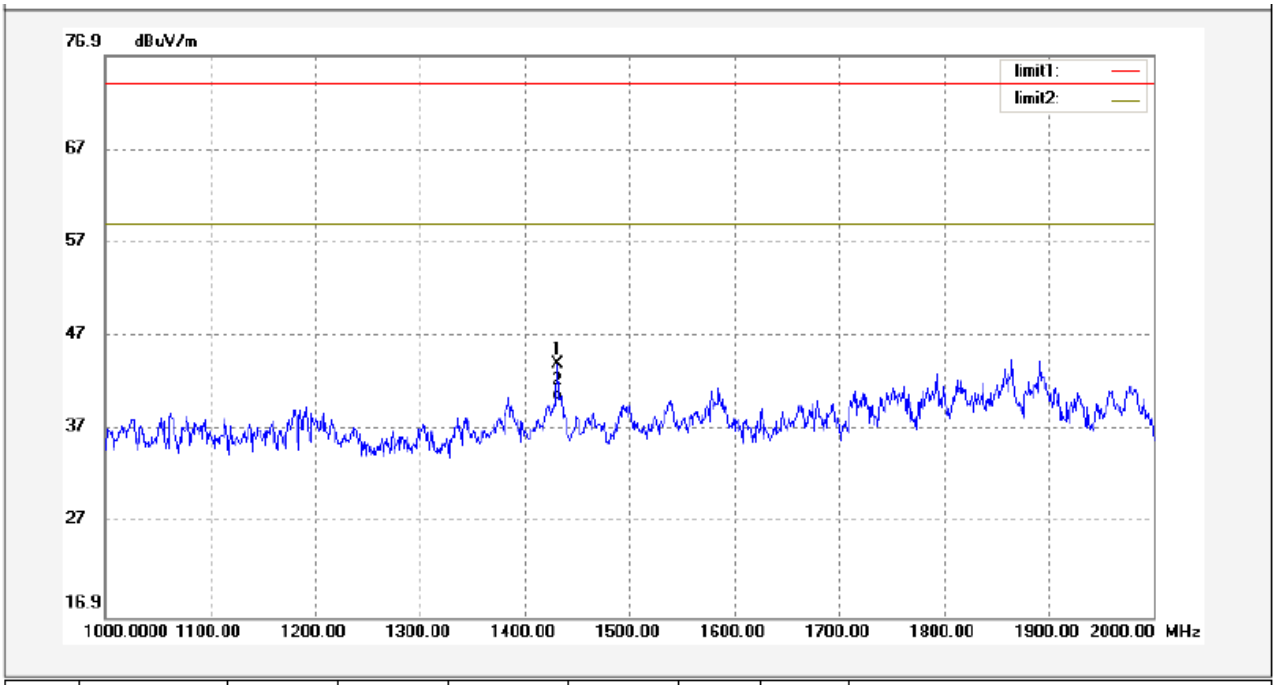
Above 1GHz

Vertical:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	1170.000	54.35	-5.79	48.56	74.00	-25.44	peak	
2	1170.000	49.35	-5.79	43.56	59.00	-15.44	AVG	

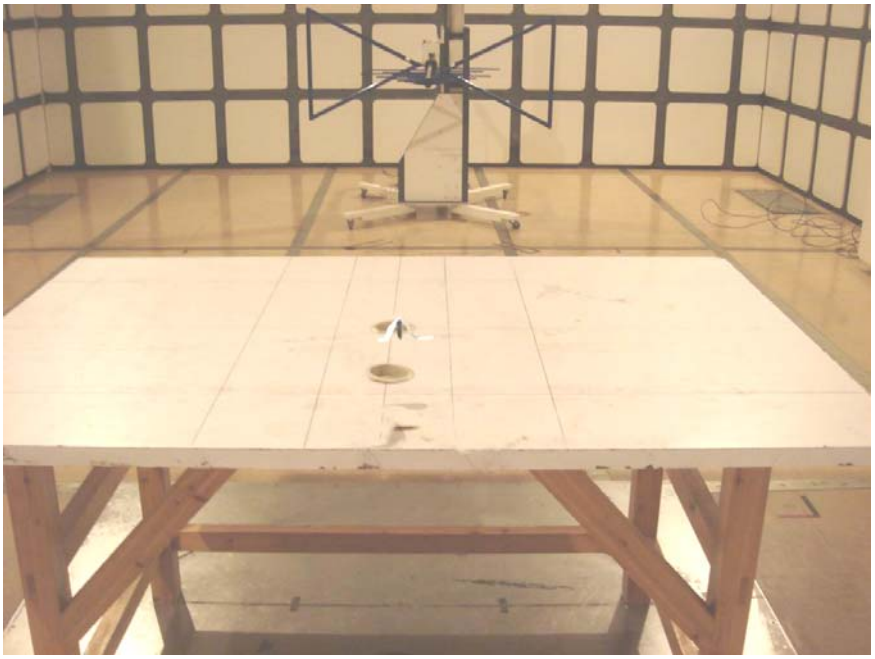
Horizontal:



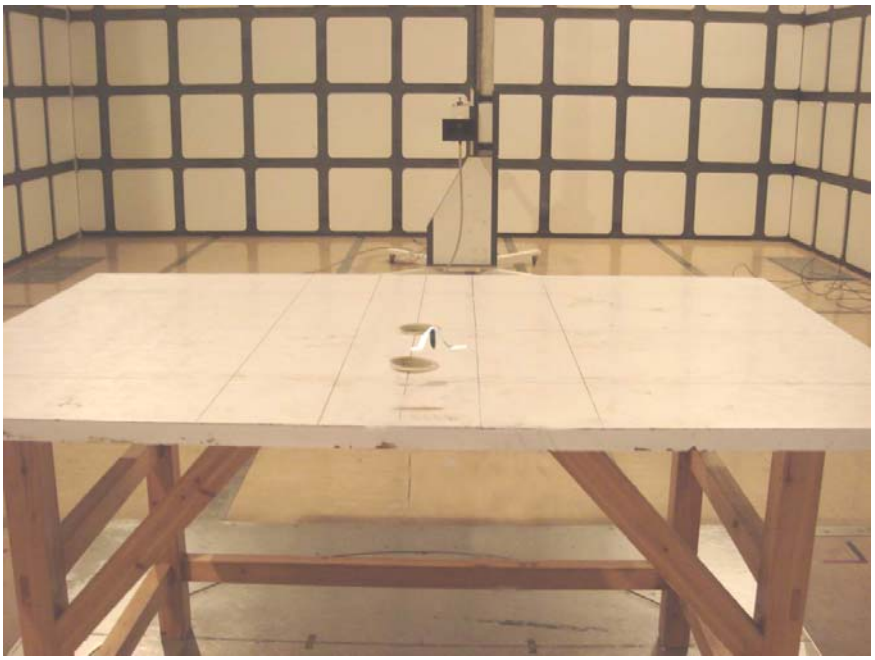
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	1431.000	49.08	-5.05	44.03	74.00	-29.97	peak	
2	1431.000	45.08	-5.05	40.03	59.00	-18.97	AVG	

5.2.7 Photographs – Radiation Emission Test Setup

Below 1GHz



Above 1GHz

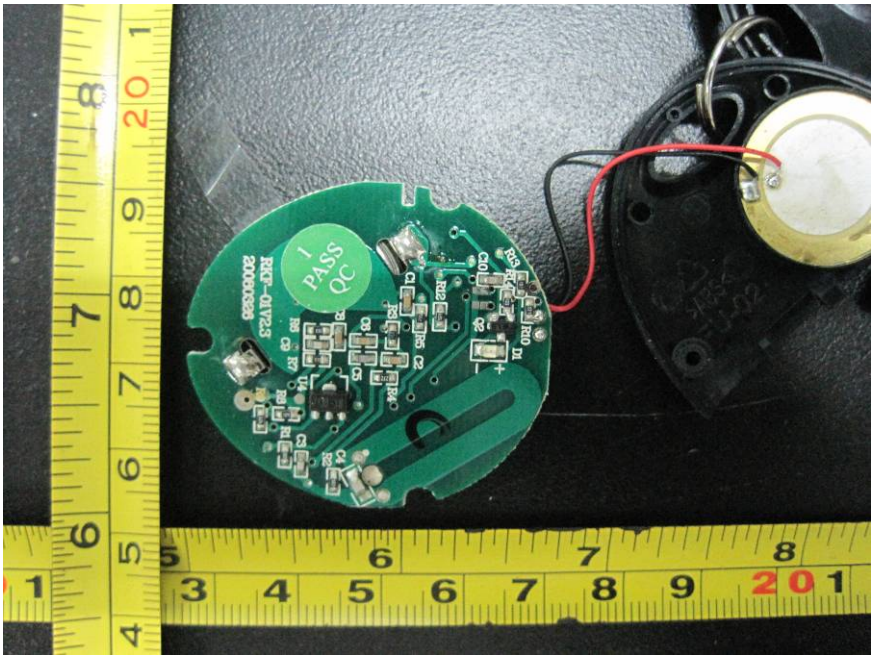


6 Photographs - Constructional Details

6.1 EUT - Front View

6.2 EUT -Back View

6.3 PCB- Front View



6.4 PCB- Back View

7 FCC ID Label

Proposed Label Location on EUT

EUT Bottom View/proposed FCC Label Location