



## ATC Lab Co., Ltd (Guangdong, China)

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FCC ID: 2ABZWGUSBT-350K  
Report No.: FCC140314005I  
Page: 1 of 20

## FCC REPORT

**Application No.:** FCC140303005IA

**Applicant:** Ace Mart Restaurant Supply

**Address of Applicant:** 2653 Austin Highway San Antonio, Texas, USA

**FCC ID:** 2ABZWGUSBT-350K

**Equipment Under Test (EUT):**

EUT Name: Induction Cooker

Item No.: BT-350K

Serial No.: Not supplied by client

**Standards:** FCC Part 18:2009

**Date of Receipt:** 03 March, 2014

**Date of Test:** 05 March, 2014 to 07 March, 2014

**Date of Issue:** 14 March, 2014

<b>Test Result :</b>	<b>PASS*</b>
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\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Louis Lu  
Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of ATC Technology Approvals or testing done by ATC Technology Approvals in connection with, distribution or use of the product described in this report must be approved by ATC Technology Approvals in writing. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.



## Test Summary

Test	Test Requirement	Test Method	Standard Paragraph	Result
<b>Conducted Emission</b>	FCC PART 18:2009	FCC MP-5:1986	Section 18.307(a)	PASS
<b>Radiated Emission</b>	FCC PAR 18:2009	FCC MP-5:1986	Section 18.305(b)	PASS

The model BT-350K was chosen to be tested in the report.



## 1 Contents

	Page
TEST SUMMARY.....	2
1 CONTENTS.....	3
2 GENERAL INFORMATION .....	4
2.1 CLIENT INFORMATION .....	4
2.2 GENERAL DESCRIPTION OF E.U.T .....	4
2.3 TEST LOCATION .....	4
2.4 TEST SUPPORTING SYSTEM DETAILS .....	4
2.5 TEST FACILITY.....	5
2.6 MEASUREMENT UNCERTAINTY .....	5
2.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER .....	5
3 EQUIPMENT USED DURING TEST .....	6
4 TEST RESULTS .....	7
4.1 CONDUCTED EMISSIONS.....	7
4.1.1 <i>Test Setup</i> .....	8
4.1.2 <i>Test Prosesure</i> .....	8
4.1.3 <i>Measurement Data</i> .....	8
4.2 RADIATED EMISSIONS.....	10
4.2.1 <i>Test Setup</i> .....	11
4.2.2 <i>Test Prosesure</i> .....	12
4.2.3 <i>Measurement Data</i> .....	12
5 PHOTOGRAPHS.....	14
5.1 CONDUCTED EMISSION TEST SETUP .....	14
5.2 RADIATED EMISSION TEST SETUP .....	14
5.3 EUT CONSTRUCTIONAL DETAILS.....	15



## 2 General Information

### 2.1 Client Information

Applicant: Ace Mart Restaurant Supply  
Address of Applicant: 2653 Austin Highway San Antonio, Texas, USA  
Manufacturer: ZhongShan Better Home Appliance Co.,Ltd.  
Address of Manufacturer: NO.3,Jian'an Road,Nantou Town ,Zhongshan,Guangdong,PRC

### 2.2 General Description of E.U.T.

Equipment Under Test: Induction Cooker  
Trade Name: Gusto Equipment  
Model Number: BT-350K  
Power Supply: AC 120V,60Hz  
Date of Test: 05-07 March, 2014

### 2.3 Test Location

All tests were sub-contracted to::  
Laboratory of Guangdong Galanz Enterprises Co., Ltd.  
No.25, South of Ronggui Rd., Shunde District, Foshan, Guangdong, China (528305)  
Phone:0757-23612690  
Fax:0757-23612537

### 2.4 Test Supporting System Details

None



## **2.5 Test Facility**

FCC-Registration No.: 580210

Guangdong Galanz Enterprises 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. Listing date: November 28, 2012.

IC-Registration No.: 8801A

Guangdong Galanz Enterprises Co., Ltd EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 8801A on May 03, 2013.

## **2.6 Measurement Uncertainty**

of +/- 4.5 dB for Radiated Emissions

of +/- 2.3 dB for Conducted Emissions

## **2.7 Other Information Requested by the Customer**

None



ATC Lab Co., Ltd (Guangdong, China).

Report No.: FCC140314005I

Page: 6 of 20

FCC ID: 2ABZWGUSBT-350K

### 3 Equipment Used during Test

<b>Conducted Emission</b>					
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Due Date
GAL-EMC002	Shielding Room	ETS	N/A	N/A	2014-05-16
GAL-EMC003	Receiver	SCHAFFNER	SMR4503	11725	2014-07-08
GAL-EMC005	LISN	EMCO	4825/2	1161	2014-07-08
GAL-EMC100	LISN	R&S	ESH2-Z5	0338.5219.53-100396-vj	2015-03-11

<b>Radiated Emission</b>					
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Due Date
GAL-EMC001	Semi-anechoic Chamber	ETS	N/A	N/A	2015-02-13
GAL-EMC003	Receiver	SCHAFFNER	SMR4503	11725	2014-07-08
GAL-EMC091	HF Loop Antenna	TESEQ	HLA6120	26348	2014-10-12



## 4 Test Results

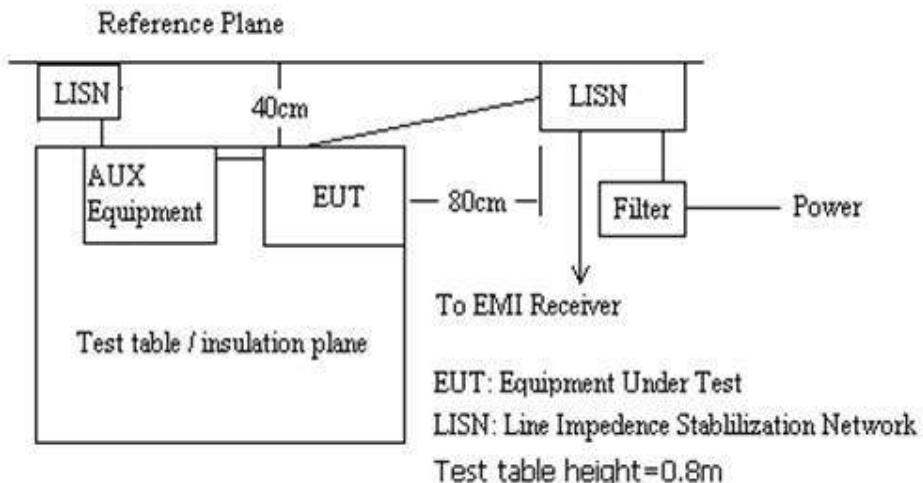
### 4.1 Conducted Emissions

**Test Requirement:** FCC Part18  
**Test Method:** FCC MP-5  
**Frequency Range:** 9KHz to 30MHz  
**Class/Severity:** 307(a)  
**Detector:** Peak for pre-scan,Quasi-Peak and Average for the final result.  
(200Hz resolution Bandwidth for 9kHz to 150kHz, 9 kHz resolution bandwidth for 150kHz to 30MHz)  
**Test Mode:** Test the EUT in max power mode  
**Test Voltage:** 120Vac, 60Hz  
**Test Date:** 05 March,2014  
**Temperature:** 24°C  
**Humidity:** 52%  
**Limit:** For the following equipment, when designed to be connected to the public utility (AC) power line the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies shall not exceed the limits in the following tables. Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal using a 50  $\mu$  H/50 ohms line impedance stabilization network (LISN).

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.009-0.05	110	---
0.05-0.15	90 to 80 *	---
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

\* Decreases with the logarithm of the frequency.

#### 4.1.1 Test Setup



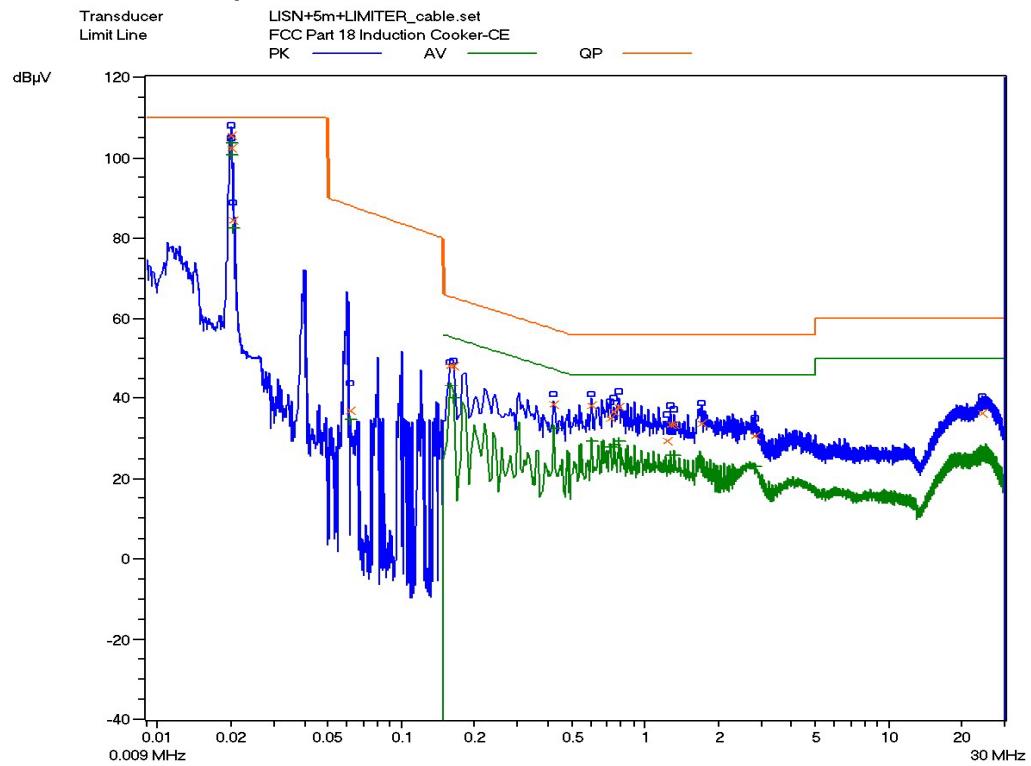
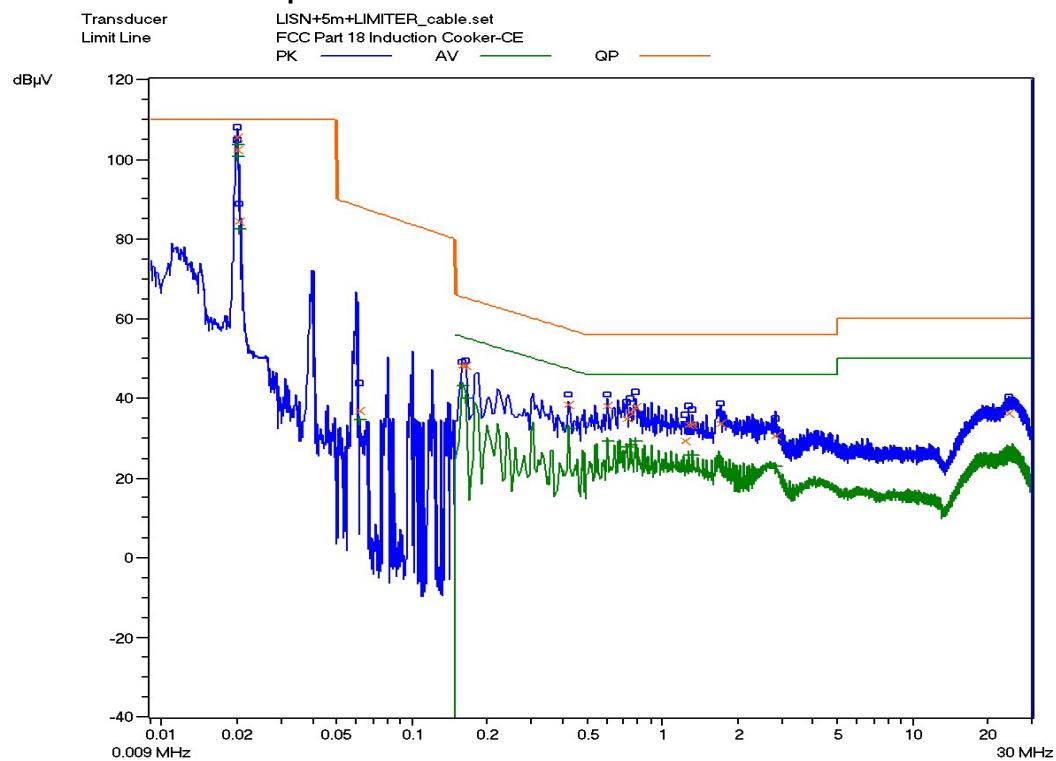
#### 4.1.2 Test Procedure

The EUT was connected to the artificial main network.

#### 4.1.3 Measurement Data

Measure the maximised peak emissions from the EUT for both the Live and Neutral Lines. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Frequency (MHz)	Line	Measured QP (dBuV)	QP Limit (dBuV)	Measured AV (dBuV)	AV Limit (dBuV)	Over Limit QP	Over Limit AV
0.0199	L	105.6	110.0	---	---	-4.4	---
0.1635	L	48.3	65.2	40.1	55.2	-16.9	-15.1
0.4235	L	38.3	57.4	32.4	47.4	-19.1	-15.0
0.6035	L	38.0	56.0	29.2	46.0	-18.0	-16.8
0.7385	L	36.5	56.0	28.5	46.0	-19.5	-17.5
24.2785	L	36.4	60.0	26.2	50.0	-23.6	-23.8
0.0199	N	105.3	110.0	---	---	-4.7	---
0.1535	N	37.3	65.7	28.6	55.7	-28.4	-27.1
0.3035	N	41.8	60.1	34.1	50.1	-18.3	-16.0
0.4835	N	39.5	56.0	31.8	46.0	-16.5	-14.2
0.7435	N	37.3	56.0	31.6	46.0	-18.7	-14.4
0.7385	N	38.7	56.0	29.9	46.0	-17.3	-16.1

**Live Line Scan Graph****Neutral Line Scan Graph**



## 4.2 Radiated Emissions

**Test Requirement:** FCC Part18

**Test Method:** FCC MP-5:1986

**Frequency Range:** 9kHz to 30MHz

**Class/Severity:** Section 18.305(b)

**Detector:** Peak for pre-scan,Quasi-Peak and Average for the final result.  
(200Hz resolution Bandwidth for 9kHz to 150kHz,9 kHz resolution bandwidth for 150kHz to 30MHz)

**Test Mode:** Test the EUT in max power mode

**Test Voltage:** 120Vac, 60Hz

**Test Date:** 07 March,2014

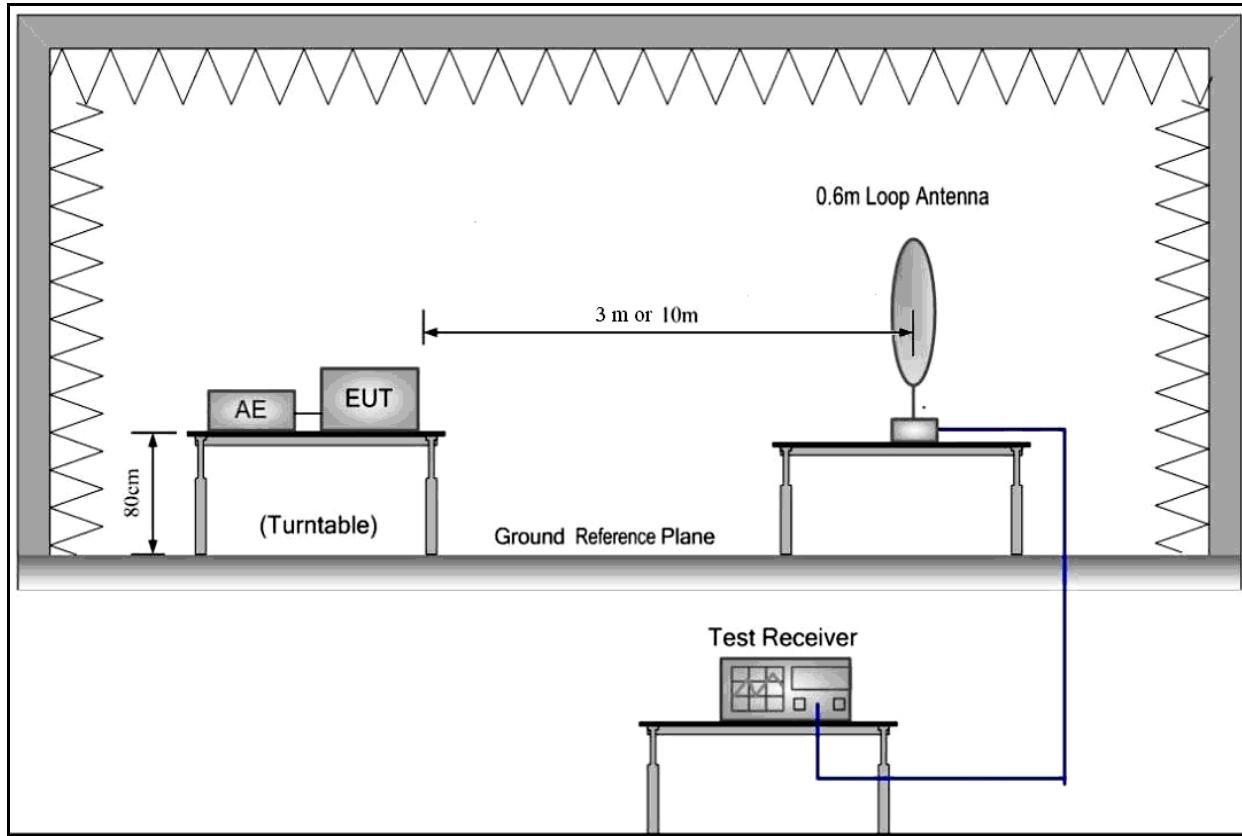
**Test Distance:** 3m

**Temperature:** 25°C

**Humidity:** 52%

**Limit:** (b) The field strength levels of emissions which lie outside the bands specified in § 18.301, unless otherwise indicated, shall not exceed the following:

Equipment	Operating frequency	RF Power generated by equipment (W)	Field strength limit (uV/m)	Field strength limit (dBuV/m)	Distance (meters)
Induction cooking ranges	Below 90 kHz	Any	1,500	63.5	30
				83.5	3

**4.2.1 Test Setup**

#### 4.2.2 Test Prosersure

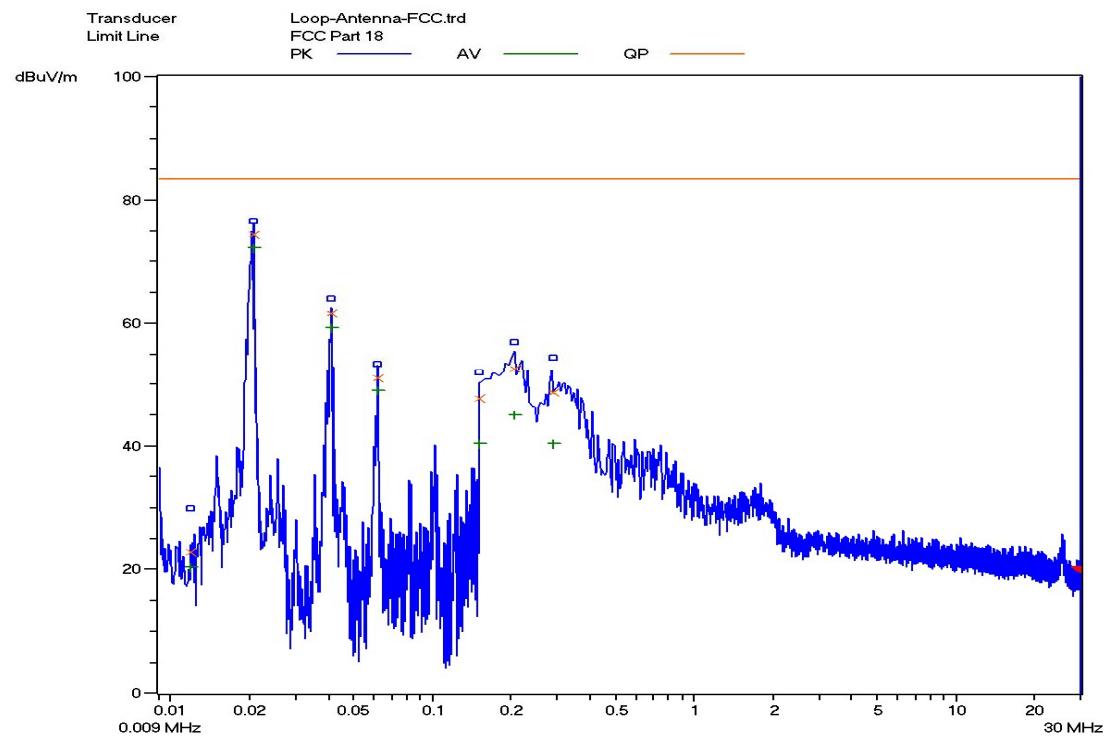
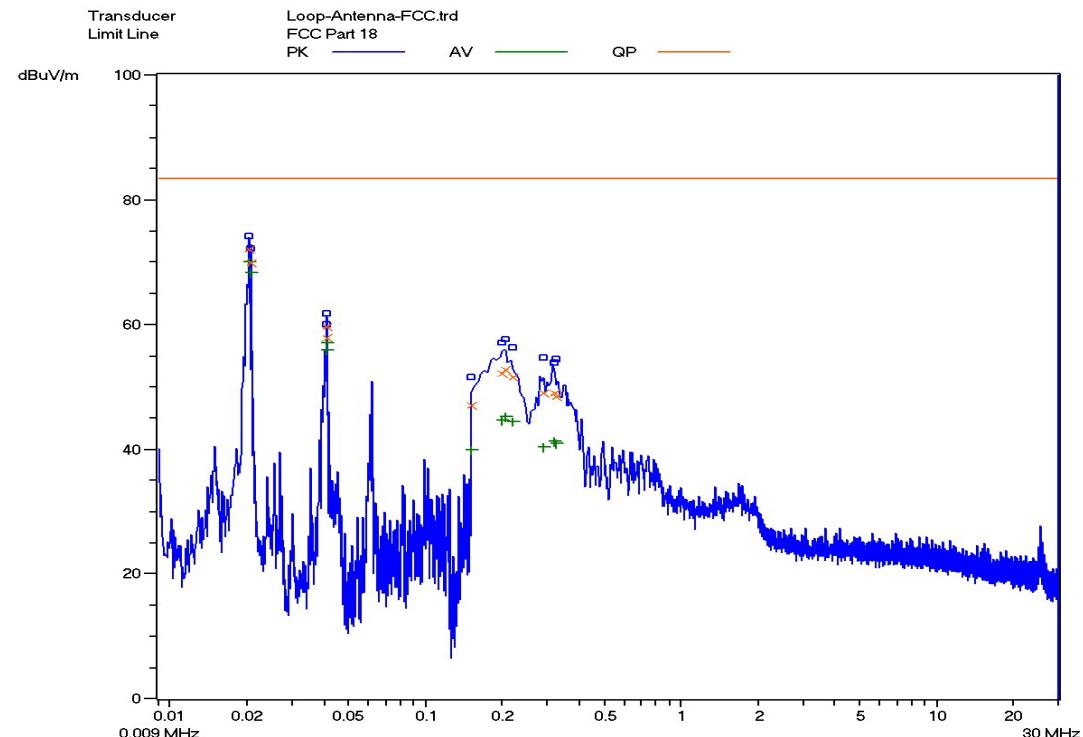
1. The magnetic emissions test was conducted in a semi-anechoic chamber.
2. The EUT was connected to AC power source through a mains power outlet which was bonded to the ground reference plane; The mains cables shall drape to the ground reference plane.
3. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
4. Before final measurements of magnetic emissions, a pre-scan was performed in the spectrum mode with the peak detector to find out the maximum emission spectrum signature data plots of the EUT.
5. The frequencies of maximum emission were determined in the final magnetic emissions measurement, The physical arrangement of the test system and associated cabling was varied in order to determine the effect on the EUT's emissions in amplitude, direction and frequency. At each frequency, the EUT was rotated 360°, the antenna was supported in the vertical plane and be rotatable about a vertical axis.
6. The lowest point of the loop was 1 m above ground level.

#### 4.2.3 Measurement Data

An initial pre-scan was performed in peak detection mode. Peak measurement was performed at the frequencies with maximized peak emission were detected.

##### Radiated Emission below 1GHz

Frequency (MHz)	Antenna Polarity	Detector Mode	Reading (dBuV)	Ant./CL/Amp.CF (dB)	Measured Level (dBuV/m)	QP Limit (dBuV/m)	Over Limit(dB)
0.0205	P	QP	46.0	28.5	74.5	83.5	-9.0
0.0411	P	QP	33.1	28.5	61.6	83.5	-21.9
0.0616	P	QP	22.5	28.5	51.0	83.5	-32.5
0.1500	P	QP	19.1	28.5	47.6	83.5	-35.9
0.2050	P	QP	24.0	28.5	52.5	83.5	-31.0
0.2900	P	QP	20.1	28.5	48.6	83.5	-34.9
0.0204	V	QP	43.6	28.5	72.1	83.5	-11.4
0.0409	V	QP	31.1	28.5	59.6	83.5	-23.9
0.1500	V	QP	18.6	28.5	47.1	83.5	-36.4
0.2000	V	QP	23.6	28.5	52.1	83.5	-31.4
0.2050	V	QP	24.2	28.5	52.7	83.5	-30.8
0.2200	V	QP	23.2	28.5	51.7	83.5	-31.8

**Parallelism Scan Graph****Vertical Line Scan Graph**

## 5 PHOTOGRAPHS

### 5.1 Conducted Emission Test Setup



### 5.2 Radiated Emission Test Setup



**5.3 EUT Constructional Details****Top****Front**

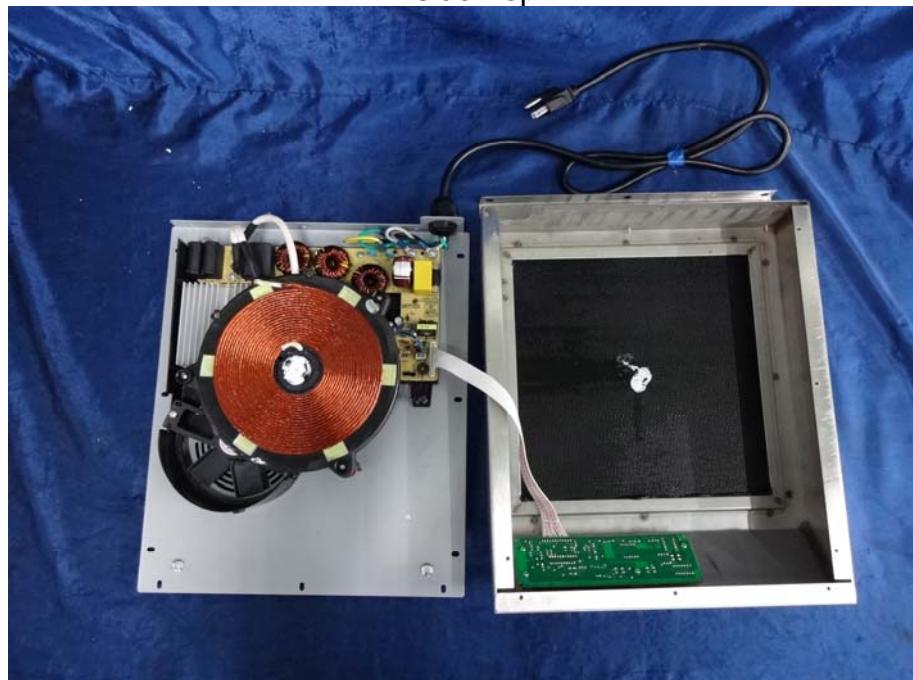
Right



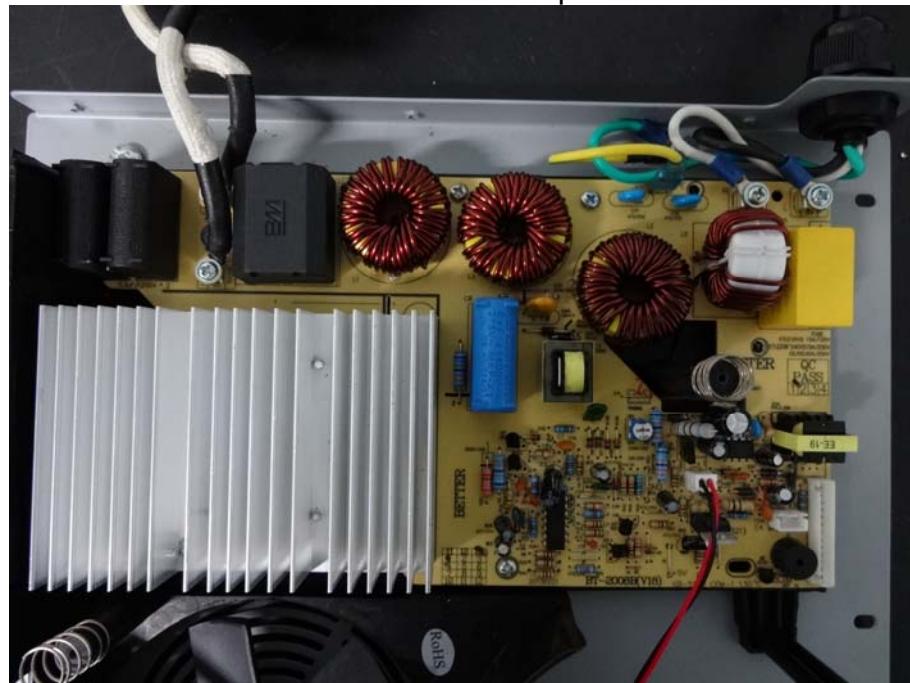
Back



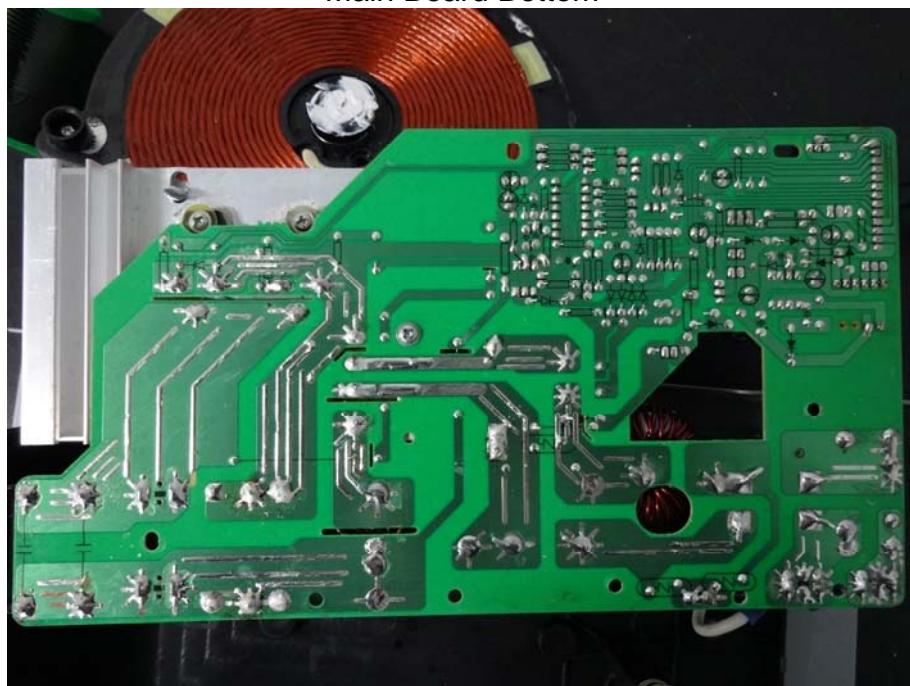
**Left****Bottom**

**Label****Inside Top**

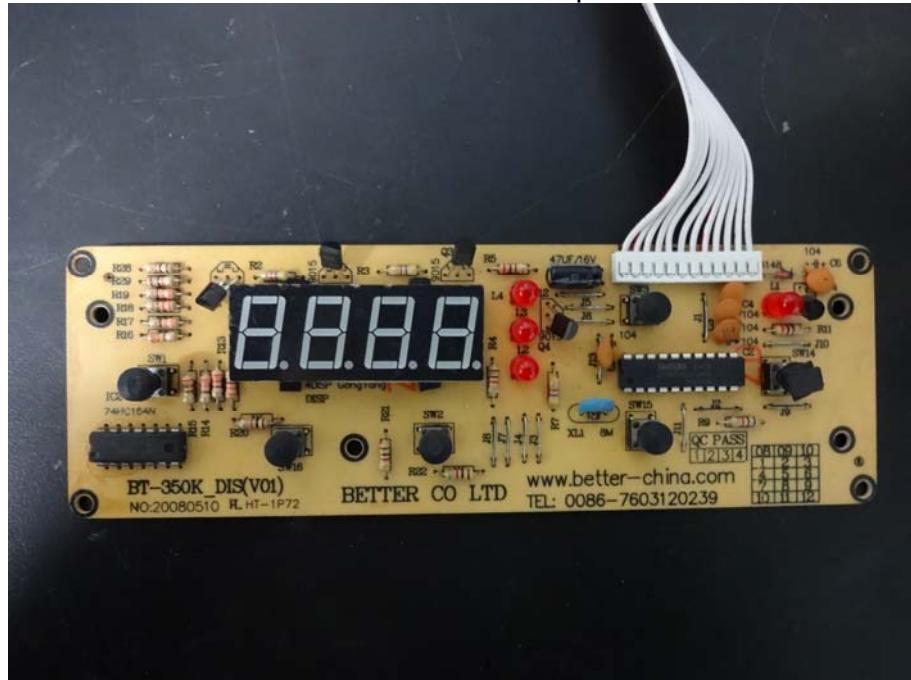
Main Board Top



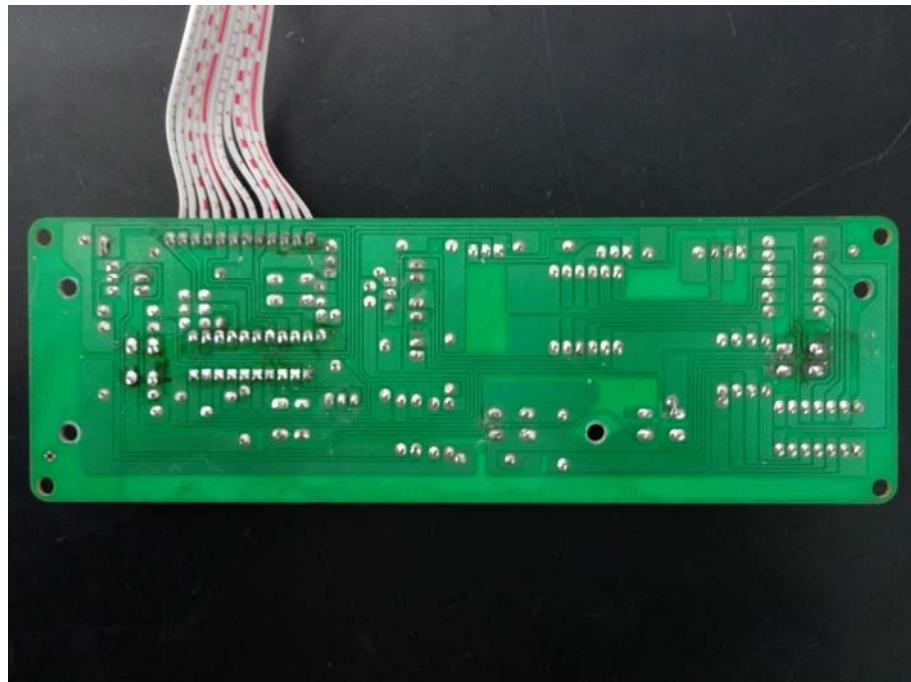
Main Board Bottom



Control Board Top



Control Board Bottom



\*\*\*\*\* END OF REPORT \*\*\*\*\*