

# **FCC / Certification Test Report**

**Beijing RSSH Technology Co., LTD**

**Air Humidifier**

**Model: Dumbbell**

**REPORT# 14WB0310010F Rev 0**

**FCC ID: 2ABOLSTYLIGHTDUMBBELL**

**Apr.17, 2014**

Prepared for:

**Beijing RSSH Technology Co., LTD**

**2<sup>th</sup> Floor, 6<sup>th</sup> Building, No.29, Xiaoying North Road, Chaoyang**

**District, Beijing, China**

Prepared by:

**WASHINGTON TECHNOLOGY INTERNATIONAL LIMITED**

This report applies only to the sample evaluated prior to the preparation date stated above.

This report must be copied in its entirety, including all technical documents

## **FCC / Certification Test Report**

**For the**

**Beijing RSSH Technology Co., LTD**

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**MODEL: Dumbbell**

**FCC ID: 2ABOLSTYLIGHTDUMBBELL**

**WLL REPORT# 14WB0310010F Rev 0**

**Apr.17, 2014**

Prepared by:



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Henry guo

Reviewed by:



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Steven yang

## Abstract

This report has been prepared on behalf of Beijing RSSH Technology Co., LTD to document compliance with the limits for a digital device required under Part 18 of the FCC Rules and Regulations This Industrial scientific and medical equipment (FCC) Test Report documents the test configuration and test results for the Beijing RSSH Technology Co., LTD Air Humidifier. Testing was performed on Audix Technology (Shenzhen) Co., Ltd. has been accepted by the FCC, the FCC Registration Number is 90454.

The Beijing RSSH Technology Co., LTD Air Humidifier complies with the requirements for a device.

Revision History	Reason	Date
Rev 0	Initial Release	Apr.17, 2014

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# 1 Introduction

## 1.1 Compliance Statement

The Beijing RSSH Technology Co., LTD Air Humidifier complied with the requirements for a digital device under Part 18 of the FCC Rules and Regulations

## 1.2 Test Scope Summary

Tests for radiated and conducted emissions were performed. All measurements were performed according to the 2009 version of ANSI C63.4. The measurement equipment conforms to ANSI C63.2 Specifications for Electromagnetic Noise and Field Strength Instrumentation.

Test Specification	Specific Description	Date Completed	Result	Test location	Modifications (Y/N)
CFR47 Part 18	Conducted Emissions at the Mains Port	Apr.14- Apr.16, 2014	Complied	Audix Technology (Shenzhen) Co., Ltd.	N
CFR47 Part 18	Radiated Emissions	Apr.10, 2014	Complied	Audix Technology (Shenzhen) Co., Ltd.	N

## 1.3 Contract Information

Customer: Beijing RSSH Technology Co., LTD

2th Floor, 6th Building, No.29, Xiaoying North Road, Chaoyang District,  
Beijing, China

## Abbreviations

<b>A</b>	<b>A</b> mpere
<b>ac</b>	<b>a</b> lternating <b>c</b> urrent
<b>AM</b>	<b>A</b> mplitude <b>M</b> odulation
<b>Amps</b>	<b>A</b> mpere <b>s</b>
<b>b/s</b>	<b>b</b> its per second
<b>BW</b>	<b>B</b> and <b>W</b> idth
<b>CE</b>	<b>C</b> onducted <b>E</b> mission
<b>cm</b>	<b>c</b> entim <b>e</b> ter
<b>CW</b>	<b>C</b> ontinuous <b>W</b> ave
<b>dB</b>	<b>d</b> eci <b>B</b> el
<b>dc</b>	<b>d</b> irect <b>c</b> urrent
<b>EMI</b>	<b>E</b> lectromagnetic <b>I</b> nterference
<b>EUT</b>	<b>E</b> quipment <b>U</b> nder <b>T</b> est
<b>FM</b>	<b>F</b> requency <b>M</b> odulation
<b>G</b>	<b>g</b> iga - prefix for $10^9$ multiplier
<b>Hz</b>	<b>H</b> ertz
<b>IF</b>	<b>I</b> ntermediate <b>F</b> requency
<b>k</b>	<b>k</b> ilo - prefix for $10^3$ multiplier
<b>LISN</b>	<b>L</b> ine <b>I</b> mpedance <b>S</b> tabilization <b>N</b> etwork
<b>M</b>	<b>M</b> ega - prefix for $10^6$ multiplier
<b>m</b>	<b>m</b> eter
<b>μ</b>	<b>m</b> icro - prefix for $10^{-6}$ multiplier
<b>NB</b>	<b>N</b> arrow <b>b</b> and
<b>QP</b>	<b>Q</b> uasi- <b>P</b> eak
<b>RE</b>	<b>R</b> adiated <b>E</b> missions
<b>RF</b>	<b>R</b> adio <b>F</b> requency
<b>rms</b>	<b>r</b> oot- <b>m</b> ean- <b>s</b> quare
<b>SN</b>	<b>S</b> erial <b>N</b> umber
<b>S/A</b>	<b>S</b> pectrum <b>A</b> alyzer
<b>V</b>	<b>V</b> olt

## 2 Equipment Under Test

### 2.1 EUT Identification

The results obtained relate only to the item(s) tested.

**Table 1: Overview of Air Humidifier, Equipment Under Test**

<b>Model(s) Tested:</b>	Air Humidifier Dumbbell
<b>EUT Specifications:</b>	In the tests the primary power was provided by AC 120V/60Hz
<b>Test Date(s):</b>	Apr.10- Apr.16, 2014

### 2.2 EUT Description

Product Name: Air Humidifier

Model No. : Dumbbell

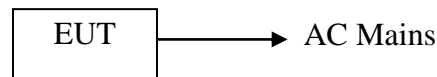
EUT Rated Voltage: AC 120V/60Hz

### 2.3 Test Configuration

The Beijing RSSH Technology Co., LTD Air Humidifier, Equipment Under Test (EUT), was operated from AC power supply.

EUT connect to the Adapter, Running test soft and PC running ping to EUT, Check or Repair it.

The Air Humidifier was configured as below:



**Figure 1: Test Configuration**

### 2.4 Equipment Configuration

The EUT was set up as outlined in Figure 1. The EUT was comprised of the following equipment. (All Modules, PCBs, etc. listed were considered as part of the EUT, as tested.)

**Table 2: Equipment Configuration**

Slot #	Name / Description	Model Number	Part Number	Serial Number	Revision
1.	Air Humidifier	Dumbbell	/	/	/



## 2.5 Tested Supporting System Details

**Table 3: Tested Supporting System Details**

Port Identification	Connector Type	Cable Length	Shielded (Y/N)	Termination Point
AC Cord	AC power	1.0 m	N	EUT-Mains

## 2.6 Testing Algorithm

The Air Humidifier was operated continuously by normal operating conditions.

According to section 18.307(f) "for ultrasonic equipment, compliance with the conducted limits shall preclude the need to show compliance with the field strength limits below 30MHz unless requested by the commission" Since the EUT complies with the conducted limits (operating frequency is 1.75MHz), no field strength measurement below 30MHz is required.

## 2.7 Test Location

NAME: Audix Technology (Shenzhen) Co., Ltd. by CNAS. The CNAS Registration No.: L4117.

FCC Registration Number is 90454

Address: No. 6, Ke Feng Rd., 52 Block, Shenzhen Science & Industrial Park, Nantou, Shenzhen, Guangdong, China

## 2.8 EUT Modification

1:Add core on the power cord and around 3 circle.

2:X capacitor change to 0.68UF, Y capacitor change to 102.

3:Transformer shielding.

4:L1 & L2 change to 1.5mh inductance.

5:Add core on all wiring inside of the EUT, and around two circle.

6:R1 series a 10R resistance, Add 104P capacitance to VR, Add 104P capacitance to K side.



**China National Accreditation Service for Conformity Assessment**

**LABORATORY ACCREDITATION CERTIFICATE**

**(Registration No. CNAS L4117 )**

**Audix Technology (Shenzhen) Co., Ltd.**

No.6, Kefeng Road, Block 52, Nantou Science & Industry Park,  
Shenzhen, Guangdong, China

*is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence of testing.*

*The scope of accreditation is detailed in the attached appendices bearing the same registration number as above. The appendices form an integral part of this certificate.*

Date of Issue: 2013-02-04

Date of Expiry: 2016-02-03

Date of Initial Accreditation: 2009-07-16

Date of Update: 2013-02-04

Signed on behalf of China National Accreditation Service  
for Conformity Assessment

China National Accreditation Service for Conformity Assessment (CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CNCA) to operate the national accreditation schemes for conformity assessment. CNAS is the signatory to International Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (ILAC MRA) and Asia Pacific Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (APLAC MRA).

No.CNAS AL 2

0006379

## 2.9 Measurements

### 2.9.1 Measurement Method

All measurements herein were performed according to the 2009 version of ANSI C63.4. The measurement equipment conforms to ANSI C63.2 Specifications for Electromagnetic Noise and Field Strength Instrumentation. Calibration checks are made periodically to verify proper performance of the measuring instrumentation.

### 2.10 Measurement Uncertainty

All results reported herein relate only to the equipment tested. The basis for uncertainty calculation uses ANSI/NCSL Z540-2-1997 with a type B evaluation of the standard uncertainty. Elements contributing to the standard uncertainty are combined using the method described in Equation 1 to arrive at the total standard uncertainty. The standard uncertainty is multiplied by the coverage factor to determine the expanded uncertainty which is generally accepted for use in commercial, industrial, and regulatory applications and when health and safety are concerned (see Equation 2). A coverage factor was selected to yield a 95% confidence in the uncertainty estimation.

**Equation 1: Standard Uncertainty**

$$u_c = \pm \sqrt{\frac{a^2}{div_a^2} + \frac{b^2}{div_b^2} + \frac{c^2}{div_c^2} + \dots}$$

where  $u_c$  = standard uncertainty

$a, b, c, \dots$  = individual uncertainty elements

$div_a, b, c$  = the individual uncertainty element divisor based on the probability distribution

divisor = 1.732 for rectangular distribution

divisor = 2 for normal distribution

divisor = 1.414 for trapezoid distribution

**Equation 2: Expanded Uncertainty**

$$U = k u_c$$

where  $U$  = expanded uncertainty

$k$  = coverage factor

$k \leq 2$  for 95% coverage (ANSI/NCSL Z540-2 Annex G)

$u_c$  = standard uncertainty

The measurement uncertainty complies with the maximum allowed uncertainty from CISPR 16-4-2. Measurement uncertainty is not used to adjust the measurements to determine compliance. The expanded uncertainty values for the various scopes in the WLL accreditation are provided in Table 4 below.

**Table 4: Expanded Uncertainty List**

Scope	Standard(s)	Expanded Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	FCC Part 18	3.1dB
Uncertainty for Radiation Emission test in 3m chamber	FCC Part 18	3.22 dB
		3.23 dB
		3.49 dB
		3.39 dB

### 3 Test Results

#### 3.1 Conducted Emissions

##### 3.1.1 Requirements

Test Arrangement: Table Top

Compliance Standard: FCC Part 18

Compliance limits (dBuV)		
Frequency Range (MHz)	Quasi Peak Limit (dBuV)	Average Limit (dBuV)
0.009-0.05	110	-
0.05-0.15	90-80*	-
0.15-0.5	66 to 56*	50 to 46*
0.5-5	56	46
5-30	60	50

##### 3.1.2 Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Oct.31, 13	1 Year
2.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	100429	Jan.22, 14	1 Year
3.	L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	May.08, 13	1 Year
4.	Terminator	Hubersuhner	50Ω	No. 1	May.08, 13	1 Year
5.	Terminator	Hubersuhner	50Ω	No. 2	May.08, 13	1 Year
6.	RF Cable	Hubersuhner	RG58	0100.6954.20#	Jan.22, 14	1 Year
7.	Coaxial Switch	Anritsu	MP59B	M50564	May.08, 13	1 Year
8.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	101838	Jan.22, 14	1 Year
9.	Oscilloscope	Tektronix	TDS3052B	B026036	May.16, 13	1 Year

##### 3.1.3 Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network

(L.I.S.N. #1). This provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N.#2). Both sides of power line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.4: 2009 on conducted Emission test.

The bandwidth of the R&S Test Receiver ESHS20 was set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

#### 3.1.4 Test Data

The EUT Air Humidifier complied with the Conducted Emissions requirements. Table 5 provides the test results for Conducted Emissions.

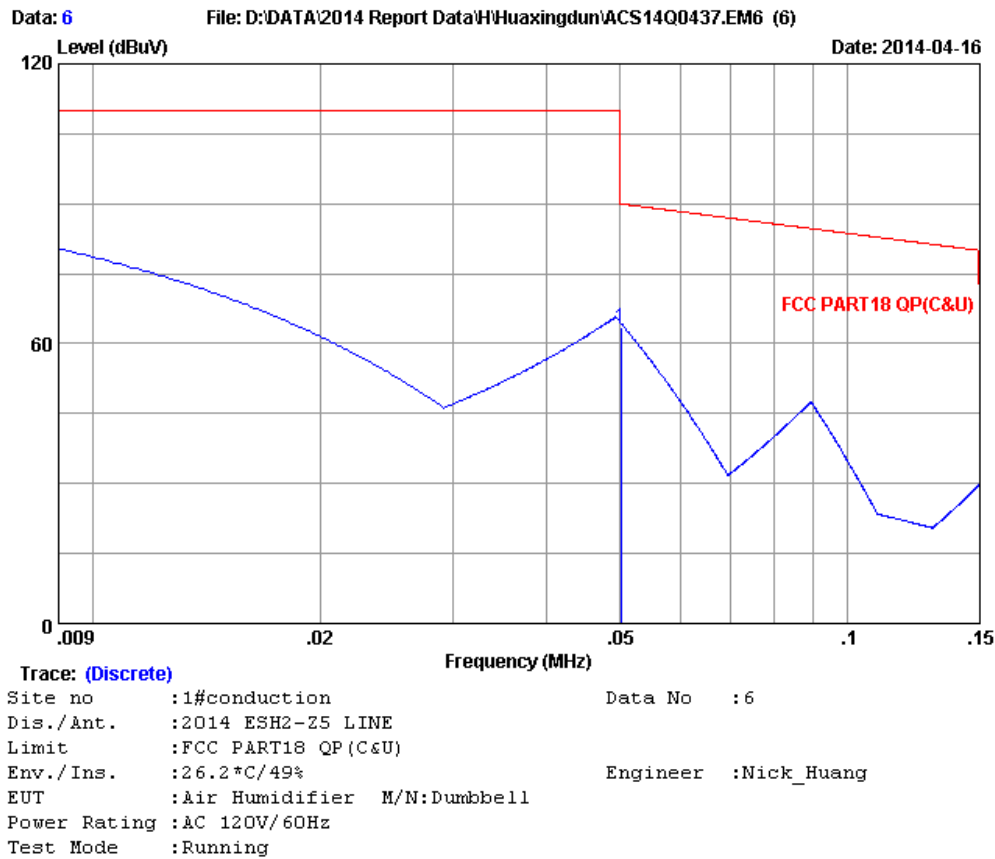
Photograph 1 and Photograph 2 show the Conducted Emission test configuration.

**Test Engineer(s):** Nick Huang

**Test Date(s):** Apr.14 – Apr.16, 2014

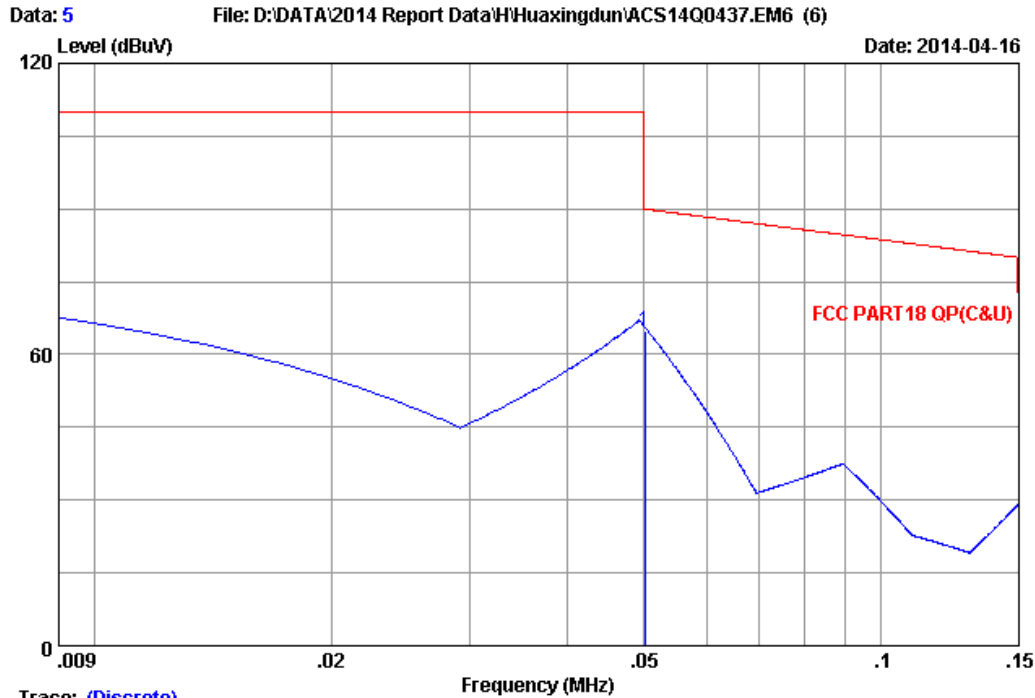
**Test Location:** Audix Technology (Shenzhen) Co., Ltd.

**Table 5: Conducted Emissions Test Data**



No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.05017	0.18	9.87	53.50	63.55	89.97	26.42	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)  
+Reading.  
2.If the average limit is met when using a quasi-peak detector.  
the EUT shall be deemed to meet both limits and measurement  
with average detector is unnecessary.



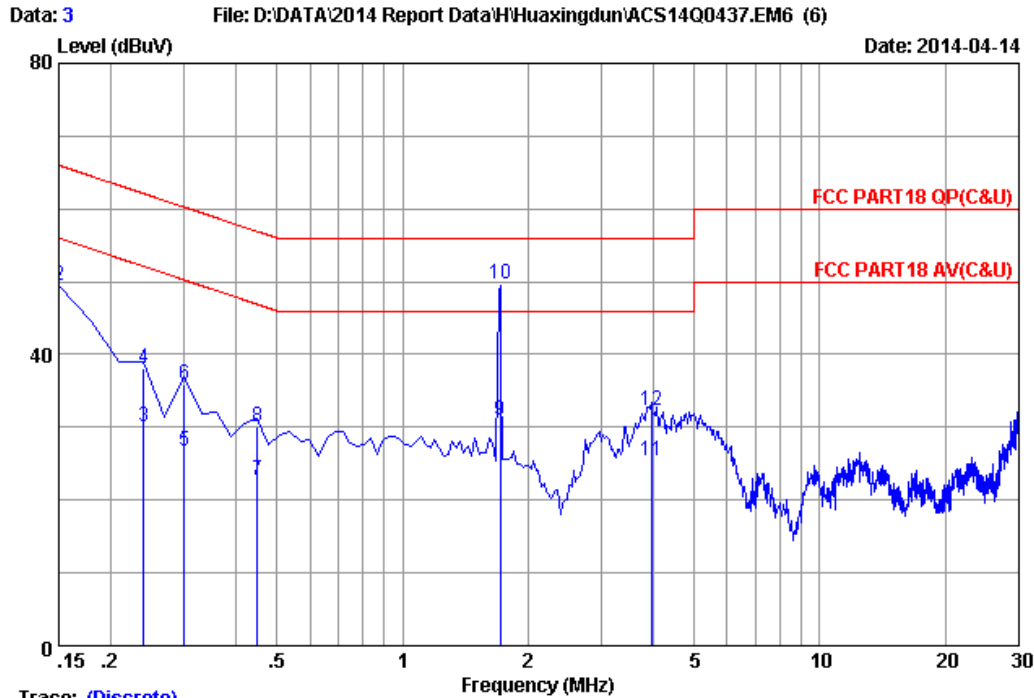
Trace: (Discrete)

Site no :1#conduction Data No :5  
Dis./Ant. :2014 ESH2-Z5 NEUTRAL  
Limit :FCC PART18 QP(C&U)  
Env./Ins. :26.2°C/49% Engineer :Nick\_Huang  
EUT :Air Humidifier M/N:Dumbbell  
Power Rating :AC 120V/60Hz  
Test Mode :Running

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBUV)	Emission Level (dBUV)	Limits (dBUV)	Margin (dB)	Remark
1	0.05017	0.15	9.87	54.80	64.82	89.97	25.15	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)  
+Reading.  
2.If the average limit is met when using a quasi-peak detector.  
the EUT shall be deemed to meet both limits and measurement  
with average detector is unnecessary.



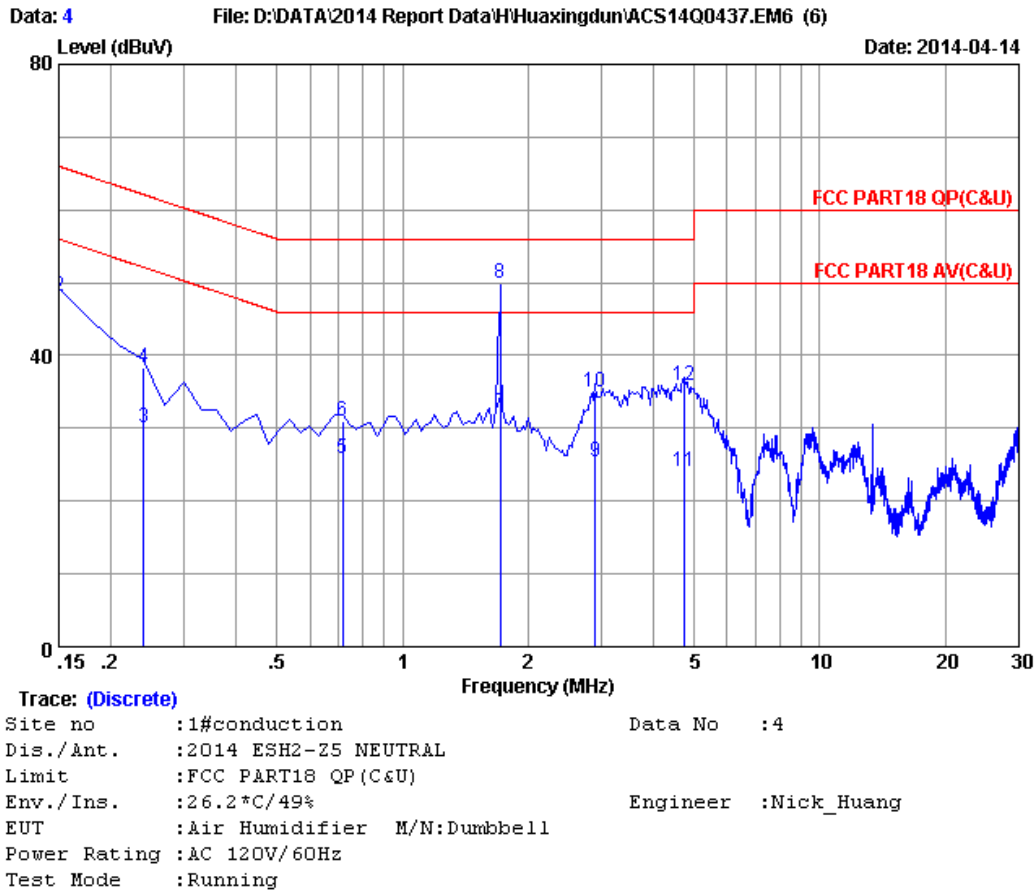


Trace: (Discrete)

Site no :1#conduction Data No :3  
Dis./Ant. :2014 ESH2-Z5 LINE  
Limit :FCC PART18 QP(C&U)  
Env./Ins. :26.2°C/49% Engineer :Nick\_Huang  
EUT :Air Humidifier M/N:Dumbbell  
Power Rating :AC 120V/60Hz  
Test Mode :Running

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.12	9.87	30.10	40.09	56.00	15.91	Average
2	0.15000	0.12	9.87	39.44	49.43	66.00	16.57	QP
3	0.23955	0.13	9.88	20.10	30.11	52.11	22.00	Average
4	0.23955	0.13	9.88	28.00	38.01	62.11	24.10	QP
5	0.29925	0.14	9.88	16.80	26.82	50.26	23.44	Average
6	0.29925	0.14	9.88	25.87	35.89	60.26	24.37	QP
7	0.44850	0.15	9.88	12.60	22.63	46.90	24.27	Average
8	0.44850	0.15	9.88	20.10	30.13	56.90	26.77	QP
9	1.714	0.19	9.90	20.80	30.89	46.00	15.11	Average
10	1.714	0.19	9.90	39.70	49.79	56.00	6.21	QP
11	3.941	0.24	9.94	15.20	25.38	46.00	20.62	Average
12	3.941	0.24	9.94	22.24	32.42	56.00	23.58	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)  
+Reading.  
2.If the average limit is met when using a quasi-peak detector,  
the EUT shall be deemed to meet both limits and measurement  
with average detector is unnecessary.



No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.13	9.87	32.10	42.10	56.00	13.90	Average
2	0.15000	0.13	9.87	38.24	48.24	66.00	17.76	QP
3	0.23955	0.13	9.88	20.10	30.11	52.11	22.00	Average
4	0.23955	0.13	9.88	28.34	38.35	62.11	23.76	QP
5	0.71715	0.15	9.89	15.80	25.84	46.00	20.16	Average
6	0.71715	0.15	9.89	20.86	30.90	56.00	25.10	QP
7	1.716	0.19	9.90	22.11	32.20	46.00	13.80	Average
8	1.716	0.19	9.90	39.91	50.00	56.00	6.00	QP
9	2.896	0.24	9.92	15.20	25.36	46.00	20.64	Average
10	2.896	0.24	9.92	24.93	35.09	56.00	20.91	QP
11	4.717	0.28	9.95	13.90	24.13	46.00	21.87	Average
12	4.717	0.28	9.95	25.65	35.88	56.00	20.12	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.  
2.If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



**Photograph 1: Conducted Emissions Front**



**Photograph 2: Conducted Emissions Back**

## 3.2 Radiated Emissions

### 3.2.1 Requirements

Test Arrangement: Table Top

Compliance Standard: FCC Part 18

FCC Compliance Limits	
Frequency	Limits
30-1000 MHz	43dBuV

### 3.2.2 Test Equipment

For frequency range 30MHz~1000MHz (At Anechoic Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A	N/A	Nov.24, 13	1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 13	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 13	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 13	1 Year
5	Bilog Antenna	TESEQ	CBL6112D	35375	May.30, 13	1 Year
6	RF Cable	MIYAZAKI	CFD400-NL	3# Chamber No.1	May.08, 13	1 Year
7	Coaxial Switch	Anritsu	MP59B	M74389	May.08, 13	1 Year

### 3.2.3 Test Procedure

The requirements of FCC Part 18 call for the EUT to be placed on an 80 cm(100cm for 9kHz-30MHz) high 1 X 1.5 meters non-conductive motorized turntable for radiated testing on a 3-meter chamber. The emissions from the EUT were measured continuously at every azimuth by rotating the turntable. Bi-conical and log periodic broadband antennas were mounted on an antenna mast to determine the height of maximum emissions. The height of the antenna was varied between 1 and 4 meters. The output of the antenna was connected to the input of the spectrum analyzer and the emissions in the frequency range of 9 KHz to 1 GHz were measured. The peripherals were placed on the table in accordance with ANSI C63.4-2009. Cables were varied in position to produce maximum emissions. Both the horizontal and vertical field components were measured.

The output from the antenna was connected, via a preamplifier, to the input of the spectrum analyzer. The detector function was set to quasi-peak or peak, as appropriate. Above 1GHz average measurement are recorded. The measurement bandwidth of the spectrum analyzer system was set to at least 120 kHz, with all post-detector filtering no less than 10 times the measurement bandwidth. Frequencies above 1GHz were performed using a measurement bandwidth of 1MHz with a video bandwidth setting of 10 Hz for the average measurement.

### 3.2.4 *Radiated Data Reduction and Reporting*

To convert the raw spectrum analyzer radiated data into a form that can be compared with the FCC limits, it is necessary to account for various calibration factors that are supplied with the antennas and other measurement accessories. These factors are included into the antenna factor (AF) column of the table and in the cable factor (CF) column of the table. The AF (in dB/m) and the CF (in dB) is algebraically added to the raw Spectrum Analyzer Voltage in dB $\mu$ V to obtain the Radiated Electric Field in dB $\mu$ V/m. This logarithm amplitude is converted to a linear amplitude, then compared to the FCC limit. Example:

Spectrum Analyzer Voltage: VdB $\mu$ V

Antenna Correction Factor: dB/m

Electric Field: EdB $\mu$ V/m = V dB $\mu$ V + AFdB/m + CFdB - GdB

To convert to linear units of measure: EdBV/m/20 Inv log

### 3.2.5 *Test Data*

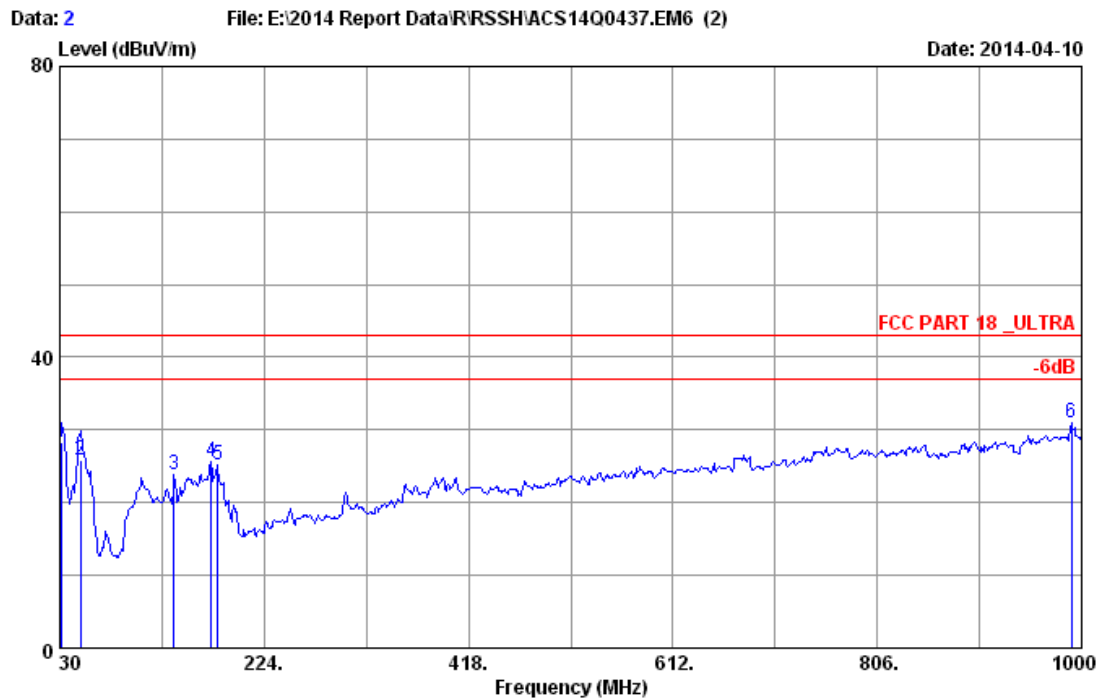
The EUT Hair removal & rejuvenation instrument complied with the Radiated Emissions requirements. Table 6 provides the test results for radiated emissions. Photograph 3 and Photograph 4 show the radiated emission test configuration.

**Test Engineer(s):** Berg Guo

**Test Date(s):** Apr.16, 2014

**Test Location:** Audix Technology (Shenzhen) Co., Ltd.

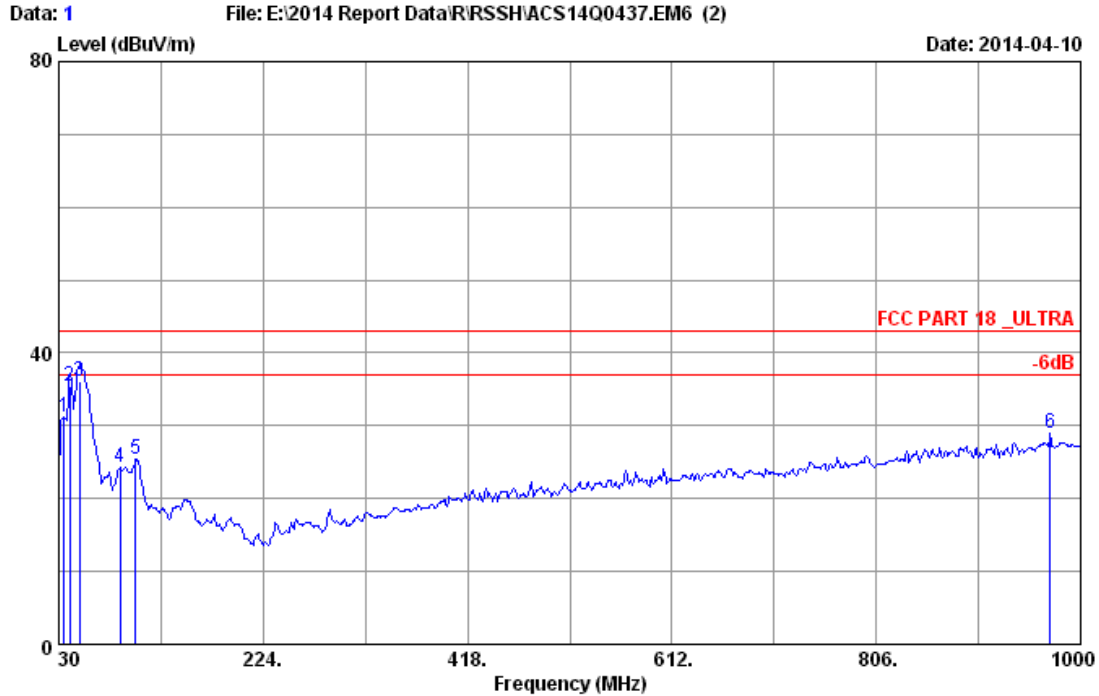
**Table 6: Radiated Emission Test Data**



Site no. : 3m Chamber Data no. : 2  
 Dis. / Ant. : 3m 2013 CBL6112D 35375 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 18\_ULTRA  
 Env. / Ins. : 24°C/65% Engineer : Donjon  
 EUT : Air Humidifier M/N:Dumbbell  
 Power rating : AC 120V/60Hz  
 Test Mode : Running

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Remark
1	32.050	18.77	0.87	8.60	28.24	43.00	14.76	QP
2	49.480	9.31	1.18	15.40	25.89	43.00	17.11	QP
3	138.640	12.20	1.56	10.06	23.82	43.00	19.18	QP
4	173.560	10.02	1.69	13.87	25.58	43.00	17.42	QP
5	180.350	9.70	1.72	13.66	25.08	43.00	17.92	QP
6	990.300	22.30	4.21	4.48	30.99	43.00	12.01	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 1  
Dis. / Ant. : 3m 2013 CBL6112D 35375 Ant. pol. : VERTICAL  
Limit : FCC PART 18\_ULTRA  
Env. / Ins. : 24°C/65% Engineer : Donjon  
EUT : Air Humidifier M/N:Dumbbell  
Power rating : AC 120V/60Hz  
Test Mode : Running

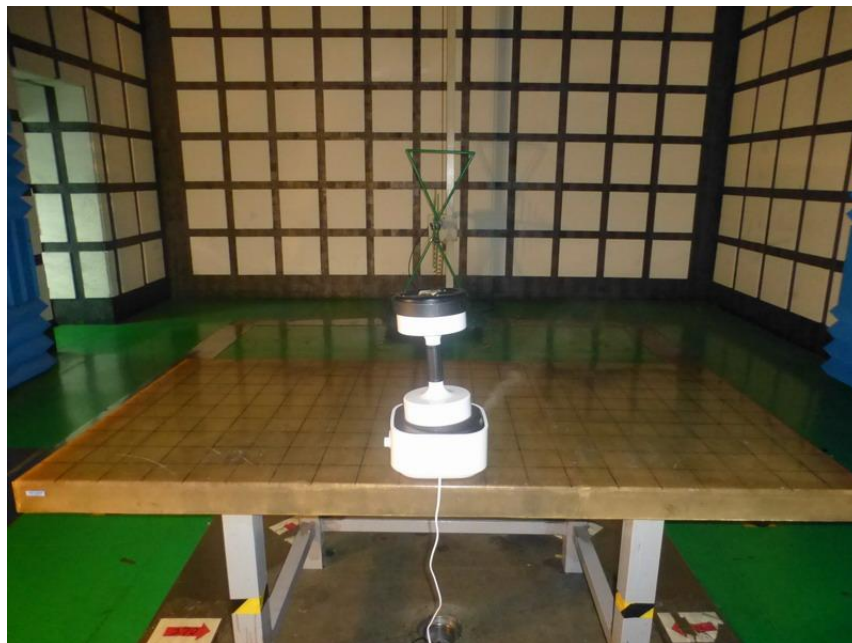
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	34.850	17.09	0.92	13.18	31.19	43.00	11.81	QP
2	40.660	13.70	1.02	20.71	35.43	43.00	7.57	QP
3	49.710	9.22	1.18	25.60	36.00	43.00	7.00	QP
4	88.200	9.04	1.36	13.93	24.33	43.00	18.67	QP
5	102.750	11.61	1.42	12.37	25.40	43.00	17.60	QP
6	970.900	22.30	4.15	2.50	28.95	43.00	14.05	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
2. The emission levels that are 20dB below the official limit are not reported.





**Photograph 3: Radiated Emission Test Configuration, (30-1000MHz) Front**



**Photograph 4: Radiated Emission Test Configuration, (30-1000MHz) Back**



## 4 Information to User

The following warning or similar statement shall be provided in a conspicuous location in the operator's manual so that the user of a digital device is aware of its interference potential. Additional information about corrective measures may also be provided to the user at the manufacturer's option.

**NOTE:** This equipment has been tested and found to comply with the limits for a digital device, pursuant to Part 18 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

**Reorient or relocate the receiving antenna**

**Increase the separation between the equipment and receiver**

**Connect the equipment into an outlet on a circuit different from that to which the receiver is connected**

**Consult the dealer or an experienced radio/TV technician for help**

The instruction manual for a digital device that is separately marketed shall also include sufficient information to insure that the complete system is capable of complying with the requirements for a digital device. The manual should also caution the user that changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment. Finally, the manual should instruct the user to use any special accessories, i.e. shielded cables, necessary for compliance with the standards.

In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required above may be included in the manual in that alternative form, provided that the user can be reasonably expected to have the capability to access information in that form.

## 5 Attachment (EUT Photograph)

*EUT Model: Dumbbell*



*EUT Photo #1 Front View*



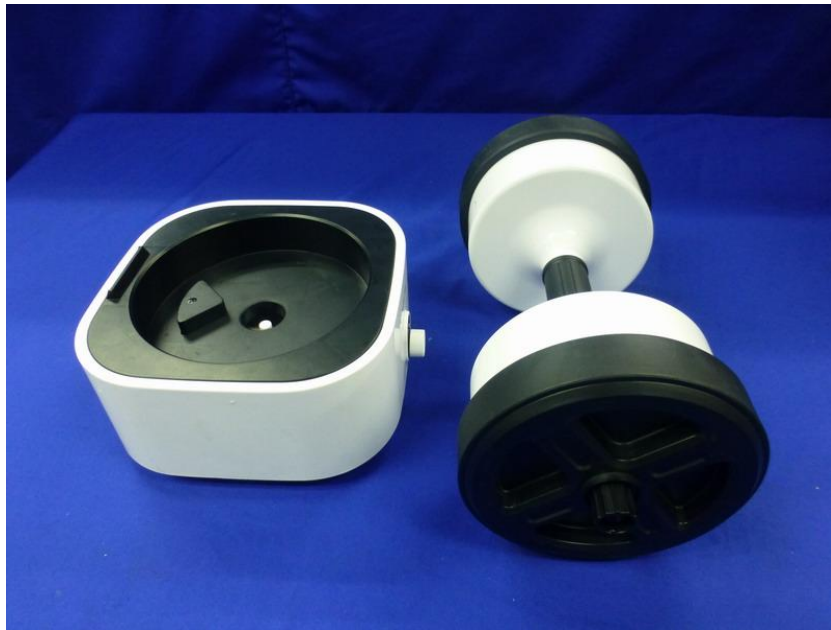
*EUT Photo #2 Top View*



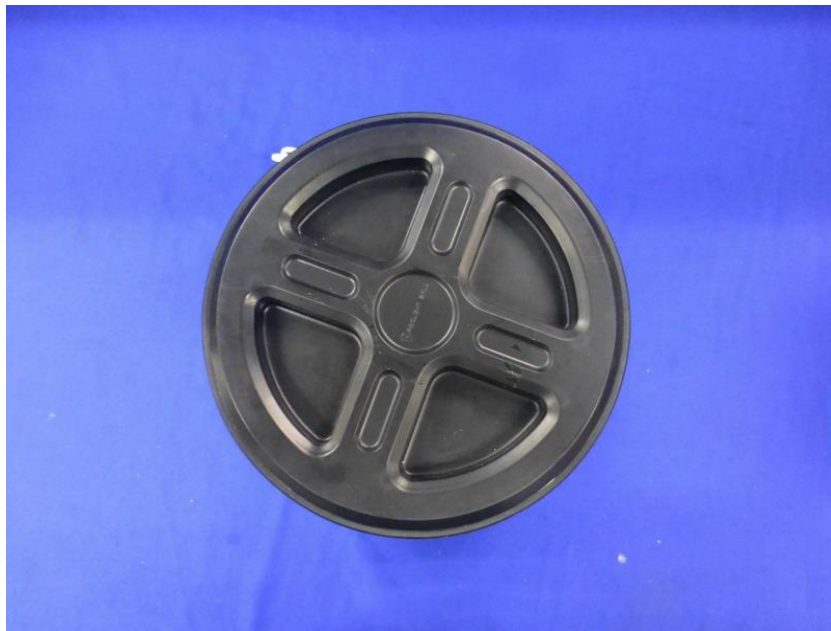
***EUT Photo #3 Right-Side View***



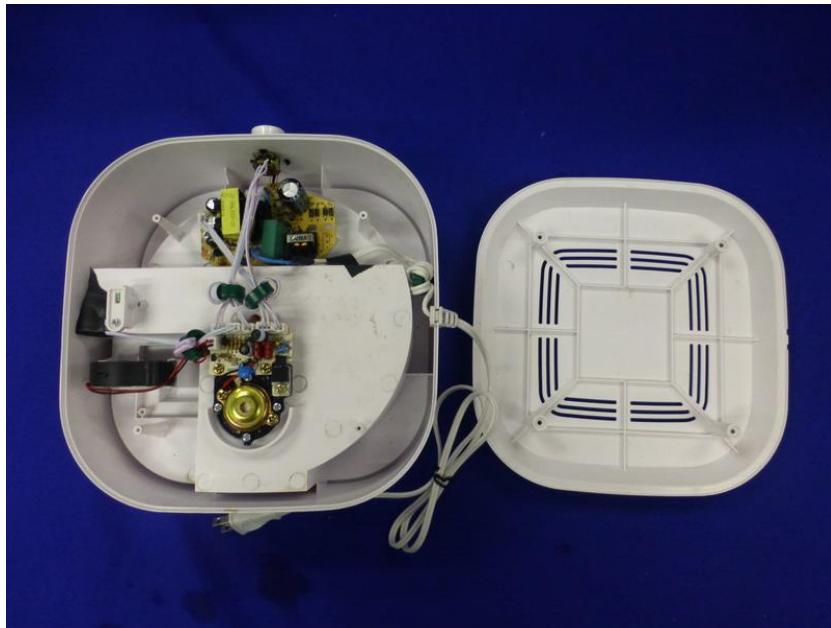
***EUT Photo #4 Left-Side View***



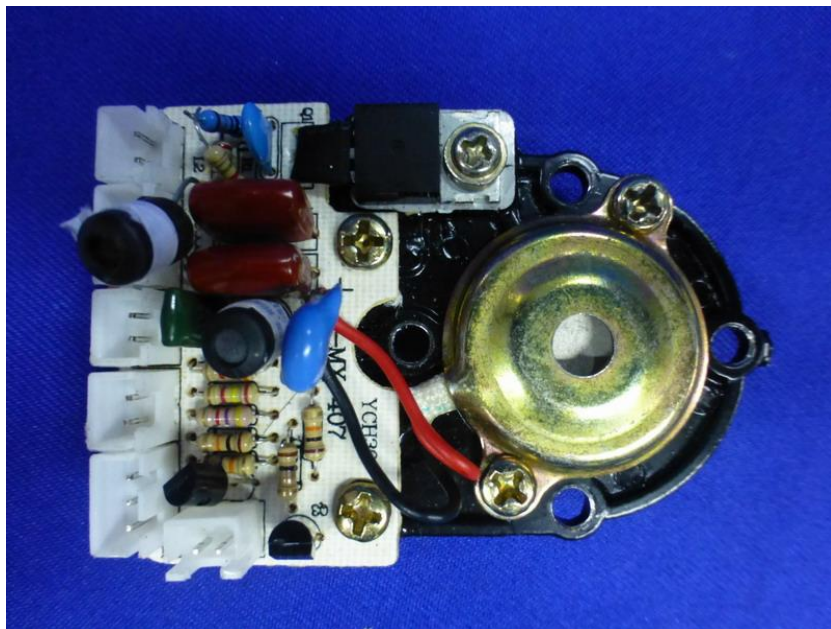
***EUT Photo #5 Rear View***



***EUT Photo #6 Bottom View***



***EUT Photo #7 Uncover View - Right***

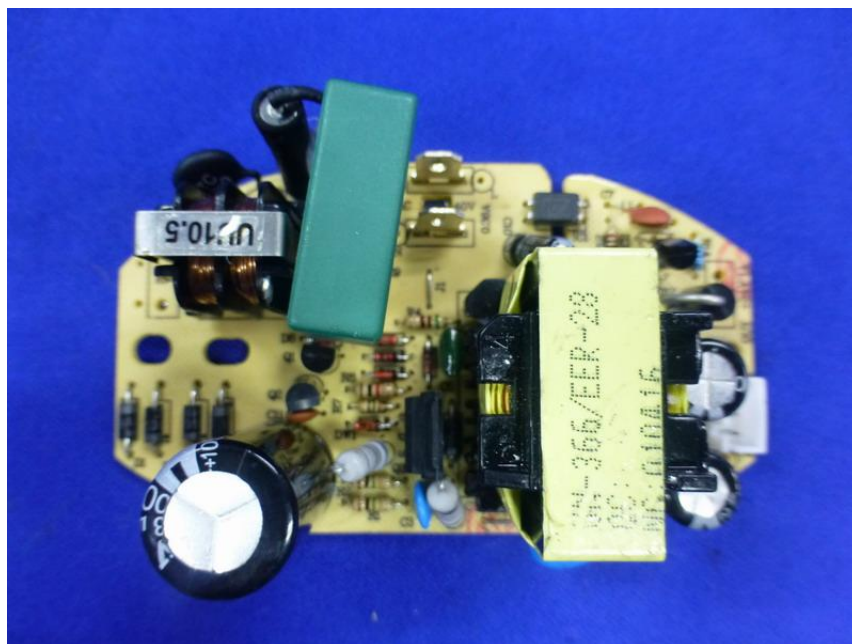


***EUT Photo #8 PCB Top View***

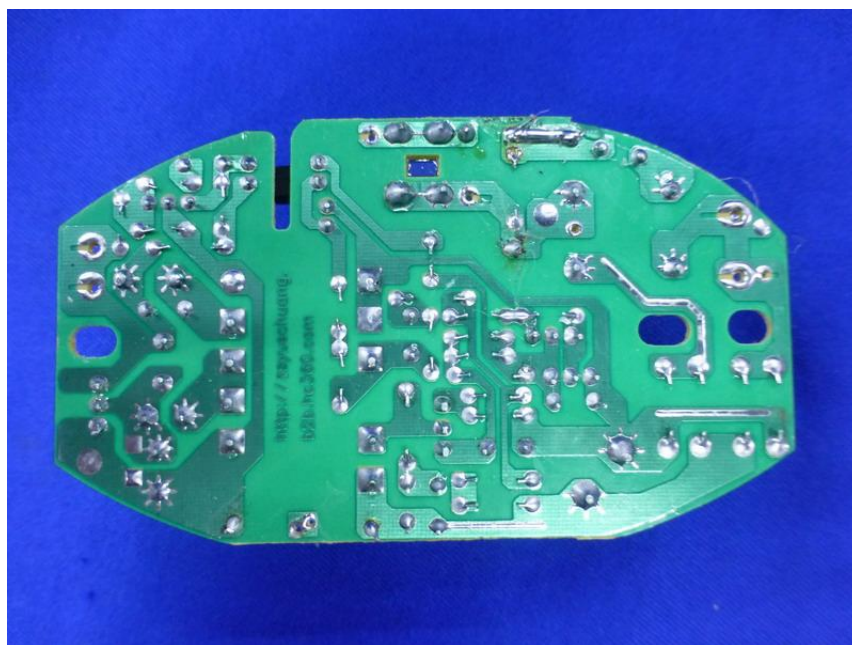




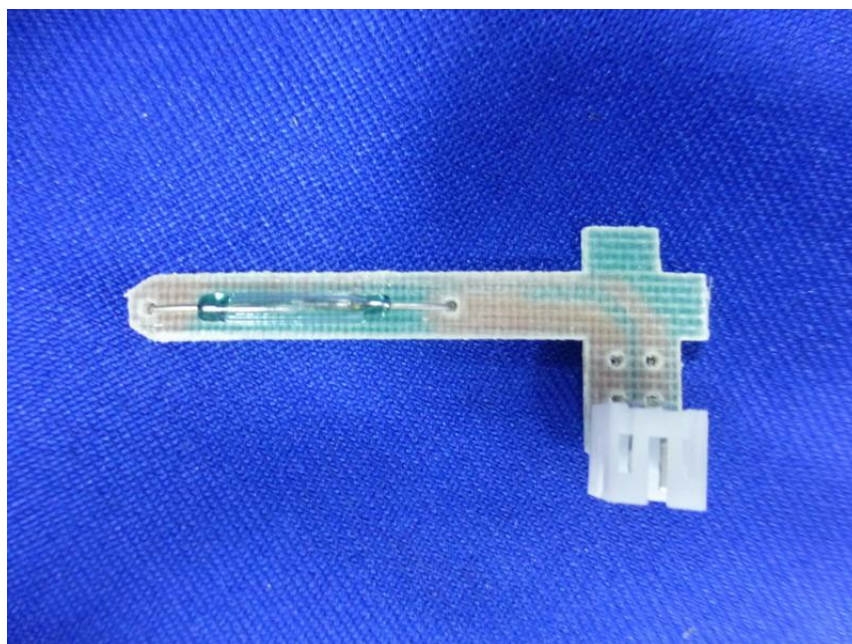
*EUT Photo #9 PCB Bottom View*



*EUT Photo #10 PCB Top View*

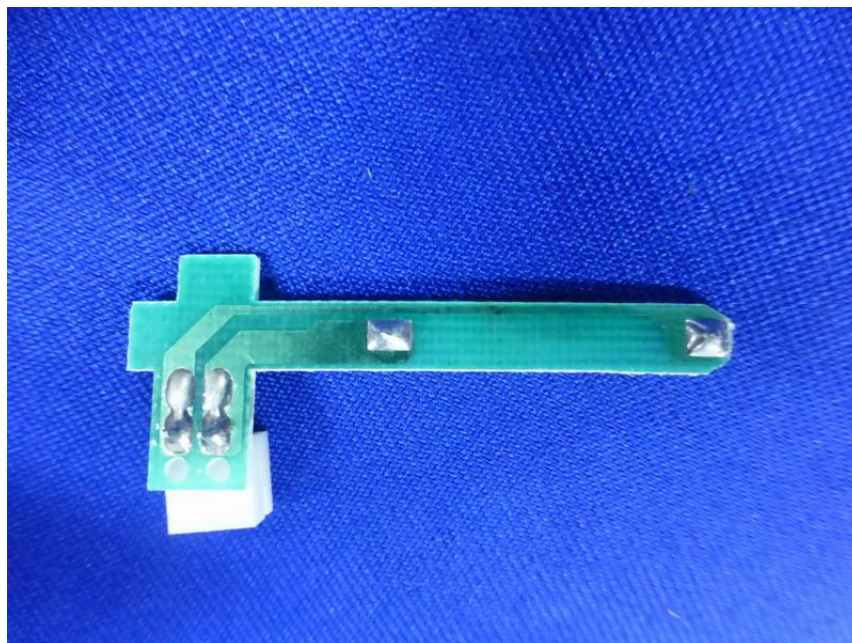


***EUT Photo #11 PCB Bottom View***



***EUT Photo #12 PCB Top View***





*EUT Photo #13 PCB Bottom View*