

# FCC Test Report

## FCC ID: WZ6912HIMU

**Report No.** : TB-FCC110296

**Applicant** : Luxine (Xi'an) Electronics Co., Ltd.

### Equipment Under Test (EUT)

**EUT Name** : Induction Cooker

**Model No.** : 912HIMU

**Serial No.** : 912HIDC, 912HIMC, 912HIDU

**Brand Name** : VOLLRATH

**Receipt Date** : 2011-01-25

**Test Date** : 2011-02-09 to 2011-02-14

**Issue Date** : 2011-02-15

**Standards** : FCC Part 18 : 2008

**Method** : FCC OST/MP-5:1986

**Conclusions** : **PASS**

In the configuration tested, the EUT complied with the standards specified above,

The EUT technically complies with the FCC requirements

**Test/Witness Engineer** : *Ray Lai*  
**Ray Lai (Engineer)**

**Approved& Authorized** : *Justin Zhang*  
**Justin Zhang (Manager)**

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

**TB-RF-074-1.0**

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## Contents

<b>CONTENTS.....</b>	<b>2</b>
<b>1. GENERAL INFORMATION ABOUT EUT .....</b>	<b>3</b>
1.1 Client Information.....	3
1.2 General Description of EUT (Equipment Under Test) .....	3
1.3 Block Diagram Showing the Configuration of System Tested.....	4
1.4 Description of Support Units .....	4
1.5 Description of Test Mode.....	4
1.6 Test Location .....	5
<b>2. TEST SUMMARY.....</b>	<b>6</b>
<b>3. CONDUCTED EMISSION TEST .....</b>	<b>7</b>
3.1 Test Standard and Limit.....	7
3.2 Test Setup.....	7
3.3 Test Procedure.....	7
3.4 Deviation .....	8
3.5 Test Equipment Used.....	8
3.5 Test Data.....	8
<b>4. RADIATED EMISSION TEST .....</b>	<b>11</b>
4.1 Test Standard and Limit.....	11
4.2 Test Setup.....	11
4.3 Test Procedure.....	11
4.4 Deviation .....	11
4.5 Test Equipment .....	12
4.6 Test Condition .....	12

## 1. General Information About EUT

### 1.1 Client Information

<b>Applicant</b>	:	Luxine (Xi'an) Electronics Co., Ltd.
<b>Address</b>	:	4th Floor, Building B, Seeker Industrial Park, 2nd JinYe Rd, Hi-tech Development Zone, Xi'an, China
<b>Manufacturer</b>	:	Luxine (Xi'an) Electronics Co., Ltd.
<b>Address</b>	:	4th Floor, Building B, Seeker Industrial Park, 2nd JinYe Rd, Hi-tech Development Zone, Xi'an, China

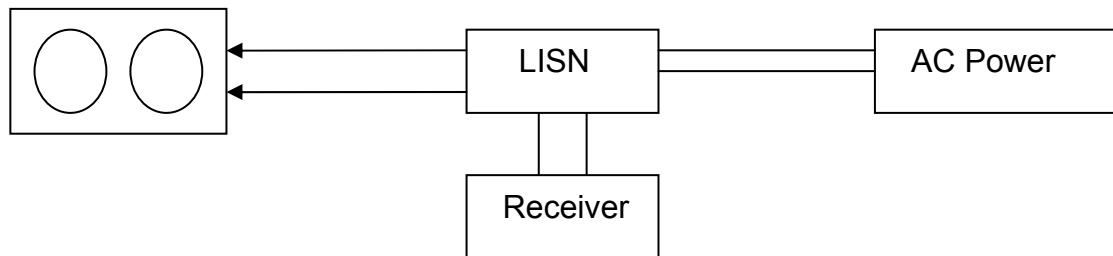
### 1.2 General Description of EUT (Equipment Under Test)

<b>EUT Name</b>	:	Induction Cooker
<b>Model No.</b>	:	912HIMU
<b>Serial No.</b>	:	912HIDC, 912HIMC, 912HIDU
<b>Model difference</b>	:	The only difference is the Control Panel.
<b>Power Supply</b>	:	AC 240V, 60Hz
<b>Power</b>	:	7000W (Maximum power)
<b>Connecting I/O Port(s)</b>	:	Please refer to the User's Manual

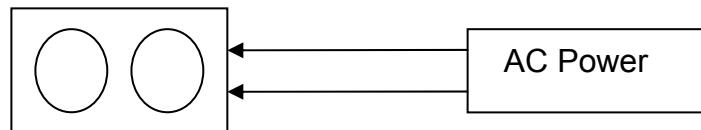
**Note:** For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

### 1.3 Block Diagram Showing the Configuration of System Tested

Conducted Emission Test



Radiated Emission Test



### 1.4 Description of Support Units

The EUT has been tested with water up to 80% of the maximum capacity of the boiler.

### 1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of the EUT operation mode, and the worst Case is when the EUT is operation with the maximum power, so the conducted and radiated emission data of bellow only showed the worst case.

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## 1.6 Test Location

This test was performed at:  
Bontek Compliance Testing Laboratory Ltd.  
1/F, Block East H-3, OCT Eastern Ind. Zone, Shenzhen, China  
Tel: 86-755-86337020 Fax: 86-755-86337028

At the time of testing, the Laboratory was accredited. It is listed in the United States of American Federal Communications Commission (FCC), and the registration number is 338263.

The test report was fulfilled by Shenzhen Toby Technology Co., Ltd. Shenzhen Toby Technology Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements results.

## 2. Test Summary

FCC Part 18: 2008			
Standard Section	Test Item	Test Method	Judgment
18.305	Radiated Emission (9KHz to 30MHz)	FCC OST/MP-5:1986	PASS
18.307(a)	Conducted Emission (9KHz to 30MHz)	FCC OST/MP-5:1986	PASS
<b>Note:</b> N/A is an abbreviation for Not Applicable.			

### 3. Conducted Emission Test

### 3.1 Test Standard and Limit

### 3.1.1 Test Standard

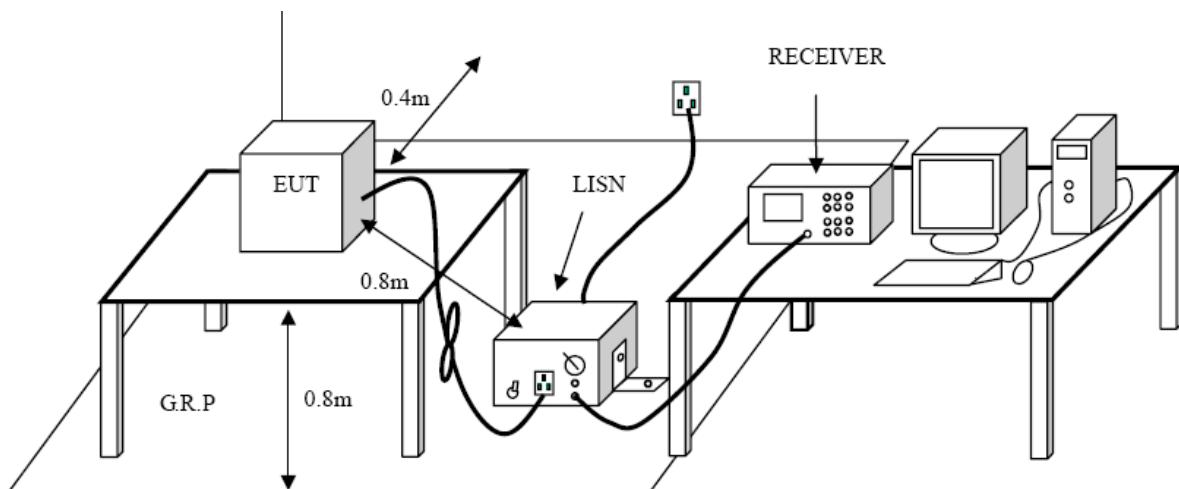
## FCC Part 18.307(a)

### 3.1.2 Test Limit

## Conducted Emission Test Limit

Frequency (MHz)	Maximum RF Line Voltage (dB $\mu$ V)	
	Quasi-peak Level	Average Level
0.009 ~ 0.05	110	--
0.05 ~ 0.15	90 ~ 80	--
0.15 ~ 0.5	66 ~ 56 *	56 ~ 46 *
0.5 ~ 5	56	46
5 ~ 30	60	50

## 3.2 Test Setup



### 3.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/50uH of coupling impedance for the measuring instrument.

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Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

### 3.4 Deviation

The test is no deviation from the standard.

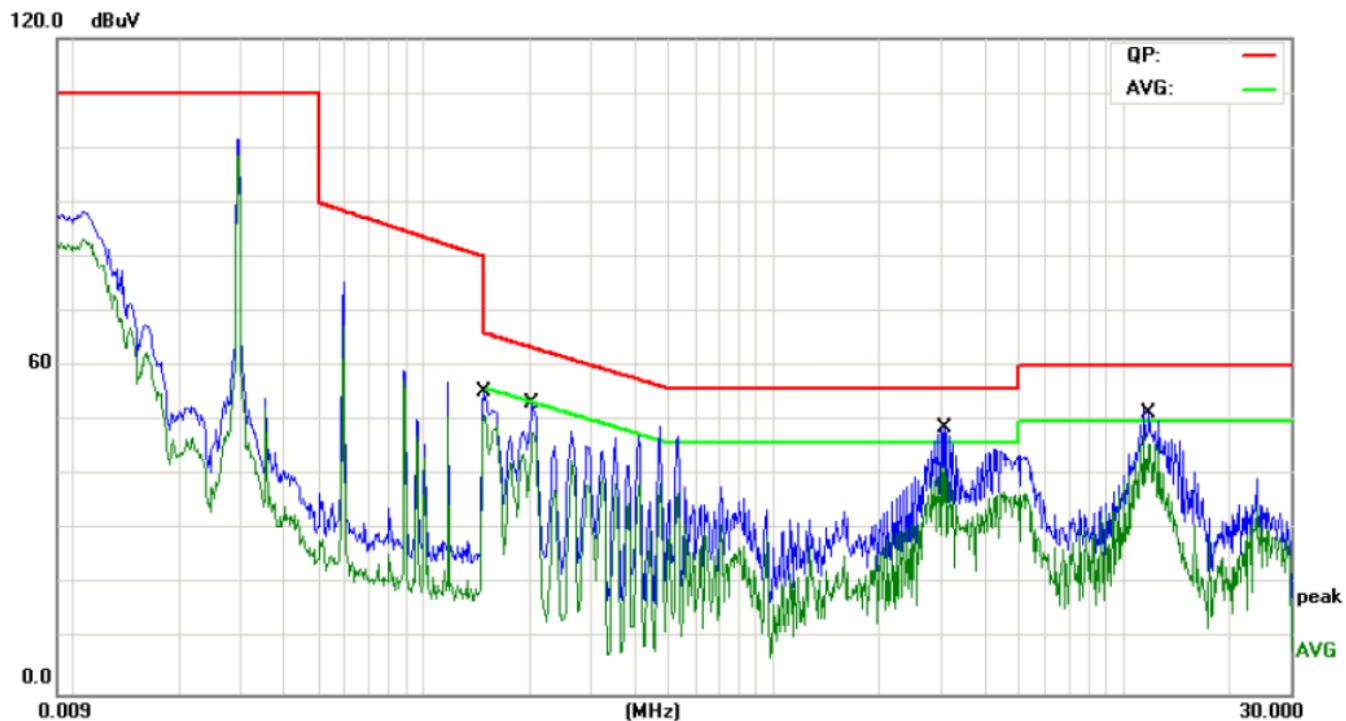
### 3.5 Test Equipment Used

Description	Manufacturer	Model No.	Serial No.	Last Cal.
EMI Test Receiver	Rohde & Schwarz	ESC30	DE25181	2010-08-11
50ΩCoaxial Switch	Anritsu	MP59B	X10321	2010-08-11
L.I.S.N	Rohde & Schwarz	ENV216	00063417	2010-08-11
L.I.S.N.	EMCO	3624/1	3-21-2010	2010-08-11

### 3.5 Test Data

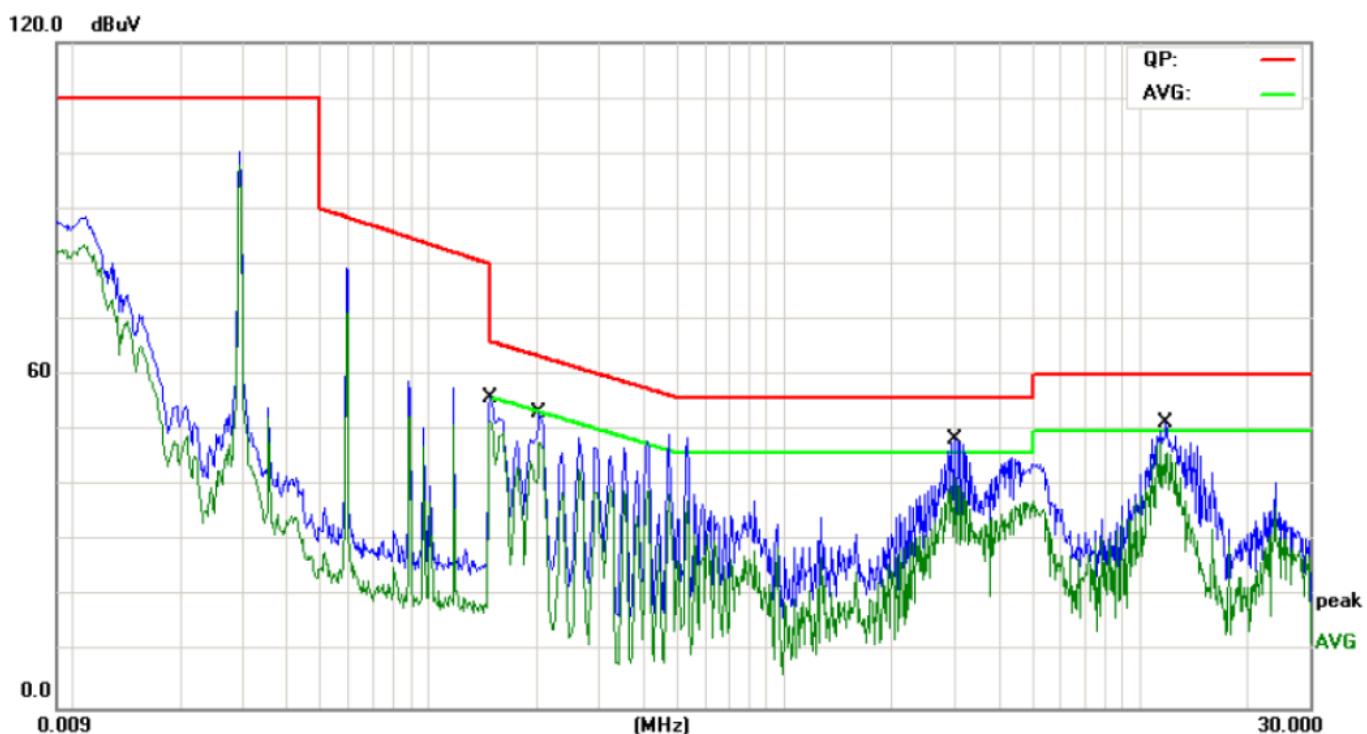
Please see the next page.

E.U.T :	Induction Cooker	Model Name :	912HIMU
Temperature :	26°C	Relative Humidity :	51 %
Terminal:	Line		
Test Voltage :	AC 240 V / 60Hz		
Test Mode :	The EUT in heating mode with the max power		



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		0.1500	43.47	10.93	54.40	65.99	-11.59	QP	
2		0.1500	39.63	10.93	50.56	55.99	-5.43	AVG	
3		0.2060	41.49	10.31	51.80	63.36	-11.56	QP	
4		0.2060	37.37	10.31	47.68	53.36	-5.68	AVG	
5		3.0740	38.17	9.41	47.58	56.00	-8.42	QP	
6		3.0740	30.94	9.41	40.35	46.00	-5.65	AVG	
7		11.8180	36.61	9.99	46.60	60.00	-13.40	QP	
8	*	11.8180	35.59	9.99	45.58	50.00	-4.42	AVG	

E.U.T :	Induction Cooker	Model Name :	912HIMU
Temperature :	26°C	Relative Humidity :	51 %
Terminal:	Neutral		
Test Voltage :	AC 240 V / 60Hz		
Test Mode :	The EUT in heating mode with the max power		



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		0.1500	44.03	11.34	55.37	65.99	-10.62	QP	
2		0.1500	40.04	11.34	51.38	55.99	-4.61	AVG	
3		0.2060	41.13	10.77	51.90	63.36	-11.46	QP	
4		0.2060	36.86	10.77	47.63	53.36	-5.73	AVG	
5		3.0180	36.98	9.98	46.96	56.00	-9.04	QP	
6		3.0180	28.94	9.98	38.92	46.00	-7.08	AVG	
7		11.8100	39.53	10.60	50.13	60.00	-9.87	QP	
8	*	11.8100	35.85	10.60	46.45	50.00	-3.55	AVG	

## 4. Radiated Emission Test

### 4.1 Test Standard and Limit

#### 4.1.1 Test Standard

FCC Part 18.305

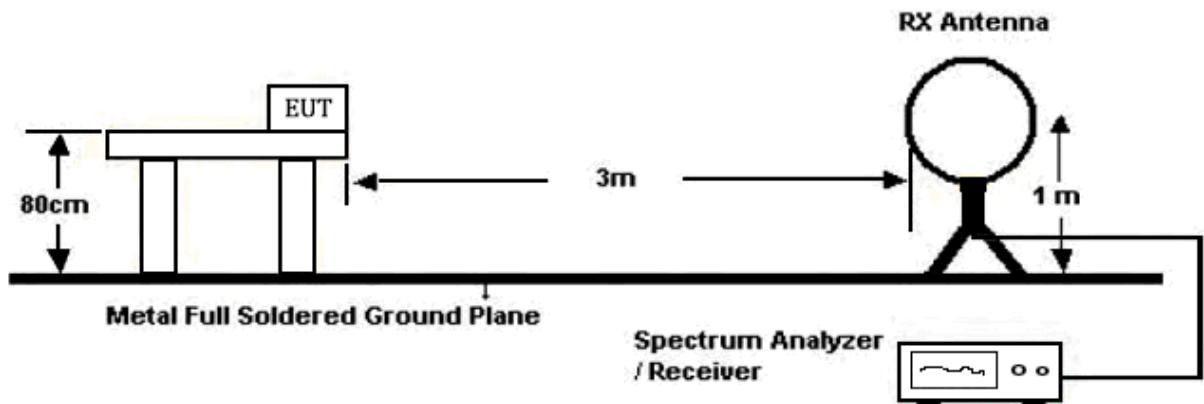
#### 4.1.2 Test Limit

##### Radiated Emission Limit (9kHz~30MHz)

Frequency (MHz)	Field Strength Limit (microvolt/meter)	Measurement Distance (meters)
0.009~30	1500	30

Note: Emission Level(dBuV/m)=20log Emission Level(uV/m)

### 4.2 Test Setup



### 4.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 30MHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) An initial scan was performed in the 3m chamber using the spectrum analyzer in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by a loop antenna.
- (3) For the actual test configuration, please see the test setup photo.

### 4.4 Deviation

For Radiated Emission, test at 3m distance instead of 30m distance. 40dB was plus to the

limit of 30m measurement limit. More details refer to FCC part 15.31(f)(2).

#### 4.5 Test Equipment

Description	Manufacturer	Model No.	Serial No.	Last Cal.
Loop Antenna	Rohde & Schwarz	H052440	De2542	2010-08-11
Ultra-broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2010-08-11
Coaxial Cable	SCHWARZBECK	AK5624	9514-10	2010-08-11
EMI Test Receiver	Rohde & Schwarz	ESI 26	1838786	2010-08-11
RF Test Panel	Rohde & Schwarz	TS/RSP	335015/0017	2010-08-11
RF Switch	EM	EMSW18	SW060023	2010-08-11

#### 4.6 Test Condition

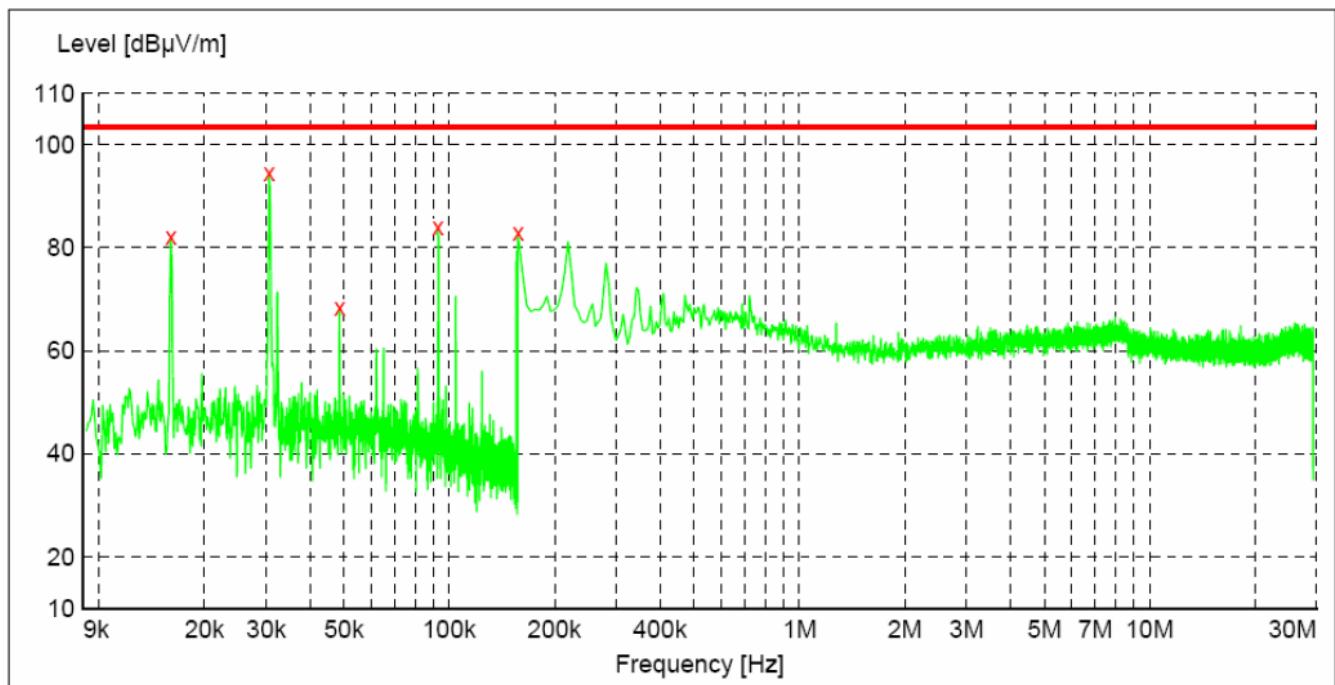
Temperature	:	25 °C
Relative Humidity	:	48 %
Pressure	:	1010 hPa
Test Power	:	AC 240V/60Hz

## 4.7 Test Data

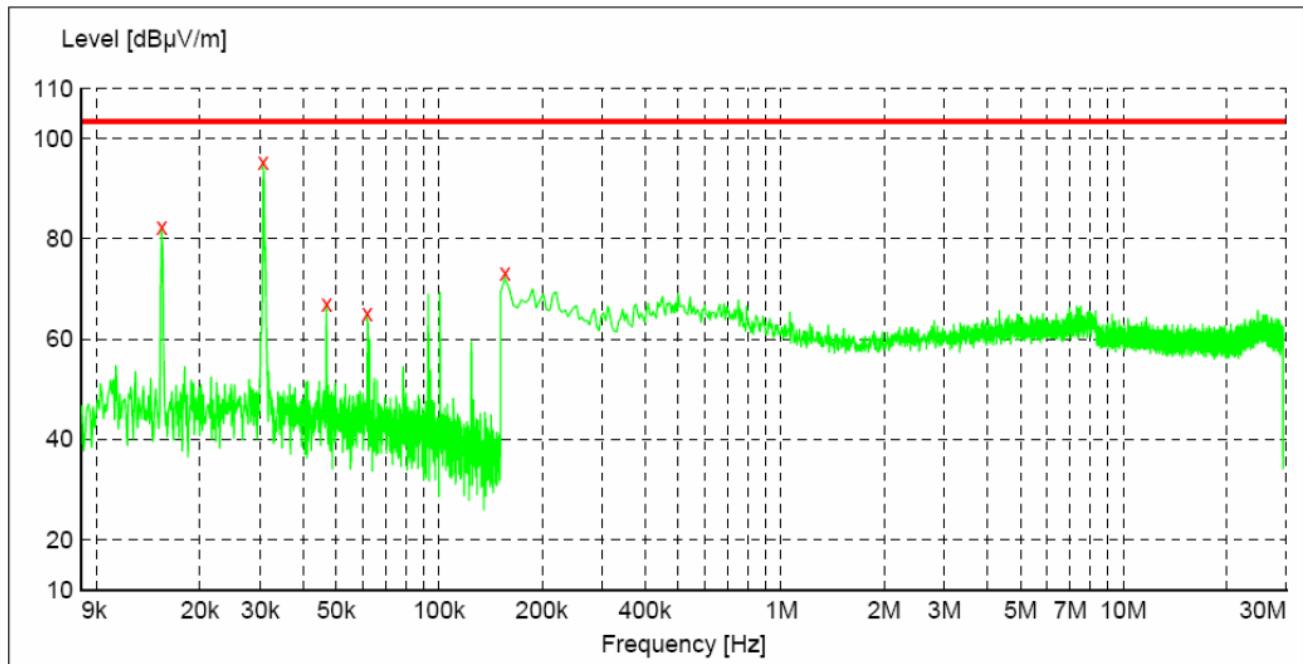
Antenna plane vertical the EUT

EUT: Induction Cooker

Model: 912HIMU



Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
0.015460	81.10	24.4	103.5	22.4	---	100.0	0.00	VERTICAL
0.031500	94.50	26.8	103.5	9.0	---	100.0	0.00	VERTICAL
0.049250	68.72	28.4	103.5	34.78	---	100.0	0.00	VERTICAL
0.092340	83.64	31.5	103.5	19.86	---	100.0	0.00	VERTICAL
0.158600	82.14	32.9	103.5	21.36	---	100.0	0.00	VERTICAL

**Antenna plane horizontal the EUT****EUT: Induction Cooker****Model: 912HIMU**

Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
0.015530	81.70	24.6	103.5	21.8	---	100.0	0.00	HORIZONTAL
0.031840	95.10	26.8	103.5	8.4	---	100.0	0.00	HORIZONTAL
0.04750	67.64	28.6	103.5	35.86	---	100.0	0.00	HORIZONTAL
0.06240	65.42	29.2	103.5	38.08	---	100.0	0.00	HORIZONTAL
0.159800	73.25	33.1	103.5	30.25	---	100.0	0.00	HORIZONTAL