

FCC PART 18
MEASUREMENT AND TEST REPORT
For

EUT Name: Induction
Item No.: 69547
Trade Mark: VOLLRATH
FCC ID: WZ669547
Serial No.: Not supplied by client



Prepared for : Luxine (Xi'an) Electronical Co.,Ltd.
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Report Number : **TB-F093625**
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TEST REPORT DECLARATION

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

Manufacturer : Luxine (Xi'an) Electronical Co.,Ltd.

EUT Description : Induction

Model No. : 69547

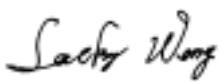
Test Procedure Used:

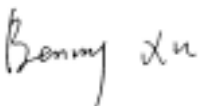
FCC Rules and Regulations CFR Title 47 Part 18 Subpart C and FCC/OST MP-5 (February 1986)


The device described above is tested by Audix Technology (Shenzhen) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 18 Subpart C limits for both radiation and conduction emissions.

The measurement results are contained in this test report and Shenzhen Toby Technology Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits. Shenzhen Toby Technology Co., Ltd. recommends that this data can be submitted for FCC certification purposes if a 6dB margin below FCC limits is obtained.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Shenzhen Toby Technology Co., Ltd.

Tested by:  Date: Mar. 12, 2009
(Jacky Wang)

Reviewer:  Date: Mar. 13, 2009
(Benny Xu)

Approved by:  Date: Mar. 16, 2009
(Justin Zhang)

1. GENERAL INFORMATION

1.1. Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Luxine (Xi'an) Electronical Co.,Ltd.
 Address of applicant: Room 220,Xigema Building,#18, FengHui South RD,Hi-tech Zone, Xi'an City ,Shanxi, P.R.China

Manufacturer: Luxine (Xi'an) Electronical Co.,Ltd.
 Address of manufacturer: Room 220,Xigema Building,#18, FengHui South RD,Hi-tech Zone, Xi'an City ,Shanxi, P.R.China

General Description of E.U.T

Items	Description
EUT Description	Induction
Trade Mark	VOLLRATH
Model No.	69547
Rated Voltage	AC240V
Size	67.5cm × 33.8cm × 13.0cm

For more information refer to the circuit diagram form and the user's manual.

The test data is gathered from a production sample, provided by the manufacturer.

1.2. Description of Support Units

The EUT has been tested as an independent unit.

1.3. Standards Applicable for Testing

The standard used was FCC PART18

1.4. Measurement Uncertainty

No.	Item	Uncertainty	Remark
1	Uncertainty for Conducted Emission	1.26dB	
2	Uncertainty for Radiated Emission	3.18dB	10m Chamber

1.5. Test Location

FCC – Registration No.: 90454

Audix Technology (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 and the Registration is 90454. TOBY tested in Audix Technology (Shenzhen) Lab.

TOBY Tel: +86 0755 2804 5093 Fax: +86 0755 518055

2. SUMMARY OF TEST RESULTS

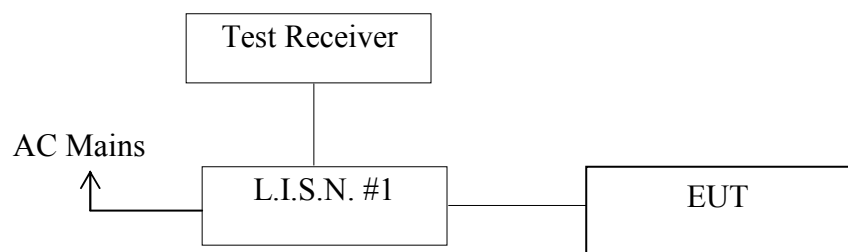
DESCRIPTION OF TEST	TEST REQUIREMENT	TEST METHOD	CLASS/ SEVERITY	RESULT
Conducted Emission (9KHz to 30MHz)	FCC PART 18	FCC OST/MP -5:1986	18.307(a)	PASS
Radiated Emission (9KHz to 30MHz)	FCC PART 18	FCC OST/MP -5:1986	18.305	PASS

3. §18.307(A) - CONDUCTED EMISSION

3.1. Test Equipment List and Details

Description	Manufactruer	Model No.	Serial No.	Last Cal.	Cal. Interval
Test Receiver	Rohde & Schwarz	ESCI	100842	Oct. 24, 2008	1 Year
L.I.S.N. #1	Rohde & Schwarz	ESH2-Z5	834066/011	May 10, 2008	1 Year
Terminator	Hubersuhner	50Ω	No.1	May 10, 2008	1 Year
RF Cable	Fujikura	3D-2W	LINS Cable #1	Nov. 10, 2008	1/2 Year
Coaxial Switch	Anritsu	MP59B	M55367	Nov. 01, 2008	1/2 Year
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	Nov. 10, 2008	1/2 Year

3.2. Basic Test Setup Block Diagram



(EUT: Induction)

3.3. Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

3.3.1. Induction (EUT)

Model Number : 69547
 Serial Number : N/A
 Manufacturer : Luxine (Xi'an) Electronical Co.,Ltd.

3.4. Operating Condition of EUT

- 3.4.1. Setup the EUT and simulator as shown on Section 3.2.
- 3.4.2. Turn on the power of all equipment.
- 3.4.3. Let the EUT work in test mode (ON) and test it.

3.5. Test Procedure

The EUT is connected to the power mains through a line impedance stabilization network (L.I.S.N.#2). This provides a 50 ohm coupling impedance for the EUT. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission levels. In order to

find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4-2003 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS10) is set at 10kHz.

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

The test result are reported on Section 2.7, all the scanning waveforms for Conducted Emission

Test are attached in Appendix I.

3.6. Conducted Emission Test Results

PASS.

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

All emissions not reported below are too low against the prescribed limits.

No.	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Tested Line	Remark
1	0.01168	0.69	0.00	60.83	61.52	110.00	48.48	Peak	Line
2	0.02564	0.49	0.00	61.71	62.20	110.00	47.80	Peak	
3	0.05990	0.31	0.00	61.97	62.28	88.36	26.08	Peak	
4	0.08993	0.31	0.00	41.12	41.43	84.66	43.23	Peak	
5	0.11997	0.30	0.00	39.48	39.78	82.03	42.25	Peak	
6	5.553	0.67	0.00	34.57	35.24	60.00	24.76	Peak	
7	7.284	0.70	0.00	34.16	34.86	60.00	25.14	Peak	
8	19.702	0.06	0.00	20.21	20.27	60.00	39.73	Peak	

No.	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Tested Line	Remark
1	0.02522	0.29	0.00	59.59	59.88	110.00	50.12	Peak	Neutral
2	0.02959	0.27	0.00	62.08	62.35	110.00	47.65	Peak	
3	0.05906	0.20	0.00	58.74	58.94	88.48	29.54	Peak	
4	0.08852	0.23	0.00	37.05	37.28	84.80	47.52	Peak	
5	0.11799	0.24	0.00	39.98	40.22	82.18	41.96	Peak	
6	5.672	0.30	0.00	35.73	36.03	60.00	23.97	Peak	
7	7.314	0.32	0.00	33.74	34.06	60.00	25.94	Peak	
8	20.269	0.67	0.00	20.36	21.03	60.00	38.97	Peak	

Remark: 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.

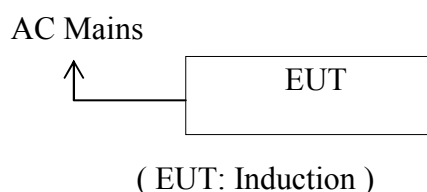
4. §18.305 - RADIATED EMISSION

4.1. Test Equipment List and Details

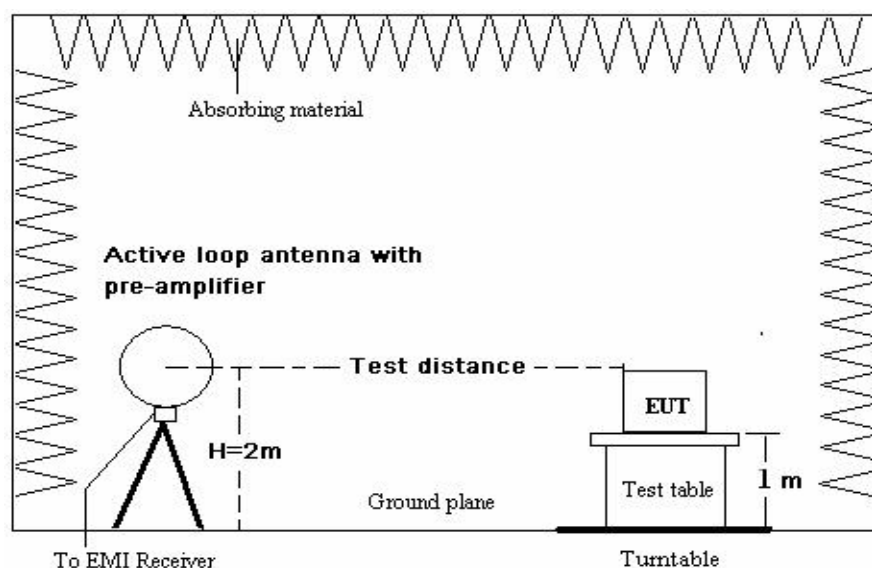
Description	Manufactruer	Model No.	Serial No.	Last Cal.	Cal. Interval
EMI Spectrum	Agilent	85422E	E7403A	Oct. 24, 2008	1 Year
Test Receiver	Rohde & Schwarz	ESVS20	830350/005	Oct. 24, 2008	1 Year
Amplifier	HP	8447D	2944A07794	Sep.14, 2008	1/2 Year
Loop Antenna	Chase	HLA6120	1062	Jun. 28, 2008	1 Year
Coaxial Switch	Anritsu	MP59B	M73989	Nov. 01, 2008	1/2 Year
Spectrum	Agilent	E4407B	MY41440292	Oct. 24, 2008	1 Year

4.2. Basic Test Setup Block Diagram

4.2.1. Block diagram of connection between the EUT and simulators



4.2.2. In Anechoic Chamber



4.3. Configuration of EUT on Test

The following equipment are installed on Radiated Emission Test to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

4.3.1. Induction (EUT)

Model Number : 69547
 Serial Number : N/A
 Manufacturer : Luxine (Xi'an) Electronical Co.,Ltd.

4.4. Operating Condition of EUT

4.4.1. Setup the EUT and simulator as shown on Section 4.2.

4.4.2. Turn on the power of all equipment.

4.4.3. Let the EUT work in test mode (ON) and test it.

4.5. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the PC and let it work normally, we use a keyboard test soft ware, let EUT working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the EMI test receiver (R&S ESVS20) is set at 120kHz.

The frequency range from 30MHz to 1000MHz is checked.

The test mode (ON) is tested in Anechoic Chamber, and all the scanning waveforms are attached in Appendix II.

4.6. Radiated Emission Test Results

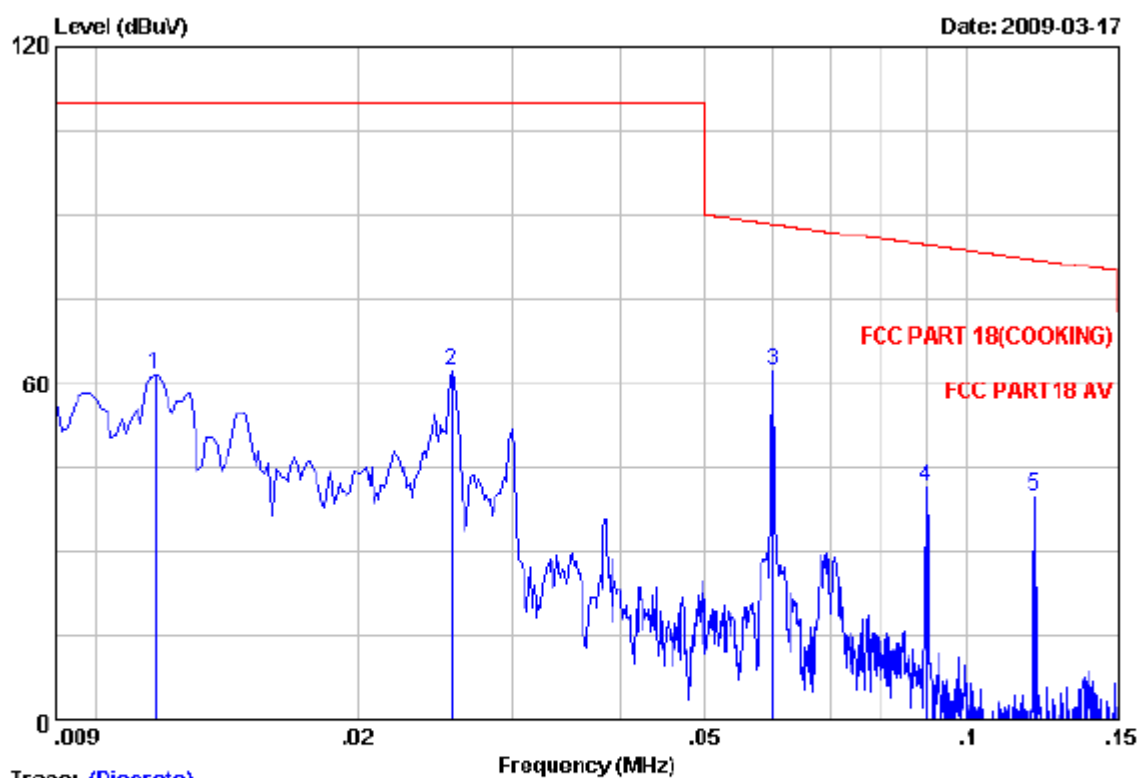
PASS.

The frequency range from 30MHz to 1000MHz is investigated. Please see the following pages.

No.	Freq. (MHz)	Antenna Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.03632	18.90	9.24	42.12	70.26	73.06	2.80	Peak
2	0.07279	20.40	9.44	32.12	61.96	73.06	11.10	Peak
3	0.10684	22.50	9.65	39.26	71.41	73.06	1.65	Peak
4	0.17810	22.90	9.91	38.31	71.12	73.06	1.94	Peak
5	0.25039	22.90	9.90	35.22	68.02	73.06	5.04	Peak
6	0.31680	22.88	9.89	31.00	63.77	73.06	9.29	Peak
7	0.39118	22.84	9.88	26.68	59.40	73.06	13.66	Peak

Remark: 1. Emission Level=Antenna Factor + Cable Loss + Reading.

APPENDIX I

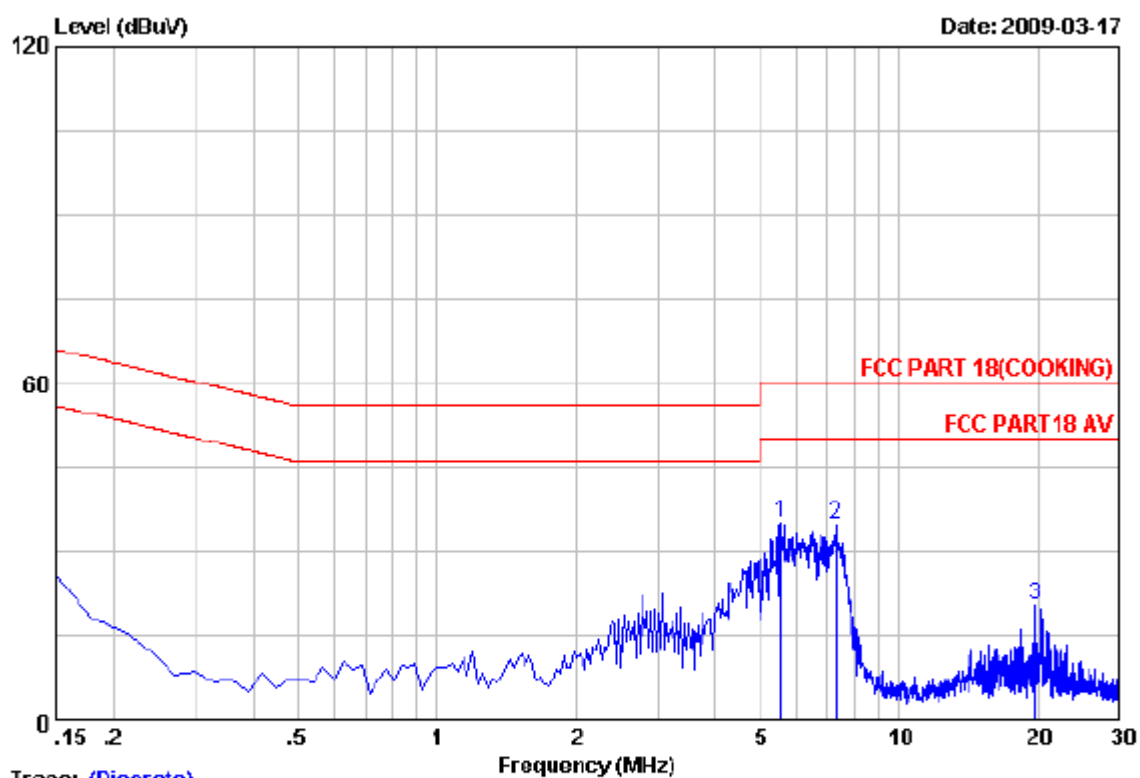


Trace: (Discrete)

Site no : Audix No.1 Conduction
 Dis./Ant. : ** ESH2-25 LINE
 Limit : FCC PART 18(COOKING)
 Env./Ins. : Temp:23'C Humi:54%
 EUT : Induction M/N:69547
 Power Rating : AC 240V/60Hz
 Test Mode : ON

Data no : 18

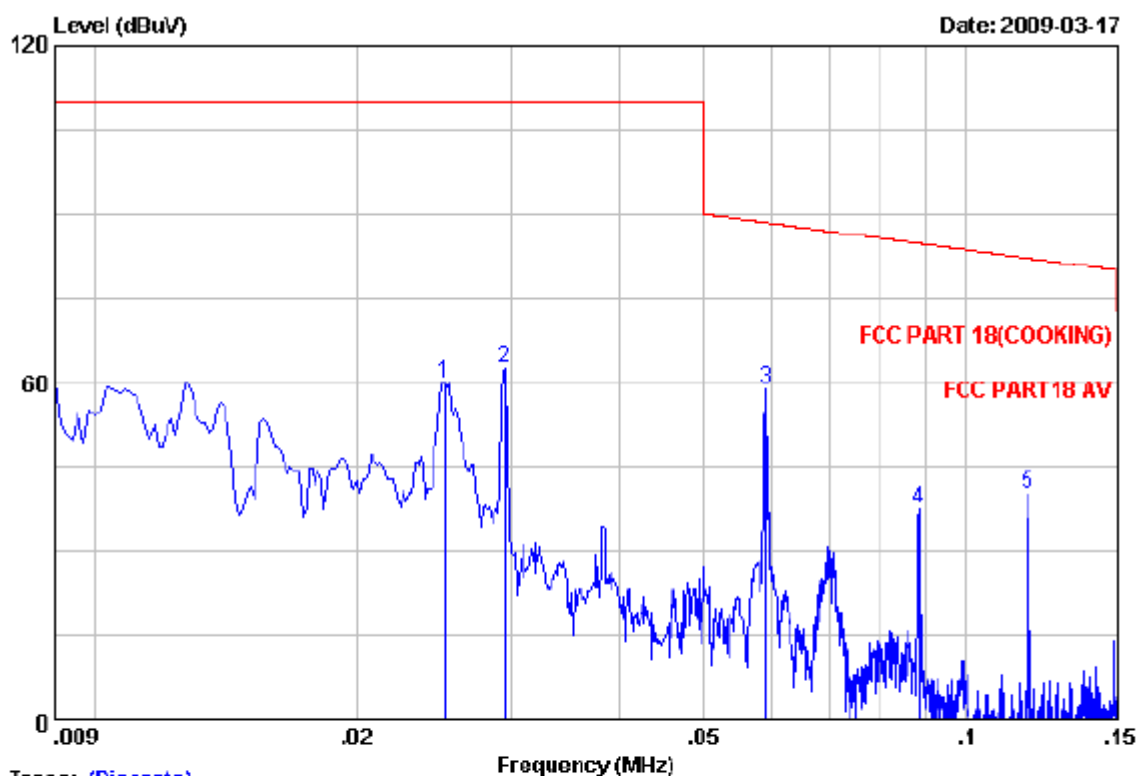
Engineer : Leo



Trace: (Discrete)

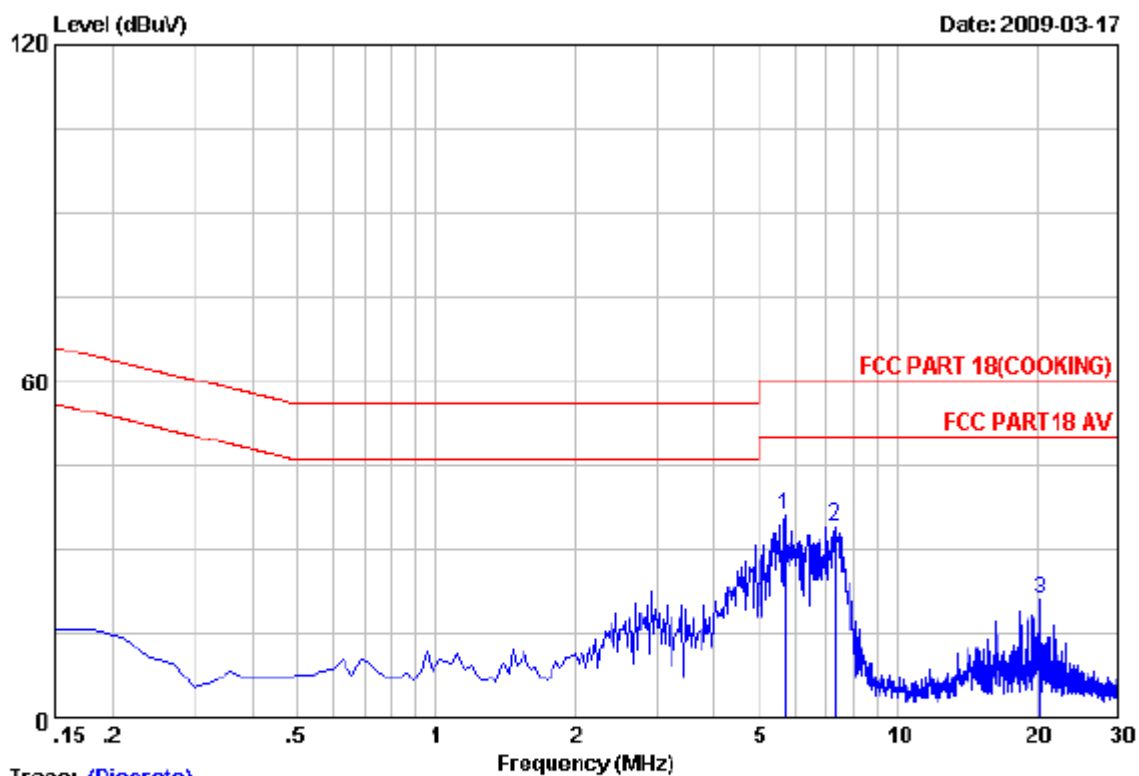
Site no : Audix No.1 Conduction
 Dis./Ant. : ** ESH2-25 LINE
 Limit : FCC PART 18(COOKING)
 Env./Ins. : Temp:23'C Humi:54%
 EUT : Induction M/N:69547
 Power Rating : AC 240V/60Hz
 Test Mode : ON

Data no : 19
 Engineer : Leo



Site no : Audix No.1 Conduction
 Dis./Ant. : ** ESH2-Z5 NEUTRAL
 Limit : FCC PART 18 (COOKING)
 Env./Ins. : Temp:23'C Humi:54%
 EUT : Induction M/N:69547
 Power Rating : AC 240V/60Hz
 Test Mode : ON

Data no : 21
 Engineer : Leo



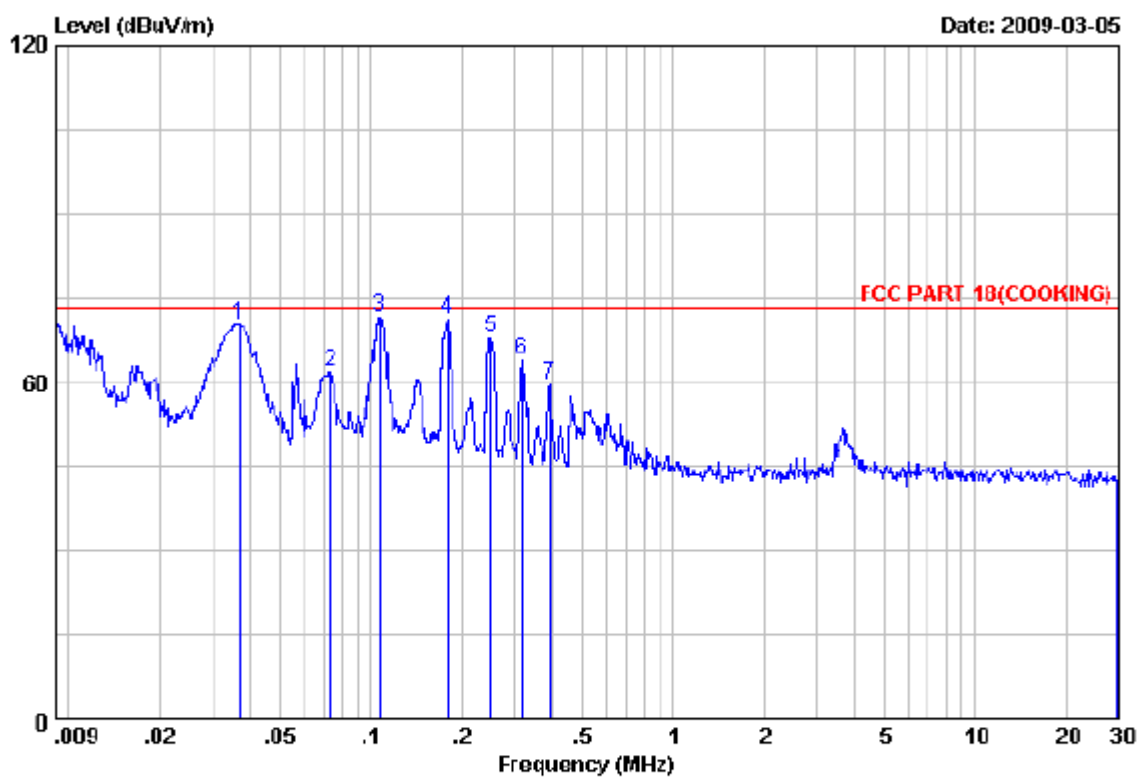
Trace: (Discrete)

Site no : Audix No.1 Conduction
 Dis./Ant. : ** ESH2-Z5 NEUTRAL
 Limit : FCC PART 18(COOKING)
 Env./Ins. : Temp:23'C Humi:54%
 EUT : Induction M/N:69547
 Power Rating : AC 240V/60Hz
 Test Mode : ON

Data no : 20

Engineer : Leo

APPENDIX II



Site no : Audix No.2 Conduction
 Dis./Ant. : 10m LOOP ANT
 Limit : FCC PART 18(COOKING)
 Env./Ins. : 29.5°C/55%
 EUT : Induction M/N:69547
 Power Rating : AC 240V/60Hz
 Test Mode : ON

Data No : 64
 LISN phase:
 Engineer : Chris