SGS-CSTC Standards Technical Services Co., Ltd.

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FCC Test Report

Application No.: GLEMO050401185HS

Applicant: Guangdong MD Consumer Electric Electric Manufacturing Co., Ltd.

Equipment Under Test (EUT):

EUT Name: Induction Cooker
Item No.: MC-SF137
Serial No.: Not supplied by client

Standards: FCC PART 18: 2004

Date of Receipt: 29 April 2005

Date of Test: 30 April 2005 to 14 May 2005

Date of Issue: 20 May 2005

Test Result :	**PASS***

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

Authorized Signature:

Kent Hsu
Laboratory Manager

2 Test Summary

Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission (9KHz to 30MHz)	FCC PART 18: 2004	FCC / OST MP-5 : 1986	18.305	PASS
Conducted Emission (9KHz to 30MHz)	FCC PART 18: 2004	FCC / OST MP-5 : 1986	18.307 (a)	PASS

3 Contents

4 General Information

4.1 Client Information

Applicant:	Guangdong MD Consumer Electric Electric Manufacturing Co., Ltd.
Address of Applicant:	19 Sanle Road,Beijiao,Shunde,Foshan,Guangdong,P.R.China

4.2 General Description of E.U.T.

EUT Name:	Induction Cooker
Item No.:	MC-SF137
Serial No.:	Not supplied by client

4.3 Details of E.U.T.

Power Supply:	120V AC 60Hz
Power Cord:	1.2m x 2 wires AC mains cable.

4.4 Description of Support Units

The EUT has been tested with a pan of water.

4.5 Standards Applicable for Testing

The standard used was FCC PART 18 (2004).

4.6 Test Location

All tests were performed at:
SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory, 1/F, Building No. 1, Agriculture Machinery Materials Company Warehouse Ltd., Wushan Road Shipai, Tianhe District, Guangzhou, China. P.C. 510630.

Tel: +86 20 3848 1001 Fax: +86 20 3848 1006

No tests were sub-contracted.

4.7 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **NVLAP – Lab Code: 200611-0**
  SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is recognized under the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0. Effective through December 31, 2005.
- **ACA**
  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.
- **VCCI**
  The 3m Semi-anechoic chamber and Shielded Room (11.5m x 4m x 4m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-1599 and C-1706 respectively.
  Date of Registration: February 28, 2003. Valid until May 30, 2005
- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**
  Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.
- **CNAL – LAB Code: L0141**
  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAL/AC01:2002 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:1999 General Requirements) for the Competence of Testing Laboratories.
- **FCC – Registration No.: 282399**
  SGS-CSTC Standards Technical Services 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 282399, May 31, 2002. With the above and NVLAP's accreditation, SGS-CSTC is an authorised test laboratory for the DoC process.
  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAL/AC01:2002 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:1999 General Requirements) for the Competence of Testing Laboratories.
- **Industry Canada (IC)**
  The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 5169.

4.8 Deviation from Standards

For radiated emission test, measurement distance was 3m not 30m, 20dB was plus to the limit of 30m measurement limit.

4.9 Abnormalities from Standard Conditions

None.

5 Equipments Used during Test

RE in Chamber						
No:	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Date (dd-mm-yy)**	**Cal.Due date (dd-mm-yy)**
1	3m Semi- Anechoic Chamber	Frankonia	N/A	N/A	31-01-2005	30-01-2006
2	EMI Test Receiver	Rohde & Schwarz	ESCS30	100085	10-10-2004	09-10-2005
3	EMI Test Software	Rohde & Schwarz	ES-K1	N/A	N/A	N/A
4	Coaxial cable	SGS	N/A	N/A	05-12-2003	04-12-2005
5	Bilog Type Antenna	Schaffner -Chase	CBL6143	5070	17-01-2005	16-01-2006
6	Horn Antenna	Rohde & Schwarz	HF906	100095	02-04-2004	01-04-2005
7	Spectrum Analyzer	Rohde & Schwarz	FSP30	100324	29-10-2004	28-10-2005
8	0.1-1300 MHz Pre-Amplifier	HP	8447D OPT 010	2944A06252	31-05-2004	30-05-2005
9	1-26.5 GHz Pre-Amplifier	Agilent	8449B	3008A01649	26-01-2004	25-01-2006
10	Active Loop Antenna	EMCO	6502	00042963	14-Jan-2005	14-Jan-2006

Conducted Emission						
No:	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Date (dd-mm-yy)**	**Cal.Due date (dd-mm-yy)**
1	Shielding Room	Frankonia	12 x 4 x 4 m^3	EMC0103	N/A	N/A
2	LISN	Schaffner Chase	MNZ050D11	1421	18-11-2004	17-11-2005
3	EMI Test Receiver	Rohde & Schwarz	ESCS30	100085	05-11-2004	04-11-2005
4	Coaxial Cable	SGS	2m	EMC0107	02-06-2004	01-06-2005

General used equipment						
No:	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Date (dd-mm-yy)**	**Cal.Due date (dd-mm-yy)**
1	Temperature, Humidity & Barometer	OREGON/VAISALA/ TESTO/ANDTEK	BA-888/ HM34C/605-H1/ HT-6290	EMC0001 to EMC0004	02-08-2004	01-08-2005
2	DMM	Fluke	73	70681569 or 70671122	10-09-2004	09-09-2005

6 Test Results

6.1 Conducted Emissions Mains Terminals, 9kHz to 30MHz

Test Requirement:	FCC Part18
Test Method:	FCC / OST MP-5
Test Date:	06 May 2005
Frequency Range:	9KHz to 30MHz
Limit:	18.307 (a).
Detector:	Peak for pre-scan
	Quasi-Peak for final measurement
	(200Hz resolution for 9KHz to 150KHz, 9kHz Resolution Bandwidth for 150KHz to 30MHz)

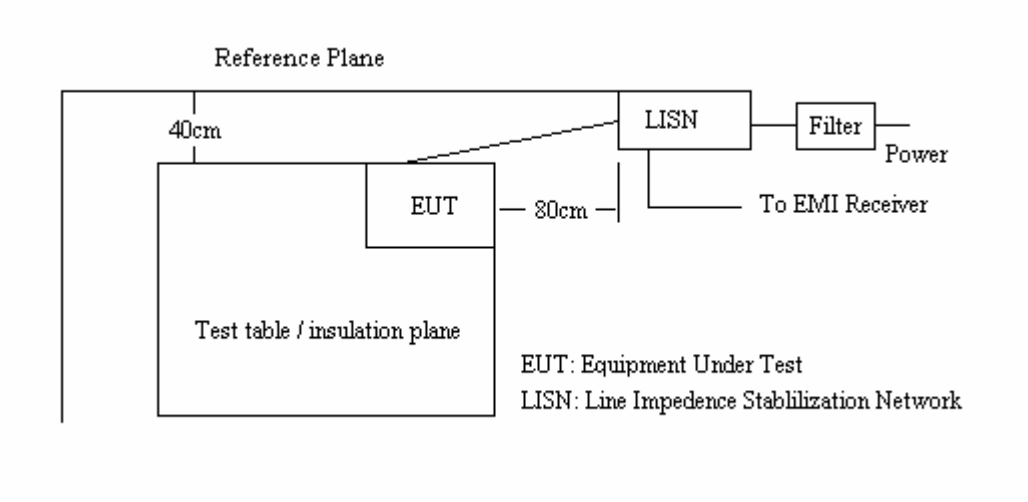
6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0 °C Humidity: 58 % RH Atmospheric Pressure: 1018 Mbar

EUT Operation: Test in boil mode with maximum temperature.

6.1.2 Test Setup



6.1.3 Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

The following Quasi-Peak and Average measurements were performed on the EUT on 06 May 2005:

Line

Frequency (MHz)	Transducer (dB)	Receiver QP Reading (dBuV)	Receiver QP Level (dBuV)	Limit (dBuV)	Margin (dB)	Receiver AV Reading (dBuV)	Receiver AV Level (dBuV)	Limit (dBuV)	Margin (dB)
0.021	1.2	88.0	89.2	110.0	20.8	-	-	-	-
0.042	0.5	77.0	77.5	110.0	32.5	-	-	-	-
0.063	0.2	60.8	61.0	87.9	26.9	-	-	-	-
0.151	0.0	60.3	60.3	65.9	5.6	52.1	52.1	55.0	2.9
0.168	0.0	56.9	56.9	65.1	8.2	51.5	51.5	55.1	3.6
0.190	0.0	56.9	56.9	64.0	7.1	50.6	50.6	54.0	3.4
0.632	0.0	37.8	37.8	56.0	18.2	30.0	30.0	46.0	16.0
26.272	0.6	51.2	51.8	60.0	8.2	46.1	46.7	50.0	3.3

Neutral

Frequency (MHz)	Transducer (dB)	Receiver QP Reading (dBuV)	Receiver QP Level (dBuV)	Limit (dBuV)	Margin (dB)	Receiver AV Reading (dBuV)	Receiver AV Level (dBuV)	Limit (dBuV)	Margin (dB)
0.021	1.2	85.0	86.2	110.0	23.8	-	-	-	-
0.042	0.5	75.6	76.1	110.0	33.9	-	-	-	-
0.168	0.0	52.4	52.4	65.1	12.7	47.3	47.3	55.1	7.8
0.190	0.0	50.4	50.4	64.0	13.6	44.3	44.3	54.0	9.7
0.151	0.0	57.0	57.0	65.9	8.9	48.9	48.9	55.9	7.0
0.622	0.0	37.0	37.0	56.0	19.0	28.6	28.6	46.0	17.4
26.817	0.6	51.8	52.4	60.0	7.6	45.5	46.1	50.0	3.9

Transducer = Insertion Loss of LISN + Cable Loss.

6.2 Radiated Emissions, 9KHz to 30MHz

Test Requirement:	FCC Part18
Test Method:	FCC / OST MP-5
Test Date:	15 May 2005
Frequency Range:	9KHz to 30MHz
Measurement Distance:	3m
Class:	18.305
Detector:	Peak for pre-scan
	Quasi-Peak for final measurement
	(200Hz resolution for 9KHz to 150KHz, 9kHz Resolution Bandwidth for 150KHz to 30MHz)

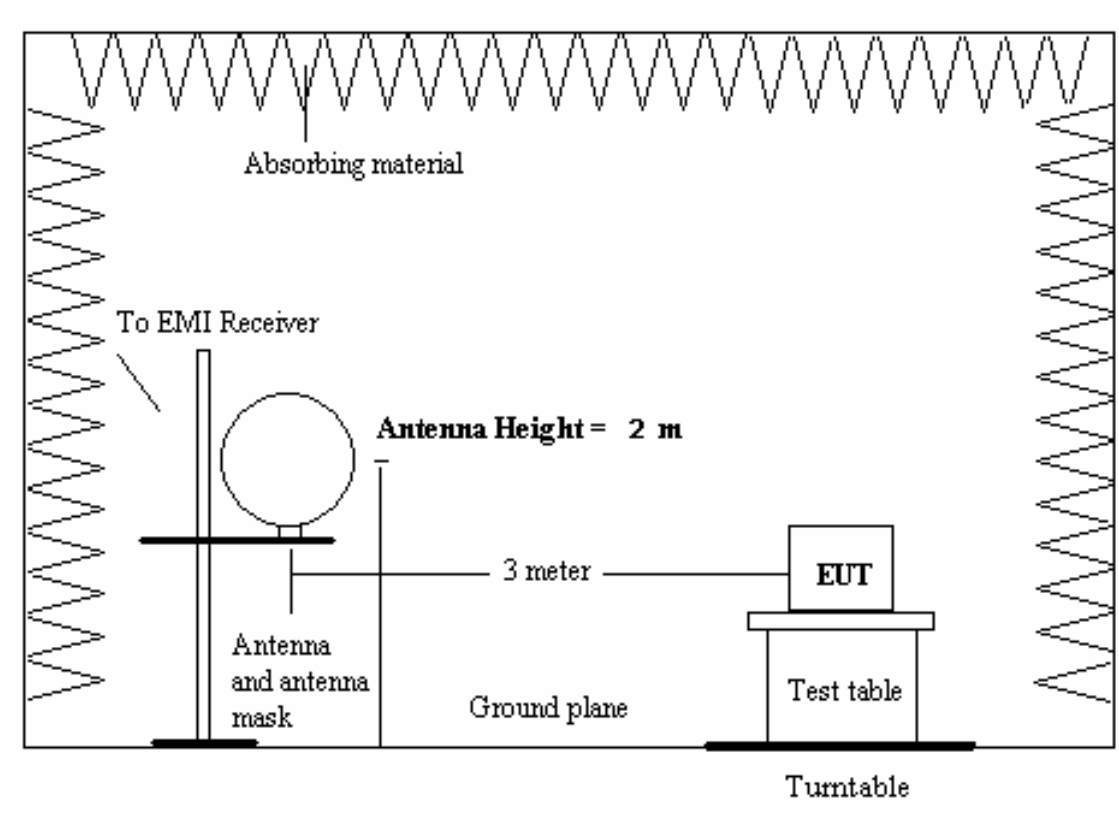
6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0 °C Humidity: 54 % RH Atmospheric Pressure: 1015 mbar

EUT Operation: Test in boil mode with maximum temperature.

6.2.2 Test Setup



6.2.3 Measurement Data

An initial pre-scan was performed in the 3m chamber using the spectrum analyser in peak detection mode. The EUT was measured by Bilog antenna with 2 orthogonal polarities and peak emissions from the EUT were detected within 6dB of the class B limit line.

The following quasi-peak measurements were performed on the EUT on 15 May 2005

Test results:

Loop plane vertical to EUT

Frequency (MHz)	Transducer (dB)	Receiver QP Reading (dBμV/m)	Receiver QP Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
0.021	14.0	68.9	82.9	83.5	0.6
0.042	12.1	68.3	80.4	83.5	3.1
0.063	11.9	64.4	76.3	83.5	7.2
0.084	12.0	58.2	70.2	83.5	13.3
0.105	11.9	47.5	59.4	83.5	24.1
0.168	11.9	41.7	53.6	83.5	29.9
0.294	11.9	48.0	59.9	83.5	23.6
0.315	11.9	50.5	62.4	83.5	21.1
0.462	12.0	45.4	57.4	83.5	26.1

Loop plane horizontal to EUT

Frequency (MHz)	Transducer (dB)	Receiver QP Reading (dBμV/m)	Receiver QP Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
0.021	14.0	67.3	81.3	83.5	2.2
0.042	12.1	66.7	78.8	83.5	4.7
0.063	11.9	48.5	60.4	83.5	23.1
0.084	12.0	45.4	57.4	83.5	26.1
0.105	11.9	43.0	54.9	83.5	28.6
0.168	11.9	55.3	67.2	83.5	16.3
0.294	11.9	48.5	60.4	83.5	23.1
0.315	11.9	53.4	65.3	83.5	18.2
0.462	12.0	37.7	49.7	83.5	33.8

1. Transducer = Antenna Factor + Cable Loss.

2. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.