SGS-CSTC Standards Technical Services Co., Ltd.

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FEDERAL COMMUNICATIONS COMMISSION
Registration number: 282399

FCC Test Report

Application No.:	GLEMO090200436HS
Applicant:	Airmate Electrical (Shenzhen) Co., Ltd
FCC ID:	UPG2009CE1567-1
Equipment Under Test (EUT):	
EUT Name:	Commercial Induction Cooker
Item No.:	CE1567-1
Serial No.:	Not supplied by client
Standards:	FCC PART 18:2006
Date of Receipt:	25 February 2009
Date of Test:	03 to 09 March 2009
Date of Issue:	10 March 2009
Test Result :	**PASS***

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

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.

Stephen Guo
2009. March

Stephen Guo
Manager

2 Test Summary

The customer requested FCC tests for a Commercial Induction Cooker.

Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission (9KHz to 30MHz)	FCC PART 18:2006	FCC OST/ MP-5:1986	18.305	PASS
Conducted Emission (9KHz to 30MHz)	FCC PART 18:2006	FCC OST/ MP-5:1986	18.307(a)	PASS

3 Contents

4 General Information

4.1 Client Information

Applicant:	Airmate Electrical (Shenzhen) Co., Ltd
Address of Applicant:	4th Industrial Zone, Shiyan, Baoan, Shenzhen, Guangdong 518108, China

4.2 General Description of E.U.T.

EUT Name:	Commercial Induction Cooker
Item No.:	CE1567-1
Serial No.:	Not supplied by client

4.3 Details of E.U.T.

Power Supply:	120 V AC 60Hz
Power Cord:	1.5m x 3 wires unscreened AC cable

4.4 Description of Support Units

The EUT has been tested with a pan filled with water. The pan was provided by the applicant.

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,
198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District,
Guangzhou, China 510663
Tel: +86 20 82155555 Fax: +86 20 82075059

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.

- **ACMA**

  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.

- **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.

- **CNAS (Lab Code: L0167)**

  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 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 authorized test laboratory for the DoC process.

- **Industry Canada (Registration No.: 4620B-1)**

  The 3m/10m Alternate Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. has been registered by Certification and Engineering of Industry Canada for radio equipment testing with Registration No. 4620B-1.

  Date of Registration: February 18, 2009.Valid until February 18, 2011.

- **VCCI (Registration No.: R-2460 and C-2584)**

  The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2460 and C-2584 respectively.

- **CBTL (Lab Code: TL129)**

  SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2005, the Basic Rules, IECEE 01:2006-10 and Rules of procedure IECEE 02:2006-10, and the relevant IECEE CB-Scheme Operational documents.

  This certificate was issued Dec.04.2006 and valid until Oct.12.2009.

4.8 Deviation from Standards

For Radiated Emission, test at 10m distance instead of 30m distance. 20dB was plus to the limit of 30m measurement limit. More details refer to FCC part 15.31(f)(2).

4.9 Abnormalities from Standard Conditions

None.

5 Equipments Used during Test

	Conducted Emission					
No:	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Date (dd-mm-yy)**	**Cal.Due date (dd-mm-yy)**
EMC0306	Shielding Room	Zhong Yu	8 x 3 x 3.8 m^3	N/A	N/A	N/A
EMC0102	LISN	Schaffner Chase	MNZ050D/1	1421	14-12-2008	14-12-2009
EMC0118	Two-line v-netwok	Rohde & Schwarz	ENV216	3560.6550.02	28-07-2008	28-07-2009
EMC0506	EMI Test Receiver	Rohde & Schwarz	ESCS30	100085	14-12-2008	14-12-2009
EMC0107	Coaxial Cable	SGS	2m	N/A	26-11-2008	26-11-2009
EMC0106	Voltage Probe	SGS	N/A	N/A	N/A	N/A
EMC0120	8 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T8-02	20550	21-02-2009	21-02-2010
EMC0121	4 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T4-02	20549	21-02-2009	21-02-2010
EMC0122	2 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T2-02	20548	21-02-2009	21-02-2010

	RE in Chamber					
No:	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Date (dd-mm-yy)**	**Cal.Due date (dd-mm-yy)**
EMC0525	Compact Semi-Anechoic Chamber	ChangZhou ZhongYu	N/A	N/A	N/A	N/A
EMC0522	EMI Test Receiver	Rohde & Schwarz	ESIB26	100249	28-01-2009	28-01-2010
EMC0056	EMI Test Receiver	Rohde & Schwarz	ESCI	10036	14-07-2008	14-07-2009
N/A	EMI Test Software	Audix	E3	N/A	N/A	N/A
EMC0514	Coaxial cable	SGS	N/A	N/A	04-12-2008	04-12-2009
EMC0524	Bi-log Type Antenna	Schaffner -Chase	CBL6112B	2966	12-08-2008	12-08-2009
EMC0519	Bilog Type Antenna	Schaffner -Chase	CBL6143	5070	12-08-2008	12-08-2009
EMC0517	Horn Antenna	Rohde & Schwarz	HF906	100095	12-08-2008	12-08-2009
EMC0040	Spectrum Analyzer	Rohde & Schwarz	FSP30	100324	05-12-2008	05-12-2009
EMC0520	0.1-1300 MHz Pre-Amplifier	HP	8447D OPT 010	2944A06252	11-03-2009	11-03-2010
EMC0521	1-26.5 GHz Pre-Amplifier	Agilent	8449B	3008A01649	11-03-2009	11-03-2010
EMC0075	310N Amplifier	Sonama	310N	272683	10-09-2008	10-09-2009
EMC0523	Active Loop Antenna	EMCO	6502	00042963	09-08-2008	09-08-2010
EMC0530	10m Semi- Anechoic Chamber	ETS	N/A	N/A	10-08-2008	10-08-2009

	General used equipment					
No:	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Date (dd-mm-yy)**	**Cal.Due date (dd-mm-yy)**
EMC0006	DMM	Fluke	73	70681569	23-12-2008	23-12-2009
EMC0007	DMM	Fluke	73	70671122	23-12-2008	23-12-2009

6 Test Results

6.1 Radiated Emission, 9 kHz to 30 MHz

Test Requirement:	FCC Part18
Test Method:	FCC OST/ MP-5
Test Date:	09 March 2009
Frequency Range:	9 KHz to 30 MHz
Limit:	18.305
Measurement distance:	10 m
Detector:	Peak for pre-scan, Average for the final result
	(200 Hz Resolution Bandwidth for 9 kHz to 150 kHz, 9 kHz Resolution Bandwidth for 150 kHz to 30 MHz)

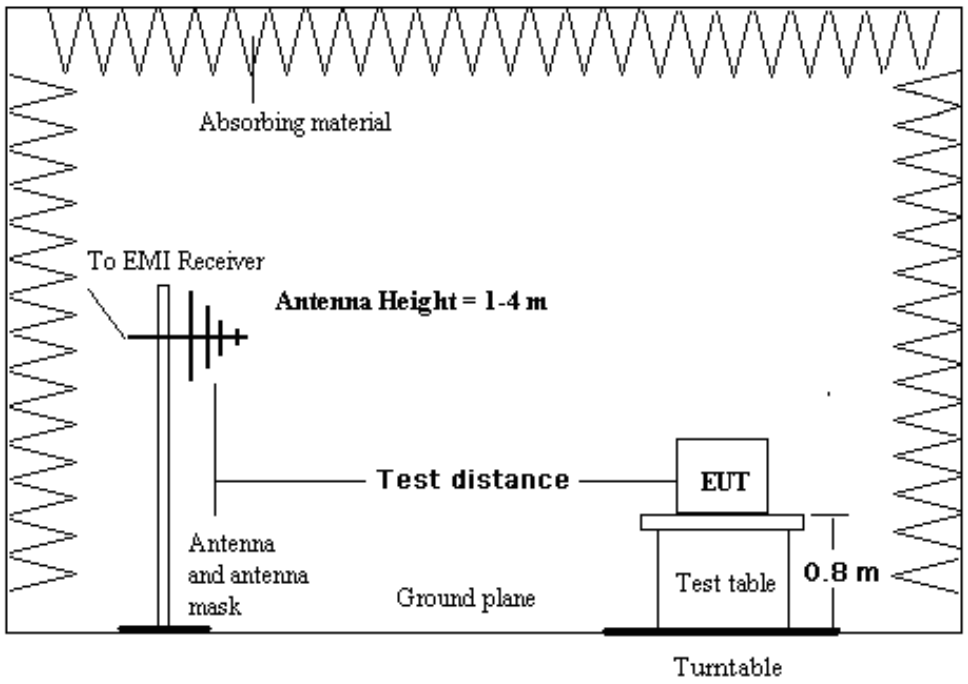
6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0 °C Humidity: 50 % RH Atmospheric Pressure: 1002 mbar

EUT Operation: Test the EUT in heating mode with maximum power.

6.1.2 Test Setup



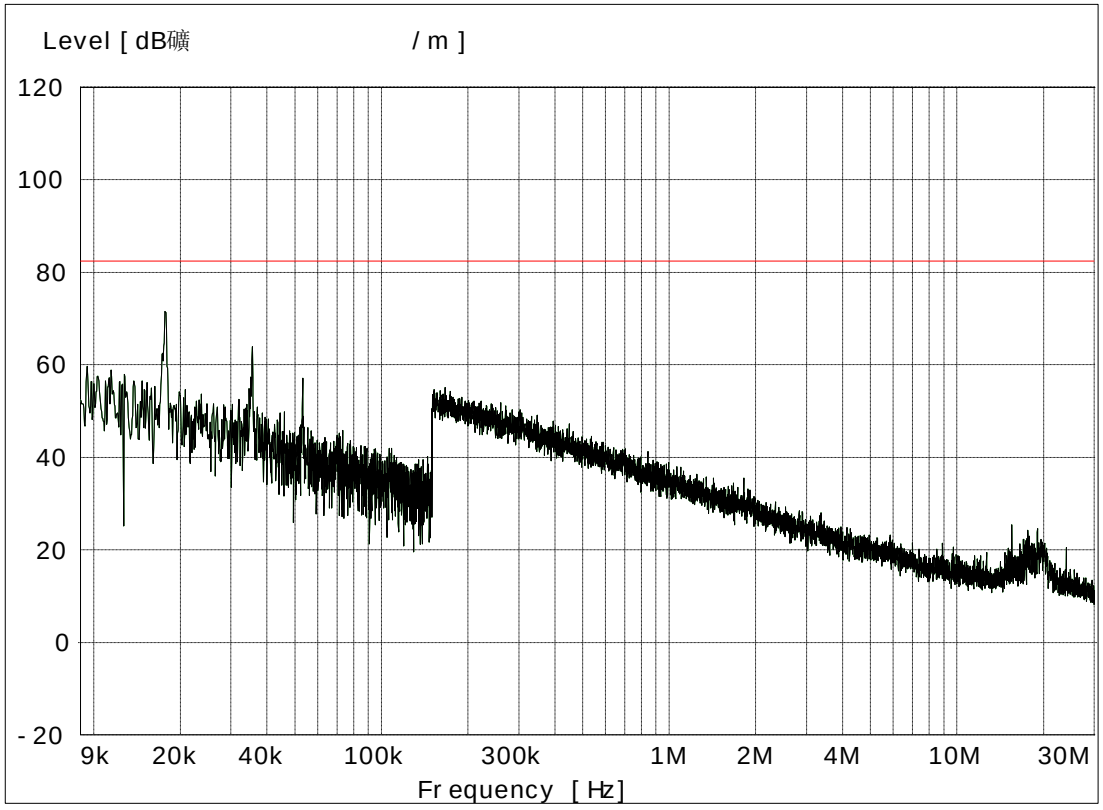
6.1.3 Measurement Data

An initial pre-scan was performed in the 10 m chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by a loop antenna.

The following average measurements were performed on the EUT:

Antenna plane vertical the DUT:

Peak scan

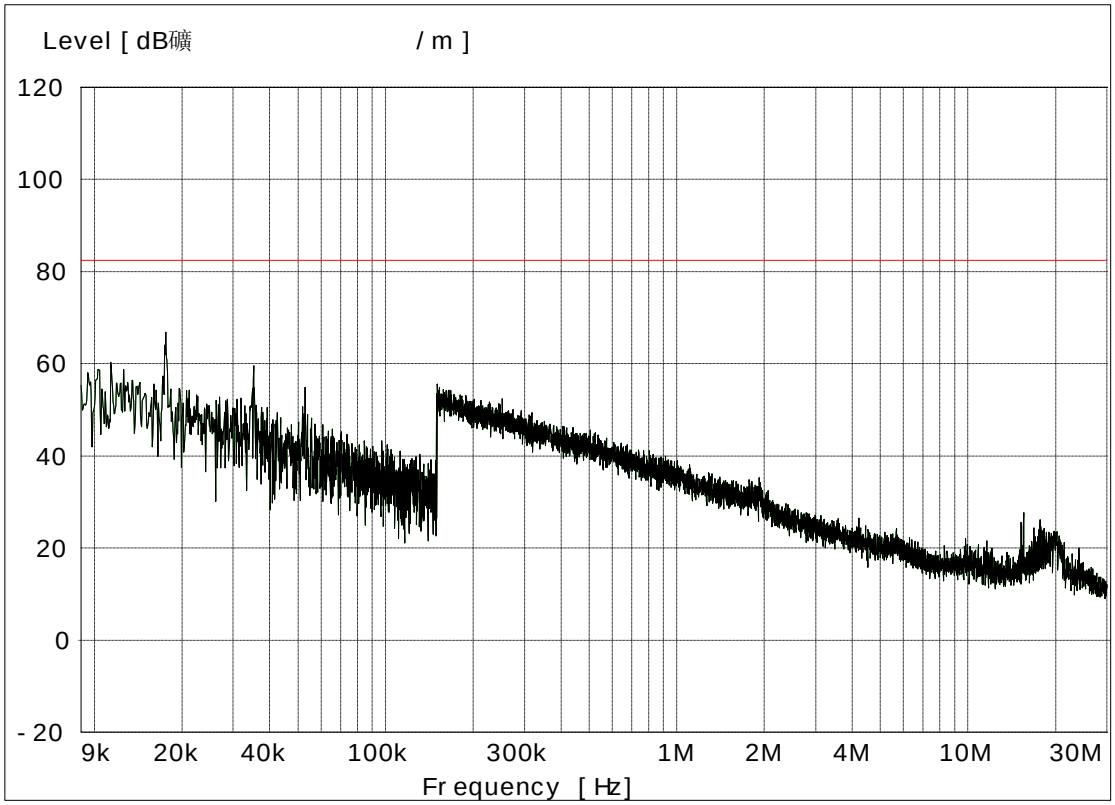


Quasi-peak measurement

Frequency (MHz)	Transducer (dB)	Receiver QP Reading (dBμV/m)	QP Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
0.018	15.7	55.5	71.2	82.6	11.4
0.036	15.6	40.7	56.3	82.6	26.3
0.057	12.1	43.5	55.6	82.6	27.0
0.076	11.9	40.7	52.6	82.6	30.0
0.178	12.0	31.7	43.7	82.6	38.9
0.888	12.1	22.5	34.6	82.6	48.0

Antenna plane horizontal the DUT:

Peak scan



Quasi-peak measurement

Frequency (MHz)	Transducer (dB)	Receiver QP Reading (dBμV/m)	QP Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
0.018	15.8	53.1	68.9	82.6	13.7
0.036	15.6	51.4	67.0	82.6	15.6
0.027	14.1	47.4	61.5	82.6	21.1
0.164	12.0	32.5	44.5	82.6	38.1
0.838	12.1	23.7	35.8	82.6	46.8
1.878	12.3	20.1	32.4	82.6	50.2

1. Level = Read Level + Antenna Factor + Cable Loss – Preamp gain.

6.2 Conducted Emissions, 9 kHz to 30 MHz

Test Requirement:	FCC Part18
Test Method:	FCC OST/ MP-5
Test Date:	03 March 2009
Frequency Range:	9 kHz to 30 MHz
Class:	18.307(a)
Detector:	Peak for pre-scan, Quasi-Peak and Average for the final result.
	(200 Hz Resolution Bandwidth for 9 kHz to 150 kHz, 9 kHz Resolution Bandwidth for 150 kHz to 30 MHz)

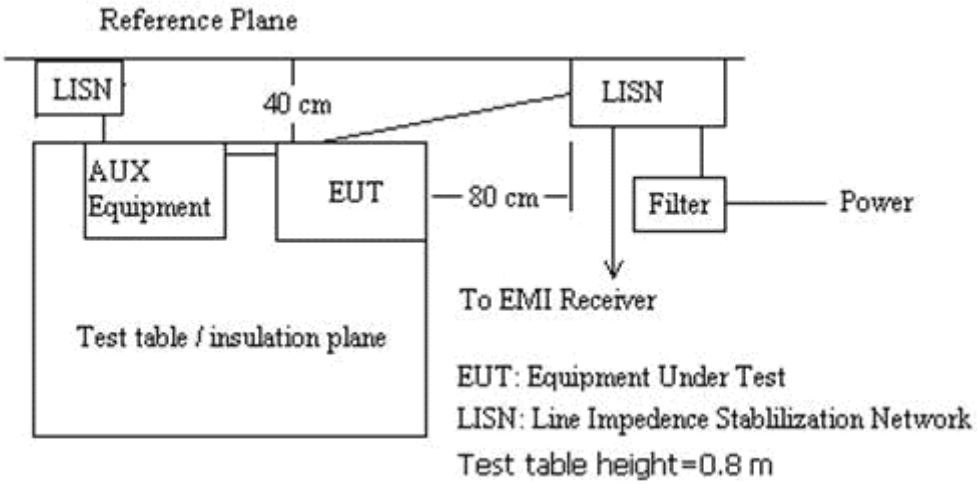
6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0 °C Humidity: 50 % RH Atmospheric Pressure: 1002 mbar

EUT Operation: Test the EUT in heating mode with maximum power.

6.2.2 Plan View of Test Setup



6.2.3 Measurement Data

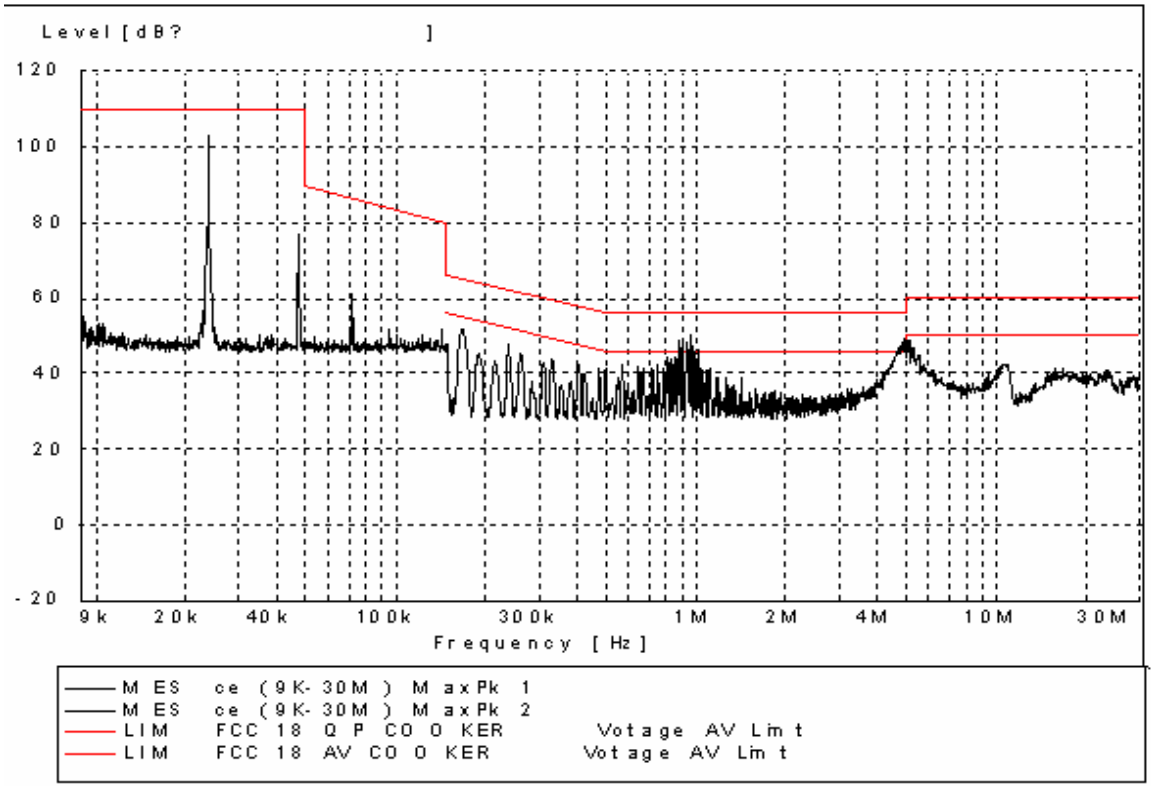
An initial pre-scan was performed on the live and neutral lines with peak detector.

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:

Live line:

Peak Scan

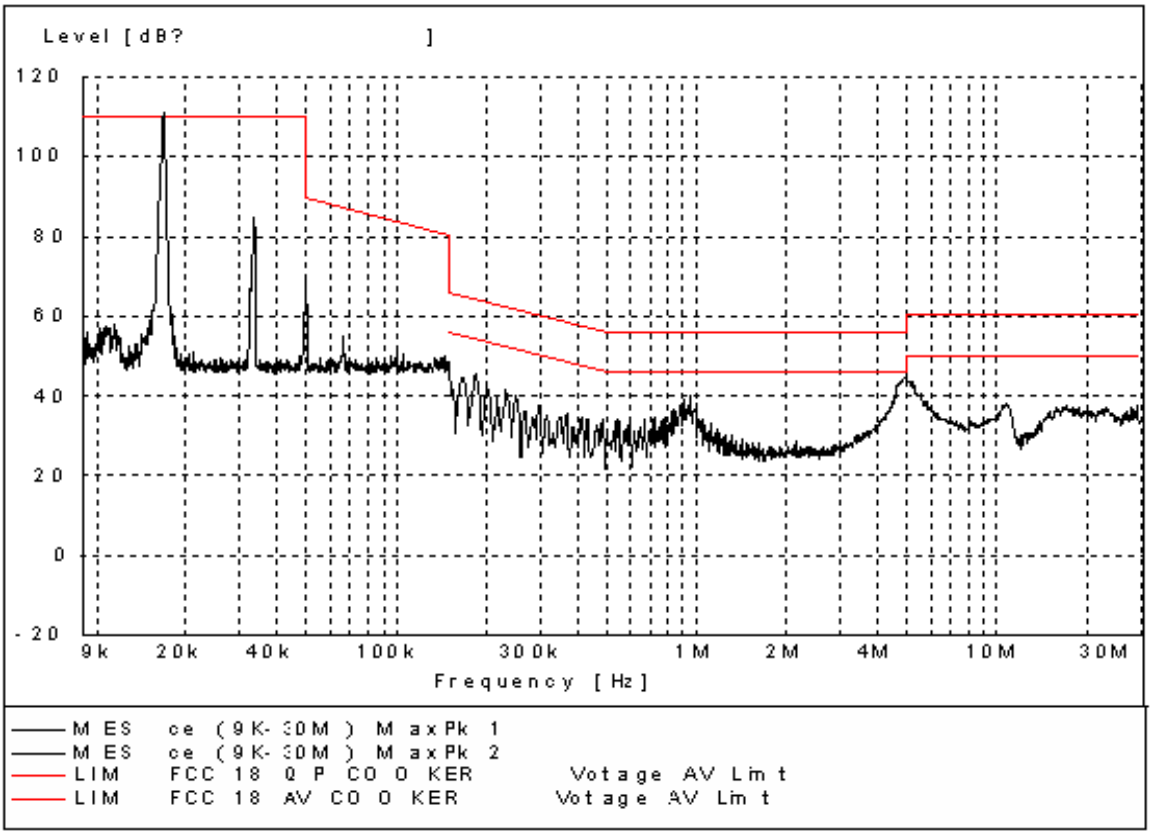


Quasi-peak and Average measurement:

Frequency (MHz)	Transducer (dB)	Receiver QP Reading (dBµV)	QP Level (dBµV)	Limit (dBµV)	Margin (dB)	Receiver AV Reading (dBµV)	AV Level (dBµV)	Limit (dBµV)	Margin (dB)
0.024	9.8	98.1	106.9	110.0	-3.1	*	*	*	*
0.048	9.7	37.2	46.9	110.0	-63.1	*	*	*	*
0.165	9.7	39.8	49.5	60.1	-10.6	37.1	46.8	50.1	-3.3
0.236	9.7	37.8	47.5	61.6	-14.1	34.5	44.2	51.6	-7.4
0.261	9.7	29.2	38.9	59.1	-20.2	26.1	35.8	49.1	-13.3
0.952	9.7	34.6	44.3	63.2	-18.9	31.5	41.2	53.2	-12.0

Neutral line:

Peak Scan



Quasi-peak and Average measurement:

Frequency (MHz)	Transducer (dB)	Receiver QP Reading (dBμV)	QP Level (dBμV)	Limit (dBμV)	Margin (dB)	Receiver AV Reading (dBμV)	AV Level (dBμV)	Limit (dBμV)	Margin (dB)
0.024	9.8	97.4	107.2	110.0	-2.8	*	*	*	*
0.048	9.7	37.2	46.9	110.0	-63.1	*	*	*	*
0.166	9.7	35.9	45.6	60.1	-14.5	32.4	42.1	50.1	-8.0
0.238	9.7	30.4	40.1	61.6	-21.5	27.9	37.6	51.6	-14.0
0.261	9.7	29.2	38.9	59.1	-20.2	25.2	34.9	49.1	-14.2
0.952	9.7	32.9	42.6	63.2	-20.6	30.1	39.8	53.2	-13.4

*: Not requested by standards.