



SGS-CSTC Standards Technical Services Co., Ltd.

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FEDERAL COMMUNICATIONS COMMISSION

Registration number: 282399

Report No.: GZEM100500036101

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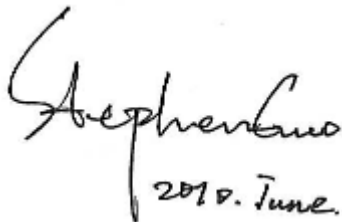
FCC ID: TAPMC-ESH13A-1

Test Report

Application No.:	GZEM1005000361HS
Applicant:	Guangdong MD Consumer Electric Manufacturing Co., Ltd.
FCC ID:	TAPMC-ESH13A-1
Equipment Under Test (EUT):	
EUT Name:	Induction Cooker
Item No.:	MC-ESH13A-1
Trade mark:	midea
Standards:	FCC PART 18: 2009
Date of Receipt:	2010-05-28
Date of Test:	2010-05-29 to 2010-06-12
Date of Issue:	2010-06-21
Test Result :	PASS*

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

Authorized Signature:



2010. June.

Stephen Guo
Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.


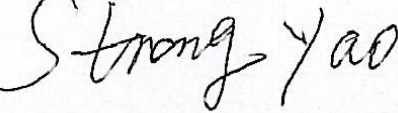
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2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
00		2010-06-21		Original

Authorized for issue by:			
Tested By	 (Michael Huang) /Project Engineer	2010-05-29 to 2010-06-12 Date	
Prepared By	 (Millie Li) /Clerk	2010-06-21 Date	
Checked By	 (Strong Yao) /Reviewer	2010-06-21 Date	



3 Test Summary

The customer requested EMC tests for an Induction cooker.				
Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission (9KHz to 30MHz)	FCC PART 18: 2009	FCC OST/ MP-5:1986	18.305(b)	PASS
Conducted Emission (9KHz to 30MHz)	FCC PART 18: 2009	FCC OST/ MP-5:1986	18.307(a)	PASS



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5 General Information

5.1 Client Information

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

5.2 General Description of E.U.T.

EUT Name: Induction Cooker
Item No.: MC-ESH13A-1
Trade mark: midea

5.3 Details of E.U.T.

Power Supply: AC 120V, 60Hz
Power Cord: 1.5m x 2 wires unscreened AC mains cable

5.4 Description of Support Units

The EUT has been tested with a pan filled with water.

5.5 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory,
198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technology Development District,
Guangzhou, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.

5.6 Deviation from Standards

None.

5.7 Abnormalities from Standard Conditions

None.



5.8 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.

- **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 August 6, 2009 and valid until May 19, 2012.



6 Equipments Used during Test

Conducted Emission						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal.Due date
					(YYYY-MM-DD)	(YYYY-MM-DD)
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	2009-11-24	2010-11-24
EMC0118	Two-line v-netwok	Rohde & Schwarz	ENV216	3560.6550.02	2009-08-18	2010-08-18
EMC0506	EMI Test Receiver	Rohde & Schwarz	ESCS30	100085	2009-11-24	2010-11-24
EMC0107	Coaxial Cable	SGS	2m	N/A	2009-11-25	2010-11-25
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	2010-01-25	2011-01-25
EMC0121	4 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T4-02	20549	2010-01-25	2011-01-25
EMC0122	2 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T2-02	20548	2010-01-25	2011-01-25

RE in Chamber						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal.Due date
					(YYYY-MM-DD)	(YYYY-MM-DD)
EMC0525	Compact Semi-Anechoic Chamber	ChangZhou ZhongYu	N/A	N/A	N/A	N/A
EMC0522	EMI Test Receiver	Rohde & Schwarz	ESIB26	100283	2010-01-25	2011-01-25
EMC0056	EMI Test Receiver	Rohde & Schwarz	ESCI	10036	2009-07-18	2010-07-18
N/A	EMI Test Software	Audix	E3	N/A	N/A	N/A
EMC0514	Coaxial cable	SGS	N/A	N/A	2009-12-09	2010-12-09
EMC0524	Bi-log Type Antenna	Schaffner -Chase	CBL6112B	2966	2009-12-20	2010-12-20
EMC0519	Bilog Type Antenna	Schaffner -Chase	CBL6143	5070	2009-12-20	2010-12-20
EMC0517	Horn Antenna	Rohde & Schwarz	HF906	100095	2009-09-15	2010-09-15
EMC0040	Spectrum Analyzer	Rohde & Schwarz	FSP30	100324	2009-12-05	2010-12-05
EMC0521	1-26.5 GHz Pre-Amplifier	Agilent	8449B	3008A01649	2010-01-25	2011-01-25
EMC0049	Amplifier	Agilent	8447D	2944A10862	2010-04-21	2011-04-21
EMC0075	310N Amplifier	Sonama	310N	272683	2009-10-26	2010-10-26
EMC0523	Active Loop Antenna	EMCO	6502	42963	2009-11-17	2010-11-17
EMC0530	10m Semi- Anechoic Chamber	ETS	N/A	N/A	2010-05-17	2011-05-17



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General used equipment						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal.Due date
					(YYYY-MM-DD)	(YYYY-MM-DD)
EMC0006	DMM	Fluke	73	70681569	2009-12-16	2010-12-16
EMC0007	DMM	Fluke	73	70671122	2009-12-16	2010-12-16

7 Test Results

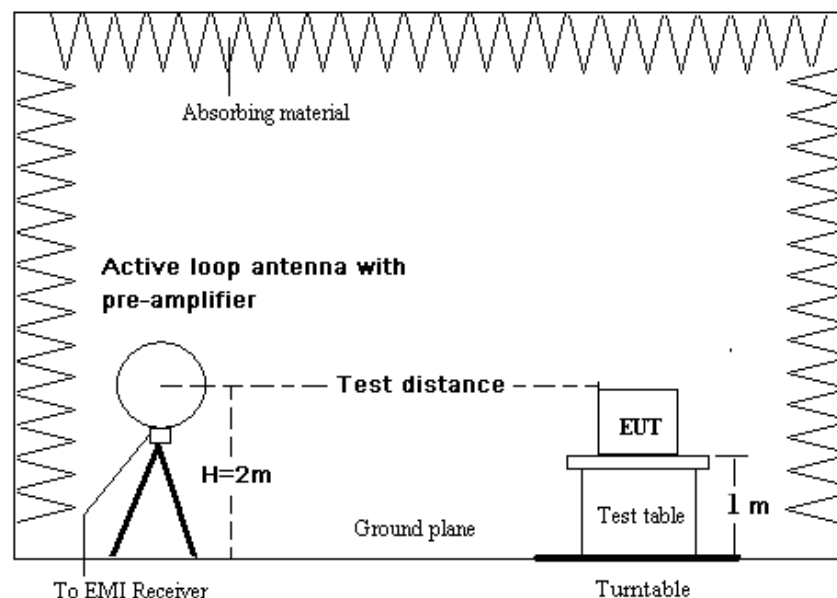
7.1 Radiated Emission, 9kHz to 30MHz

Test Requirement: FCC Part18
 Test Method: FCC OST/ MP-5
 Test Date: 2010-06-12
 Frequency Range: 9KHz to 30MHz
 Limit: 18.305(b)
 Measurement distance: 10m
 Detector: Peak for pre-scan, Average for the final result
 (200Hz Resolution Bandwidth for 9KHz to 150KHz, 9kHz Resolution Bandwidth for 150KHz to 30MHz)

7.1.1 E.U.T. Operation

Operating Environment:
 Temperature: 22.0 °C Humidity: 52 % RH Atmospheric Pressure: 1003 Mbar
 EUT Operation: Test the EUT in heating mode with max power.

7.1.2 Test Setup



7.1.3 Measurement Data

An initial pre-scan was performed in the 10m 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.



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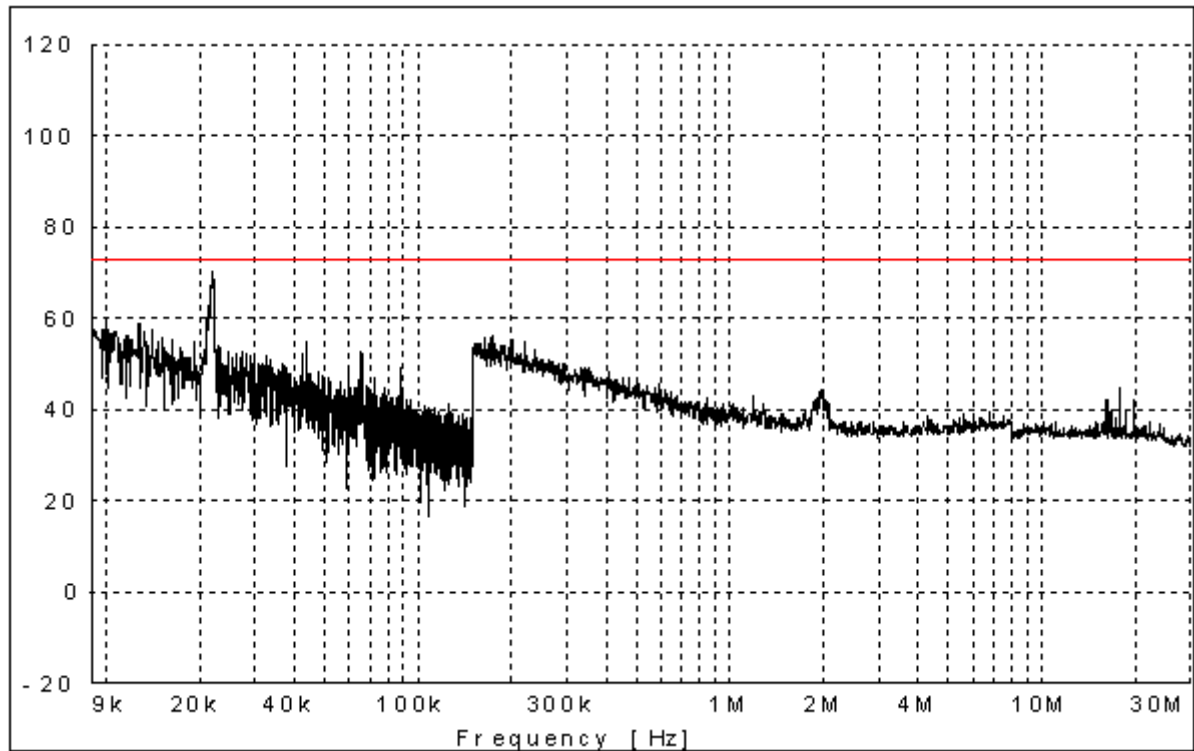
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Vertical:

Peak scan

Level (dB μ V/m)



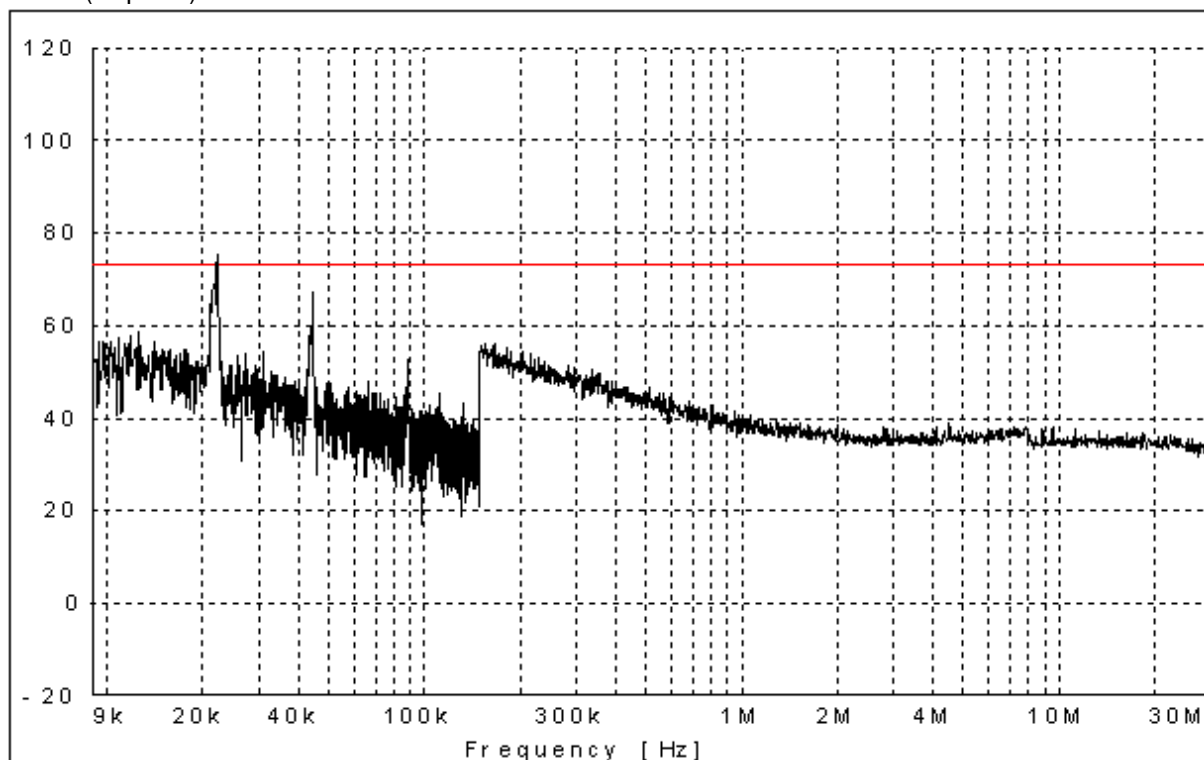
Average measurement

Frequency (MHz)	Transducer (dB)	Receiver AV Reading (dB μ V)	AV Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
0.02	-39.50	95.8	65.40	73.06	-16.7
0.04	-38.40	88.3	49.90	73.06	-4.5
0.07	-37.60	79.9	48.70	73.06	-30.9
0.09	-40.20	75.6	40.70	73.06	-37.6
0.16	-41.30	62.4	46.10	73.06	-51.9
1.97	-39.60	78.3	34.80	73.06	-34.3

Horizontal:

Peak scan

Level (dBμV/m)



Average measurement

Frequency (MHz)	Transducer (dB)	Receiver AV Reading (dBμV)	AV Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
0.02	-39.60	109.9	70.30	73.06	-2.8
0.04	-36.20	92.7	56.50	73.06	-16.6
0.09	-39.70	76.8	37.10	73.06	-36.0
0.17	-41.20	71.9	30.70	73.06	-42.4
0.22	-40.80	69.4	28.60	73.06	-44.5
0.23	-40.20	76.0	26.90	73.06	-47.0

Level = Read Level + Transducer.

7.2 Conducted Emissions, 9KHz to 30MHz

Test Requirement: FCC Part18
 Test Method: FCC OST/ MP-5
 Test Date: 2010-05-29
 Frequency Range: 9KHz to 30MHz
 Class: 18.307(a)
 Detector: Peak for pre-scan, Quasi-Peak and Average for the final result.
 (200Hz Resolution Bandwidth for 9KHz to 150KHz, 9kHz Resolution Bandwidth for 150KHz to 30MHz)

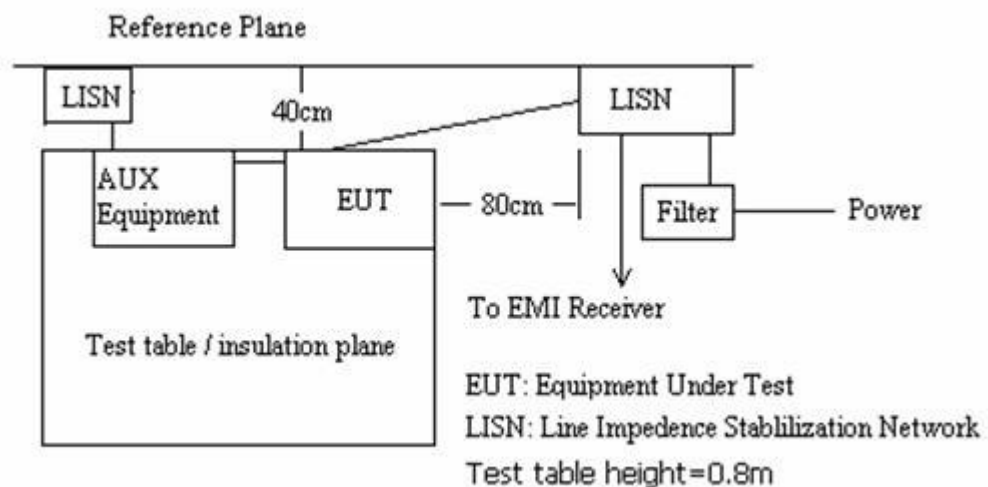
7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0 °C Humidity: 59% RH Atmospheric Pressure: 1027 mbar

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

7.2.2 Plan View of Test Setup



7.2.3 Measurement Data

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

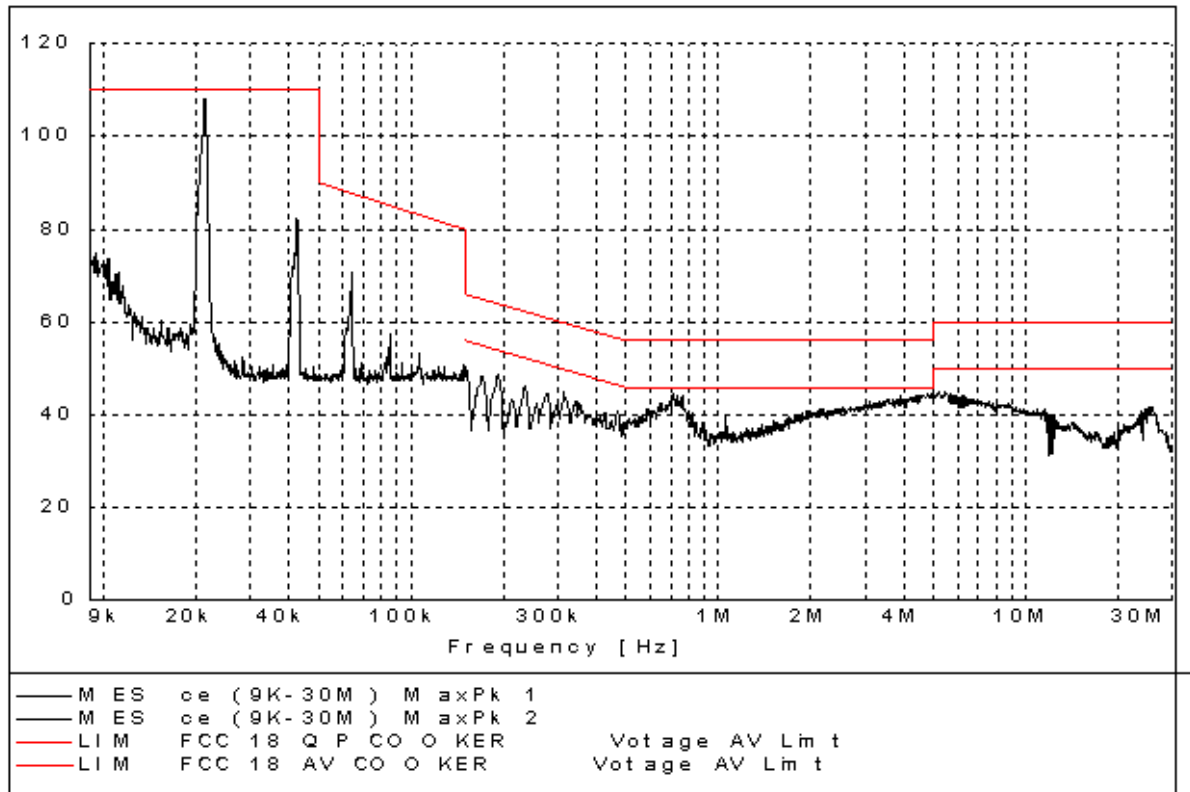
Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

The following quasi-peak and average measurements were performed on the EUT:

Live line:

Peak Scan

Level (dBμV)



Quasi-peak and Average measurement:

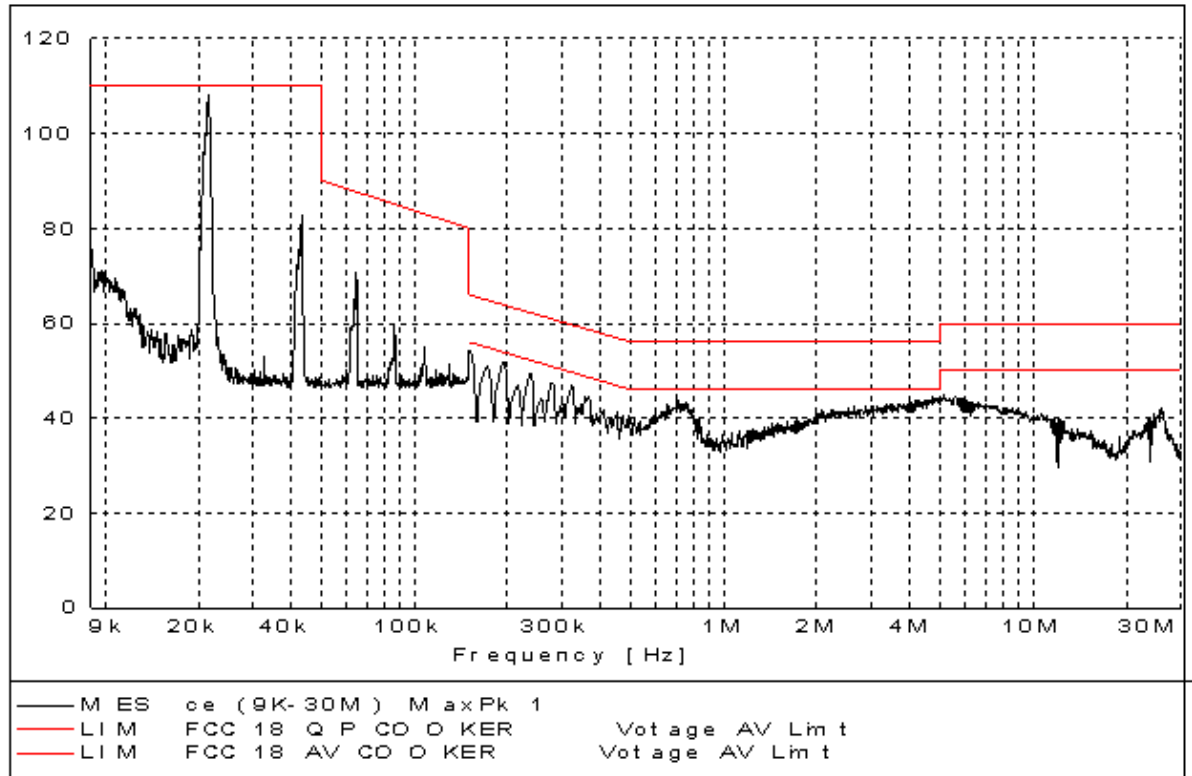
Frequency (MHz)	Transducer (dB)	Receiver QP Reading (dBμV)	QP Level (dBμV)	Limit (dBμV)	Margin (dB)	Receiver AV Reading (dBμV)	AV Level (dBμV)	Limit (dBμV)	Margin (dB)
0.021	9.6	97.7	107.3	110.0	2.7	*	*	*	*
0.043	9.6	73.4	83.0	110.0	27.0	*	*	*	*
0.234	9.6	34.0	43.6	62.3	18.7	26.9	36.5	52.3	15.8
0.256	9.6	30.6	40.2	61.6	21.4	28.8	38.4	51.6	13.2
0.278	9.6	28.0	37.6	60.9	23.3	31.3	40.9	50.9	10.0
0.726	9.6	21.9	31.5	56.0	24.5	14.0	23.6	46.0	22.4

*: Not requested by standards.

Neutral line:

Peak Scan

Level (dBμV)



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)
0.021	9.6	94.3	103.9	110.0	6.1	*	*	*	*
0.043	9.6	70.3	79.9	110.0	30.1	*	*	*	*
0.150	9.6	43.8	53.4	66.0	12.6	36.1	45.7	56.0	10.3
0.194	9.6	41.1	50.7	63.9	13.2	32.4	42.0	53.9	11.9
0.709	9.6	25.1	34.7	56.0	21.3	16.1	25.7	46.0	20.3
4.952	9.6	32.3	41.9	56.0	14.1	23.8	33.4	46.0	12.6

*: Not requested by standards.