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Report No.: GLEMR061001067HSF  
Page: 1 of 12  
FCC ID: UPG200601CE1567

## FCC Test Report

**Application No.:** GLEMR061001607HS

**Applicant:** Airmate Electrical (shenzhen) Co.,Ltd

**FCC ID:** UPG200601CE1567

**Equipment Under Test (EUT):**

EUT Name: Commercial Induction Cooker

Item No.: CE1567

Serial No.: Not supplied by client

**Standards:** FCC PART 18: 2004

**Date of Receipt:** 13 October 2006

**Date of Test:** 18 to 24 October 2006

**Date of Issue:** 25 October 2006

<b>Test Result :</b>	<b>PASS*</b>
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\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Jeff Zhao  
Manager

This report refers to the General Conditions for Inspection and Testing Services, printed overleaf. 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 this report.

This report may only be reproduced and distributed in full. 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. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

All test results in this report can be traceable to National or International Standards.

## 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 <sup>①</sup>

<sup>①</sup>The EUT passed the Conducted Emission test after modification carried out by the applicant.

### **3 Contents**

	Page
<b>1 COVER PAGE</b> .....	<b>1</b>
<b>2 TEST SUMMARY</b> .....	<b>2</b>
<b>3 CONTENTS</b> .....	<b>3</b>
<b>4 GENERAL INFORMATION</b> .....	<b>4</b>
4.1 CLIENT INFORMATION.....	4
4.2 GENERAL DESCRIPTION OF E.U.T. ....	4
4.3 DETAILS OF E.U.T. .....	4
4.4 DESCRIPTION OF SUPPORT UNITS .....	4
4.5 STANDARDS APPLICABLE FOR TESTING.....	4
4.6 TEST LOCATION .....	4
4.7 TEST FACILITY .....	5
4.8 DEVIATION FROM STANDARDS .....	5
4.9 ABNORMALITIES FROM STANDARD CONDITIONS.....	5
<b>5 EQUIPMENTS USED DURING TEST</b> .....	<b>6</b>
<b>6 TEST RESULTS</b> .....	<b>7</b>
6.1 RADIATED EMISSION, 9KHz TO 30MHz .....	7
6.1.1 <i>E.U.T. Operation</i> .....	7
6.1.2 <i>Test Setup</i> .....	7
6.1.3 <i>Measurement Data</i> .....	8
6.2 CONDUCTED EMISSIONS, 9KHz TO 30MHz.....	10
6.2.1 <i>E.U.T. Operation</i> .....	10
6.2.2 <i>Plan View of Test Setup</i> .....	10
6.2.3 <i>Measurement Data</i> .....	11-12

## 4 General Information

### 4.1 Client Information

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

### 4.2 General Description of E.U.T.

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

### 4.3 Details of E.U.T.

Power Supply: 120V AC 60Hz  
Power Cord: 1.6m 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, No.198 Kezhu Road, Science Town Economic& Technology Development District Guangzhou, China 510663

Tel: +86 20 82155555      Fax: +86 20 8207 5059

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, 2006.
- **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.
- **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.

#### **4.8 Deviation from Standards**

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).

#### **4.9 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 <sup>3</sup>	N/A	N/A	N/A
EMC0102	LISN	Schaffner Chase	MNZ050D/1	1421	05-12-2005	05-12-2006
EMC0506	EMI Test Receiver	Rohde & Schwarz	ESCS30	100085	05-12-2005	05-12-2006
EMC0107	Coaxial Cable	SGS	2m	N/A	25-11-2005	25-11-2006

Active Loop Antenna RE in Chamber/OATS						
No:	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
EMC0522	EMI Test Receiver	Rohde & Schwarz	ESIB26	100249	05-12-2005	05-12-2006
EMC0514	Coaxial cable	SGS	N/A	N/A	04-12-2005	04-12-2006
EMC0523	Active Loop Antenna	EMCO	6502	00042963	14-01-2006	14-01-2007
EMC0530	10m Semi- Anechoic Chamber	ETS	N/A	N/A	22-08-2006	22-08-2007

## 6 Test Results

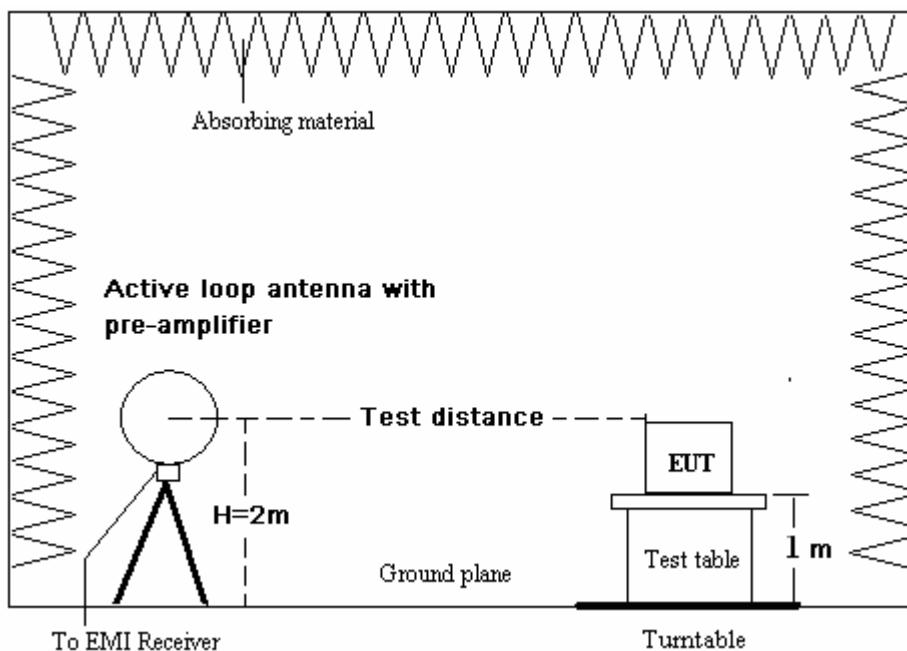
### 6.1 Radiated Emission, 9kHz to 30MHz

Test Requirement: FCC Part18  
Test Method: FCC OST/ MP-5  
Test Date: 20 October 2006  
Frequency Range: 9KHz to 30MHz  
Limit: 18.305  
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)

#### 6.1.1 E.U.T. Operation

Operating Environment:  
Temperature: 21.0 °C      Humidity: 54% RH      Atmospheric Pressure: 1007 Mbar  
EUT Operation: Test in Induction cooking mode with maximum power.

#### 6.1.2 Test Setup



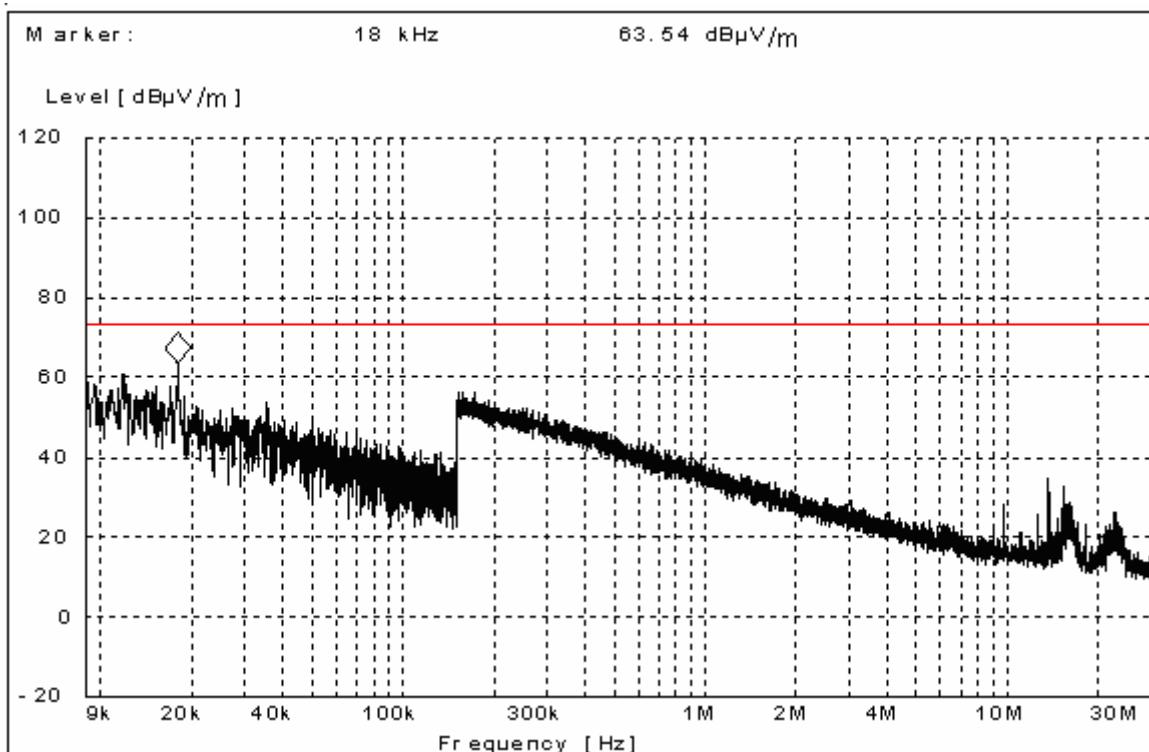
### 6.1.3 Measurement Data

An initial pre-scan was performed in the 3m 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 on 20 October 2006:

Antenna plane vertical (towards the DUT):

Peak scan

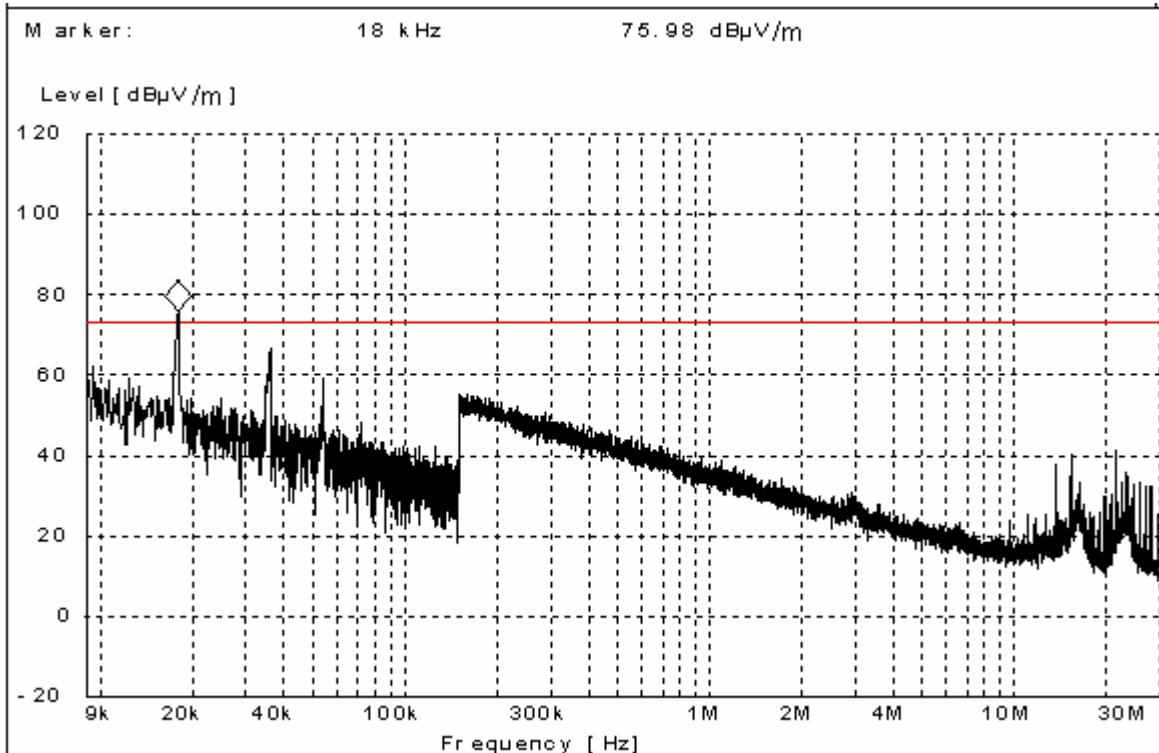


Quasi-peak measurement

Frequency	Transducer	Receiver QP Reading	Receiver QP Level	Limit	Margin
(MHz)	(dB)	(dB $\mu$ V)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
0.018	14.60	43.90	58.50	73.06	14.56
0.012	12.90	39.90	52.80	73.06	20.26
0.035	12.00	33.80	45.80	73.06	27.26
0.639	11.90	6.00	17.90	73.06	55.16
0.252	12.00	14.30	26.30	73.06	46.76
3.075	12.10	5.90	18.00	73.06	55.06

Antenna plane horizontal (towards the DUT):

Peak scan



Quasi-peak measurement

Frequency (MHz)	Transducer (dB)	Receiver QP Reading (dB $\mu$ V)	Receiver QP Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
0.018	15.60	54.00	69.60	73.06	3.46
0.036	13.40	50.80	64.20	73.06	8.86
0.054	12.20	43.50	55.70	73.06	17.36
0.383	12.10	12.70	24.80	73.06	48.26
0.689	12.10	4.70	16.80	73.06	56.26
1.324	12.20	-2.30	9.90	73.06	63.16

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

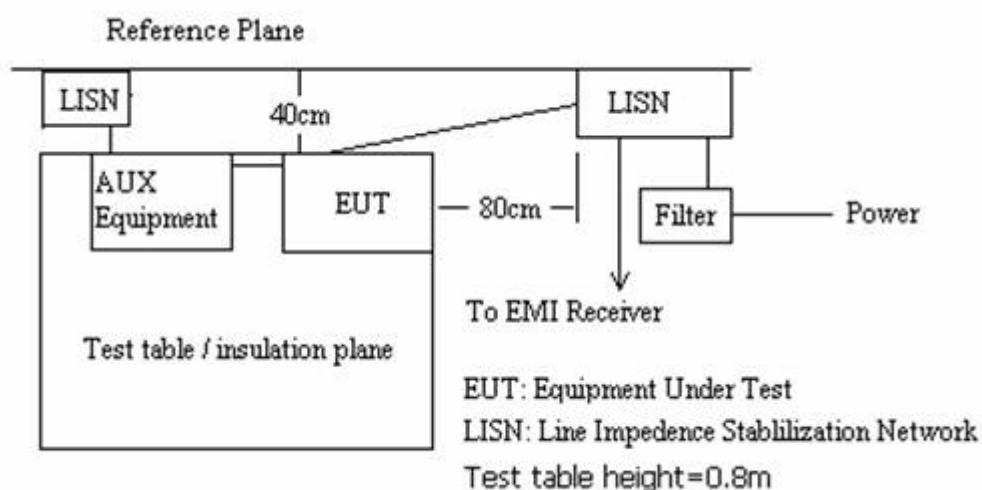
## 6.2 Conducted Emissions, 9KHz to 30MHz

Test Requirement: FCC Part18  
Test Method: FCC OST/ MP-5  
Test Date: 18 October 2006 (Initial test)  
24 October 2006 (Final test after modification)  
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)

### 6.2.1 E.U.T. Operation

Operating Environment:  
Temperature: 21.0 °C      Humidity: 54% RH      Atmospheric Pressure: 1013 mbar  
EUT Operation: Test in induction cooking mode with maximum power.

### 6.2.2 Plan View of Test Setup



### 6.2.3 Measurement Data

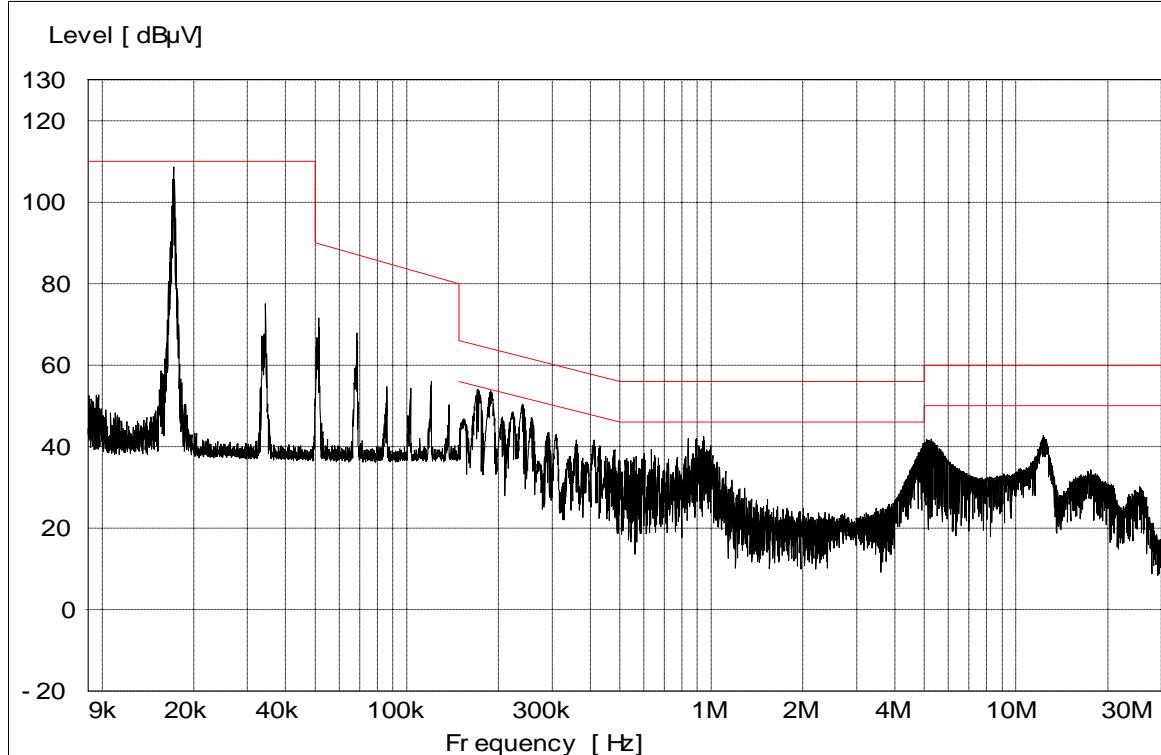
An initial pre-scan was performed on the live and neutral lines with peak detector.

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 on 24 October 2006:

Live line:

Peak Scan

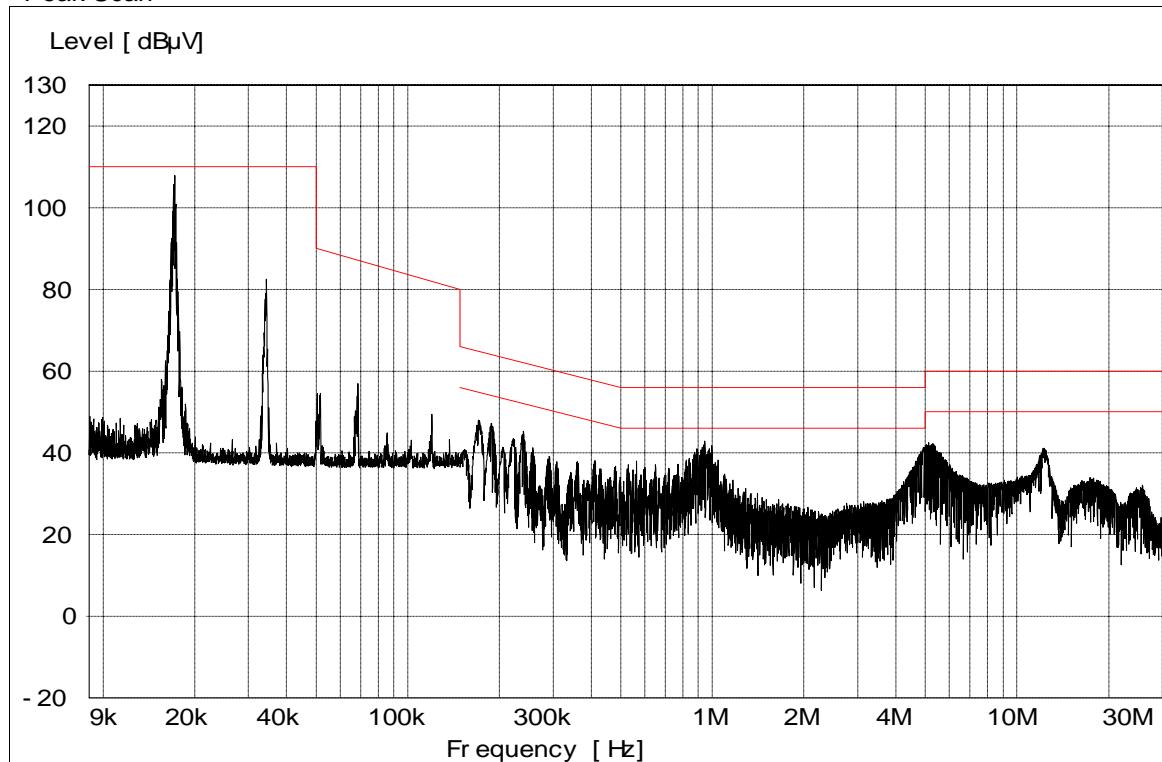


Quasi-peak and Average measurement:

Frequency (MHz)	Transducer (dB)	Receiver QP Reading (dBuV)	QP Level (dBuV)	Limit (dBuV)	Margin (dB)	Receiver AV Reading (dBuV)	AV Level (dBuV)	Limit (dBuV)	Margin (dB)
0.017	0.1	98.9	99.0	110.0	11.0	*	*	*	*
0.171	0.1	53.9	54.0	64.5	10.5	49.5	49.6	54.5	4.9
0.188	0.1	52.3	52.4	64.0	11.6	47.2	47.3	54.0	6.7
0.240	0.0	49.7	49.7	62.0	12.3	44.6	44.6	52.0	7.4
0.946	0.0	40.9	40.9	56.0	15.1	32.9	32.9	46.0	13.1
5.089	0.0	40.0	40.0	60.0	20.0	32.2	32.2	50.0	17.8

Neutral line:

Peak Scan



Quasi-peak and Average measurement:

Frequency (MHz)	Transducer (dB)	Receiver QP Reading (dB <sub>uV</sub> )	QP Level (dB <sub>uV</sub> )	Limit (dB <sub>uV</sub> )	Margin (dB)	Receiver AV Reading (dB <sub>uV</sub> )	AV Level (dB <sub>uV</sub> )	Limit (dB <sub>uV</sub> )	Margin (dB)
0.017	0.1	99.1	99.2	110.0	10.8	*	*	*	*
0.171	0.1	48.1	48.2	65.0	16.8	44.0	44.1	55.0	10.9
0.188	0.1	46.8	46.9	64.0	17.1	41.7	41.8	54.0	12.2
0.240	0.0	44.3	44.3	62.0	17.7	39.2	39.2	52.0	12.8
0.943	0.0	42.7	42.7	56.0	13.3	35.1	35.1	46.0	10.9
4.983	0.0	39.9	39.9	56.0	16.1	32.2	32.2	46.0	13.8