



## SGS-CSTC Standards Technical Services Co., Ltd.

No.198 Kezhu Road, Science Town Economic& Technology Development District  
Guangzhou, China 510663

Telephone: +86 (0) 20 82155555  
Fax: +86 (0) 20 82075059  
Email: sgs\_internet\_operations@sgs.com

Report No.: GLEMR071103531HST  
Page: 1 of 12  
FCC ID: TAPMC-C13S501

# Test Report

**Application No.:** GLEMR071103531HS  
**Applicant:** Guangdong MD Consumer Electric Manufacturing Co., Ltd  
**FCC ID:** TAPMC-C13S501

**Equipment Under Test (EUT):**

**EUT Name:** INDUCTION COOKER  
**Item No.:** MC-ESH13C & MC-C13S501 ♣  
**Serial No.:** Not supplied by client

♣

Please refer to section 2 of this report which indicates which item was actually tested and which were **electrically** identical.

**Standards:** FCC PART 18: 2006  
**Date of Receipt:** 21 November 2007  
**Date of Test:** 03 to 04 December 2007  
**Date of Issue:** 07 December 2007

<b>Test Result :</b>	<b>PASS*</b>
----------------------	--------------

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

Authorized Signature:

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.

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.

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the Company.



## **2 Test Summary**

<b>Test</b>	<b>Test Requirement</b>	<b>Test Method</b>	<b>Class / Severity</b>	<b>Result</b>
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

	Page
1 COVER PAGE .....	1
2 TEST SUMMARY .....	2
3 CONTENTS .....	3
4 GENERAL INFORMATION .....	4
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
5 EQUIPMENTS USED DURING TEST .....	6
6 TEST RESULTS .....	7
6.1 RADIATED EMISSION, 9KHz TO 30MHz .....	7
6.1.1 E.U.T. Operation .....	7
6.1.2 Test Setup .....	7
6.1.3 Measurement Data .....	8
6.2 CONDUCTED EMISSIONS, 9KHz TO 30MHz .....	10
6.2.1 E.U.T. Operation .....	10
6.2.2 Plan View of Test Setup .....	10
6.2.3 Measurement Data .....	11-12



## **4 General Information**

### **4.1 Client Information**

Applicant: Guangdong MD Consumer 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-ESH13C & MC-C13S501  
Serial No.: Not supplied by client

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

Power Supply: 120V AC 60Hz  
Power Cord: 1.30m x 2 wires unscreened AC cable

### **4.4 Description of Support Units**

The EUT has been tested with pure water filled in a boiler (80% of max. capacity) which was supplied by applicant.

### **4.5 Standards Applicable for Testing**

The standard used was FCC PART 18 (2006).

### **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.

- **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.

- **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 Bureau of Industry Canada for radio equipment testing with Registration No.: 4620B-1.

Date of Registration: Jan 15, 2007. Valid until Jan 15, 2009

- **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.

This certificate is valid until September 14.2009

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

For Radiated Emission, test at 10m distance instead of 30m distance. 19dB 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	05-12-2007	05-12-2008
EMC0506	EMI Test Receiver	Rohde & Schwarz	ESCS30	100085	05-12-2007	05-12-2008
EMC0107	Coaxial Cable	SGS	2m	N/A	24-11-2007	26-11-2008
EMC0106	Voltage Probe	SGS	N/A	N/A	N/A	N/A

RE in Chamber/OATS						
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	06-03-2007	06-03-2008
EMC0522	EMI Test Receiver	Rohde & Schwarz	ESIB26	100249	05-12-2007	05-12-2008
N/A	EMI Test Software	Audix	E3	N/A	N/A	N/A
EMC0514	Coaxial cable	SGS	N/A	N/A	04-12-2007	04-12-2008
EMC0524	Bi-log Type Antenna	Schaffner -Chase	CBL6112B	2966	12-08-2007	12-08-2008
EMC0519	Bilog Type Antenna	Schaffner -Chase	CBL6143	5070	12-08-2007	12-08-2008
EMC0517	Horn Antenna	Rohde & Schwarz	HF906	100095	12-08-2007	12-08-2008
EMC0040	Spectrum Analyzer	Rohde & Schwarz	FSP30	100324	05-12-2007	05-12-2008
EMC0520	0.1-1300 MHz Pre-Amplifier	HP	8447D OPT 010	2944A06252	28-03-2007	28-03-2008
EMC0521	1-26.5 GHz Pre-Amplifier	Agilent	8449B	3008A01649	28-03-2007	28-03-2008
EMC0523	Active Loop Antenna	EMCO	6502	00042963	09-08-2006	09-08-2008
EMC0530	10m Semi- Anechoic Chamber	ETS	N/A	N/A	10-08-2007	10-08-2008

General used equipment						
No:	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
EMC0050-EMC0053	Temperature, & Humidity	ZHENGZHOU BO YANG	WSB	N/A	05-12-2007	05-12-2008
EMC0054	Temperature, & Humidity	Shenzhen Tai Kong	THG-1	N/A	04-01-2007	04-01-2008
EMC0006	DMM	Fluke	73	70681569	27-09-2007	27-09-2008
EMC0007	DMM	Fluke	73	70671122	27-09-2007	27-09-2008

## 6 Test Results

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

Test Requirement:	FCC Part18
Test Method:	FCC OST/ MP-5
Test Date:	04 December 2007
Frequency Range:	9KHz to 30MHz
Limit:	18.305 Table 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)

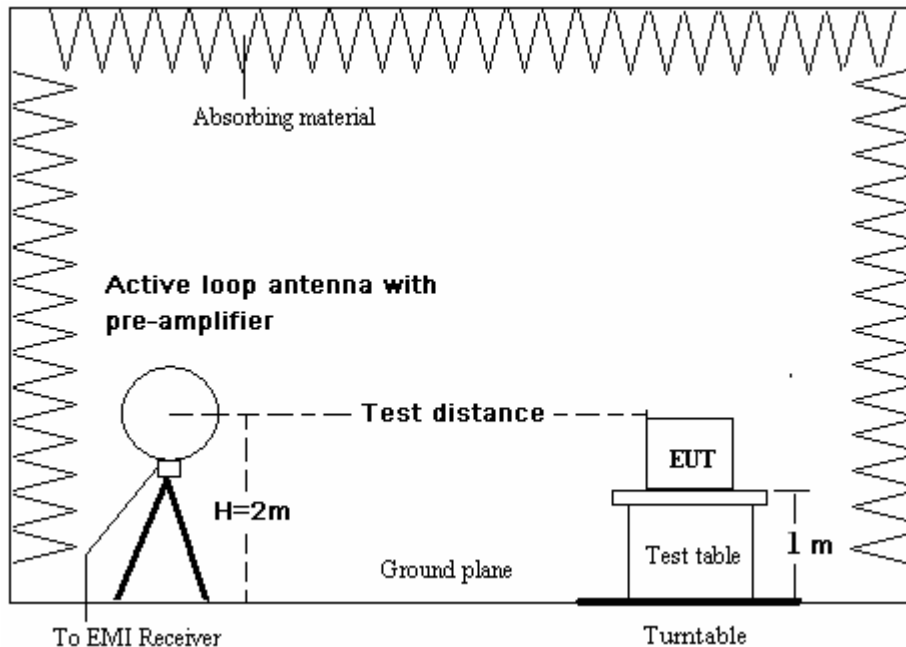
#### 6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C      Humidity: 52% RH      Atmospheric Pressure: 1008 mbar

EUT Operation: Test the EUT in induction cooking mode with max power.

#### 6.1.2 Test Setup



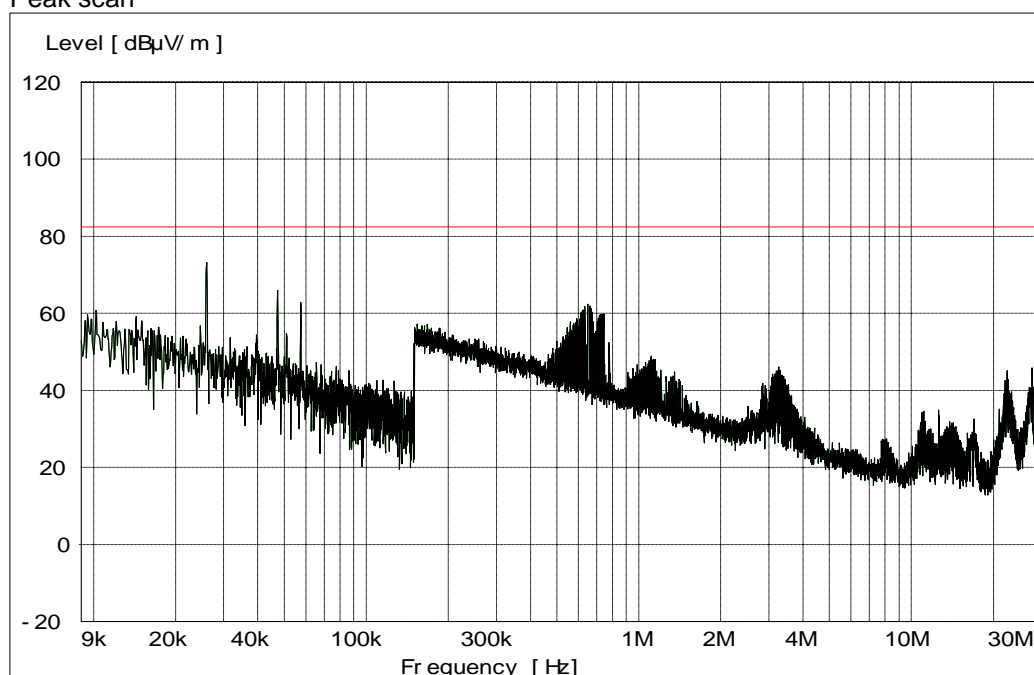
### 6.1.3 Measurement Data

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 04 December 2007.

Vertical:

Peak scan



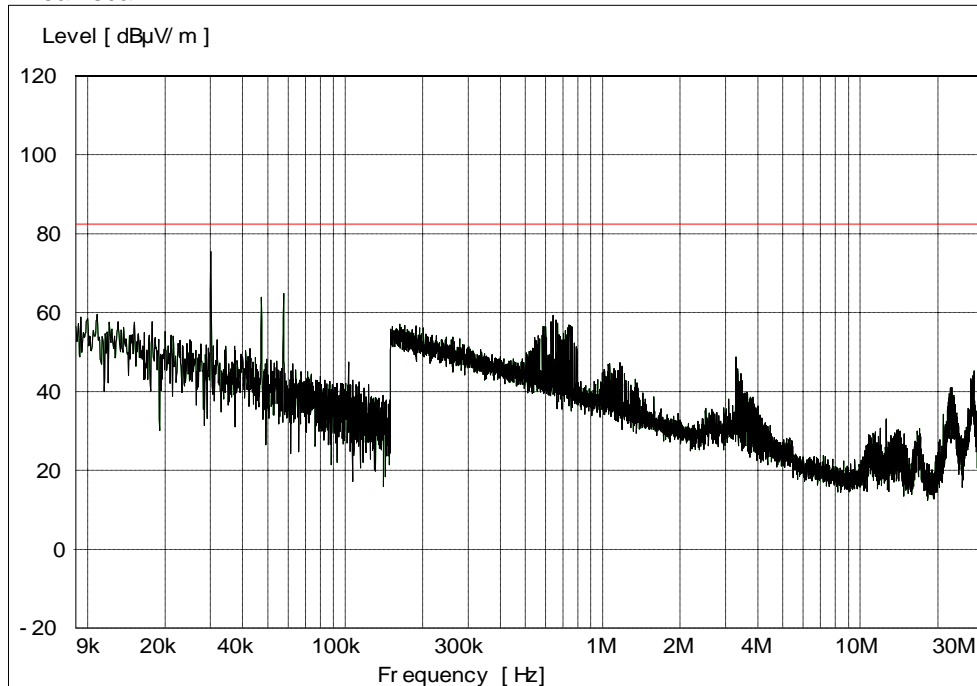
Quasi-peak measurement

Frequency (MHz)	Transducer (dB)	Receiver QP Reading (dBμV)	QP Level (dBμV)	Limit (dBμV)	Margin (dB)
0.026	14.2	53.7	67.9	82.5	14.6
0.047	12.4	53.8	66.2	82.5	16.3
0.058	12.1	48.4	60.5	82.5	22.0
0.633	12.1	41.5	53.6	82.5	28.9
0.650	12.1	41.4	53.5	82.5	29.0
27.723	9.3	34.9	44.2	82.5	38.3



Horizontal:

Peak scan



Quasi-peak measurement

Frequency (MHz)	Transducer (dB)	Receiver QP Reading (dBμV)	QP Level (dBμV)	Limit (dBμV)	Margin (dB)
0.030	13.9	54.2	68.1	82.5	14.4
0.047	12.4	50.5	62.9	82.5	19.6
0.058	12.1	50.4	62.5	82.5	20.0
0.642	12.1	39.8	51.9	82.5	30.6
0.715	12.1	37.3	49.4	82.5	33.1
0.277	12.0	35.0	47.0	82.5	35.5

**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: 03 December 2007  
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)

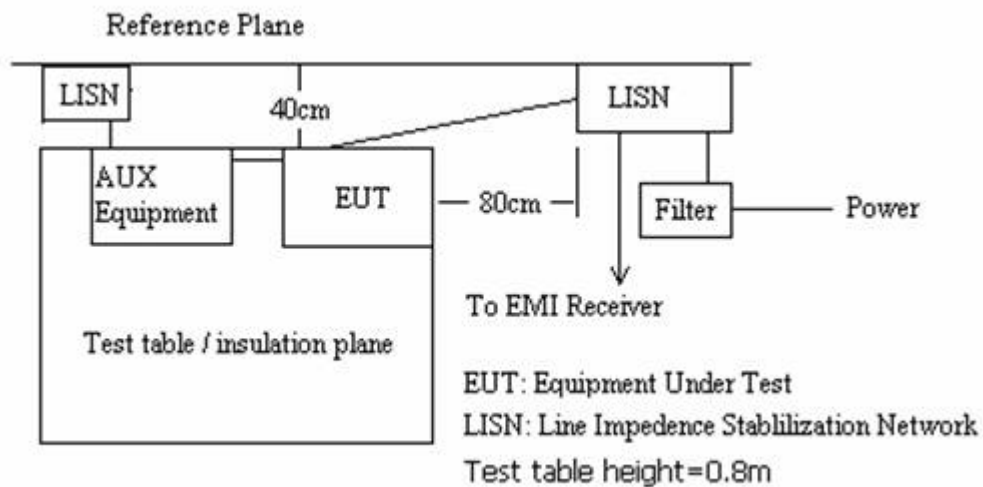
### 6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C Humidity: 52 % RH Atmospheric Pressure: 1008 mbar

EUT Operation: Test the EUT in induction cooking mode with max power.

### 6.2.2 Plan View of Test Setup





### 6.2.3 Measurement Data

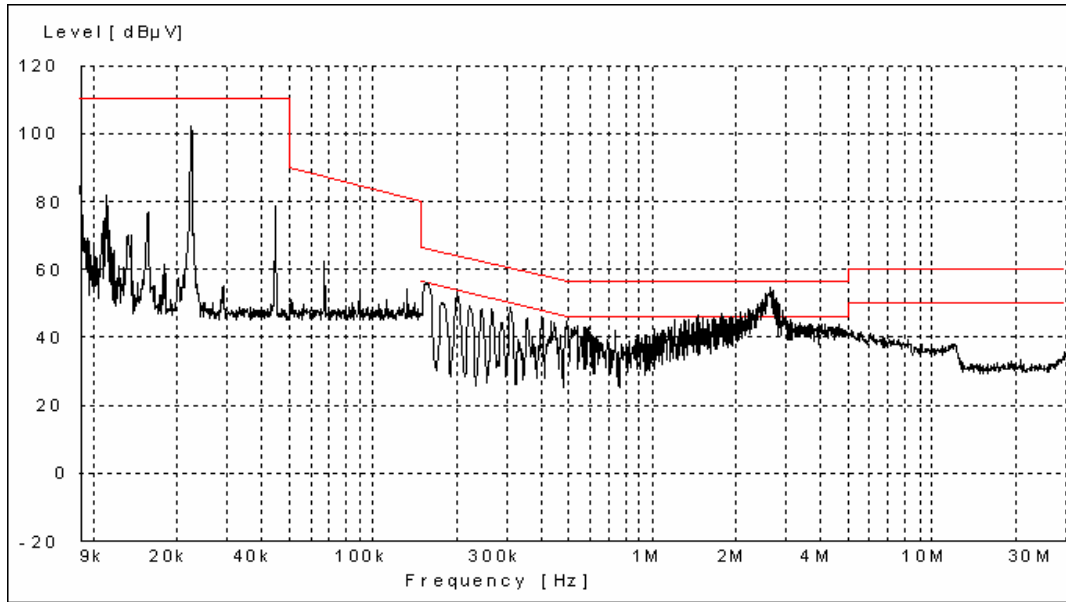
An initial pre-scan was performed on the live and neutral lines with peak detector.

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 03 December 2007:

Live Line:

Peak Scan:



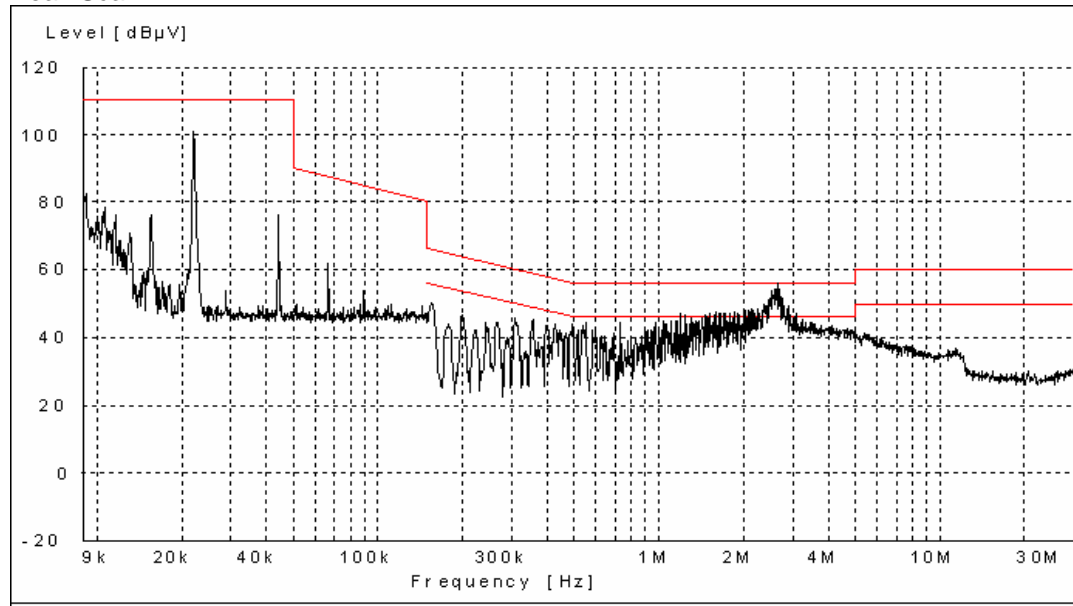
Quasi-peak and Average measurement:

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)
0.155	9.6	45.4	55.0	65.7	10.7	42.2	51.8	55.7	3.9
1.761	9.6	32.3	41.9	56.0	14.1	24.5	34.1	46.0	11.9
2.385	9.6	36.6	46.2	56.0	9.8	32.2	41.8	46.0	4.2
2.522	9.7	38.5	48.2	56.0	7.8	31.9	41.6	46.0	4.4
2.657	9.7	39.4	49.1	56.0	6.9	32.8	42.5	46.0	3.5
2.787	9.7	34.4	44.1	56.0	11.9	29.7	39.4	46.0	6.6



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)
1.513	9.6	33.1	42.7	56.0	13.3	25.5	35.1	46.0	10.9
1.869	9.6	34.0	43.6	56.0	12.4	27.3	36.9	46.0	9.1
2.133	9.6	34.9	44.5	56.0	11.5	31.0	40.6	46.0	5.4
2.646	9.7	42.5	52.2	56.0	3.8	35.0	44.7	46.0	1.3
2.688	9.7	40.7	50.4	56.0	5.6	33.4	43.1	46.0	2.9
2.866	9.7	34.9	44.6	56.0	11.4	30.1	39.8	46.0	6.2