



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

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Report No.: GLEMR060801163HSF  
Page: 1 of 12  
FCC ID: TAPMC-ESH13A

# FCC Test Report

**Application No.:** GLEMR060801163HS  
**Applicant:** Guangdong Midea Consume Electric Manufacturing Co.,Ltd  
**Equipment Under Test (EUT):**  
EUT Name: Induction Cooker  
Item No.: MC-ESH13A  
Serial No.: Not supplied by client  
**Standards:** FCC PART 18: 2004  
**Date of Receipt:** 28 August 2006  
**Date of Test:** 03 to 06 September 2006  
**Date of Issue:** 08 September 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**

<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: 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



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## **4 General Information**

### **4.1 Client Information**

Applicant: Guangdong MD Consume 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-ESH13A  
Serial No.: Not supplied by client

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

Power Supply: 120V AC 60Hz  
Power Cord: 1.6m x 2 wires unshielding cable

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

The EUT has been tested with a pan of water. The pan was provided by 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.
- **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: June 01, 2005. Valid until February 22, 2008
- **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 at 3m distance instead of 30m distance. 40dB was plus to the limit of 30m measurement limit. More details refer to 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

RE in Chamber/OATS						
No:	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
EMC0525	Impact Semi-Anechoic Chamber	ChangZhou ZhongYu	N/A	N/A	06-03-2006	06-03-2007
EMC0522	EMI Test Receiver	Rohde & Schwarz	ESIB26	100249	05-12-2005	05-12-2006
N/A	EMI Test Software	Audix	E3	N/A	N/A	N/A
EMC0514	Coaxial cable	SGS	N/A	N/A	04-12-2005	04-12-2006
EMC0524	Bi-log Type Antenna	Schaffner -Chase	CBL6112B	2966	31-10-2005	31-10-2006
EMC0519	Bilog Type Antenna	Schaffner -Chase	CBL6143	5070	31-07-2006	31-07-2007
EMC0517	Horn Antenna	Rohde & Schwarz	HF906	100095	29-07-2006	29-07-2007
EMC0040	Spectrum Analyzer	Rohde & Schwarz	FSP30	100324	05-12-2005	05-12-2006
EMC0520	0.1-1300 MHz Pre-Amplifier	HP	8447D OPT 010	2944A06252	06-03-2006	06-03-2007
EMC0521	1-26.5 GHz Pre-Amplifier	Agilent	8449B	3008A01649	06-03-2006	06-03-2007
EMC0523	Active Loop Antenna	EMCO	6502	00042963	14-01-2006	14-01-2007
EMC0529	10m Open Site	ZhongYu	N/A	N/A	26-12-2005	26-12-2006

General used equipment						
No:	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
EMC0050 to EMC0053	Temperature, & Humidity	ZHENGZHOU BO YANG	WSB	N/A	05-12-2005	05-12-2006
EMC0054	Temperature, & Humidity	Shenzhen Tai Kong	THG-1	N/A	04-01-2006	04-01-2007
EMC0006	DMM	Fluke	73	70681569	28-09-2005	28-09-2006
EMC0007	DMM	Fluke	73	70671122	12-09-2005	12-09-2006



## **6 Test Results**

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

Test Requirement:	FCC Part18
Test Method:	FCC OST/ MP-5
Test Date:	03 September 2006
Frequency Range:	9KHz to 30MHz
Limit:	18.305
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: 24.0 °C      Humidity: 52 % RH      Atmospheric Pressure: 1012 Mbar

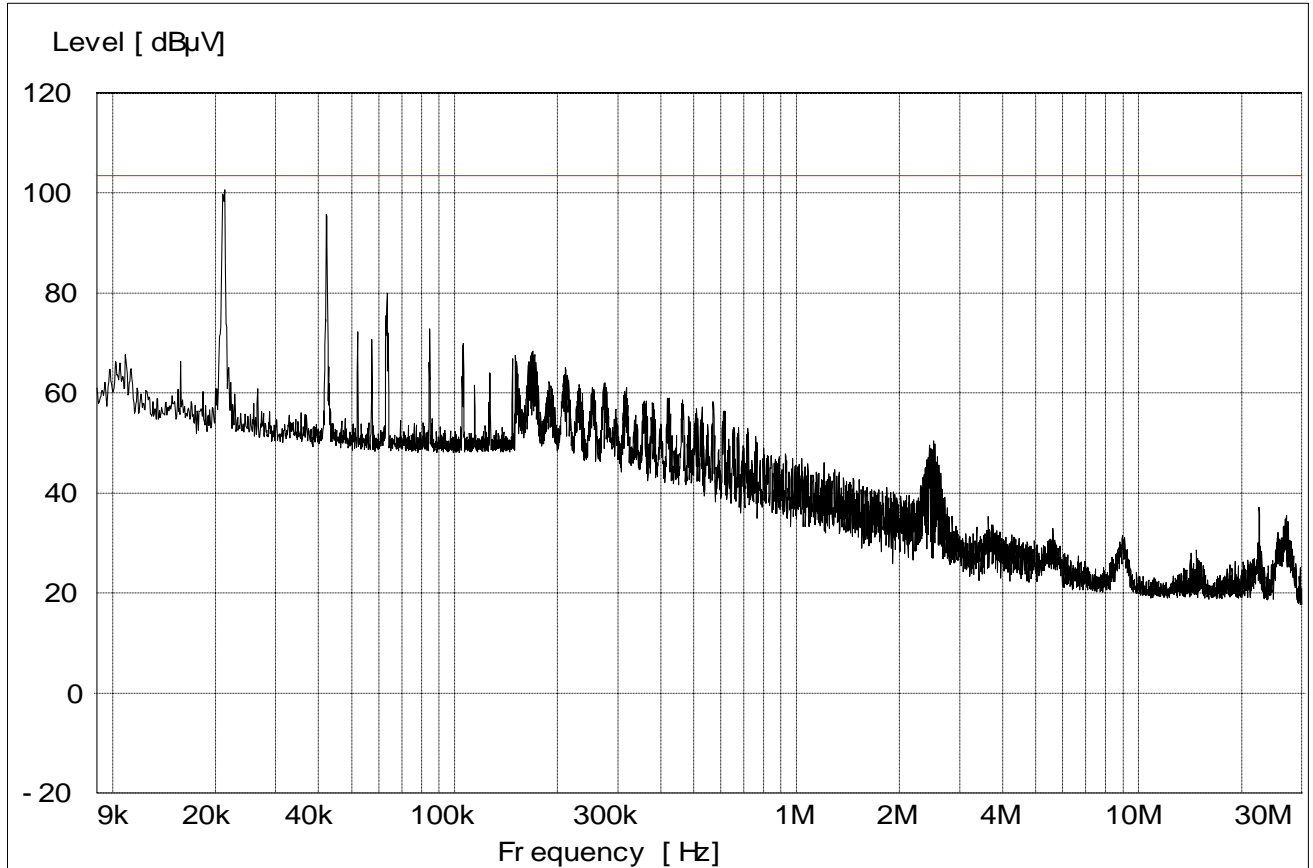
EUT Operation: Test in Induction cooking mode with maximum power.

#### **6.1.2 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 03 September 2006:

Vertical:

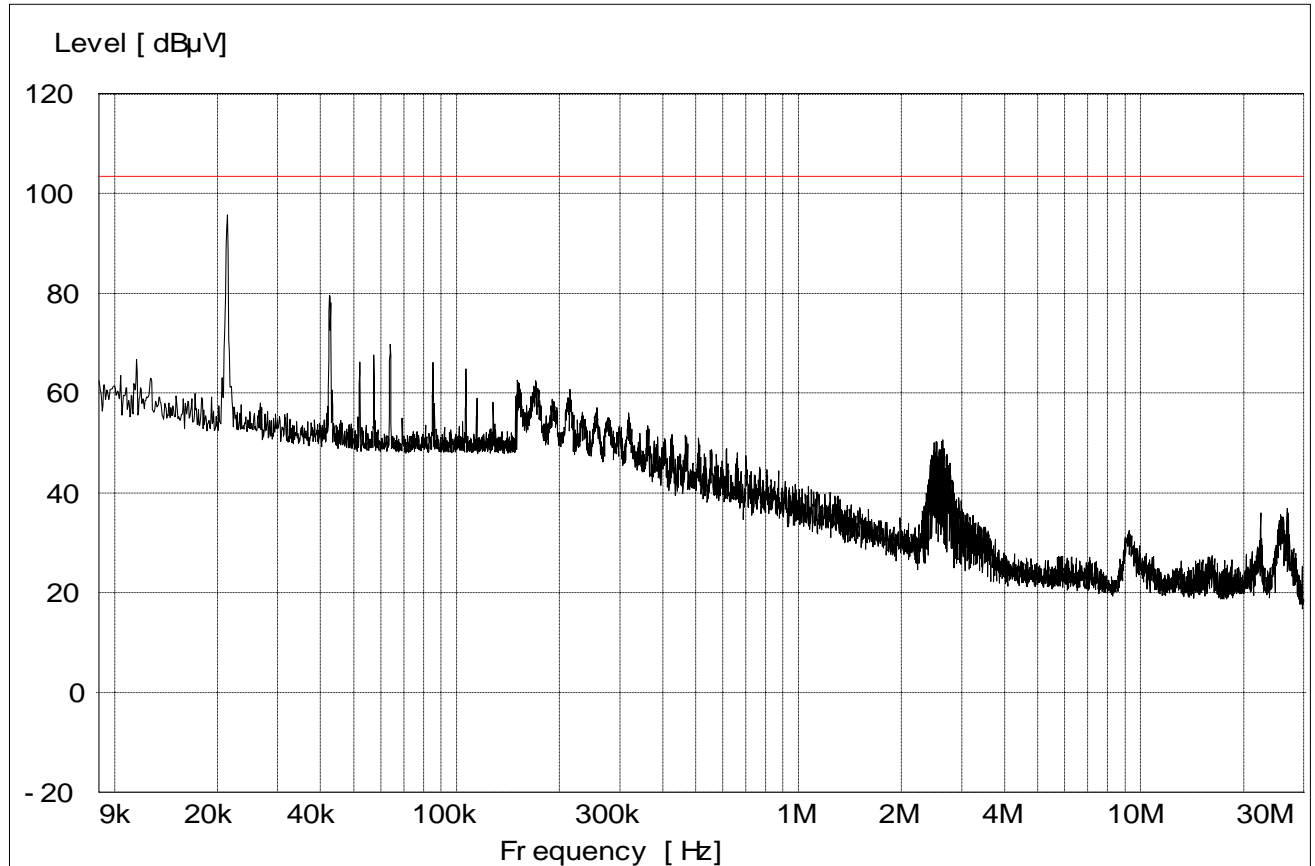


Frequency (MHz)	Transducer (dB)	Receiver AV Reading (dBμV)	Receiver AV Level (dBμV)	Limit (dBμV)	Margin (dB)
0.021	14.6	86.0	100.6	103.5	2.9
0.042	12.9	75.2	88.1	103.5	15.4
0.064	12.0	66.8	78.8	103.5	24.7
0.085	11.9	54.4	66.3	103.5	37.2
0.169	12.0	54.9	66.9	103.5	36.6
2.515	12.2	36.6	48.8	103.5	54.7





Horizontal



Frequency (MHz)	Transducer (dB)	Receiver AV Reading (dBμV)	Receiver AV Level (dBμV)	Limit (dBμV)	Margin (dB)
0.021	14.6	86.0	100.6	103.5	2.9
0.042	12.9	75.2	88.1	103.5	15.4
0.064	12.0	66.8	78.8	103.5	24.7
0.085	11.9	54.4	66.3	103.5	37.2
0.169	12.0	54.9	66.9	103.5	36.6
2.515	12.2	36.6	48.8	103.5	54.7



## **6.2 Inducted Emissions, 9KHz to 30MHz**

Test Requirement: FCC Part18  
Test Method: FCC OST/ MP-5  
Test Date: 06 September 2006  
Frequency Range: 9KHz to 30MHz  
Measurement Distance: 3m  
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: 24.0 °C      Humidity: 52% RH      Atmospheric Pressure: 1012 mbar

EUT Operation: Test in induction cooking mode with maximum power.

### **6.2.2 Measurement Data**

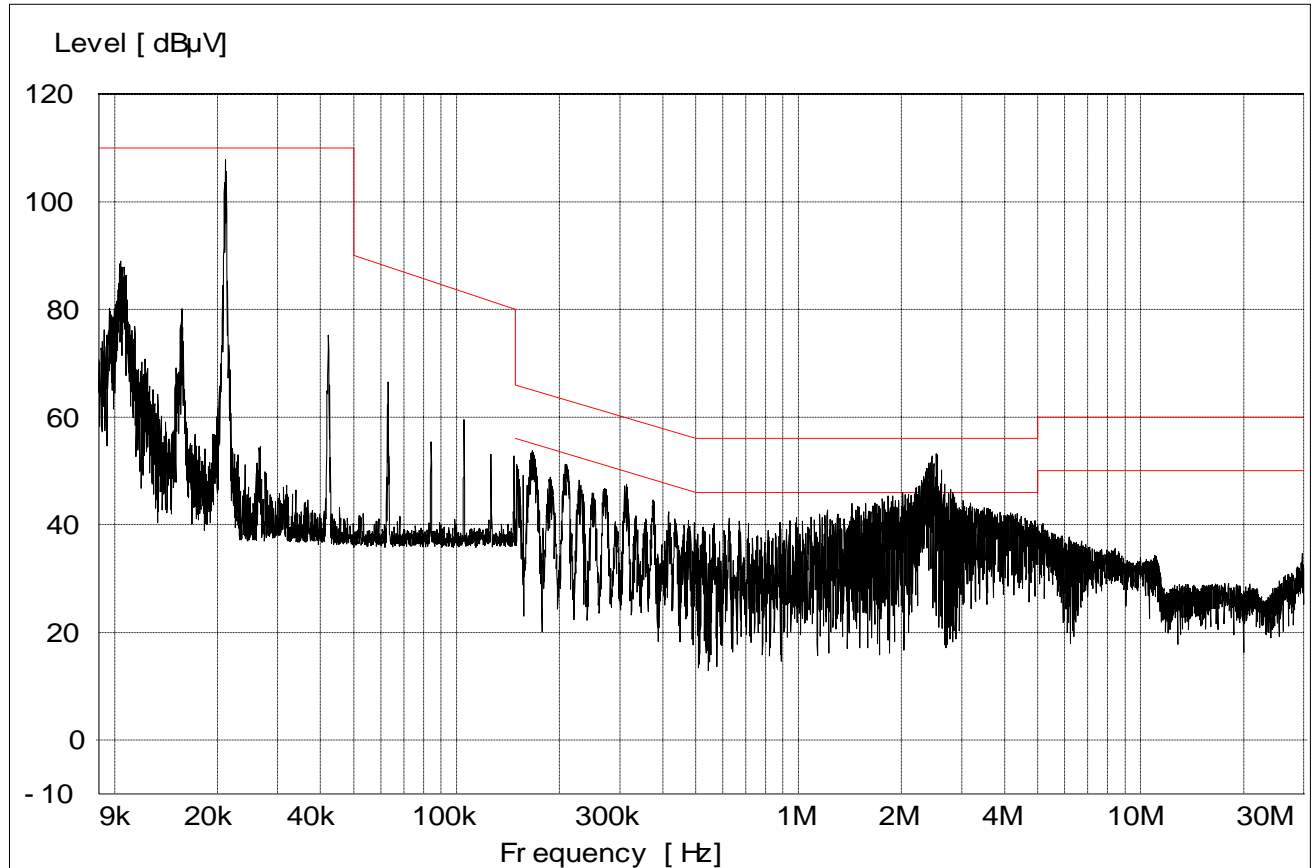
An initial pre-scan was performed on the live and neutral lines with peak detector.

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 September 2006:



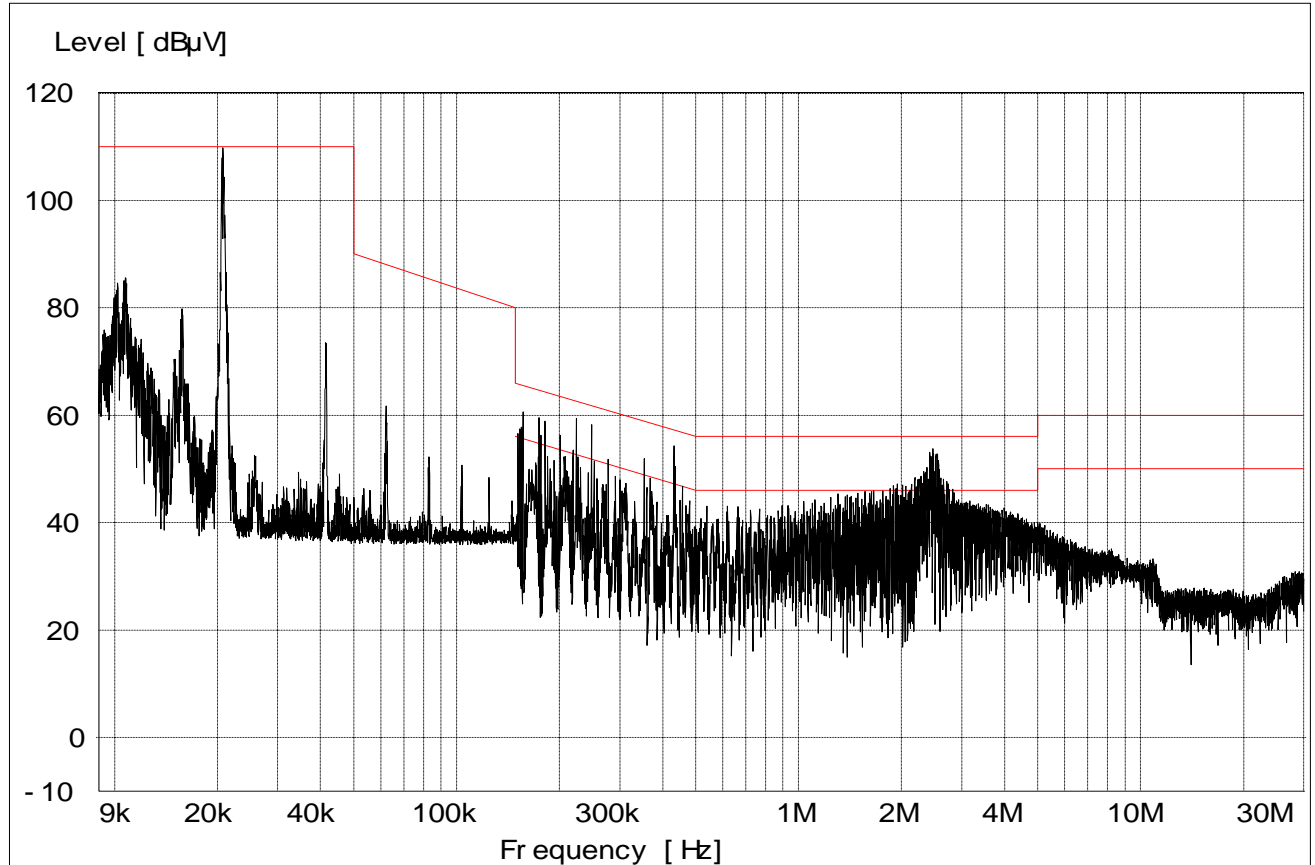
Live line



Freq. (MHz)	Trans. (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	0.1	92.8	92.9	110.0	17.1	*	*	*	*
0.288	0.1	48.5	48.6	60.5	11.9	32.2	32.3	50.5	18.3
0.472	0.1	44.2	44.3	56.2	11.9	33.1	33.2	46.2	13.0
2.548	0.0	49.8	49.8	56.0	6.2	35.1	35.1	46.0	10.9
2.280	0.0	33.3	33.3	56.0	22.7	19.6	19.6	46.0	26.4
5.936	0.0	35.2	35.2	60.0	24.8	24.4	24.4	50.0	25.6



Neutral line:



Freq. (MHz)	Trans. (dB)	Receiver QP Reading (dBμV)	QP Level (dBμV)	Limit (dBμV)	Margin (dB)	Receiver AV Reading (dBμV)	AV Level (dBμV)	Limit (dBμV)	Margin (dB)
0.020	0.1	105.8	105.9	110.0	4.1	*	*	*	*
0.224	0.1	42.7	42.8	62.6	19.8	38.1	38.2	52.6	14.4
2.470	0.1	50.3	50.4	56.0	5.6	40.1	40.2	46.0	5.8
0.156	0.0	33.8	33.8	65.5	31.7	26	26.0	55.5	29.5
0.431	0.0	40.3	40.3	57.2	16.9	35.9	35.9	47.2	11.3
0.417	0.0	45.3	45.3	57.5	12.2	42.6	42.6	47.5	4.9