



## FCC 47 CFR PART 15 SUBPART C

### TEST REPORT

For

**10.4" Fanless Mobile Clinical Assistant**

**Model:**

**MICA-101XXXXXXXXXXXX**

(“x” can be 0-9 or A-Z or blank or any alphanumeric character )

**Trade Name: Advantech**

*Issued to*

**Advantech Co. Ltd.**

**No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District,  
Taipei 114, Taiwan, R.O.C.**

*Issued by*



**Compliance Certification Services Inc.**  
**No. 11, Wu-Gong 6<sup>th</sup> Rd., Wugu Industrial Park,**  
**Taipei Hsien 248, Taiwan (R.O.C.)**  
**<http://www.ccsemc.com.tw>**  
**[service@ccsrf.com](mailto:service@ccsrf.com)**



Testing Laboratory  
1309



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## 1. TEST RESULT CERTIFICATION

**Applicant:** Advantech Co. Ltd.  
No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District,  
Taipei 114, Taiwan, R.O.C.

**Equipment Under Test:** 10.4" Fanless Mobile Clinical Assistant

**Trade Name:** Advantech

**Model:** MICA-101XXXXXXXXXXXX ("x" can be 0-9 or A-Z or blank or any alphanumeric character )

**Date of Test:** January 21 ~ May 19, 2009

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 47 CFR Part 15 Subpart C	No non-compliance noted

### We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4: 2003 and the energy emitted by the sample tested as described in this report is in compliance with the requirements of FCC Rules Part 15.225.

The test results of this report relate only to the tested sample identified in this report.

*Approved by:*

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Rex Lai  
Section Manager  
Compliance Certification Services Inc.

*Reviewed by:*

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Gina Lo  
Section Manager  
Compliance Certification Services Inc.



## 2. EUT DESCRIPTION

<b>Product</b>	10.4" Fanless Mobile Clinical Assistant		
<b>Trade Name</b>	Advantech		
<b>Model Number</b>	MICA-101XXXXXXXXXXXX (“x” can be 0-9 or A-Z or blank or any alphanumeric character )		
<b>Model Difference</b>	All the specification and layout are identical except they come with different model numbers for marketing purposes.		
<b>Power Supply</b>	1. VDC from Power Adapter 2. VDC from Battery Rating: 11.1V, 3760mAh		
<b>Power Adapter Manufacturer</b>	SINPRO	Model	MPU63-106
<b>Power Adapter Power Rating</b>	<b>For MPU63-106</b> I/P: 100-240V, 47-63Hz, 1.62-0.72A O/P: 15V, 4.2A		
<b>Frequency Range</b>	13.56MHz		
<b>Modulation Technique</b>	ASK		
<b>Number of Channels</b>	1 Channel		
<b>Antenna Specification</b>	Gain: 2.9 dBi		
<b>Antenna Designation</b>	Printed Antenna		

**Remark:**

1. *The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.*
2. *This submittal(s) (test report) is intended for FCC ID: **M82-MICA-101** filing to comply with Section 15.225 of the FCC Part 15, Subpart C Rules.*



### **3. TEST METHODOLOGY**

The tests documented in this report were performed in accordance with ANSI C63.4:2003 and FCC CFR 47 Part 15.207, 15.209 and 15.225.

#### **3.1 EUT CONFIGURATION**

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

#### **3.2 EUT EXERCISE**

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

#### **3.3 GENERAL TEST PROCEDURES**

##### **Conducted Emissions**

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4: 2003. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

##### **Radiated Emissions**

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4: 2003.



### 3.4 FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
<sup>1</sup> 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	( <sup>2</sup> )
13.36 - 13.41	322 - 335.4		

<sup>1</sup> Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

<sup>2</sup> Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.



### **3.5 DESCRIPTION OF TEST MODES**

The EUT (model: MICA-101) had been tested under engineering test mode condition and the EUT staying in continuous transmitting mode.

The EUT comes with one battery and one power adapter for sale. After the preliminary test, the EUT with power adapter was found to emit the worst emissions and therefore had been tested under standby condition.

The field strength of spurious emission was measured in the following position: EUT stand-up position (Z mode), lie-down position (X, Y mode) and docking mode. The worst emission was found in docking mode and the worst case was recorded.



## 4. INSTRUMENT CALIBRATION

### 4.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

### 4.2 MEASUREMENT EQUIPMENT USED

#### Equipment Used for Emissions Measurement

*Remark: Each piece of equipment is scheduled for calibration once a year.*

Conducted Emissions Test Site				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY43360131	02/23/2010
Power Meter	Agilent	E4416A	GB41291611	04/05/2010
Power Sensor	Agilent	E9327A	US40441097	06/19/2009

3M Semi Anechoic Chamber				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	US42510252	10/07/2009
Test Receiver	Rohde&Schwarz	ESCI	100064	11/29/2009
Switch Controller	TRC	Switch Controller	SC94050010	05/02/2010
4 Port Switch	TRC	4 Port Switch	SC94050020	05/02/2010
Loop Antenna	EMCO	6502	8905/2356	05/28/2010
Horn-Antenna	TRC	HA-0502	06	06/03/2010
Horn-Antenna	TRC	HA-0801	04	10/20/2009
Horn-Antenna	TRC	HA-1201A	01	10/15/2009
Horn-Antenna	TRC	HA-1301A	01	10/15/2009
Bilog- Antenna	Sunol Sciences	JB3	A030205	03/27/2010
Loop Antenna	EMCO	6502	8905/2356	N.C.R.
Turn Table	Max-Full	MFT-120S	T120S940302	N.C.R.
Antenna Tower	Max-Full	MFA-430	A440940302	N.C.R.
Controller	Max-Full	MF-CM886	CC-C-1F-13	10/17/2010 11/04/2010
Site NSA	CCS	N/A	FCC MRA: TW1039 IC: 2324G-1 / -2	10/07/2009
Test S/W	LABVIEW (V 6.1)			

Powerline Conducted Emissions Test Site # 4				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
EMI Test Receiver	R&S	ESCI	100782	05/31/2010
LISN	R&S	ENV216	100066	05/10/2010
LISN	R&S	ENV 4200	830326/016	04/09/2010
Test S/W	LabVIEW 6.1 (CCS Conduction Test SW Version_01)			



### 4.3 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
Powerline Conducted Emission	+/-1.7983
3M Semi Anechoic Chamber / 30MHz ~ 1GHz	+/-3.7046
3M Semi Anechoic Chamber / Above 1GHz	+/-3.0958

**Remark:** This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$ .



## 5. FACILITIES AND ACCREDITATIONS

### 5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

No.199, Chunghsen Road, Hsintien City, Taipei Hsien, Taiwan, R.O.C.

Tel: 886-2-2217-0894 / Fax: 886-2-2217-1029

No.11, Wugong 6th Rd., Wugu Industrial Park, Taipei Hsien 248, Taiwan

Tel: 886-2-2299-9720 / Fax: 886-2-2298-4045

No.81-1, Lane 210, Bade 2nd Rd., Luchu Hsiang, Taoyuan Hsien 338, Taiwan

Tel: 886-3-324-0332 / Fax: 886-3-324-5235

*Remark: The powerline conducted emission test items was tested at Compliance Certification Services Inc. (Linkou Lab.) The test equipments were listed in page 9 and the test data, please refer page 22-23.*

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

### 5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."



### 5.3 TABLE OF ACCREDITATIONS AND LISTINGS

Country	Agency	Scope of Accreditation	Logo
USA	FCC	3M Semi Anechoic Chamber (FCC MRA: TW1039) to perform FCC Part 15 measurements	 FCC MRA: TW1039
Taiwan	TAF	LP0002, RTTE01, FCC Method-47 CFR Part 15 Subpart C, D, E, RSS-210, RSS-310 IDA TS SRD, AS/NZS 4268, AS/NZS 4771, TS 12.1 & 12.2, ETSI EN 300 440-1, ETSI EN 300 440-2, ETSI EN 300 328, ETSI EN 300 220-1, ETSI EN 300 220-2, ETSI EN 301 893, ETSI EN 301 489-1/3/7/17 FCC OET Bulletin 65 + Supplement C, EN 50360, EN 50361, EN 50371, RSS 102, EN 50383, EN 50385, EN 50392, IEC 62209, CNS 14958-1, CNS 14959 FCC Method -47 CFR Part 15 Subpart B IEC / EN 61000-3-2, IEC / EN 61000-3-3, IEC / EN 61000-4-2/3/4/5/6/8/11	 Testing Laboratory 1309
Canada	Industry Canada	3M Semi Anechoic Chamber (IC 2324G-1 / IC 2324G-2) to perform	 IC 2324G-1 IC 2324G-2

*\* No part of this report may be used to claim or imply product endorsement by A2LA or any agency of the US Government.*



## 6. SETUP OF EQUIPMENT UNDER TEST

### 6.1 SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix I for the actual connections between EUT and support equipment.

### 6.2 SUPPORT EQUIPMENT

No.	Device Type	Brand	Model	Series No.	FCC ID	Data Cable	Power Cord
1.	USB Mouse	Logitech	M-UE58	LZA10752880	FCC DoC	Shielded, 1.8m	N/A
2.	LCD Monitor	DELL	2407WFPb	CN-0FC255-46633-67 5-25THS	FCC DoC	D-sub Cable: Shielded, 1.8m with two cores	Unshielded, 1.8m
3.	USB Mouse	HP	MO19UCA	020509284	FCC DoC	USB Cable: Unshielded, 1.8m	N/A
4.	Notebook PC (Remote)	HP	COMPAQ NC 4010	CNU5191L58	FCC DOC	LAN Cable: Unshielded, 10m	AC I/P: Unshielded, 1.8m DC O/P: Unshielded, 1.8m with a core
5.	AP (Remote)	LEMEL	LM-RT210W	12442028770	H8N-RT210W	N/A	Unshielded, 1.8m

**Remark:**

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

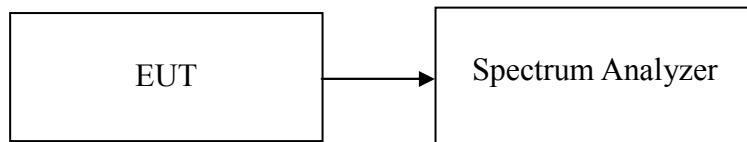
## 7. FCC PART 15.225 REQUIREMENTS

### 7.1 20 DB BANDWIDTH

#### LIMIT

None; for reporting purposes only.

#### Test Configuration



#### TEST PROCEDURE

1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW= 3kHz, VBW = 10kHz,, Span = 100kHz, Sweep = auto.
4. Mark the peak frequency and 20dB (upper and lower) frequency.
5. Repeat until all the rest channels are investigated.

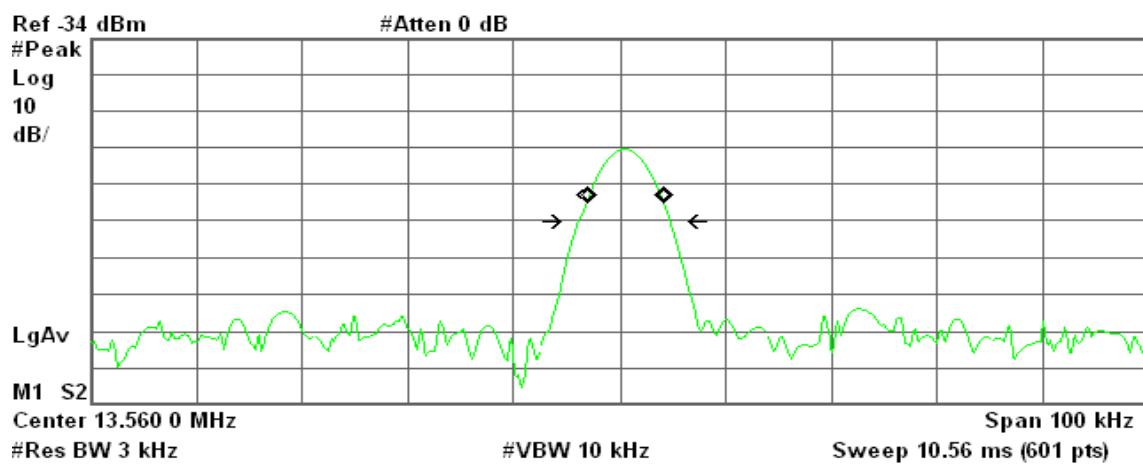
#### TEST RESULTS

*No non-compliance noted.*

**Test Plot**

Agilent 22:17:14 Mar 12, 2009

R T



Transmit Freq Error      464.013 Hz  
Occupied Bandwidth      8.709 kHz



## 7.2 RADIATED EMISSIONS

### LIMIT

According to §15.225,

- (a) The field strength of any emissions within the band 13.553 – 13.567 MHz shall not exceed 15,848 microvolts / meter at 30 meters.
- (b) Within the bands 13.410 – 13.553 MHz and 13.567 -13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts / meter at 30 meters.
- (c) Within the bands 13.110 – 13.410 MHz and 13.710 – 14.010 MHz the field strength of any emissions shall not exceed 106 microvolts / meter at 30 meters.
- (d) The field strength of any emissions appearing outside of the 13.110 – 14.010 MHz and shall not exceed the general radiated emission limits in §15.209.

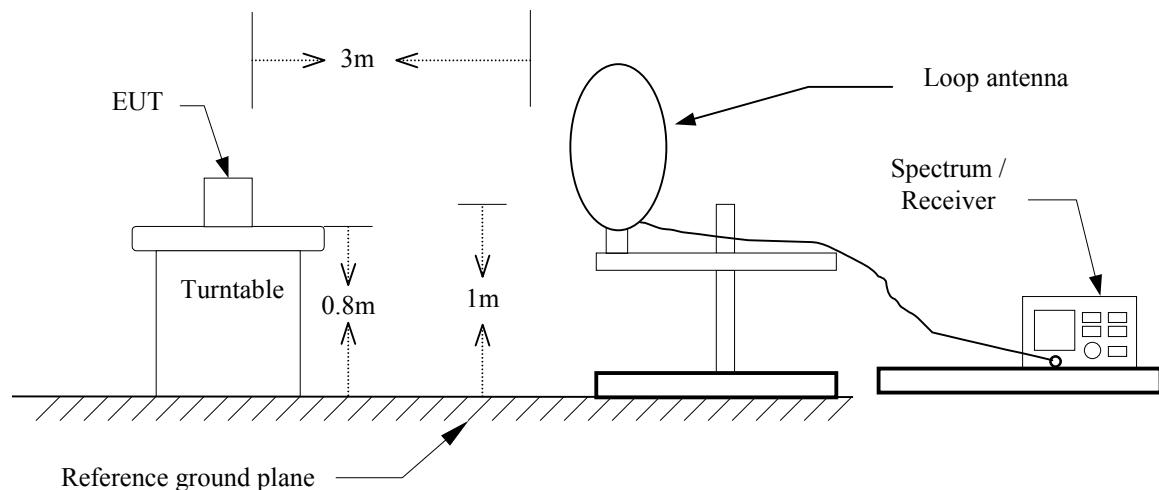
According to §15.225(a), except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ( $\mu$ V/m at meter)	Measurement Distance (meter)
0.009 – 0.490	2400 / F (kHz)	300
0.490 – 1.705	24000 / F (kHz)	30
1.705 – 30.0	30	30
30 - 88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

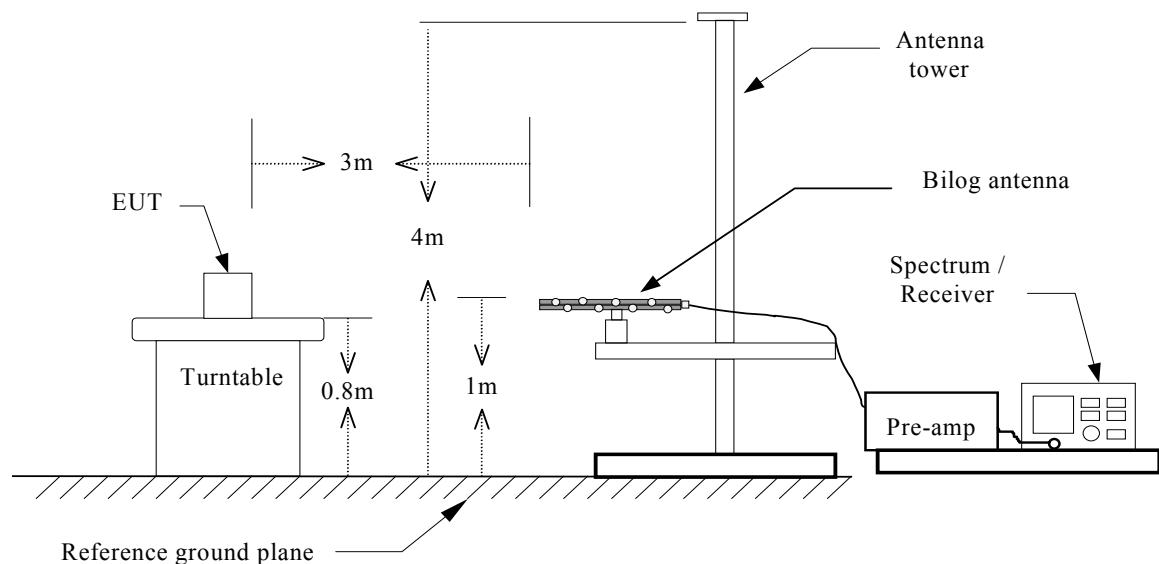
*\*\* Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.*

## Test Configuration

### 9kHz ~ 30MHz



### 30MHz ~ 1 GHz





## **TEST PROCEDURE**

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Set the spectrum analyzer in the following setting as:  
RBW=100kHz / VBW=300kHz / Sweep=AUTO
7. Repeat above procedures until the measurements for all frequencies are complete.



**Operation Mode:** TX mode      **Test Date:** May 19, 2009  
**Temperature:** 23°C      **Tested by:** Nan Tsai  
**Humidity:** 53 % RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	Ant.Pol. (H/V)	Detector Mode (QP/QP/AVG)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit 3m (dBuV/m)	Margin (dB)
13.56	V	QP	47.00	5.73	52.73	120.00	-67.27
59.10	V	Peak	48.65	-14.75	33.91	40.00	-6.09
432.55	V	Peak	46.54	-5.84	40.70	46.00	-5.30
527.93	V	Peak	44.95	-3.36	41.59	46.00	-4.41
623.32	V	Peak	41.22	-2.42	38.80	46.00	-7.20
671.82	V	Peak	38.90	-2.18	36.73	46.00	-9.27
720.32	V	Peak	34.37	-1.33	33.04	46.00	-12.96
13.56	H	QP	42.83	5.73	48.56	120.00	-71.44
114.07	H	Peak	39.35	-10.21	29.14	43.50	-14.36
274.12	H	Peak	44.36	-8.98	35.38	46.00	-10.62
367.88	H	Peak	46.44	-7.20	39.25	46.00	-6.75
432.55	H	Peak	44.46	-5.84	38.62	46.00	-7.38
720.32	H	Peak	33.95	-1.33	32.62	46.00	-13.38
796.30	H	Peak	35.93	0.17	36.10	46.00	-9.90

**Remark:**

1. Measuring frequencies from 9kHz to the 1GHz.
2. Radiated emissions measured were made with an instrument using peak/quasi-peak/average detector mode.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
4. Margin (dB) = Result (dBuV/m) – Limit (dBuV/m).

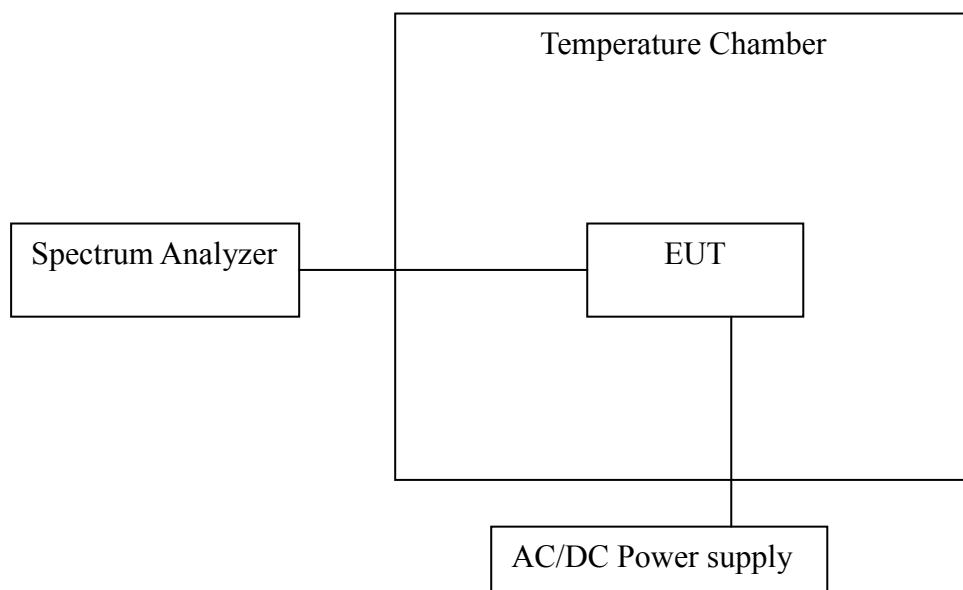
## 7.3 FREQUENCY STABILITY

### LIMIT

According to §15.225(e), the frequency tolerance of the carrier signal shall be maintained within +/- 0.01% of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

### Test Configuration

#### Temperature and Voltage Measurement (under normal and extreme test conditions)



### TEST PROCEDURE

1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the environment into appropriate environment.
4. Set the spectrum analyzer as RBW=1kHz, VBW = RBW, Span = 200kHz, Sweep = auto.
5. Mark the peak frequency and measure the frequency tolerance using frequency counter function.
6. Repeat until all the results are investigated.



## TEST RESULTS

*No non-compliance noted.*

### Temperature Variations

Temp. (°C)	Voltage (V)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (%)	Limit (±%)	Margin (%)	Result (Pass/Fail)
-20	120	13.56047	471	0.00347	0.01	-0.00653	Pass
-10		13.56048	480	0.00354	0.01	-0.00646	Pass
0		13.56045	450	0.00332	0.01	-0.00668	Pass
10		13.56129	1290	0.00951	0.01	-0.00049	Pass
20		13.56044	440	0.00324	0.01	-0.00676	Pass
30		13.56043	430	0.00317	0.01	-0.00683	Pass
40		13.56041	410	0.00302	0.01	-0.00698	Pass
50		13.56039	390	0.00288	0.01	-0.00712	Pass

### Voltage Variations

Temp. (°C)	Voltage (V)	Measured Frequency (MHz)	Delta Frequency (Hz)	Tolerance (%)	Limit (±%)	Margin (%)	Result (Pass/Fail)
20	102	13.56046	460	0.00339	0.01	-0.00661	Pass
	120	13.56046	460	0.00339	0.01	-0.00661	Pass
	138	13.56046	460	0.00339	0.01	-0.00661	Pass



## 7.4 POWERLINE CONDUCTED EMISSIONS

### LIMIT

According to §15.207(a), except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency Range (MHz)	Limits (dB $\mu$ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

\* Decreases with the logarithm of the frequency.

### TEST PROCEDURE

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.



## TEST RESULTS

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

**Operation Mode:** Normal Link

**Test Date:** January 21, 2009

**Temperature:** 20°C

**Tested by:** Alex Tsai

**Humidity:** 58% RH

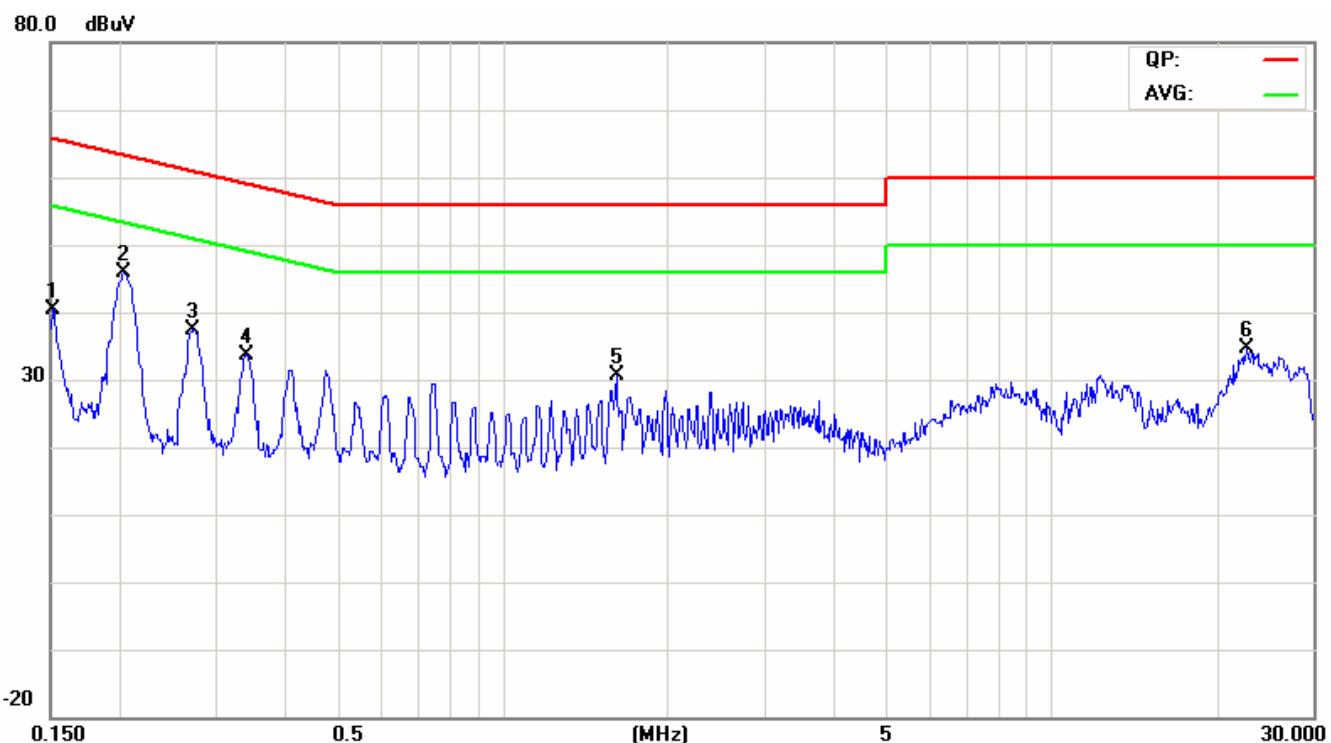
Freq. (MHz)	QP Reading (dBuV)	AV Reading (dBuV)	Corr. factor (dB)	QP Result (dBuV)	AV Result (dBuV)	QP Limit (dBuV)	AV Limit (dBuV)	QP Margin (dB)	AV Margin (dB)	Note
0.151	15.41	10.69	9.65	25.06	20.34	66.05	56.05	-40.99	-35.71	L1
0.2036	34.86	25.59	9.60	44.46	35.19	63.46	53.46	-19.00	-18.27	L1
0.2719	25.94	17.61	9.60	35.54	27.21	61.06	51.06	-25.52	-23.85	L1
0.3413	21.98	16.77	9.60	31.58	26.37	59.17	49.17	-27.59	-22.80	L1
1.6236	5.32	0.14	9.66	14.98	9.80	56.00	46.00	-41.02	-36.20	L1
22.5614	21.61	15.97	10.45	32.06	26.42	60.00	50.00	-27.94	-23.58	L1
0.151	0.01	-3.47	9.65	9.66	6.18	66.00	56.01	-56.34	-49.83	L2
0.2048	35.23	25.61	9.60	44.83	35.21	63.41	53.41	-18.58	-18.20	L2
0.2727	25.97	17.96	9.60	35.57	27.56	61.03	51.04	-25.46	-23.48	L2
0.4087	21.05	12.88	9.59	30.64	22.47	57.67	47.67	-27.03	-25.20	L2
21.6734	16.97	10.10	10.50	27.47	20.60	60.00	50.00	-32.53	-29.40	L2
26.5182	19.39	14.02	10.73	30.12	24.75	60.00	50.00	-29.88	-25.25	L2

**Remark:**

1. The measuring frequencies range between 0.15 MHz and 30 MHz.
2. The emissions measured in the frequency range between 0.15 MHz and 30MHz were made with an instrument using Quasi-peak detector and Average detector.
3. The IF bandwidth of SPA between 0.15MHz and 30MHz was 10kHz. The IF bandwidth of Test Receiver between 0.15MHz and 30MHz was 9kHz.
4. L1 = Line One (Live Line) / L2 = Line Two (Neutral Line)
5. "-" means Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.

## Test Plots

### *Conducted emissions (Line 1)*



### *Conducted emissions (Line 2)*

