



FCC 47 CFR PART 15 SUBPART C

TEST REPORT

For

Tablet (Pad) Computer

Model: TP00043A

Trade Name: lenovo

Issued to

**Wistron Corporation
21F, No. 88, Sec. 1, Hsin Tai Wu Rd., Hsichih Dist,
New Taipei City 221, Taiwan R.O.C.**

Issued by

**Compliance Certification Services Inc.
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New Taipei City 248, Taiwan (R.O.C.)
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Issued Date: July 11, 2012**



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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	July 11, 2012	Initial Issue	ALL	Gina Lo



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1 TEST RESULT CERTIFICATION

Applicant: **Wistron Corporation**
21F, No. 88, Sec. 1, Hsin Tai Wu Rd., Hsichih Dist,
New Taipei City 221, Taiwan R.O.C.

Equipment Under Test: Tablet (Pad) Computer

Trade Name: lenovo

Model: TP00043A

Date of Test: July 7 ~ 10, 2012

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 15.207, 15.209..

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

Approved by:

Jason Lin
Section Manager
Compliance Certification Services Inc.

Reviewed by:

Gina Lo
Section Manager
Compliance Certification Services Inc.



2 EUT DESCRIPTION

Product	Tablet (Pad) Computer
Trade Name	lenovo
Model Number	TP00043A
Power Supply	1. Power from power adapter. 2. Power from battery.
Operating Frequency Range	531.25kHz, 562.50kHz
Antenna Specification	Loop 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: **PU5-TP00043AWD** filing to comply with Section 15.209 of the FCC Part 15, Subpart C Rules.

**Power Rating**

Component	Model / Specification	Manufacturer
Adapter	ADP-10AW BA AC Input: 100-240V, 0.4A, 50/60Hz DC Output: 5.2V, 2A	delta
	FRU P/N: 45N1099 / 3.7V, 8.64Ah, 32Wh ASM P/N:45N1098 / 3.7V, 8.64Ah, 32Wh	Sanyo
Battery	FRU P/N: 45N1099 / 3.7V, 8.64Ah, 32Wh ASM P/N:45N1098 / 3.7V, 8.64Ah, 32Wh	LG
	FRU P/N: 45N1099 / 3.7V, 8.64Ah, 32Wh ASM P/N:45N1098 / 3.7V, 8.64Ah, 32Wh	



3 TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4 (2003) and FCC CFR 47 Part 2, 15.207, 15.209.

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
¹ 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	(²)
13.36 - 13.41	322 - 335.4		

¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

² 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: TP00043A) had been tested under operating condition.

Test program used to control the EUT for staying in continuous transmitting mode was programmed.

After verification, all tests were carried out with the worst case test modes as shown below 1GHz.

RF ID: Channel 531.25kHz and 562.50kHz were chosen for full testing.



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 and Loop Antenna is scheduled for calibration once three years.

3M Chamber Test Site				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	US42510268	11/15/2012
EMI Test Receiver	R&S	ESCI	100064	03/01/2013
Pre-Amplifier	Mini-Circuits	ZFL-1000LN	SF350700823	01/13/2013
Pre-Amplifier	MITEQ	AFS44-00102650-42-10P-44	1415367	11/20/2012
Bilog Antenna	Sunol Sciences	JB3	A030105	10/03/2012
Horn Antenna	EMCO	3117	00055165	01/11/2013
Loop Antenna	EMCO	6502	8905/2356	06/10/2013
Turn Table	CCS	CC-T-1F	N/A	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R
Site NSA	CCS	N/A	N/A	12/23/2012
Test S/W	EZ-EMC (CCS-3A1RE)			

Conducted Emission room # B				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
EMI Test Receiver	R&S	ESCI	101073	07/28/2012
LISN	R&S	ENV216	101054	05/24/2013
LISN	EMCO	3825/2	9106-1809	05/24/2013
Coaxial Cable	Commate	CFD300-NL	NA	05/26/2013
Current Probe	TEGAM	95236-1	12567	03/21/2013
Capacitive Voltage Probe	FCC	F-CVP-1	100185	02/15/2013
Test S/W	CCS-3A1-CE			



4.3. MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
Powerline Conducted Emission	+/- 1.2575
3M Semi Anechoic Chamber / 30M~200M	+/- 4.0138
3M Semi Anechoic Chamber / 200M~1000M	+/- 3.9483
3M Semi Anechoic Chamber / 1G~8G	+/- 2.5975
3M Semi Anechoic Chamber / 8G~18G	+/- 2.6112
3M Semi Anechoic Chamber / 18G~26G	+/- 2.7389
3M Semi Anechoic Chamber / 26G~40G	+/- 2.9683

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, Wu-Gong 6th Rd., Wugu Industrial Park, New Taipei City 248, Taiwan (R.O.C.)

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

☐ No.81-1, Lane 210, Bade 2nd Rd., Lujhu Township, Taoyuan County 33841, TAIWAN, R.O.C.

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

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 (2003) 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

Note: No part of this report may be used to claim or imply product endorsement by A2LA, TAF or other government agency.



6 SETUP OF EQUIPMENT UNDER TEST

6.1. SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix 1 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.	LCD Monitor	DELL	2407WFPb	CN-0YY528-4663 3-76I-1CDS	FCC DoC	Shielded, 1.8m with 2 cores	Unshielded, 1.8m
2.	HDD	Buffalo	BUF-HD-HXU-3(B)	45564800400574	D33093	Shielded, 1.8m	Unshielded, 1.5m
3.	Earphone	Logitech	NA	NA	NA	Unshielded, 1.8m	N/A
4.	Micro SD Card	Transcend.	N/A	N/A	N/A	N/A	N/A
5.	SIM Card	N/A	N/A	N/A	N/A	N/A	N/A
6.	BT headset (Remote)	N/A	N/A	N/A	N/A	N/A	N/A
7.	Universal Radio Communication Tester (Remote)	R&S	CMU200	101245	N/A	N/A	Unshielded, 1.8m
8.	Wireless Pre-N Router (MIMO) (Remote)	BELKIN	F5D8230-4	N/A	SA3-AGN0901AP 0100	N/A	AC I/P: Unshielded, 1.8m DC O/P: Unshielded, 1.8m with a core

Remark: Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.



7 FCC PART 15.209 REQUIREMENTS

7.1. RADIATED EMISSIONS

LIMIT

1. According to §15.209(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 (μV/m)	Measurement Distance (m)
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

Remark: 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.

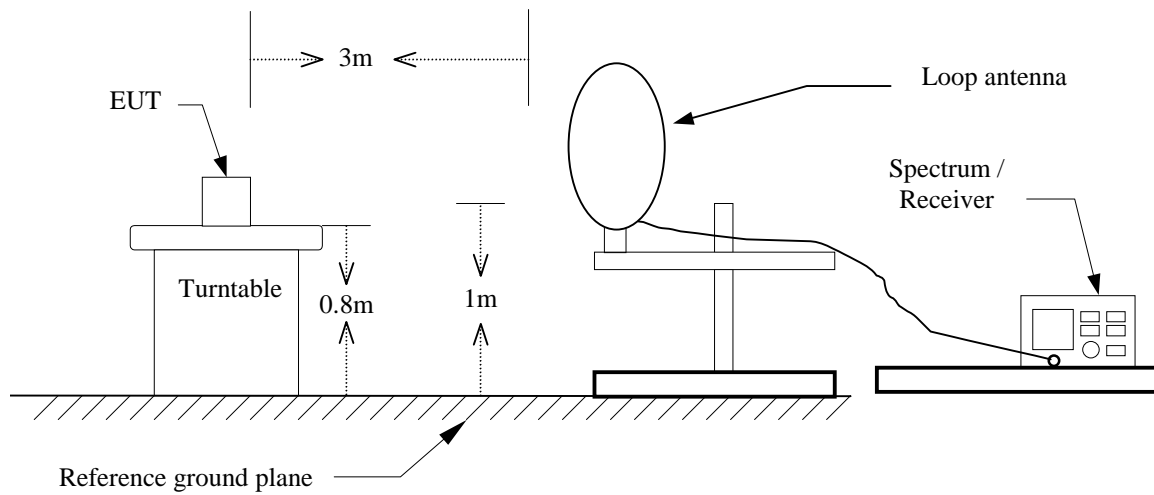
2. In the emission table above, the tighter limit applies at the band edges.

Frequency (Hz)	Field Strength (μV/m at 3-meter)	Field Strength (dBμV/m at 3-meter)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

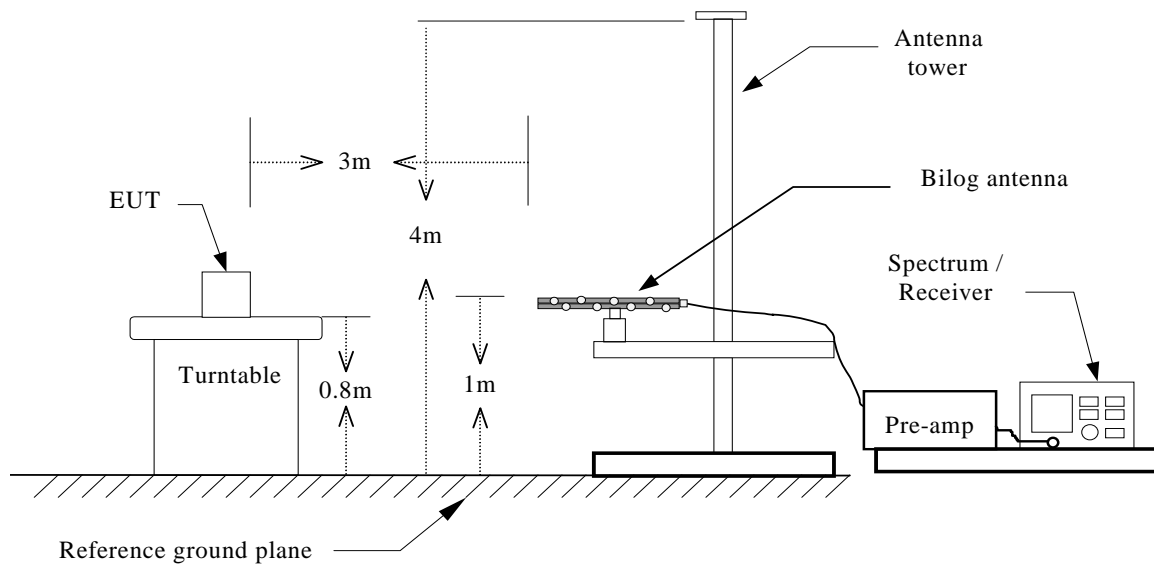


TEST CONFIGURATION

9kHz ~ 30MHz



30MHz ~ 1 GHz





TEST PROCEDURE

For 9kHz ~ 30MHz

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, The center of the loop shall be 1 m above the ground then 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 rotated of receiving antenna axis
6. Set the spectrum analyzer in the following setting as:
RBW=10kHz / VBW=30kHz / Sweep=AUTO
7. Repeat above procedures until the measurements for all frequencies are complete.

For 30MHz ~ 1GHz

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 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.

TEST RESULTS

No non-compliance noted.

**TEST DATA**

Operation Mode: TX mode (531.25kHz) **Test Date:** July 7, 2012
Temperature: 26°C **Tested by:** Shawn Wu
Humidity: 50 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit 3m (dBuV/m)	Margin (dB)	Detector Mode (PK/QP/AVG)
0.53125	37.30	24.93	62.23	73.10	-10.67	Peak
0.17	45.51	32.98	78.49	117.07	-38.57	Peak
0.22	43.53	31.27	74.80	113.43	-38.63	Peak
0.26	42.93	30.04	72.97	110.54	-37.57	Peak
0.33	39.76	28.72	68.48	105.29	-36.81	Peak
0.35	40.03	28.30	68.33	103.61	-35.28	Peak
0.43	37.75	26.98	64.72	98.36	-33.64	Peak
7.33	19.86	6.81	26.67	69.50	-42.83	Peak
9.34	13.97	6.34	20.32	69.50	-49.18	Peak
13.97	19.88	5.68	25.56	69.50	-43.94	Peak
20.46	10.30	5.40	15.70	69.50	-53.80	Peak
22.13	13.39	5.43	18.82	69.50	-50.68	Peak

Remark: 1. Measuring frequencies from 9kHz to the 1GHz.

2. Radiated emissions measured in frequency range from 9kHz to 1000MHz 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).

5. 531.25kHz Limit=20 log (24000/531.25)+40 log (30/3) =73.10



Operation Mode: TX mode (562.5kHz) **Test Date:** July 7, 2012
Temperature: 26°C **Tested by:** Shawn Wu
Humidity: 50 % RH

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit 3m (dBuV/m)	Margin (dB)	Detector Mode (PK/QP/AVG)
0.5625	35.08	24.04	59.12	72.61	-13.49	Peak
0.28	41.94	29.66	71.60	109.01	-37.42	Peak
0.30	41.08	29.31	70.39	107.63	-37.23	Peak
0.31	40.79	29.02	69.81	106.47	-36.66	Peak
0.33	40.01	28.70	68.71	105.20	-36.49	Peak
0.36	39.10	28.28	67.37	103.52	-36.14	Peak
0.39	38.20	27.60	65.80	100.86	-35.06	Peak
4.47	20.26	8.01	28.27	69.50	-41.23	Peak
7.28	20.89	6.82	27.71	69.50	-41.79	Peak
9.69	16.09	6.26	22.36	69.50	-47.14	Peak
14.46	21.25	5.62	26.87	69.50	-42.63	Peak
22.13	13.98	5.43	19.40	69.50	-50.10	Peak

Remark: 1. Measuring frequencies from 9kHz to the 1GHz.

2. Radiated emissions measured in frequency range from 9kHz to 1000MHz 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).

5. 562.5 kHz Limit=20 log (24000/562.5)+40 log (30/3) =72.61

**Operation Mode:** Normal Link (531.25kHz)**Test Date:** July 7, 2012**Temperature:** 26°C**Tested by:** Shawn Wu**Humidity:** 50 % RH**Polarity:** Ver. / Hor.

Freq. (MHz)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit 3m (dBuV/m)	Safe Margin (dB)	Ant.Pol. H/V	Detector Mode (PK/QP)
30.00	46.75	-19.87	26.88	40.00	-13.12	V	Peak
359.80	45.75	-24.93	20.82	46.00	-25.18	V	Peak
432.55	49.56	-23.19	26.36	46.00	-19.64	V	Peak
503.68	48.00	-22.18	25.81	46.00	-20.19	V	Peak
576.43	47.45	-21.25	26.20	46.00	-19.80	V	Peak
726.78	41.60	-18.52	23.08	46.00	-22.92	V	Peak
215.92	50.61	-29.23	21.38	43.50	-22.12	H	Peak
251.48	54.06	-28.31	25.75	46.00	-20.25	H	Peak
288.67	55.95	-26.57	29.37	46.00	-16.63	H	Peak
359.80	50.78	-24.93	25.84	46.00	-20.16	H	Peak
799.53	45.15	-17.48	27.67	46.00	-18.33	H	Peak
864.20	44.17	-16.71	27.46	46.00	-18.54	H	Peak

Remark:

1. No emission found between lowest internal used / generated frequency to 30 MHz. (9kHz ~ 30MHz)
2. Measuring frequencies from 30 MHz to the 1GHz.
3. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak detector mode.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. The IF bandwidth of SPA between 30MHz to 1GHz was 100kHz.

**Operation Mode:** Normal Link (562.5kHz)**Test Date:** July 7, 2012**Temperature:** 26°C**Tested by:** Shawn Wu**Humidity:** 50 % RH**Polarity:** Ver. / Hor.

Freq. (MHz)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit 3m (dBuV/m)	Safe Margin (dB)	Ant.Pol. H/V	Detector Mode (PK/QP)
30.00	47.52	-19.87	27.65	40.00	-12.35	V	Peak
97.90	56.70	-31.74	24.96	43.50	-18.54	V	Peak
432.55	49.61	-23.19	26.42	46.00	-19.58	V	Peak
503.68	47.96	-22.18	25.78	46.00	-20.22	V	Peak
576.43	47.17	-21.25	25.92	46.00	-20.08	V	Peak
860.97	41.57	-16.78	24.79	46.00	-21.21	V	Peak
251.48	53.07	-28.31	24.76	46.00	-21.24	H	Peak
288.67	55.18	-26.57	28.61	46.00	-17.39	H	Peak
359.80	51.16	-24.93	26.22	46.00	-19.78	H	Peak
720.32	42.90	-18.63	24.27	46.00	-21.73	H	Peak
799.53	45.04	-17.48	27.57	46.00	-18.43	H	Peak
864.20	45.16	-16.71	28.45	46.00	-17.55	H	Peak

Remark:

1. No emission found between lowest internal used / generated frequency to 30 MHz. (9kHz ~ 30MHz)
2. Measuring frequencies from 30 MHz to the 1GHz.
3. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak detector mode.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. The IF bandwidth of SPA between 30MHz to 1GHz was 100kHz.



7.2. POWERLINE CONDUCTED EMISSIONS

LIMIT

For an intentional radiator which 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 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

Frequency Range (MHz)	Limits (dB μ 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

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

TEST CONFIGURATION

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

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.

**TEST DATA**

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: Charging**Test Date:** July 10, 2012**Temperature:** 24°C**Tested by:** Tank Wu**Humidity:** 50% 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
0.1500	30.96	17.94	9.87	40.83	27.81	65.99	56.00	-25.16	-28.19	L1
0.1675	33.65	17.44	9.87	43.52	27.31	65.08	55.08	-21.56	-27.77	L1
0.1996	32.97	22.02	9.87	42.84	31.89	63.62	53.63	-20.78	-21.74	L1
0.2197	28.98	14.70	9.87	38.85	24.57	62.83	52.83	-23.98	-28.26	L1
0.2956	25.49	12.73	9.88	35.37	22.61	60.36	50.37	-24.99	-27.76	L1
0.5855	21.84	12.90	9.89	31.73	22.79	56.00	46.00	-24.27	-23.21	L1
N/A										
0.1533	30.62	21.68	9.63	40.25	31.31	65.81	55.82	-25.56	-24.51	L2
0.2053	32.67	27.37	9.64	42.31	37.01	63.39	53.39	-21.08	-16.38	L2
0.2880	22.97	11.72	9.65	32.62	21.37	60.58	50.58	-27.96	-29.21	L2
0.4727	24.07	10.84	9.66	33.73	20.50	56.47	46.47	-22.74	-25.97	L2
0.9420	17.40	10.65	9.69	27.09	20.34	56.00	46.00	-28.91	-25.66	L2
13.0386	13.28	4.61	10.06	23.34	14.67	60.00	50.00	-36.66	-35.33	L2
N/A										

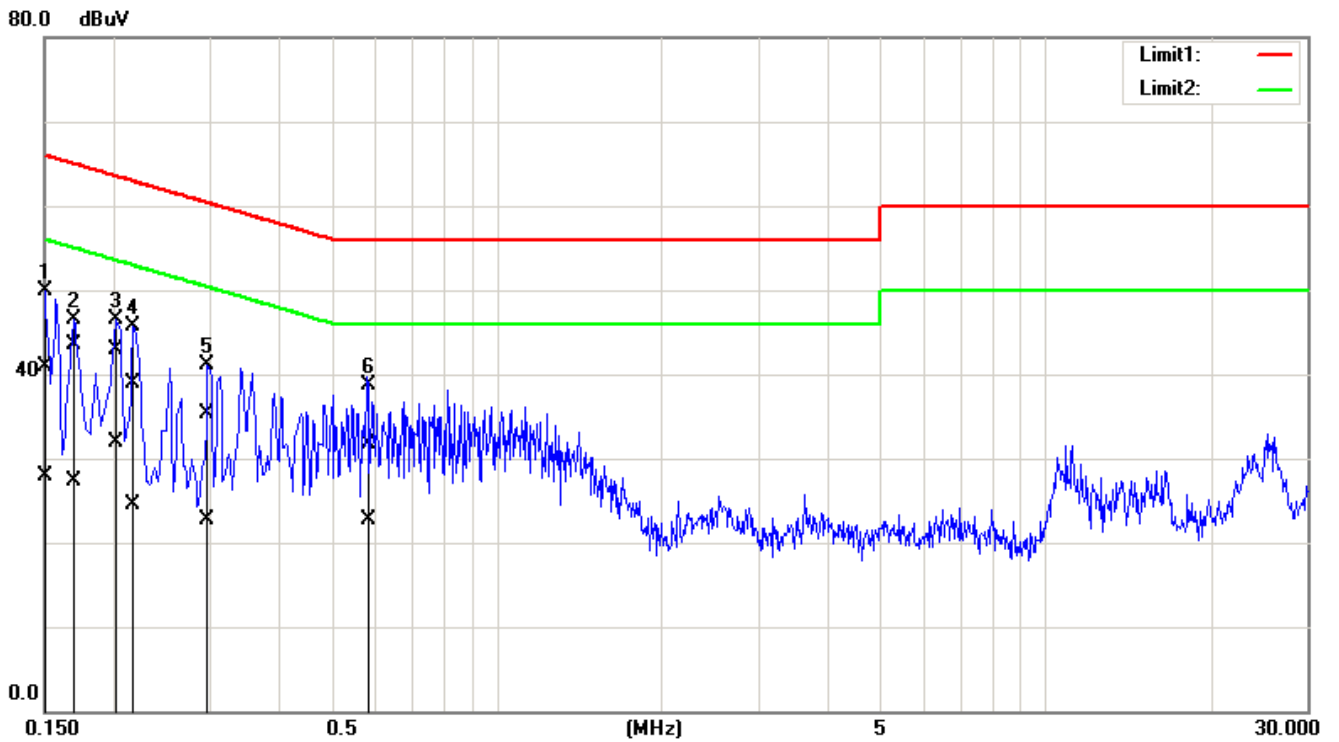
Remark:

1. Measuring frequencies from 0.15 MHz to 30MHz.
2. The emissions measured in frequency range from 0.15 MHz to 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)



Test Plots

Conducted emissions (Line 1)



Conducted emissions (Line 2)

