FCC 47 CFR PART 15 Subpart C

TEST REPORT

For

PECO T205

Model Number: RW205

Trade Name: PECO

Issued to

PECO Inc.
4707 SE 17th Avenue P.O. Box 82189,
Portland, OR 97282

Issued by

Compliance Certification Services Inc.
No. 81-1, Lane 210, Pa-De 2nd Rd., Luchu Hsiang,
Taoyuan Shien, (338) Taiwan, R.O.C.
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Testing Laboratory
0363

Revision History

Rev.		Issue Date		Revisions	Effect Page	Revised By
00		July 14, 2009		Initial Issue	ALL	Jill Shiau

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1 TEST RESULT CERTIFICATION

Applicant:	**PECO Inc.** 4707 SE 17th Avenue P.O. Box 82189, Portland, OR 97282
Manufacturer:	**PECO Inc.** 4707 SE 17th Avenue P.O. Box 82189, Portland, OR 97282
Equipment Under Test:	PECO T205
Trade Name:	PECO
Model:	RW205
Date of Test:	June 5 ~ 30, 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 EUT tested as described in this report is in compliance with the requirements emission limits of FCC Rules Part 15.207, 15.209 and 15.249.
The test results of this report relate only to the tested sample identified in this report.

Approved by:

David Wang
Director

Reviewed by:

Ethan Huang
Section Manager

2 EUT DESCRIPTION

Product	PECO T205
Trade Name	PECO
Model Number	RW205
Model Discrepancy	N/A
Power Supply	24VAC
Frequency Range	902 MHz to 928 MHz.
Modulation Technique	FHSS with FSK on each channel
Antenna Designation	Monopole antenna / Gain: 3.99dBi

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: XDTRW205** filing to comply with Section 15.107 & 15.109 (FCC Part 15, Subpart B) and Section 15.207, 15.209, 15.249 (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 2, 15.207, 15.209 and 15.249.

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.

According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209,15.249 under the FCC Rules Part 15 Subpart C.

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: RW205) has been tested under operating condition.

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

Channel Low (902.5MHz), Channel Mid (915MHz) and Channel High (927.5MHz) were chosen for the final 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.*

Conducted Emission Test Site				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Spectrum Analyzer	Agilnet	E4446A	MY48250064	10/28/2009
Spectrum Analyzer	R&S	FSEB	825829/011	10/29/2009

3M Chamber Test Site				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Spectrum Analyzer	R&S	FSEB	825829/011	10/29/2009
Pre-Amplifier	HP	8447D	2944A06530	12/31/2009
Pre-Amplifier	HP	8449B	3008A01738	04/17/2010
EMI Test Receiver	SCHAFFNER	SCR 3501	436	01/21/2010
Loop Antenna	EMCO	6502	2356	05/28/2010
Bilog Antenna	SCHWAZBECK	VULB9160	3084	09/08/2009
Horn Antenna	EMCO	3115	00022250	05/08/2010
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
Test S/W	LabVIEW 6.1 (Wugu Chamber EMI Teat V1_4.5.3)			

Conducted Emission Test Site # 3				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
EMI Test Receiver	R&S	ESCS30	845552/030	05/18/2010
LISN	R&S	ENV216	100074	12/09/2009
LISN	FCC	FCC-LISN-50/ 250-16-2-07	06013	10/12/2009
Test S/W	CCS-3A1-CE-Luchu			

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, Pa-De 2nd Rd., Luchu Hsiang, Taoyuan Shien, (338) 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	A2LA	CFR 47, FCC Part15/18, CISPR 22, EN 55022, ICES-003, AS/NZS CISPR 22, VCCI V-3, EN 55011, CISPR 11, IEC/EN 61000-4-2/3/4/5/6/8/11, EN 61000-6-1/2/3/4, EN 55024, CISPR 24, AS/NZS CISPR 24, AS/NZS 61000.6.2, EN 55014-1/-2, ETSI EN 300 386 v1.3.2/v1.3.3, IEC/EN 61000-3-2, AS/NZS 61000.3.2, IEC/EN 61000-3-3, AS/NZS 61000.3.3	ACCREDITED No. 0824-01
USA	FCC MRA	3/10 meter Open Area Test Sites to perform FCC Part 15/18 measurements	TW1026
Japan	VCCI	3/10 meter Open Area Test Sites and conducted test sites to perform radiated/conducted measurements	VCCI R-2882/2541/2798/725/1868 C-402/747/912 T-321/325
Taiwan	TAF	EN 55014-1, CISPR 14, CNS 13781-1, EN 55013, CISPR 13, CNS 13439, EN 55011, CISPR 11, CNS 13803, PLMN09, IS2045-0, LP0002 FCC Part 27/90, Part 15B/C/D/E, RSS-192/193/210/310 ETSI EN 300 328/ 300 220-1/ 300 220-2/ 301 893/ 301 489-01/ 301 489-03/ 301 489-07 / 301 489-17/ 300 440-1/ 300 440-2 AS/NZS 4268, AS/NZS 4771 CISPR 22, EN 55022, CNS 13438, AS/NZS CISPR 22, VCCI, IEC/EN 61000-4-2/3/4/5/6/8/11, CNS 14676-2/3/4/5/6/8, CNS 14934-2/3, CNS 13783-1, CNS 13439, CNS 13803	ilac-MRA TAF Testing Laboratory 0363
Taiwan	BSMI	CNS 13438, CNS 13783-1, CNS 13439, CNS 14115	SL2-IS-E-0014 / IN-E-0014 /A1-E-0014 /R1-E-0014 /R2-E-0014 /L1-E-0014
Canada	Industry Canada	RSS212, Issue 1	Canada IC 2324C-3 IC 2324C-5

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
	N/A						

****No any support equipment during the test.**

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

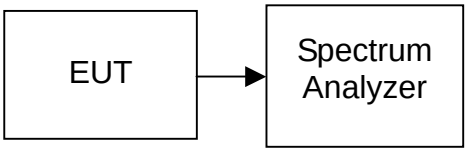
7 FCC PART 15.249 REQUIREMENTS

7.1. 20dB BANDWIDTH

LIMIT

None; for reporting purposes only.

TEST CONFIGURATION



TEST PROCEDURE

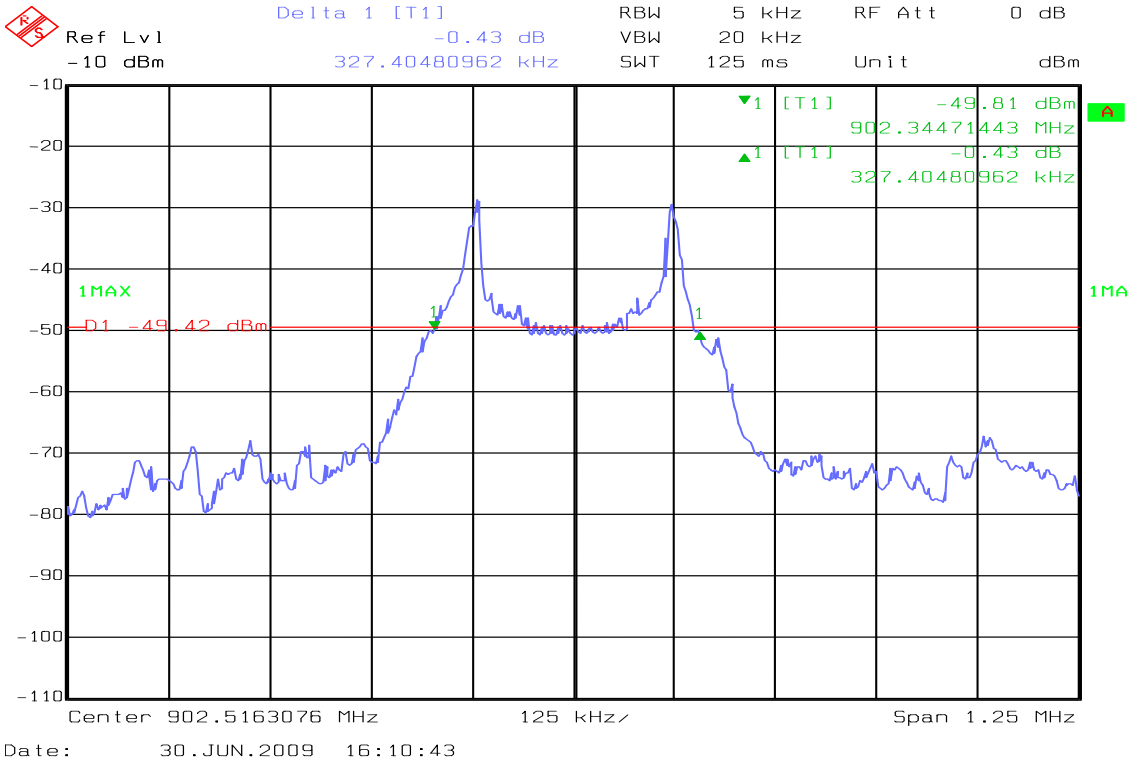
1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW=5kHz, VBW = 20kHz, Span = 2.5MHz, Sweep = auto.
4. Mark the peak frequency and 20dB (upper and lower) frequency.
5. Repeat until all the rest channels are investigated.

TEST RESULTS

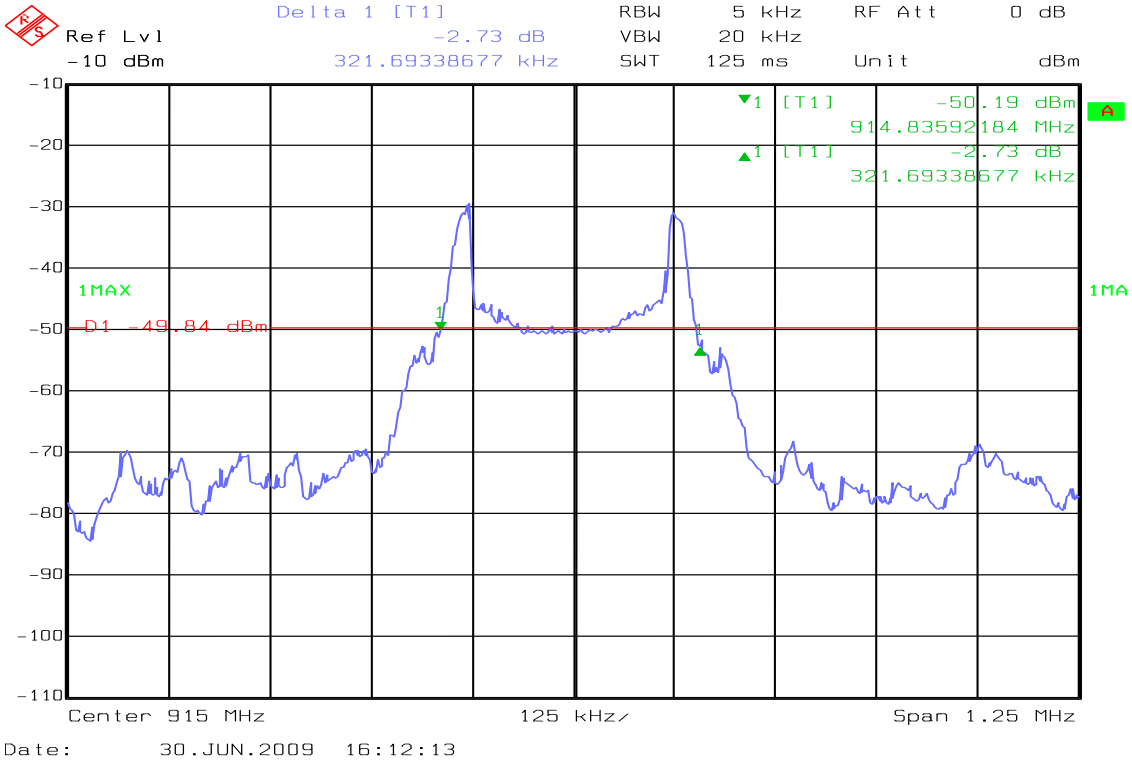
No non-compliance noted

Test Plot

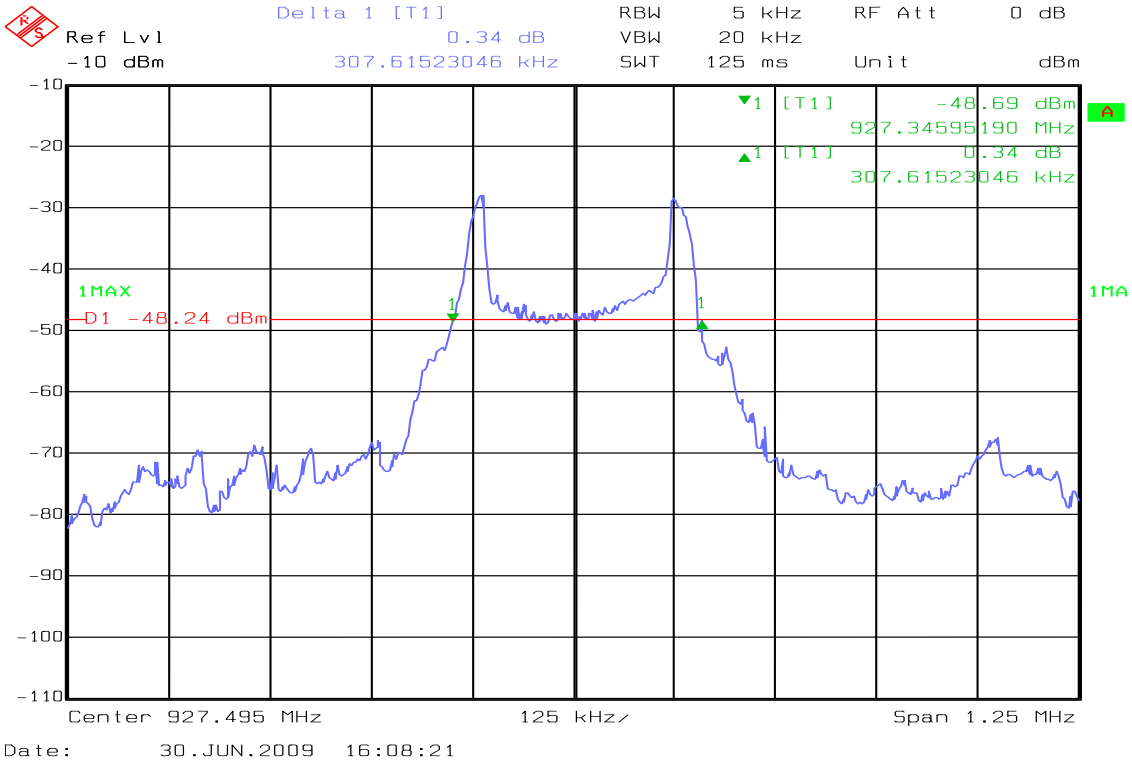
20dB Bandwidth / CH Low



20dB Bandwidth / CH Mid



20dB Bandwidth / CH High



7.2. RADIADTED EMISSION

LIMIT

1. In the section 15.249(a):
   Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency (MHz)	Field Strength of Fundamental Field Strength (mV/m)	Field Strength of Harmonics (μV/m)
902-928 MHz	50	500
2400 - 2483.5 MHz	50	500
5725 - 5875 MHz	50	500
24.0 - 24.25 GHz	250	2500

2. 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)
30-88	100*	3
88-216	150*	3
216-960	200*	3
Above 960	500	3

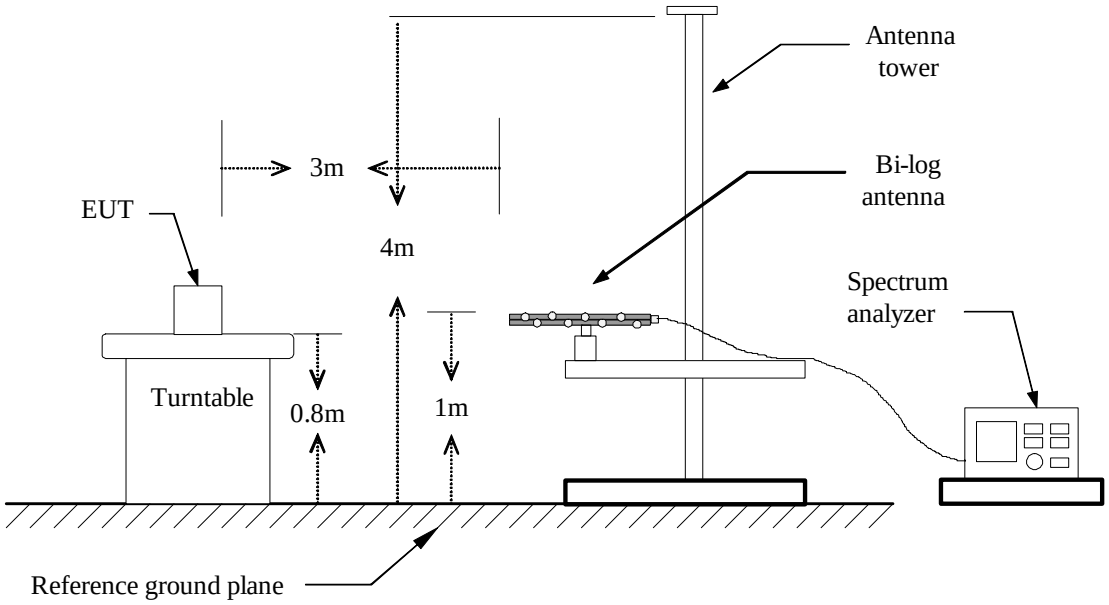
Remark: *Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of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

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

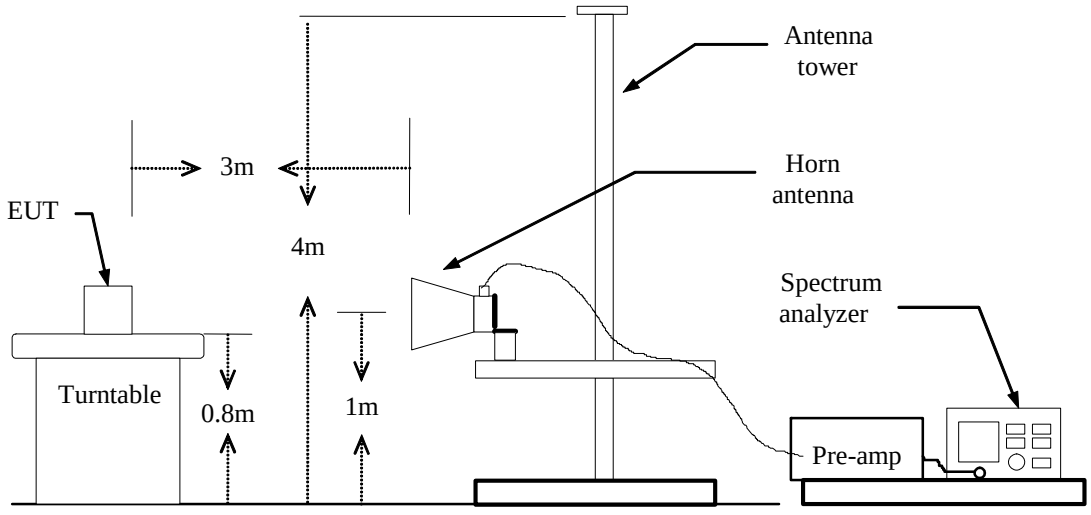
Frequency (MHz)	Field Strength (μV/m at 3-meter)	Field Strength (dBμV/m at 3-meter)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

TEST CONFIGURATION

Below 1 GHz



Above 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:
   Below 1GHz:
   RBW=100kHz / VBW=300kHz / Sweep=AUTO
   Above 1GHz:
   (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
   (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO
7. Repeat above procedures until the measurements for all frequencies are complete.

TEST RESULTS

No non-compliance noted.

TEST DATA

Below 1 GHz

Operation Mode: TX / CH Low **Test Date:** June 27, 2009

Temperature: 18°C **Tested by:** Stan Lin

Humidity: 60% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Ant.Pol. (H/V)	Detector Mode (PK/QP)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit 3m (dBuV/m)	Margin (dB)
902.3999	V	QP	85.56	-0.20	85.36	94.00	-8.64
39.7000	V	QP	49.66	-14.96	34.70	40.00	-5.30
61.5250	V	QP	49.66	-14.92	34.74	40.00	-5.26
107.6000	V	QP	48.44	-15.72	32.72	43.50	-10.78
129.4250	V	QP	46.18	-13.56	32.62	43.50	-10.88
197.3250	V	QP	42.61	-14.61	28.00	43.50	-15.50
827.8250	V	QP	33.34	-1.92	31.42	46.00	-14.58
902.3875	H	QP	89.09	-0.20	88.89	94.00	-5.11
59.1000	H	QP	37.54	-14.62	22.92	40.00	-17.08
107.6000	H	QP	40.56	-15.72	24.84	43.50	-18.66
131.8500	H	QP	48.68	-13.62	35.06	43.50	-8.44
202.1750	H	QP	40.88	-14.60	26.28	43.50	-17.22
456.8000	H	QP	33.42	-8.41	25.01	46.00	-20.99
801.1500	H	QP	33.90	-2.14	31.76	46.00	-14.24

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:	TX / CH Mid	**Test Date:**	June 27, 2009
Temperature:	18°C	**Tested by:**	Stan Lin
Humidity:	60% RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Ant.Pol. (H/V)	Detector Mode (PK/QP)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit 3m (dBuV/m)	Margin (dB)
914.8700	V	QP	84.29	0.06	84.35	94.00	-9.65
39.7000	V	QP	50.87	-14.96	35.91	40.00	-4.09
66.3750	V	QP	49.90	-15.77	34.13	40.00	-5.87
73.6500	V	QP	48.15	-17.01	31.14	40.00	-8.86
105.1750	V	QP	48.07	-16.18	31.89	43.50	-11.61
136.7000	V	QP	45.57	-13.74	31.83	43.50	-11.67
160.9500	V	QP	42.43	-12.34	30.09	43.50	-13.41
175.5000	V	QP	43.35	-13.92	29.43	43.50	-14.07
914.8700	H	QP	89.29	0.06	89.35	94.00	-4.65
39.7000	H	QP	37.14	-14.96	22.18	40.00	-17.82
61.5250	H	QP	38.45	-14.92	23.53	40.00	-16.47
105.1750	H	QP	41.35	-16.18	25.17	43.50	-18.33
117.3000	H	QP	42.57	-13.83	28.74	43.50	-14.76
129.4250	H	QP	49.94	-13.56	36.38	43.50	-7.12
173.0750	H	QP	41.01	-13.66	27.35	43.50	-16.15
735.6750	H	QP	32.80	-3.51	29.29	46.00	-16.71

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:	TX / CH High	**Test Date:**	June 27, 2009
Temperature:	18°C	**Tested by:**	Stan Lin
Humidity:	60% RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Ant.Pol. (H/V)	Detector Mode (PK/QP)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit 3m (dBuV/m)	Margin (dB)
927.3750	V	QP	83.33	0.33	83.66	94.00	-10.34
39.7000	V	QP	50.02	-14.96	35.06	40.00	-4.94
66.3750	V	QP	48.69	-15.77	32.92	40.00	-7.08
105.1750	V	QP	48.30	-16.18	32.12	43.50	-11.38
129.4250	V	QP	45.50	-13.56	31.94	43.50	-11.56
175.5000	V	QP	46.20	-13.92	32.28	43.50	-11.22
190.0500	V	QP	45.31	-14.52	30.79	43.50	-12.71
427.7000	V	QP	36.39	-9.38	27.01	46.00	-18.99
927.6250	H	QP	89.40	0.33	89.73	94.00	-4.27
66.3750	H	QP	39.65	-15.77	23.88	40.00	-16.12
117.3000	H	QP	42.92	-13.83	29.09	43.50	-14.41
129.4250	H	QP	49.00	-13.56	35.44	43.50	-8.06
173.0750	H	QP	40.57	-13.66	26.91	43.50	-16.59
190.0500	H	QP	43.04	-14.52	28.52	43.50	-14.98
454.3750	H	QP	34.34	-8.39	25.95	46.00	-20.05
801.1500	H	QP	33.56	-2.14	31.42	46.00	-14.58

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.*

Above 1 GHz

Operation Mode:	TX / CH Low	**Test Date:**	June 27, 2009
Temperature:	18°C	**Tested by:**	Stan Lin
Humidity:	60% RH	**Polarity:**	Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Result		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1805.000	V	49.69	---	-3.12	46.57	---	74.00	54.00	-27.43	Peak
3135.000	V	44.17	---	3.29	47.46	---	74.00	54.00	-26.54	Peak
3495.000	V	43.08	---	4.56	47.64	---	74.00	54.00	-26.36	Peak
4185.000	V	43.10	---	8.17	51.27	---	74.00	54.00	-22.73	Peak
N/A										
1805.000	H	54.92	---	-3.12	51.80	---	74.00	54.00	-22.20	Peak
N/A	H									

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average limit or as required by the applicant.*
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. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" no emission measured 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.*

Operation Mode:	TX / CH Mid	**Test Date:**	June 27, 2009
Temperature:	18°C	**Tested by:**	Stan Lin
Humidity:	60% RH	**Polarity:**	Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Result		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1760.000	V	51.18	---	-3.45	47.73	---	74.00	54.00	-26.27	Peak
N/A										
1760.000	H	54.55	---	-3.45	51.10	---	74.00	54.00	-22.90	Peak
3277.500		43.99	---	3.79	47.78	---	74.00	54.00	-26.22	Peak
N/A										

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average limit or as required by the applicant.*
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. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" no emission measured 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.*

Operation Mode:	TX / CH High	**Test Date:**	June 27, 2009
Temperature:	18°C	**Tested by:**	Stan Lin
Humidity:	60% RH	**Polarity:**	Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Result		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1760.000	V	50.46	---	-3.45	47.01	---	74.00	54.00	-26.99	Peak
N/A										
1760.000	H	54.58	---	-3.45	51.13	---	74.00	54.00	-22.87	Peak
N/A										

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average limit or as required by the applicant.*
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. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" no emission measured 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.*

7.3. 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 µH/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 (dBµV)	
	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 CONFIGURATION

See test photographs attached in Appendix 1 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

Operation Mode:	Charging	**Test Date:**	June 5, 2009
Temperature:	25°C	**Tested by:**	Stan Lin
Humidity:	50% RH		

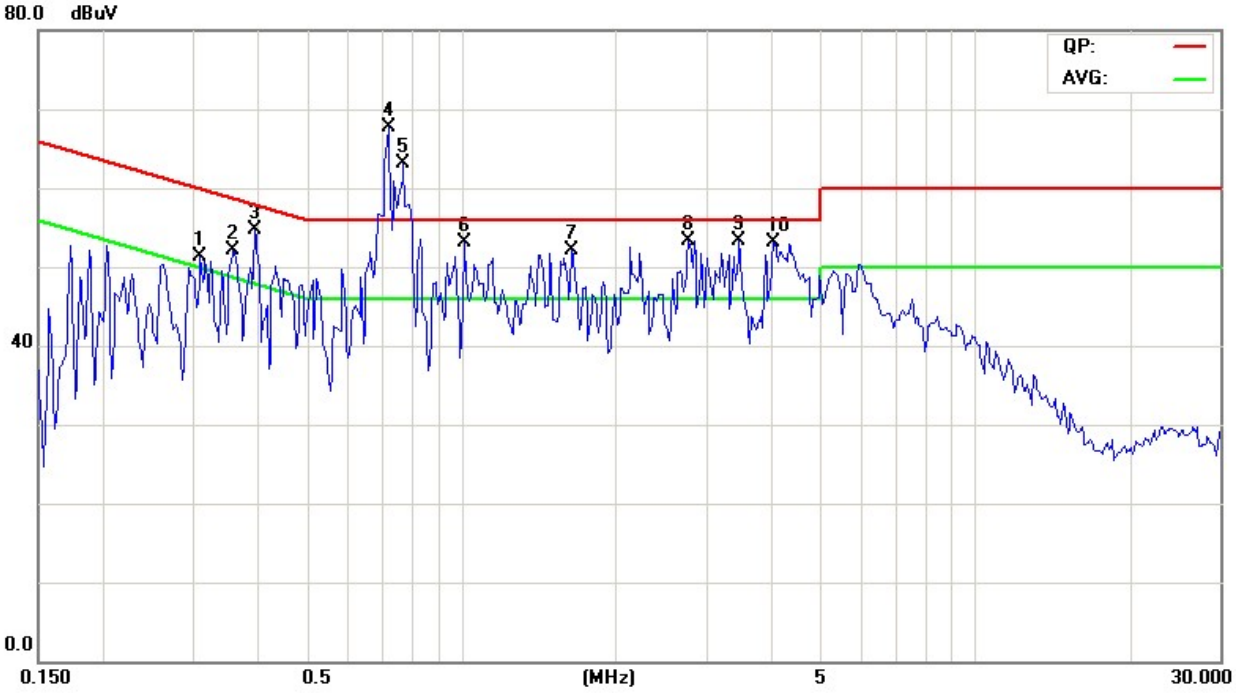
Freq. (MHz)	QP Reading	AV Reading	Corr. factor	QP Result	AV Result	QP Limit	AV Limit	QP Margin	AV Margin	Note
0.3102	40.42	29.92	9.68	50.10	39.60	59.97	49.97	-9.87	-10.37	L1
0.3609	39.62	29.52	9.68	49.30	39.20	58.71	48.71	-9.41	-9.51	L1
0.3961	42.22	31.92	9.68	51.90	41.60	57.93	47.93	-6.03	-6.33	L1
0.7203	43.51	32.91	9.59	53.10	42.50	56.00	46.00	-2.90	-3.50	L1
0.7750	43.71	33.31	9.59	53.30	42.90	56.00	46.00	-2.70	-3.10	L1
1.0133	39.61	28.31	9.59	49.20	37.90	56.00	46.00	-6.80	-8.10	L1
1.6422	37.94	25.84	9.66	47.60	35.50	56.00	46.00	-8.40	-10.50	L1
2.7672	39.20	27.90	9.70	48.90	37.60	56.00	46.00	-7.10	-8.40	L1
3.4820	36.59	23.49	9.71	46.30	33.20	56.00	46.00	-9.70	-12.80	L1
4.0602	38.88	27.48	9.72	48.60	37.20	56.00	46.00	-7.40	-8.80	L1
0.2008	40.31	26.51	9.69	50.00	36.20	63.58	53.58	-13.58	-17.38	L2
0.2633	42.71	31.51	9.69	52.40	41.20	61.33	51.33	-8.93	-10.13	L2
0.3102	41.01	27.91	9.69	50.70	37.60	59.97	49.97	-9.27	-12.37	L2
0.3531	41.31	28.81	9.69	51.00	38.50	58.89	48.89	-7.89	-10.39	L2
0.4430	40.05	26.85	9.65	49.70	36.50	57.01	47.01	-7.31	-10.51	L2
0.7086	43.50	34.10	9.60	53.10	43.70	56.00	46.00	-2.90	-2.30	L2
0.7477	43.30	33.60	9.60	52.90	43.20	56.00	46.00	-3.10	-2.80	L2
0.9781	38.70	27.20	9.60	48.30	36.80	56.00	46.00	-7.70	-9.20	L2
2.8023	38.19	26.29	9.71	47.90	36.00	56.00	46.00	-8.10	-10.00	L2
4.1891	43.66	34.06	9.74	53.40	43.80	56.00	46.00	-2.60	-2.20	L2

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. *"---" denotes the emission level was or more than 2dB below the Average limit*
4. *The IF bandwidth of SPA between 0.15MHz to 30MHz was 10kHz; the IF bandwidth of Test Receiver between 0.15MHz to 30MHz was 9kHz;*
5. *L1 = Line One (Live Line) / L2 = Line Two (Neutral Line)*

Test Plots

Conducted emissions (Line 1)



Conducted emissions (Line 2)