FCC 47 CFR PART 15 Subpart C

TEST REPORT

For

Power Monitor

Model Number: TD1030Z1

Trade Name: GOOD WAY

Issued to

GOOD WAY TECHNOLOGY CO., LTD.

3F, No. 135, Ln. 235, Baociao Rd., Sindian Dist., New Taipei City 231, Taiwan, R.O.C.

Issued by



Compliance Certification Services Inc.
No.11, Wu-Gong 6th Rd., Wugu Industrial Park,
New Taipei City 248, Taiwan (R.O.C.)
http://www.ccsrf.com
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Issued Date: August 16, 2011



Report No.: T110804213-RP1

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Revision History

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Rev.		Issue Date	Revisions	Effect Page	Revised By
00	A	August 16, 2011	Initial Issue	ALL	Sandy Lin

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1. TEST RESULT CERTIFICATION

Applicant: GOOD WAY TECHNOLOGY CO., LTD.

3F, No. 135, Ln. 235, Baociao Rd., Sindian Dist., New Taipei City

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231, Taiwan, R.O.C.

Equipment Under Test: Power Monitor

Trade Name: GOOD WAY

Model Number: TD1030Z1

Date of Test: August 8 ~ 15, 2011

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 15.107, 15.109,15.207, 15.209 and 15.249.

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

Approved by:

Rex Lai

Section Manager

Compliance Certification Services Inc.

Reviewed by:

Gina Lo

Section Manager

Compliance Certification Services Inc.

Gina Lo

2. EUT DESCRIPTION

Product	Power Monitor
Trade Name	GOOD WAY
Model Number	TD1030Z1
Model Discrepancy	N/A
Received Date	August 4, 2011
Power Supply	AC110~120V/60Hz
Frequency Range	908 MHz
Modulation Technique	FSK
Antenna Gain	2.13 dBi
Antenna Designation	PCB Antenna

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- 1. The sample selected for test was production product and was provided by manufacturer.
- 2. This submittal(s) (test report) is intended for FCC ID: <u>SW8TD1030</u> filing to comply with Section 15.107 & 15.109 (FCC Part 15, Subpart B) and Section 15.207, 15.209, 15.249.

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4 and FCC CFR 47 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055, 2.1057, 15.207, 15.209 and 15.249.

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3.1EUT 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.

3.2EUT 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 15.107 and 15.109 under the FCC Rules Part 15 Subpart B and Section 15.207, 15.209,15.249 under the FCC Rules Part 15 Subpart C.

3.3GENERAL 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 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.

3.4FCC 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:

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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	$\binom{2}{}$
13.36 - 13.41	322 - 335.4		

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

(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.

3.5DESCRIPTION OF TEST MODES

The EUT (model: TD1030Z1) had been tested under operating condition.

After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz, which worst case was in normal link mode only, and powerline conducted emission below 30MHz, which worst case was in normal link mode.

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

² Above 38.6

4. INSTRUMENT CALIBRATION

4.1MEASURING 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.

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4.2MEASUREMENT 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.

Conducted Emissions Test Site				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY43360131	03/02/2012

Wugu 966 Chamber A					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due	
Spectrum Analyzer	Agilent	E4446A	US42510252	11/02/2012	
EMI Test Receiver	R&S	ESCI	100064	02/03/2012	
Pre-Amplifier	Mini-Circults	ZFL-1000LN	SF350700823	01/12/2012	
Pre-Amplifier	MITEQ	AFS44-00102650- 42-10P-44	1415367	11/19/2011	
Bilog Antenna	Sunol Sciences	JB3	A030105	10/06/2011	
Horn Antenna	EMCO	3117	00055165	01/12/2012	
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	12/26/2011	
Test S/W		EZ-EMC ((CCS-3A1RE)		

Conducted Emission room # B					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due	
TEST RECEIVER	R&S	ESCI	100234	06/13/2012	
LISN (EUT)	FCC	FCC-LISN-50-32-2	08009	03/27/2012	
LISN	SCHWARZBECK	NSLK 8127	8127382	01/02/2012	
BNC CABLE	MIYAZAKI	5D-FB	BNC B3	08/09/2012	
Pulse Limiter	R&S	ESH3-Z2	100374	01/09/2012	
THERMO- HYGRO METER	WISEWIND	201A	1006	05/23/2012	
Test S/W		EZ-EN	ЛС		

4.3 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
Powerline Conducted Emission	+/- 1.1089
3M Semi Anechoic Chamber / 30M~200M	+/- 4.0606
3M Semi Anechoic Chamber / 200M~1000M	+/- 3.9979
3M Semi Anechoic Chamber / 1G~8G	+/- 2.5790
3M Semi Anechoic Chamber / 8G~18G	+/- 2.5928
3M Semi Anechoic Chamber / 18G~26G	+/- 2.7212
3M Semi Anechoic Chamber / 26G~40G	+/- 2.9520

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

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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

Remark: The radiated emissions test items was tested at Compliance Certification Services Inc. (Sindian Lab.) The test equipments were listed in page 8 and the test data, please refer page 22-23.

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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 and CISPR Publication 22.

5.2EQUIPMENT

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."

5.3TABLE 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	Canada IC 2324G-1 IC 2324G-2

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^{*} 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

6.1SETUP CONFIGURATION OF EUT

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

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6.2SUPPORT EQUIPMENT

No.	Device Type	Model	Series No.	FCC ID	Brand	Data Cable	Power Cord
1.	USB Mouse	MO56UC	443007221	DOC BSMI: R41108	DELL	Shielded, 1.8m	N/A
2.	USB Keyboard	SK-8115	N/A	DOC BSMI: T3A002	DELL	Shielded, 1.8m	N/A
3	Modem	AL-56ERM	0MERM04A0223	DOC	GALILEO	Shielded, 1.0m	Unshielded, 1.8m
4	Monitor	933SN+	N/A	DOC BSMI: R33475	SAMSUNG	Shielded, 1.8m with two cores	Unshielded, 1.8m
5	Host PC	DCTA	N/A	N/A	DELL	N/A	Unshielded, 1.8m
6	Printer	Deskjet D2360	TH73C1492F	DOC BSMI: R33001	HP	Shielded, 1.8m	Unshielded, 1.8m
7	Server Notebook	Compaq 2210b	CNU7472KDP	N/A	HP	N/A	Unshielded, 1.8m

- 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.

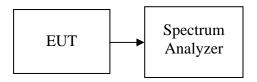
7. FCC PART 15.249 REQUIREMENTS

7.120 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.

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- 3. Set the spectrum analyzer as RBW=3kHz, VBW = 10kHz, Span = 500kHz, Sweep = auto.
- 4. Mark the peak frequency and 20dB (upper and lower) frequency.
- 5. Repeat until all the rest channels are investigated.

TEST RESULTS

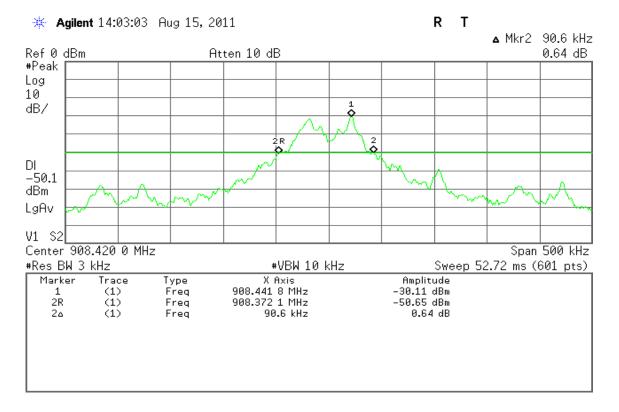
No non-compliance noted

Test Data

Frequency	20dB Bandwidth	
(MHz)	(kHz)	
908	90.6	

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Test Plot



7.2SPURIOUS 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:

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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.

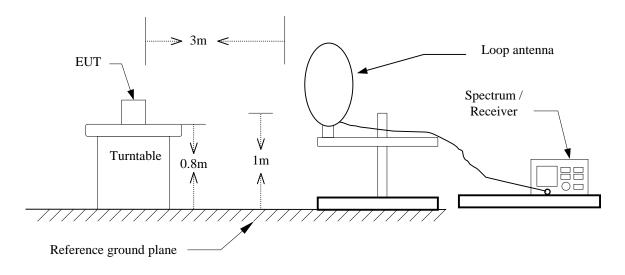
3. In the above emission table, the tighter limit applies at the band edges.

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		

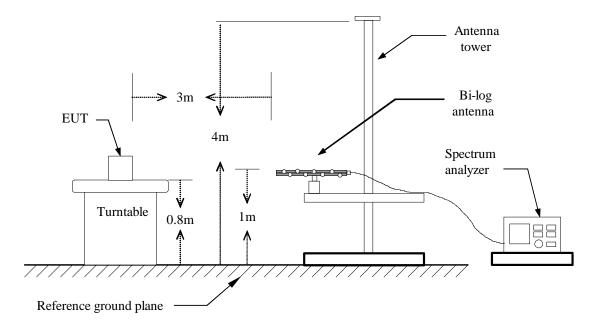


Test Configuration

$9kHz \sim 30MHz$

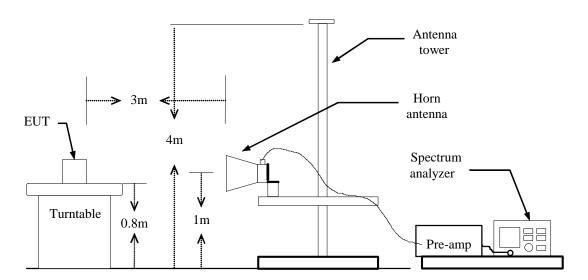


$30MHz \sim 1GHz$





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.

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- 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.

Below 1 GHz

Operation Mode: Normal Link Test Date: August 10, 2011

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Temperature: 24°C **Tested by:** Ali Shu

Humidity: 43% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Pol. (H/V)	
39.70	39.52	-9.01	30.51	40.00	-9.49	Peak	V	
62.33	48.75	-15.66	33.09	40.00	-6.91	Peak	V	
110.83	41.31	-11.16	30.16	43.50	-13.34	Peak	V	
175.50	40.63	-11.39	29.24	43.50	-14.26	Peak	V	
243.40	40.06	-11.03	29.04	46.00	-16.96	Peak	V	
419.62	32.81	-6.61	26.20	46.00	-19.80	Peak	V	
107.60	34.48	-11.72	22.76	43.50	-20.74	Peak	Н	
178.73	37.88	-11.56	26.32	43.50	-17.18	Peak	Н	
272.50	39.97	-9.53	30.44	46.00	-15.56	Peak	Н	
308.07	41.63	-9.05	32.58	46.00	-13.42	Peak	Н	
364.65	38.85	-7.77	31.08	46.00	-14.92	Peak	Н	
447.10	31.81	-5.93	25.88	46.00	-20.12	Peak	Н	

- 1. No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz).
- 2. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using peak/quasi-peak detector mode.
- 3. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit or as required by the applicant.
- 4. 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.
- 5. Margin(dB) = Remark result(dBuV/m) Quasi-peak limit(dBuV/m).

Above 1 GHz

Operation Mode: Tx / CH Low **Test Date:** August 10, 2011

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Temperature: 24°C **Tested by:** Ali Shu

Humidity: 43% RH **Polarity:** Ver. / Hor.

Euro	Peak AV		Ant. / CL	Result		Peak	AV	Mausin		A 4 D - 1
Freq. (MHz)	Reading (dBuV)	Reading (dBuV)	CF (dB/m)	Peak (dBuV/m)	AV (dBuV/m)	Limit (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant. Pol H/V
908.40	80.84		-0.48	80.36		94.00		-13.64	Peak	V
1823.33	51.17		-7.26	43.91		74.00	54.00	-10.09	Peak	V
2410.00	51.77		-4.24	47.53		74.00	54.00	-6.47	Peak	V
2440.00	50.69		-4.12	46.58		74.00	54.00	-7.42	Peak	V
2720.00	49.35		-3.12	46.23		74.00	54.00	-7.77	Peak	V
N/A										
908.40	82.85		-0.48	82.37		94.00		-11.63	Peak	Н
1600.00	51.52		-9.53	41.99		74.00	54.00	-12.01	Peak	Н
2426.67	49.88		-4.17	45.71		74.00	54.00	-8.29	Peak	Н
2960.00	49.12		-2.31	46.81		74.00	54.00	-7.19	Peak	Н
N/A										

- 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" 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.
- 6. $Margin(dB) = Remark\ result\ (dBuV/m) Average\ limit\ (dBuV/m)$. Peak detector mode and average detector mode of the emission shown in Result column.

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 μ 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.

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Frequency Range (MHz)	Limits (dBμV)				
(MIIIZ)	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 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.

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Test Data

Operation Mode: Normal Link **Test Date:** August 8, 2011

Temperature: 26°C **Tested by:** Andy Lin

Humidity: 43% RH

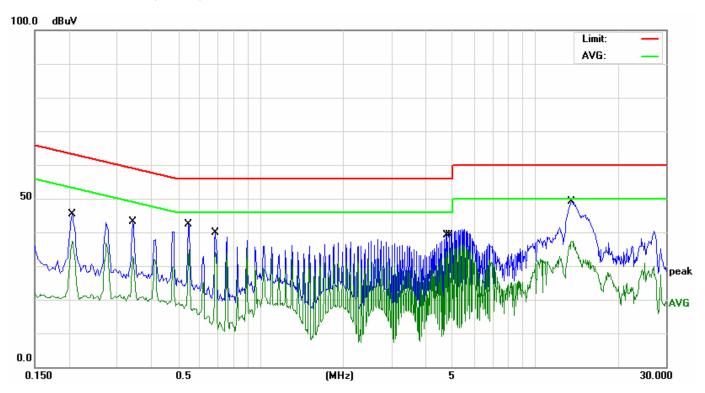
Freq. (MHz)	QP Reading (dBuV)	AV Reading (dBuV)	Corr. factor (dB)	QP Result (dBuV)	AV Result (dBuV)	QP Limit (dBuV)	AV Limit (dBuV)	QP Margin (dB)	AV Margin (dB)	Note
0.2060	30.15	27.16	10.15	40.30	37.31	63.36	53.36	-23.06	-16.05	L1
0.3420	30.63	22.72	10.04	40.67	32.76	59.15	49.15	-18.48	-16.39	L1
0.5460	30.47	24.87	10.02	40.49	34.89	56.00	46.00	-15.51	-11.11	L1
0.6860	30.54	24.05	10.01	40.55	34.06	56.00	46.00	-15.45	-11.94	L1
4.8619	30.69	24.14	10.05	40.74	34.19	56.00	46.00	-15.26	-11.81	L1
13.5579	30.15	27.12	10.24	40.39	37.36	60.00	50.00	-19.61	-12.64	L1
0.2060	30.12	25.24	10.01	40.13	35.25	63.36	53.36	-23.23	-18.11	L2
0.3420	30.63	22.41	9.92	40.55	32.33	59.15	49.15	-18.60	-16.82	L2
0.5460	30.74	24.85	9.92	40.66	34.77	56.00	46.00	-15.34	-11.23	L2
0.6820	30.72	24.76	9.91	40.63	34.67	56.00	46.00	-15.37	-11.33	L2
4.9979	30.19	26.15	9.97	40.16	36.12	56.00	46.00	-15.84	-9.88	L2
14.3139	30.54	21.53	10.18	40.72	31.71	60.00	50.00	-19.28	-18.29	L2

- 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 SPN between 0.15MHz to 30MHz was 10kHz; the IF bandwidth of Test Receiver between 0.15MHz to 30MHz was 9kHz;
- 4. $L1 = Line\ One\ (Live\ Line) / L2 = Line\ Two\ (Neutral\ Line)$



Test Plots

Conducted emissions (Line 1)



Conducted emissions (Line 2)

