

**MEASUREMENT REPORT**  
**of**  
***WIFI MODULE***  
***for***  
***Class II permissive change***

**Applicant** : PEGATRON CORPORATION  
**EUT** : WIFI module  
**Model** : AWM6018-P  
**FCC ID** : VUIAWM6018P

Tested by :

***Training Research Co., Ltd.***

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## CERTIFICATION

**We here by verify that:**

The test data, data evaluation, test procedures and equipment configurations shown in this report were made mainly in accordance with the procedures given in ANSI C63.4 (2003) as a reference. All test were conducted by **Training Research Co., Ltd.**, 255 Nanyang Street, Shijr, Taipei Hsien 221, Taiwan, R.O.C. Also, we attest to the accuracy of each.

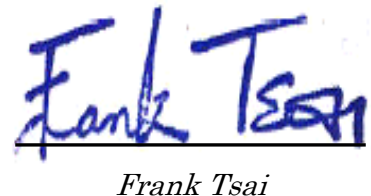
We further submit that the energy emitted by the sample EUT tested as described in the report is **in compliance with** the technical requirements set forth in the FCC Rules Part 15 Subpart C Section 15.247.

**Applicant** : PEGATRON CORPORATION  
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TAIPEI CITY, Taiwan  
**FCC ID** : VUIAWM6018P  
**Report No.** : P5515090190  
**Test Date** : September 22, 2009

Prepared by:

  
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**Conditions of issue :**

- (1) **This test report shall not be reproduced except in full, without written approval of TRC. And the test result contained within this report only relate to the sample submitted for testing.**
- (2) **This report must not be used by the client to claim product endorsement by NVLAP or any agency of U.S. Government.**
- (3) **This test report, measurements made by TRC are traceable to the NIST only Conducted and Radiated Method.**



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## **I . GENERAL**

### **1.1 Introduction**

The following measurement report is submitted on behalf of applicant in support that the certification in accordance with Part 2 Subpart J and Part 15 Subpart A, and C of the Commission's Rules and Regulations.

### **1.2 Description of EUT**

<b>Product Name</b>	:	Wireless Module
<b>Model Name</b>	:	AWM6018-P
<b>FCC ID</b>	:	VUIAWM6018P
<b>Frequency Range</b>	:	2.412 GHz ~ 2.462GHz
<b>Support Channel</b>	:	11 Channels
<b>Channel Spacing</b>	:	5MHz
<b>Modulation Skill</b>	:	DBPSK, DQPSK, CCK, OFDM
<b>Power Type</b>	:	Powered by Mini-PCI interface of client's device

### **1.3 Test method**

1. Insert the EUT into the mini-PCI interface of the test fixture (which is transferred from PCMCIA to mini-PCI interface).
2. Using the computer and software provided by the manufacturer to control EUT. The software is operated under the Windows to control the EUT in the mode of continuous transmission; the test is performed under the specific conditions.
3. Set different channel and data rate being tested and repeat the procedures above.
  - (a) Conduction test and Radiated for Intentional test:  
making EUT to the mode of continuous transmission

#### 1.4 Description of Support Equipment

In order to construct the minimum testing, following equipment were used as the support units.

**PC** : DELL OPTIPLEX 755  
 Model No. : DC8M  
 Serial No. : 58Y9T1S  
 FCC ID : DoC Approved  
 BSMI : R33002  
 Power type : 100 ~ 127VAC/200 ~ 240VAC, 6A/3A, 50 ~ 60Hz, Switching  
 Power cord : Non-shielded, 1.8m long, Plastic hood, No ferrite core

**Monitor** : **HP 15' Color Monitor**  
 Model No. : D8894A  
 Serial No. : CN02364355  
 FCC ID : ARSCM356N  
 BSMI : 3882A031  
 Power type : 100 ~ 240 VAC / 1.5A, 50 ~ 60 Hz, Switching  
 Power cord : Non-shielded, 1.80m length, Plastic hood, No ferrite core  
 Data cable : Shielded, 1.50m length, Plastic hood, with ferrite core

**USB Mouse** : **HP**  
 Model No. : M056UC  
 Serial No. : G1B00Q8G  
 FCC ID : DoC Approved  
 BSMI : R41108  
 Power type : By PC  
 Data cable : Shielded, 1.82m length, Plastic hood, No ferrite core

**USB Keyboard** : **DELL**  
 Model No. : SK-8115  
 Serial No. : MY-0DT325-71619-7CH-0790  
 FCC ID : DoC Approved  
 BSMI : T3A002  
 Power type : By PC  
 Data cable : Shielded, 2.0m length, Plastic hood, with ferrite core

**PCMCIA to Mini PCI :PEGATRON CORPORATION**

Model No. : Test Fixture

Power type : By PC

**PCMCIA to PCI adapter:Ean Digital Systems Ltd.**

Model No. : 119-1622

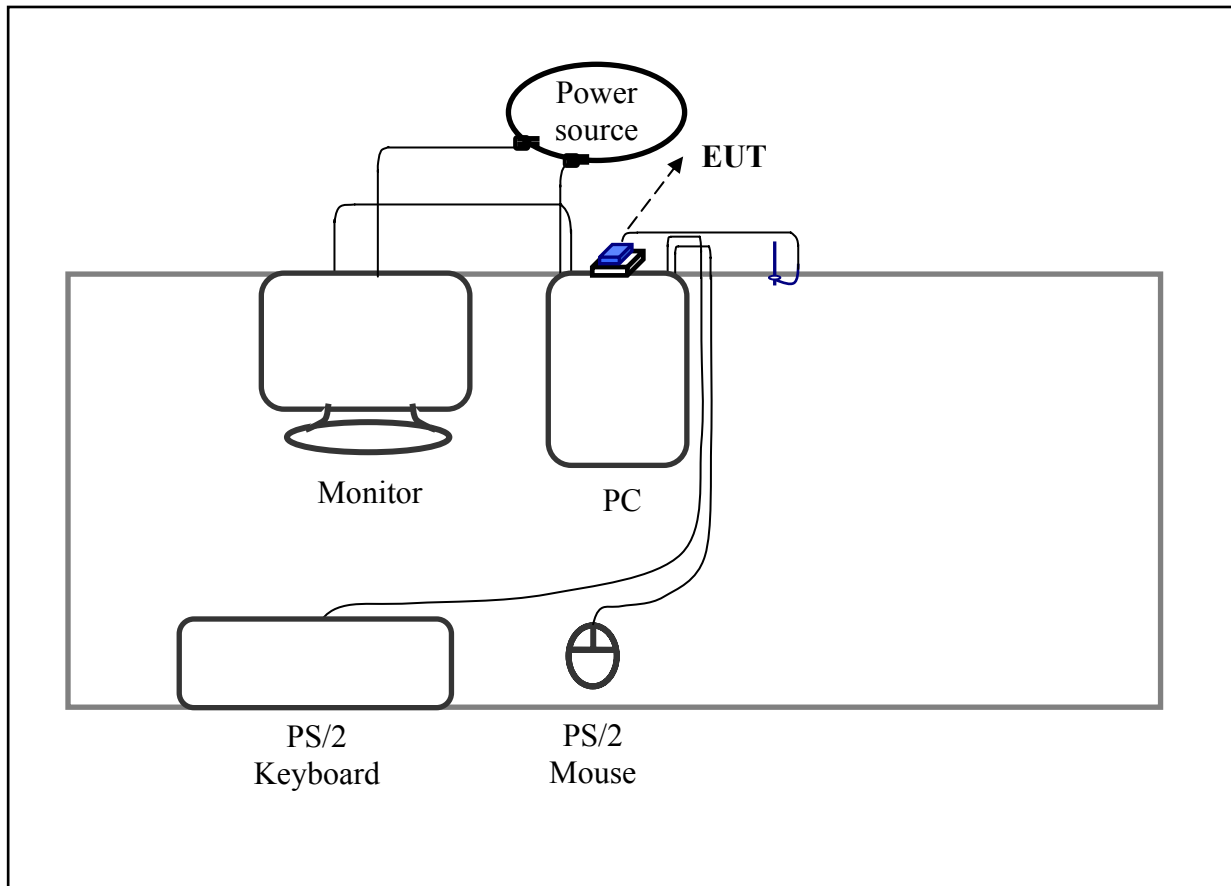
Serial No. : P16013700089089

FCC ID : DoC Approved

Power type : By PC

## 1.5 Configuration of System Under Test

### 1.5.1 Conducted and Radiated Emission Test



#### *Connections of Equipment*

- PC:**
- \*VGA Port ..... a monitor
  - \*PS/2-key Port ..... a PS/2 keyboard
  - \*PS/2-mouse Port ..... a PS/2 mouse
  - \*Mini-PCI Port ..... **EUT**

The tests below are carried with the EUT transmitter set at high power in TDD mode. The EUT is forced to select of output power level and channel number by PCMCIA interface of PC.

The setting up procedure was recorded in 1.3 test method.

### 1.6 Verify the Frequency and Channel

Channel	Frequency (GHz)
1	2.412
2	2.417
3	2.422
4	2.427
5	2.432
6	2.437
7	2.442
8	2.447
9	2.452
10	2.457
11	2.462

Note:

1. This is for confirming that all frequencies are in 2.412GHz to 2.462GHz.
2. Section 15.31(m): Measurements on intentional radiators or receivers shall be performed at three frequencies for operating frequency range over 10 MHz.  
(The locations of these frequencies one near the top, one near the middle and one near the bottom.)
3. After test, the EUT operating frequencies are in 2.412GHz to 2.462GHz. So all the items as followed in testing report are need to test these three frequencies:  
Top: Channel – 1; Middle: Channel – 6; Bottom: Channel – 11.



### **1.7 Test Procedure**

All measurements contained in this report were performed mainly according to the techniques described in ANSI C63.4 (2003) and the pre-setup was written on 1.3 test method, the detail setup was written on each test item.

### **1.8 Location of the Test Site**

The radiated emissions measurements required by the rules were performed on the **three-meter, Semi-anechoic Chamber (FCC Registration Number: 93906)** maintained by *Training Research Co., Ltd.* 1F, No. 255 Nanyang Street, Shijr, Taipei Hsien 221, Taiwan, R.O.C. Complete description and measurement data have been placed on file with the commission. The conducted power line emissions tests and other test items were performed in a semi-anechoic chamber also located at Training Research Co., Ltd.

No. 255 Nanyang Street, Shijr, Taipei Hsien 221, Taiwan, R.O.C. *Training Research Co., Ltd.* is listed by the FCC as a facility available to do measurement work for others on a contract basis.

### **1.9 General Test Condition**

The conditions under which the EUT operates were varied to determine their effect on the equipment's emission characteristics. The final configuration of the test system and the mode of operation used during these tests were chosen as that which produced the highest emission levels. However, only those conditions, which the EUT was considered likely to encounter in normal use were investigated.

In test, they were set in high power and continuously transmitting mode that controlled by computer. The ch01, ch06 and ch11 of EUT were all tested. The setting up procedure is recorded on 1.3 test method.

## II. Section 15.203: Antenna requirement

The EUT can be equipped with detachable antenna. The external antenna is affixed to the EUT using a unique connector. The antenna requirement stated in Section 15.203 is inapplicable to this EUT.

The antenna specification of list as follows,

Antenna No.	Antenna Manufacturer	Model	Connector	Antenna Type	Antenna Gain (Max.)
Antenna	WANSIH ELECTRONIC CO., LTD.	WSS025	RP-SMA (M)	Monopole	5.50dBi

Note:

- 1) For more detailed features description, please reference to the Antenna Specifications. (Please reference to RF Exposure Information)

### **III. Section 15.207: Power Line Conducted Emissions for AC Powered Units**

#### **3.1 Test Condition & Setup**

The power line conducted emission measurements were performed in an semi-anechoic chamber. The EUT was assembled on a wooden table, which is 80 centimeters high, was placed 40 centimeters from the backwall and at least 1 meter from the sidewall.

Power was fed to the EUT from the public utility power grid through a line filter and Line Impedance Stabilization Networks (LISNs). The LISN housing, measuring instrumentation case, ground plane, etc., were electrically bonded together at the same RF potential. The Spectrum analyzer (or EMI receiver) was connected to the AC line through an isolation transformer. The 50-ohm output of the LISN was connected to the spectrum analyzer directly. Conducted emission levels were in the CISPR quasi-peak and average detection mode. The analyzer's 6 dB bandwidth was set to 9KHz. No post-detector video filter was used.

The spectrum was scanned from 150KHz to 30MHz. The physical arrangement of the test system and associated cabling was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude and frequency. All spurious emission frequencies were observed. The highest emission amplitudes relative to the appropriate limit were measured and have been recorded in paragraph 4.3.

There is a test condition apply in this test item, the test procedure description as <1.3>. Three channels were tested, one in the top (CH01), one in the middle (CH06) and the other in bottom (CH11).

### 3.2 List of Test Instruments

Instrument Name	Model	Brand	Serial No.	Calibration Date
				Next time
EMI Receiver	8546A	HP	3520A00242	10/15/09
RF Filter Section	85460A	HP	3448A00217	10/15/09
LISN (EUT)	LISN-01	TRC	99-05	11/10/09
LISN (Support E.)	LISN-01	TRC	9912-03, 04	12/22/09
Pre-amplifier	15542 ZFL-500	Mini – Circuits	0 0117	10/10/09
6dB Attenuator	MCL BW-S6W2	Mini – Circuits	9915 – Conducted	10/10/09
10dB Attenuator	A5542 VAT010	Mini – Circuits	0215 – Conducted	10/10/09
Coaxial Cable (2.0 meter)	A30A30-0058-50FS-2M	Jyebao	SMA-08	10/10/09
Coaxial Cable (1.1 meter)	A30A30-0058-50FS-1M	Jyebao	SMA-09	10/10/09
Coaxial Cable (20 meter)	RG-214/U	Jyebao	NP-01	10/10/09
Coaxial Cable (20 meter)	RG-214/U	Jyebao	NP-02	10/10/09
Auto Switch Box (< 30MHz)	ASB-01	TRC	9904-01	10/10/09

### 3.3 Test Result of Power Line Conducted Emissions

The following table shows a summary of the highest emissions of power line conducted emissions on the LIVE and NETURAL conductors of the EUT power cord. Show as follows.

Test Conditions: Temperature : 25 °C Humidity : 73 % RH

**Test mode: IEEE 802.11b Channel 1**

<b>Power Connected Emissions</b>					<b>Class B</b>		
<b>Conductor</b>	<b>Frequency (KHz)</b>	<b>Peak (dBμV)</b>	<b>QP (dBμV)</b>	<b>Average (dBμV)</b>	<b>QP-limit (dBμV)</b>	<b>AVG-limit (dBμV)</b>	<b>Margin (dB)</b>
Line 1	150.000	45.97	---	---	66.00	56.00	-10.03
	210.000	43.85	---	---	64.29	54.29	-10.44
	471.000	37.81	---	---	56.83	46.83	-9.02
	703.000	31.72	---	---	56.00	46.00	-14.28
	911.000	33.38	---	---	56.00	46.00	-12.62
	3936.000	31.80	---	---	56.00	46.00	-14.20
Line 2	240.000	37.07	---	---	63.43	53.43	-16.36
	471.000	37.69	---	---	56.83	46.83	-9.14
	703.000	32.75	---	---	56.00	46.00	-13.25
	911.000	33.13	---	---	56.00	46.00	-12.87
	1398.000	29.09	---	---	56.00	46.00	-16.91
	3094.000	32.42	---	---	56.00	46.00	-13.58

NOTE:

(1)Margin = Peak Amplitude – Limit, The reading amplitudes are all under limit.

(2)A "+" sign in the margin column means the emission is OVER the Class B Limit, and  
 "-" sign of means UNDER the Class B limit

**Test mode: IEEE 802.11b Channel 6**

<b>Power Connected Emissions</b>					<b>Class B</b>		
<b>Conductor</b>	<b>Frequency (KHz)</b>	<b>Peak (dBμV)</b>	<b>QP (dBμV)</b>	<b>Average (dBμV)</b>	<b>QP-limit (dBμV)</b>	<b>AVG-limit (dBμV)</b>	<b>Margin (dB)</b>
Line 1	208.000	43.89	---	---	64.34	54.34	-10.45
	348.000	34.27	---	---	60.34	50.34	-16.07
	475.000	37.62	---	---	56.71	46.71	-9.09
	911.000	33.17	---	---	56.00	46.00	-12.83
	1398.000	28.67	---	---	56.00	46.00	-17.33
	3126.000	34.87	---	---	56.00	46.00	-11.13
Line 2	208.000	36.05	---	---	64.34	54.34	-18.29
	466.000	37.48	---	---	56.97	46.97	-9.49
	911.000	33.39	---	---	56.00	46.00	-12.61
	1333.000	29.84	---	---	56.00	46.00	-16.16
	2179.000	28.79	---	---	56.00	46.00	-17.21
	3638.000	31.27	---	---	56.00	46.00	-14.73

**Test mode: IEEE 802.11b Channel 11**

<b>Power Connected Emissions</b>					<b>Class B</b>		
<b>Conductor</b>	<b>Frequency (KHz)</b>	<b>Peak (dBμV)</b>	<b>QP (dBμV)</b>	<b>Average (dBμV)</b>	<b>QP-limit (dBμV)</b>	<b>AVG-limit (dBμV)</b>	<b>Margin (dB)</b>
Line 1	210.000	43.89	---	---	64.29	54.29	-10.40
	348.000	33.63	---	---	60.34	50.34	-16.71
	471.000	37.41	---	---	56.83	46.83	-9.42
	911.000	33.93	---	---	56.00	46.00	-12.07
	1333.000	29.64	---	---	56.00	46.00	-16.36
	3574.000	32.13	---	---	56.00	46.00	-13.87
Line 2	210.000	36.37	---	---	64.29	54.29	-17.92
	475.000	37.67	---	---	56.71	46.71	-9.04
	633.000	33.77	---	---	56.00	46.00	-12.23
	911.000	33.97	---	---	56.00	46.00	-12.03
	3004.000	33.16	---	---	56.00	46.00	-12.84
	23230.000	31.74	---	---	60.00	50.00	-18.26

**Test mode: IEEE 802.11g Channel 1**

<b>Power Connected Emissions</b>					<b>Class B</b>		
<b>Conductor</b>	<b>Frequency (KHz)</b>	<b>Peak (dBμV)</b>	<b>QP (dBμV)</b>	<b>Average (dBμV)</b>	<b>QP-limit (dBμV)</b>	<b>AVG-limit (dBμV)</b>	<b>Margin (dB)</b>
Line 1	212.000	44.41	---	---	64.23	54.23	-9.82
	352.000	34.84	---	---	60.23	50.23	-15.39
	471.000	37.50	---	---	56.83	46.83	-9.33
	911.000	34.34	---	---	56.00	46.00	-11.66
	1411.000	29.33	---	---	56.00	46.00	-16.67
	3638.000	32.64	---	---	56.00	46.00	-13.36
Line 2	203.000	39.08	---	---	64.49	54.49	-15.41
	370.000	35.50	---	---	59.71	49.71	-14.21
	471.000	37.61	---	---	56.83	46.83	-9.22
	703.000	32.44	---	---	56.00	46.00	-13.56
	1411.000	28.18	---	---	56.00	46.00	-17.82
	3638.000	33.55	---	---	56.00	46.00	-12.45

**Test mode: IEEE 802.11g Channel 6**

<b>Power Connected Emissions</b>					<b>Class B</b>		
<b>Conductor</b>	<b>Frequency (KHz)</b>	<b>Peak (dBμV)</b>	<b>QP (dBμV)</b>	<b>Average (dBμV)</b>	<b>QP-limit (dBμV)</b>	<b>AVG-limit (dBμV)</b>	<b>Margin (dB)</b>
Line 1	210.000	44.71	---	---	64.29	54.29	-9.58
	348.000	34.17	---	---	60.34	50.34	-16.17
	471.000	36.98	---	---	56.83	46.83	-9.85
	858.000	37.42	---	---	56.00	46.00	-8.58
	1398.000	29.35	---	---	56.00	46.00	-16.65
	3936.000	30.35	---	---	56.00	46.00	-15.65
Line 2	216.000	37.44	---	---	64.11	54.11	-16.67
	334.000	32.28	---	---	60.74	50.74	-18.46
	475.000	37.82	---	---	56.71	46.71	-8.89
	703.000	33.22	---	---	56.00	46.00	-12.78
	911.000	34.45	---	---	56.00	46.00	-11.55
	3638.000	31.99	---	---	56.00	46.00	-14.01

**Test mode: IEEE 802.11g Channel 11**

<i>Power Connected Emissions</i>					<i>FCC Class B</i>		
<i>Conductor</i>	<i>Frequency (KHz)</i>	<i>Peak (dBμV)</i>	<i>QP (dBμV)</i>	<i>Average (dBμV)</i>	<i>QP-limit (dBμV)</i>	<i>AVG-limit (dBμV)</i>	<i>Margin (dB)</i>
Line 1	212.000	44.21	---	---	64.23	54.23	-10.02
	352.000	33.61	---	---	60.23	50.23	-16.62
	475.000	37.81	---	---	56.71	46.71	-8.90
	911.000	33.52	---	---	56.00	46.00	-12.48
	1398.000	30.52	---	---	56.00	46.00	-15.48
	4053.000	32.51	---	---	56.00	46.00	-13.49
Line 2	210.000	37.03	---	---	64.29	54.29	-17.26
	466.000	37.71	---	---	56.97	46.97	-9.26
	867.000	33.04	---	---	56.00	46.00	-12.96
	1398.000	30.10	---	---	56.00	46.00	-15.90
	3574.000	32.51	---	---	56.00	46.00	-13.49
	23230.000	31.47	---	---	60.00	50.00	-18.53



## **VI. Section 15.247 (a): Technical description of the EUT**

*Direct Sequence System* is a spread spectrum system in which the carrier has been modulated by a high speed spreading code and an information data stream. The high speed code sequence dominates the “modulating function” and is the direct cause of the wide spreading of the transmitted signal. In the operational description demonstrates the operation principles of the Baseband processor employed by the EUT, shows that which is a complete DSSS baseband processor and meets the definition of the direct sequence spread spectrum system.

## **V. Section 15.247 (C): Spurious Emissions (Radiated)**

### **5.1 Test Condition & Setup**

We'd performed the test by the *radiated emission* skill: The EUT was placed in an semi-anechoic chamber, and set the EUT transmitting continuously and scanned at 3-meter distance to determine its emission characteristics. The physical arrangement of the EUT was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude, directivity, and frequency. The exact system configuration, which produced the highest emissions was noted so it could be reproduced later during the final tests. For the measurement above 1GHz, according to the guidance we'd set the spectrum analyzer's 6dB bandwidth RBW to 1MHz.

This was done to ensure that the final measurements would demonstrate the worst-case interference potential of the EUT.

Final radiation measurements were made on a three-meter, semi-anechoic chamber. The EUT system was placed on a nonconductive turntable, which is 0.8 meters height, top surface 1.0 x 1.5 meter.

The spectrum was examined from 30 MHz to 1000 MHz using an Hewlett Packard 85460A EMI Receiver, SCHWARZECK whole range Small Biconical Antenna (Model No.: UBAA9114 & BBVU9135) is used to measure frequency from 30 MHz to 1GHz. The final test is used the HP 85460A spectrum and 8564E spectrum was examined from 1GHz to 25GHz using an Hewlett Packard Spectrum Analyzer, EMCO/HP Horn Antenna (Model 3115 / 84125-80008) for 1G - 25GHz.

At each frequency, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. There are two spectrum analyzers use on this testing, HP 85460A for frequency 30MHz to 1000MHz, and 8564E for frequency 1GHz to 25GHz. No post-detector video filters were used in the test. The spectrum analyzer's 6dB bandwidth was set to 120KHz (spectrum was examined from 30 MHz to 1000 MHz), the spectrum analyzer's 6 dB bandwidth was set to 1 MHz (spectrum was examined from 1GHz to 25GHz) and the analyzer was operated in the maximum hold mode. There is a test condition applies in this test item, the test procedure description as the following:

Three channels were tested, one in the top (CH01), one in the middle (CH06) and the other in bottom (CH11). The setting up procedure is recorded on <1.3>

With the transmitter operating from a AC source and using the internal of EUT, radiates spurious emissions falling within the restricted bands of 15.209 were measured at operating frequencies corresponding to upper, middle and bottom channels in the 2400 ~ 2483.5 MHz band.

The actual field intensity in decibels referenced to 1 microvolt per meter (dBμV/m) is determined by algebraically adding the measured reading in dBμV, the antenna factor (dB), and cable loss (dB) at the appropriate frequency. Since the EUT was set to transmit continuously, no *duty cycle* is present.

**For frequency between 30MHz to 1000MHz**

$$F_{Ia} \text{ (dBuV/m)} = F_{Ir} \text{ (dBμV)} + \text{Correction Factors}$$

$F_{Ia}$  : Actual Field Intensity

$F_{Ir}$  : Reading of the Field Intensity

Correction Factors = Antenna Factor + (Cable Loss – Amplitude Gain) + Switching Box Loss

**For frequency between 1GHz to 25GHz**

$$F_{Ia} \text{ (dBμV/m)} = F_{Ir} \text{ (dBμV)} + \text{Correction Factor}$$

$F_{Ia}$  : Actual Field Intensity

$F_{Ir}$  : Reading of the Field Intensity

Correction Factors = Antenna Factor + (Cable Loss – Amplitude Gain) + Switching Box Loss

## 5.2 List of Test Instruments

Instrument Name	Model	Brand	Serial No.	Calibration Date
				Next time
EMI Receiver	8546A	HP	3520A00242	10/15/09
RF Filter Section	85460A	HP	3448A00217	10/15/09
Small Biconical Antenna	UBAA9114 & BBVU9135	SCHWARZECK	127	10/10/09
Pre-amplifier	PA1F	TRC	1FAC	10/10/09
Coaxial Cable (Double shielded, 15 meter)	A30A30-0058-50FS-15M	JYEBAO	SMA-01	10/10/09
Coaxial Cable (1.1 meter)	A30A30-0058-50FS-1M	JYEBAO	SMA-02	10/10/09
Spectrum Analyzer	8564E	HP	3720A00840	12/17/09
Microwave Preamplifier	84125C	HP	US36433002	11/05/09
Horn Antenna	3115	EMCO	9104-3668	11/06/09
Standard Guide Horn Antenna	84125-80008	HP	18-26.5GHz	12/14/09
Standard Guide Horn Antenna	84125-80001	HP	26.5-40GHz	11/12/09
Horn Antenna	1196E (3115)	HP (EMCO)	9704-5178	11/13/09
Pre-amplifier	PA2F	TRC	2F1GZ	10/10/09
Coaxial Cable (3 miter)	A30A30-0058-50FST118	JYEBAO	MSA-05	10/10/09
Coaxial Cable (1 meter)	A30A30-0058-50FST118	JYEBAO	MSA-04	10/10/09

### 5.3 Test Result of Spurious Radiated Emissions

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarizations, EUT orientation, etc. are recorded on the following.

Test Conditions: Temperature : 25 °C Humidity : 73 % RH

**Test mode: IEEE 802.11b CH01 for 30MHz to 1GHz [Horizontal]**

Radiated Emission				Correction Factors (dB)	Corrected Amplitude (dBμV/m)	Class B ( 3 m )	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table ( )			Limit (dBμV/m)	Margin (dB)
86.20	31.80	1.00	252	0.25	32.05	40.00	-7.95
107.60	39.76	1.00	202	-1.54	38.22	43.50	-5.28
122.15	40.41	1.00	212	-2.53	37.88	43.50	-5.62
428.91	39.20	1.00	64	0.23	39.43	46.00	-6.57
467.71	40.38	1.00	266	1.38	41.76	46.00	-4.24
528.34	35.39	1.00	346	3.62	39.01	46.00	-6.99

**Test mode: IEEE 802.11b CH01 for 30MHz to 1GHz [Vertical]**

Radiated Emission				Correction Factors (dB)	Corrected Amplitude (dBμV/m)	Class B ( 3 m )	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table ( )			Limit (dBμV/m)	Margin (dB)
34.30	20.15	1.00	293	6.36	26.51	40.00	-13.49
86.36	35.37	1.00	13	0.24	35.61	40.00	-4.39
99.91	40.48	1.00	54	-0.53	39.95	43.50	-3.55
500.45	34.45	1.00	172	1.77	36.22	46.00	-9.78
528.34	38.64	1.00	150	3.62	42.26	46.00	-3.74
566.38	28.30	1.00	171	5.52	33.82	46.00	-12.18

Note:

1. Margin = Amplitude – limit, if margin is minus means under limit.
2. Corrected Amplitude = Reading Amplitude + Correction Factors
3. Correction factor = Antenna factor + ( Cable Loss – Amplitude gain) + Switching Box Loss

**Test mode: IEEE 802.11b CH01 for 1GHz to 25GHz [Horizontal]**

Frequency	Ant. H.	Table	Amplitude		Correction Factor	Corrected Amplitude		Limit		Margin
			Peak / Ave.			Peak / Ave.		Peak / Ave.		
MHz	m	degree	dBμV		dB/m	dBμV/m		dBμV/m		dB
1607.99	1.00	89	39.99	36.33	14.21	54.20	50.54	73.96	53.96	-3.42
4823.12	1.00	349	42.94	---	3.76	46.70	---	73.96	53.96	-7.26
9650.42	1.00	256	35.27	---	11.47	46.74	---	73.96	53.96	-7.22
19296.25	1.00	104	45.10	---	1.60	46.70	---	73.96	53.96	-7.26
21708.12	1.00	117	45.26	---	2.87	48.13	---	73.96	53.96	-5.83
24120.00	1.00	199	45.22	---	3.40	48.62	---	73.96	53.96	-5.34

**Test mode: IEEE 802.11b CH01 for 1GHz to 25GHz [Vertical]**

Frequency	Ant. H.	Table	Amplitude		Correction Factor	Corrected Amplitude		Limit		Margin
			Peak / Ave.			Peak / Ave.		Peak / Ave.		
MHz	m	degree	dBμV		dB/m	dBμV/m		dBμV/m		dB
1607.99	1.00	338	37.82	31.00	14.21	52.03	45.21	73.96	53.96	-8.75
2504.13	1.00	83	46.18	32.67	9.50	55.68	42.17	73.96	53.96	-11.79
3216.67	1.00	249	38.17	---	11.47	49.64	---	73.96	53.96	-4.32
4823.12	1.00	340	47.60	---	3.76	51.36	---	73.96	53.96	-2.60
12061.04	1.00	329	39.44	---	9.81	49.25	---	73.96	53.96	-4.71
21934.79	1.00	34	46.24	---	3.09	49.33	---	73.96	53.96	-4.63

Note:

1. Margin = Corrected - Limit.
2. The EUT utilizes a *permanently attached antenna*. In addition the spurious RF radiated emissions levels do comply with the *20dBc limit* both at its bandedges and other spurious emissions.
3. As stated in Section 15.35(b), for any frequencies above 1000MHz, radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. As the results of our test, the peak amplitudes are already below the FCC limit. Thus the average amplitudes of the rest are omitted.

**Test mode: IEEE 802.11b CH06 for 30MHz to 1GHz [Horizontal]**

<b>Radiated Emission</b>				<b>Correction Factors</b>	<b>Corrected Amplitude</b>	<b>Class B (3 m)</b>	
<b>Frequency (MHz)</b>	<b>Amplitude (dBμV)</b>	<b>Ant. H. (m)</b>	<b>Table ( )</b>			<b>Limit (dBμV/m)</b>	<b>Margin (dB)</b>
86.36	32.58	1.00	266	0.24	32.82	40.00	-7.18
120.94	39.92	1.00	215	-2.45	37.47	43.50	-6.03
145.19	33.77	1.00	236	-3.94	29.83	43.50	-13.67
251.89	33.90	1.00	239	-3.29	30.61	46.00	-15.39
368.29	37.53	1.00	299	-1.83	35.70	46.00	-10.30
466.50	39.79	1.00	57	1.37	41.16	46.00	-4.84

**Test mode: IEEE 802.11b CH06 for 30MHz to 1GHz [Vertical]**

<b>Radiated Emission</b>				<b>Correction Factors</b>	<b>Corrected Amplitude</b>	<b>Class B (3 m)</b>	
<b>Frequency (MHz)</b>	<b>Amplitude (dBμV)</b>	<b>Ant. H. (m)</b>	<b>Table ( )</b>			<b>Limit (dBμV/m)</b>	<b>Margin (dB)</b>
86.27	35.62	1.00	65	0.24	35.86	40.00	-4.14
99.91	40.69	1.00	289	-0.53	40.16	43.50	-3.34
134.27	35.62	1.00	85	-3.21	32.41	43.50	-11.09
468.92	35.50	1.00	190	1.40	36.90	46.00	-9.10
528.34	39.87	1.00	159	3.26	43.13	46.00	-2.87
565.97	26.58	1.00	159	5.51	32.09	46.00	-13.91

**Test mode: IEEE 802.11b CH06 for 1GHz to 25GHz [Horizontal]**

<i>Frequency</i>	<i>Ant. H.</i>	<i>Table</i>	<i>Amplitude</i>		<i>Correction Factor</i>	<i>Corrected Amplitude</i>		<i>Limit</i>		<i>Margin</i>
			<i>Peak / Ave.</i>			<i>Peak / Ave.</i>		<i>Peak / Ave.</i>		
<i>MHz</i>	<i>m</i>	<i>degree</i>	<i>dBμV</i>		<i>dB/m</i>	<i>dBμV/m</i>		<i>dBμV/m</i>		<i>dB</i>
1624.66	1.00	308	40.49	36.67	13.95	54.44	50.62	73.96	53.96	-3.34
4871.46	1.00	338	45.44	---	3.95	49.39	---	73.96	53.96	-4.57
12187.92	1.00	317	38.94	---	9.74	48.68	---	73.96	53.96	-5.28
19494.58	1.00	97	46.81	---	1.69	48.50	---	73.96	53.96	-5.46
21934.79	1.00	21	45.36	---	3.09	48.45	---	73.96	53.96	-5.51
24371.46	1.00	117	45.44	---	3.26	48.70	---	73.96	53.96	-5.26

**Test mode: IEEE 802.11b CH06 for 1GHz to 25GHz [Vertical]**

<i>Frequency</i>	<i>Ant. H.</i>	<i>Table</i>	<i>Amplitude</i>		<i>Correction Factor</i>	<i>Corrected Amplitude</i>		<i>Limit</i>		<i>Margin</i>
			<i>Peak / Ave.</i>			<i>Peak / Ave.</i>		<i>Peak / Ave.</i>		
<i>MHz</i>	<i>m</i>	<i>degree</i>	<i>dBμV</i>		<i>dB/m</i>	<i>dBμV/m</i>		<i>dBμV/m</i>		<i>dB</i>
1624.66	1.00	154	39.16	32.33	13.95	53.11	46.28	73.96	53.96	-7.68
1702.15	1.00	0	40.26	31.83	12.74	53.00	44.57	73.96	53.96	-9.39
3247.92	1.00	56	37.83	---	11.62	49.45	---	73.96	53.96	-4.51
4873.99	1.00	299	48.09	35.44	3.96	52.05	39.40	73.96	53.96	-14.56
9747.99	1.00	163	40.94	31.77	11.89	52.83	43.66	73.96	53.96	-10.30
24371.46	1.00	227	47.21	---	3.26	50.47	---	73.96	53.96	-3.49



**Test mode: IEEE 802.11b CH11 for 30MHz to 1GHz [Horizontal]**

<b>Radiated Emission</b>				<b>Correction Factors</b>	<b>Corrected Amplitude</b>	<b>Class B (3 m)</b>	
<b>Frequency (MHz)</b>	<b>Amplitude (dBμV)</b>	<b>Ant. H. (m)</b>	<b>Table ( )</b>			<b>Limit (dBμV/m)</b>	<b>Margin (dB)</b>
86.52	31.32	1.00	248	0.23	31.55	40.00	-8.45
108.81	39.61	1.00	207	-1.70	37.91	43.50	-5.59
116.09	39.38	1.00	217	-2.19	37.19	43.50	-6.31
122.15	40.32	1.00	228	-2.53	37.79	43.50	-5.71
468.92	38.85	1.00	48	1.40	40.25	46.00	-5.75
528.34	35.62	1.00	332	3.62	39.24	46.00	-6.76

**Test mode: IEEE 802.11b CH11 for 30MHz to 1GHz [Vertical]**

<b>Radiated Emission</b>				<b>Correction Factors</b>	<b>Corrected Amplitude</b>	<b>Class B (3 m)</b>	
<b>Frequency (MHz)</b>	<b>Amplitude (dBμV)</b>	<b>Ant. H. (m)</b>	<b>Table ( )</b>			<b>Limit (dBμV/m)</b>	<b>Margin (dB)</b>
86.41	35.87	1.00	24	0.24	36.11	40.00	-3.89
99.91	40.90	1.00	0	-0.53	40.37	43.50	-3.13
122.15	37.22	1.00	187	-2.53	34.69	43.50	-8.81
499.24	38.92	1.00	163	1.73	40.65	46.00	-5.35
528.34	39.09	1.00	178	3.62	42.71	46.00	-3.29
566.32	28.13	1.00	164	5.52	33.65	46.00	-12.35

**Test mode: IEEE 802.11b CH11 for 1GHz to 25GHz [Horizontal]**

<i>Frequency</i>	<i>Ant. H.</i>	<i>Table</i>	<i>Amplitude</i>		<i>Correction Factor</i>	<i>Corrected Amplitude</i>		<i>Limit</i>		<i>Margin</i>
			<i>Peak / Ave.</i>			<i>Peak / Ave.</i>		<i>Peak / Ave.</i>		
<i>MHz</i>	<i>m</i>	<i>degree</i>	<i>dBμV</i>		<i>dB/m</i>	<i>dBμV/m</i>		<i>dBμV/m</i>		<i>dB</i>
1641.33	1.00	124	41.32	38.83	13.69	55.01	52.52	73.96	53.96	-1.44
4925.83	1.00	335	44.61	---	4.13	48.74	---	73.96	53.96	-5.22
9849.79	1.00	166	36.44	---	11.93	48.37	---	73.96	53.96	-5.59
12308.75	1.00	302	38.61	---	9.56	48.17	---	73.96	53.96	-5.79
22157.92	1.00	235	44.61	---	3.25	47.86	---	73.96	53.96	-6.10
24619.37	1.00	242	45.25	---	3.01	48.26	---	73.96	53.96	-5.70

**Test mode: IEEE 802.11b CH11 for 1GHz to 25GHz [Vertical]**

<i>Frequency</i>	<i>Ant. H.</i>	<i>Table</i>	<i>Amplitude</i>		<i>Correction Factor</i>	<i>Corrected Amplitude</i>		<i>Limit</i>		<i>Margin</i>
			<i>Peak / Ave.</i>			<i>Peak / Ave.</i>		<i>Peak / Ave.</i>		
<i>MHz</i>	<i>m</i>	<i>degree</i>	<i>dBμV</i>		<i>dB/m</i>	<i>dBμV/m</i>		<i>dBμV/m</i>		<i>dB</i>
1641.33	1.00	71	40.82	35.33	13.69	54.51	49.02	73.96	53.96	-4.94
1738.92	1.00	242	42.89	32.33	12.16	55.05	44.49	73.96	53.96	-9.47
2348.19	1.00	86	44.34	31.50	9.06	53.40	40.56	73.96	53.96	-13.40
3282.66	1.00	188	40.33	32.67	11.79	52.12	44.46	73.96	53.96	-9.50
9847.97	1.00	156	39.94	32.11	11.93	51.87	44.04	73.96	53.96	-9.92
24619.37	1.00	234	45.70	---	3.01	48.71	---	73.96	53.96	-5.25

**Test mode: IEEE 802.11g CH01 for 30MHz to 1GHz [Horizontal]**

<b>Radiated Emission</b>				<b>Correction Factors</b>	<b>Corrected Amplitude</b>	<b>Class B (3 m)</b>	
<b>Frequency (MHz)</b>	<b>Amplitude (dBμV)</b>	<b>Ant. H. (m)</b>	<b>Table ( )</b>			<b>Limit (dBμV/m)</b>	<b>Margin (dB)</b>
86.26	28.70	1.00	262	0.25	28.95	40.00	-11.05
119.72	38.50	1.00	236	-2.38	36.12	43.50	-7.38
147.61	41.85	1.00	94	-4.17	37.68	43.50	-5.82
470.14	40.96	1.00	57	1.41	42.37	46.00	-3.63
550.45	39.78	1.00	50	1.77	41.55	46.00	-4.45
878.75	23.44	1.00	280	14.36	37.80	46.00	-8.20

**Test mode: IEEE 802.11g CH01 for 30MHz to 1GHz [Vertical]**

<b>Radiated Emission</b>				<b>Correction Factors</b>	<b>Corrected Amplitude</b>	<b>Class B (3 m)</b>	
<b>Frequency (MHz)</b>	<b>Amplitude (dBμV)</b>	<b>Ant. H. (m)</b>	<b>Table ( )</b>			<b>Limit (dBμV/m)</b>	<b>Margin (dB)</b>
85.92	35.05	1.00	40	0.27	35.32	40.00	-4.68
99.59	42.73	1.00	13	-0.51	42.22	43.50	-1.28
120.94	36.21	1.00	173	-2.45	33.76	43.50	-9.74
148.82	36.11	1.00	53	-4.28	31.83	43.50	-11.67
528.00	39.18	1.00	149	3.60	42.78	46.00	-3.22
564.13	30.37	1.00	163	5.46	35.83	46.00	-10.17

**Test mode: IEEE 802.11g CH01 for 1GHz to 25GHz [Horizontal]**

<i>Frequency</i>	<i>Ant. H.</i>	<i>Table</i>	<i>Amplitude</i>		<i>Correction Factor</i>	<i>Corrected Amplitude</i>		<i>Limit</i>		<i>Margin</i>
			<i>Peak / Ave.</i>			<i>Peak / Ave.</i>		<i>Peak / Ave.</i>		
<i>MHz</i>	<i>m</i>	<i>degree</i>	<i>dBμV</i>		<i>dB/m</i>	<i>dBμV/m</i>		<i>dBμV/m</i>		<i>dB</i>
1608.01	1.00	307	39.99	35.83	14.21	54.20	50.04	73.96	53.96	-3.92
2159.11	1.00	257	46.33	33.67	8.54	54.87	42.21	73.96	53.96	-11.75
9650.42	1.00	173	35.44	---	11.47	46.91	---	73.96	53.96	-7.05
19296.25	1.00	97	45.57	---	1.60	47.17	---	73.96	53.96	-6.79
21708.12	1.00	118	45.20	---	2.87	48.07	---	73.96	53.96	-5.89
24120.00	1.00	191	45.04	---	3.40	48.44	---	73.96	53.96	-5.52

**Test mode: IEEE 802.11g CH01 for 1GHz to 25GHz [Vertical]**

<i>Frequency</i>	<i>Ant. H.</i>	<i>Table</i>	<i>Amplitude</i>		<i>Correction Factor</i>	<i>Corrected Amplitude</i>		<i>Limit</i>		<i>Margin</i>
			<i>Peak / Ave.</i>			<i>Peak / Ave.</i>		<i>Peak / Ave.</i>		
<i>MHz</i>	<i>m</i>	<i>degree</i>	<i>dBμV</i>		<i>dB/m</i>	<i>dBμV/m</i>		<i>dBμV/m</i>		<i>dB</i>
1607.99	1.00	260	37.99	31.67	14.21	52.20	45.88	73.96	53.96	-8.08
2159.20	1.00	170	47.33	32.00	8.54	55.87	40.54	73.96	53.96	-13.42
12061.04	1.00	328	36.77	---	9.81	46.58	---	73.96	53.96	-7.38
19494.58	1.00	95	46.89	---	1.69	48.58	---	73.96	53.96	-5.38
21934.79	1.00	31	46.55	---	3.09	49.64	---	73.96	53.96	-4.32
24371.46	1.00	295	45.60	---	3.26	48.86	---	73.96	53.96	-5.10

**Test mode: IEEE 802.11g CH06 for 30MHz to 1GHz [Horizontal]**

<b>Radiated Emission</b>				<b>Correction Factors</b>	<b>Corrected Amplitude</b>	<b>Class B (3 m)</b>	
<b>Frequency (MHz)</b>	<b>Amplitude (dBμV)</b>	<b>Ant. H. (m)</b>	<b>Table ( )</b>			<b>Limit (dBμV/m)</b>	<b>Margin (dB)</b>
86.99	37.32	1.00	220	0.20	37.52	40.00	-2.48
119.72	41.06	1.00	213	-2.38	38.68	43.50	-4.82
148.82	39.98	1.00	73	-4.28	35.70	43.50	-7.80
433.76	38.94	1.00	67	0.45	39.39	46.00	-6.61
470.14	40.43	1.00	47	1.41	41.84	46.00	-4.16
504.09	39.89	1.00	50	2.01	41.90	46.00	-4.10

**Test mode: IEEE 802.11g CH06 for 30MHz to 1GHz [Vertical]**

<b>Radiated Emission</b>				<b>Correction Factors</b>	<b>Corrected Amplitude</b>	<b>Class B (3 m)</b>	
<b>Frequency (MHz)</b>	<b>Amplitude (dBμV)</b>	<b>Ant. H. (m)</b>	<b>Table ( )</b>			<b>Limit (dBμV/m)</b>	<b>Margin (dB)</b>
86.12	33.77	1.00	353	0.25	34.02	40.00	-5.98
119.72	36.24	1.00	94	-2.38	33.86	43.50	-9.64
134.27	36.54	1.00	246	-3.21	33.33	43.50	-10.17
432.55	37.22	1.00	269	0.40	37.62	46.00	-8.38
528.34	38.37	1.00	183	3.62	41.99	46.00	-4.01
564.71	36.31	1.00	170	5.47	41.78	46.00	-4.22

**Test mode: IEEE 802.11g CH06 for 1GHz to 25GHz [Horizontal]**

<i>Frequency</i>	<i>Ant. H.</i>	<i>Table</i>	<i>Amplitude</i>		<i>Correction Factor</i>	<i>Corrected Amplitude</i>		<i>Limit</i>		<i>Margin</i>
			<i>Peak / Ave.</i>			<i>Peak / Ave.</i>		<i>Peak / Ave.</i>		
<i>MHz</i>	<i>m</i>	<i>degree</i>	<i>dBμV</i>		<i>dB/m</i>	<i>dBμV/m</i>		<i>dBμV/m</i>		<i>dB</i>
1624.66	1.00	201	41.49	35.83	13.95	55.44	49.78	73.96	53.96	-4.18
2158.24	1.00	202	48.33	34.33	8.53	56.86	42.86	73.96	53.96	-11.10
12187.92	1.00	0	37.60	---	9.74	47.34	---	73.96	53.96	-6.62
19494.58	1.00	103	46.95	---	1.69	48.64	---	73.96	53.96	-5.32
21934.79	1.00	32	45.83	---	3.09	48.92	---	73.96	53.96	-5.04
24371.46	1.00	130	45.34	---	3.26	48.60	---	73.96	53.96	-5.36

**Test mode: IEEE 802.11g CH06 for 1GHz to 25GHz [Vertical]**

<i>Frequency</i>	<i>Ant. H.</i>	<i>Table</i>	<i>Amplitude</i>		<i>Correction Factor</i>	<i>Corrected Amplitude</i>		<i>Limit</i>		<i>Margin</i>
			<i>Peak / Ave.</i>			<i>Peak / Ave.</i>		<i>Peak / Ave.</i>		
<i>MHz</i>	<i>m</i>	<i>degree</i>	<i>dBμV</i>		<i>dB/m</i>	<i>dBμV/m</i>		<i>dBμV/m</i>		<i>dB</i>
1624.66	1.00	199	38.82	31.83	13.95	52.77	45.78	73.96	53.96	-8.18
2152.08	1.00	213	42.33	---	8.52	50.85	---	73.96	53.96	-3.11
4877.50	1.00	337	44.11	---	3.97	48.08	---	73.96	53.96	-5.88
12187.92	1.00	89	38.10	---	9.74	47.84	---	73.96	53.96	-6.12
21934.79	1.00	44	45.83	---	3.09	48.92	---	73.96	53.96	-5.04
24371.46	1.00	210	47.47	---	3.26	50.73	---	73.96	53.96	-3.23

**Test mode: IEEE 802.11g CH11 for 30MHz to 1GHz [Horizontal]**

<b>Radiated Emission</b>				<b>Correction Factors</b>	<b>Corrected Amplitude</b>	<b>Class B (3 m)</b>	
<b>Frequency (MHz)</b>	<b>Amplitude (dBμV)</b>	<b>Ant. H. (m)</b>	<b>Table ( )</b>			<b>Limit (dBμV/m)</b>	<b>Margin (dB)</b>
86.29	28.65	1.00	251	0.24	28.89	40.00	-11.11
113.66	37.51	1.00	214	-2.06	35.45	43.50	-8.05
120.94	38.55	1.00	214	-2.45	36.10	43.50	-7.40
142.76	45.29	1.00	234	-3.72	41.57	43.50	-1.93
369.50	39.90	1.00	258	-1.81	38.09	46.00	-7.91
465.29	40.64	1.00	54	1.36	42.00	46.00	-4.00

**Test mode: IEEE 802.11g CH11 for 30MHz to 1GHz [Vertical]**

<b>Radiated Emission</b>				<b>Correction Factors</b>	<b>Corrected Amplitude</b>	<b>Class B (3 m)</b>	
<b>Frequency (MHz)</b>	<b>Amplitude (dBμV)</b>	<b>Ant. H. (m)</b>	<b>Table ( )</b>			<b>Limit (dBμV/m)</b>	<b>Margin (dB)</b>
86.46	32.51	1.00	40	0.23	32.74	40.00	-7.26
97.90	41.53	1.00	0	-0.42	41.11	43.50	-2.39
99.91	36.79	1.00	30	-0.53	36.26	43.50	-7.24
502.87	38.26	1.00	170	1.93	40.19	46.00	-5.81
528.34	38.95	1.00	147	3.62	42.57	46.00	-3.43
567.14	37.56	1.00	154	5.54	43.10	46.00	-2.90

**Test mode: IEEE 802.11g CH11 for 1GHz to 25GHz [Horizontal]**

<i>Frequency</i>	<i>Ant. H.</i>	<i>Table</i>	<i>Amplitude</i>		<i>Correction Factor</i>	<i>Corrected Amplitude</i>		<i>Limit</i>		<i>Margin</i>
			<i>Peak / Ave.</i>			<i>Peak / Ave.</i>		<i>Peak / Ave.</i>		
<i>MHz</i>	<i>m</i>	<i>degree</i>	<i>dBμV</i>		<i>dB/m</i>	<i>dBμV/m</i>		<i>dBμV/m</i>		<i>dB</i>
1641.33	1.00	136	41.49	36.50	13.69	55.18	50.19	73.96	53.96	-3.77
2158.33	1.00	278	39.34	---	8.53	47.87	---	73.96	53.96	-6.09
12308.75	1.00	344	36.44	---	9.56	46.00	---	73.96	53.96	-7.96
19696.46	1.00	245	46.41	---	1.81	48.22	---	73.96	53.96	-5.74
22157.92	1.00	242	44.57	---	3.25	47.82	---	73.96	53.96	-6.14
24619.37	1.00	247	45.58	---	3.01	48.59	---	73.96	53.96	-5.37

**Test mode: IEEE 802.11g CH11 for 1GHz to 25GHz [Vertical]**

<i>Frequency</i>	<i>Ant. H.</i>	<i>Table</i>	<i>Amplitude</i>		<i>Correction Factor</i>	<i>Corrected Amplitude</i>		<i>Limit</i>		<i>Margin</i>
			<i>Peak / Ave.</i>			<i>Peak / Ave.</i>		<i>Peak / Ave.</i>		
<i>MHz</i>	<i>m</i>	<i>degree</i>	<i>dBμV</i>		<i>dB/m</i>	<i>dBμV/m</i>		<i>dBμV/m</i>		<i>dB</i>
1641.33	1.00	214	40.82	33.00	13.69	54.51	46.69	73.96	53.96	-7.27
2167.66	1.00	318	51.64	23.17	8.56	60.20	31.73	73.96	53.96	-13.76
3283.33	1.00	74	36.50	---	11.79	48.29	---	73.96	53.96	-5.67
9849.79	1.00	93	35.11	---	11.93	47.04	---	73.96	53.96	-6.92
19696.46	1.00	227	45.92	---	1.81	47.73	---	73.96	53.96	-6.23
24619.37	1.00	243	45.50	---	3.01	48.51	---	73.96	53.96	-5.45



#### **5.4 Test Result of the Bandedge**

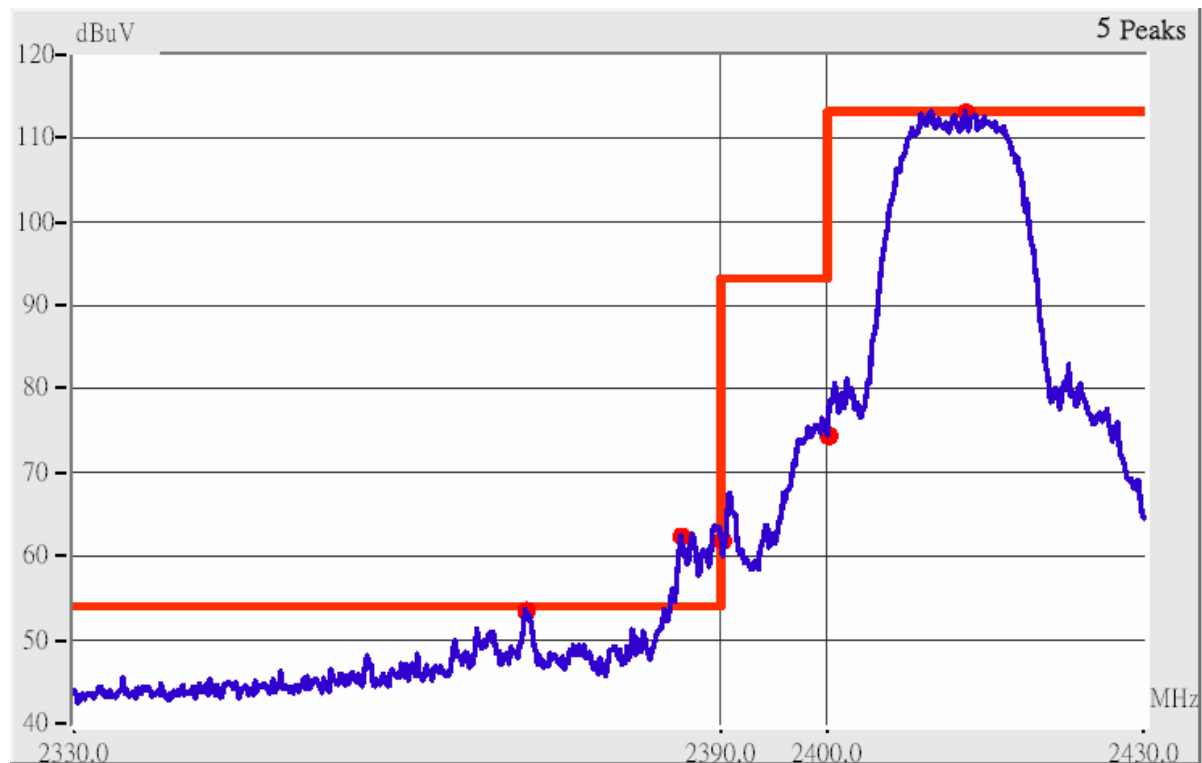
If any 100 kHz bandwidth outside these frequency bands, the radio frequency power that is produced by the modulation products of the spreading sequence, the information sequence and the carrier frequency shall be either *at least 20 dB below that in any 100 kHz bandwidth within the band that contains the highest level of the desired power or shall not exceed the general levels specified in §15.209(a)*,

We perform this section by the *radiated manner*, the RBW is set to 100kHz and VBW>RBW. We'd made the observation *up to 10<sup>th</sup> harmonics and the criterion is all the harmonic/spurious emissions must be 20dB below the highest emission level measured*. If the emissions fall in the restricted bands stated in the Part 15.205(a) must also *comply with the radiated emission limits specified in Part 15.209(a)*. (*Peak mode: RBW=VBW=1MHz, Average mode: RBW=1MHz; VBW=10Hz*)

The following pages show our observations referring to the channel 1 and 11 respectively.

Test Condition & Setup: same as < 8.1 >

# IEEE 802.11b Ch01



This is the hard copy of our bandedge measurement generated by our bandedge testing program. The plot shown above is the bandedge of channel 1.

1. The lobe left by the fundamental side is already 20dB below the highest emission level.
2. The emissions recorded in the restricted band is do comply with the Part 15.209(a) – as below.

Radiated Emission					Corrected Amplitude		Class B ( 3m )		
Frequency (MHz)	Ant. P.	Ant. H. (m)	Angle ( ° )	Factors (dB)	(dBμV/m)		Limit (dBμV/m)		Margin (dB)
					Peak	Average	Peak	Ave.	
2378.91	Hor	1.00	205	9.15	51.65	---	73.96	53.96	-2.31
2390.84	Hor	1.00	204	9.18	55.52	40.85	73.96	53.96	-13.11
2375.20	Ver	1.00	36	9.15	61.15	45.48	73.96	53.96	-8.48
2390.65	Ver	1.00	154	9.18	64.02	47.18	73.96	53.96	-6.78

IEEE 802.11b Ch11

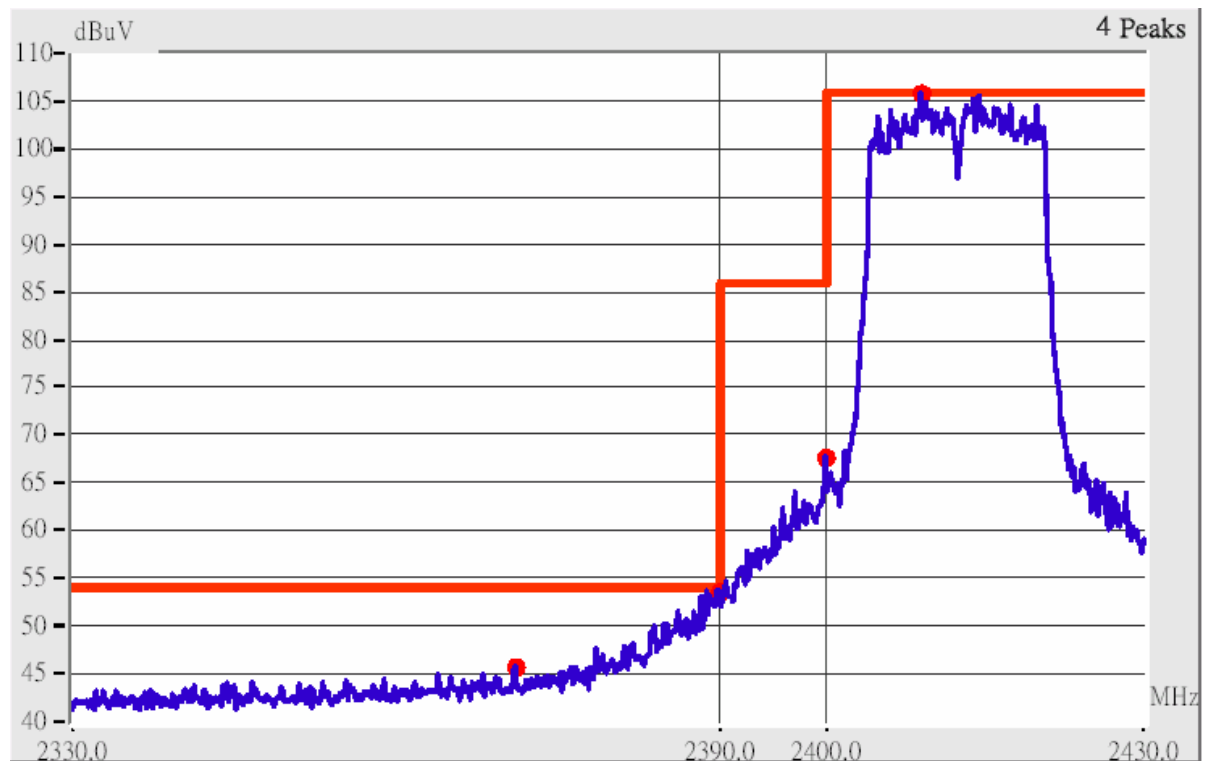


This is the hard copy of our bandedge measurement generated by our bandedge testing program. The plot shown above is the bandedge of channel 11.

3. The lobe right by the fundamental side is already 20dB below the highest emission level.
4. The emissions recorded in the restricted band is do comply with the Part 15.209(a) – as below

Radiated Emission					Corrected Amplitude		Class B ( 3m )		
Frequency (MHz)	Ant. P.	Ant. H. (m)	Angle ( ° )	Factors (dB)	(dBμV/m)		Limit (dBμV/m)		Margin (dB)
					Peak	Average	Peak	Ave.	
2482.89	Hor	1.00	359	9.44	58.11	45.27	73.96	53.96	-8.69
2488.29	Hor	1.00	208	9.46	57.96	44.79	73.96	53.96	-9.17
2499.60	Hor	1.00	208	9.49	54.49	41.32	73.96	53.96	-12.64
2512.37	Hor	1.00	238	9.51	50.51	---	73.96	53.96	-3.45
2483.44	Ver	1.00	304	9.44	65.44	50.61	73.96	53.96	-3.35
2486.76	Ver	1.00	301	9.45	63.79	48.62	73.96	53.96	-5.34
2500.01	Ver	1.00	229	9.49	48.49	---	73.96	53.96	-5.47
2506.91	Ver	1.00	308	9.50	53.50	38.83	73.96	53.96	-15.13

**IEEE 802.11g Ch01**

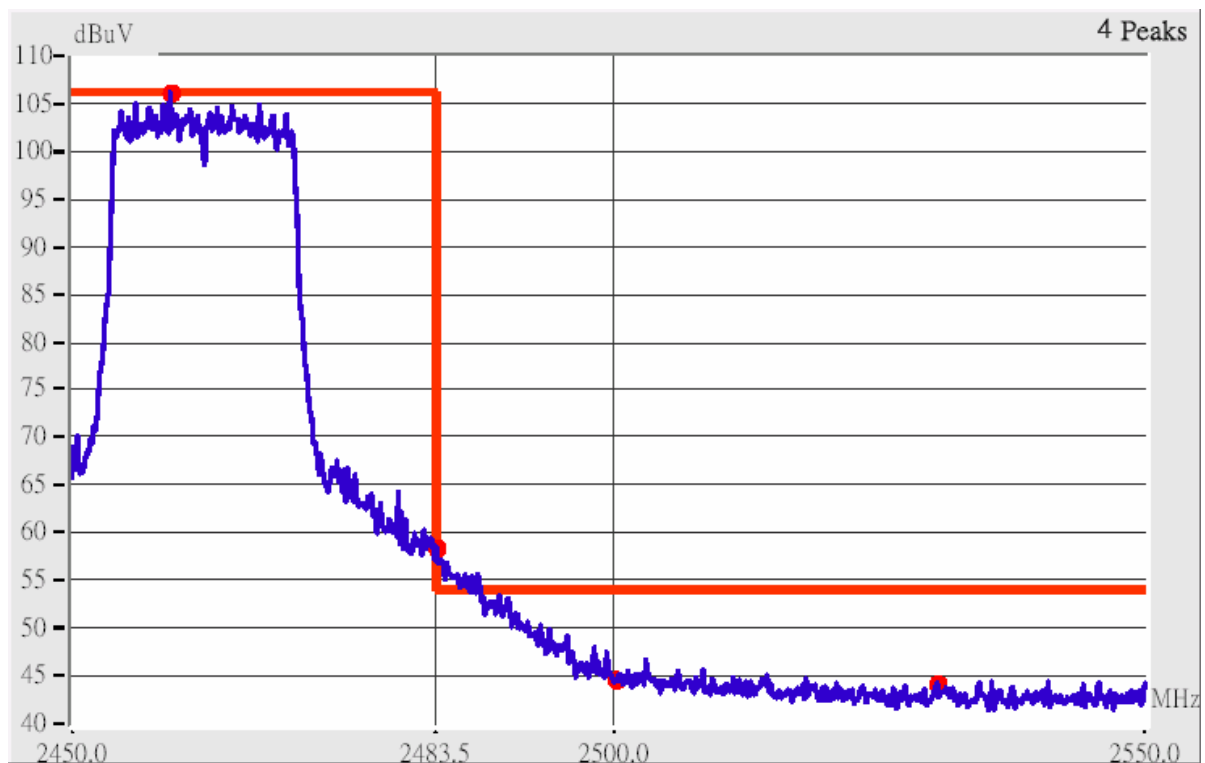


This is the hard copy of our bandedge measurement generated by our bandedge testing program. The plot shown above is the bandedge of channel 1.

5. The lobe left by the fundamental side is already 20dB below the highest emission level.
6. The emissions recorded in the restricted band is do comply with the Part 15.209(a) – as below.

<i>Radiated Emission</i>					<i>Corrected Amplitude</i>		<i>Class B ( 3m )</i>		
<i>Frequency (MHz)</i>	<i>Ant. P.</i>	<i>Ant. H. (m)</i>	<i>Angle ( ° )</i>	<i>Factors (dB)</i>	<i>(dBuV/m)</i>		<i>Limit (dBuV/m)</i>		<i>Margin (dB)</i>
					<i>Peak</i>	<i>Average</i>	<i>Peak</i>	<i>Ave.</i>	
2387.28	Hor	1.00	274	9.17	59.01	35.50	73.96	53.96	-14.95
2390.71	Hor	1.00	270	9.18	61.02	37.18	73.96	53.96	-12.94
2386.98	Ver	1.00	72	9.17	64.67	37.17	73.96	53.96	-9.29
2391.40	Ver	1.00	149	9.18	66.52	38.85	73.96	53.96	-7.44

**IEEE 802.11g Ch11**



This is the hard copy of our bandedge measurement generated by our bandedge testing program. The plot shown above is the bandedge of channel 11.

7. The lobe right by the fundamental side is already 20dB below the highest emission level.
8. The emissions recorded in the restricted band is do comply with the Part 15.209(a) – as below

Radiated Emission					Corrected Amplitude		Class B ( 3m )		
Frequency (MHz)	Ant. P.	Ant. H. (m)	Angle ( ° )	Factors (dB)	(dBuV/m)		Limit (dBuV/m)		Margin (dB)
					Peak	Average	Peak	Ave.	
2483.22	Hor	1.00	295	9.44	60.94	37.11	73.96	53.96	-13.02
2486.08	Hor	1.00	352	9.45	60.78	35.95	73.96	53.96	-13.18
2500.01	Hor	1.00	262	9.49	45.82	---	73.96	53.96	-8.14
2506.66	Hor	1.00	169	9.50	46.84	---	73.96	53.96	-7.12
2483.27	Ver	1.00	322	9.44	70.11	39.77	73.96	53.96	-3.85
2490.14	Ver	1.00	320	9.46	65.46	37.63	73.96	53.96	-8.50
2500.75	Ver	1.00	323	9.49	55.99	35.82	73.96	53.96	-17.97
2503.52	Ver	1.00	164	9.50	55.50	35.50	73.96	53.96	-18.46