MEASUREMENT REPORT
of
WIFI module
for
Class II permissive change

Applicant	**:**	PEGATRON CORPORATION
EUT	**:**	WIFI module
Model No.	**:**	UPWL6024
FCC ID	**:**	VUIUPWL6024

Tested by :

Training Research Co., Ltd.

TEL : 886-2-26935155 FAX : 886-2-26934440

No. 255, Nanyang Street, Shijr, Taipei Hsien 221, Taiwan, R.O.C.

CERTIFICATION

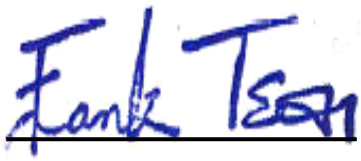
We here by verify that:

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
Applicant Address	**:**	5F, NO. 76, LIGONG ST., BEITOU DISTRICT, TAIPEI CITY, Taiwan
FCC ID	**:**	VUIUPWL6024
Report No.	**:**	P5515110066
Test Date	**:**	July 18, 2011 ~ July 27, 2011

Prepared by:  *Jack Tsai*

Approved by:  *Frank Tsai*

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.***

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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, B and C of the Commission's Rules and Regulations.

1.2 Description of EUT

FCC ID	:	VUIUPWL6024
Product Name	:	WIFI module
Model Name	:	UPWL6024
Frequency Range	:	IEEE 802.11b/g/n Draft 1.0 20M: 2.412GHz ~ 2.462GHz
		IEEE 802.11n Draft 1.0 40M: 2.422GHz ~ 2.452GHz
Channel Spacing	:	5MHz
Support Channel	:	IEEE 802.11b/g/n Draft 1.0 20M: 11 Channels
		IEEE 802.11n Draft 1.0 40M: 7 Channels
Modulation Skill	:	DBPSK, DQPSK, CCK, OFDM
Power Type	:	Powered by PCI Express interface of client's device

1.3 Test method

1.3.1 Insert the EUT into the PCI Express interface of extend card of the test fixture.

1.3.2 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.

1.3.3 Set different data rate and channel (IEEE 802.11b/g/n Draft 1.0 20M: CH01/CH06/CH11, IEEE 802.11n Draft 1.0 40M: CH03/CH06/CH09) being tested and repeat the procedures above.

(a) Conducted test and Radiated test:
making EUT to the continuously (TX) mode.

1.4 Description of Support Equipment

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

Notebook	**:**	**DELL**
Model No.	:	JX285 (PP26L)
Serial No.	:	410362204
FCC ID	:	Doc Approved
BSMI	:	R33002

Power Adaptor	**:**	**DELL**
Model No.	:	LA65NS1-00
Part No.	:	PA-1650-05D3
Serial No.	:	CN-0YD637-716145-82T-0B8F
FCC ID	:	Doc Approved
BSMI	:	R33275
Power type	:	100 ~ 240VAC / 50 - 60Hz, 1.5A, Switching

Power cord (Main power to adaptor): Non-shielded, 0.90m length, Plastic hood, No ferrite core

Power cord (DC plug to adaptor): Shielded, 1.83m length, Plastic hood, ferrite core

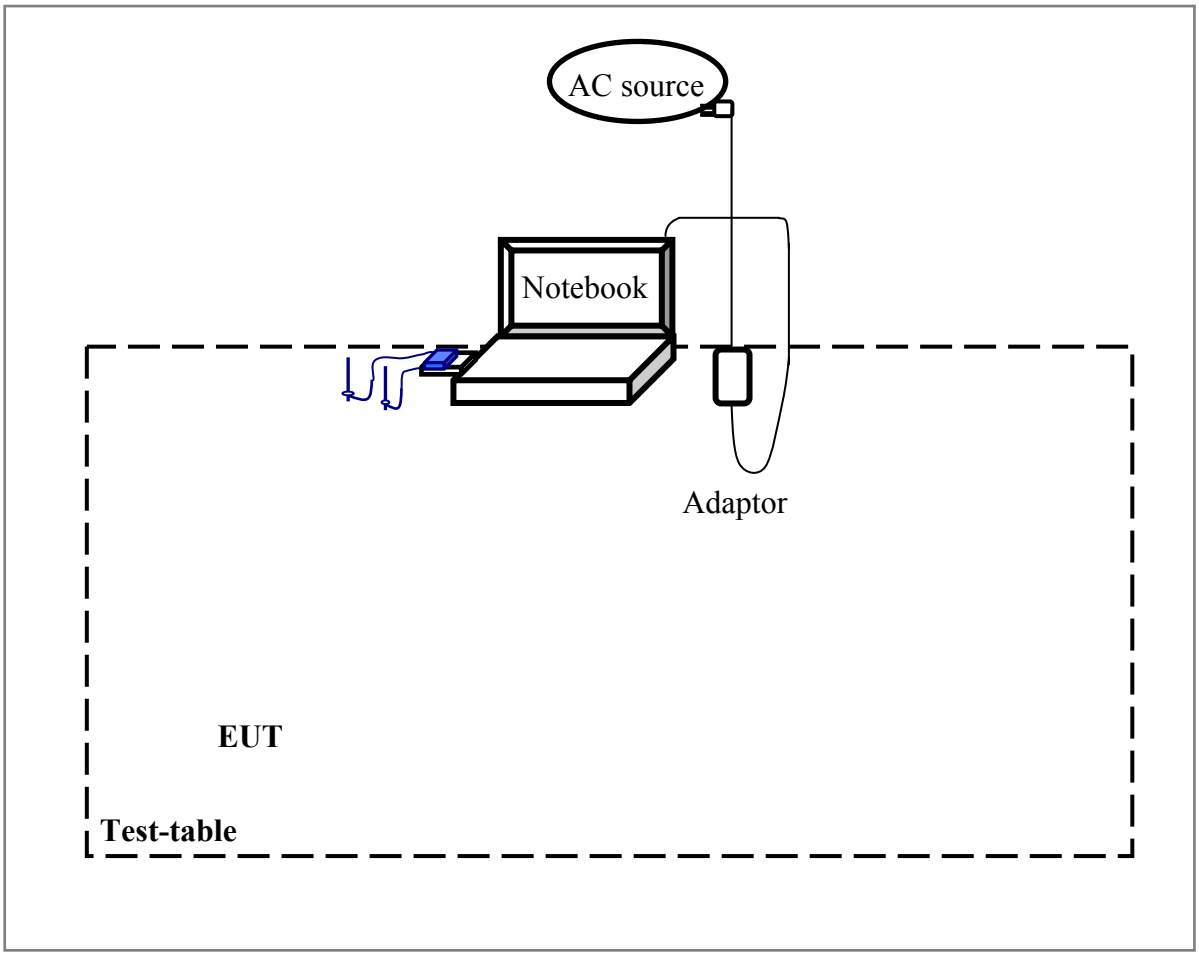
Test fixture

(PCI Express Extend Card):PEGATRON CORPORATION

Model No.	:	ADC-PEMCCC01
Serial No.	:	N/A
Power type	:	By NB

1.5 Configuration of System Under Test

1.5.1 Conducted and Radiated Emission Test



Notebook PC:

*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 USB port.

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 of IEEE 802.11b/g/n Draft 1.0 20M are in 2.412GHz to 2.462GHz. and all frequencies of IEEE 802.11n Draft 1.0 40M are in 2.422GHz to 2.452GHz.
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 and 2.422GHz to 2.452GHz. So all the items as followed in testing report are need to test these three frequencies: IEEE 802.11b/g/n Draft 1.0 20M: CH01/CH06/CH11, IEEE 802.11n Draft 1.0 40M: CH03/CH06/CH09

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 Section15.203 is inapplicable to this EUT.

The antenna specification of list as follows,

Antenna No.	Antenna Manufacturer	Model	Connector	With Core	Antenna Type	Antenna Gain (Max.)
Antenna #1	Airgain	N5X20SC-T-130U	U.FL COMPATIBLE PLUG	NO	PCB	-6.57dBi
Antenna #2	Airgain	N5X20SC-T-130U	U.FL COMPATIBLE PLUG	YES	PCB	-6.57dBi
Antenna #3	Wanshu	WPB210 & WPB211	MHF	YES	PCB	4.27dBi

Note:

1) For more detailed features description, please reference to the Antenna Specifications. (Please reference to RF Exposure Information)
2) We select three kinds antenna including **antenna #1**, **antenna #2** and **antenna #3** which apply to conduction and radiated emission.
3) The conduction and radiated emissions data presented the worst case of the **antenna #3** supplied with the EUT.

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 9 KHz. No post-detector video filter was used.

The spectrum was scanned from 150 KHz to 30 MHz. 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, one in the middle and the other in bottom.

3.2 List of Test Instruments

Calibration Date

Instrument Name	Model	Brand	Serial No.	Next time
EMI Receiver	8546A	HP	3520A00242	09/12/11
RF Filter Section	85460A	HP	3448A00217	09/12/11
LISN (EUT)	3816/2	EMCO	00042976	02/10/12
LISN (Support E.)	3816/2	EMCO	00042989	01/26/12
Pre-amplifier	15542 ZFL-500	Mini – Circuits	0 0117	10/06/11
6dB Attenuator	MCL BW-S6W2	Mini – Circuits	9915 – Conducted	10/06/11
10dB Attenuator	A5542 VAT010	Mini – Circuits	0215 – Conducted	10/06/11
Coaxial Cable (2.0 meter)	A30A30-0058-50FS-2M	Jyebao	SMA-08	10/06/11
Coaxial Cable (1.1 meter)	A30A30-0058-50FS-1M	Jyebao	SMA-09	10/06/11
Coaxial Cable (20 meter)	RG-214/U	Jyebao	NP-01	10/06/11
Coaxial Cable (20 meter)	RG-214/U	Jyebao	NP-02	10/06/11
Auto Switch Box (< 30MHz)	ASB-01	TRC	9904-01	10/06/11

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

Power Connected Emissions					*Class B*		
Conductor	***Frequency (KHz)***	***Peak (dBμV)***	***QP (dBμV)***	***Average (dBμV)***	***QP-limit (dBμV)***	***AVG-limit (dBμV)***	***Margin (dB)***
Line 1	167.000	51.90	---	---	65.51	55.51	-3.61
	224.000	42.97	---	---	63.89	53.89	-10.92
	1836.000	37.60	---	---	56.00	46.00	-8.40
	2179.000	36.96	---	---	56.00	46.00	-9.04
	3638.000	39.18	---	---	56.00	46.00	-6.82
	3864.545	46.80	44.39	29.88	56.00	46.00	-11.61
Line 2	166.000	50.26	---	---	65.54	55.54	-5.28
	1959.000	39.85	---	---	56.00	46.00	-6.15
	3158.000	41.02	---	---	56.00	46.00	-4.98
	3477.000	41.52	---	---	56.00	46.00	-4.48
	3582.645	50.53	45.52	28.24	56.00	46.00	-9.06
	3806.220	51.77	49.18	31.95	56.00	46.00	-6.30

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

Power Connected Emissions					*Class B*		
Conductor	***Frequency (KHz)***	***Peak (dBμV)***	***QP (dBμV)***	***Average (dBμV)***	***QP-limit (dBμV)***	***AVG-limit (dBμV)***	***Margin (dB)***
Line 1	167.000	48.73	---	---	65.51	55.51	-6.78
	1959.000	39.02	---	---	56.00	46.00	-6.98
	3445.000	39.90	---	---	56.00	46.00	-6.10
	3638.000	41.46	---	---	56.00	46.00	-4.54
	3803.025	46.81	44.54	30.23	56.00	46.00	-11.46
	5080.000	40.13	---	---	56.00	46.00	-5.87
Line 2	166.000	51.00	---	---	65.54	55.54	-4.54
	1678.000	40.88	---	---	56.00	46.00	-5.12
	3468.420	48.62	44.07	26.79	56.00	46.00	-11.96
	3632.875	49.08	46.03	30.14	56.00	46.00	-9.97
	3858.205	51.64	49.49	32.78	56.00	46.00	-6.54
	3967.750	51.45	49.74	33.41	56.00	46.00	-6.26

Test mode: IEEE 802.11b Channel 11

Power Connected Emissions					*Class B*		
Conductor	***Frequency (KHz)***	***Peak (dBμV)***	***QP (dBμV)***	***Average (dBμV)***	***QP-limit (dBμV)***	***AVG-limit (dBμV)***	***Margin (dB)***
Line 1	169.000	51.62	---	---	65.46	55.46	-3.84
	1836.000	37.04	---	---	56.00	46.00	-8.96
	2179.000	36.18	---	---	56.00	46.00	-9.82
	3574.775	44.76	41.60	28.16	56.00	46.00	-14.40
	3780.000	42.90	---	---	56.00	46.00	-3.10
	3965.180	47.09	45.12	30.69	56.00	46.00	-10.88
Line 2	171.000	49.39	---	---	65.40	55.40	-6.01
	1731.000	40.27	---	---	56.00	46.00	-5.73
	2029.000	39.73	---	---	56.00	46.00	-6.27
	3542.000	42.09	---	---	56.00	46.00	-3.91
	3797.625	51.77	49.74	33.57	56.00	46.00	-6.26
	3855.095	51.76	49.29	32.87	56.00	46.00	-6.71

Test mode: IEEE 802.11g Channel 1

Power Connected Emissions					*Class B*		
Conductor	***Frequency (KHz)***	***Peak (dBμV)***	***QP (dBμV)***	***Average (dBμV)***	***QP-limit (dBμV)***	***AVG-limit (dBμV)***	***Margin (dB)***
Line 1	169.000	50.69	---	---	65.46	55.46	-4.77
	1661.000	38.13	---	---	56.00	46.00	-7.87
	1836.000	38.77	---	---	56.00	46.00	-7.23
	2051.000	38.06	---	---	56.00	46.00	-7.94
	3510.000	41.06	---	---	56.00	46.00	-4.94
	3909.400	47.28	44.14	29.01	56.00	46.00	-11.86
Line 2	169.000	50.74	---	---	65.46	55.46	-4.72
	1941.000	40.52	---	---	56.00	46.00	-5.48
	3402.955	47.44	41.78	25.87	56.00	46.00	-14.22
	3627.890	50.10	46.31	28.51	56.00	46.00	-9.69
	3796.775	51.05	48.75	31.53	56.00	46.00	-7.55
	4018.735	50.87	49.06	32.23	56.00	46.00	-6.94

Test mode: IEEE 802.11g Channel 6

Power Connected Emissions					*Class B*		
Conductor	***Frequency (KHz)***	***Peak (dBμV)***	***QP (dBμV)***	***Average (dBμV)***	***QP-limit (dBμV)***	***AVG-limit (dBμV)***	***Margin (dB)***
Line 1	168.390	52.82	50.60	43.95	65.51	55.51	-11.56
	1661.000	39.17	---	---	56.00	46.00	-6.83
	1783.000	39.68	---	---	56.00	46.00	-6.32
	1889.000	39.37	---	---	56.00	46.00	-6.63
	3626.030	45.48	42.67	27.65	56.00	46.00	-13.33
	4016.645	46.42	44.62	29.98	56.00	46.00	-11.38
Line 2	167.000	50.49	---	---	65.51	55.51	-5.02
	1661.000	38.66	---	---	56.00	46.00	-7.34
	1889.000	41.50	---	---	56.00	46.00	-4.50
	3317.000	40.47	---	---	56.00	46.00	-5.53
	3737.315	50.45	47.71	31.21	56.00	46.00	-8.29
	3906.540	51.55	49.97	32.95	56.00	46.00	-6.03

Test mode: IEEE 802.11g Channel 11

Power Connected Emissions					*FCC Class B*		
Conductor	***Frequency (KHz)***	***Peak (dBμV)***	***QP (dBμV)***	***Average (dBμV)***	***QP-limit (dBμV)***	***AVG-limit (dBμV)***	***Margin (dB)***
Line 1	166.000	50.83	---	---	65.54	55.54	-4.71
	1941.000	38.88	---	---	56.00	46.00	-7.12
	2115.000	39.33	---	---	56.00	46.00	-6.67
	3606.000	41.02	---	---	56.00	46.00	-4.98
	3905.885	47.09	45.49	30.46	56.00	46.00	-10.51
	4952.000	38.95	---	---	56.00	46.00	-7.05
Line 2	166.000	50.12	---	---	65.54	55.54	-5.42
	1941.000	40.61	---	---	56.00	46.00	-5.39
	2158.000	39.09	---	---	56.00	46.00	-6.91
	3625.150	50.05	46.05	29.16	56.00	46.00	-9.95
	3732.105	49.88	46.50	26.28	56.00	46.00	-9.50
	4016.620	50.17	48.94	32.71	56.00	46.00	-7.06

Test mode: IEEE 802.11n 20M Channel 1

Power Connected Emissions					*Class B*		
Conductor	***Frequency (KHz)***	***Peak (dBμV)***	***QP (dBμV)***	***Average (dBμV)***	***QP-limit (dBμV)***	***AVG-limit (dBμV)***	***Margin (dB)***
Line 1	167.000	49.94	---	---	65.51	55.51	-5.57
	1889.000	38.88	---	---	56.00	46.00	-7.12
	2051.000	38.17	---	---	56.00	46.00	-7.83
	3606.000	40.46	---	---	56.00	46.00	-5.54
	4075.730	46.32	43.72	29.45	56.00	46.00	-12.28
	4619.000	37.29	---	---	56.00	46.00	-8.71
Line 2	2115.000	41.48	---	---	56.00	46.00	-4.52
	3459.505	49.03	44.91	27.21	56.00	46.00	-11.09
	3684.180	51.16	48.63	31.14	56.00	46.00	-7.37
	3961.235	50.85	48.81	32.77	56.00	46.00	-7.19
	4128.110	47.24	43.51	30.56	56.00	46.00	-12.49
	4288.000	42.68	---	---	56.00	46.00	-3.32

Test mode: IEEE 802.11n 20M Channel 6

Power Connected Emissions					*Class B*		
Conductor	***Frequency (KHz)***	***Peak (dBμV)***	***QP (dBμV)***	***Average (dBμV)***	***QP-limit (dBμV)***	***AVG-limit (dBμV)***	***Margin (dB)***
Line 1	167.000	51.41	---	---	65.51	55.51	-4.10
	2012.000	38.92	---	---	56.00	46.00	-7.08
	2115.000	40.09	---	---	56.00	46.00	-5.91
	3445.000	39.72	---	---	56.00	46.00	-6.28
	3739.625	46.01	43.31	29.19	56.00	46.00	-12.69
	4053.000	40.04	---	---	56.00	46.00	-5.96
Line 2	169.000	49.41	---	---	65.46	55.46	-6.05
	2115.000	41.37	---	---	56.00	46.00	-4.63
	2571.290	49.13	45.83	29.43	56.00	46.00	-10.17
	3795.660	50.91	49.23	33.13	56.00	46.00	-6.77
	4018.350	51.10	49.02	32.90	56.00	46.00	-6.98
	4406.000	39.70	---	---	56.00	46.00	-6.30

Test mode: IEEE 802.11n 20M Channel 11

Power Connected Emissions					*Class B*		
Conductor	***Frequency (KHz)***	***Peak (dBμV)***	***QP (dBμV)***	***Average (dBμV)***	***QP-limit (dBμV)***	***AVG-limit (dBμV)***	***Margin (dB)***
Line 1	164.000	51.90	---	---	65.60	55.60	-3.70
	1713.000	38.11	---	---	56.00	46.00	-7.89
	1941.000	38.58	---	---	56.00	46.00	-7.42
	2329.000	38.33	---	---	56.00	46.00	-7.67
	3445.000	39.27	---	---	56.00	46.00	-6.73
	3796.690	51.40	49.62	32.81	56.00	46.00	-6.38
Line 2	169.000	50.81	---	---	65.46	55.46	-4.65
	1661.000	40.44	---	---	56.00	46.00	-5.56
	3460.070	48.10	43.08	27.38	56.00	46.00	-12.92
	3685.780	50.19	48.26	30.12	56.00	46.00	-7.74
	3796.655	51.63	49.64	31.97	56.00	46.00	-6.36
	4018.160	49.33	49.06	32.99	56.00	46.00	-6.94

Test mode: IEEE 802.11n 40M Channel 3

Power Connected Emissions					*Class B*		
Conductor	***Frequency (KHz)***	***Peak (dBμV)***	***QP (dBμV)***	***Average (dBμV)***	***QP-limit (dBμV)***	***AVG-limit (dBμV)***	***Margin (dB)***
Line 1	166.000	48.25	---	---	65.54	55.54	-7.29
	1731.000	38.20	---	---	56.00	46.00	-7.80
	1889.000	38.14	---	---	56.00	46.00	-7.86
	3381.000	40.87	---	---	56.00	46.00	-5.13
	3741.000	41.26	---	---	56.00	46.00	-4.74
	4171.000	39.93	---	---	56.00	46.00	-6.07
Line 2	166.000	49.96	---	---	65.54	55.54	-5.58
	1941.000	40.14	---	---	56.00	46.00	-5.86
	3292.985	45.33	40.00	22.28	56.00	46.00	-16.00
	3574.850	49.63	45.43	28.35	56.00	46.00	-10.57
	3909.600	51.78	49.75	31.95	56.00	46.00	-6.25
	4131.795	46.50	46.22	31.24	56.00	46.00	-9.78

Test mode: IEEE 802.11n 40M Channel 6

Power Connected Emissions					*Class B*		
Conductor	***Frequency (KHz)***	***Peak (dBμV)***	***QP (dBμV)***	***Average (dBμV)***	***QP-limit (dBμV)***	***AVG-limit (dBμV)***	***Margin (dB)***
Line 1	167.000	52.18	---	---	65.51	55.51	-3.33
	1613.000	37.27	---	---	56.00	46.00	-8.73
	2012.000	39.39	---	---	56.00	46.00	-6.61
	3542.000	38.23	---	---	56.00	46.00	-7.77
	3797.100	46.72	44.99	29.55	56.00	46.00	-11.01
	5030.000	40.10	---	---	60.00	50.00	-9.90
Line 2	167.000	49.98	---	---	65.51	55.51	-5.53
	1566.000	39.30	---	---	56.00	46.00	-6.70
	1836.000	39.36	---	---	56.00	46.00	-6.64
	3349.665	46.38	41.01	24.75	56.00	46.00	-14.99
	3740.485	49.84	47.68	30.82	56.00	46.00	-8.32
	4021.560	50.73	48.15	30.99	56.00	46.00	-7.85

Test mode: IEEE 802.11n 40M Channel 9

Power Connected Emissions					*FCC Class B*		
Conductor	***Frequency (KHz)***	***Peak (dBμV)***	***QP (dBμV)***	***Average (dBμV)***	***QP-limit (dBμV)***	***AVG-limit (dBμV)***	***Margin (dB)***
Line 1	166.000	50.44	---	---	65.54	55.54	-5.10
	1836.000	39.95	---	---	56.00	46.00	-6.05
	3574.000	39.79	---	---	56.00	46.00	-6.21
	3670.000	42.09	---	---	56.00	46.00	-3.91
	3780.000	42.72	---	---	56.00	46.00	-3.28
	3907.700	47.16	45.30	30.26	56.00	46.00	-10.70
Line 2	167.000	52.12	---	---	65.51	55.51	-3.39
	3349.000	41.52	---	---	56.00	46.00	-4.48
	3510.000	43.00	---	---	56.00	46.00	-3.00
	3683.345	49.86	47.24	29.69	56.00	46.00	-8.76
	3796.885	51.12	49.00	31.23	56.00	46.00	-7.00
	4018.950	49.47	47.61	31.99	56.00	46.00	-8.39

IV. 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 30MHz to 1000MHz 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, one in the middle and the other in bottom. 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

FIa (dBuV/m) = FIr (dBμV) + Correction Factors

FIa : Actual Field Intensity

FIr : Reading of the Field Intensity

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

For frequency between 1GHz to 25GHz

FIa (dBμV/m) = FIr (dBμV) + Correction Factor

FIa : Actual Field Intensity

FIr : Reading of the Field Intensity

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

5.2 List of Test Instruments

Calibration Date

Instrument Name	Model	Brand	Serial No.	Next time
EMI Receiver	8546A	HP	3520A00242	09/12/11
RF Filter Section	85460A	HP	3448A00217	09/12/11
Small Biconical Antenna	UBAA9114 & BBVU9135	Schwarzeck	127	09/21/11
Pre-amplifier	PA1F	TRC	1FAC	10/06/11
Coaxial Cable (Double shielded, 15 meter)	A30A30-0058-50FS-15M	Jyebao	SMA-01	10/06/11
Coaxial Cable (1.1 meter)	A30A30-0058-50FS-1M	JYEBAO	SMA-02	10/06/11
Spectrum Analyzer	8564E	HP	3720A00840	04/12/12
Microwave Preamplifier	84125C	HP	US36433002	10/19/11
Horn Antenna	3115	EMCO	9104-3668	01/27/12
Standard Guide Horn Antenna	84125-80008	HP	18-26.5GHz	01/18/12
Standard Guide Horn Antenna	84125-80001	HP	26.5-40GHz	01/31/12
Horn Antenna	1196E (3115)	HP (EMCO)	9704-5178	01/31/12
Pre-amplifier	PA2F	TRC	2F1GZ	01/31/12
Coaxial Cable (3 miter)	A30A30-0058-50FST118	JYEBAO	MSA-05	01/31/12
Coaxial Cable (1 meter)	A30A30-0058-50FST118	JYEBAO	MSA-04	01/31/12

5.3 Test Result of Spurious Radiated Emissions

The highest peak values of radiated emissions form 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*	*Corrected Amplitude*	*Class B (3 m)*	
Frequency (MHz)	*Amplitude (dBμV)*	*Ant. H. (m)*	*Table ( )*	*(dB)*	*(dBμV/m)*	*Limit (dBμV/m)*	*Margin (dB)*
100.32	33.34	1.00	310	-0.98	32.36	43.50	-11.14
197.32	42.72	1.00	160	-2.89	39.83	43.50	-3.67
210.66	35.33	1.00	120	-2.75	32.58	43.50	-10.92
257.95	41.50	1.00	103	-3.46	38.04	46.00	-7.96
300.39	41.45	1.00	173	-2.83	38.62	46.00	-7.38
321.00	37.72	1.00	183	-2.62	35.10	46.00	-10.90

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

Radiated Emission				*Correction Factors*	*Corrected Amplitude*	*Class B (3 m)*	
Frequency (MHz)	*Amplitude (dBμV)*	*Ant. H. (m)*	*Table ( )*	*(dB)*	*(dBμV/m)*	*Limit (dBμV/m)*	*Margin (dB)*
100.32	31.20	1.00	215	-0.98	30.22	43.50	-13.28
167.01	32.64	1.00	175	-3.66	28.98	43.50	-14.52
197.32	35.19	1.00	225	-2.89	32.30	43.50	-11.20
225.21	31.87	1.00	74	-3.22	28.65	46.00	-17.35
322.21	31.23	1.00	0	-2.61	28.62	46.00	-17.38
696.87	24.89	1.00	280	9.30	34.19	46.00	-11.81

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 26.5GHz [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*
2493.54	1.00	18	45.66	33.83	9.47	55.13	43.30	73.96	53.96	-10.66
2570.61	1.00	200	46.51	36.50	9.62	56.13	46.12	73.96	53.96	-7.84
2651.72	1.00	279	44.33	34.83	9.78	54.11	44.61	73.96	53.96	-9.35
2731.30	1.00	279	43.17	33.17	9.92	53.09	43.09	73.96	53.96	-10.87
7233.75	1.00	228	37.24	---	10.07	47.31	---	73.96	53.96	-6.65
24120.00	1.00	91	44.64	---	3.40	48.04	---	73.96	53.96	-5.92

Test mode: IEEE 802.11b CH01 for 1GHz to 26.5GHz [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*
2491.12	1.00	5	44.65	33.00	9.47	54.12	42.47	73.96	53.96	-11.49
2570.80	1.00	5	45.83	35.67	9.62	55.45	45.29	73.96	53.96	-8.67
2653.36	1.00	19	46.83	35.67	9.78	56.61	45.45	73.96	53.96	-8.51
2731.67	1.00	19	46.32	35.67	9.93	56.25	45.60	73.96	53.96	-8.36
9650.42	1.00	159	34.57	---	11.47	46.04	---	73.96	53.96	-7.92
24120.00	1.00	109	44.50	---	3.40	47.90	---	73.96	53.96	-6.06

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]

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
100.32	32.46	1.00	316	-0.98	31.48	43.50	-12.02
197.32	43.07	1.00	145	-2.89	40.18	43.50	-3.32
260.37	40.76	1.00	87	-3.48	37.28	46.00	-8.72
300.39	43.83	1.00	178	-2.83	41.00	46.00	-5.00
328.27	35.77	1.00	178	-2.55	33.22	46.00	-12.78
365.86	35.03	1.00	178	-1.87	33.16	46.00	-12.84

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

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
39.70	24.38	1.00	326	4.22	28.60	40.00	-11.40
91.84	27.93	1.00	207	-0.29	27.64	43.50	-15.86
101.54	29.73	1.00	207	-1.04	28.69	43.50	-14.81
197.32	35.64	1.00	238	-2.89	32.75	43.50	-10.75
210.66	31.16	1.00	126	-2.75	28.41	43.50	-15.09
699.30	25.76	1.00	301	9.38	35.14	46.00	-10.86

Test mode: IEEE 802.11b CH06 for 1GHz to 26.5GHz [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*
1658.33	1.00	175	38.33	---	13.42	51.75	---	73.96	53.96	-2.21
2489.73	1.00	30	45.67	32.50	9.46	55.13	41.96	73.96	53.96	-12.00
2599.61	1.00	29	43.83	34.83	9.68	53.51	44.51	73.96	53.96	-9.45
2683.90	1.00	42	44.32	33.67	9.84	54.16	43.51	73.96	53.96	-10.45
12187.92	1.00	244	37.63	---	9.74	47.37	---	73.96	53.96	-6.59
21934.79	1.00	185	45.99	---	3.09	49.08	---	73.96	53.96	-4.88

Test mode: IEEE 802.11b CH06 for 1GHz to 26.5GHz [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*
1661.84	1.00	84	38.88	24.50	13.37	52.25	37.87	73.96	53.96	-16.09
2491.87	1.00	17	46.16	32.33	9.47	55.63	41.80	73.96	53.96	-12.16
2600.98	1.00	17	45.00	35.33	9.68	54.68	45.01	73.96	53.96	-8.95
2683.76	1.00	17	46.49	36.17	9.84	56.33	46.01	73.96	53.96	-7.95
12187.92	1.00	217	37.85	---	9.74	47.59	---	73.96	53.96	-6.37
24371.46	1.00	206	46.02	---	3.26	49.28	---	73.96	53.96	-4.68

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

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
100.32	32.77	1.00	316	-0.98	31.79	43.50	-11.71
197.32	43.47	1.00	145	-2.89	40.58	43.50	-2.92
210.66	36.35	1.00	114	-2.75	33.60	43.50	-9.90
257.95	40.39	1.00	199	-3.46	36.93	46.00	-9.07
300.39	42.95	1.00	178	-2.83	40.12	46.00	-5.88
368.29	35.31	1.00	178	-1.80	33.51	46.00	-12.49

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

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
97.90	30.70	1.00	106	-0.79	29.06	43.50	-14.44
130.64	30.70	1.00	178	-2.69	28.01	43.50	-15.49
168.22	30.16	1.00	158	-3.65	26.51	43.50	-16.99
194.90	35.87	1.00	353	-2.98	32.89	43.50	-10.61
301.60	31.19	1.00	161	-2.81	28.38	46.00	-17.62
696.87	25.58	1.00	301	9.30	34.88	46.00	-11.12

Test mode: IEEE 802.11b CH11 for 1GHz to 26.5GHz [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*
1660.51	1.00	326	40.33	24.00	13.39	53.72	37.39	73.96	53.96	-16.57
2621.64	1.00	39	44.00	36.33	9.71	53.71	46.05	73.96	53.96	-7.91
2701.97	1.00	84	46.50	34.17	9.87	56.37	44.04	73.96	53.96	-9.92
7384.40	1.00	136	55.78	31.53	10.42	66.20	41.95	73.96	53.96	-7.76
12309.18	1.00	325	47.20	35.44	9.56	56.76	45.00	73.96	53.96	-8.96
24619.37	1.00	44	46.20	---	3.01	49.21	---	73.96	53.96	-4.75

Test mode: IEEE 802.11b CH11 for 1GHz to 26.5GHz [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*
2558.33	1.00	233	41.33	---	9.60	50.93	---	73.96	53.96	-3.03
2622.30	1.00	233	46.00	36.83	9.72	55.72	46.55	73.96	53.96	-7.41
2702.50	1.00	209	46.50	37.00	9.87	56.37	46.87	73.96	53.96	-7.09
7387.66	1.00	186	42.66	26.81	10.42	53.08	37.23	73.96	53.96	-16.73
12310.77	1.00	297	53.19	36.13	9.55	62.74	45.68	73.96	53.96	-8.28
24120.00	1.00	109	44.50	---	3.40	47.90	---	73.96	53.96	-6.06

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

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
101.54	32.88	1.00	326	-1.04	31.84	43.50	-11.66
198.54	42.41	1.00	155	-2.85	39.56	43.50	-3.94
210.66	36.31	1.00	104	-2.75	33.56	43.50	-9.94
227.64	36.43	1.00	108	-3.25	33.18	46.00	-12.82
261.59	39.21	1.00	199	-3.47	35.74	46.00	-10.26
302.81	42.06	1.00	178	-2.80	39.26	46.00	-6.74

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

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
93.05	27.71	1.00	30	-0.39	27.32	43.50	-16.18
101.54	30.29	1.00	202	-1.04	29.25	43.50	-14.25
129.43	29.59	1.00	141	-2.61	26.98	43.50	-16.52
167.01	29.96	1.00	172	-3.66	26.30	43.50	-17.20
198.54	35.43	1.00	232	-2.85	32.58	43.50	-10.92
696.87	25.16	1.00	301	9.30	34.46	46.00	-11.54

Test mode: IEEE 802.11g CH01 for 1GHz to 26.5GHz [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*
1662.50	1.00	192	38.66	---	13.36	52.02	---	73.96	53.96	-1.94
2339.58	1.00	35	40.83	---	9.04	49.87	---	73.96	53.96	-4.09
2491.28	1.00	34	44.66	28.50	9.47	54.13	37.97	73.96	53.96	-15.99
2568.75	1.00	258	40.00	---	9.62	49.62	---	73.96	53.96	-4.34
12061.04	1.00	186	36.00	---	9.81	45.81	---	73.96	53.96	-8.15
24120.00	1.00	89	44.38	---	3.40	47.78	---	73.96	53.96	-6.18

Test mode: IEEE 802.11g CH01 for 1GHz to 26.5GHz [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*
1658.33	1.00	138	38.83	---	13.42	52.25	---	73.96	53.96	-1.71
2500.00	1.00	44	42.17	---	9.49	51.66	---	73.96	53.96	-2.30
2559.98	1.00	43	43.34	25.33	9.60	52.94	34.93	73.96	53.96	-19.03
2725.00	1.00	217	40.50	---	9.91	50.41	---	73.96	53.96	-3.55
12061.04	1.00	308	37.03	---	9.81	46.84	---	73.96	53.96	-7.12
24120.00	1.00	98	44.42	---	3.40	47.82	---	73.96	53.96	-6.14

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

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
101.54	33.05	1.00	326	-1.04	32.01	43.50	-11.49
198.54	42.59	1.00	155	-2.85	39.74	43.50	-3.76
209.45	35.67	1.00	114	-2.73	32.94	43.50	-10.56
262.80	41.01	1.00	148	-3.45	37.56	46.00	-8.44
301.60	42.43	1.00	178	-2.81	39.62	46.00	-6.38
322.21	36.38	1.00	178	-2.61	33.77	46.00	-12.23

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

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
39.70	24.20	1.00	194	4.22	28.42	40.00	-11.58
93.05	27.69	1.00	65	-0.39	27.30	43.50	-16.20
101.54	30.20	1.00	217	-1.04	29.16	43.50	-14.34
130.64	29.42	1.00	156	-2.69	26.73	43.50	-16.77
198.54	35.78	1.00	248	-2.85	32.93	43.50	-10.57
699.30	26.08	1.00	294	9.38	35.46	46.00	-10.54

Test mode: IEEE 802.11g CH06 for 1GHz to 26.5GHz [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*
1662.44	1.00	176	39.89	24.17	13.36	53.25	37.53	73.96	53.96	-16.43
2529.17	1.00	16	41.67	---	9.54	51.21	---	73.96	53.96	-2.75
2604.17	1.00	303	41.33	---	9.69	51.02	---	73.96	53.96	-2.94
7310.68	1.00	164	42.23	21.92	10.30	52.53	32.22	73.96	53.96	-21.43
12187.92	1.00	255	41.47	---	9.74	51.21	---	73.96	53.96	-2.75
24371.46	1.00	219	46.08	---	3.26	49.34	---	73.96	53.96	-4.62

Test mode: IEEE 802.11g CH06 for 1GHz to 26.5GHz [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*
1662.13	1.00	217	39.06	24.83	13.36	52.42	38.19	73.96	53.96	-15.77
2350.00	1.00	360	42.67	---	9.07	51.74	---	73.96	53.96	-2.22
2593.75	1.00	12	42.16	---	9.67	51.83	---	73.96	53.96	-2.13
2687.00	1.00	171	43.00	27.00	9.84	52.84	36.84	73.96	53.96	-17.12
12187.92	1.00	68	39.96	---	9.74	49.70	---	73.96	53.96	-4.26
24371.46	1.00	212	45.90	---	3.26	49.16	---	73.96	53.96	-4.80

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

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
100.32	32.80	1.00	306	-0.98	31.82	43.50	-11.68
197.32	42.64	1.00	165	-2.89	39.75	43.50	-3.75
209.45	35.08	1.00	124	-2.73	32.35	43.50	-11.15
256.74	41.06	1.00	199	-3.44	37.62	46.00	-8.38
285.84	42.38	1.00	199	-2.81	39.57	46.00	-6.43
300.39	42.72	1.00	168	-2.83	39.89	46.00	-6.11

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

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
93.05	27.36	1.00	177	-0.39	26.97	43.50	-16.53
101.54	30.43	1.00	207	-1.04	29.39	43.50	-14.11
130.64	28.97	1.00	207	-2.69	26.28	43.50	-17.22
168.22	29.95	1.00	156	-3.65	26.30	43.50	-17.20
193.69	35.15	1.00	105	-3.02	32.13	43.50	-11.37
696.87	26.64	1.00	287	9.30	35.94	46.00	-10.06

Test mode: IEEE 802.11g CH11 for 1GHz to 26.5GHz [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*
1664.58	1.00	231	36.67	---	13.32	49.99	---	73.96	53.96	-3.97
2343.75	1.00	58	40.17	---	9.05	49.22	---	73.96	53.96	-4.74
2624.48	1.00	237	44.33	23.67	9.72	54.05	33.39	73.96	53.96	-19.91
2703.43	1.00	236	44.66	23.67	9.87	54.53	33.54	73.96	53.96	-19.43
7388.43	1.00	187	43.55	22.89	10.42	53.97	33.31	73.96	53.96	-19.99
24619.37	1.00	60	46.12	---	3.01	49.13	---	73.96	53.96	-4.83

Test mode: IEEE 802.11g CH11 for 1GHz to 26.5GHz [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*
1662.50	1.00	350	38.00	---	13.36	51.36	---	73.96	53.96	-2.60
2358.33	1.00	3	42.34	---	9.09	51.43	---	73.96	53.96	-2.53
2621.00	1.00	21	45.33	28.33	9.72	55.05	38.05	73.96	53.96	-15.91
2701.25	1.00	21	46.00	28.00	9.87	55.87	37.87	73.96	53.96	-16.09
12314.03	1.00	52	45.17	25.70	9.53	54.70	35.23	73.96	53.96	-18.73
24619.37	1.00	45	46.53	---	3.01	49.54	---	73.96	53.96	-4.42

Test mode: IEEE 802.11n 20M CH01 for 30MHz to 1GHz [Horizontal]

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
101.54	32.38	1.00	326	-1.04	31.34	43.50	-12.16
168.22	34.54	1.00	136	-3.65	30.89	43.50	-12.61
198.54	43.10	1.00	146	-2.85	40.25	43.50	-3.25
260.37	38.27	1.00	88	-3.48	34.79	46.00	-11.21
301.60	42.16	1.00	177	-2.81	39.35	46.00	-6.65
368.29	35.33	1.00	170	-1.80	33.53	46.00	-12.47

Test mode: IEEE 802.11n 20M CH01 for 30MHz to 1GHz [Vertical]

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
100.32	30.49	1.00	228	-0.98	29.51	43.50	-13.99
128.21	29.42	1.00	136	-2.54	26.88	43.50	-16.62
167.01	32.42	1.00	197	-3.66	28.76	43.50	-14.74
197.32	35.76	1.00	248	-2.89	32.87	43.50	-10.63
299.17	31.37	1.00	160	-2.82	28.55	46.00	-17.45
696.87	27.04	1.00	287	9.30	36.34	46.00	-9.66

Test mode: IEEE 802.11n 20M CH01 for 1GHz to 26.5GHz [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*
1663.89	1.00	239	41.66	24.00	13.33	54.99	37.33	73.96	53.96	-16.63
2343.75	1.00	57	41.50	---	9.05	50.55	---	73.96	53.96	-3.41
2494.21	1.00	295	44.84	33.67	9.47	54.31	43.30	73.96	53.96	-10.66
2565.39	1.04	56	43.18	33.67	9.61	52.79	42.61	73.96	53.96	-11.35
12061.04	1.00	298	39.35	---	9.81	49.16	---	73.96	53.96	-4.80
19296.25	1.00	293	46.74	---	1.60	48.34	---	73.96	53.96	-5.62

Test mode: IEEE 802.11n 20M CH01 for 1GHz to 26.5GHz [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*
1662.73	1.00	350	41.04	25.00	13.35	54.39	38.35	73.96	53.96	-15.61
2495.83	1.00	10	42.00	---	9.48	51.48	---	73.96	53.96	-2.48
2577.08	1.00	10	40.17	---	9.63	49.80	---	73.96	53.96	-4.16
2691.67	1.00	278	38.83	---	9.85	48.68	---	73.96	53.96	-5.28
12061.04	1.00	232	36.15	---	9.81	45.96	---	73.96	53.96	-8.00
24120.00	1.00	96	44.46	---	3.40	47.86	---	73.96	53.96	-6.10

Test mode: IEEE 802.11n 20M CH06 for 30MHz to 1GHz [Horizontal]

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
101.54	32.84	1.00	316	-1.04	31.80	43.50	-11.70
168.22	33.84	1.00	158	-3.65	30.19	43.50	-13.31
198.54	43.19	1.00	147	-2.85	40.34	43.50	-3.16
257.95	37.94	1.00	206	-3.46	34.48	46.00	-11.52
301.60	41.99	1.00	173	-2.81	39.18	46.00	-6.82
329.49	36.72	1.00	184	-2.54	34.18	46.00	-11.82

Test mode: IEEE 802.11n 20M CH06 for 30MHz to 1GHz [Vertical]

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
101.54	30.69	1.00	225	-1.04	29.65	43.50	-13.85
130.64	28.14	1.00	145	-2.69	25.45	43.50	-18.05
167.01	32.02	1.00	178	-3.66	28.36	43.50	-15.14
198.54	35.43	1.00	236	-2.85	32.58	43.50	-10.92
301.60	30.63	1.00	156	-2.81	27.82	46.00	-18.18
696.87	25.90	1.00	295	9.30	35.20	46.00	-10.80

Test mode: IEEE 802.11n 20M CH06 for 1GHz to 26.5GHz [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*
2348.39	1.00	65	44.16	31.33	9.07	53.23	40.40	73.96	53.96	-13.56
2528.30	1.00	269	46.16	34.50	9.54	55.70	44.04	73.96	53.96	-9.92
2599.64	1.00	223	46.83	34.50	9.68	56.51	44.18	73.96	53.96	-9.78
2684.20	1.00	223	44.32	33.50	9.84	54.16	43.34	73.96	53.96	-10.62
12187.68	1.00	230	44.92	25.86	9.74	54.66	35.60	73.96	53.96	-18.36
21934.79	1.00	295	46.10	---	3.09	49.19	---	73.96	53.96	-4.77

Test mode: IEEE 802.11n 20M CH06 for 1GHz to 26.5GHz [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*
1658.41	1.00	69	41.32	23.67	13.42	54.74	37.09	73.96	53.96	-16.87
2518.75	1.00	304	41.33	---	9.53	50.86	---	73.96	53.96	-3.10
2601.30	1.00	304	45.67	33.67	9.68	55.35	43.35	73.96	53.96	-10.61
2688.49	1.00	360	45.33	34.17	9.84	55.17	44.01	73.96	53.96	-9.95
12181.64	1.00	313	46.82	25.55	9.72	56.54	35.27	73.96	53.96	-17.42
24371.46	1.00	294	46.06	---	3.26	49.32	---	73.96	53.96	-4.64

Test mode: IEEE 802.11n 20M CH11 for 30MHz to 1GHz [Horizontal]

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
101.54	33.12	1.00	329	-1.04	32.08	43.50	-11.42
169.44	34.06	1.00	146	-3.65	30.41	43.50	-13.09
198.54	42.66	1.00	146	-2.85	39.81	43.50	-3.69
257.95	38.82	1.00	200	-3.46	35.36	46.00	-10.64
301.60	41.00	1.00	160	-2.81	38.19	46.00	-7.81
329.49	36.56	1.00	170	-2.54	34.02	46.00	-11.98

Test mode: IEEE 802.11n 20M CH11 for 30MHz to 1GHz [Vertical]

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
101.54	31.21	1.00	204	-1.04	30.17	43.50	-13.33
130.64	30.54	1.00	143	-2.69	27.85	43.50	-15.65
168.22	32.26	1.00	173	-3.65	28.61	43.50	-14.89
198.54	35.19	1.00	255	-2.85	32.34	43.50	-11.16
325.85	31.78	1.00	27	-2.58	29.20	46.00	-16.80
696.87	26.13	1.00	287	9.30	35.43	46.00	-10.57

Test mode: IEEE 802.11n 20M CH11 for 1GHz to 26.5GHz [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*
1664.00	1.00	100	39.89	23.83	13.33	53.22	37.16	73.96	53.96	-16.80
2545.83	1.00	14	41.00	---	9.58	50.58	---	73.96	53.96	-3.38
2620.97	1.00	27	43.49	34.67	9.72	53.21	44.39	73.96	53.96	-9.57
2697.92	1.00	27	40.50	---	9.86	50.36	---	73.96	53.96	-3.60
12308.75	1.00	13	37.32	---	9.56	46.88	---	73.96	53.96	-7.08
24619.37	1.00	47	46.26	---	3.01	49.27	---	73.96	53.96	-4.69

Test mode: IEEE 802.11n 20M CH11 for 1GHz to 26.5GHz [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*
1661.13	1.00	333	40.34	24.83	13.38	53.72	38.21	73.96	53.96	-15.75
2350.00	1.00	190	40.33	---	9.07	49.40	---	73.96	53.96	-4.56
2620.75	1.00	146	43.16	33.33	9.72	52.88	43.05	73.96	53.96	-10.91
2707.96	1.00	130	44.15	32.50	9.88	54.03	42.38	73.96	53.96	-11.58
12308.75	1.00	198	36.74	---	9.56	46.30	---	73.96	53.96	-7.66
24619.37	1.00	47	46.06	---	3.01	49.07	---	73.96	53.96	-4.89

Test mode: IEEE 802.11n 40M CH03 for 30MHz to 1GHz [Horizontal]

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
100.32	33.77	1.00	309	-0.98	32.79	43.50	-10.71
197.32	42.24	1.00	146	-2.89	39.35	43.50	-4.15
210.66	35.77	1.00	136	-2.75	33.02	43.50	-10.48
256.74	42.08	1.00	88	-3.44	38.64	46.00	-7.36
301.60	39.99	1.00	170	-2.81	37.18	46.00	-8.82
321.00	36.75	1.00	180	-2.62	34.13	46.00	-11.87

Test mode: IEEE 802.11n 40M CH03 for 30MHz to 1GHz [Vertical]

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
101.54	32.33	1.00	215	-1.04	31.29	43.50	-12.21
130.64	28.97	1.00	114	-2.69	26.28	43.50	-17.22
168.22	33.16	1.00	155	-3.65	29.51	43.50	-13.99
198.54	35.05	1.00	236	-2.85	32.20	43.50	-11.30
616.85	24.88	1.00	84	6.87	31.75	46.00	-14.25
696.87	25.16	1.00	280	9.30	34.46	46.00	-11.54

Test mode: IEEE 802.11n 40M CH03 for 1GHz to 26.5GHz [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*
1663.38	1.00	339	40.45	24.00	13.34	53.79	37.34	73.96	53.96	-16.62
2579.17	1.00	71	39.67	---	9.64	49.31	---	73.96	53.96	-4.65
2729.17	1.00	87	39.00	---	9.92	48.92	---	73.96	53.96	-5.04
12109.37	1.00	221	36.28	---	9.61	45.89	---	73.96	53.96	-8.07
21796.67	1.00	193	44.69	---	2.72	47.41	---	73.96	53.96	-6.55
24219.17	1.00	321	45.76	---	2.85	48.61	---	73.96	53.96	-5.35

Test mode: IEEE 802.11n 40M CH03 for 1GHz to 26.5GHz [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*
1665.21	1.00	259	40.51	24.00	13.31	53.82	37.31	73.96	53.96	-16.65
2156.25	1.00	238	39.00	---	8.53	47.53	---	73.96	53.96	-6.43
2585.42	1.00	122	39.50	---	9.65	49.15	---	73.96	53.96	-4.81
2725.00	1.00	90	39.17	---	9.91	49.08	---	73.96	53.96	-4.88
9686.67	1.00	227	34.52	---	11.63	46.15	---	73.96	53.96	-7.81
24219.17	1.00	317	45.54	---	2.85	48.39	---	73.96	53.96	-5.57

Test mode: IEEE 802.11n 40M CH06 for 30MHz to 1GHz [Horizontal]

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
101.54	33.53	1.00	336	-1.04	32.49	43.50	-11.01
198.54	42.22	1.00	145	-2.85	39.37	43.50	-4.13
211.87	35.90	1.00	165	-2.81	33.09	43.50	-10.41
257.95	41.06	1.00	87	-3.46	37.60	46.00	-8.40
287.05	37.76	1.00	269	-2.77	34.99	46.00	-11.01
300.39	39.79	1.00	168	-2.83	36.96	46.00	-9.04

Test mode: IEEE 802.11n 40M CH06 for 30MHz to 1GHz [Vertical]

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
100.32	32.53	1.00	195	-0.98	31.55	43.50	-11.95
130.64	29.37	1.00	145	-2.69	26.68	43.50	-16.82
167.01	32.53	1.00	175	-3.66	28.87	43.50	-14.63
198.54	35.05	1.00	246	-2.85	32.20	43.50	-11.30
501.66	25.67	1.00	262	3.03	28.70	46.00	-17.30
696.87	24.52	1.00	315	9.30	33.82	46.00	-12.18

Test mode: IEEE 802.11n 40M CH06 for 1GHz to 26.5GHz [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*
1662.06	1.00	247	40.83	24.50	13.36	54.19	37.86	73.96	53.96	-16.10
2583.33	1.00	137	39.50	---	9.65	49.15	---	73.96	53.96	-4.81
2718.75	1.00	219	39.17	---	9.90	49.07	---	73.96	53.96	-4.89
12187.92	1.00	2	38.32	---	9.74	48.06	---	73.96	53.96	-5.90
21934.79	1.00	277	46.16	---	3.09	49.25	---	73.96	53.96	-4.71
24371.46	1.00	297	45.93	---	3.26	49.19	---	73.96	53.96	-4.77

Test mode: IEEE 802.11n 40M CH06 for 1GHz to 26.5GHz [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*
1662.20	1.00	358	41.03	24.83	13.36	54.39	38.19	73.96	53.96	-15.77
2585.42	1.00	7	40.17	---	9.65	49.82	---	73.96	53.96	-4.14
2718.75	1.00	262	38.33	---	9.90	48.23	---	73.96	53.96	-5.73
12187.92	1.00	310	37.34	---	9.74	47.08	---	73.96	53.96	-6.88
21934.79	1.00	271	46.18	---	3.09	49.27	---	73.96	53.96	-4.69
24371.46	1.00	298	46.10	---	3.26	49.36	---	73.96	53.96	-4.60

Test mode: IEEE 802.11n 40M CH09 for 30MHz to 1GHz [Horizontal]

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
101.54	33.64	1.00	319	-1.04	32.60	43.50	-10.90
196.11	43.60	1.00	136	-2.94	40.66	43.50	-2.84
210.66	33.75	1.00	197	-2.75	31.00	43.50	-12.50
257.95	39.98	1.00	88	-3.46	36.52	46.00	-9.48
302.81	40.23	1.00	160	-2.80	37.43	46.00	-8.57
329.49	36.70	1.00	170	-2.54	34.16	46.00	-11.84

Test mode: IEEE 802.11n 40M CH09 for 30MHz to 1GHz [Vertical]

Radiated Emission				Correction Factors	Corrected Amplitude	Class B (3 m)	
Frequency (MHz)	Amplitude (dBμV)	Ant. H. (m)	Table (°)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
101.54	31.49	1.00	215	-1.04	30.45	43.50	-13.05
130.64	30.59	1.00	165	-2.69	27.90	43.50	-15.60
168.22	33.04	1.00	195	-3.65	29.39	43.50	-14.11
198.54	34.98	1.00	256	-2.85	32.13	43.50	-11.37
211.87	28.48	1.00	104	-2.81	25.67	43.50	-17.83
696.87	25.00	1.00	287	9.30	34.30	46.00	-11.70

Test mode: IEEE 802.11n 40M CH09 for 1GHz to 26.5GHz [Horizontal]

Frequency	*Ant. H.*	*Table*	*Amplitude Peak / Ave.*		*Correction Factor*	*Corrected Amplitude Peak / Ave.*		*Limit Peak / Ave.*		*Margin*
MHz	*m*	*degree*	*dBμV*		*dB/m*	*dBμV/m*		*dBμV/m*		*dB*
1659.47	1.00	245	40.82	24.00	13.40	54.22	37.40	73.96	53.96	-16.56
2612.50	1.00	5	40.67	---	9.70	50.37	---	73.96	53.96	-3.59
2706.25	1.00	246	41.66	---	9.88	51.54	---	73.96	53.96	-2.42
7360.62	1.00	212	37.74	---	10.41	48.15	---	73.96	53.96	-5.81
12260.42	1.00	314	37.92	---	9.86	47.78	---	73.96	53.96	-6.18
24520.21	1.00	271	45.41	---	2.37	47.78	---	73.96	53.96	-6.18

Test mode: IEEE 802.11n 40M CH09 for 1GHz to 26.5GHz [Vertical]

Frequency	*Ant. H.*	*Table*	*Amplitude Peak / Ave.*		*Correction Factor*	*Corrected Amplitude Peak / Ave.*		*Limit Peak / Ave.*		*Margin*
MHz	*m*	*degree*	*dBμV*		*dB/m*	*dBμV/m*		*dBμV/m*		*dB*
1658.33	1.00	357	38.00	---	13.42	51.42	---	73.96	53.96	-2.54
2601.01	1.00	308	42.49	39.50	9.68	52.17	39.18	73.96	53.96	-14.78
2719.99	1.00	307	42.32	31.00	9.90	52.22	40.90	73.96	53.96	-13.06
12260.42	1.00	276	37.70	---	9.86	47.56	---	73.96	53.96	-6.40
22069.37	1.00	82	45.32	---	2.77	48.09	---	73.96	53.96	-5.87
24520.21	1.00	271	45.45	---	2.37	47.82	---	73.96	53.96	-6.14

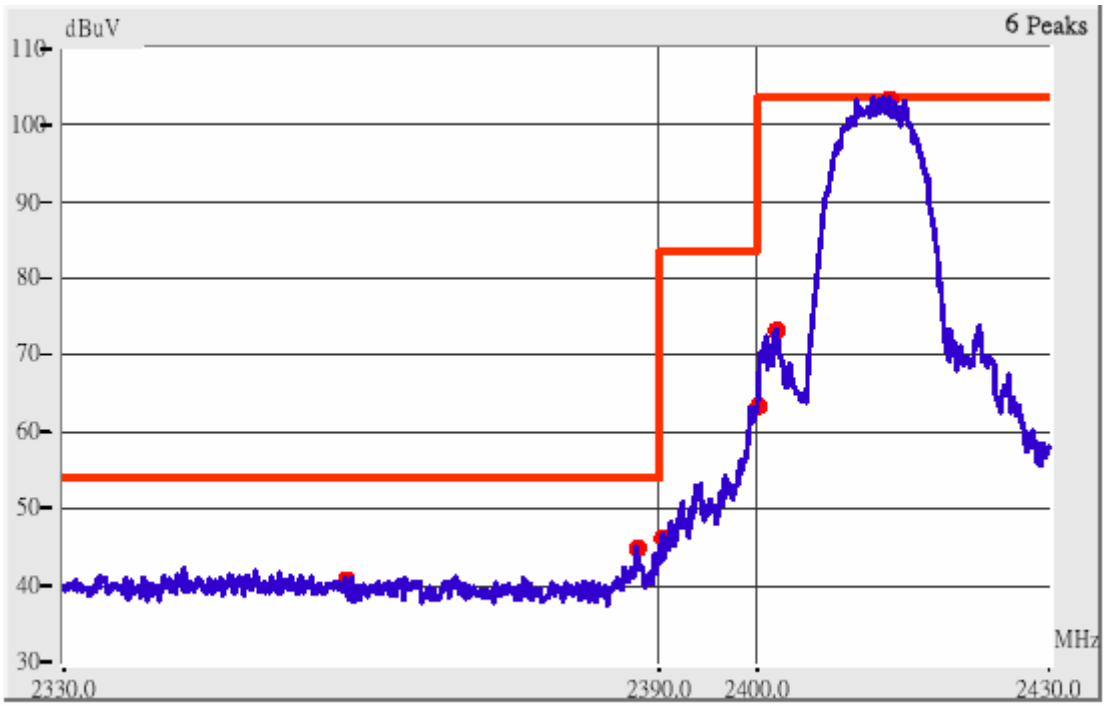
7.4 Test Result of the Bandedge

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 id §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 10th 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 Part15.205(a) must also *comply with the radiated emission limits specified in Part15.209(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 >

Channel 1 of IEEE 802.11b

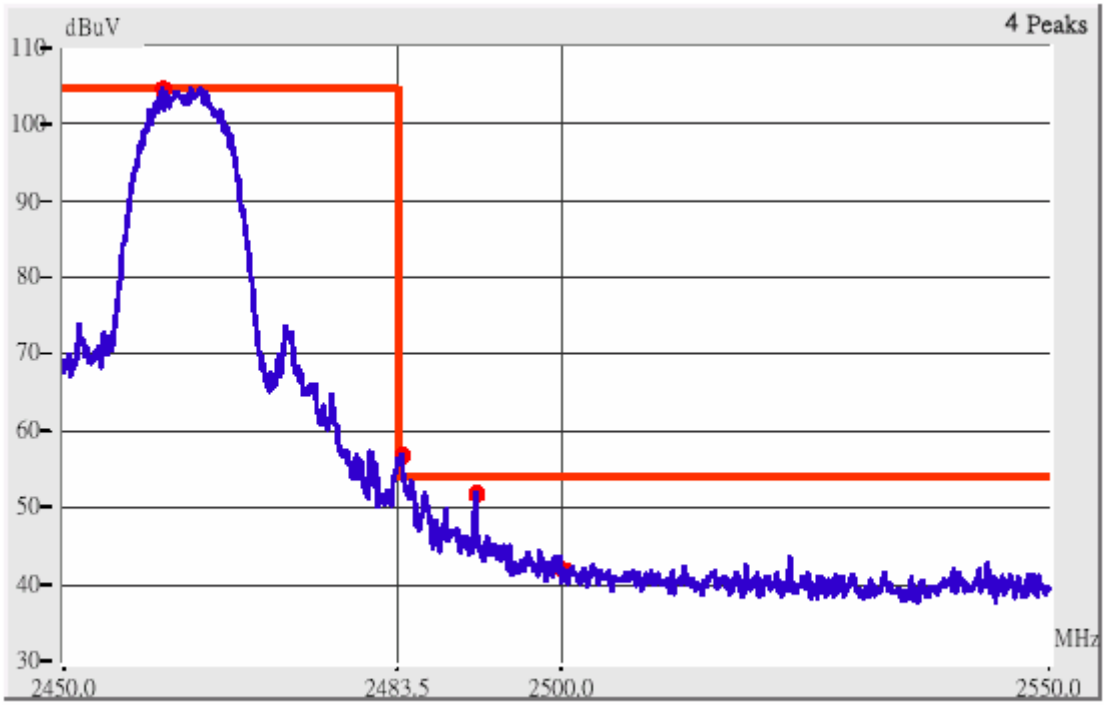


This is the hard copy of our bandedge measurement generated by our bandedge testing program. The plot shown above is the bandedge of channel 1.

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 (dBμV/m)*		*Class B (3m)*		
Frequency (MHz)	*Ant. P.*	*Ant. H. (m)*	*Table (°)*	*Factors (dB)*	*Peak*	*Average*	*Limit (dBμV/m) Peak*	*Ave.*	*Margin (dB)*
2383.78	Hor	1.00	168	9.16	51.66	---	73.96	53.96	-2.30
2389.00	Hor	1.00	161	9.18	57.18	43.01	73.96	53.96	-10.95
2384.72	Ver	1.00	24	9.17	52.83	39.84	73.96	53.96	-14.12
2389.98	Ver	1.00	360	9.18	55.52	42.35	73.96	53.96	-11.61

Channel 11 of IEEE 802.11b

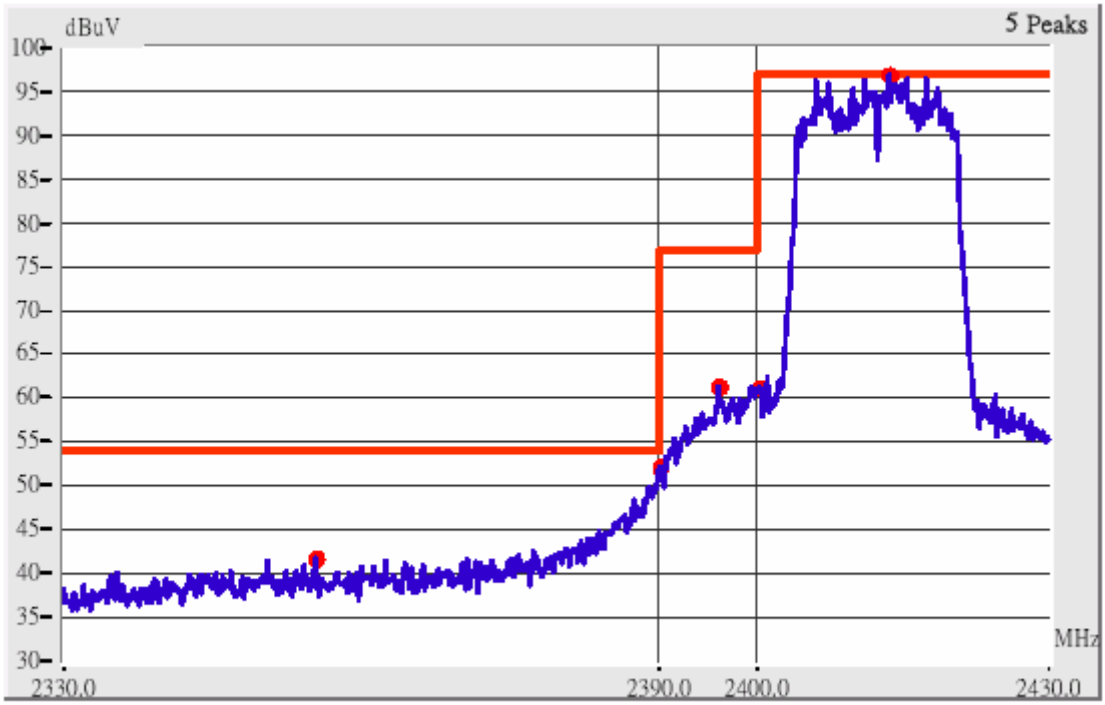


This is the hard copy of our bandedge measurement generated by our bandedge testing program. The plot shown above is the bandedge of channel 11.

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 (dBμV/m)*		*Class B (3m)*		
Frequency (MHz)	*Ant. P.*	*Ant. H. (m)*	*Table ( )*	*Factors (dB)*	*Peak*	*Average*	*Limit (dBμV/m) Peak*	*Ave.*	*Margin (dB)*
2483.30	Hor	1.00	209	9.44	64.45	48.77	73.96	53.96	-5.19
2488.98	Hor	1.00	186	9.46	59.62	44.46	73.96	53.96	-9.50
2499.55	Hor	1.00	189	9.49	55.82	41.99	73.96	53.96	-11.97
2515.56	Hor	1.00	279	9.52	54.19	40.69	73.96	53.96	-13.27
2483.55	Ver	1.00	347	9.44	66.11	48.94	73.96	53.96	-5.01
2487.99	Ver	1.00	349	9.46	61.29	44.63	73.96	53.96	-9.33
2499.45	Ver	1.00	170	9.49	55.99	41.82	73.96	53.96	-12.14
2507.94	Ver	1.00	347	9.50	55.17	40.67	73.96	53.96	-13.29

Channel 1 of IEEE 802.11g



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.

Radiated Emission					*Corrected Amplitude (dBμV/m)*		*Class B (3m)*		
Frequency (MHz)	*Ant. P.*	*Ant. H. (m)*	*Table ( )*	*Factors (dB)*	*Peak*	*Average*	*Limit (dBμV/m) Peak*	*Ave.*	*Margin (dB)*
2382.15	Hor	1.00	36	9.16	59.33	36.33	73.96	53.96	-14.63
2390.44	Hor	1.00	249	9.18	66.18	40.35	73.96	53.96	-7.78
2387.27	Ver	1.00	36	9.17	60.51	38.17	73.96	53.96	-13.45
2390.68	Ver	1.00	66	9.18	67.68	40.68	73.96	53.96	-6.28

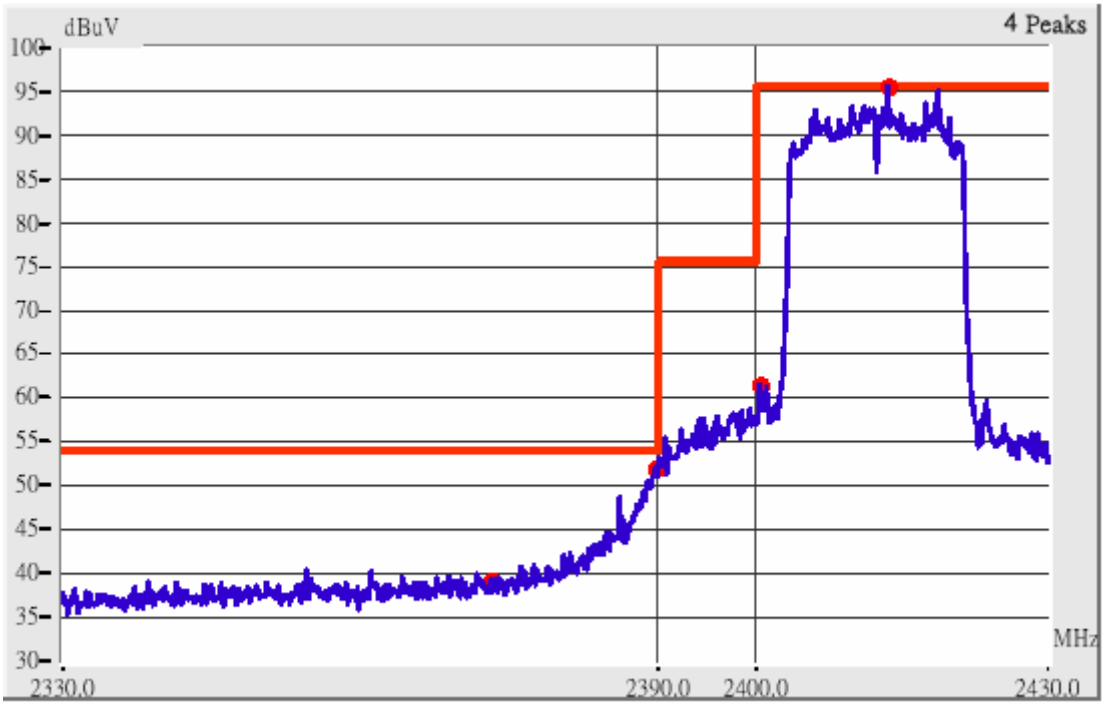
Channel 11 of IEEE 802.11g

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 (dBμV/m)*		*Class B (3m)*		
Frequency (MHz)	*Ant. P.*	*Ant. H. (m)*	*Table ( )*	*Factors (dB)*	*Peak*	*Average*	*Limit (dBμV/m) Peak*	*Ave.*	*Margin (dB)*
2483.88	Hor	1.00	165	9.44	70.61	43.44	73.96	53.96	-3.35
2492.97	Hor	1.00	356	9.47	66.97	42.14	73.96	53.96	-6.99
2499.32	Hor	1.00	346	9.49	60.32	39.49	73.96	53.96	-13.64
2506.44	Hor	1.00	352	9.50	59.84	38.00	73.96	53.96	-14.12
2483.89	Ver	1.00	138	9.44	71.61	42.94	73.96	53.96	-2.35
2490.08	Ver	1.00	132	9.46	67.13	41.29	73.96	53.96	-6.83
2499.48	Ver	1.00	114	9.49	59.49	38.99	73.96	53.96	-14.47
2506.95	Ver	1.00	133	9.50	59.67	37.50	73.96	53.96	-14.29

Channel 01 of IEEE 802.11n 20M



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.

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

Radiated Emission					*Corrected Amplitude (dBμV/m)*		*Class B (3m)*		
Frequency (MHz)	*Ant. P.*	*Ant. H. (m)*	*Table ( )*	*Factors (dB)*	*Peak*	*Average*	*Limit (dBμV/m) Peak*	*Ave.*	*Margin (dB)*
2387.91	Hor	1.00	208	9.18	62.18	46.68	73.96	53.96	-7.28
2390.11	Hor	1.00	8	9.18	67.18	50.18	73.96	53.96	-3.79
2387.87	Ver	1.00	150	9.18	59.84	44.35	73.96	53.96	-9.61
2389.81	Ver	1.00	136	9.18	66.01	47.18	73.96	53.96	-6.78

Channel 11 of IEEE 802.11n 20M

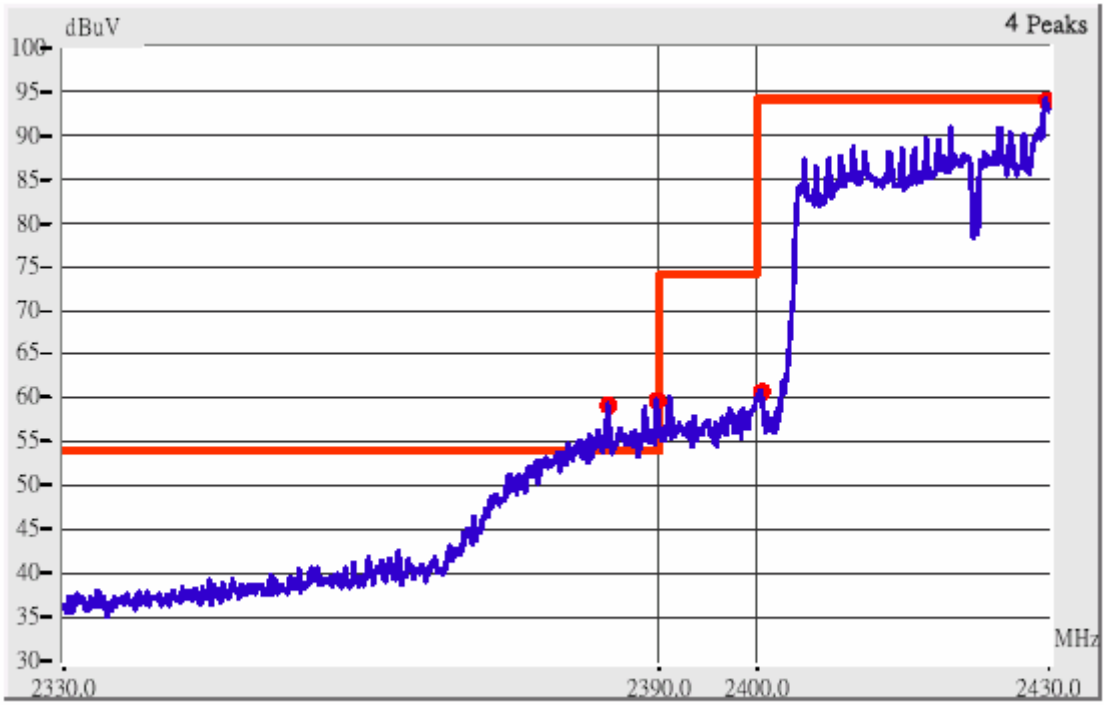
This is the hard copy of our bandedge measurement generated by our bandedge testing program. The plot shown above is the bandedge of channel 11.

11.The lobe right by the fundamental side is already 20dB below the highest emission level.

12.The emissions recorded in the restricted band is do comply with the Part 15.209(a) – as below

Radiated Emission					*Corrected Amplitude (dBμV/m)*		*Class B (3m)*		
Frequency (MHz)	*Ant. P.*	*Ant. H. (m)*	*Table ( )*	*Factors (dB)*	*Peak*	*Average*	*Limit (dBμV/m) Peak*	*Ave.*	*Margin (dB)*
2483.59	Hor	1.00	125	9.44	71.94	51.61	73.96	53.96	-2.02
2490.27	Hor	1.00	275	9.46	65.13	46.13	73.96	53.96	-7.83
2499.50	Hor	1.00	270	9.49	55.66	41.49	73.96	53.96	-12.47
2505.85	Hor	1.00	267	9.50	57.33	39.67	73.96	53.96	-14.29
2483.81	Ver	1.00	192	9.44	70.11	52.61	73.96	53.96	-1.35
2488.81	Ver	1.00	192	9.46	64.96	47.96	73.96	53.96	-6.00
2499.80	Ver	1.00	192	9.49	55.99	42.66	73.96	53.96	-11.30
2503.66	Ver	1.00	193	9.50	56.33	41.67	73.96	53.96	-12.29

Channel CH03 of IEEE 802.11n 40M



This is the hard copy of our bandedge measurement generated by our bandedge testing program. The plot shown above is the bandedge of channel 3.

13.The lobe left by the fundamental side is already 20dB below the highest emission level.

14.The emissions recorded in the restricted band is do comply with the Part 15.209(a) – as below.

Radiated Emission					*Corrected Amplitude (dBμV/m)*		*Class B (3m)*		
Frequency (MHz)	*Ant. P.*	*Ant. H. (m)*	*Table ( )*	*Factors (dB)*	*Peak*	*Average*	*Limit (dBμV/m) Peak*	*Ave.*	*Margin (dB)*
2381.33	Hor	1.00	9	9.16	65.16	48.33	73.96	53.96	-5.63
2389.74	Hor	1.00	12	9.18	67.18	50.51	73.96	53.96	-3.45
2379.23	Ver	1.00	34	9.15	68.15	47.82	73.96	53.96	-5.81
2389.78	Ver	1.00	34	9.18	69.68	50.68	73.96	53.96	-3.28

Channel 09 of IEEE 802.11n 40M

This is the hard copy of our bandedge measurement generated by our bandedge testing program. The plot shown above is the bandedge of channel 09.

15.The lobe right by the fundamental side is already 20dB below the highest emission level.

16.The emissions recorded in the restricted band is do comply with the Part 15.209(a) – as below

Radiated Emission					*Corrected Amplitude (dBμV/m)*		*Class B (3m)*		
Frequency (MHz)	*Ant. P.*	*Ant. H. (m)*	*Table ( )*	*Factors (dB)*	*Peak*	*Average*	*Limit (dBμV/m) Peak*	*Ave.*	*Margin (dB)*
2483.60	Hor	1.00	238	9.44	70.11	52.61	73.96	53.96	-1.35
2489.87	Hor	1.00	341	9.46	70.80	52.13	73.96	53.96	-1.83
2500.44	Hor	1.00	169	9.49	64.49	45.99	73.96	53.96	-7.97
2504.82	Hor	1.00	173	9.50	62.83	43.67	73.96	53.96	-10.29
2483.92	Ver	1.00	124	9.44	71.61	52.94	73.96	53.96	-1.02
2490.47	Ver	1.00	129	9.46	69.80	51.79	73.96	53.96	-2.17
2499.83	Ver	1.00	125	9.49	65.66	48.49	73.96	53.96	-5.47
2509.49	Ver	1.00	137	9.51	60.84	43.68	73.96	53.96	-10.28