



# FCC TEST REPORT (15.407)

**REPORT NO.:** RF970829H06

**MODEL NO.:** WMP600N

**RECEIVED:** Aug. 29, 2008

**TESTED:** Sep. 24 to Oct. 24, 2008

**ISSUED:** Oct. 27, 2008

**APPLICANT:** Cisco-Linksys LLC

**ADDRESS:** 121 Theory Drive Irvine, CA 92617, USA

**ISSUED BY:** Advance Data Technology Corporation

**TEST LOCATION:** No. 81-1, Lu Liao Keng, 9 Ling, Wu Lung  
Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien,  
Taiwan, R.O.C.

This test report consists of 204 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product endorsement by TAF or any government agencies. The test results in the report only apply to the tested sample.



## Table of Contents

1.	CERTIFICATION.....	4
2.	SUMMARY OF TEST RESULTS .....	5
2.1	MEASUREMENT UNCERTAINTY .....	6
3.	GENERAL INFORMATION .....	7
3.1	GENERAL DESCRIPTION OF EUT .....	7
3.2	DESCRIPTION OF TEST MODES.....	9
3.2.1	TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:.....	11
3.3	GENERAL DESCRIPTION OF APPLIED STANDARDS.....	14
3.4	DESCRIPTION OF SUPPORT UNITS .....	15
3.5	CONFIGURATION OF SYSTEM UNDER TEST .....	15
4.	TEST TYPES AND RESULTS .....	17
4.1	CONDUCTED EMISSION MEASUREMENT .....	17
4.1.1	LIMITS OF CONDUCTED EMISSION MEASUREMENT .....	17
4.1.2	TEST INSTRUMENTS .....	17
4.1.3	TEST PROCEDURES.....	18
4.1.4	DEVIATION FROM TEST STANDARD.....	18
4.1.5	TEST SETUP .....	19
4.1.6	EUT OPERATING CONDITIONS.....	19
4.1.7	TEST RESULTS.....	20
4.2	RADIATED EMISSION MEASUREMENT .....	22
4.2.1	LIMITS OF RADIATED EMISSION MEASUREMENT .....	22
4.2.2	LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS.....	23
4.2.3	TEST INSTRUMENTS .....	24
4.2.4	TEST PROCEDURES.....	25
4.2.5	DEVIATION FROM TEST STANDARD.....	25
4.2.6	TEST SETUP .....	26
4.2.7	EUT OPERATING CONDITION .....	26
	BELOW 1GHZ TEST DATA.....	27
4.2.8	TEST RESULTS.....	27
	ABOVE 1GHZ TEST DATA .....	28
4.2.9	TEST RESULTS.....	28
4.3	PEAK TRANSMIT POWER MEASUREMENT.....	71
4.3.1	LIMITS OF PEAK TRANSMIT POWER MEASUREMENT .....	71
4.3.2	TEST INSTRUMENTS .....	71
4.3.3	TEST PROCEDURE.....	72
4.3.4	DEVIATION FROM TEST STANDARD.....	72
4.3.5	TEST SETUP .....	72
4.3.6	EUT OPERATING CONDITIONS.....	72



4.3.7	TEST RESULTS.....	73
4.4	PEAK POWER EXCURSION MEASUREMENT.....	122
4.4.1	LIMITS OF PEAK POWER EXCURSION MEASUREMENT.....	122
4.4.2	TEST INSTRUMENTS .....	122
4.4.3	TEST PROCEDURE.....	123
4.4.4	DEVIATION FROM TEST STANDARD.....	123
4.4.5	TEST SETUP .....	123
4.4.6	EUT OPERATING CONDITIONS.....	123
4.4.7	TEST RESULTS.....	124
4.5	PEAK POWER SPECTRAL DENSITY MEASUREMENT.....	149
4.5.1	LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT.....	149
4.5.2	TEST INSTRUMENTS .....	149
4.5.3	TEST PROCEDURES.....	150
4.5.4	DEVIATION FROM TEST STANDARD.....	150
4.5.5	TEST SETUP .....	150
4.5.6	EUT OPERATING CONDITIONS.....	150
4.5.7	TEST RESULTS.....	151
4.6	FREQUENCY STABILITY.....	177
4.6.1	LIMITS OF FREQUENCY STABILITY MEASUREMENT.....	177
4.6.2	TEST INSTRUMENTS .....	177
4.6.3	TEST PROCEDURE.....	177
4.6.4	DEVIATION FROM TEST STANDARD.....	178
4.6.5	TEST SETUP .....	178
4.6.6	EUT OPERATING CONDITION.....	178
4.6.7	TEST RESULTS.....	179
4.7	CONDUCTED OUT-BAND EMISSION MEASUREMENT MEASUREMENT.....	180
4.7.1	TEST INSTRUMENTS .....	180
4.7.2	TEST PROCEDURE.....	180
4.7.3	EUT OPERATING CONDITION.....	180
4.7.4	TEST RESULTS.....	181
4.8	ANTENNA REQUIREMENT.....	203
4.8.1	STANDARD APPLICABLE.....	203
4.8.2	ANTENNA CONNECTED CONSTRUCTION.....	203
5.	INFORMATION ON THE TESTING LABORATORIES.....	204
6.	APPENDIX-A- MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB.....	205



## 1. CERTIFICATION

**PRODUCT:** Wireless-N PCI Adapter with Dual-Band  
**BRAND NAME:** Linksys  
**MODEL NO.:** WMP600N  
**TEST SAMPLE:** R&D SAMPLE  
**TESTED:** Sep. 24 to Oct. 24, 2008  
**APPLICANT:** Cisco-Linksys LLC  
**STANDARDS:** FCC Part 15, Subpart E (Section 15.407),  
ANSI C63.4-2003

The above equipment (Model: WMP600N) has been tested by **Advance Data Technology Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**PREPARED BY** : Carol Liao , **DATE:** Oct. 27, 2008  
( Carol Liao, Specialist )

**TECHNICAL ACCEPTANCE** : Hank Chung , **DATE:** Oct. 27, 2008  
Responsible for RF ( Hank Chung, Deputy Manager )

**APPROVED BY** : May Chen , **DATE:** Oct. 27, 2008  
( May Chen, Deputy Manager )

## 2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

For 802.11a

APPLIED STANDARD: FCC Part 15, Subpart E (Section 15.407)			
Standard Section	Test Type	Result	Remark
15.407(b)(5)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -14.18dB at 12.243MHz
15.407(b/1/2/3)(b)(5)	Electric Field Strength Spurious Emissions, 30MHz ~ 40000MHz	PASS	Meet the requirement of limit. Minimum passing margin is -0.51dB at 5725.00MHz
15.407(a/1/2/3)	Peak Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.

### NOTE:

- The EUT was operating in 2400 ~ 2483.5MHz, 5.15~5.35GHz, 5.47~5.725GHz and 5.725~5.850GHz frequencies band. This report was recorded the RF parameters including 5.15~5.35GHz and 5.47~5.725GHz. For the 2400 ~ 2483.5MHz and 5.725~5.850GHz RF parameters was recorded in another test report.

## 2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4:

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

Measurement	Value
Conducted emissions	2.44 dB
Radiated emissions (30MHz-1GHz)	3.94 dB
Radiated emissions (1GHz -18GHz)	2.33 dB
Radiated emissions (18GHz -40GHz)	2.55 dB

### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

<b>PRODUCT</b>	Wireless-N PCI Adapter with Dual-Band
<b>MODEL NO.</b>	WMP600N
<b>FCC ID</b>	Q87-WMP600N
<b>POWER SUPPLY</b>	DC 3.3V from host equipment
<b>MODULATION TYPE</b>	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
<b>MODULATION TECHNOLOGY</b>	DSSS, OFDM
<b>TRANSFER RATE</b>	802.11b: 11 / 5.5 / 2 / 1Mbps 802.11g: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6Mbps HT20 MCS0~7 (800ns GI): 65 / 58.5 / 52 / 39 / 26 / 19.5 / 13 / 6.5Mbps. HT20 MCS8~15 (800ns GI): 130 / 117 / 104 / 78 / 52 / 39 / 26 / 13Mbps. HT40 MCS0~7 (800ns GI): 135 / 121.5 / 108 / 81 / 54 / 40.5 / 27 / 13.5Mbps. HT40 MCS8~15 (800ns GI): 270 / 243 / 216 / 162 / 108 / 81 / 54 / 27Mbps.
<b>FREQUENCY RANGE</b>	For 15.407 802.11a: 5.18 ~ 5.32GHz, 5.50 ~ 5.70GHz
	For 15.247 802.11b & 802.11g: 2412 ~ 2462MHz 802.11a: 5.745 ~ 5.825GHz
<b>NUMBER OF CHANNEL</b>	<b>For 15.407</b> 19 for 802.11a, draft 802.11n (20MHz) 9 for draft 802.11n (40MHz)
	<b>For 15.247(2.4GHz)</b> 11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz)
	<b>For 15.247(5GHz)</b> 5 for 802.11a, draft 802.11n (20MHz)
	3 for draft 802.11n (40MHz)

<b>MAXIMUM OUTPUT POWER</b>	<p><b>For 15.407</b>  802.11a: 26.853mW  draft 802.11n (20MHz): 29.739mW  draft 802.11n (40MHz): 27.330mW</p> <p><b>For 15.247(2.4GHz)</b>  802.11b: 112.202mW  802.11g: 208.930mW  draft 802.11n (20MHz): 227.017mW  draft 802.11n (40MHz): 229.630mW</p> <p><b>For 15.247(5GHz)</b>  802.11a: 122.744mW  draft 802.11n (20MHz): 283.616mW  draft 802.11n (40MHz): 266.937mW</p>
<b>ANTENNA TYPE</b>	Please see note 1
<b>DATA CABLE</b>	NA
<b>I/O PORT</b>	NA
<b>ASSOCIATED DEVICES</b>	NA

**NOTE:**

1. There are two antennas provided to this EUT, please refer to the following table:

Transmitter Circuit	Antenna Type	Antenna Gain (dBi)	Antenna Connector
Chain(0)	Dipole	2	RSMA
Chain(1)	Dipole	2	RSMA

2. The EUT incorporates a MIMO function with 802.11a, 802.11b, 802.11g, draft 802.11n. Physically, the EUT provides two completed transmit and two completed receivers.
3. The EUT is 2 \* 2 spatial MIMO (2Tx & 2Rx) without beam forming function. The antenna configurations are two transmitter antennas and two receiver antennas, as there are 2 Dipole antennas. Spatial multiplexing modes for simultaneous transmission using 2 antennas, and for simultaneous receiver using 2 antennas. The 11a and 11bg legacy mode is limited to single transmitter only.
4. When the EUT operating in draft 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 15.
5. The EUT complies with draft 802.11n standards and backwards compatible with 802.11a, 802.11b, 802.11g products.
6. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.



### 3.2 DESCRIPTION OF TEST MODES

#### Operated in 5150MHz ~ 5350MHz bands:

Eight channels are provided for 802.11a and draft 802.11n (20MHz):

CHANNEL	FREQUENCY
1	5180 MHz
2	5200 MHz
3	5220 MHz
4	5240 MHz
5	5260 MHz
6	5280 MHz
7	5300 MHz
8	5320 MHz

Four channels are provided for draft 802.11n (40MHz):

CHANNEL	FREQUENCY
1	5190 MHz
2	5230 MHz
3	5270 MHz
4	5310 MHz

**Operated in 5470MHz ~ 5725MHz bands:**

Eleven channels are provided for 802.11a and draft 802.11n (20MHz):

CHANNEL	FREQUENCY
9	5500 MHz
10	5520 MHz
11	5540 MHz
12	5560 MHz
13	5580 MHz
14	5600 MHz
15	5620 MHz
16	5640 MHz
17	5660 MHz
18	5680 MHz
19	5700 MHz

Five channels are provided for draft 802.11n (40MHz):

CHANNEL	FREQUENCY
5	5510 MHz
6	5550 MHz
7	5590 MHz
8	5630 MHz
9	5670 MHz

### 3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE < 1G	RE ≥ 1G	APCM	
-	√	√	√	√	-

Where **PLC**: Power Line Conducted Emission      **RE < 1G**: Radiated Emission below 1GHz  
**RE ≥ 1G**: Radiated Emission above 1GHz      **APCM**: Antenna Port Conducted Measurement

### ANTENNA COMBINATION MODE:

COMBINATION MODE	OPERATION MODE	CHAIN(0) (TX/RX)	CHAIN(1) (TX/RX)
A	802.11a, b, g	√	
B	DRAFT 802.11n(20MHz)	√	√
C	DRAFT 802.11n(40MHz)	√	√

Note:

- The above information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.
- Antenna 1 and Antenna 2 are Dipole antennas.

### POWER LINE CONDUCTED EMISSION TEST:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11a	1 to 19	1	OFDM	BPSK	6	A



**RADIATED EMISSION TEST (BELOW 1 GHz):**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11a	1 to 19	1	OFDM	BPSK	6	A

**RADIATED EMISSION TEST (ABOVE 1 GHz):**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11a	1 to 19	1, 2, 4, 5, 7, 8, 9, 14, 19	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 19	1, 2, 4, 5, 7, 8, 9, 14, 19	OFDM	BPSK	13	B
For 5 GHz Draft 802.11n (40MHz)	1 to 9	1, 2, 3, 4, 5, 7, 9	OFDM	BPSK	27	C

**BANDEDGE MEASUREMENT:**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11a	1 to 19	1, 8, 9, 19	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 19	1, 8, 9, 19	OFDM	BPSK	13	B
For 5 GHz Draft 802.11n (40MHz)	1 to 9	1, 4, 5, 9	OFDM	BPSK	27	C

**ANTENNA PORT CONDUCTED MEASUREMENT:**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11a	1 to 19	1, 2, 4, 5, 7, 8, 9, 14, 19	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 19	1, 2, 4, 5, 7, 8, 9, 14, 19	OFDM	BPSK	13	B
For 5 GHz Draft 802.11n (40MHz)	1 to 9	1, 2, 3, 4, 5, 7, 9	OFDM	BPSK	27	C



### **3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS**

The EUT is a Wireless-N PCI Adapter with Dual-Band. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

**FCC Part 15, Subpart E (15.407)**

**ANSI C63.4-2003**

All test items have been performed and recorded as per the above standards.

**NOTE:** The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.



### 3.4 DESCRIPTION OF SUPPORT UNITS

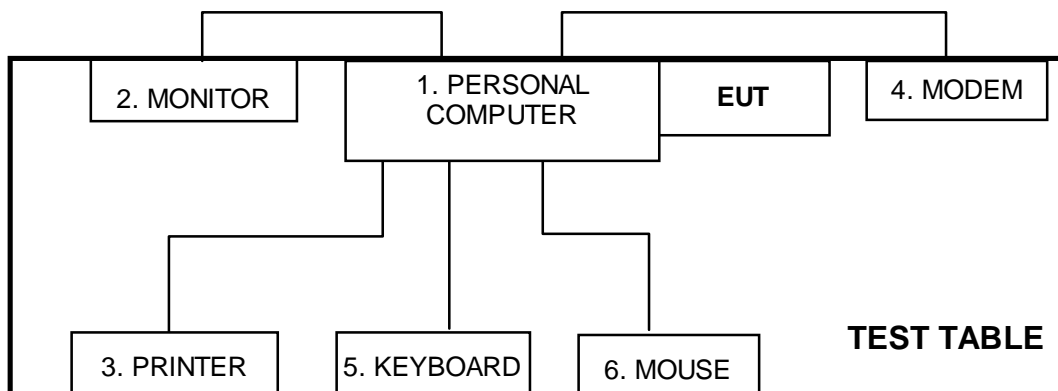
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	PERSONAL COMPUTER	IBM	A65	L3B4724	FCC DoC
2	MONITOR	DELL	1704FPTt	CN-OW4916-71618-53H-ALXX	FCC DoC
3	PRINTER	HP	C2642A	MY79F1C3MZ	B94C2642X
4	MODEM	ACEEX	1414	0206026776	IFAXDM1414
5	USB KEYBOARD	BTC	5200U	G09302046480	E5XKB5122U
6	PS/2 MOUSE	BTC	M851	G00347024426	FCC DoC

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.8m braid shielded wire , VGA connector , with two cores.
3	1.8 m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core.
4	1.3 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.
5	1.5m foil shielded wire, USB Connector, w/o core
6	1.5m foil shielded wire, PS/2 Connector, w/o core.

**NOTE:** All power cords of the above support units are non shielded (1.8m).

### 3.5 CONFIGURATION OF SYSTEM UNDER TEST







## 4. TEST TYPES AND RESULTS

### 4.1 CONDUCTED EMISSION MEASUREMENT

#### 4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB $\mu$ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

- NOTE:**
1. The lower limit shall apply at the transition frequencies.
  2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
  3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

#### 4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver	ESCS 30	847124/029	Feb. 29, 2008	Feb. 28, 2009
Line-Impedance Stabilization Network(for EUT)	ENV-216	100071	Nov. 27, 2007	Nov. 26, 2008
Line-Impedance Stabilization Network(for Peripheral)	ESH3-Z5	848773/004	Nov. 09, 2007	Nov. 08, 2008
RF Cable (JYEBAO)	5DFB	COBCAB-001	July 24, 2008	July 23, 2009
50 ohms Terminator	50	3	Nov. 16, 2007	Nov. 15, 2008
Software	ADT_Cond_V7.3.2	NA	NA	NA

**Note:**

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in ADT Shielded Room No. B.
3. The VCCI Con B Registration No. is C-2193.

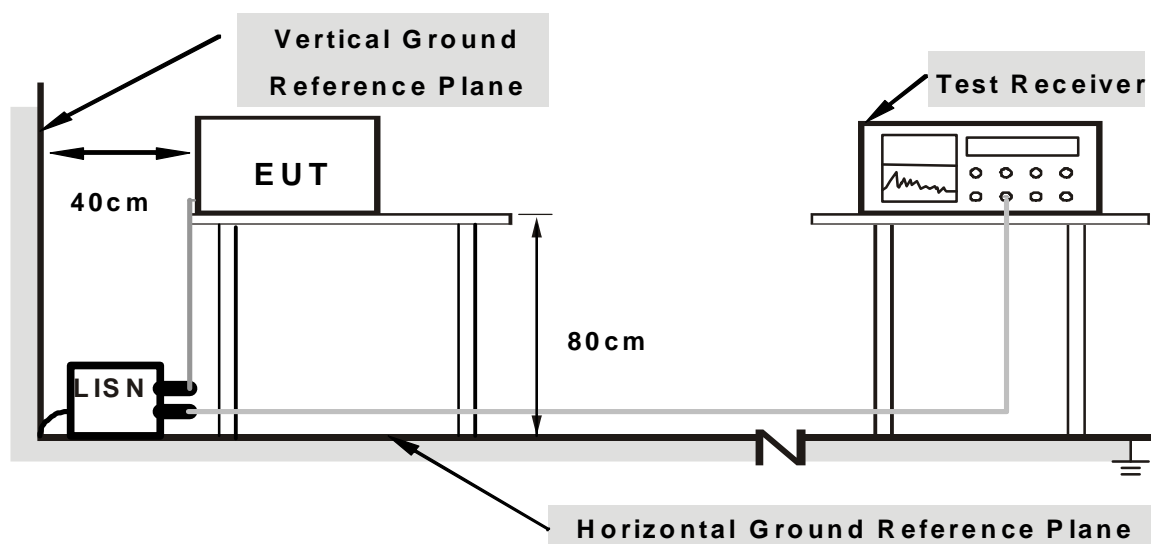
#### 4.1.3 TEST PROCEDURES

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs
- b. provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- c. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- d. The frequency range from 150kHz to 30MHz was searched. Emission level under (Limit – 20dB) was not recorded.

#### 4.1.4 DEVIATION FROM TEST STANDARD

No deviation

#### 4.1.5 TEST SETUP



**Note: 1. Support units were connected to second LISN.**

**2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes**

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

#### 4.1.6 EUT OPERATING CONDITIONS

- 1 Plug the EUT into the support unit 1 (Personal computer) which placed on a testing table.
- 2 Support unit 1 (Personal computer) run test program “RT2860QA V1.4.0.3” to enable EUT under transmission condition continuously at specific channel frequency.

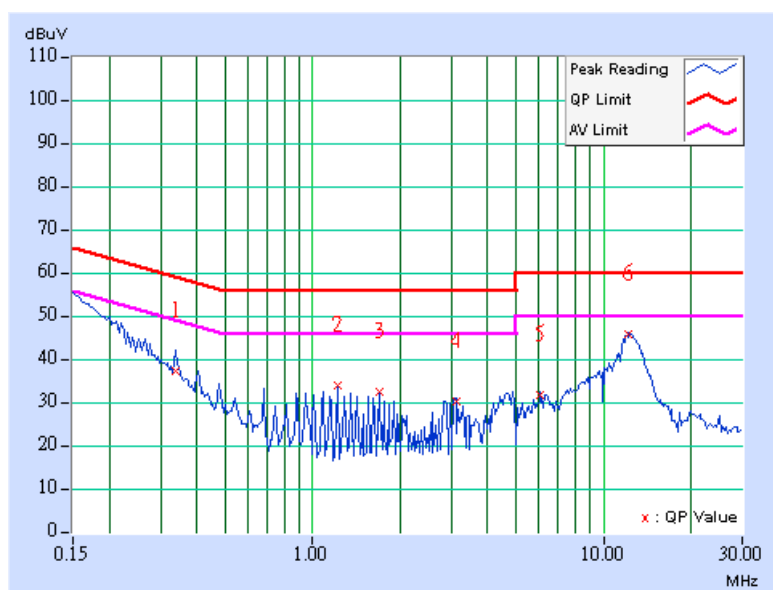
#### 4.1.7 TEST RESULTS

##### 802.11a OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line (L)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH, 965hPa	TESTED BY	Eric Lee

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
	1	0.338	9.87	27.70	-	37.57	-	59.25	49.25	-21.68
2	1.219	9.68	24.15	-	33.83	-	56.00	46.00	-22.17	-
3	1.691	9.70	22.87	-	32.57	-	56.00	46.00	-23.43	-
4	3.110	9.74	20.32	-	30.06	-	56.00	46.00	-25.94	-
5	6.086	9.79	21.87	-	31.66	-	60.00	50.00	-28.34	-
6	12.243	9.87	35.95	-	45.82	-	60.00	50.00	-14.18	-

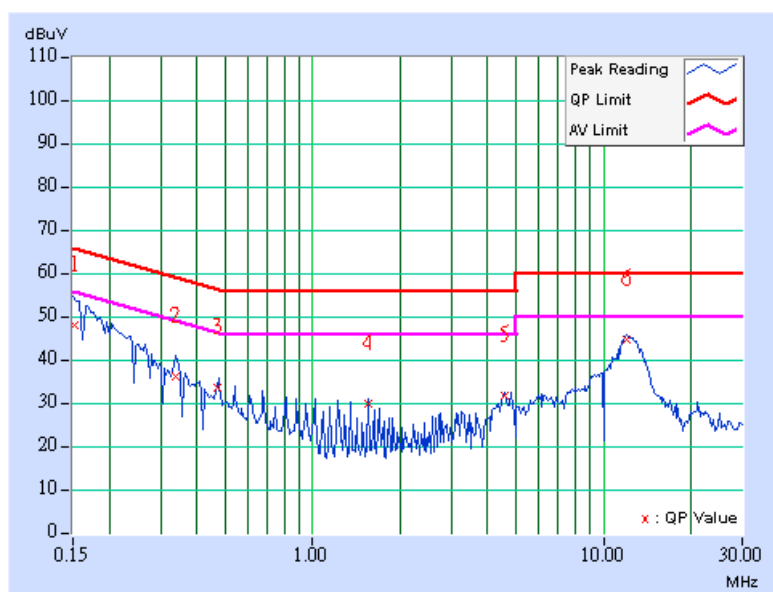
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  3. The emission levels of other frequencies were very low against the limit.
  4. Margin value = Emission level - Limit value
  5. Correction factor = Insertion loss + Cable loss
  6. Emission Level = Correction Factor + Reading Value.



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Neutral (N)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 965hPa	TESTED BY	Eric Lee

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
	1	0.151	9.67	38.15	-	47.82	-	65.93	55.93	-18.11
2	0.336	9.86	26.25	-	36.11	-	59.29	49.29	-23.18	-
3	0.473	9.91	23.76	-	33.67	-	56.45	46.45	-22.79	-
4	1.555	9.70	20.24	-	29.94	-	56.00	46.00	-26.06	-
5	4.598	9.77	21.92	-	31.69	-	56.00	46.00	-24.31	-
6	12.038	9.91	34.97	-	44.88	-	60.00	50.00	-15.12	-

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  3. The emission levels of other frequencies were very low against the limit.
  4. Margin value = Emission level - Limit value
  5. Correction factor = Insertion loss + Cable loss
  6. Emission Level = Correction Factor + Reading Value.



## 4.2 RADIATED EMISSION MEASUREMENT

### 4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

**NOTE:**

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

#### 4.2.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequencies (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dB $\mu$ V/m) *note 3
5150~5250	-27	68.3
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5825	-27 *note 1	68.3
	-17 *note 2	78.3

**NOTE:**

1. For frequencies 10MHz or greater above or below the band edge.
2. All emissions within the frequency range from the band edge to 10MHz above or below the band edge.
3. The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength

$$E = \frac{1000000 \sqrt{30P}}{3} \mu\text{V/m, where P is the eirp (Watts)}$$



#### 4.2.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ADVANTEST Spectrum Analyzer	R3271A	85060311	July 16, 2008	July 15, 2009
HP Pre_Amplifier	8449B	3008A0192 2	Sep. 25, 2008	Sep. 24, 2009
ROHDE & SCHWARZ Test Receiver	ESCS30	100375	April 01, 2008	Mar. 31, 2009
SCHWARZBECK TRILOG Broadband Antenna	VULB 9168	138	April 30, 2008	April 29, 2009
Schwarzbeck Horn_Antenna	BBHA9120	D124	Dec. 17, 2007	Dec. 16, 2008
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA91701 53	Jan. 28, 2008	Jan. 27, 2009
RF Switches	EMH-011	08009	Oct. 07, 2008	Oct. 06, 2009
RF CABLE (Chaintek)	SF102	22054-2	Dec. 07, 2007	Dec. 06, 2008
RF Cable	8DFB	STCCAB-30 M-1GHz	Oct. 07, 2008	Oct. 06, 2009
Software	ADT_Radiated _V7.6.15.8	NA	NA	NA
CT Antenna Tower & Turn Table	NA	NA	NA	NA

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.  
 2. The horn antenna, HP preamplifier (model: 8449B) and Spectrum Analyzer (model: R3271A) are used only for the measurement of emission frequency above 1GHz if tested.  
 3. The test was performed in ADT Open Site No. C.  
 4. The FCC Site Registration No. is 656396.  
 5. The VCCI Site Registration No. is R-1626.  
 6. The CANADA Site Registration No. is IC 3789C-3.



#### 4.2.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

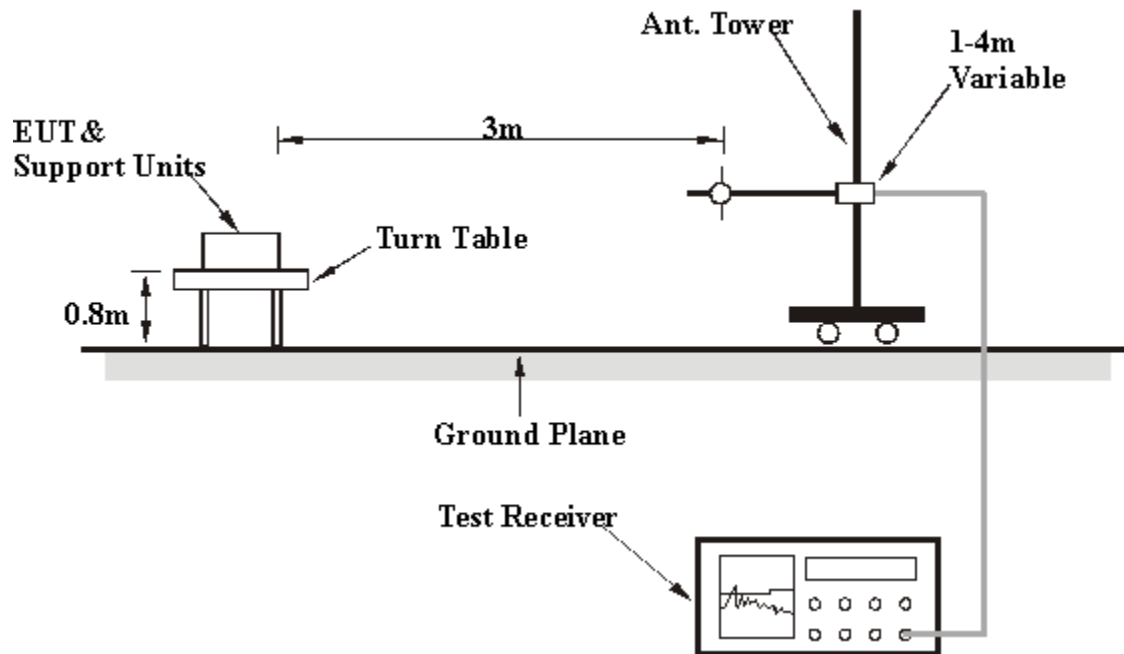
**NOTE:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.

#### 4.2.5 DEVIATION FROM TEST STANDARD

No deviation

#### 4.2.6 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

#### 4.2.7 EUT OPERATING CONDITION

Same as 4.1.6

## Below 1GHz Test Data

### 4.2.8 TEST RESULTS

#### 802.11a OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 965hPa	TESTED BY	Eric Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	58.64	18.23 QP	40.00	-21.77	1.54 H	236	3.88	14.35
2	68.38	25.84 QP	40.00	-14.16	1.11 H	120	12.65	13.19
3	144.83	22.67 QP	43.50	-20.83	1.73 H	183	7.06	15.61
4	364.21	24.00 QP	46.00	-22.00	1.54 H	253	4.35	19.65
5	530.00	22.31 QP	46.00	-23.69	1.68 H	169	-1.07	23.38
6	895.99	25.42 QP	46.00	-20.58	1.40 H	7	-5.54	30.96
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	132.86	30.47 QP	43.50	-13.03	1.24 V	54	15.90	14.57
2	200.00	28.55 QP	43.50	-14.95	1.35 V	92	15.57	12.98
3	529.98	29.63 QP	46.00	-16.37	1.35 V	261	6.25	23.38
4	660.00	29.28 QP	46.00	-16.72	1.80 V	321	3.14	26.14
5	698.86	28.63 QP	46.00	-17.37	1.30 V	29	1.62	27.01
6	895.98	26.24 QP	46.00	-19.76	1.54 V	82	-4.72	30.96

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.

## Above 1GHz Test Data

### 4.2.9 TEST RESULTS

#### 802.11a OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4144.00	55.50 PK	74.00	-18.50	1.21 H	162	21.51	33.99
2	4144.00	42.90 AV	54.00	-11.10	1.21 H	162	8.91	33.99
3	5104.50	56.25 PK	74.00	-17.75	1.08 H	162	20.32	35.93
4	5104.50	43.59 AV	54.00	-10.41	1.08 H	162	7.66	35.93
5	*5180.00	102.40 PK			1.20 H	163	66.35	36.05
6	*5180.00	92.10 AV			1.20 H	163	56.05	36.05
7	#10360.00	57.60 PK	68.30	-10.70	1.14 H	48	11.68	45.92

NTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4144.00	63.00 PK	74.00	-11.00	1.16 V	21	29.01	33.99
2	4144.00	53.10 AV	54.00	-0.90	1.16 V	21	19.11	33.99
3	5108.40	62.71 PK	74.00	-11.29	1.07 V	27	26.78	35.93
4	5108.40	51.26 AV	54.00	-2.74	1.07 V	27	15.33	35.93
5	*5180.00	113.10 PK			1.04 V	9	77.05	36.05
6	*5180.00	102.32 AV			1.04 V	9	66.27	36.05
7	#10360.00	58.60 PK	68.30	-9.70	1.39 V	3	12.68	45.92

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. " \* ": Fundamental frequency.
  6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4160.00	55.10 PK	74.00	-18.90	1.09 H	161	21.06	34.04
2	4160.00	42.70 AV	54.00	-11.30	1.09 H	161	8.66	34.04
3	*5200.00	101.70 PK			1.18 H	159	65.62	36.08
4	*5200.00	91.30 AV			1.18 H	159	55.22	36.08
5	#10400.00	58.40 PK	68.30	-9.90	1.16 H	50	12.41	45.99

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4160.00	60.20 PK	74.00	-13.80	1.31 V	64	26.16	34.04
2	4160.00	52.80 AV	54.00	-1.20	1.31 V	64	18.76	34.04
3	*5200.00	110.80 PK			1.04 V	17	74.72	36.08
4	*5200.00	100.40 AV			1.04 V	17	64.32	36.08
5	#10400.00	60.60 PK	68.30	-7.70	1.07 V	32	14.61	45.99

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.
  6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4192.00	54.30 PK	74.00	-19.70	1.09 H	162	20.18	34.12
2	4192.00	42.10 AV	54.00	-11.90	1.09 H	162	7.98	34.12
3	*5240.00	101.90 PK			1.14 H	162	65.76	36.14
4	*5240.00	91.70 AV			1.14 H	162	55.56	36.14
5	#10480.00	59.30 PK	68.30	-9.00	1.18 H	57	13.18	46.12

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4192.00	60.00 PK	74.00	-14.00	1.03 V	17	25.88	34.12
2	4192.00	51.00 AV	54.00	-3.00	1.03 V	17	16.88	34.12
3	*5240.00	112.32 PK			1.03 V	14	76.18	36.14
4	*5240.00	101.90 AV			1.03 V	14	65.76	36.14
5	#10480.00	60.88 PK	68.30	-7.42	1.10 V	34	14.76	46.12

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.
  6. "#": The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4208.00	54.60 PK	74.00	-19.40	1.24 H	153	20.44	34.16
2	4208.00	42.30 AV	54.00	-11.70	1.24 H	153	8.14	34.16
3	*5260.00	103.10 PK			1.24 H	159	66.92	36.18
4	*5260.00	91.80 AV			1.24 H	159	55.62	36.18
5	#10520.00	57.30 PK	68.30	-11.00	1.14 H	73	11.11	46.19

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4208.00	58.94 PK	74.00	-15.06	1.04 V	8	24.78	34.16
2	4208.00	51.44 AV	54.00	-2.56	1.04 V	8	17.28	34.16
3	*5260.00	111.30 PK			1.15 V	19	75.12	36.18
4	*5260.00	101.30 AV			1.15 V	19	65.12	36.18
5	#10520.00	59.50 PK	68.30	-8.80	1.12 V	340	13.31	46.19

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.
  6. “#”:The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4240.00	54.70 PK	74.00	-19.30	1.29 H	156	20.46	34.24
2	4240.00	42.60 AV	54.00	-11.40	1.29 H	156	8.36	34.24
3	*5300.00	102.40 PK			1.28 H	157	66.16	36.24
4	*5300.00	91.60 AV			1.28 H	157	55.36	36.24
5	10600.00	56.30 PK	74.00	-17.70	1.19 H	68	9.93	46.37
6	10600.00	42.10 AV	54.00	-11.90	1.19 H	68	-4.27	46.37
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4240.00	57.94 PK	74.00	-16.06	1.15 V	18	23.70	34.24
2	4240.00	51.26 AV	54.00	-2.74	1.15 V	18	17.02	34.24
3	*5300.00	111.70 PK			1.10 V	173	75.46	36.24
4	*5300.00	101.00 AV			1.10 V	173	64.76	36.24
5	10600.00	58.12 PK	74.00	-15.88	1.25 V	25	11.75	46.37
6	10600.00	44.51 AV	54.00	-9.49	1.25 V	25	-1.86	46.37

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4256.00	53.80 PK	74.00	-20.20	1.27 H	151	19.51	34.29
2	4256.00	41.30 AV	54.00	-12.70	1.27 H	151	7.01	34.29
3	*5320.00	102.10 PK			1.27 H	160	65.83	36.27
4	*5320.00	91.20 AV			1.27 H	160	54.93	36.27
5	5407.20	55.56 PK	74.00	-18.44	1.00 H	161	19.15	36.41
6	5407.20	43.99 AV	54.00	-10.01	1.00 H	161	7.58	36.41
7	10640.00	56.80 PK	74.00	-17.20	1.38 H	20	10.34	46.46
8	10640.00	41.60 AV	54.00	-12.40	1.38 H	20	-4.86	46.46
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4256.00	57.00 PK	74.00	-17.00	1.30 V	155	22.71	34.29
2	4256.00	48.90 AV	54.00	-5.10	1.30 V	155	14.61	34.29
3	*5320.00	111.10 PK			1.03 V	30	74.83	36.27
4	*5320.00	100.50 AV			1.03 V	30	64.23	36.27
5	5407.20	62.80 PK	74.00	-11.20	1.02 V	2	26.39	36.41
6	5407.20	48.95 AV	54.00	-5.05	1.02 V	2	12.54	36.41
7	10640.00	57.50 PK	74.00	-16.50	1.23 V	25	11.04	46.46
8	10640.00	44.50 AV	54.00	-9.50	1.23 V	25	-1.96	46.46

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4400.00	54.30 PK	74.00	-19.70	1.25 H	153	19.64	34.66
2	4400.00	42.80 AV	54.00	-11.20	1.25 H	153	8.14	34.66
3	5447.60	55.61 PK	74.00	-18.39	1.11 H	164	19.13	36.48
4	5447.60	44.23 AV	54.00	-9.77	1.11 H	164	7.75	36.48
5	#5470.00	60.00 PK	68.30	-8.30	1.00 H	165	23.49	36.51
6	*5500.00	102.10 PK			1.00 H	165	65.54	36.56
7	*5500.00	91.30 AV			1.00 H	165	54.74	36.56
8	11000.00	56.10 PK	74.00	-17.90	1.17 H	53	8.85	47.25
9	11000.00	42.40 AV	54.00	-11.60	1.17 H	53	-4.85	47.25
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4400.00	55.90 PK	74.00	-18.10	1.09 V	339	21.24	34.66
2	4400.00	47.27 AV	54.00	-6.73	1.09 V	339	12.61	34.66
3	5416.44	62.22 PK	74.00	-11.78	1.10 V	338	25.79	36.43
4	5416.44	49.34 AV	54.00	-4.66	1.10 V	338	12.91	36.43
5	#5470.00	65.23 PK	68.30	-3.07	1.18 V	334	28.72	36.51
6	*5500.00	110.60 PK			1.18 V	334	74.04	36.56
7	*5500.00	100.10 AV			1.18 V	334	63.54	36.56
8	11000.00	57.24 PK	74.00	-16.76	1.08 V	328	9.99	47.25
9	11000.00	44.00 AV	54.00	-10.00	1.08 V	328	-3.25	47.25

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. " \* ": Fundamental frequency.
  6. "#": The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 14	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#4480.00	54.10 PK	68.30	-14.20	1.24 H	166	19.23	34.87
3	*5600.00	101.60 PK			1.07 H	158	64.78	36.82
4	*5600.00	90.80 AV			1.07 H	158	53.98	36.82
5	11200.00	55.20 PK	74.00	-18.80	1.18 H	56	8.04	47.16
6	11200.00	41.70 AV	54.00	-12.30	1.18 H	56	-5.46	47.16
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#4480.00	55.20 PK	68.30	-13.10	1.22 V	1	20.33	34.87
3	*5600.00	109.80 PK			1.07 V	78	72.98	36.82
4	*5600.00	99.10 AV			1.07 V	78	62.28	36.82
5	11200.00	56.26 PK	74.00	-17.74	1.02 V	64	9.10	47.16
6	11200.00	43.21 AV	54.00	-10.79	1.02 V	64	-3.95	47.16

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* ”: Fundamental frequency.
  6. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 19	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

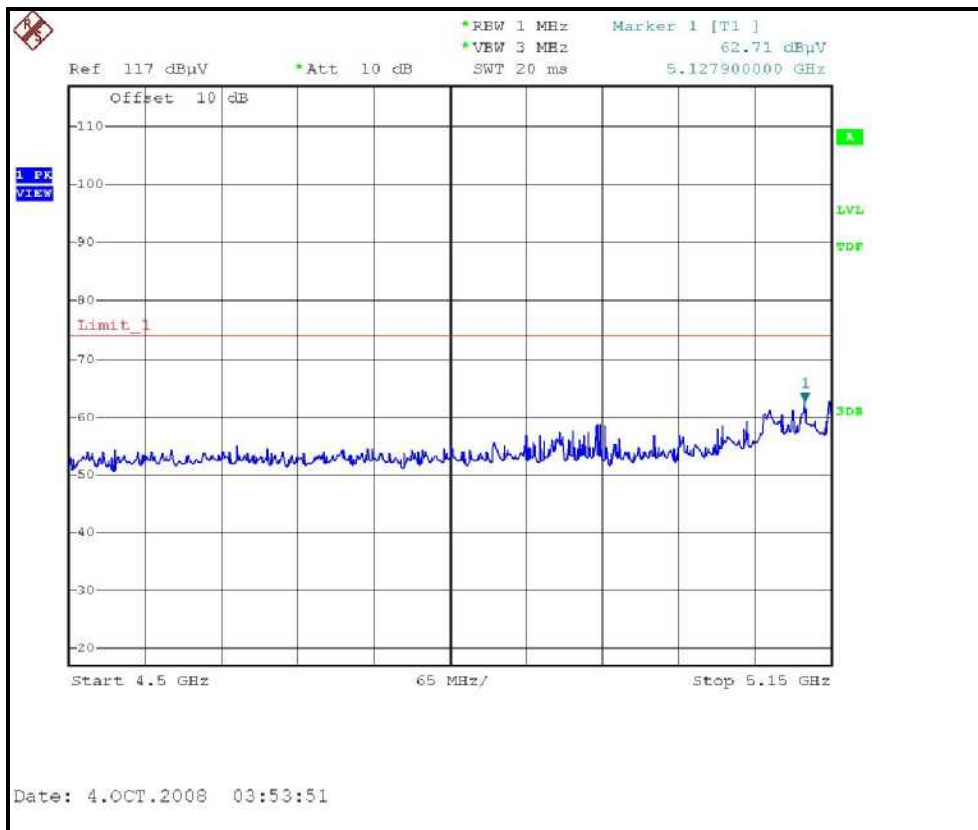
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4560.00	53.80 PK	74.00	-20.20	1.24 H	161	18.78	35.02
2	4560.00	41.20 AV	54.00	-12.80	1.24 H	161	6.18	35.02
3	*5700.00	100.50 PK			1.13 H	161	63.41	37.09
4	*5700.00	90.20 AV			1.13 H	161	53.11	37.09
5	#5725.00	62.98 PK	68.30	-5.32	1.13 H	161	25.83	37.15
6	11400.00	58.40 PK	74.00	-15.60	1.28 H	324	11.33	47.07
7	11400.00	43.10 AV	54.00	-10.90	1.28 H	324	-3.97	47.07

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4560.00	55.20 PK	74.00	-18.80	1.48 V	360	20.18	35.02
2	4560.00	43.53 AV	54.00	-10.47	1.48 V	360	8.51	35.02
3	*5700.00	108.90 PK			1.05 V	25	71.81	37.09
4	*5700.00	98.60 AV			1.05 V	25	61.51	37.09
5	#5725.00	67.79 PK	68.30	-0.51	1.05 V	25	30.64	37.15
6	11400.00	60.00 PK	74.00	-14.00	1.29 V	326	12.93	47.07
7	11400.00	45.50 AV	54.00	-8.50	1.29 V	326	-1.57	47.07

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.
  6. “#”:The radiated frequency is out the restricted band.

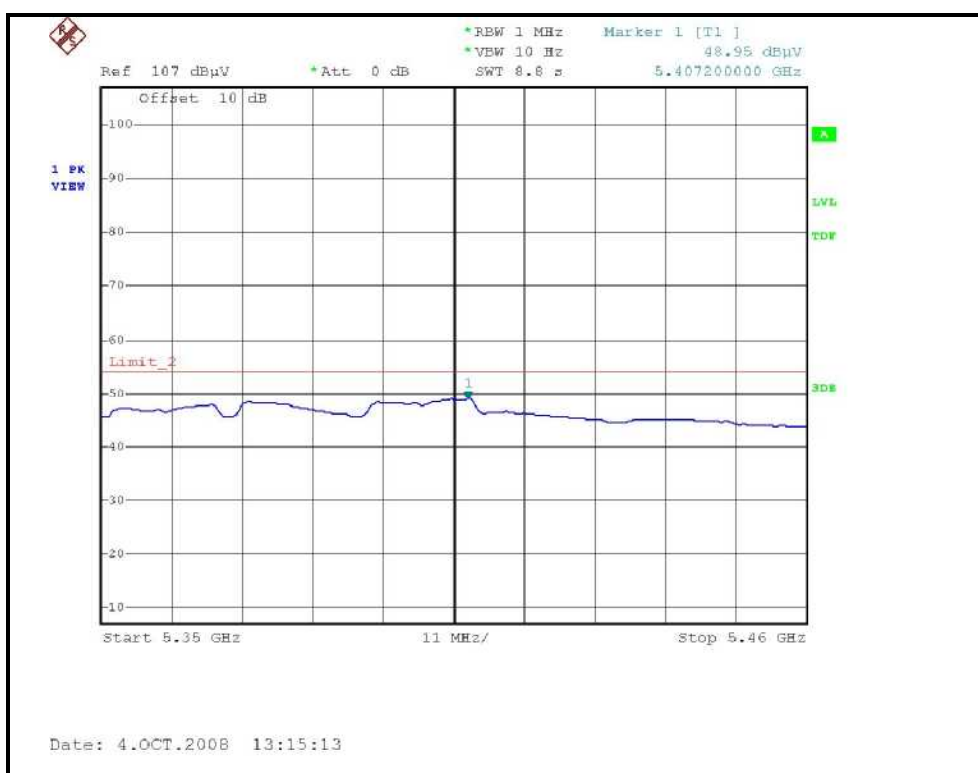
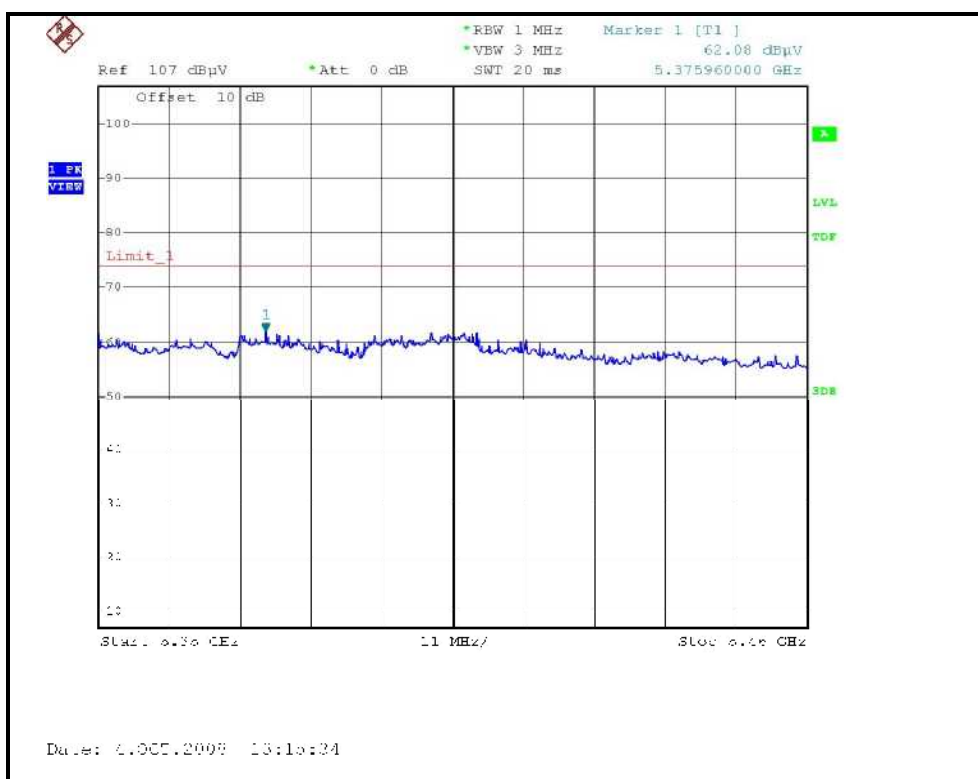


RESTRICTED BANDEDGE (802.11a MODE, CH1, VERTICAL)





RESTRICTED BANDEDGE (802.11a MODE, CH8, VERTICAL)









### DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4144.00	54.50 PK	74.00	-19.50	1.29 H	156	20.51	33.99
2	4144.00	42.40 AV	54.00	-11.60	1.29 H	156	8.41	33.99
3	5129.20	54.08 PK	74.00	-19.92	1.33 H	158	18.11	35.97
4	5129.20	42.94 AV	54.00	-11.06	1.33 H	158	6.97	35.97
5	*5180.00	103.20 PK			1.35 H	160	67.15	36.05
6	*5180.00	91.30 AV			1.35 H	160	55.25	36.05
7	#10360.00	55.70 PK	68.30	-12.60	1.37 H	9	9.78	45.92

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4144.00	63.70 PK	74.00	-10.30	1.22 V	7	29.71	33.99
2	4144.00	53.30 AV	54.00	-0.70	1.22 V	7	19.31	33.99
3	5128.20	64.56 PK	74.00	-9.44	1.22 V	12	28.59	35.97
4	5128.20	52.39 AV	54.00	-1.61	1.22 V	12	16.42	35.97
5	*5180.00	113.60 PK			1.20 V	20	77.55	36.05
6	*5180.00	102.50 AV			1.20 V	20	66.45	36.05
7	#10360.00	58.90 PK	68.30	-9.40	1.45 V	6	12.98	45.92

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.
  6. “#”: The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4160.00	53.50 PK	74.00	-20.50	1.28 H	157	19.46	34.04
2	4160.00	41.60 AV	54.00	-12.40	1.28 H	157	7.56	34.04
3	*5200.00	103.10 PK			1.37 H	159	67.02	36.08
4	*5200.00	91.10 AV			1.37 H	159	55.02	36.08
5	#10400.00	57.30 PK	68.30	-11.00	1.36 H	10	11.31	45.99

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4160.00	60.80 PK	74.00	-13.20	1.24 V	24	26.76	34.04
2	4160.00	50.70 AV	54.00	-3.30	1.24 V	24	16.66	34.04
3	*5200.00	114.36 PK			1.10 V	16	78.28	36.08
4	*5200.00	102.40 AV			1.10 V	16	66.32	36.08
5	#10400.00	58.50 PK	68.30	-9.80	1.37 V	2	12.51	45.99

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.
  6. “#”:The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4192.00	53.90 PK	74.00	-20.10	1.27 H	154	19.78	34.12
2	4192.00	42.30 AV	54.00	-11.70	1.27 H	154	8.18	34.12
3	*5240.00	103.80 PK			1.34 H	154	67.66	36.14
4	*5240.00	91.60 AV			1.34 H	154	55.46	36.14
5	#10480.00	56.30 PK	68.30	-12.00	1.37 H	20	10.18	46.12

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4192.00	61.70 PK	74.00	-12.30	1.24 V	25	27.58	34.12
2	4192.00	52.20 AV	54.00	-1.80	1.24 V	25	18.08	34.12
3	*5240.00	114.50 PK			1.09 V	16	78.36	36.14
4	*5240.00	102.80 AV			1.09 V	16	66.66	36.14
5	#10480.00	58.30 PK	68.30	-10.00	1.46 V	348	12.18	46.12

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. " \* ": Fundamental frequency.
  6. "#": The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4208.00	53.80 PK	74.00	-20.20	1.24 H	157	19.64	34.16
2	4208.00	41.20 AV	54.00	-12.80	1.24 H	157	7.04	34.16
3	*5260.00	104.20 PK			1.32 H	157	68.02	36.18
4	*5260.00	92.10 AV			1.32 H	157	55.92	36.18
5	#10520.00	57.30 PK	68.30	-11.00	1.34 H	28	11.11	46.19

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4208.00	57.64 PK	74.00	-16.36	1.16 V	297	23.48	34.16
2	4208.00	51.12 AV	54.00	-2.88	1.16 V	297	16.96	34.16
3	*5260.00	113.53 PK			1.03 V	11	77.35	36.18
4	*5260.00	101.28 AV			1.03 V	11	65.10	36.18
5	#10520.00	59.50 PK	68.30	-8.80	1.59 V	1	13.31	46.19

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.
  6. “#”:The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4240.00	53.60 PK	74.00	-20.40	1.26 H	151	19.36	34.24
2	4240.00	41.60 AV	54.00	-12.40	1.26 H	151	7.36	34.24
3	*5300.00	103.40 PK			1.33 H	154	67.16	36.24
4	*5300.00	91.60 AV			1.33 H	154	55.36	36.24
5	10600.00	56.80 PK	74.00	-17.20	1.33 H	21	10.43	46.37
6	10600.00	42.10 AV	54.00	-11.90	1.33 H	21	-4.27	46.37
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4240.00	58.12 PK	74.00	-15.88	1.16 V	18	23.88	34.24
2	4240.00	51.15 AV	54.00	-2.85	1.16 V	18	16.91	34.24
3	*5300.00	112.60 PK			1.04 V	3	76.36	36.24
4	*5300.00	100.70 AV			1.04 V	3	64.46	36.24
5	5351.98	63.50 PK	74.00	-10.50	1.01 V	17	27.18	36.32
6	5351.98	51.60 AV	54.00	-2.40	1.01 V	17	15.28	36.32
7	10600.00	59.40 PK	74.00	-14.60	1.57 V	11	13.03	46.37
8	10600.00	44.90 AV	54.00	-9.10	1.57 V	11	-1.47	46.37

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4256.00	54.70 PK	74.00	-19.30	1.24 H	139	20.41	34.29
2	4256.00	42.30 AV	54.00	-11.70	1.24 H	139	8.01	34.29
3	*5320.00	103.10 PK			1.07 H	151	66.83	36.27
4	*5320.00	91.10 AV			1.07 H	151	54.83	36.27
5	5393.10	56.37 PK	74.00	-17.63	1.15 H	159	19.98	36.39
6	5393.10	44.58 AV	54.00	-9.42	1.15 H	159	8.19	36.39
7	10640.00	56.40 PK	74.00	-17.60	1.34 H	29	9.94	46.46
8	10640.00	42.00 AV	54.00	-12.00	1.34 H	29	-4.46	46.46
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4256.00	57.72 PK	74.00	-16.28	1.49 V	203	23.43	34.29
2	4256.00	49.90 AV	54.00	-4.10	1.49 V	203	15.61	34.29
3	*5320.00	112.14 PK			1.11 V	21	75.87	36.27
4	*5320.00	100.50 AV			1.11 V	21	64.23	36.27
5	5384.30	64.01 PK	74.00	-9.99	1.05 V	8	27.64	36.37
6	5384.30	52.61 AV	54.00	-1.39	1.05 V	8	16.24	36.37
7	10640.00	59.20 PK	74.00	-14.80	1.45 V	348	12.74	46.46
8	10640.00	44.30 AV	54.00	-9.70	1.45 V	348	-2.16	46.46

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.





EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4400.00	51.70 PK	68.30	-16.60	1.34 H	152	17.04	34.66
2	4400.00	41.30 AV	54.00	-12.70	1.34 H	152	6.64	34.66
3	5413.40	55.81 PK	74.00	-18.19	1.02 H	164	19.39	36.42
4	5413.40	44.16 AV	54.00	-9.84	1.02 H	164	7.74	36.42
5	*5500.00	102.60 PK			1.00 H	163	66.04	36.56
6	*5500.00	89.70 AV			1.00 H	163	53.14	36.56
7	11000.00	57.10 PK	74.00	-16.90	1.24 H	128	9.85	47.25
8	11000.00	41.10 AV	54.00	-12.90	1.24 H	128	-6.15	47.25

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4400.00	57.90 PK	68.30	-10.40	1.17 V	172	23.24	34.66
2	4400.00	47.60 AV	54.00	-6.40	1.17 V	172	12.94	34.66
3	5448.10	64.94 PK	74.00	-9.06	1.00 V	314	28.46	36.48
4	5448.10	52.50 AV	54.00	-1.50	1.00 V	314	16.02	36.48
5	#5470.00	62.30 PK	68.30	-6.00	1.41 V	202	25.79	36.51
6	*5500.00	111.64 PK			1.41 V	202	75.08	36.56
7	*5500.00	99.43 AV			1.41 V	202	62.87	36.56

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.
  6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 14	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#4480.00	51.60 PK	68.30	-16.70	1.33 H	157	16.73	34.87
3	*5600.00	102.80 PK			1.05 H	162	65.98	36.82
4	*5600.00	90.60 AV			1.05 H	162	53.78	36.82
5	11200.00	56.80 PK	74.00	-17.20	1.29 H	124	9.64	47.16
6	11200.00	40.60 AV	54.00	-13.40	1.29 H	124	-6.56	47.16
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#4480.00	56.40 PK	68.30	-11.90	1.09 V	20	21.53	34.87
3	*5600.00	108.50 PK			1.07 V	339	71.68	36.82
4	*5600.00	97.03 AV			1.07 V	339	60.21	36.82
5	11200.00	58.70 PK	74.00	-15.30	1.04 V	296	11.54	47.16
6	11200.00	44.70 AV	54.00	-9.30	1.04 V	296	-2.46	47.16

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* ”: Fundamental frequency.
  6. "#":The radiated frequency is out the restricted band.

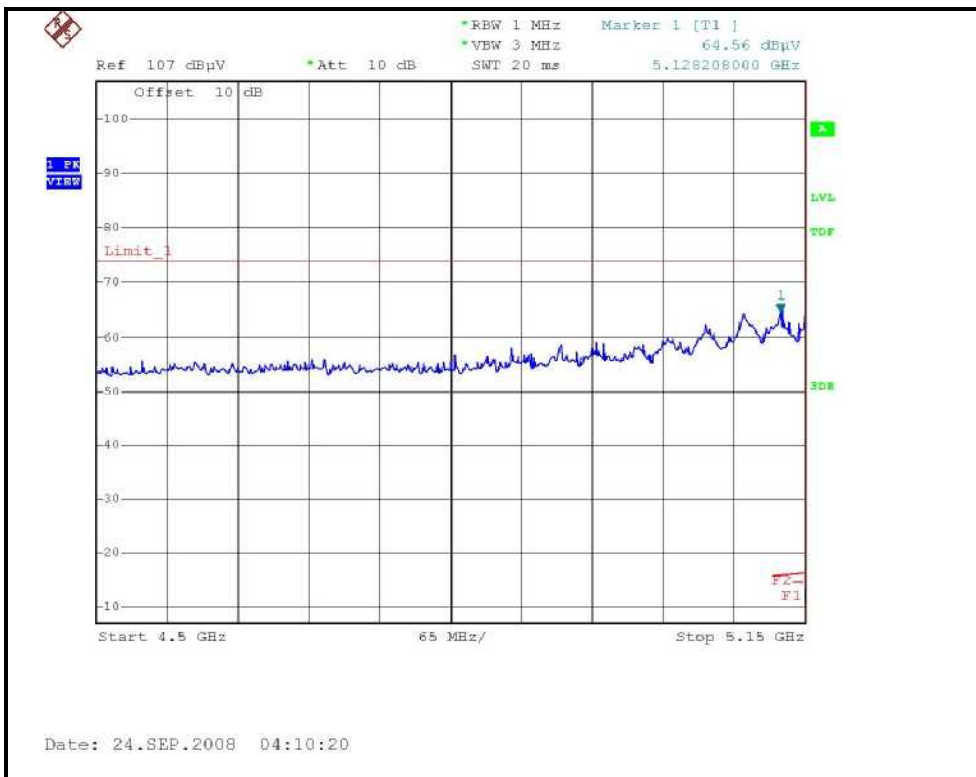
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 19	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4560.00	51.40 PK	74.00	-22.60	1.32 H	166	16.38	35.02
2	4560.00	40.30 AV	54.00	-13.70	1.32 H	166	5.28	35.02
3	*5700.00	102.10 PK			1.04 H	158	65.01	37.09
4	*5700.00	89.40 AV			1.04 H	158	52.31	37.09
5	11400.00	57.30 PK	74.00	-16.70	1.31 H	129	10.23	47.07
6	11400.00	41.50 AV	54.00	-12.50	1.31 H	129	-5.57	47.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4560.00	55.30 PK	74.00	-18.70	1.19 V	22	20.28	35.02
2	4560.00	42.60 AV	54.00	-11.40	1.19 V	22	7.58	35.02
3	*5700.00	109.73 PK			1.05 V	357	72.64	37.09
4	*5700.00	97.90 AV			1.05 V	357	60.81	37.09
5	#5725.00	57.25 PK	68.30	-11.05	1.05 V	357	20.10	37.15
6	11400.00	62.70 PK	74.00	-11.30	1.02 V	294	15.63	47.07
7	11400.00	47.10 AV	54.00	-6.90	1.02 V	294	0.03	47.07

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.
  6. “#”:The radiated frequency is out the restricted band.



RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH1, VERTICAL )



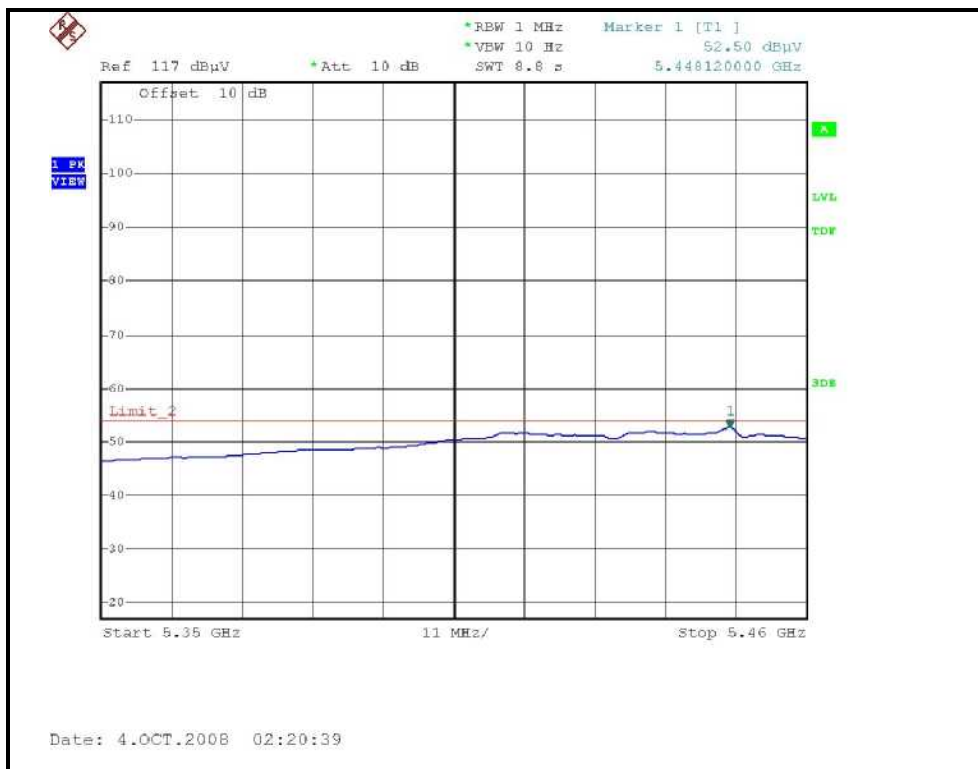
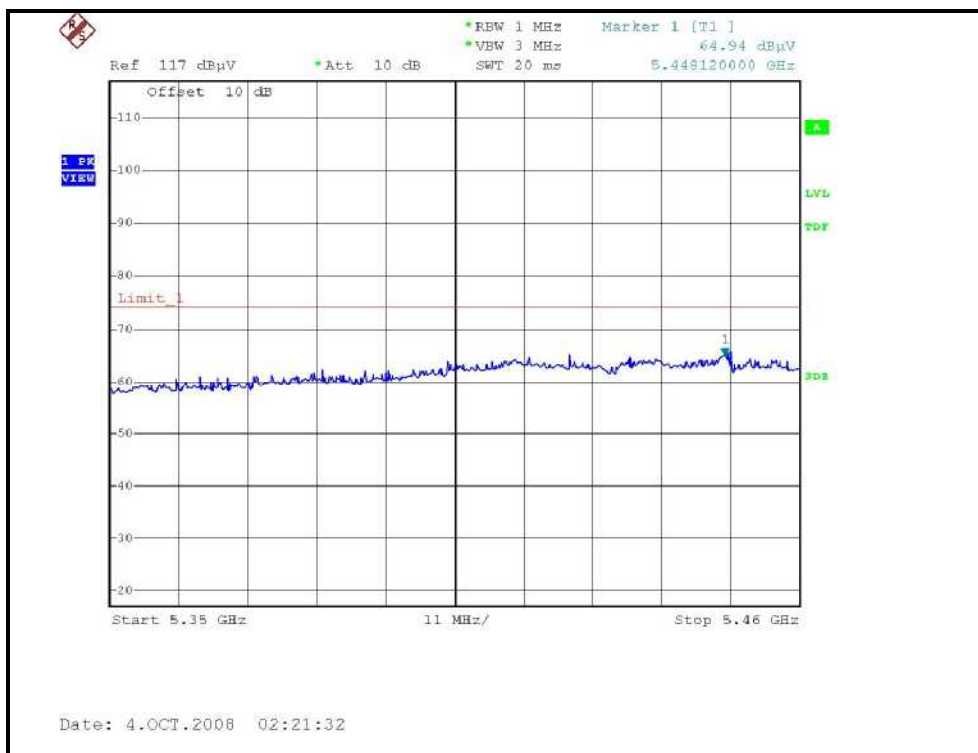








RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH9, VERTICAL )



### DRAFT 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4152.00	55.80 PK	74.00	-18.20	1.20 H	160	21.78	34.02
2	4152.00	45.30 AV	54.00	-8.70	1.20 H	160	11.28	34.02
3	5150.00	55.34 PK	74.00	-18.66	1.22 H	155	19.34	36.00
4	5150.00	44.15 AV	54.00	-9.85	1.22 H	155	8.15	36.00
5	*5190.00	98.30 PK			1.08 H	157	62.24	36.06
6	*5190.00	87.20 AV			1.08 H	157	51.14	36.06
7	11380.00	55.20 PK	74.00	-18.80	1.24 H	126	8.12	47.08
8	11380.00	40.10 AV	54.00	-13.90	1.24 H	126	-6.98	47.08
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4152.00	57.10 PK	74.00	-16.90	1.18 V	22	23.08	34.02
2	4152.00	50.50 AV	54.00	-3.50	1.18 V	22	16.48	34.02
3	5149.50	66.12 PK	74.00	-7.88	1.16 V	14	30.12	36.00
4	5149.50	52.34 AV	54.00	-1.66	1.16 V	14	16.34	36.00
5	*5190.00	109.10 PK			1.04 V	14	73.04	36.06
6	*5190.00	97.60 AV			1.04 V	14	61.54	36.06
7	11380.00	56.11 PK	74.00	-17.89	1.23 V	34	9.03	47.08
8	11380.00	43.76 AV	54.00	-10.24	1.23 V	34	-3.32	47.08

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4184.00	55.90 PK	74.00	-18.10	1.21 H	167	21.80	34.10
2	4184.00	45.60 AV	54.00	-8.40	1.21 H	167	11.50	34.10
3	*5230.00	99.30 PK			1.09 H	163	63.17	36.13
4	*5230.00	88.40 AV			1.09 H	163	52.27	36.13
5	#10460.00	55.30 PK	68.30	-13.00	1.29 H	29	9.21	46.09

NTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4184.00	57.21 PK	74.00	-16.79	1.19 V	20	23.11	34.10
2	4184.00	50.72 AV	54.00	-3.28	1.19 V	20	16.62	34.10
3	*5230.00	110.70 PK			1.13 V	1	74.57	36.13
4	*5230.00	98.70 AV			1.13 V	1	62.57	36.13
5	#10460.00	56.30 PK	68.30	-12.00	1.26 V	33	10.21	46.09

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.
  6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4216.00	56.20 PK	74.00	-17.80	1.24 H	166	22.02	34.18
2	4216.00	47.30 AV	54.00	-6.70	1.24 H	166	13.12	34.18
3	*5270.00	99.70 PK			1.10 H	157	63.51	36.19
4	*5270.00	88.60 AV			1.10 H	157	52.41	36.19
5	#10540.00	54.30 PK	68.30	-14.00	1.24 H	38	8.06	46.24

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4216.00	57.91 PK	74.00	-16.09	1.04 V	333	23.73	34.18
2	4216.00	51.52 AV	54.00	-2.48	1.04 V	333	17.34	34.18
3	*5270.00	111.02 PK			1.12 V	8	74.83	36.19
4	*5270.00	98.84 AV			1.12 V	8	62.65	36.19
5	5373.32	63.10 PK	74.00	-10.90	1.00 V	10	26.74	36.36
6	5373.32	50.40 AV	54.00	-3.60	1.00 V	10	14.04	36.36
7	#10540.00	56.21 PK	68.30	-12.09	1.25 V	23	9.97	46.24

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.
  6. “#”:The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4248.00	56.50 PK	74.00	-17.50	1.27 H	153	22.24	34.26
2	4248.00	48.30 AV	54.00	-5.70	1.27 H	153	14.04	34.26
3	*5310.00	98.10 PK			1.19 H	154	61.84	36.26
4	*5310.00	87.00 AV			1.19 H	154	50.74	36.26
5	5350.00	56.59 PK	74.00	-17.41	1.19 H	153	20.27	36.32
6	5350.00	43.83 AV	54.00	-10.17	1.19 H	153	7.51	36.32
7	10620.00	55.60 PK	74.00	-18.40	1.28 H	34	9.19	46.41
8	10620.00	41.70 AV	54.00	-12.30	1.28 H	34	-4.71	46.41
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4248.00	58.70 PK	74.00	-15.30	1.16 V	20	24.44	34.26
2	4248.00	52.10 AV	54.00	-1.90	1.16 V	20	17.84	34.26
3	*5310.00	108.50 PK			1.11 V	17	72.24	36.26
4	*5310.00	97.04 AV			1.11 V	17	60.78	36.26
5	5351.54	65.97 PK	74.00	-8.03	1.10 V	9	29.65	36.32
6	5351.54	52.02 AV	54.00	-1.98	1.10 V	9	15.70	36.32
7	10620.00	56.63 PK	74.00	-17.37	1.33 V	347	10.22	46.41
8	10620.00	44.39 AV	54.00	-9.61	1.33 V	347	-2.02	46.41

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#4408.00	54.30 PK	68.30	-14.00	1.13 H	154	19.62	34.68
3	5436.20	55.68 PK	74.00	-18.32	1.31 H	65	19.22	36.46
4	5436.20	43.78 AV	54.00	-10.22	1.31 H	65	7.32	36.46
5	#5470.00	60.30 PK	68.30	-8.00	1.31 H	64	23.79	36.51
6	*5510.00	97.70 PK			1.31 H	65	61.11	36.59
7	*5510.00	86.10 AV			1.31 H	65	49.51	36.59
8	11020.00	54.20 PK	74.00	-19.80	1.29 H	31	6.96	47.24
9	11020.00	41.30 AV	54.00	-12.70	1.29 H	31	-5.94	47.24
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#4408.00	56.55 PK	68.30	-11.75	1.12 V	350	21.87	34.68
3	5407.42	64.32 PK	74.00	-9.68	1.09 V	9	27.91	36.41
4	5407.42	51.08 AV	54.00	-2.92	1.09 V	9	14.67	36.41
5	#5470.00	65.12 PK	68.30	-3.18	1.06 V	358	28.61	36.51
6	*5510.00	107.80 PK			1.06 V	358	71.21	36.59
7	*5510.00	96.36 AV			1.06 V	358	59.77	36.59
8	11020.00	56.89 PK	74.00	-17.11	1.31 V	354	9.65	47.24
9	11020.00	44.82 AV	54.00	-9.18	1.31 V	354	-2.42	47.24

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. " \* ": Fundamental frequency.
  6. "#": The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#4472.00	54.30 PK	68.30	-14.00	1.12 H	162	19.45	34.85
3	*5590.00	97.30 PK			1.32 H	61	60.50	36.80
4	*5590.00	85.90 AV			1.32 H	61	49.10	36.80
5	11180.00	55.60 PK	74.00	-18.40	1.24 H	38	8.43	47.17
6	11180.00	41.10 AV	54.00	-12.90	1.24 H	38	-6.07	47.17
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#4472.00	55.13 PK	68.30	-13.17	1.11 V	1	20.28	34.85
3	*5590.00	107.95 PK			1.15 V	0	71.15	36.80
4	*5590.00	96.10 AV			1.15 V	0	59.30	36.80
5	11180.00	56.47 PK	74.00	-17.53	1.30 V	295	9.30	47.17
6	11180.00	44.45 AV	54.00	-9.55	1.30 V	295	-2.72	47.17

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* ”: Fundamental frequency.
  6. “#”: The radiated frequency is out the restricted band.



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 965hPa	TESTED BY	Phoenix Huang

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4536.00	51.70 PK	74.00	-22.30	1.24 H	143	16.72	34.98
2	4536.00	41.20 AV	54.00	-12.80	1.24 H	143	6.22	34.98
3	*5670.00	98.40 PK			1.14 H	157	61.39	37.01
4	*5670.00	87.30 AV			1.14 H	157	50.29	37.01
5	#5725.00	60.20 PK	68.30	-8.10	1.14 H	156	23.05	37.15
6	11340.00	55.20 PK	74.00	-18.80	1.35 H	23	8.10	47.10
7	11340.00	41.60 AV	54.00	-12.40	1.35 H	23	-5.50	47.10

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

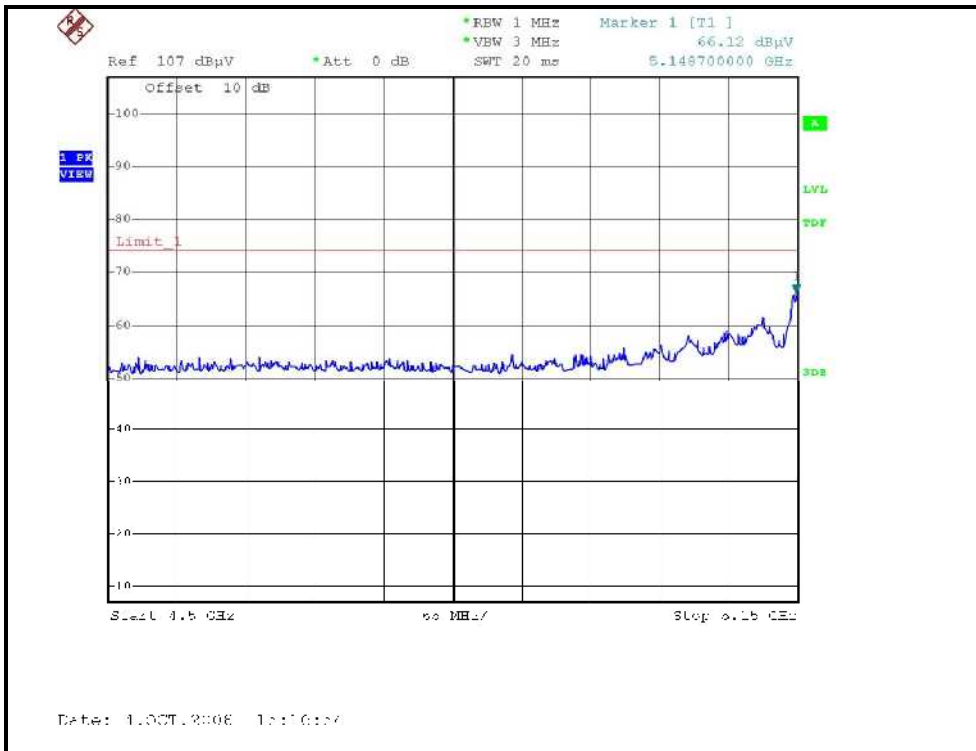
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4536.00	54.50 PK	74.00	-19.50	1.19 V	20	19.52	34.98
2	4536.00	42.78 AV	54.00	-11.22	1.19 V	20	7.80	34.98
3	*5670.00	108.56 PK			1.13 V	1	71.55	37.01
4	*5670.00	97.02 AV			1.13 V	1	60.01	37.01
5	#5725.00	65.64 PK	68.30	-2.66	1.13 V	1	28.49	37.15
6	11340.00	56.73 PK	74.00	-17.27	1.36 V	357	9.63	47.10
7	11340.00	44.67 AV	54.00	-9.33	1.36 V	357	-2.43	47.10

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.
  6. “#”:The radiated frequency is out the restricted band.

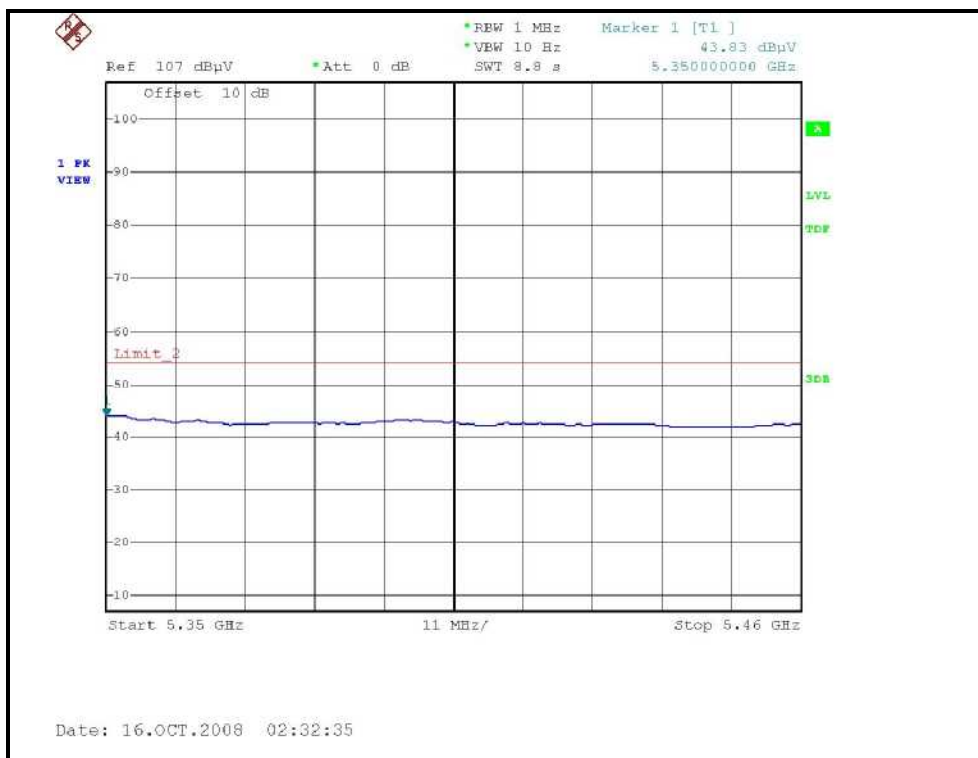
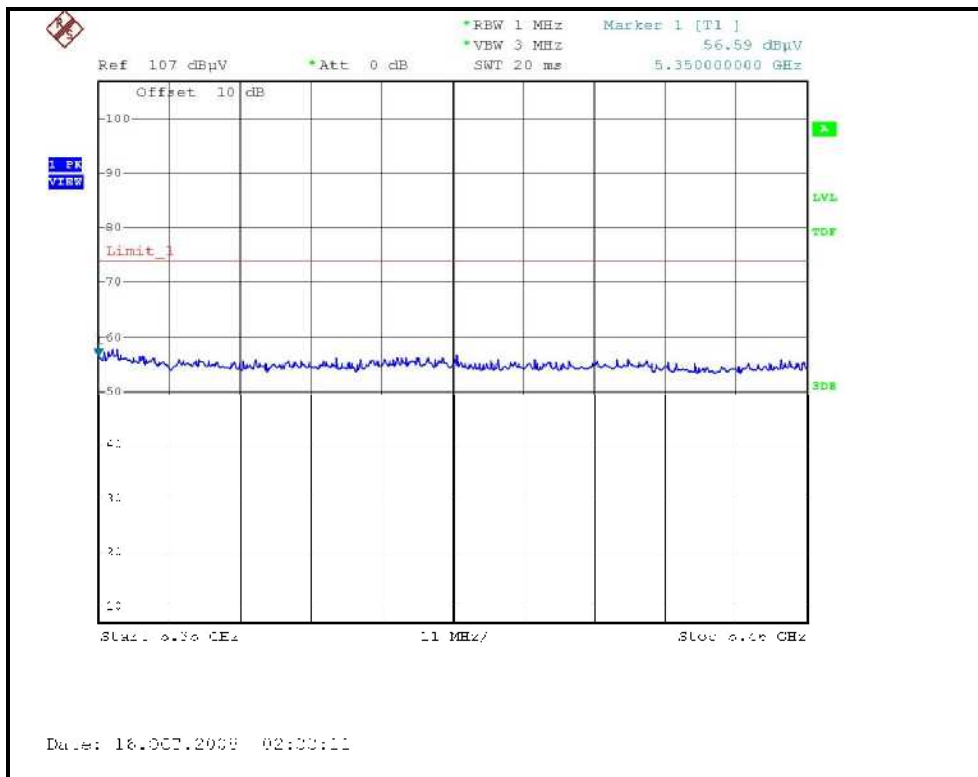




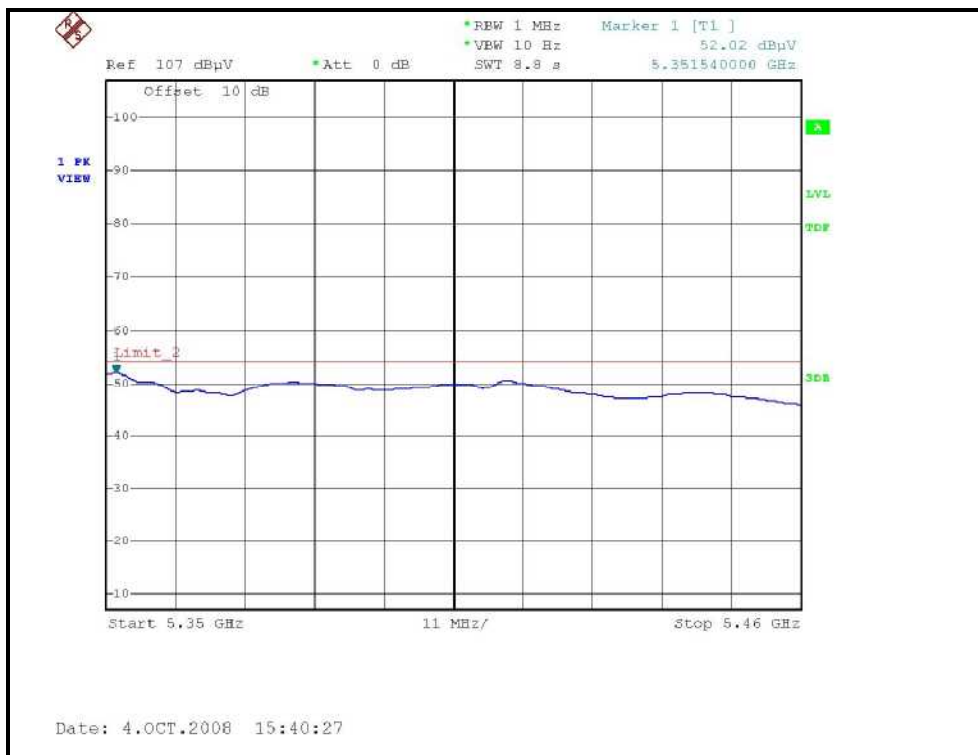
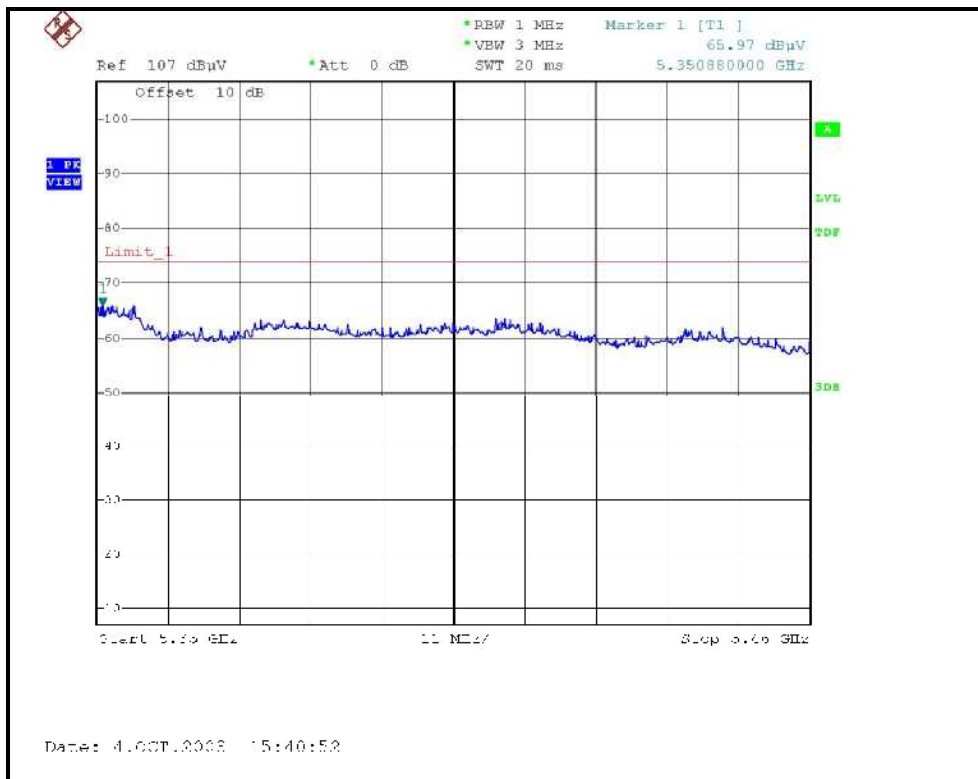
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE,CH1, VERTICAL )



RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH4, HORIZONTAL)

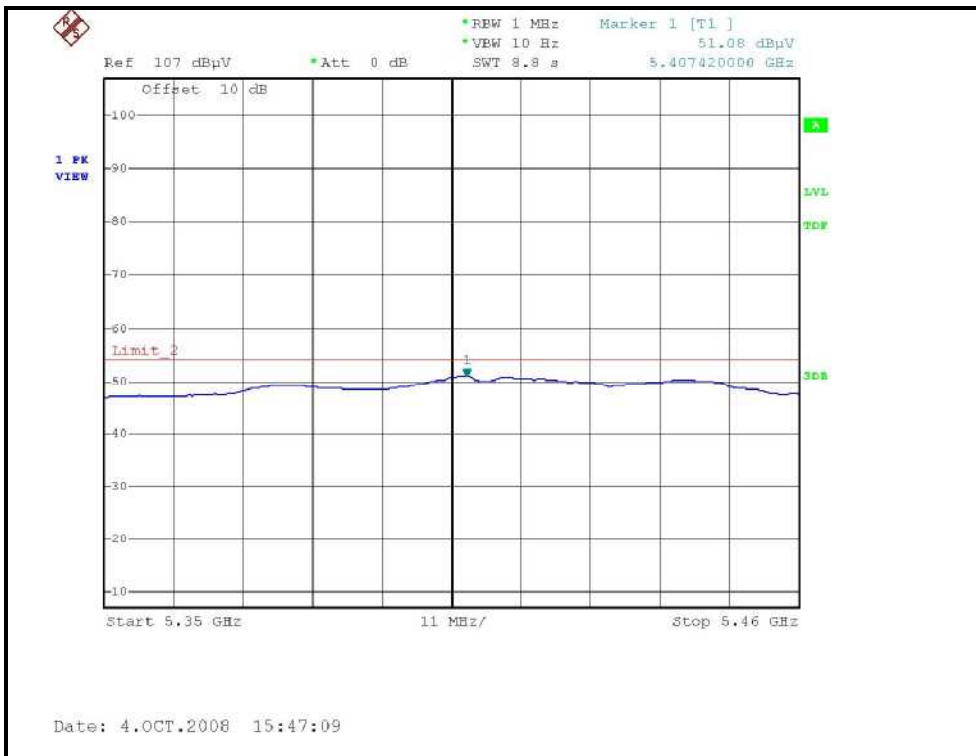
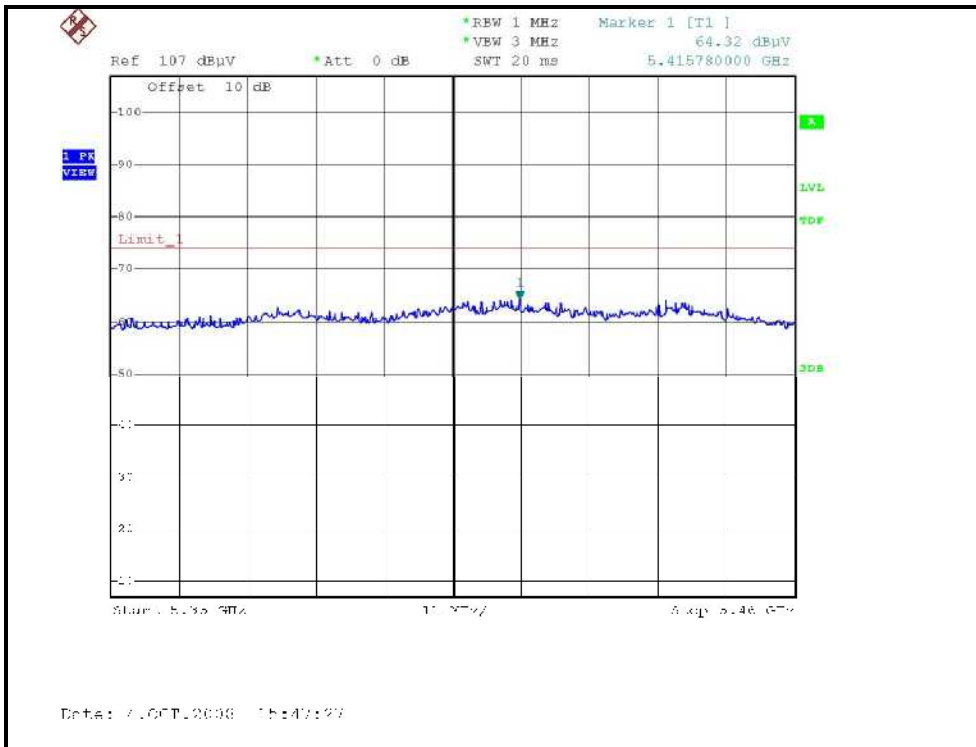


RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH4, VERTICAL)





RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH5, VERTICAL)



### 4.3 PEAK TRANSMIT POWER MEASUREMENT

#### 4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

Frequency Band	Limit
5.15 – 5.25GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.25 – 5.35GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.47 – 5.725GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.725 – 5.825GHz	The lesser of 1W (30dBm) or 17dBm + 10logB

**NOTE:** Where B is the 26dB emission bandwidth in MHz.

#### 4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ADVANTEST SPECTRUM ANALYZER	U3772	160100280	July 26, 2008	July 25, 2009

**NOTE:**

- 1.The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
- 2.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

#### 4.3.3 TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer.
2. Set span to encompass the entire emission bandwidth of the signal.
3. Set RBW to 1MHz, VBW to 300kHz.
4. Using the spectrum analyzer's channel power measurement function to measure the output power.

**NOTE:**

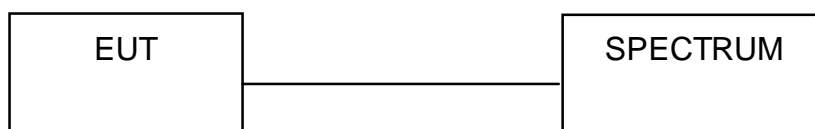
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

The transmitter output operates continuously therefore Method # 1 is used.

#### 4.3.4 DEVIATION FROM TEST STANDARD

No deviation

#### 4.3.5 TEST SETUP



#### 4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.





#### 4.3.7 TEST RESULTS

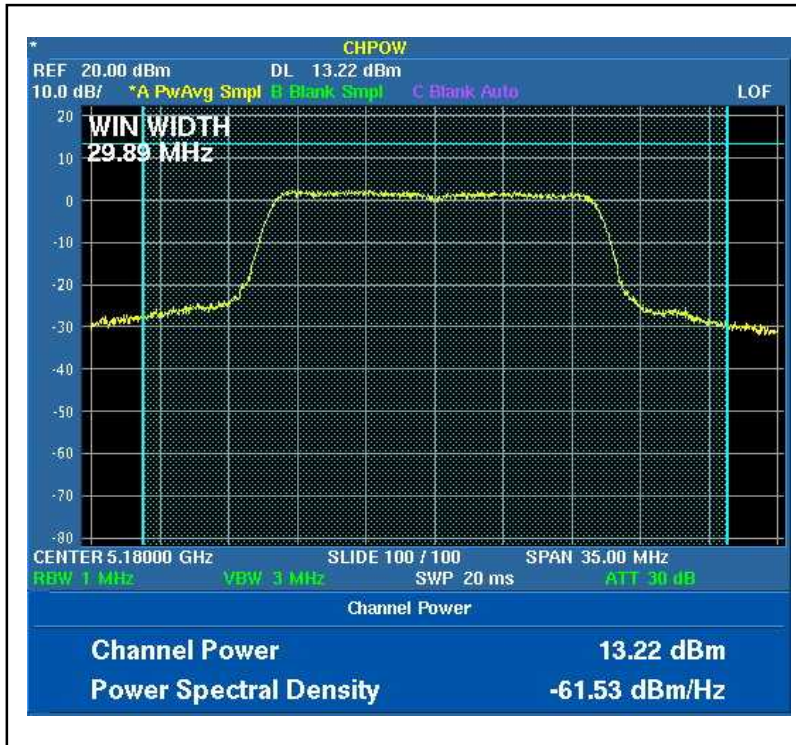
##### 802.11a OFDM MODULATION:

<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	6Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>ENVIRONMENTAL CONDITIONS</b>	25deg.C, 60%RH, 965hPa
<b>TESTED BY</b>	Wen Yu		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER OUTPUT (mW)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/FAIL
1	5180	13.22	20.989	17	29.89	PASS
2	5200	13.45	22.131	17	25.45	PASS
4	5240	13.90	24.547	24	32.59	PASS
5	5260	13.77	23.823	24	33.11	PASS
7	5300	13.85	24.266	24	29.23	PASS
8	5320	13.91	24.604	24	26.46	PASS
9	5500	14.29	26.853	24	24.82	PASS
14	5600	13.42	21.979	24	20.37	PASS
19	5700	13.62	23.014	24	25.59	PASS

**NOTE:** The 26dBc Occupied Bandwidth plot, please refer to the following pages.

Peak Power Output:  
CH1



CH2



CH4



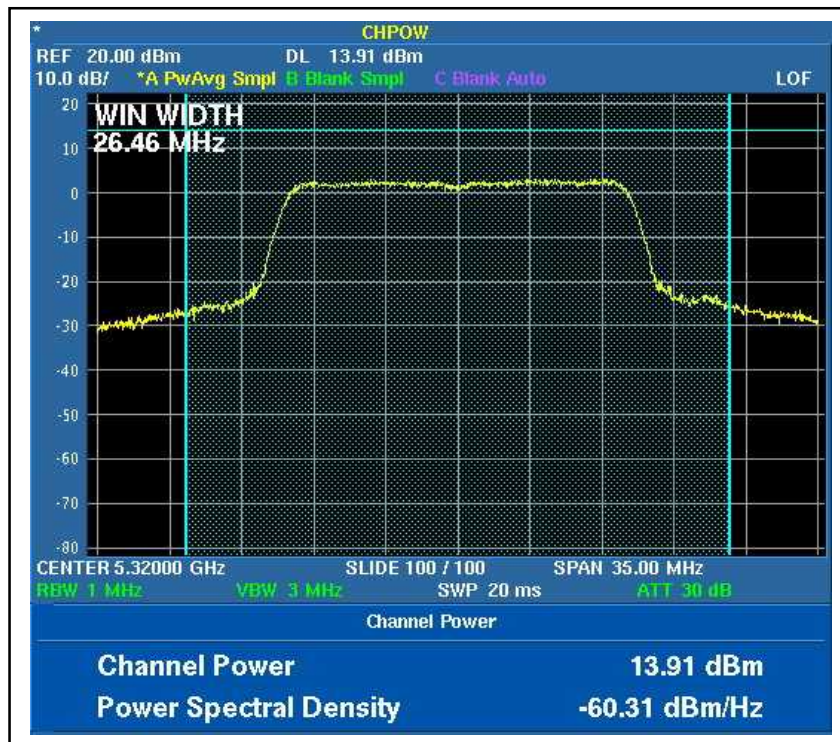
CH5



CH7



CH8



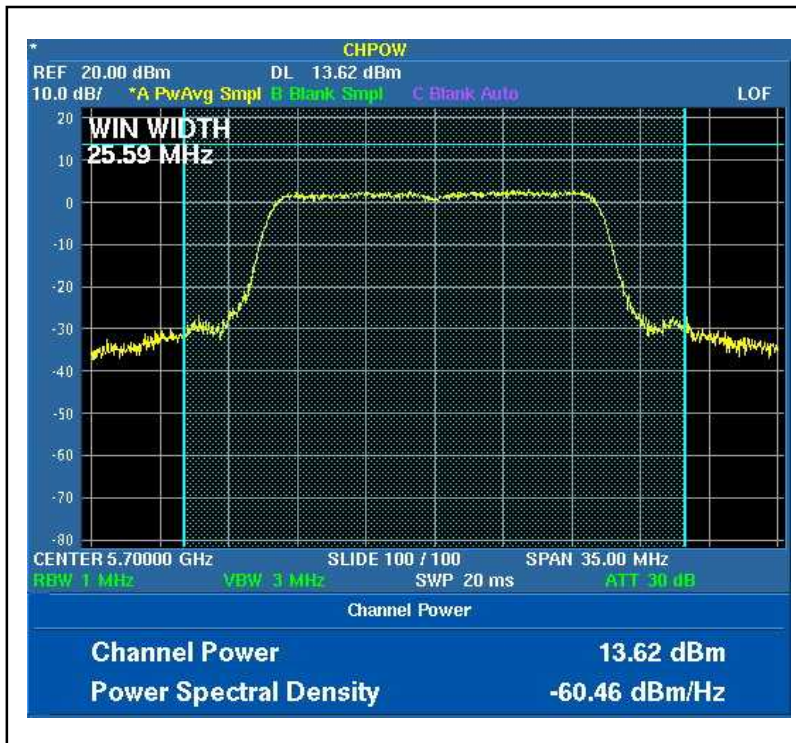
CH9



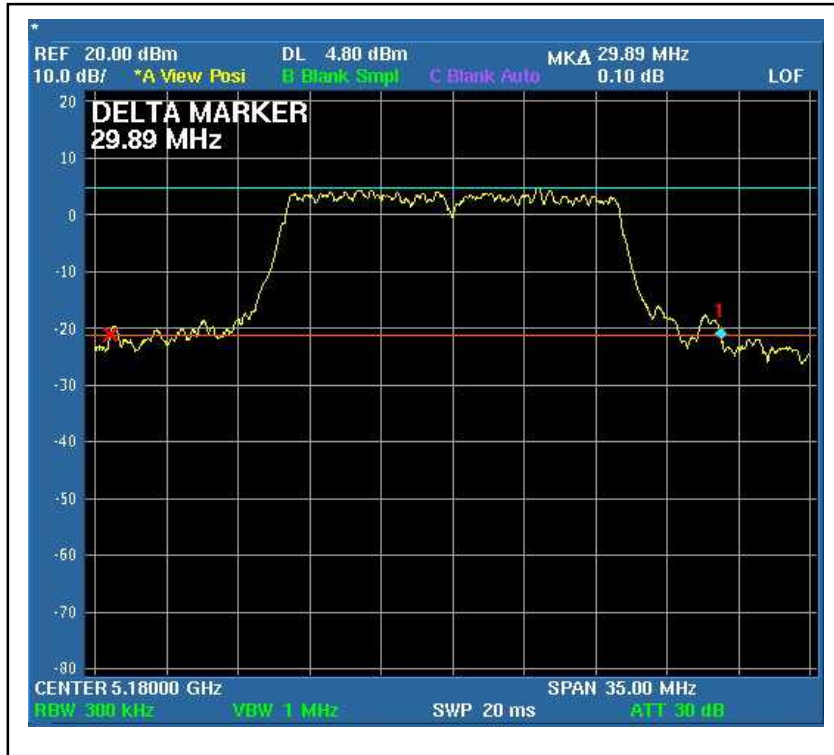
CH14



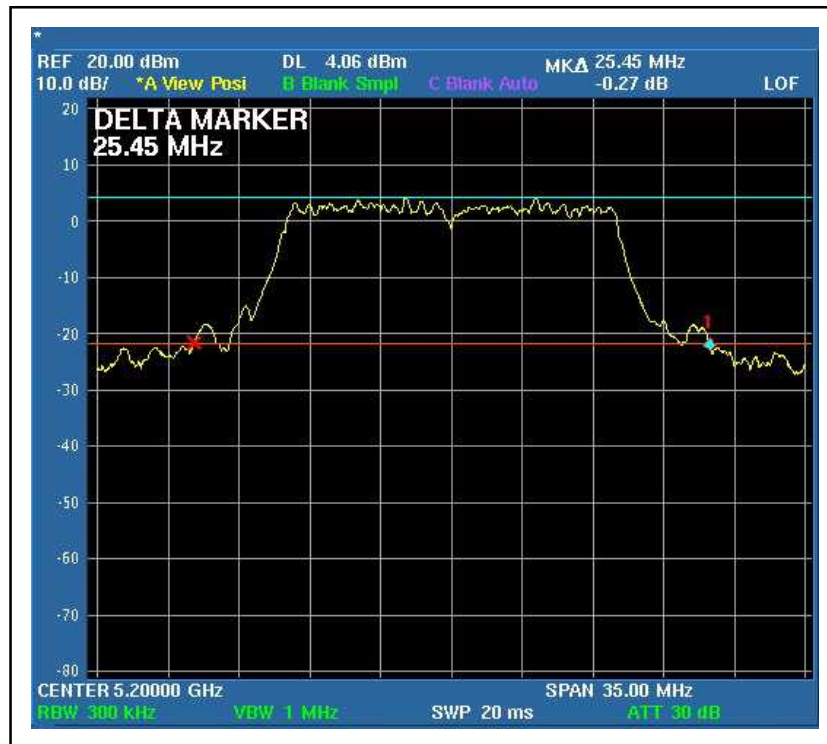
CH19



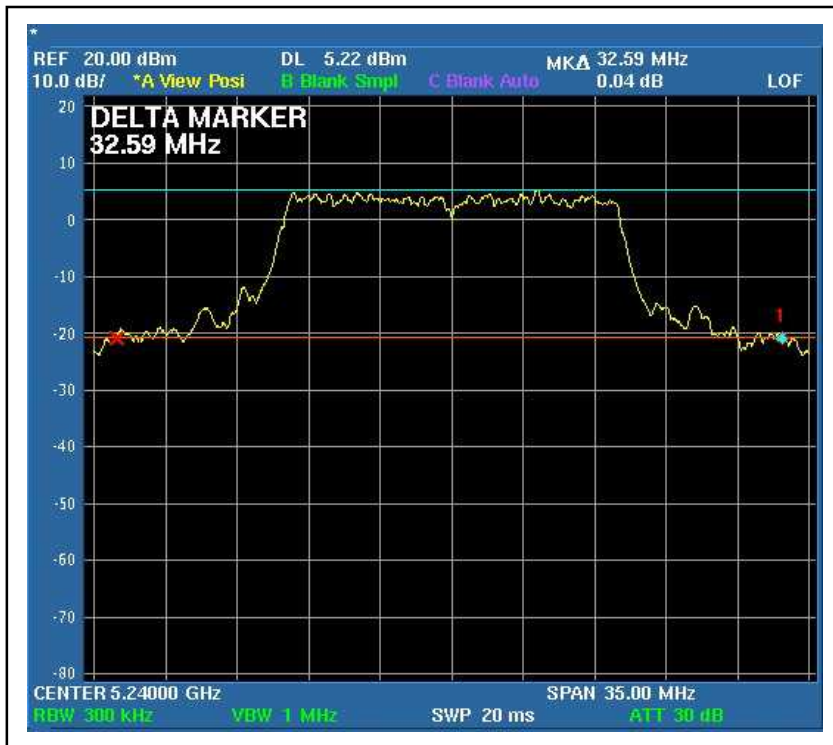
26dB Occupied Bandwidth:  
CH1



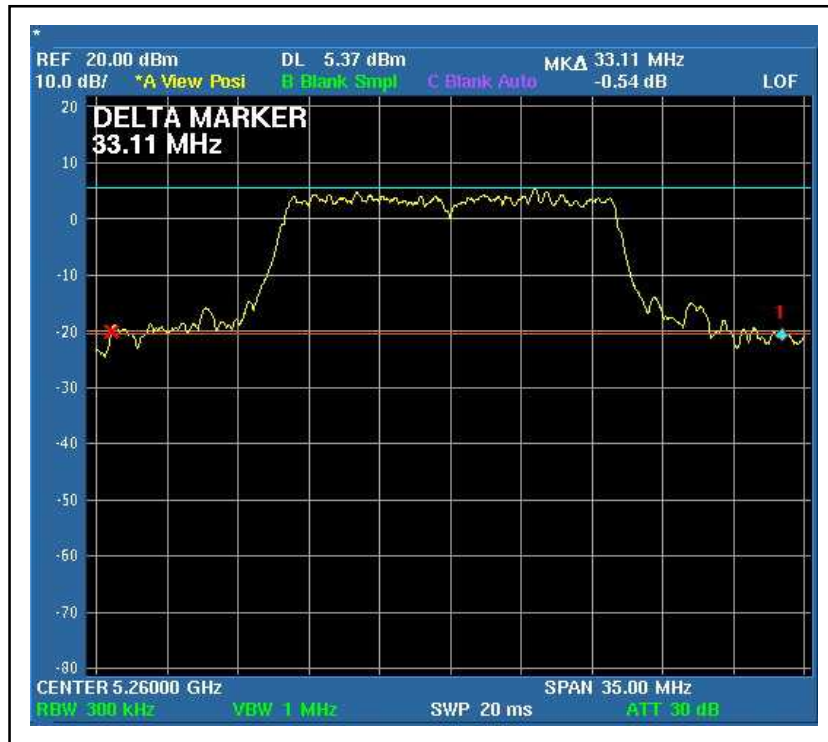
CH2



CH4

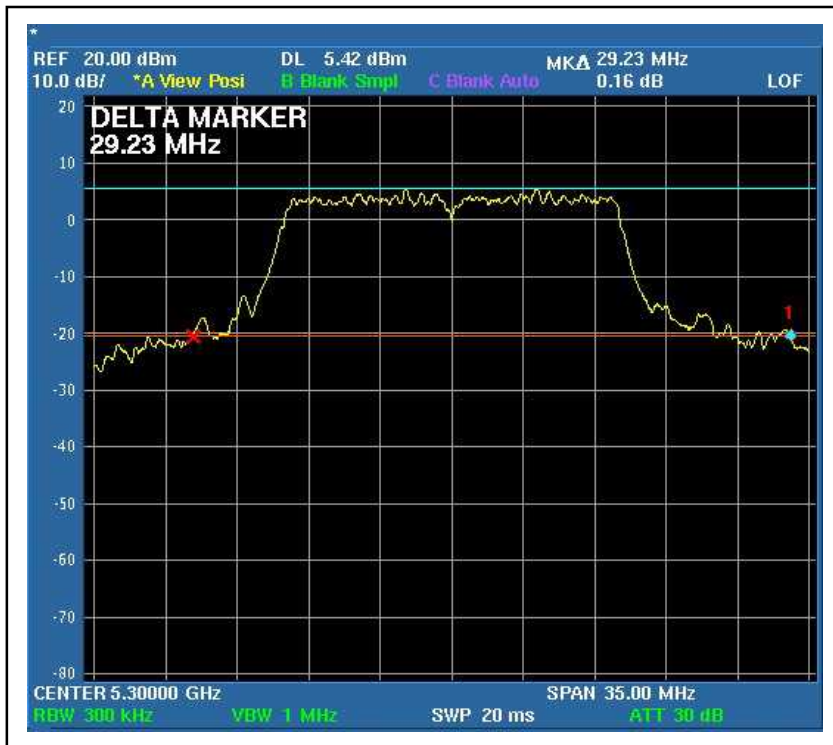


CH5

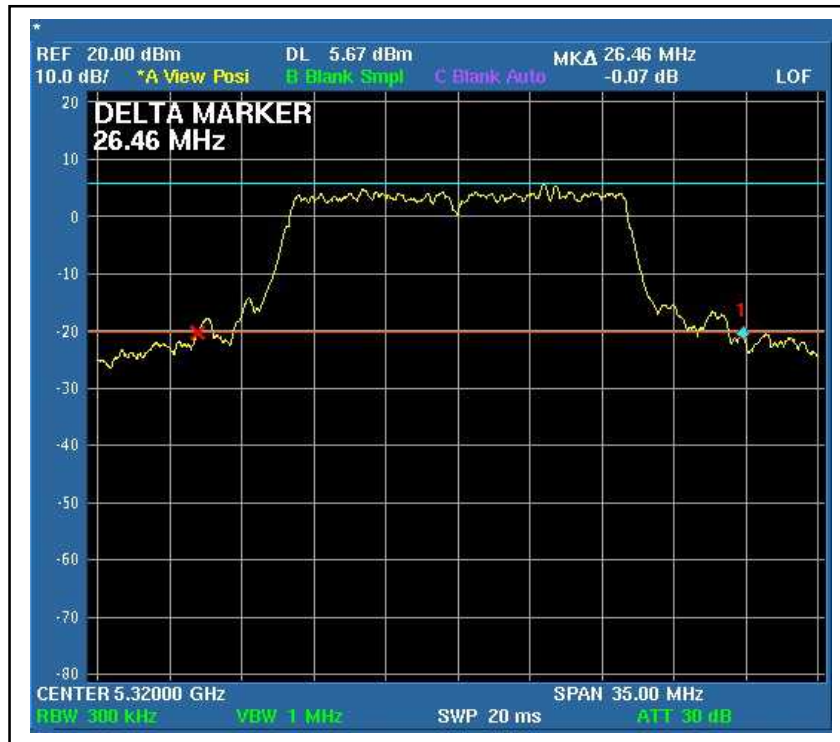




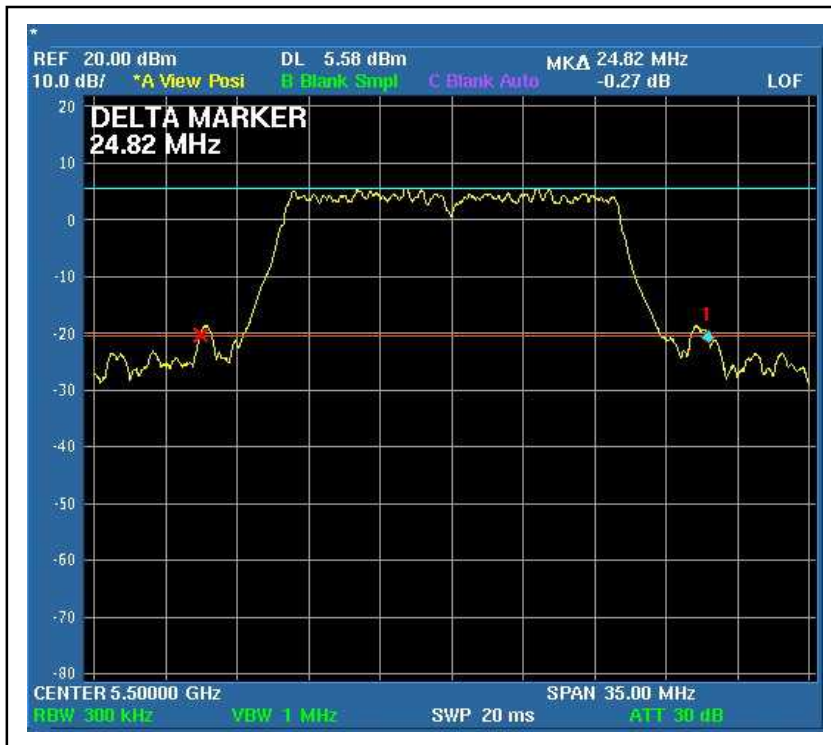
CH7



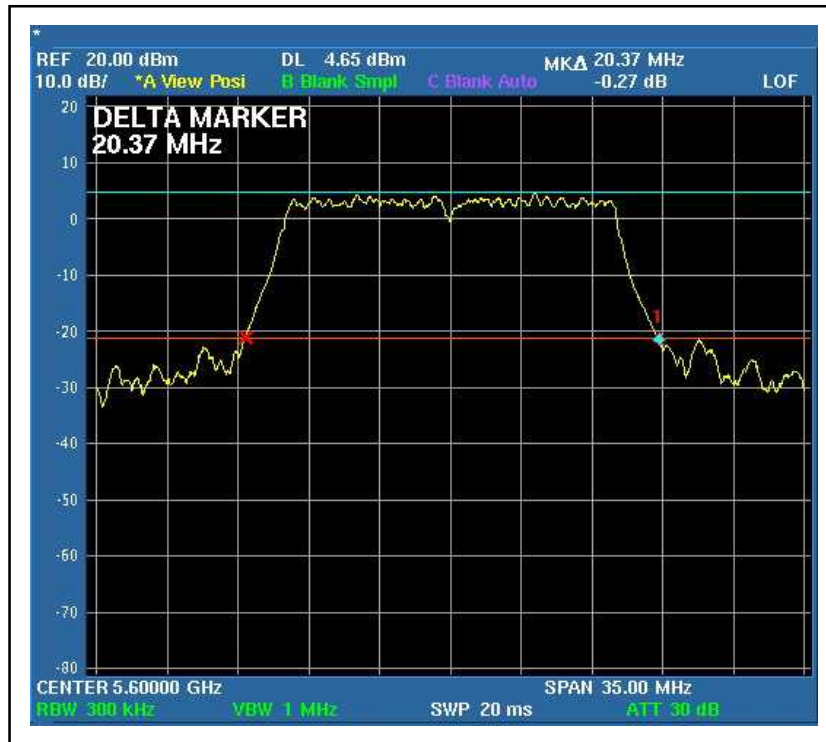
CH8



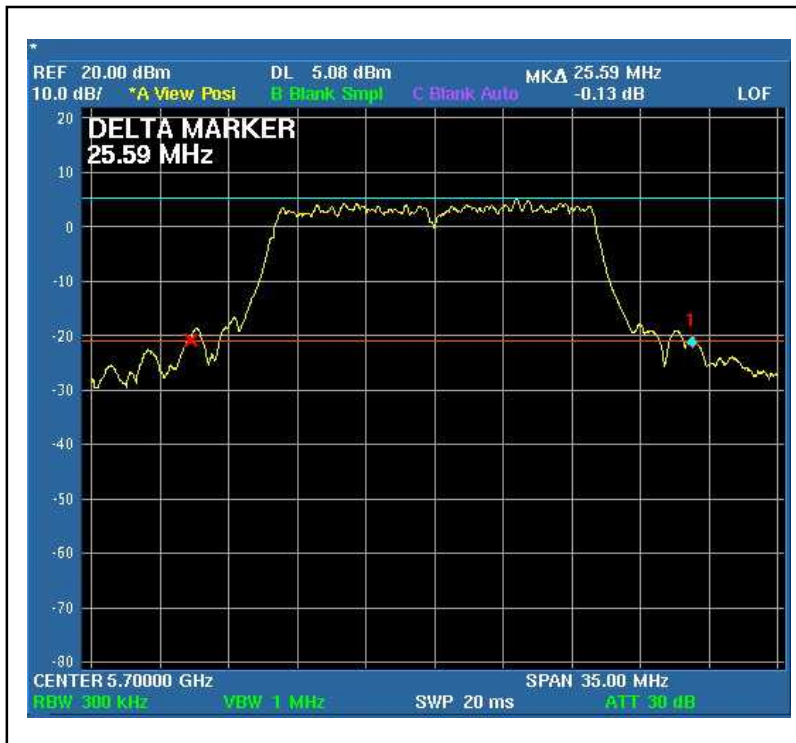
CH9



CH14



CH19





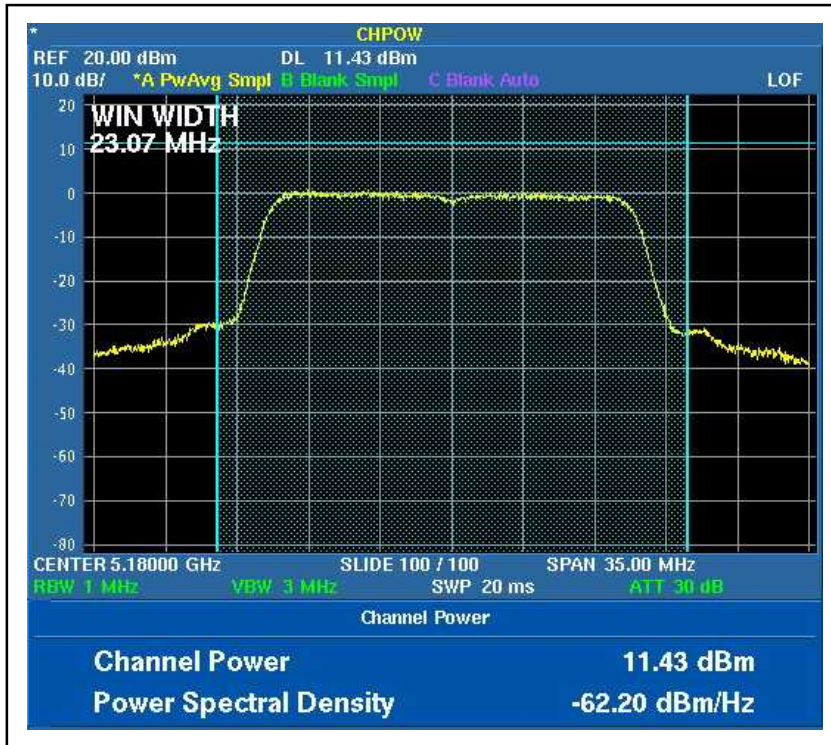
**DRAFT 802.11n (20MHz) OFDM modulation:**

<b>MODULATION TYPE</b>	BPSK	<b>TRANSFER RATE</b>	13Mbps
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>ENVIRONMENTAL CONDITIONS</b>	25deg.C, 60%RH, 965hPa
<b>TESTED BY</b>	Wen Yu		

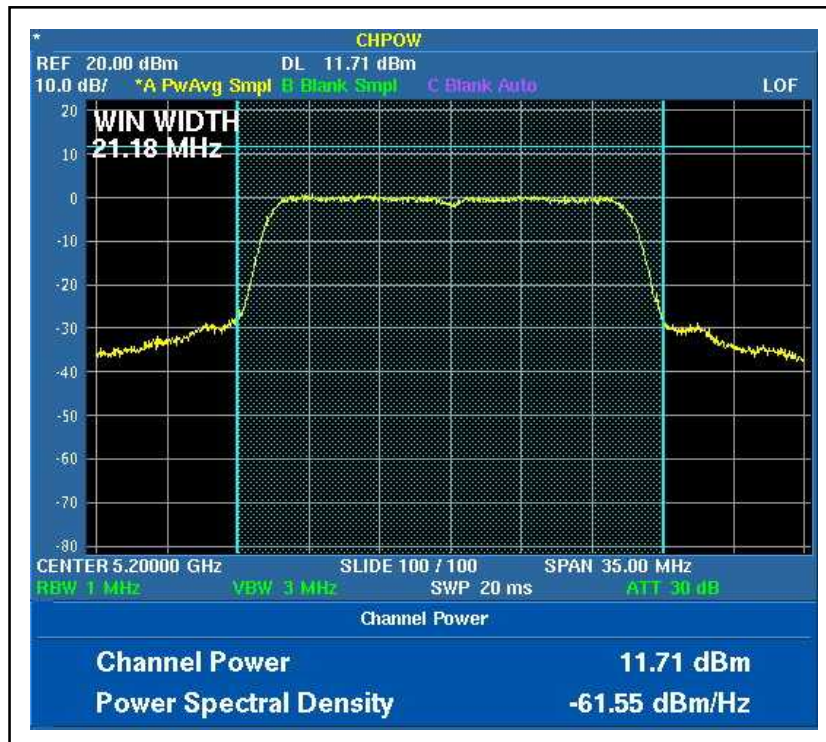
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)		PEAK POWER OUTPUT (mW)		TOTAL PEAK POWER (dBm)	TOTAL PEAK POWER (mW)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)		PASS/FAIL
		Chain 0	Chain 1	Chain 0	Chain 1				Chain 0	Chain 1	
1	5180	11.43	11.34	13.900	13.614	14.40	27.514	17.00	23.07	20.72	PASS
2	5200	11.71	11.16	14.825	13.062	14.45	27.887	17.00	21.18	20.61	PASS
4	5240	11.24	11.31	13.305	13.521	14.29	26.826	24.00	21.18	20.61	PASS
5	5260	11.24	11.45	13.305	13.964	14.36	27.269	24.00	24.78	20.58	PASS
7	5300	11.20	11.72	13.183	14.859	14.48	28.042	24.00	23.17	20.48	PASS
8	5320	11.24	11.82	13.305	15.205	14.55	28.510	24.00	21.25	20.61	PASS
9	5500	12.26	11.11	16.827	12.912	14.73	29.739	24.00	21.04	20.55	PASS
14	5600	11.29	10.57	13.459	11.402	13.96	24.861	24.00	20.96	20.41	PASS
19	5700	9.43	11.00	8.770	12.589	13.30	21.359	24.00	21.04	20.44	PASS

**NOTE:** The 26dBc Occupied Bandwidth plot, please refer to the following pages.

Peak Power Output:  
For Chain (0) :CH1



CH2



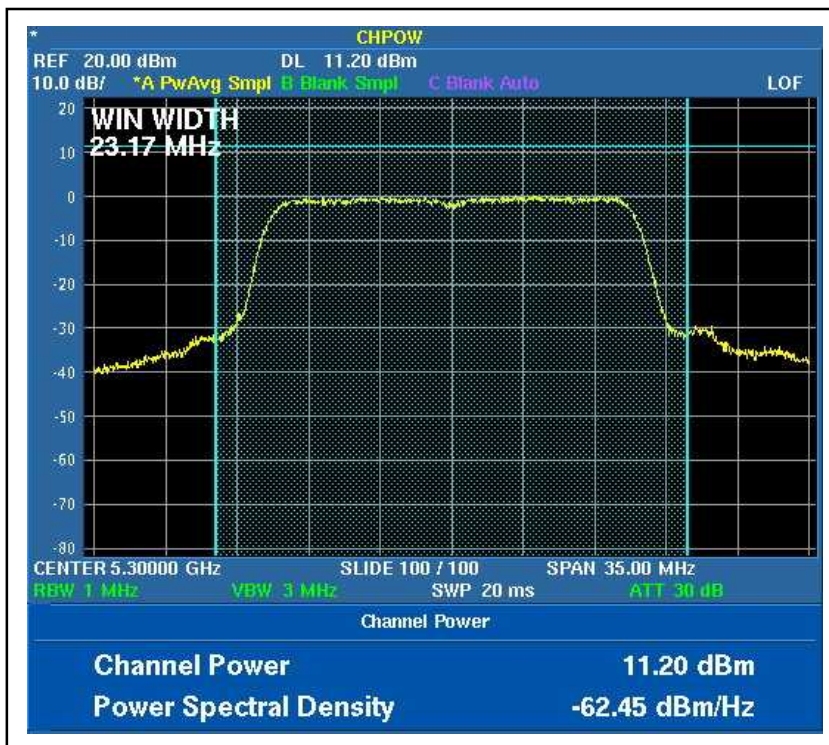
CH4



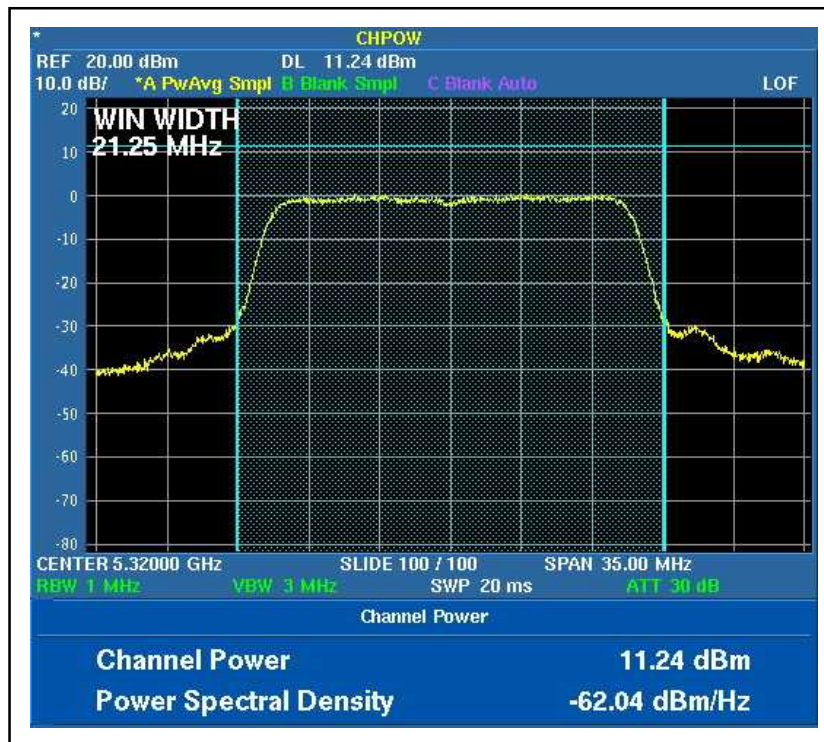
CH5



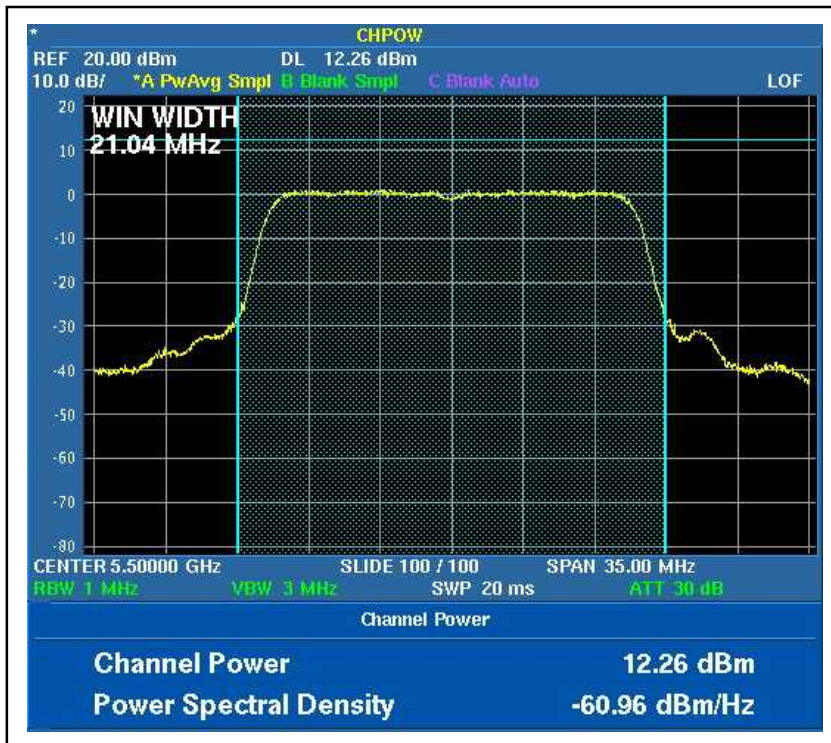
CH7



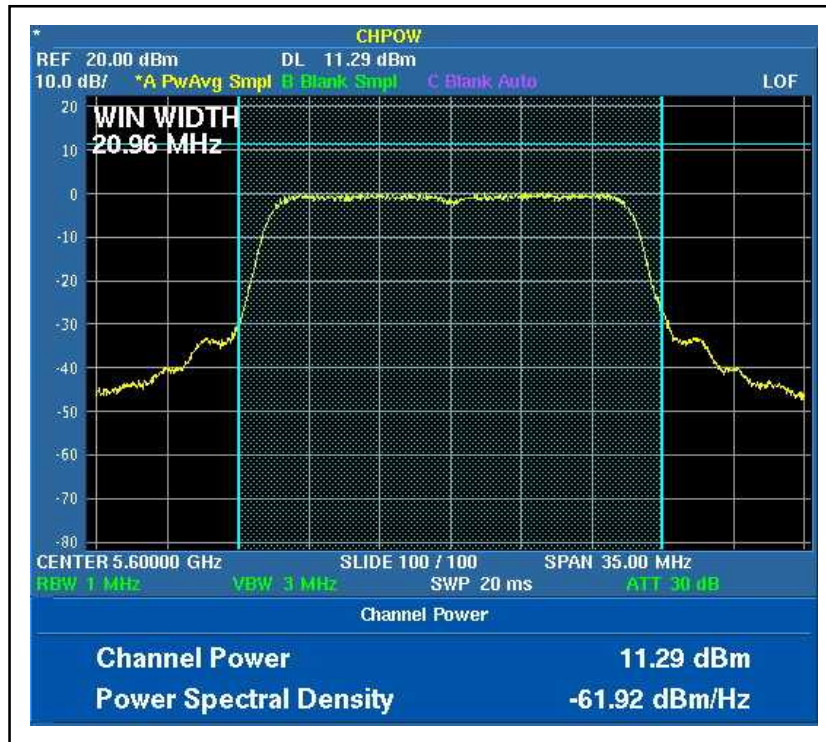
CH8



CH9

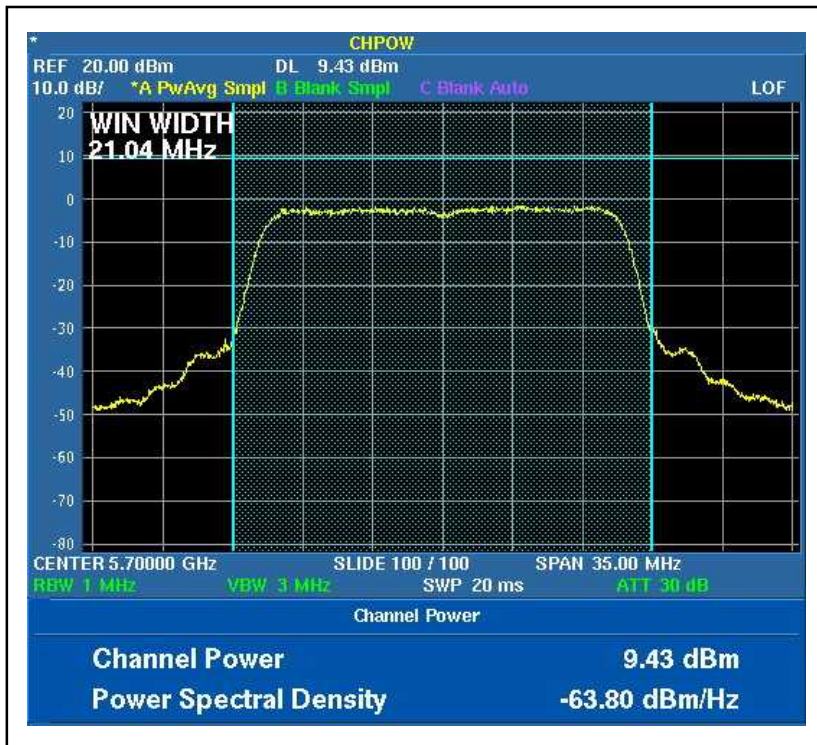


CH14





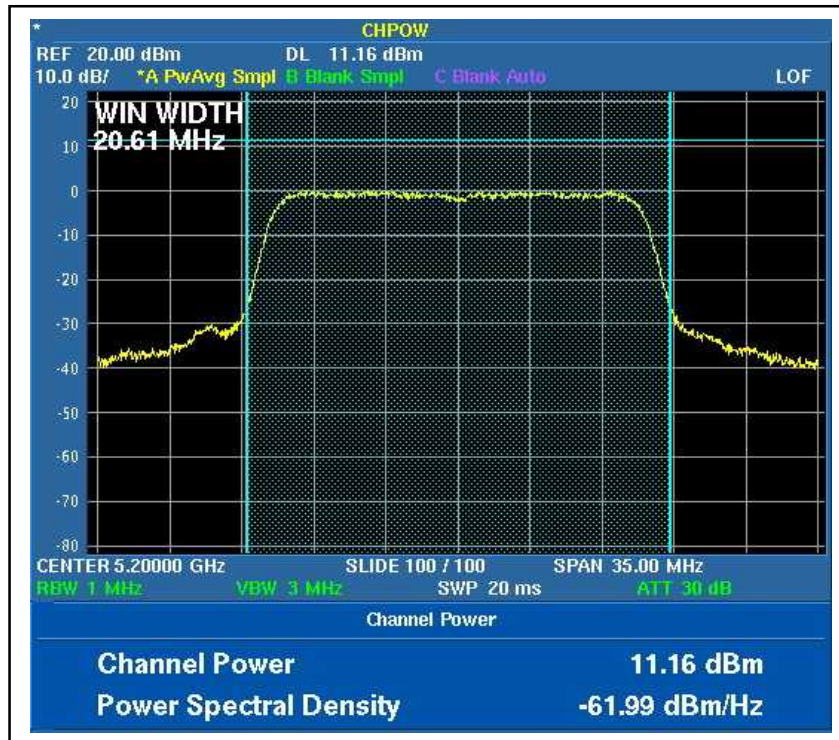
CH19



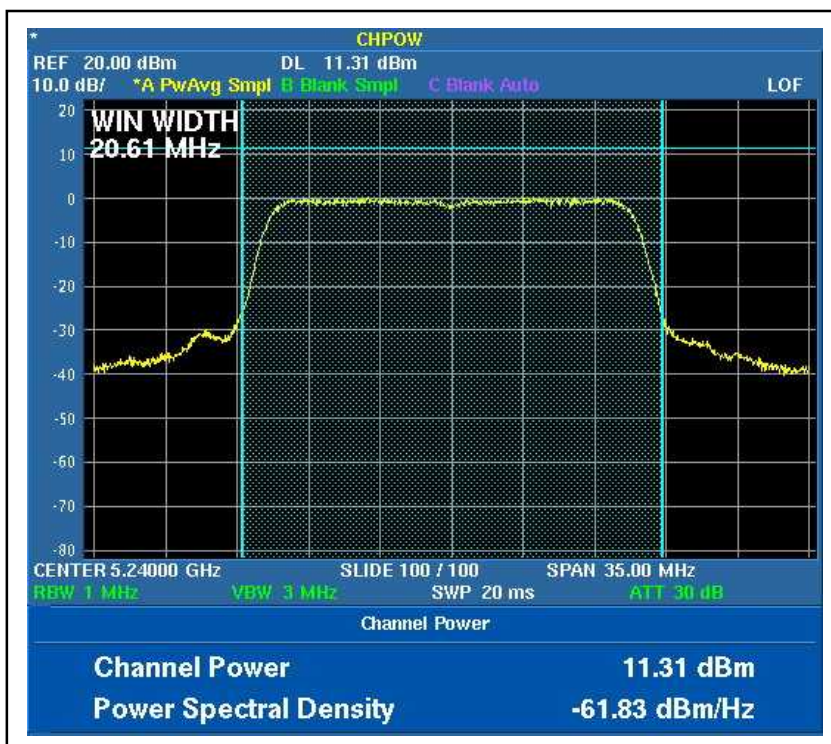
For Chain (1) :CH1



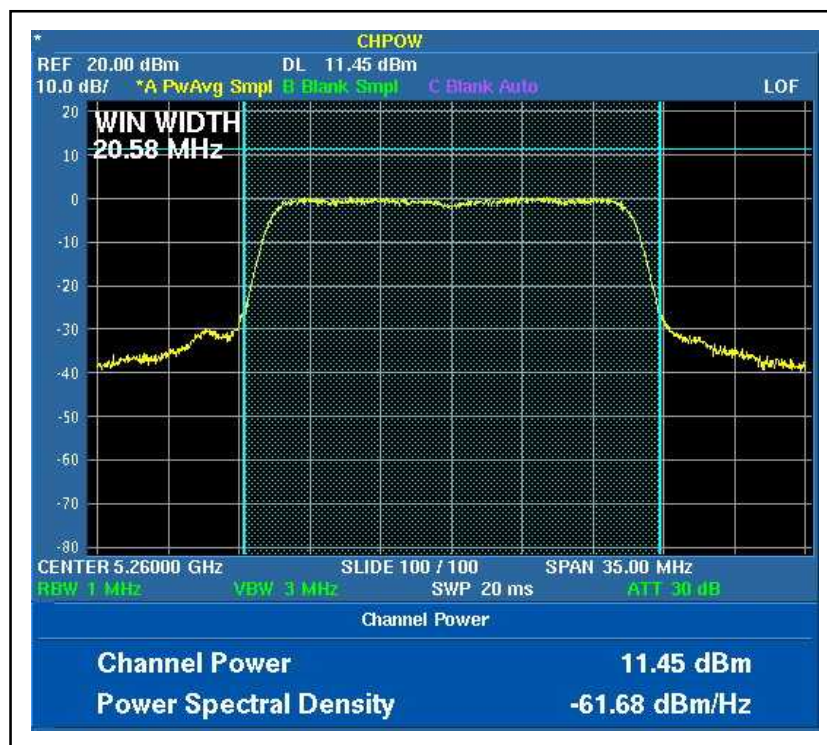
CH2



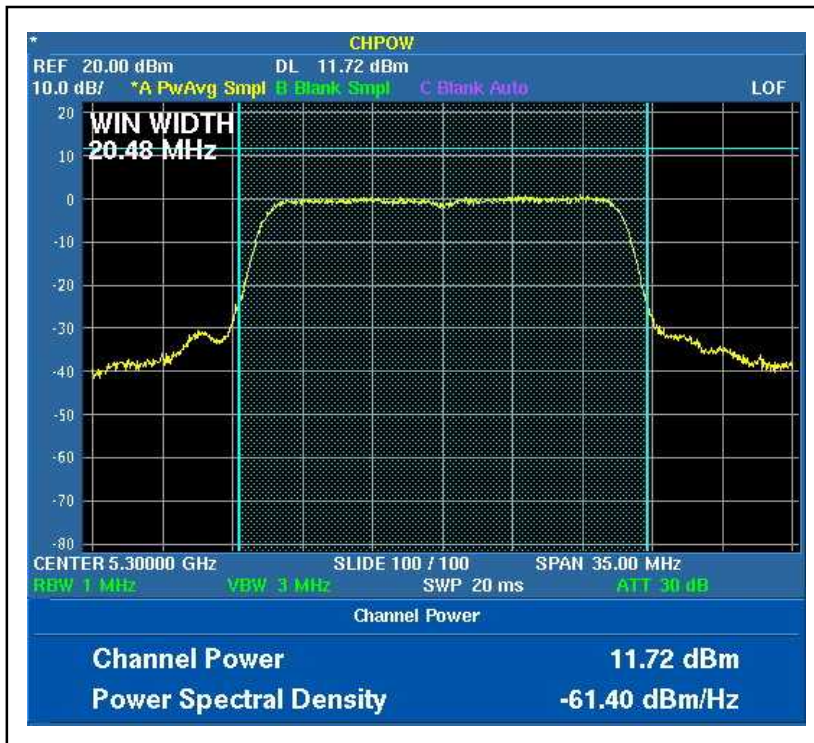
CH4



CH5



CH7



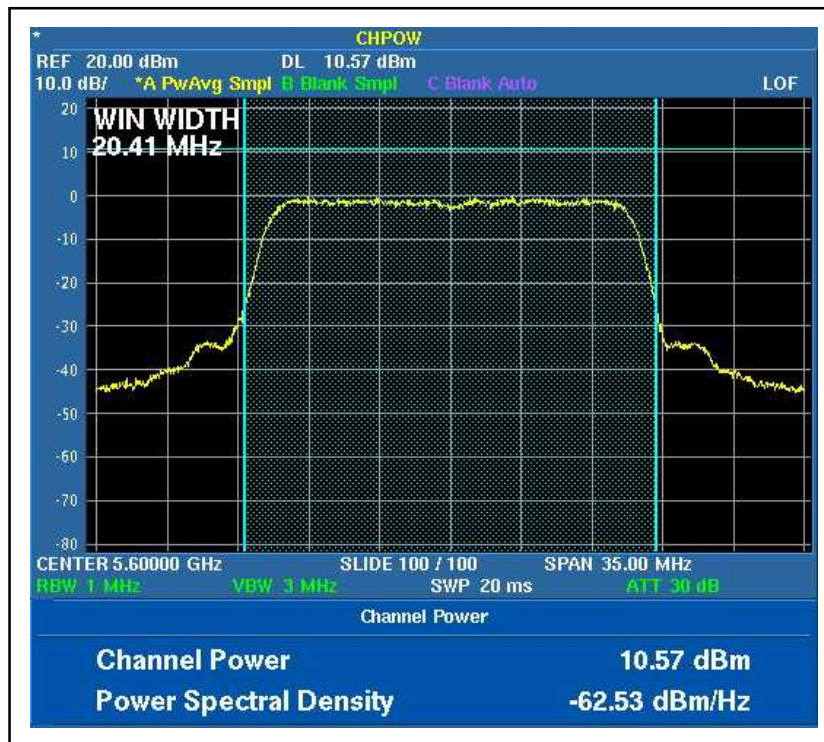
CH8



CH9



CH14



CH19

