FCC TEST REPORT (15.407)

REPORT NO.:	RF960626H06
MODEL NO.:	WEC600N
RECEIVED:	June 26, 2007
TESTED:	July 31 to Aug. 08, 2007
ISSUED:	Aug. 15, 2007

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.

Testing Laboratory
0536

No. 2177-01

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1. CERTIFICATION

PRODUCT:	Dual-band Wireless-N ExpressCard
BRAND NAME:	Linksys
MODEL NO.:	WEC600N
TEST SAMPLE:	R&D SAMPLE
TESTED:	July 31 to Aug. 08, 2007
APPLICANT:	Cisco-Linksys LLC
STANDARDS:	FCC Part 15, Subpart E (Section 15.407) ANSI C63.4-2003

The above equipment (Model: WEC600N) 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 : _____ , **DATE:** Aug. 15, 2007
(Midoli Peng, Specialist)

TECHNICAL ACCEPTANCE : _____ , **DATE:** Aug. 15, 2007
Responsible for RF
(Hank Chung, Deputy Manager)

APPROVED BY : _____ , **DATE:** Aug. 15, 2007
(May Chen, Deputy Manager)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

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 –12.25dB at 0.170MHz
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 –0.60dB at 11200.00MHz
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:

1. The EUT was operating in 2.412 ~ 2.462GHz, 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 2.412 ~ 2.462GHz 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	2.41 dB
Radiated emissions (30MHz-1GHz)	3.89 dB
Radiated emissions (1GHz -18GHz)	2.21 dB
Radiated emissions (18GHz -40GHz)	1.88 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Dual-band Wireless-N ExpressCard
MODEL NO.	WEC600N
FCC ID	Q87-WEC600N
POWER SUPPLY	DC 3.3V from host equipment
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b: 11 / 5.5 / 2 / 1Mbps 802.11g: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6Mbps 802.11a: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6Mbps Draft 802.11n (20MHz): 130 / 117 / 104 / 78 / 65 / 58.5 / 52 / 39 / 26 / 19.5 /13 / 6.5Mbps Draft 802.11n (40MHz): 270 / 243 / 216 / 162 / 135 / 121.5 / 108 / 81 /54 / 40.5 / 27 / 13.5Mbps
FREQUENCY RANGE	For 15.407 802.11a: 5.18 ~ 5.32GHz and 5.50 ~ 5.70GHz
	For 15.247 802.11b & 802.11g: 2412 ~ 2462MHz 802.11a: 5.745 ~ 5.825GHz
NUMBER OF CHANNEL	**For 15.407** 8 for 802.11a (5.15 ~ 5.35GHz) , 11 for 802.11a (5.47 ~ 5.725GHz) , 4 for draft 802.11n (20MHz) 3 for draft 802.11n (40MHz)
	For 15.247(2.4GHz) 11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz) **For 15.247(5GHz)** 5 for 802.11a(5.725~5.825GHz), draft 802.11n (20MHz) 3 for draft 802.11n (40MHz)

MAXIMUM OUTPUT POWER	**For 15.407** 802.11a: 50.234mW draft 802.11n (20MHz): 48.143mW draft 802.11n (40MHz): 45.037mW **For 15.247(2.4GHz)** 802.11b: 105.925mW 802.11g: 79.433mW draft 802.11n (20MHz): 159.920mW draft 802.11n (40MHz): 141.589mW **For 15.247(5GHz)** 802.11a: 89.125mW draft 802.11n (20MHz): 103.822mW draft 802.11n (40MHz): 159.034mW
ANTENNA TYPE	Please see note 1
DATA CABLE	NA
I/O PORTS	NA

NOTE:

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

No.	Antenna Type	For 2.4GHz Gain (dBi)	For 5GHz Gain (dBi)	Antenna Connector
1	Chip	2.4	1	NA
2	Chip	2.4	1	NA

2. The EUT incorporates a MIMO function with 802.11a, 802.11b, 802.11g, draft 802.11n. Physically, the card 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 Chip antennas. Spatial multiplexing modes for simultaneous transmission using 2 antennas, and for simultaneous receiver using 2 antennas.

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:

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 (20MHz):

CHANNEL	FREQUENCY
1	5180 MHz
2	5200 MHz
3	5220 MHz
4	5240 MHz

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

CHANNEL	FREQUENCY
1	5190 MHz
2	5210 MHz
3	5230 MHz

Operated in 5470MHz ~ 5725MHz bands:

Eleven channels are provided for 802.11a:

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

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	DRAFT 802.11n(20MHz)	√	√
C	DRAFT 802.11n(40MHz)	√	√

Note:
1. The above information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.
2. Antenna 1 and Antenna 2 are Chip 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
For 5 GHz Draft 802.11n (20MHz)	1 to 4	1	OFDM	BPSK	6.5	B
For 5 GHz Draft 802.11n (40MHz)	1 to 3	1	OFDM	BPSK	13.5	C

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
For 5 GHz Draft 802.11n (40MHz)	1 to 3	1	OFDM	BPSK	13.5	C

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 N TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11a	1 to 19	1, 4, 5, 8, 9, 14, 19	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 4	1, 4	OFDM	BPSK	6.5	B
For 5 GHz Draft 802.11n (40MHz)	1 to 3	1, 3	OFDM	BPSK	13.5	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 4	1, 4	OFDM	BPSK	6.5	B
For 5 GHz Draft 802.11n (40MHz)	1 to 3	1, 3	OFDM	BPSK	13.5	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, 4, 5, 8, 9, 14, 19	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 4	1, 4	OFDM	BPSK	6.5	B
For 5 GHz Draft 802.11n (40MHz)	1 to 3	1, 3	OFDM	BPSK	13.5	C

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a Dual-band Wireless-N ExpressCard. 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.

3.4 DESCRIPTION OF SUPPORT UNITS

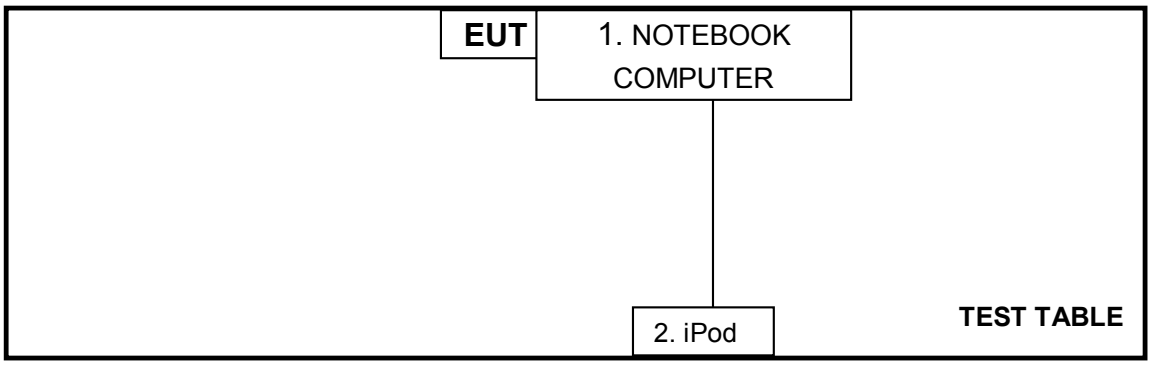
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP21L	CN-0GD366-70166-5B3-09ZX	QDS-BRCM1016
2	iPod	Apple	A1137	6U6078CCUPR	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.3 m shielded cable, terminated with USB 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 (dBμV)	
	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 UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	100287	Mar. 06, 2008
Line-Impedance Stabilization Network(for EUT)	ENV-216	100072	Oct. 20, 2007
Line-Impedance Stabilization Network(for Peripheral)	KNW-407	8-1395-12	Aug. 15, 2007
RF Cable (JETBAO)	RG233/U	Cable_CA_01	Jul. 19, 2008
Terminator	50	1	Oct. 30, 2007
Software	ADT_Cond_V7.3.2	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. A.
3. The VCCI Con A Registration No. is C-817.

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.

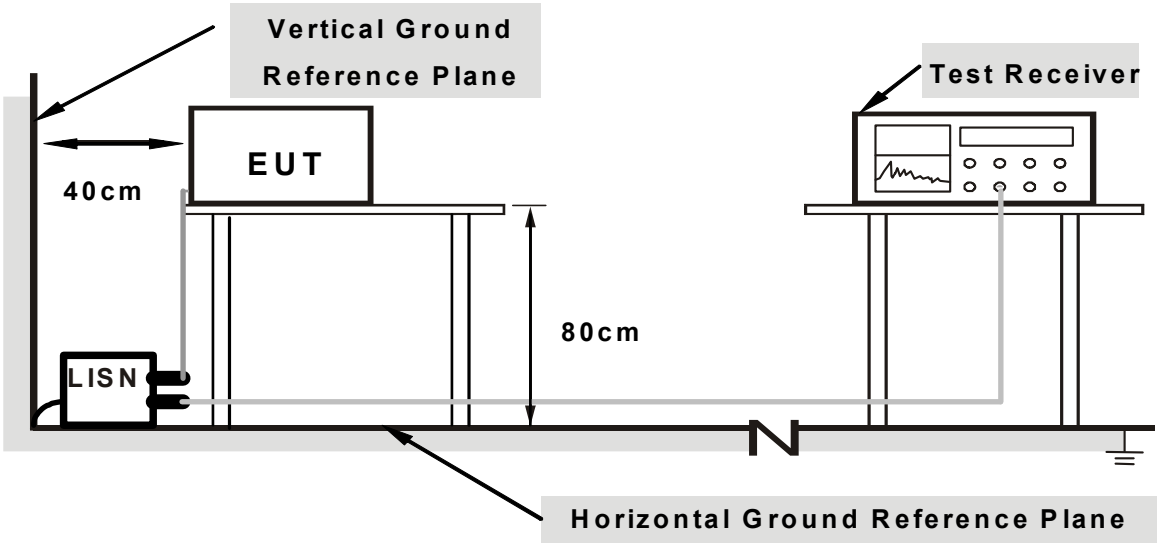
c. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

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

a. Plug the EUT into the support unit 1 (Notebook computer) which placed on a testing table.

b. The support unit 1 (Notebook computer) ran a test program “Braodcom Mfgtest” to enable EUT under transmission condition continuously.

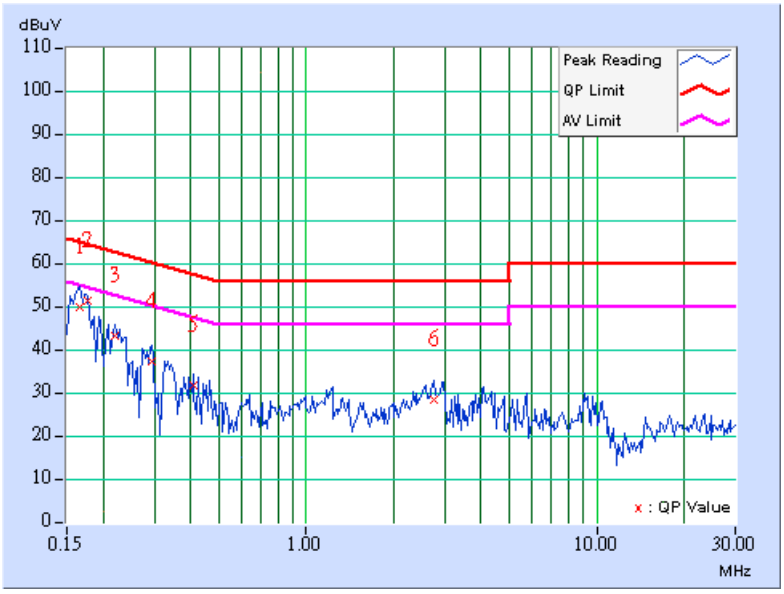
4.1.7 TEST RESULTS

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, 60%RH, 971hPa	TESTED BY	Max Huang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.166	0.43	49.83	-	50.26	-	65.18	55.18	-14.91	-
2	0.176	0.42	51.05	-	51.47	-	64.65	54.65	-13.18	-
3	0.220	0.39	42.82	-	43.21	-	62.81	52.81	-19.60	-
4	0.295	0.35	37.03	-	37.38	-	60.40	50.40	-23.01	-
5	0.408	0.30	31.50	-	31.80	-	57.69	47.69	-25.89	-
6	2.752	0.34	28.07	-	28.41	-	56.00	46.00	-27.59	-

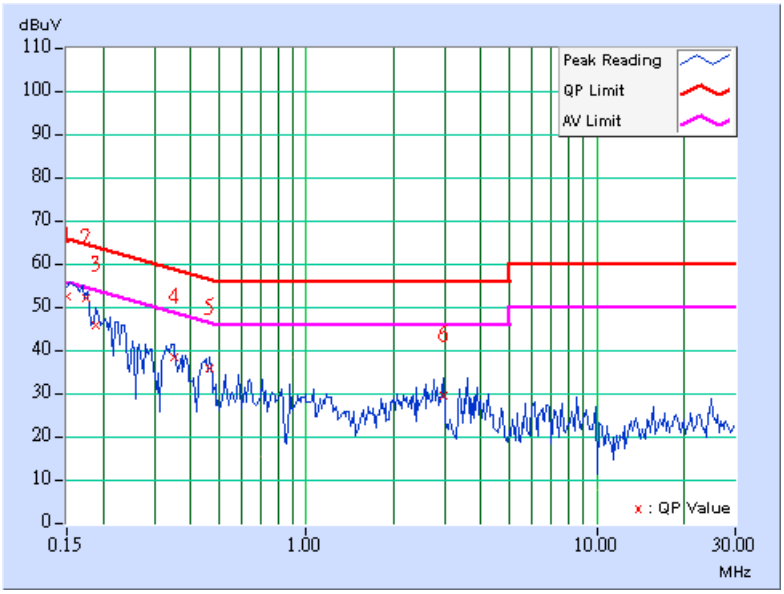
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission 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, 60%RH, 971hPa	TESTED BY	Max Huang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	0.45	52.24	-	52.69	-	66.00	56.00	-13.31	-
2	0.175	0.43	51.94	-	52.37	-	64.74	54.74	-12.37	-
3	0.189	0.41	45.60	-	46.01	-	64.08	54.08	-18.07	-
4	0.349	0.33	38.30	-	38.63	-	58.98	48.98	-20.36	-
5	0.466	0.30	35.53	-	35.83	-	56.58	46.58	-20.75	-
6	2.986	0.40	29.12	-	29.52	-	56.00	46.00	-26.48	-

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.

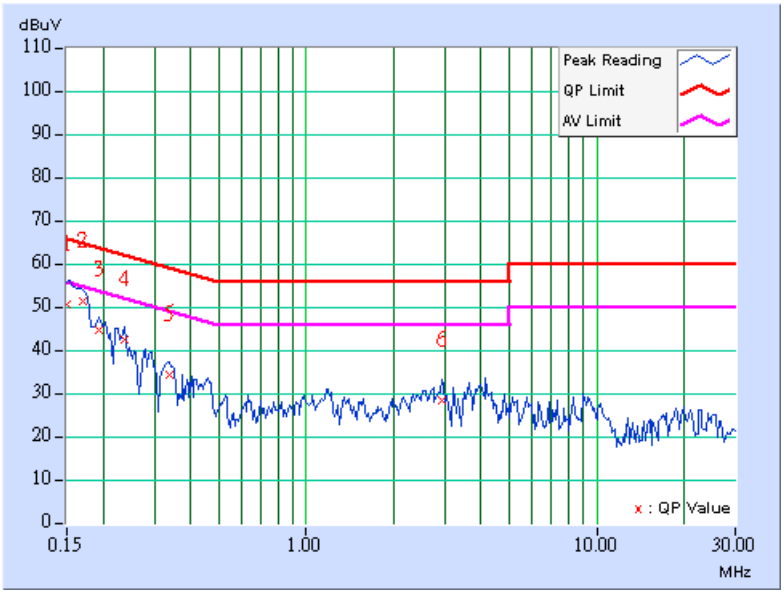


DRAFT 802.11n (20MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line (L)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6.5Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 971hPa	TESTED BY	Max Huang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	0.45	50.55	-	51.00	-	66.00	56.00	-15.00	-
2	0.170	0.43	51.24	-	51.67	-	64.98	54.98	-13.31	-
3	0.193	0.41	44.55	-	44.96	-	63.91	53.91	-18.95	-
4	0.236	0.38	42.19	-	42.57	-	62.24	52.24	-19.67	-
5	0.338	0.33	34.15	-	34.48	-	59.26	49.26	-24.78	-
6	2.923	0.35	28.03	-	28.38	-	56.00	46.00	-27.62	-

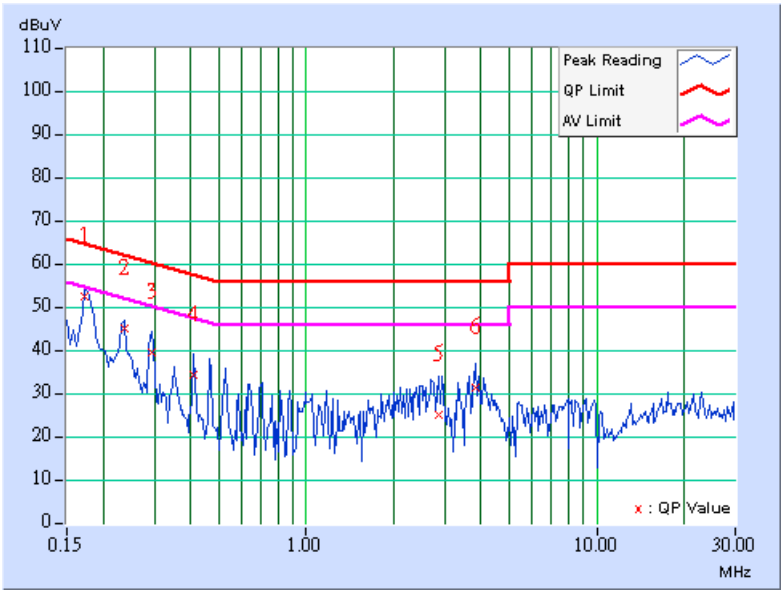
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission 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	6.5Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 971hPa	TESTED BY	Max Huang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.173	0.43	52.04	-	52.47	-	64.79	54.79	-12.33	-
2	0.236	0.38	44.76	-	45.14	-	62.24	52.24	-17.10	-
3	0.295	0.35	39.08	-	39.43	-	60.40	50.40	-20.96	-
4	0.408	0.30	33.92	-	34.22	-	57.69	47.69	-23.47	-
5	2.869	0.40	24.68	-	25.08	-	56.00	46.00	-30.92	-
6	3.809	0.40	30.92	-	31.32	-	56.00	46.00	-24.68	-

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.

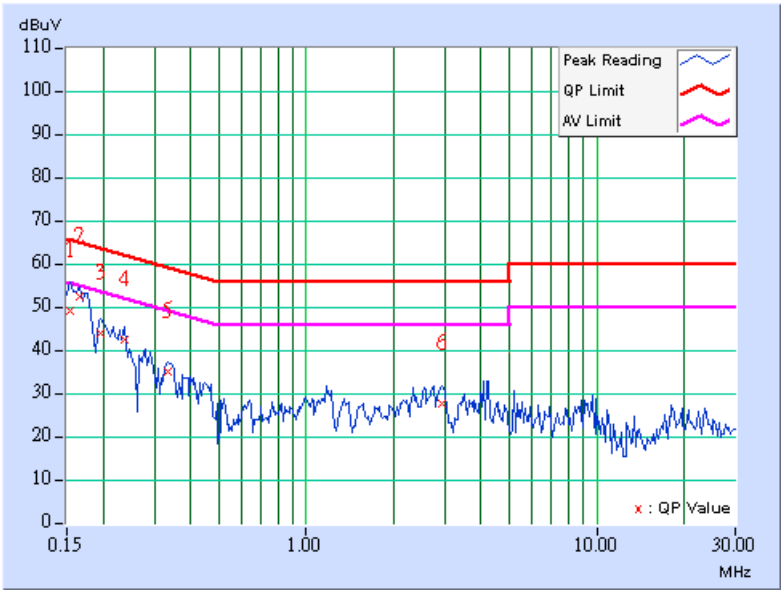


DRAFT 802.11n (40MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line (L)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	13.5Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 971hPa	TESTED BY	Max Huang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.154	0.45	48.98	-	49.43	-	65.79	55.79	-16.36	-
2	0.166	0.43	52.38	-	52.81	-	65.18	55.18	-12.36	-
3	0.197	0.40	43.73	-	44.13	-	63.74	53.74	-19.61	-
4	0.236	0.38	42.17	-	42.55	-	62.24	52.24	-19.69	-
5	0.334	0.33	34.77	-	35.10	-	59.36	49.36	-24.26	-
6	2.923	0.35	27.59	-	27.94	-	56.00	46.00	-28.06	-

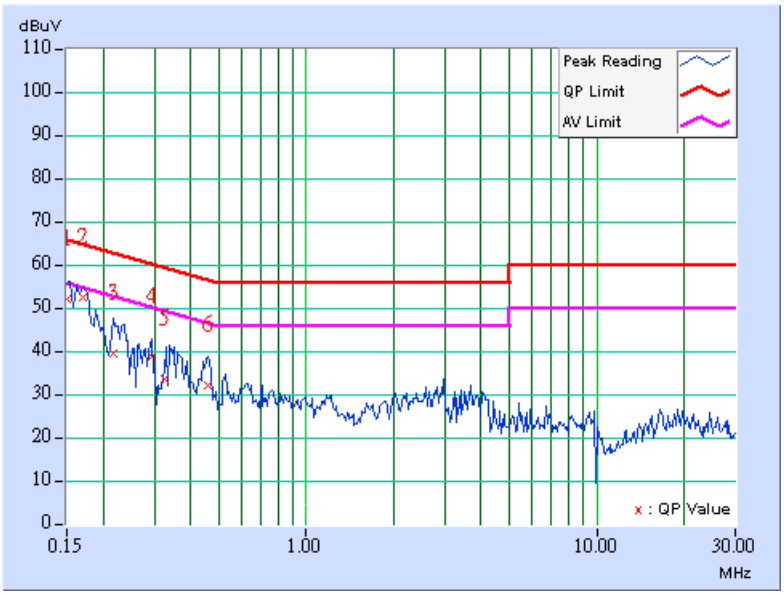
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission 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	13.5Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 971hPa	TESTED BY	Max Huang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	0.45	51.86	-	52.31	-	66.00	56.00	-13.69	-
2	**0.170**	**0.43**	**52.30**	**-**	**52.73**	**-**	**64.98**	**54.98**	**-12.25**	**-**
3	0.216	0.39	39.46	-	39.85	-	62.96	52.96	-23.10	-
4	0.295	0.35	38.48	-	38.83	-	60.40	50.40	-21.56	-
5	0.326	0.34	33.23	-	33.57	-	59.56	49.56	-25.99	-
6	0.459	0.30	32.02	-	32.32	-	56.72	46.72	-24.40	-

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 (dBμV/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

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

4.2.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ADVANTEST Spectrum Analyzer	R3271A	85060311	July 15, 2008
HP Pre_Amplifier	8449B	3008A01922	Sep. 18, 2007
ROHDE & SCHWARZ Test Receiver	ESCS30	100375	Sep. 20, 2007
CHASE Broadband Antenna	VULB 9168	138	July 17, 2008
Schwarzbeck Horn_Antenna	BBHA9120	D124	Jan. 01, 2008
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 25, 2008
SCHWARZBECK Biconical Antenna	VHBA9123	459	Jun. 08, 2009
SCHWARZBECK Periodic Antenna	UPA6108	1148	Jun. 08, 2009
R&S Loop Antenna	HFH2-Z2	881058/15	Nov. 29, 2008
RF Switches (ARNITSU)	CS-201	1565157	NA
RF CABLE (Chaintek)	SF102	22054-2	Nov. 14. 2007
RF Cable(RICHTEC)	9913-30M N-N Cable	STCCAB-30M-1 GHz	Aug. 13, 2007
Software	ADT_Radiated_V 7.6.15.7	NA	NA
CHANCE MOST Antenna Tower	AT-100	0203	NA
CHANCE MOST Turn Table	TT-100	0203	NA

Note: 1. The calibration interval of the above test instruments is 12 months (36 months for Biconical and Periodic Antenna)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 4824A-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 camber. 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.

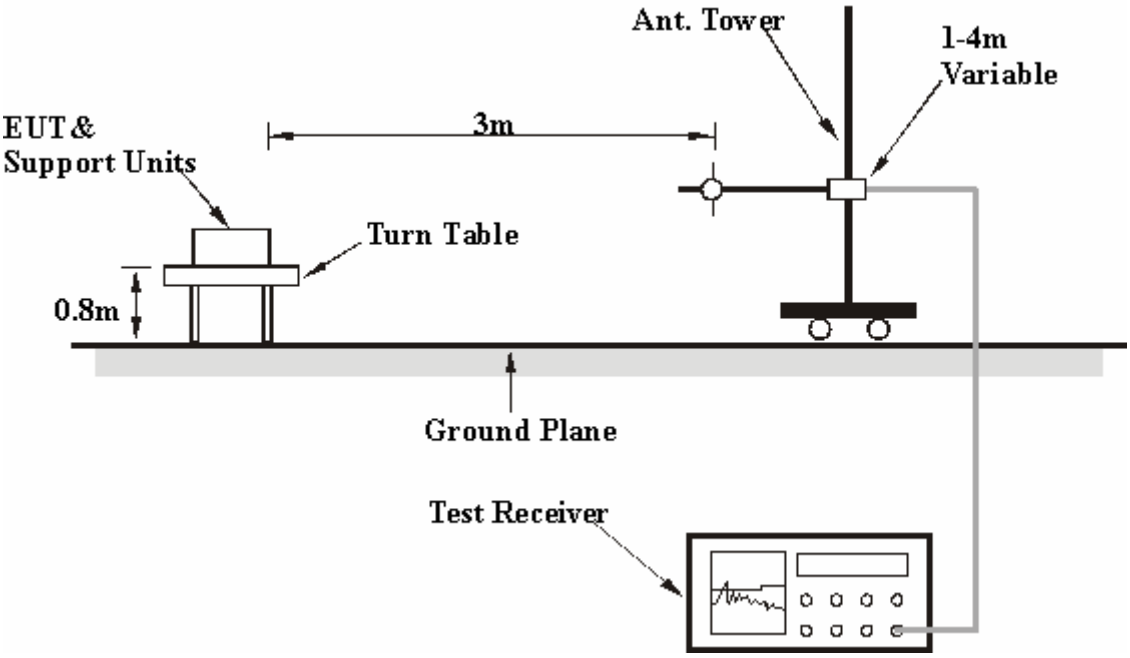
NOTE:

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

802.11n (40MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	**FREQUENCY RANGE**	Below 1000MHz
MODULATION TYPE	BPSK for draft 802.11n (40MHz)	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
TRANSFER RATE	13.5Mbps	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	22deg. C, 65%RH, 971hPa	**TESTED BY**	Sky Liao

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	240.00	24.80 QP	46.00	-21.20	1.40 H	2	11.46	13.34
2	320.00	36.30 QP	46.00	-9.70	1.05 H	308	19.25	17.05
3	360.00	25.20 QP	46.00	-20.80	1.00 H	222	7.49	17.71
4	400.00	24.60 QP	46.00	-21.40	1.72 H	20	5.58	19.02
5	480.00	25.10 QP	46.00	-20.90	1.42 H	320	3.85	21.25
6	640.00	29.60 QP	46.00	-16.40	1.52 H	234	4.68	24.92
7	720.00	25.00 QP	46.00	-21.00	1.40 H	272	-1.42	26.42
8	800.00	28.60 QP	46.00	-17.40	1.32 H	12	1.04	27.56

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	240.00	24.90 QP	46.00	-21.10	1.00 V	48	11.56	13.34
2	320.00	27.25 QP	46.00	-18.75	1.20 V	313	10.20	17.05
3	360.00	25.40 QP	46.00	-20.60	1.00 V	50	7.69	17.71
4	400.00	23.20 QP	46.00	-22.80	1.00 V	88	4.18	19.02
5	480.00	23.20 QP	46.00	-22.80	1.00 V	202	1.95	21.25
6	640.00	26.60 QP	46.00	-19.40	1.06 V	168	1.68	24.92
7	720.00	29.60 QP	46.00	-16.40	1.25 V	308	3.18	26.42
8	800.00	27.20 QP	46.00	-18.80	1.06 V	162	-0.36	27.56

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.

Above 1GHz Test Data

4.2.9 TEST RESULTS

802.11a OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22 deg. C, 65%RH, 972hPa	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	#5142.20	56.40 PK	74.00	-17.60	1.40 H	173	20.03	36.37
2	#5142.20	43.90 AV	54.00	-10.10	1.40 H	173	7.53	36.37
3	*5180.00	104.80 PK			1.40 H	360	68.40	36.40
4	*5180.00	92.50 AV			1.40 H	360	56.10	36.40
5	10360.00	62.50 PK	88.30	-25.80	1.51 H	70	16.92	45.58
6	10360.00	48.20 AV	68.30	-20.10	1.51 H	70	2.62	45.58

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	#5142.20	57.80 PK	74.00	-16.20	1.36 V	55	21.43	36.37
2	#5142.20	44.43 AV	54.00	-9.57	1.36 V	55	10.03	36.37
3	*5180.00	107.70 PK			1.14 V	293	71.30	36.40
4	*5180.00	93.40 AV			1.14 V	293	57.00	36.40
5	10360.00	59.50 PK	88.30	-28.80	1.36 V	55	13.92	45.58
6	10360.00	46.40 AV	68.30	-21.90	1.36 V	55	0.82	45.58

NOTE: 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 falling in the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22 deg. C, 65%RH, 972hPa	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	*5240.00	106.20 PK			1.39 H	179	69.75	36.45
2	*5240.00	94.30 AV			1.39 H	179	57.85	36.45
3	10480.00	67.20 PK	88.30	-21.10	1.57 H	95	21.47	45.73
4	10480.00	51.70 AV	68.30	-16.60	1.57 H	95	5.97	45.73

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	*5240.00	107.60 PK			1.25 V	263	71.15	36.45
2	*5240.00	95.70 AV			1.25 V	263	59.25	36.45
3	10480.00	67.60 PK	88.30	-20.70	1.42 V	123	21.87	45.73
4	10480.00	52.30 AV	68.30	-16.00	1.42 V	123	6.57	45.73

NOTE: 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 falling in the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22 deg. C, 65%RH, 972hPa	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	*5260.00	107.40 PK			1.88 H	164	70.93	36.47
2	*5260.00	95.60 AV			1.88 H	164	59.13	36.47
3	10520.00	68.20 PK	88.30	-20.10	1.58 H	107	22.43	45.77
4	10520.00	52.40 AV	68.30	-15.90	1.58 H	107	6.63	45.77

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	*5260.00	108.02 PK			1.25 V	270	71.55	36.47
2	*5260.00	95.50 AV			1.25 V	270	59.03	36.47
3	10520.00	68.40 PK	88.30	-19.90	1.64 V	123	22.63	45.77
4	10520.00	52.40 AV	68.30	-15.90	1.64 V	123	6.63	45.77

NOTE: 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 falling in the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22 deg. C, 65%RH, 972hPa	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	*5320.00	108.90 PK			1.87 H	179	72.38	36.52
2	*5320.00	97.10 AV			1.87 H	179	60.58	36.52
3	#5350.00	68.90 PK	74.00	-5.10	1.89 H	164	32.36	36.54
4	#5350.00	47.30 AV	54.00	-6.70	1.89 H	164	10.76	36.54
5	#10640.00	68.20 PK	74.00	-5.80	1.77 H	95	22.28	45.92
6	#10640.00	52.50 AV	54.00	-1.50	1.77 H	95	6.58	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	*5320.00	110.00 PK			1.39 V	261	73.48	36.52
2	*5320.00	98.10 AV			1.39 V	261	61.58	36.52
3	#5350.00	68.20 PK	74.00	-5.80	1.38 V	260	31.66	36.54
4	#5350.00	48.60 AV	54.00	-5.40	1.38 V	260	12.06	36.54
5	#10640.00	68.10 PK	74.00	-5.90	1.48 V	26	22.18	45.92
6	#10640.00	52.30 AV	54.00	-1.70	1.48 V	26	6.38	45.92

NOTE: 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 falling in the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23 deg. C, 65%RH, 972hPa	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	#5460.00	66.80 PK	74.00	-7.20	1.56 H	124	30.19	36.61
2	#5460.00	47.90 AV	54.00	-6.10	1.56 H	124	11.29	36.61
3	5470.00	70.50 PK	88.30	-17.80	1.57 H	75	33.88	36.62
4	5470.00	57.50 AV	68.30	-10.80	1.57 H	75	20.88	36.62
5	*5500.00	110.60 PK			1.57 H	75	73.94	36.66
6	*5500.00	99.10 AV			1.57 H	75	62.44	36.66
7	#7333.33	53.90 PK	74.00	-20.10	1.35 H	277	11.30	42.60
8	#7333.33	42.10 AV	54.00	-11.90	1.35 H	277	-0.50	42.60
9	#11000.00	67.70 PK	74.00	-6.30	1.47 H	107	21.05	46.65
10	#11000.00	52.20 AV	54.00	-1.80	1.47 H	107	5.55	46.65

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	#5460.00	69.34 PK	74.00	-4.66	1.38 V	270	32.73	36.61
2	#5460.00	47.30 AV	54.00	-6.70	1.38 V	270	10.69	36.61
3	5470.00	69.20 PK	88.30	-19.10	1.24 V	338	32.58	36.62
4	5470.00	56.50 AV	68.30	-11.80	1.24 V	338	19.88	36.62
5	*5500.00	108.30 PK			1.24 V	338	71.64	36.66
6	*5500.00	96.70 AV			1.24 V	338	60.04	36.66
7	#7333.33	53.50 PK	74.00	-20.50	1.67 V	82	10.90	42.60
8	#7333.33	41.50 AV	54.00	-12.50	1.67 V	82	-1.10	42.60
9	#11000.00	69.90 PK	74.00	-4.10	1.67 V	82	23.25	46.65
10	#11000.00	41.50 AV	54.00	-12.50	1.67 V	82	-5.15	46.65

NOTE: 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 falling in the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 14	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23 deg. C, 65%RH, 972hPa	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	*5600.00	108.30 PK			1.54 H	173	71.40	36.90
2	*5600.00	96.40 AV			1.54 H	173	59.50	36.90
3	#7466.67	53.80 PK	74.00	-20.20	1.46 H	131	10.70	43.10
4	#7466.67	44.50 AV	54.00	-9.50	1.46 H	131	1.40	43.10
5	#11200.00	64.70 PK	74.00	-9.30	1.48 H	59	17.90	46.80
6	#11200.00	50.90 AV	54.00	-3.10	1.48 H	59	4.10	46.80

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	*5600.00	109.70 PK			1.46 V	269	72.80	36.90
2	*5600.00	96.50 AV			1.46 V	269	59.60	36.90
3	#7466.67	53.40 PK	74.00	-20.60	1.49 V	178	10.30	43.10
4	#7466.67	44.10 AV	54.00	-9.90	1.49 V	178	1.00	43.10
5	#11200.00	69.40 PK	74.00	-4.60	1.57 V	116	22.60	46.80
6	**#11200.00**	**53.40 AV**	**54.00**	**-0.60**	**1.57 V**	**116**	**6.60**	**46.80**

NOTE: 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 falling in the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 19	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24 deg. C, 68%RH, 972hPa	TESTED BY	Sky Liao

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

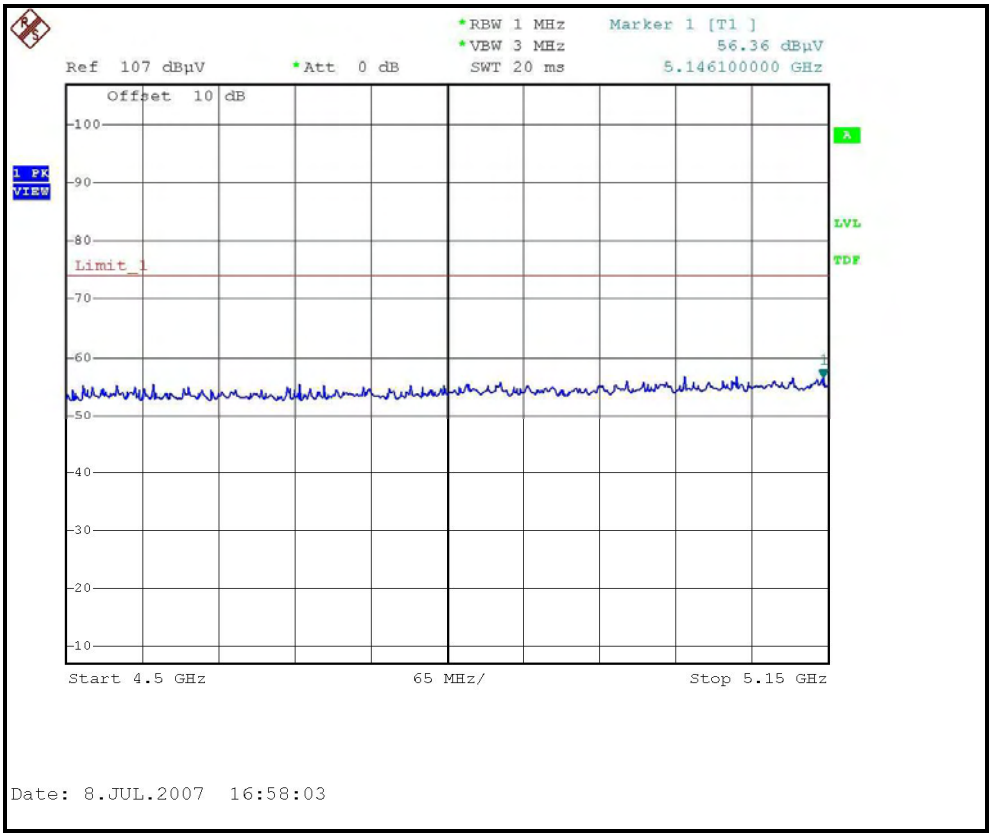
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	108.70 PK			1.50 H	116	71.67	37.03
2	*5700.00	96.40 AV			1.50 H	116	59.37	37.03
3	5725.00	68.90 PK	88.30	-19.40	1.50 H	114	31.83	37.07
4	5725.00	49.80 AV	68.30	-18.50	1.50 H	114	12.73	37.07
5	#11400.00	66.30 PK	74.00	-7.70	1.53 H	250	19.73	46.57
6	#11400.00	51.50 AV	54.00	-2.50	1.53 H	250	4.93	46.57

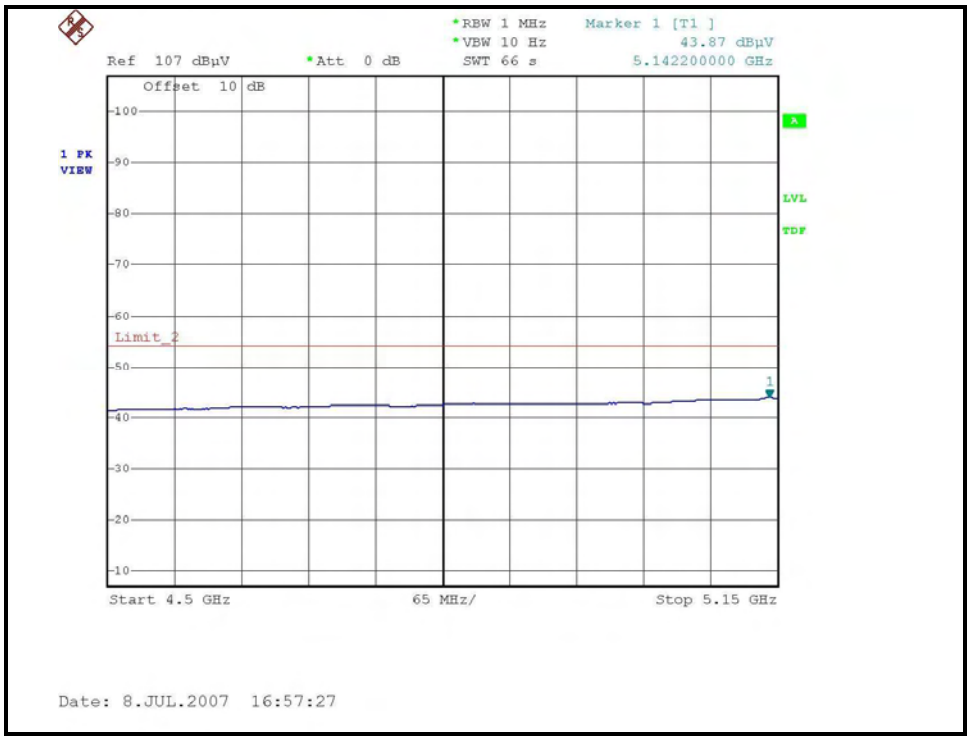
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

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	*5700.00	108.60 PK			1.32 V	50	71.57	37.03
2	*5700.00	96.40 AV			1.32 V	50	59.37	37.03
3	5725.00	68.00 PK	88.30	-20.30	1.08 V	21	30.93	37.07
4	5725.00	49.60 AV	68.30	-18.70	1.08 V	21	12.53	37.07
5	#11400.00	61.90 PK	74.00	-12.10	1.40 V	253	15.33	46.57
6	#11400.00	52.30 AV	54.00	-1.70	1.40 V	253	5.73	46.57

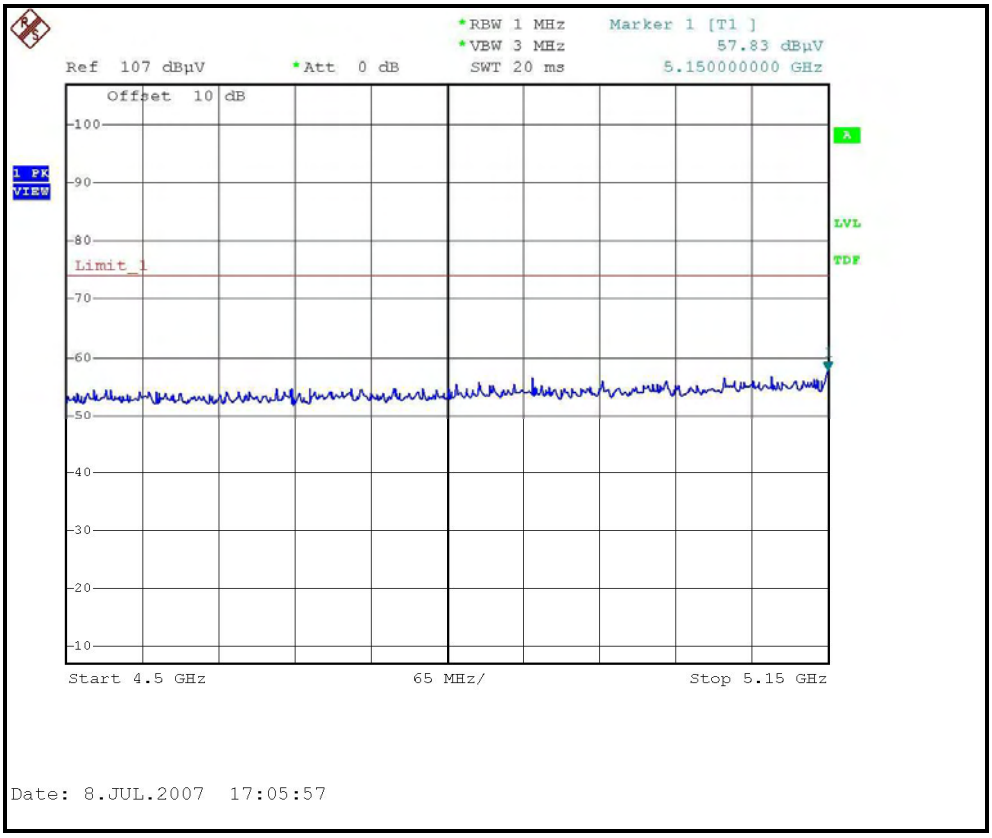
NOTE: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value
5. "*" : Fundamental frequency
6. "#"The radiated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

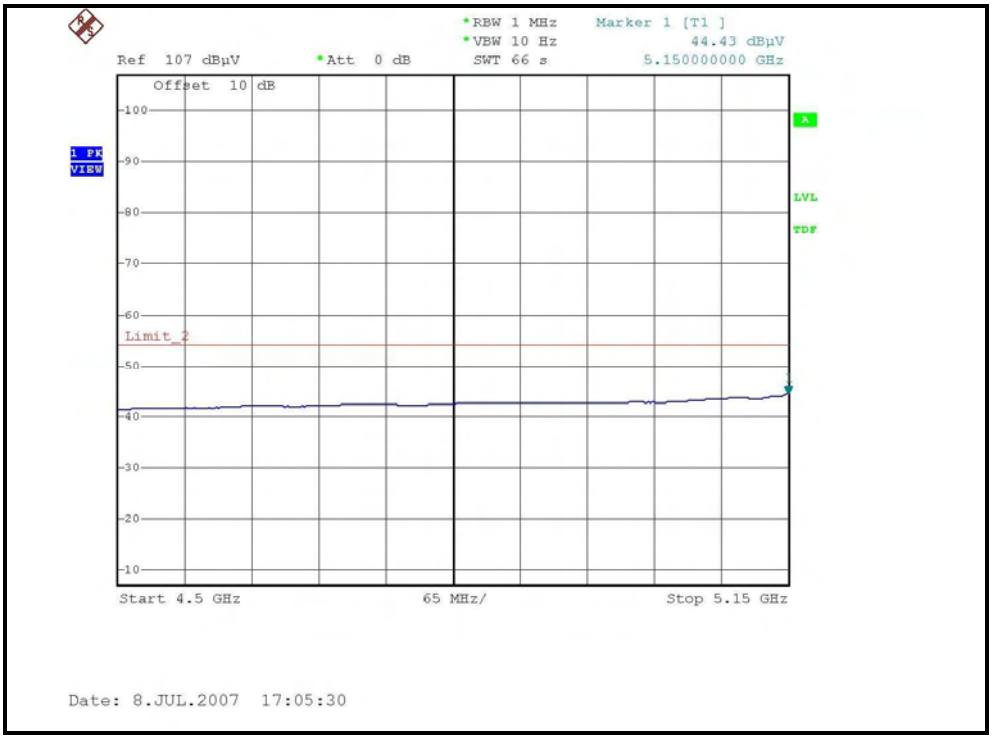
RESTRICTED BANDEDGE (802.11a MODE, CH1, HORIZONTAL)



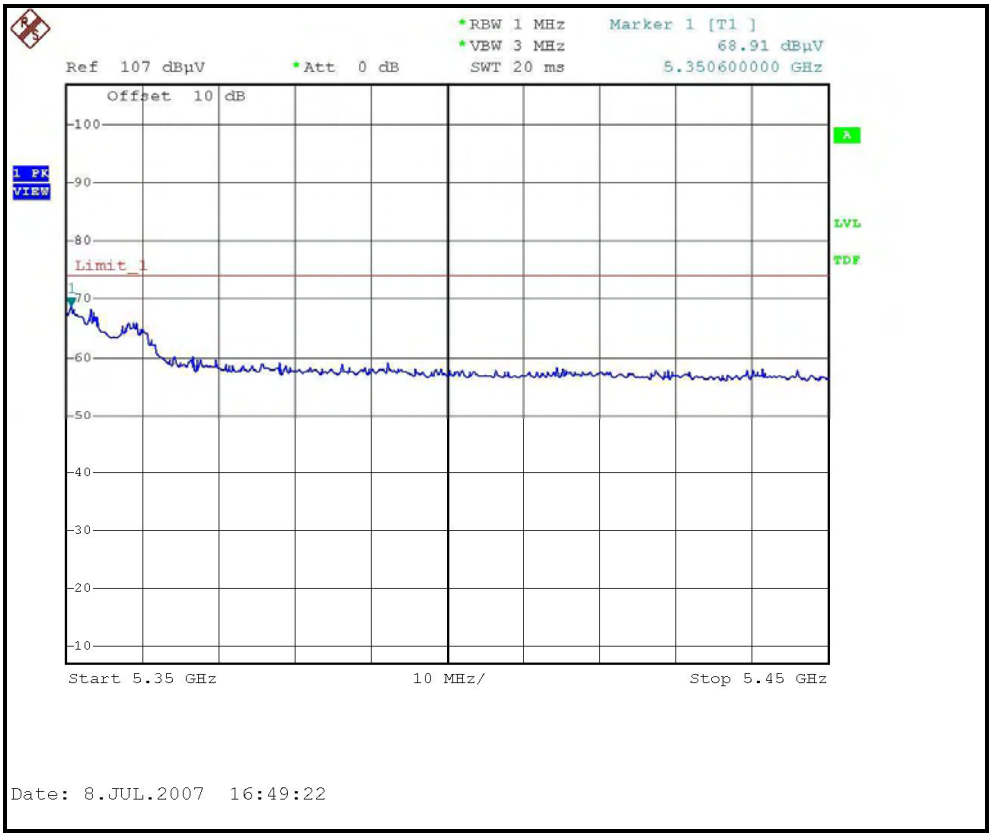


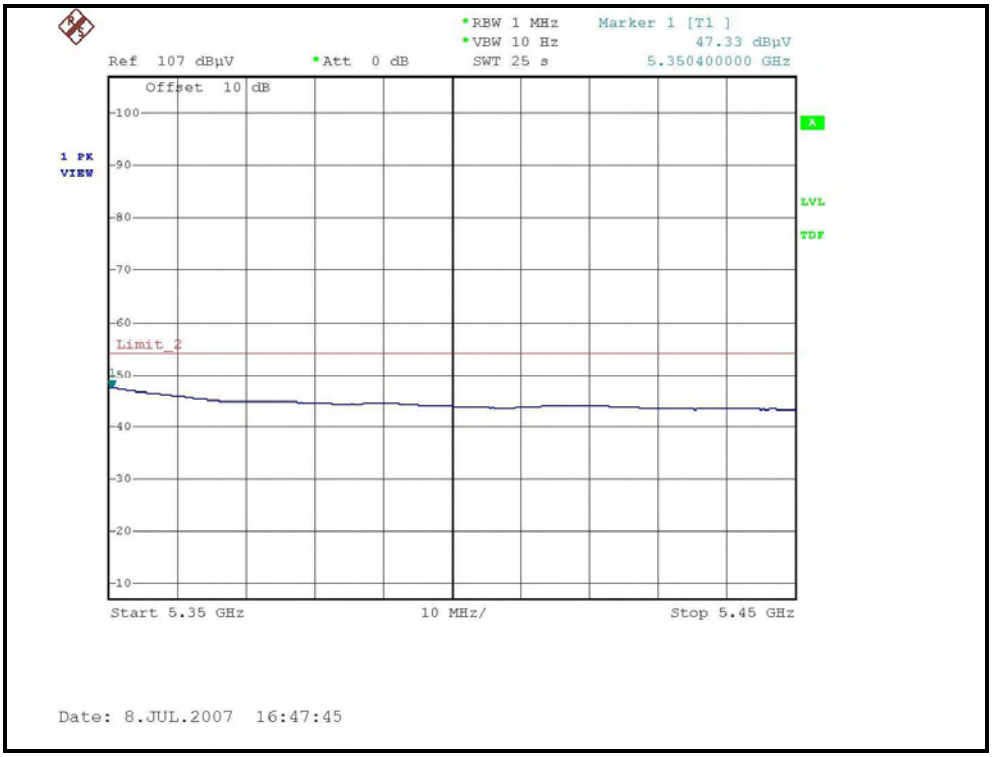
RESTRICTED BANDEDGE (802.11a MODE, CH1, VERTICAL)



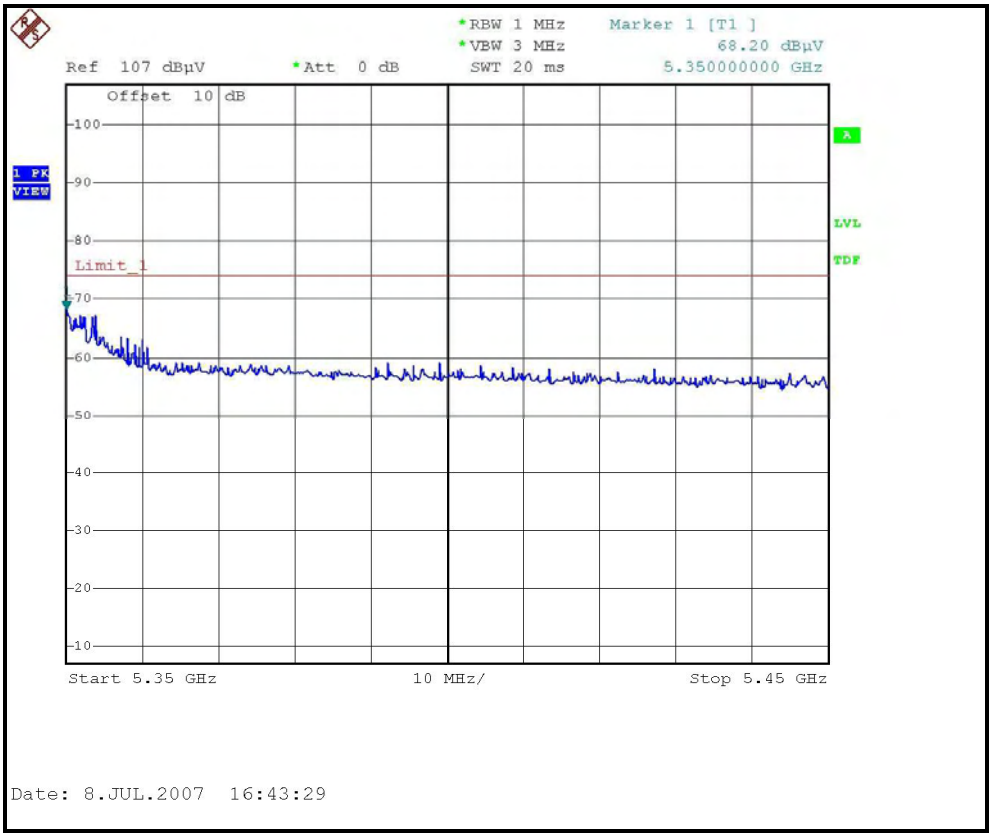


RESTRICTED BANDEDGE (802.11a MODE, CH8, HORIZONTAL)

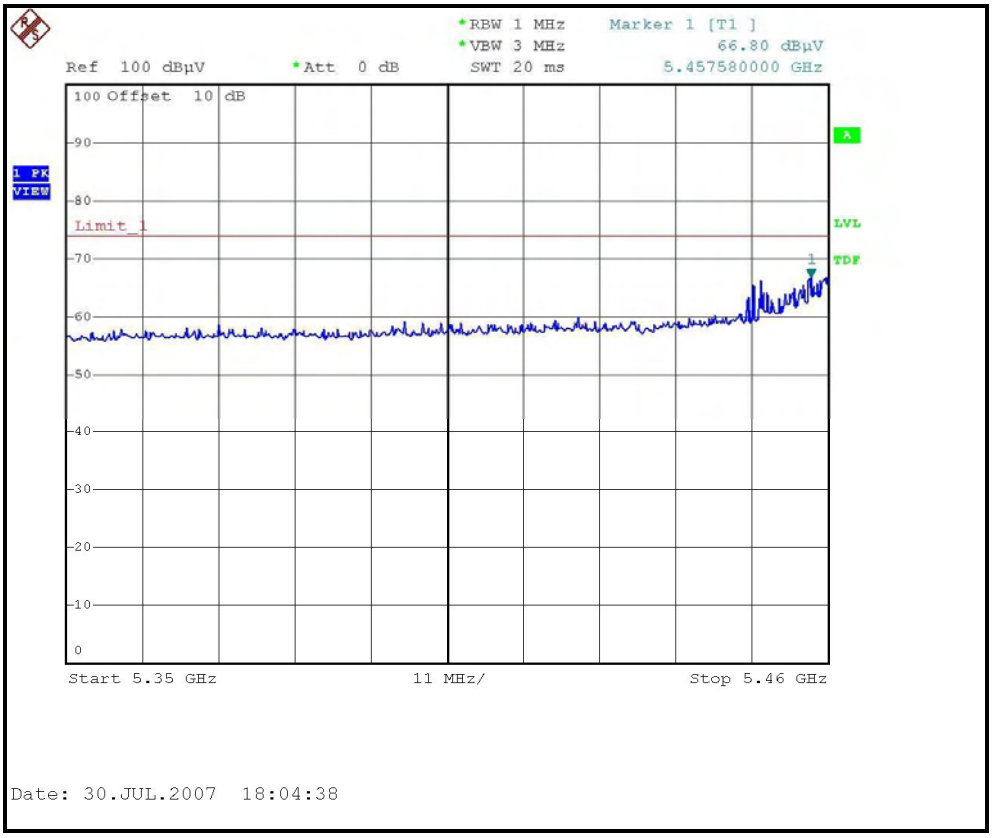


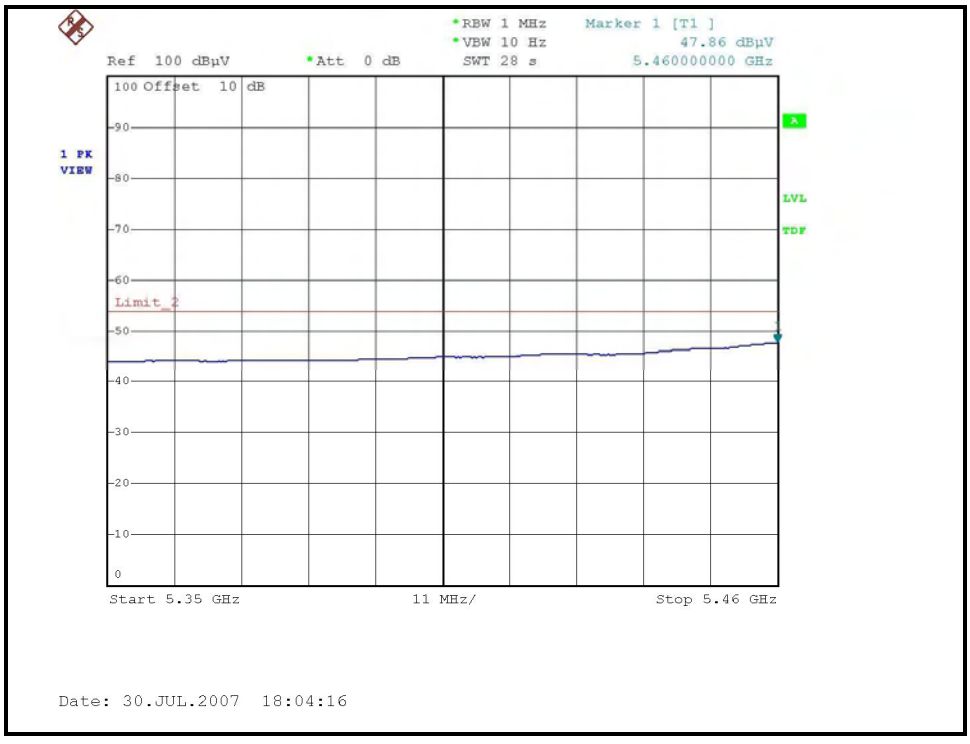


RESTRICTED BANDEDGE (802.11a MODE, CH8, VERTICAL)

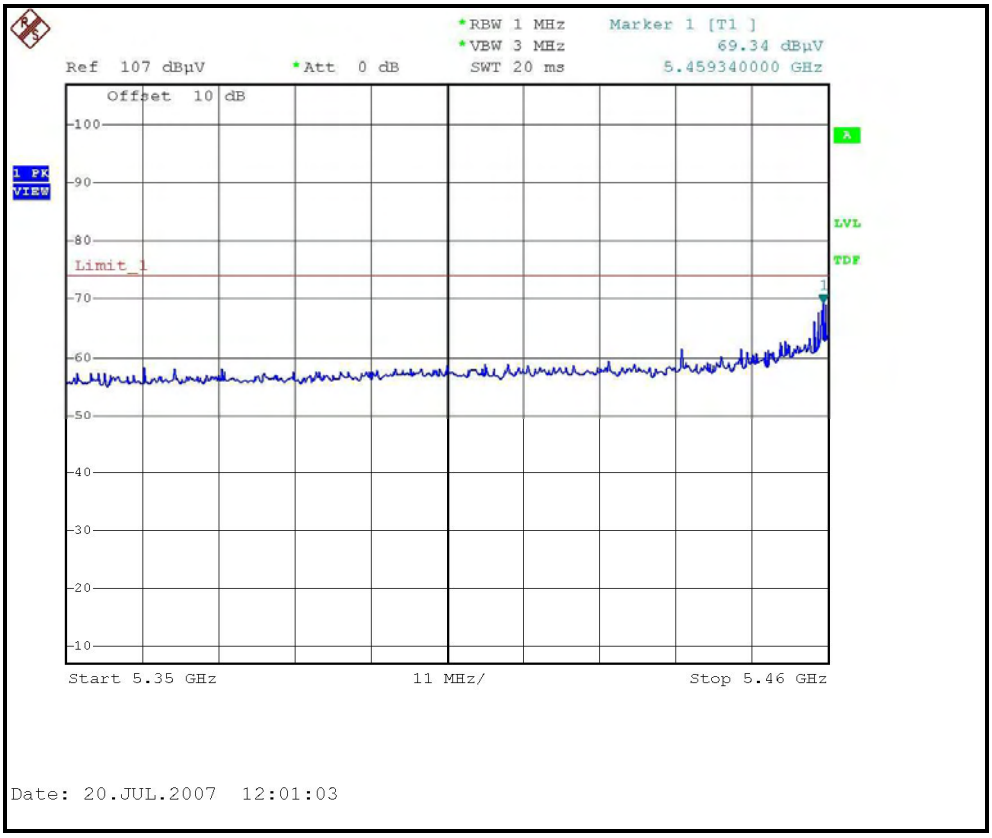


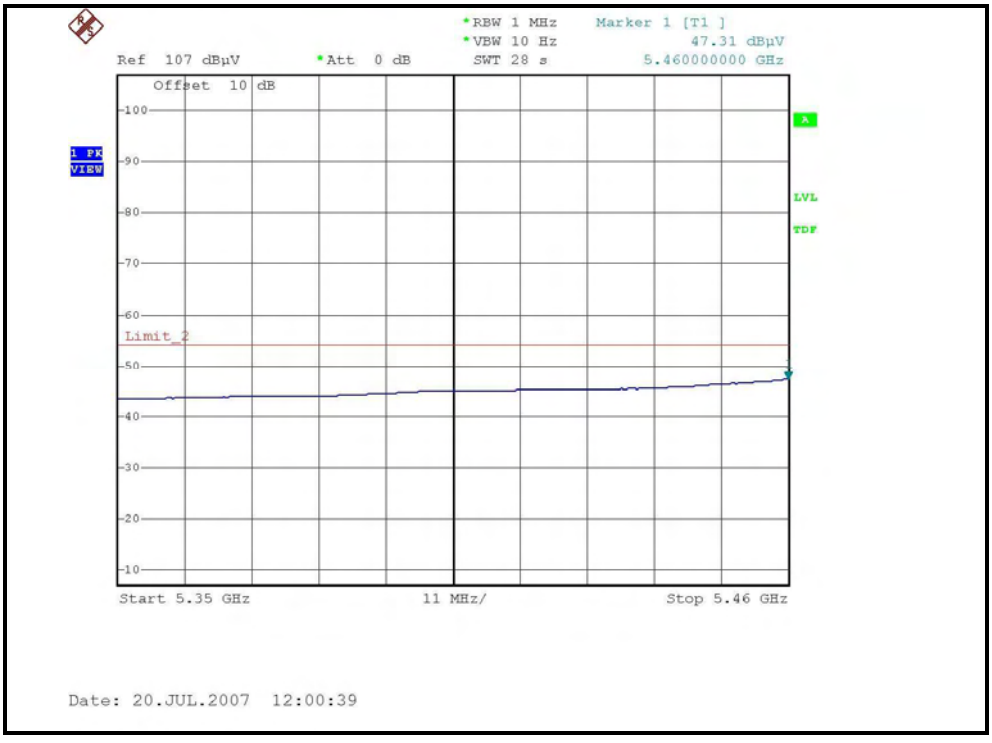
RESTRICTED BANDEDGE (802.11a MODE, CH9, HORIZONTAL)





RESTRICTED BANDEDGE (802.11a MODE, CH9, VERTICAL)





DRAFT 802.11n (20MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23 deg. C, 70%RH, 972hPa	TESTED BY	Sky Liao

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	#5134.60	57.24 PK	74.00	-16.76	1.74 H	350	20.70	36.54
2	#5134.60	45.08 AV	54.00	-8.92	1.74 H	350	8.54	36.54
3	*5180.00	108.90 PK			1.74 H	350	72.30	36.60
4	*5180.00	95.10 AV			1.74 H	350	58.50	36.60
5	10360.00	56.00 PK	88.30	-32.30	1.28 H	10	10.10	45.90
6	10360.00	42.90 AV	68.30	-25.40	1.28 H	10	-3.00	45.90

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	#5134.60	58.61 PK	74.00	-15.39	1.20 V	110	22.05	36.56
2	#5134.60	45.10 AV	54.00	-8.90	1.20 V	110	8.54	36.56
3	*5180.00	107.70 PK			1.20 V	110	71.10	36.60
4	*5180.00	94.30 AV			1.20 V	110	57.70	36.60
5	10360.00	59.10 PK	88.30	-29.20	1.66 V	275	13.20	45.90
6	10360.00	46.00 AV	68.30	-22.30	1.66 V	275	0.10	45.90

NOTE: 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 falling in the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23 deg. C, 70%RH, 972hPa	TESTED BY	Sky Liao

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

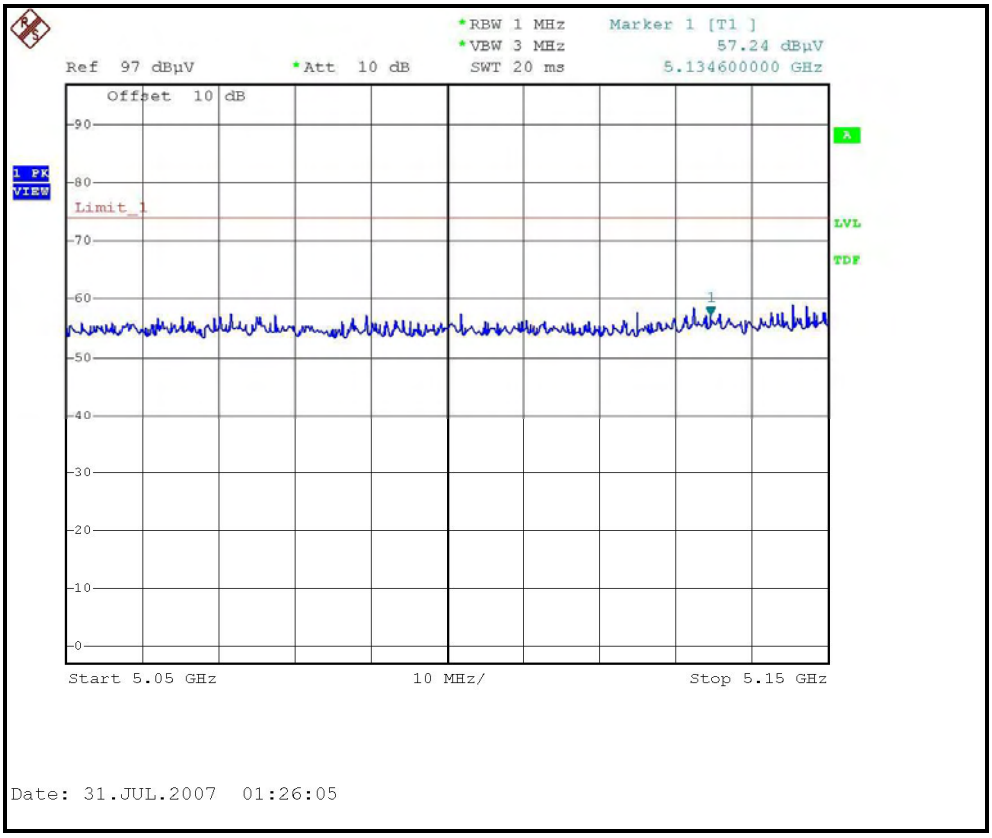
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	108.80 PK			1.78 H	342	72.12	36.68
2	*5240.00	95.00 AV			1.78 H	342	58.32	36.68
3	#5350.00	54.69 PK	74.00	-19.31	1.78 H	342	17.86	36.83
4	#5350.00	42.08 AV	54.00	-11.92	1.78 H	342	5.25	36.83
5	10480.00	56.40 PK	88.30	-31.90	1.20 H	22	10.29	46.11
6	10480.00	43.20 AV	68.30	-25.10	1.20 H	22	-2.91	46.11

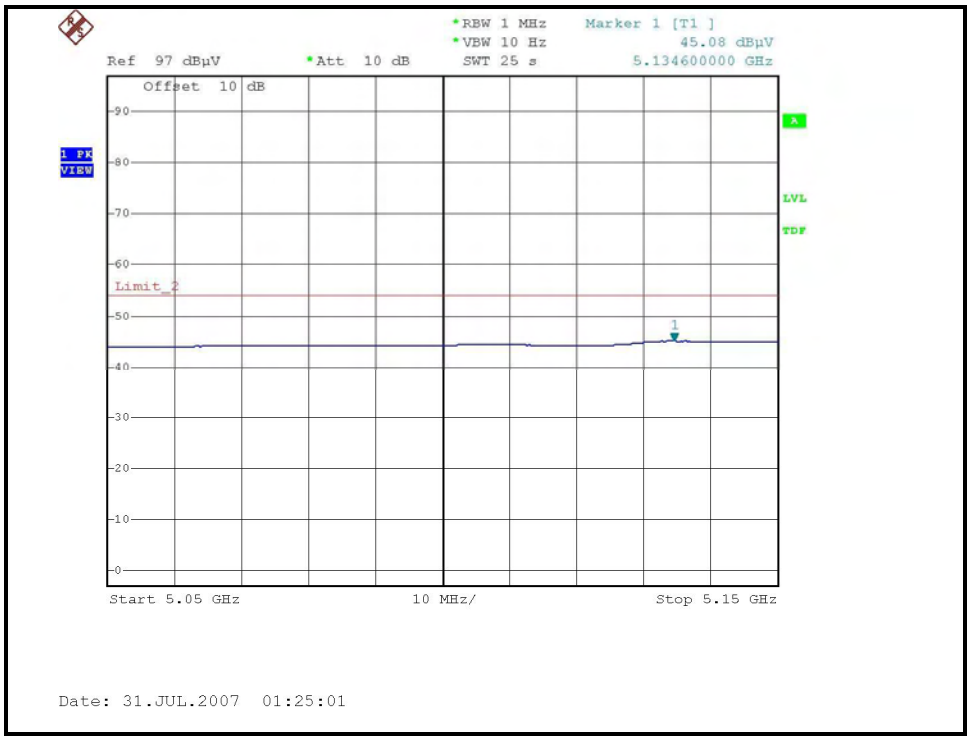
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

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	*5240.00	107.80 PK			1.22 V	116	71.12	36.68
2	*5240.00	94.50 AV			1.22 V	116	57.82	36.68
3	#5350.00	54.92 PK	74.00	-19.08	1.22 V	116	18.09	36.83
4	#5350.00	42.03 AV	54.00	-11.97	1.22 V	116	5.20	36.83
5	10480.00	59.50 PK	88.30	-28.80	1.62 V	270	13.39	46.11
6	10480.00	46.40 AV	68.30	-21.90	1.62 V	270	0.29	46.11

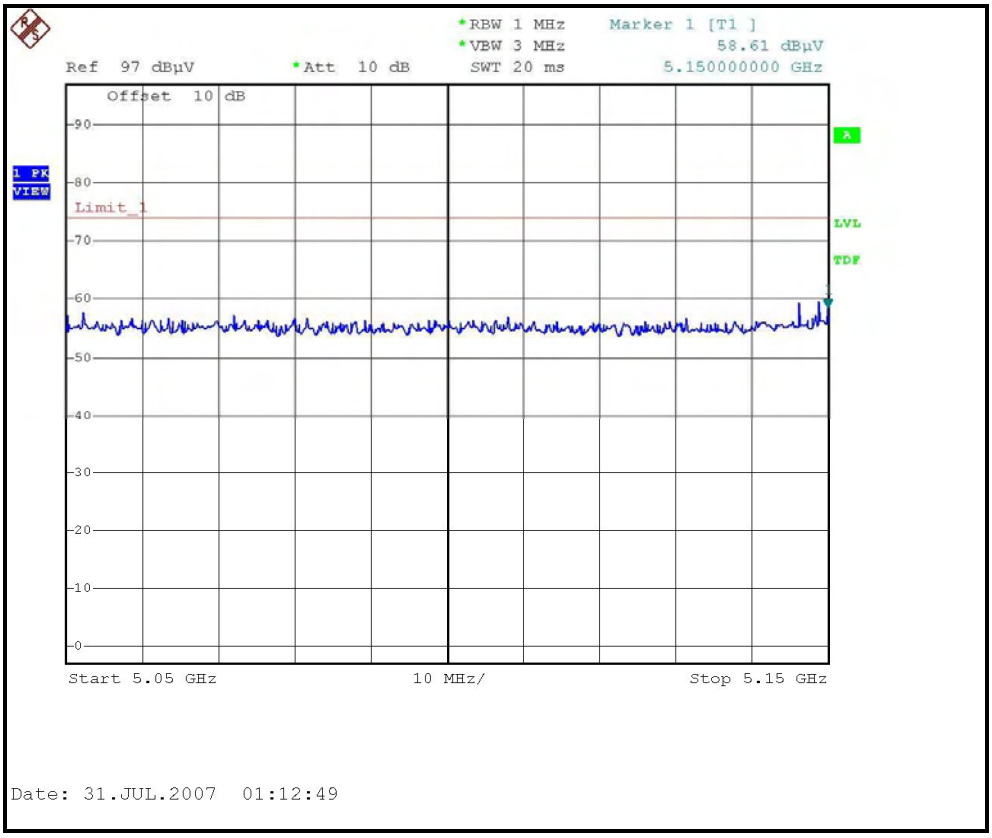
NOTE: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value
5. "*" : Fundamental frequency
6. "#"The radiated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

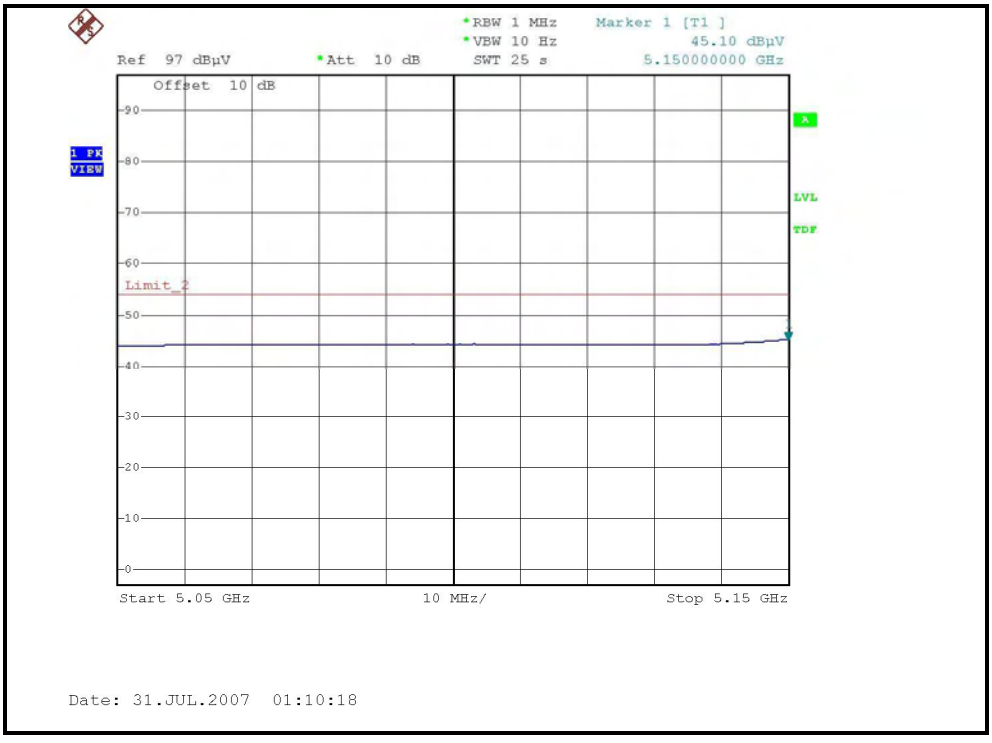
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH1, HORIZONTAL)



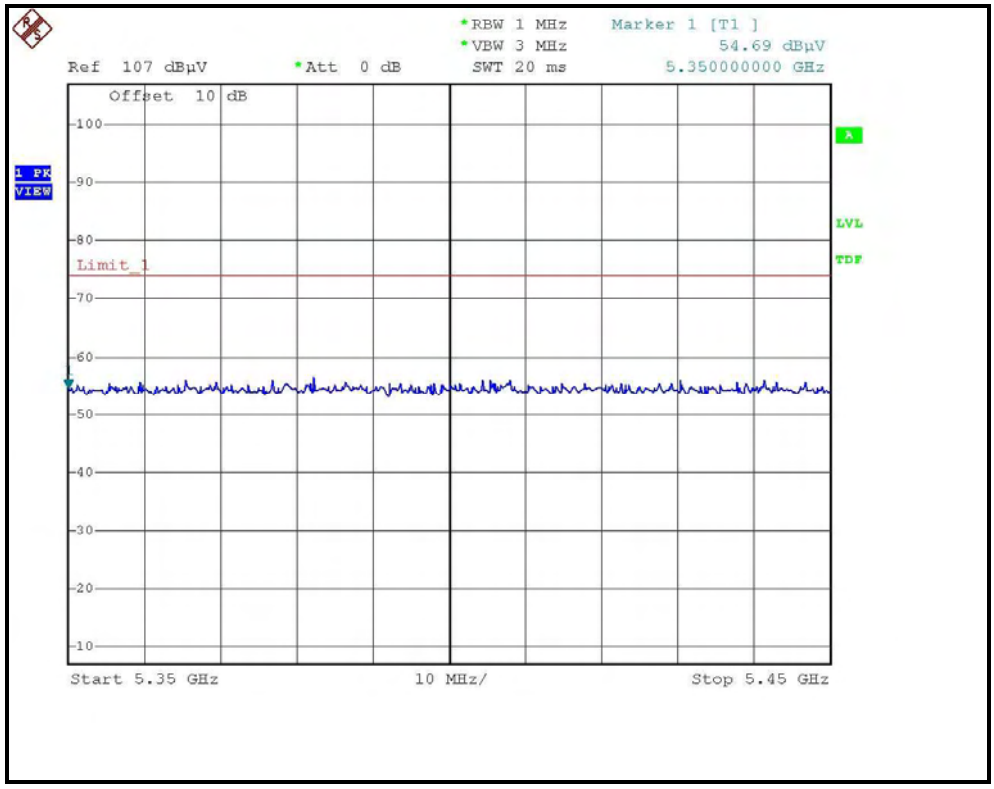


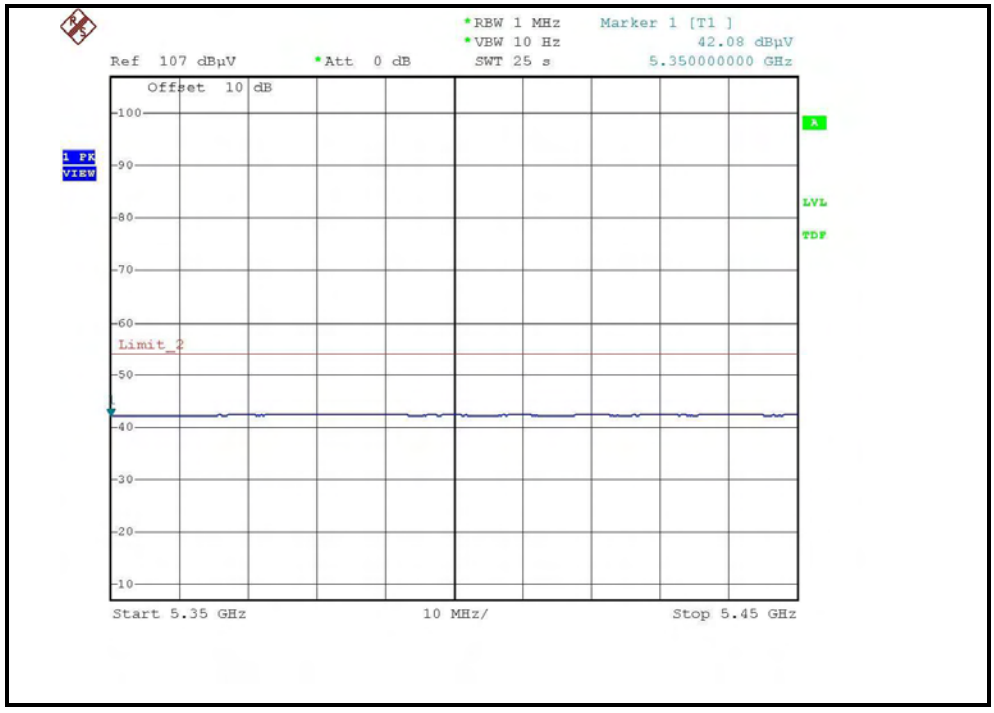
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH1, VERTICAL)



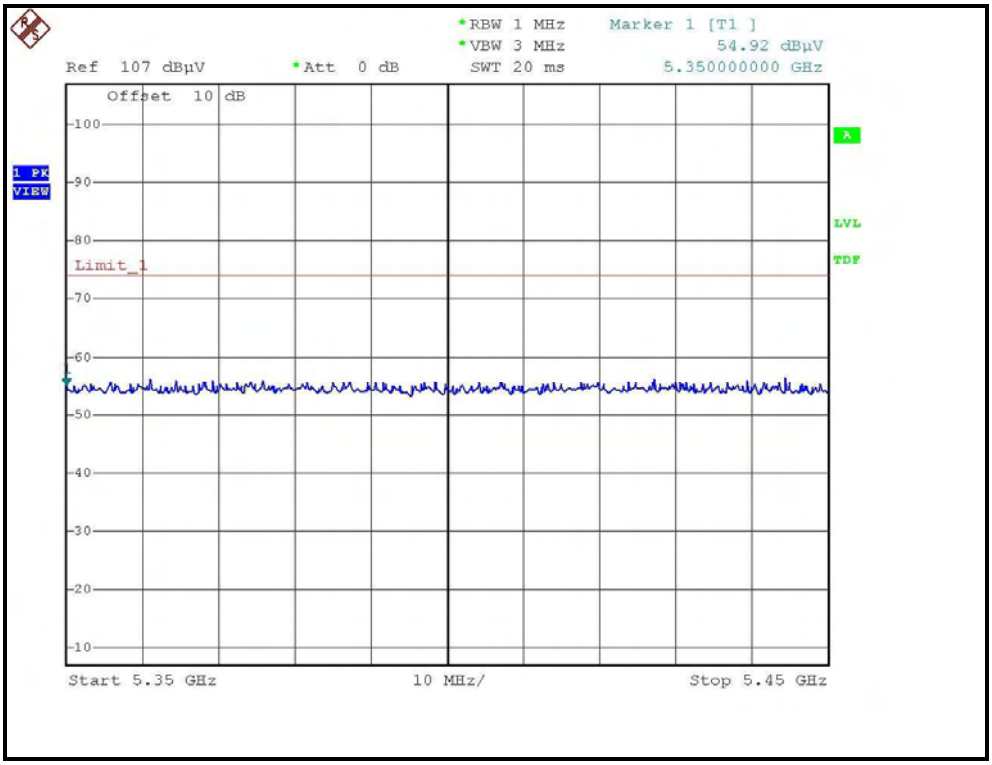


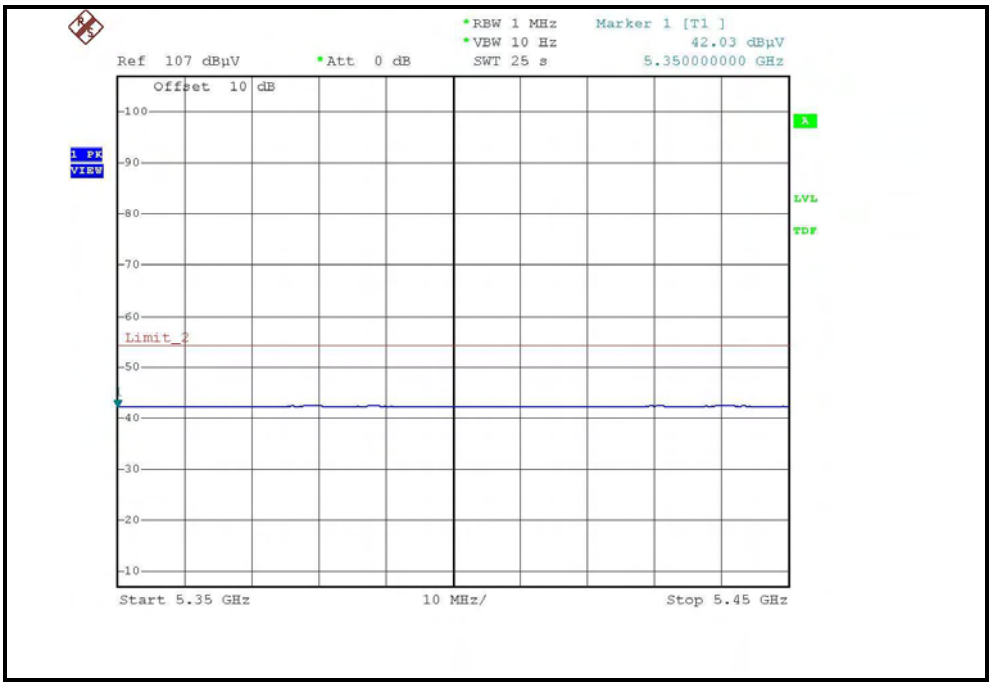
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH4, HORIZONTAL)





RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH4, VERTICAL)





DRAFT 802.11n (40MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	13.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23 deg. C, 70%RH, 972hPa	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	#5149.00	66.49 PK	74.00	-7.51	1.90 H	340	29.93	36.56
2	#5149.00	52.76 AV	54.00	-1.24	1.90 H	340	16.20	36.56
3	*5190.00	106.00 PK			1.90 H	340	69.39	36.61
4	*5190.00	90.50 AV			1.90 H	340	53.89	36.61
5	10380.00	57.30 PK	88.30	-31.00	1.62 H	245	11.37	45.93
6	10380.00	43.40 AV	68.30	-24.90	1.62 H	245	-2.53	45.93

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	#5149.00	64.77 PK	74.00	-9.23	1.55 V	250	28.21	36.56
2	#5149.00	49.03 AV	54.00	-4.97	1.55 V	250	12.47	36.56
3	*5190.00	104.00 PK			1.55 V	250	67.39	36.61
4	*5190.00	88.20 AV			1.55 V	250	51.59	36.61
5	10380.00	58.00 PK	88.30	-30.30	1.66 V	288	12.07	45.93
6	10380.00	45.00 AV	68.30	-23.30	1.66 V	288	-0.93	45.93

NOTE: 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 falling in the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	13.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23 deg. C, 70%RH, 972hPa	TESTED BY	Phoenix Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

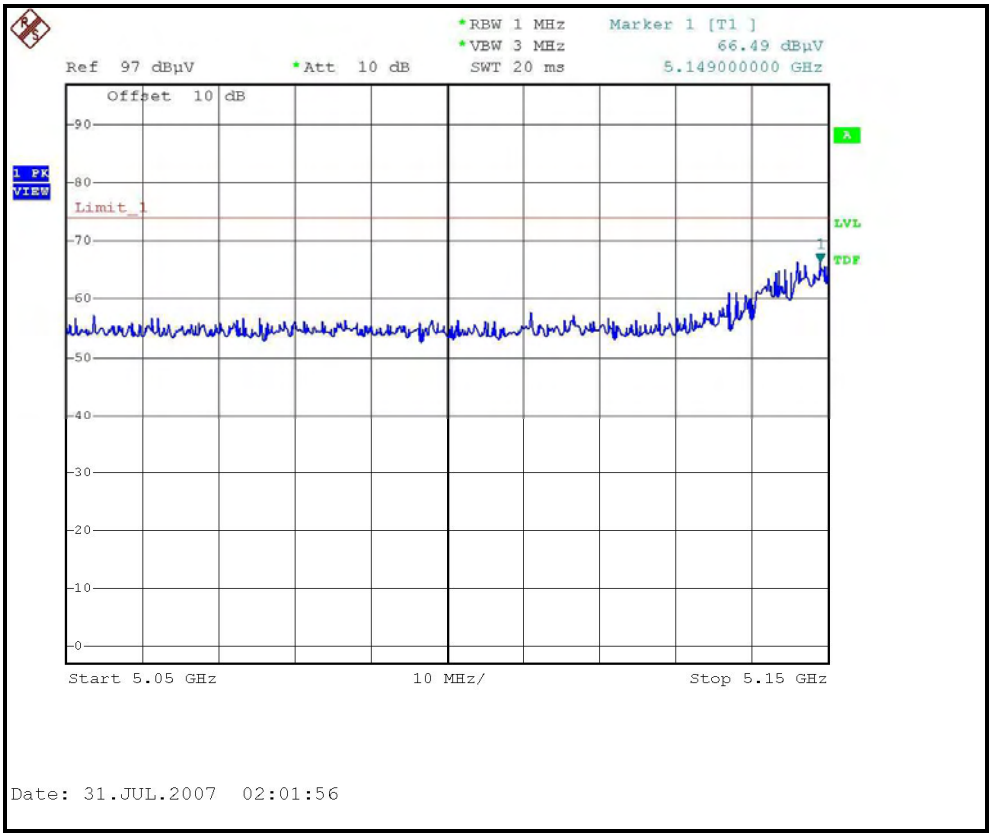
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5230.00	106.40 PK			1.92 H	344	69.73	36.67
2	*5230.00	90.60 AV			1.92 H	344	53.93	36.67
3	#5350.00	54.56 PK	74.00	-19.44	1.92 H	344	17.73	36.83
4	#5350.00	41.99 AV	54.00	-12.01	1.92 H	344	5.16	36.83
5	10460.00	57.60 PK	88.30	-30.70	1.65 H	240	11.52	46.08
6	10460.00	43.60 AV	68.30	-24.70	1.65 H	240	-2.48	46.08

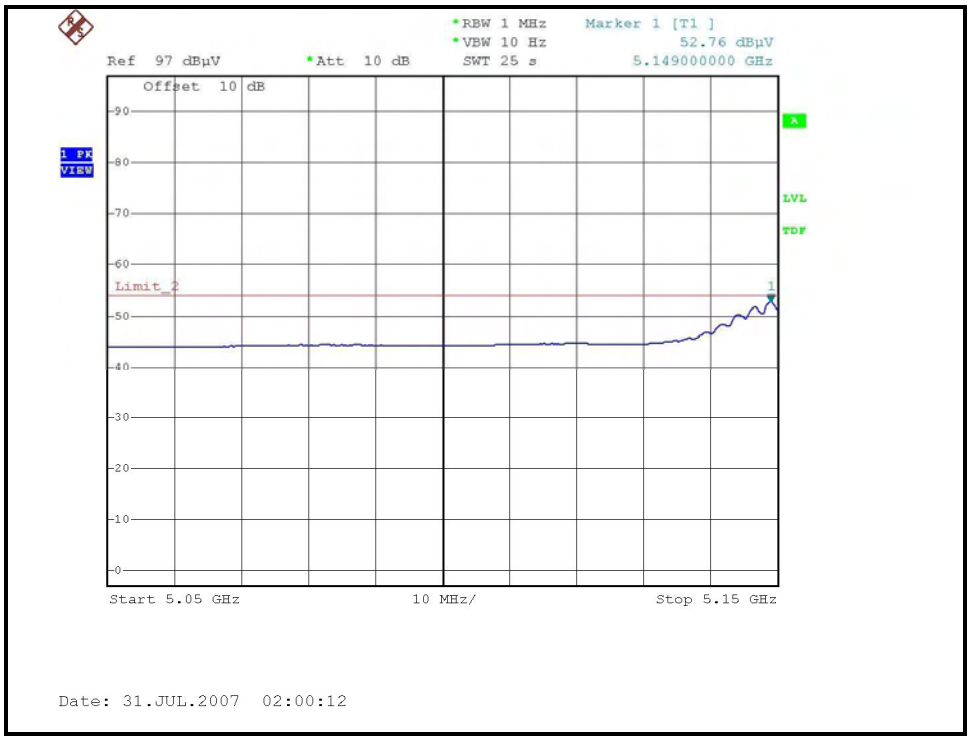
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

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	*5230.00	104.20 PK			1.50 V	255	67.53	36.67
2	*5230.00	88.50 AV			1.50 V	255	51.83	36.67
3	#5350.00	55.13 PK	74.00	-18.87	1.50 V	255	18.30	36.83
4	#5350.00	42.02 AV	54.00	-11.98	1.50 V	255	5.19	36.83
5	10460.00	58.50 PK	88.30	-29.80	1.58 V	272	12.42	46.08
6	10460.00	45.40 AV	68.30	-22.90	1.58 V	272	-0.68	46.08

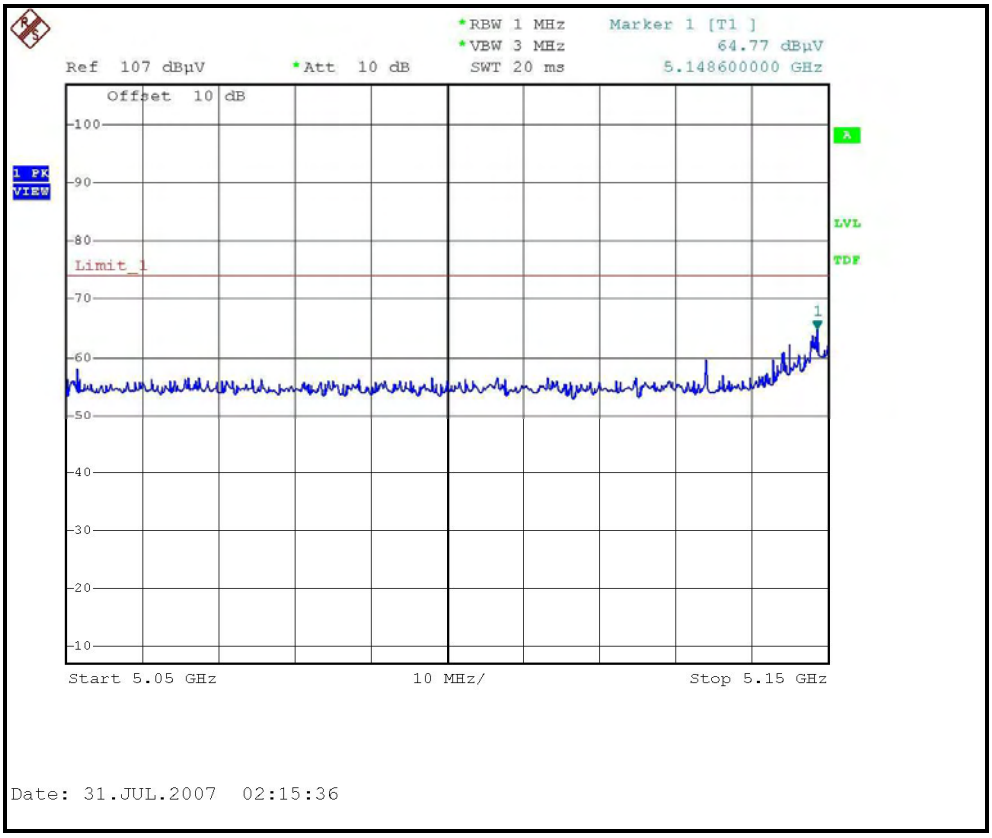
NOTE: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value
5. "*" : Fundamental frequency
6. "#"The radiated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

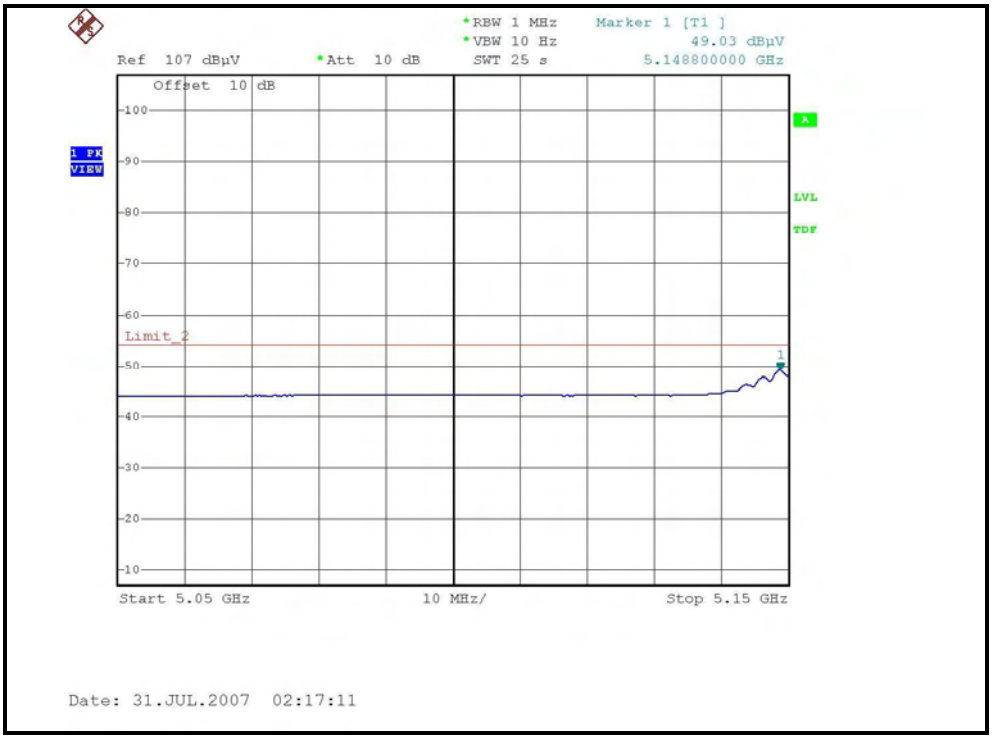
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH1, HORIZONTAL)



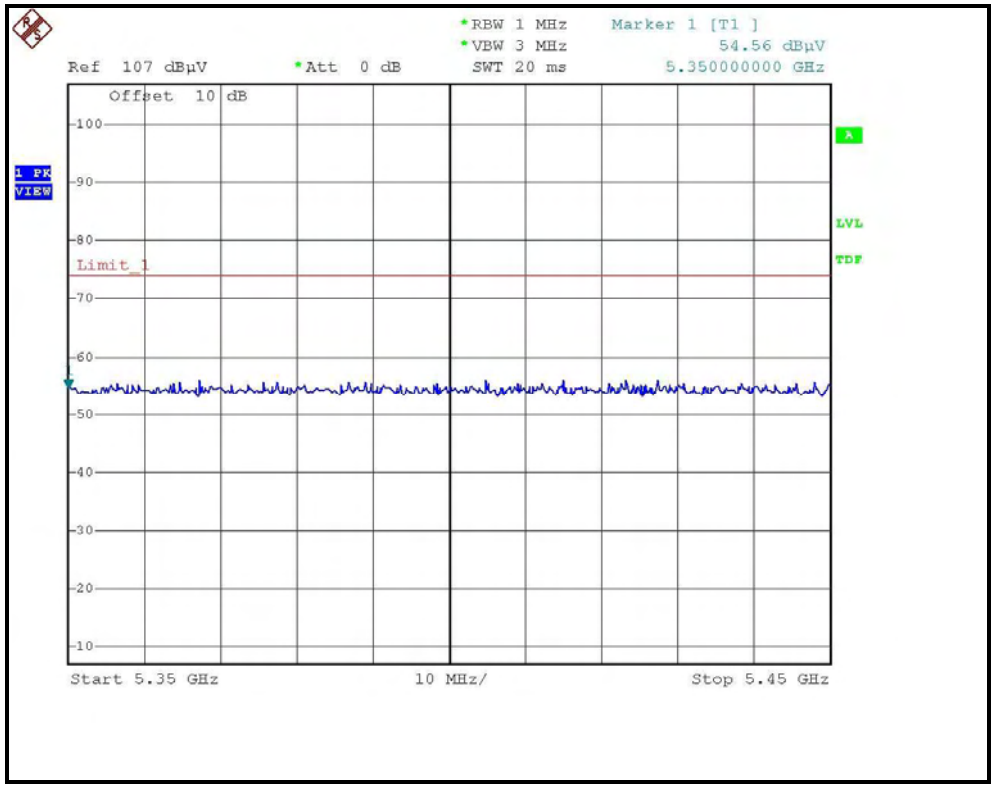


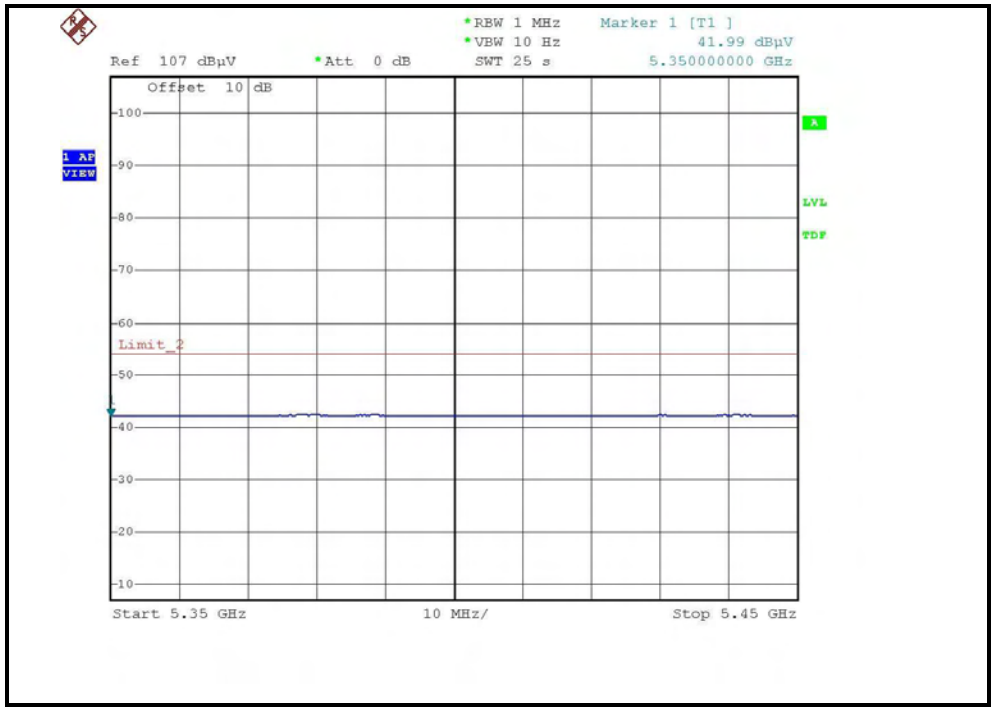
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE,CH1, VERTICAL)



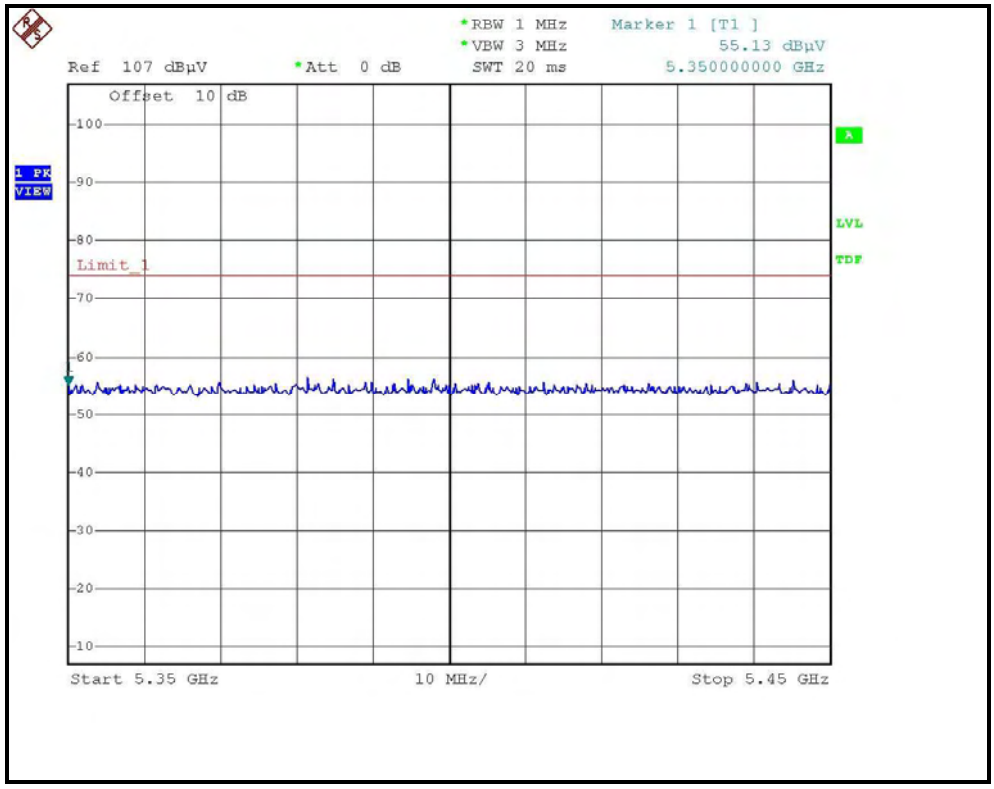


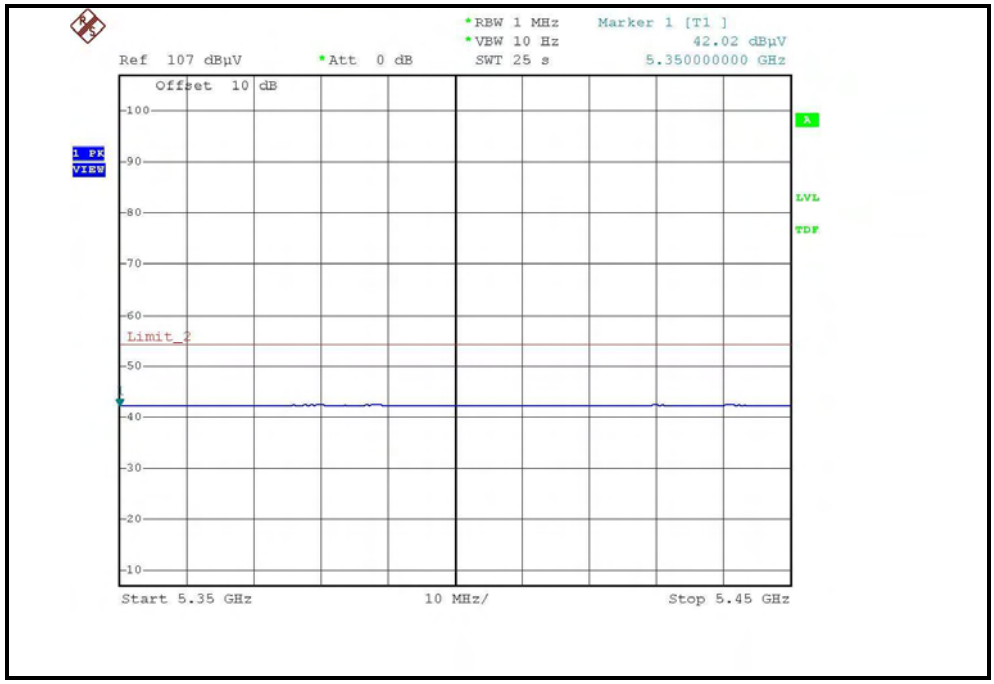
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH3, HORIZONTAL)





RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH3, 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 Until
ADVANTEST SPECTRUM ANALYZER	U3772	160100280	April 10.2008

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.

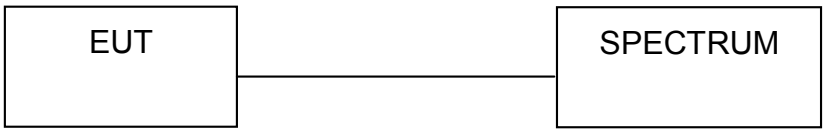
NOTE:
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

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:

MODULATION TYPE	BPSK	**TRANSFER RATE**	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	27deg.C, 60%RH, 972hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER OUTPUT (mW)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/FAIL
1	5180	12.85	19.275	17	20.2	PASS
4	5240	14.86	30.620	17	22.6	PASS
5	5260	15.27	33.651	24	24.35	PASS
8	5320	16.63	46.026	24	30.1	PASS
9	5500	17.01	50.234	24	37.65	PASS
14	5600	16.58	45.499	24	34.35	PASS
19	5700	14.56	28.576	24	32.05	PASS

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

Peak Power Output:

CH1

CH4

CH5


CHPOW
REF 20.00 dBm
DL 15.27 dBm
10.0 dB/
*A PwAvg Smpl
B Blank Auto
C Blank Auto
LOF
WIN WIDTH
24.35 MHz
CENTER 5.26000 GHz
SLIDE 100 / 100
SPAN 50.00 MHz
RBW 1 MHz
VBW 3 MHz
SWP 20 ms
ATT 30 dB
Channel Power
Channel Power
15.27 dBm
Power Spectral Density
-58.59 dBm/Hz

CH8


CHPOW
REF 20.00 dBm
DL 16.63 dBm
10.0 dB/
*A PwAvg Smpl
B Blank Auto
C Blank Auto
LOF
WIN WIDTH
30.10 MHz
CENTER 5.32000 GHz
SLIDE 100 / 100
SPAN 50.00 MHz
RBW 1 MHz
VBW 3 MHz
SWP 20 ms
ATT 30 dB
Channel Power
Channel Power
16.63 dBm
Power Spectral Density
-58.16 dBm/Hz

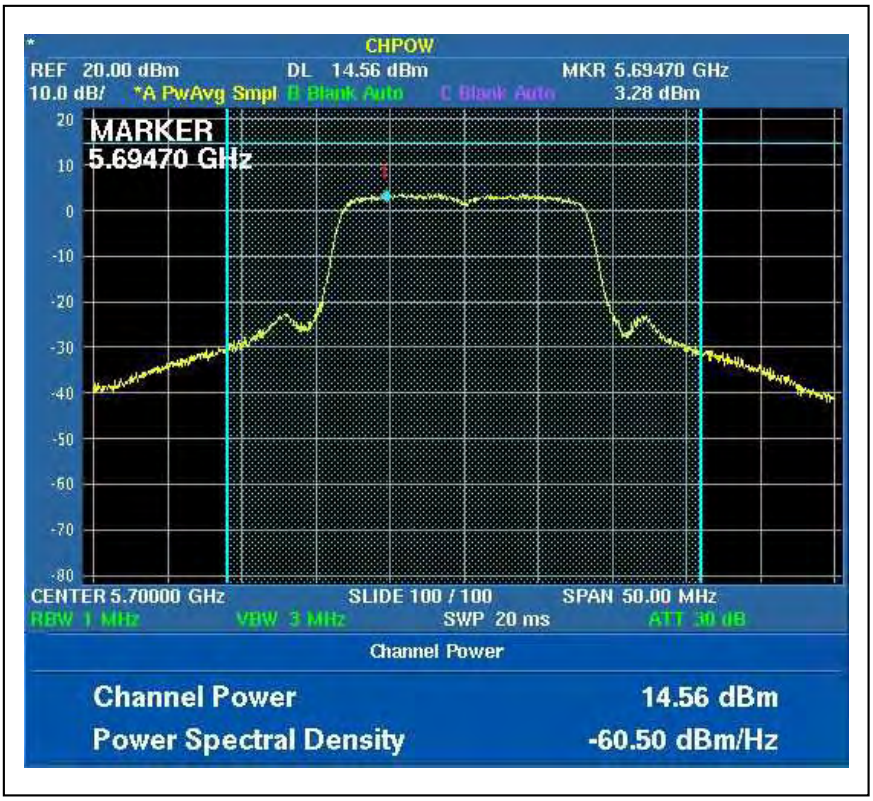
CH9


CHPOW
REF 20.00 dBm
DL 17.01 dBm
10.0 dB/
*A PwAvg Smpl B Blank Auto C Blank Auto
LOF
WIN WIDTH
37.65 MHz
CENTER 5.50000 GHz
SLIDE 100 / 100
SPAN 50.00 MHz
RBW 1 MHz
VBW 3 MHz
SWP 20 ms
ATT 30 dB
Channel Power
Channel Power 17.01 dBm
Power Spectral Density -58.75 dBm/Hz

CH14


CHPOW
REF 20.00 dBm
DL 16.58 dBm
10.0 dB/
*A PwAvg Smpl B Blank Auto C Blank Auto
LOF
WIN WIDTH
34.35 MHz
CENTER 5.60000 GHz
SLIDE 100 / 100
SPAN 50.00 MHz
RBW 1 MHz
VBW 3 MHz
SWP 20 ms
ATT 30 dB
Channel Power
Channel Power 16.58 dBm
Power Spectral Density -58.78 dBm/Hz

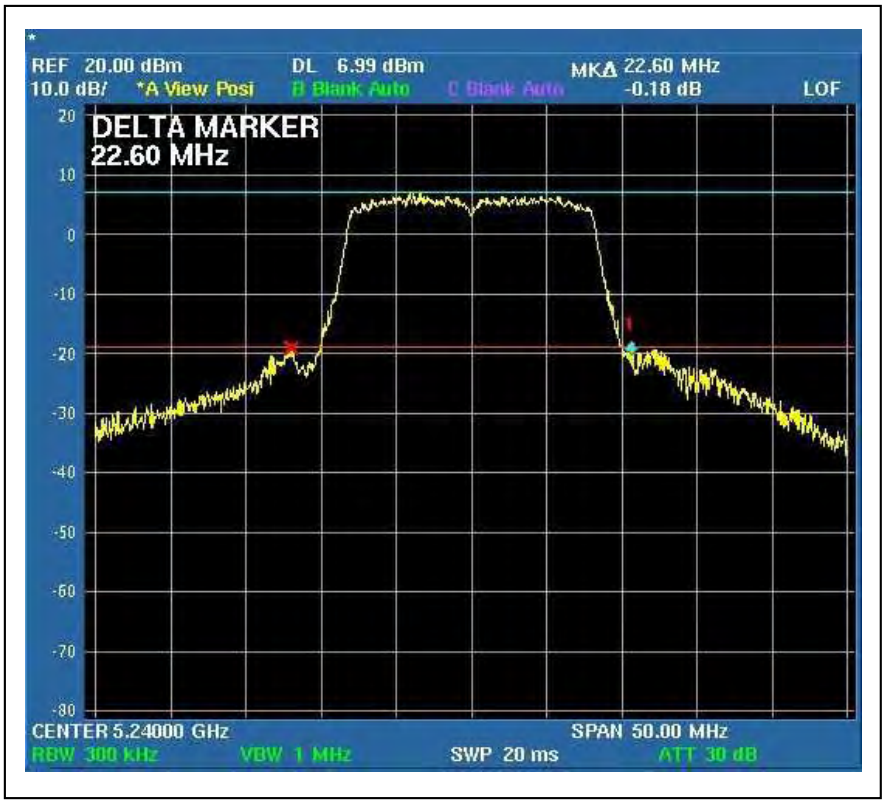
CH19


CHPOW
REF 20.00 dBm
DL 14.56 dBm
MKR 5.69470 GHz
10.0 dB/ *A PwAvg Smpl B Blank Auto C Blank Auto 3.28 dBm
MARKER
5.69470 GHz
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
CENTER 5.70000 GHz
SLIDE 100 / 100
SPAN 50.00 MHz
RBW 1 MHz
VBW 3 MHz
SWP 20 ms
ATT 30 dB
Channel Power
Channel Power 14.56 dBm
Power Spectral Density -60.50 dBm/Hz

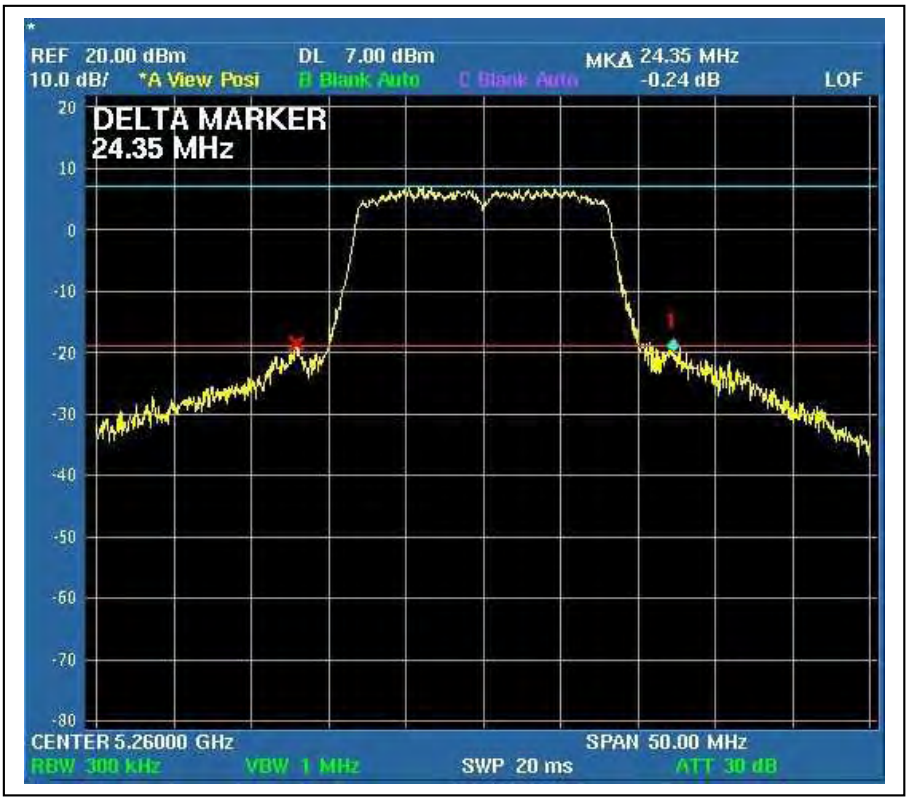
26dB Occupied Bandwidth:

CH1

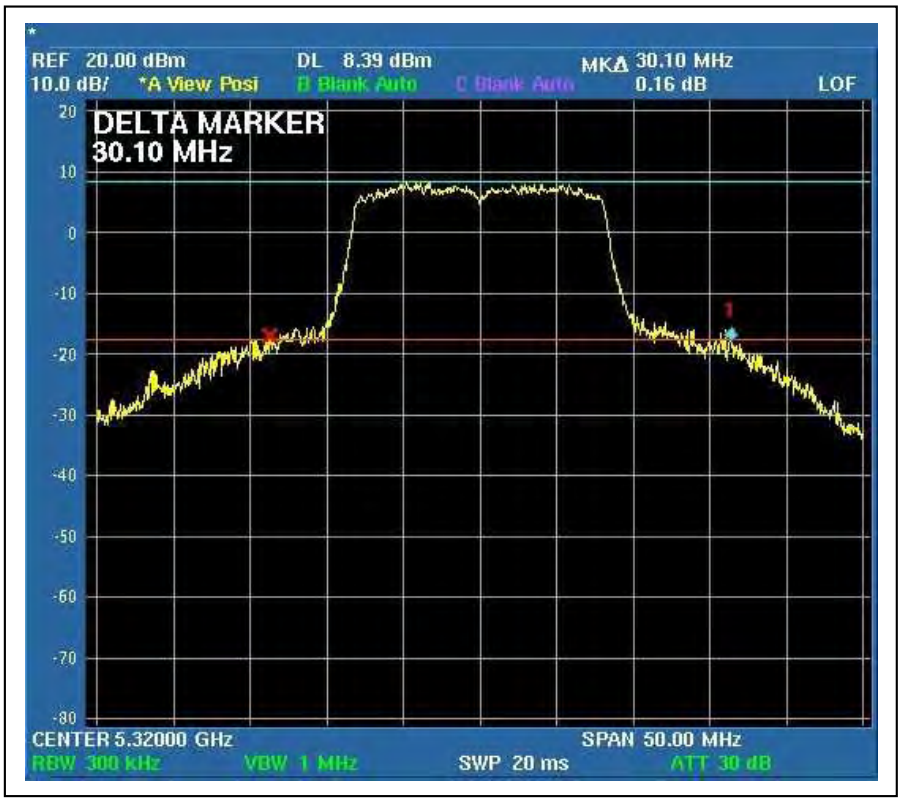
CH4



CH5


REF 20.00 dBm
DL 7.00 dBm
MKΔ 24.35 MHz
10.0 dB/ *A View Posi
B Blank Auto
C Blank Auto
-0.24 dB
LOF
DELTA MARKER
24.35 MHz
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
CENTER 5.26000 GHz
SPAN 50.00 MHz
RBW 300 kHz
VBW 1 MHz
SWP 20 ms
ATT 30 dB

CH8


REF 20.00 dBm
DL 8.39 dBm
MKΔ 30.10 MHz
10.0 dB/ *A View Posi
B Blank Auto
C Blank Auto
0.16 dB
LOF
DELTA MARKER
30.10 MHz
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
CENTER 5.32000 GHz
SPAN 50.00 MHz
RBW 300 kHz
VBW 1 MHz
SWP 20 ms
ATT 30 dB

CH9


REF 20.00 dBm
DL 9.78 dBm
MKΔ 37.65 MHz
10.0 dB/ *A View Posi
B Blank Auto
C Blank Auto
0.00 dB
LOF
DELTA MARKER
37.65 MHz
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
CENTER 5.50000 GHz
SPAN 50.00 MHz
RBW 300 kHz
VBW 1 MHz
SWP 20 ms
ATT 30 dB

CH14


REF 20.00 dBm
DL 9.33 dBm
MKΔ 34.35 MHz
10.0 dB/ *A View Posi
B Blank Auto
C Blank Auto
0.43 dB
LOF
DELTA MARKER
34.35 MHz
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
CENTER 5.60000 GHz
SPAN 50.00 MHz
RBW 300 kHz
VBW 1 MHz
SWP 20 ms
ATT 30 dB

CH19


REF 20.00 dBm
DL 6.65 dBm
MKΔ 32.05 MHz
10.0 dB/ *A View Posi
B Blank Auto
C Blank Auto
-0.01 dB
DELTA MARKER
32.05 MHz
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
CENTER 5.70000 GHz
SPAN 50.00 MHz
RBW 300 kHz
VBW 1 MHz
SWP 20 ms
ATT 30 dB

DRAFT 802.11n (20MHz) OFDM modulation:

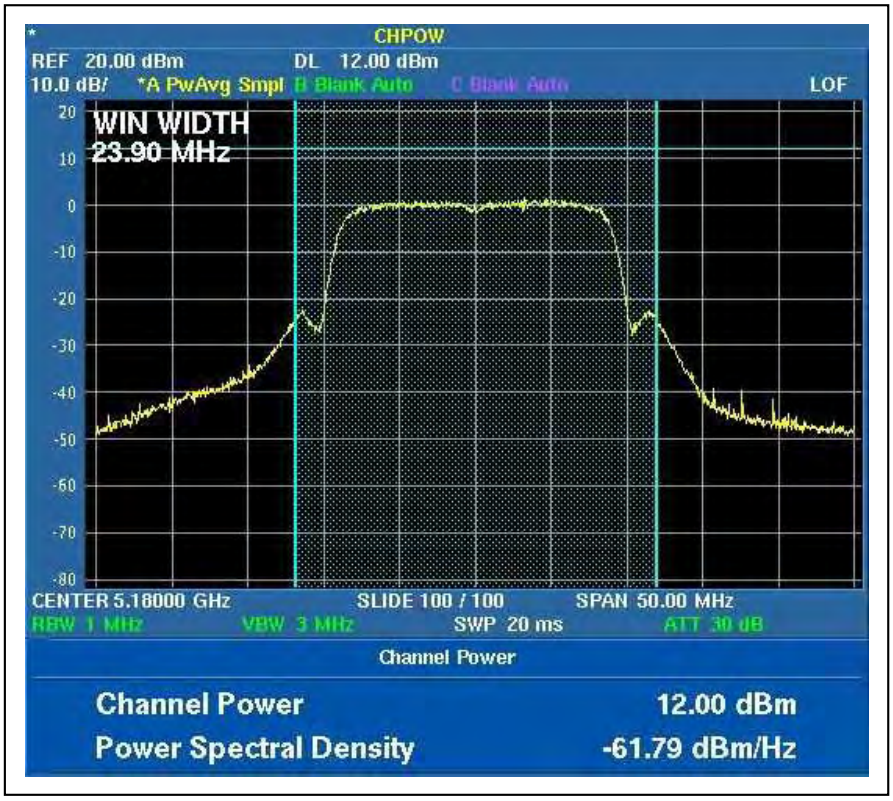
MODULATION TYPE	BPSK	**TRANSFER RATE**	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	27deg.C, 60%RH, 972hPa
TESTED BY	Rex Huang		

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	12.00	12.50	15.85	17.78	15.3	33.632	17.00	23.9	24.0	PASS
4	5240	13.81	13.82	24.04	24.10	16.8	48.143	17.00	23.9	23.9	PASS

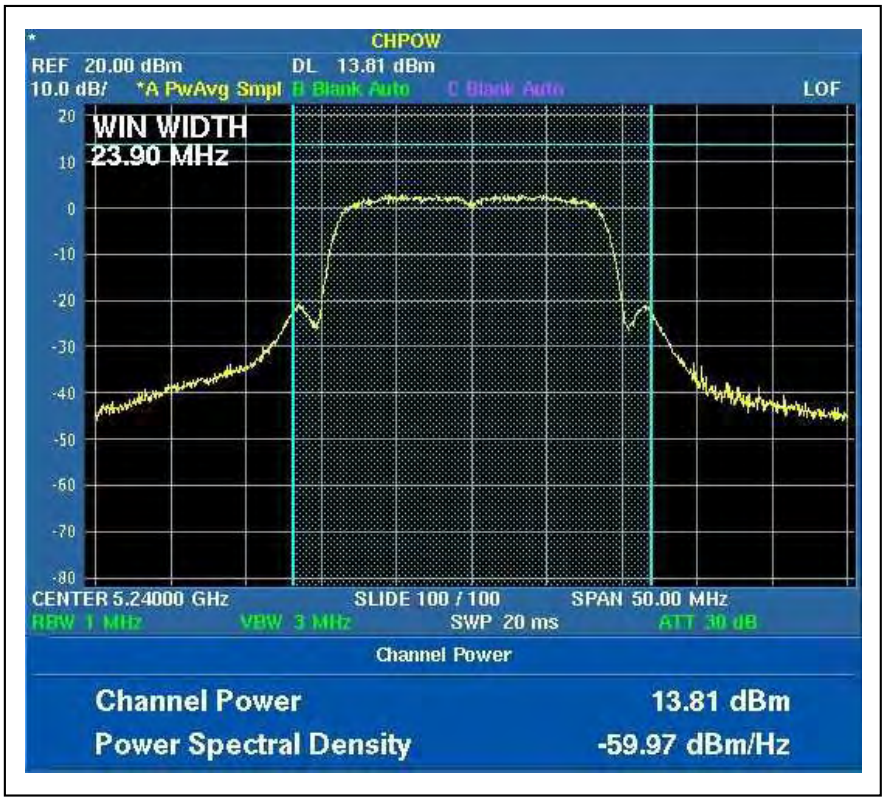
NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.

Peak Power Output:

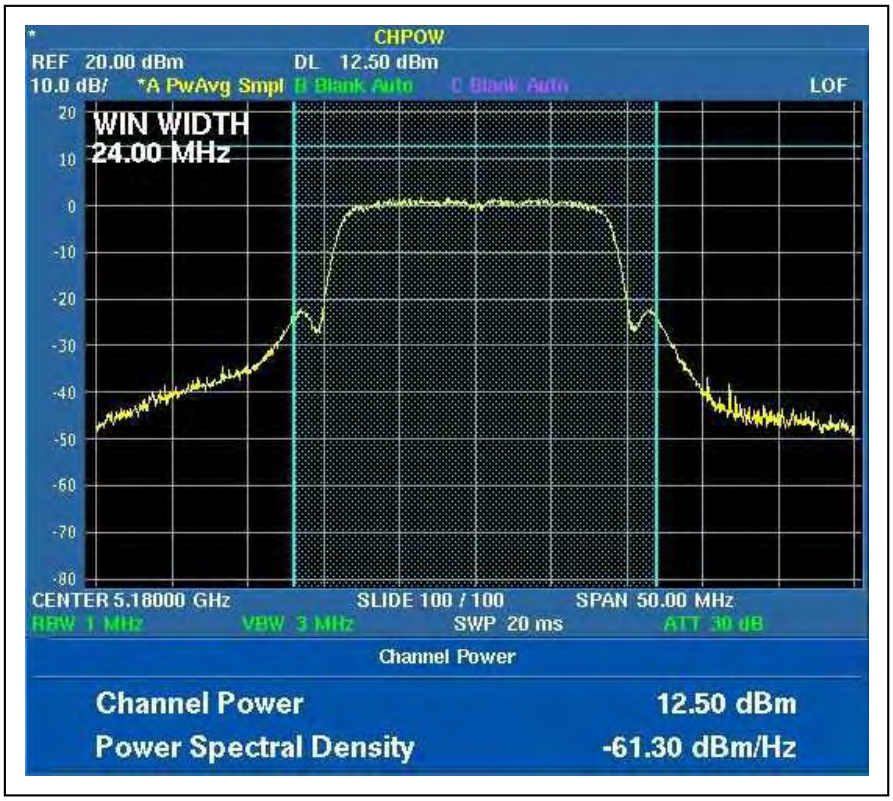
For Chain (0) :CH1



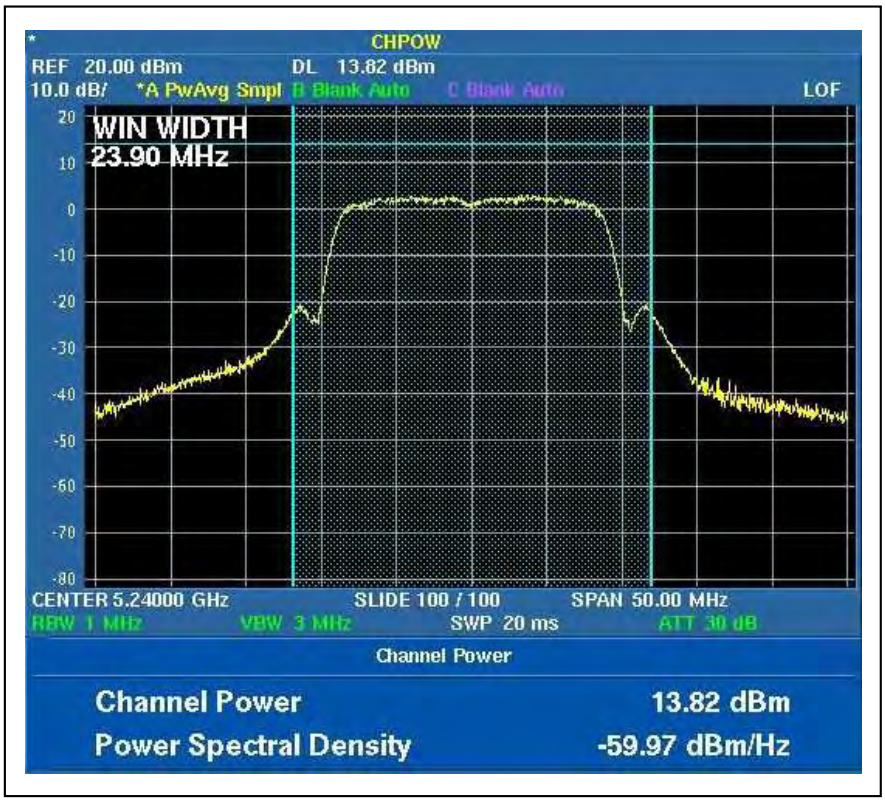
CH4



For Chain (1) :CH1

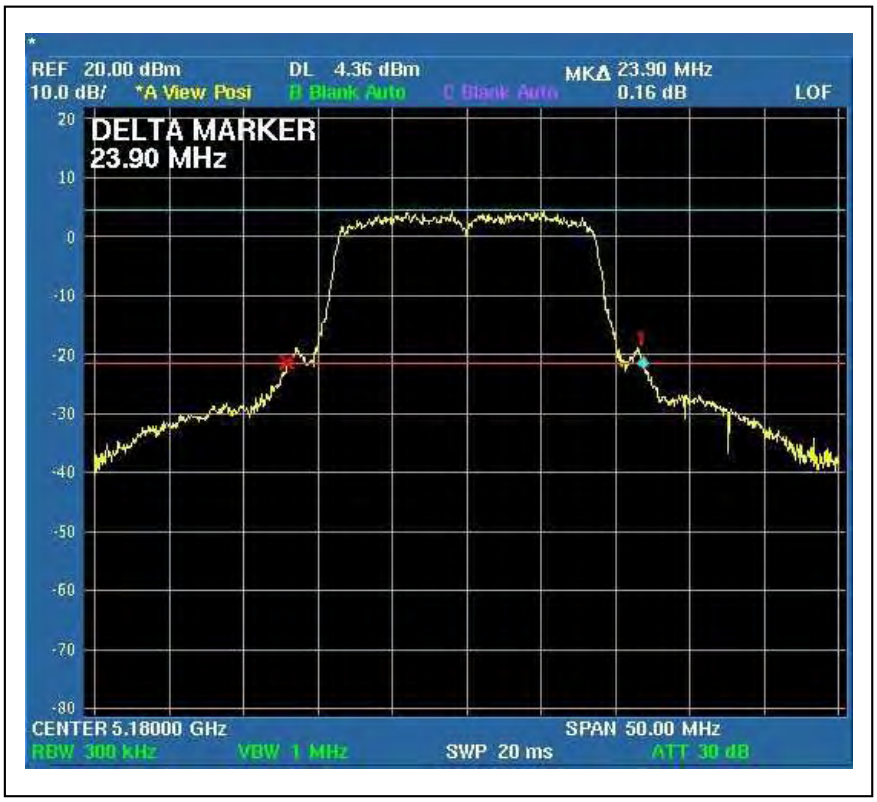


CH4

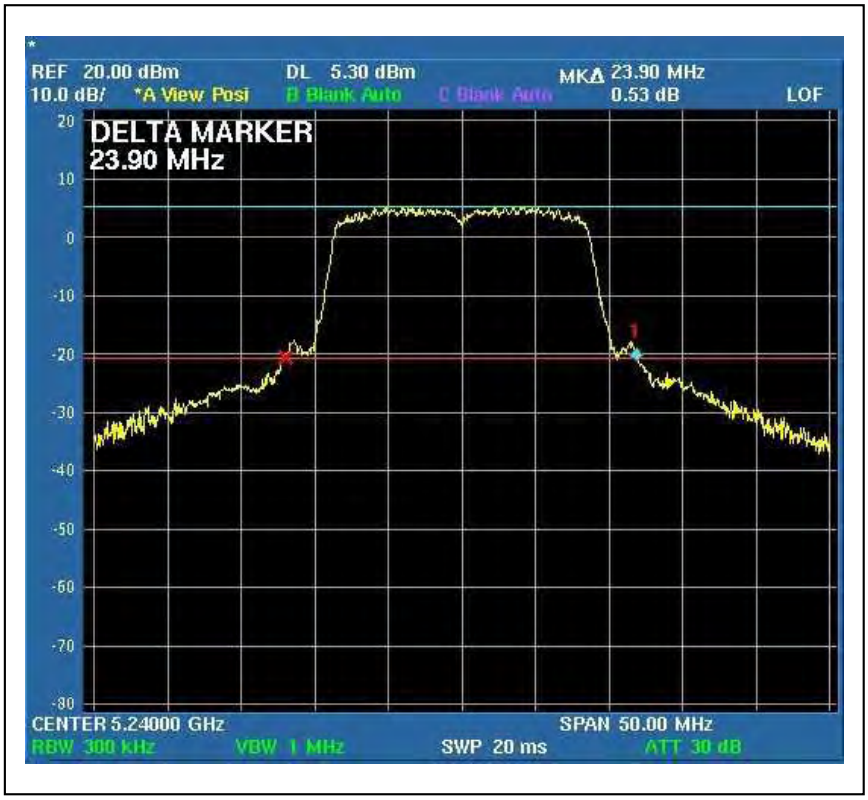


26dB Occupied Bandwidth:

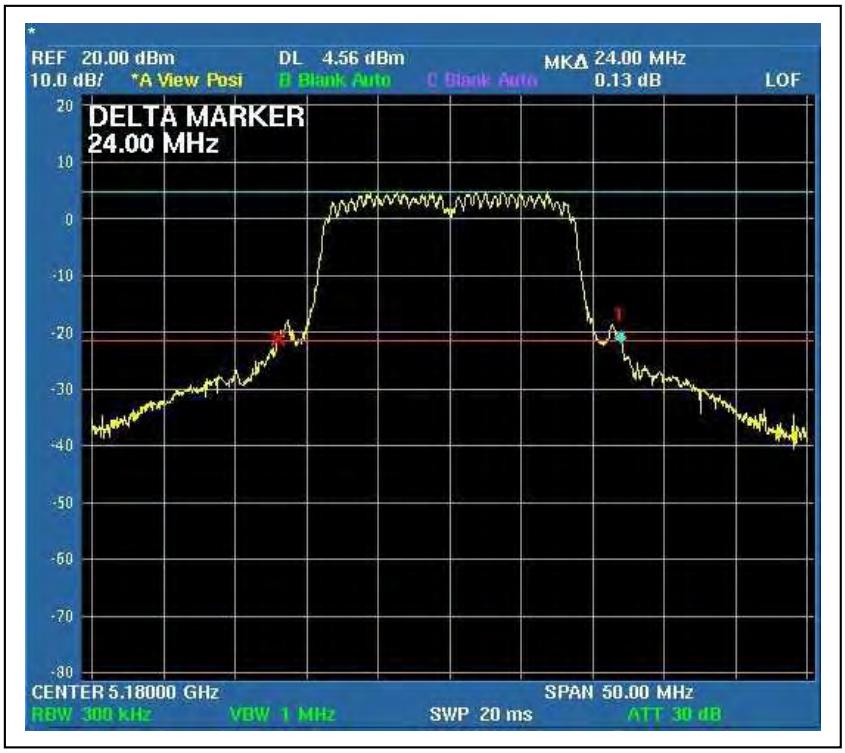
For Chain (0) :CH1



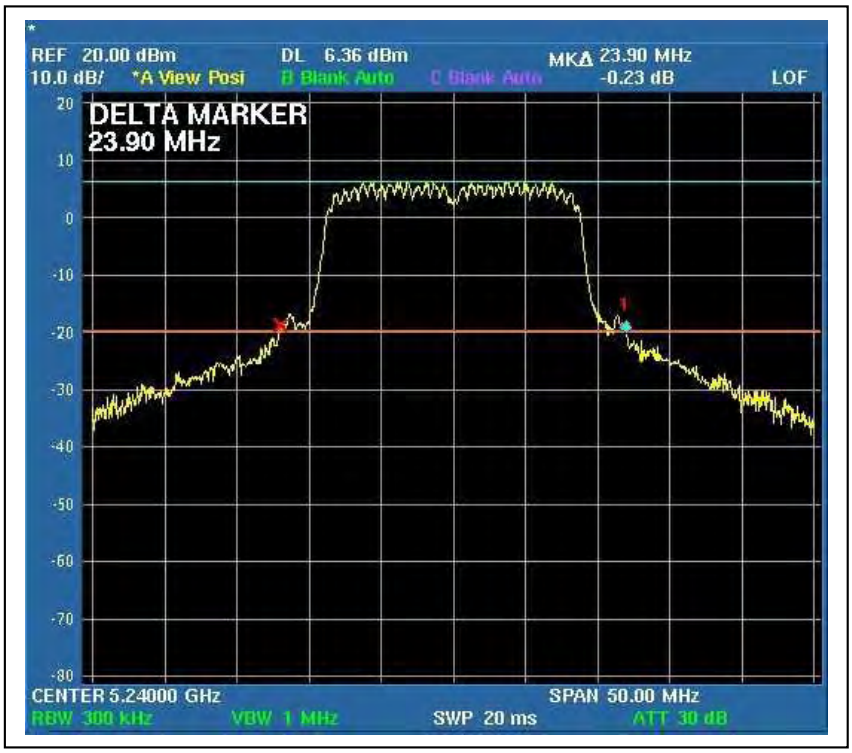
CH4



For Chain (1) :CH1



CH4



DRAFT 802.11n (40MHz) OFDM MODULATION:

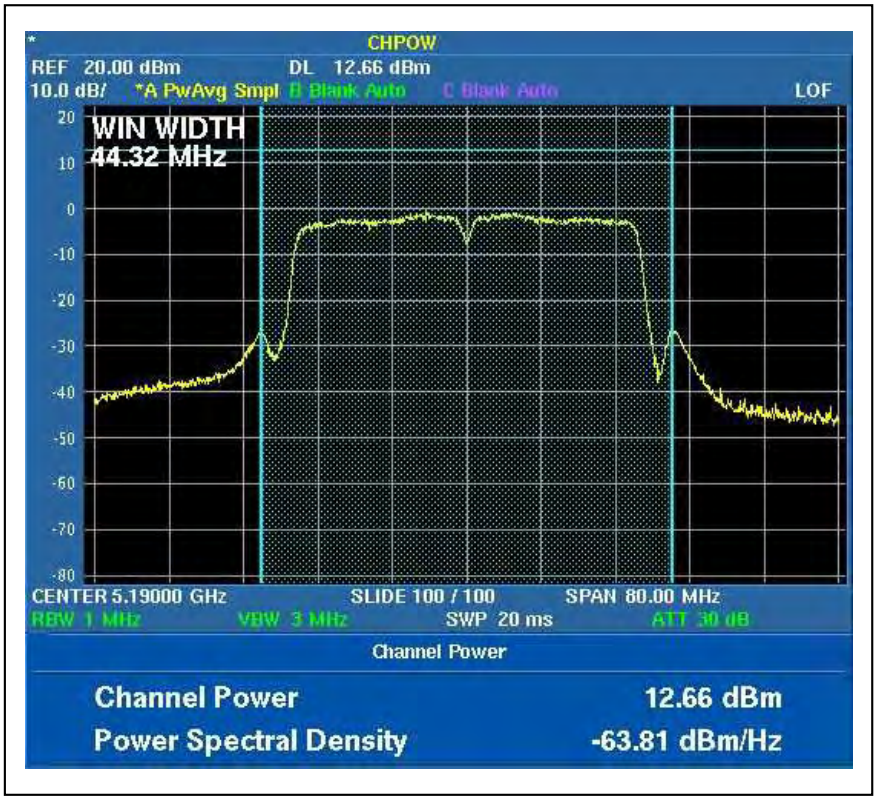
MODULATION TYPE	BPSK	**TRANSFER RATE**	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	27deg.C, 60%RH, 972hPa
TESTED BY	Rex Huang		

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	5190	12.66	12.27	18.45	16.87	15.5	35.316	17.00	44.32	43.92	PASS
3	5230	13.97	13.03	24.95	20.09	16.5	45.037	17.00	44.16	44.08	PASS

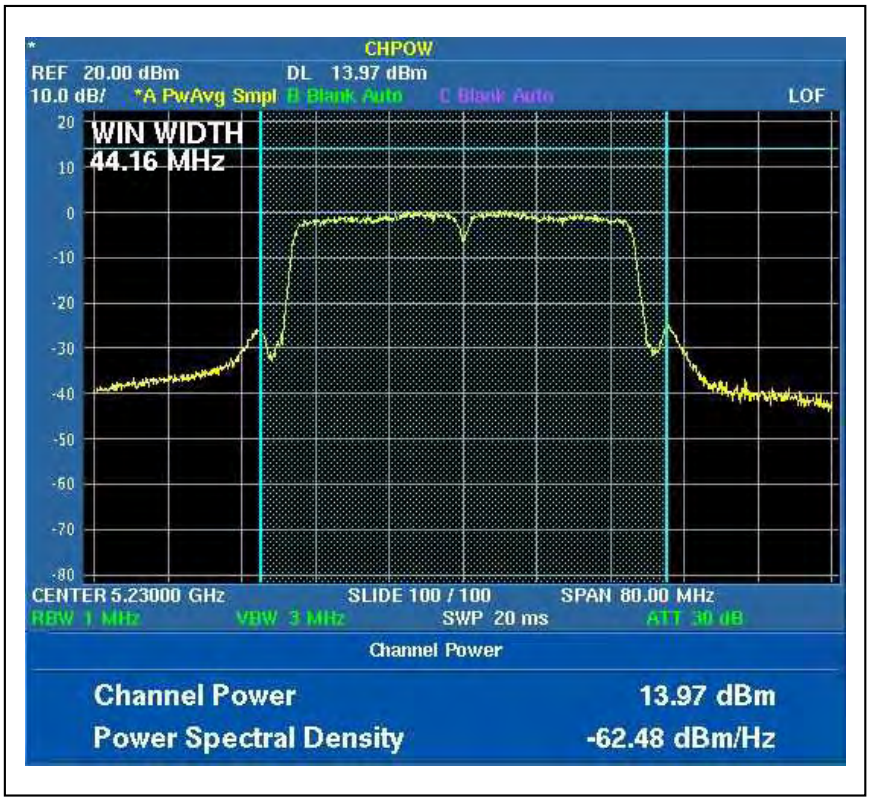
NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.

Peak Power Output:

For Chain (0) :CH1



CH3

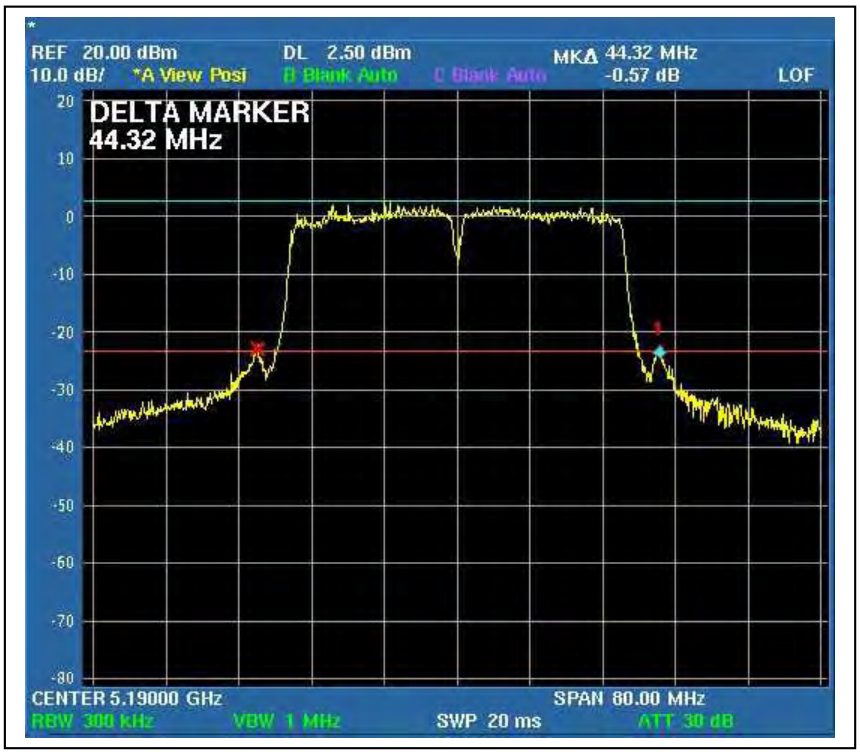


For Chain (1) :CH1

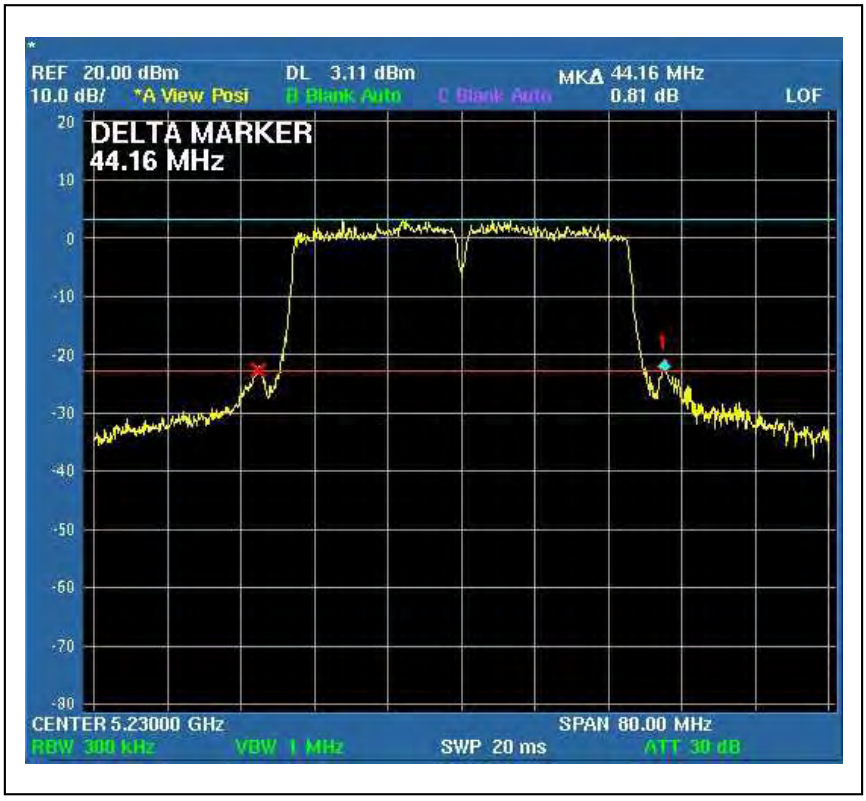
CH3

26dB Occupied Bandwidth:

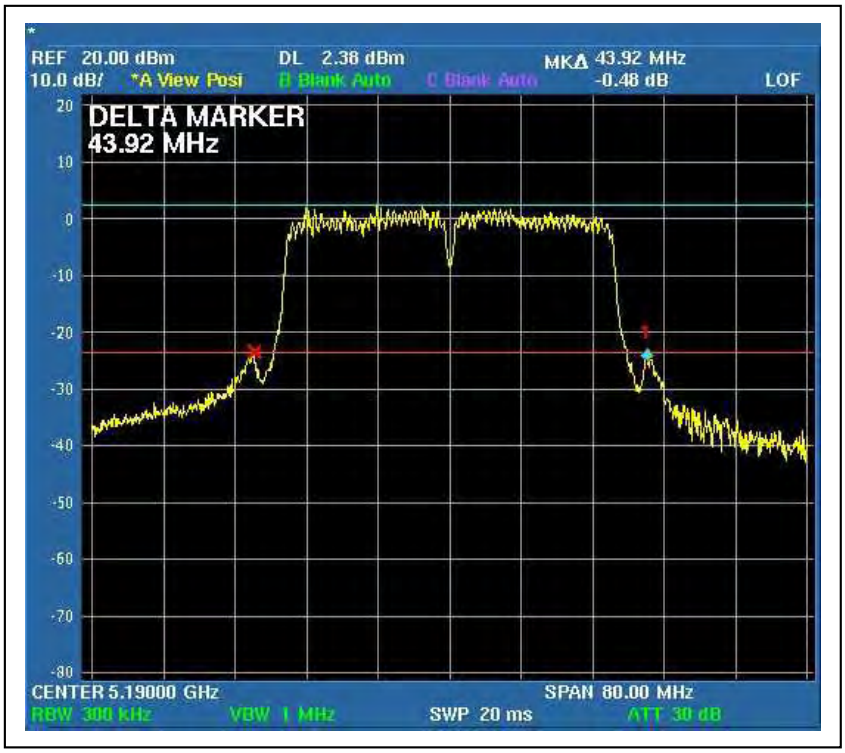
For Chain (0) :CH1



CH3



For Chain (1) :CH1



CH3