FCC TEST REPORT (15.247)

REPORT NO.: RF960524H05
MODEL NO.: U98H038
RECEIVED: May 24, 2007
TESTED: June 04 to 07, 2007
ISSUED: June 07, 2007

APPLICANT: Hon Hai PRECISION IND.CO.,LTD

ADDRESS: 5F-1,5 Hsin-An Road Hsinchu, Science-Based Industrial Park Taiwan, R.O.C.

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.

0536

No. 2177-01

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1. CERTIFICATION

PRODUCT:	Wireless LAN 802.11a/b/g/n Device
BRAND NAME:	Foxconn
MODEL NO.:	U98H038
TEST SAMPLE:	R&D SAMPLE
TESTED:	June 04 to 07, 2007
APPLICANT:	Hon Hai PRECISION IND.CO.,LTD
STANDARDS:	FCC Part 15, Subpart C (Section 15.247), ANSI C63.4-2003

The above equipment (Model: U98H038) 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:** June 07, 2007

(Midoli Peng, Specialist)

TECHNICAL ACCEPTANCE :  , **DATE:** June 07, 2007

Responsible for RF

(Hank Chung, Deputy Manager)

APPROVED BY :  , **DATE:** June 07, 2007

(May Chen, Deputy Manager)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

For 802.11b & g, 2412~2462MHz Band

APPLIED STANDARD: FCC Part 15, Subpart C (Section 15.247)			
Standard Section	**Test Type and Limit**	**Result**	**Remark**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is –15.01dB at 0.189MHz
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit.
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit.
15.247(d)	Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is –0.2dB at 2390.00MHz
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Band Edge Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.

For 802.11a, 5725~5850MHz Band

APPLIED STANDARD: FCC Part 15, Subpart C (Section 15.247)			
Standard Section	**Test Type and Limit**	**Result**	**Remark**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is –14.95dB at 0.189MHz
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit.
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit.
15.247(d)	Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is –5.00dB at 7726.00MHz
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Band Edge Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.

NOTE:

1. The EUT was operating in 2.412 ~ 2.462GHz, 5.15~5.25GHz and 5.725~5.850GHz frequencies band. This report was recorded the RF parameters including 2.412 ~ 2.462GHz and 5.725 ~ 5.850GHz. For the 5.15~5.25GHz 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	Wireless LAN 802.11a/b/g/n Device
MODEL NO.	U98H038
FCC ID	MCLU98H038
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 ~ 5.24GHz
	For 15.247 802.11b & 802.11g: 2412 ~ 2462MHz 802.11a: 5.745 ~ 5.825GHz
NUMBER OF CHANNEL	**For 15.407** 4 for 802.11a (5.18 ~ 5.24GHz) , 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: 23.281mW draft 802.11n (20MHz): 27.673mW draft 802.11n (40MHz): 49.908mW **For 15.247(2.4GHz)** 802.11b: 80.910mW 802.11g: 128.825mW draft 802.11n (20MHz): 176.208mW draft 802.11n (40MHz): 53.827mW **For 15.247(5GHz)** 802.11a: 100.0mW draft 802.11n (20MHz): 164.120mW draft 802.11n (40MHz): 193.223mW
ANTENNA TYPE	Please see note 1
DATA CABLE	NA
I/O PORT	NA

NOTE:

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

Transmitter Circuit	Antenna Type	Antenna Connector	Gain(dBi)		
			2412~2462 (MHz)	5150~5250 (MHz)	5725~5850 (MHz)
Chain(0)	Printed	Reverse SMA	1.5	0.5	-0.86
Chain(1)			-2.5	-11.4	-7.31
Chain(2)			1.28	1.09	-0.43

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 three completed receivers.

3. The EUT is 2 * 3 spatial MIMO (2Tx & 3Rx) without beam forming function. The antenna configurations are two transmitter antennas and three receiver antennas, as there are 3 printed antennas. Spatial multiplexing modes for simultaneous transmission using 2 antennas, and for simultaneous receiver using 3 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. For conducted the EUT was pre-tested under following test mode, and the test data was recorded in this report:

For 2.4GHz	
Pre-test Mode	Description
Mode A	802.11b
Mode B	802.11g
Mode C	Draft 802.11n (20MHz)
Mode D	Draft 802.11n (40MHz)

The worst emission level was found in Mode A, Mode C & Mode D. The final test was executed under test mode with highest emission and recorded in this report individually.

7. For radiated test (Below 1 GHz) the EUT was pre-tested under following test mode, and the test data was recorded in this report:

For 2.4GHz	
Pre-test Mode	Description
Mode A	802.11b
Mode B	802.11g
Mode C	**Draft 802.11n (20MHz)**
Mode D	Draft 802.11n (40MHz)
For 5GHz	
Pre-test Mode	Description
Mode E	802.11a
Mode F	**Draft 802.11n (20MHz)**
Mode G	Draft 802.11n (40MHz)

The worst emission level was found in Mode C & Mode F. The final test was executed under test mode with highest emission and recorded in this report individually.

8. 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 2400 ~ 2483.5MHz band:

Eleven channels are provided for 802.11b, 802.11g, draft 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2412MHz	7	2442MHz
2	2417MHz	8	2447MHz
3	2422MHz	9	2452MHz
4	2427MHz	10	2457MHz
5	2432MHz	11	2462MHz
6	2437MHz		

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2422MHz	5	2442MHz
2	2427MHz	6	2447MHz
3	2432MHz	7	2452MHz
4	2437MHz		

Operated in 5725 ~ 5850MHz band:

Five channels are provided for 802.11a, draft 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	5745 MHz	4	5805 MHz
2	5765 MHz	5	5825 MHz
3	5785 MHz		

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

CHANNEL	FREQUENCY
1	5755 MHz
2	5775 MHz
3	5795 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

COMBINATION MODE:

COMBINATION MODE	OPERATION MODE	TX CHAIN(0)	TX CHAIN(1)	TX CHAIN(2)
A	802.11 a, b ,g	✓		
B	802.11 a, b ,g			✓
C	DRAFT 802.11n(20MHz)	✓		✓
D	DRAFT 802.11n(40MHz)	✓		✓

COMBINATION MODE	OPERATION MODE	RX CHAIN(0)	RX CHAIN(1)	RX CHAIN(2)
E	802.11 a, b ,g	✓		
F	802.11 a, b ,g			✓
G	802.11 a, b ,g		✓	
H	DRAFT 802.11n(20MHz)	✓	✓	✓
I	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. From above mode, the different modes were chosen for pretest.
3. Mode A, C & D the worst modes, was selected as representative mode for the report.

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
802.11b	1 to 11	1	DSSS	CCK	1	A
For 2.4 GHz Draft 802.11n (20MHz)	1 to 11	1	OFDM	BPSK	6.5	C
For 2.4 GHz Draft 802.11n (40MHz)	1 to 5	3	OFDM	BPSK	13.5	D
802.11a	1 to 5	1	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 5	1	OFDM	BPSK	6.5	C
For 5 GHz Draft 802.11n (40MHz)	1 to 3	3	OFDM	BPSK	13.5	D

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 2.4 GHz Draft 802.11n (20MHz)	1 to 11	6	OFDM	BPSK	6.5	C
For 5 GHz Draft 802.11n (20MHz)	1 to 5	3	OFDM	BPSK	6.5	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 TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11b	1 to 11	1, 6, 11	DSSS	CCK	1	A
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	A
For 2.4 GHz Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5	C
For 2.4 GHz Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	13.5	D
802.11a	1 to 5	1,3, 5	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 5	1, 3, 5	OFDM	BPSK	6.5	C
For 5 GHz Draft 802.11n (40MHz)	1 to 3	1, 3	OFDM	BPSK	13.5	D

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
802.11b	1 to 11	1, 11	DSSS	CCK	1	A
802.11g	1 to 11	1, 11	OFDM	BPSK	6	A
For 2.4 GHz Draft 802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	6.5	C
For 2.4 GHz Draft 802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	13.5	D
802.11a	1 to 5	1, 5	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 5	1, 5	OFDM	BPSK	6.5	C
For 5 GHz Draft 802.11n (40MHz)	1 to 3	1, 3	OFDM	BPSK	13.5	D

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
802.11b	1 to 11	1, 6, 11	DSSS	CCK	1	A
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	A
For 2.4 GHz Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5	C
For 2.4 GHz Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	13.5	D
802.11a	1 to 5	1, 3, 5	OFDM	BPSK	6	A
For 2.4 GHz Draft 802.11n (20MHz)	1 to 5	1, 3, 5	OFDM	BPSK	6.5	C
For 2.4 GHz Draft 802.11n (40MHz)	1 to 3	1, 3	OFDM	BPSK	13.5	D

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a Wireless LAN 802.11a/b/g/n Device. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C. (15.247)
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

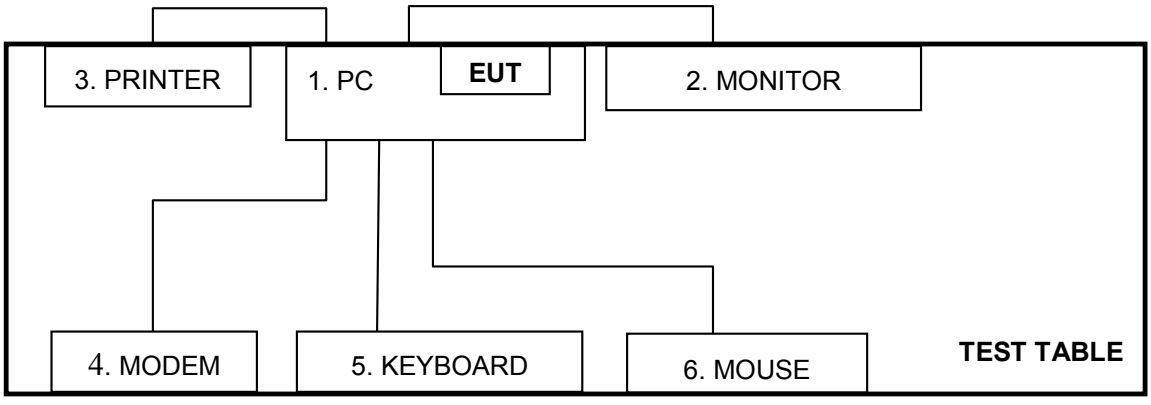
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	PC	DELL	DCSM	F84QL1S	FCC DoC
2	MONITOR	ADI	G1000	240058T00100081	NA
3	PRINTER	HP	C2642A	MY79J1D00G	B94C2642X
4	MODEM	ACEEX	1414	0206026776	IFAXDM1414
5	Keyboard	DELL	SK-8115	MY-0J4635-71619-67V-0113	FCC DoC
6	Mouse	DELL	M056UOA	FOROOSWW	FCC DoC

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.4 m braid shielded wire, terminated with VGA connector via metallic frame, w/o cores
3	1.8m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core.
4	1.0 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.
5	1.7m foil shielded wire, terminated with PS/2 connector via metallic frame, w/o core.
6	1.5m foil shielded wire, terminated with PS/2 connector via drain wire, 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 (802.11b & g, 2400 ~ 2483.5MHz Band)

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 0.5-5 5-30	66 to 56 56 60	56 to 46 46 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
Test Receiver	ESCS 30	847124/029	Mar. 01, 2008
Line-Impedance Stabilization Network(for EUT)	ENV-216	100071	Nov. 26, 2007
Line-Impedance Stabilization Network(for Peripheral)	ESH3-Z5	848773/004	Oct. 26, 2007
RF Cable (JETBAO)	RG233/U	Cable_CB_01	Dec. 09, 2007
Terminator	50	2	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. 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 provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

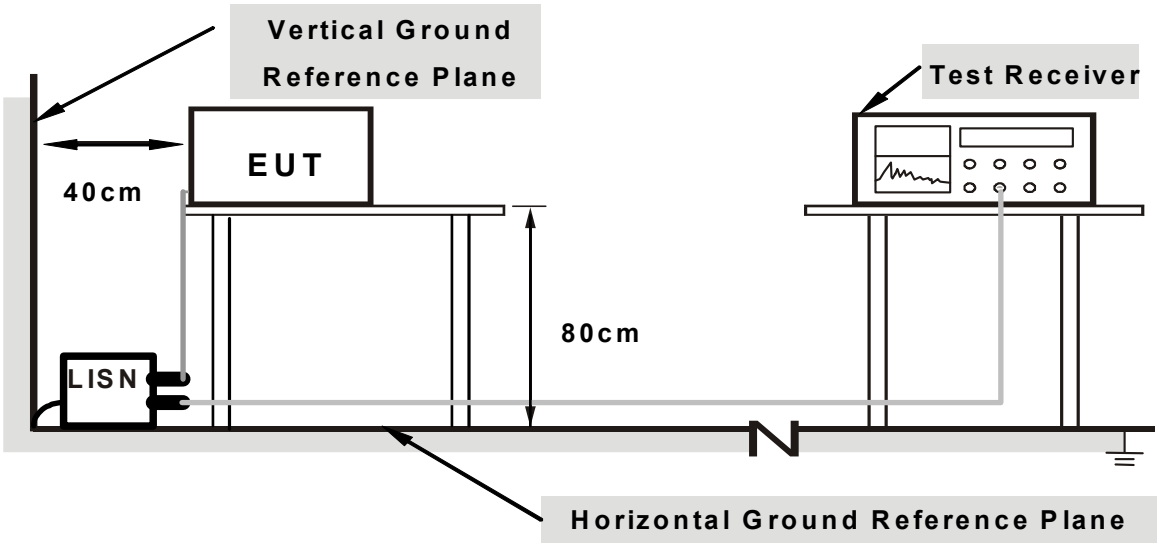
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) were 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 (Personal computer) which placed on a testing table.

b. The support unit 1 (Personal computer) ran a test program “ART V0_5_B6_01_ALL” to enable EUT under transmission condition continuously.

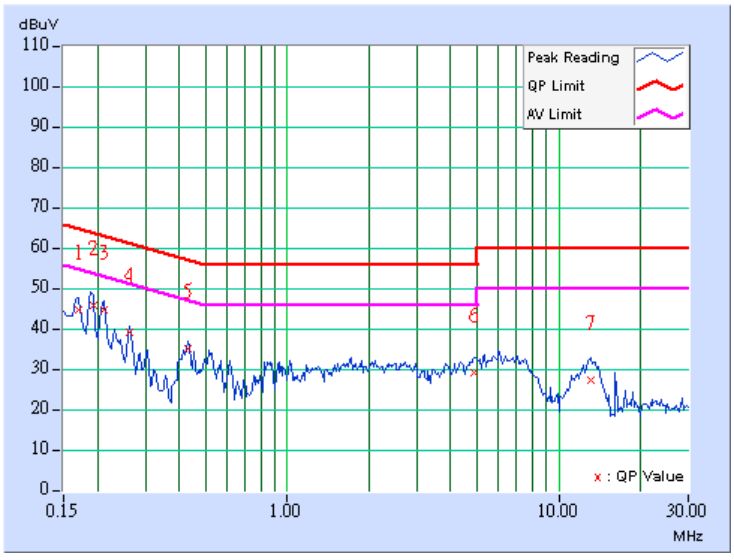
4.1.7 TEST RESULTS

802.11b DSSS MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line (L)
MODULATION TYPE	CCK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	1Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 971hPa	TESTED BY	Moris Lin

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	0.170	0.40	44.00	-	44.40	-	64.98	54.98	-20.58	-
2	0.193	0.40	45.09	-	45.49	-	63.91	53.91	-18.42	-
3	0.213	0.40	43.87	-	44.27	-	63.11	53.11	-18.84	-
4	0.263	0.40	38.35	-	38.75	-	61.33	51.33	-22.58	-
5	0.431	0.40	34.03	-	34.43	-	57.23	47.23	-22.80	-
6	4.906	0.63	28.17	-	28.80	-	56.00	46.00	-27.20	-
7	13.094	0.99	26.54	-	27.53	-	60.00	50.00	-32.47	-

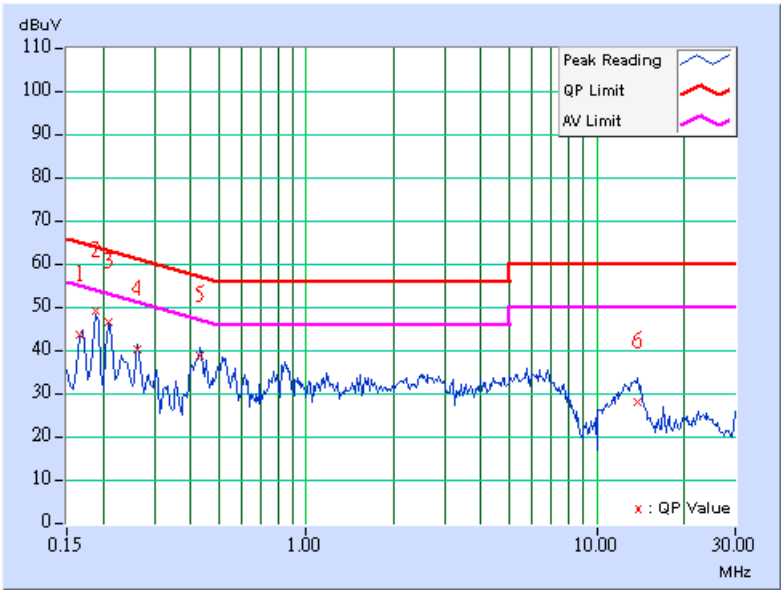
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission 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	CCK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	1Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 971hPa	TESTED BY	Moris Lin

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	0.20	42.73	-	42.93	-	65.18	55.18	-22.25	-
2	0.189	0.20	48.19	-	48.39	-	64.08	54.08	-15.69	-
3	0.209	0.20	45.60	-	45.80	-	63.26	53.26	-17.46	-
4	0.263	0.20	39.22	-	39.42	-	61.33	51.33	-21.91	-
5	0.431	0.21	37.76	-	37.97	-	57.23	47.23	-19.26	-
6	13.754	1.13	26.87	-	28.00	-	60.00	50.00	-32.00	-

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.

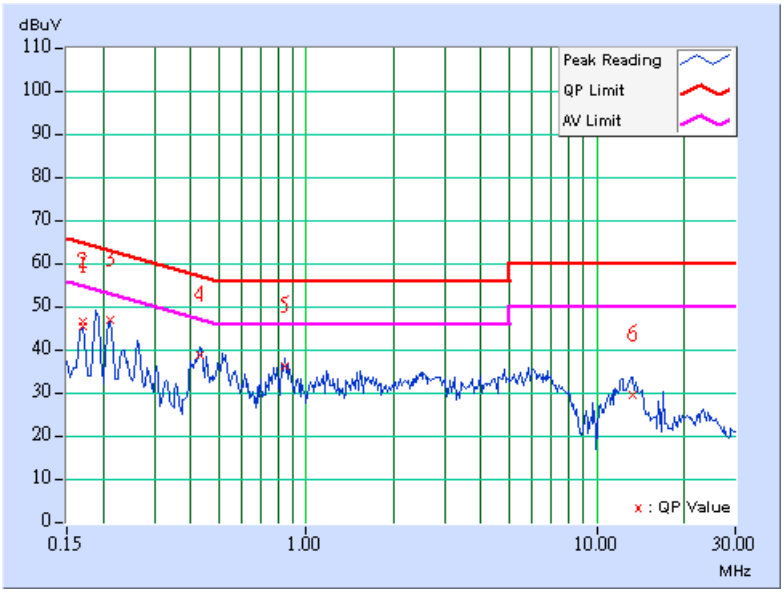


DRAFT 802.11n (20MHz) OFDM MODULATION:

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	20deg. C, 60%RH, 971hPa	TESTED BY	Moris Lin

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	0.170	0.40	44.62	-	45.02	-	64.98	54.98	-19.96	-
2	0.170	0.40	45.62	-	46.02	-	64.98	54.98	-18.96	-
3	0.213	0.40	46.08	-	46.48	-	63.11	53.11	-16.63	-
4	0.431	0.40	37.91	-	38.31	-	57.23	47.23	-18.92	-
5	0.845	0.40	35.26	-	35.66	-	56.00	46.00	-20.34	-
6	13.344	1.00	28.63	-	29.63	-	60.00	50.00	-30.37	-

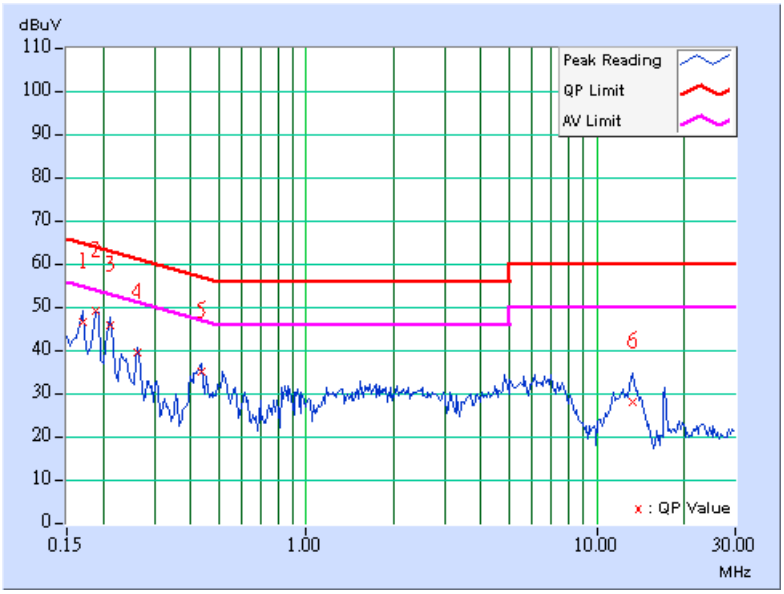
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission 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	20deg. C, 60%RH, 971hPa	TESTED BY	Moris Lin

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	0.170	0.20	45.64	-	45.84	-	64.98	54.98	-19.14	-
2	0.189	0.20	48.10	-	48.30	-	64.08	54.08	-15.78	-
3	0.213	0.20	44.80	-	45.00	-	63.11	53.11	-18.11	-
4	0.263	0.20	38.71	-	38.91	-	61.33	51.33	-22.42	-
5	0.435	0.21	34.01	-	34.22	-	57.15	47.15	-22.94	-
6	13.324	1.10	26.88	-	27.98	-	60.00	50.00	-32.02	-

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.

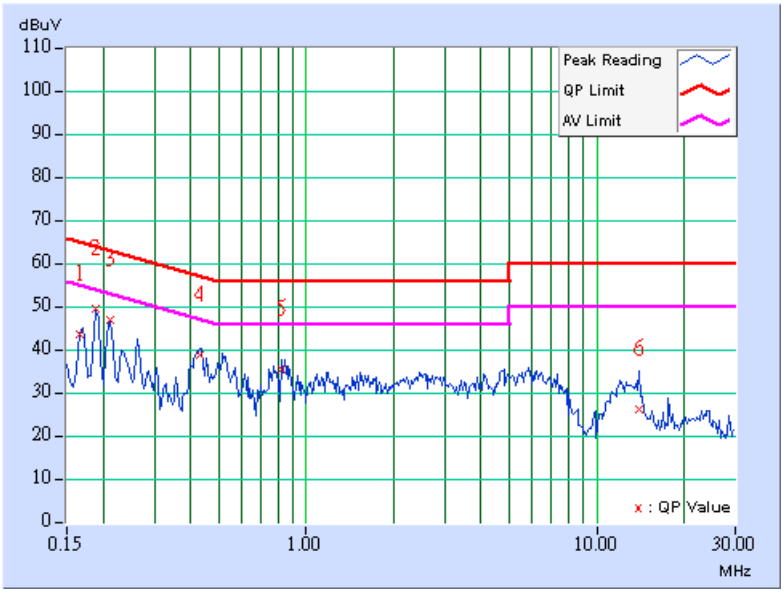


DRAFT 802.11n (40MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	**PHASE**	Line (L)
MODULATION TYPE	BPSK	**6dB BANDWIDTH**	9 kHz
TRANSFER RATE	13.5Mbps	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 971hPa	**TESTED BY**	Moris Lin

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	0.40	42.83	-	43.23	-	65.18	55.18	-21.95	-
2	**0.189**	**0.40**	**48.67**	**-**	**49.07**	**-**	**64.08**	**54.08**	**-15.01**	**-**
3	0.213	0.40	45.98	-	46.38	-	63.11	53.11	-16.73	-
4	0.431	0.40	37.93	-	38.33	-	57.23	47.23	-18.90	-
5	0.822	0.40	34.63	-	35.03	-	56.00	46.00	-20.97	-
6	14.070	1.04	25.23	-	26.27	-	60.00	50.00	-33.73	-

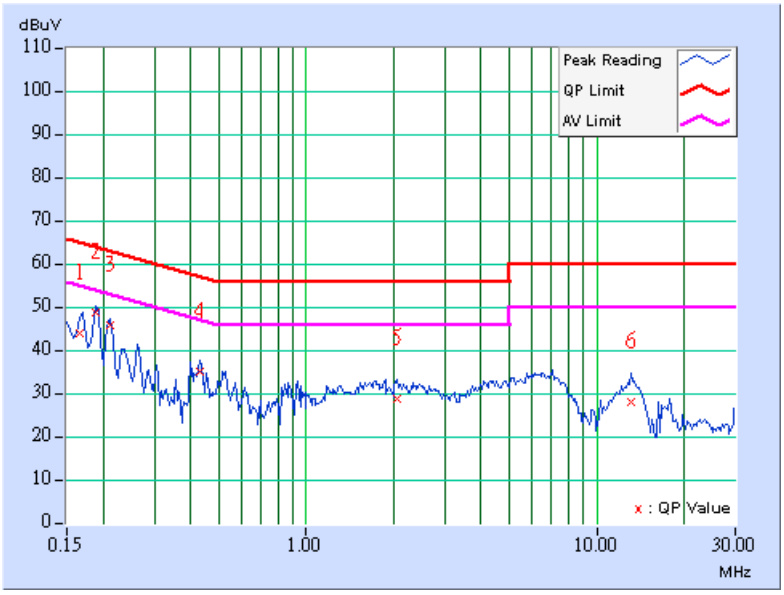
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	PHASE	Neutral (N)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	13.5Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 971hPa	TESTED BY	Moris Lin

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	0.20	42.83	-	43.03	-	65.18	55.18	-22.15	-
2	0.189	0.20	47.79	-	47.99	-	64.08	54.08	-16.09	-
3	0.213	0.20	44.85	-	45.05	-	63.11	53.11	-18.06	-
4	0.431	0.21	34.26	-	34.47	-	57.23	47.23	-22.76	-
5	2.056	0.40	27.79	-	28.19	-	56.00	46.00	-27.81	-
6	13.184	1.09	27.01	-	28.10	-	60.00	50.00	-31.90	-

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 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ADVANTEST Spectrum Analyzer	R3271A	85060311	July 03, 2007
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, 2007
Schwarzbeck Horn_Antenna	BBHA9120	D124	Jan. 01, 2008
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 05, 2008
SCHWARZBECK Biconical Antenna	VHBA9123	459	Jun. 08, 2009
SCHWARZBECK Periodic Antenna	UPA6108	1148	Jun. 08, 2009
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	Jul. 15, 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.

4.2.3 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. 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 10 dB 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 10 dB margin would be re-tested one by one using the quasi-peak method or average method as specified and then reported in Data sheet peak mode and QP mode.

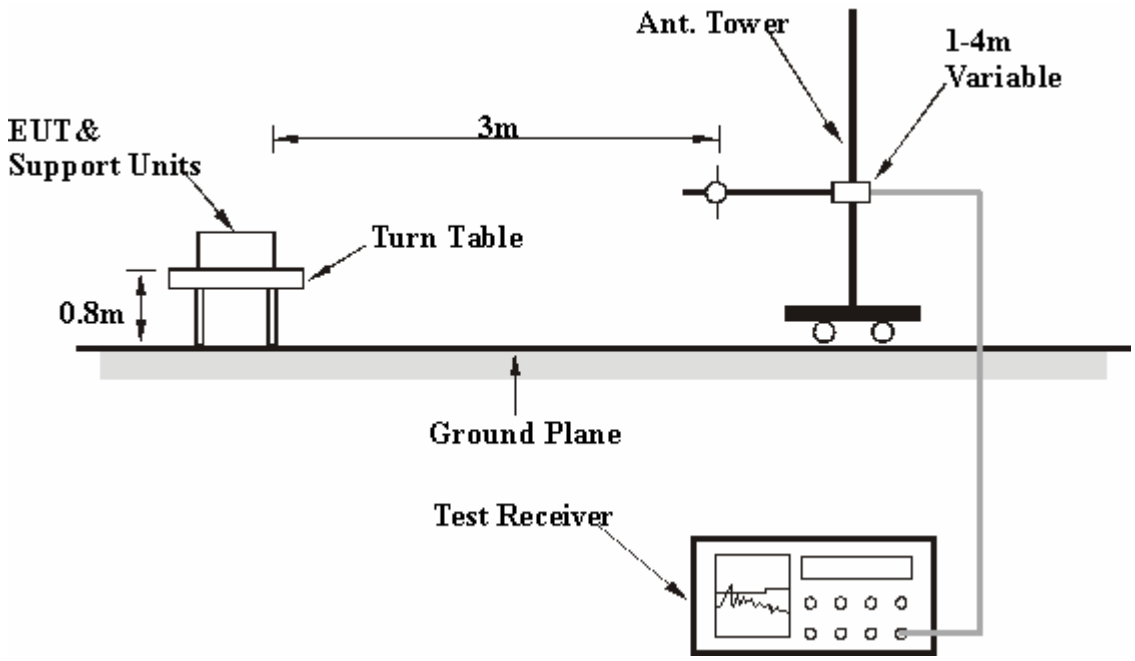
NOTE:

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.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6

Below 1GHz Test Data

4.2.7 TEST RESULTS

802.11n (20MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK for draft 802.11n (20MHz)	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6.5Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	21deg. C, 68%RH, 971hPa	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	61.27	25.92 QP	40.00	-14.08	1.00 H	1	12.36	13.56
2	200.08	29.31 QP	43.50	-14.19	1.00 H	149	17.71	11.60
3	502.60	31.05 QP	46.00	-14.95	1.28 H	1	9.21	21.84
4	566.31	43.79 QP	46.00	-2.21	1.43 H	162	20.15	23.64
5	599.50	31.31 QP	46.00	-14.69	1.23 H	21	6.84	24.47
6	800.00	33.85 QP	46.00	-12.15	1.00 H	261	6.29	27.56
7	960.00	32.89 QP	46.00	-13.11	1.00 H	153	3.00	29.89

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	65.99	30.02 QP	40.00	-9.98	1.00 V	146	17.00	13.02
2	200.35	24.57 QP	43.50	-18.93	1.00 V	260	12.95	11.62
3	500.50	29.70 QP	46.00	-16.30	1.00 V	144	7.93	21.77
4	566.33	41.25 QP	46.00	-4.75	1.00 V	202	17.61	23.64
5	801.00	32.66 QP	46.00	-13.34	1.27 V	157	5.08	27.58
6	960.00	34.53 QP	46.00	-11.47	1.24 V	219	4.64	29.89
7	750.05	25.50 QP	46.00	-20.50	1.00 V	193	-1.90	27.40

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

4.2.8 TEST RESULTS

802.11b DSSS MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 65%RH, 971hPa	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	2386.00	57.90 PK	74.00	-16.10	1.43 H	290	55.41	2.49
2	2386.00	45.80 AV	54.00	-8.20	1.43 H	290	43.31	2.49
3	*2412.00	101.00 PK			1.42 H	291	98.44	2.56
4	*2412.00	95.00 AV			1.42 H	291	92.44	2.56
5	4824.00	49.20 PK	74.00	-24.80	1.40 H	200	37.86	11.34
6	4824.00	41.20 AV	54.00	-12.80	1.40 H	200	29.86	11.34
7	7236.00	52.00 PK	74.00	-22.00	1.11 H	32	36.08	15.92
8	7236.00	39.00 AV	54.00	-15.00	1.11 H	32	23.08	15.92

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	2386.00	62.90 PK	74.00	-11.10	1.58 V	276	60.41	2.49
2	2386.00	53.20 AV	54.00	-0.80	1.58 V	276	50.71	2.49
3	*2412.00	111.70 PK			1.56 V	267	109.14	2.56
4	*2412.00	106.80 AV			1.56 V	267	104.24	2.56
5	4824.00	53.60 PK	74.00	-20.40	1.36 V	262	42.26	11.34
6	4824.00	49.80 AV	54.00	-4.20	1.36 V	262	38.46	11.34
7	7236.00	52.90 PK	74.00	-21.10	1.00 V	357	36.98	15.92
8	7236.00	39.90 AV	54.00	-14.10	1.00 V	357	23.98	15.92

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. The limit value is defined as per 15.247.
6. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 65%RH, 971hPa	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	2389.00	56.90 PK	74.00	-17.10	1.43 H	288	54.41	2.49
2	2389.00	44.60 AV	54.00	-9.40	1.43 H	288	42.11	2.49
3	*2437.00	103.70 PK			1.41 H	289	101.08	2.62
4	*2437.00	98.00 AV			1.41 H	289	95.38	2.62
5	2484.30	57.00 PK	74.00	-17.00	1.44 H	286	54.25	2.75
6	2484.30	44.70 AV	54.00	-9.30	1.44 H	286	41.95	2.75
7	4874.00	49.70 PK	74.00	-24.30	1.45 H	209	38.17	11.53
8	4874.00	41.70 AV	54.00	-12.30	1.45 H	209	30.17	11.53
9	7311.00	53.50 PK	74.00	-20.50	1.21 H	36	37.38	16.12
10	7311.00	41.30 AV	54.00	-12.70	1.21 H	36	25.18	16.12

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	2389.20	59.50 PK	74.00	-14.50	1.59 V	268	57.00	2.50
2	2389.20	47.00 AV	54.00	-7.00	1.59 V	268	44.50	2.50
3	*2437.00	113.00 PK			1.58 V	266	110.38	2.62
4	*2437.00	108.10 AV			1.58 V	266	105.48	2.62
5	2484.80	59.50 PK	74.00	-14.50	1.53 V	267	56.75	2.75
6	2484.80	47.00 AV	54.00	-7.00	1.53 V	267	44.25	2.75
7	4874.00	54.20 PK	74.00	-19.80	1.23 V	268	42.67	11.53
8	4874.00	49.90 AV	54.00	-4.10	1.23 V	268	38.37	11.53
9	7311.00	54.50 PK	74.00	-19.50	1.38 V	273	38.38	16.12
10	7311.00	42.10 AV	54.00	-11.90	1.38 V	273	25.98	16.12

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. The limit value is defined as per 15.247.
6. " * ": Fundamental frequency.

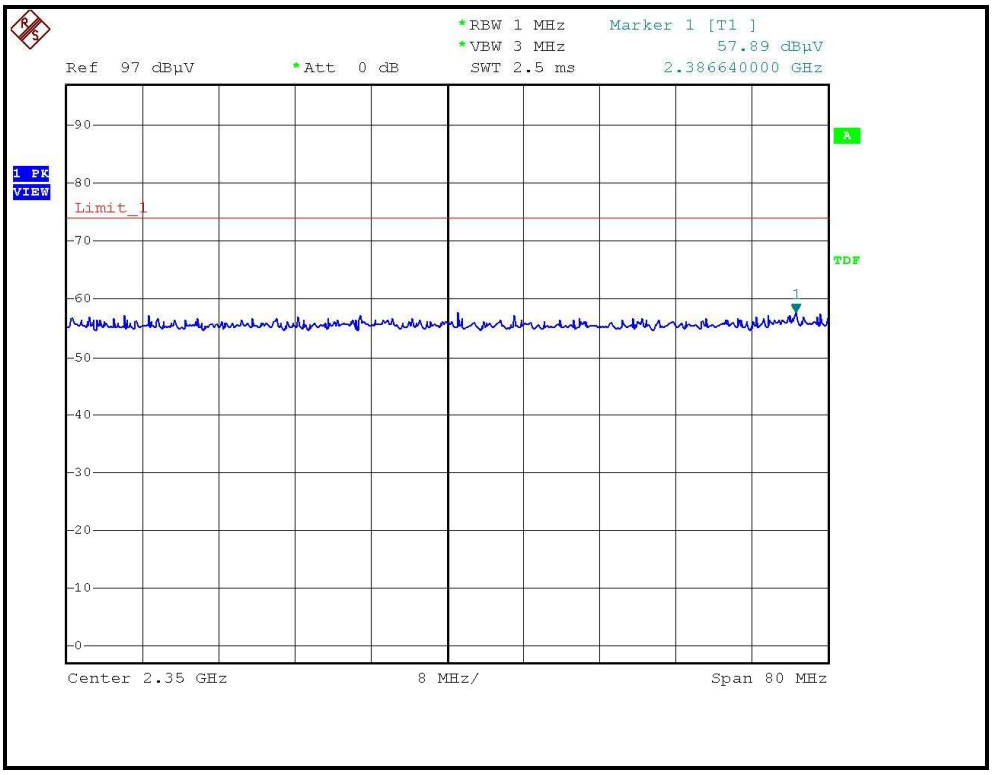
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 65%RH, 971hPa	TESTED BY	Phoenix Huang

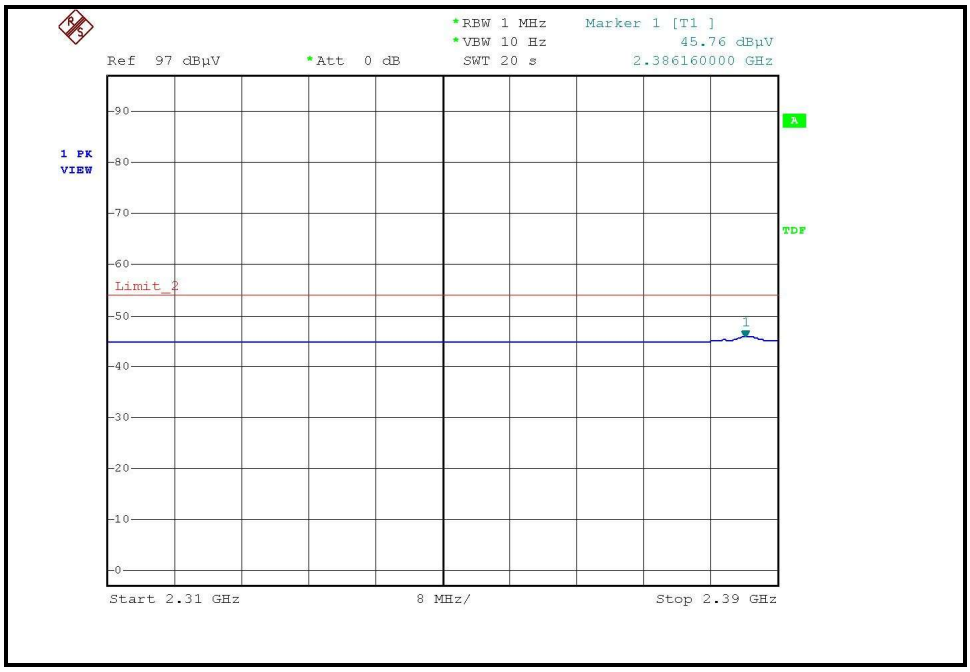
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	102.10 PK			1.42 H	286	99.41	2.69
2	*2462.00	96.50 AV			1.42 H	286	93.81	2.69
3	2487.60	58.10 PK	74.00	-15.90	1.59 H	208	55.34	2.76
4	2487.60	46.80 AV	54.00	-7.20	1.59 H	208	44.04	2.76
5	4924.00	49.40 PK	74.00	-24.60	1.43 H	211	37.68	11.72
6	4924.00	41.50 AV	54.00	-12.50	1.43 H	211	29.78	11.72
7	7386.00	52.50 PK	74.00	-21.50	1.30 H	69	36.18	16.32
8	7386.00	39.40 AV	54.00	-14.60	1.30 H	69	23.08	16.32

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	*2462.00	112.80 PK			1.56 V	265	110.11	2.69
2	*2462.00	108.00 AV			1.56 V	265	105.31	2.69
3	2487.80	62.50 PK	74.00	-11.50	1.52 V	267	59.74	2.76
4	2487.80	52.90 AV	54.00	-1.10	1.52 V	267	50.14	2.76
5	4924.00	49.90 PK	74.00	-24.10	1.63 V	279	38.18	11.72
6	4924.00	42.60 AV	54.00	-11.40	1.63 V	279	30.88	11.72
7	7386.00	53.80 PK	74.00	-20.20	1.00 V	357	37.48	16.32
8	7386.00	40.60 AV	54.00	-13.40	1.00 V	357	24.28	16.32

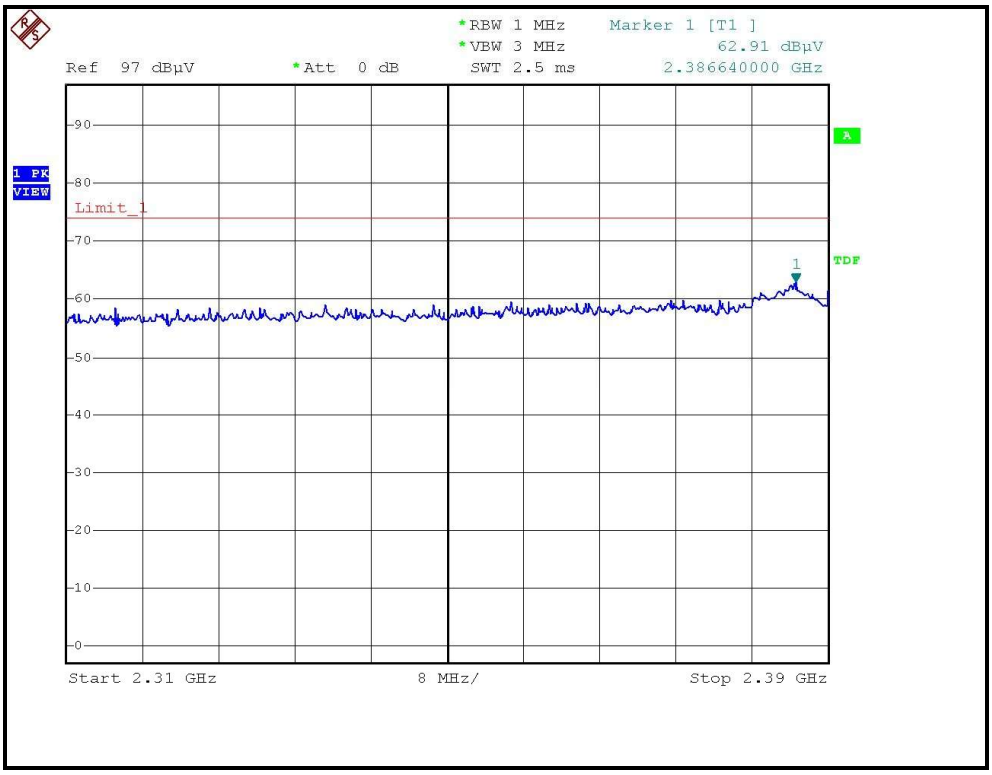
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247.
6. " * ": Fundamental frequency.

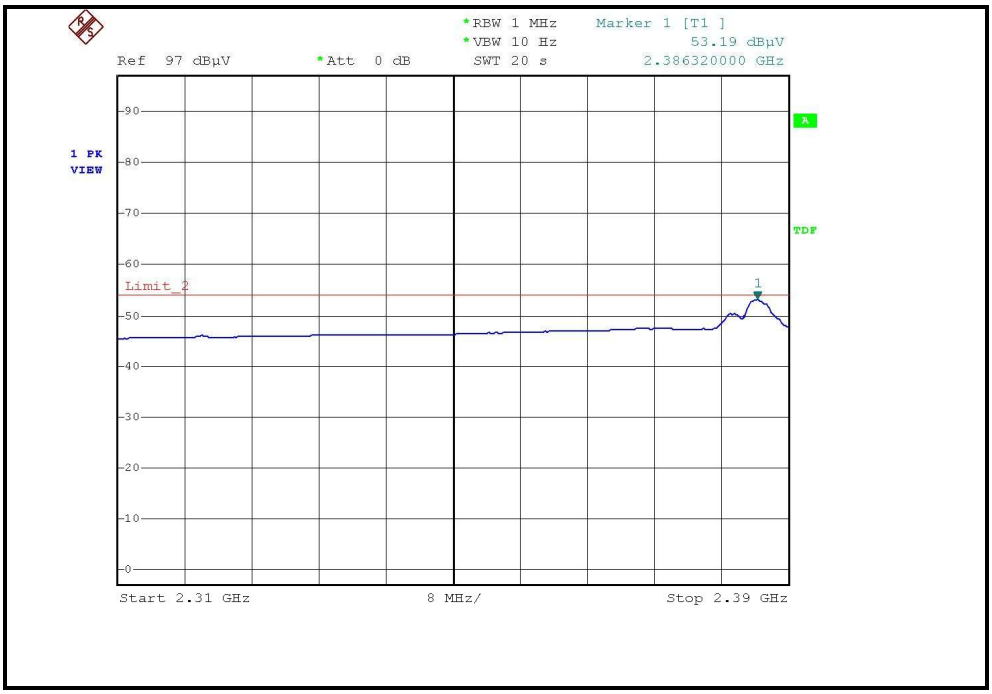
RESTRICTED BANDEDGE (802.11b MODE,CH1, HORIZONTAL)





RESTRICTED BANDEDGE (802.11b MODE,CH1, VERTICAL)





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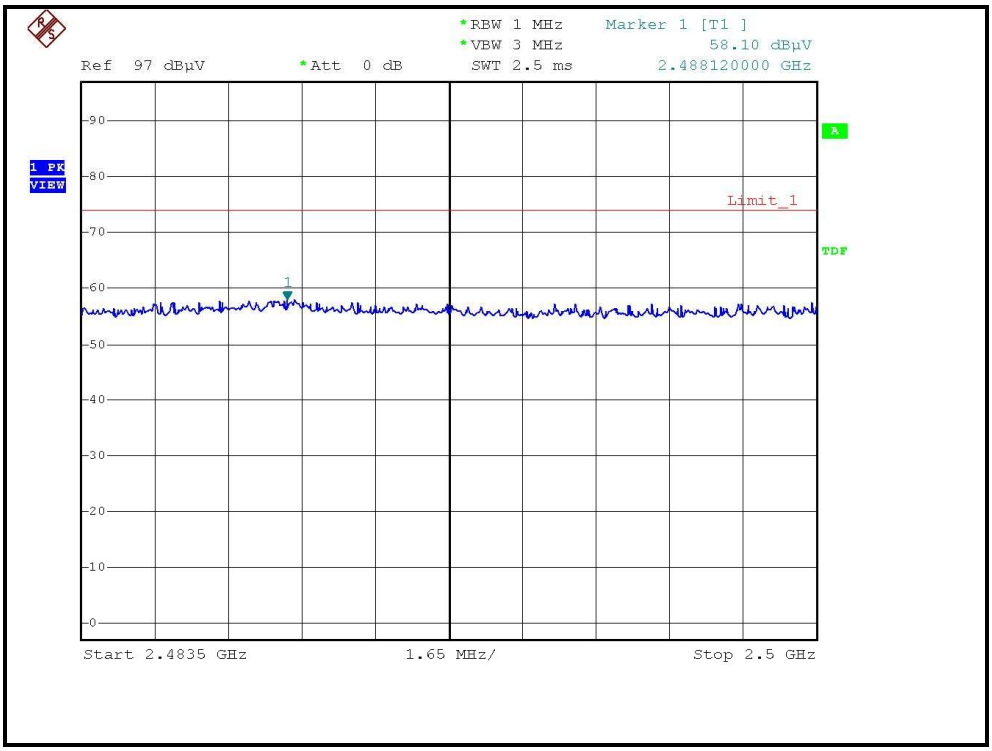
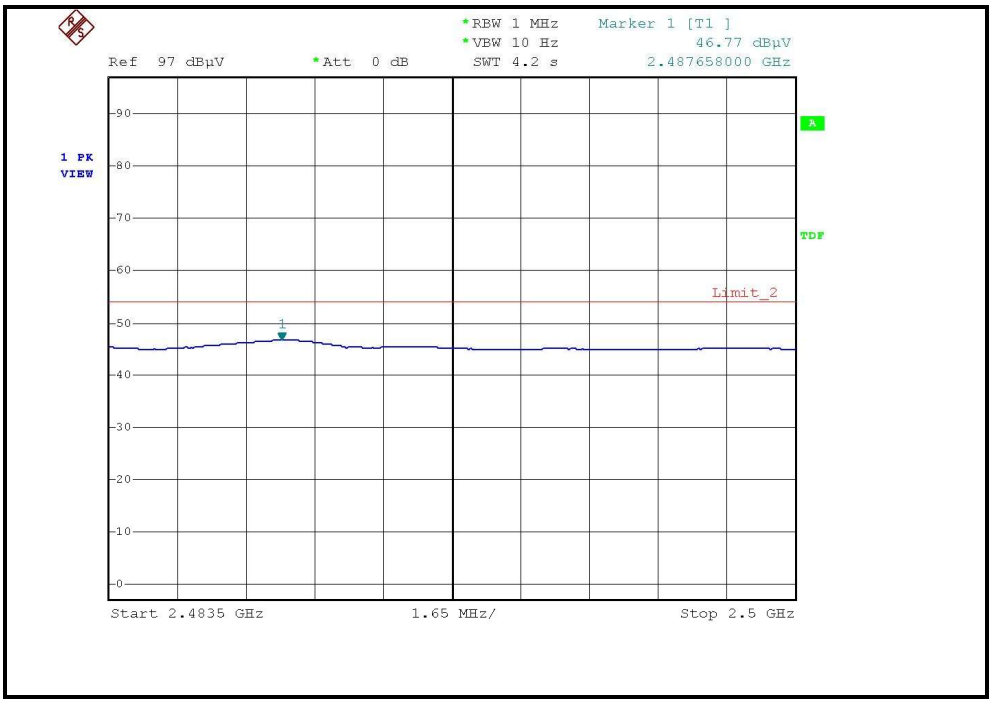
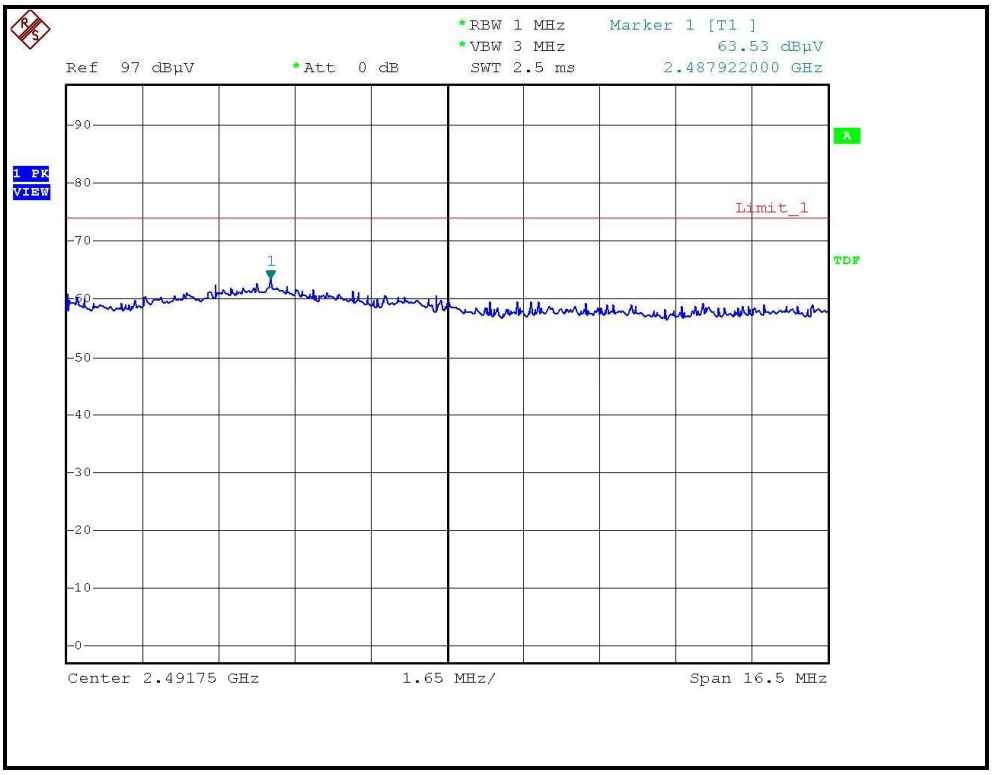
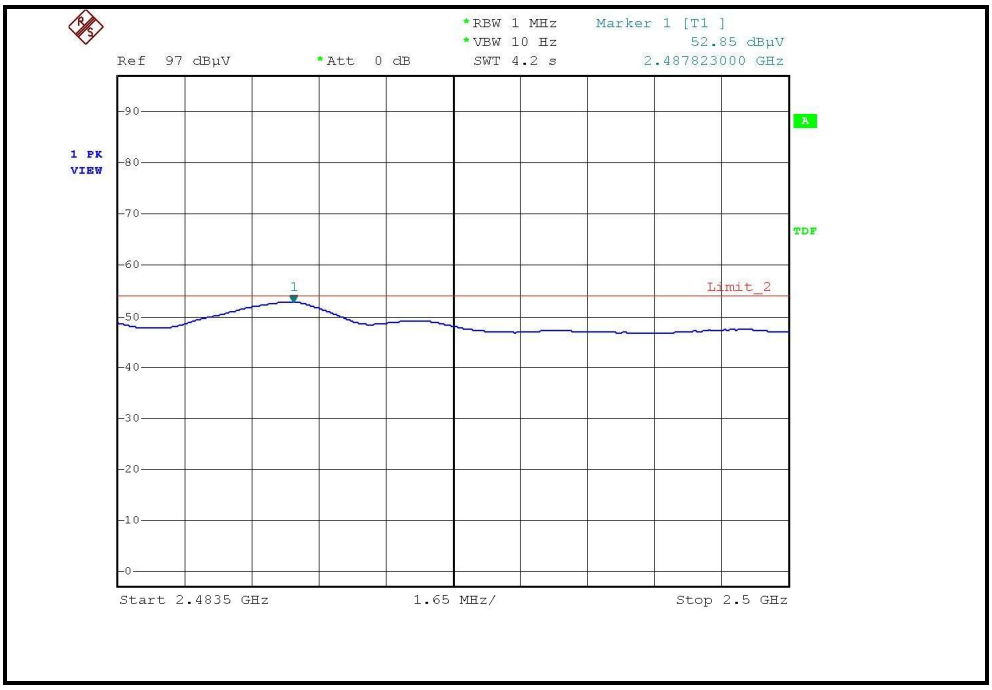




RESTRICTED BANDEDGE (802.11b MODE,CH11, VERTICAL)





802.11g OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 65%RH, 971hPa	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	2390.00	61.50 PK	74.00	-12.50	1.65 H	310	59.00	2.50
2	2390.00	45.90 AV	54.00	-8.10	1.65 H	310	43.40	2.50
3	*2412.00	100.10 PK			1.65 H	312	97.54	2.56
4	*2412.00	88.50 AV			1.65 H	312	85.94	2.56
5	4824.00	46.10 PK	74.00	-27.90	1.41 H	266	34.76	11.34
6	4824.00	33.80 AV	54.00	-20.20	1.41 H	266	22.46	11.34
7	7236.00	52.90 PK	74.00	-21.10	1.27 H	36	36.98	15.92
8	7236.00	39.90 AV	54.00	-14.10	1.27 H	36	23.98	15.92

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	2390.00	71.30 PK	74.00	-2.70	1.58 V	266	68.80	2.50
2	2390.00	52.70 AV	54.00	-1.30	1.58 V	266	50.20	2.50
3	*2412.00	111.10 PK			1.59 V	268	108.54	2.56
4	*2412.00	99.80 AV			1.59 V	268	97.24	2.56
5	4824.00	47.00 PK	74.00	-27.00	1.44 V	240	35.66	11.34
6	4824.00	34.40 AV	54.00	-19.60	1.44 V	240	23.06	11.34
7	7236.00	53.30 PK	74.00	-20.70	1.59 V	269	37.38	15.92
8	7236.00	40.40 AV	54.00	-13.60	1.59 V	269	24.48	15.92

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. The limit value is defined as per 15.247.
6. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 65%RH, 971hPa	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	2364.50	58.20 PK	74.00	-15.80	1.63 H	309	55.77	2.43
2	2364.50	46.00 AV	54.00	-8.00	1.63 H	309	43.57	2.43
3	*2437.00	104.30 PK			1.65 H	314	101.68	2.62
4	*2437.00	93.60 AV			1.65 H	314	90.98	2.62
5	2483.50	59.40 PK	74.00	-14.60	1.58 H	309	56.65	2.75
6	2483.50	45.50 AV	54.00	-8.50	1.58 H	309	42.75	2.75
7	4874.00	47.70 PK	74.00	-26.30	1.50 H	219	36.17	11.53
8	4874.00	37.30 AV	54.00	-16.70	1.50 H	219	25.77	11.53
9	7311.00	53.20 PK	74.00	-20.80	1.32 H	209	37.08	16.12
10	7311.00	40.10 AV	54.00	-13.90	1.32 H	209	23.98	16.12

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	2374.00	66.80 PK	74.00	-7.20	1.57 V	277	64.35	2.45
2	2374.00	53.70 AV	54.00	-0.30	1.57 V	277	51.25	2.45
3	*2437.00	114.80 PK			1.50 V	266	112.18	2.62
4	*2437.00	103.70 AV			1.50 V	266	101.08	2.62
5	2483.50	73.60 PK	74.00	-0.40	1.51 V	266	70.85	2.75
6	2483.50	53.00 AV	54.00	-1.00	1.51 V	266	50.25	2.75
7	4874.00	50.70 PK	74.00	-23.30	1.26 V	219	39.17	11.53
8	4874.00	37.90 AV	54.00	-16.10	1.26 V	219	26.37	11.53
9	7311.00	53.70 PK	74.00	-20.30	1.36 V	211	37.58	16.12
10	7311.00	40.80 AV	54.00	-13.20	1.36 V	211	24.68	16.12

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. The limit value is defined as per 15.247.
6. " * ": Fundamental frequency.

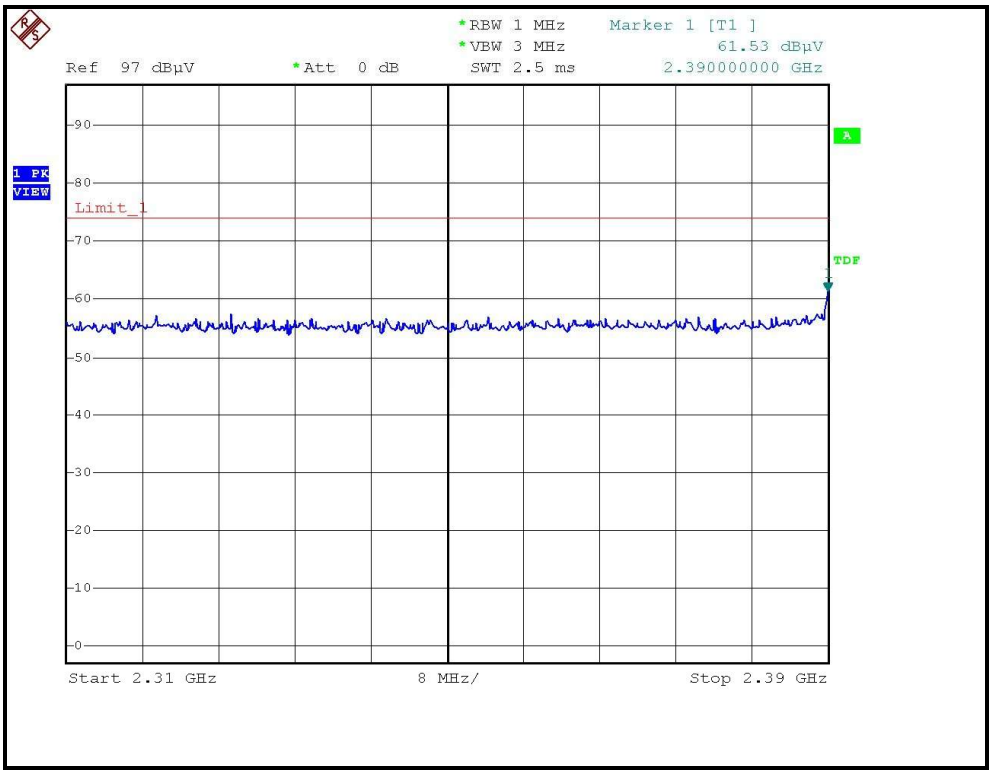
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 65%RH, 971hPa	TESTED BY	Phoenix Huang

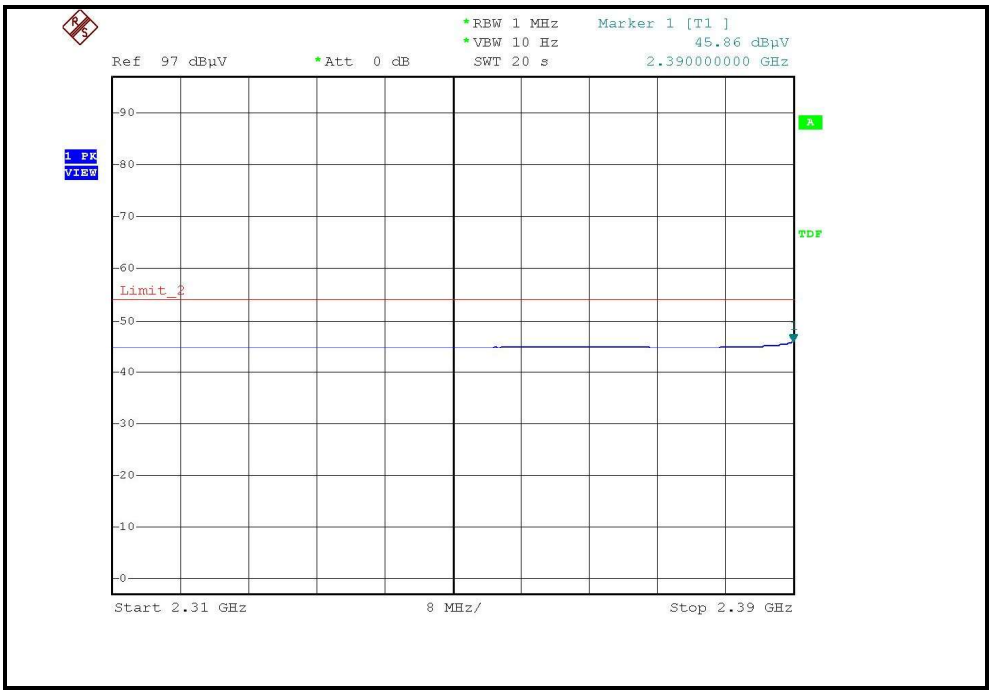
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	100.60 PK			1.65 H	317	97.91	2.69
2	*2462.00	89.30 AV			1.65 H	317	86.61	2.69
3	2483.50	62.90 PK	74.00	-11.10	1.60 H	312	60.15	2.75
4	2483.50	46.20 AV	54.00	-7.80	1.60 H	312	43.45	2.75
5	4924.00	46.70 PK	74.00	-27.30	1.33 H	211	34.98	11.72
6	4924.00	34.00 AV	54.00	-20.00	1.33 H	211	22.28	11.72
7	7386.00	52.70 PK	74.00	-21.30	1.37 H	269	36.38	16.32
8	7386.00	39.80 AV	54.00	-14.20	1.37 H	269	23.48	16.32

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	*2462.00	111.70 PK			1.72 V	283	109.01	2.69
2	*2462.00	100.70 AV			1.72 V	283	98.01	2.69
3	2483.50	73.40 PK	74.00	-0.60	1.50 V	283	70.65	2.75
4	2483.50	53.20 AV	54.00	-0.80	1.50 V	283	50.45	2.75
5	4924.00	47.20 PK	74.00	-26.80	1.48 V	235	35.48	11.72
6	4924.00	34.50 AV	54.00	-19.50	1.48 V	235	22.78	11.72
7	7386.00	53.20 PK	74.00	-20.80	1.29 V	332	36.88	16.32
8	7386.00	40.10 AV	54.00	-13.90	1.29 V	332	23.78	16.32

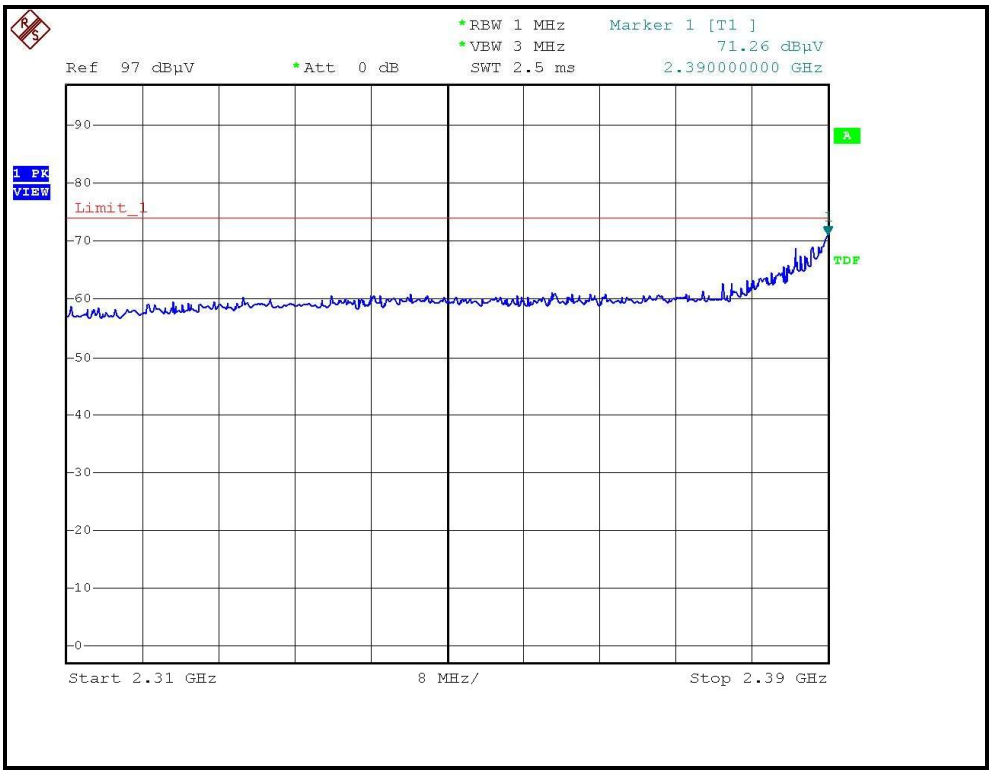
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247.
6. " * ": Fundamental frequency.

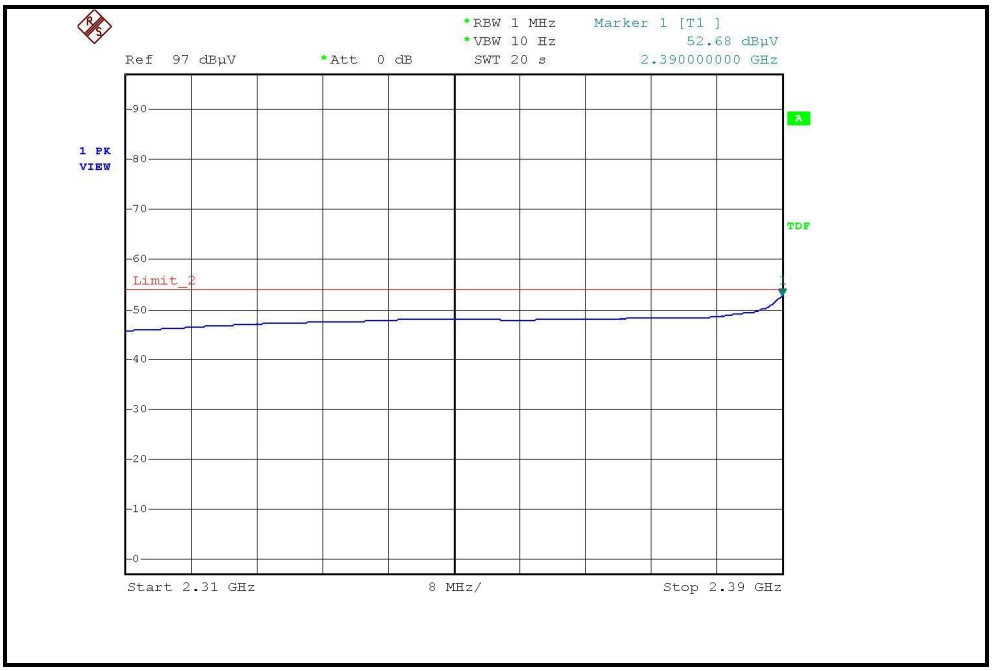
RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)



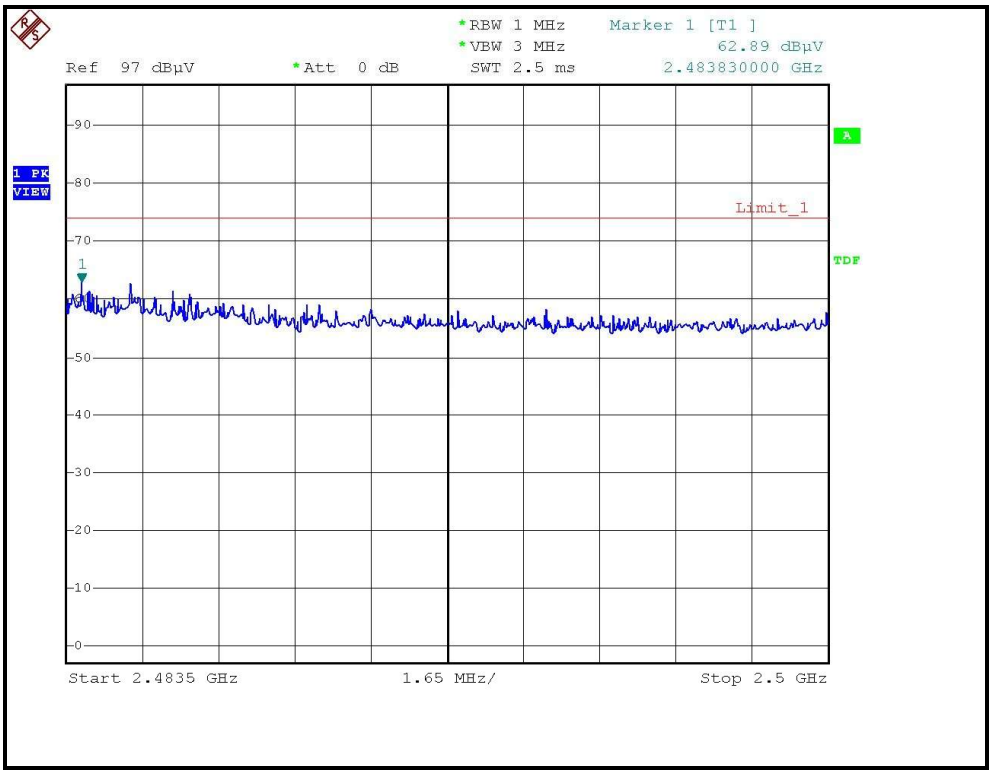


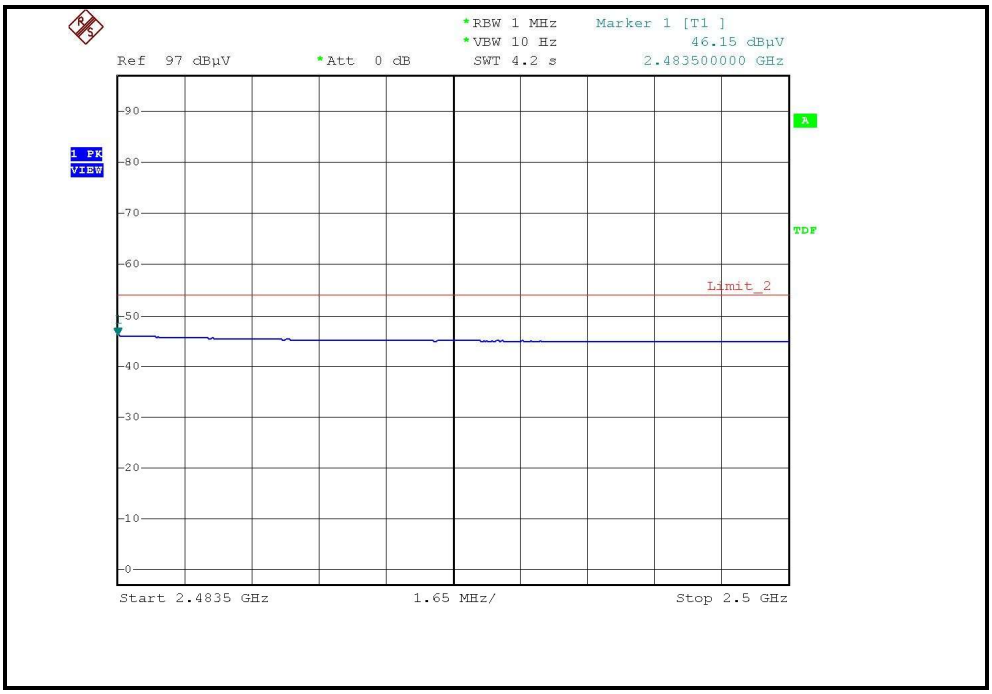
RESTRICTED BANDEDGE (802.11g MODE,CH1, VERTICAL)



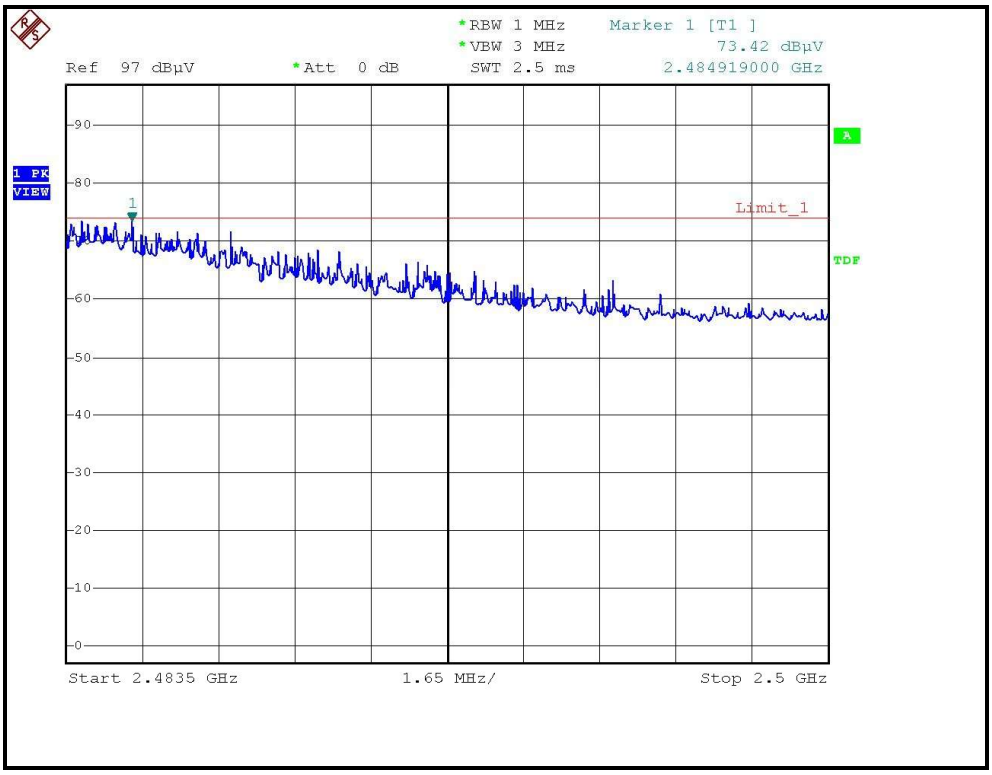


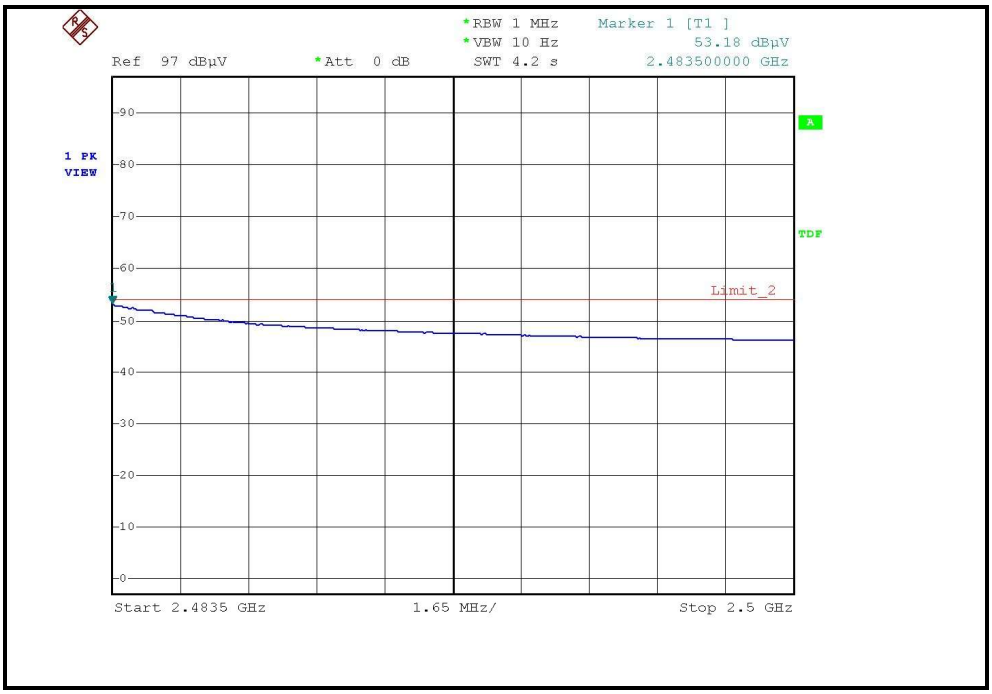
RESTRICTED BANDEDGE (802.11g MODE,CH11, HORIZONTAL)





RESTRICTED BANDEDGE (802.11g MODE,CH11, VERTICAL)





DRAFT 802.11n (20MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 65%RH, 971hPa	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	2390.00	59.00 PK	74.00	-15.00	1.85 H	303	56.50	2.50
2	2390.00	45.60 AV	54.00	-8.40	1.85 H	303	43.10	2.50
3	*2412.00	98.80 PK			1.82 H	303	96.24	2.56
4	*2412.00	87.30 AV			1.82 H	303	84.74	2.56
5	4824.00	47.00 PK	74.00	-27.00	1.42 H	309	35.66	11.34
6	4824.00	34.00 AV	54.00	-20.00	1.42 H	309	22.66	11.34
7	7236.00	53.00 PK	74.00	-21.00	1.33 H	351	37.08	15.92
8	7236.00	40.10 AV	54.00	-13.90	1.33 H	351	24.18	15.92

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	2390.00	71.40 PK	74.00	-2.60	1.81 V	217	68.90	2.50
2	2390.00	52.80 AV	54.00	-1.20	1.81 V	217	50.30	2.50
3	*2412.00	112.60 PK			1.78 V	282	110.04	2.56
4	*2412.00	100.50 AV			1.78 V	282	97.94	2.56
5	4824.00	47.30 PK	74.00	-26.70	1.47 V	268	35.96	11.34
6	4824.00	34.20 AV	54.00	-19.80	1.47 V	268	22.86	11.34
7	7236.00	53.20 PK	74.00	-20.80	1.43 V	230	37.28	15.92
8	7236.00	40.40 AV	54.00	-13.60	1.43 V	230	24.48	15.92

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. The limit value is defined as per 15.247.
6. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 65%RH, 971hPa	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	2370.60	58.20 PK	74.00	-15.80	1.76 H	335	55.75	2.45
2	2370.60	45.80 AV	54.00	-8.20	1.76 H	335	43.35	2.45
3	*2437.00	107.20 PK			1.77 H	9	104.58	2.62
4	*2437.00	95.10 AV			1.77 H	9	92.48	2.62
5	2483.50	60.90 PK	74.00	-13.10	1.76 H	7	58.15	2.75
6	2483.50	45.00 AV	54.00	-9.00	1.76 H	7	42.25	2.75
7	4874.00	50.10 PK	74.00	-23.90	1.65 H	23	38.57	11.53
8	4874.00	37.90 AV	54.00	-16.10	1.65 H	23	26.37	11.53
9	7311.00	53.00 PK	74.00	-21.00	1.56 H	33	36.88	16.12
10	7311.00	40.80 AV	54.00	-13.20	1.56 H	33	24.68	16.12

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	2361.50	66.50 PK	74.00	-7.50	1.89 V	217	64.08	2.42
2	2361.50	53.50 AV	54.00	-0.50	1.89 V	217	51.08	2.42
3	*2437.00	118.30 PK			1.72 V	260	115.68	2.62
4	*2437.00	106.40 AV			1.72 V	260	103.78	2.62
5	2483.50	71.90 PK	74.00	-2.10	1.72 V	260	69.15	2.75
6	2483.50	53.30 AV	54.00	-0.70	1.72 V	260	50.55	2.75
7	4874.00	50.50 PK	74.00	-23.50	1.40 V	270	38.97	11.53
8	4874.00	38.20 AV	54.00	-15.80	1.40 V	270	26.67	11.53
9	7311.00	53.30 PK	74.00	-20.70	1.56 V	266	37.18	16.12
10	7311.00	41.20 AV	54.00	-12.80	1.56 V	266	25.08	16.12

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. The limit value is defined as per 15.247.
6. " * ": Fundamental frequency.

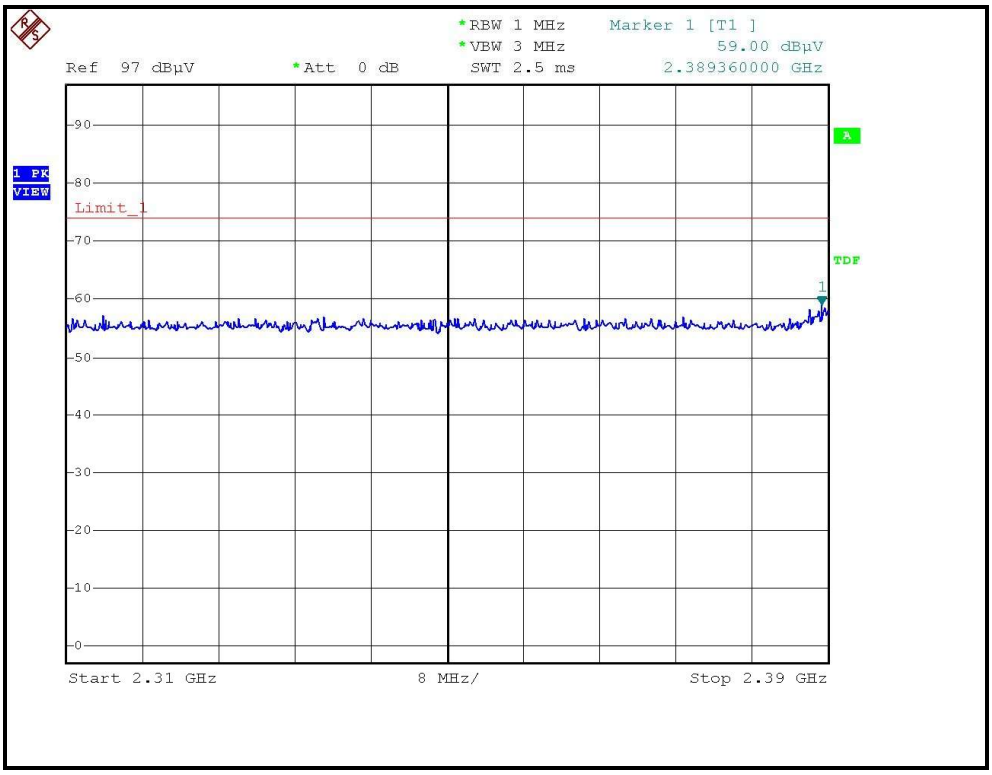
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 65%RH, 971hPa	TESTED BY	Phoenix Huang

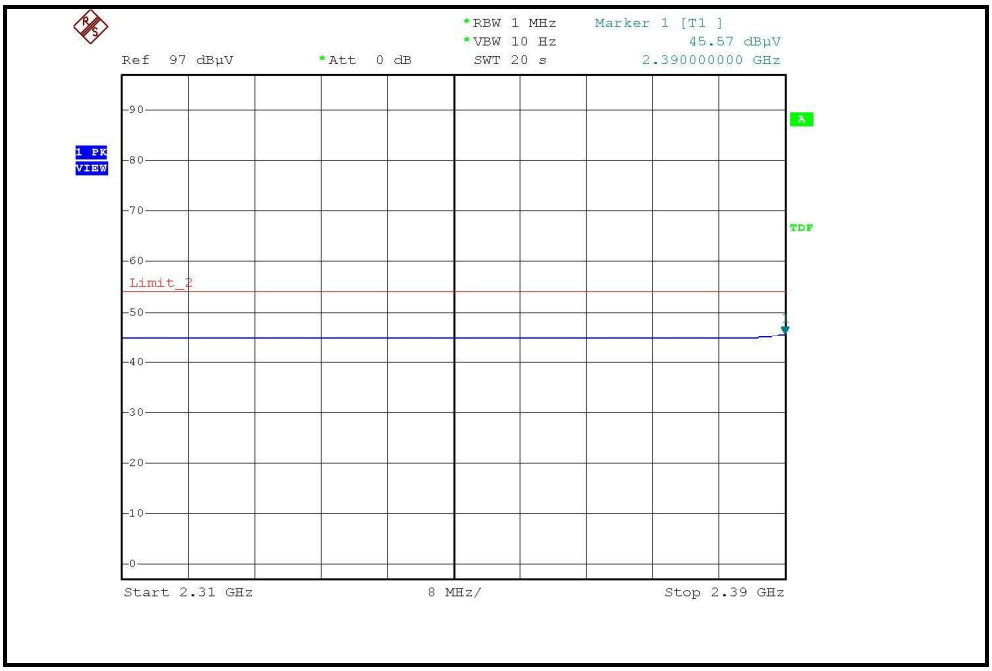
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	102.70 PK			1.82 H	303	100.01	2.69
2	*2462.00	90.20 AV			1.82 H	303	87.51	2.69
3	2483.50	61.00 PK	74.00	-13.00	1.82 H	300	58.25	2.75
4	2483.50	45.50 AV	54.00	-8.50	1.82 H	300	42.75	2.75
5	4924.00	46.60 PK	74.00	-27.40	1.39 H	200	34.88	11.72
6	4924.00	34.30 AV	54.00	-19.70	1.39 H	200	22.58	11.72
7	7386.00	53.10 PK	74.00	-20.90	1.45 H	217	36.78	16.32
8	7386.00	40.20 AV	54.00	-13.80	1.45 H	217	23.88	16.32

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	*2462.00	113.40 PK			1.75 V	282	110.71	2.69
2	*2462.00	101.70 AV			1.75 V	282	99.01	2.69
3	2483.50	73.40 PK	74.00	-0.60	1.78 V	16	70.65	2.75
4	2483.50	53.40 AV	54.00	-0.60	1.78 V	16	50.65	2.75
5	4924.00	47.50 PK	74.00	-26.50	1.78 V	16	35.78	11.72
6	4924.00	34.90 AV	54.00	-19.10	1.78 V	16	23.18	11.72
7	7386.00	53.50 PK	74.00	-20.50	1.29 V	16	37.18	16.32
8	7386.00	40.90 AV	54.00	-13.10	1.29 V	16	24.58	16.32

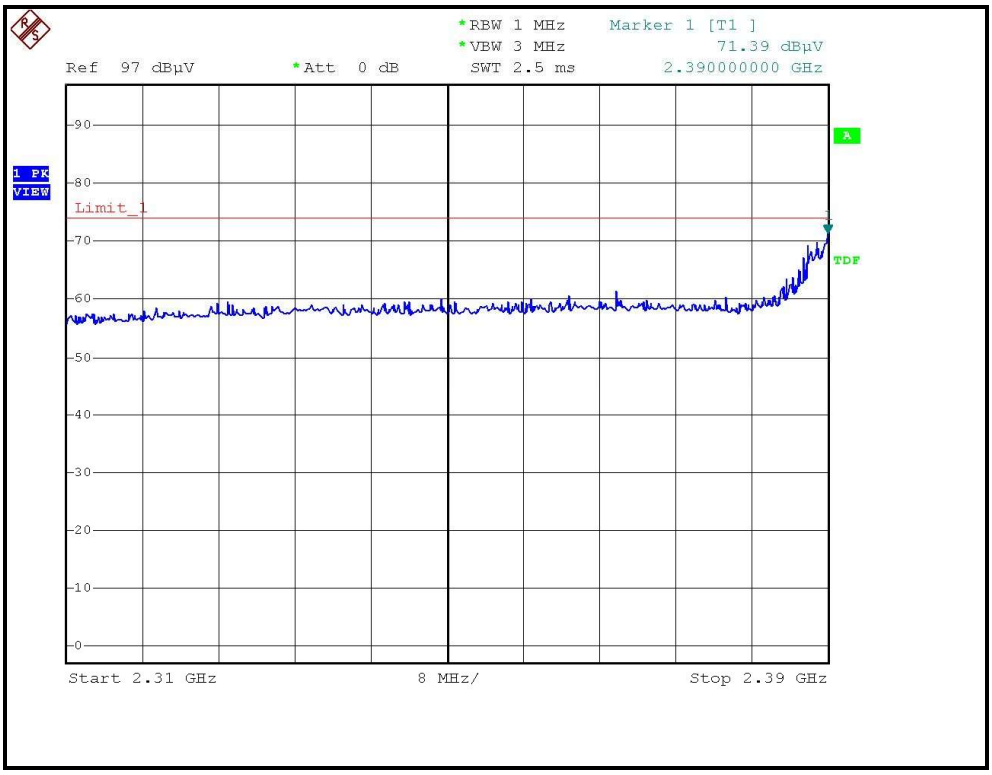
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247.
6. " * ": Fundamental frequency.

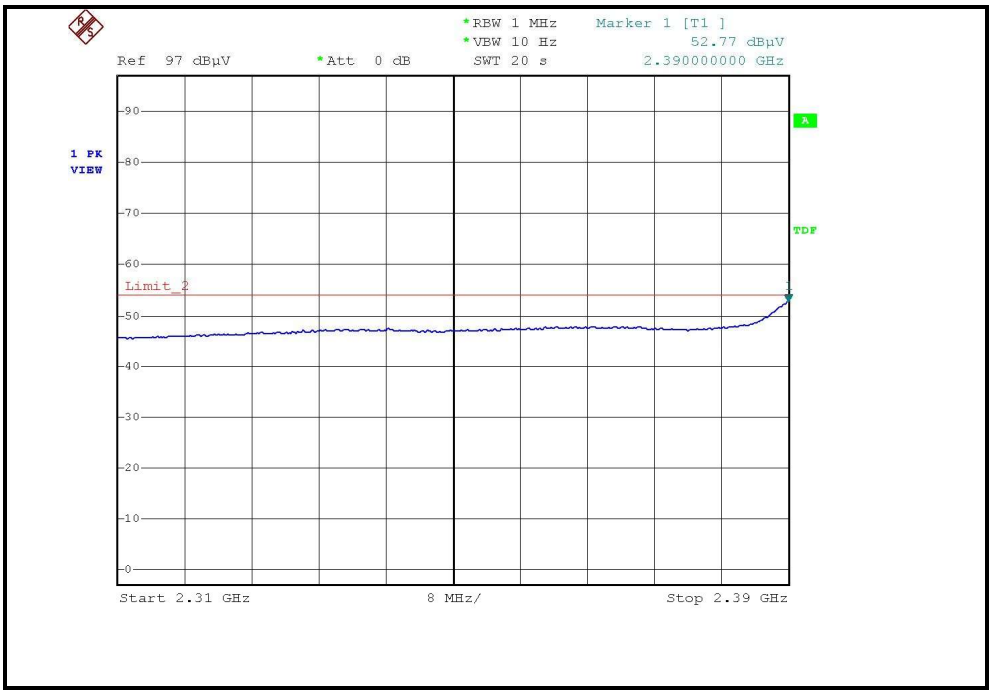
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH1, HORIZONTAL)





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





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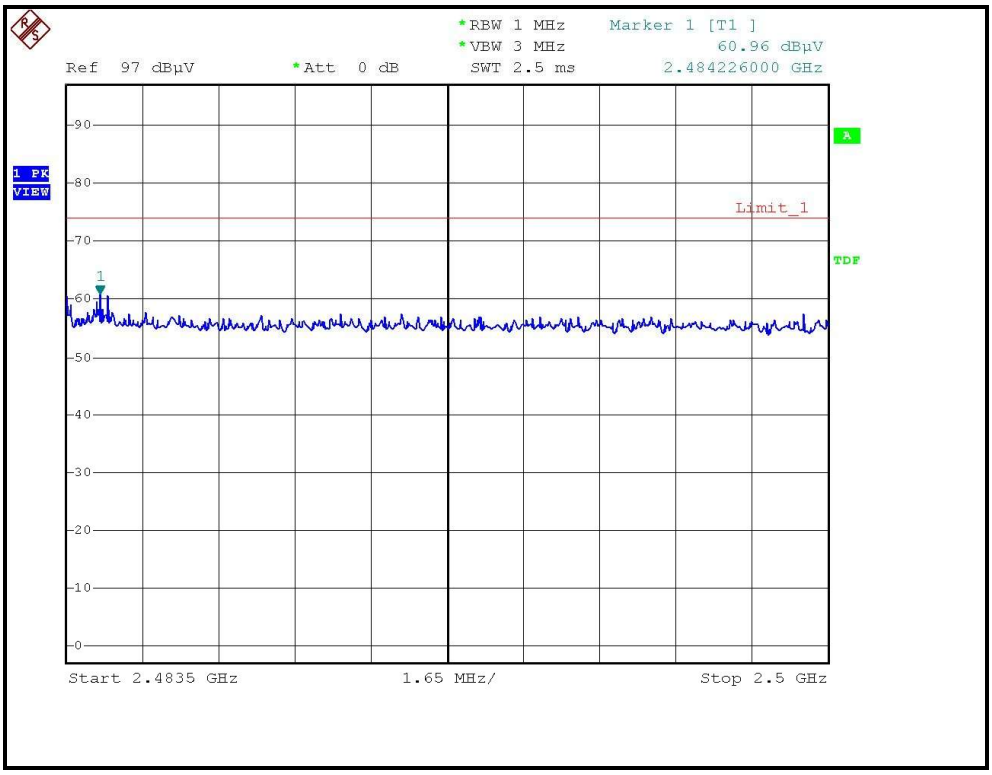
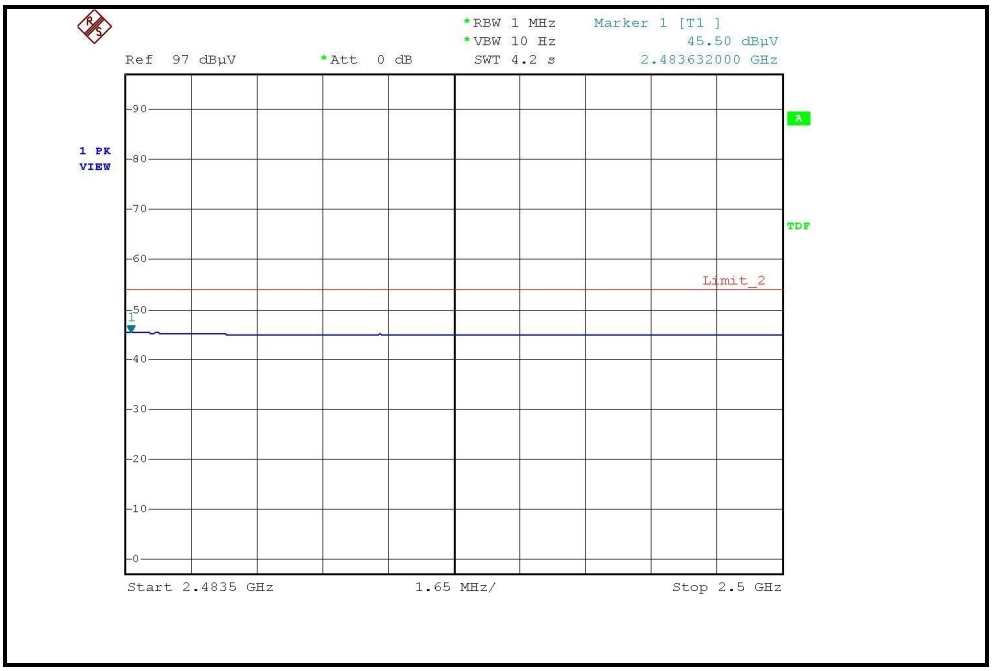
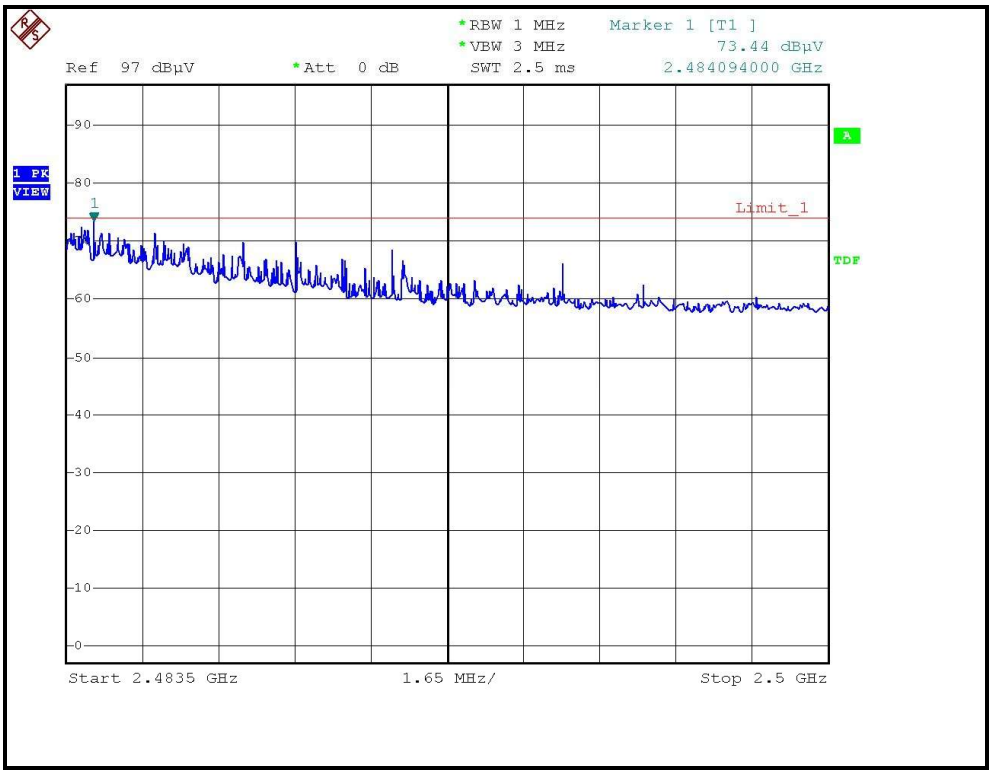
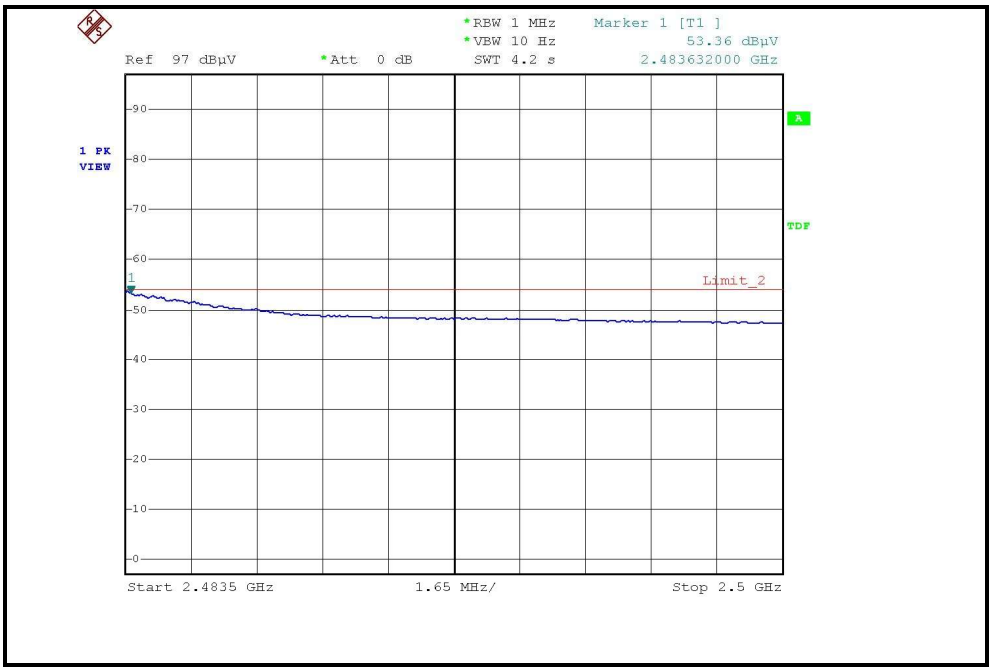




RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH11, VERTICAL)





DRAFT 802.11n (40MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	13.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 65%RH, 971hPa	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	2390.00	58.40 PK	74.00	-15.60	1.37 H	354	55.90	2.50
2	2390.00	45.40 AV	54.00	-8.60	1.37 H	354	42.90	2.50
3	*2422.00	93.80 PK			1.36 H	285	91.22	2.58
4	*2422.00	81.80 AV			1.36 H	285	79.22	2.58
5	4844.00	47.00 PK	74.00	-27.00	1.30 H	214	35.58	11.42
6	4844.00	34.20 AV	54.00	-19.80	1.30 H	214	22.78	11.42
7	7266.00	52.80 PK	74.00	-21.20	1.41 H	197	36.80	16.00
8	7266.00	40.50 AV	54.00	-13.50	1.41 H	197	24.50	16.00

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	2390.00	71.00 PK	74.00	-3.00	1.55 V	267	68.50	2.50
2	**2390.00**	**53.80 AV**	**54.00**	**-0.20**	**1.55 V**	**267**	**51.30**	**2.50**
3	*2422.00	106.50 PK			1.58 V	266	103.92	2.58
4	*2422.00	93.90 AV			1.58 V	266	91.32	2.58
5	4844.00	47.30 PK	74.00	-26.70	1.49 V	255	35.88	11.42
6	4844.00	34.30 AV	54.00	-19.70	1.49 V	255	22.88	11.42
7	7266.00	52.90 PK	74.00	-21.10	1.47 V	211	36.90	16.00
8	7266.00	40.80 AV	54.00	-13.20	1.47 V	211	24.80	16.00

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. The limit value is defined as per 15.247.
6. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	13.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 65%RH, 971hPa	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	2390.00	58.40 PK	74.00	-15.60	1.42 H	291	55.90	2.50
2	2390.00	45.60 AV	54.00	-8.40	1.42 H	291	43.10	2.50
3	*2437.00	97.50 PK			1.35 H	291	94.88	2.62
4	*2437.00	84.50 AV			1.35 H	291	81.88	2.62
5	2483.50	60.20 PK	74.00	-13.80	1.37 H	288	57.45	2.75
6	2483.50	45.10 AV	54.00	-8.90	1.37 H	288	42.35	2.75
7	4874.00	47.50 PK	74.00	-26.50	1.29 H	222	35.97	11.53
8	4874.00	34.30 AV	54.00	-19.70	1.29 H	222	22.77	11.53
9	7311.00	53.00 PK	74.00	-21.00	1.33 H	290	36.88	16.12
10	7311.00	40.70 AV	54.00	-13.30	1.33 H	290	24.58	16.12

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	2390.00	70.30 PK	74.00	-3.70	1.57 V	267	67.80	2.50
2	2390.00	52.70 AV	54.00	-1.30	1.57 V	267	50.20	2.50
3	*2437.00	110.20 PK			1.52 V	267	107.58	2.62
4	*2437.00	97.00 AV			1.52 V	267	94.38	2.62
5	2483.50	73.20 PK	74.00	-0.80	1.50 V	251	70.45	2.75
6	2483.50	51.30 AV	54.00	-2.70	1.50 V	251	48.55	2.75
7	4874.00	48.10 PK	74.00	-25.90	1.59 V	259	36.57	11.53
8	4874.00	35.10 AV	54.00	-18.90	1.59 V	259	23.57	11.53
9	7311.00	53.30 PK	74.00	-20.70	1.43 V	260	37.18	16.12
10	7311.00	41.10 AV	54.00	-12.90	1.43 V	260	24.98	16.12

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. The limit value is defined as per 15.247.
6. " * ": Fundamental frequency.

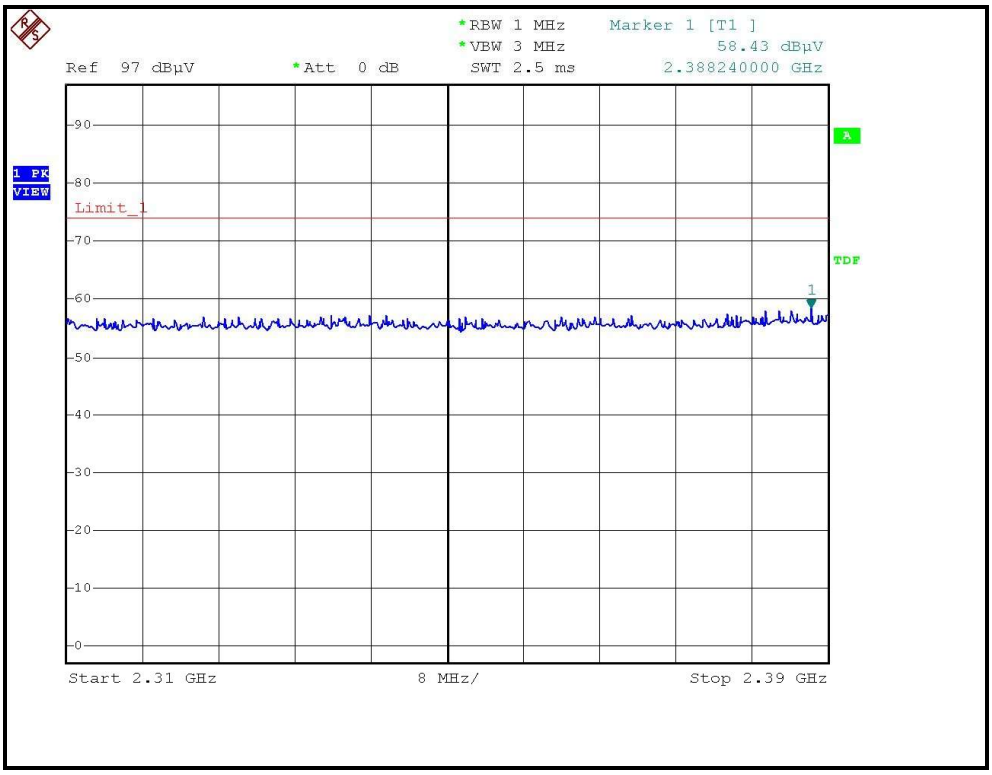
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	13.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 65%RH, 971hPa	TESTED BY	Phoenix Huang

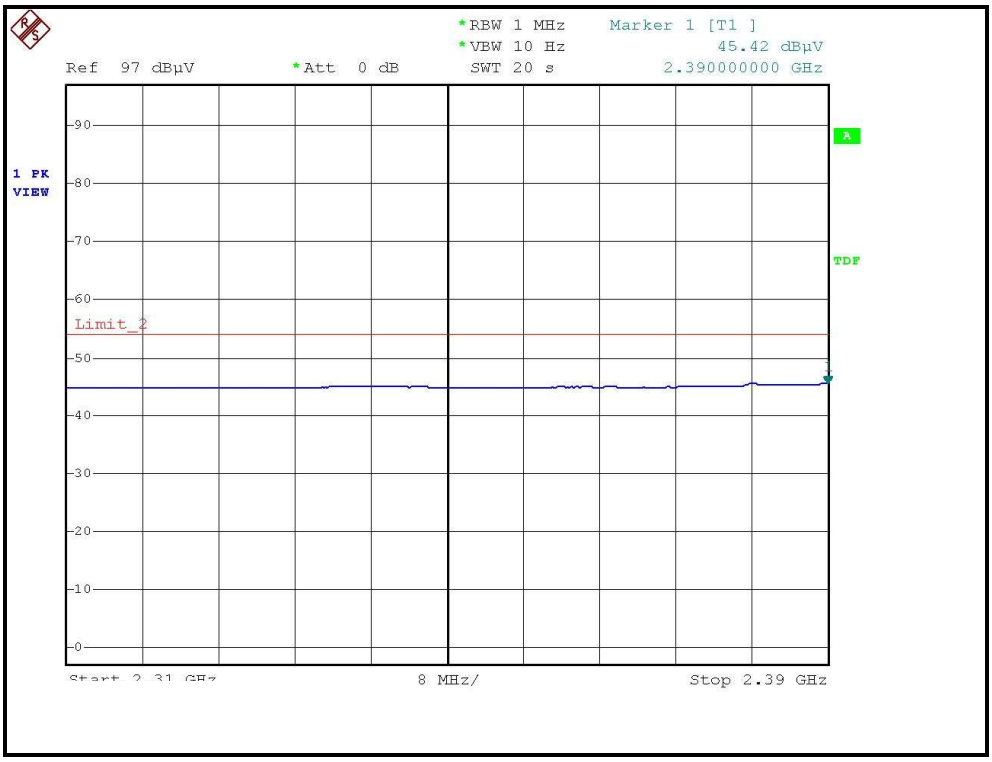
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	96.50 PK			1.76 H	8	93.84	2.66
2	*2452.00	83.60 AV			1.76 H	8	80.94	2.66
3	2483.50	58.70 PK	74.00	-15.30	1.65 H	340	55.95	2.75
4	2483.50	45.50 AV	54.00	-8.50	1.65 H	340	42.75	2.75
5	4904.00	47.70 PK	74.00	-26.30	1.41 H	278	36.06	11.64
6	4904.00	34.50 AV	54.00	-19.50	1.41 H	278	22.86	11.64
7	7356.00	52.90 PK	74.00	-21.10	1.39 H	26	36.66	16.24
8	7356.00	40.70 AV	54.00	-13.30	1.39 H	26	24.46	16.24

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	*2452.00	107.80 PK			1.55 V	251	105.14	2.66
2	*2452.00	94.90 AV			1.55 V	251	92.24	2.66
3	2483.50	72.70 PK	74.00	-1.30	1.54 V	255	69.95	2.75
4	2483.50	53.10 AV	54.00	-0.90	1.54 V	255	50.35	2.75
5	4904.00	47.90 PK	74.00	-26.10	1.55 V	261	36.26	11.64
6	4904.00	34.70 AV	54.00	-19.30	1.55 V	261	23.06	11.64
7	7356.00	53.00 PK	74.00	-21.00	1.47 V	35	36.76	16.24
8	7356.00	40.90 AV	54.00	-13.10	1.47 V	35	24.66	16.24

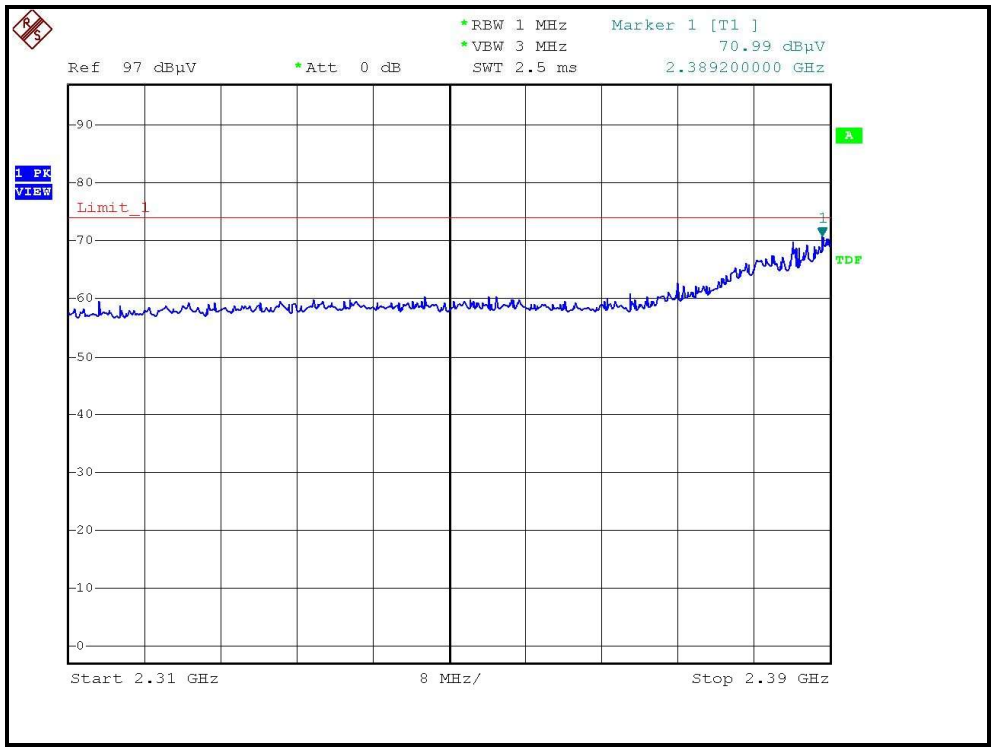
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247.
6. " * ": Fundamental frequency.

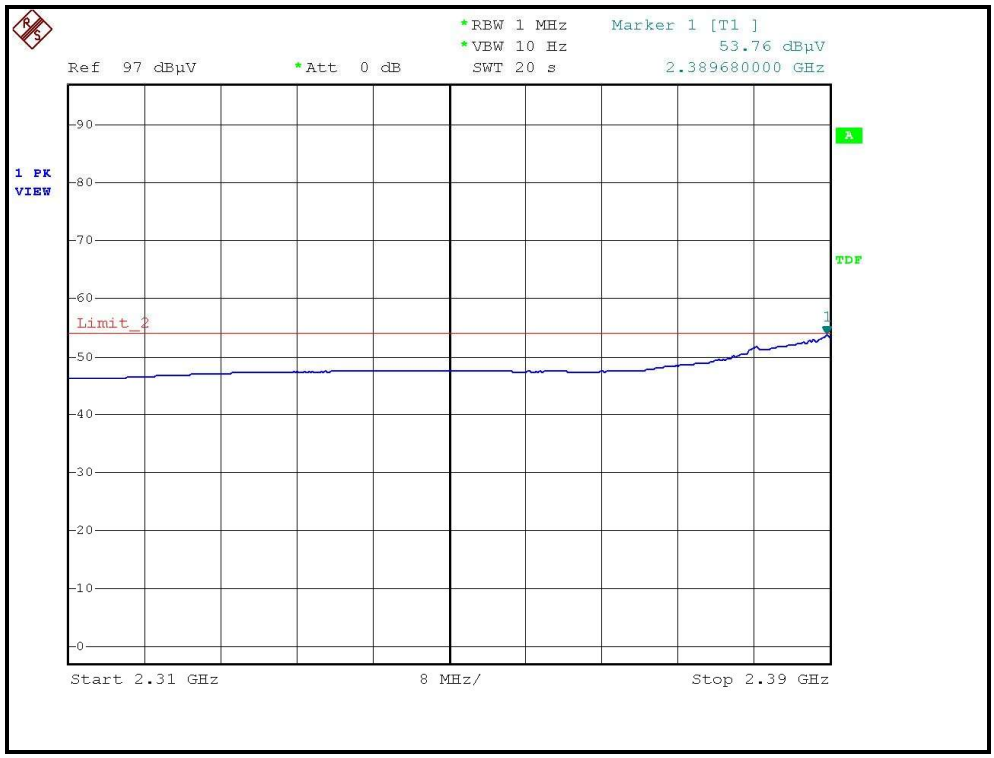
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE,CH1, HORIZONTAL)





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





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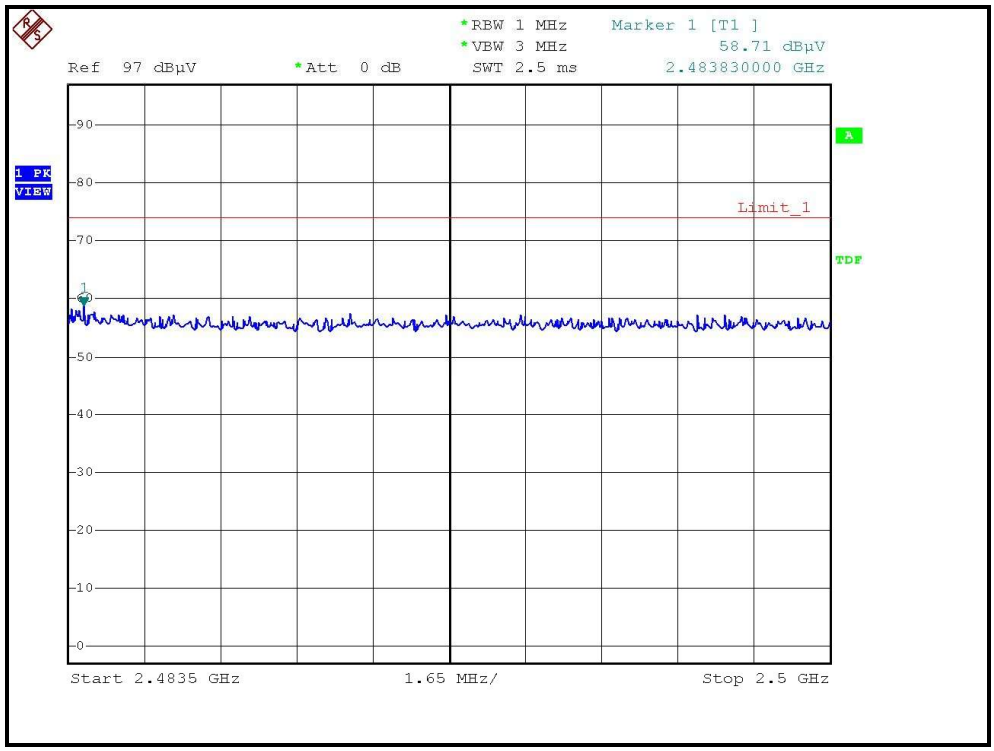

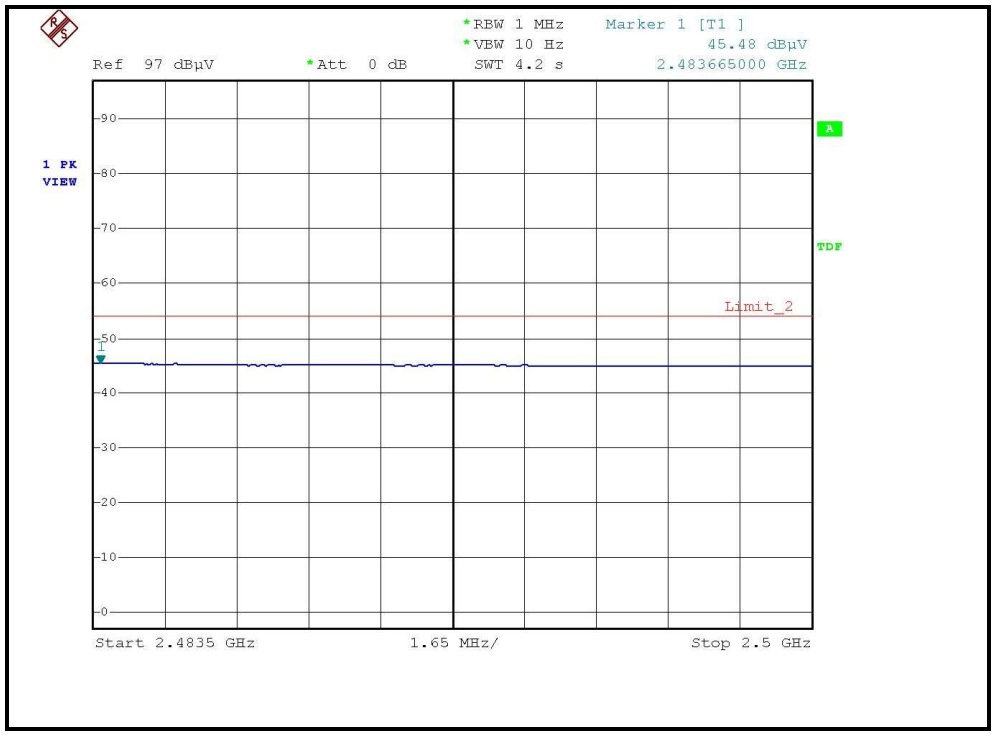

RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE,CH7, VERTICAL)