

FCC TEST REPORT

REPORT NO.: RF960213H01

MODEL NO.: AWLH6080

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TESTED: March 01 to April 03, 2007

ISSUED: April 10, 2007

APPLICANT: Alpha Networks Inc.

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No. 2177-01

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1. CERTIFICATION

PRODUCT : 300N Draft 802.11n Wireless PCI Adapter

MODEL NO.: AWLH6080

BRAND: AirLink101

APPLICANT : Alpha Networks Inc.

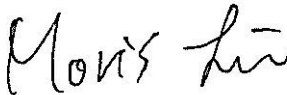
TESTED: March 01 to April 03, 2007

TEST SAMPLE: R&D SAMPLE

STANDARDS : FCC Part 15, Subpart C (Section 15.247),
ANSI C63.4-2003

The above equipment (Model: AWLH6080) 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:** April 10, 2007
(Midoli Peng)

TECHNICAL ACCEPTANCE :  , **DATE:** April 10, 2007
Responsible for RF (Moris Lin)

APPROVED BY :  , **DATE:** April 10, 2007
(Hank Chung, Deputy Manager)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -13.87dB at 22.570MHz.
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)	Transmitter Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -0.51dB at 2483.50MHz.
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.

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	300N Draft 802.11n Wireless PCI Adapter
MODEL NO.	AWLH6080
FCC ID	RRK-AWLH6080
POWER SUPPLY	DC 3.3V+/-5% 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 Draft 802.11n (20MHz): 144.4/130.0/115.5/86.6/ 72.2/65.0/57.8/43.3/28.9/21.7/14.4/7.2Mbps Draft 802.11n (40MHz): 300/ 270/ 240/ 180/150/135/120/90/60/45/30/15Mbps
FREQUENCY RANGE	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz)
MAXIMUM OUTPUT POWER	802.11b: 89.125mW 802.11g: 95.499mW draft 802.11n (20MHz): 184.624mW draft 802.11n (40MHz): 112.277mW
ANTENNA TYPE	Please see note 1
DATA CABLE	NA
I/O PORTS	NA

NOTE:

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

Antenna 1(With bracket)				
Model No.	Antenna Type	Antenna Connector	Net Gain(dBi)	Note
C664-540089-A	Dipole	SMA Plug Reverse	1.3dB (include Cable loss 2.6dB)	Omni-directional
Antenna 2(With bracket)				
Model No.	Antenna Type	Antenna Connector	Net Gain(dBi)	Note
C037-510810-A	Dipole	SMA Plug Reverse	1.7dB (include Cable loss)	Omni-directional
Antenna 3(Without bracket)				
Model No.	Antenna Type	Antenna Connector	Net Gain(dBi)	Note
C037-510695-A	Dipole	SMA Plug Reverse	1.94dB	Omni-directional

From the above antennas, the worst cases were found in antenna 3. Therefore only the test data of the modes were recorded in this report individually.

< 1. Except for Conducted Emission Test and Radiated Emission Test >

< 2. Pretest antenna location to find worst case with and without bracket for Radiated Emission Test. >

- The EUT incorporates a MIMO function with 802.11b, 802.11g, draft 802.11n. Physically, the card provides two completed transmit and three completed receivers.
- 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 on board antennas. Spatial multiplexing modes for simultaneous transmission using 2 antennas, and for simultaneous receiver using 3 antennas.
- 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.
- The EUT complies with draft 802.11n standards and backwards compatible with 802.11b, 802.11g products.
- The EUT operates in the 2.4GHz frequency spectrum with data rate up to 300Mbps.

7. For conducted the EUT was pre-tested under following test mode, and the test data was recorded in this report:

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.

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

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

9. 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

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		

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE < 1G	RE ≥ 1G	APCM	
Antenna 3	X	√	√	√	(without bracket)
Antenna 1	√	√	X	X	(with bracket)

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 b	√		
B	802.11g	√		
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 b	√		
F	802.11g	√		
G	DRAFT 802.11n(20MHz)	√	√	√
H	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.

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
Draft 802.11n (20MHz)	1 to 11	1	OFDM	BPSK	7.2	C
Draft 802.11n (40MHz)	1 to 7	1	OFDM	BPSK	15	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
802.11g	1 to 11	1	OFDM	BPSK	6	B
Draft 802.11n (20MHz)	1 to 11	1	OFDM	BPSK	7.2	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	B
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	7.2	C
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	15	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	B
Draft 802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	7.2	C
Draft 802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	15	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	11	A
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	B
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	7.2	C
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	15	D



3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product. 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

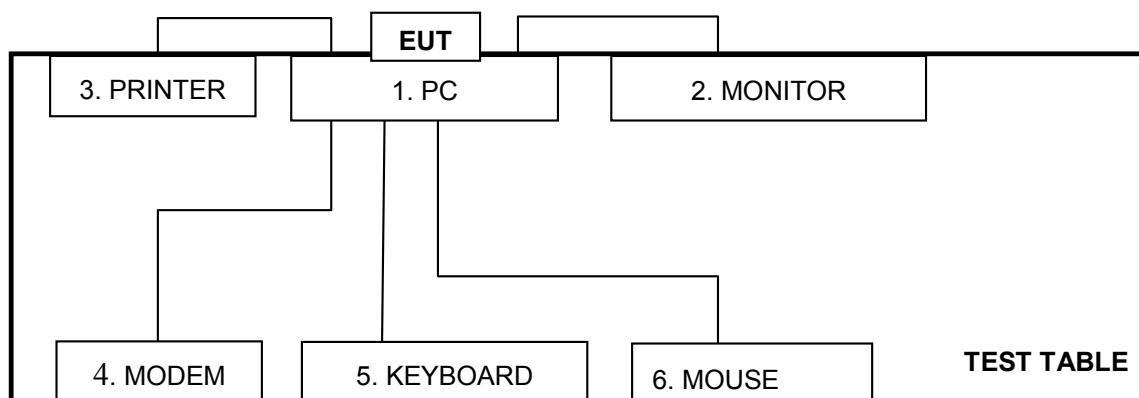
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	COMPUTER (For conducted test)	DELL	DH8	8H90618	DoC
	COMPUTER (For radiated test)	DELL	760L	CN-0D1534-70821 -39C-A1VL	DoC
2	MONITOR	ADI	G1000	240058T00100081	NA
3	PRINTER	HP	C2642A	MY79J1D00G	B94C2642X
4	MODEM	ACEEX	1414	0206026779	IFAXDM1414
5	KEYBOARD	BTC	KB-5200T	F24800406	E5XKB5122WTH01 10
6	MOUSE	BTC	M851	G00347024440	NA

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 core
3	1.8m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core
4	1 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.
5	1.7 m foil shielded wire, terminal by frame, PS/2 Connector, with one core.
6	1.5 m foil shielded wire, terminal by frame, PS/2 Connector, w/o core.

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

3.5 CONFIGURATION OF SYSTEM UNDER TEST



NOTE: 1. Please refer to the photos of test configuration in Item 5 also.

4. TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

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

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED 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, 2007
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.

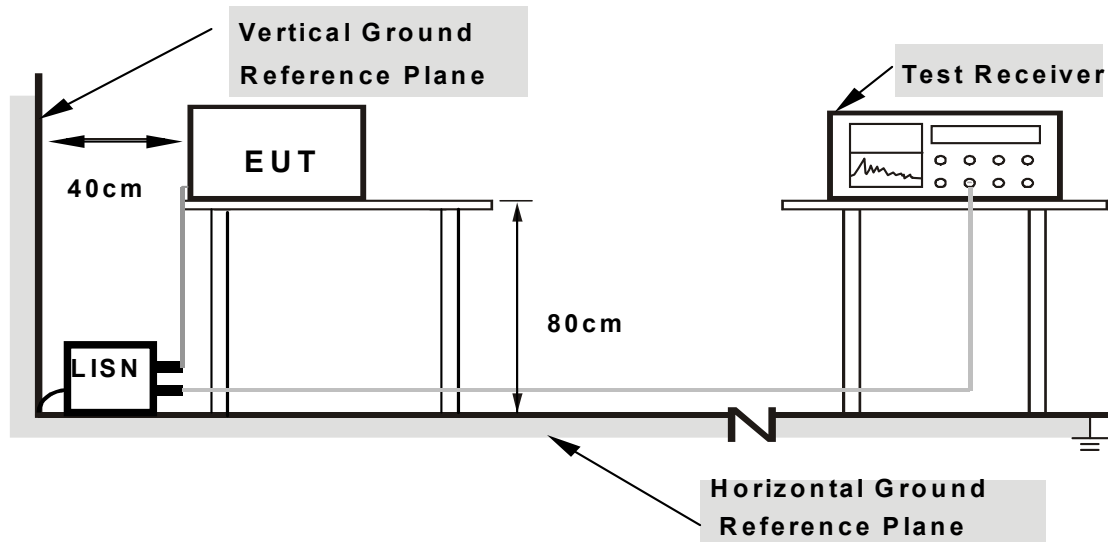
4.1.3 TEST PROCEDURES

- 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 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) was not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



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

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

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

4.1.6 EUT OPERATING CONDITIONS

1. Plug the EUT into the support unit 1 (Personal computer) which placed on a testing table.
2. The support unit 1 (Personal computer) ran a test program “RT2860 V1 0 1 7” to enable EUT under transmission condition continuously.

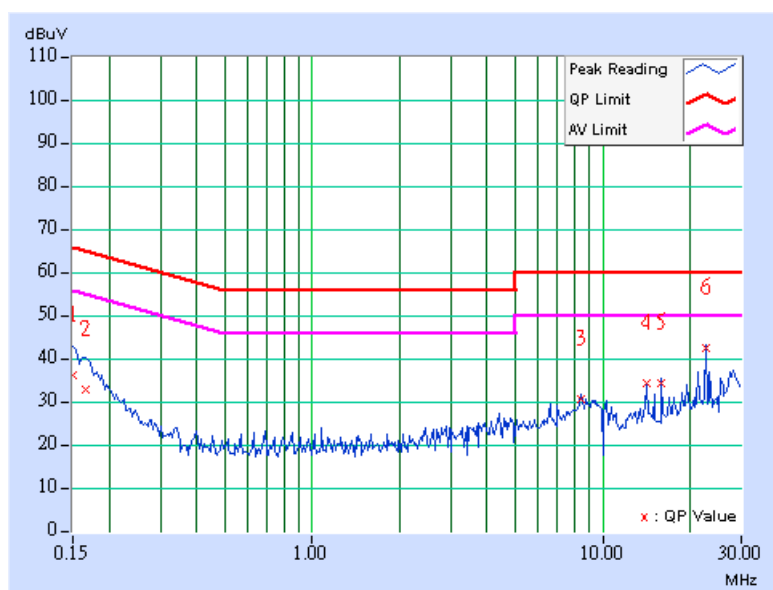
4.1.7 TEST RESULTS

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	23deg. C, 66%RH, 971hPa	TESTED BY	Tony Chen

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	9.75	25.96	-	35.71	-	66.00	56.00	-30.29	-
2	0.166	9.77	22.62	-	32.39	-	65.18	55.18	-32.79	-
3	8.465	10.05	20.25	-	30.30	-	60.00	50.00	-29.70	-
4	14.105	10.35	23.87	-	34.22	-	60.00	50.00	-25.78	-
5	15.988	10.42	23.97	-	34.39	-	60.00	50.00	-25.61	-
6	22.570	10.50	31.92	-	42.42	-	60.00	50.00	-17.58	-

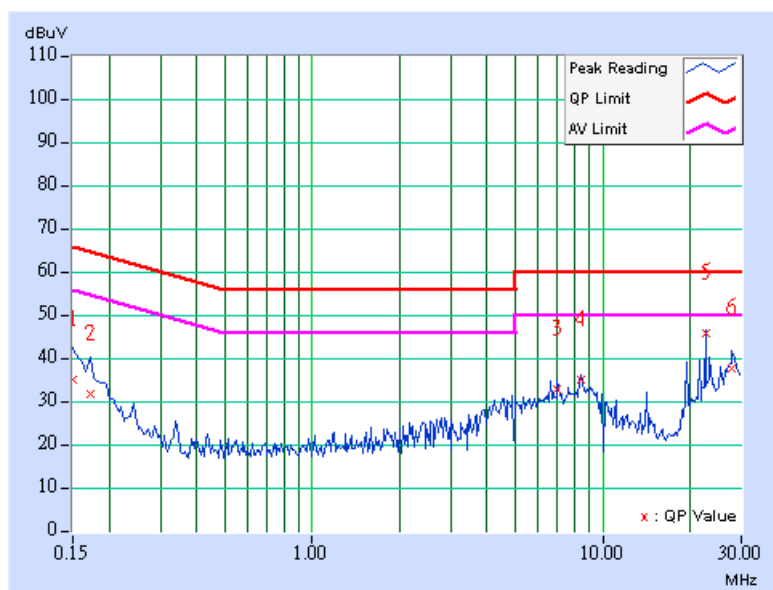
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	23deg. C, 66%RH, 971hPa	TESTED BY	Tony Chen

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	9.75	25.18	-	34.93	-	66.00	56.00	-31.07	-
2	0.173	9.77	21.66	-	31.43	-	64.79	54.79	-33.36	-
3	6.996	10.00	22.97	-	32.97	-	60.00	50.00	-27.03	-
4	8.465	10.05	25.04	-	35.09	-	60.00	50.00	-24.91	-
5	22.570	10.20	35.93	-	46.13	-	60.00	50.00	-13.87	-
6	27.750	10.15	27.57	-	37.72	-	60.00	50.00	-22.28	-

- 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.

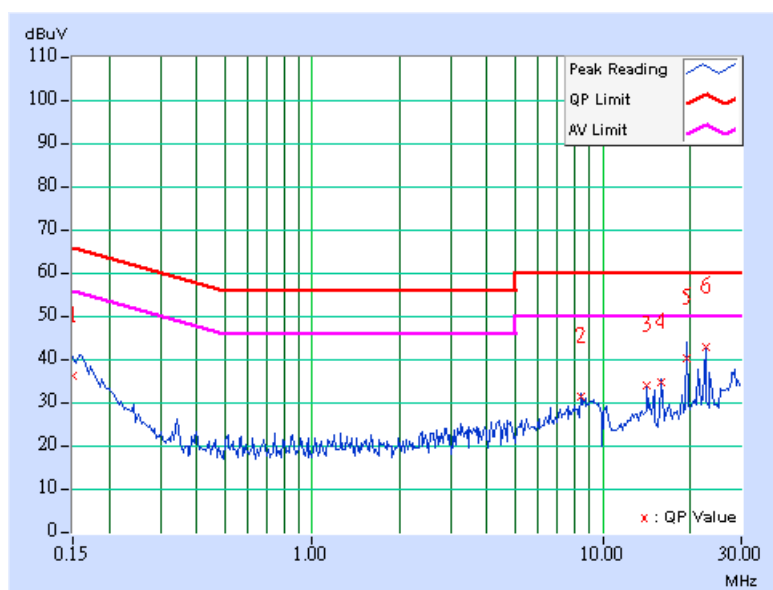


DRAFT 802.11n (20MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line (L)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	7.2Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	23deg. C, 66%RH, 971hPa	TESTED BY	Tony Chen

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	9.75	25.70	-	35.45	-	66.00	56.00	-30.55	-
2	8.465	10.12	21.02	-	31.14	-	60.00	50.00	-28.86	-
3	14.105	10.36	23.38	-	33.74	-	60.00	50.00	-26.26	-
4	15.988	10.42	24.37	-	34.79	-	60.00	50.00	-25.21	-
5	19.496	10.49	29.77	-	40.26	-	60.00	50.00	-19.74	-
6	22.570	10.55	32.35	-	42.90	-	60.00	50.00	-17.10	-

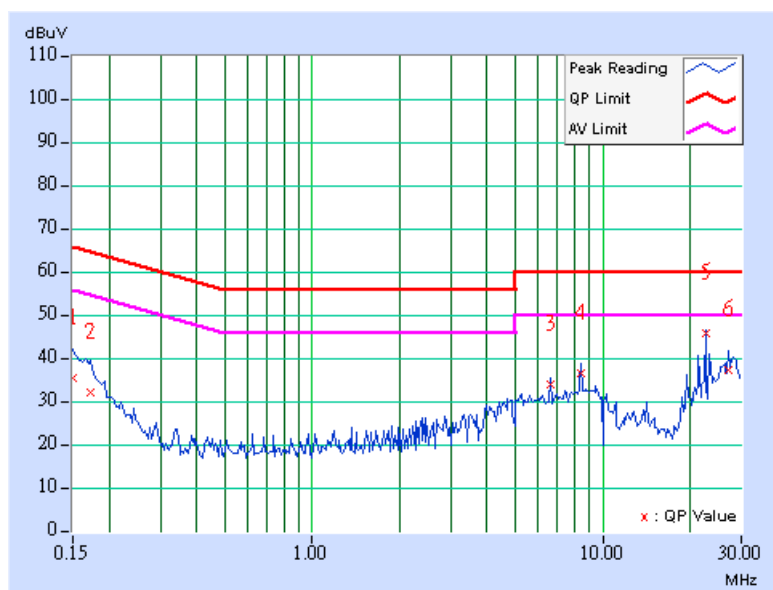
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	7.2Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	23deg. C, 66%RH, 971hPa	TESTED BY	Tony Chen

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	9.75	25.30	-	35.05	-	66.00	56.00	-30.95	-
2	0.173	9.77	21.95	-	31.72	-	64.79	54.79	-33.07	-
3	6.582	9.99	24.08	-	34.07	-	60.00	50.00	-25.93	-
4	8.465	10.05	26.35	-	36.40	-	60.00	50.00	-23.60	-
5	22.570	10.20	35.93	-	46.13	-	60.00	50.00	-13.87	-
6	27.230	10.16	27.29	-	37.45	-	60.00	50.00	-22.55	-

- 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.

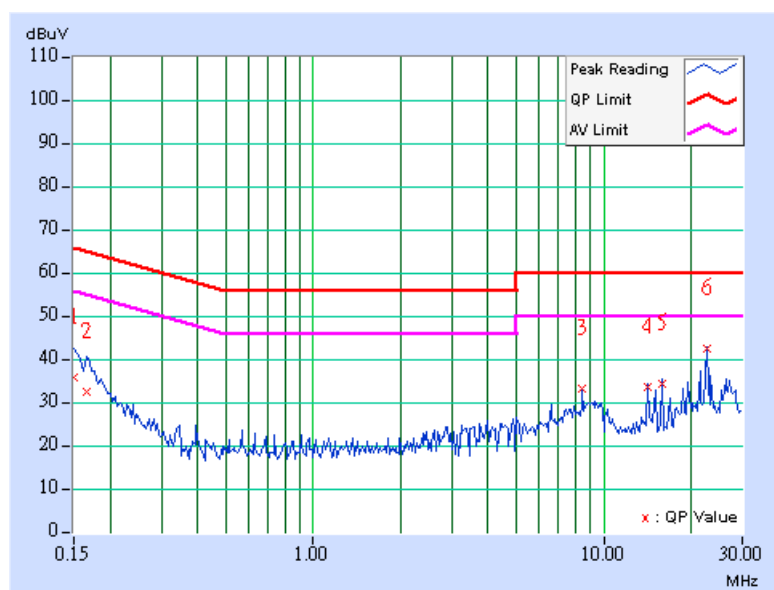


DRAFT 802.11n (40MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line (L)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	15Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	23deg. C, 66%RH, 971hPa	TESTED BY	Tony Chen

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	9.75	25.34	-	35.09	-	66.00	56.00	-30.91	-
2	0.166	9.77	22.19	-	31.96	-	65.18	55.18	-33.22	-
3	8.465	10.05	22.65	-	32.70	-	60.00	50.00	-27.30	-
4	14.105	10.35	23.24	-	33.59	-	60.00	50.00	-26.41	-
5	15.988	10.42	23.94	-	34.36	-	60.00	50.00	-25.64	-
6	22.570	10.50	31.98	-	42.48	-	60.00	50.00	-17.52	-

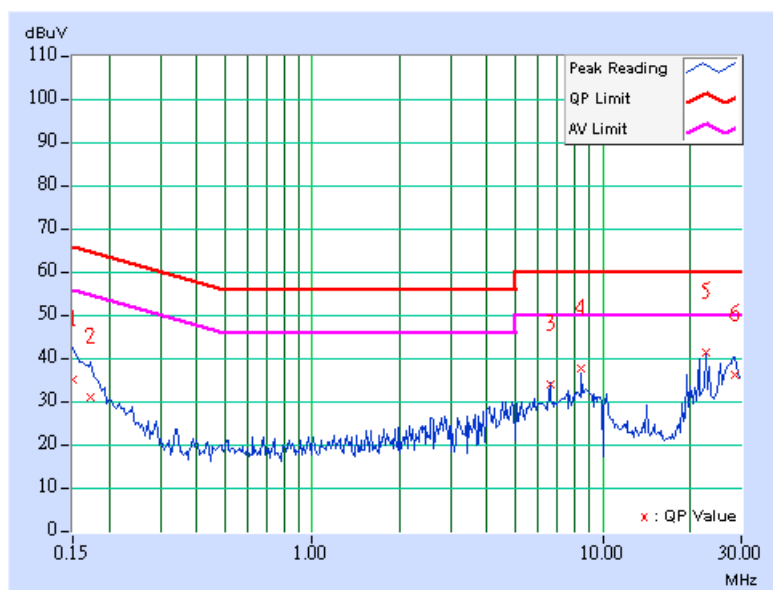
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	15Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	23deg. C, 66%RH, 971hPa	TESTED BY	Tony Chen

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	9.75	25.12	-	34.87	-	66.00	56.00	-31.13	-
2	0.173	9.77	20.95	-	30.72	-	64.79	54.79	-34.07	-
3	6.582	9.99	24.03	-	34.02	-	60.00	50.00	-25.98	-
4	8.465	10.05	27.77	-	37.82	-	60.00	50.00	-22.18	-
5	22.570	10.20	31.31	-	41.51	-	60.00	50.00	-18.49	-
6	28.645	10.13	26.21	-	36.34	-	60.00	50.00	-23.66	-

- 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 5.14	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.
7. The following table is for the measurement uncertainty, which is calculated as per the document 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
Radiated emissions (30MHz-1GHz)	3.89 dB
Radiated emissions (1GHz ~18GHz)	2.21 dB
Radiated emissions (18GHz ~40GHz)	1.88 dB

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 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

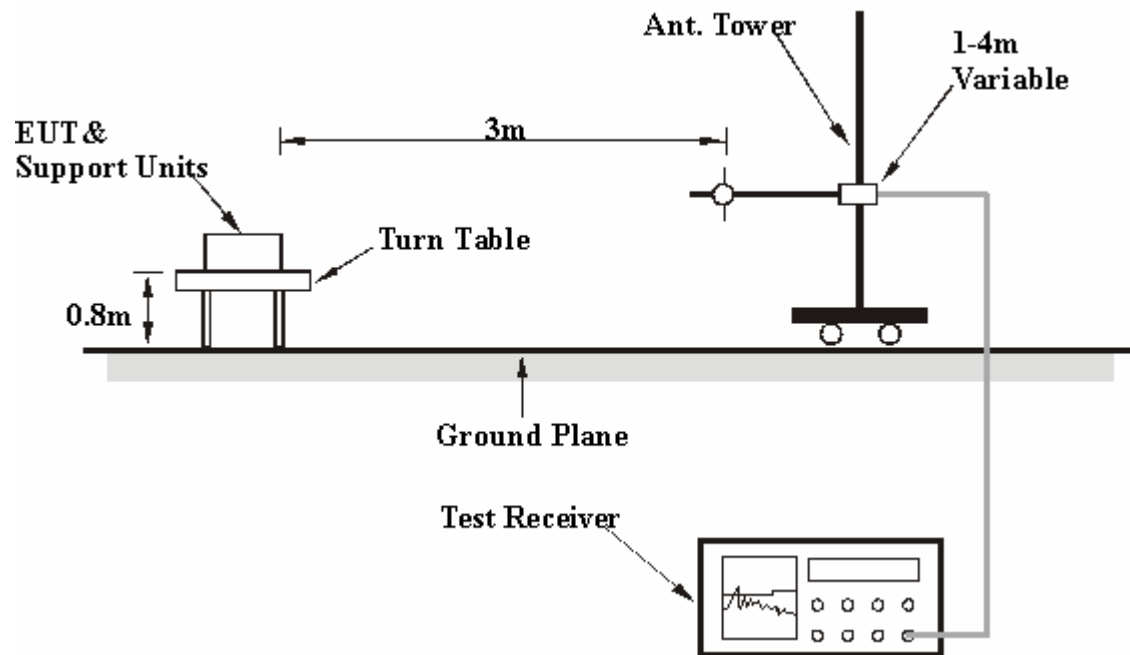
NOTE:

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 is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz 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 item 4.1.6

Below 1GHz Test Data

4.2.7 TEST RESULTS

802.11g OFDM MODULATION: (MODE 1)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK for 802.11g	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	22deg. C, 68%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	250.01	15.90 QP	46.00	-30.10	1.75 H	225	2.10	13.80
2	300.01	15.00 QP	46.00	-31.00	1.42 H	136	-1.80	16.80
3	400.02	17.40 QP	46.00	-28.60	1.68 H	255	-1.60	19.00
4	500.02	20.50 QP	46.00	-25.50	1.36 H	172	-1.30	21.80
5	600.02	29.80 QP	46.00	-16.20	1.32 H	72	5.30	24.50
6	750.00	25.60 QP	46.00	-20.40	1.60 H	248	-1.70	27.30

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	125.00	21.30 QP	43.50	-22.20	1.00 V	266	9.10	12.20
2	250.00	19.80 QP	46.00	-26.20	1.00 V	302	6.00	13.80
3	300.00	18.20 QP	46.00	-27.80	1.00 V	142	1.40	16.80
4	399.99	17.20 QP	46.00	-28.80	1.00 V	265	-1.80	19.00
5	500.01	21.60 QP	46.00	-24.40	1.00 V	285	-0.20	21.80
6	600.02	23.60 QP	46.00	-22.40	1.00 V	268	-0.90	24.50
7	750.02	25.20 QP	46.00	-20.80	1.00 V	178	-2.20	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.

802.11g OFDM MODULATION: (MODE 2)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK for 802.11g	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	22deg. C, 68%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	249.99	15.40 QP	46.00	-30.60	1.62 H	244	1.60	13.80
2	300.06	14.40 QP	46.00	-31.60	1.38 H	103	-2.40	16.80
3	400.06	17.10 QP	46.00	-28.90	1.52 H	285	-2.00	19.00
4	500.06	20.70 QP	46.00	-25.30	1.44 H	183	-1.00	21.80
5	600.01	29.50 QP	46.00	-16.50	1.47 H	45	5.00	24.50
6	750.01	25.50 QP	46.00	-20.50	1.45 H	220	-1.80	27.40

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	125.00	21.70 QP	43.50	-21.80	1.00 V	240	9.50	12.20
2	250.00	19.50 QP	46.00	-26.50	1.00 V	308	5.70	13.80
3	300.00	18.20 QP	46.00	-27.80	1.00 V	72	1.40	16.80
4	400.00	17.40 QP	46.00	-28.60	1.02 V	303	-1.60	19.00
5	500.00	21.20 QP	46.00	-24.80	1.00 V	248	-0.60	21.80
6	600.00	23.40 QP	46.00	-22.60	1.00 V	268	-1.10	24.50

- 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.

Draft 802.11n (20MHz) OFDM MODULATION: (MODE 1)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK for draft 802.11n (20MHz)	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	7.2Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	22deg. C, 68%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	249.99	16.60 QP	46.00	-29.40	1.45 H	20	2.80	13.80
2	299.99	16.00 QP	46.00	-30.00	1.73 H	267	-0.80	16.80
3	400.03	19.00 QP	46.00	-27.00	1.88 H	336	0.00	19.00
4	499.99	18.90 QP	46.00	-27.10	1.47 H	55	-2.80	21.80
5	600.03	28.40 QP	46.00	-17.60	1.70 H	203	3.90	24.50
6	750.03	25.90 QP	46.00	-20.10	1.49 H	11	-1.50	27.40

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	125.01	21.70 QP	43.50	-21.80	1.00 V	287	9.50	12.20
2	249.99	19.80 QP	46.00	-26.20	1.00 V	323	6.00	13.80
3	299.99	18.00 QP	46.00	-28.00	1.00 V	136	1.20	16.80
4	399.98	17.40 QP	46.00	-28.60	1.00 V	223	-1.60	19.00
5	499.99	21.30 QP	46.00	-24.70	1.00 V	301	-0.40	21.80
6	600.05	23.80 QP	46.00	-22.20	1.00 V	290	-0.70	24.50
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.

Draft 802.11n (20MHz) OFDM MODULATION: (MODE 2)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK for draft 802.11n (20MHz)	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	7.2Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	22deg. C, 68%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	249.98	15.50 QP	46.00	-30.50	1.46 H	212	1.70	13.80
2	300.01	14.60 QP	46.00	-31.40	1.32 H	146	-2.20	16.80
3	400.02	17.60 QP	46.00	-28.40	1.64 H	266	-1.40	19.00
4	500.00	20.80 QP	46.00	-25.20	1.32 H	175	-1.00	21.80
5	600.01	29.00 QP	46.00	-17.00	1.30 H	85	4.50	24.50
6	750.01	25.20 QP	46.00	-20.80	1.40 H	185	-2.20	27.40

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	125.00	21.50 QP	43.50	-22.00	1.00 V	262	9.30	12.20
2	250.00	19.70 QP	46.00	-26.30	1.00 V	299	5.90	13.80
3	300.00	18.00 QP	46.00	-28.00	1.00 V	105	1.20	16.80
4	400.00	17.20 QP	46.00	-28.80	1.00 V	285	-1.80	19.00
5	500.00	21.10 QP	46.00	-24.90	1.00 V	268	-0.70	21.80
6	600.01	23.20 QP	46.00	-22.80	1.00 V	272	-1.30	24.50
7	750.02	25.20 QP	46.00	-20.80	1.00 V	206	-2.20	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	20deg. C, 68%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	2390.00	58.60 PK	74.00	-15.40	1.33 H	337	26.67	31.93
2	2390.00	46.17 AV	54.00	-7.83	1.33 H	337	14.24	31.93
3	*2412.00	99.90 PK			1.32 H	346	67.88	32.02
4	*2412.00	94.50 AV			1.32 H	346	62.48	32.02
5	3216.00	53.00 PK	79.90	-26.90	1.58 H	32	19.76	33.24
6	3216.00	49.80 AV	74.50	-24.70	1.58 H	32	16.56	33.24
7	4824.00	50.40 PK	74.00	-23.60	1.42 H	162	14.43	35.97
8	4824.00	45.50 AV	54.00	-8.50	1.42 H	162	9.53	35.97
9	7236.00	54.20 PK	74.00	-19.80	1.22 H	28	11.96	42.24
10	7236.00	42.60 AV	54.00	-11.40	1.22 H	28	0.36	42.24

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	2390.00	65.20 PK	74.00	-8.80	1.00 V	29	33.27	31.93
2	2390.00	52.80 AV	54.00	-1.20	1.00 V	29	20.87	31.93
3	*2412.00	112.90 PK			1.00 V	27	80.88	32.02
4	*2412.00	108.40 AV			1.00 V	27	76.38	32.02
5	3216.00	58.20 PK	92.90	-34.70	1.33 V	14	24.96	33.24
6	3216.00	56.70 AV	88.40	-31.70	1.33 V	14	23.46	33.24
7	4824.00	49.70 PK	74.00	-24.30	1.30 V	359	13.73	35.97
8	4824.00	43.00 AV	54.00	-11.00	1.30 V	359	7.03	35.97
9	7326.00	57.80 PK	74.00	-16.20	1.66 V	13	15.23	42.57
10	7326.00	48.50 AV	54.00	-5.50	1.66 V	13	5.93	42.57

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	20deg. C, 68%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	*2437.00	102.00 PK			1.33 H	348	69.89	32.11
2	*2437.00	96.80 AV			1.33 H	348	64.69	32.11
3	3249.00	52.80 PK	82.00	-29.20	1.52 H	35	19.55	33.25
4	3249.00	49.60 AV	76.80	-27.20	1.52 H	35	16.35	33.25
5	4874.00	51.80 PK	74.00	-22.20	1.44 H	20	15.72	36.08
6	4874.00	41.80 AV	54.00	-12.20	1.44 H	20	5.72	36.08
7	7311.00	54.30 PK	74.00	-19.70	1.14 H	20	11.78	42.52
8	7311.00	41.80 AV	54.00	-12.20	1.14 H	20	-0.72	42.52

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	*2437.00	114.50 PK			1.00 V	28	82.39	32.11
2	*2437.00	109.80 AV			1.00 V	28	77.69	32.11
3	3249.00	53.50 PK	94.50	-41.00	1.29 V	15	20.25	33.25
4	3249.00	50.80 AV	89.80	-39.00	1.29 V	15	17.55	33.25
5	4874.00	51.50 PK	74.00	-22.50	1.40 V	28	15.42	36.08
6	4874.00	45.90 AV	54.00	-8.10	1.40 V	28	9.82	36.08
7	7311.00	59.20 PK	74.00	-14.80	1.78 V	27	16.68	42.52
8	7311.00	51.30 AV	54.00	-2.70	1.78 V	27	8.78	42.52

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.

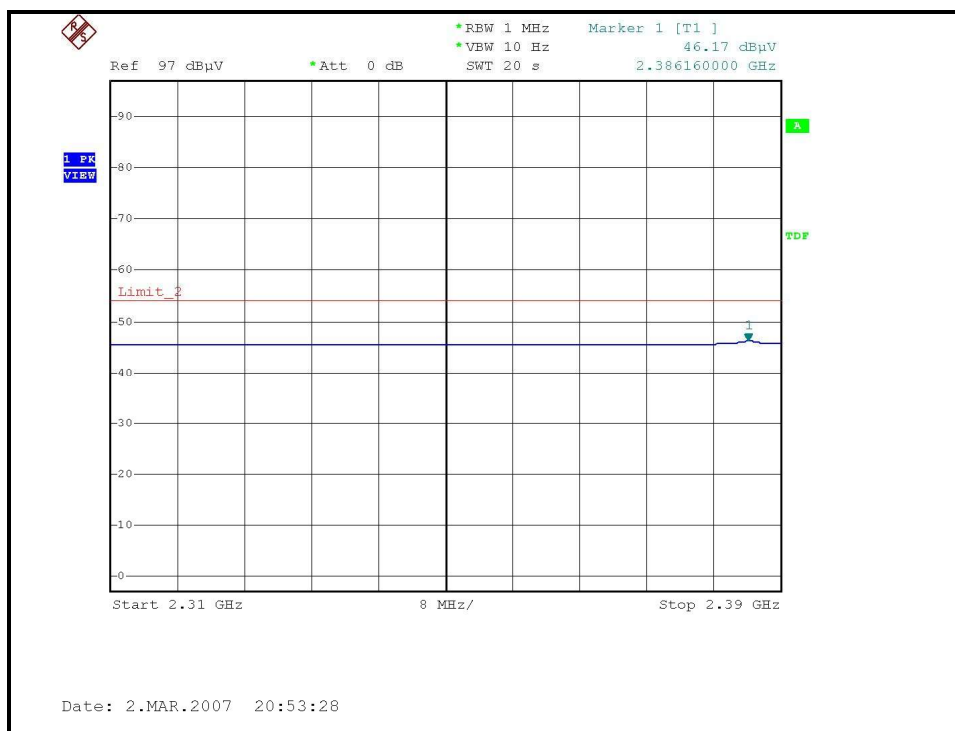
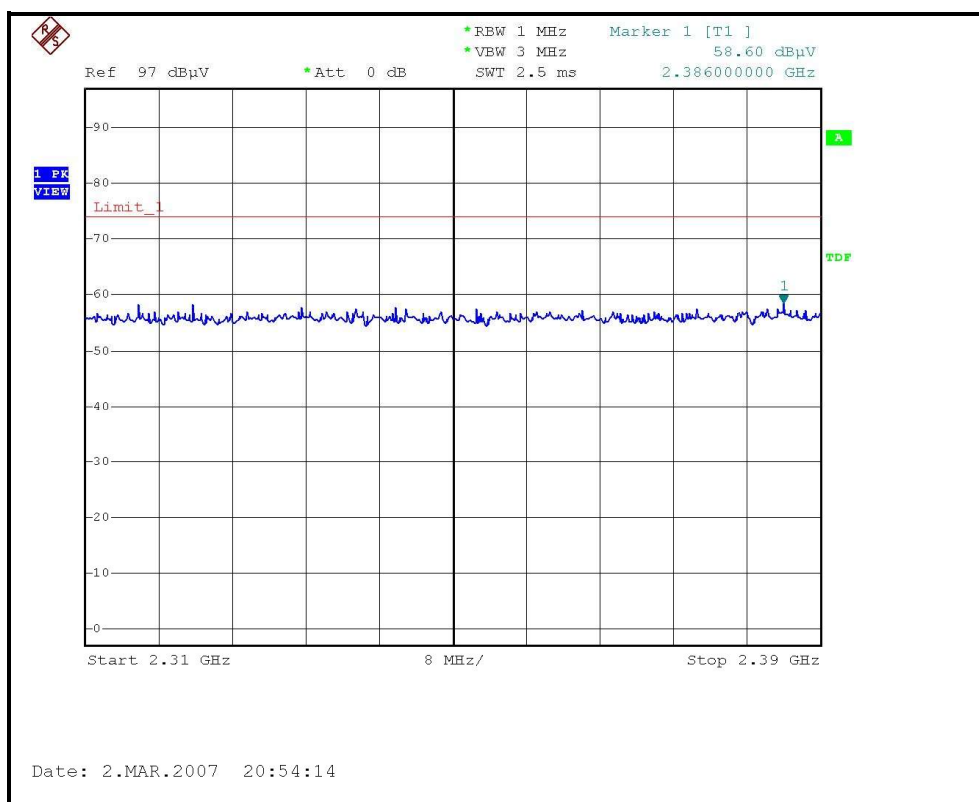
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	CCK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20deg. C, 68%RH, 971hPa	TESTED BY	Sky Liao

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	*2462.00	98.90 PK			1.00 H	360	66.69	32.21
2	*2462.00	93.10 AV			1.00 H	360	60.89	32.21
3	2487.60	59.16 PK	74.00	-14.84	1.03 H	350	26.86	32.30
4	2487.60	46.22 AV	54.00	-7.78	1.03 H	350	13.92	32.30
5	3282.00	44.60 PK	74.00	-29.40	1.60 H	20	11.34	33.26
6	3282.00	33.60 AV	54.00	-20.40	1.60 H	20	0.34	33.26
7	4924.00	55.80 PK	74.00	-18.20	1.33 H	207	19.61	36.19
8	4924.00	52.30 AV	54.00	-1.70	1.33 H	207	16.11	36.19
9	7386.00	52.80 PK	74.00	-21.20	1.08 H	66	10.00	42.80
10	7386.00	39.00 AV	54.00	-15.00	1.08 H	66	-3.80	42.80

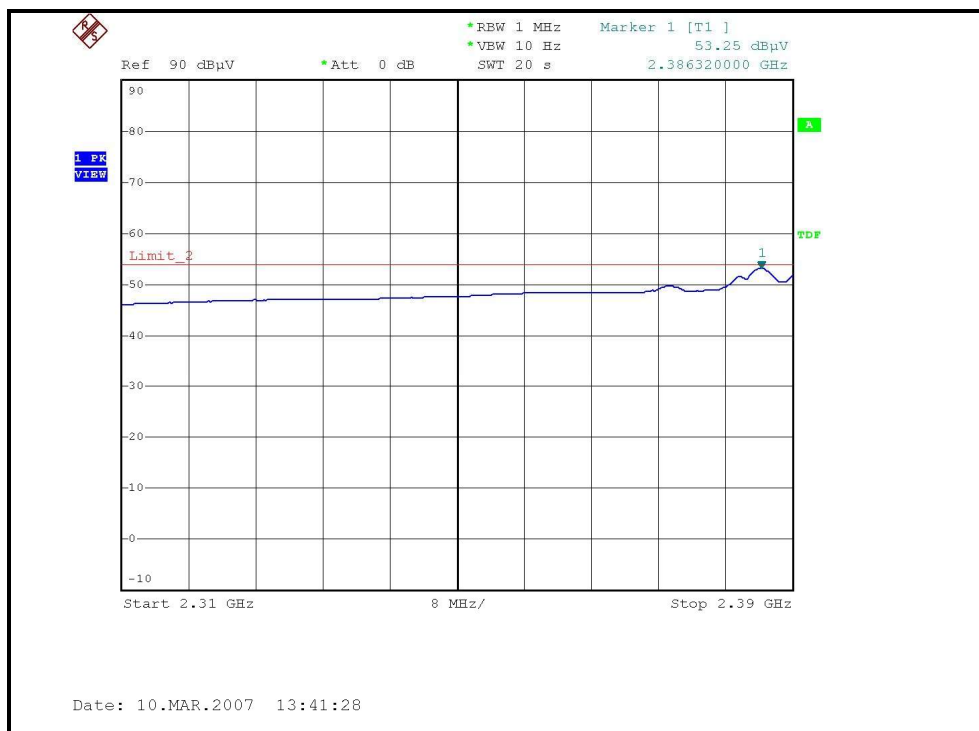
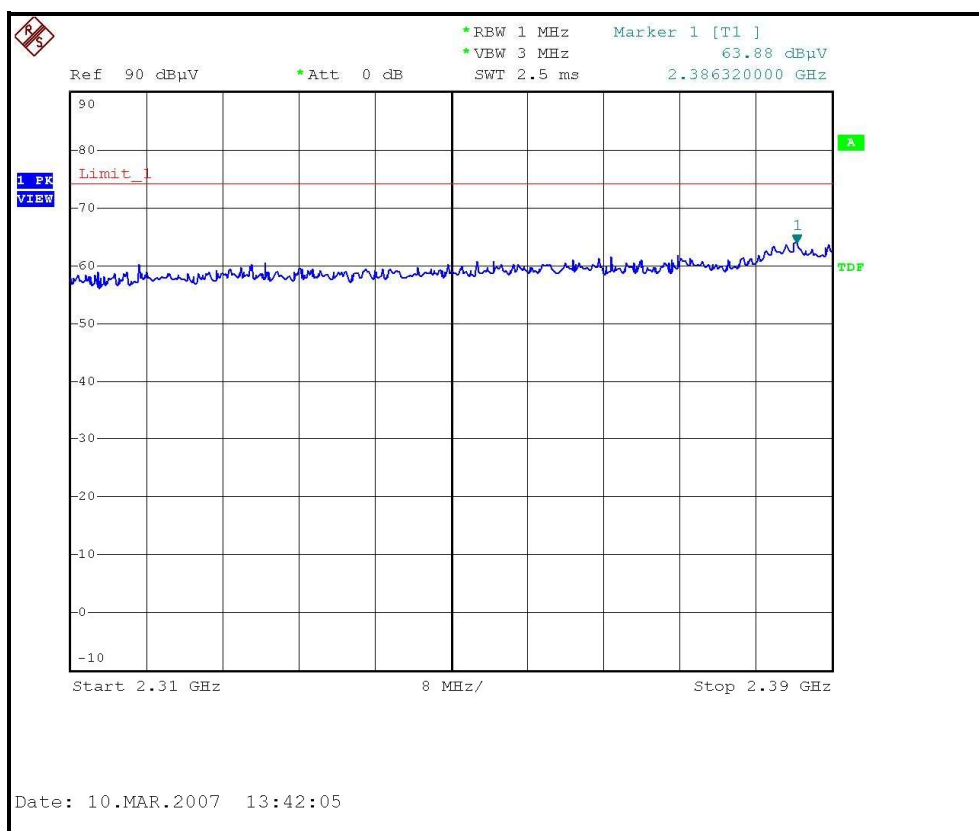
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	112.10 PK			1.49 V	13	79.89	32.21
2	*2462.00	107.70 AV			1.49 V	13	75.49	32.21
3	2487.60	64.10 PK	74.00	-9.90	1.50 V	14	31.80	32.30
4	2487.60	53.10 AV	54.00	-0.90	1.50 V	14	20.80	32.30
5	3282.00	51.40 PK	74.00	-22.60	1.28 V	16	18.14	33.26
6	3282.00	48.50 AV	54.00	-5.50	1.28 V	16	15.24	33.26
7	4924.00	50.90 PK	74.00	-23.10	1.42 V	0	14.71	36.19
8	4924.00	44.10 AV	54.00	-9.90	1.42 V	0	7.91	36.19
9	7386.00	56.70 PK	74.00	-17.30	1.63 V	0	13.90	42.80
10	7386.00	45.50 AV	54.00	-8.50	1.63 V	0	2.70	42.80

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.

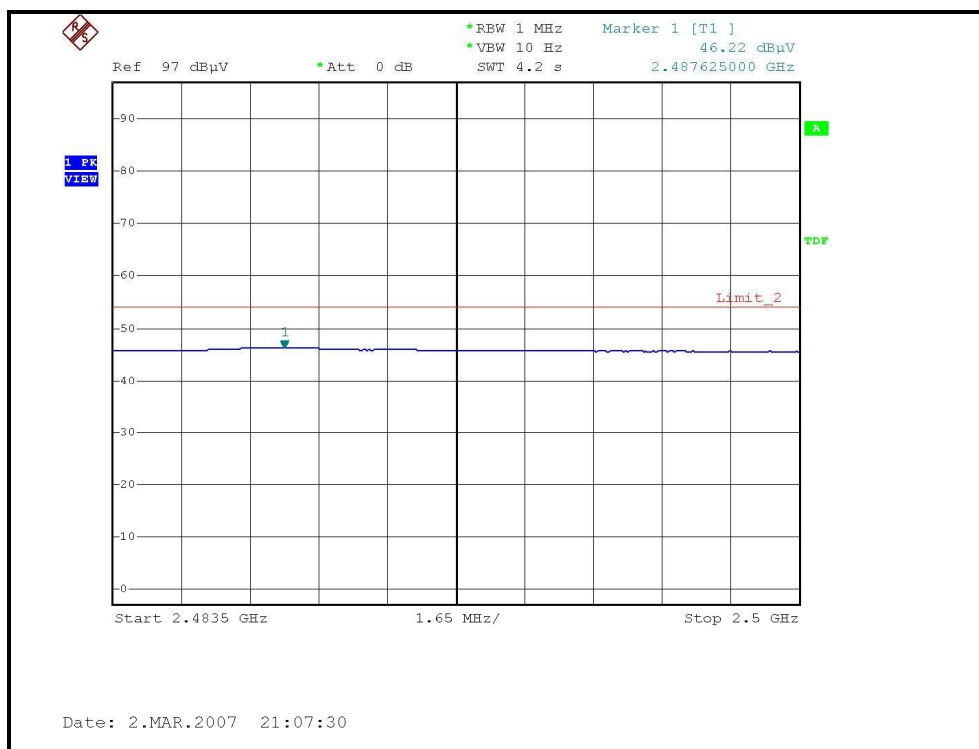
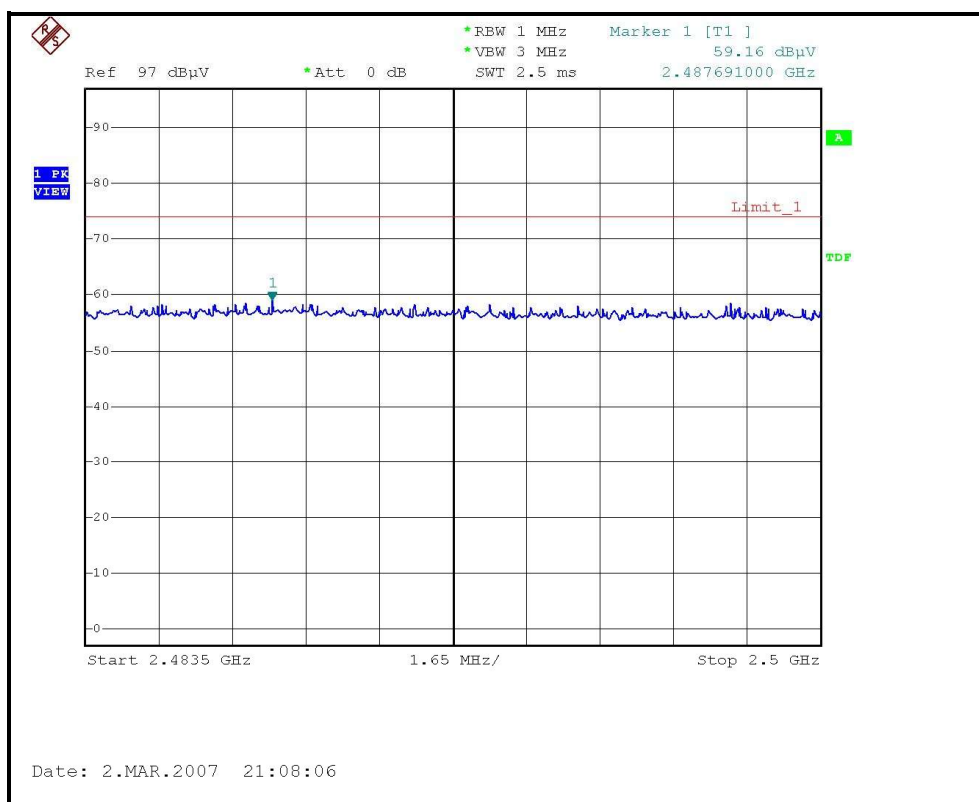
RESTRICTED BANDEDGE (802.11b MODE,CH1, HORIZONTAL)



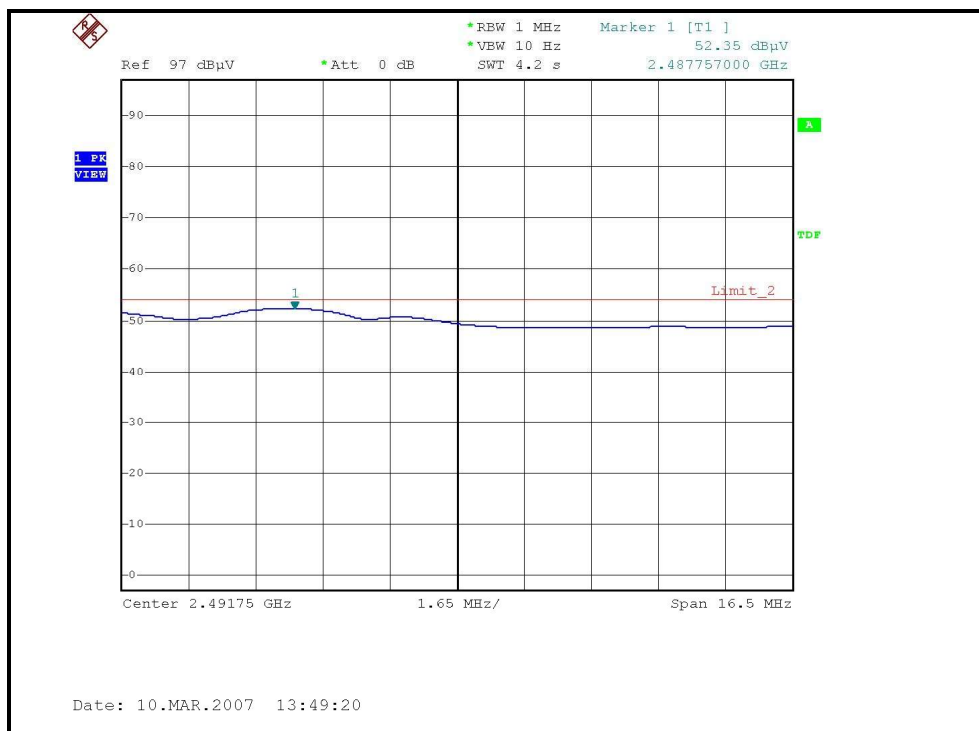
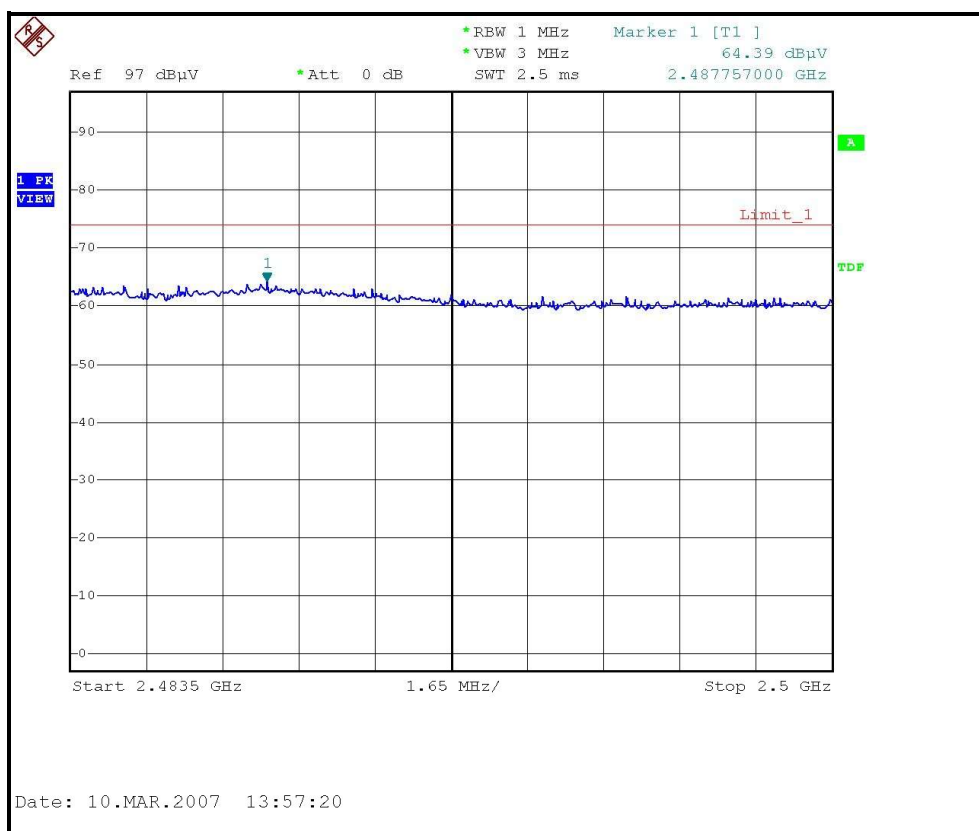
RESTRICTED BANDEDGE (802.11b MODE, CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11b MODE,CH11, HORIZONTAL)



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	20deg. C, 68%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	2390.00	59.92 PK	74.00	-14.08	1.32 H	336	27.99	31.93
2	2390.00	46.14 AV	54.00	-7.86	1.32 H	336	14.21	31.93
3	*2412.00	101.80 PK			1.31 H	336	69.78	32.02
4	*2412.00	89.60 AV			1.31 H	336	57.58	32.02
5	3216.00	47.00 PK	81.80	-34.80	1.81 H	142	13.76	33.24
6	3216.00	38.40 AV	69.60	-31.20	1.81 H	142	5.16	33.24
7	4824.00	46.80 PK	74.00	-27.20	1.25 H	115	10.83	35.97
8	4824.00	33.60 AV	54.00	-20.40	1.25 H	115	-2.37	35.97
9	7236.00	53.50 PK	74.00	-20.50	1.55 H	48	11.26	42.24
10	7236.00	39.40 AV	54.00	-14.60	1.55 H	48	-2.84	42.24

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	2390.00	66.60 PK	74.00	-7.40	1.82 V	19	34.67	31.93
2	2390.00	52.80 AV	54.00	-1.20	1.82 V	19	20.87	31.93
3	*2412.00	113.70 PK			1.81 V	20	81.68	32.02
4	*2412.00	103.40 AV			1.81 V	20	71.38	32.02
5	3216.00	58.60 PK	93.70	-35.10	1.33 V	15	25.36	33.24
6	3216.00	57.00 AV	83.40	-26.40	1.33 V	15	23.76	33.24
7	4824.00	47.30 PK	74.00	-26.70	1.42 V	180	11.33	35.97
8	4824.00	33.80 AV	54.00	-20.20	1.42 V	180	-2.17	35.97
9	7236.00	56.30 PK	74.00	-17.70	1.15 V	356	14.06	42.24
10	7236.00	41.30 AV	54.00	-12.70	1.15 V	356	-0.94	42.24

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.

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	20deg. C, 68%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	*2437.00	103.10 PK			1.32 H	348	70.99	32.11
2	*2437.00	91.00 AV			1.32 H	348	58.89	32.11
3	3249.00	46.90 PK	83.10	-36.20	1.60 H	18	13.65	33.25
4	3249.00	38.60 AV	71.10	-32.40	1.60 H	18	5.35	33.25
5	4874.00	48.20 PK	74.00	-25.80	1.15 H	211	12.12	36.08
6	4874.00	34.20 AV	54.00	-19.80	1.15 H	211	-1.88	36.08
7	7311.00	53.70 PK	74.00	-20.30	1.60 H	64	11.18	42.52
8	7311.00	40.00 AV	54.00	-14.00	1.60 H	64	-2.52	42.52

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	*2437.00	115.40 PK			1.50 V	12	83.29	32.11
2	*2437.00	105.10 AV			1.50 V	12	72.99	32.11
3	3249.00	56.10 PK	95.40	-39.30	1.29 V	15	22.85	33.25
4	3249.00	53.20 AV	85.10	-31.90	1.29 V	15	19.95	33.25
5	4874.00	50.60 PK	74.00	-23.40	1.40 V	27	14.52	36.08
6	4874.00	44.90 AV	54.00	-9.10	1.40 V	27	8.82	36.08
7	7311.00	66.90 PK	74.00	-7.10	1.75 V	14	24.38	42.52
8	7311.00	45.30 AV	54.00	-8.70	1.75 V	14	2.78	42.52

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	20deg. C, 68%RH, 971hPa	TESTED BY	Sky Liao

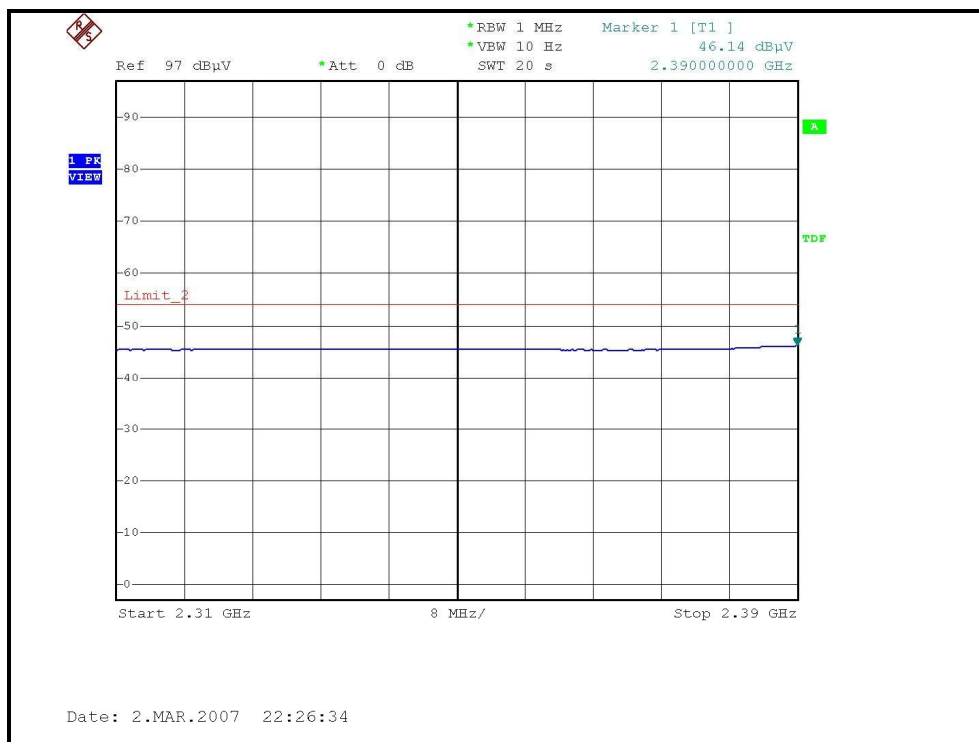
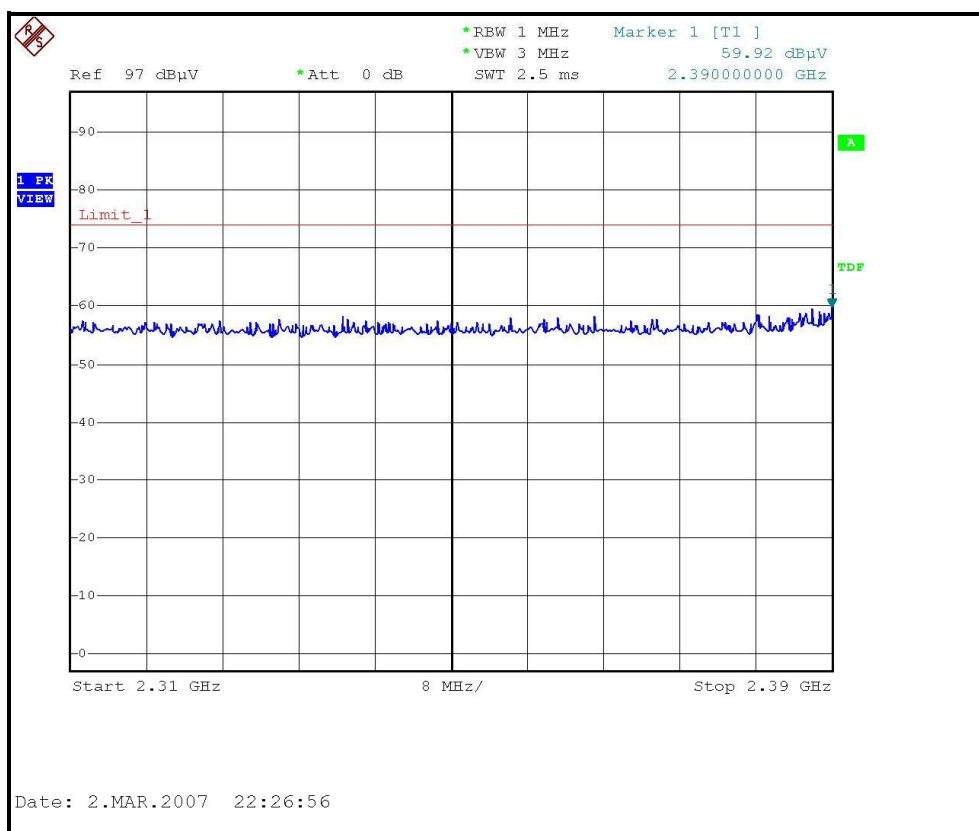
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	101.50 PK			1.00 H	348	69.29	32.21
2	*2462.00	89.00 AV			1.00 H	348	56.79	32.21
3	2483.50	57.73 PK	74.00	-16.27	1.00 H	347	25.44	32.29
4	2483.50	46.04 AV	54.00	-7.96	1.00 H	347	13.75	32.29
5	3282.00	44.20 PK	81.50	-37.30	1.65 H	122	10.94	33.26
6	3282.00	35.50 AV	69.00	-33.50	1.65 H	122	2.24	33.26
7	4924.00	47.50 PK	74.00	-26.50	1.22 H	135	11.31	36.19
8	4924.00	34.00 AV	54.00	-20.00	1.22 H	135	-2.19	36.19
9	7386.00	53.20 PK	74.00	-20.80	1.48 H	56	10.40	42.80
10	7386.00	39.20 AV	54.00	-14.80	1.48 H	56	-3.60	42.80

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	*2462.00	112.90 PK			1.50 V	14	80.69	32.21
2	*2462.00	102.40 AV			1.50 V	14	70.19	32.21
3	2483.50	66.80 PK	74.00	-7.20	1.48 V	13	34.51	32.29
4	2483.50	52.90 AV	54.00	-1.10	1.48 V	13	20.61	32.29
5	3282.00	51.00 PK	92.90	-41.90	1.28 V	16	17.74	33.26
6	3282.00	48.00 AV	82.40	-34.40	1.28 V	16	14.74	33.26
7	4924.00	50.00 PK	74.00	-24.00	1.28 V	21	13.81	36.19
8	4924.00	36.20 AV	54.00	-17.80	1.28 V	21	0.01	36.19
9	7386.00	53.20 PK	74.00	-20.80	1.16 V	12	10.40	42.80
10	7386.00	39.60 AV	54.00	-14.40	1.16 V	12	-3.20	42.80

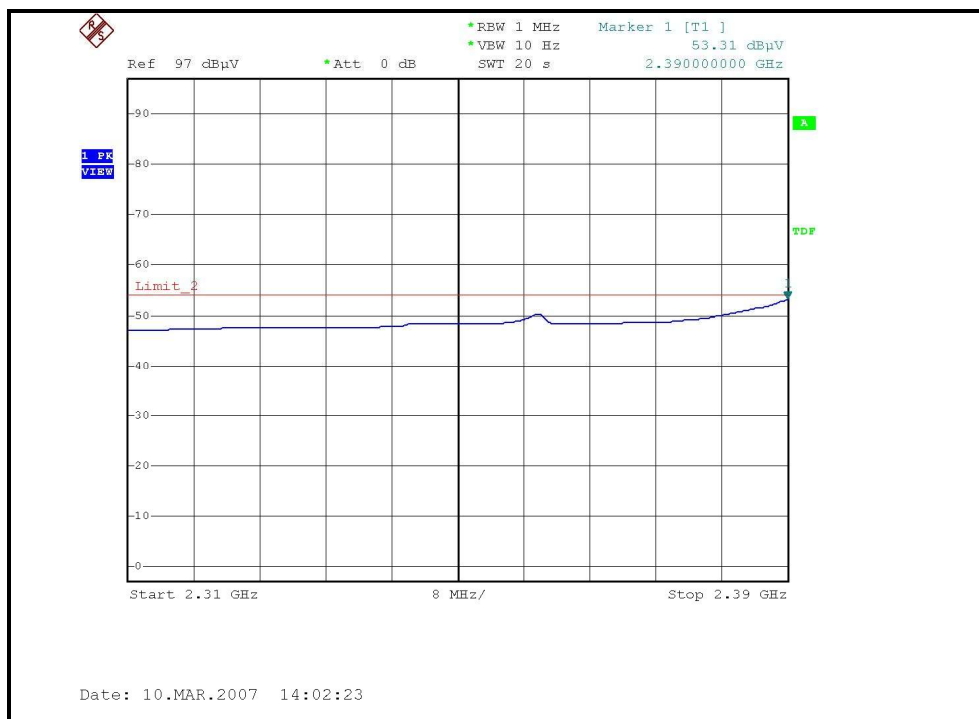
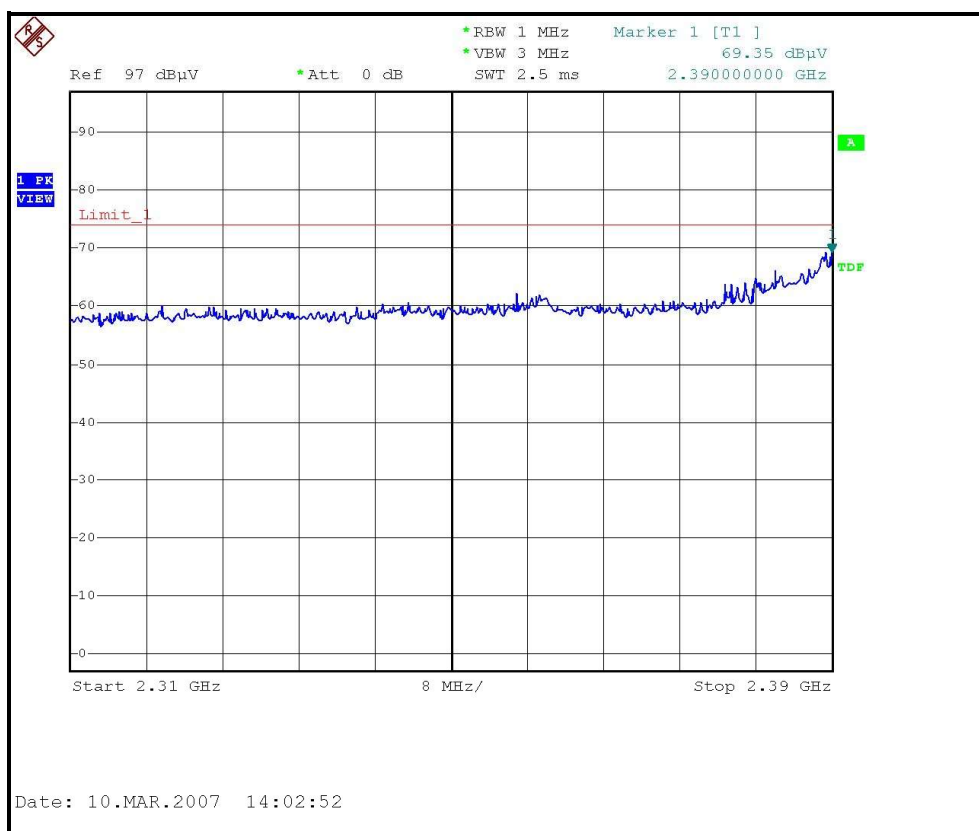
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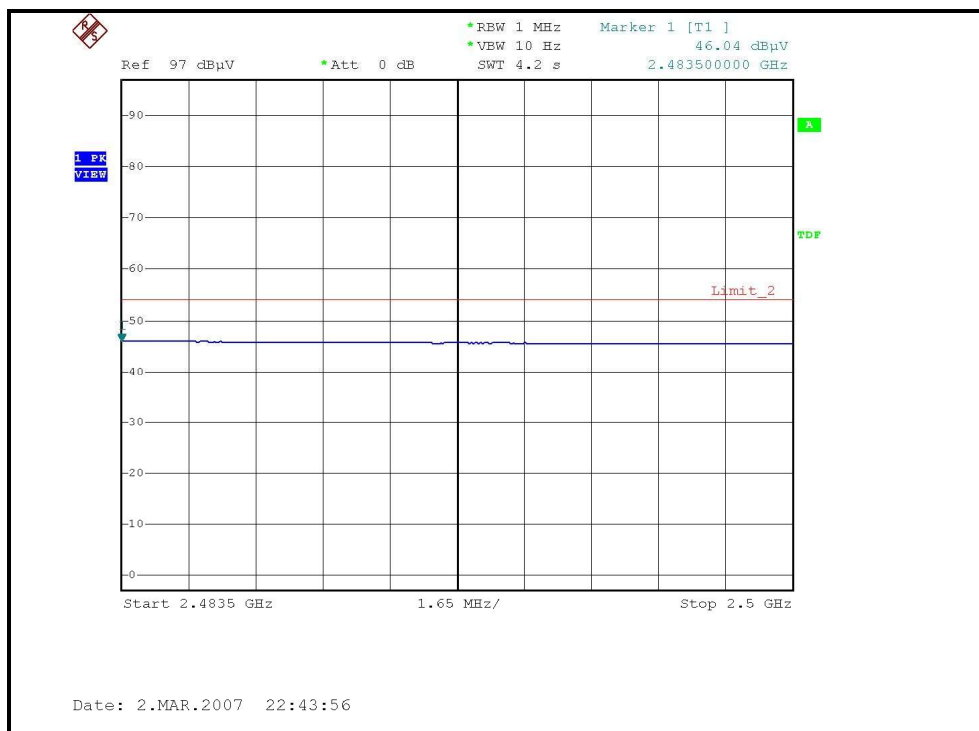
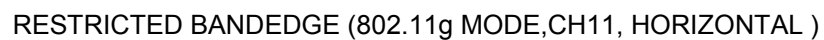
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247.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

RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)

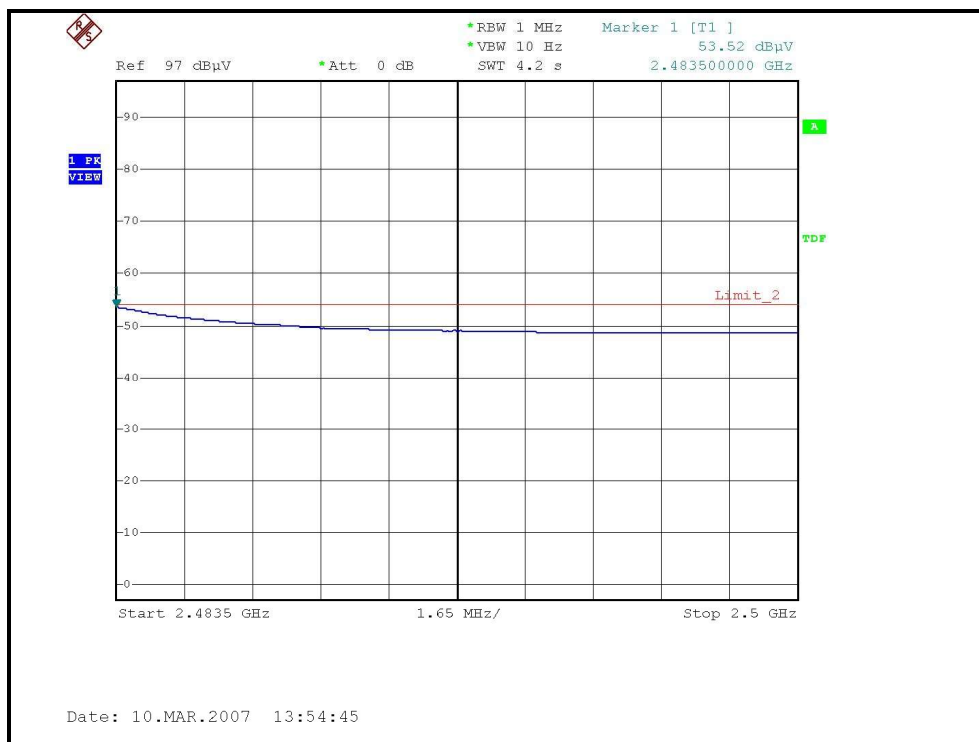
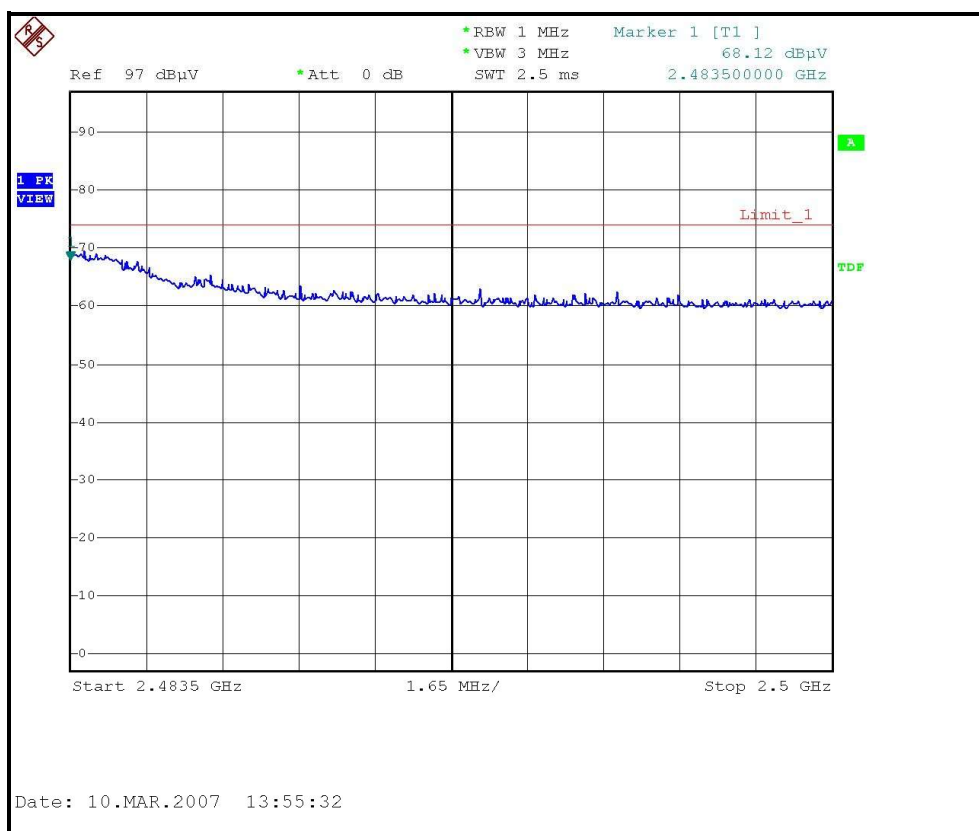


RESTRICTED BANDEDGE (802.11g MODE,CH1, VERTICAL)





RESTRICTED BANDEDGE (802.11g MODE,CH11, 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	7.2Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%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	2390.00	56.73 PK	74.00	-17.27	1.01 H	34	24.80	31.93
2	2390.00	45.61 AV	54.00	-8.39	1.01 H	34	13.68	31.93
3	*2412.00	99.80 PK			1.01 H	33	67.78	32.02
4	*2412.00	89.50 AV			1.01 H	33	57.48	32.02
5	3216.00	47.20 PK	79.80	-32.60	1.00 H	320	13.96	33.24
6	3216.00	37.90 AV	69.50	-31.60	1.00 H	320	4.66	33.24
7	4824.00	50.20 PK	74.00	-23.80	1.20 H	190	14.23	35.97
8	4824.00	36.00 AV	54.00	-18.00	1.20 H	190	0.03	35.97
9	7236.00	52.50 PK	74.00	-21.50	1.22 H	105	10.26	42.24
10	7236.00	38.70 AV	54.00	-15.30	1.22 H	105	-3.54	42.24

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	2390.00	67.74 PK	74.00	-6.26	1.66 V	77	35.81	31.93
2	2390.00	51.44 AV	54.00	-2.56	1.66 V	77	19.51	31.93
3	*2412.00	113.70 PK			1.66 V	76	81.68	32.02
4	*2412.00	103.30 AV			1.66 V	76	71.28	32.02
5	3216.00	53.00 PK	93.70	-40.70	1.22 V	197	19.76	33.24
6	3216.00	50.00 AV	83.30	-33.30	1.22 V	197	16.76	33.24
7	4824.00	51.90 PK	74.00	-22.10	1.05 V	150	15.93	35.97
8	4824.00	37.40 AV	54.00	-16.60	1.05 V	150	1.43	35.97
9	7236.00	51.90 PK	74.00	-22.10	1.06 V	176	9.66	42.24
10	7236.00	39.00 AV	54.00	-15.00	1.06 V	176	-3.24	42.24

- 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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	7.2Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%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	*2437.00	105.60 PK			1.53 H	306	73.49	32.11
2	*2437.00	95.10 AV			1.53 H	306	62.99	32.11
3	3249.00	45.40 PK	74.00	-28.60	1.31 H	324	12.15	33.25
4	3249.00	37.00 AV	54.00	-17.00	1.31 H	324	3.75	33.25
5	4874.00	50.00 PK	74.00	-24.00	1.26 H	182	13.92	36.08
6	4874.00	35.20 AV	54.00	-18.80	1.26 H	182	-0.88	36.08
7	7311.00	51.50 PK	74.00	-22.50	1.08 H	96	8.98	42.52
8	7311.00	38.40 AV	54.00	-15.60	1.08 H	96	-4.12	42.52

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	*2437.00	115.50 PK			1.35 V	127	83.39	32.11
2	*2437.00	105.80 AV			1.35 V	127	73.69	32.11
3	3249.00	53.60 PK	74.00	-20.40	1.38 V	185	20.35	33.25
4	3249.00	50.20 AV	54.00	-3.80	1.38 V	185	16.95	33.25
5	4874.00	52.60 PK	74.00	-21.40	1.20 V	190	16.52	36.08
6	4874.00	38.00 AV	54.00	-16.00	1.20 V	190	1.92	36.08
7	7311.00	53.80 PK	74.00	-20.20	1.20 V	192	11.28	42.52
8	7311.00	40.50 AV	54.00	-13.50	1.20 V	192	-2.02	42.52

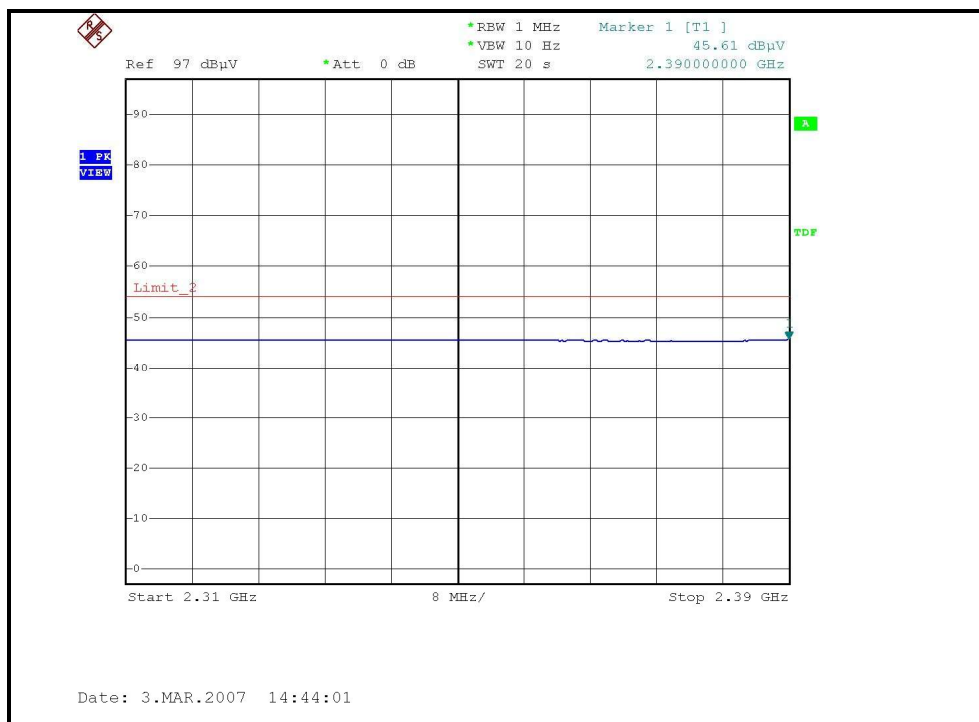
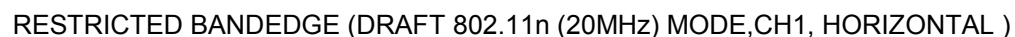
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 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	7.2Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 971hPa	TESTED BY	Sky Liao

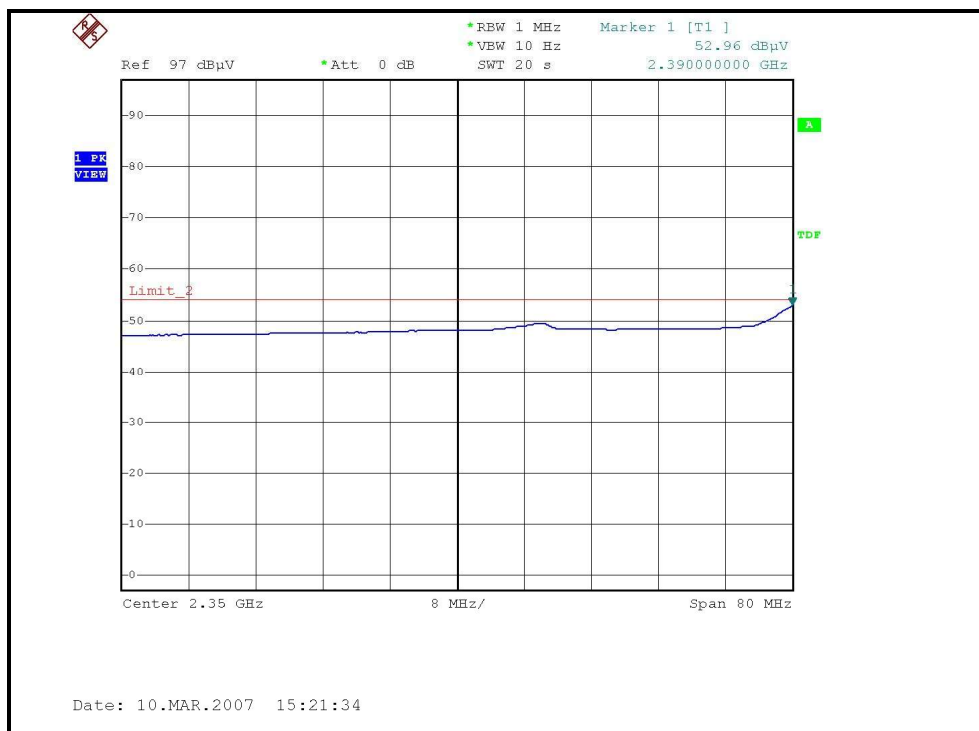
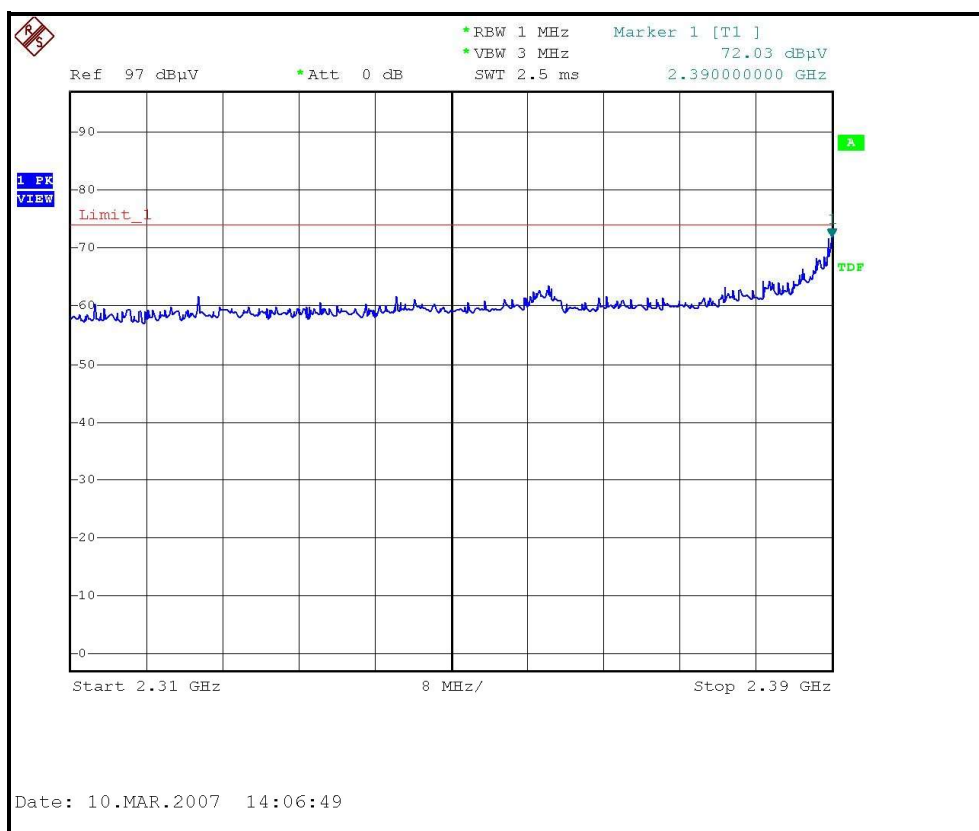
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	101.00 PK			1.04 H	305	68.79	32.21
2	*2462.00	90.10 AV			1.04 H	305	57.89	32.21
3	2483.50	58.90 PK	74.00	-15.10	1.04 H	305	26.61	32.29
4	2483.50	46.37 AV	54.00	-7.63	1.04 H	305	14.08	32.29
5	3282.00	45.60 PK	81.00	-35.40	1.08 H	355	12.34	33.26
6	3282.00	37.40 AV	70.10	-32.70	1.08 H	355	4.14	33.26
7	4924.00	50.40 PK	74.00	-23.60	1.28 H	175	14.21	36.19
8	4924.00	35.80 AV	54.00	-18.20	1.28 H	175	-0.39	36.19
9	7386.00	51.80 PK	74.00	-22.20	1.03 H	107	9.00	42.80
10	7386.00	38.60 AV	54.00	-15.40	1.03 H	107	-4.20	42.80

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	*2462.00	112.80 PK			1.36 V	280	80.59	32.21
2	*2462.00	102.20 AV			1.36 V	280	69.99	32.21
3	2483.50	71.92 PK	74.00	-2.08	1.38 V	286	39.63	32.29
4	2483.50	53.49 AV	54.00	-0.51	1.38 V	286	21.20	32.29
5	3282.00	51.80 PK	92.80	-41.00	1.25 V	205	18.54	33.26
6	3282.00	49.20 AV	82.20	-33.00	1.25 V	205	15.94	33.26
7	4924.00	51.20 PK	74.00	-22.80	1.08 V	142	15.01	36.19
8	4924.00	36.60 AV	54.00	-17.40	1.08 V	142	0.41	36.19
9	7386.00	51.50 PK	74.00	-22.50	1.05 V	185	8.70	42.80
10	7386.00	38.80 AV	54.00	-15.20	1.05 V	185	-4.00	42.80

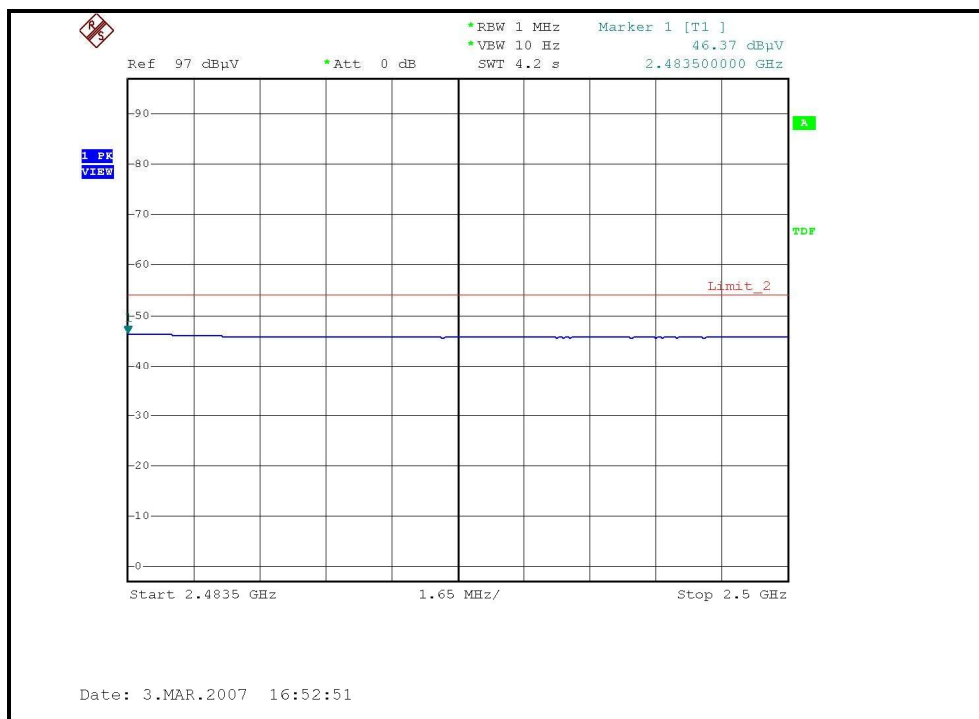
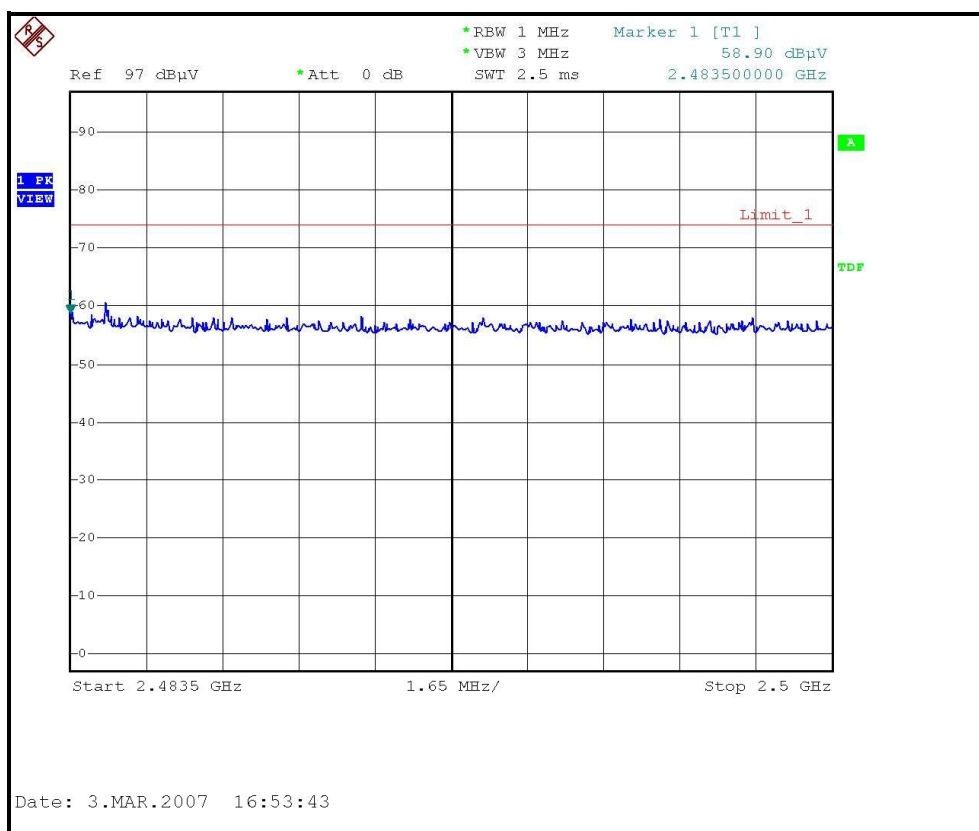
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as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



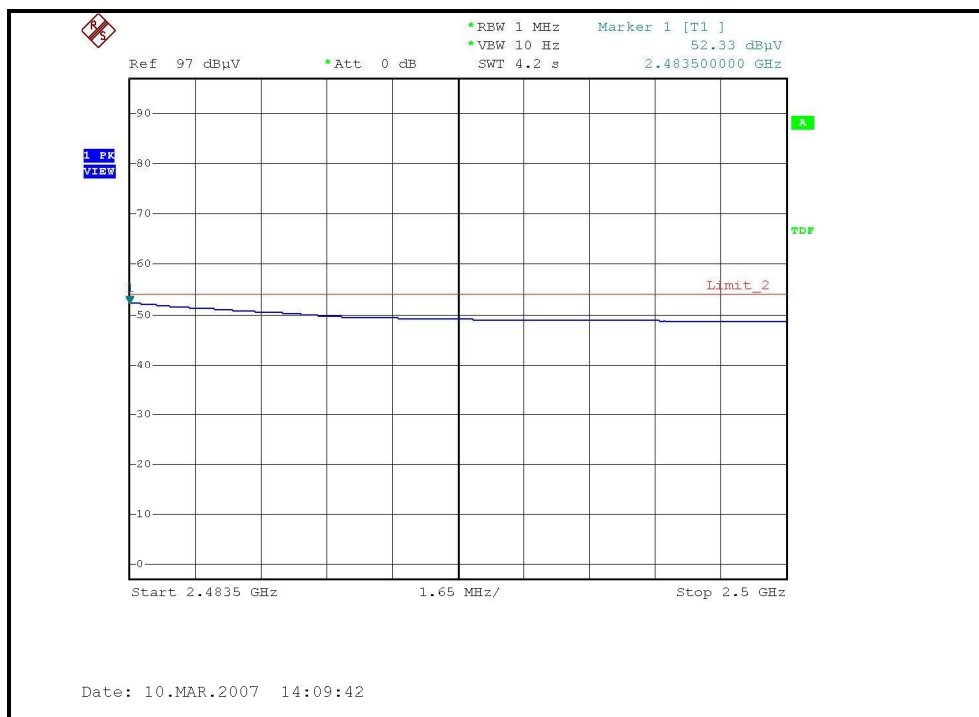
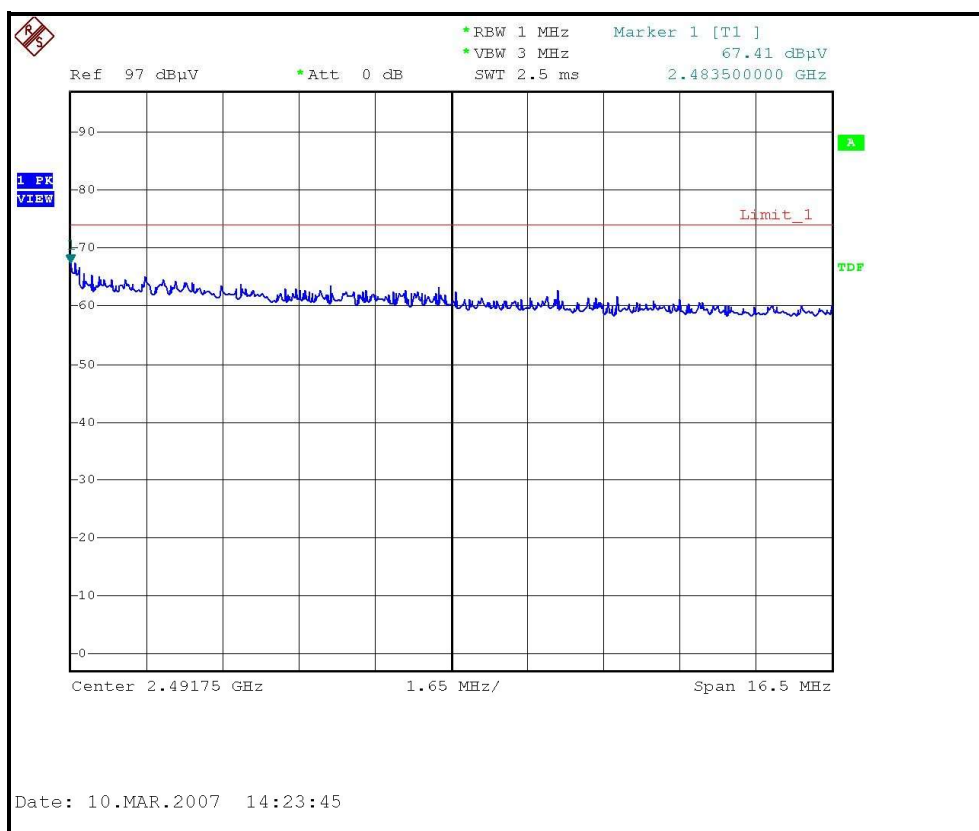
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH1, VERTICAL)



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



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	15Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%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	2390.00	58.31 PK	74.00	-15.69	1.16 H	297	26.38	31.93
2	2390.00	46.36 AV	54.00	-7.64	1.16 H	297	14.43	31.93
3	*2422.00	96.60 PK			1.05 H	305	64.55	32.05
4	*2422.00	85.80 AV			1.05 H	305	53.75	32.05
5	3229.00	46.50 PK	76.60	-30.10	1.52 H	305	13.26	33.24
6	3229.00	37.00 AV	65.80	-28.80	1.52 H	305	3.76	33.24
7	4844.00	46.80 PK	74.00	-27.20	1.25 H	186	10.79	36.01
8	4844.00	33.20 AV	54.00	-20.80	1.25 H	186	-2.81	36.01
9	7266.00	51.20 PK	74.00	-22.80	1.36 H	195	8.85	42.35
10	7266.00	38.40 AV	54.00	-15.60	1.36 H	195	-3.95	42.35

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	64.91 PK	74.00	-9.09	1.40 V	280	32.98	31.93
2	2390.00	52.45 AV	54.00	-1.55	1.40 V	280	20.52	31.93
3	*2422.00	108.60 PK			1.40 V	280	76.55	32.05
4	*2422.00	98.50 AV			1.40 V	280	66.45	32.05
5	3229.00	53.60 PK	88.60	-35.00	1.22 V	105	20.36	33.24
6	3229.00	49.60 AV	78.50	-28.90	1.22 V	105	16.36	33.24
7	4844.00	46.80 PK	74.00	-27.20	1.15 V	132	10.79	36.01
8	4844.00	33.80 AV	54.00	-20.20	1.15 V	132	-2.21	36.01
9	7266.00	51.80 PK	74.00	-22.20	1.10 V	48	9.45	42.35
10	7266.00	39.50 AV	54.00	-14.50	1.10 V	48	-2.85	42.35

- 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	15Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%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	*2437.00	99.80 PK			1.05 H	306	67.69	32.11
2	*2437.00	90.50 AV			1.05 H	306	58.39	32.11
3	3249.00	45.20 PK	79.80	-34.60	1.58 H	325	11.95	33.25
4	3249.00	36.60 AV	70.50	-33.90	1.58 H	325	3.35	33.25
5	4874.00	46.40 PK	74.00	-27.60	1.27 H	202	10.32	36.08
6	4874.00	33.00 AV	54.00	-21.00	1.27 H	202	-3.08	36.08
7	7311.00	50.90 PK	74.00	-23.10	1.20 H	218	8.38	42.52
8	7311.00	38.40 AV	54.00	-15.60	1.20 H	218	-4.12	42.52

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	*2437.00	112.00 PK			1.35 V	142	79.89	32.11
2	*2437.00	102.00 AV			1.35 V	142	69.89	32.11
3	3249.00	52.20 PK	92.00	-39.80	1.35 V	112	18.95	33.25
4	3249.00	47.80 AV	82.00	-34.20	1.35 V	112	14.55	33.25
5	4874.00	47.20 PK	74.00	-26.80	1.30 V	145	11.12	36.08
6	4874.00	34.80 AV	54.00	-19.20	1.30 V	145	-1.28	36.08
7	7311.00	52.00 PK	74.00	-22.00	1.02 V	25	9.48	42.52
8	7311.00	39.20 AV	54.00	-14.80	1.02 V	25	-3.32	42.52

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.

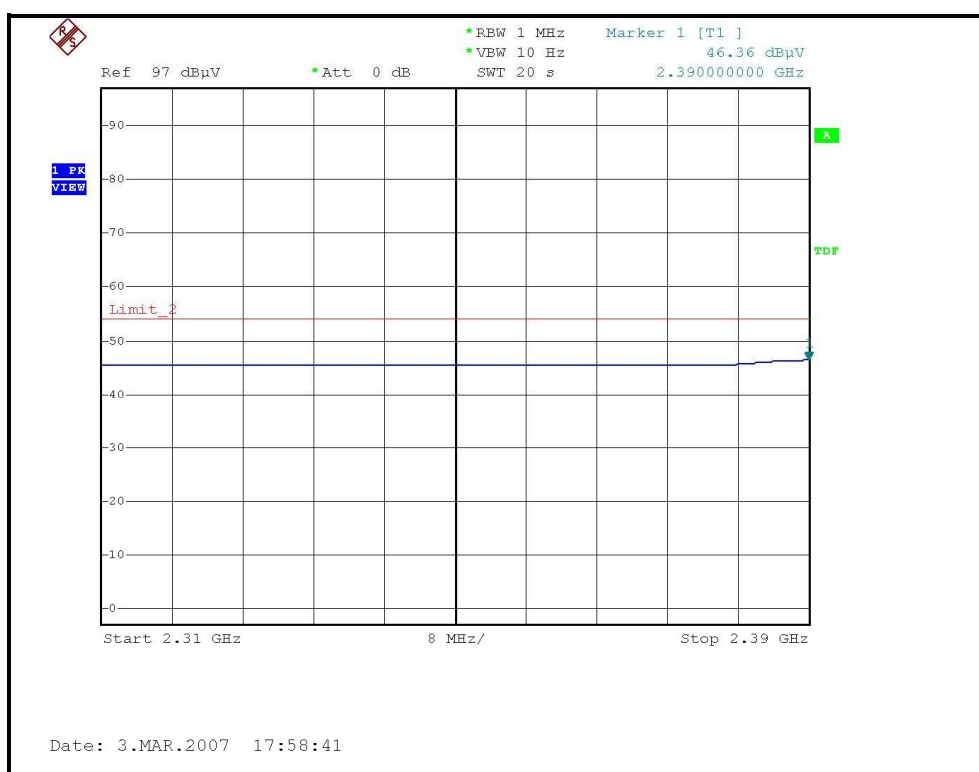
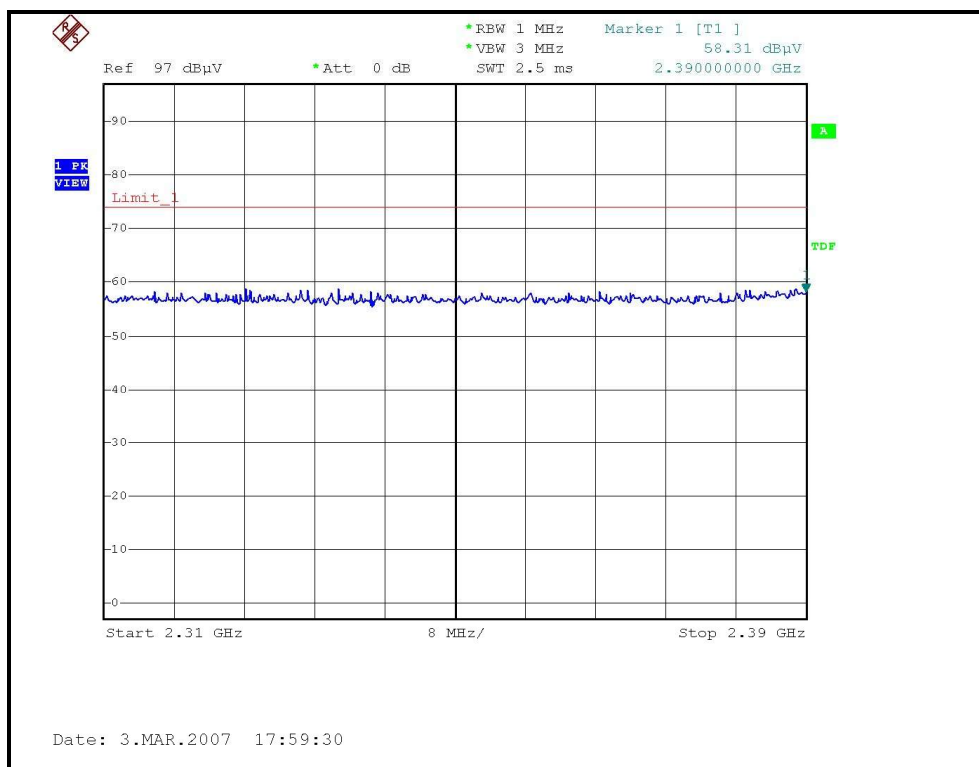
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	15Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 971hPa	TESTED BY	Sky Liao

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	*2452.00	96.20 PK			1.77 H	315	64.03	32.17
2	*2452.00	85.40 AV			1.77 H	315	53.23	32.17
3	2484.25	58.60 PK	74.00	-15.40	1.82 H	315	26.31	32.29
4	2484.25	46.38 AV	54.00	-7.62	1.82 H	315	14.09	32.29
5	3269.00	45.40 PK	74.00	-28.60	1.42 H	343	12.14	33.26
6	3269.00	36.80 AV	54.00	-17.20	1.42 H	343	3.54	33.26
7	4904.00	46.20 PK	74.00	-27.80	1.08 H	244	10.05	36.15
8	4904.00	32.80 AV	54.00	-21.20	1.08 H	244	-3.35	36.15
9	7356.00	51.60 PK	74.00	-22.40	1.12 H	196	8.92	42.68
10	7356.00	38.20 AV	54.00	-15.80	1.12 H	196	-4.48	42.68

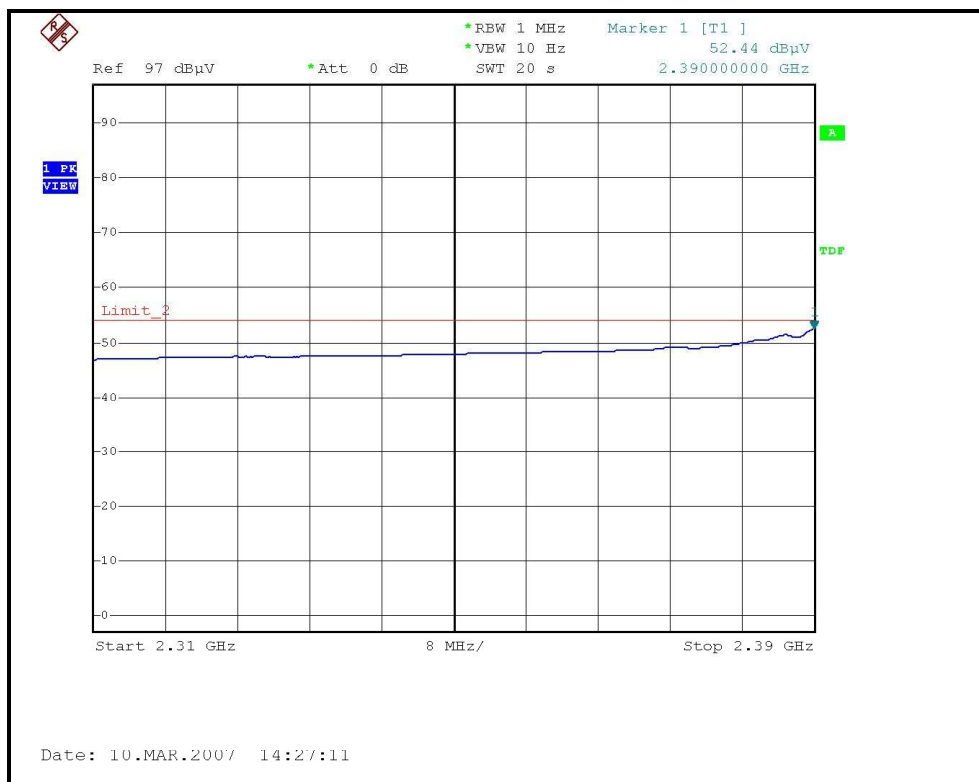
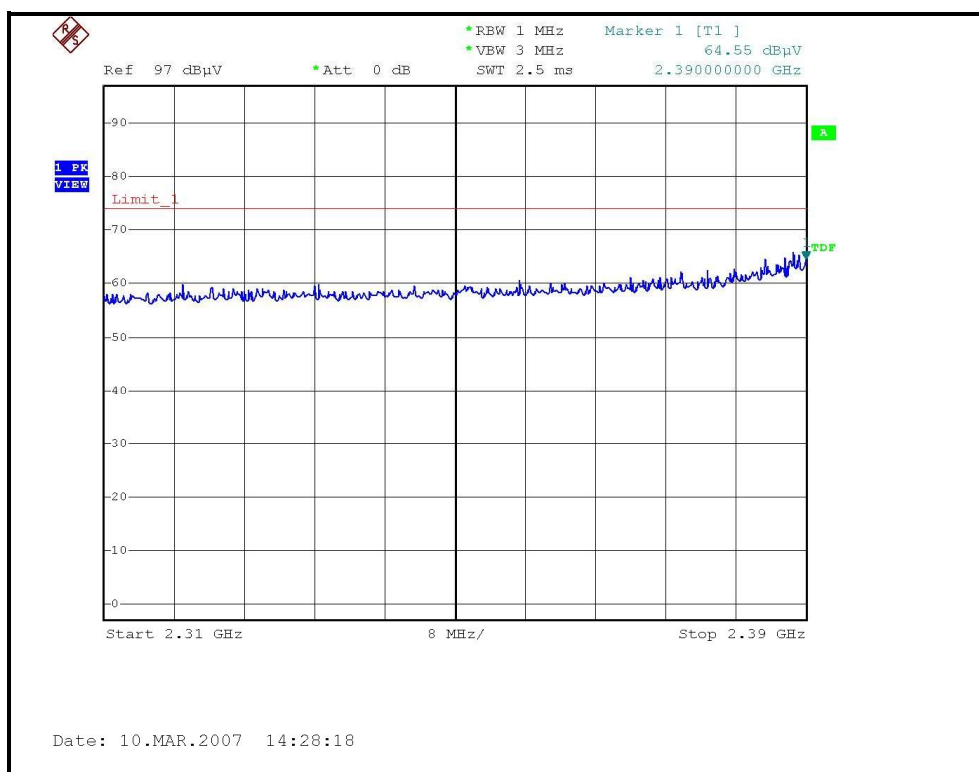
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	108.20 PK			1.55 V	142	76.03	32.17
2	*2452.00	97.60 AV			1.55 V	142	65.43	32.17
3	2484.16	65.99 PK	74.00	-8.01	1.55 V	143	33.70	32.29
4	2484.16	52.87 AV	54.00	-1.13	1.55 V	143	20.58	32.29
5	3269.00	52.60 PK	74.00	-21.40	1.38 V	125	19.34	33.26
6	3269.00	48.00 AV	54.00	-6.00	1.38 V	125	14.74	33.26
7	4904.00	46.00 PK	74.00	-28.00	1.22 V	150	9.85	36.15
8	4904.00	33.00 AV	54.00	-21.00	1.22 V	150	-3.15	36.15
9	7356.00	51.50 PK	74.00	-22.50	1.16 V	72	8.82	42.68
10	7356.00	38.90 AV	54.00	-15.10	1.16 V	72	-3.78	42.68

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.

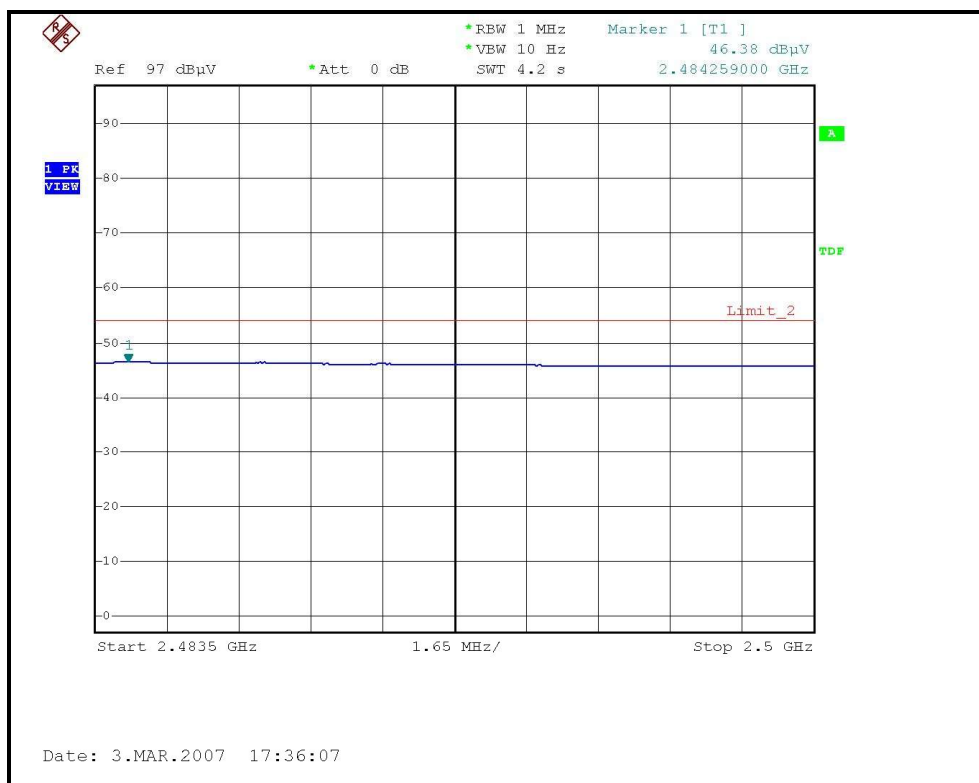
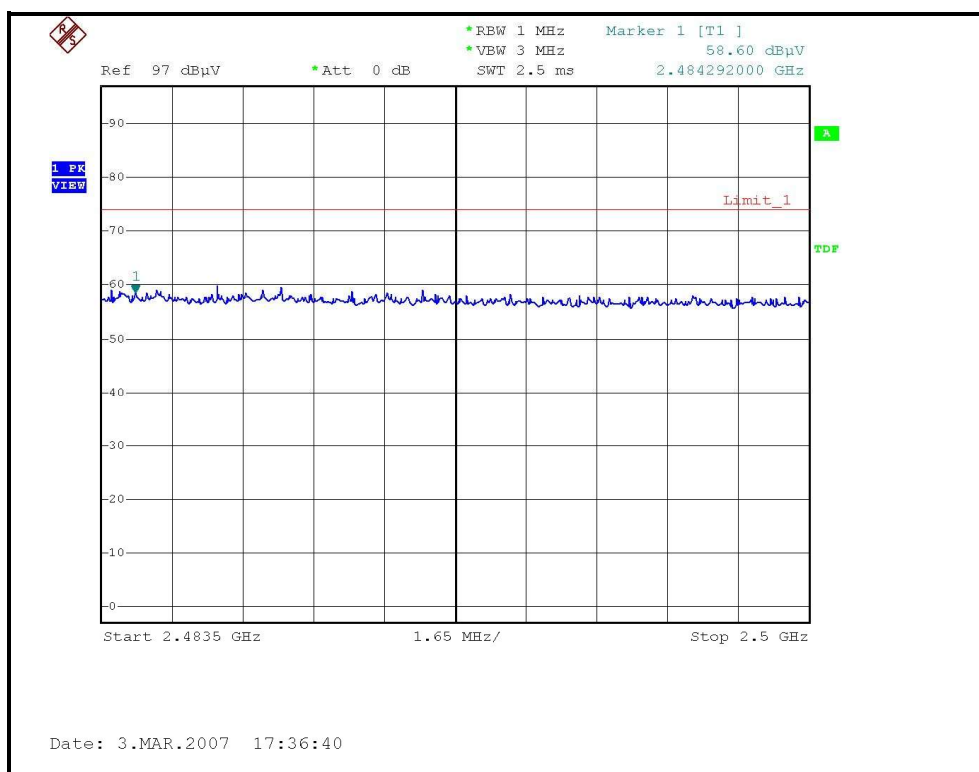
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE,CH1, HORIZONTAL)



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



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



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

