



FCC TEST REPORT

REPORT NO.: RF961024H09A

MODEL NO.: F5D8631-4

RECEIVED: Dec. 17, 2007

TESTED: Dec. 28, 2007 to Jan. 10, 2008

ISSUED: Jan. 10, 2008

APPLICANT: Belkin International, Inc.

ADDRESS: 501 West Walnut Street, Compton CA,
90220-5221, U.S.A.

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.

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No. 2177-01

Table of Contents

1.	CERTIFICATION	4
2.	SUMMARY OF TEST RESULTS	5
2.1	MEASUREMENT UNCERTAINTY	6
3.	GENERAL INFORMATION	7
3.1	GENERAL DESCRIPTION OF EUT	7
3.2	DESCRIPTION OF TEST MODES	9
3.2.1	TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:	10
3.3	GENERAL DESCRIPTION OF APPLIED STANDARDS	13
3.4	DESCRIPTION OF SUPPORT UNITS.....	14
3.5	CONFIGURATION OF SYSTEM UNDER TEST	15
4.	TEST TYPES AND RESULTS	16
4.1	CONDUCTED EMISSION MEASUREMENT	16
4.1.1	LIMITS OF CONDUCTED EMISSION MEASUREMENT	16
4.1.2	TEST INSTRUMENTS.....	16
4.1.3	TEST PROCEDURES	17
4.1.4	DEVIATION FROM TEST STANDARD	17
4.1.5	TEST SETUP	18
4.1.6	EUT OPERATING CONDITIONS	18
4.1.7	TEST RESULTS	19
4.2	RADIATED EMISSION MEASUREMENT	21
4.2.1	LIMITS OF RADIATED EMISSION MEASUREMENT	21
4.2.2	TEST INSTRUMENTS.....	22
4.2.3	TEST PROCEDURES	23
4.2.4	DEVIATION FROM TEST STANDARD	23
4.2.5	TEST SETUP	24
4.2.6	EUT OPERATING CONDITIONS	24
4.2.7	TEST RESULTS	25
4.3	6dB BANDWIDTH MEASUREMENT	62
4.3.1	LIMITS OF 6dB BANDWIDTH MEASUREMENT	62
4.3.2	TEST INSTRUMENTS.....	62
4.3.3	TEST PROCEDURE.....	63
4.3.4	DEVIATION FROM TEST STANDARD	63
4.3.5	TEST SETUP	63
4.3.6	EUT OPERATING CONDITIONS	63
4.3.7	TEST RESULTS	64
4.4	MAXIMUM PEAK OUTPUT POWER.....	76
4.4.1	LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT	76
4.4.2	INSTRUMENTS.....	76



4.4.3	TEST PROCEDURES	77
4.4.4	DEVIATION FROM TEST STANDARD	77
4.4.5	TEST SETUP	77
4.4.6	EUT OPERATING CONDITIONS	77
4.4.7	TEST RESULTS	78
4.5	POWER SPECTRAL DENSITY MEASUREMENT	80
4.5.1	LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT	80
4.5.2	TEST INSTRUMENTS.....	80
4.5.3	TEST PROCEDURE.....	81
4.5.4	DEVIATION FROM TEST STANDARD	81
4.5.5	TEST SETUP	81
4.5.6	EUT OPERATING CONDITION.....	81
4.5.7	TEST RESULTS	82
4.6	BAND EDGES MEASUREMENT.....	94
4.6.1	LIMITS OF BAND EDGES MEASUREMENT	94
4.6.2	TEST INSTRUMENTS.....	94
4.6.3	TEST PROCEDURE.....	94
4.6.4	DEVIATION FROM TEST STANDARD	95
4.6.5	EUT OPERATING CONDITION.....	95
4.6.6	TEST RESULTS	95
4.7	ANTENNA REQUIREMENT	108
4.7.1	STANDARD APPLICABLE.....	108
4.7.2	ANTENNA CONNECTED CONSTRUCTION.....	108
5.	INFORMATION ON THE TESTING LABORATORIES	109
6.	APPENDIX-A- MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	110



1. CERTIFICATION

PRODUCT: N1 Wireless Modem Router
BRAND NAME: Belkin
MODEL NO.: F5D8631-4
TEST SAMPLE: ENGINEERING SAMPLE
TESTED: Dec. 28, 2007 to Jan. 10, 2008
APPLICANT: Belkin International, Inc.
STANDARDS: FCC Part 15, Subpart C (Section 15.247),
ANSI C63.4-2003

The above equipment (Model: F5D8631-4) 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 : Midoli Peng , **DATE:** Jan. 10, 2008
(Midoli Peng, Specialist)

TECHNICAL ACCEPTANCE : Hank Chung , **DATE:** Jan. 10, 2008
Responsible for RF (Hank Chung, Deputy Manager)

APPROVED BY : May Chen , **DATE:** Jan. 10, 2008
(May Chen, Deputy Manager)



2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart 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 -9.53dB at 0.201MHz
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 -0.56dB 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.

2.1 MEASUREMENT UNCERTAINTY

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

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

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	N1 Wireless Modem Router
MODEL NO.	F5D8631-4
FCC ID	K7SF5D8631-4C
POWER SUPPLY	DC 15V from power adapter
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): 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	2412 ~ 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: 94.406mW 802.11g: 83.176mW draft 802.11n (20MHz): 72.024mW draft 802.11n (40MHz): 78.085mW
ANTENNA TYPE	Please see note 1
DATA CABLE	NA
I/O PORT	ADSL Port x 1, LAN Port x 4

NOTE:

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

Transmitter Circuit	Antenna Type	Antenna Connector	Gain(dBi)	Note
Chain(0)	Dipole	NA	2	With TX/RX function
Chain(1)	Dipole	NA	2	With TX/RX function
Chain(2)	Dipole	NA	2	With RX function



2. 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.
3. The EUT is 2 * 3 spatial MIMO without beam forming function. The antenna configurations are two transmitter antennas and three receiver antennas, as there are 3 dipole 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 802.11b, 802.11g products.
6. The EUT operates in the 2.4GHz frequency spectrum with data rate up to 270Mbps.
7. The EUT must be supplied with a power adapter as following:

Brand:	Leader
Model No.:	481508003CT
Input power :	AC120, 220mA, 60Hz
Output power :	15VDC, 0.8A Cable : unshielded , 1.6m

8. The EUT, operates in the 2.4GHz frequency range, lets you connect IEEE 802.11g or IEEE 802.11b and draft 802.11n technique devices to the network.
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	
-	√	√	√	√	-

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	802.11 g	√		
C	802.11 g	√	√	
D	DRAFT 802.11n(20MHz)	√		
E	DRAFT 802.11n(20MHz)	√	√	
F	DRAFT 802.11n(40MHz)	√		
G	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, E & G 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	DBPSK	1	A

RADIATED EMISSION TEST (BELOW 1 GHz):

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11b	1 to 11	1	DSSS	DBPSK	1	A

RADIATED EMISSION TEST (ABOVE 1 GHz):

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1	A
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	C
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	13	E
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	27	G



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	DBPSK	1	A
802.11g	1 to 11	1, 11	OFDM	BPSK	6	C
Draft 802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	13	E
Draft 802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	27	G

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	C
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	13	E
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	27	G



3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is an N1 Wireless Modem Router. 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

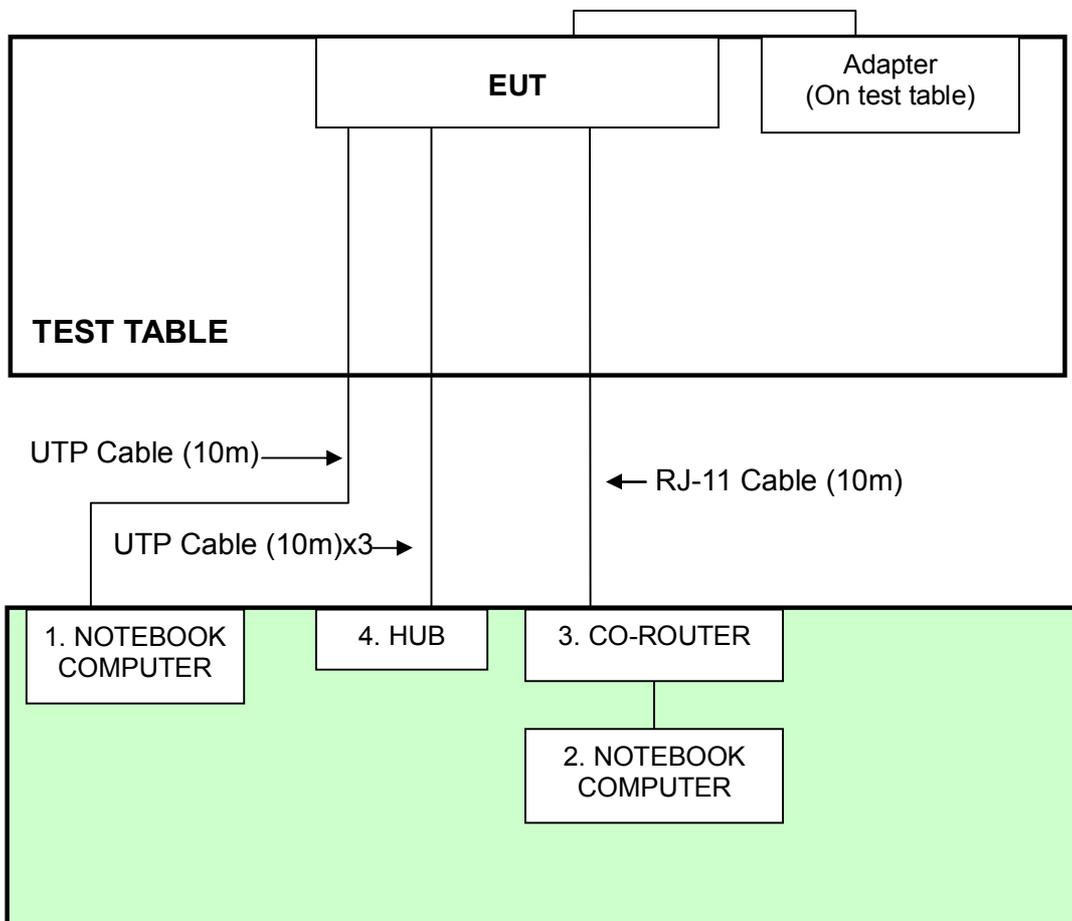
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP18L	6976685584	FCC DoC
2	NOTEBOOK COMPUTER	DELL	PP19L	CN-OHC416-70166-5CA-0448	PIW632500516610
3	CO-ROUTER	ZyXEL	IES-1000	S4Z3112558	FCC DoC
4	HUB	AVSYS	110H8	01-20E-000002	FCC DoC

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	RJ-45 cable, Unshielded, 10m
2	NA
3	RJ-11 cable, Unshielded, 10m
4	RJ-45 cable, Unshielded, 10m

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

3.5 CONFIGURATION OF SYSTEM UNDER TEST



NOTE: 1. Support units 1-4 were kept in the control room during the test.

4. TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB 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
Test Receiver	ESCS 30	847124/029	Mar. 28, 2008
Line-Impedance Stabilization Network(for EUT)	ESH3-Z5	848773/004	Nov. 08, 2008
Line-Impedance Stabilization Network(for Peripheral)	ENV-216	100071	Nov. 26, 2008
RF Cable (JETBAO)	RG233/U	Cable_CB_01	Dec. 09, 2008
50 ohms Terminator	50	3	Nov. 15, 2008
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.

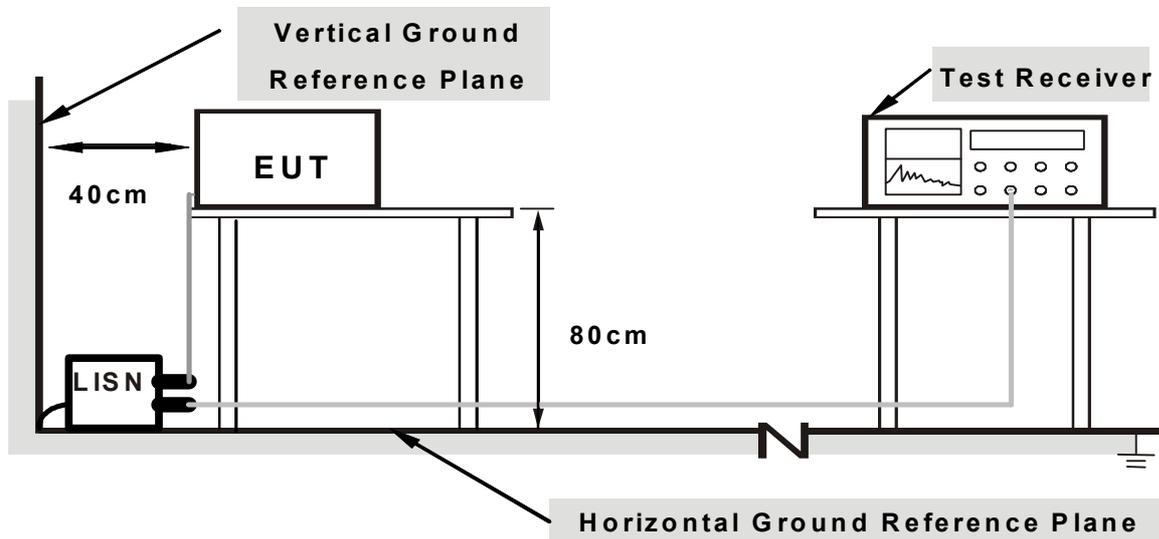
4.1.3 TEST PROCEDURES

- 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

1. Placed the EUT on testing table.
2. Prepared other computer systems (support unit 1 ~ 3) to act as communication partners and placed them outside of testing area.
3. The communication partners run test program “MFGTEST” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

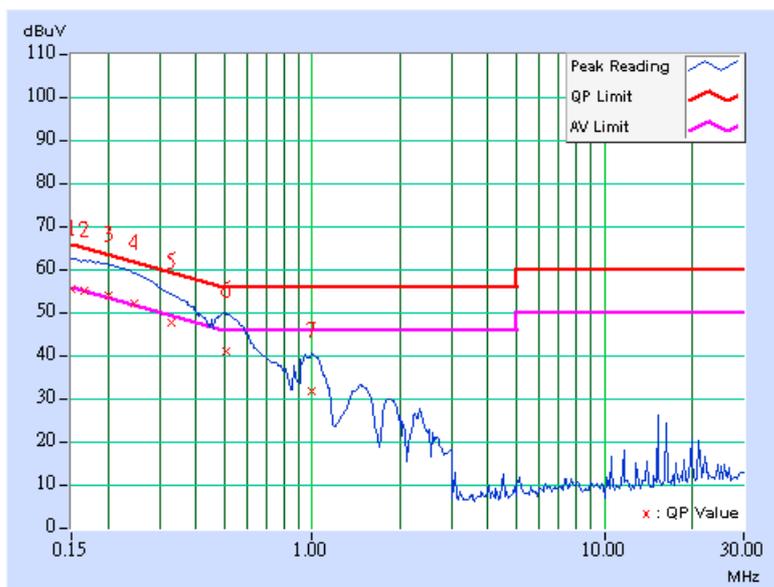
4.1.7 TEST RESULTS

802.11b DSSS MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line (L)
MODULATION TYPE	DBPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	1Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 955hPa	TESTED BY	Wen Yu

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
	1	0.150	0.14	55.41	-	55.55	-	66.00	56.00	-10.45
2	0.166	0.15	55.08	24.34	55.23	24.49	65.18	55.18	-9.95	-30.69
3	0.201	0.16	53.89	23.13	54.05	23.29	63.58	53.58	-9.53	-30.29
4	0.248	0.16	52.03	21.42	52.19	21.58	61.84	51.84	-9.64	-30.25
5	0.330	0.17	47.64	-	47.81	-	59.46	49.46	-11.65	-
6	0.505	0.19	40.66	-	40.85	-	56.00	46.00	-15.15	-
7	0.994	0.28	31.59	-	31.87	-	56.00	46.00	-24.13	-

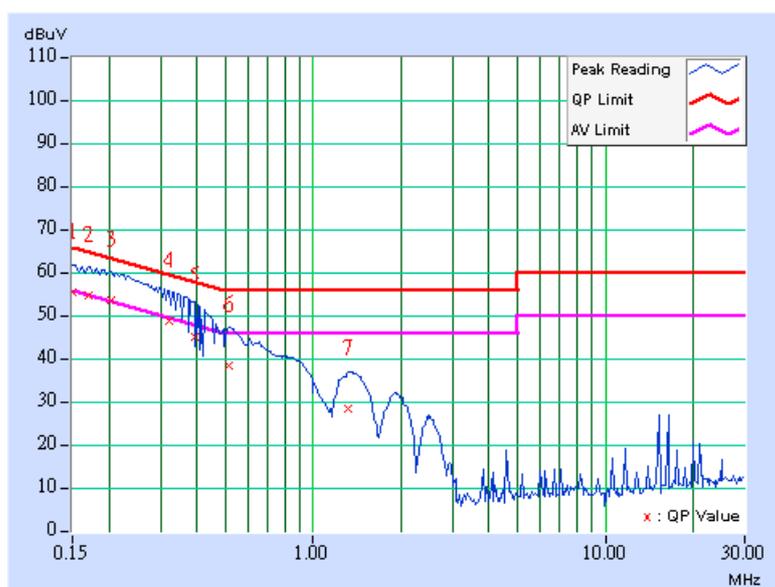
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	DBPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	1Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 955hPa	TESTED BY	Wen Yu

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
	1	0.150	0.07	55.29	-	55.36	-	66.00	56.00	-10.64
2	0.170	0.08	54.69	-	54.77	-	64.98	54.98	-10.22	-
3	0.205	0.08	53.31	-	53.39	-	63.42	53.42	-10.03	-
4	0.322	0.08	48.52	-	48.60	-	59.66	49.66	-11.06	-
5	0.392	0.08	44.84	-	44.92	-	58.02	48.02	-13.10	-
6	0.513	0.10	38.42	-	38.52	-	56.00	46.00	-17.48	-
7	1.322	0.23	28.35	-	28.58	-	56.00	46.00	-27.42	-

- 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 15, 2008
HP Pre_Amplifier	8449B	3008A01922	Oct. 04, 2008
ROHDE & SCHWARZ Test Receiver	ESCS30	100375	Mar. 26, 2008
SCHWARZBECK TRILOG Broadband Antenna	VULB 9168	138	July 26, 2008
Schwarzbeck Horn_Antenna	BBHA9120	D124	Jan. 01, 2008
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 25, 2008
RF Switches (ARNITSU)	CS-201	1565157	Aug. 13, 2008
RF CABLE (Chaintek)	SF102	22054-2	Nov. 14. 2008
RF Cable(RICHTEC)	9913-30M N-N Cable	STCCAB-30M-1 GHz	Aug. 13, 2008
Software	ADT_Radiated_V 7.6.15.8	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 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.

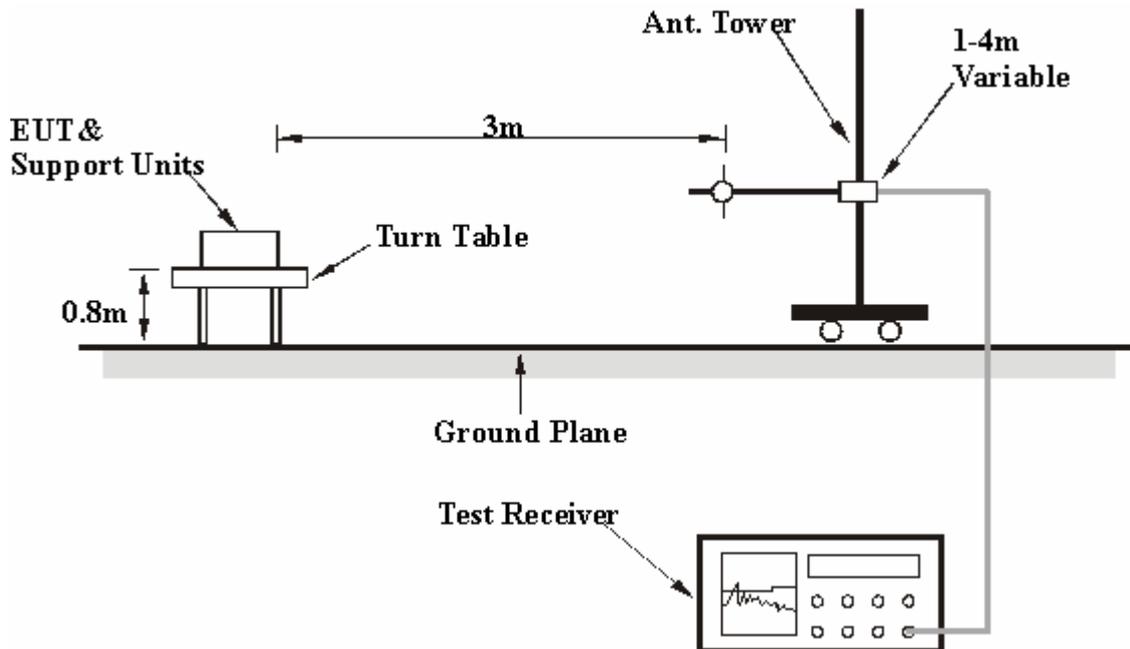
NOTE:

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

4.2.7 TEST RESULTS

BELOW 1GHz WORST-CASE DATA

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	22deg. C, 66%RH 960hPa	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	110.87	30.30 QP	43.50	-13.20	1.00 H	1	18.23	12.07
2	200.00	34.38 QP	43.50	-9.12	1.00 H	263	22.35	12.03
3	249.88	40.09 QP	46.00	-5.91	1.00 H	225	27.26	12.83
4	266.66	37.31 QP	46.00	-8.69	1.00 H	72	23.06	14.25
5	325.00	41.55 QP	46.00	-4.45	1.00 H	93	24.80	16.75
6	375.00	41.73 QP	46.00	-4.27	1.00 H	296	24.25	17.48
7	400.00	40.02 QP	46.00	-5.98	1.00 H	92	21.97	18.05
8	500.01	36.12 QP	46.00	-9.88	1.65 H	317	15.07	21.05
9	575.01	36.04 QP	46.00	-9.96	1.30 H	135	13.83	22.21
10	800.00	37.02 QP	46.00	-8.98	1.00 H	318	8.97	28.05
11	875.01	35.97 QP	46.00	-10.03	1.00 H	273	6.90	29.07

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	47.70	32.78 QP	40.00	-7.22	1.00 V	1	16.86	15.92
2	80.00	33.36 QP	40.00	-6.64	1.00 V	87	23.20	10.16
3	119.66	32.65 QP	43.50	-10.85	1.00 V	253	19.81	12.84
4	200.00	34.28 QP	43.50	-9.22	1.00 V	215	22.25	12.03
5	375.00	40.48 QP	46.00	-5.52	1.00 V	135	23.00	17.48
6	400.00	42.31 QP	46.00	-3.69	1.00 V	222	24.26	18.05
7	500.00	38.24 QP	46.00	-7.76	1.00 V	165	17.19	21.05
8	750.00	35.93 QP	46.00	-10.07	1.40 V	295	8.67	27.26
9	800.00	37.13 QP	46.00	-8.87	1.33 V	350	9.08	28.05
10	875.01	35.31 QP	46.00	-10.69	1.37 V	124	6.24	29.07

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



802.11b DSSS MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20deg. C, 66%RH 960hPa	TESTED BY	Wen Yu

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	2387.12	56.40 PK	74.00	-17.60	1.31 H	108	26.02	30.38
2	2387.12	44.90 AV	54.00	-9.10	1.31 H	108	14.52	30.38
3	*2412.00	100.30 PK			1.31 H	109	69.81	30.49
4	*2412.00	95.00 AV			1.31 H	109	64.51	30.49
5	4824.00	45.70 PK	74.00	-28.30	1.45 H	353	10.01	35.69
6	4824.00	33.90 AV	54.00	-20.10	1.45 H	353	-1.79	35.69
7	7236.00	52.10 PK	74.00	-21.90	1.26 H	307	9.86	42.24
8	7236.00	38.10 AV	54.00	-15.90	1.26 H	307	-4.14	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	62.37 PK	74.00	-11.63	1.58 V	149	31.97	30.40
2	2390.00	53.44 AV	54.00	-0.56	1.58 V	149	23.04	30.40
3	*2412.00	111.62 PK			1.58 V	143	81.13	30.49
4	*2412.00	106.93 AV			1.58 V	143	76.44	30.49
5	4824.00	54.37 PK	74.00	-19.63	1.19 V	13	18.68	35.69
6	4824.00	50.61 AV	54.00	-3.39	1.19 V	13	14.92	35.69
7	7236.00	54.52 PK	74.00	-19.48	1.26 V	0	12.28	42.24
8	7236.00	41.63 AV	54.00	-12.37	1.26 V	0	-0.61	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. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20deg. C, 66%RH 960hPa	TESTED BY	Wen Yu

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	53.90 PK	74.00	-20.10	1.30 H	108	23.50	30.40
2	2390.00	42.70 AV	54.00	-11.30	1.30 H	108	12.30	30.40
3	*2437.00	98.20 PK			1.31 H	109	67.59	30.61
4	*2437.00	92.90 AV			1.31 H	109	62.29	30.61
5	2483.50	54.30 PK	74.00	-19.70	1.29 H	109	23.48	30.82
6	2483.50	43.00 AV	54.00	-11.00	1.29 H	109	12.18	30.82
7	4874.00	47.45 PK	74.00	-26.55	1.33 H	97	11.65	35.80
8	4874.00	34.66 AV	54.00	-19.34	1.33 H	97	-1.14	35.80
9	7311.00	53.36 PK	74.00	-20.64	1.23 H	204	10.84	42.52
10	7311.00	39.72 AV	54.00	-14.28	1.23 H	204	-2.80	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	2381.80	58.33 PK	74.00	-15.67	1.32 V	140	27.97	30.36
2	2381.80	47.14 AV	54.00	-6.86	1.32 V	140	16.78	30.36
3	*2437.00	114.22 PK			1.59 V	162	83.61	30.61
4	*2437.00	109.55 AV			1.59 V	162	78.94	30.61
5	2492.30	62.65 PK	74.00	-11.35	1.51 V	158	31.79	30.86
6	2492.30	53.37 AV	54.00	-0.63	1.51 V	158	22.51	30.86
7	4874.00	55.77 PK	74.00	-18.23	1.19 V	112	19.97	35.80
8	4874.00	53.21 AV	54.00	-0.79	1.19 V	112	17.41	35.80
9	7311.00	55.84 PK	74.00	-18.16	1.01 V	2	13.32	42.52
10	7311.00	42.95 AV	54.00	-11.05	1.01 V	2	0.43	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. “ * “: Fundamental frequency.



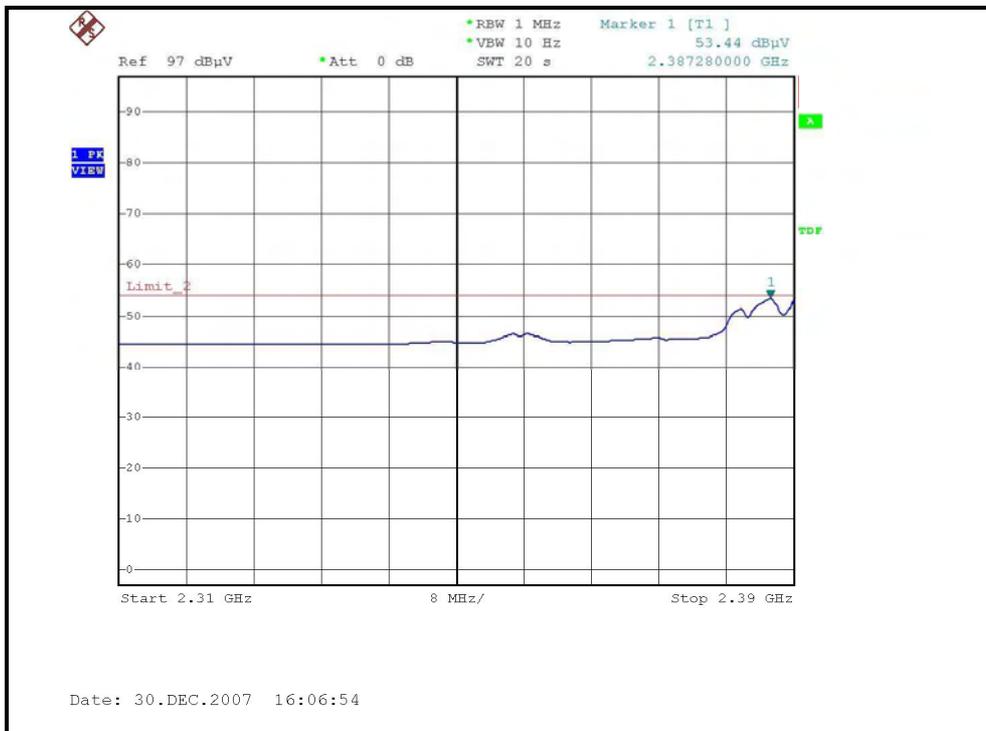
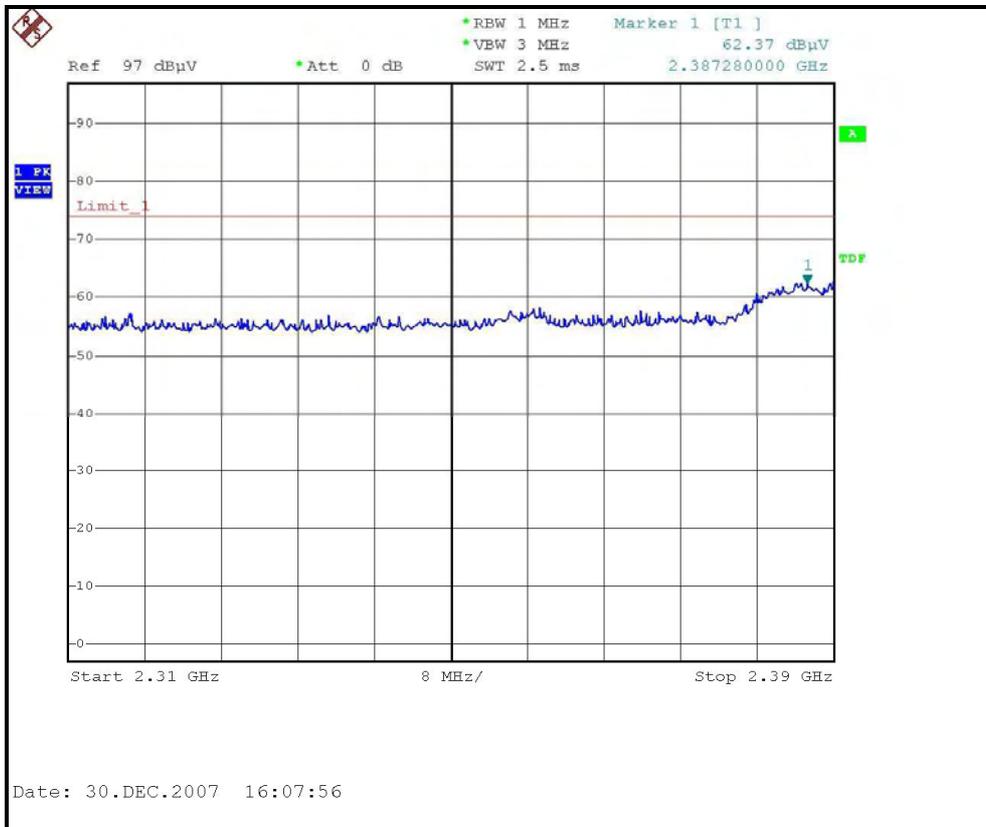
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20deg. C, 66%RH 960hPa	TESTED BY	Wen Yu

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	95.90 PK			1.54 H	176	65.18	30.72
2	*2462.00	89.90 AV			1.54 H	176	59.18	30.72
3	2483.69	56.60 PK	74.00	-17.40	1.52 H	176	25.78	30.82
4	2483.69	44.30 AV	54.00	-9.70	1.52 H	176	13.48	30.82
5	4924.00	46.53 PK	74.00	-27.47	1.34 H	105	10.63	35.90
6	4924.00	32.25 AV	54.00	-21.75	1.34 H	105	-3.65	35.90
7	7386.00	54.37 PK	74.00	-19.63	1.25 H	211	11.57	42.80
8	7386.00	39.79 AV	54.00	-14.21	1.25 H	211	-3.01	42.80

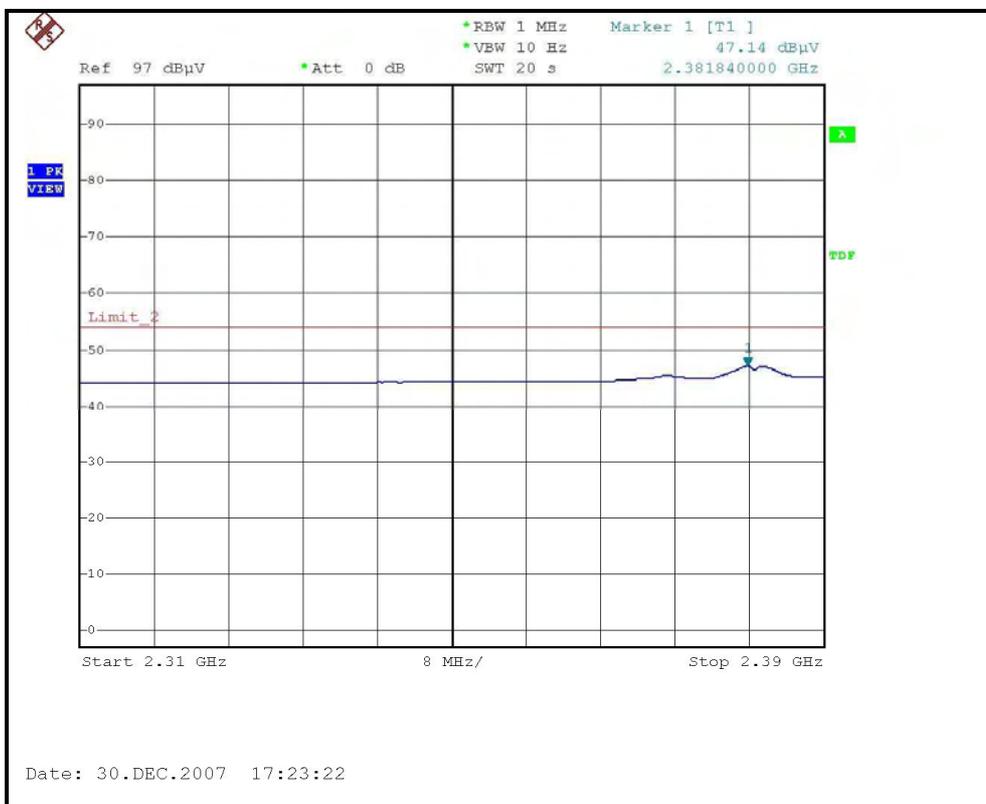
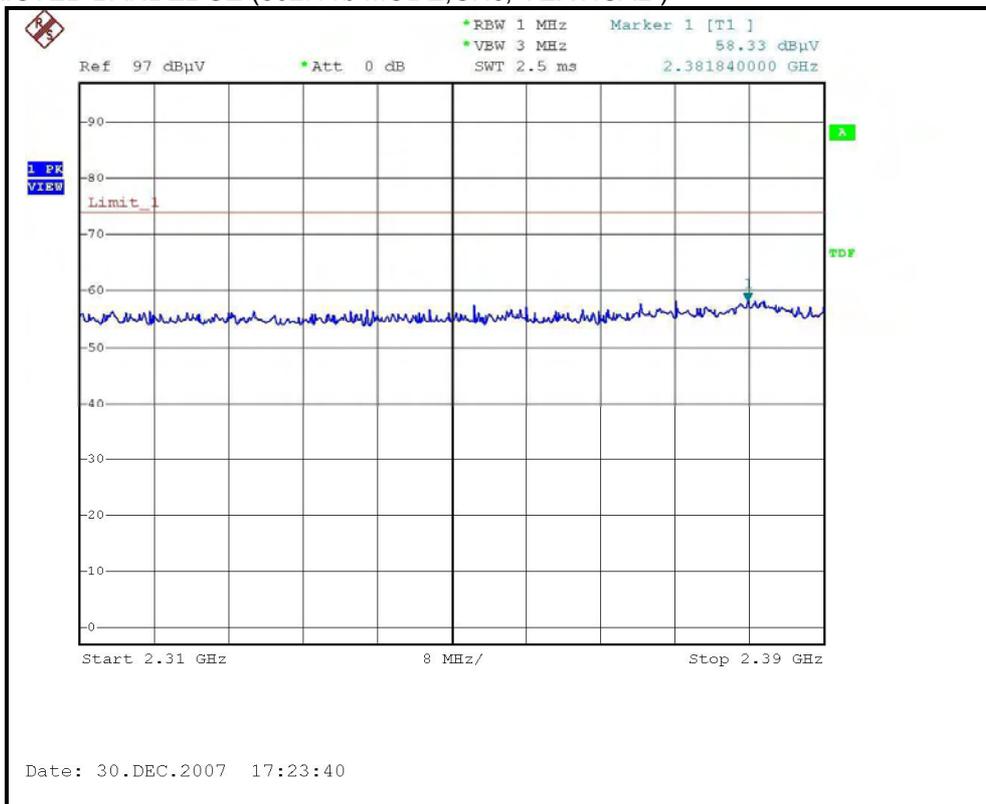
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	107.77 PK			1.57 V	163	77.05	30.72
2	*2462.00	103.24 AV			1.57 V	163	72.52	30.72
3	2483.70	62.76 PK	74.00	-11.24	1.55 V	175	31.94	30.82
4	2483.70	53.26 AV	54.00	-0.74	1.55 V	175	22.44	30.82
5	4924.00	47.05 PK	74.00	-26.95	1.15 V	12	11.15	35.90
6	4924.00	34.85 AV	54.00	-19.15	1.15 V	12	-1.05	35.90
7	7386.00	54.82 PK	74.00	-19.18	1.25 V	6	12.02	42.80
8	7386.00	41.18 AV	54.00	-12.82	1.25 V	6	-1.62	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. “ * “: Fundamental frequency.

RESTRICTED BANDEDGE (802.11b MODE, CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11b MODE, CH6, VERTICAL)



802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20deg. C, 66%RH 960hPa	TESTED BY	Wen Yu

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	1.29 H	108	28.60	30.40
2	2390.00	44.20 AV	54.00	-9.80	1.29 H	108	13.80	30.40
3	*2412.00	98.70 PK			1.31 H	109	68.21	30.49
4	*2412.00	88.00 AV			1.31 H	109	57.51	30.49
5	4824.00	46.30 PK	74.00	-27.70	1.41 H	289	10.61	35.69
6	4824.00	32.25 AV	54.00	-21.75	1.41 H	289	-3.44	35.69
7	7236.00	53.65 PK	78.70	-25.05	1.52 H	209	11.41	42.24
8	7236.00	39.70 AV	68.00	-28.30	1.52 H	209	-2.54	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	72.40 PK	74.00	-1.60	1.57 V	149	42.01	30.40
2	2390.00	52.96 AV	54.00	-1.04	1.57 V	149	22.56	30.40
3	*2412.00	109.91 PK			1.57 V	142	79.42	30.49
4	*2412.00	99.34 AV			1.57 V	142	68.85	30.49
5	4824.00	47.21 PK	74.00	-26.79	1.40 V	160	11.52	35.69
6	4824.00	32.94 AV	54.00	-21.06	1.40 V	160	-2.75	35.69
7	7236.00	54.42 PK	89.91	-35.49	1.27 V	258	12.18	42.24
8	7236.00	39.53 AV	79.34	-39.81	1.27 V	258	-2.71	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. “ * “: Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20deg. C, 66%RH 960hPa	TESTED BY	Wen Yu

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	54.23 PK	74.00	-19.77	1.30 H	110	23.83	30.40
2	2390.00	42.70 AV	54.00	-11.30	1.30 H	110	12.30	30.40
3	*2437.00	95.90 PK			1.32 H	109	65.29	30.61
4	*2437.00	84.90 AV			1.32 H	109	54.29	30.61
5	2483.50	55.13 PK	74.00	-18.87	1.31 H	109	24.31	30.82
6	2483.50	43.10 AV	54.00	-10.90	1.31 H	109	12.28	30.82
7	4874.00	46.38 PK	74.00	-27.62	1.40 H	296	10.58	35.80
8	4874.00	32.34 AV	54.00	-21.66	1.40 H	296	-3.46	35.80
9	7311.00	53.77 PK	74.00	-20.23	1.58 H	211	11.25	42.52
10	7311.00	39.62 AV	54.00	-14.38	1.58 H	211	-2.90	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	2384.70	59.05 PK	74.00	-14.95	1.33 V	147	28.68	30.37
2	2384.70	47.05 AV	54.00	-6.95	1.33 V	147	16.68	30.37
3	*2437.00	107.88 PK			1.31 V	139	77.27	30.61
4	*2437.00	97.65 AV			1.31 V	139	67.04	30.61
5	2489.30	63.84 PK	74.00	-10.16	1.57 V	156	33.00	30.84
6	2489.30	53.10 AV	54.00	-0.90	1.57 V	156	22.26	30.84
7	4874.00	47.56 PK	74.00	-26.44	1.42 V	163	11.76	35.80
8	4874.00	33.17 AV	54.00	-20.83	1.42 V	163	-2.63	35.80
9	7311.00	54.57 PK	74.00	-19.43	1.30 V	269	12.05	42.52
10	7311.00	39.68 AV	54.00	-14.32	1.30 V	269	-2.84	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. “ * “: Fundamental frequency.



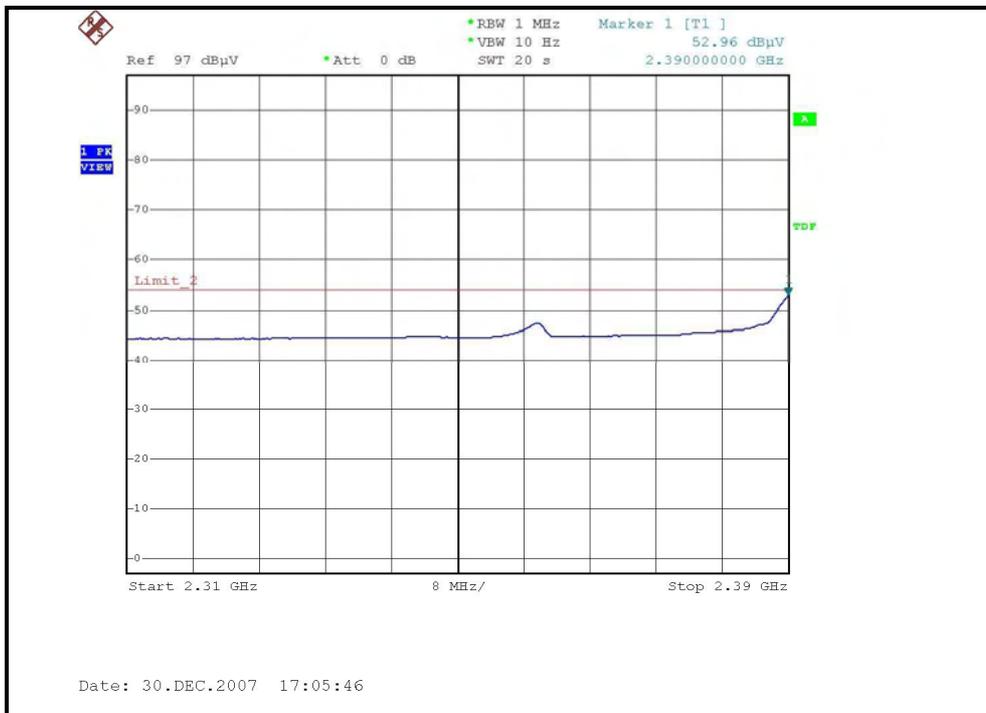
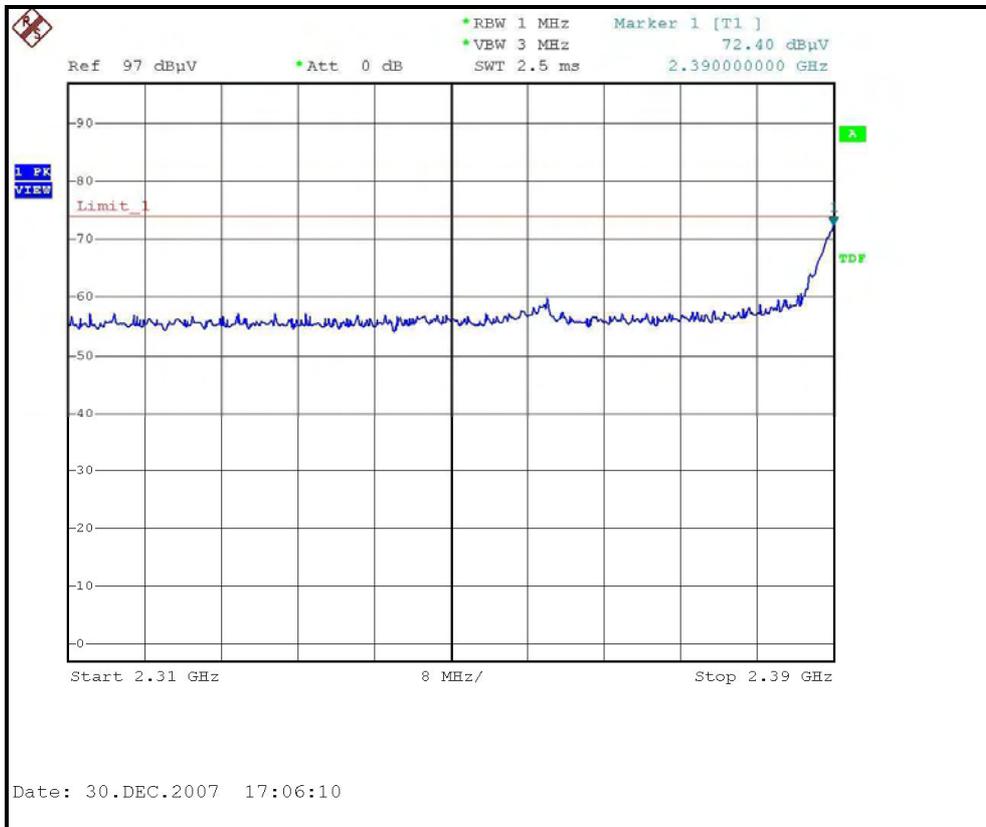
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20deg. C, 66%RH 960hPa	TESTED BY	Wen Yu

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	98.00 PK			1.32 H	90	67.28	30.72
2	*2462.00	87.20 AV			1.32 H	90	56.48	30.72
3	2483.50	58.30 PK	74.00	-15.70	1.32 H	91	27.48	30.82
4	2483.50	44.30 AV	54.00	-9.70	1.32 H	91	13.48	30.82
5	4924.00	46.45 PK	74.00	-27.55	1.44 H	273	10.55	35.90
6	4924.00	32.39 AV	54.00	-21.61	1.44 H	273	-3.51	35.90
7	7386.00	53.45 PK	74.00	-20.55	1.59 H	200	10.65	42.80
8	7386.00	39.41 AV	54.00	-14.59	1.59 H	200	-3.39	42.80

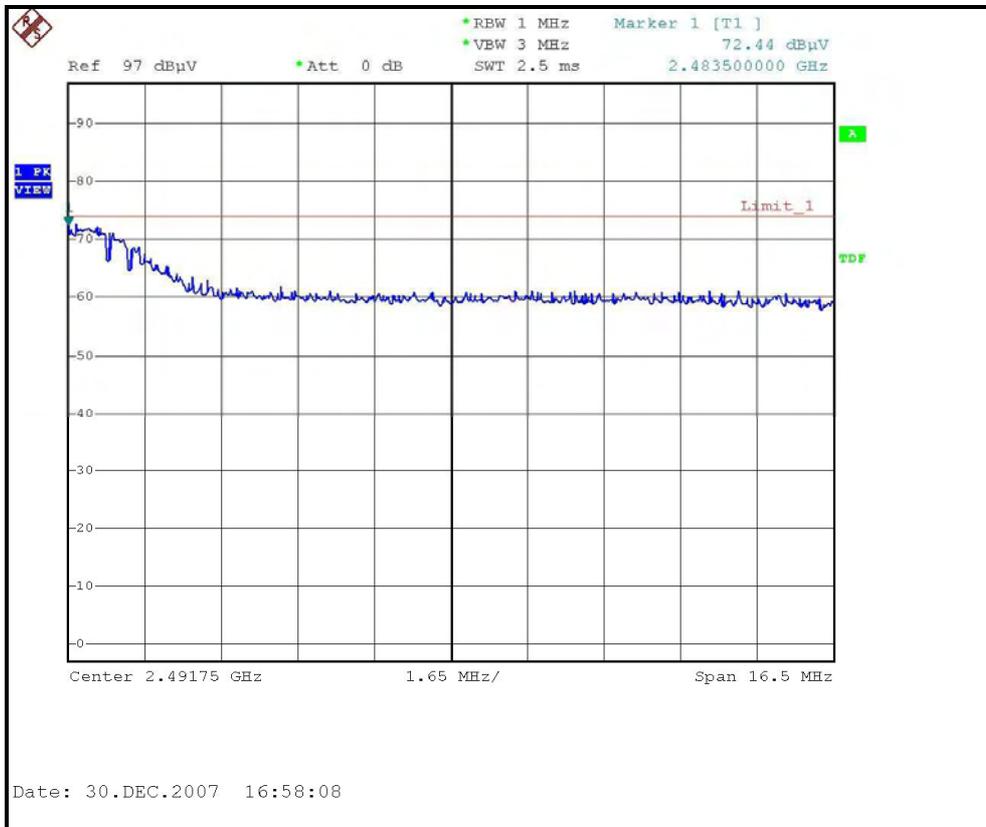
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	110.36 PK			1.53 V	141	79.64	30.72
2	*2462.00	100.41 AV			1.53 V	141	69.69	30.72
3	2483.50	72.44 PK	74.00	-1.56	1.52 V	140	41.62	30.82
4	2483.50	53.40 AV	54.00	-0.60	1.52 V	140	22.58	30.82
5	4924.00	47.62 PK	74.00	-26.38	1.40 V	155	11.72	35.90
6	4924.00	33.26 AV	54.00	-20.74	1.40 V	155	-2.64	35.90
7	7386.00	54.82 PK	74.00	-19.18	1.35 V	251	12.02	42.80
8	7386.00	39.74 AV	54.00	-14.26	1.35 V	251	-3.06	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. “ * “: Fundamental frequency.

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
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20deg. C, 66%RH 960hPa	TESTED BY	Wen Yu

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	56.00 PK	74.00	-18.00	1.26 H	176	25.60	30.40
2	2390.00	43.60 AV	54.00	-10.40	1.26 H	176	13.20	30.40
3	*2412.00	98.50 PK			1.30 H	180	68.01	30.49
4	*2412.00	86.30 AV			1.30 H	180	55.81	30.49
5	4824.00	47.62 PK	74.00	-26.38	1.58 H	219	11.93	35.69
6	4824.00	33.58 AV	54.00	-20.42	1.58 H	219	-2.11	35.69
7	7236.00	54.52 PK	78.50	-23.98	1.60 H	192	12.28	42.24
8	7236.00	39.63 AV	66.30	-26.67	1.60 H	192	-2.61	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	70.07 PK	74.00	-3.93	1.35 V	94	39.67	30.40
2	2390.00	53.25 AV	54.00	-0.75	1.35 V	94	22.85	30.40
3	*2412.00	111.22 PK			1.35 V	93	80.73	30.49
4	*2412.00	100.09 AV			1.35 V	93	69.60	30.49
5	4824.00	47.53 PK	74.00	-26.47	1.40 V	173	11.84	35.69
6	4824.00	33.49 AV	54.00	-20.51	1.40 V	173	-2.20	35.69
7	7236.00	54.69 PK	91.22	-36.53	1.30 V	162	12.45	42.24
8	7236.00	39.88 AV	80.09	-40.21	1.30 V	162	-2.36	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. “ * “: Fundamental frequency.



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20deg. C, 66%RH 960hPa	TESTED BY	Wen Yu

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	54.40 PK	74.00	-19.60	1.29 H	201	24.00	30.40
2	2390.00	42.70 AV	54.00	-11.30	1.29 H	201	12.30	30.40
3	*2437.00	95.70 PK			1.30 H	195	65.09	30.61
4	*2437.00	84.20 AV			1.30 H	195	53.59	30.61
5	2483.50	55.60 PK	74.00	-18.40	1.26 H	208	24.78	30.82
6	2483.50	43.23 AV	54.00	-10.77	1.26 H	208	12.41	30.82
7	4874.00	46.47 PK	74.00	-27.53	1.51 H	238	10.67	35.80
8	4874.00	32.38 AV	54.00	-21.62	1.51 H	238	-3.42	35.80
9	7311.00	53.51 PK	74.00	-20.49	1.49 H	162	10.99	42.52
10	7311.00	39.45 AV	54.00	-14.55	1.49 H	162	-3.07	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	2385.00	61.54 PK	74.00	-12.46	1.37 V	94	31.17	30.37
2	2385.00	49.33 AV	54.00	-4.67	1.37 V	94	18.96	30.37
3	*2437.00	109.11 PK			1.31 V	92	78.50	30.61
4	*2437.00	98.09 AV			1.31 V	92	67.48	30.61
5	2488.80	65.61 PK	74.00	-8.39	1.54 V	159	34.77	30.84
6	2488.80	53.19 AV	54.00	-0.81	1.54 V	159	22.35	30.84
7	4874.00	47.66 PK	74.00	-26.34	1.31 V	198	11.86	35.80
8	4874.00	33.42 AV	54.00	-20.58	1.31 V	198	-2.38	35.80
9	7311.00	54.36 PK	74.00	-19.64	1.32 V	105	11.84	42.52
10	7311.00	39.17 AV	54.00	-14.83	1.32 V	105	-3.35	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. “ * ”: Fundamental frequency.



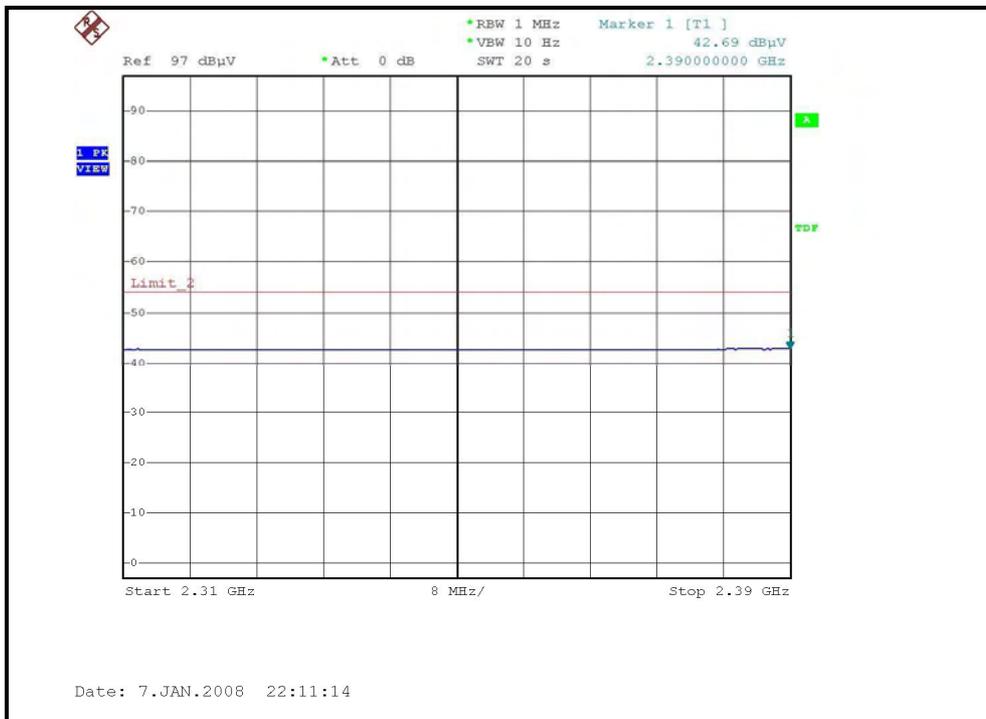
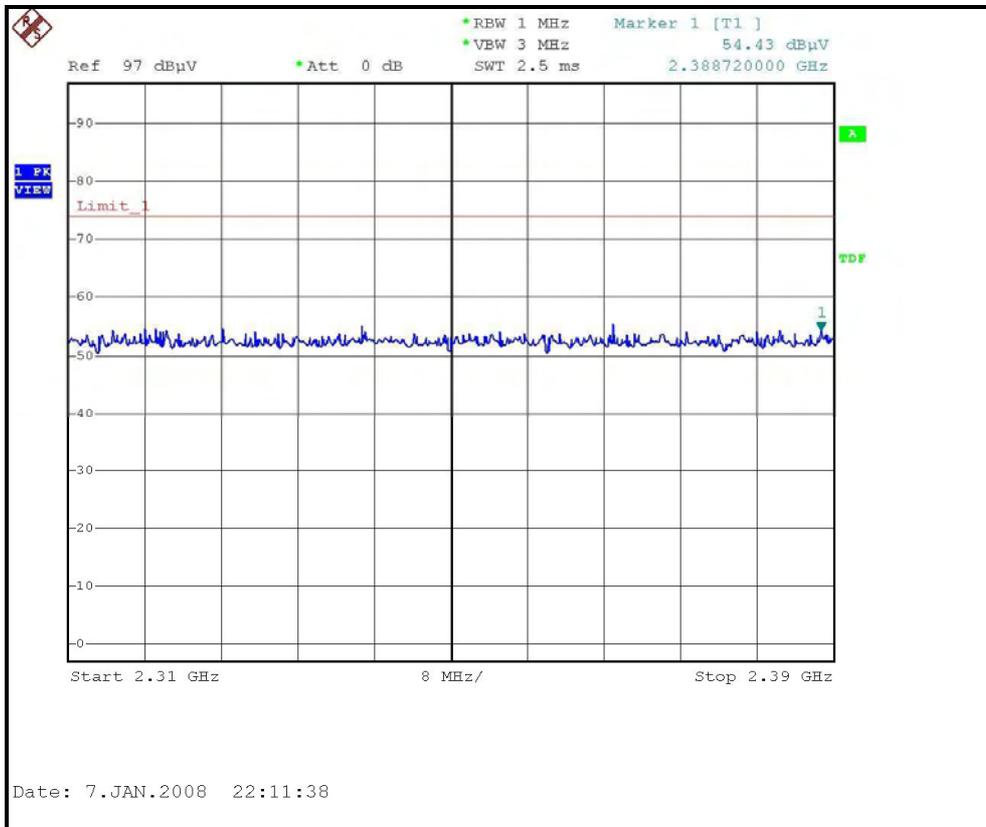
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20deg. C, 66%RH 960hPa	TESTED BY	Wen Yu

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	97.03 PK			1.31 H	91	66.31	30.72
2	*2462.00	85.60 AV			1.31 H	91	54.88	30.72
3	2483.50	55.72 PK	74.00	-18.28	1.31 H	91	24.90	30.82
4	2483.50	43.90 AV	54.00	-10.10	1.31 H	91	13.08	30.82
5	4924.00	46.58 PK	74.00	-27.42	1.50 H	206	10.68	35.90
6	4924.00	32.44 AV	54.00	-21.56	1.50 H	206	-3.46	35.90
7	7386.00	53.42 PK	74.00	-20.58	1.55 H	179	10.62	42.80
8	7386.00	39.62 AV	54.00	-14.38	1.55 H	179	-3.18	42.80

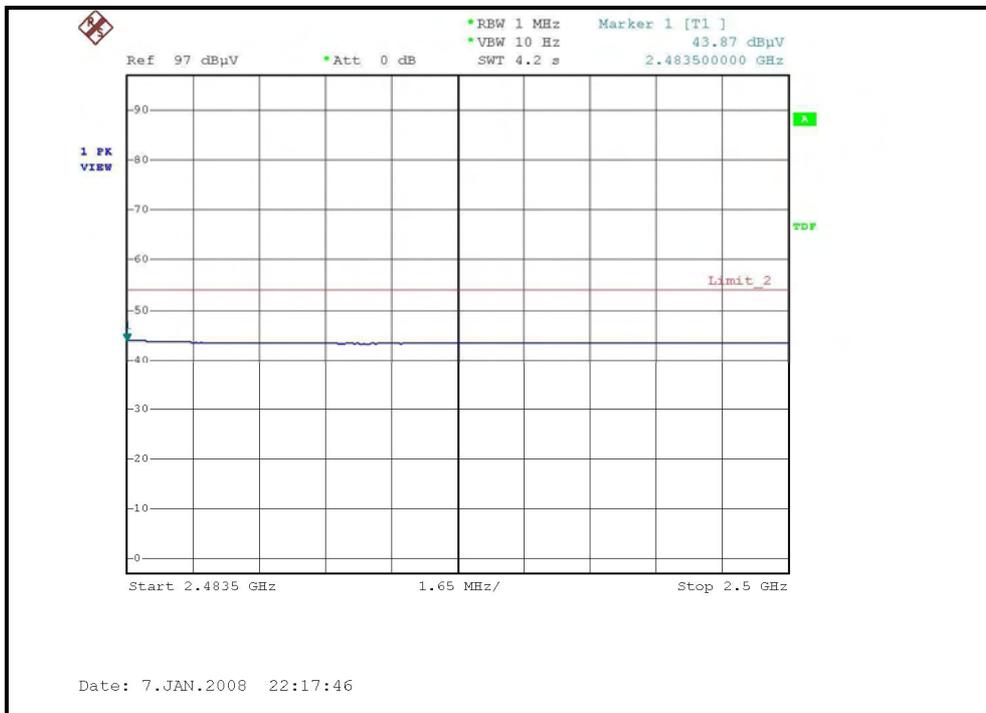
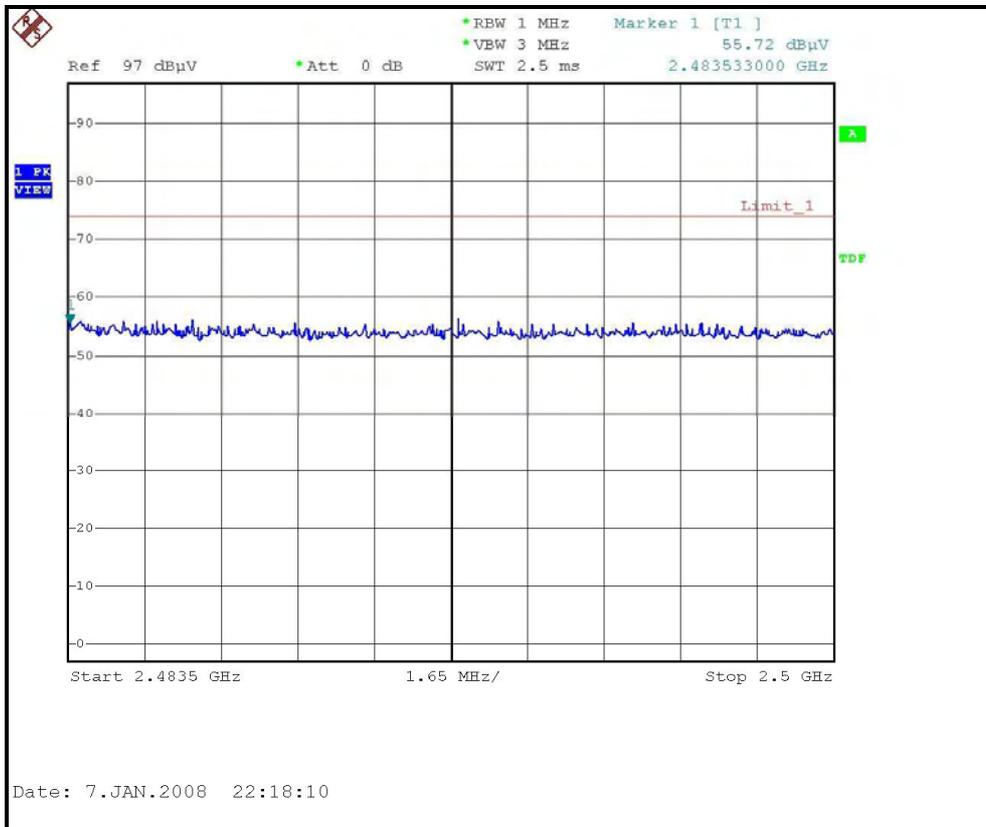
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	110.62 PK			1.28 V	139	79.90	30.72
2	*2462.00	99.08 AV			1.28 V	139	68.36	30.72
3	2483.50	68.32 PK	74.00	-5.68	1.53 V	141	37.50	30.82
4	2483.50	53.01 AV	54.00	-0.99	1.53 V	141	22.19	30.82
5	4924.00	47.68 PK	74.00	-26.32	1.38 V	169	11.78	35.90
6	4924.00	33.36 AV	54.00	-20.64	1.38 V	169	-2.54	35.90
7	7386.00	54.89 PK	74.00	-19.11	1.27 V	113	12.09	42.80
8	7386.00	39.81 AV	54.00	-14.19	1.27 V	113	-2.99	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. “ * “: Fundamental frequency.

RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE, CH6, HORIZONTAL)



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





DRAFT 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20deg. C, 66%RH 960hPa	TESTED BY	Wen Yu

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	55.22 PK	74.00	-18.78	1.64 H	89	24.82	30.40
2	2390.00	43.22 AV	54.00	-10.78	1.64 H	89	12.82	30.40
3	*2422.00	93.90 PK			1.66 H	92	63.36	30.54
4	*2422.00	82.50 AV			1.66 H	92	51.96	30.54
5	4844.00	46.92 PK	74.00	-27.08	1.20 H	277	11.18	35.74
6	4844.00	33.67 AV	54.00	-20.33	1.20 H	277	-2.07	35.74
7	7266.00	53.58 PK	74.00	-20.42	1.19 H	138	11.23	42.35
8	7266.00	39.62 AV	54.00	-14.38	1.19 H	138	-2.73	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	65.55 PK	74.00	-8.45	1.35 V	94	35.15	30.40
2	2390.00	52.89 AV	54.00	-1.11	1.35 V	94	22.49	30.40
3	*2422.00	105.97 PK			1.35 V	93	75.43	30.54
4	*2422.00	94.74 AV			1.35 V	93	64.20	30.54
5	4844.00	46.87 PK	74.00	-27.13	1.41 V	158	11.13	35.74
6	4844.00	33.54 AV	54.00	-20.46	1.41 V	158	-2.20	35.74
7	7266.00	53.69 PK	74.00	-20.31	1.26 V	317	11.34	42.35
8	7266.00	39.57 AV	54.00	-14.43	1.26 V	317	-2.78	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. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20deg. C, 66%RH 960hPa	TESTED BY	Wen Yu

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	54.49 PK	74.00	-19.51	1.63 H	90	24.09	30.40
2	2390.00	42.90 AV	54.00	-11.10	1.63 H	90	12.50	30.40
3	*2437.00	97.04 PK			1.65 H	92	66.43	30.61
4	*2437.00	85.20 AV			1.65 H	92	54.59	30.61
5	2483.50	54.70 PK	74.00	-19.30	1.69 H	104	23.88	30.82
6	2483.50	43.60 AV	54.00	-10.40	1.69 H	104	12.78	30.82
7	4874.00	46.52 PK	74.00	-27.48	1.28 H	288	10.72	35.80
8	4874.00	33.62 AV	54.00	-20.38	1.28 H	288	-2.18	35.80
9	7311.00	53.69 PK	74.00	-20.31	1.13 H	141	11.17	42.52
10	7311.00	39.71 AV	54.00	-14.29	1.13 H	141	-2.81	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	2390.00	64.29 PK	74.00	-9.71	1.37 V	94	33.90	30.40
2	2390.00	49.08 AV	54.00	-4.92	1.37 V	94	18.68	30.40
3	*2437.00	108.89 PK			1.61 V	163	78.28	30.61
4	*2437.00	97.82 AV			1.61 V	163	67.21	30.61
5	2484.50	67.83 PK	74.00	-6.17	1.55 V	159	37.01	30.82
6	2484.50	52.56 AV	54.00	-1.44	1.55 V	159	21.74	30.82
7	4874.00	46.81 PK	74.00	-27.19	1.41 V	173	11.01	35.80
8	4874.00	33.42 AV	54.00	-20.58	1.41 V	173	-2.38	35.80
9	7311.00	53.73 PK	74.00	-20.27	1.25 V	310	11.21	42.52
10	7311.00	39.61 AV	54.00	-14.39	1.25 V	310	-2.91	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. “ * ”: Fundamental frequency.



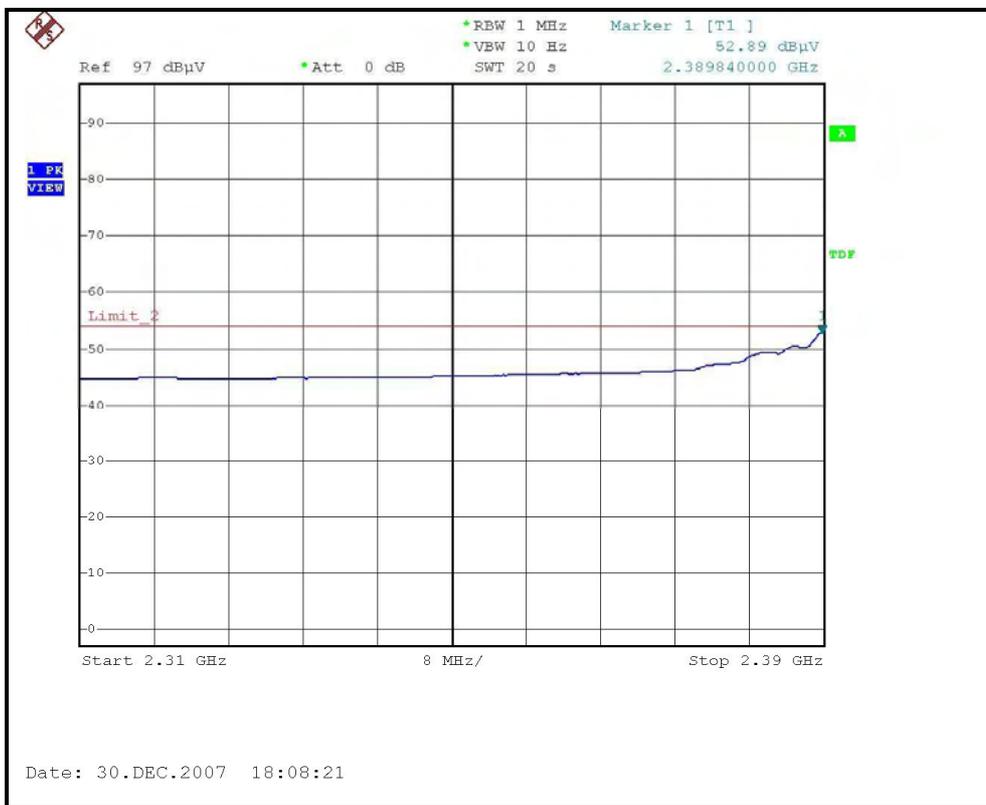
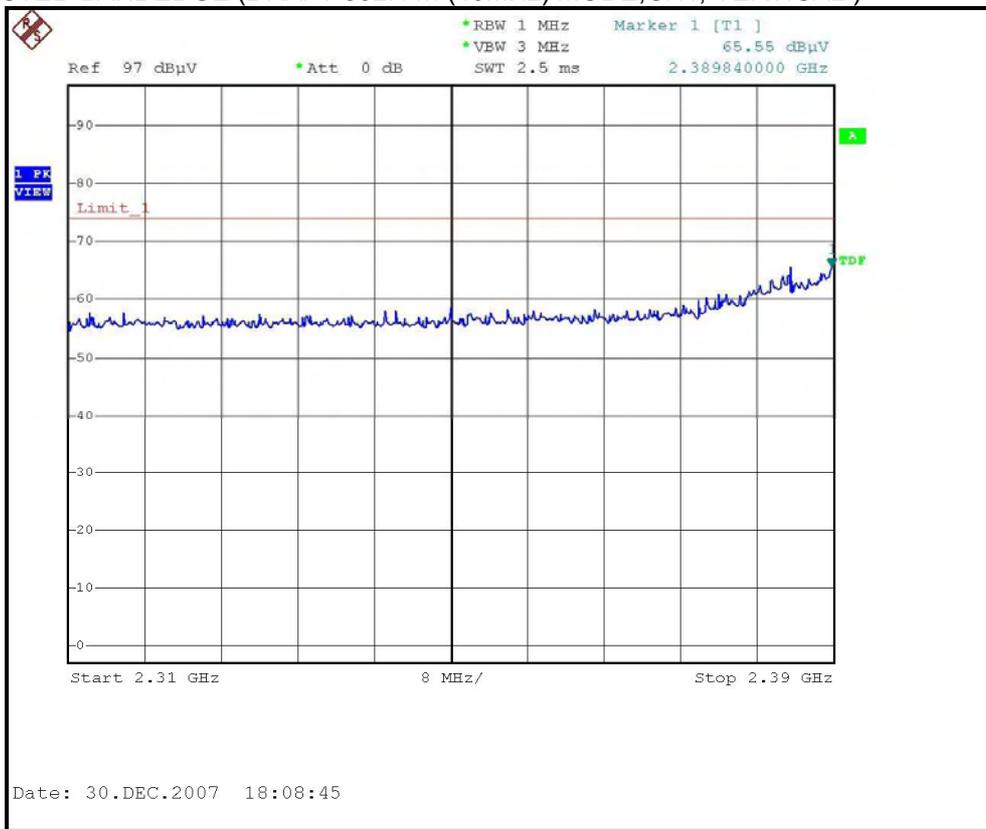
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20deg. C, 66%RH 960hPa	TESTED BY	Wen Yu

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	92.30 PK			1.95 H	90	61.63	30.67
2	*2452.00	81.00 AV			1.95 H	90	50.33	30.67
3	2483.50	54.88 PK	74.00	-19.12	1.94 H	89	24.06	30.82
4	2483.50	43.80 AV	54.00	-10.20	1.94 H	89	12.98	30.82
5	4904.00	46.76 PK	74.00	-27.24	1.31 H	297	10.90	35.86
6	4904.00	33.48 AV	54.00	-20.52	1.31 H	297	-2.38	35.86
7	7356.00	53.73 PK	74.00	-20.27	1.20 H	152	11.05	42.68
8	7356.00	39.58 AV	54.00	-14.42	1.20 H	152	-3.10	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	104.74 PK			1.55 V	90	74.07	30.67
2	*2452.00	93.81 AV			1.55 V	90	63.14	30.67
3	2484.10	67.66 PK	74.00	-6.34	1.53 V	141	36.84	30.82
4	2484.10	53.22 AV	54.00	-0.78	1.53 V	141	22.40	30.82
5	4904.00	46.92 PK	74.00	-27.08	1.37 V	162	11.06	35.86
6	4904.00	33.48 AV	54.00	-20.52	1.37 V	162	-2.38	35.86
7	7356.00	53.77 PK	74.00	-20.23	1.27 V	308	11.09	42.68
8	7356.00	39.69 AV	54.00	-14.31	1.27 V	308	-2.99	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. “ * “: Fundamental frequency.

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



RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH6, VERTICAL)

