FCC TEST REPORT (15.247)

REPORT NO.: RF950518H03
MODEL NO.: WMP-D16, WMP-D18
RECEIVED: May 18, 2006
TESTED: July 01 to 08, 2006
ISSUED: July 17, 2006

APPLICANT: Alpha Networks Inc.

ADDRESS: No.8 Li-shing 7th Rd., Science-based Industrial Partk, Hsinchu, Taiwan, R.O.C.

ISSUED BY: Advance Data Technology Corporation

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

0536

No. 2177-01

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1. CERTIFICATION

PRODUCT:	IEEE 802.11a/b/g MiniPCI Card
BRAND NAME:	Alpha
MODEL NO.:	WMP-D16, WMP-D18
TEST SAMPLE:	ENGINEERING SAMPLE
TESTED:	July 01 to 08, 2006
APPLICANT:	Alpha Networks Inc.
STANDARDS:	FCC Part 15, Subpart C (Section 15.247), ANSI C63.4-2003

The above equipment (Model: WMP-D16, WMP-D18) 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 : Amanda Chu , **DATE:** July 17, 2006
(Amanda Chu)

TECHNICAL ACCEPTANCE : Hank Chung , **DATE:** July 17, 2006
Responsible for RF
(Hank Chung)

APPROVED BY : , **DATE:** July 17, 2006
(May Chen, Deputy Manager)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

For 802.11b & g, 2412~2462MHz Band

APPLIED STANDARD: FCC Part 15, Subpart C (Section 15.247)			
Standard Section	**Test Type and Limit**	**Result**	**Remark**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is –17.26dB at 0.173MHz
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 –0.8dB at 4824.00MHz
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Band Edge Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.

For 802.11a, 5725~5850MHz Band

APPLIED STANDARD: FCC Part 15, Subpart C (Section 15.247)			
Standard Section	**Test Type and Limit**	**Result**	**Remark**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is –20.08dB at 0.177MHz
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 –1.10dB at 201.15MHz
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Band Edge Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.

NOTE:

1. The EUT was operating in 2.412 ~ 2.462GHz, 5.150 ~ 5.350GHz and 5.725 ~ 5.850GHz frequencies band. This report was recorded the RF parameters including 2.412 ~ 2.462GHz and 5.725 ~ 5.850GHz. For the 5.150 ~ 5.350GHz RF parameters was recorded in another test report.

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	IEEE 802.11a/b/g MiniPCI Card
MODEL NO.	WMP-D16, WMP-D18
FCC ID	RRK2005090049-1
POWER SUPPLY	DC 3.3V from host equipment
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b:11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps 802.11a: 54/48/36/24/18/12/9/6Mbps (Turbo mode: up to 108Mbps *see Note 2)
FREQUENCY RANGE	802.11b & 802.11g: 2412 ~ 2462MHz 802.11a: 5.15 ~ 5.35GHz and 5.725 ~ 5.850GHz
NUMBER OF CHANNEL	802.11b & 802.11g: 11 (1 for 802.11g Turbo mode) 802.11a: 13 (5 for 802.11a Turbo mode)
CHANNEL SPACING	802.11b & 802.11g: 5MHz 802.11a: 20MHz for Normal mode
OUTPUT POWER	Please see note 5 (on next page)
ANTENNA TYPE	Please see note 4 (on next page)

NOTE:

1. The EUT operates in both the 5GHz and 2.4GHz Bands and compatibility with 802.11a and 802.11b, 802.11g technology.

2. This EUT is capable of providing data rates of up to 108 Mbps in 802.11a and 802.11g Turbo mode depending upon reception quality.

3. The EUT has two model names which are identical to each other in all aspects except for the followings:

Brand Name	Model Name	Different
Alpha	WMP-D16	without Turbo feature
Alpha	WMP-D18	with Turbo feature

From the above models, model: **WMP-D18** was selected as turbo mode representative model, model: **WMP-D16** was selected as normal mode representative model for the test and its data were recorded in this report.

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

For 2.4GHz				
No.	Model No.	Gain (dBi)	Antenna Type	Connector
1	WSS001	2	Dipole	RP-SMA(M)
2	WPB002-3	4.5	PCB	MHF
Note: Antenna 1 is connected with Main port of EUT Antenna 2 is connected with AUX port of EUT				

For 5GHz						
No.	Model No.	Gain (dBi)	Cable Loss (dB)	Net Gain (dB)	Antenna Type	Connector
1	SAA04-220080	5	1.8	3.2	Dipole	RP-N plug
Note: Antenna 1 is connected with Main port of EUT						

5. Frequency Range of each Antennas are as followings:

For 2.4GHz	
Antenna No.	Frequency Range
No. 1&2	2400MHz ~ 2483.5MHz
For 5GHz	
Antenna No.	Frequency Range
No. 1	5.15GHz~5.35GHz and 5.725GHz ~ 5.850GHz

6. Peak output power (Unit : dBm) :

No.	Model No.	Operating Frequency (MHz)		
		2412MHz ~ 2462MHz		
1	WSS001	20.4		
2	WPB002-3	20.4		
No.	Model No.	Operating Frequency (MHz)		
		5150~5250	5250~5350	5725~5850
1	SAA04-220080	16.87	21.85	21.50

7. The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

Operated in 2400 ~ 2483.5MHz band:

For 802.11b/g: Eleven channels are provided to this EUT.

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

For 802.11g turbo mode: One channel is provided to this EUT

Channel	Frequency
6	2437 MHz

Operated in 5725 ~ 5850MHz band:

Five channels are provided to this EUT.

Channel	Frequency
1	5745 MHz
2	5765 MHz
3	5785 MHz
4	5805 MHz
5	5825 MHz

Two channels are provided to this EUT for turbo mode.

Channel	Frequency
1	5760 MHz
2	5800 MHz

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:

EUT configure mode	Applicable to				Description
	PLC	RE<1G	RE≥1G	APCM	
-	√	√	√	√	NA

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

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)
802.11g	1 to 11	11	OFDM	BPSK	6
802.11a	1 to 5	5	OFDM	BPSK	6

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)
802.11g	1 to 11	11	OFDM	BPSK	6
802.11a	1 to 5	5	OFDM	BPSK	6

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)
802.11b	1 to 11	1, 6, 11	DSSS	CCK	11
802.11g turbo	6	6	OFDM	BPSK	12
802.11a	1 to 5	1, 3, 5	OFDM	BPSK	6
802.11a turbo	1, 2	1, 2	OFDM	BPSK	12

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)
802.11b	1 to 11	1, 11	DSSS	CCK	11
802.11g turbo	6	6	OFDM	BPSK	12
802.11a	1 to 5	1, 5	OFDM	BPSK	6
802.11a turbo	1, 2	1, 2	OFDM	BPSK	12

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)
802.11b	1 to 11	1, 6, 11	DSSS	CCK	11
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11g turbo	6	6	OFDM	BPSK	12
802.11a	1 to 5	1, 3, 5	OFDM	BPSK	6
802.11a turbo	1, 2	1, 2	OFDM	BPSK	12

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a IEEE 802.11a/b/g MiniPCI Card. 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

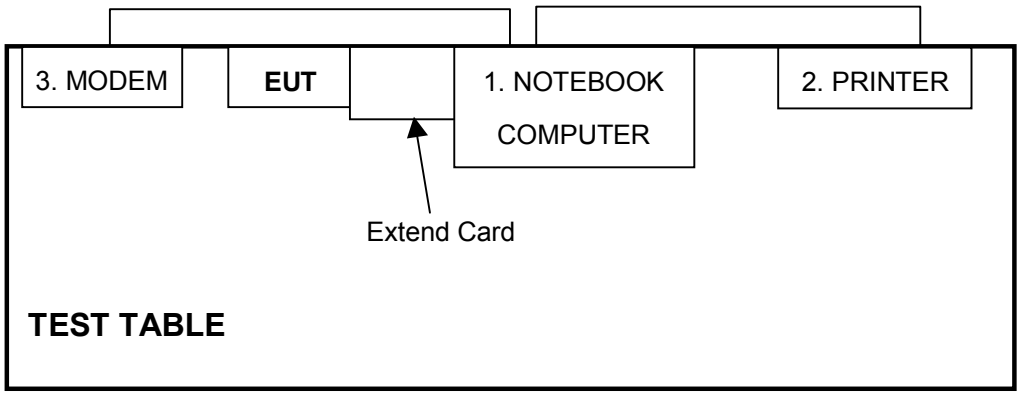
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Product	Brand	Model No.	Serial No.	FCC ID
1	NOTEBOOK COMPUTER	Dell	PP01L	TW-09c748-12800-165-3171	DoC
2	PRINTER	EPSON	LQ-300+	DCGY047261	B94C2642X
3	MODEM	ACEEX	1414	0206026775	IFAXDM1414
4	Extend Card	ADT	NA	NA	NA

No.	Signal cable description
1	NA
2	1.8m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core
3	1.3 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.
4	NA

Note: 1. All power cords of the above support units are unshielded (1.8m).

3.5 CONFIGURATION OF SYSTEM UNDER TEST



NOTE: 1. Please refer to the photos of test configuration in Item 6 also.

4.TEST TYPES AND RESULTS (802.11b & g, 2400 ~ 2483.5MHz Band)

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

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

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver	ESCS 30	847124/029	Dec. 15, 2006
Line-Impedance Stabilization Network(for EUT)	ENV-216	100071	Nov. 10, 2006
Line-Impedance Stabilization Network(for Peripheral)	KNW-407	8/1395/12	Jul. 19, 2006
RF Cable (JETBAO)	RG233/U	Cable_CB_01	Dec. 09, 2006
Terminator	50	2	Oct. 08, 2006
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.

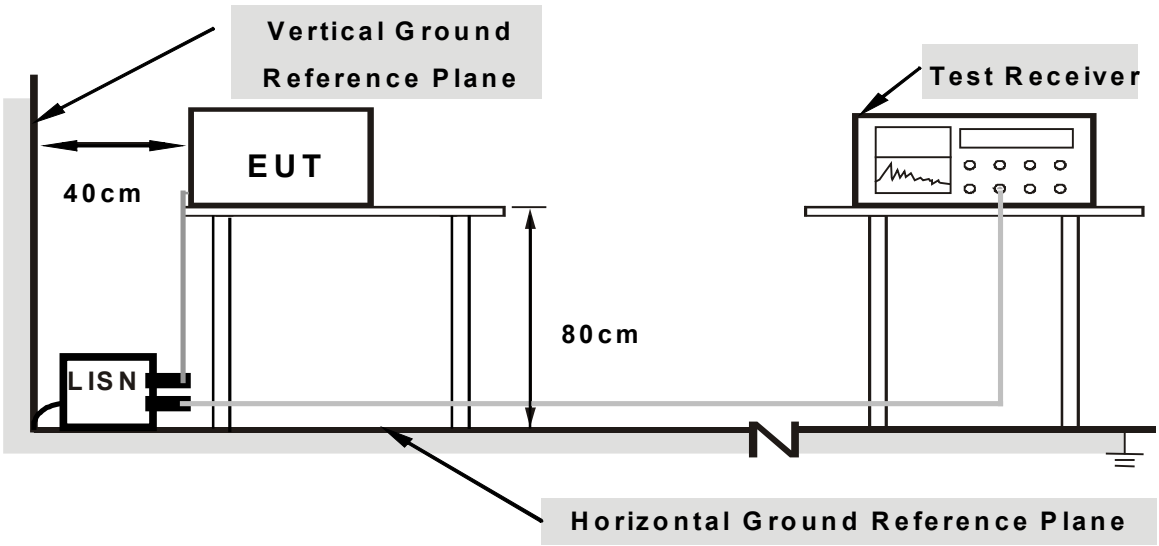
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150kHz to 30MHz was searched. Emission level under (Limit - 20dB) was not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

4.1.6 EUT OPERATING CONDITIONS

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

b. The support unit 1 (Notebook computer) ran a test program “Art 52 Build 58” to enable EUT under transmission condition continuously.

c. Notebook computer sends "H" messages to printer, and the printer prints them on paper.

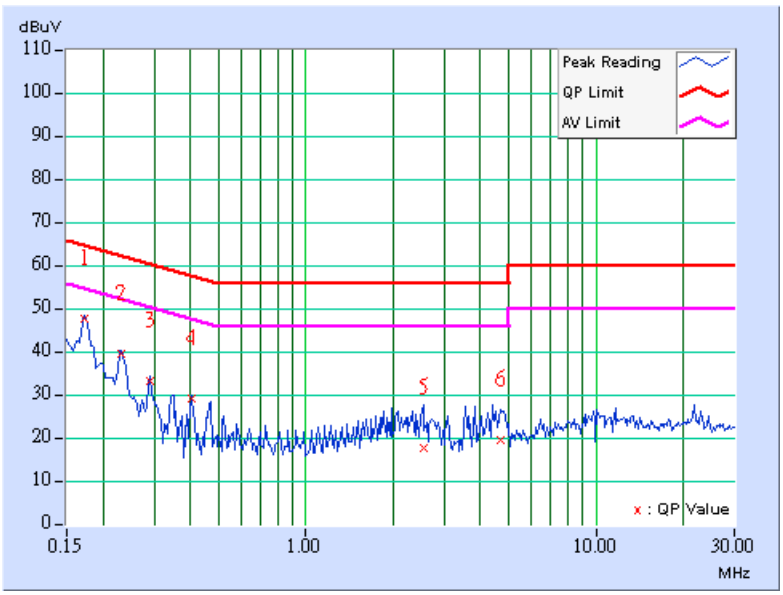
4.1.7 TEST RESULTS

Conducted Worst-Case Data

MODULATION TYPE	BPSK	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**TRANSFER RATE**	6Mbps
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 973hPa	**PHASE**	Line (L)
TESTED BY	Eric Lee		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	**0.173**	**9.60**	**37.93**	**-**	**47.53**	**-**	**64.79**	**54.79**	**-17.26**	**-**
2	0.232	9.60	29.85	-	39.45	-	62.38	52.38	-22.93	-
3	0.291	9.60	23.54	-	33.14	-	60.51	50.51	-27.37	-
4	0.404	9.60	19.59	-	29.19	-	57.77	47.77	-28.58	-
5	2.548	9.70	7.89	-	17.59	-	56.00	46.00	-38.41	-
6	4.695	9.72	10.06	-	19.78	-	56.00	46.00	-36.22	-

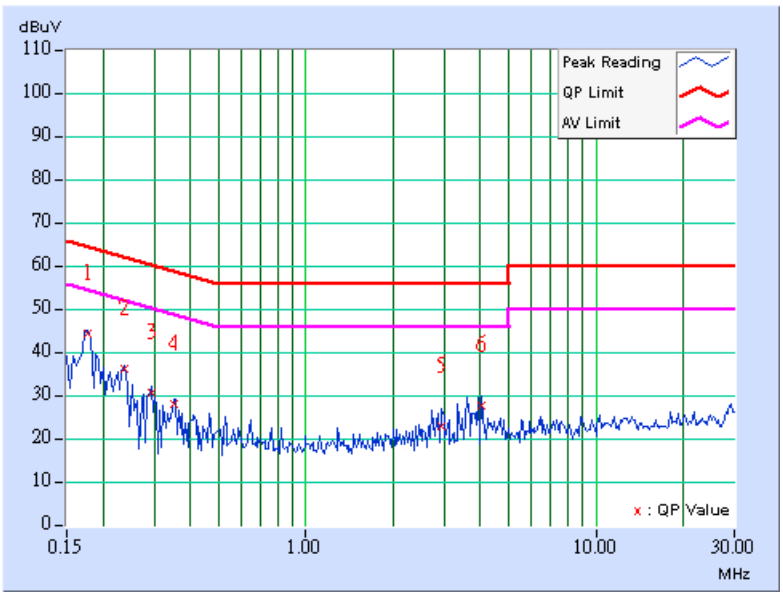
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



MODULATION TYPE	BPSK	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**TRANSFER RATE**	6Mbps
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 973hPa	**PHASE**	Neutral (N)
TESTED BY	Eric Lee		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.178	9.60	34.81	-	44.41	-	64.60	54.60	-20.19	-
2	0.236	9.60	26.61	-	36.21	-	62.24	52.24	-26.03	-
3	0.292	9.60	21.00	-	30.60	-	60.45	50.45	-29.85	-
4	0.352	9.60	18.60	-	28.20	-	58.91	48.91	-30.71	-
5	2.933	9.70	13.23	-	22.93	-	56.00	46.00	-33.07	-
6	4.051	9.70	18.09	-	27.79	-	56.00	46.00	-28.21	-

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 07, 2006
HP Pre_Amplifier	8449B	3008A01922	Oct. 02, 2006
ROHDE & SCHWARZ Test Receiver	ESCS30	100375	Sep. 19, 2006
CHASE Broadband Antenna	VULB9168	138	Dec. 11, 2006
Schwarzbeck Horn_Antenna	BBHA9120	D124	Dec. 27, 2006
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 05, 2007
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. 16. 2006
RF Cable(RICHTEC)	9913-30M N-N Cable	STCCAB-30M-1GHz	Jul. 16, 2006
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)	2.98 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 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.

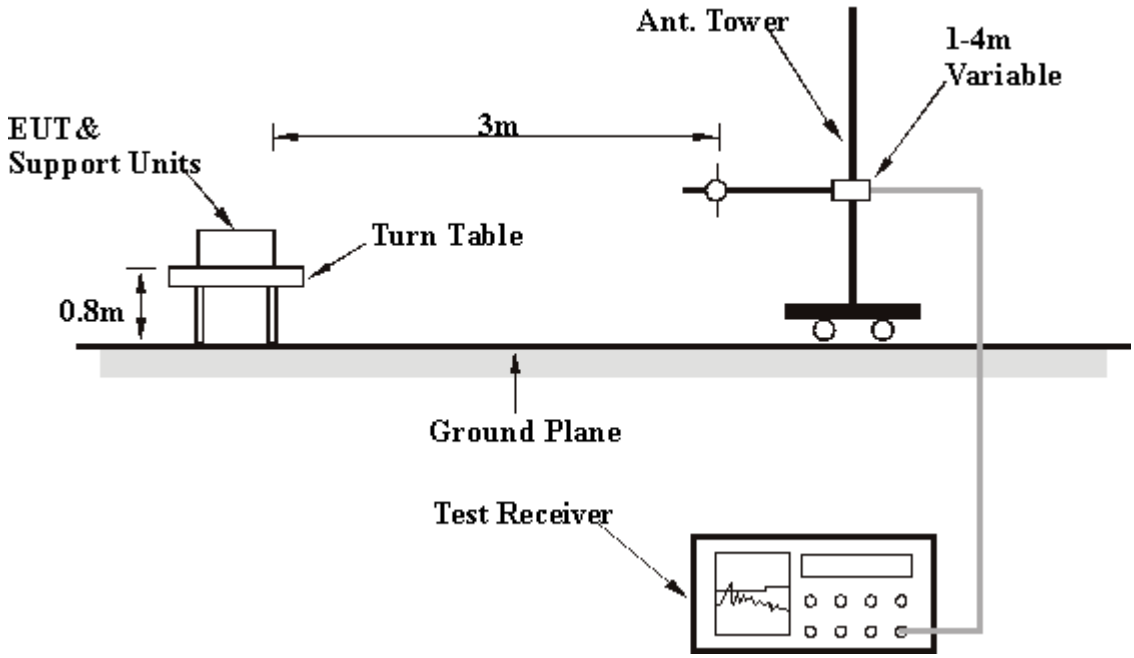
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 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 (ANTENNA 1)

Below 1GHz Worst-Case Data

MODULATION TYPE	BPSK	**FREQUENCY RANGE**	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**TRANSFER RATE**	6Mbps
ENVIRONMENTAL CONDITIONS	27deg. C, 53%RH, 973hPa	**DETECTOR FUNCTION**	Quasi-Peak
TESTED BY	Tony Chen		

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	67.00	36.10 QP	40.00	-3.90	1.75 H	34	23.20	12.90
2	134.06	41.50 QP	43.50	-2.00	1.04 H	148	28.50	13.00
3	167.39	38.70 QP	43.50	-4.80	1.01 H	123	25.00	13.70
4	201.00	40.60 QP	43.50	-2.90	1.01 H	121	28.90	11.60
5	234.48	45.00 QP	46.00	-1.00	1.06 H	68	31.90	13.10
6	268.01	40.10 QP	46.00	-5.90	1.00 H	73	25.00	15.10
7	301.56	44.40 QP	46.00	-1.60	1.07 H	78	27.50	16.80
8	335.12	44.20 QP	46.00	-1.80	1.00 H	26	27.00	17.20
9	368.00	36.40 QP	46.00	-9.60	1.00 H	72	18.50	18.00
10	400.68	41.90 QP	46.00	-4.10	1.01 H	121	22.80	19.00
11	468.99	35.50 QP	46.00	-10.50	1.06 H	111	14.60	21.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	67.00	33.70 QP	40.00	-6.30	1.30 V	90	20.80	12.90
2	133.66	39.80 QP	43.50	-3.70	1.40 V	30	26.90	12.90
3	200.32	33.90 QP	43.50	-9.60	1.03 V	207	22.30	11.60
4	234.46	35.80 QP	46.00	-10.20	1.81 V	188	22.60	13.10
5	301.56	32.30 QP	46.00	-13.70	1.36 V	214	15.50	16.80
6	335.10	34.20 QP	46.00	-11.80	1.52 V	0	17.00	17.20
7	367.84	28.00 QP	46.00	-18.00	1.00 V	299	10.10	18.00
8	468.06	31.30 QP	46.00	-14.70	1.12 V	1	10.40	20.90

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

CHANNEL	Channel 1	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	CCK	**TRANSFER RATE**	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 973hPa	**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	2370.00	53.70 PK	74.00	-20.30	1.25 H	52	24.10	29.60
1	2370.00	43.80 AV	54.00	-10.20	1.25 H	52	14.20	29.60
2	2390.00	53.70 PK	74.00	-20.30	1.25 H	52	23.90	29.80
2	2390.00	43.30 AV	54.00	-10.70	1.25 H	52	13.50	29.80
3	*2412.00	101.10 PK			1.33 H	64	71.20	29.90
3	*2412.00	97.40 AV			1.33 H	64	67.50	29.90
4	4824.00	51.30 PK	74.00	-22.70	1.37 H	75	16.30	35.00
4	4824.00	47.30 AV	54.00	-6.70	1.37 H	75	12.30	35.00
5	7236.00	52.40 PK	74.00	-21.60	1.19 H	283	11.20	41.10
5	7236.00	39.20 AV	54.00	-14.80	1.19 H	283	-2.00	41.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	56.30 PK	74.00	-17.70	1.14 V	312	26.70	29.60
1	2368.00	47.50 AV	54.00	-6.50	1.14 V	312	17.90	29.60
2	2390.00	55.60 PK	74.00	-18.40	1.14 V	312	25.80	29.80
2	2390.00	45.30 AV	54.00	-8.70	1.14 V	312	15.50	29.80
3	*2412.00	110.50 PK			1.16 V	58	80.60	29.90
3	*2412.00	106.70 AV			1.16 V	58	76.80	29.90
4	4824.00	55.50 PK	74.00	-18.50	1.06 V	67	20.50	35.00
4	**4824.00**	**53.20 AV**	**54.00**	**-0.80**	**1.06 V**	**67**	**18.20**	**35.00**
5	7236.00	53.00 PK	74.00	-21.00	1.00 V	183	11.80	41.10
5	7236.00	40.30 AV	54.00	-13.70	1.00 V	183	-0.90	41.10

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

CHANNEL	Channel 6	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	CCK	**TRANSFER RATE**	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 973hPa	**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	*2437.00	99.30 PK			1.18 H	242	69.30	30.00
1	*2437.00	95.60 AV			1.18 H	242	65.60	30.00
2	4874.00	52.40 PK	74.00	-21.60	1.45 H	150	17.20	35.20
2	4874.00	46.00 AV	54.00	-8.00	1.45 H	150	10.80	35.20
3	7311.00	52.50 PK	74.00	-21.50	1.17 H	320	11.10	41.40
3	7311.00	39.40 AV	54.00	-14.60	1.17 H	320	-2.00	41.40

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	*2437.00	108.30 PK			1.21 V	88	78.30	30.00
1	*2437.00	104.70 AV			1.21 V	88	74.70	30.00
2	4874.00	54.20 PK	74.00	-19.80	1.49 V	85	19.00	35.20
2	4874.00	52.60 AV	54.00	-1.40	1.49 V	85	17.40	35.20
3	7311.00	53.40 PK	74.00	-20.60	1.09 V	166	12.00	41.40
3	7311.00	40.60 AV	54.00	-13.40	1.09 V	166	-0.80	41.40

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

CHANNEL	Channel 11	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	CCK	**TRANSFER RATE**	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 973hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

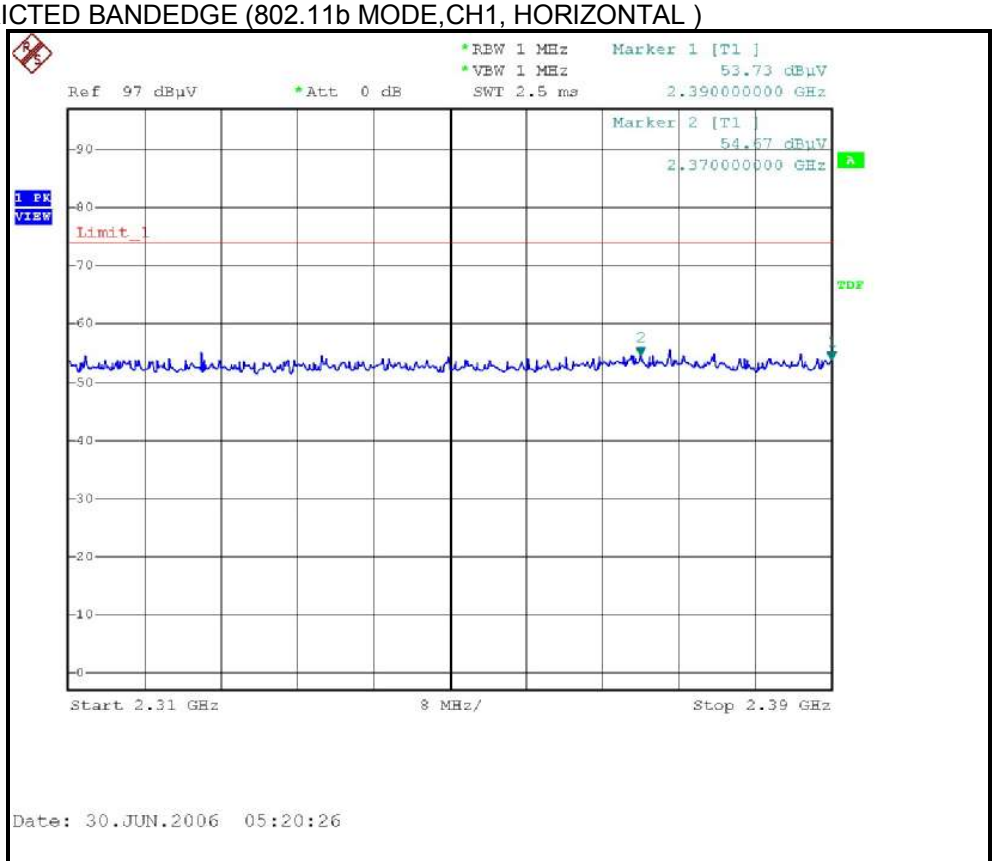
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	99.60 PK			1.32 H	199	69.50	30.10
1	*2462.00	96.10 AV			1.32 H	199	66.00	30.10
2	2483.50	52.90 PK	74.00	-21.10	1.32 H	339	22.70	30.20
2	2483.50	43.20 AV	54.00	-10.80	1.32 H	339	13.00	30.20
3	4924.00	50.80 PK	74.00	-23.20	1.43 H	92	15.40	35.40
3	4924.00	46.00 AV	54.00	-8.00	1.43 H	92	10.60	35.40
4	7386.00	52.80 PK	74.00	-21.20	1.11 H	354	11.20	41.60
4	7386.00	39.60 AV	54.00	-14.40	1.11 H	354	-2.00	41.60

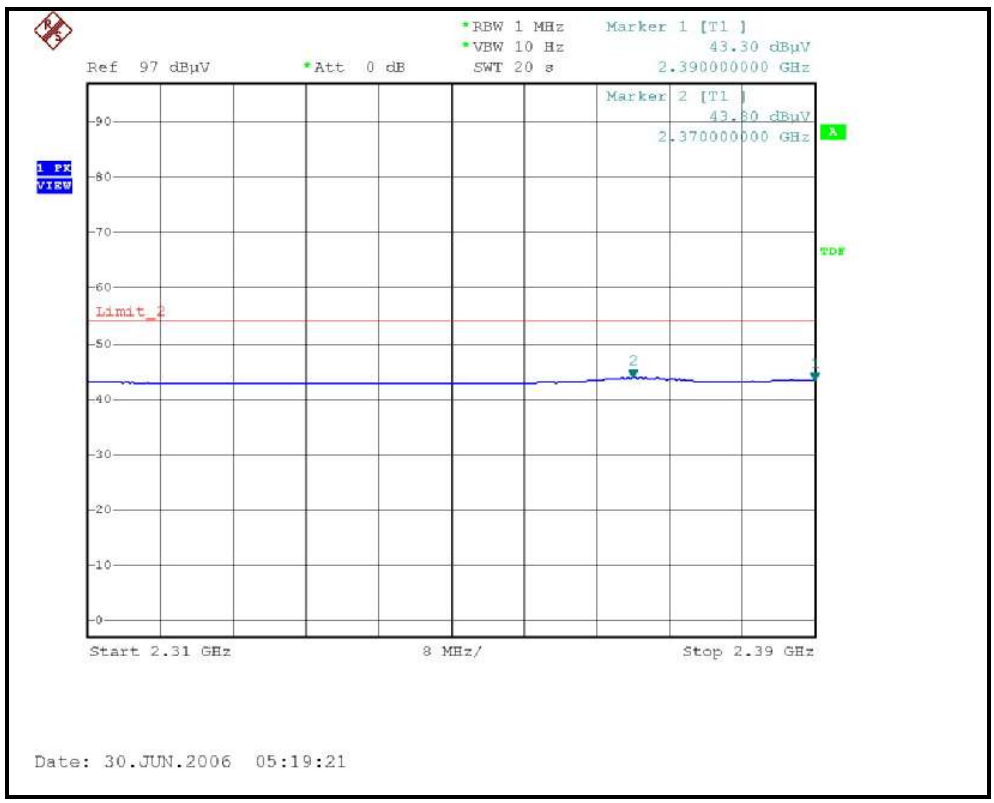
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

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	109.40 PK			1.16 V	84	79.30	30.10
1	*2462.00	105.50 AV			1.16 V	84	75.40	30.10
2	2483.50	55.00 PK	74.00	-19.00	1.13 V	85	24.80	30.20
2	2483.50	44.50 AV	54.00	-9.50	1.13 V	85	14.30	30.20
3	2500.00	56.10 PK	74.00	-17.90	1.13 V	85	25.80	30.30
3	2500.00	45.60 AV	54.00	-8.40	1.13 V	85	15.30	30.30
4	4924.00	55.20 PK	74.00	-18.80	1.44 V	91	19.80	35.40
4	4924.00	53.10 AV	54.00	-0.90	1.44 V	91	17.70	35.40
5	7386.00	53.60 PK	74.00	-20.40	1.02 V	138	12.00	41.60
5	7386.00	40.90 AV	54.00	-13.10	1.02 V	138	-0.70	41.60

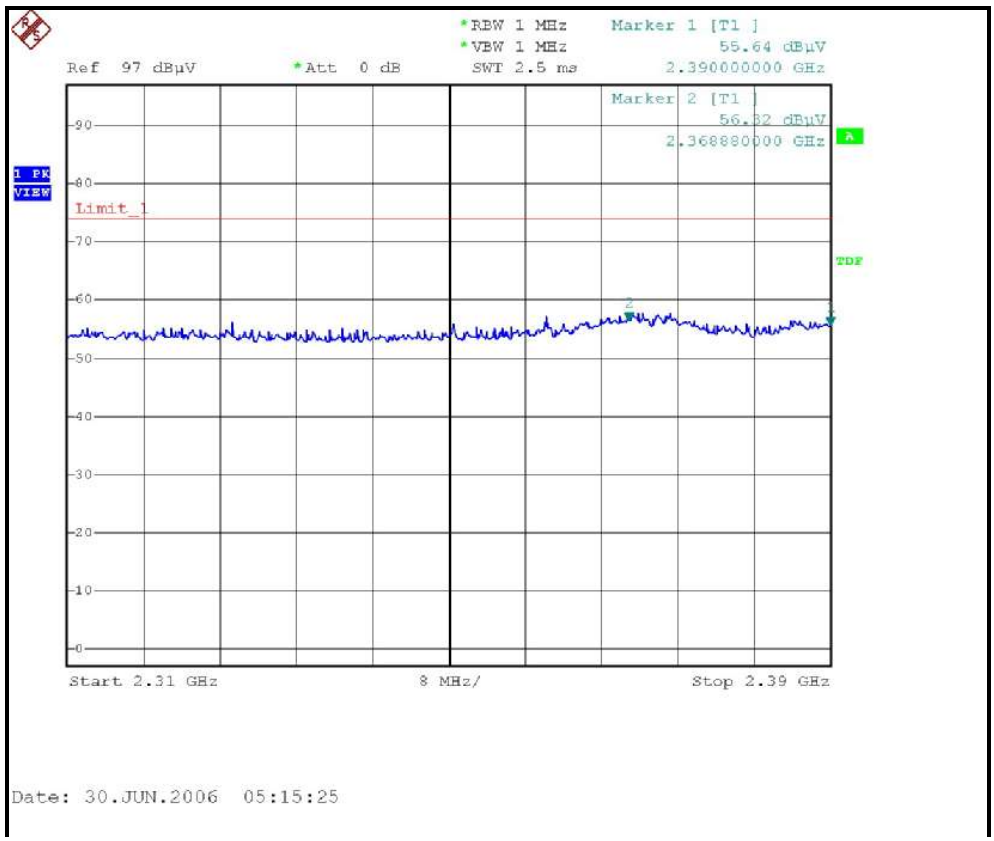
REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247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

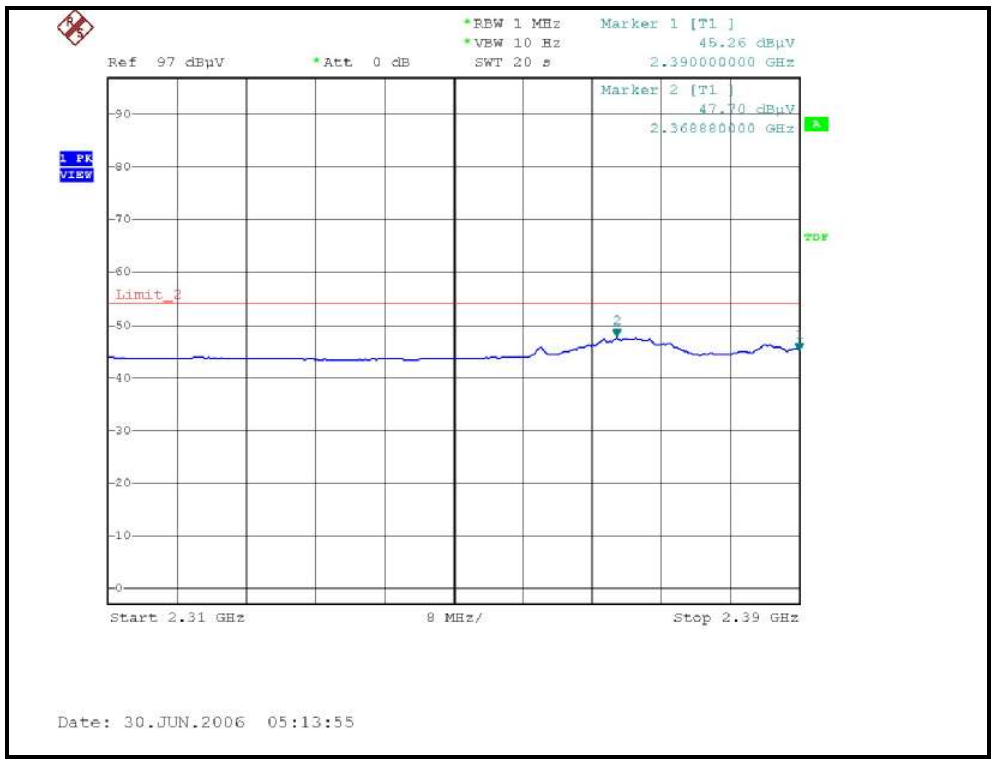
RESTRICTED BANDEDGE (802.11b MODE,CH1, HORIZONTAL)



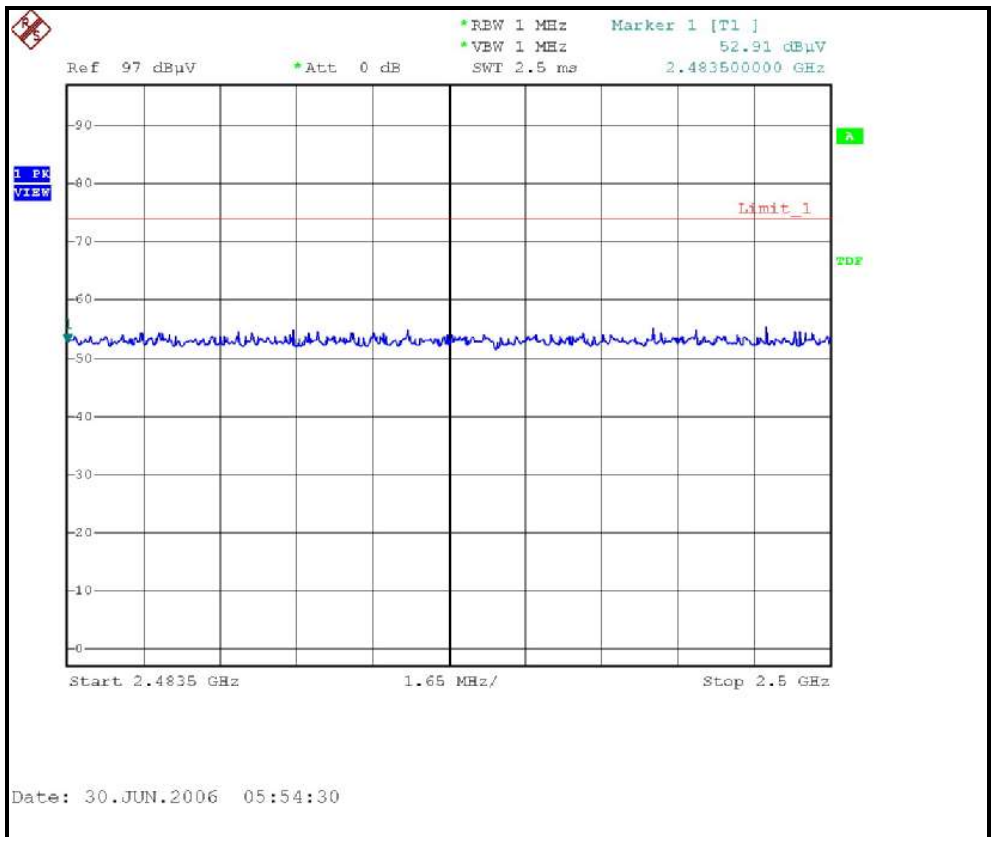


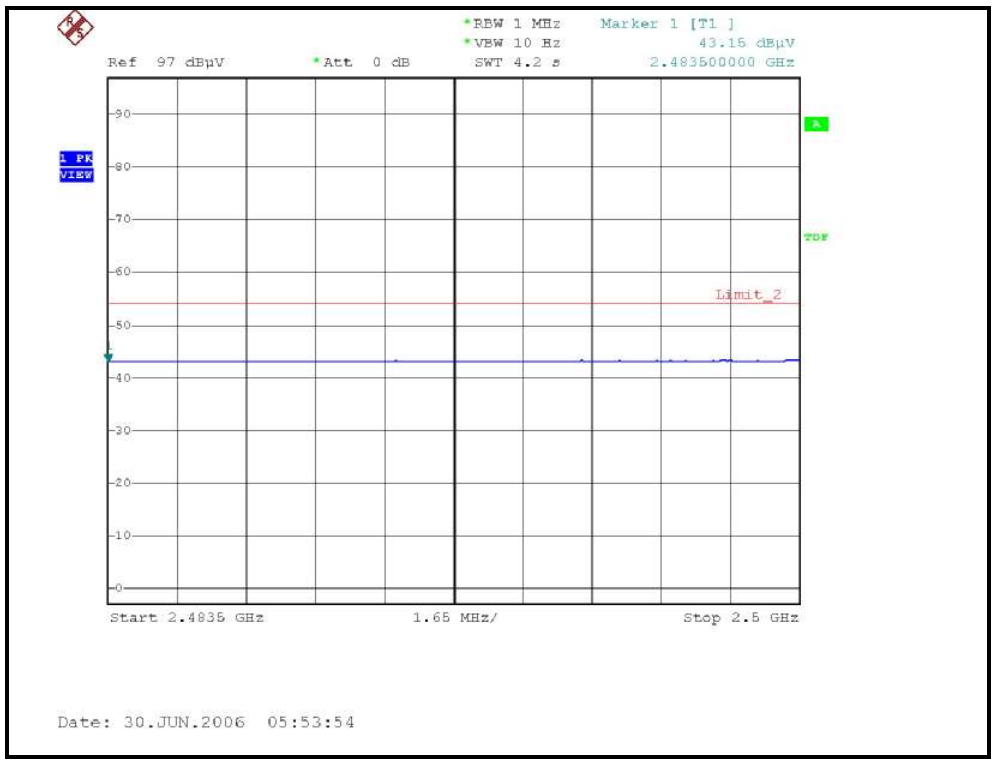
RESTRICTED BANDEDGE (802.11b MODE,CH1, VERTICAL)





RESTRICTED BANDEDGE (802.11b MODE,CH11, HORIZONTAL)





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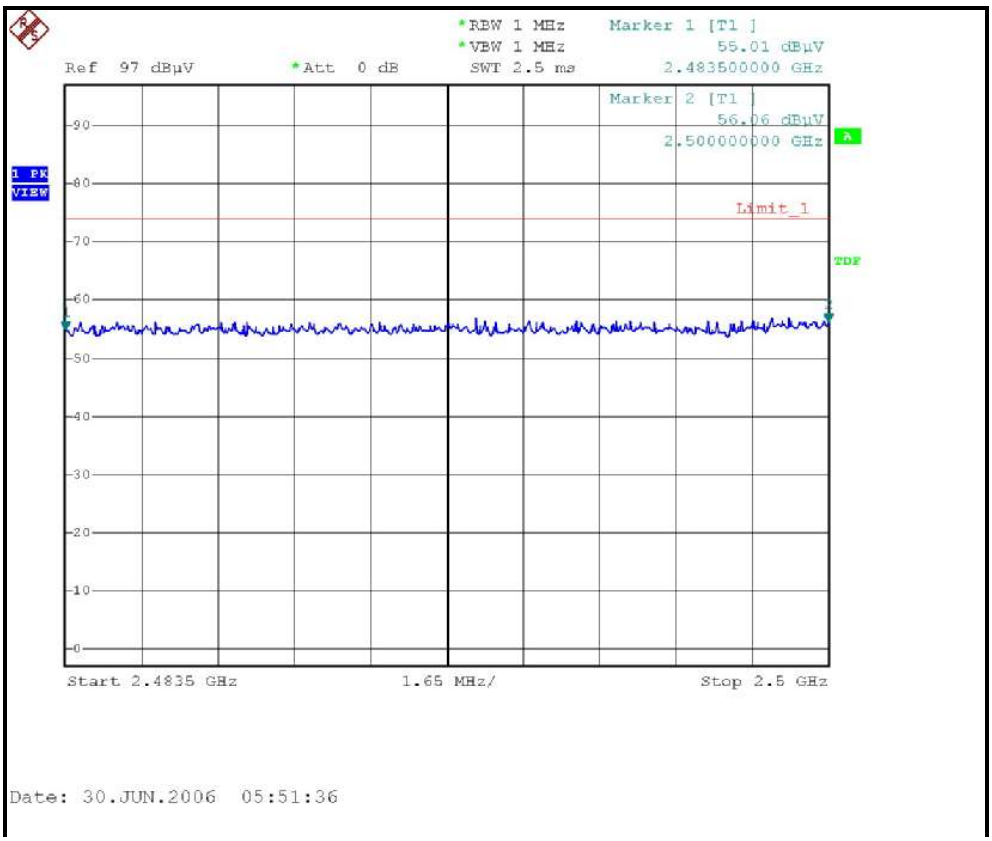
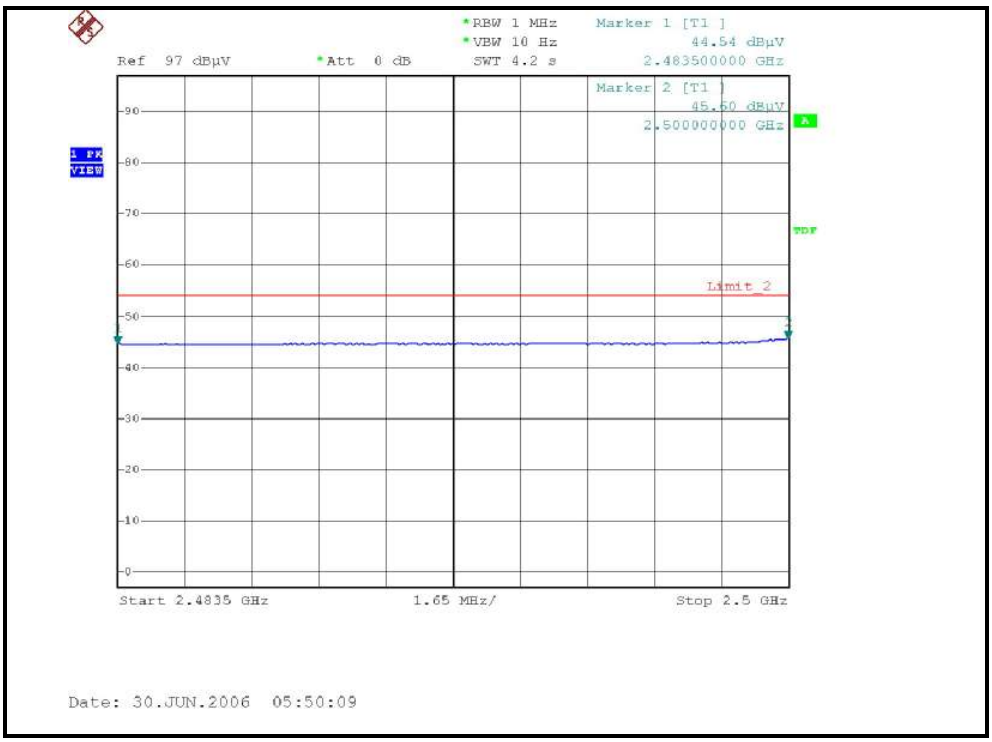




802.11g OFDM modulation

CHANNEL	Channel 1	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	BPSK	**TRANSFER RATE**	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 973hPa	**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	63.00 PK	74.00	-11.00	1.16 H	46	33.20	29.80
1	2390.00	45.20 AV	54.00	-8.80	1.16 H	46	15.40	29.80
2	*2412.00	103.20 PK			1.67 H	302	73.30	29.90
2	*2412.00	93.00 AV			1.67 H	302	63.10	29.90
3	4824.00	48.70 PK	74.00	-25.30	1.40 H	301	13.70	35.00
3	4824.00	34.80 AV	54.00	-19.20	1.40 H	301	-0.20	35.00
4	7236.00	51.80 PK	74.00	-22.20	1.38 H	55	10.60	41.10
4	7236.00	39.60 AV	54.00	-14.40	1.38 H	55	-1.60	41.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	71.70 PK	74.00	-2.30	1.16 V	310	41.90	29.80
1	2390.00	51.80 AV	54.00	-2.20	1.16 V	310	22.00	29.80
2	*2412.00	112.10 PK			1.12 V	21	82.20	29.90
2	*2412.00	101.80 AV			1.12 V	21	71.90	29.90
3	4824.00	52.10 PK	74.00	-21.90	1.39 V	87	17.10	35.00
3	4824.00	38.70 AV	54.00	-15.30	1.39 V	87	3.70	35.00
4	7236.00	51.60 PK	74.00	-22.40	1.62 V	317	10.40	41.10
4	7236.00	39.40 AV	54.00	-14.60	1.62 V	317	-1.80	41.10

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

CHANNEL	Channel 6	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	BPSK	**TRANSFER RATE**	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 973hPa	**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	*2437.00	106.20 PK			1.69 H	60	76.20	30.00
1	*2437.00	96.70 AV			1.69 H	60	66.70	30.00
2	4874.00	48.90 PK	74.00	-25.10	1.10 H	312	13.70	35.20
2	4874.00	35.50 AV	54.00	-18.50	1.10 H	312	0.30	35.20
3	7311.00	52.30 PK	74.00	-21.70	1.39 H	57	10.90	41.40
3	7311.00	40.00 AV	54.00	-14.00	1.39 H	57	-1.40	41.40

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	*2437.00	115.60 PK			1.34 V	334	85.60	30.00
1	*2437.00	105.00 AV			1.34 V	334	75.00	30.00
2	4874.00	54.40 PK	74.00	-19.60	1.22 V	78	19.20	35.20
2	4874.00	40.70 AV	54.00	-13.30	1.22 V	78	5.50	35.20
3	7311.00	52.00 PK	74.00	-22.00	1.66 V	322	10.60	41.40
3	7311.00	39.80 AV	54.00	-14.20	1.66 V	322	-1.60	41.40

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

CHANNEL	Channel 11	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	BPSK	**TRANSFER RATE**	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 973hPa	**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	102.60 PK			1.66 H	300	72.50	30.10
1	*2462.00	92.50 AV			1.66 H	300	62.40	30.10
2	2483.50	63.30 PK	74.00	-10.70	1.13 H	47	33.10	30.20
2	2483.50	45.40 AV	54.00	-8.60	1.13 H	47	15.20	30.20
3	4924.00	46.20 PK	74.00	-27.80	1.35 H	302	10.80	35.40
3	4924.00	32.90 AV	54.00	-21.10	1.35 H	302	-2.50	35.40
4	7386.00	52.20 PK	74.00	-21.80	1.33 H	68	10.60	41.60
4	7386.00	40.10 AV	54.00	-13.90	1.33 H	68	-1.50	41.60

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	110.50 PK			1.33 V	358	80.40	30.10
1	*2462.00	100.50 AV			1.33 V	358	70.40	30.10
2	2483.50	70.90 PK	74.00	-3.10	1.09 V	330	40.70	30.20
2	2483.50	51.80 AV	54.00	-2.20	1.09 V	330	21.60	30.20
3	4924.00	48.40 PK	74.00	-25.60	1.36 V	76	13.00	35.40
3	4924.00	34.80 AV	54.00	-19.20	1.36 V	76	-0.60	35.40
4	7386.00	52.10 PK	74.00	-21.90	1.66 V	328	10.50	41.60
4	7386.00	40.00 AV	54.00	-14.00	1.66 V	328	-1.60	41.60

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

802.11g Turbo OFDM modulation

CHANNEL	Channel 6	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	BPSK	**TRANSFER RATE**	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 973hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

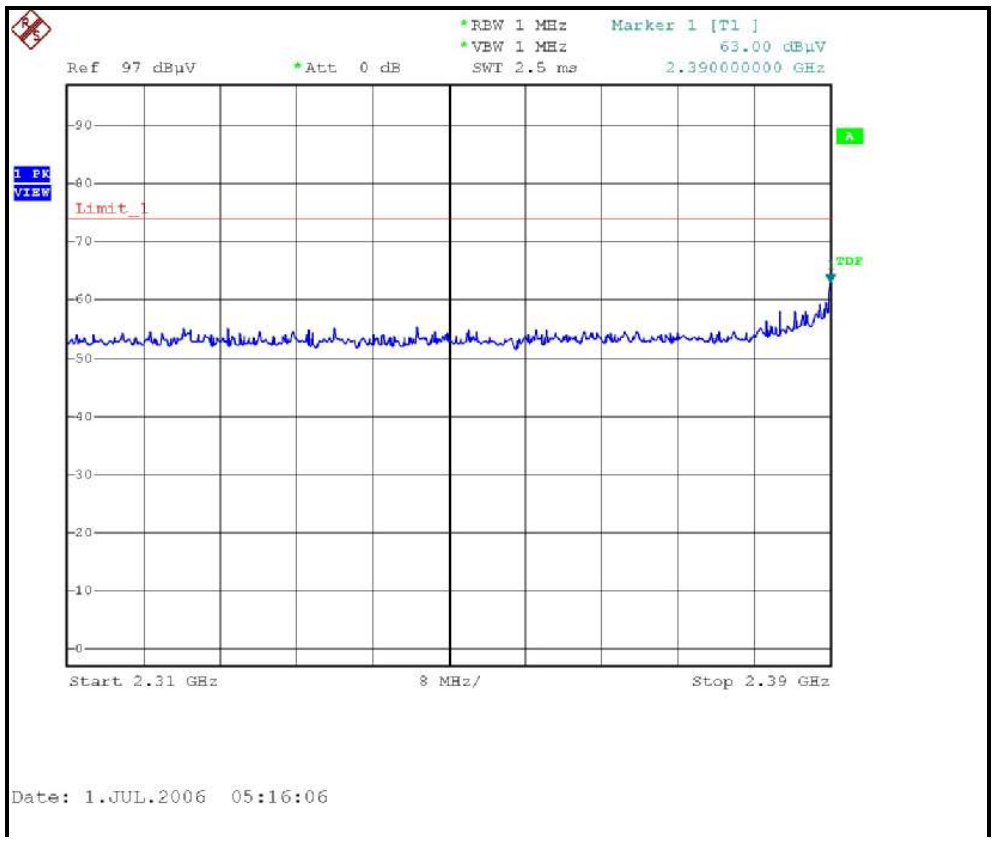
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	57.60 PK	74.00	-16.40	1.64 H	274	27.80	29.80
1	2390.00	45.40 AV	54.00	-8.60	1.64 H	274	15.60	29.80
2	*2437.00	102.20 PK			1.14 H	48	72.20	30.00
2	*2437.00	92.60 AV			1.14 H	48	62.60	30.00
3	2483.50	60.00 PK	74.00	-14.00	1.49 H	70	29.70	30.20
3	2483.50	45.90 AV	54.00	-8.10	1.49 H	70	15.70	30.20
4	4874.00	44.50 PK	74.00	-29.50	1.32 H	74	9.30	35.20
4	4874.00	31.90 AV	54.00	-22.10	1.32 H	74	-3.30	35.20
5	7311.00	51.30 PK	74.00	-22.70	1.17 H	127	9.90	41.40
5	7311.00	38.70 AV	54.00	-15.30	1.17 H	127	-2.70	41.40

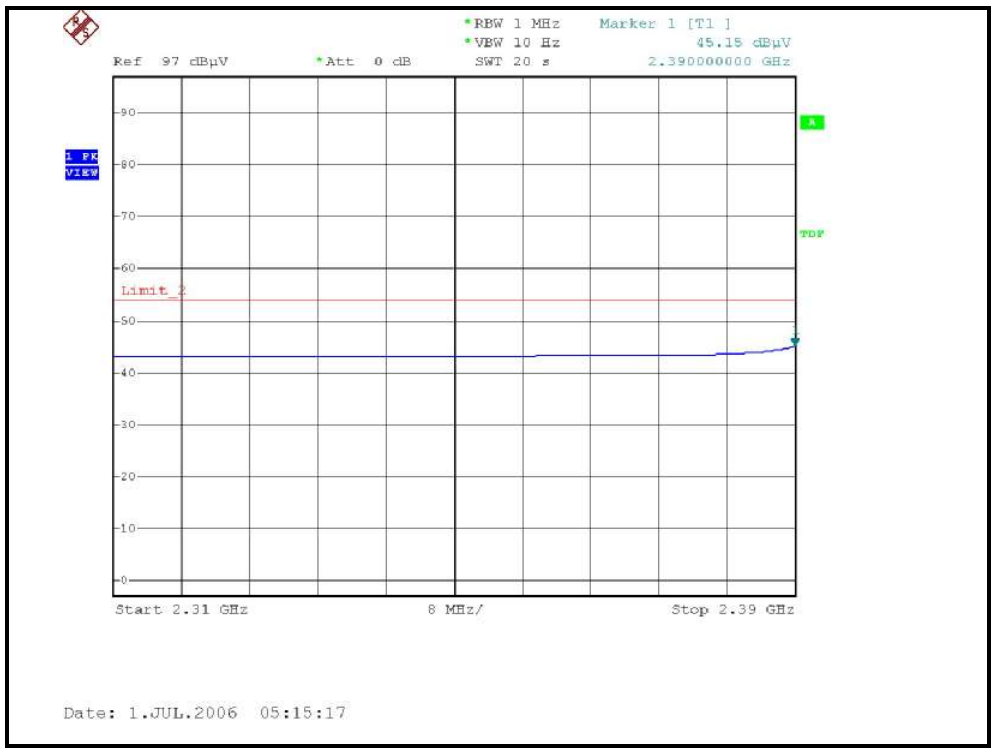
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

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	2390.00	70.10 PK	74.00	-3.90	1.49 V	63	40.30	29.80
1	2390.00	53.00 AV	54.00	-1.00	1.49 V	63	23.20	29.80
2	*2437.00	109.40 PK			1.48 V	64	79.40	30.00
2	*2437.00	99.80 AV			1.48 V	64	69.80	30.00
3	2483.50	71.00 PK	74.00	-3.00	1.51 V	92	40.80	30.20
3	2483.50	53.00 AV	54.00	-1.00	1.51 V	92	22.70	30.20
4	4874.00	49.50 PK	74.00	-24.50	1.52 V	78	14.30	35.20
4	4874.00	33.40 AV	54.00	-20.60	1.52 V	78	-1.80	35.20
5	7311.00	51.10 PK	74.00	-22.90	1.07 V	346	9.70	41.40
5	7311.00	38.70 AV	54.00	-15.30	1.07 V	346	-2.70	41.40

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

RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)





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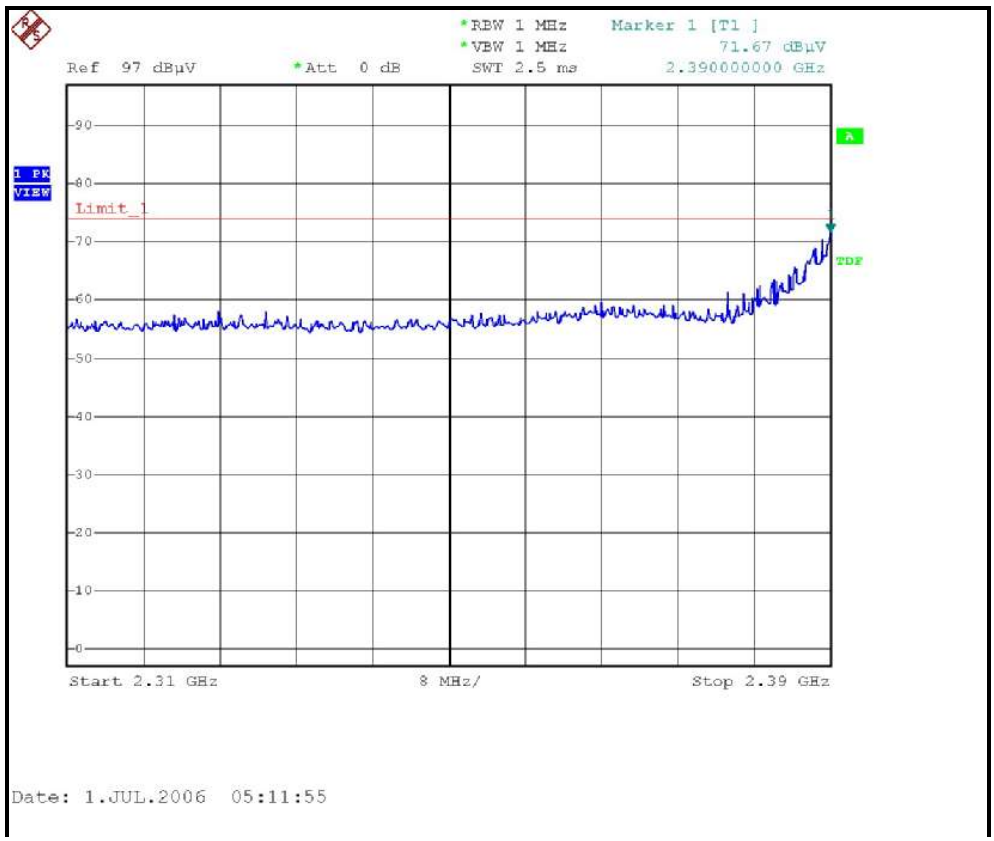

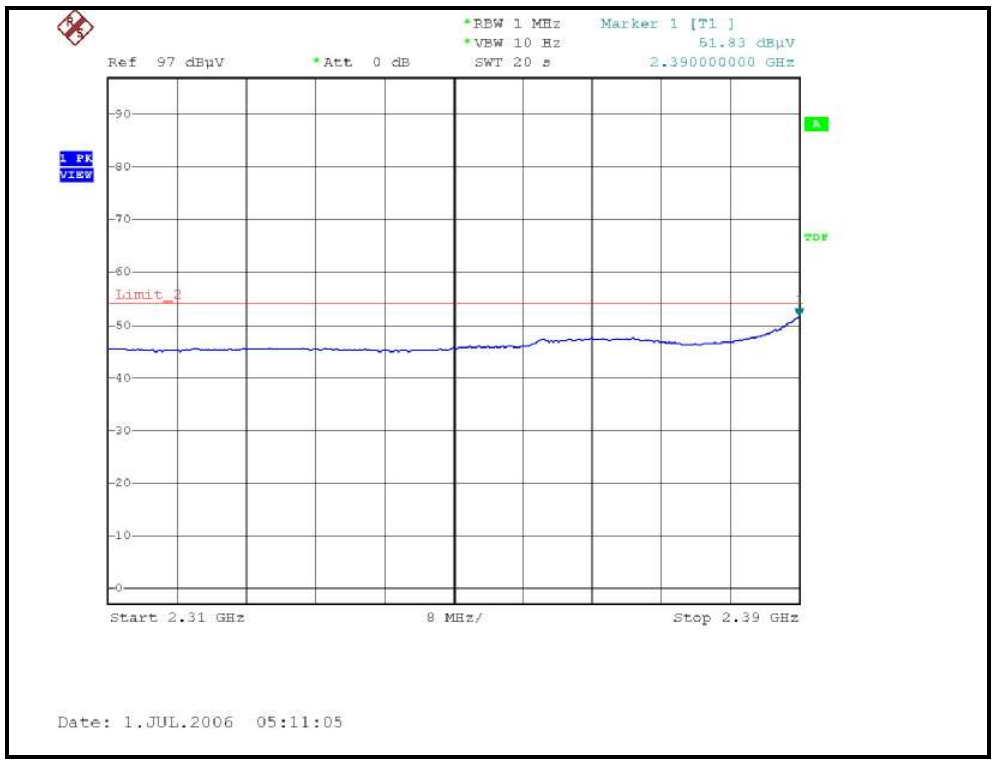

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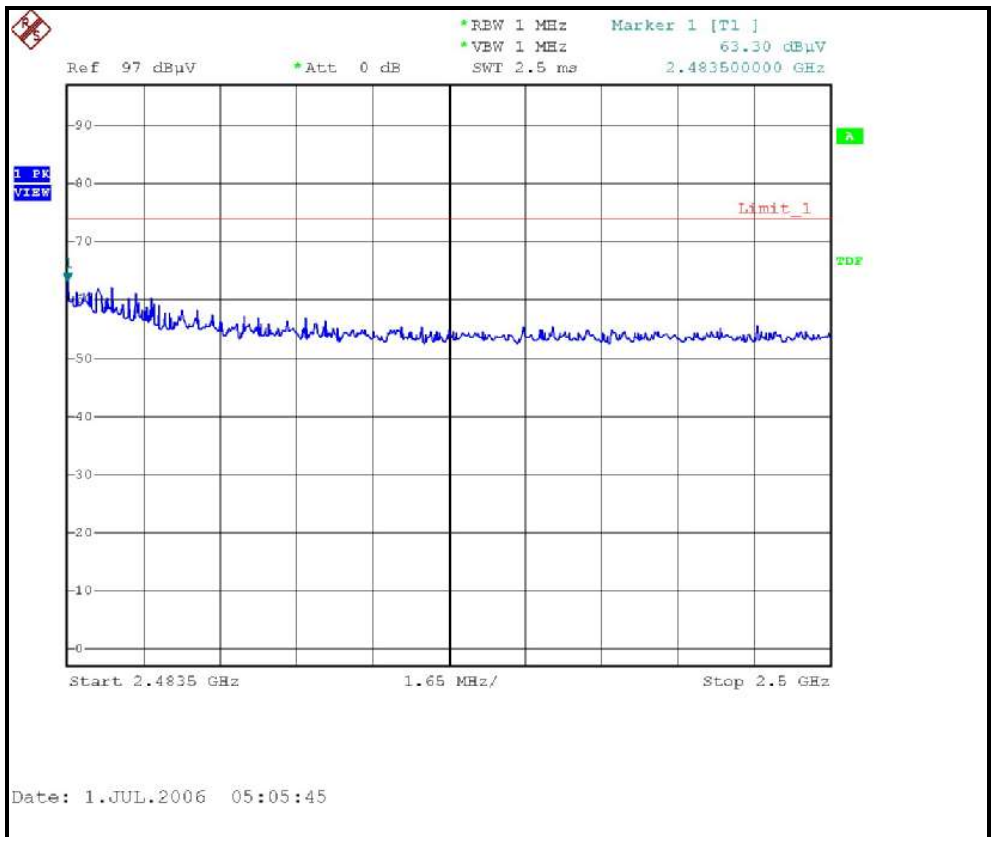

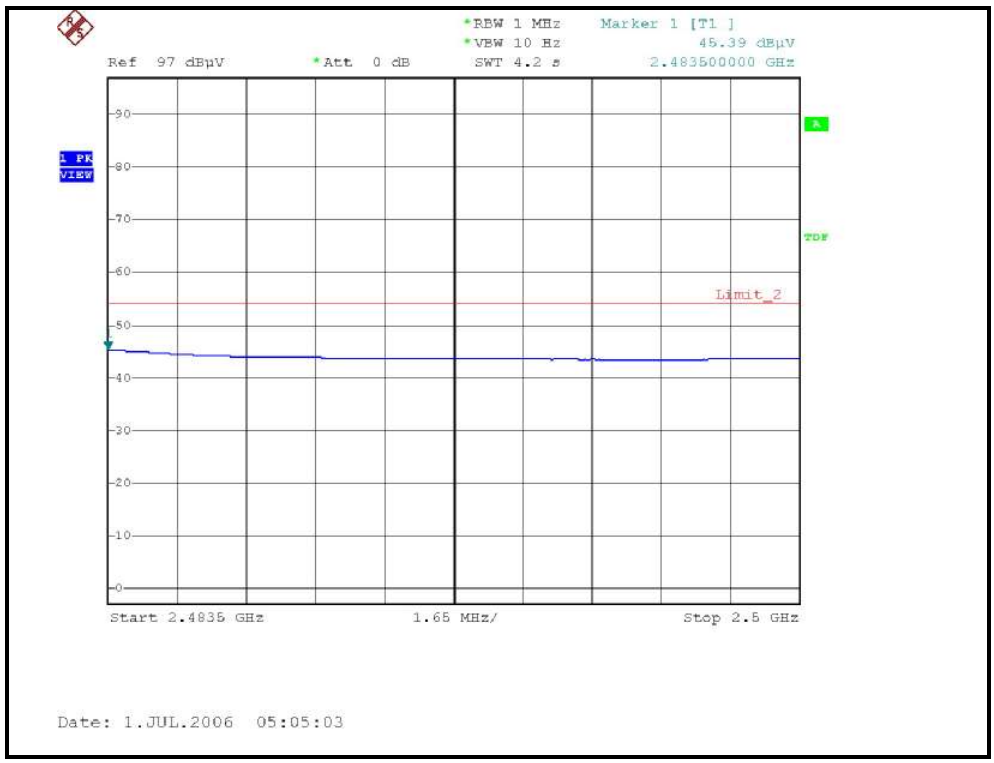

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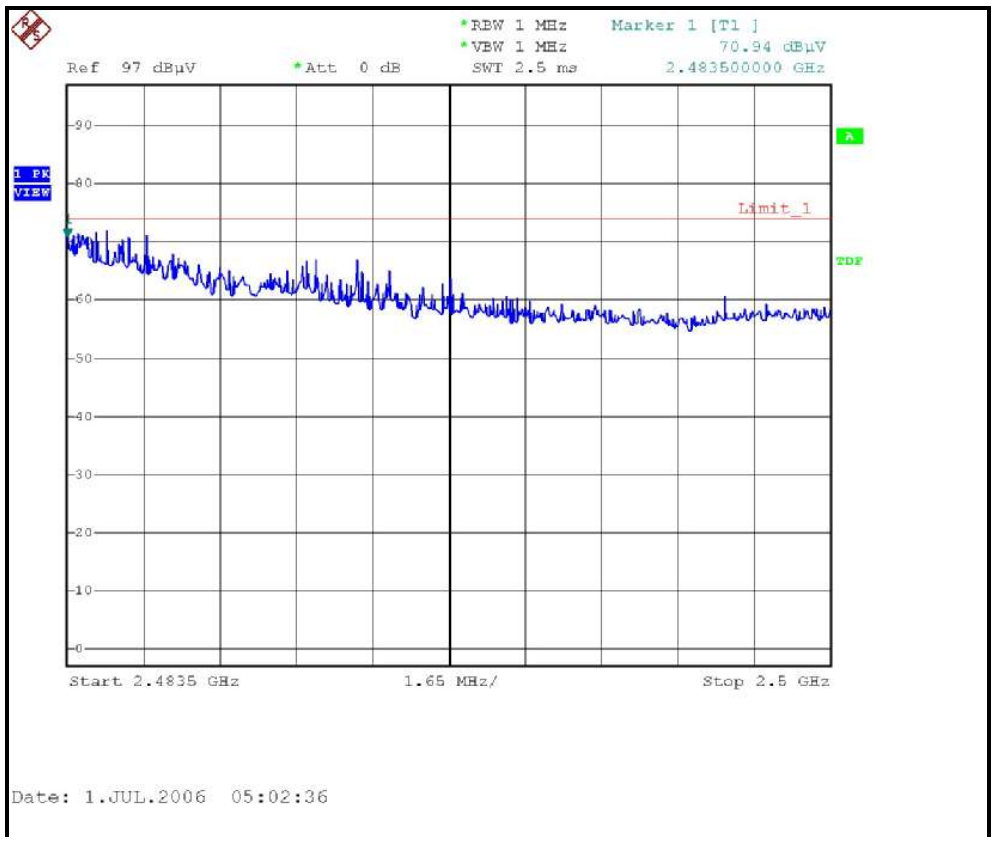
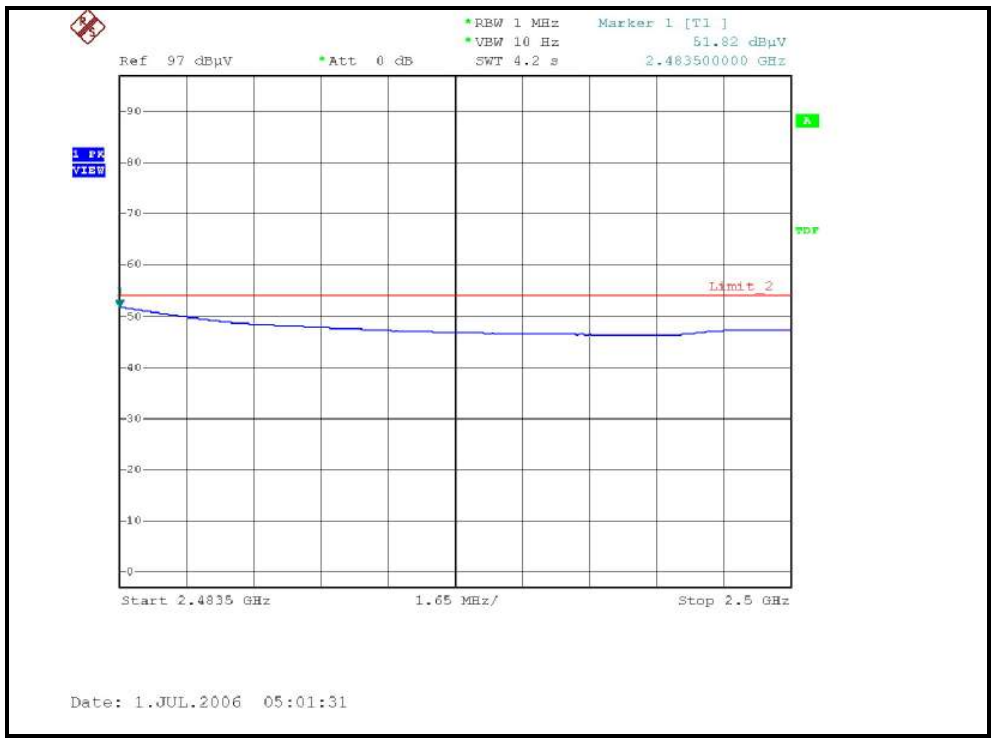
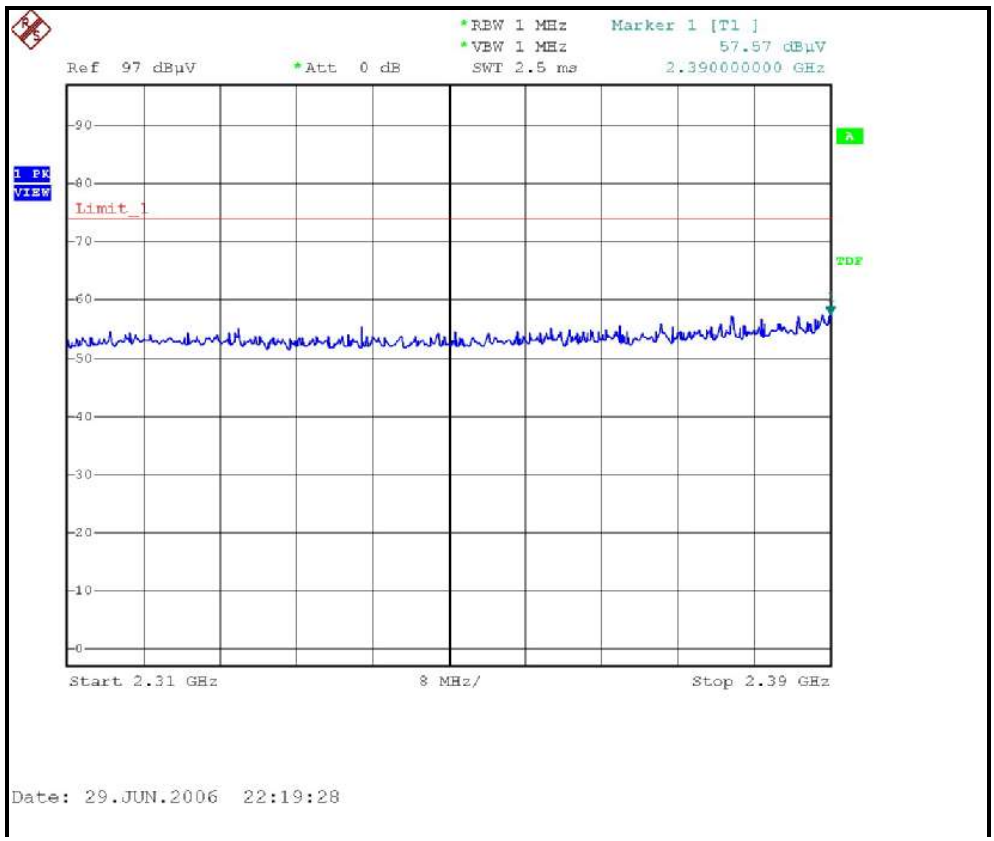
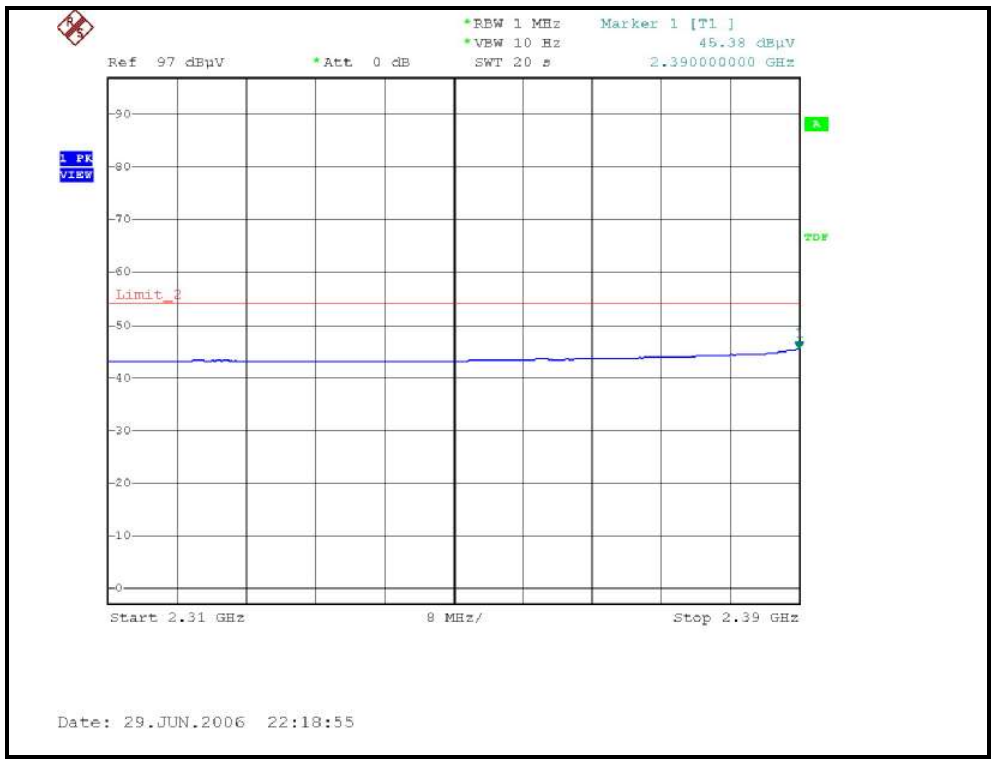
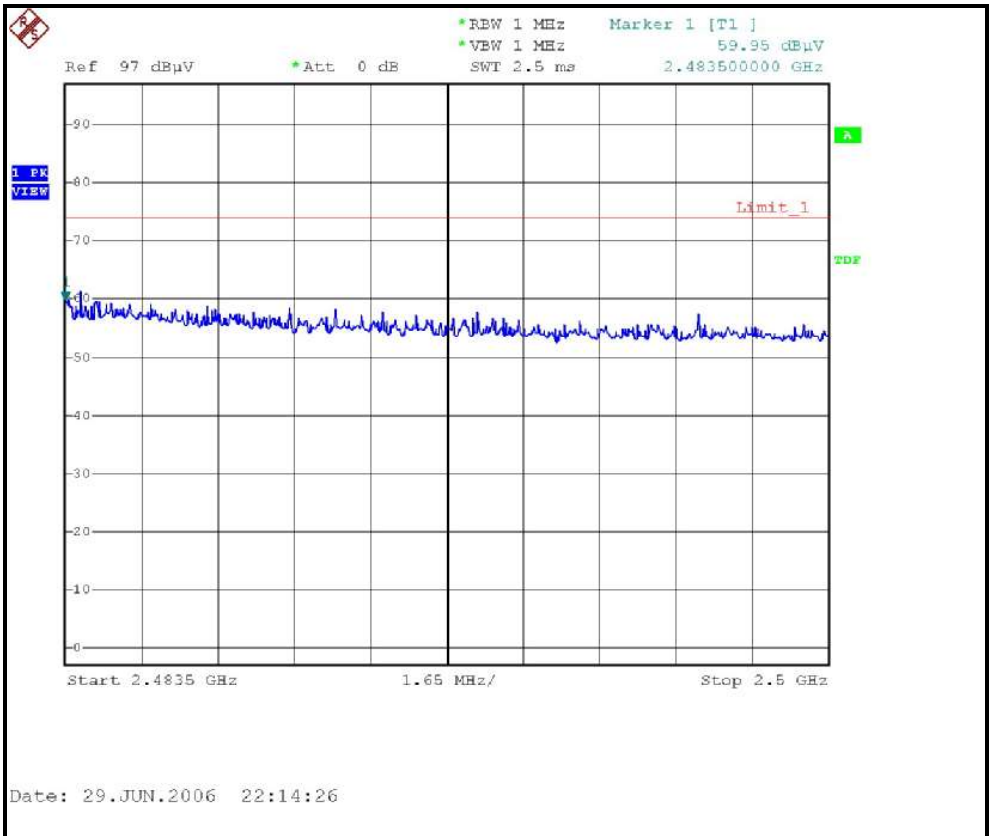




RESTRICTED BANDEDGE (802.11g TURBO MODE,CH06, HORIZONTAL)



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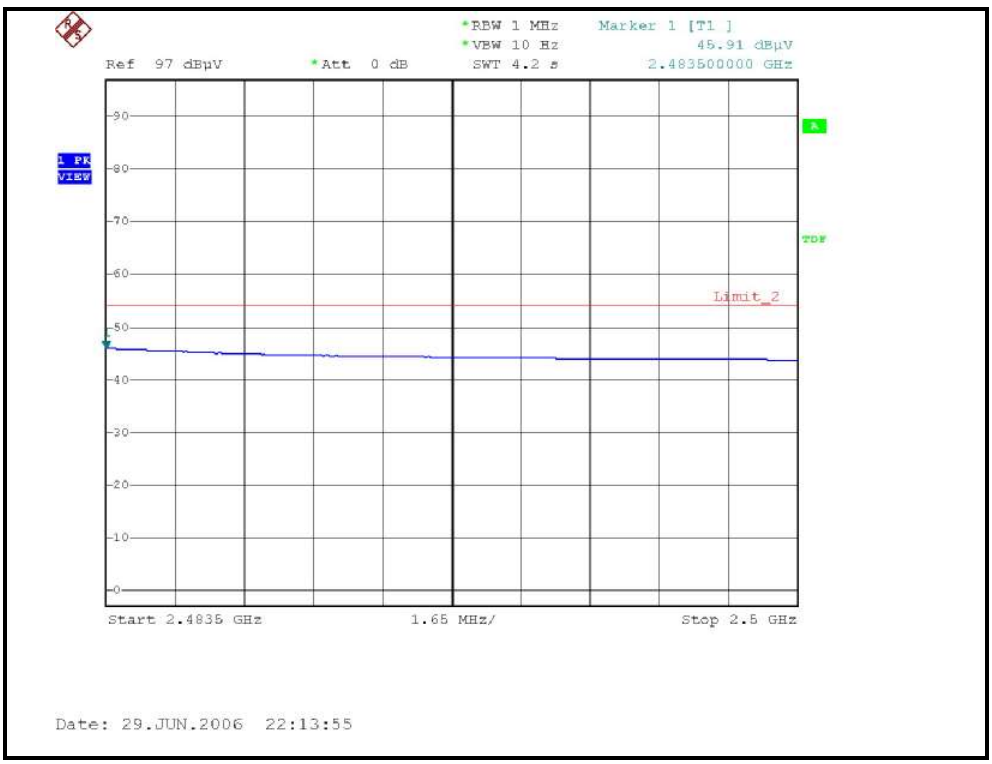
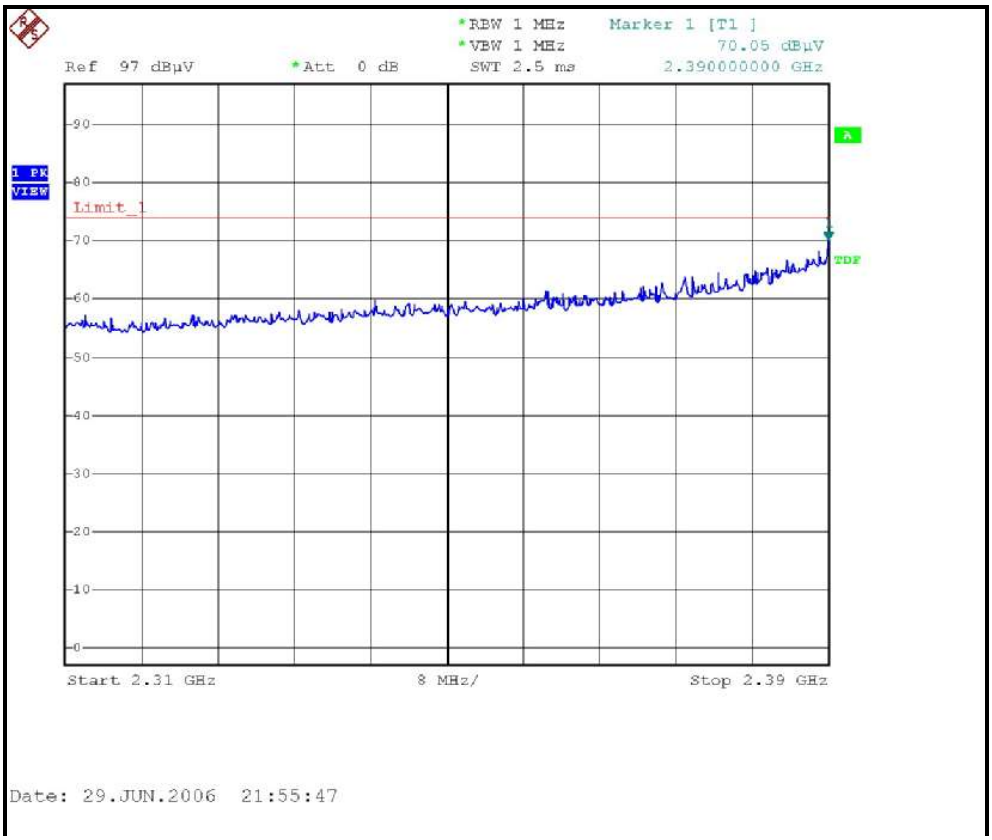
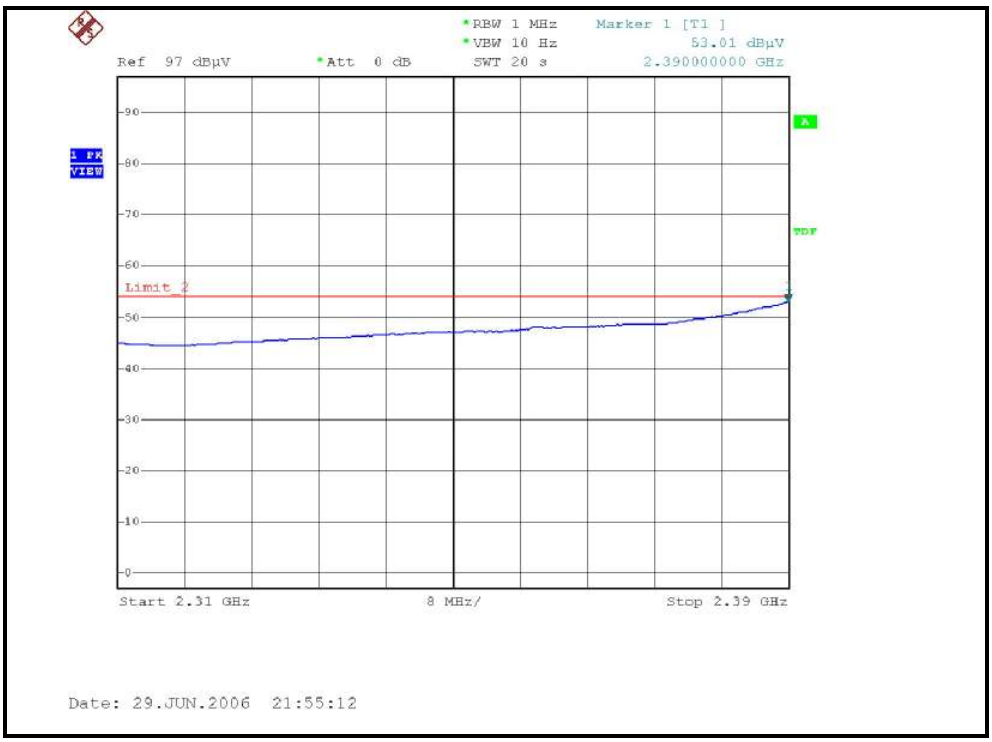
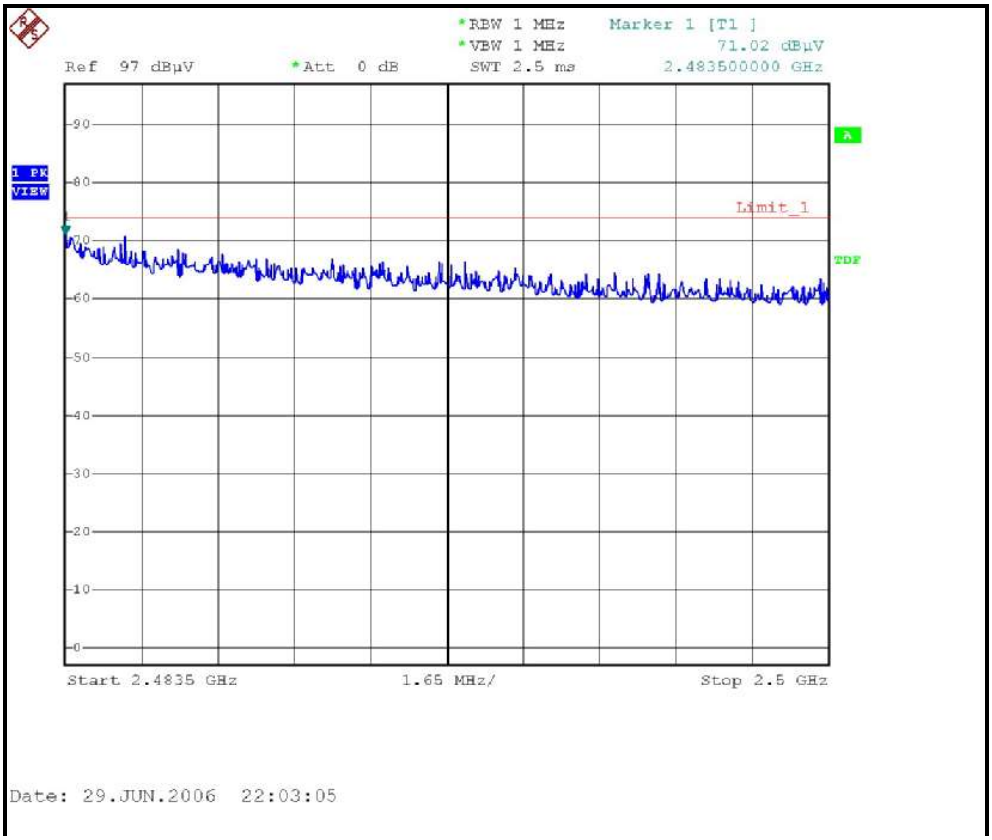
Marker 1 [T1]
*VBW 1 MHz
59.95 dBµV
Ref 97 dBµV
*Att 0 dB
SWT 2.5 ms
2.483500000 GHz
1 PK
VIEW
Limit_1
TDF
Start 2.4835 GHz
1.65 MHz/
Stop 2.5 GHz
Date: 29.JUN.2006 22:14:26


*RBW 1 MHz
Marker 1 [T1]
*VBW 10 Hz
45.91 dBµV
Ref 97 dBµV
*Att 0 dB
SWT 4.2 s
2.483500000 GHz
1 PK
VIEW
Limit_2
TDF
Start 2.4835 GHz
1.65 MHz/
Stop 2.5 GHz
Date: 29.JUN.2006 22:13:55

RESTRICTED BANDEDGE (802.11g TURBO MODE,CH06, VERTICAL)



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Marker 1 [T1]
*VBW 1 MHz
71.02 dBµV
Ref 97 dBµV
*Att 0 dB
SWT 2.5 ms
2.483500000 GHz
1 PK
VIEW
Limit_1
Start 2.4835 GHz
1.65 MHz/
Stop 2.5 GHz
Date: 29.JUN.2006 22:03:05


*RBW 1 MHz
Marker 1 [T1]
*VBW 10 Hz
52.96 dBµV
Ref 97 dBµV
*Att 0 dB
SWT 4.2 s
2.483500000 GHz
1 PK
VIEW
Limit_2
Start 2.4835 GHz
1.65 MHz/
Stop 2.5 GHz
Date: 29.JUN.2006 22:02:27

4.2.8 TEST RESULTS (ANTENNA 2)

Below 1GHz Worst-Case Data

MODULATION TYPE	BPSK	**FREQUENCY RANGE**	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**TRANSFER RATE**	6Mbps
ENVIRONMENTAL CONDITIONS	27deg. C, 53%RH, 973hPa	**DETECTOR FUNCTION**	Quasi-Peak
TESTED BY	Tony Chen		

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	67.03	35.20 QP	40.00	-4.80	2.02 H	5	22.30	12.90
2	133.86	41.90 QP	43.50	-1.60	1.05 H	33	29.00	12.90
3	166.64	38.60 QP	43.50	-4.90	1.27 H	87	24.90	13.80
4	201.27	42.00 QP	43.50	-1.50	1.19 H	132	30.40	11.70
5	234.45	44.50 QP	46.00	-1.50	1.19 H	63	31.40	13.10
6	301.54	44.60 QP	46.00	-1.40	1.00 H	79	27.70	16.80
7	335.09	44.80 QP	46.00	-1.20	1.10 H	108	27.50	17.20
8	401.35	42.10 QP	46.00	-3.90	1.01 H	118	23.00	19.10
9	468.01	33.90 QP	46.00	-12.10	1.00 H	87	12.90	20.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	67.03	35.40 QP	40.00	-4.60	1.66 V	1	22.50	12.90
2	133.69	37.90 QP	43.50	-5.60	1.49 V	187	24.90	12.90
3	200.35	31.90 QP	43.50	-11.60	1.65 V	157	20.30	11.60
4	234.08	35.20 QP	46.00	-10.80	1.60 V	203	22.10	13.10
5	300.74	31.70 QP	46.00	-14.30	1.41 V	199	14.90	16.80
6	335.12	33.00 QP	46.00	-13.00	1.15 V	104	15.80	17.20
7	466.64	30.60 QP	46.00	-15.40	1.26 V	3	9.70	20.90

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

CHANNEL	Channel 1	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	CCK	**TRANSFER RATE**	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 973hPa	**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	2371.00	57.20 PK	74.00	-16.80	1.18 H	1	27.60	29.60
1	2371.00	47.20 AV	54.00	-6.80	1.18 H	1	17.60	29.60
2	2390.00	56.20 PK	74.00	-17.80	1.18 H	1	26.40	29.80
2	2390.00	44.80 AV	54.00	-9.20	1.18 H	1	15.00	29.80
3	*2412.00	110.90 PK			1.45 H	176	81.00	29.90
3	*2412.00	107.20 AV			1.45 H	176	77.30	29.90
4	4824.00	53.20 PK	74.00	-20.80	1.62 H	88	18.20	35.00
4	4824.00	47.10 AV	54.00	-6.90	1.62 H	88	12.10	35.00
5	7236.00	52.40 PK	74.00	-21.60	1.16 H	203	11.20	41.10
5	7236.00	39.10 AV	54.00	-14.90	1.16 H	203	-2.10	41.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2370.00	54.90 PK	74.00	-19.10	1.13 V	63	25.30	29.60
1	2370.00	44.10 AV	54.00	-9.90	1.13 V	63	14.50	29.60
2	2390.00	53.90 PK	74.00	-20.10	1.13 V	63	24.10	29.80
2	2390.00	43.20 AV	54.00	-10.80	1.13 V	63	13.40	29.80
3	*2412.00	102.00 PK			1.08 V	222	72.10	29.90
3	*2412.00	98.30 AV			1.08 V	222	68.40	29.90
4	4824.00	60.60 PK	74.00	-13.40	1.24 V	83	25.60	35.00
4	4824.00	52.90 AV	54.00	-1.10	1.24 V	83	17.90	35.00
5	7236.00	53.10 PK	74.00	-20.90	1.01 V	165	11.90	41.10
5	7236.00	40.40 AV	54.00	-13.60	1.01 V	165	-0.80	41.10

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

CHANNEL	Channel 6	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	CCK	**TRANSFER RATE**	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 973hPa	**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	*2437.00	109.60 PK			1.20 H	342	79.60	30.00
1	*2437.00	105.80 AV			1.20 H	342	75.80	30.00
2	4874.00	53.20 PK	74.00	-20.80	1.47 H	328	18.00	35.20
2	4874.00	49.20 AV	54.00	-4.80	1.47 H	328	14.00	35.20
3	7311.00	51.80 PK	74.00	-22.20	1.22 H	69	10.40	41.40
3	7311.00	39.30 AV	54.00	-14.70	1.22 H	69	-2.10	41.40

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	*2437.00	100.10 PK			1.07 V	57	70.10	30.00
1	*2437.00	96.80 AV			1.07 V	57	66.80	30.00
2	4874.00	59.80 PK	74.00	-14.20	1.56 V	76	24.60	35.20
2	4874.00	53.00 AV	54.00	-1.00	1.56 V	76	17.80	35.20
3	7311.00	53.50 PK	74.00	-20.50	1.23 V	288	12.10	41.40
3	7311.00	40.50 AV	54.00	-13.50	1.23 V	288	-0.90	41.40

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

CHANNEL	Channel 11	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	CCK	**TRANSFER RATE**	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 973hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

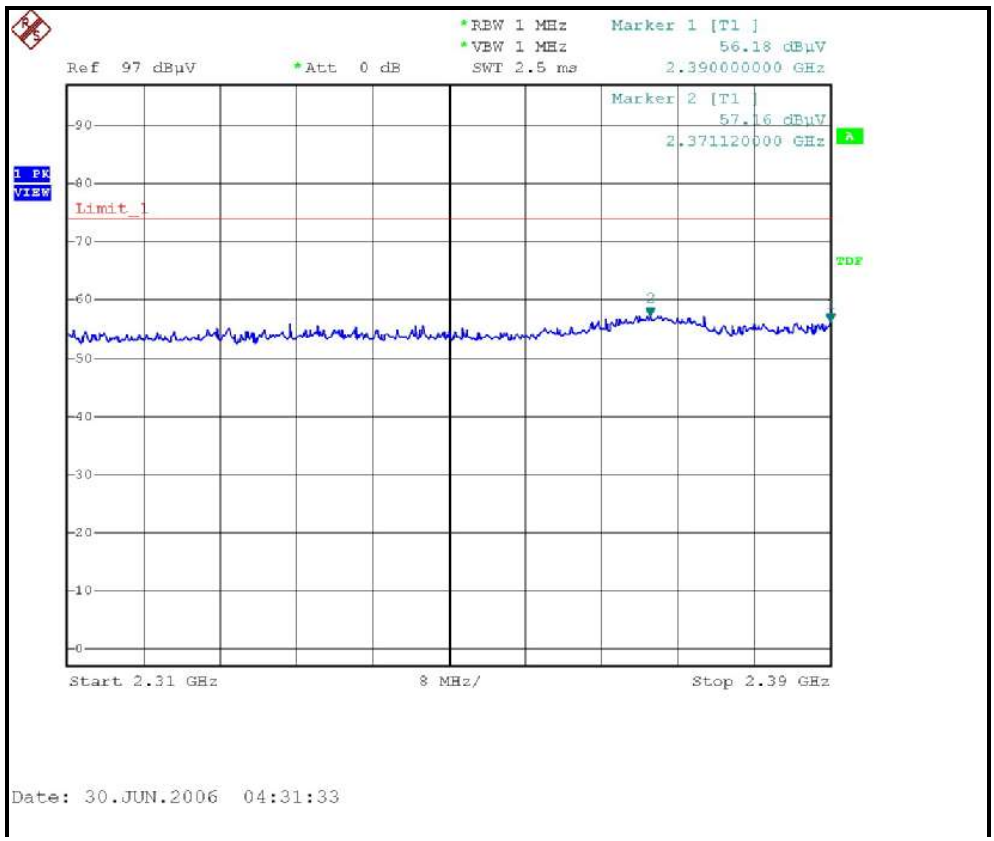
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	109.90 PK			1.18 H	343	79.80	30.10
1	*2462.00	106.30 AV			1.18 H	343	76.20	30.10
2	2483.50	55.90 PK	74.00	-18.10	1.16 H	344	25.70	30.20
2	2483.50	45.90 AV	54.00	-8.10	1.16 H	344	15.70	30.20
3	4924.00	51.10 PK	74.00	-22.90	1.25 H	158	15.70	35.40
3	4924.00	46.40 AV	54.00	-7.60	1.25 H	158	11.00	35.40
4	7386.00	52.10 PK	74.00	-21.90	1.25 H	59	10.50	41.60
4	7386.00	39.70 AV	54.00	-14.30	1.25 H	59	-1.90	41.60

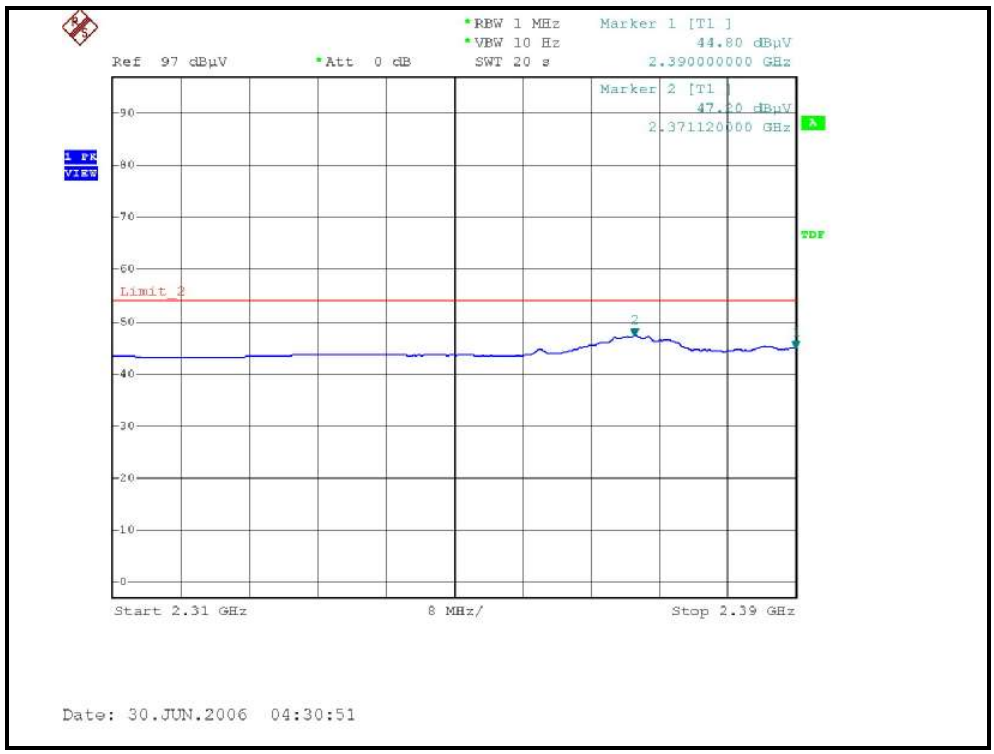
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

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	101.20 PK			1.19 V	121	71.10	30.10
1	*2462.00	97.40 AV			1.19 V	121	67.30	30.10
2	2483.50	52.80 PK	74.00	-21.20	1.16 V	119	22.60	30.20
2	2483.50	43.50 AV	54.00	-10.50	1.16 V	119	13.30	30.20
3	4924.00	57.80 PK	74.00	-16.20	1.28 V	74	22.40	35.40
3	4924.00	51.50 AV	54.00	-2.50	1.28 V	74	16.10	35.40
4	7386.00	53.40 PK	74.00	-20.60	1.29 V	281	11.80	41.60
4	7386.00	40.50 AV	54.00	-13.50	1.29 V	281	-1.10	41.60

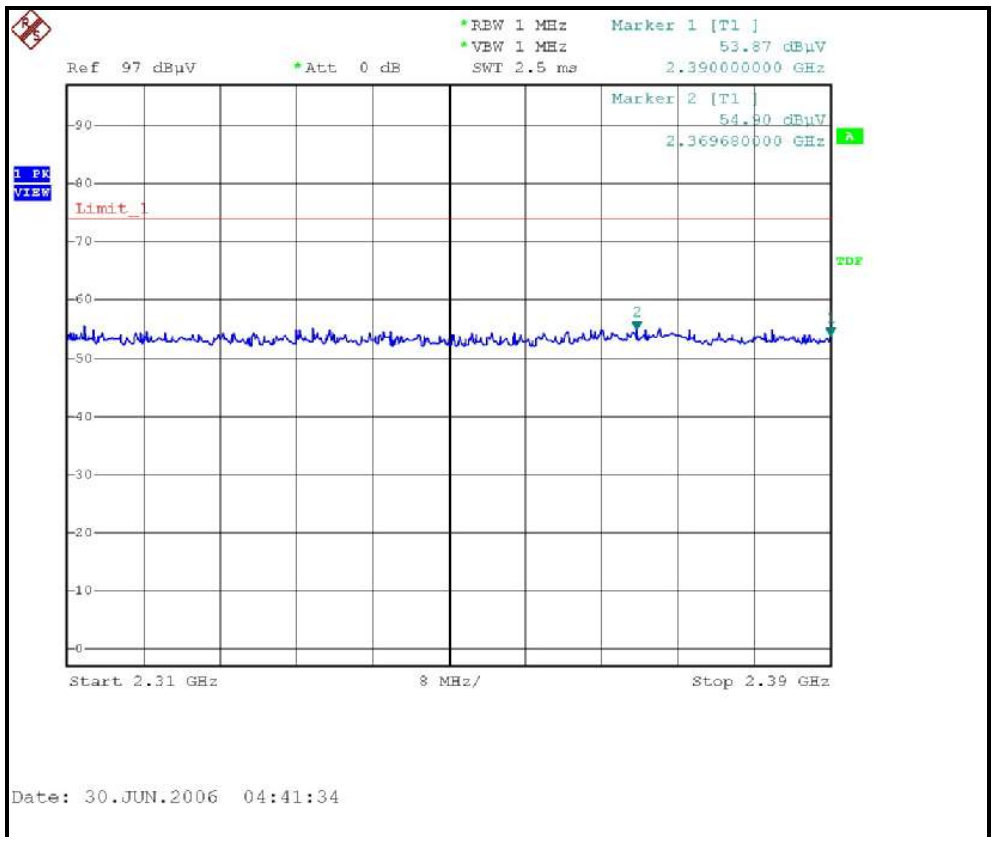
REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247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

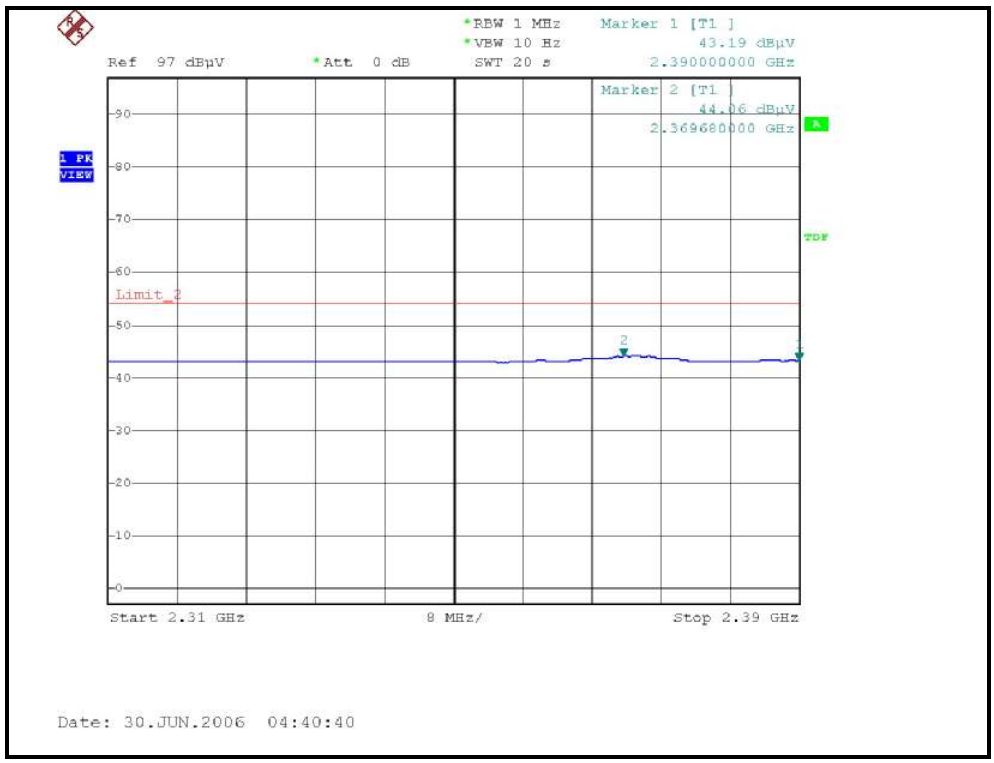
RESTRICTED BANDEDGE (802.11b MODE,CH1, HORIZONTAL)



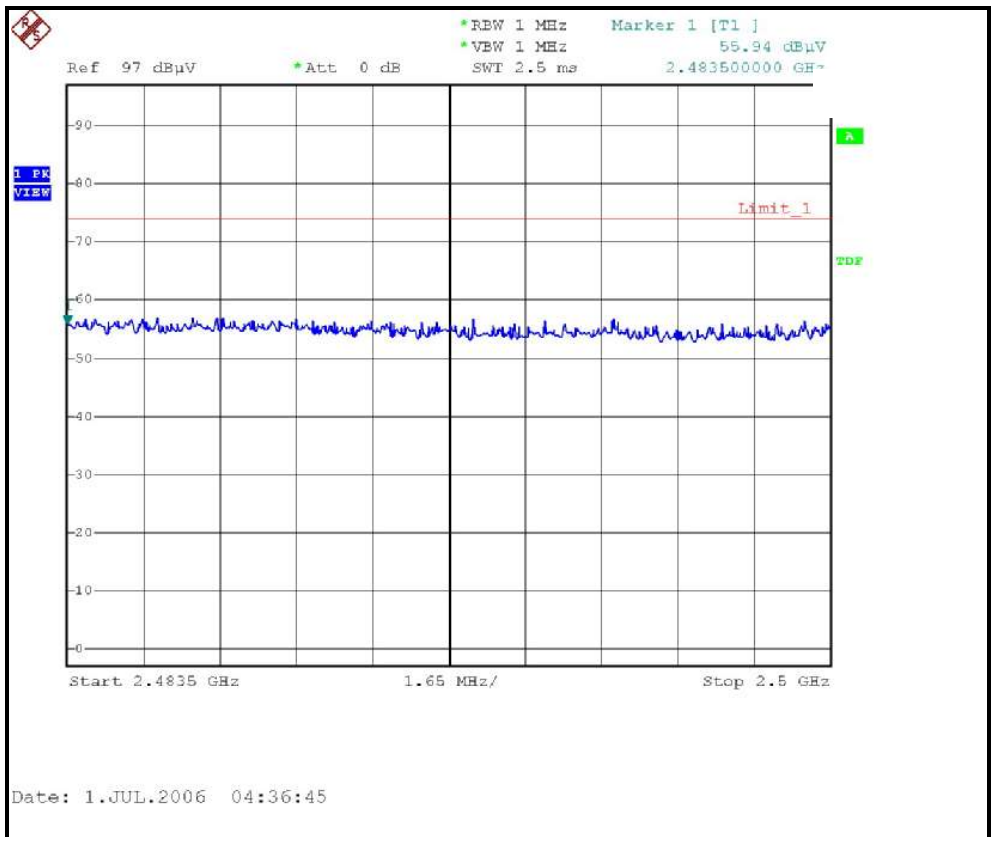


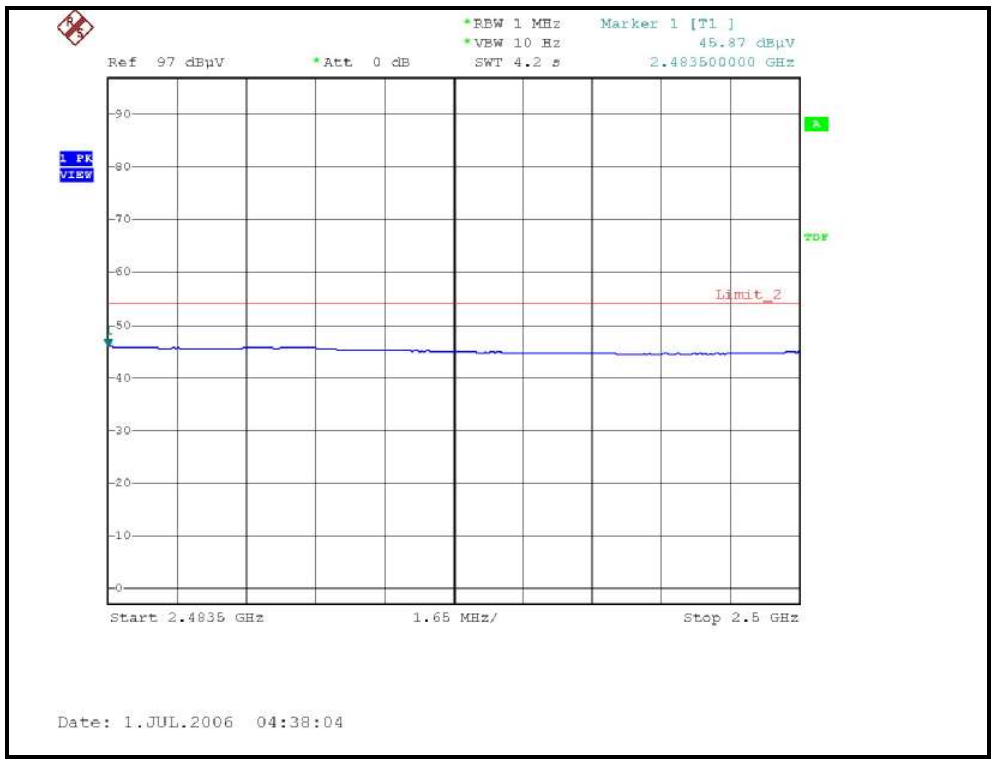
RESTRICTED BANDEDGE (802.11b MODE,CH1, VERTICAL)



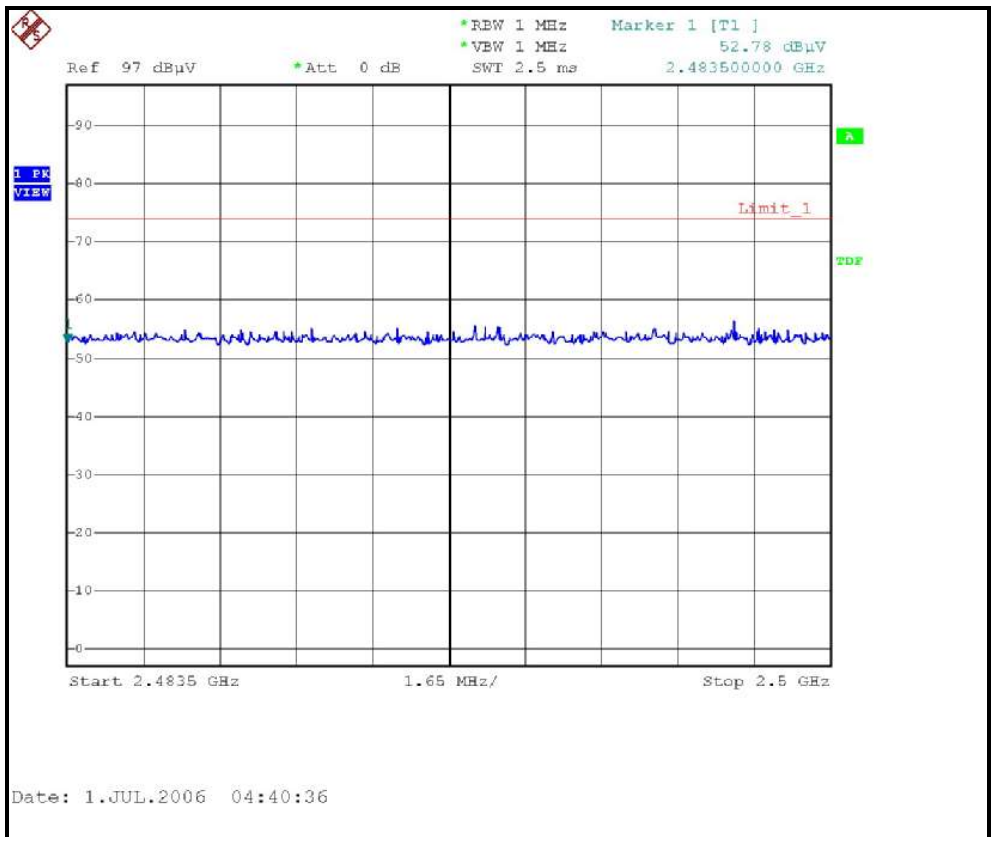


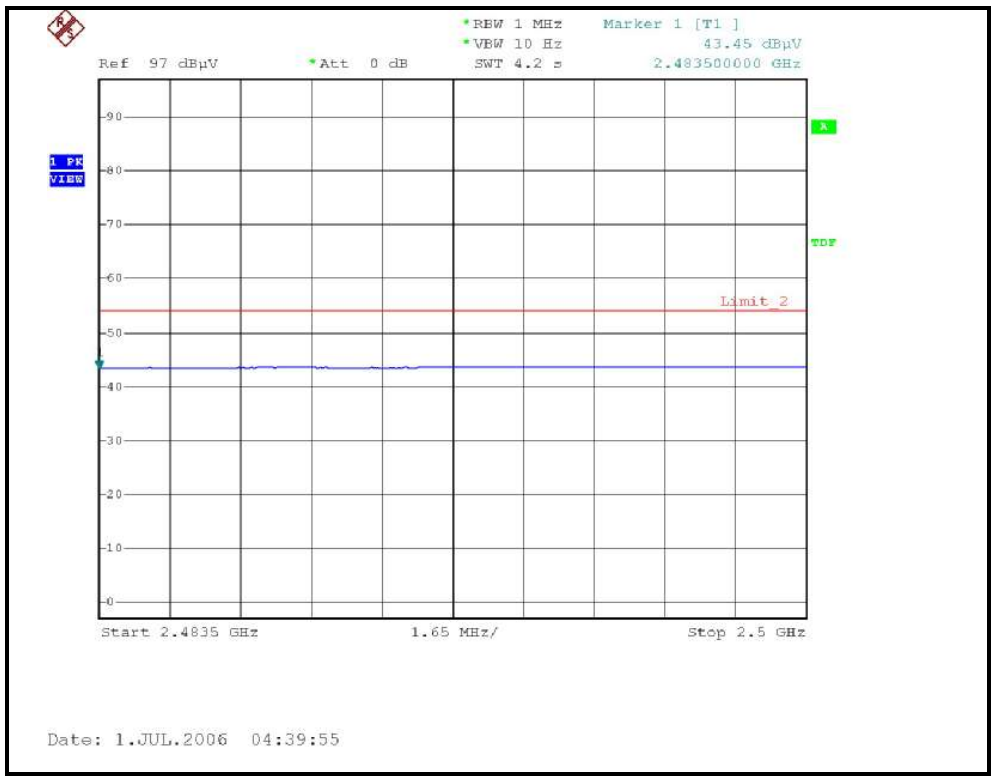
RESTRICTED BANDEDGE (802.11b MODE,CH11, HORIZONTAL)





RESTRICTED BANDEDGE (802.11b MODE,CH11, VERTICAL)





802.11g OFDM modulation

CHANNEL	Channel 1	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	BPSK	**TRANSFER RATE**	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 973hPa	**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	69.80 PK	74.00	-4.20	1.26 H	3	40.00	29.80
1	2390.00	51.50 AV	54.00	-2.50	1.26 H	3	21.70	29.80
2	*2412.00	112.10 PK			1.50 H	192	82.20	29.90
2	*2412.00	102.20 AV			1.50 H	192	72.30	29.90
3	4824.00	48.90 PK	74.00	-25.10	1.41 H	294	13.90	35.00
3	4824.00	35.20 AV	54.00	-18.80	1.41 H	294	0.20	35.00
4	7236.00	51.70 PK	74.00	-22.30	1.35 H	218	10.50	41.10
4	7236.00	39.60 AV	54.00	-14.40	1.35 H	218	-1.60	41.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	65.90 PK	74.00	-8.10	1.58 V	132	36.10	29.80
1	2390.00	46.80 AV	54.00	-7.20	1.58 V	132	17.00	29.80
2	*2412.00	104.30 PK			1.64 V	124	74.40	29.90
2	*2412.00	94.60 AV			1.64 V	124	64.70	29.90
3	4824.00	57.20 PK	74.00	-16.80	1.41 V	80	22.20	35.00
3	4824.00	42.70 AV	54.00	-11.30	1.41 V	80	7.70	35.00
4	7236.00	51.60 PK	74.00	-22.40	1.17 V	39	10.40	41.10
4	7236.00	39.60 AV	54.00	-14.40	1.17 V	39	-1.60	41.10

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

CHANNEL	Channel 6	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	BPSK	**TRANSFER RATE**	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 973hPa	**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	*2437.00	114.50 PK			1.17 H	1	84.50	30.00
1	*2437.00	104.60 AV			1.17 H	1	74.60	30.00
2	4874.00	49.10 PK	74.00	-24.90	1.09 H	307	13.90	35.20
2	4874.00	35.90 AV	54.00	-18.10	1.09 H	307	0.70	35.20
3	7311.00	52.60 PK	74.00	-21.40	1.33 H	226	11.20	41.40
3	7311.00	40.50 AV	54.00	-13.50	1.33 H	226	-0.90	41.40

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	*2437.00	107.00 PK			1.52 V	244	77.00	30.00
1	*2437.00	96.70 AV			1.52 V	244	66.70	30.00
2	4874.00	58.90 PK	74.00	-15.10	1.26 V	73	23.70	35.20
2	4874.00	44.50 AV	54.00	-9.50	1.26 V	73	9.30	35.20
3	7311.00	51.90 PK	74.00	-22.10	1.16 V	49	10.50	41.40
3	7311.00	39.80 AV	54.00	-14.20	1.16 V	49	-1.60	41.40

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

CHANNEL	Channel 11	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	BPSK	**TRANSFER RATE**	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 973hPa	**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	110.70 PK			1.50 H	194	80.60	30.10
1	*2462.00	100.80 AV			1.50 H	194	70.70	30.10
2	2483.50	72.10 PK	74.00	-1.90	1.15 H	345	41.90	30.20
2	2483.50	52.80 AV	54.00	-1.20	1.15 H	345	22.60	30.20
3	4924.00	47.20 PK	74.00	-26.80	1.40 H	331	11.80	35.40
3	4924.00	34.10 AV	54.00	-19.90	1.40 H	331	-1.30	35.40
4	7386.00	52.10 PK	74.00	-21.90	1.36 H	257	10.50	41.60
4	7386.00	40.00 AV	54.00	-14.00	1.36 H	257	-1.60	41.60

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	101.90 PK			1.62 V	97	71.80	30.10
1	*2462.00	92.40 AV			1.62 V	97	62.30	30.10
2	2483.50	66.00 PK	74.00	-8.00	1.12 V	117	35.80	30.20
2	2483.50	46.80 AV	54.00	-7.20	1.12 V	117	16.60	30.20
3	4924.00	52.30 PK	74.00	-21.70	1.37 V	76	16.90	35.40
3	4924.00	37.60 AV	54.00	-16.40	1.37 V	76	2.20	35.40
4	7386.00	52.30 PK	74.00	-21.70	1.16 V	31	10.70	41.60
4	7386.00	40.20 AV	54.00	-13.80	1.16 V	31	-1.40	41.60

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

802.11g Turbo OFDM modulation

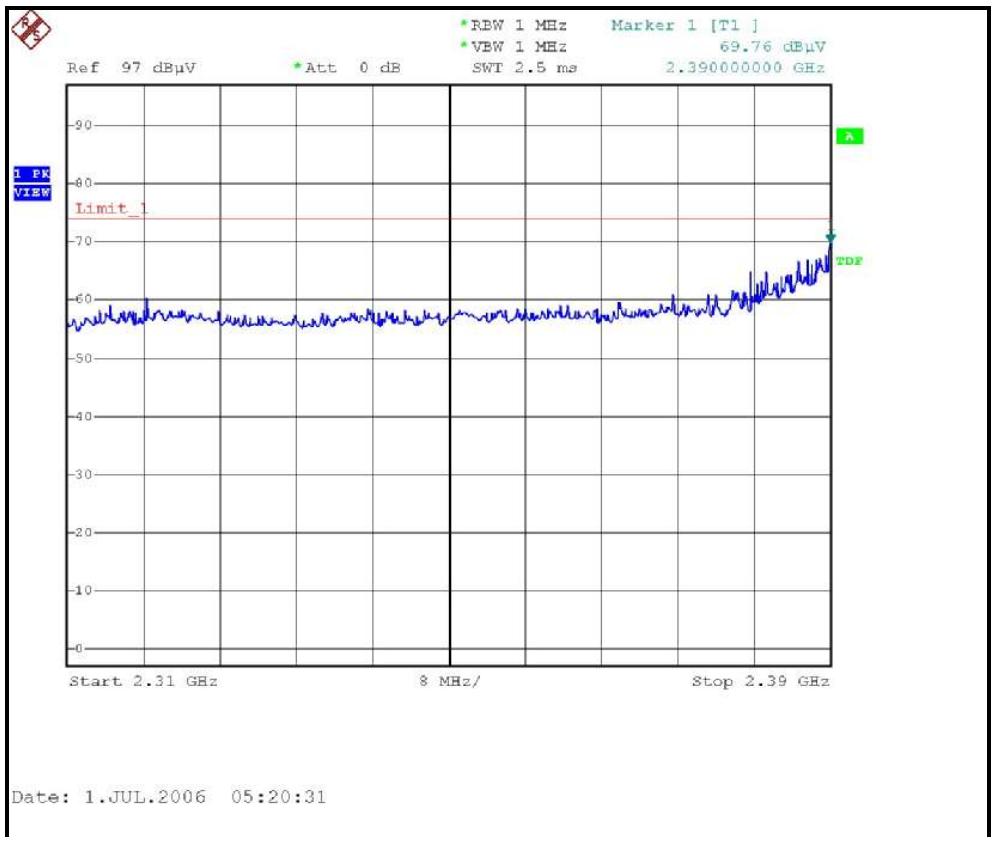
MODE	Channel 6	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 973hPa	TESTED BY	Wen Yu

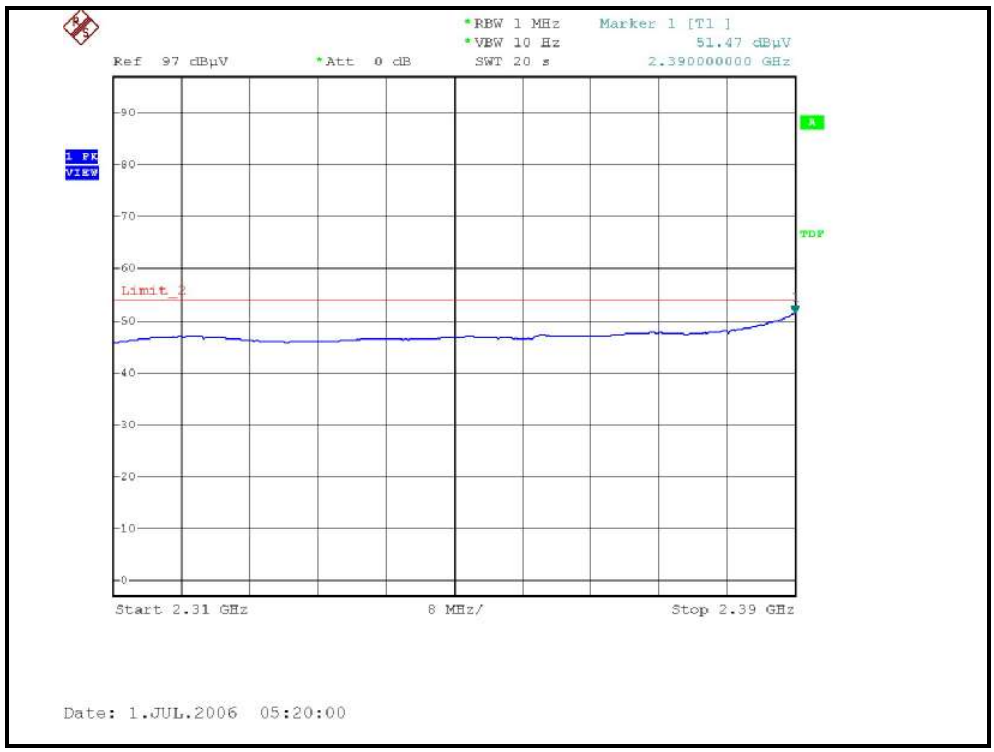
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	68.30 PK	74.00	-5.70	1.25 H	345	38.50	29.80
1	2390.00	52.80 AV	54.00	-1.20	1.25 H	345	23.00	29.80
2	*2437.00	109.70 PK			1.14 H	0	79.70	30.00
2	*2437.00	100.30 AV			1.14 H	0	70.30	30.00
3	2483.50	66.30 PK	74.00	-7.70	1.25 H	317	36.10	30.20
3	2483.50	51.00 AV	54.00	-3.00	1.25 H	317	20.80	30.20
4	4874.00	44.60 PK	74.00	-29.40	1.13 H	339	9.40	35.20
4	4874.00	32.00 AV	54.00	-22.00	1.13 H	339	-3.20	35.20
5	7311.00	51.80 PK	74.00	-22.20	1.00 H	56	10.40	41.40
5	7311.00	38.90 AV	54.00	-15.10	1.00 H	56	-2.50	41.40

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	2390.00	59.90 PK	74.00	-14.10	1.24 V	123	30.10	29.80
1	2390.00	46.70 AV	54.00	-7.30	1.24 V	123	17.00	29.80
2	*2437.00	100.40 PK			1.55 V	125	70.40	30.00
2	*2437.00	90.90 AV			1.55 V	125	60.90	30.00
3	2483.50	62.60 PK	74.00	-11.40	1.53 V	125	32.40	30.20
3	2483.50	47.70 AV	54.00	-6.30	1.53 V	125	17.50	30.20
4	4874.00	51.60 PK	74.00	-22.40	1.51 V	89	16.40	35.20
4	4874.00	33.00 AV	54.00	-21.00	1.51 V	89	-2.20	35.20
5	7311.00	51.10 PK	74.00	-22.90	1.18 V	2	9.70	41.40
5	7311.00	38.80 AV	54.00	-15.20	1.18 V	2	-2.60	41.40

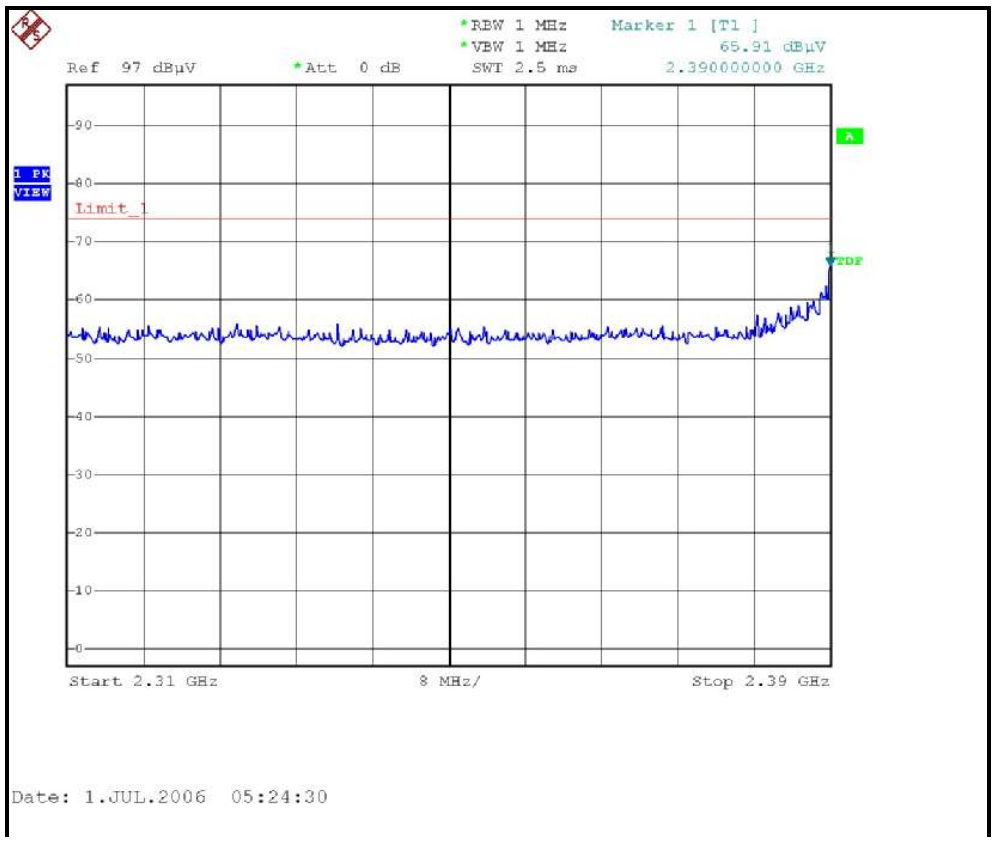
REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247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

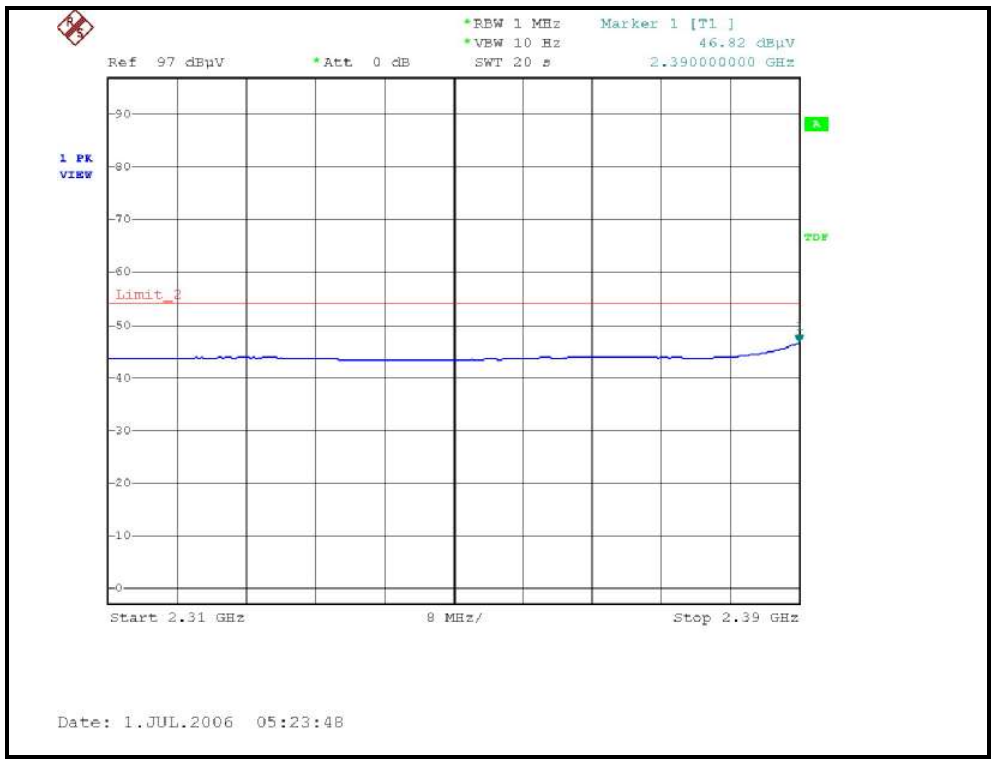
RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)



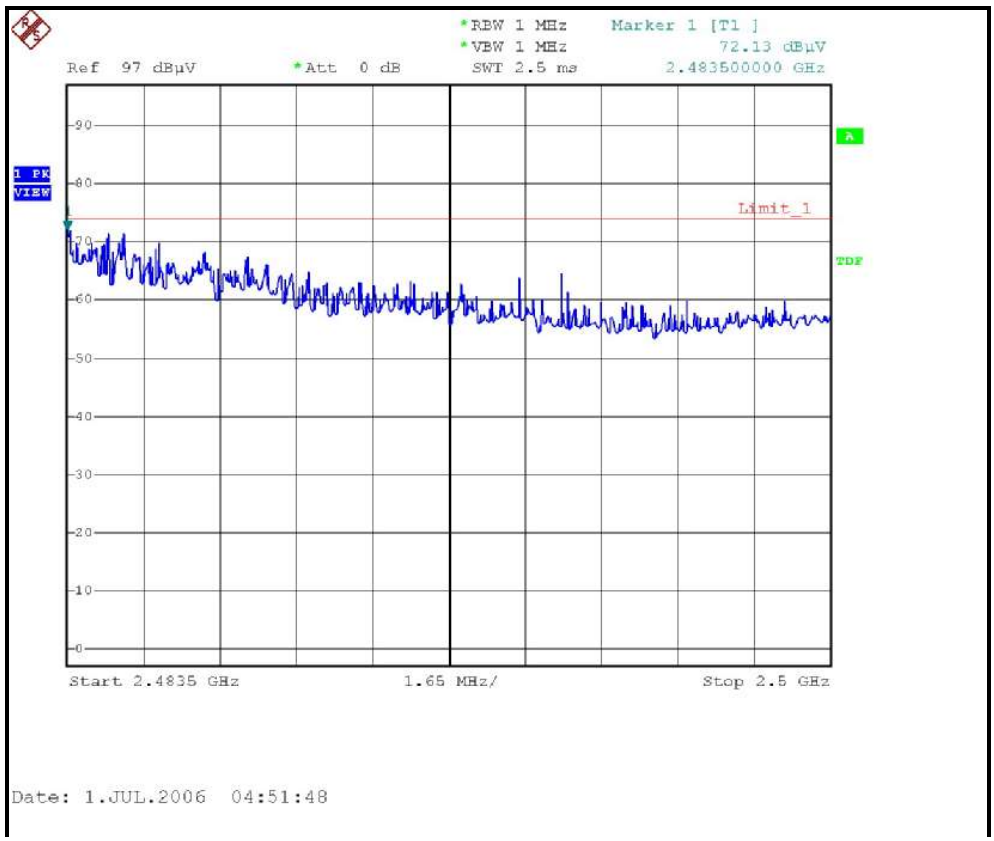


RESTRICTED BANDEDGE (802.11g MODE,CH1, VERTICAL)

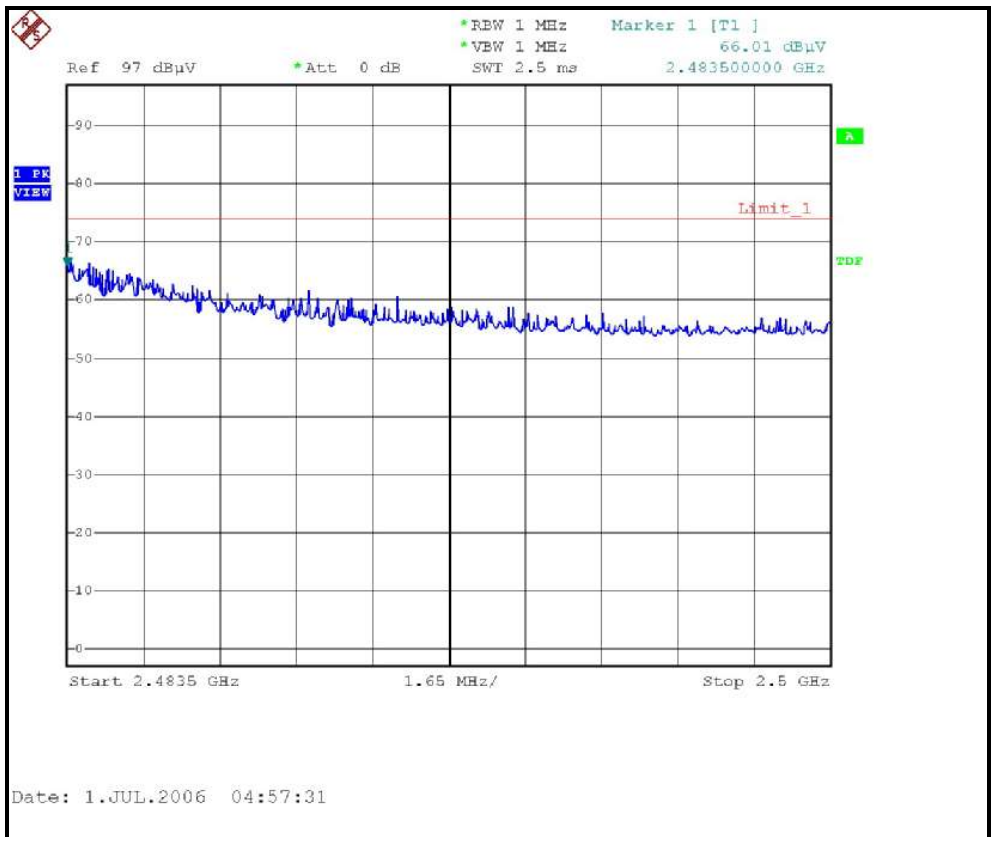


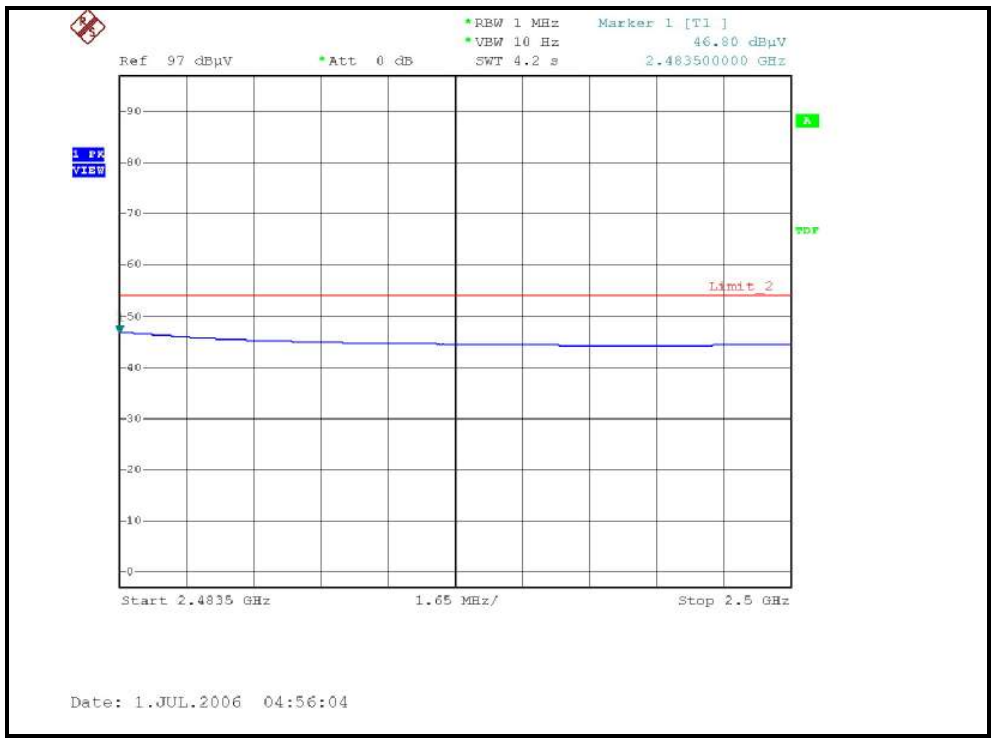


RESTRICTED BANDEDGE (802.11g MODE,CH11, HORIZONTAL)

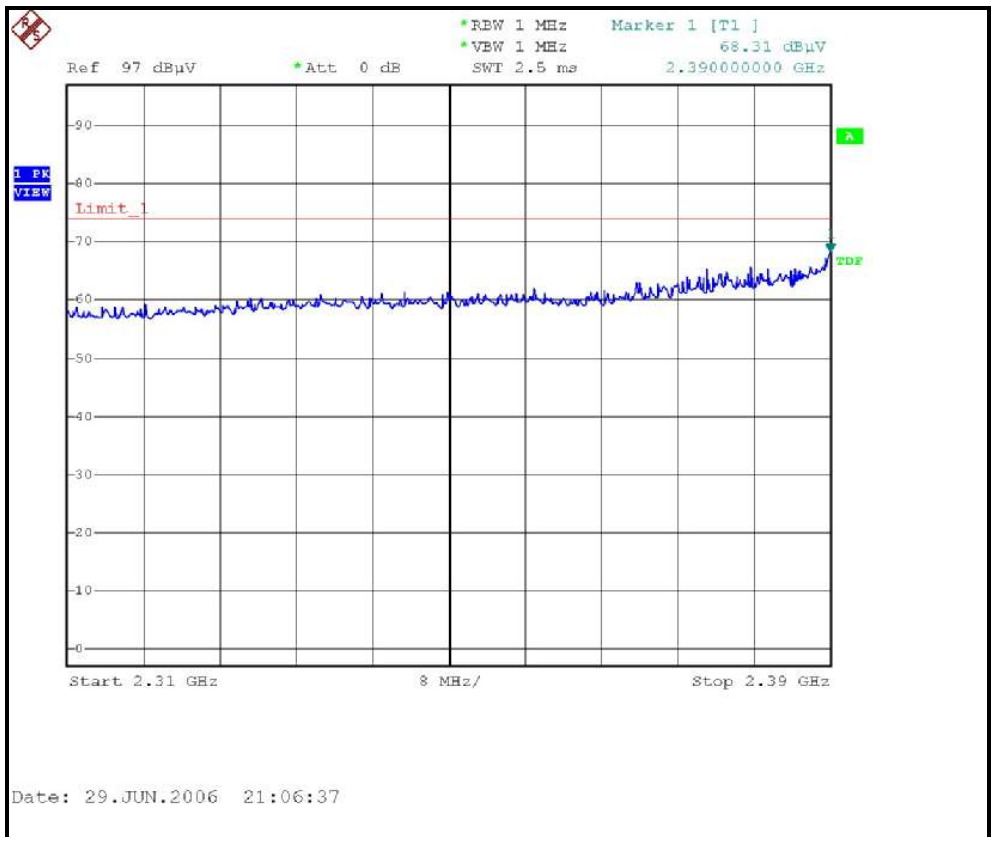


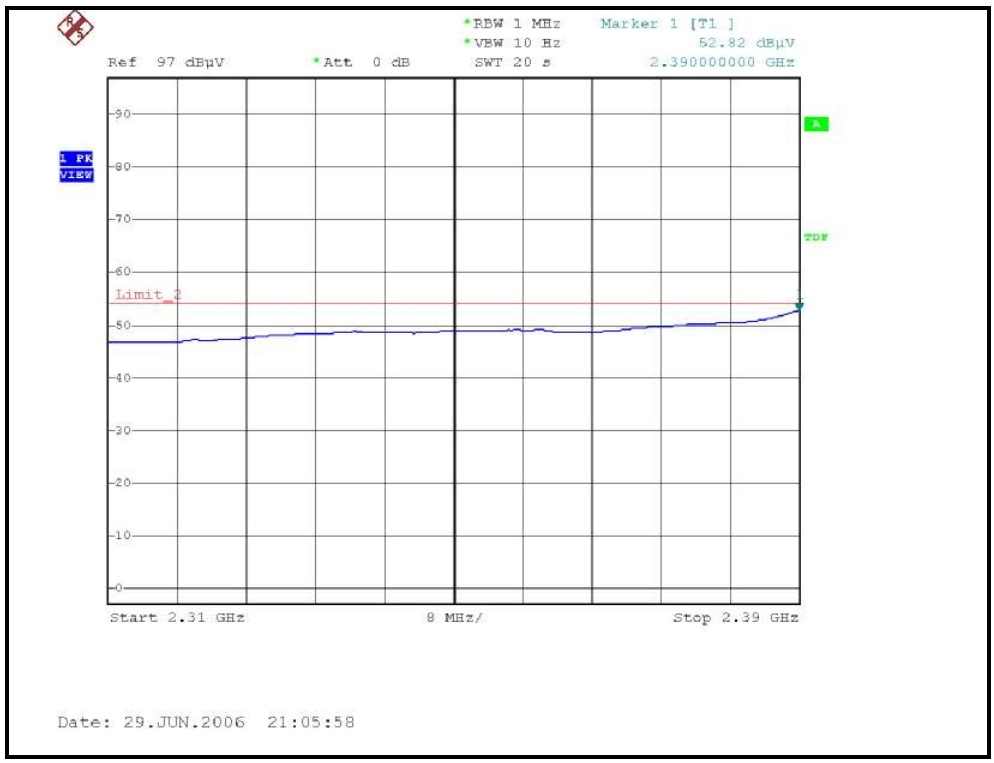
RESTRICTED BANDEDGE (802.11g MODE,CH11, VERTICAL)

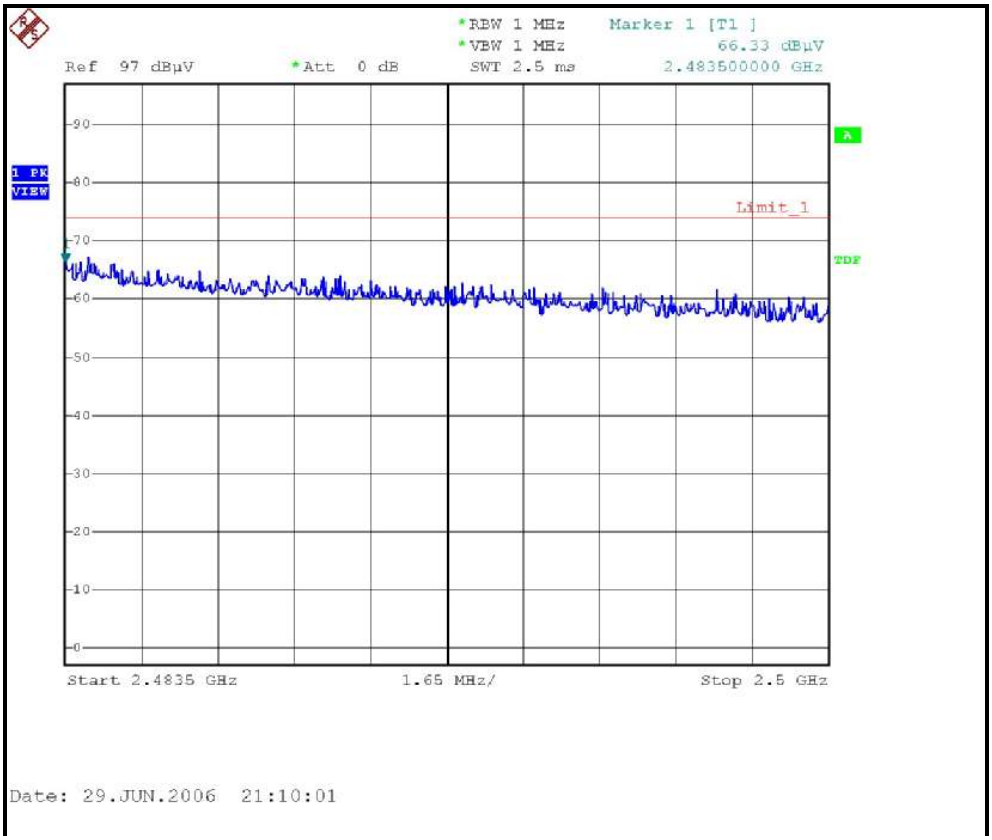




RESTRICTED BANDEDGE (802.11g TURBO MODE,CH06, HORIZONTAL)

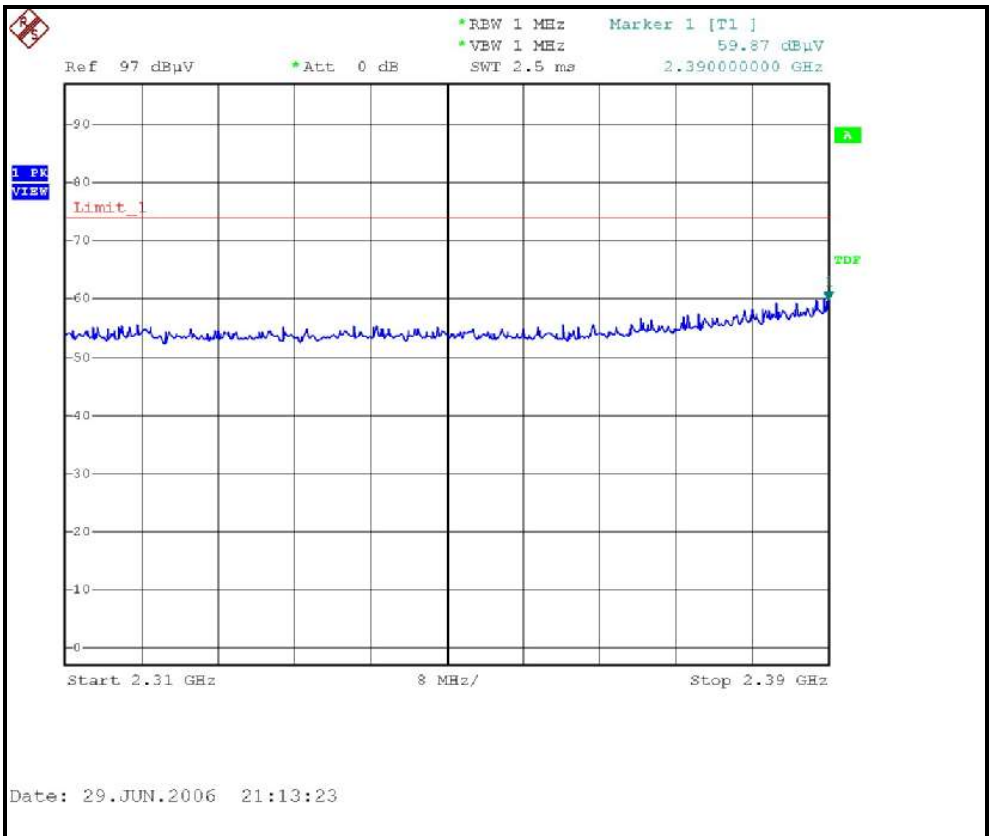


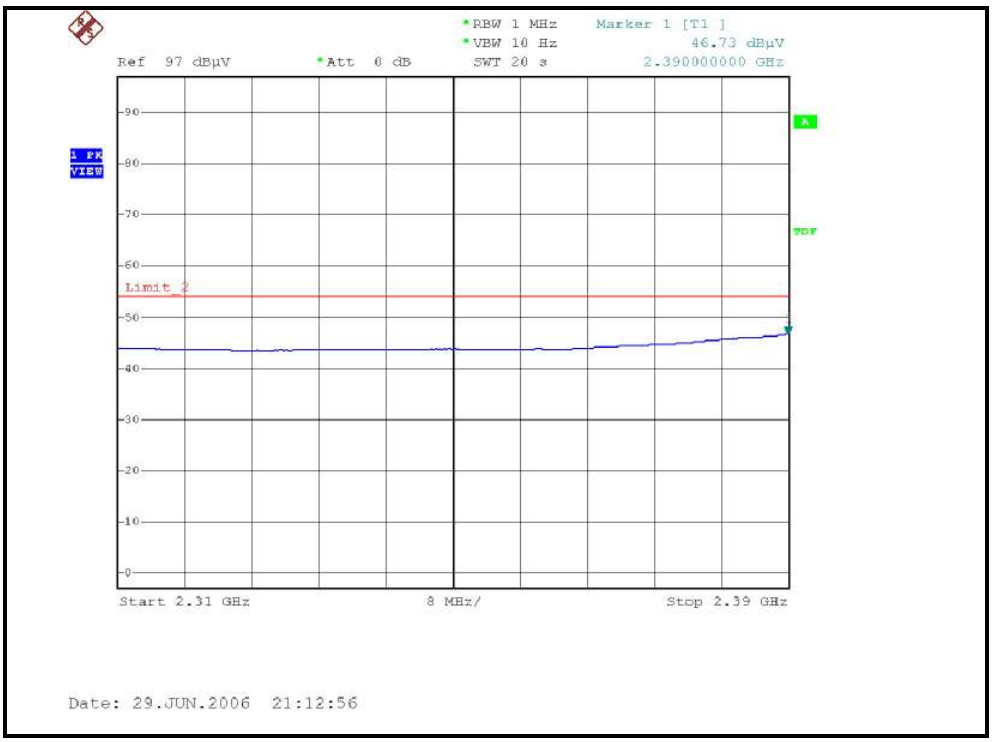


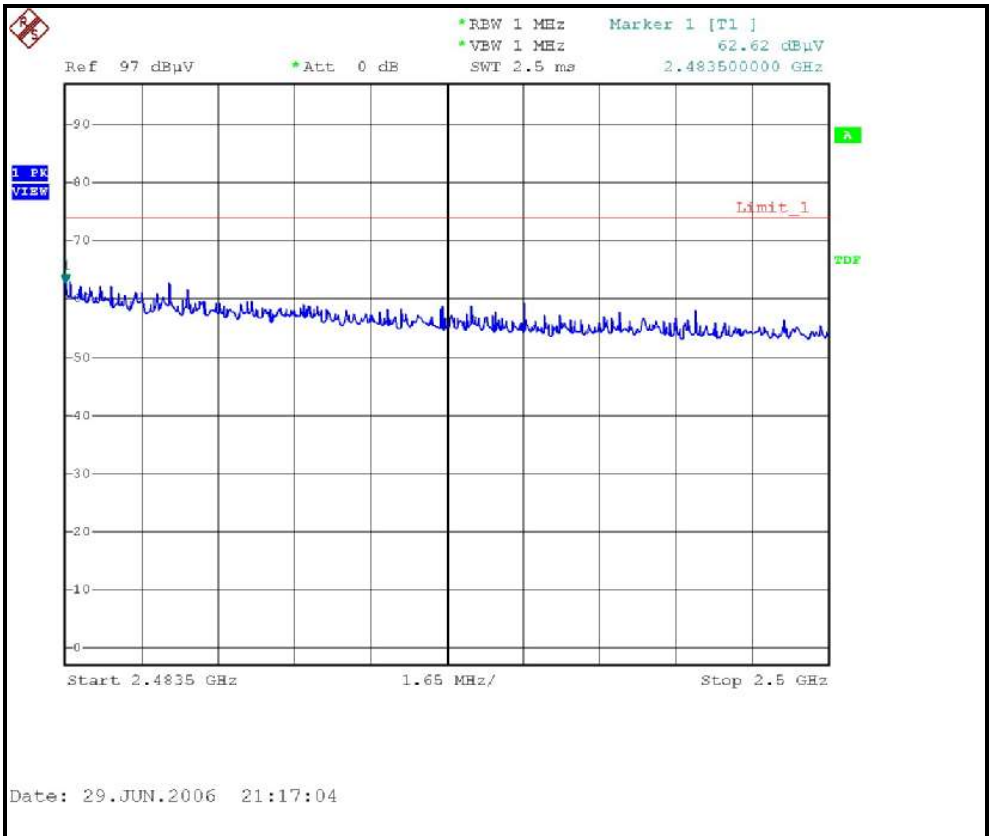

*RBW 1 MHz
Marker 1 [T1]
*VBW 1 MHz
66.33 dBµV
Ref 97 dBµV
*Att 0 dB
SWT 2.5 ms
2.483500000 GHz
1 PK
VIEW
A
Limit_1
TDF
90
80
70
60
50
40
30
20
10
0
Start 2.4835 GHz
1.65 MHz/
Stop 2.5 GHz
Date: 29.JUN.2006 21:10:01


*RBW 1 MHz
Marker 1 [T1]
*VBW 10 Hz
50.99 dBµV
Ref 97 dBµV
*Att 0 dB
SWT 4.2 s
2.483500000 GHz
1 PK
VIEW
A
Limit_2
TDF
90
80
70
60
50
40
30
20
10
0
Start 2.4835 GHz
1.65 MHz/
Stop 2.5 GHz
Date: 29.JUN.2006 21:09:26

RESTRICTED BANDEDGE (802.11g TURBO MODE,CH06, VERTICAL)






*RBW 1 MHz
Marker 1 [T1]
*VBW 1 MHz
62.62 dBµV
Ref 97 dBµV
*Att 0 dB
SWT 2.5 ms
2.483500000 GHz
1 PK VIEW
A
Limit_1
PDF
90
80
70
50
40
30
20
10
0
Start 2.4835 GHz
1.65 MHz/
Stop 2.5 GHz
Date: 29.JUN.2006 21:17:04


*RBW 1 MHz
Marker 1 [T1]
*VBW 10 Hz
47.74 dBµV
Ref 97 dBµV
*Att 0 dB
SWT 4.2 s
2.483500000 GHz
1 PK VIEW
A
PDF
Limit_2
90
80
70
60
50
40
30
20
10
0
Start 2.4835 GHz
1.65 MHz/
Stop 2.5 GHz
Date: 29.JUN.2006 21:16:26

4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2006

NOTE:

1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

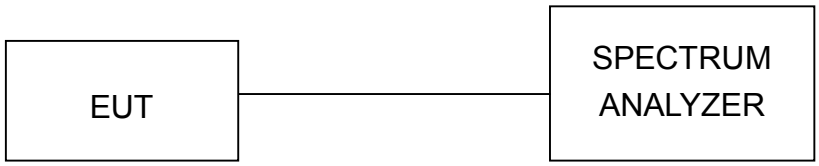
4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 100kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation

4.3.5 TEST SETUP



4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

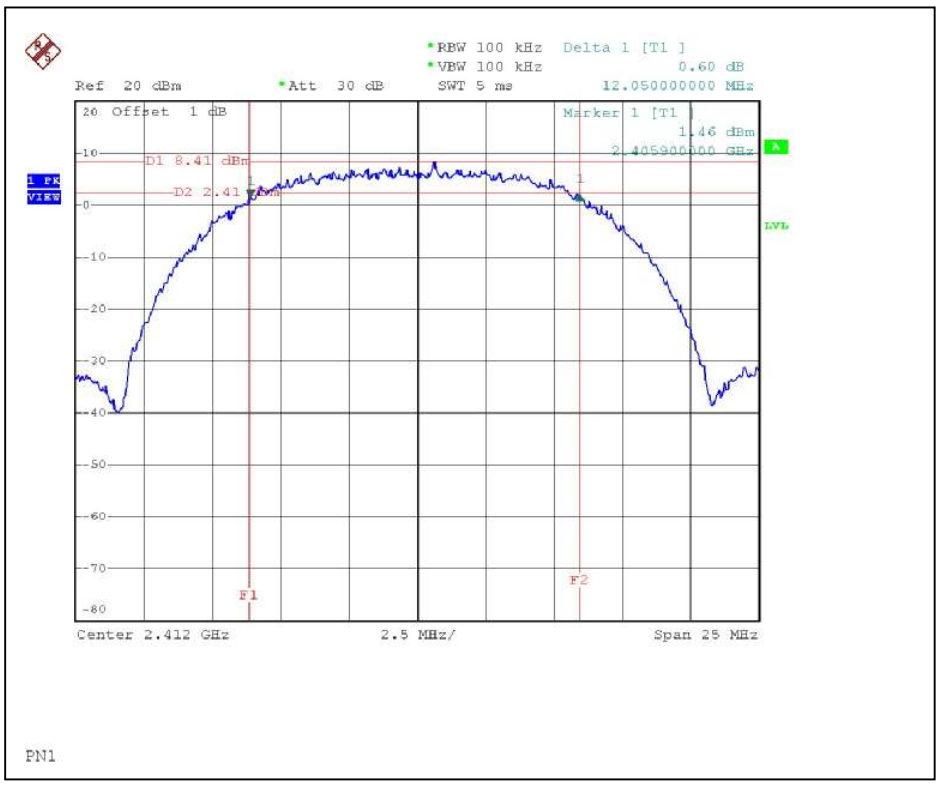
4.3.7 TEST RESULTS

802.11b DSSS modulation

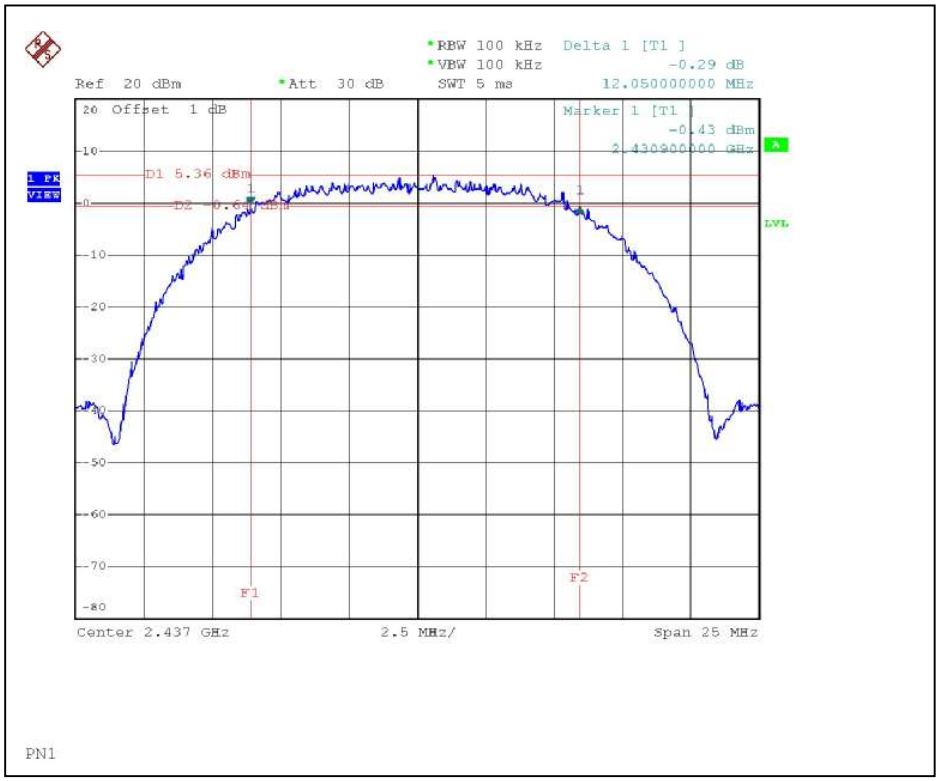
MODULATION TYPE	CCK	**TRANSFER RATE**	11Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	22deg. C, 64%RH, 973hPa
TESTED BY	Sky Liao		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	12.05	0.5	PASS
6	2437	12.05	0.5	PASS
11	2462	12.55	0.5	PASS

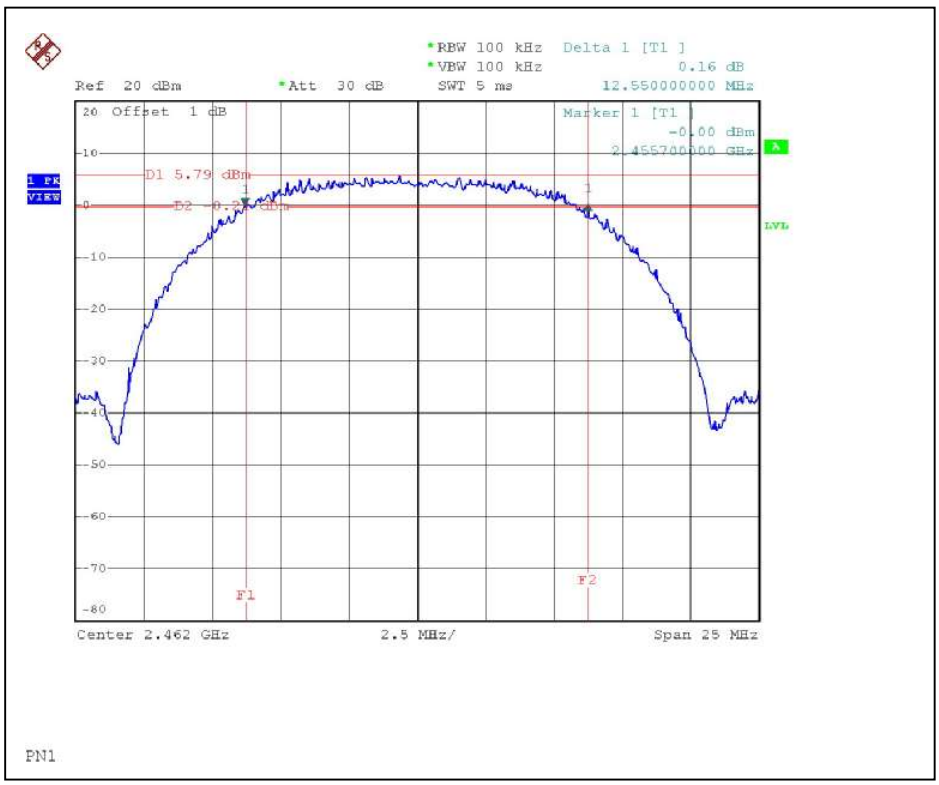
CH1



CH6


RBW 100 kHz
VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-0.29 dB
12.050000000 MHz
Ref 20 dBm
Att 30 dB
20 Offset 1 dB
Marker 1 [T1
-0.43 dBm
2.430900000 GHz
D1 5.36 dBm
D2 -0.6 dB
F1
F2
Center 2.437 GHz
2.5 MHz/
Span 25 MHz
PN1

CH11

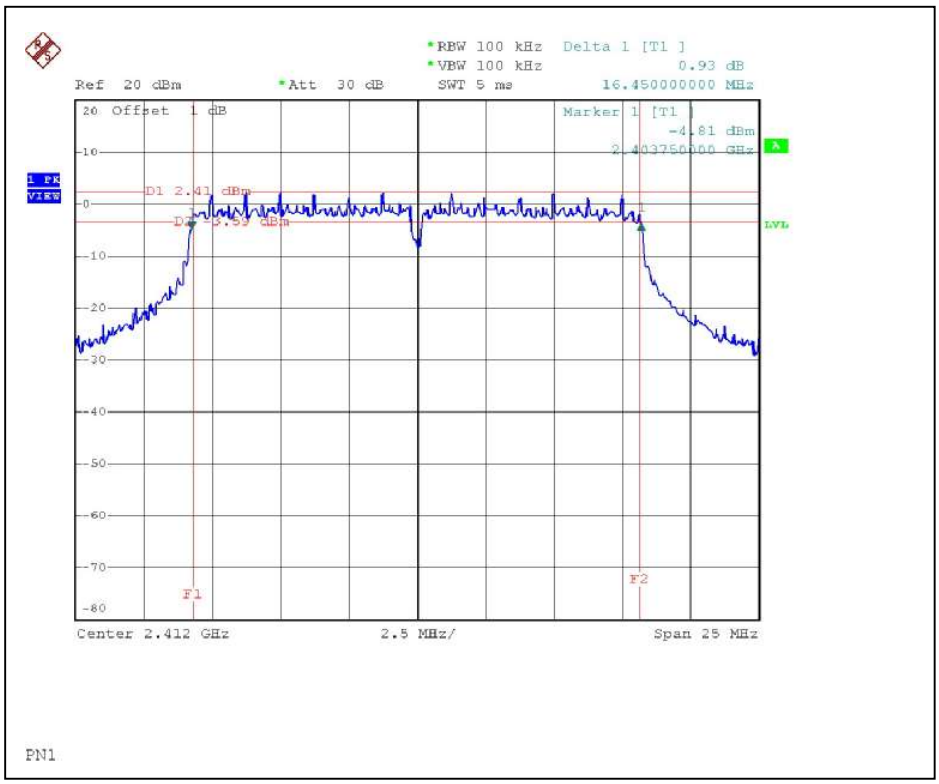

RBW 100 kHz
VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
0.16 dB
12.550000000 MHz
Ref 20 dBm
Att 30 dB
20 Offset 1 dB
Marker 1 [T1
-0.00 dBm
2.455700000 GHz
D1 5.79 dBm
D2 -0.2 dB
F1
F2
Center 2.462 GHz
2.5 MHz/
Span 25 MHz
PN1

802.11g OFDM modulation

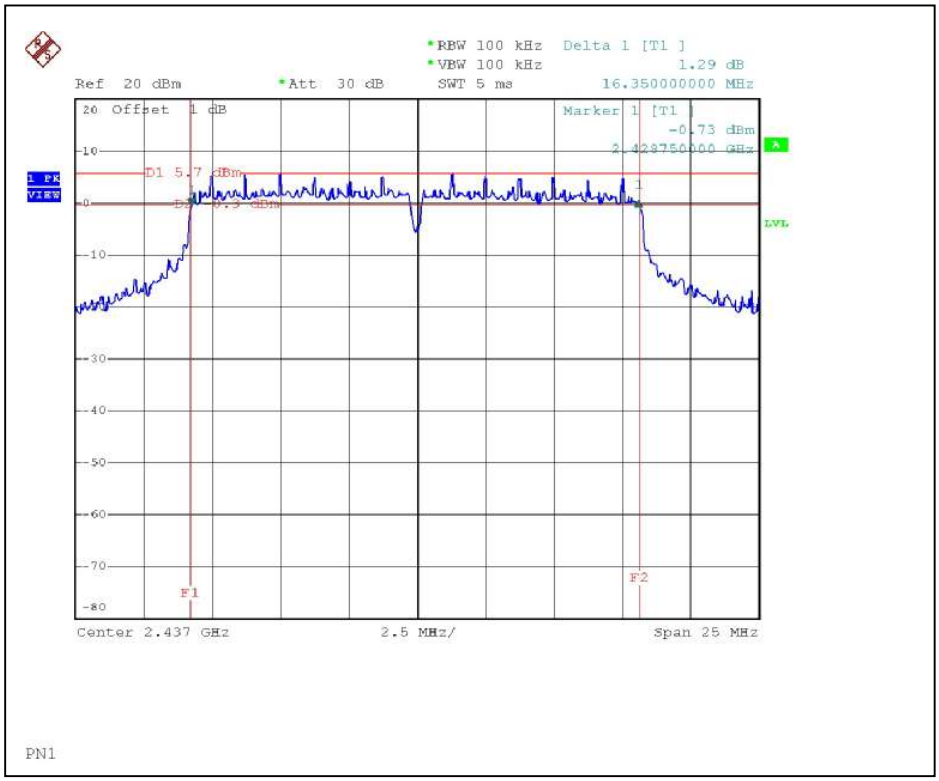
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH, 973hPa
TESTED BY	Sky Liao		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	16.45	0.5	PASS
6	2437	16.35	0.5	PASS
11	2462	16.45	0.5	PASS

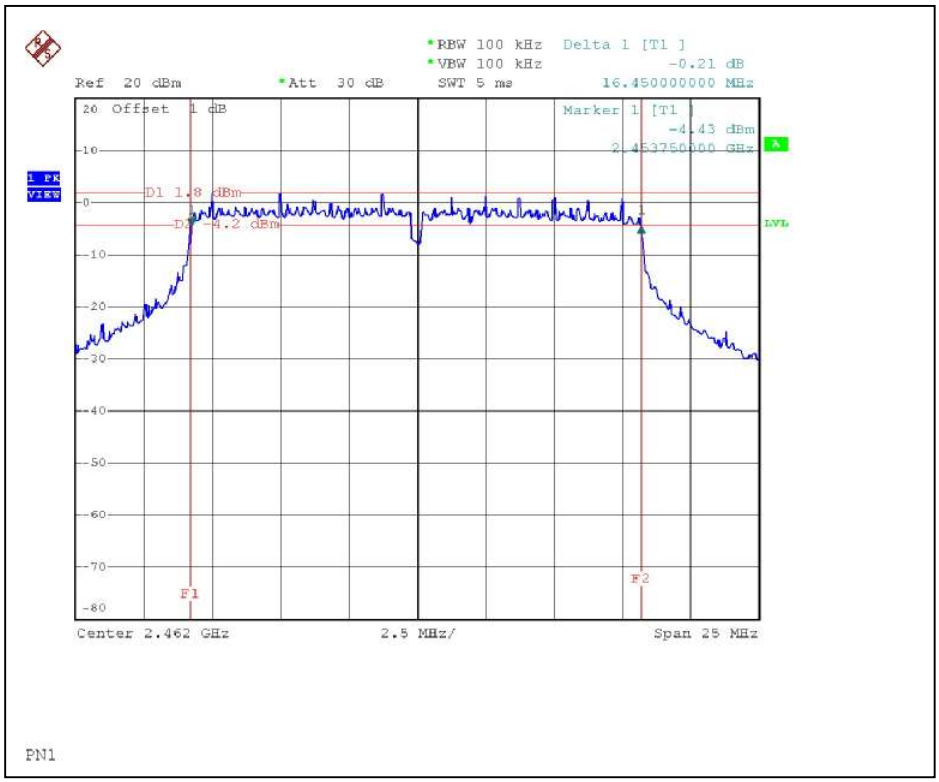
CH1



CH6


RBW 100 kHz
VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
1.29 dB
16.350000000 MHz
Ref 20 dBm
Att 30 dB
Offset 1 dB
Marker 1 [T1]
-0.73 dBm
2.428750000 GHz
D1 5.7 dBm
D2 4.3 dBm
1 PK VIEW
LVL
F1
F2
Center 2.437 GHz
2.5 MHz/
Span 25 MHz
PN1

CH11


RBW 100 kHz
VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-0.21 dB
16.450000000 MHz
Ref 20 dBm
Att 30 dB
Offset 1 dB
Marker 1 [T1]
-4.43 dBm
2.453750000 GHz
D1 1.8 dBm
D2 -4.2 dBm
1 PK VIEW
LVL
F1
F2
Center 2.462 GHz
2.5 MHz/
Span 25 MHz
PN1

802.11g Turbo OFDM modulation

INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	22 deg. C, 64%RH, 973 hPa
TESTED BY	Eric Lee		

CHANNEL	CHANNEL FREQUENCY (MHz)	6 dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
6	2437	32.20	0.5	PASS

CH6