

FCC TEST REPORT

REPORT NO.: RF950410H05

MODEL NO.: WNR834A

RECEIVED: April 10, 2006

TESTED: April 14 to 18, 2006

ISSUED: April 19, 2006

APPLICANT: NETGEAR, Inc.

ADDRESS: 4500 Great America Parkway, Santa Clara,
CA 95054 USA

ISSUED BY: Advance Data Technology Corporation

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Taiwan, R.O.C.

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No. 2177-01

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1. CERTIFICATION

PRODUCT : NEXT Wireless Router
MODEL NO.: WNR834A
BRAND: NETGEAR
APPLICANT : NETGEAR, Inc.
TESTED: April 14 to 18, 2006
TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS : FCC Part 15, Subpart C (Section 15.247),
ANSI C63.4-2003

The above equipment (Model: WNR834A) has been tested by **Advance Data Technology Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY :  , **DATE:** April 19, 2006
(Midoli Peng)

TECHNICAL
ACCEPTANCE :  , **DATE:** April 19, 2006
Responsible for RF (Hank Chung)

APPROVED BY :  , **DATE:** April 19, 2006
(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			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -16.67dB at 2.351MHz.
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit : min. 500kHz	PASS	Meet the requirement of limit.
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit.
15.247(d)	Transmitter Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -0.4dB at 2483.5MHz and 933.34MHz
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:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz ~ 30MHz	2.26 dB
Radiated emissions	30MHz ~ 1000MHz	2.98 dB
	1GHz ~ 18GHz	2.21 dB

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	NEXT Wireless Router
MODEL NO.	WNR834A
FCC ID	PY306100033
POWER SUPPLY	DC 12V 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	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz)
MAXIMUM OUTPUT POWER	802.11b: 211.110mW 802.11g: 310.125mW draft 802.11n (20MHz): 282.596mW draft 802.11n (40MHz): 227.734mW
ANTENNA TYPE	Dipole antenna with 1.8dBi gain(Cable lose 0.4dB)
DATA CABLE	NA
I/O PORTS	WAN Port x 1, LAN Port x 4

NOTE:

1. The EUT incorporates a MIMO function with 802.11b, 802.11g, draft 802.11n. Physically, the card provides three completed transmit and three receivers.
2. The EUT is 3 * 3 spatial MIMO without beam forming function.
The antenna configurations have three transmitter antennas and three receiver antennas.
Spatial multiplexing modes for simultaneous transmission using 3 antennas , and for simultaneous receiver using 3 antennas.
3. 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.
4. The EUT complies with draft 802.11n standards and backwards compatible with 802.11b, 802.11g products.
5. The EUT operates in the 2.4GHz frequency spectrum with throughput of up to 270Mbps.
6. The EUT must be supplied with a power adapter as following:

Brand:	NETGEAR
Model No.:	DSA-013F-12
Input power :	100-240V, 50/60Hz,0.3A
Output power :	12Vdc, 1A

7. 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

COMBINATION MODE:

COMBINATION MODE	OPERATION MODE	ANTENNA 1	ANTENNA 2	ANTENNA 3
A	802.11 b	✓	✓	✓
B	802.11g	✓	✓	✓
C	DRAFT 802.11n(20MHz)	✓	✓	✓
D	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. Above modes for simultaneous transmission using 3 antennas , and for simultaneous receiver using 3 antennas. All of Antennas are Dipole antenna.
3. All of the modes are different operation mode, we choose all of the modes for final test.

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

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 COBINATION
802.11b	1 to 11	11	DSSS	DBPSK	1	A
802.11g	1 to 11	11	OFDM	BPSK	6	B
Draft 802.11n (20MHz)	1 to 11	11	OFDM	BPSK	6.5	C
Draft 802.11n (40MHz)	1 to 7	7	OFDM	BPSK	13.5	D

RADIATED EMISSION TEST (BELOW 1 GHz):

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COBINATION
802.11b	1 to 11	1	DSSS	DBPSK	1	A
802.11g	1 to 11	1	OFDM	BPSK	6	B
Draft 802.11n (20MHz)	1 to 11	1	OFDM	BPSK	6.5	C
Draft 802.11n (40MHz)	1 to 7	1	OFDM	BPSK	13.5	D

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 COBINATION
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1	A
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	B
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5	C
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	13.5	D

BANDEDGE MEASUREMENT:

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COBINATION
802.11b	1 to 11	1, 11	DSSS	DBPSK	1	A
802.11g	1 to 11	1, 11	OFDM	BPSK	6	B
Draft 802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	6.5	C
Draft 802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	13.5	D

ANTENNA PORT CONDUCTED MEASUREMENT:

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COBINATION
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1	A
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	B
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5	C
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	13.5	D

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C. (15.247)

ANSI C63.4-2003

All test items have been performed and recorded as per the above standards.

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

3.4 DESCRIPTION OF SUPPORT UNITS

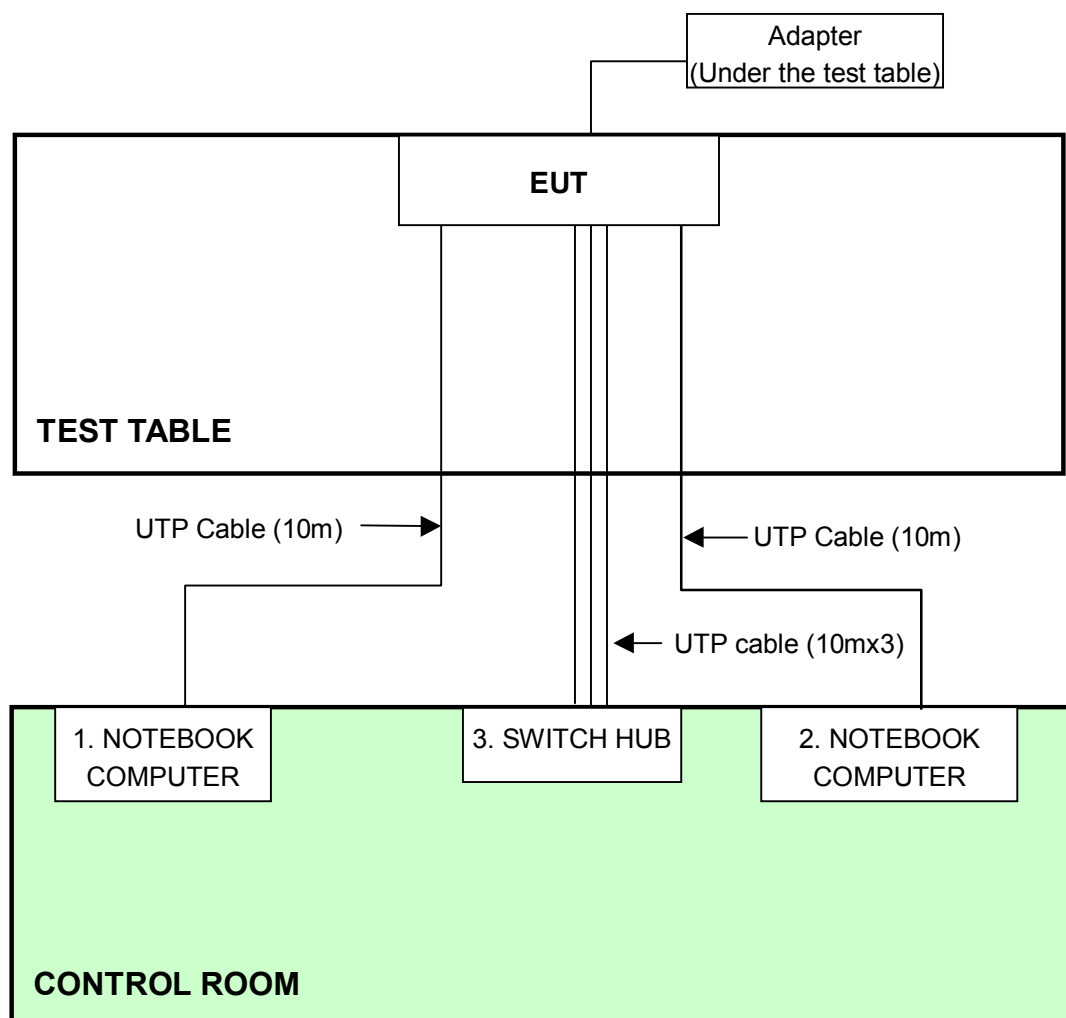
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	Dell	PP01L	TW-09c748-12800-165-3171	DoC
2	NOTEBOOK COMPUTER	Dell	PP01L	TW-0791UH-12800-0CK-3735	DoC
3	SWITCH HUB	HP	J4899B	PW418MZ00V	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	NA
3	NA

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 1-3 were kept in the control room during the test.
2. Please refer to the photos of test configuration in Item 5 also.

4. TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

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

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver	ESCS 30	100375	Sep. 19, 2006
Line-Impedance Stabilization Network(for EUT)	ENV-216	100071	Nov. 10, 2006
ROHDE & SCHWARZ LISN	KNW-407	8/1395/12	Jul. 19, 2006
RF Signal Cable	RG233/U	Cable_CA_02	Dec. 10, 2006
Terminator(for KYORITSU)	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.

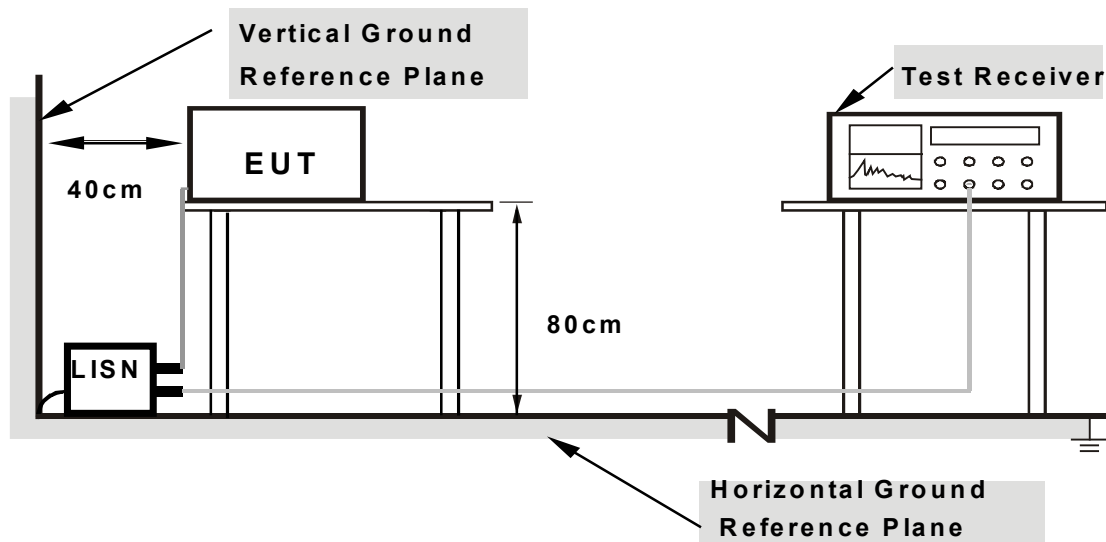
4.1.3 TEST PROCEDURES

- 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 levels under (Limit - 20dB) was not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



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

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

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

4.1.6 EUT OPERATING CONDITIONS

- Placed the EUT on the testing table.
- Prepared other computer systems to act as a communication partner and placed them outside of testing area.
- The communication partners run test program “ART ” to enable EUT under transmission/receiving condition continuously at specific channel frequency via UTP cable and wireless.

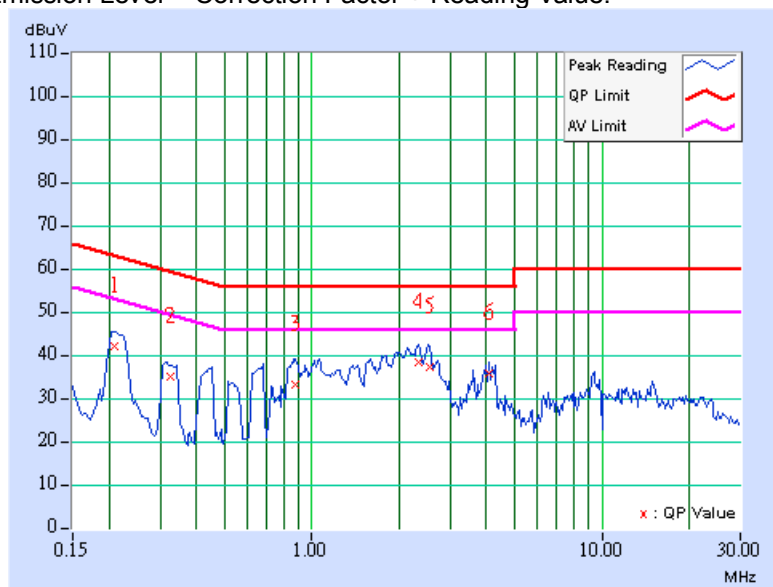
4.1.7 TEST RESULTS

CONDUCTED WORST-CASE DATA: 802.11b DSSS MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	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, 964hPa	TESTED BY	Moris Lin

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.209	9.60	32.70	-	42.30	-	63.26	53.26	-20.96	-
2	0.324	9.60	25.32	-	34.92	-	59.60	49.60	-24.68	-
3	0.882	9.60	23.58	-	33.18	-	56.00	46.00	-22.82	-
4	2.346	9.70	28.72	-	38.42	-	56.00	46.00	-17.58	-
5	2.558	9.70	27.87	-	37.57	-	56.00	46.00	-18.43	-
6	4.088	9.70	26.27	-	35.97	-	56.00	46.00	-20.03	-

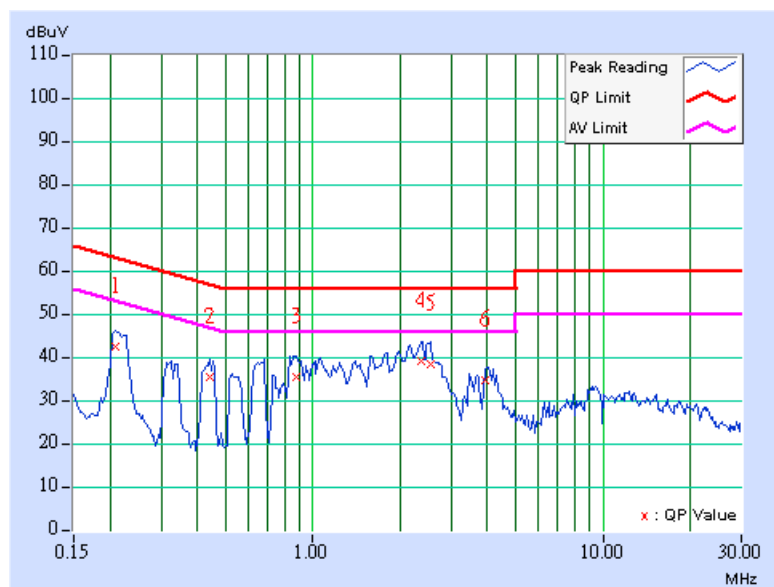
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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 11	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, 964hPa	TESTED BY	Moris Lin

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.209	9.60	33.00	-	42.60	-	63.26	53.26	-20.66	-
2	0.440	9.60	26.03	-	35.63	-	57.05	47.05	-21.42	-
3	0.880	9.60	25.83	-	35.43	-	56.00	46.00	-20.57	-
4	2.351	9.70	29.63	-	39.33	-	56.00	46.00	-16.67	-
5	2.562	9.70	28.65	-	38.35	-	56.00	46.00	-17.65	-
6	3.952	9.70	25.28	-	34.98	-	56.00	46.00	-21.02	-

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

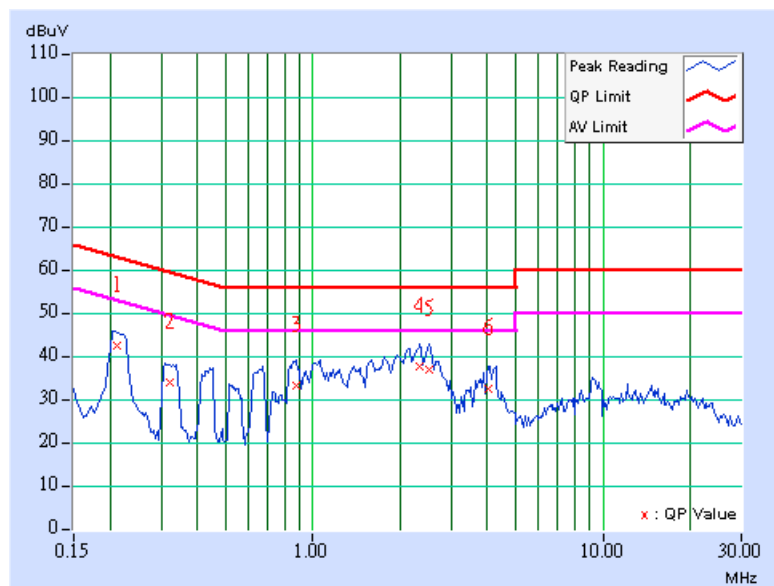


CONDUCTED WORST-CASE DATA: 802.11g OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line (L)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 964hPa	TESTED BY	Moris Lin

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.212	9.60	32.97	-	42.57	-	63.11	53.11	-20.54	-
2	0.322	9.60	24.40	-	34.00	-	59.66	49.66	-25.66	-
3	0.880	9.60	23.61	-	33.21	-	56.00	46.00	-22.79	-
4	2.345	9.70	28.21	-	37.91	-	56.00	46.00	-18.09	-
5	2.505	9.70	27.39	-	37.09	-	56.00	46.00	-18.91	-
6	4.016	9.70	22.71	-	32.41	-	56.00	46.00	-23.59	-

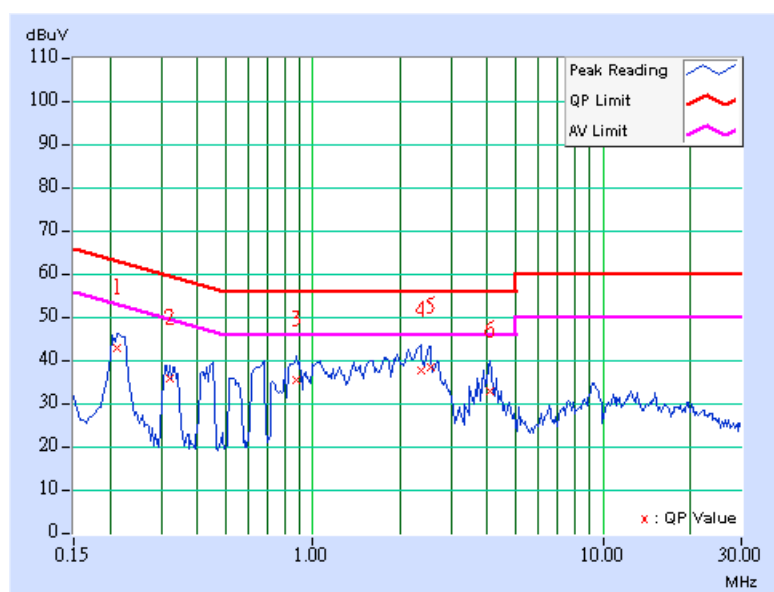
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Neutral (N)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 964hPa	TESTED BY	Moris Lin

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.213	9.60	33.18	-	42.78	-	63.11	53.11	-20.33	-
2	0.322	9.60	26.25	-	35.85	-	59.66	49.66	-23.81	-
3	0.877	9.60	25.97	-	35.57	-	56.00	46.00	-20.43	-
4	2.353	9.70	28.15	-	37.85	-	56.00	46.00	-18.15	-
5	2.539	9.70	28.95	-	38.65	-	56.00	46.00	-17.35	-
6	4.102	9.70	23.42	-	33.12	-	56.00	46.00	-22.88	-

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

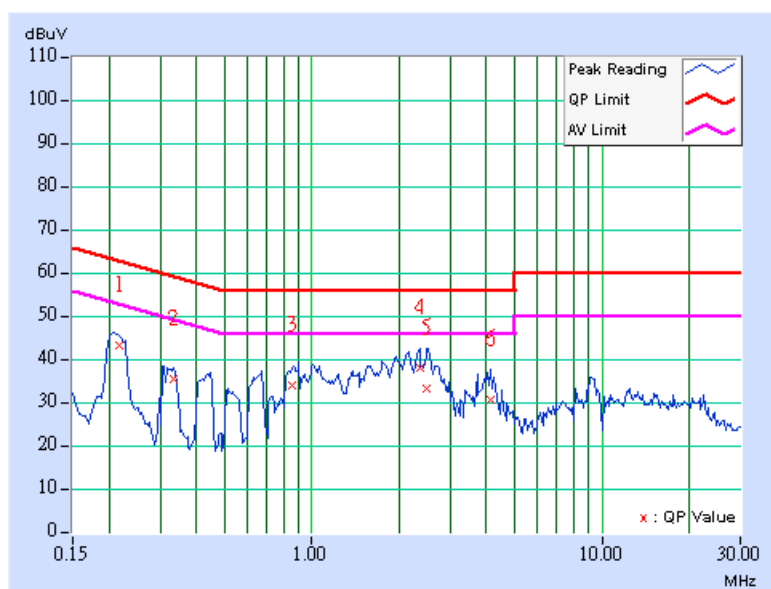


DRAFT 802.11n (20MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line (L)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6.5Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 964hPa	TESTED BY	Moris Lin

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.218	9.60	33.46	-	43.06	-	62.89	52.89	-19.83	-
2	0.333	9.60	25.91	-	35.51	-	59.37	49.37	-23.86	-
3	0.854	9.60	24.39	-	33.99	-	56.00	46.00	-22.01	-
4	2.349	9.70	28.37	-	38.07	-	56.00	46.00	-17.93	-
5	2.502	9.70	23.76	-	33.46	-	56.00	46.00	-22.54	-
6	4.148	9.70	21.12	-	30.82	-	56.00	46.00	-25.18	-

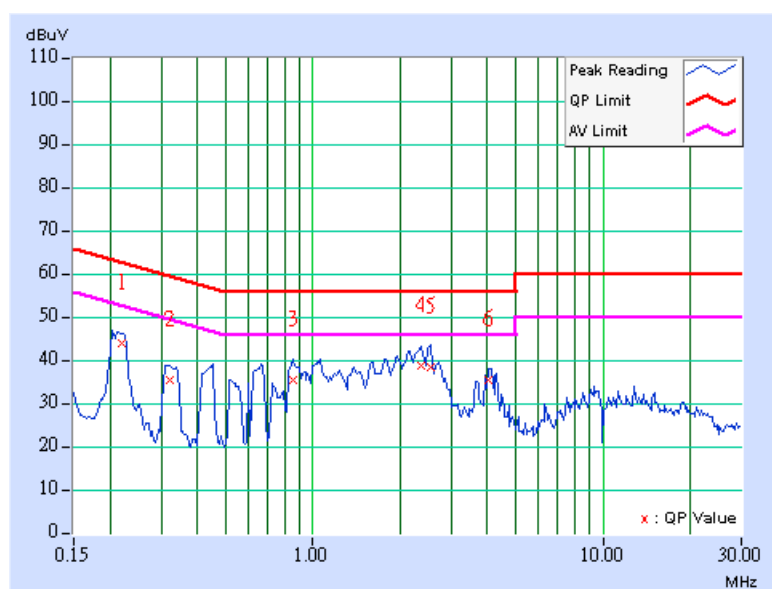
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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 11	PHASE	Neutral (N)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6.5Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 964hPa	TESTED BY	Moris Lin

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.219	9.60	34.39	-	43.99	-	62.86	52.86	-18.87	-
2	0.322	9.60	25.83	-	35.43	-	59.66	49.66	-24.23	-
3	0.857	9.60	25.93	-	35.53	-	56.00	46.00	-20.47	-
4	2.353	9.70	29.22	-	38.92	-	56.00	46.00	-17.08	-
5	2.537	9.70	28.87	-	38.57	-	56.00	46.00	-17.43	-
6	4.047	9.70	25.78	-	35.48	-	56.00	46.00	-20.52	-

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

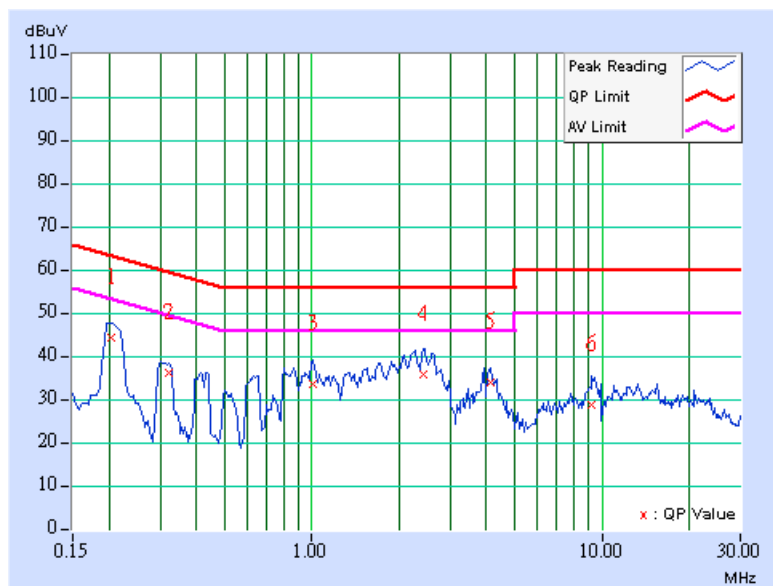


DRAFT 802.11n (40MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	PHASE	Line (L)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	13.5Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 964hPa	TESTED BY	Moris Lin

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.203	9.60	34.71	-	44.31	-	63.49	53.49	-19.18	-
2	0.322	9.60	26.35	-	35.95	-	59.66	49.66	-23.71	-
3	1.005	9.60	23.74	-	33.34	-	56.00	46.00	-22.66	-
4	2.412	9.70	26.16	-	35.86	-	56.00	46.00	-20.14	-
5	4.141	9.70	24.10	-	33.80	-	56.00	46.00	-22.20	-
6	9.262	9.88	19.15	-	29.03	-	60.00	50.00	-30.97	-

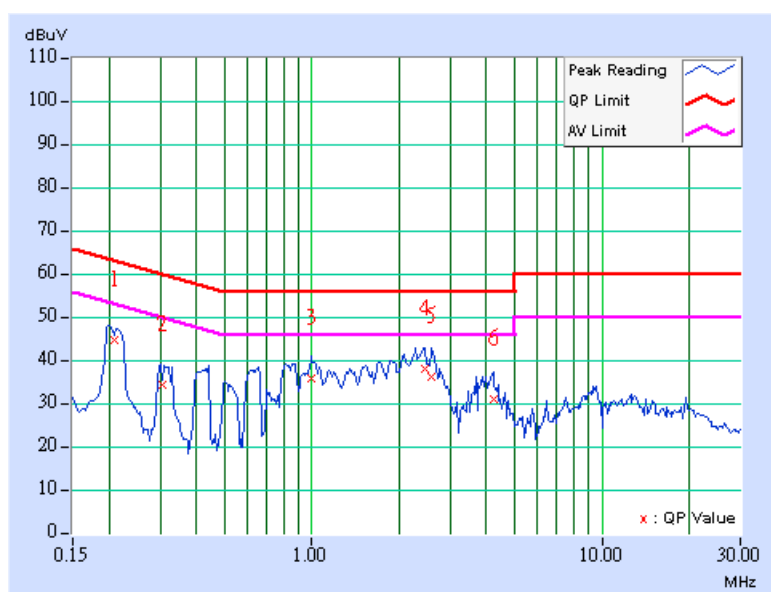
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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 7	PHASE	Neutral (N)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	13.5Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 964hPa	TESTED BY	Moris Lin

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.208	9.60	35.11	-	44.71	-	63.27	53.27	-18.56	-
2	0.305	9.60	24.92	-	34.52	-	60.11	50.11	-25.59	-
3	0.998	9.60	26.11	-	35.71	-	56.00	46.00	-20.29	-
4	2.459	9.70	28.58	-	38.28	-	56.00	46.00	-17.72	-
5	2.595	9.70	26.52	-	36.22	-	56.00	46.00	-19.78	-
6	4.215	9.71	21.26	-	30.97	-	56.00	46.00	-25.03	-

- 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	100287	Dec. 08, 2006
CHASE Broadband Antenna	VULB9168	138	Dec. 21, 2006
Schwarzbeck Horn_Antenna	BBHA9120	D124	Dec. 11, 2006
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 05, 2007
SCHWARZBECK Biconical Antenna	VHBA9123	459	Jun. 26, 2006
SCHWARZBECK Periodic Antenna	UPA6108	1148	Jun. 26, 2006
RF Switches (ARNITSU)	CS-201	1565157	NA
RF CABLE (Chaintek)	SF102	22054-2	Nov. 16, 2006
RF Cable(RICHTEC)	9913-30M	STCCAB-30M-1GHz-021	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 Periodic Antenna) and the calibrations are traceable to NML/ROC and NIST/USA.

2. The horn antenna and HP preamplifier (model: 8449B) 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 4824-3.

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

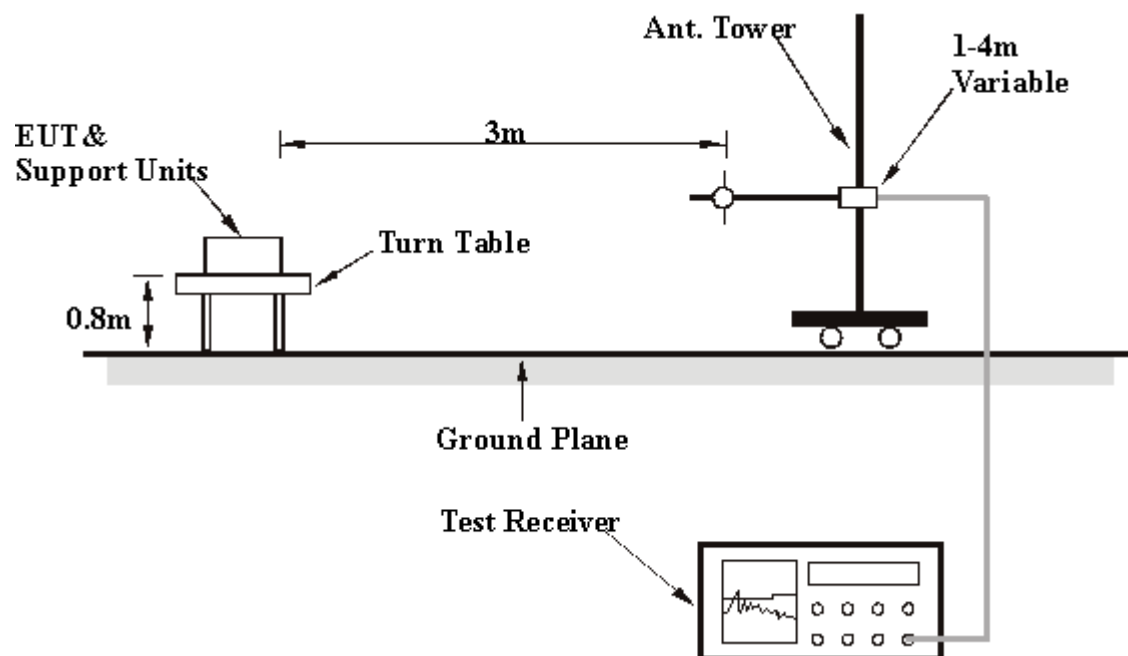
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



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

4.2.6 EUT OPERATING CONDITIONS

Same as 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
MODULATION TYPE	DBPSK for 802.11b	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH, 964hPa	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	124.99	20.40 QP	43.50	-23.10	1.01 H	183	8.50	11.90
2	200.01	34.80 QP	43.50	-8.70	1.08 H	294	23.60	11.20
3	250.01	40.60 QP	46.00	-5.40	1.12 H	358	27.30	13.30
4	374.99	42.10 QP	46.00	-3.90	1.07 H	293	24.50	17.60
5	400.03	36.70 QP	46.00	-9.30	1.03 H	165	18.30	18.40
6	500.00	30.40 QP	46.00	-15.60	1.16 H	48	9.50	20.90
7	800.00	44.40 QP	46.00	-1.60	1.00 H	271	17.80	26.60
8	933.34	45.30 QP	46.00	-0.70	1.01 H	267	16.70	28.50

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	124.99	31.70 QP	43.50	-11.80	1.23 V	168	19.80	11.90
2	200.01	29.40 QP	43.50	-14.10	1.19 V	290	18.20	11.20
3	250.01	38.60 QP	46.00	-7.40	1.00 V	288	25.30	13.30
4	375.00	41.00 QP	46.00	-5.00	1.00 V	75	23.40	17.60
5	400.00	40.00 QP	46.00	-6.00	1.00 V	304	21.60	18.40
6	499.97	34.60 QP	46.00	-11.40	1.10 V	21	13.70	20.90
7	799.96	41.00 QP	46.00	-5.00	1.05 V	345	14.40	26.60
8	933.34	44.40 QP	46.00	-1.60	1.11 V	208	15.80	28.50

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK for 802.11g	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH, 964hPa	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	125.02	21.20 QP	43.50	-22.30	1.01 H	83	9.40	11.90
2	200.00	34.50 QP	43.50	-9.00	1.07 H	294	23.30	11.20
3	250.01	40.00 QP	46.00	-6.00	1.25 H	322	26.70	13.30
4	374.99	43.50 QP	46.00	-2.50	1.18 H	237	25.90	17.60
5	399.99	35.60 QP	46.00	-10.40	1.13 H	200	17.20	18.40
6	499.99	32.00 QP	46.00	-14.00	1.13 H	331	11.10	20.90
7	800.00	44.00 QP	46.00	-2.00	1.09 H	275	17.40	26.60
8	933.34	45.10 QP	46.00	-0.90	1.02 H	272	16.60	28.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	125.00	32.40 QP	43.50	-11.10	1.05 V	16	20.50	11.90
2	200.02	32.70 QP	43.50	-10.80	1.02 V	123	21.50	11.20
3	250.00	38.00 QP	46.00	-8.00	1.09 V	280	24.70	13.30
4	374.99	42.20 QP	46.00	-3.80	1.26 V	338	24.70	17.60
5	400.02	42.10 QP	46.00	-3.90	1.19 V	21	23.70	18.40
6	499.99	32.60 QP	46.00	-13.40	1.11 V	321	11.70	20.90
7	800.01	41.30 QP	46.00	-4.70	1.06 V	9	14.70	26.60
8	933.34	43.70 QP	46.00	-2.30	1.01 V	300	15.10	28.50

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK for draft 802.11n (20MHz)	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6.5Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH, 964hPa	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	125.00	22.80 QP	43.50	-20.70	1.18 H	12	10.90	11.90
2	200.00	33.20 QP	43.50	-10.30	1.39 H	345	22.10	11.20
3	250.00	40.20 QP	46.00	-5.80	1.09 H	306	26.90	13.30
4	375.00	43.70 QP	46.00	-2.30	1.04 H	229	26.10	17.60
5	400.02	38.50 QP	46.00	-7.50	1.01 H	177	20.10	18.40
6	500.02	30.40 QP	46.00	-15.60	1.07 H	121	9.50	20.90
7	800.01	43.60 QP	46.00	-2.40	1.00 H	295	17.00	26.60
8	933.34	45.60 QP	46.00	-0.40	1.01 H	270	17.10	28.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	125.00	31.60 QP	43.50	-11.90	1.18 V	17	19.70	11.90
2	199.99	30.40 QP	43.50	-13.10	1.18 V	62	19.20	11.20
3	250.00	41.00 QP	46.00	-5.00	1.13 V	9	27.80	13.30
4	375.01	40.80 QP	46.00	-5.20	1.20 V	170	23.20	17.60
5	400.05	39.90 QP	46.00	-6.10	1.19 V	265	21.50	18.40
6	499.98	33.00 QP	46.00	-13.00	1.05 V	312	12.10	20.90
7	799.98	39.70 QP	46.00	-6.30	1.12 V	274	13.10	26.60
8	933.32	44.20 QP	46.00	-1.80	1.17 V	309	15.70	28.50

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK for draft 802.11n (40MHz)	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	13.5Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH, 964hPa	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	125.00	20.40 QP	43.50	-23.10	1.20 H	294	8.60	11.90
2	200.00	34.00 QP	43.50	-9.50	1.43 H	261	22.80	11.20
3	250.00	39.30 QP	46.00	-6.70	1.10 H	277	26.00	13.30
4	375.01	43.80 QP	46.00	-2.20	1.06 H	239	26.20	17.60
5	400.00	37.40 QP	46.00	-8.60	1.01 H	252	19.00	18.40
6	500.00	30.00 QP	46.00	-16.00	1.04 H	126	9.10	20.90
7	800.00	44.70 QP	46.00	-1.30	1.00 H	279	18.10	26.60
8	933.34	45.40 QP	46.00	-0.60	1.03 H	269	16.80	28.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	125.00	32.20 QP	43.50	-11.30	1.02 V	21	20.30	11.90
2	200.00	31.40 QP	43.50	-12.10	1.30 V	186	20.20	11.20
3	250.00	41.20 QP	46.00	-4.80	1.00 V	15	27.90	13.30
4	375.01	42.40 QP	46.00	-3.60	1.31 V	314	24.80	17.60
5	400.00	40.30 QP	46.00	-5.70	1.03 V	7	21.90	18.40
6	500.00	32.40 QP	46.00	-13.60	1.01 V	340	11.60	20.90
7	800.00	36.70 QP	46.00	-9.30	1.25 V	290	10.00	26.60
8	933.34	44.90 QP	46.00	-1.10	1.10 V	206	16.40	28.50

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

802.11b DSSS MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 65%RH, 964hPa	TESTED BY	Moris Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	58.80 PK	74.00	-15.20	1.10 H	124	29.10	29.70
1	2390.00	49.00 AV	54.00	-5.00	1.10 H	124	19.30	29.70
2	*2412.00	112.80 PK			1.10 H	124	83.00	29.80
2	*2412.00	109.30 AV			1.10 H	124	79.50	29.80
3	3216.00	43.30 PK	74.00	-30.70	1.00 H	291	11.30	32.00
3	3216.00	32.60 AV	54.00	-21.40	1.00 H	291	0.60	32.00
4	4824.00	49.50 PK	74.00	-24.50	1.90 H	283	14.40	35.10
4	4824.00	44.30 AV	54.00	-9.70	1.90 H	283	9.20	35.10
5	7236.00	50.90 PK	74.00	-23.10	1.22 H	117	10.40	40.50
5	7236.00	42.30 AV	54.00	-11.70	1.22 H	117	1.80	40.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	66.10 PK	74.00	-7.90	1.18 V	21	36.40	29.70
1	2390.00	51.00 AV	54.00	-3.00	1.18 V	21	21.30	29.70
2	*2412.00	116.00 PK			1.18 V	21	86.20	29.80
2	*2412.00	112.10 AV			1.18 V	21	82.30	29.80
3	3216.00	44.30 PK	74.00	-29.70	1.09 V	92	12.30	32.00
3	3216.00	36.90 AV	54.00	-17.10	1.09 V	92	4.90	32.00
4	4824.00	55.00 PK	74.00	-19.00	1.33 V	3	19.90	35.10
4	4824.00	52.20 AV	54.00	-1.80	1.33 V	3	17.10	35.10
5	7236.00	56.30 PK	74.00	-17.70	1.44 V	277	15.80	40.50
5	7236.00	50.10 AV	54.00	-3.90	1.44 V	277	9.60	40.50

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 65%RH, 964hPa	TESTED BY	Moris Lin

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	112.10 PK			1.23 H	123	82.20	29.90
1	*2437.00	108.30 AV			1.23 H	123	78.40	29.90
2	3249.30	40.90 PK	74.00	-33.10	1.03 H	74	8.80	32.10
2	3249.30	30.70 AV	54.00	-23.30	1.03 H	74	-1.40	32.10
3	4874.00	49.00 PK	74.00	-25.00	1.81 H	283	13.70	35.30
3	4874.00	43.10 AV	54.00	-10.90	1.81 H	283	7.80	35.30
4	7311.00	53.20 PK	74.00	-20.80	1.64 H	119	12.50	40.70
4	7311.00	44.60 AV	54.00	-9.40	1.64 H	119	3.90	40.70

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			1.18 V	22	85.70	29.90
1	*2437.00	111.90 AV			1.18 V	22	82.00	29.90
2	3249.30	43.00 PK	74.00	-31.00	1.08 V	86	10.90	32.10
2	3249.30	34.20 AV	54.00	-19.80	1.08 V	86	2.10	32.10
3	4874.00	51.90 PK	74.00	-22.10	1.15 V	13	16.60	35.30
3	4874.00	48.30 AV	54.00	-5.70	1.15 V	13	13.00	35.30
4	7311.00	55.60 PK	74.00	-18.40	1.80 V	349	14.90	40.70
4	7311.00	48.80 AV	54.00	-5.20	1.80 V	349	8.10	40.70

REMARKS:

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

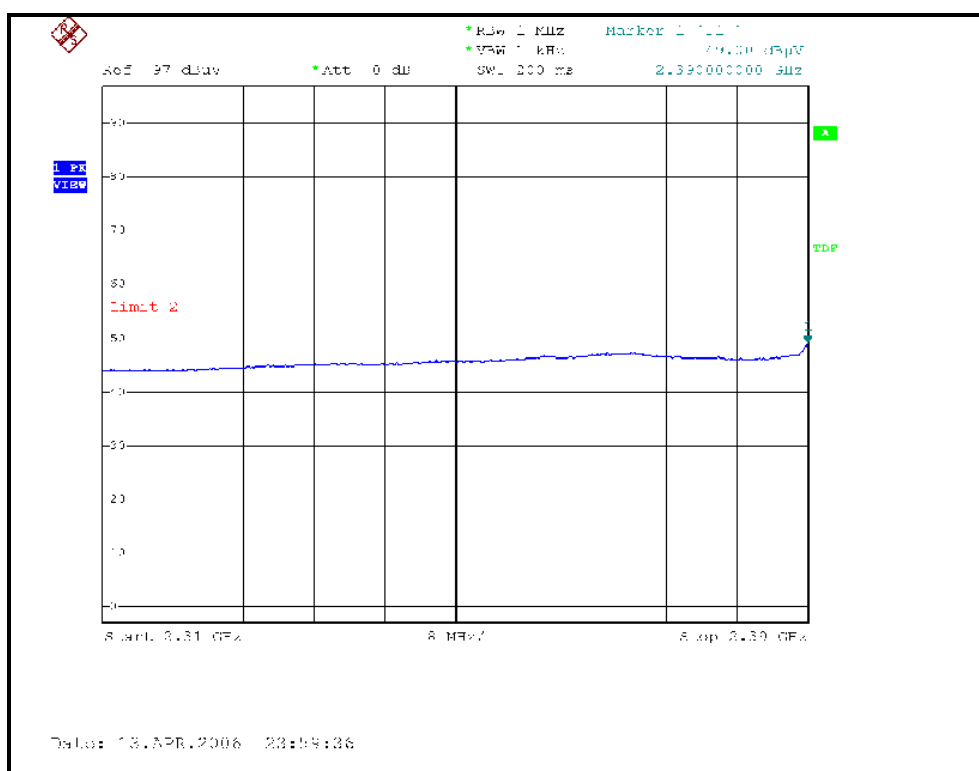
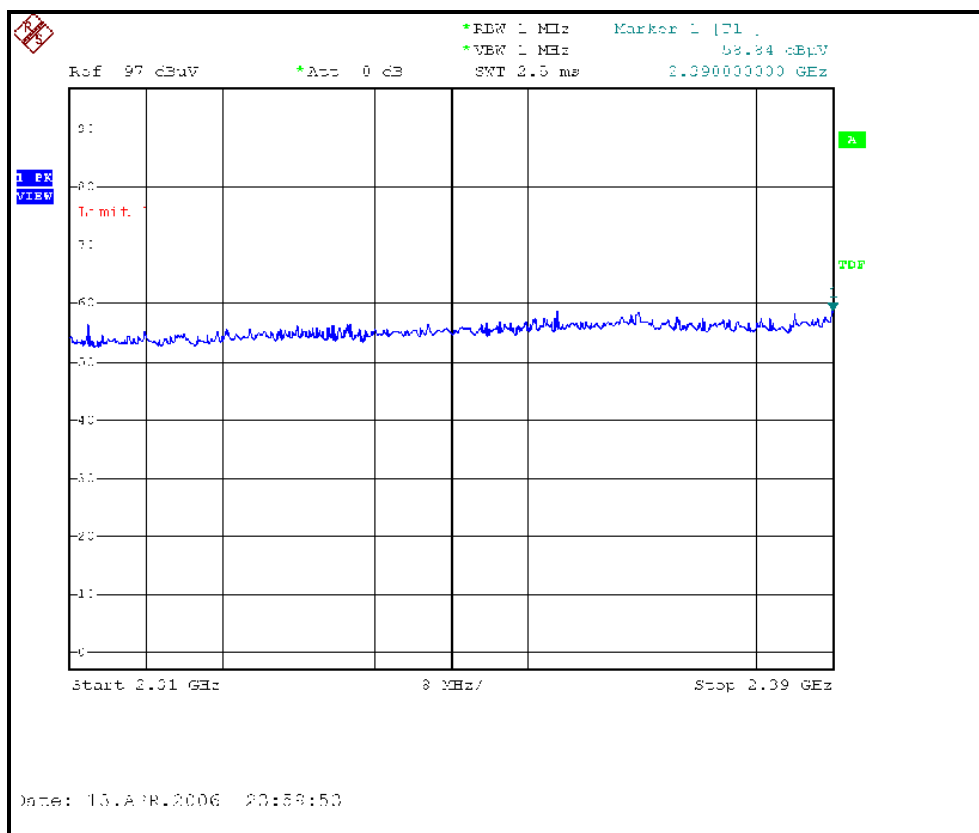
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 65%RH, 964hPa	TESTED BY	Moris Lin

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	112.50 PK			1.24 H	118	82.50	30.00
1	*2462.00	108.50 AV			1.24 H	118	78.50	30.00
2	2483.50	58.80 PK	74.00	-15.20	1.24 H	118	28.70	30.10
2	2483.50	49.60 AV	54.00	-4.40	1.24 H	118	19.50	30.10
3	3282.60	40.60 PK	74.00	-33.40	1.35 H	265	8.50	32.20
3	3282.60	27.80 AV	54.00	-26.20	1.35 H	265	-4.30	32.20
4	4924.00	53.00 PK	74.00	-21.00	1.12 H	261	17.40	35.50
4	4924.00	49.50 AV	54.00	-4.50	1.12 H	261	13.90	35.50
5	7386.00	52.00 PK	74.00	-22.00	1.00 H	307	11.20	40.80
5	7386.00	41.00 AV	54.00	-13.00	1.00 H	307	0.20	40.80

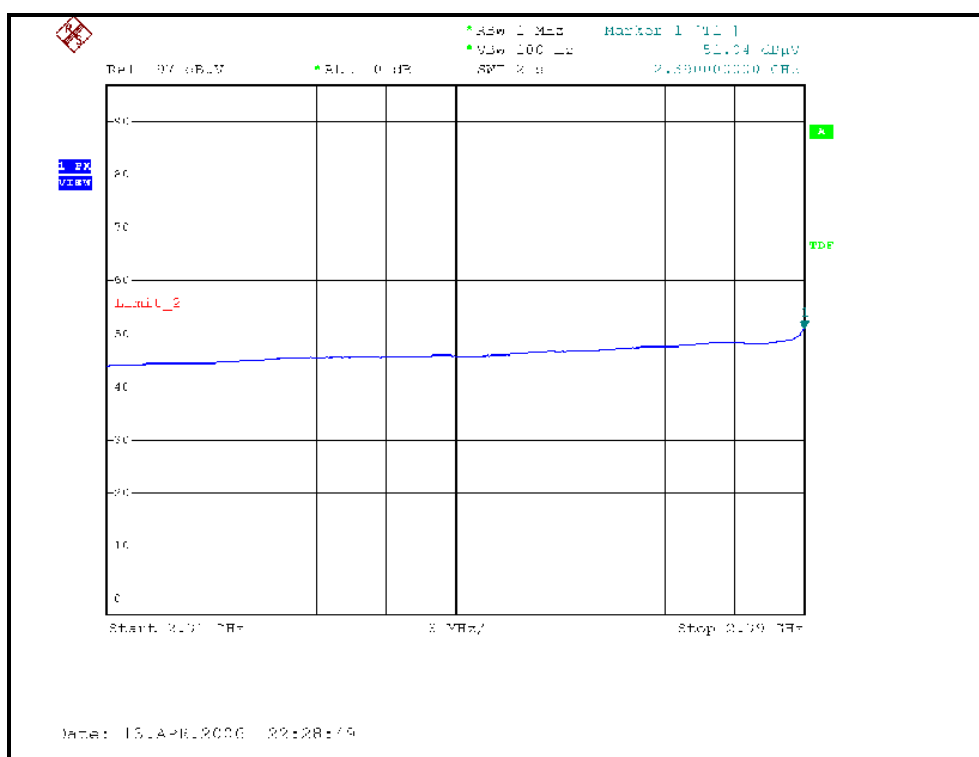
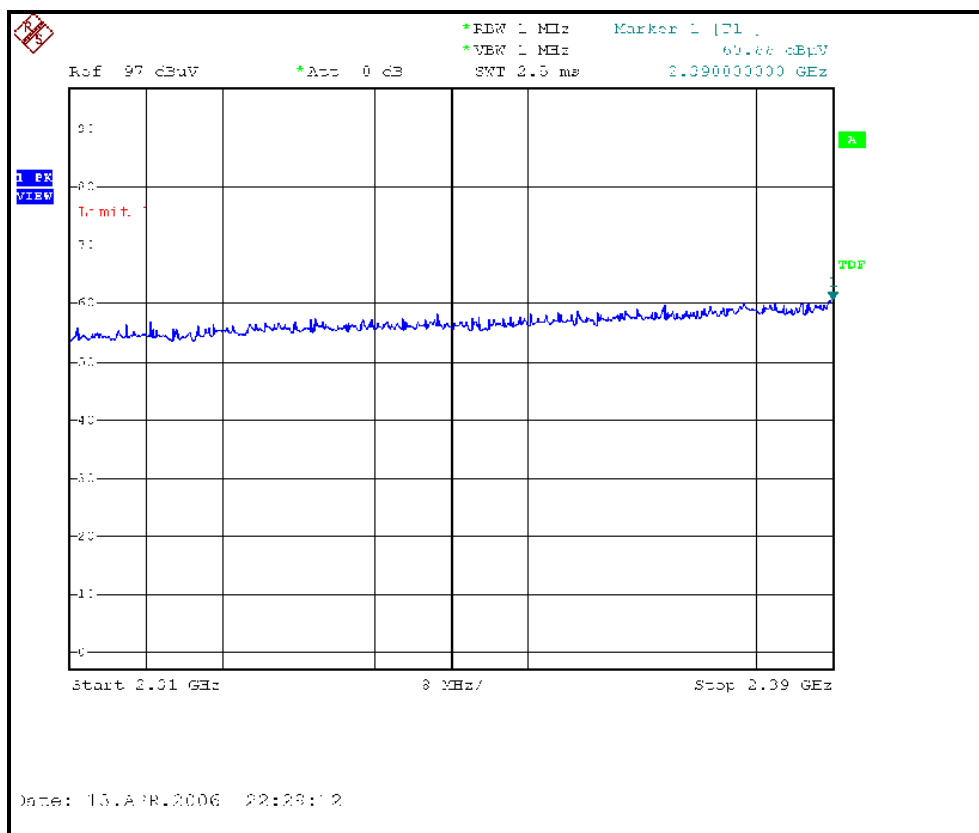
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	116.70 PK			1.15 V	22	86.70	30.00
1	*2462.00	113.10 AV			1.15 V	22	83.10	30.00
2	2483.50	62.90 PK	74.00	-11.10	1.15 V	22	32.80	30.10
2	2483.50	52.90 AV	54.00	-1.10	1.15 V	22	22.80	30.10
3	3282.60	40.90 PK	74.00	-33.10	1.45 V	2	8.80	32.20
3	3282.60	30.30 AV	54.00	-23.70	1.45 V	2	-1.80	32.20
4	4924.00	50.40 PK	74.00	-23.60	1.28 V	294	14.80	35.50
4	4924.00	46.60 AV	54.00	-7.40	1.28 V	294	11.00	35.50
5	7386.00	55.10 PK	74.00	-18.90	1.22 V	175	14.30	40.80
5	7386.00	45.70 AV	54.00	-8.30	1.22 V	175	4.90	40.80

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

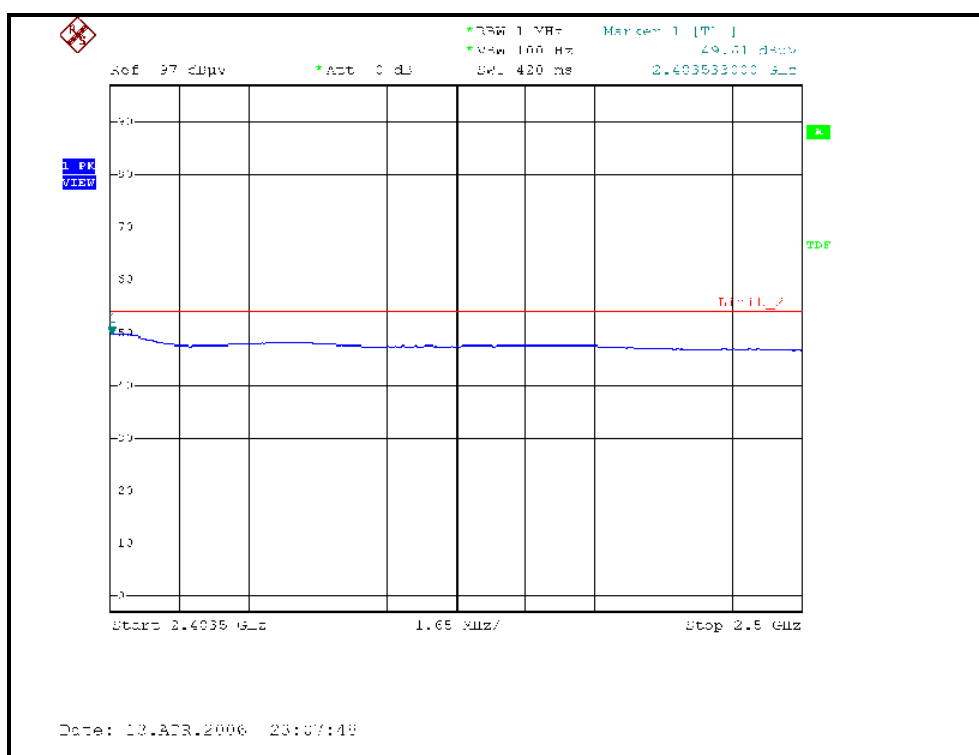
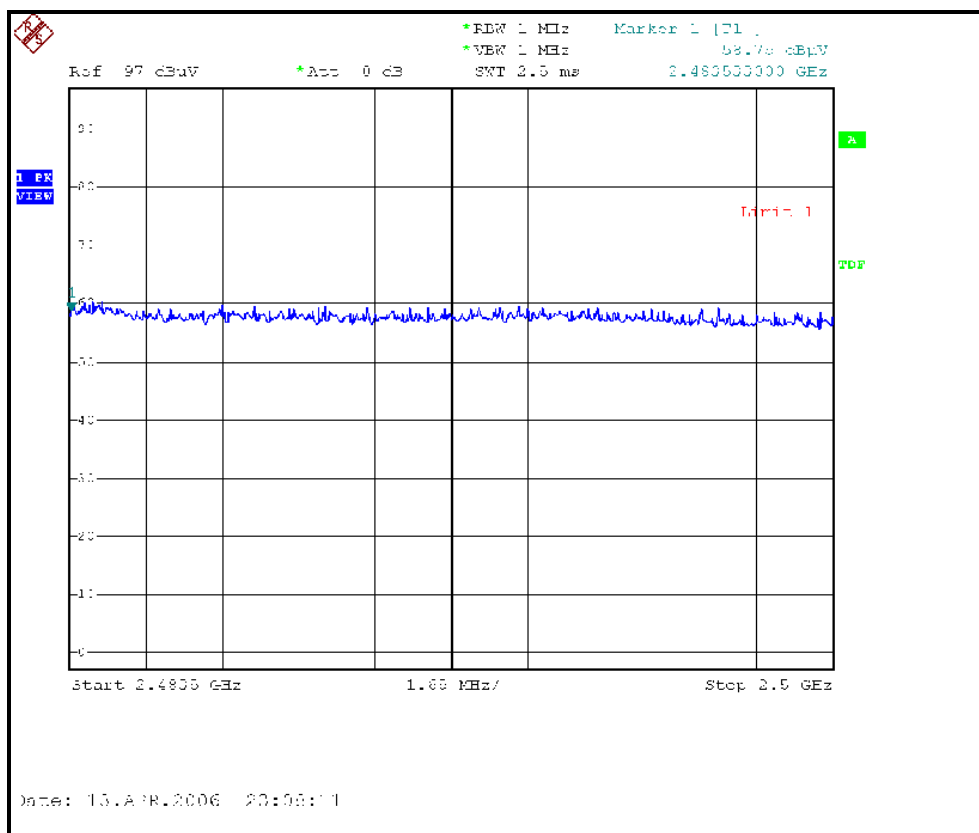
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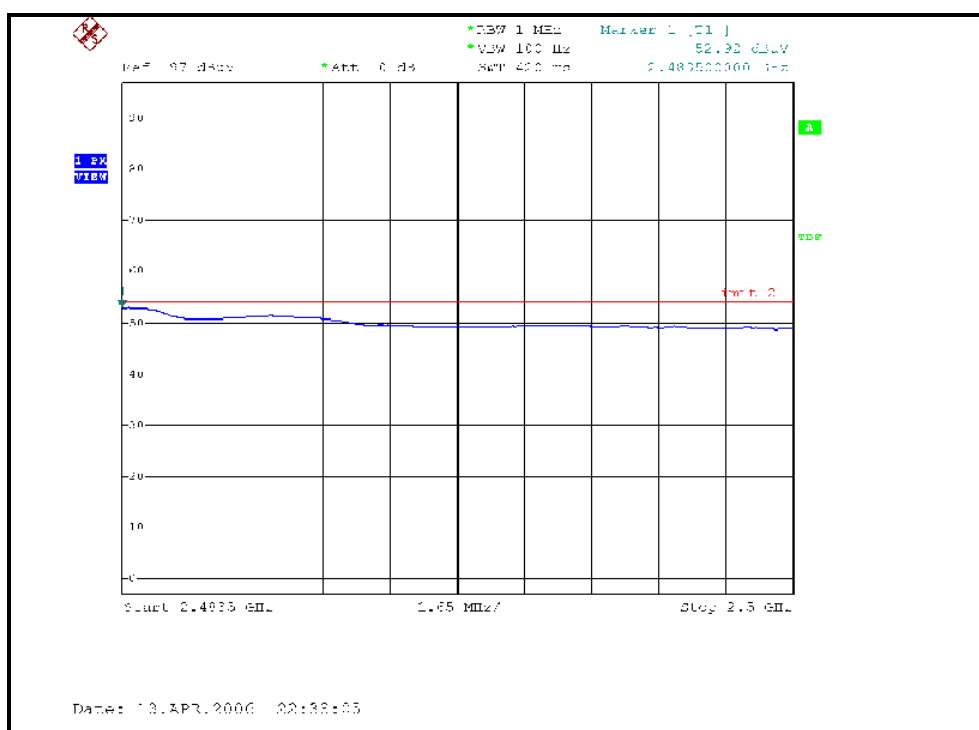
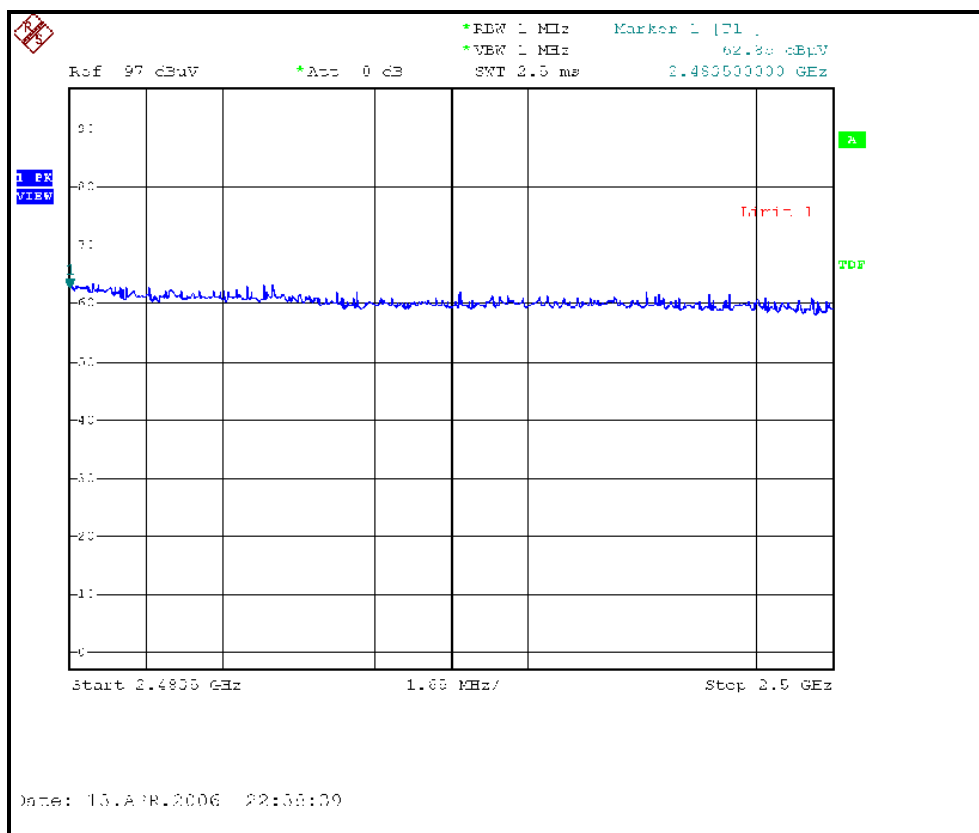
RESTRICTED BANDEDGE (802.11b MODE,CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11b MODE, CH11, HORIZONTAL)



RESTRICTED BANDEDGE (802.11b MODE,CH11, VERTICAL)



802.11g OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 65%RH, 964hPa	TESTED BY	Moris Lin

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	60.80 PK	74.00	-13.20	1.13 H	297	31.10	29.70
1	2390.00	47.90 AV	54.00	-6.10	1.13 H	297	18.20	29.70
2	*2412.00	110.10 PK			1.13 H	297	80.30	29.80
2	*2412.00	100.70 AV			1.13 H	297	70.90	29.80
3	3216.00	44.20 PK	74.00	-29.80	1.00 H	290	12.20	32.00
3	3216.00	31.50 AV	54.00	-22.50	1.00 H	290	-0.50	32.00
4	4824.00	48.50 PK	74.00	-25.50	1.08 H	227	13.40	35.10
4	4824.00	37.00 AV	54.00	-17.00	1.08 H	227	1.90	35.10
5	7236.00	52.00 PK	74.00	-22.00	1.00 H	0	11.50	40.50
5	7236.00	38.80 AV	54.00	-15.20	1.00 H	0	-1.70	40.50

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	68.30 PK	74.00	-5.70	1.41 V	346	38.60	29.70
1	2390.00	52.60 AV	54.00	-1.40	1.41 V	346	22.90	29.70
2	*2412.00	115.80 PK			1.41 V	346	86.00	29.80
2	*2412.00	106.20 AV			1.41 V	346	76.40	29.80
3	3216.00	45.10 PK	74.00	-28.90	1.17 V	97	13.10	32.00
3	3216.00	36.00 AV	54.00	-18.00	1.17 V	97	4.00	32.00
4	4824.00	50.90 PK	74.00	-23.10	1.46 V	182	15.80	35.10
4	4824.00	38.50 AV	54.00	-15.50	1.46 V	182	3.40	35.10
5	7236.00	56.90 PK	74.00	-17.10	1.08 V	0	16.40	40.50
5	7236.00	41.70 AV	54.00	-12.30	1.08 V	0	1.20	40.50

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 65%RH, 964hPa	TESTED BY	Moris Lin

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	112.70 PK			1.12 H	298	82.80	29.90
1	*2437.00	102.70 AV			1.12 H	298	72.80	29.90
2	3249.30	41.80 PK	74.00	-32.20	1.09 H	245	9.70	32.10
2	3249.30	31.00 AV	54.00	-23.00	1.09 H	245	-1.10	32.10
3	4874.00	55.20 PK	74.00	-18.80	1.09 H	264	19.90	35.30
3	4874.00	42.50 AV	54.00	-11.50	1.09 H	264	7.20	35.30
4	7311.00	58.20 PK	74.00	-15.80	1.27 H	155	17.50	40.70
4	7311.00	44.30 AV	54.00	-9.70	1.27 H	155	3.60	40.70

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	118.10 PK			1.41 V	342	88.20	29.90
1	*2437.00	108.30 AV			1.41 V	342	78.40	29.90
2	3249.30	44.00 PK	74.00	-30.00	1.14 V	268	11.90	32.10
2	3249.30	35.60 AV	54.00	-18.40	1.14 V	268	3.50	32.10
3	4874.00	53.80 PK	74.00	-20.20	1.16 V	223	18.50	35.30
3	4874.00	40.60 AV	54.00	-13.40	1.16 V	223	5.30	35.30
4	7311.00	61.50 PK	74.00	-12.50	1.30 V	340	20.80	40.70
4	7311.00	45.40 AV	54.00	-8.60	1.30 V	340	4.70	40.70

REMARKS:

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

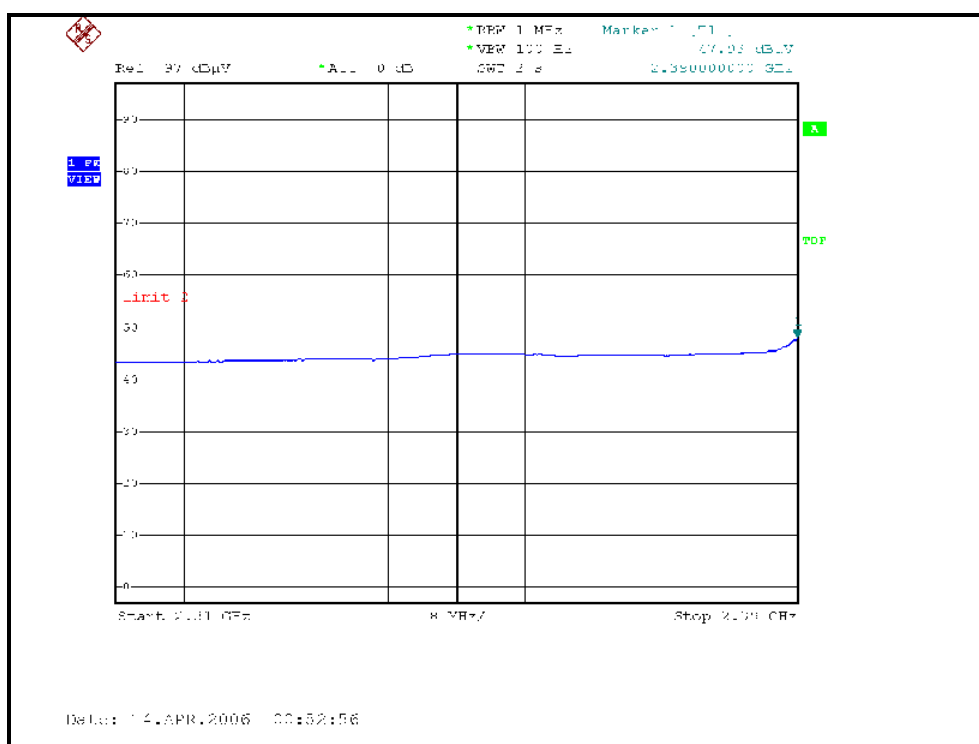
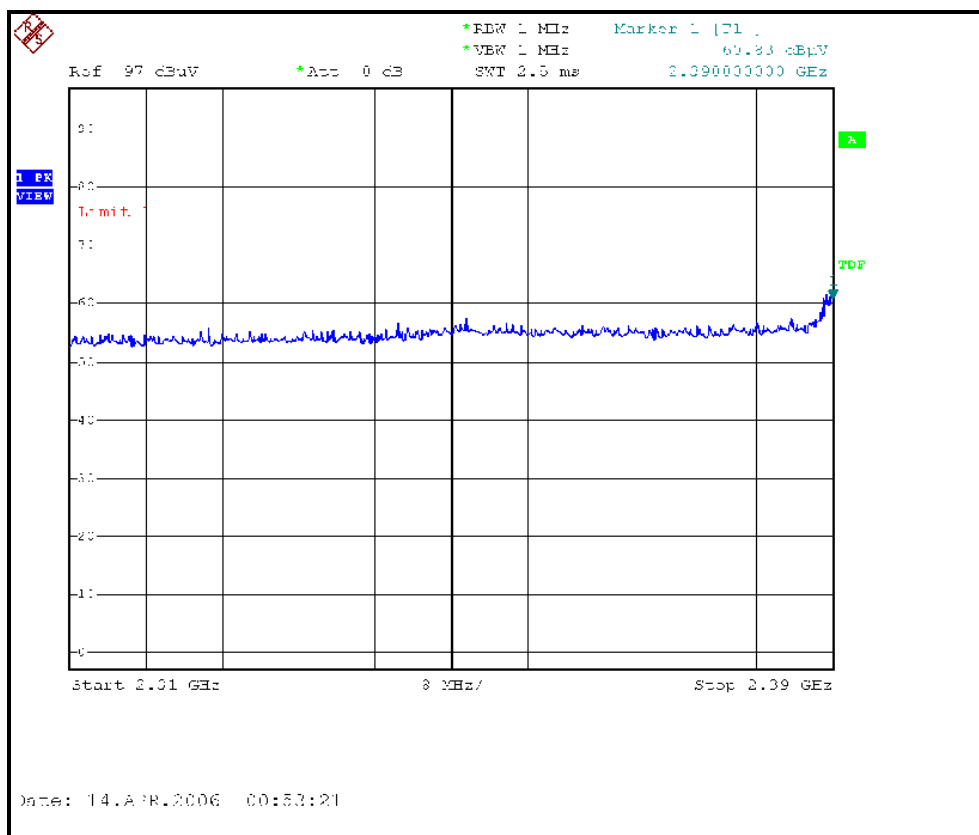
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 65%RH, 964hPa	TESTED BY	Moris Lin

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	108.80 PK			1.12 H	293	78.80	30.00
1	*2462.00	99.20 AV			1.12 H	293	69.20	30.00
2	2483.50	59.80 PK	74.00	-14.20	1.12 H	293	29.70	30.10
2	2483.50	48.30 AV	54.00	-5.70	1.12 H	293	18.20	30.10
3	3282.60	40.70 PK	74.00	-33.30	1.00 H	273	8.60	32.20
3	3282.60	29.10 AV	54.00	-24.90	1.00 H	273	-3.00	32.20
4	4924.00	51.90 PK	74.00	-22.10	1.10 H	262	16.30	35.50
4	4924.00	39.10 AV	54.00	-14.90	1.10 H	262	3.50	35.50
5	7386.00	50.70 PK	74.00	-23.30	1.00 H	300	9.90	40.80
5	7386.00	38.20 AV	54.00	-15.80	1.00 H	300	-2.60	40.80

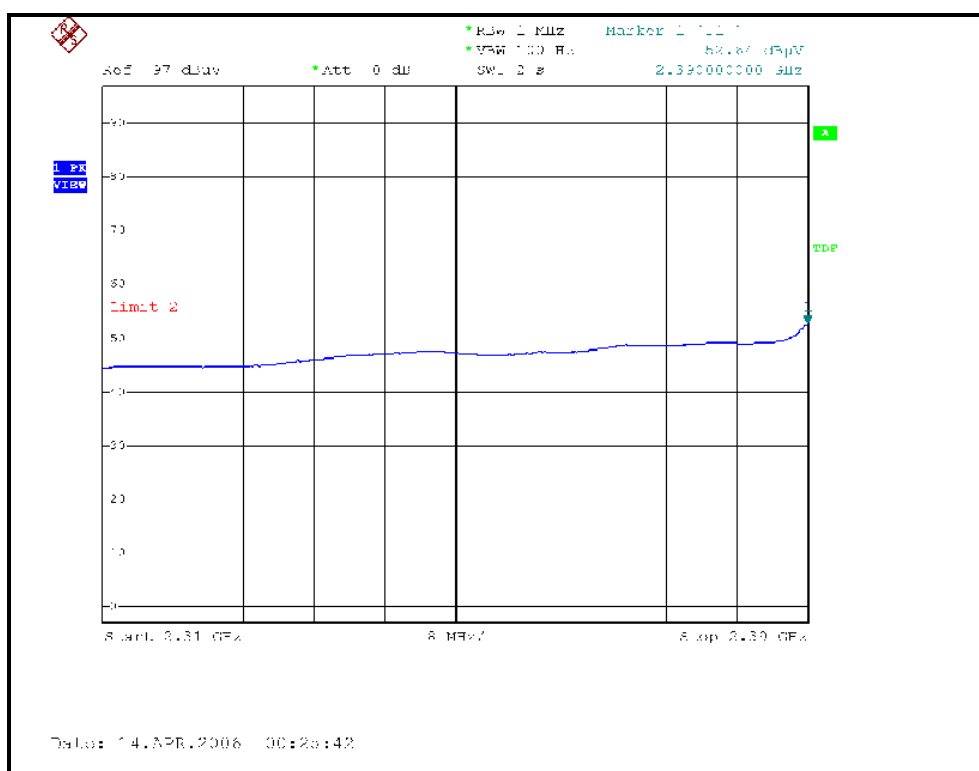
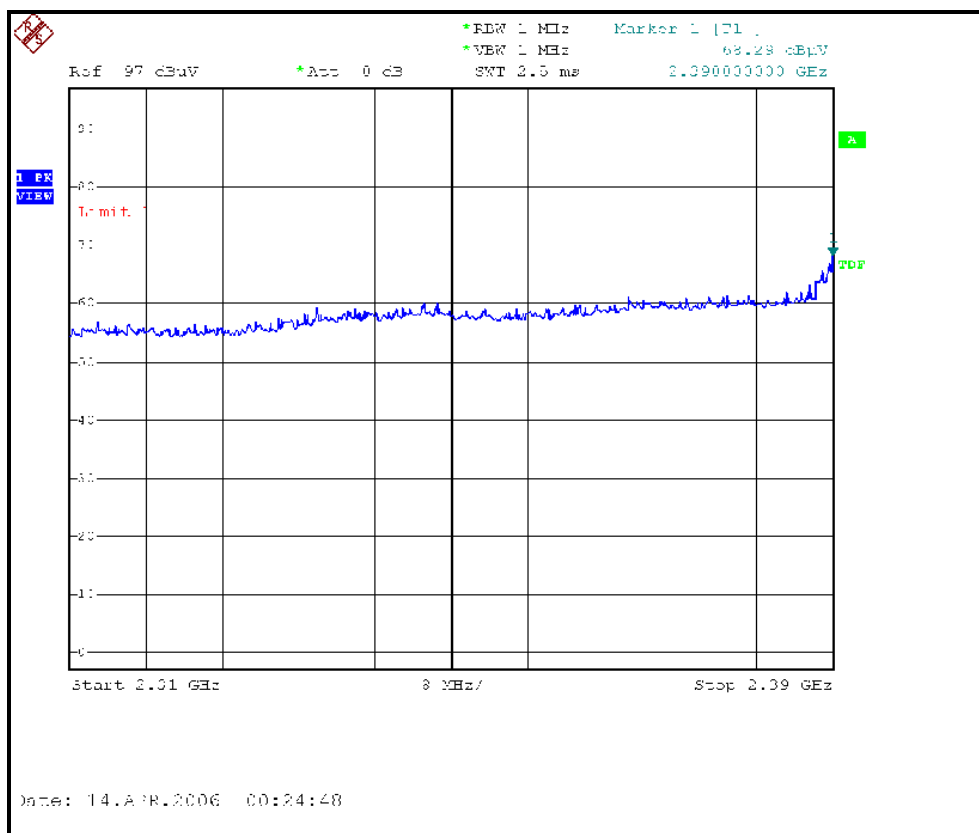
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	114.60 PK			1.41 V	341	84.60	30.00
1	*2462.00	104.20 AV			1.41 V	341	74.20	30.00
2	2483.50	68.20 PK	74.00	-5.80	1.41 V	341	38.10	30.10
2	2483.50	53.50 AV	54.00	-0.50	1.41 V	341	23.40	30.10
3	3282.60	42.40 PK	74.00	-31.60	1.13 V	97	10.30	32.20
3	3282.60	34.10 AV	54.00	-19.90	1.13 V	97	2.00	32.20
4	4924.00	51.70 PK	74.00	-22.30	1.14 V	306	16.10	35.50
4	4924.00	38.60 AV	54.00	-15.40	1.14 V	306	3.00	35.50
5	7386.00	50.30 PK	74.00	-23.70	1.00 V	360	9.50	40.80
5	7386.00	38.50 AV	54.00	-15.50	1.00 V	360	-2.30	40.80

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

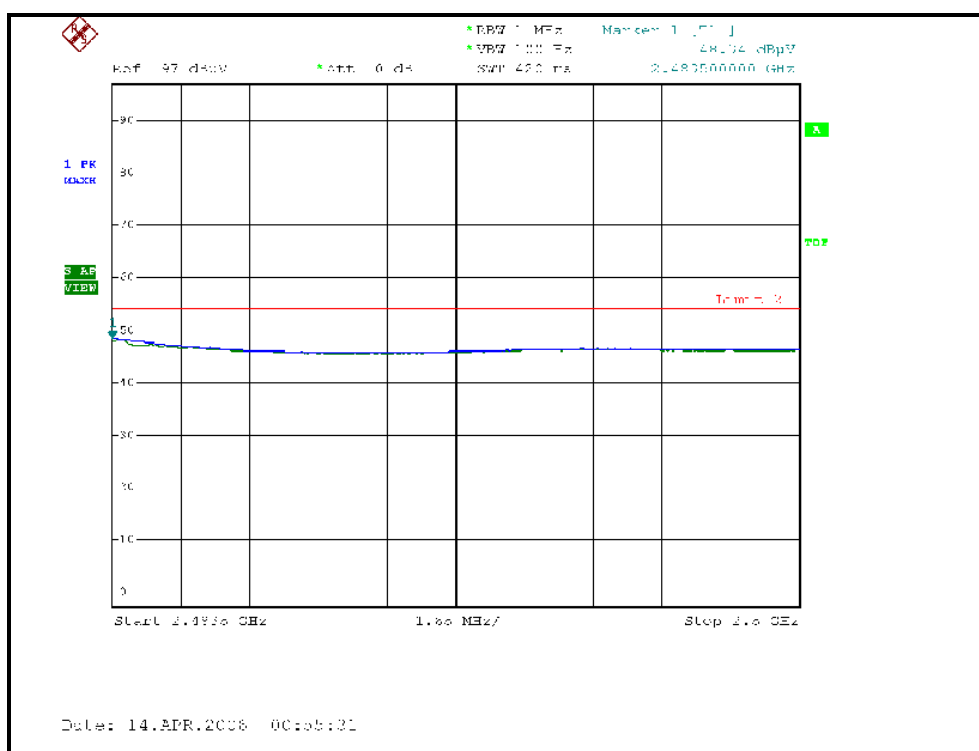
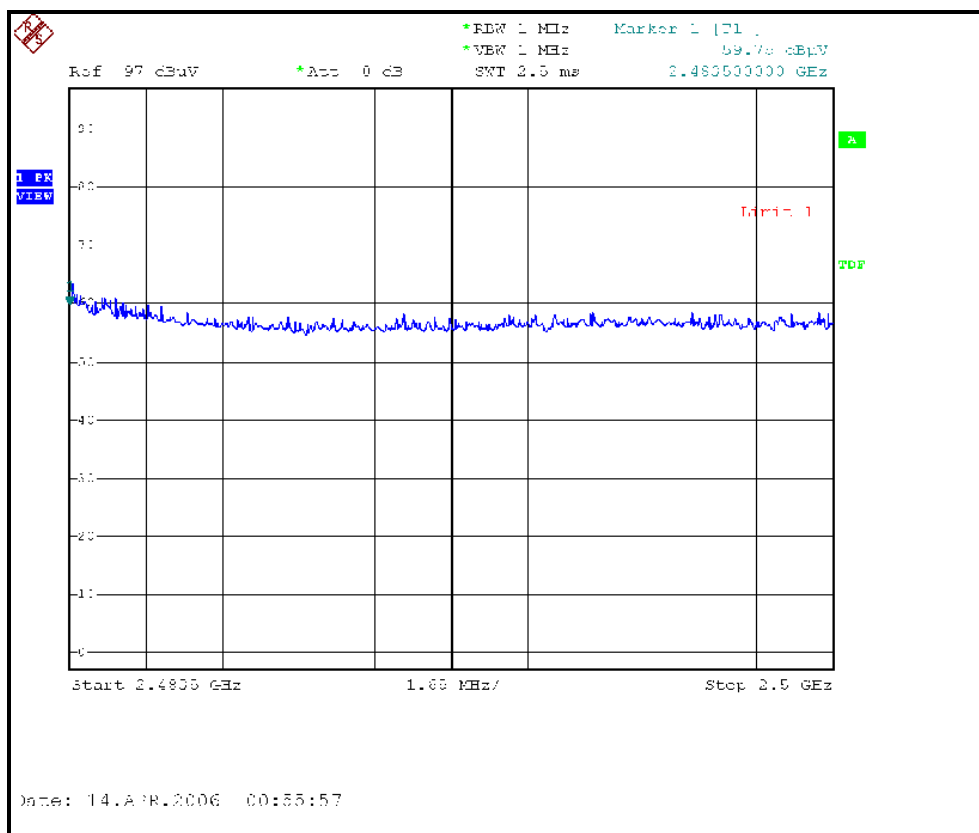
RESTRICTED BANDEDGE (802.11g MODE, CH1, HORIZONTAL)



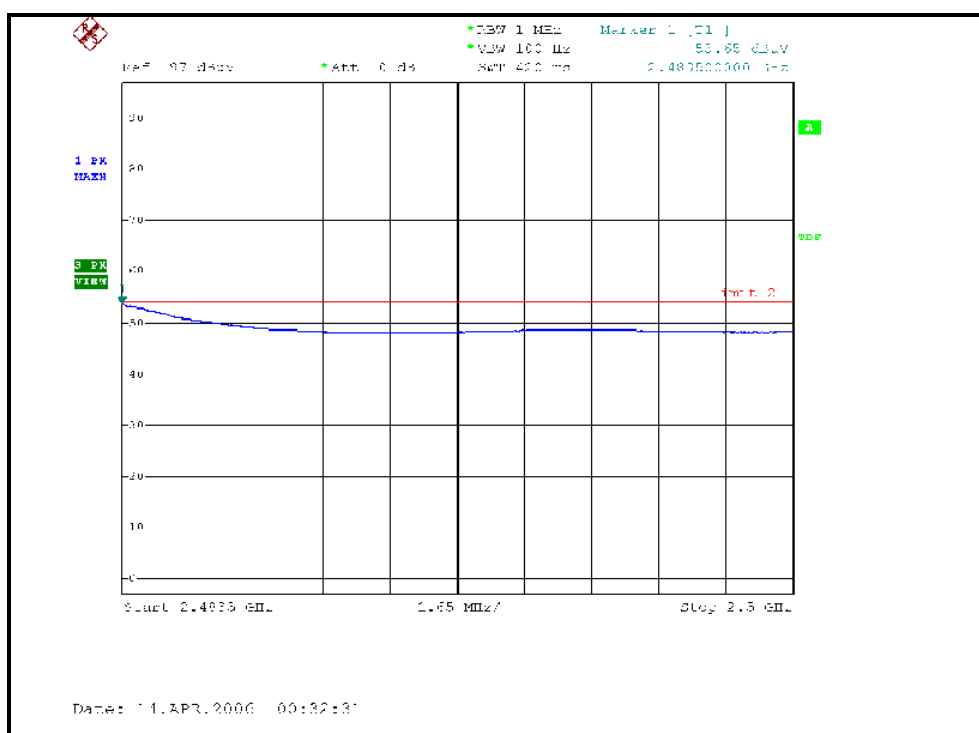
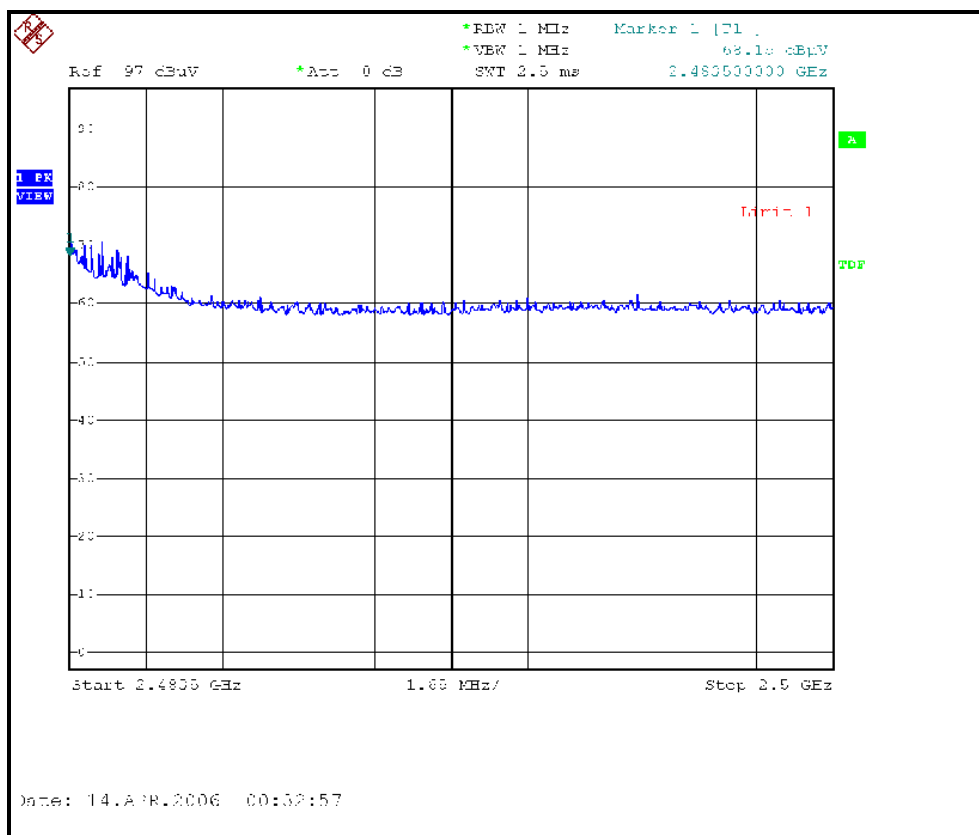
RESTRICTED BANDEDGE (802.11g MODE, CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11g MODE, CH11, HORIZONTAL)



RESTRICTED BANDEDGE (802.11g MODE,CH11, VERTICAL)



DRAFT 802.11n (20MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 65%RH, 964hPa	TESTED BY	Moris Lin

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	64.30 PK	74.00	-9.70	1.24 H	265	34.60	29.70
1	2390.00	48.50 AV	54.00	-5.50	1.24 H	265	18.80	29.70
2	*2412.00	110.50 PK			1.32 H	40	80.70	29.80
2	*2412.00	97.60 AV			1.32 H	40	67.80	29.80
3	3216.00	45.50 PK	74.00	-28.50	1.86 H	286	13.50	32.00
3	3216.00	37.70 AV	54.00	-16.30	1.86 H	286	5.70	32.00
4	4824.00	51.50 PK	74.00	-22.50	1.70 H	235	16.40	35.10
4	4824.00	39.30 AV	54.00	-14.70	1.70 H	235	4.20	35.10
5	7236.00	49.00 PK	74.00	-25.00	1.00 H	1	8.50	40.50
5	7236.00	38.10 AV	54.00	-15.90	1.00 H	1	-2.40	40.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	71.40 PK	74.00	-2.60	1.19 V	18	41.70	29.70
1	2390.00	52.60 AV	54.00	-1.40	1.19 V	18	22.90	29.70
2	*2412.00	116.60 PK			1.17 V	21	86.80	29.80
2	*2412.00	103.90 AV			1.17 V	21	74.10	29.80
3	3216.00	51.60 PK	74.00	-22.40	1.00 V	291	19.60	32.00
3	3216.00	48.90 AV	54.00	-5.10	1.00 V	291	16.90	32.00
4	4824.00	49.10 PK	74.00	-24.90	1.47 V	181	14.00	35.10
4	4824.00	35.90 AV	54.00	-18.10	1.47 V	181	0.80	35.10
5	7236.00	52.30 PK	74.00	-21.70	1.00 V	360	11.80	40.50
5	7236.00	38.90 AV	54.00	-15.10	1.00 V	360	-1.60	40.50

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 65%RH, 964hPa	TESTED BY	Moris Lin

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	115.30 PK			1.13 H	68	85.40	29.90
1	*2437.00	102.10 AV			1.13 H	68	72.20	29.90
2	3249.30	45.30 PK	74.00	-28.70	1.25 H	270	13.20	32.10
2	3249.30	40.30 AV	54.00	-13.70	1.25 H	270	8.20	32.10
3	4874.00	51.80 PK	74.00	-22.20	1.14 H	296	16.50	35.30
3	4874.00	41.90 AV	54.00	-12.10	1.14 H	296	6.60	35.30
4	7311.00	56.20 PK	74.00	-17.80	1.01 H	73	15.50	40.70
4	7311.00	43.10 AV	54.00	-10.90	1.01 H	73	2.40	40.70

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	119.30 PK			1.39 V	23	89.40	29.90
1	*2437.00	106.80 AV			1.39 V	23	76.90	29.90
2	3249.30	51.80 PK	74.00	-22.20	1.14 V	283	19.70	32.10
2	3249.30	49.90 AV	54.00	-4.10	1.14 V	283	17.80	32.10
3	4874.00	50.50 PK	74.00	-23.50	1.52 V	300	15.20	35.30
3	4874.00	40.20 AV	54.00	-13.80	1.52 V	300	4.90	35.30
4	7311.00	57.30 PK	74.00	-16.70	1.47 V	120	16.60	40.70
4	7311.00	47.90 AV	54.00	-6.10	1.47 V	120	7.20	40.70

REMARKS:

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

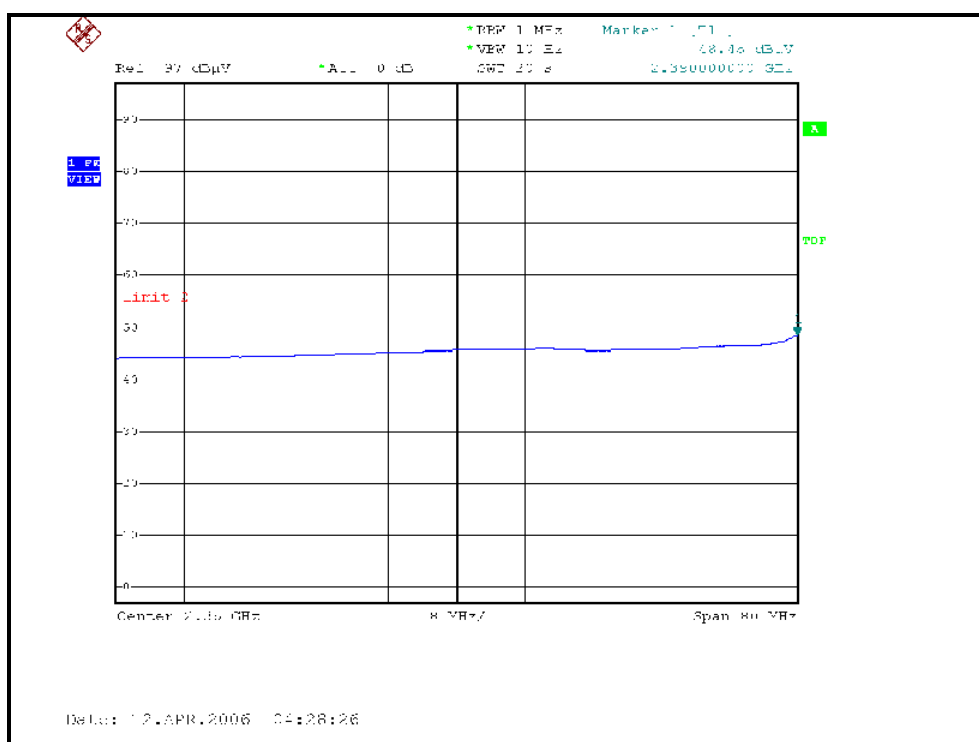
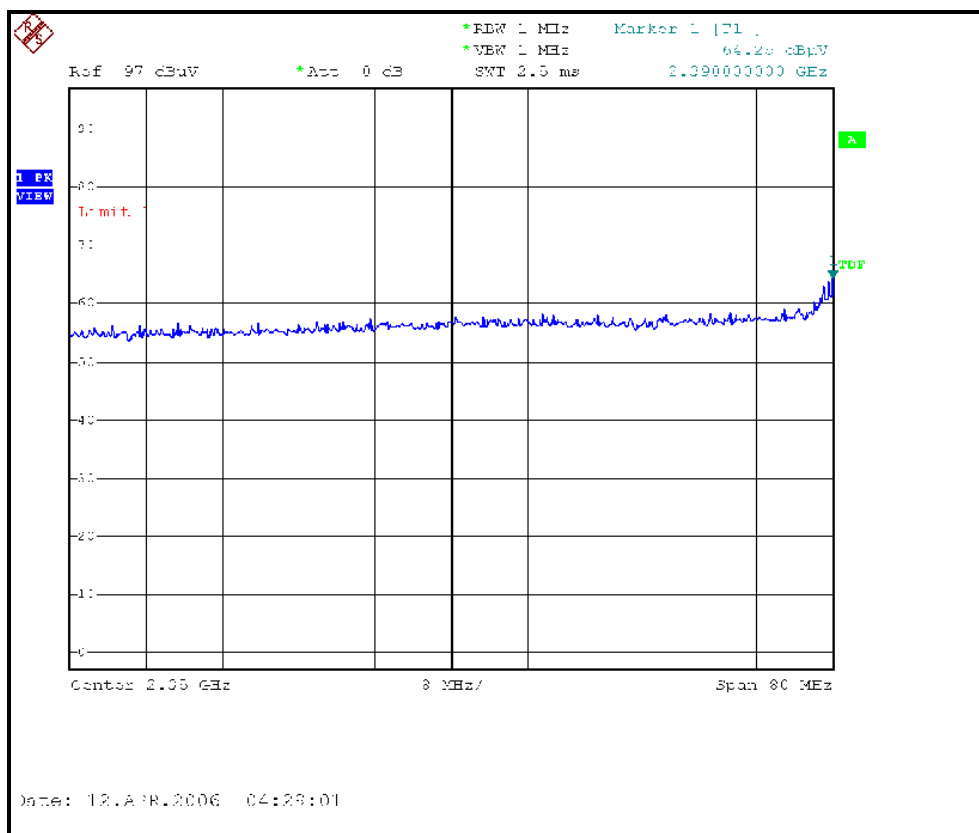
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 65%RH, 964hPa	TESTED BY	Moris Lin

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	108.00 PK			1.12 H	75	78.00	30.00
1	*2462.00	95.70 AV			1.12 H	75	65.70	30.00
2	2483.50	65.20 PK	74.00	-8.80	1.27 H	244	35.10	30.10
2	2483.50	50.60 AV	54.00	-3.40	1.27 H	244	20.50	30.10
3	3282.60	42.90 PK	74.00	-31.10	1.68 H	300	10.80	32.20
3	3282.60	36.00 AV	54.00	-18.00	1.68 H	300	3.90	32.20
4	4924.00	49.10 PK	74.00	-24.90	1.63 H	237	13.60	35.50
4	4924.00	36.60 AV	54.00	-17.40	1.63 H	237	1.00	35.50
5	7386.00	52.30 PK	74.00	-21.70	1.00 H	6	11.50	40.80
5	7386.00	38.90 AV	54.00	-15.10	1.00 H	6	-1.90	40.80
6	7386.00	51.40 PK	74.00	-22.60	1.34 H	321	8.02	43.38
6	7386.00	39.20 AV	54.00	-14.80	1.34 H	321	-4.18	43.38

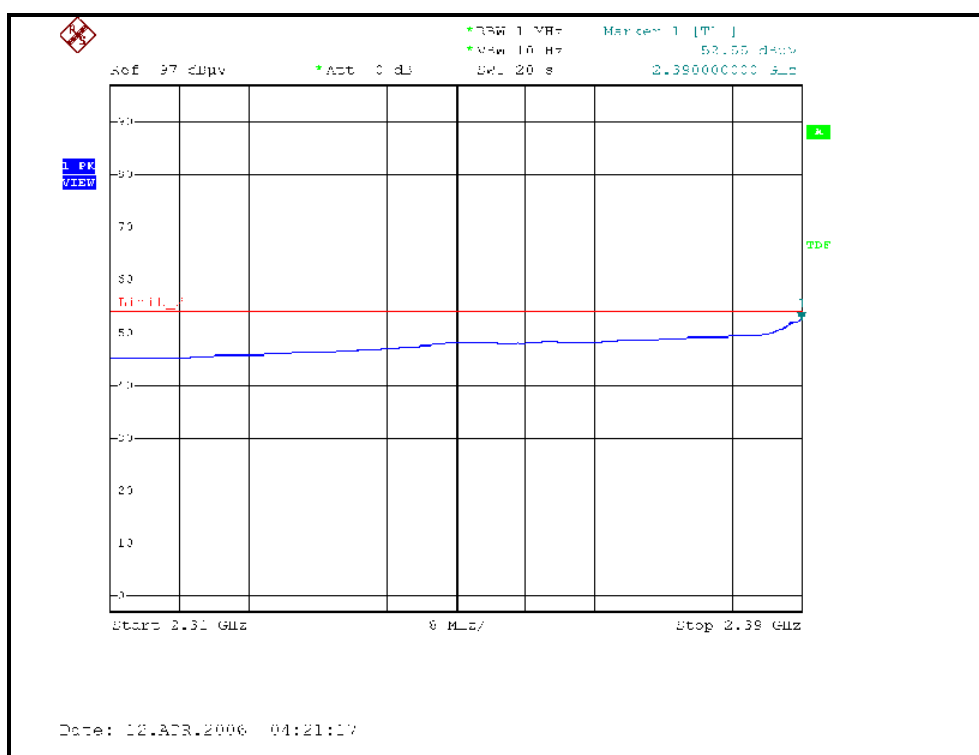
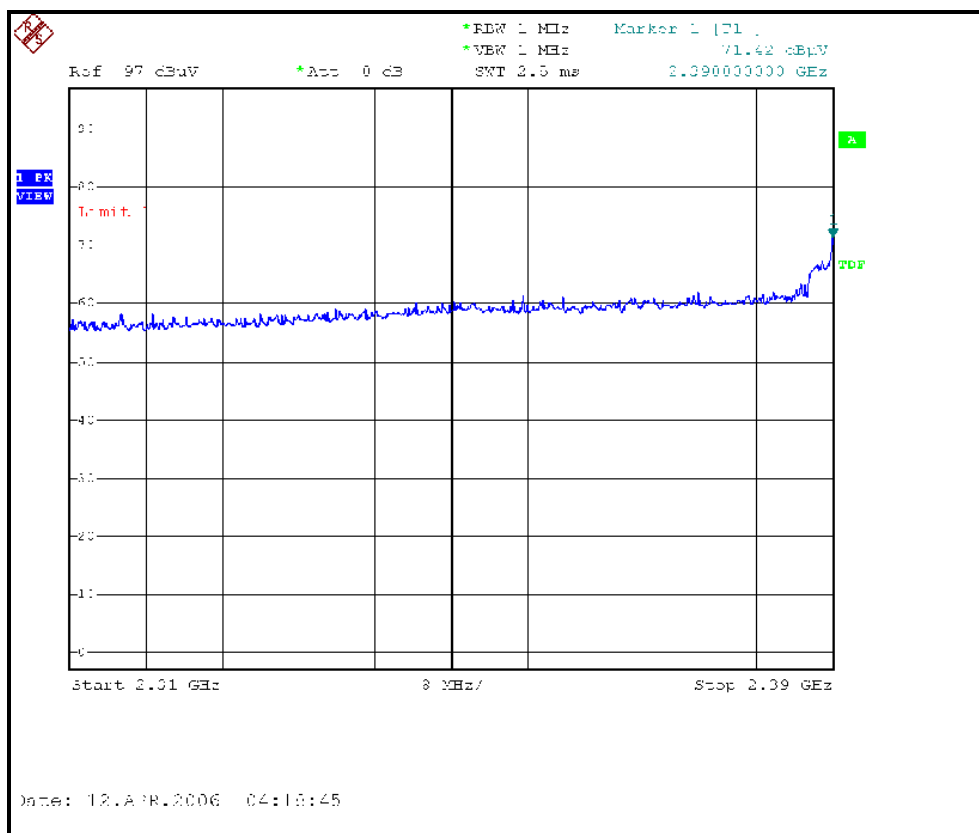
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	110.40 PK			1.37 V	23	80.40	30.00
1	*2462.00	98.20 AV			1.37 V	23	68.20	30.00
2	2483.50	67.60 PK	74.00	-6.40	1.35 V	354	37.50	30.10
2	2483.50	53.60 AV	54.00	-0.40	1.35 V	354	23.50	30.10
3	3282.60	50.10 PK	74.00	-23.90	1.11 V	291	18.00	32.20
3	3282.60	47.50 AV	54.00	-6.50	1.11 V	291	15.40	32.20
4	4924.00	45.00 PK	74.00	-29.00	1.42 V	25	9.40	35.50
4	4924.00	33.80 AV	54.00	-20.20	1.42 V	25	-1.80	35.50
5	7386.00	51.00 PK	74.00	-23.00	1.00 V	360	10.20	40.80
5	7386.00	39.00 AV	54.00	-15.00	1.00 V	360	-1.80	40.80

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

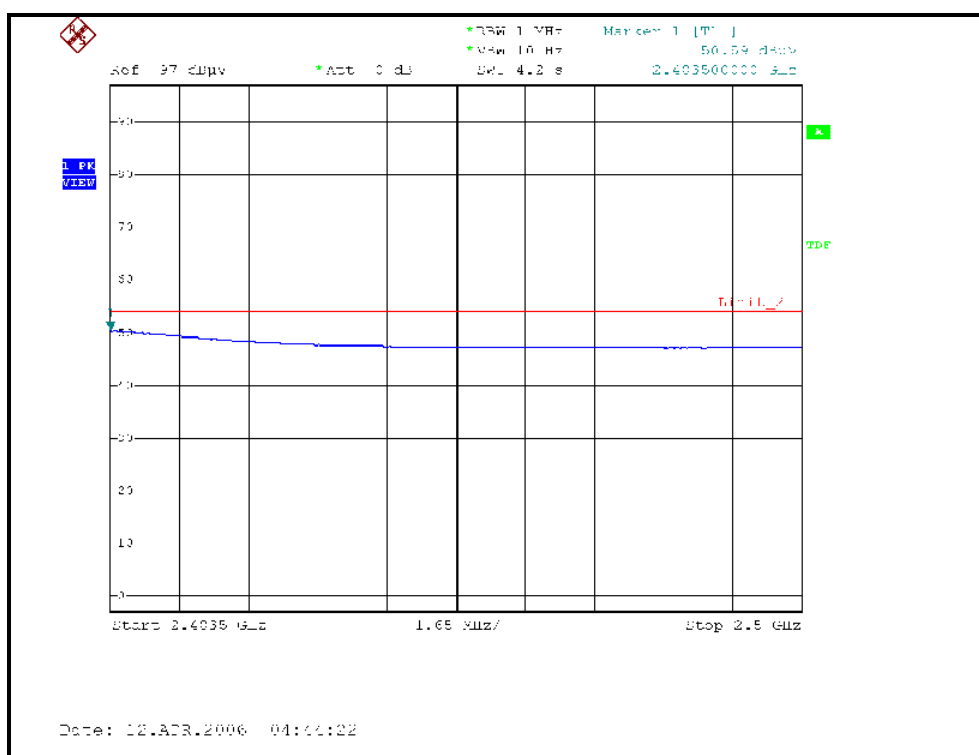
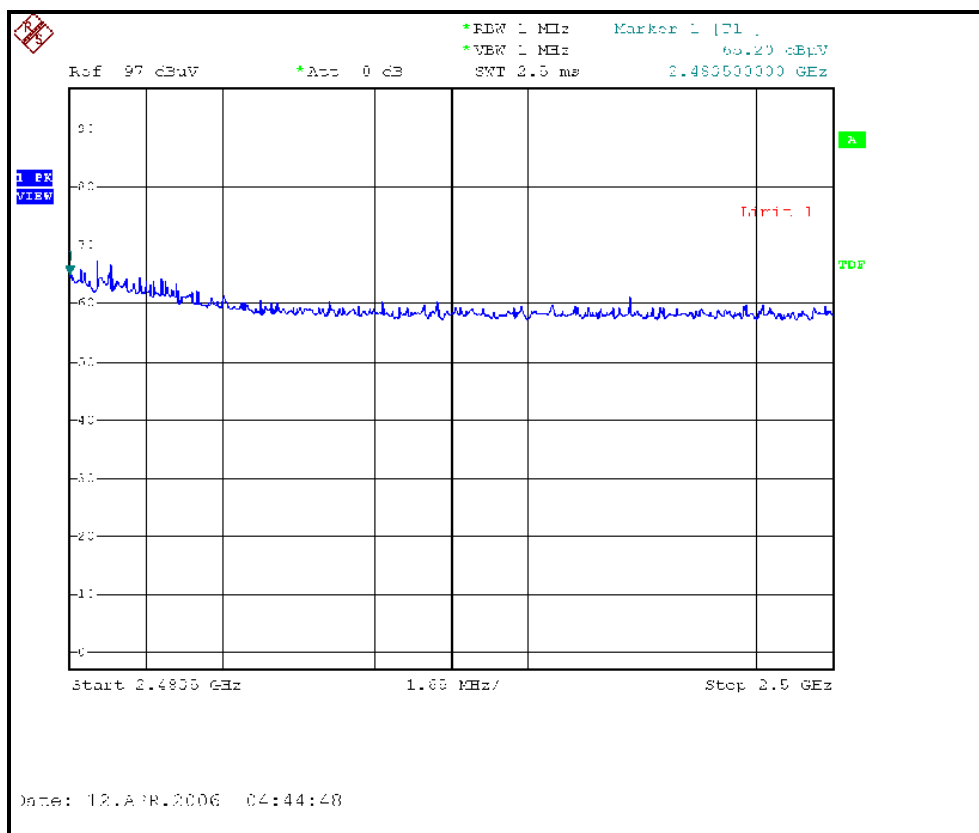
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH1, HORIZONTAL)



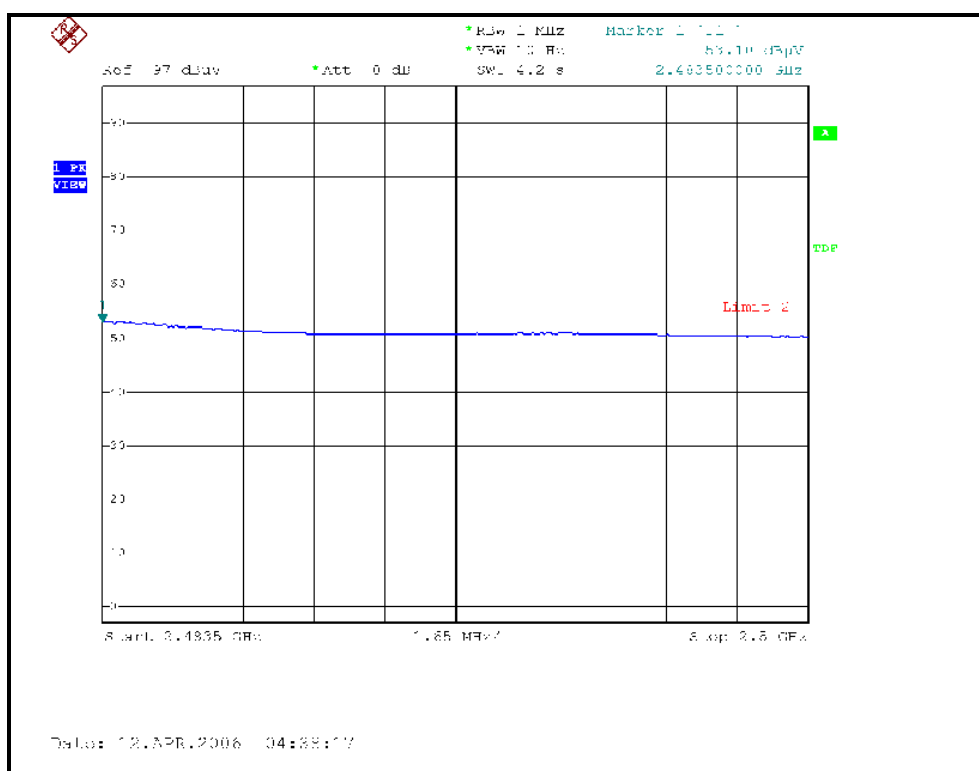
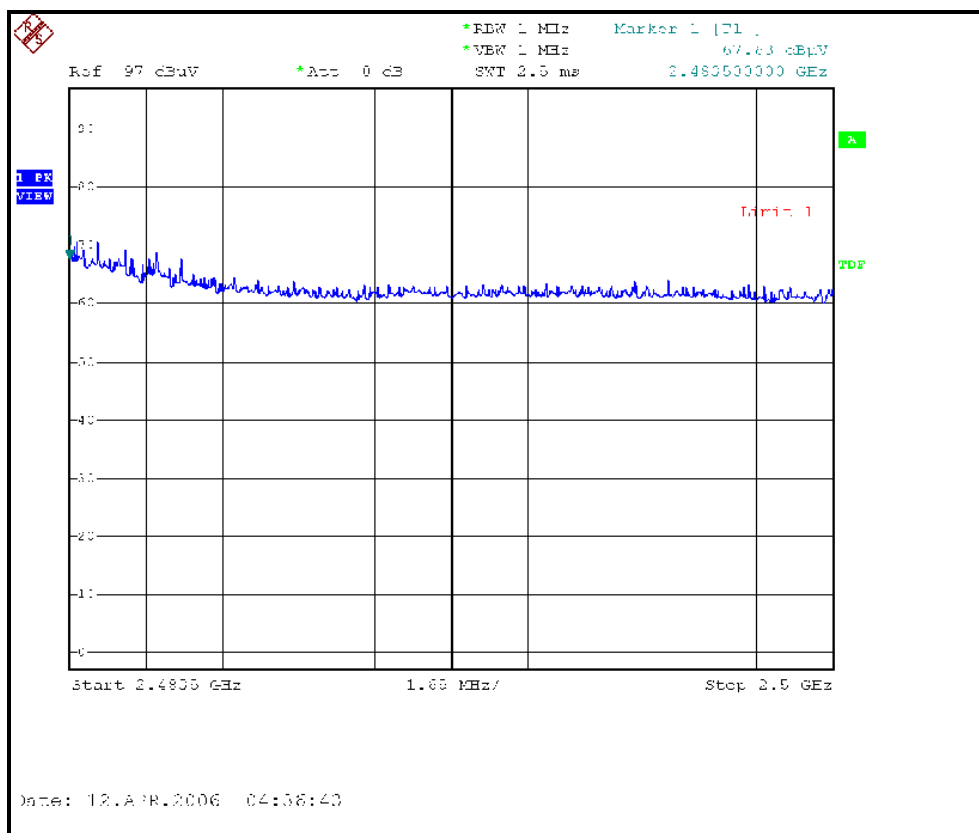
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH1, VERTICAL)



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



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



DRAFT 802.11n (40MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	13.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 65%RH, 964hPa	TESTED BY	Moris Lin

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	66.20 PK	74.00	-7.80	1.00 H	114	36.50	29.70
1	2390.00	48.80 AV	54.00	-5.20	1.00 H	114	19.10	29.70
2	*2422.00	106.40 PK			1.34 H	71	76.50	29.90
2	*2422.00	92.50 AV			1.34 H	71	62.60	29.90
3	3229.30	46.90 PK	74.00	-27.10	1.00 H	270	14.90	32.10
3	3229.30	41.80 AV	54.00	-12.20	1.00 H	270	9.80	32.10
4	4844.00	47.50 PK	74.00	-26.50	1.68 H	235	12.30	35.20
4	4844.00	34.80 AV	54.00	-19.20	1.68 H	235	-0.40	35.20
5	7266.00	50.30 PK	74.00	-23.70	1.00 H	360	9.70	40.60
5	7266.00	38.10 AV	54.00	-15.90	1.00 H	360	-2.50	40.60

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	2390.00	72.00 PK	74.00	-2.00	1.19 V	15	42.30	29.70
1	2390.00	52.80 AV	54.00	-1.20	1.19 V	15	23.10	29.70
2	*2422.00	110.30 PK			1.42 V	55	80.40	29.90
2	*2422.00	97.20 AV			1.42 V	55	67.30	29.90
3	3229.30	52.20 PK	74.00	-21.80	1.15 V	287	20.20	32.10
3	3229.30	50.00 AV	54.00	-4.00	1.15 V	287	18.00	32.10
4	4844.00	44.40 PK	74.00	-29.60	1.12 V	232	9.20	35.20
4	4844.00	33.00 AV	54.00	-21.00	1.12 V	232	-2.20	35.20
5	7266.00	49.80 PK	74.00	-24.20	1.00 V	0	9.20	40.60
5	7266.00	38.00 AV	54.00	-16.00	1.00 V	0	-2.60	40.60

- 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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	13.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 65%RH, 964hPa	TESTED BY	Moris Lin

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	105.40 PK			1.34 H	71	75.50	29.90
1	*2437.00	92.10 AV			1.34 H	71	62.20	29.90
2	3249.30	46.30 PK	74.00	-27.70	1.25 H	277	14.20	32.10
2	3249.30	41.30 AV	54.00	-12.70	1.25 H	277	9.20	32.10
3	4874.00	50.30 PK	74.00	-23.70	1.63 H	238	15.00	35.30
3	4874.00	39.40 AV	54.00	-14.60	1.63 H	238	4.10	35.30
4	7311.00	52.40 PK	74.00	-21.60	1.59 H	290	11.70	40.70
4	7311.00	41.00 AV	54.00	-13.00	1.59 H	290	0.30	40.70

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	110.30 PK			1.39 V	24	80.40	29.90
1	*2437.00	96.70 AV			1.39 V	24	66.80	29.90
2	3249.30	52.40 PK	74.00	-21.60	1.15 V	286	20.30	32.10
2	3249.30	50.90 AV	54.00	-3.10	1.15 V	286	18.80	32.10
3	4874.00	41.20 PK	74.00	-32.80	1.02 V	248	5.90	35.30
3	4874.00	37.80 AV	54.00	-16.20	1.02 V	248	2.50	35.30
4	7311.00	54.50 PK	74.00	-19.50	1.84 V	183	13.80	40.70
4	7311.00	41.30 AV	54.00	-12.70	1.84 V	183	0.60	40.70

REMARKS:

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

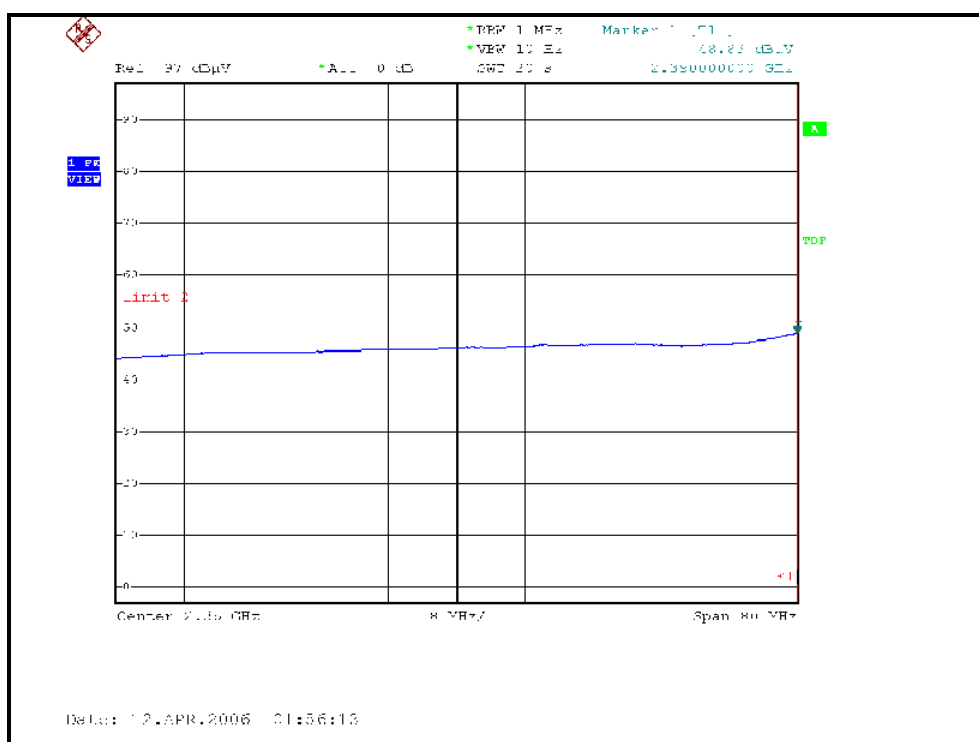
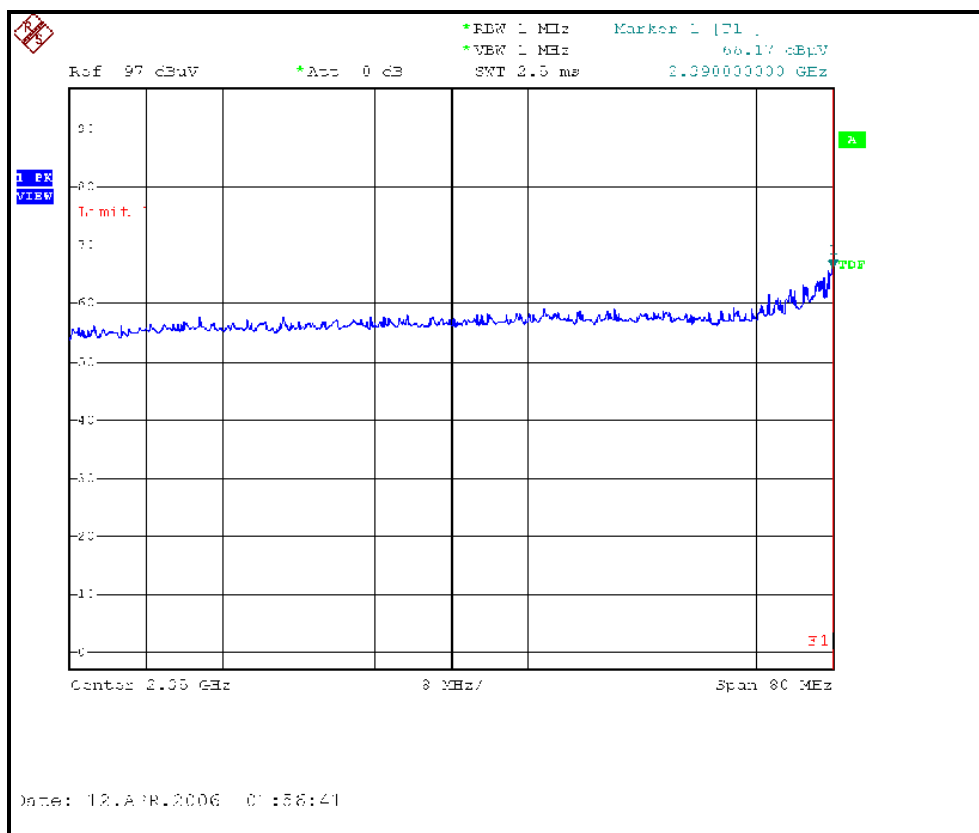
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	13.5Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 65%RH, 964hPa	TESTED BY	Moris Lin

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	106.40 PK			1.26 H	241	76.40	30.00
1	*2452.00	92.80 AV			1.26 H	241	62.80	30.00
2	2483.50	64.40 PK	74.00	-9.60	1.26 H	240	34.30	30.10
2	2483.50	50.70 AV	54.00	-3.30	1.26 H	240	20.60	30.10
3	3269.30	44.70 PK	74.00	-29.30	2.00 H	265	12.60	32.10
3	3269.30	39.00 AV	54.00	-15.00	2.00 H	265	6.90	32.10
4	4904.00	45.40 PK	74.00	-28.60	1.61 H	281	9.90	35.40
4	4904.00	33.80 AV	54.00	-20.20	1.61 H	281	-1.70	35.40
5	7356.00	51.30 PK	74.00	-22.70	1.00 H	360	10.60	40.80
5	7356.00	38.70 AV	54.00	-15.30	1.00 H	360	-2.00	40.80

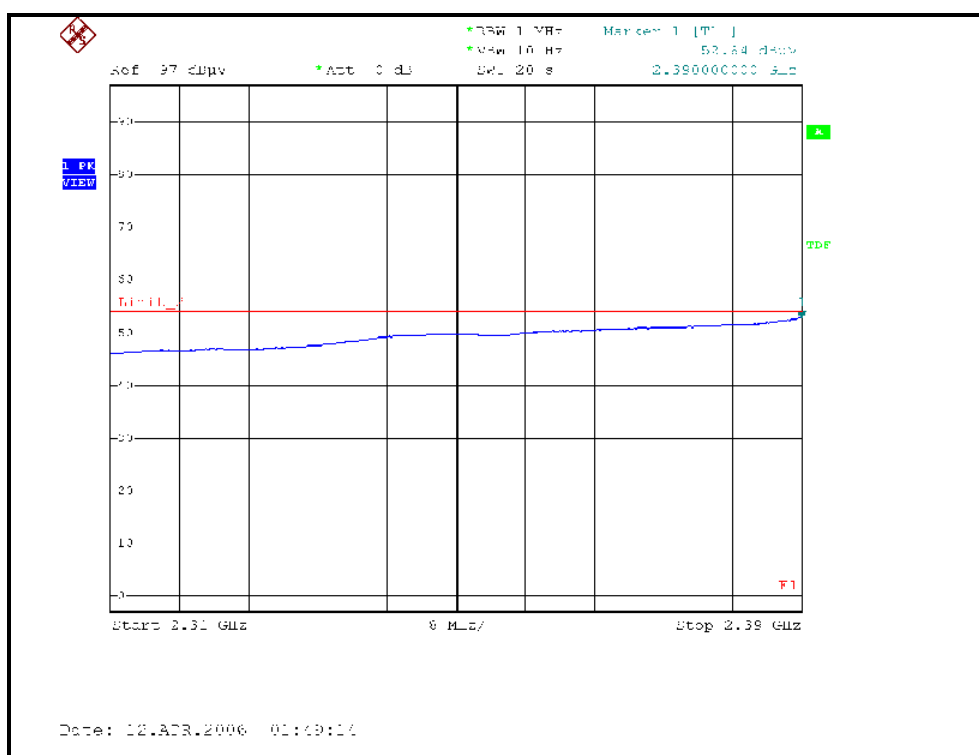
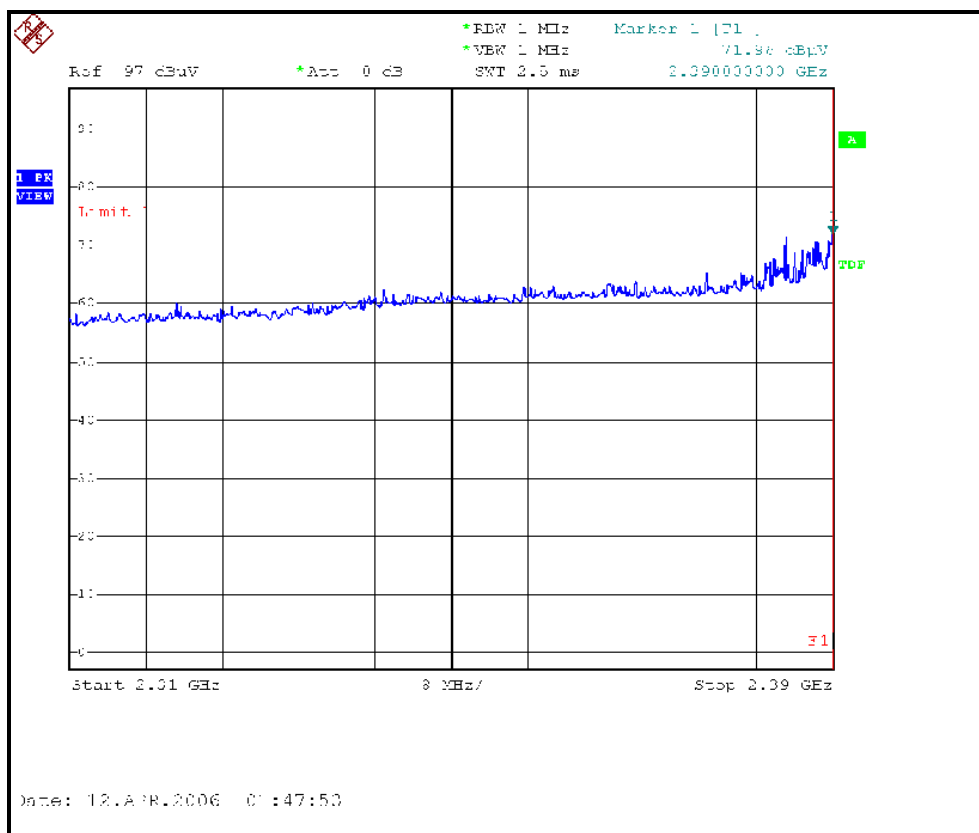
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	108.50 PK			1.36 V	118	78.50	30.00
1	*2452.00	95.40 AV			1.36 V	118	65.40	30.00
2	2483.50	68.30 PK	74.00	-5.70	1.31 V	242	38.20	30.10
2	2483.50	53.40 AV	54.00	-0.60	1.31 V	242	23.30	30.10
3	3269.30	51.80 PK	74.00	-22.20	1.23 V	268	19.70	32.10
3	3269.30	49.50 AV	54.00	-4.50	1.23 V	268	17.40	32.10
4	4904.00	44.90 PK	74.00	-29.10	1.27 V	100	9.40	35.40
4	4904.00	32.60 AV	54.00	-21.40	1.27 V	100	-2.90	35.40
5	7356.00	51.10 PK	74.00	-22.90	1.00 V	360	10.40	40.80
5	7356.00	38.80 AV	54.00	-15.20	1.00 V	360	-1.90	40.80

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

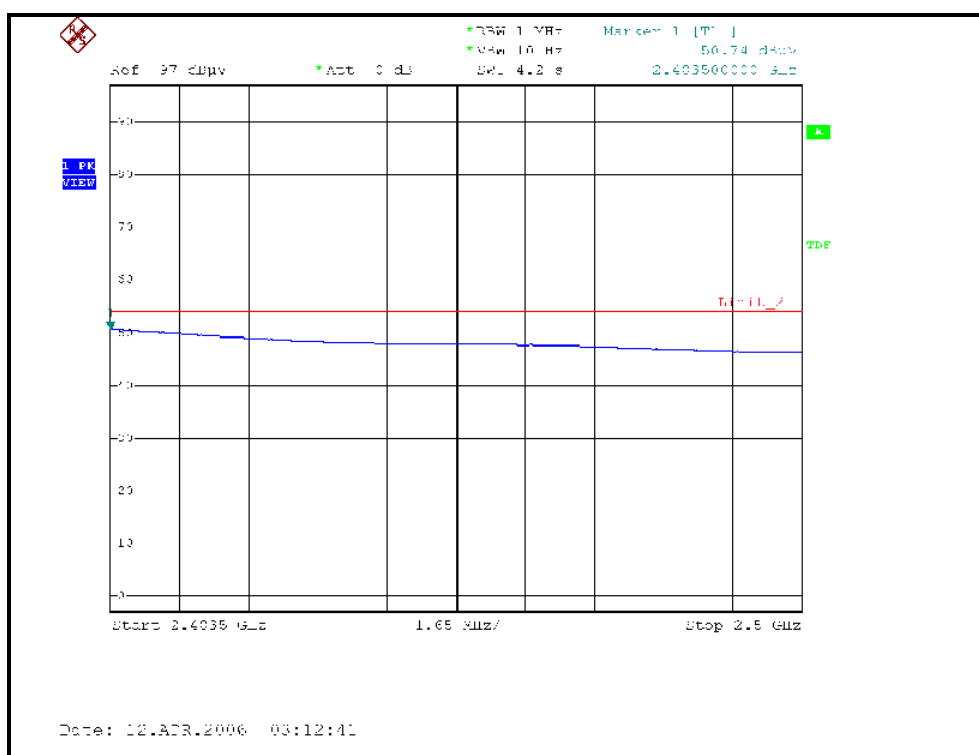
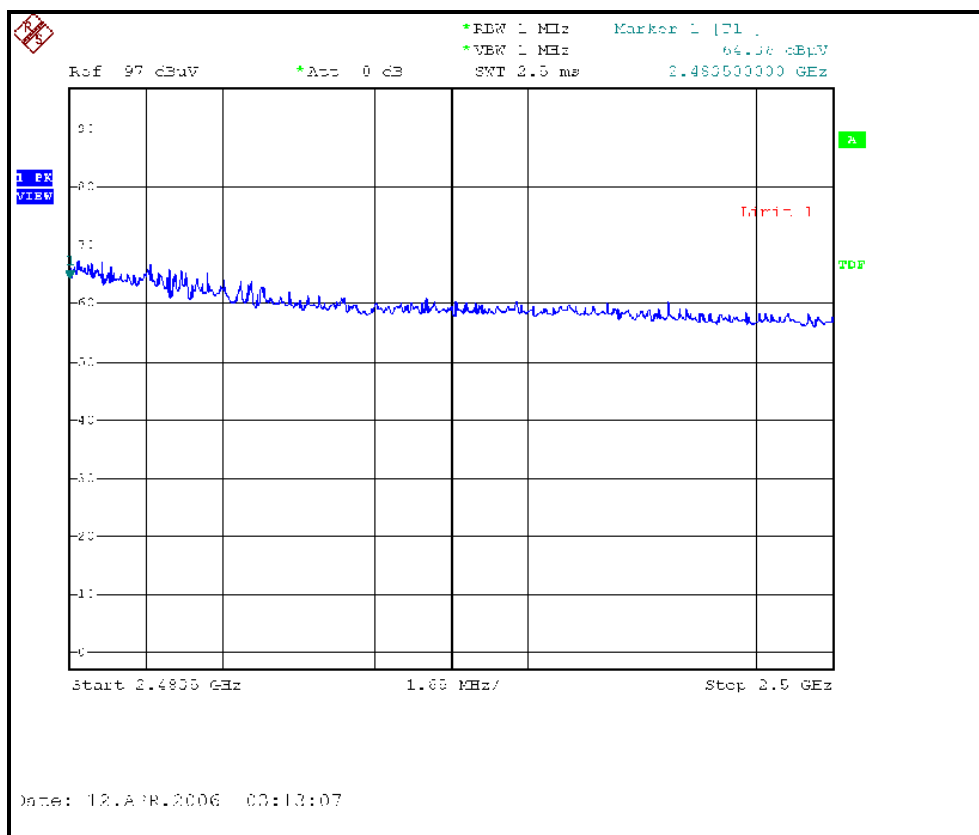
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH1, HORIZONTAL)



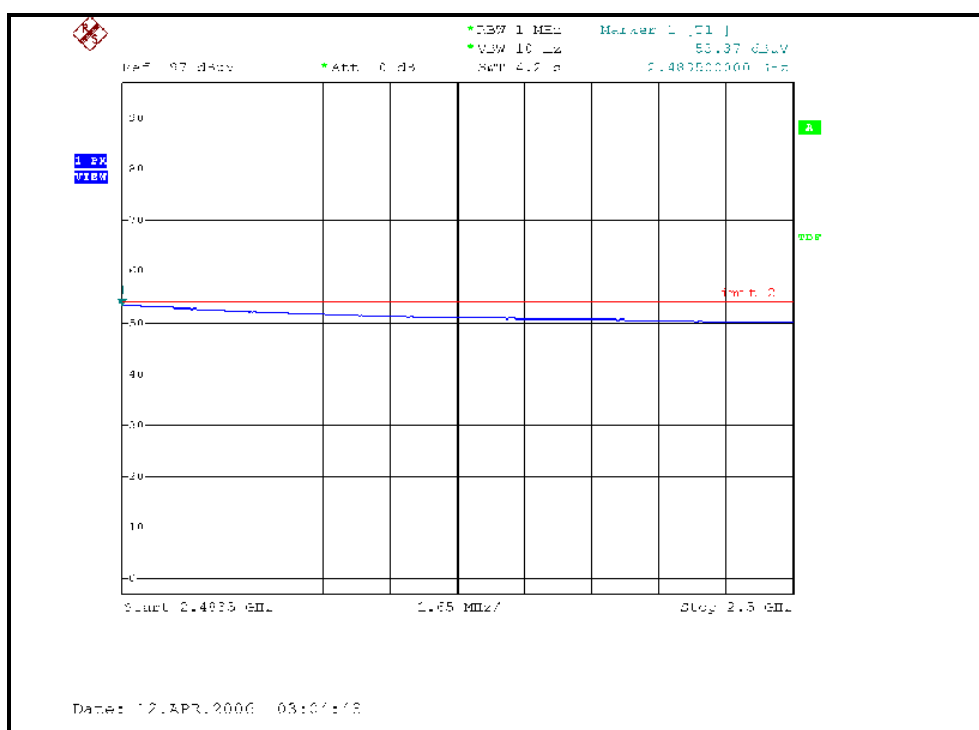
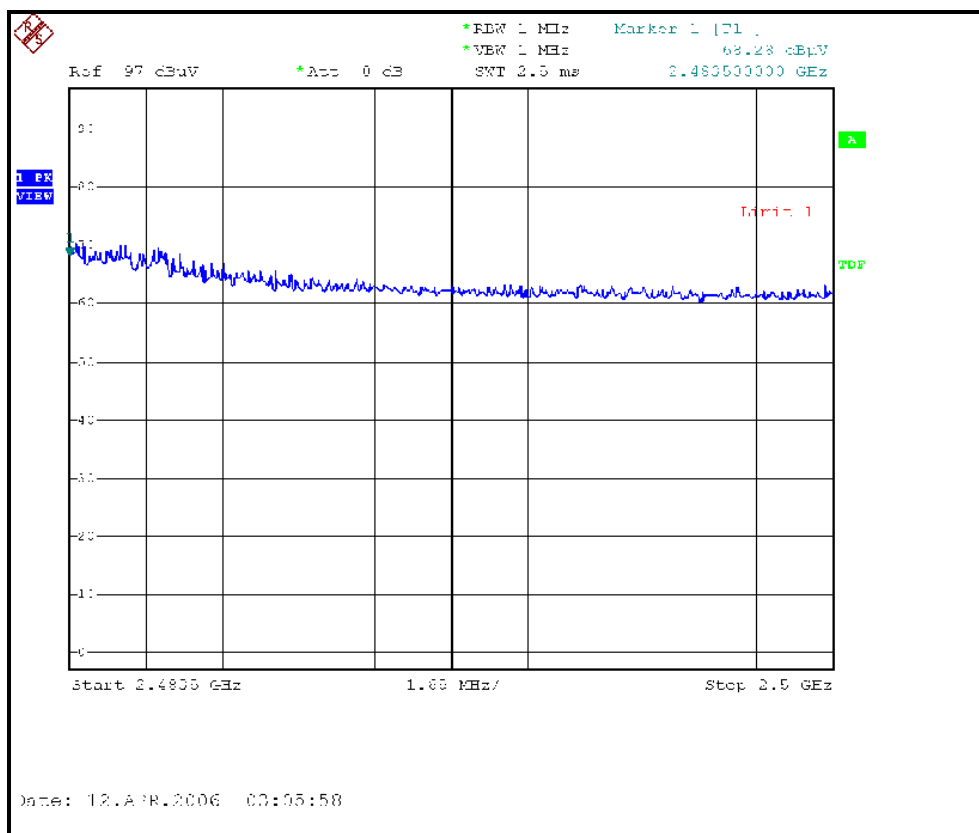
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE,CH1, VERTICAL)



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



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



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

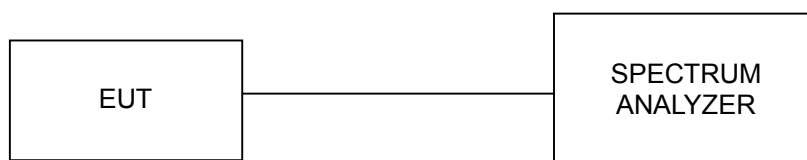
4.3.3 TEST PROCEDURE

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.

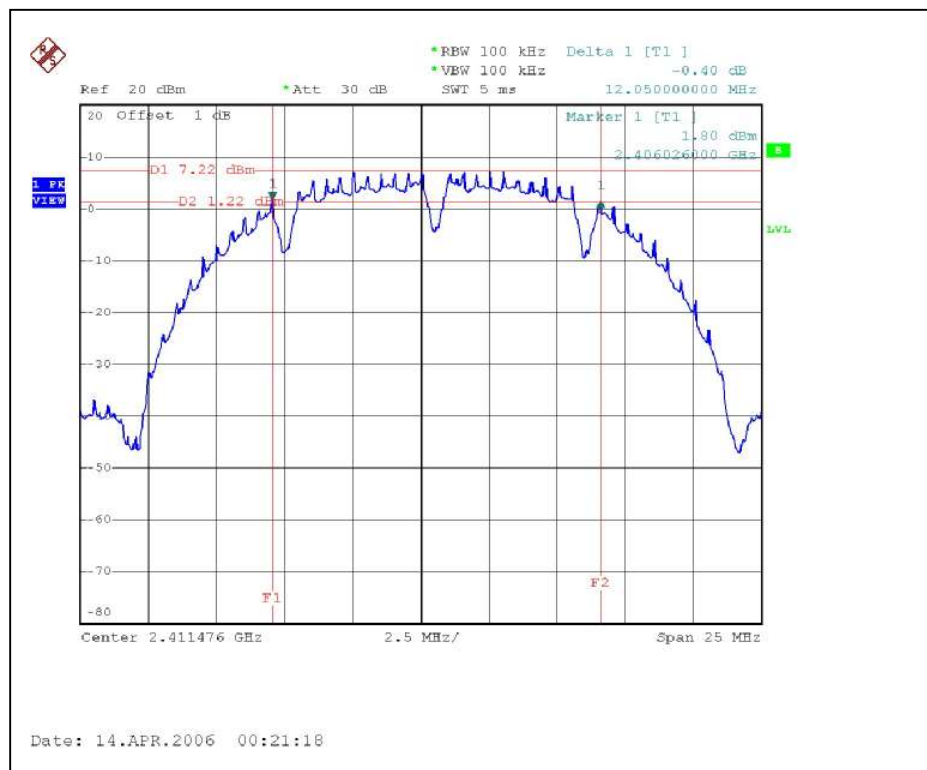
4.3.7 TEST RESULTS

802.11b DSSS MODULATION:

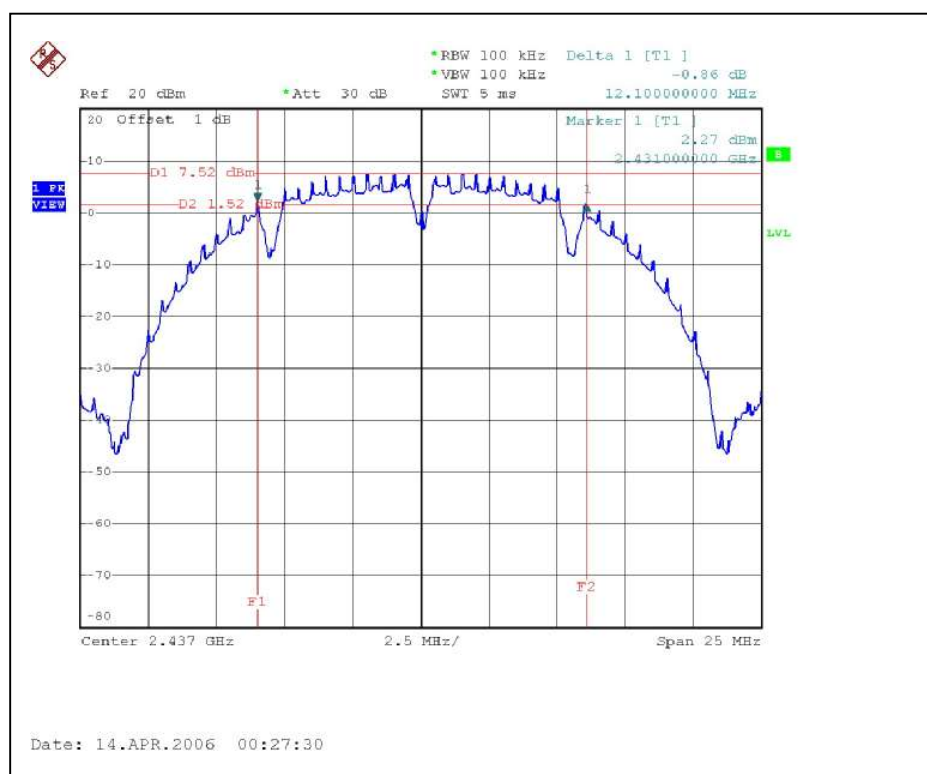
MODULATION TYPE	DBPSK	TRANSFER RATE	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	20deg.C, 70%RH, 964hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)			MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
1	2412	12.05	12.00	12.10	0.5	PASS
6	2437	12.10	12.10	12.15	0.5	PASS
11	2462	12.05	12.05	12.10	0.5	PASS

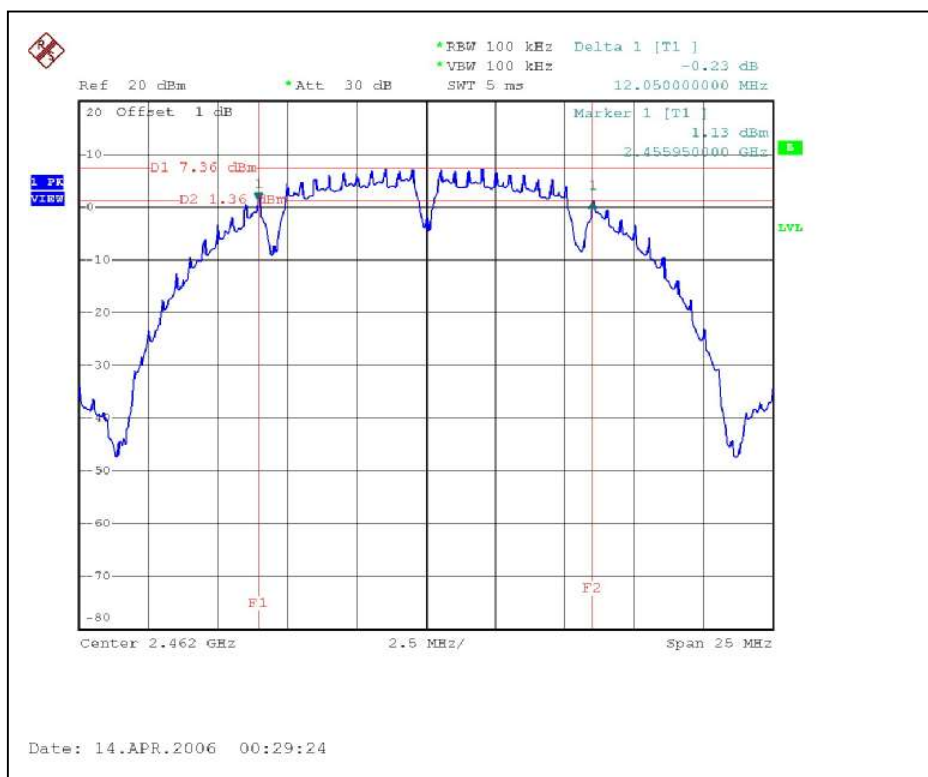
FOR CHAIN 0: CH1



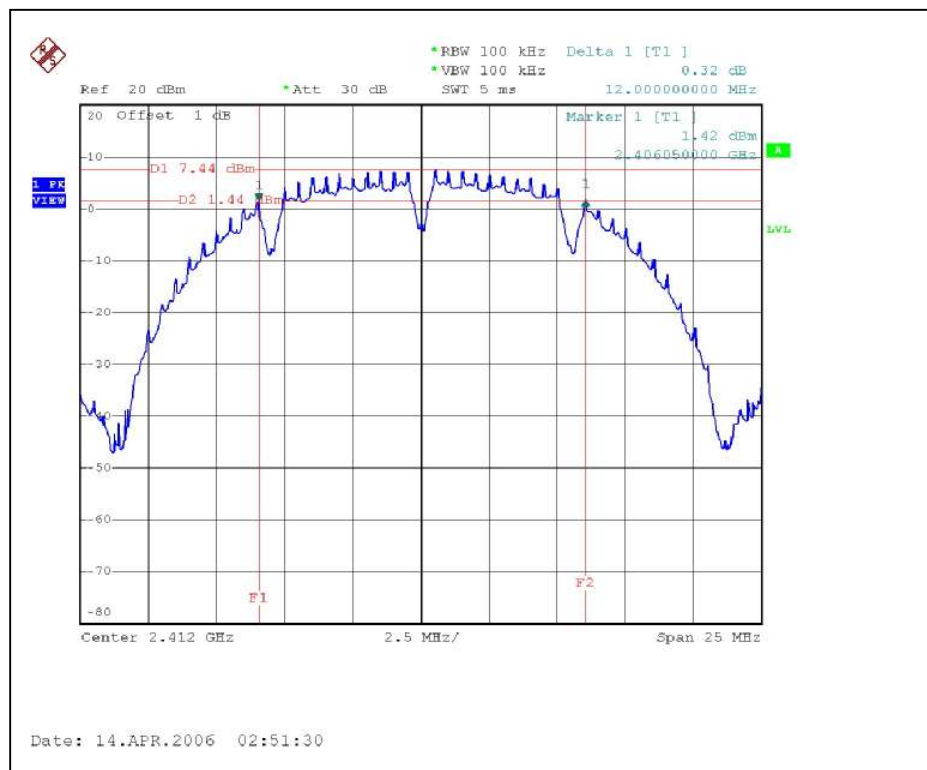
CH6



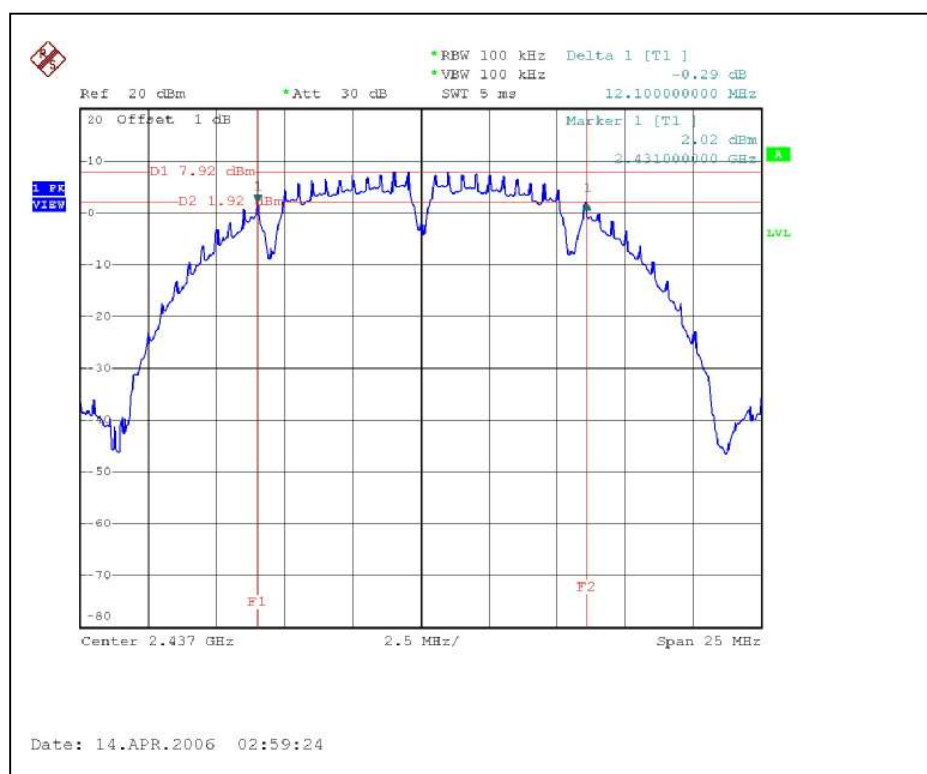
CH11



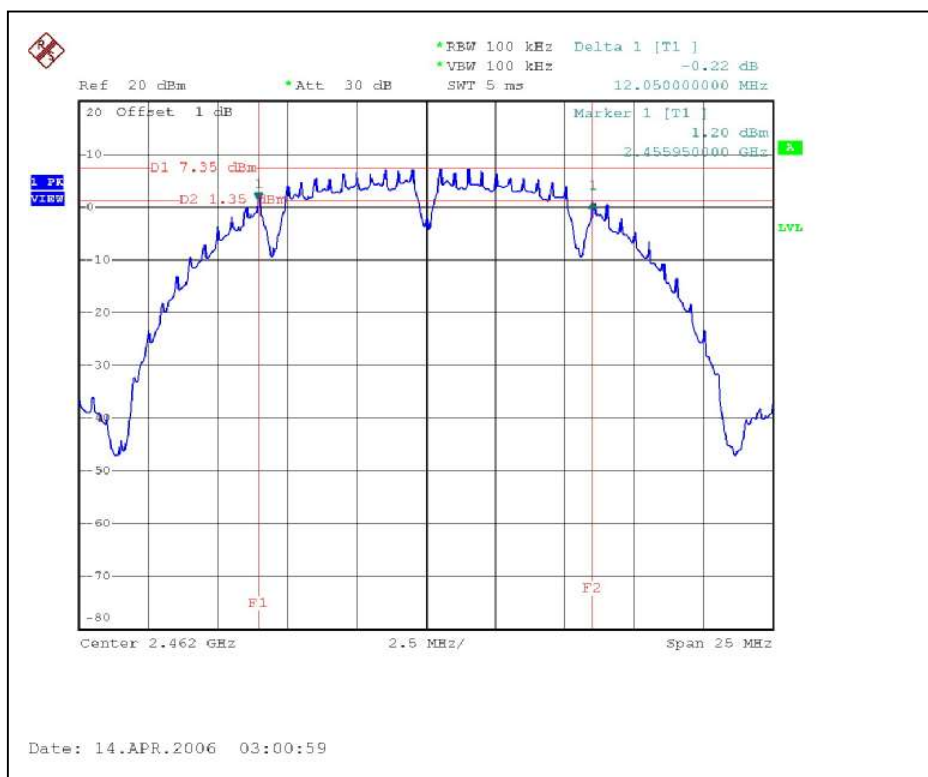
FOR CHAIN 1: CH1



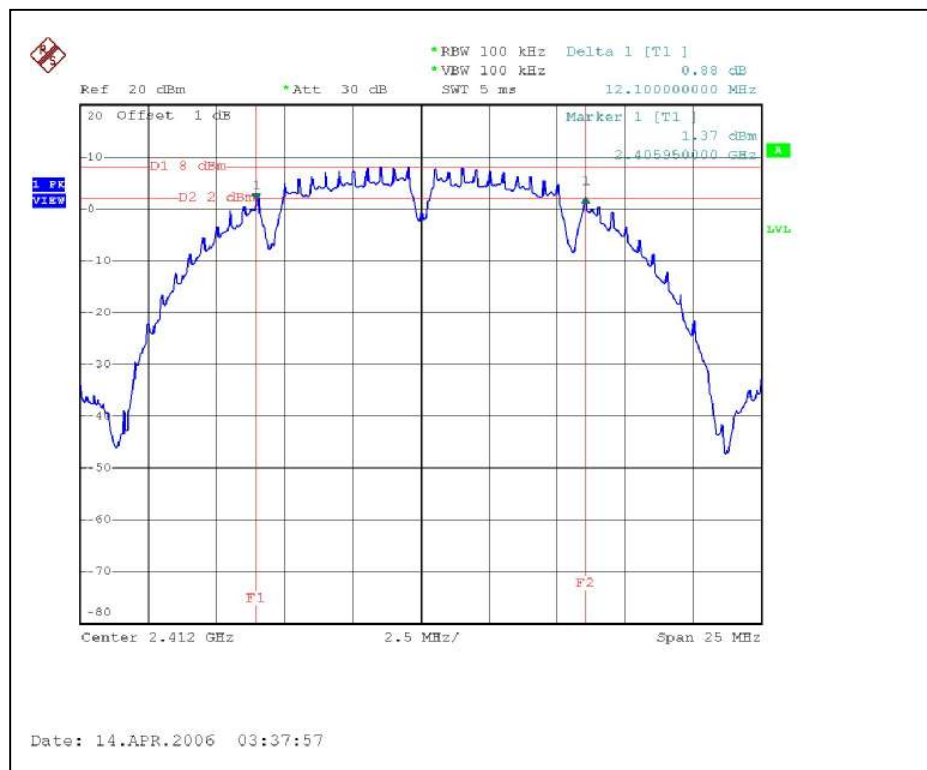
CH6



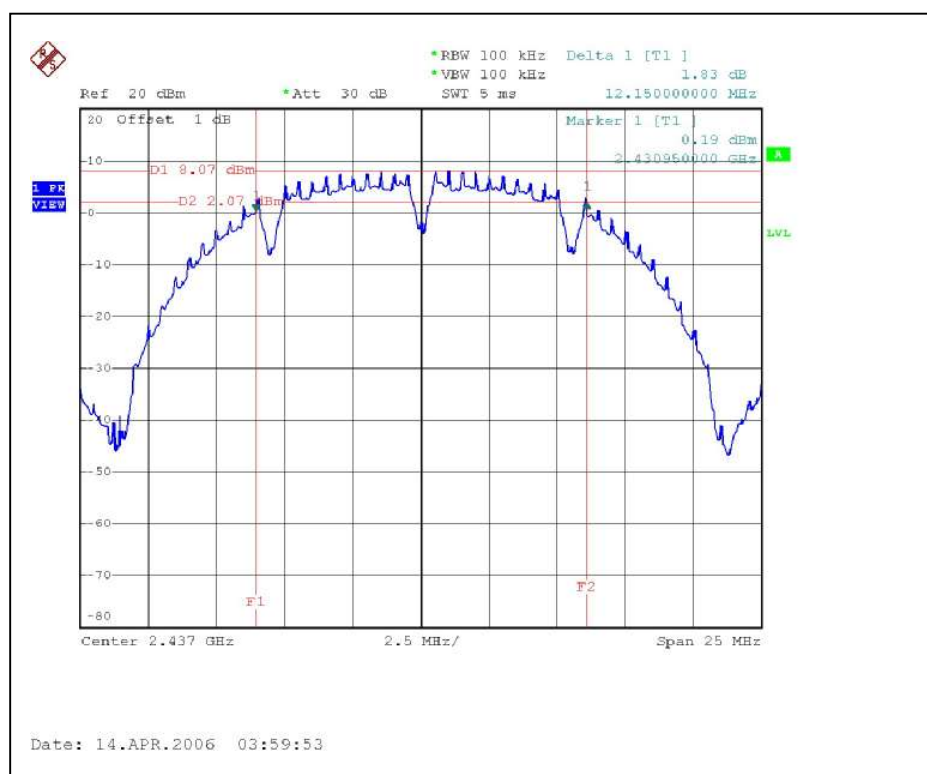
CH11



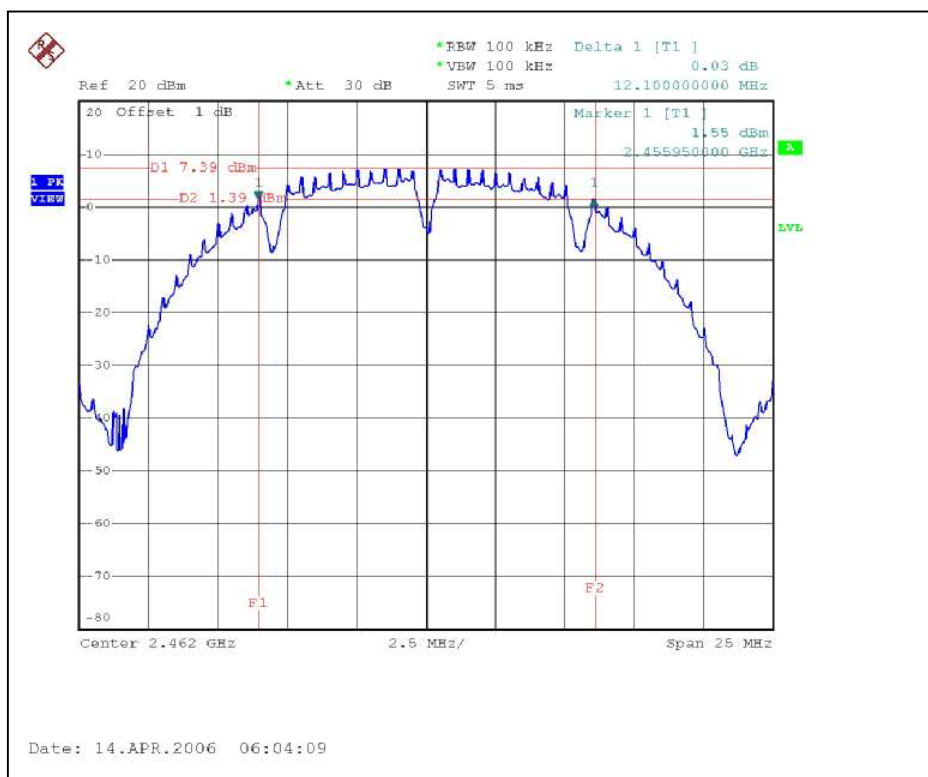
FOR CHAIN 2: CH1



CH6



CH11

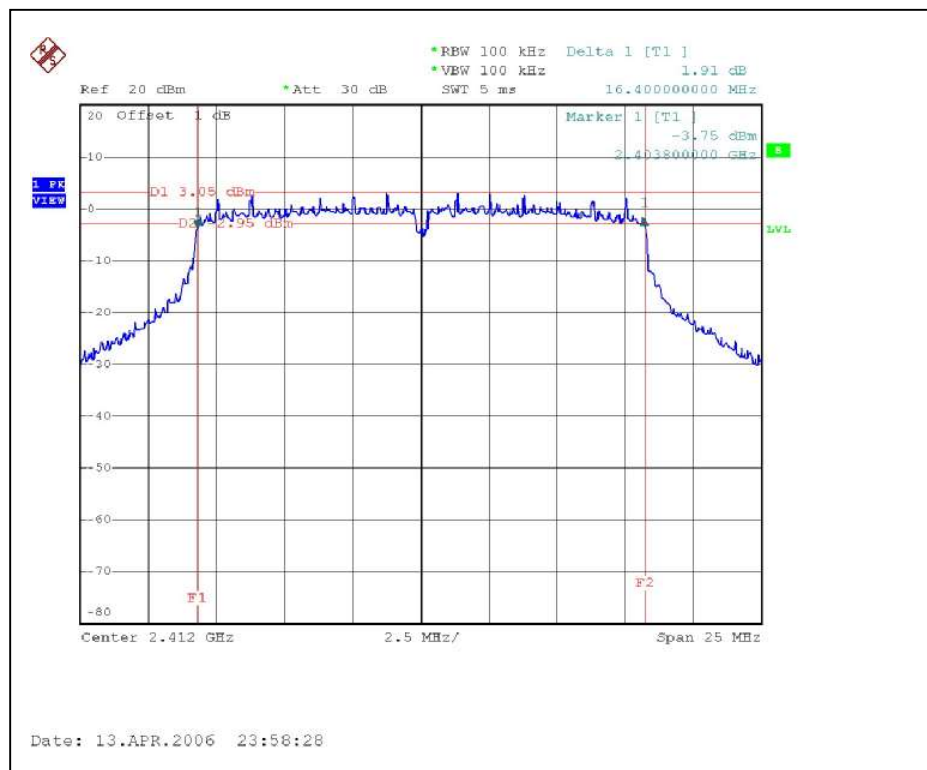


802.11g OFDM MODULATION:

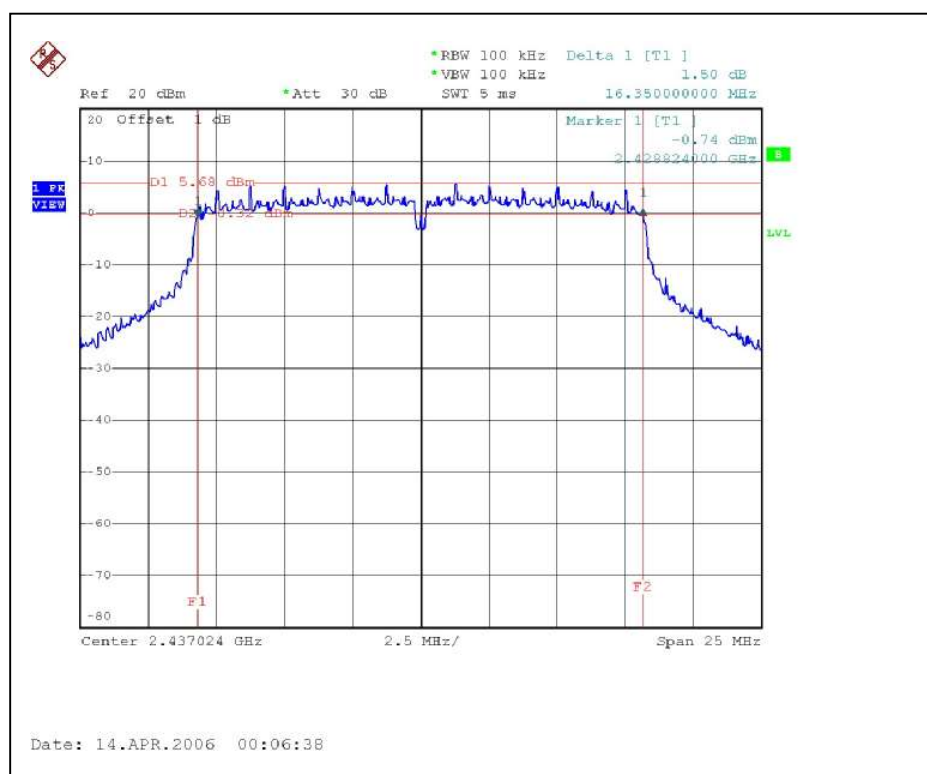
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	20deg.C, 70%RH, 964hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)			MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
1	2412	16.40	16.45	16.45	0.5	PASS
6	2437	16.35	16.45	16.45	0.5	PASS
11	2462	16.45	16.35	16.30	0.5	PASS

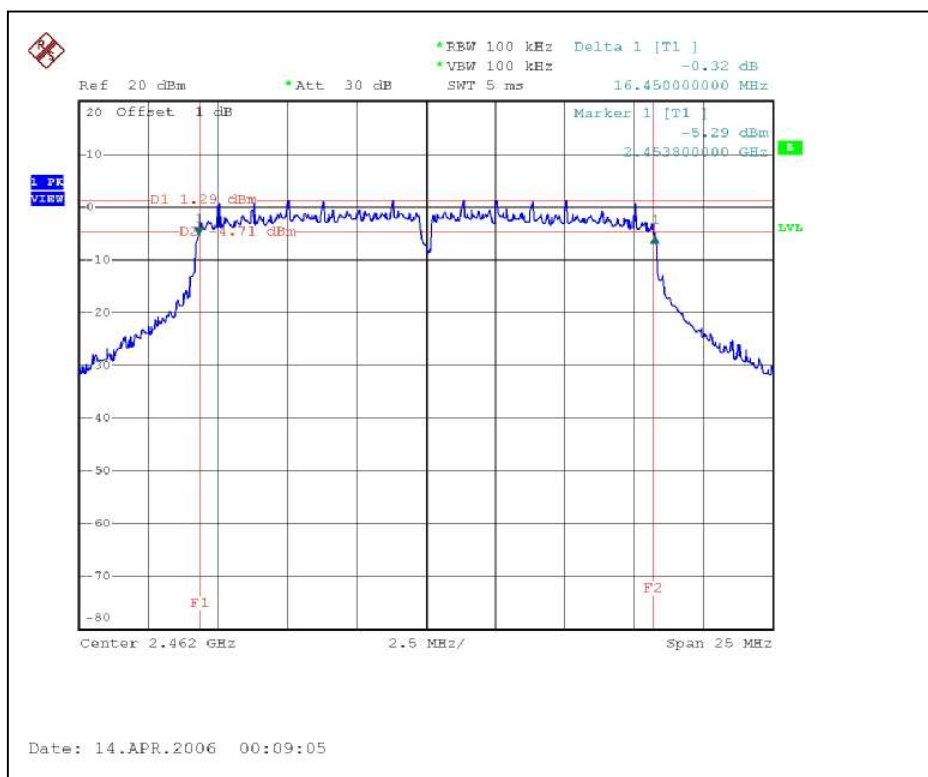
FOR CHAIN 0: CH1



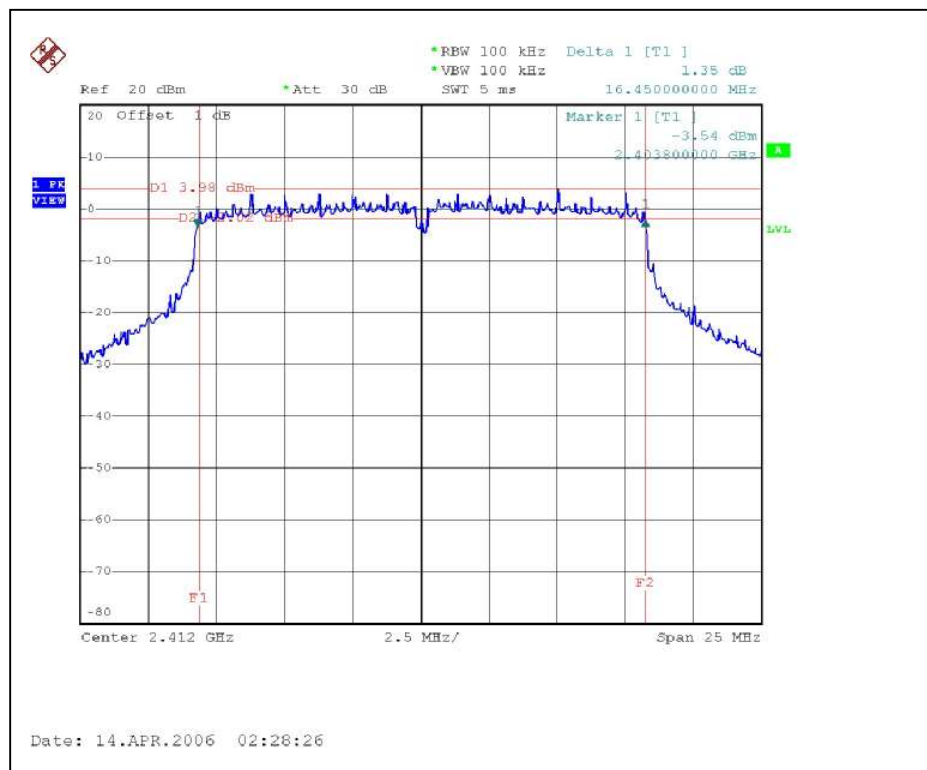
CH6



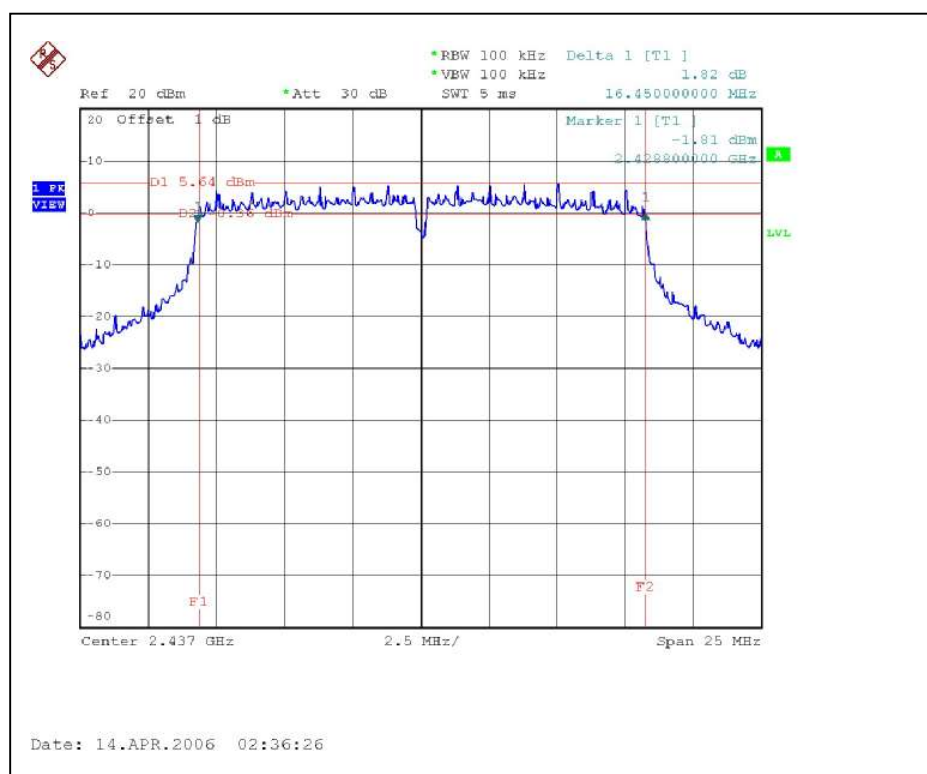
CH11



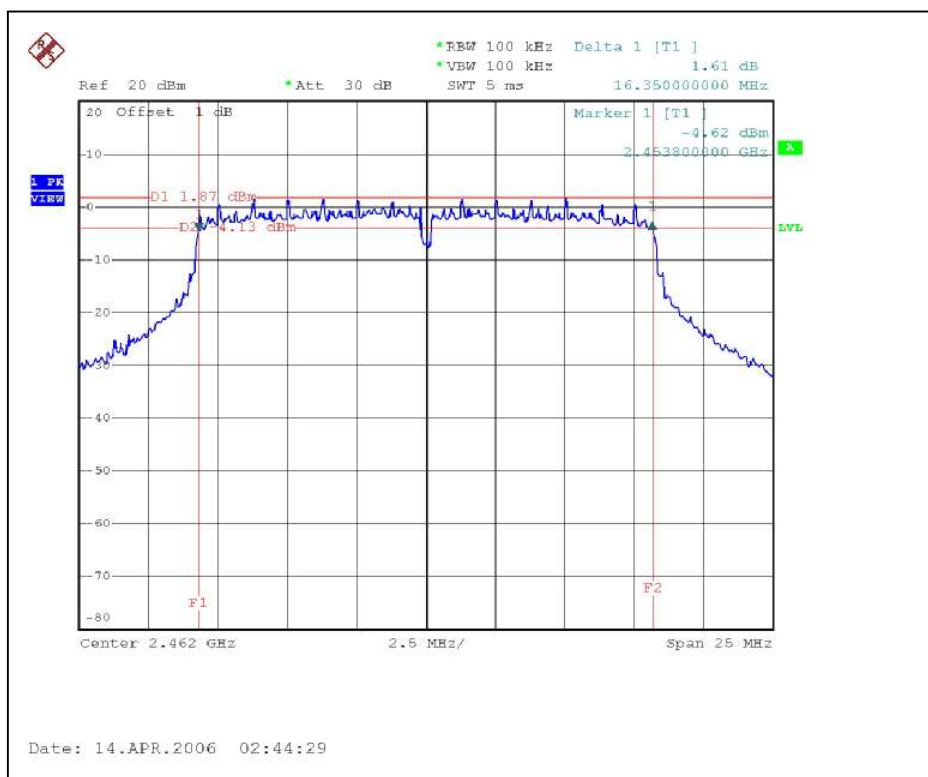
FOR CHAIN 1: CH1



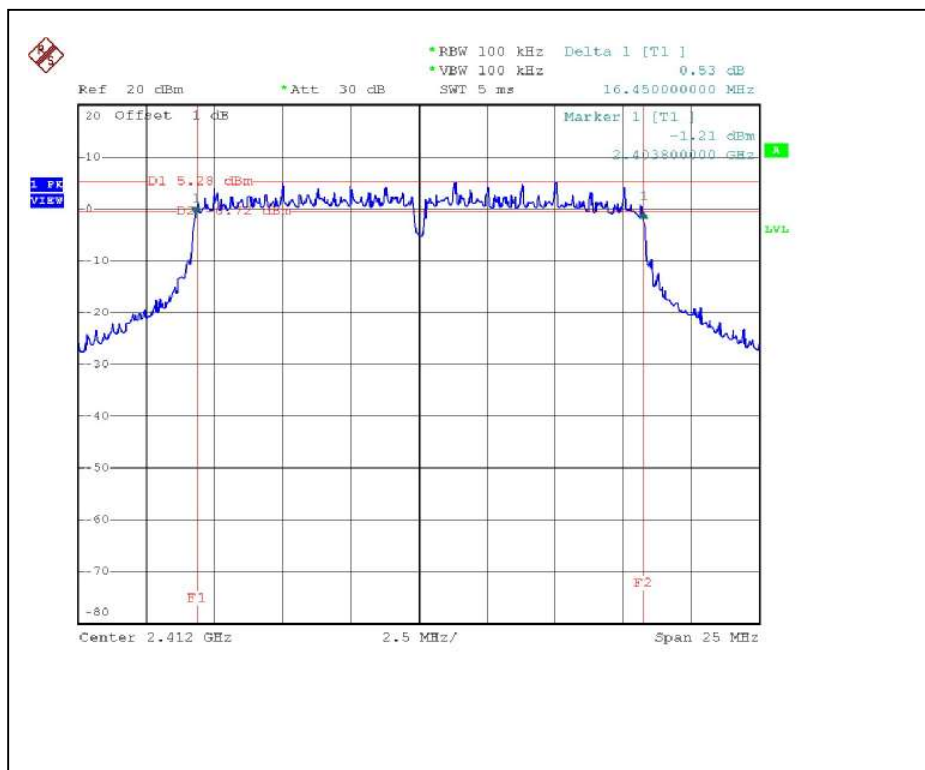
CH6



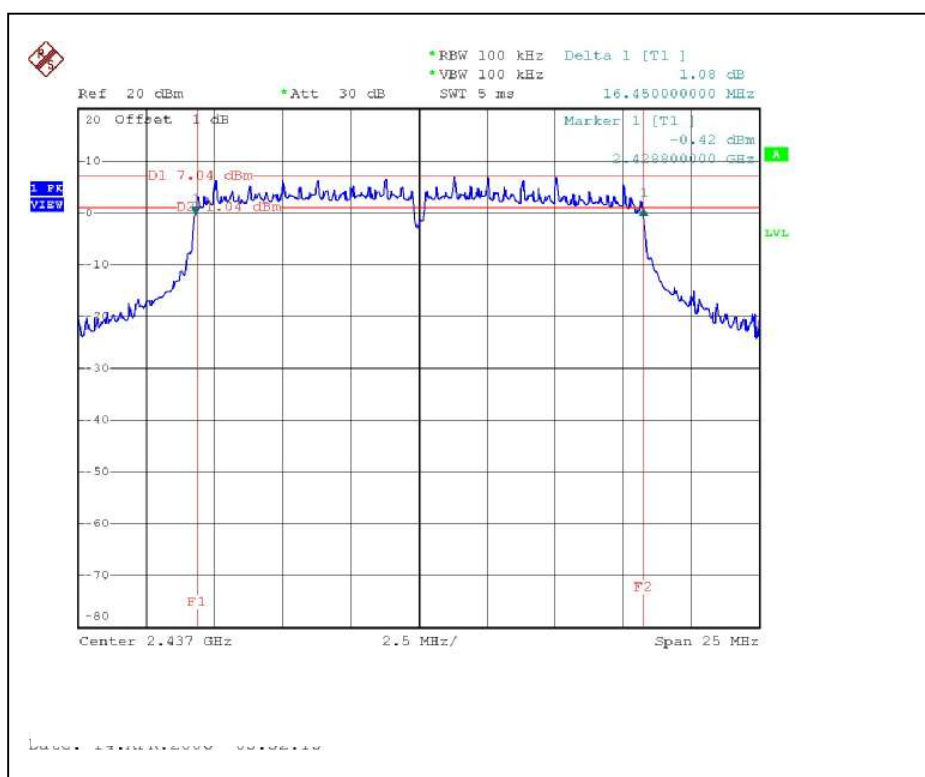
CH11



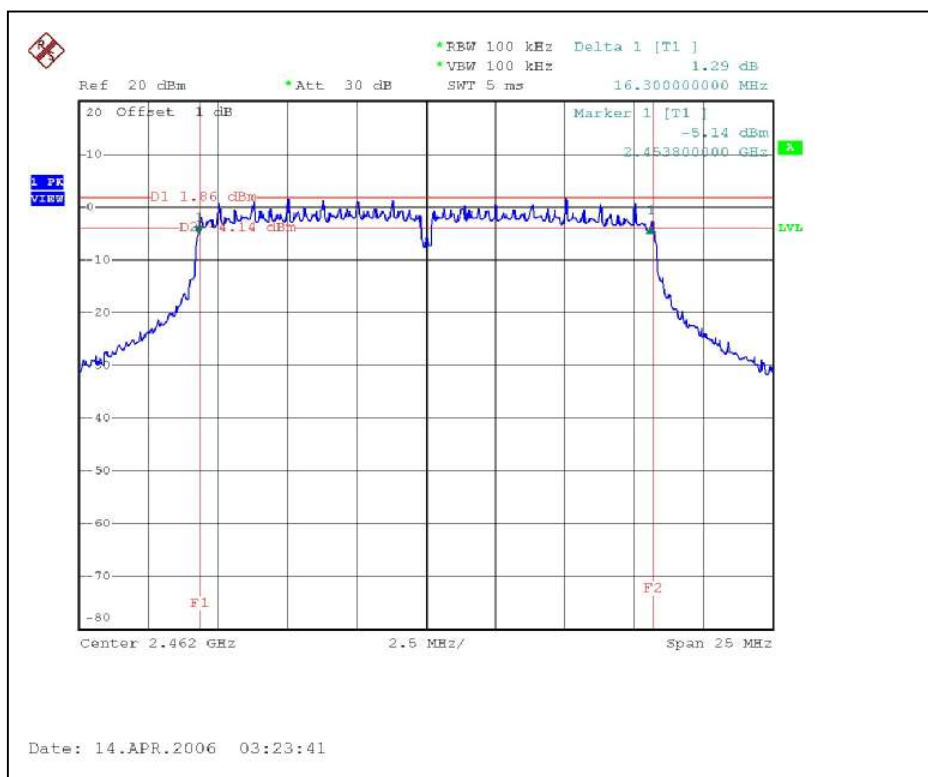
FOR CHAIN 2: CH1



CH6



CH11

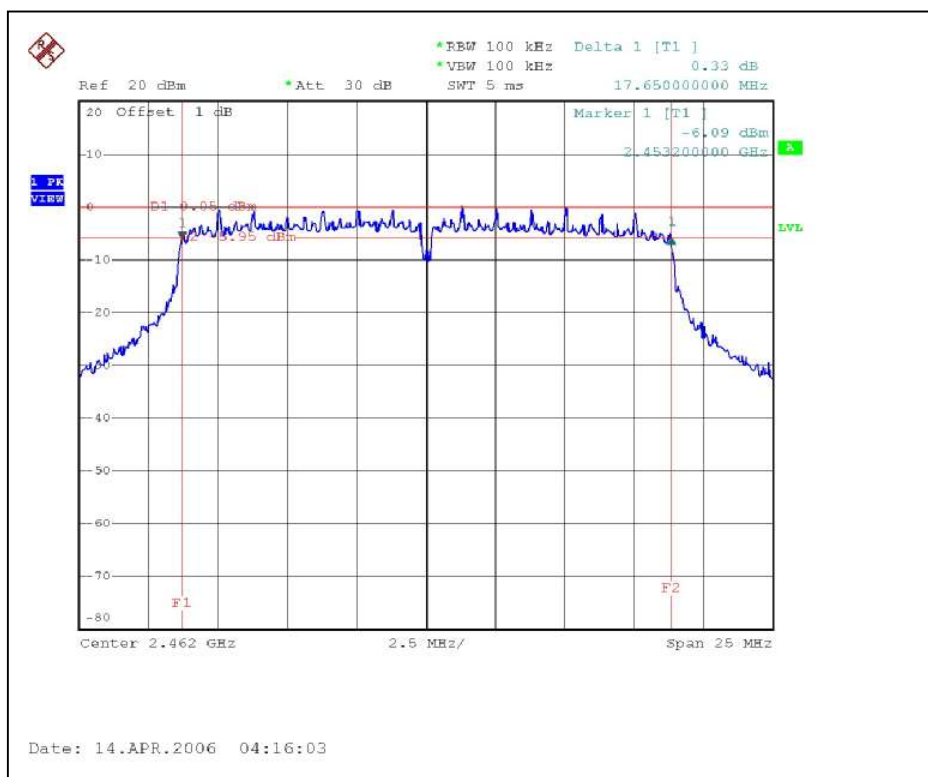


DRAFT 802.11n (20MHz) OFDM MODULATION:

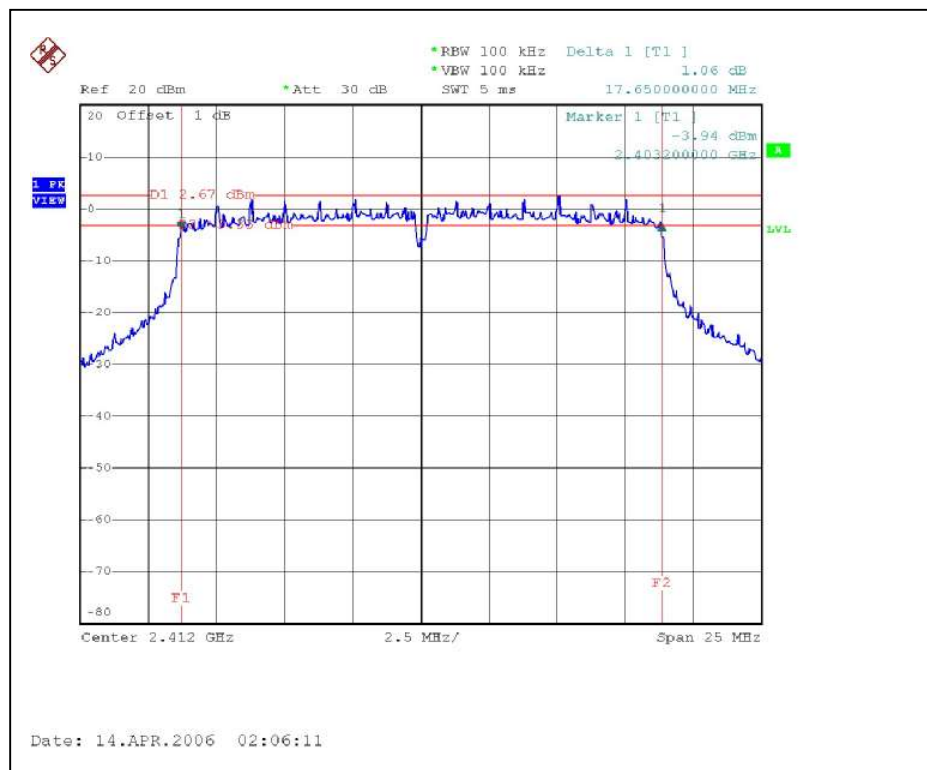
MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	20deg.C, 70%RH, 964hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)			MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
1	2412	17.65	17.65	17.65	0.5	PASS
6	2437	17.45	17.60	17.45	0.5	PASS
11	2462	17.50	17.65	17.65	0.5	PASS

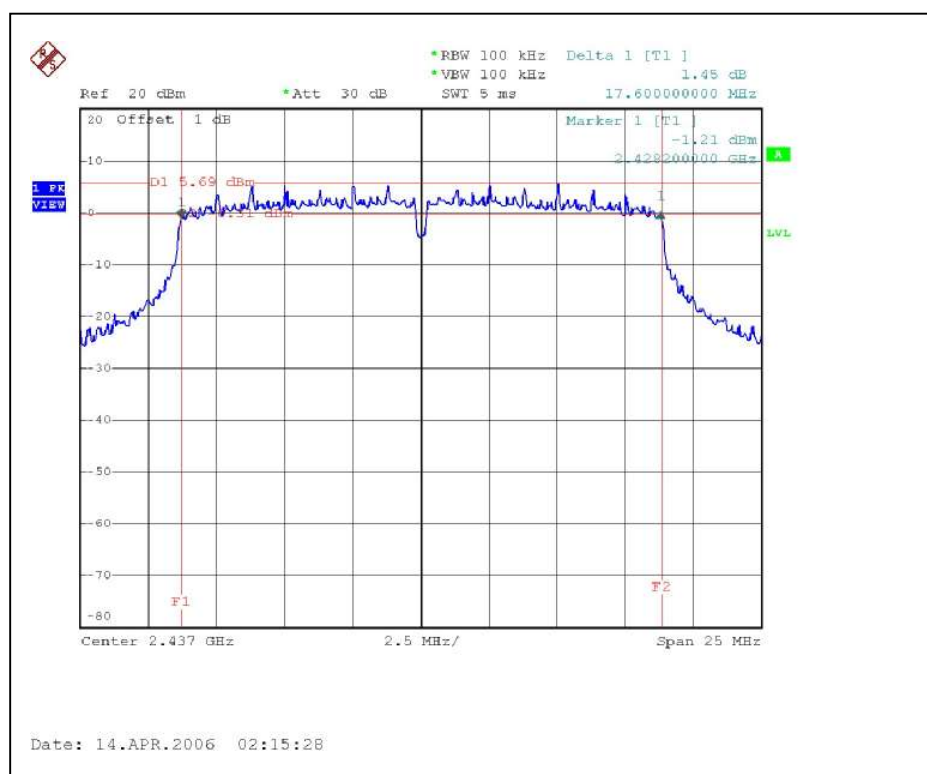
CH11



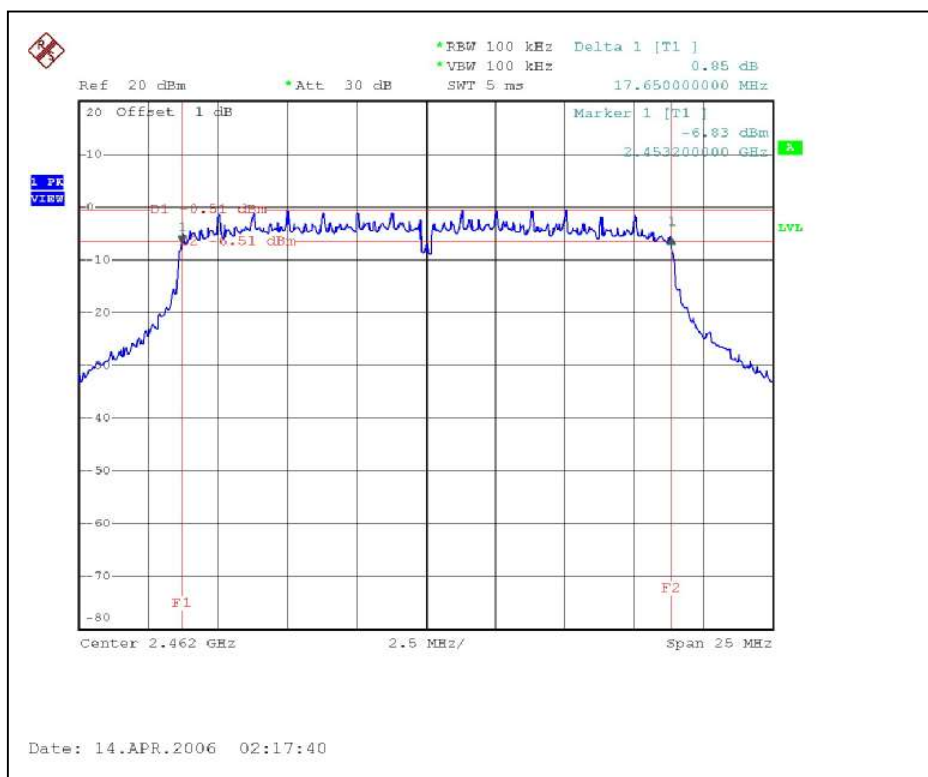
FOR CHAIN 1: CH1



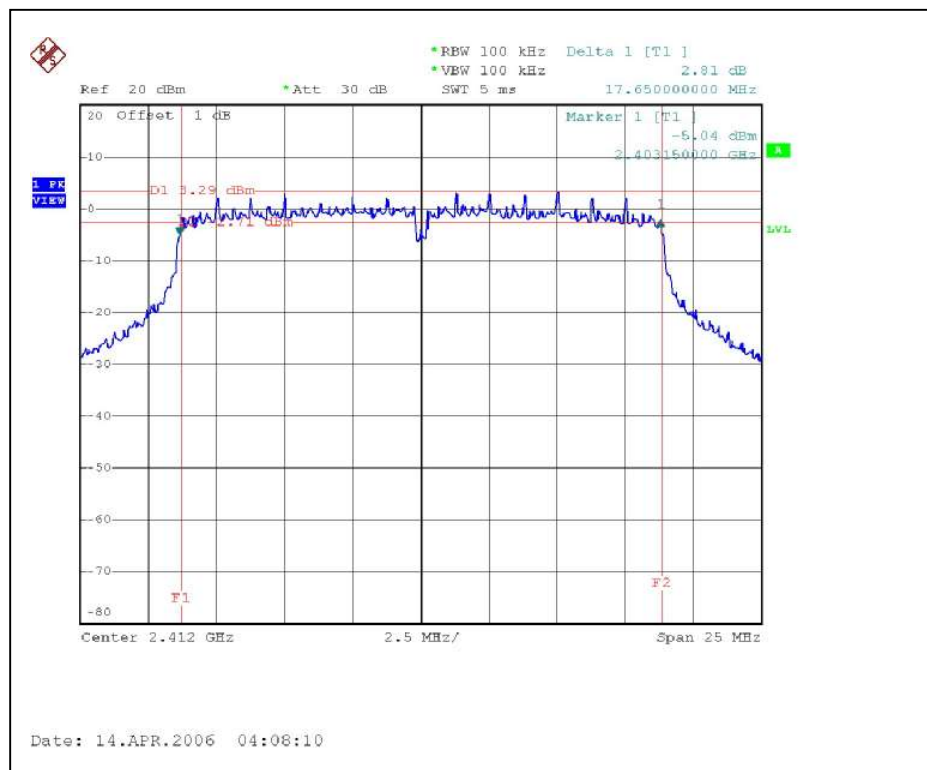
CH6



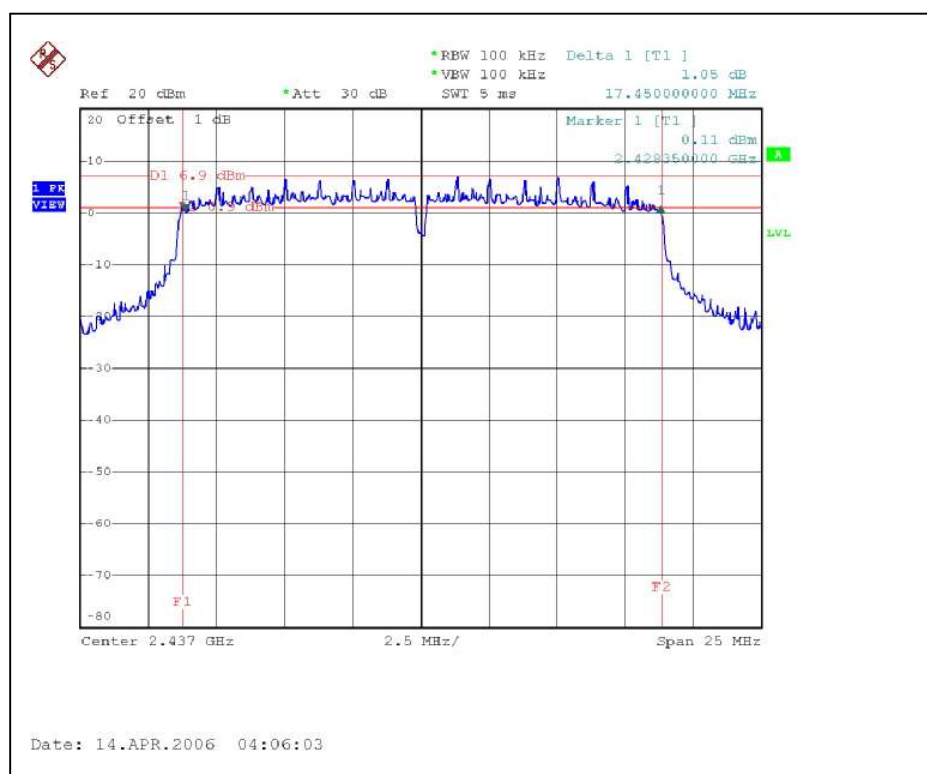
CH11



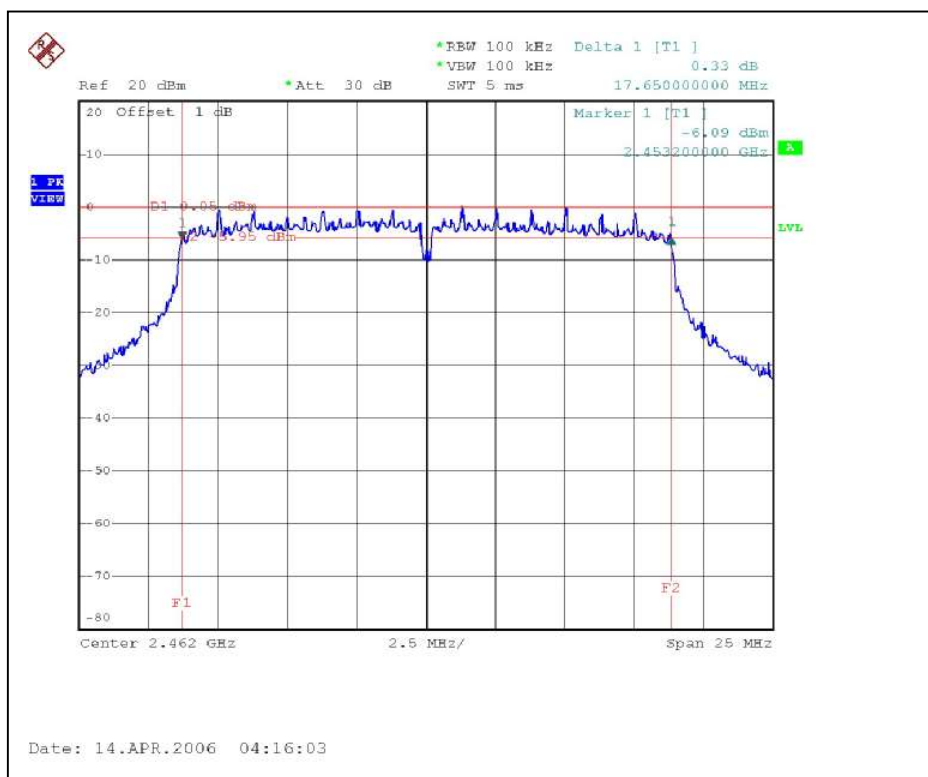
FOR CHAIN 2: CH1



CH6



CH11

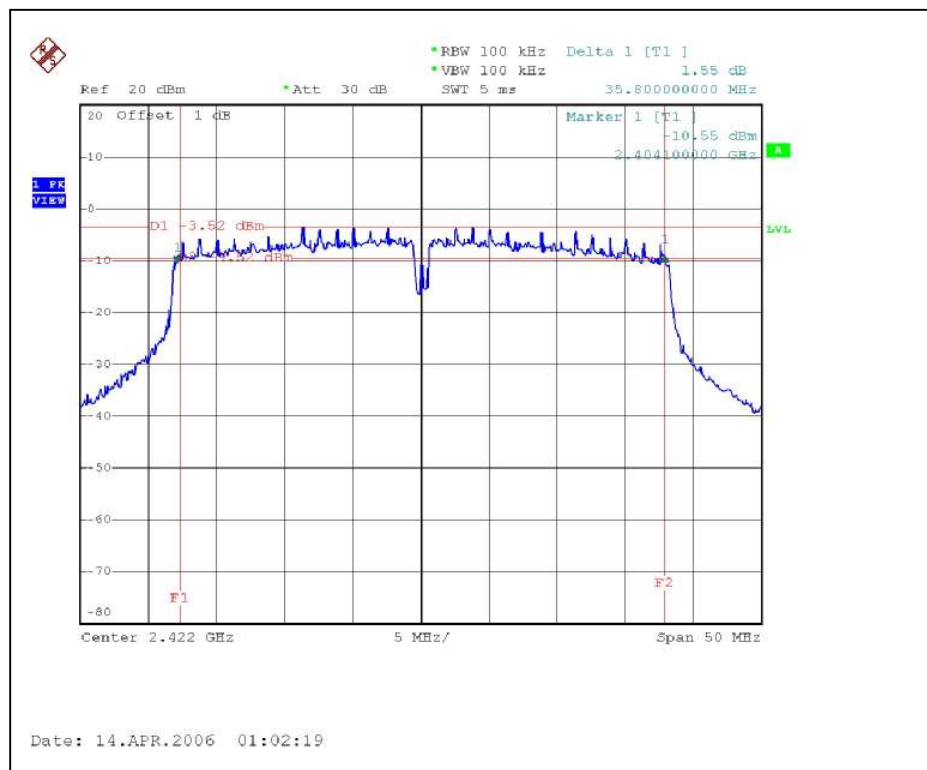


DRAFT 802.11n (40MHz) OFDM MODULATION:

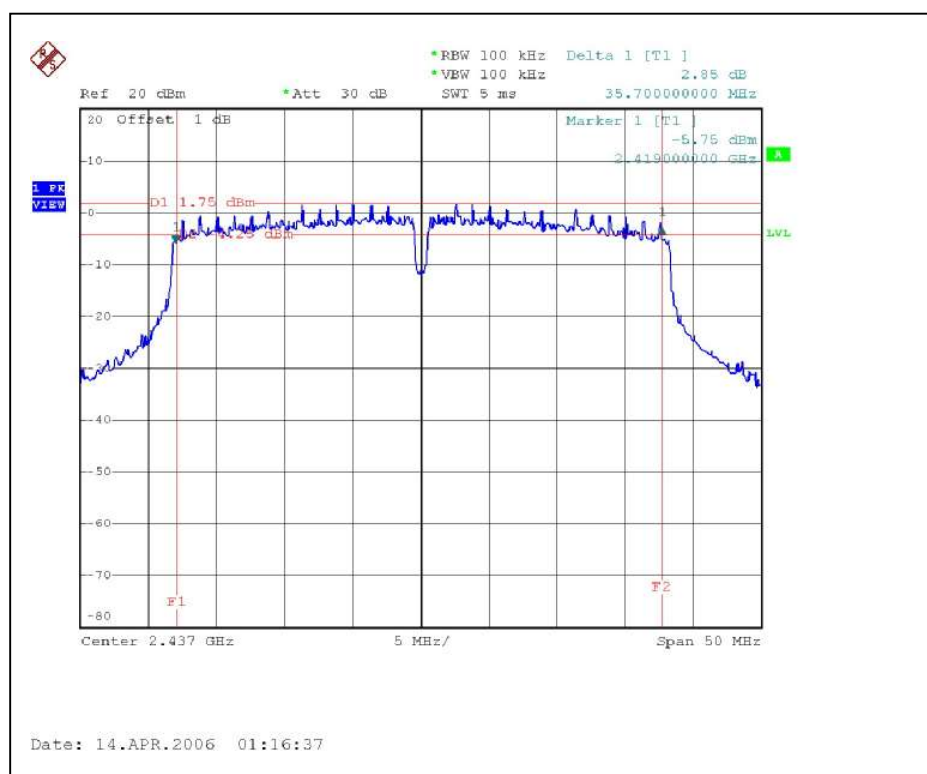
MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	20deg.C, 70%RH, 964hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)			MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
1	2422	35.8	35.6	35.8	0.5	PASS
4	2437	35.7	35.6	35.8	0.5	PASS
7	2452	35.5	35.9	35.5	0.5	PASS

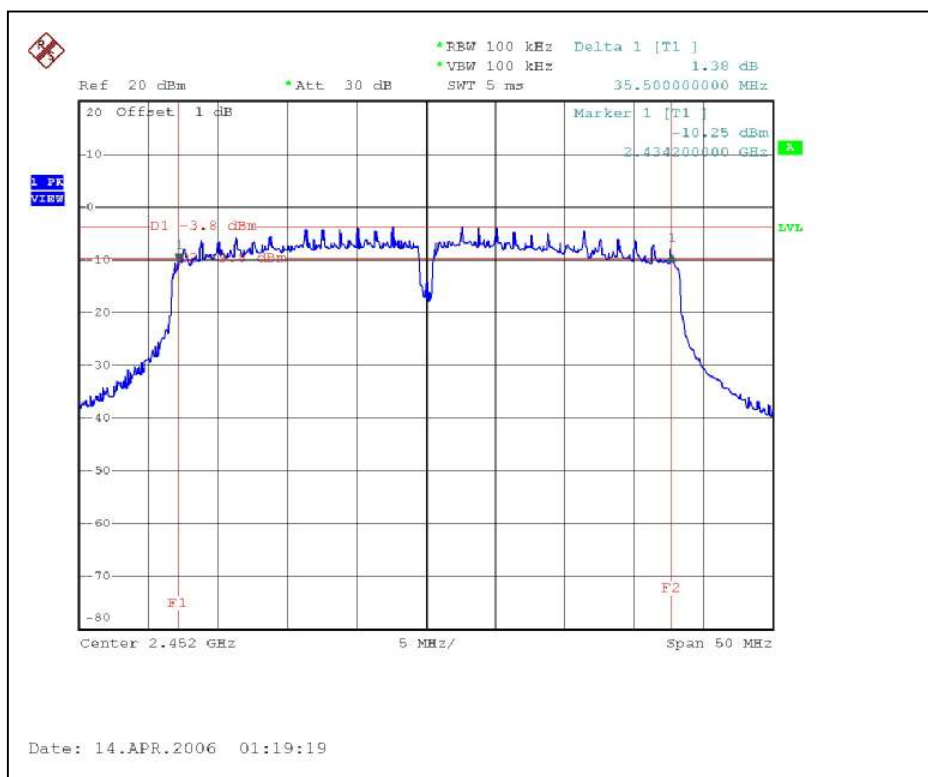
FOR CHAIN 0: CH1



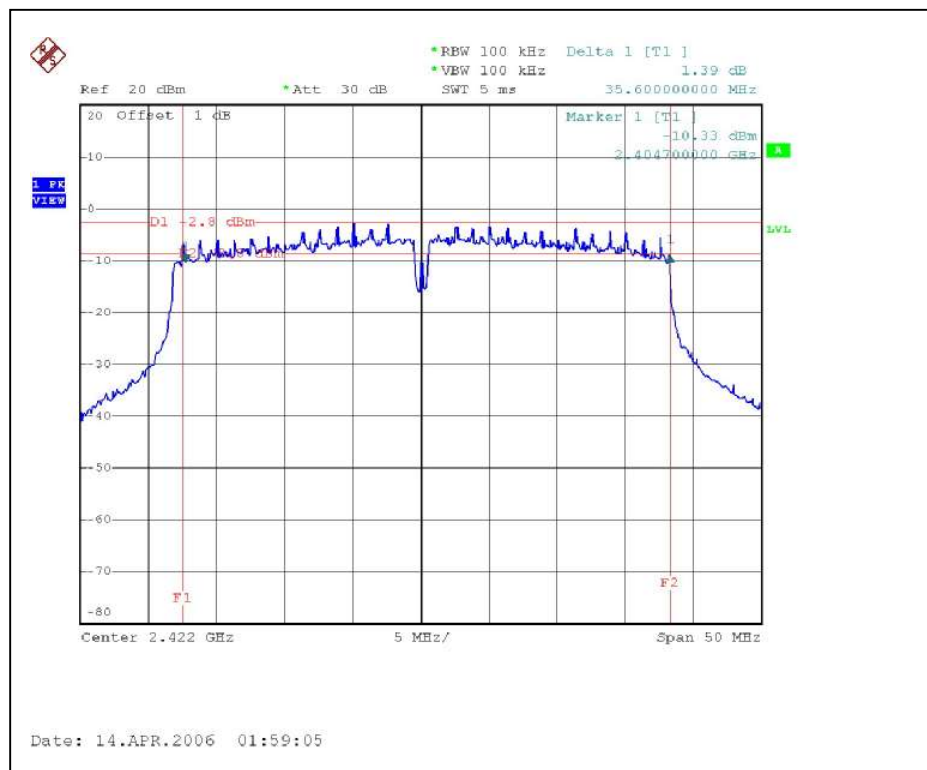
CH4



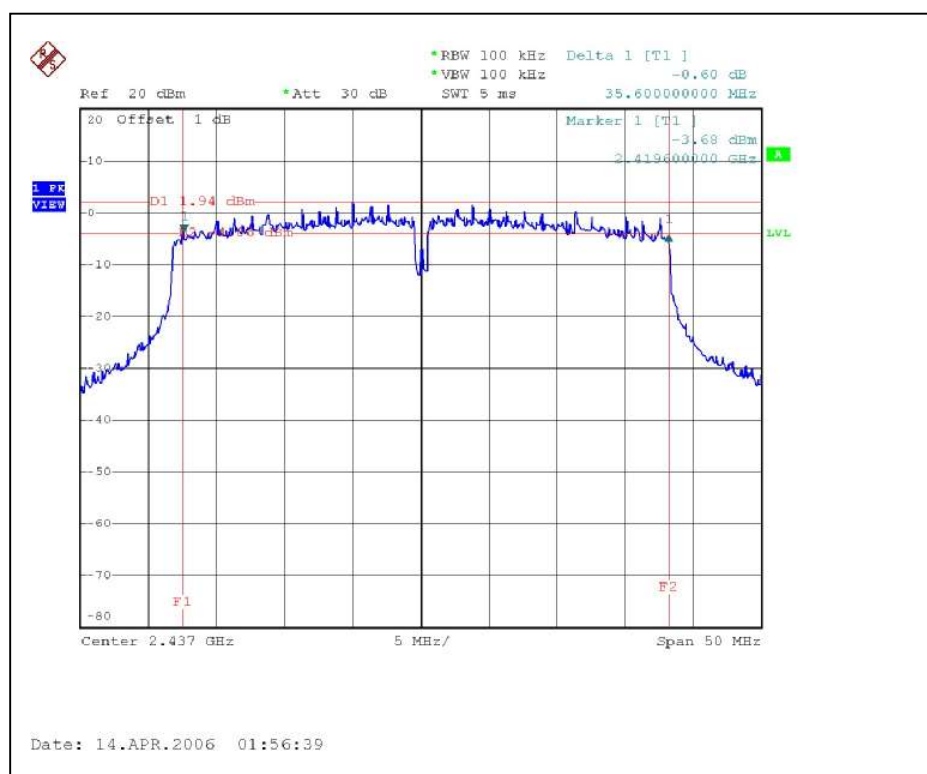
CH7



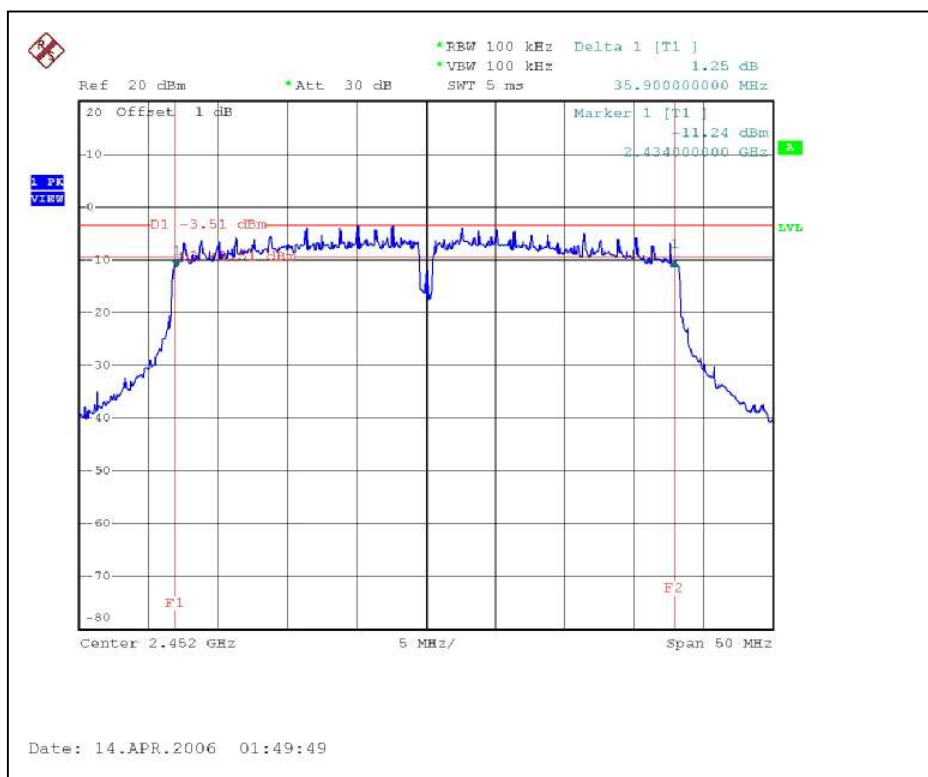
FOR CHAIN 1: CH1



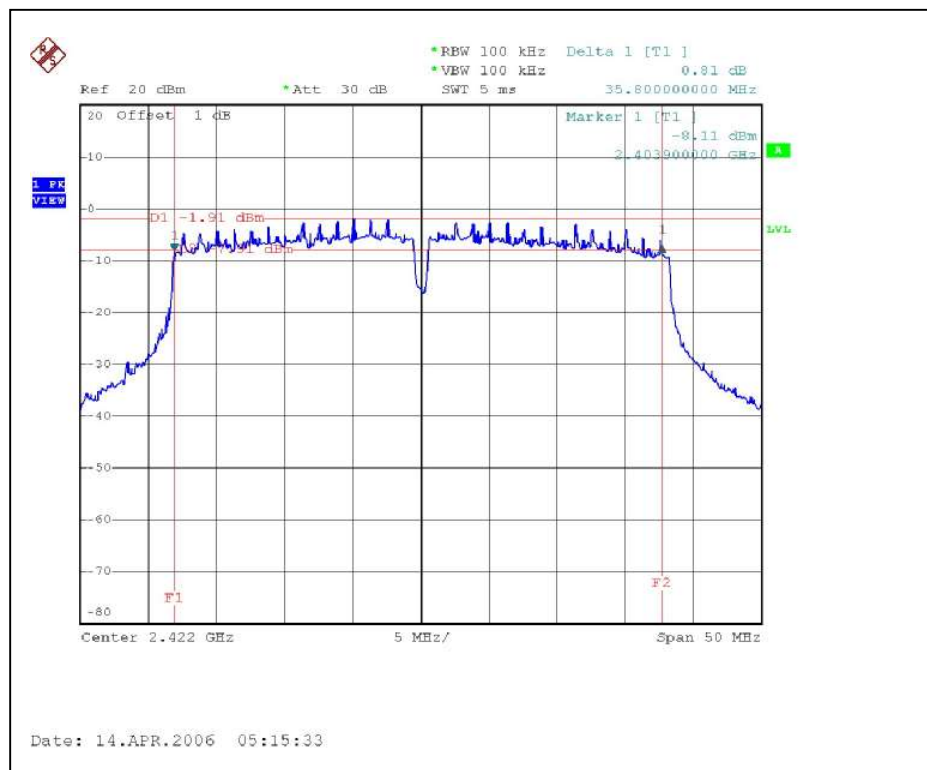
CH4



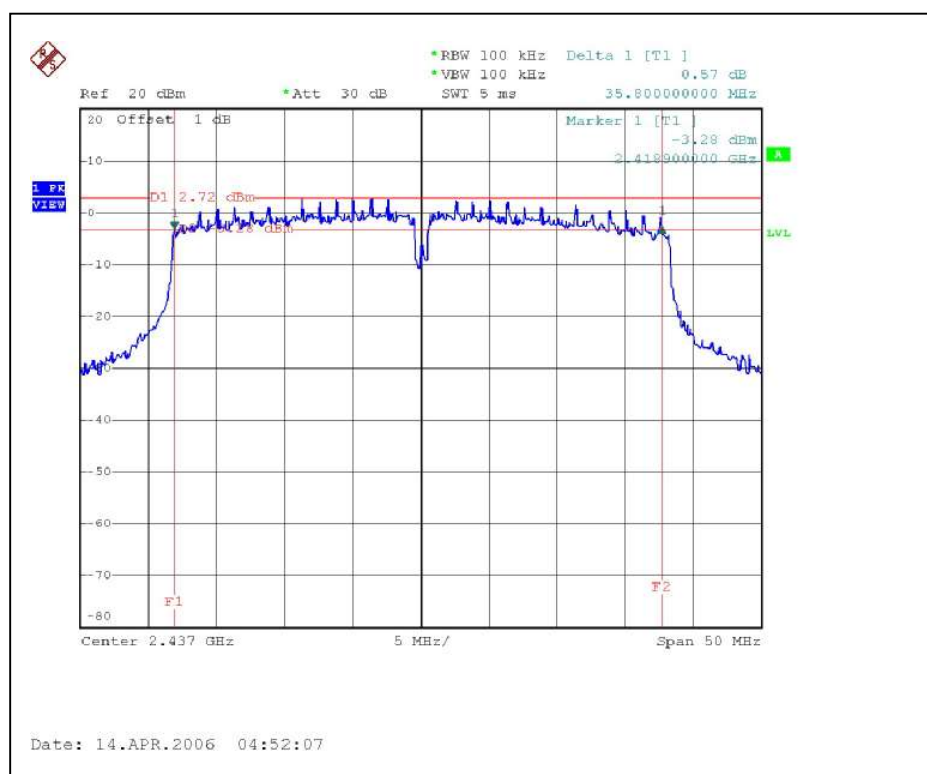
CH7



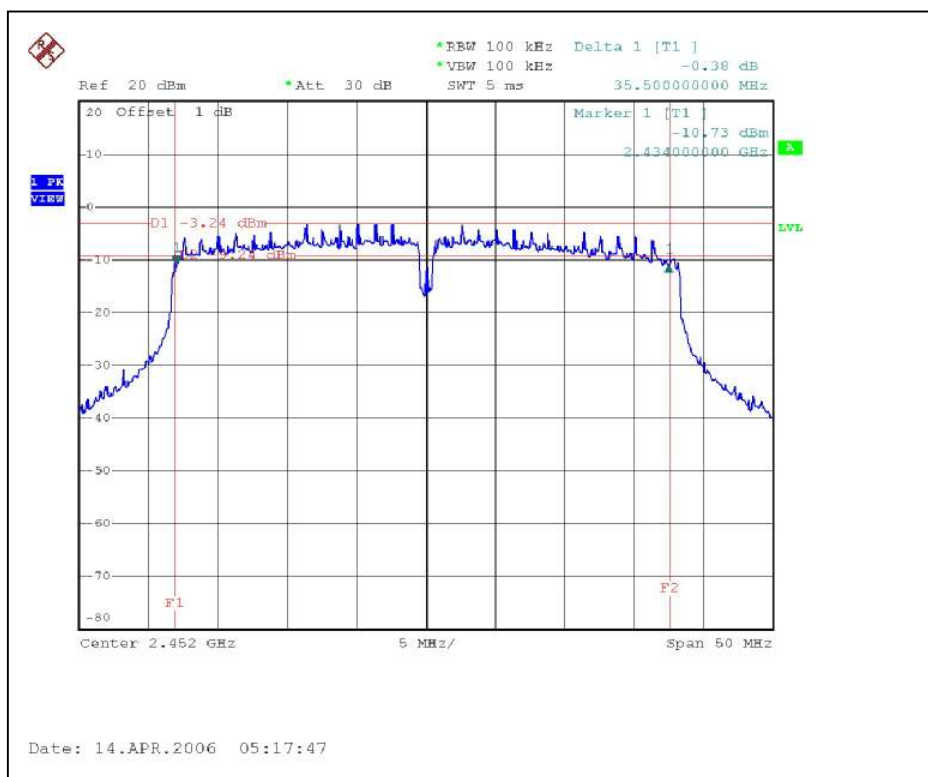
FOR CHAIN 2: CH1



CH4



CH7



4.4 MAXIMUM PEAK OUTPUT POWER

4.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

4.4.2 INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2006
Agilent SIGNAL GENERATOR	E8257C	MY43320668	Dec. 07, 2006
TEKTRONIX OSCILLOSCOPE	TDS380	B016335	Jun. 22, 2006
NARDA DETECTOR	4503A	FSCM99899	NA

NOTE:

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

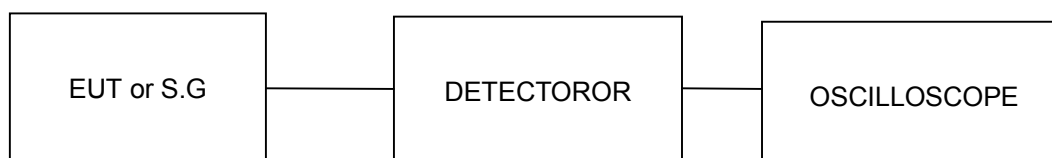
4.4.3 TEST PROCEDURES

1. A detector was used on the output port of the EUT. An oscilloscope was used to read the response of the detector.
2. Replaced the EUT by the signal generator. The center frequency of the S.G was adjusted to the center frequency of the measured channel.
3. Adjusted the power to have the same reading on oscilloscope. Record the power level.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP



4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6

4.4.7 TEST RESULTS

802.11b DSSS MODULATION:

MODULATION TYPE	DBPSK	TRANSFER RATE	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	20deg.C, 70%RH, 964hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)			PEAK POWER OUTPUT (dBm)			TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2				
1	2412	17.70	18.50	18.90	58.88	70.79	77.62	207.304	23.2	30	PASS
6	2437	18.20	18.40	18.80	66.07	69.18	75.86	211.110	23.2	30	PASS
11	2462	17.70	17.70	18.10	58.88	58.88	64.57	182.334	22.6	30	PASS

802.11g OFDM MODULATION:

MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	20deg.C, 70%RH, 964hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)			PEAK POWER OUTPUT (dBm)			TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2				
1	2412	18.30	18.50	18.70	67.61	70.79	74.13	212.534	23.3	30	PASS
6	2437	19.70	20.30	20.40	93.33	107.15	109.65	310.125	24.9	30	PASS
11	2462	16.60	16.80	16.90	45.71	47.86	48.98	142.550	21.5	30	PASS

DRAFT 802.11n (20MHz) OFDM MODULATION:

MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	20deg.C, 70%RH, 964hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)			PEAK POWER OUTPUT (dBm)			TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2				
1	2412	17.90	18.30	18.50	61.66	67.61	70.79	200.062	23.0	30	PASS
6	2437	19.40	19.80	20.00	87.10	95.50	100.00	282.596	24.5	30	PASS
11	2462	14.30	14.70	15.00	26.92	29.51	31.62	88.050	19.4	30	PASS

DRAFT 802.11n (40MHz) OFDM MODULATION:

MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	20deg.C, 70%RH, 964hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)			PEAK POWER OUTPUT (dBm)			TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2				
1	2422	14.00	14.30	14.80	25.12	26.92	30.20	82.234	19.20	30	PASS
4	2437	18.60	18.80	19.00	72.44	75.86	79.43	227.734	23.6	30	PASS
7	2452	13.30	13.60	13.90	21.38	22.91	24.55	68.835	18.4	30	PASS

4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 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.
- 2.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.5.3 TEST PROCEDURE

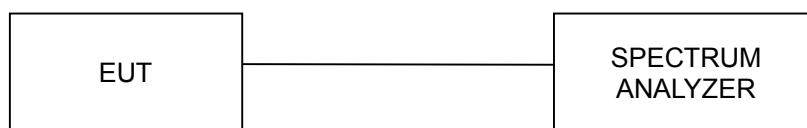
The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITION

Same as Item 4.3.6

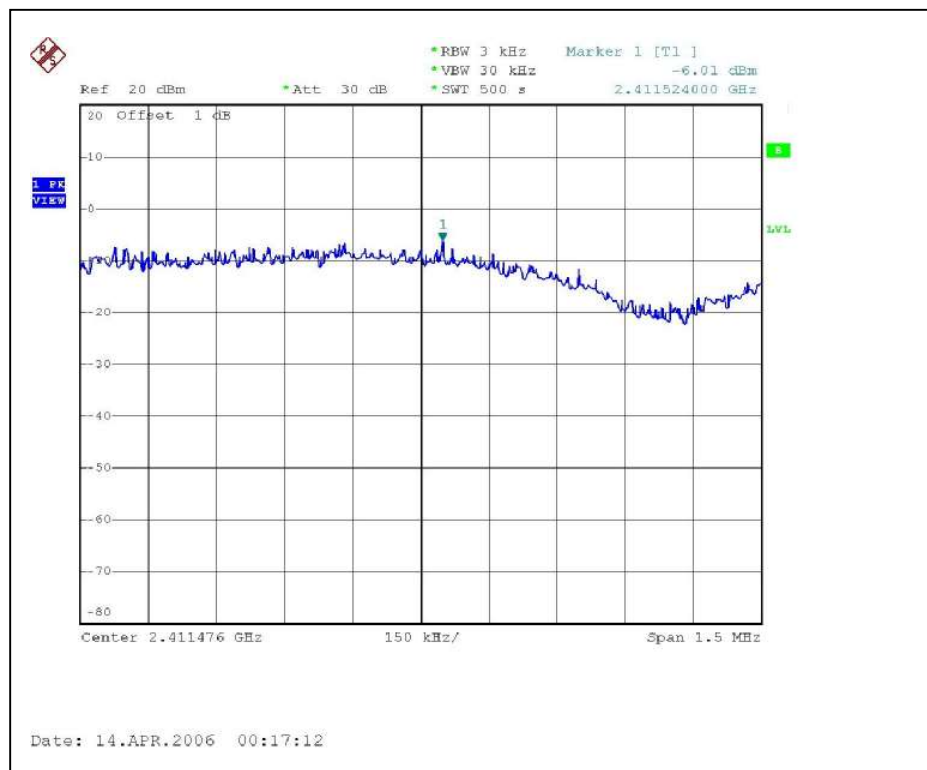
4.5.7 TEST RESULTS

802.11b DSSS MODULATION:

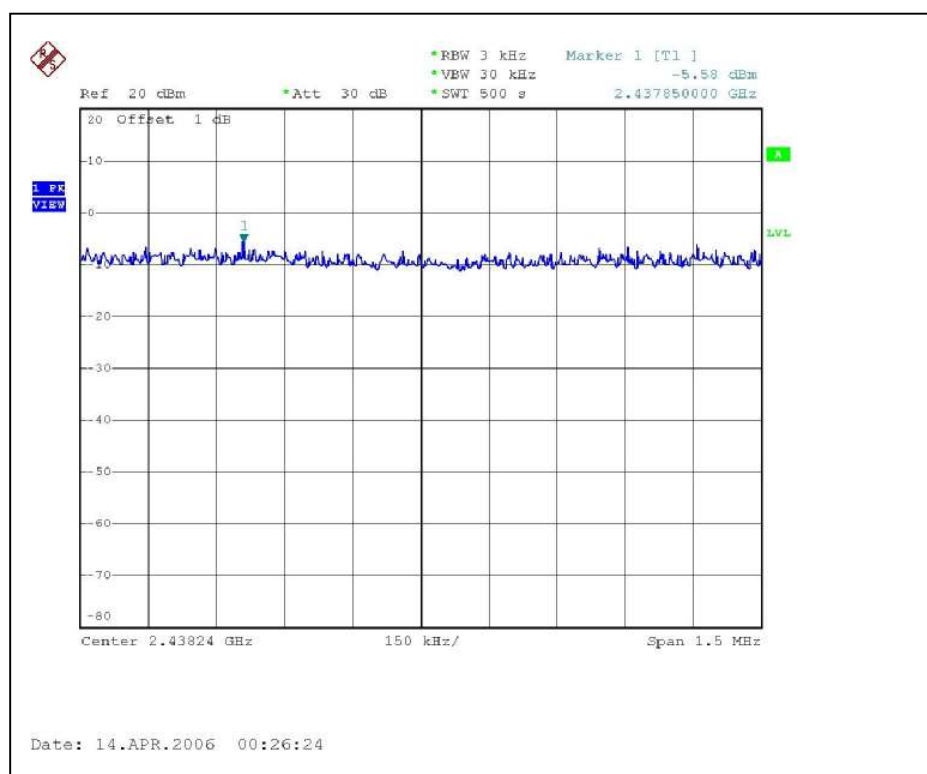
MODULATION TYPE	DBPSK	TRANSFER RATE	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	20deg.C, 70%RH, 964hPa
TESTED BY	Moris Lin		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)			MAXIMUM LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
1	2412	-6.01	-6.36	-4.53	8	PASS
6	2437	-5.58	-6.17	-4.66	8	PASS
11	2462	-5.84	-5.47	-6.21	8	PASS

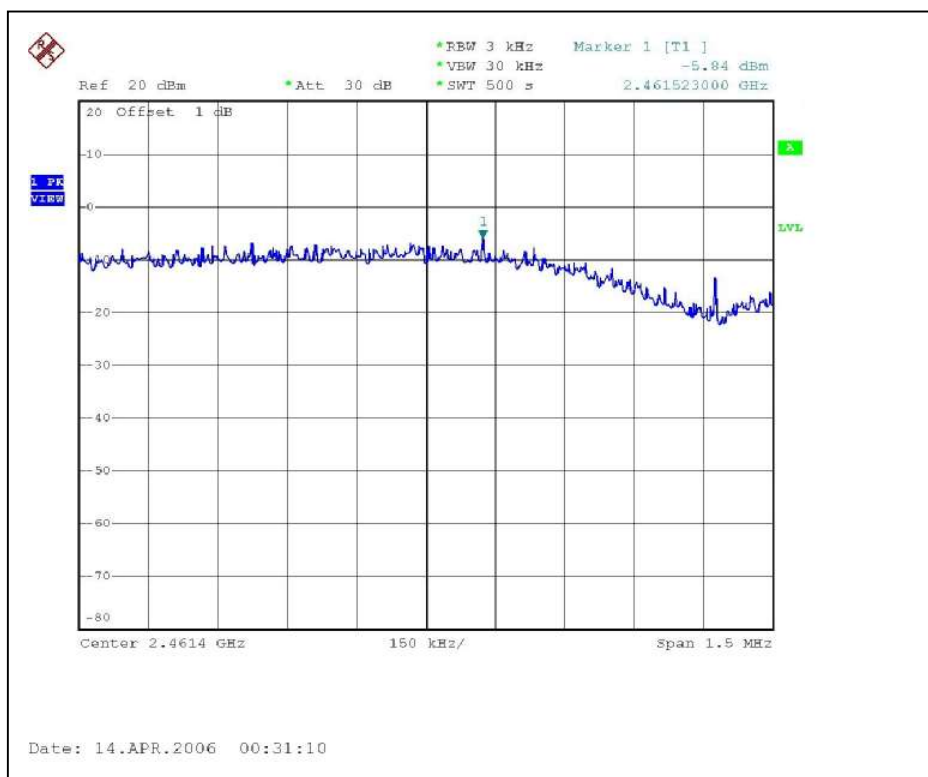
FOR CHAIN 0: CH1



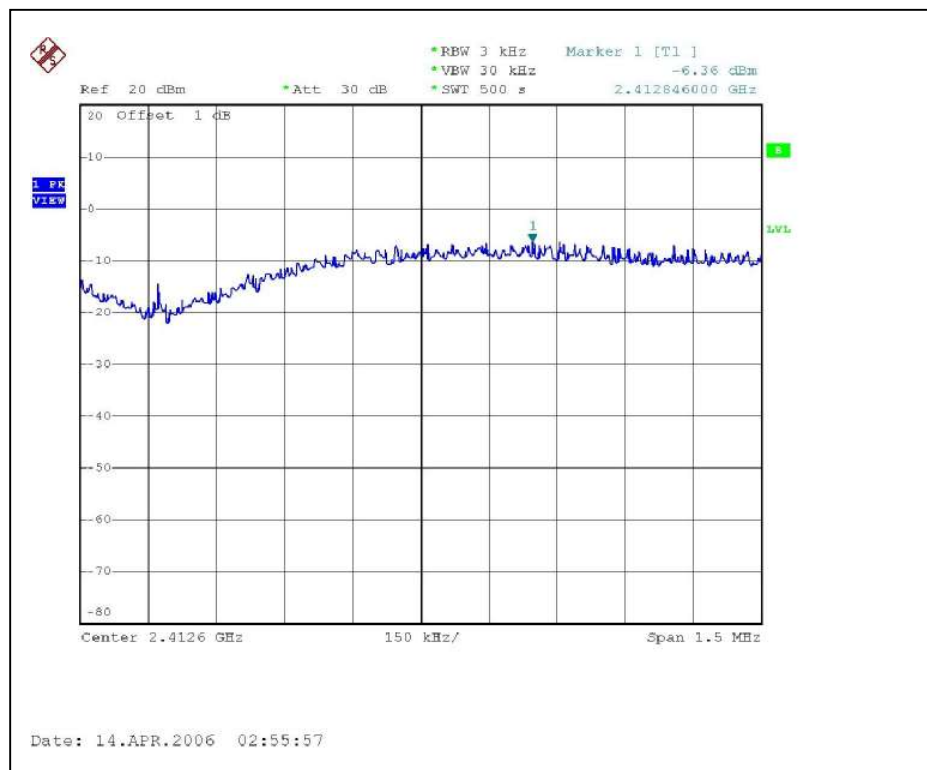
CH6



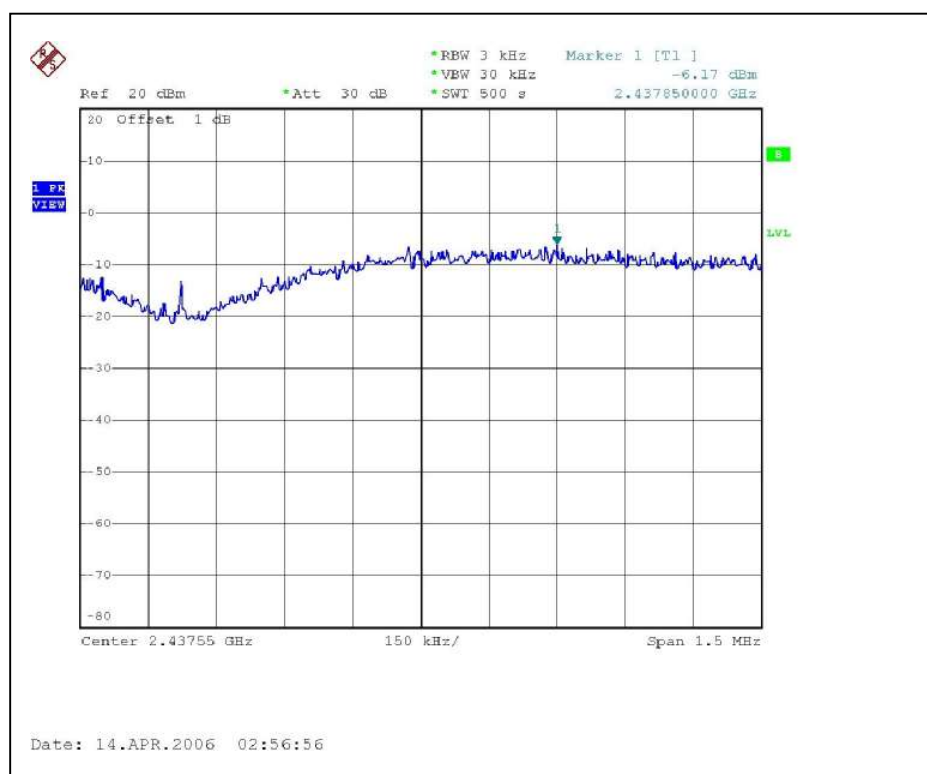
CH11



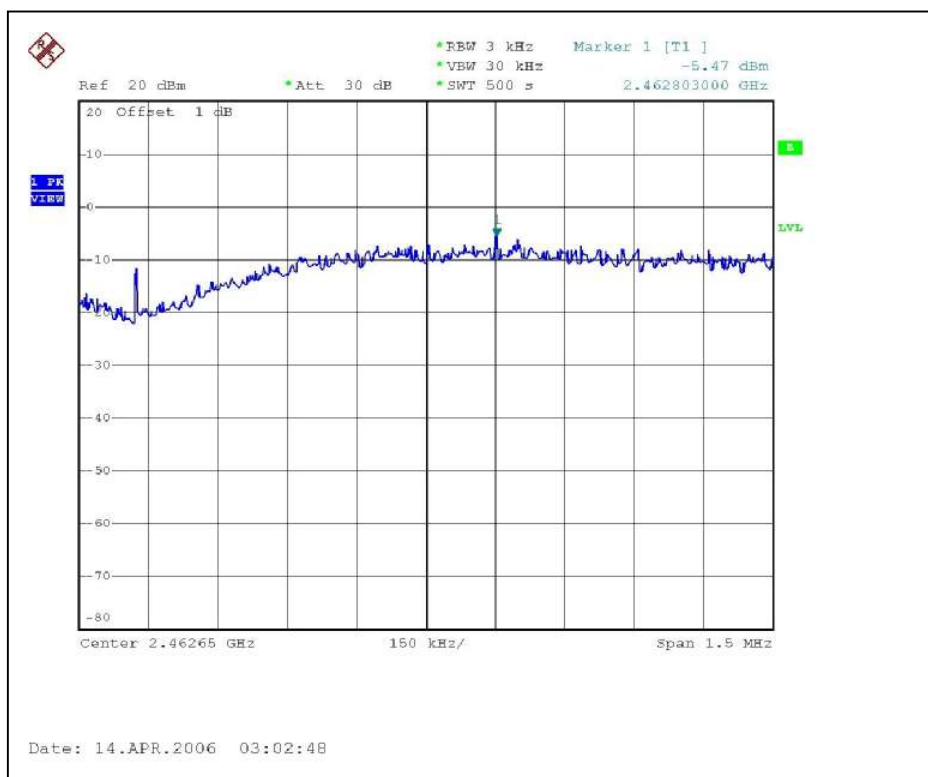
FOR CHAIN 1: CH1



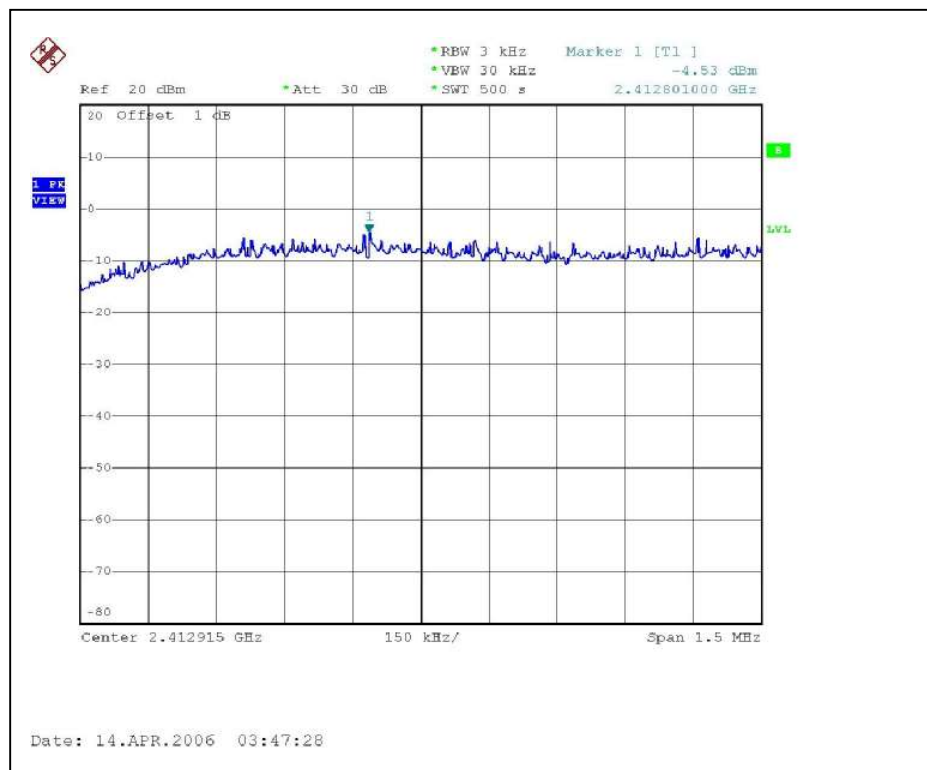
CH6



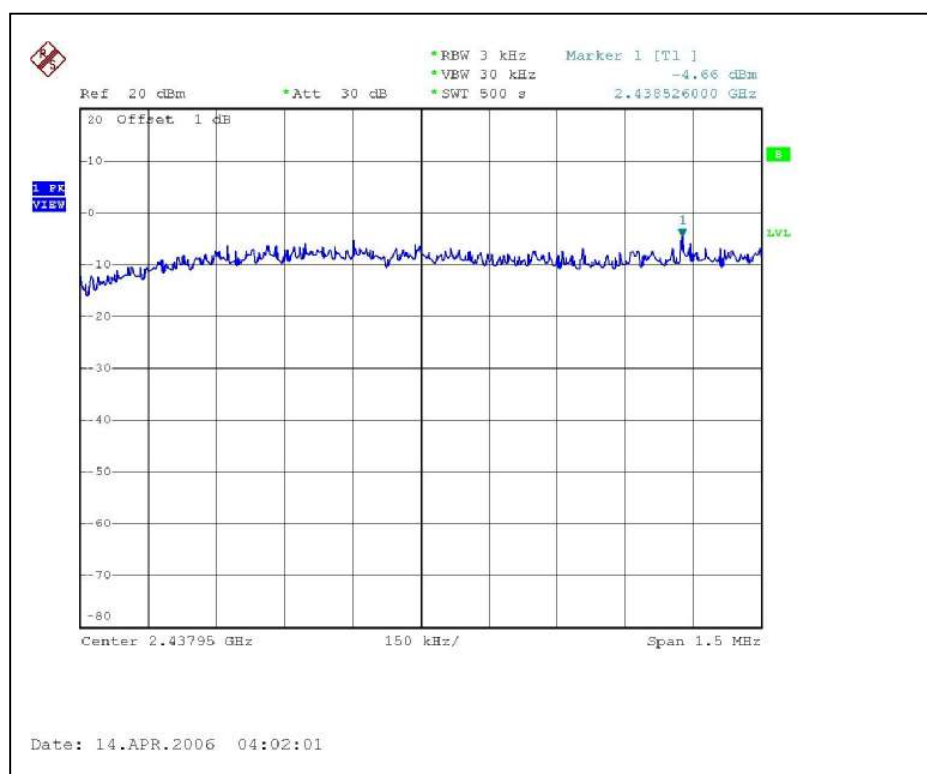
CH11



FOR CHAIN 2: CH1



CH6



CH11

