

FCC TEST REPORT

REPORT NO.: RF971001H06

MODEL NO.: RTL8192E

RECEIVED: Oct. 01, 2008

TESTED: Oct. 09 to 21, 2008

ISSUED: Oct. 28, 2008

APPLICANT: Realtek Semiconductor Corp.

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1. CERTIFICATION

PRODUCT : 802.11 b/g/n RTL8192E half miniCard

MODEL NO.: RTL8192E

BRAND : Realtek

APPLICANT : Realtek Semiconductor Corp.

TESTED : Oct. 09 to 21, 2008

TEST SAMPLE : R&D SAMPLE

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

The above equipment (Model: RTL8192E) 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 : Sunny Wen , **DATE:** Oct. 28, 2008
(Sunny Wen, Specialist)

TECHNICAL
ACCEPTANCE : Hank Chung , **DATE:** Oct. 28, 2008
Responsible for RF (Hank Chung, Deputy Manager)

APPROVED BY : May Chen , **DATE:** Oct. 28, 2008
(May Chen, Deputy Manager)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -8.61dB at 0.150MHz.
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 -0.52dB at 7311.00MHz.
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Band Edge Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.

2.1 MEASUREMENT UNCERTAINTY

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

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

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	802.11 b/g/n RTL8192E half miniCard
MODEL NO.	RTL8192E
FCC ID	TX2-RTL8192EHMC
POWER SUPPLY	DC 3.2~3.5V from host equipment
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b: 11 / 5.5 / 2 / 1Mbps 802.11g: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6Mbps Draft 802.11n (20MHz, 800ns GI): 65 / 58.5 / 52 / 39 / 26 / 19.5 / 13 / 6.5Mbps Draft 802.11n (40MHz, 800ns GI): 135 / 121.5 / 108 / 81 / 54 / 40.5 / 27 / 13.5Mbps Draft 802.11n (20MHz, 400ns GI): 72.2 / 65 / 57.8 / 43.3 / 28.9 / 21.7 / 14.4 / 7.2Mbps Draft 802.11n (40MHz, 400ns GI): 150 / 135 / 120 / 90 / 60 / 45 / 30 / 15Mbps
FREQUENCY RANGE	2400MHz ~ 2483.5MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz)
MAXIMUM OUTPUT POWER	802.11b: 109.648mW 802.11g: 301.995mW draft 802.11n (20MHz): 309.030mW draft 802.11n (40MHz): 257.040mW
ANTENNA TYPE	Please see note 1 (on next page)
DATA CABLE	NA
ASSOCIATED DEVICES	NA

NOTE:

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

No.	Brand	Model	Antenna type	Gain (dBi) with & w/o cable loss	Cable loss (dB)	Connector type	Difference
1	wistron	DQ661500301(Main) DQ661500301(Aux)	PIFA	3.95 3.90	N.A.	IPEX	Antenna length
2	Wistron	DQ661500115(Main) DQ661500115 (Aux)	PIFA	1.10 0.64	1.89 2.55	IPEX	Antenna length
3	Wgt	AR830WIP101A (L) AR830WIP102A (R)	PIFA	2.17 2.39	-1.60 -2.03	IPEX	Antenna length
4	Wgt	AR320WIP101B (L) AR320WIP102B (R)	PIFA	0.86 2.11	-1.43 -1.78	IPEX	Antenna length
5	Wgt	ARW62WIP101G (L) ARW62WIP102G (R)	PIFA	2.48 1.32	-2.39 -1.76	IPEX	Antenna length
6	Wgt	ARUMPWIP102+C (L) ARUMPWIP101+D (R)	PIFA	2.41 2.07	N.A.	IPEX	Antenna length
7	Foxconn	WDAN-GQMA6001-DF (Main) WDAN-GQMA6001-DF (Aux)	PIFA	2.32 1.10	-1.262 -1.813	IPEX	Antenna length
8	Foxconn	WDAN-GQMA6002-DF (Main) WDAN-GQMA6002-DF (Aux)	PIFA	0.74 0.78	-1.446 -2.009	IPEX	Antenna length
9	Galtronics	021020168NC3587 (Main) 021020168NC3587-1 (Aux)	PIFA	-0.25 3.64	1.75 2	U.FL	Antenna length
10	Galtronics	021020168NC3586 (Main) 021020168NC3586-1 (Aux)	PIFA	-0.04 3.25	1.9 1.85	U.FL	Antenna length
11	HIGH-TEK	AAFQ5050001LK0 (Main) AAFQ5050001RK0 (Aux)	PIFA	2.86 1.52	2.4 1.7	IPEX	Antenna length
12	Hitachi	HFT40-IV17 (Main) HMG03-IV17 (Aux)	PIFA	0.48 0.64	N.A.	IPEX	Antenna length
13	WNC	81.EE215.016 (Main) 81.EE215.016 (Aux)	PIFA	0.34 0.79	2.52 3.17	IPEX	Antenna length
14	WNC	ASAW 001(L) ASAW 001 (R)	PIFA	1.34 1.25	N.A.	IPEX	Antenna length
15	Wgt	B1425050G00003 (Main) B1425050G00002 (Aux)	PIFA	0.03 0.63	-2.01 -2.05	IPEX	Antenna length
16	TYCO	ASAT 001 (Main) ASAT 001 (Aux)	PIFA	0.61 0.16	N.A.	IPEX	Antenna length
17	ACON	ASAA 001 (L) ASAA 001 (R)	PIFA	1.56 1.36	N.A.	IPEX	Antenna length
18	Hitachi	HFT40 (Main) HFP40 (Aux)	PIFA	0.58 1.12	1.42 2.12	IPEX	Antenna length
19	Hitachi	HFT60 (Main) HFT60 (Aux)	PIFA	-1.65 -0.92	1.48 2.18	IPEX	Antenna length

No.	Brand	Model	Antenna type	Gain (dBi) with & w/o cable loss	Cable loss (dB)	Connector type	Difference
20	Hitachi	HTL008 (Main) HTL008 (Aux)	PIFA	2.24 1.84	1.72 2.20	IPEX	Antenna length
21	Hitachi	HTL017 (Main) HTL017 (Aux)	PIFA	2.82 2.94	1.94 2.39	IPEX	Antenna length
22	WNC	WNC001 (Main) WNC001 (Aux)	PIFA	-1.10 1.76	1.17 1.17	IPEX	P/N No.
23	WNC	WNC002 (Main) WNC002 (Aux)	PIFA	1.18 1.75	2.28 2.12	IPEX	Antenna length
24	TYCO	TIAN01 (Main) TIAN01 (Aux)	PIFA	0.57 0.87	-1.463 -1.865	IPEX	Antenna length
25	TYCO	TBN001 (Main) TBN001 (Aux)	PIFA	3.45 2.41	1.45 2.13	IPEX	Antenna length
26	TYCO	TBN003 (Main) TBN003 (Aux)	PIFA	-1.11 -1.11	1.84 2.16	IPEX	Antenna length
27	Wgt	U40 (L) U40 (R)	PIFA	-0.65 -1.32	N.A.	IPEX	Antenna length
28	Wgt	U50 (L) U50 (R)	PIFA	0.56 0.94	N.A.	IPEX	Antenna length
29	JEM	U40 (L) U40 (R)	PFIA	2.99 1.90	N.A.	IPEX	Antenna length
30	JEM	U50 (L) U50 (R)	PFIA	2.53 0.34	N.A.	IPEX	Antenna length
31	FVC	22G600810-10 (L) 22G600530-00 (R)	PIFA	0.21 -0.80	N.A.	IPEX	Antenna length
32	FVC	22G600810-10 (L)	PIFA	0.21	N.A.	IPEX	NA
33	FVC	22G600820-00 (L) 22G600575-00 (R)	PIFA	0.37 1.15	N.A.	IPEX	Antenna length
34	wgt	22G600820-30 (L) 22G600575-10 (R)	PIFA	2.28 2.81	N.A.	IPEX	Antenna length
35	FVC	22G600820-00 (L) 22G600630-10 (R)	PIFA	-1.46 2.14	N.A.	IPEX	Antenna length
36	wgt	22G600750-30 (L)	PIFA	1.68	N.A.	IPEX	NA
37	FOXCONN	WDAN-TQ BD3001-DF (TX1) WDAN-TQ BD3001-DF (TX2) WDAN-TQ BD3001-DF (TX3)	PIFA	-0.87 -2.86 -1.27	2.5 2.5 2.5	IPEX	Antenna length
38	FOXCONN	WDAN-TQ BD3002-DF (TX1) WDAN-TQ BD3002-DF (TX2)	PIFA	-0.87 -2.86	2.5 2.5	IPEX	Antenna length
39	FOXCONN	WDAN-TQ BL5001-DF (TX1) WDAN-TQ BL5001-DF (TX2) WDAN-TQ BL5001-DF (TX3)	PIFA	-2.24 -2.41 -0.65	2.5 2.5 2.5	IPEX	Antenna length
40	FOXCONN	WDAN-TQ BL5002-DF (TX1) WDAN-TQ BL5002-DF (TX2)	PIFA	-2.24 -2.41	2.5 2.5	IPEX	Antenna length

No.	Brand	Model	Antenna type	Gain (dBi) with & w/o cable loss	Cable loss (dB)	Connector type	Difference
41	FOXCONN	WDAN-TQ BU2001-DF (TX1) WDAN-TQ BU2001-DF (TX2) WDAN-TQ BU2001-DF (TX3)	PIFA	-0.42 -0.37 -0.9	2.5 2.5 2.5	IPEX	Antenna length
42	FOXCONN	WDAN-TQ BU2002-DF (TX1) WDAN-TQ BU2002-DF (TX2)	PIFA	-0.42 -0.37	2.5 2.5	IPEX	Antenna length
43	FOXCONN	WDAN-TQ TE1001-DF (TX1) WDAN-TQ TE1001-DF (TX2) WDAN-TQ TE1001-DF (TX3)	PIFA	-0.43 -0.70 -0.25	2.5 2.5 2.5	IPEX	Antenna length
44	FOXCONN	WDAN-TQ TE1002-DF (TX1) WDAN-TQ TE1002-DF (TX2)	PIFA	-0.43 -0.70	2.5 2.5	IPEX	Antenna length
45	Tyco	2023935-1 (Main) 2023936-1 (Aux) 2023936-1 (MIMO)	PIFA	2.95 1.90 -0.28	1.88 2.03 2.01	U.FL	Antenna length
46	Tyco	2023937-1 (Main) 2023937-1 (Aux) 2023934-1 (MIMO)	PIFA	1.60 0.05 -0.28	1.85 2.00 2.01	U.FL	Antenna length
47	Tyco	2023938-1 (Main) 2023938-1 (Aux) 2023939-1 (MIMO)	PIFA	1.41 1.24 0.04	2.17 2.40 2.35	U.FL	Antenna length
48	Tyco	2023954-1 (Main) 2023954-1 (Aux) 2023955-1 (MIMO)	PIFA	1.68 0.92 1.98	2.14 3.02 1.44	U.FL	Antenna length
49	Hitachi	HBV07 (TX1) HBV07 (TX2)	PIFA	2.19 -0.33	0.95 0.95	I-PEX	Antenna color
50	Hitachi	HBV051 (TX1) HBV051 (TX2)	PIFA	2.91 2.82	0.95 0.95	I-PEX	Antenna color
51	Hitachi	HBV052 (TX1) HBV052 (TX2)	PIFA	0.27 0.02	0.95 0.95	I-PEX	Antenna color
52	Hitachi	HBV061 (TX1) HBV061 (TX2)	PIFA	1.30 2.42	0.95 0.95	I-PEX	Antenna color
53	Hitachi	HBV062 (TX1) HBV062 (TX2)	PIFA	-1.04 -1.19	0.95 0.95	I-PEX	Antenna color
54	Hitachi	HFT65 (TX1) HFT65 (TX2)	PIFA	-1.74 1.16	0.95 0.95	I-PEX	Antenna color

From the above antennas, the worst case was found in No. 1. Therefore only the test data of the mode was recorded in this report individually.

2. Client offers two samples for EUT, which are identical to each other in all aspects except for the following:

Sample	Difference
Sample 1	With MOS
Sample 2	Without MOS

From the above samples, sample 2 was the worst case, and it was selected as representative model for the test and its data was recorded in this report.

3. The EUT incorporates a SIMO function with 802.11b, 802.11g, draft 802.11n. Physically, the card provides one completed transmit and two receivers.
4. The EUT is 1 * 2 spatial SIMO without beam forming function. The antenna configuration is one transmitter antenna and two receiver antennas, as there are 2 antennas. Spatial multiplexing modes for simultaneous transmission using 1 antenna, and for simultaneous receiver using 2 antennas.
5. The EUT complies with draft 802.11n standards and backwards compatible with 802.11b, 802.11g products.
6. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 DESCRIPTION OF TEST MODES

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

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

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

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

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE < 1G	RE ≥ 1G	APCM	
-	√	√	√	√	-

Where **PLC**: Power Line Conducted Emission

RE < 1G: Radiated Emission below 1GHz

RE ≥ 1G: Radiated Emission above 1GHz

APCM: Antenna Port Conducted Measurement

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)
802.11b	1 to 11	1	DSSS	DBPSK	1

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)
802.11b	1 to 11	1	DSSS	DBPSK	1

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	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	13.5

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	DBPSK	1
802.11g	1 to 11	1, 11	OFDM	BPSK	6
Draft 802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	6.5
Draft 802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	13.5

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	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	13.5



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

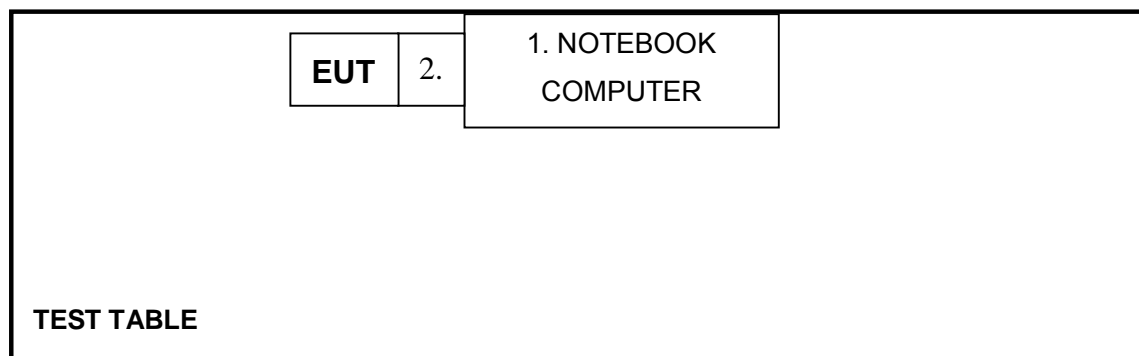
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP19L	CN-OHC416-70166 -5CA-0448	PIW632500516610
2	TEST TOOL	Realtek	NA	NA	NA

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

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

3.5 CONFIGURATION OF SYSTEM UNDER TEST



4. TEST TYPES AND RESULTS

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 DATE	CALIBRATED UNTIL
Test Receiver	ESCS 30	847124/029	Feb. 29, 2008	Feb. 28, 2009
Line-Impedance Stabilization Network (for EUT)	ENV-216	100071	Nov. 27, 2007	Nov. 26, 2008
Line-Impedance Stabilization Network (for Peripheral)	ESH3-Z5	848773/004	Nov. 09, 2007	Nov. 08, 2008
RF Cable (JYEBAO)	5DFB	COBCAB-001	July 24, 2008	July 23, 2009
50 ohms Terminator	50	3	Nov. 16, 2007	Nov. 15, 2008
Software	ADT_Cond_V7.3.2	NA	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.

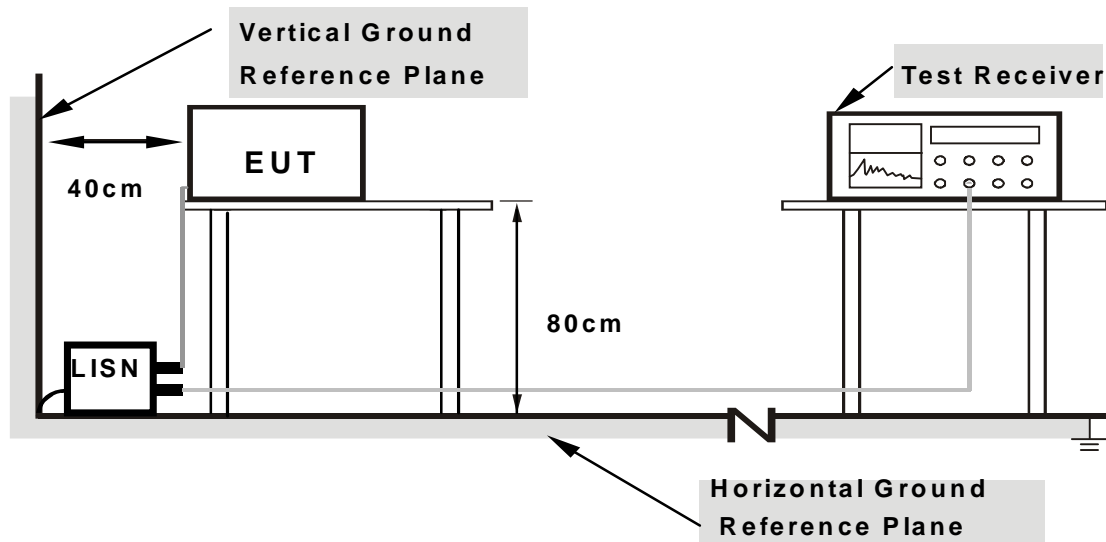
4.1.3 TEST PROCEDURES

- 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

- Connect the EUT with the support unit 1 (Notebook computer) which placed on a testing table.
- The communication partner run test program “MP819xVc” to enable EUT under transmission/receiving condition continuously.

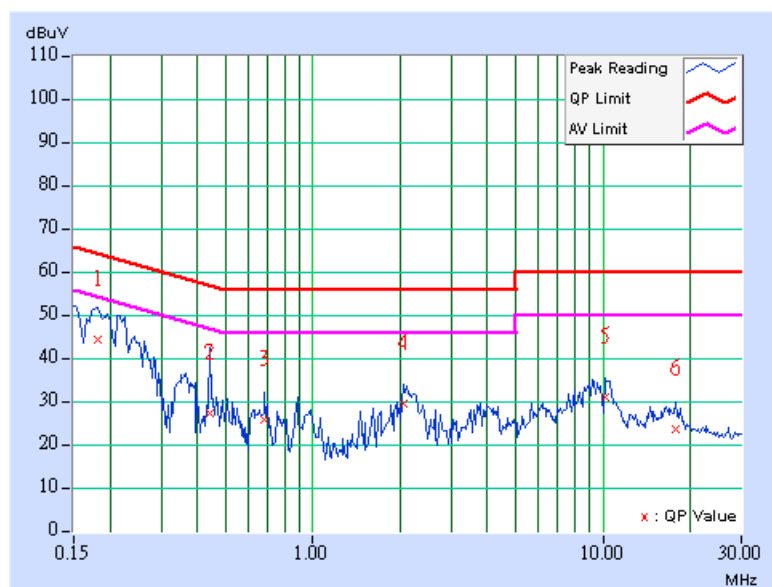
4.1.7 TEST RESULTS

802.11b DSSS MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line (L)
MODULATION TYPE	DBPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	1Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 963hPa	TESTED BY	Rex Huang

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	0.181	9.69	34.66	-	44.35	-	64.43	54.43	-20.08	-
2	0.443	9.93	17.34	-	27.27	-	57.01	47.01	-29.74	-
3	0.681	9.82	16.11	-	25.93	-	56.00	46.00	-30.07	-
4	2.051	9.72	19.70	-	29.42	-	56.00	46.00	-26.58	-
5	10.152	9.85	21.23	-	31.08	-	60.00	50.00	-28.92	-
6	17.859	9.93	13.74	-	23.67	-	60.00	50.00	-36.33	-

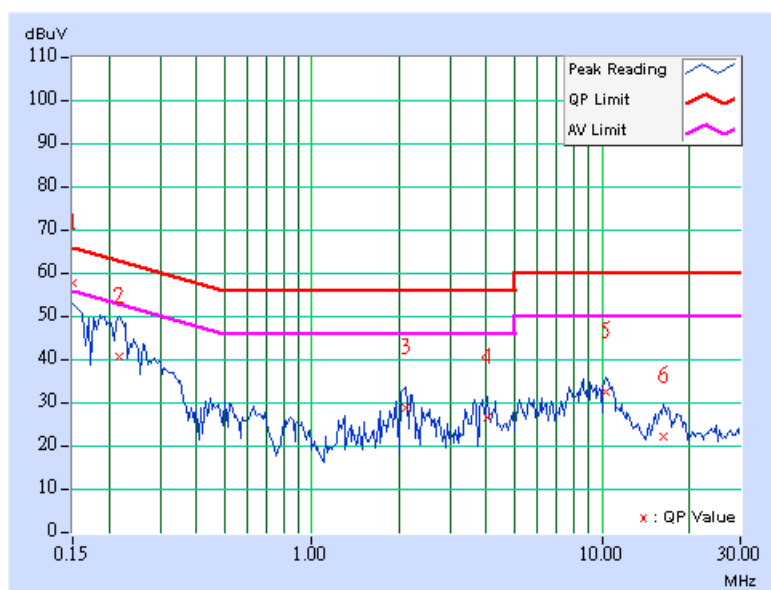
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Neutral (N)
MODULATION TYPE	DBPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	1Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 963hPa	TESTED BY	Rex Huang

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	9.67	47.72	23.26	57.39	32.93	66.00	56.00	-8.61	-23.07
2	0.216	9.72	30.90	-	40.62	-	62.96	52.96	-22.34	-
3	2.117	9.72	18.72	-	28.44	-	56.00	46.00	-27.56	-
4	4.055	9.76	16.80	-	26.56	-	56.00	46.00	-29.44	-
5	10.281	9.88	22.73	-	32.61	-	60.00	50.00	-27.39	-
6	16.375	10.00	12.29	-	22.29	-	60.00	50.00	-37.71	-

- 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 DATE	CALIBRATED UNTIL
ADVANTEST Spectrum Analyzer	R3271A	85060311	July 16, 2008	July 15, 2009
HP Pre_Amplifier	8449B	3008A01922	Sep. 25, 2008	Sep. 24, 2009
ROHDE & SCHWARZ Test Receiver	ESCS30	100375	April 01, 2008	Mar. 31, 2009
SCHWARZBECK TRILOG Broadband Antenna	VULB 9168	138	April 30, 2008	April 29, 2009
Schwarzbeck Horn_Antenna	BBHA9120	D124	Dec. 17, 2007	Dec. 16, 2008
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 28, 2008	Jan. 27, 2009
RF Switches (ARNITSU)	CS-201	1565157	Aug. 14, 2008	Aug. 13, 2009
RF CABLE (Chaintek)	SF102	22054-2	Dec. 07, 2007	Dec. 06, 2008
RF Cable	8DFB	STCCAB-30M-1GHz	Oct. 07, 2008	Oct. 06, 2009
Software	ADT_Radiated_V7.6.15.8	NA	NA	NA
CHANCE MOST Antenna Tower	AT-100	0203	NA	NA
CHANCE MOST Turn Table	TT-100	0203	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 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 3789C-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.

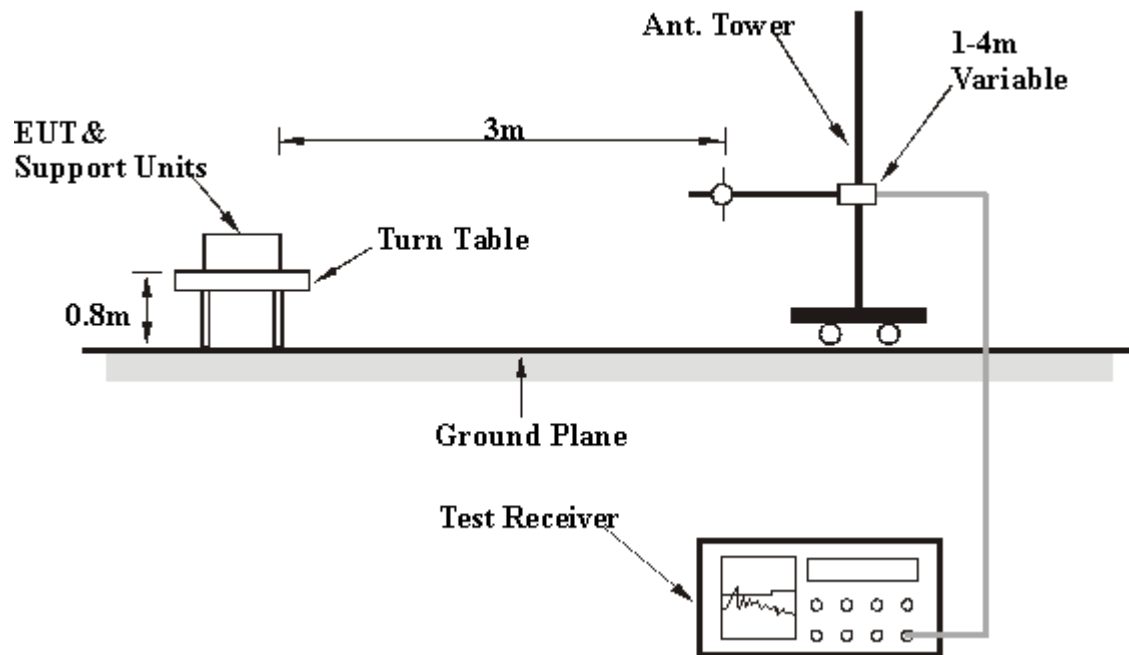
NOTE:

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

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



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

4.2.6 EUT OPERATING CONDITIONS

Same as the 4.1.6

4.2.7 TEST RESULTS

BELOW 1GHz WORST-CASE DATA : 802.11b DSSS MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24 deg. C, 74 %RH 963hPa	TESTED BY	Frank Liu

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	2385.00	60.59 PK	74.00	-13.41	1.46 H	110	30.55	30.04
2	2385.00	53.37 AV	54.00	-0.63	1.46 H	110	23.33	30.04
3	*2412.00	105.18 PK			1.42 H	112	75.03	30.15
4	*2412.00	100.41 AV			1.42 H	112	70.26	30.15
5	4824.00	54.55 PK	74.00	-19.45	1.18 H	83	19.09	35.46
6	4824.00	50.77 AV	54.00	-3.23	1.18 H	83	15.31	35.46
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2386.00	56.33 PK	74.00	-17.67	1.57 V	0	26.28	30.05
2	2386.00	47.01 AV	54.00	-6.99	1.57 V	0	16.96	30.05
3	*2412.00	102.10 PK			1.57 V	267	71.95	30.15
4	*2412.00	98.30 AV			1.57 V	267	68.15	30.15
5	4824.00	53.80 PK	74.00	-20.20	1.04 V	351	18.34	35.46
6	4824.00	49.60 AV	54.00	-4.40	1.04 V	351	14.14	35.46

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24 deg. C, 74 %RH 963hPa	TESTED BY	Frank Liu

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	101.81 PK			1.40 H	128	71.57	30.24
2	*2437.00	97.21 AV			1.40 H	128	66.97	30.24
3	4874.00	49.16 PK	74.00	-24.84	1.02 H	75	13.61	35.55
4	4874.00	42.42 AV	54.00	-11.58	1.02 H	75	6.87	35.55
5	7311.00	60.55 PK	74.00	-13.45	1.41 H	123	18.51	42.04
6	7311.00	53.48 AV	54.00	-0.52	1.41 H	123	11.44	42.04
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	99.60 PK			1.64 V	265	69.36	30.24
2	*2437.00	95.40 AV			1.64 V	265	65.16	30.24
3	4874.00	47.60 PK	74.00	-26.40	1.07 V	354	12.05	35.55
4	4874.00	41.70 AV	54.00	-12.30	1.07 V	354	6.15	35.55
5	7311.00	58.60 PK	74.00	-15.40	1.07 V	354	16.56	42.04
6	7311.00	41.70 AV	54.00	-12.30	1.07 V	354	-0.34	42.04

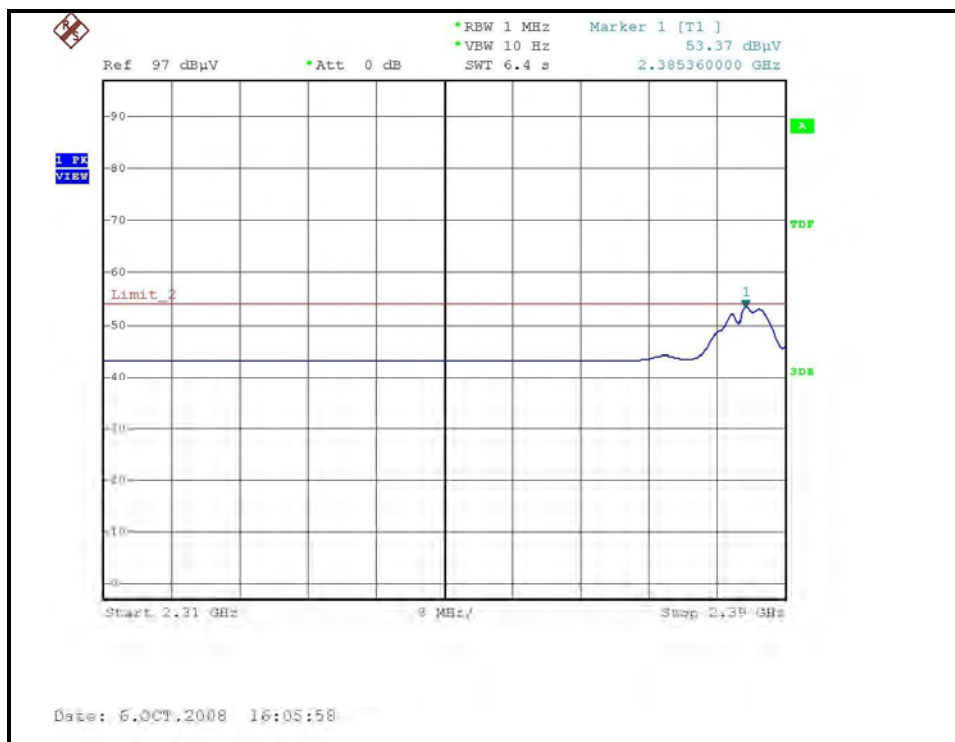
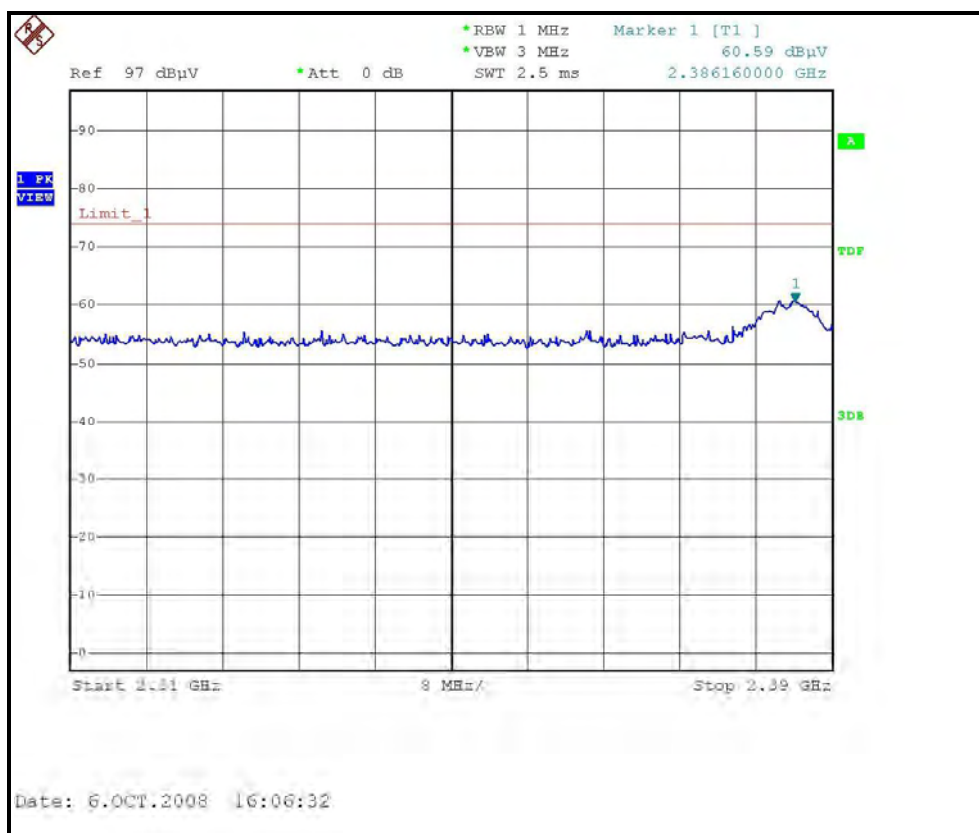
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. “ * ”: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24 deg. C, 74 %RH 963hPa	TESTED BY	Frank Liu

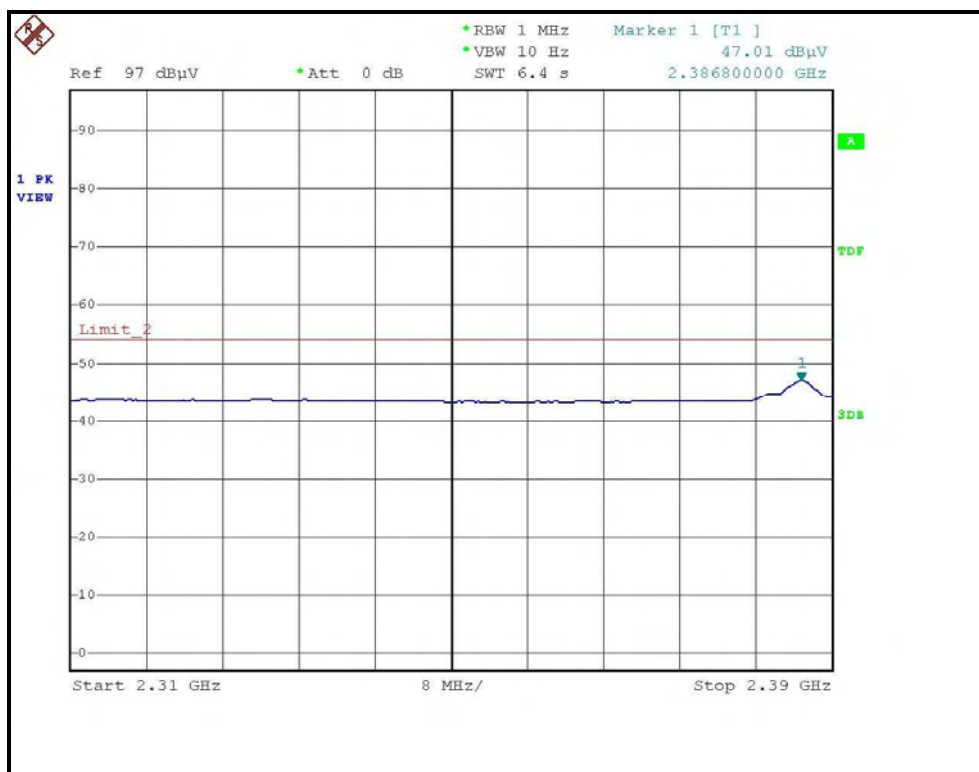
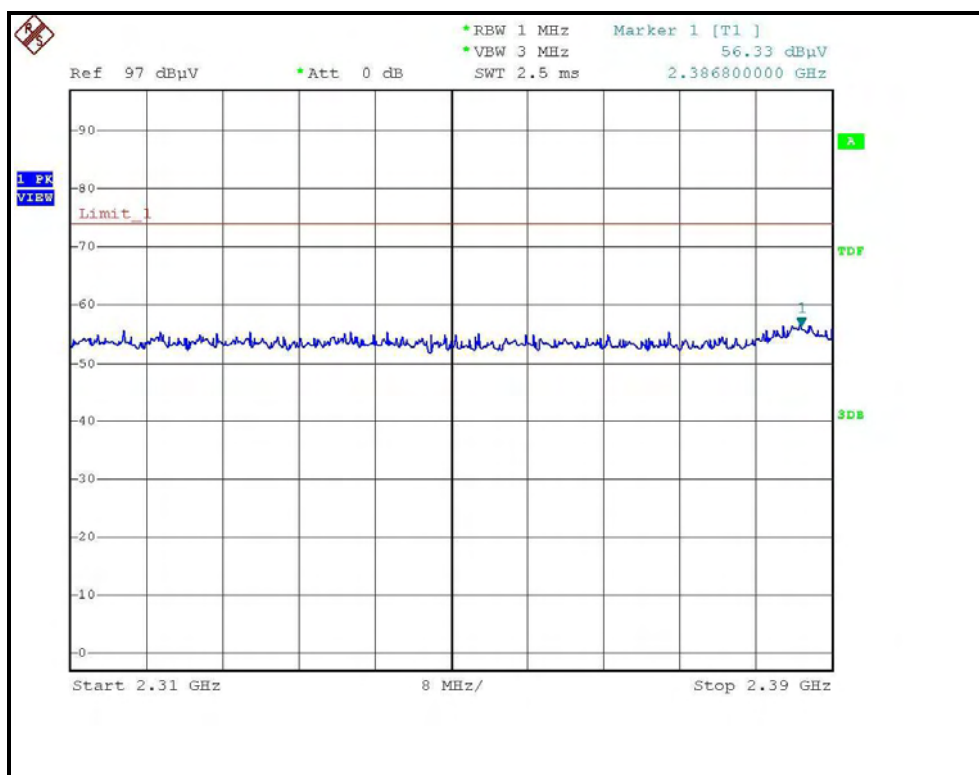
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	99.84 PK			1.42 H	125	69.50	30.34
2	*2462.00	95.20 AV			1.42 H	125	64.86	30.34
3	2487.00	56.62 PK	74.00	-17.38	1.41 H	163	26.18	30.44
4	2487.00	43.19 AV	54.00	-10.81	1.41 H	163	12.75	30.44
5	4924.00	49.88 PK	74.00	-24.12	1.12 H	95	14.25	35.63
6	4924.00	43.62 AV	54.00	-10.38	1.12 H	95	7.99	35.63
7	7386.00	60.30 PK	74.00	-13.70	1.42 H	92	18.07	42.23
8	7386.00	52.97 AV	54.00	-1.03	1.42 H	92	10.74	42.23
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	97.67 PK			1.60 V	278	67.33	30.34
2	*2462.00	93.70 AV			1.60 V	278	63.36	30.34
3	2488.00	55.01 PK	74.00	-18.99	1.61 V	278	24.57	30.44
4	2488.00	44.12 AV	54.00	-9.88	1.61 V	278	13.68	30.44
5	4924.00	49.50 PK	74.00	-24.50	1.09 V	352	13.87	35.63
6	4924.00	43.00 AV	54.00	-11.00	1.09 V	352	7.37	35.63
7	7386.00	57.90 PK	74.00	-16.10	1.02 V	20	15.67	42.23
8	7386.00	49.20 AV	54.00	-4.80	1.02 V	20	6.97	42.23

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

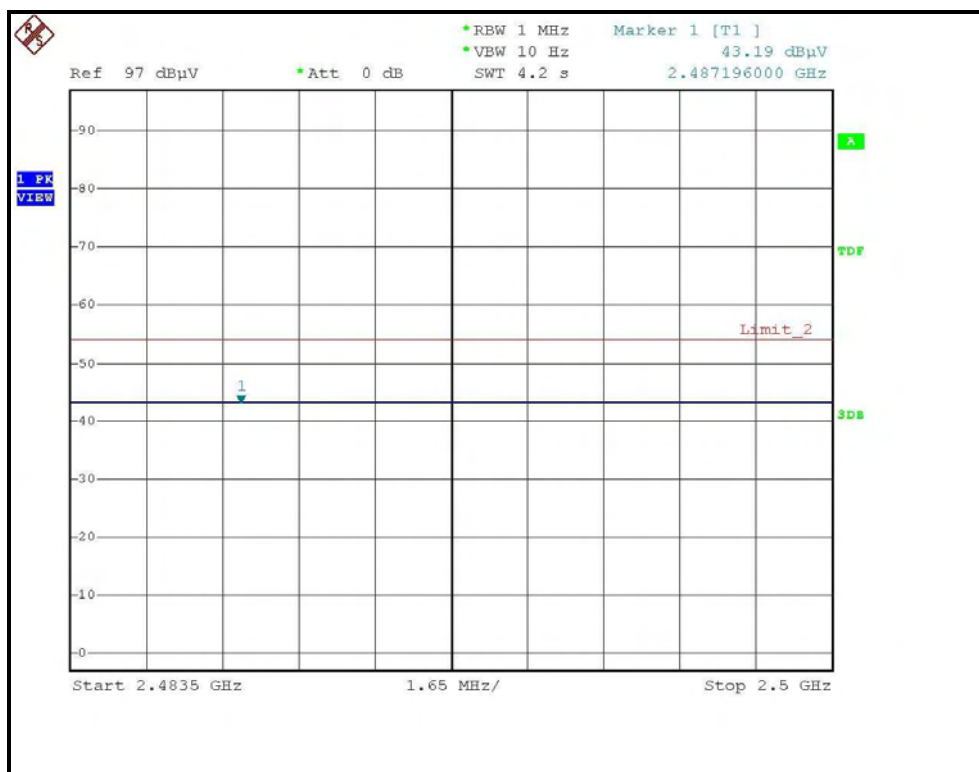
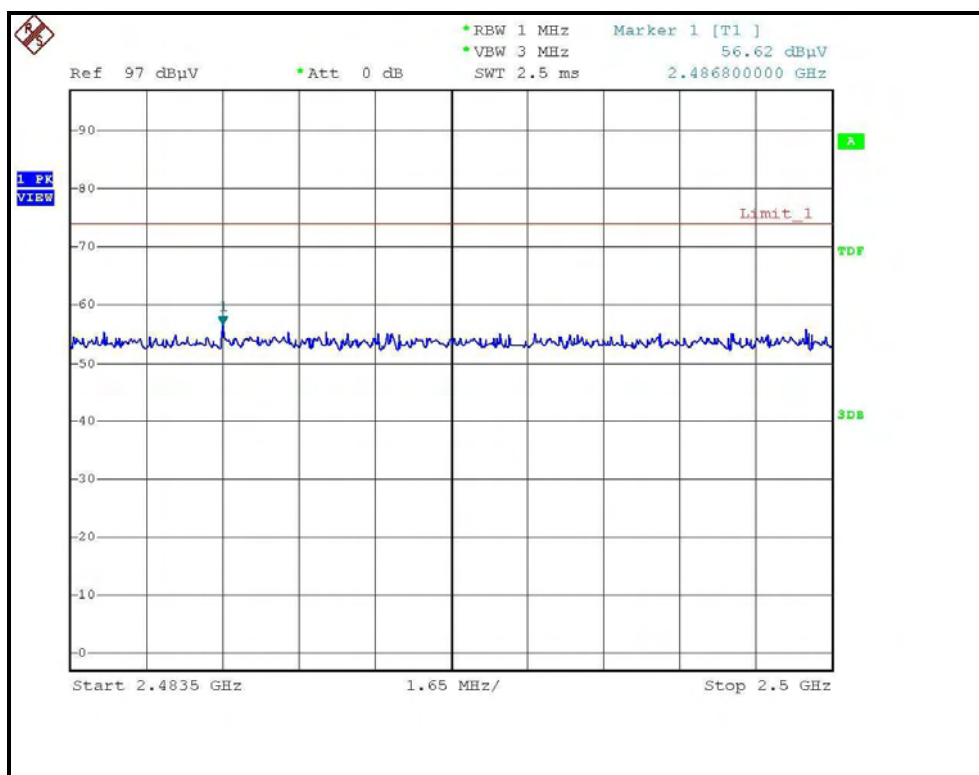
RESTRICTED BANDEDGE (802.11b MODE, CH1, HORIZONTAL)



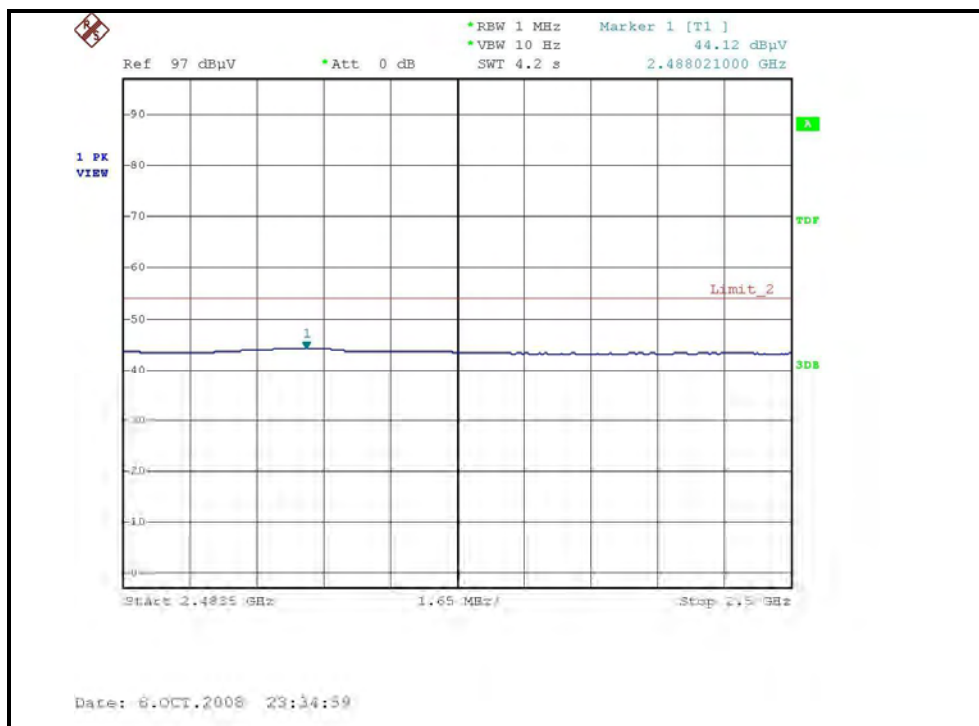
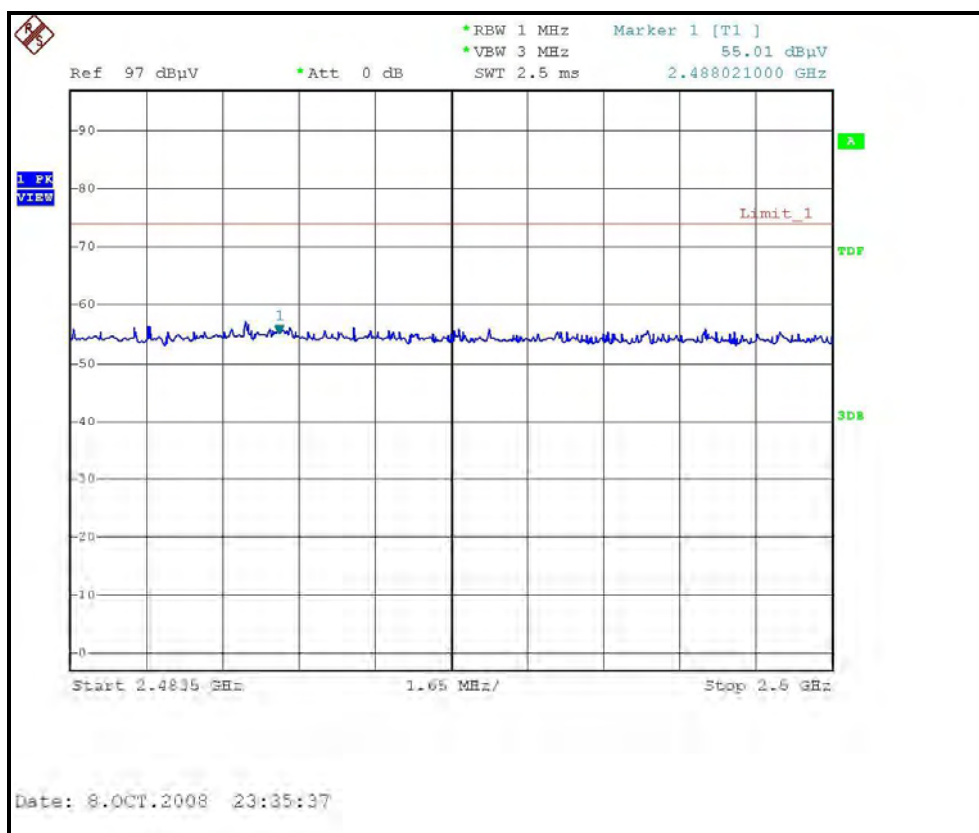
RESTRICTED BANDEDGE (802.11b MODE, CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11b MODE,CH11, HORIZONTAL)



RESTRICTED BANDEDGE (802.11b MODE, CH11, VERTICAL)



802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24 deg. C, 74 %RH 963hPa	TESTED BY	Frank Liu

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	70.49 PK	74.00	-3.51	1.49 H	108	40.43	30.06
2	2390.00	52.32 AV	54.00	-1.68	1.49 H	108	22.26	30.06
3	*2412.00	104.16 PK			1.42 H	111	74.01	30.15
4	*2412.00	93.41 AV			1.42 H	111	63.26	30.15
5	4824.00	46.40 PK	74.00	-27.60	1.00 H	91	10.94	35.46
6	4824.00	32.10 AV	54.00	-21.90	1.00 H	91	-3.36	35.46
7	#7236.00	65.30 PK	84.16	-18.86	1.34 H	92	23.45	41.85
8	#7236.00	50.60 AV	73.41	-22.81	1.34 H	92	8.75	41.85
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	67.72 PK	74.00	-6.28	1.38 V	262	37.66	30.06
2	2390.00	49.53 AV	54.00	-4.47	1.38 V	262	19.47	30.06
3	*2412.00	101.20 PK			1.38 V	269	71.05	30.15
4	*2412.00	90.70 AV			1.38 V	269	60.55	30.15
5	4824.00	44.20 PK	74.00	-29.80	1.08 V	324	8.74	35.46
6	4824.00	31.70 AV	54.00	-22.30	1.08 V	324	-3.76	35.46
7	#7236.00	63.50 PK	81.20	-17.70	1.07 V	29	21.65	41.85
8	#7236.00	47.40 AV	70.70	-23.30	1.07 V	29	5.55	41.85

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24 deg. C, 74 %RH 963hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	103.57 PK			1.51 H	111	73.33	30.24
2	*2437.00	92.73 AV			1.51 H	111	62.49	30.24
3	4874.00	46.80 PK	74.00	-27.20	1.01 H	93	11.25	35.55
4	4874.00	32.40 AV	54.00	-21.60	1.01 H	93	-3.15	35.55
5	7311.00	67.83 PK	74.00	-6.17	1.37 H	81	25.79	42.04
6	7311.00	52.41 AV	54.00	-1.59	1.37 H	81	10.37	42.04
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	101.40 PK			1.37 V	254	71.16	30.24
2	*2437.00	90.10 AV			1.37 V	254	59.86	30.24
3	4874.00	45.30 PK	74.00	-28.70	1.02 V	319	9.75	35.55
4	4874.00	32.10 AV	54.00	-21.90	1.02 V	319	-3.45	35.55
5	7311.00	65.20 PK	74.00	-8.80	1.04 V	38	23.16	42.04
6	7311.00	50.30 AV	54.00	-3.70	1.04 V	38	8.26	42.04

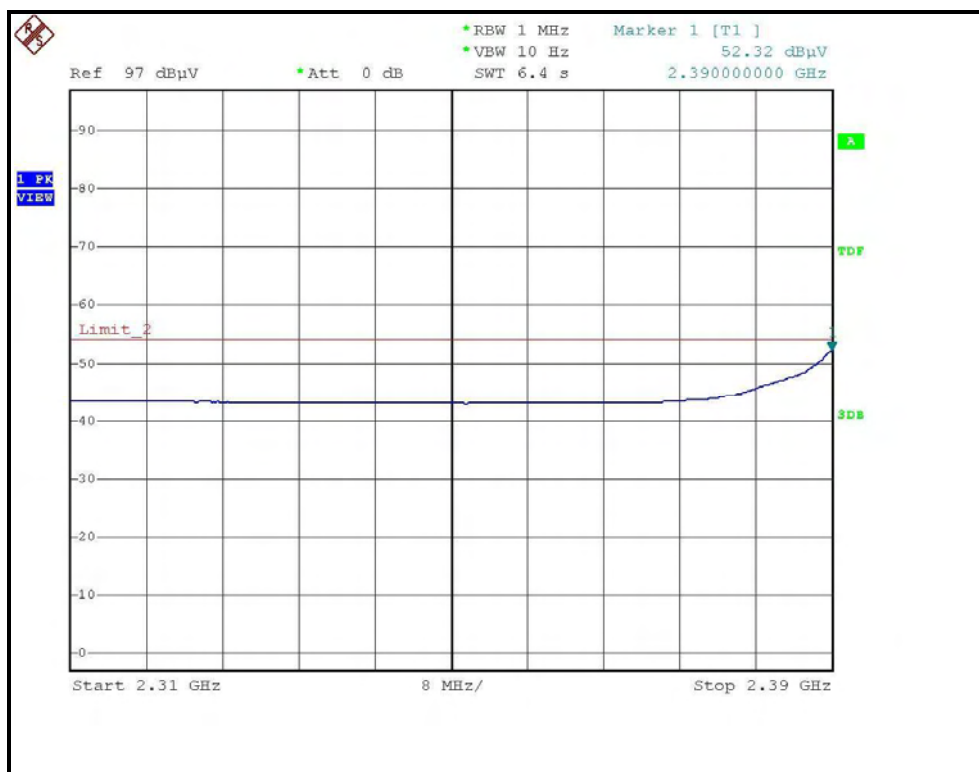
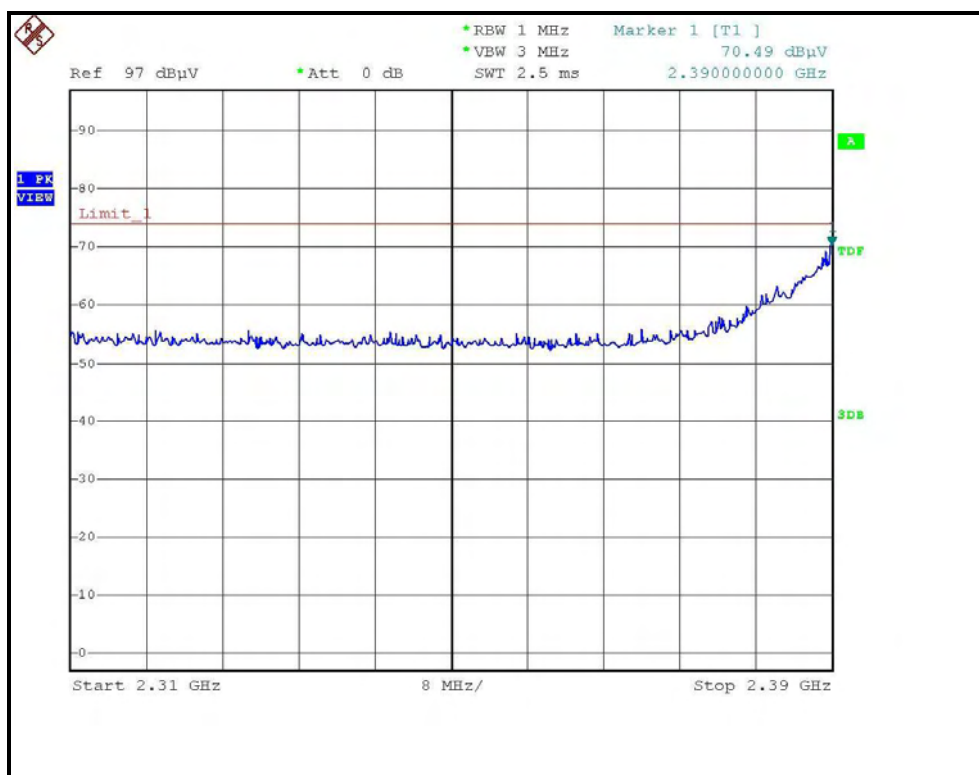
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. “ * ”: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24 deg. C, 74 %RH 963hPa	TESTED BY	Frank Liu

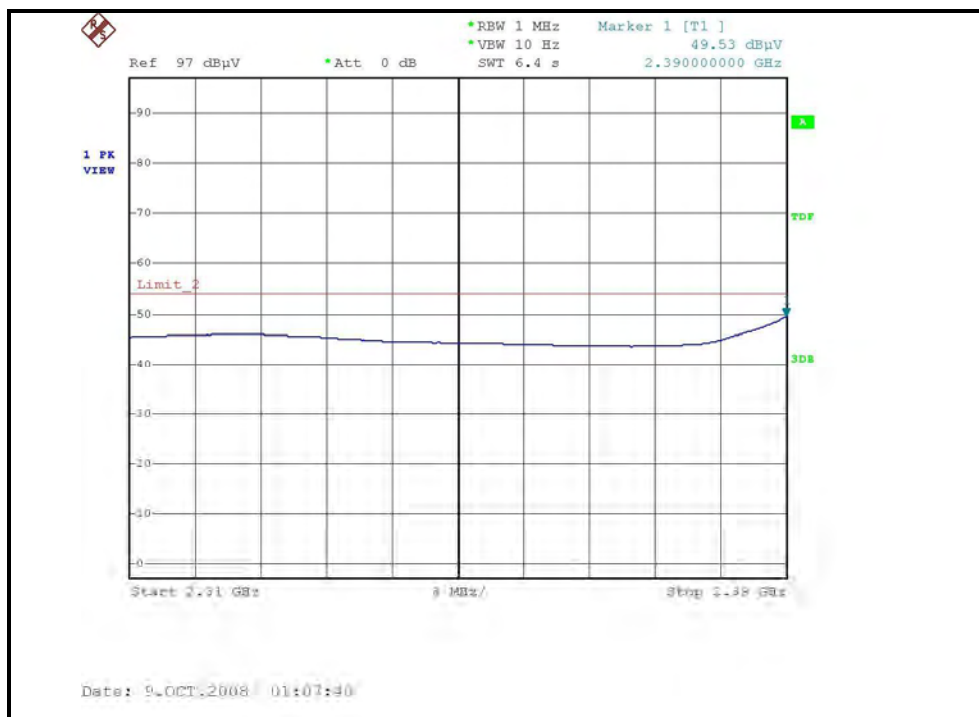
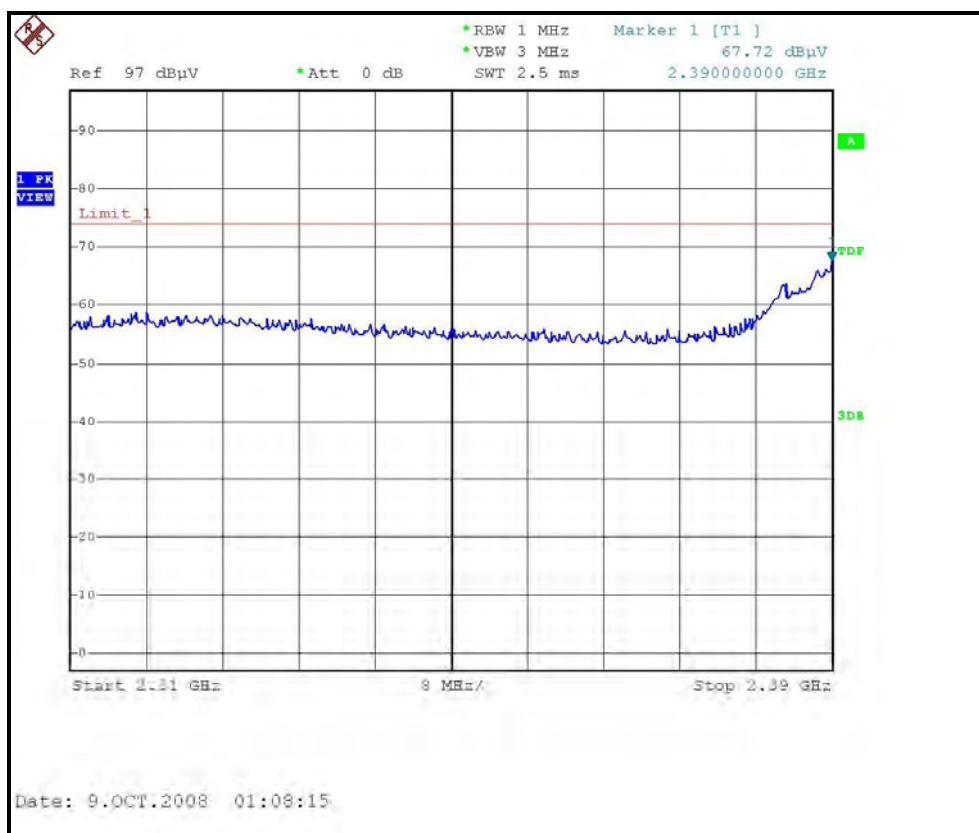
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	103.76 PK			1.42 H	110	73.42	30.34
2	*2462.00	93.54 AV			1.42 H	110	63.20	30.34
3	2483.50	68.94 PK	74.00	-5.06	1.41 H	115	38.51	30.43
4	2483.50	51.44 AV	54.00	-2.56	1.41 H	115	21.01	30.43
5	4924.00	47.57 PK	74.00	-26.43	1.00 H	88	11.94	35.63
6	4924.00	33.72 AV	54.00	-20.28	1.00 H	88	-1.91	35.63
7	7386.00	67.18 PK	74.00	-6.82	1.44 H	87	24.95	42.23
8	7386.00	52.33 AV	54.00	-1.67	1.44 H	87	10.10	42.23
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	102.30 PK			1.32 V	259	71.96	30.34
2	*2462.00	91.40 AV			1.32 V	259	61.06	30.34
3	2483.50	63.47 PK	74.00	-10.53	1.31 V	263	33.04	30.43
4	2483.50	48.02 AV	54.00	-5.98	1.31 V	263	17.59	30.43
5	4924.00	41.10 PK	74.00	-32.90	1.03 V	312	5.47	35.63
6	4924.00	32.50 AV	54.00	-21.50	1.03 V	312	-3.13	35.63
7	7386.00	65.10 PK	74.00	-8.90	1.01 V	37	22.87	42.23
8	7386.00	50.20 AV	54.00	-3.80	1.01 V	37	7.97	42.23

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

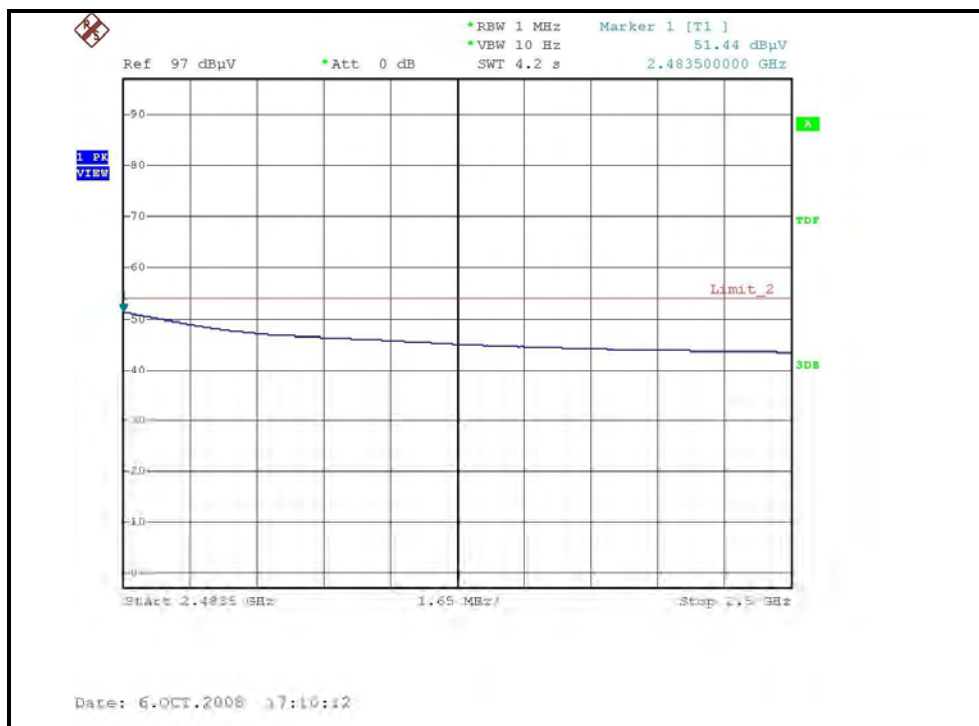
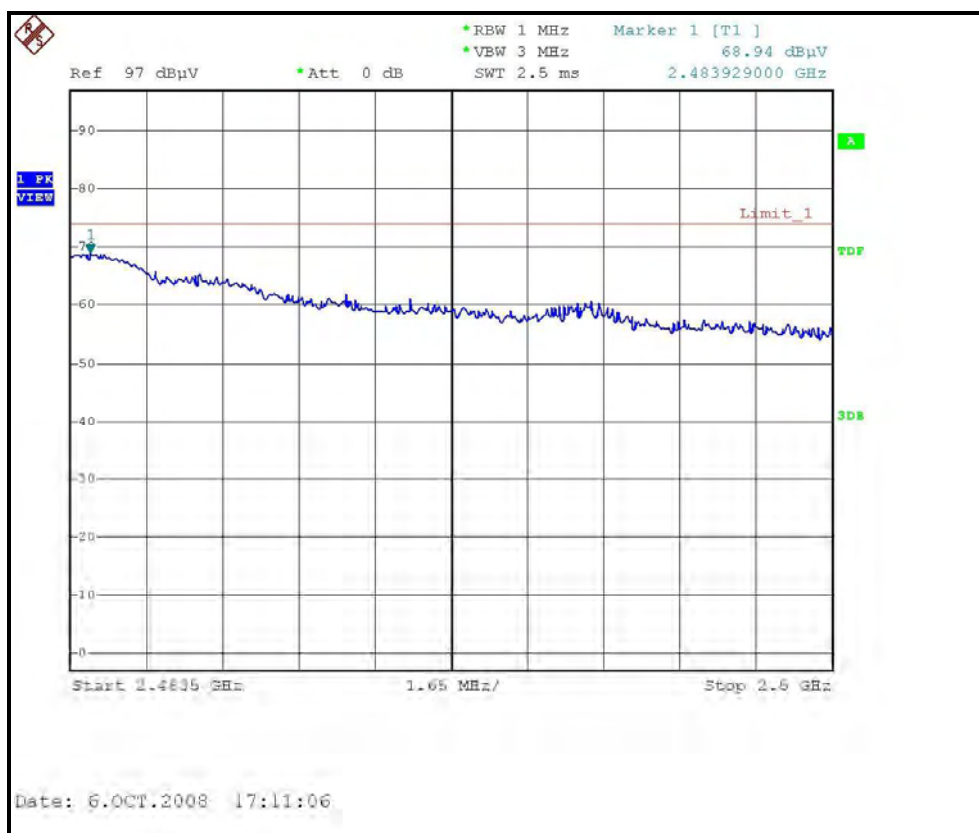
RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)



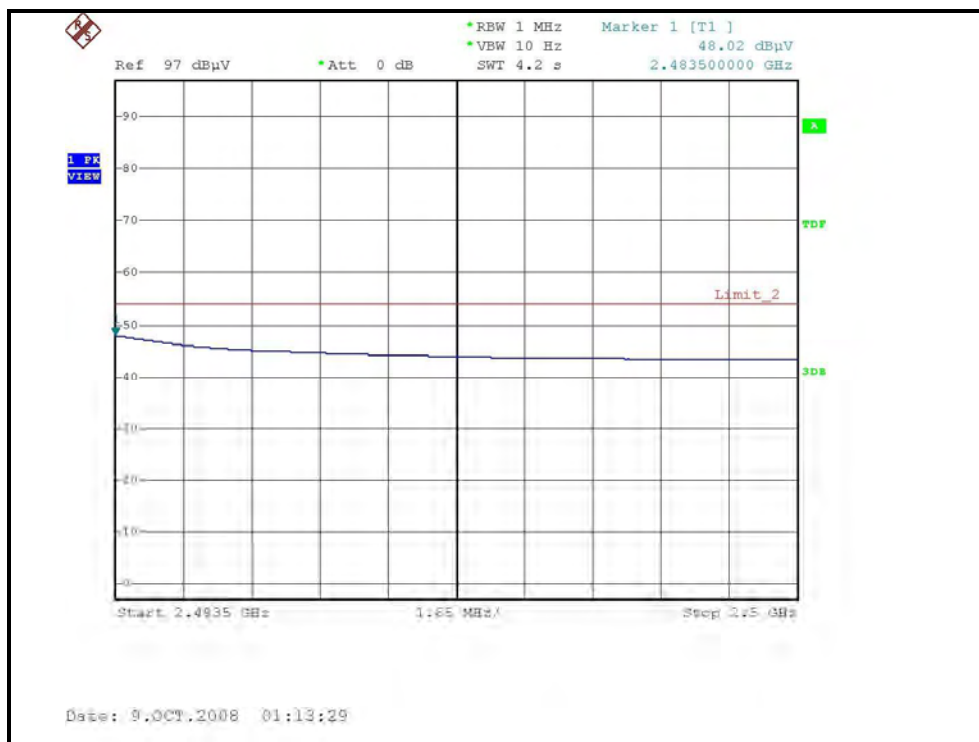
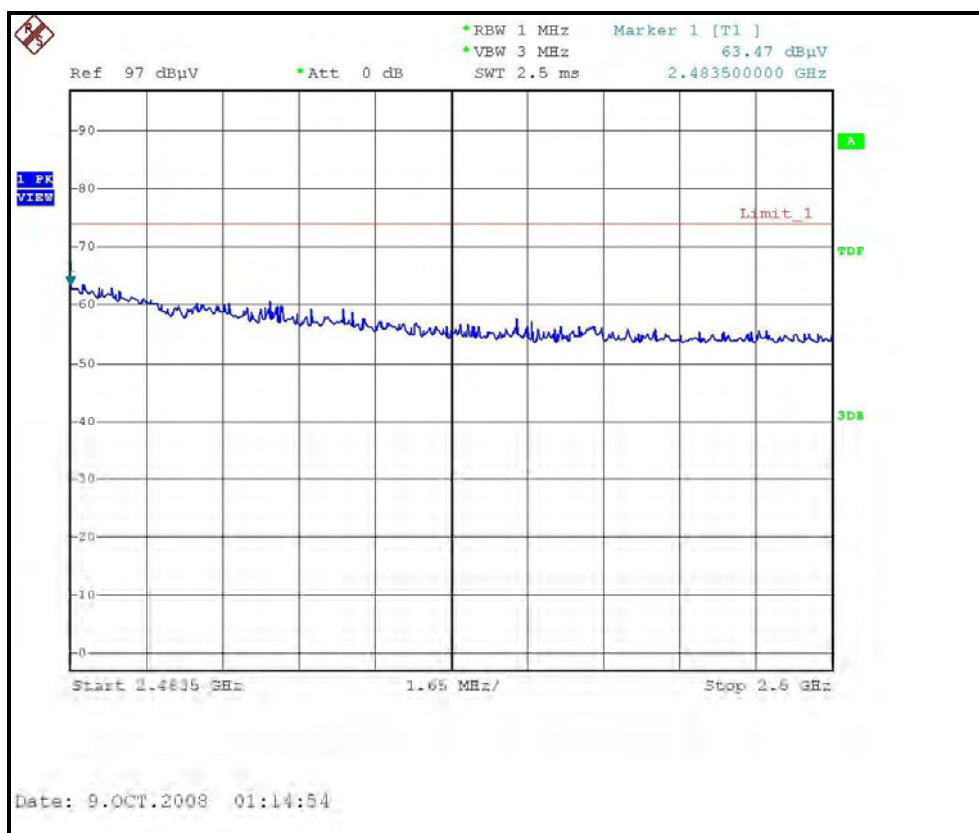
RESTRICTED BANDEDGE (802.11g MODE, CH1, VERTICAL)



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
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24 deg. C, 74 %RH 963hPa	TESTED BY	Frank Liu

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	73.29 PK	74.00	-0.71	1.02 H	95	43.23	30.06
2	2390.00	51.27 AV	54.00	-2.73	1.02 H	95	21.21	30.06
3	*2412.00	103.49 PK			1.41 H	161	73.34	30.15
4	*2412.00	92.60 AV			1.41 H	161	62.45	30.15
5	4824.00	45.60 PK	74.00	-28.40	1.02 H	95	10.14	35.46
6	4824.00	31.70 AV	54.00	-22.30	1.02 H	95	-3.76	35.46
7	#7236.00	67.10 PK	83.49	-16.39	1.34 H	92	25.25	41.85
8	#7236.00	49.80 AV	72.60	-22.80	1.34 H	92	7.95	41.85
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	67.30 PK	74.00	-6.70	1.31 V	263	37.24	30.06
2	2390.00	47.73 AV	54.00	-6.27	1.31 V	263	17.67	30.06
3	*2412.00	101.10 PK			1.34 V	257	70.95	30.15
4	*2412.00	89.10 AV			1.34 V	257	58.95	30.15
5	4824.00	45.20 PK	74.00	-28.80	1.05 V	314	9.74	35.46
6	4824.00	31.30 AV	54.00	-22.70	1.05 V	314	-4.16	35.46
7	#7236.00	65.30 PK	81.10	-15.80	1.09 V	37	23.45	41.85
8	#7236.00	47.40 AV	69.10	-21.70	1.09 V	37	5.55	41.85

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24 deg. C, 74 %RH 963hPa	TESTED BY	Frank Liu

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	104.53 PK			1.40 H	125	74.29	30.24
2	*2437.00	93.86 AV			1.40 H	125	63.62	30.24
3	4874.00	47.20 PK	74.00	-26.80	1.05 H	98	11.65	35.55
4	4874.00	33.40 AV	54.00	-20.60	1.05 H	98	-2.15	35.55
5	7311.00	69.90 PK	74.00	-4.10	1.38 H	84	27.86	42.04
6	7311.00	52.40 AV	54.00	-1.60	1.38 H	84	10.36	42.04
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	103.40 PK			1.29 V	259	73.16	30.24
2	*2437.00	91.70 AV			1.29 V	259	61.46	30.24
3	4874.00	46.30 PK	74.00	-27.70	1.02 V	329	10.75	35.55
4	4874.00	32.10 AV	54.00	-21.90	1.02 V	329	-3.45	35.55
5	7311.00	67.30 PK	74.00	-6.70	1.04 V	28	25.26	42.04
6	7311.00	50.10 AV	54.00	-3.90	1.04 V	28	8.06	42.04

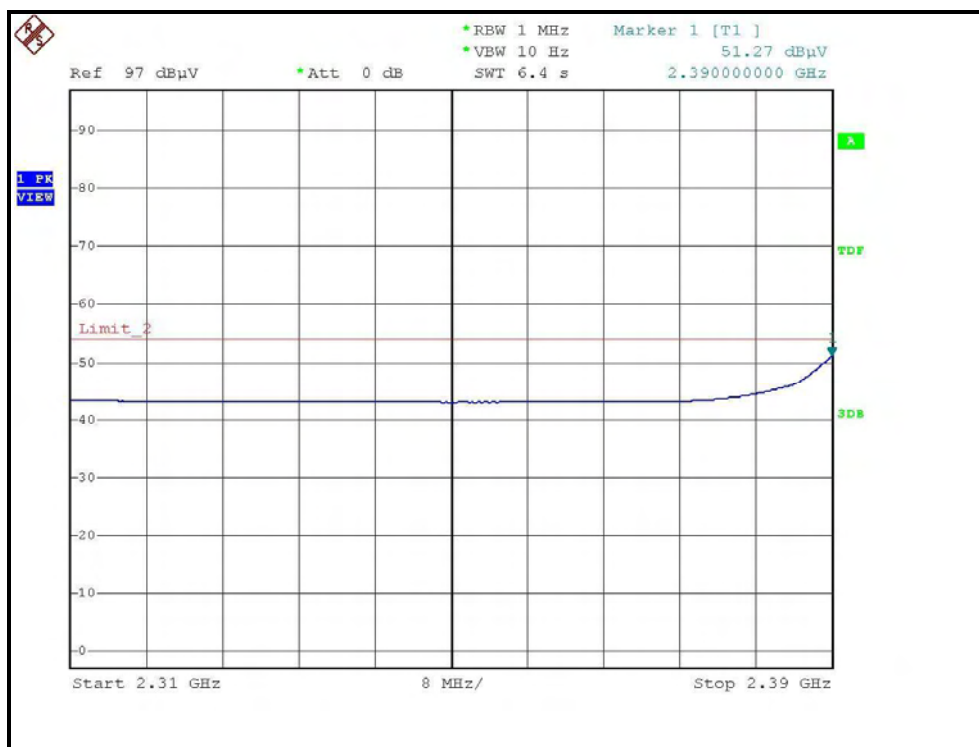
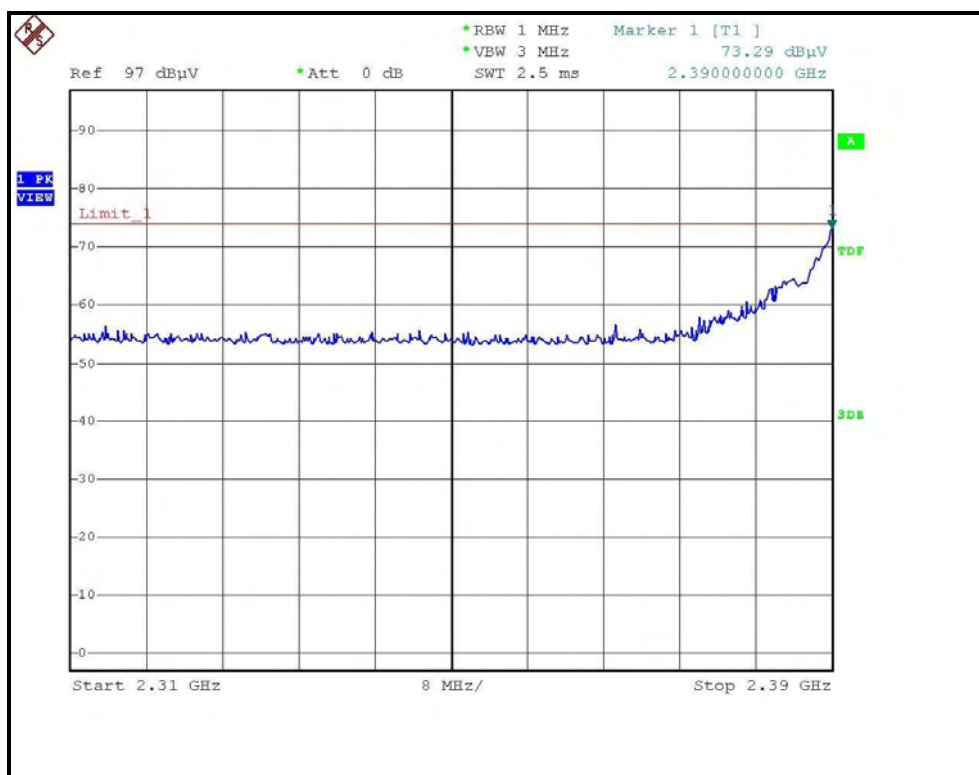
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. “ * ”: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24 deg. C, 74 %RH 963hPa	TESTED BY	Frank Liu

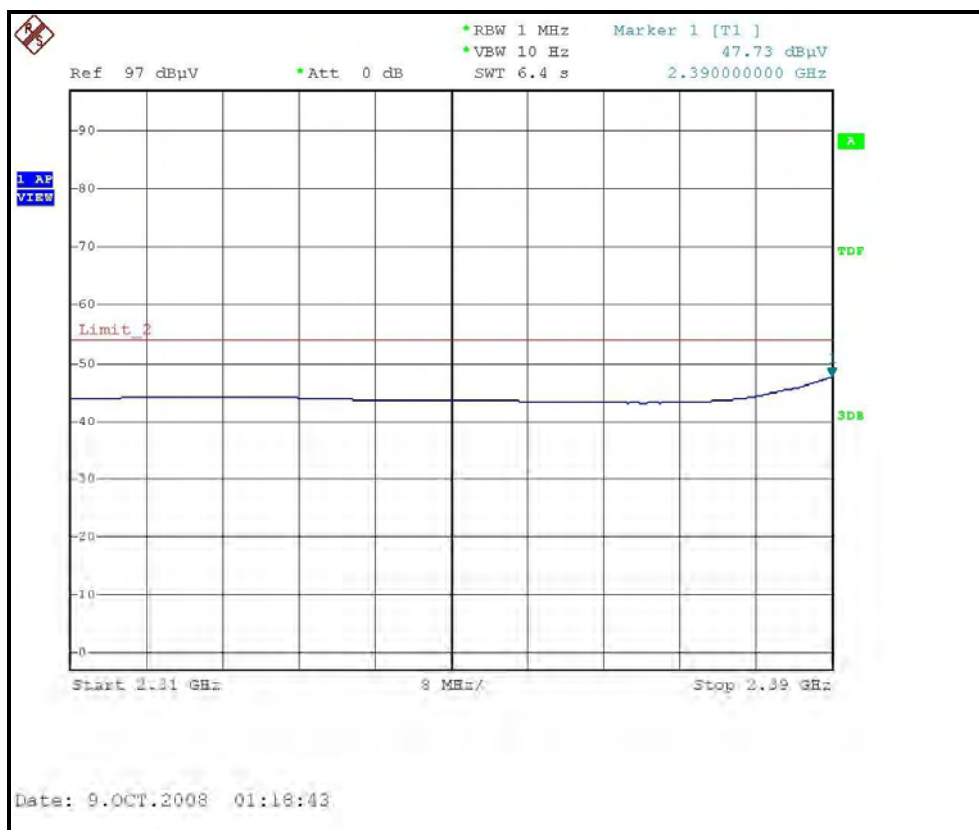
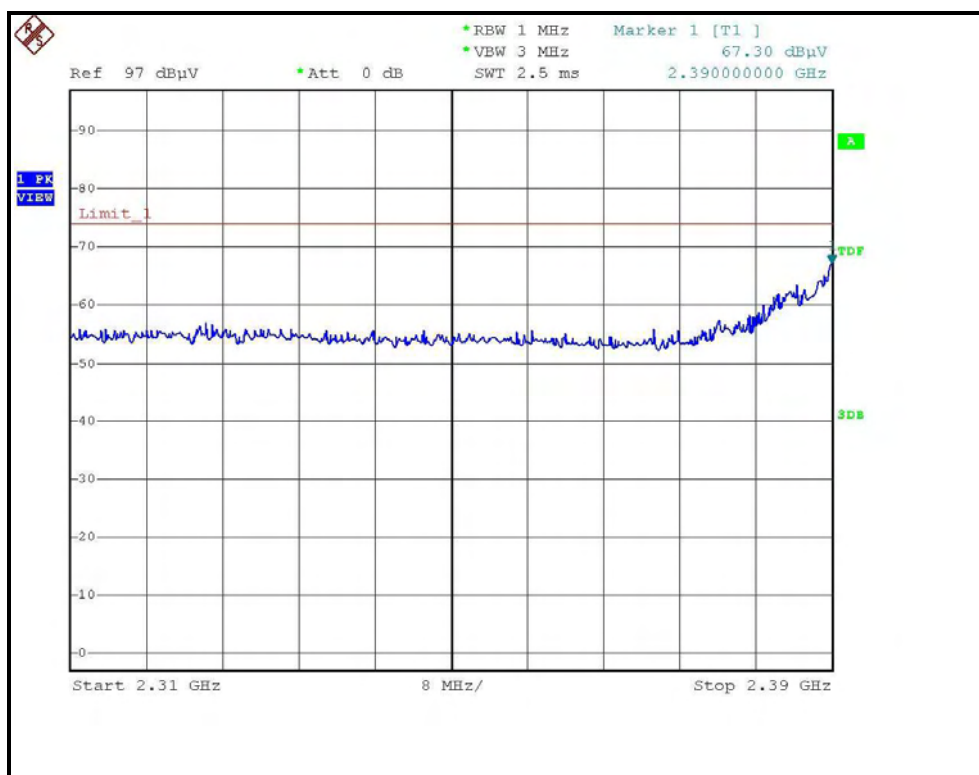
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	104.50 PK			1.42 H	111	74.16	30.34
2	*2462.00	94.18 AV			1.42 H	111	63.84	30.34
3	2483.50	70.70 PK	74.00	-3.30	1.41 H	111	40.27	30.43
4	2483.50	52.80 AV	54.00	-1.20	1.41 H	111	22.37	30.43
5	4936.00	49.30 PK	74.00	-24.70	1.06 H	94	13.65	35.65
6	4936.00	35.20 AV	54.00	-18.80	1.06 H	94	-0.45	35.65
7	7386.00	69.76 PK	74.00	-4.24	1.43 H	86	27.53	42.23
8	7386.00	52.43 AV	54.00	-1.57	1.43 H	86	10.20	42.23
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	102.90 PK			1.27 V	210	72.56	30.34
2	*2462.00	91.30 AV			1.27 V	210	60.96	30.34
3	2483.50	66.20 PK	74.00	-7.80	1.31 V	263	35.77	30.43
4	2483.50	49.13 AV	54.00	-4.87	1.31 V	263	18.70	30.43
5	4936.00	47.20 PK	74.00	-26.80	1.05 V	324	11.55	35.65
6	4936.00	33.65 AV	54.00	-20.35	1.05 V	324	-2.00	35.65
7	7386.00	61.52 PK	74.00	-12.48	1.07 V	35	19.29	42.23
8	7386.00	50.19 AV	54.00	-3.81	1.07 V	35	7.96	42.23

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

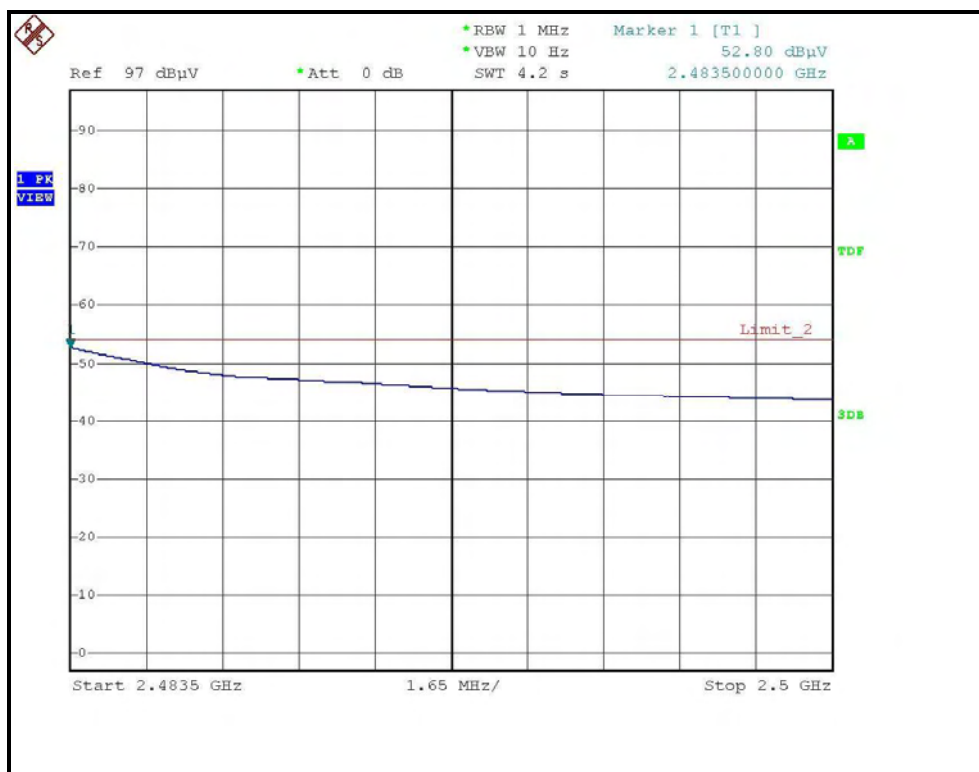
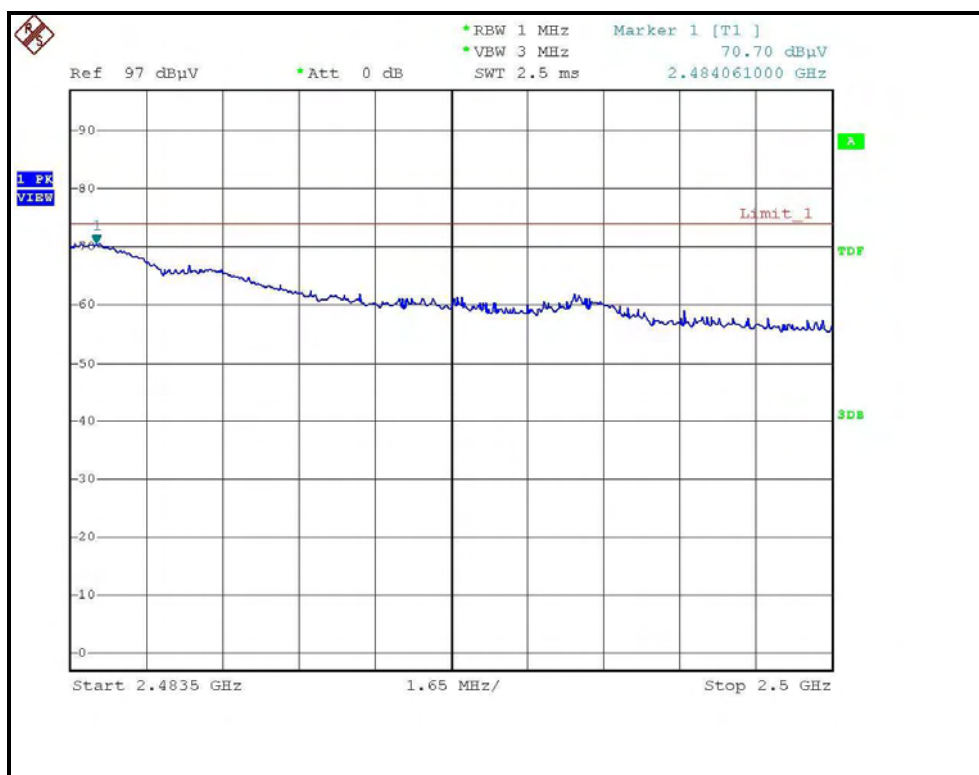
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH1, HORIZONTAL)



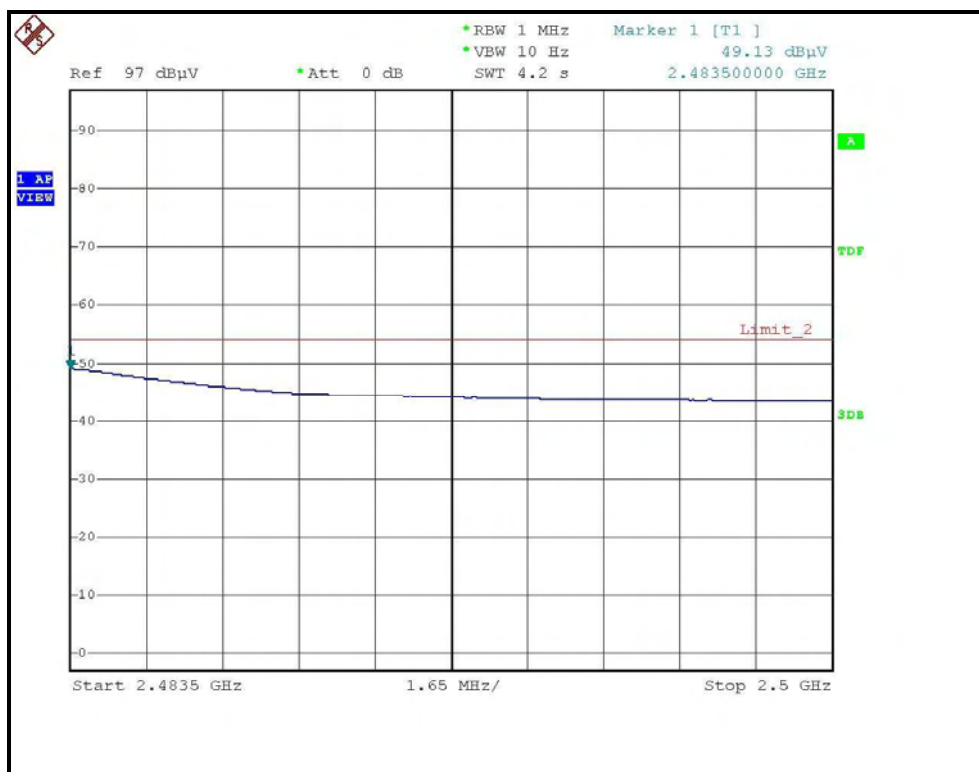
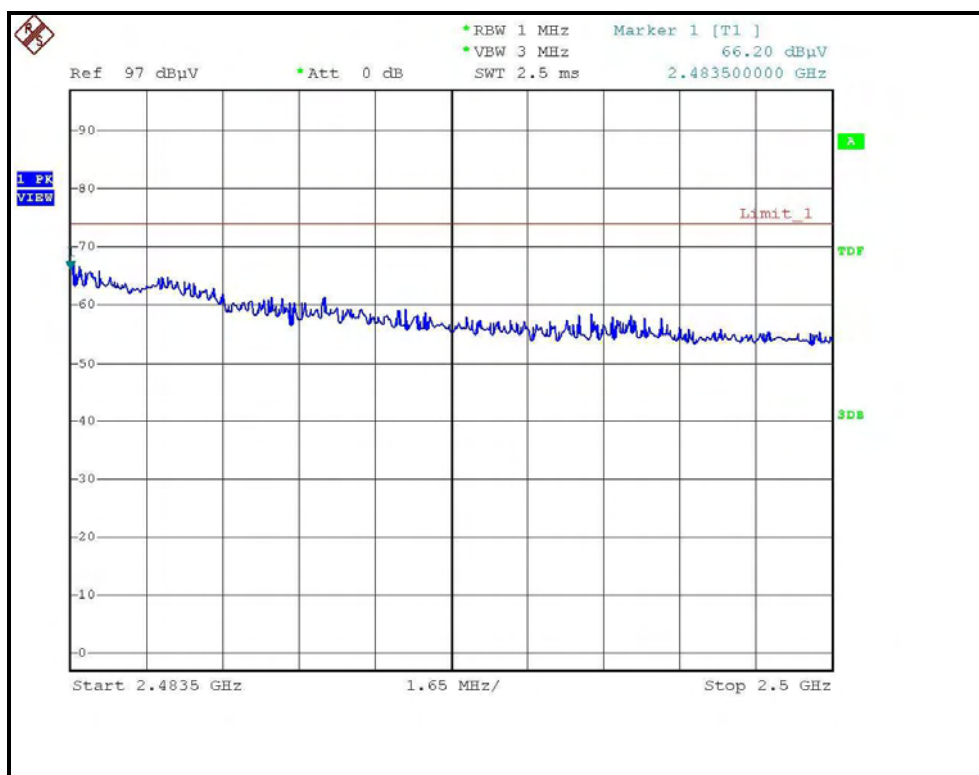
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH1, VERTICAL)



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
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24 deg. C, 74 %RH 963hPa	TESTED BY	Frank Liu

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	69.85 PK	74.00	-4.15	1.09 H	84	39.79	30.06
2	2390.00	52.38 AV	54.00	-1.62	1.09 H	84	22.32	30.06
3	*2422.00	100.01 PK			1.40 H	126	69.82	30.19
4	*2422.00	89.85 AV			1.40 H	126	59.66	30.19
5	4824.00	47.10 PK	74.00	-26.90	1.09 H	84	11.64	35.46
6	4824.00	32.40 AV	54.00	-21.60	1.09 H	84	-3.06	35.46
7	#7236.00	64.30 PK	80.01	-15.71	1.35 H	93	22.45	41.85
8	#7236.00	48.20 AV	69.85	-21.65	1.35 H	93	6.35	41.85
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	65.51 PK	74.00	-8.49	1.31 V	263	35.45	30.06
2	2390.00	49.52 AV	54.00	-4.48	1.31 V	263	19.46	30.06
3	*2422.00	98.20 PK			1.39 V	261	68.01	30.19
4	*2422.00	87.40 AV			1.39 V	261	57.21	30.19
5	4824.00	46.20 PK	74.00	-27.80	1.09 V	313	10.74	35.46
6	4824.00	31.40 AV	54.00	-22.60	1.09 V	313	-4.06	35.46
7	#7236.00	62.50 PK	78.20	-15.70	1.05 V	27	20.65	41.85
8	#7236.00	47.30 AV	67.40	-20.10	1.05 V	27	5.45	41.85

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24 deg. C, 74 %RH 963hPa	TESTED BY	Frank Liu

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	70.41 PK	74.00	-3.59	1.49 H	112	40.35	30.06
2	2390.00	52.94 AV	54.00	-1.06	1.49 H	112	22.88	30.06
3	*2437.00	101.95 PK			1.40 H	160	71.71	30.24
4	*2437.00	91.85 AV			1.40 H	160	61.61	30.24
5	2483.50	67.91 PK	74.00	-6.09	1.40 H	125	37.48	30.43
6	2483.50	49.33 AV	54.00	-4.67	1.40 H	125	18.90	30.43
7	4874.00	49.30 PK	74.00	-24.70	1.02 H	97	13.75	35.55
8	4874.00	34.70 AV	54.00	-19.30	1.02 H	97	-0.85	35.55
9	7311.00	65.79 PK	74.00	-8.21	1.37 H	81	23.75	42.04
10	7311.00	51.57 AV	54.00	-2.43	1.37 H	81	9.53	42.04
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	64.36 PK	74.00	-9.64	1.24 V	243	34.30	30.06
2	2390.00	48.35 AV	54.00	-5.65	1.24 V	243	18.29	30.06
3	*2437.00	99.40 PK			1.27 V	257	69.16	30.24
4	*2437.00	89.90 AV			1.27 V	257	59.66	30.24
5	2483.50	63.42 PK	74.00	-10.58	1.26 V	257	32.99	30.43
6	2483.50	47.98 AV	54.00	-6.02	1.26 V	257	17.55	30.43
7	4874.00	47.30 PK	74.00	-26.70	1.07 V	334	11.75	35.55
8	4874.00	33.10 AV	54.00	-20.90	1.07 V	334	-2.45	35.55
9	7311.00	63.20 PK	74.00	-10.80	1.06 V	35	21.16	42.04
10	7311.00	47.60 AV	54.00	-6.40	1.06 V	35	5.56	42.04

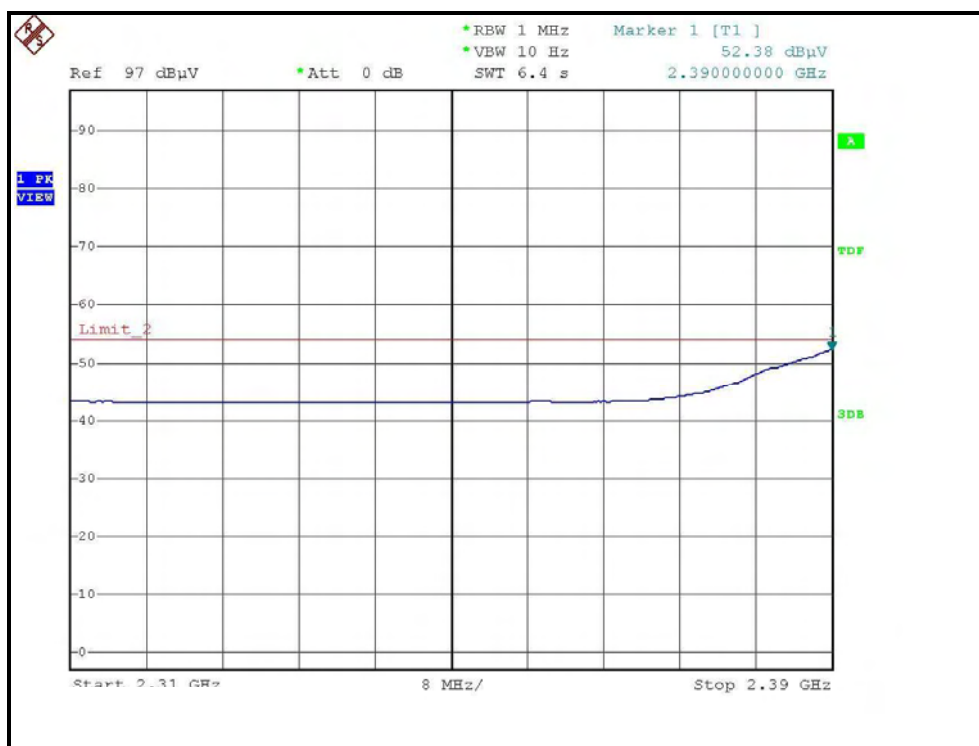
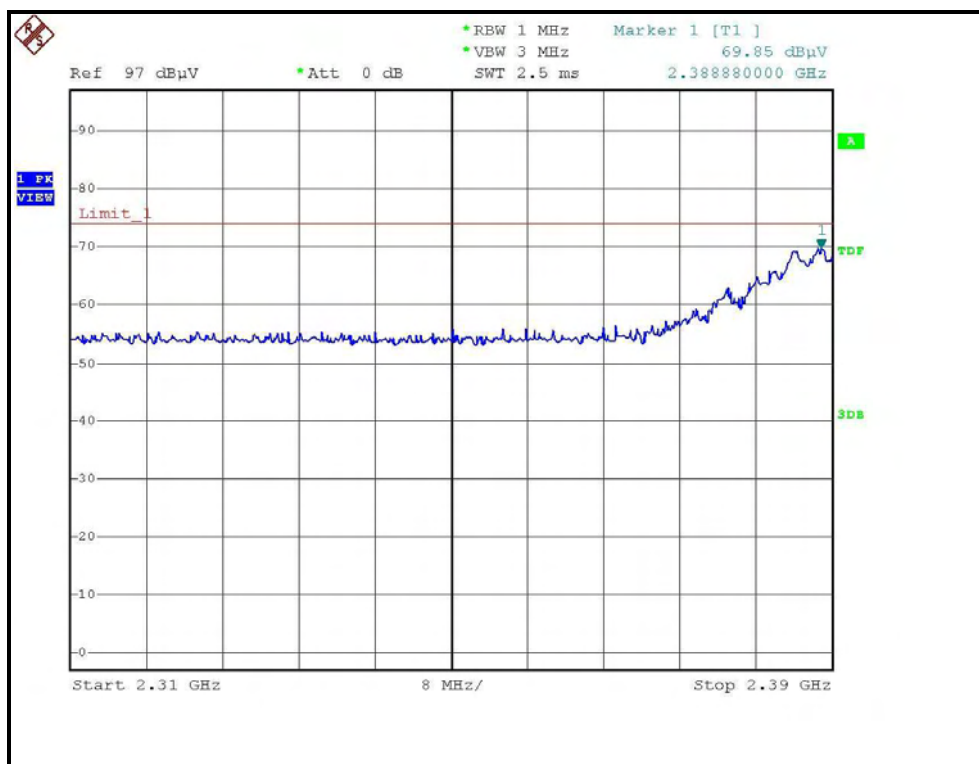
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. “ * ”: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24 deg. C, 74 %RH 963hPa	TESTED BY	Frank Liu

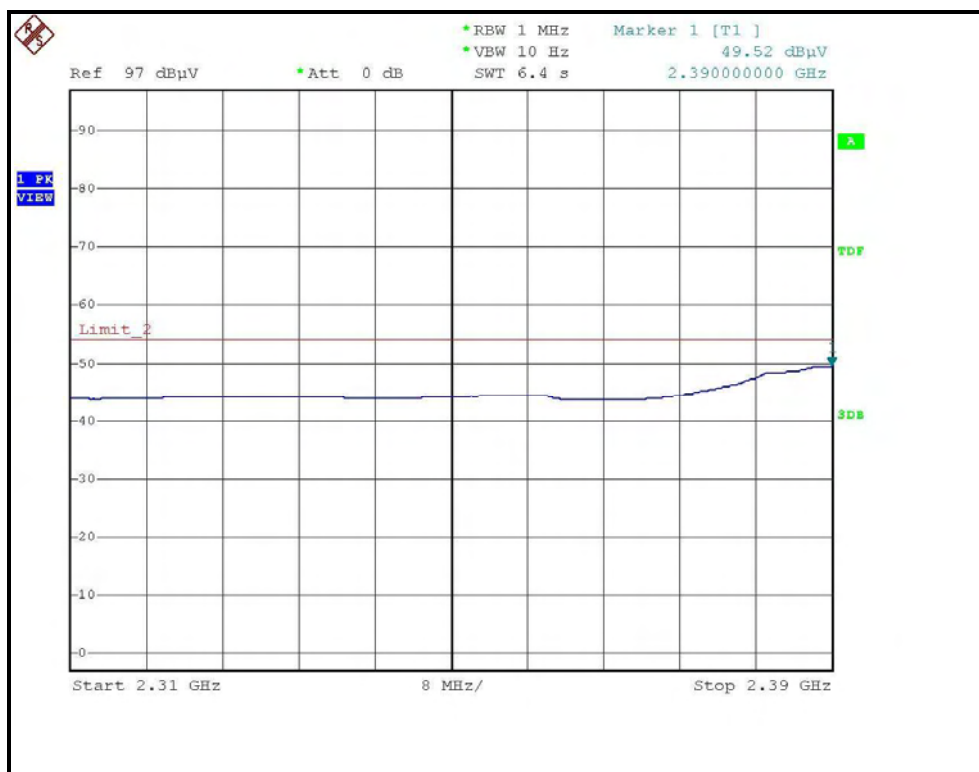
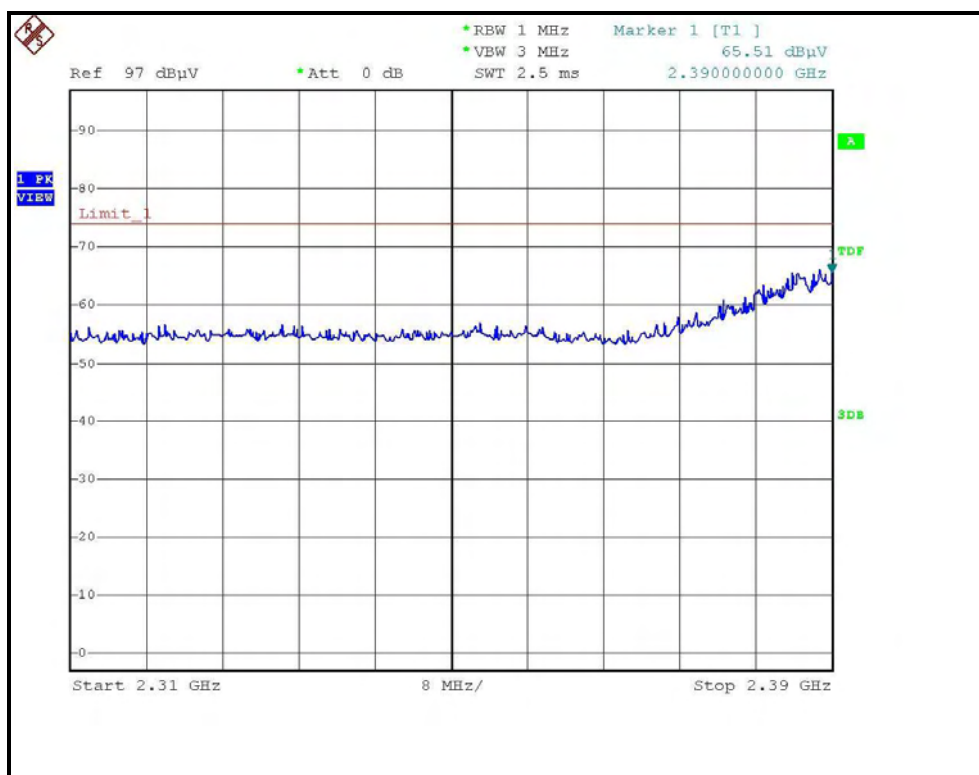
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	100.19 PK			1.40 H	129	69.89	30.30
2	*2452.00	89.64 AV			1.40 H	129	59.34	30.30
3	2483.50	69.67 PK	74.00	-4.33	1.42 H	115	39.24	30.43
4	2483.50	52.72 AV	54.00	-1.28	1.42 H	115	22.29	30.43
5	4936.00	49.20 PK	74.00	-24.80	1.00 H	94	13.55	35.65
6	4936.00	34.30 AV	54.00	-19.70	1.00 H	94	-1.35	35.65
7	7386.00	59.90 PK	74.00	-14.10	1.39 H	140	17.67	42.23
8	7386.00	44.59 AV	54.00	-9.41	1.39 H	140	2.36	42.23
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	98.20 PK			1.28 V	254	67.90	30.30
2	*2452.00	87.53 AV			1.28 V	254	57.23	30.30
3	2483.50	62.01 PK	74.00	-11.99	1.29 V	244	31.58	30.43
4	2483.50	48.21 AV	54.00	-5.79	1.29 V	244	17.78	30.43
5	4936.00	47.10 PK	74.00	-26.90	1.05 V	327	11.45	35.65
6	4936.00	32.90 AV	54.00	-21.10	1.05 V	327	-2.75	35.65
7	7386.00	56.30 PK	74.00	-17.70	1.04 V	28	14.07	42.23
8	7386.00	42.80 AV	54.00	-11.20	1.04 V	28	0.57	42.23

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

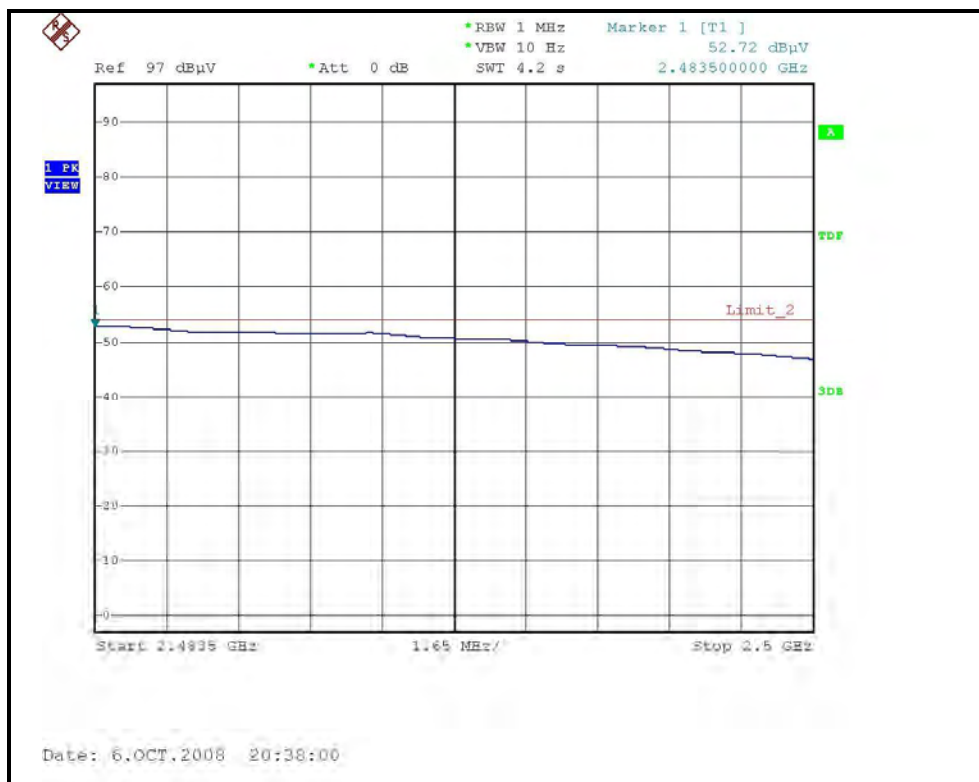
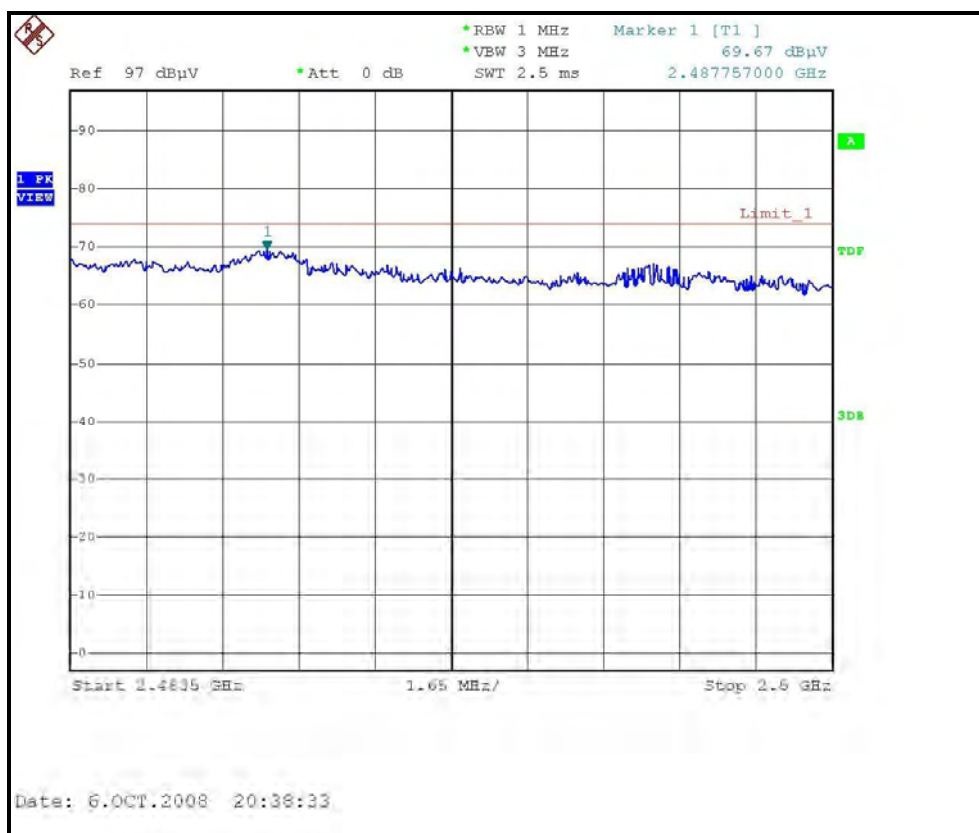
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH1, HORIZONTAL)



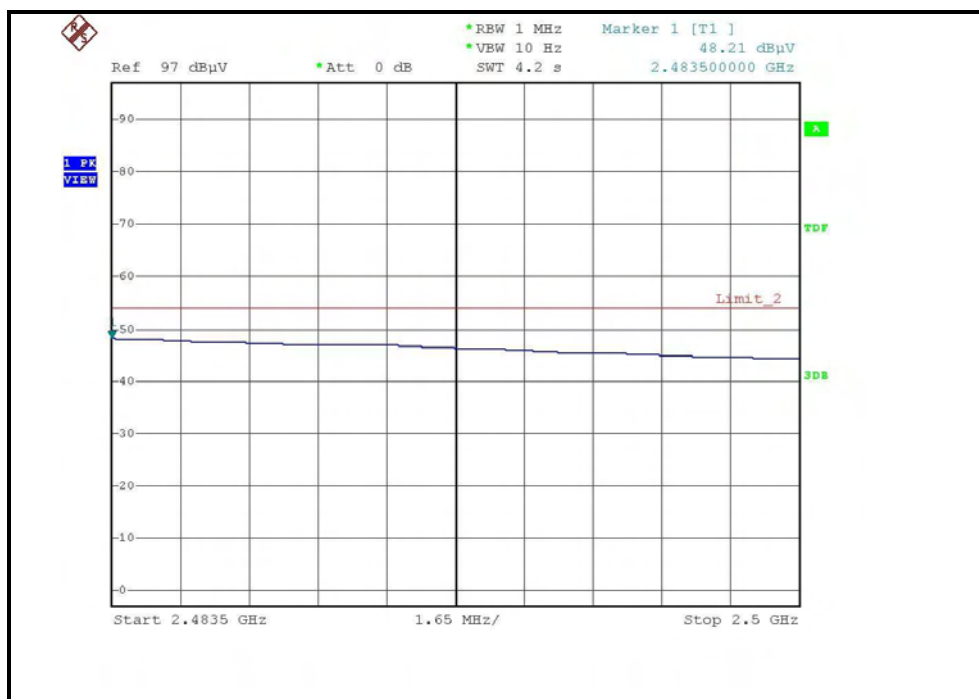
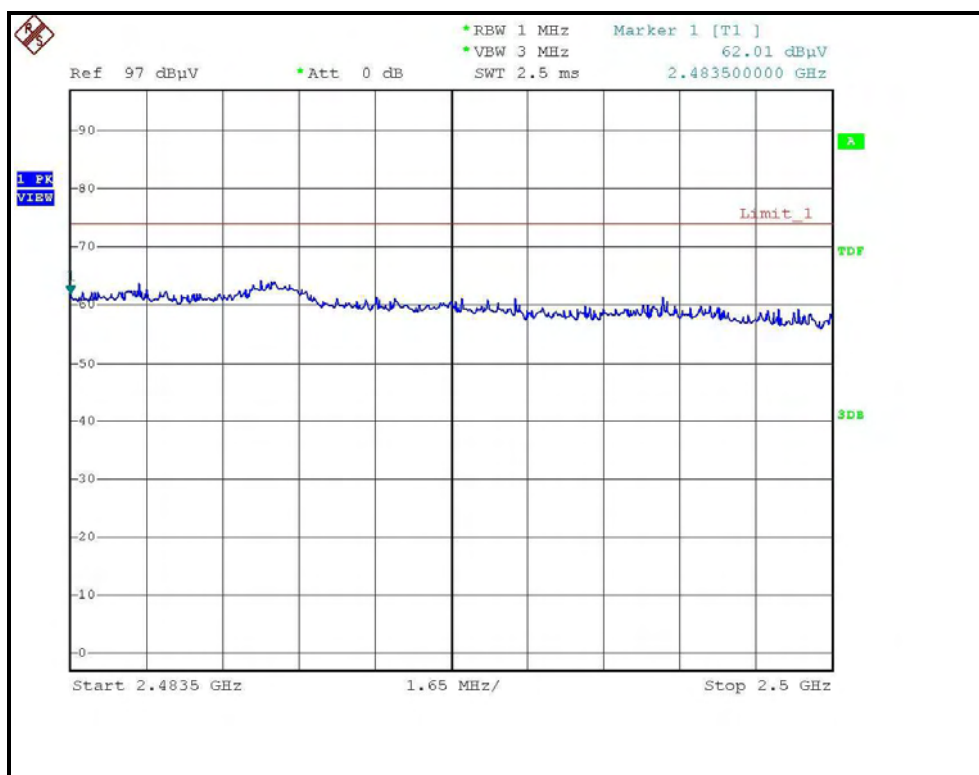
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE,CH1, VERTICAL)



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



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



BELOW 1GHz WORST-CASE DATA : 802.11b DSSS MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH 963hPa	TESTED BY	Frank Liu

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	123.15	32.13 QP	43.50	-11.37	1.00 H	137	18.12	14.01
2	186.37	28.42 QP	43.50	-15.08	1.00 H	25	14.38	14.04
3	199.44	27.36 QP	43.50	-16.14	1.08 H	215	14.34	13.02
4	299.37	37.66 QP	46.00	-8.34	1.07 H	12	20.66	17.00
5	399.62	27.54 QP	46.00	-18.46	1.00 H	310	6.42	21.12
6	432.30	28.13 QP	46.00	-17.87	1.00 H	148	6.50	21.63
7	799.50	38.24 QP	46.00	-7.76	1.04 H	321	8.31	29.93
8	960.00	32.42 QP	46.00	-13.58	1.00 H	112	0.45	31.97
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	45.08	31.88 QP	40.00	-8.12	1.01 V	0	18.19	13.69
2	120.00	30.05 QP	43.50	-13.45	1.00 V	178	16.22	13.83
3	200.00	23.48 QP	43.50	-20.02	1.31 V	236	10.50	12.98
4	320.00	21.84 QP	46.00	-24.16	1.31 V	295	4.00	17.84
5	480.00	27.22 QP	46.00	-18.78	1.00 V	183	4.87	22.35
6	719.98	29.72 QP	46.00	-16.28	1.00 V	296	2.11	27.61
7	960.00	33.73 QP	46.00	-12.27	1.00 V	310	1.76	31.97

- 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.

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 DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100036	Dec. 18, 2007	Dec. 17, 2008

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.

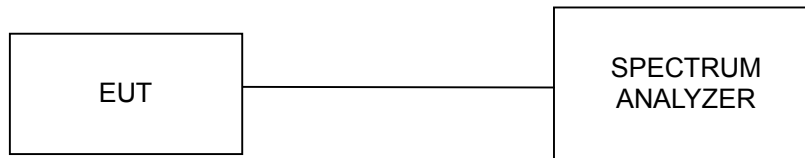
4.3.3 TEST PROCEDURE

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.

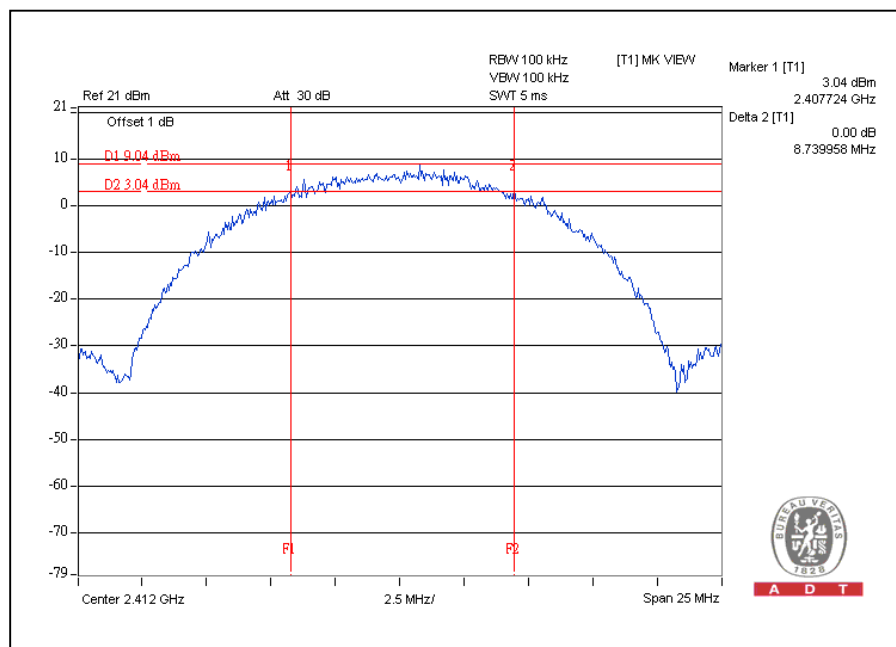
4.3.7 TEST RESULTS

802.11b DSSS MODULATION:

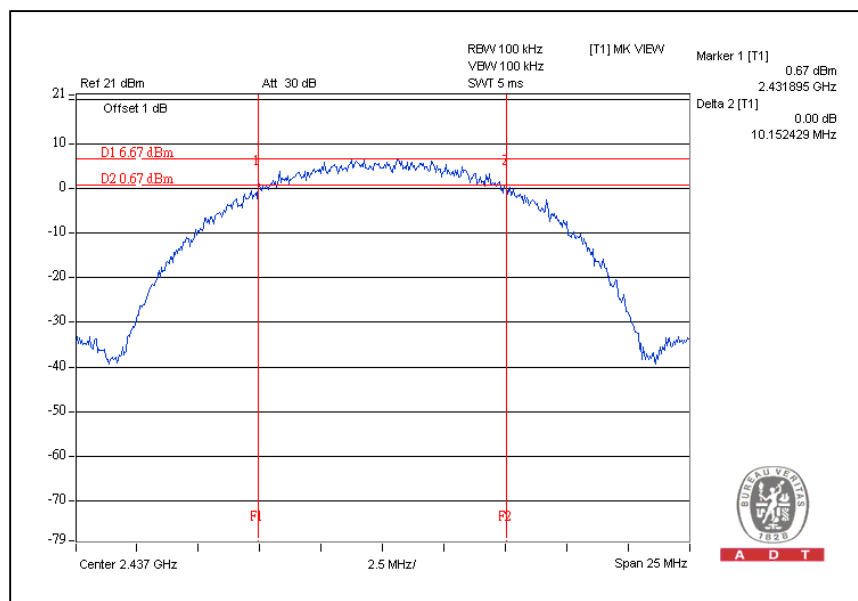
MODULATION TYPE	DBPSK	TRANSFER RATE	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 963hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	8.74	0.5	PASS
6	2437	10.15	0.5	PASS
11	2462	8.67	0.5	PASS

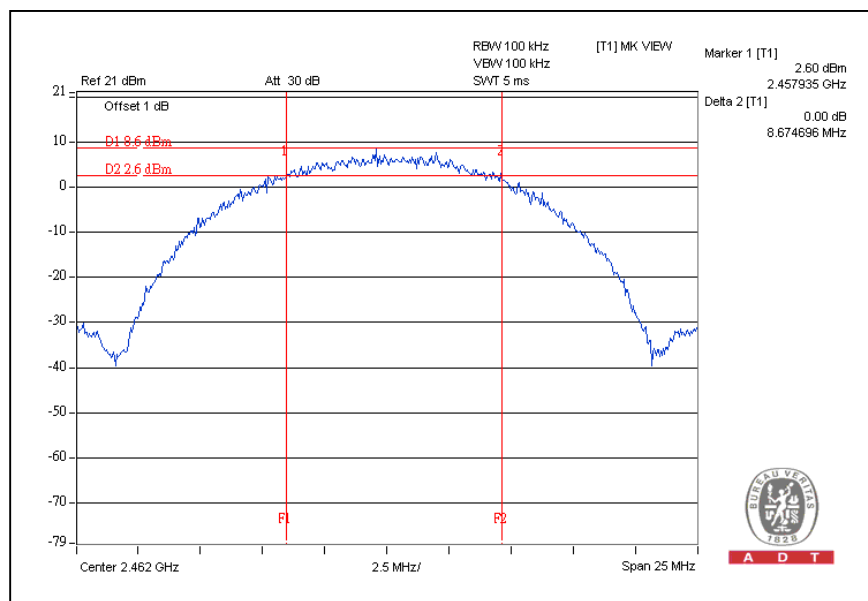
CH1



CH6



CH11

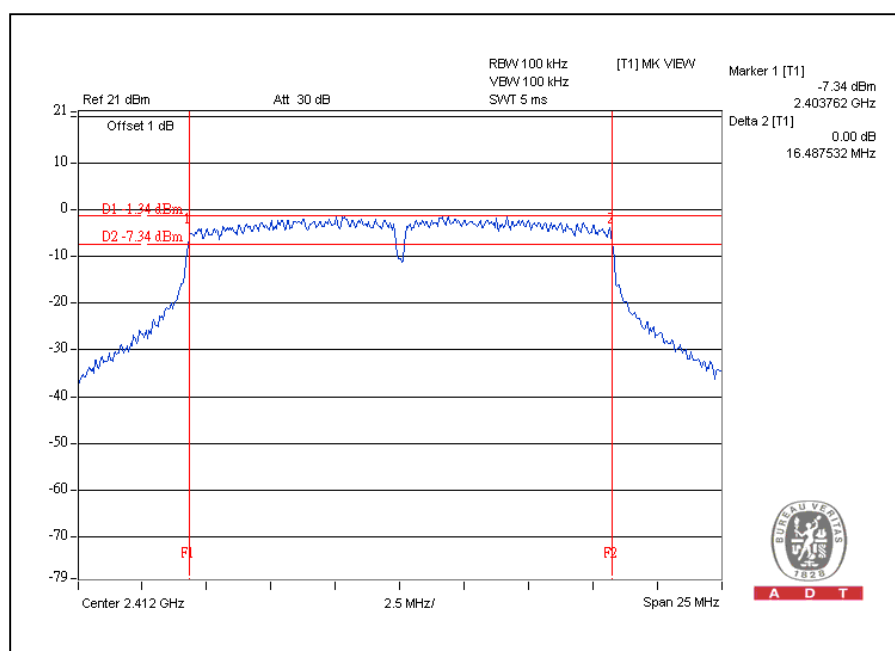


802.11g OFDM MODULATION:

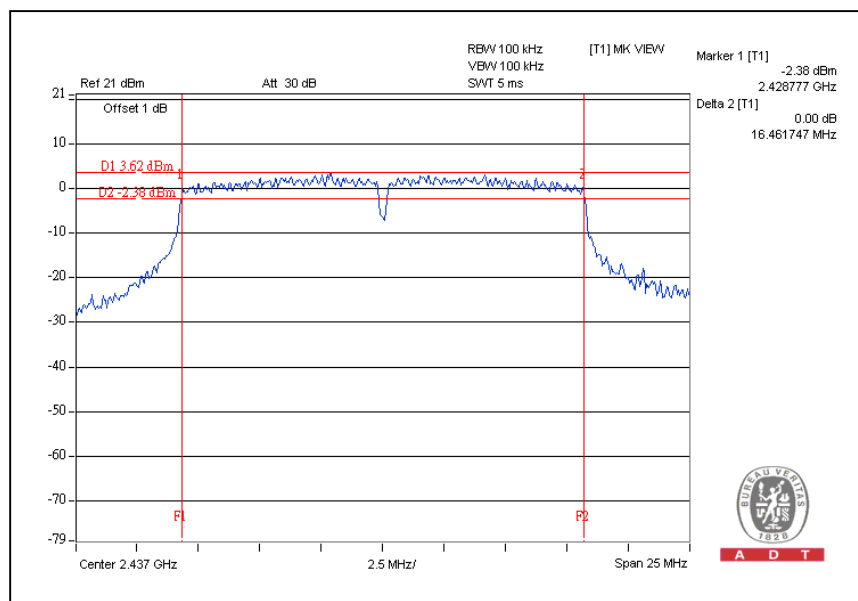
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 963hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.49	0.5	PASS
6	2437	16.46	0.5	PASS
11	2462	16.46	0.5	PASS

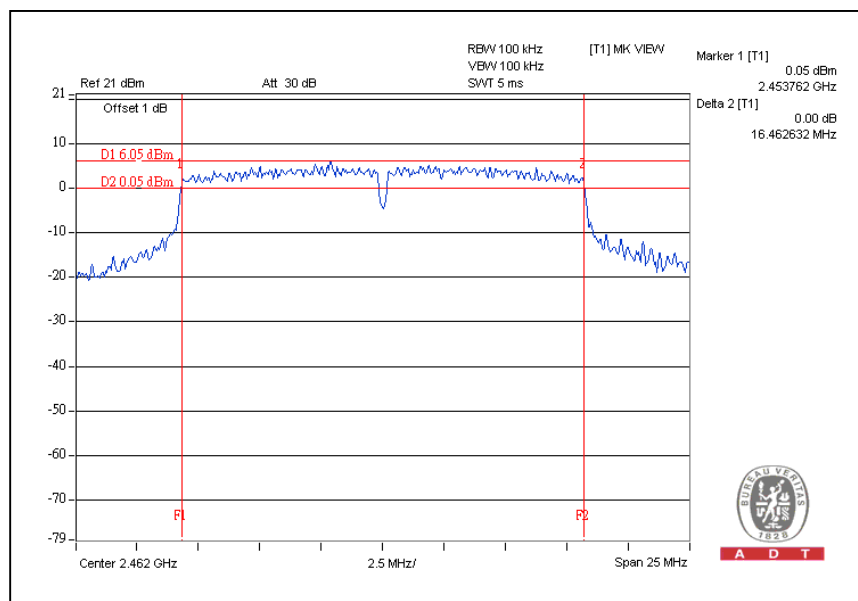
CH1



CH6



CH11

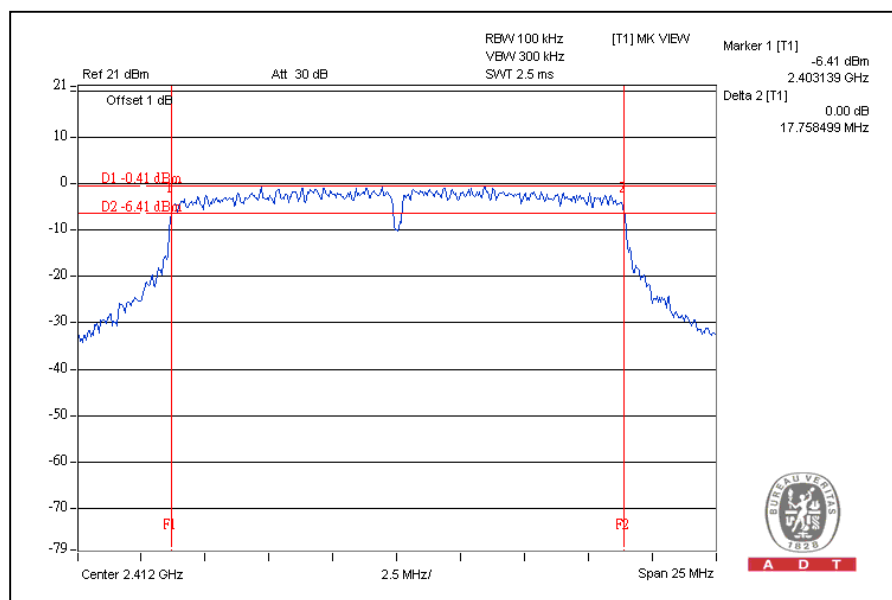


DRAFT 802.11n (20MHz) OFDM MODULATION:

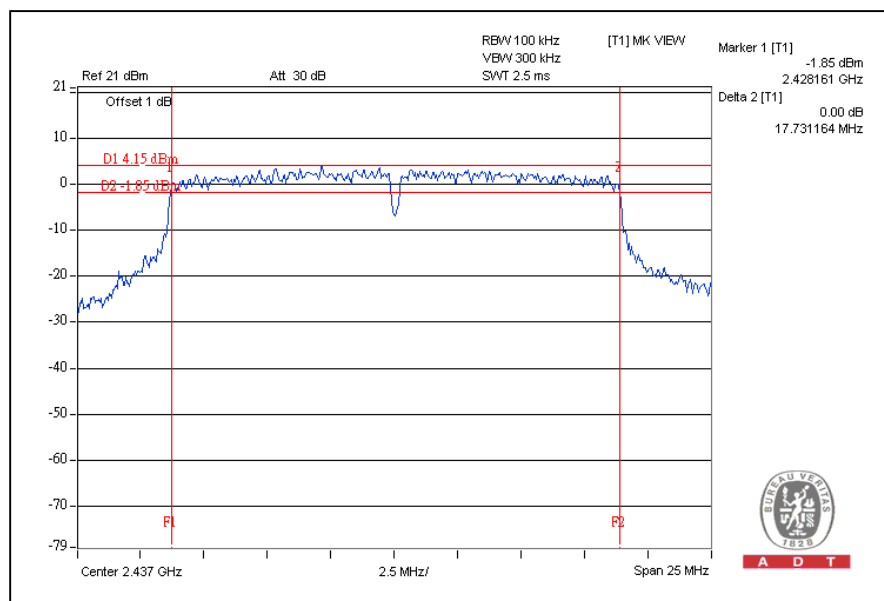
MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 963hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	17.76	0.5	PASS
6	2437	17.73	0.5	PASS
11	2462	17.75	0.5	PASS

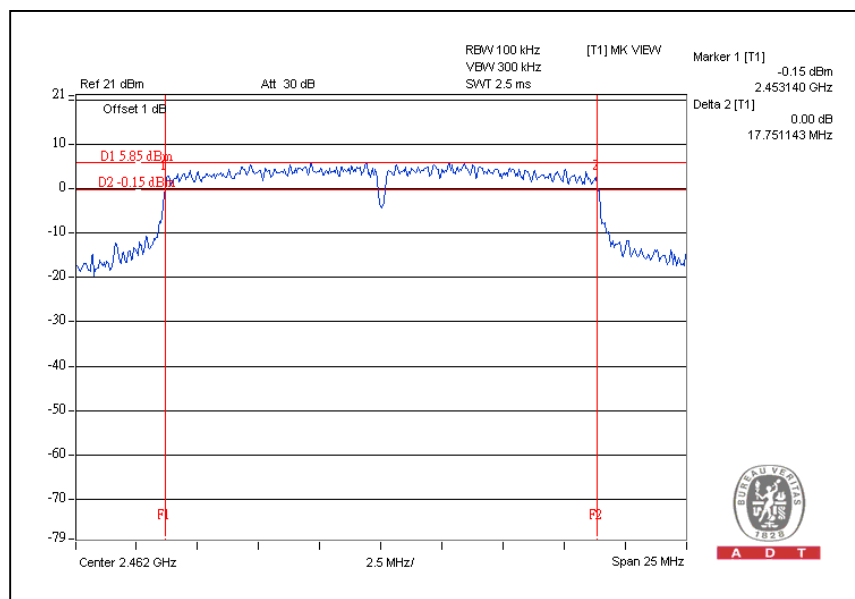
CH1



CH6



CH11

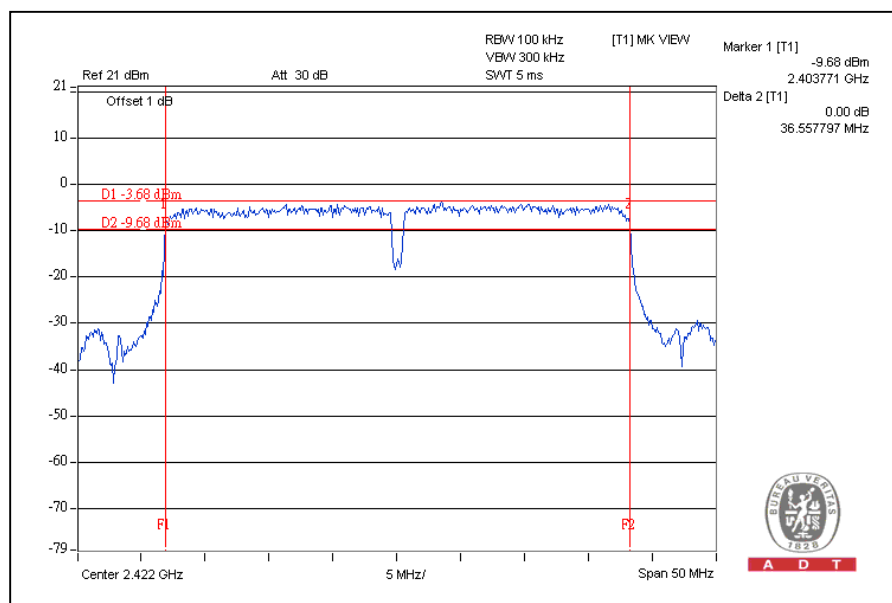


DRAFT 802.11n (40MHz) OFDM MODULATION:

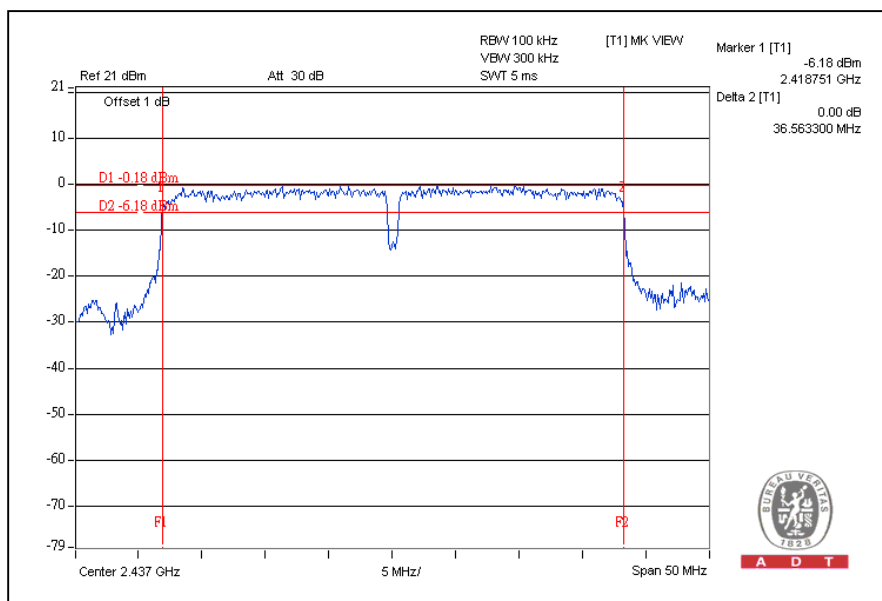
MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 963hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2422	36.56	0.5	PASS
4	2437	36.56	0.5	PASS
7	2452	36.60	0.5	PASS

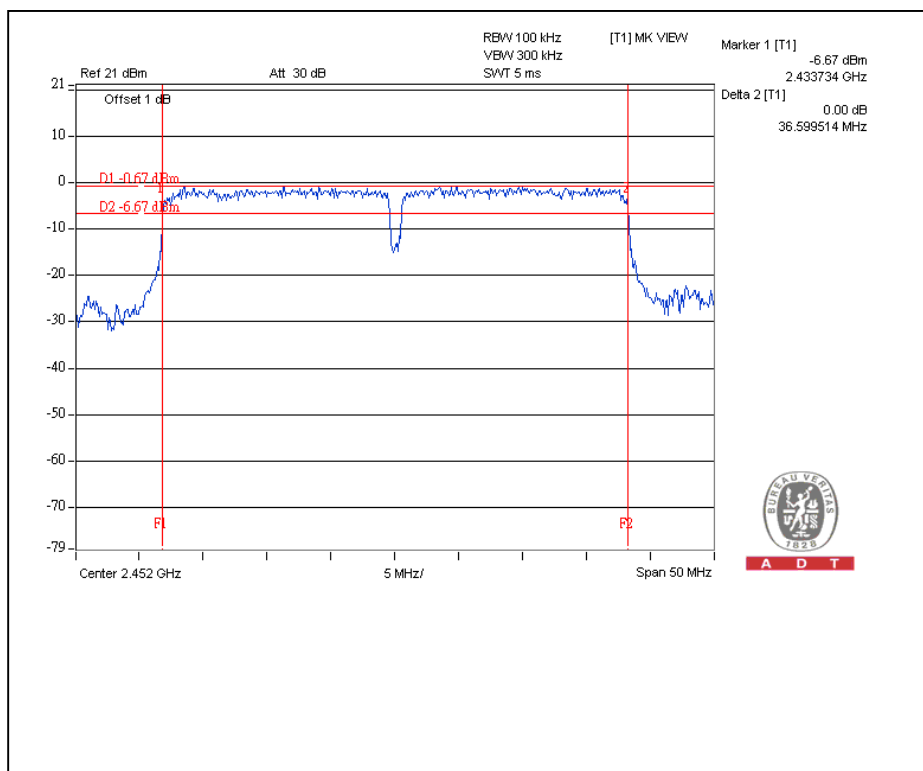
CH1



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 DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100037	Aug. 13, 2008	Aug. 12, 2009
Agilent SIGNAL GENERATOR	E8257C	MY43320668	Dec. 26, 2007	Dec. 25, 2008
Anritsu Power Meter	ML2495A	0824006	NA	NA
Pulse Power Sensor	MA2411B	0738172	NA	NA

NOTE:

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

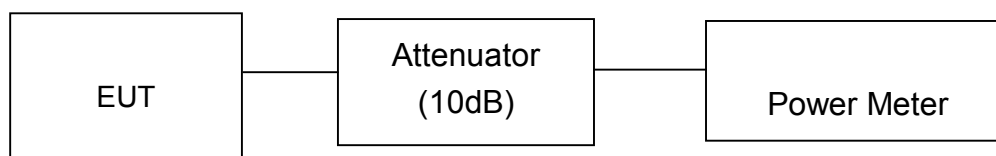
4.4.3 TEST PROCEDURES

1. The transmitter output was connected to the power meter through an attenuator; the bandwidth of the fundamental frequency was measured with the power meter.
2. 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	25deg.C, 60%RH, 963hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	109.648	20.40	30	PASS
6	2437	102.329	20.10	30	PASS
11	2462	100.000	20.00	30	PASS

802.11g OFDM MODULATION:

MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 963hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	208.930	23.20	30	PASS
6	2437	275.423	24.40	30	PASS
11	2462	301.995	24.80	30	PASS

DRAFT 802.11n (20MHz) OFDM MODULATION:

MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 963hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	194.984	22.90	30	PASS
6	2437	288.403	24.60	30	PASS
11	2462	309.030	24.90	30	PASS

DRAFT 802.11n (40MHz) OFDM MODULATION:

MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 963hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2422	165.959	22.20	30	PASS
4	2437	257.040	24.10	30	PASS
7	2452	245.471	23.90	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 DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100036	Dec. 18, 2007	Dec. 17, 2008

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.

4.5.3 TEST PROCEDURE

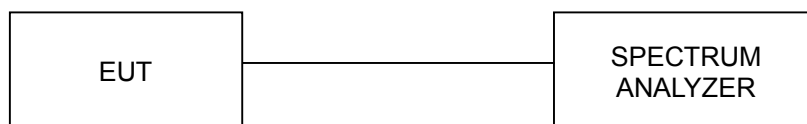
The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

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 4.1.6

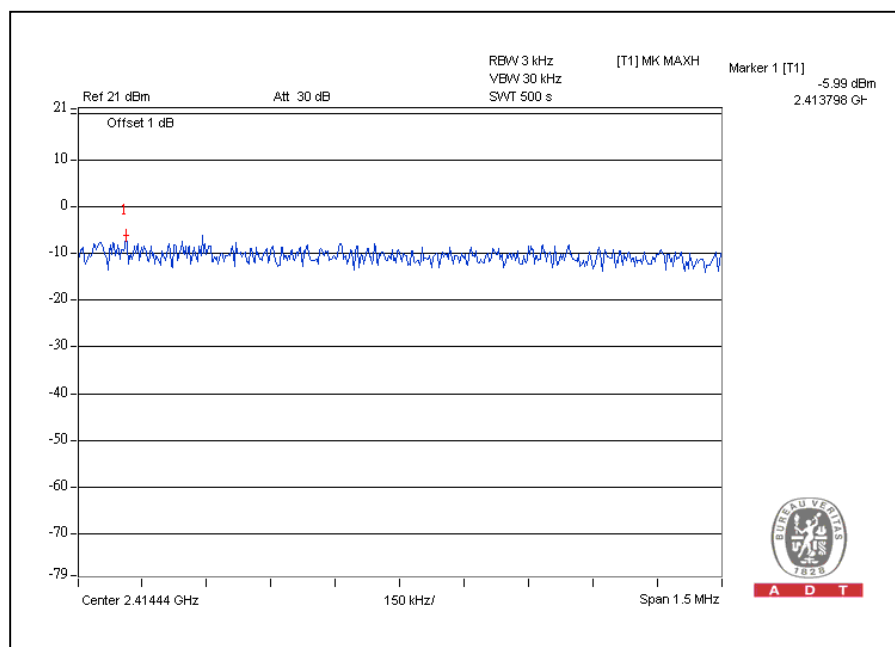
4.5.7 TEST RESULTS

802.11b DSSS MODULATION:

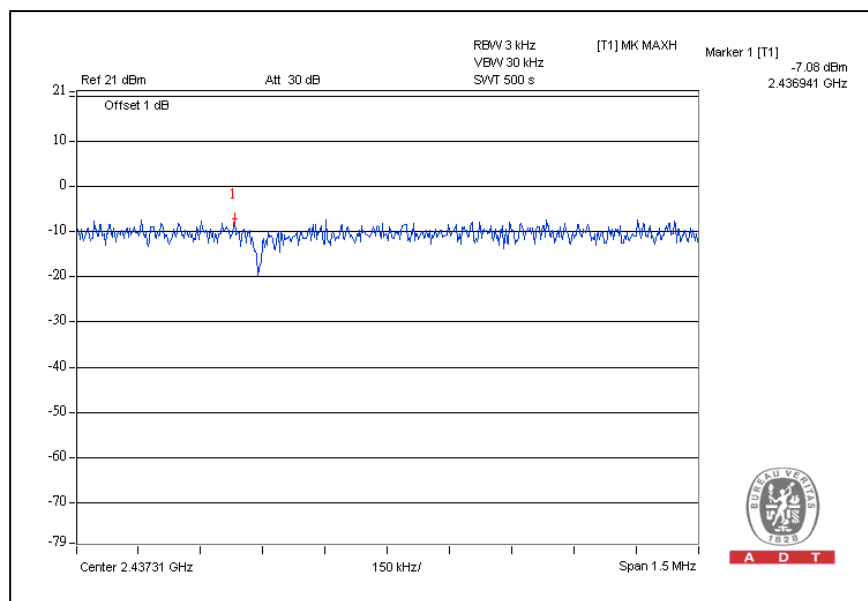
MODULATION TYPE	DBPSK	TRANSFER RATE	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 963hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-5.99	8	PASS
6	2437	-7.08	8	PASS
11	2462	-5.80	8	PASS

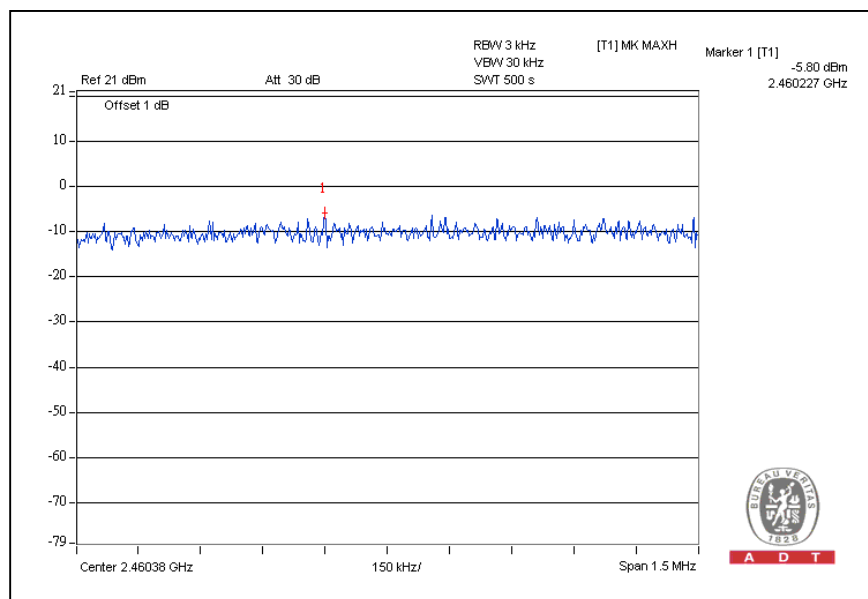
CH1



CH6



CH11

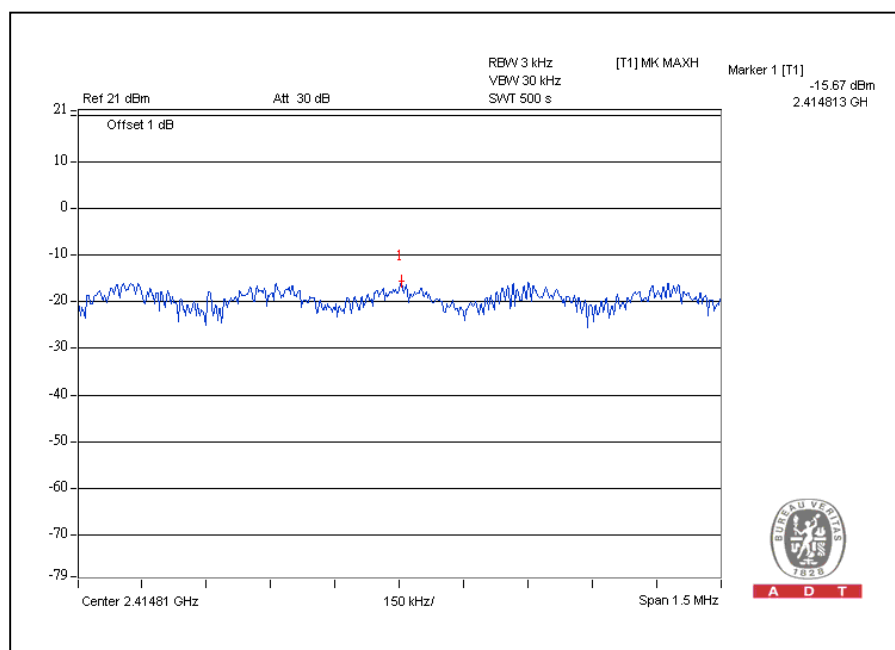


802.11g OFDM MODULATION:

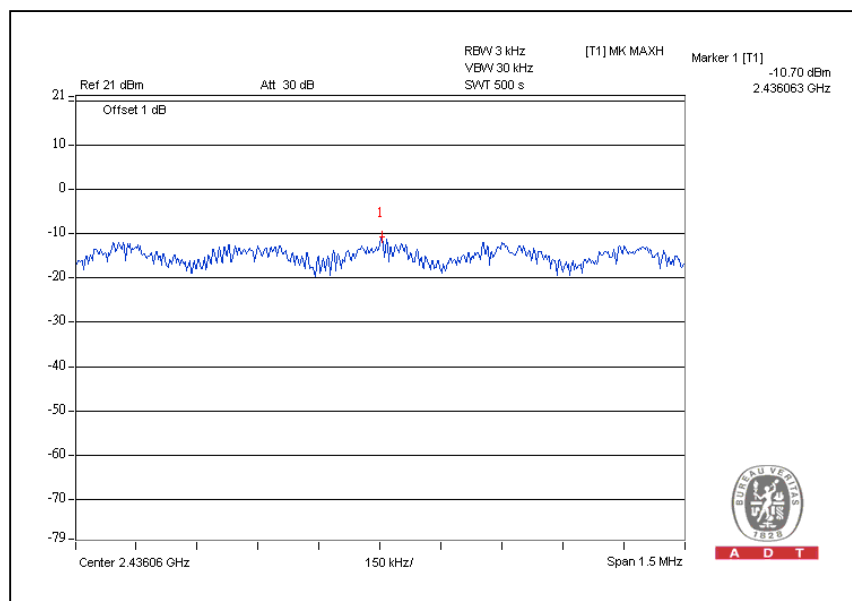
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 963hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-15.67	8	PASS
6	2437	-10.70	8	PASS
11	2462	-8.85	8	PASS

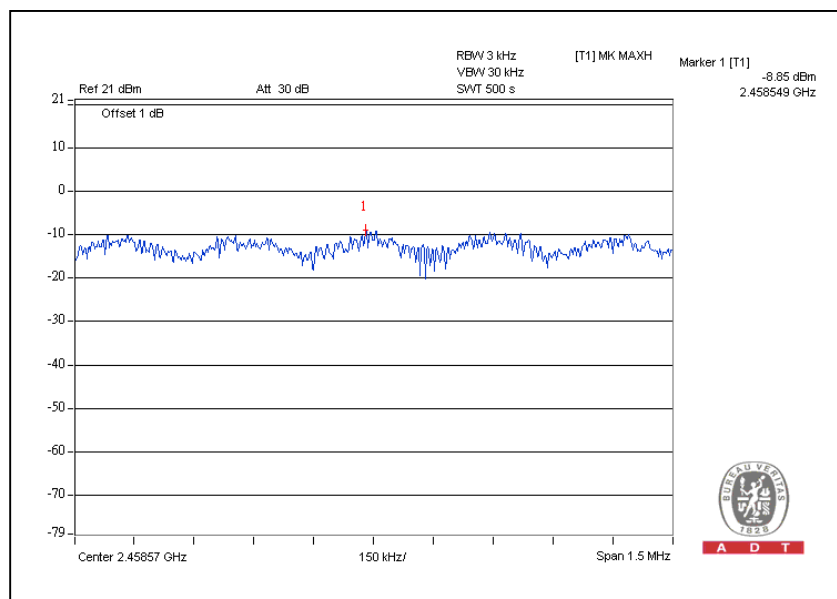
CH1



CH6



CH11

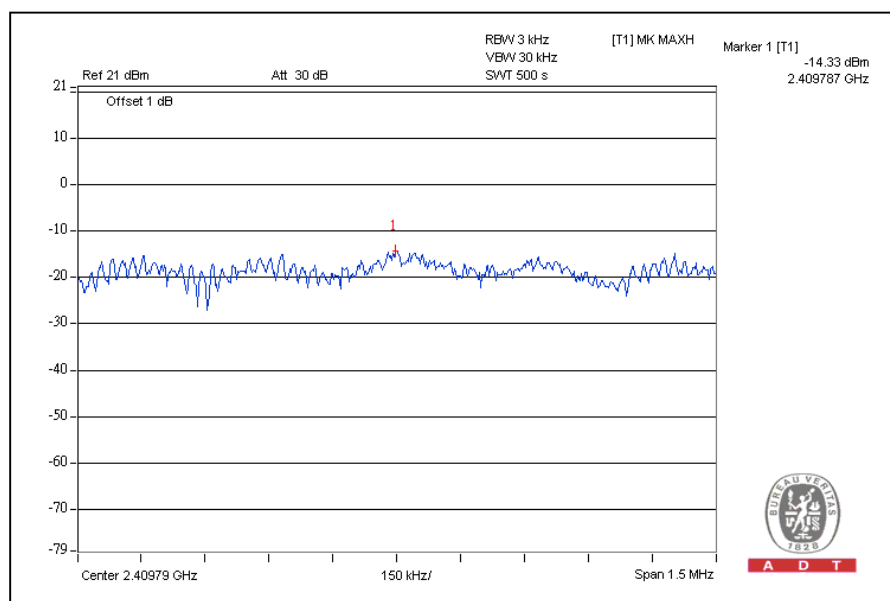


DRAFT 802.11n (20MHz) OFDM MODULATION:

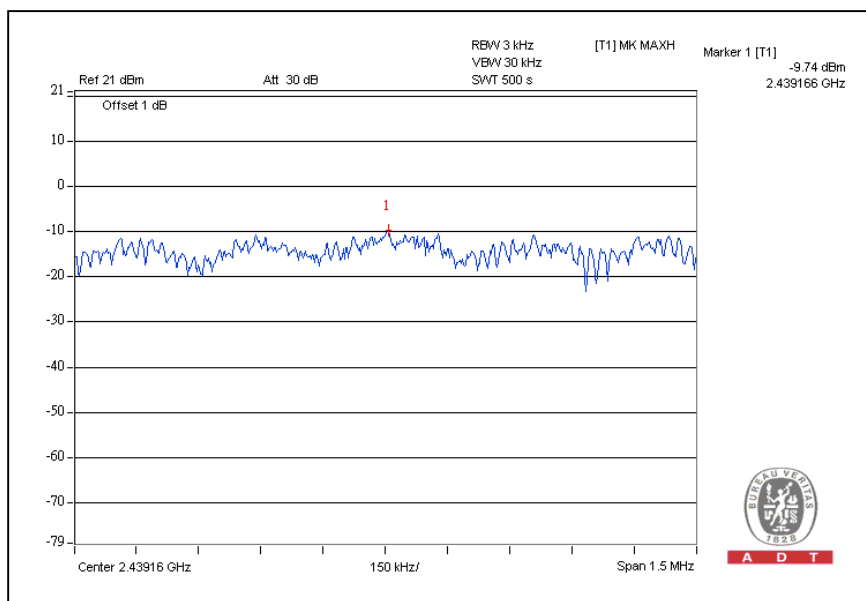
MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 963hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-14.33	8	PASS
6	2437	-9.74	8	PASS
11	2462	-7.18	8	PASS

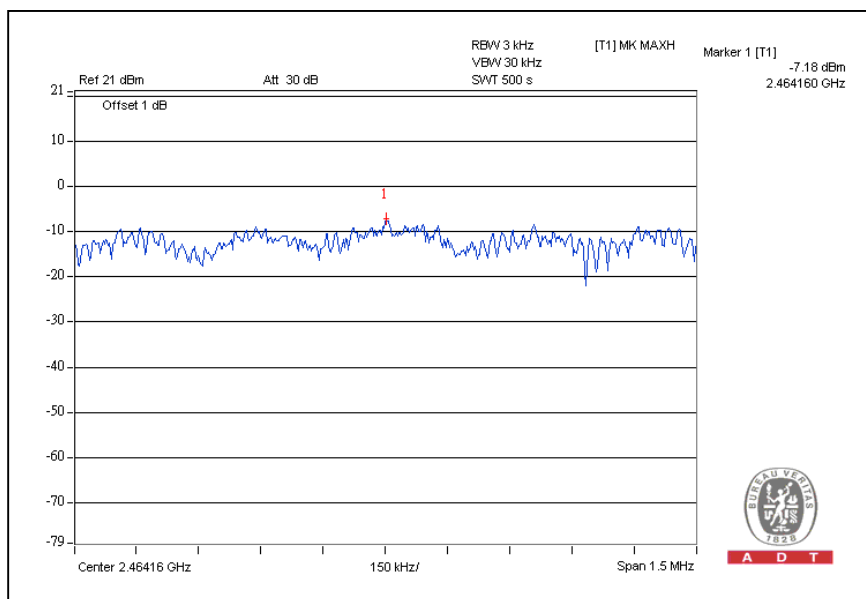
CH1



CH6



CH11

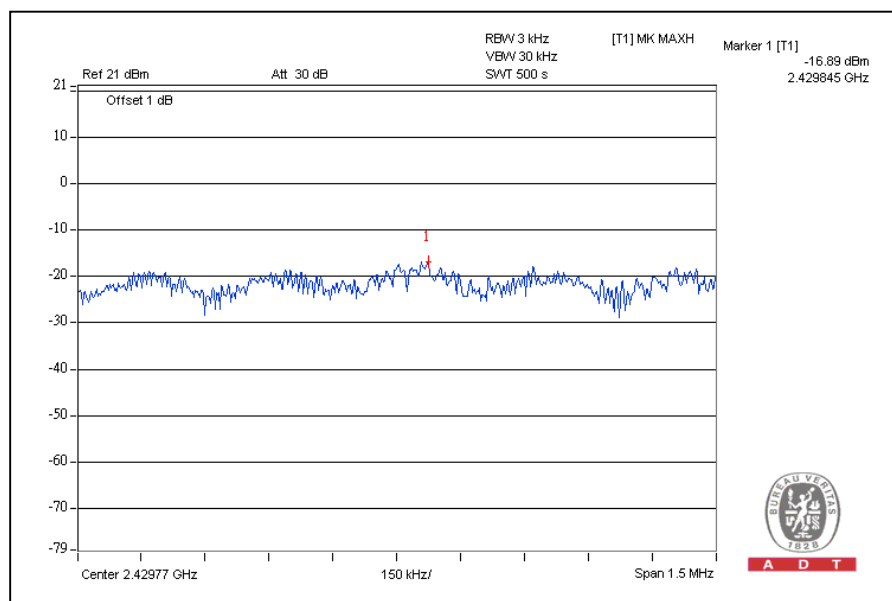


DRAFT 802.11n (40MHz) OFDM MODULATION:

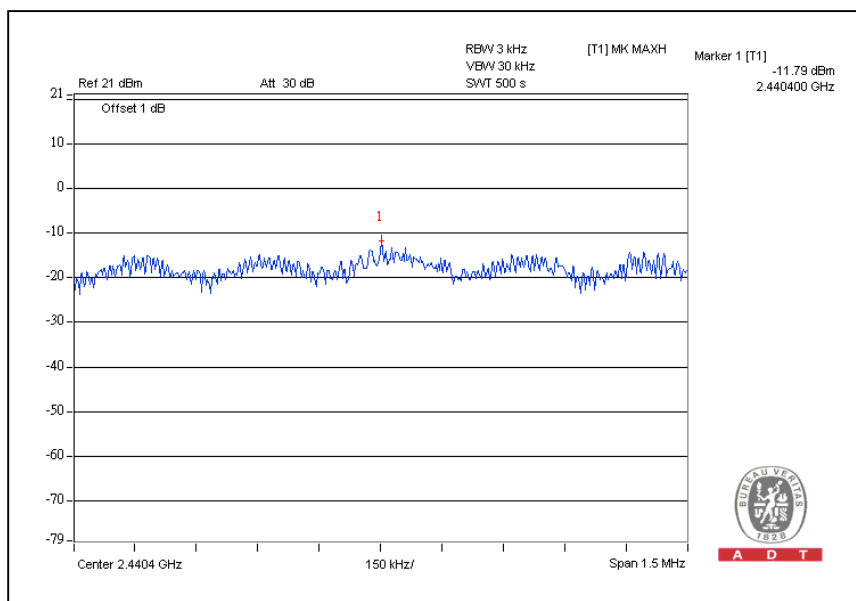
MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 963hPa
TESTED BY	Rex Huang		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2422	-16.89	8	PASS
4	2437	-11.79	8	PASS
7	2452	-14.34	8	PASS

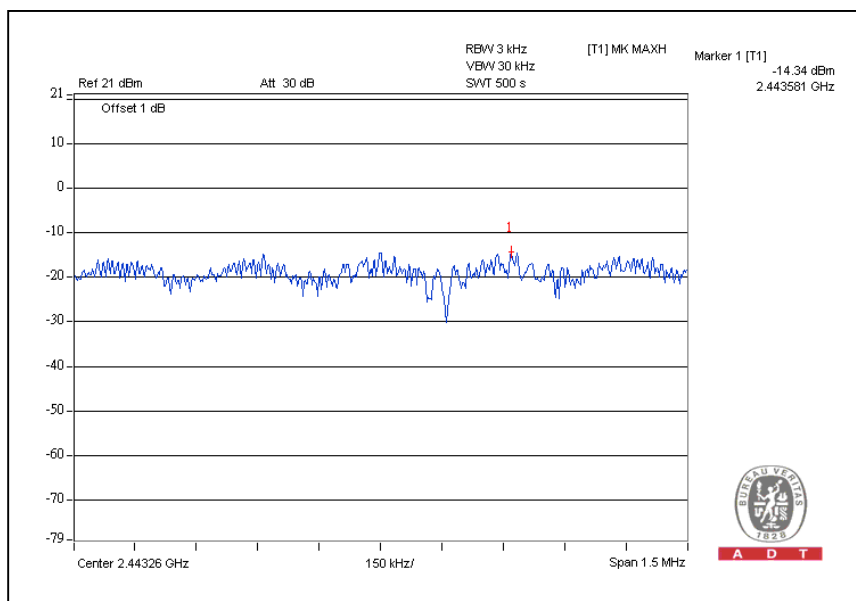
CH1



CH4



CH7



4.6 CONDUCTED EMISSION AND BAND EDGES MEASUREMENT

4.6.1 LIMITS OF CONDUCTED EMISSION AND BAND EDGES MEASUREMENT

Below -20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100036	Dec. 18, 2007	Dec. 17, 2008

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.

4.6.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low loss cable. Set both RBW and VBW of spectrum analyzer to 100kHz and 300kHz with suitable frequency span including 100 MHz bandwidth from band edge. The band edges were measured and recorded.

The spectrum plots (RBW = 100kHz and VBW = 300kHz) are attached on the following pages.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

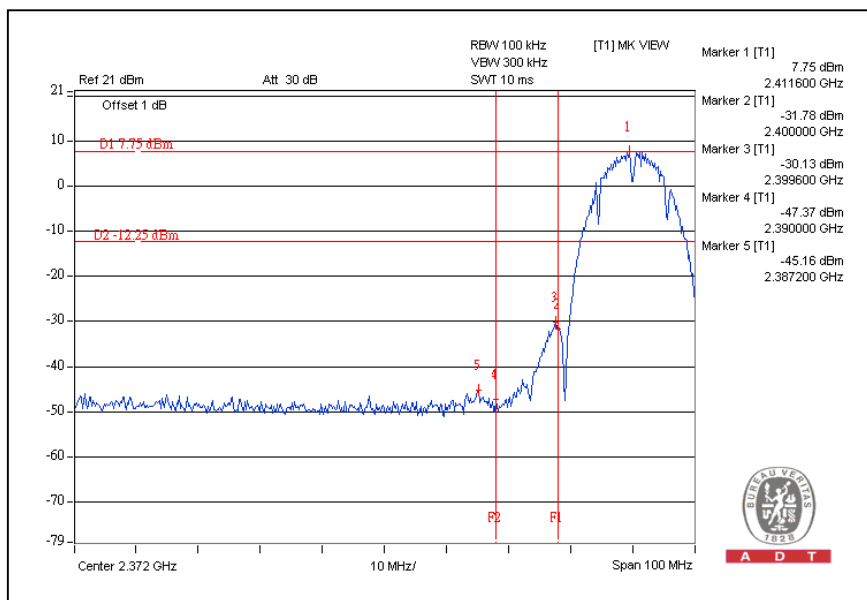
4.6.5 EUT OPERATING CONDITION

Same as Item 4.1.6

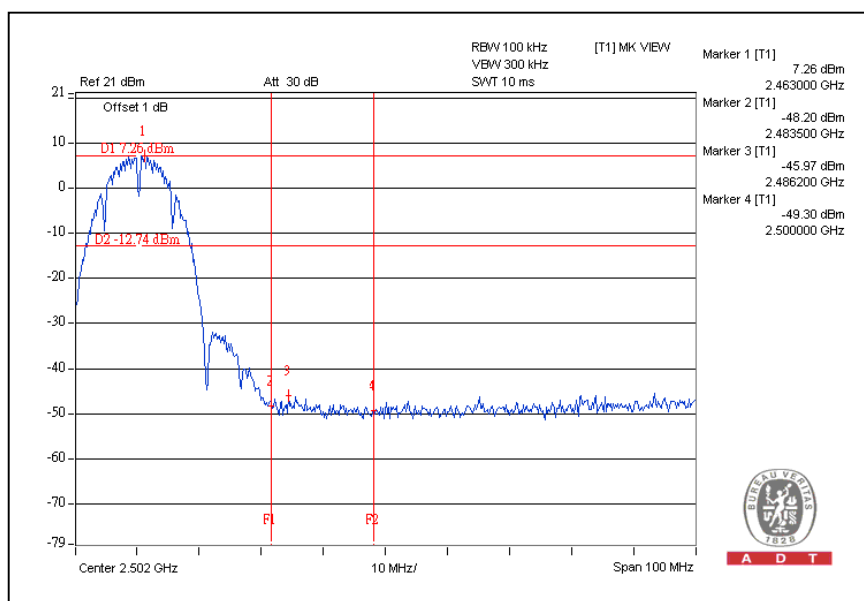
4.6.6 TEST RESULTS

The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

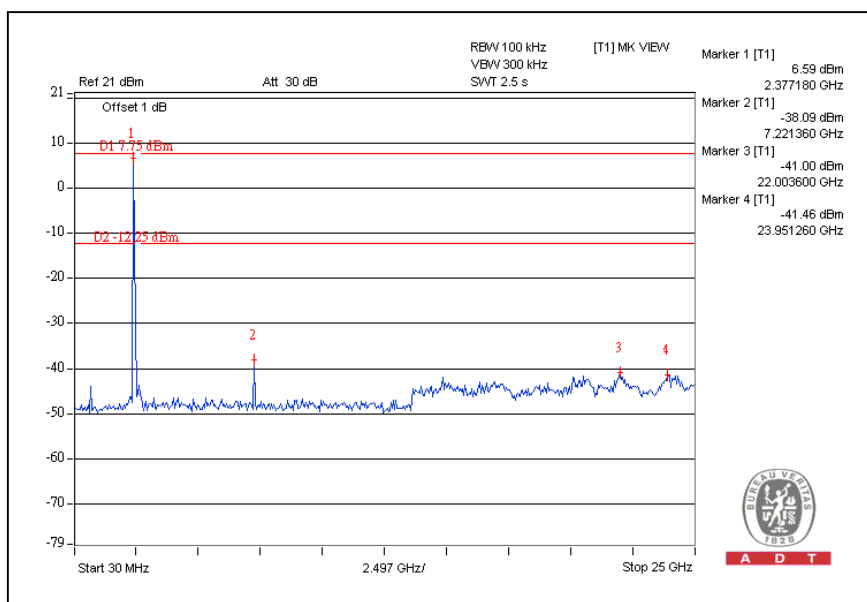
802.11b DSSS MODULATION: CH1



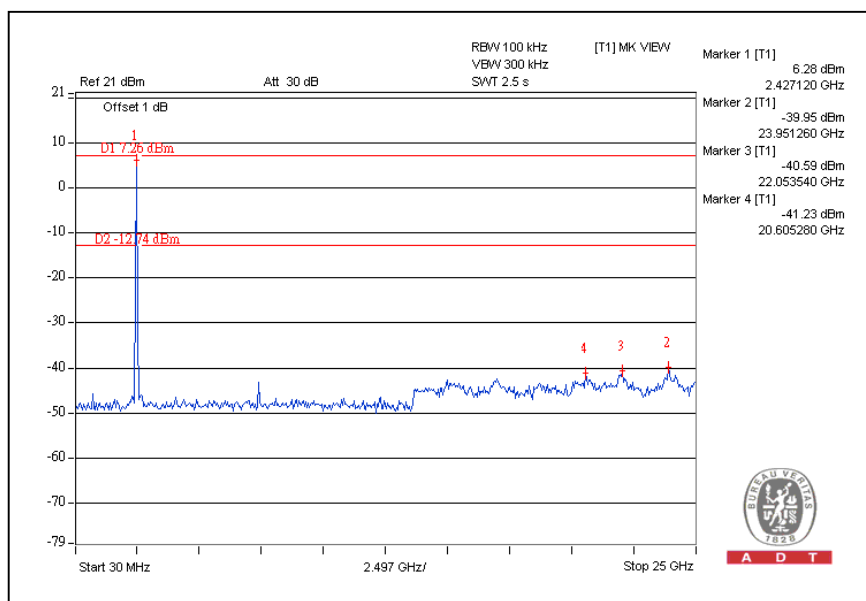
CH11



CH1

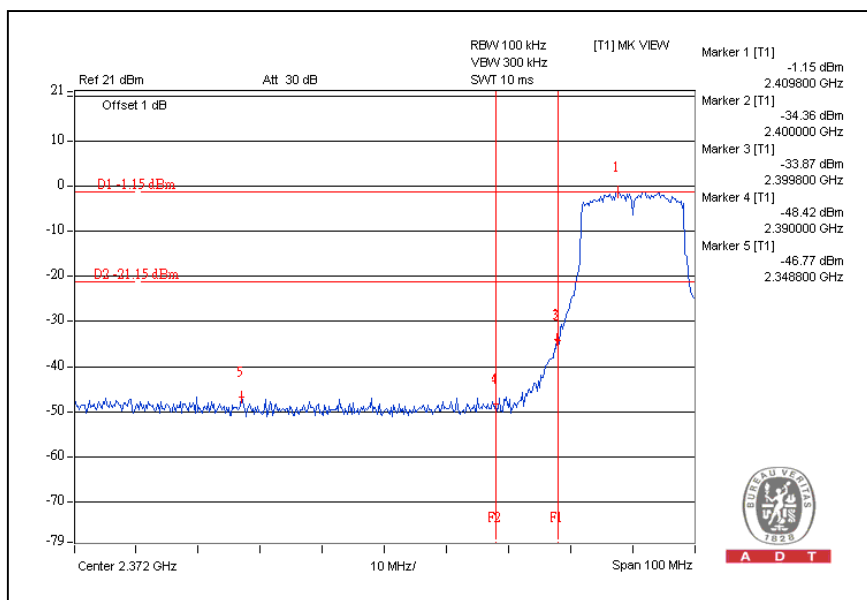


CH11

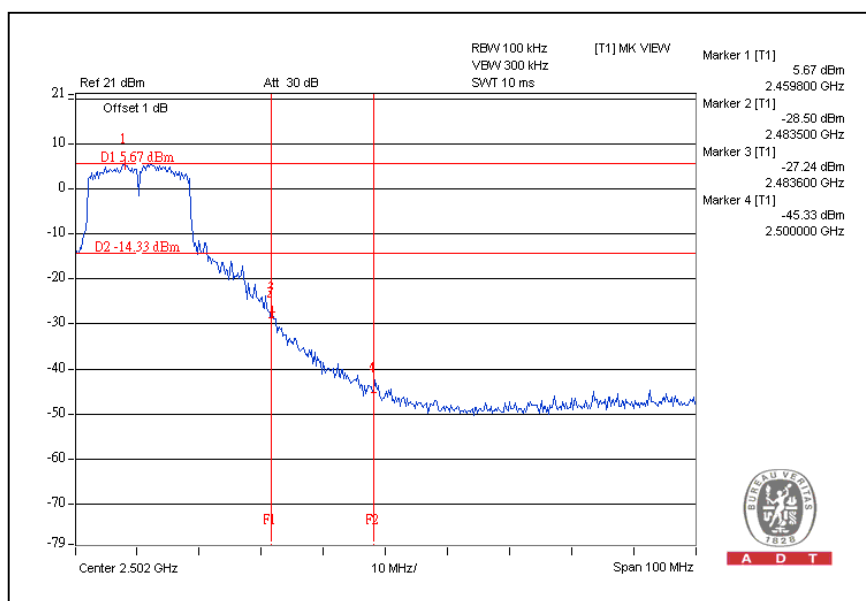


802.11g OFDM MODULATION:

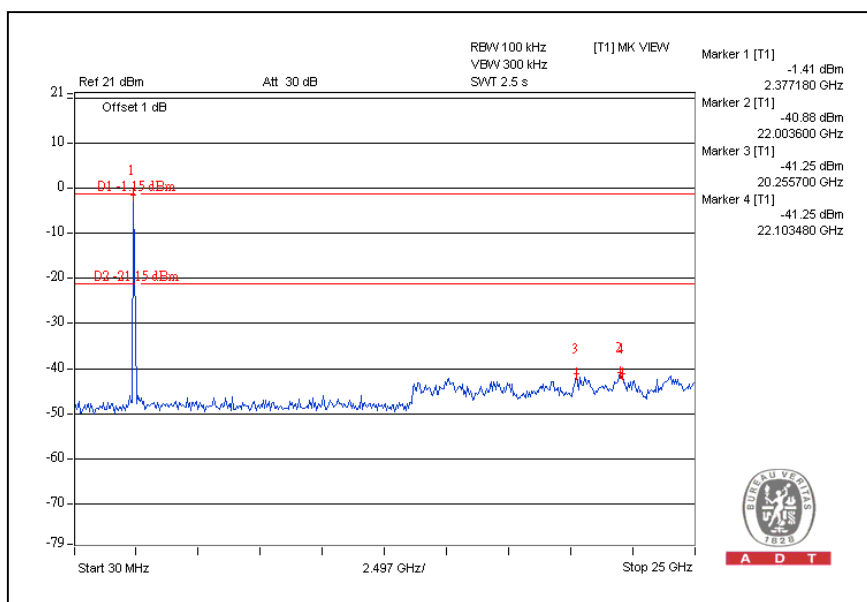
CH 1



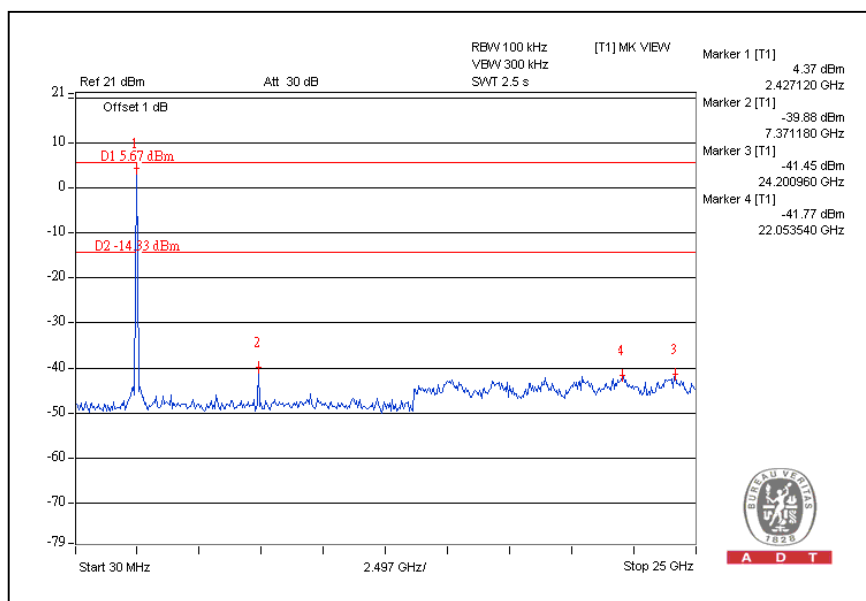
CH11



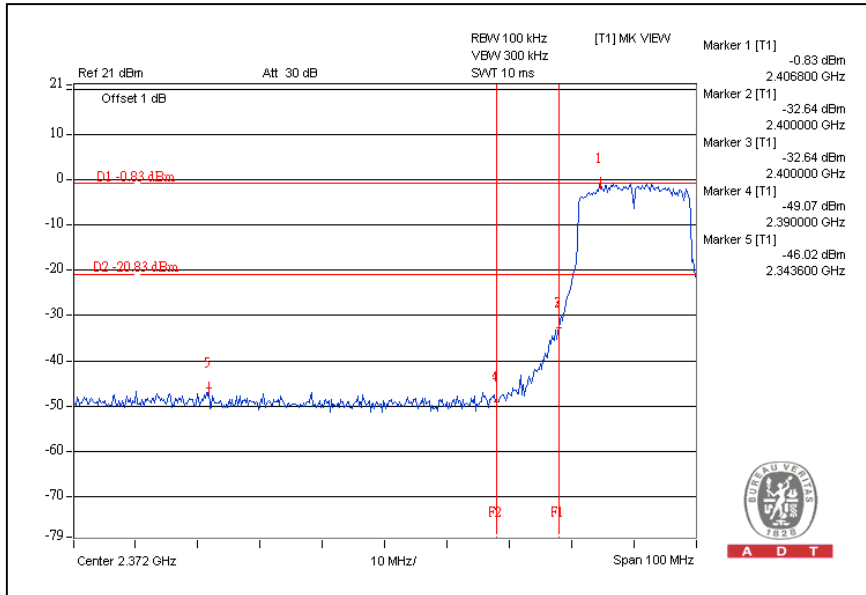
CH1



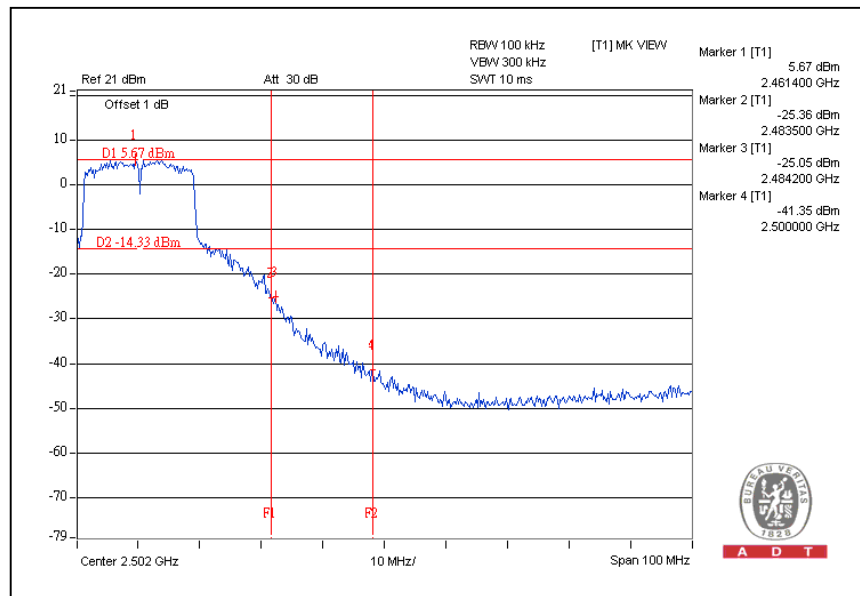
CH11



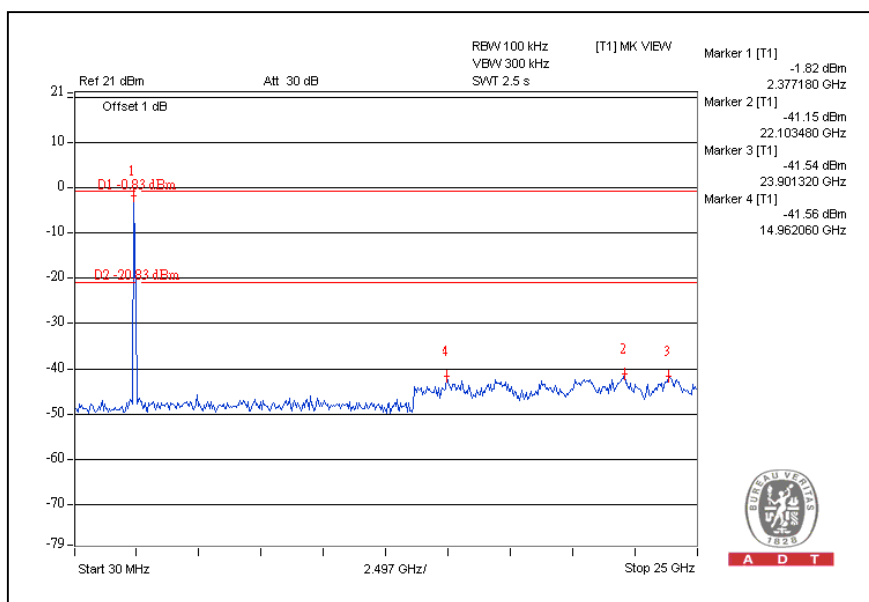
DRAFT 802.11n (20MHz) OFDM MODULATION: CH1



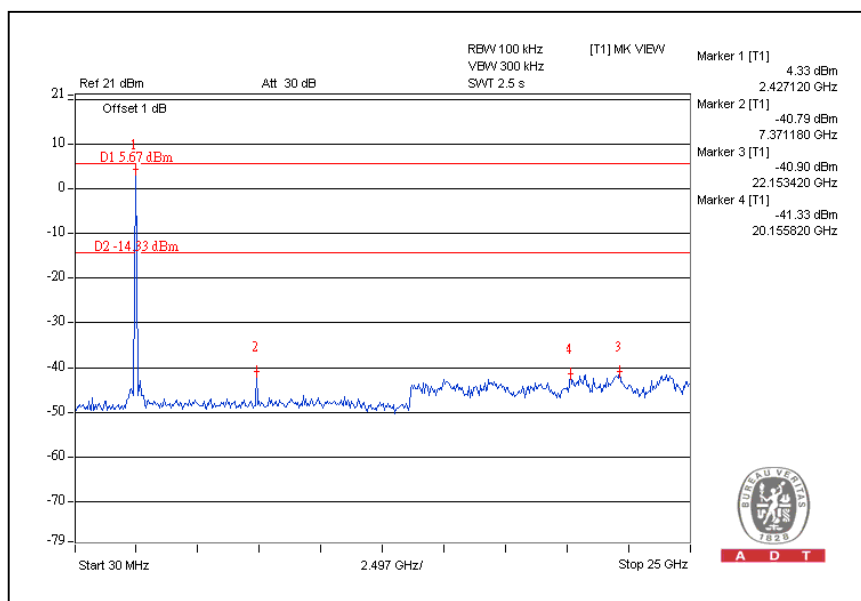
CH11



CH1

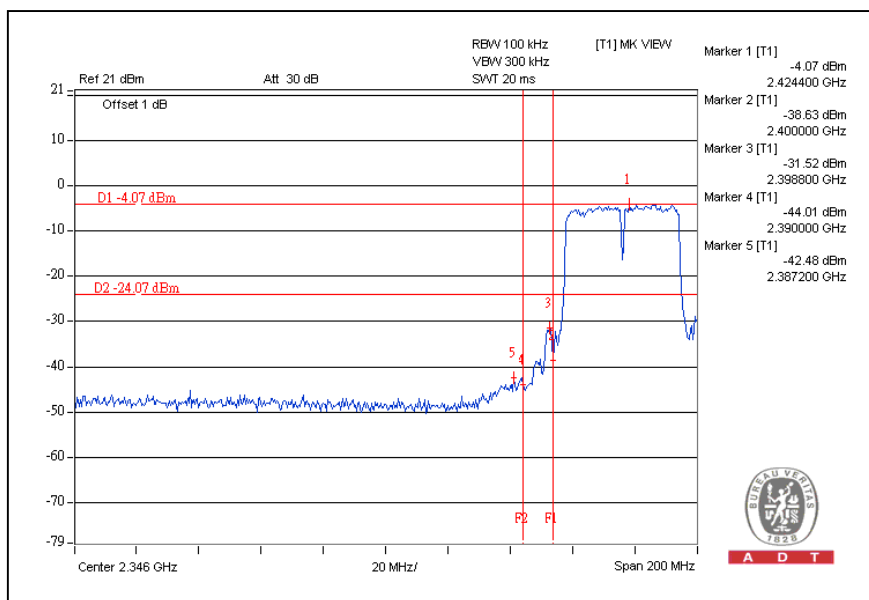


CH11

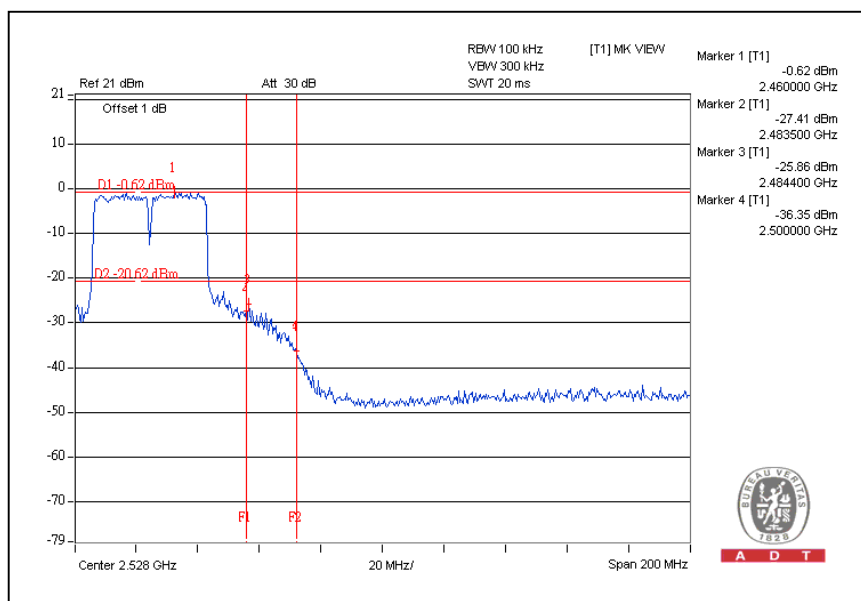


DRAFT 802.11n (40MHz) OFDM MODULATION:

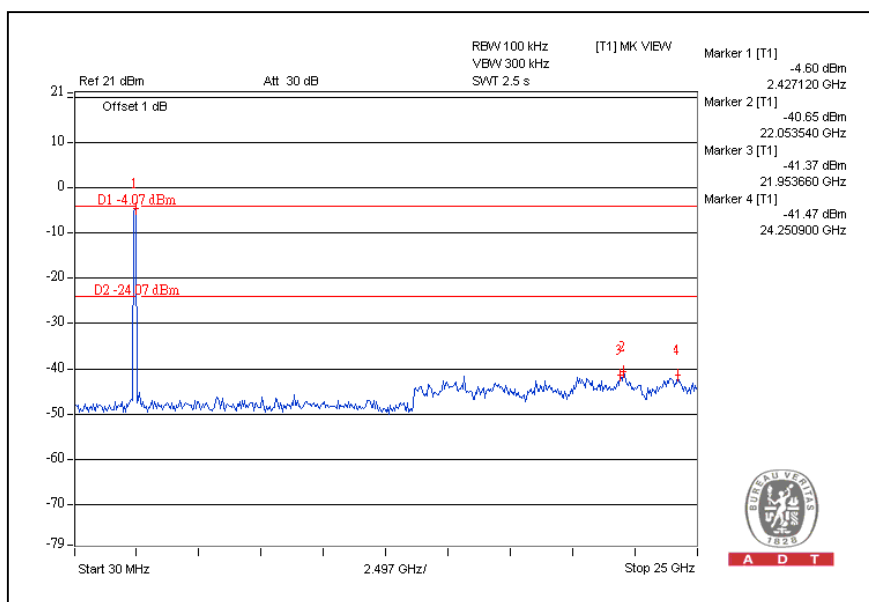
CH1



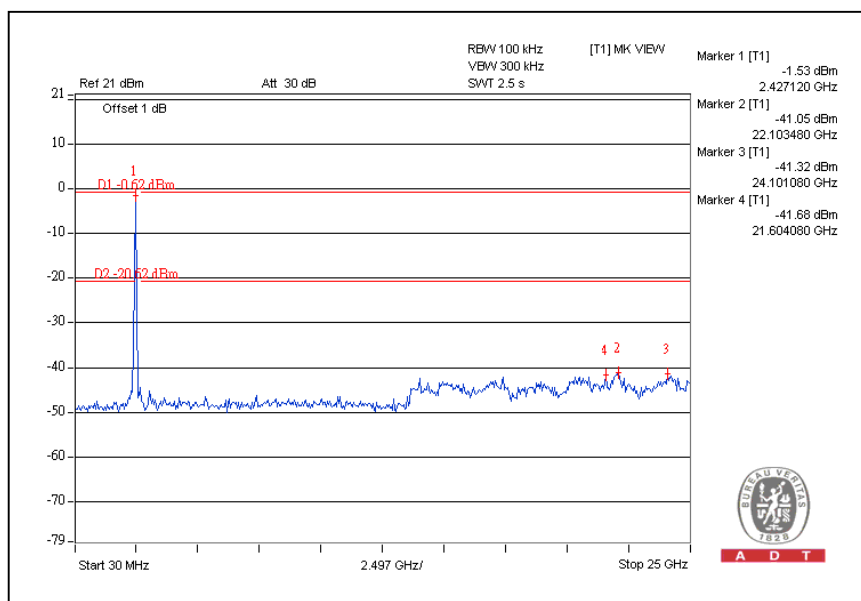
CH7



CH1



CH7





4.7 ANTENNA REQUIREMENT

4.7.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.7.2 ANTENNA CONNECTED CONSTRUCTION

The antennas used in this product are as below.

No.	Brand	Model	Antenna type	Gain (dBi) with & w/o cable loss	Cable loss (dB)	Connector type	Difference
1	wistron	DQ661500301(Main) DQ661500301(Aux)	PIFA	3.95 3.90	N.A.	IPEX	Antenna length
2	Wistron	DQ661500115(Main) DQ661500115 (Aux)	PIFA	1.10 0.64	1.89 2.55	IPEX	Antenna length
3	Wgt	AR830WIP101A (L) AR830WIP102A (R)	PIFA	2.17 2.39	-1.60 -2.03	IPEX	Antenna length
4	Wgt	AR320WIP101B (L) AR320WIP102B (R)	PIFA	0.86 2.11	-1.43 -1.78	IPEX	Antenna length
5	Wgt	ARW62WIP101G (L) ARW62WIP102G (R)	PIFA	2.48 1.32	-2.39 -1.76	IPEX	Antenna length
6	Wgt	ARUMPWIP102+C (L) ARUMPWIP101+D (R)	PIFA	2.41 2.07	N.A.	IPEX	Antenna length
7	Foxconn	WDAN-GQMA6001-DF (Main) WDAN-GQMA6001-DF (Aux)	PIFA	2.32 1.10	-1.262 -1.813	IPEX	Antenna length
8	Foxconn	WDAN-GQMA6002-DF (Main) WDAN-GQMA6002-DF (Aux)	PIFA	0.74 0.78	-1.446 -2.009	IPEX	Antenna length
9	Galtronics	021020168NC3587 (Main) 021020168NC3587-1 (Aux)	PIFA	-0.25 3.64	1.75 2	U.FL	Antenna length
10	Galtronics	021020168NC3586 (Main) 021020168NC3586-1 (Aux)	PIFA	-0.04 3.25	1.9 1.85	U.FL	Antenna length
11	HIGH-TEK	AAFQ5050001LK0 (Main) AAFQ5050001RK0 (Aux)	PIFA	2.86 1.52	2.4 1.7	IPEX	Antenna length
12	Hitachi	HFT40-IV17 (Main) HMG03-IV17 (Aux)	PIFA	0.48 0.64	N.A.	IPEX	Antenna length
13	WNC	81.EE215.016 (Main) 81.EE215.016 (Aux)	PIFA	0.34 0.79	2.52 3.17	IPEX	Antenna length
14	WNC	ASAW 001(L) ASAW 001 (R)	PIFA	1.34 1.25	N.A.	IPEX	Antenna length
15	Wgt	B1425050G00003 (Main) B1425050G00002 (Aux)	PIFA	0.03 0.63	-2.01 -2.05	IPEX	Antenna length
16	TYCO	ASAT 001 (Main) ASAT 001 (Aux)	PIFA	0.61 0.16	N.A.	IPEX	Antenna length
17	ACON	ASAA 001 (L) ASAA 001 (R)	PIFA	1.56 1.36	N.A.	IPEX	Antenna length
18	Hitachi	HFT40 (Main) HFP40 (Aux)	PIFA	0.58 1.12	1.42 2.12	IPEX	Antenna length
19	Hitachi	HFT60 (Main) HFT60 (Aux)	PIFA	-1.65 -0.92	1.48 2.18	IPEX	Antenna length

No.	Brand	Model	Antenna type	Gain (dBi) with & w/o cable loss	Cable loss (dB)	Connector type	Difference
20	Hitachi	HTL008 (Main) HTL008 (Aux)	PIFA	2.24 1.84	1.72 2.20	IPEX	Antenna length
21	Hitachi	HTL017 (Main) HTL017 (Aux)	PIFA	2.82 2.94	1.94 2.39	IPEX	Antenna length
22	WNC	WNC001 (Main) WNC001 (Aux)	PIFA	-1.10 1.76	1.17 1.17	IPEX	P/N No.
23	WNC	WNC002 (Main) WNC002 (Aux)	PIFA	1.18 1.75	2.28 2.12	IPEX	Antenna length
24	TYCO	TIAN01 (Main) TIAN01 (Aux)	PIFA	0.57 0.87	-1.463 -1.865	IPEX	Antenna length
25	TYCO	TBN001 (Main) TBN001 (Aux)	PIFA	3.45 2.41	1.45 2.13	IPEX	Antenna length
26	TYCO	TBN003 (Main) TBN003 (Aux)	PIFA	-1.11 -1.11	1.84 2.16	IPEX	Antenna length
27	Wgt	U40 (L) U40 (R)	PIFA	-0.65 -1.32	N.A.	IPEX	Antenna length
28	Wgt	U50 (L) U50 (R)	PIFA	0.56 0.94	N.A.	IPEX	Antenna length
29	JEM	U40 (L) U40 (R)	PFIA	2.99 1.90	N.A.	IPEX	Antenna length
30	JEM	U50 (L) U50 (R)	PFIA	2.53 0.34	N.A.	IPEX	Antenna length
31	FVC	22G600810-10 (L) 22G600530-00 (R)	PIFA	0.21 -0.80	N.A.	IPEX	Antenna length
32	FVC	22G600810-10 (L)	PIFA	0.21	N.A.	IPEX	NA
33	FVC	22G600820-00 (L) 22G600575-00 (R)	PIFA	0.37 1.15	N.A.	IPEX	Antenna length
34	wgt	22G600820-30 (L) 22G600575-10 (R)	PIFA	2.28 2.81	N.A.	IPEX	Antenna length
35	FVC	22G600820-00 (L) 22G600630-10 (R)	PIFA	-1.46 2.14	N.A.	IPEX	Antenna length
36	wgt	22G600750-30 (L)	PIFA	1.68	N.A.	IPEX	NA
37	FOXCONN	WDAN-TQ BD3001-DF (TX1) WDAN-TQ BD3001-DF (TX2) WDAN-TQ BD3001-DF (TX3)	PIFA	-0.87 -2.86 -1.27	2.5 2.5 2.5	IPEX	Antenna length
38	FOXCONN	WDAN-TQ BD3002-DF (TX1) WDAN-TQ BD3002-DF (TX2)	PIFA	-0.87 -2.86	2.5 2.5	IPEX	Antenna length
39	FOXCONN	WDAN-TQ BL5001-DF (TX1) WDAN-TQ BL5001-DF (TX2) WDAN-TQ BL5001-DF (TX3)	PIFA	-2.24 -2.41 -0.65	2.5 2.5 2.5	IPEX	Antenna length
40	FOXCONN	WDAN-TQ BL5002-DF (TX1) WDAN-TQ BL5002-DF (TX2)	PIFA	-2.24 -2.41	2.5 2.5	IPEX	Antenna length

No.	Brand	Model	Antenna type	Gain (dBi) with & w/o cable loss	Cable loss (dB)	Connector type	Difference
41	FOXCONN	WDAN-TQ BU2001-DF (TX1)	PIFA	-0.42	2.5	IPEX	Antenna length
		WDAN-TQ BU2001-DF (TX2)		-0.37	2.5		
		WDAN-TQ BU2001-DF (TX3)		-0.9	2.5		
42	FOXCONN	WDAN-TQ BU2002-DF (TX1)	PIFA	-0.42	2.5	IPEX	Antenna length
		WDAN-TQ BU2002-DF (TX2)		-0.37	2.5		
43	FOXCONN	WDAN-TQ TE1001-DF (TX1)	PIFA	-0.43	2.5	IPEX	Antenna length
		WDAN-TQ TE1001-DF (TX2)		-0.70	2.5		
		WDAN-TQ TE1001-DF (TX3)		-0.25	2.5		
44	FOXCONN	WDAN-TQ TE1002-DF (TX1)	PIFA	-0.43	2.5	IPEX	Antenna length
		WDAN-TQ TE1002-DF (TX2)		-0.70	2.5		
45	Tyco	2023935-1 (Main)	PIFA	2.95	1.88	U.FL	Antenna length
		2023936-1 (Aux)		1.90	2.03		
		2023936-1 (MIMO)		-0.28	2.01		
46	Tyco	2023937-1 (Main)	PIFA	1.60	1.85	U.FL	Antenna length
		2023937-1 (Aux)		0.05	2.00		
		2023934-1 (MIMO)		-0.28	2.01		
47	Tyco	2023938-1 (Main)	PIFA	1.41	2.17	U.FL	Antenna length
		2023938-1 (Aux)		1.24	2.40		
		2023939-1 (MIMO)		0.04	2.35		
48	Tyco	2023954-1 (Main)	PIFA	1.68	2.14	U.FL	Antenna length
		2023954-1 (Aux)		0.92	3.02		
		2023955-1 (MIMO)		1.98	1.44		
49	Hitachi	HBV07 (TX1)	PIFA	2.19	0.95	I-PEX	Antenna color
		HBV07 (TX2)		-0.33	0.95		
50	Hitachi	HBV051 (TX1)	PIFA	2.91	0.95	I-PEX	Antenna color
		HBV051 (TX2)		2.82	0.95		
51	Hitachi	HBV052 (TX1)	PIFA	0.27	0.95	I-PEX	Antenna color
		HBV052 (TX2)		0.02	0.95		
52	Hitachi	HBV061 (TX1)	PIFA	1.30	0.95	I-PEX	Antenna color
		HBV061 (TX2)		2.42	0.95		
53	Hitachi	HBV062 (TX1)	PIFA	-1.04	0.95	I-PEX	Antenna color
		HBV062 (TX2)		-1.19	0.95		
54	Hitachi	HFT65 (TX1)	PIFA	-1.74	0.95	I-PEX	Antenna color
		HFT65 (TX2)		1.16	0.95		



5. INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA	FCC, UL
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA, CSA
R.O.C.	TAF, BSMI, NCC
Netherlands	Telefication
Singapore	GOST-ASIA(MOU)
Russia	CERTIS(MOU)

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site:

www.adt.com.tw/index.5/phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:

Tel: 886-2-26052180

Fax: 886-2-26052943

Hsin Chu EMC/RF Lab:

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab:

Tel: 886-3-3183232

Fax: 886-3-3185050

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.

6. APPENDIX - A MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

--- END ---