FCC TEST REPORT

REPORT NO.: RF990611E03A

MODEL NO.: WUS-N10M

FCC ID: XU8WUSN10M

RECEIVED: Oct. 20, 2011

TESTED: Dec. 01 to 20, 2011

ISSUED: Dec. 30, 2011

APPLICANT: TRENDnet, Inc.

ADDRESS: 20675 Manhattan Place, Torrance, CA 90501 U.S.A.

ISSUED BY: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory

LAB ADDRESS : No. 81-1, Lu Liao Keng, 9th Ling,Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan

TEST LOCATION (1): No. 81-1, Lu Liao Keng, 9th Ling,Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan

TEST LOCATION (2): No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan

Table of Contents

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF990611E03A	Original release	Dec. 30, 2011

1. CERTIFICATION

PRODUCT:	WLAN Card
BRAND NAME:	TRENDnet
MODEL NO.:	WUS-N10M
TEST SAMPLE:	MASS-PRODUCTION
TESTED:	Dec. 01 to 20, 2011
APPLICANT:	TRENDnet, Inc.
STANDARDS:	FCC Part 15, Subpart C (Section 15.247) ANSI C63.4-2003 ANSI C63.10-2009

The above equipment (Model: WUS-N10M) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, 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 : Elsie Hsu , **DATE:** Dec. 30, 2011
(Elsie Hsu, Specialist)

APPROVED BY : , **DATE:** Dec. 30, 2011
(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 -11.39dB at 3.254MHz
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit.
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit.
15.247(d)	Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -0.7dB at 2390.00MHz
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Conducted Out-Band Emission Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector are IPEX, RP-SMA(M) and SMA Straight Plug Reverse not standard connectors.

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

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

Measurement	Value
Conducted emissions	2.45 dB
Radiated emissions (30MHz-1GHz)	3.81 dB
Radiated emissions (1GHz -18GHz)	2.19 dB
Radiated emissions (18GHz -40GHz)	2.56 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	WLAN Card
MODEL NO.	WUS-N10M
FCC ID	XU8WUSN10M
POWER SUPPLY	DC 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: Up to 11Mbps 802.11g: Up to 54Mbps HT20 MCS0~7 (800ns GI): Up to 65Mbps, HT40 MCS0~7 (800ns GI): Up to 135Mbps. HT20 MCS0~7 (400ns GI): Up to 72.2Mbps, HT40 MCS0~7 (400ns GI): Up to 150.0Mbps,
FREQUENCY RANGE	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, 802.11n (20MHz) 7 for 802.11n (40MHz)
MAXIMUM OUTPUT POWER	802.11b: 120.2mW 802.11g: 288.4mW 802.11n (20MHz): 316.2mW 802.11n (40MHz): 223.9mW
ANTENNA TYPE	Please see NOTE
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. The EUT must be powered with host equipment and following two different types could be chosen:

Type	Power
1	Powered by USB port
2	Powered by PCB board

From the above types, the worse spurious emission case was found in the **Type 2**. Therefore only the spurious emission test data of Type 2 was recorded in this report.

2. There are seven antennas provided to this EUT, please refer to the following table:

Antenna No.	Model name	Antenna Type	Gain (Included cable loss)	Connector Type	Cable length
1	C037-510958-A	Dipole	1.3 dBi	I-PEX	5 cm
2	C037-511005-A	Dipole	1.2 dBi	I-PEX	9 cm
3	C037-511151-A (SSR-13230)	PCB	2.19 dBi	I-PEX	2.4 cm
4	THW0157A	Dipole	0 dBi	RP-SMA(M)	8 cm (Gray)
5	THW0157A	Dipole	-0.6 dBi	RP-SMA(M)	15 cm
6	THW0157A	Dipole	0 dBi	RP-SMA(M)	8 cm (Orange)
7	C037-510960-A	Dipole	0 dBi	SMA Straight Plug Reverse	8 m

From the above antennas, **Antenna 1&3** were selected as representative antennas for the test and their data were recorded in this report.

3. The EUT is 1 * 1 spatial SISO (1Tx & 1Rx) without beam forming function.

4. When the EUT operating in 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 7.

5. 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, 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 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
3	2422MHz	7	2442MHz
4	2427MHz	8	2447MHz
5	2432MHz	9	2452MHz
6	2437MHz		

3.3 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO					DESCRIPTION
	PLC	RE < 1G	RE ³ 1G	APCM	OB	
A	√	-	-	-	-	Type 1 + Antenna 3
B	√	√	√	√	√	Type 2 + Antenna 3
C	-	√	√	-	-	Type 2 + Antenna 1

Where **PLC:** Power Line Conducted Emission **RE < 1G:** Radiated Emission below 1GHz

RE ³ 1G: Radiated Emission above 1GHz **APCM:** Antenna Port Conducted Measurement

OB: Conducted Out-Band Emission 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)	CONFIGURE
802.11n (20MHz)	1 to 11	6	OFDM	BPSK	6.5	A, B

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, XYZ axis 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)	CONFIGURE	AXIS
802.11n (20MHz)	1 to 11	6	OFDM	BPSK	6.5	B, C	Z

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, XYZ axis 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)	CONFIGURE	AXIS
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1	B, C	Z
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	B, C	Z
802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5	B, C	Z
802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	13.5	B, C	Z

CONDUCTED OUT-BAND EMISSION 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)	CONFIGURE
802.11b	1 to 11	1, 11	DSSS	DBPSK	1	B
802.11g	1 to 11	1, 11	OFDM	BPSK	6	B
802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	6.5	B
802.11n (40MHz)	3 to 9	3, 9	OFDM	BPSK	13.5	B

ANTENNA PORT CONDUCTED MEASUREMENT:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

☒ 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)	CONFIGURE
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1	B
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	B
802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5	B
802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	13.5	B

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
RE≥1G	24deg. C, 71%RH 24deg. C, 72%RH	120Vac, 60Hz	Nick Chang
RE<1G	24deg. C, 70%RH	120Vac, 60Hz	Evan Huang
PLC	25deg. C, 61%RH	120Vac, 60Hz	Andy Ho
APCM	25deg. C, 60%RH	120Vac, 60Hz	Kent Liu
OB	25deg. C, 60%RH	120Vac, 60Hz	Kent Liu

3.4 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
ANSI C63.10-2009

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

3.5 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.

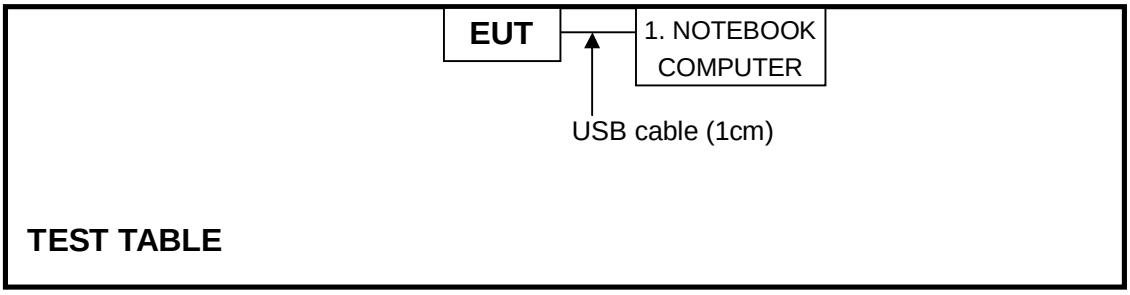
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER (for conduction test)	DELL	PP19L	CN-OHC416-70 166-5CA-0448	FCC DoC
	NOTEBOOK COMPUTER (for other test items)	DELL	PP19L	CN-OHC416-70 166-5CA-0448	FCC DoC
2	TEST TOOL	NA	NA	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	USB Cable, (1m)
2	Connect cable (5cm)

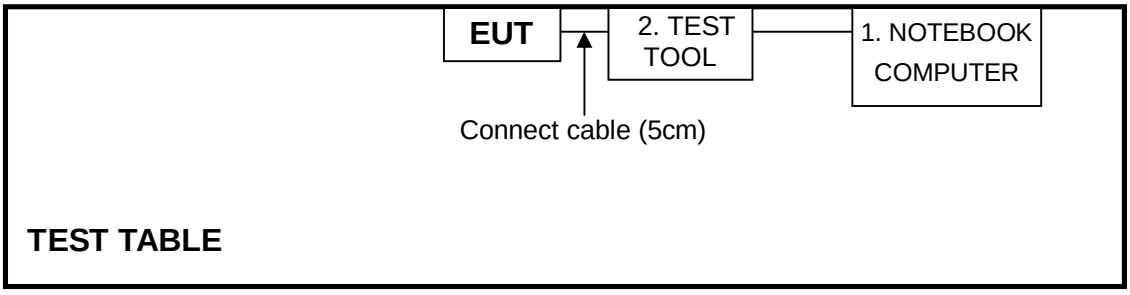
NOTE: All power cords of the above support units are non shielded (1.8m).

3.6 CONFIGURATION OF SYSTEM UNDER TEST

For Type 1:



For Type 2:



4. TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15-0.5	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

Test date: Dec. 14, 2011

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	100287	Mar. 02, 2011	Mar. 01, 2012
Line-Impedance Stabilization Network (for EUT)	NSLK 8127	8127-523	Sep. 20, 2011	Sep. 19, 2012
Line-Impedance Stabilization Network (for Peripheral)	ENV-216	100072	June 10, 2011	June 09, 2012
RF Cable (JYEBAO)	5DFB	CONCAB-003	Aug. 05, 2011	Aug. 04, 2012
50 ohms Terminator	50	3	Nov. 02, 2011	Nov. 01, 2012
Software	BV ADT_Cond_V7.3.7	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 Shielded Room No. A.
3 The VCCI Con A Registration No. is C-817.

4.1.3 TEST PROCEDURES

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

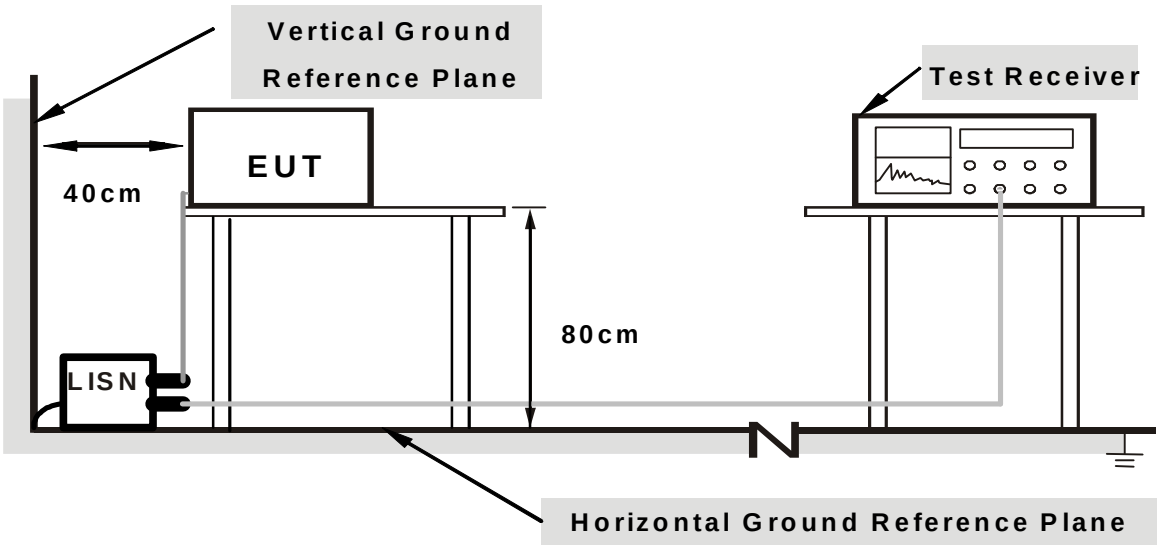
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

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

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



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

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

4.1.6 EUT OPERATING CONDITIONS

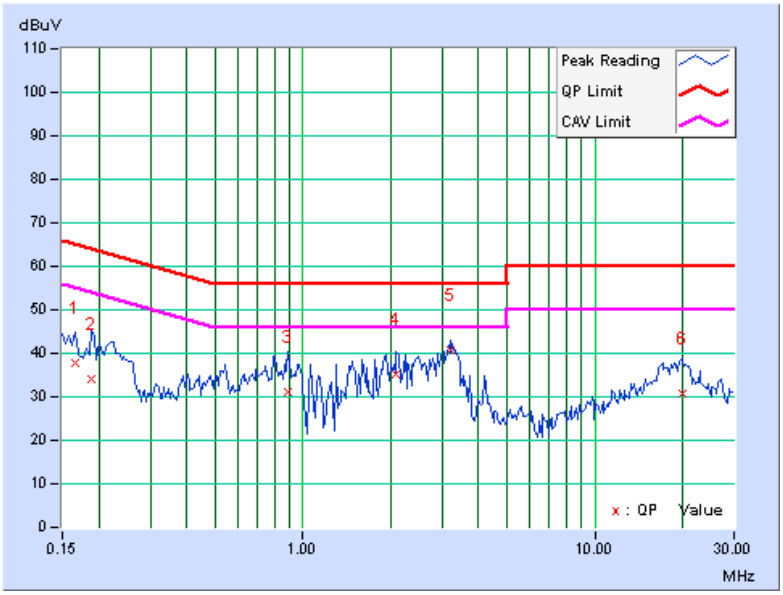
1. Connect the EUT with the support unit 1 (Notebook Computer) which is placed on a testing table.
2. The communication partner run test program “RT3x7xQA.exe” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

4.1.7 TEST RESULTS (MODE A)

PHASE	Line (L)	6dB BANDWIDTH	9 kHz

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.166	0.09	37.66	28.95	37.75	29.04	65.18	55.18	-27.43	-26.14
2	0.189	0.10	33.95	25.97	34.05	26.07	64.08	54.08	-30.03	-28.01
3	0.892	0.14	31.01	24.18	31.15	24.32	56.00	46.00	-24.85	-21.68
4	2.094	0.21	34.84	27.81	35.05	28.02	56.00	46.00	-20.95	-17.98
5	3.219	0.27	40.39	33.92	40.66	34.19	56.00	46.00	-15.34	-11.81
6	19.863	0.78	29.93	24.98	30.71	25.76	60.00	50.00	-29.29	-24.24

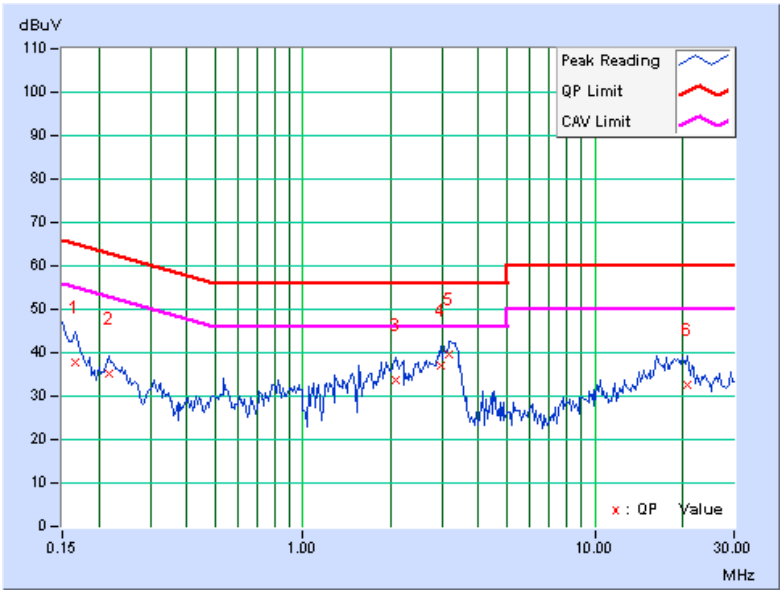
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading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



PHASE	Neutral (N)	6dB BANDWIDTH	9 kHz

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.166	0.08	37.79	34.19	37.87	34.27	65.18	55.18	-27.31	-20.91
2	0.216	0.09	34.94	21.99	35.03	22.08	62.96	52.96	-27.92	-30.87
3	2.094	0.17	33.50	27.74	33.67	27.91	56.00	46.00	-22.33	-18.09
4	2.984	0.20	36.75	30.91	36.95	31.11	56.00	46.00	-19.05	-14.89
5	3.180	0.21	39.27	33.46	39.48	33.67	56.00	46.00	-16.52	-12.33
6	20.727	0.68	31.84	28.54	32.52	29.22	60.00	50.00	-27.48	-20.78

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

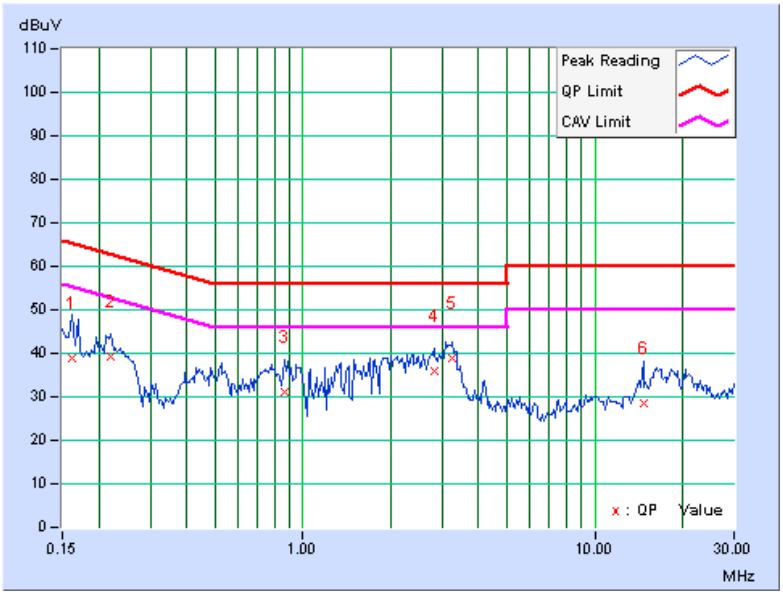


4.1.8 TEST RESULTS (MODE B)

PHASE	Line (L)	6dB BANDWIDTH	9 kHz

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.09	38.90	34.42	38.99	34.51	65.38	55.38	-26.39	-20.87
2	0.220	0.10	39.14	22.65	39.24	22.75	62.81	52.81	-23.57	-30.06
3	0.865	0.14	31.02	21.95	31.16	22.09	56.00	46.00	-24.84	-23.91
4	2.828	0.25	35.69	29.88	35.94	30.13	56.00	46.00	-20.06	-15.87
5	**3.254**	**0.28**	**38.65**	**34.33**	**38.93**	**34.61**	**56.00**	**46.00**	**-17.07**	**-11.39**
6	14.656	0.66	27.91	23.85	28.57	24.51	60.00	50.00	-31.43	-25.49

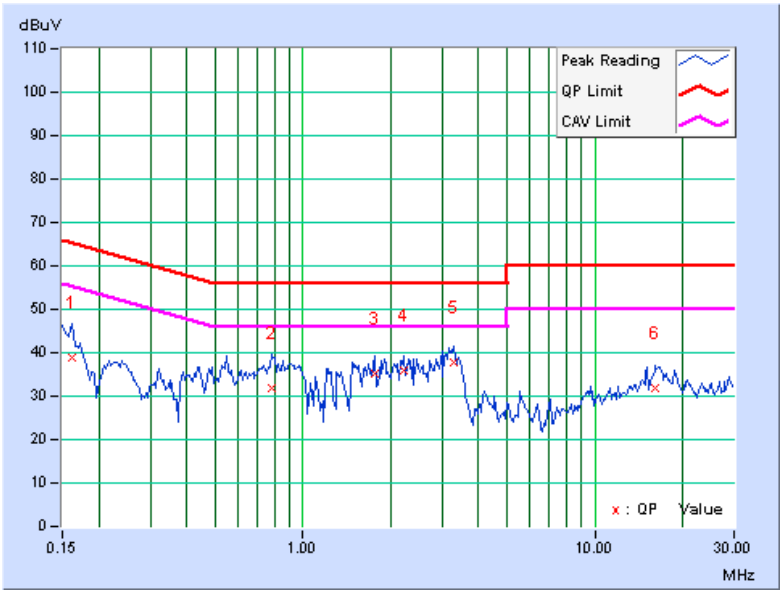
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading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



PHASE	Neutral (N)	6dB BANDWIDTH	9 kHz

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.08	38.90	33.94	38.98	34.02	65.38	55.38	-26.40	-21.36
2	0.783	0.12	31.61	22.48	31.73	22.60	56.00	46.00	-24.27	-23.40
3	1.766	0.16	35.07	27.33	35.23	27.49	56.00	46.00	-20.77	-18.51
4	2.227	0.18	35.74	28.75	35.92	28.93	56.00	46.00	-20.08	-17.07
5	3.309	0.22	37.50	32.05	37.72	32.27	56.00	46.00	-18.28	-13.73
6	16.121	0.56	31.35	25.73	31.91	26.29	60.00	50.00	-28.09	-23.71

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. 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. Section 15.205 restricted bands of operation shall compliance with the limits in Section 15.209.

4.2.2 TEST INSTRUMENTS

Test date: Dec. 01 to 19, 2011

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Agilent Spectrum Analyzer	E4446A	MY48250253	Aug. 29, 2011	Aug. 28, 2012
Agilent Pre-Selector	N9039A	MY46520310	Aug. 29, 2011	Aug. 28, 2012
Agilent Signal Generator	N5181A	MY49060347	July 25, 2011	July 24, 2012
Mini-Circuits Pre-Amplifier	ZFL-1000VH2B	AMP-ZFL-04	Nov. 15, 2011	Nov. 14, 2012
Agilent Pre-Amplifier	8449B	3008A02465	Feb. 28, 2011	Feb. 27, 2012
SPACEK LABS	SLKKa-48-6	9K16	Nov. 15, 2011	Nov. 14, 2012
SCHWARZBECK Trilog Broadband Antenna	VULB 9168	9168-361	Apr. 14, 2011	Apr. 13, 2012
AISI Horn_Antenna	AIH.8018	0000220091110	Nov. 23, 2011	Nov. 22, 2012
SCHWARZBECK Horn_Antenna	BBHA 9170	9170-424	Oct. 07, 2011	Oct. 06, 2012
RF CABLE	NA	RF104-205 RF104-207 RF104-202	Dec. 28, 2010	Dec. 27, 2011
RF Cable	NA	CHHCAB_001	Oct. 08, 2011	Oct. 07, 2012
Software	ADT_Radiated_ V8.7.05	NA	NA	NA
CT Antenna Tower & Turn Table	NA	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 horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in 966 Chamber No. H.
4. The FCC Site Registration No. is 797305.
5. The CANADA Site Registration No. is IC 7450H-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 chamber room. 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 height of antenna 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

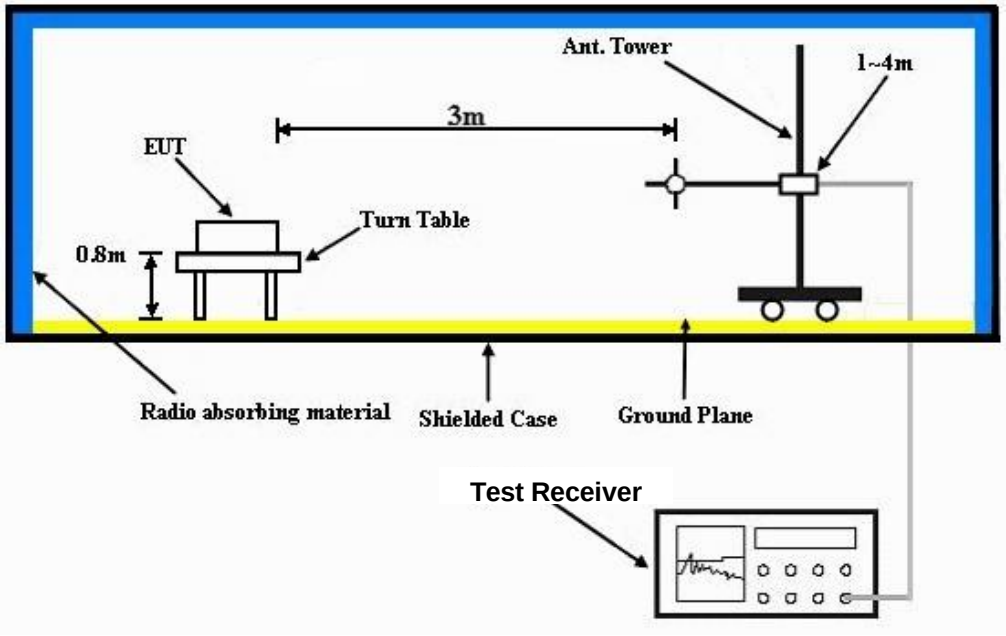
NOTE:

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

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



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

4.2.6 EUT OPERATING CONDITIONS

Same as Item 4.1.6

4.2.7 TEST RESULTS (MODE B)

BELOW 1GHz WORST-CASE DATA：802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 70%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	106.74	35.9 QP	43.5	-7.7	1.50 H	310	25.33	10.52
2	240.08	34.9 QP	46.0	-11.1	1.00 H	346	21.91	12.96
3	300.00	36.4 QP	46.0	-9.6	1.00 H	212	21.10	15.32
4	360.04	42.9 QP	46.0	-3.1	1.00 H	159	26.03	16.89
5	624.96	39.0 QP	46.0	-7.0	1.00 H	237	16.28	22.68
6	875.06	38.2 QP	46.0	-7.8	1.00 H	125	11.23	27.01
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	32.61	34.6 QP	40.0	-5.4	1.00 V	251	21.48	13.14
2	106.74	34.2 QP	43.5	-9.3	1.00 V	317	23.66	10.52
3	360.04	37.7 QP	46.0	-8.3	1.50 V	27	20.81	16.89
4	480.01	39.2 QP	46.0	-6.8	1.50 V	296	19.39	19.84
5	799.51	40.7 QP	46.0	-5.3	1.00 V	259	14.87	25.86
6	840.01	40.0 QP	46.0	-6.0	1.50 V	305	13.52	26.49

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

ABOVE 1GHz 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	24deg. C, 71%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2389.30	59.2 PK	74.0	-14.8	1.52 H	93	27.61	31.59
2	2389.30	47.3 AV	54.0	-6.7	1.52 H	93	15.71	31.59
3	*2412.00	110.4 PK			1.56 H	93	78.74	31.66
4	*2412.00	108.1 AV			1.56 H	93	76.44	31.66
5	4824.00	51.4 PK	74.0	-22.6	1.53 H	51	12.33	39.07
6	4824.00	46.4 AV	54.0	-7.6	1.53 H	51	7.33	39.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	57.0 PK	74.0	-17.0	1.50 V	322	25.41	31.59
2	2390.00	44.0 AV	54.0	-10.0	1.50 V	322	12.41	31.59
3	*2412.00	95.4 PK			1.50 V	322	63.74	31.66
4	*2412.00	93.0 AV			1.50 V	322	61.34	31.66
5	4824.00	56.5 PK	74.0	-17.5	1.15 V	256	17.43	39.07
6	4824.00	53.2 AV	54.0	-0.8	1.15 V	256	14.13	39.07

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
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	24deg. C, 71%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	110.3 PK			1.55 H	100	78.55	31.75
2	*2437.00	108.2 AV			1.55 H	100	76.45	31.75
3	4874.00	52.0 PK	74.0	-22.0	1.49 H	56	12.77	39.23
4	4874.00	46.8 AV	54.0	-7.2	1.49 H	56	7.57	39.23
5	7311.00	56.0 PK	74.0	-18.0	1.17 H	92	9.43	46.57
6	7311.00	48.2 AV	54.0	-5.8	1.17 H	92	1.63	46.57
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	96.1 PK			1.44 V	326	64.35	31.75
2	*2437.00	94.1 AV			1.44 V	326	62.35	31.75
3	4874.00	54.7 PK	74.0	-19.3	1.15 V	259	15.47	39.23
4	4874.00	51.9 AV	54.0	-2.1	1.15 V	259	12.67	39.23
5	7311.00	54.3 PK	74.0	-19.7	1.31 V	225	7.73	46.57
6	7311.00	42.6 AV	54.0	-11.4	1.31 V	225	-3.97	46.57

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": 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	24deg. C, 71%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	109.3 PK			1.50 H	94	77.47	31.83
2	*2462.00	107.5 AV			1.50 H	94	75.67	31.83
3	2483.50	57.7 PK	74.0	-16.3	1.50 H	94	25.80	31.90
4	2483.50	45.6 AV	54.0	-8.4	1.50 H	94	13.70	31.90
5	4924.00	52.2 PK	74.0	-21.8	1.44 H	60	12.81	39.39
6	4924.00	46.8 AV	54.0	-7.2	1.44 H	60	7.41	39.39
7	7386.00	55.9 PK	74.0	-18.1	1.20 H	87	9.43	46.47
8	7386.00	48.3 AV	54.0	-5.7	1.20 H	87	1.83	46.47
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	96.2 PK			1.00 V	323	64.37	31.83
2	*2462.00	93.9 AV			1.00 V	323	62.07	31.83
3	2483.50	57.6 PK	74.0	-16.4	1.00 V	323	25.70	31.90
4	2483.50	43.9 AV	54.0	-10.1	1.00 V	323	12.00	31.90
5	4924.00	56.1 PK	74.0	-17.9	1.16 V	258	16.71	39.39
6	4924.00	53.1 AV	54.0	-0.9	1.16 V	258	13.71	39.39
7	7386.00	54.2 PK	74.0	-19.8	1.29 V	214	7.73	46.47
8	7386.00	42.3 AV	54.0	-11.7	1.29 V	214	-4.17	46.47

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

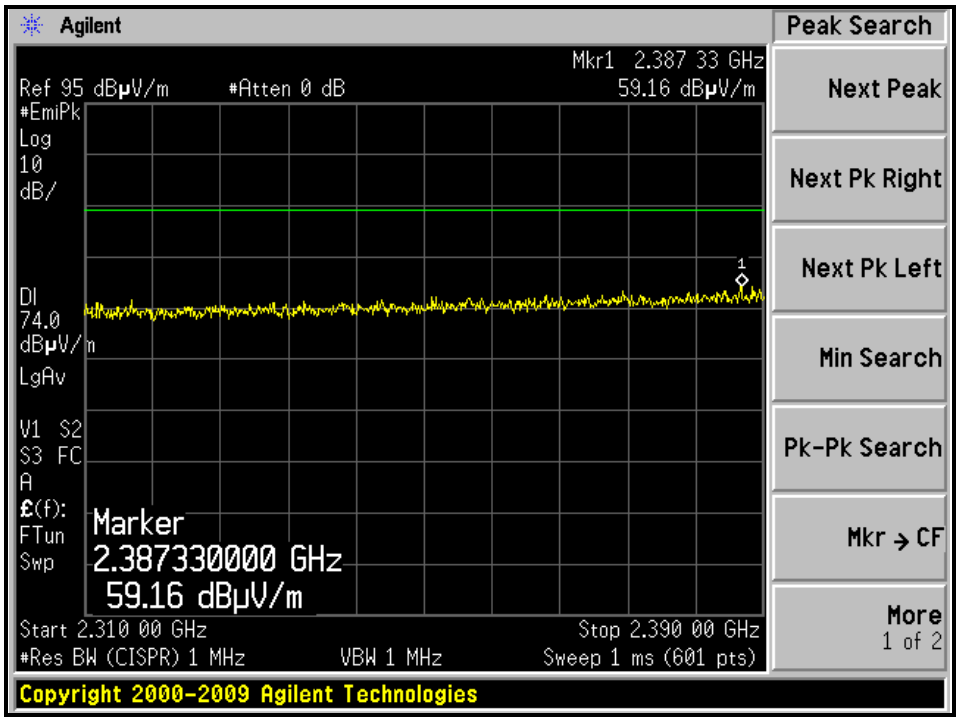
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

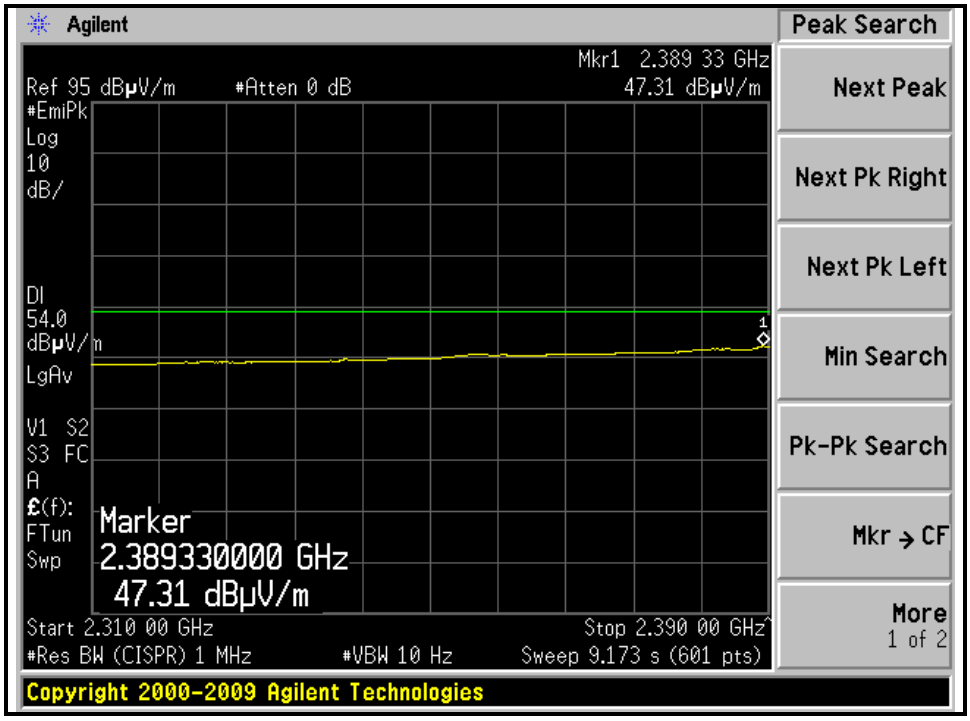
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

RESTRICTED BANDEDGE (802.11b MODE,CH1, HORIZONTAL)





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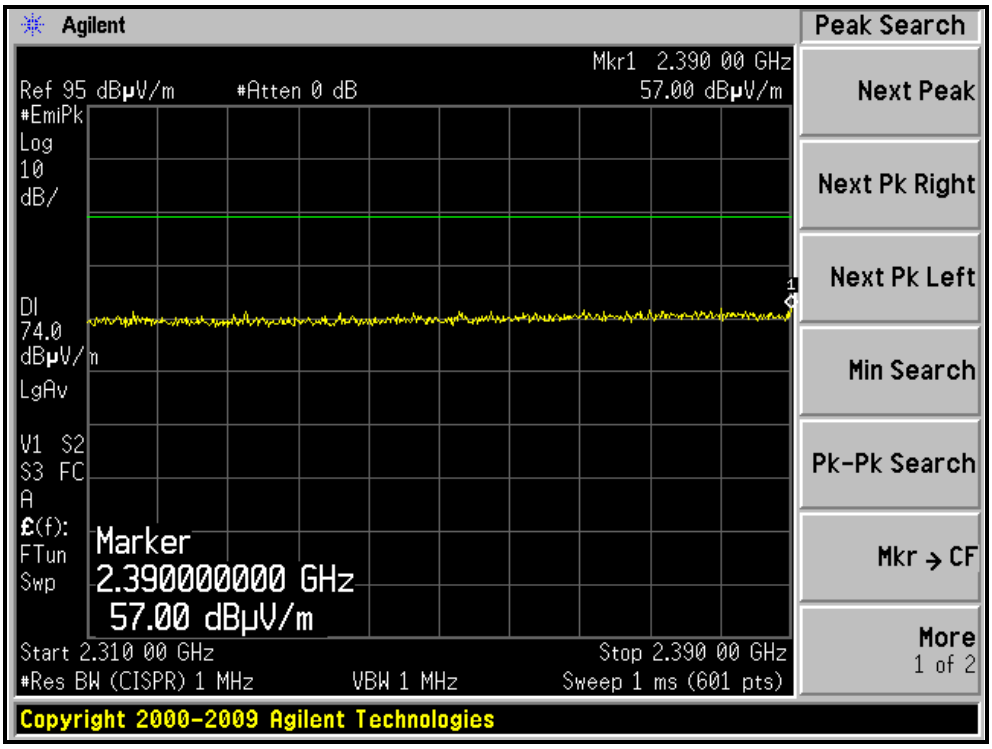

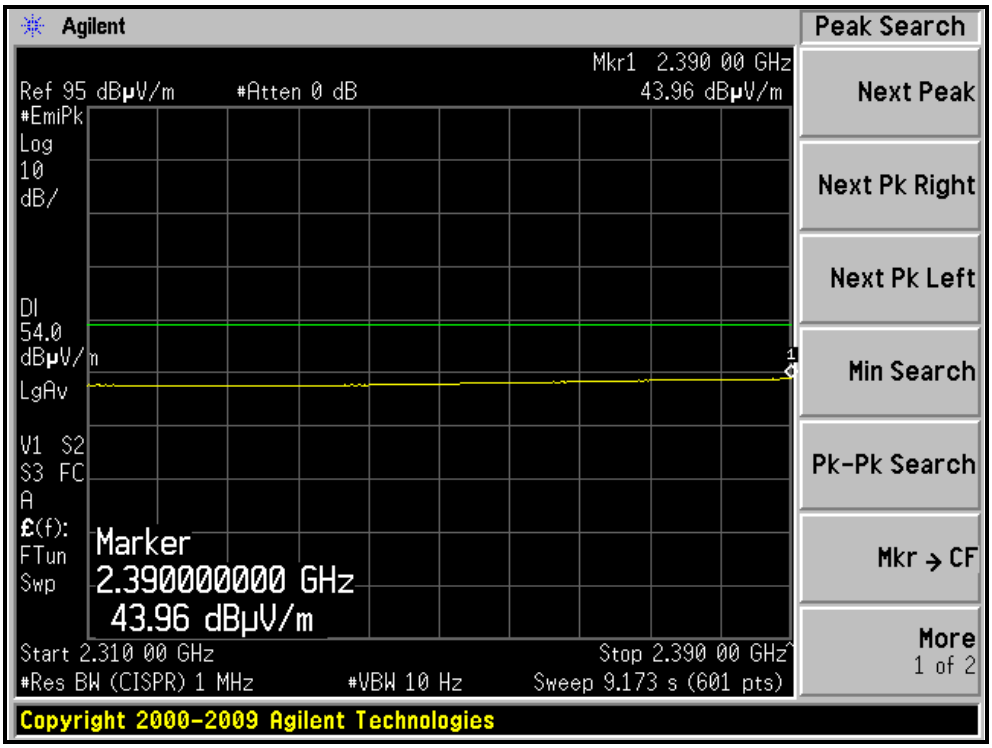

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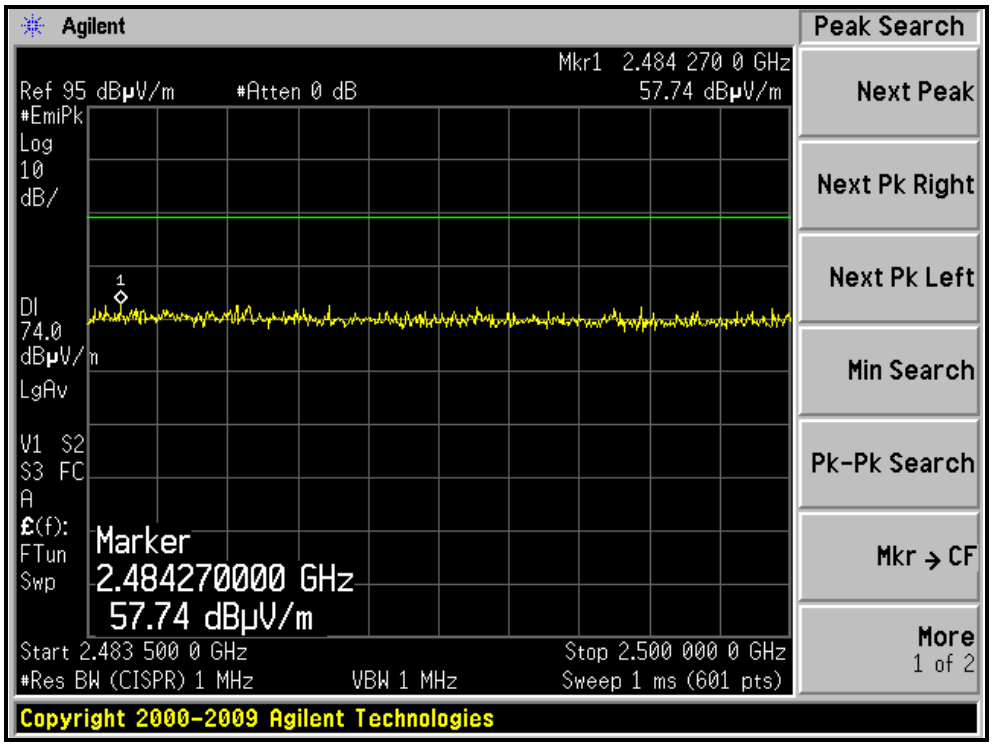

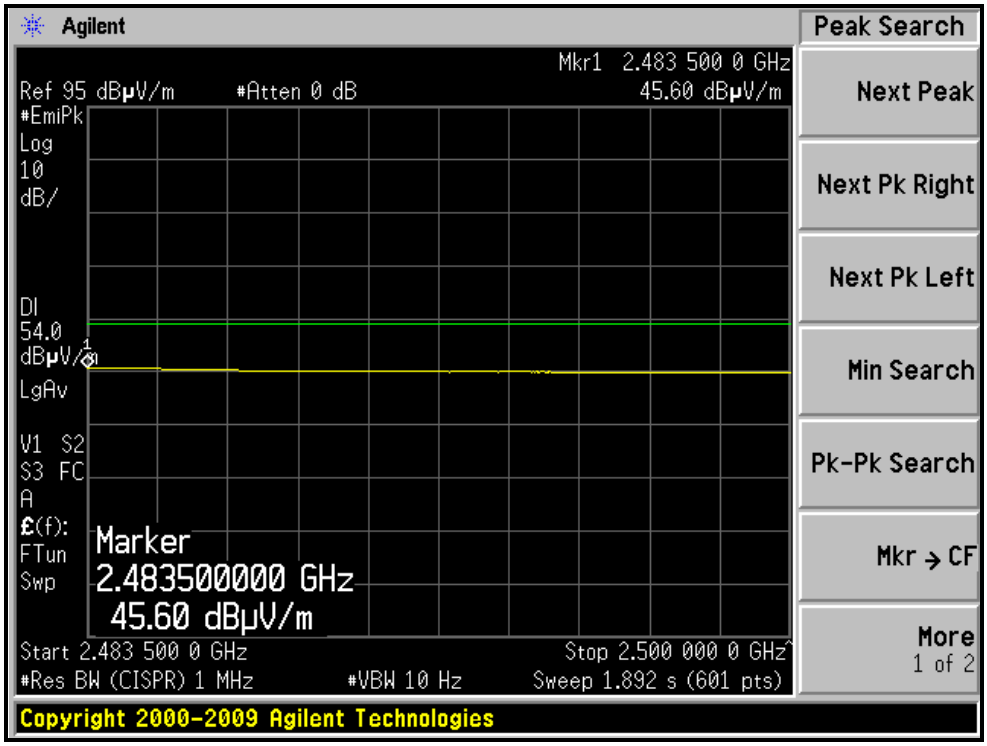

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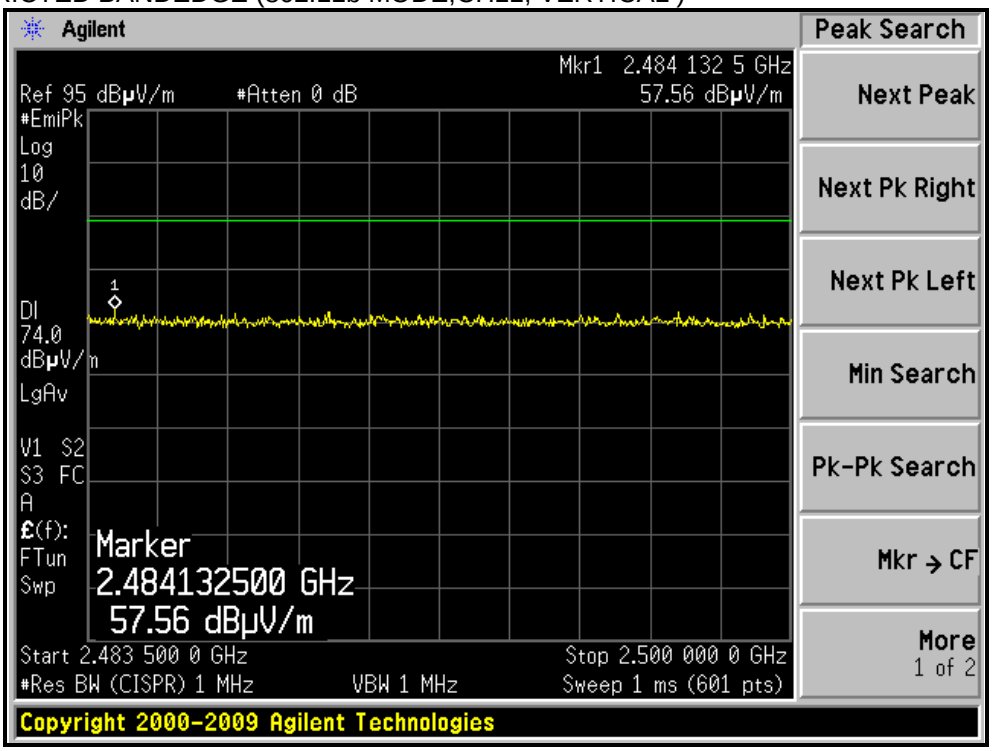
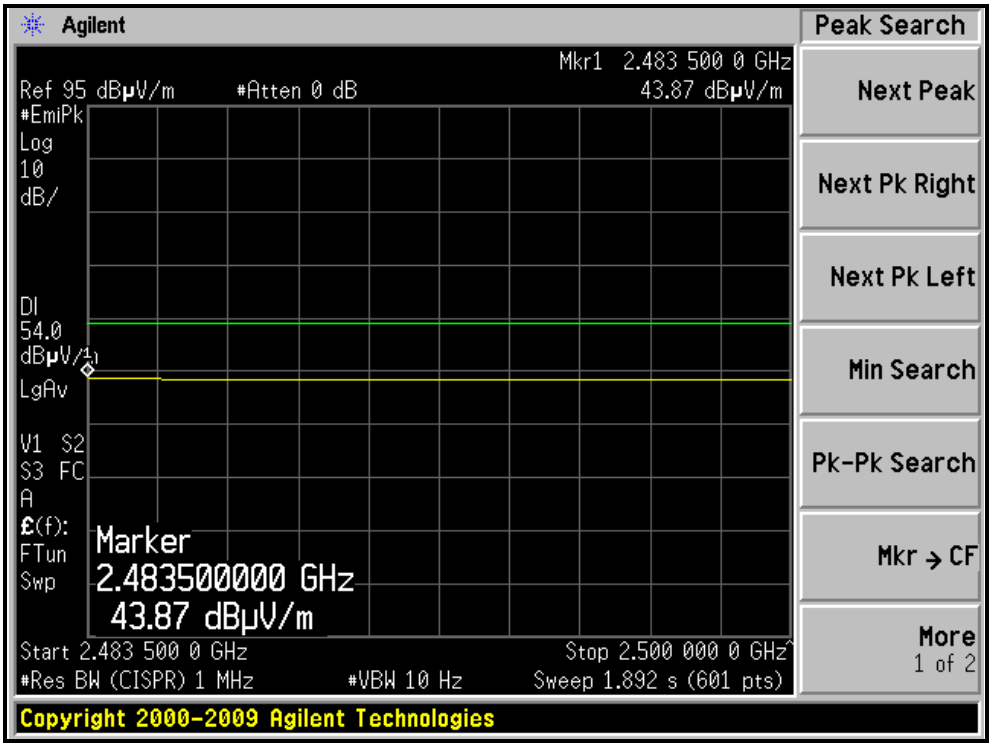




802.11g OFDM MODULATION

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	24deg. C, 71%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	70.2 PK	74.0	-3.8	1.63 H	93	38.61	31.59
2	2390.00	52.0 AV	54.0	-2.0	1.63 H	93	20.41	31.59
3	*2412.00	111.7 PK			1.63 H	93	80.04	31.66
4	*2412.00	101.4 AV			1.63 H	93	69.74	31.66
5	4824.00	53.4 PK	74.0	-20.6	1.22 H	288	14.33	39.07
6	4824.00	39.8 AV	54.0	-14.2	1.22 H	288	0.73	39.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	57.2 PK	74.0	-16.8	1.51 V	327	25.61	31.59
2	2390.00	44.9 AV	54.0	-9.1	1.51 V	327	13.31	31.59
3	*2412.00	99.9 PK			1.51 V	327	68.24	31.66
4	*2412.00	89.2 AV			1.51 V	327	57.54	31.66
5	4824.00	49.0 PK	74.0	-25.0	1.22 V	303	9.93	39.07
6	4824.00	36.9 AV	54.0	-17.1	1.22 V	303	-2.17	39.07

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
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	24deg. C, 71%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	116.1 PK			1.60 H	95	84.35	31.75
2	*2437.00	106.3 AV			1.60 H	95	74.55	31.75
3	4874.00	59.1 PK	74.0	-14.9	1.23 H	290	19.87	39.23
4	4874.00	45.3 AV	54.0	-8.7	1.23 H	290	6.07	39.23
5	7311.00	68.1 PK	74.0	-5.9	1.18 H	100	21.53	46.57
6	7311.00	50.8 AV	54.0	-3.2	1.18 H	100	4.23	46.57
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	101.3 PK			1.44 V	328	69.55	31.75
2	*2437.00	91.8 AV			1.44 V	328	60.05	31.75
3	4874.00	52.2 PK	74.0	-21.8	1.27 V	275	12.97	39.23
4	4874.00	39.2 AV	54.0	-14.8	1.27 V	275	-0.03	39.23
5	7311.00	57.1 PK	74.0	-16.9	1.65 V	271	10.53	46.57
6	7311.00	41.5 AV	54.0	-12.5	1.65 V	271	-5.07	46.57

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": 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	24deg. C, 71%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	113.5 PK			1.35 H	250	81.67	31.83
2	*2462.00	103.4 AV			1.35 H	250	71.57	31.83
3	2483.50	72.0 PK	74.0	-2.0	1.36 H	249	40.10	31.90
4	2483.50	52.9 AV	54.0	-1.1	1.36 H	249	21.00	31.90
5	4924.00	50.5 PK	74.0	-23.5	1.26 H	298	11.11	39.39
6	4924.00	38.8 AV	54.0	-15.2	1.26 H	298	-0.59	39.39
7	7386.00	65.4 PK	74.0	-8.6	1.16 H	90	18.93	46.47
8	7386.00	47.3 AV	54.0	-6.7	1.16 H	90	0.83	46.47
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	95.2 PK			1.16 V	322	63.37	31.83
2	*2462.00	85.0 AV			1.16 V	322	53.17	31.83
3	2483.50	56.7 PK	74.0	-17.3	1.17 V	323	24.80	31.90
4	2483.50	43.9 AV	54.0	-10.1	1.17 V	323	12.00	31.90
5	4924.00	49.4 PK	74.0	-24.6	1.18 V	271	10.01	39.39
6	4924.00	37.1 AV	54.0	-16.9	1.18 V	271	-2.29	39.39
7	7386.00	54.7 PK	74.0	-19.3	1.54 V	274	8.23	46.47
8	7386.00	39.8 AV	54.0	-14.2	1.54 V	274	-6.67	46.47

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

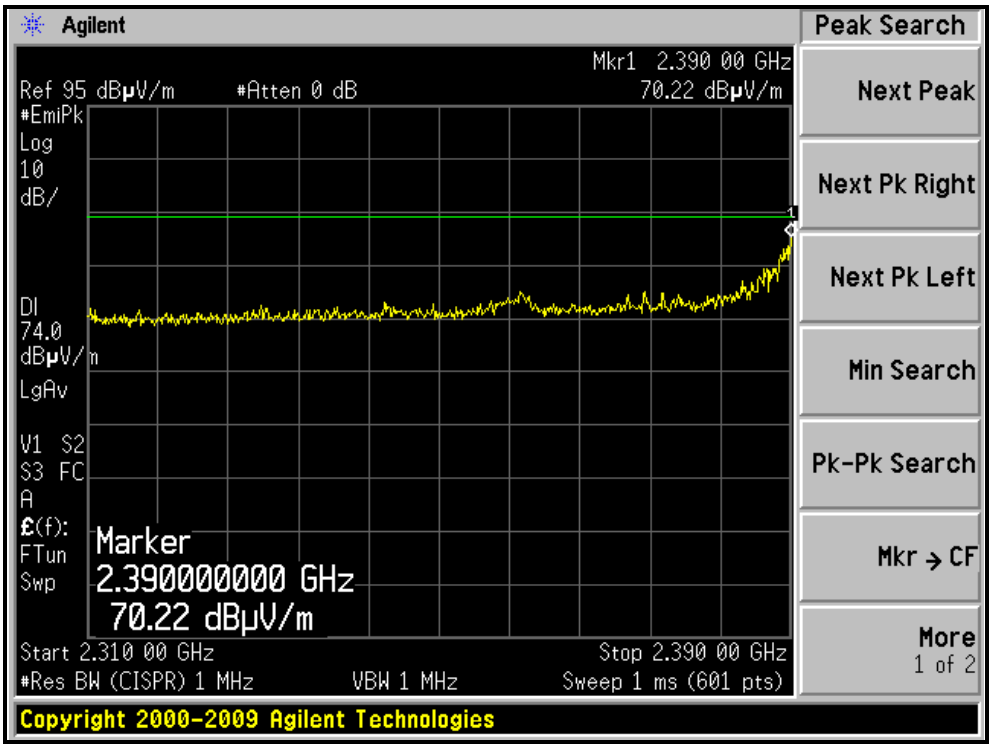
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

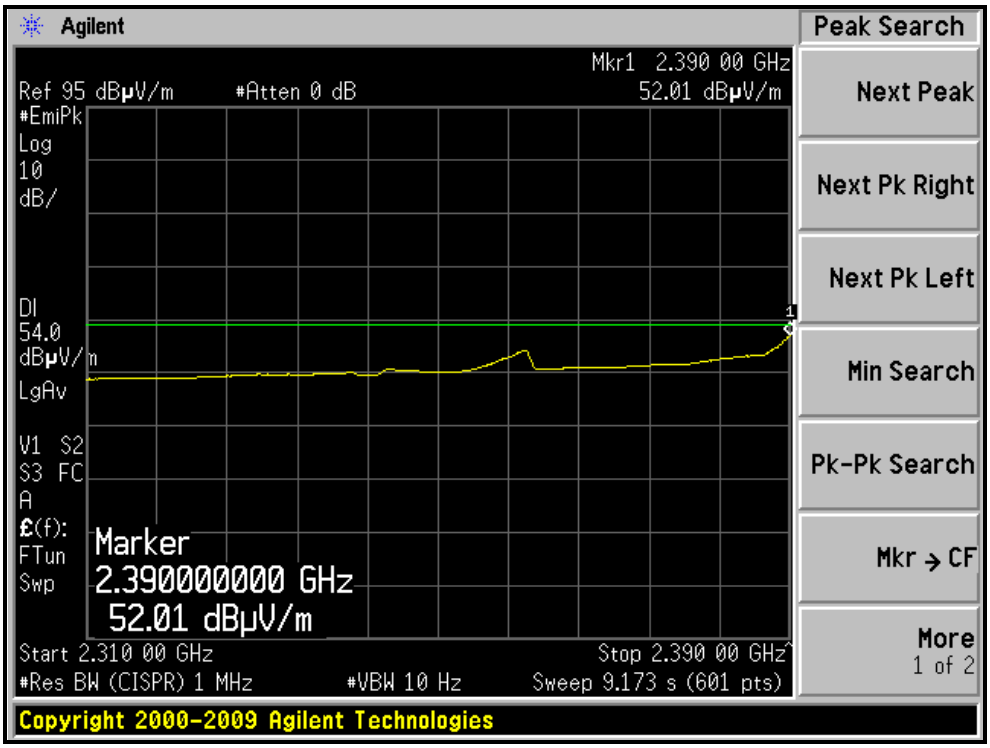
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)





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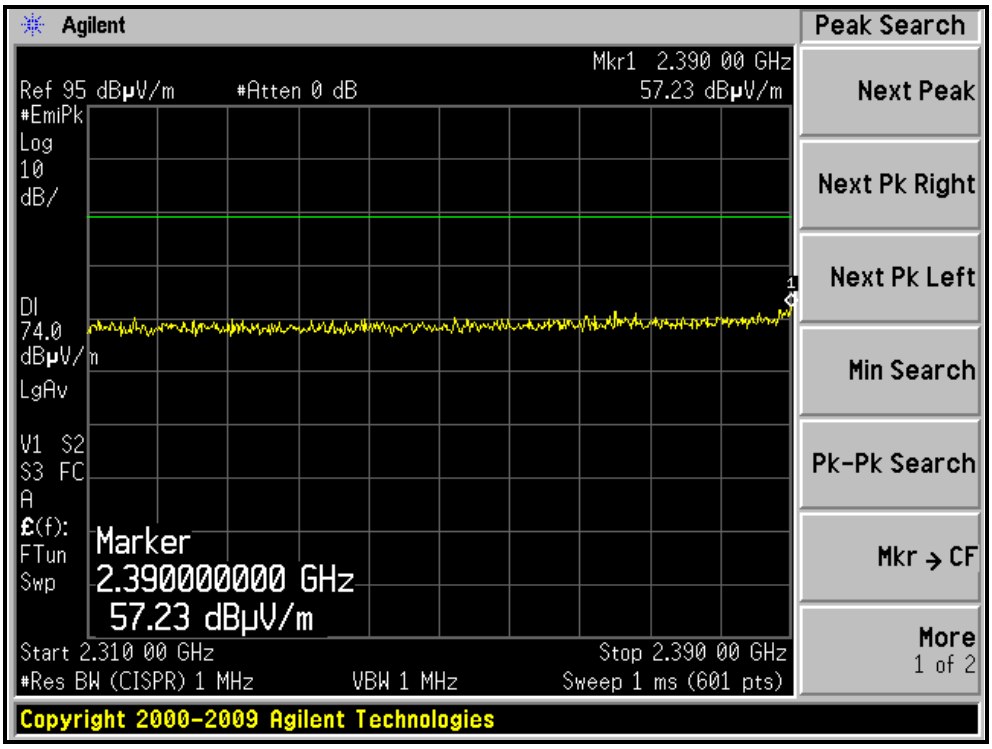
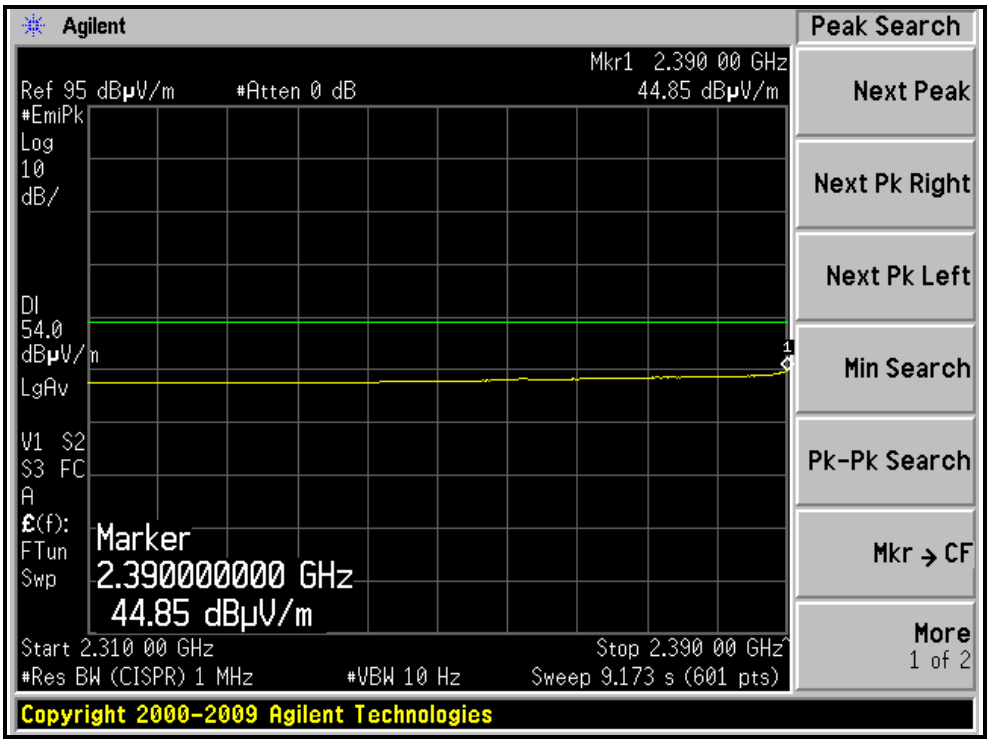
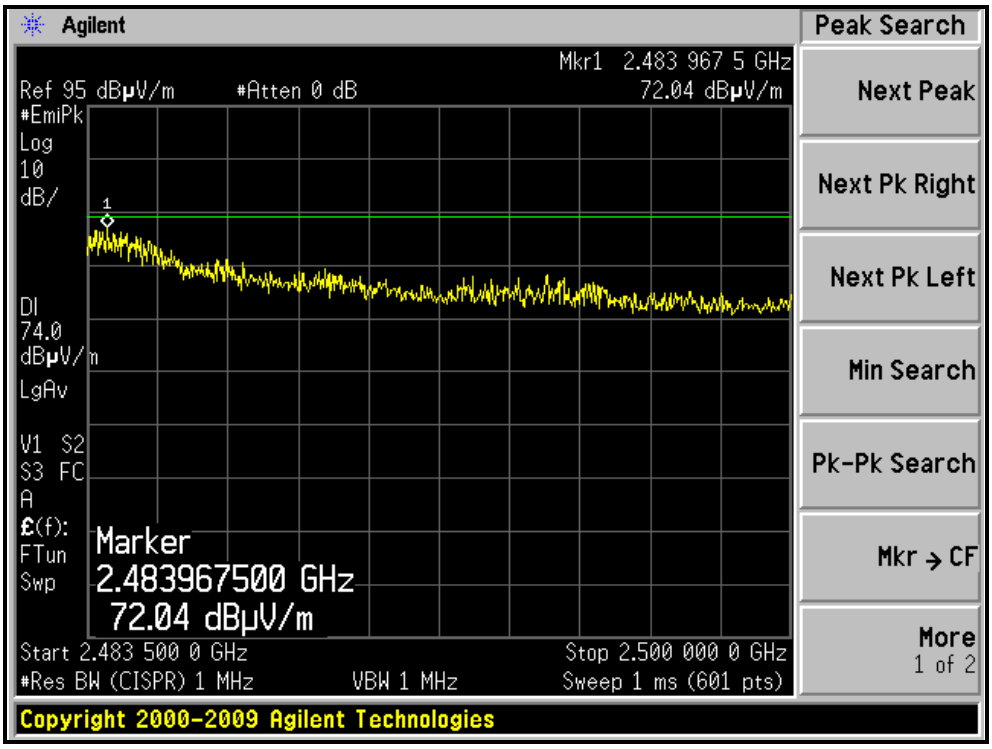
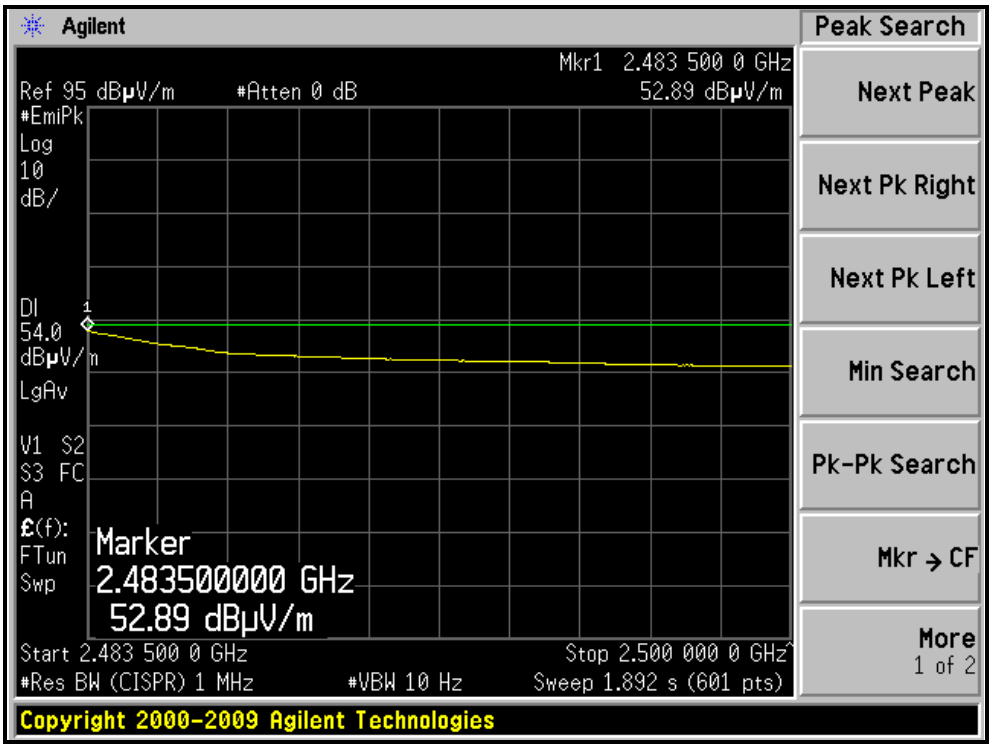


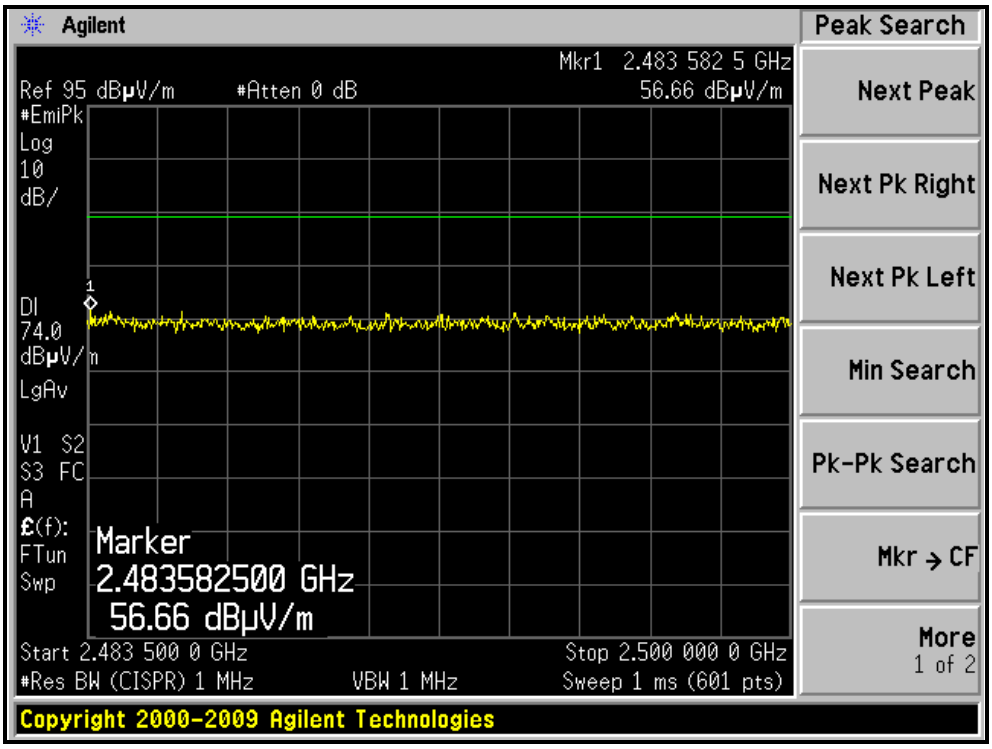


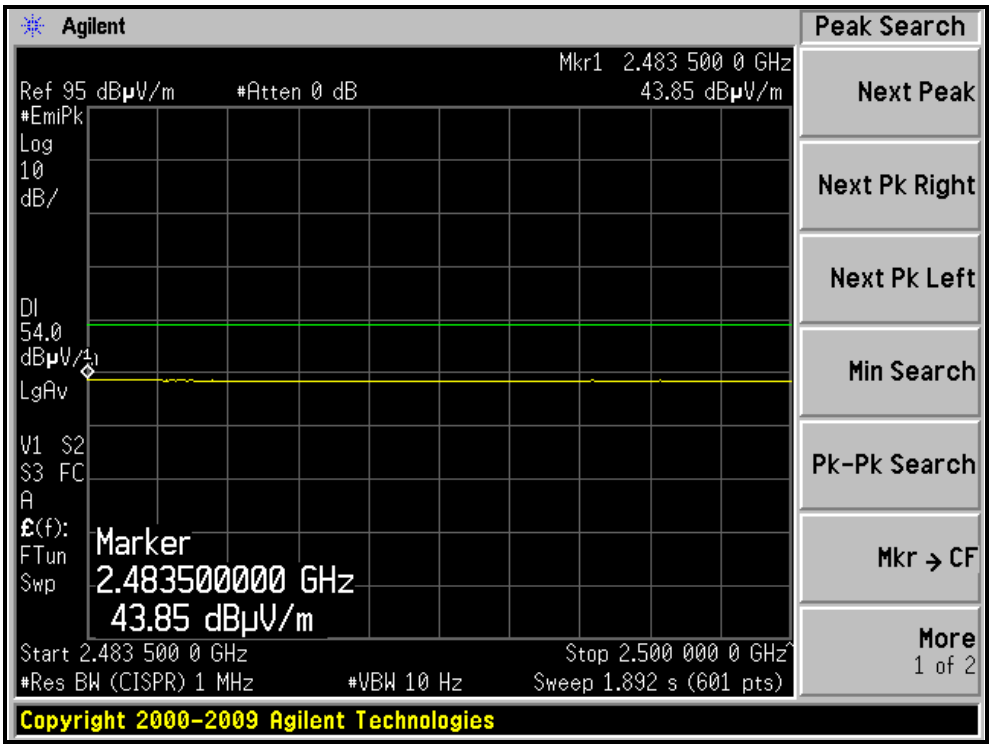
RESTRICTED BANDEDGE (802.11g MODE,CH11, HORIZONTAL)





RESTRICTED BANDEDGE (802.11g MODE,CH11, VERTICAL)





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	24deg. C, 71%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	73.0 PK	74.0	-1.0	1.57 H	95	41.41	31.59
2	2390.00	52.3 AV	54.0	-1.7	1.57 H	95	20.71	31.59
3	*2412.00	110.0 PK			1.57 H	95	78.34	31.66
4	*2412.00	100.5 AV			1.57 H	95	68.84	31.66
5	4824.00	53.3 PK	74.0	-20.7	1.22 H	288	14.23	39.07
6	4824.00	39.7 AV	54.0	-14.3	1.22 H	288	0.63	39.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	57.6 PK	74.0	-16.4	1.50 V	325	26.01	31.59
2	2390.00	44.5 AV	54.0	-9.5	1.50 V	325	12.91	31.59
3	*2412.00	97.1 PK			1.50 V	325	65.44	31.66
4	*2412.00	87.5 AV			1.50 V	325	55.84	31.66
5	4824.00	48.6 PK	74.0	-25.4	1.23 V	287	9.53	39.07
6	4824.00	36.6 AV	54.0	-17.4	1.23 V	287	-2.47	39.07

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
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	24deg. C, 71%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	68.7 PK	74.0	-5.3	1.53 H	101	37.11	31.59
2	2390.00	52.0 AV	54.0	-2.0	1.53 H	101	20.41	31.59
3	*2437.00	117.9 PK			1.58 H	92	86.15	31.75
4	*2437.00	105.8 AV			1.58 H	92	74.05	31.75
5	2483.50	69.6 PK	74.0	-4.4	1.51 H	107	37.70	31.90
6	2483.50	52.8 AV	54.0	-1.2	1.51 H	107	20.90	31.90
7	4874.00	59.5 PK	74.0	-14.5	1.29 H	304	20.27	39.23
8	4874.00	45.5 AV	54.0	-8.5	1.29 H	304	6.27	39.23
9	7311.00	68.5 PK	74.0	-5.5	1.20 H	112	21.93	46.57
10	7311.00	50.9 AV	54.0	-3.1	1.20 H	112	4.33	46.57
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	100.3 PK			1.45 V	327	68.55	31.75
2	*2437.00	91.9 AV			1.45 V	327	60.15	31.75
3	4874.00	52.3 PK	74.0	-21.7	1.24 V	263	13.07	39.23
4	4874.00	39.2 AV	54.0	-14.8	1.24 V	263	-0.03	39.23
5	7311.00	56.6 PK	74.0	-17.4	1.62 V	284	10.03	46.57
6	7311.00	41.0 AV	54.0	-13.0	1.62 V	284	-5.57	46.57

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": 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	24deg. C, 71%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	111.5 PK			1.37 H	263	79.67	31.83
2	*2462.00	102.1 AV			1.37 H	263	70.27	31.83
3	2483.50	71.8 PK	74.0	-2.2	1.37 H	263	39.90	31.90
4	2483.50	52.6 AV	54.0	-1.4	1.37 H	263	20.70	31.90
5	4924.00	49.9 PK	74.0	-24.1	1.30 H	286	10.51	39.39
6	4924.00	38.4 AV	54.0	-15.6	1.30 H	286	-0.99	39.39
7	7386.00	63.4 PK	74.0	-10.6	1.18 H	91	16.93	46.47
8	7386.00	47.0 AV	54.0	-7.0	1.18 H	91	0.53	46.47
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	97.2 PK			1.49 V	332	65.37	31.83
2	*2462.00	87.8 AV			1.49 V	332	55.97	31.83
3	2483.50	57.2 PK	74.0	-16.8	1.49 V	333	25.30	31.90
4	2483.50	44.2 AV	54.0	-9.8	1.49 V	333	12.30	31.90
5	4924.00	49.1 PK	74.0	-24.9	1.20 V	276	9.71	39.39
6	4924.00	36.9 AV	54.0	-17.1	1.20 V	276	-2.49	39.39
7	7386.00	55.3 PK	74.0	-18.7	1.60 V	277	8.83	46.47
8	7386.00	40.2 AV	54.0	-13.8	1.60 V	277	-6.27	46.47

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

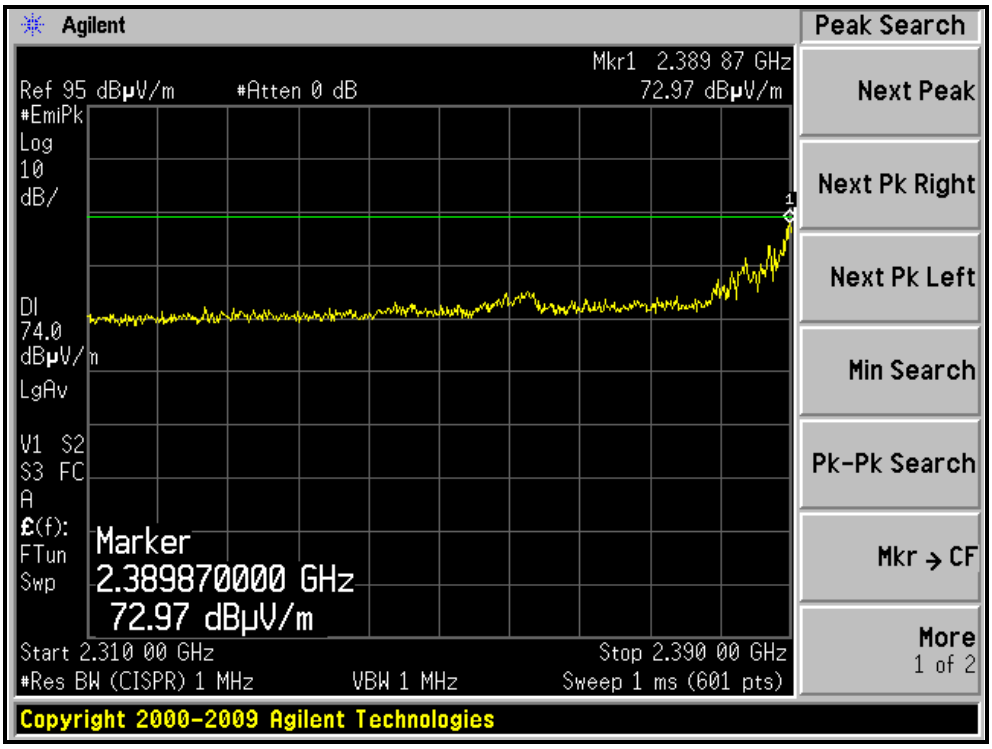
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

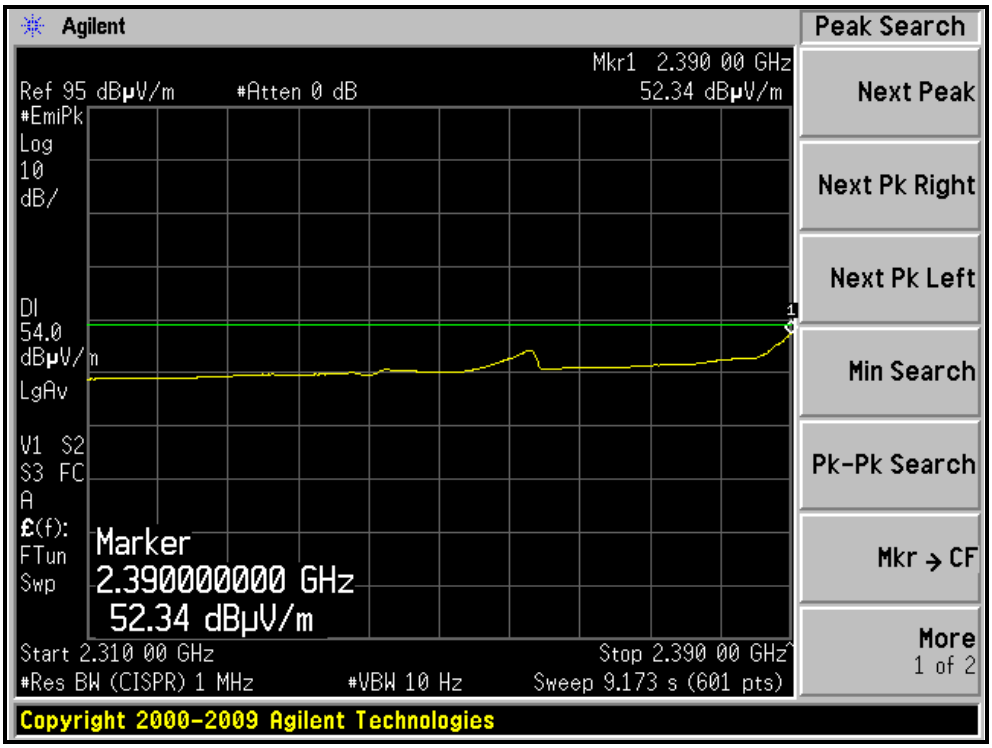
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

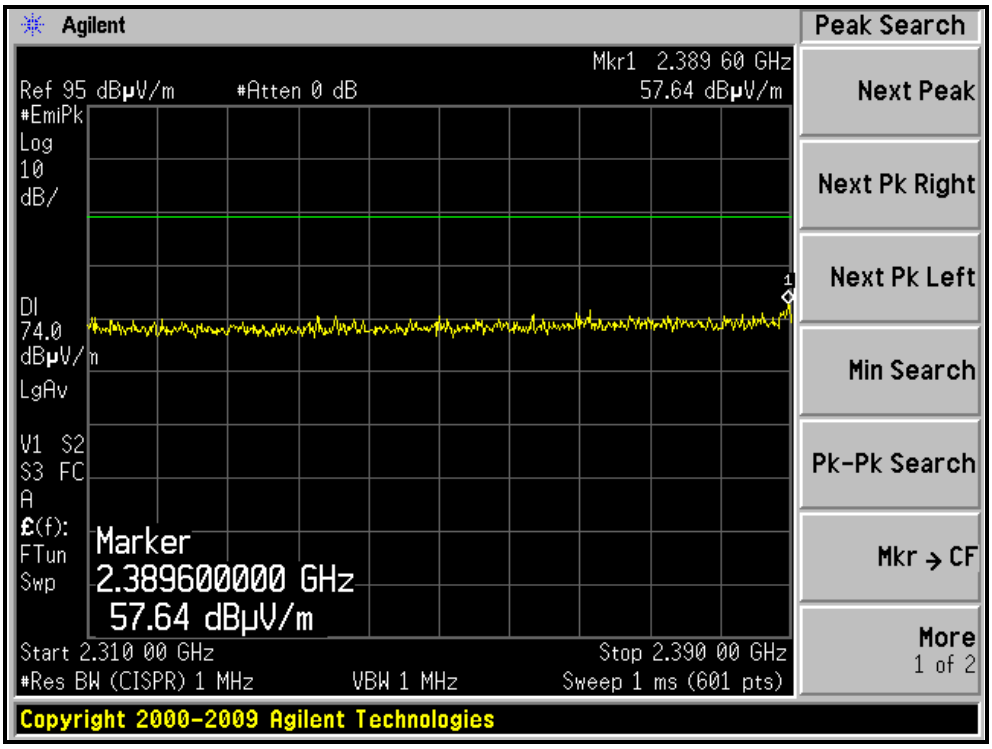
5. " * ": Fundamental frequency.

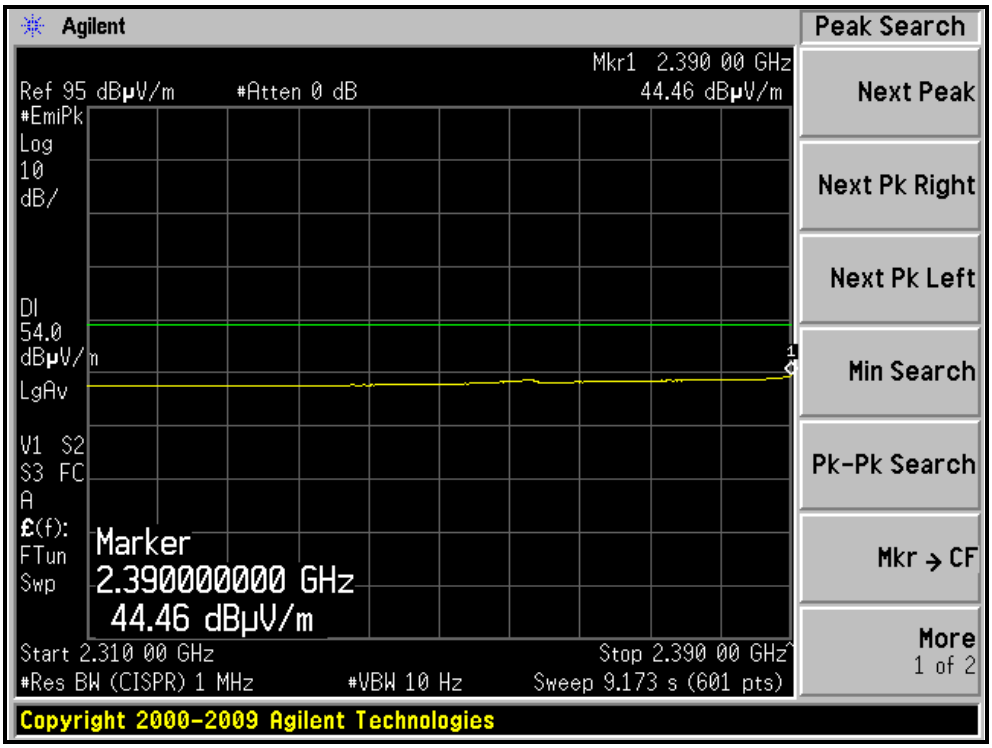
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, HORIZONTAL)



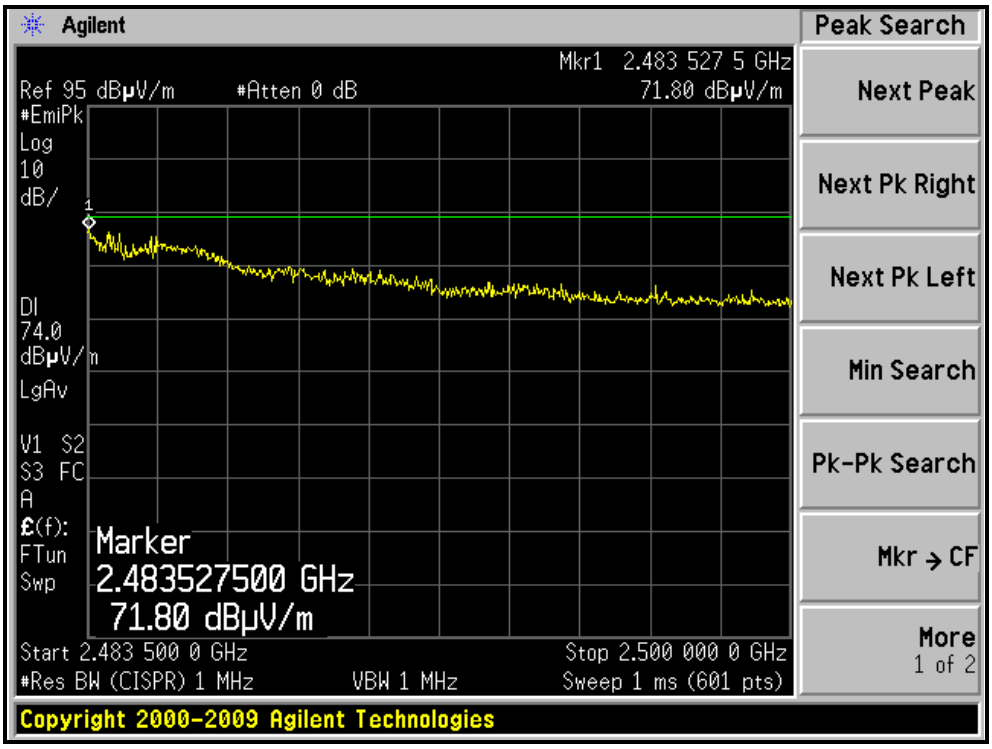


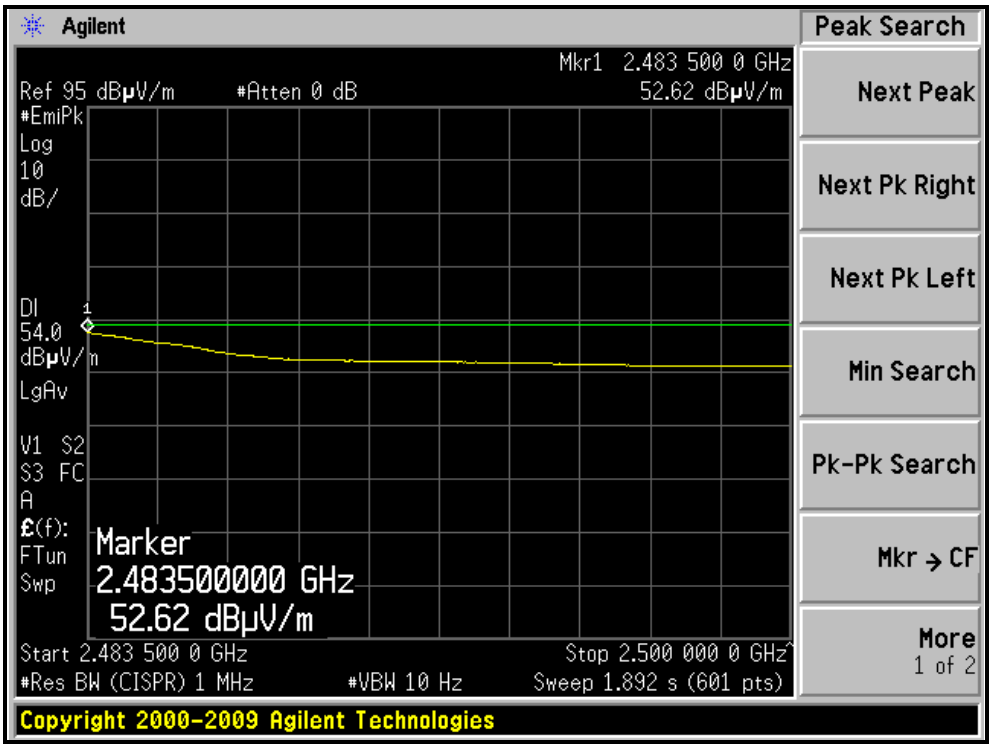
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, VERTICAL)



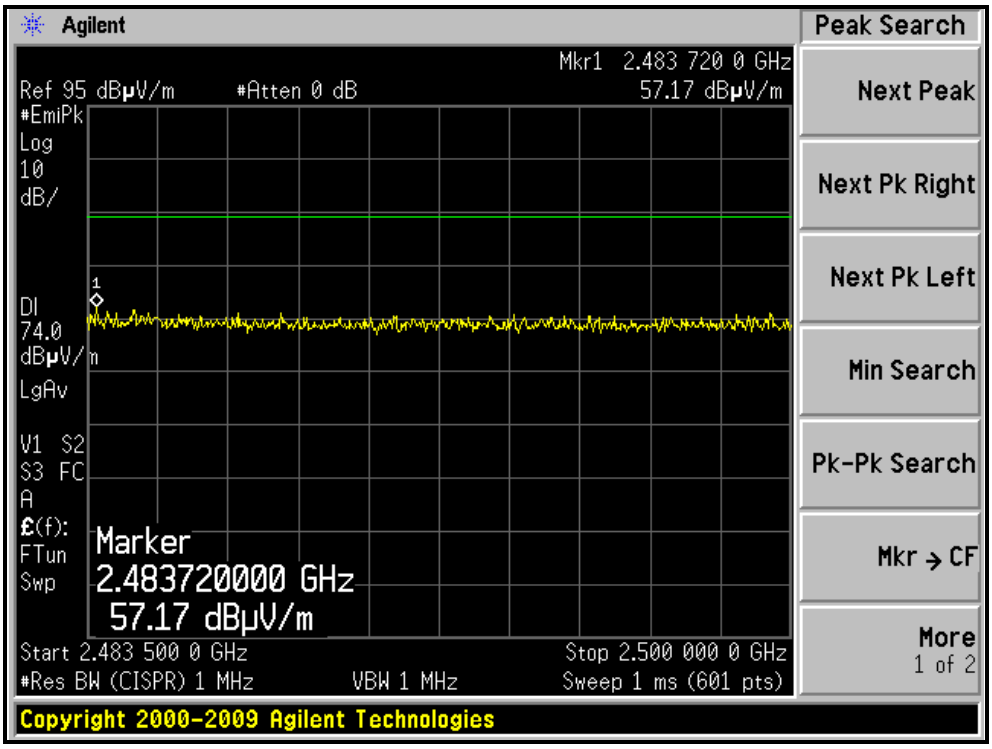


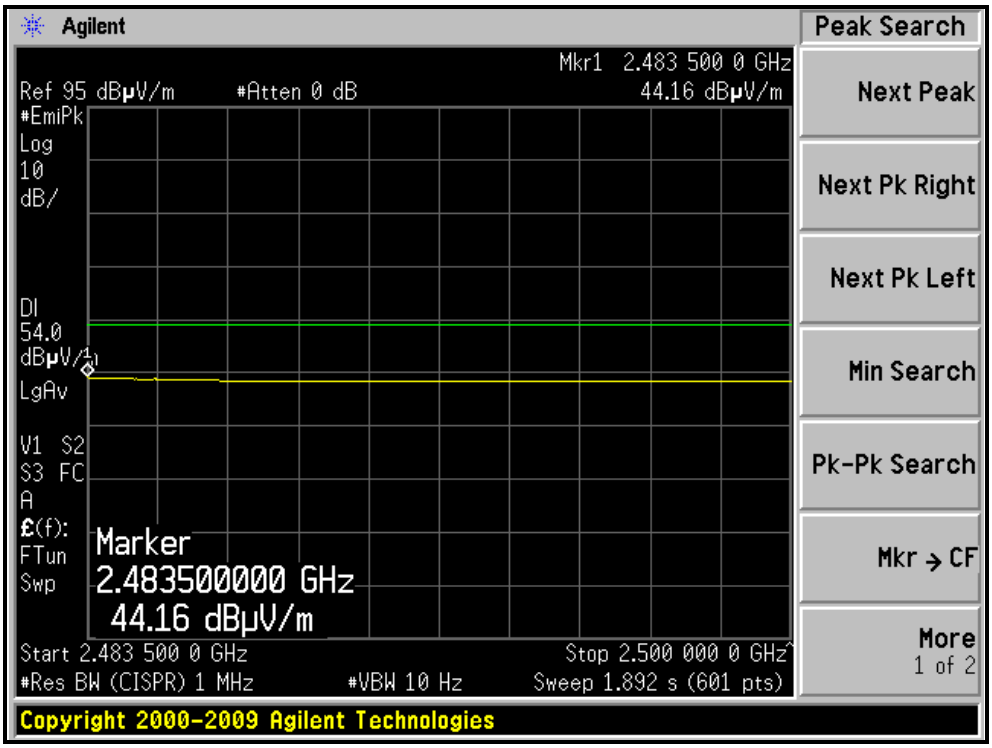
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH11, HORIZONTAL)





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





802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 71%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	70.8 PK	74.0	-3.2	1.56 H	95	39.21	31.59
2	2390.00	53.0 AV	54.0	-1.0	1.56 H	95	21.41	31.59
3	*2422.00	105.9 PK			1.56 H	95	74.21	31.69
4	*2422.00	96.6 AV			1.56 H	95	64.91	31.69
5	4844.00	50.3 PK	74.0	-23.7	1.18 H	277	11.17	39.13
6	4844.00	36.1 AV	54.0	-17.9	1.18 H	277	-3.03	39.13
7	7266.00	65.3 PK	74.0	-8.7	1.13 H	92	18.70	46.60
8	7266.00	44.6 AV	54.0	-9.4	1.13 H	92	-2.00	46.60
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	59.0 PK	74.0	-15.0	1.23 V	323	27.41	31.59
2	2390.00	45.3 AV	54.0	-8.7	1.23 V	323	13.71	31.59
3	*2422.00	94.7 PK			1.23 V	323	63.01	31.69
4	*2422.00	85.1 AV			1.23 V	323	53.41	31.69
5	4844.00	47.2 PK	74.0	-26.8	1.08 V	246	8.07	39.13
6	4844.00	34.7 AV	54.0	-19.3	1.08 V	246	-4.43	39.13
7	7266.00	51.0 PK	74.0	-23.0	1.35 V	74	4.40	46.60
8	7266.00	39.9 AV	54.0	-14.1	1.35 V	74	-6.70	46.60

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. " * ": 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	24deg. C, 71%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	69.4 PK	74.0	-4.6	1.53 H	94	37.81	31.59
2	2390.00	52.4 AV	54.0	-1.6	1.53 H	94	20.81	31.59
3	*2437.00	108.8 PK			1.54 H	96	77.05	31.75
4	*2437.00	98.6 AV			1.54 H	96	66.85	31.75
5	2483.50	69.3 PK	74.0	-4.7	1.54 H	95	37.40	31.90
6	2483.50	52.3 AV	54.0	-1.7	1.54 H	95	20.40	31.90
7	4874.00	52.6 PK	74.0	-21.4	1.24 H	278	13.37	39.23
8	4874.00	38.3 AV	54.0	-15.7	1.24 H	278	-0.93	39.23
9	7311.00	68.1 PK	74.0	-5.9	1.13 H	86	21.53	46.57
10	7311.00	47.8 AV	54.0	-6.2	1.13 H	86	1.23	46.57
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	97.5 PK			1.50 V	326	65.75	31.75
2	*2437.00	87.6 AV			1.50 V	326	55.85	31.75
3	4874.00	48.4 PK	74.0	-25.6	1.08 V	241	9.17	39.23
4	4874.00	36.5 AV	54.0	-17.5	1.08 V	241	-2.73	39.23
5	7311.00	51.2 PK	74.0	-22.8	1.42 V	72	4.63	46.57
6	7311.00	40.0 AV	54.0	-14.0	1.42 V	72	-6.57	46.57

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 71%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	105.6 PK			1.49 H	90	73.80	31.80
2	*2452.00	95.8 AV			1.49 H	90	64.00	31.80
3	2483.50	70.9 PK	74.0	-3.1	1.49 H	90	39.00	31.90
4	2483.50	53.0 AV	54.0	-1.0	1.49 H	90	21.10	31.90
5	4904.00	49.7 PK	74.0	-24.3	1.22 H	288	10.38	39.32
6	4904.00	35.7 AV	54.0	-18.3	1.22 H	288	-3.62	39.32
7	7356.00	65.4 PK	74.0	-8.6	1.08 H	101	18.89	46.51
8	7356.00	44.2 AV	54.0	-9.8	1.08 H	101	-2.31	46.51
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	91.0 PK			1.20 V	327	59.20	31.80
2	*2452.00	83.6 AV			1.20 V	327	51.80	31.80
3	2483.50	58.0 PK	74.0	-16.0	1.20 V	326	26.10	31.90
4	2483.50	44.2 AV	54.0	-9.8	1.20 V	326	12.30	31.90
5	4904.00	47.1 PK	74.0	-26.9	1.13 V	249	7.78	39.32
6	4904.00	34.7 AV	54.0	-19.3	1.13 V	249	-4.62	39.32
7	7356.00	51.5 PK	74.0	-22.5	1.37 V	72	4.99	46.51
8	7356.00	40.1 AV	54.0	-13.9	1.37 V	72	-6.41	46.51

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

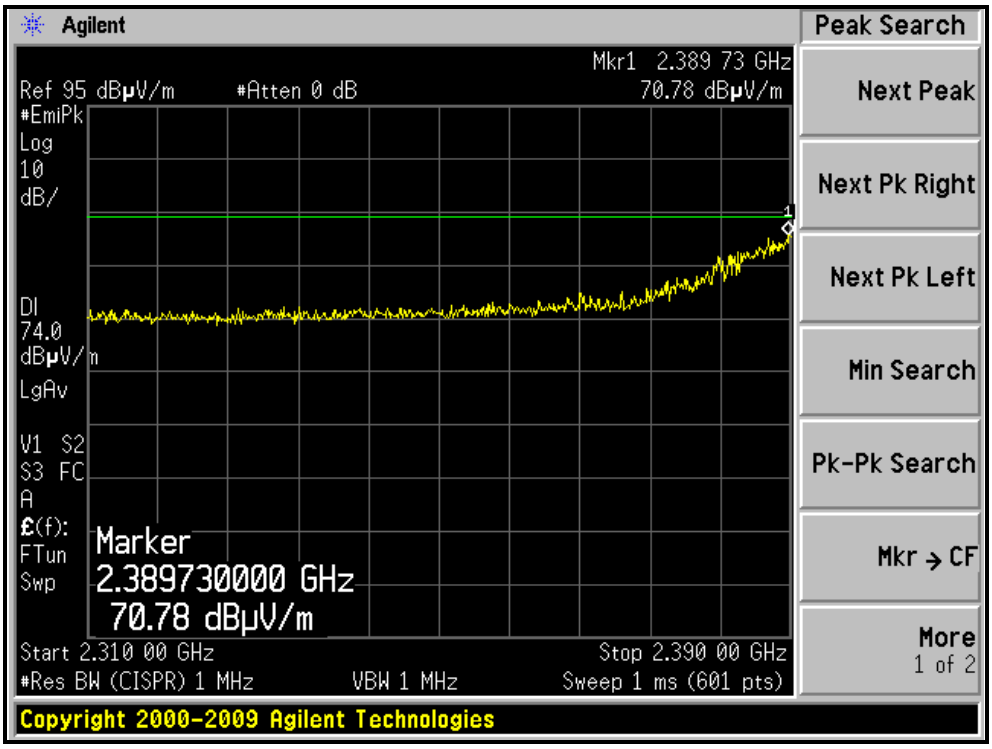
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

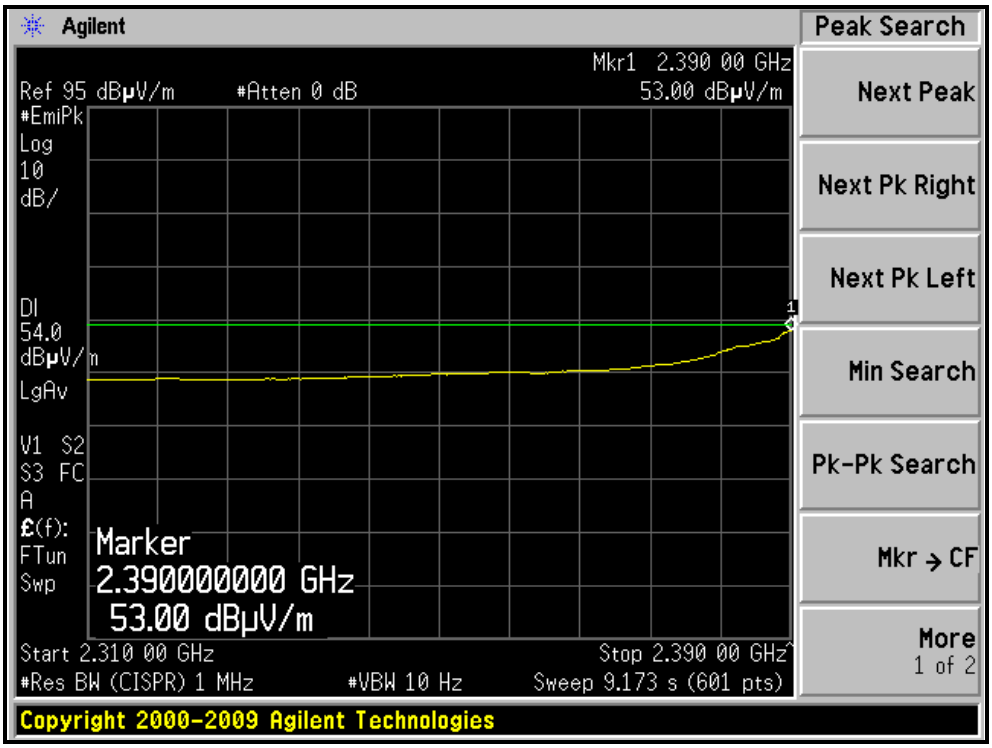
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH3, HORIZONTAL)





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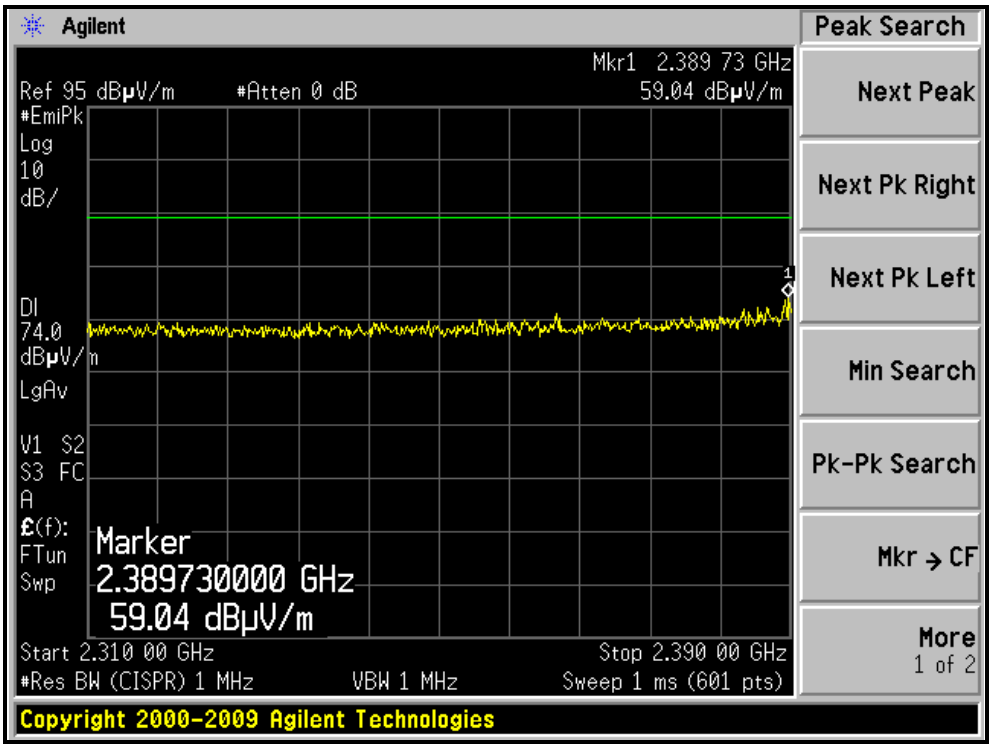
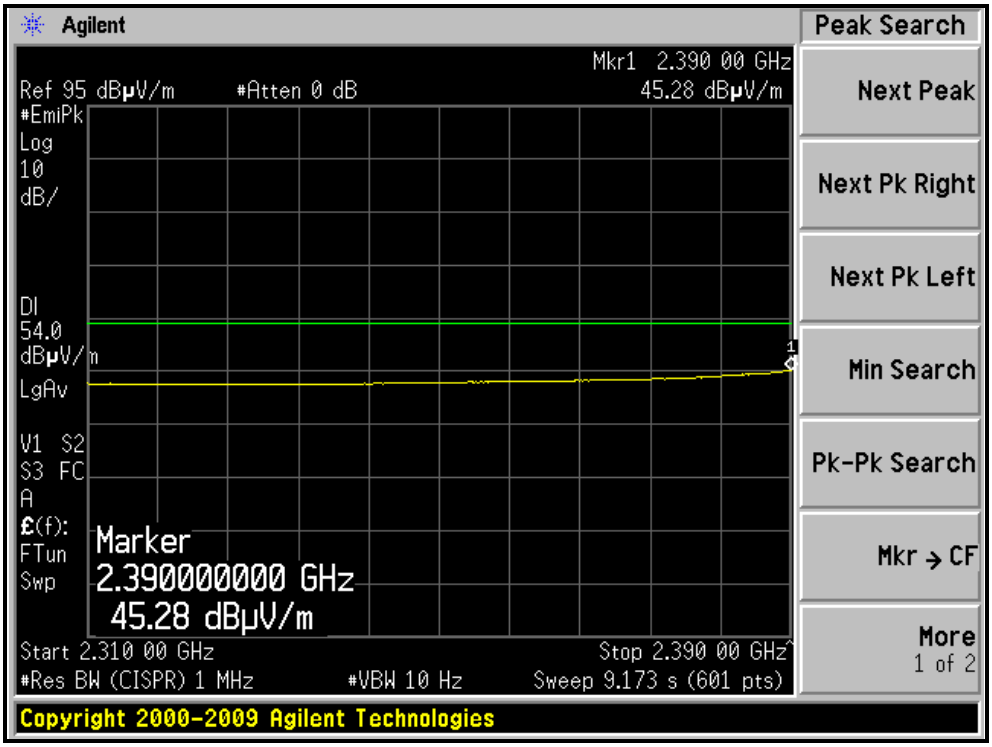
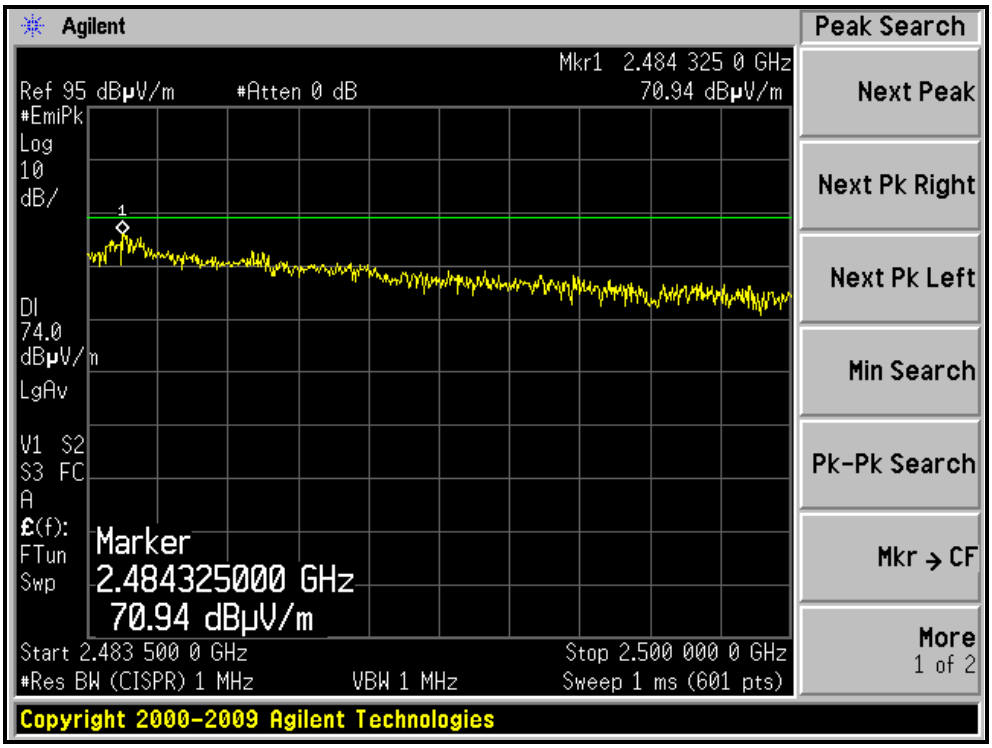
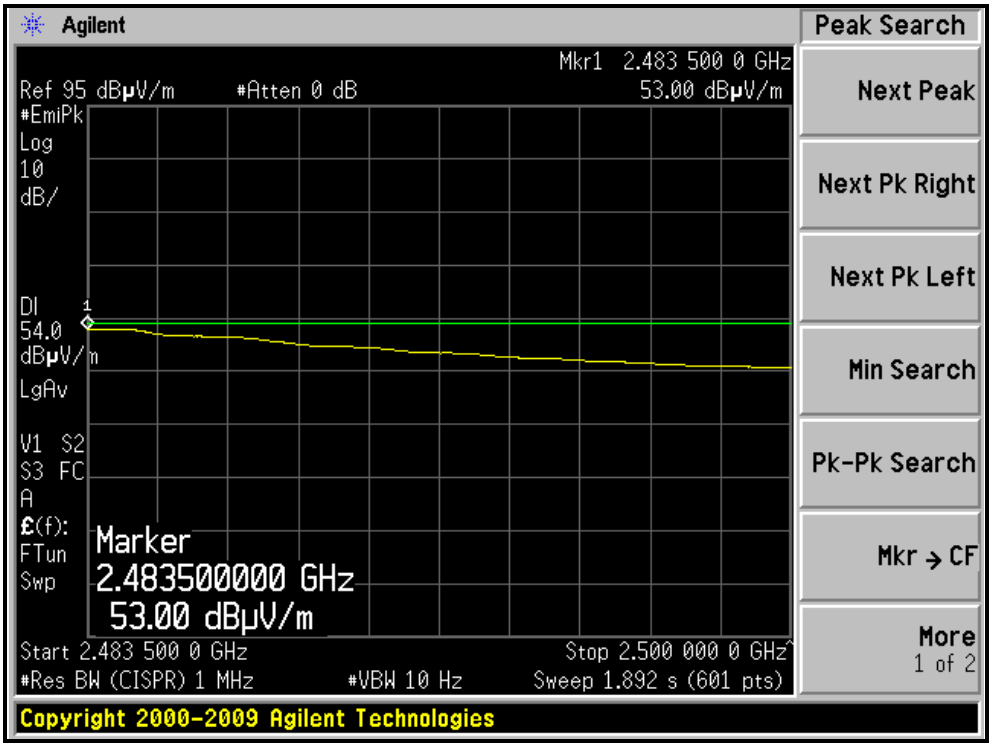


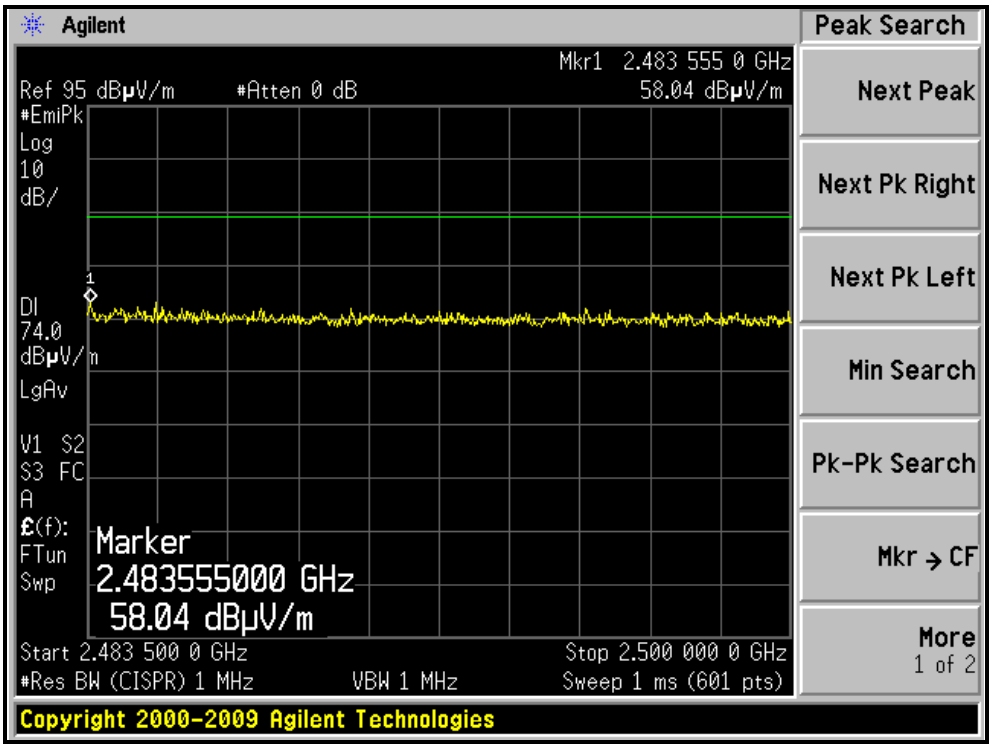


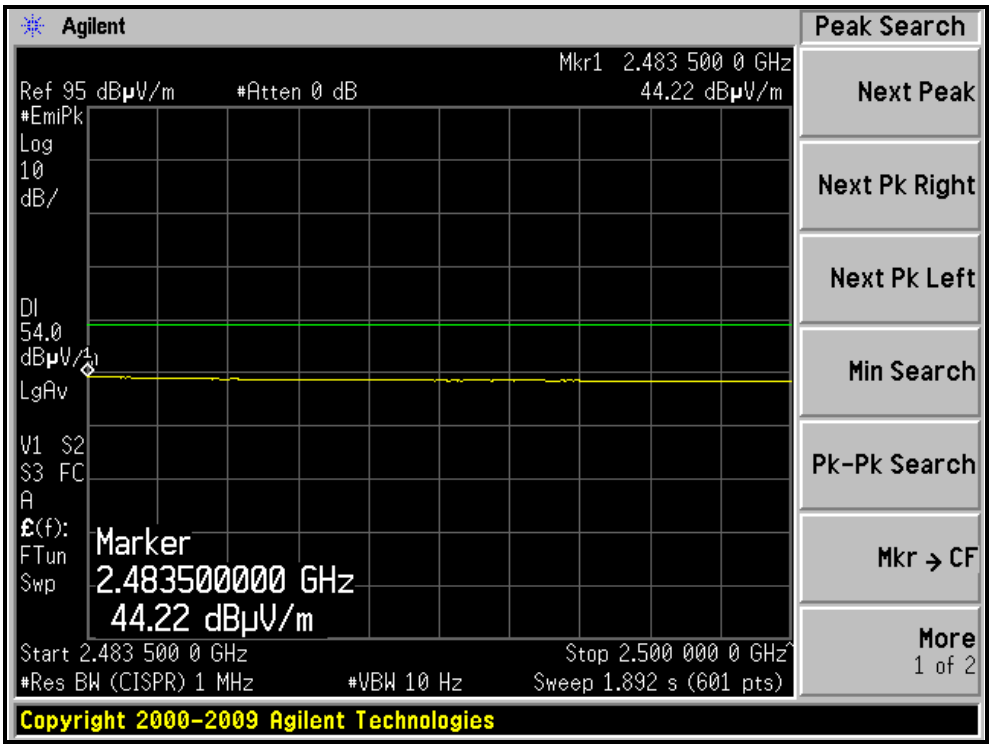
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH9, HORIZONTAL)





RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH9, VERTICAL)





4.2.8 TEST RESULTS (MODE C)

BELOW 1GHz WORST-CASE DATA：802.11n (20MHz) OFDM 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	24deg. C, 70%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	300.00	40.3 QP	46.0	-5.7	1.00 H	184	24.97	15.32
2	359.93	39.5 QP	46.0	-6.5	1.00 H	182	22.57	16.89
3	600.44	39.7 QP	46.0	-6.3	1.00 H	267	17.10	22.58
4	799.87	42.0 QP	46.0	-4.0	1.50 H	312	16.16	25.87
5	840.01	39.1 QP	46.0	-6.9	1.50 H	26	12.62	26.49
6	875.06	39.5 QP	46.0	-6.5	1.50 H	307	12.53	27.01
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	30.59	34.4 QP	40.0	-5.6	1.00 V	318	21.42	12.96
2	106.74	34.3 QP	43.5	-9.2	1.00 V	318	23.82	10.52
3	135.99	32.9 QP	43.5	-10.6	1.00 V	267	19.00	13.91
4	359.93	37.1 QP	46.0	-8.9	1.50 V	86	20.19	16.89
5	480.01	35.5 QP	46.0	-10.5	1.50 V	271	15.63	19.84
6	839.89	40.3 QP	46.0	-5.7	1.50 V	360	13.79	26.49

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

ABOVE 1GHz 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	24deg. C, 72%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	56.0 PK	74.0	-18.0	1.56 H	81	24.41	31.59
2	2390.00	43.9 AV	54.0	-10.1	1.56 H	81	12.31	31.59
3	*2412.00	96.5 PK			1.56 H	82	64.84	31.66
4	*2412.00	94.4 AV			1.56 H	82	62.74	31.66
5	4824.00	52.2 PK	74.0	-21.8	1.00 H	229	13.13	39.07
6	4824.00	46.2 AV	54.0	-7.8	1.00 H	229	7.13	39.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	58.3 PK	74.0	-15.7	1.00 V	265	26.71	31.59
2	2390.00	45.5 AV	54.0	-8.5	1.00 V	265	13.91	31.59
3	*2412.00	104.4 PK			1.00 V	265	72.74	31.66
4	*2412.00	102.4 AV			1.00 V	265	70.74	31.66
5	4824.00	55.6 PK	74.0	-18.4	1.03 V	83	16.53	39.07
6	4824.00	52.9 AV	54.0	-1.1	1.03 V	83	13.83	39.07

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
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	24deg. C, 72%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	96.4 PK			1.55 H	89	64.65	31.75
2	*2437.00	94.2 AV			1.55 H	89	62.45	31.75
3	4874.00	52.5 PK	74.0	-21.5	1.00 H	216	13.27	39.23
4	4874.00	46.2 AV	54.0	-7.8	1.00 H	216	6.97	39.23
5	7311.00	53.4 PK	74.0	-20.6	1.00 H	230	6.83	46.57
6	7311.00	45.0 AV	54.0	-9.0	1.00 H	230	-1.57	46.57
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	105.0 PK			1.01 V	279	73.25	31.75
2	*2437.00	104.3 AV			1.01 V	279	72.55	31.75
3	4874.00	55.8 PK	74.0	-18.2	1.02 V	86	16.57	39.23
4	4874.00	52.9 AV	54.0	-1.1	1.02 V	86	13.67	39.23
5	7311.00	56.2 PK	74.0	-17.8	1.08 V	83	9.63	46.57
6	7311.00	51.3 AV	54.0	-2.7	1.08 V	83	4.73	46.57

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": 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	24deg. C, 72%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	97.0 PK			1.22 H	83	65.17	31.83
2	*2462.00	94.8 AV			1.22 H	83	62.97	31.83
3	2483.50	56.0 PK	74.0	-18.0	1.22 H	83	24.10	31.90
4	2483.50	43.6 AV	54.0	-10.4	1.22 H	83	11.70	31.90
5	4924.00	51.7 PK	74.0	-22.3	1.00 H	203	12.31	39.39
6	4924.00	45.7 AV	54.0	-8.3	1.00 H	203	6.31	39.39
7	7386.00	52.8 PK	74.0	-21.2	1.02 H	226	6.33	46.47
8	7386.00	44.5 AV	54.0	-9.5	1.02 H	226	-1.97	46.47
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	105.4 PK			1.00 V	278	73.57	31.83
2	*2462.00	104.5 AV			1.00 V	278	72.67	31.83
3	2483.50	57.7 PK	74.0	-16.3	1.00 V	0	25.80	31.90
4	2483.50	45.1 AV	54.0	-8.9	1.00 V	0	13.20	31.90
5	4924.00	55.4 PK	74.0	-18.6	1.01 V	84	16.01	39.39
6	4924.00	52.7 AV	54.0	-1.3	1.01 V	84	13.31	39.39
7	7386.00	56.2 PK	74.0	-17.8	1.10 V	72	9.73	46.47
8	7386.00	51.6 AV	54.0	-2.4	1.10 V	72	5.13	46.47

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

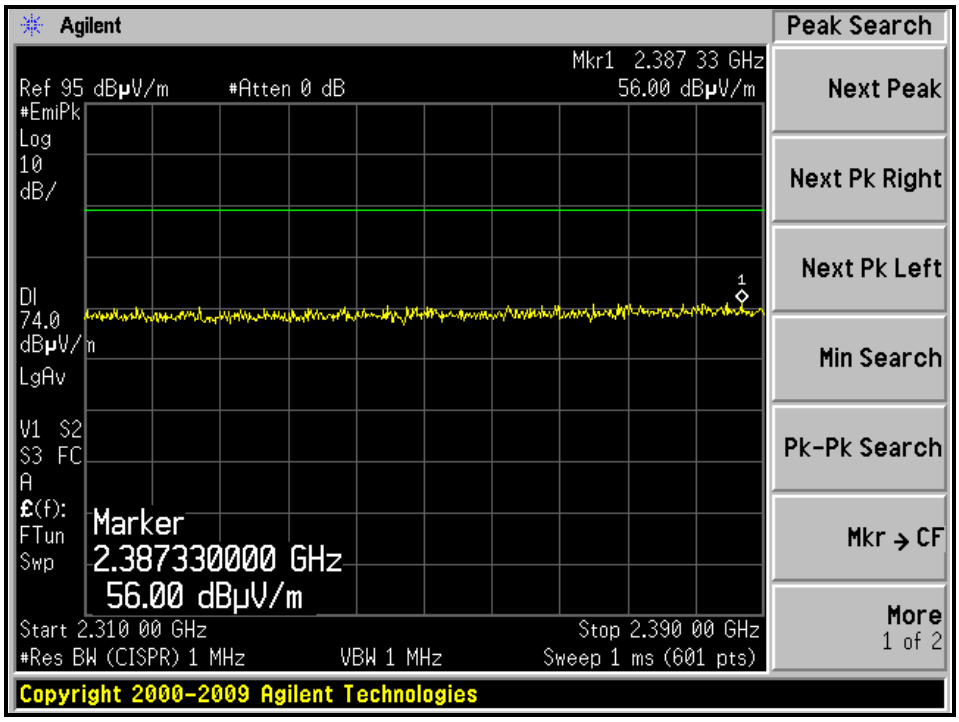
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

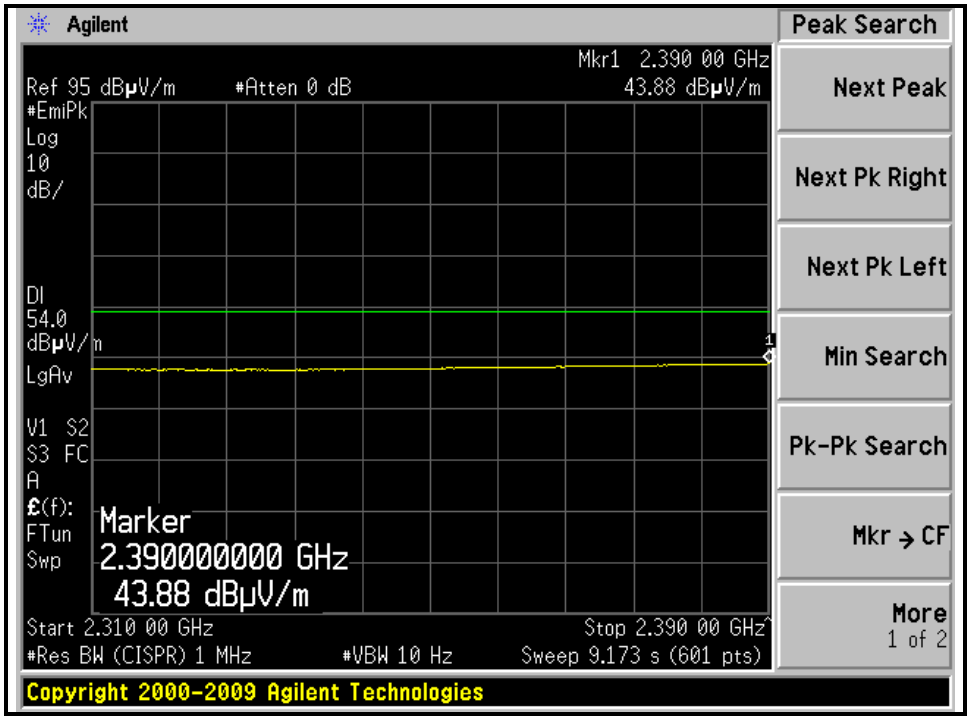
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

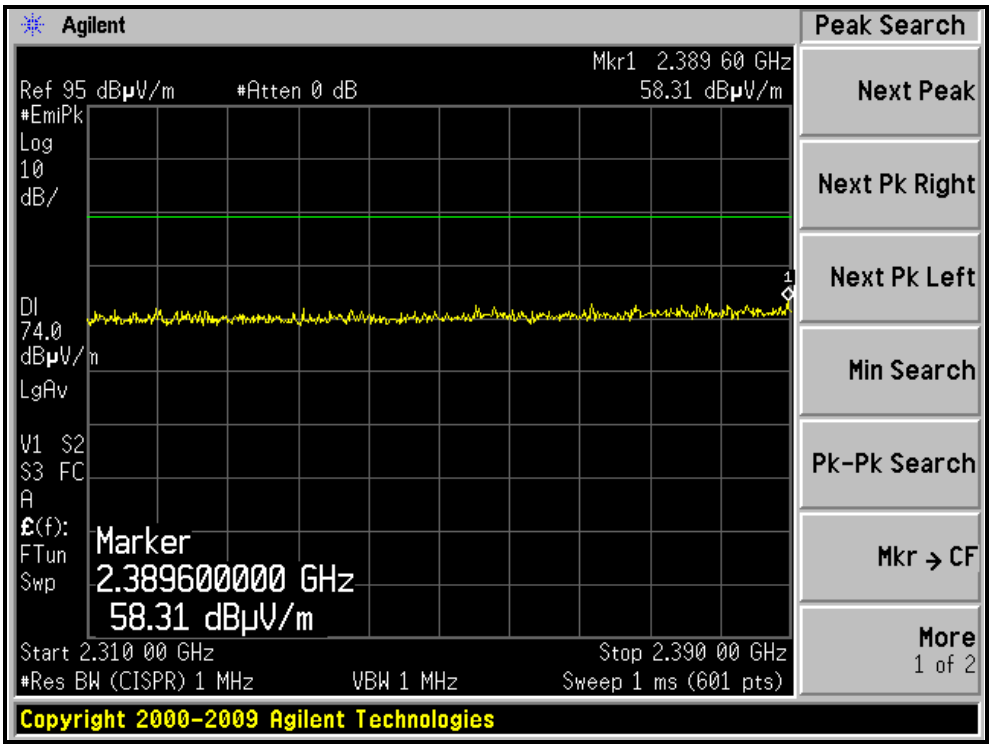
5. " * ": Fundamental frequency.

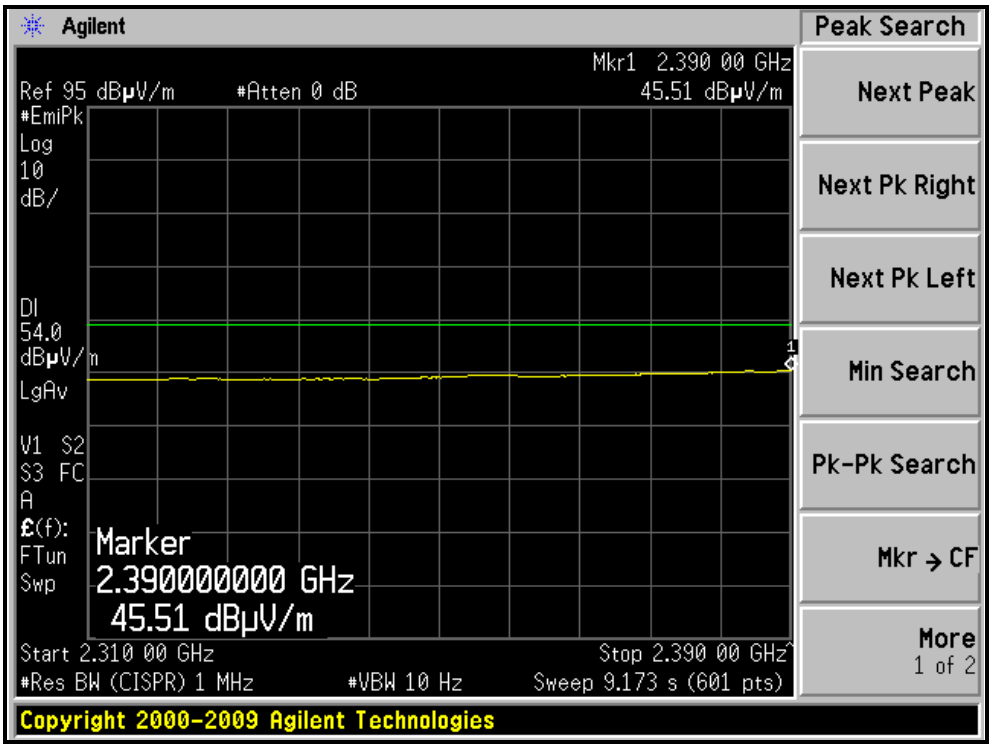
RESTRICTED BANDEDGE (802.11b MODE,CH1, HORIZONTAL)





RESTRICTED BANDEDGE (802.11b MODE,CH1, VERTICAL)





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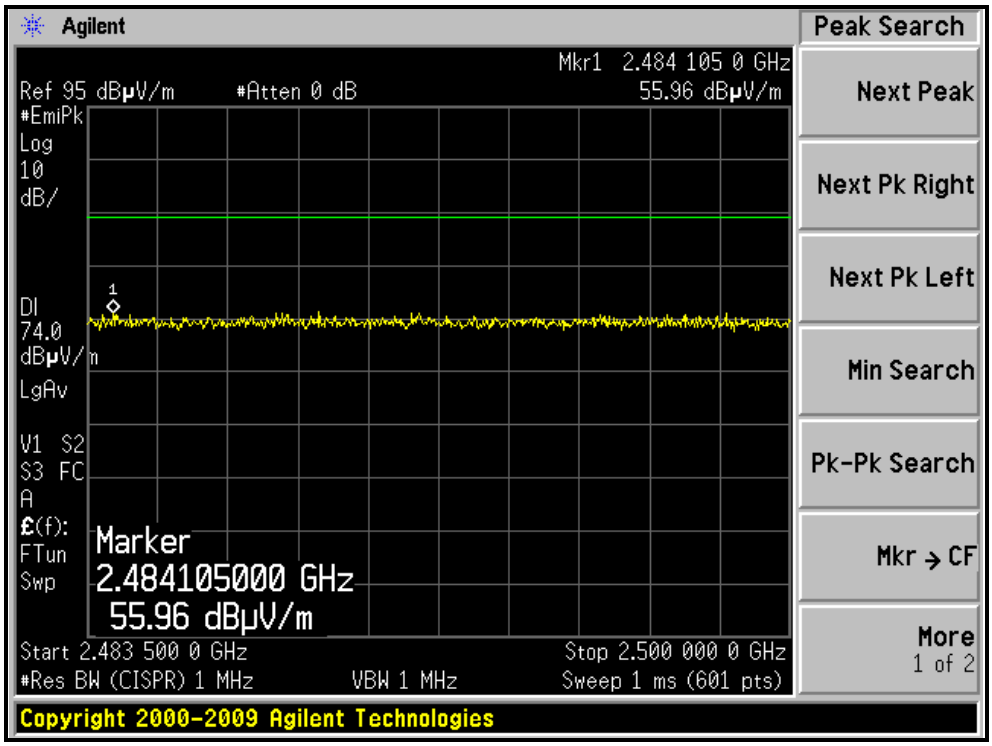

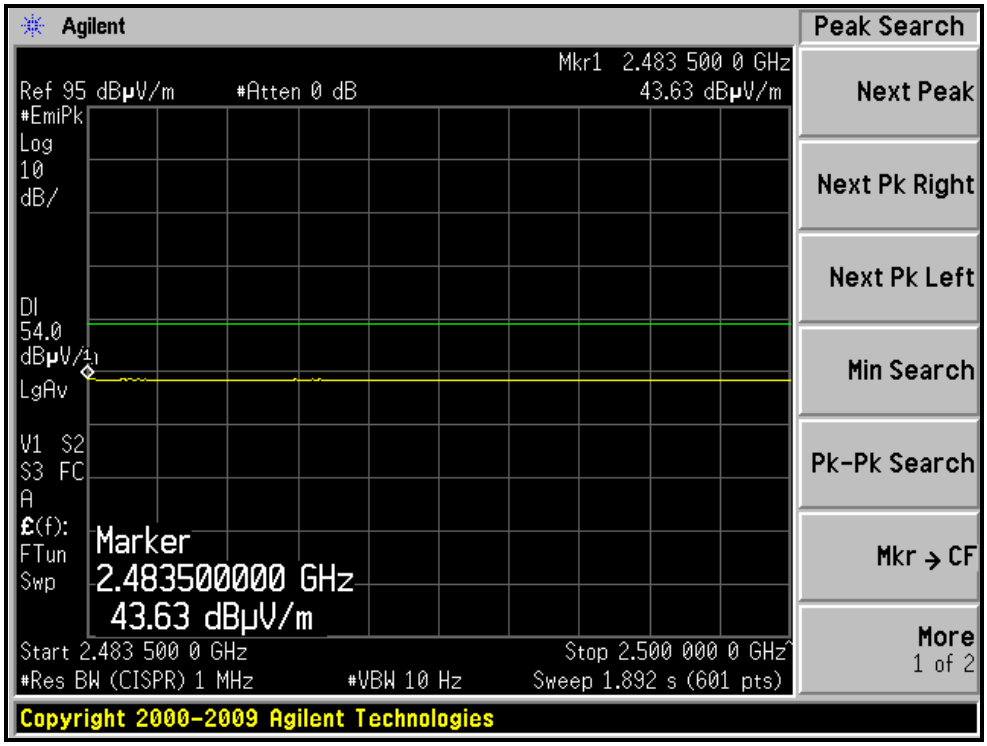

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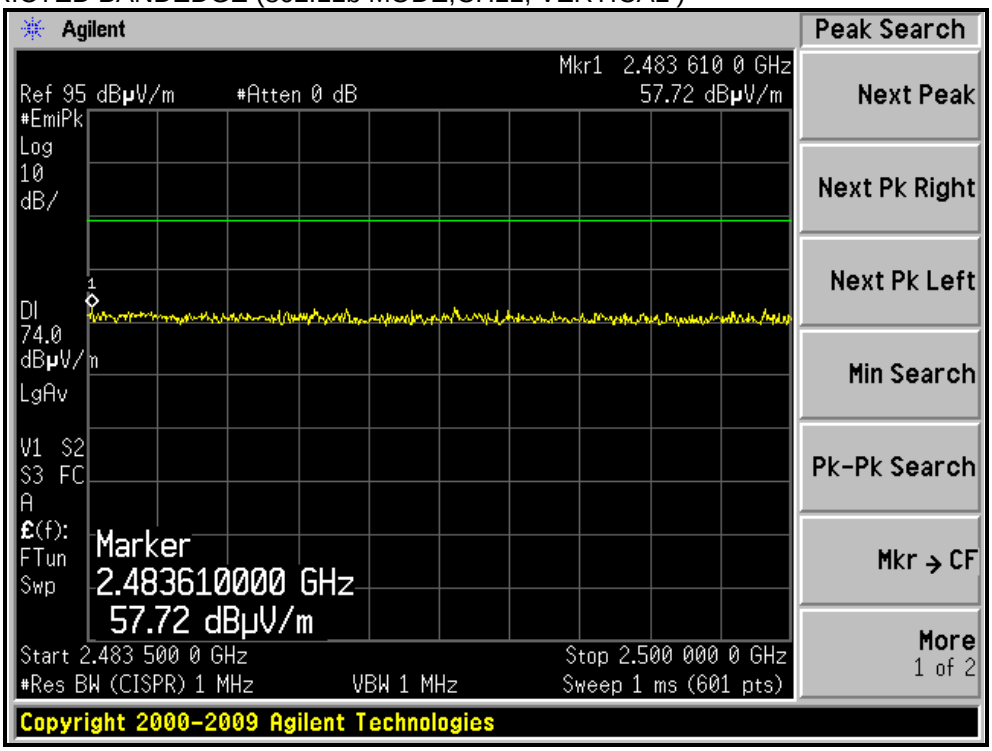
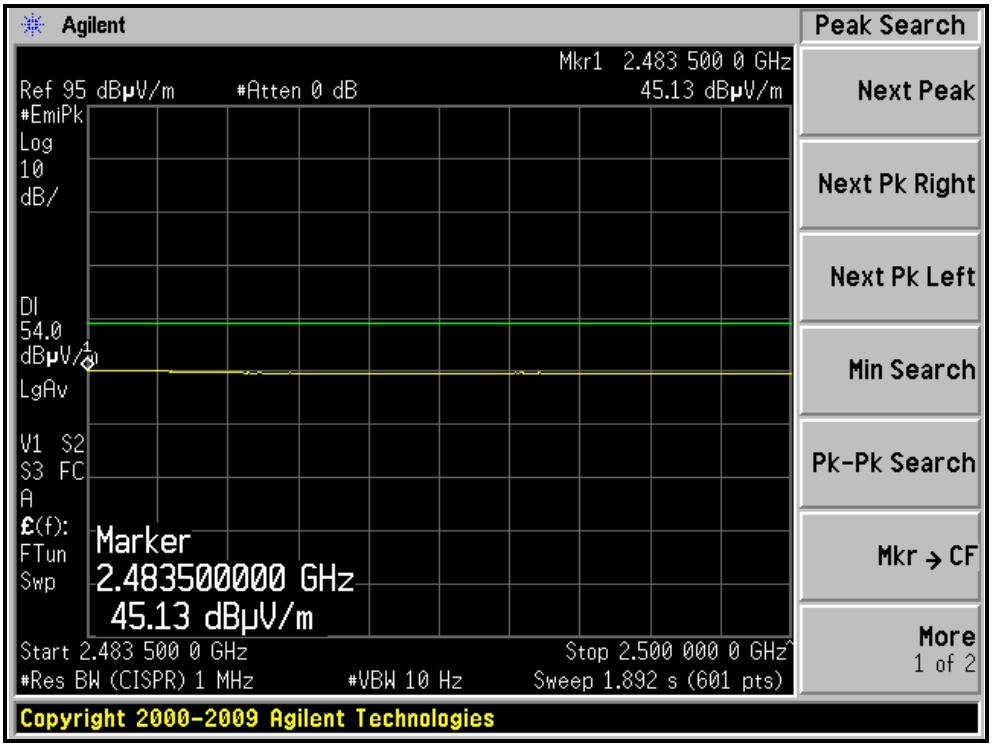




802.11g OFDM MODULATION

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	24deg. C, 72%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	60.9 PK	74.0	-13.1	1.21 H	78	29.31	31.59
2	2390.00	46.5 AV	54.0	-7.5	1.21 H	78	14.91	31.59
3	*2412.00	100.3 PK			1.21 H	78	68.64	31.66
4	*2412.00	90.7 AV			1.21 H	78	59.04	31.66
5	4824.00	48.8 PK	74.0	-25.2	1.25 H	249	9.73	39.07
6	4824.00	36.6 AV	54.0	-17.4	1.25 H	249	-2.47	39.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	69.3 PK	74.0	-4.7	1.00 V	273	37.71	31.59
2	**2390.00**	**53.3 AV**	**54.0**	**-0.7**	**1.00 V**	**273**	**21.71**	**31.59**
3	*2412.00	108.2 PK			1.50 V	99	76.54	31.66
4	*2412.00	97.9 AV			1.50 V	99	66.24	31.66
5	4824.00	52.1 PK	74.0	-21.9	1.00 V	355	13.03	39.07
6	4824.00	39.9 AV	54.0	-14.1	1.00 V	355	0.83	39.07

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
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	24deg. C, 72%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	98.9 PK			1.19 H	93	67.15	31.75
2	*2437.00	89.0 AV			1.19 H	93	57.25	31.75
3	4874.00	49.2 PK	74.0	-24.8	1.23 H	225	9.97	39.23
4	4874.00	37.0 AV	54.0	-17.0	1.23 H	225	-2.23	39.23
5	7311.00	61.6 PK	74.0	-12.4	1.00 H	230	15.03	46.57
6	7311.00	43.8 AV	54.0	-10.2	1.00 H	230	-2.77	46.57
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	108.3 PK			1.52 V	85	76.55	31.75
2	*2437.00	98.3 AV			1.52 V	85	66.55	31.75
3	4874.00	51.8 PK	74.0	-22.2	1.01 V	92	12.57	39.23
4	4874.00	38.8 AV	54.0	-15.2	1.01 V	92	-0.43	39.23
5	7311.00	67.5 PK	74.0	-6.5	1.07 V	83	20.93	46.57
6	7311.00	47.6 AV	54.0	-6.4	1.07 V	83	1.03	46.57

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": 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	24deg. C, 72%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	100.1 PK			1.20 H	79	68.27	31.83
2	*2462.00	89.8 AV			1.20 H	79	57.97	31.83
3	2483.50	60.4 PK	74.0	-13.6	1.20 H	79	28.50	31.90
4	2483.50	45.4 AV	54.0	-8.6	1.20 H	79	13.50	31.90
5	4924.00	48.7 PK	74.0	-25.3	1.24 H	231	9.31	39.39
6	4924.00	36.3 AV	54.0	-17.7	1.24 H	231	-3.09	39.39
7	7386.00	61.6 PK	74.0	-12.4	1.02 H	245	15.13	46.47
8	7386.00	44.0 AV	54.0	-10.0	1.02 H	245	-2.47	46.47
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	108.3 PK			1.50 V	99	76.47	31.83
2	*2462.00	98.1 AV			1.50 V	99	66.27	31.83
3	2483.50	69.7 PK	74.0	-4.3	1.43 V	289	37.80	31.90
4	2483.50	50.5 AV	54.0	-3.5	1.43 V	289	18.60	31.90
5	4924.00	52.3 PK	74.0	-21.7	1.00 V	349	12.91	39.39
6	4924.00	40.2 AV	54.0	-13.8	1.00 V	349	0.81	39.39
7	7386.00	70.0 PK	74.0	-4.0	1.59 V	299	23.53	46.47
8	7386.00	47.8 AV	54.0	-6.2	1.59 V	299	1.33	46.47

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

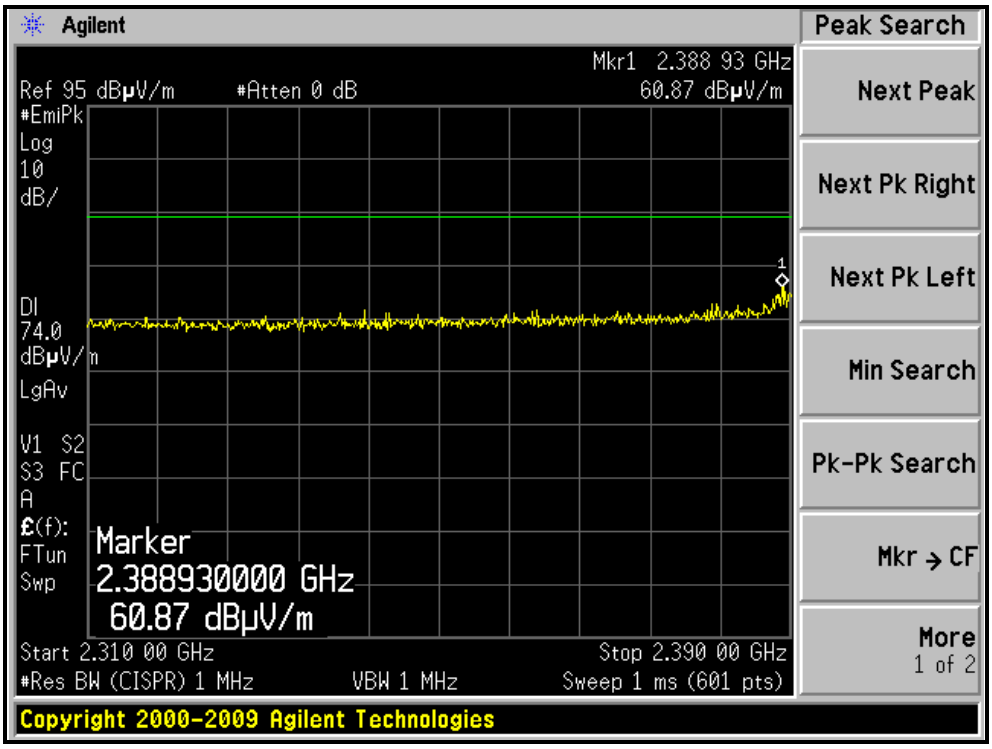
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

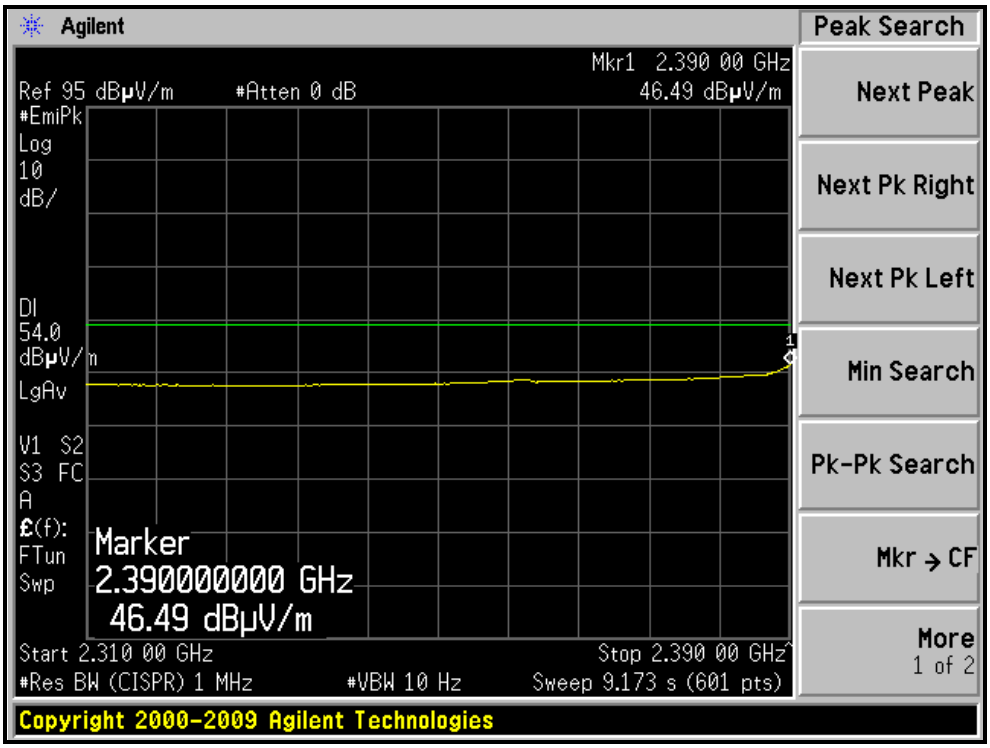
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

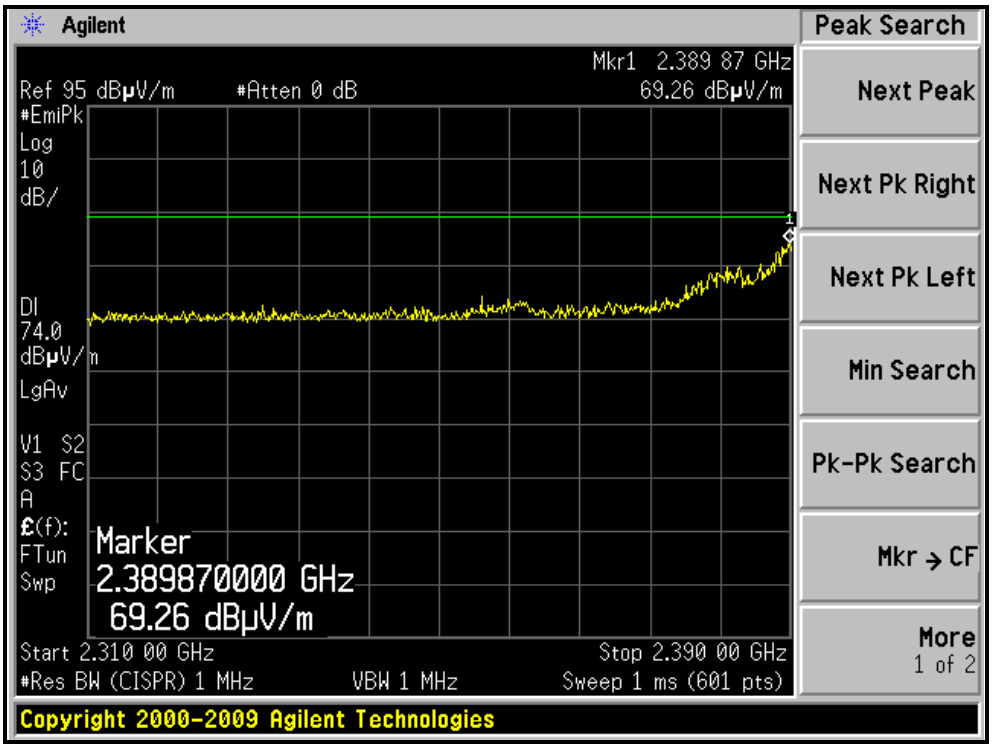
5. " * ": Fundamental frequency.

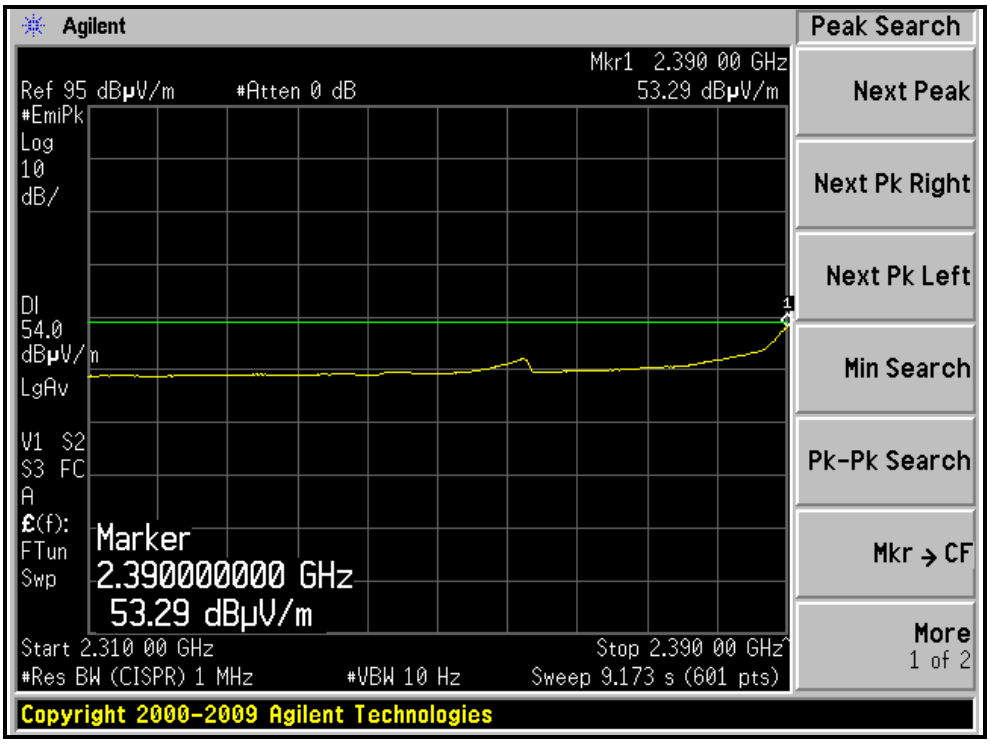
RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)





RESTRICTED BANDEDGE (802.11g MODE,CH1, VERTICAL)





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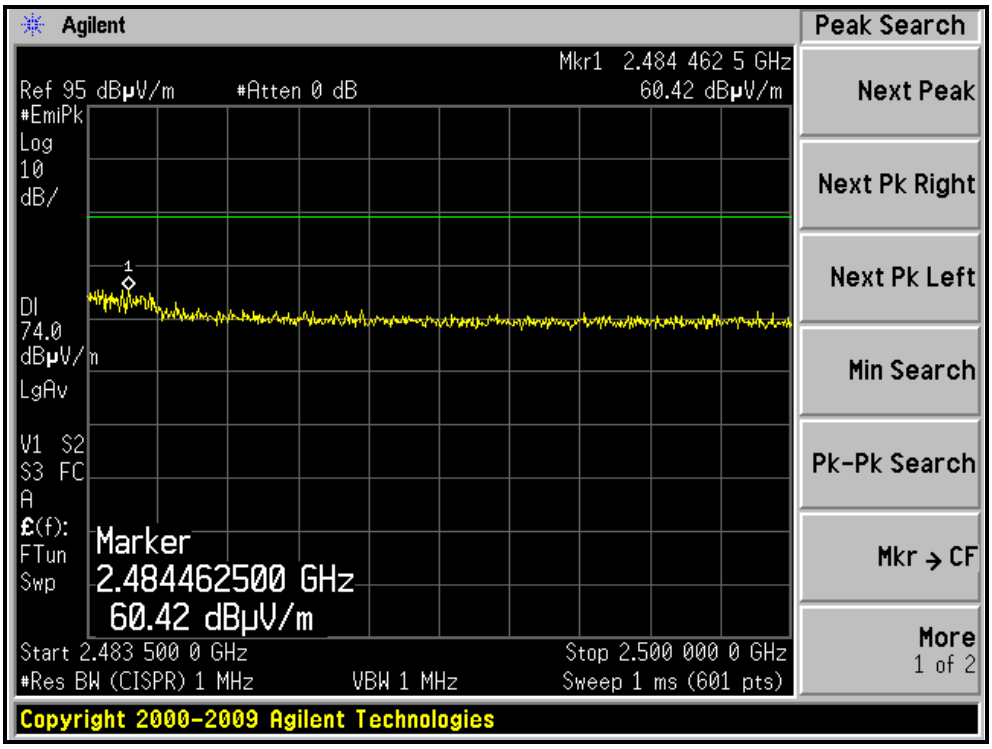
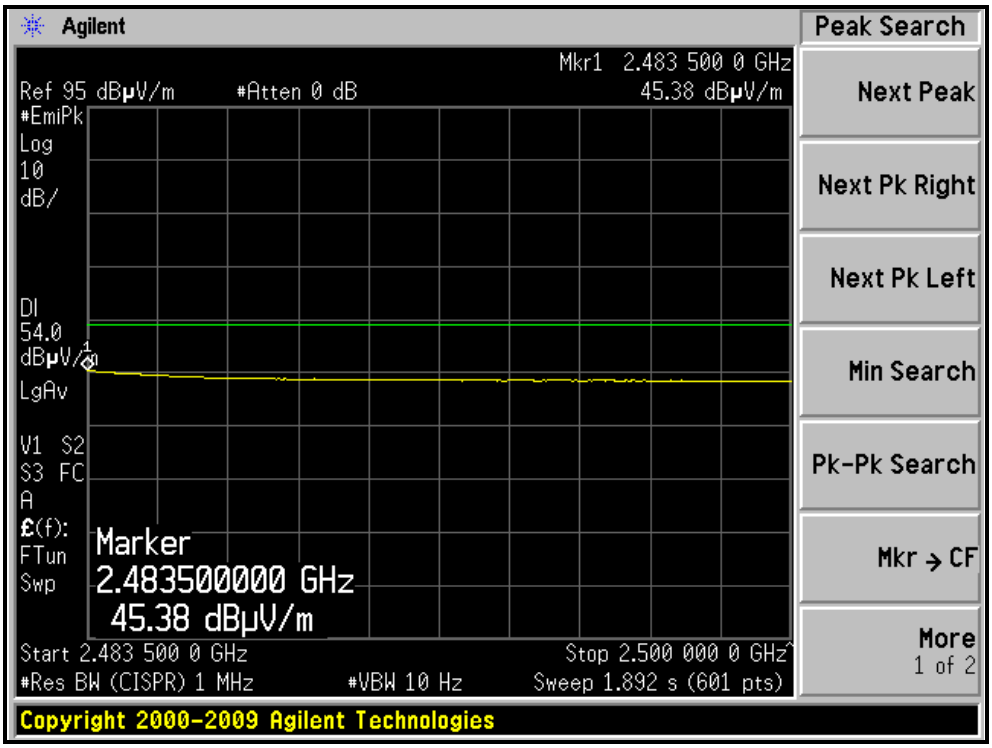
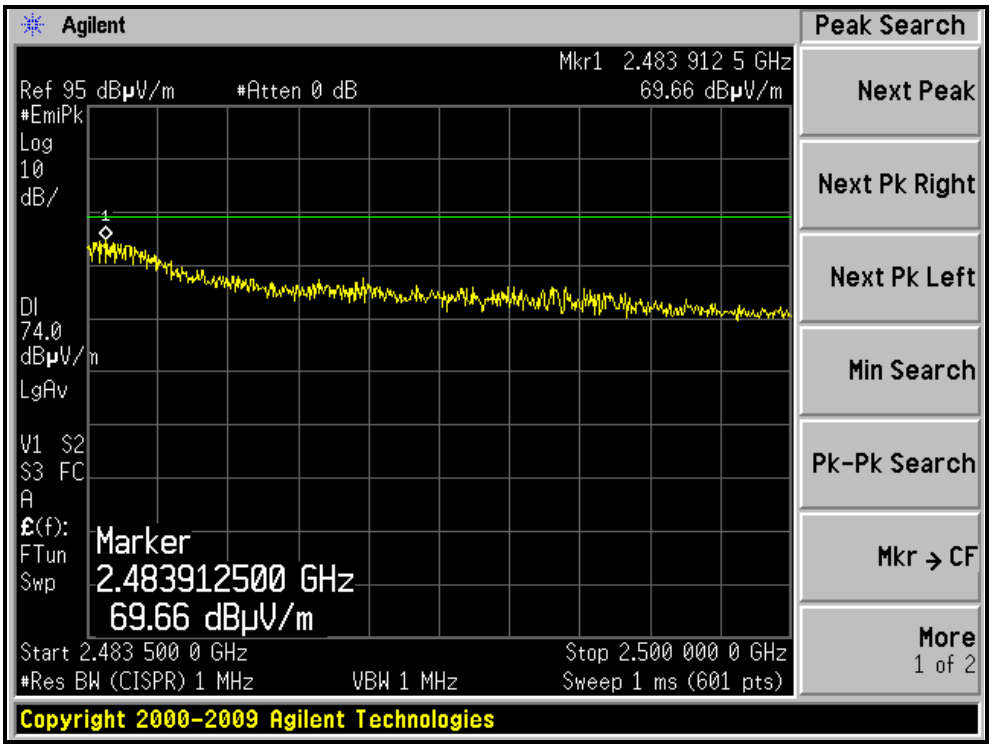
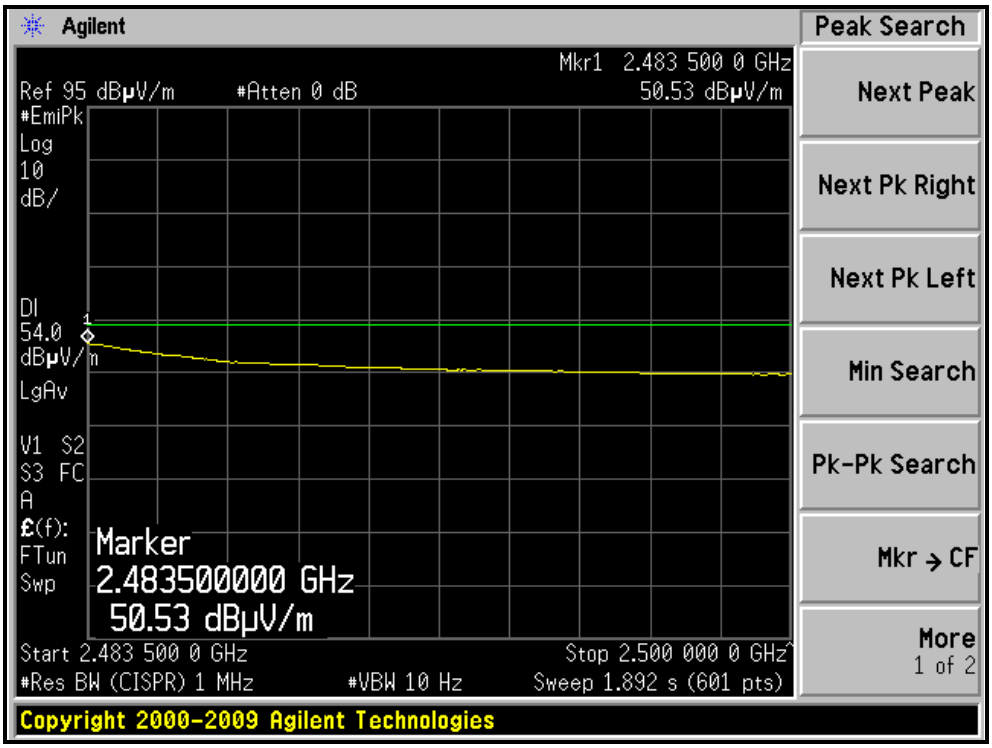




RESTRICTED BANDEDGE (802.11g MODE,CH11, VERTICAL)





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	24deg. C, 72%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	62.5 PK	74.0	-11.5	1.21 H	77	30.91	31.59
2	2390.00	45.8 AV	54.0	-8.2	1.21 H	77	14.21	31.59
3	*2412.00	98.2 PK			1.21 H	77	66.54	31.66
4	*2412.00	89.2 AV			1.21 H	77	57.54	31.66
5	4824.00	48.5 PK	74.0	-25.5	1.27 H	246	9.43	39.07
6	4824.00	36.4 AV	54.0	-17.6	1.27 H	246	-2.67	39.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	70.9 PK	74.0	-3.1	1.00 V	263	39.31	31.59
2	2390.00	52.1 AV	54.0	-1.9	1.00 V	263	20.51	31.59
3	*2412.00	105.5 PK			1.00 V	263	73.84	31.66
4	*2412.00	96.5 AV			1.00 V	263	64.84	31.66
5	4824.00	52.0 PK	74.0	-22.0	1.01 V	360	12.93	39.07
6	4824.00	39.6 AV	54.0	-14.4	1.01 V	360	0.53	39.07

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
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	24deg. C, 72%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	99.2 PK			1.17 H	87	67.45	31.75
2	*2437.00	90.6 AV			1.17 H	87	58.85	31.75
3	4874.00	49.0 PK	74.0	-25.0	1.27 H	234	9.77	39.23
4	4874.00	36.6 AV	54.0	-17.4	1.27 H	234	-2.63	39.23
5	7311.00	61.4 PK	74.0	-12.6	1.00 H	252	14.83	46.57
6	7311.00	43.7 AV	54.0	-10.3	1.00 H	252	-2.87	46.57
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	107.4 PK			1.44 V	298	75.65	31.75
2	*2437.00	98.5 AV			1.44 V	298	66.75	31.75
3	4874.00	51.2 PK	74.0	-22.8	1.04 V	86	11.97	39.23
4	4874.00	38.5 AV	54.0	-15.5	1.04 V	86	-0.73	39.23
5	7311.00	69.2 PK	74.0	-4.8	1.07 V	82	22.63	46.57
6	7311.00	47.6 AV	54.0	-6.4	1.07 V	82	1.03	46.57

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": 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	24deg. C, 72%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	98.7 PK			1.23 H	80	66.87	31.83
2	*2462.00	89.7 AV			1.23 H	80	57.87	31.83
3	2483.50	61.9 PK	74.0	-12.1	1.23 H	80	30.00	31.90
4	2483.50	45.5 AV	54.0	-8.5	1.23 H	80	13.60	31.90
5	4924.00	48.7 PK	74.0	-25.3	1.23 H	237	9.31	39.39
6	4924.00	36.5 AV	54.0	-17.5	1.23 H	237	-2.89	39.39
7	7386.00	61.8 PK	74.0	-12.2	1.01 H	240	15.33	46.47
8	7386.00	44.1 AV	54.0	-9.9	1.01 H	240	-2.37	46.47
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	107.4 PK			1.44 V	285	75.57	31.83
2	*2462.00	98.3 AV			1.44 V	285	66.47	31.83
3	2483.50	71.5 PK	74.0	-2.5	1.44 V	285	39.60	31.90
4	2483.50	51.5 AV	54.0	-2.5	1.44 V	285	19.60	31.90
5	4924.00	52.4 PK	74.0	-21.6	1.06 V	345	13.01	39.39
6	4924.00	40.3 AV	54.0	-13.7	1.06 V	345	0.91	39.39
7	7386.00	69.9 PK	74.0	-4.1	1.63 V	288	23.43	46.47
8	7386.00	47.9 AV	54.0	-6.1	1.63 V	288	1.43	46.47

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

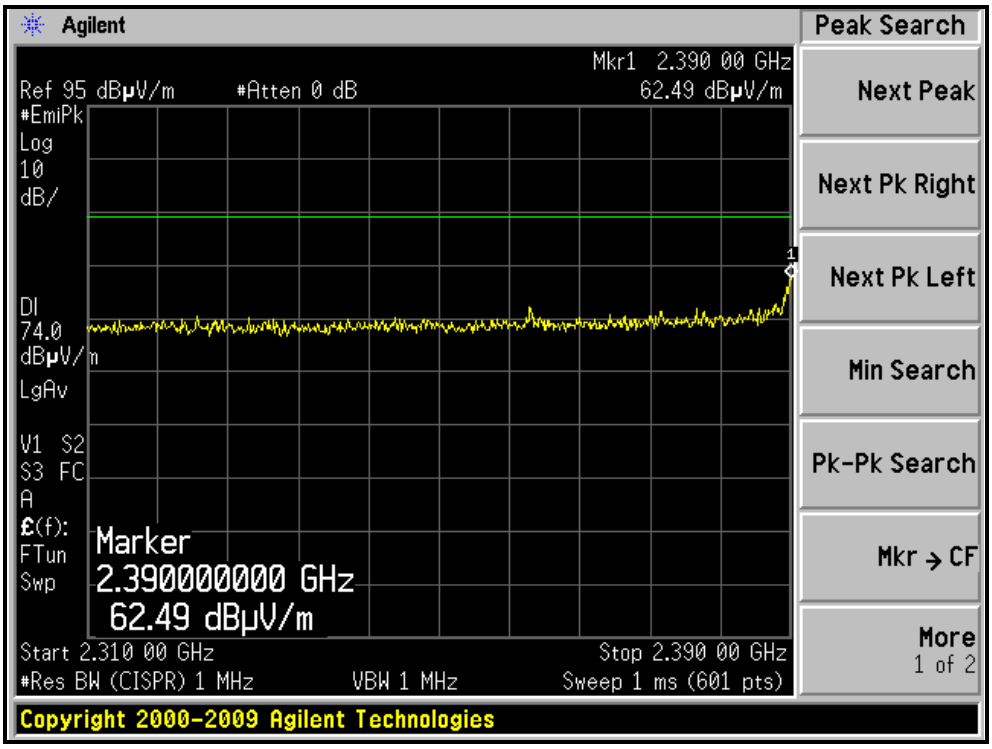
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

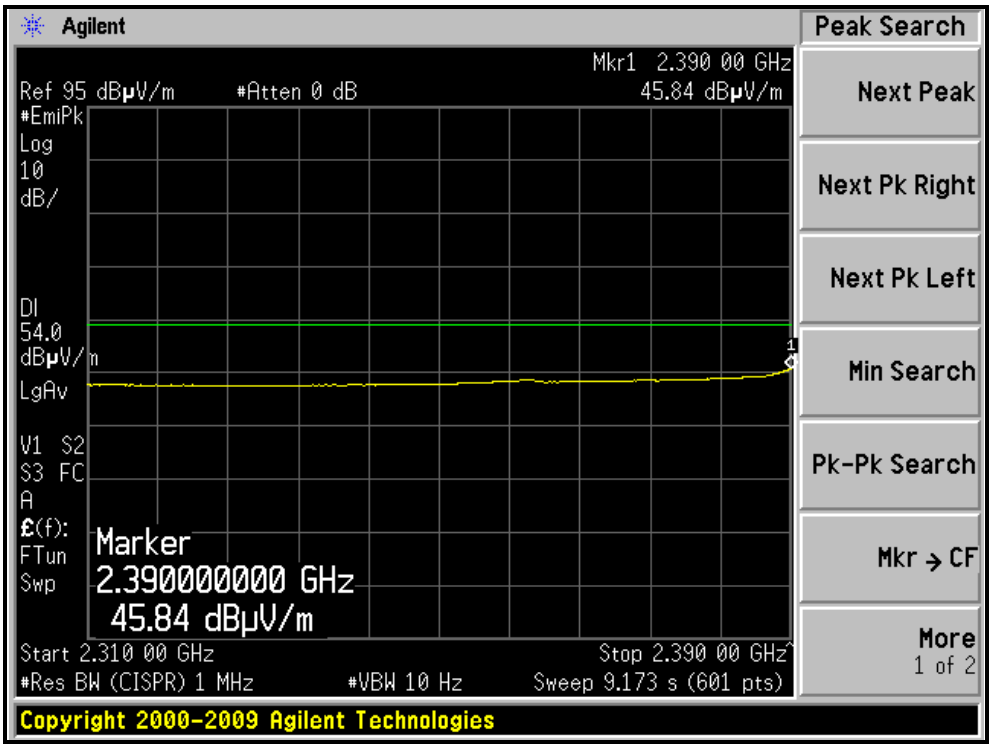
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

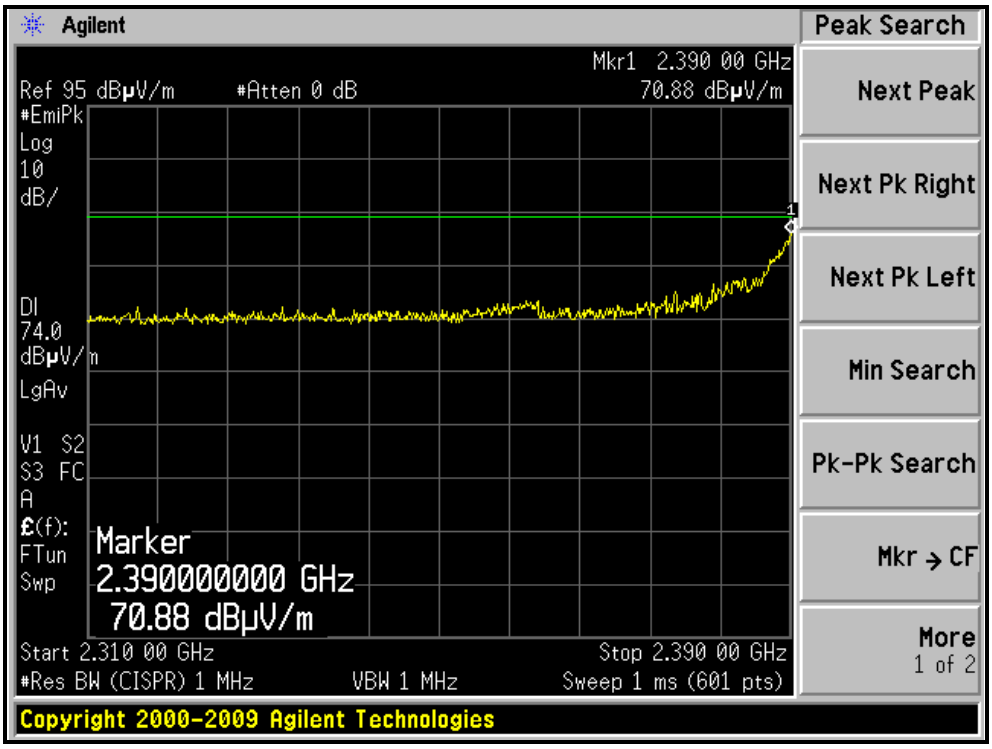
5. " * ": Fundamental frequency.

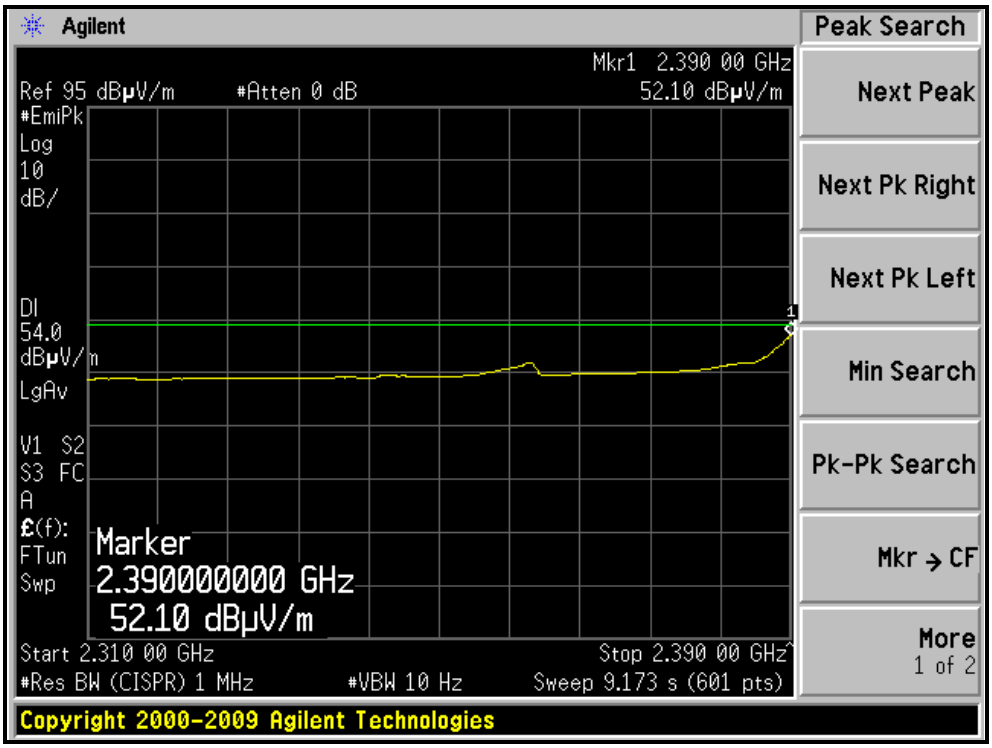
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, HORIZONTAL)



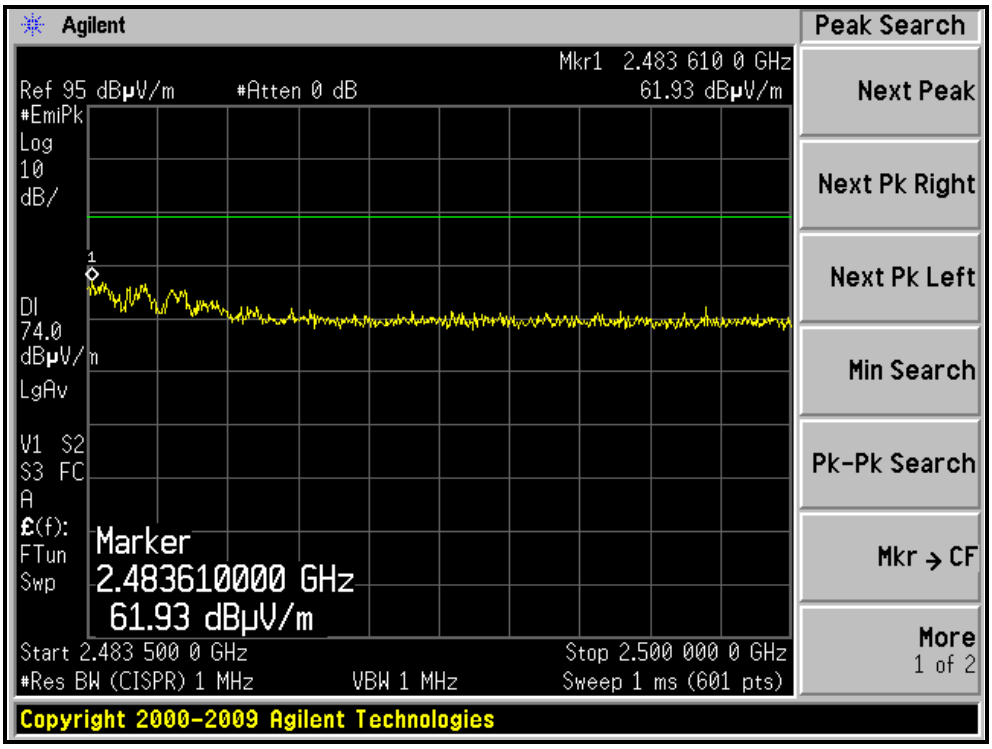


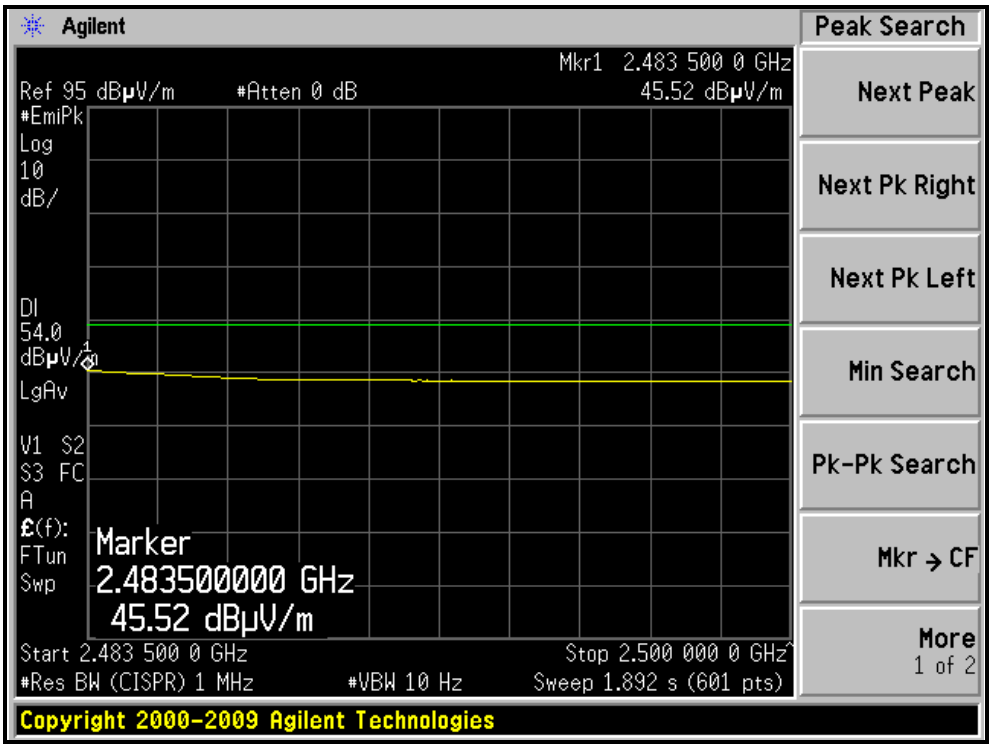
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, VERTICAL)



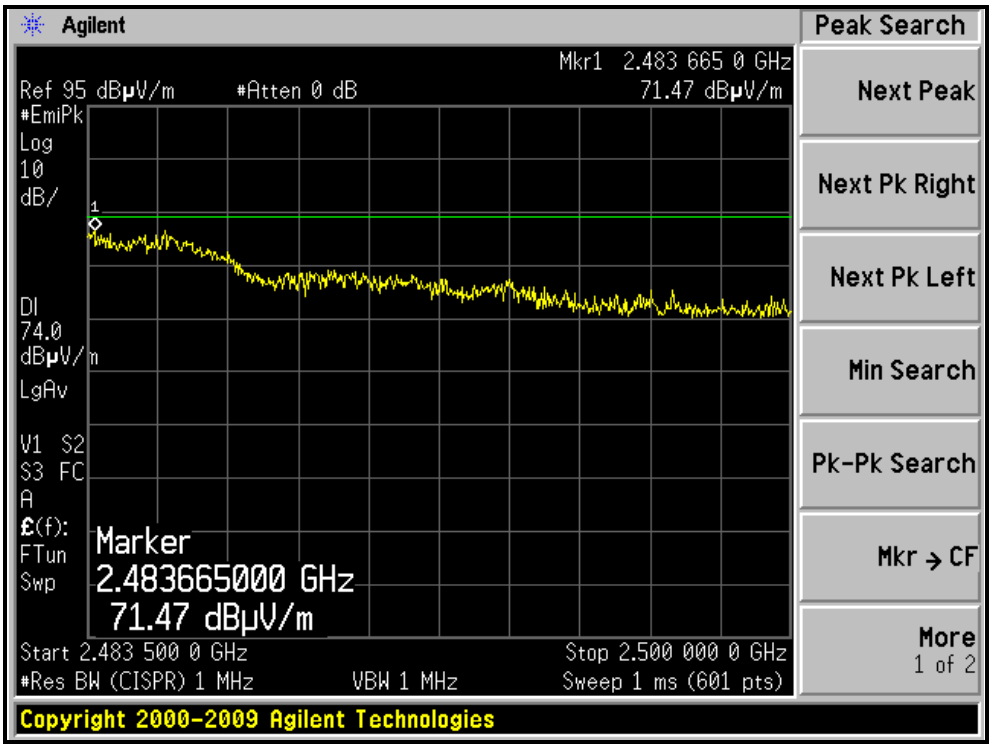


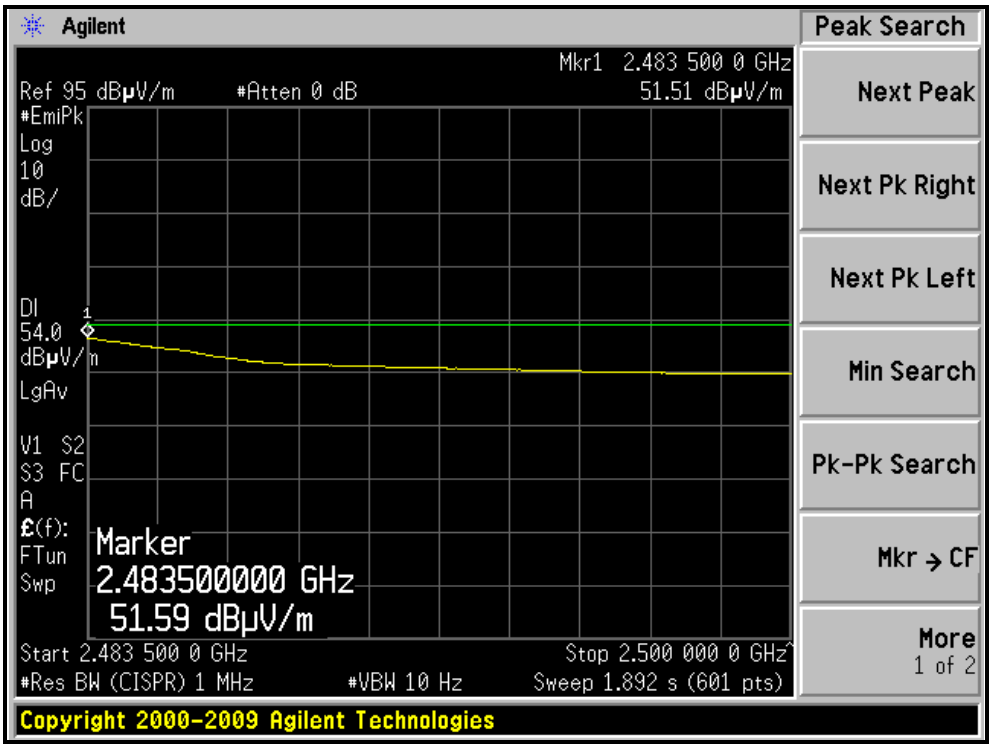
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH11, HORIZONTAL)





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





802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 72%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	62.6 PK	74.0	-11.4	1.22 H	73	31.01	31.59
2	2390.00	46.3 AV	54.0	-7.7	1.22 H	73	14.71	31.59
3	*2422.00	94.2 PK			1.21 H	81	62.51	31.69
4	*2422.00	84.9 AV			1.21 H	81	53.21	31.69
5	4844.00	46.1 PK	74.0	-27.9	1.51 H	230	6.97	39.13
6	4844.00	36.0 AV	54.0	-18.0	1.51 H	230	-3.13	39.13
7	7266.00	53.9 PK	74.0	-20.1	1.01 H	254	7.30	46.60
8	7266.00	40.5 AV	54.0	-13.5	1.01 H	254	-6.10	46.60
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	71.5 PK	74.0	-2.5	1.00 V	266	39.91	31.59
2	**2390.00**	**53.3 AV**	**54.0**	**-0.7**	**1.00 V**	**266**	**21.71**	**31.59**
3	*2422.00	101.9 PK			1.00 V	266	70.21	31.69
4	*2422.00	92.7 AV			1.00 V	266	61.01	31.69
5	4844.00	47.2 PK	74.0	-26.8	1.09 V	342	8.07	39.13
6	4844.00	37.0 AV	54.0	-17.0	1.09 V	342	-2.13	39.13
7	7266.00	57.9 PK	74.0	-16.1	1.55 V	281	11.30	46.60
8	7266.00	43.6 AV	54.0	-10.4	1.55 V	281	-3.00	46.60

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. " * ": 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	24deg. C, 72%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	95.3 PK			1.24 H	71	63.55	31.75
2	*2437.00	86.0 AV			1.24 H	71	54.25	31.75
3	4874.00	46.7 PK	74.0	-27.3	1.48 H	236	7.47	39.23
4	4874.00	36.3 AV	54.0	-17.7	1.48 H	236	-2.93	39.23
5	7311.00	54.6 PK	74.0	-19.4	1.02 H	251	8.03	46.57
6	7311.00	40.9 AV	54.0	-13.1	1.02 H	251	-5.67	46.57
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	102.9 PK			1.43 V	289	71.15	31.75
2	*2437.00	93.8 AV			1.43 V	289	62.05	31.75
3	4874.00	47.9 PK	74.0	-26.1	1.05 V	354	8.67	39.23
4	4874.00	37.2 AV	54.0	-16.8	1.05 V	354	-2.03	39.23
5	7311.00	57.9 PK	74.0	-16.1	1.57 V	286	11.33	46.57
6	7311.00	43.5 AV	54.0	-10.5	1.57 V	286	-3.07	46.57

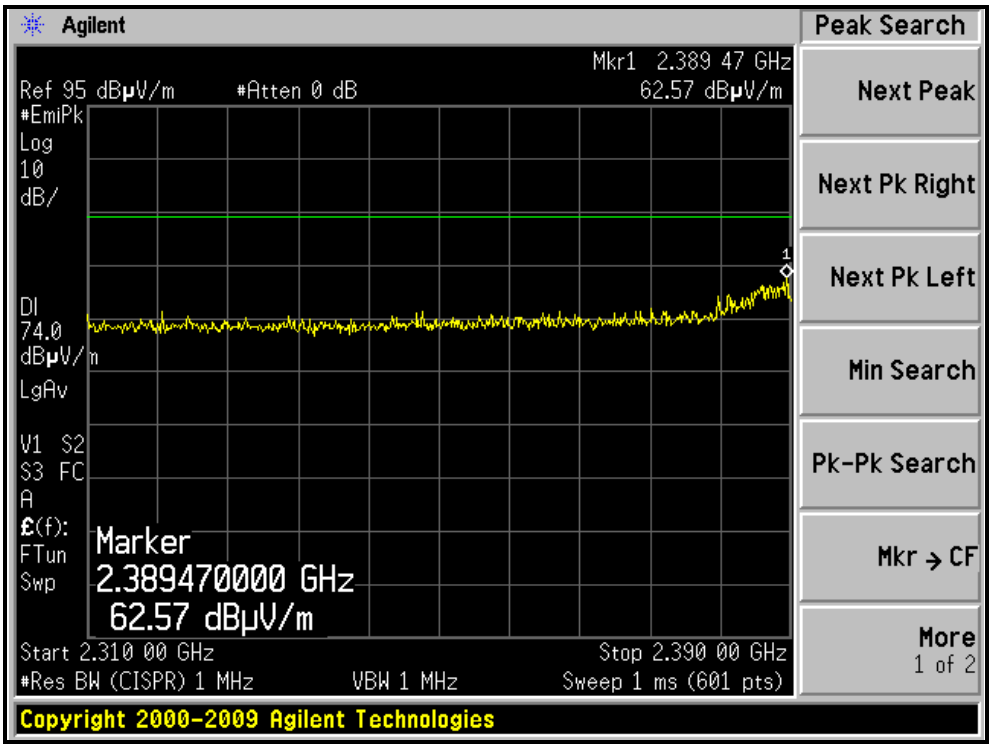
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

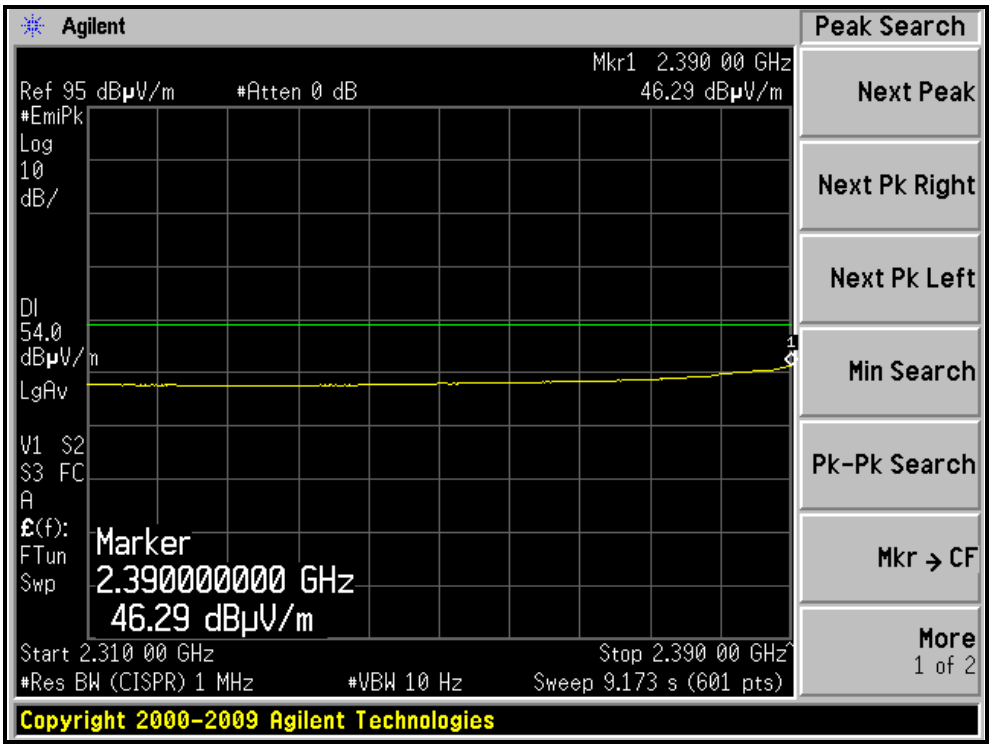
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 72%RH	TESTED BY	Evan Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	95.1 PK			1.21 H	85	63.30	31.80
2	*2452.00	85.6 AV			1.21 H	85	53.80	31.80
3	2484.00	64.1 PK	74.0	-9.9	1.22 H	79	32.19	31.91
4	2484.00	46.1 AV	54.0	-7.9	1.22 H	79	14.19	31.91
5	4904.00	46.6 PK	74.0	-27.4	1.45 H	221	7.28	39.32
6	4904.00	36.2 AV	54.0	-17.8	1.45 H	221	-3.12	39.32
7	7356.00	54.3 PK	74.0	-19.7	1.03 H	248	7.79	46.51
8	7356.00	40.8 AV	54.0	-13.2	1.03 H	248	-5.71	46.51
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	102.7 PK			1.41 V	287	70.90	31.80
2	*2452.00	93.4 AV			1.41 V	287	61.60	31.80
3	2483.50	71.9 PK	74.0	-2.1	1.41 V	287	40.00	31.90
4	2483.50	52.4 AV	54.0	-1.6	1.41 V	287	20.50	31.90
5	4904.00	47.7 PK	74.0	-26.3	1.01 V	350	8.38	39.32
6	4904.00	37.1 AV	54.0	-16.9	1.01 V	350	-2.22	39.32
7	7356.00	58.1 PK	74.0	-15.9	1.61 V	274	11.59	46.51
8	7356.00	43.7 AV	54.0	-10.3	1.61 V	274	-2.81	46.51

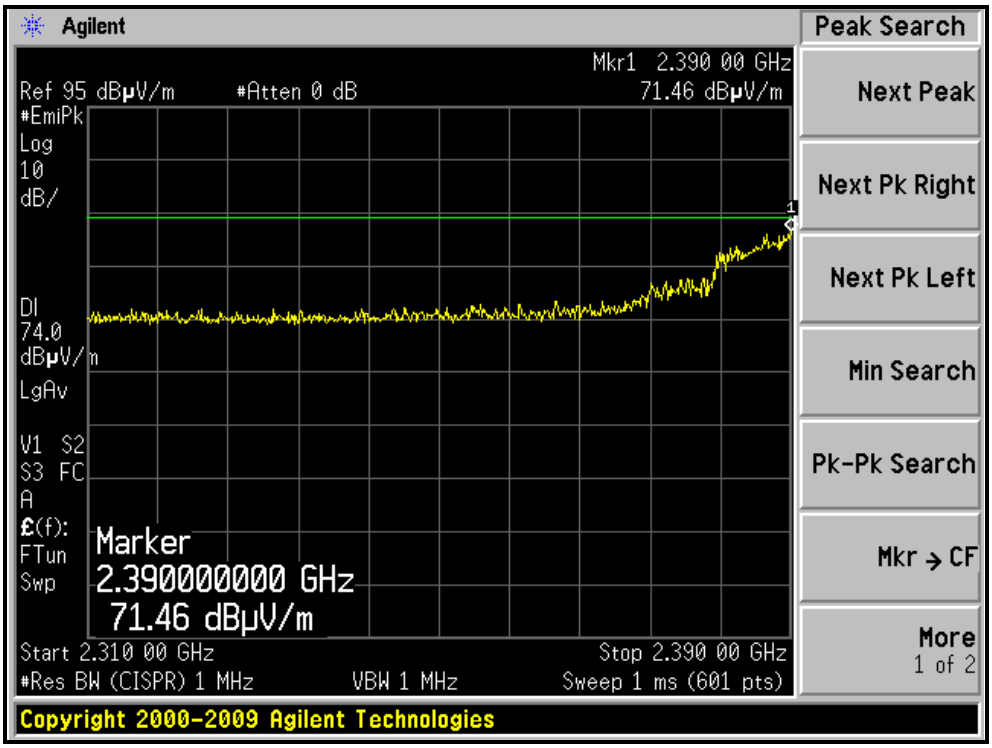
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

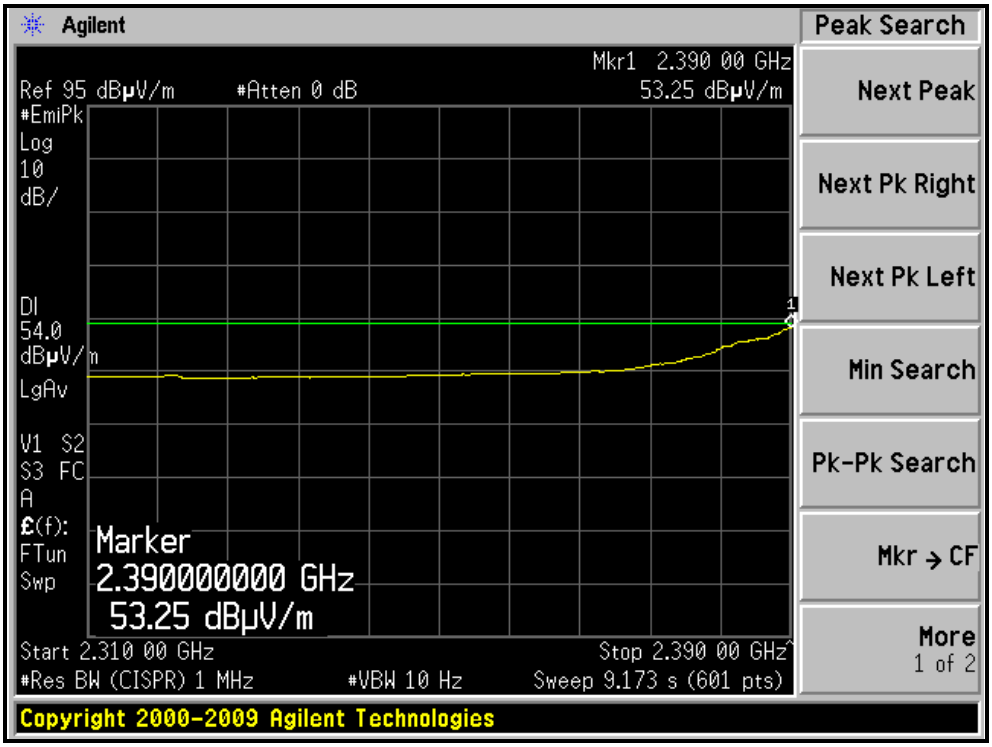
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH3, HORIZONTAL)



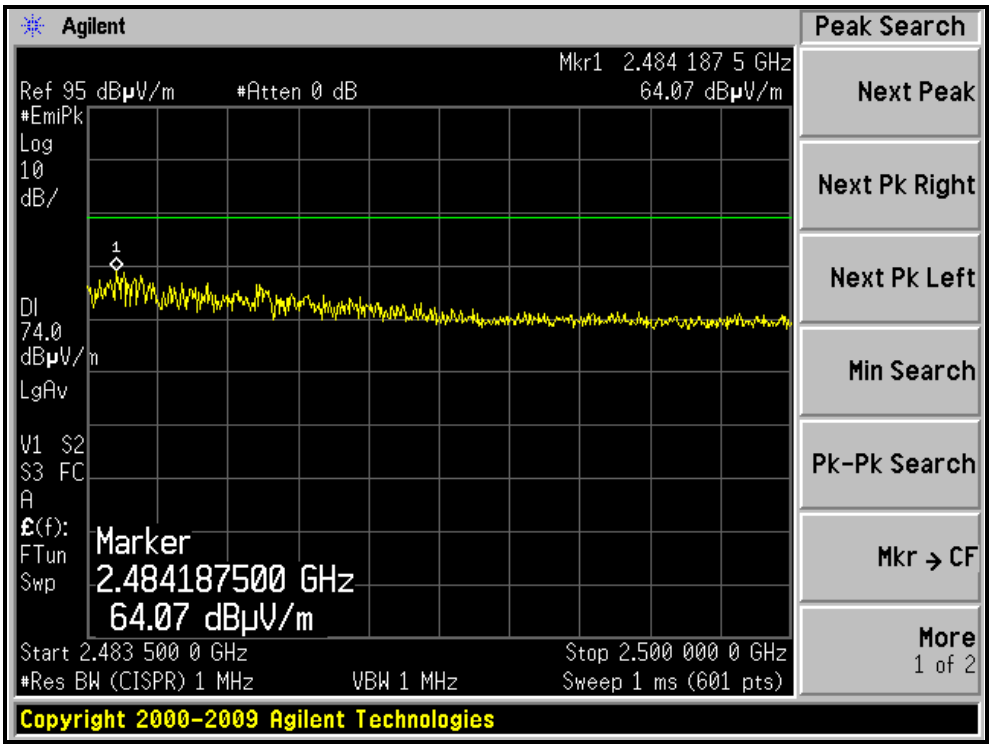


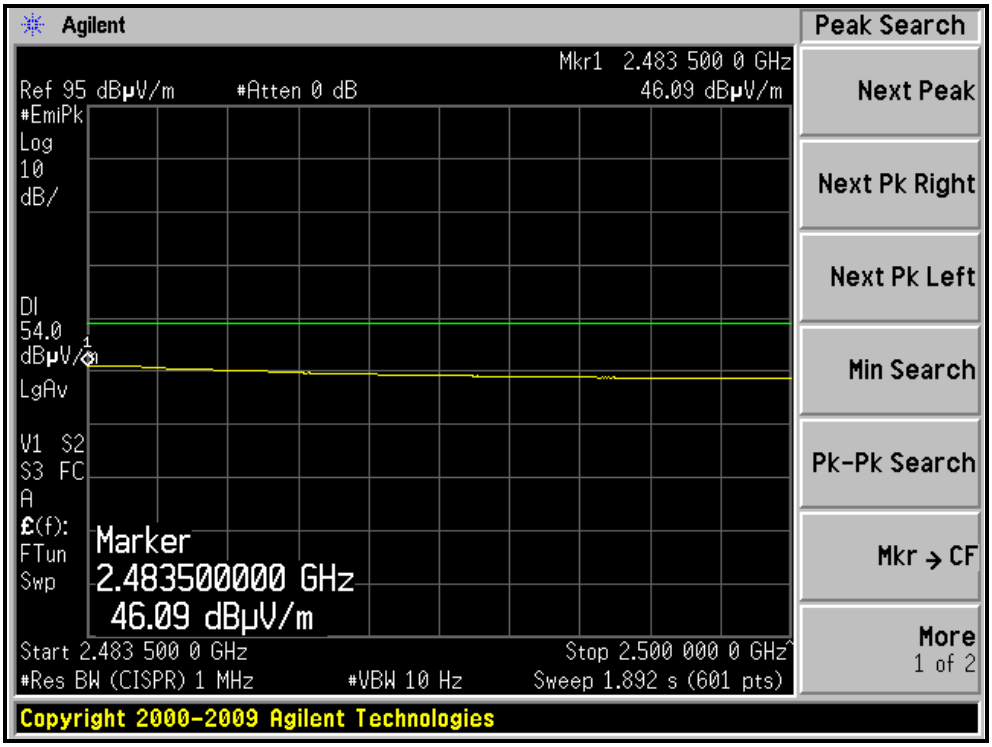
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH3, VERTICAL)



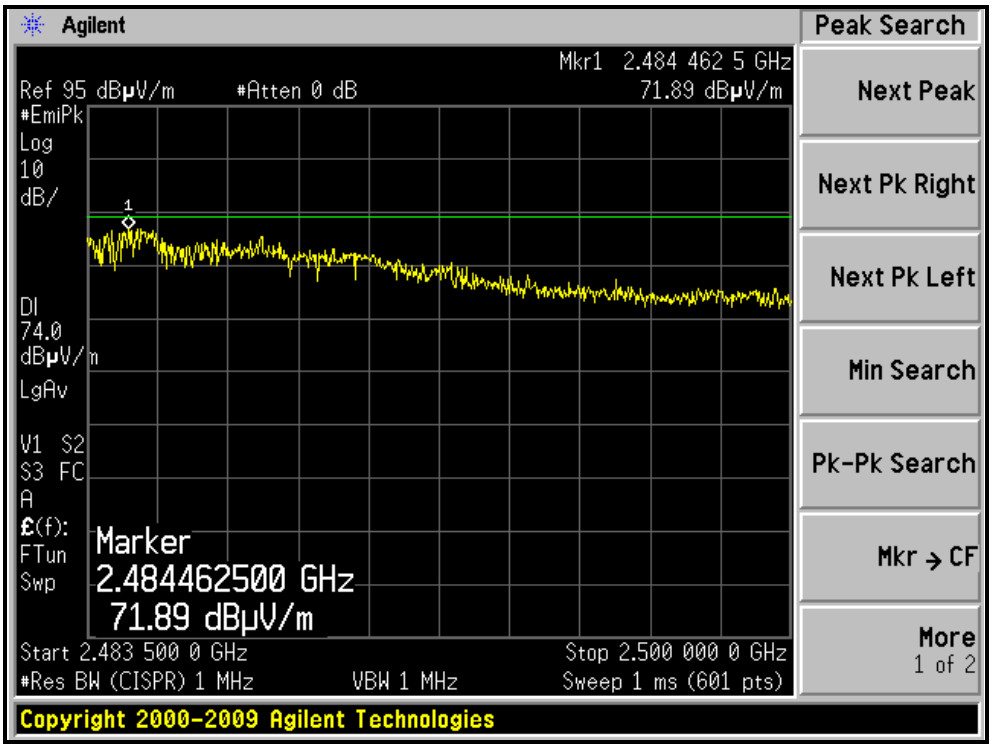


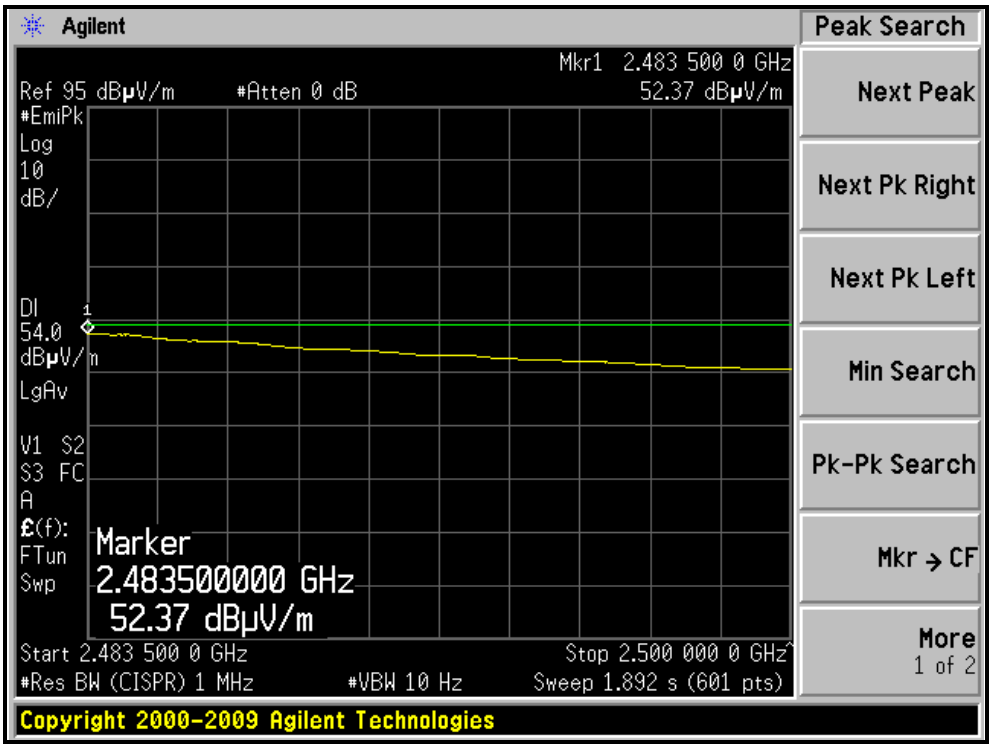
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH9, HORIZONTAL)





RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH9, 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

Test date: Dec. 20, 2011

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSP 40	100060	May 11, 2011	May 10, 2012

NOTE:

1. 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 300kHz 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

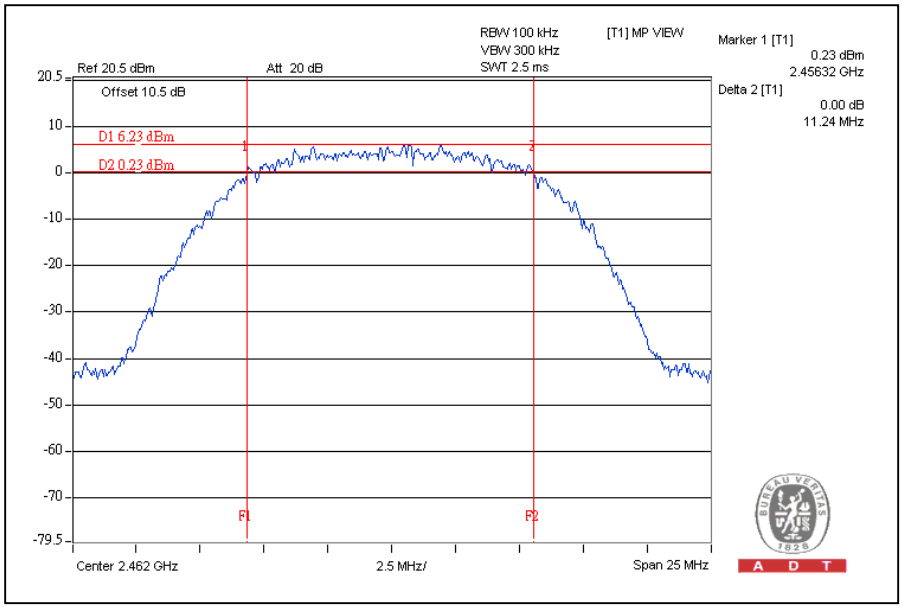
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 TEST RESULTS

802.11b DSSS MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	11.20	0.5	PASS
6	2437	11.22	0.5	PASS
11	2462	11.24	0.5	PASS

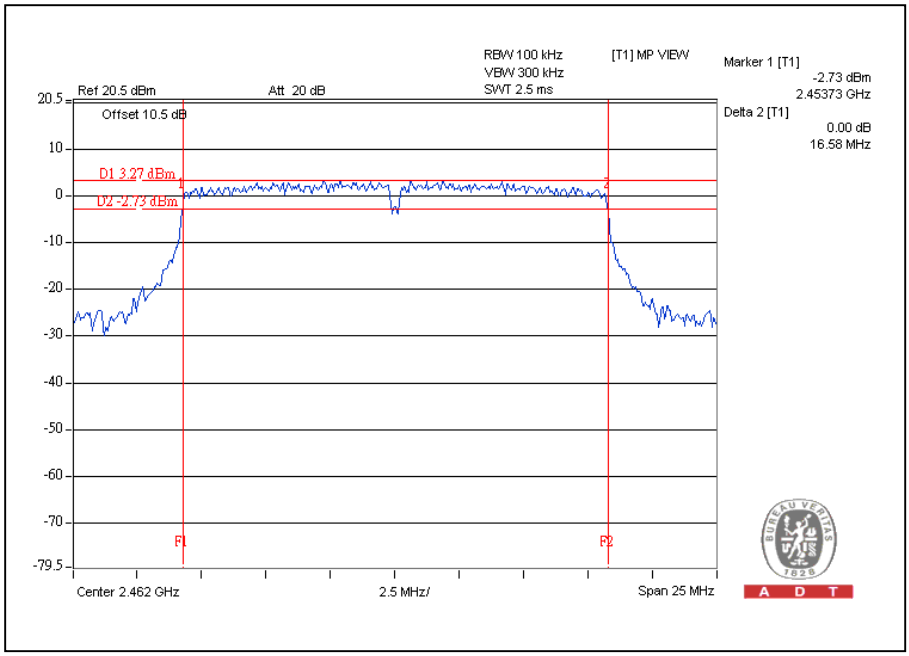
CH11



802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.57	0.5	PASS
6	2437	16.57	0.5	PASS
11	2462	16.58	0.5	PASS

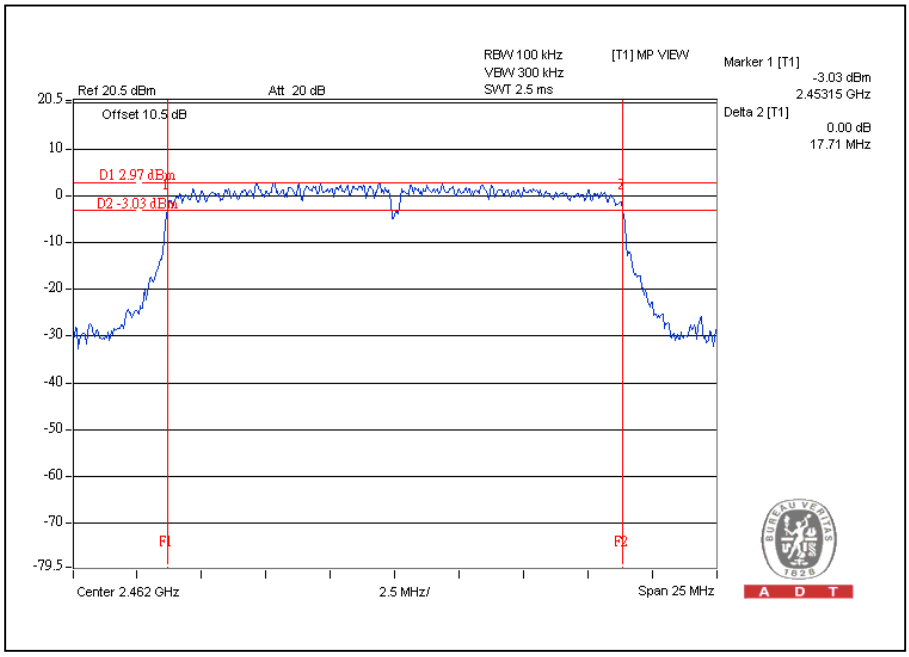
CH11



802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	17.70	0.5	PASS
6	2437	17.71	0.5	PASS
11	2462	17.71	0.5	PASS

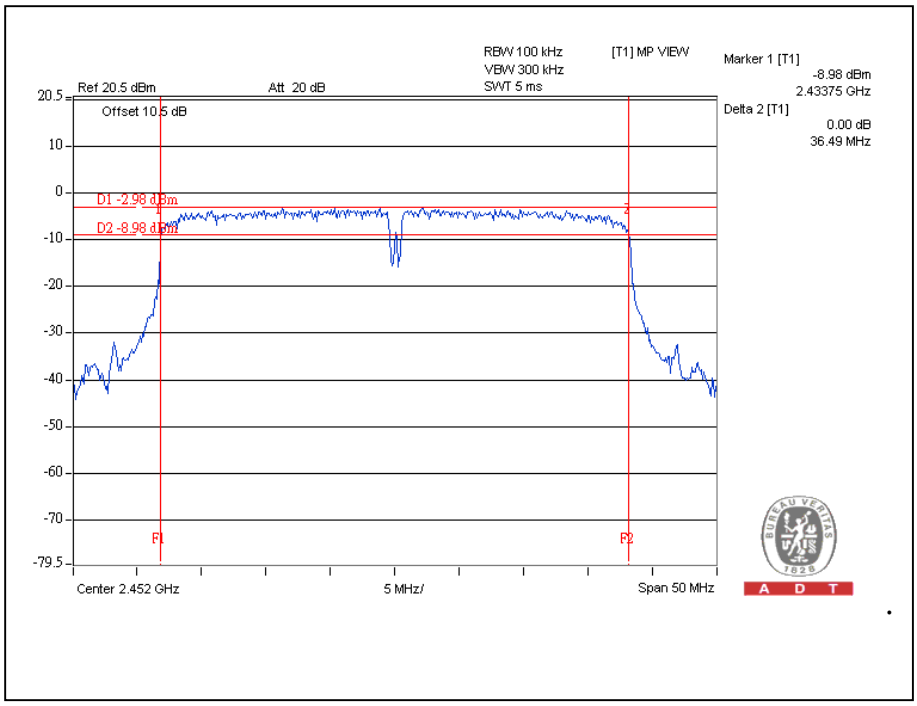
CH11



802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
3	2422	36.47	0.5	PASS
6	2437	36.47	0.5	PASS
9	2452	36.49	0.5	PASS

CH9



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

Test date: Dec. 20, 2011

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Anritsu Power Meter	ML2495A	0824006	May 04, 2011	May 03, 2012
Pulse Power Sensor	MA2411B	0738172	May 03, 2011	May 02, 2012

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

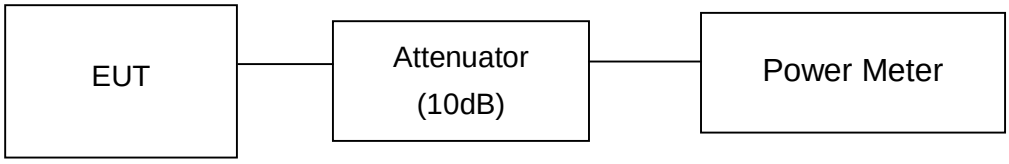
4.4.3 TEST PROCEDURES

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:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	107.2	20.3	30	PASS
6	2437	93.3	19.7	30	PASS
11	2462	120.2	20.8	30	PASS

802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	257.0	24.1	30	PASS
6	2437	288.4	24.6	30	PASS
11	2462	263.0	24.2	30	PASS

802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	208.9	23.2	30	PASS
6	2437	316.2	25.0	30	PASS
11	2462	251.2	24.0	30	PASS

802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
3	2422	141.3	21.5	30	PASS
6	2437	223.9	23.5	30	PASS
9	2452	128.8	21.1	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

Test date: Dec. 20, 2011

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSP 40	100060	May 11, 2011	May 10, 2012

NOTE:

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

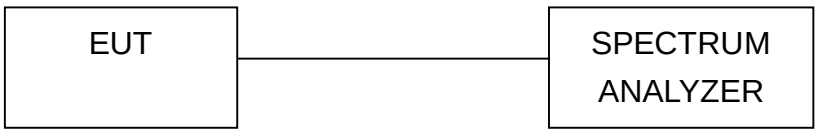
4.5.3 TEST PROCEDURE

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

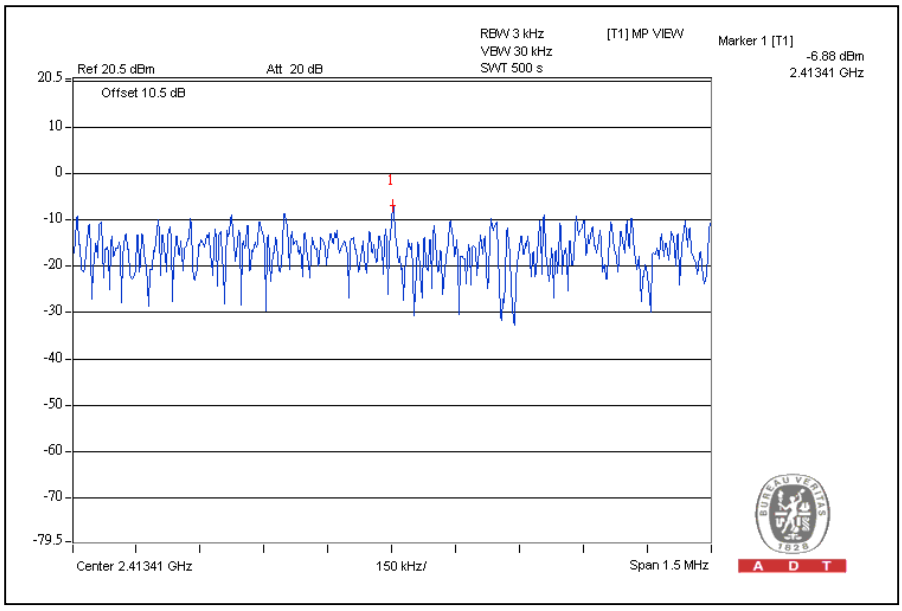
Same as Item 4.3.6

4.5.7 TEST RESULTS

802.11b DSSS MODULATION:

CHANNEL	FREQUENCY (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS / FAIL
1	2412	-6.9	8.00	PASS
6	2437	-7.8	8.00	PASS
11	2462	-7.1	8.00	PASS

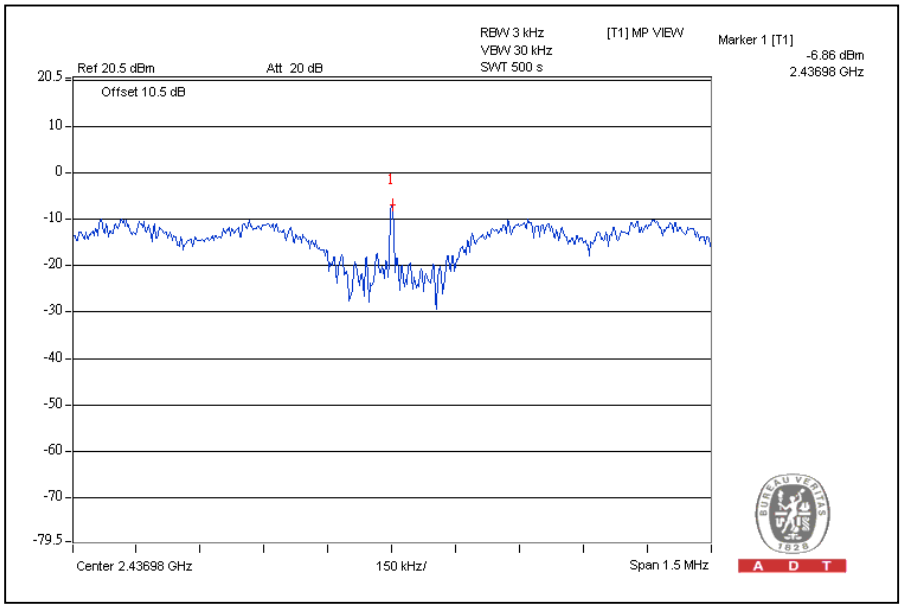
CH1



802.11g OFDM MODULATION:

CHANNEL	FREQUENCY (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS / FAIL
1	2412	-10.3	8.00	PASS
6	2437	-6.9	8.00	PASS
11	2462	-8.7	8.00	PASS

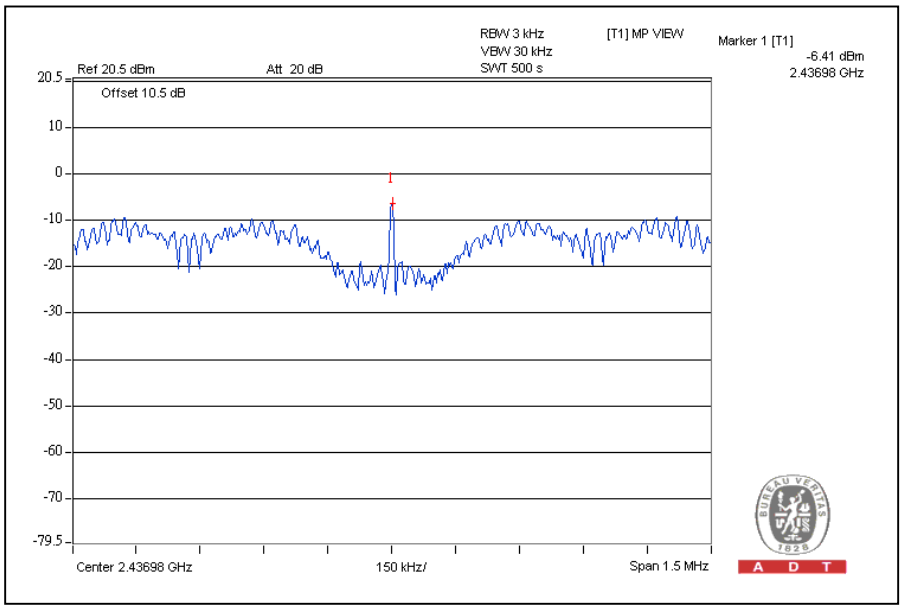
CH6



802.11n (20MHz) OFDM MODULATION:

CHANNEL	FREQUENCY (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS / FAIL
1	2412	-10.3	8.00	PASS
6	2437	-6.4	8.00	PASS
11	2462	-8.8	8.00	PASS

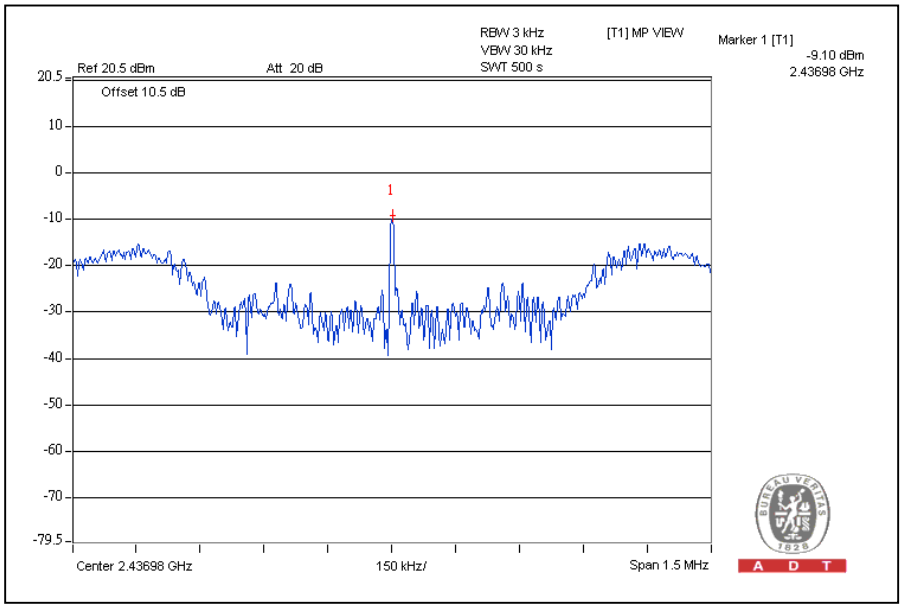
CH6



802.11n (40MHz) OFDM MODULATION:

CHANNEL	FREQUENCY (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS / FAIL
3	2422	-11.5	8.00	PASS
6	2437	-9.1	8.00	PASS
9	2452	-11.3	8.00	PASS

CH6



4.6 CONDUCTED OUT-BAND EMISSION MEASUREMENT

4.6.1 LIMITS OF CONDUCTED OUT-BAND EMISSION MEASUREMENT

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

4.6.2 TEST INSTRUMENTS

Test date: Dec. 20, 2011

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSP 40	100060	May 11, 2011	May 10, 2012

NOTE:

1. 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 lose cable. Set RBW of spectrum analyzer to 100kHz and VBW of spectrum analyzer to 300kHz with suitable frequency span including 100 MHz or 200 MHz bandwidth from band edge. The band edges was measured and recorded.

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

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 EUT OPERATING CONDITION

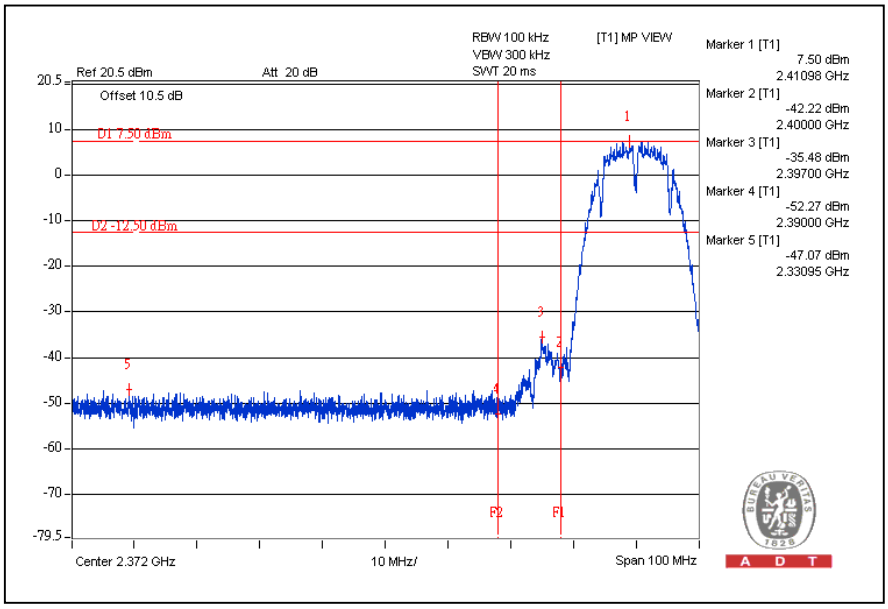
Same as Item 4.3.6

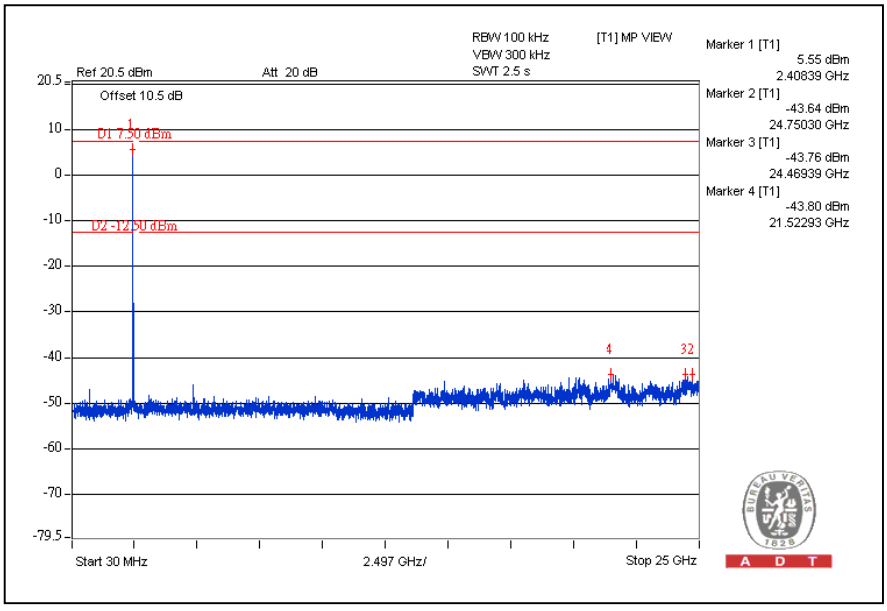
4.6.6 TEST RESULTS

The spectrum plots are attached on the following images. 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).

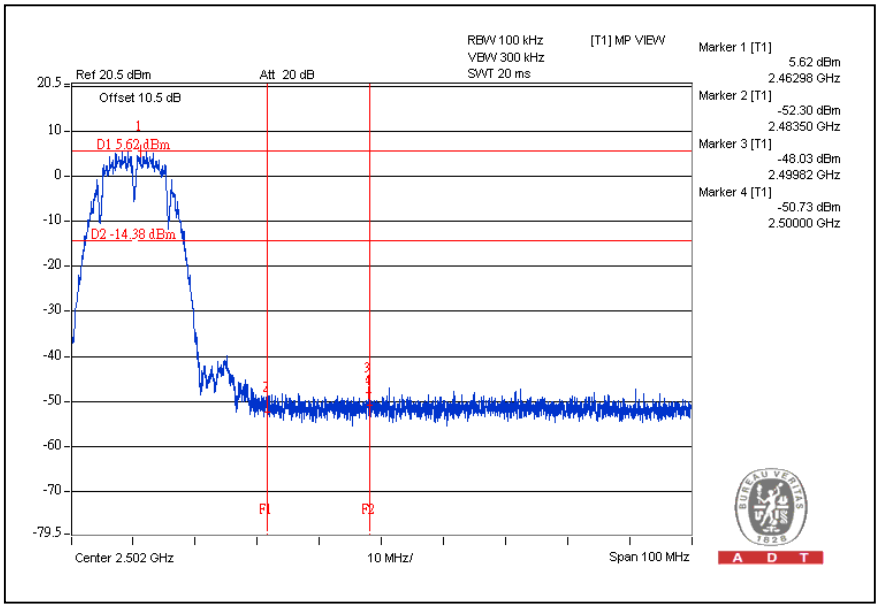
802.11b DSSS MODULATION:

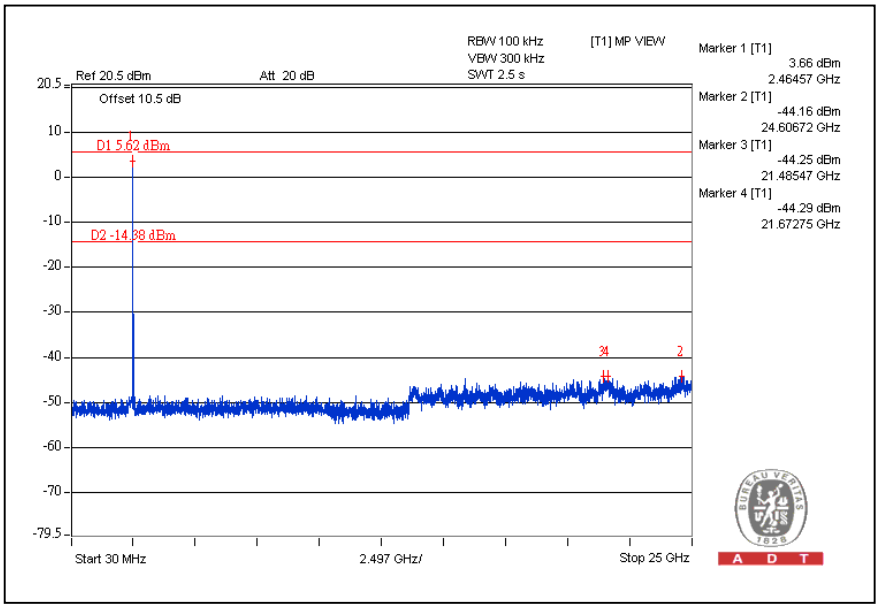
CH1





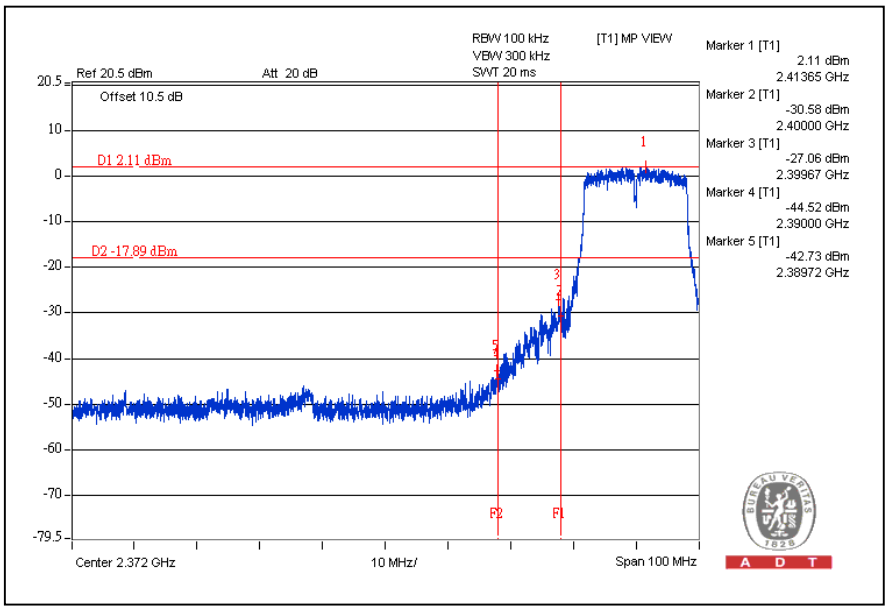
CH11

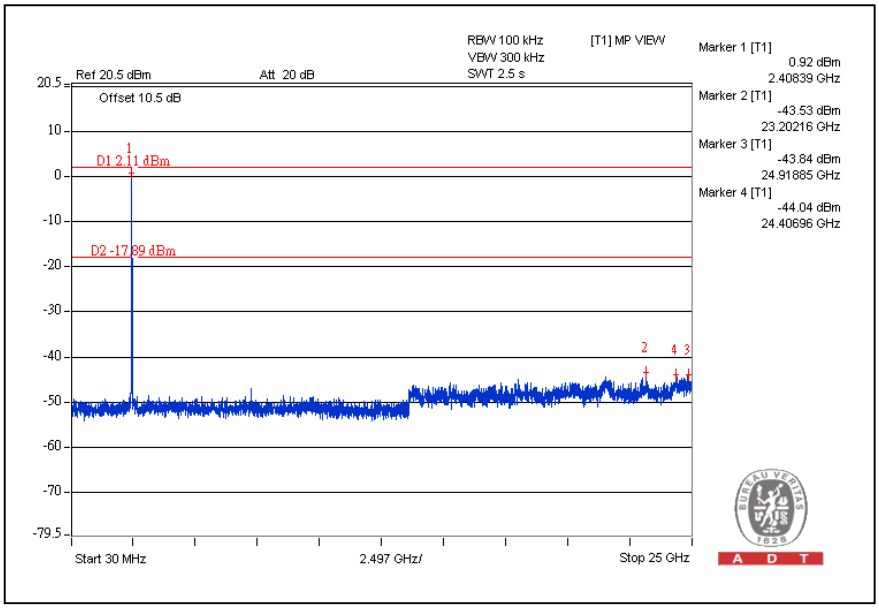

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MP VIEW
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 5.62 dBm
D2 -14.38 dBm
Marker 1 [T1]
5.62 dBm
2.46298 GHz
Marker 2 [T1]
-52.30 dBm
2.48350 GHz
Marker 3 [T1]
-48.03 dBm
2.49982 GHz
Marker 4 [T1]
-50.73 dBm
2.50000 GHz
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MP VIEW
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 5.62 dBm
D2 -14.38 dBm
Marker 1 [T1]
3.66 dBm
2.46457 GHz
Marker 2 [T1]
-44.16 dBm
24.60672 GHz
Marker 3 [T1]
-44.25 dBm
21.48547 GHz
Marker 4 [T1]
-44.29 dBm
21.67275 GHz
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Start 30 MHz
2.497 GHz/
Stop 25 GHz

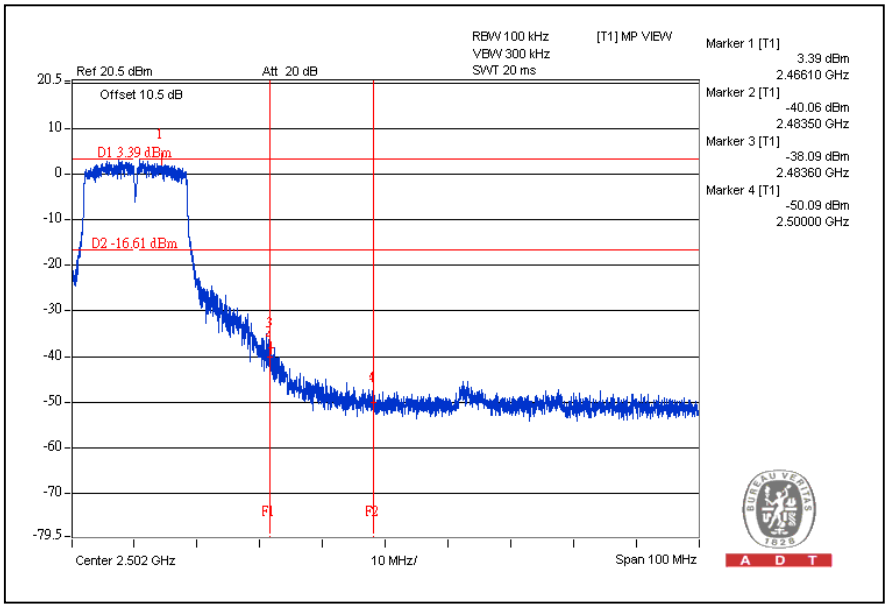
802.11g OFDM MODULATION:

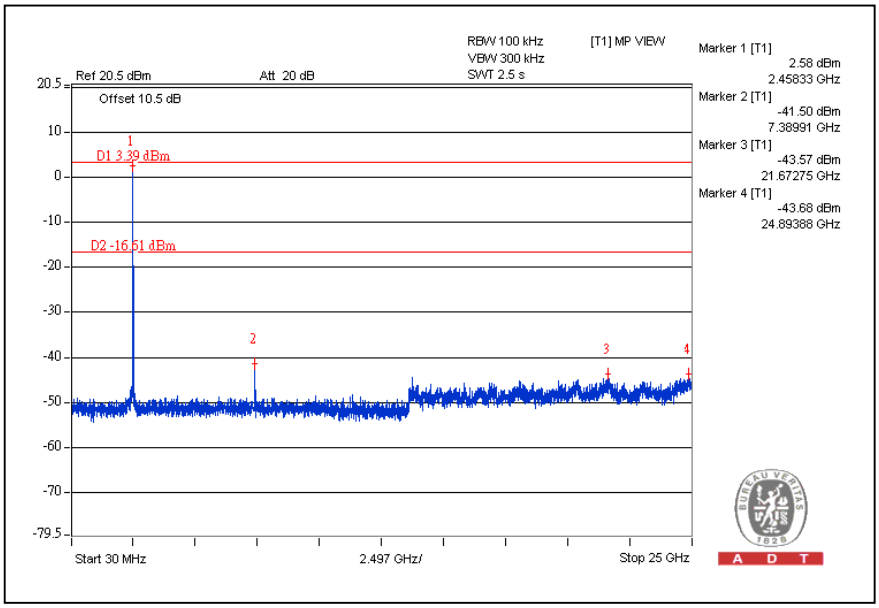
CH1





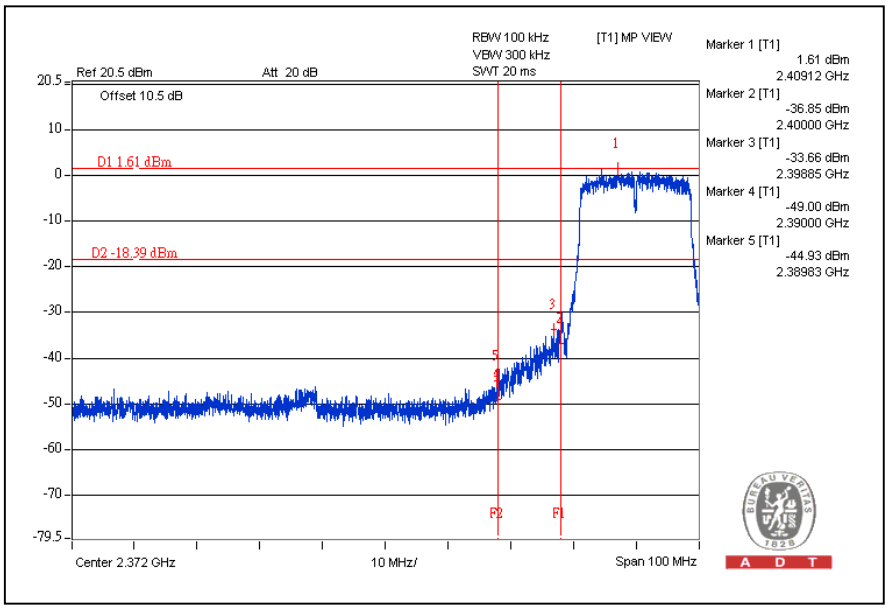
CH11

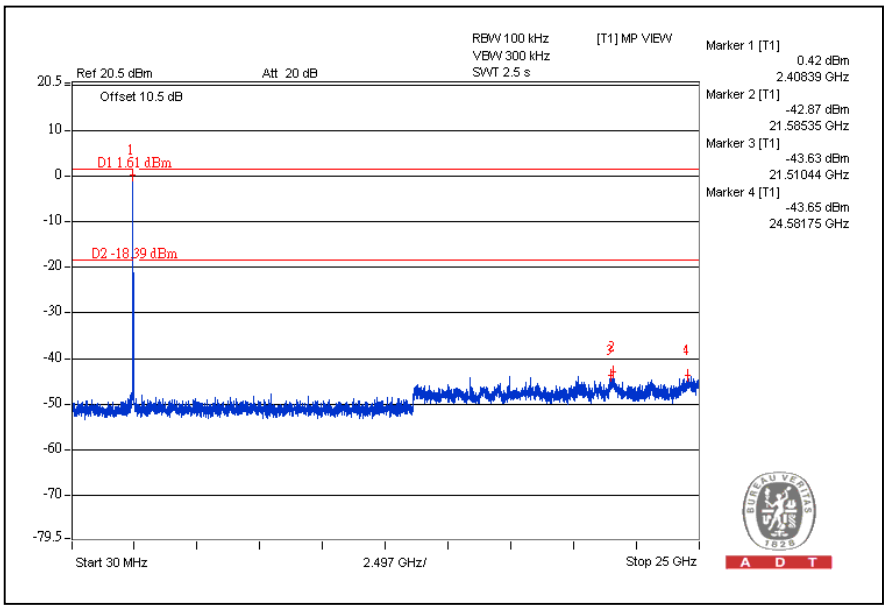

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MP VIEW
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 3.39 dBm
D2 -16.61 dBm
Marker 1 [T1]
3.39 dBm
2.46610 GHz
Marker 2 [T1]
-40.06 dBm
2.48350 GHz
Marker 3 [T1]
-38.09 dBm
2.48360 GHz
Marker 4 [T1]
-50.09 dBm
2.50000 GHz
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MP VIEW
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 3.39 dBm
D2 -16.51 dBm
Marker 1 [T1]
2.58 dBm
2.45833 GHz
Marker 2 [T1]
-41.50 dBm
7.38991 GHz
Marker 3 [T1]
-43.57 dBm
21.67275 GHz
Marker 4 [T1]
-43.68 dBm
24.89388 GHz
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Start 30 MHz
2.497 GHz/
Stop 25 GHz

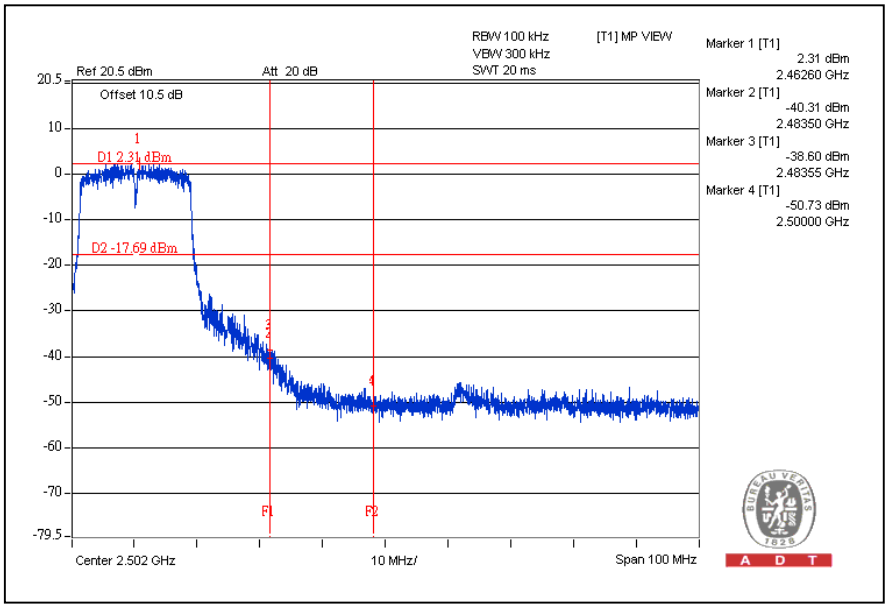
802.11n (20MHz) OFDM MODULATION:

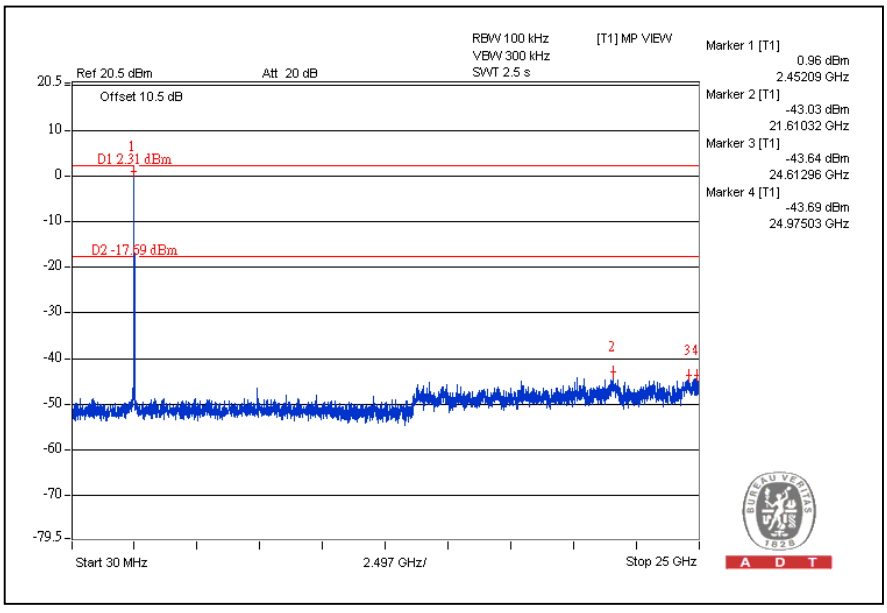
CH1





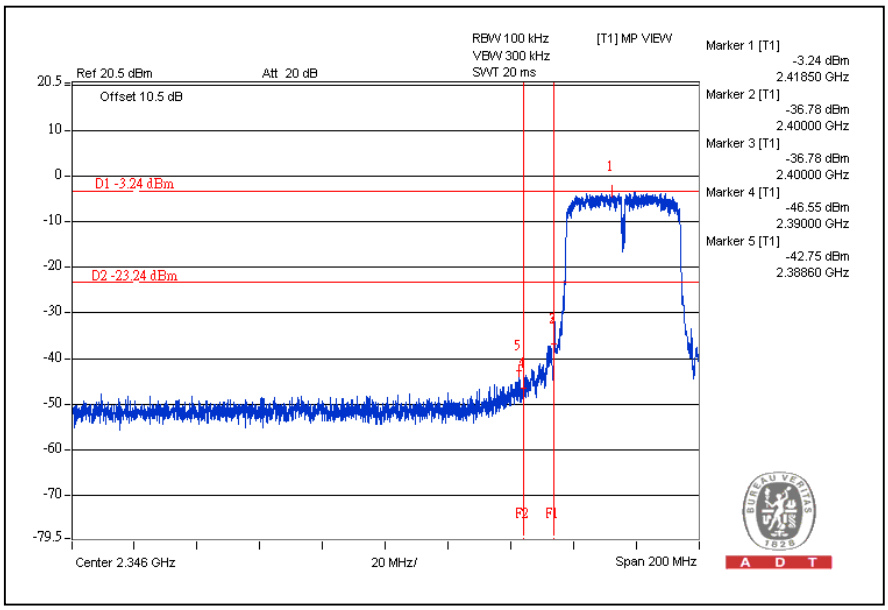
CH11

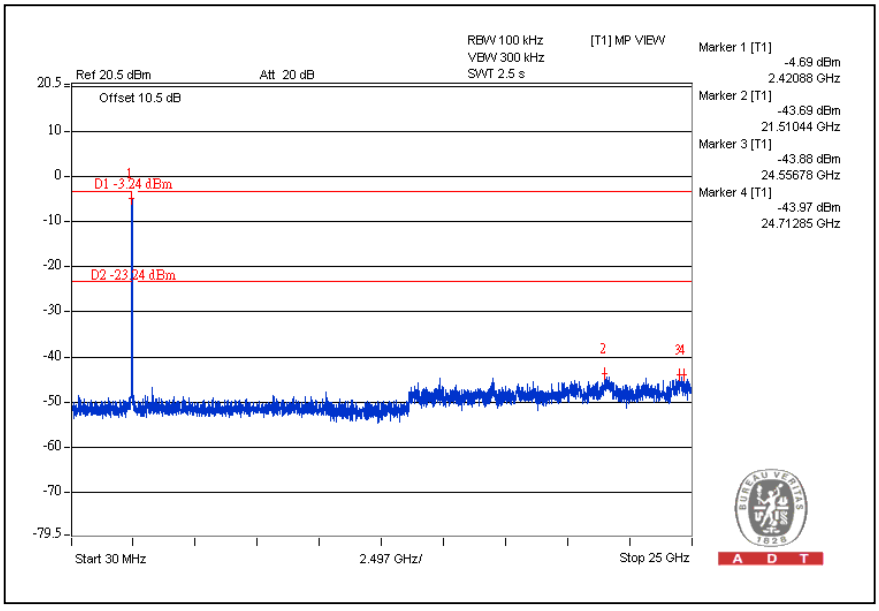

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MP VIEW
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 2.31 dBm
D2 -17.69 dBm
Marker 1 [T1]
2.31 dBm
2.46260 GHz
Marker 2 [T1]
-40.31 dBm
2.48350 GHz
Marker 3 [T1]
-38.60 dBm
2.48355 GHz
Marker 4 [T1]
-50.73 dBm
2.50000 GHz
Center 2.502 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MP VIEW
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 2.31 dBm
D2 -17.69 dBm
Marker 1 [T1]
0.96 dBm
2.45209 GHz
Marker 2 [T1]
-43.03 dBm
21.61032 GHz
Marker 3 [T1]
-43.64 dBm
24.61296 GHz
Marker 4 [T1]
-43.69 dBm
24.97503 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz

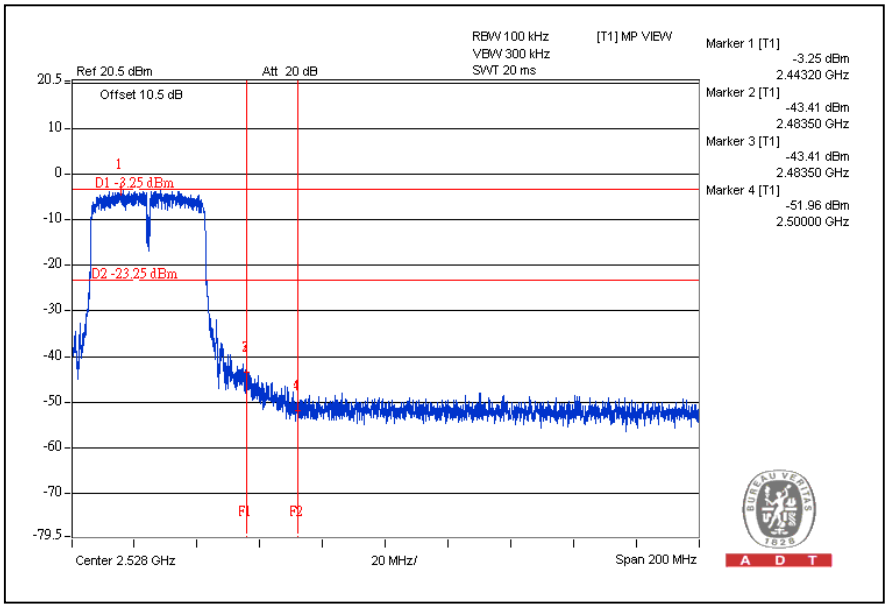
802.11n (40MHz) OFDM MODULATION:

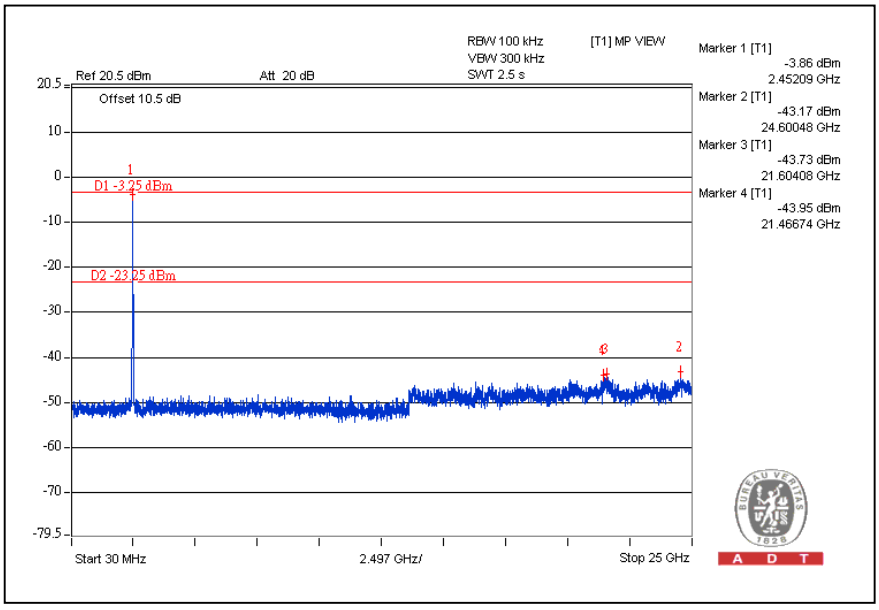
CH3





CH9


RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MP VIEW
Marker 1 [T1]
-3.25 dBm
2.44320 GHz
Marker 2 [T1]
-43.41 dBm
2.48350 GHz
Marker 3 [T1]
-43.41 dBm
2.48350 GHz
Marker 4 [T1]
-51.96 dBm
2.50000 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 -3.25 dBm
D2 -23.25 dBm
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
F1
F2
Center 2.528 GHz
20 MHz/
Span 200 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MP VIEW
Marker 1 [T1]
-3.86 dBm
2.45209 GHz
Marker 2 [T1]
-43.17 dBm
24.60048 GHz
Marker 3 [T1]
-43.73 dBm
21.60408 GHz
Marker 4 [T1]
-43.95 dBm
21.46674 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 -3.25 dBm
D2 -23.25 dBm
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Start 30 MHz
2.497 GHz/
Stop 25 GHz

5.INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025:

Copies of accreditation and authorization 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:
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Email: service.adt@tw.bureauveritas.com
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 modifications were made to the EUT by the lab during the test.

--- END ---