FCC TEST REPORT

REPORT NO.:	RF991203E02 R1
MODEL NO.:	AR5B125
RECEIVED:	Nov. 30, 2010
TESTED:	Nov. 30, 2010 to Jan. 26, 2011 and Mar. 07, 2011
ISSUED:	Mar. 08, 2011

APPLICANT:	Atheros Communications, Inc.
ADDRESS:	1700 Technology Drive, San Jose, CA 95110

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

Testing Laboratory
2022

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	NA	Feb. 17, 2011
RF991203E02 R1	1. Modified the test date. 2. Modified the antenna information. 3. Added the channel and modulation description of conducted emission on section 3.3.1 4. Removed the wording of DoC on section 3.4. 5. Modified the description on section 4.3.3 & the 11b/g test result on section 4.3.7. 6. Modified the description on section 4.4.2.	Mar. 08, 2011

1. CERTIFICATION

PRODUCT:	1X1 802.11b/g/n PCIe Module
BRAND NAME:	Atheros
MODEL NO.:	AR5B125
TEST SAMPLE:	R&D SAMPLE
TESTED:	Dec. 22, 2010 to Jan. 26, 2011 and Mar. 07, 2011 (only 11b/g of section 4.3.7)
APPLICANT:	Atheros Communications, Inc.
STANDARDS:	FCC Part 15, Subpart C (Section 15.247) ANSI C63.4-2003 ANSI C63.10-2009 Canada RSS-210 Issue 8 (2010-12) Canada RSS-Gen Issue 3 (2010-12)

The above equipment (Model: AR5B125) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and was in compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : _____ , **DATE:** Mar. 08, 2011
(Midoli Peng, Specialist)

APPROVED BY : _____ , **DATE:** Mar. 08, 2011
(May Chen, Deputy Manager)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: 47 CFR Part 15, Subpart C ; RSS-210; RSS-Gen					
Standard Section			Test Type and Limit	Result	REMARK
RSS-210	RSS-Gen	47 CFR Part 15			
-	7.2.4	15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -5.97dB at 0.193MHz
A8.2 (a)	4.6	15.247(a) (2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit
A8.4 (4)	4.8	15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit
A8.5	4.9	15.247(c)	Transmitter Radiated Emissions FCC Limit: Table 15.209 RSS-Gen Limit: Table 5, 6	PASS	Meet the requirement of limit Minimum passing margin is -0.5dB at 4824.0MHz, 4874.0MHz and 4924.0MHz
-	6.1	-	Receiver Radiated Emissions RSS-Gen Limit: Table 2	PASS	Meet the requirement of limit Minimum passing margin is -1.3dB at 166.81MHz
A8.2 (b)	-	15.247(d)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit
A8.5	-	15.247(c)	Conducted Out-Band Emission Measurement Limit: 20 dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit
	7.1.2	15.203	Antenna Requirement	PASS	Antenna connectors are IPEX, U.FL and SMA Reverse not a standard connector.

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)	3.76 dB
Radiated emissions (1GHz -18GHz)	2.19 dB
Radiated emissions (18GHz -40GHz)	2.55 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	1X1 802.11b/g/n PCIe Module
MODEL NO.	AR5B125
FCC ID	PPD-AR5B125
IC ID	4104A-AR5B125
POWER SUPPLY	DC 3.3V from host equipment
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	**802.11b**: 11 / 5.5 / 2 / 1Mbps **802.11g**: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6Mbps **802.11n (20MHz, 800ns GI)**: 65 / 58.5 / 52 / 39 / 26 / 19.5 / 13 / 6.5Mbps **802.11n (40MHz, 800ns GI)**: 135 / 121.5 / 108 / 81 / 54 / 40.5 / 27 / 13.5Mbps **802.11n (20MHz, 400ns GI):** 72.2 / 65 / 57.8 / 43.3 / 28.9 / 21.7 / 14.4 / 7.2Mbps **802.11n (40MHz, 400ns GI)**: 150 / 135 / 120 / 90 / 60 / 45 / 30 / 15Mbps
OPRTAING FREQUENCY	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, 802.11n (20MHz) 7 for 802.11n (40MHz)
MAXIMUM OUTPUT POWER	802.11b: 100.0mW 802.11g: 269.2mW 802.11n (20MHz): 199.5mW 802.11n (40MHz): 173.8mW
ANTENNA TYPE	See item 3.2
ANTENNA CONNECTOR	See item 3.2
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. The EUT is 1 * 1 spatial SISO without beam forming function.
2. The EUT complies with 802.11n standards and backwards compatible with 802.11b, 802.11g products.
3. The EUT was pre-tested under the following modes:

Test Mode	Data rate
Mode A	400ns GI
Mode B	**800ns GI**

From the above modes, the worst case was found in Mode B. Therefore only the test data of the mode was recorded in this report.

4. For radiated : The PIFA antenna was pre-tested under the following modes:

Test Mode	Description
Mode A	**X-Y axis**
Mode B	Y-Z axis
Mode C	X-Z axis

From the above modes, the worst case was found in Mode A. Therefore only the test data of the mode was recorded in this report.

5. The EUT was pre-tested under the following versions:

Test Version	Description
Version A(Single antenna)	TX & RX share one antenna
Version B(Dual antenna)	**each TX and RX has their own antenna**

Version A and Version B share same PCB design and Version A is RX only chain depopulated and terminated by 50 ohm terminator.
From the above Versions, The worst case was found in Version B. Therefore only the test data of the version was recorded in this report.

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

3.2 DESCRIPTION OF ANTENNA

There are two sets of antennas provided to this EUT, please refer to the following table:

No.	Brand	Model	Gain(dBi) (included cable loss)	Antenna Type	Connector	Cable Loss(dB)	Cable Length(mm)
1	WNC	81-EBJ15.005	3.62	PIFA	IPEX	1.15	300
2	INPAQ	DAMA1BM30000402	3.2	Dipole	SMA Reverse	0.5	290

3.3 DESCRIPTION OF TEST MODES

Operated in 2400 ~ 2483.5MHz band:

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		

3.3.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE < 1G	RE ³ 1G	APCM	
A	√	√	√	√	With PIFA antenna
B	-	√	√	-	With Dipole antenna

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

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

POWER LINE CONDUCTED EMISSION TEST:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11g	1 to 11	6	OFDM	BPSK	6

RADIATED EMISSION TEST (BELOW 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ The receiving mode had show equal or better than Tx mode during the pre-scan and hence the Tx mode data is re-used for Receiving-mode worst-case data.

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11g	1 to 11	6	OFDM	BPSK	6

RADIATED EMISSION TEST (ABOVE 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	13.5
Receiver	1 to 11	1, 6, 11	-	-	-

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

ANTENNA PORT CONDUCTED MEASUREMENT:

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

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
RE≥1G	19deg. C, 61%RH, 1025 hPa	120Vac, 60Hz	Eric Lee
RE<1G	20deg. C, 70%RH, 1025 hPa	120Vac, 60Hz	Eric Lee
PLC	23deg. C, 61%RH, 1025 hPa	120Vac, 60Hz	Wen Yu
APCM	20deg. C, 68%RH, 1025 hPa	120Vac, 60Hz	Eric Lee

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
Canada RSS-210 Issue 8 (2010-12)
Canada RSS-Gen Issue 3 (2010-12)

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

3.5 DESCRIPTION OF SUPPORT UNITS

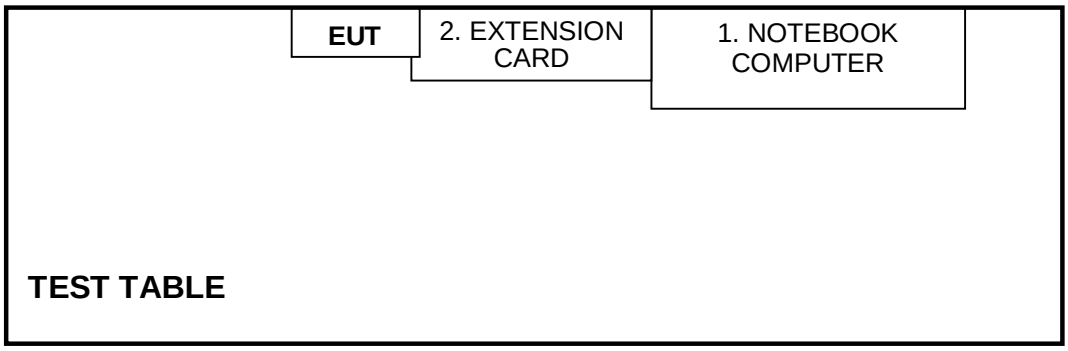
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER (For other test items)	Lenovo	3000 N200	NA	FCC DoC
	NOTEBOOK COMPUTER (For Conducted Emission)	DELL	PP21L	CN-0GD366-70166-5B3-09ZX	QDS-BRCM1016
2	EXTENSION CARD	Atheros	NA	NA	NA

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

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

3.6 CONFIGURATION OF SYSTEM UNDER TEST



4. TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

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

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	100287	Mar. 01, 2010	Feb. 28, 2011
Line-Impedance Stabilization Network (for EUT)	NSLK 8127	8127-523	Sep. 17, 2010	Sep. 16, 2011
Line-Impedance Stabilization Network (for Peripheral)	ENV-216	100072	June 11, 2010	June 10, 2011
RF Cable (JYEBAO)	5DFB	CONCAB-003	Aug. 06, 2010	Aug. 05, 2011
50 ohms Terminator	50	3	Nov. 03, 2010	Nov. 02, 2011
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.

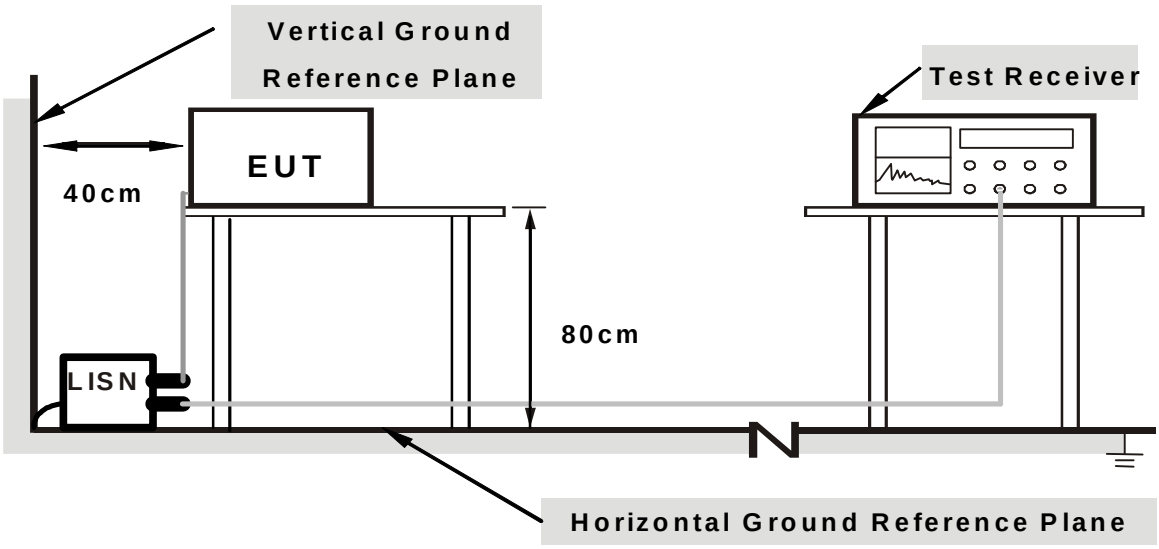
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

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

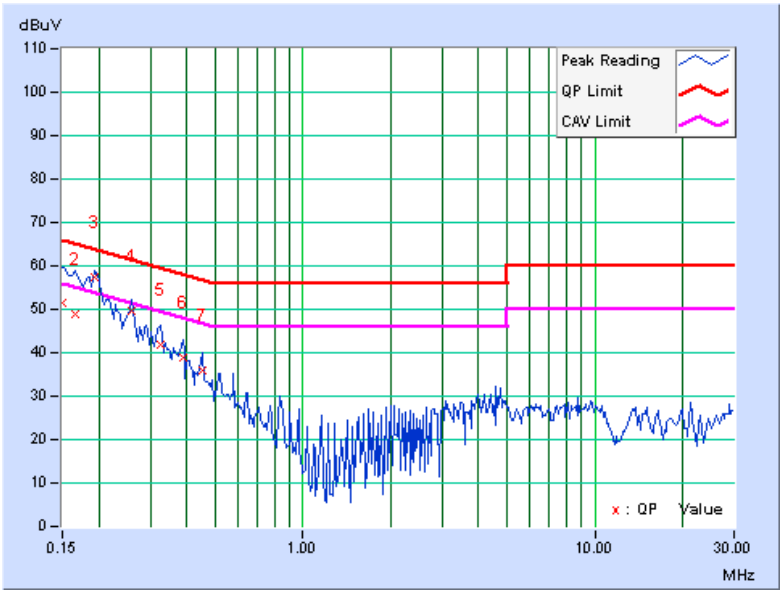
1. Connect the EUT with the support unit 1 (Notebook Computer) which is placed on a testing table.
2. The communication partner run test program “Art2_ver_2_15” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

4.1.7 TEST RESULTS

PHASE	Line (L)	6dB BANDWIDTH	9 kHz

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	0.37	50.93	-	51.30	-	66.00	56.00	-14.70	-
2	0.166	0.36	48.58	-	48.94	-	65.18	55.18	-16.23	-
3	0.193	0.36	56.90	45.92	57.26	46.28	63.91	53.91	-6.65	-7.63
4	0.259	0.36	49.17	-	49.53	-	61.45	51.45	-11.92	-
5	0.326	0.36	41.49	-	41.85	-	59.56	49.56	-17.71	-
6	0.388	0.36	38.39	-	38.75	-	58.10	48.10	-19.35	-
7	0.451	0.36	35.42	-	35.78	-	56.86	46.86	-21.08	-

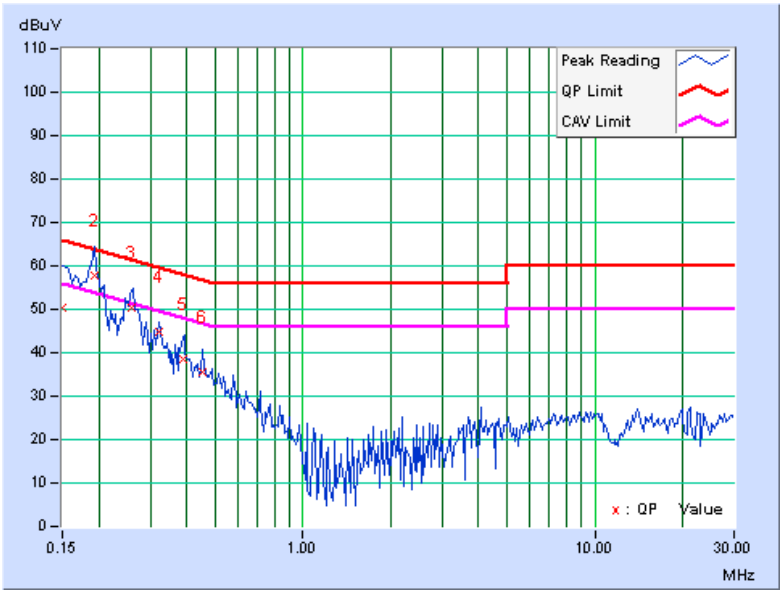
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



PHASE	Neutral (N)	6dB BANDWIDTH	9 kHz

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	0.10	50.39	-	50.49	-	66.00	56.00	-15.51	-
2	**0.193**	**0.10**	**57.84**	**46.99**	**57.94**	**47.09**	**63.91**	**53.91**	**-5.97**	**-6.82**
3	0.259	0.10	50.35	-	50.45	-	61.47	51.47	-11.02	-
4	0.322	0.11	44.62	-	44.73	-	59.66	49.66	-14.93	-
5	0.389	0.11	38.47	-	38.58	-	58.08	48.08	-19.50	-
6	0.451	0.11	35.59	-	35.70	-	56.86	46.86	-21.16	-

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



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

For transmitter part:

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209(RSS-Gen table 5, 6) 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.

For receiver part:

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in RSS-Gen table 2 as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
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 RSS-Gen 7.2.3, for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.2.2 TEST INSTRUMENTS

Below 1GHz: Test date: Dec. 22, 2010

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Agilent Spectrum Analyzer	E4446A	MY48250253	Aug. 23, 2010	Aug. 22, 2011
Agilent Pre-Selector	N9039A	MY46520310	Aug. 23, 2010	Aug. 22, 2011
Agilent Signal Generator	N5181A	MY49060347	July 30, 2010	July 29, 2011
LIG NEX1 Test Receiver	ER-265	L09068005	Oct. 25, 2010	Oct. 24, 2011
Mini-Circuits Pre-Amplifier	ZFL-1000VH2B	AMP-ZFL-04	Nov. 16, 2010	Nov. 15, 2011
Agilent Pre-Amplifier	8449B	3008A02465	Mar. 01, 2010	Feb. 28, 2011
Miteq Pre-Amplifier	AFS33-18002650-30-8P-44	881786	NA	NA
SCHWARZBECK Trilog Broadband Antenna	VULB 9168	9168-361	Apr. 28, 2010	Apr. 27, 2011
AISI Horn_Antenna	AIH.8018	0000220091110	Nov. 22, 2010	Nov. 21, 2011
SCHWARZBECK Horn_Antenna	BBHA 9170	9170-424	Oct. 08, 2010	Oct. 07, 2011
RF CABLE	NA	RF104-205 RF104-207 RF104-208	Dec. 24, 2009	Dec. 23, 2010
RF Cable	NA	CHHCAB_001	NA	NA
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.

Above 1GHz: Test date: Nov. 30, 2010 to Jan. 21, 2011

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Agilent Spectrum Analyzer	E4446A	MY48250253	Aug. 23, 2010	Aug. 22, 2011
Agilent Pre-Selector	N9039A	MY46520310	Aug. 23, 2010	Aug. 22, 2011
Agilent Signal Generator	N5181A	MY49060347	July 30, 2010	July 29, 2011
LIG NEX1 Test Receiver	ER-265	L09068005	Oct. 25, 2010	Oct. 24, 2011
Mini-Circuits Pre-Amplifier	ZFL-1000VH2B	AMP-ZFL-04	Nov. 16, 2010	Nov. 15, 2011
Agilent Pre-Amplifier	8449B	3008A02465	Mar. 01, 2010	Feb. 28, 2011
Miteq Pre-Amplifier	AFS33-18002650-30-8P-44	881786	NA	NA
SCHWARZBECK Trilog Broadband Antenna	VULB 9168	9168-361	Apr. 28, 2010	Apr. 27, 2011
AISI Horn_Antenna	AIH.8018	0000220091110	Nov. 22, 2010	Nov. 21, 2011
SCHWARZBECK Horn_Antenna	BBHA 9170	9170-424	Oct. 08, 2010	Oct. 07, 2011
RF CABLE	NA	RF104-205 RF104-207 RF104-202	Dec. 28, 2010	Dec. 27, 2011
RF Cable	NA	CHHCAB_001	NA	NA
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 meter 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.

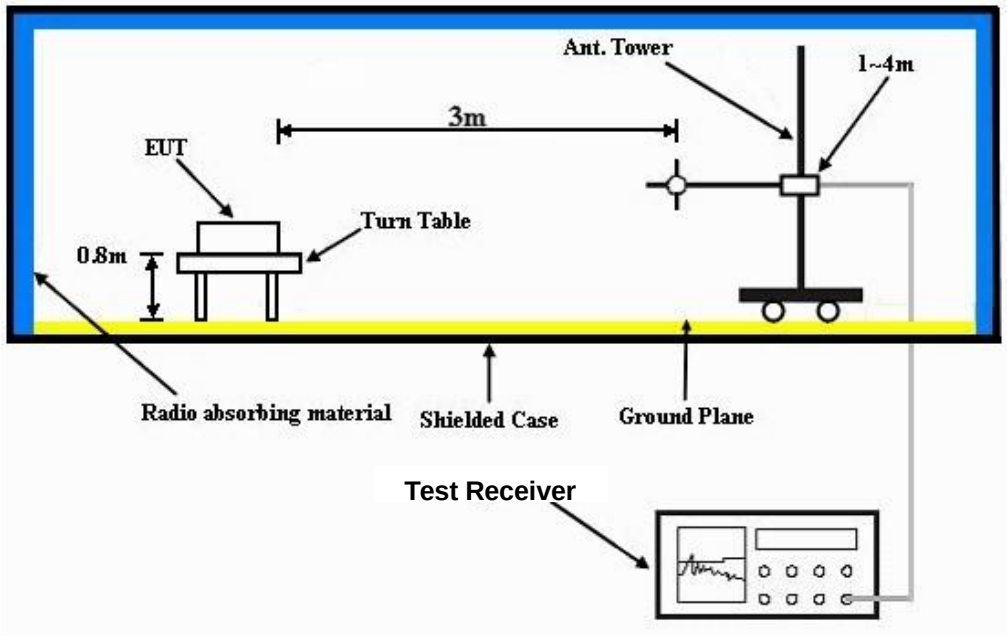
NOTE:

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

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6

4.2.7 TEST RESULTS (FOR TRANSMITTER PART)

4.2.7.1 TEST RESULTS (With PIFA Antenna)

BELOW 1GHz WORST-CASE DATA：802.11g 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	20deg. C, 70%RH 1025 hPa	TESTED BY	Eric Lee

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	142.54	38.3 QP	43.5	-5.2	1.00 H	236	24.15	14.15
2	147.84	41.8 QP	43.5	-1.7	1.00 H	47	27.57	14.23
3	166.74	42.1 QP	43.5	-1.4	2.00 H	54	28.13	13.97
4	184.53	35.6 QP	43.5	-7.9	1.25 H	86	23.30	12.33
5	199.18	41.9 QP	43.5	-1.6	1.00 H	207	30.62	11.24
6	499.51	39.9 QP	46.0	-6.1	1.25 H	26	19.95	19.95
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	146.30	32.8 QP	43.5	-10.7	1.25 V	360	18.59	14.21
2	166.60	37.9 QP	43.5	-5.6	1.75 V	190	23.92	13.98
3	183.92	35.3 QP	43.5	-8.2	1.00 V	153	22.95	12.38
4	199.30	35.4 QP	43.5	-8.1	1.00 V	10	24.21	11.23
5	300.00	32.9 QP	46.0	-13.1	1.50 V	153	17.95	14.93
6	499.60	36.0 QP	46.0	-10.0	1.25 V	297	16.05	19.95

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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	59.9 PK	74.0	-14.1	1.40 H	260	28.69	31.21
2	2390.00	52.3 AV	54.0	-1.7	1.40 H	260	21.09	31.21
3	*2412.00	106.9 PK			1.38 H	227	75.63	31.27
4	*2412.00	104.1 AV			1.38 H	227	72.83	31.27
5	4824.00	54.9 PK	74.0	-19.1	1.14 H	62	15.48	39.42
6	4824.00	50.8 AV	54.0	-3.2	1.14 H	62	11.38	39.42
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	2387.10	57.8 PK	74.0	-16.2	1.05 V	200	26.59	31.21
2	2387.10	46.0 AV	54.0	-8.0	1.05 V	200	14.79	31.21
3	*2412.00	99.3 PK			1.04 V	175	68.03	31.27
4	*2412.00	97.2 AV			1.04 V	175	65.93	31.27
5	4824.00	55.9 PK	74.0	-18.1	1.00 V	255	16.48	39.42
6	4824.00	53.4 AV	54.0	-0.6	1.00 V	255	13.98	39.42

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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	109.8 PK			1.30 H	66	78.46	31.34
2	*2437.00	106.9 AV			1.30 H	66	75.56	31.34
3	4874.00	54.6 PK	74.0	-19.4	1.13 H	61	14.98	39.62
4	4874.00	50.4 AV	54.0	-3.6	1.13 H	61	10.78	39.62
5	7311.00	55.3 PK	74.0	-18.7	1.26 H	48	11.20	44.10
6	7311.00	42.1 AV	54.0	-11.9	1.26 H	48	-2.00	44.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	101.5 PK			1.05 V	199	70.16	31.34
2	*2437.00	99.3 AV			1.05 V	199	67.96	31.34
3	4874.00	55.8 PK	74.0	-18.2	1.00 V	284	16.18	39.62
4	4874.00	52.9 AV	54.0	-1.1	1.00 V	284	13.28	39.62
5	7311.00	54.9 PK	74.0	-19.1	1.09 V	281	10.80	44.10
6	7311.00	41.4 AV	54.0	-12.6	1.09 V	281	-2.70	44.10

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": 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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	109.7 PK			1.29 H	70	78.30	31.40
2	*2462.00	106.8 AV			1.29 H	70	75.40	31.40
3	2483.50	58.6 PK	74.0	-15.4	1.30 H	69	27.14	31.46
4	2483.50	46.3 AV	54.0	-7.7	1.30 H	69	14.84	31.46
5	4924.00	54.3 PK	74.0	-19.7	1.23 H	138	14.48	39.82
6	4924.00	49.9 AV	54.0	-4.1	1.23 H	138	10.08	39.82
7	7386.00	54.7 PK	74.0	-19.3	1.02 H	143	10.52	44.18
8	7386.00	42.0 AV	54.0	-12.0	1.02 H	143	-2.18	44.18
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	101.3 PK			1.04 V	200	69.90	31.40
2	*2462.00	99.2 AV			1.04 V	200	67.80	31.40
3	2483.50	57.0 PK	74.0	-17.0	1.04 V	201	25.54	31.46
4	2483.50	45.2 AV	54.0	-8.8	1.04 V	201	13.74	31.46
5	4924.00	55.1 PK	74.0	-18.9	1.00 V	71	15.28	39.82
6	4924.00	52.9 AV	54.0	-1.1	1.00 V	71	13.08	39.82
7	7386.00	54.9 PK	74.0	-19.1	1.09 V	288	10.72	44.18
8	7386.00	41.8 AV	54.0	-12.2	1.09 V	288	-2.38	44.18

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

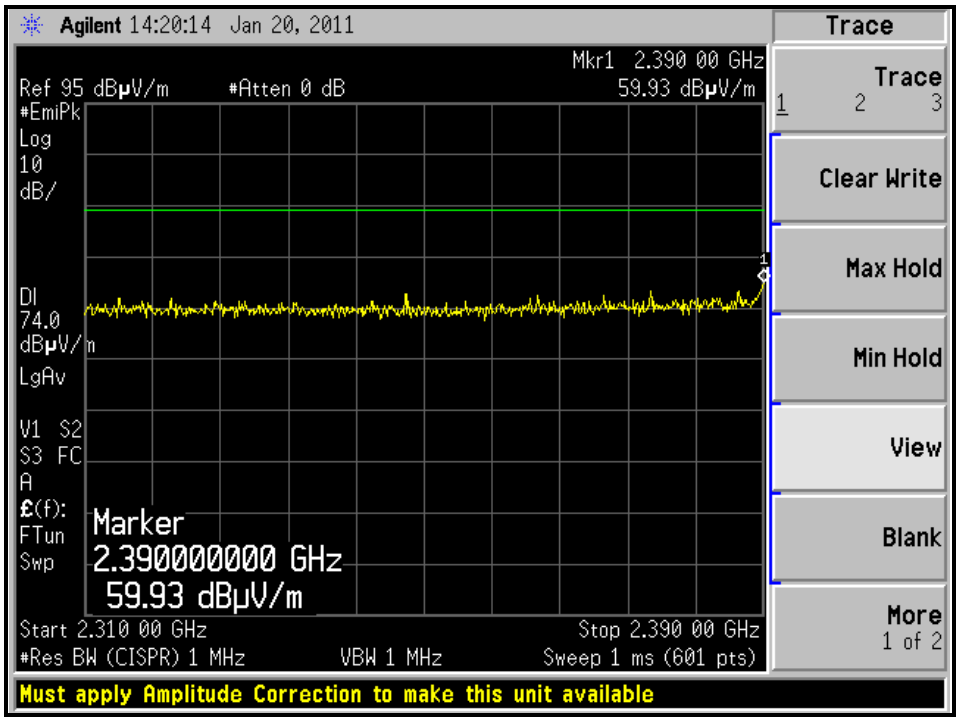
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

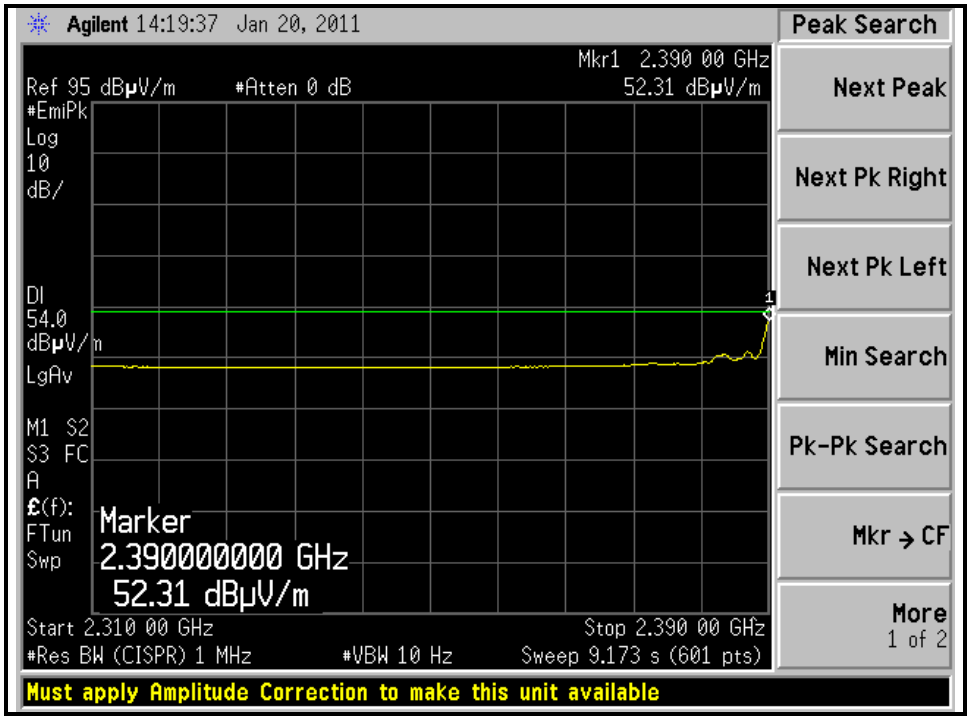
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

RESTRICTED BANDEDGE (802.11b MODE,CH1, HORIZONTAL)





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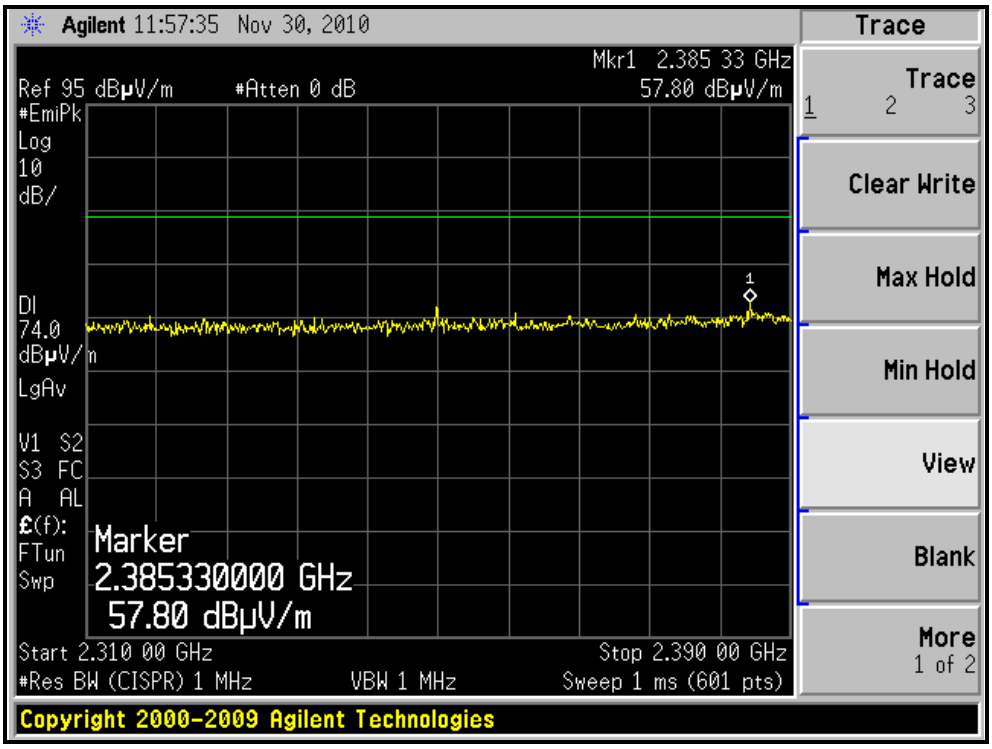

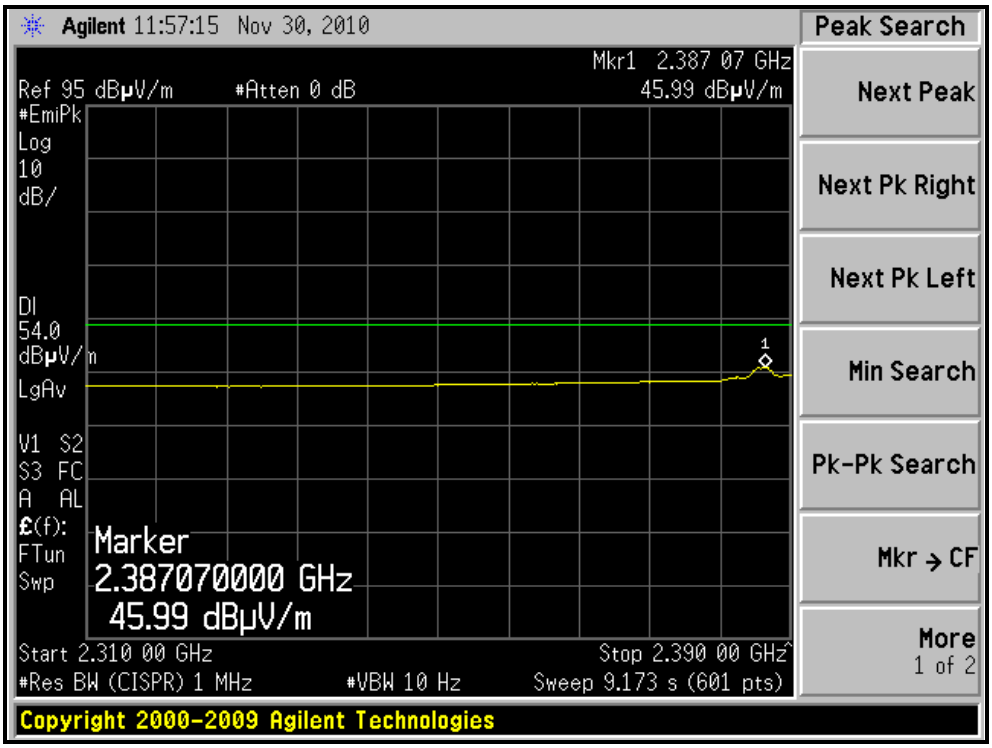

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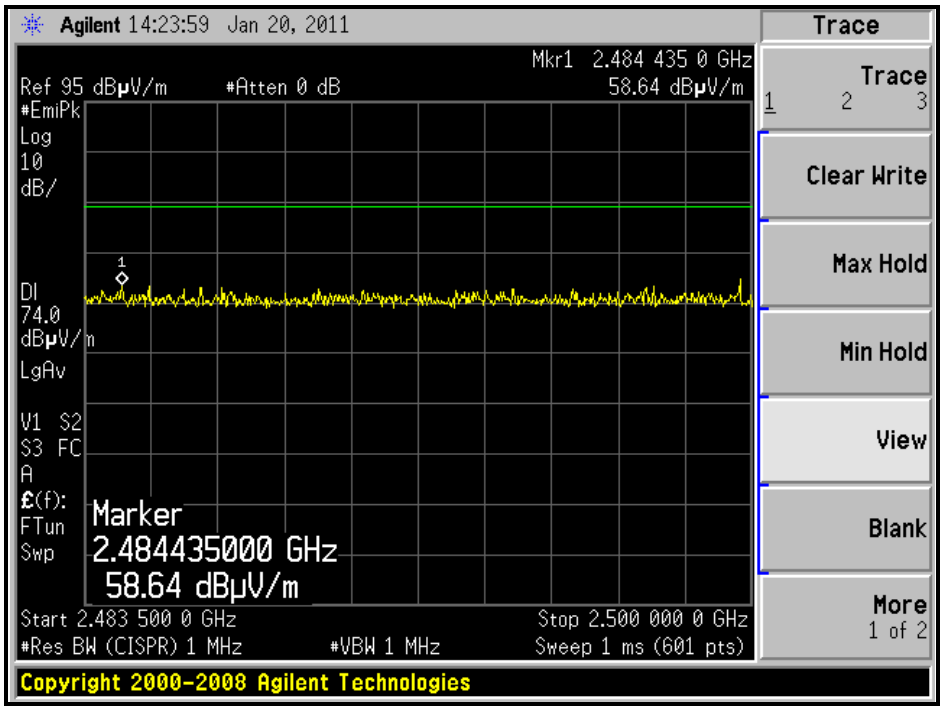

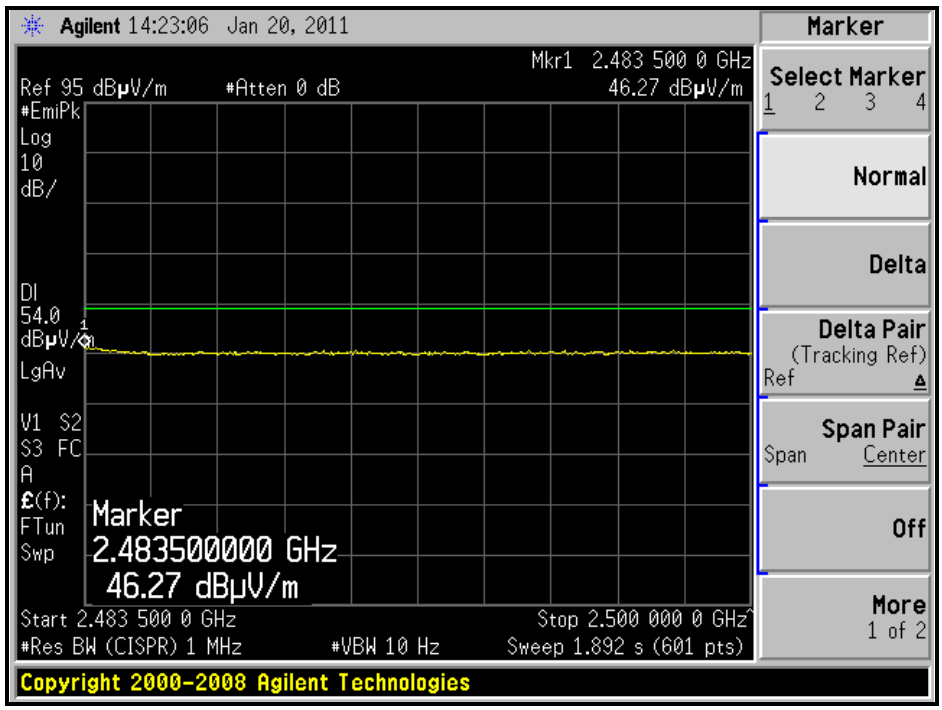

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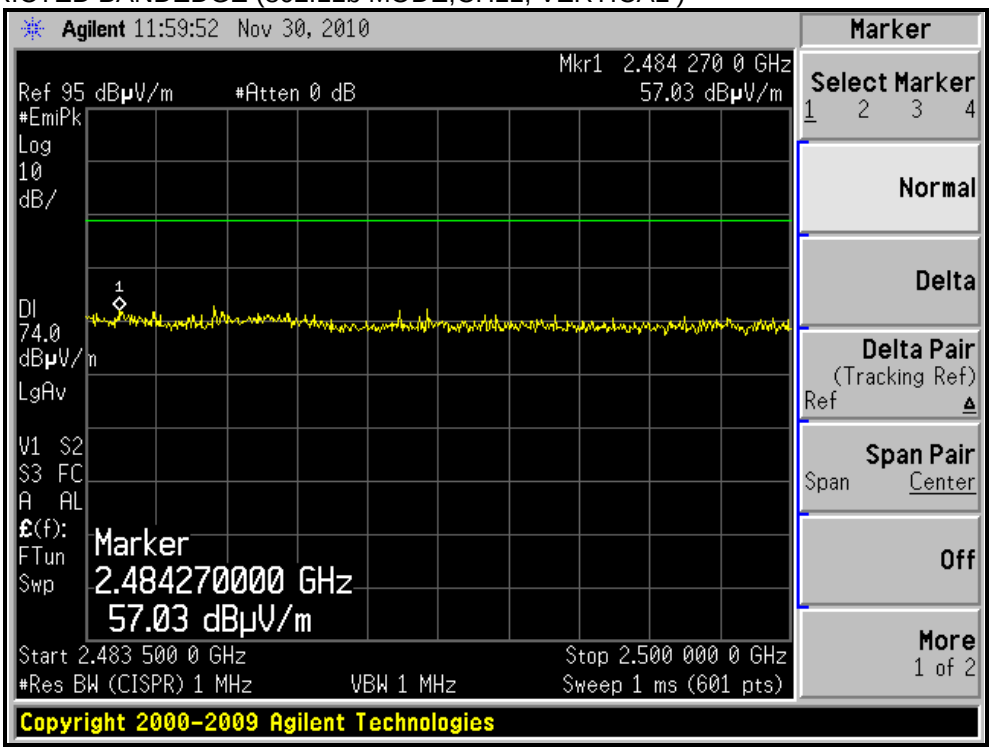
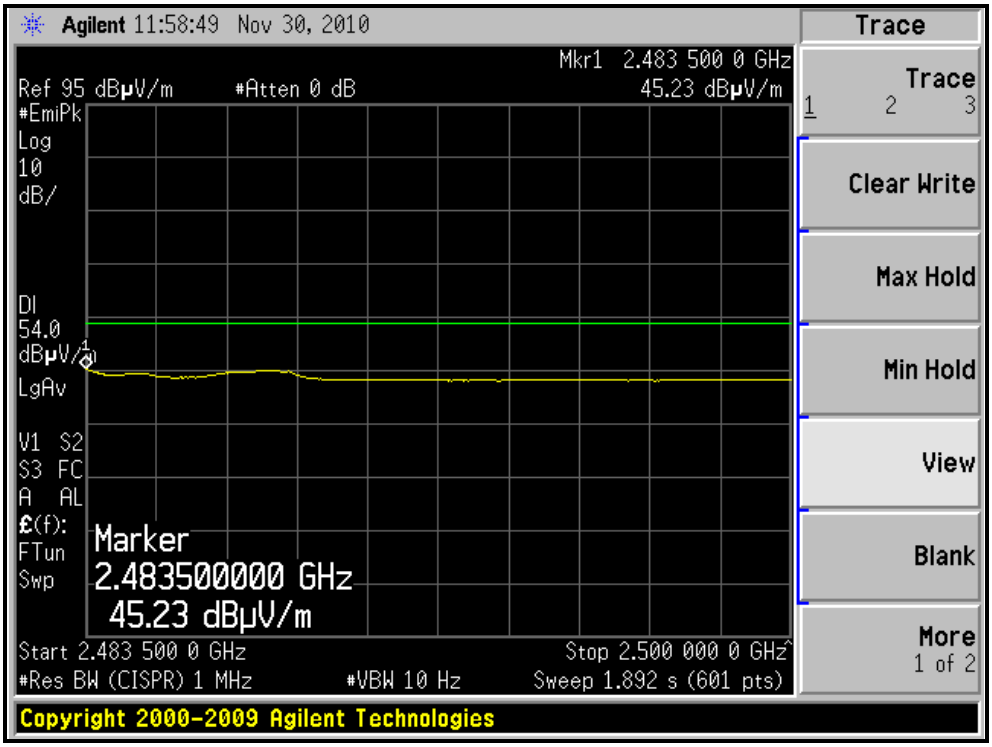




802.11g OFDM MODULATION

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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	69.9 PK	74.0	-4.1	1.30 H	80	38.69	31.21
2	2390.00	52.7 AV	54.0	-1.3	1.30 H	80	21.49	31.21
3	*2412.00	109.4 PK			1.28 H	76	78.13	31.27
4	*2412.00	96.8 AV			1.28 H	76	65.53	31.27
5	4824.00	48.1 PK	74.0	-25.9	1.29 H	68	8.68	39.42
6	4824.00	35.8 AV	54.0	-18.2	1.29 H	68	-3.62	39.42
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	63.5 PK	74.0	-10.5	1.40 V	206	32.29	31.21
2	2390.00	47.8 AV	54.0	-6.2	1.40 V	206	16.59	31.21
3	*2412.00	100.9 PK			1.39 V	210	69.63	31.27
4	*2412.00	89.9 AV			1.39 V	210	58.63	31.27
5	4824.00	48.3 PK	74.0	-25.7	1.27 V	343	8.88	39.42
6	4824.00	35.1 AV	54.0	-18.9	1.27 V	343	-4.32	39.42

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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	113.1 PK			1.29 H	88	81.76	31.34
2	*2437.00	100.2 AV			1.29 H	88	68.86	31.34
3	4874.00	50.6 PK	74.0	-23.4	1.30 H	70	10.98	39.62
4	4874.00	37.8 AV	54.0	-16.2	1.30 H	70	-1.82	39.62
5	7311.00	54.9 PK	74.0	-19.1	1.14 H	260	10.80	44.10
6	7311.00	41.6 AV	54.0	-12.4	1.14 H	260	-2.50	44.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	104.1 PK			1.40 V	188	72.76	31.34
2	*2437.00	92.8 AV			1.40 V	188	61.46	31.34
3	4874.00	50.8 PK	74.0	-23.2	1.28 V	348	11.18	39.62
4	4874.00	37.0 AV	54.0	-17.0	1.28 V	348	-2.62	39.62
5	7311.00	54.8 PK	74.0	-19.2	1.21 V	37	10.70	44.10
6	7311.00	41.4 AV	54.0	-12.6	1.21 V	37	-2.70	44.10

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": 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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	108.2 PK			1.21 H	71	76.80	31.40
2	*2462.00	95.6 AV			1.21 H	71	64.20	31.40
3	2483.50	72.6 PK	74.0	-1.4	1.20 H	69	41.14	31.46
4	2483.50	52.7 AV	54.0	-1.3	1.20 H	69	21.24	31.46
5	4924.00	48.5 PK	74.0	-25.5	1.30 H	72	8.68	39.82
6	4924.00	35.4 AV	54.0	-18.6	1.30 H	72	-4.42	39.82
7	7386.00	54.7 PK	74.0	-19.3	1.16 H	264	10.52	44.18
8	7386.00	41.6 AV	54.0	-12.4	1.16 H	264	-2.58	44.18
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	99.9 PK			1.43 V	190	68.50	31.40
2	*2462.00	88.3 AV			1.43 V	190	56.90	31.40
3	2483.50	64.2 PK	74.0	-9.8	1.44 V	188	32.74	31.46
4	2483.50	47.9 AV	54.0	-6.1	1.44 V	188	16.44	31.46
5	4924.00	48.3 PK	74.0	-25.7	1.26 V	344	8.48	39.82
6	4924.00	34.9 AV	54.0	-19.1	1.26 V	344	-4.92	39.82
7	7386.00	54.9 PK	74.0	-19.1	1.19 V	39	10.72	44.18
8	7386.00	41.3 AV	54.0	-12.7	1.19 V	39	-2.88	44.18

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

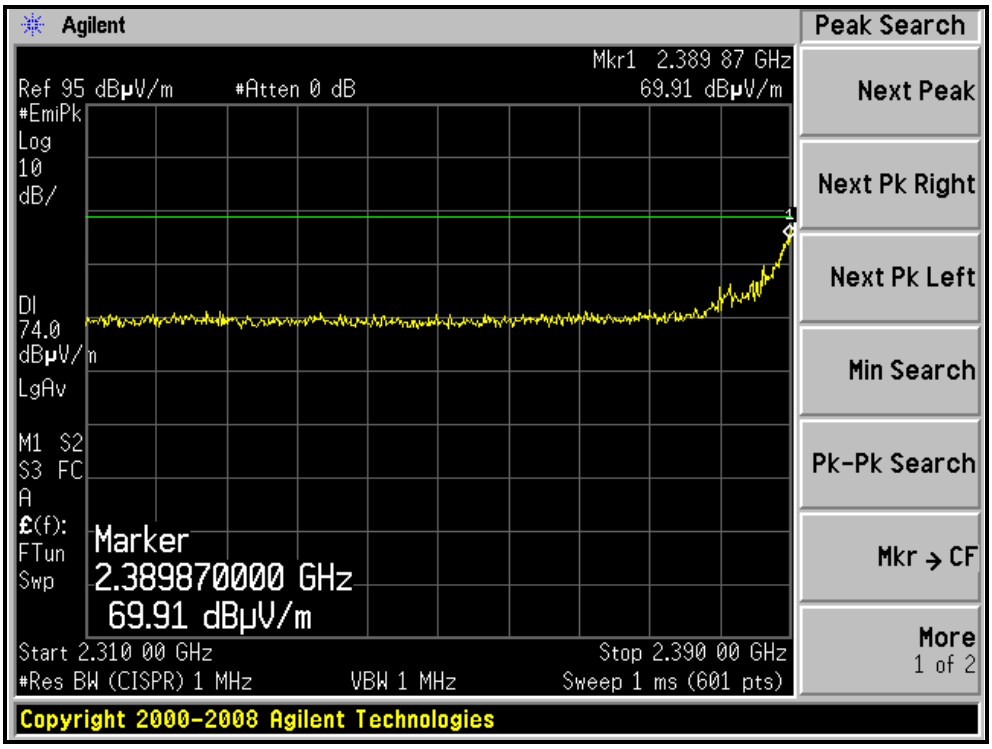
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

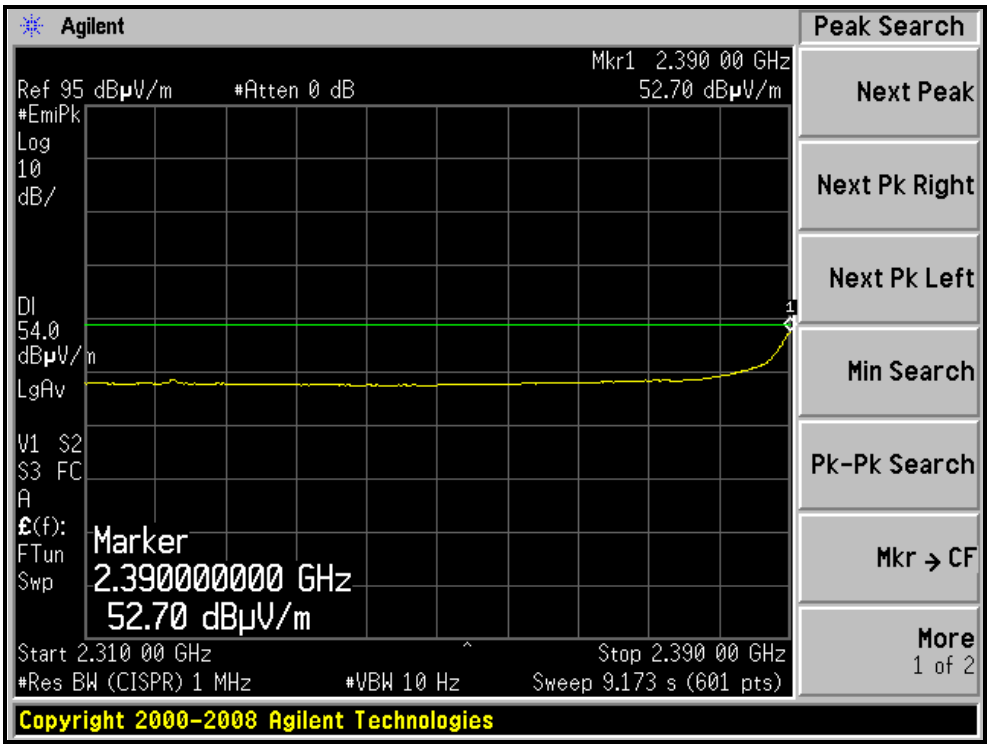
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

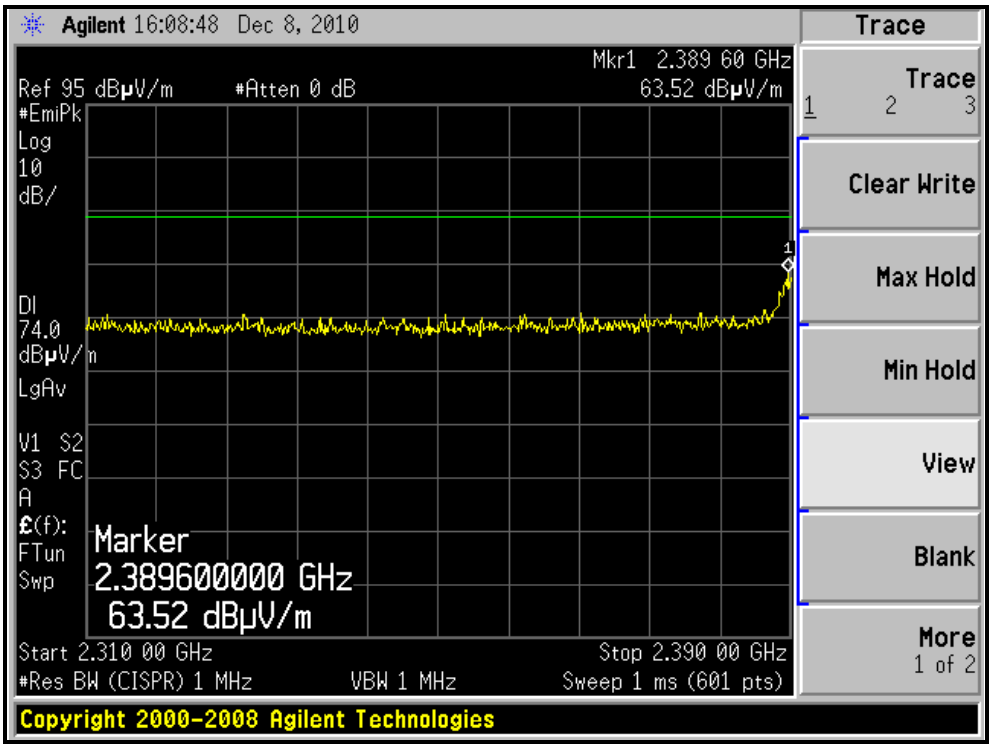
5. " * ": Fundamental frequency.

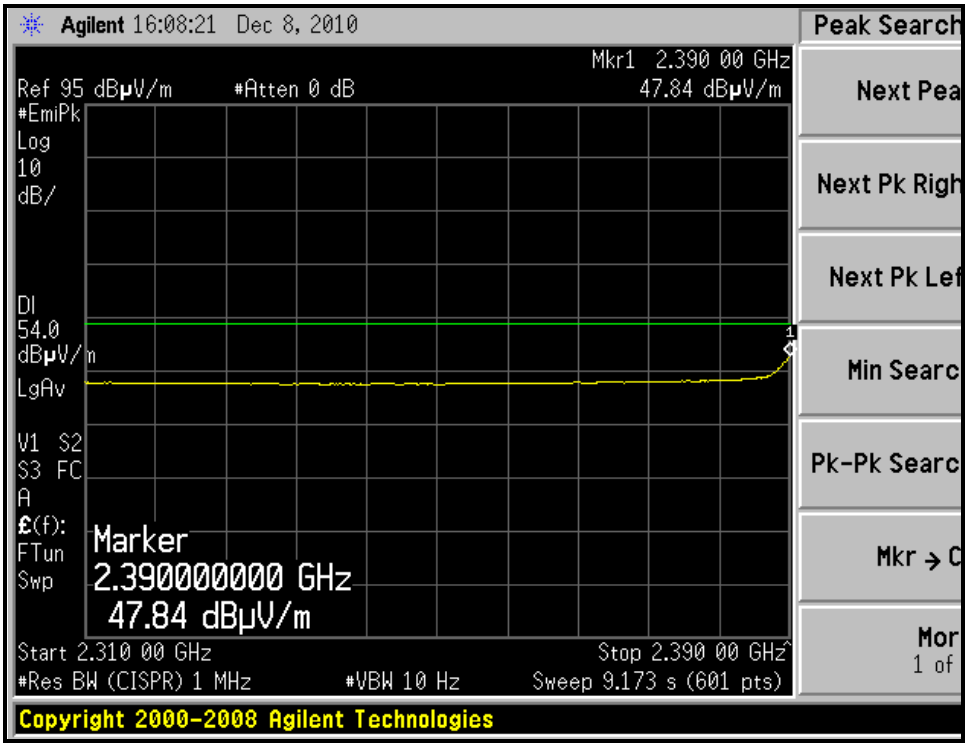
RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)





RESTRICTED BANDEDGE (802.11g MODE,CH1, VERTICAL)





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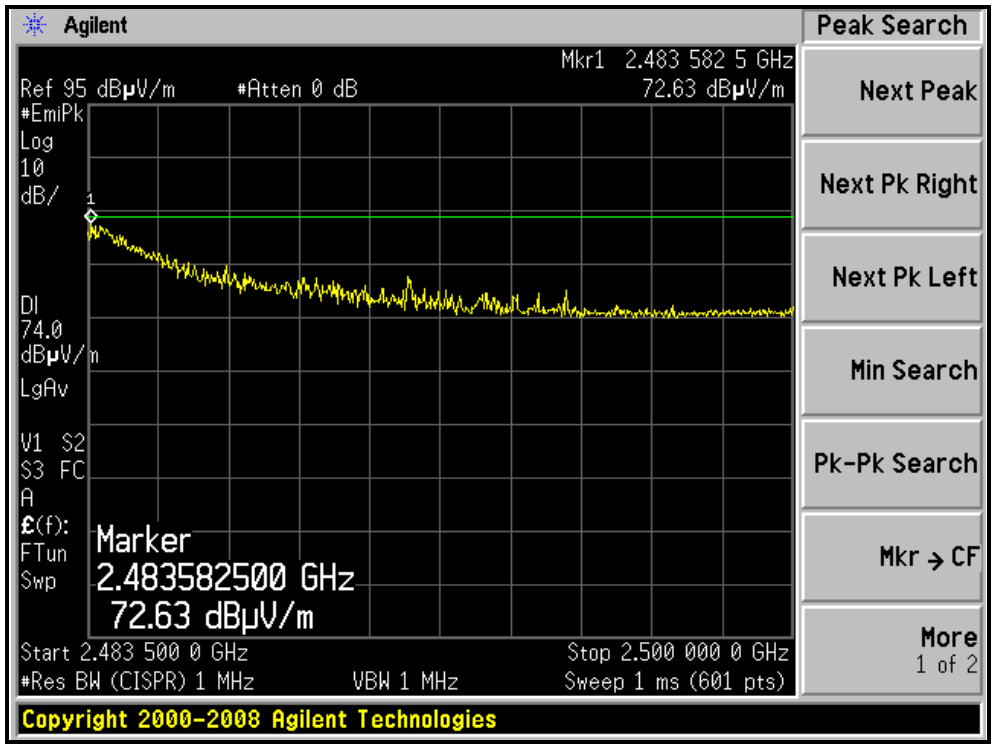
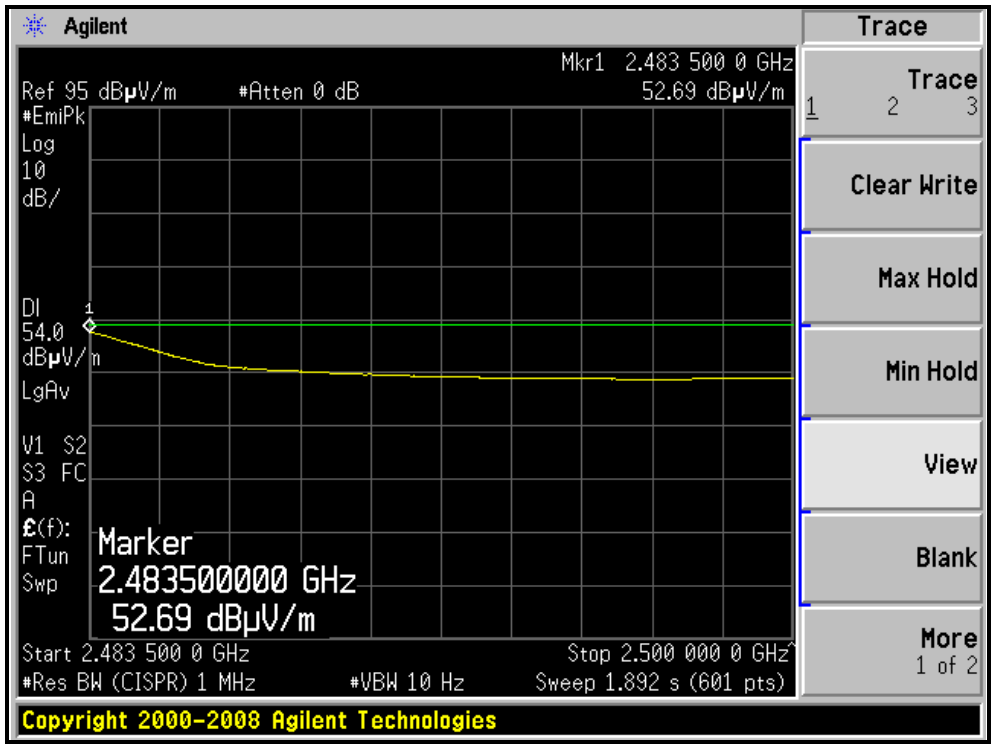
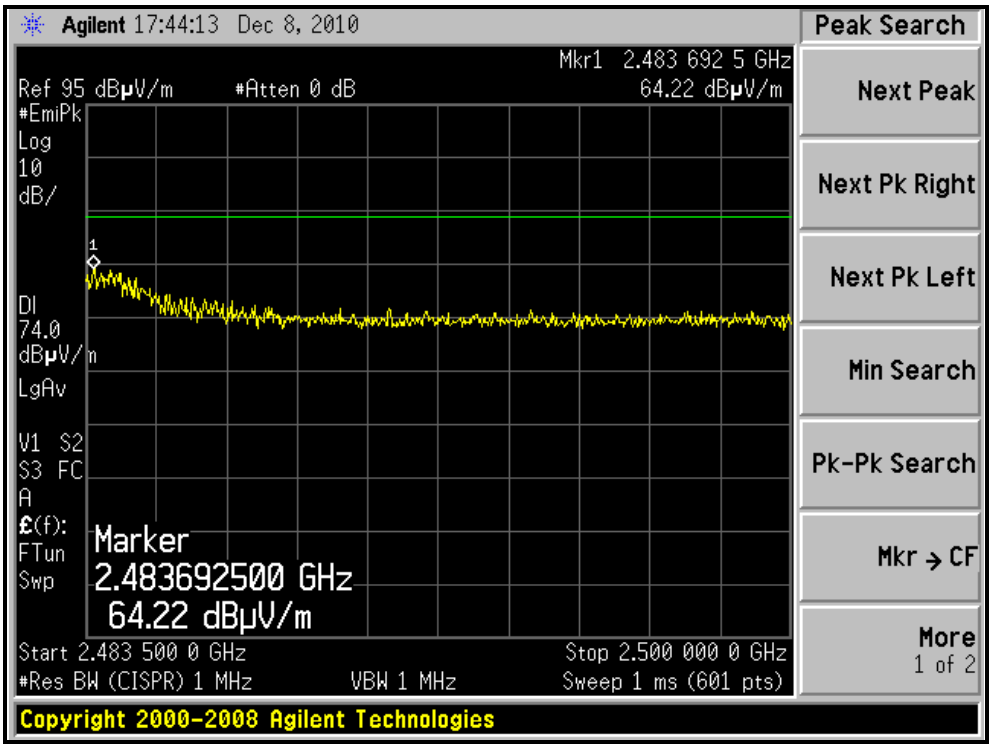
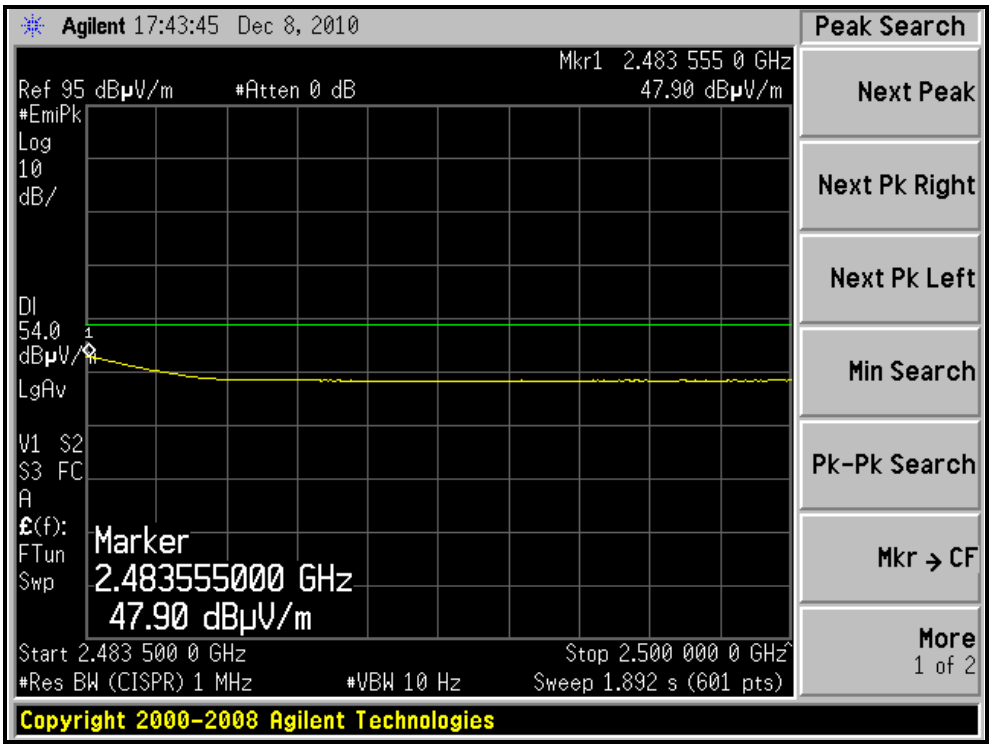




RESTRICTED BANDEDGE (802.11g MODE,CH11, VERTICAL)





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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	68.6 PK	74.0	-5.4	1.30 H	300	37.39	31.21
2	2390.00	52.0 AV	54.0	-2.0	1.30 H	300	20.79	31.21
3	*2412.00	108.9 PK			1.32 H	299	77.63	31.27
4	*2412.00	95.6 AV			1.32 H	299	64.33	31.27
5	4824.00	48.4 PK	74.0	-25.6	1.24 H	69	8.98	39.42
6	4824.00	35.5 AV	54.0	-18.5	1.24 H	69	-3.92	39.42
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	66.7 PK	74.0	-7.3	1.29 V	200	35.49	31.21
2	2390.00	50.0 AV	54.0	-4.0	1.29 V	200	18.79	31.21
3	*2412.00	102.3 PK			1.33 V	190	71.03	31.27
4	*2412.00	89.9 AV			1.33 V	190	58.63	31.27
5	4824.00	48.6 PK	74.0	-25.4	1.28 V	346	9.18	39.42
6	4824.00	35.3 AV	54.0	-18.7	1.28 V	346	-4.12	39.42

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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	111.2 PK			1.31 H	301	79.86	31.34
2	*2437.00	98.9 AV			1.31 H	301	67.56	31.34
3	4824.00	49.8 PK	74.0	-24.2	1.31 H	71	10.38	39.42
4	4824.00	37.5 AV	54.0	-16.5	1.31 H	71	-1.92	39.42
5	7311.00	54.3 PK	74.0	-19.7	1.15 H	268	10.20	44.10
6	7311.00	41.4 AV	54.0	-12.6	1.15 H	268	-2.70	44.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	103.9 PK			1.44 V	198	72.56	31.34
2	*2437.00	92.6 AV			1.44 V	198	61.26	31.34
3	4874.00	50.6 PK	74.0	-23.4	1.28 V	350	10.98	39.62
4	4874.00	37.1 AV	54.0	-16.9	1.28 V	350	-2.52	39.62
5	7311.00	54.6 PK	74.0	-19.4	1.21 V	38	10.50	44.10
6	7311.00	41.2 AV	54.0	-12.8	1.21 V	38	-2.90	44.10

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": 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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	107.2 PK			1.25 H	66	75.80	31.40
2	*2462.00	94.3 AV			1.25 H	66	62.90	31.40
3	2483.50	71.7 PK	74.0	-2.3	1.26 H	70	40.24	31.46
4	2483.50	52.8 AV	54.0	-1.2	1.26 H	70	21.34	31.46
5	4924.00	48.8 PK	74.0	-25.2	1.33 H	79	8.98	39.82
6	4924.00	34.5 AV	54.0	-19.5	1.33 H	79	-5.32	39.82
7	7386.00	54.6 PK	74.0	-19.4	1.16 H	269	10.42	44.18
8	7386.00	41.3 AV	54.0	-12.7	1.16 H	269	-2.88	44.18
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	100.3 PK			1.44 V	200	68.90	31.40
2	*2462.00	88.4 AV			1.44 V	200	57.00	31.40
3	2483.50	64.9 PK	74.0	-9.1	1.43 V	101	33.44	31.46
4	2483.50	48.8 AV	54.0	-5.2	1.43 V	101	17.34	31.46
5	4924.00	48.1 PK	74.0	-25.9	1.25 V	341	8.28	39.82
6	4924.00	34.8 AV	54.0	-19.2	1.25 V	341	-5.02	39.82
7	7386.00	54.6 PK	74.0	-19.4	1.18 V	37	10.42	44.18
8	7386.00	41.2 AV	54.0	-12.8	1.18 V	37	-2.98	44.18

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

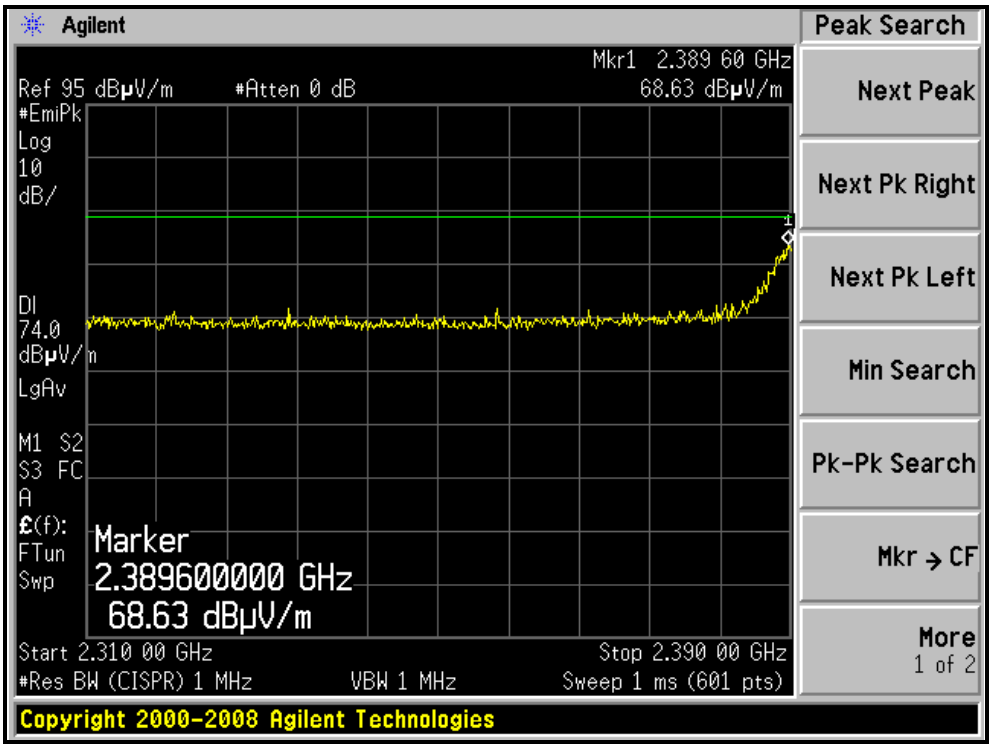
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

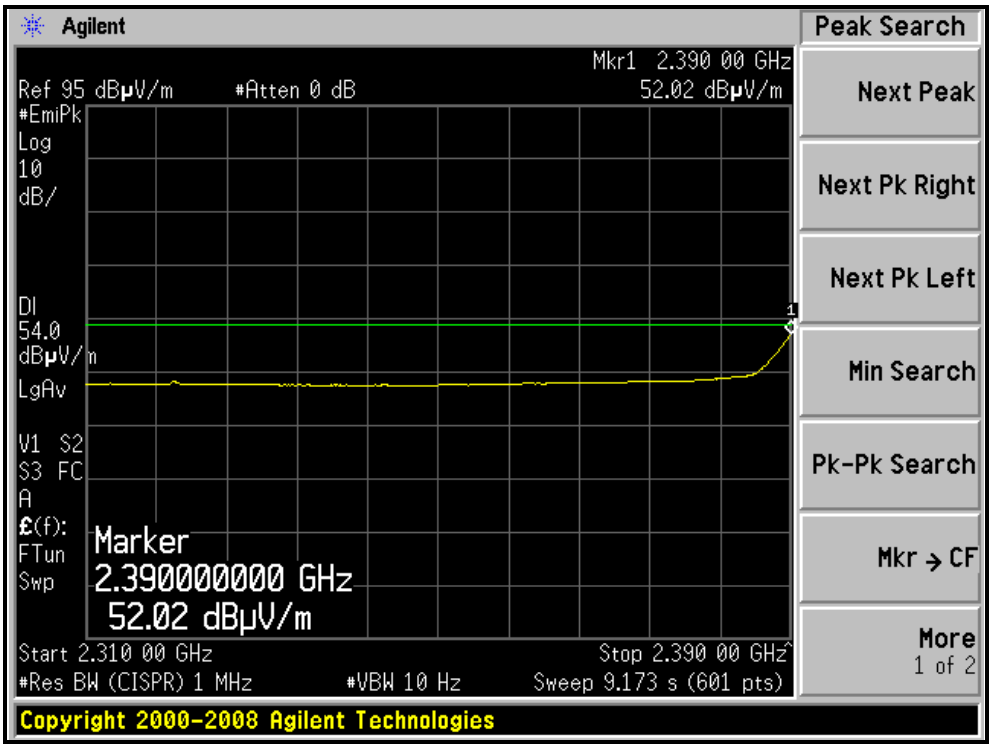
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

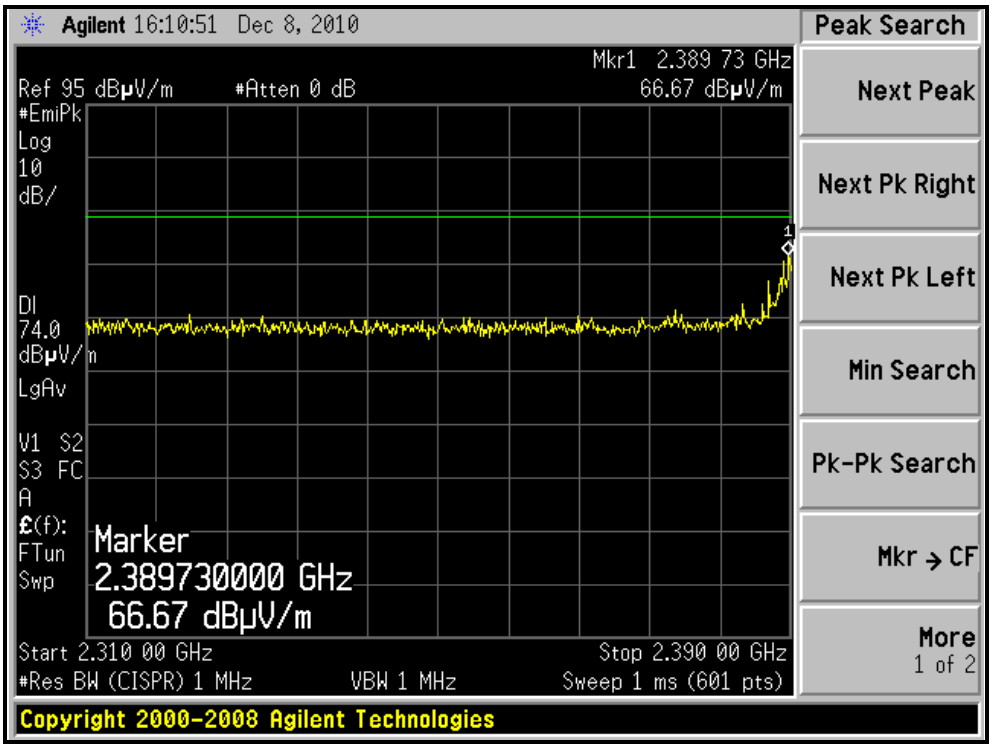
5. " * ": Fundamental frequency.

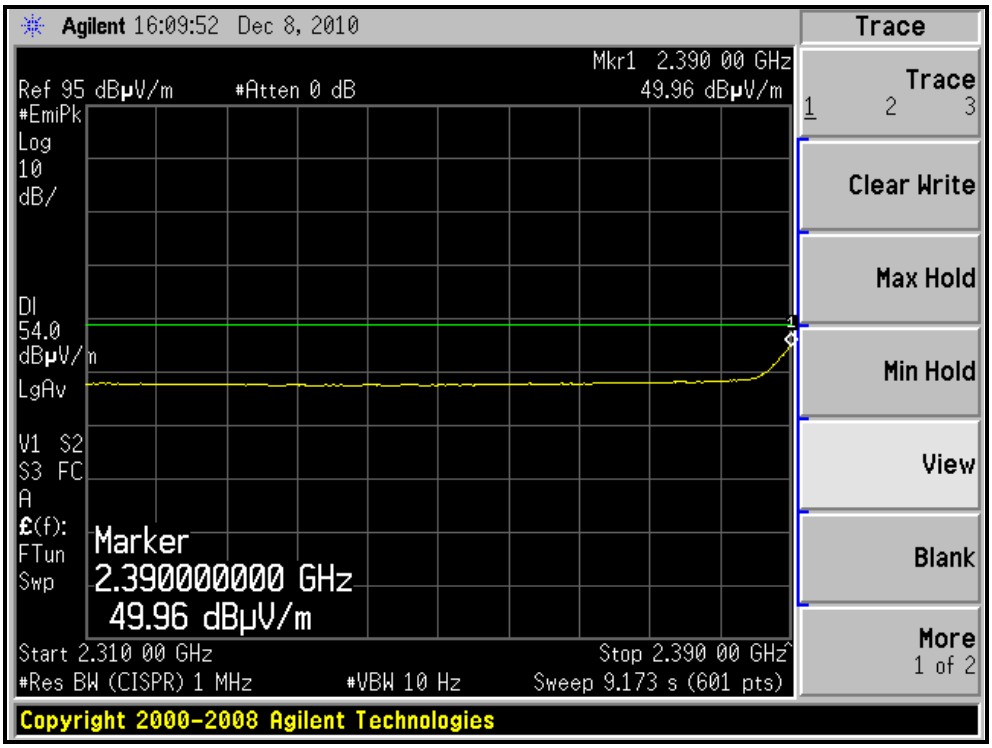
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, HORIZONTAL)



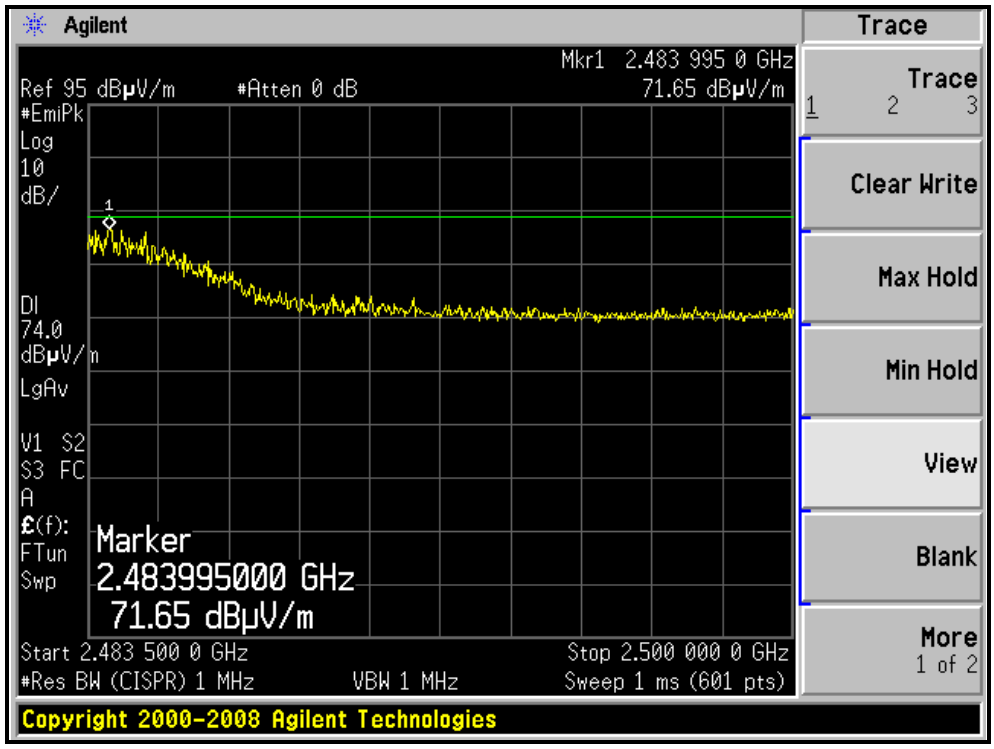


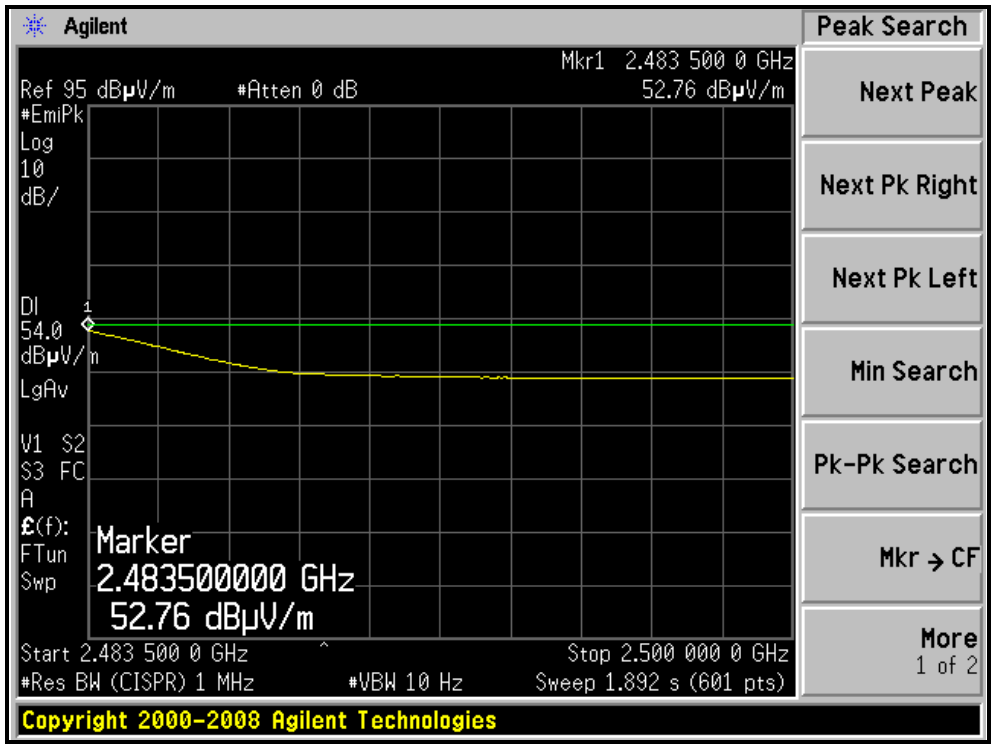
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, VERTICAL)



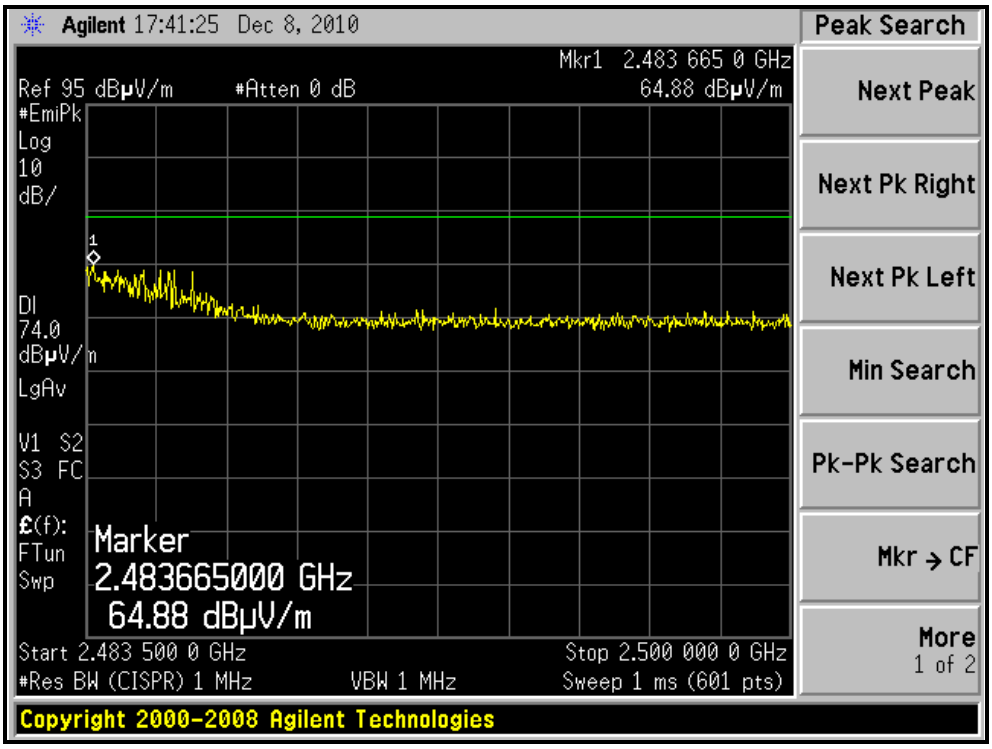


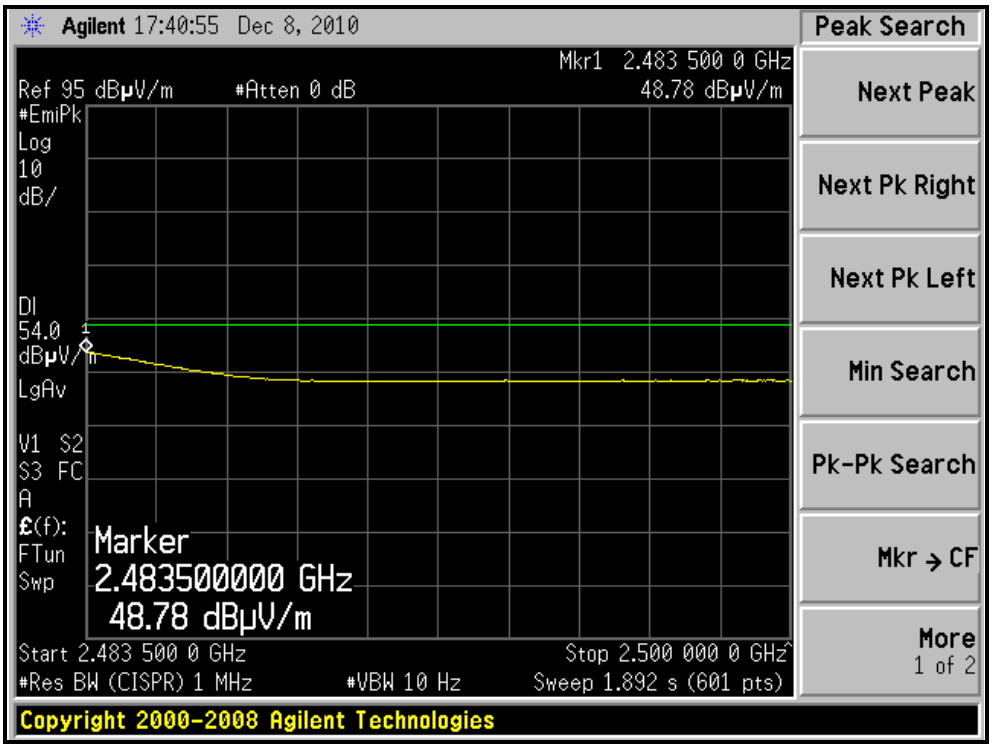
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH11, HORIZONTAL)





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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	1.29 H	299	38.19	31.21
2	2390.00	53.4 AV	54.0	-0.6	1.29 H	299	22.19	31.21
3	*2422.00	105.3 PK			1.32 H	300	74.00	31.30
4	*2422.00	94.1 AV			1.32 H	300	62.80	31.30
5	4844.00	49.3 PK	74.0	-24.7	1.22 H	65	9.80	39.50
6	4844.00	35.4 AV	54.0	-18.6	1.22 H	65	-4.10	39.50
7	7266.00	55.1 PK	74.0	-18.9	1.12 H	264	11.04	44.06
8	7266.00	41.8 AV	54.0	-12.2	1.12 H	264	-2.26	44.06
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	2389.60	64.3 PK	74.0	-9.7	1.30 V	244	33.09	31.21
2	2389.60	48.1 AV	54.0	-5.9	1.30 V	244	16.89	31.21
3	*2422.00	98.2 PK			1.29 V	240	66.90	31.30
4	*2422.00	87.1 AV			1.29 V	240	55.80	31.30
5	4844.00	48.6 PK	74.0	-25.4	1.23 V	341	9.10	39.50
6	4844.00	34.8 AV	54.0	-19.2	1.23 V	341	-4.70	39.50
7	7266.00	54.9 PK	74.0	-19.1	1.26 V	39	10.84	44.06
8	7266.00	41.4 AV	54.0	-12.6	1.26 V	39	-2.66	44.06

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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	107.7 PK			1.31 H	132	76.36	31.34
2	*2437.00	96.0 AV			1.31 H	132	64.66	31.34
3	2483.50	70.6 PK	74.0	-3.4	1.30 H	133	39.14	31.46
4	2483.50	52.8 AV	54.0	-1.2	1.30 H	133	21.34	31.46
5	4874.00	50.8 PK	74.0	-23.2	1.31 H	78	11.18	39.62
6	4874.00	37.4 AV	54.0	-16.6	1.31 H	78	-2.22	39.62
7	7311.00	54.3 PK	74.0	-19.7	1.14 H	268	10.20	44.10
8	7311.00	41.4 AV	54.0	-12.6	1.14 H	268	-2.70	44.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	100.5 PK			1.19 V	233	69.16	31.34
2	*2437.00	89.8 AV			1.19 V	233	58.46	31.34
3	4874.00	49.8 PK	74.0	-24.2	1.22 V	342	10.18	39.62
4	4874.00	36.3 AV	54.0	-17.7	1.22 V	342	-3.32	39.62
5	7311.00	54.3 PK	74.0	-19.7	1.22 V	38	10.20	44.10
6	7311.00	41.1 AV	54.0	-12.9	1.22 V	38	-3.00	44.10

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": 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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	105.0 PK			1.25 H	67	73.62	31.38
2	*2452.00	93.4 AV			1.25 H	67	62.02	31.38
3	2483.50	68.1 PK	74.0	-5.9	1.29 H	80	36.64	31.46
4	2483.50	53.0 AV	54.0	-1.0	1.29 H	80	21.54	31.46
5	4904.00	48.3 PK	74.0	-25.7	1.31 H	72	8.56	39.74
6	4904.00	35.2 AV	54.0	-18.8	1.31 H	72	-4.54	39.74
7	7356.00	54.3 PK	74.0	-19.7	1.15 H	264	10.15	44.15
8	7356.00	41.2 AV	54.0	-12.8	1.15 H	264	-2.95	44.15
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	97.3 PK			1.21 V	222	65.92	31.38
2	*2452.00	86.9 AV			1.21 V	222	55.52	31.38
3	2483.70	66.4 PK	74.0	-7.6	1.29 V	230	34.94	31.46
4	2483.70	49.4 AV	54.0	-4.6	1.29 V	230	17.94	31.46
5	4904.00	48.4 PK	74.0	-25.6	1.28 V	342	8.66	39.74
6	4904.00	34.6 AV	54.0	-19.4	1.28 V	342	-5.14	39.74
7	7356.00	54.6 PK	74.0	-19.4	1.17 V	38	10.45	44.15
8	7356.00	41.1 AV	54.0	-12.9	1.17 V	38	-3.05	44.15

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

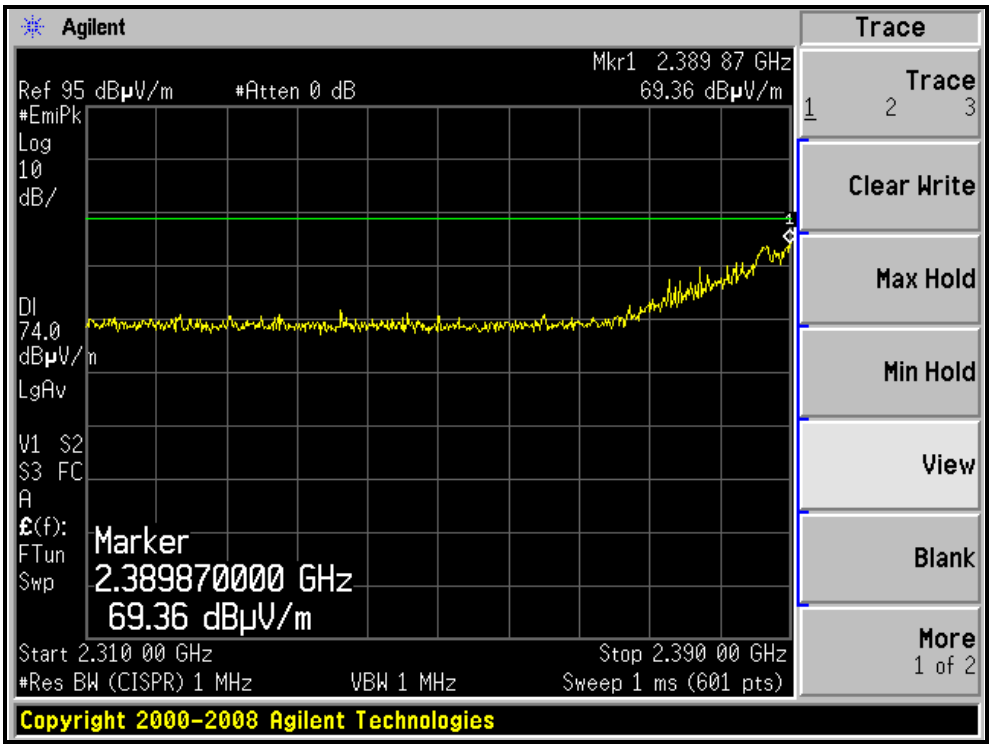
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

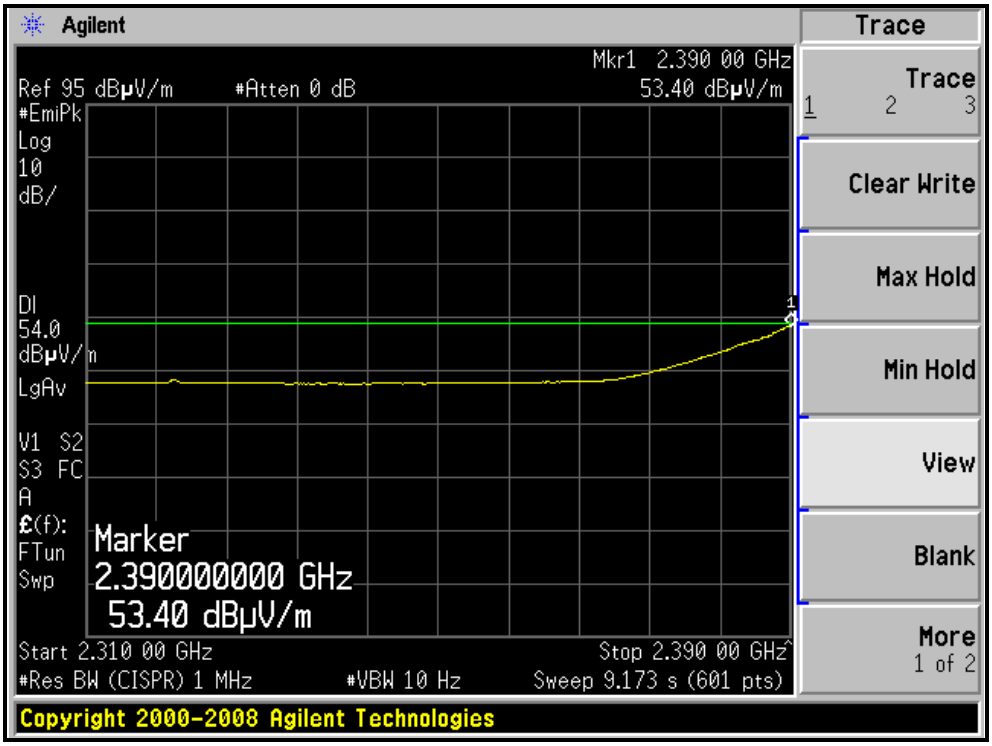
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

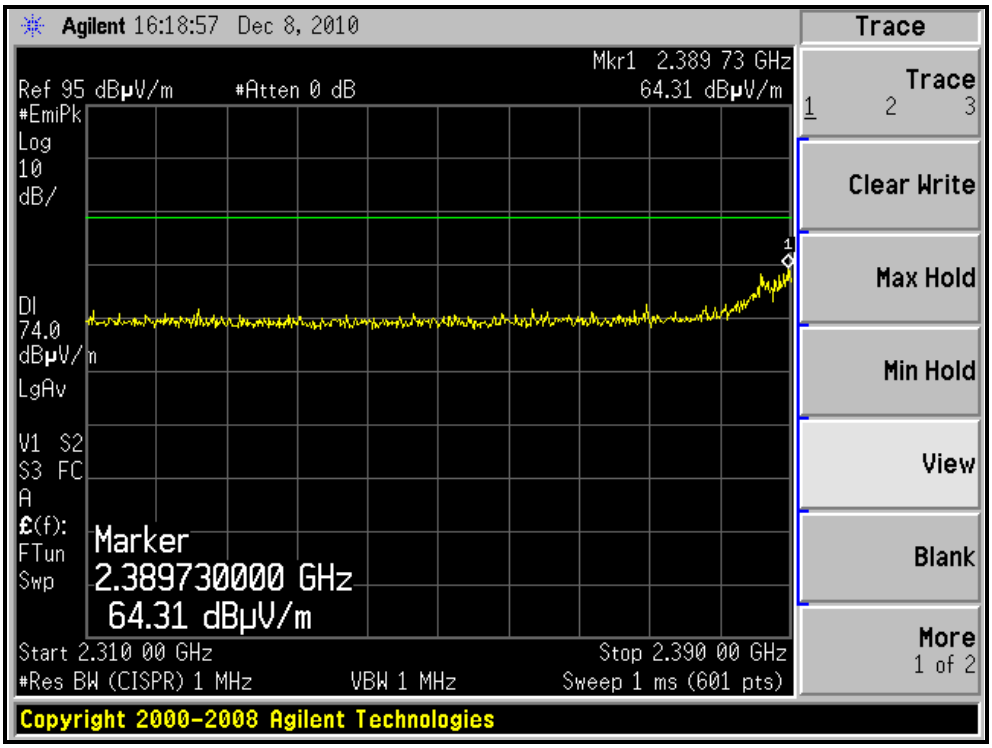
5. " * ": Fundamental frequency.

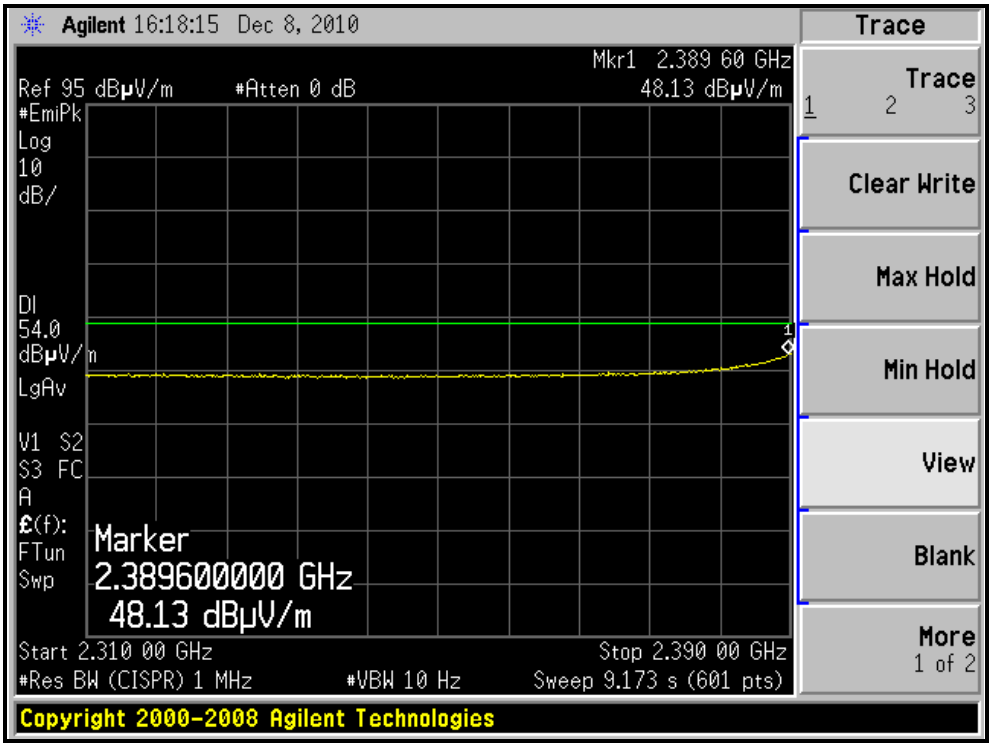
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH3, HORIZONTAL)



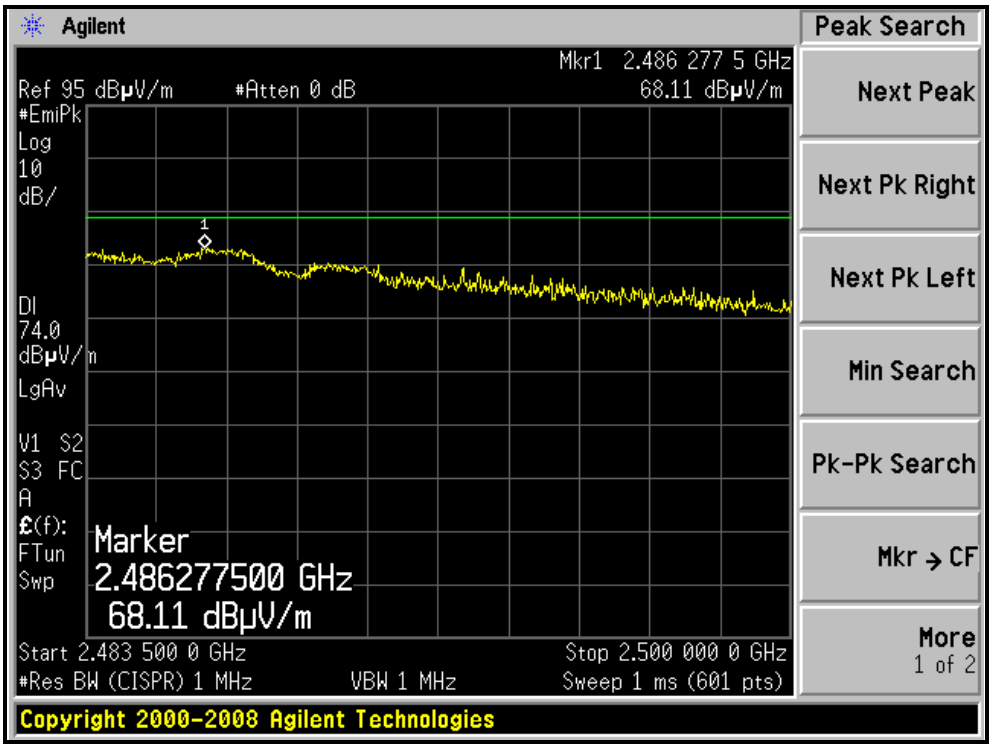


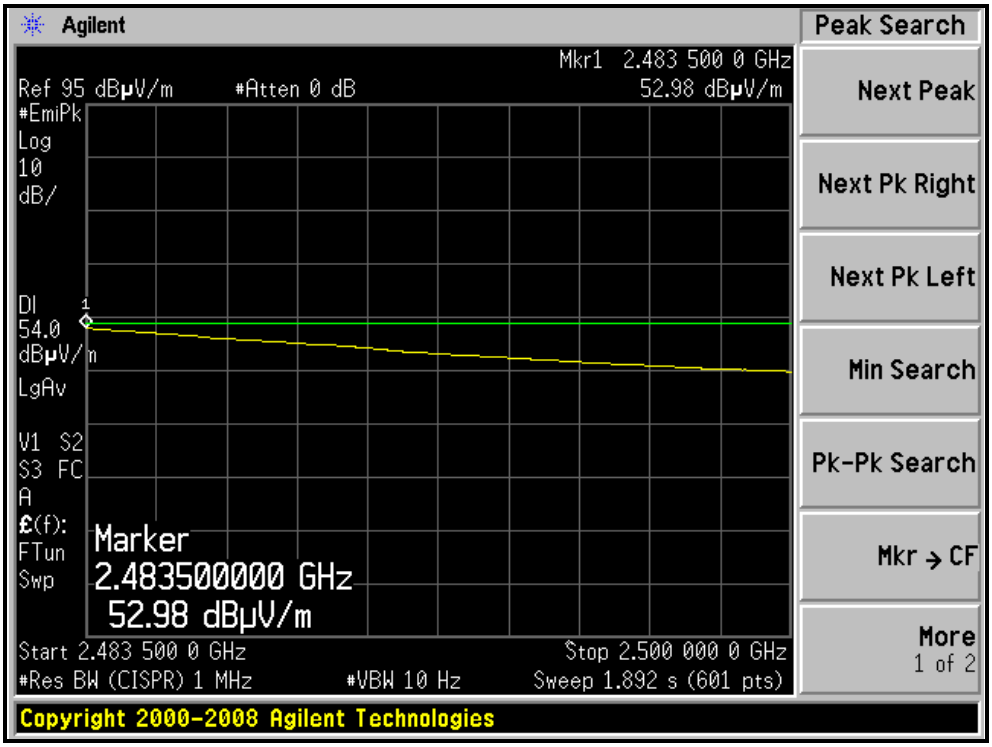
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH3, VERTICAL)



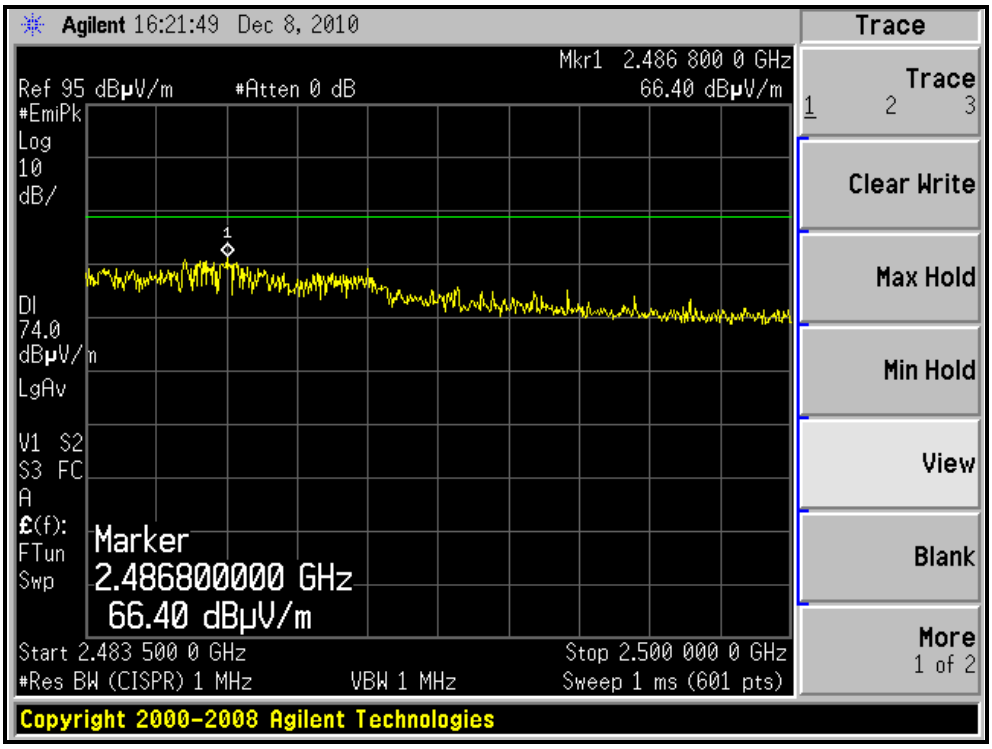


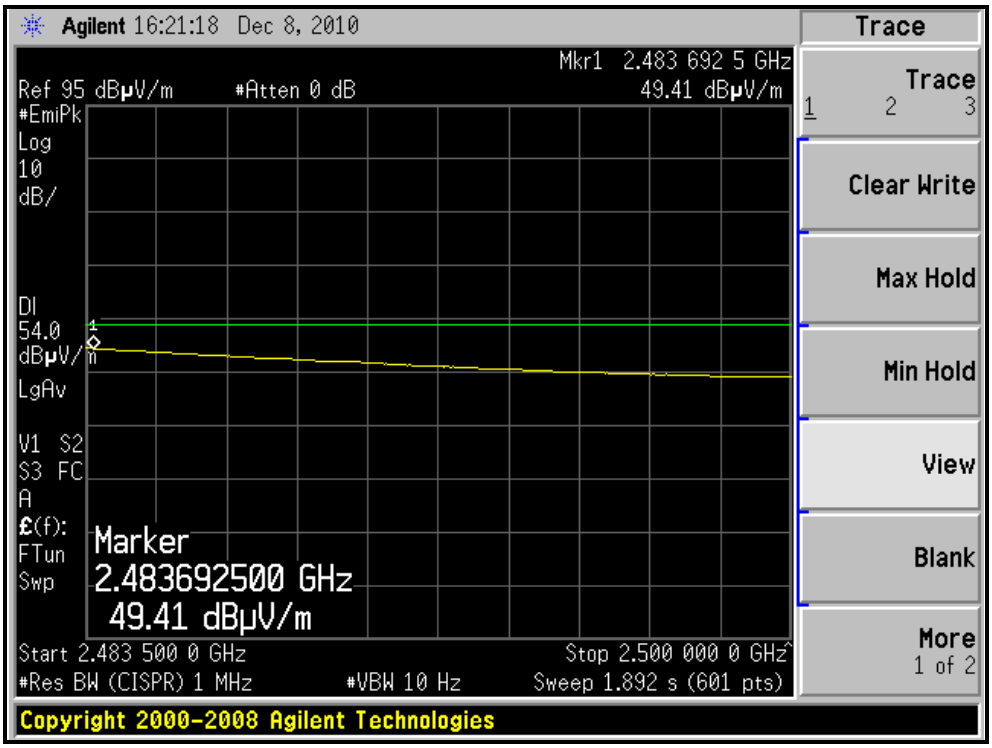
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH9, HORIZONTAL)





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





4.2.7.2 TEST RESULTS (With Dipole Antenna)

BELOW 1GHz WORST-CASE DATA：802.11g 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	20deg. C, 70%RH 1025 hPa	TESTED BY	Eric Lee

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	142.58	38.7 QP	43.5	-4.8	1.00 H	62	24.55	14.15
2	147.84	41.8 QP	43.5	-1.7	1.00 H	47	27.57	14.23
3	166.81	42.2 QP	43.5	-1.3	1.25 H	56	28.23	13.97
4	184.62	35.7 QP	43.5	-7.8	1.75 H	159	23.41	12.33
5	199.23	42.0 QP	43.5	-1.5	1.75 H	89	30.76	11.24
6	499.62	40.8 QP	46.0	-5.2	1.00 H	239	20.85	19.95
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	146.28	33.6 QP	43.5	-9.9	1.00 V	58	19.36	14.21
2	166.57	38.3 QP	43.5	-5.2	2.00 V	325	24.32	13.98
3	184.21	35.7 QP	43.5	-7.8	1.25 V	86	23.34	12.36
4	199.32	35.6 QP	43.5	-7.9	1.50 V	1	24.37	11.23
5	299.97	33.7 QP	46.0	-12.3	1.25 V	222	18.75	14.93
6	499.54	37.4 QP	46.0	-8.6	1.50 V	48	17.45	19.95

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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	2386.40	56.2 PK	74.0	-17.8	1.30 H	269	25.00	31.20
2	2386.40	43.0 AV	54.0	-11.0	1.30 H	269	11.80	31.20
3	*2412.00	95.5 PK			1.30 H	269	64.23	31.27
4	*2412.00	92.8 AV			1.30 H	269	61.53	31.27
5	4824.00	53.1 PK	74.0	-20.9	1.00 H	116	13.68	39.42
6	4824.00	49.9 AV	54.0	-4.1	1.00 H	116	10.48	39.42
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2386.40	57.3 PK	74.0	-16.7	1.41 V	274	26.10	31.20
2	2386.40	45.1 AV	54.0	-8.9	1.41 V	274	13.90	31.20
3	*2412.00	105.1 PK			1.41 V	274	73.83	31.27
4	*2412.00	102.6 AV			1.41 V	274	71.33	31.27
5	4824.00	55.8 PK	74.0	-18.2	1.00 V	235	16.38	39.42
6	**4824.00**	**53.5 AV**	**54.0**	**-0.5**	**1.00 V**	**235**	**14.08**	**39.42**

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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	97.8 PK			1.29 H	270	66.46	31.34
2	*2437.00	94.9 AV			1.29 H	270	63.56	31.34
3	4874.00	53.0 PK	74.0	-21.0	1.00 H	116	13.38	39.62
4	4874.00	49.3 AV	54.0	-4.7	1.00 H	116	9.68	39.62
5	7311.00	55.1 PK	74.0	-18.9	1.00 H	128	11.00	44.10
6	7311.00	42.1 AV	54.0	-11.9	1.00 H	128	-2.00	44.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	106.3 PK			1.41 V	276	74.96	31.34
2	*2437.00	104.8 AV			1.41 V	276	73.46	31.34
3	4874.00	55.9 PK	74.0	-18.1	1.00 V	235	16.28	39.62
4	**4874.00**	**53.5 AV**	**54.0**	**-0.5**	**1.00 V**	**235**	**13.88**	**39.62**
5	7311.00	54.2 PK	74.0	-19.8	1.20 V	119	10.10	44.10
6	7311.00	41.8 AV	54.0	-12.2	1.20 V	119	-2.30	44.10

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": 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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	97.2 PK			1.28 H	270	65.80	31.40
2	*2462.00	94.5 AV			1.28 H	270	63.10	31.40
3	2483.50	57.0 PK	74.0	-17.0	1.28 H	270	25.54	31.46
4	2483.50	42.7 AV	54.0	-11.3	1.28 H	270	11.24	31.46
5	4924.00	53.3 PK	74.0	-20.7	1.00 H	119	13.48	39.82
6	4924.00	49.6 AV	54.0	-4.4	1.00 H	119	9.78	39.82
7	7386.00	55.4 PK	74.0	-18.6	1.00 H	128	11.22	44.18
8	7386.00	42.2 AV	54.0	-11.8	1.00 H	128	-1.98	44.18
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	106.5 PK			1.42 V	277	75.10	31.40
2	*2462.00	104.3 AV			1.42 V	277	72.90	31.40
3	2483.50	57.7 PK	74.0	-16.3	1.42 V	277	26.24	31.46
4	2483.50	46.0 AV	54.0	-8.0	1.42 V	277	14.54	31.46
5	4924.00	55.6 PK	74.0	-18.4	1.00 V	235	15.78	39.82
6	**4924.00**	**53.5 AV**	**54.0**	**-0.5**	**1.00 V**	**235**	**13.68**	**39.82**
7	7386.00	54.0 PK	74.0	-20.0	1.22 V	119	9.82	44.18
8	7386.00	41.4 AV	54.0	-12.6	1.22 V	119	-2.78	44.18

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

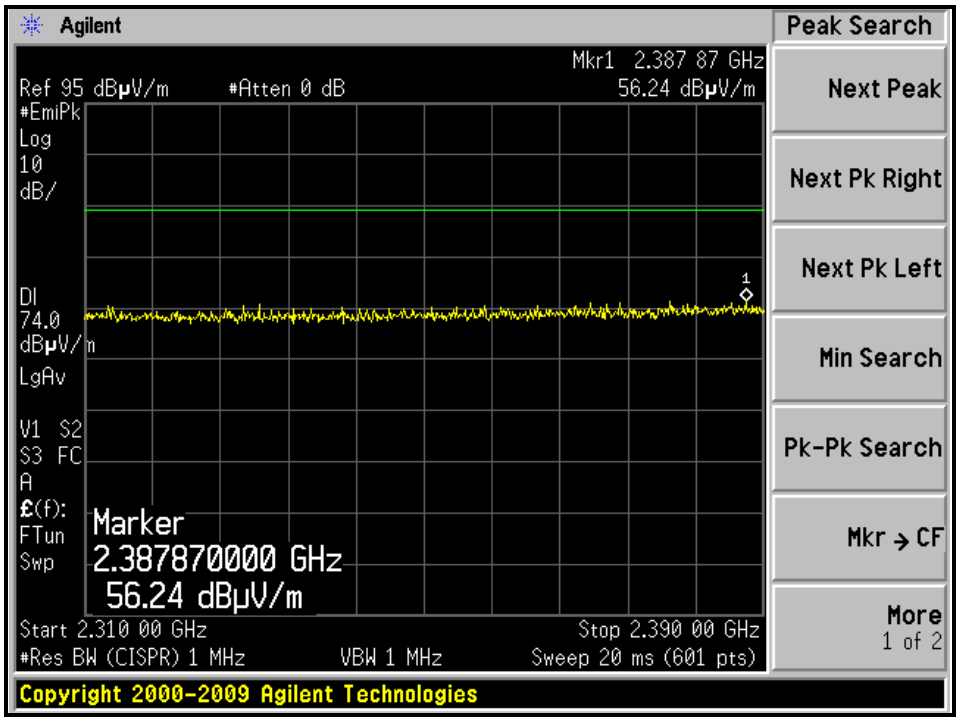
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

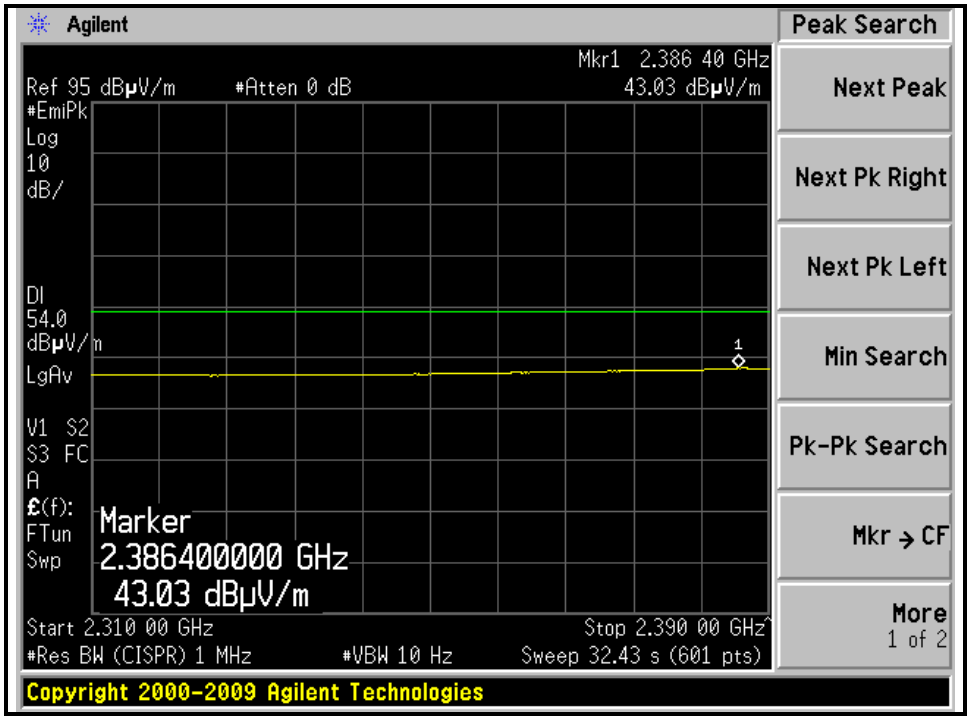
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

RESTRICTED BANDEDGE (802.11b MODE,CH1, HORIZONTAL)





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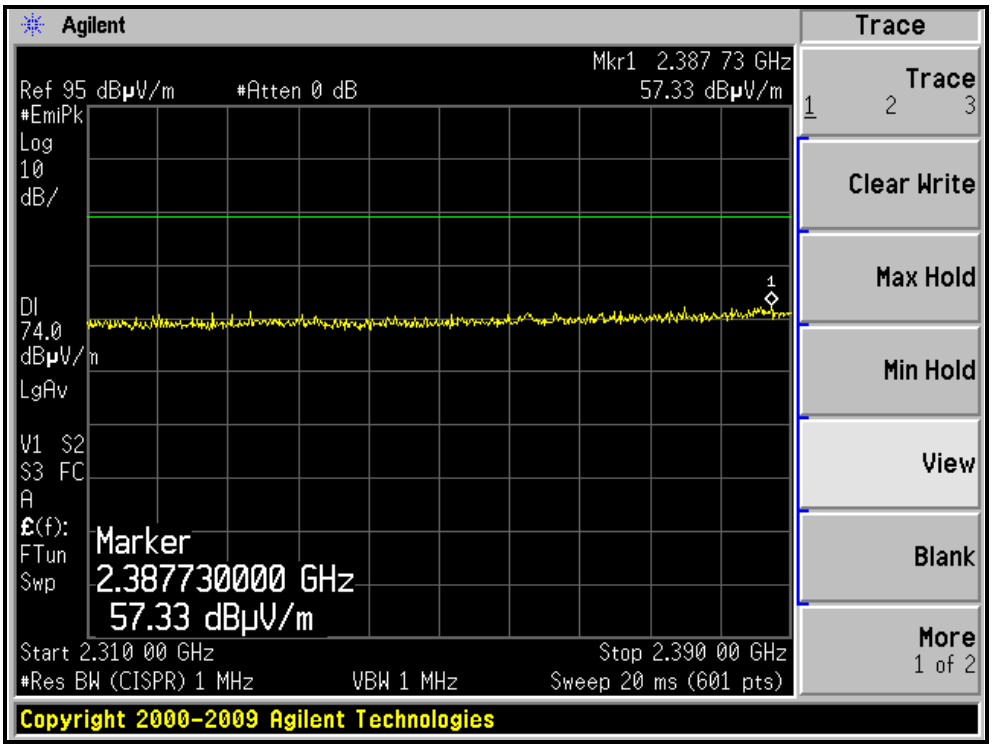

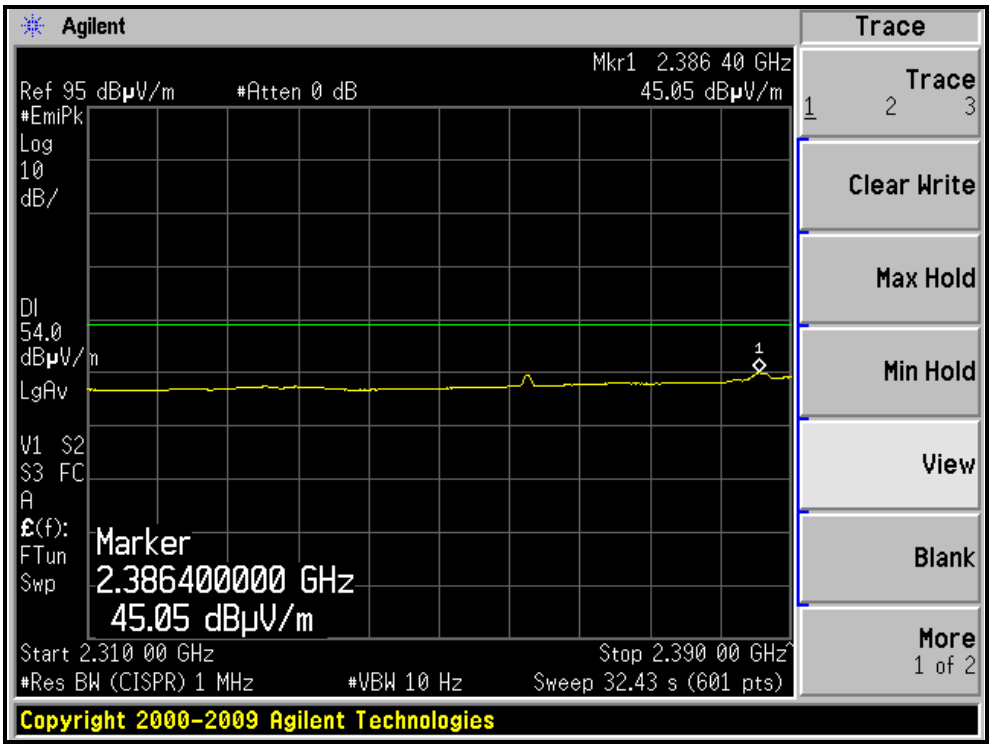

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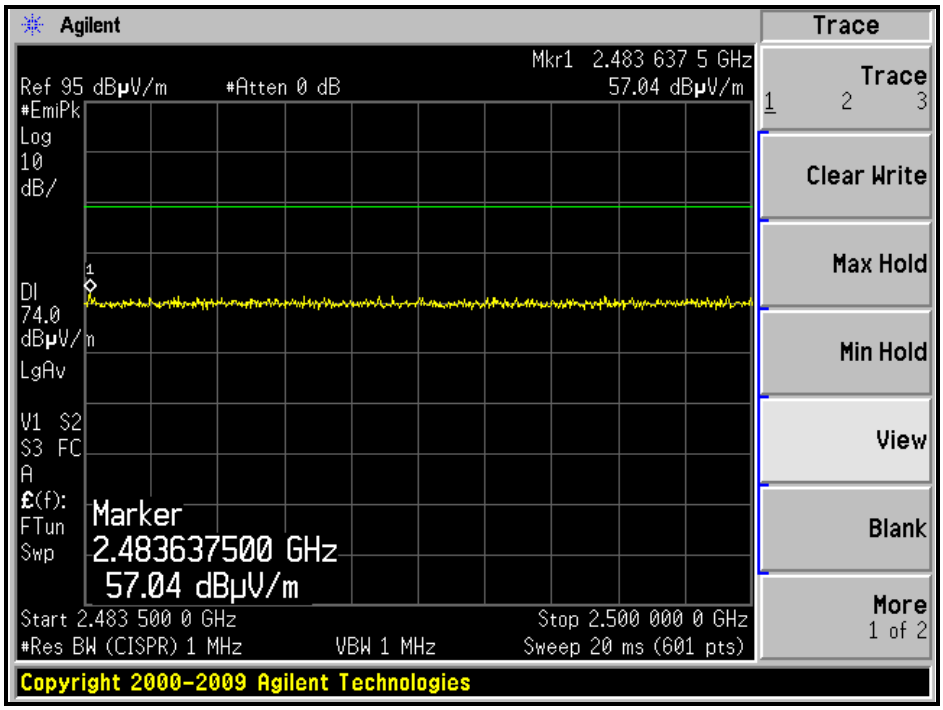

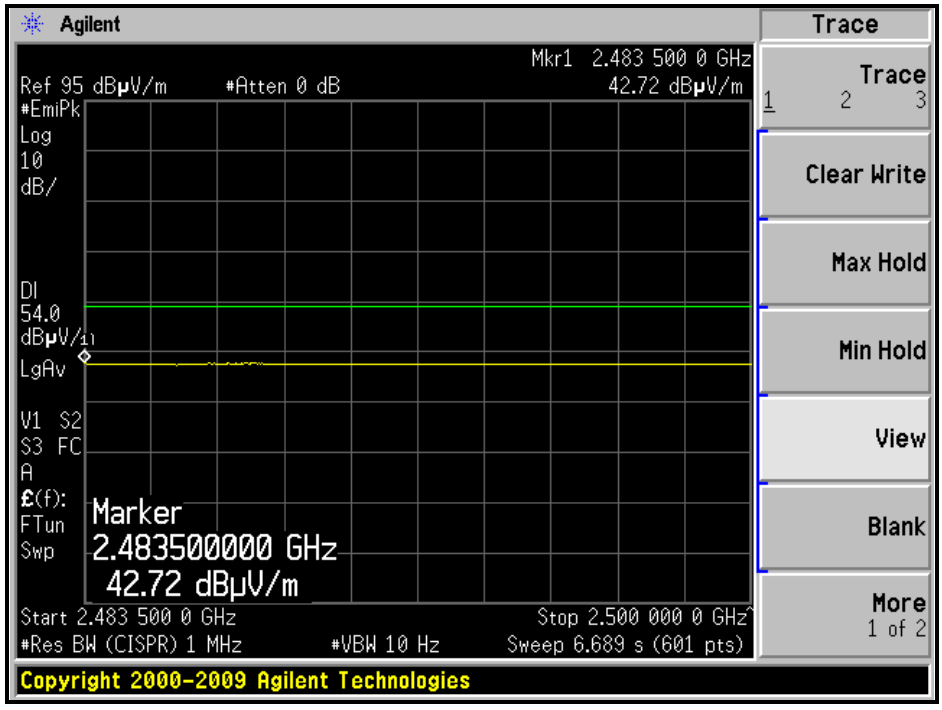

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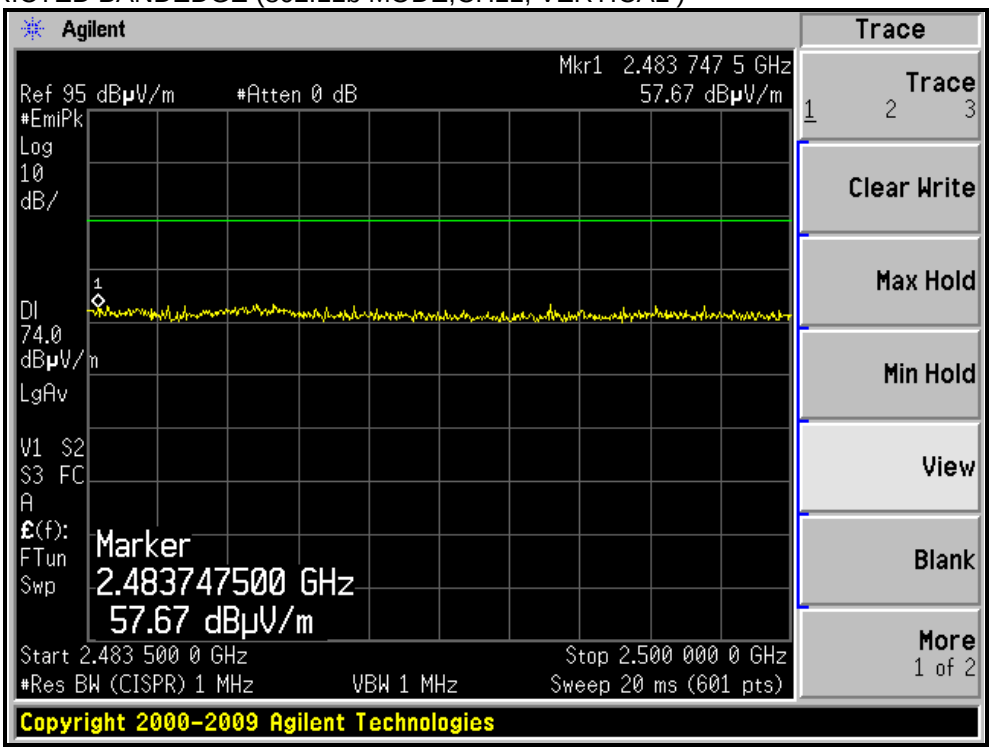
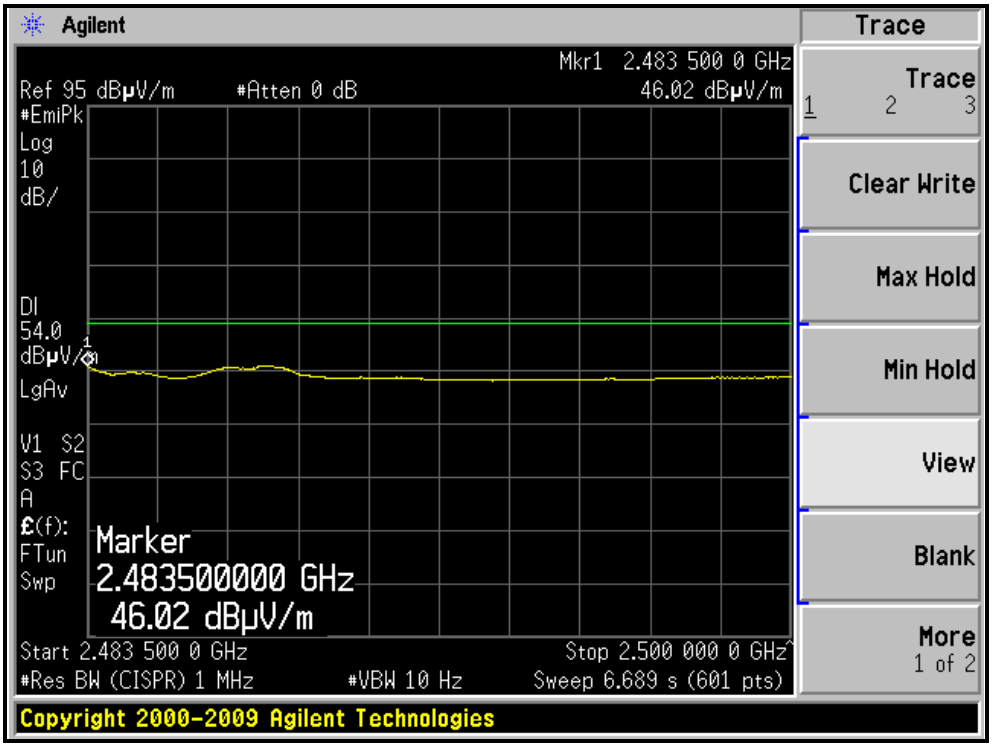




802.11g OFDM MODULATION

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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	62.7 PK	74.0	-11.3	1.30 H	268	31.49	31.21
2	2390.00	45.6 AV	54.0	-8.4	1.30 H	268	14.39	31.21
3	*2412.00	97.8 PK			1.31 H	268	66.53	31.27
4	*2412.00	85.6 AV			1.31 H	268	54.33	31.27
5	4824.00	50.4 PK	74.0	-23.6	1.24 H	221	10.98	39.42
6	4824.00	37.5 AV	54.0	-16.5	1.24 H	221	-1.92	39.42
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	72.7 PK	74.0	-1.3	1.42 V	273	41.49	31.21
2	2390.00	52.6 AV	54.0	-1.4	1.42 V	273	21.39	31.21
3	*2412.00	107.4 PK			1.41 V	274	76.13	31.27
4	*2412.00	95.2 AV			1.41 V	274	63.93	31.27
5	4824.00	52.8 PK	74.0	-21.2	1.05 V	220	13.38	39.42
6	4824.00	39.2 AV	54.0	-14.8	1.05 V	220	-0.22	39.42

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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	100.4 PK			1.31 H	269	69.06	31.34
2	*2437.00	88.8 AV			1.31 H	269	57.46	31.34
3	4874.00	51.0 PK	74.0	-23.0	1.22 H	223	11.38	39.62
4	4874.00	38.1 AV	54.0	-15.9	1.22 H	223	-1.52	39.62
5	7311.00	55.2 PK	74.0	-18.8	1.00 H	129	11.10	44.10
6	7311.00	42.0 AV	54.0	-12.0	1.00 H	129	-2.10	44.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	109.8 PK			1.42 V	270	78.46	31.34
2	*2437.00	98.6 AV			1.42 V	270	67.26	31.34
3	4874.00	55.2 PK	74.0	-18.8	1.00 V	214	15.58	39.62
4	4874.00	40.4 AV	54.0	-13.6	1.00 V	214	0.78	39.62
5	7311.00	54.7 PK	74.0	-19.3	1.22 V	104	10.60	44.10
6	7311.00	41.8 AV	54.0	-12.2	1.22 V	104	-2.30	44.10

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": 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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	97.9 PK			1.30 H	265	66.50	31.40
2	*2462.00	85.4 AV			1.30 H	265	54.00	31.40
3	2483.50	60.1 PK	74.0	-13.9	1.28 H	270	28.64	31.46
4	2483.50	44.3 AV	54.0	-9.7	1.28 H	270	12.84	31.46
5	4924.00	50.8 PK	74.0	-23.2	1.23 H	226	10.98	39.82
6	4924.00	37.2 AV	54.0	-16.8	1.23 H	226	-2.62	39.82
7	7386.00	54.9 PK	74.0	-19.1	1.00 H	125	10.72	44.18
8	7386.00	41.8 AV	54.0	-12.2	1.00 H	125	-2.38	44.18
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	107.3 PK			1.42 V	277	75.90	31.40
2	*2462.00	95.3 AV			1.42 V	277	63.90	31.40
3	2483.50	71.7 PK	74.0	-2.3	1.42 V	277	40.24	31.46
4	2483.50	51.1 AV	54.0	-2.9	1.42 V	277	19.64	31.46
5	4924.00	51.2 PK	74.0	-22.8	1.00 V	219	11.38	39.82
6	4924.00	37.9 AV	54.0	-16.1	1.00 V	219	-1.92	39.82
7	7386.00	54.6 PK	74.0	-19.4	1.23 V	106	10.42	44.18
8	7386.00	41.6 AV	54.0	-12.4	1.23 V	106	-2.58	44.18

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

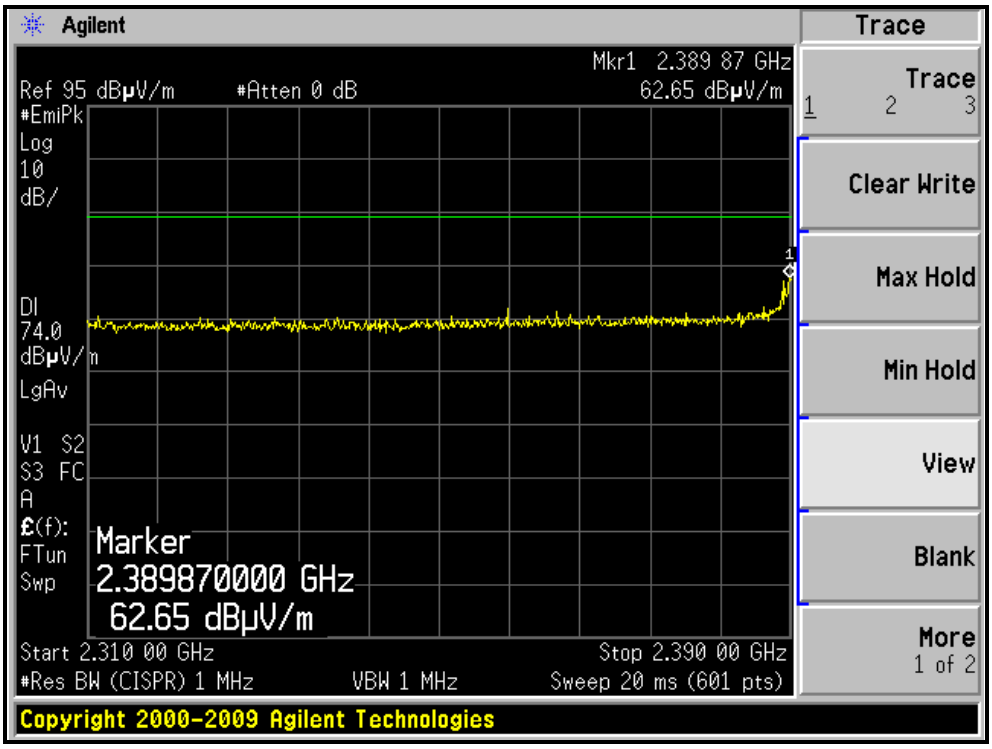
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

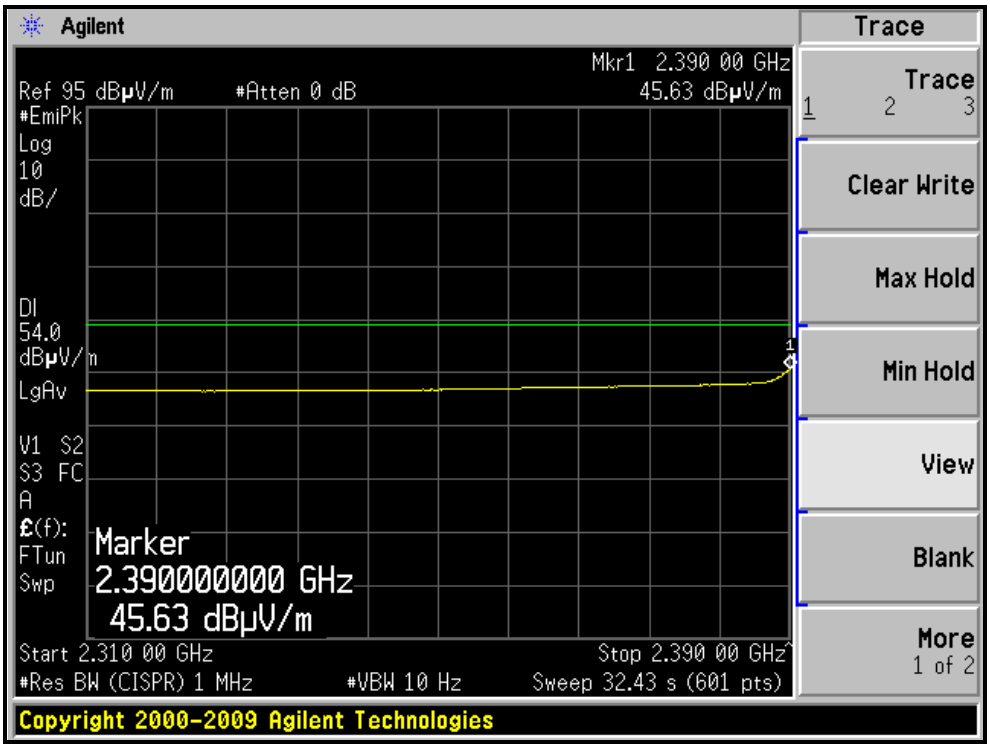
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

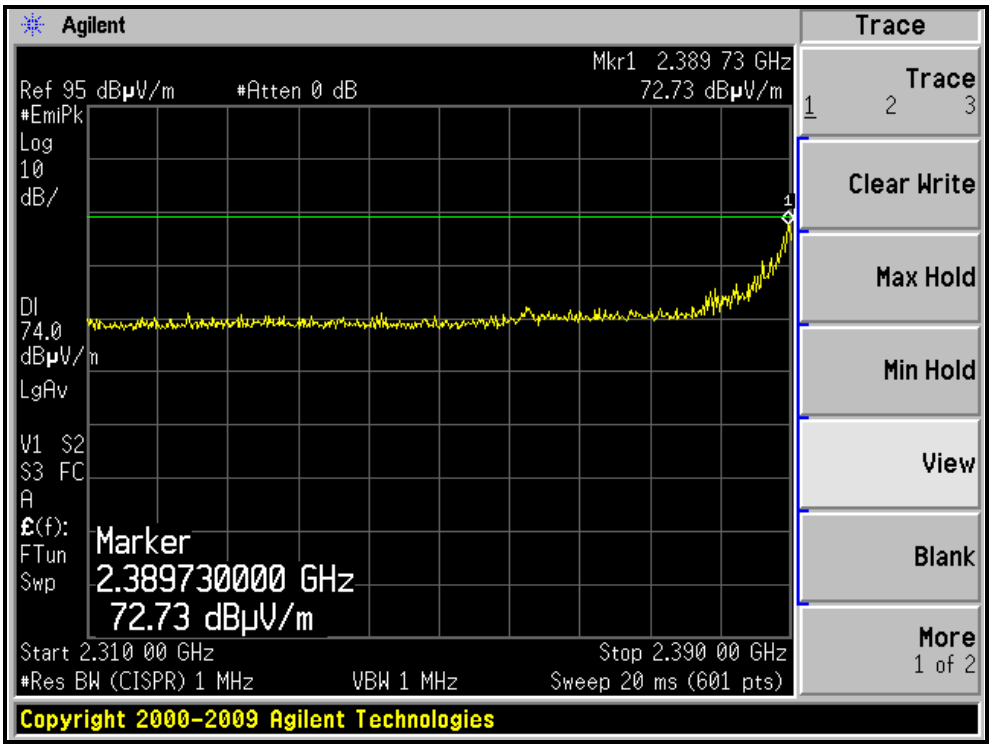
5. " * ": Fundamental frequency.

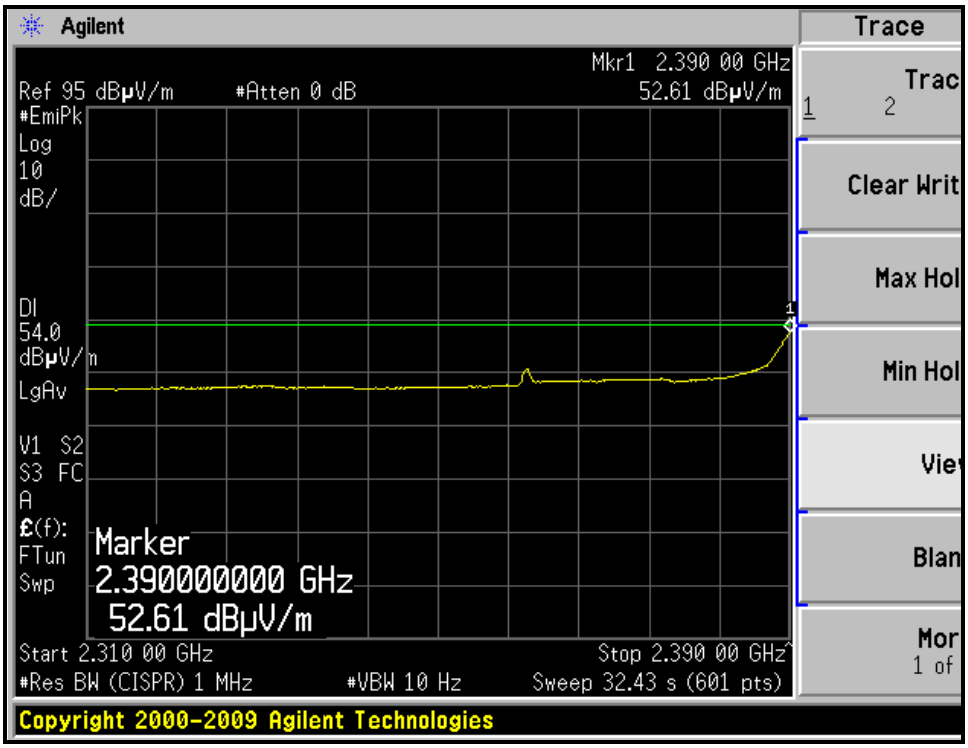
RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)





RESTRICTED BANDEDGE (802.11g MODE,CH1, VERTICAL)





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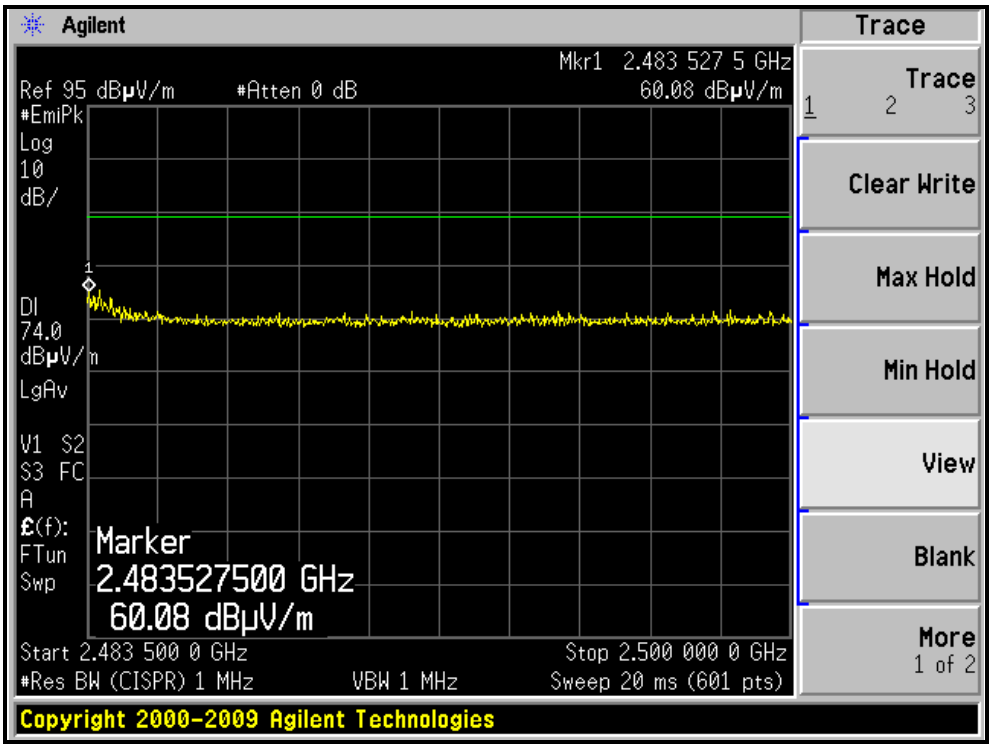
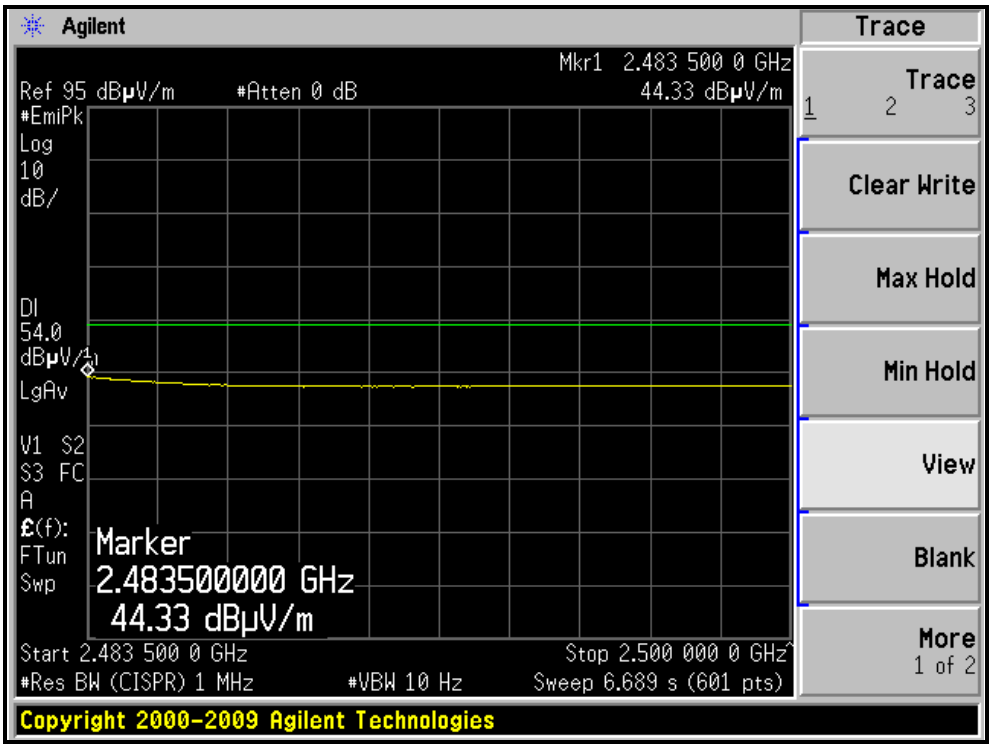
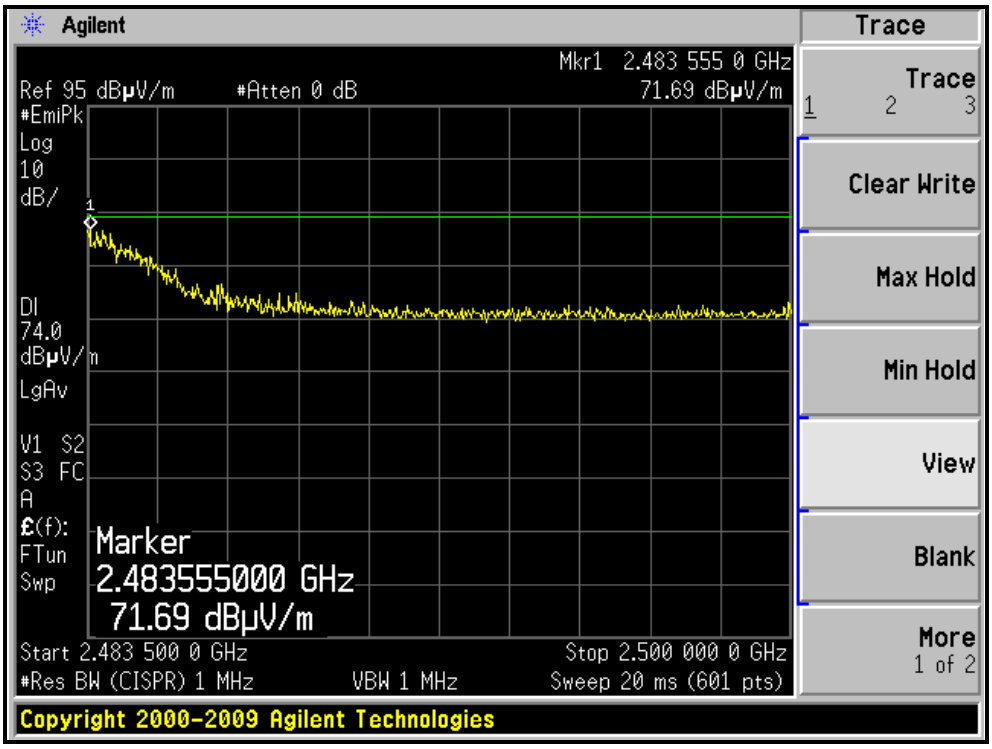
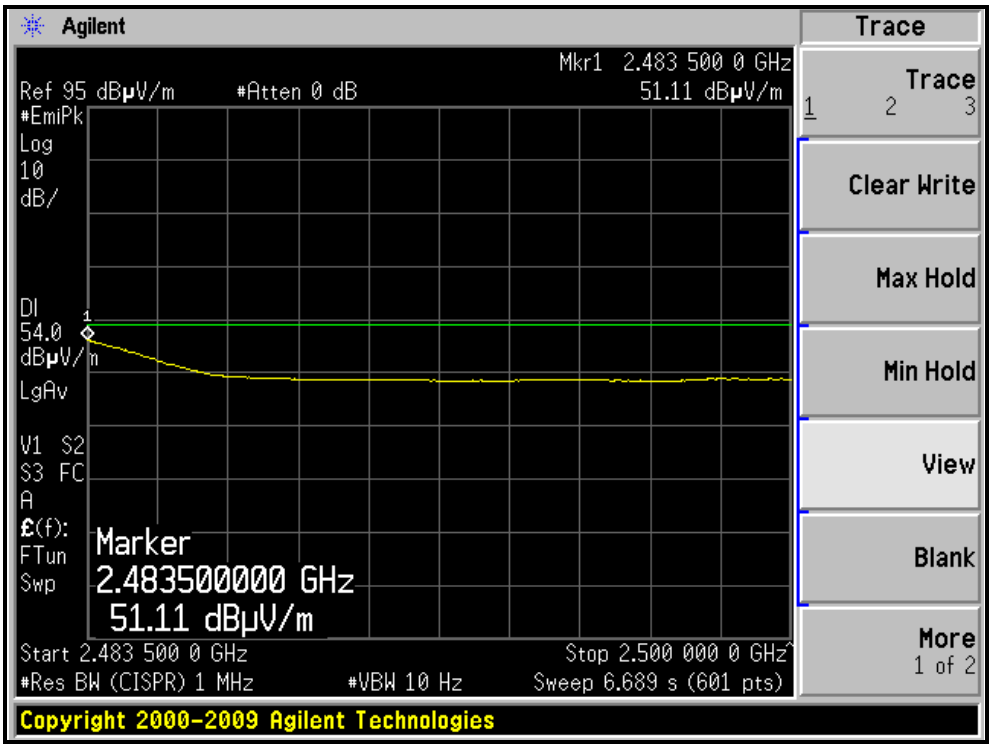




RESTRICTED BANDEDGE (802.11g MODE,CH11, VERTICAL)





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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	62.7 PK	74.0	-11.3	1.31 H	268	31.49	31.21
2	2390.00	45.9 AV	54.0	-8.1	1.31 H	268	14.69	31.21
3	*2412.00	96.1 PK			1.31 H	268	64.83	31.27
4	*2412.00	84.9 AV			1.31 H	268	53.63	31.27
5	4824.00	50.2 PK	74.0	-23.8	1.22 H	235	10.78	39.42
6	4824.00	37.4 AV	54.0	-16.6	1.22 H	235	-2.02	39.42
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	72.6 PK	74.0	-1.4	1.44 V	275	41.39	31.21
2	2390.00	53.0 AV	54.0	-1.0	1.44 V	275	21.79	31.21
3	*2412.00	106.1 PK			1.42 V	274	74.83	31.27
4	*2412.00	93.9 AV			1.42 V	274	62.63	31.27
5	4824.00	51.3 PK	74.0	-22.7	1.08 V	230	11.88	39.42
6	4824.00	38.8 AV	54.0	-15.2	1.08 V	230	-0.62	39.42

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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	101.2 PK			1.33 H	265	69.86	31.34
2	*2437.00	88.4 AV			1.33 H	265	57.06	31.34
3	4874.00	51.3 PK	74.0	-22.7	1.22 H	234	11.68	39.62
4	4874.00	38.3 AV	54.0	-15.7	1.22 H	234	-1.32	39.62
5	7311.00	54.3 PK	74.0	-19.7	1.00 H	133	10.20	44.10
6	7311.00	41.5 AV	54.0	-12.5	1.00 H	133	-2.60	44.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	110.8 PK			1.42 V	273	79.46	31.34
2	*2437.00	97.2 AV			1.42 V	273	65.86	31.34
3	4874.00	54.3 PK	74.0	-19.7	1.06 V	228	14.68	39.62
4	4874.00	40.1 AV	54.0	-13.9	1.06 V	228	0.48	39.62
5	7311.00	54.3 PK	74.0	-19.7	1.20 V	105	10.20	44.10
6	7311.00	41.6 AV	54.0	-12.4	1.20 V	105	-2.50	44.10

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": 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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	96.8 PK			1.29 H	269	65.40	31.40
2	*2462.00	85.5 AV			1.29 H	269	54.10	31.40
3	2483.50	60.6 PK	74.0	-13.4	1.28 H	268	29.14	31.46
4	2483.50	44.5 AV	54.0	-9.5	1.28 H	268	13.04	31.46
5	4924.00	50.4 PK	74.0	-23.6	1.21 H	233	10.58	39.82
6	4924.00	37.0 AV	54.0	-17.0	1.21 H	233	-2.82	39.82
7	7386.00	54.9 PK	74.0	-19.1	1.00 H	135	10.72	44.18
8	7386.00	41.6 AV	54.0	-12.4	1.00 H	135	-2.58	44.18
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	106.4 PK			1.42 V	277	75.00	31.40
2	*2462.00	94.2 AV			1.42 V	277	62.80	31.40
3	2483.50	71.7 PK	74.0	-2.3	1.42 V	277	40.24	31.46
4	2483.50	52.5 AV	54.0	-1.5	1.42 V	277	21.04	31.46
5	4924.00	50.9 PK	74.0	-23.1	1.09 V	231	11.08	39.82
6	4924.00	38.5 AV	54.0	-15.5	1.09 V	231	-1.32	39.82
7	7386.00	54.7 PK	74.0	-19.3	1.22 V	108	10.52	44.18
8	7386.00	41.4 AV	54.0	-12.6	1.22 V	108	-2.78	44.18

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

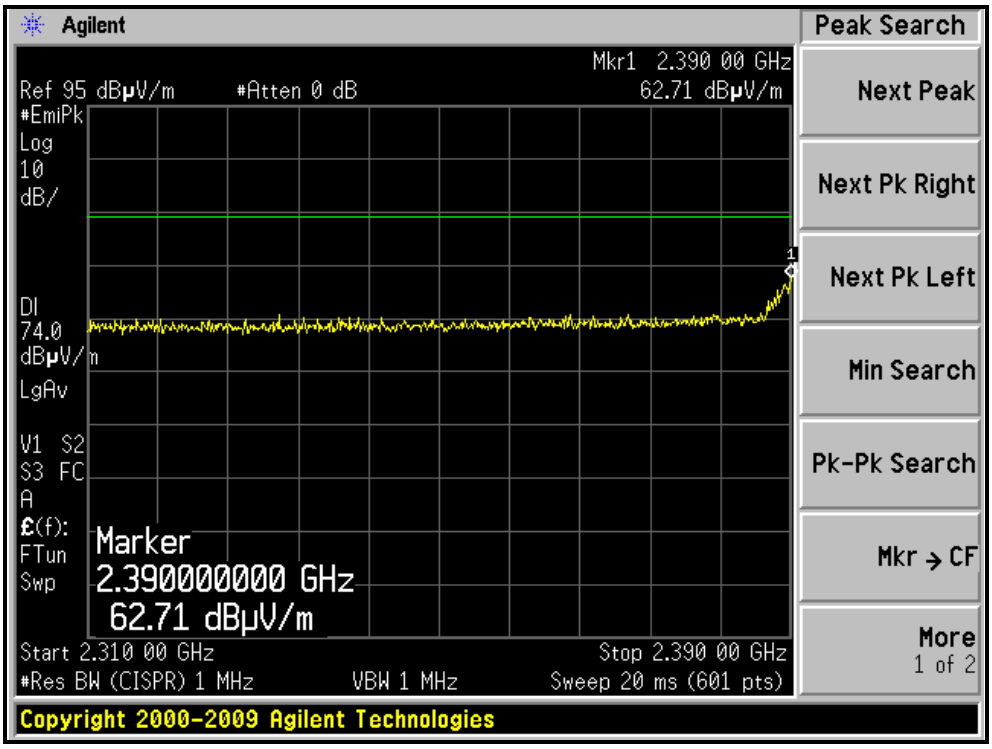
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

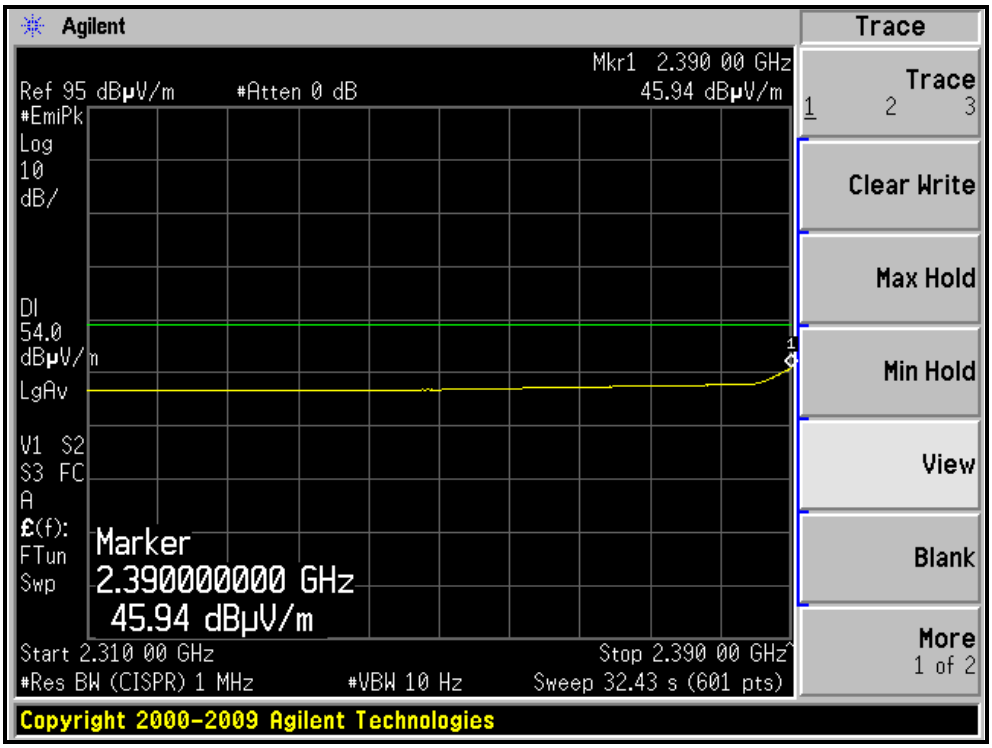
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

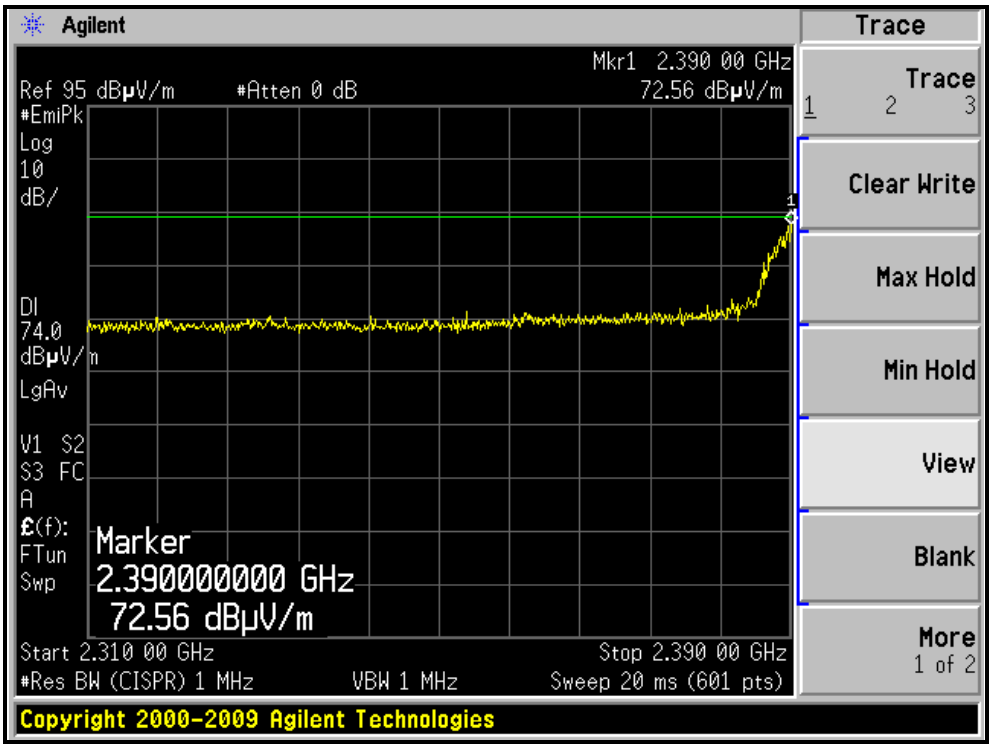
5. " * ": Fundamental frequency.

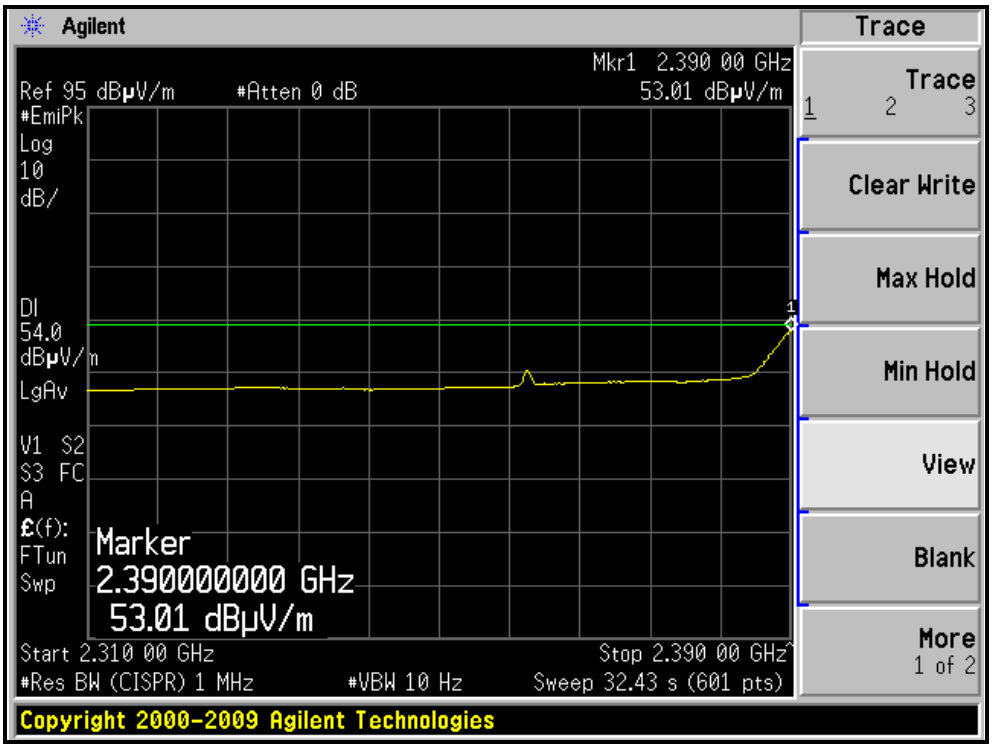
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, HORIZONTAL)



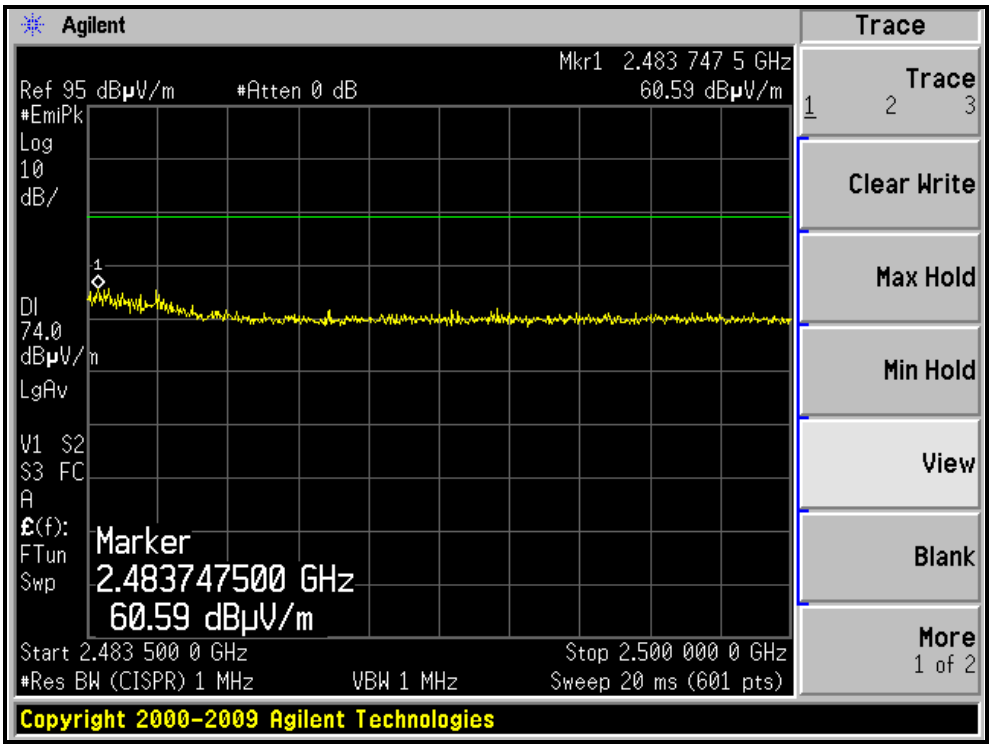


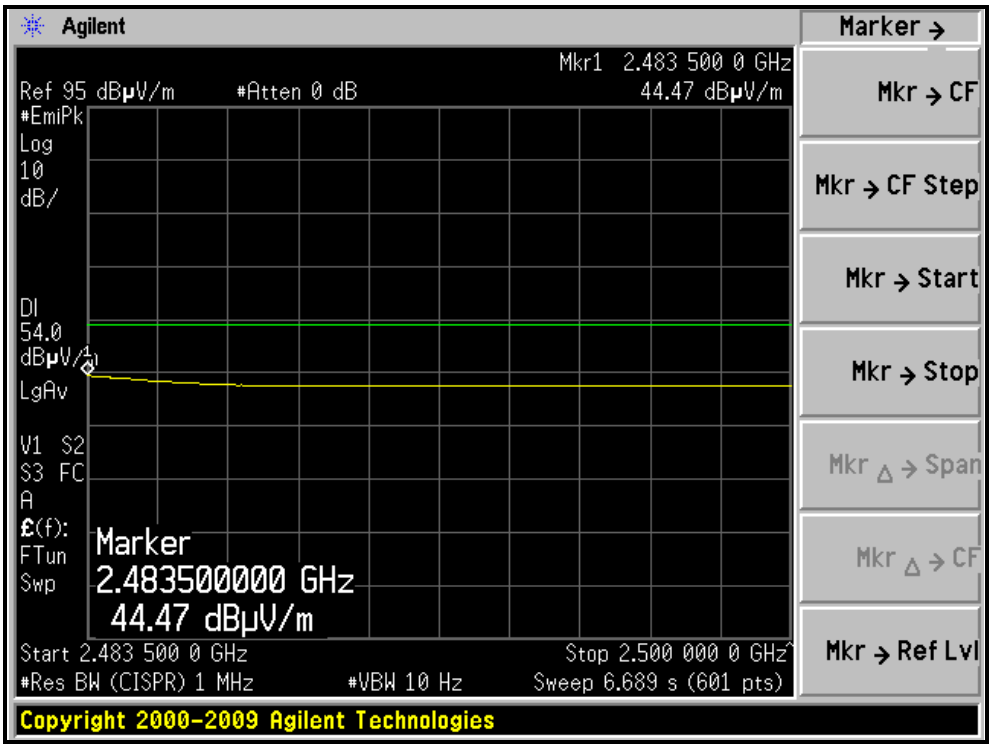
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, VERTICAL)



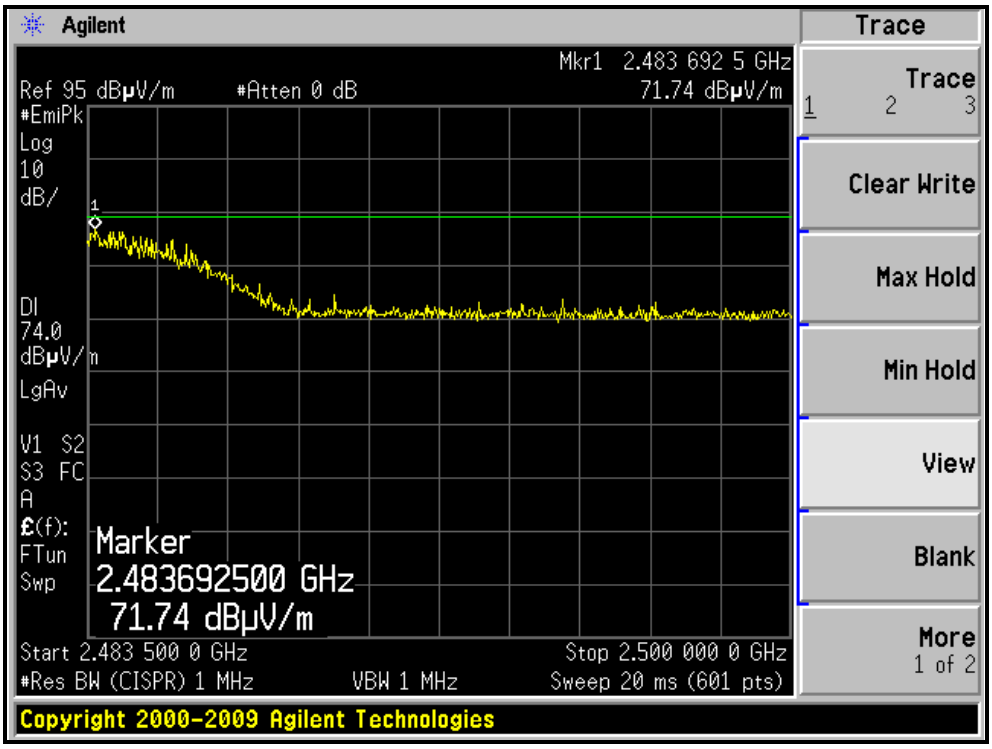


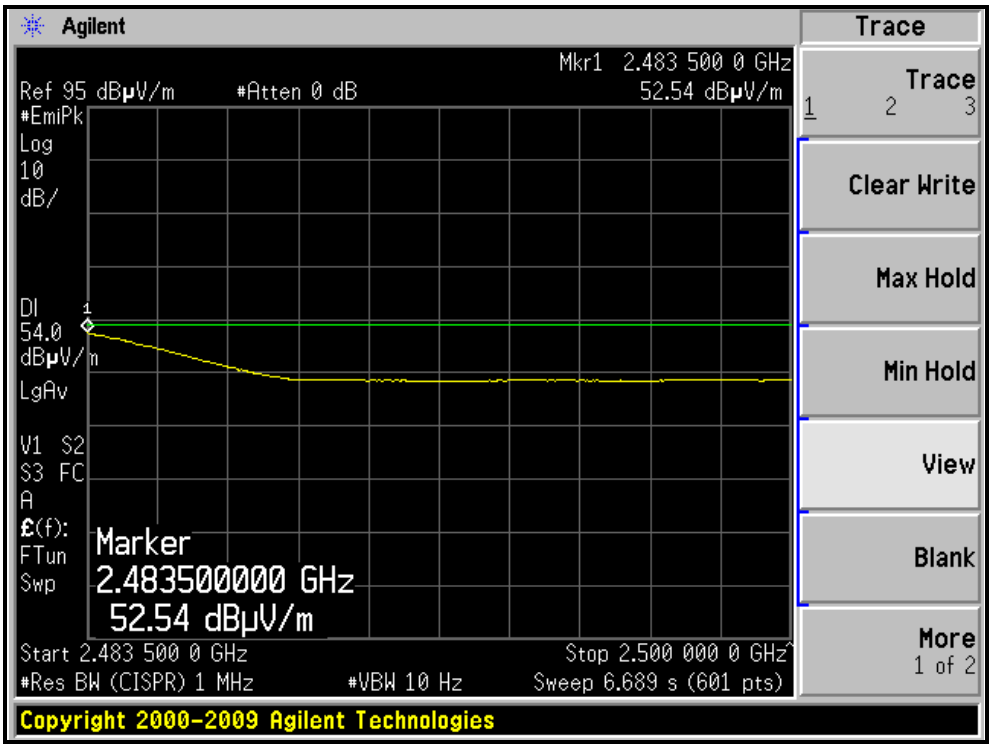
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH11, HORIZONTAL)





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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	1.30 H	269	29.69	31.21
2	2390.00	45.9 AV	54.0	-8.1	1.30 H	269	14.69	31.21
3	*2422.00	93.6 PK			1.30 H	269	62.30	31.30
4	*2422.00	81.1 AV			1.30 H	269	49.80	31.30
5	4844.00	48.9 PK	74.0	-25.1	1.22 H	240	9.40	39.50
6	4844.00	36.6 AV	54.0	-17.4	1.22 H	240	-2.90	39.50
7	7266.00	54.4 PK	74.0	-19.6	1.00 H	135	10.34	44.06
8	7266.00	41.3 AV	54.0	-12.7	1.00 H	135	-2.76	44.06
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	69.1 PK	74.0	-4.9	1.38 V	279	37.89	31.21
2	2390.00	50.4 AV	54.0	-3.6	1.38 V	279	19.19	31.21
3	*2422.00	103.9 PK			1.38 V	279	72.60	31.30
4	*2422.00	90.4 AV			1.38 V	279	59.10	31.30
5	4844.00	50.2 PK	74.0	-23.8	1.00 V	224	10.70	39.50
6	4844.00	37.1 AV	54.0	-16.9	1.00 V	224	-2.40	39.50
7	7266.00	54.3 PK	74.0	-19.7	1.20 V	110	10.24	44.06
8	7266.00	41.4 AV	54.0	-12.6	1.20 V	110	-2.66	44.06

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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	95.5 PK			1.30 H	360	64.16	31.34
2	*2437.00	83.4 AV			1.30 H	360	52.06	31.34
3	4874.00	49.0 PK	74.0	-25.0	1.21 H	238	9.38	39.62
4	4874.00	36.8 AV	54.0	-17.2	1.21 H	238	-2.82	39.62
5	7311.00	55.0 PK	74.0	-19.0	1.00 H	138	10.90	44.10
6	7311.00	41.6 AV	54.0	-12.4	1.00 H	138	-2.50	44.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	105.8 PK			1.38 V	283	74.46	31.34
2	*2437.00	92.5 AV			1.38 V	283	61.16	31.34
3	4874.00	50.6 PK	74.0	-23.4	1.00 V	235	10.98	39.62
4	4874.00	37.5 AV	54.0	-16.5	1.00 V	235	-2.12	39.62
5	7311.00	55.2 PK	74.0	-18.8	1.21 V	117	11.10	44.10
6	7311.00	41.8 AV	54.0	-12.2	1.21 V	117	-2.30	44.10

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": 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	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	92.7 PK			1.28 H	270	61.32	31.38
2	*2452.00	79.6 AV			1.28 H	270	48.22	31.38
3	2483.50	59.6 PK	74.0	-14.4	1.28 H	270	28.14	31.46
4	2483.50	44.0 AV	54.0	-10.0	1.28 H	270	12.54	31.46
5	4904.00	49.1 PK	74.0	-24.9	1.21 H	229	9.36	39.74
6	4904.00	36.1 AV	54.0	-17.9	1.21 H	229	-3.64	39.74
7	7356.00	55.3 PK	74.0	-18.7	1.00 H	136	11.15	44.15
8	7356.00	41.6 AV	54.0	-12.4	1.00 H	136	-2.55	44.15
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	103.3 PK			1.43 V	277	71.92	31.38
2	*2452.00	89.6 AV			1.43 V	277	58.22	31.38
3	2483.50	69.4 PK	74.0	-4.6	1.43 V	277	37.94	31.46
4	2483.50	51.3 AV	54.0	-2.7	1.43 V	277	19.84	31.46
5	4904.00	49.3 PK	74.0	-24.7	1.00 V	242	9.56	39.74
6	4904.00	36.5 AV	54.0	-17.5	1.00 V	242	-3.24	39.74
7	7356.00	55.8 PK	74.0	-18.2	1.22 V	118	11.65	44.15
8	7356.00	41.9 AV	54.0	-12.1	1.22 V	118	-2.25	44.15

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

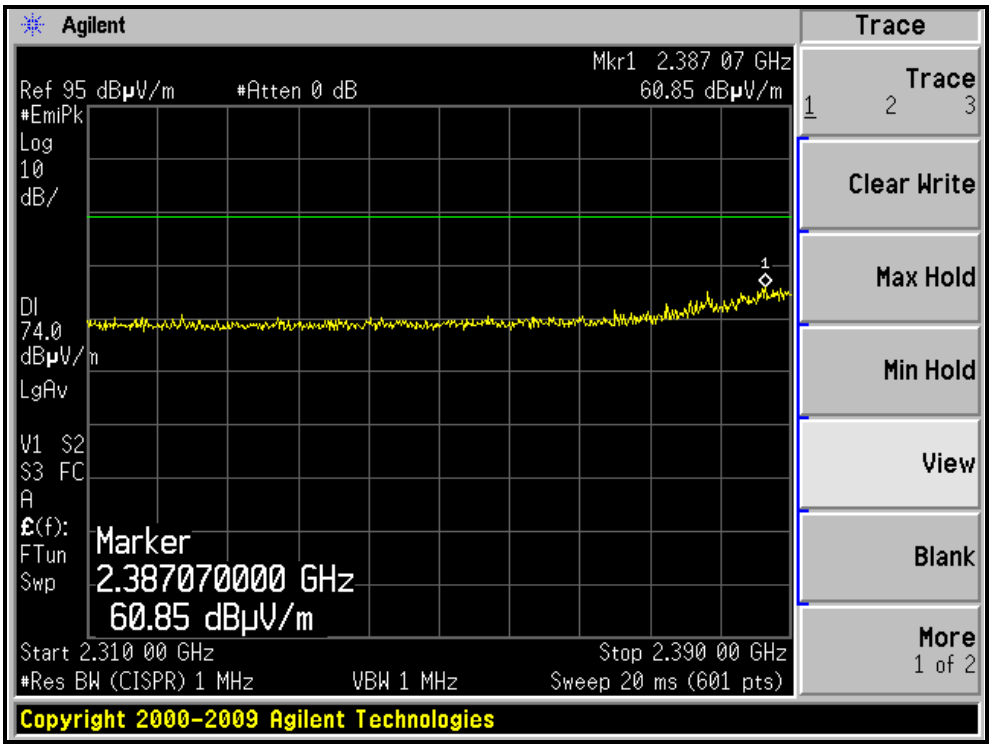
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

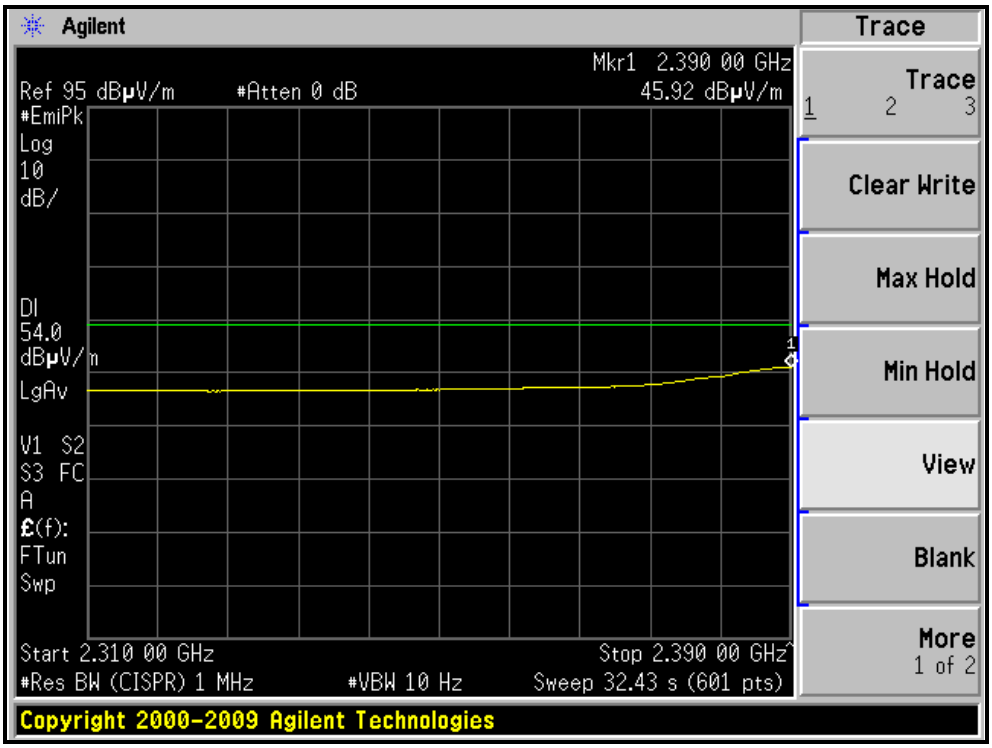
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

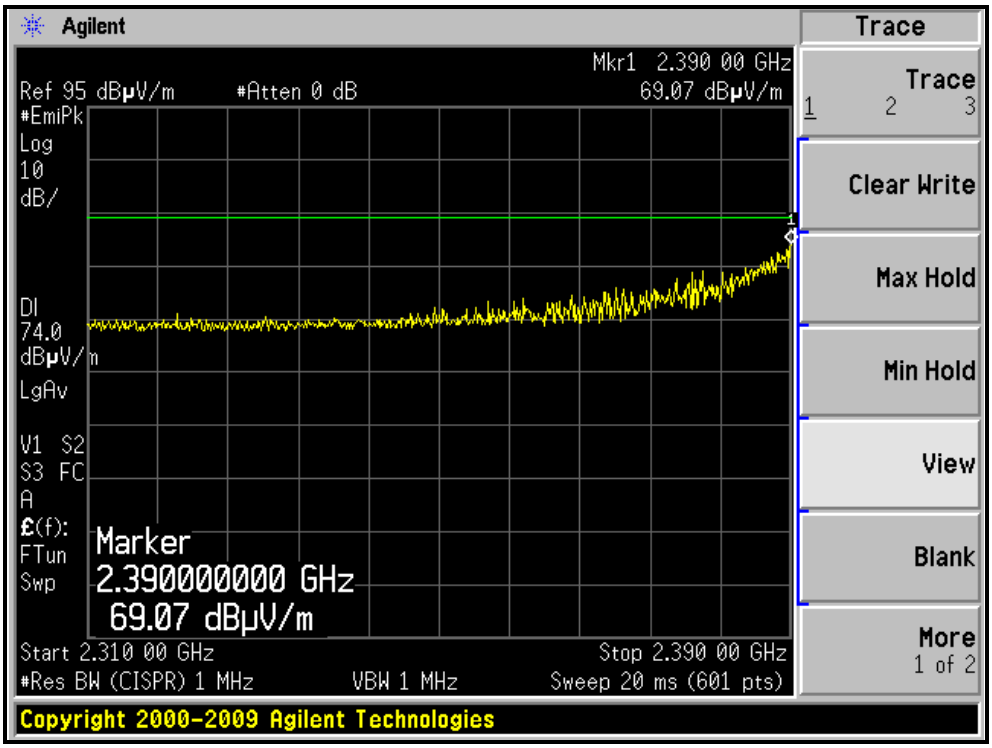
5. " * ": Fundamental frequency.

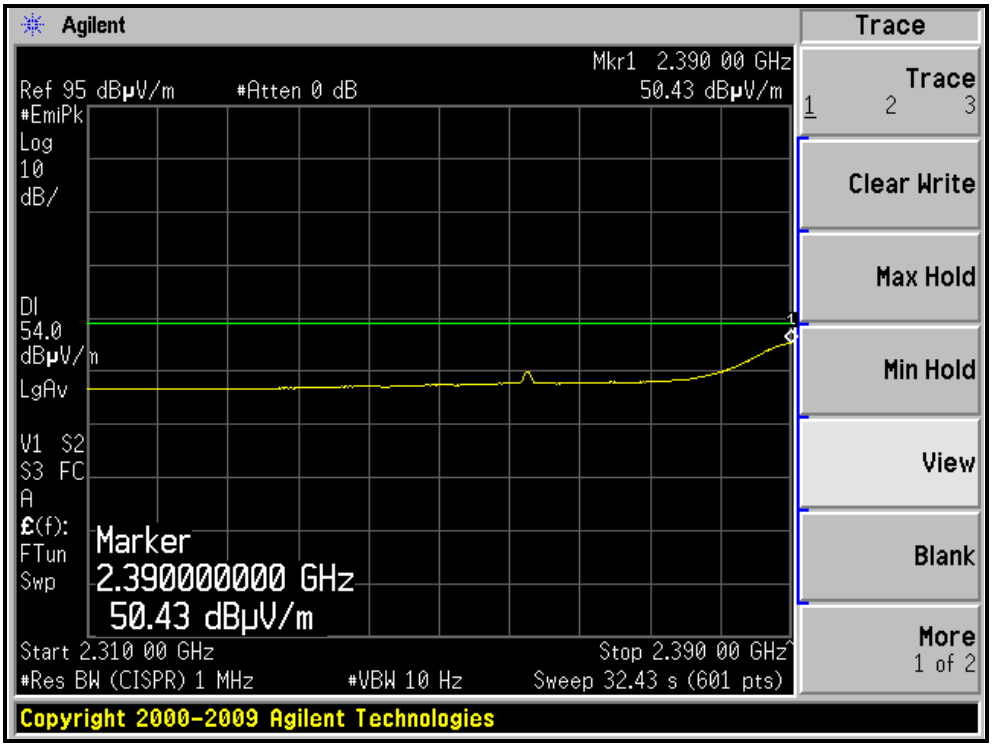
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH3, HORIZONTAL)



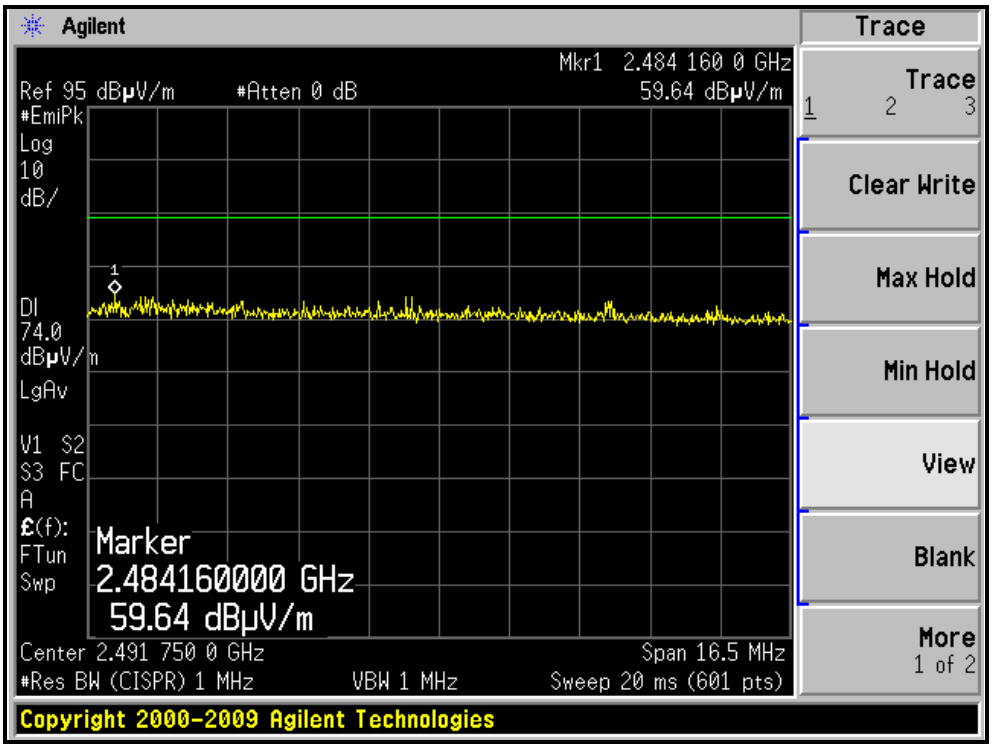


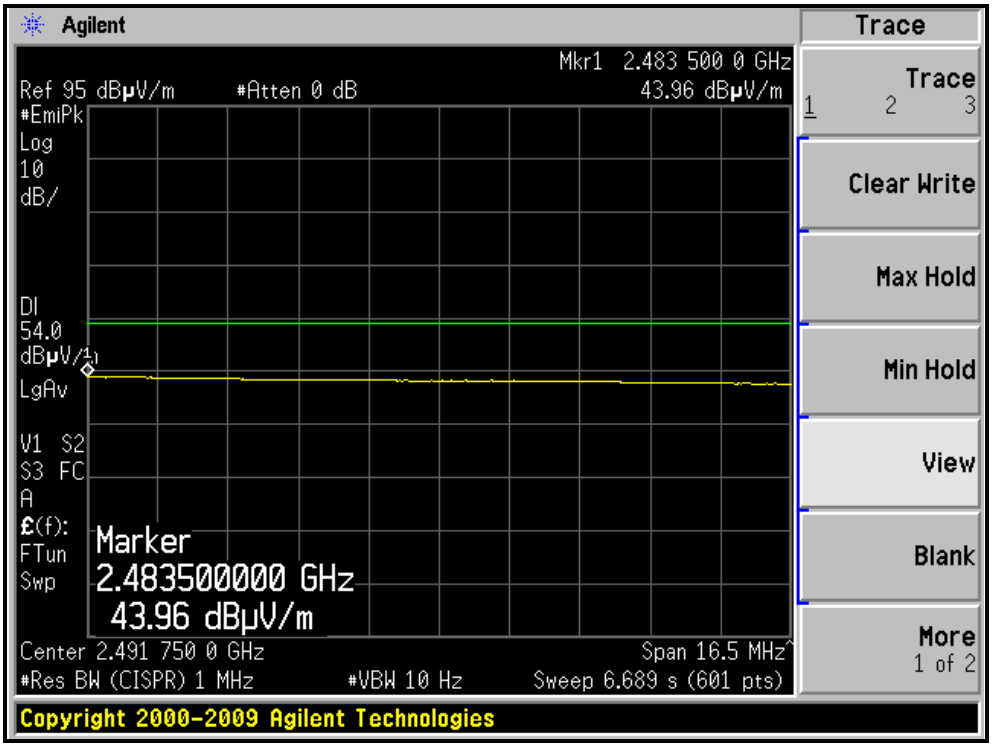
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH3, VERTICAL)



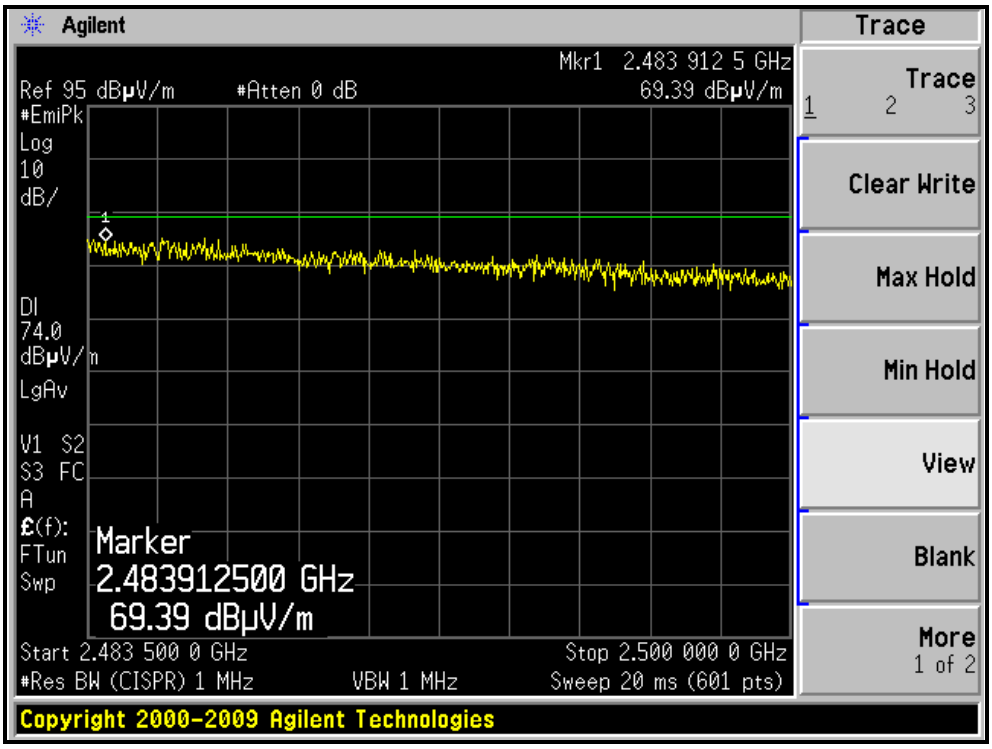


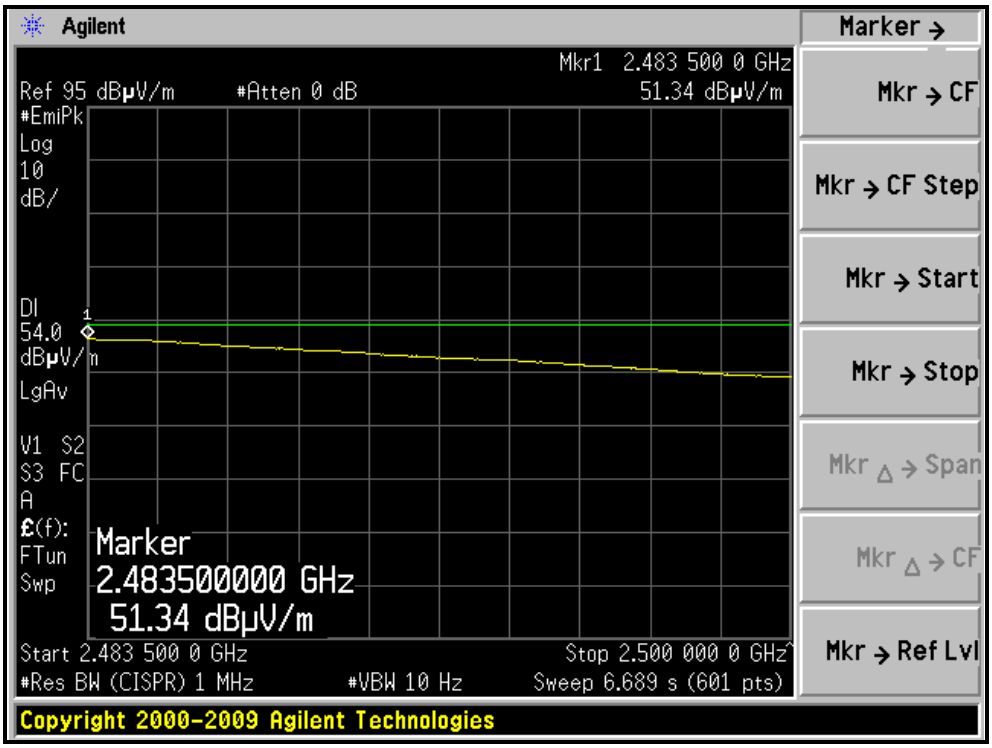
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH9, HORIZONTAL)





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





4.2.8 TEST RESULTS (FOR RECEIVER PART)

4.2.8.1 TEST RESULTS (With PIFA Antenna)

BELOW 1GHz DATA：

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	20deg. C, 70%RH 1025 hPa	TESTED BY	Eric Lee

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	142.54	38.3 QP	43.5	-5.2	1.00 H	236	24.15	14.15
2	147.84	41.8 QP	43.5	-1.7	1.00 H	47	27.57	14.23
3	166.74	42.1 QP	43.5	-1.4	2.00 H	54	28.13	13.97
4	184.53	35.6 QP	43.5	-7.9	1.25 H	86	23.30	12.33
5	199.18	41.9 QP	43.5	-1.6	1.00 H	207	30.62	11.24
6	499.51	39.9 QP	46.0	-6.1	1.25 H	26	19.95	19.95
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	146.30	32.8 QP	43.5	-10.7	1.25 V	360	18.59	14.21
2	166.60	37.9 QP	43.5	-5.6	1.75 V	190	23.92	13.98
3	183.92	35.3 QP	43.5	-8.2	1.00 V	153	22.95	12.38
4	199.30	35.4 QP	43.5	-8.1	1.00 V	10	24.21	11.23
5	300.00	32.9 QP	46.0	-13.1	1.50 V	153	17.95	14.93
6	499.60	36.0 QP	46.0	-10.0	1.25 V	297	16.05	19.95

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 DATA

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 7.5GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	3229.30	46.8 PK	74.0	-27.2	1.21 H	131	13.40	33.40
2	3229.30	41.2 AV	54.0	-12.8	1.21 H	131	7.80	33.40
3	6458.60	53.1 PK	74.0	-20.9	1.00 H	142	10.81	42.29
4	6458.60	39.6 AV	54.0	-14.4	1.00 H	142	-2.69	42.29
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	3229.30	44.8 PK	74.0	-29.2	1.00 V	201	11.40	33.40
2	3229.30	36.4 AV	54.0	-17.6	1.00 V	201	3.00	33.40
3	6458.60	53.9 PK	74.0	-20.1	1.06 V	251	11.61	42.29
4	6458.60	39.4 AV	54.0	-14.6	1.06 V	251	-2.89	42.29

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	**FREQUENCY RANGE**	1 ~ 7.5GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 61%RH 1025 hPa	**TESTED BY**	Eric Lee

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	3262.60	46.9 PK	74.0	-27.1	1.20 H	132	13.40	33.50
2	3262.60	41.4 AV	54.0	-12.6	1.20 H	132	7.90	33.50
3	6525.20	53.2 PK	74.0	-20.8	1.00 H	147	10.78	42.42
4	6525.20	39.4 AV	54.0	-14.6	1.00 H	147	-3.02	42.42
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	3262.60	44.9 PK	74.0	-29.1	1.00 V	212	11.40	33.50
2	3262.60	36.8 AV	54.0	-17.2	1.00 V	212	3.30	33.50
3	6525.20	53.4 PK	74.0	-20.6	1.06 V	255	10.98	42.42
4	6525.20	39.2 AV	54.0	-14.8	1.06 V	255	-3.22	42.42

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

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

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

4. Margin value = Emission level – Limit value.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	**FREQUENCY RANGE**	1 ~ 7.5GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 61%RH 1025 hPa	**TESTED BY**	Eric Lee

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	3295.90	45.8 PK	74.0	-28.2	1.22 H	134	12.21	33.59
2	3295.90	40.6 AV	54.0	-13.4	1.22 H	134	7.01	33.59
3	6591.80	54.1 PK	74.0	-19.9	1.00 H	148	11.48	42.62
4	6591.80	39.8 AV	54.0	-14.2	1.00 H	148	-2.82	42.62
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	3295.90	44.4 PK	74.0	-29.6	1.00 V	210	10.81	33.59
2	3295.90	36.3 AV	54.0	-17.7	1.00 V	210	2.71	33.59
3	6591.80	54.4 PK	74.0	-19.6	1.09 V	255	11.78	42.62
4	6591.80	39.6 AV	54.0	-14.4	1.09 V	255	-3.02	42.62

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

4.2.8.2 TEST RESULTS (With Dipole Antenna)

BELOW 1GHz DATA：

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	**FREQUENCY RANGE**	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	20deg. C, 70%RH 1025 hPa	**TESTED BY**	Eric Lee

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	142.58	38.7 QP	43.5	-4.8	1.00 H	62	24.55	14.15
2	147.84	41.8 QP	43.5	-1.7	1.00 H	47	27.57	14.23
3	**166.81**	**42.2 QP**	**43.5**	**-1.3**	**1.25 H**	**56**	**28.23**	**13.97**
4	184.62	35.7 QP	43.5	-7.8	1.75 H	159	23.41	12.33
5	199.23	42.0 QP	43.5	-1.5	1.75 H	89	30.76	11.24
6	499.62	40.8 QP	46.0	-5.2	1.00 H	239	20.85	19.95
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	146.28	33.6 QP	43.5	-9.9	1.00 V	58	19.36	14.21
2	166.57	38.3 QP	43.5	-5.2	2.00 V	325	24.32	13.98
3	184.21	35.7 QP	43.5	-7.8	1.25 V	86	23.34	12.36
4	199.32	35.6 QP	43.5	-7.9	1.50 V	1	24.37	11.23
5	299.97	33.7 QP	46.0	-12.3	1.25 V	222	18.75	14.93
6	499.54	37.4 QP	46.0	-8.6	1.50 V	48	17.45	19.95

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 7.5GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 61%RH 1025 hPa	TESTED BY	Eric Lee

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	3229.30	46.3 PK	74.0	-27.7	1.06 H	107	12.90	33.40
2	3229.30	39.2 AV	54.0	-14.8	1.06 H	107	5.80	33.40
3	6458.60	53.3 PK	74.0	-20.7	1.20 H	214	11.01	42.29
4	6458.60	39.6 AV	54.0	-14.4	1.20 H	214	-2.69	42.29
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	3229.30	47.8 PK	74.0	-26.2	1.04 V	205	14.40	33.40
2	3229.30	41.0 AV	54.0	-13.0	1.04 V	205	7.60	33.40
3	6458.60	52.8 PK	74.0	-21.2	1.03 V	251	10.51	42.29
4	6458.60	39.2 AV	54.0	-14.8	1.03 V	251	-3.09	42.29

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	**FREQUENCY RANGE**	1 ~ 7.5GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 61%RH 1025 hPa	**TESTED BY**	Eric Lee

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	3262.60	45.8 PK	74.0	-28.2	1.08 H	109	12.30	33.50
2	3262.60	38.8 AV	54.0	-15.2	1.08 H	109	5.30	33.50
3	6525.20	53.8 PK	74.0	-20.2	1.22 H	214	11.38	42.42
4	6525.20	39.8 AV	54.0	-14.2	1.22 H	214	-2.62	42.42
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	3262.60	47.2 PK	74.0	-26.8	1.02 V	208	13.70	33.50
2	3262.60	40.5 AV	54.0	-13.5	1.02 V	208	7.00	33.50
3	6525.20	53.4 PK	74.0	-20.6	1.08 V	255	10.98	42.42
4	6525.20	39.6 AV	54.0	-14.4	1.08 V	255	-2.82	42.42

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

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

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

4. Margin value = Emission level – Limit value.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	**FREQUENCY RANGE**	1 ~ 7.5GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19deg. C, 61%RH 1025 hPa	**TESTED BY**	Eric Lee

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	3295.90	45.4 PK	74.0	-28.6	1.04 H	118	11.81	33.59
2	3295.90	37.9 AV	54.0	-16.1	1.04 H	118	4.31	33.59
3	6591.80	53.4 PK	74.0	-20.6	1.20 H	220	10.78	42.62
4	6591.80	39.6 AV	54.0	-14.4	1.20 H	220	-3.02	42.62
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	3295.90	46.9 PK	74.0	-27.1	1.00 V	209	13.31	33.59
2	3295.90	40.1 AV	54.0	-13.9	1.00 V	209	6.51	33.59
3	6591.80	53.7 PK	74.0	-20.3	1.05 V	257	11.08	42.62
4	6591.80	39.8 AV	54.0	-14.2	1.05 V	257	-2.82	42.62

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

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

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

4. Margin value = Emission level – Limit value.

4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer	FSP 40	100060	May 17, 2010	May 16, 2011

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

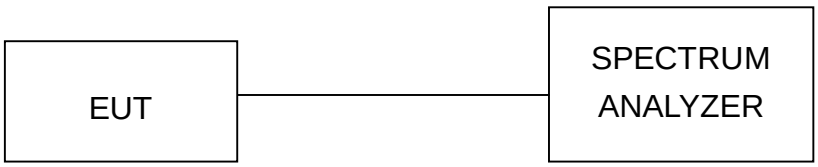
4.3.3 TEST PROCEDURE

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

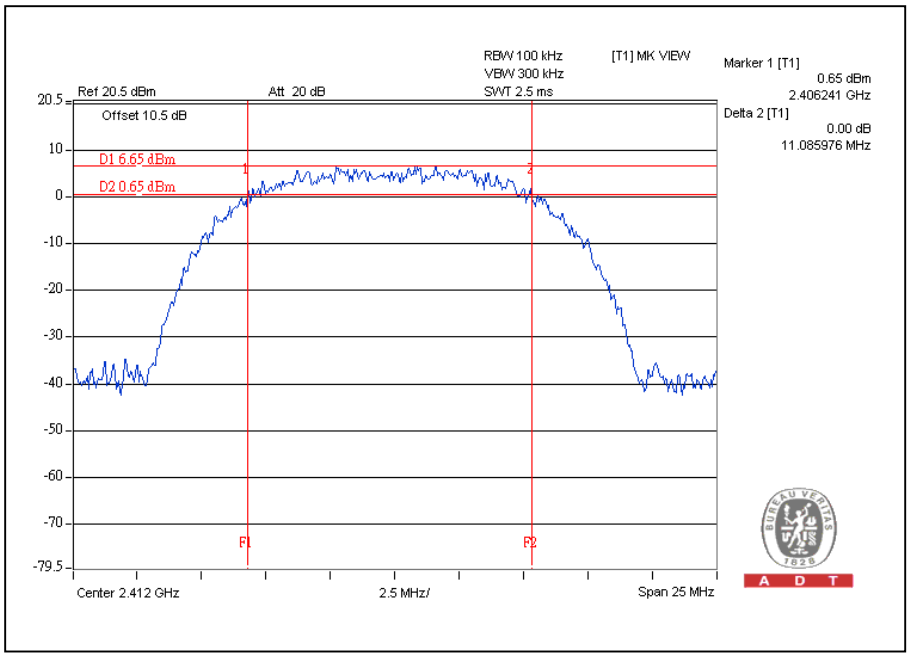
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 TEST RESULTS

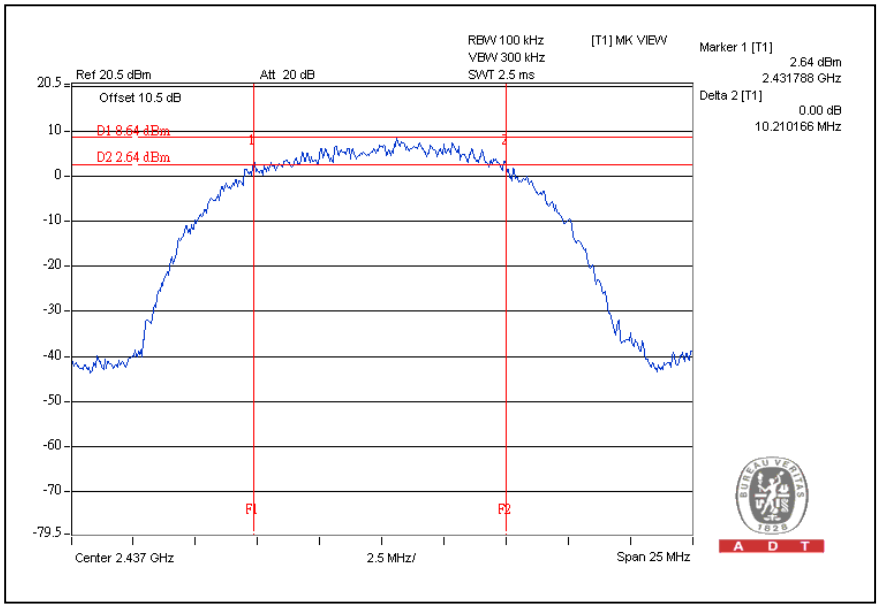
802.11b DSSS MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	11.08	0.5	PASS
6	2437	10.21	0.5	PASS
11	2462	9.75	0.5	PASS

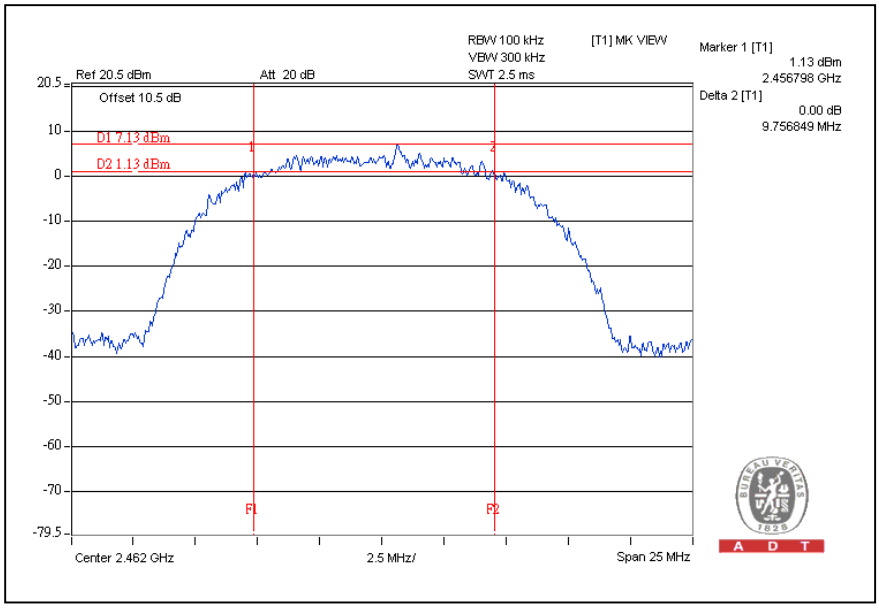
CH1



CH6


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
2.64 dBm
2.431788 GHz
Delta 2 [T1]
0.00 dB
10.210166 MHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 8.64 dBm
D2 2.64 dBm
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
F1
F2
Center 2.437 GHz
2.5 MHz/
Span 25 MHz

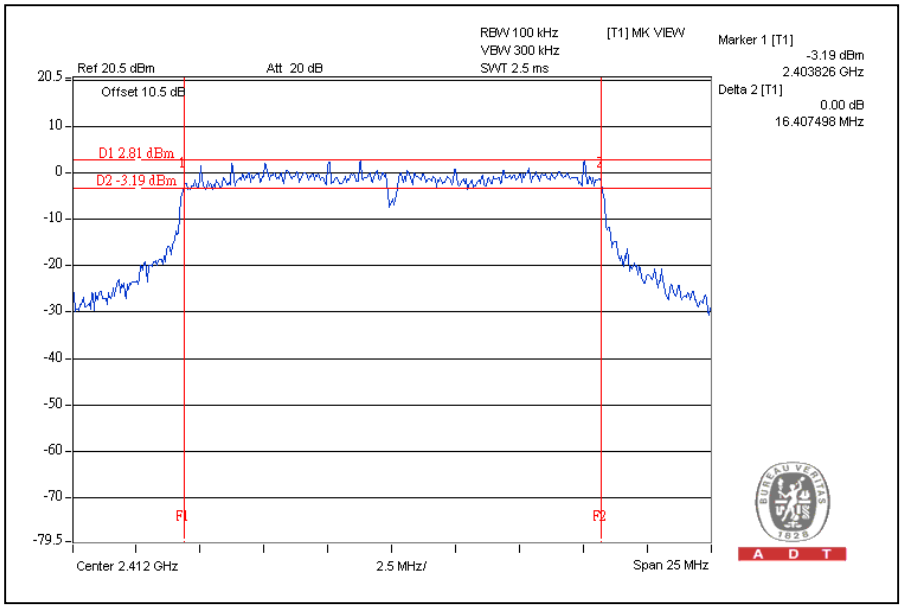
CH11


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
1.13 dBm
2.456798 GHz
Delta 2 [T1]
0.00 dB
9.756849 MHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 7.13 dBm
D2 1.13 dBm
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
F1
F2
Center 2.462 GHz
2.5 MHz/
Span 25 MHz

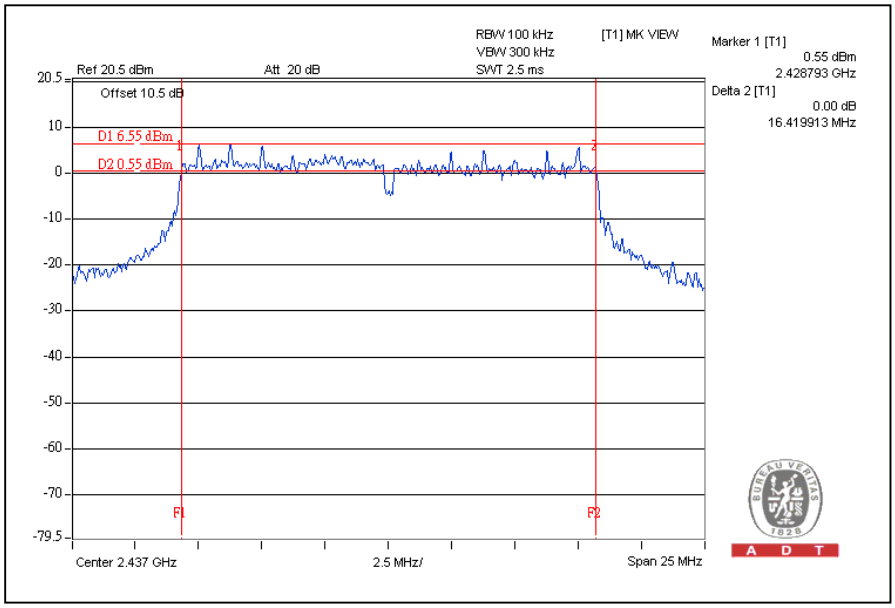
802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.4	0.5	PASS
6	2437	16.41	0.5	PASS
11	2462	16.44	0.5	PASS

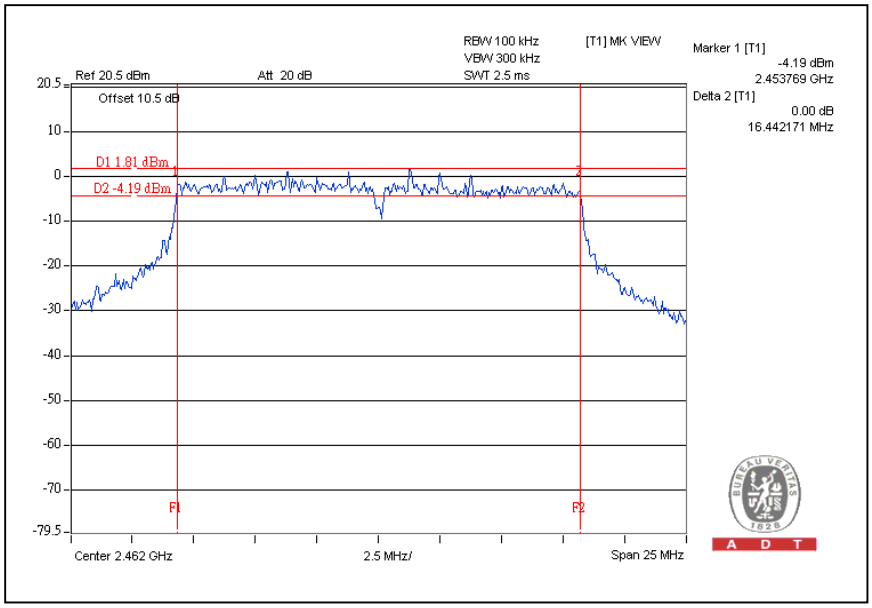
CH1



CH6


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
0.55 dBm
2.428793 GHz
Delta 2 [T1]
0.00 dB
16.419913 MHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 6.55 dBm
D2 0.55 dBm
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
F1
F2
Center 2.437 GHz
2.5 MHz/
Span 25 MHz

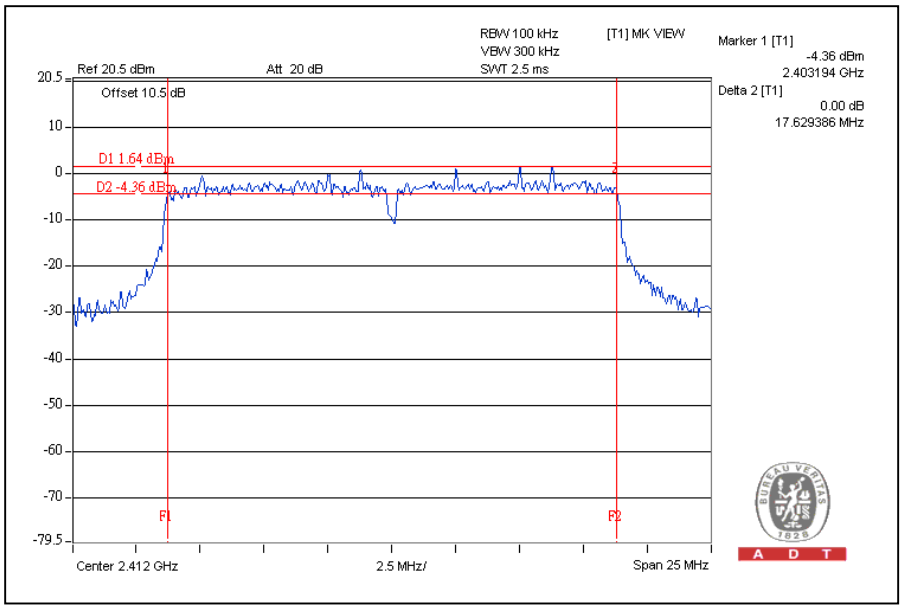
CH11


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-4.19 dBm
2.453769 GHz
Delta 2 [T1]
0.00 dB
16.442171 MHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 1.81 dBm
D2 -4.19 dBm
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
F1
F2
Center 2.462 GHz
2.5 MHz/
Span 25 MHz

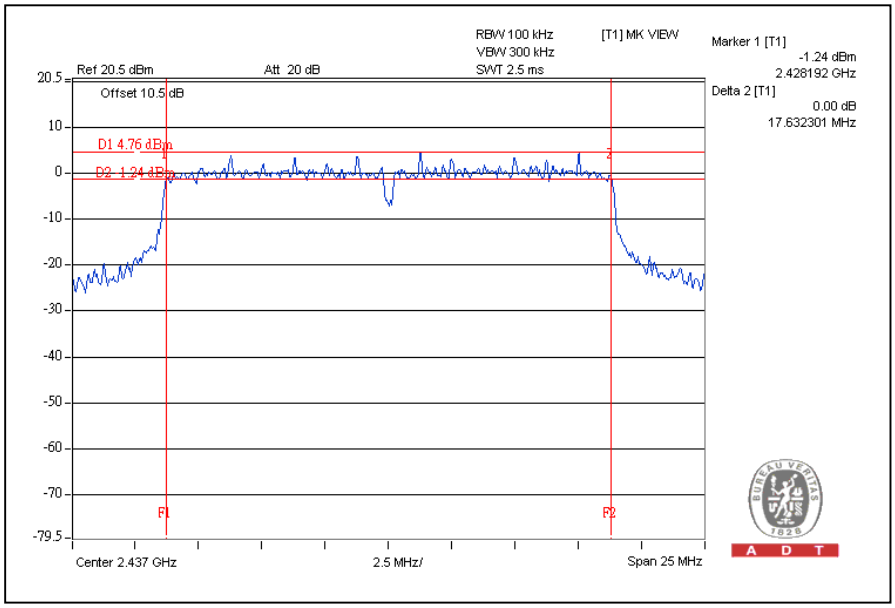
802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	17.62	0.5	PASS
6	2437	17.63	0.5	PASS
11	2462	17.61	0.5	PASS

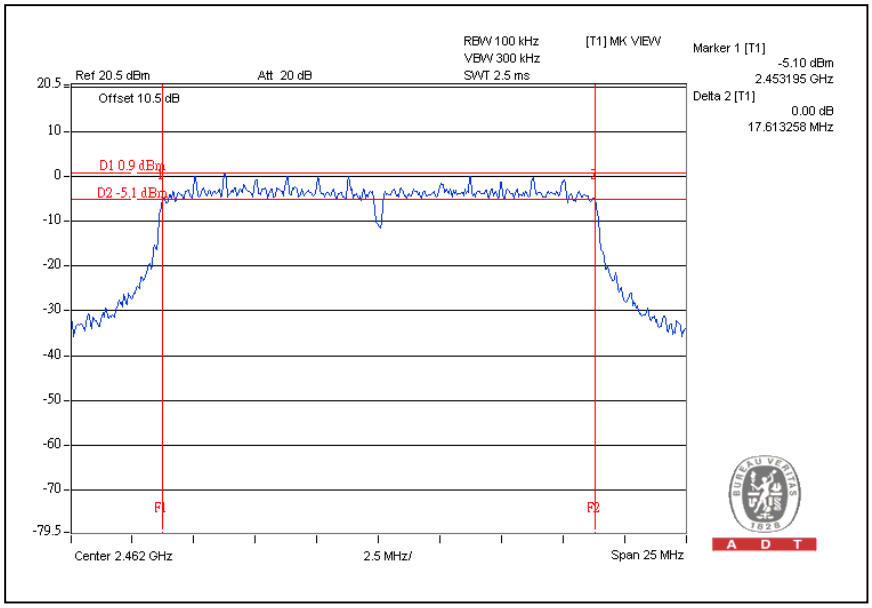
CH1



CH6


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-1.24 dBm
2.428192 GHz
Delta 2 [T1]
0.00 dB
17.632301 MHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 4.76 dBm
D2 -1.24 dBm
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
F1
F2
Center 2.437 GHz
2.5 MHz/
Span 25 MHz

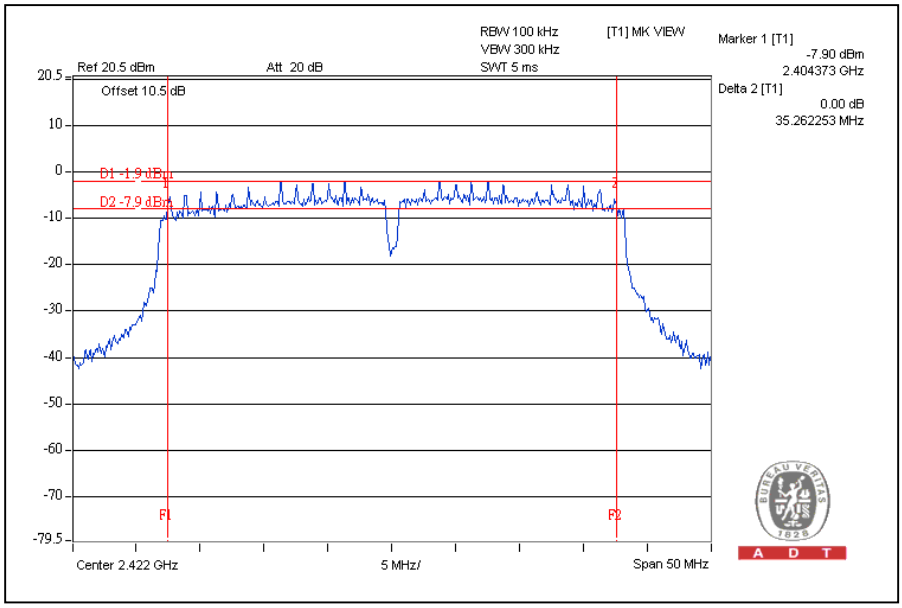
CH11


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-5.10 dBm
2.453195 GHz
Delta 2 [T1]
0.00 dB
17.613258 MHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 0.9 dBm
D2 -5.1 dBm
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
F1
F2
Center 2.462 GHz
2.5 MHz/
Span 25 MHz

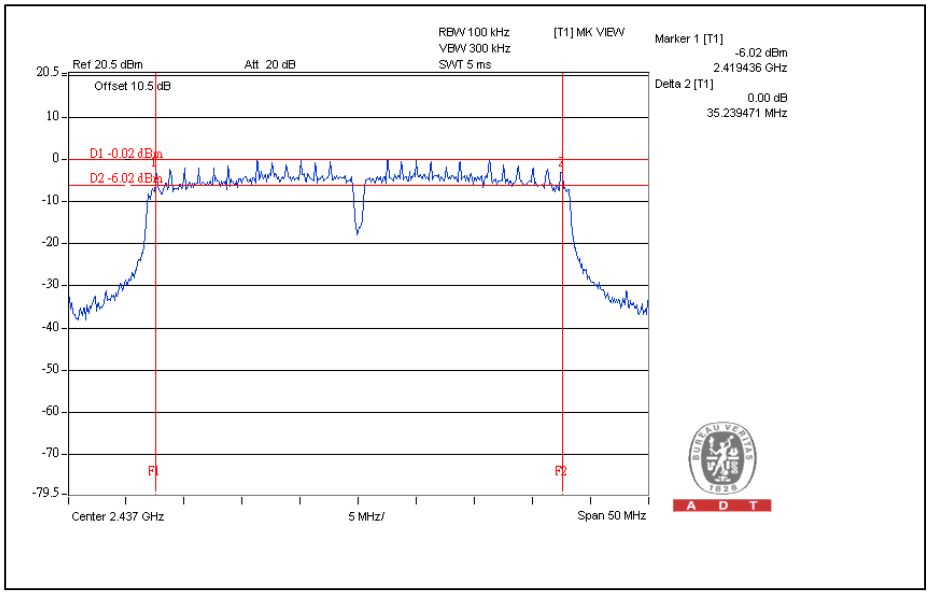
802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
3	2422	35.26	0.5	PASS
6	2437	35.23	0.5	PASS
9	2452	35.22	0.5	PASS

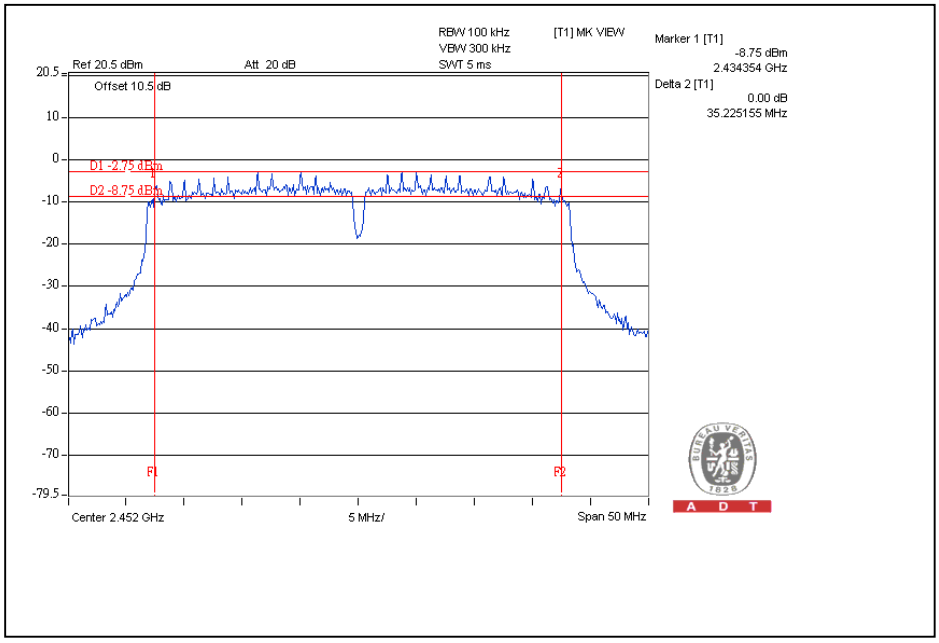
CH3



CH6


RBW 100 kHz
VBW 300 kHz
SWT 5 ms
[T1] MK VIEW
Marker 1 [T1]
-6.02 dBm
2.419436 GHz
Delta 2 [T1]
0.00 dB
35.239471 MHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 -0.02 dBm
D2 -6.02 dBm
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
F1
F2
Center 2.437 GHz
5 MHz/
Span 50 MHz

CH9


RBW 100 kHz
VBW 300 kHz
SWT 5 ms
[T1] MK VIEW
Marker 1 [T1]
-8.75 dBm
2.434354 GHz
Delta 2 [T1]
0.00 dB
35.225155 MHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 -2.75 dBm
D2 -8.75 dBm
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
F1
F2
Center 2.452 GHz
5 MHz/
Span 50 MHz

4.4 99% BANDWIDTH MEASUREMENT

4.4.1 TEST INSTRUMENTS

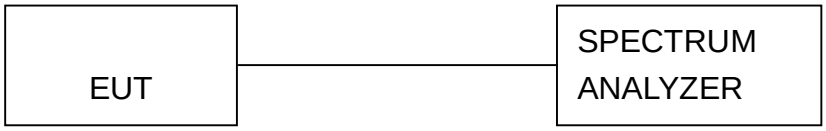
DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer	FSP 40	100060	May 17, 2010	May 16, 2011

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

4.4.2 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 300kHz RBW and 1MHz VBW & 1MHz RBW and 3MHz VBW.

4.4.3 TEST SETUP



4.4.4 EUT OPERATING CONDITIONS

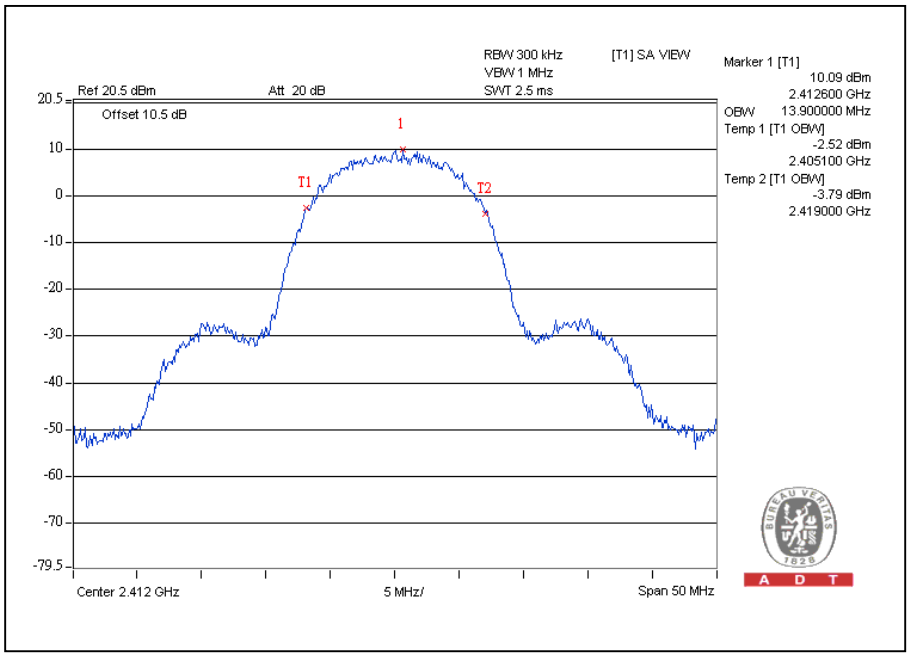
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.4.5 TEST RESULTS

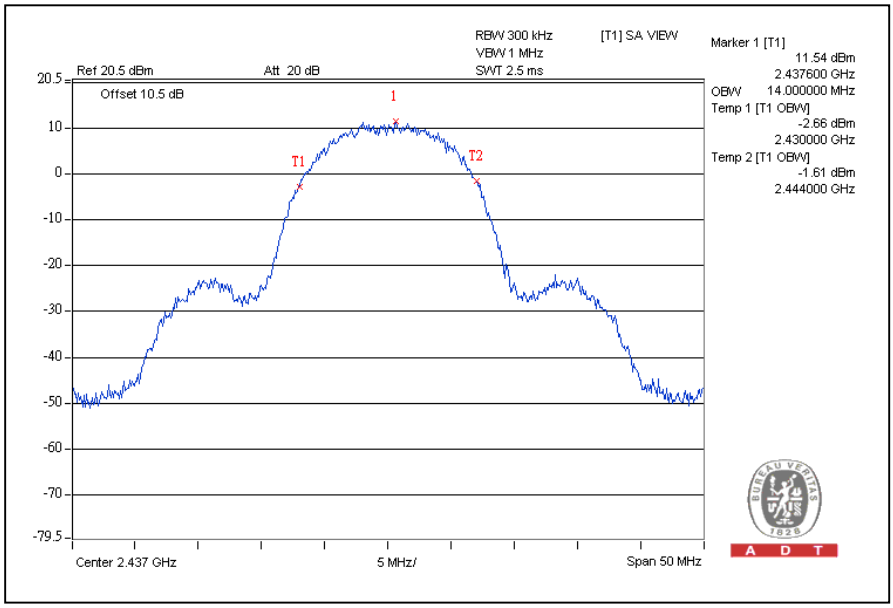
802.11b DSSS MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	99% BANDWIDTH (MHz)
1	2412	13.9
6	2437	14.0
11	2462	14.0

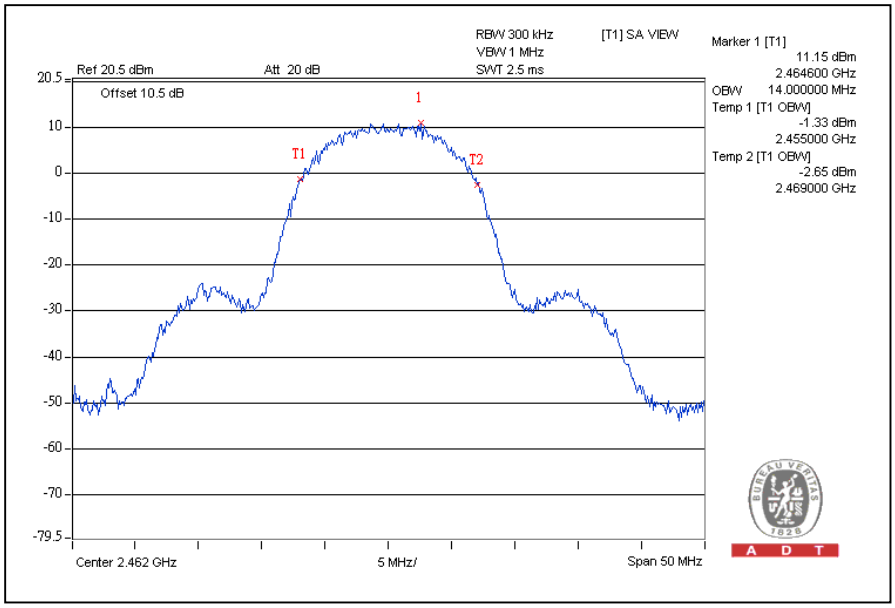
CH1



CH6


RBW 300 kHz
VBW 1 MHz
SWT 2.5 ms
[T1] SA VIEW
Marker 1 [T1]
11.54 dBm
2.437600 GHz
OBW 14.000000 MHz
Temp 1 [T1 OBW]
-2.66 dBm
2.430000 GHz
Temp 2 [T1 OBW]
-1.61 dBm
2.444000 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
T1
T2
1
Center 2.437 GHz
5 MHz/
Span 50 MHz

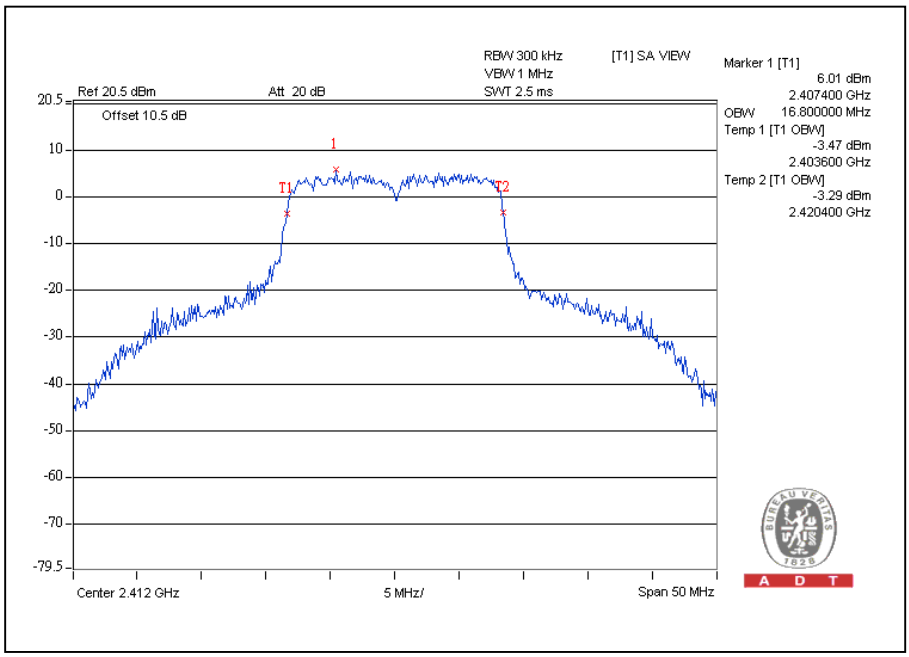
CH11


RBW 300 kHz
VBW 1 MHz
SWT 2.5 ms
[T1] SA VIEW
Marker 1 [T1]
11.15 dBm
2.464600 GHz
OBW 14.000000 MHz
Temp 1 [T1 OBW]
-1.33 dBm
2.455000 GHz
Temp 2 [T1 OBW]
-2.65 dBm
2.469000 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
T1
T2
1
Center 2.462 GHz
5 MHz/
Span 50 MHz

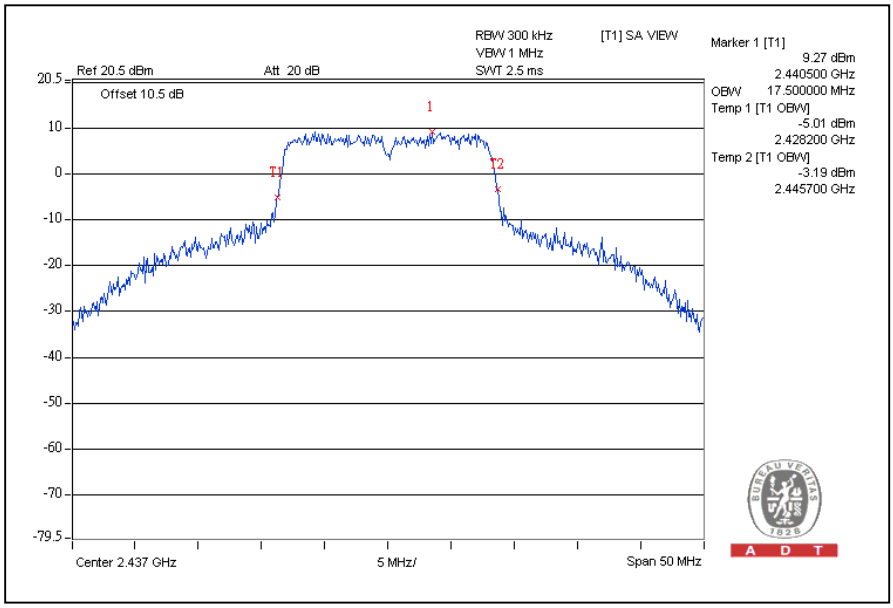
802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	99% BANDWIDTH (MHz)
1	2412	16.8
6	2437	17.5
11	2462	16.7

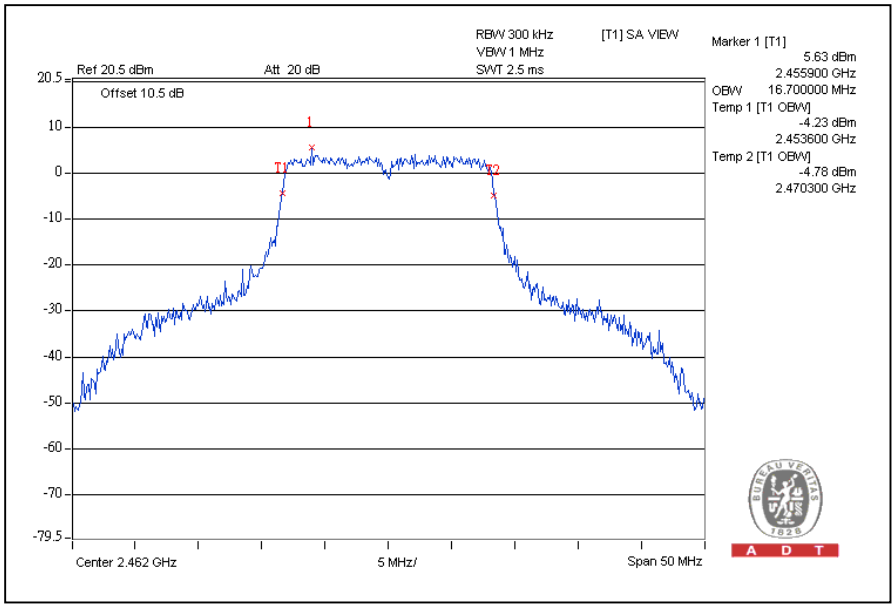
CH1



CH6


RBW 300 kHz
VBW 1 MHz
SWT 2.5 ms
[T1] SA VIEW
Marker 1 [T1]
9.27 dBm
2.440500 GHz
OBW 17.500000 MHz
Temp 1 [T1 OBW]
-5.01 dBm
2.428200 GHz
Temp 2 [T1 OBW]
-3.19 dBm
2.445700 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Center 2.437 GHz
5 MHz/
Span 50 MHz

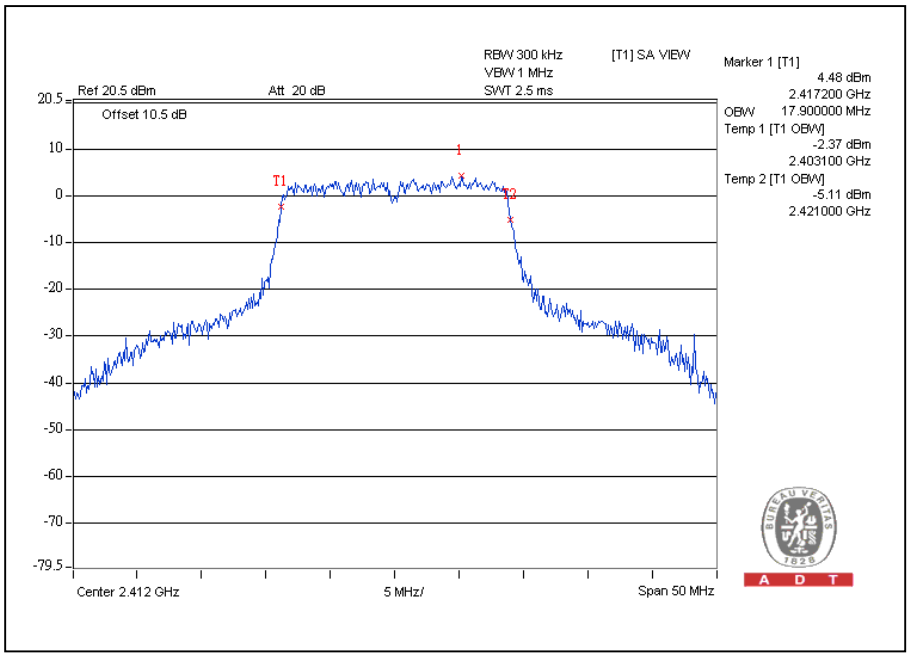
CH11


RBW 300 kHz
VBW 1 MHz
SWT 2.5 ms
[T1] SA VIEW
Marker 1 [T1]
5.63 dBm
2.455900 GHz
OBW 16.700000 MHz
Temp 1 [T1 OBW]
-4.23 dBm
2.453600 GHz
Temp 2 [T1 OBW]
-4.78 dBm
2.470300 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Center 2.462 GHz
5 MHz/
Span 50 MHz

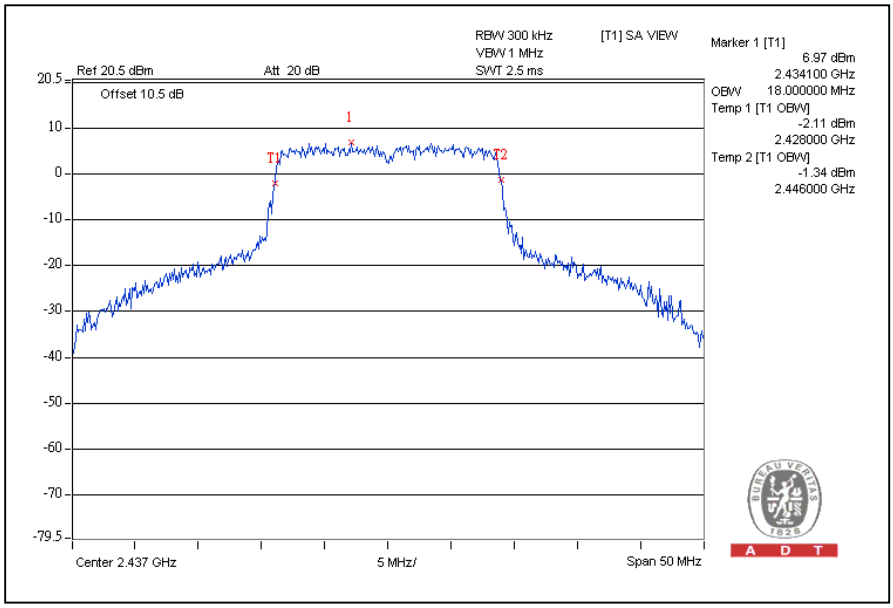
802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	99% BANDWIDTH (MHz)
1	2412	17.9
6	2437	18.0
11	2462	17.8

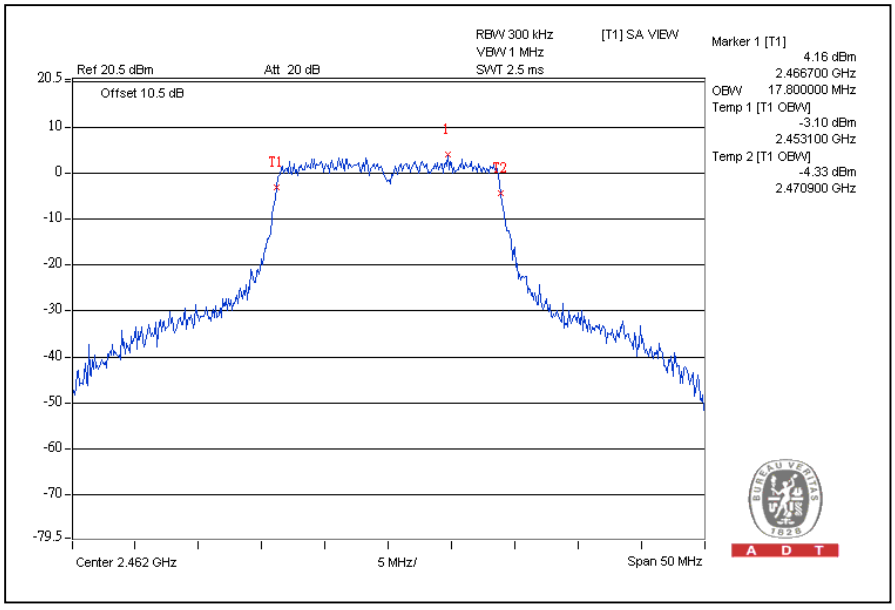
CH1



CH6


RBW 300 kHz
VBW 1 MHz
SWT 2.5 ms
[T1] SA VIEW
Marker 1 [T1]
6.97 dBm
2.434100 GHz
OBW 18.000000 MHz
Temp 1 [T1 OBW]
-2.11 dBm
2.428000 GHz
Temp 2 [T1 OBW]
-1.34 dBm
2.446000 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Center 2.437 GHz
5 MHz/
Span 50 MHz

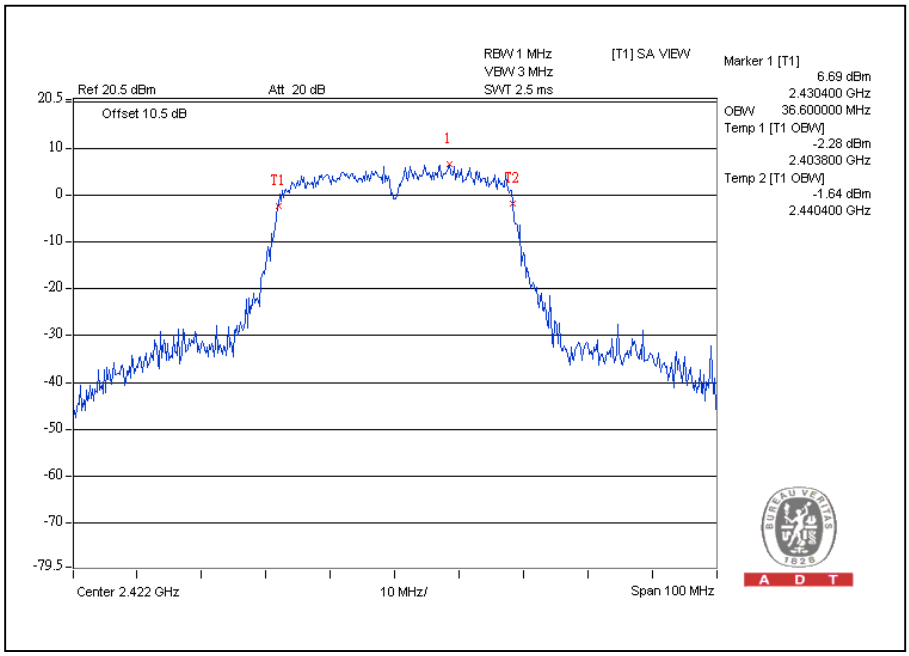
CH11


RBW 300 kHz
VBW 1 MHz
SWT 2.5 ms
[T1] SA VIEW
Marker 1 [T1]
4.16 dBm
2.466700 GHz
OBW 17.800000 MHz
Temp 1 [T1 OBW]
-3.10 dBm
2.453100 GHz
Temp 2 [T1 OBW]
-4.33 dBm
2.470900 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Center 2.462 GHz
5 MHz/
Span 50 MHz

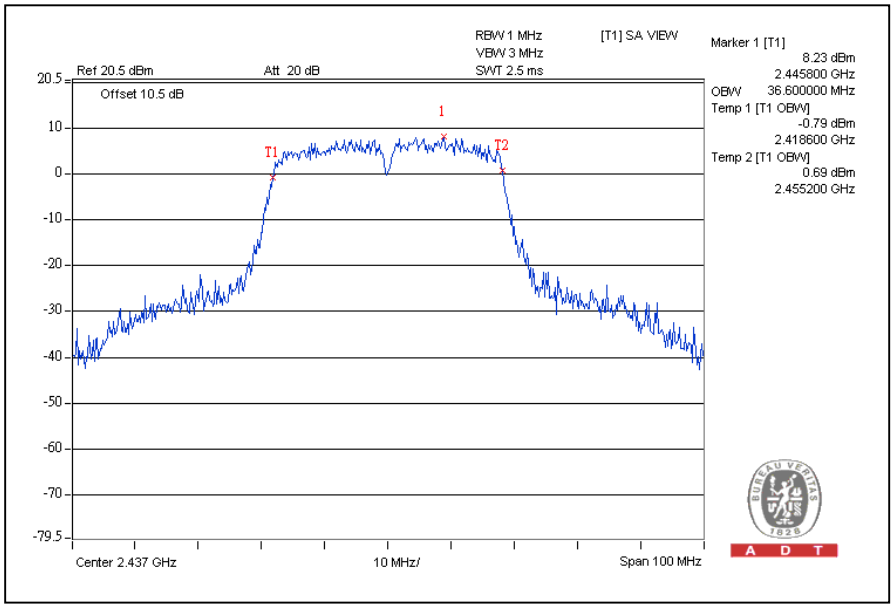
802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	99% BANDWIDTH (MHz)
3	2422	36.6
6	2437	36.6
9	2452	36.4

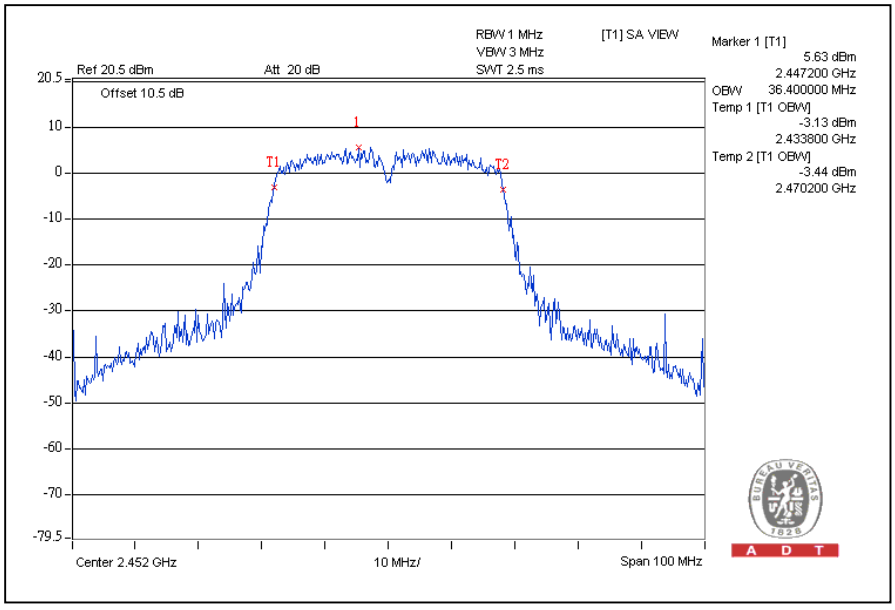
CH3



CH6


RBW 1 MHz
VBW 3 MHz
SWT 2.5 ms
[T1] SA VIEW
Marker 1 [T1]
8.23 dBm
2.445800 GHz
OBW 36.600000 MHz
Temp 1 [T1 OBW]
-0.79 dBm
2.418600 GHz
Temp 2 [T1 OBW]
0.69 dBm
2.455200 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
T1
T2
1
Center 2.437 GHz
10 MHz/
Span 100 MHz

CH9


RBW 1 MHz
VBW 3 MHz
SWT 2.5 ms
[T1] SA VIEW
Marker 1 [T1]
5.63 dBm
2.447200 GHz
OBW 36.400000 MHz
Temp 1 [T1 OBW]
-3.13 dBm
2.433800 GHz
Temp 2 [T1 OBW]
-3.44 dBm
2.470200 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
T1
T2
1
Center 2.452 GHz
10 MHz/
Span 100 MHz

4.5 MAXIMUM PEAK OUTPUT POWER

4.5.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

4.5.2 INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Peak Power Meter	ML2495A	0824006	May 04, 2010	May 03, 2011
Power Sensor	MA2411B	0738172	May 04, 2010	May 03, 2011

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

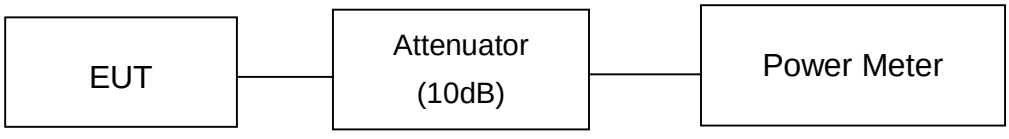
4.5.3 TEST PROCEDURES

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.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6

4.5.7 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	69.2	18.4	30	PASS
6	2437	100.0	20.0	30	PASS
11	2462	97.7	19.9	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	141.3	21.5	30	PASS
6	2437	269.2	24.3	30	PASS
11	2462	128.8	21.1	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	112.2	20.5	30	PASS
6	2437	199.5	23.0	30	PASS
11	2462	107.2	20.3	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	109.6	20.4	30	PASS
6	2437	173.8	22.4	30	PASS
9	2452	95.5	19.8	30	PASS

4.6 AVERAGE OUTPUT POWER

4.6.1 FOR REFERENCE.

4.6.2 TEST INSTRUMENTS

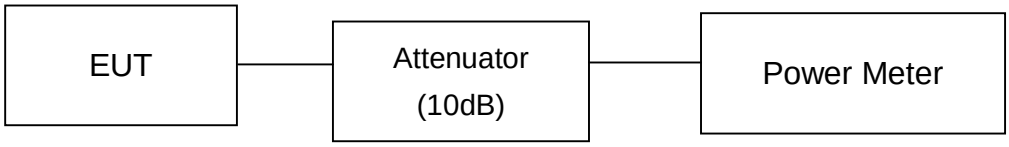
DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Peak Power Meter	ML2495A	0824006	May 04, 2010	May 03, 2011
Power Sensor	MA2411B	0738172	May 04, 2010	May 03, 2011

NOTE: 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 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 average power level.

4.6.4 TEST SETUP



4.6.5 EUT OPERATING CONDITIONS

Same as Item 4.3.6

4.6.6 TEST RESULTS

802.11b DSSS MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER OUTPUT (dBm)
1	2412	16.3
6	2437	18.1
11	2462	18.0

802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER OUTPUT (dBm)
1	2412	14.6
6	2437	18.0
11	2462	13.7

802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHZ)	AVERAGE POWER OUTPUT (DBM)
1	2412	13.3
6	2437	16.4
11	2462	12.8

802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER OUTPUT (dBm)
3	2422	12.3
6	2437	14.4
9	2452	11.7

4.7 POWER SPECTRAL DENSITY MEASUREMENT

4.7.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.7.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer	FSP 40	100060	May 17, 2010	May 16, 2011

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

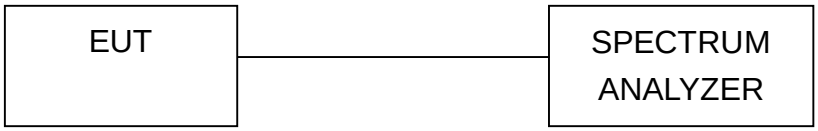
4.7.3 TEST PROCEDURE

1. 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.
2. The measurement include through a combiner with both chain and each chain when operate simultaneously.

4.7.4 DEVIATION FROM TEST STANDARD

No deviation

4.7.5 TEST SETUP



4.7.6 EUT OPERATING CONDITION

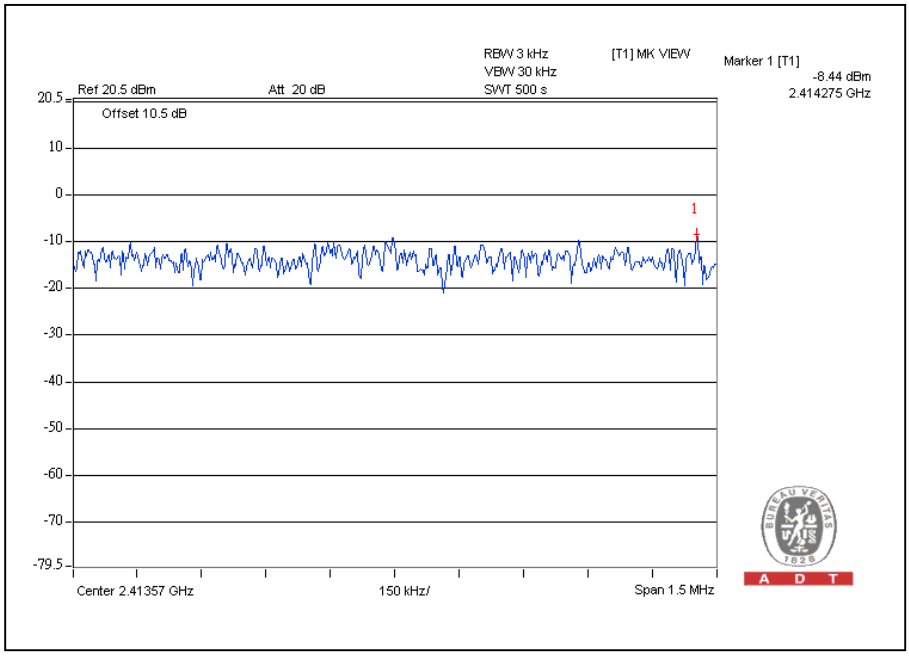
Same as Item 4.3.6

4.7.7 TEST RESULTS

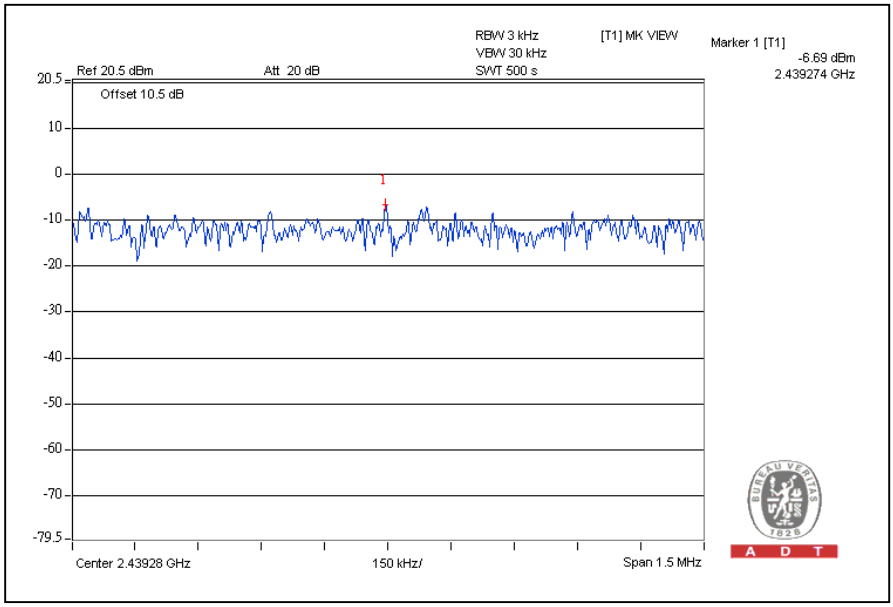
802.11b DSSS MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-8.4	8	PASS
6	2437	-6.7	8	PASS
11	2462	-7.4	8	PASS

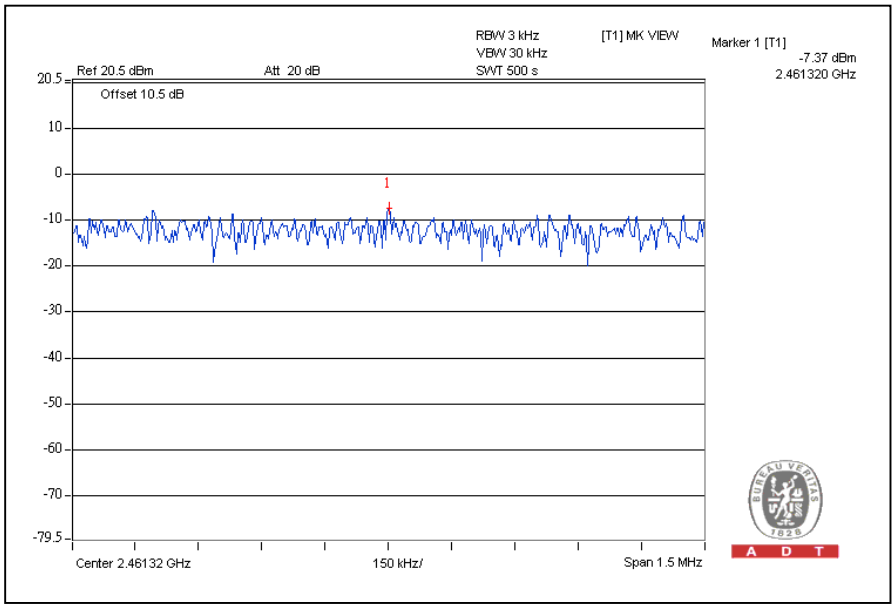
CH1



CH6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK VIEW
Marker 1 [T1]
-6.69 dBm
2.439274 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Center 2.43928 GHz
150 kHz/
Span 1.5 MHz

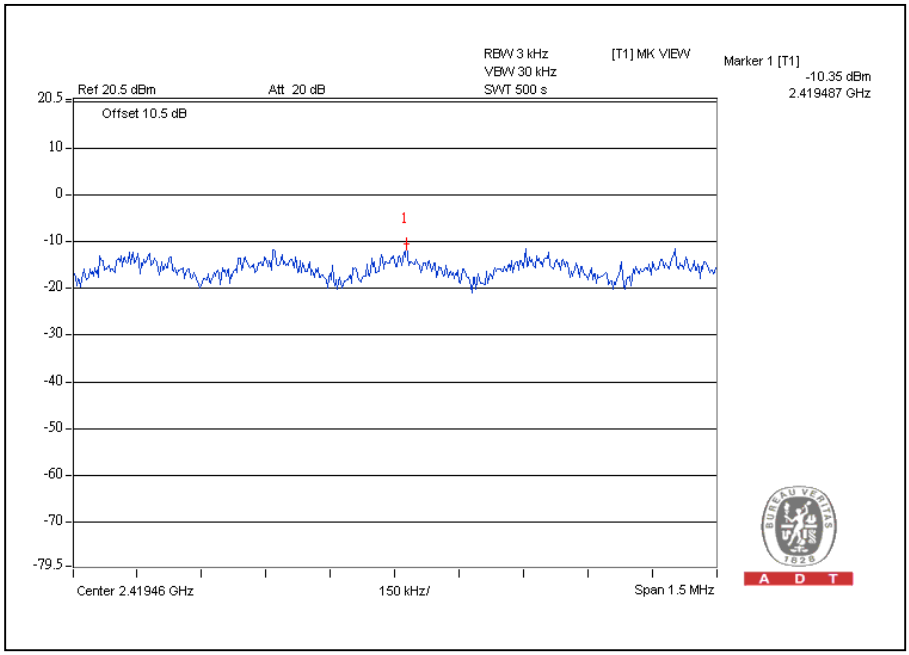
CH11


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK VIEW
Marker 1 [T1]
-7.37 dBm
2.461320 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Center 2.46132 GHz
150 kHz/
Span 1.5 MHz

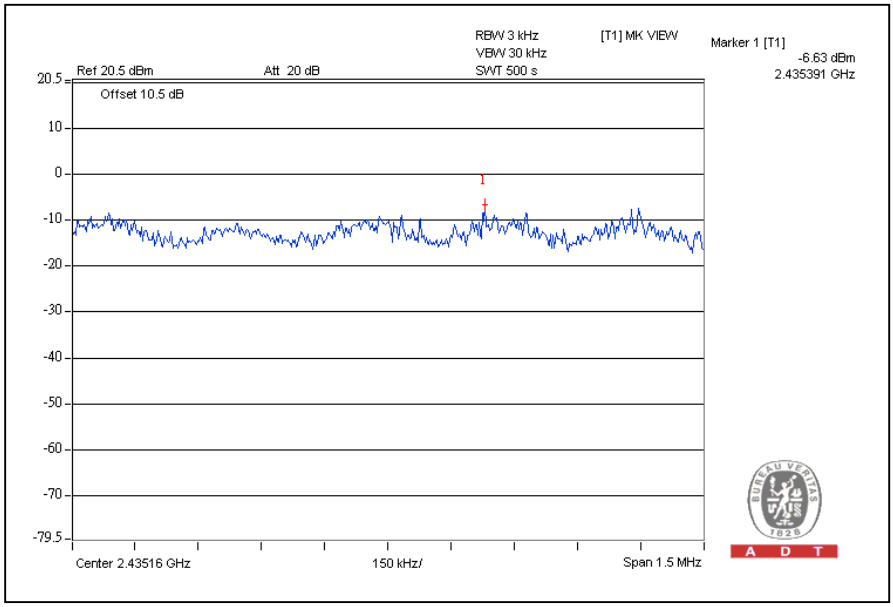
802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-10.4	8	PASS
6	2437	-6.6	8	PASS
11	2462	-12.6	8	PASS

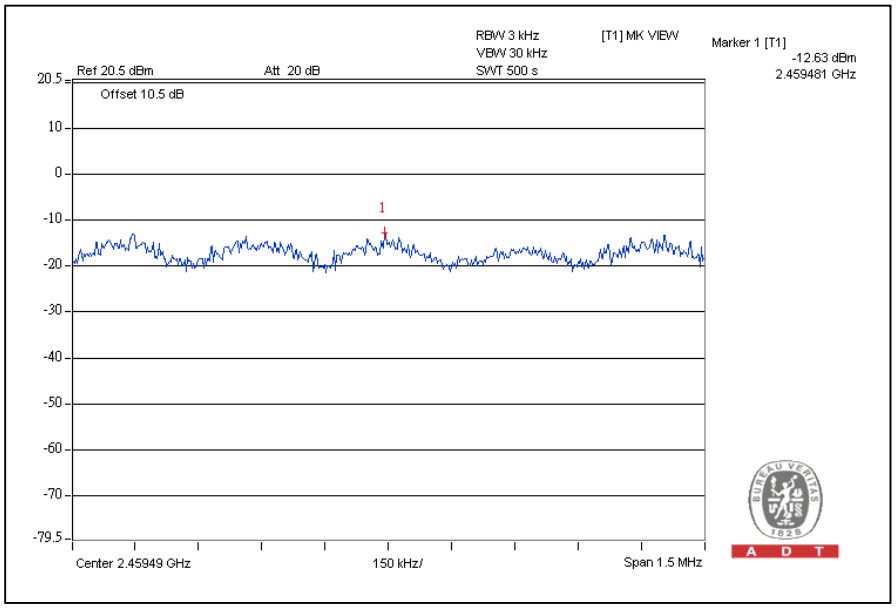
CH1



CH6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK VIEW
Marker 1 [T1]
-6.63 dBm
2.435391 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Center 2.43516 GHz
150 kHz/
Span 1.5 MHz

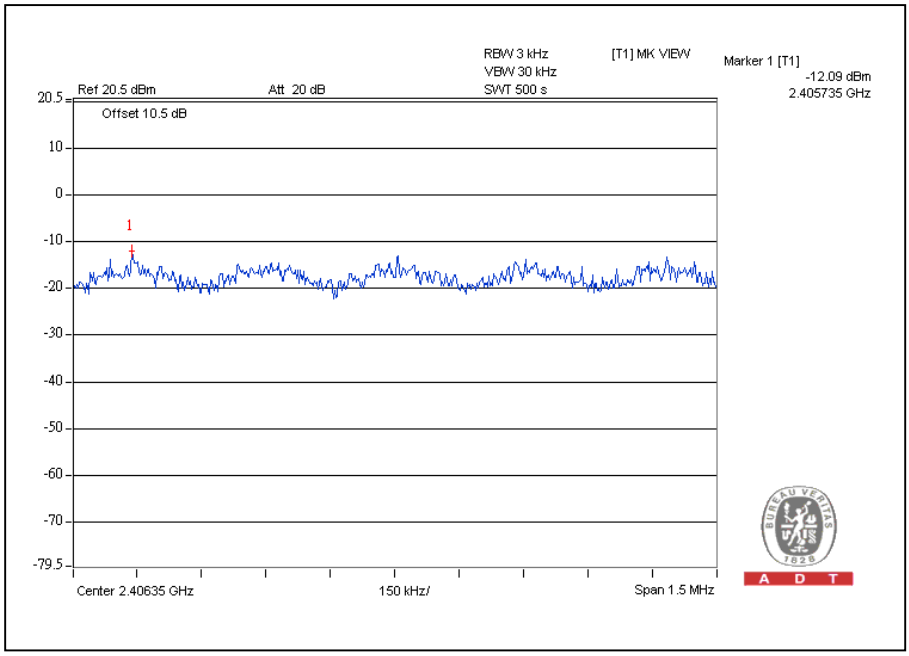
CH11


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK VIEW
Marker 1 [T1]
-12.63 dBm
2.459481 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Center 2.45949 GHz
150 kHz/
Span 1.5 MHz

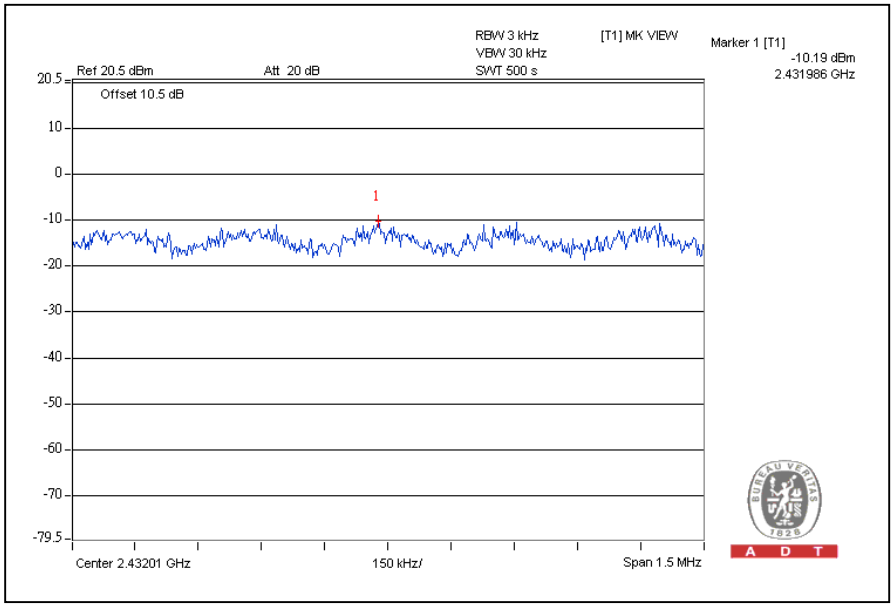
802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-12.1	8	PASS
6	2437	-10.2	8	PASS
11	2462	-13.8	8	PASS

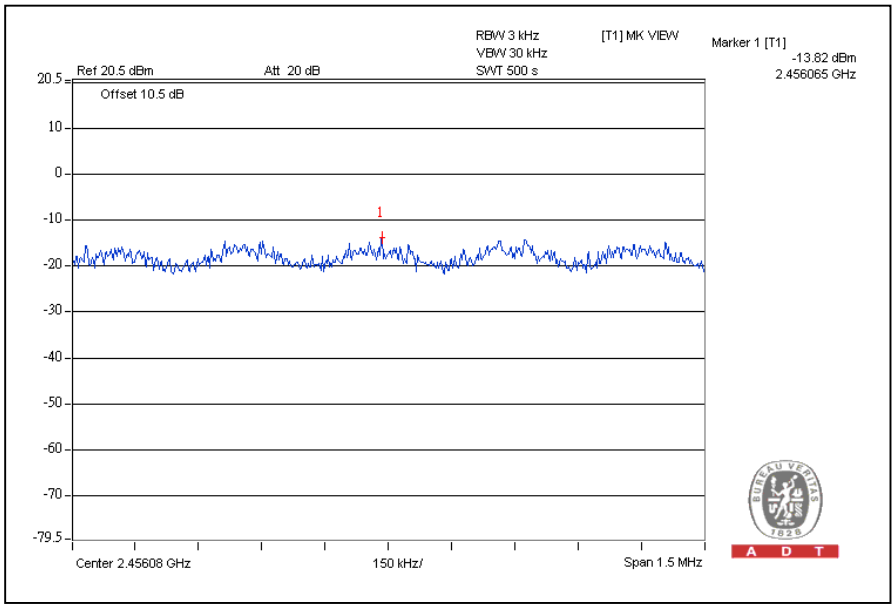
CH1



CH6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK VIEW
Marker 1 [T1]
-10.19 dBm
2.431986 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Center 2.43201 GHz
150 kHz/
Span 1.5 MHz

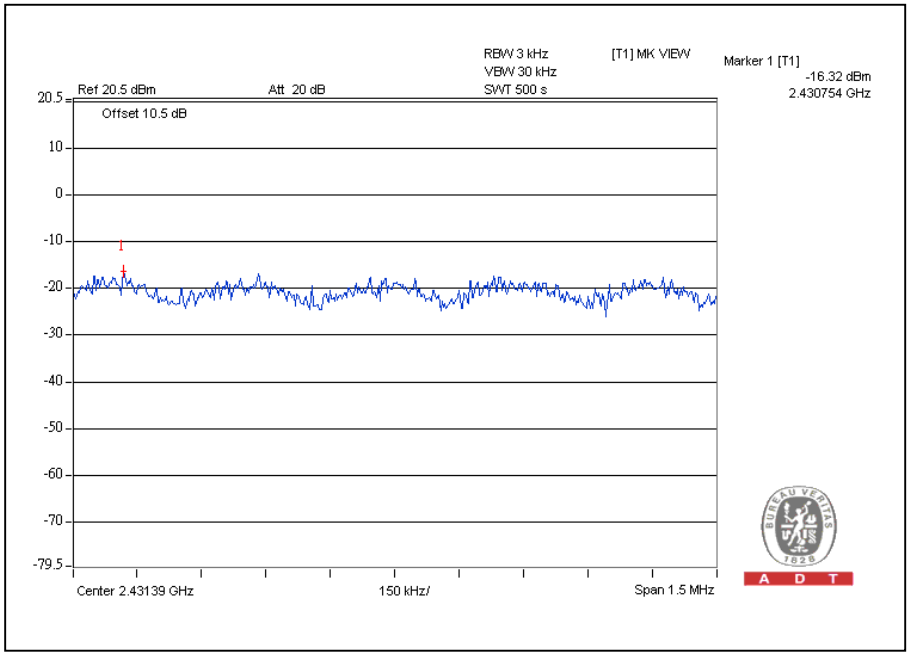
CH11


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK VIEW
Marker 1 [T1]
-13.82 dBm
2.456065 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Center 2.45608 GHz
150 kHz/
Span 1.5 MHz

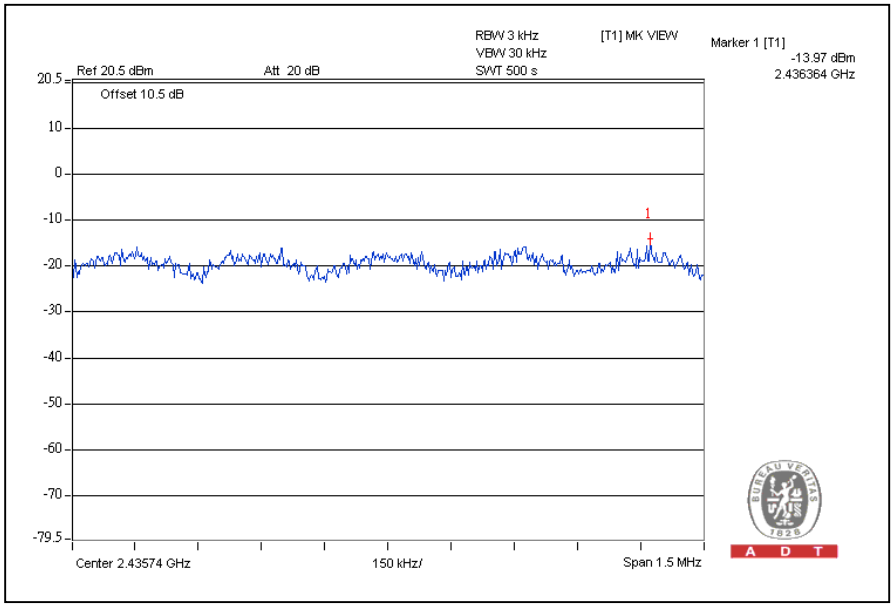
802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
3	2422	-16.3	8	PASS
6	2437	-14.0	8	PASS
9	2452	-17.1	8	PASS

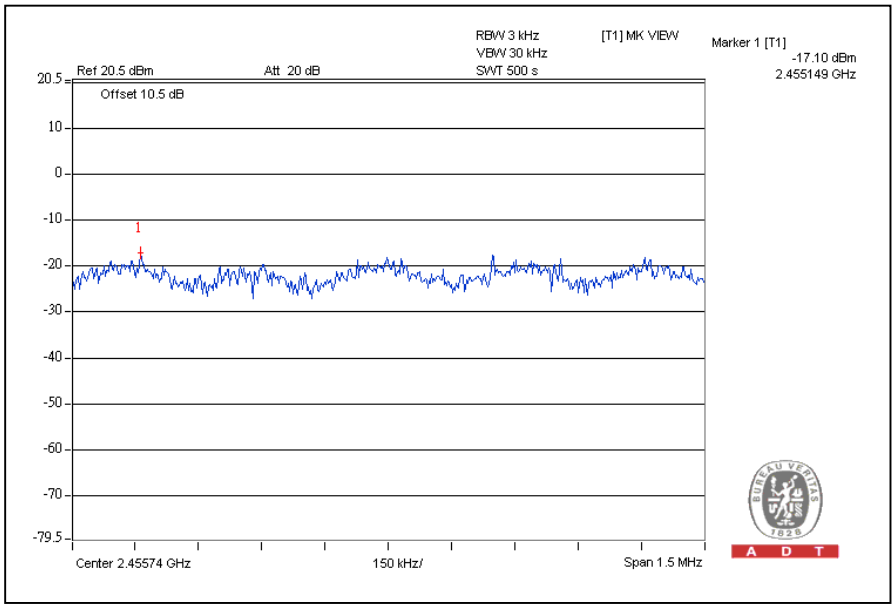
CH3



CH6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK VIEW
Marker 1 [T1]
-13.97 dBm
2.436364 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Center 2.43574 GHz
150 kHz/
Span 1.5 MHz

CH9


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK VIEW
Marker 1 [T1]
-17.10 dBm
2.455149 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Center 2.45574 GHz
150 kHz/
Span 1.5 MHz

4.8 CONDUCTED OUT-BAND EMISSION MEASUREMENT

4.8.1 LIMITS OF CONDUCTED OUT-BAND EMISSION MEASUREMENT

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

4.8.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer	FSP 40	100060	May 17, 2010	May 16, 2011

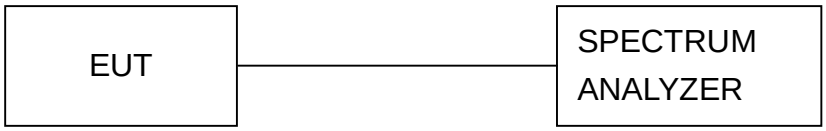
NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.8.3 TEST PROCEDURE

1. 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 200MHz bandwidth from band edge. The band edges was measured and recorded.

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

4.8.4 TEST SETUP



4.8.5 DEVIATION FROM TEST STANDARD

No deviation

4.8.6 EUT OPERATING CONDITION

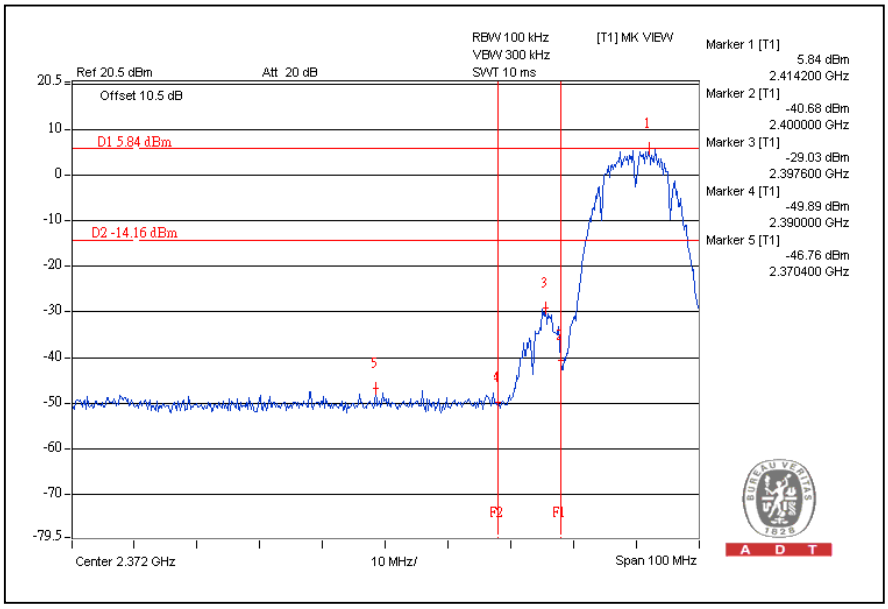
Same as Item 4.3.6

4.8.7 TEST RESULTS

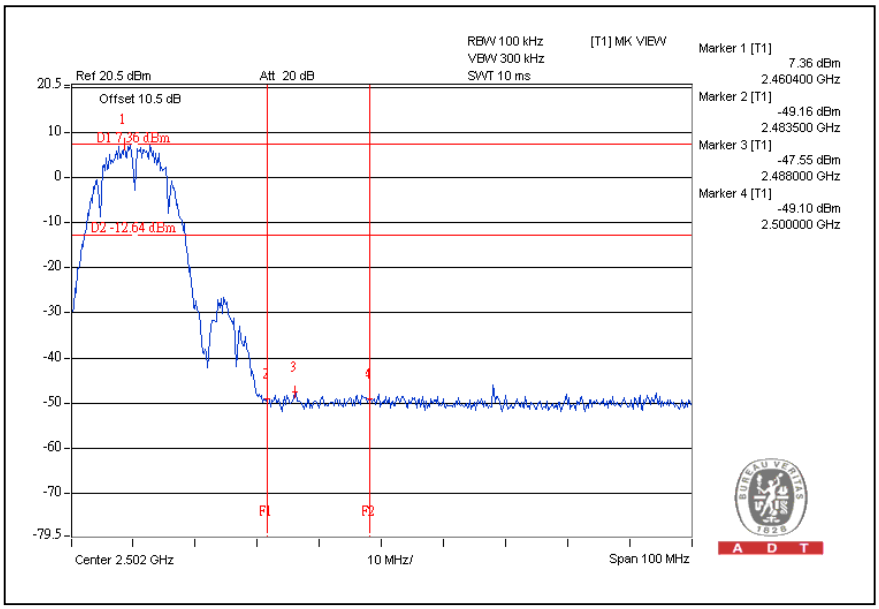
The spectrum plots are attached on the following images. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

802.11b DSSS MODULATION:

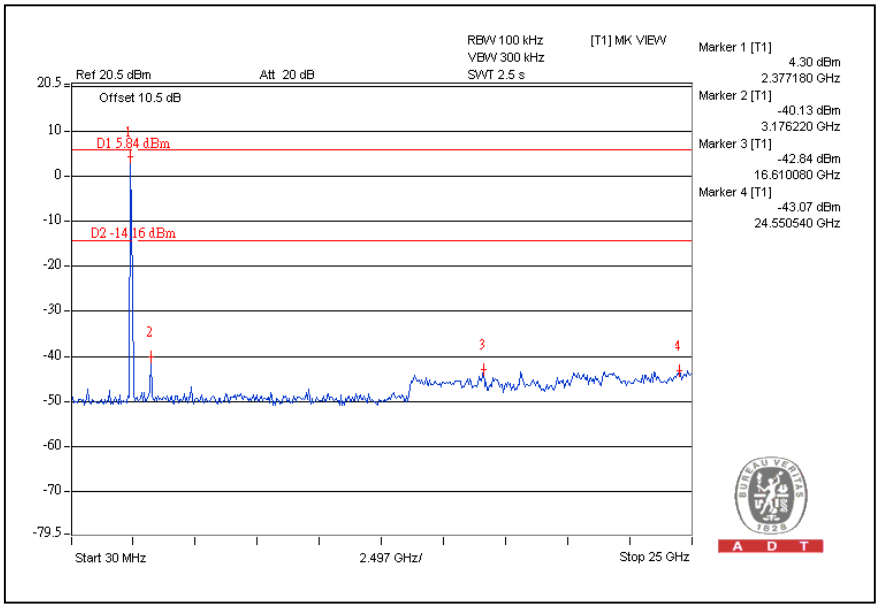
CH1



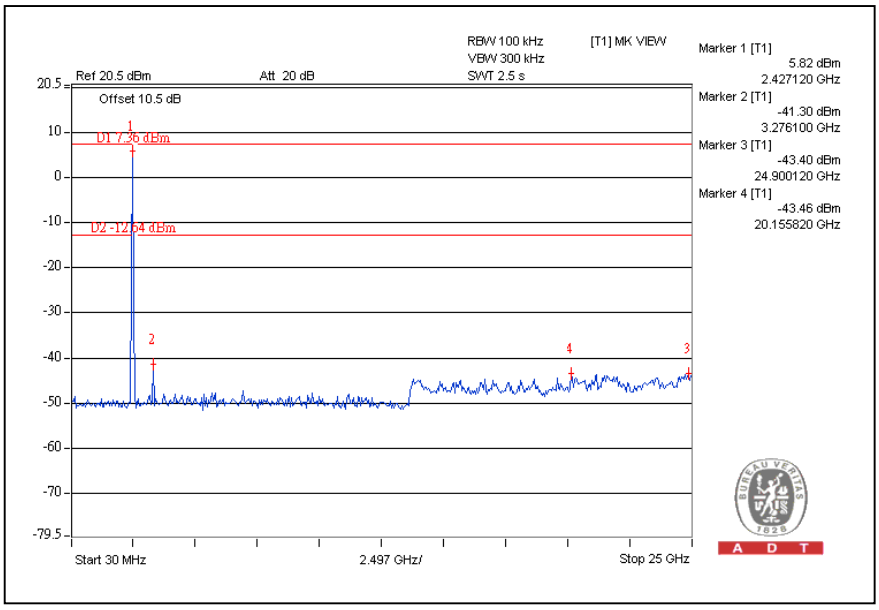
CH11



CH1

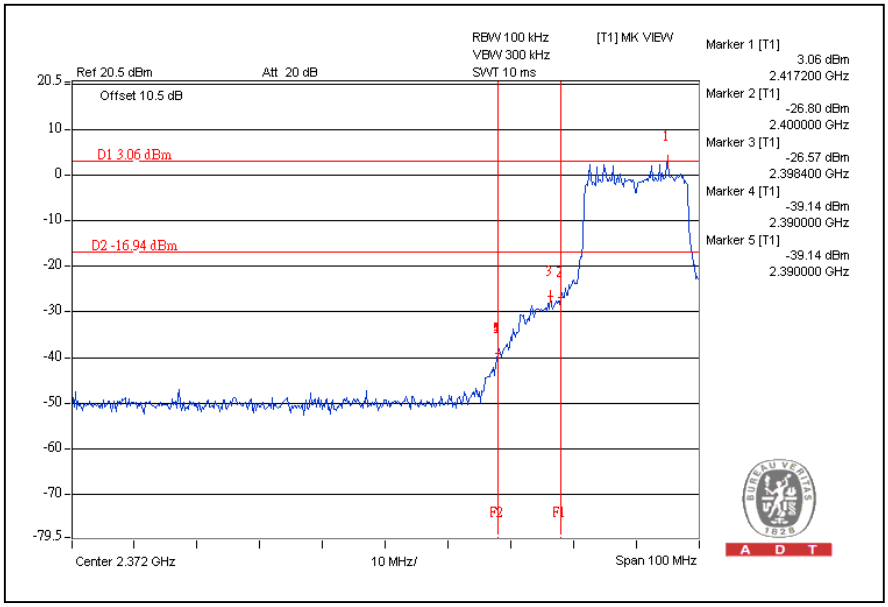

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 5.84 dBm
D2 -14.16 dBm
Marker 1 [T1]
4.30 dBm
2.377180 GHz
Marker 2 [T1]
-40.13 dBm
3.176220 GHz
Marker 3 [T1]
-42.84 dBm
16.610080 GHz
Marker 4 [T1]
-43.07 dBm
24.550540 GHz
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Start 30 MHz
2.497 GHz/
Stop 25 GHz

CH11

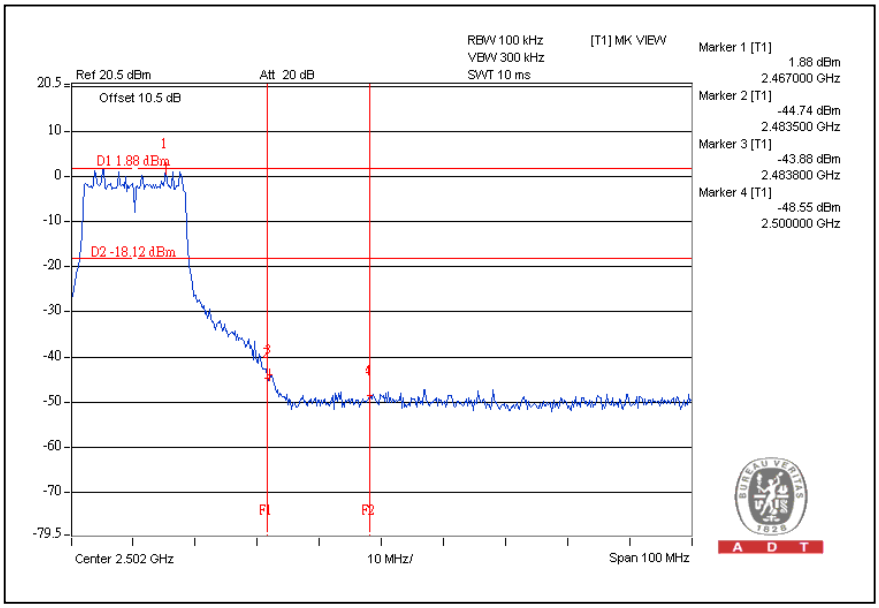

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 7.36 dBm
D2 -12.64 dBm
Marker 1 [T1]
5.82 dBm
2.427120 GHz
Marker 2 [T1]
-41.30 dBm
3.276100 GHz
Marker 3 [T1]
-43.40 dBm
24.900120 GHz
Marker 4 [T1]
-43.46 dBm
20.155820 GHz
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Start 30 MHz
2.497 GHz/
Stop 25 GHz

802.11g OFDM MODULATION:

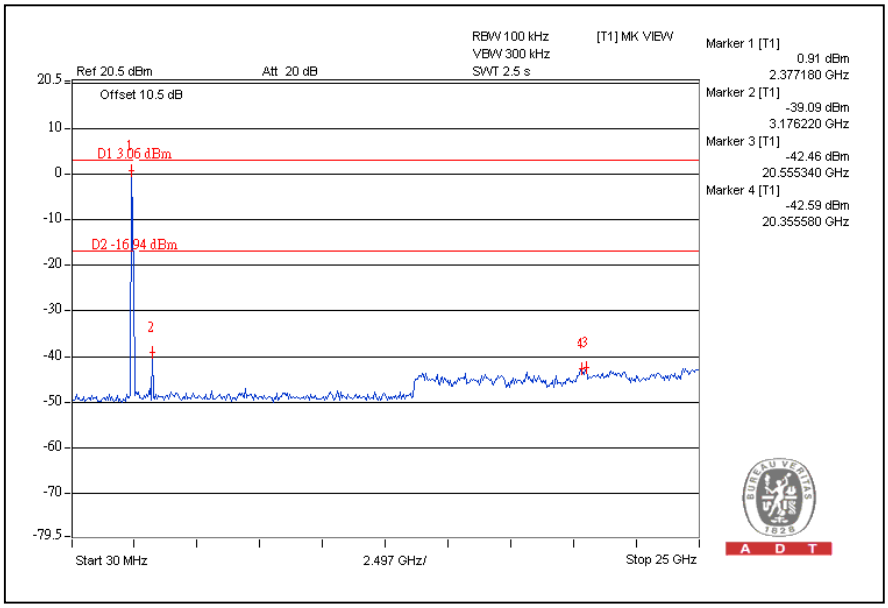
CH1



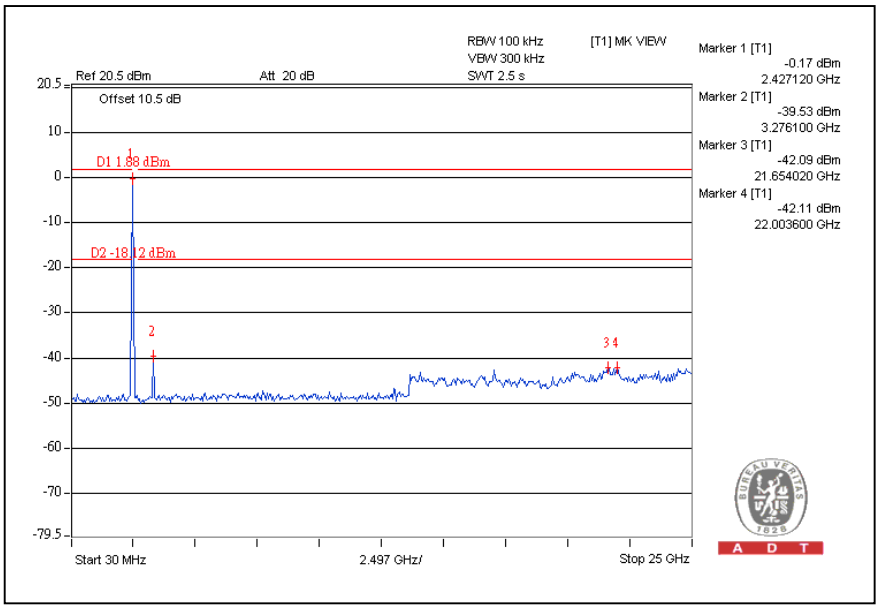
CH11



CH1

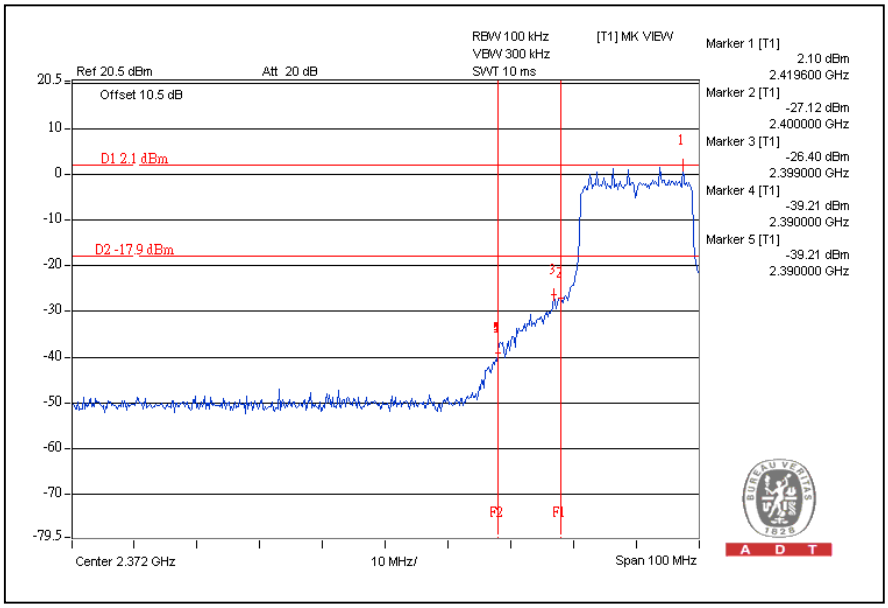

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 3.06 dBm
D2 -16.94 dBm
Marker 1 [T1]
0.91 dBm
2.377180 GHz
Marker 2 [T1]
-39.09 dBm
3.176220 GHz
Marker 3 [T1]
-42.46 dBm
20.555340 GHz
Marker 4 [T1]
-42.59 dBm
20.355580 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz

CH11

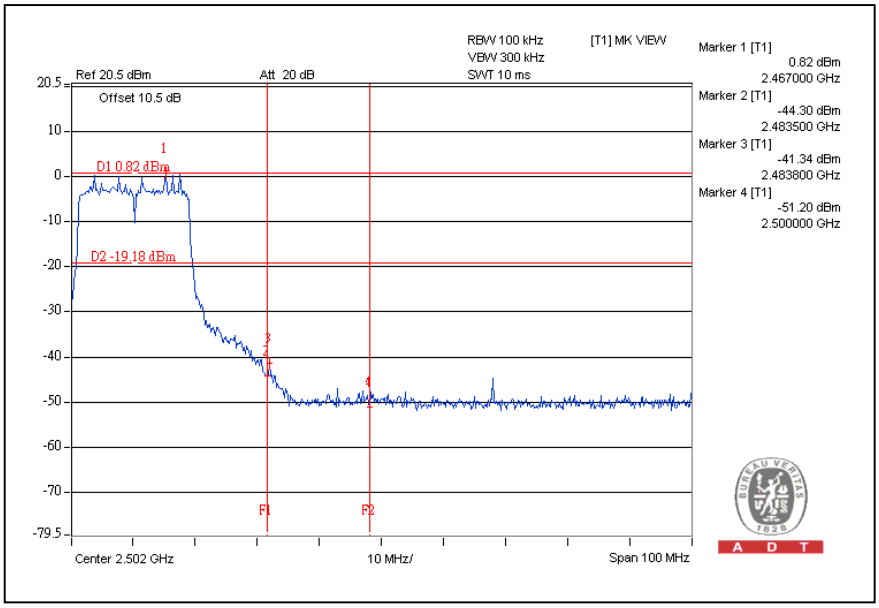

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 1.88 dBm
D2 -18.12 dBm
Marker 1 [T1]
-0.17 dBm
2.427120 GHz
Marker 2 [T1]
-39.53 dBm
3.276100 GHz
Marker 3 [T1]
-42.09 dBm
21.654020 GHz
Marker 4 [T1]
-42.11 dBm
22.003600 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz

802.11n (20MHz) OFDM MODULATION:

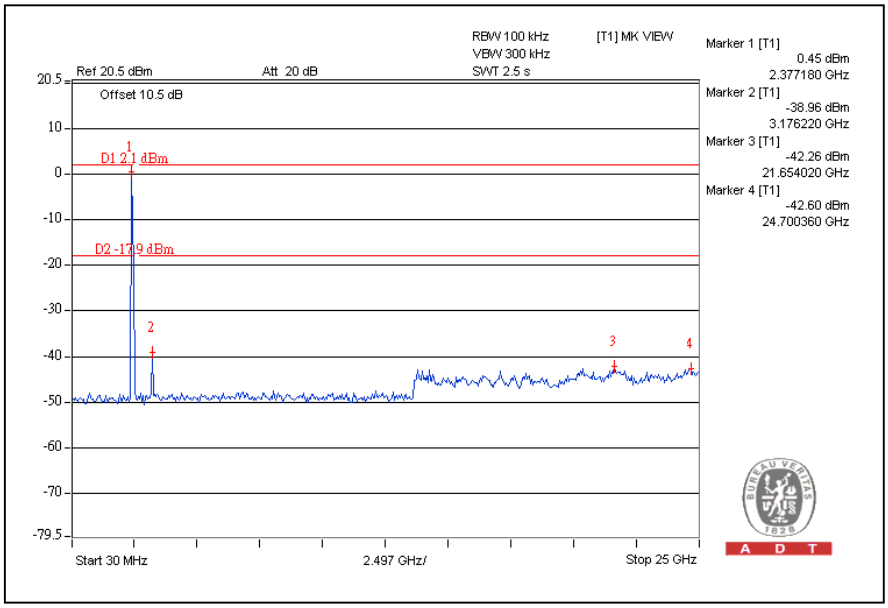
CH1



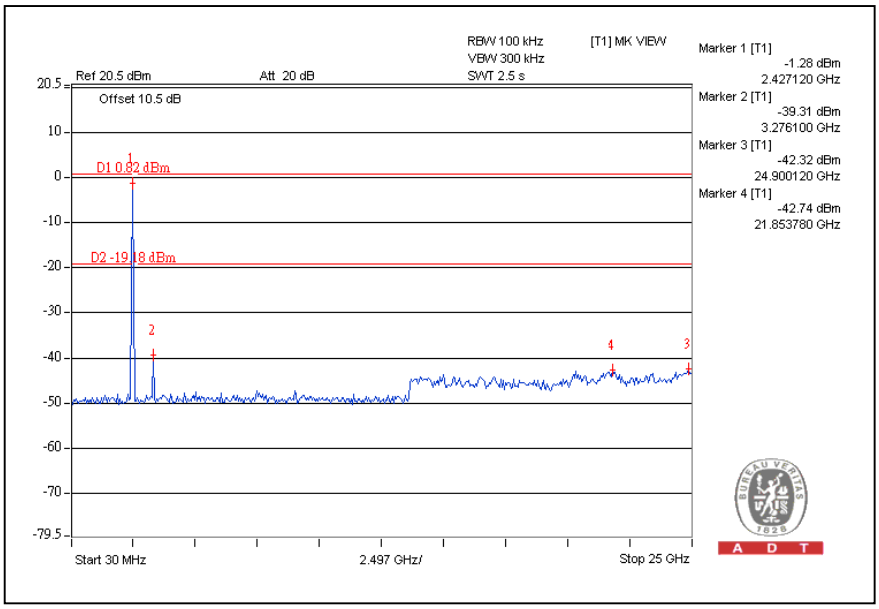
CH11



CH1

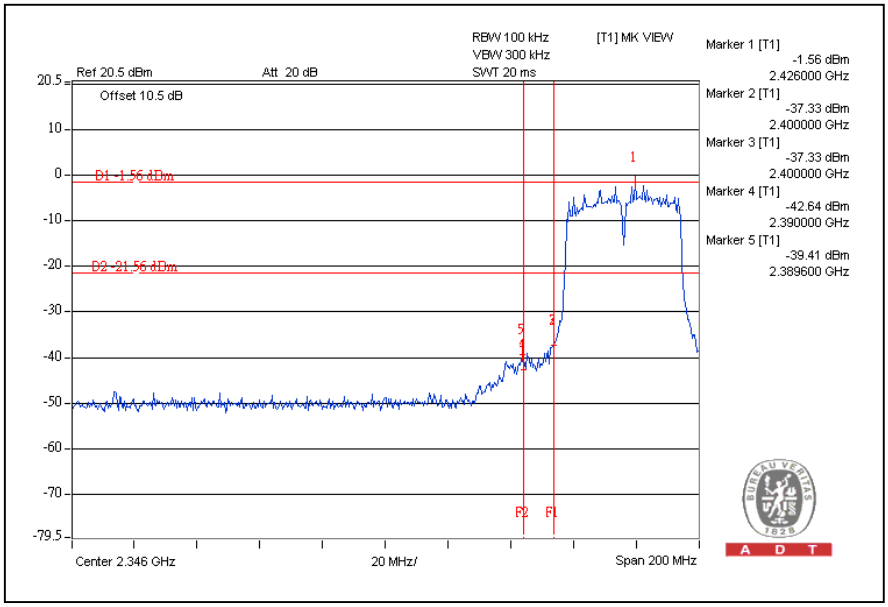

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Marker 1 [T1]
0.45 dBm
2.377180 GHz
Marker 2 [T1]
-38.96 dBm
3.176220 GHz
Marker 3 [T1]
-42.26 dBm
21.654020 GHz
Marker 4 [T1]
-42.60 dBm
24.700360 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 2.1 dBm
D2 -17.9 dBm
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Start 30 MHz
2.497 GHz/
Stop 25 GHz

CH11

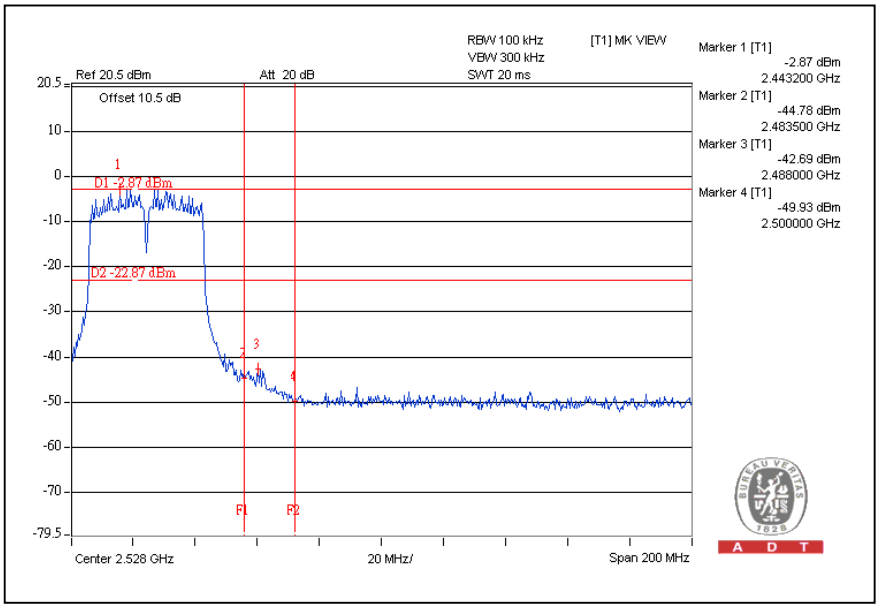

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Marker 1 [T1]
-1.28 dBm
2.427120 GHz
Marker 2 [T1]
-39.31 dBm
3.276100 GHz
Marker 3 [T1]
-42.32 dBm
24.900120 GHz
Marker 4 [T1]
-42.74 dBm
21.853780 GHz
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 0.82 dBm
D2 -19.18 dBm
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Start 30 MHz
2.497 GHz/
Stop 25 GHz

802.11n (40MHz) OFDM MODULATION:

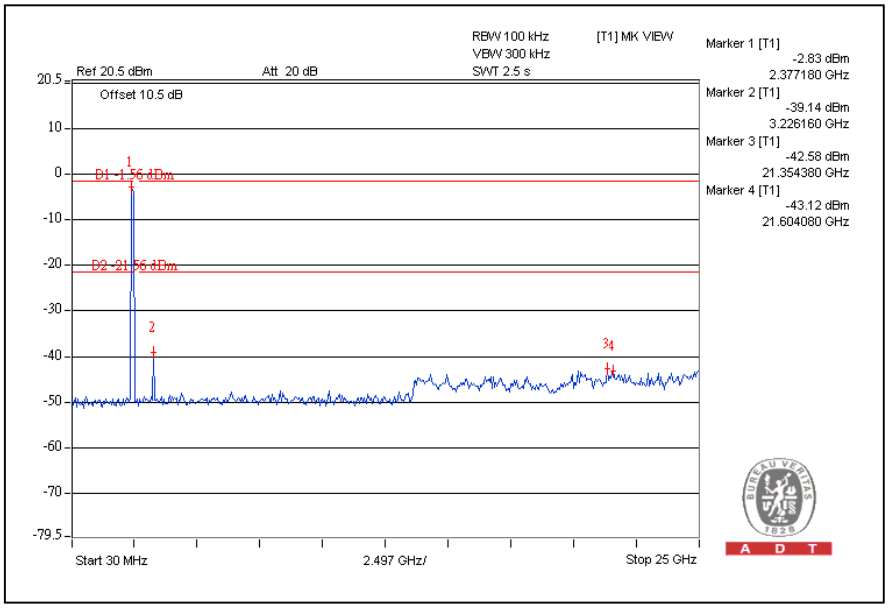
CH3



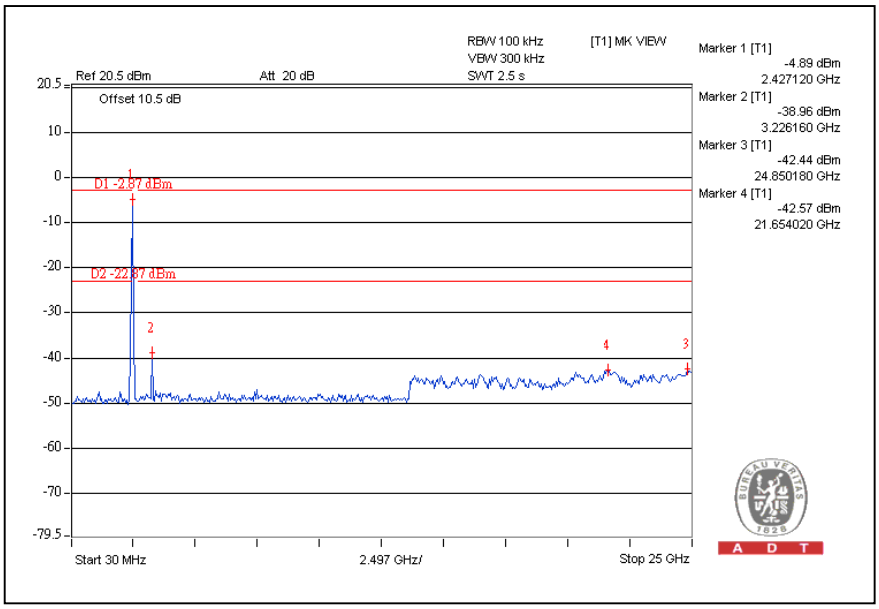
CH9



CH3


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 -1.56 dBm
D2 -21.56 dBm
Marker 1 [T1]
-2.83 dBm
2.377180 GHz
Marker 2 [T1]
-39.14 dBm
3.226160 GHz
Marker 3 [T1]
-42.58 dBm
21.354380 GHz
Marker 4 [T1]
-43.12 dBm
21.604080 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz

CH9


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20.5 dBm
Att 20 dB
Offset 10.5 dB
D1 -2.87 dBm
D2 -22.87 dBm
Marker 1 [T1]
-4.89 dBm
2.427120 GHz
Marker 2 [T1]
-38.96 dBm
3.226160 GHz
Marker 3 [T1]
-42.44 dBm
24.850180 GHz
Marker 4 [T1]
-42.57 dBm
21.654020 GHz
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 certificates of our laboratories obtained from approval agencies can be downloaded from our web site:
www.adt.com.tw/index.5.phtml.
If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:
Tel: 886-2-26052180
Fax: 886-2-26052943

Hsin Chu EMC/RF Lab:
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab:
Tel: 886-3-3183232
Fax: 886-3-3185050

Web Site: www.adt.com.tw

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

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

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

---END---