

FCC TEST REPORT

REPORT NO.: RF990629E04

MODEL NO.: RT5390BC8

FCC ID: VQF-RT5390BC8

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ISSUED: Aug. 17, 2010

APPLICANT: Ralink Technology Corporation

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1. CERTIFICATION

PRODUCT: 802.11b/g/n 1T1R combo card
BRAND NAME: Ralink
MODEL NO.: RT5390BC8
TEST SAMPLE: MASS-PRODUCTION
TESTED: July 29 to Aug. 03, 2010
APPLICANT: Ralink Technology Corporation
STANDARDS: FCC Part 15, Subpart C (Section 15.247)
ANSI C63.4-2003

The above equipment (Model: RT5390BC8) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Carol Liao , **DATE:** Aug 17, 2010
(Carol Liao, Specialist)

TECHNICAL ACCEPTANCE : Hank Chung , **DATE:** Aug 17, 2010
(Hank Chung, Deputy Manager)

APPROVED BY : May Chen , **DATE:** Aug 17, 2010
(May Chen, Deputy Manager)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
Standard Section	Test Type and Limit	Result	Remark
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -9.74dB at 0.193MHz
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit.
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit.
15.247(d)	Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -0.5dB at 4874.0MHz
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Conducted Out-Band Emission Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is I-PEX 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	802.11b/g/n 1T1R combo card
MODEL NO.	RT5390BC8
FCC ID	VQF-RT5390BC8
POWER SUPPLY	DC 3.3V±10% 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: 138.0mW 802.11g: 309.0mW 802.11n (20MHz): 302.0mW 802.11n (40MHz): 257.0mW
ANTENNA TYPE	Please see note 3
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. There are Bluetooth technology and WLAN technology used for the EUT. <the Bluetooth test data please refer "RF990629E04-1">
2. The EUT has two different types (hardware is identical) could be chose and please refer the below table:

Type	Description
Type 1	with 1 Antenna Connector
Type 2	with 2 Antenna Connectors

From the above types, type 2 was selected as representative type for the test and its data was recorded in this report.

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

Set 1						
Chain	Manufacture	Model name	Antenna Gain (dBi)	Antenna Cable Length	Antenna Type	Connector
Chain (0)	JOYMAX	IWX-145XRSXX-999	3.7	200 mm	Dipole	IPEX
Chain (1)	JOYMAX	IWX-145XRSXX-999	3.7	200 mm	Dipole	IPEX
Set 2						
Chain	Manufacture	Model name	Antenna Gain (dBi)	Antenna Cable Length	Antenna Type	Connector
Chain (0)	ACON	APP6P-700119	3.5	225 mm	PIFA	IPEX
Chain (1)	ACON	APP6P-700119	3.5	225 mm	PIFA	IPEX
Above antennas: Chain (0) for WLAN technology used and Chain (1) for Bluetooth technology used.						

4. The PIFA antenna was pre-tested under the following test modes for three different axes placements:

Test Mode	Description
Mode A	X-Z plane
Mode B	X-Y plane
Mode C	Y-Z plane

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

5. The EUT incorporates a SISO function with 802.11b, 802.11g, 802.11n. Physically, the EUT provides one completed transmitter and one receiver.

6. The EUT is 1 * 1 spatial SISO without beam forming function. The antenna configuration is one transmitter antenna and one receiver antenna, as there are two Dipole antennas or two PIFA antennas.
7. The EUT complies with 802.11n standards and backwards compatible with 802.11b, 802.11g products.
8. The EUT, operates in the 2.4GHz frequency range, lets you connect IEEE 802.11g or IEEE 802.11b and 802.11n technique devices to the network.
9. The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

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

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

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

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

POWER LINE CONDUCTED EMISSION TEST:

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

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

RADIATED EMISSION TEST (BELOW 1 GHz):

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

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

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)	EUT CONFIGURE MODE
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1	A, B
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	A, B
802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5	A, B
802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	13.5	A, B

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)	EUT CONFIGURE MODE
802.11b	1 to 11	1, 11	DSSS	DBPSK	1	A
802.11g	1 to 11	1, 11	OFDM	BPSK	6	A
802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	6.5	A
802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	13.5	A

ANTENNA PORT CONDUCTED MEASUREMENT:

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

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

※ TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
RE ³ 1G	25deg. C, 75%RH, 1015 hPa	120Vac, 60Hz	Eric Lee
RE<1G	25deg. C, 75%RH, 1015 hPa	120Vac, 60Hz	Frank Liu
PLC	25deg. C, 60%RH, 1015 hPa	120Vac, 60Hz	Max Tseng
APCM	25deg. C, 60%RH, 1015 hPa	120Vac, 60Hz	Phoenix Huang

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart C. (15.247)

ANSI C63.4-2003

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

NOTE: The EUT has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

3.4 DESCRIPTION OF SUPPORT UNITS

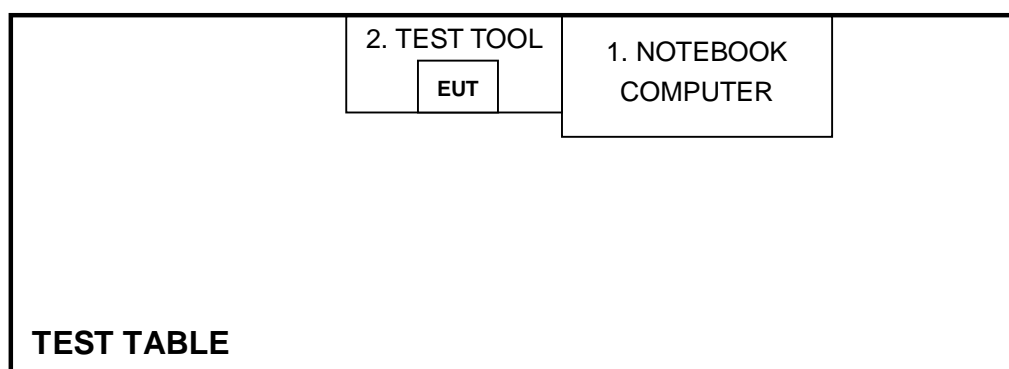
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

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

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

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

3.5 CONFIGURATION OF SYSTEM UNDER TEST



4. TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

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

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	100287	Mar. 01, 2010	Feb. 28, 2011
Line-Impedance Stabilization Network (for EUT)	NSLK 8127	8127-523	Sep. 23, 2009	Sep. 22, 2010
Line-Impedance Stabilization Network (for Peripheral)	ENV-216	100072	June 11, 2010	June 10, 2011
RF Cable (JYEBAO)	5DFB	COACAB-001	Dec. 14, 2009	Dec. 13, 2010
50 ohms Terminator	50	3	Oct. 28, 2009	Oct. 27, 2010
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.

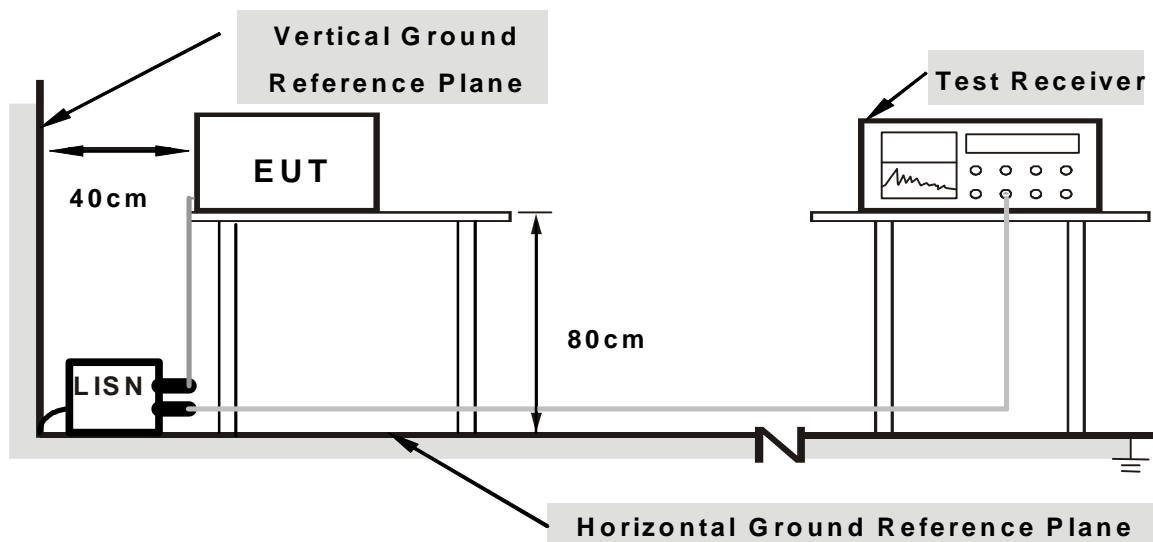
4.1.3 TEST PROCEDURES

- 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 via support unit 2 (Test Tool).
2. The support unit 1 (Notebook Computer) runs test program “RT5390QA.exe” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

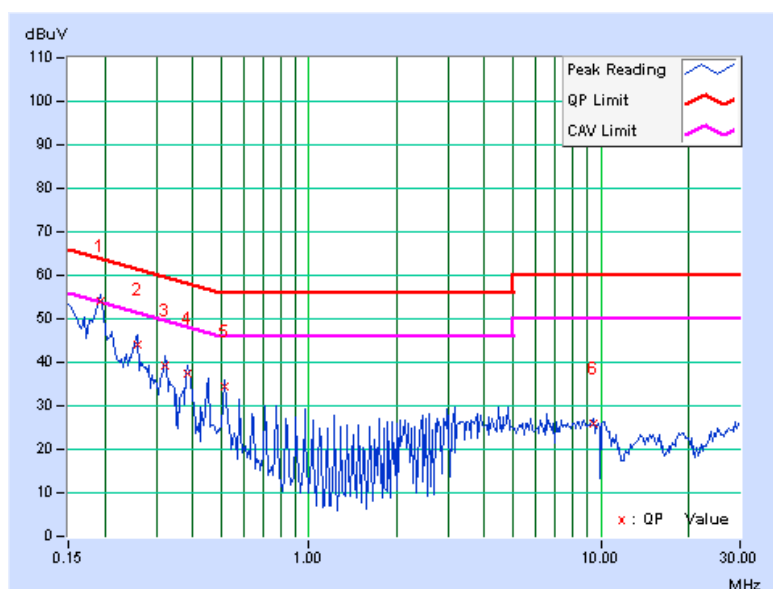
4.1.7 TEST RESULTS

802.11g OFDM MODULATION:

PHASE	Line (L)	6dB BANDWIDTH	9 kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.193	0.04	54.10	43.65	54.14	43.69	63.91	53.91	-9.77	-10.22
2	0.259	0.04	44.04	-	44.08	-	61.45	51.45	-17.37	-
3	0.322	0.05	39.07	-	39.12	-	59.66	49.66	-20.54	-
4	0.384	0.05	37.47	-	37.52	-	58.18	48.18	-20.67	-
5	0.513	0.08	34.24	-	34.32	-	56.00	46.00	-21.68	-
6	9.465	0.55	25.54	-	26.09	-	60.00	50.00	-33.91	-

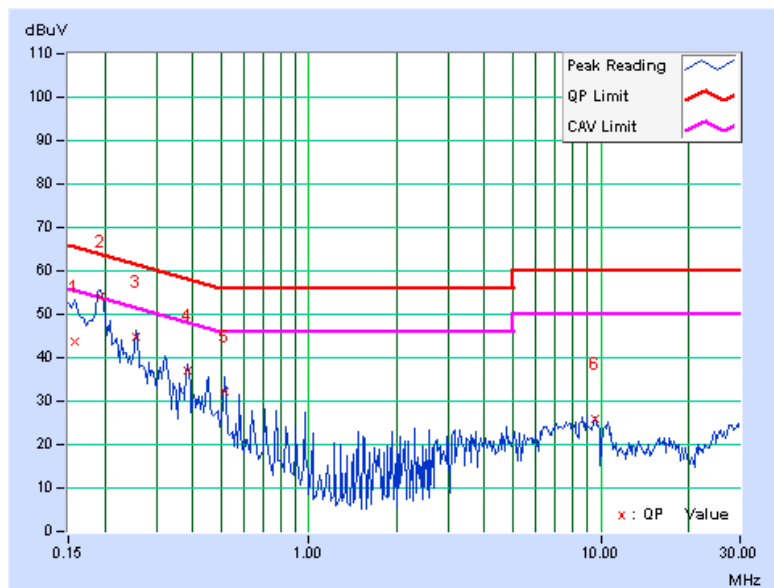
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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
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	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	0.158	0.05	43.68	-	43.73	-	65.58	55.58	-21.85	-
2	0.193	0.05	54.12	43.43	54.17	43.48	63.91	53.91	-9.74	-10.43
3	0.255	0.05	44.69	-	44.74	-	61.58	51.58	-16.83	-
4	0.384	0.06	36.97	-	37.03	-	58.18	48.18	-21.16	-
5	0.517	0.09	32.30	-	32.39	-	56.00	46.00	-23.61	-
6	9.590	0.57	25.18	-	25.75	-	60.00	50.00	-34.25	-

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



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.2.2 TEST INSTRUMENTS

Test date: July 29 to Aug. 02, 2010

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Agilent Spectrum Analyzer	E4446A	MY48250254	Aug. 03, 2009	Aug. 02, 2010
Agilent Pre-Selector	N9039A	MY46520310	Aug. 18, 2009	Aug. 17, 2010
Agilent Signal Generator	N5181A	MY49060347	July 29, 2010	July 28, 2011
LIG NEX1 Test Receiver	ER-265	L09068005	Aug. 31, 2009	Aug. 30, 2010
Mini-Circuits Pre-Amplifier	ZFL-1000VH2B	AMP-ZFL-04	Nov. 18, 2009	Nov. 17, 2010
Agilent Pre-Amplifier	8449B	3008A02465	Mar. 01, 2010	Feb. 28, 2011
Miteq Pre-Amplifier	AFS33-1800265 0-30-8P-44	881786	NA	NA
SCHWARZBECK Trilog Broadband Antenna	VULB 9168	9168-361	Sep. 30, 2009	Sep. 29, 2010
AISI Horn_Antenna	AIH.8018	0000220091110	Nov. 16, 2009	Nov. 15, 2010
SCHWARZBECK Horn_Antenna	BBHA 9170	9170-424	Sep. 30, 2009	Sep. 29, 2010
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.

4.2.3 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

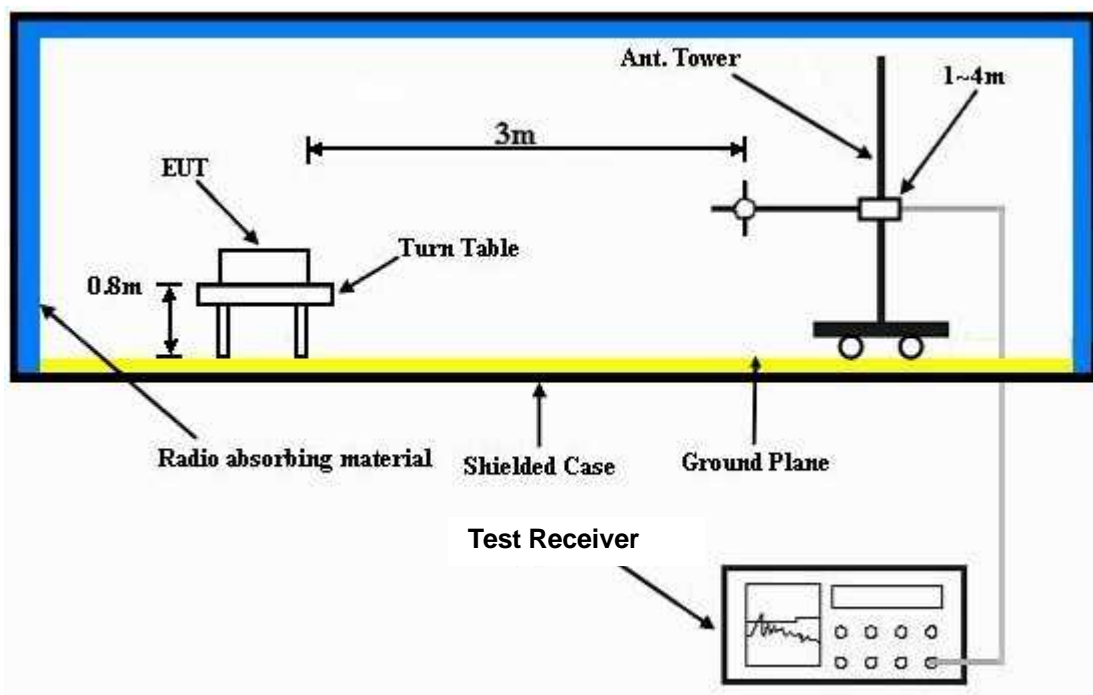
NOTE:

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

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



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

4.2.6 EUT OPERATING CONDITIONS

Same as the 4.1.6

4.2.7 TEST RESULTS (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	25deg. C, 75%RH 1015 hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	150.20	35.3 QP	43.5	-8.2	2.00 H	360	20.96	14.30
2	300.00	35.3 QP	46.0	-10.7	1.00 H	0	20.35	14.91
3	433.23	35.4 QP	46.0	-10.7	2.00 H	318	16.67	18.68
4	600.32	37.5 QP	46.0	-8.5	1.50 H	320	14.92	22.54
5	799.87	37.5 QP	46.0	-8.5	2.00 H	226	12.33	25.15
6	875.06	38.4 QP	46.0	-7.6	1.50 H	240	12.08	26.29
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	298.58	36.7 QP	46.0	-9.3	1.50 V	309	21.86	14.85
2	432.04	38.6 QP	46.0	-7.4	1.25 V	254	19.91	18.65
3	500.02	36.2 QP	46.0	-9.8	1.00 V	278	16.08	20.11
4	600.56	38.7 QP	46.0	-7.3	1.00 V	177	16.11	22.55
5	799.63	37.6 QP	46.0	-8.5	2.00 V	53	12.41	25.14
6	900.64	37.7 QP	46.0	-8.3	1.25 V	360	11.02	26.67

- 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	25deg. C, 75%RH 1015 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	57.0 PK	74.0	-17.0	1.00 H	246	25.30	31.70
2	2390.00	45.3 AV	54.0	-8.7	1.00 H	246	13.60	31.70
3	*2412.00	94.3 PK			1.00 H	243	62.60	31.70
4	*2412.00	92.0 AV			1.00 H	243	60.30	31.70
5	4824.00	54.1 PK	74.0	-19.9	1.00 H	69	15.10	39.00
6	4824.00	51.5 AV	54.0	-2.5	1.00 H	69	12.50	39.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2386.30	58.8 PK	74.0	-15.2	1.63 V	91	27.20	31.60
2	2386.30	50.0 AV	54.0	-4.0	1.63 V	91	18.40	31.60
3	*2412.00	102.0 PK			1.63 V	91	70.30	31.70
4	*2412.00	99.6 AV			1.63 V	91	67.90	31.70
5	4824.00	54.9 PK	74.0	-19.1	1.31 V	69	15.90	39.00
6	4824.00	52.3 AV	54.0	-1.7	1.31 V	69	13.30	39.00

- 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.



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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	25deg. C, 75%RH 1015 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	93.4 PK			1.00 H	244	61.60	31.80
2	*2437.00	91.3 AV			1.00 H	244	59.50	31.80
3	4874.00	52.9 PK	74.0	-21.1	1.16 H	70	13.80	39.10
4	4874.00	49.6 AV	54.0	-4.4	1.16 H	70	10.50	39.10
5	7311.00	51.6 PK	74.0	-22.4	1.19 H	301	5.00	46.60
6	7311.00	40.1 AV	54.0	-13.9	1.19 H	301	-6.50	46.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	101.1 PK			1.64 V	95	69.30	31.80
2	*2437.00	98.4 AV			1.64 V	95	66.60	31.80
3	4874.00	52.0 PK	74.0	-22.0	1.21 V	101	12.90	39.10
4	4874.00	48.0 AV	54.0	-6.0	1.21 V	101	8.90	39.10
5	7311.00	51.1 PK	74.0	-22.9	1.07 V	219	4.50	46.60
6	7311.00	39.1 AV	54.0	-14.9	1.07 V	219	-7.50	46.60

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



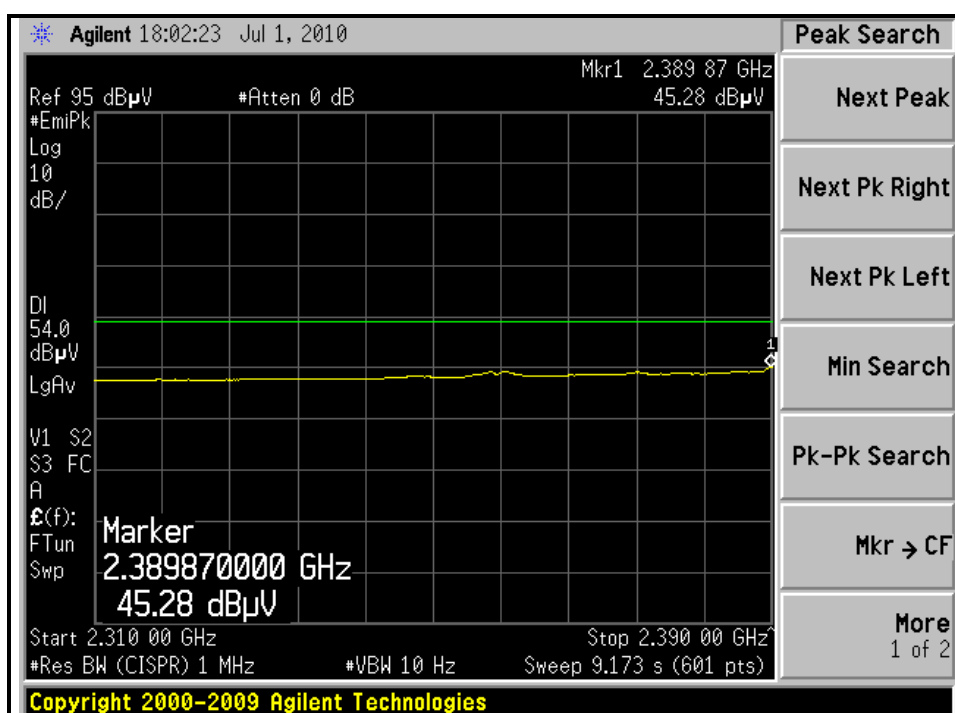
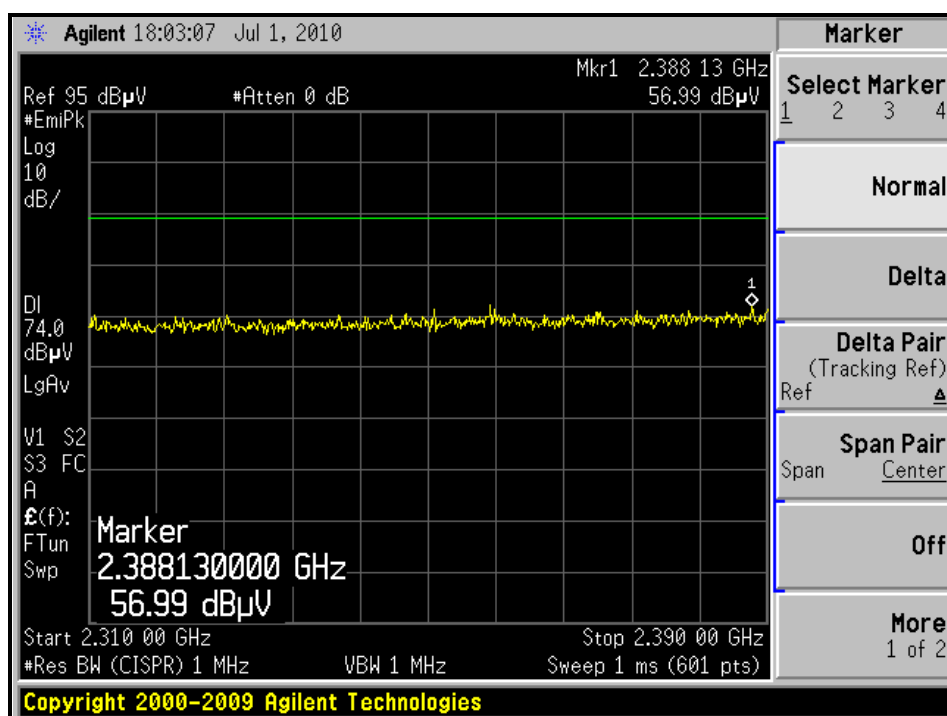
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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 75%RH 1015 hPa	TESTED BY	Eric Lee

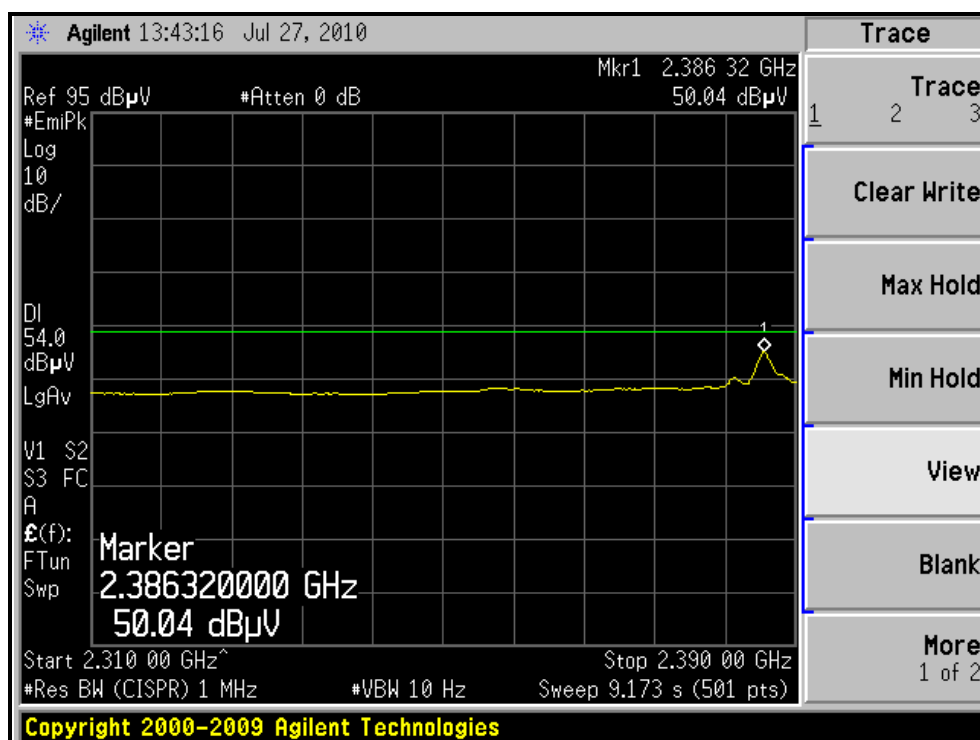
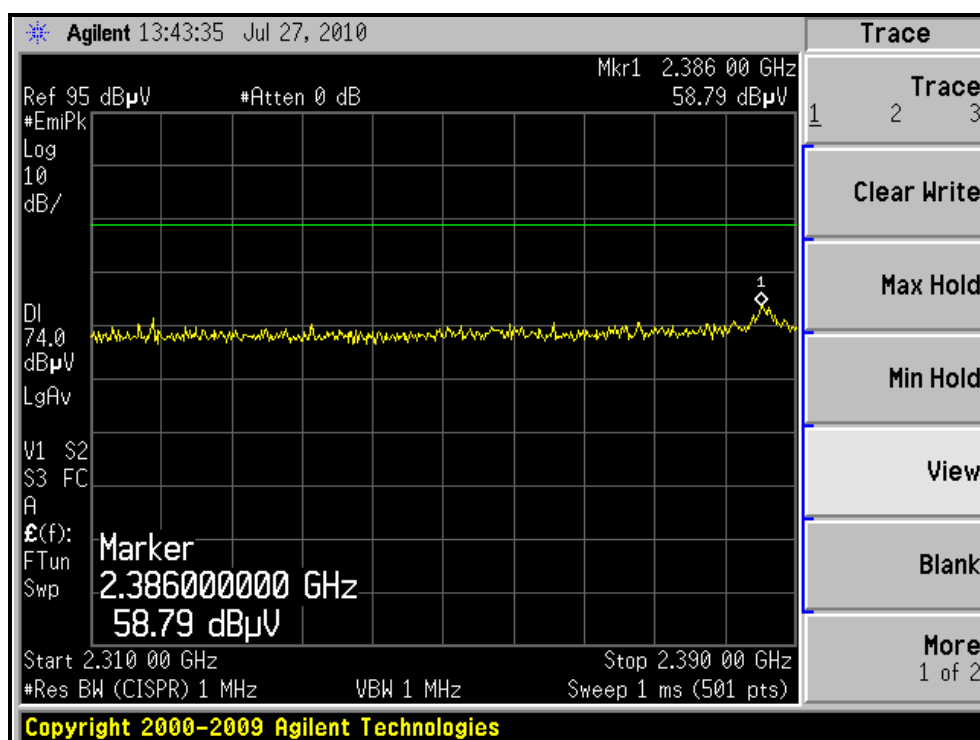
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	92.1 PK			1.00 H	249	60.20	31.90
2	*2462.00	90.6 AV			1.00 H	249	58.70	31.90
3	2483.50	56.1 PK	74.0	-17.9	1.00 H	251	24.10	32.00
4	2483.50	43.7 AV	54.0	-10.3	1.00 H	251	11.70	32.00
5	4924.00	53.1 PK	74.0	-20.9	1.05 H	107	13.80	39.30
6	4924.00	50.0 AV	54.0	-4.0	1.05 H	107	10.70	39.30
7	7386.00	50.4 PK	74.0	-23.6	1.20 H	316	3.80	46.60
8	7386.00	39.9 AV	54.0	-14.1	1.20 H	316	-6.70	46.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	99.7 PK			1.66 V	91	67.80	31.90
2	*2462.00	97.3 AV			1.66 V	91	65.40	31.90
3	2483.50	58.2 PK	74.0	-15.8	1.66 V	90	26.20	32.00
4	2483.50	47.2 AV	54.0	-6.8	1.66 V	90	15.20	32.00
5	4924.00	54.3 PK	74.0	-19.7	1.21 V	68	15.00	39.30
6	4924.00	52.1 AV	54.0	-1.9	1.21 V	68	12.80	39.30
7	7386.00	51.3 PK	74.0	-22.7	1.15 V	27	4.70	46.60
8	7386.00	39.6 AV	54.0	-14.4	1.15 V	27	-7.00	46.60

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

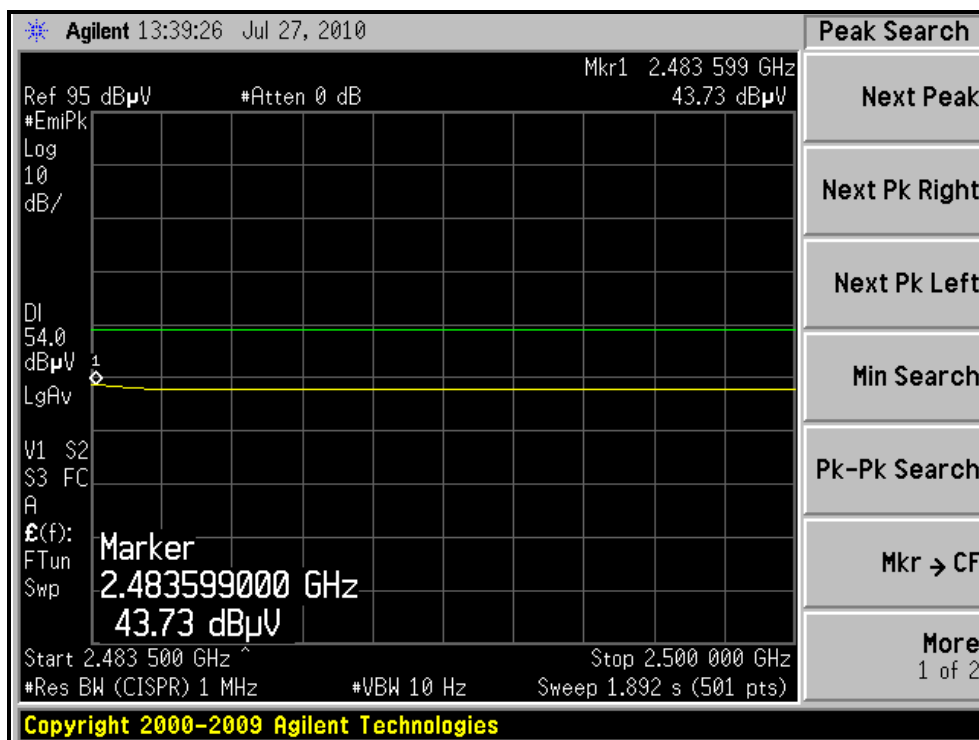
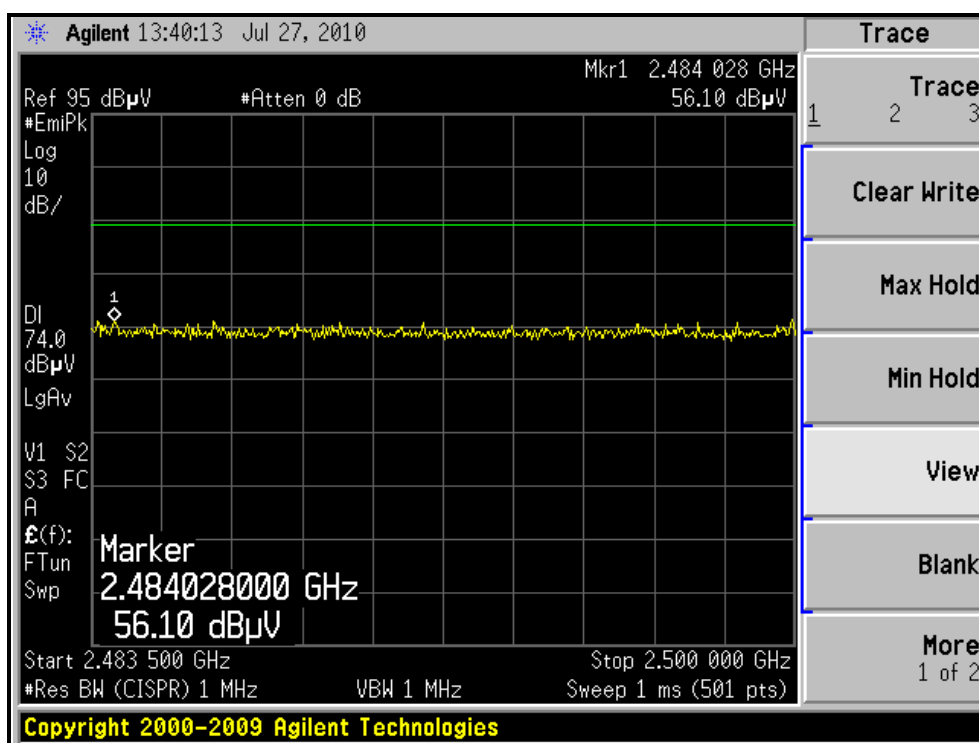
RESTRICTED BANDEDGE (802.11b MODE,CH1, HORIZONTAL)



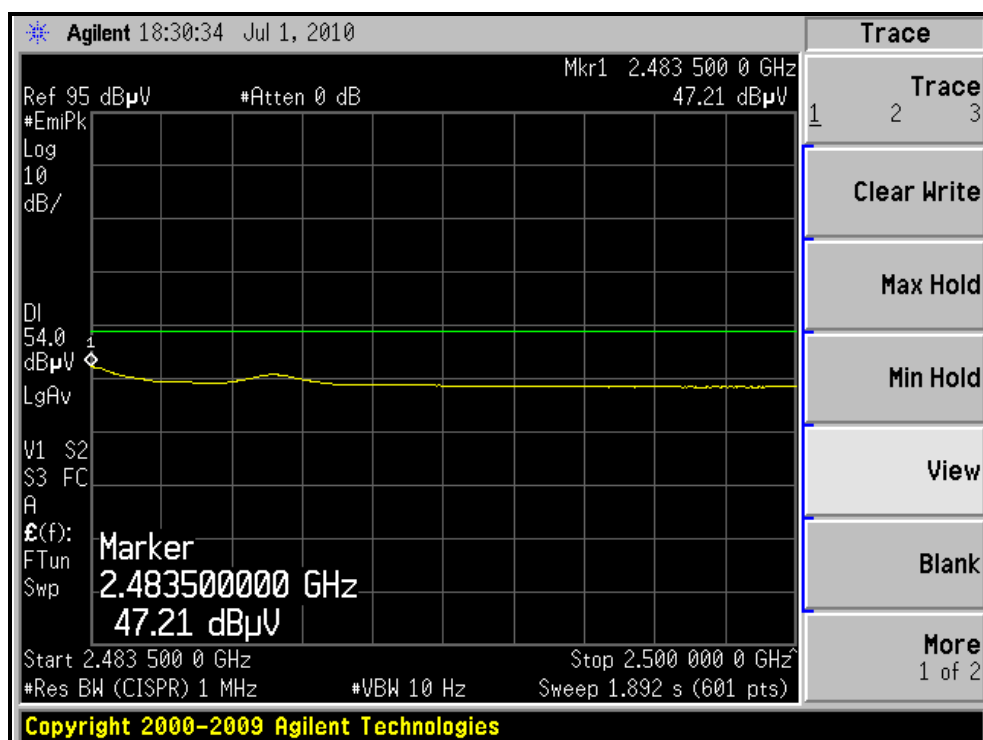
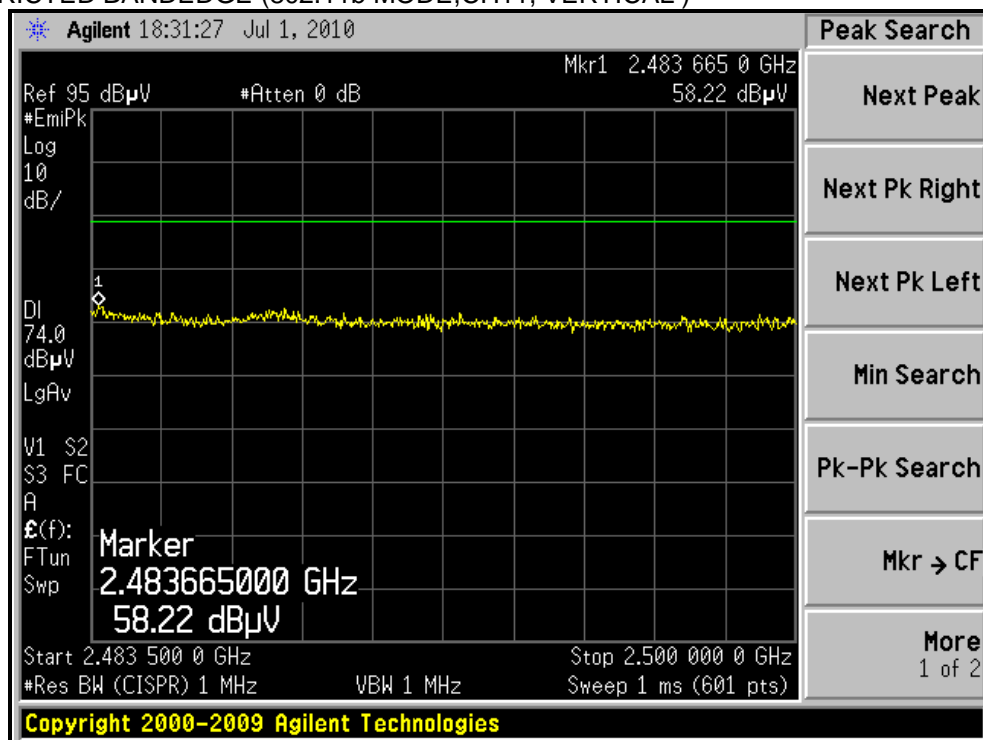
RESTRICTED BANDEDGE (802.11b MODE,CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11b MODE,CH11, HORIZONTAL)



RESTRICTED BANDEDGE (802.11b MODE,CH11, VERTICAL)



802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 75%RH 1015 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	59.3 PK	74.0	-14.7	1.00 H	263	27.60	31.70
2	2390.00	46.5 AV	54.0	-7.5	1.00 H	263	14.80	31.70
3	*2412.00	96.9 PK			1.00 H	235	65.20	31.70
4	*2412.00	87.1 AV			1.00 H	235	55.40	31.70
5	4824.00	51.4 PK	74.0	-22.6	1.00 H	57	12.40	39.00
6	4824.00	40.1 AV	54.0	-13.9	1.00 H	57	1.10	39.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	69.7 PK	74.0	-4.3	1.59 V	118	38.00	31.70
2	2390.00	53.0 AV	54.0	-1.0	1.59 V	118	21.30	31.70
3	*2412.00	104.2 PK			1.59 V	118	72.50	31.70
4	*2412.00	94.7 AV			1.59 V	118	63.00	31.70
5	4824.00	52.3 PK	74.0	-21.7	1.31 V	75	13.30	39.00
6	4824.00	41.6 AV	54.0	-12.4	1.31 V	75	2.60	39.00

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.



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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	25deg. C, 75%RH 1015 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	97.4 PK			1.00 H	242	65.60	31.80
2	*2437.00	87.4 AV			1.00 H	242	55.60	31.80
3	4874.00	55.2 PK	74.0	-18.8	1.00 H	72	16.10	39.10
4	4874.00	43.3 AV	54.0	-10.7	1.00 H	72	4.20	39.10
5	7311.00	51.8 PK	74.0	-22.2	1.13 H	309	5.20	46.60
6	7311.00	40.2 AV	54.0	-13.8	1.13 H	309	-6.40	46.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	104.8 PK			1.38 V	304	73.00	31.80
2	*2437.00	95.5 AV			1.38 V	304	63.70	31.80
3	4874.00	55.6 PK	74.0	-18.4	1.34 V	65	16.50	39.10
4	4874.00	44.5 AV	54.0	-9.5	1.34 V	65	5.40	39.10
5	7311.00	51.7 PK	74.0	-22.3	1.04 V	231	5.10	46.60
6	7311.00	39.8 AV	54.0	-14.2	1.04 V	231	-6.80	46.60

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



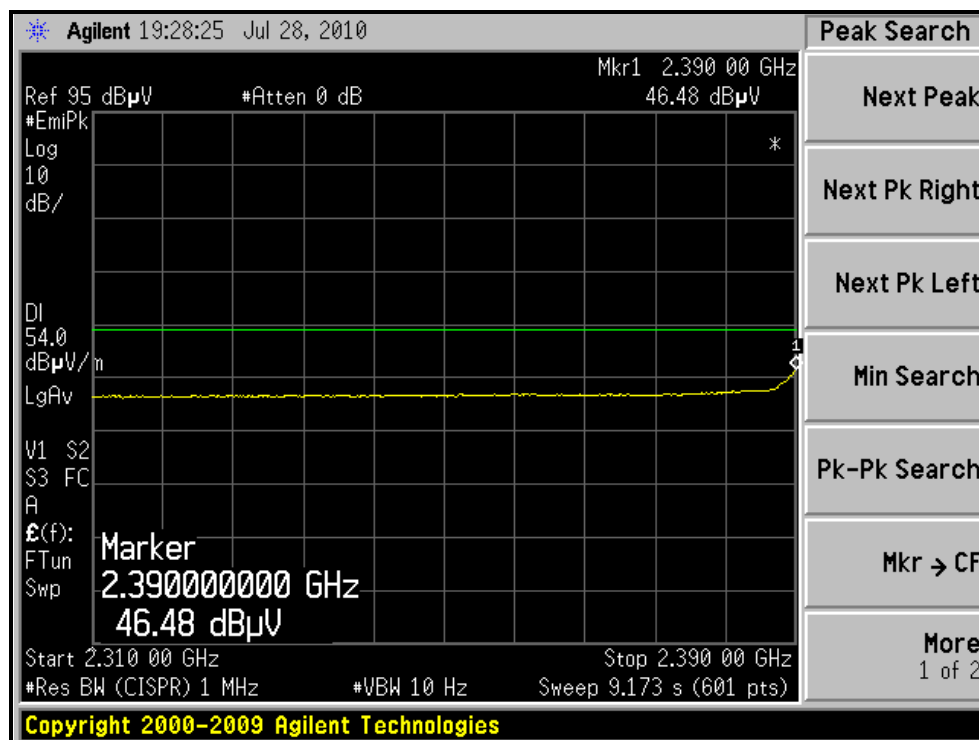
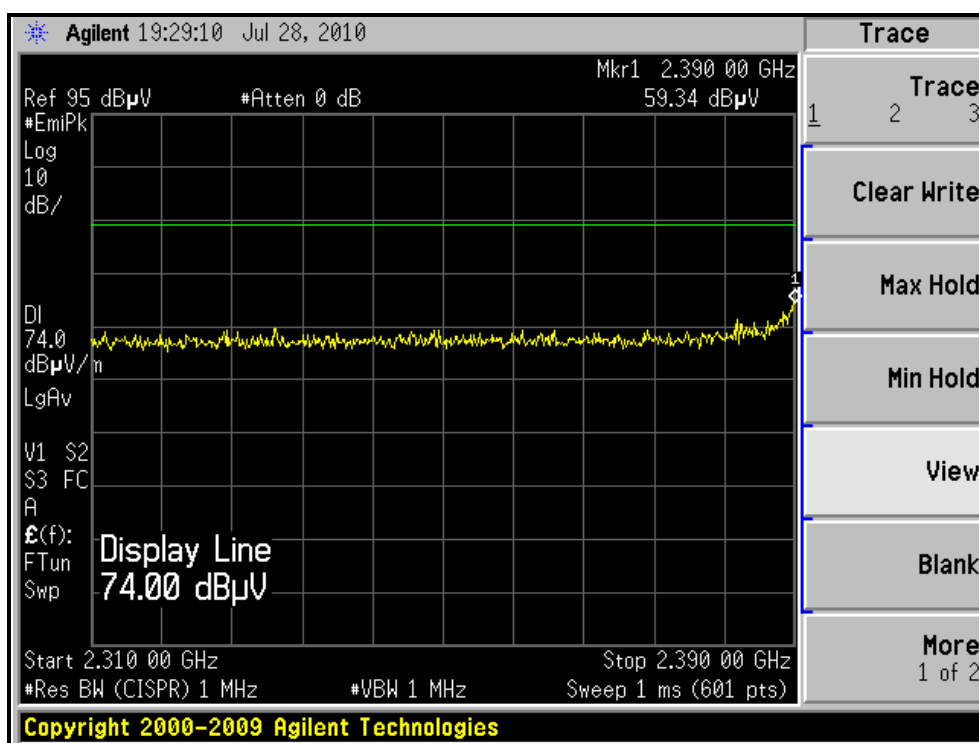
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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 75%RH 1015 hPa	TESTED BY	Eric Lee

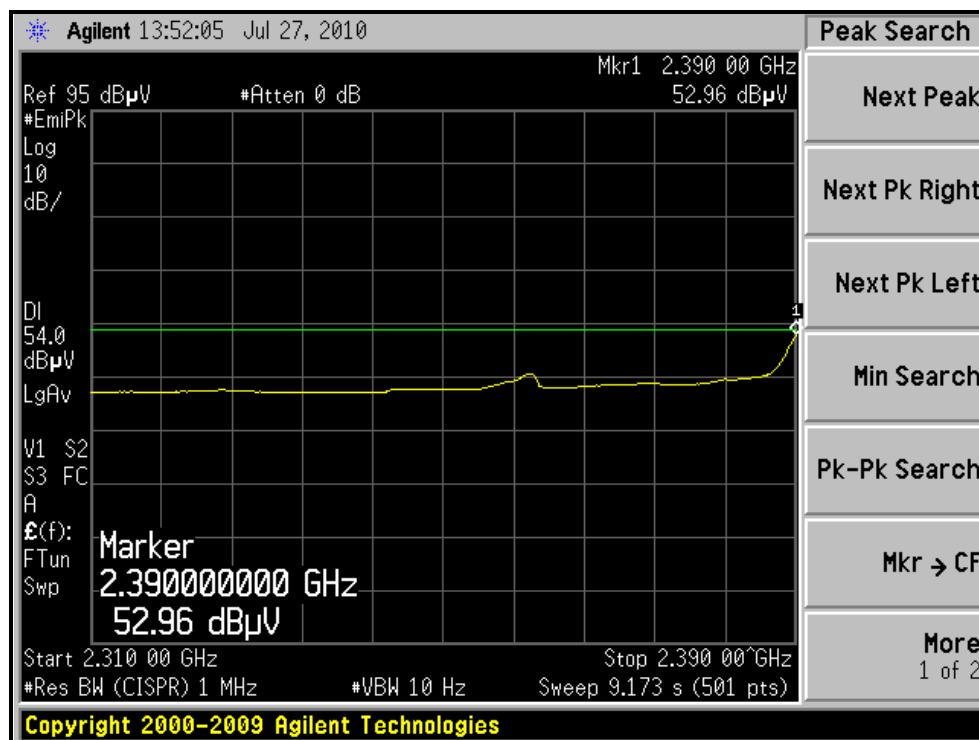
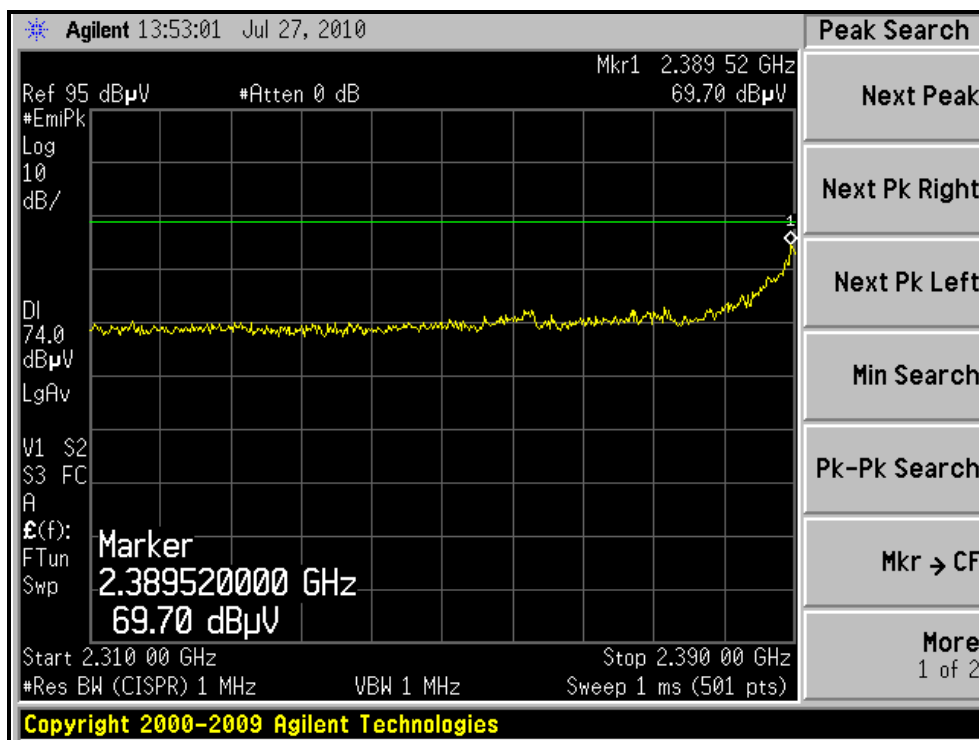
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	95.4 PK			1.00 H	244	63.50	31.90
2	*2462.00	86.2 AV			1.00 H	244	54.30	31.90
3	2483.50	61.1 PK	74.0	-12.9	1.00 H	251	29.10	32.00
4	2483.50	45.9 AV	54.0	-8.1	1.00 H	251	13.90	32.00
5	4924.00	51.8 PK	74.0	-22.2	1.02 H	64	12.50	39.30
6	4924.00	40.7 AV	54.0	-13.3	1.02 H	64	1.40	39.30
7	7386.00	50.6 PK	74.0	-23.4	1.10 H	307	4.00	46.60
8	7386.00	40.1 AV	54.0	-13.9	1.10 H	307	-6.50	46.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	103.9 PK			1.68 V	91	72.00	31.90
2	*2462.00	93.1 AV			1.68 V	91	61.20	31.90
3	2483.50	69.3 PK	74.0	-4.7	1.68 V	91	37.30	32.00
4	2483.50	52.3 AV	54.0	-1.7	1.68 V	91	20.30	32.00
5	4924.00	51.8 PK	74.0	-22.2	1.27 V	74	12.50	39.30
6	4924.00	41.6 AV	54.0	-12.4	1.27 V	74	2.30	39.30
7	7386.00	50.7 PK	74.0	-23.3	1.01 V	229	4.10	46.60
8	7386.00	40.2 AV	54.0	-13.8	1.01 V	229	-6.40	46.60

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

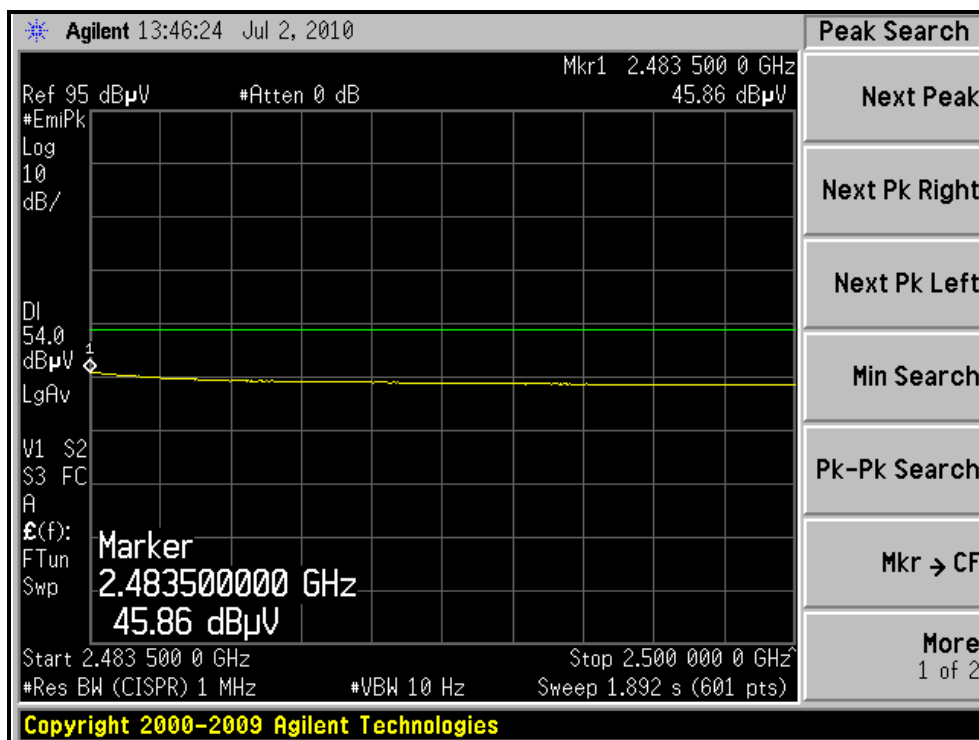
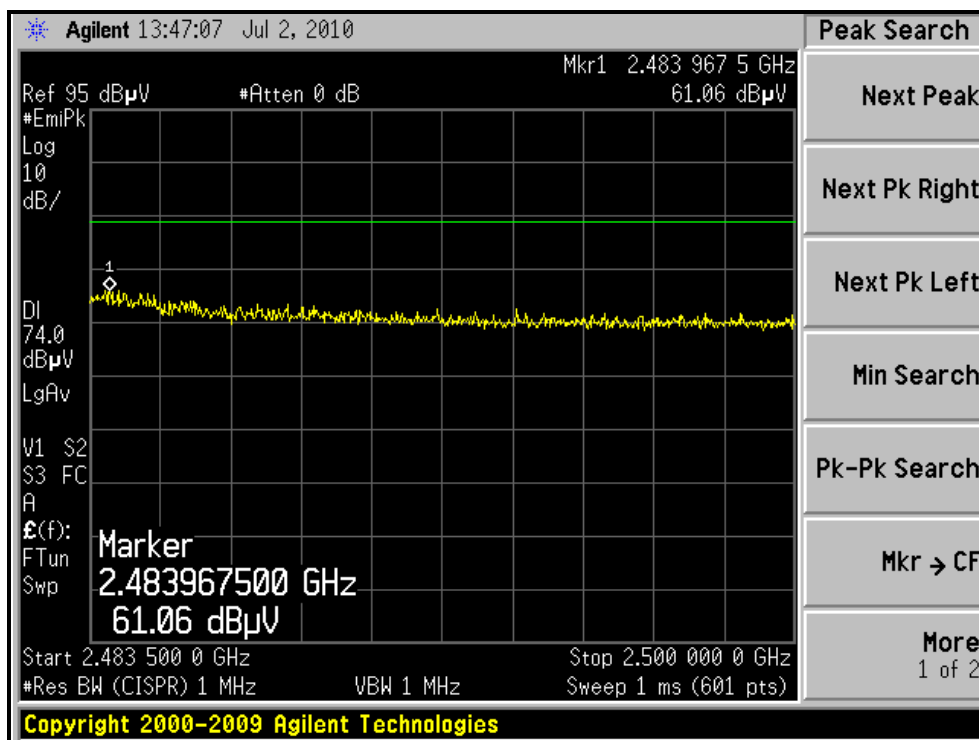
RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)



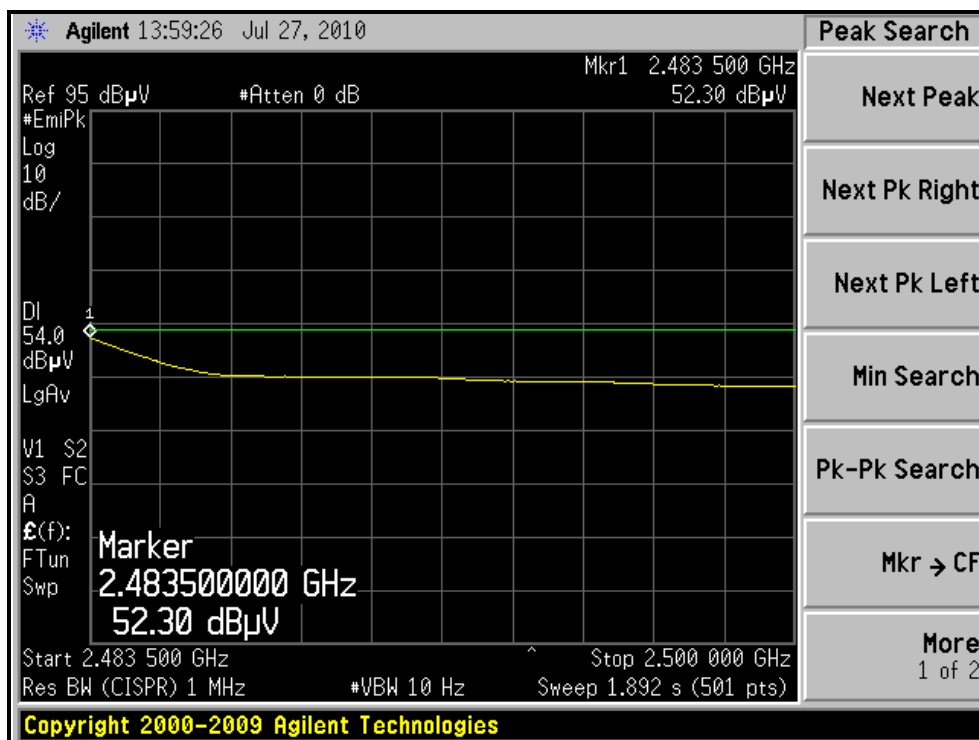
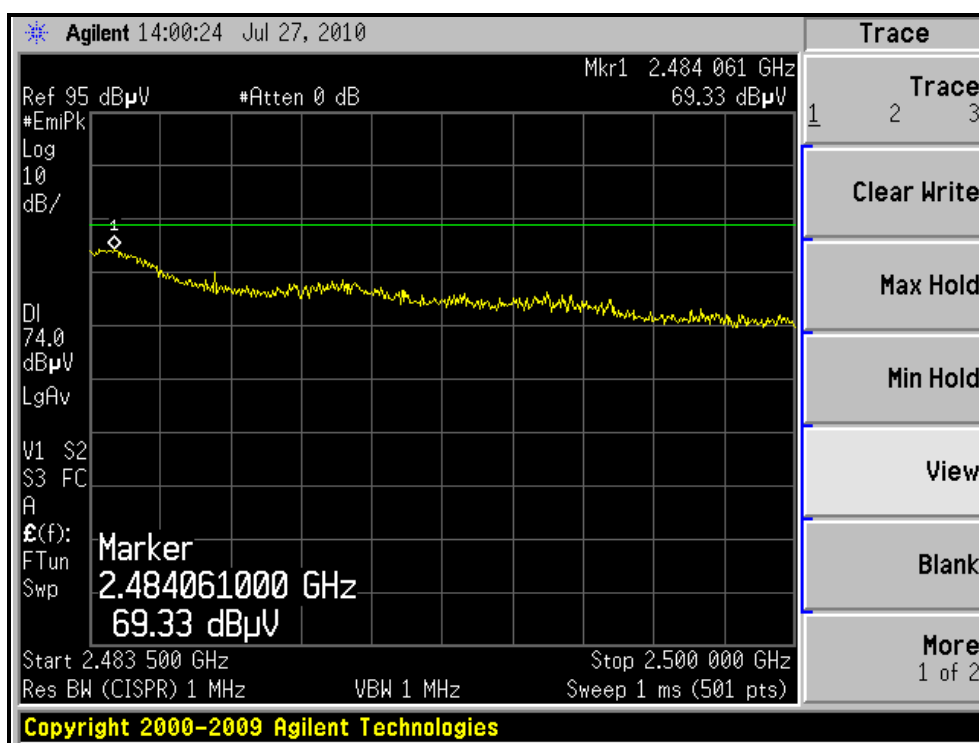
RESTRICTED BANDEDGE (802.11g MODE,CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11g MODE,CH11, HORIZONTAL)



RESTRICTED BANDEDGE (802.11g MODE,CH11, VERTICAL)





A D T

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	25deg. C, 75%RH 1015 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	60.1 PK	74.0	-13.9	1.00 H	242	28.40	31.70
2	2390.00	46.9 AV	54.0	-7.1	1.00 H	242	15.20	31.70
3	*2412.00	95.6 PK			1.00 H	244	63.90	31.70
4	*2412.00	85.5 AV			1.00 H	244	53.80	31.70
5	4824.00	51.7 PK	74.0	-22.3	1.00 H	62	12.70	39.00
6	4824.00	40.5 AV	54.0	-13.5	1.00 H	62	1.50	39.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	68.5 PK	74.0	-5.5	1.63 V	90	36.80	31.70
2	2390.00	52.3 AV	54.0	-1.7	1.63 V	90	20.60	31.70
3	*2412.00	102.6 PK			1.63 V	88	70.90	31.70
4	*2412.00	92.7 AV			1.63 V	88	61.00	31.70
5	4824.00	51.3 PK	74.0	-22.7	1.29 V	72	12.30	39.00
6	4824.00	41.4 AV	54.0	-12.6	1.29 V	72	2.40	39.00

- 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.



A D T

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	25deg. C, 75%RH 1015 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	97.4 PK			1.00 H	245	65.60	31.80
2	*2437.00	88.4 AV			1.00 H	245	56.60	31.80
3	4874.00	56.1 PK	74.0	-17.9	1.00 H	73	17.00	39.10
4	4874.00	44.6 AV	54.0	-9.4	1.00 H	73	5.50	39.10
5	7311.00	50.8 PK	74.0	-23.2	1.13 H	299	4.20	46.60
6	7311.00	40.1 AV	54.0	-13.9	1.13 H	299	-6.50	46.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	104.5 PK			1.37 V	303	72.70	31.80
2	*2437.00	95.2 AV			1.37 V	303	63.40	31.80
3	4874.00	55.1 PK	74.0	-18.9	1.24 V	89	16.00	39.10
4	4874.00	43.9 AV	54.0	-10.1	1.24 V	89	4.80	39.10
5	7311.00	50.9 PK	74.0	-23.1	1.04 V	231	4.30	46.60
6	7311.00	40.6 AV	54.0	-13.4	1.04 V	231	-6.00	46.60

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



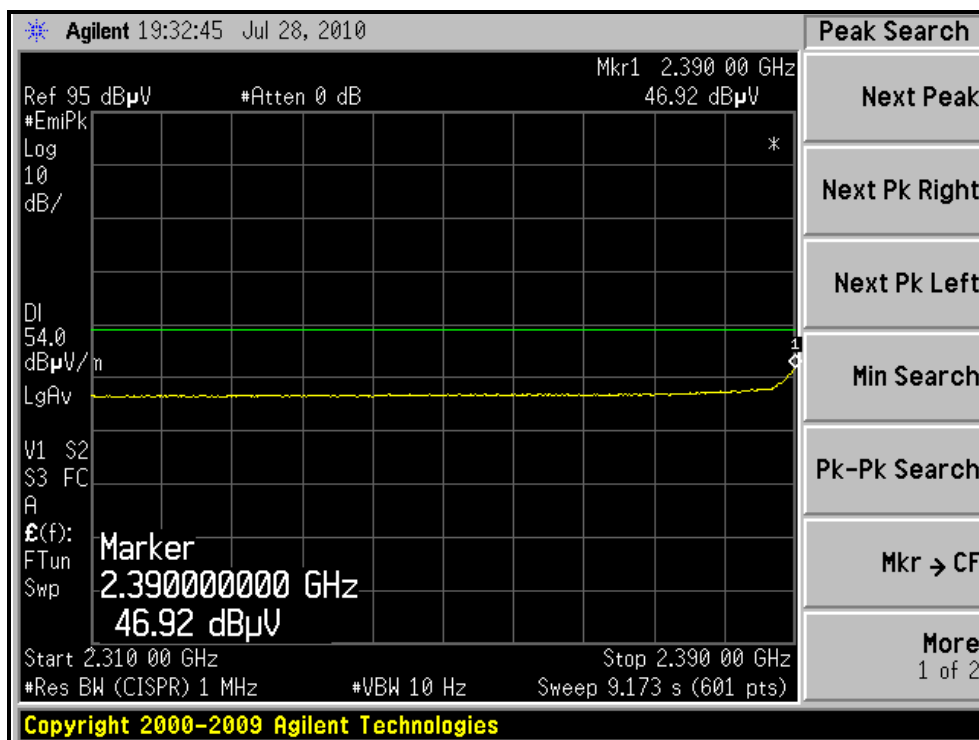
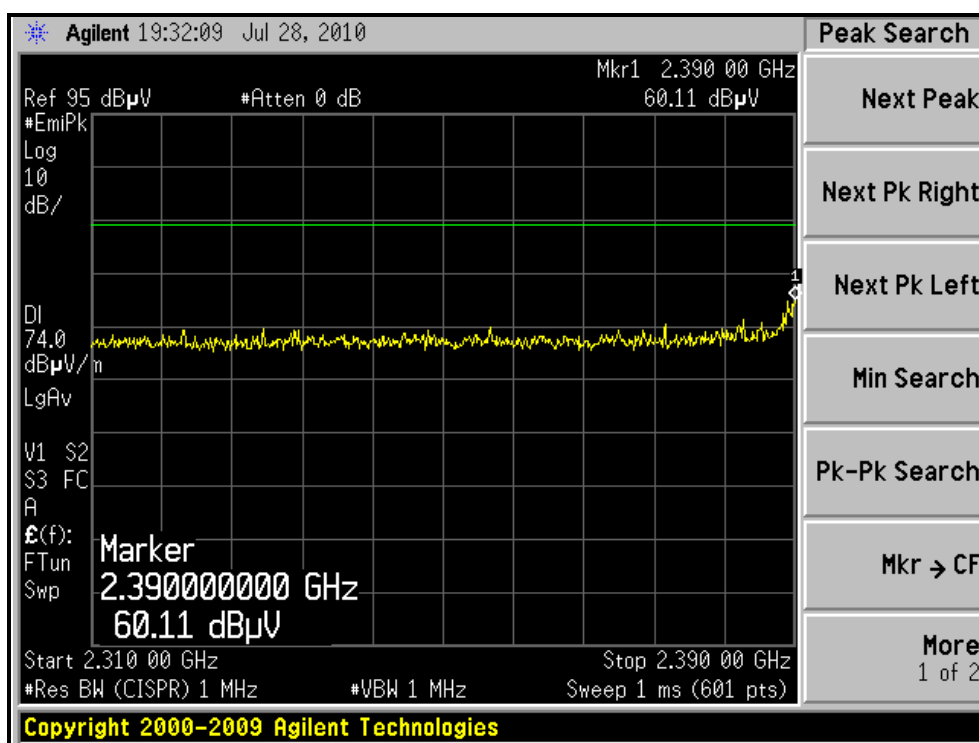
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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 75%RH 1015 hPa	TESTED BY	Eric Lee

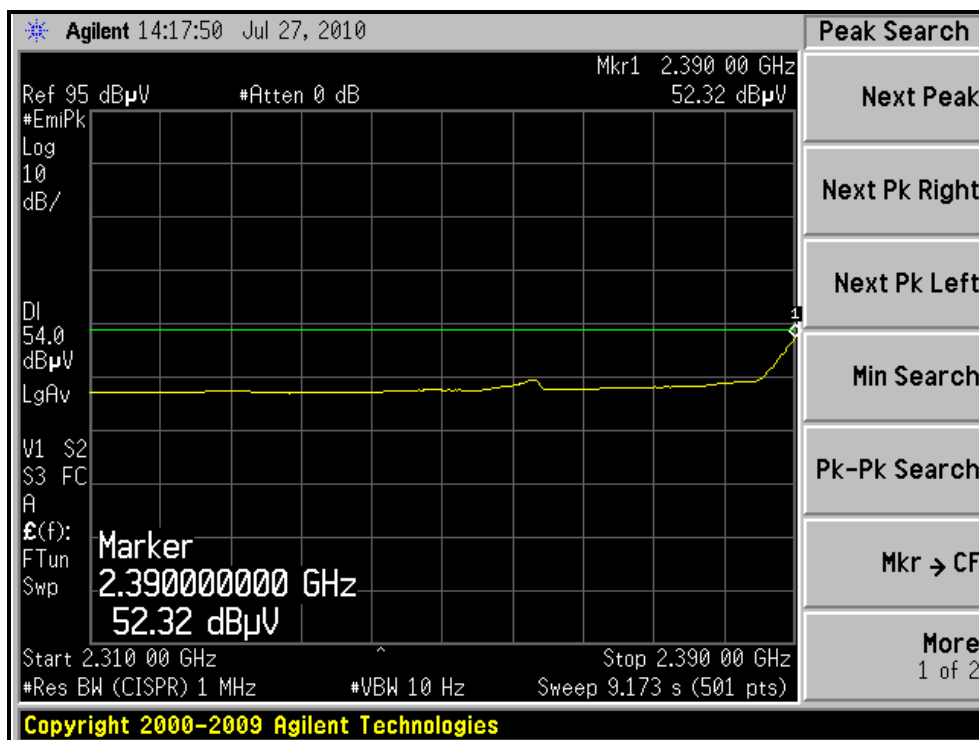
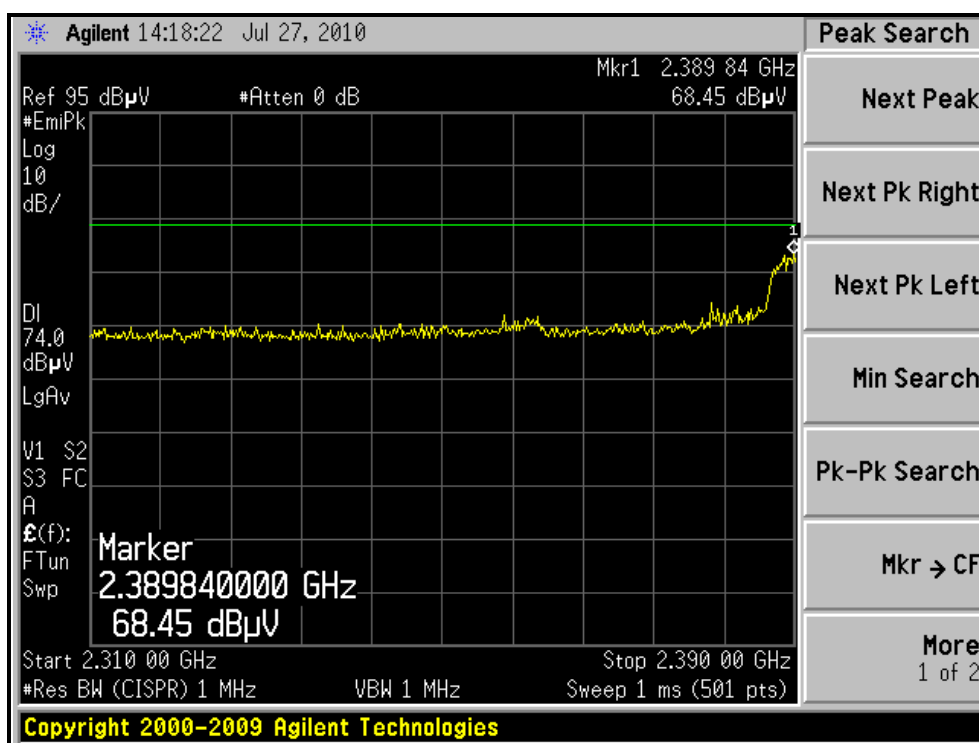
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	94.3 PK			1.00 H	233	62.40	31.90
2	*2462.00	84.3 AV			1.00 H	233	52.40	31.90
3	2483.50	63.8 PK	74.0	-10.2	1.00 H	262	31.80	32.00
4	2483.50	46.6 AV	54.0	-7.4	1.00 H	262	14.60	32.00
5	4924.00	51.9 PK	74.0	-22.1	1.00 H	69	12.60	39.30
6	4924.00	40.9 AV	54.0	-13.1	1.00 H	69	1.60	39.30
7	7386.00	50.7 PK	74.0	-23.3	1.14 H	287	4.10	46.60
8	7386.00	40.2 AV	54.0	-13.8	1.14 H	287	-6.40	46.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	100.8 PK			1.67 V	305	68.90	31.90
2	*2462.00	91.0 AV			1.67 V	305	59.10	31.90
3	2483.50	69.0 PK	74.0	-5.0	1.67 V	305	37.00	32.00
4	2483.50	51.6 AV	54.0	-2.4	1.67 V	305	19.60	32.00
5	4924.00	51.4 PK	74.0	-22.6	1.21 V	74	12.10	39.30
6	4924.00	41.2 AV	54.0	-12.8	1.21 V	74	1.90	39.30
7	7386.00	50.6 PK	74.0	-23.4	1.00 V	245	4.00	46.60
8	7386.00	40.4 AV	54.0	-13.6	1.00 V	245	-6.20	46.60

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

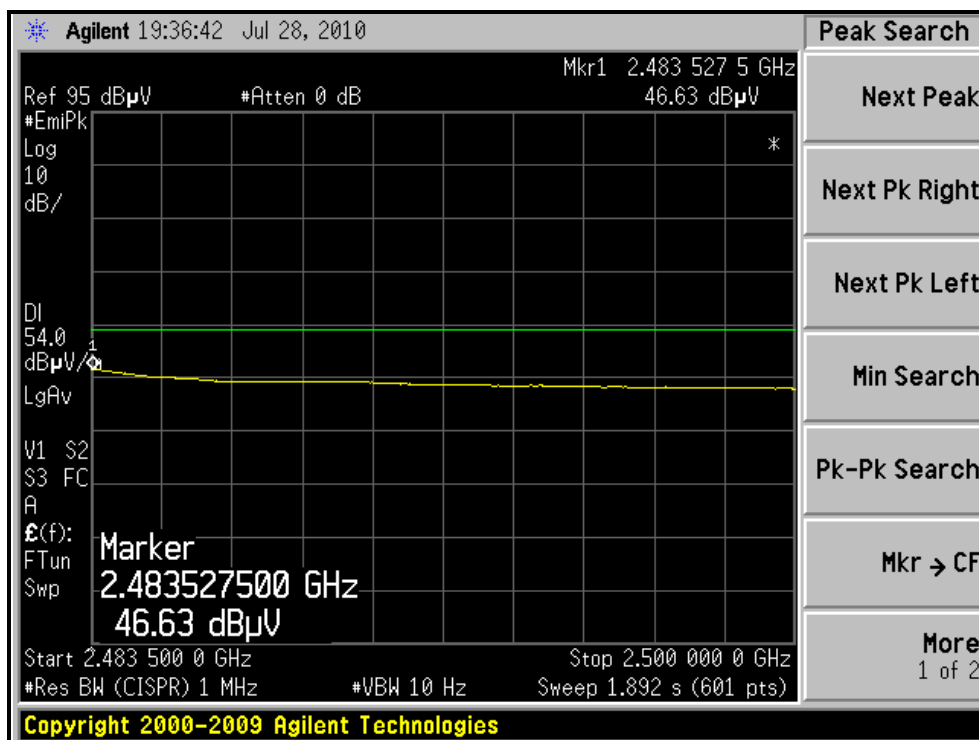
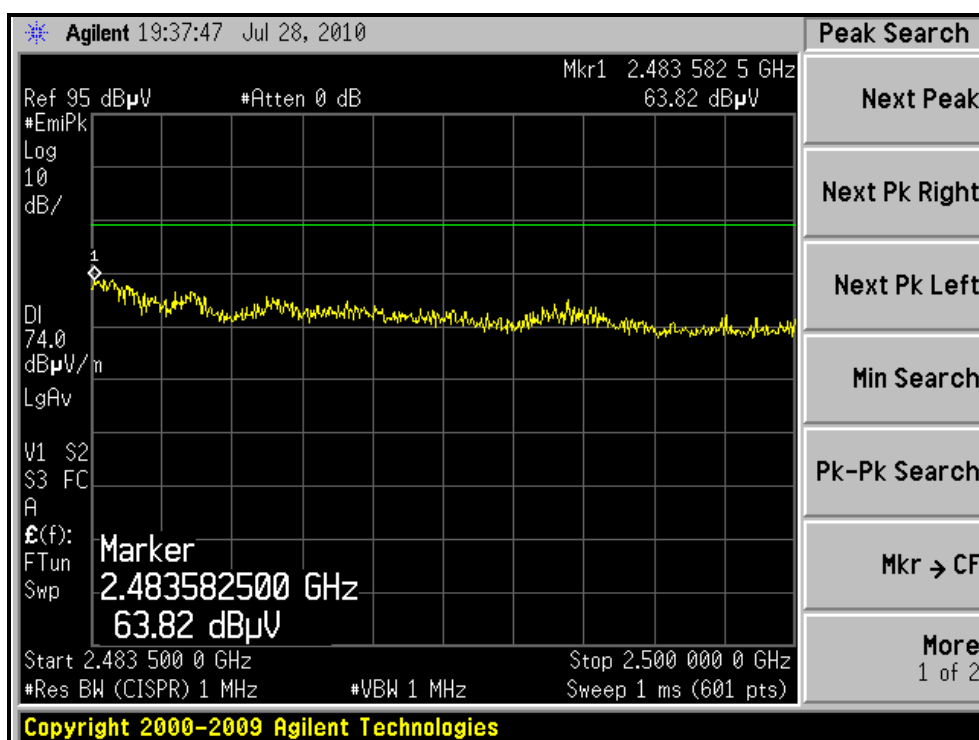
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, HORIZONTAL)



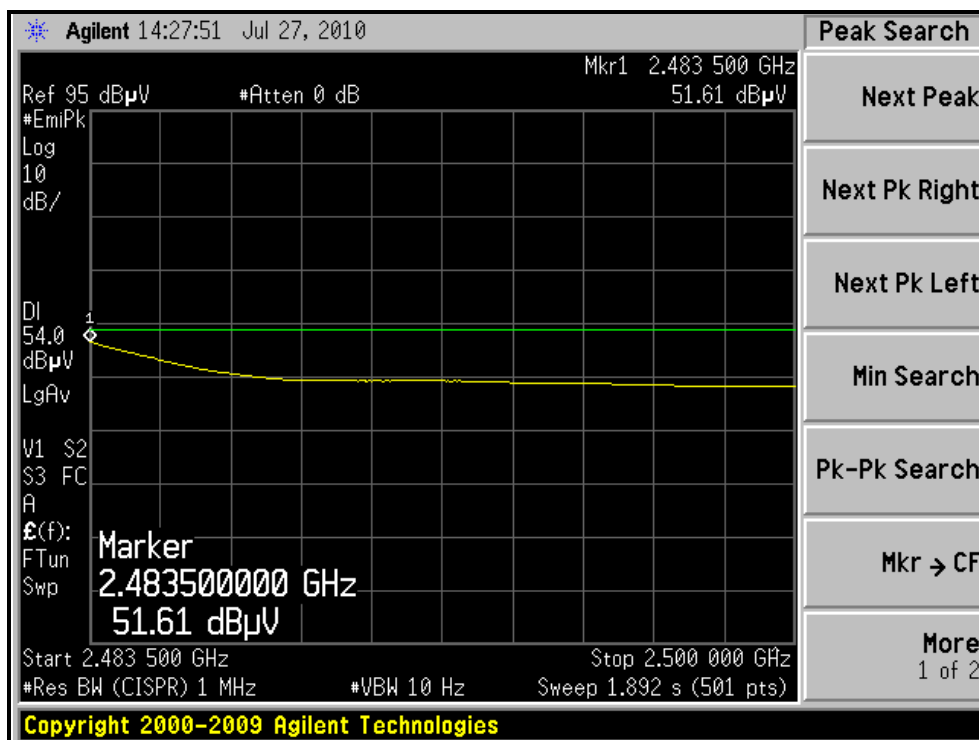
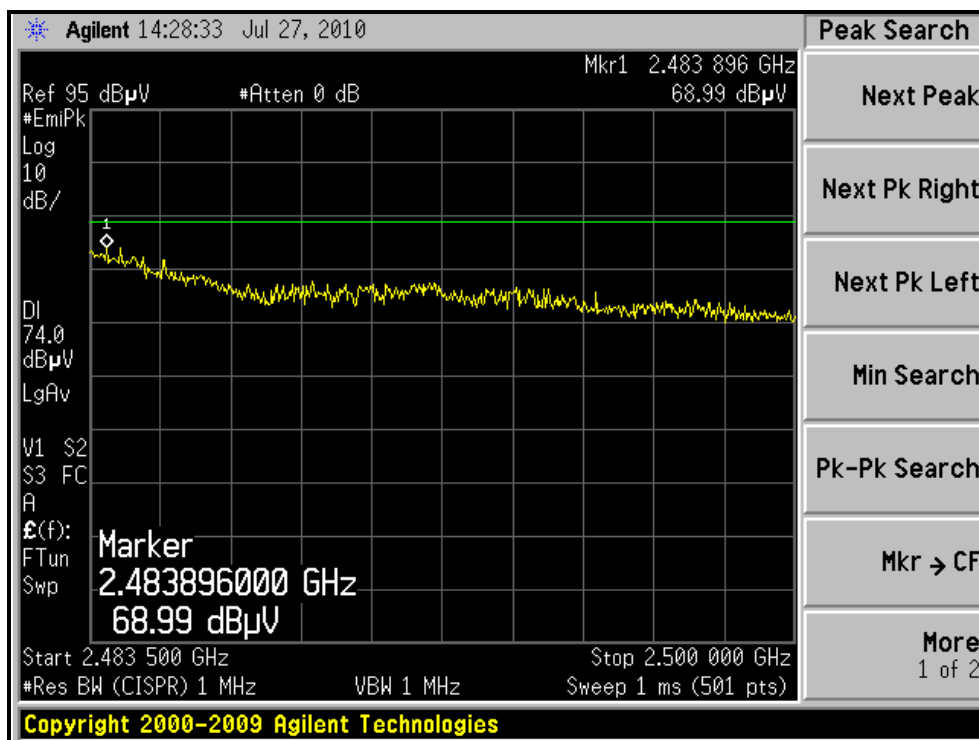
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, VERTICAL)



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 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 72%RH 1015 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	60.2 PK	74.0	-13.8	1.00 H	106	32.67	27.53
2	2390.00	45.9 AV	54.0	-8.1	1.00 H	106	18.37	27.53
3	*2422.00	94.3 PK			1.00 H	156	66.77	27.53
4	*2422.00	84.7 AV			1.00 H	156	57.17	27.53
5	4844.00	48.9 PK	74.0	-25.1	1.12 H	64	21.37	27.53
6	4844.00	36.4 AV	54.0	-17.6	1.12 H	64	8.87	27.53
7	7266.00	50.1 PK	74.0	-23.9	1.03 H	319	22.57	27.53
8	7266.00	39.4 AV	54.0	-14.6	1.03 H	319	11.87	27.53
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	68.1 PK	74.0	-5.9	1.15 V	156	40.57	27.53
2	2390.00	52.5 AV	54.0	-1.5	1.15 V	156	24.07	27.53
3	*2422.00	99.5 PK			1.13 V	156	71.97	27.53
4	*2422.00	90.5 AV			1.13 V	156	62.97	27.53
5	4844.00	48.4 PK	74.0	-25.6	1.20 V	103	20.87	27.53
6	4844.00	37.2 AV	54.0	-16.8	1.20 V	103	9.67	27.53
7	7266.00	50.3 PK	74.0	-23.7	1.05 V	214	22.77	27.53
8	7266.00	40.1 AV	54.0	-13.9	1.05 V	214	12.57	27.53

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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 75%RH 1015 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	95.4 PK			1.00 H	244	63.60	31.80
2	*2437.00	85.2 AV			1.00 H	244	53.40	31.80
3	4874.00	50.7 PK	74.0	-23.3	1.11 H	59	11.60	39.10
4	4874.00	39.2 AV	54.0	-14.8	1.11 H	59	0.10	39.10
5	7311.00	50.2 PK	74.0	-23.8	1.02 H	303	3.60	46.60
6	7311.00	40.1 AV	54.0	-13.9	1.02 H	303	-6.50	46.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	66.4 PK	74.0	-7.6	1.65 V	300	34.70	31.70
2	2390.00	52.3 AV	54.0	-1.7	1.65 V	300	20.60	31.70
3	*2437.00	102.8 PK			1.65 V	32	71.00	31.80
4	*2437.00	92.6 AV			1.65 V	32	60.80	31.80
5	2483.50	65.6 PK	74.0	-8.4	1.65 V	300	33.60	32.00
6	2483.50	51.7 AV	54.0	-2.3	1.65 V	300	19.70	32.00
7	4874.00	51.4 PK	74.0	-22.6	1.21 V	105	12.30	39.10
8	4874.00	40.2 AV	54.0	-13.8	1.21 V	105	1.10	39.10
9	7311.00	50.4 PK	74.0	-23.6	1.04 V	211	3.80	46.60
10	7311.00	40.3 AV	54.0	-13.7	1.04 V	211	-6.30	46.60

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



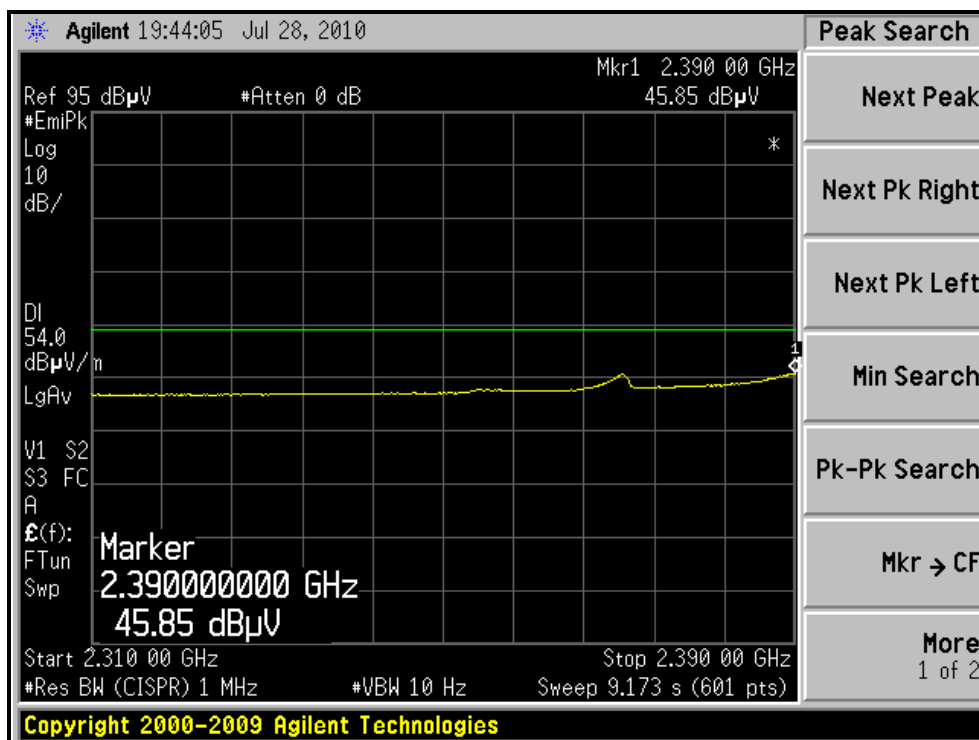
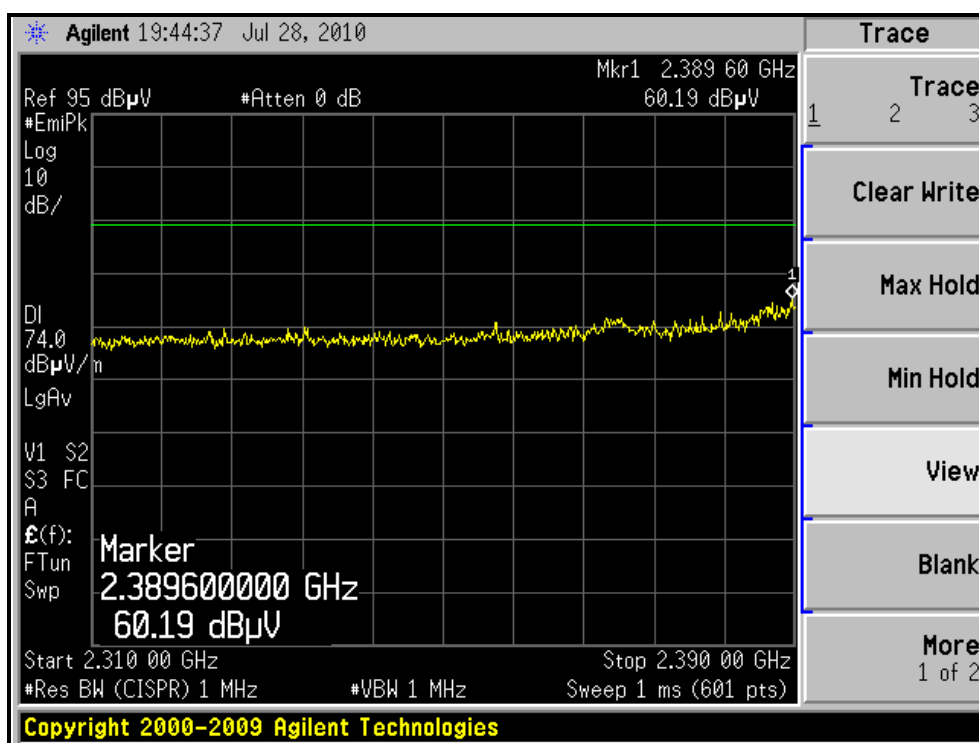
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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 75%RH 1015 hPa	TESTED BY	Eric Lee

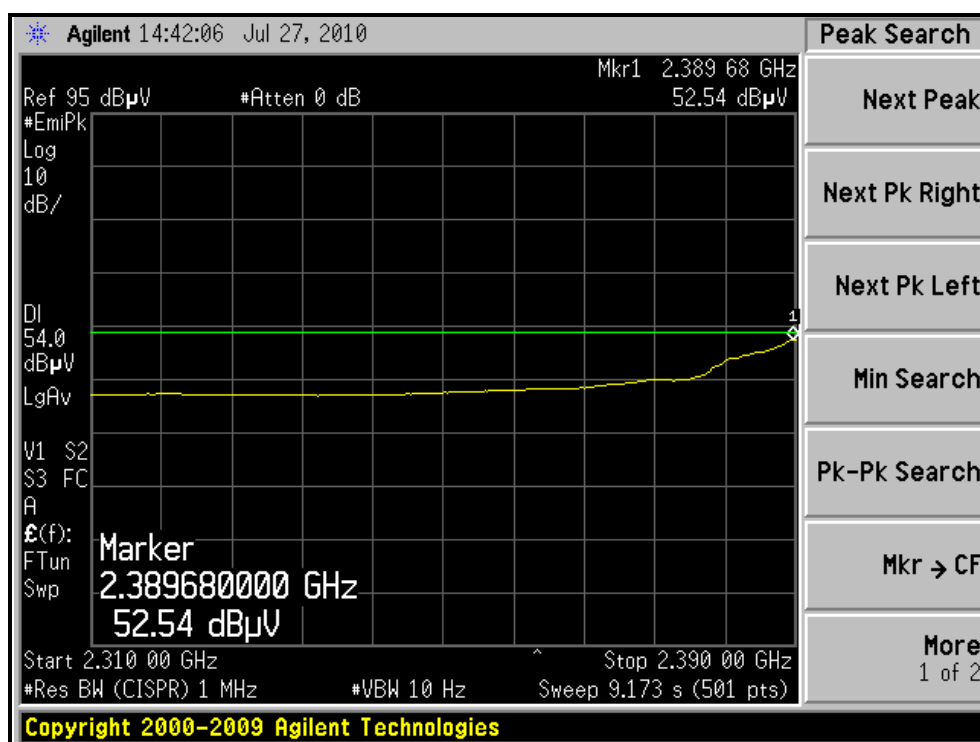
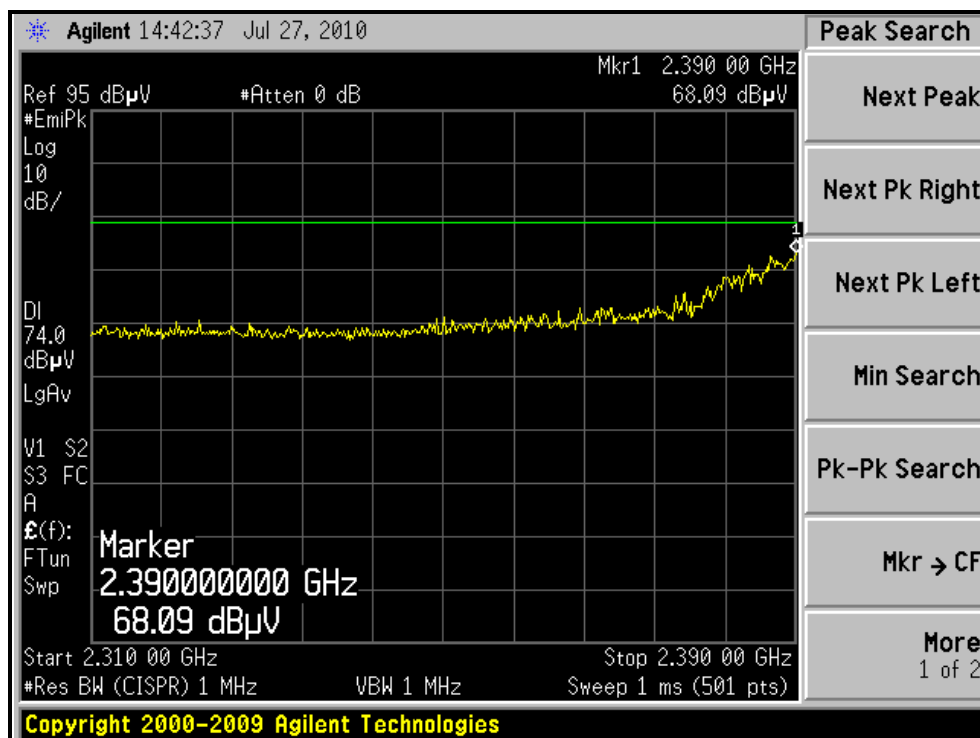
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	87.2 PK			1.00 H	233	55.30	31.90
2	*2452.00	78.1 AV			1.00 H	233	46.20	31.90
3	2483.50	62.0 PK	74.0	-12.0	1.00 H	236	30.00	32.00
4	2483.50	44.7 AV	54.0	-9.3	1.00 H	236	12.70	32.00
5	4904.00	49.2 PK	74.0	-24.8	1.10 H	64	10.00	39.20
6	4904.00	38.1 AV	54.0	-15.9	1.10 H	64	-1.10	39.20
7	7356.00	51.2 PK	74.0	-22.8	1.01 H	301	4.60	46.60
8	7356.00	40.3 AV	54.0	-13.7	1.01 H	301	-6.30	46.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	94.5 PK			1.67 V	308	62.60	31.90
2	*2452.00	85.3 AV			1.67 V	308	53.40	31.90
3	2483.50	67.2 PK	74.0	-6.8	1.67 V	307	35.20	32.00
4	2483.50	52.2 AV	54.0	-1.8	1.67 V	307	20.20	32.00
5	4904.00	49.3 PK	74.0	-24.7	1.24 V	103	10.10	39.20
6	4904.00	38.4 AV	54.0	-15.6	1.24 V	103	-0.80	39.20
7	7356.00	50.2 PK	74.0	-23.8	1.02 V	210	3.60	46.60
8	7356.00	40.1 AV	54.0	-13.9	1.02 V	210	-6.50	46.60

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

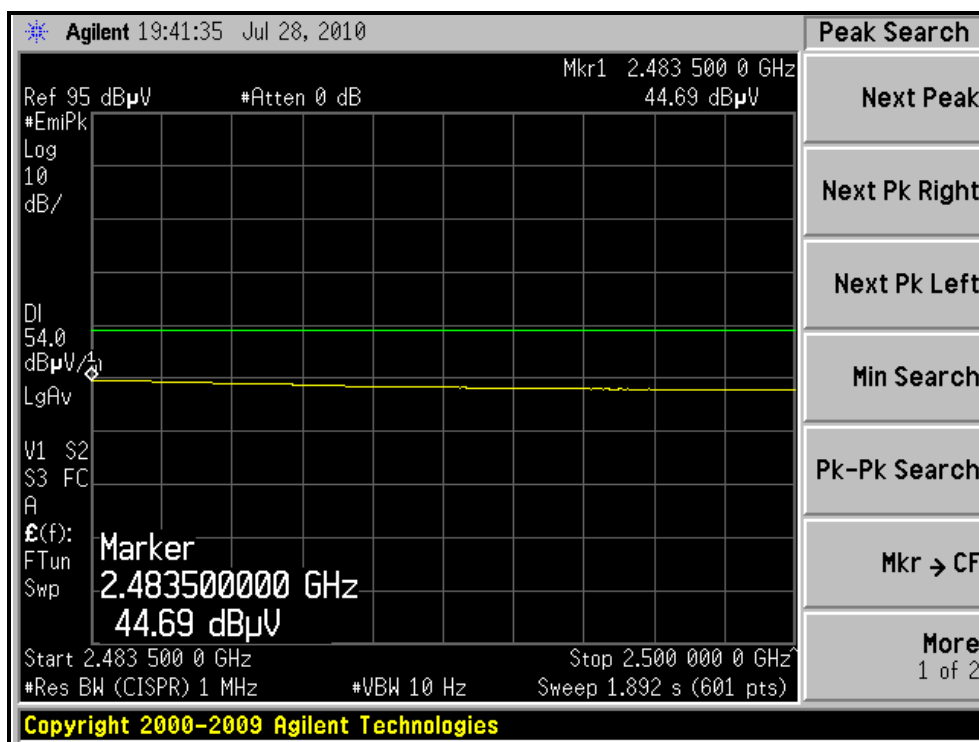
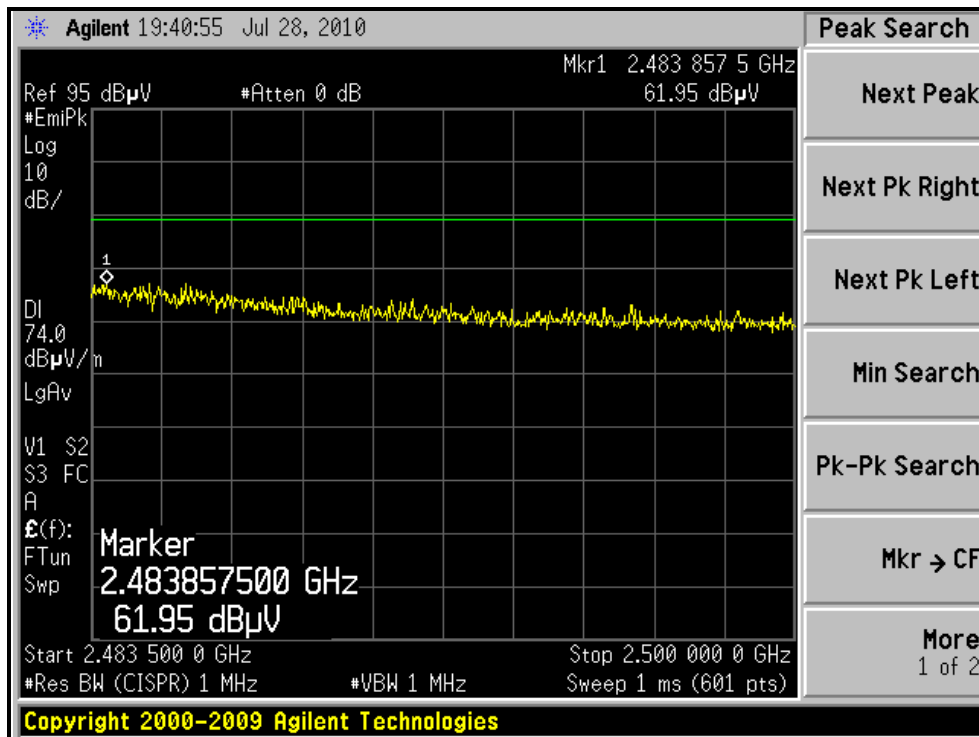
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH1, HORIZONTAL)



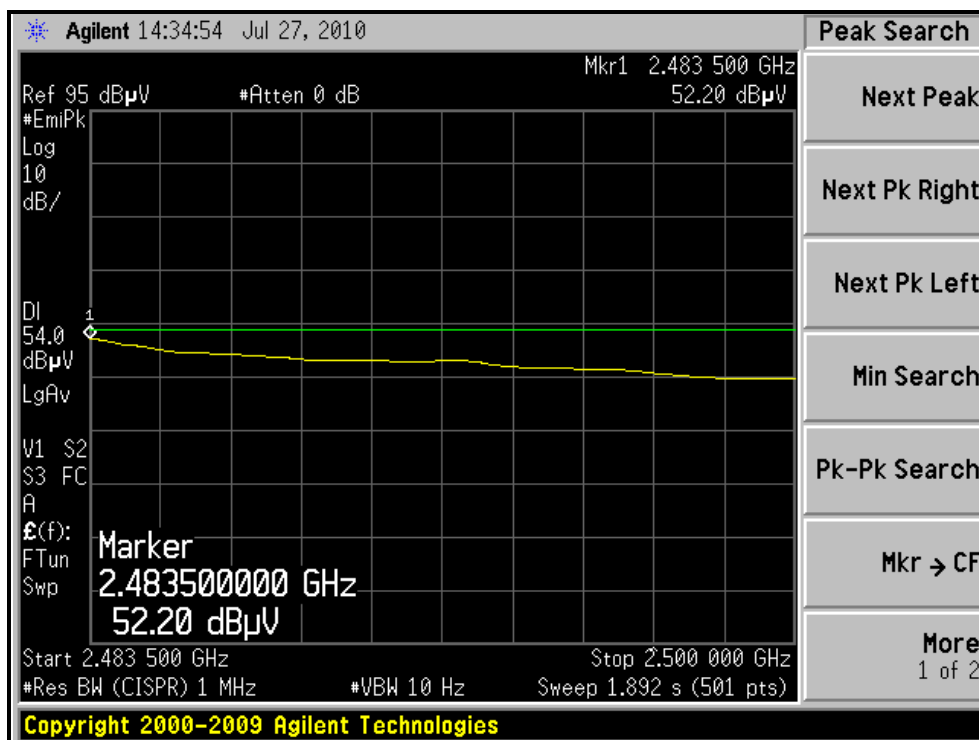
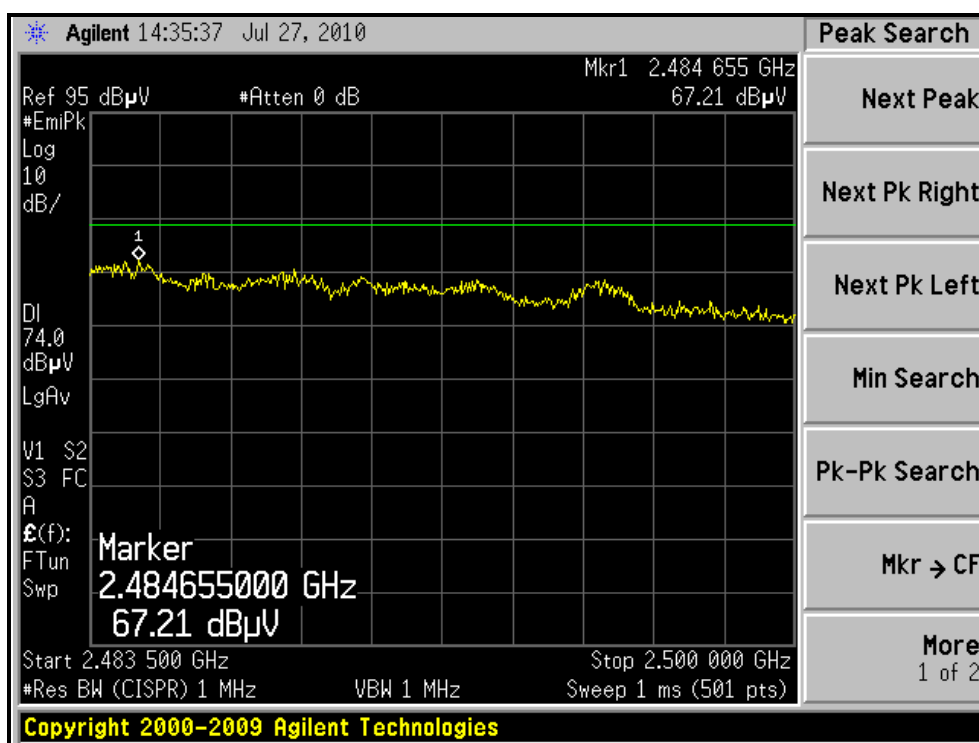
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH1, VERTICAL)



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



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



4.2.8 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	25deg. C, 75%RH 1015 hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	99.87	34.6 QP	43.5	-8.9	2.00 H	360	24.67	9.96
2	298.58	35.7 QP	46.0	-10.3	1.00 H	358	20.81	14.85
3	432.04	37.0 QP	46.0	-9.0	2.00 H	319	18.33	18.65
4	600.56	37.2 QP	46.0	-8.9	1.25 H	261	14.60	22.55
5	799.87	38.1 QP	46.0	-7.9	1.00 H	274	12.93	25.15
6	875.06	38.5 QP	46.0	-7.5	1.50 H	240	12.25	26.29
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	432.04	37.0 QP	46.0	-9.0	1.25 V	240	18.33	18.65
2	499.78	35.6 QP	46.0	-10.4	1.00 V	288	15.46	20.10
3	600.56	38.9 QP	46.0	-7.1	1.00 V	360	16.38	22.55
4	624.96	35.7 QP	46.0	-10.3	1.25 V	349	12.96	22.76
5	659.89	35.0 QP	46.0	-11.0	1.00 V	161	11.97	23.07
6	796.31	38.1 QP	46.0	-7.9	1.25 V	285	13.04	25.08

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

ABOVE 1GHz WORST-CASE DATA

802.11b DSSS MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 68%RH 1015 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	2386.30	60.5 PK	74.0	-13.5	2.13 H	3	29.30	31.20
2	2386.30	52.2 AV	54.0	-1.8	2.13 H	3	21.00	31.20
3	*2412.00	105.3 PK			2.13 H	1	74.03	31.27
4	*2412.00	103.1 AV			2.13 H	1	71.83	31.27
5	4824.00	53.0 PK	74.0	-21.0	1.00 H	308	13.58	39.42
6	4824.00	51.0 AV	54.0	-3.0	1.00 H	308	11.58	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	2386.30	59.2 PK	74.0	-14.8	1.06 V	241	28.00	31.20
2	2386.30	51.7 AV	54.0	-2.3	1.06 V	241	20.50	31.20
3	*2412.00	102.8 PK			1.06 V	241	71.53	31.27
4	*2412.00	100.4 AV			1.06 V	241	69.13	31.27
5	4824.00	54.9 PK	74.0	-19.1	1.08 V	334	15.48	39.42
6	4824.00	53.4 AV	54.0	-0.6	1.08 V	334	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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 68%RH 1015 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	106.3 PK			2.12 H	2	74.96	31.34
2	*2437.00	104.2 AV			2.12 H	2	72.86	31.34
3	4874.00	53.5 PK	74.0	-20.5	1.00 H	310	13.88	39.62
4	4874.00	51.3 AV	54.0	-2.7	1.00 H	310	11.68	39.62
5	7311.00	52.8 PK	74.0	-21.2	1.00 H	0	8.70	44.10
6	7311.00	41.0 AV	54.0	-13.0	1.00 H	0	-3.10	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	101.5 PK			1.06 V	242	70.16	31.34
2	*2437.00	99.0 AV			1.06 V	242	67.66	31.34
3	4874.00	55.0 PK	74.0	-19.0	1.09 V	333	15.38	39.62
4	4874.00	53.5 AV	54.0	-0.5	1.09 V	333	13.88	39.62
5	7311.00	51.9 PK	74.0	-22.1	1.01 V	20	7.80	44.10
6	7311.00	40.0 AV	54.0	-14.0	1.01 V	20	-4.10	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.



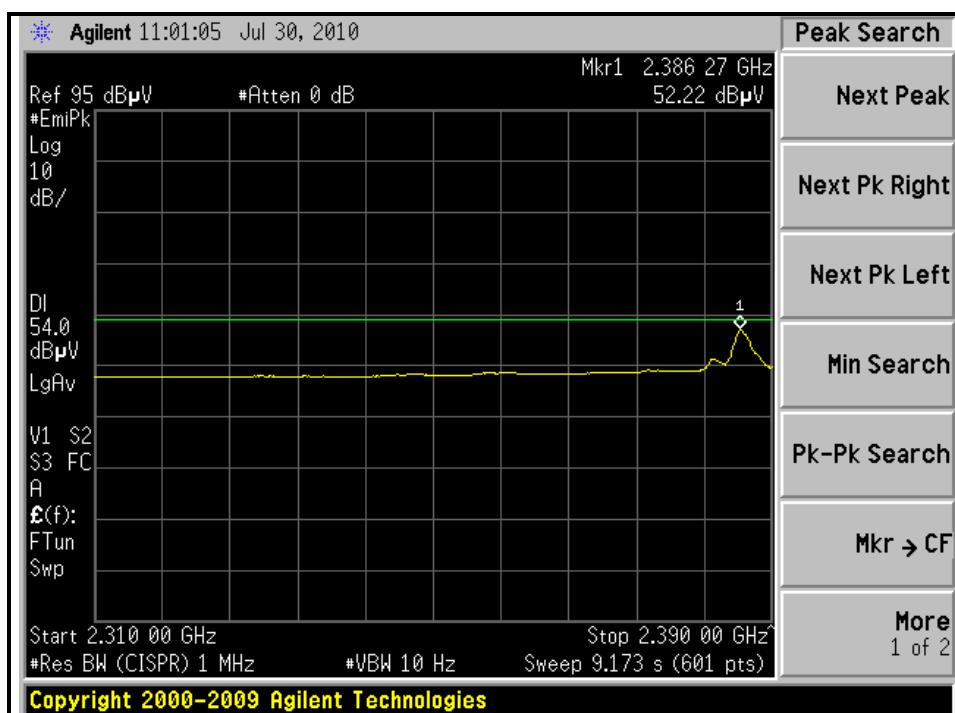
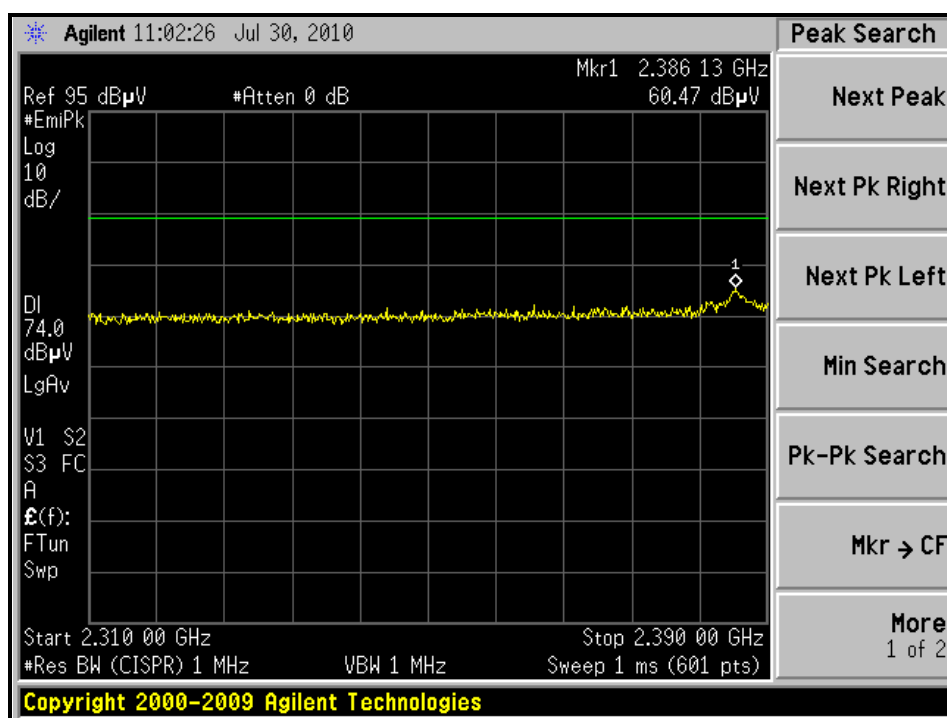
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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 68%RH 1015 hPa	TESTED BY	Eric Lee

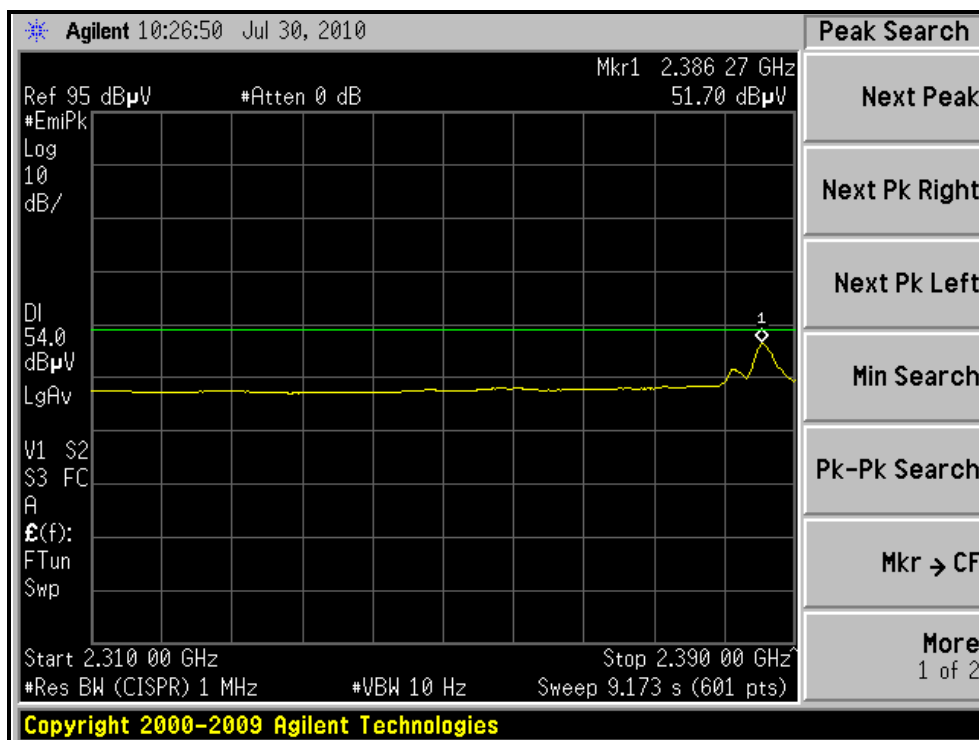
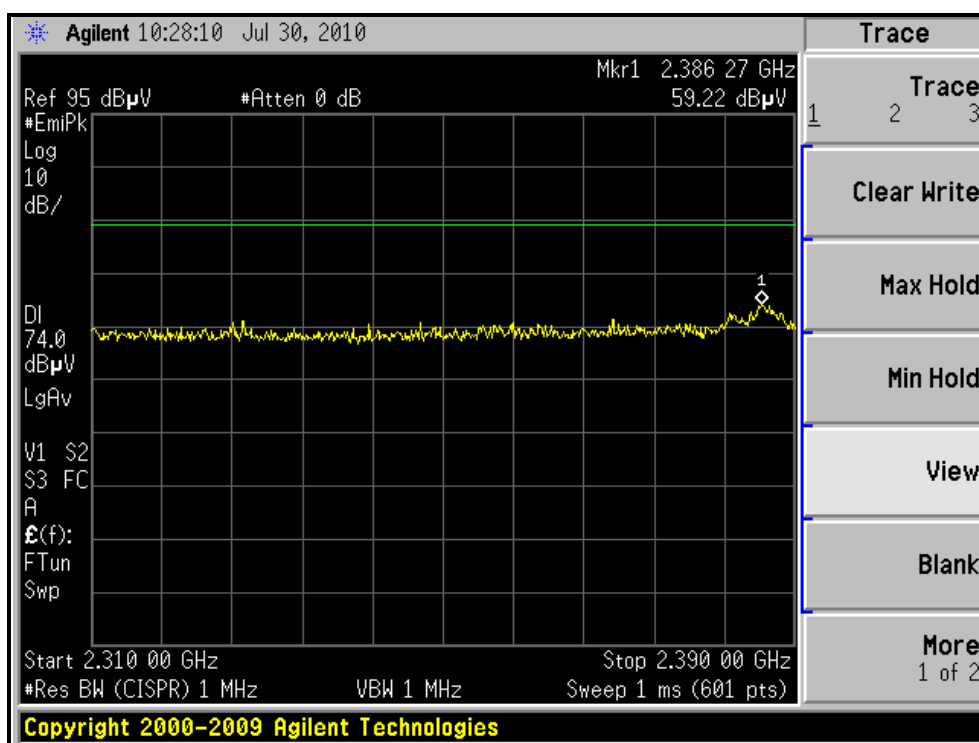
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	106.0 PK			2.13 H	4	74.60	31.40
2	*2462.00	103.6 AV			2.13 H	4	72.20	31.40
3	2483.50	60.7 PK	74.0	-13.3	2.13 H	4	29.24	31.46
4	2483.50	53.0 AV	54.0	-1.0	2.13 H	4	21.54	31.46
5	4924.00	53.5 PK	74.0	-20.5	1.00 H	312	13.68	39.82
6	4924.00	50.6 AV	54.0	-3.4	1.00 H	312	10.78	39.82
7	7386.00	52.7 PK	74.0	-21.3	1.00 H	3	8.52	44.18
8	7386.00	40.8 AV	54.0	-13.2	1.00 H	3	-3.38	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	102.3 PK			1.06 V	243	70.90	31.40
2	*2462.00	100.0 AV			1.06 V	243	68.60	31.40
3	2483.50	60.2 PK	74.0	-13.8	1.06 V	243	28.74	31.46
4	2483.50	51.7 AV	54.0	-2.3	1.06 V	243	20.24	31.46
5	4924.00	54.3 PK	74.0	-19.7	1.08 V	335	14.48	39.82
6	4924.00	53.0 AV	54.0	-1.0	1.08 V	335	13.18	39.82
7	7386.00	51.5 PK	74.0	-22.5	1.01 V	18	7.32	44.18
8	7386.00	39.8 AV	54.0	-14.2	1.01 V	18	-4.38	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.

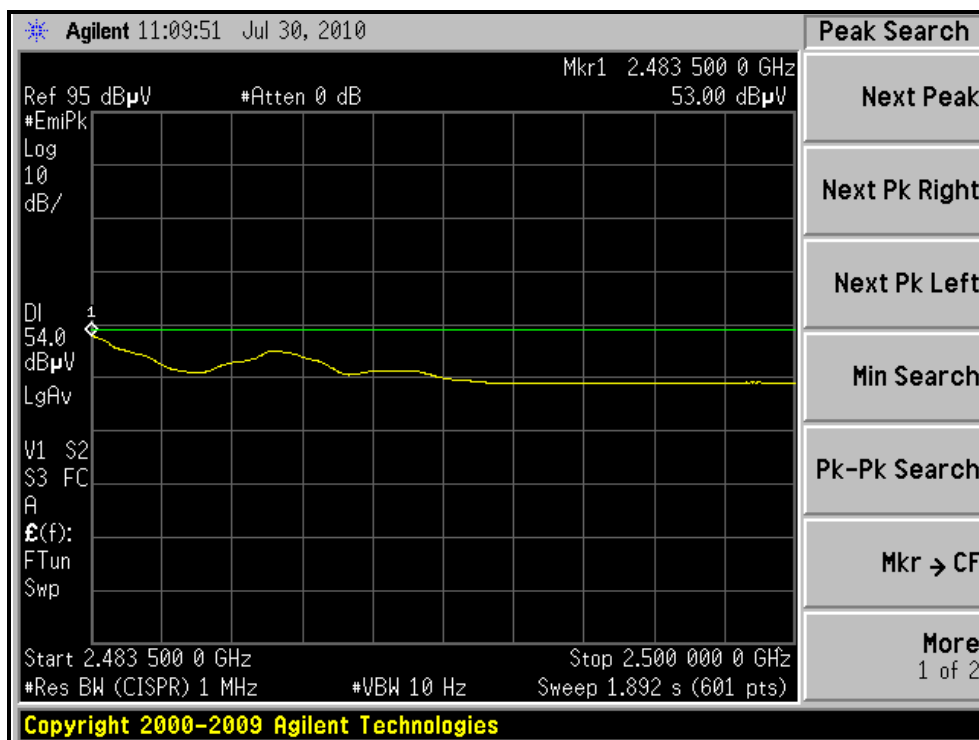
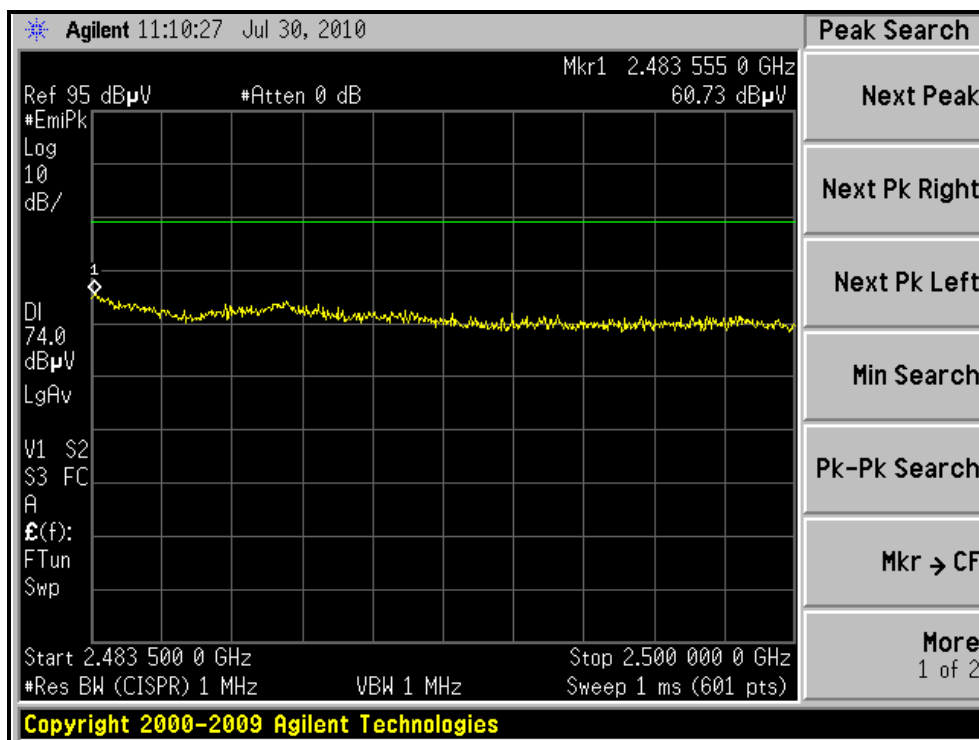
RESTRICTED BANDEDGE (802.11b MODE,CH1, HORIZONTAL)



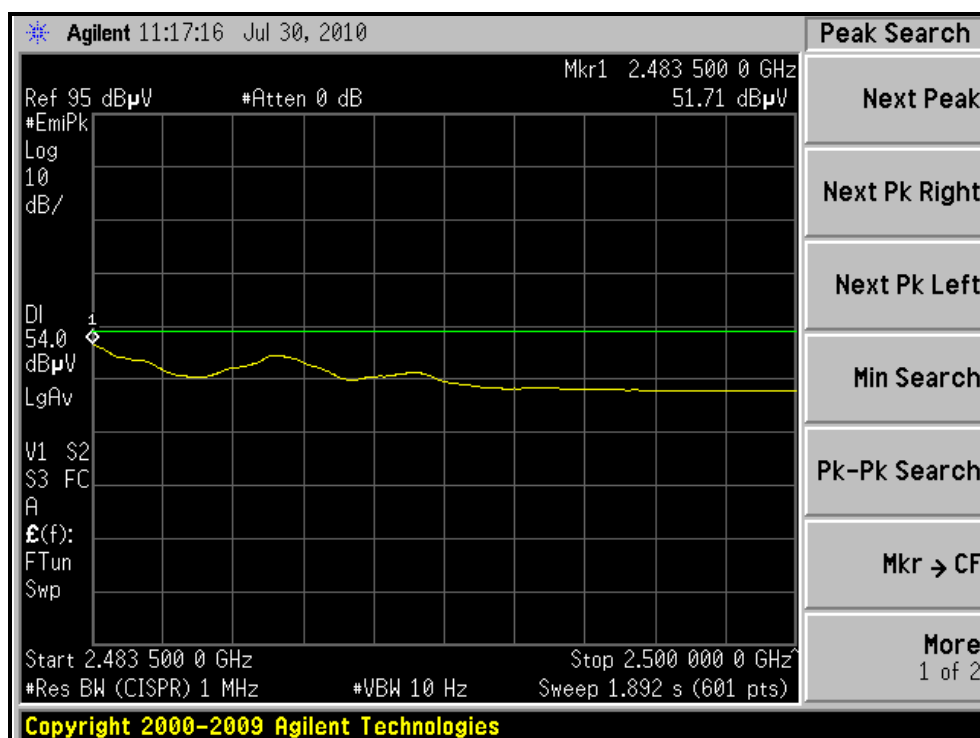
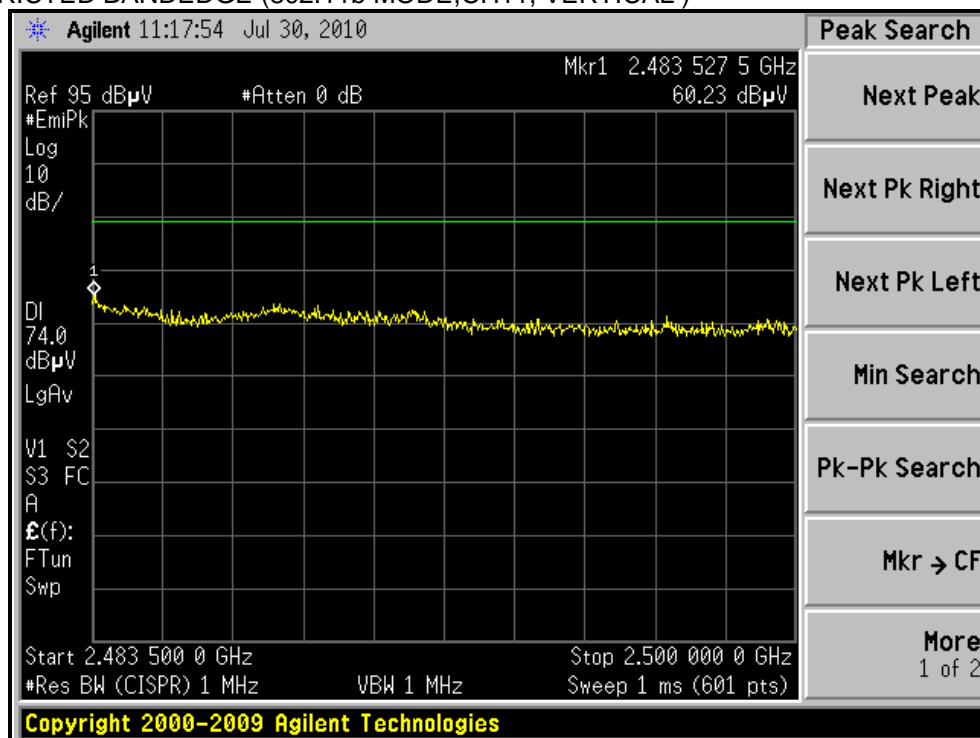
RESTRICTED BANDEDGE (802.11b MODE,CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11b MODE,CH11, HORIZONTAL)



RESTRICTED BANDEDGE (802.11b MODE,CH11, VERTICAL)





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802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 68%RH 1015 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	70.4 PK	74.0	-3.6	2.16 H	2	39.19	31.21
2	2390.00	53.4 AV	54.0	-0.6	2.16 H	2	22.19	31.21
3	*2412.00	108.5 PK			2.16 H	2	77.23	31.27
4	*2412.00	99.8 AV			2.16 H	2	68.53	31.27
5	4824.00	53.6 PK	74.0	-20.4	1.14 H	111	14.18	39.42
6	4824.00	42.4 AV	54.0	-11.6	1.14 H	111	2.98	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	67.0 PK	74.0	-7.0	1.08 V	240	35.79	31.21
2	2390.00	52.1 AV	54.0	-1.9	1.08 V	240	20.89	31.21
3	*2412.00	102.8 PK			1.07 V	243	71.53	31.27
4	*2412.00	93.9 AV			1.07 V	243	62.63	31.27
5	4824.00	53.3 PK	74.0	-20.7	1.00 V	113	13.88	39.42
6	4824.00	42.6 AV	54.0	-11.4	1.00 V	113	3.18	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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 68%RH 1015 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	110.8 PK			2.13 H	0	79.46	31.34
2	*2437.00	101.5 AV			2.13 H	0	70.16	31.34
3	4874.00	60.6 PK	74.0	-13.4	1.11 H	111	20.98	39.62
4	4874.00	47.8 AV	54.0	-6.2	1.11 H	111	8.18	39.62
5	7311.00	51.3 PK	74.0	-22.7	1.12 H	211	7.20	44.10
6	7311.00	40.4 AV	54.0	-13.6	1.12 H	211	-3.70	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	104.2 PK			1.07 V	242	72.86	31.34
2	*2437.00	94.9 AV			1.07 V	242	63.56	31.34
3	4874.00	60.9 PK	74.0	-13.1	1.00 V	114	21.28	39.62
4	4874.00	48.1 AV	54.0	-5.9	1.00 V	114	8.48	39.62
5	7311.00	51.6 PK	74.0	-22.4	1.07 V	23	7.50	44.10
6	7311.00	40.2 AV	54.0	-13.8	1.07 V	23	-3.90	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.



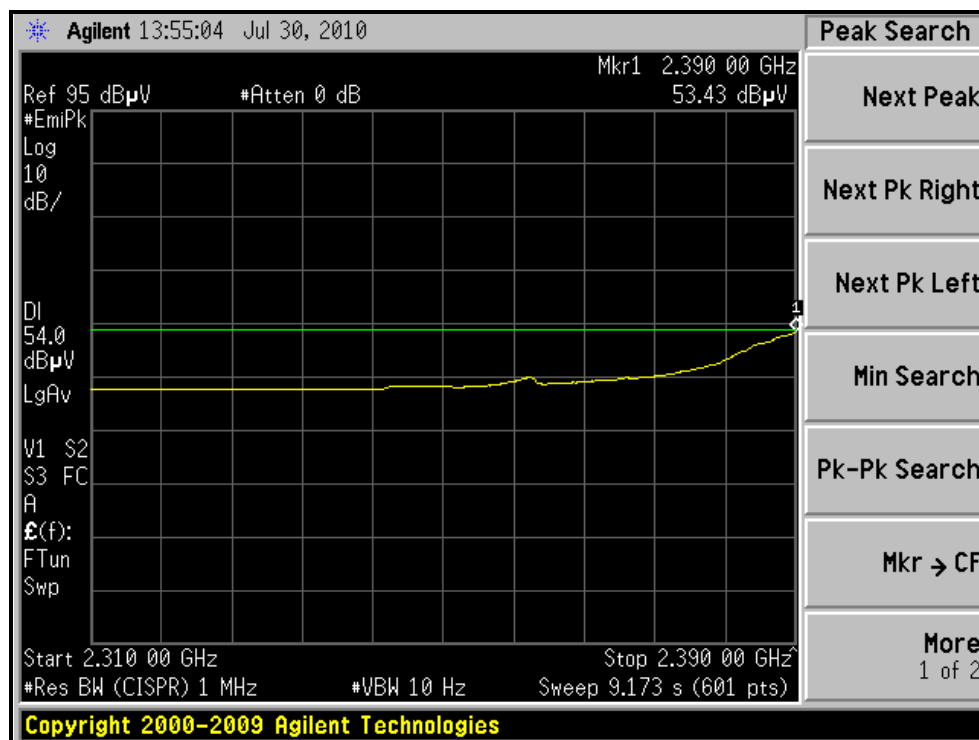
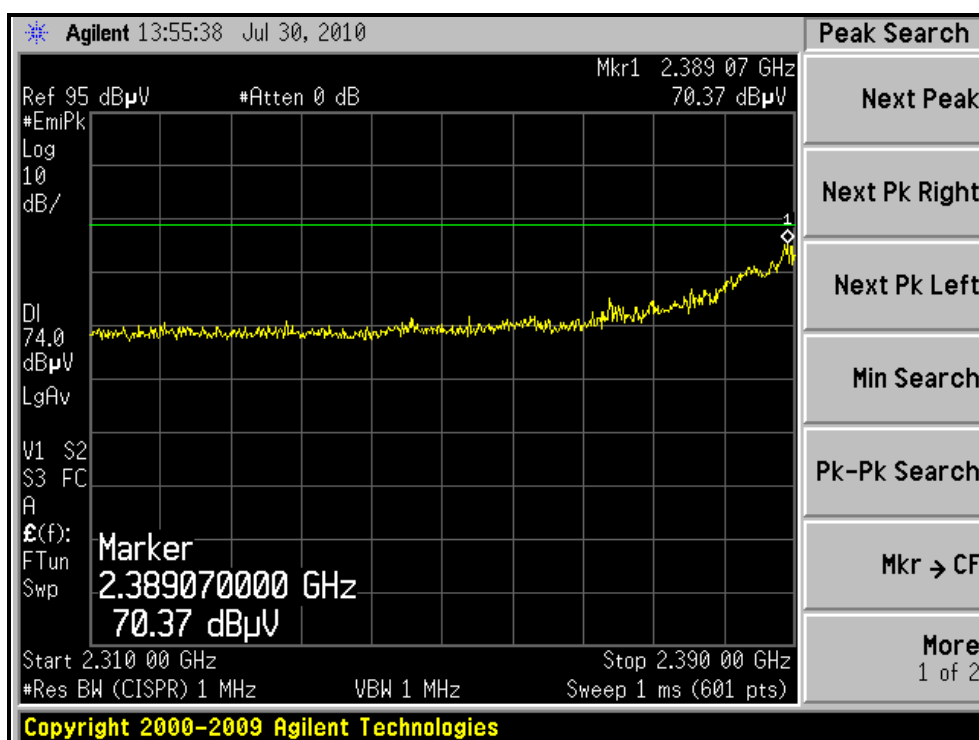
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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 68%RH 1015 hPa	TESTED BY	Eric Lee

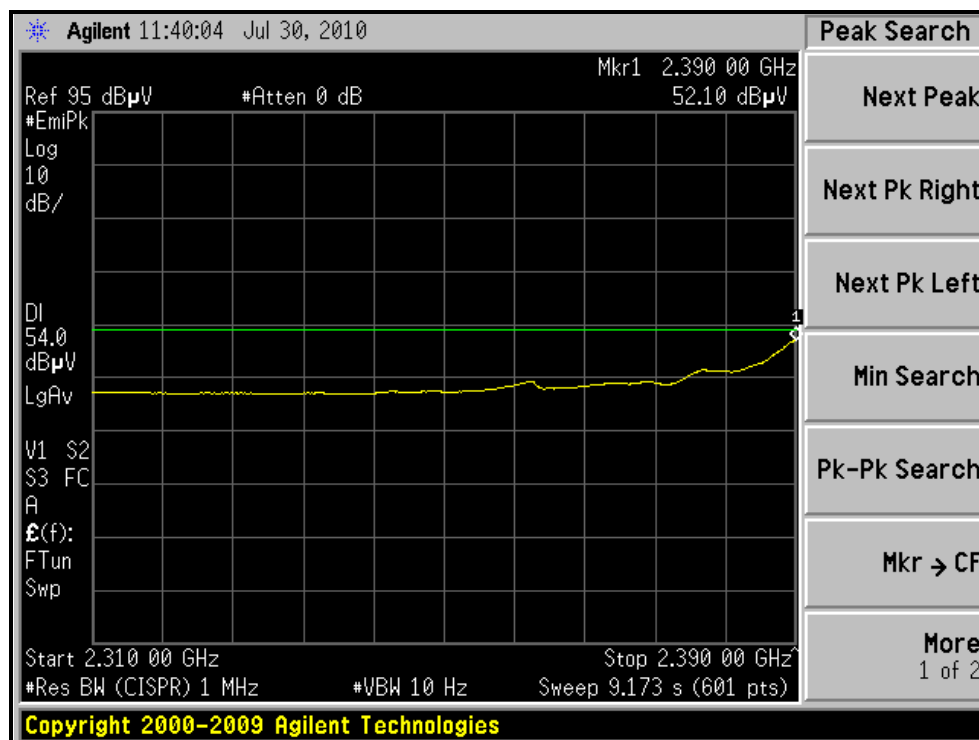
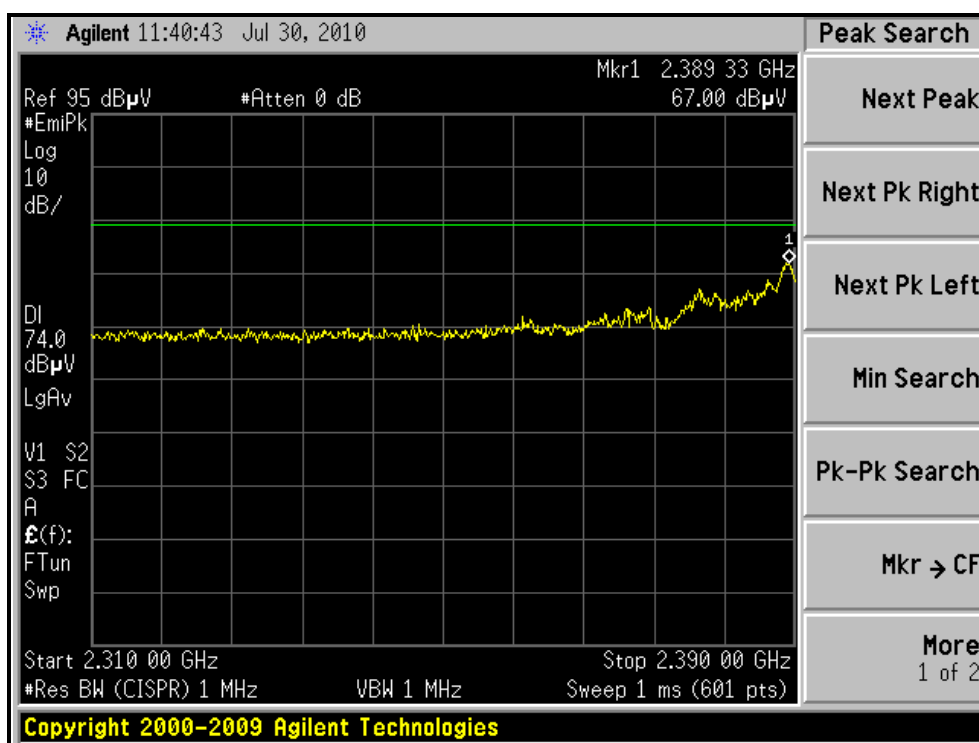
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	107.9 PK			2.17 H	1	76.50	31.40
2	*2462.00	98.9 AV			2.17 H	1	67.50	31.40
3	2483.50	69.8 PK	74.0	-4.2	2.17 H	15	38.34	31.46
4	2483.50	53.4 AV	54.0	-0.6	2.17 H	15	21.94	31.46
5	4924.00	52.4 PK	74.0	-21.6	1.07 H	119	12.58	39.82
6	4924.00	41.3 AV	54.0	-12.7	1.07 H	119	1.48	39.82
7	7386.00	51.1 PK	74.0	-22.9	1.13 H	214	6.92	44.18
8	7386.00	40.1 AV	54.0	-13.9	1.13 H	214	-4.08	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	102.8 PK			1.06 V	242	71.40	31.40
2	*2462.00	93.8 AV			1.06 V	242	62.40	31.40
3	2483.50	68.1 PK	74.0	-5.9	1.06 V	243	36.64	31.46
4	2483.50	51.5 AV	54.0	-2.5	1.06 V	243	20.04	31.46
5	4924.00	53.7 PK	74.0	-20.3	1.00 V	126	13.88	39.82
6	4924.00	41.6 AV	54.0	-12.4	1.00 V	126	1.78	39.82
7	7386.00	51.7 PK	74.0	-22.3	1.00 V	39	7.52	44.18
8	7386.00	40.3 AV	54.0	-13.7	1.00 V	39	-3.88	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.

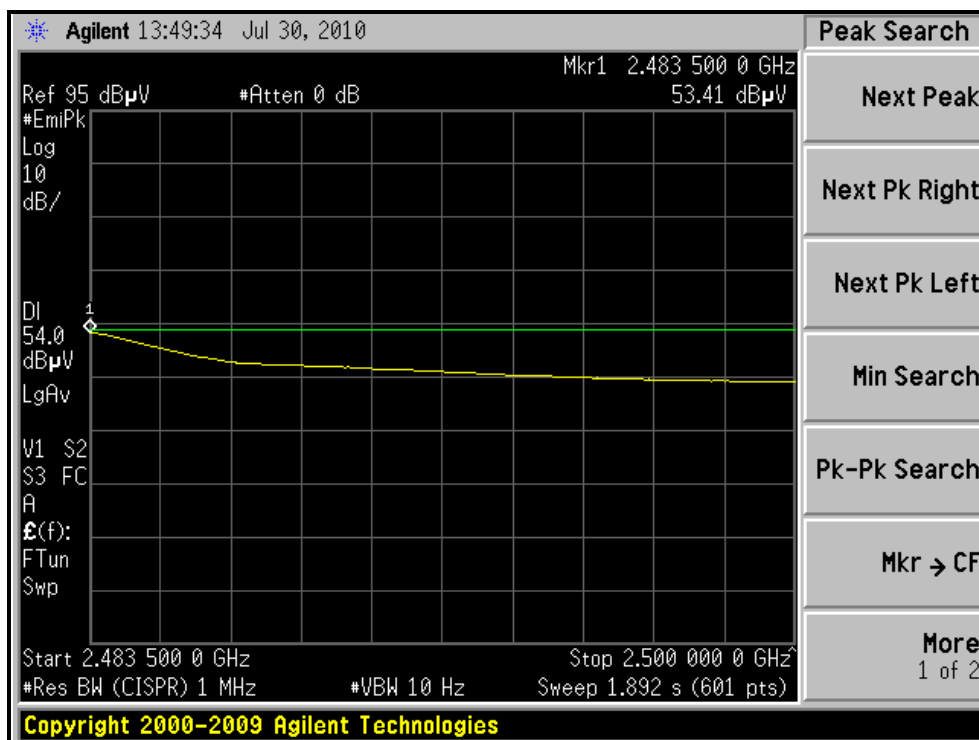
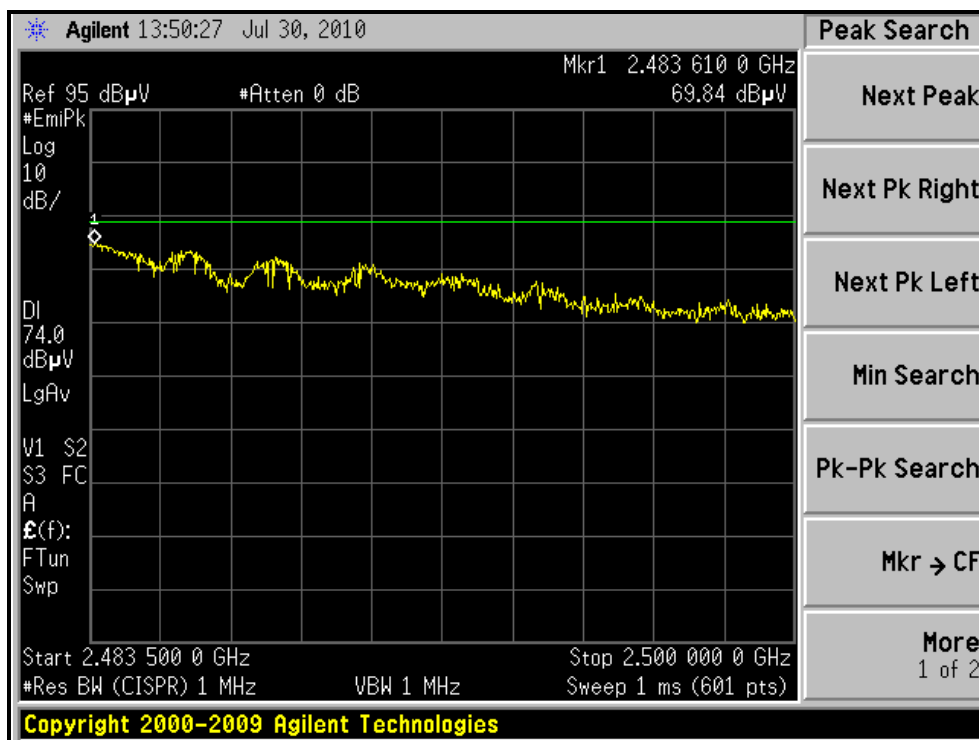
RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)



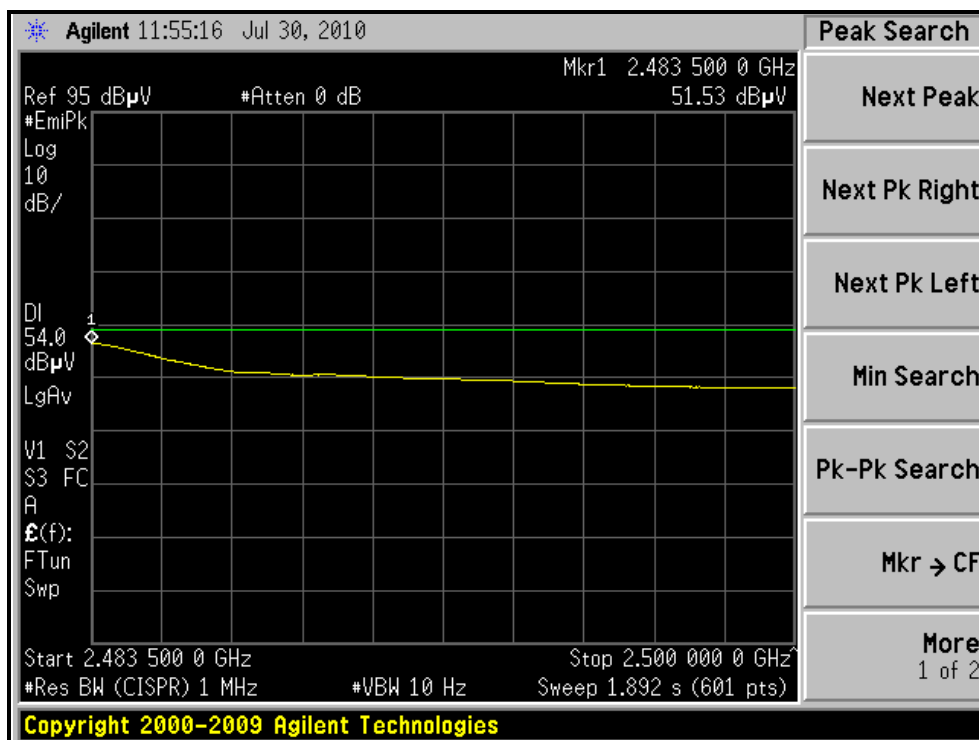
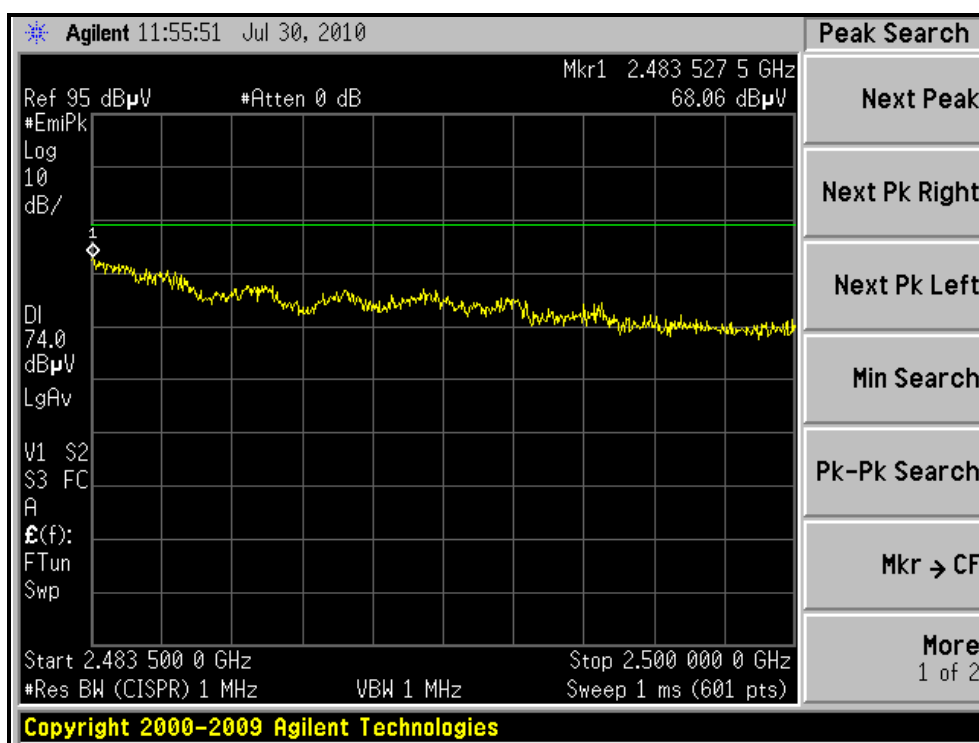
RESTRICTED BANDEDGE (802.11g MODE,CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11g MODE,CH11, HORIZONTAL)



RESTRICTED BANDEDGE (802.11g MODE,CH11, VERTICAL)





A D T

802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 68%RH 1015 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	68.1 PK	74.0	-5.9	2.15 H	1	36.89	31.21
2	2390.00	53.3 AV	54.0	-0.7	2.15 H	1	22.09	31.21
3	*2412.00	104.3 PK			2.15 H	1	73.03	31.27
4	*2412.00	95.2 AV			2.15 H	1	63.93	31.27
5	4924.00	53.2 PK	74.0	-20.8	1.11 H	109	13.38	39.82
6	4924.00	41.3 AV	54.0	-12.7	1.11 H	109	1.48	39.82
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	64.3 PK	74.0	-9.7	1.09 V	242	33.09	31.21
2	2390.00	49.0 AV	54.0	-5.0	1.09 V	242	17.79	31.21
3	*2412.00	100.1 PK			1.06 V	242	68.83	31.27
4	*2412.00	91.0 AV			1.06 V	242	59.73	31.27
5	4824.00	52.1 PK	74.0	-21.9	1.01 V	122	12.68	39.42
6	4824.00	40.9 AV	54.0	-13.1	1.01 V	122	1.48	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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 68%RH 1015 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	109.4 PK			2.12 H	0	78.06	31.34
2	*2437.00	100.3 AV			2.12 H	0	68.96	31.34
3	4874.00	58.9 PK	74.0	-15.1	1.12 H	107	19.28	39.62
4	4874.00	46.8 AV	54.0	-7.2	1.12 H	107	7.18	39.62
5	7311.00	51.9 PK	74.0	-22.1	1.09 H	117	7.80	44.10
6	7311.00	40.7 AV	54.0	-13.3	1.09 H	117	-3.40	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	102.8 PK			1.07 V	241	71.46	31.34
2	*2437.00	94.0 AV			1.07 V	241	62.66	31.34
3	4874.00	59.2 PK	74.0	-14.8	1.00 V	121	19.58	39.62
4	4874.00	47.3 AV	54.0	-6.7	1.00 V	121	7.68	39.62
5	7311.00	51.7 PK	74.0	-22.3	1.06 V	29	7.60	44.10
6	7311.00	40.3 AV	54.0	-13.7	1.06 V	29	-3.80	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.



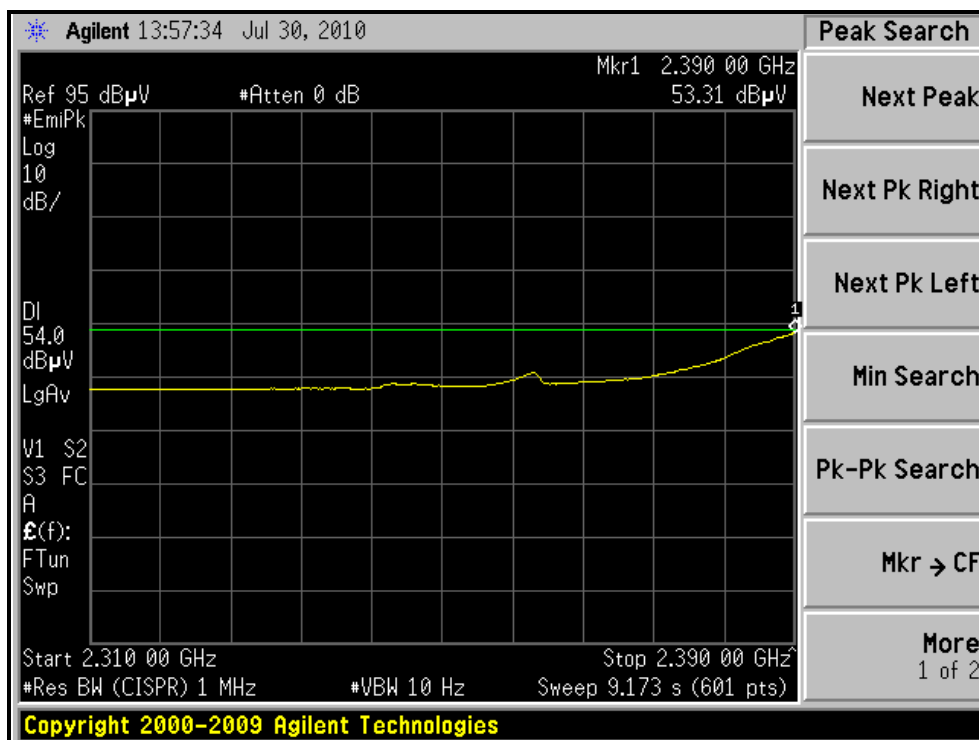
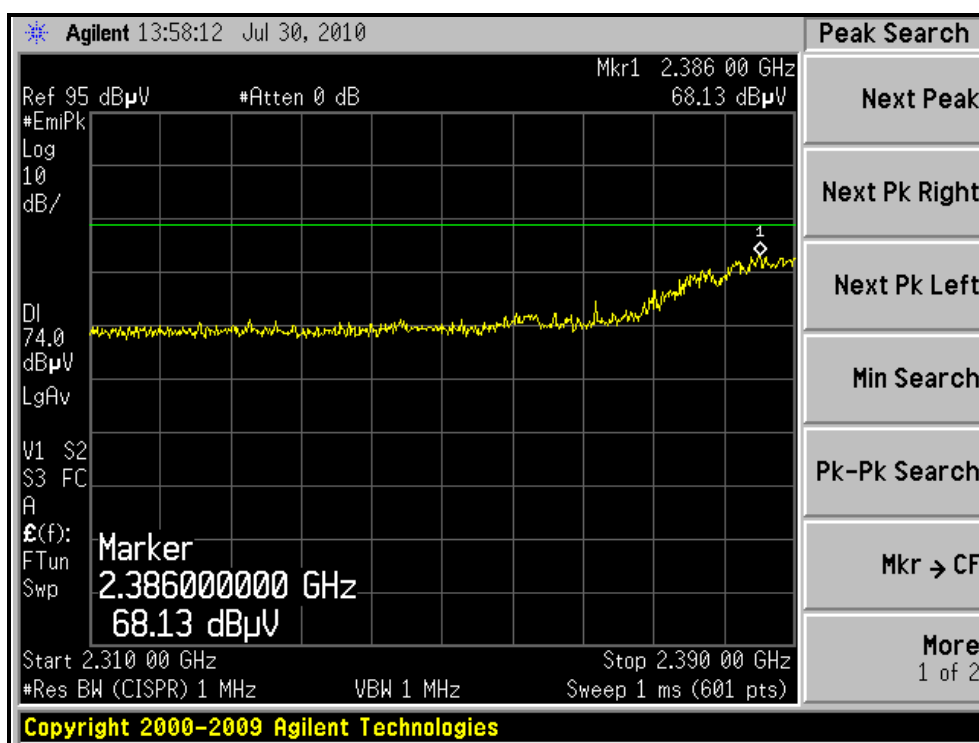
A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 68%RH 1015 hPa	TESTED BY	Eric Lee

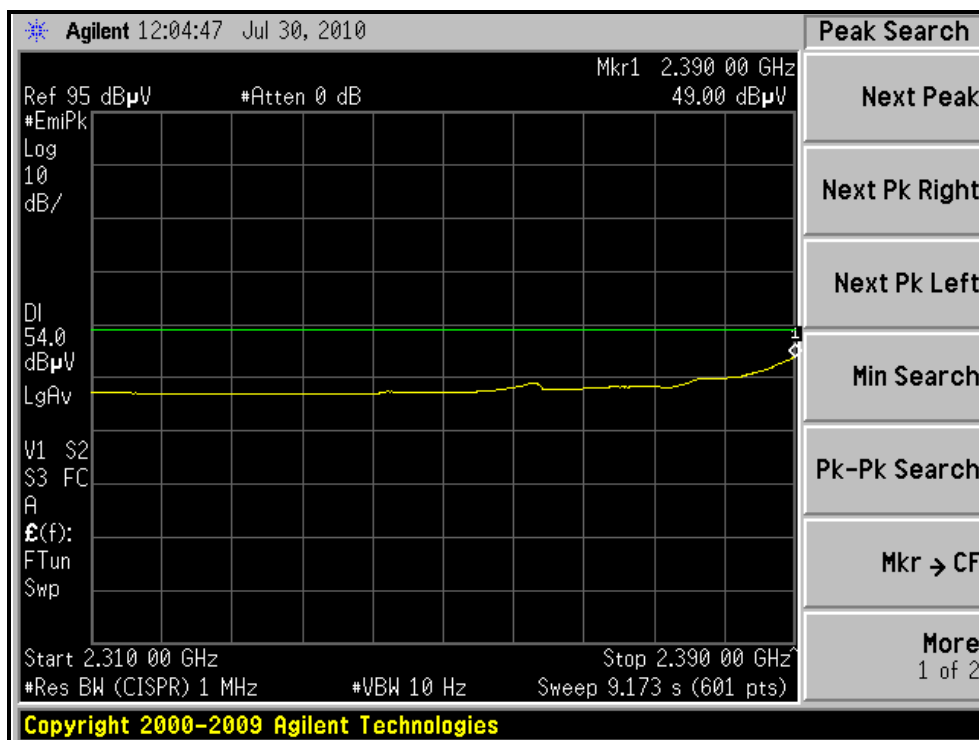
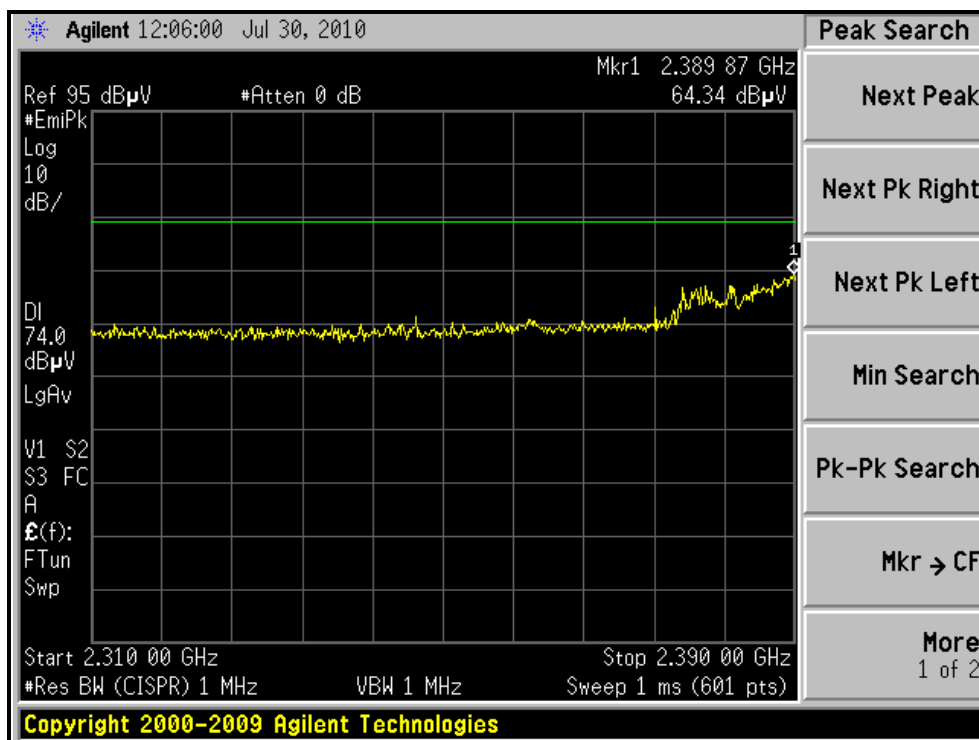
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	106.4 PK			2.10 H	0	75.00	31.40
2	*2462.00	97.7 AV			2.10 H	0	66.30	31.40
3	2483.50	70.7 PK	74.0	-3.3	2.10 H	0	39.24	31.46
4	2483.50	53.4 AV	54.0	-0.6	2.10 H	0	21.94	31.46
5	4924.00	52.1 PK	74.0	-21.9	1.04 H	108	12.28	39.82
6	4924.00	40.9 AV	54.0	-13.1	1.04 H	108	1.08	39.82
7	7386.00	51.3 PK	74.0	-22.7	1.09 H	219	7.12	44.18
8	7386.00	40.2 AV	54.0	-13.8	1.09 H	219	-3.98	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	101.7 PK			1.06 V	242	70.30	31.40
2	*2462.00	92.8 AV			1.06 V	242	61.40	31.40
3	2483.50	71.1 PK	74.0	-2.9	1.06 V	242	39.64	31.46
4	2483.50	52.3 AV	54.0	-1.7	1.06 V	242	20.84	31.46
5	4924.00	52.6 PK	74.0	-21.4	1.02 V	129	12.78	39.82
6	4924.00	41.2 AV	54.0	-12.8	1.02 V	129	1.38	39.82
7	7386.00	51.9 PK	74.0	-22.1	1.00 V	42	7.72	44.18
8	7386.00	40.4 AV	54.0	-13.6	1.00 V	42	-3.78	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.

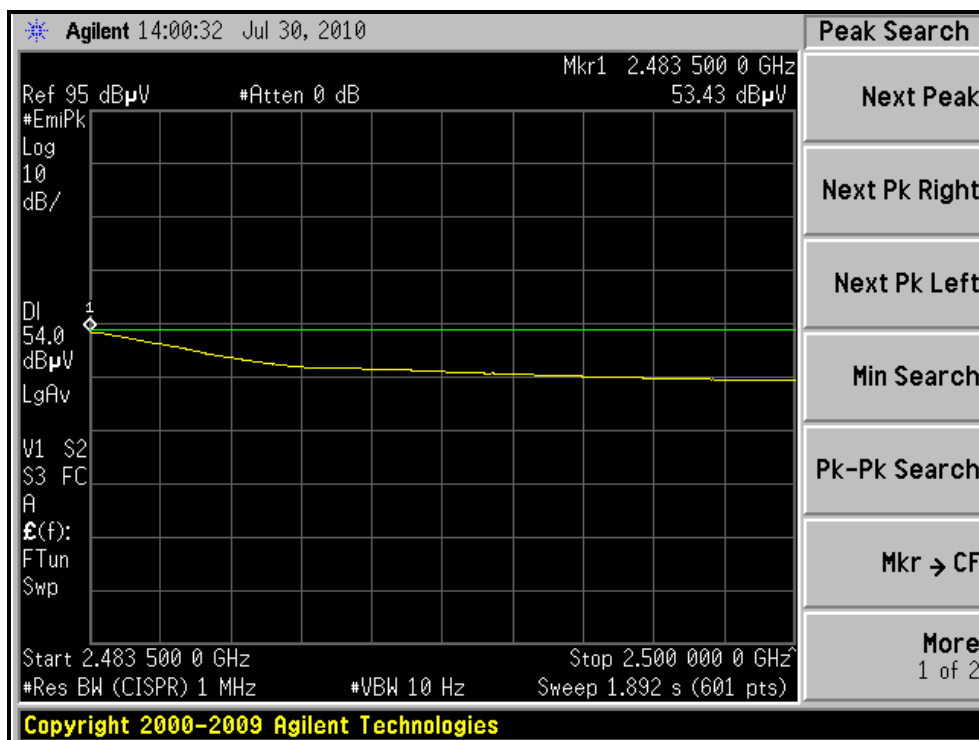
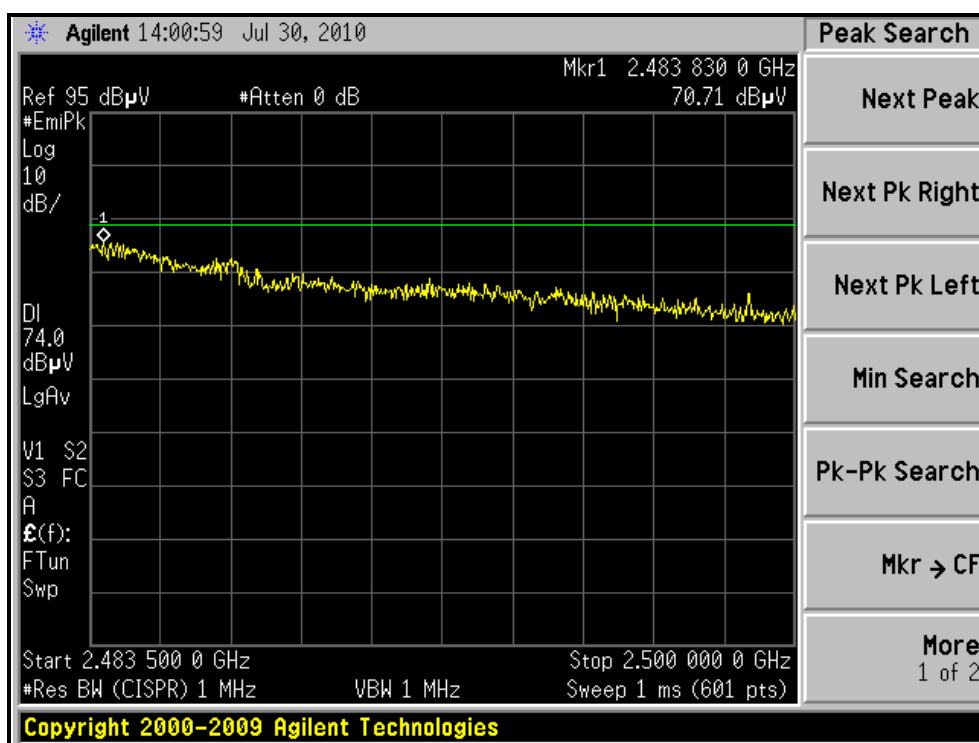
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, HORIZONTAL)



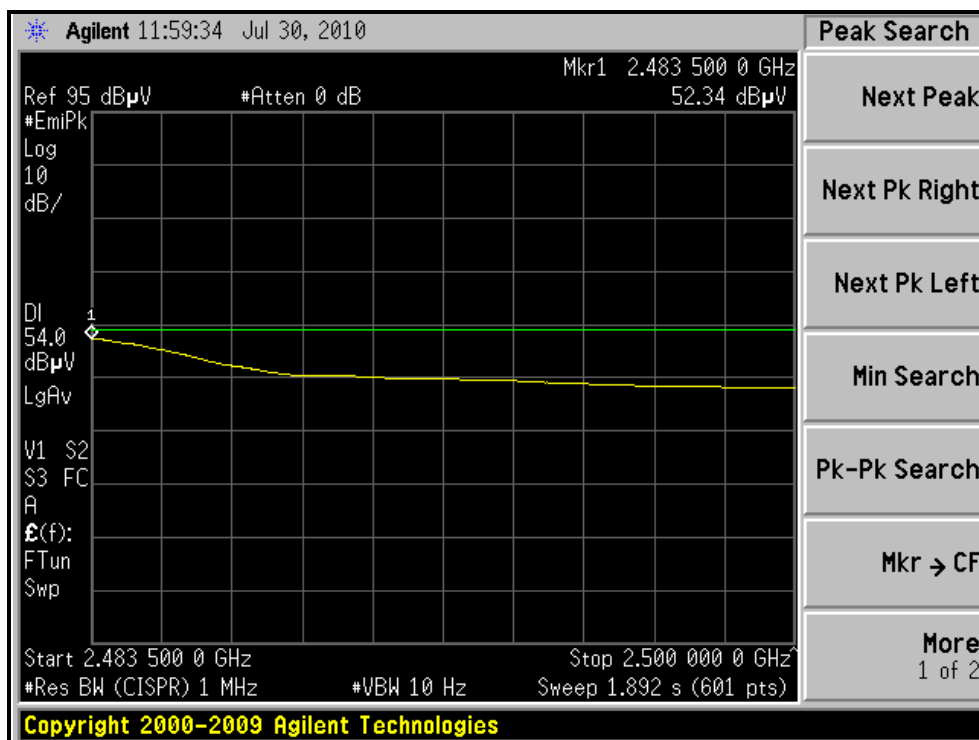
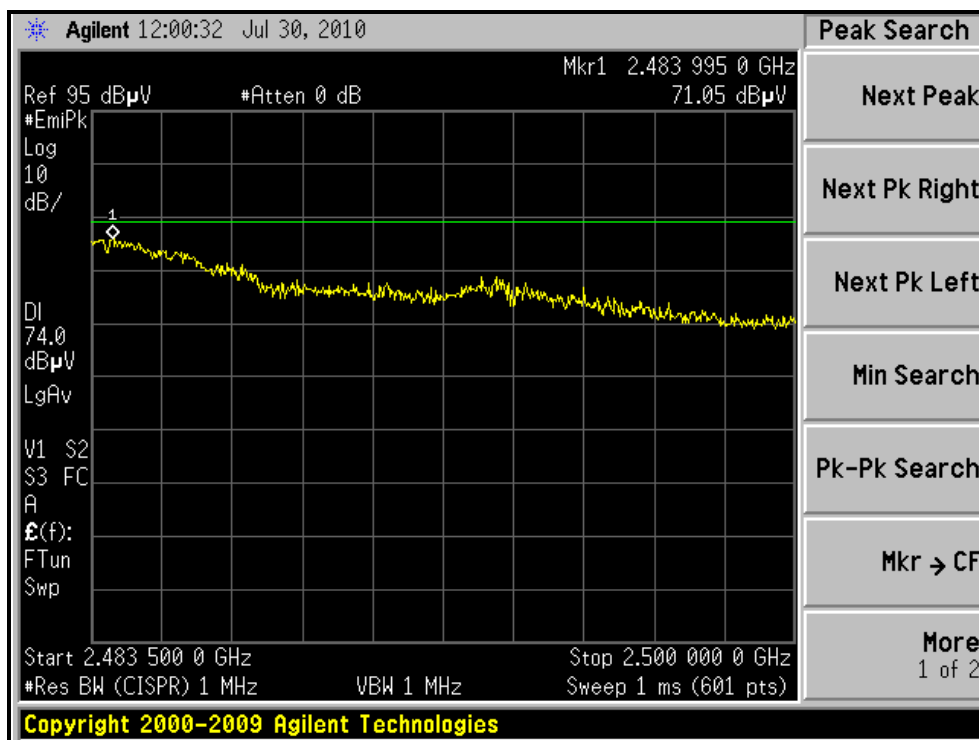
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, VERTICAL)



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 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 72%RH 1015 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	64.9 PK	74.0	-9.1	1.43 H	152	37.37	27.53
2	2390.00	50.1 AV	54.0	-3.9	1.43 H	152	22.57	27.53
3	*2422.00	99.6 PK			1.43 H	168	72.07	27.53
4	*2422.00	90.2 AV			1.43 H	168	62.67	27.53
5	4844.00	50.7 PK	74.0	-23.3	1.07 H	111	23.17	27.53
6	4844.00	38.6 AV	54.0	-15.4	1.07 H	111	11.07	27.53
7	7266.00	51.9 PK	74.0	-22.1	1.04 H	113	24.37	27.53
8	7266.00	40.2 AV	54.0	-13.8	1.04 H	113	12.67	27.53
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	62.2 PK	74.0	-11.8	1.04 V	241	34.67	27.53
2	2390.00	48.2 AV	54.0	-5.8	1.04 V	241	20.67	27.53
3	*2422.00	97.3 PK			1.04 V	241	69.77	27.53
4	*2422.00	88.0 AV			1.04 V	241	60.47	27.53
5	4844.00	50.3 PK	74.0	-23.7	1.04 V	123	22.77	27.53
6	4844.00	38.2 AV	54.0	-15.8	1.04 V	123	10.67	27.53
7	7266.00	51.6 PK	74.0	-22.4	1.07 V	32	24.07	27.53
8	7266.00	40.1 AV	54.0	-13.9	1.07 V	32	12.57	27.53

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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 68%RH 1015 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	103.6 PK			2.12 H	0	72.26	31.34
2	*2437.00	94.9 AV			2.12 H	0	63.56	31.34
3	4874.00	51.1 PK	74.0	-22.9	1.06 H	107	11.48	39.62
4	4874.00	41.9 AV	54.0	-12.1	1.06 H	107	2.28	39.62
5	7311.00	51.8 PK	74.0	-22.2	1.03 H	121	7.70	44.10
6	7311.00	40.1 AV	54.0	-13.9	1.03 H	121	-4.00	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	99.9 PK			1.07 V	244	68.56	31.34
2	*2437.00	90.2 AV			1.07 V	244	58.86	31.34
3	4874.00	52.4 PK	74.0	-21.6	1.07 V	119	12.78	39.62
4	4874.00	41.4 AV	54.0	-12.6	1.07 V	119	1.78	39.62
5	7311.00	51.8 PK	74.0	-22.2	1.09 V	36	7.70	44.10
6	7311.00	40.4 AV	54.0	-13.6	1.09 V	36	-3.70	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.



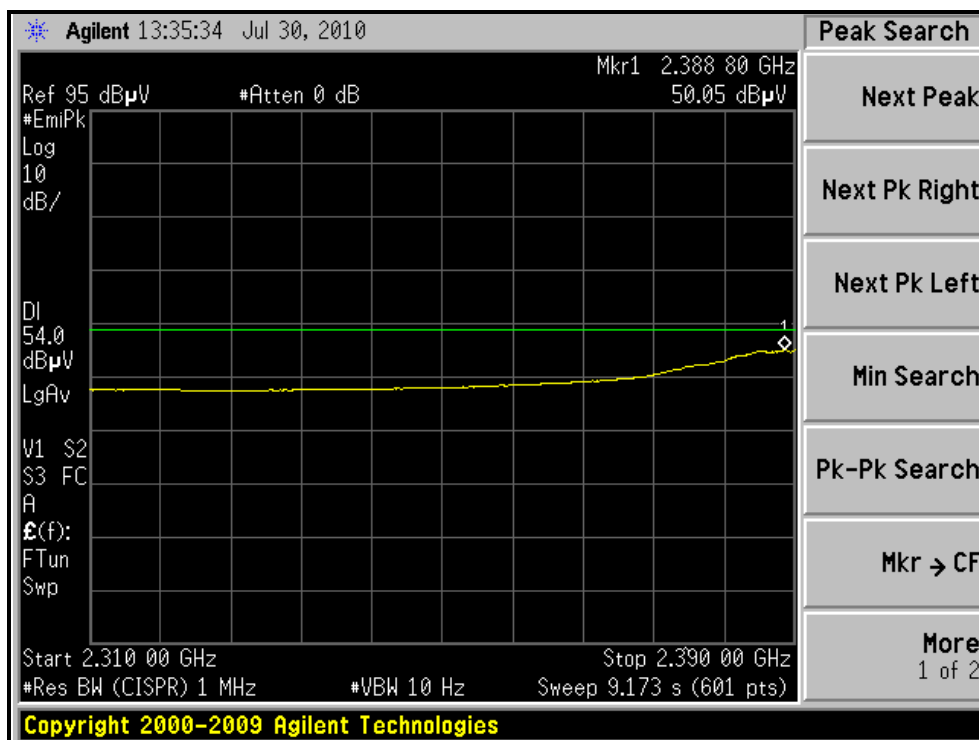
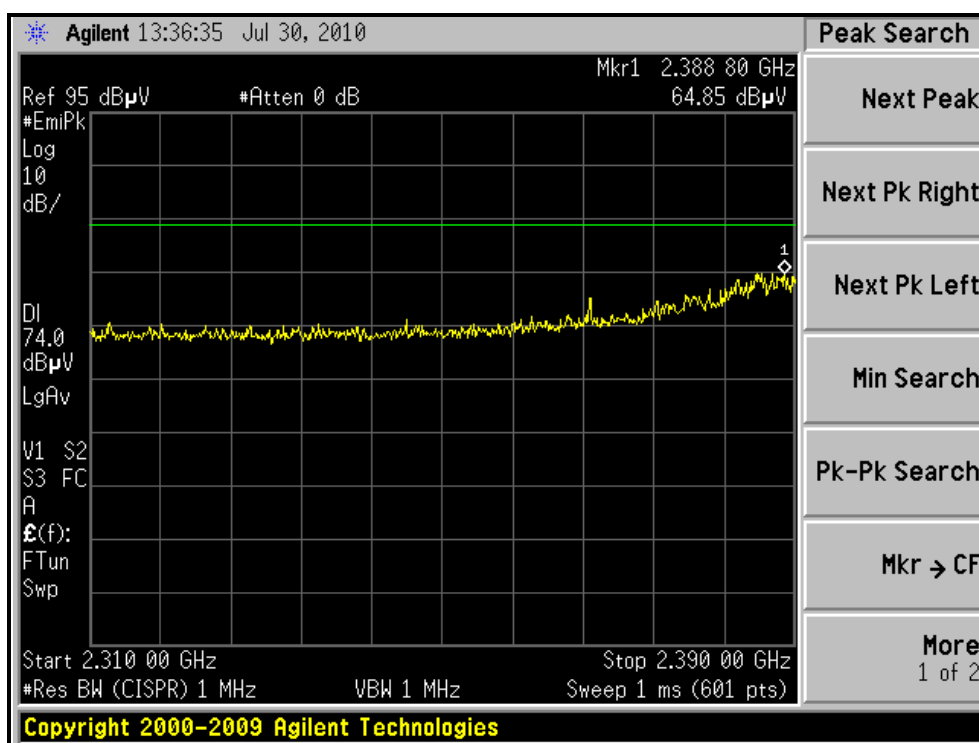
A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 68%RH 1015 hPa	TESTED BY	Eric Lee

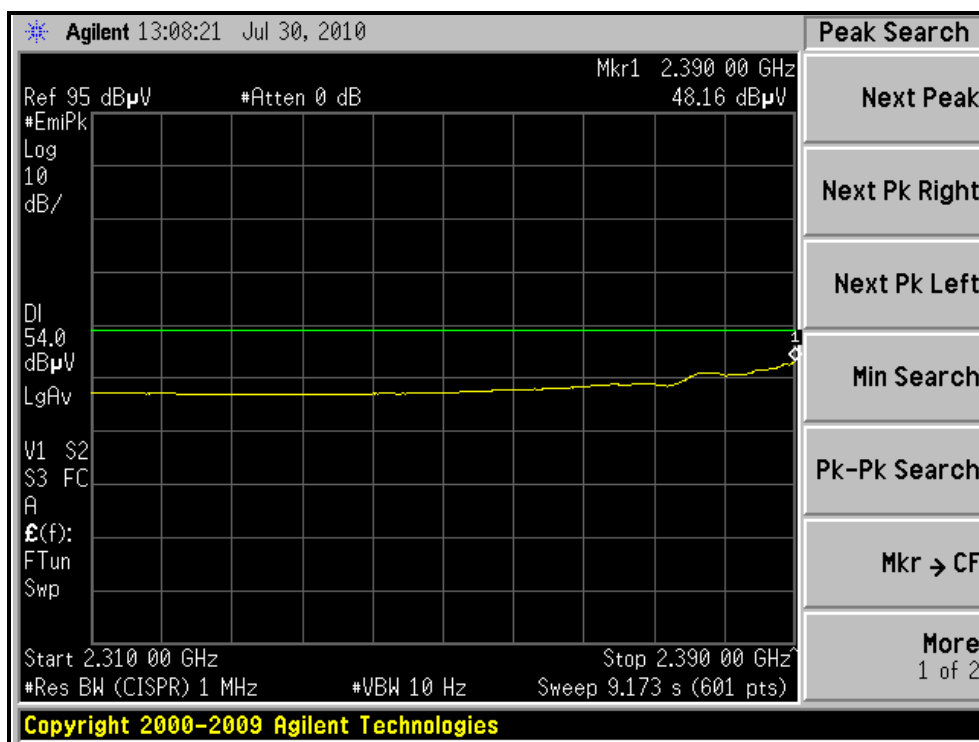
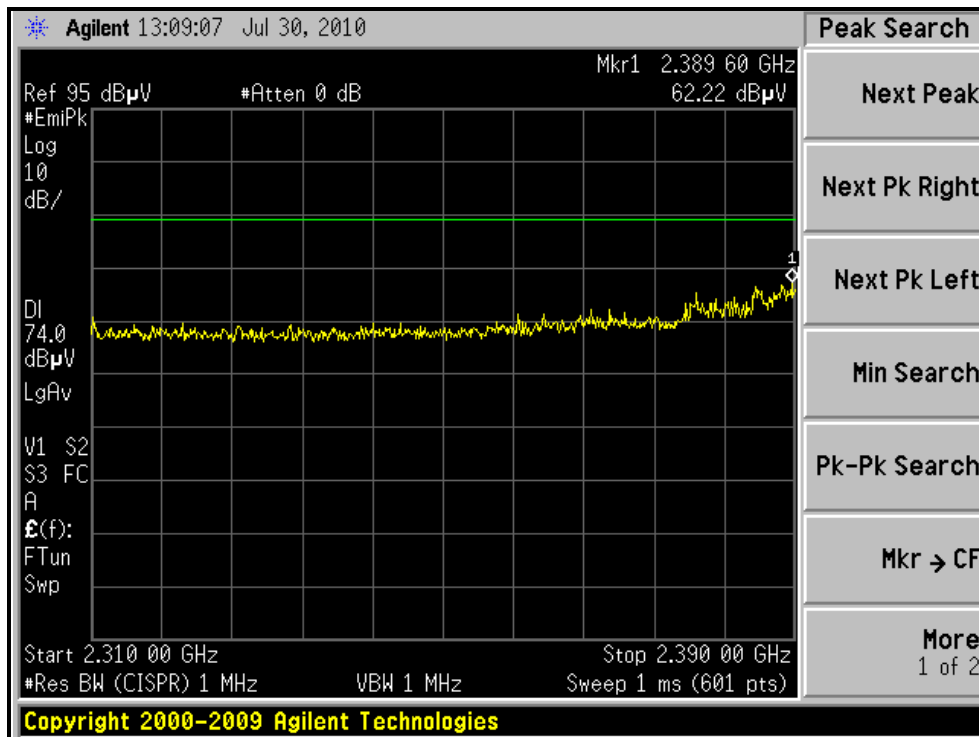
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	100.9 PK			2.08 H	0	69.52	31.38
2	*2452.00	91.7 AV			2.08 H	0	60.32	31.38
3	2483.50	68.8 PK	74.0	-5.2	2.04 H	8	37.34	31.46
4	2483.50	52.9 AV	54.0	-1.1	2.04 H	8	21.44	31.46
5	4904.00	51.2 PK	74.0	-22.8	1.06 H	113	11.46	39.74
6	4904.00	39.1 AV	54.0	-14.9	1.06 H	113	-0.64	39.74
7	7356.00	52.1 PK	74.0	-21.9	1.06 H	121	7.95	44.15
8	7356.00	40.4 AV	54.0	-13.6	1.06 H	121	-3.75	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	95.9 PK			1.08 V	242	64.52	31.38
2	*2452.00	87.1 AV			1.08 V	242	55.72	31.38
3	2483.64	69.0 PK	74.0	-5.0	1.07 V	244	37.54	31.46
4	2483.64	52.3 AV	54.0	-1.7	1.07 V	244	20.84	31.46
5	4904.00	50.7 PK	74.0	-23.3	1.07 V	129	10.96	39.74
6	4904.00	38.9 AV	54.0	-15.1	1.07 V	129	-0.84	39.74
7	7356.00	51.9 PK	74.0	-22.1	1.06 V	37	7.75	44.15
8	7356.00	40.6 AV	54.0	-13.4	1.06 V	37	-3.55	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.

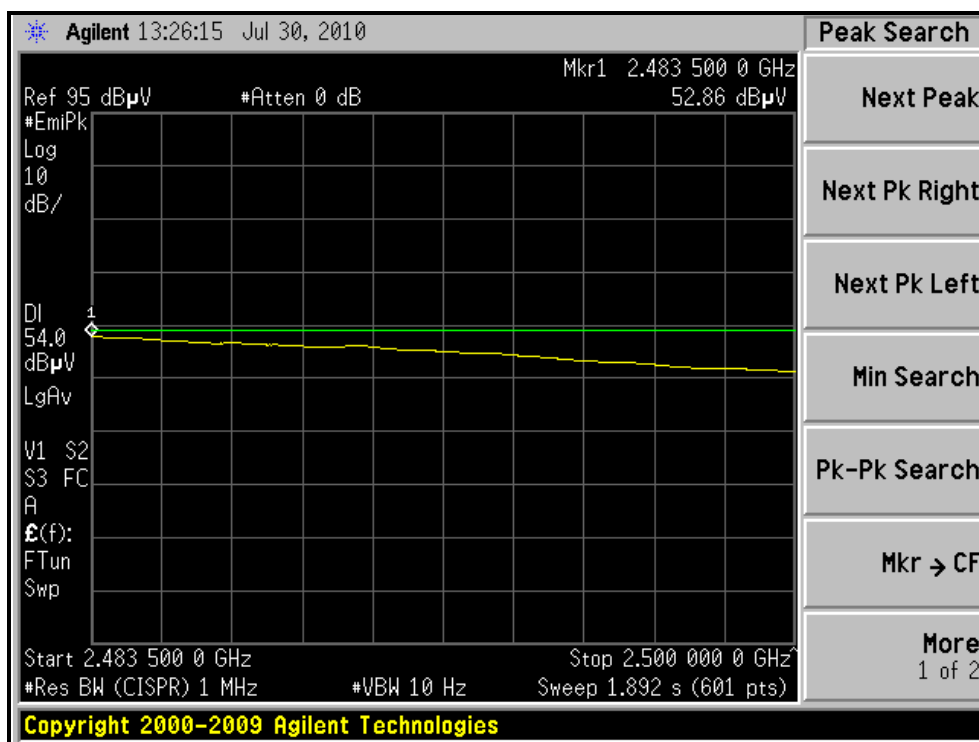
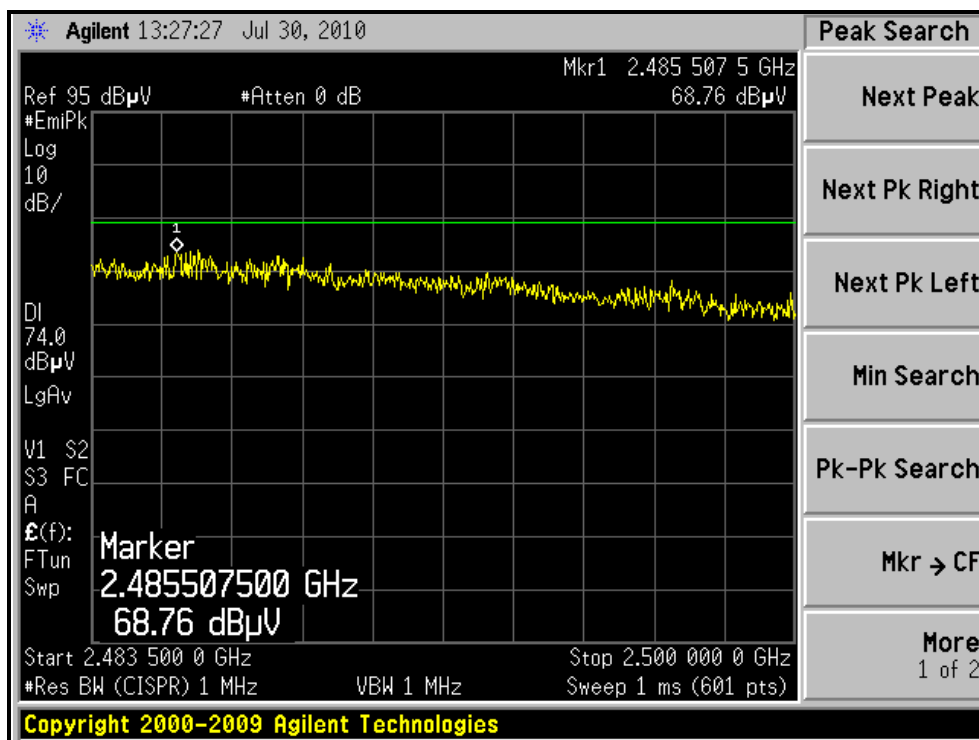
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH1, HORIZONTAL)



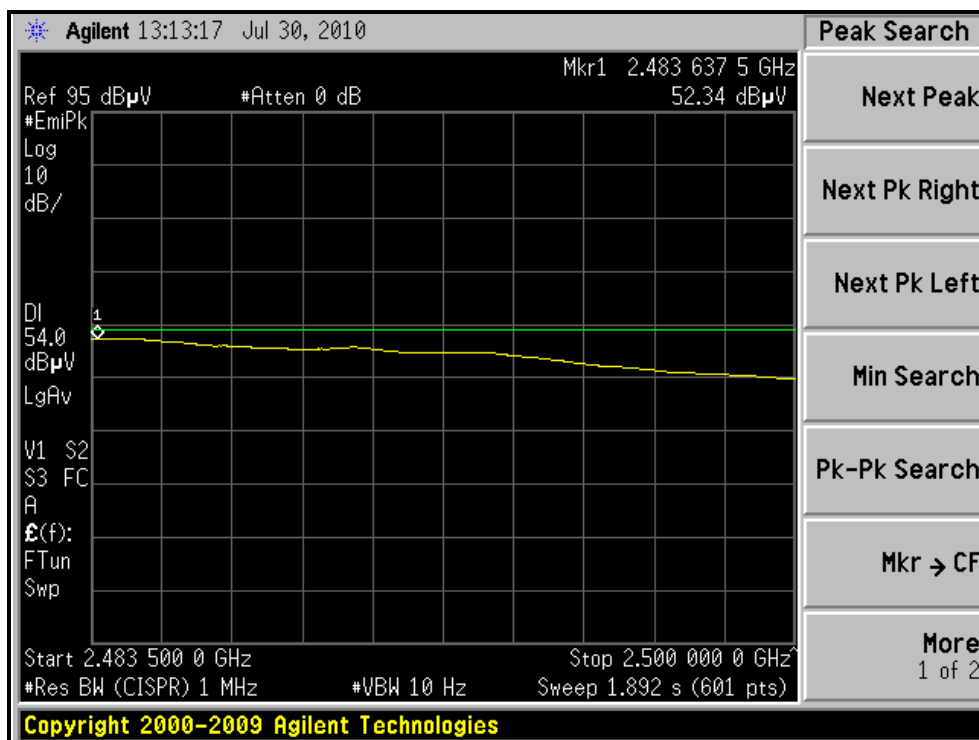
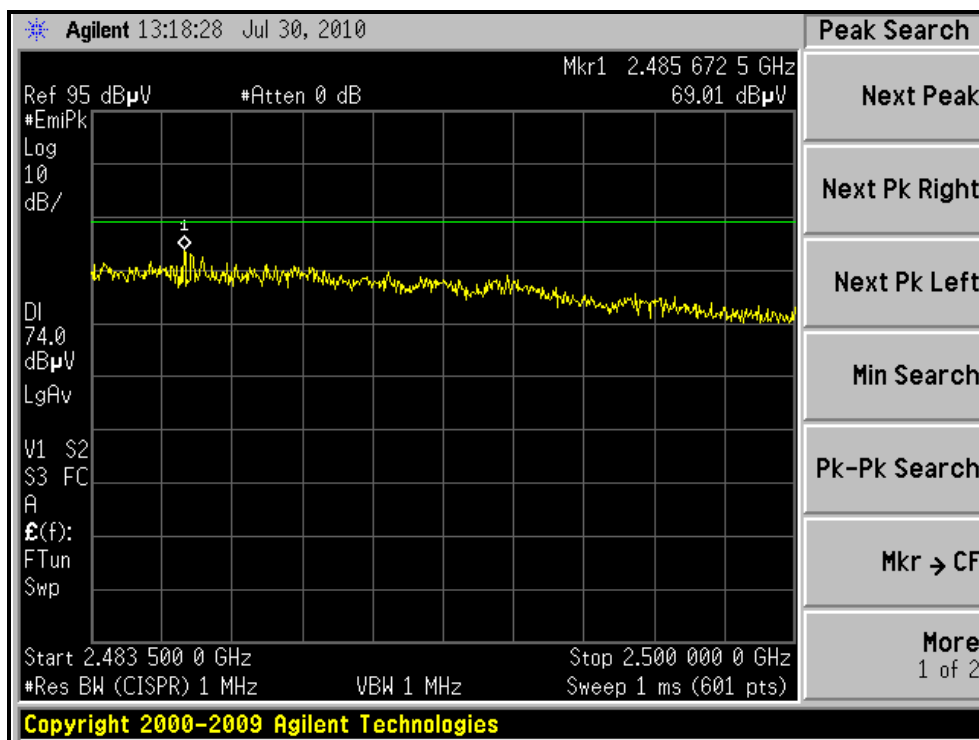
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH1, VERTICAL)



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



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



4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST INSTRUMENTS

Test date: July 30 to Aug. 02, 2010

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100037	Aug. 03, 2009	Aug. 02, 2010

NOTE:

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

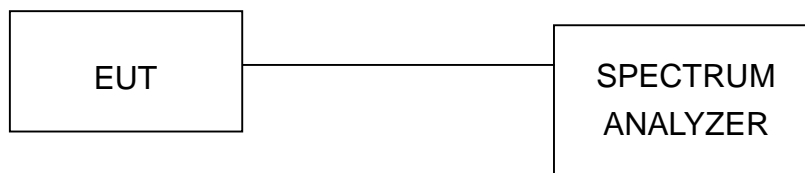
4.3.3 TEST PROCEDURE

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

4.3.4 DEVIATION FROM TEST STANDARD

No deviation

4.3.5 TEST SETUP



4.3.6 EUT OPERATING CONDITIONS

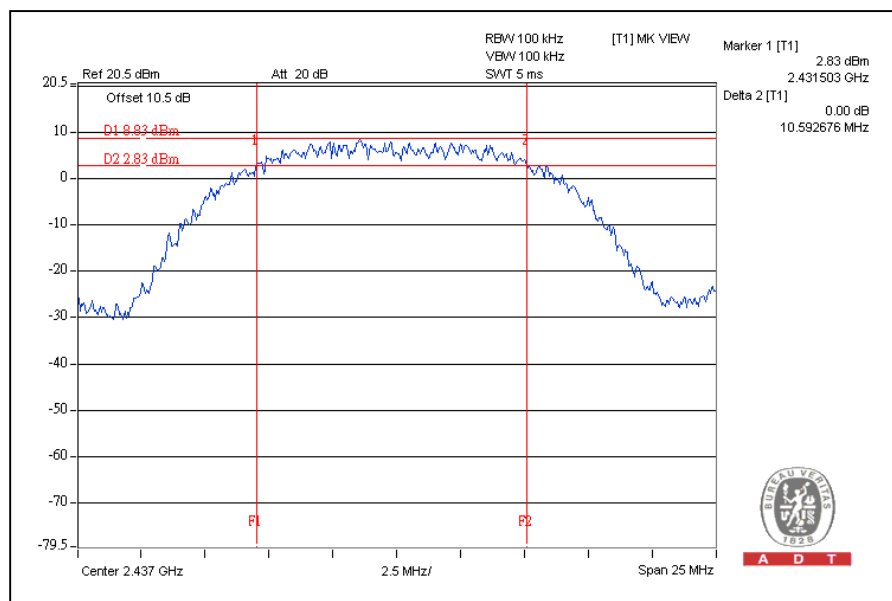
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 TEST RESULTS

802.11b DSSS MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	10.23	0.5	PASS
6	2437	10.59	0.5	PASS
11	2462	10.58	0.5	PASS

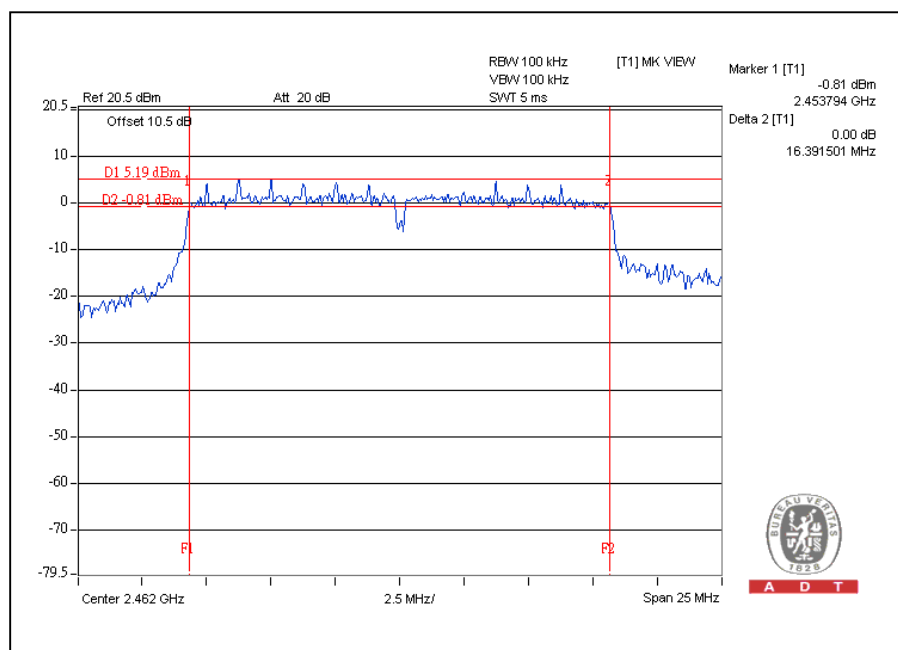
CH6



802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.33	0.5	PASS
6	2437	15.76	0.5	PASS
11	2462	16.39	0.5	PASS

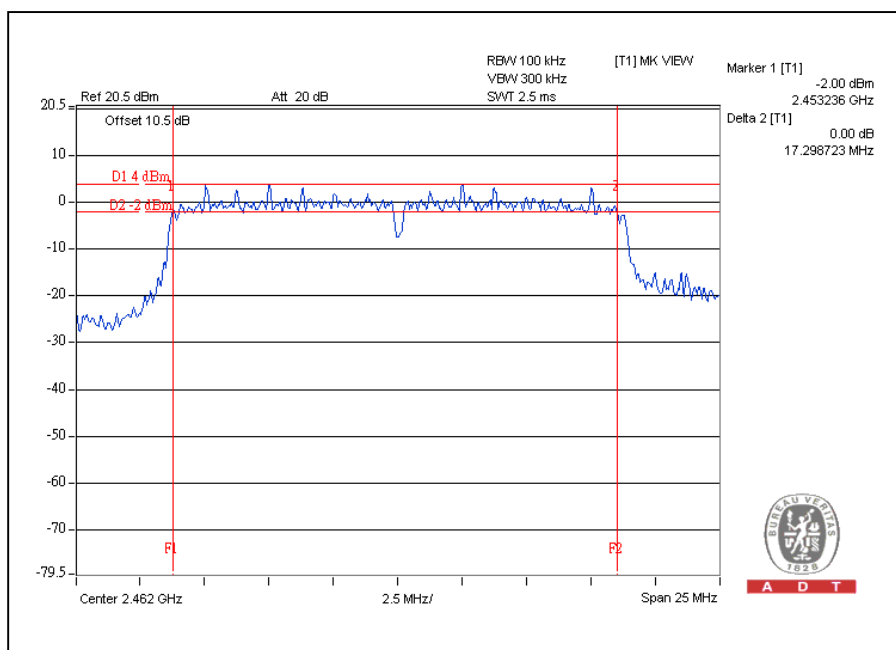
CH11



802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	17.00	0.5	PASS
6	2437	16.37	0.5	PASS
11	2462	17.29	0.5	PASS

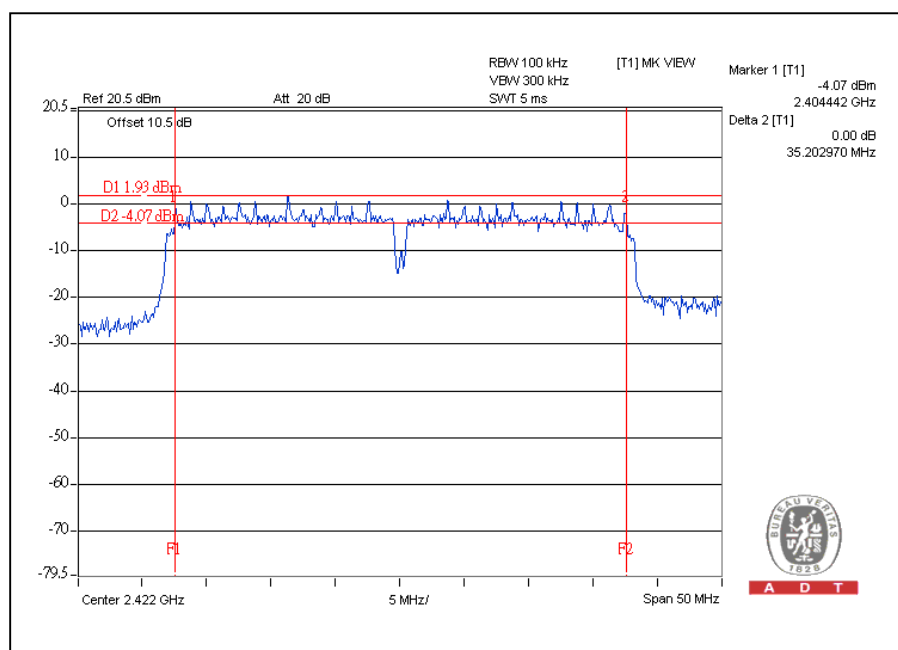
CH11



802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2422	35.20	0.5	PASS
4	2437	35.12	0.5	PASS
7	2452	35.19	0.5	PASS

CH1



4.4 MAXIMUM PEAK OUTPUT POWER

4.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

4.4.2 INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Anritsu Power Meter	ML2495A	0824006	April 24, 2010	April 23, 2011
Pulse Power Sensor	MA2411B	0738172	April 24, 2010	April 23, 2011

NOTE:

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

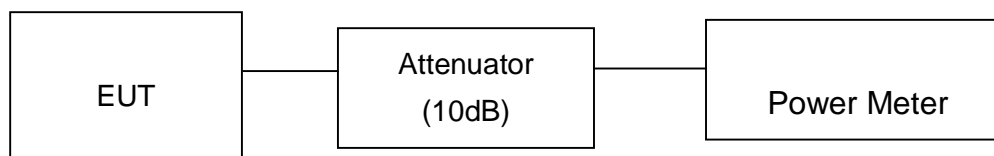
4.4.3 TEST PROCEDURES

1. The transmitter output was connected to the power meter through an attenuator; the bandwidth of the fundamental frequency was measured with the power meter.
2. Record the power level.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP



4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6

4.4.7 TEST RESULTS

802.11b DSSS MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER OUTPUT (mW)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	21.4	138.0	30	PASS
6	2437	20.9	123.0	30	PASS
11	2462	20.1	102.3	30	PASS

802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER OUTPUT (mW)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	24.6	288.4	30	PASS
6	2437	24.9	309.0	30	PASS
11	2462	23.8	239.9	30	PASS

802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER OUTPUT (mW)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	24.3	269.2	30	PASS
6	2437	24.8	302.0	30	PASS
11	2462	23.6	229.1	30	PASS

802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER OUTPUT (mW)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2422	22.3	169.8	30	PASS
4	2437	24.1	257.0	30	PASS
7	2452	21.7	147.9	30	PASS

4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 TEST INSTRUMENTS

Test date: July 30 to Aug. 02, 2010

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100037	Aug. 03, 2009	Aug. 02, 2010

NOTE:

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

4.5.3 TEST PROCEDURE

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

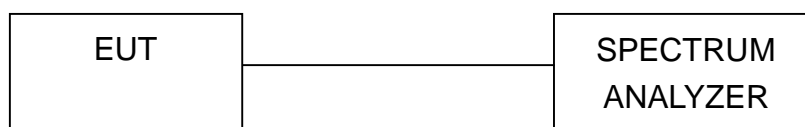
The power spectral density was measured and recorded.

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

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITION

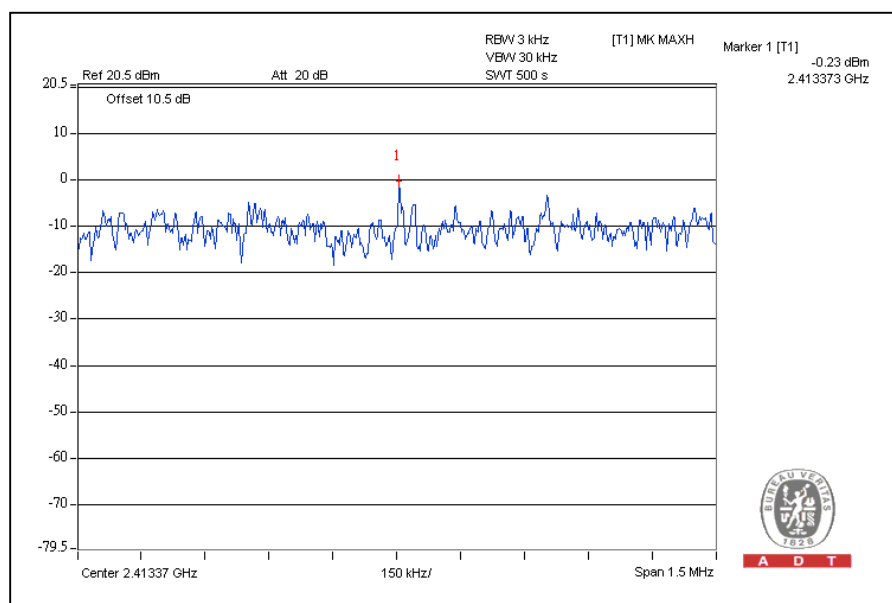
Same as Item 4.3.6

4.5.7 TEST RESULTS

802.11b DSSS MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-0.2	8	PASS
6	2437	-4.3	8	PASS
11	2462	-7.3	8	PASS

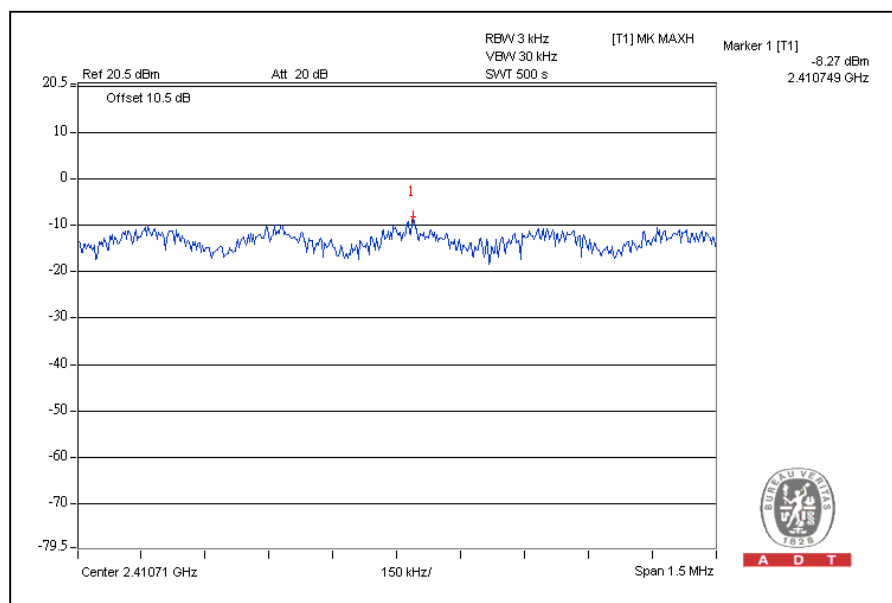
CH1



802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-8.3	8	PASS
6	2437	-8.6	8	PASS
11	2462	-11.0	8	PASS

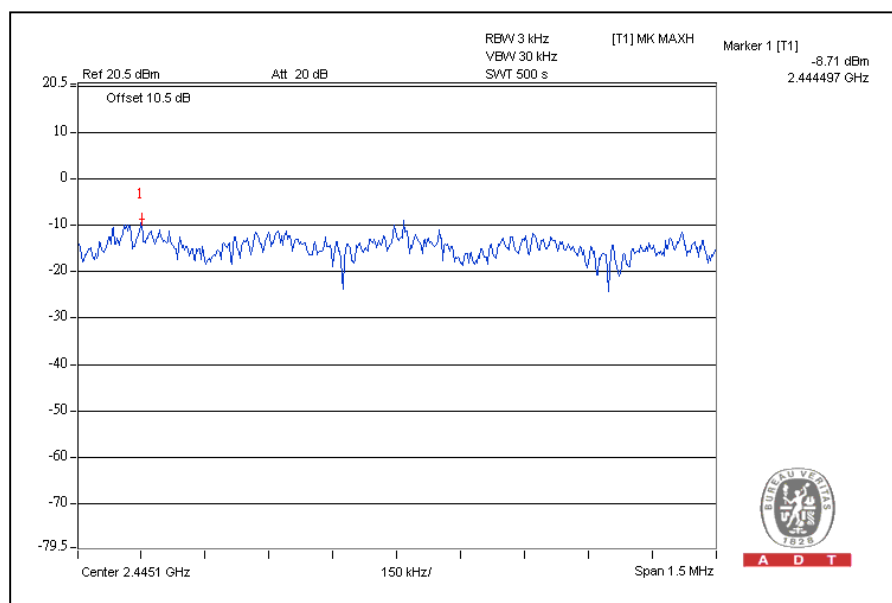
CH1



802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-13.0	8	PASS
6	2437	-8.7	8	PASS
11	2462	-10.6	8	PASS

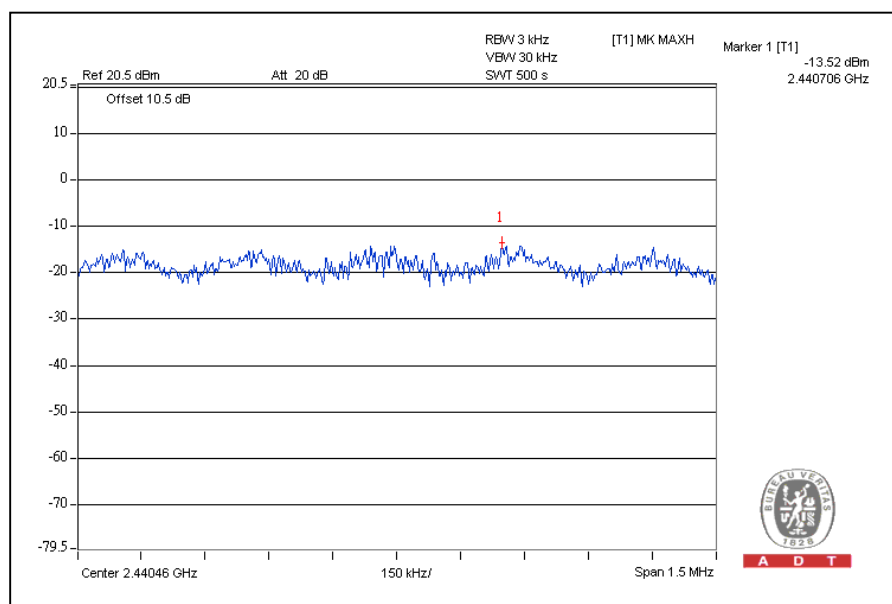
CH6



802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2422	-15.3	8	PASS
4	2437	-13.5	8	PASS
7	2452	-17.6	8	PASS

CH4



4.6 CONDUCTED OUT-BAND EMISSION MEASUREMENT

4.6.1 LIMITS OF CONDUCTED OUT-BAND EMISSION MEASUREMENT

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

4.6.2 TEST INSTRUMENTS

Test date: July 30 to Aug. 02, 2010

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100037	Aug. 03, 2009	Aug. 02, 2010

NOTE:

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

4.6.3 TEST PROCEDURE

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

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

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 EUT OPERATING CONDITION

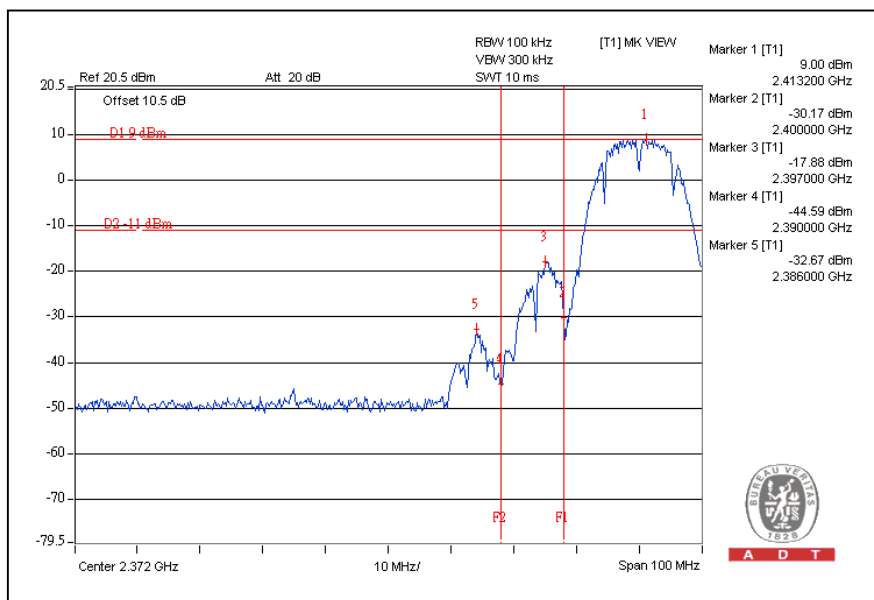
Same as Item 4.3.6

4.6.6 TEST RESULTS

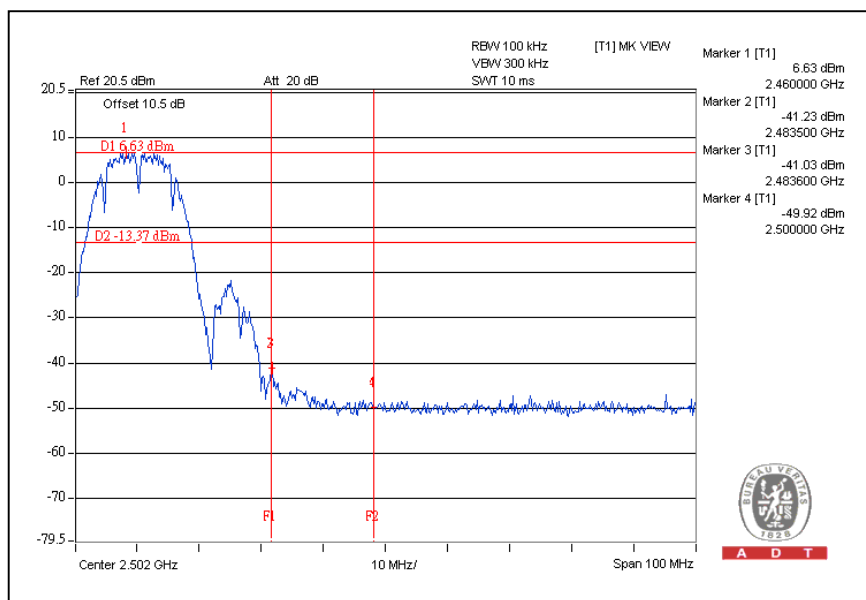
The spectrum plots are attached on the following images. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

802.11b DSSS MODULATION:

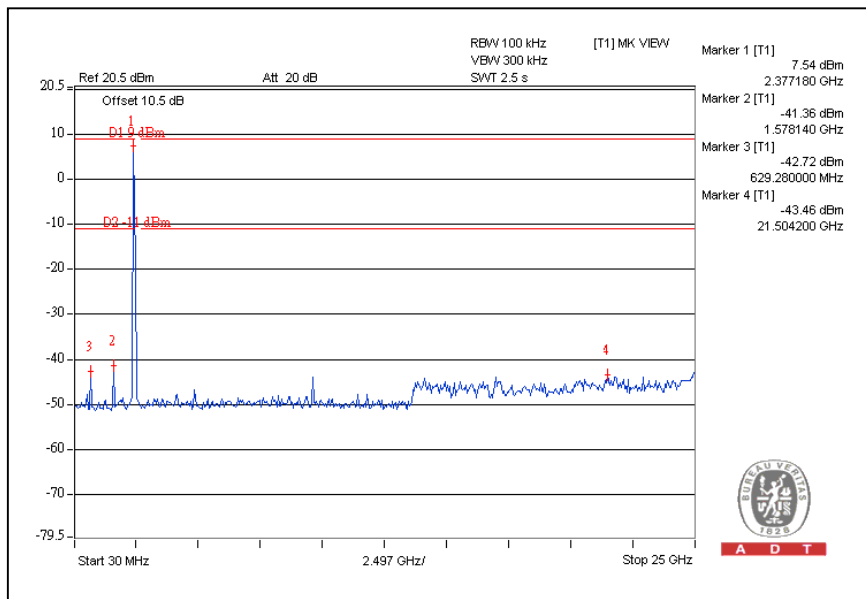
CH1



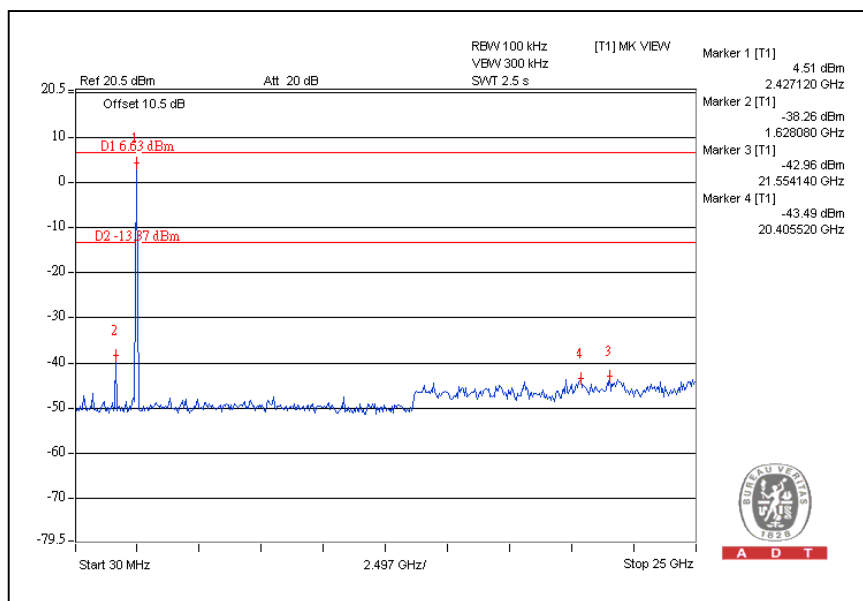
CH11



CH1

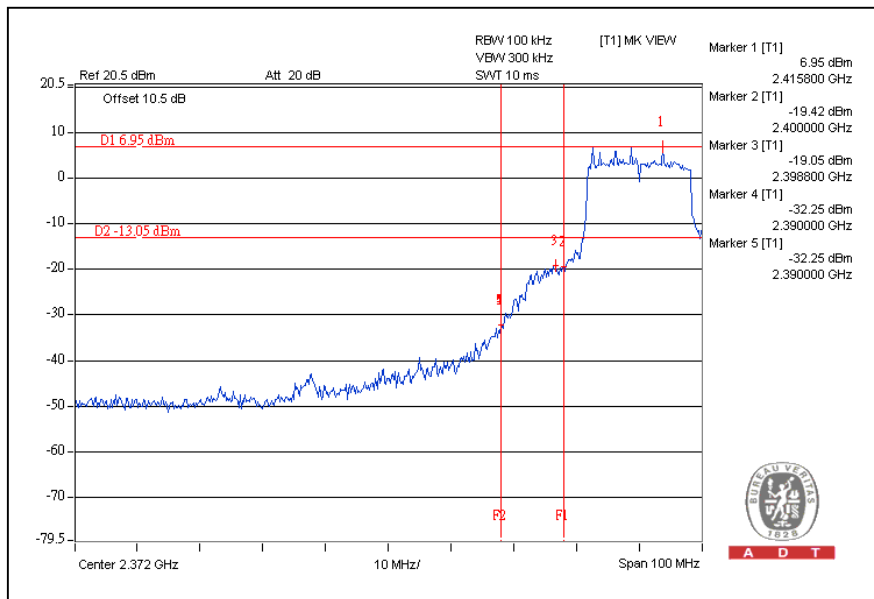


CH11

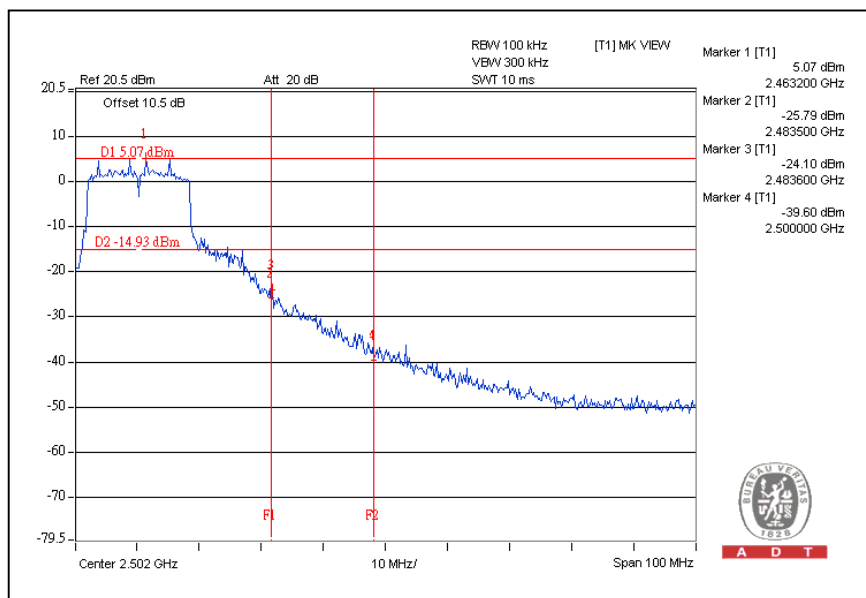


802.11g OFDM MODULATION:

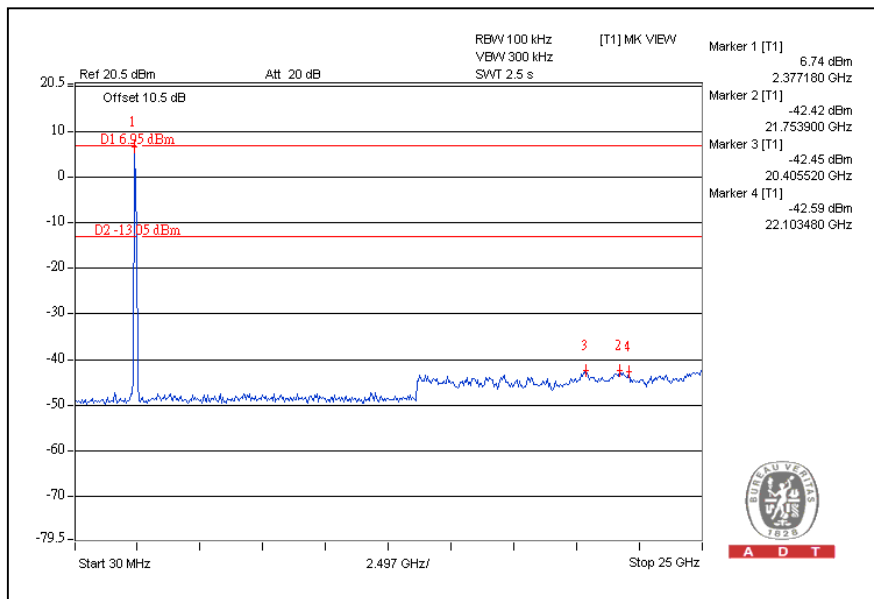
CH1



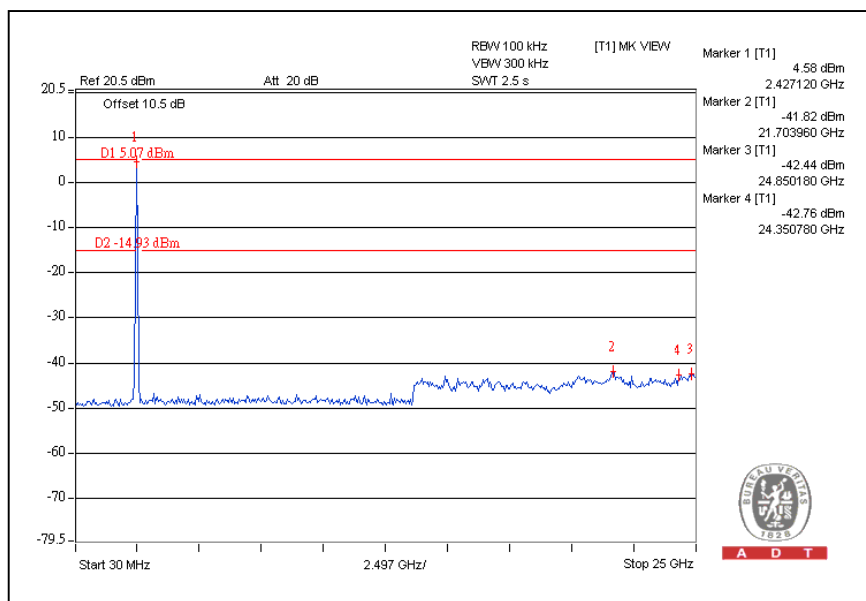
CH11



CH1

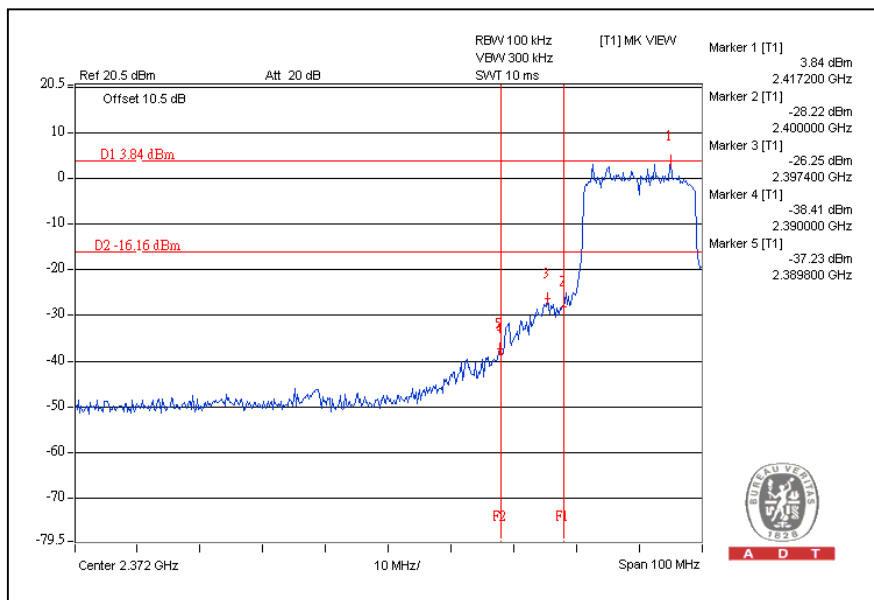


CH11

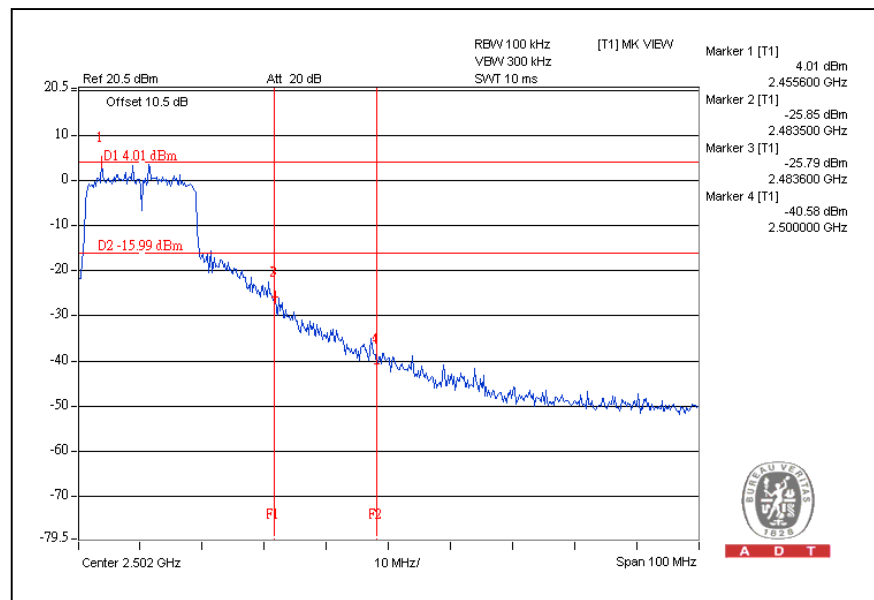


802.11n (20MHz) OFDM MODULATION:

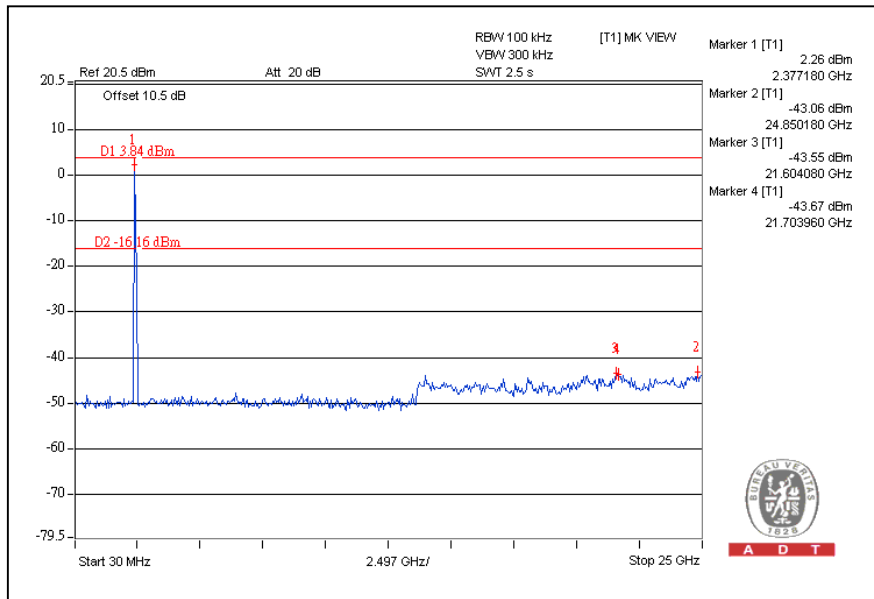
CH1



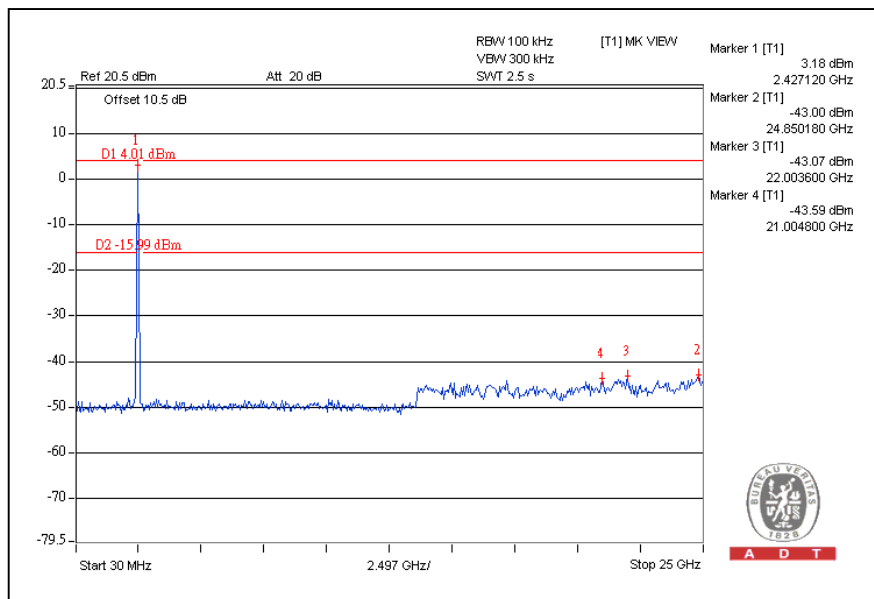
CH11



CH1

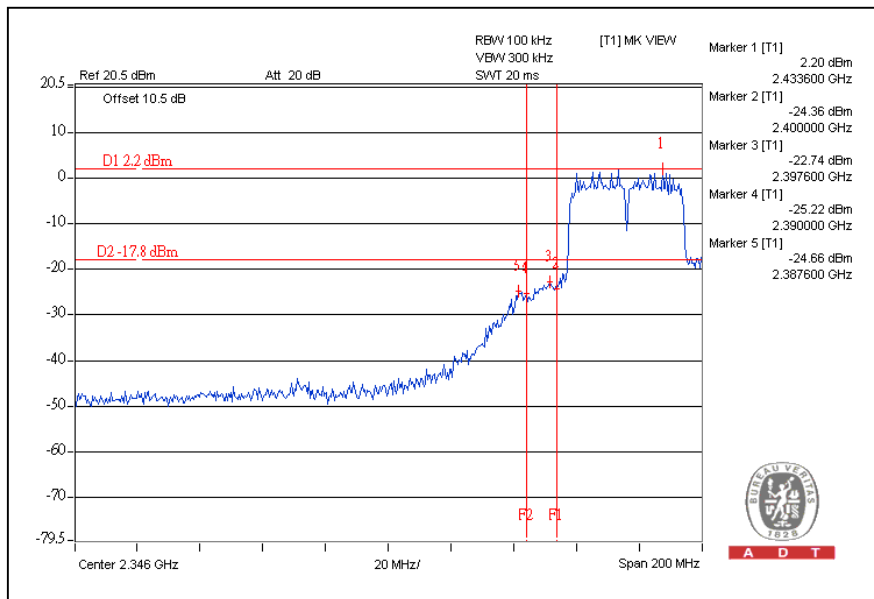


CH11

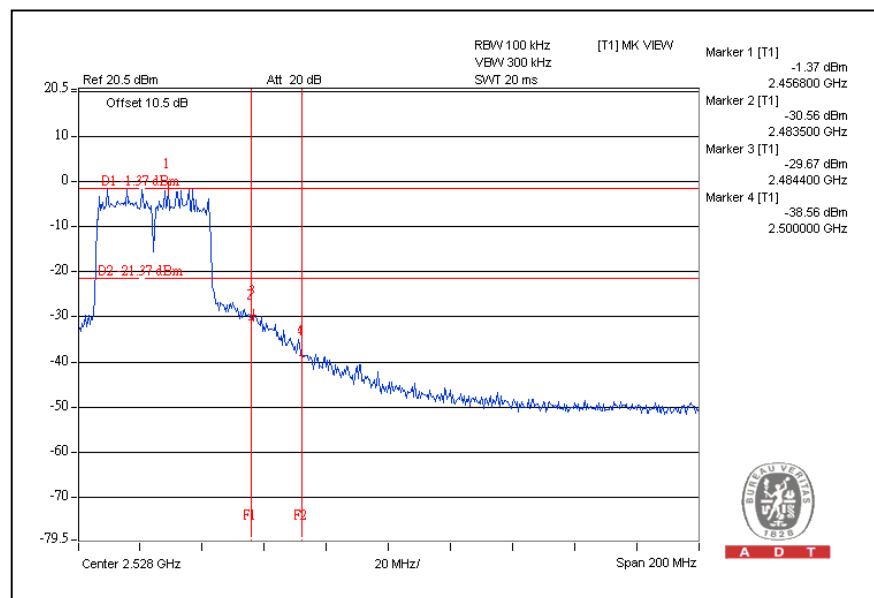


802.11n (40MHz) OFDM MODULATION:

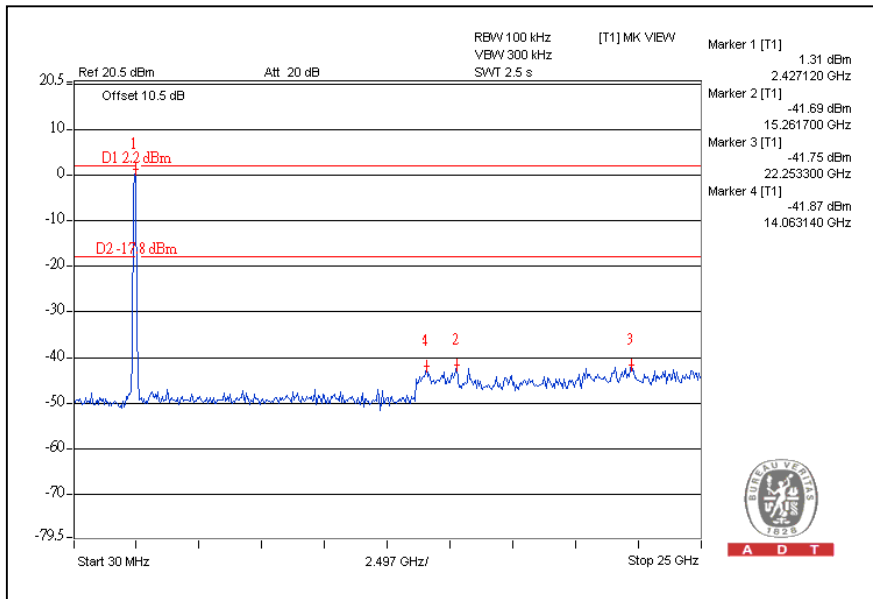
CH1



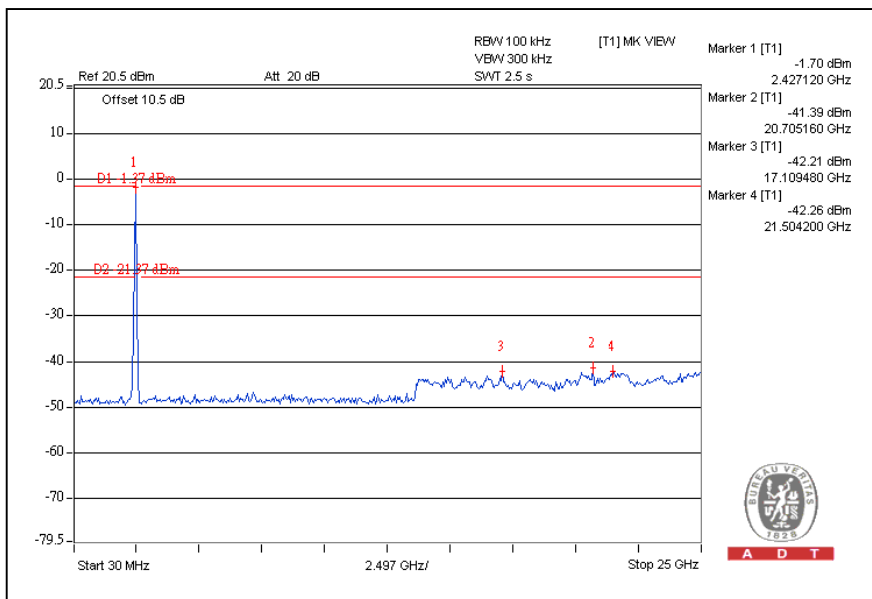
CH7



CH1



CH7



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

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Web Site: www.adt.com.tw

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



A D T

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 ---