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# FCC TEST REPORT

**REPORT NO.:** RF990716E06

**MODEL NO.:** ARG-0410, ARG-0800

**FCC ID:** VYXWIFI-007

**RECEIVED:** July 16, 2010

**TESTED:** Aug. 18 to Oct. 15, 2010

**ISSUED:** Nov. 16, 2010

**APPLICANT:** Argtek Communication Inc.

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**ISSUED BY:** Bureau Veritas Consumer Products Services (H.K.)  
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## 1. CERTIFICATION

**PRODUCT:** Match Box, Star Base  
**BRAND:** ARGtek  
**MODEL NO.:** ARG-0410, ARG-0800  
**TEST SAMPLE:** R&D SAMPLE  
**TESTED:** Aug. 18 to Oct. 15, 2010  
**APPLICANT:** Argtek Communication Inc.  
**STANDARDS:** FCC Part 15, Subpart C (Section 15.247)  
ANSI C63.4-2003

The above equipment (Model: ARG-0410, ARG-0800) have 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 :** Sunny Wen , **DATE:** Nov. 16, 2010  
( Sunny Wen, Specialist )

**TECHNICAL ACCEPTANCE :** Hank Chung , **DATE:** Nov. 16, 2010  
( Hank Chung, Deputy Manager )

**APPROVED BY :** May Chen , **DATE:** Nov. 16, 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 -8.05dB at 3.688MHz
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 2390.00MHz & 4924.00MHz
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Conducted Out-Band Emission Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is RP-SMA 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)	3.30 dB
Radiated emissions (1GHz -18GHz)	2.19 dB
Radiated emissions (18GHz -40GHz)	2.56 dB

### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

<b>PRODUCT</b>	Match Box, Star Base
<b>MODEL NO.</b>	ARG-0410, ARG-0800
<b>FCC ID</b>	VYXWIFI-007
<b>POWER SUPPLY</b>	DC 5V from host equipment
<b>MODULATION TYPE</b>	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
<b>MODULATION TECHNOLOGY</b>	DSSS, OFDM
<b>TRANSFER RATE</b>	802.11b: 11 / 5.5 / 2 / 1Mbps 802.11g: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6Mbps HT20 MCS 0~7 (800ns GI): 65 / 58.5 / 52 / 39 / 26 / 19.5 / 13 / 6.5Mbps. HT40 MCS 0~7 (800ns GI): 135 / 121.5 / 108 / 81 / 54 / 40.5 / 27 / 13.5Mbps. HT20 MCS 0~7 (400ns GI): 72.2 / 65 / 57.8 / 43.3 / 28.9 / 21.7 / 14.4 / 7.2Mbps. HT40 MCS 0~7 (400ns GI): 150 / 135 / 120 / 90 / 60 / 45 / 30 / 15Mbps.
<b>FREQUENCY RANGE</b>	2412MHz ~ 2462MHz
<b>NUMBER OF CHANNEL</b>	11 for 802.11b, 802.11g, 802.11n (20MHz) 7 for 802.11n (40MHz)
<b>MAXIMUM OUTPUT POWER</b>	802.11b: 42.7mW 802.11g: 478.6mW 802.11n (20MHz): 457.1mW 802.11n (40MHz): 457.1mW
<b>ANTENNA TYPE</b>	Please see note 2
<b>DATA CABLE</b>	USB cable (unshielded, 2.8m)
<b>I/O PORTS</b>	Mini USB port x 1
<b>ASSOCIATED DEVICES</b>	NA

**NOTE:**

1. The EUT has two product names and two model names, which are identical to each other in all aspects except for the following:

Product Name	Model No.	Difference
Match Box	ARG-0410	With 5dBi Dipole antenna or 7dBi Panel antenna
Star Base	ARG-0800	Antenna location & housing are different. With 5dBi Dipole antenna or 7dBi Panel antenna or 9dBi Dipole antenna

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

Antenna No.	Antenna Type	Antenna Gain (dBi, exclude cable loss)	Connector
Antenna 1	Dipole	5	RP-SMA
Antenna 2	Panel	7	RP-SMA
Antenna 3	Dipole	9	RP-SMA

3. The EUT incorporates a SISO function with 802.11n. Physically, the EUT provides one completed transmitter and one completed receiver.
4. The EUT is 1 \* 1 spatial SISO without beam forming function. There is one transmitter and one receiver.
5. The EUT complies with 802.11n standards and backwards compatible with 802.11b, 802.11g products.
6. When the EUT operating in 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 7.
7. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.



### 3.2 DESCRIPTION OF TEST MODES

Eleven channels are provided for 802.11b, 802.11g, 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	√	√	√	√	Model No.: ARG-0800 with 9dBi Dipole Antenna
B		√	√		Model No.: ARG-0800 with 7dBi Panel Antenna
C		√			Model No.: ARG-0410 with 5dBi Dipole Antenna
D		√			Model No.: ARG-0410 with 7dBi Panel 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)	CONFIGURE MODE
802.11n (20MHz)	1 to 11	6	OFDM	BPSK	6.5	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)	CONFIGURE MODE
802.11n (20MHz)	1 to 11	6	OFDM	BPSK	6.5	A to D

### **RADIATED EMISSION TEST (ABOVE 1 GHz):**

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	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)	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.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	CONFIGURE 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 <sup>3</sup> 1G	25deg. C, 70%RH, 1012 hPa	120Vac, 60Hz	Duke Tseng
RE<1G	27deg. C, 72%RH, 1012 hPa 25deg. C, 67%RH, 1012 hPa	120Vac, 60Hz	Rex Huang Frank Liu
PLC	26deg. C, 63%RH, 1012 hPa	120Vac, 60Hz	Wen Yu
APCM	25deg. C, 60%RH, 1012 hPa	120Vac, 60Hz	Rex 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

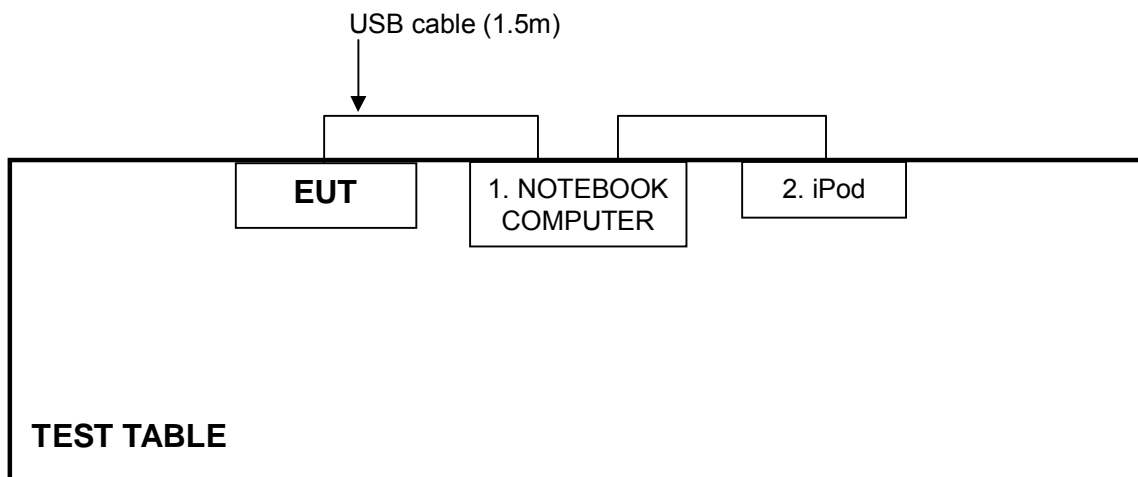
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP32LA	GSLB32S	FCC DoC
2	iPod	Apple	A1137	6U6078FMUPR	FCC DoC

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	1.5 m USB cable.
2	1.0 m shielded cable, terminated with USB connector, w/o core.

**NOTE:** 1. 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 $\mu$ V)	
0.15-0.5	Quasi-peak	Average
0.5-5	66 to 56	56 to 46
5-30	56	46
	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

**Tested Date: Sep. 18**

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.

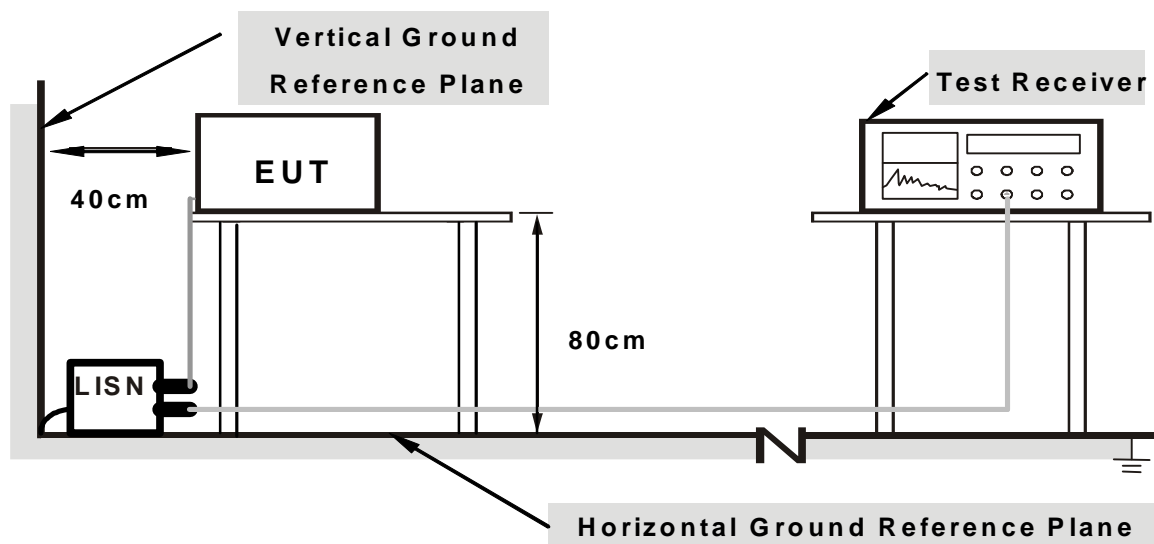
#### 4.1.3 TEST PROCEDURES

- 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.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- 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 in test table.
2. The support unit 1 (Notebook Computer) runs test program “QA\_RT3x7x\_V1.5.6.4” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

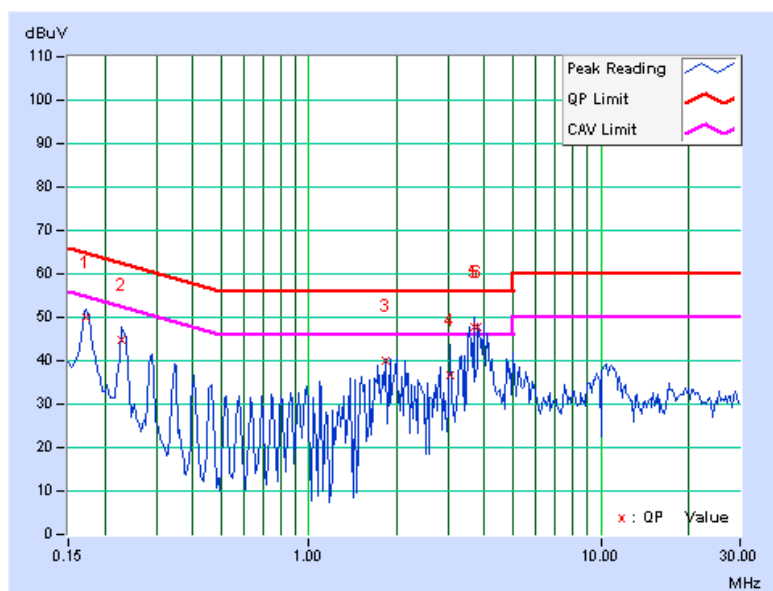


#### 4.1.7 TEST RESULTS

PHASE	Line (L)	6dB BANDWIDTH	9 kHz
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No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.173	0.04	50.10	-	50.14	-	64.79	54.79	-14.65	-
2	0.228	0.04	44.96	-	45.00	-	62.52	52.52	-17.52	-
3	1.844	0.12	39.79	-	39.91	-	56.00	46.00	-16.09	-
4	3.059	0.13	36.71	-	36.84	-	56.00	46.00	-19.16	-
5	3.688	0.13	47.82	34.89	47.95	35.02	56.00	46.00	-8.05	-10.98
6	3.801	0.13	47.63	34.82	47.76	34.95	56.00	46.00	-8.24	-11.05

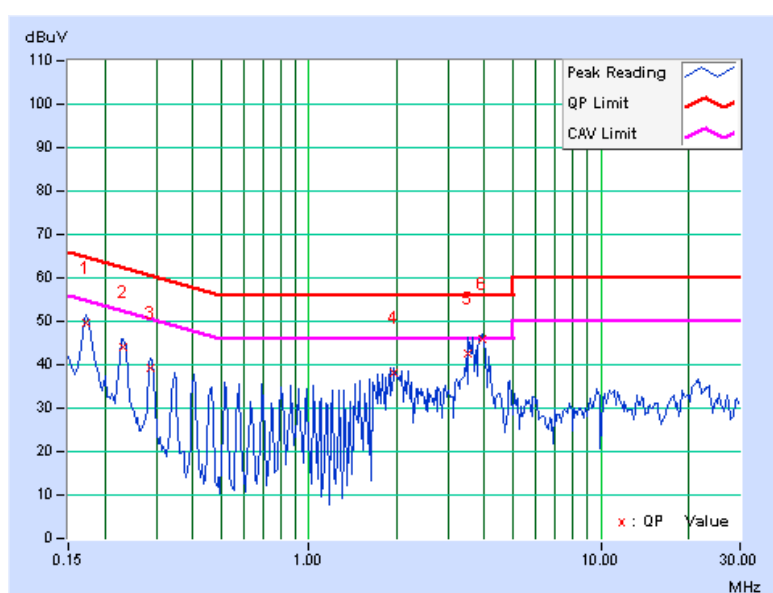
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  3. The emission levels of other frequencies were very low against the limit.
  4. Margin value = 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	0.173	0.05	49.52	-	49.57	-	64.79	54.79	-15.22	-
2	0.232	0.05	44.11	-	44.16	-	62.38	52.38	-18.22	-
3	0.287	0.05	39.27	-	39.32	-	60.62	50.62	-21.29	-
4	1.961	0.13	37.95	-	38.08	-	56.00	46.00	-17.92	-
5	3.516	0.14	42.36	-	42.50	-	56.00	46.00	-13.50	-
6	3.918	0.14	45.69	-	45.83	-	56.00	46.00	-10.17	-

- 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. Section 15.205 restricted bands of operation shall compliance with the limits in Section 15.209.



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#### 4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Agilent Spectrum Analyzer	E4446A	MY48250254	July 14, 2010	July 13, 2011
Agilent Pre-Selector	N9039A	MY46520311	July 14, 2010	July 13, 2011
Agilent Signal Generator	N5181A	MY49060517	July 14, 2010	July 13, 2011
Mini-Circuits Pre-Amplifier	ZFL-1000VH2B	AMP-ZFL-03	Nov. 18, 2009	Nov. 17, 2010
Agilent Pre-Amplifier	8449B	3008A02578	July 05, 2010	July 04, 2011
Miteq Pre-Amplifier	AFS33-1800265 0-30-8P-44	881786	NA	NA
SCHWARZBECK Trilog Broadband Antenna	VULB 9168	9168-360	Apr. 29, 2010	Apr. 28, 2011
AISI Horn_Antenna	AIH.8018	0000320091110	Nov. 16, 2009	Nov. 15, 2010
SCHWARZBECK Horn_Antenna	BBHA 9170	9170-424	July 30, 2010	July 29 2011
RF CABLE	NA	RF104-201 RF104-203 RF104-204	Dec. 24, 2009	Dec. 23, 2010
RF Cable	NA	CHGCAB_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. G.

4. The FCC Site Registration No. is 966073.

5. The VCCI Site Registration No. is G-137.

6. The CANADA Site Registration No. is IC 7450H-2.

#### 4.2.3 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 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.

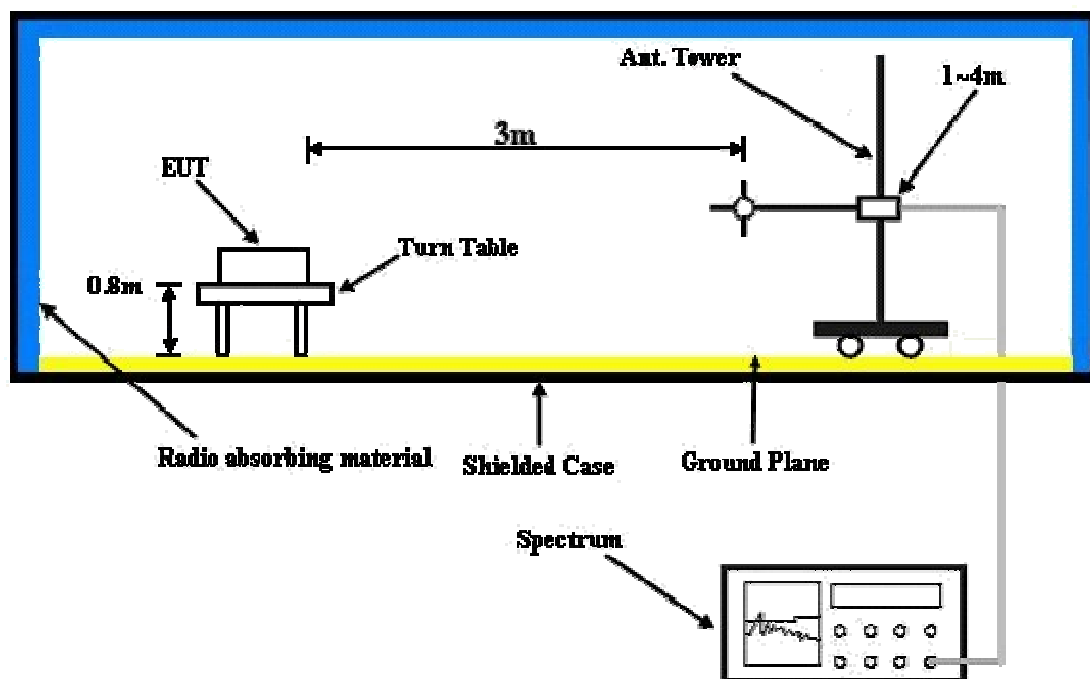
**NOTE:**

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

#### 4.2.4 DEVIATION FROM TEST STANDARD

No deviation

## 4.2.5 TEST SETUP



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

## 4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

#### 4.2.7 TEST RESULTS (Dipole antenna)

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	27deg. C, 72%RH 1012 hPa	TESTED BY	Rex Huang
TEST MODE	ARG-0410 with 5dBi Dipole Antenna		

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	120.00	37.0 QP	43.5	-6.5	1.50 H	286	24.57	12.46
2	311.37	39.5 QP	46.0	-6.5	1.00 H	271	24.02	15.45
3	360.04	41.2 QP	46.0	-4.8	1.00 H	166	24.68	16.50
4	480.01	32.2 QP	46.0	-13.8	2.00 H	327	13.01	19.23
5	604.71	35.9 QP	46.0	-10.1	1.25 H	265	13.90	22.02
6	698.02	32.7 QP	46.0	-13.3	1.25 H	223	9.57	23.13
7	720.05	33.3 QP	46.0	-12.7	1.00 H	329	9.91	23.43
8	840.01	42.2 QP	46.0	-3.8	1.50 H	346	17.00	25.20
9	959.97	33.0 QP	46.0	-13.0	1.00 H	0	6.28	26.72
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	120.00	29.7 QP	43.5	-13.8	1.75 V	0	17.25	12.46
2	172.82	27.8 QP	43.5	-15.7	2.00 V	360	15.00	12.79
3	317.77	34.8 QP	46.0	-11.2	1.75 V	42	19.21	15.58
4	359.93	35.3 QP	46.0	-10.7	1.25 V	337	18.82	16.50
5	480.01	30.5 QP	46.0	-15.5	1.75 V	235	11.31	19.23
6	599.97	30.4 QP	46.0	-15.6	1.50 V	291	8.41	21.97
7	697.67	31.0 QP	46.0	-15.1	1.00 V	168	7.83	23.12
8	840.01	40.9 QP	46.0	-5.1	1.25 V	259	15.68	25.20
9	959.97	34.3 QP	46.0	-11.7	1.00 V	282	7.58	26.72

- 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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH 1012 hPa	TESTED BY	Frank Liu
TEST MODE	ARG-0800 with 9dBi Dipole Antenna		

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	172.80	30.9 QP	43.5	-12.6	1.78 H	185	17.12	13.75
2	230.00	29.0 QP	46.0	-17.1	1.25 H	133	16.43	12.52
3	288.00	38.0 QP	46.0	-8.1	1.65 H	130	22.79	15.16
4	336.00	37.0 QP	46.0	-9.1	1.25 H	144	20.39	16.56
5	480.00	36.9 QP	46.0	-9.1	1.52 H	100	16.64	20.23
6	960.00	38.8 QP	46.0	-7.2	1.02 H	120	10.70	28.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	39.40	35.7 QP	40.0	-4.3	1.00 V	141	22.26	13.42
2	130.00	34.8 QP	43.5	-8.7	1.00 V	231	21.25	13.52
3	160.00	35.8 QP	43.5	-7.7	1.00 V	115	20.37	15.47
4	240.00	33.6 QP	46.0	-12.4	1.00 V	213	20.54	13.05
5	360.00	36.9 QP	46.0	-9.1	1.00 V	135	19.72	17.16
6	480.00	37.0 QP	46.0	-9.0	1.00 V	100	16.76	20.23

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



# 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, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 9dBi Dipole Antenna		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2389.60	55.2 PK	74.0	-18.8	1.04 H	35	23.54	31.66
2	2389.60	43.0 AV	54.0	-11.0	1.04 H	35	11.34	31.66
3	*2412.00	89.7 PK			1.04 H	35	57.97	31.73
4	*2412.00	85.7 AV			1.04 H	35	53.97	31.73
5	4824.00	52.7 PK	74.0	-21.3	1.05 H	68	13.73	38.97
6	4824.00	48.3 AV	54.0	-5.7	1.05 H	68	9.33	38.97
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2389.87	56.2 PK	74.0	-17.8	1.04 V	266	24.54	31.66
2	2389.87	43.2 AV	54.0	-10.8	1.04 V	266	11.54	31.66
3	*2412.00	98.6 PK			1.04 V	266	66.87	31.73
4	*2412.00	95.3 AV			1.04 V	266	63.57	31.73
5	4824.00	56.0 PK	74.0	-18.0	1.02 V	338	17.03	38.97
6	4824.00	53.4 AV	54.0	-0.6	1.02 V	338	14.43	38.97

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 9dBi Dipole Antenna		

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	88.4 PK			1.00 H	34	56.59	31.81
2	*2437.00	84.8 AV			1.00 H	34	52.99	31.81
3	4874.00	52.4 PK	74.0	-21.6	1.00 H	68	13.26	39.14
4	4874.00	48.0 AV	54.0	-6.0	1.00 H	68	8.86	39.14
5	7311.00	51.2 PK	74.0	-22.8	1.00 H	35	4.57	46.63
6	7311.00	38.5 AV	54.0	-15.5	1.00 H	35	-8.13	46.63
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	97.5 PK			1.03 V	274	65.69	31.81
2	*2437.00	94.6 AV			1.03 V	274	62.79	31.81
3	4874.00	56.2 PK	74.0	-17.8	1.00 V	206	17.08	39.14
4	4874.00	53.1 AV	54.0	-0.9	1.00 V	206	13.96	39.14
5	7311.00	51.4 PK	74.0	-22.6	1.00 V	336	4.77	46.63
6	7311.00	38.6 AV	54.0	-15.4	1.00 V	336	-8.03	46.63

**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.



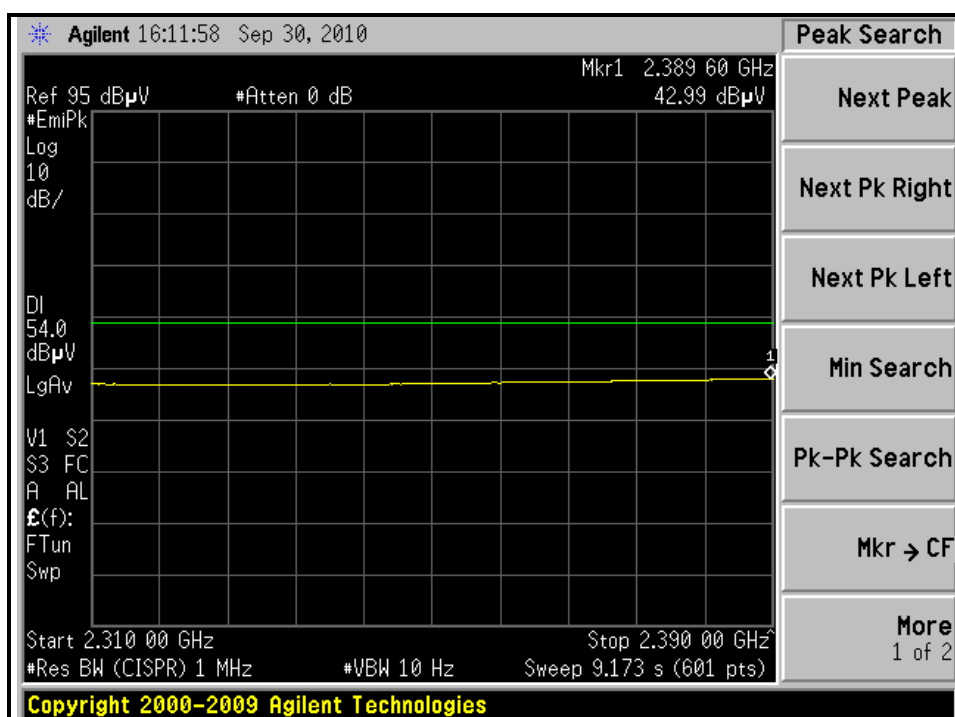
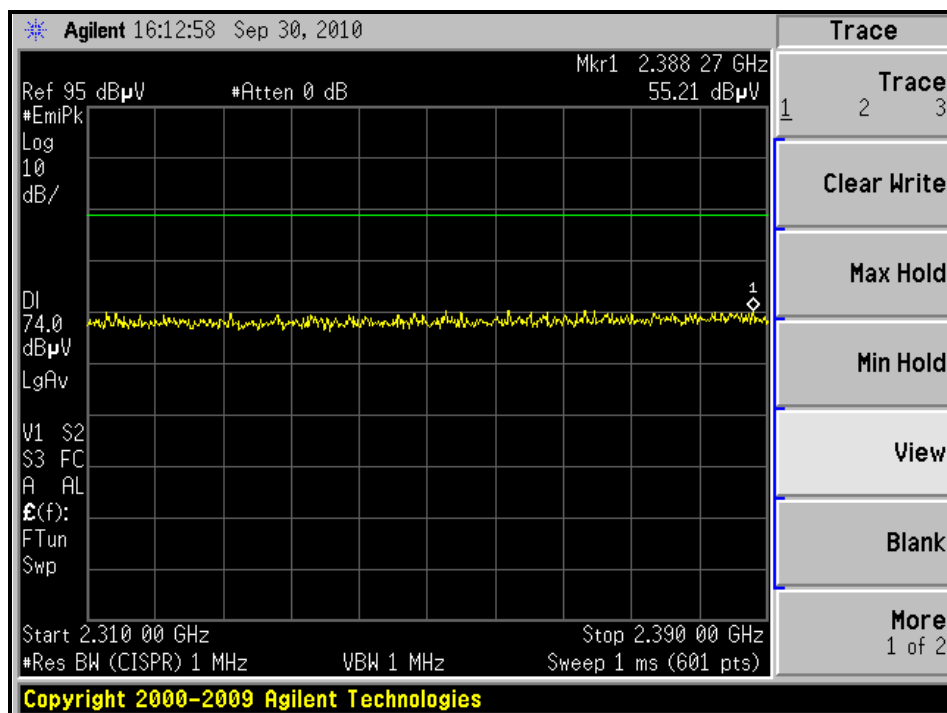
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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 9dBi Dipole Antenna		

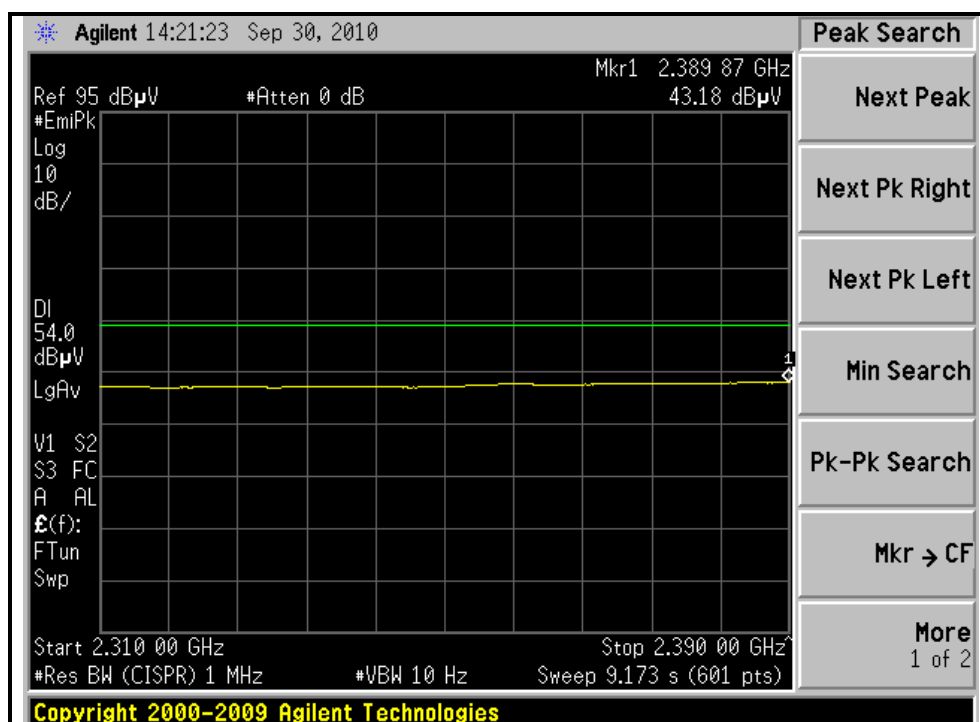
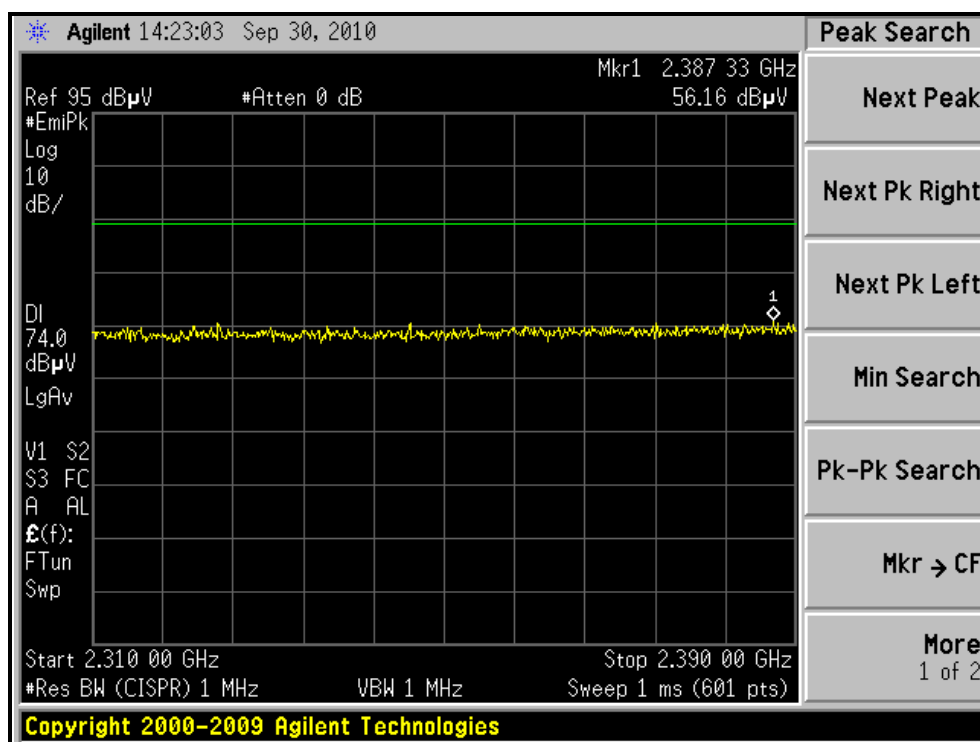
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	88.0 PK			1.01 H	35	56.11	31.89
2	*2462.00	84.2 AV			1.01 H	35	52.31	31.89
3	2495.63	55.9 PK	74.0	-18.1	1.00 H	35	23.89	32.01
4	2495.63	42.7 AV	54.0	-11.3	1.00 H	35	10.69	32.01
5	4924.00	51.7 PK	74.0	-22.3	1.00 H	67	12.39	39.31
6	4924.00	47.0 AV	54.0	-7.0	1.00 H	67	7.69	39.31
7	7386.00	51.3 PK	74.0	-22.7	1.00 H	40	4.70	46.60
8	7386.00	38.6 AV	54.0	-15.4	1.00 H	40	-8.00	46.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	99.6 PK			1.04 V	276	67.71	31.89
2	*2462.00	96.5 AV			1.04 V	276	64.61	31.89
3	2487.79	55.8 PK	74.0	-18.2	1.04 V	276	23.82	31.98
4	2487.79	42.9 AV	54.0	-11.1	1.04 V	276	10.92	31.98
5	4924.00	56.2 PK	74.0	-17.8	1.00 V	176	16.89	39.31
6	4924.00	53.5 AV	54.0	-0.5	1.00 V	176	14.19	39.31
7	7386.00	51.7 PK	74.0	-22.3	1.00 V	330	5.10	46.60
8	7386.00	38.9 AV	54.0	-15.1	1.00 V	330	-7.70	46.60

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

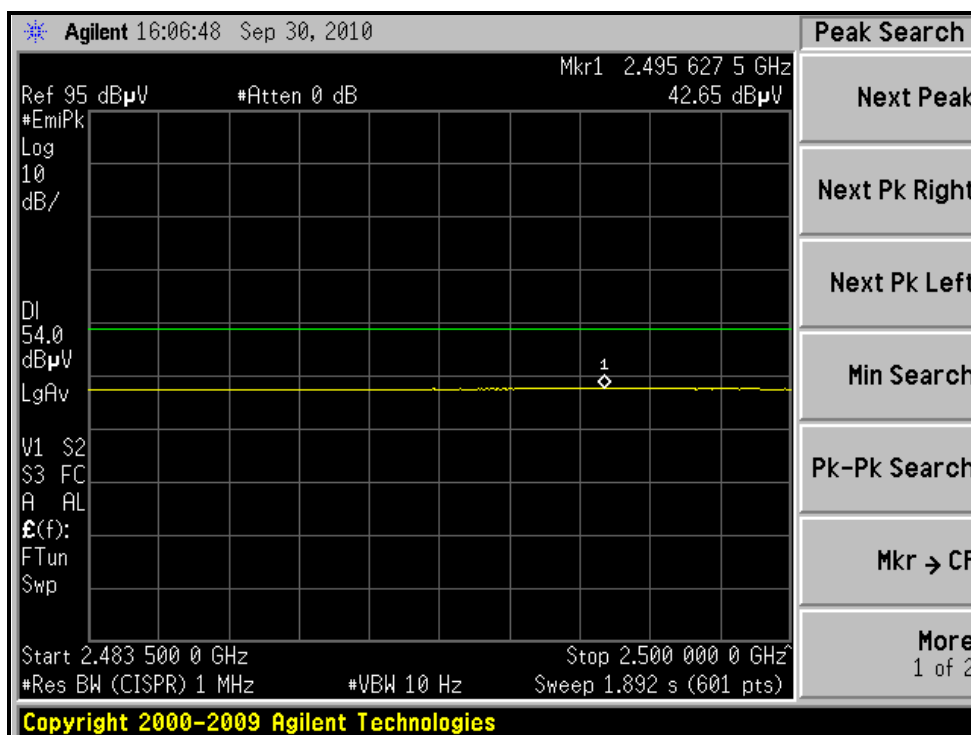
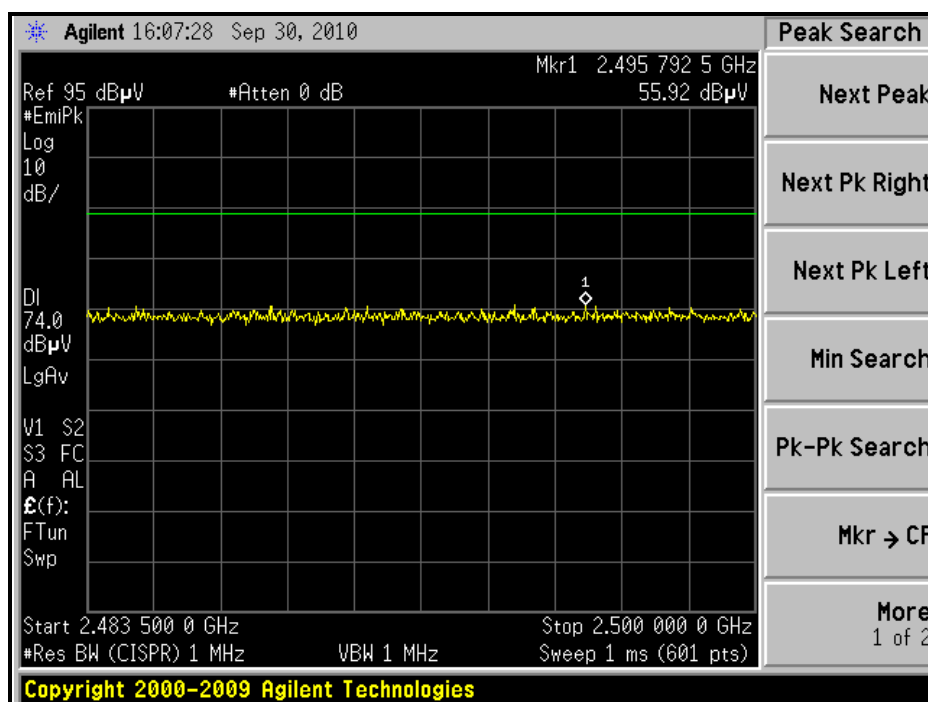
# RESTRICTED BANDEDGE (802.11b MODE,CH1, HORIZONTAL)



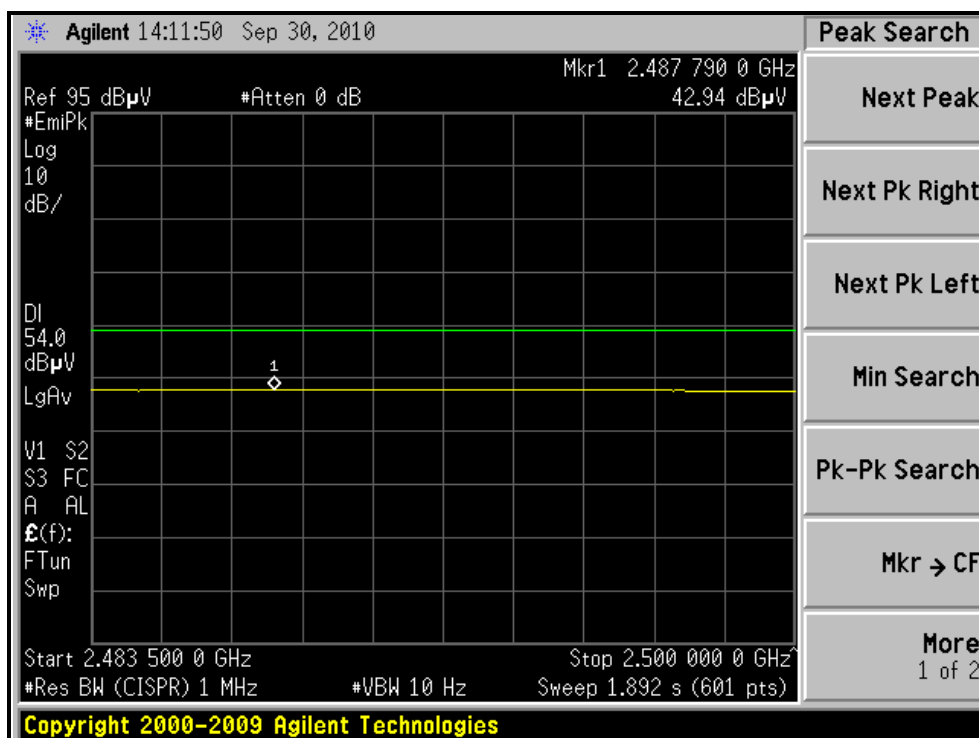
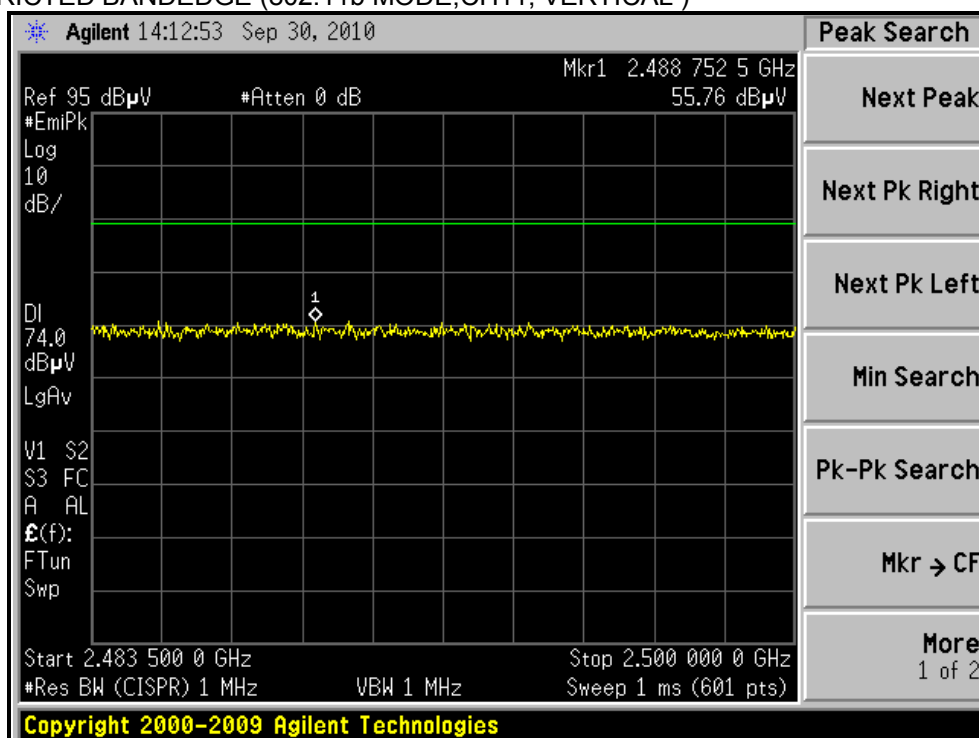
# RESTRICTED BANDEDGE (802.11b MODE,CH1, VERTICAL )



# 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, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 9dBi Dipole Antenna		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	58.7 PK	74.0	-15.3	1.01 H	109	27.04	31.66
2	2390.00	44.7 AV	54.0	-9.3	1.01 H	109	13.04	31.66
3	*2412.00	98.0 PK			1.05 H	35	66.27	31.73
4	*2412.00	85.7 AV			1.05 H	35	53.97	31.73
5	4824.00	67.7 PK	74.0	-6.3	1.02 H	218	28.73	38.97
6	4824.00	51.5 AV	54.0	-2.5	1.02 H	218	12.53	38.97
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	68.1 PK	74.0	-5.9	1.05 V	306	36.44	31.66
2	2390.00	52.8 AV	54.0	-1.2	1.05 V	306	21.14	31.66
3	*2412.00	109.0 PK			1.04 V	276	77.27	31.73
4	*2412.00	95.6 AV			1.04 V	276	63.87	31.73
5	4824.00	67.9 PK	74.0	-6.1	1.00 V	208	28.93	38.97
6	4824.00	51.6 AV	54.0	-2.4	1.00 V	208	12.63	38.97

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





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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 9dBi Dipole Antenna		

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	95.6 PK			1.02 H	34	63.79	31.81
2	*2437.00	83.6 AV			1.02 H	34	51.79	31.81
3	4874.00	65.0 PK	74.0	-9.0	1.01 H	217	25.86	39.14
4	4874.00	49.8 AV	54.0	-4.2	1.01 H	217	10.66	39.14
5	7311.00	58.7 PK	74.0	-15.3	1.15 H	243	12.07	46.63
6	7311.00	44.3 AV	54.0	-9.7	1.15 H	243	-2.33	46.63
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	105.4 PK			1.04 V	276	73.59	31.81
2	*2437.00	92.0 AV			1.04 V	276	60.19	31.81
3	4874.00	62.6 PK	74.0	-11.4	1.00 V	210	23.46	39.14
4	4874.00	47.4 AV	54.0	-6.6	1.00 V	210	8.26	39.14
5	7311.00	63.8 PK	74.0	-10.2	1.01 V	189	17.17	46.63
6	7311.00	47.7 AV	54.0	-6.3	1.01 V	189	1.07	46.63

**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.



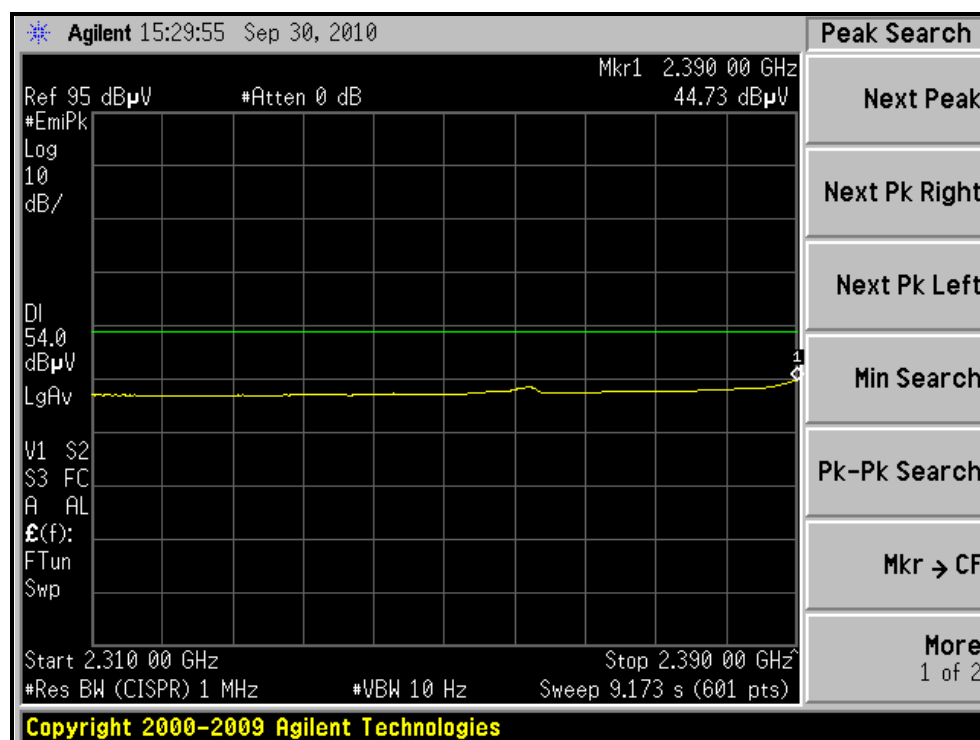
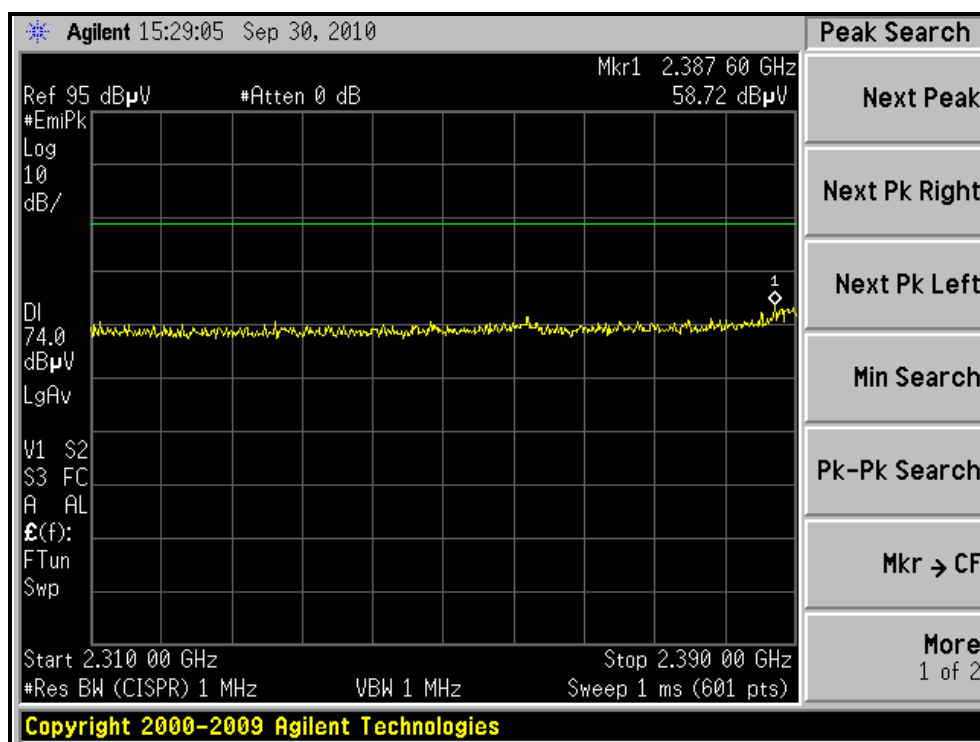
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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 9dBi Dipole Antenna		

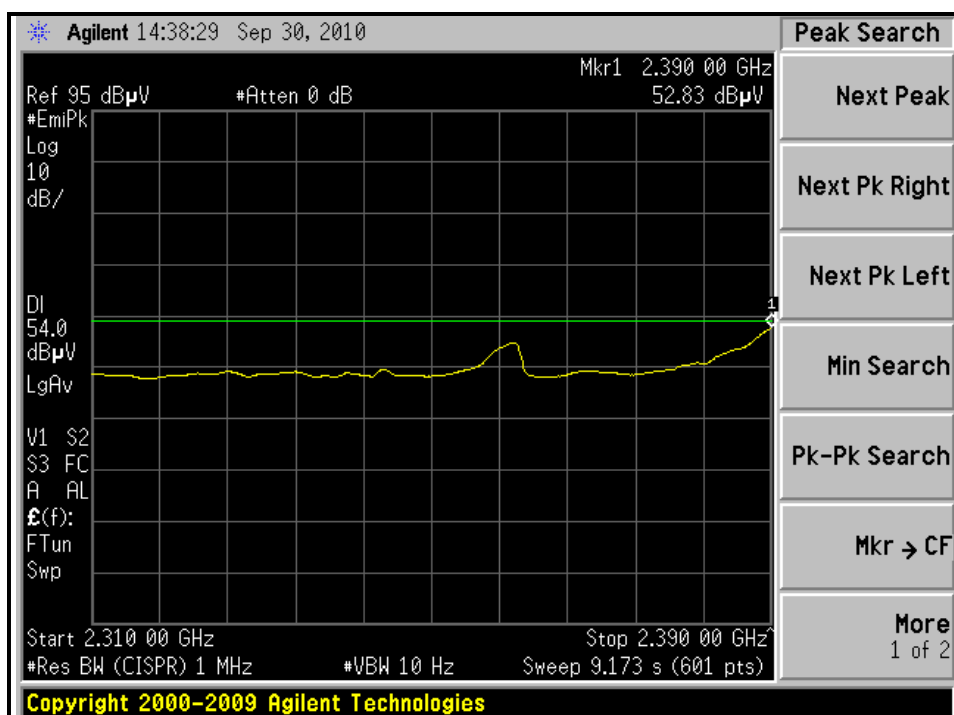
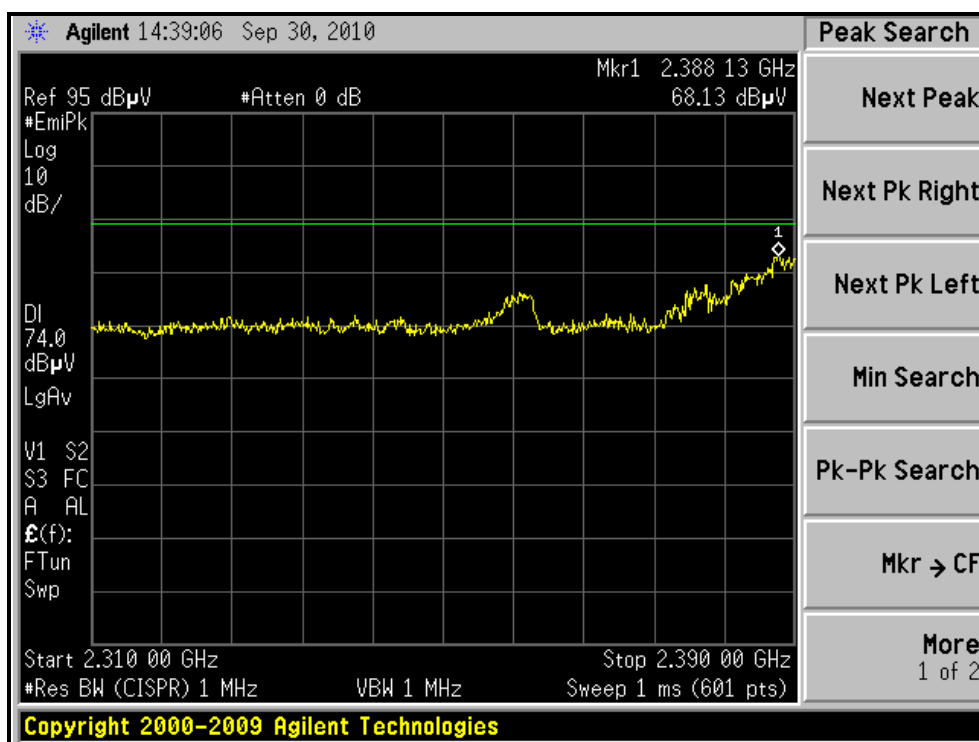
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	93.5 PK			1.00 H	104	61.61	31.89
2	*2462.00	81.3 AV			1.00 H	104	49.41	31.89
3	2483.58	56.1 PK	74.0	-17.9	1.00 H	103	24.13	31.97
4	2483.58	43.6 AV	54.0	-10.4	1.00 H	103	11.63	31.97
5	4924.00	64.5 PK	74.0	-9.5	1.03 H	217	25.19	39.31
6	4924.00	49.1 AV	54.0	-4.9	1.03 H	217	9.79	39.31
7	7386.00	56.9 PK	74.0	-17.1	1.14 H	245	10.30	46.60
8	7386.00	43.4 AV	54.0	-10.6	1.14 H	245	-3.20	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	106.2 PK			1.03 V	272	74.31	31.89
2	*2462.00	93.0 AV			1.03 V	272	61.11	31.89
3	2483.50	64.5 PK	74.0	-9.5	1.04 V	307	32.53	31.97
4	2483.50	48.4 AV	54.0	-5.6	1.04 V	307	16.43	31.97
5	4924.00	63.0 PK	74.0	-11.0	1.00 V	196	23.69	39.31
6	4924.00	47.8 AV	54.0	-6.2	1.00 V	196	8.49	39.31
7	7386.00	62.6 PK	74.0	-11.4	1.00 V	201	16.00	46.60
8	7386.00	46.5 AV	54.0	-7.5	1.00 V	201	-0.10	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 )



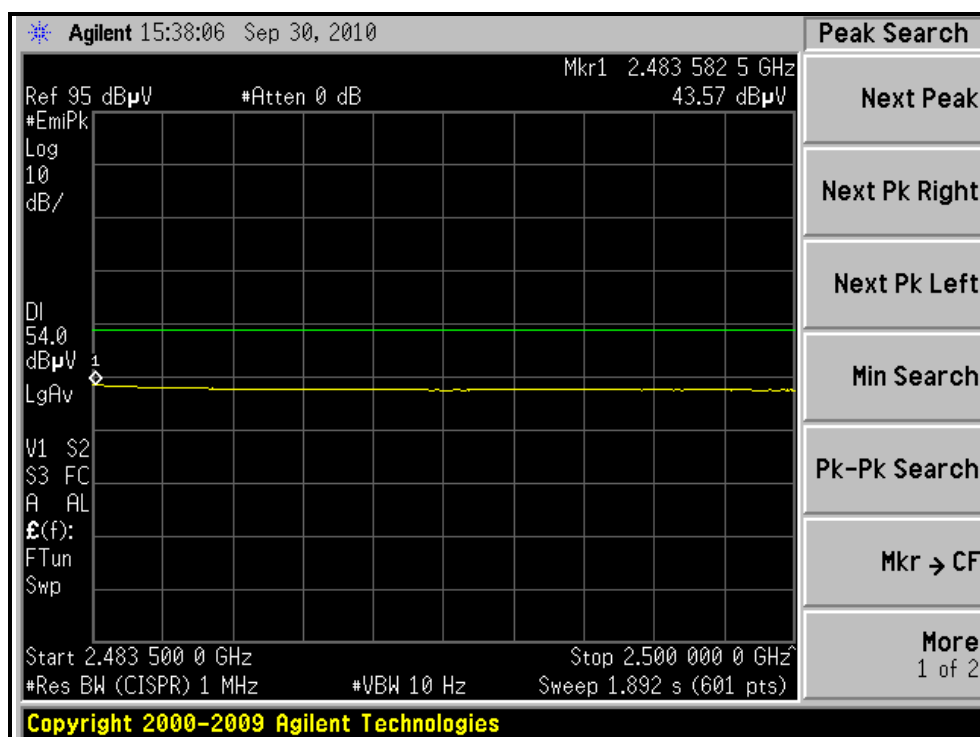
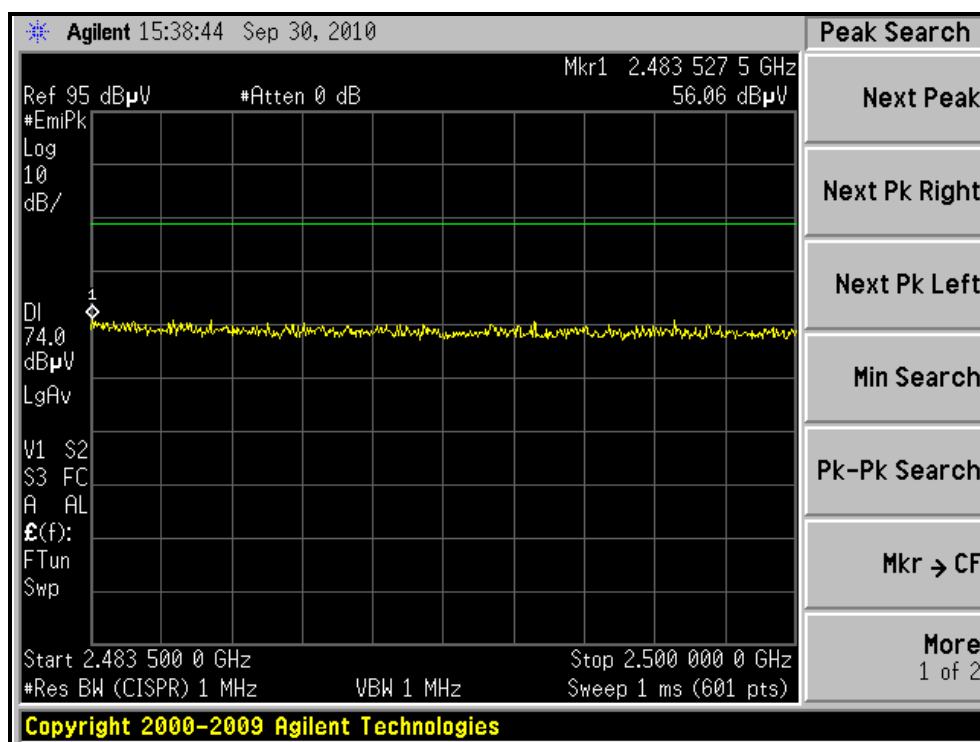
# RESTRICTED BANDEDGE (802.11g MODE,CH1, VERTICAL )





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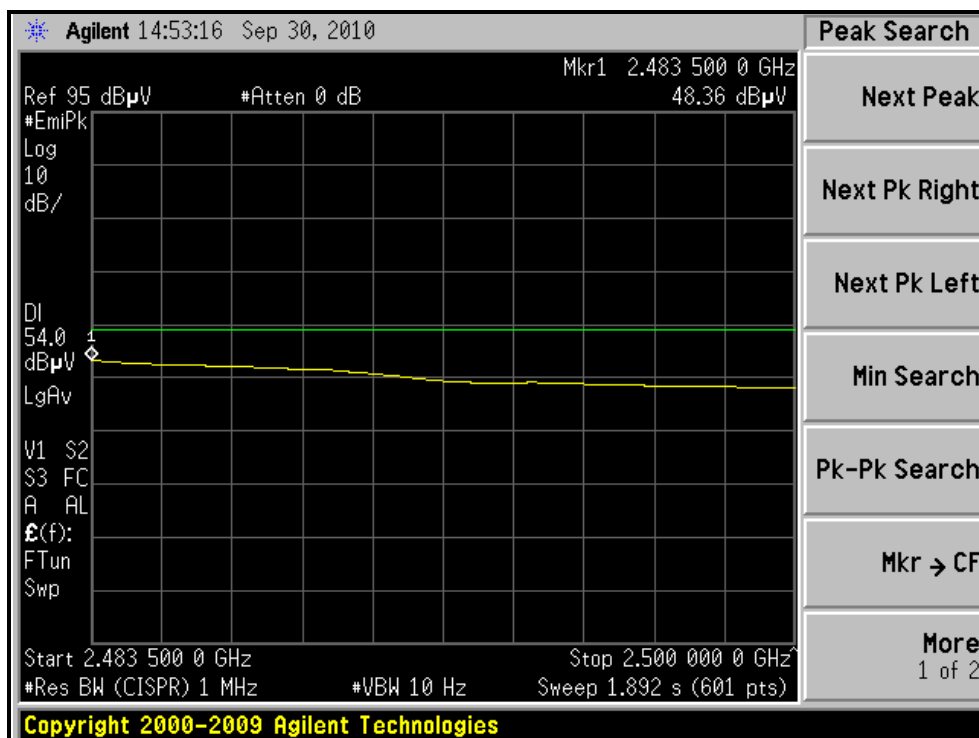
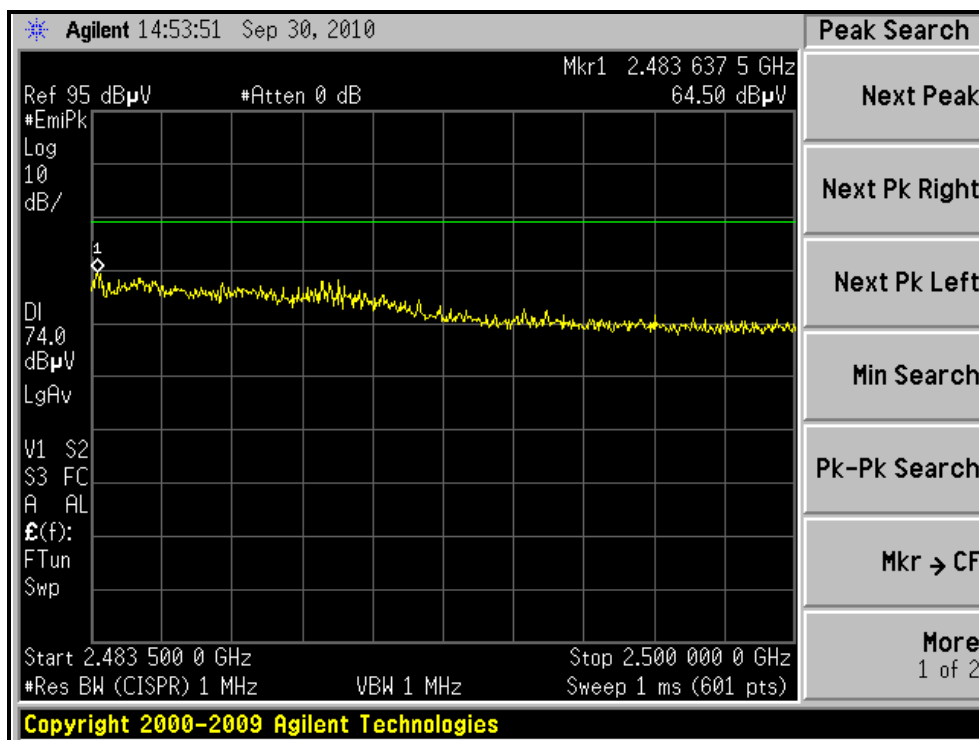
# RESTRICTED BANDEDGE (802.11g MODE,CH11, HORIZONTAL )





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RESTRICTED BANDEDGE (802.11g MODE,CH11, VERTICAL )





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**802.11n (20MHz) OFDM MODULATION**

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 9dBi Dipole Antenna		

**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	59.0 PK	74.0	-15.0	1.02 H	108	27.34	31.66
2	2390.00	45.2 AV	54.0	-8.8	1.02 H	108	13.54	31.66
3	*2412.00	97.8 PK			1.04 H	35	66.07	31.73
4	*2412.00	85.5 AV			1.04 H	35	53.77	31.73
5	4824.00	66.3 PK	74.0	-7.7	1.02 H	216	27.33	38.97
6	4824.00	50.8 AV	54.0	-3.2	1.02 H	216	11.83	38.97

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	69.7 PK	74.0	-4.3	1.04 V	308	38.04	31.66
2	2390.00	52.1 AV	54.0	-1.9	1.04 V	308	20.44	31.66
3	*2412.00	107.3 PK			1.04 V	277	75.57	31.73
4	*2412.00	94.2 AV			1.04 V	277	62.47	31.73
5	4824.00	67.3 PK	74.0	-6.7	1.00 V	207	28.33	38.97
6	4824.00	50.9 AV	54.0	-3.1	1.00 V	207	11.93	38.97

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 9dBi Dipole Antenna		

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	95.2 PK			1.00 H	34	63.39	31.81
2	*2437.00	83.2 AV			1.00 H	34	51.39	31.81
3	4874.00	64.3 PK	74.0	-9.7	1.02 H	219	25.16	39.14
4	4874.00	48.9 AV	54.0	-5.1	1.02 H	219	9.76	39.14
5	7311.00	60.0 PK	74.0	-14.0	1.15 H	244	13.37	46.63
6	7311.00	44.0 AV	54.0	-10.0	1.15 H	244	-2.63	46.63
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	104.6 PK			1.04 V	276	72.79	31.81
2	*2437.00	91.3 AV			1.04 V	276	59.49	31.81
3	4874.00	63.0 PK	74.0	-11.0	1.00 V	208	23.86	39.14
4	4874.00	46.7 AV	54.0	-7.3	1.00 V	208	7.56	39.14
5	7311.00	63.4 PK	74.0	-10.6	1.02 V	180	16.77	46.63
6	7311.00	46.9 AV	54.0	-7.1	1.02 V	180	0.27	46.63

**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.





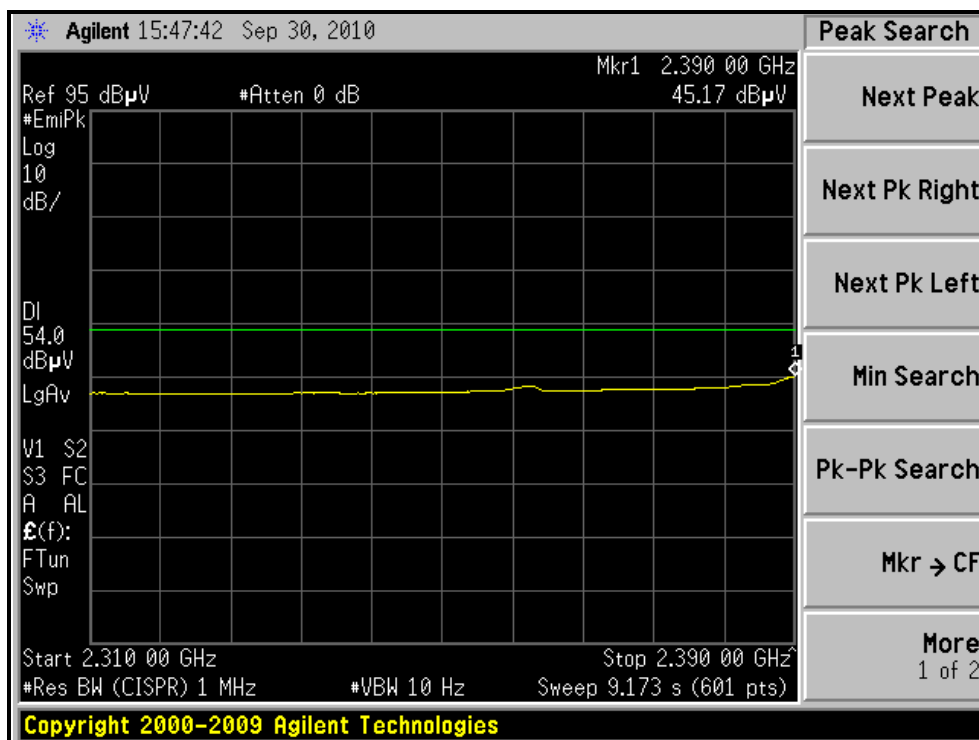
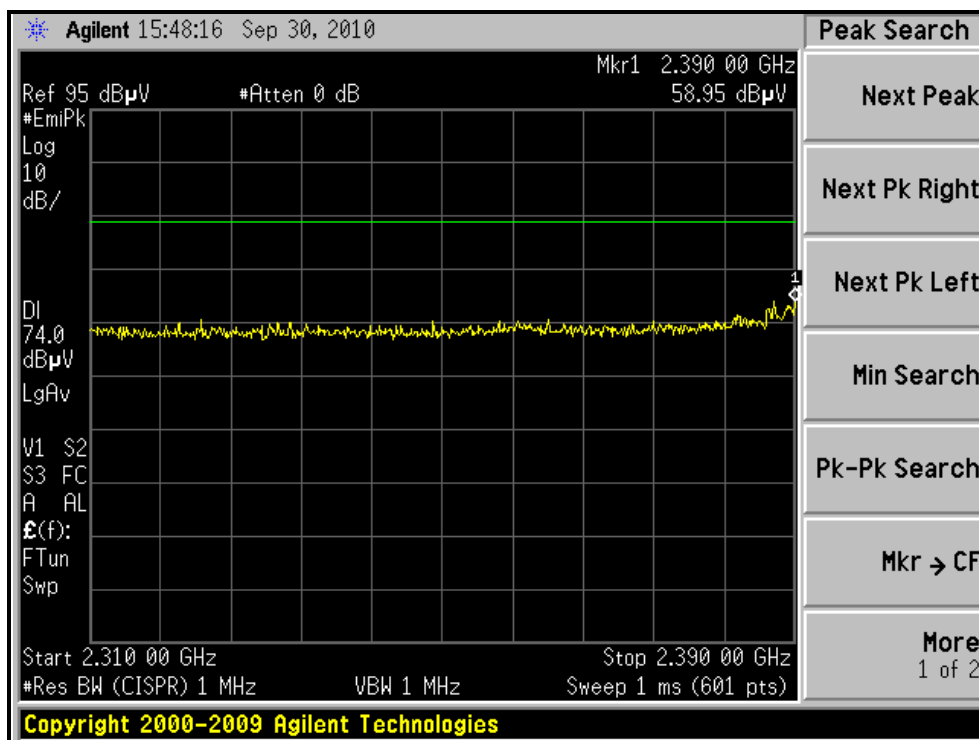
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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 9dBi Dipole Antenna		

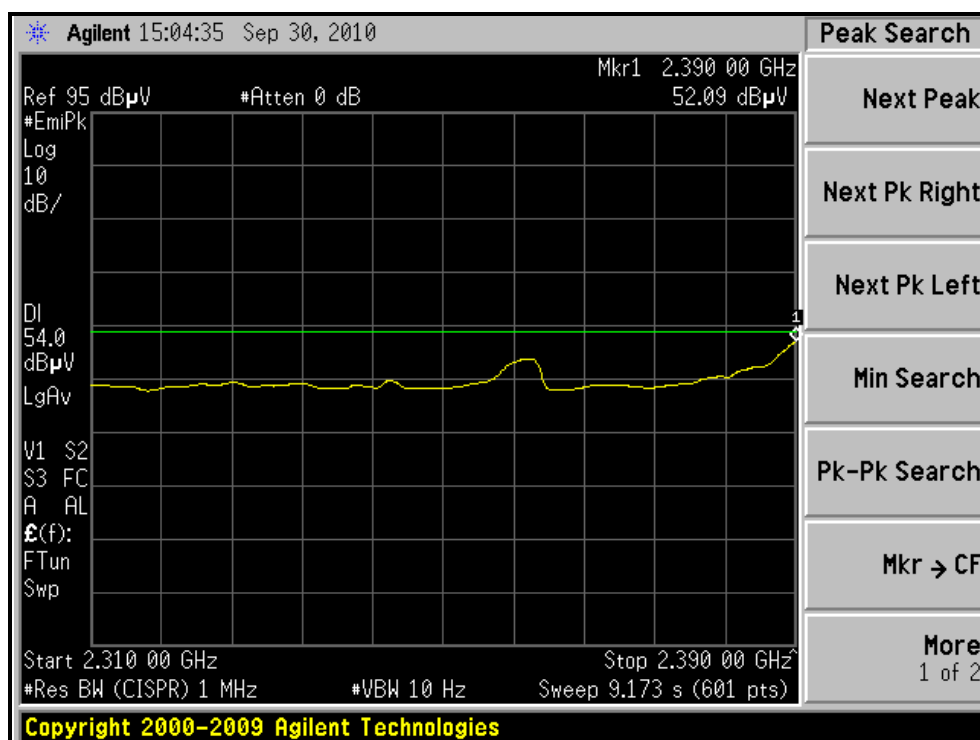
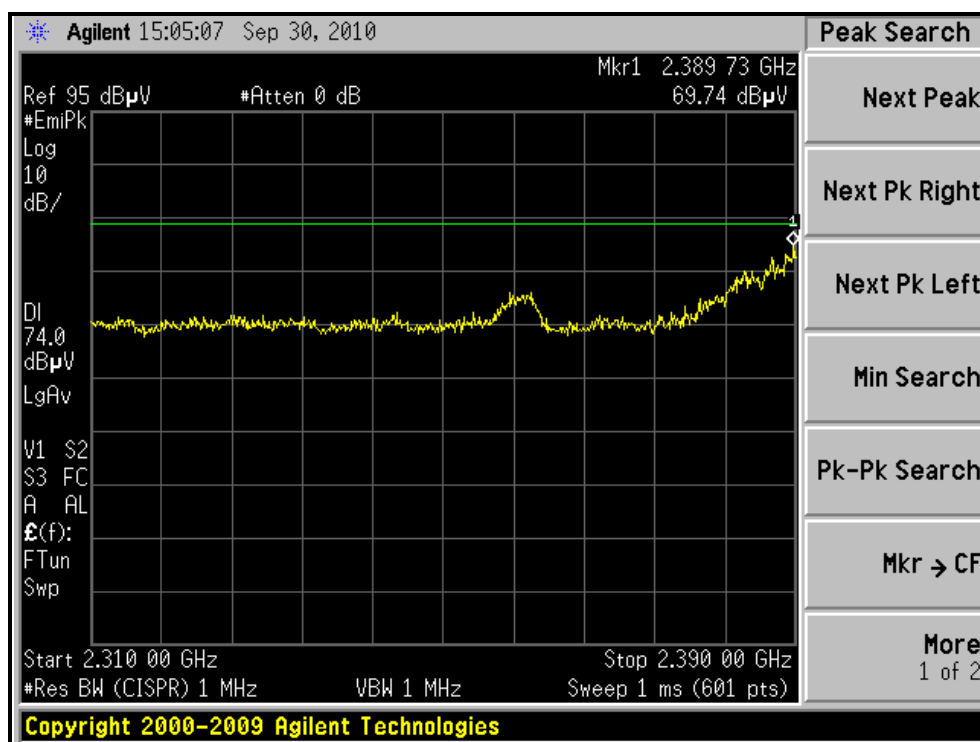
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	92.8 PK			1.01 H	34	60.91	31.89
2	*2462.00	81.3 AV			1.01 H	34	49.41	31.89
3	2483.50	57.6 PK	74.0	-16.4	1.01 H	104	25.63	31.97
4	2483.50	43.9 AV	54.0	-10.1	1.01 H	104	11.93	31.97
5	4924.00	64.2 PK	74.0	-9.8	1.02 H	218	24.89	39.31
6	4924.00	48.5 AV	54.0	-5.5	1.02 H	218	9.19	39.31
7	7386.00	58.9 PK	74.0	-15.1	1.15 H	243	12.30	46.60
8	7386.00	43.1 AV	54.0	-10.9	1.15 H	243	-3.50	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	105.4 PK			1.02 V	272	73.51	31.89
2	*2462.00	92.4 AV			1.02 V	272	60.51	31.89
3	2483.50	65.5 PK	74.0	-8.5	1.03 V	307	33.53	31.97
4	2483.50	49.1 AV	54.0	-4.9	1.03 V	307	17.13	31.97
5	4924.00	64.0 PK	74.0	-10.0	1.00 V	197	24.69	39.31
6	4924.00	47.3 AV	54.0	-6.7	1.00 V	197	7.99	39.31
7	7386.00	61.4 PK	74.0	-12.6	1.00 V	203	14.80	46.60
8	7386.00	45.8 AV	54.0	-8.2	1.00 V	203	-0.80	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.

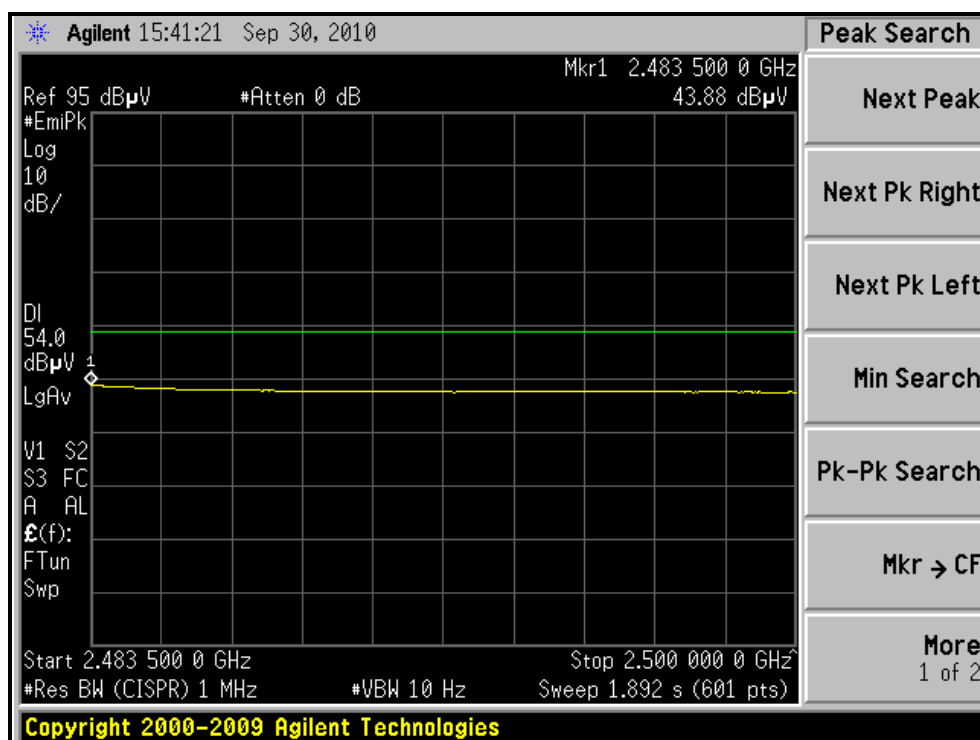
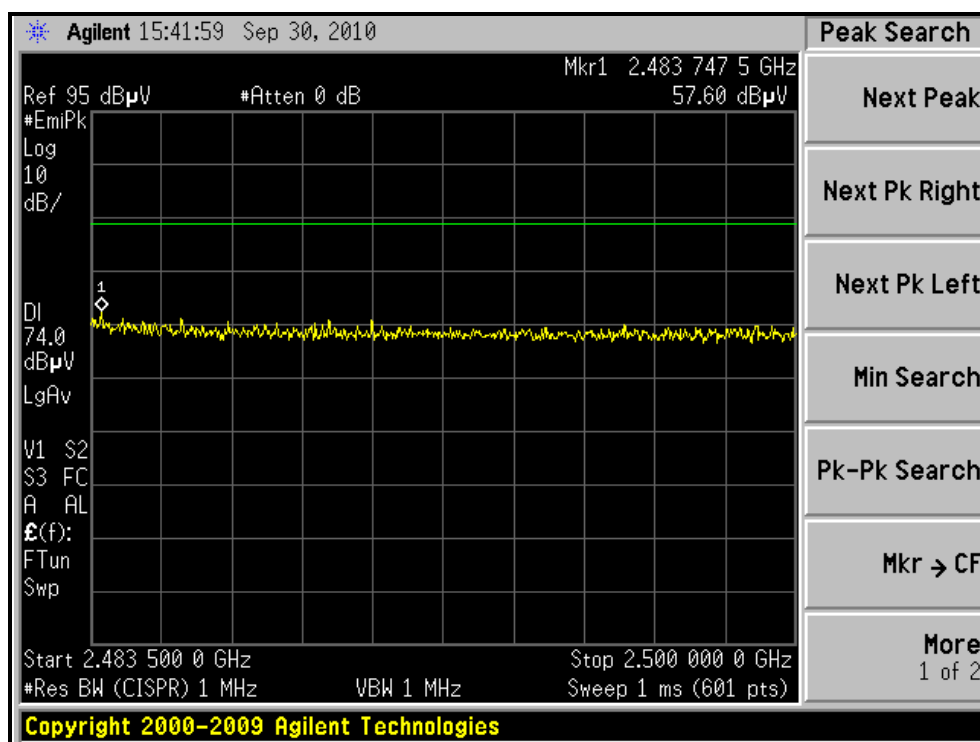
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, HORIZONTAL )



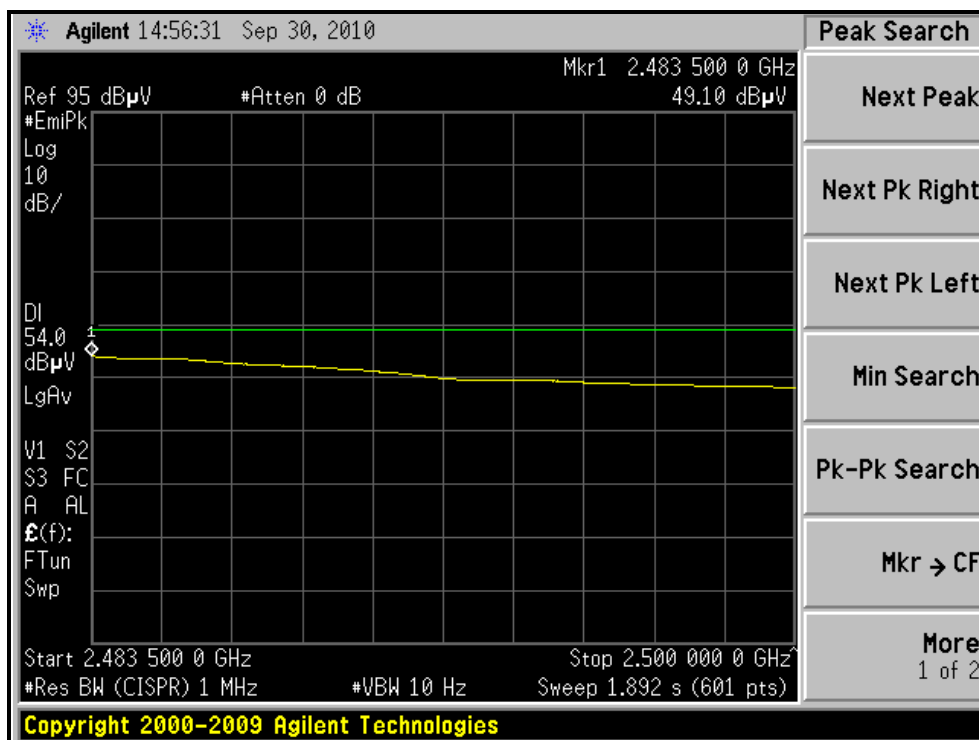
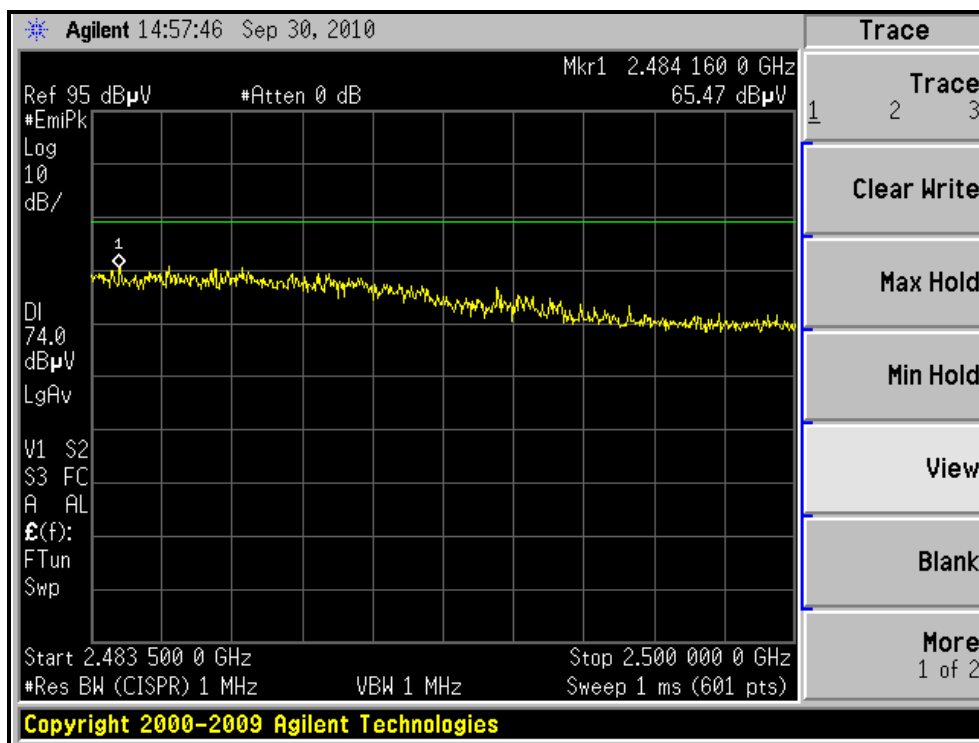
# RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, VERTICAL )



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



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





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**802.11n (40MHz) OFDM MODULATION**

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 9dBi Dipole Antenna		

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2389.87	59.6 PK	74.0	-14.4	1.01 H	109	27.94	31.66
2	2389.87	46.3 AV	54.0	-7.7	1.01 H	109	14.64	31.66
3	*2422.00	93.6 PK			1.02 H	34	61.84	31.76
4	*2422.00	79.8 AV			1.02 H	34	48.04	31.76
5	4844.00	61.4 PK	74.0	-12.6	1.03 H	217	22.36	39.04
6	4844.00	45.7 AV	54.0	-8.3	1.03 H	217	6.66	39.04
7	7266.00	53.9 PK	74.0	-20.1	1.15 H	241	7.23	46.67
8	7266.00	41.0 AV	54.0	-13.0	1.15 H	241	-5.67	46.67

**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	69.6 PK	74.0	-4.4	1.05 V	308	37.94	31.66
2	2390.00	53.5 AV	54.0	-0.5	1.05 V	308	21.84	31.66
3	*2422.00	103.4 PK			1.04 V	279	71.64	31.76
4	*2422.00	87.3 AV			1.04 V	279	55.54	31.76
5	4844.00	60.4 PK	74.0	-13.6	1.00 V	208	21.36	39.04
6	4844.00	43.5 AV	54.0	-10.5	1.00 V	208	4.46	39.04
7	7266.00	57.3 PK	74.0	-16.7	1.02 V	190	10.63	46.67
8	7266.00	43.0 AV	54.0	-11.0	1.02 V	190	-3.67	46.67

- 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.
  5. “ \* ”: Fundamental frequency.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 9dBi Dipole Antenna		

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	94.8 PK			1.03 H	34	62.99	31.81
2	*2437.00	80.3 AV			1.03 H	34	48.49	31.81
3	4874.00	61.3 PK	74.0	-12.7	1.02 H	218	22.16	39.14
4	4874.00	45.7 AV	54.0	-8.3	1.02 H	218	6.56	39.14
5	7311.00	56.0 PK	74.0	-18.0	1.15 H	242	9.37	46.63
6	7311.00	42.2 AV	54.0	-11.8	1.15 H	242	-4.43	46.63
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	103.9 PK			1.03 V	272	72.09	31.81
2	*2437.00	87.9 AV			1.03 V	272	56.09	31.81
3	4874.00	60.1 PK	74.0	-13.9	1.00 V	209	20.96	39.14
4	4874.00	44.2 AV	54.0	-9.8	1.00 V	209	5.06	39.14
5	7311.00	58.4 PK	74.0	-15.6	1.01 V	182	11.77	46.63
6	7311.00	44.7 AV	54.0	-9.3	1.01 V	182	-1.93	46.63

**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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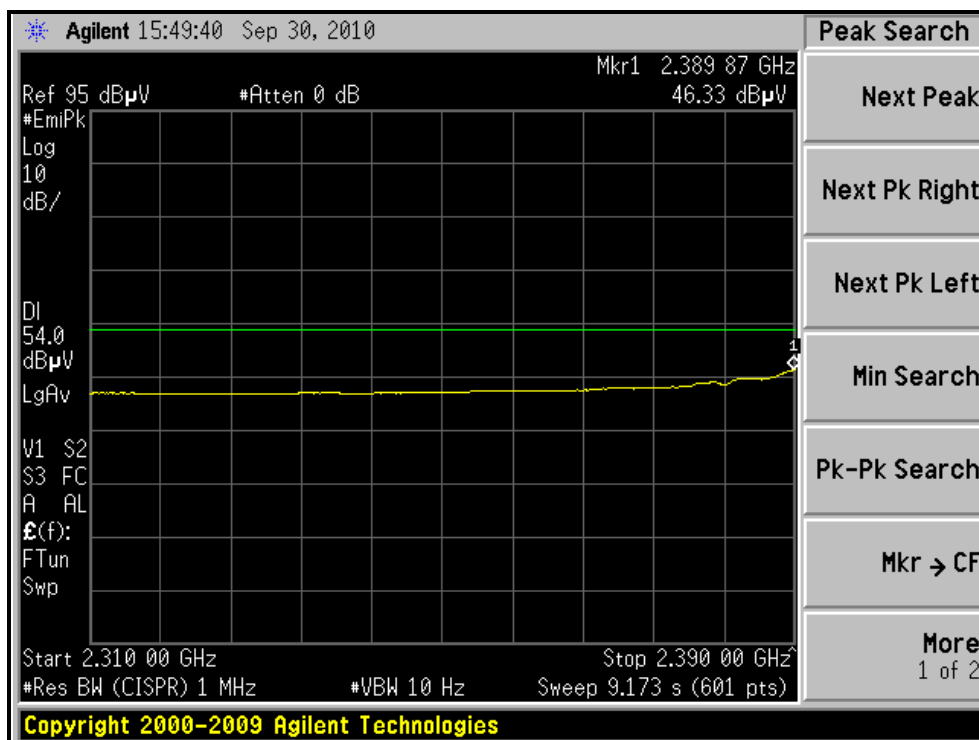
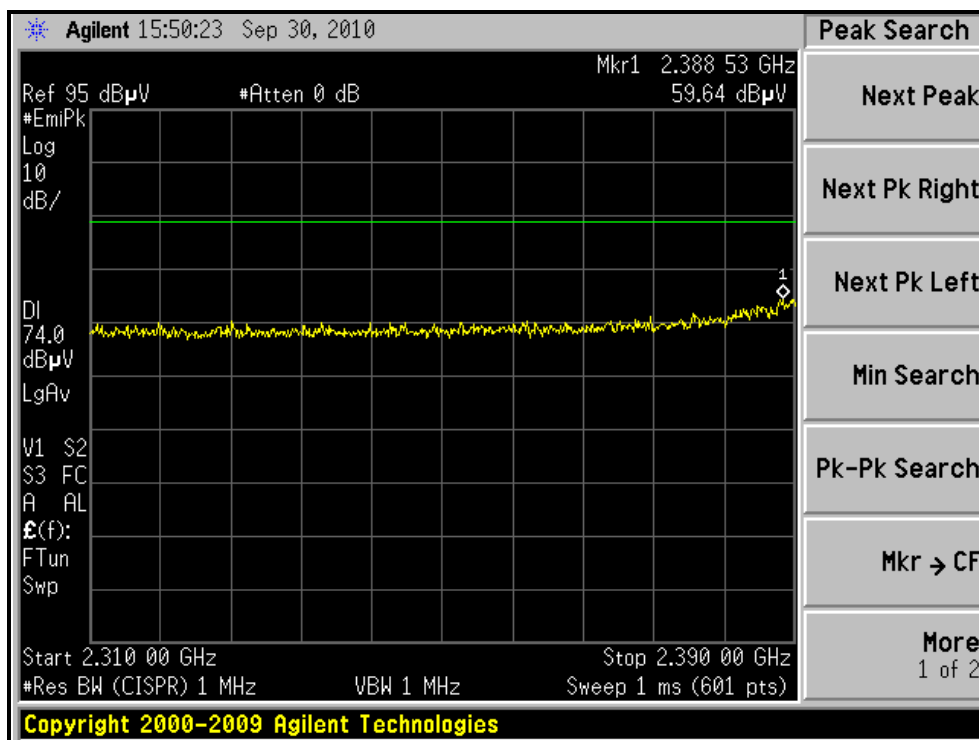
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 9dBi Dipole Antenna		

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	91.5 PK			1.04 H	62	59.64	31.86
2	*2452.00	78.1 AV			1.04 H	62	46.24	31.86
3	2487.44	60.7 PK	74.0	-13.3	1.11 H	27	28.72	31.98
4	2487.44	46.6 AV	54.0	-7.4	1.11 H	27	14.62	31.98
5	4904.00	61.0 PK	74.0	-13.0	1.02 H	216	21.76	39.24
6	4904.00	45.5 AV	54.0	-8.5	1.02 H	216	6.26	39.24
7	7356.00	54.8 PK	74.0	-19.2	1.14 H	243	8.19	46.61
8	7356.00	41.5 AV	54.0	-12.5	1.14 H	243	-5.11	46.61
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	104.0 PK			1.03 V	272	72.14	31.86
2	*2452.00	87.9 AV			1.03 V	272	56.04	31.86
3	2487.41	69.1 PK	74.0	-4.9	1.02 V	271	37.12	31.98
4	2487.41	52.3 AV	54.0	-1.7	1.02 V	271	20.32	31.98
5	4904.00	60.1 PK	74.0	-13.9	1.00 V	197	20.86	39.24
6	4904.00	44.4 AV	54.0	-9.6	1.00 V	197	5.16	39.24
7	7356.00	57.8 PK	74.0	-16.2	1.01 V	189	11.19	46.61
8	7356.00	43.9 AV	54.0	-10.1	1.01 V	189	-2.71	46.61

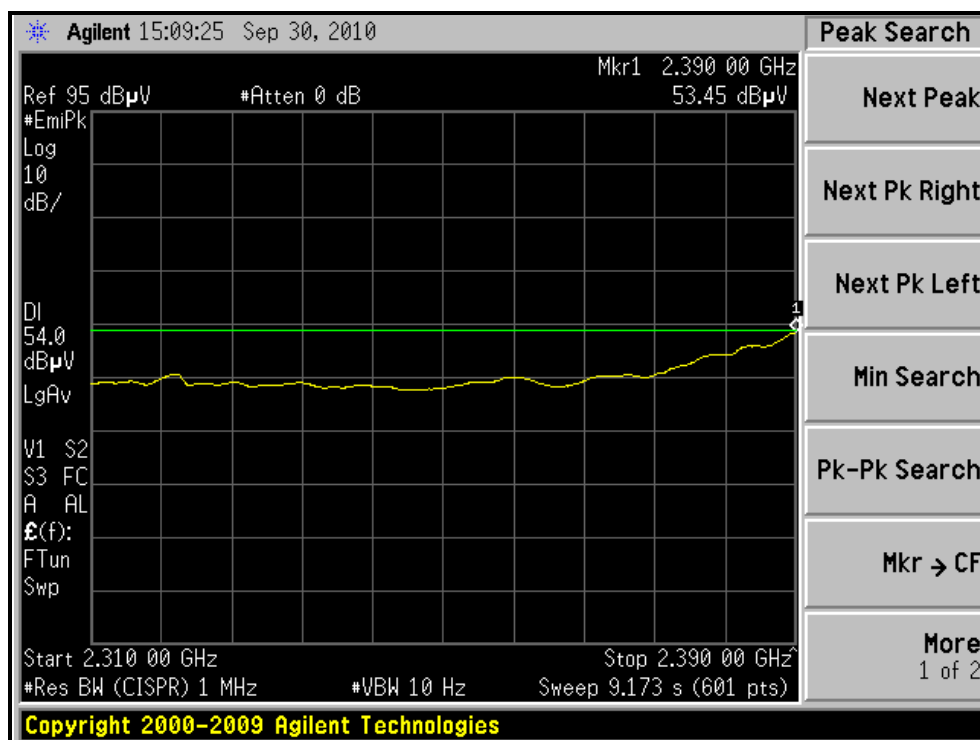
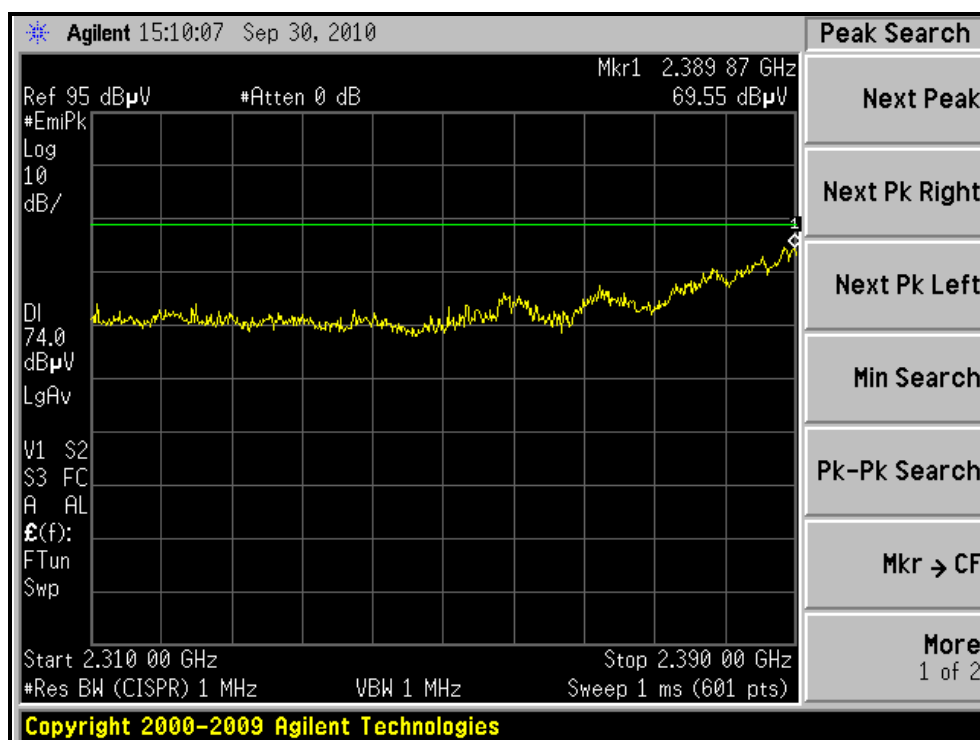
**REMARKS:** 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).  
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
3. The other emission levels were very low against the limit.  
4. Margin value = Emission level – Limit value.  
5. “ \* ”: Fundamental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



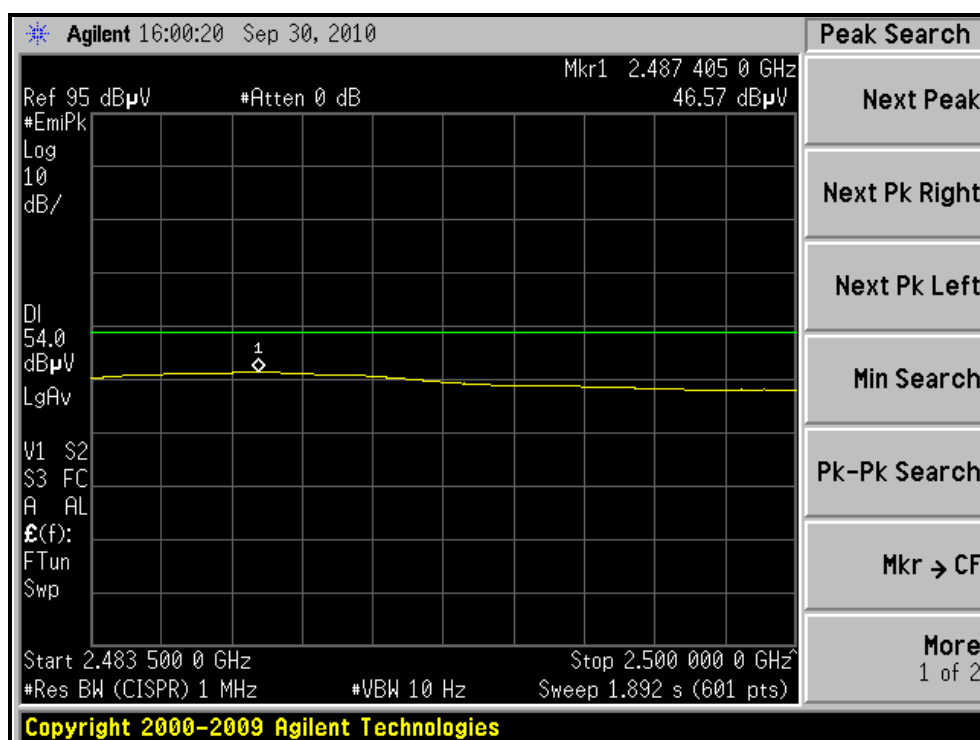
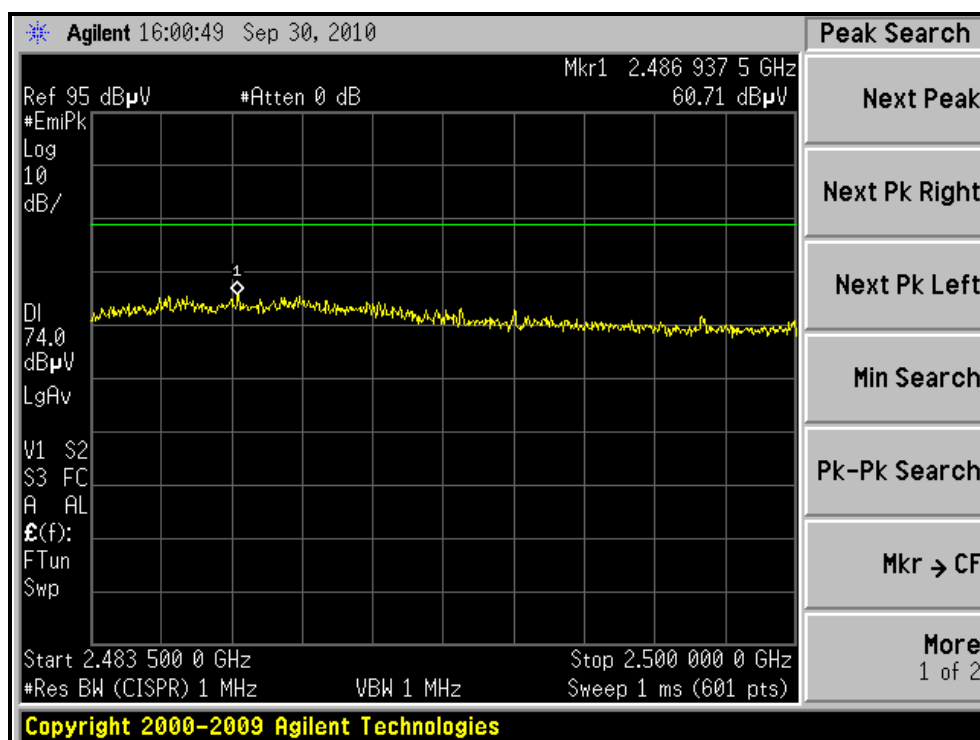
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH1, HORIZONTAL )



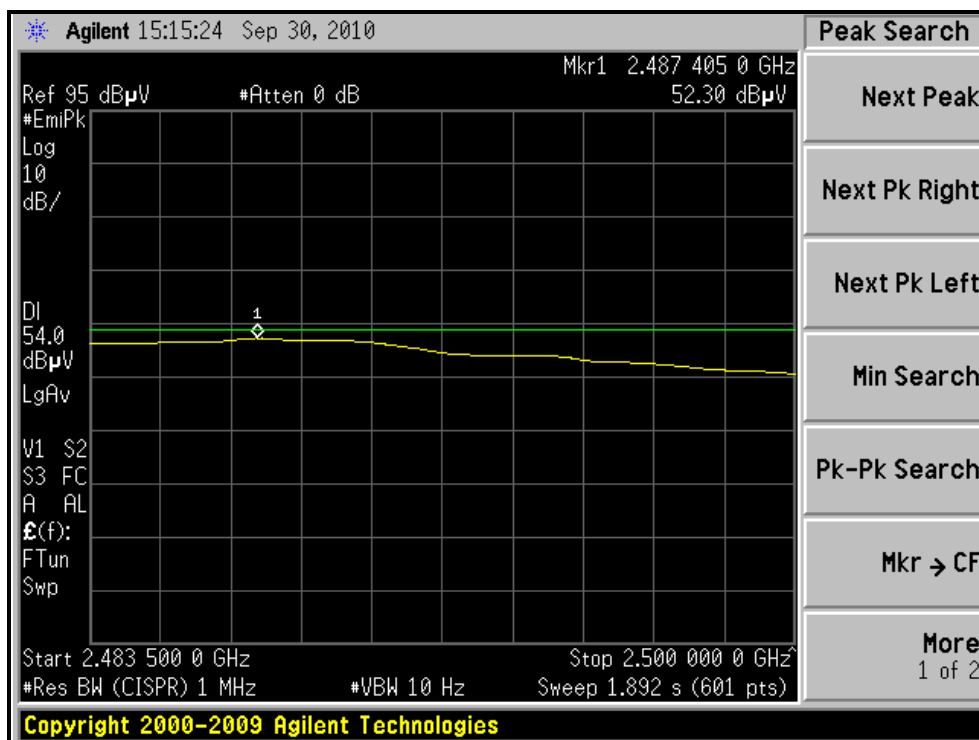
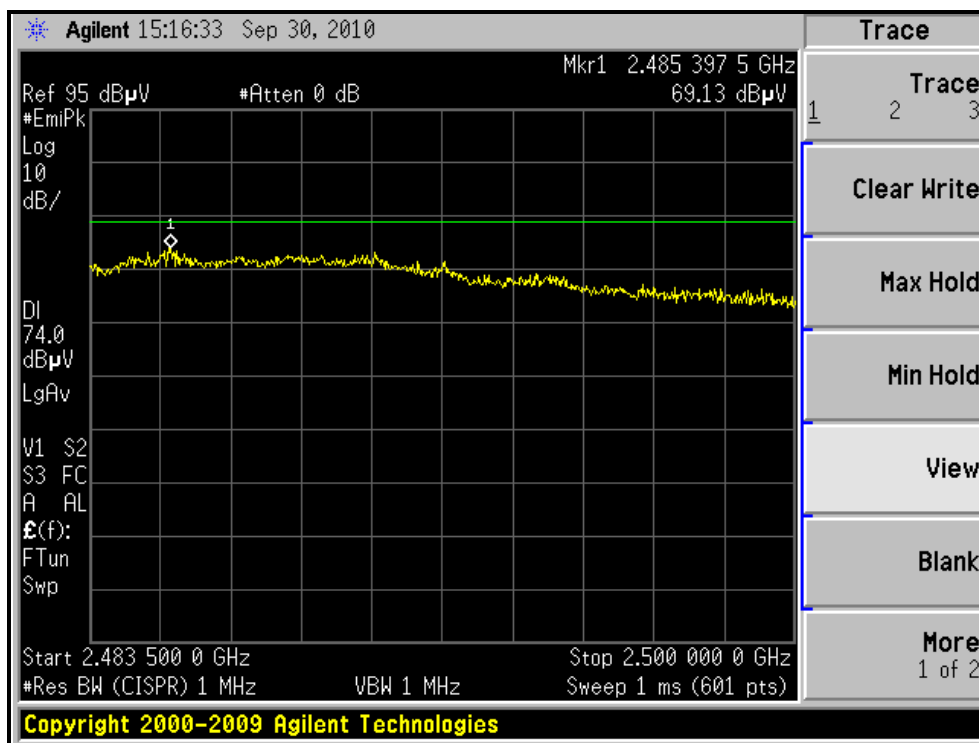
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH1, VERTICAL )



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



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



#### 4.2.8 TEST RESULTS (Panel antenna)

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	27deg. C, 72%RH 1012 hPa	TESTED BY	Rex Huang
TEST MODE	ARG-0410 with 7dBi Panel Antenna		

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	120.00	37.6 QP	43.5	-6.0	2.25 H	295	25.09	12.46
2	177.91	37.7 QP	43.5	-5.8	1.50 H	276	25.64	12.06
3	253.94	34.9 QP	46.0	-11.1	1.25 H	66	21.53	13.34
4	311.25	39.9 QP	46.0	-6.1	1.00 H	266	24.42	15.44
5	359.93	40.5 QP	46.0	-5.5	1.00 H	184	23.96	16.50
6	472.55	38.4 QP	46.0	-7.6	1.75 H	338	19.38	19.05
7	608.85	35.9 QP	46.0	-10.1	1.25 H	273	13.79	22.07
8	720.05	32.6 QP	46.0	-13.4	1.00 H	225	9.16	23.43
9	840.01	42.4 QP	46.0	-3.6	1.00 H	349	17.21	25.20
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	120.00	30.7 QP	43.5	-12.8	1.75 V	50	18.22	12.46
2	177.67	30.1 QP	43.5	-13.4	1.25 V	360	18.01	12.10
3	294.79	31.2 QP	46.0	-14.8	1.50 V	334	16.25	14.99
4	322.74	33.2 QP	46.0	-12.8	1.75 V	63	17.53	15.69
5	360.04	33.7 QP	46.0	-12.3	1.50 V	0	17.23	16.50
6	465.08	35.9 QP	46.0	-10.1	2.00 V	267	17.04	18.87
7	599.97	29.9 QP	46.0	-16.1	1.00 V	214	7.96	21.97
8	830.54	35.7 QP	46.0	-10.3	1.00 V	74	10.66	25.03
9	840.01	40.3 QP	46.0	-5.7	1.00 V	347	15.07	25.20

- 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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH 1012 hPa	TESTED BY	Frank Liu
TEST MODE	ARG-0800 with 7dBi Panel Antenna		

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	172.80	30.4 QP	43.5	-13.1	1.87 H	121	16.63	13.75
2	230.00	38.0 QP	46.0	-8.0	1.74 H	131	25.46	12.52
3	288.00	36.8 QP	46.0	-9.2	1.69 H	132	21.68	15.16
4	336.00	35.9 QP	46.0	-10.1	1.54 H	124	19.35	16.56
5	480.00	35.9 QP	46.0	-10.1	1.36 H	122	15.63	20.23
6	960.00	41.1 QP	46.0	-4.9	1.00 H	162	13.07	28.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	39.40	35.7 QP	40.0	-4.3	1.00 V	145	22.32	13.42
2	130.00	34.8 QP	43.5	-8.7	1.00 V	225	21.31	13.52
3	160.00	35.8 QP	43.5	-7.7	1.00 V	118	20.29	15.47
4	240.00	33.8 QP	46.0	-12.2	1.00 V	221	20.73	13.05
5	360.00	37.0 QP	46.0	-9.0	1.00 V	141	19.82	17.16
6	480.00	37.1 QP	46.0	-8.9	1.00 V	105	16.90	20.23

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



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## 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, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 7dBi Panel Antenna		

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	2387.33	56.5 PK	74.0	-17.5	1.00 H	252	25.29	31.21
2	2387.33	43.2 AV	54.0	-10.8	1.00 H	252	11.99	31.21
3	*2412.00	96.4 PK			1.00 H	252	65.13	31.27
4	*2412.00	93.1 AV			1.00 H	252	61.83	31.27
5	4824.00	53.2 PK	74.0	-20.8	1.40 H	247	13.78	39.42
6	4824.00	49.6 AV	54.0	-4.4	1.40 H	247	10.18	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	2389.73	55.6 PK	74.0	-18.4	1.15 V	180	24.39	31.21
2	2389.73	43.9 AV	54.0	-10.1	1.15 V	180	12.69	31.21
3	*2412.00	100.1 PK			1.15 V	181	68.83	31.27
4	*2412.00	98.0 AV			1.15 V	181	66.73	31.27
5	4824.00	54.9 PK	74.0	-19.1	1.62 V	185	15.48	39.42
6	4824.00	51.2 AV	54.0	-2.8	1.62 V	185	11.78	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, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 7dBi Panel Antenna		

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	93.5 PK			1.00 H	258	62.16	31.34
2	*2437.00	90.3 AV			1.00 H	258	58.96	31.34
3	4874.00	48.9 PK	74.0	-25.1	1.42 H	246	9.28	39.62
4	4874.00	43.5 AV	54.0	-10.5	1.42 H	246	3.88	39.62
5	7311.00	50.7 PK	74.0	-23.3	1.23 H	73	6.60	44.10
6	7311.00	39.1 AV	54.0	-14.9	1.23 H	73	-5.00	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	102.4 PK			1.15 V	180	71.06	31.34
2	*2437.00	99.6 AV			1.15 V	180	68.26	31.34
3	4874.00	52.5 PK	74.0	-21.5	1.33 V	136	12.88	39.62
4	4874.00	47.5 AV	54.0	-6.5	1.33 V	136	7.88	39.62
5	7311.00	51.7 PK	74.0	-22.3	1.58 V	29	7.60	44.10
6	7311.00	41.1 AV	54.0	-12.9	1.58 V	29	-3.00	44.10

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





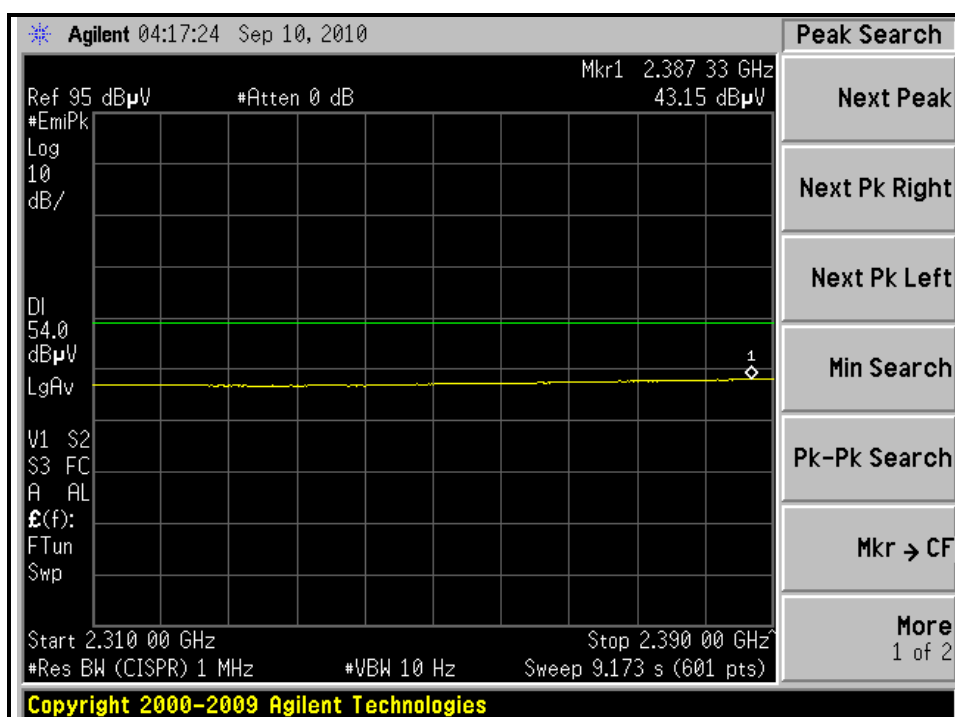
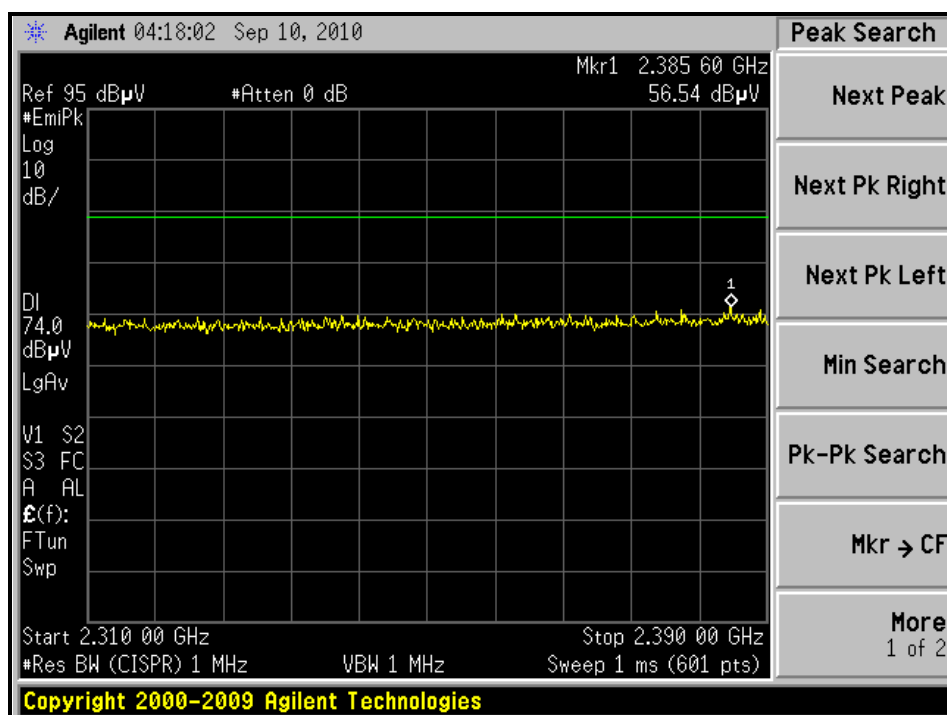
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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 7dBi Panel Antenna		

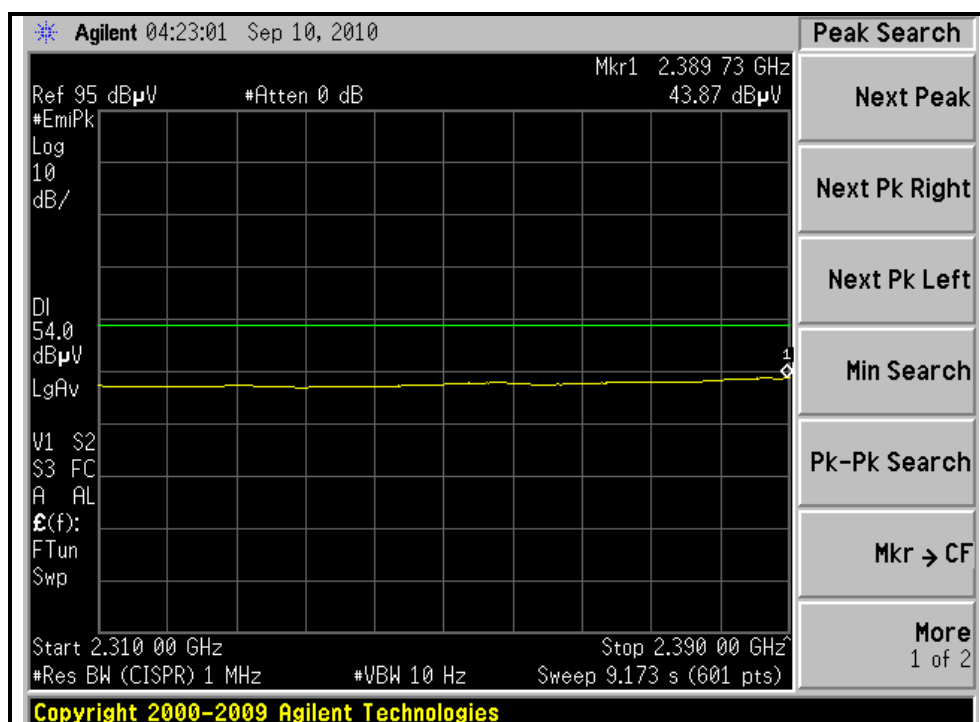
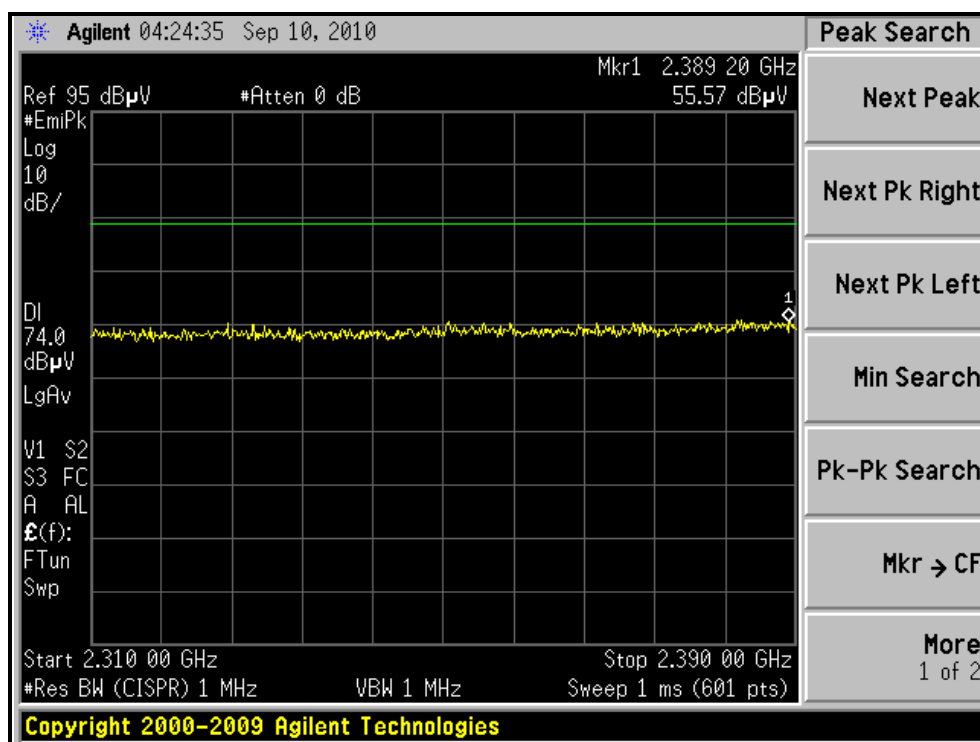
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NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	95.2 PK			1.04 H	250	63.80	31.40
2	*2462.00	92.2 AV			1.04 H	250	60.80	31.40
3	2487.68	56.2 PK	74.0	-17.8	1.01 H	251	24.73	31.47
4	2487.68	42.8 AV	54.0	-11.2	1.01 H	251	11.33	31.47
5	4924.00	48.0 PK	74.0	-26.0	1.33 H	246	8.18	39.82
6	4924.00	41.0 AV	54.0	-13.0	1.33 H	246	1.18	39.82
7	7386.00	50.2 PK	74.0	-23.8	1.22 H	76	6.02	44.18
8	7386.00	38.8 AV	54.0	-15.2	1.22 H	76	-5.38	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	103.4 PK			1.13 V	181	72.00	31.40
2	*2462.00	100.5 AV			1.13 V	181	69.10	31.40
3	2487.76	57.4 PK	74.0	-16.6	1.14 V	183	25.93	31.47
4	2487.76	44.8 AV	54.0	-9.2	1.14 V	183	13.33	31.47
5	4924.00	49.4 PK	74.0	-24.6	1.46 V	137	9.58	39.82
6	4924.00	44.0 AV	54.0	-10.0	1.46 V	137	4.18	39.82
7	7386.00	50.6 PK	74.0	-23.4	1.55 V	39	6.42	44.18
8	7386.00	39.9 AV	54.0	-14.1	1.55 V	39	-4.28	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.

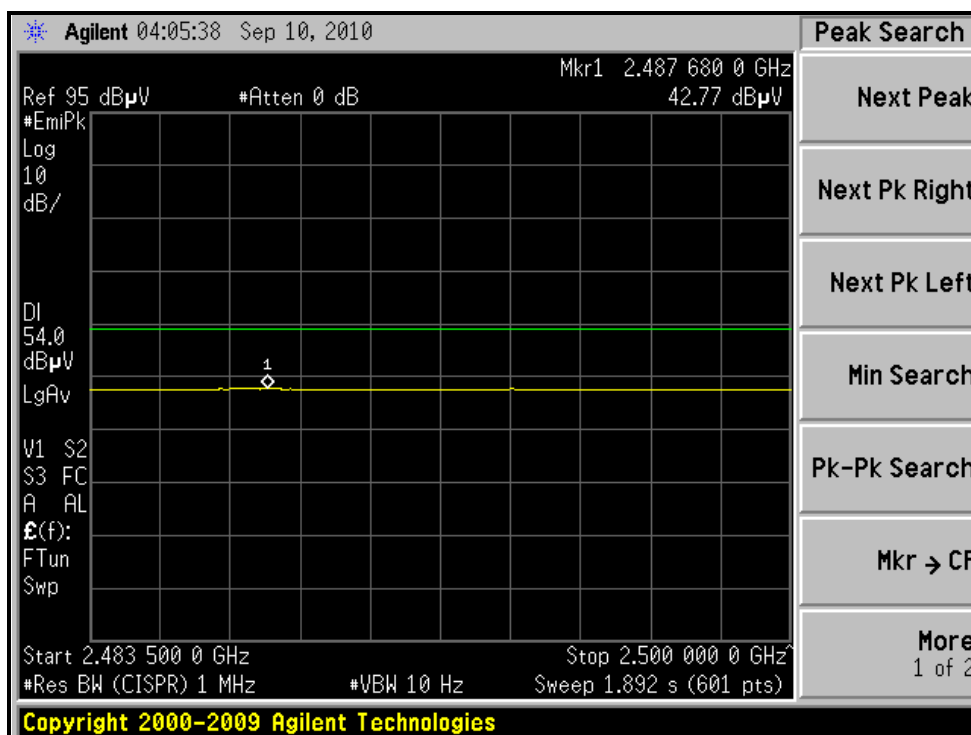
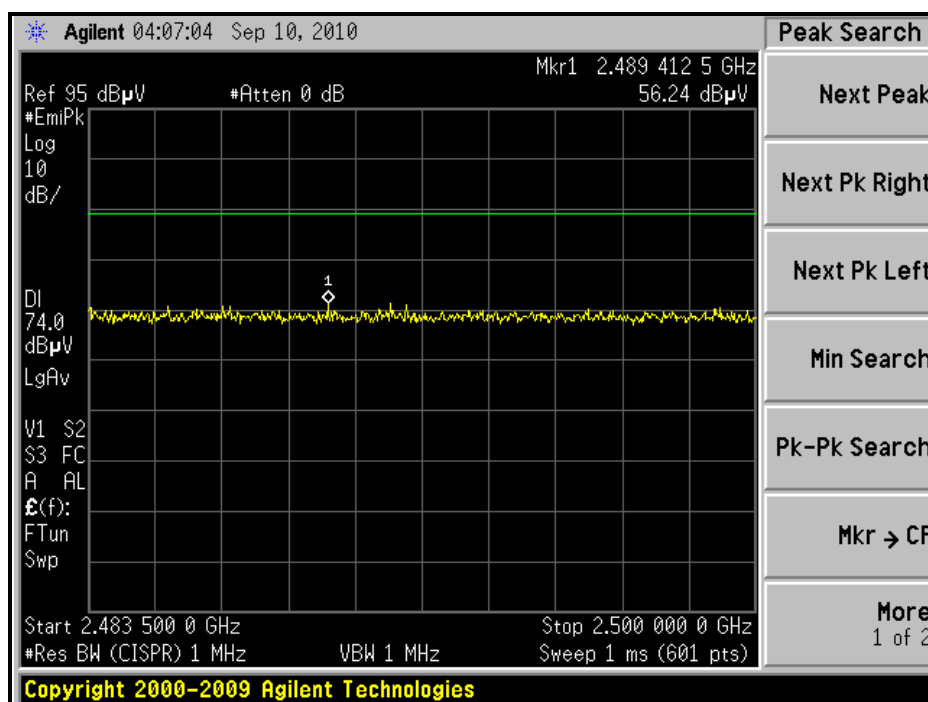
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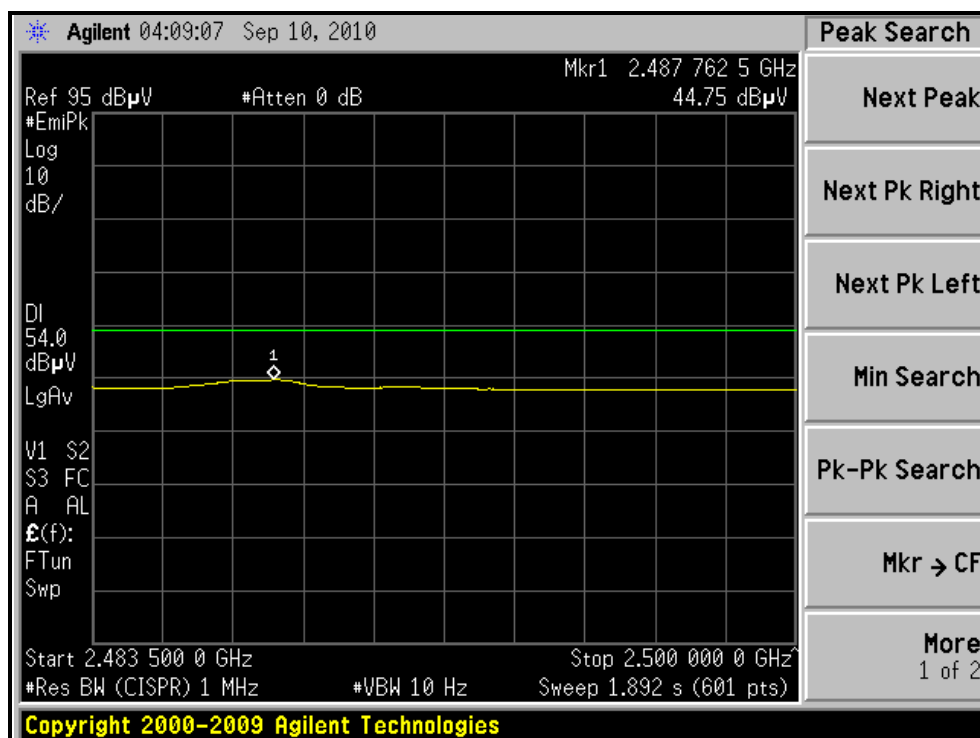
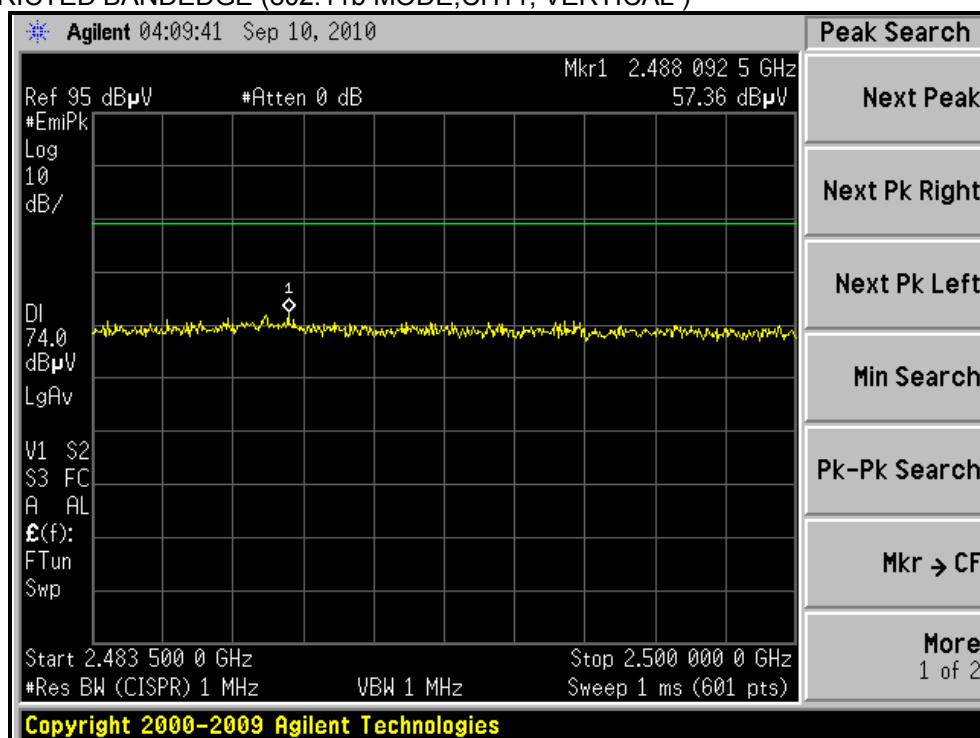
# RESTRICTED BANDEDGE (802.11b MODE,CH1, VERTICAL )



# RESTRICTED BANDEDGE (802.11b MODE,CH11, HORIZONTAL )



# RESTRICTED BANDEDGE (802.11b MODE, CH11, VERTICAL )



## 802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 7dBi Panel Antenna		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	66.1 PK	74.0	-7.9	1.02 H	83	34.89	31.21
2	2390.00	50.0 AV	54.0	-4.0	1.02 H	83	18.79	31.21
3	*2412.00	103.8 PK			1.02 H	82	72.53	31.27
4	*2412.00	90.5 AV			1.02 H	82	59.23	31.27
5	4824.00	53.6 PK	74.0	-20.4	1.43 H	246	14.18	39.42
6	4824.00	39.7 AV	54.0	-14.3	1.43 H	246	0.28	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	70.0 PK	74.0	-4.0	1.16 V	190	38.79	31.21
2	2390.00	53.1 AV	54.0	-0.9	1.16 V	190	21.89	31.21
3	*2412.00	106.8 PK			1.16 V	193	75.53	31.27
4	*2412.00	93.8 AV			1.16 V	193	62.53	31.27
5	4824.00	55.9 PK	74.0	-18.1	1.33 V	137	16.48	39.42
6	4824.00	42.3 AV	54.0	-11.7	1.33 V	137	2.88	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, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 7dBi Panel Antenna		

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			1.00 H	256	72.26	31.34
2	*2437.00	90.4 AV			1.00 H	256	59.06	31.34
3	4874.00	54.3 PK	74.0	-19.7	1.38 H	114	14.68	39.62
4	4874.00	39.9 AV	54.0	-14.1	1.38 H	114	0.28	39.62
5	7311.00	58.9 PK	74.0	-15.1	1.41 H	142	14.80	44.10
6	7311.00	45.3 AV	54.0	-8.7	1.41 H	142	1.20	44.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	109.4 PK			1.15 V	182	78.06	31.34
2	*2437.00	95.8 AV			1.15 V	182	64.46	31.34
3	2484.80	61.0 PK	74.0	-13.0	1.17 V	191	29.54	31.46
4	2484.80	50.3 AV	54.0	-3.7	1.17 V	191	18.84	31.46
5	4874.00	56.0 PK	74.0	-18.0	1.33 V	137	16.38	39.62
6	4874.00	42.5 AV	54.0	-11.5	1.33 V	137	2.88	39.62
7	7311.00	64.3 PK	74.0	-9.7	1.33 V	138	20.20	44.10
8	7311.00	49.5 AV	54.0	-4.5	1.33 V	138	5.40	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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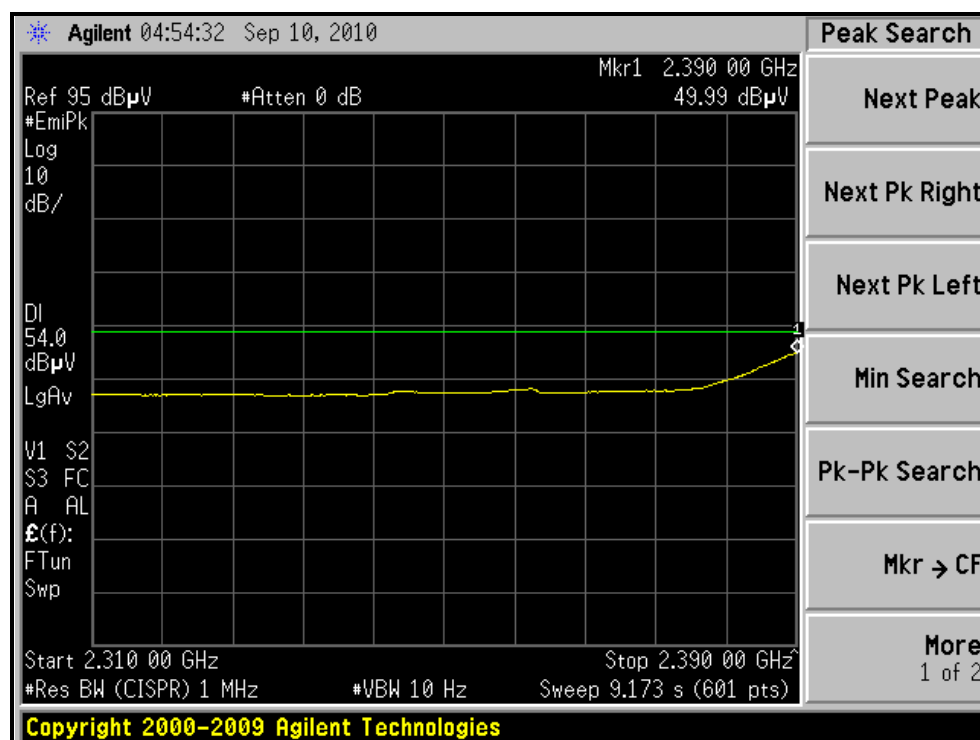
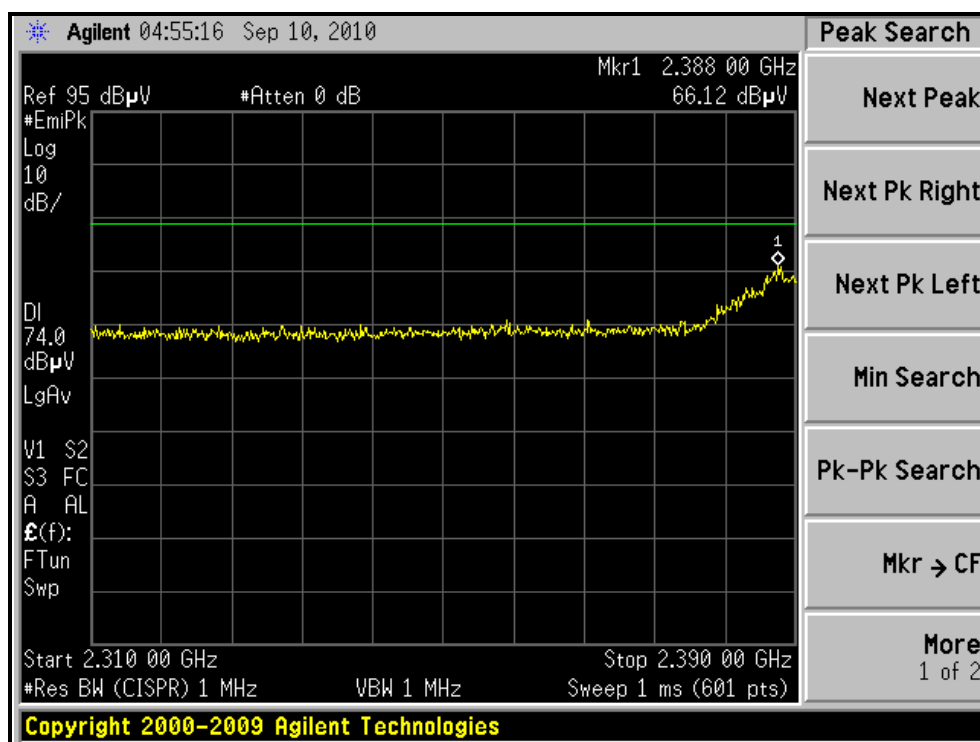
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 7dBi Panel Antenna		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	99.0 PK			1.04 H	251	67.60	31.40
2	*2462.00	87.0 AV			1.04 H	251	55.60	31.40
3	2483.58	63.3 PK	74.0	-10.7	1.00 H	250	31.84	31.46
4	2483.58	47.5 AV	54.0	-6.5	1.00 H	250	16.04	31.46
5	4924.00	54.6 PK	74.0	-19.4	1.33 H	116	14.78	39.82
6	4924.00	40.3 AV	54.0	-13.7	1.33 H	116	0.48	39.82
7	7386.00	58.5 PK	74.0	-15.5	1.30 H	113	14.32	44.18
8	7386.00	45.2 AV	54.0	-8.8	1.30 H	113	1.02	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	108.8 PK			1.13 V	184	77.40	31.40
2	*2462.00	95.1 AV			1.13 V	184	63.70	31.40
3	2483.50	70.0 PK	74.0	-4.0	1.13 V	183	38.54	31.46
4	2483.50	52.9 AV	54.0	-1.1	1.13 V	183	21.44	31.46
5	4924.00	54.5 PK	74.0	-19.5	1.31 V	138	14.68	39.82
6	4924.00	40.3 AV	54.0	-13.7	1.31 V	138	0.48	39.82
7	7386.00	62.7 PK	74.0	-11.3	1.22 V	138	18.52	44.18
8	7386.00	48.6 AV	54.0	-5.4	1.22 V	138	4.42	44.18

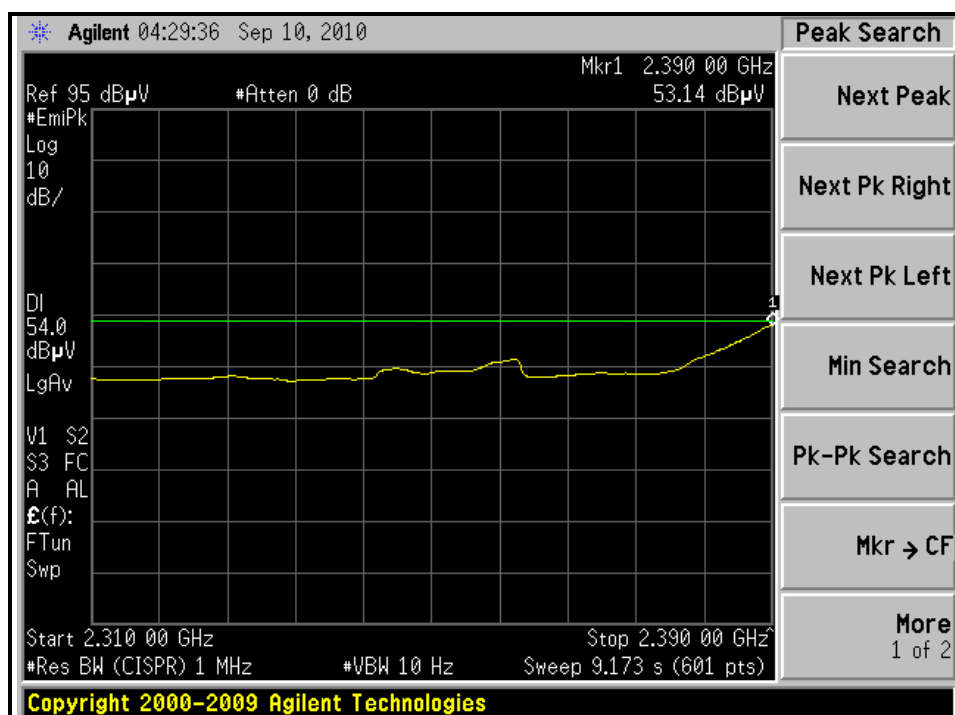
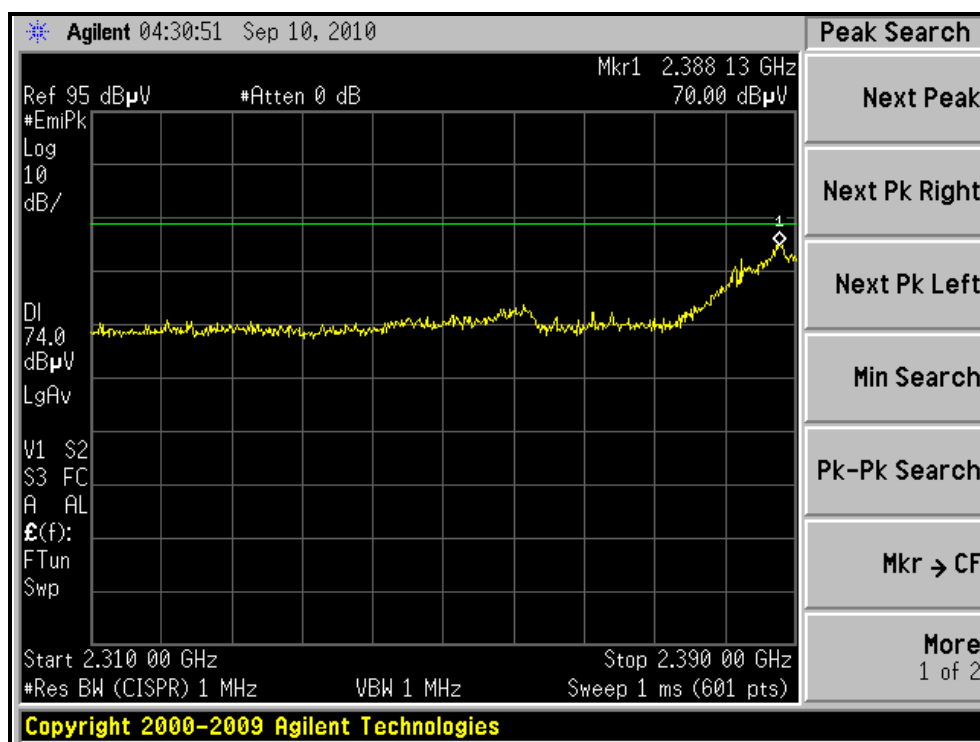
- REMARKS:** 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).  
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).  
3. The other emission levels were very low against the limit.  
4. Margin value = Emission level – Limit value.  
5. “ \* ”: Fundamental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



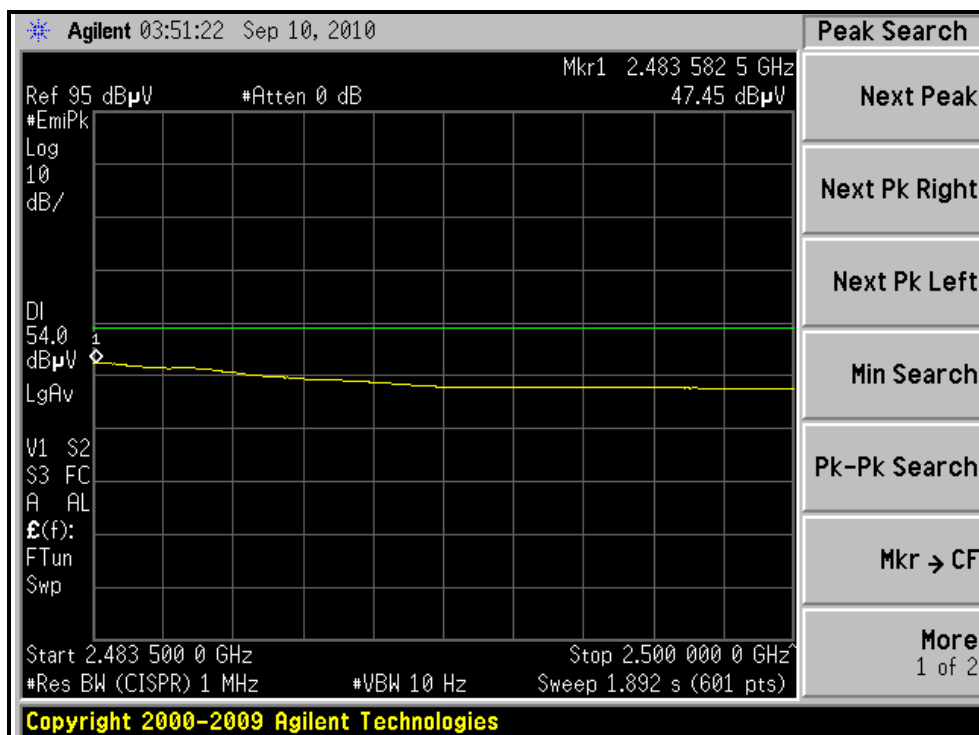
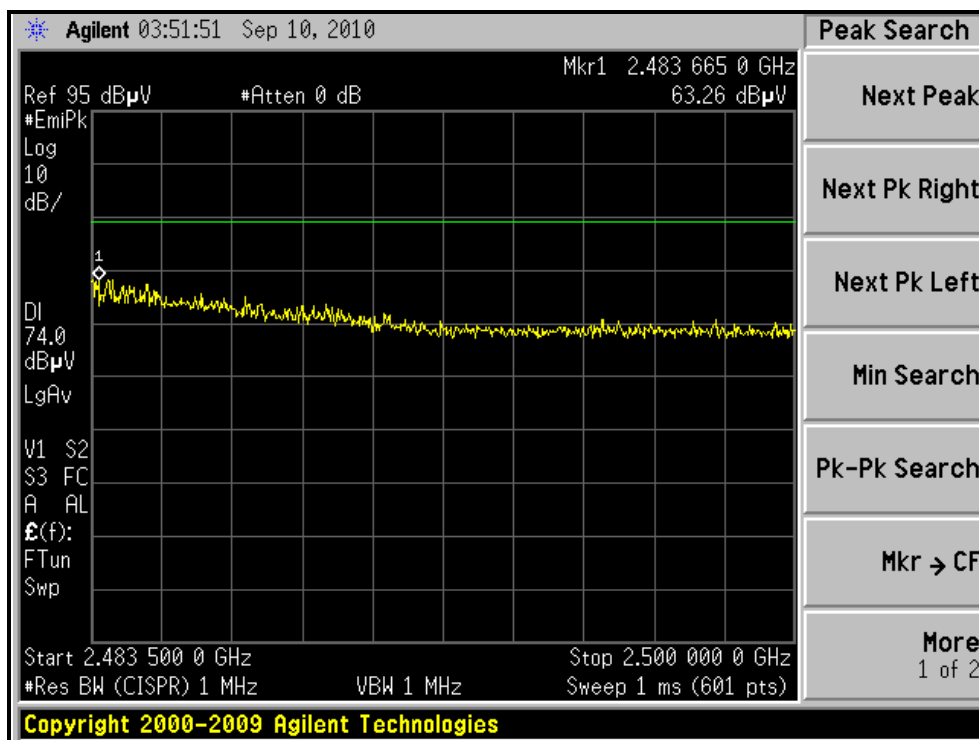
# RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL )



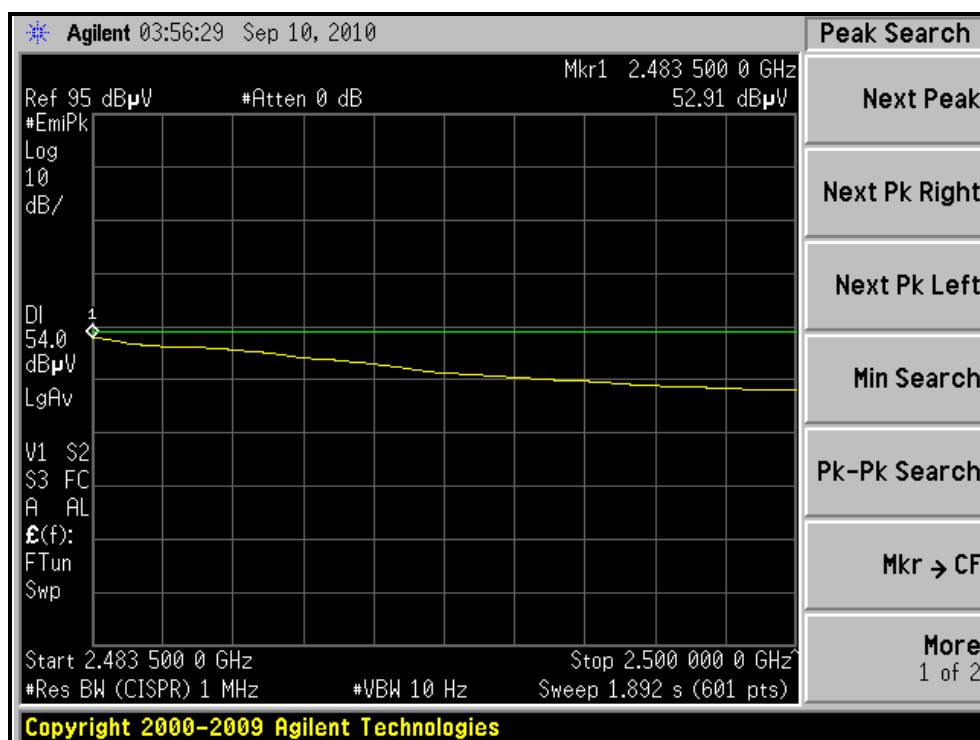
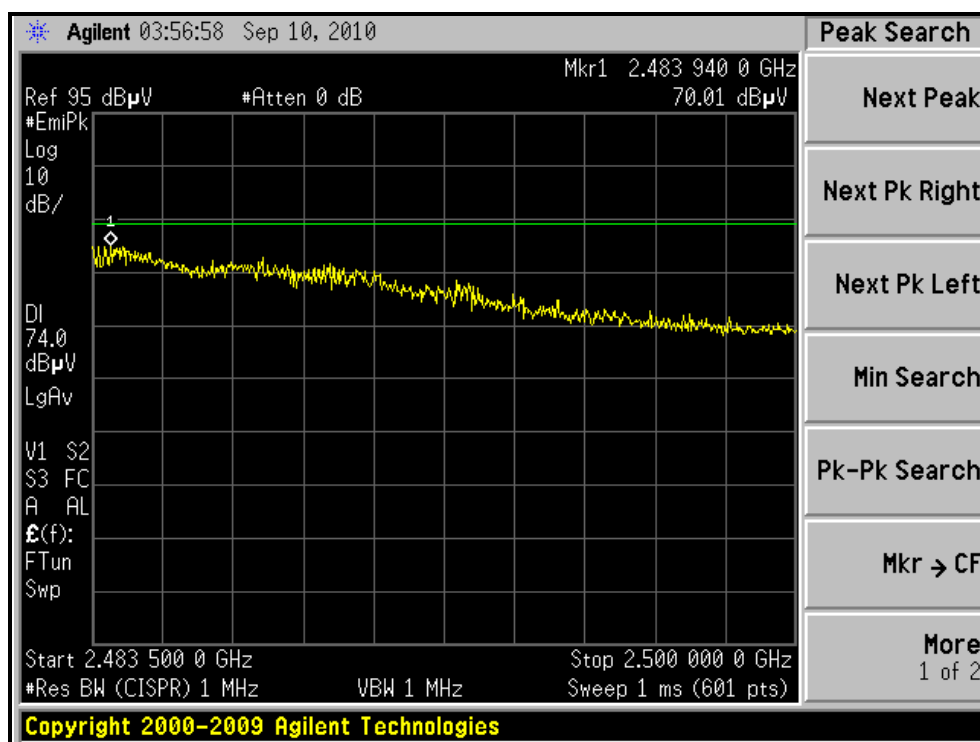
# RESTRICTED BANDEDGE (802.11g MODE,CH1, VERTICAL )



# RESTRICTED BANDEDGE (802.11g MODE,CH11, HORIZONTAL )



# RESTRICTED BANDEDGE (802.11g MODE,CH11, VERTICAL )





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**802.11n (20MHz) OFDM MODULATION**

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 7dBi Panel Antenna		

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2389.87	68.3 PK	74.0	-5.7	1.01 H	82	37.09	31.21
2	2389.87	50.1 AV	54.0	-3.9	1.01 H	82	18.89	31.21
3	*2412.00	102.5 PK			1.01 H	81	71.23	31.27
4	*2412.00	89.5 AV			1.01 H	81	58.23	31.27
5	4824.00	51.0 PK	74.0	-23.0	1.40 H	249	11.58	39.42
6	4824.00	37.9 AV	54.0	-16.1	1.40 H	249	-1.52	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	71.8 PK	74.0	-2.2	1.16 V	191	40.59	31.21
2	2390.00	53.4 AV	54.0	-0.6	1.16 V	191	22.19	31.21
3	*2412.00	106.0 PK			1.15 V	190	74.73	31.27
4	*2412.00	92.7 AV			1.15 V	190	61.43	31.27
5	4824.00	54.9 PK	74.0	-19.1	1.32 V	136	15.48	39.42
6	4824.00	41.0 AV	54.0	-13.0	1.32 V	136	1.58	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, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 7dBi Panel Antenna		

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			1.00 H	250	72.26	31.34
2	*2437.00	90.4 AV			1.00 H	250	59.06	31.34
3	4874.00	53.8 PK	74.0	-20.2	1.36 H	116	14.18	39.62
4	4874.00	39.6 AV	54.0	-14.4	1.36 H	116	-0.02	39.62
5	7311.00	58.3 PK	74.0	-15.7	1.40 H	140	14.20	44.10
6	7311.00	45.0 AV	54.0	-9.0	1.40 H	140	0.90	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	108.7 PK			1.15 V	183	77.36	31.34
2	*2437.00	95.0 AV			1.15 V	183	63.66	31.34
3	4874.00	55.7 PK	74.0	-18.3	1.33 V	137	16.08	39.62
4	4874.00	42.3 AV	54.0	-11.7	1.33 V	137	2.68	39.62
5	7311.00	64.0 PK	74.0	-10.0	1.34 V	139	19.90	44.10
6	7311.00	49.1 AV	54.0	-4.9	1.34 V	139	5.00	44.10

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



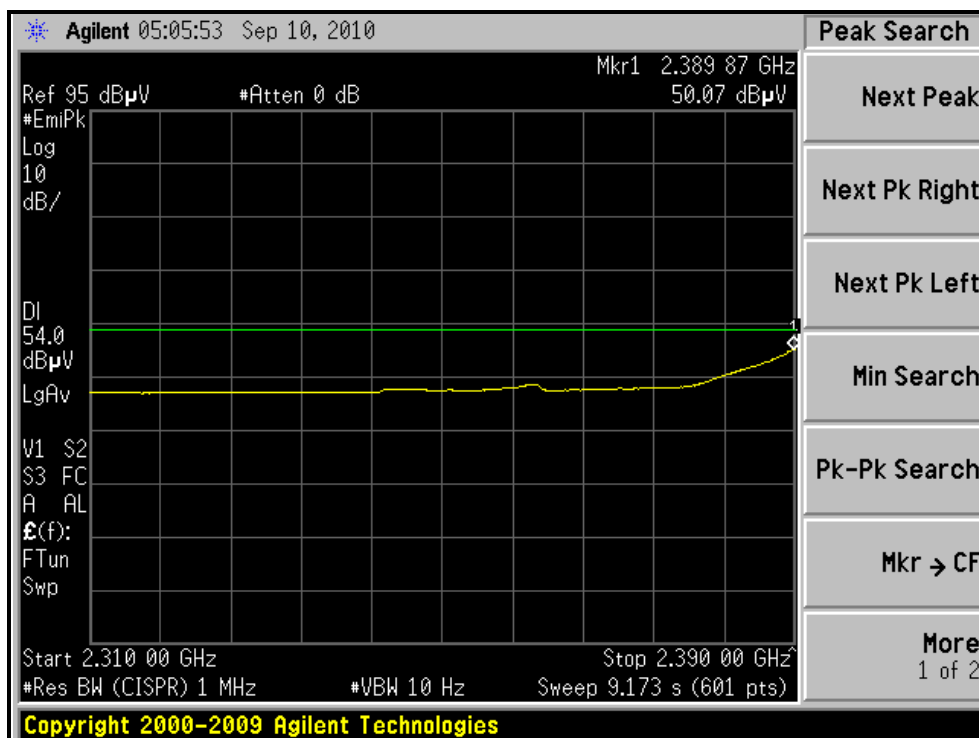
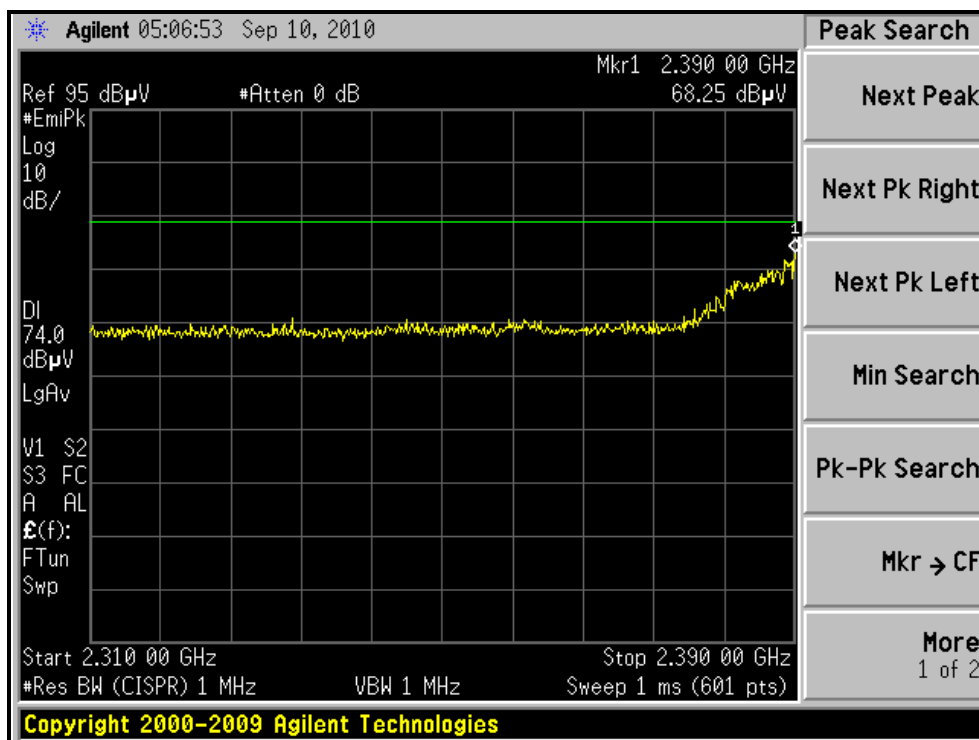
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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 7dBi Panel Antenna		

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	101.0 PK			1.00 H	251	69.60	31.40
2	*2462.00	88.2 AV			1.00 H	251	56.80	31.40
3	2483.91	62.6 PK	74.0	-11.4	1.00 H	251	31.14	31.46
4	2483.91	46.8 AV	54.0	-7.2	1.00 H	251	15.34	31.46
5	4924.00	54.3 PK	74.0	-19.7	1.35 H	114	14.48	39.82
6	4924.00	40.0 AV	54.0	-14.0	1.35 H	114	0.18	39.82
7	7386.00	58.2 PK	74.0	-15.8	1.30 H	115	14.02	44.18
8	7386.00	45.1 AV	54.0	-8.9	1.30 H	115	0.92	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	108.5 PK			1.13 V	183	77.10	31.40
2	*2462.00	94.9 AV			1.13 V	183	63.50	31.40
3	2483.50	70.1 PK	74.0	-3.9	1.13 V	183	38.64	31.46
4	2483.50	53.1 AV	54.0	-0.9	1.13 V	183	21.64	31.46
5	4924.00	54.5 PK	74.0	-19.5	1.33 V	140	14.68	39.82
6	4924.00	40.1 AV	54.0	-13.9	1.33 V	140	0.28	39.82
7	7386.00	62.1 PK	74.0	-11.9	1.24 V	137	17.92	44.18
8	7386.00	48.4 AV	54.0	-5.6	1.24 V	137	4.22	44.18

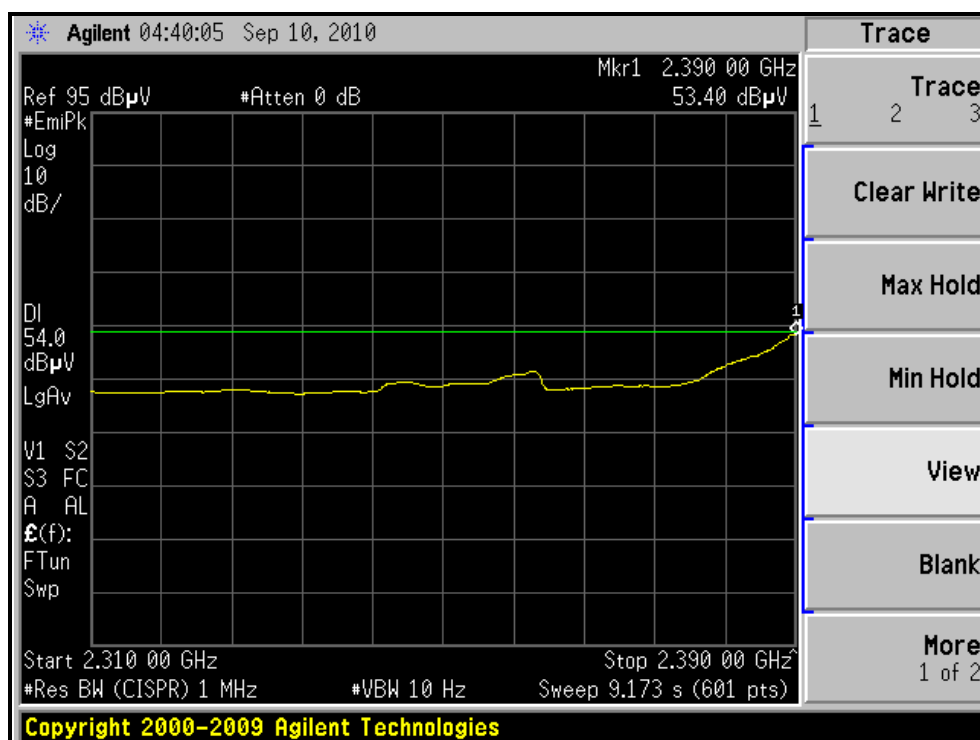
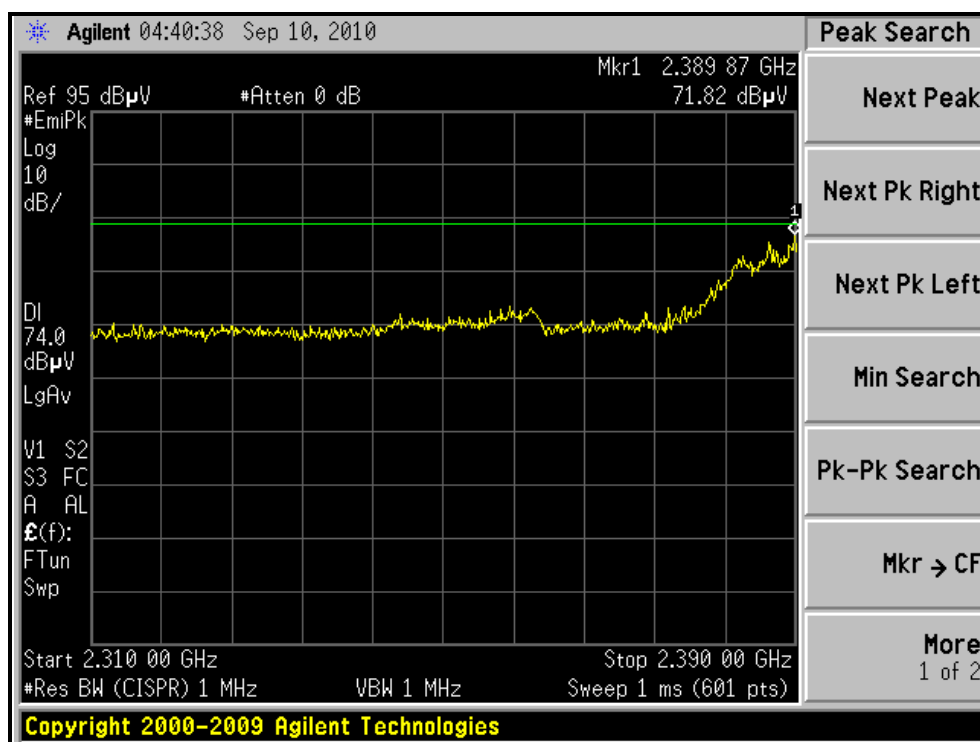
- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* ”: Fundamental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

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

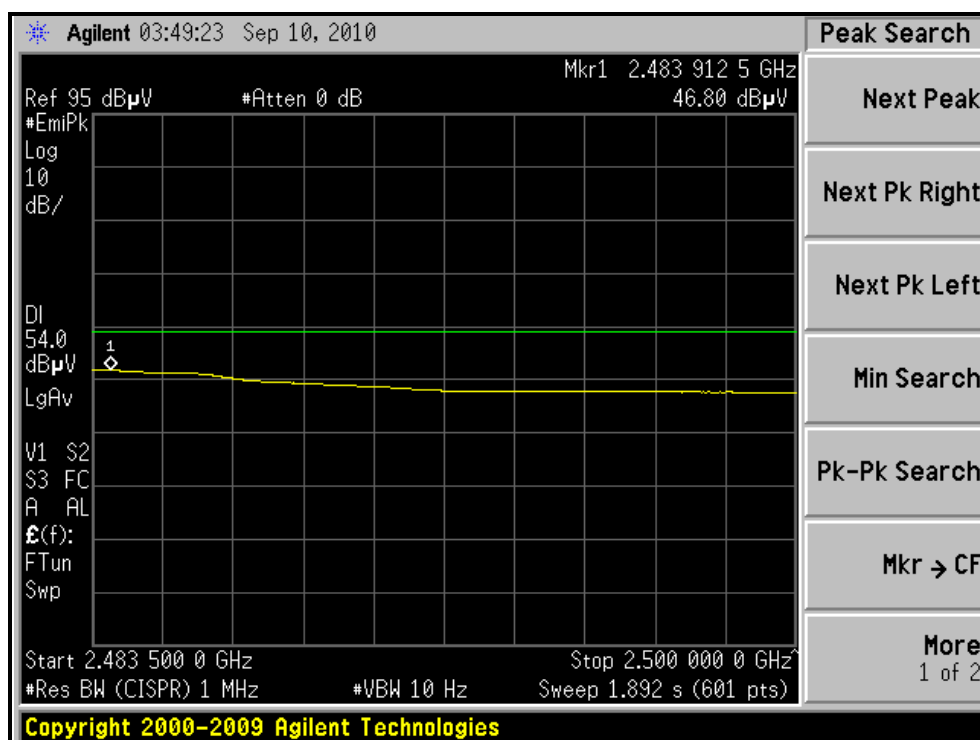
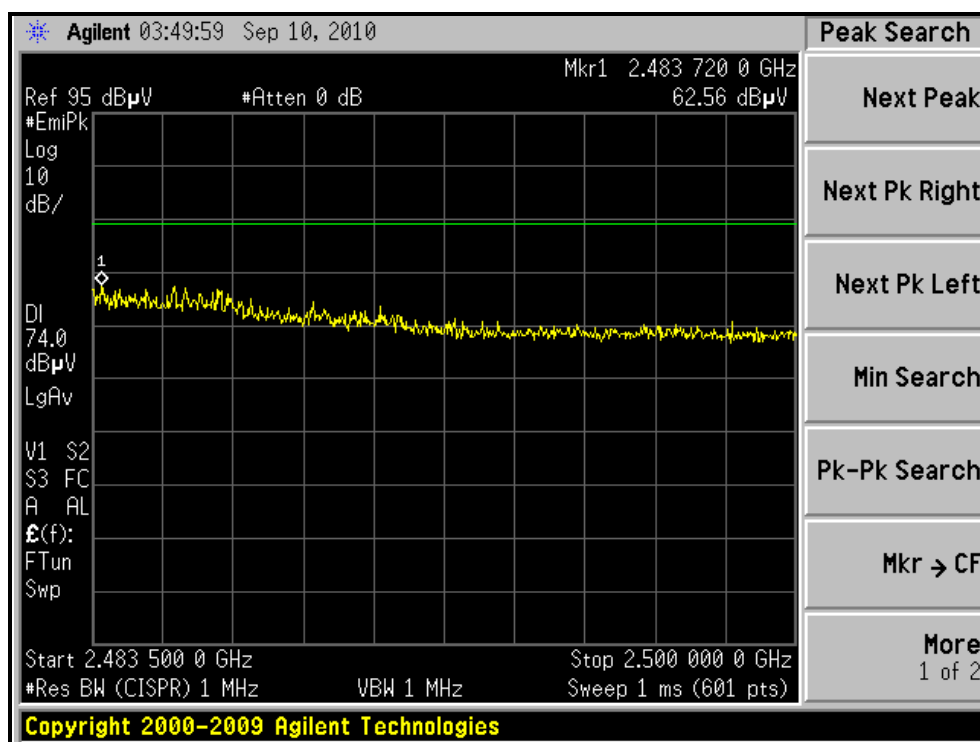




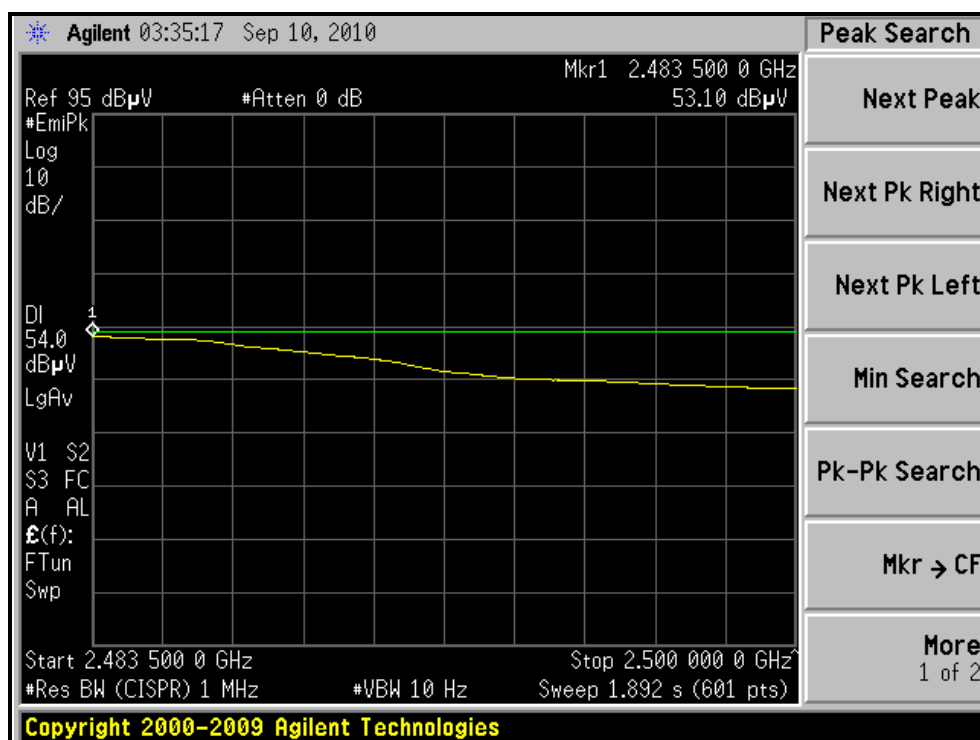
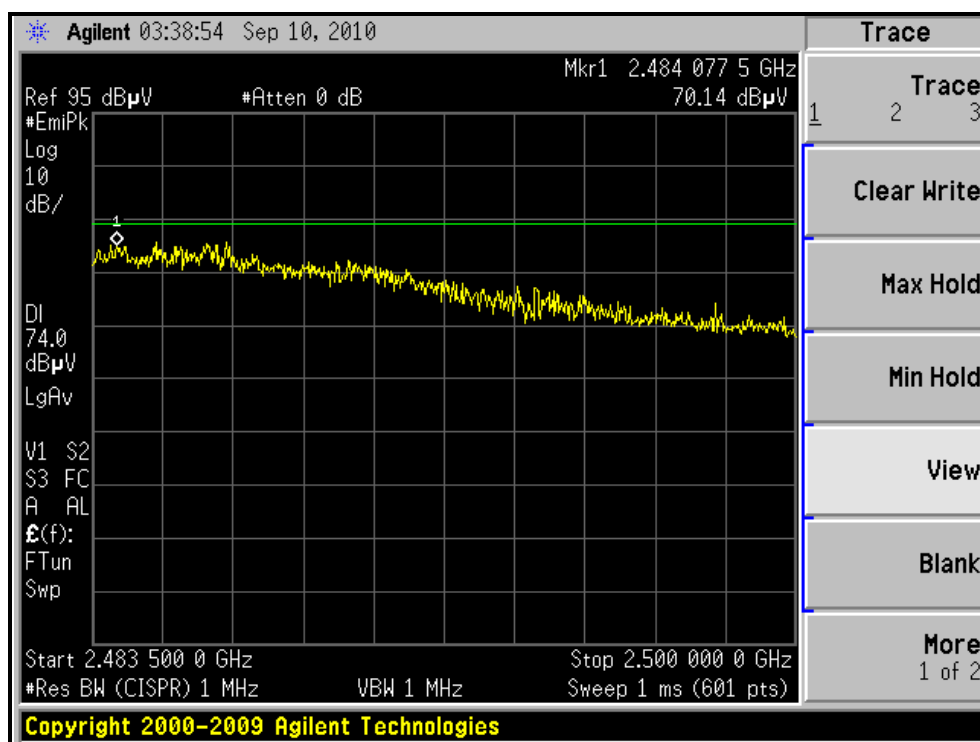
# RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, VERTICAL )



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



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





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**802.11n (40MHz) OFDM MODULATION**

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 7dBi Panel Antenna		

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2389.87	64.4 PK	74.0	-9.6	1.00 H	83	33.19	31.21
2	2389.87	47.4 AV	54.0	-6.6	1.00 H	83	16.19	31.21
3	*2422.00	98.0 PK			1.01 H	84	66.70	31.30
4	*2422.00	83.3 AV			1.01 H	84	52.00	31.30
5	4844.00	48.6 PK	74.0	-25.4	1.36 H	245	9.10	39.50
6	4844.00	35.8 AV	54.0	-18.2	1.36 H	245	-3.70	39.50
7	7266.00	52.3 PK	74.0	-21.7	1.40 H	124	8.24	44.06
8	7266.00	38.8 AV	54.0	-15.2	1.40 H	124	-5.26	44.06

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2389.73	68.8 PK	74.0	-5.2	1.16 V	191	37.59	31.21
2	2389.73	51.2 AV	54.0	-2.8	1.16 V	191	19.99	31.21
3	*2422.00	102.3 PK			1.17 V	180	71.00	31.30
4	*2422.00	86.8 AV			1.17 V	180	55.50	31.30
5	4844.00	49.0 PK	74.0	-25.0	1.33 V	139	9.50	39.50
6	4844.00	36.0 AV	54.0	-18.0	1.33 V	139	-3.50	39.50
7	7266.00	54.0 PK	74.0	-20.0	1.36 V	136	9.94	44.06
8	7266.00	40.6 AV	54.0	-13.4	1.36 V	136	-3.46	44.06

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 7dBi Panel Antenna		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	100.6 PK			1.00 H	85	69.26	31.34
2	*2437.00	85.4 AV			1.00 H	85	54.06	31.34
3	4874.00	53.9 PK	74.0	-20.1	1.37 H	115	14.28	39.62
4	4874.00	38.9 AV	54.0	-15.1	1.37 H	115	-0.72	39.62
5	7311.00	56.0 PK	74.0	-18.0	1.42 H	140	11.90	44.10
6	7311.00	43.3 AV	54.0	-10.7	1.42 H	140	-0.80	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	2389.33	68.9 PK	74.0	-5.1	1.17 V	193	37.69	31.21
2	2389.33	53.0 AV	54.0	-1.0	1.17 V	193	21.79	31.21
3	*2437.00	106.4 PK			1.15 V	198	75.06	31.34
4	*2437.00	89.9 AV			1.15 V	198	58.56	31.34
5	2483.56	67.8 PK	74.0	-6.2	1.13 V	186	36.34	31.46
6	2483.56	52.3 AV	54.0	-1.7	1.13 V	186	20.84	31.46
7	4874.00	54.2 PK	74.0	-19.8	1.33 V	140	14.58	39.62
8	4874.00	40.1 AV	54.0	-13.9	1.33 V	140	0.48	39.62
9	7311.00	60.7 PK	74.0	-13.3	1.15 V	134	16.60	44.10
10	7311.00	46.3 AV	54.0	-7.7	1.15 V	134	2.20	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.



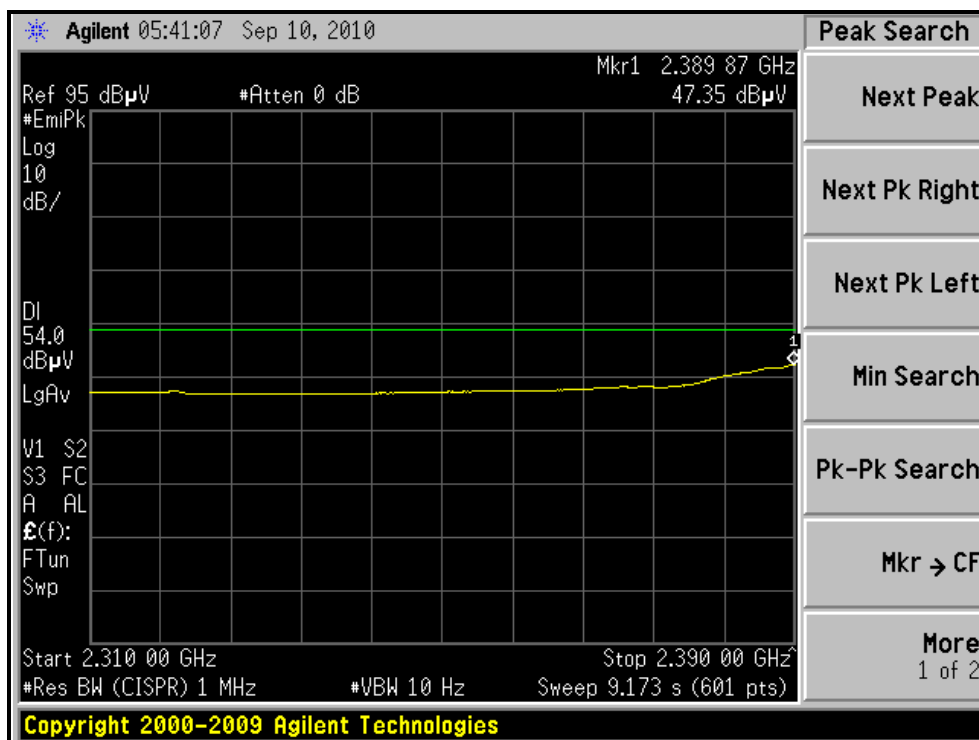
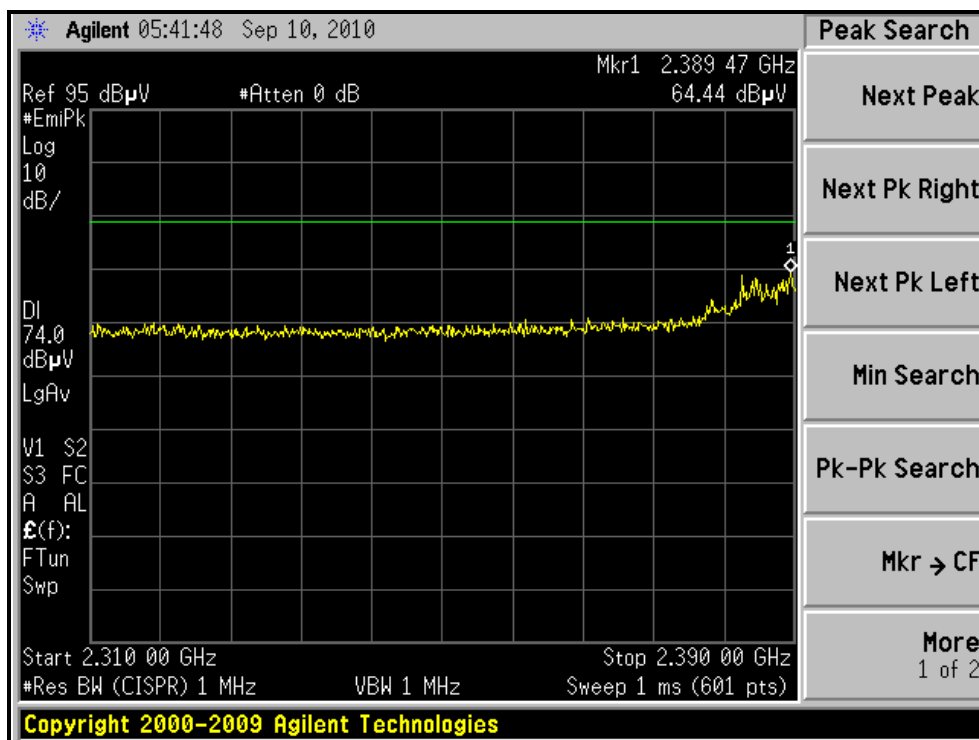
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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 66%RH 1012 hPa	TESTED BY	Duke Tseng
TEST MODE	ARG-0800 with 7dBi Panel Antenna		

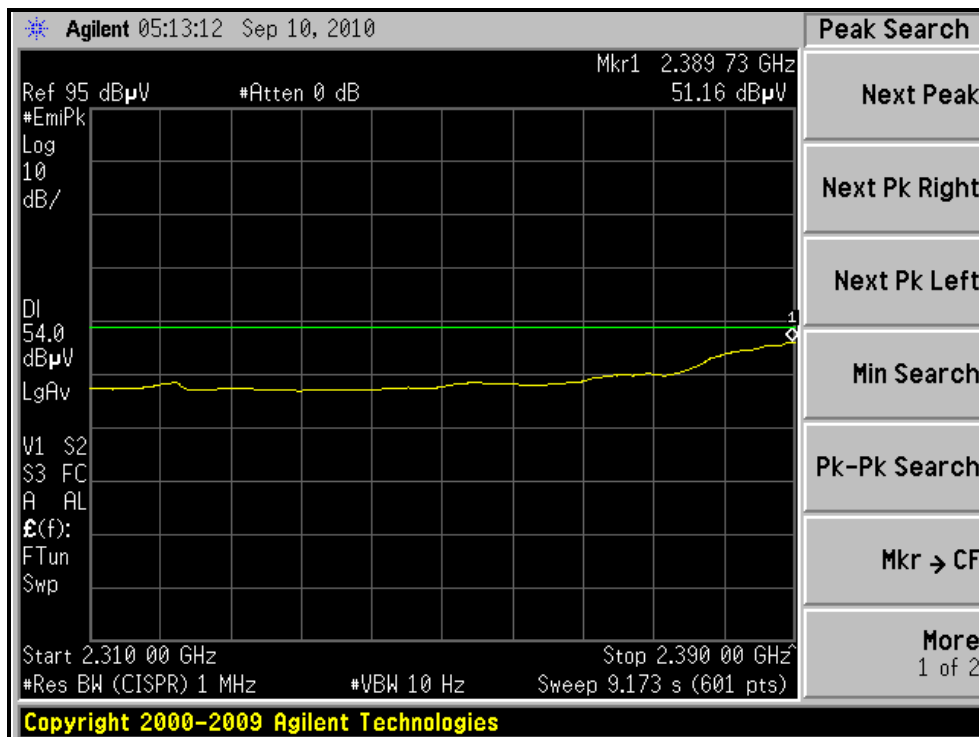
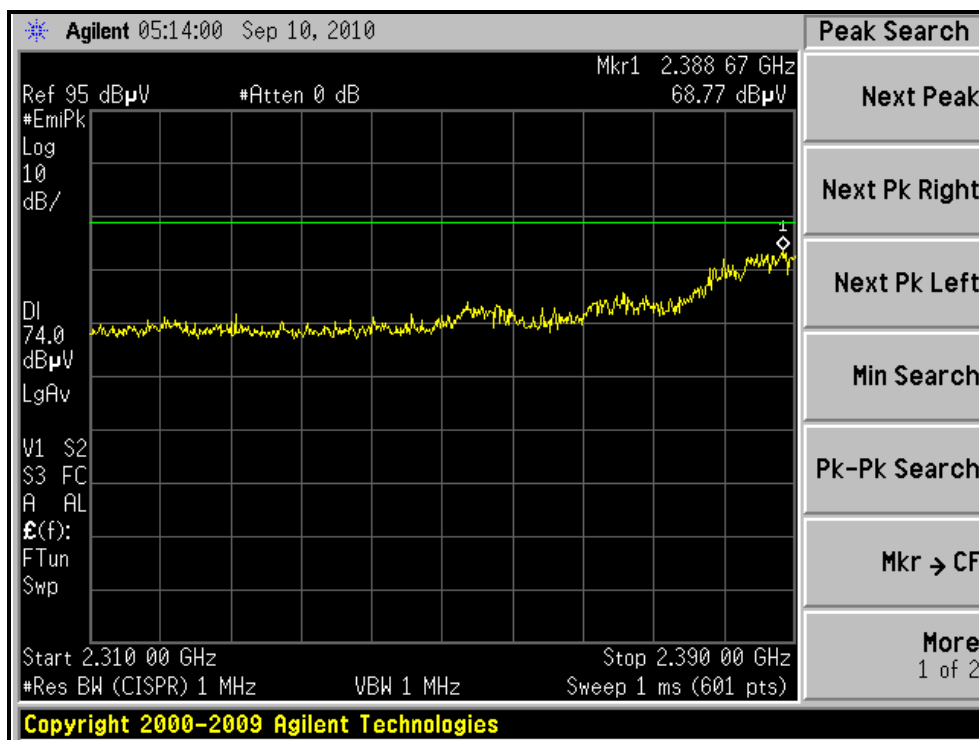
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	96.5 PK			1.00 H	83	65.12	31.38
2	*2452.00	81.6 AV			1.00 H	83	50.22	31.38
3	2483.50	59.9 PK	74.0	-14.1	1.00 H	250	28.44	31.46
4	2483.50	45.7 AV	54.0	-8.3	1.00 H	250	14.24	31.46
5	4904.00	48.0 PK	74.0	-26.0	1.35 H	115	8.26	39.74
6	4904.00	35.5 AV	54.0	-18.5	1.35 H	115	-4.24	39.74
7	7356.00	52.2 PK	74.0	-21.8	1.30 H	116	8.05	44.15
8	7356.00	38.7 AV	54.0	-15.3	1.30 H	116	-5.45	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	102.7 PK			1.14 V	197	71.32	31.38
2	*2452.00	87.0 AV			1.14 V	197	55.62	31.38
3	2483.53	67.1 PK	74.0	-6.9	1.13 V	185	35.64	31.46
4	2483.53	51.0 AV	54.0	-3.0	1.13 V	185	19.54	31.46
5	4904.00	47.9 PK	74.0	-26.1	1.30 V	139	8.16	39.74
6	4904.00	35.5 AV	54.0	-18.5	1.30 V	139	-4.24	39.74
7	7356.00	54.1 PK	74.0	-19.9	1.23 V	140	9.95	44.15
8	7356.00	40.5 AV	54.0	-13.5	1.23 V	140	-3.65	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 )

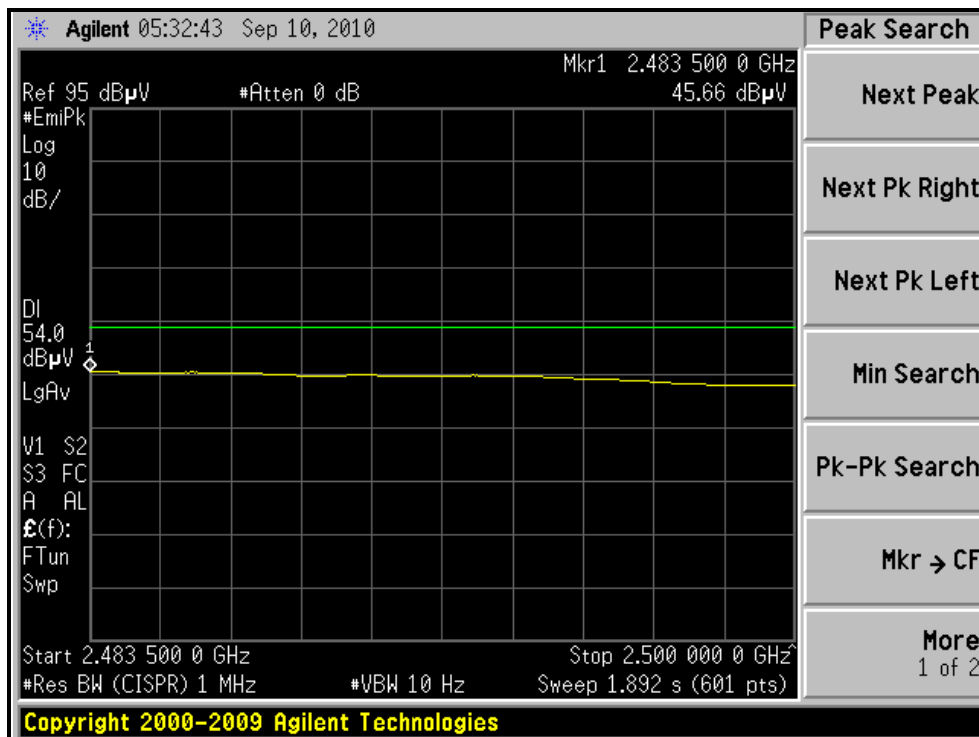
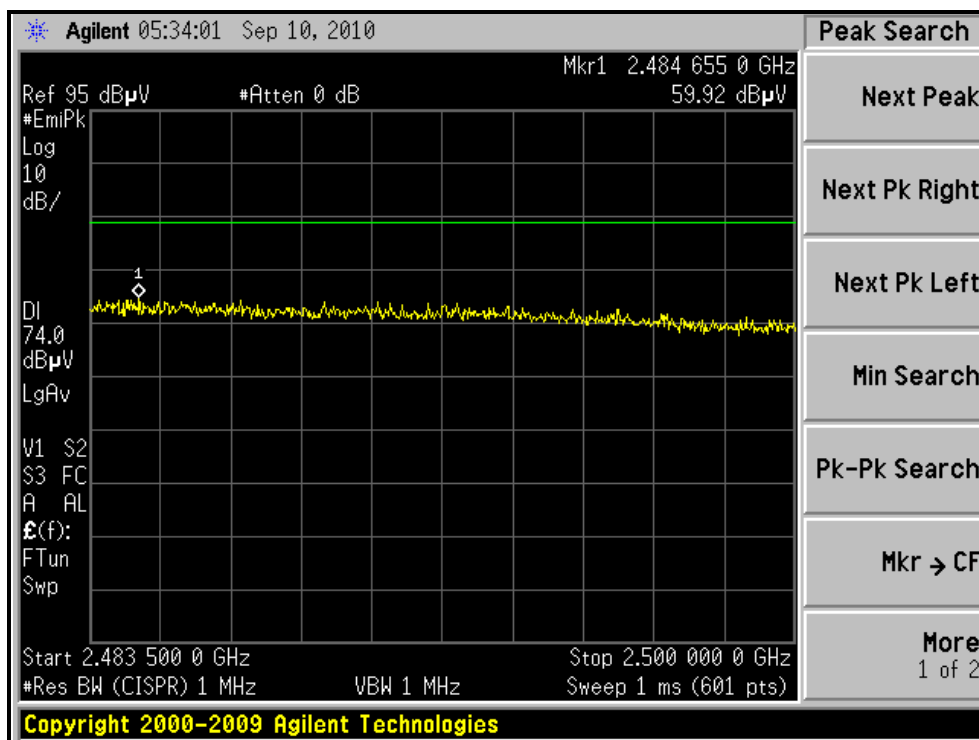


RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH1, VERTICAL )

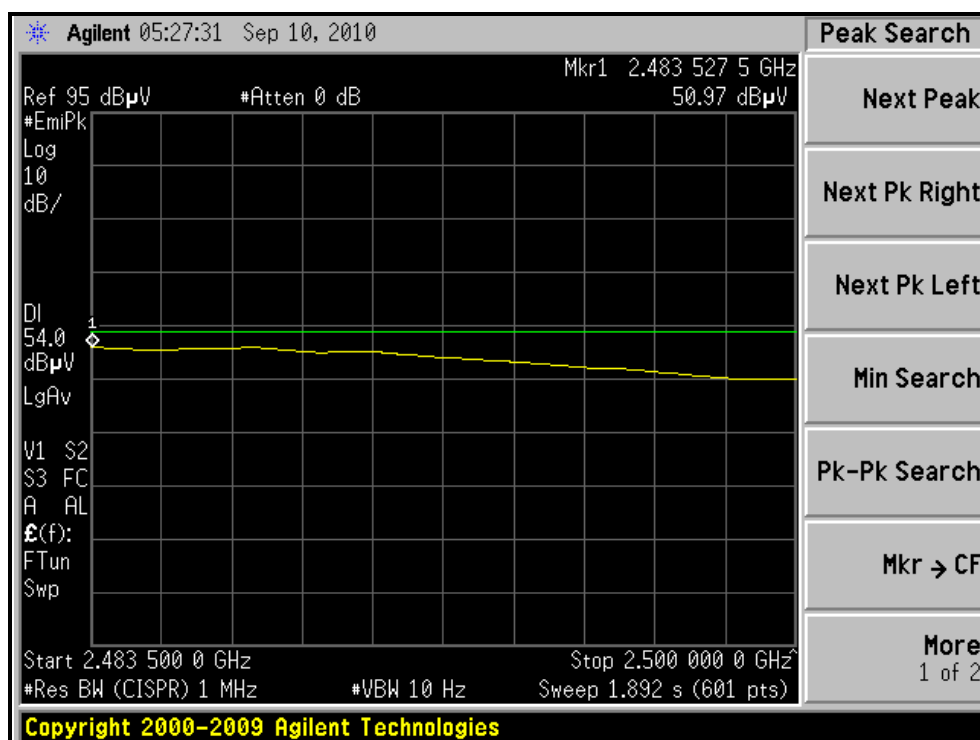
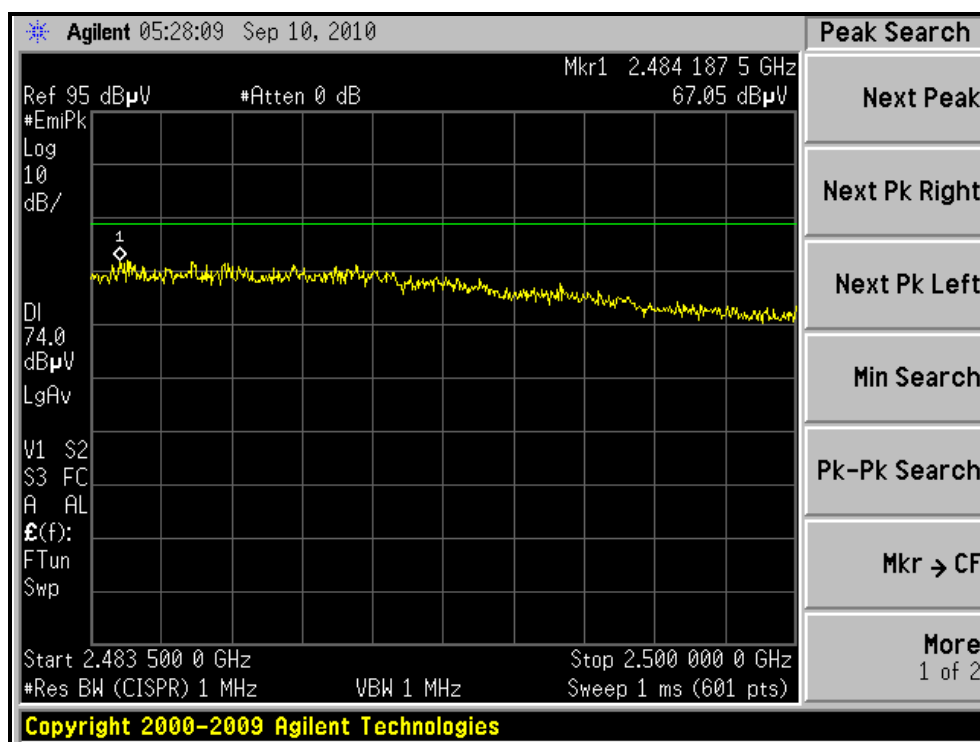




RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH7, HORIZONTAL )



# 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

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer	FSP 40	100036	Dec. 18, 2009	Dec. 17, 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.

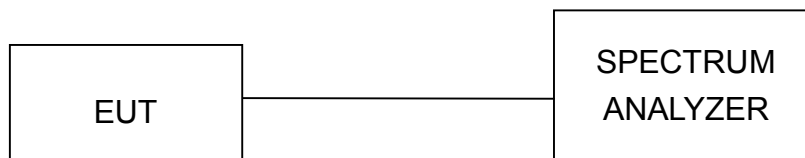
#### 4.3.3 TEST PROCEDURE

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 or 300kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

#### 4.3.4 DEVIATION FROM TEST STANDARD

No deviation

#### 4.3.5 TEST SETUP



#### 4.3.6 EUT OPERATING CONDITIONS

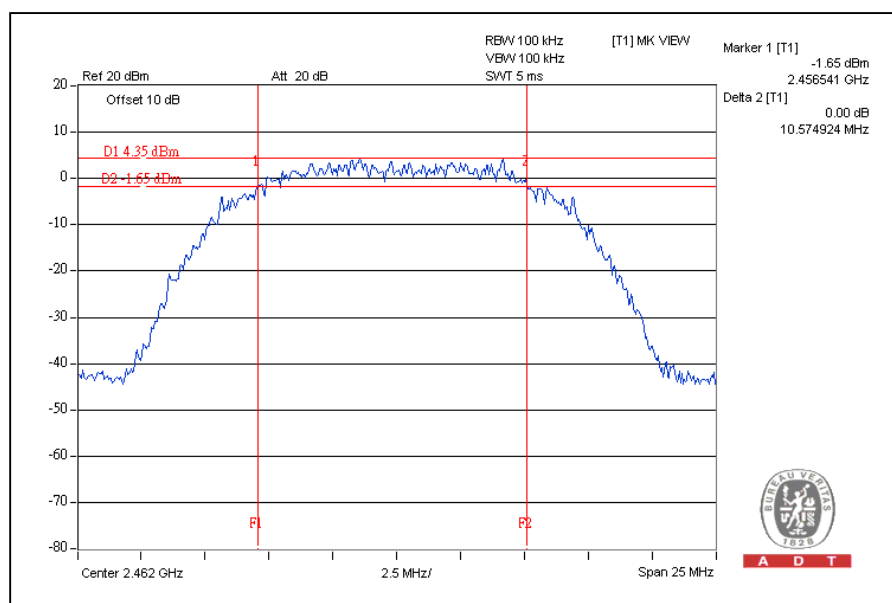
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

## 4.3.7 TEST RESULTS

### 802.11b DSSS MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	9.73	0.5	PASS
6	2437	9.10	0.5	PASS
11	2462	10.57	0.5	PASS

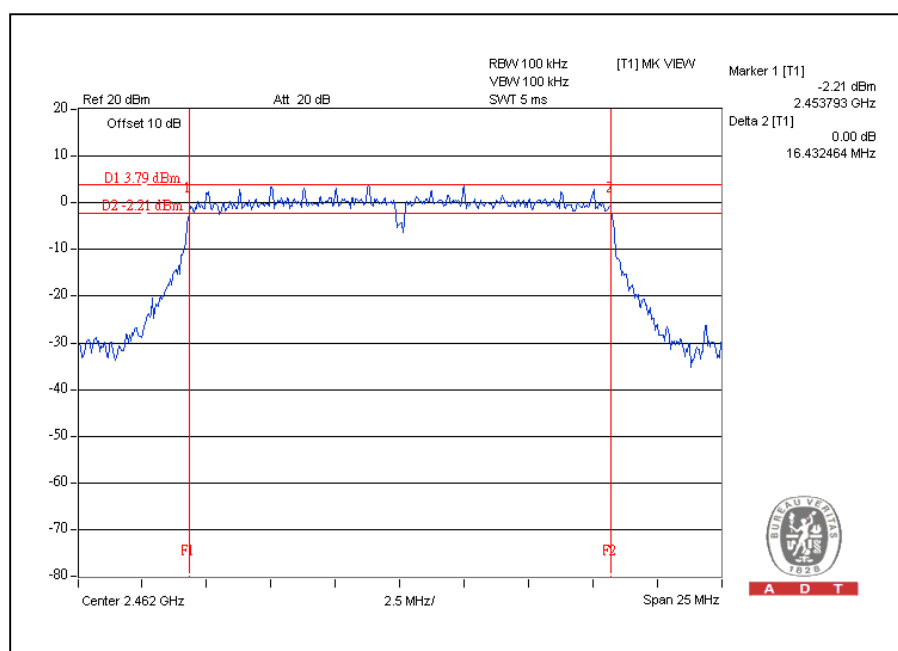
## CH11



## 802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.42	0.5	PASS
6	2437	16.42	0.5	PASS
11	2462	16.43	0.5	PASS

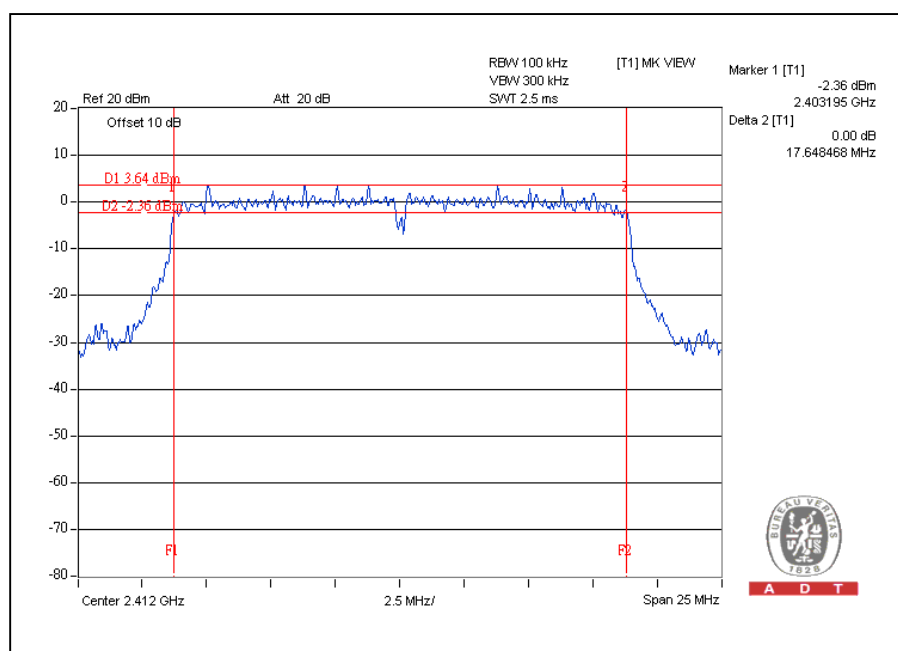
## CH11



## 802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	17.64	0.5	PASS
6	2437	17.61	0.5	PASS
11	2462	17.57	0.5	PASS

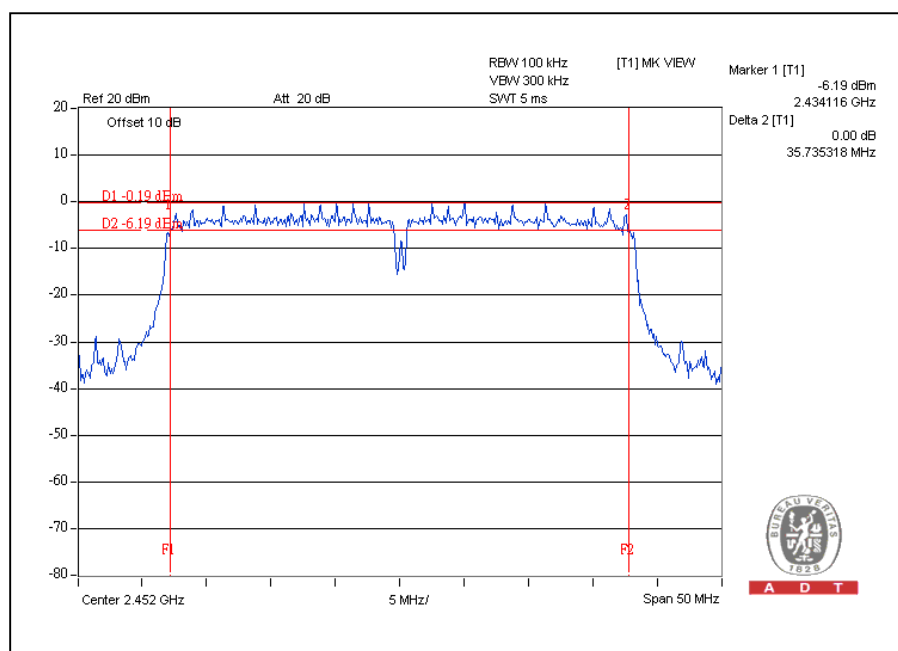
CH1



## 802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2422	35.44	0.5	PASS
4	2437	35.70	0.5	PASS
7	2452	35.73	0.5	PASS

CH7



#### 4.4 MAXIMUM PEAK OUTPUT POWER

##### 4.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

##### 4.4.2 INSTRUMENTS

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

**NOTE:**

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

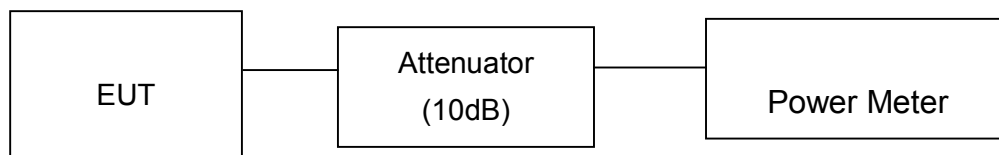
##### 4.4.3 TEST PROCEDURES

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

##### 4.4.4 DEVIATION FROM TEST STANDARD

No deviation

##### 4.4.5 TEST SETUP



##### 4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6



#### 4.4.7 TEST RESULTS

##### 802.11b DSSS MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	26.9	14.3	27	PASS
6	2437	31.6	15.0	27	PASS
11	2462	42.7	16.3	27	PASS

##### 802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	478.6	26.8	27	PASS
6	2437	478.6	26.8	27	PASS
11	2462	467.7	26.7	27	PASS

##### 802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	446.7	26.5	27	PASS
6	2437	457.1	26.6	27	PASS
11	2462	457.1	26.6	27	PASS

##### 802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2422	316.2	25.0	27	PASS
4	2437	457.1	26.6	27	PASS
7	2452	269.2	24.3	27	PASS

## 4.5 POWER SPECTRAL DENSITY MEASUREMENT

### 4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

### 4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer	FSP 40	100036	Dec. 18, 2009	Dec. 17, 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.

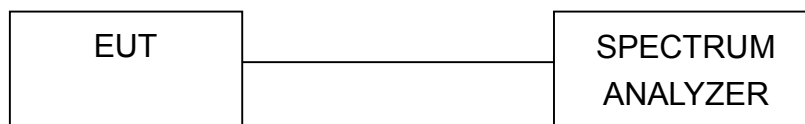
### 4.5.3 TEST PROCEDURE

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

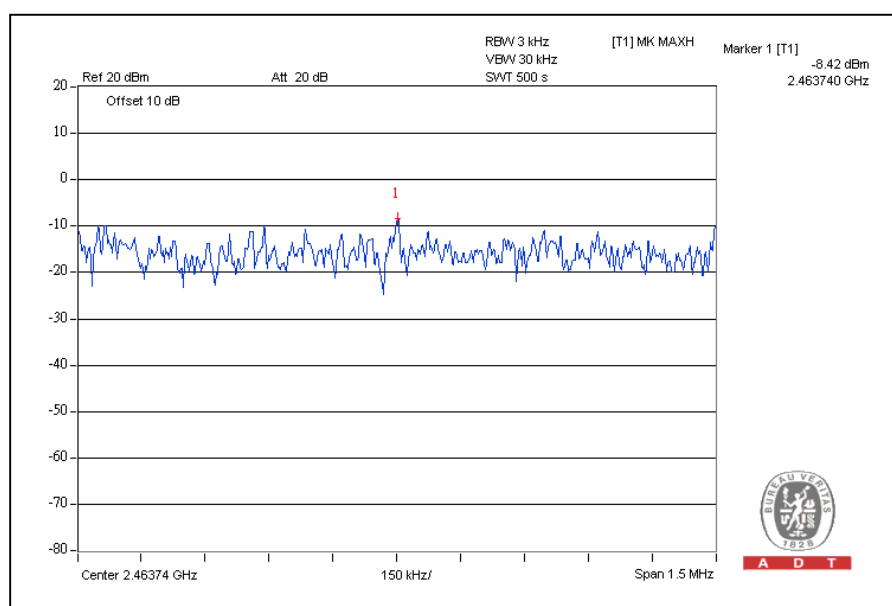
Same as Item 4.3.6

## 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	-11.1	8	PASS
6	2437	-11.1	8	PASS
11	2462	-8.4	8	PASS

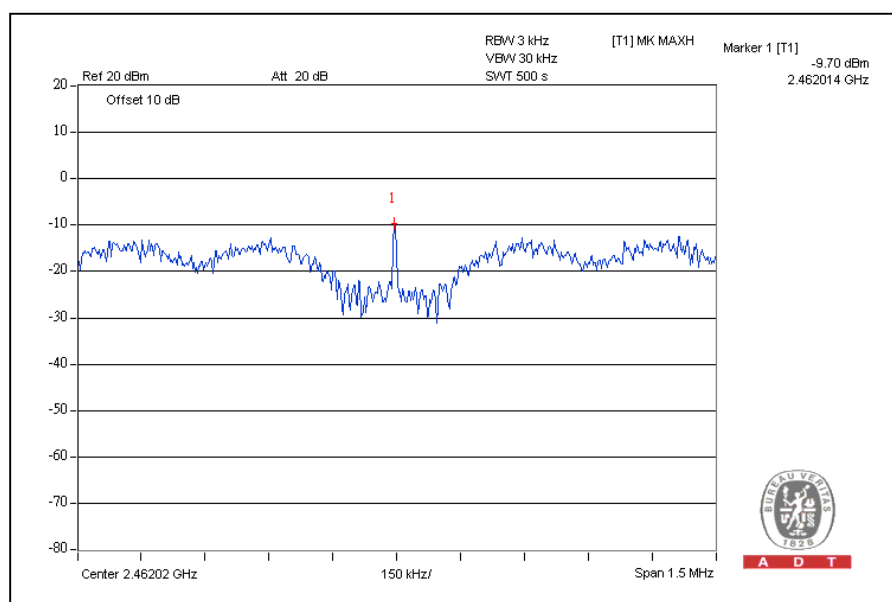
## CH11



## 802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz )	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-11.4	8	PASS
6	2437	-9.7	8	PASS
11	2462	-9.7	8	PASS

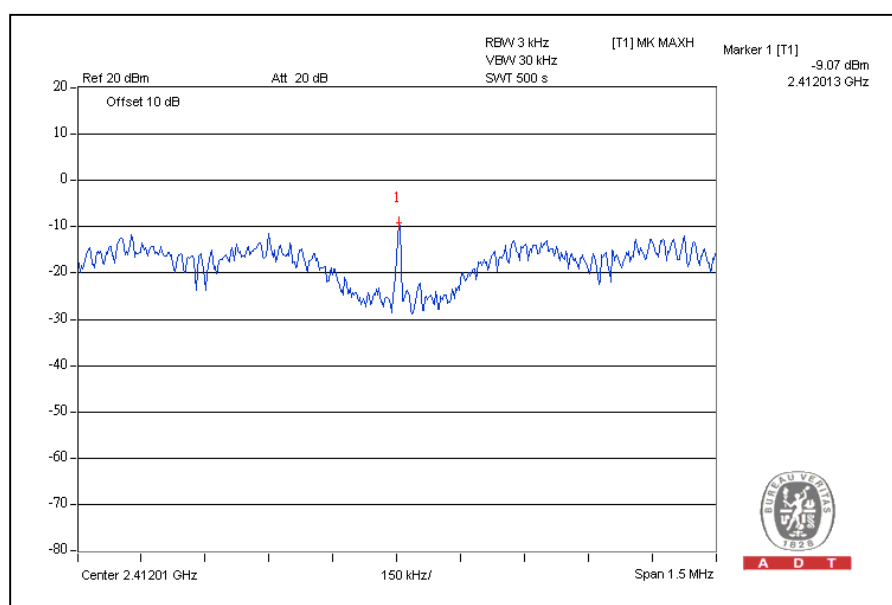
### CH11



## 802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz )	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-9.1	8	PASS
6	2437	-9.3	8	PASS
11	2462	-10.4	8	PASS

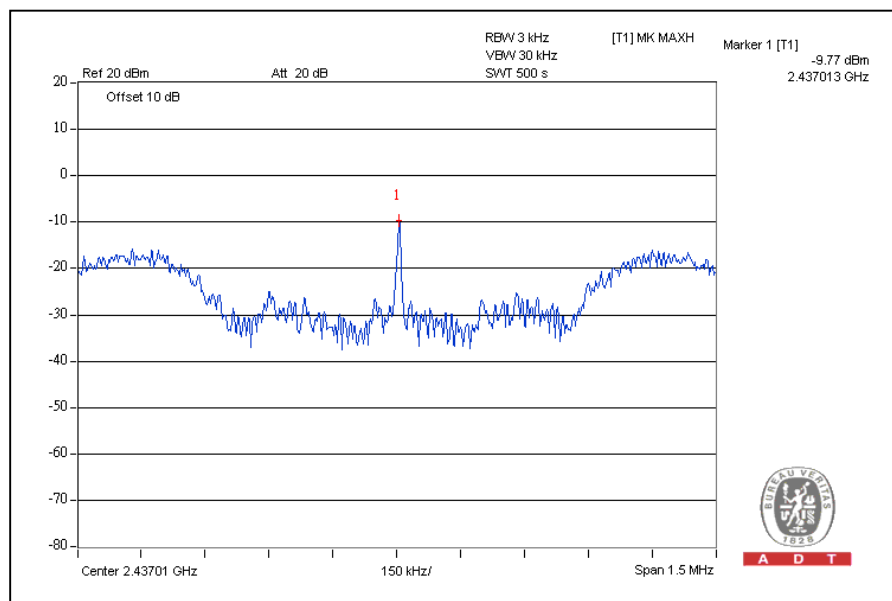
## CH1



## 802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz )	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2422	-10.9	8	PASS
4	2437	-9.8	8	PASS
7	2452	-11.5	8	PASS

CH4



## 4.6 CONDUCTED OUT-BAND EMISSION MEASUREMENT

### 4.6.1 LIMITS OF CONDUCTED OUT-BAND EMISSION MEASUREMENT

Below  $-20\text{dB}$  of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

### 4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer	FSP 40	100036	Dec. 18, 2009	Dec. 17, 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 100MHz or 200MHz 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

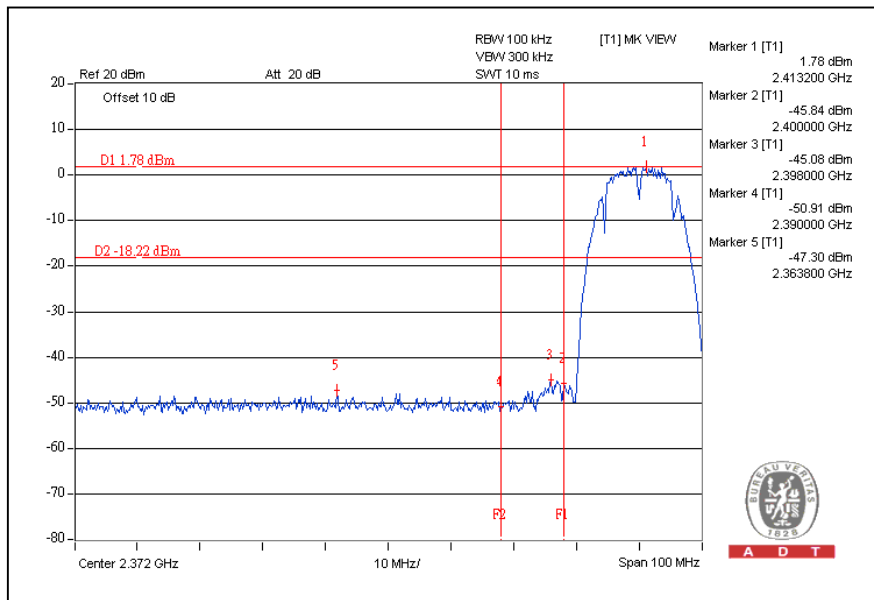
Same as Item 4.3.6

### 4.6.6 TEST RESULTS

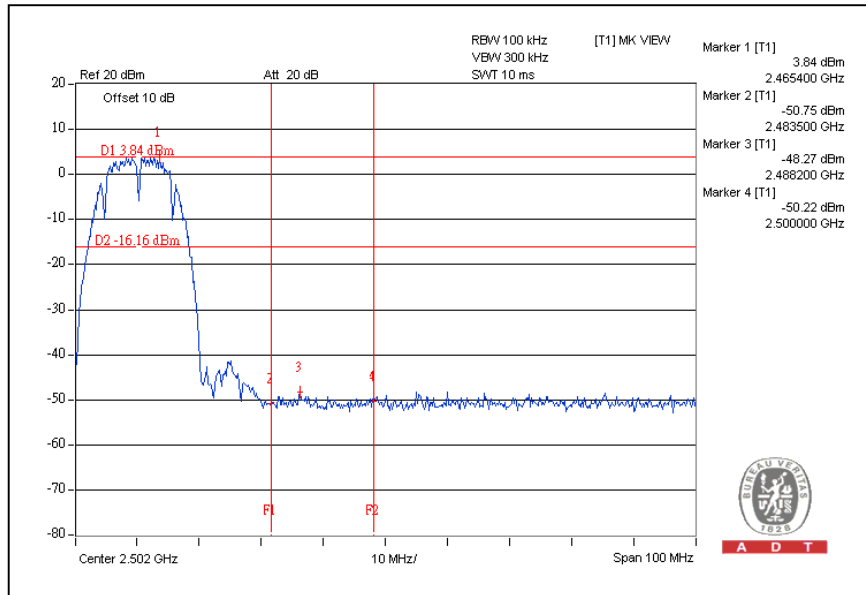
The spectrum plots are attached on the following images. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

## 802.11b DSSS MODULATION:

### CH1

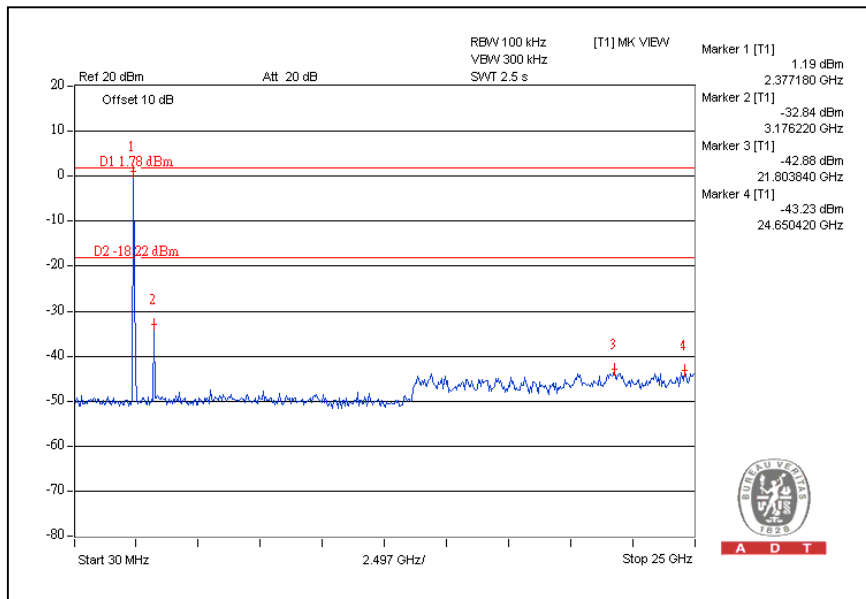


### CH11

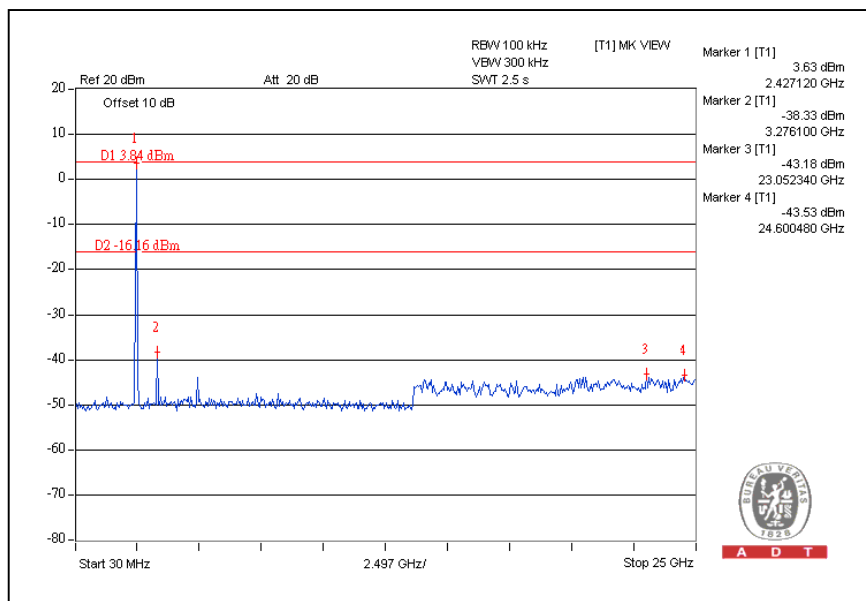




## CH1

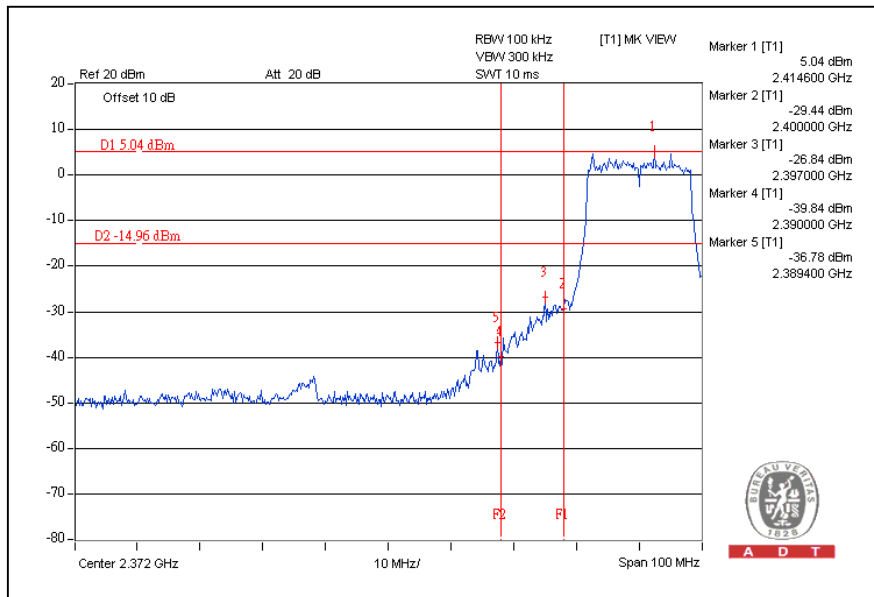


## CH11

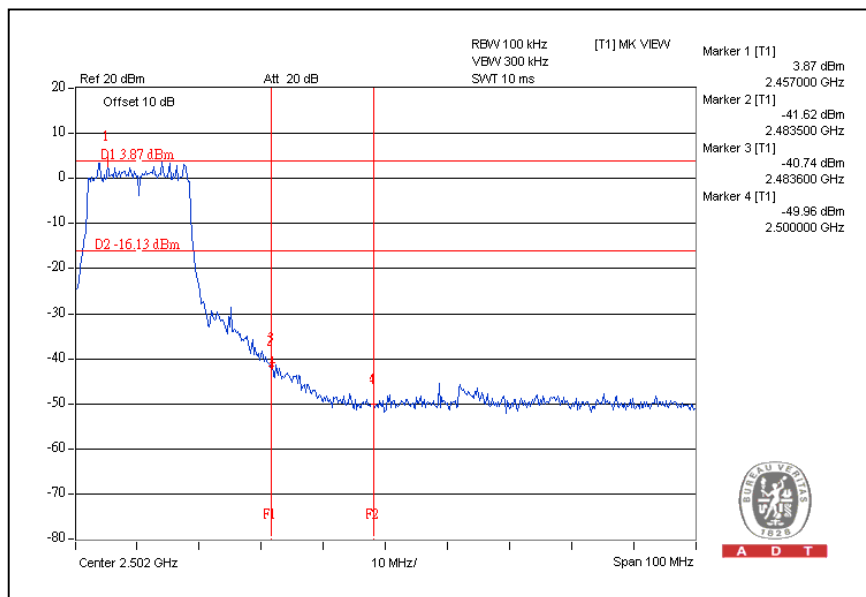


## 802.11g OFDM MODULATION:

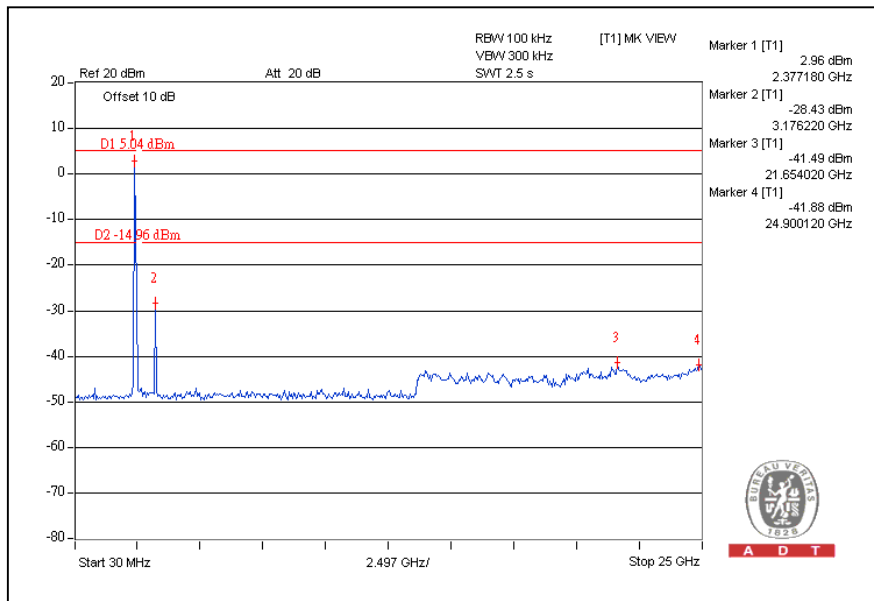
### CH1



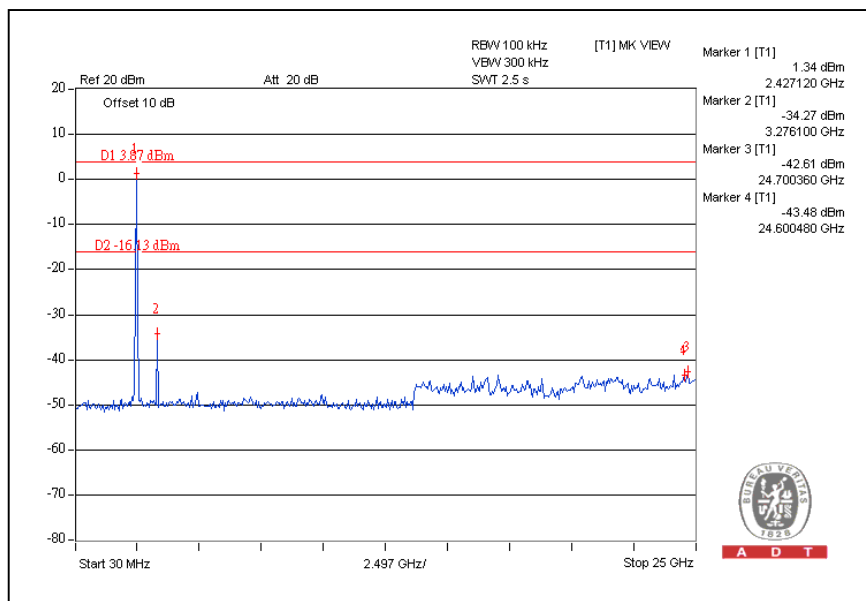
### CH11



## CH1

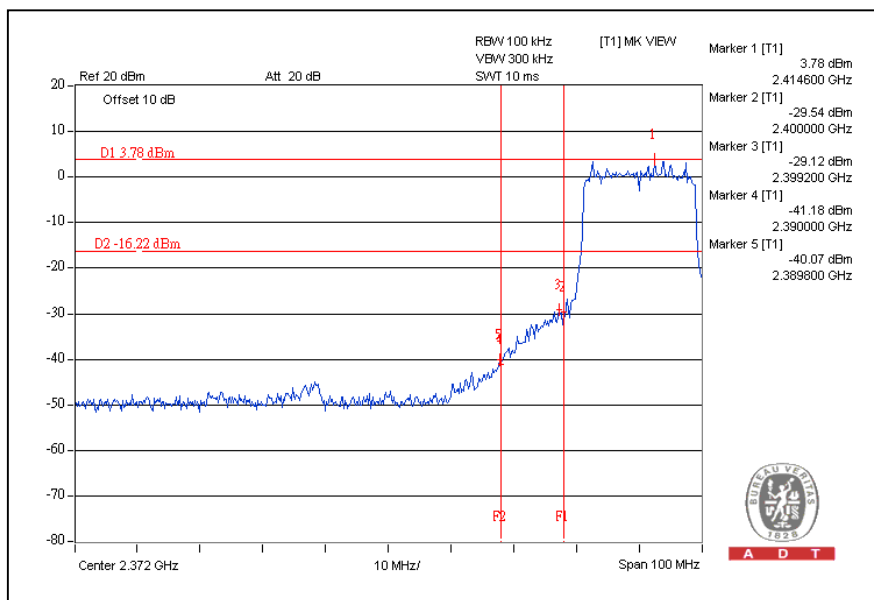


## CH11

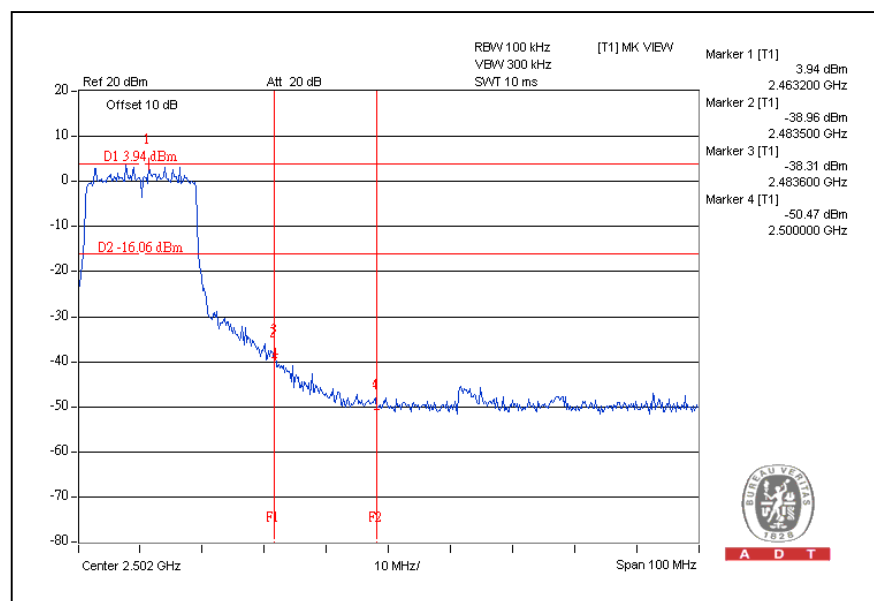


## 802.11n (20MHz) OFDM MODULATION:

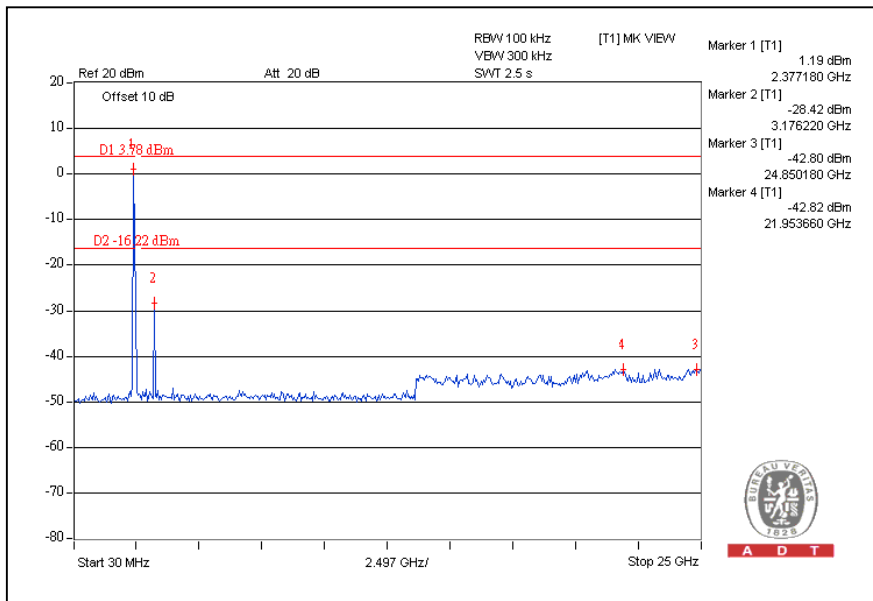
### CH1



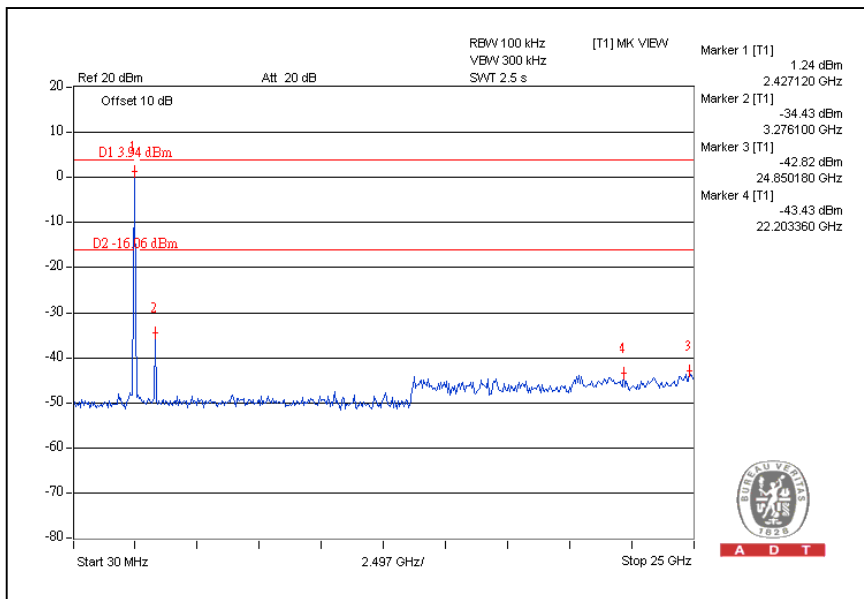
### CH11



## CH1

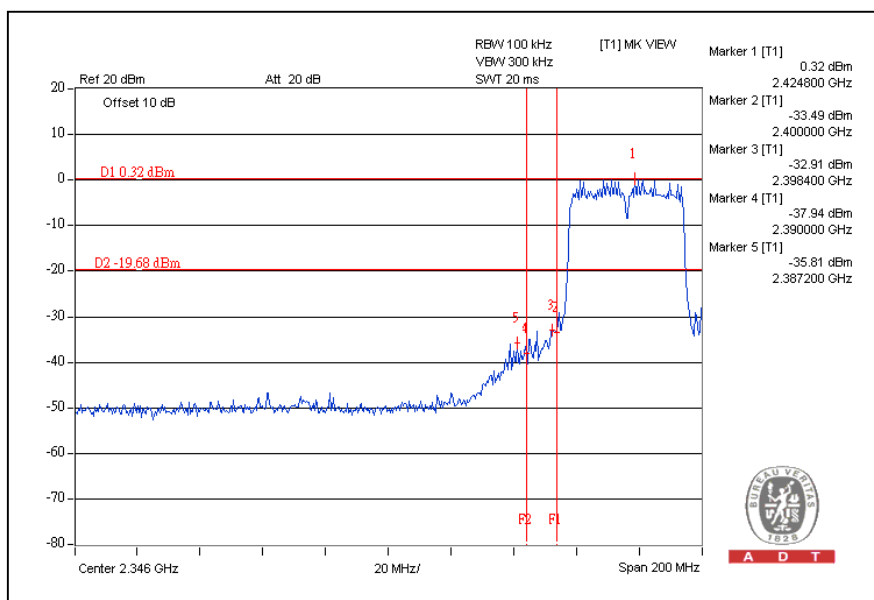


## CH11

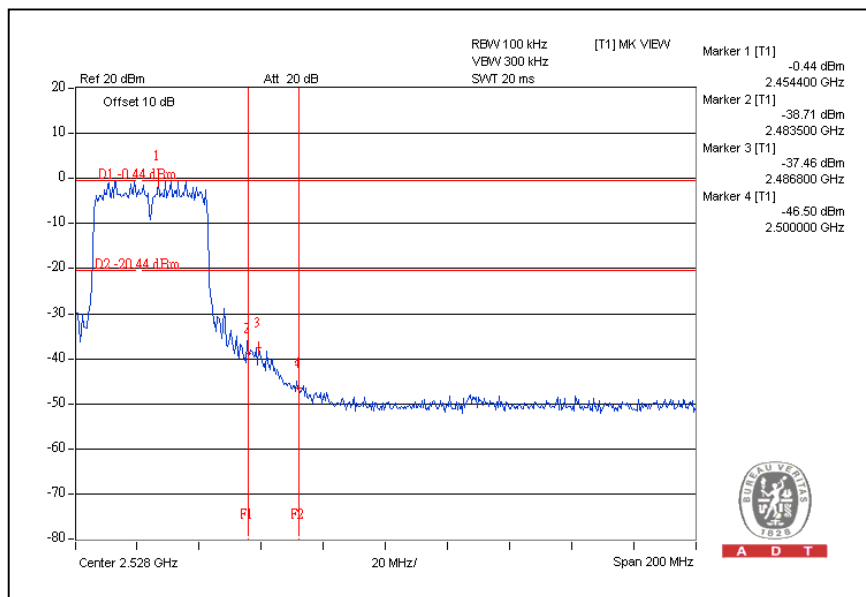


## 802.11n (40MHz) OFDM MODULATION:

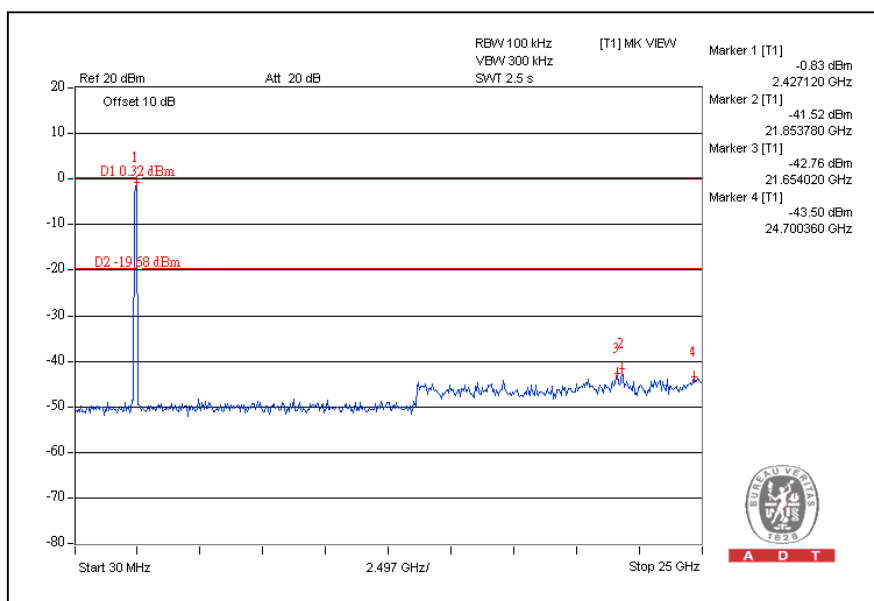
### CH1



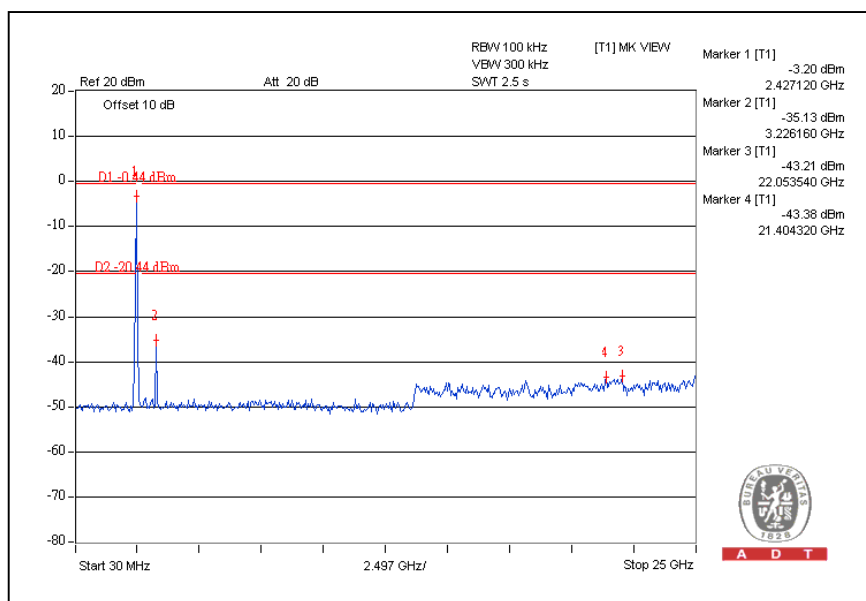
### CH7



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

**Linko EMC/RF Lab:**

Tel: 886-2-26052180

Fax: 886-2-26052943

**Hsin Chu EMC/RF Lab:**

Tel: 886-3-5935343

Fax: 886-3-5935342

**Hwa Ya EMC/RF/Safety/Telecom Lab:**

Tel: 886-3-3183232

Fax: 886-3-3185050

**Email:** [service@adt.com.tw](mailto:service@adt.com.tw)

**Web Site:** [www.adt.com.tw](http://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 ---**