


FCC PART 15.247  
EMI MEASUREMENT AND TEST REPORT  
For

**SHENZHEN NEOSTRA TECHNOLOGY CO., LTD**  
4-5/F, 7 Building, Huaide Cuihai Industrial Park, Fuyong, Baoan District, Shenzhen, China

**FCC ID: FCK-NEOSTRA002**

September 18, 2012

This Report Concerns: Original Report	Equipment Type: Mobile Internet Devices (MID)
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Test Engineer of performing the tests:	Adam Yang <i>Adam Yang</i>
Report No.:	BST12081031Y-1E-3
Receive EUT Date/Test Date:	August 30, 2012/ September 3-17, 2012
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## **1. GENERAL INFORMATION**

### **1.1. Report information**

1.1.1. This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that BST approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that BST in any way guarantees the later performance of the product/equipment.

1.1.2. The sample/s mentioned in this report is/are supplied by Applicant, BST therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.

Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through BST, unless the applicant has authorized BST in writing to do so.

Test Facility -

The test site used to collect the radiated data is located on the address of

Shenzhen Certification Technology Service Co., Ltd

(FCC Registered Test Site Number: 197647) on

2F, Building B, East Area of Nanchang Second Industrial Zone, Gushu 2nd Road,

Bao'an District, shenzhen 518126, China

The Test Site is constructed and calibrated to meet the FCC requirements.

### **1.2. Measurement Uncertainty**

Available upon request.

## 2. PRODUCT DESCRIPTION

### 2.1. EUT Description

Applicant	:	SHENZHEN NEOSTRA TECHNOLOGY CO., LTD
Address	:	4-5/F, 7 Building, Huaide Cuihai Industrial Park, Fuyong, Baoan District, Shenzhen, China
Manufacturer	:	SHENZHEN NEOSTRA TECHNOLOGY CO., LTD
Address	:	4-5/F, 7 Building, Huaide Cuihai Industrial Park, Fuyong, Baoan District, Shenzhen, China
EUT Description	:	Mobile Internet Devices (MID)
Trade Name	:	neostra
Modulation	:	802.11b: DSSS 802.11g/n: OFDM
Wi-fi Frequency Band	:	IEEE 802.11b/g: 2412-2462MHz IEEE802.11n HT20: 2412-2462MHz
Number of Channels	:	IEEE 802.11b/g: 11 Channels IEEE802.11n HT20: 11 Channels
Model Number	:	M805A1, UTAB80, UTAB70, PTAB704, PMID704, PMID801, N708H6, M701H4, M701H9, M702A1, M703A1, M703AG1, M704A1, M708A1, M708A2, M708B1, M708B2, M709B1, M709B2, M709Q9, M801H9, M802A1, M803A1, M805A1, M805AG1, M806A1, M805H9, M806A2, M809B1, M809Q9, B809B1, M809Q9, M979Q9, M1005A1, M1006A1, M1006A2, M1006AG1, M1006AG2, M1019Q9, M1169Q9
Power Supply	:	DC 3.7V (Li-ion battery)
Antenna gain	:	0dBi

## 2.2. Block Diagram of EUT Configuration

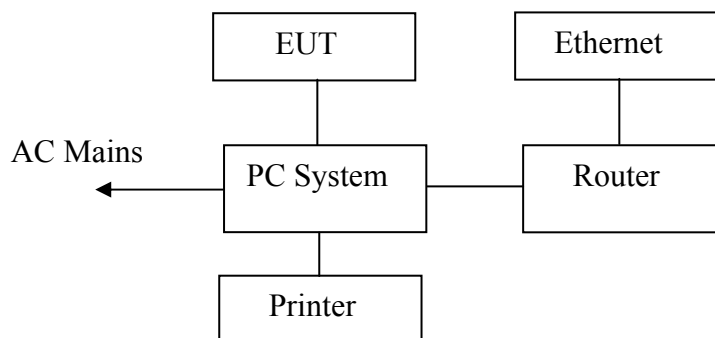


Figure 1 EUT Setup of Connect to PC mode



Figure 2 EUT Setup of TX mode

## 2.3. Support Equipment List

Table 2 Ancillary Equipment

Name	Model No	S/N	Manufacturer	Used “ ”
PC system	AM1830	N/A	Acer	
Printer	HP1020	N/A	HP	
Router	PL-R860	N/A	TP-LINK	

## 2.4. Test Conditions

Temperature: 23~25

Relative Humidity: 50~63 %

After the preliminary test, we found to emit the worst emissions and therefore had been tested under operating condition.

IEEE 802.11b:

Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 1Mbps data rate were chosen for full testing.

IEEE 802.11g:

Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 6Mbps data rate were chosen for full testing.

IEEE 802.11n HT20:

Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 6.5Mbps data rate were chosen for full testing.

### 3. FCC ID LABEL

**FCC ID: FCK-NEOSTRA002**

**This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:**

- 1. This device may not cause harmful interference, and**
- 2. This device must accept any interference received, including interference that may cause undesired operation.**

#### **Label Location on EUT**

#### **EUT View/ FCC ID Label Location**



#### 4. TEST RESULTS SUMMARY

##### FCC 15 Subpart C, Paragraph 15.247

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.247 (i) , §1.1307 (b) (1), §2.1093	RF Exposure	PASS
§15.203	Antenna Requirement	PASS
§15.207 (a)	Conducted Emissions	PASS
§15.247(d)	Spurious Emissions at Antenna Port	PASS
§15.205	Restricted Bands	PASS
§15.209, §15.205, §15.247(d)	Spurious Emissions	PASS
§15.247 (a)(2)	6 dB Bandwidth	PASS
§15.247(b)(3)	Maximum Peak Output Power	PASS
§15.247(d)	100kHz Bandwidth of Frequency Band Edge	PASS
§15.247(e)	Power Spectral Density	PASS

Statement: The EUT was setup according to ANSI C63.4-2003 and tested according to DTS test procedure of March 23, 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

##### Modifications

No modification was made.



## 5. TEST EQUIPMENT USED

Equipment/Facilities	Manufacturer	Model	Serial no.	Date of Cal.	Cal. Interval
3m Semi-Anechoic Chamber	Changzhou Chengyu	EC3048	N/A	May 5, 2012	1 Year
Broadband antenna	SCHWARZBECK	VULB 9168	VULB916 8-438	Aug. 14, 2012	1 Year
Horn antenna	R&S	HF906	10027	Aug. 14, 2012	1 Year
ETS Horn Antenna	ETS	3160	SEL0076	May 8, 2012	1 Year
Active Loop Antenna	Beijing Daze	ZN30900A	SEL0097	Apr. 6, 2012	1 Year
Spectrum analyzer	Agilent	E4443A	MY461856 49	Apr. 6, 2012	1 Year
Spectrum analyzer	Agilent	E4440A	MY461873 35	Apr. 6, 2012	1 Year
Spectrum analyzer	Agilent	E4446A	MY453001 03	Apr. 6, 2012	1 Year
Test receiver	R&S	ESCI	100492	Apr. 6, 2012	1 Year
Test receiver	R&S	ESCI	101202	Apr. 6, 2012	1 Year
L.I.S.N.	SCHWARZBECK	NSLK8126	8126466	Apr. 6, 2012	1 Year
L.I.S.N.	SCHWARZBECK	NSLK8126	8126487	Apr. 6, 2012	1 Year
Cable	Resenberger	N/A	NO.1	Apr. 6, 2012	1 Year
Cable	SCHWARZBECK	N/A	NO.2	Apr. 6, 2012	1 Year
Cable	SCHWARZBECK	N/A	NO.3	Apr. 6, 2012	1 Year
Pre-amplifier	SCHWARZBECK	BBV9743	9743-019	Apr. 6, 2012	1 Year
Pre-amplifier	R&S	AFS33-1800 2650-30-8P- 44	SEL0080	Apr. 6, 2012	1 Year

## 6. §15.247 (I) AND §1.1307 (B) (1), §2.1093 – RF EXPOSURE

### 6.1. Standard Applicable

According to §15.247 (i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to KDB 447498 D01 Mobile Portable RF Exposure V04 , no SAR required if power is lower than the flowing threshold:

When routine evaluation is required for SAR and the output power is  $\leq 60/f(\text{GHz})$  mW, the test reduction and test exclusion procedures given herein, or in KDB 616217 and its supplement or KDB 648474, are applicable.

A device may be used in portable exposure conditions with no restrictions on host platforms when either the source-based time-averaged output power is  $\leq 60/f(\text{GHz})$  mW or all measured 1-g SAR are  $< 0.4$  W/kg. When SAR evaluation is required, the most conservative exposure conditions for all expected operating configurations must be tested.

### 6.2. Test Result

#### Measurement Result:

The Max conducted output power = 12.78dBm

Antenna gain = 0 dBi

SAR exclusion threshold= $60/f=60/2.437=24.62$  mW = 13.91 dBm  $> 12.78$ dBm

So the SAR measurement is not required.

## **7. §15.203 - ANTENNA REQUIREMENT**

### **7.1. Standard Applicable**

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### **7.2. Antenna Connector Construction**

The antenna used for this product is a short metal soldered wire. The antenna is permanently attached. Refer to the product photo.

## 8. §15.207 - CONDUCTED EMISSIONS

### 8.1. Applicable Standard

The specification used was with the FCC Part 15.207 limits.

### 8.2. Test Procedure

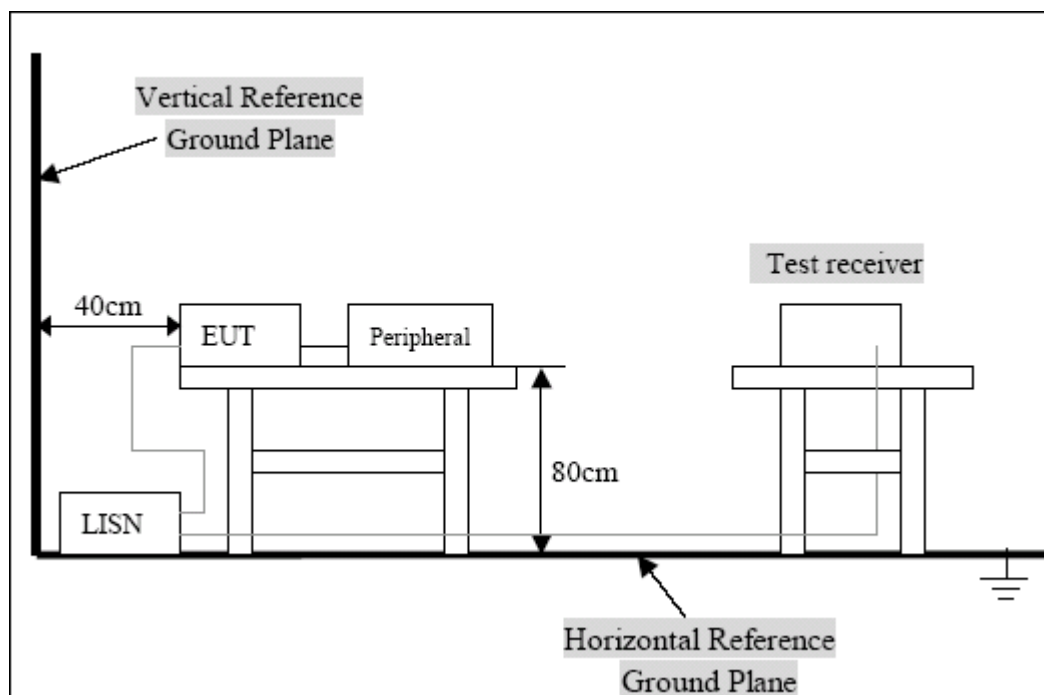
During the conducted emission test, the EUT was connected to the outlet of the LISN. Maximizing procedure was performed on the six (6) highest emissions of the EUT. All data was recorded in the Quasi-peak and average detection mode.

### 8.3. Conducted Power line Emission Limits

FCC Part 15 Paragraph 15.207 (dBuV)		
Frequency Range (MHz)	Class A QP/AV	Class B QP/AV
0.15-0.5	79/66	65-56/56-46
0.5-5.0	73/60	56-46
5.0-3.0	73/60	60-50

Note: In the above table, the tighter limit applies at the band edges.

### 8.4. Block Diagram of Test Setup

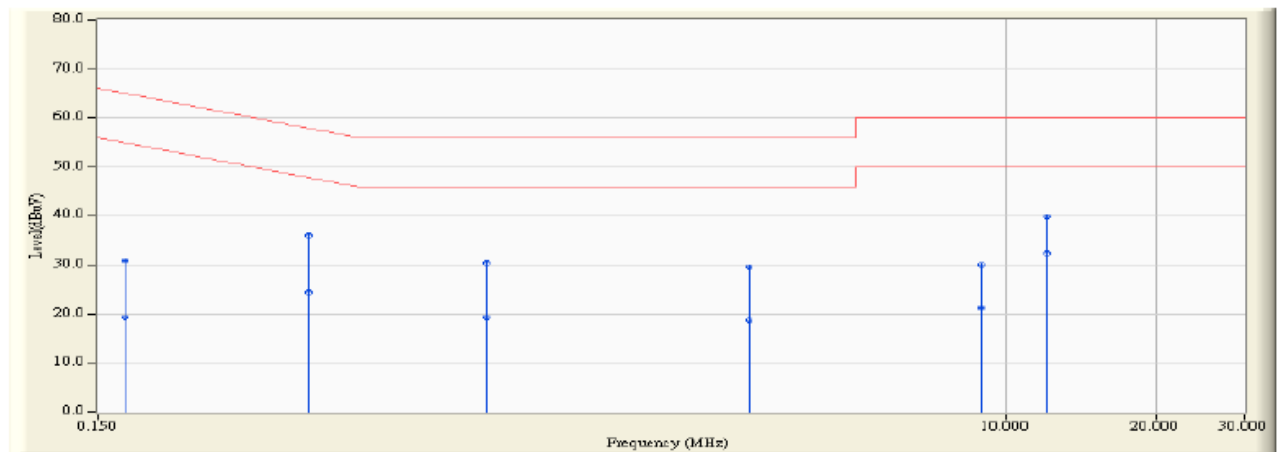


## 8.5. Conducted Power Line Test Result

**Pass.**

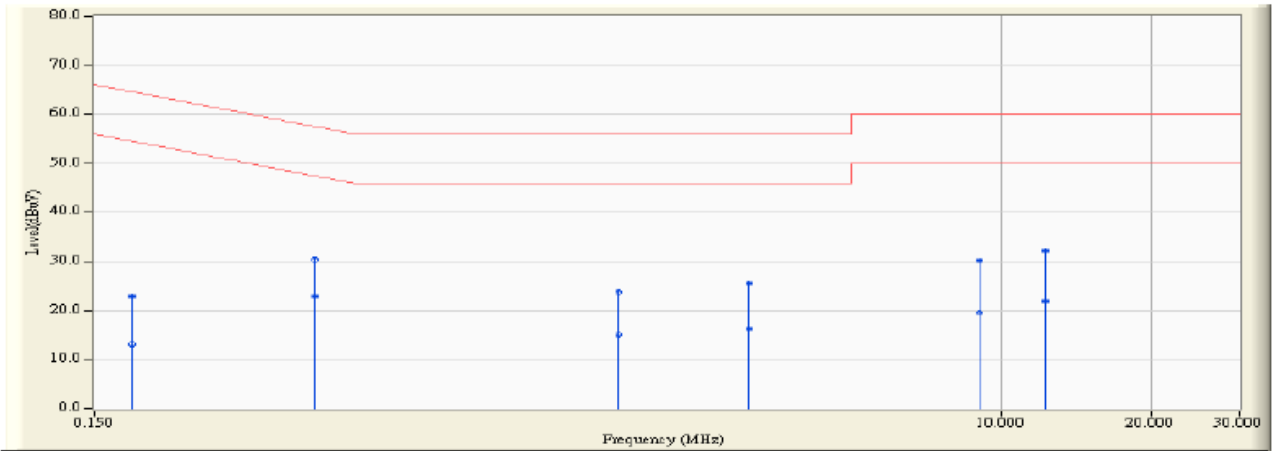
The worst test mode: Wi-Fi TX 802.11b 2437MHz

L line



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.170	9.778	21.080	30.858	-34.126	64.983	QUASIPeAK
2		0.170	9.778	9.610	19.388	-35.596	54.983	AVERAGE
3		0.396	9.830	26.160	35.990	-21.945	57.935	QUASIPeAK
4		0.396	9.830	14.520	24.350	-23.585	47.935	AVERAGE
5		0.900	9.662	20.880	30.542	-25.458	56.000	QUASIPeAK
6		0.900	9.662	9.550	19.212	-26.788	46.000	AVERAGE
7		3.048	9.820	19.700	29.520	-26.480	56.000	QUASIPeAK
8		3.048	9.820	8.850	18.670	-27.330	46.000	AVERAGE
9		8.884	9.949	20.110	30.058	-29.942	60.000	QUASIPeAK
10		8.884	9.949	11.240	21.188	-28.812	50.000	AVERAGE
11		12.037	10.069	29.880	39.949	-20.051	60.000	QUASIPeAK
12	*	12.037	10.069	22.210	32.279	-17.721	50.000	AVERAGE

N line



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV)	Margin (dB)	Limit (dBμV)	Detector Type
1		0.177	9.767	13.230	22.997	-41.612	64.609	QUASIPeAK
2		0.177	9.767	3.410	13.177	-41.432	54.609	AVERAGE
3		0.416	9.838	20.610	30.448	-27.087	57.535	QUASIPeAK
4	*	0.416	9.838	13.090	22.928	-24.607	47.535	AVERAGE
5		1.693	9.745	13.980	23.725	-32.275	56.000	QUASIPeAK
6		1.693	9.745	5.210	14.955	-31.045	46.000	AVERAGE
7		3.107	9.821	15.610	25.431	-30.569	56.000	QUASIPeAK
8		3.107	9.821	6.560	16.381	-29.619	46.000	AVERAGE
9		9.017	9.977	20.370	30.347	-29.653	60.000	QUASIPeAK
10		9.017	9.977	9.640	19.617	-30.383	50.000	AVERAGE
11		12.255	10.127	22.130	32.257	-27.743	60.000	QUASIPeAK
12		12.255	10.127	11.650	21.777	-28.223	50.000	AVERAGE

## 9. §15.209, §15.205, §15.247(D) - Spurious Emissions

### 9.1. Test Equipment

Please refer to section 5 this report.

### 9.2. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Calibrated Loop antenna is used as receiving antenna for frequencies below 30MHz, Calibrated Bilog antenna is used as receiving antenna for frequencies between 30 MHz and 1 GHz, Calibrated Horn antenna is used as receiving antenna for frequencies above 1000MHz. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated emission measurement.

The bandwidth of test receiver is set at 9kHz in below 30MHz. and set at 120kHz in 30-1000MHz, and 1MHz in above 1000MHz.

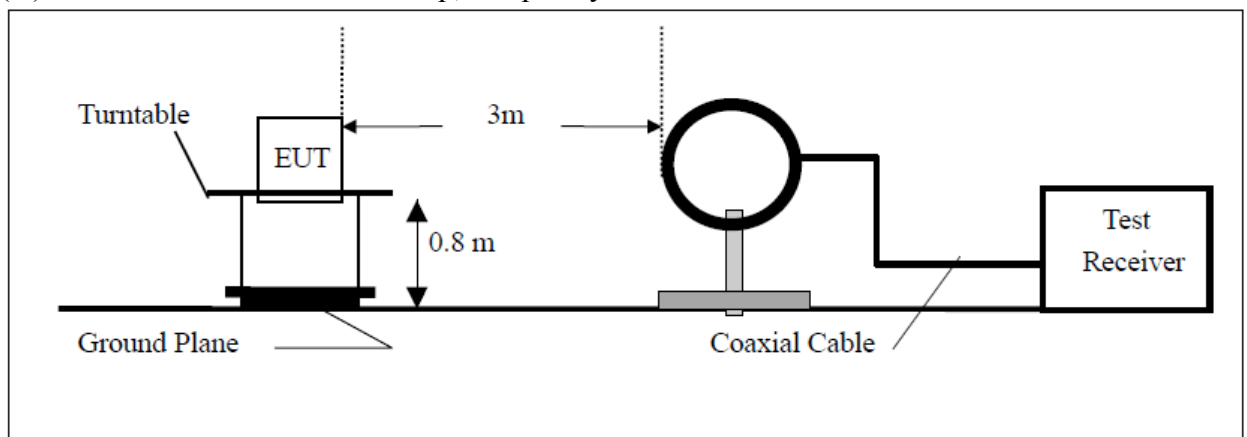
The frequency range from 9kHz to 25GHz is checked.

The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Peak detector and Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

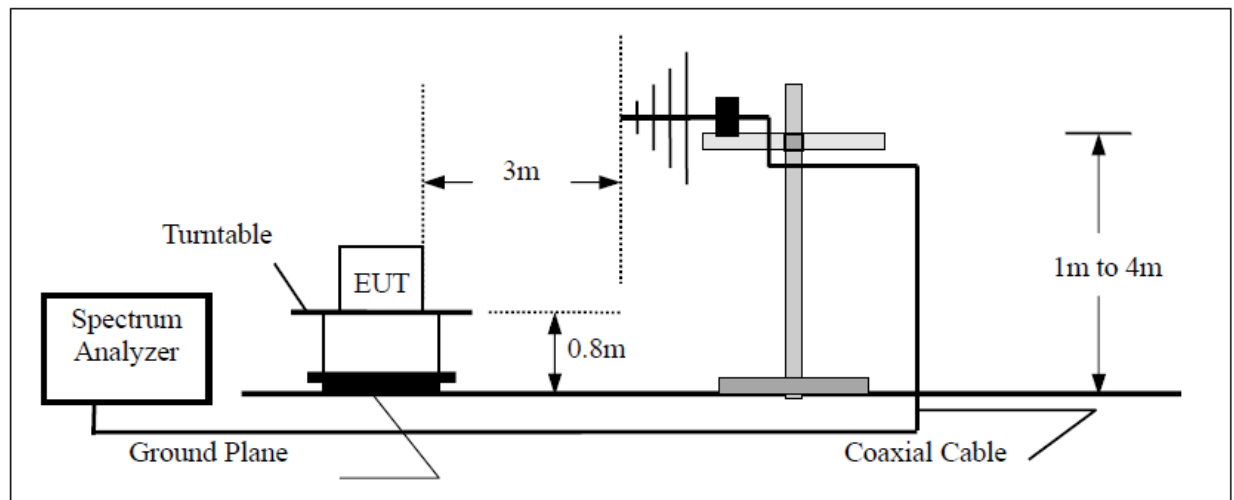
Through three orthogonal axes to determine which attitude and equipment arrangement produces the highest emission relative to the limit.

### 9.3. Radiated Test Setup

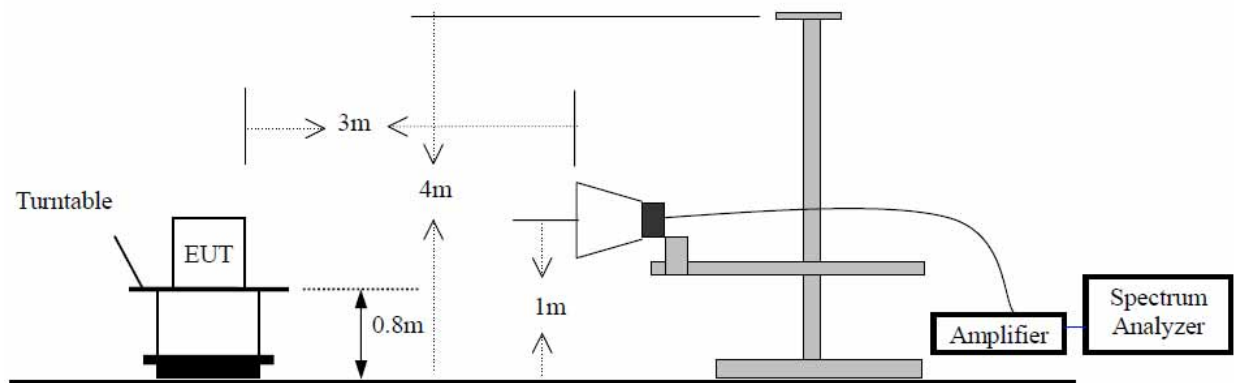
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1000MHz





#### 9.4. Radiated Emission Limit

Frequency (MHz)	Limit			The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.
	Field Strength of Quasi-peak Value (microvolts/m)	Field Strength of Quasi-peak Value (dB $\mu$ V/m)	Measurement distance (m)	
0.009 - 0.490	2400/F(kHz)	/	300	
0.490 - 1.705	24000/F(kHz)	/	30	
1.705-30	30	29.5	30	
30 - 88	100	40	3	
88 - 216	150	43.5	3	
216 - 960	200	46	3	
Above 960	500	54	3	

Note: (1) RF Voltage (dBuV)=20 log Voltage(uV)

(2) In the Above Table, the tighter limit applies at the band edges.

(3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

## 9.5. Radiated Emission Test Result

**Pass.**

Date of Test:	September 14, 2012	Temperature:	23°C
EUT:	Mobile Internet Devices (MID)	Humidity:	55%
Model No.:	M805A1	Power Supply:	AC 120V/60Hz
Test Mode:	802.11b Channel Low 2412MHz	Test Engineer:	Adam Yang

### For below 1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Correct Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

### For 1GHz-25GHz

#### Horizontal

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4824.000	-0.803	49.670	48.867	-25.133	74.000	54.00	PEAK
2		7236.000	5.497	39.700	45.196	-28.804	74.000	54.00	PEAK
3		9648.000	9.230	40.100	49.331	-24.669	74.000	54.00	PEAK
4	*	12070.000	11.522	38.690	50.212	-23.788	74.000	54.00	PEAK

#### Vertical

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4824.000	-0.803	43.850	43.047	-30.953	74.000	54.00	PEAK
2		7236.000	5.497	38.050	43.546	-30.454	74.000	54.00	PEAK
3		9648.000	9.230	39.230	48.461	-25.539	74.000	54.00	PEAK
4	*	12070.000	11.522	37.090	48.612	-25.388	74.000	54.00	PEAK

- Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.  
 2. Measurement Level = Reading Level + Correct Factor.  
 3. The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test:	September 14, 2012	Temperature:	23°C
EUT:	Mobile Internet Devices (MID)	Humidity:	55%
Model No.:	M805A1	Power Supply:	AC 120V/60Hz
Test Mode:	802.11b Channel Middle 2437MHz	Test Engineer:	Adam Yang

**For below 1000MHz**

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Correct Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

**For 1GHz-25GHz****Horizontal**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4872.000	-0.677	43.880	43.203	-30.797	74.000	54.00	PEAK
2		7311.000	5.678	37.830	43.507	-30.493	74.000	54.00	PEAK
3	*	9748.000	9.955	40.510	50.465	-23.535	74.000	54.00	PEAK
4		12185.000	11.481	37.210	48.691	-25.309	74.000	54.00	PEAK

**Vertical**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4874.000	-0.672	39.920	39.248	-34.752	74.000	54.00	PEAK
2		7311.000	5.678	37.660	43.337	-30.663	74.000	54.00	PEAK
3		9748.000	9.955	39.630	49.585	-24.415	74.000	54.00	PEAK
4	*	12185.000	11.481	38.290	49.771	-24.229	74.000	54.00	PEAK

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.  
 2. Measurement Level = Reading Level + Correct Factor.  
 3. The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test:	September 14, 2012	Temperature:	23°C
EUT:	Mobile Internet Devices (MID)	Humidity:	55%
Model No.:	M805A1	Power Supply:	AC 120V/60Hz
Test Mode:	802.11b Channel High 2462MHz	Test Engineer:	Adam Yang

**For below 1000MHz**

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Correct Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

**For 1GHz-25GHz****Horizontal**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4924.000	-0.541	39.960	39.419	-34.581	74.000	54.00	PEAK
2		7386.000	5.859	37.330	43.188	-30.812	74.000	54.00	PEAK
3	*	9848.000	10.680	38.480	49.160	-24.840	74.000	54.00	PEAK
4		12310.000	11.437	36.480	47.917	-26.083	74.000	54.00	PEAK

**Vertical**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4924.000	-0.541	38.620	38.079	-35.921	74.000	54.00	PEAK
2		7386.000	5.859	39.130	44.988	-29.012	74.000	54.00	PEAK
3	*	9848.000	10.680	39.630	50.310	-23.690	74.000	54.00	PEAK
4		12310.000	11.437	36.920	48.357	-25.643	74.000	54.00	PEAK

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.  
 2. Measurement Level = Reading Level + Correct Factor.  
 3. The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test:	September 14, 2012	Temperature:	23°C
EUT:	Mobile Internet Devices (MID)	Humidity:	55%
Model No.:	M805A1	Power Supply:	AC 120V/60Hz
Test Mode:	802.11g Channel Low 2412MHz	Test Engineer:	Adam Yang

**For below 1000MHz**

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Correct Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

**For 1GHz-25GHz****Horizontal**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4824.000	-0.803	43.130	42.327	-31.673	74.000	54.00	PEAK
2		7239.000	5.504	37.700	43.204	-30.796	74.000	54.00	PEAK
3	*	9648.000	9.230	39.550	48.781	-25.219	74.000	54.00	PEAK
4		12185.000	11.481	36.380	47.861	-26.139	74.000	54.00	PEAK

**Vertical**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4824.000	-0.803	39.350	38.547	-35.453	74.000	54.00	PEAK
2		7236.000	5.497	38.250	43.746	-30.254	74.000	54.00	PEAK
3	*	9648.000	9.230	40.020	49.251	-24.749	74.000	54.00	PEAK
4		12070.000	11.522	36.940	48.462	-25.538	74.000	54.00	PEAK

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.  
 2. Measurement Level = Reading Level + Correct Factor.  
 3. The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test:	September 14, 2012	Temperature:	23°C
EUT:	Mobile Internet Devices (MID)	Humidity:	55%
Model No.:	M805A1	Power Supply:	AC 120V/60Hz
Test Mode:	802.11g Channel Middle 2437MHz	Test Engineer:	Adam Yang

**For below 1000MHz**

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Correct Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

**For 1GHz-25GHz****Horizontal**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4874.000	-0.672	37.170	36.498	-37.502	74.000	54.00	PEAK
2		7311.000	5.678	38.260	43.937	-30.063	74.000	54.00	PEAK
3	*	9748.000	9.955	39.510	49.465	-24.535	74.000	54.00	PEAK
4		12185.000	11.481	36.640	48.121	-25.879	74.000	54.00	PEAK

**Vertical**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4874.000	-0.672	39.550	38.878	-35.122	74.000	54.00	PEAK
2		7311.000	5.678	37.830	43.507	-30.493	74.000	54.00	PEAK
3		9748.000	9.955	39.150	49.105	-24.895	74.000	54.00	PEAK
4	*	12185.000	11.481	37.700	49.181	-24.819	74.000	54.00	PEAK

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.  
 2. Measurement Level = Reading Level + Correct Factor.  
 3. The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test:	September 14, 2012	Temperature:	23°C
EUT:	Mobile Internet Devices (MID)	Humidity:	55%
Model No.:	M805A1	Power Supply:	AC 120V/60Hz
Test Mode:	802.11g Channel High 2462MHz	Test Engineer:	Adam Yang

**For below 1000MHz**

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Correct Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

**For 1GHz-25GHz****Horizontal**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4924.000	-0.803	39.590	38.787	-35.213	74.000	54.00	PEAK
2		7386.000	5.859	38.020	43.878	-30.122	74.000	54.00	PEAK
3	*	9848.000	10.680	38.950	49.630	-24.370	74.000	54.00	PEAK
4		12310.000	11.437	35.990	47.427	-26.573	74.000	54.00	PEAK

**Vertical**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4924.000	-0.541	38.630	38.089	-35.911	74.000	54.00	PEAK
2		7386.000	5.859	38.480	44.338	-29.662	74.000	54.00	PEAK
3	*	9848.000	10.680	39.090	49.770	-24.230	74.000	54.00	PEAK
4		12310.000	11.437	36.650	48.087	-25.913	74.000	54.00	PEAK

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.  
 2. Measurement Level = Reading Level + Correct Factor.  
 3. The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test: September 14, 2012

Temperature: 23°C

EUT: Mobile Internet Devices (MID)

Humidity: 55%

Model No.: M805A1

Power Supply: AC 120V/60Hz

Test Mode: 802.11n HT20 Channel Low 2412MHz

Test Engineer: Adam Yang

**For below 1000MHz**

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Correct Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

**For 1GHz-25GHz****Horizontal**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4824.000	-0.803	43.530	42.727	-31.273	74.000	54.00	PEAK
2		7326.000	5.714	39.690	45.404	-28.596	74.000	54.00	PEAK
3		9648.000	9.230	38.510	47.741	-26.259	74.000	54.00	PEAK
4	*	12070.000	11.522	39.670	51.192	-22.808	74.000	54.00	PEAK

**Vertical**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4824.000	-0.803	39.410	38.607	-35.393	74.000	54.00	PEAK
2		7236.000	5.497	39.370	44.866	-29.134	74.000	54.00	PEAK
3		9648.000	9.230	38.200	47.431	-26.569	74.000	54.00	PEAK
4	*	12070.000	11.522	37.180	48.702	-25.298	74.000	54.00	PEAK

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. Measurement Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection.



Date of Test: September 14, 2012

Temperature: 23°C

EUT: Mobile Internet Devices (MID)

Humidity: 55%

Model No.: M805A1

Power Supply: AC 120V/60Hz

Test Mode: 802.11n HT20 Channel Middle 2437MHz

Test Engineer: Adam Yang

**For below 1000MHz**

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Correct Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

**For 1GHz-25GHz****Horizontal**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4874.000	-0.672	39.150	38.478	-35.522	74.000	54.00	PEAK
2		7311.000	5.678	38.070	43.747	-30.253	74.000	54.00	PEAK
3		9748.000	9.955	38.700	48.655	-25.345	74.000	54.00	PEAK
4	*	12185.000	11.481	38.040	49.521	-24.479	74.000	54.00	PEAK

**Vertical**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4874.000	-0.672	39.090	38.418	-35.582	74.000	54.00	PEAK
2		7311.000	5.678	38.480	44.157	-29.843	74.000	54.00	PEAK
3	*	9748.000	9.955	38.650	48.605	-25.395	74.000	54.00	PEAK
4		12185.000	11.481	36.630	48.111	-25.889	74.000	54.00	PEAK

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. Measurement Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test: September 14, 2012

Temperature: 23°C

EUT: Mobile Internet Devices (MID)

Humidity: 55%

Model No.: M805A1

Power Supply: AC 120V/60Hz

Test Mode: 802.11n HT20 Channel High 2462MHz

Test Engineer: Adam Yang

**For below 1000MHz**

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Correct Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

**For 1GHz-25GHz****Horizontal**

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4924.000	-0.541	38.620	38.079	-35.921	74.000	54.00	PEAK
2	7386.000	5.859	38.220	44.078	-29.922	74.000	54.00	PEAK
3	* 9848.000	10.680	39.590	50.270	-23.730	74.000	54.00	PEAK
4	12310.000	11.437	36.810	48.247	-25.753	74.000	54.00	PEAK

**Vertical**

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4924.000	-0.541	38.450	37.909	-36.091	74.000	54.00	PEAK
2	7386.000	5.859	37.030	42.888	-31.112	74.000	54.00	PEAK
3	* 9848.000	10.680	40.420	51.100	-22.900	74.000	54.00	PEAK
4	12310.000	11.437	38.190	49.627	-24.373	74.000	54.00	PEAK

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

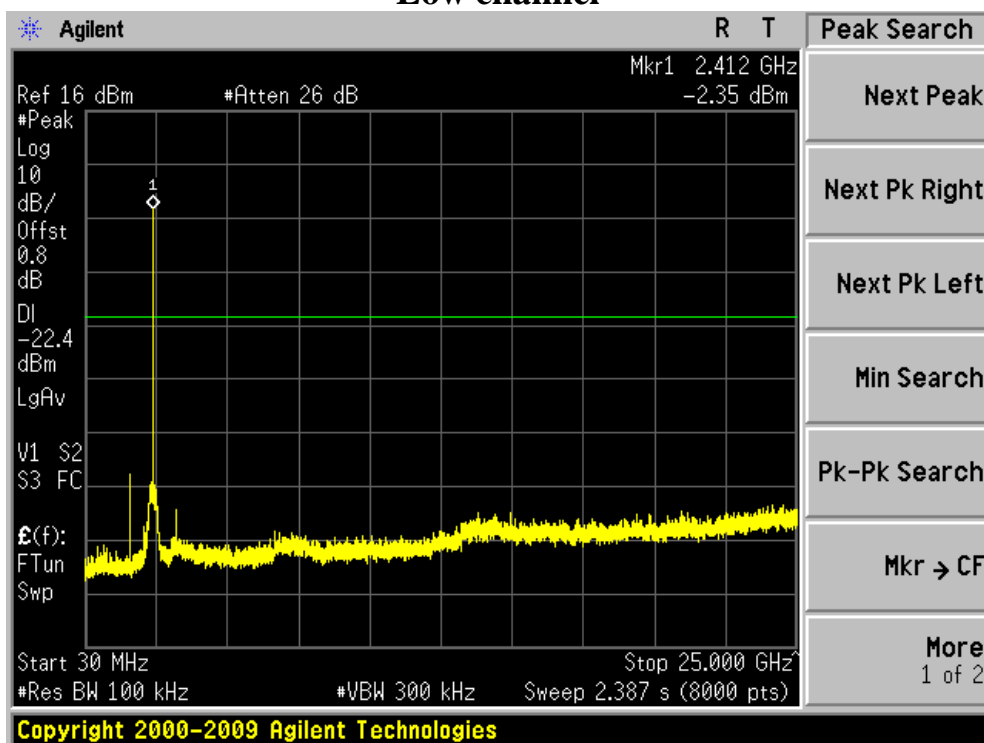
2. Measurement Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection.

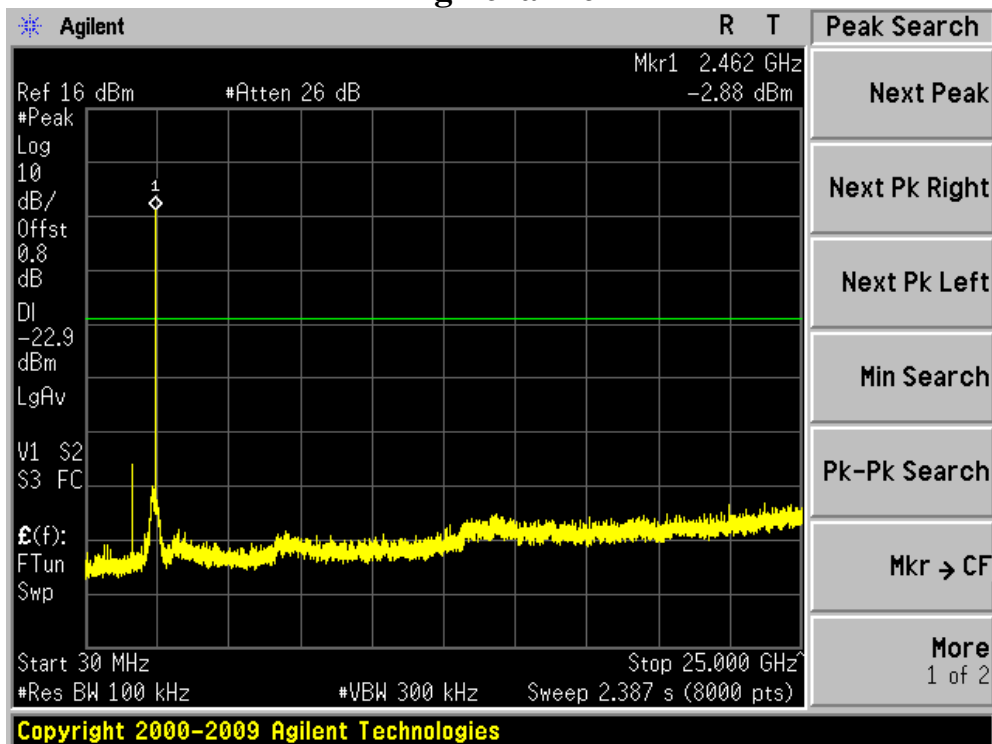
## Antenna port conducted spurious emissions

802.11b mode:

## Low channel

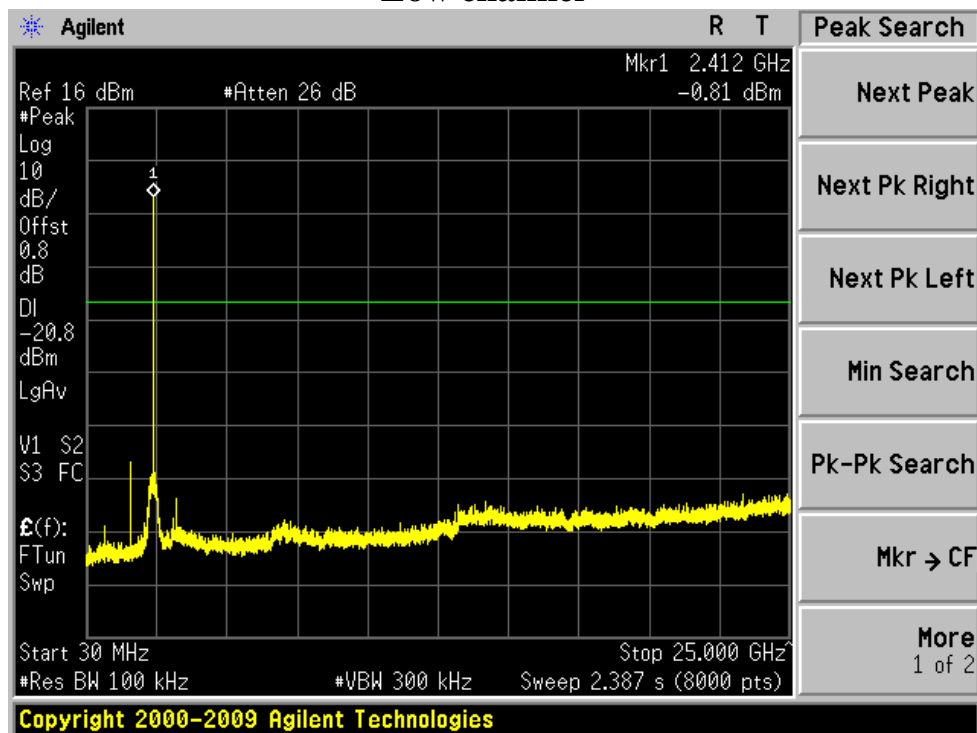


## High channel

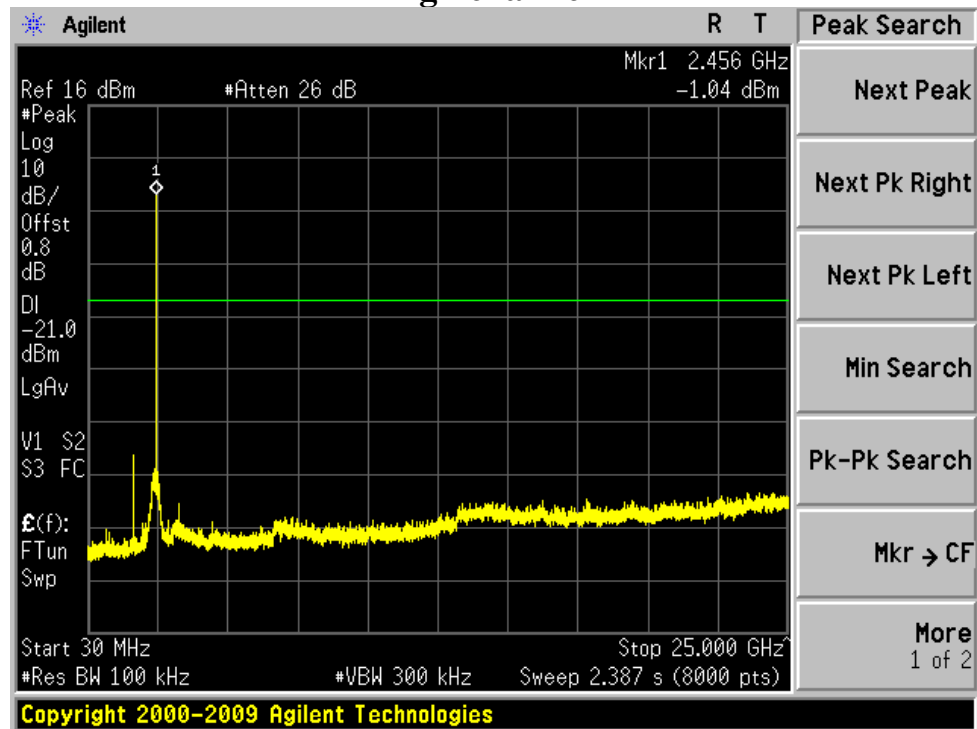


802.11g mode:

## Low channel

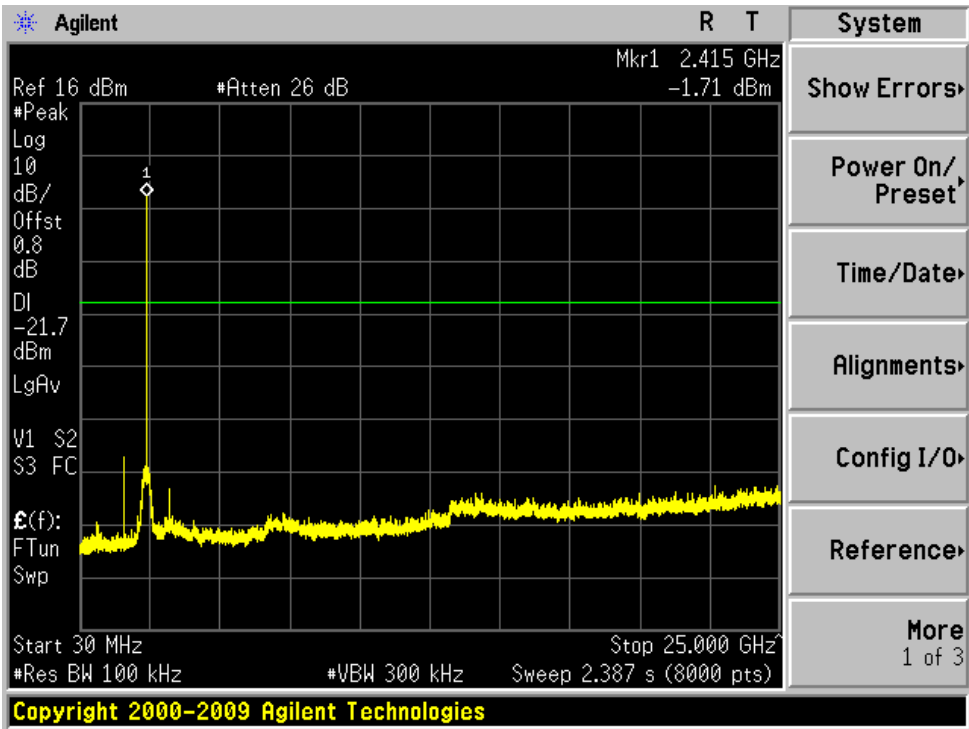


## High channel

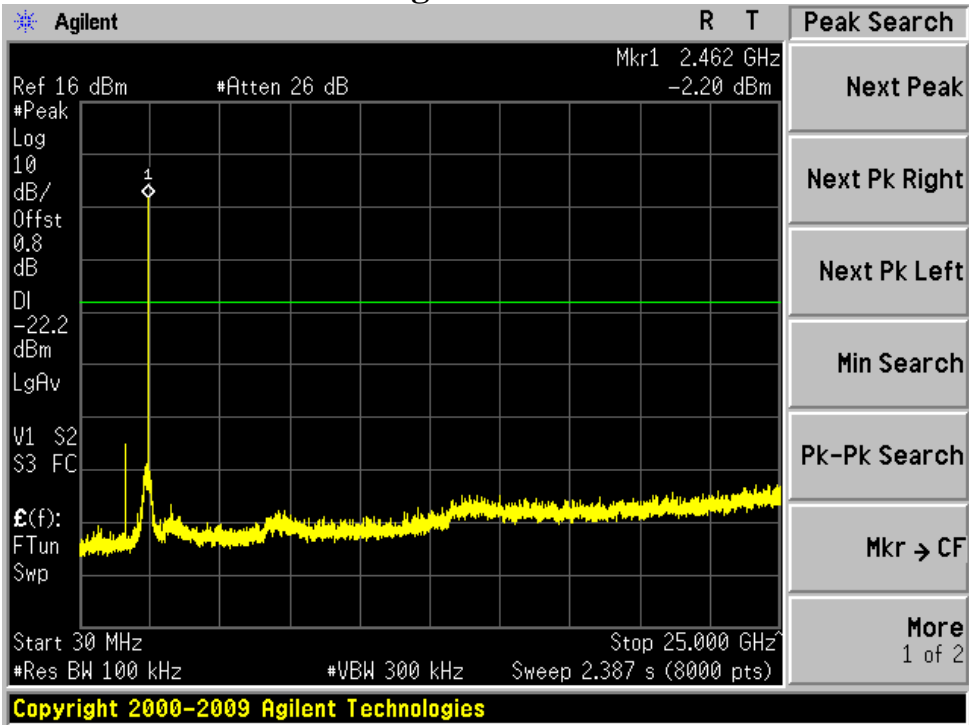


802.11n (20M) mode:

Low channel



High channel



## 10. §15.247(A) (2) – 6DB BANDWIDTH TESTING

### 10.1. Test Equipment

Please refer to Section 5 this report.

### 10.2. Test Procedure

1. Set EUT in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW=100KHz, VBW RBW, Span=50MHz, Sweep=auto.
4. Mark the peak frequency and -6dB(upper and lower) frequency.
5. Repeat until all the rest channels are investigated.

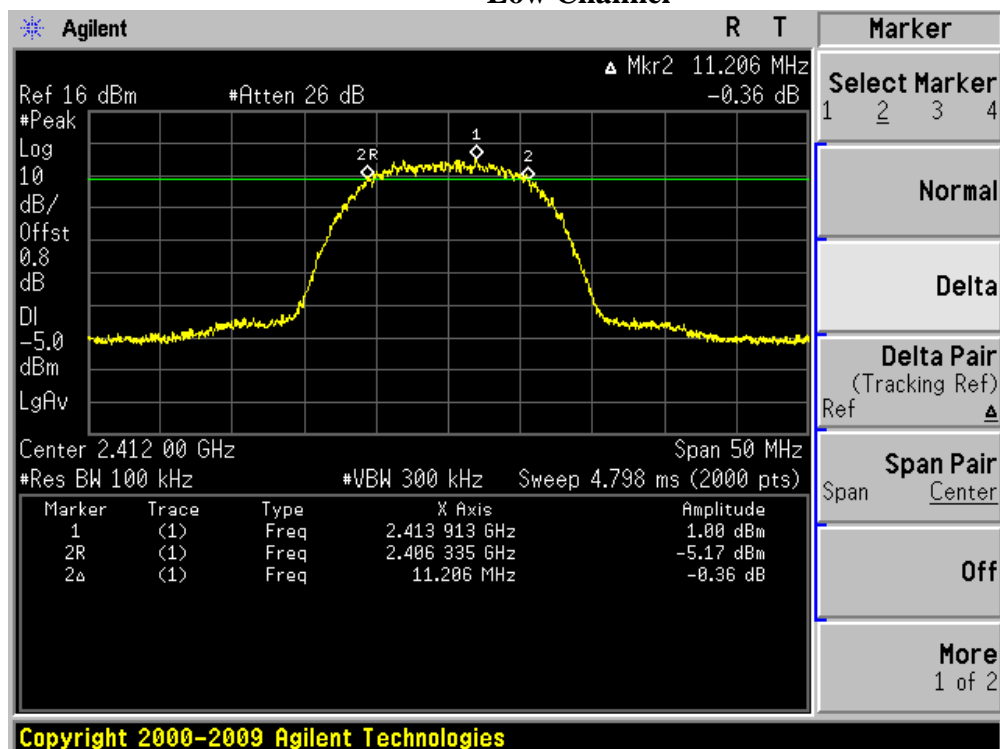
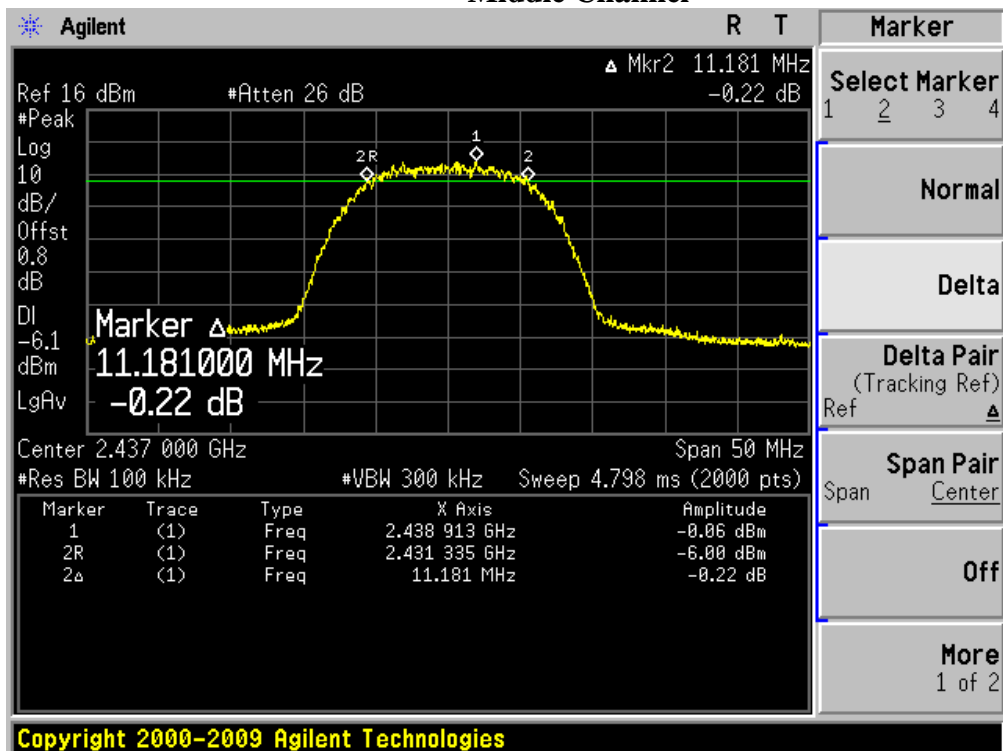
### 10.3. Applicable Standard

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

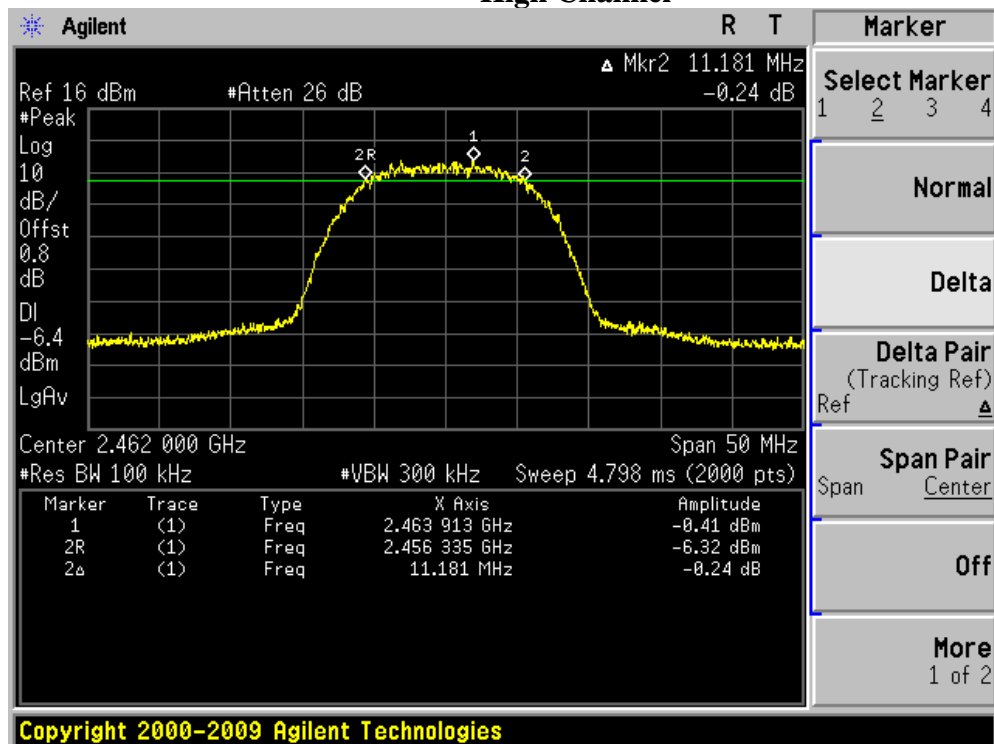
### 10.4. Test Result: Pass.

Please refer to the following tables

Channel Frequency (MHz)	Data Rate (Mbps)	6dB Bandwidth (kHz)	Limit (kHz)	Result
<b>802.11b Mode</b>				
2412	1	11206	> 500	Pass
2437	1	11181	> 500	Pass
2462	1	11181	> 500	Pass
<b>802.11g Mode</b>				
2412	6	16458	> 500	Pass
2437	6	16483	> 500	Pass
2462	6	16433	> 500	Pass
<b>802.11n (20M) Mode</b>				
2412	6.5	17484	> 500	Pass
2437	6.5	17309	> 500	Pass
2462	6.5	17409	> 500	Pass

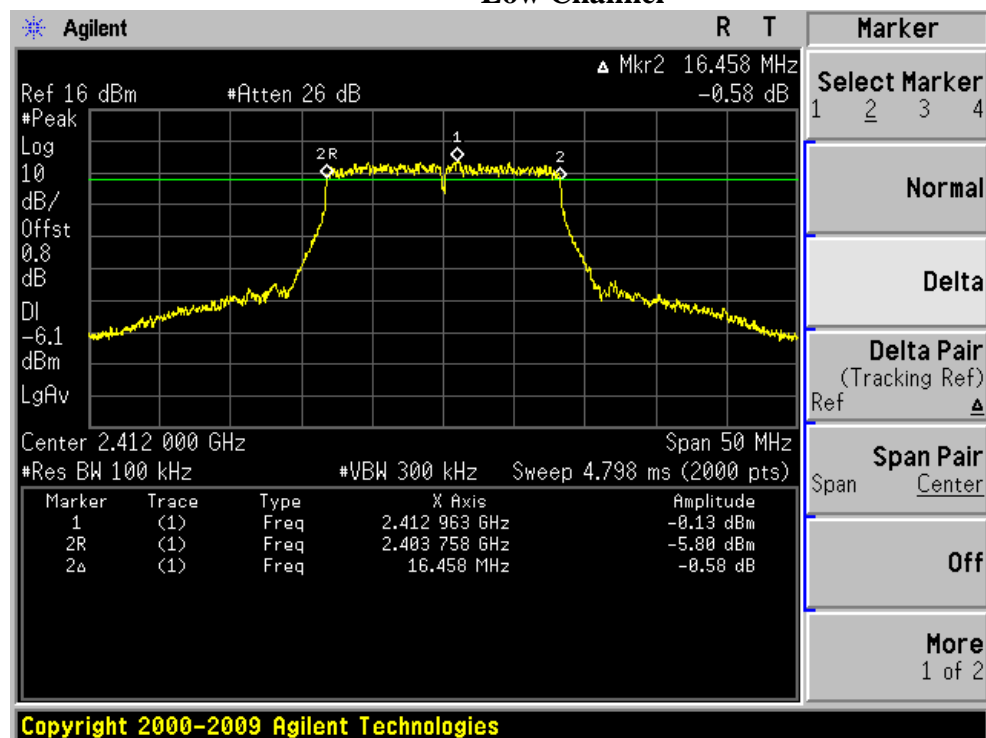
**802.11b Mode:****Low Channel****Middle Channel**

## High Channel



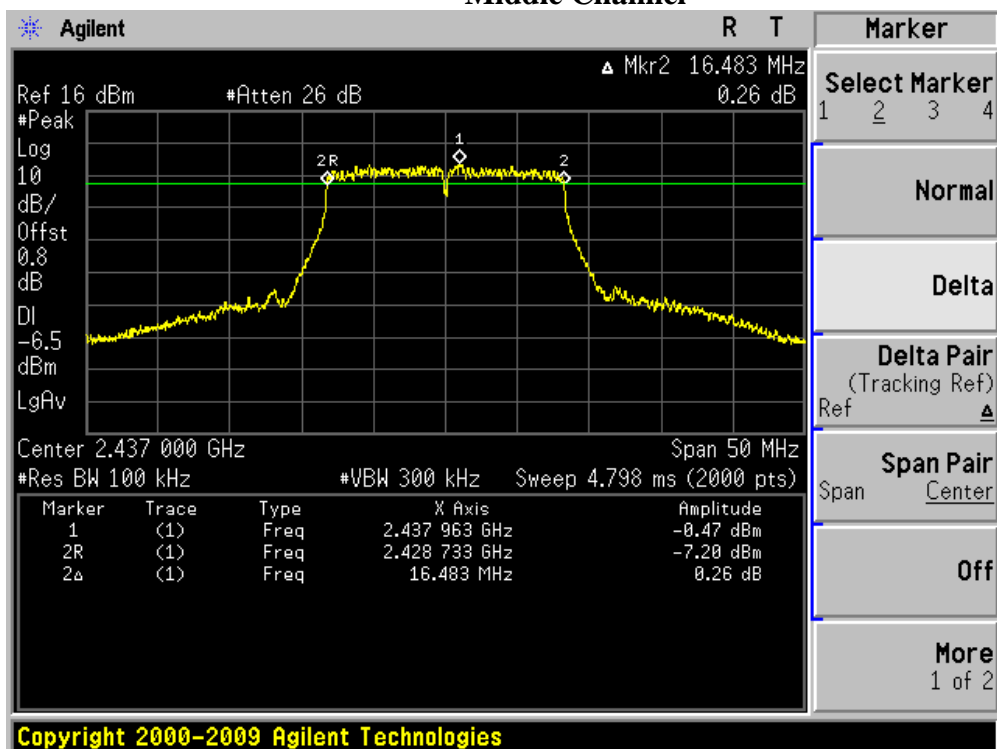
## 802.11g Mode:

## Low Channel

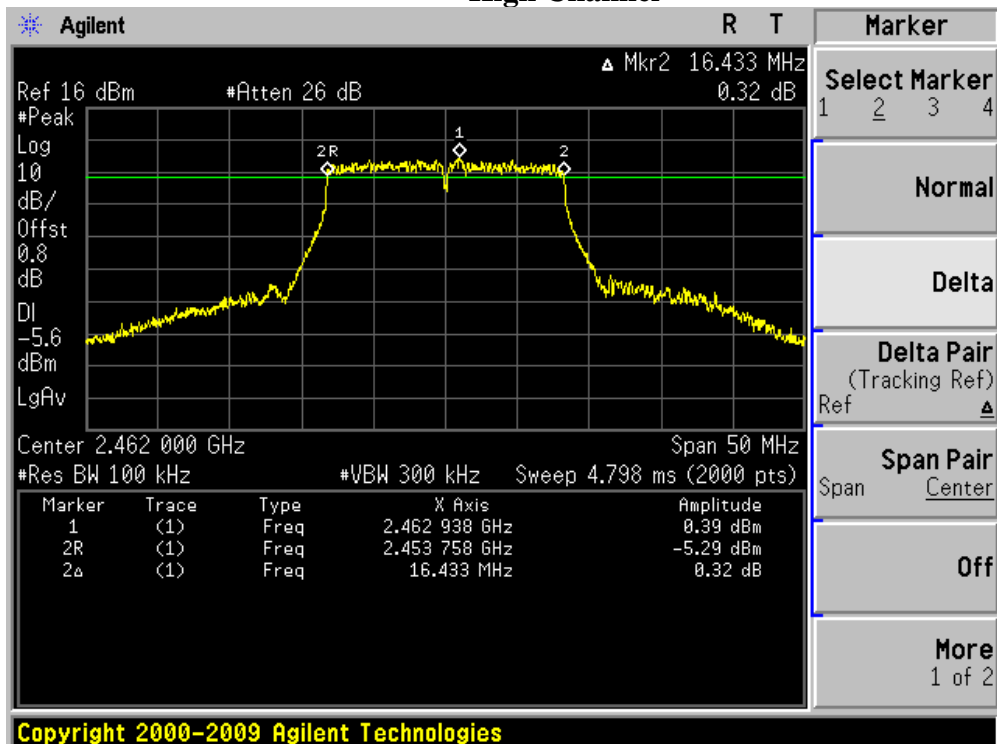


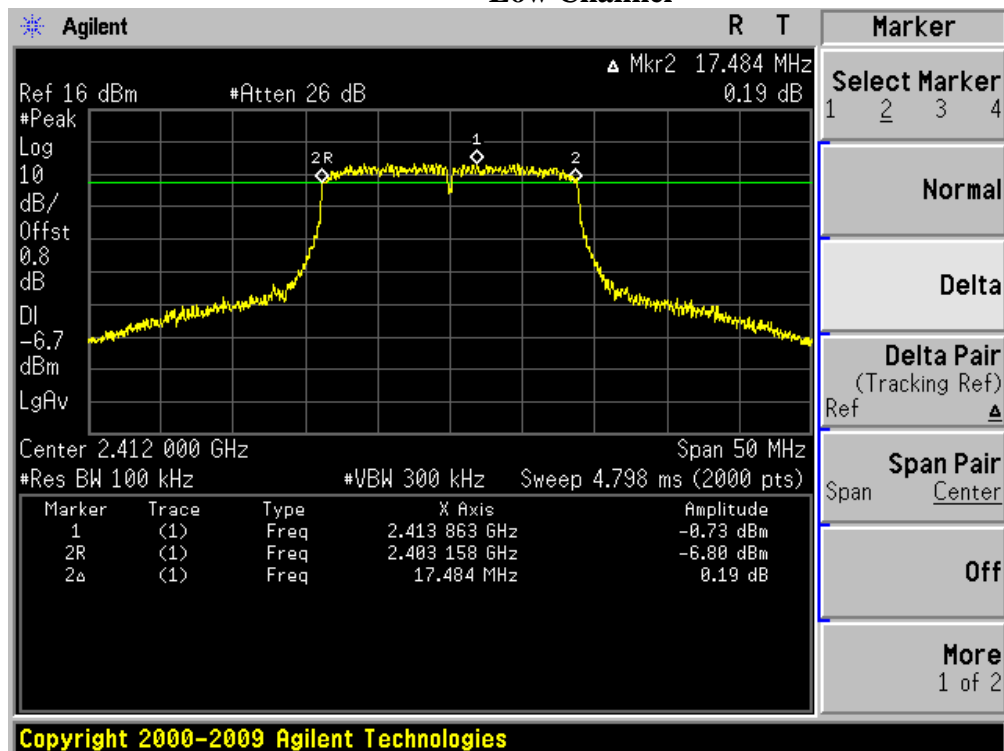
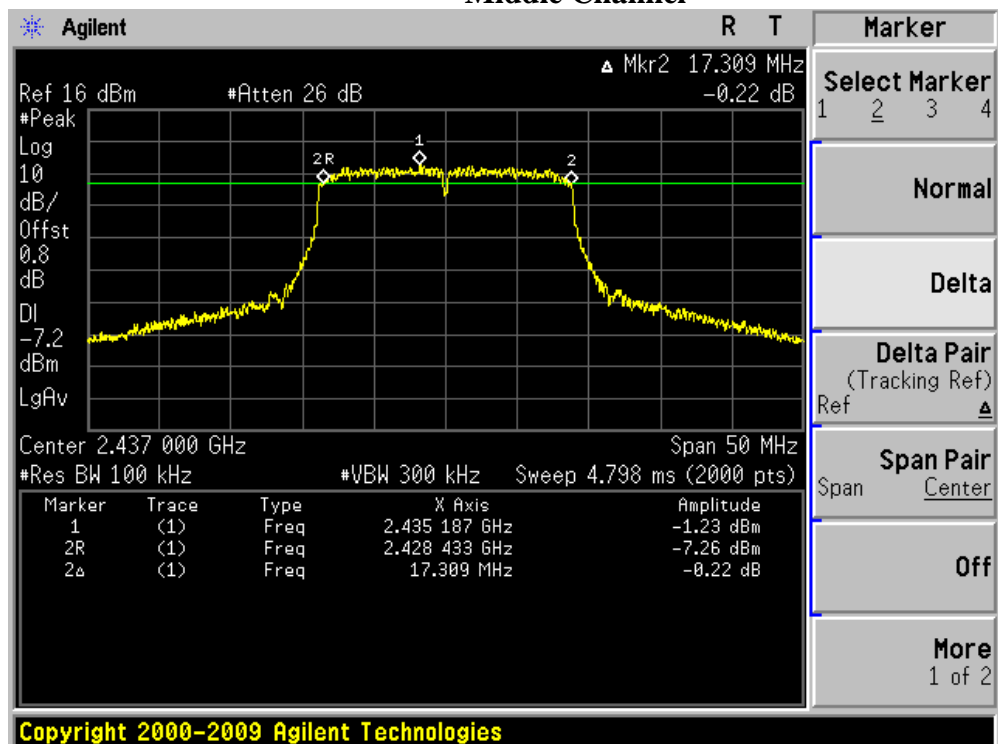


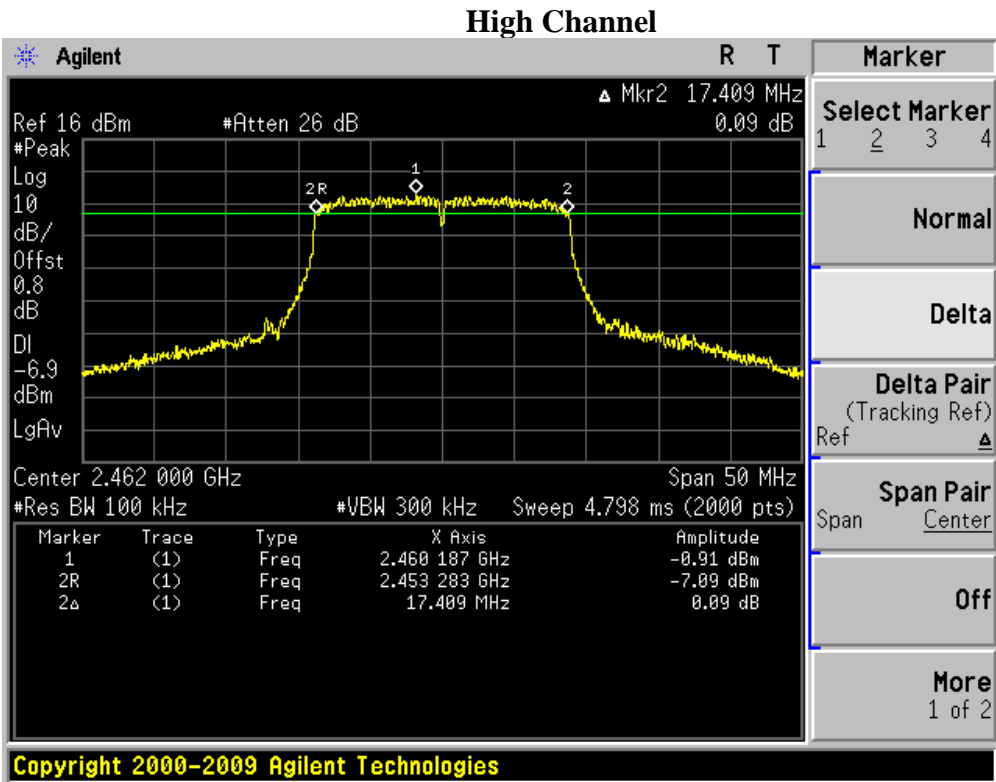
## Middle Channel



## High Channel



**802.11n (20M) Mode:****Low Channel****Middle Channel**



## **11. §15.247(B) (3) - Maximum Peak Output Power**

### **11.1. Test Equipment**

Please refer to Section 5 this report.

### **11.2. Test Procedure**

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz.
3. Set VBW = 3 MHz.
4. Use sample detector mode if bin width (i.e., span/number of points in spectrum display) < 0.5 RBW. Otherwise use peak detector mode.
5. Use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at full control power for entire sweep of every sweep. If the device transmits continuously, with no off intervals or reduced power intervals, the trigger may be set to “free run”.
6. Trace average 100 traces in power averaging mode.
7. Compute power by integrating the spectrum across the 26 dB EBW of the signal. The integration can be performed using the spectrum analyzer’s band power measurement function with band limits set equal to the EBW band edges or by summing power levels in each 1 MHz band in linear power terms. The 1 MHz band power levels to be summed can be obtained by averaging, in linear power terms, power levels in each frequency bin across the 1 MHz.

### **11.3. Applicable Standard**

According to §15.247(b) (3), for systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

**11.4. Test Result****Pass****802.11b Mode:**

Channel	Frequency (MHz)	Data Rate (Mbps)	Conducted Power (dBm)	Limit (dBm)
Low	2412	1	12.64	30
Mid	2437	1	12.78	30
High	2462	1	12.62	30

**802.11g Mode:**

Channel	Frequency (MHz)	Data Rate (Mbps)	Conducted Power (dBm)	Limit (dBm)
Low	2412	6	11.37	30
Mid	2437	6	11.45	30
High	2462	6	11.21	30

**802.11n (20M) Mode:**

Channel	Frequency (MHz)	Data Rate (Mbps)	Conducted Power (dBm)	Limit (dBm)
Low	2412	6.5	11.18	30
Mid	2437	6.5	11.26	30
High	2462	6.5	10.93	30

## **12. §15.247(D) – 100 KHZ Bandwidth of Frequency Band Edge**

### **12.1.Test Equipment**

Please refer to Section 5 this report.

### **12.2.Test Procedure**

- 1, Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2, Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
- 3, Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.  
Note: For Rdstricted Band  
RBW=1MHz  
VBW=1 MHz
- 4, Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
- 5, Repeat above procedures until all measured frequencies were complete.

### **12.3.Applicable Standard**

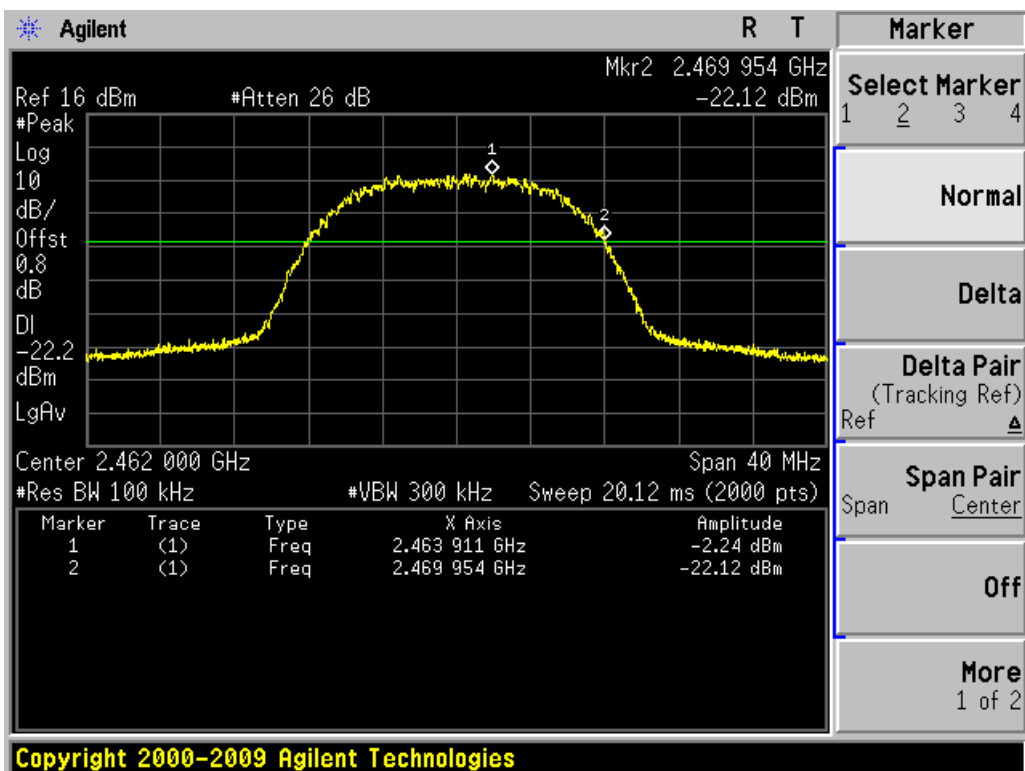
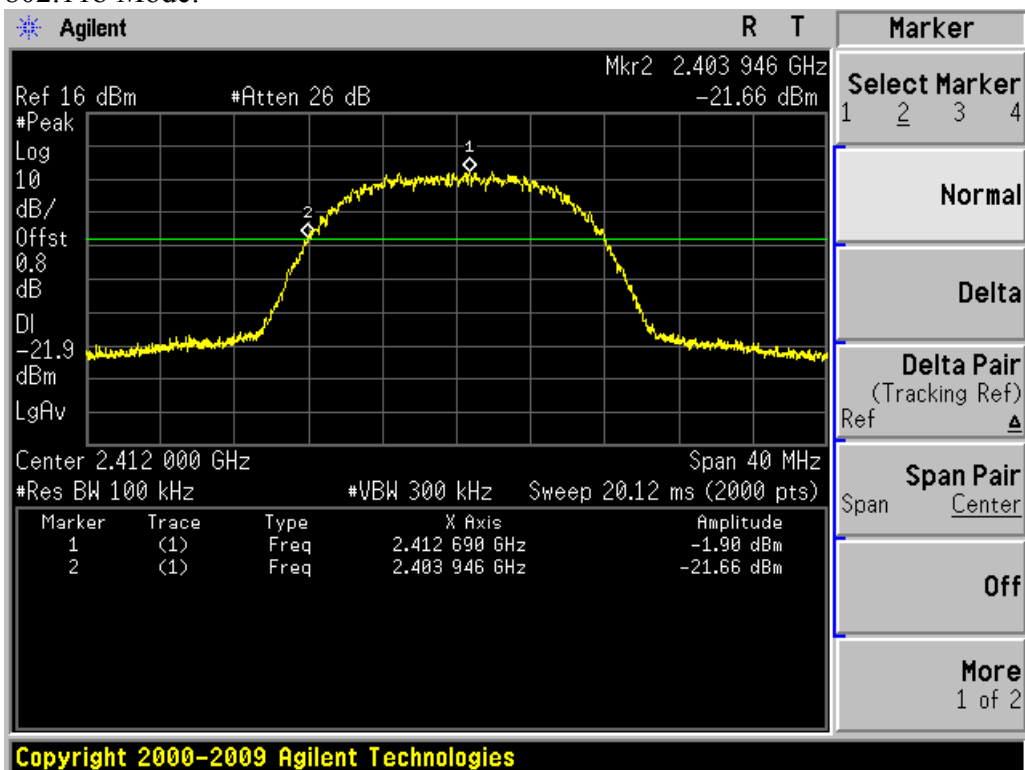
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

### **12.4.Test Result**

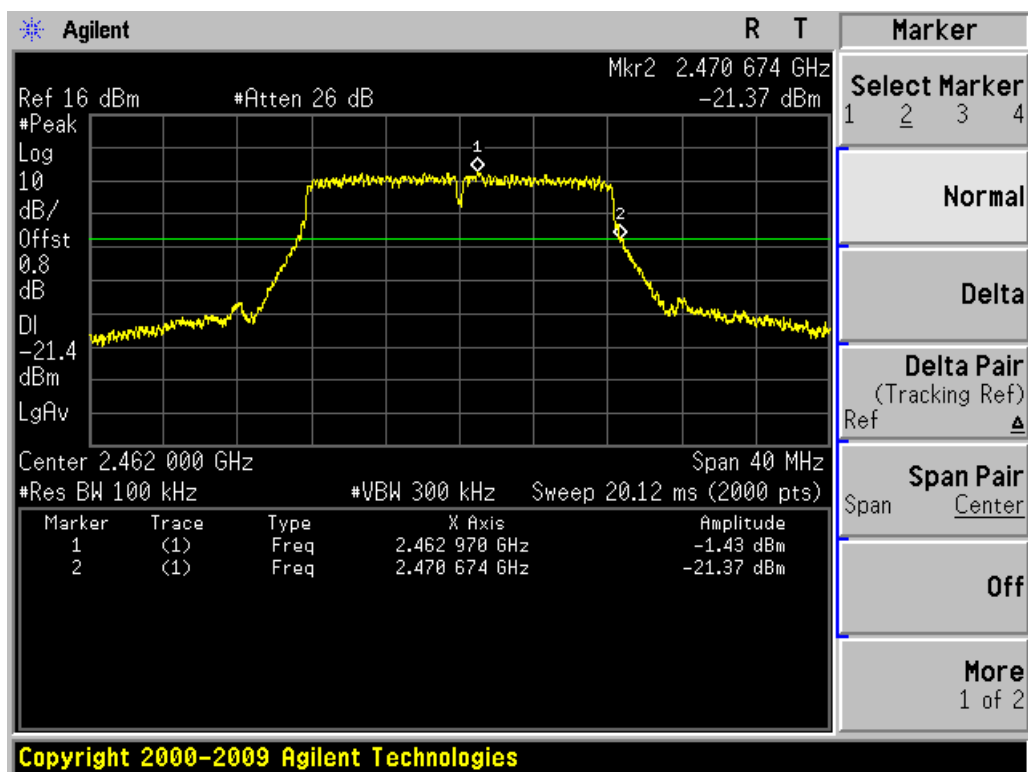
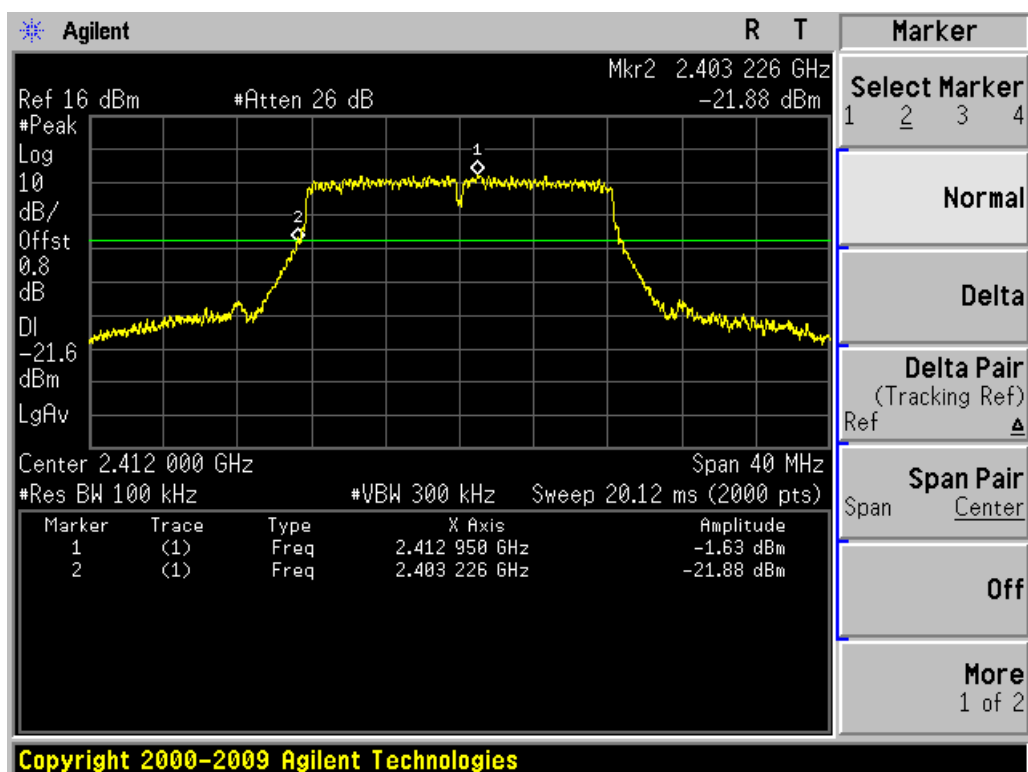
**Pass.**

## Conducted test

802.11b Mode:

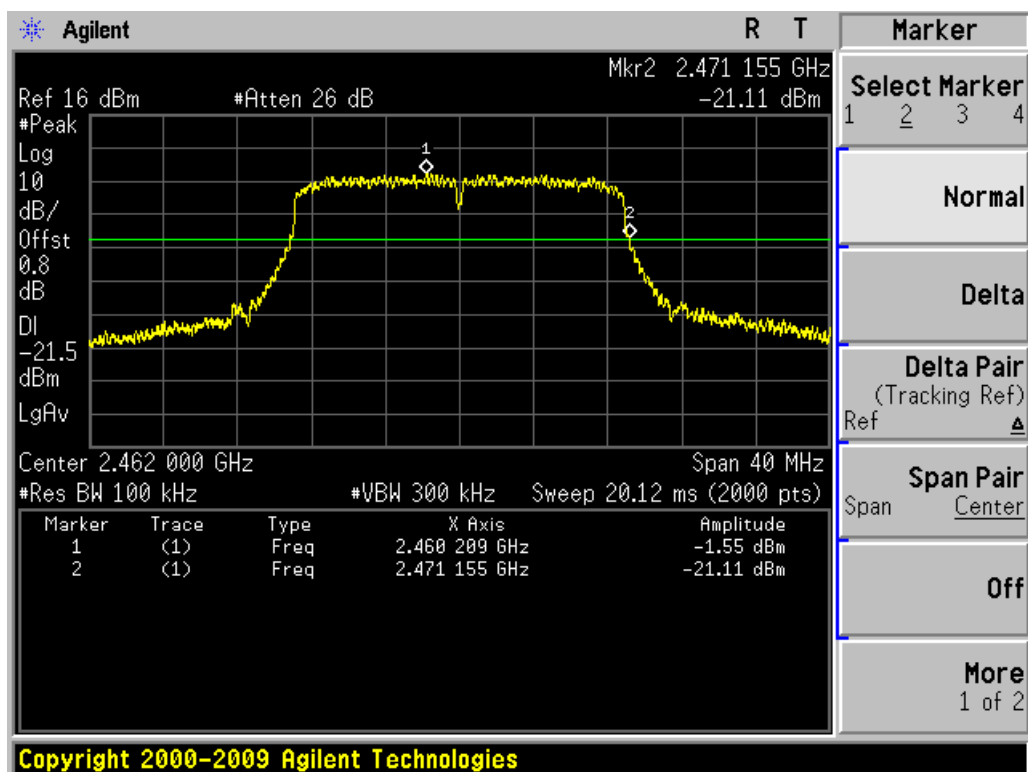
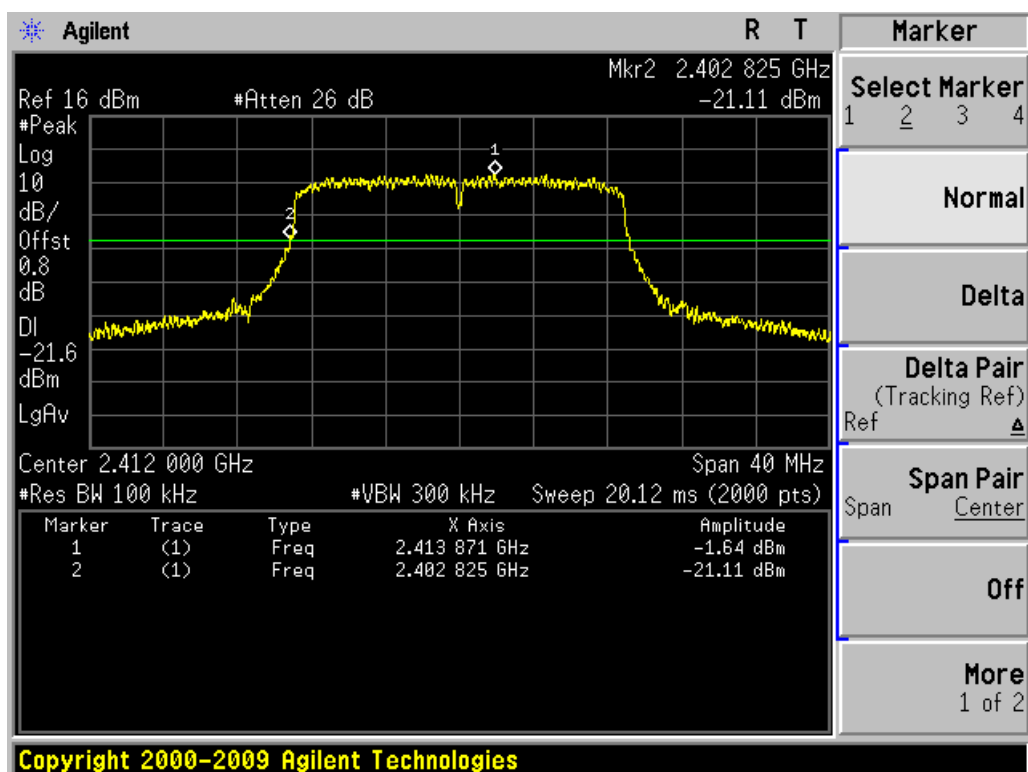


802.11g Mode:





802.11n (20M) Mode:



## Radiated test

Date of Test: September 14, 2012

Temperature: 23°C

EUT: Mobile Internet Devices (MID)

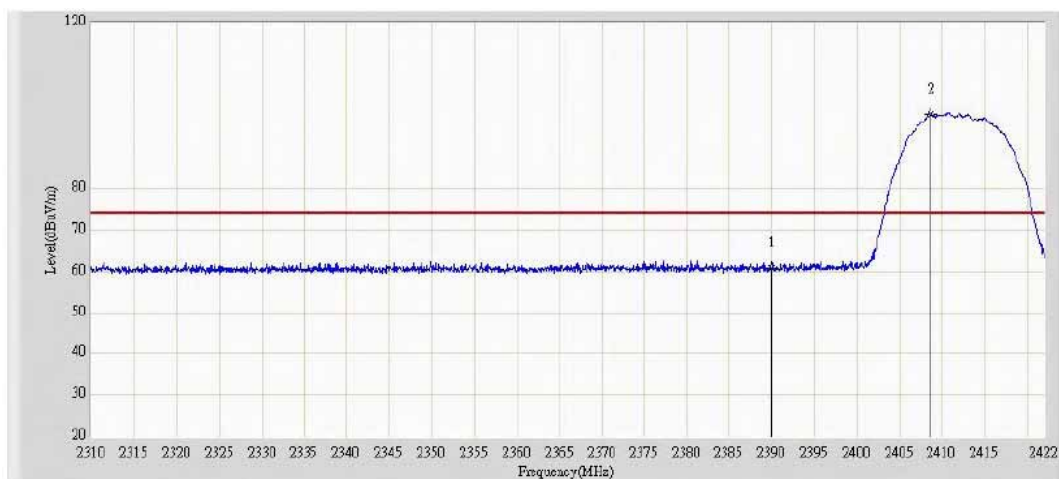
Humidity: 55%

Model No.: M805A1

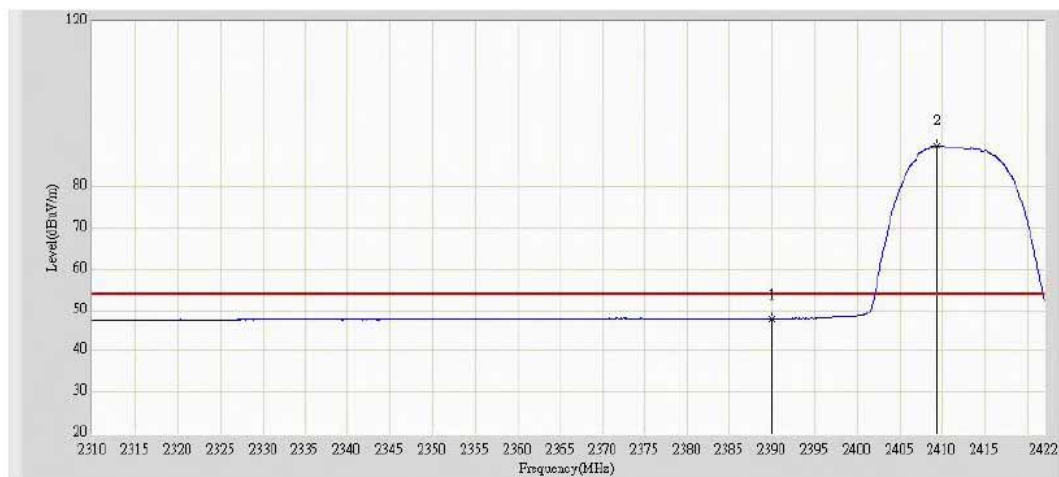
Power Supply: AC 120V/60Hz

Test Mode: 802.11b Channel Low 2412MHz

Polarization: HORIZONTAL



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	60.803	29.618	-13.197	74.000	31.185	PK
2		*	2408.728	98.002	66.822	N/A	N/A	31.180	PK



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	47.694	16.509	-6.306	54.000	31.185	AV
2		*	2409.400	89.856	58.676	N/A	N/A	31.180	AV

Note: 1. Measurement Level = Reading Level + Correct Factor.

2. The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test: September 14, 2012

Temperature: 23°C

EUT: Mobile Internet Devices (MID)

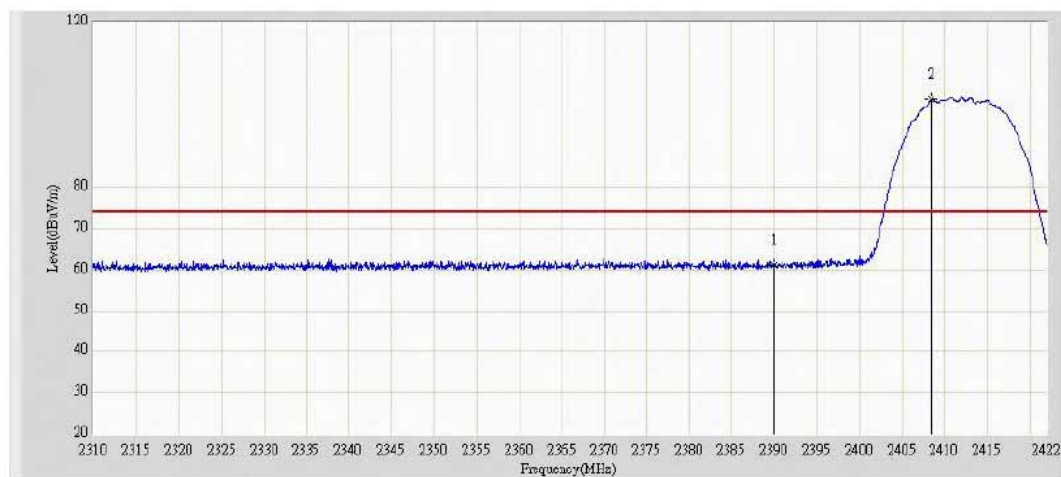
Humidity: 55%

Model No.: M805A1

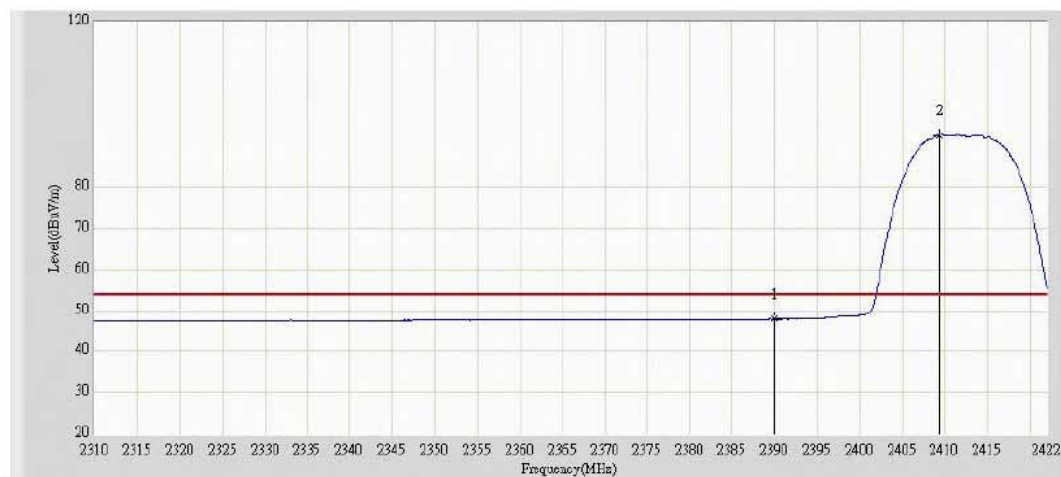
Power Supply: AC 120V/60Hz

Test Mode: 802.11b Channel Low 2412MHz

Polarization: VERTICAL



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	60.972	29.787	-13.028	74.000	31.185	PK
2		*	2408.504	101.275	70.095	N/A	N/A	31.180	PK

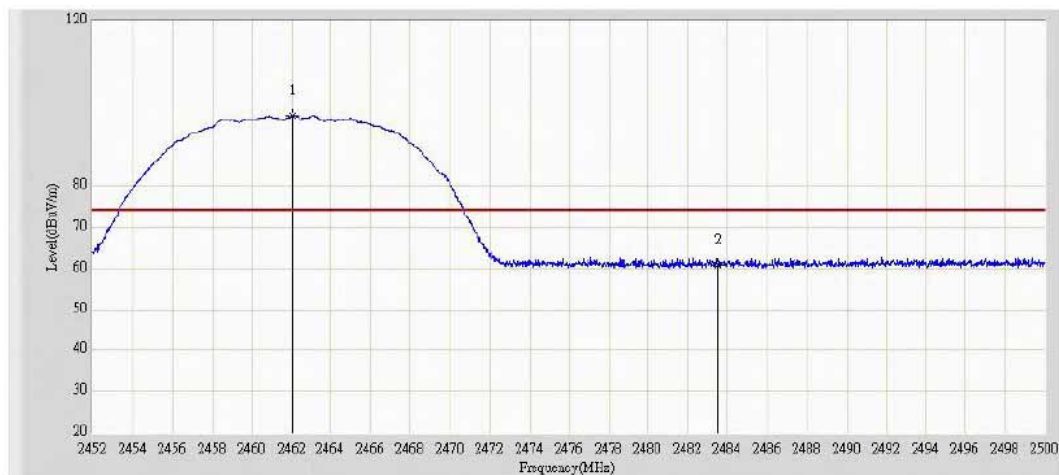


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	47.743	16.558	-6.257	54.000	31.185	AV
2		*	2409.400	92.531	61.351	N/A	N/A	31.180	AV

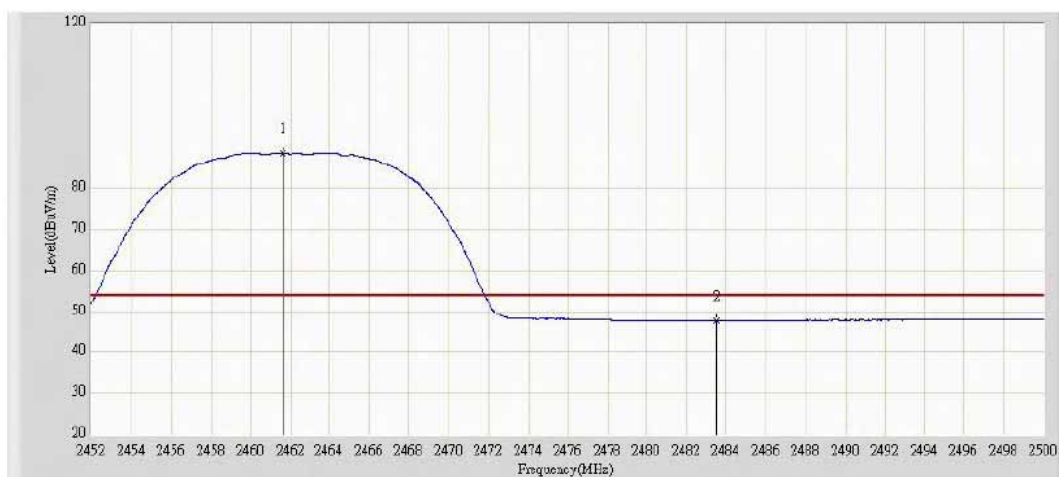
Note: 1. Measurement Level = Reading Level + Correct Factor.

2. The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test:	<u>September 14, 2012</u>	Temperature:	<u>23°C</u>
EUT:	<u>Mobile Internet Devices (MID)</u>	Humidity:	<u>55%</u>
Model No.:	<u>M805A1</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11b Channel High 2462MHz</u>	Polarization:	<u>HORIZONTAL</u>



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2462.056	97.024	65.821	N/A	N/A	31.203	PK
2			2483.500	60.908	29.699	-13.092	74.000	31.209	PK

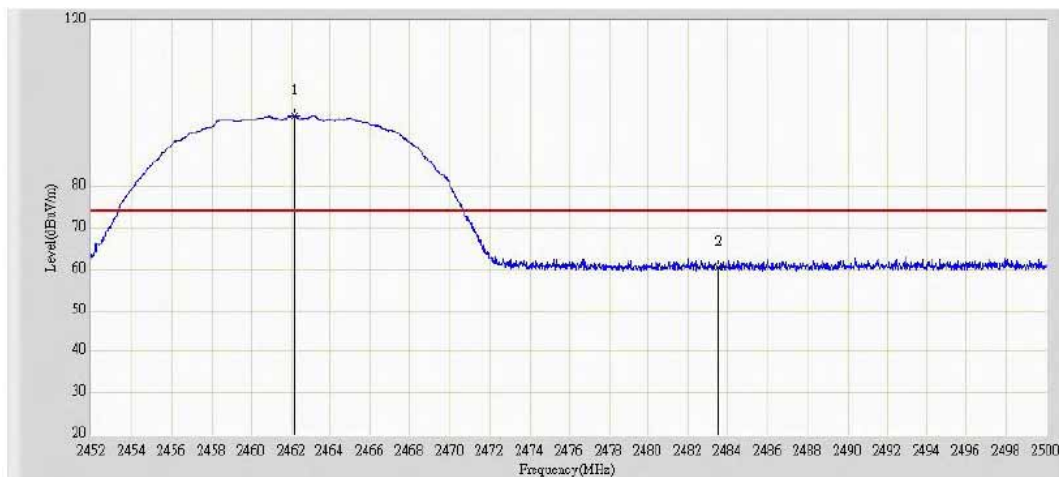


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2461.600	88.508	57.305	N/A	N/A	31.203	AV
2			2483.500	47.681	16.472	-6.319	54.000	31.209	AV

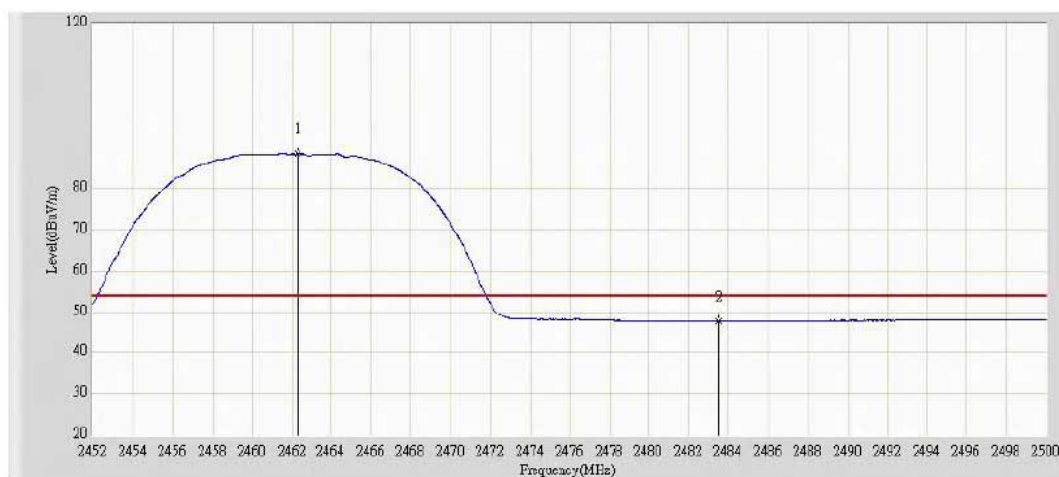
Note: 1. Measurement Level = Reading Level + Correct Factor.

2. The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test:	September 14, 2012	Temperature:	23°C
EUT:	Mobile Internet Devices (MID)	Humidity:	55%
Model No.:	M805A1	Power Supply:	AC 120V/60Hz
Test Mode:	802.11b Channel High 2462MHz	Polarization:	VERTICAL



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2462.128	97.082	65.879	N/A	N/A	31.203	PK
2			2483.500	60.500	29.291	-13.500	74.000	31.209	PK



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2462.272	88.296	57.093	N/A	N/A	31.203	AV
2			2483.500	47.636	16.427	-6.364	54.000	31.209	AV

Note: 1. Measurement Level = Reading Level + Correct Factor.

2. The average measurement was not performed when the peak measured data under the limit of average detection.

## Radiated test

Date of Test: September 14, 2012

Temperature: 23°C

EUT: Mobile Internet Devices (MID)

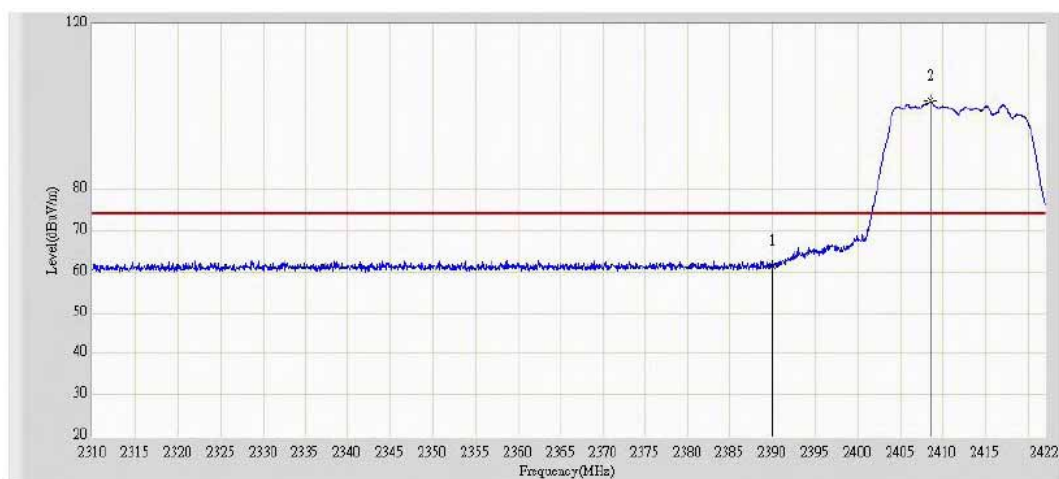
Humidity: 55%

Model No.: M805A1

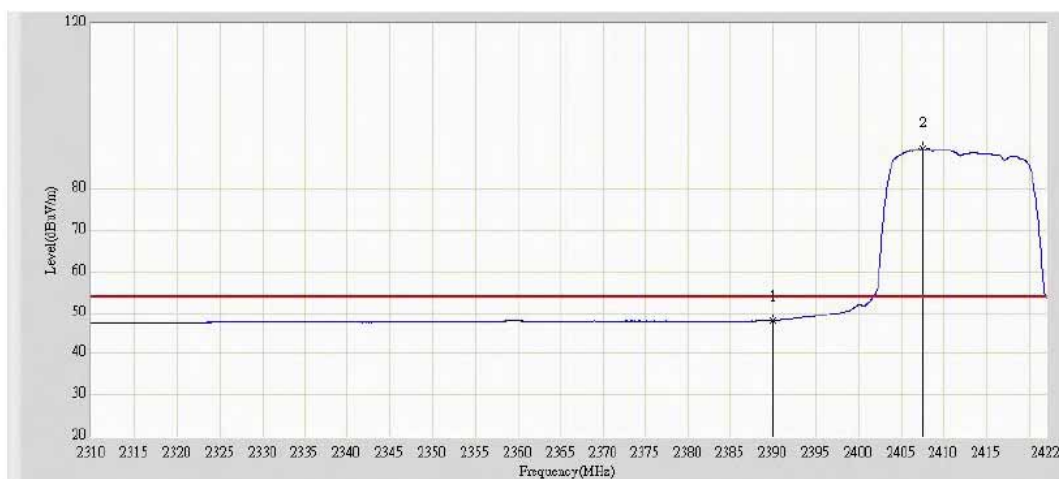
Power Supply: AC 120V/60Hz

Test Mode: 802.11g Channel Low 2412MHz

Polarization: HORIZONTAL



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	61.240	30.055	-12.760	74.000	31.185	PK
2		*	2408.560	101.229	70.049	N/A	N/A	31.180	PK



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	47.894	16.709	-6.106	54.000	31.185	AV
2		*	2407.664	89.695	58.514	N/A	N/A	31.181	AV

Note: 1. Measurement Level = Reading Level + Correct Factor.

2. The average measurement was not performed when the peak measured data under the limit of average detection.



Date of Test: September 14, 2012

Temperature: 23°C

EUT: Mobile Internet Devices (MID)

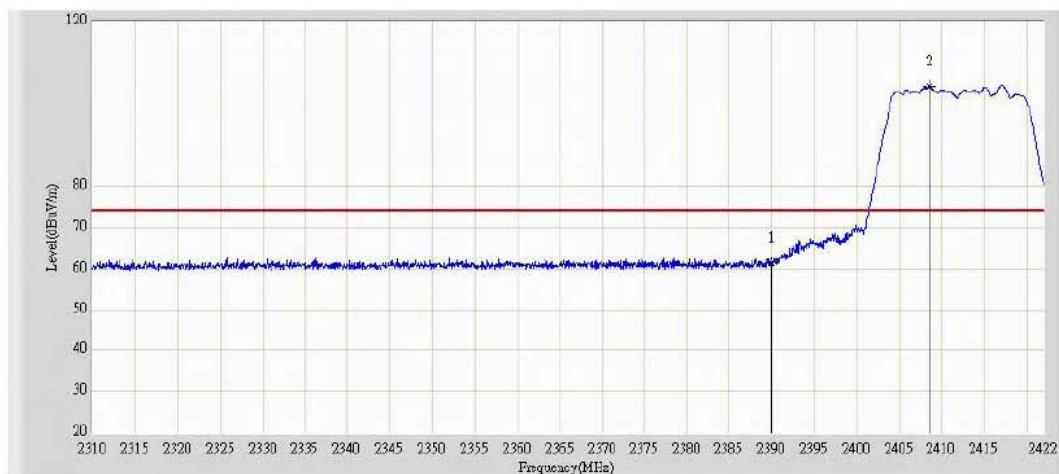
Humidity: 55%

Model No.: M805A1

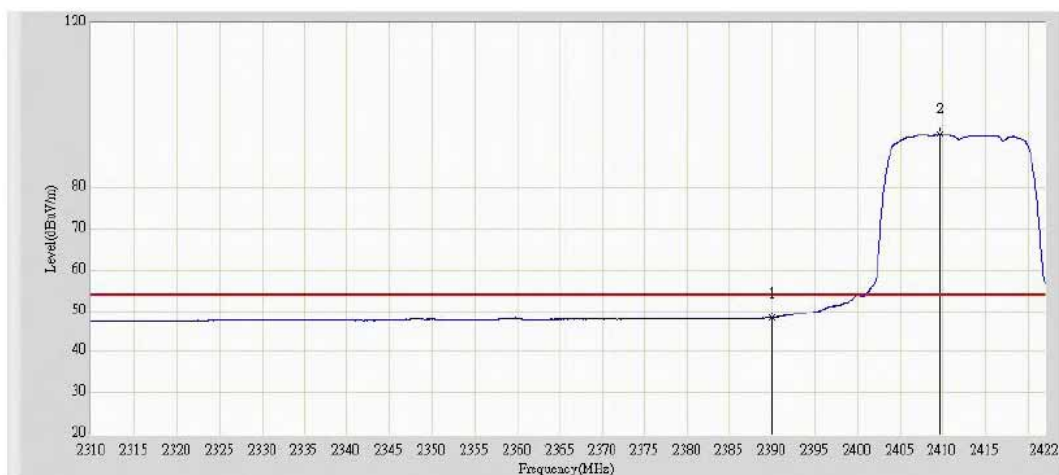
Power Supply: AC 120V/60Hz

Test Mode: 802.11g Channel Low 2412MHz

Polarization: VERTICAL



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	61.400	30.215	-12.600	74.000	31.185	PK
2		*	2408.616	104.318	73.138	N/A	N/A	31.180	PK

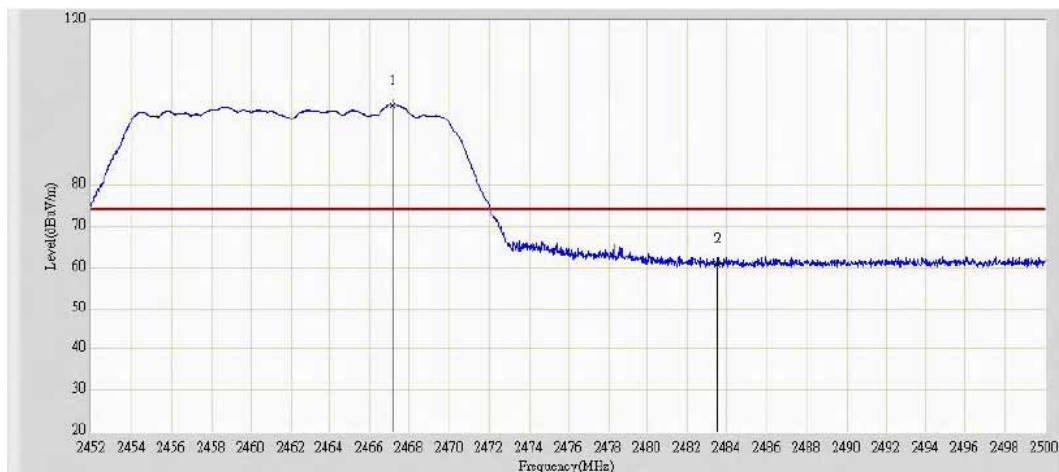


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	48.200	17.015	-5.800	54.000	31.185	AV
2		*	2409.736	92.881	61.701	N/A	N/A	31.180	AV

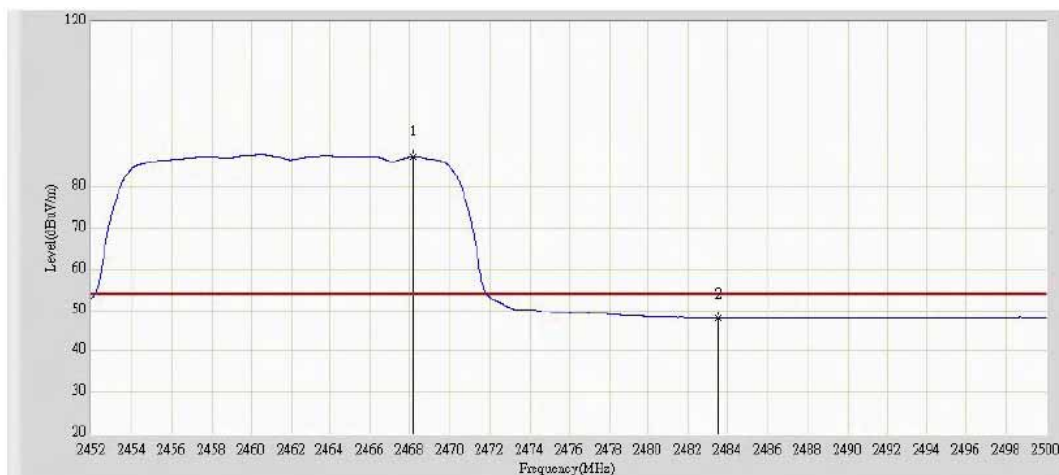
Note: 1. Measurement Level = Reading Level + Correct Factor.

2. The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test:	September 14, 2012	Temperature:	23°C
EUT:	Mobile Internet Devices (MID)	Humidity:	55%
Model No.:	M805A1	Power Supply:	AC 120V/60Hz
Test Mode:	802.11g Channel High 2462MHz	Polarization:	HORIZONTAL



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2467.192	99.385	68.181	N/A	N/A	31.204	PK
2			2483.500	60.736	29.527	-13.264	74.000	31.209	PK



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2468.176	87.242	56.038	N/A	N/A	31.204	AV
2			2483.500	47.884	16.675	-6.116	54.000	31.209	AV

Note: 1. Measurement Level = Reading Level + Correct Factor.

2. The average measurement was not performed when the peak measured data under the limit of average detection.



Date of Test: September 14, 2012

Temperature: 23°C

EUT: Mobile Internet Devices (MID)

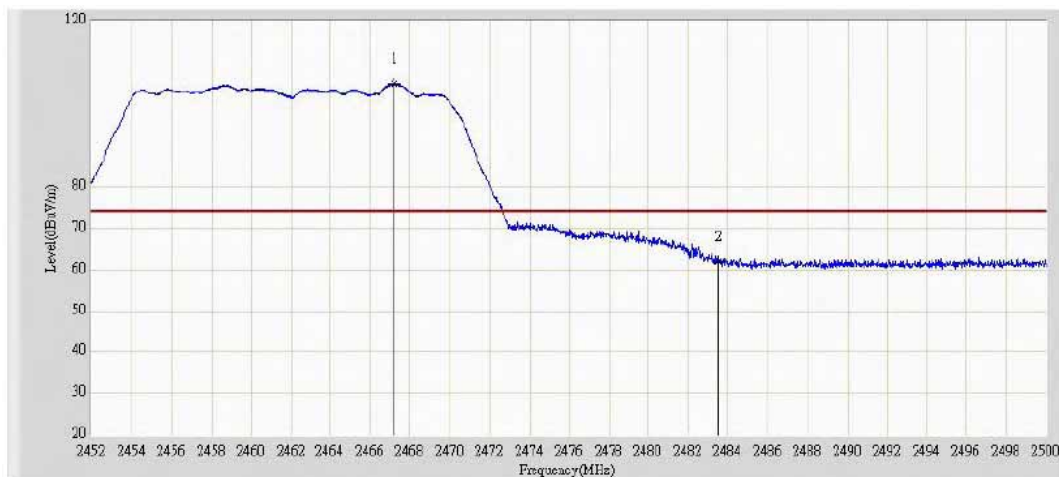
Humidity: 55%

Model No.: M805A1

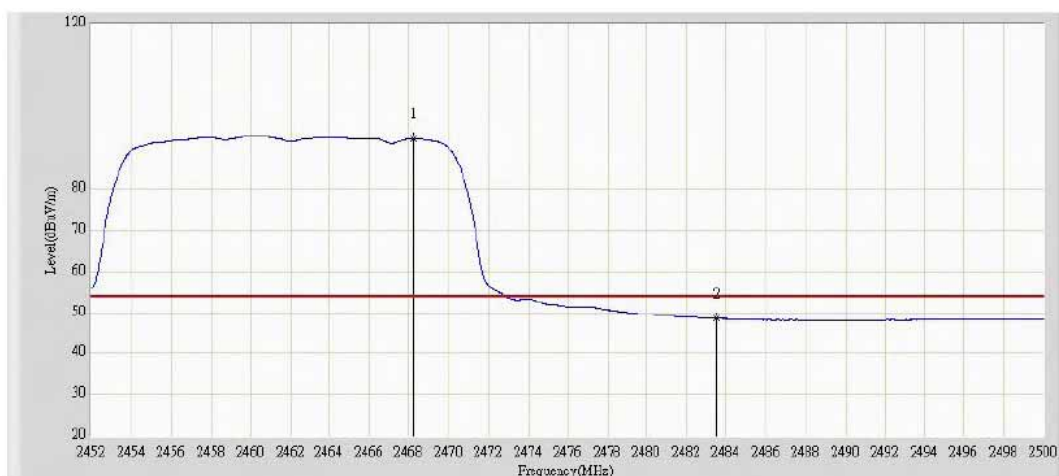
Power Supply: AC 120V/60Hz

Test Mode: 802.11g Channel High 2462MHz

Polarization: VERTICAL



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2467.216	104.649	73.445	N/A	N/A	31.204	PK
2			2483.500	61.863	30.654	-12.137	74.000	31.209	PK



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2468.248	92.247	61.043	N/A	N/A	31.204	AV
2			2483.500	48.432	17.223	-5.568	54.000	31.209	AV

Note: 1. Measurement Level = Reading Level + Correct Factor.

2. The average measurement was not performed when the peak measured data under the limit of average detection.

## Radiated test

Date of Test: September 14, 2012

Temperature: 23°C

EUT: Mobile Internet Devices (MID)

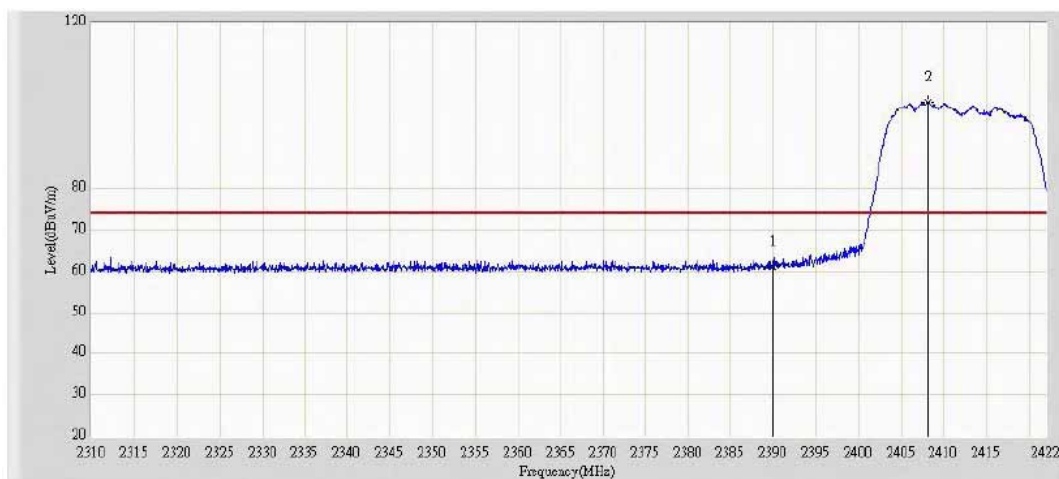
Humidity: 55%

Model No.: M805A1

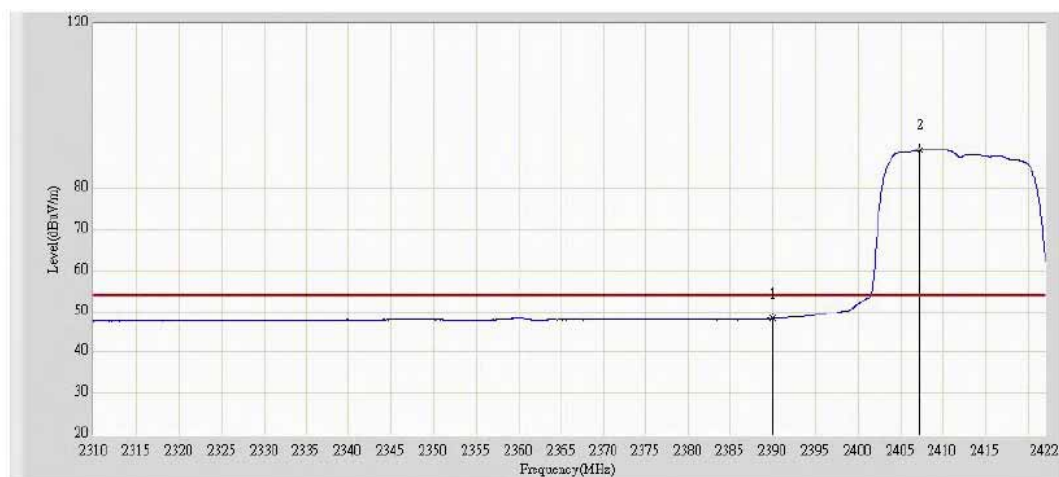
Power Supply: AC 120V/60Hz

Test Mode: 802.11n HT20 Channel Low 2412MHz

Polarization: HORIZONTAL



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	61.119	29.934	-12.881	74.000	31.185	PK
2		*	2408.168	100.631	69.451	N/A	N/A	31.181	PK



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	48.056	16.871	-5.944	54.000	31.185	AV
2		*	2407.328	89.114	57.933	N/A	N/A	31.180	AV

Note: 1. Measurement Level = Reading Level + Correct Factor.

2. The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test: September 14, 2012

Temperature: 23°C

EUT: Mobile Internet Devices (MID)

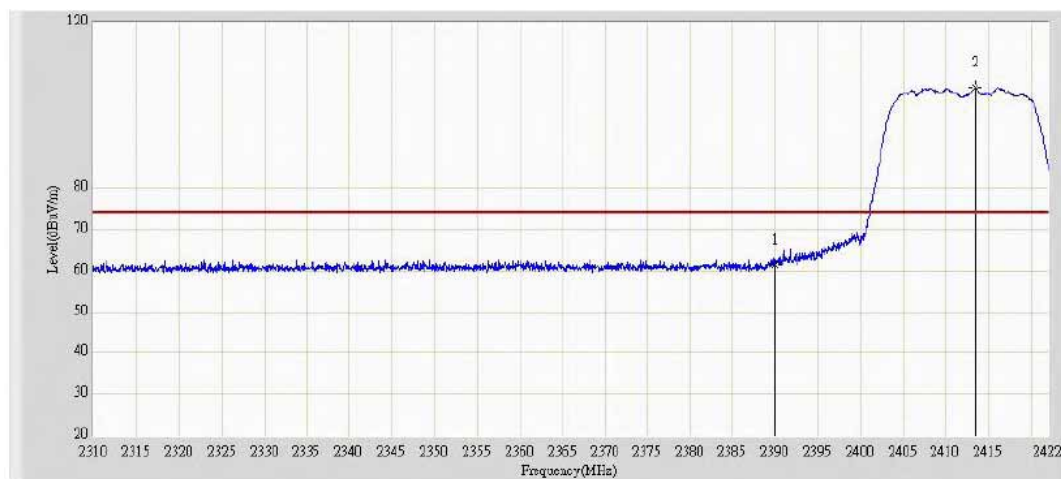
Humidity: 55%

Model No.: M805A1

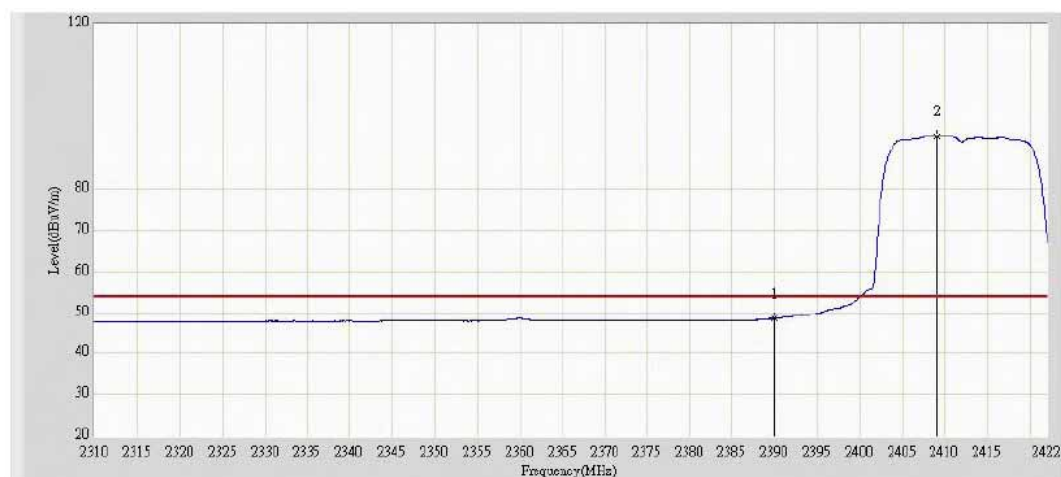
Power Supply: AC 120V/60Hz

Test Mode: 802.11n HT20 Channel Low 2412MHz

Polarization: VERTICAL



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	61.463	30.278	-12.537	74.000	31.185	PK
2		*	2413.544	104.057	72.876	N/A	N/A	31.181	PK



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	48.399	17.214	-5.601	54.000	31.185	AV
2		*	2409.232	92.639	61.459	N/A	N/A	31.180	AV

Note: 1. Measurement Level = Reading Level + Correct Factor.

2. The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test: September 14, 2012

Temperature: 23°C

EUT: Mobile Internet Devices (MID)

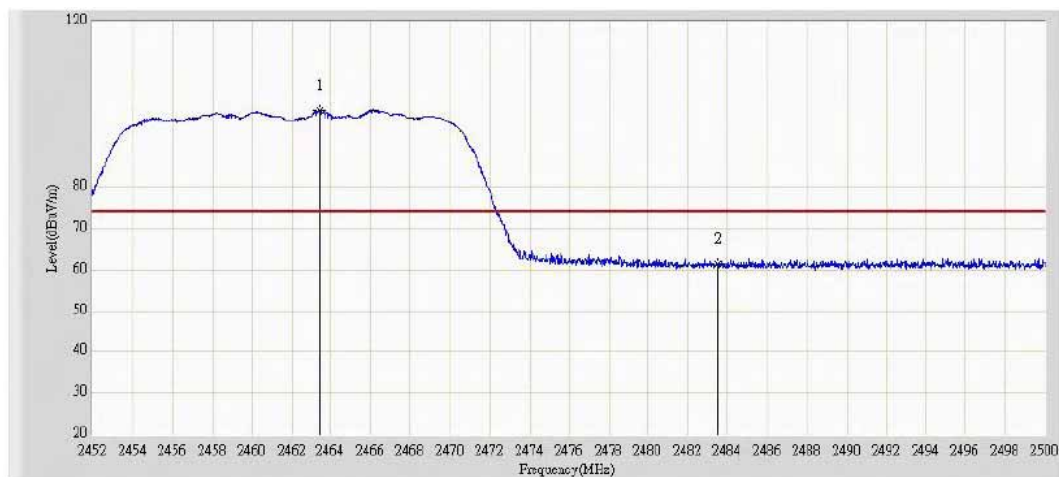
Humidity: 55%

Model No.: M805A1

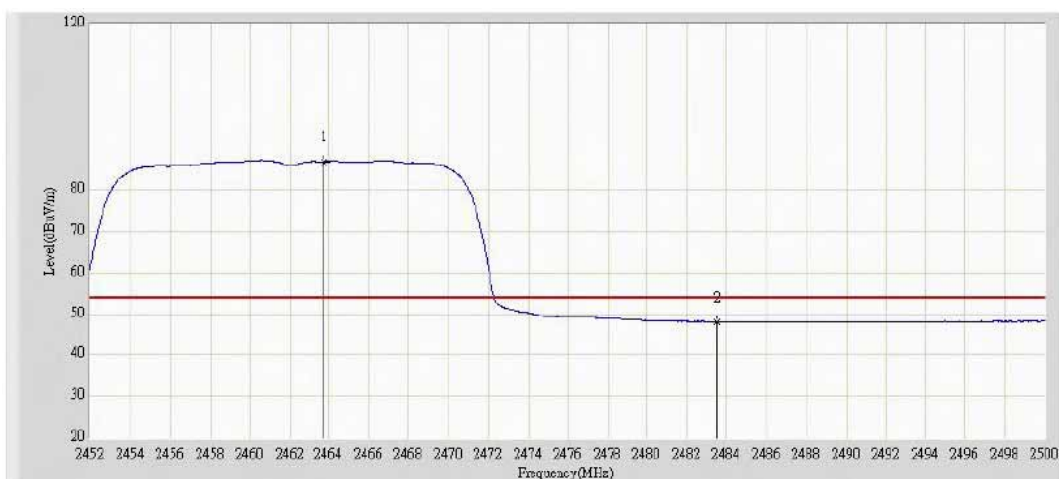
Power Supply: AC 120V/60Hz

Test Mode: 802.11n HT20 Channel High 2462MHz

Polarization: HORIZONTAL



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2463.472	98.413	67.210	N/A	N/A	31.203	PK
2			2483.500	61.262	30.053	-12.738	74.000	31.209	PK



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2463.760	86.768	55.565	N/A	N/A	31.203	AV
2			2483.500	47.947	16.738	-6.053	54.000	31.209	AV

Note: 1. Measurement Level = Reading Level + Correct Factor.

2. The average measurement was not performed when the peak measured data under the limit of average detection.

Date of Test: September 14, 2012

Temperature: 23°C

EUT: Mobile Internet Devices (MID)

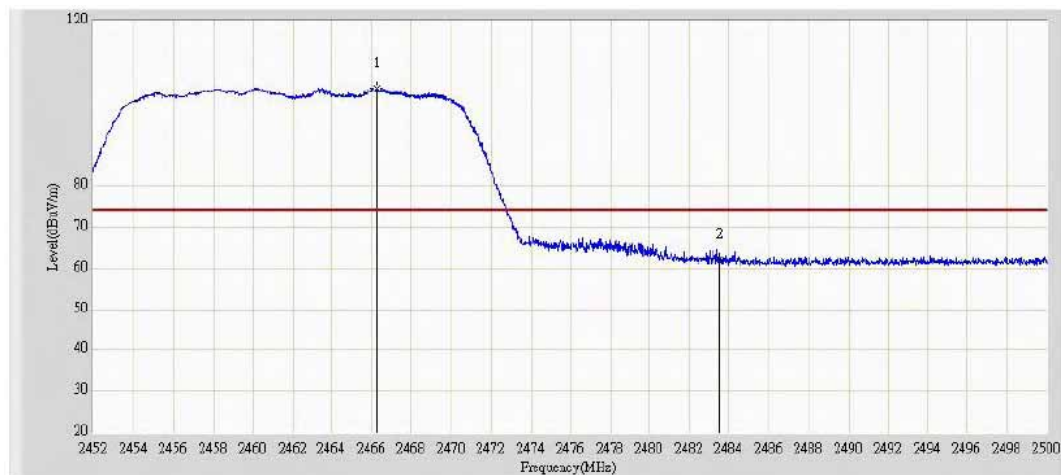
Humidity: 55%

Model No.: M805A1

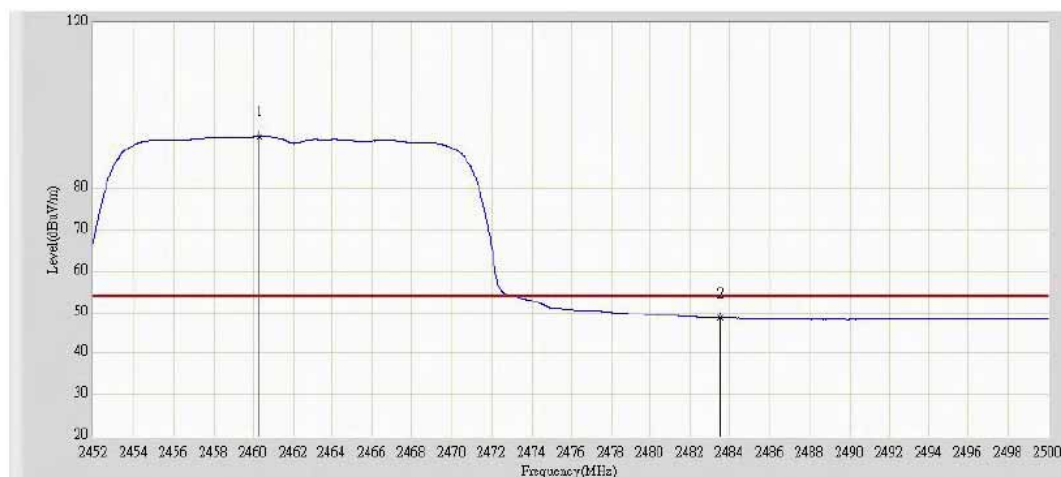
Power Supply: AC 120V/60Hz

Test Mode: 802.11n HT20 Channel High 2462MHz

Polarization: VERTICAL



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2466.256	103.708	72.504	N/A	N/A	31.203	PK
2			2483.500	62.137	30.928	-11.863	74.000	31.209	PK



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2460.328	92.330	61.129	N/A	N/A	31.201	AV
2			2483.500	48.388	17.179	-5.612	54.000	31.209	AV

Note: 1. Measurement Level = Reading Level + Correct Factor.

2. The average measurement was not performed when the peak measured data under the limit of average detection.

### 13. §15.247(E) - Power Spectral Density

#### 13.1. Test Equipment

Please refer to Section 4 this report.

#### 13.2. Test Procedure

- 1, Set EUT in the transmitting mode.
- 2, Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 3, Set the spectrum analyzer as RBW=3KHz, VBW=10KHz, Span=1.5MHz, Sweep=500S.
- 4, Record the max. reading
- 5, Repeat the above procedure until the measurements for all frequencies are completed.

#### 13.3. Applicable Standard

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

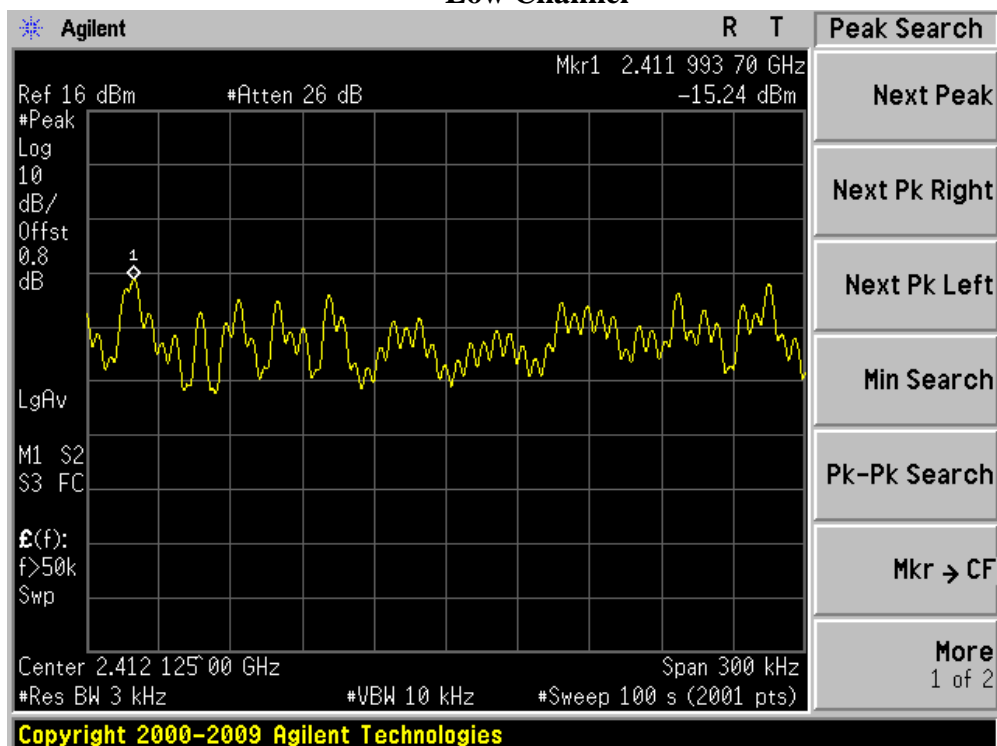
#### 13.4. Test Result

**PASS**

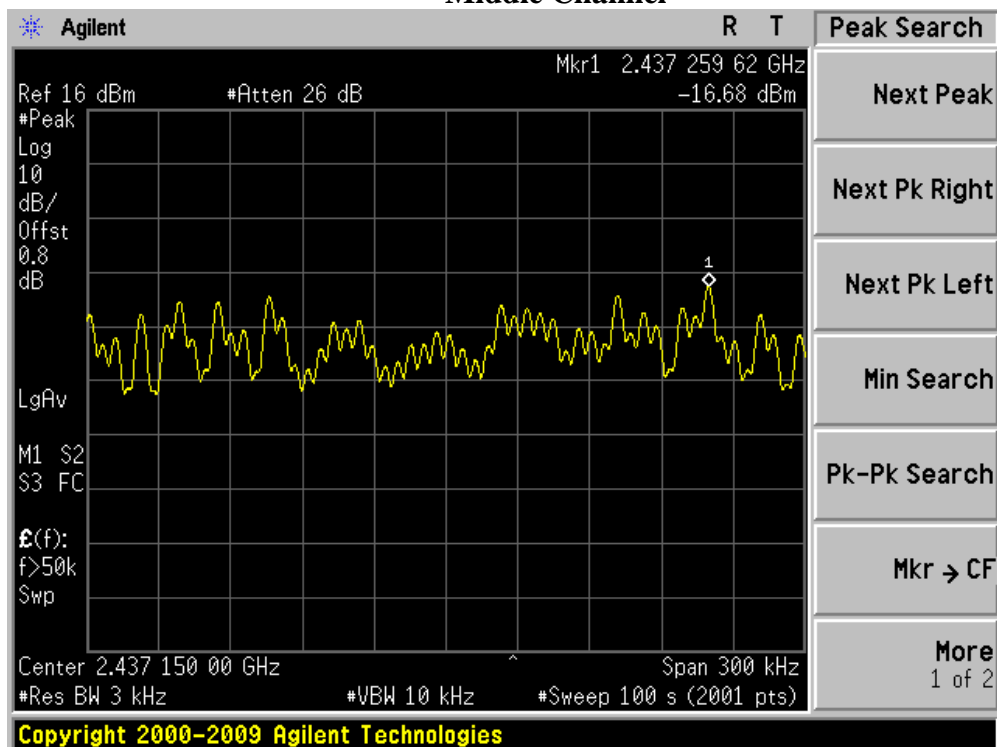
Channel Frequency (MHz)	Data Rate (Mbps)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	RESULT
<b>802.11b Mode</b>				
2412	1	-15.24	8	Compliant
2437	1	-16.68	8	Compliant
2462	1	-15.68	8	Compliant
<b>802.11g Mode</b>				
2412	6	-17.01	8	Compliant
2437	6	-18.45	8	Compliant
2462	6	-18.11	8	Compliant
<b>802.11n (20M) Mode</b>				
2412	6	-17.81	8	Compliant
2437	6	-18.22	8	Compliant
2462	6	-18.55	8	Compliant

802.11b Mode:

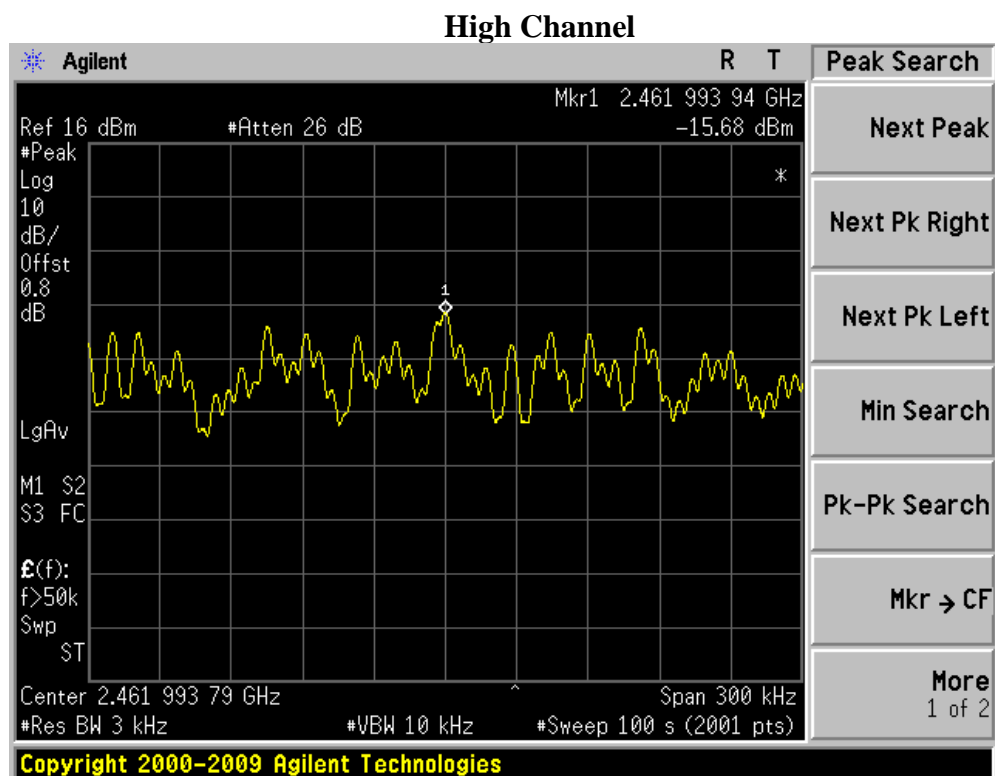
## Low Channel



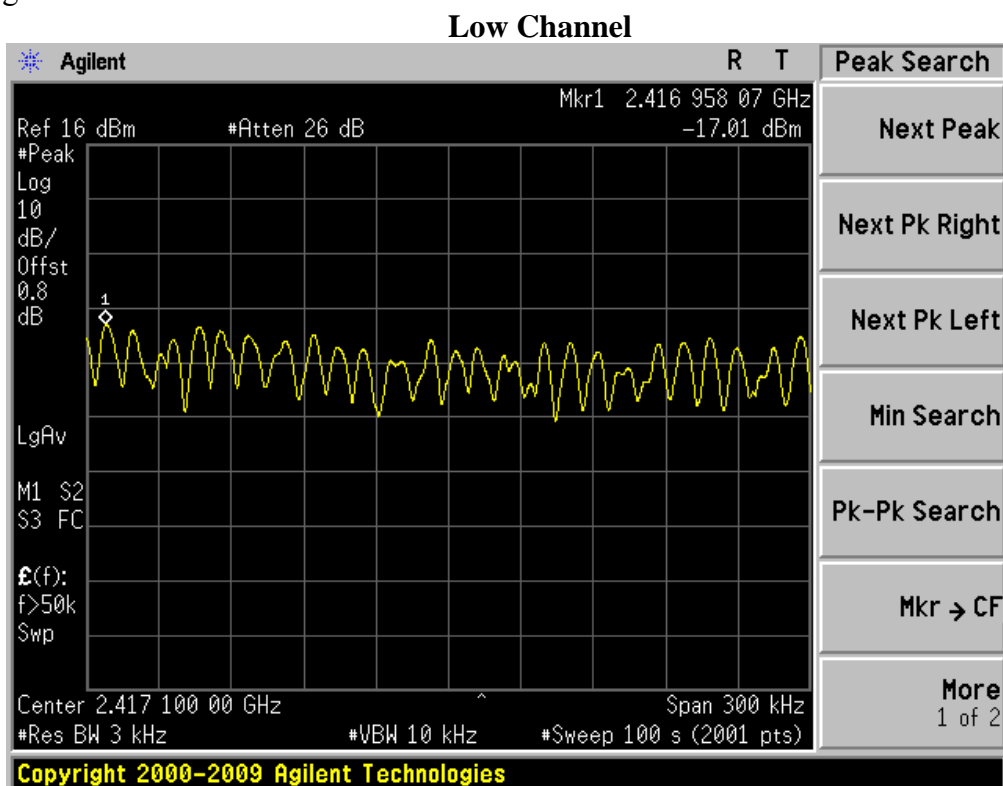
## Middle Channel



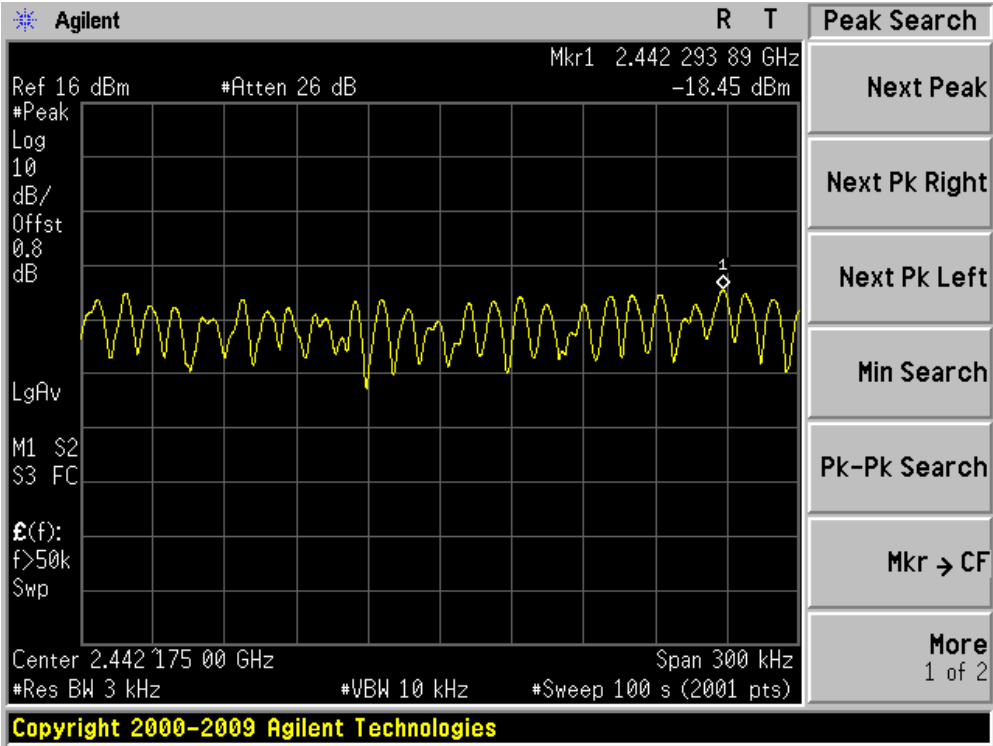




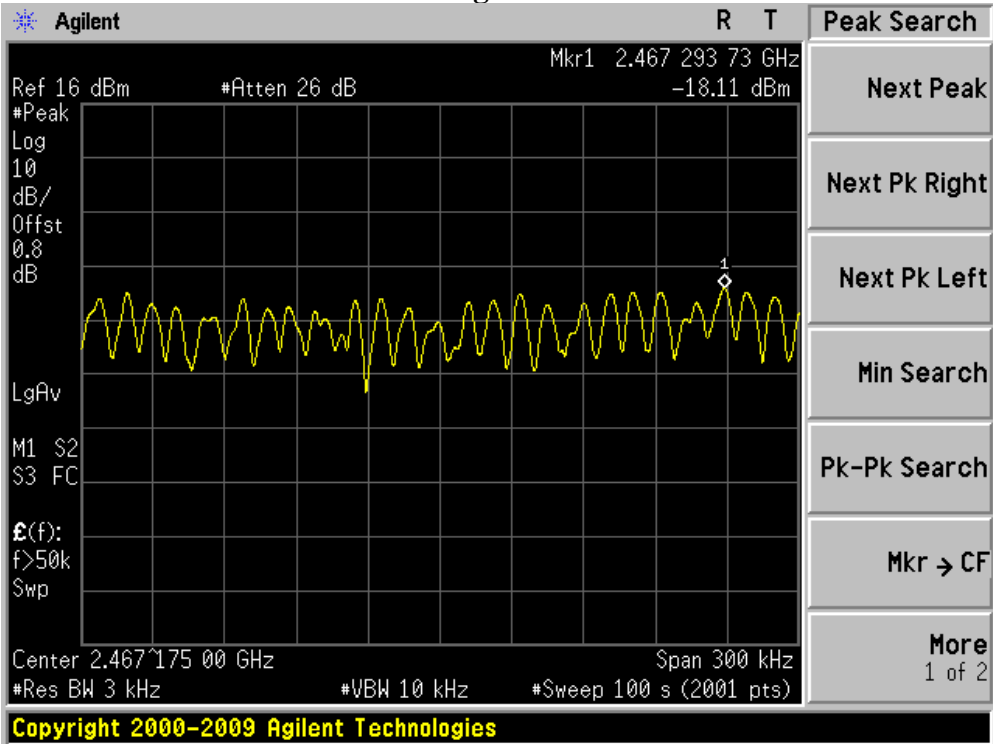
802.11g Mode:

**Middle Channel**



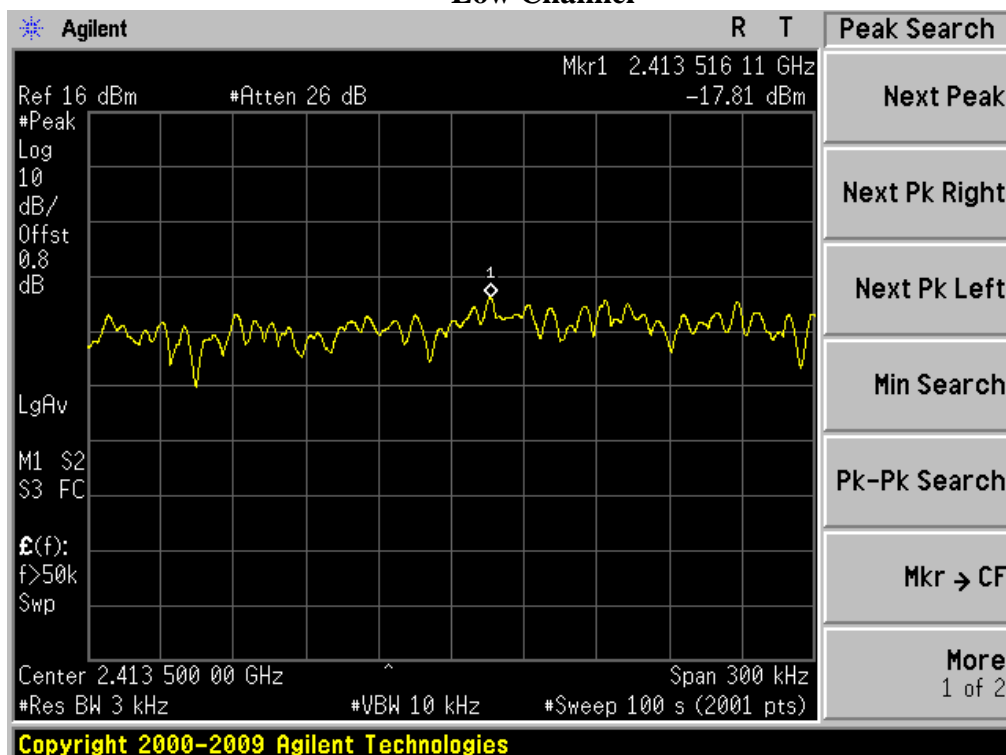


High Channel



802.11n (20M) Mode:

## Low Channel



## Middle Channel

