


FCC PART 15.247  
EMI MEASUREMENT AND TEST REPORT  
For

Blupont Limited

713 RM, 206 East, Tairan 4 Road, CheGongMiao Industrial Park, Futian District, ShenZhen, China

**FCC ID: V36WL-600N-E2**

May 18, 2012

This Report Concerns: Original Report	Equipment Type: PCI-E 150M WIRELESS LAN CARD
Test Engineer:	Steven Fang <i>Steven Fang</i>
Report No.:	BST12050201Y-1E-3
Receive EUT Date/Test Date:	April 21, 2012/ April 23, 2012
Reviewed By:	Christina <i>Christina</i>
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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

SinTek Laboratory Co.,Ltd.

(FCC Registered Test Site Number: 963441) on

No.7, Xinshidai Industrial, Guantian Village, Shiyan Town, Baoan District, Shenzhen, Guangdong 518108, 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 : Blupont Limited  
Address : 713 RM, 206 East, Tairan 4 Road, CheGongMiao Industrial Park, Futian District, ShenZhen, China

Manufacturer : Blupont Limited  
Address : 713 RM, 206 East, Tairan 4 Road, CheGongMiao Industrial Park, Futian District, ShenZhen, China

EUT Description : PCI-E 150M WIRELESS LAN CARD

Trade Name : N/A

Modulation : 802.11b: DSSS  
802.11g/n: OFDM

Wi-fi Frequency Band : IEEE 802.11b/g: 2412-2462MHz  
IEEE802.11n HT20: 2412-2462MHz  
IEEE802.11n HT40: 2422-2452MHz

Number of Channels : IEEE 802.11b/g: 11 Channels  
IEEE802.11n HT20: 11 Channels  
IEEE802.11n HT40: 7 Channels

Model Number : WL-600N-E2

Power Supply : DC 5V powered by PC

Antenna gain : 2dBi(2.4GHz)

## 2.2. Block Diagram of EUT Configuration

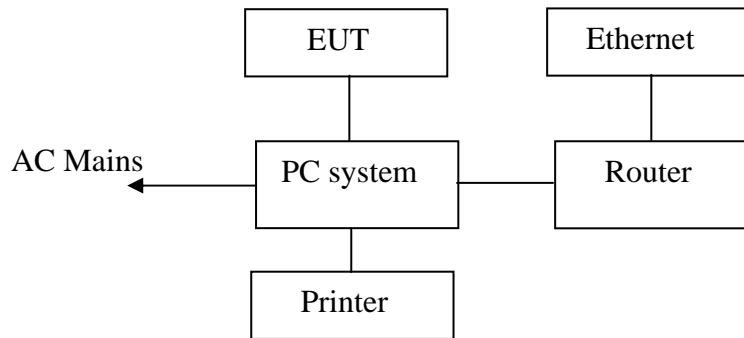


Figure 1 EUT SETUP

## 2.3. Support Equipment List

Name	Model No	S/N	Manufacturer	Used “ ”
PC system	ST-PC-002	569787506	DeLUX	
Printer	HP930C	N/A	HP	
Router	TL-R402M	07115200391	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.

IEEE 802.11n HT40:

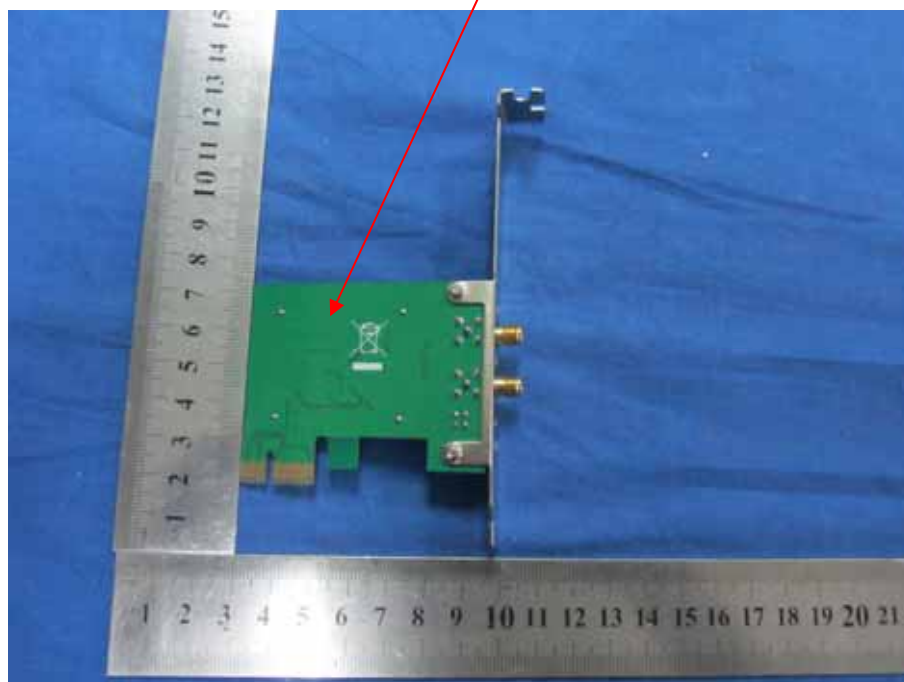
Channel Low (2422MHz), Channel Mid (2437MHz) and Channel High (2452MHz) with 13Mbps data rate were chosen for full testing.

### 3. FCC ID LABEL

**FCC ID: V36WL-600N-E2**

**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
Cable	Resenberger	N/A	NO.1	Mar 10 , 2012	1 Year
Cable	SCHWARZBECK	N/A	NO.2	Mar 10 , 2012	1 Year
Cable	SCHWARZBECK	N/A	NO.3	Mar 10 , 2012	1 Year
LISN	Rohde & Schwarz	ESH3-Z5	100305	Mar 10 , 2012	1 Year
50 Coaxial Switch	ANRITSU CORP	MP59B	6200283933	Mar 10 , 2012	1 Year
EMI Test Receiver	Rohde & Schwarz	ESP13	100180	Oct.11,2011	1 Year
Spectrum Analyzer	Rohde & Schwarz	FSP40	100273	Sep.10,2011	1 Year
3m Semi-Anechoic Chamber	Albatross Projects	9m x 6m x 6m	N/A	Feb.20,2012	1 Year
Signal Generator	FLUKE	PM5418 + Y/C	LO747012	Feb.20,2012	1 Year
Signal Generator	FLUKE	PM5418TX	LO738007	Feb.20,2012	1 Year
Loop Antenna	SCHWARZBECK	FMZB1516	113	Jan.30,2012	1 Year
Trilog-Super Broadband Antenna	SCHWARZBECK	VULB9161	9161-4079	Sep.22,2011	1 Year
Broad-Band Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-564	Sep.22,2011	1 Year
Horn Antenna	Schwarzbeck	BBHA9170	208 279	May 12, 2012	1 Year
Ultra Broadband Antenna	Rohde & Schwarz	HL-562	100110	June.15,2011	1 Year
AMN	Rohde & Schwarz	ESH3-Z5	100196	Oct.11,2011	1 Year
AMN	Rohde & Schwarz	ESH3-Z5	100197	Oct.11,2011	1 Year
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	N/A	N/A	N/A
Power Meter	Rohde & Schwarz	NRVD	100041	Feb.20,2012	1 Year
EMI Test Receiver	Rohde & Schwarz	ESCS30	100003	Feb.20,2012	1 Year
Coaxial Cable with N-connectors	SCHWARZBECK	AK9515H	95549	Sep.22,2011	1 Year
Radio Communication Test Set	Rohde & Schwarz	CMS 54	846621/024	Feb.20,2012	1 Year
Modulation Analyzer	Hewlett-Packard	8901B	2303A00362	Feb.20,2012	1 Year
Absorbing clamp	Rohde & Schwarz	MDS-21	N/A	Oct.11,2011	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.

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Averaging Time (minute)
<b>Limits for General Population/Uncontrolled Exposure</b>				
0.3–3.0	614	1.63	*(100)	30
3.0–30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz

\* = Plane-wave equivalent power density

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

### 6.2. Test Data

Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2$$

S: Power density, in mW/cm<sup>2</sup>

P: Power input to the antenna, in mW

G: numeric gain of the antenna

R: distance to the center of the antenna, in cm

Maximum peak output power at antenna input terminal (dBm):	<u>18.68</u>
Maximum peak output power at antenna input terminal (mW):	<u>73.79</u>
Prediction distance (cm):	<u>20</u>
Prediction frequency (MHz):	<u>2437</u>
Antenna Gain, typical (dBi):	<u>2</u>
Maximum Antenna Gain (numeric):	<u>1.585</u>
Power density at predication frequency and distance (mW/cm <sup>2</sup> ):	<u>0.02327</u>
MPE limit for Occupational exposure at predication frequency (mW/cm <sup>2</sup> ):	<u>1.0</u>

### 6.3. Test Result

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, Human proximity to the antenna shall not be less than 20cm(8 inches) during normal operation.

## **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 Steven 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 type used in this product is Dipole Antenna with Reverse Polarity (RP-SMA) connectors. and it is considered to meet antenna requirement of FCC. 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

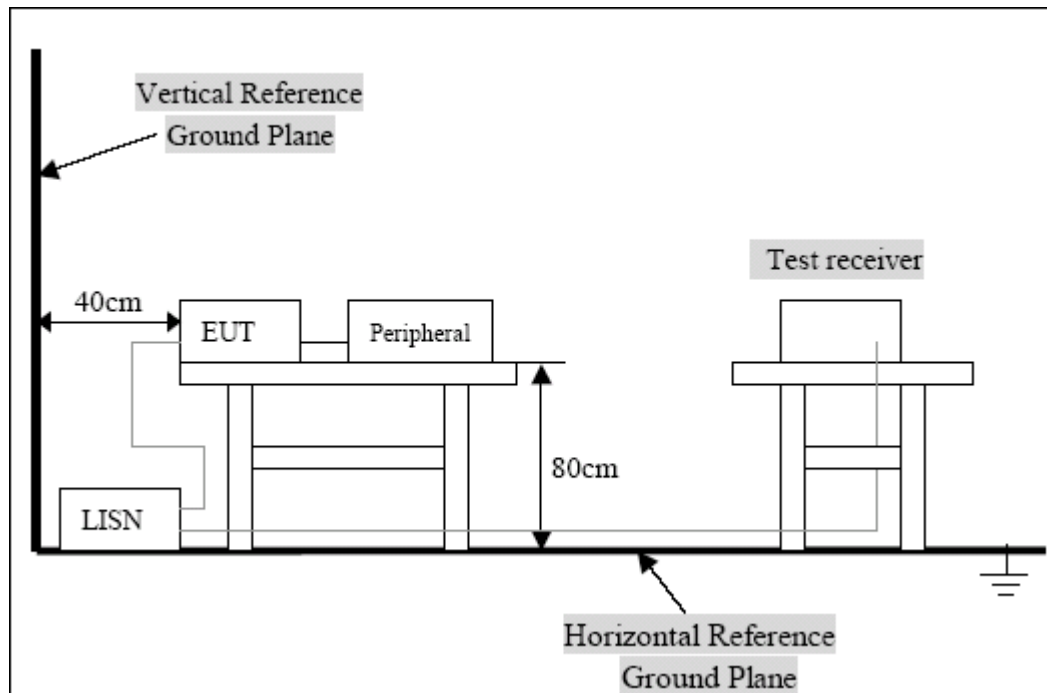
During the conducted emission test, the EUT was connected to the outlet of the LISN. Maximizing procedure was performed on the six (6) highest emissions of the EUT. All data was recorded in the Quasi-peak and average detection mode.

### 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.

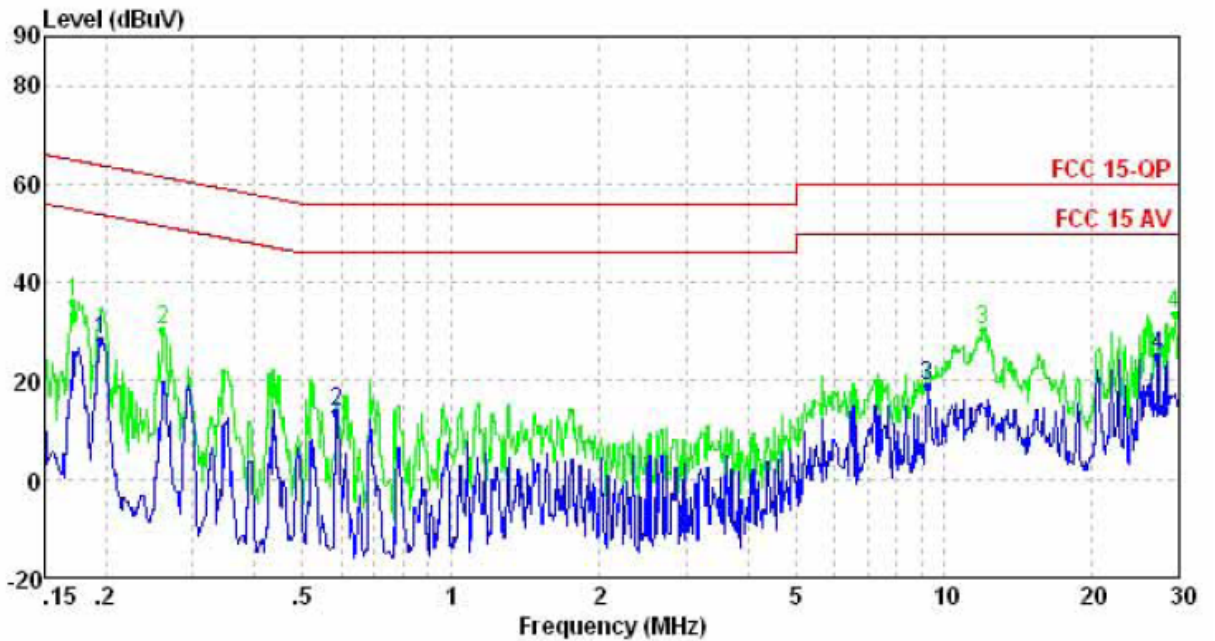
### 8.4. Block Diagram of Test Setup



### 8.5. Conducted Power Line Test Result

Pass.

The worst test mode: Wi-Fi TX 2437MHz



Condition:

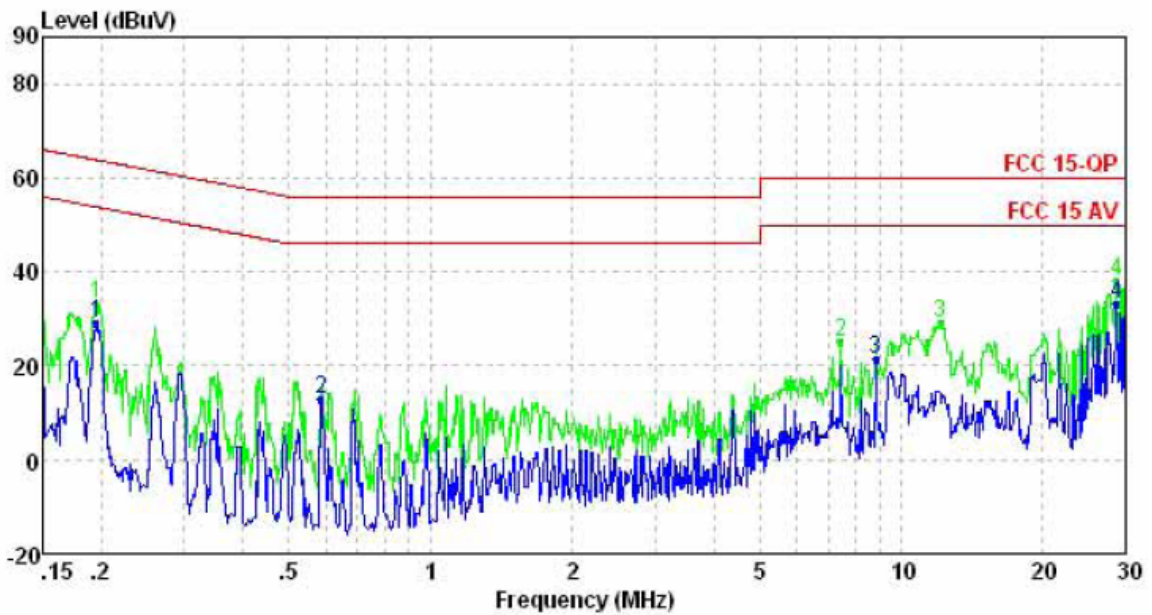
: RBW:9.000KHz VBW:30.000KHz

	Freq	Level	Limit	Over	Remark	Pol/Phase
	MHz	dBuV	dBuV	dB		
1	0.20	28.50	53.80	-25.30	Average	LINE
2	0.59	13.72	46.00	-32.28	Average	LINE
3	9.25	18.90	50.00	-31.10	Average	LINE
4 Max	27.13	24.91	50.00	-25.09	Average	LINE

Condition:

: RBW:9.000KHz VBW:30.000KHz

	Freq	Level	Limit	Over	Remark	Pol/Phase
	MHz	dBuV	dBuV	dB		
1	0.17	36.12	64.90	-28.78	Peak	LINE
2	0.26	30.48	61.42	-30.94	Peak	LINE
3	12.00	30.16	60.00	-29.84	Peak	LINE
4 Max	29.37	33.63	60.00	-26.37	Peak	LINE



Condition:

: RBW:9.000KHz VBW:30.000KHz

	Freq	Level	Limit	Over	Remark	Pol/Phase
	MHz	dBuV	dBuV	dB		
1	0.20	28.98	53.80	-24.82	Average	NEUTRAL
2	0.59	13.01	46.00	-32.99	Average	NEUTRAL
3	8.82	21.27	50.00	-28.73	Average	NEUTRAL
4 Max	28.75	33.25	50.00	-16.75	Average	NEUTRAL

Condition:

: RBW:9.000KHz VBW:30.000KHz

	Freq	Level	Limit	Over	Remark	Pol/Phase
	MHz	dBuV	dBuV	dB		
1	0.20	33.19	63.80	-30.61	Peak	NEUTRAL
2	7.45	25.20	60.00	-34.80	Peak	NEUTRAL
3	12.12	28.92	60.00	-31.08	Peak	NEUTRAL
4 Max	28.75	38.06	60.00	-21.94	Peak	NEUTRAL

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

### 9.1. Test Equipment

Please refer to section 2 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.

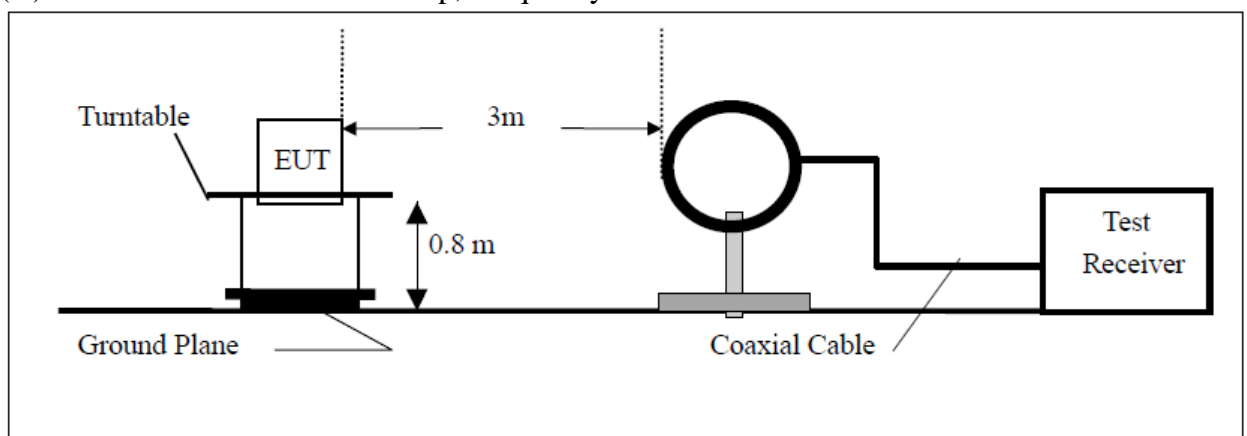
The frequency range from 9kHz to 25GHz is checked.

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.

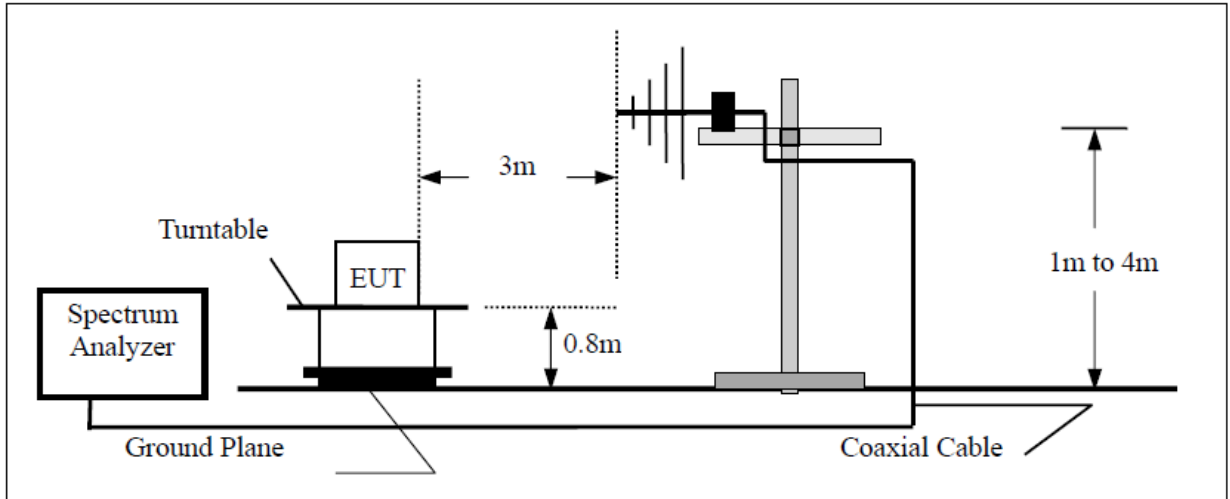
### 9.3. Radiated Test Setup

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

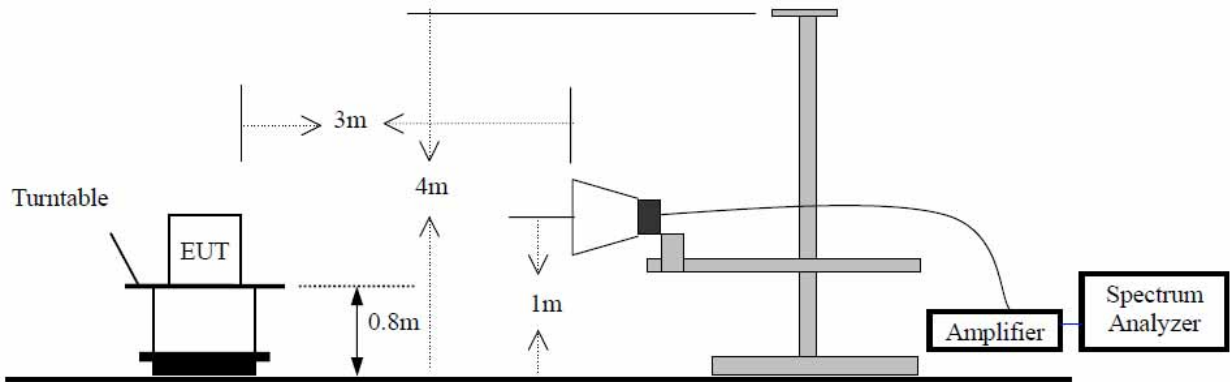


(B) Radiated Emission Test Set-Up, Frequency Below 1000MHz





(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) Distaqnce 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:	<u>April 23, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>PCI-E 150M WIRELESS LAN</u>	Humidity:	<u>52%</u>
Model No.:	<u>CARD</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>WL-600N-E2</u>	Test Engineer:	<u>Steven</u>
	<u>802.11b Channel Low 2412MHz</u>		

### For below 1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dB $\mu$ V/m)	Correct Factor (dB)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/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	*	4823.950	-5.420	47.930	42.509	-31.491	74.000	54.000	PEAK
2		7236.350	0.325	37.465	37.791	-36.209	74.000	54.000	PEAK
3		9648.100	2.462	38.633	41.095	-32.905	74.000	54.000	PEAK
4		12059.950	5.628	36.029	41.657	-32.343	74.000	54.000	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	-5.420	50.812	45.391	-28.609	74.000	54.000	PEAK
2		7235.500	0.322	38.392	38.714	-35.286	74.000	54.000	PEAK
3		9647.950	2.462	40.836	43.298	-30.702	74.000	54.000	PEAK
4		12059.500	5.626	35.907	41.534	-32.466	74.000	54.000	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: April 23, 2012 Temperature: 25°C  
 PCI-E 150M WIRELESS LAN  
 EUT: CARD Humidity: 52%  
 Model No.: WL-600N-E2 Power Supply: AC 120V/60Hz  
 Test Mode: 802.11b Channel Middle 2437MHz Test Engineer: Steven

**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	4873.750	-5.293	45.497	40.204	-33.796	74.000	54.000	PEAK
2	7310.600	0.634	38.284	38.918	-35.082	74.000	54.000	PEAK
3	9747.950	2.531	39.028	41.559	-32.441	74.000	54.000	PEAK
4	* 12185.550	5.784	38.346	44.130	-29.870	74.000	54.000	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	4874.150	-5.293	48.041	42.749	-31.251	74.000	54.000	PEAK
2	7310.650	0.634	37.769	38.403	-35.597	74.000	54.000	PEAK
3	* 9748.000	2.531	41.018	43.549	-30.451	74.000	54.000	PEAK
4	12185.300	5.784	37.289	43.073	-30.927	74.000	54.000	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:	<u>April 23, 2012</u>	Temperature:	<u>25°C</u>
	<u>PCI-E 150M WIRELESS LAN</u>		
EUT:	<u>CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11b Channel High 2462MHz</u>	Test Engineer:	<u>Steven</u>

**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	4923.800	-5.165	45.369	40.203	-33.797	74.000	54.000	PEAK
2	7386.300	0.948	38.320	39.268	-34.732	74.000	54.000	PEAK
3	9848.250	2.600	39.635	42.235	-31.765	74.000	54.000	PEAK
4	* 12310.100	5.939	37.419	43.358	-30.642	74.000	54.000	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	-5.165	47.565	42.400	-31.600	74.000	54.000	PEAK
2	7384.600	0.941	38.067	39.008	-34.992	74.000	54.000	PEAK
3	* 9847.900	2.599	41.032	43.632	-30.368	74.000	54.000	PEAK
4	12310.150	5.939	37.540	43.479	-30.521	74.000	54.000	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: April 23, 2012 Temperature: 25°C  
 PCI-E 150M WIRELESS LAN  
 EUT: CARD Humidity: 52%  
 Model No.: WL-600N-E2 Power Supply: AC 120V/60Hz  
 Test Mode: 802.11g Channel Low 2412MHz Test Engineer: Steven

**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	4823.400	-5.423	39.781	34.359	-39.641	74.000	54.000	PEAK
2	7237.750	0.332	38.446	38.778	-35.222	74.000	54.000	PEAK
3	9648.350	2.462	38.324	40.786	-33.214	74.000	54.000	PEAK
4	* 12059.700	5.627	36.361	41.988	-32.012	74.000	54.000	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	4823.700	-5.421	41.705	36.284	-37.716	74.000	54.000	PEAK
2	7235.400	0.322	37.465	37.787	-36.213	74.000	54.000	PEAK
3	9648.000	2.462	38.474	40.936	-33.064	74.000	54.000	PEAK
4	* 12059.850	5.628	36.777	42.404	-31.596	74.000	54.000	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: April 23, 2012 Temperature: 25°C  
 PCI-E 150M WIRELESS LAN  
 EUT: CARD Humidity: 52%  
 Model No.: WL-600N-E2 Power Supply: AC 120V/60Hz  
 Test Mode: 802.11g Channel Middle 2437MHz Test Engineer: Steven

**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	4871.350	-5.300	45.494	40.194	-33.806	74.000	54.000	PEAK
2	7310.400	0.634	38.985	39.618	-34.382	74.000	54.000	PEAK
3	9747.600	2.530	38.841	41.372	-32.628	74.000	54.000	PEAK
4	* 12190.450	5.790	38.358	44.148	-29.852	74.000	54.000	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	4874.950	-5.290	47.917	42.627	-31.373	74.000	54.000	PEAK
2	7315.500	0.654	38.252	38.906	-35.094	74.000	54.000	PEAK
3	9748.200	2.531	39.135	41.666	-32.334	74.000	54.000	PEAK
4	* 12183.900	5.782	38.411	44.193	-29.807	74.000	54.000	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: April 23, 2012 Temperature: 25°C  
 PCI-E 150M WIRELESS LAN  
 EUT: CARD Humidity: 52%  
 Model No.: WL-600N-E2 Power Supply: AC 120V/60Hz  
 Test Mode: 802.11g Channel High 2462MHz Test Engineer: Steven

**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	4923.600	-5.167	39.296	34.130	-39.870	74.000	54.000	PEAK
2	7386.250	0.948	37.248	38.196	-35.804	74.000	54.000	PEAK
3	9848.000	2.600	38.020	40.620	-33.380	74.000	54.000	PEAK
4	* 12309.750	5.939	37.048	42.986	-31.014	74.000	54.000	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	4927.700	-5.156	39.837	34.681	-39.319	74.000	54.000	PEAK
2	7386.250	0.948	37.122	38.070	-35.930	74.000	54.000	PEAK
3	9848.300	2.600	38.407	41.007	-32.993	74.000	54.000	PEAK
4	* 12309.650	5.938	37.256	43.194	-30.806	74.000	54.000	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:	<u>April 23, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>PCI-E 150M WIRELESS LAN CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11n HT20 Channel Low 2412MHz</u>	Test Engineer:	<u>Steven</u>

**For below 1000MHz**

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dB $\mu$ V/m)	Correct Factor (dB)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

**For 1GHz-25GHz**

## Horizontal

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB $\mu$ V)	Measure Level (dB $\mu$ V/m)	Margin (dB)	Peak Limit (dB $\mu$ V/m)	Average Limit (dB $\mu$ V/m)	Detector Type
1	4823.850	-5.420	39.040	33.619	-40.381	74.000	54.000	PEAK
2	7236.450	0.327	38.005	38.331	-35.669	74.000	54.000	PEAK
3	9648.200	2.462	38.440	40.902	-33.098	74.000	54.000	PEAK
4	* 12059.500	5.626	36.465	42.092	-31.908	74.000	54.000	PEAK

## Vertical

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB $\mu$ V)	Measure Level (dB $\mu$ V/m)	Margin (dB)	Peak Limit (dB $\mu$ V/m)	Average Limit (dB $\mu$ V/m)	Detector Type
1	4824.000	-5.420	41.217	35.796	-38.204	74.000	54.000	PEAK
2	7233.150	0.313	38.001	38.314	-35.686	74.000	54.000	PEAK
3	9647.500	2.461	38.660	41.122	-32.878	74.000	54.000	PEAK
4	* 12060.250	5.628	36.142	41.770	-32.230	74.000	54.000	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:	<u>April 23, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>PCI-E 150M WIRELESS LAN CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11n HT20 Channel Middle 2437MHz</u>	Test Engineer:	<u>Steven</u>

**For below 1000MHz**

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dB $\mu$ V/m)	Correct Factor (dB)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

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

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB $\mu$ V)	Measure Level (dB $\mu$ V/m)	Margin (dB)	Peak Limit (dB $\mu$ V/m)	Average Limit (dB $\mu$ V/m)	Detector Type
1	4874.000	-5.293	45.915	40.622	-33.378	74.000	54.000	PEAK
2	7314.150	0.648	38.615	39.264	-34.736	74.000	54.000	PEAK
3	9747.950	2.531	38.047	40.578	-33.422	74.000	54.000	PEAK
4	* 12185.300	5.784	36.887	42.671	-31.329	74.000	54.000	PEAK

**Vertical**

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB $\mu$ V)	Measure Level (dB $\mu$ V/m)	Margin (dB)	Peak Limit (dB $\mu$ V/m)	Average Limit (dB $\mu$ V/m)	Detector Type
1	4874.100	-5.293	48.216	42.923	-31.077	74.000	54.000	PEAK
2	7310.850	0.636	37.141	37.776	-36.224	74.000	54.000	PEAK
3	9746.900	2.531	39.324	41.854	-32.146	74.000	54.000	PEAK
4	* 12184.400	5.782	37.497	43.279	-30.721	74.000	54.000	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:	<u>April 23, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>PCI-E 150M WIRELESS LAN CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11n HT20 Channel High 2462MHz</u>	Test Engineer:	<u>Steven</u>

**For below 1000MHz**

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dB $\mu$ V/m)	Correct Factor (dB)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

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

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dB $\mu$ V)	Measure Level (dB $\mu$ V/m)	Margin (dB)	Peak Limit (dB $\mu$ V/m)	Average Limit (dB $\mu$ V/m)	Detector Type
1		4923.800	-5.165	39.132	33.966	-40.034	74.000	54.000	PEAK
2		7386.050	0.947	36.962	37.909	-36.091	74.000	54.000	PEAK
3		9848.100	2.600	38.308	40.908	-33.092	74.000	54.000	PEAK
4	*	12309.850	5.939	37.073	43.011	-30.989	74.000	54.000	PEAK

**Vertical**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dB $\mu$ V)	Measure Level (dB $\mu$ V/m)	Margin (dB)	Peak Limit (dB $\mu$ V/m)	Average Limit (dB $\mu$ V/m)	Detector Type
1		4922.950	-5.168	39.448	34.280	-39.720	74.000	54.000	PEAK
2		7384.950	0.943	37.488	38.431	-35.569	74.000	54.000	PEAK
3		9848.000	2.600	37.983	40.583	-33.417	74.000	54.000	PEAK
4	*	12310.695	5.939	37.714	43.654	-30.346	74.000	54.000	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:	<u>April 23, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>PCI-E 150M WIRELESS LAN CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11n HT40 Channel Low 2422MHz</u>	Test Engineer:	<u>Steven</u>

**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	4842.750	-5.373	39.731	34.358	-39.642	74.000	54.000	PEAK
2	7265.700	0.448	37.335	37.783	-36.217	74.000	54.000	PEAK
3	9688.600	2.489	38.247	40.737	-33.263	74.000	54.000	PEAK
4	* 12110.500	5.691	36.965	42.655	-31.345	74.000	54.000	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	4844.500	-5.368	38.831	33.463	-40.537	74.000	54.000	PEAK
2	7269.450	0.463	37.687	38.150	-35.850	74.000	54.000	PEAK
3	9686.200	2.488	38.278	40.766	-33.234	74.000	54.000	PEAK
4	* 12111.250	5.691	35.981	41.672	-32.328	74.000	54.000	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:	<u>April 23, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>PCI-E 150M WIRELESS LAN CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11n HT40 Channel Middle 2437MHz</u>	Test Engineer:	<u>Steven</u>

**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	4873.900	-5.293	43.954	38.661	-35.339	74.000	54.000	PEAK
2	7310.400	0.634	37.394	38.027	-35.973	74.000	54.000	PEAK
3	9746.500	2.531	38.433	40.963	-33.037	74.000	54.000	PEAK
4	* 12185.050	5.783	37.128	42.911	-31.089	74.000	54.000	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	4874.050	-5.293	45.296	40.003	-33.997	74.000	54.000	PEAK
2	7312.500	0.642	38.524	39.166	-34.834	74.000	54.000	PEAK
3	9747.700	2.530	37.552	40.083	-33.917	74.000	54.000	PEAK
4	* 12185.400	5.784	36.146	41.930	-32.070	74.000	54.000	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:	<u>April 23, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>PCI-E 150M WIRELESS LAN CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11n HT40 Channel High 2452MHz</u>	Test Engineer:	<u>Steven</u>

**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	4904.150	-5.216	38.610	33.394	-40.606	74.000	54.000	PEAK
2	7356.350	0.823	37.539	38.363	-35.637	74.000	54.000	PEAK
3	9807.950	2.572	37.573	40.145	-33.855	74.000	54.000	PEAK
4	* 12261.650	5.879	37.028	42.906	-31.094	74.000	54.000	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	4903.500	-5.218	39.355	34.138	-39.862	74.000	54.000	PEAK
2	7356.450	0.824	37.079	37.903	-36.097	74.000	54.000	PEAK
3	9808.400	2.572	38.997	41.570	-32.430	74.000	54.000	PEAK
4	* 12260.400	5.878	37.482	43.359	-30.641	74.000	54.000	PEAK

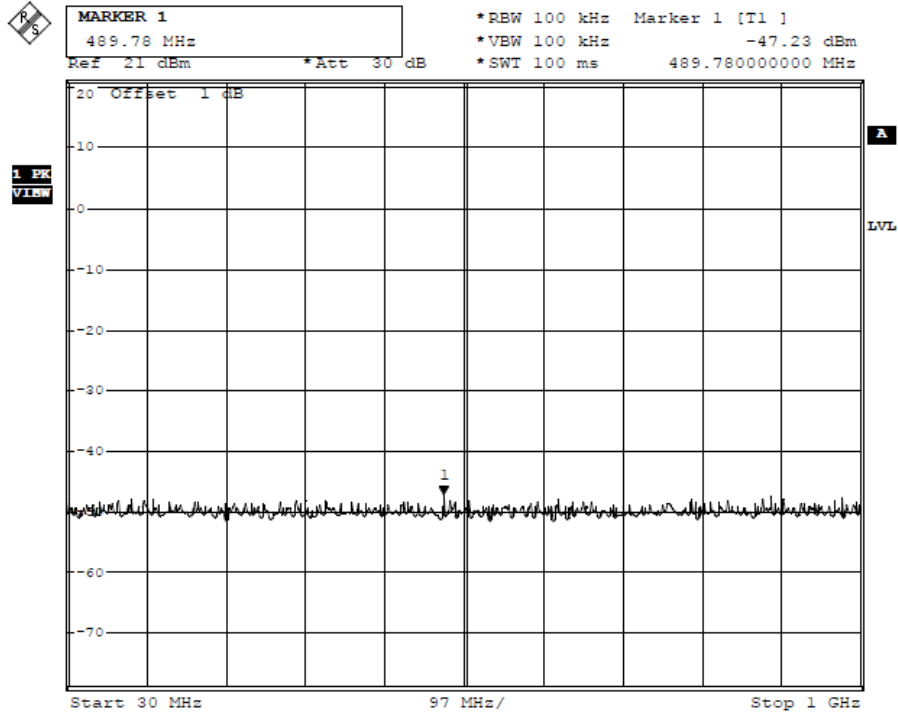
- Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.  
 2. Measurement Level = Reading Level + Correct Factor.  
 3. The average measurement was not performed when the peak measured data under the limit of average detection.

Antenna port conducted spurious emissions

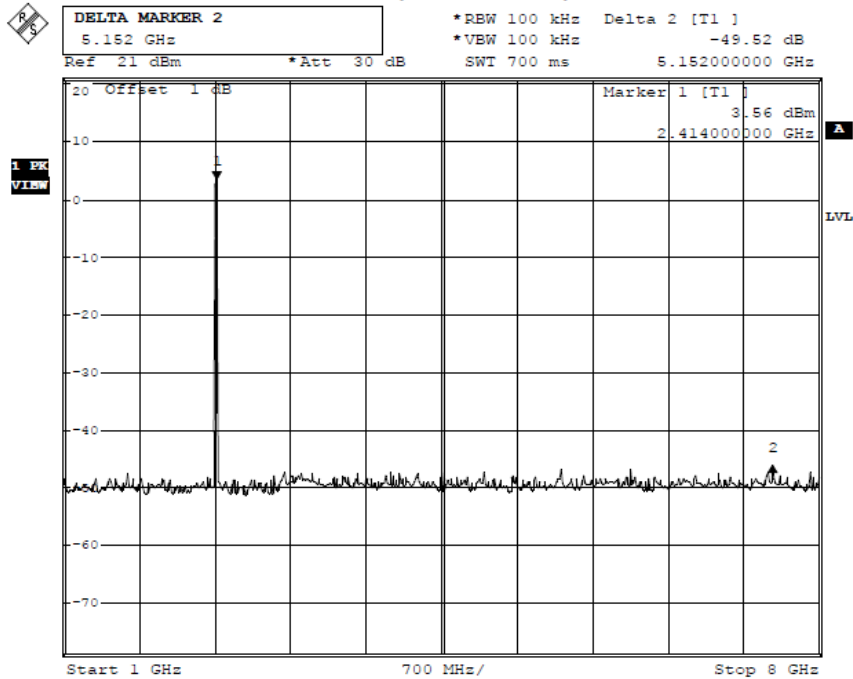
802.11b mode:

Low channel

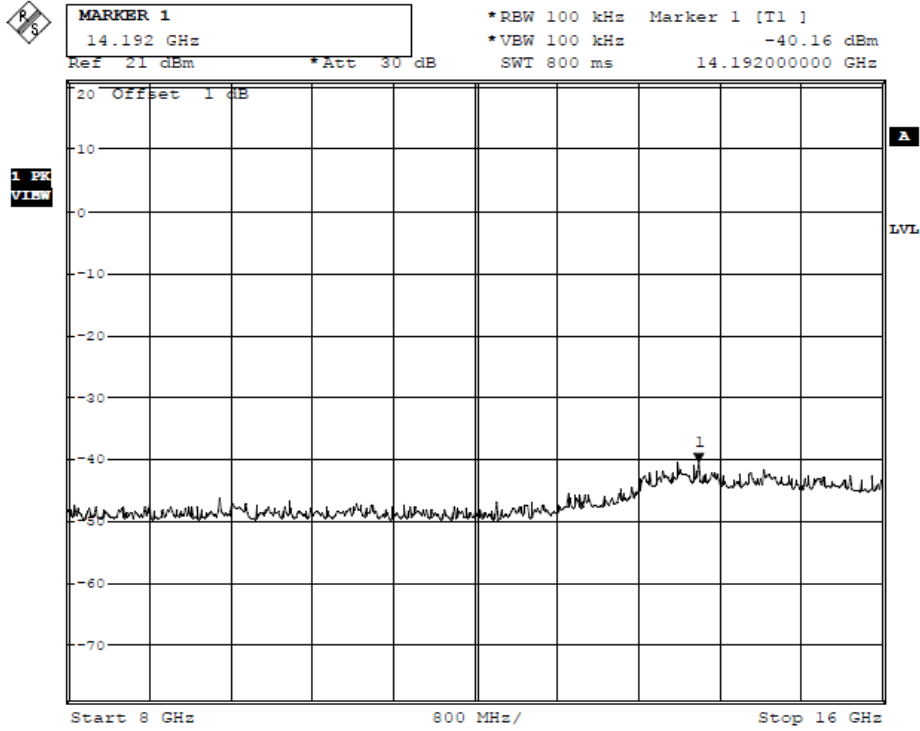
2412MHz (30MHz-1GHz)-b



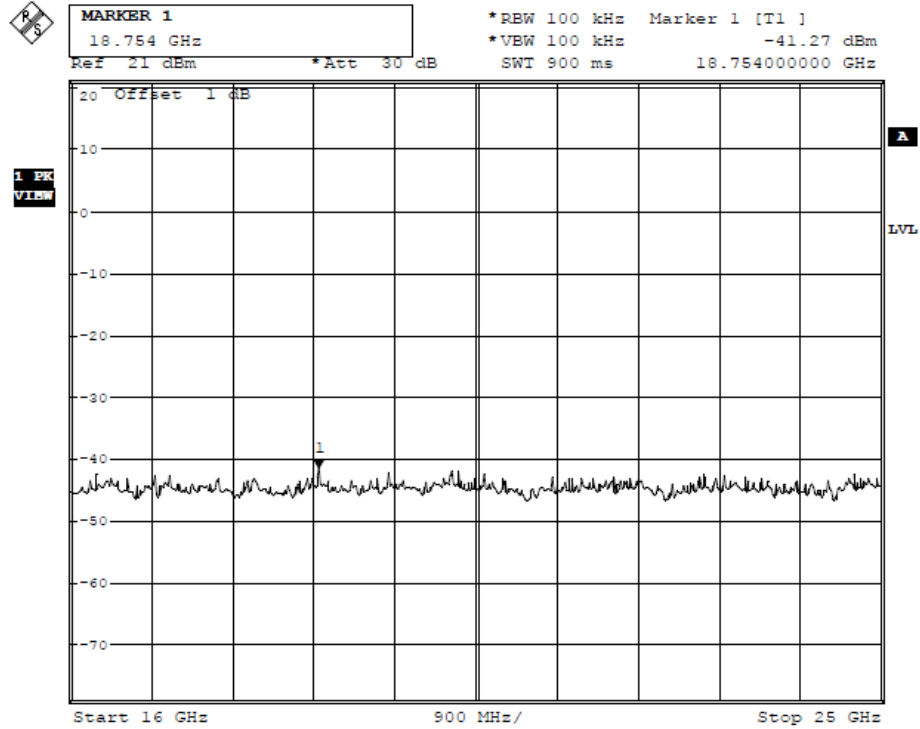
2412MHz (1GHz-8GHz)-b



### 2412MHz (8GHz-16GHz)-b



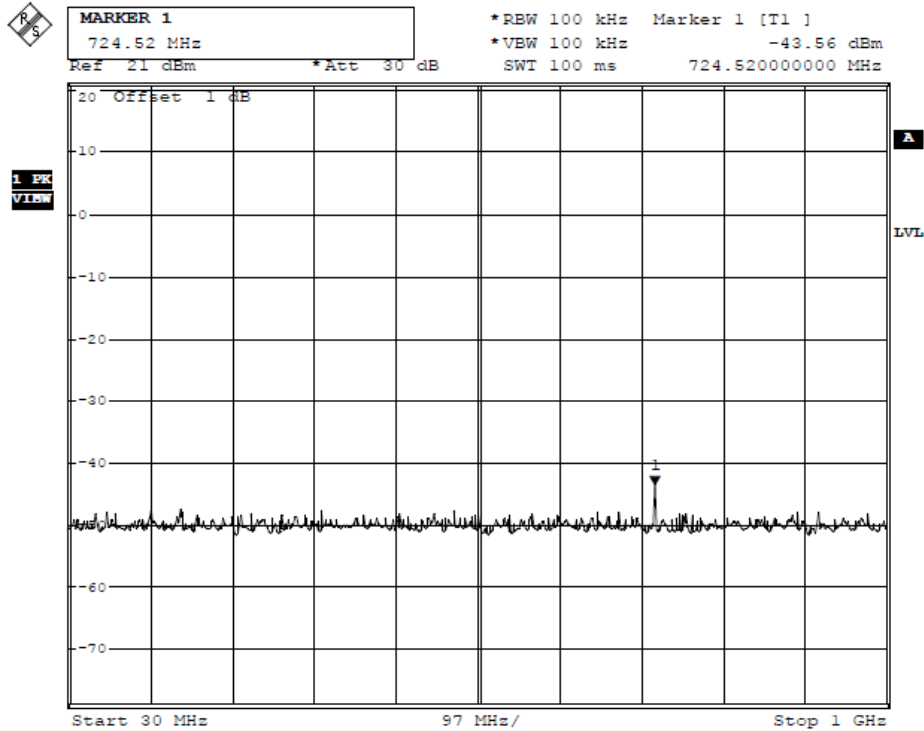
### 2412MHz (16GHz-25GHz)-b



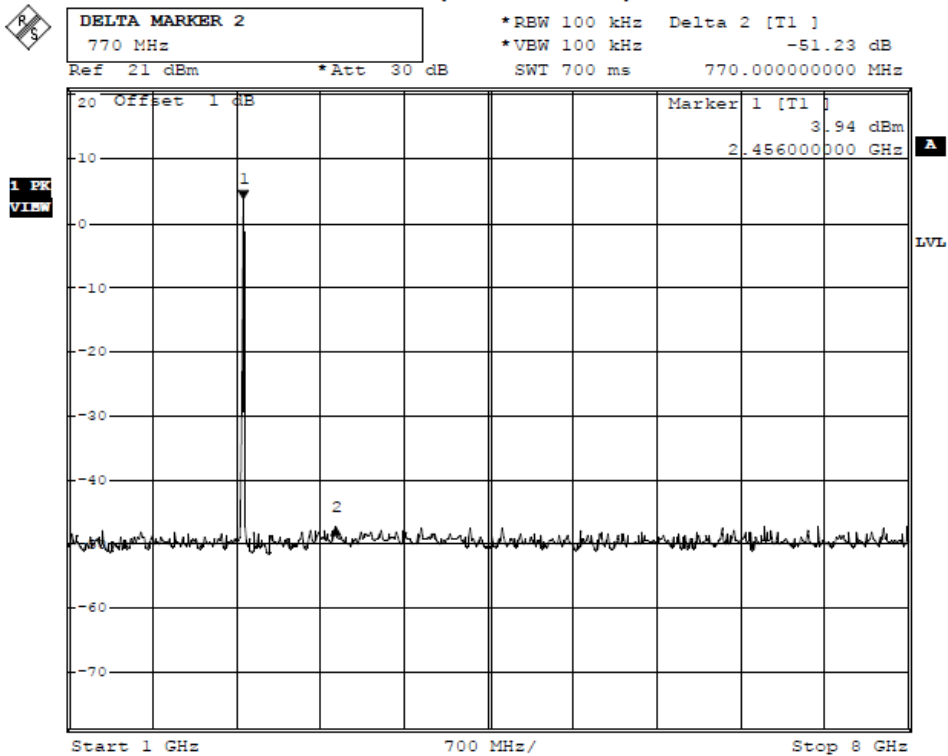


### High channel

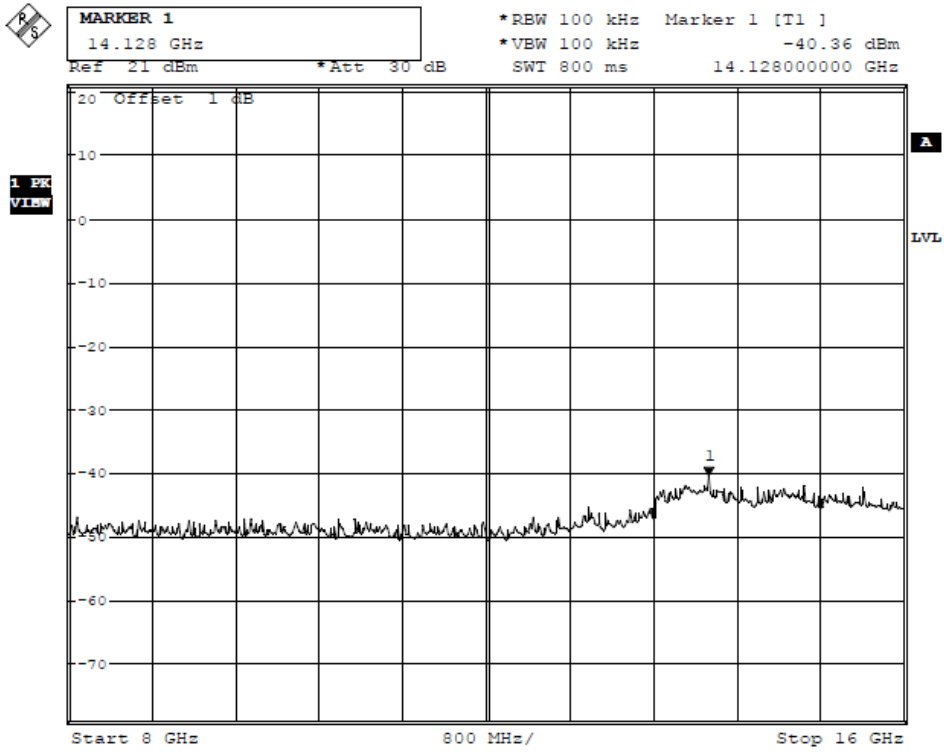
#### 2462MHz (30MHz-1GHz)-b



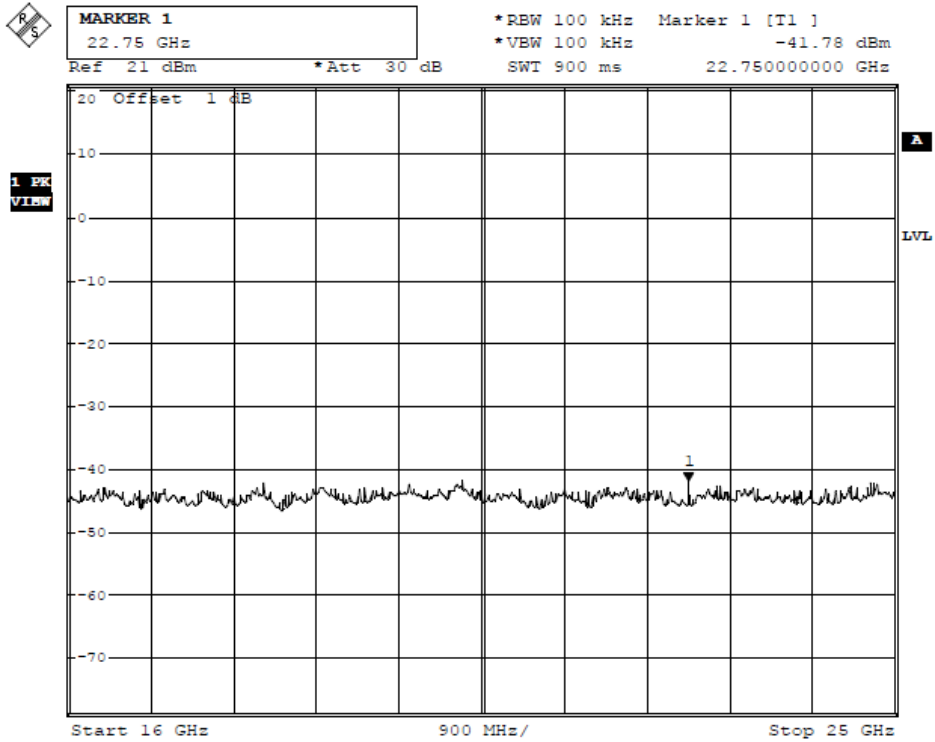
#### 2462MHz (1GHz-8GHz)-b



### 2462MHz (8GHz-16GHz)-b

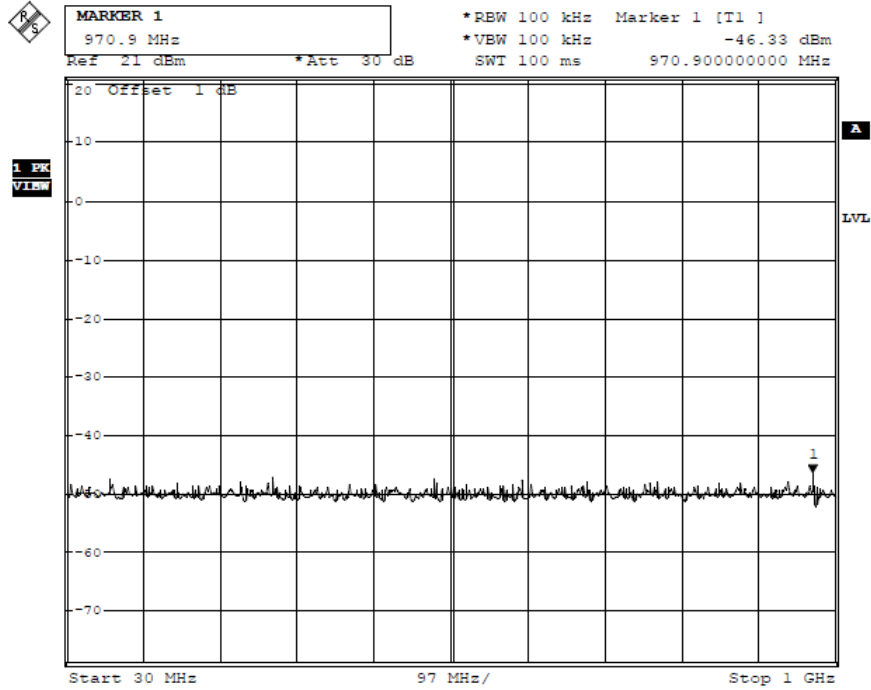


### 2462MHz (16GHz-25GHz)-b

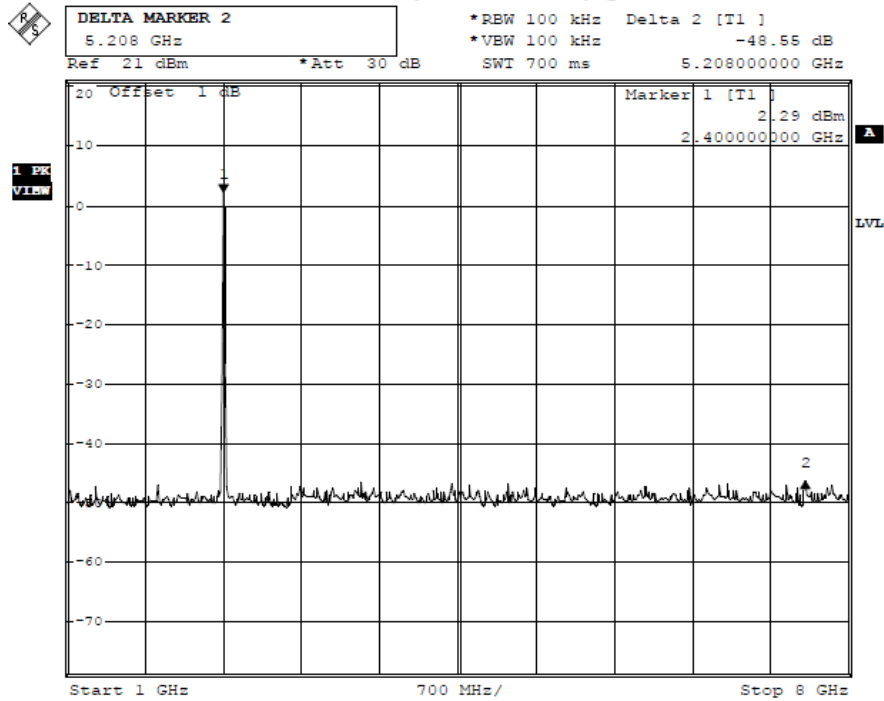


802.11g mode:

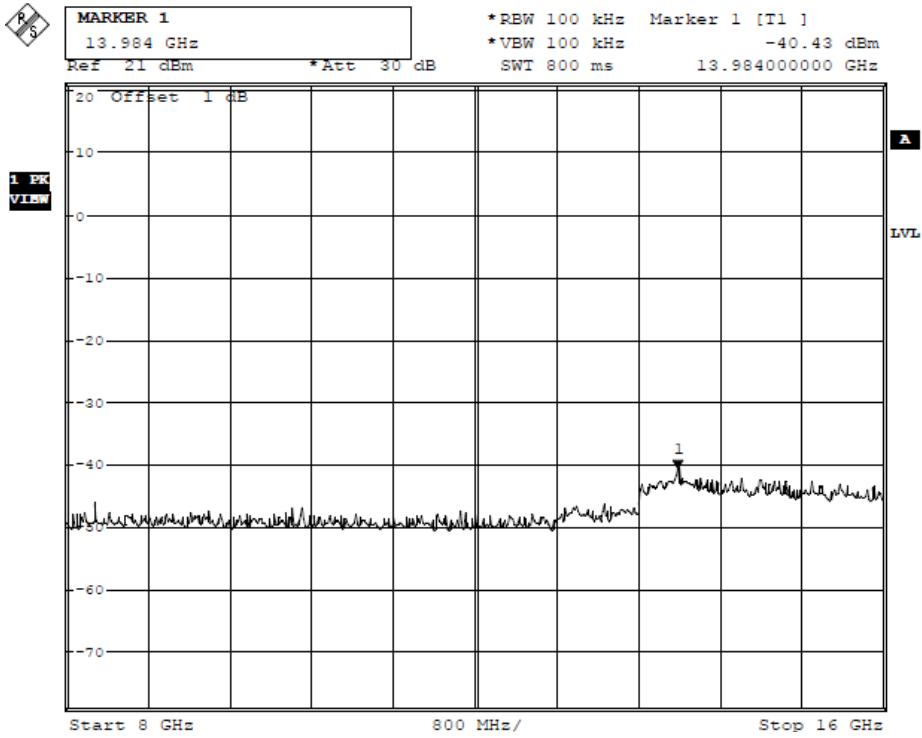
### Low channel 2412MHz (30MHz-1GHz)-g



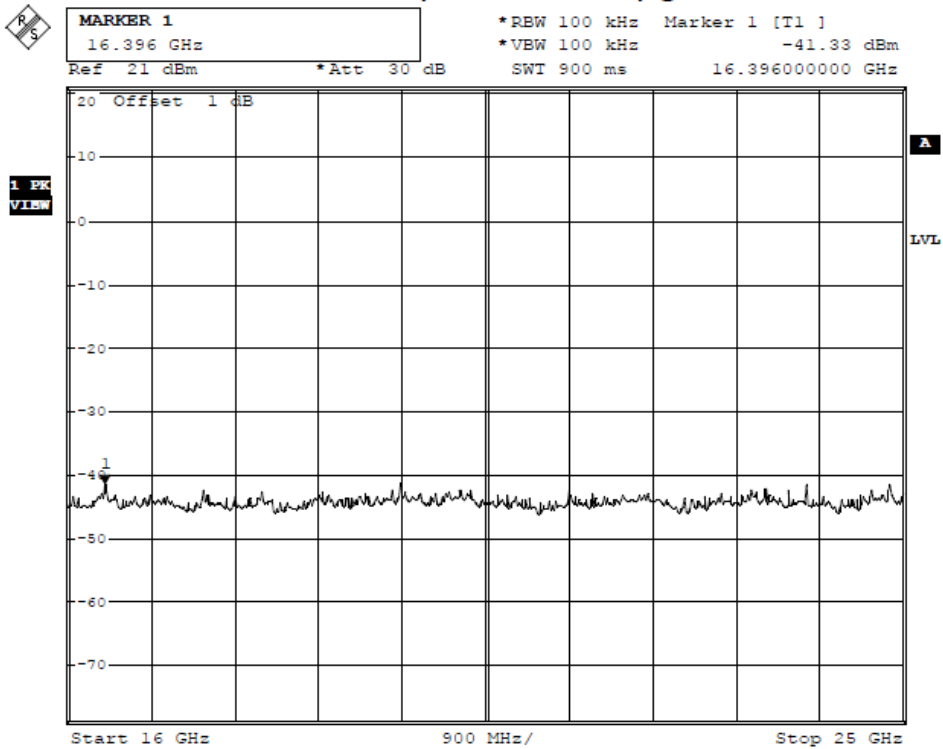
### 2412MHz (1GHz-8GHz)-g



### 2412MHz (8GHz-16GHz)-g

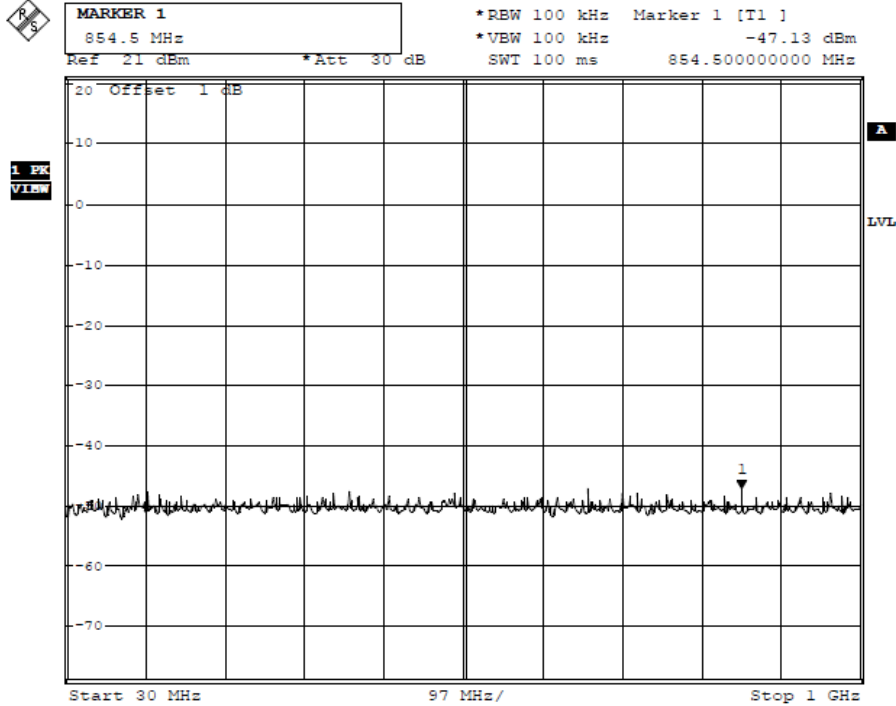


### 2412MHz (16GHz-25GHz)-g

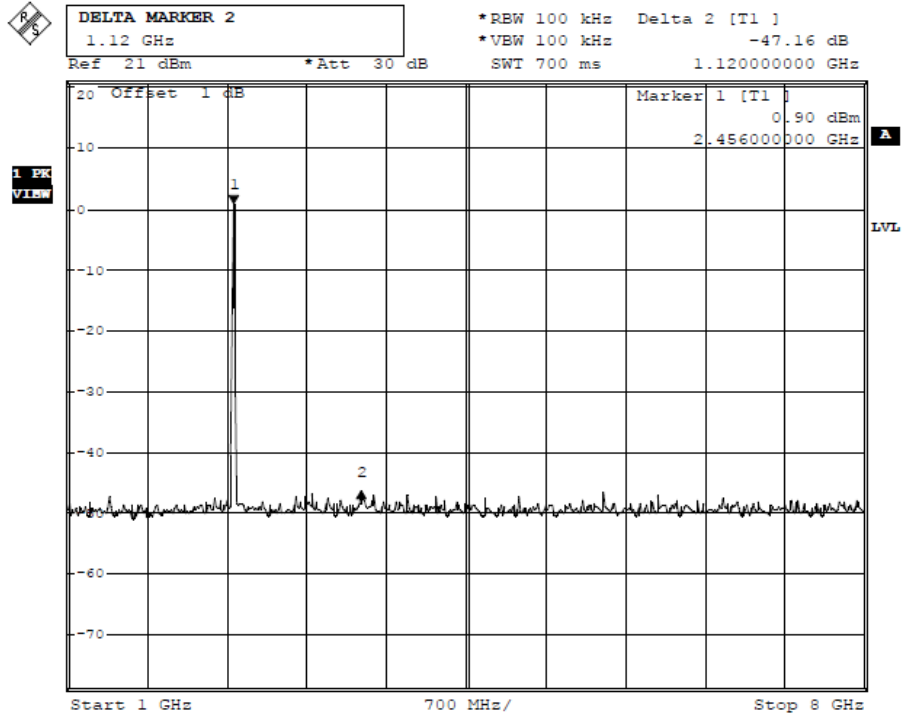


### High channel

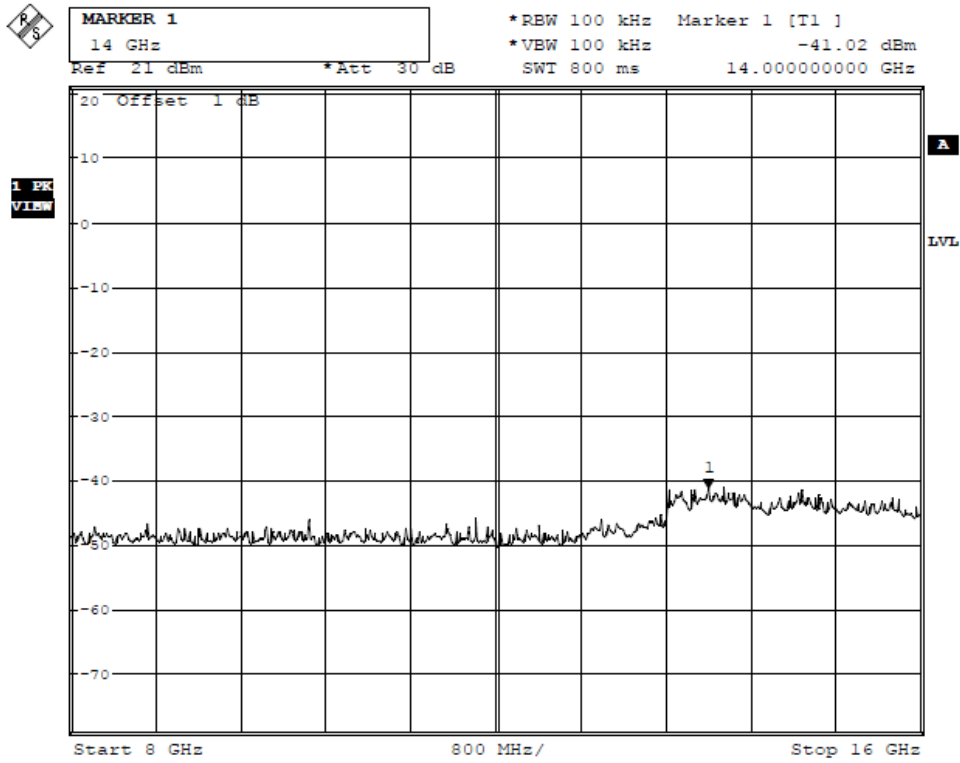
#### 2462MHz (30MHz-1GHz)-g



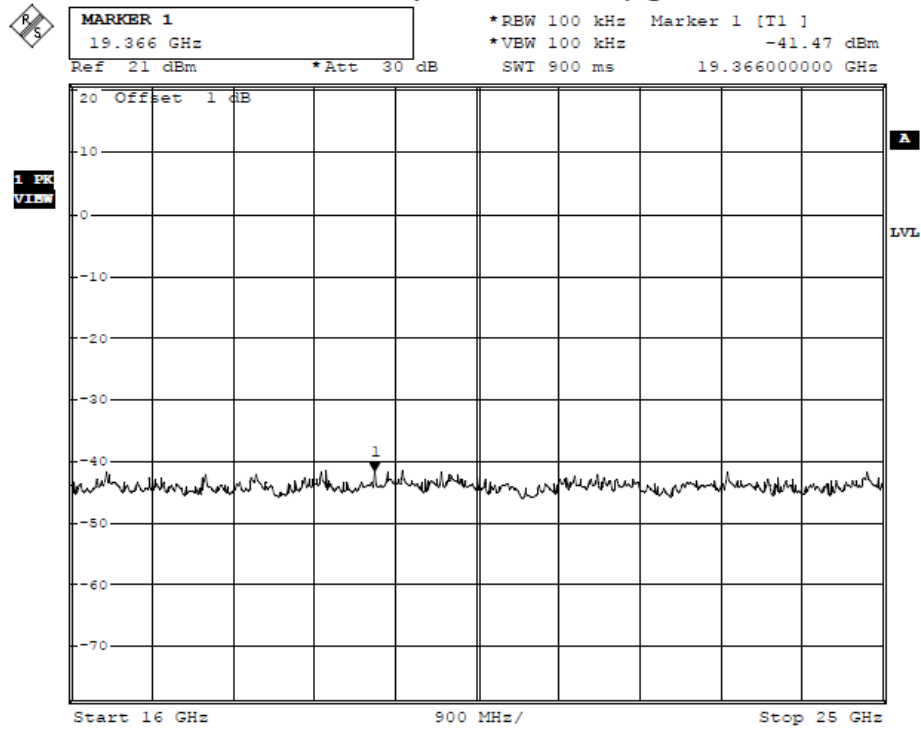
#### 2462MHz (1GHz-8GHz)-g



### 2462MHz (8GHz-16GHz)-g



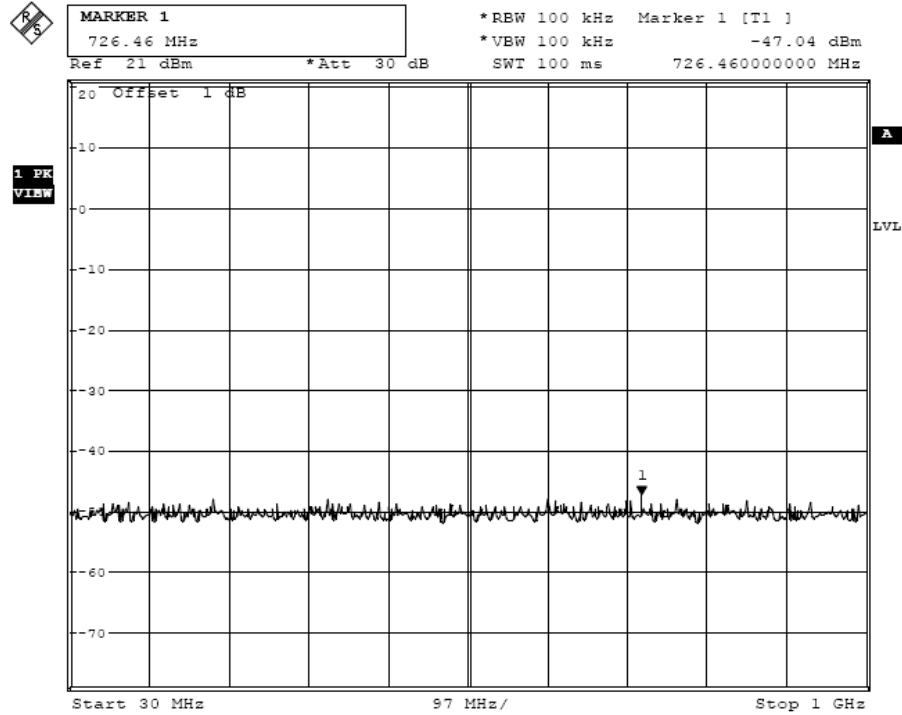
### 2462MHz (16GHz-25GHz)-g



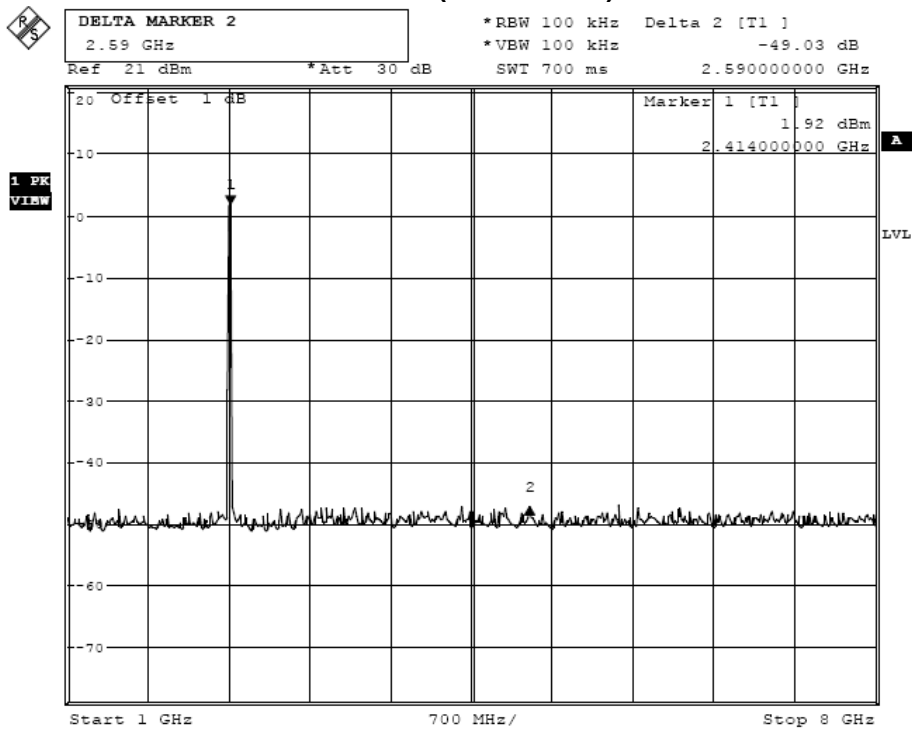
802.11n (20M) mode:

### Low channel

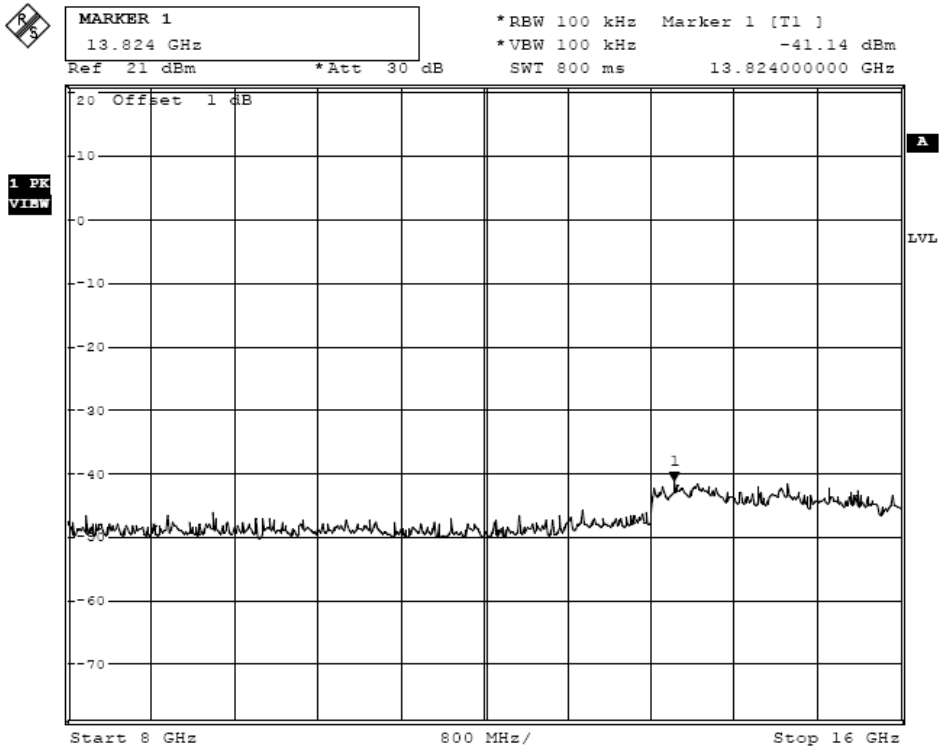
#### 2412MHz (30MHz-1GHz)



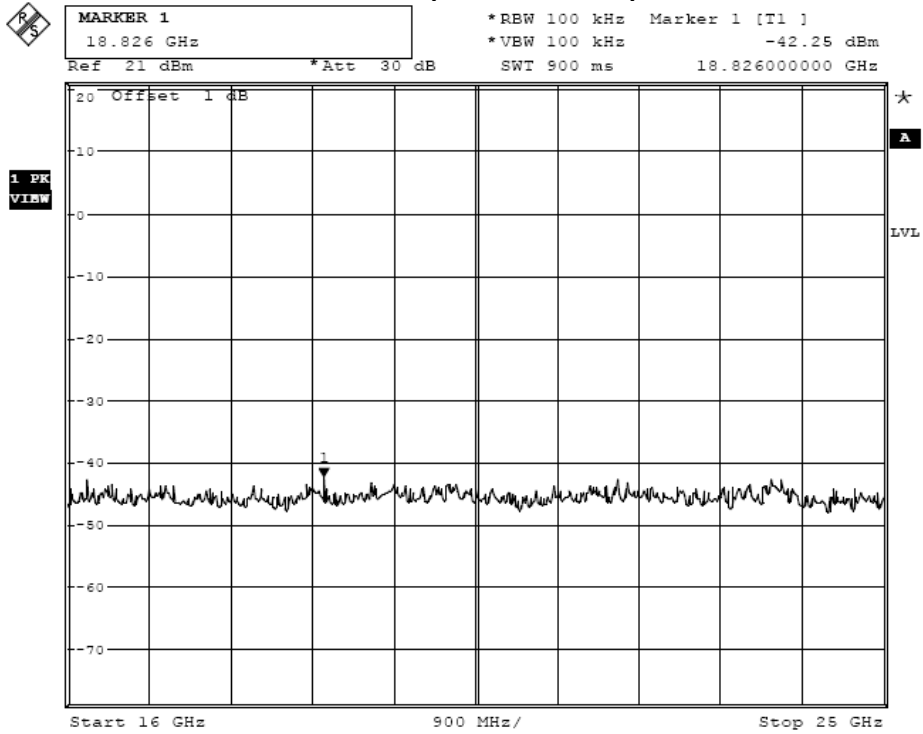
#### 2412MHz (1GHz-8GHz)



### 2412MHz (8GHz-16GHz)



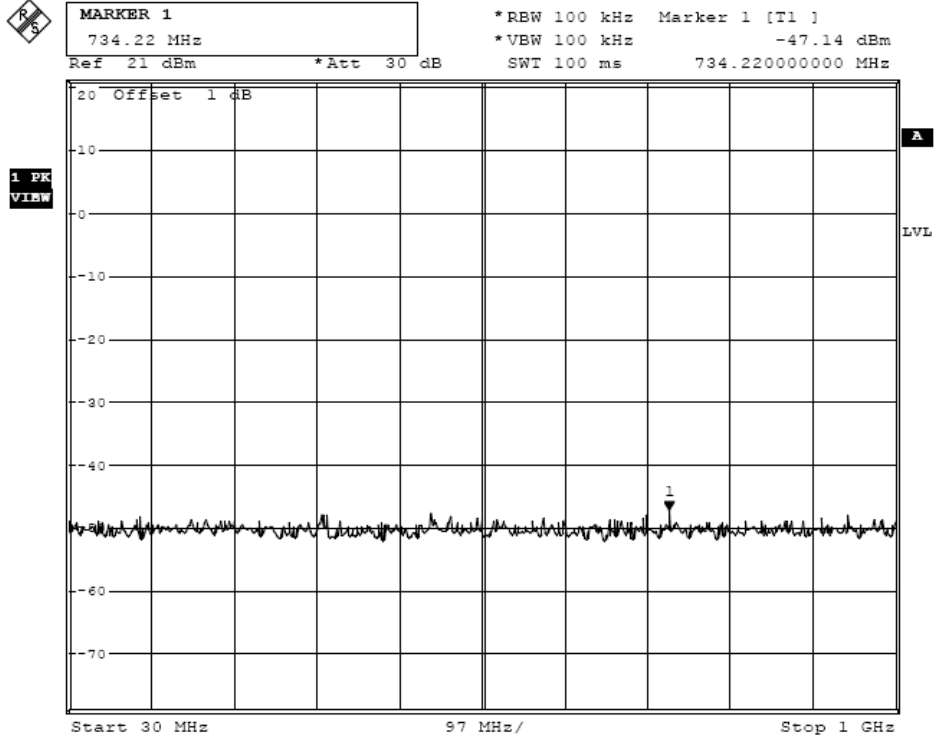
### 2412MHz (16GHz-25GHz)



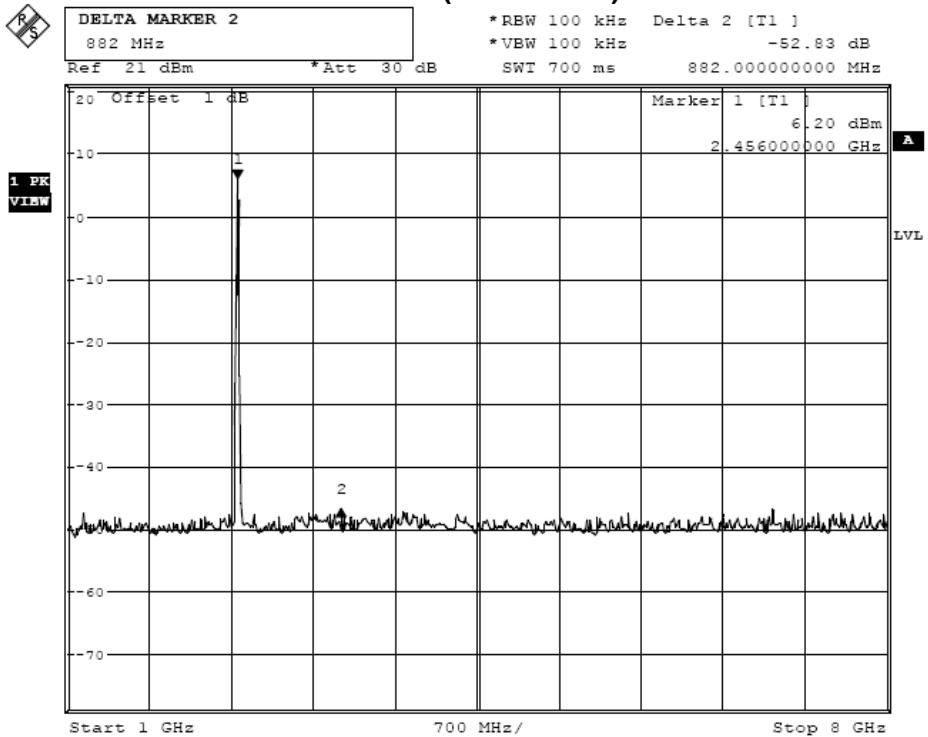


### High channel

#### 2462MHz (30MHz-1GHz)



#### 2462MHz (1GHz-8GHz)



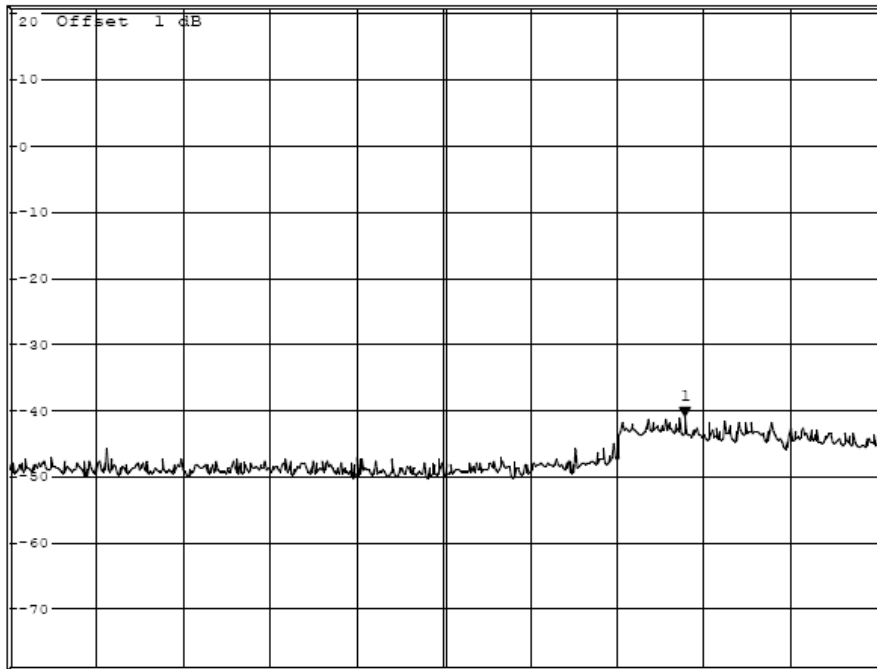
### 2462MHz (8GHz-16GHz)



MARKER 1  
14.224 GHz  
Ref 21 dBm

\*RBW 100 kHz Marker 1 [T1 ]  
\*VBW 100 kHz -40.90 dBm  
\*Att 30 dB  
SWT 800 ms 14.224000000 GHz

1 PK  
VIEW



Start 8 GHz 800 MHz/ Stop 16 GHz

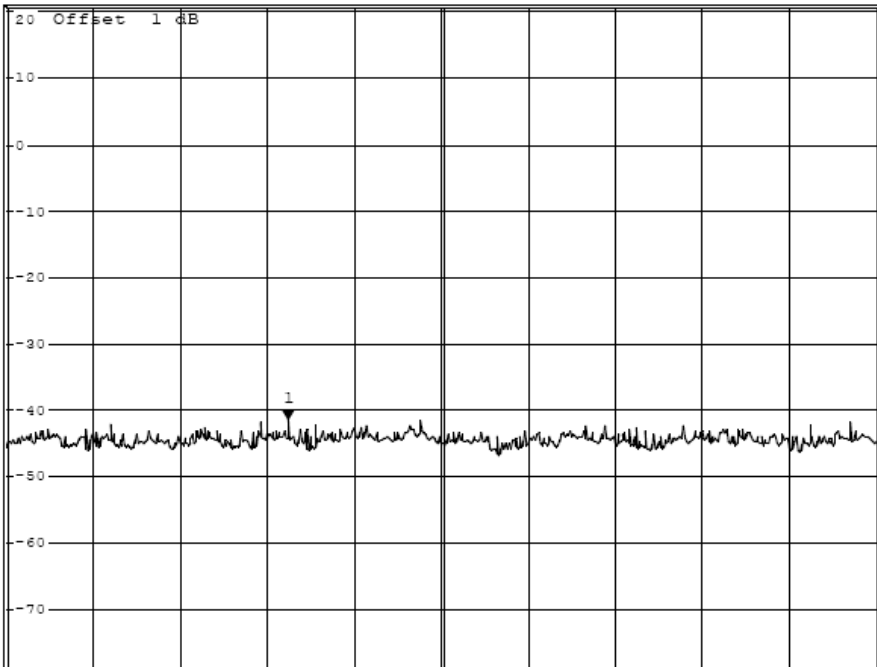
### 2462MHz (16GHz-25GHz)



MARKER 1  
18.916 GHz  
Ref 21 dBm

\*RBW 100 kHz Marker 1 [T1 ]  
\*VBW 100 kHz -41.31 dBm  
\*Att 30 dB  
SWT 900 ms 18.916000000 GHz

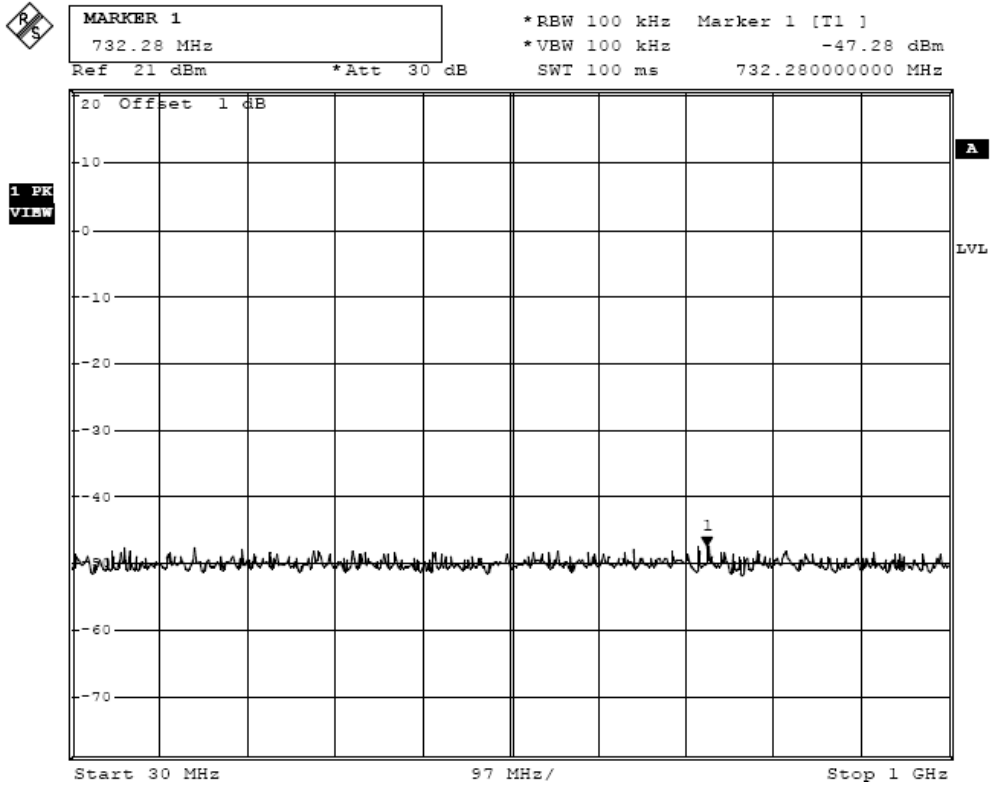
1 PK  
VIEW



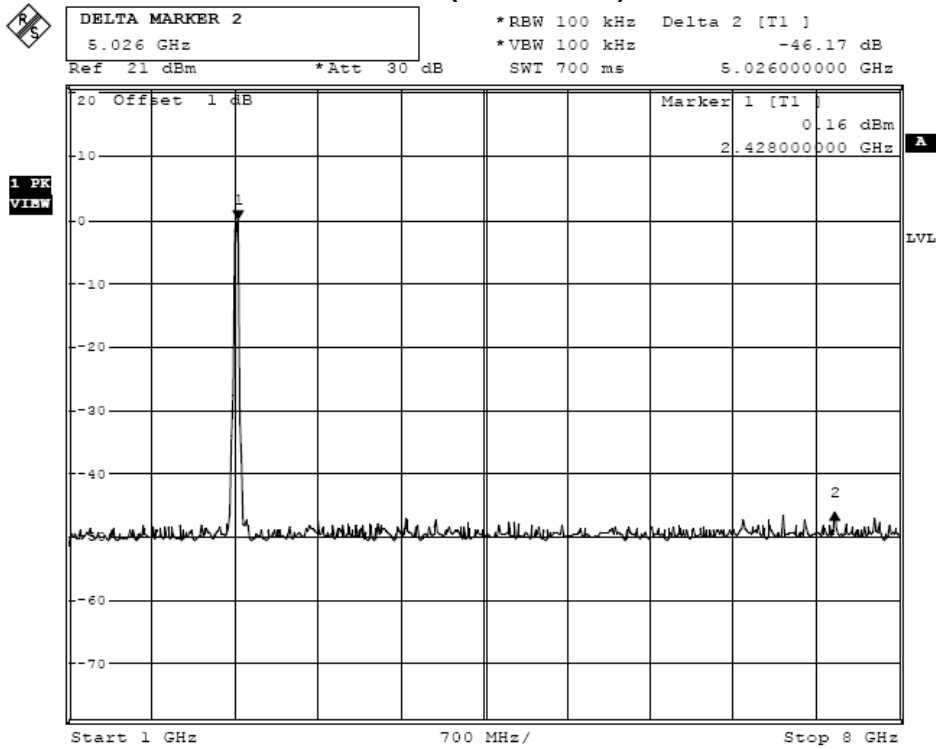
Start 16 GHz 900 MHz/ Stop 25 GHz

802.11n (40M) mode:

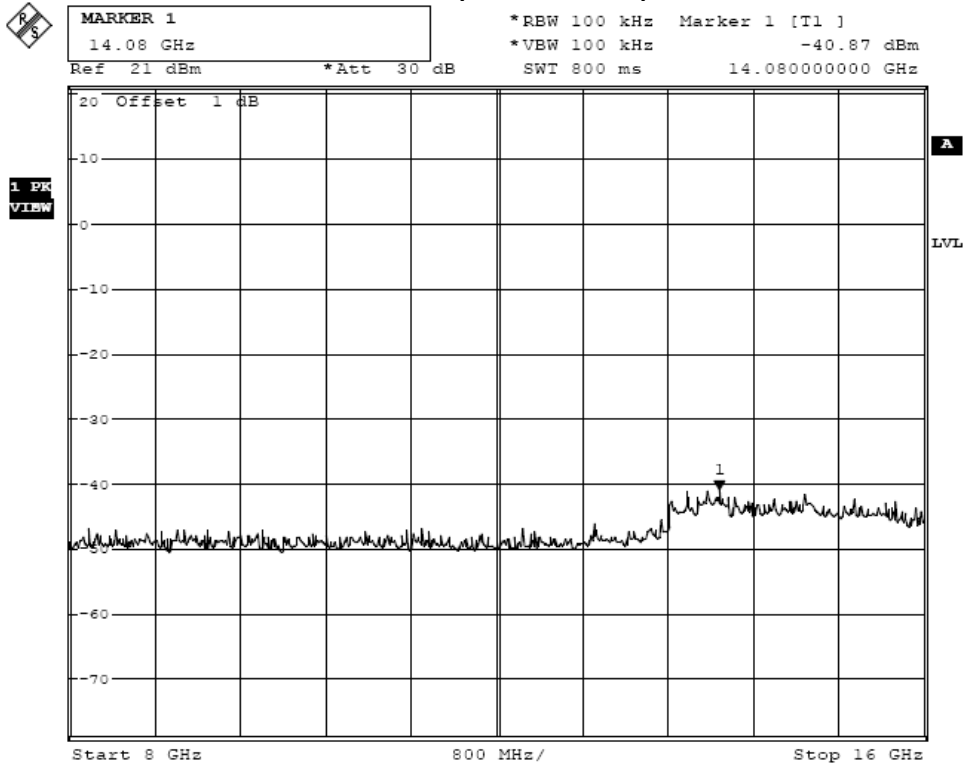
### Low channel 2422MHz (30MHz-1GHz)



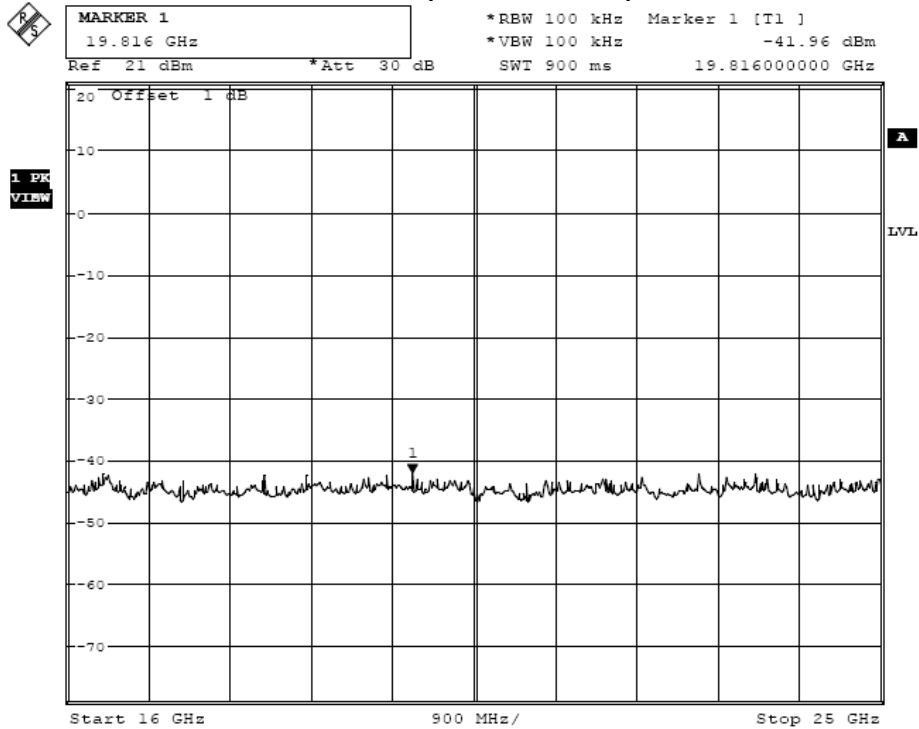
### 2422MHz (1GHz-8GHz)



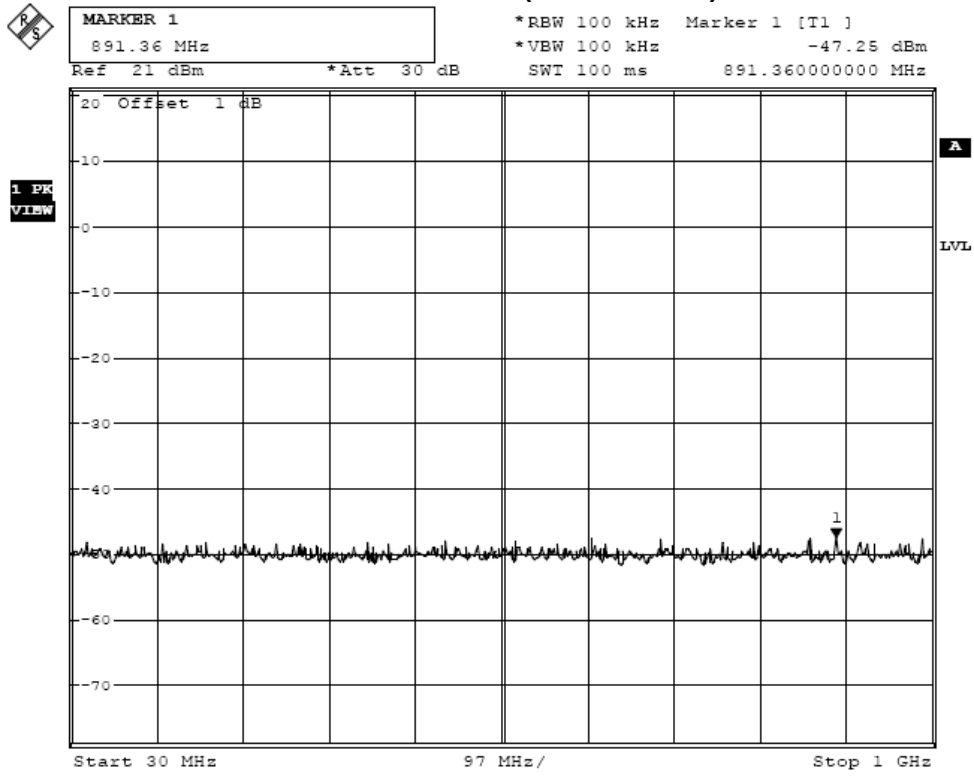
### 2422MHz (8GHz-16GHz)



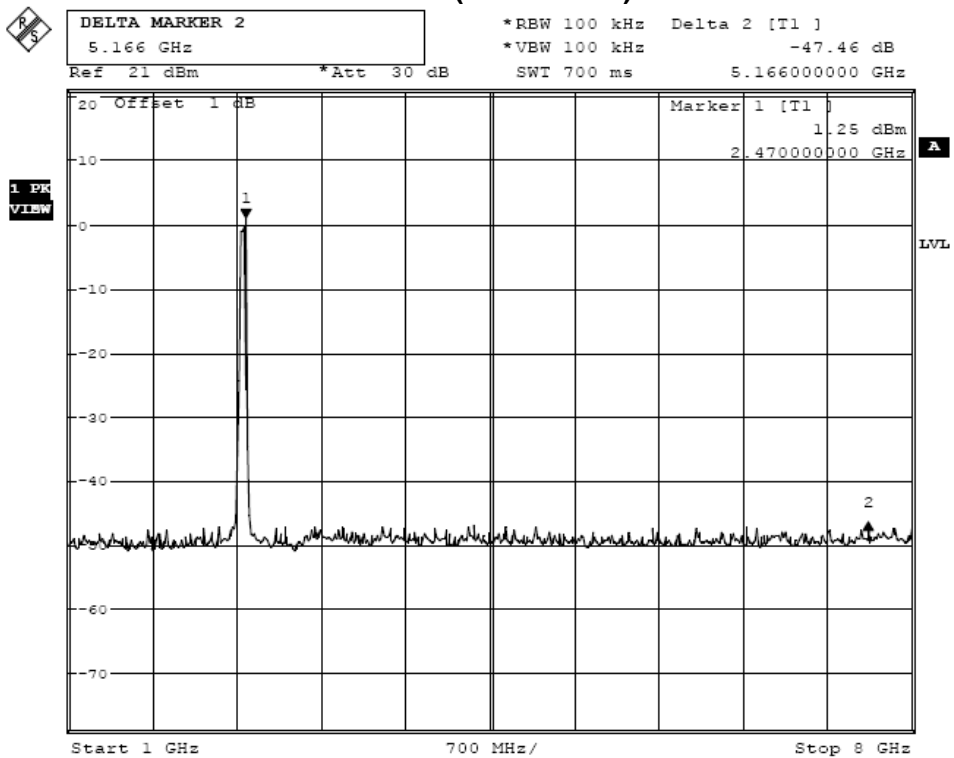
### 2422MHz (16GHz-25GHz)



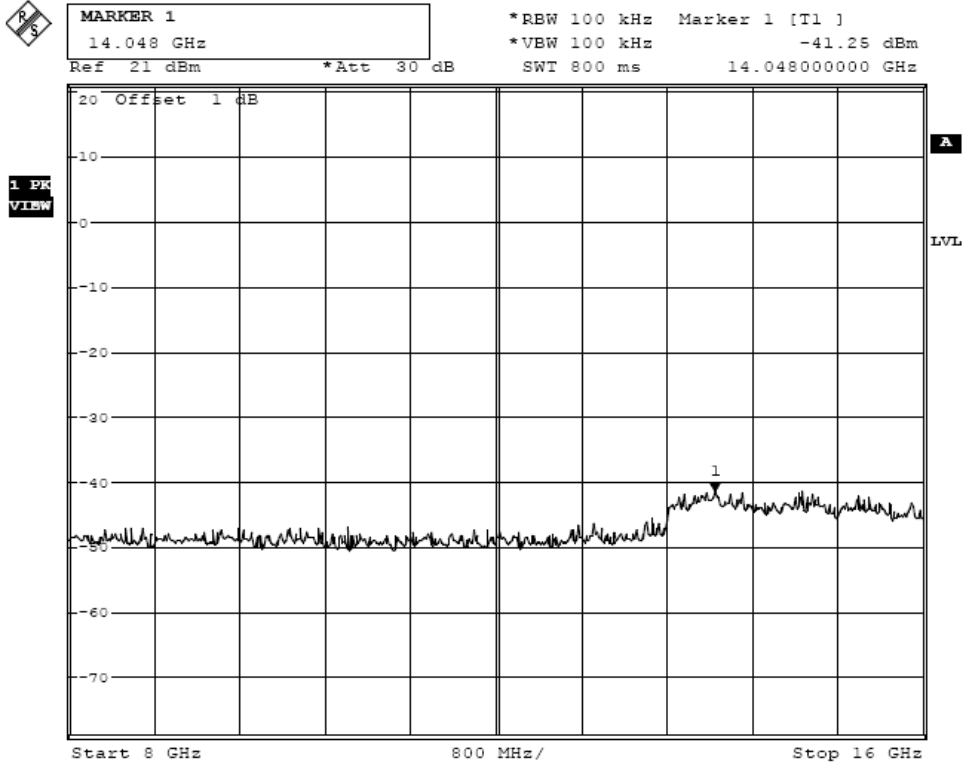
### High channel 2452MHz (30MHz-1GHz)



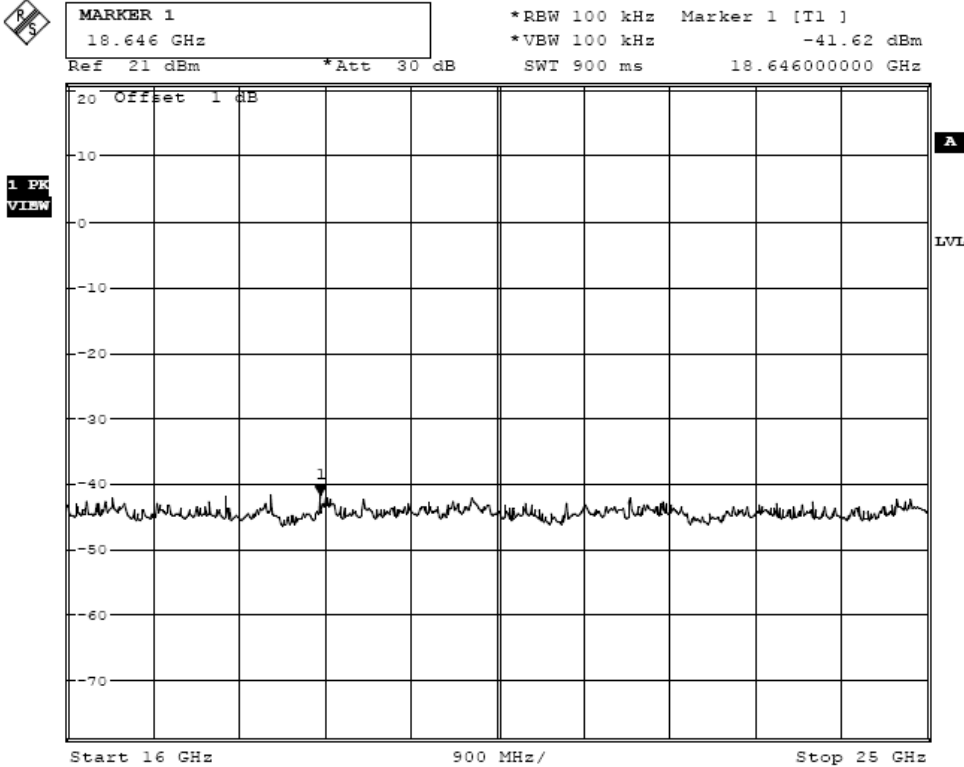
### 2452MHz (1GHz-8GHz)



### 2452MHz (8GHz-16GHz)



### 2452MHz (16GHz-25GHz)



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

### 10.1. Test Equipment

Please refer to Section 4 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=100MHz,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.

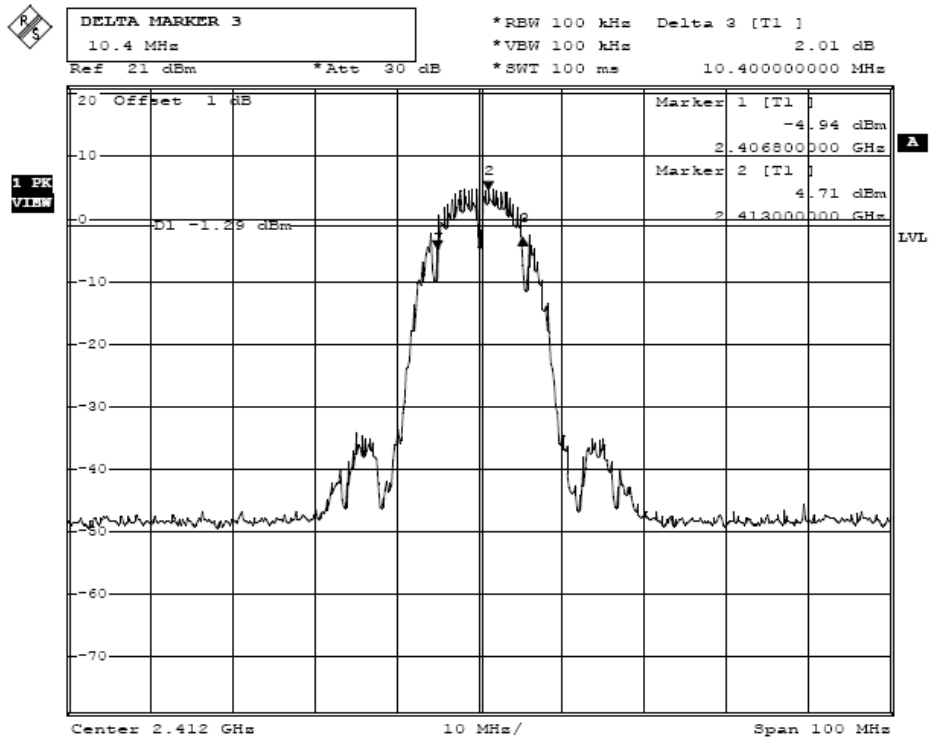
### 10.4. Test Result: Pass.

Please refer to the following tables

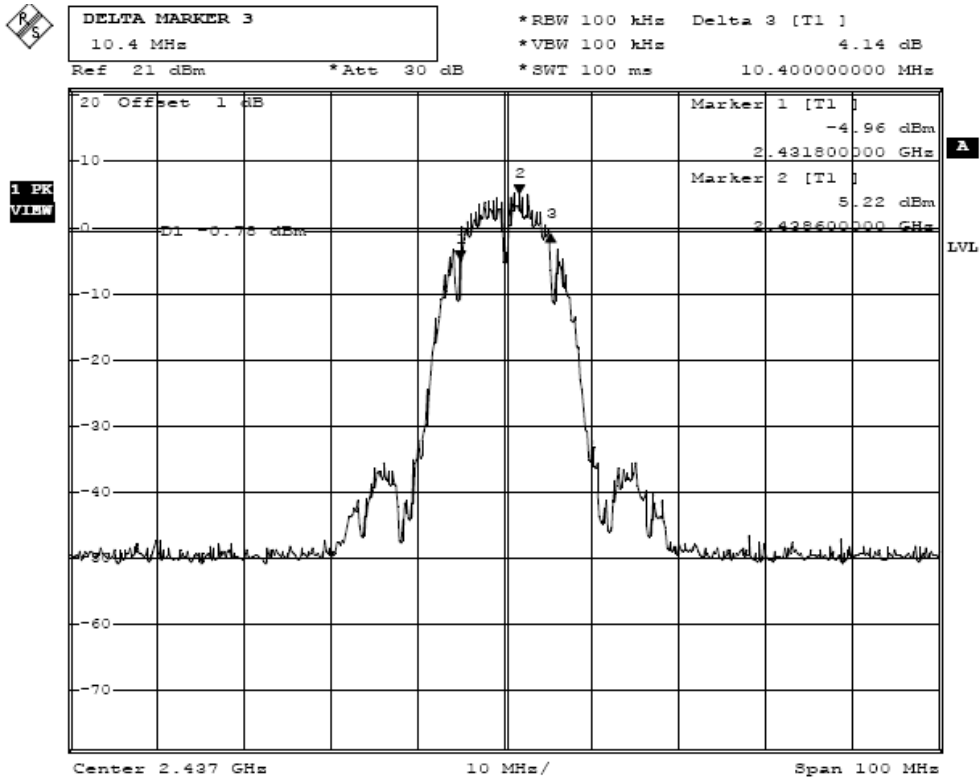
Channel Frequency (MHz)	Data Rate (Mbps)	6dB Bandwidth (kHz)	Limit (kHz)	Result
<b>802.11b Mode</b>				
2412	1	10400	> 500	Pass
2437	1	10400	> 500	Pass
2462	1	10600	> 500	Pass
<b>802.11g Mode</b>				
2412	6	16800	> 500	Pass
2437	6	16800	> 500	Pass
2462	6	16800	> 500	Pass
<b>802.11n (20M) Mode</b>				
2412	6.5	18000	> 500	Pass
2437	6.5	18000	> 500	Pass
2462	6.5	18000	> 500	Pass
<b>802.11n (40M) Mode</b>				
2422	13	36400	> 500	Pass
2437	13	36800	> 500	Pass
2452	13	36800	> 500	Pass

802.11b Mode:

Low Channel

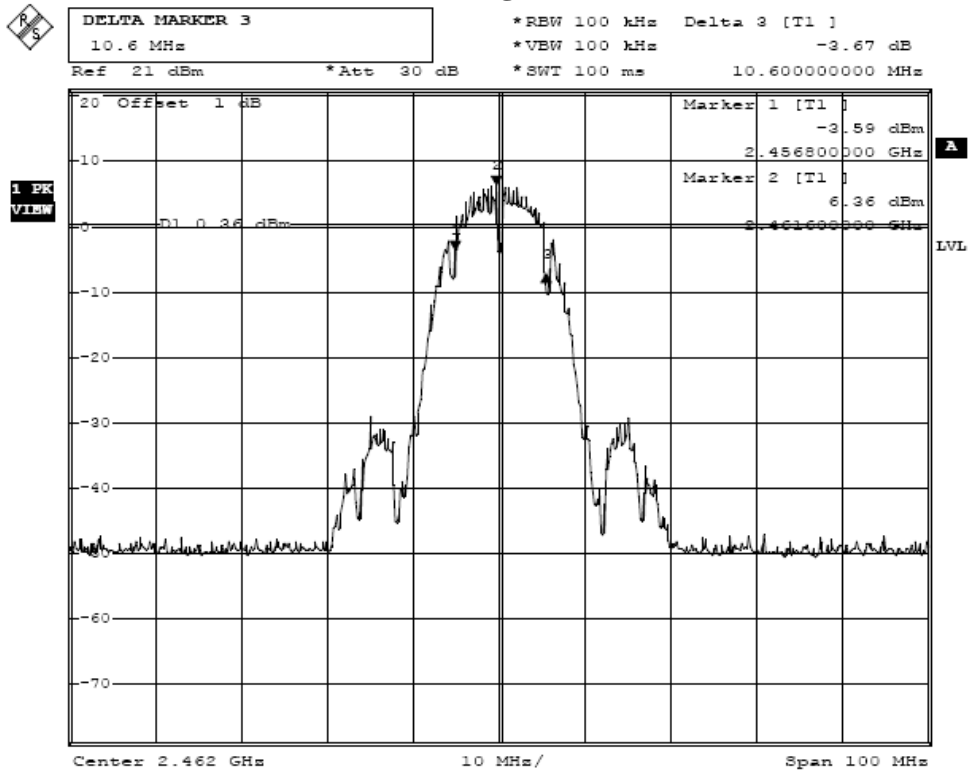


Middle Channel



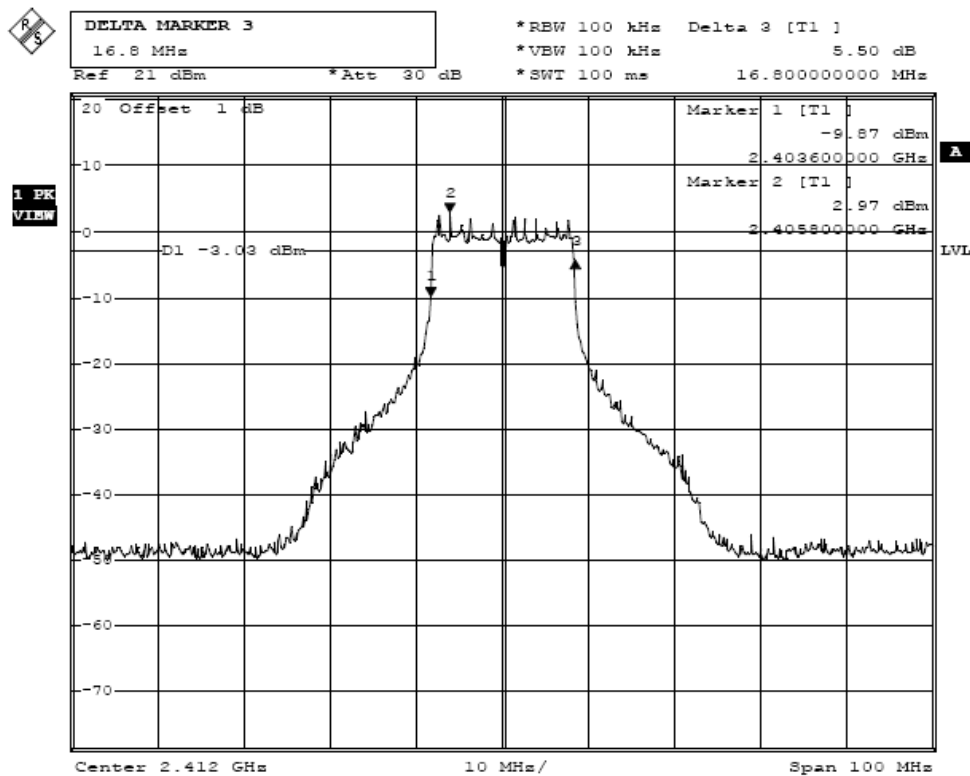


### High Channel

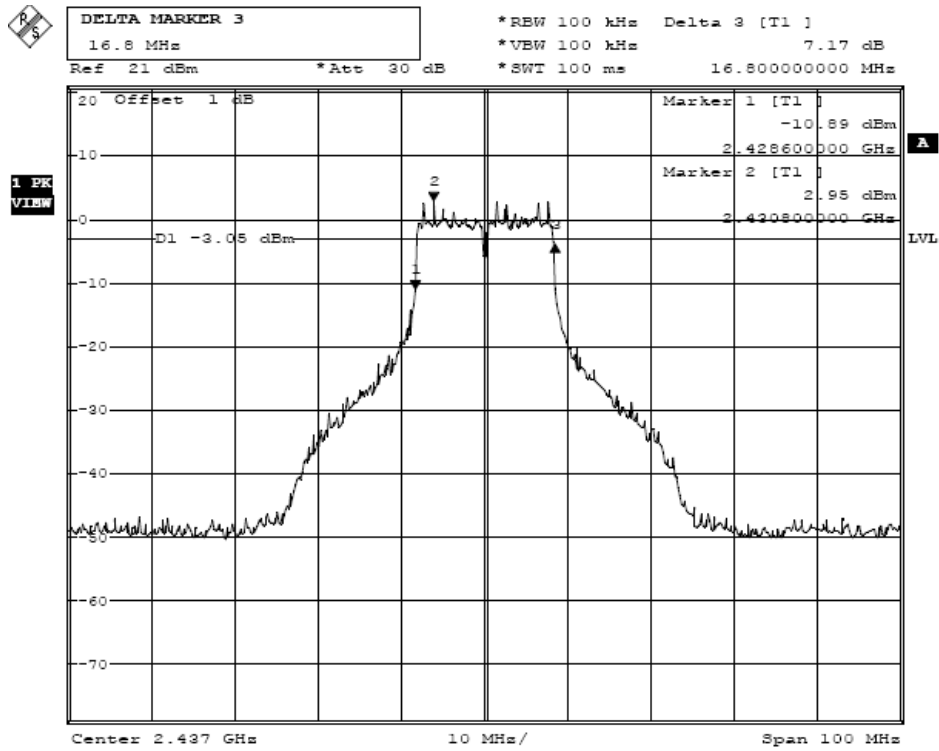


### 802.11g Mode:

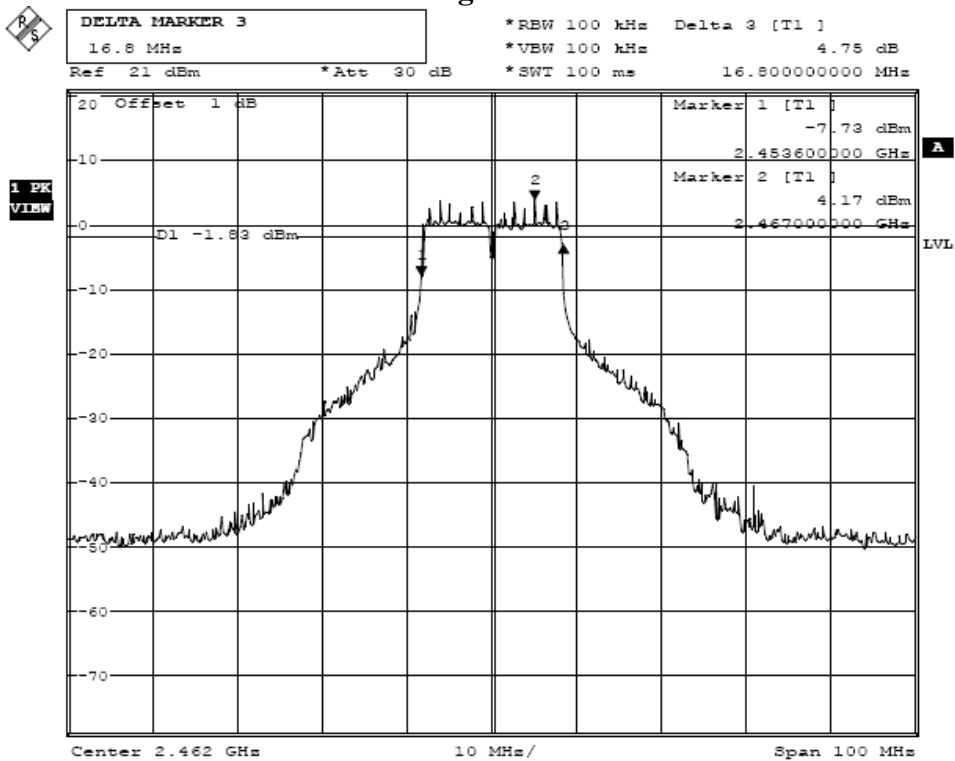
### Low Channel



### Middle Channel

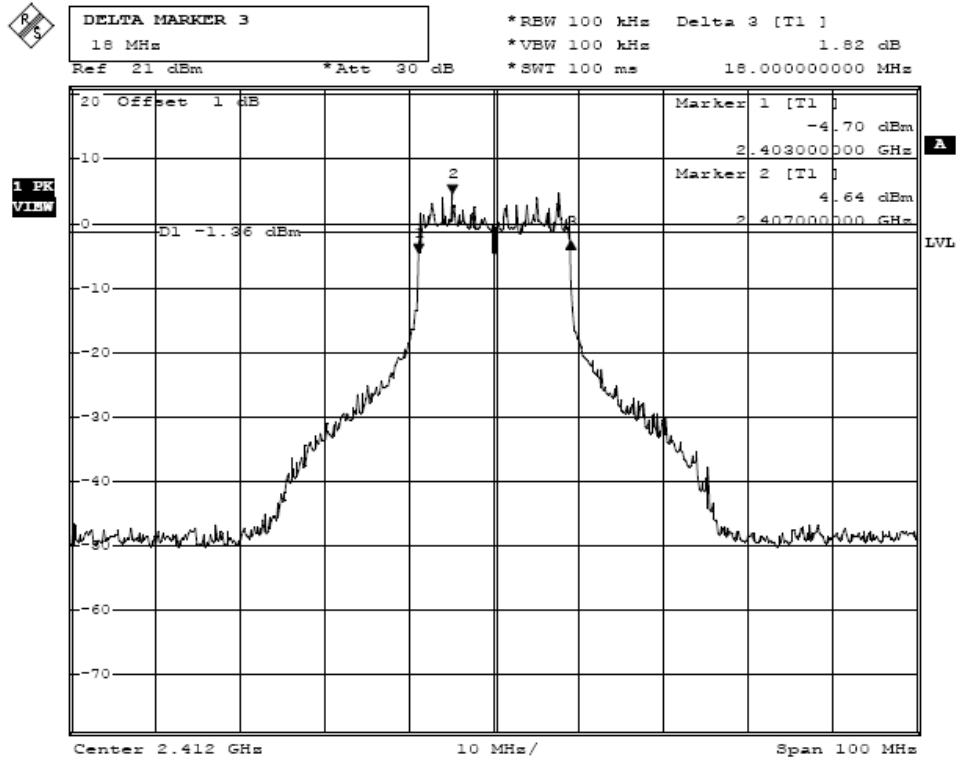


### High Channel

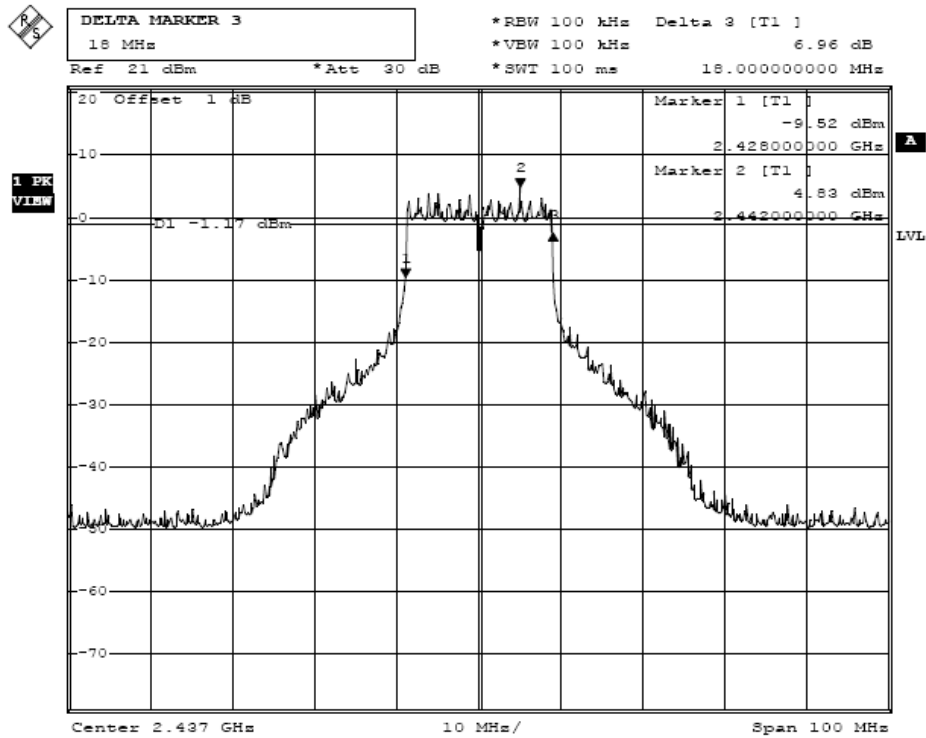


### 802.11n (20M) Mode:

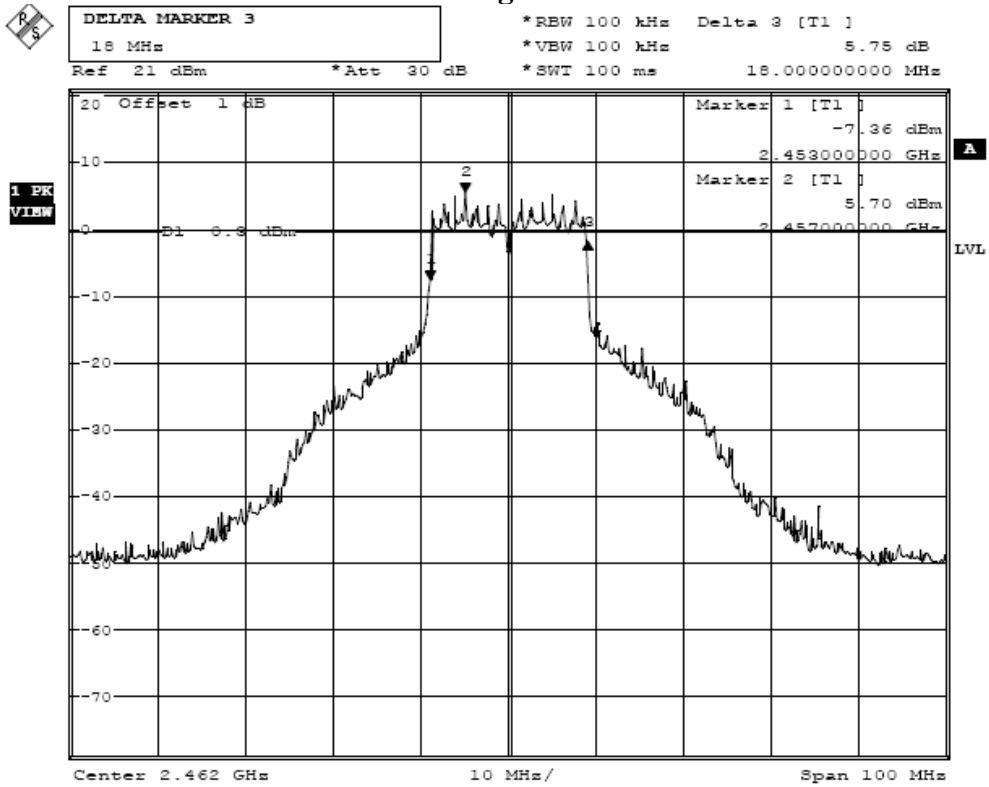
#### Low Channel



#### Middle Channel

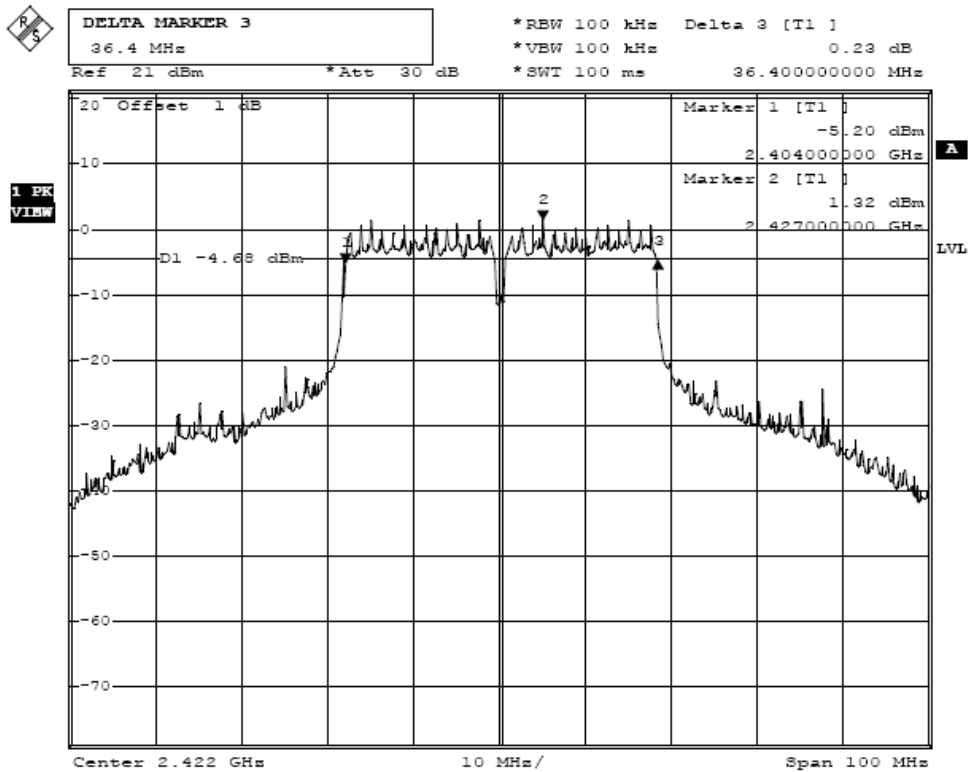


### High Channel

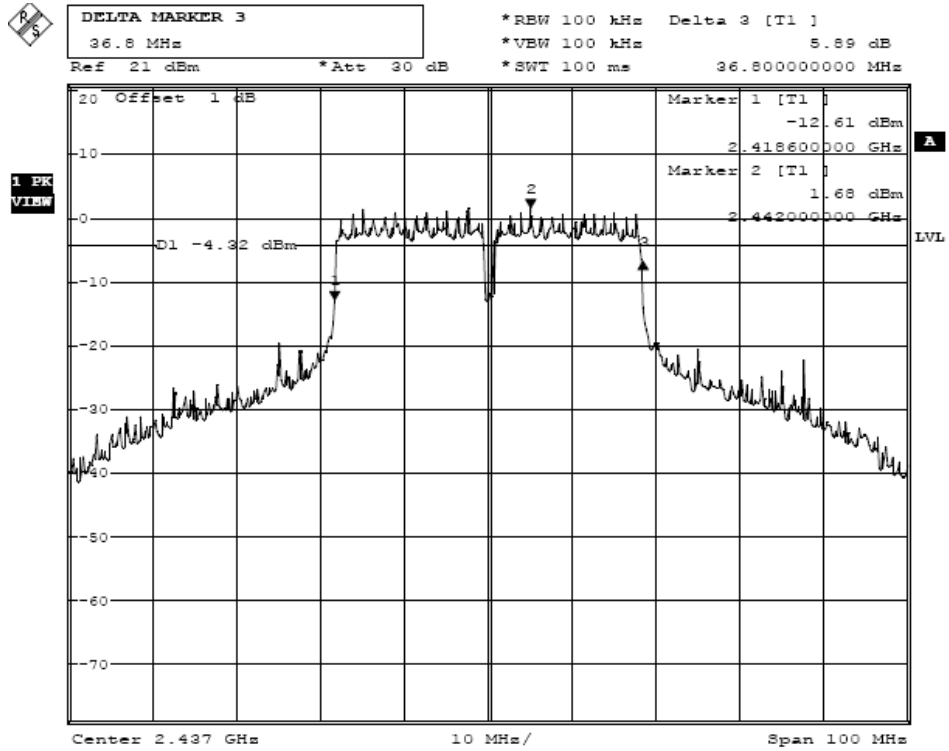


### 802.11n (40M) Mode:

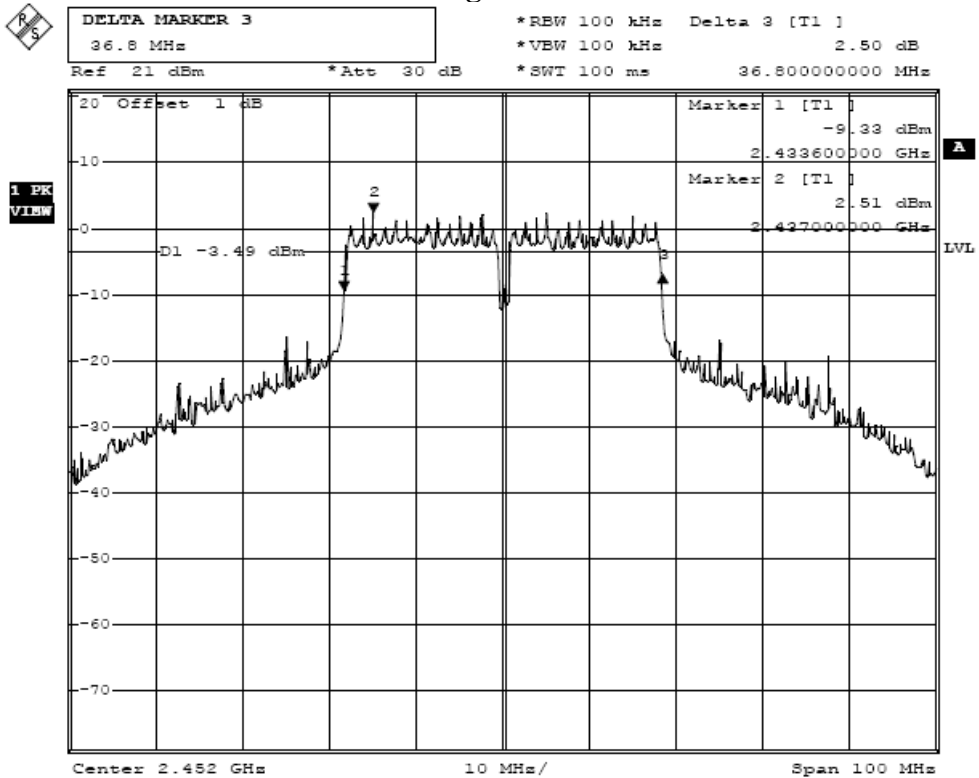
### Low Channel



### Middle Channel



### High Channel



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

### **11.1. Test Equipment**

Please refer to Section 4 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	17.63	30
Mid	2437	1	17.25	30
High	2462	1	17.18	30

**802.11g Mode:**

Channel	Frequency (MHz)	Data Rate (Mbps)	Conducted Power (dBm)	Limit (dBm)
Low	2412	6	18.54	30
Mid	2437	6	18.68	30
High	2462	6	18.37	30

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

Channel	Frequency (MHz)	Data Rate (Mbps)	Conducted Power (dBm)	Limit (dBm)
Low	2412	6.5	17.67	30
Mid	2437	6.5	17.86	30
High	2462	6.5	17.59	30

**802.11n (40M) Mode:**

Channel	Frequency (MHz)	Data Rate (Mbps)	Conducted Power (dBm)	Limit (dBm)
Low	2422	13.5	17.72	30
Mid	2437	13.5	17.91	30
High	2452	13.5	17.64	30

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

### **12.1. Test Equipment**

Please refer to Section 4 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)).

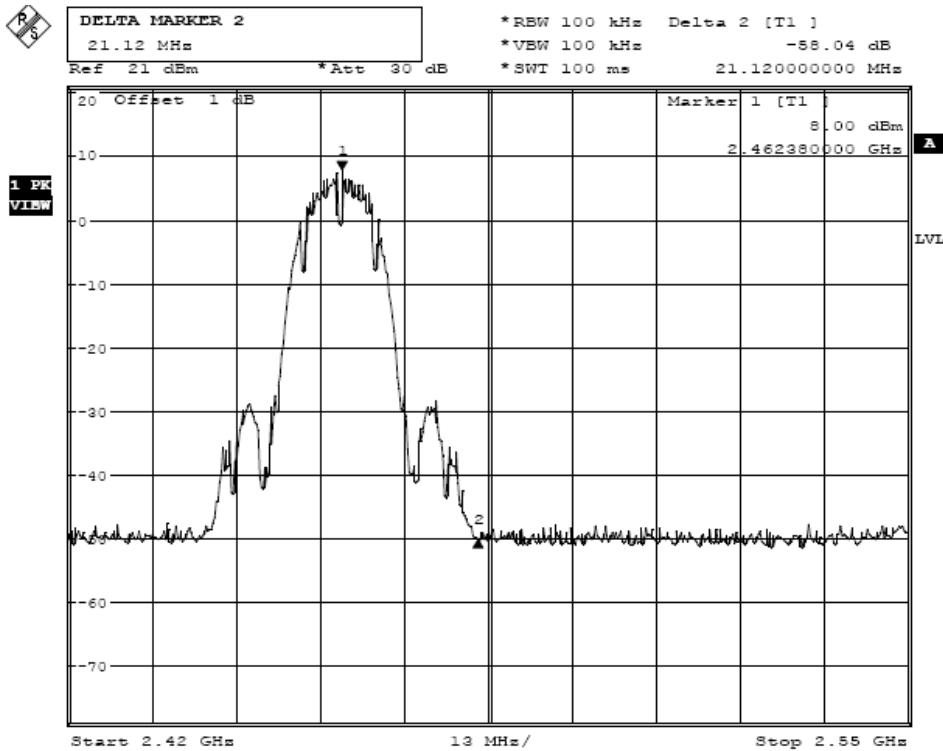
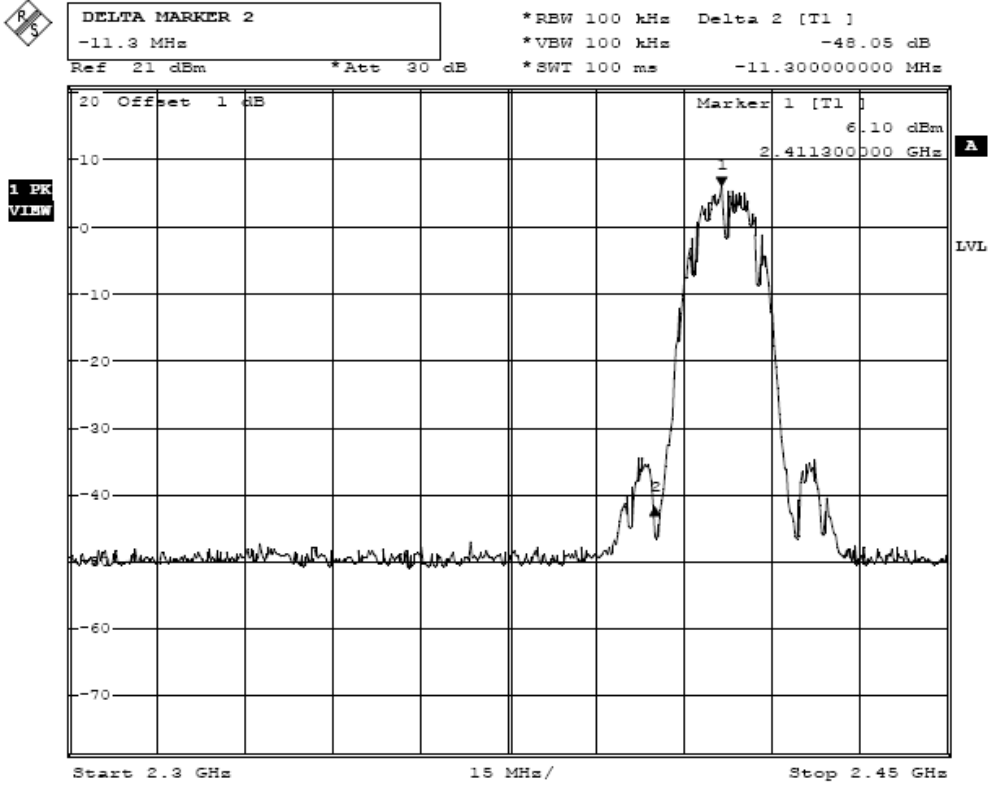
### **12.4. Test Result**

**Pass.**

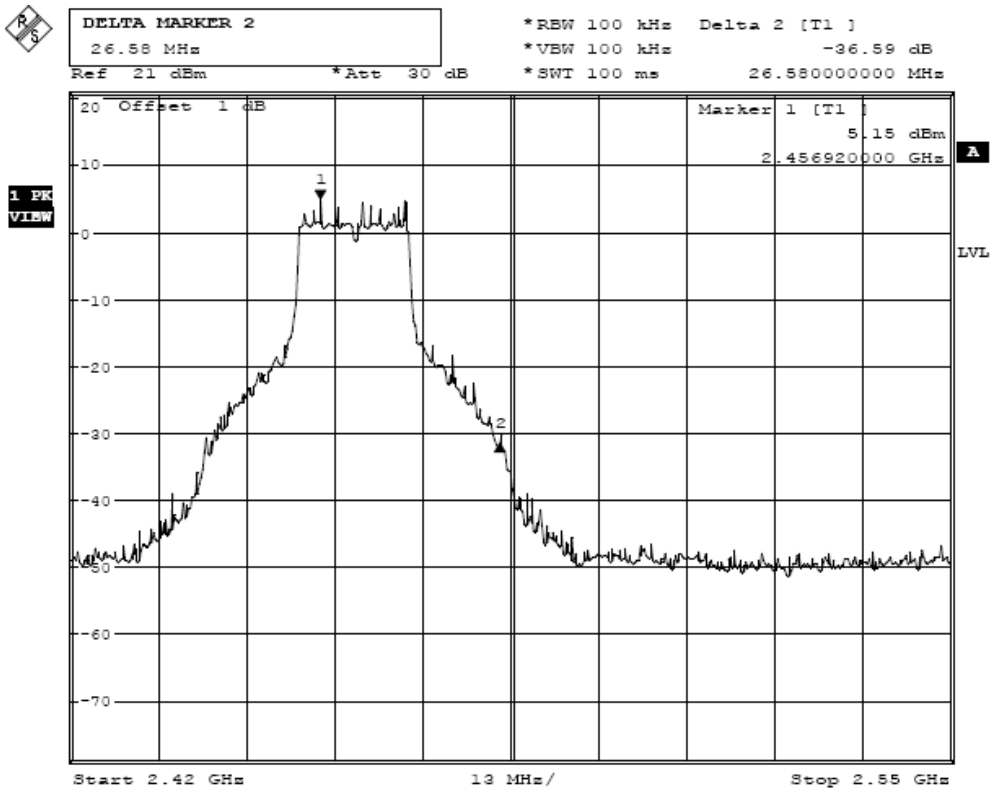
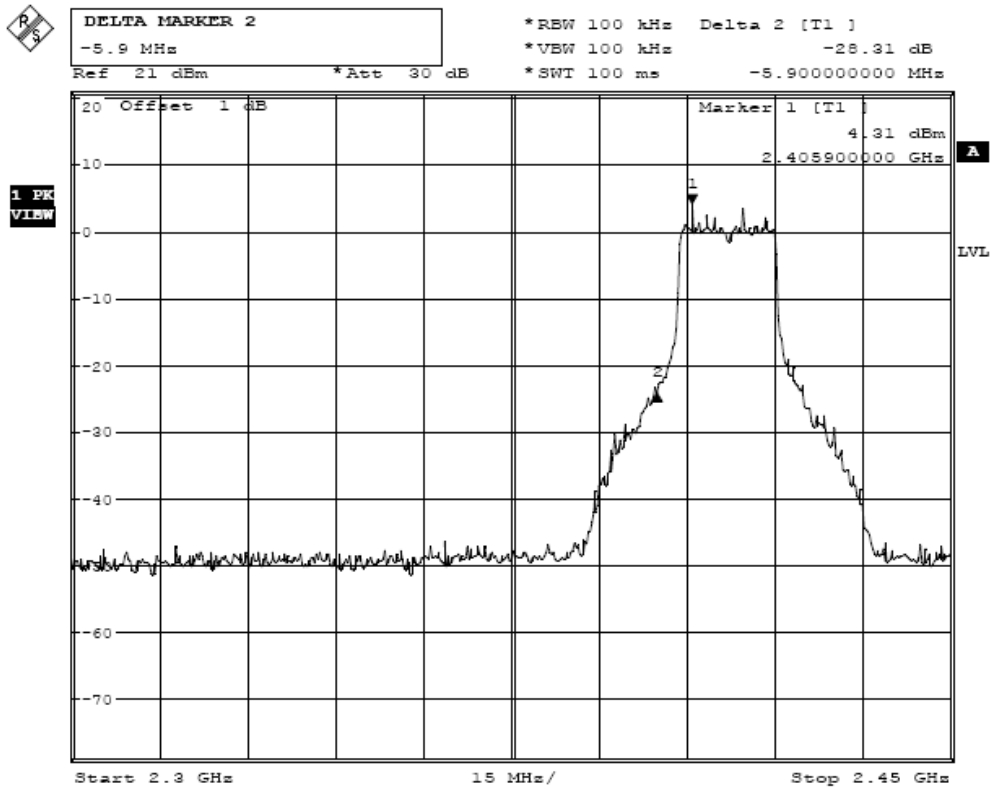


Conducted test

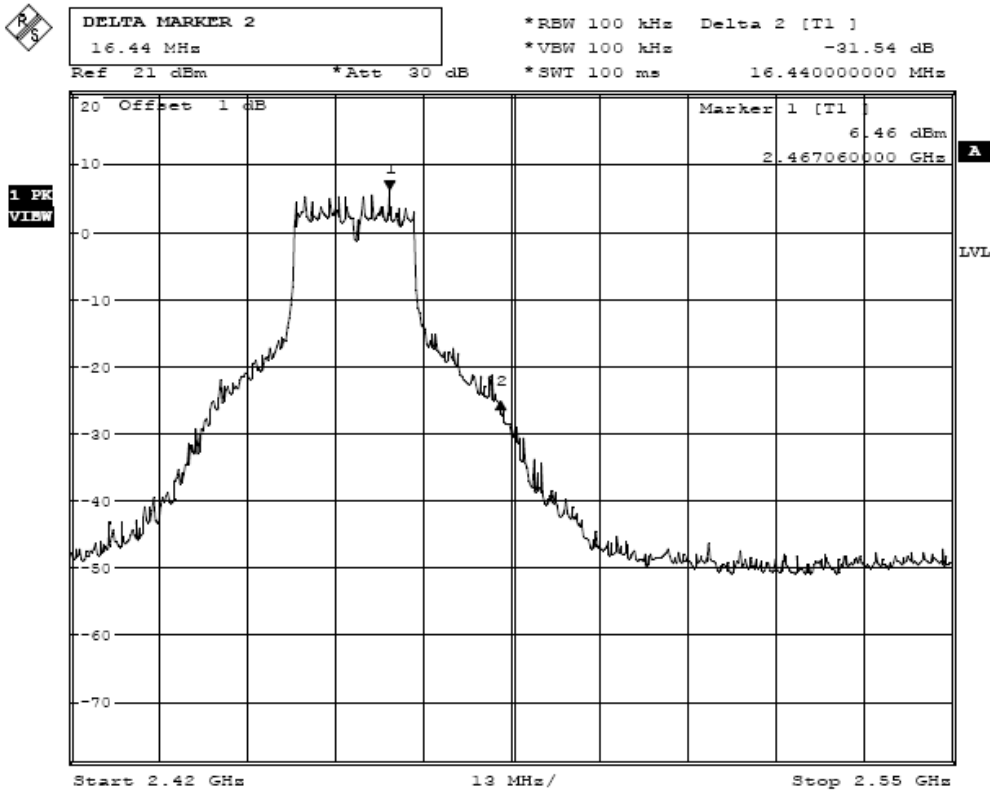
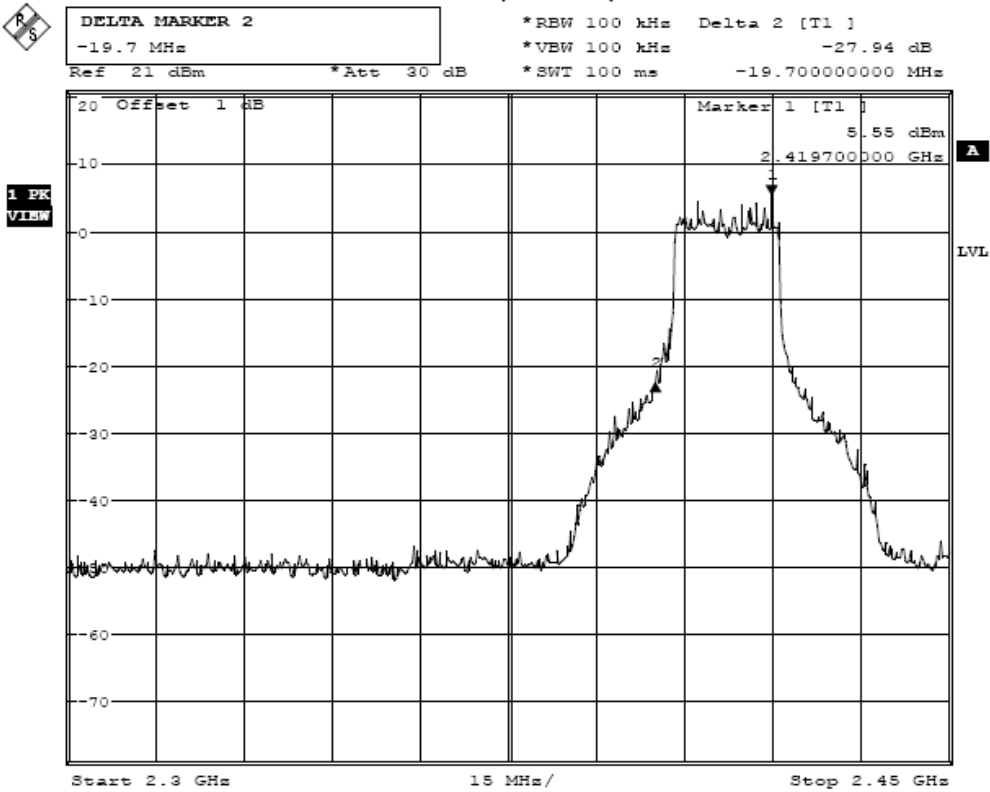
802.11b Mode:



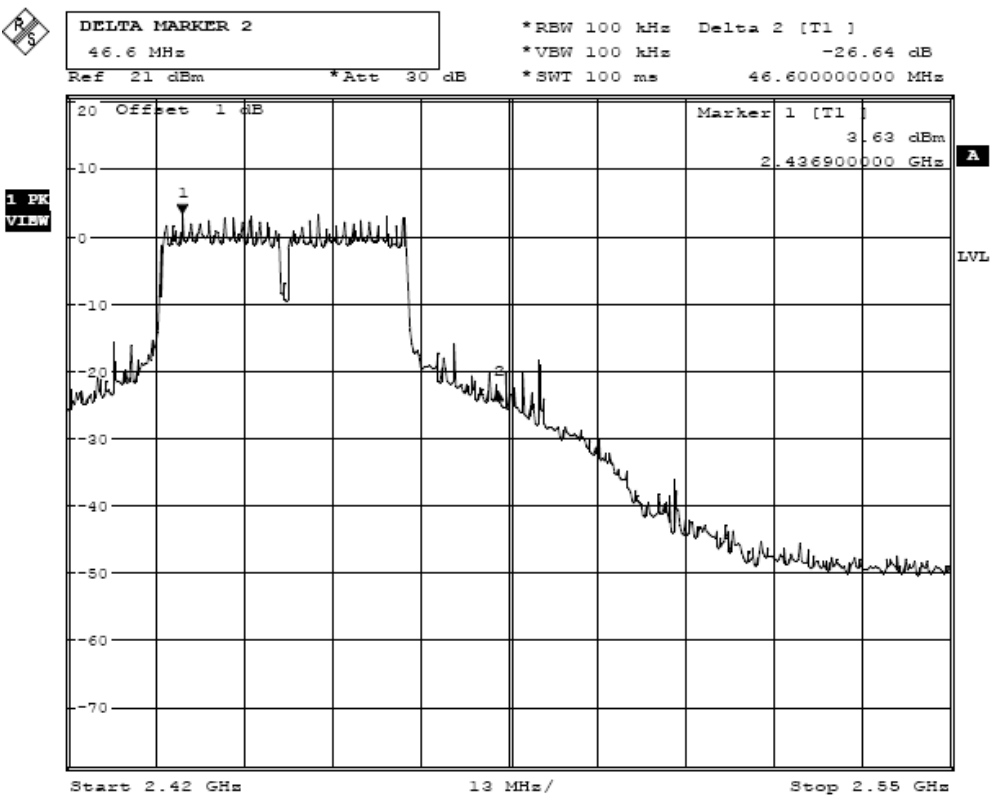
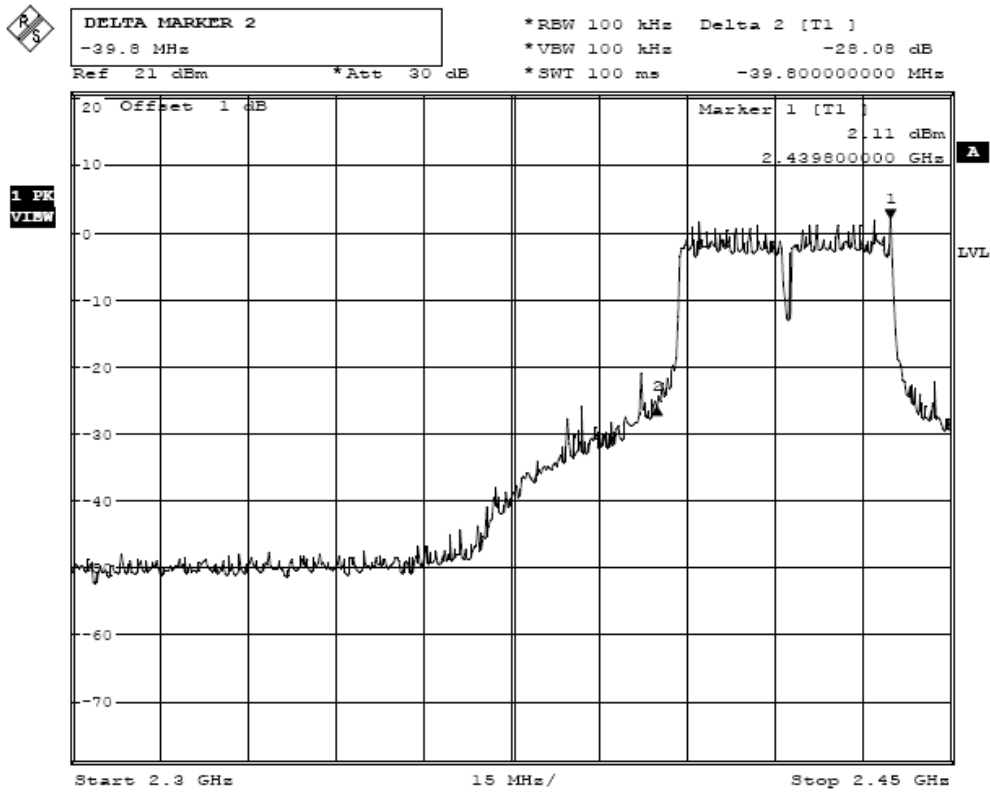
802.11g Mode:



802.11n (20M) Mode:

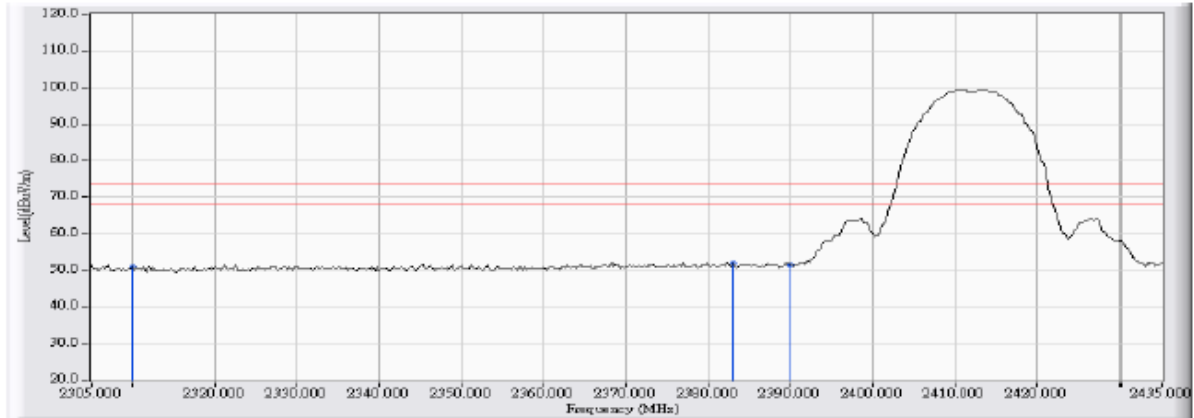


802.11n (40M) Mode:



Radiated test

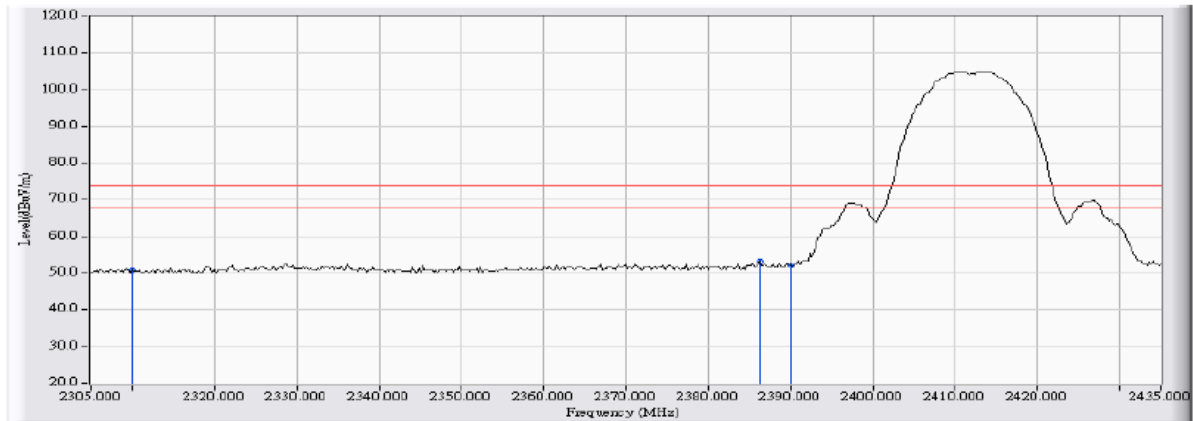
Date of Test:	<u>April 23, 2012</u>	Temperature:	<u>25°C</u>
	<u>PCI-E 150M WIRELESS LAN</u>		
EUT:	<u>CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11b Channel Low 2412MHz</u>	Polarization:	<u>HORIZONTAL</u>



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	25.682	25.041	50.723	-23.277	74.000	PEAK
2	* 2383.000	25.953	25.949	51.901	-22.099	74.000	PEAK
3	2390.000	25.978	25.416	51.394	-22.606	74.000	PEAK

- 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.

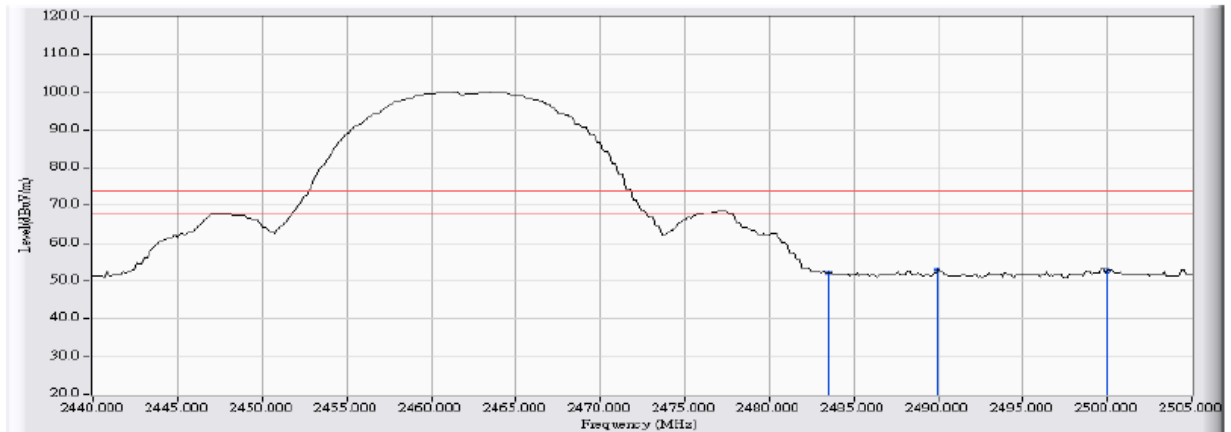
Date of Test: April 23, 2012 Temperature: 25°C  
 PCI-E 150M WIRELESS LAN  
 EUT: CARD Humidity: 52%  
 Model No.: WL-600N-E2 Power Supply: AC 120V/60Hz  
 Test Mode: 802.11b Channel Low 2412MHz Polarization: VERTICAL



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	25.682	25.273	50.955	-23.045	74.000	PEAK
2	* 2386.250	25.964	27.175	53.139	-20.861	74.000	PEAK
3	2390.000	25.978	26.296	52.274	-21.726	74.000	PEAK

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.

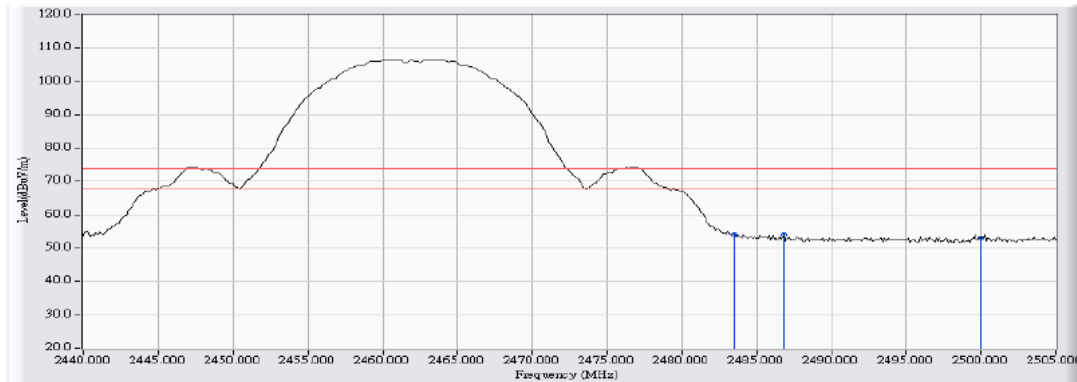
Date of Test: April 23, 2012 Temperature: 25°C  
 PCI-E 150M WIRELESS LAN  
 EUT: CARD Humidity: 52%  
 Model No.: WL-600N-E2 Power Supply: AC 120V/60Hz  
 Test Mode: 802.11b Channel High 2462MHz Polarization: HORIZONTAL



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	26.325	25.753	52.078	-21.922	74.000	PEAK
2	* 2489.942	26.349	26.583	52.932	-21.068	74.000	PEAK
3	2500.000	26.384	26.366	52.749	-21.251	74.000	PEAK

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: April 23, 2012 Temperature: 25°C  
 PCI-E 150M WIRELESS LAN  
 EUT: CARD Humidity: 52%  
 Model No.: WL-600N-E2 Power Supply: AC 120V/60Hz  
 Test Mode: 802.11b Channel High 2462MHz Polarization: VERTICAL



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	26.325	27.602	53.927	-20.073	74.000	PEAK
2	* 2486.800	26.337	27.789	54.126	-19.874	74.000	PEAK
3	2500.000	26.384	26.635	53.018	-20.982	74.000	PEAK



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	* 2483.500	26.325	15.616	41.941	-12.059	54.000	AVERAGE
2	2486.800	26.337	14.449	40.786	-13.214	54.000	AVERAGE
3	2500.000	26.384	15.006	41.389	-12.611	54.000	AVERAGE

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.

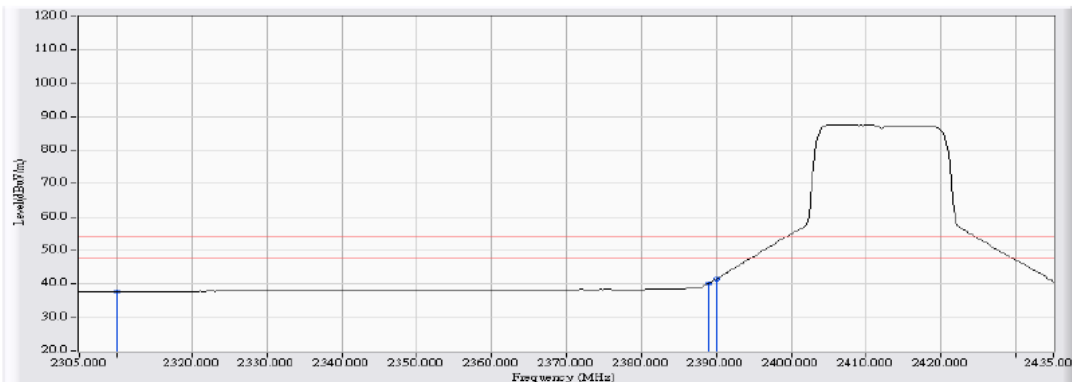


Radiated test

Date of Test: April 23, 2012 Temperature: 25°C  
 PCI-E 150M WIRELESS LAN  
 EUT: CARD Humidity: 52%  
 Model No.: WL-600N-E2 Power Supply: AC 120V/60Hz  
 Test Mode: 802.11g Channel Low 2412MHz Polarization: HORIZONTAL



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	25.682	23.447	49.129	-24.871	74.000	PEAK
2	2389.067	25.975	32.337	58.312	-15.688	74.000	PEAK
3	* 2390.000	25.978	32.646	58.624	-15.376	74.000	PEAK



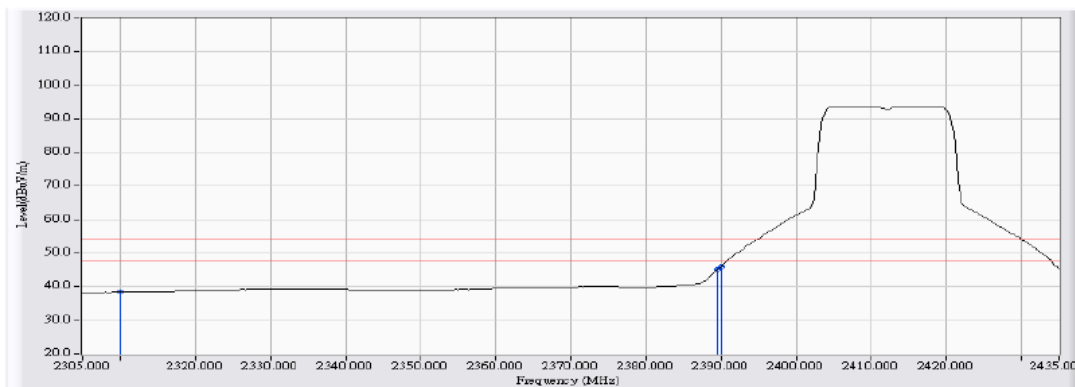
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	25.682	11.988	37.670	-16.330	54.000	AVERAGE
2	2389.067	25.975	14.239	40.214	-13.786	54.000	AVERAGE
3	* 2390.000	25.978	15.450	41.428	-12.572	54.000	AVERAGE

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: April 23, 2012 Temperature: 25°C  
 PCI-E 150M WIRELESS LAN  
 EUT: CARD Humidity: 52%  
 Model No.: WL-600N-E2 Power Supply: AC 120V/60Hz  
 Test Mode: 802.11g Channel Low 2412MHz Polarization: VERTICAL



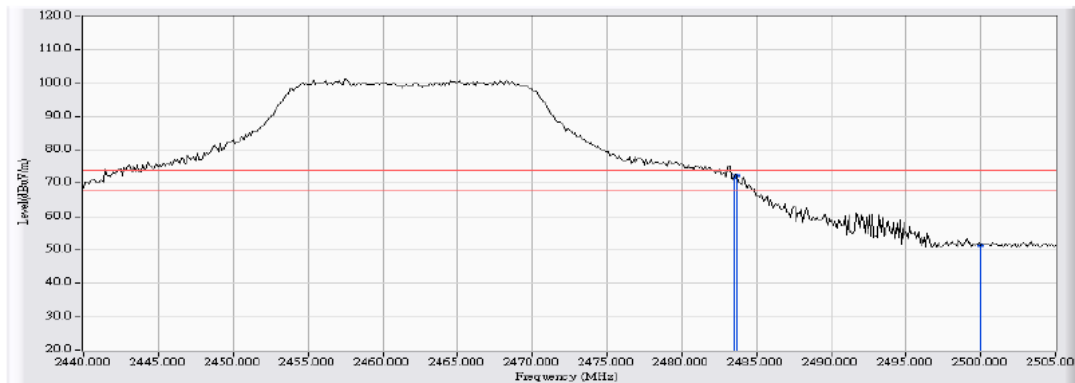
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector Type
1	2310.000	25.682	24.708	50.390	-23.610	74.000	PEAK
2	2389.500	25.976	39.555	65.532	-8.468	74.000	PEAK
3	* 2390.000	25.978	40.733	66.711	-7.289	74.000	PEAK



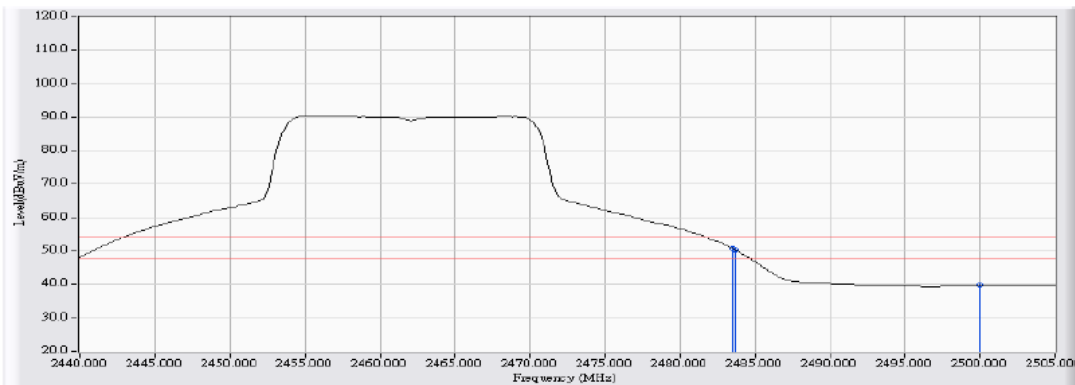
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector Type
1	2310.000	25.682	12.713	38.395	-15.605	54.000	AVERAGE
2	2389.500	25.976	19.122	45.099	-8.901	54.000	AVERAGE
3	* 2390.000	25.978	20.102	46.080	-7.920	54.000	AVERAGE

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: April 23, 2012 Temperature: 25°C  
 PCI-E 150M WIRELESS LAN  
 EUT: CARD Humidity: 52%  
 Model No.: WL-600N-E2 Power Supply: AC 120V/60Hz  
 Test Mode: 802.11g Channel High 2462MHz Polarization: HORIZONTAL



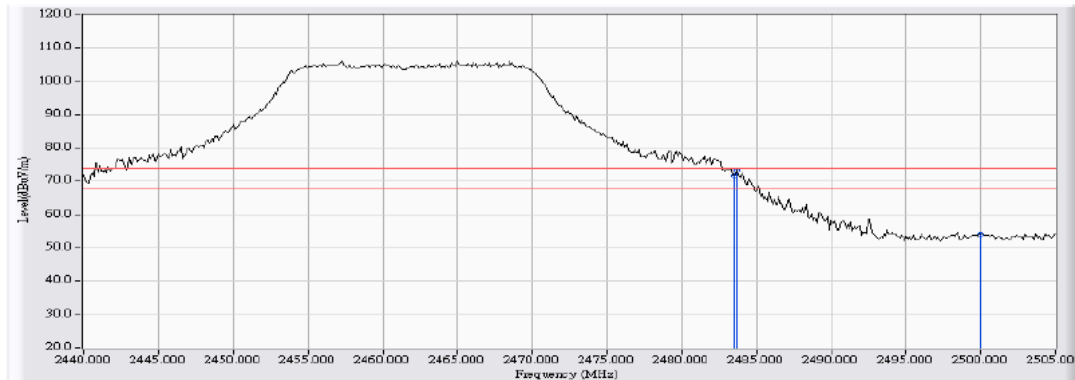
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	26.325	45.728	72.053	-1.947	74.000	PEAK
2	* 2483.658	26.326	46.019	72.344	-1.656	74.000	PEAK
3	2500.000	26.384	25.068	51.451	-22.549	74.000	PEAK



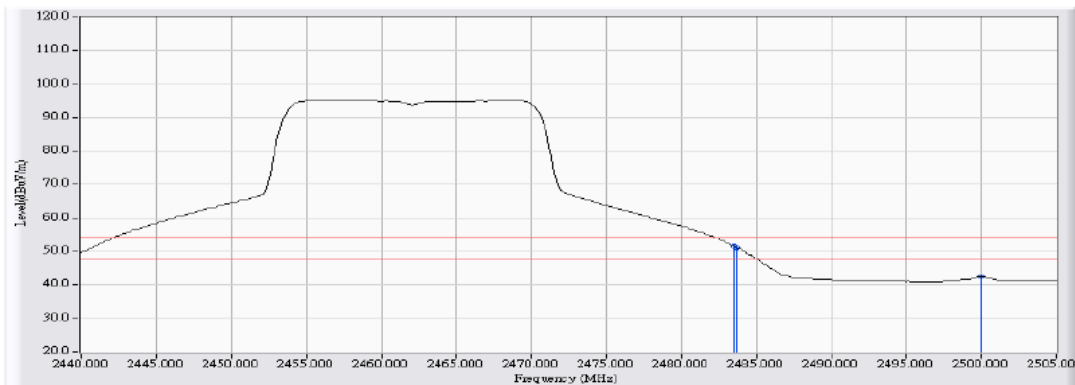
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	* 2483.500	26.325	24.413	50.738	-3.262	54.000	AVERAGE
2	2483.658	26.326	24.069	50.394	-3.606	54.000	AVERAGE
3	2500.000	26.384	13.357	39.740	-14.260	54.000	AVERAGE

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: April 23, 2012 Temperature: 25°C  
 PCI-E 150M WIRELESS LAN  
 EUT: CARD Humidity: 52%  
 Model No.: WL-600N-E2 Power Supply: AC 120V/60Hz  
 Test Mode: 802.11g Channel High 2462MHz Polarization: VERTICAL



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	26.325	45.536	71.861	-2.139	74.000	PEAK
2	* 2483.658	26.326	46.961	73.286	-0.714	74.000	PEAK
3	2500.000	26.384	27.653	54.036	-19.964	74.000	PEAK

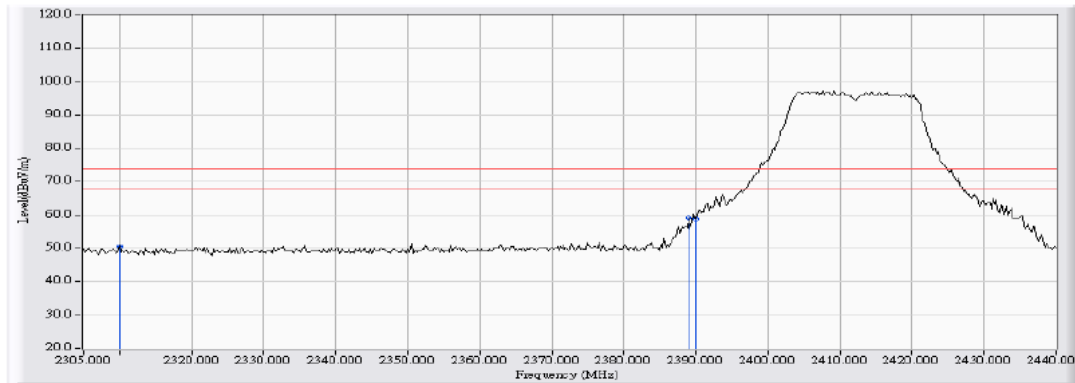


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	* 2483.500	26.325	25.280	51.605	-2.395	54.000	AVERAGE
2	2483.658	26.326	24.833	51.158	-2.842	54.000	AVERAGE
3	2500.000	26.384	16.103	42.486	-11.514	54.000	AVERAGE

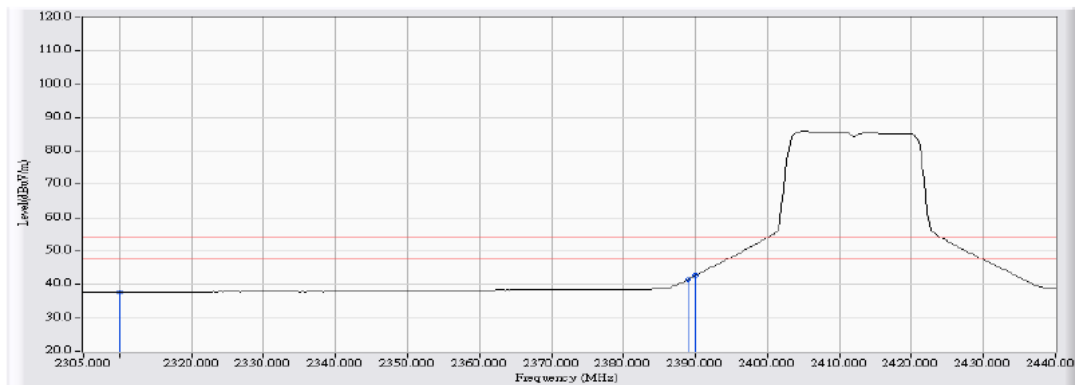
Note: 1. Measurement Level = Reading Level + Correct Factor.  
 2. The average measurement was not performed when the peak measured data under the limit of average detection.

Radiated test

Date of Test:	<u>April 23, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>PCI-E 150M WIRELESS LAN CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11n HT20 Channel Low 2412MHz</u>	Polarization:	<u>HORIZONTAL</u>



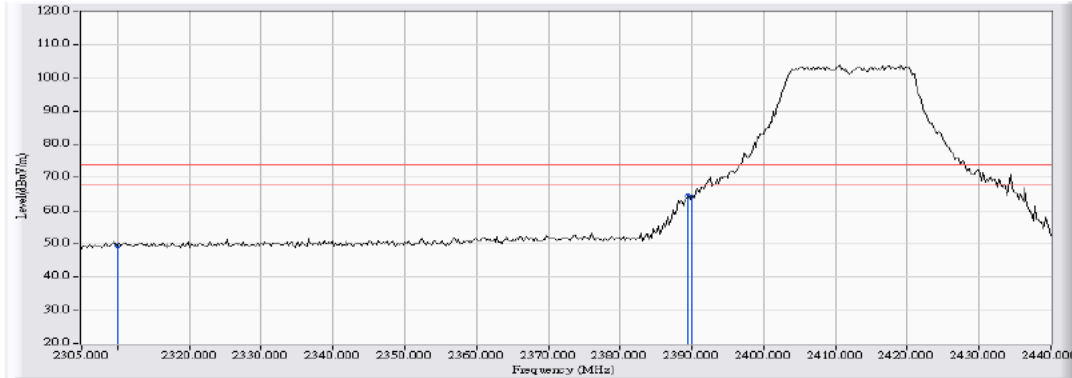
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector Type
1	2310.000	25.682	24.759	50.441	-23.559	74.000	PEAK
2	* 2388.925	25.975	33.136	59.110	-14.890	74.000	PEAK
3	2390.000	25.978	32.964	58.942	-15.058	74.000	PEAK



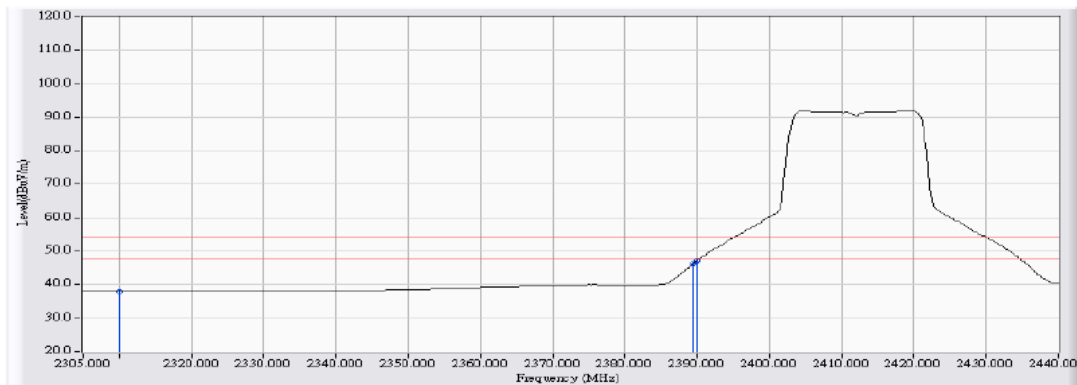
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector Type
1	2310.000	25.682	12.010	37.692	-16.308	54.000	AVERAGE
2	2388.925	25.975	15.537	41.511	-12.489	54.000	AVERAGE
3	* 2390.000	25.978	16.755	42.733	-11.267	54.000	AVERAGE

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>April 23, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>PCI-E 150M WIRELESS LAN CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11n HT20 Channel Low 2412MHz</u>	Polarization:	<u>VERTICAL</u>



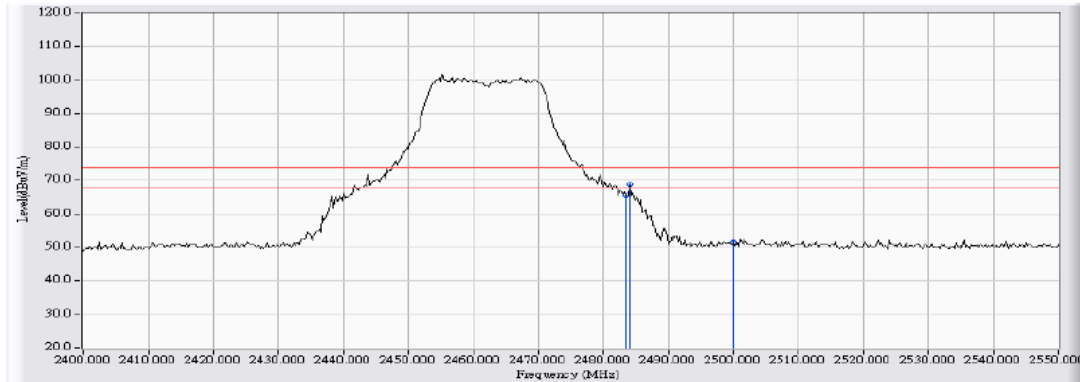
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	25.682	23.831	49.513	-24.487	74.000	PEAK
2	* 2389.375	25.976	38.554	64.530	-9.470	74.000	PEAK
3	2390.000	25.978	38.327	64.305	-9.695	74.000	PEAK



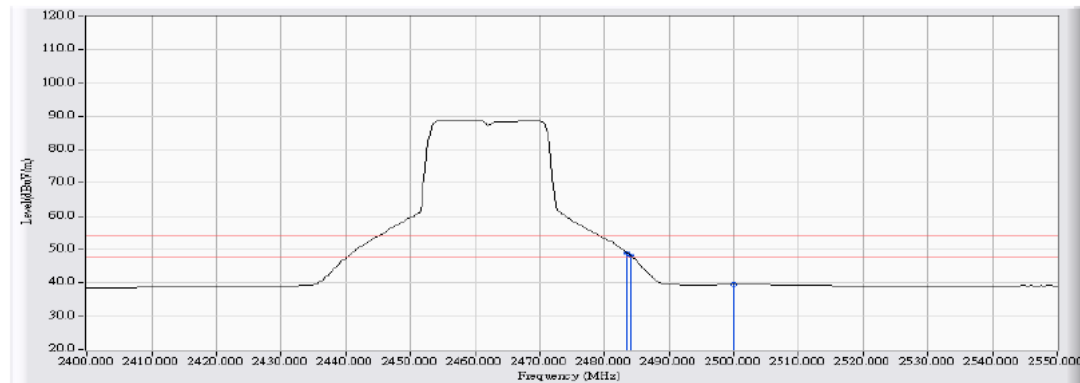
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	25.682	12.252	37.934	-16.066	54.000	AVERAGE
2	2389.375	25.976	20.217	46.193	-7.807	54.000	AVERAGE
3	* 2390.000	25.978	21.209	47.187	-6.813	54.000	AVERAGE

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>April 23, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>PCI-E 150M WIRELESS LAN CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11n HT20 Channel High 2462MHz</u>	Polarization:	<u>HORIZONTAL</u>



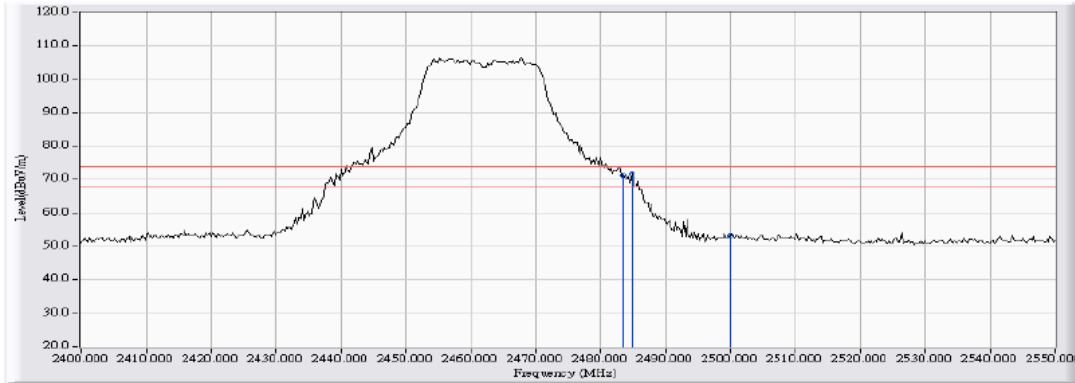
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	26.325	39.331	65.656	-8.344	74.000	PEAK
2	* 2484.000	26.327	42.422	68.749	-5.251	74.000	PEAK
3	2500.000	26.384	25.292	51.675	-22.325	74.000	PEAK



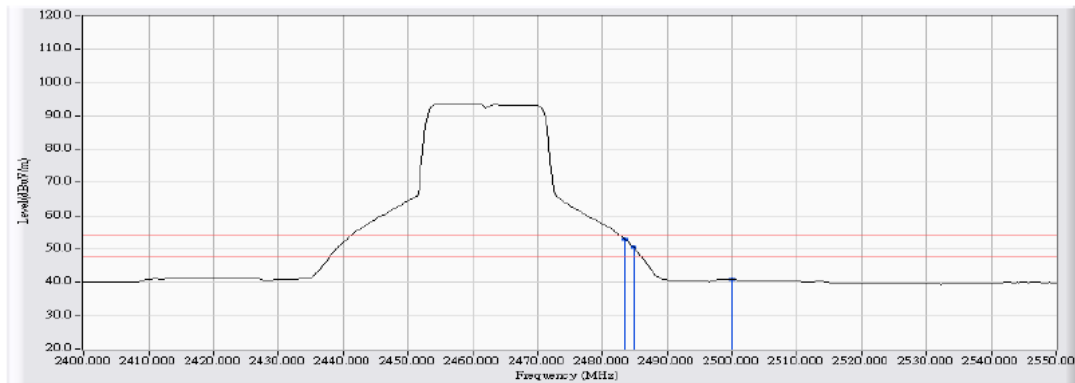
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	* 2483.500	26.325	22.696	49.021	-4.979	54.000	AVERAGE
2	2484.000	26.327	21.916	48.243	-5.757	54.000	AVERAGE
3	2500.000	26.384	13.112	39.495	-14.505	54.000	AVERAGE

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>April 23, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>PCI-E 150M WIRELESS LAN CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11n HT20 Channel High 2462MHz</u>	Polarization:	<u>VERTICAL</u>



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	26.325	44.858	71.183	-2.817	74.000	PEAK
2	* 2484.750	26.329	45.341	71.671	-2.329	74.000	PEAK
3	2500.000	26.384	26.878	53.261	-20.739	74.000	PEAK



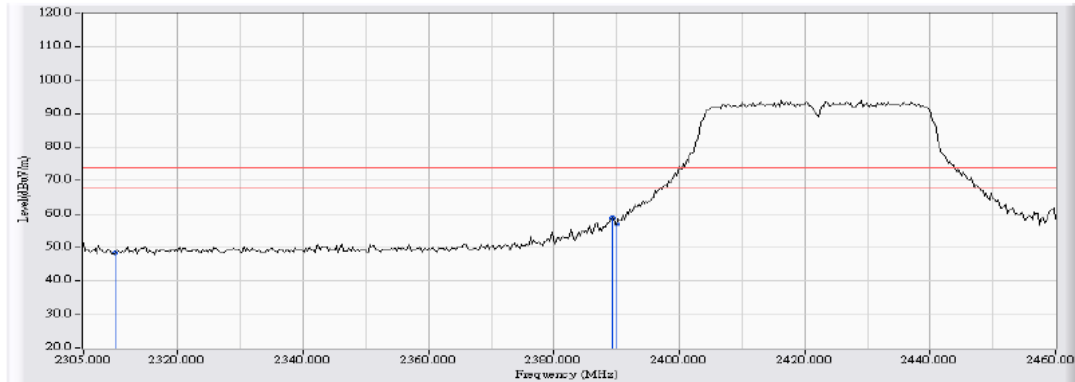
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	* 2483.500	26.325	26.659	52.984	-1.016	54.000	AVERAGE
2	2484.750	26.329	24.301	50.631	-3.369	54.000	AVERAGE
3	2500.000	26.384	14.523	40.906	-13.094	54.000	AVERAGE

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.

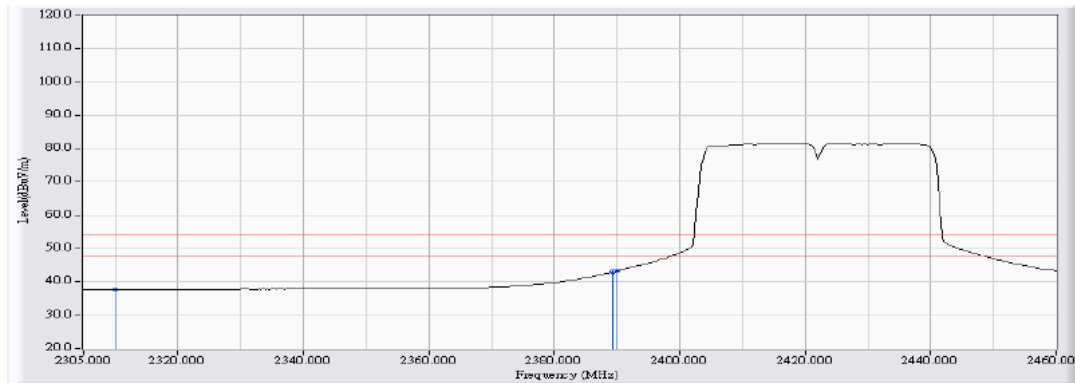


Radiated test

Date of Test:	<u>April 23, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>PCI-E 150M WIRELESS LAN CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11n HT40 Channel Low 2422MHz</u>	Polarization:	<u>HORIZONTAL</u>



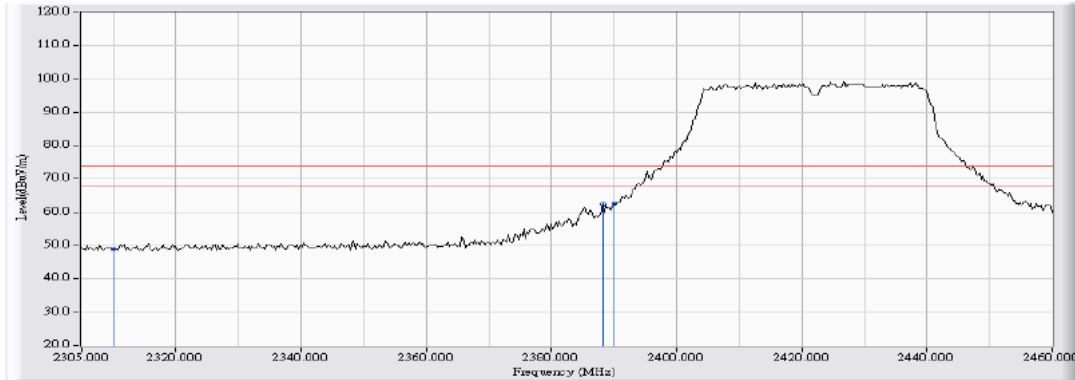
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector Type
1	2310.000	25.682	22.644	48.326	-25.674	74.000	PEAK
2	* 2389.217	25.975	32.875	58.850	-15.150	74.000	PEAK
3	2390.000	25.978	30.932	56.910	-17.090	74.000	PEAK



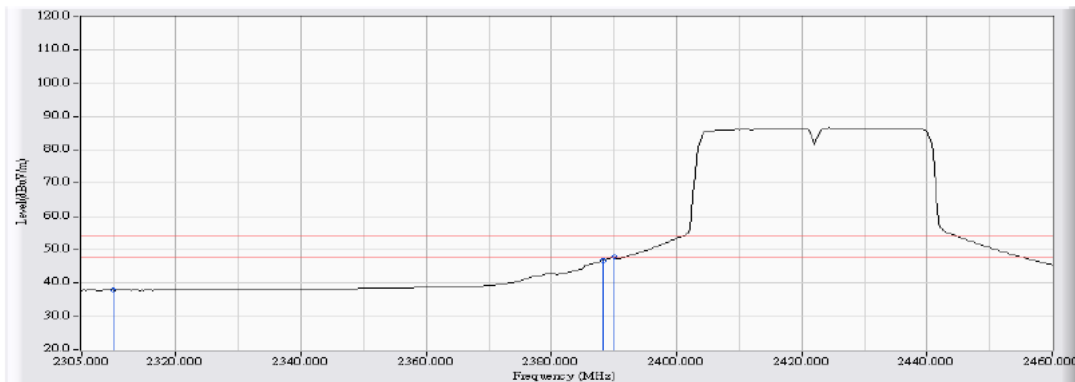
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector Type
1	2310.000	25.682	12.003	37.685	-16.315	54.000	AVERAGE
2	2389.217	25.975	17.053	43.028	-10.972	54.000	AVERAGE
3	* 2390.000	25.978	17.345	43.323	-10.677	54.000	AVERAGE

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>April 23, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>PCI-E 150M WIRELESS LAN CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11n HT40 Channel Low 2422MHz</u>	Polarization:	<u>VERTICAL</u>



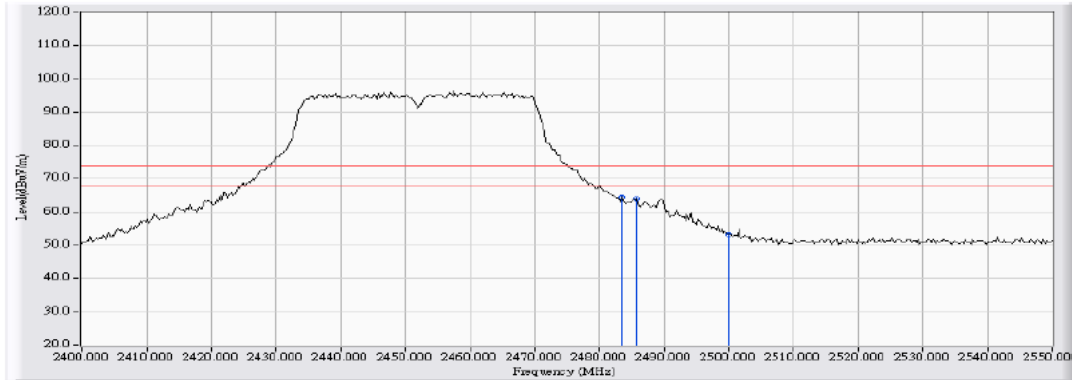
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	25.682	23.180	48.862	-25.138	74.000	PEAK
2	2388.183	25.971	36.256	62.228	-11.772	74.000	PEAK
3	* 2390.000	25.978	36.642	62.620	-11.380	74.000	PEAK



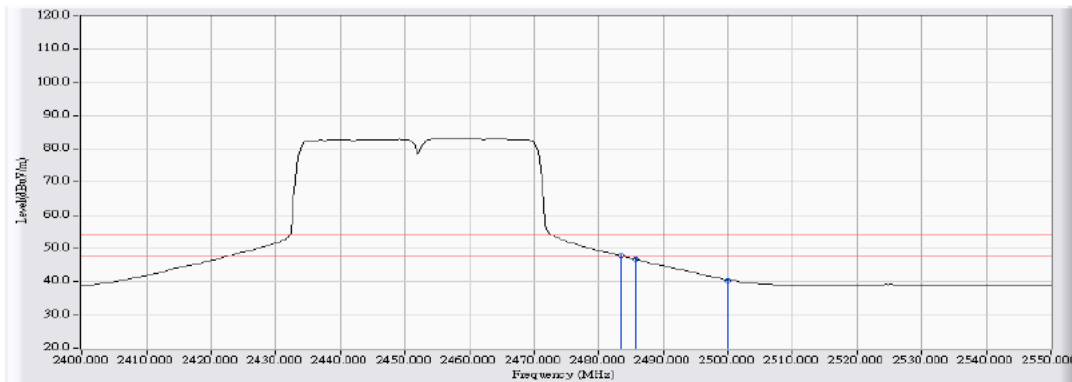
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	25.682	12.154	37.836	-16.164	54.000	AVERAGE
2	2388.183	25.971	20.747	46.719	-7.281	54.000	AVERAGE
3	* 2390.000	25.978	21.855	47.833	-6.167	54.000	AVERAGE

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>April 23, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>PCI-E 150M WIRELESS LAN CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11n HT40 Channel High 2452MHz</u>	Polarization:	<u>HORIZONTAL</u>



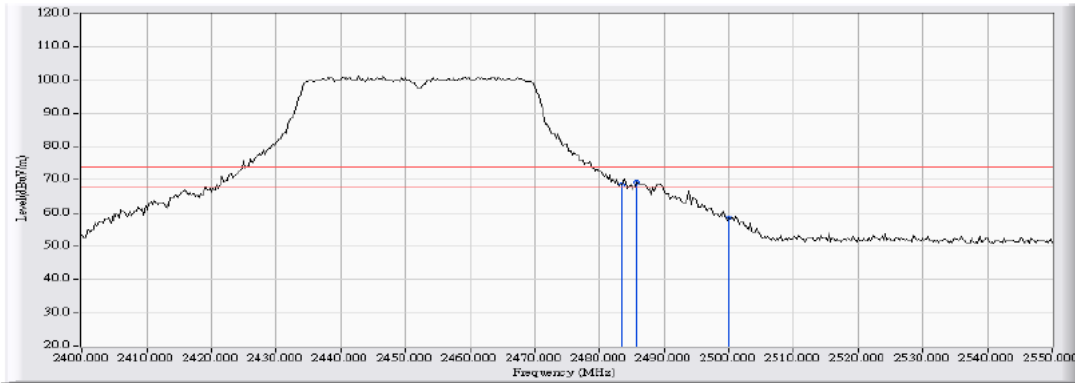
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	26.325	38.054	64.379	-9.621	74.000	PEAK
2		2485.750	26.333	37.700	64.033	-9.967	74.000	PEAK
3		2500.000	26.384	26.791	53.174	-20.826	74.000	PEAK



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	26.325	21.536	47.861	-6.139	54.000	AVERAGE
2		2485.750	26.333	20.371	46.704	-7.296	54.000	AVERAGE
3		2500.000	26.384	14.098	40.481	-13.519	54.000	AVERAGE

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>April 23, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>PCI-E 150M WIRELESS LAN CARD</u>	Humidity:	<u>52%</u>
Model No.:	<u>WL-600N-E2</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>802.11n HT40 Channel High 2452MHz</u>	Polarization:	<u>VERTICAL</u>



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	26.325	42.112	68.437	-5.563	74.000	PEAK
2	* 2485.750	26.333	43.030	69.363	-4.637	74.000	PEAK
3	2500.000	26.384	32.259	58.642	-15.358	74.000	PEAK



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	* 2483.500	26.325	26.366	52.691	-1.309	54.000	AVERAGE
2	2485.750	26.333	25.341	51.674	-2.326	54.000	AVERAGE
3	2500.000	26.384	17.235	43.618	-10.382	54.000	AVERAGE

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.

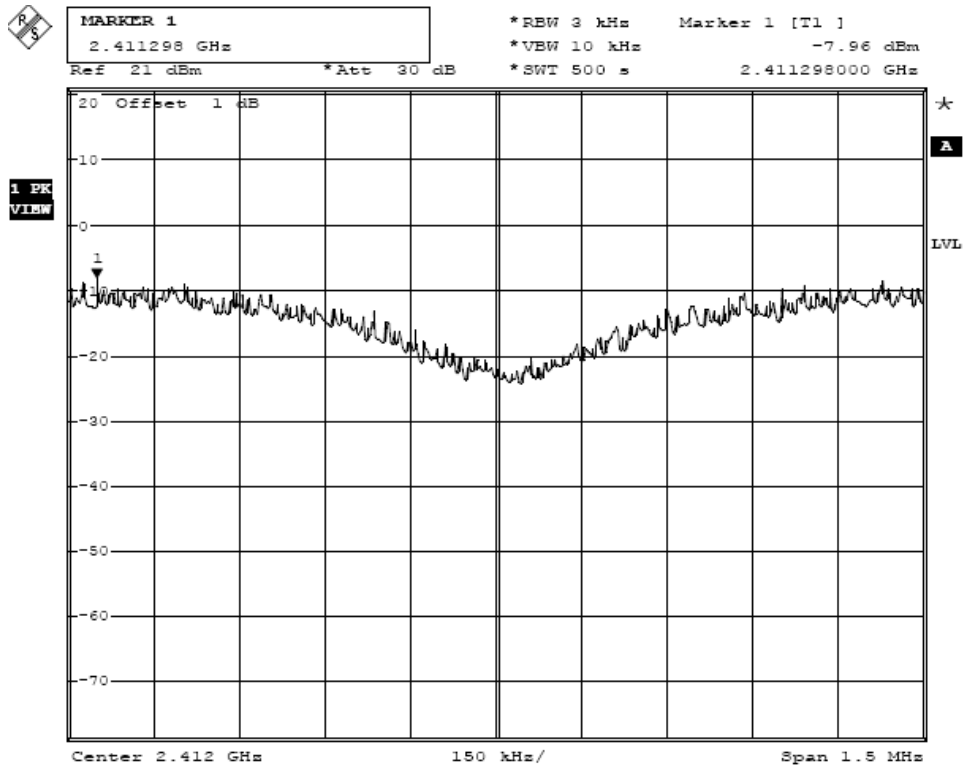
#### 13.4. Test Result

**PASS**

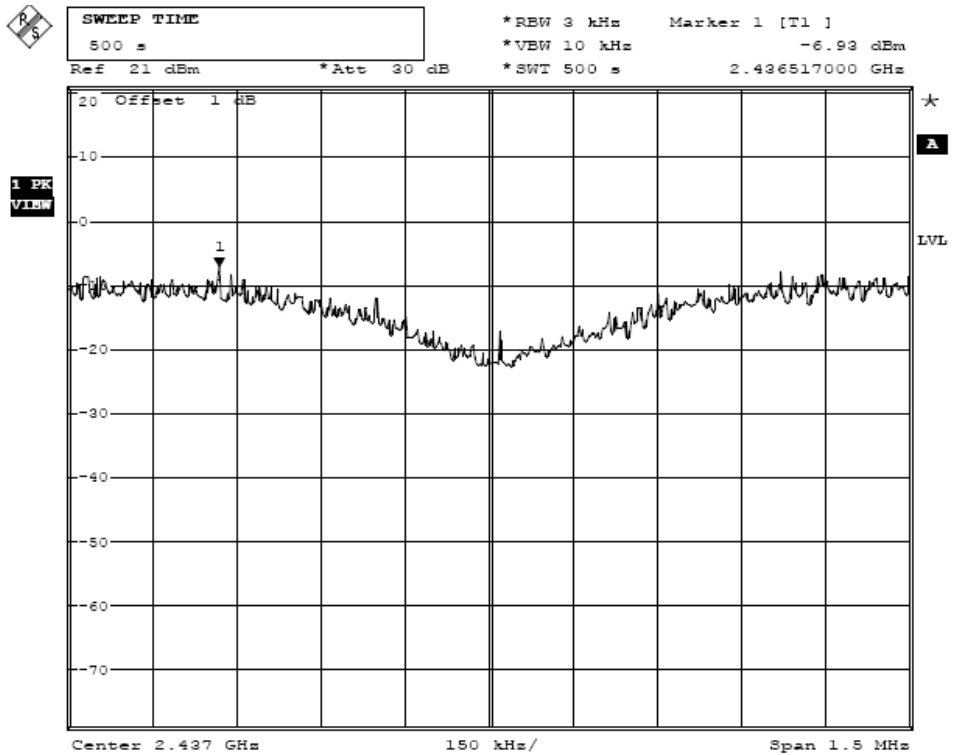
Channel Frequency (MHz)	Data Rate (Mbps)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	RESULT
<b>802.11b Mode</b>				
2412	1	-7.96	8	Compliant
2437	1	-6.93	8	Compliant
2462	1	-7.30	8	Compliant
<b>802.11g Mode</b>				
2412	6	-14.71	8	Compliant
2437	6	-10.45	8	Compliant
2462	6	-13.93	8	Compliant
<b>802.11n (20M) Mode</b>				
2412	6	-15.94	8	Compliant
2437	6	-13.24	8	Compliant
2462	6	-15.31	8	Compliant
<b>802.11n (40M) Mode</b>				
2412	6	-21.59	8	Compliant
2437	6	-15.30	8	Compliant
2462	6	-20.65	8	Compliant

802.11b Mode:

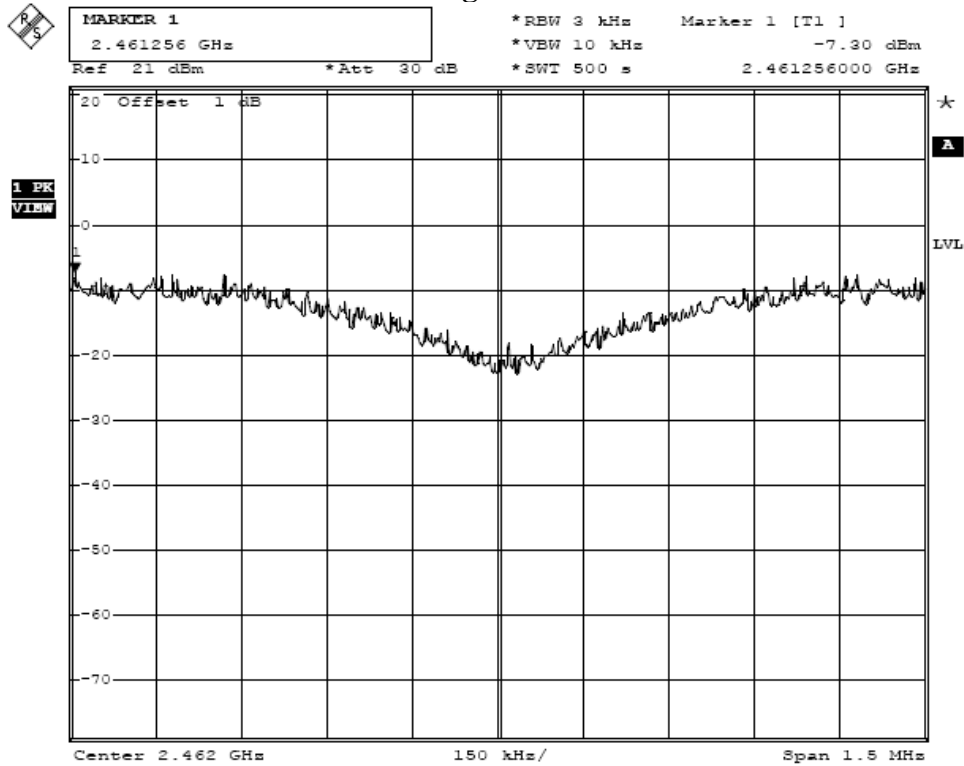
### Low Channel



### Middle Channel

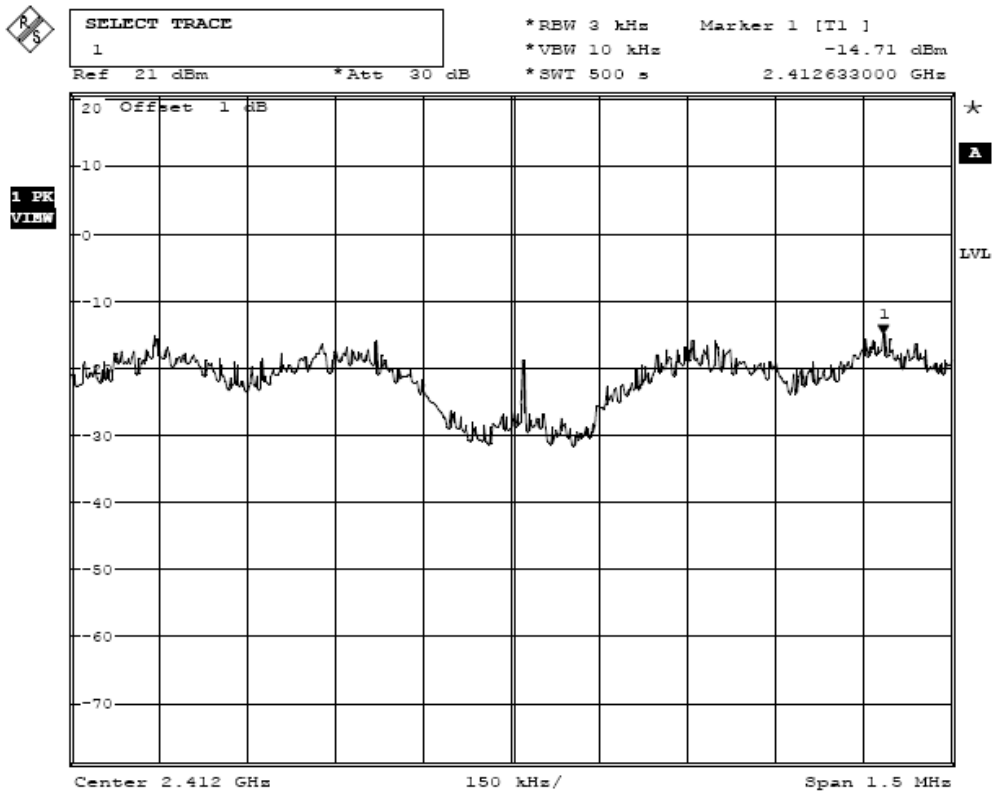


### High Channel

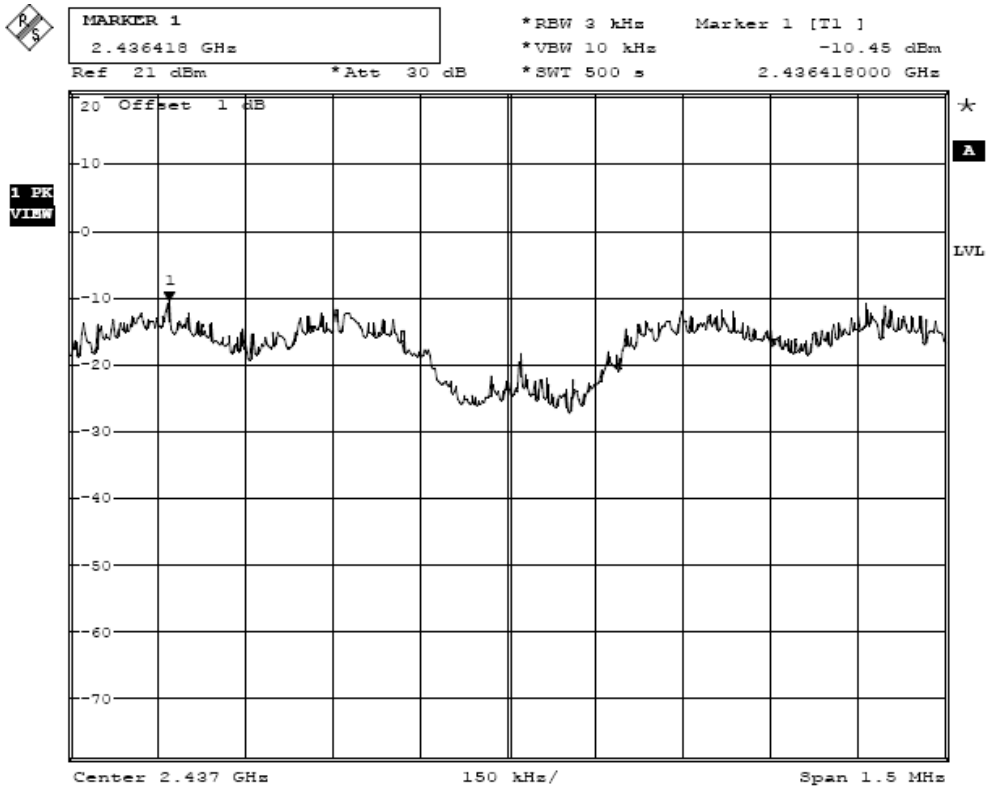


802.11g Mode:

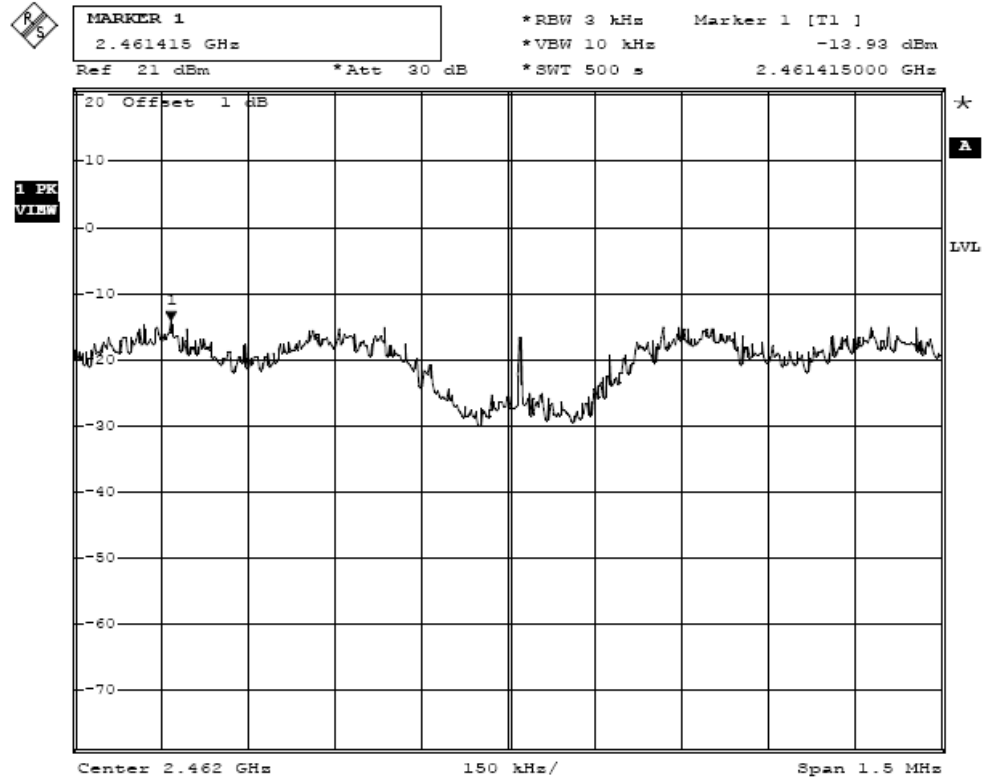
### Low Channel



### Middle Channel



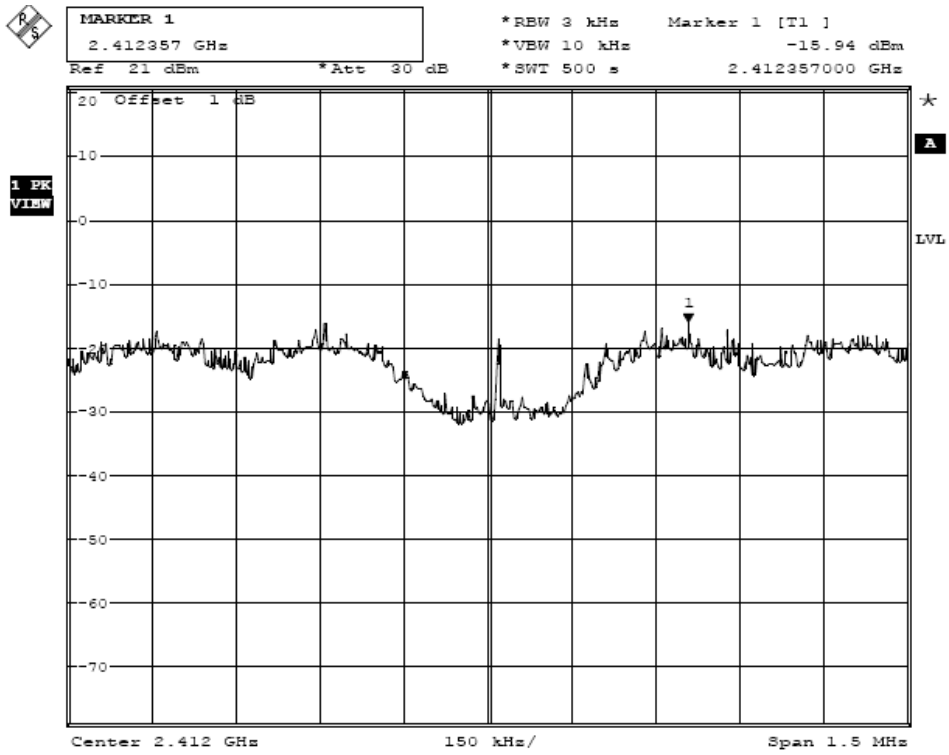
### High Channel



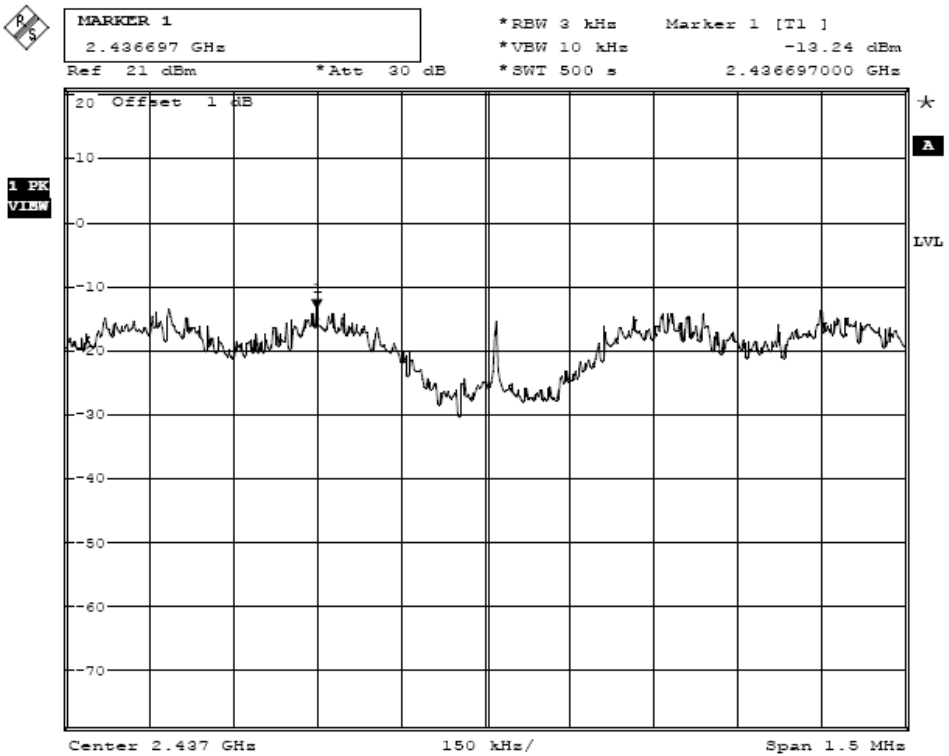


802.11n (20M) Mode:

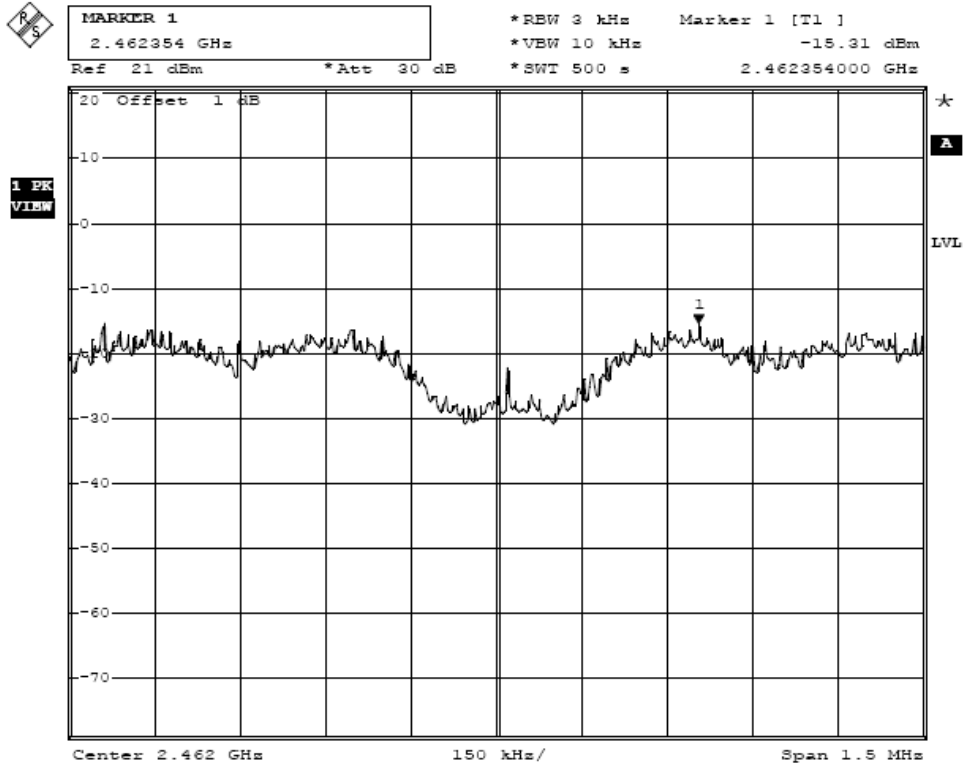
### Low Channel



### Middle Channel

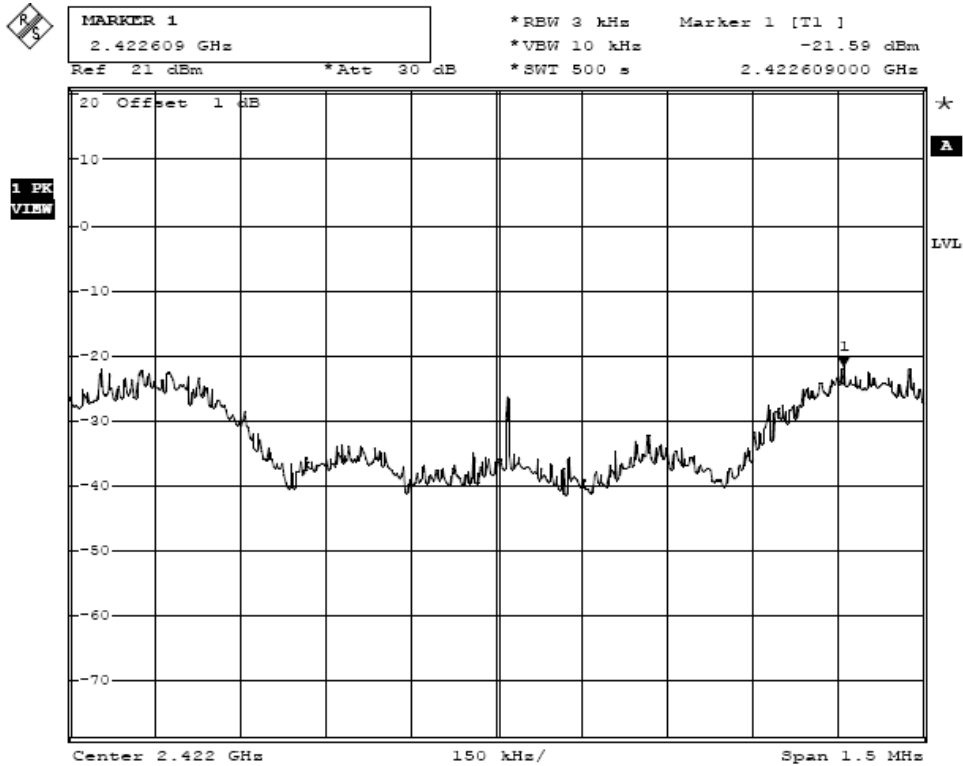


### High Channel

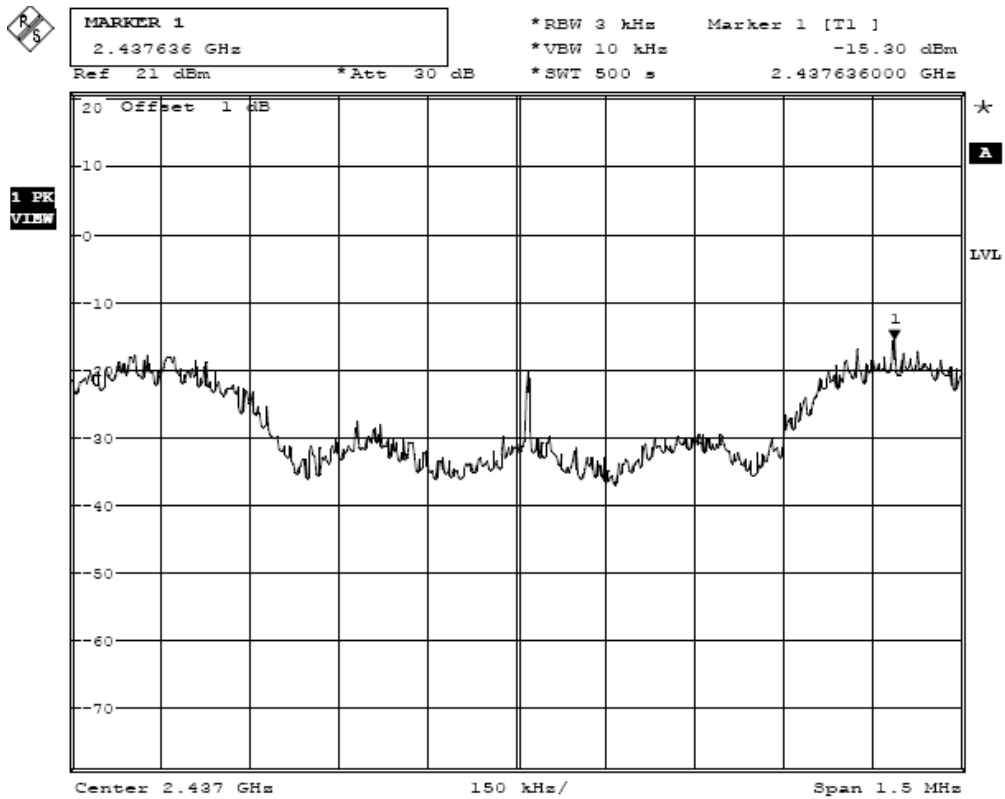


802.11n (40M) Mode:

### Low Channel



### Middle Channel



### High Channel

