FCC 47 CFR PART 15 SUBPART C

TEST REPORT

For

Applicant:	**Shenzhen Wanchuangbo Industry Development Co., Ltd.**
Address:	**3rd Floor, No. 20, Yangmei Road, Bantian Street, Longgang, Shenzhen, China**
Product Name:	**Tablet PC**
Model Name:	**CT1020, CT7, CT2050, CT2050X(X=A-Z)**
Brand Name:	**iDeaUSA**
FCC ID:	**2AAGRCT1020-2050**
Report No.:	**DPH131002F02**
Date of Issue:	**October 18, 2013**

Issued by:	**Shenzhen Top-cert Service Co., Ltd.**
Address:	**Room 506, Hongyu Commercial Building, Gushu 2nd Road, Baoan District, Shenzhen, China**
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Revision History		
Issue	Date	Reason for Revision
1.0	October 18, 2013	First edition

1. VERIFICATION OF CONFORMITY

Equipment Under Test:	Tablet PC
Brand Name:	iDeaUSA
Model Number:	CT1020
Series Model Name:	CT7, CT2050, CT2050X(X=A-Z)
Difference description:	Only the difference in model name.
FCC ID：	2AAGRCT1020-2050
Applicant:	Shenzhen Wanchuangbo Industry Development Co., Ltd.
	3rd Floor, No. 20, Yangmei Road, Bantian Street, Longgang, Shenzhen, China
Manufacturer:	Shenzhen Wanchuangbo Industry Development Co., Ltd.
	3rd Floor, No. 20, Yangmei Road, Bantian Street, Longgang, Shenzhen, China
Technical Standards:	47 CFR Part 15 Subpart C
File Number:	DPH131002F02
Date of test:	October 7, 2013- October 18, 2013
Date of issue:	October 18, 2013
Condition of Test Sample:	Normal
Test Result:	PASS

The above equipment was tested by Top-cert. For compliance with the requirements set forth in FCC rules and the Technical Standards mentioned above. This said equipment in the configuration described in this report shows the maximum emission levels emanating from equipment and the level of the immunity endurance of the equipment are within the compliance requirements.

The test results of this report relate only to the tested sample identified in this report.

Tested by (+ signature):

Rex Luo

Rex Luo
Test Engineer

Top-cert Service Co., Ltd. topcert

Approved by (+ signature):

Joe Jia

Joe Jia
Manager

2. GENERAL INFORMATION

2.1 Product Information

Description:	Tablet PC
Brand Name:	iDeaUSA
Model Name:	CT71020
Frequency Range:	2412MHz-2462MHz
Test Frequency:	Low: 2412MHz, Mid: 2437MHz, High: 2462MHz
Number of Channels:	11 Channels
Modulation Technique:	IEEE 802.11B mode: DSSS IEEE 802.11G mode: OFDM IEEE 802.11N(HT20) mode: OFDM
Antenna Type:	Internal
Antenna Gain:	0 dBi
Power Supply:	DC 3.7V by Battery DC 5V by AC/DC adapter
Temperature Range:	-20°C ~ +50°C

NOTE:

1. For more detailed features description about the EUT, please refer to User's Manual.

2.2 Objective

The objective of the report is to perform tests according to 47 CFR Part 15 Subpart C for the EUT FCC ID Certification:

No.	Identity	Document Title
1	47 CFR Part 15(10-1-09 Edition)	Radio Frequency Devices

2.3 Test Standards and Results

Test items and the results are as bellow:

No.	Section	Description	Result	Date of Test
1	15.247(a)(2)	6dB Bandwidth	PASS	2013-10-17
2	15.247(b)(3)	Peak Output Power	PASS	2013-10-17
3	15.247(d)	conducted spurious emission	PASS	2013-10-17
4	15.247(d)	Band Edge	PASS	2013-10-17
5	15.247(e)	Power Spectral Density	PASS	2013-10-17
6	15.207	Conducted Emission	PASS	2013-10-17
7	15.247(d) 15.205 15.209	Radiated Emission	PASS	2013-10-17

Note: 1. The test result judgment is decided by the limit of measurement standard
2. The information of measurement uncertainty is available upon the customer's request.

2.4 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

- Temperature: 15-35ºC
- Humidity: 30-60 %
- Atmospheric pressure: 86-106 kPa

3. TEST FACILITY

3. 1 Test Facility

Test Site:	BZT Testing Technology Co., Ltd.
Location:	1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen P.R. China.
Description:	There is one 3m semi-anechoic an area test sites and two line conducted labs for final test. The Open Area Test Sites and the Line Conducted labs are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4:2009 and CISPR 16 requirements. The FCC Registration Number is **701733**
Site Filing:	The site description is on file with the Federal Communications Commission, 7435 Oakland Mills Road, Columbia, MD 21046.
Instrument Tolerance:	All measuring equipment is in accord with ANSI C63.4 and CISPR 16 requirements that meet industry regulatory agency and accreditation agency requirement.
Ground Plane:	Two conductive reference ground planes were used during the Line Conducted Emission, one in vertical and the other in horizontal. The dimensions of these ground planes are as below. The vertical ground plane was placed distancing 40 cm to the rear of the wooden test table on where the EUT and the support equipment were placed during test. The horizontal ground plane projected 50 cm beyond the footprint of the EUT system and distanced 80 cm to the wooden test table. For Radiated Emission Test, one horizontal conductive ground plane extended at least 1m beyond the periphery of the EUT and the largest measuring antenna, and covered the entire area between the EUT and the antenna. It has no holes or gaps having longitudinal dimensions larger than one-tenth of a wavelength at the highest frequency of measurement up to 1GHz.

3.2 General Test Procedures

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4:2009,Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4:2009.

3.3 FCC Part 15.205 Restricted Bands of Operations

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])
13.36 13.41			

[1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2] Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasipeak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

4. TEST EQUIPMENT LIST

Instrumentation: The following list contains equipment used at MOST for testing. The equipment conforms to the CISPR 16-1/ANSI C63.2 Specifications for Electromagnetic Interference and Field Strength Instrumentation from 10 kHz to 1.0 GHz or above.

No.	Equipment	Manufacturer	Model No.	S/N	Calibration due date
1	Spectrum Analyzer	Agilent	E4407B	160400005	Jul. 06. 2014
2	Test Receiver	R&S	ESPI	101318	Jul. 06. 2014
3	Bilog Antenna	TESEQ	CBL6111D	31216	Jul. 06. 2014
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	Jul. 06. 2014
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	Jul. 06. 2014
6	Horn Antenna	EM	EM-AH-20180	2011071402	Jul. 06. 2014
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	Jul. 06. 2014
8	Amplifier	EM	EM-30180	060538	Jul. 06. 2014
9	Loop Antenna	ARA	PLA-2030/B	1029	Jul. 06. 2014
10	Power Meter	R&S	NRVS	100696	Jul. 06. 2014
11	Signal Generator	R&S	SMT 06	832080/007	Jul. 31, 2014
12	Temperature & Humitidy Chamber	GIANT FORCE	GTH-056P	GF-94454-1	Jul. 22, 2014
13	Power Sensor (AV)	R&S	URV5-Z4	0395.1619.05	Feb. 09, 2014
14	EMI Test Receiver	R&S	ESCI-7	101318	Jul. 06, 2014
15	Antenna Mast	EM	SC100_1	N/A	N/A
16	Turn Table	EM	SC100	060531	N/A

NOTE: *Equipments listed above have been calibrated and are in the period of validation.*

5. 47 CFR Part 15 C 15.247 Requirements

5.1 6dB Bandwidth

5.1.1 Definition

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.

5.1.2 Test Description

The EUT is powered by the Battery, is coupled to the Spectrum Analyzer (SA) through the Attenuator/DC Block. The path loss as the factor is calibrated to correct the reading. During the measurement, the EUT is activated and is set to operate at maximum power. The RF load attached to the EUT antenna terminal is 50Ohm.

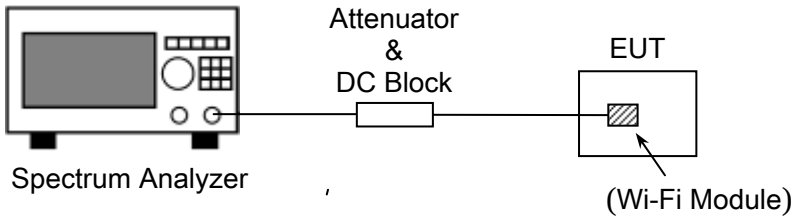


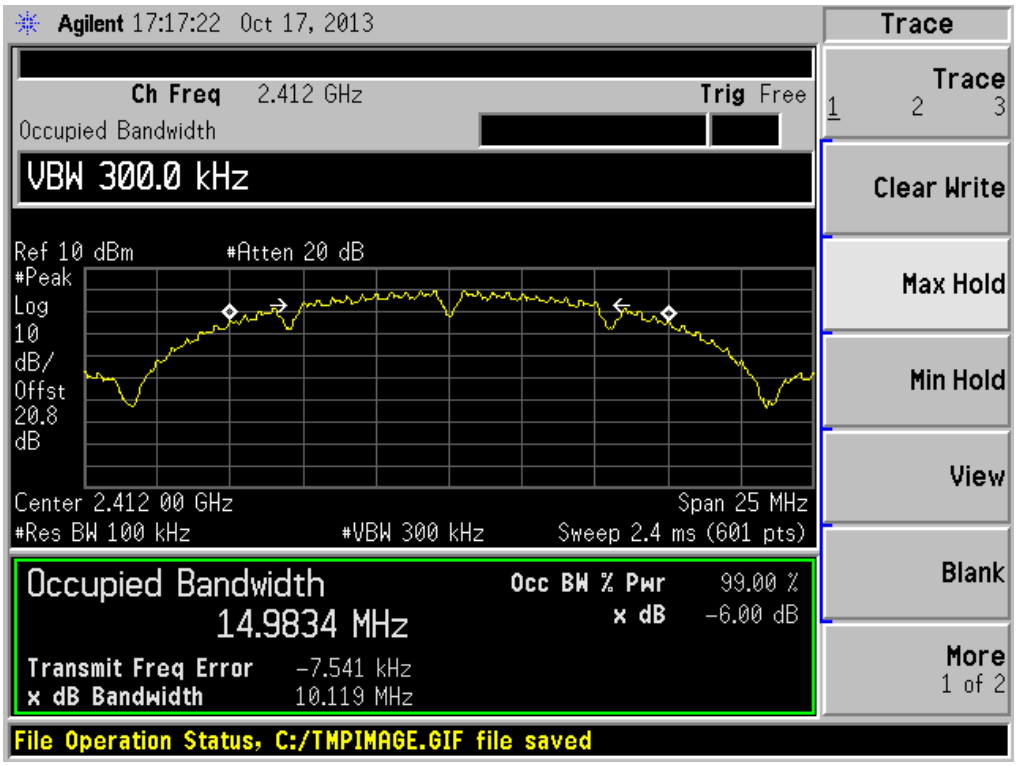
Figure 1: RF Test Setup

5.1.3 Test Result

The lowest, middle and highest channels are selected to perform testing to record the 6 dB bandwidth of the Module.

802.11b Test Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)	Result
1	2412	10.119	≥500	PASS
6	2437	10.084	≥500	PASS
11	2462	10.110	≥500	PASS



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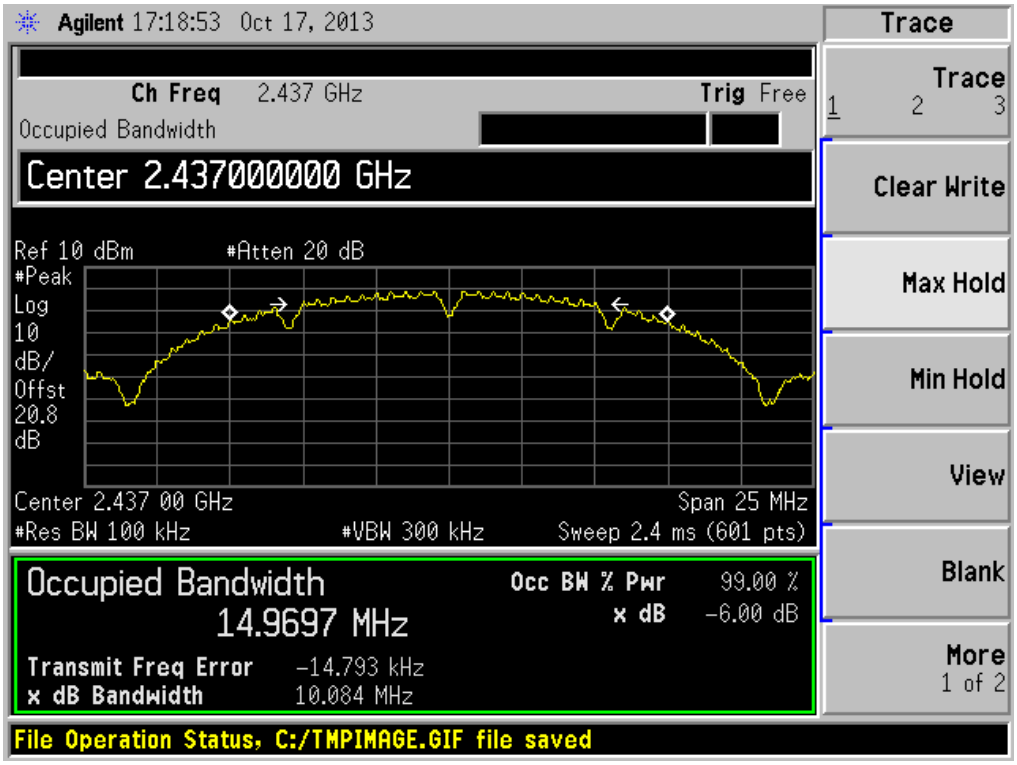

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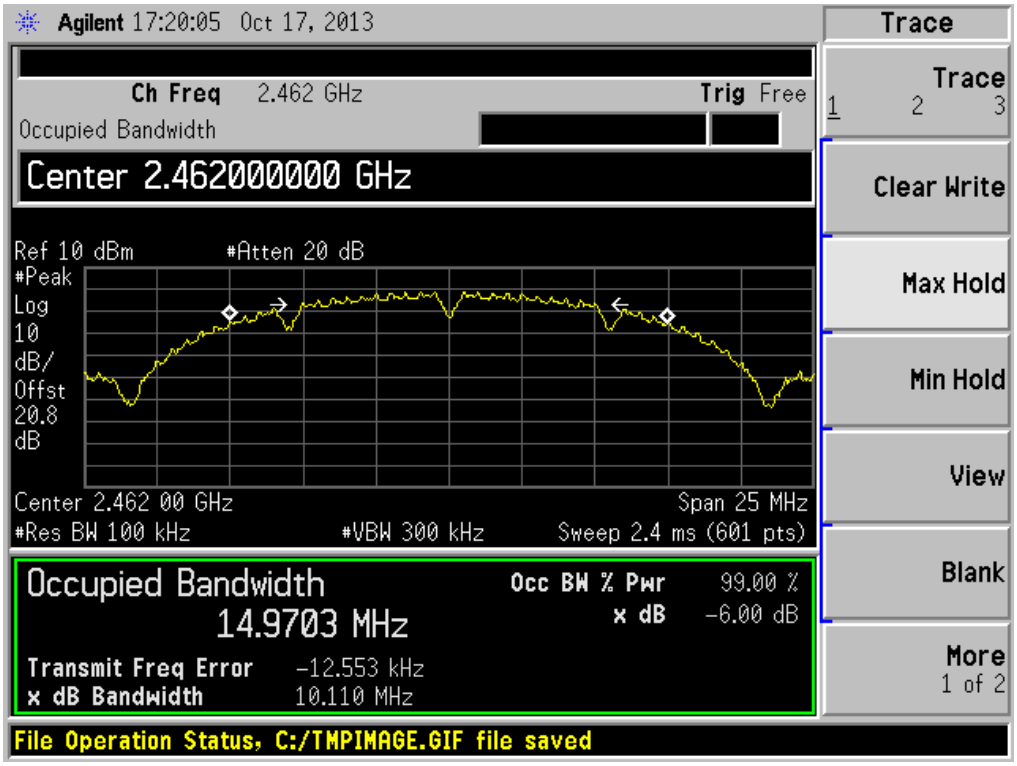
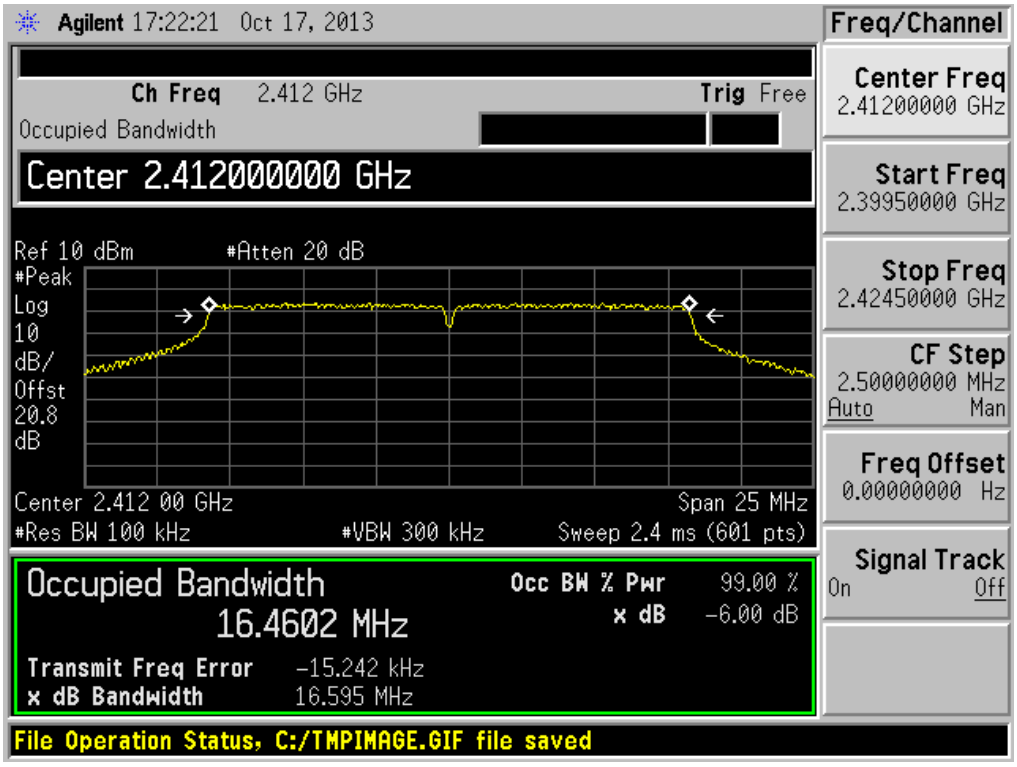


(CH High)

802.11g Test Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)	Result
1	2412	16.595	≥500	PASS
6	2437	16.577	≥500	PASS
11	2462	16.688	≥500	PASS



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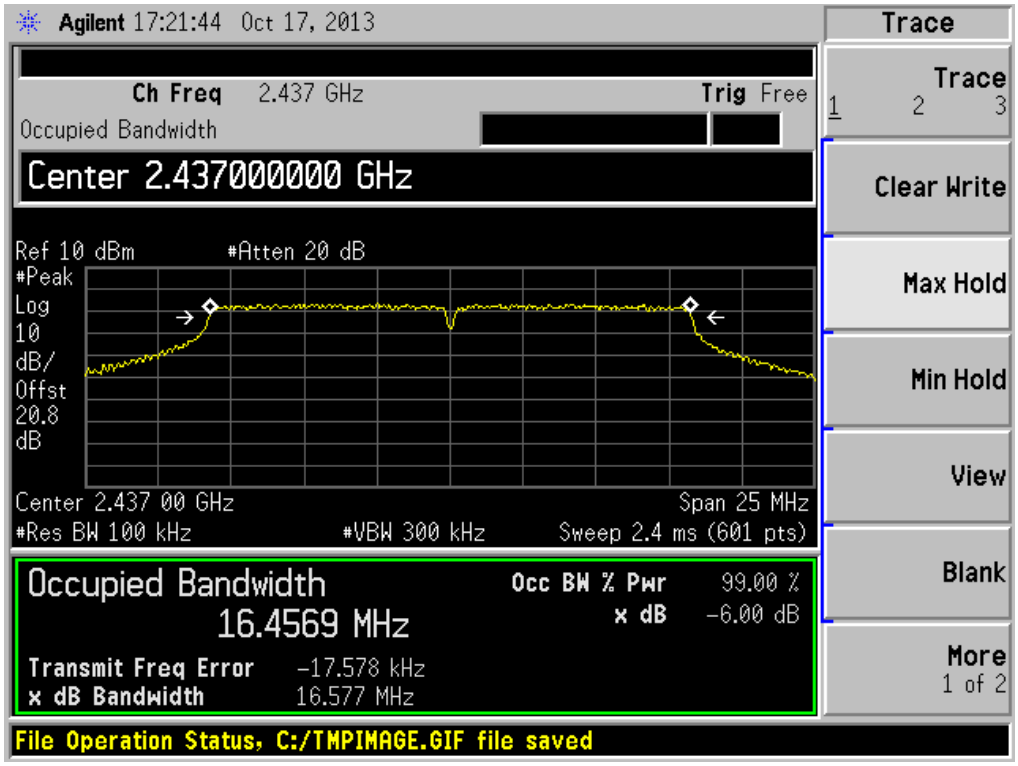

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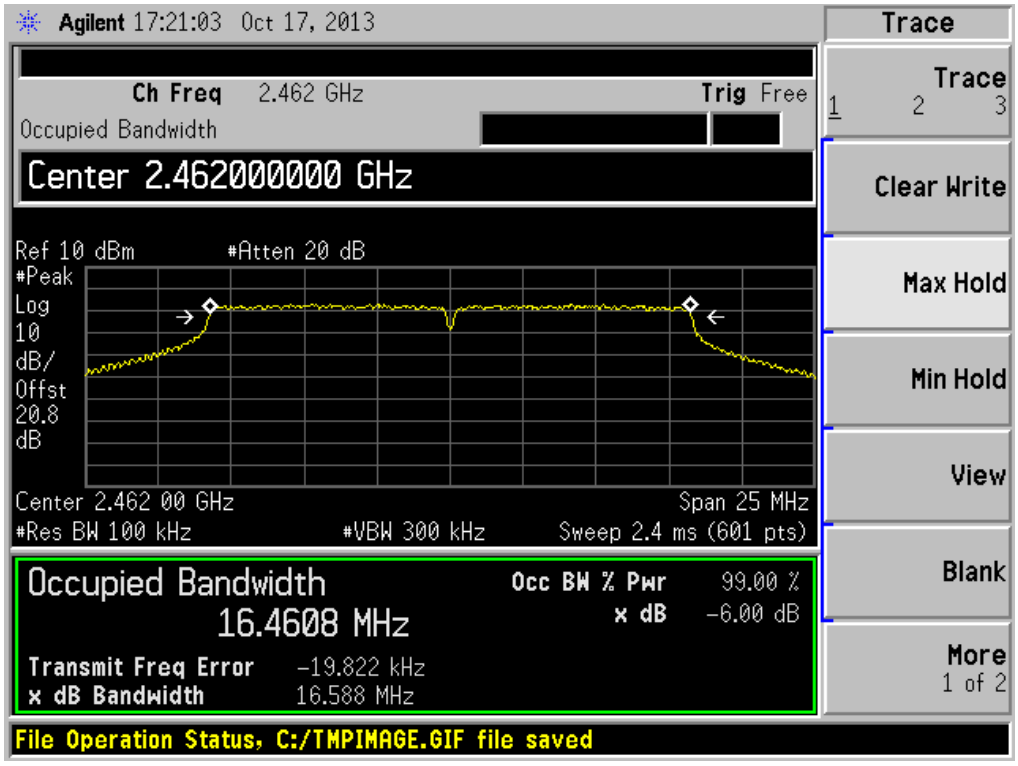
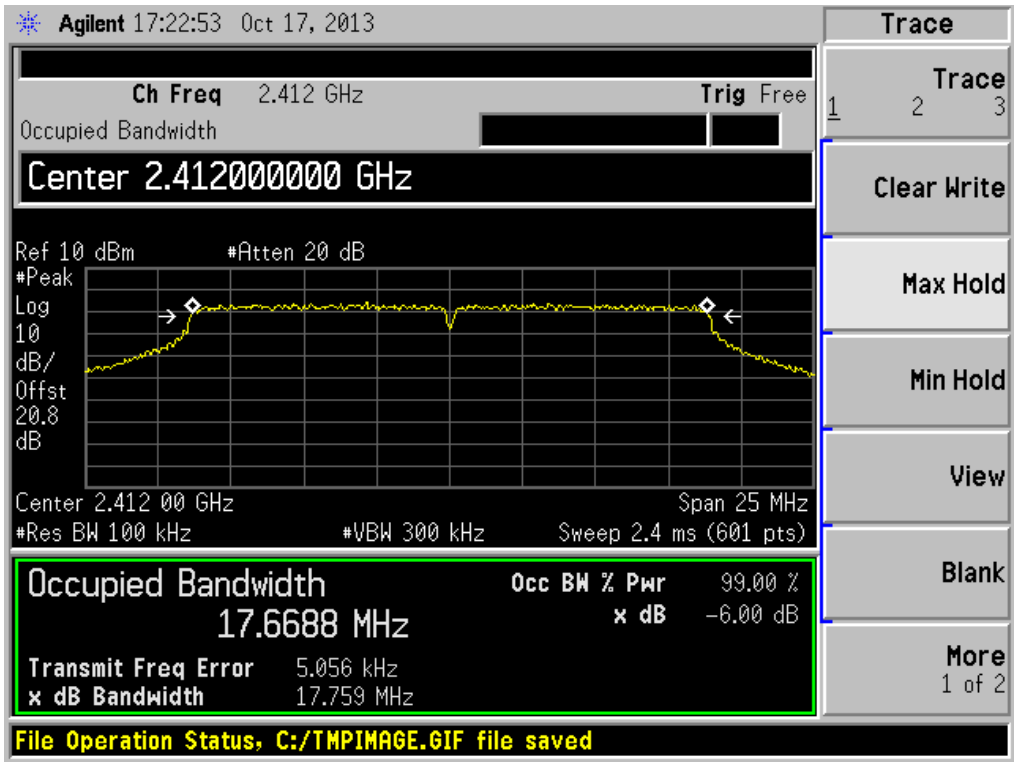


(CH High)

802.11N(HT20) Test Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)	Result
1	2412	17.759	≥500	PASS
6	2437	17.780	≥500	PASS
11	2462	17.767	≥500	PASS



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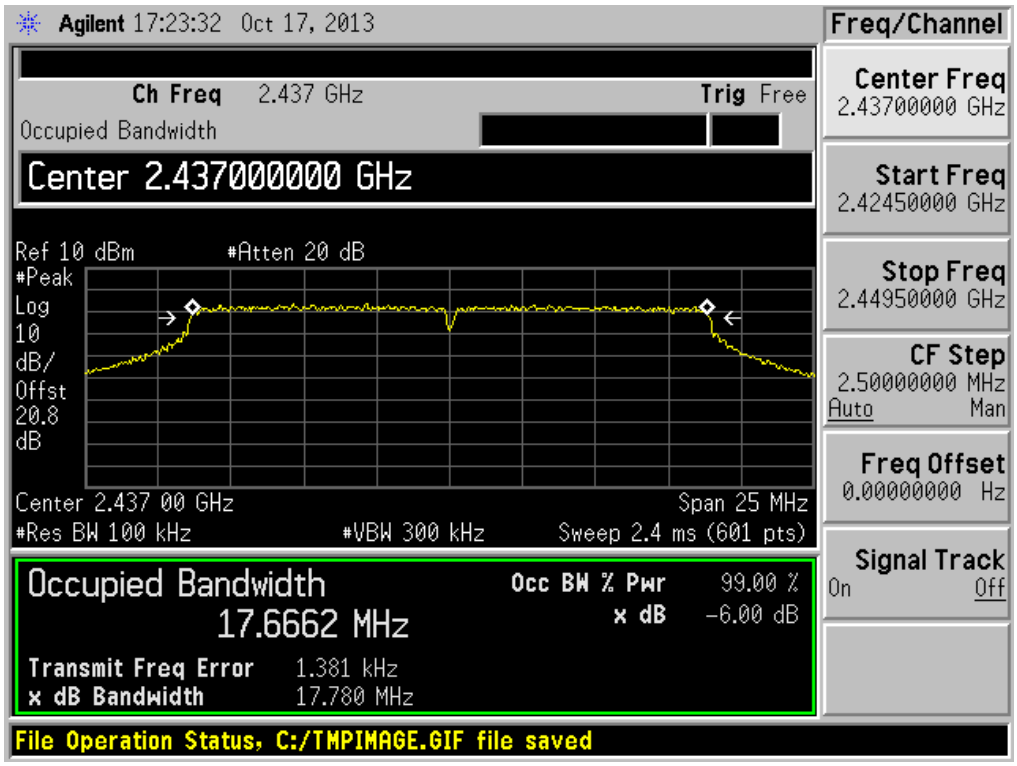

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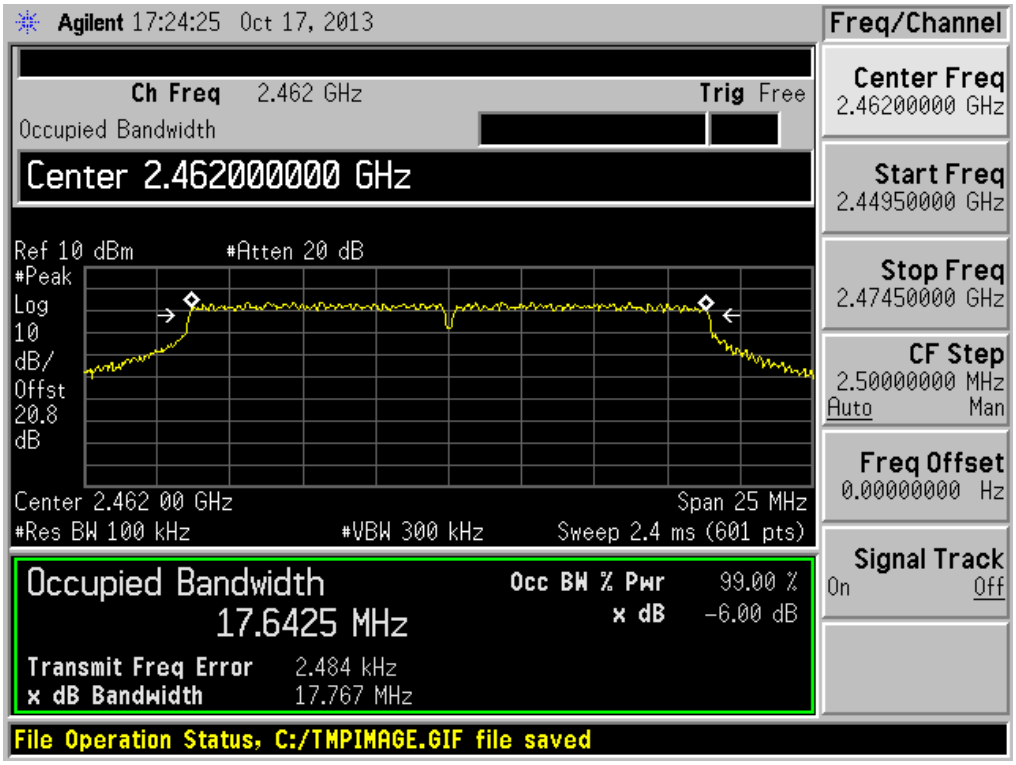
Agilent 17:24:25 Oct 17, 2013
Freq/Channel
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Trig Free
Occupied Bandwidth
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Ref 10 dBm
#Atten 20 dB
#Peak
Log
10
dB/
Offst
20.8
dB
Center 2.462 00 GHz
Span 25 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.4 ms (601 pts)
Occupied Bandwidth
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Occ BW % Pwr 99.00 %
x dB -6.00 dB
Transmit Freq Error 2.484 kHz
x dB Bandwidth 17.767 MHz
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Start Freq
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(CH High)

5.2 Peak Output Power

5.2.1 Definition

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.

5.2.2 Test Description

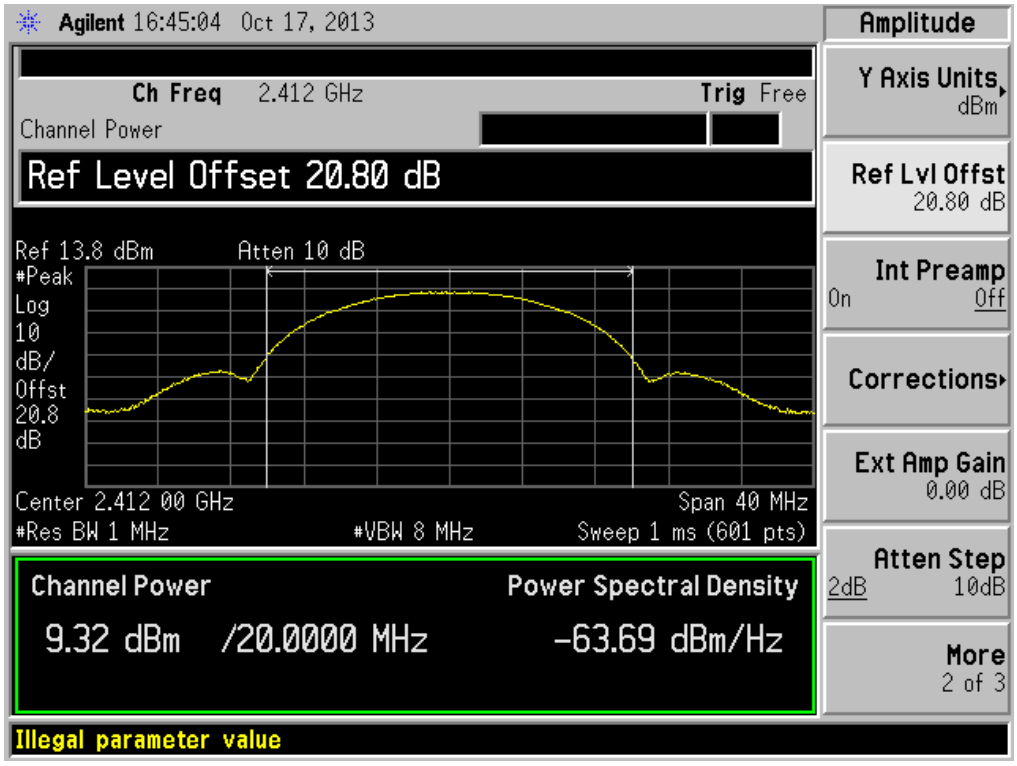
See section 5.1.2 of this report.

5.2.3 Test Result

The lowest and highest data rate are selected to perform testing to verify the conducted RF output peak power of the Module. Only the maximum conducted RF output peak power recorded in the report.

802.11b Test Mode

Channel	Frequency (MHz)	Rate (Mbps)	Measured Output Peak Power		Limit		Verdict
			dBm	W	dBm	W	
1	2412	1Mbps	9.32	0.008551	30	1	PASS
6	2437	1Mbps	8.93	0.007816			PASS
11	2462	1Mbps	8.41	0.006934			PASS



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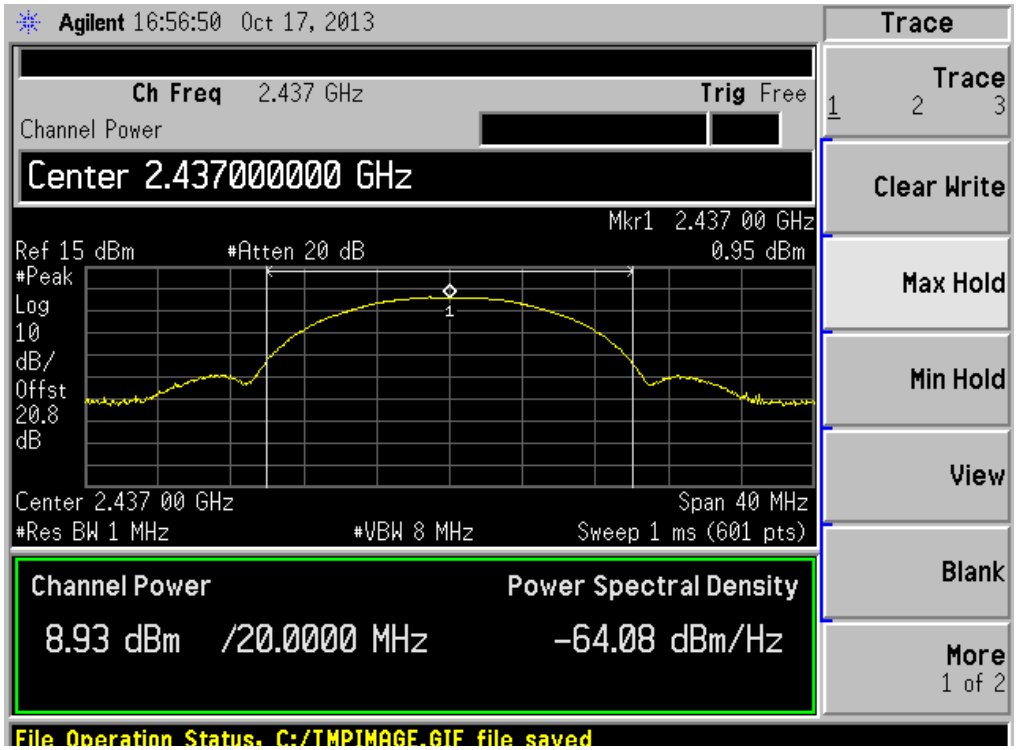

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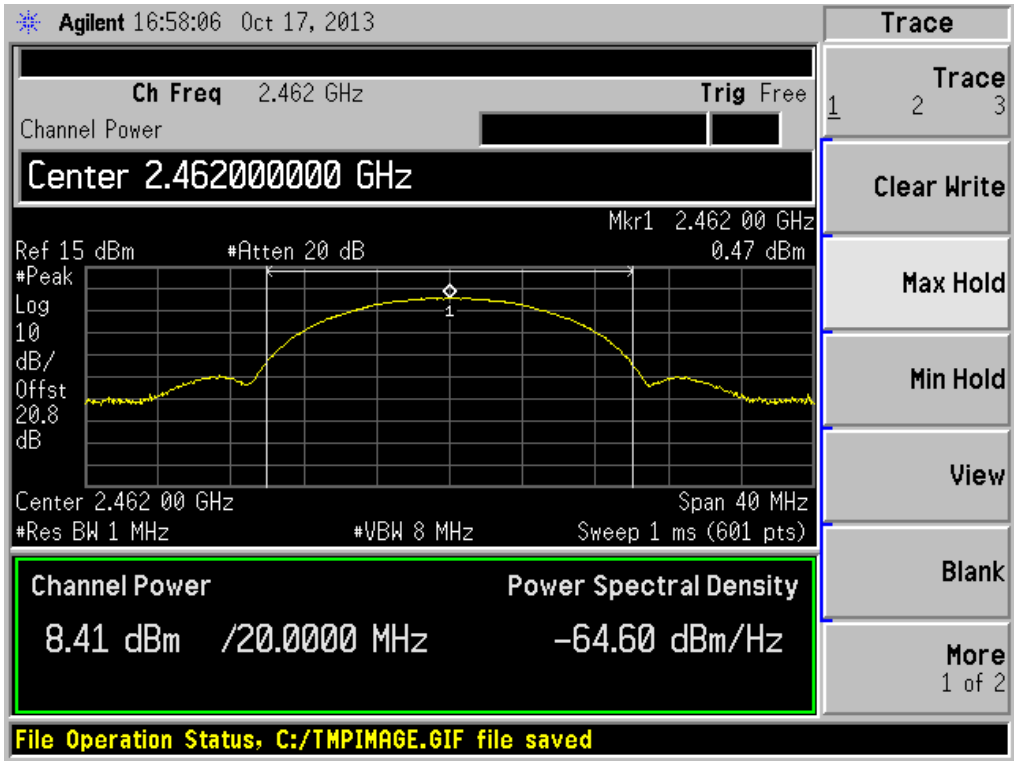
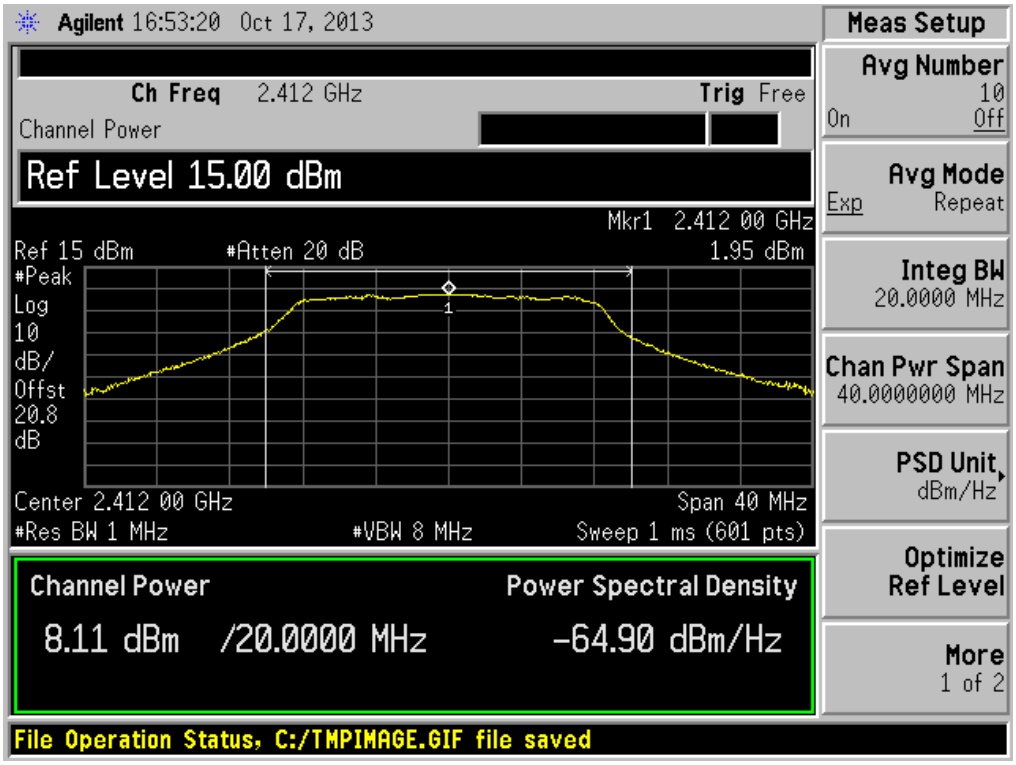


(CH High)

802.11g Test Mode

Channel	Frequency (MHz)	Rate (Mbps)	Measured Output Peak Power		Limit		Verdict
			dBm	W	dBm	W	
1	2412	6Mbps	8.11	0.006471	30	1	PASS
6	2437	6Mbps	7.87	0.006124			PASS
11	2462	6Mbps	7.42	0.005521			PASS



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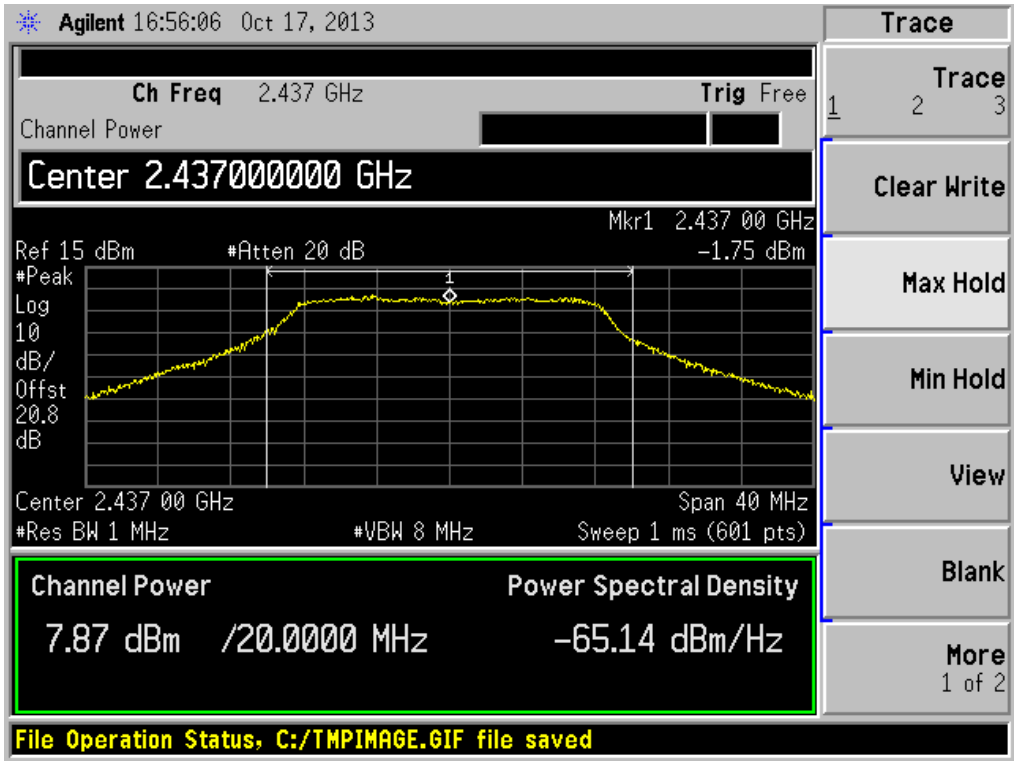

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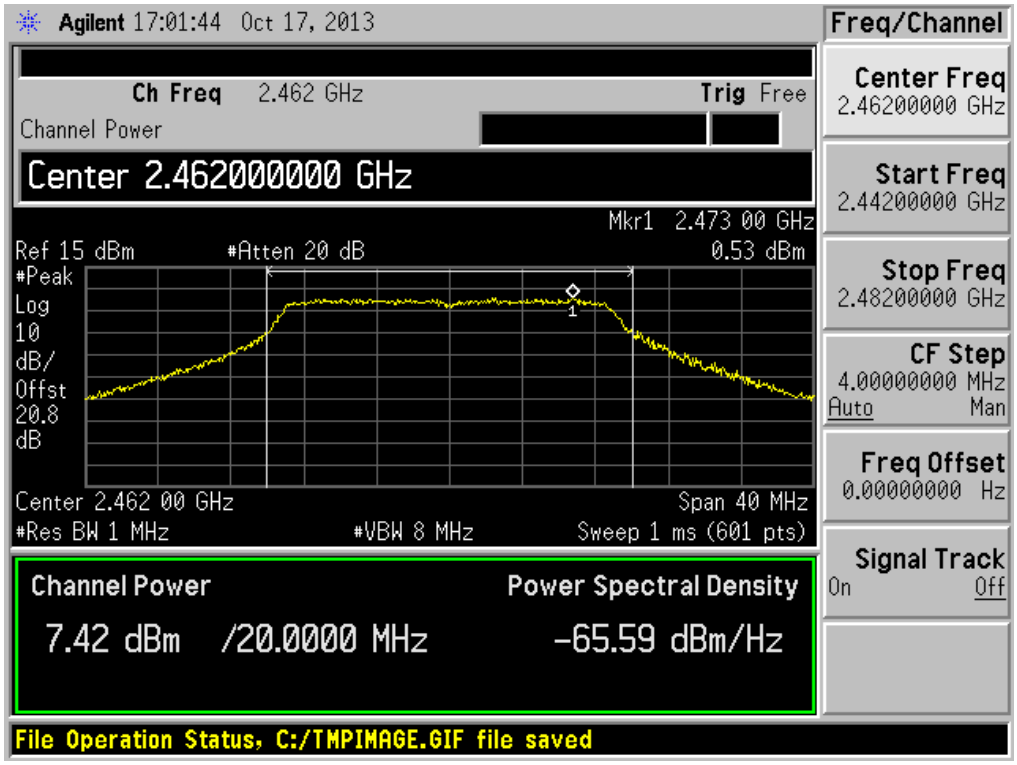
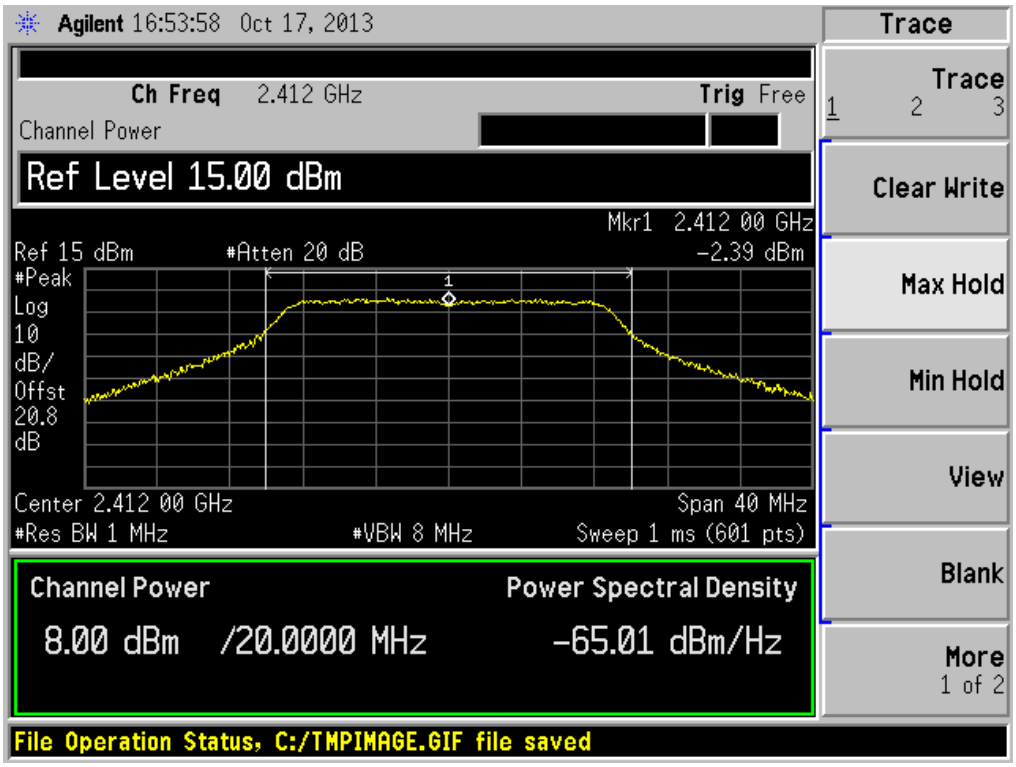


(CH High)

802.11N (HT20) Test Mode

Channel	Frequency (MHz)	Rate (Mbps)	Measured Output Peak Power		Limit		Verdict
			dBm	W	dBm	W	
1	2412	7.2Mbps	8.00	0.006310	30	1	PASS
6	2437	7.2Mbps	7.56	0.005702			PASS
11	2462	7.2Mbps	7.53	0.005662			PASS



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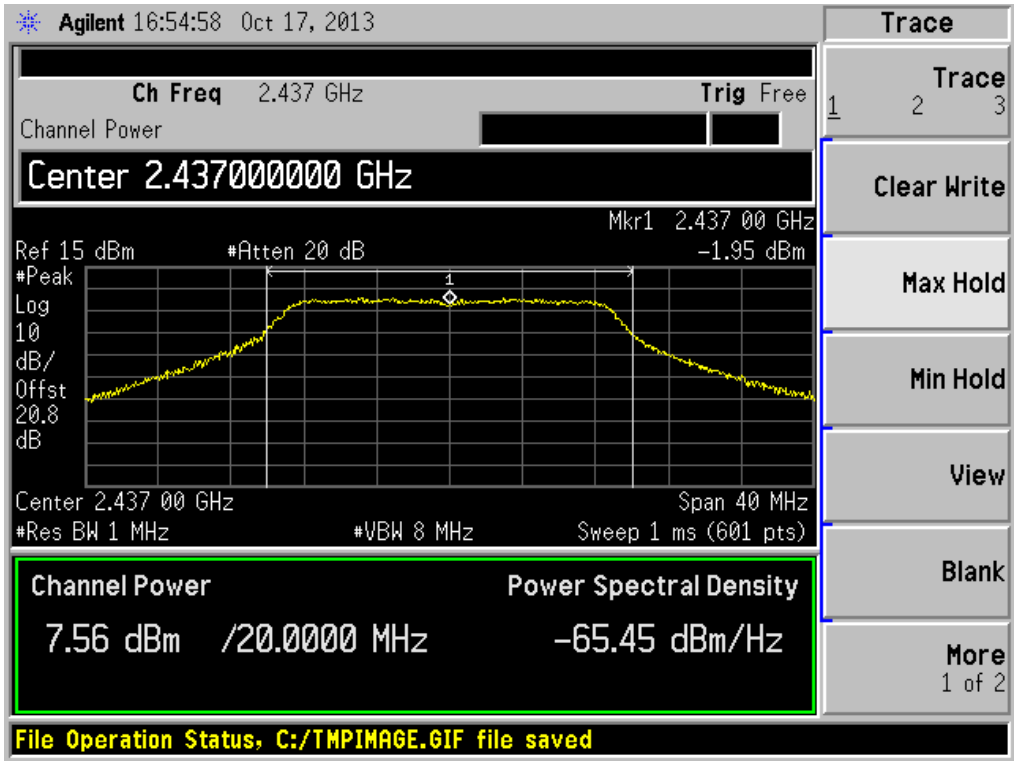

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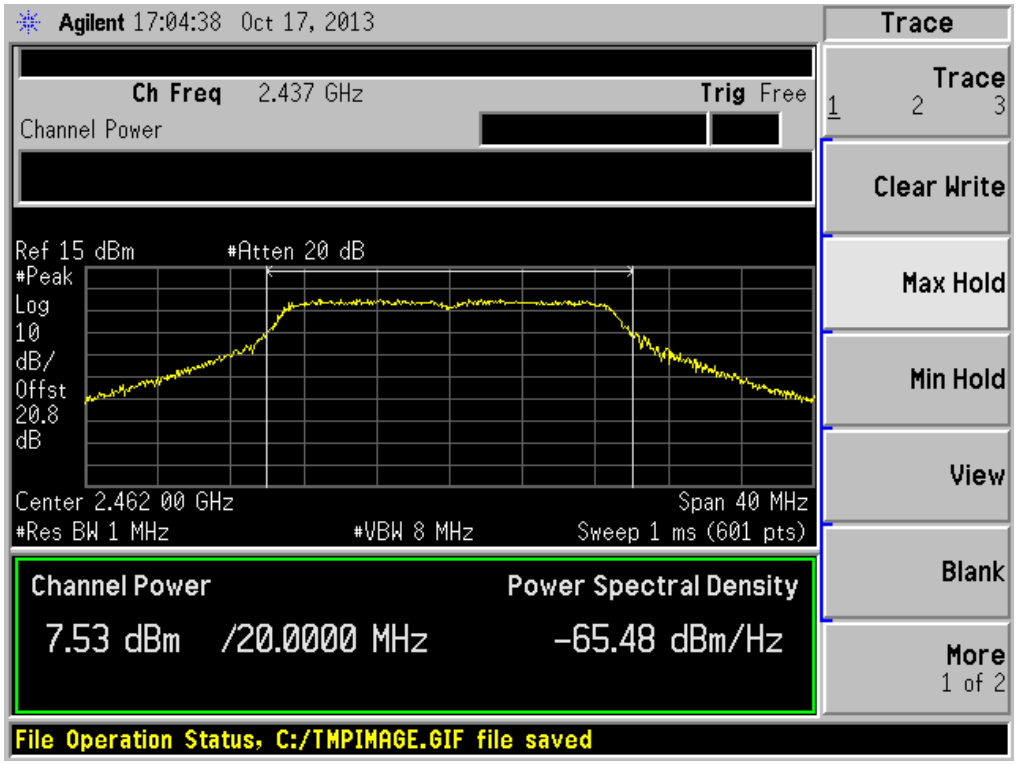


(CH High)

5.3 Conducted Spurious Emission

5.3.1 Definition

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.

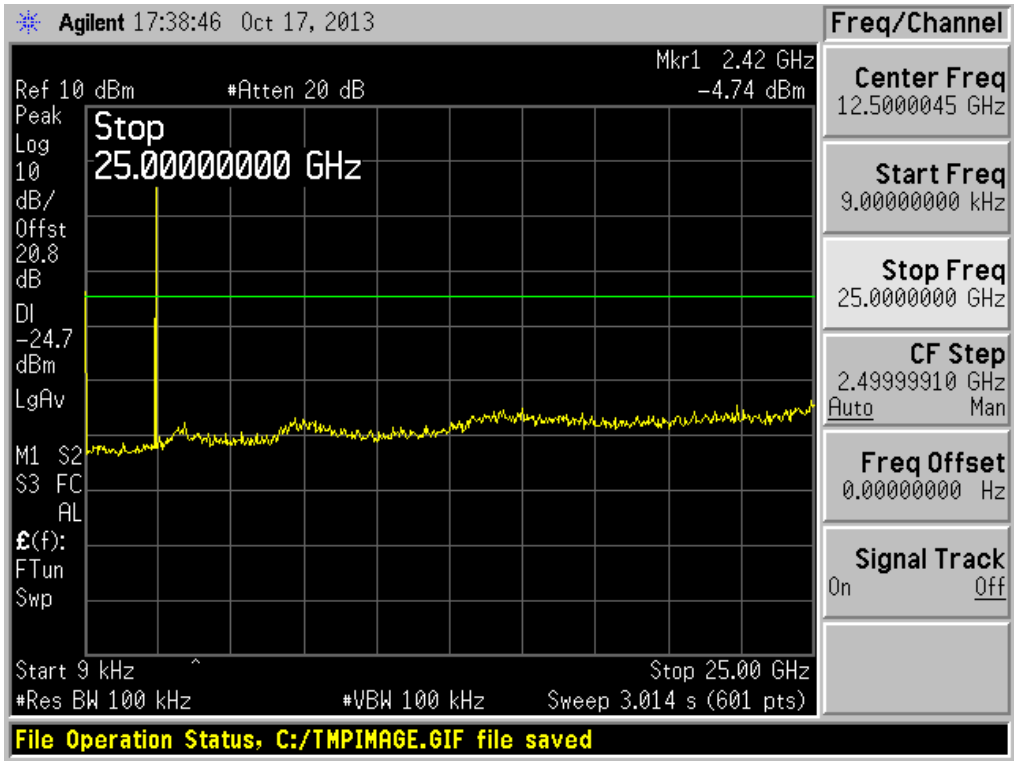
5.3.2 Test Description

See section 5.1.2 of this report.

5.3.3 Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions.

802.11b Test Mode



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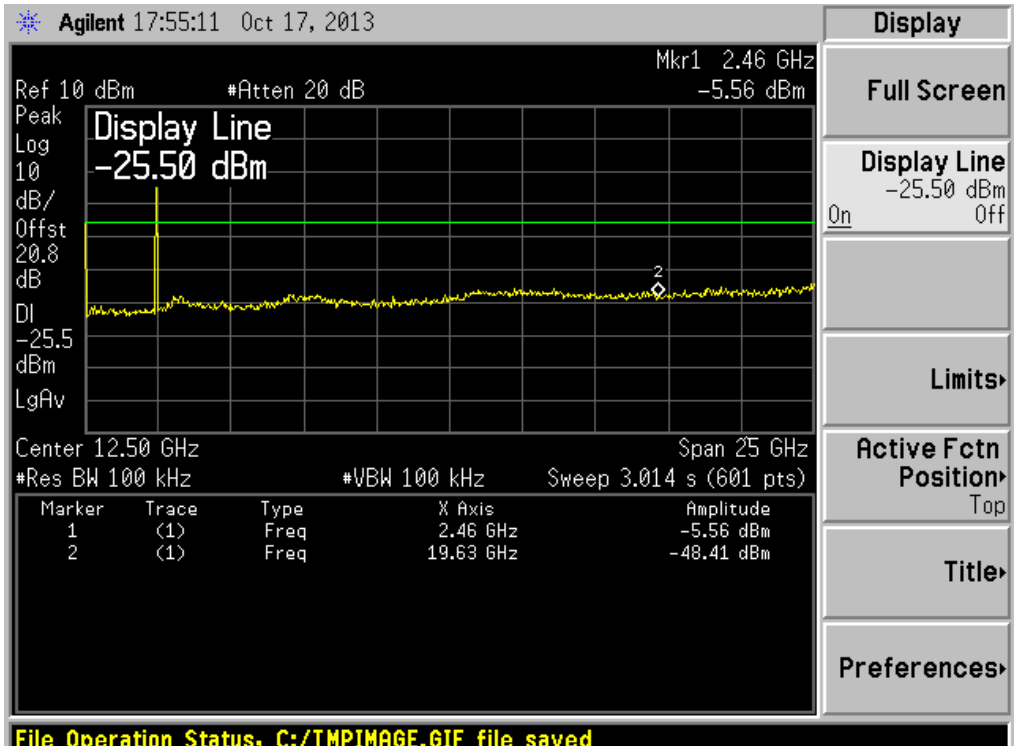

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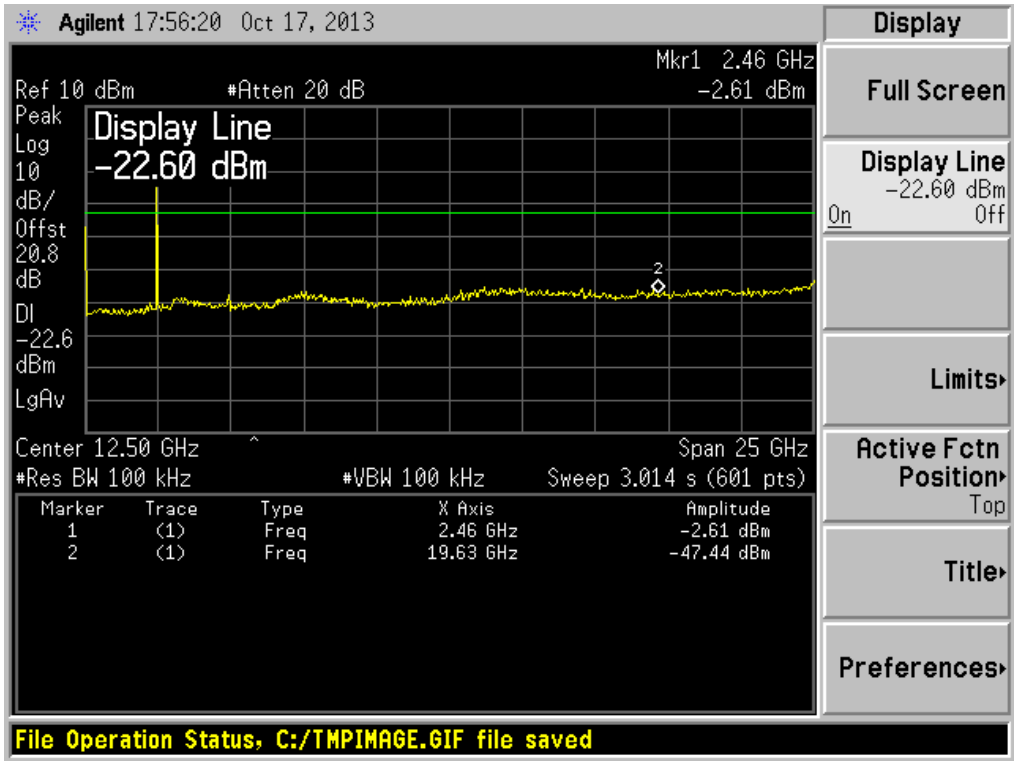
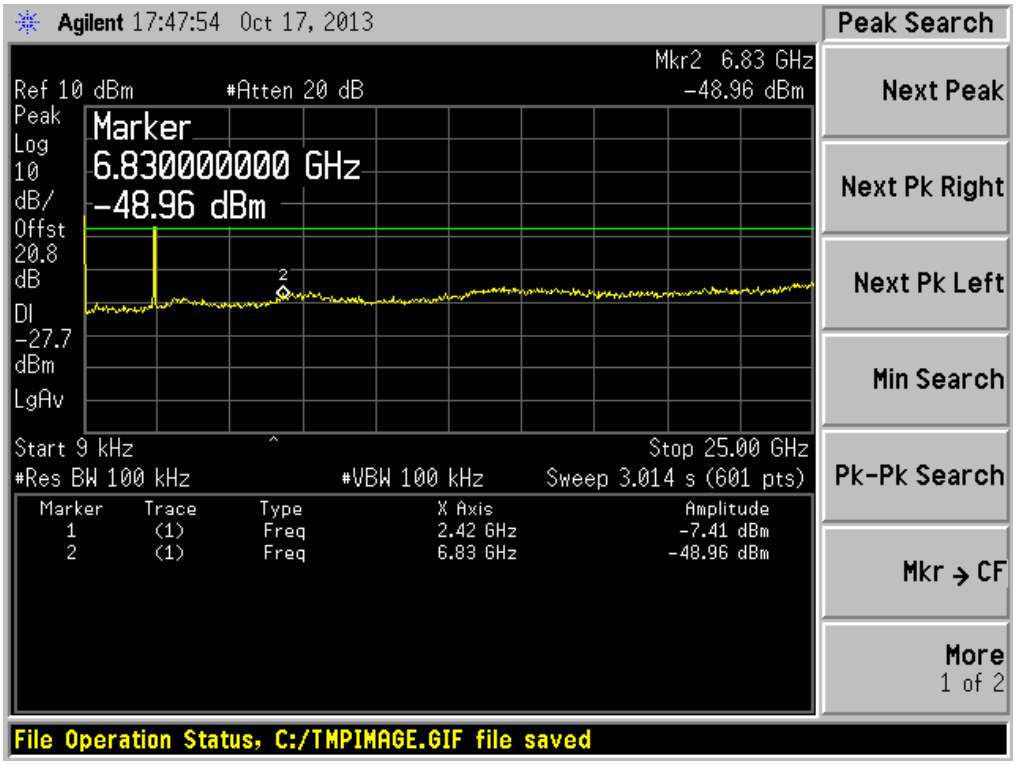


(CH High, 9KHz to 25GHz)

Note: The power of the Module transmitting frequency should be ignored.

802.11g Test Mode



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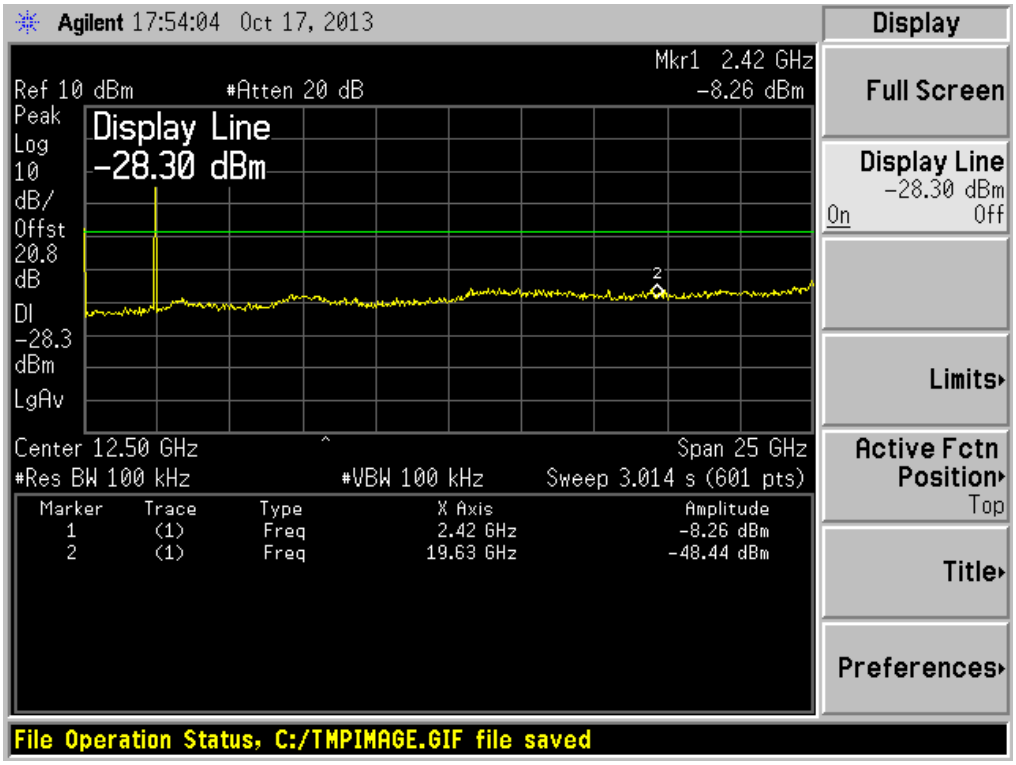

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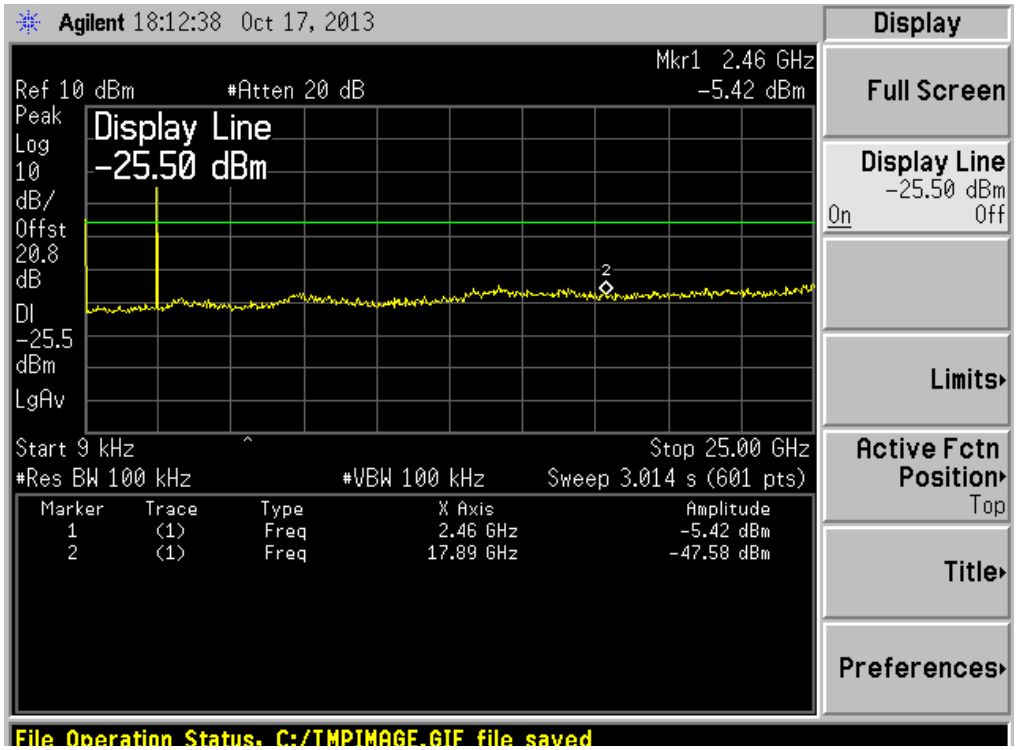
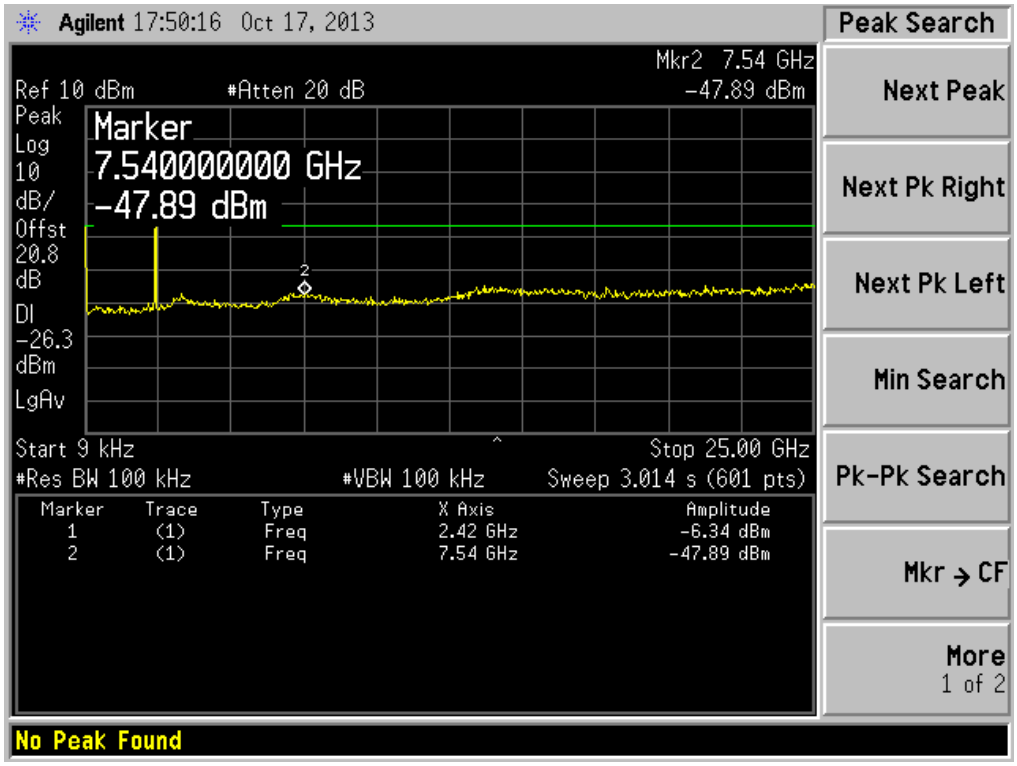


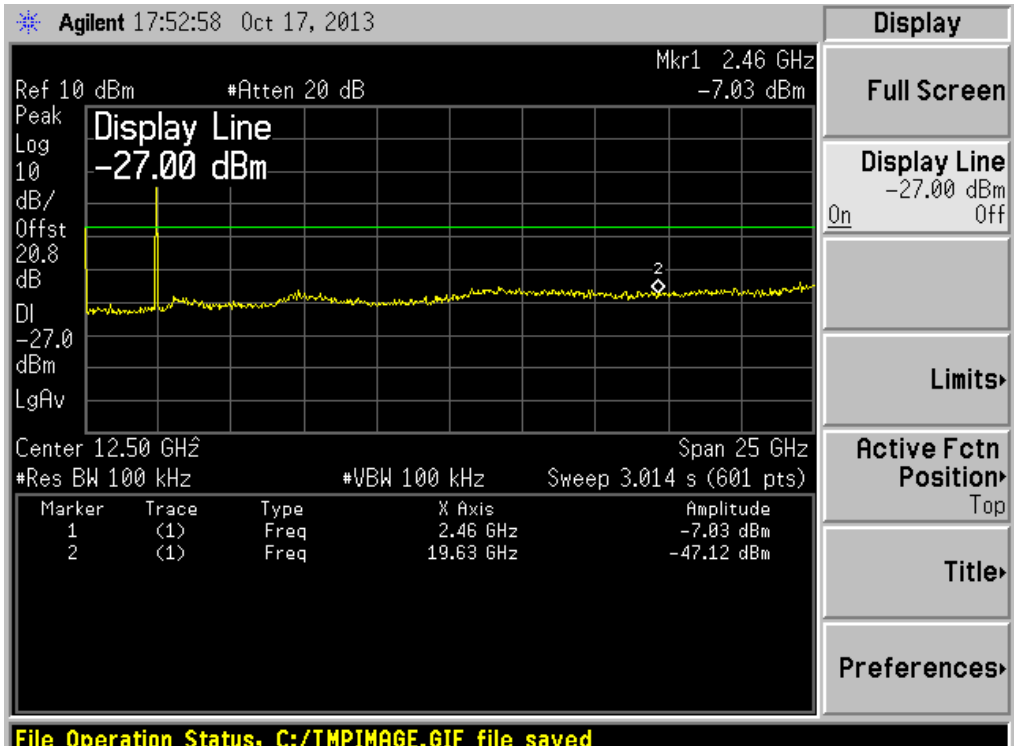
(CH High, 9KHz to 25GHz)

Note: The power of the Module transmitting frequency should be ignored.

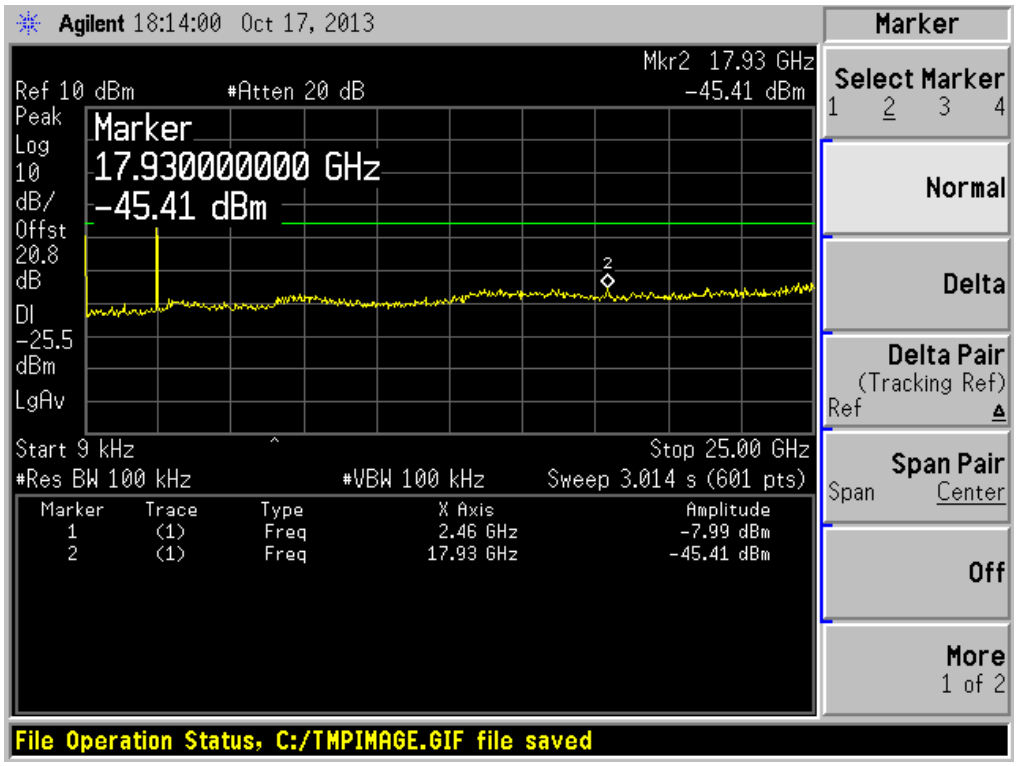
802.11N(HT20) Test Mode



(CH Low, 9KHz to 25GHz)



(CH Mid, 9KHz to 25GHz)



(CH High, 9KHz to 25GHz)

Note: The power of the Module transmitting frequency should be ignored.

5.4 Band Edge

5.4.1 Definition

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.

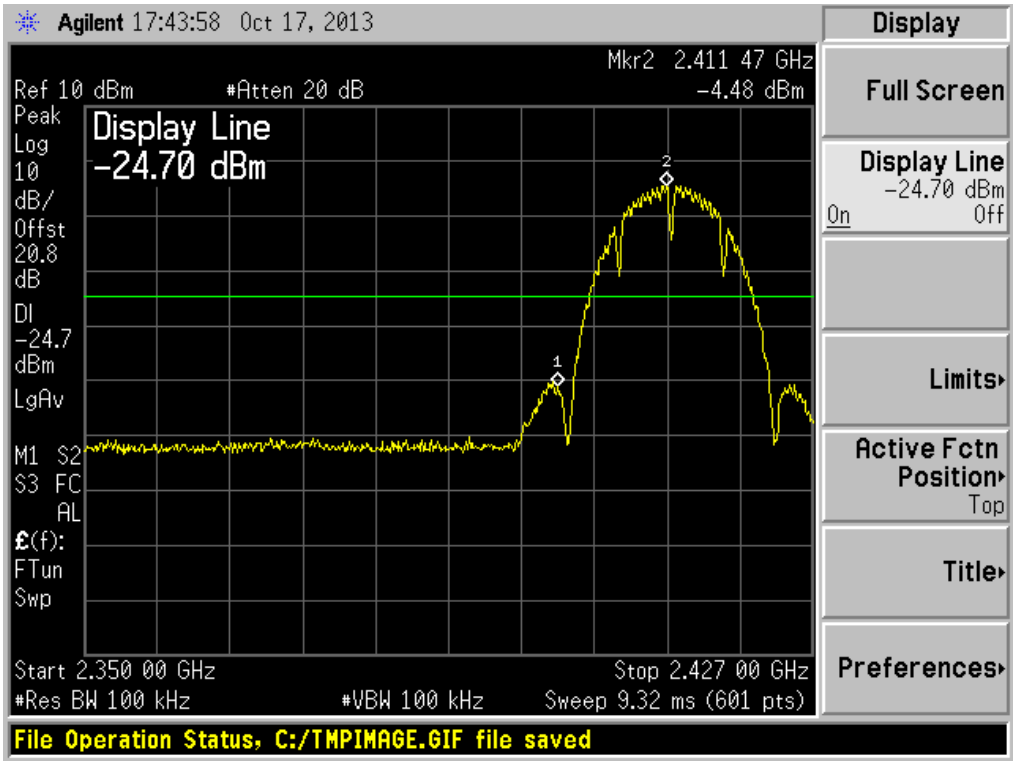
5.4.2 Test Description

See section 5.1.2 of this report.

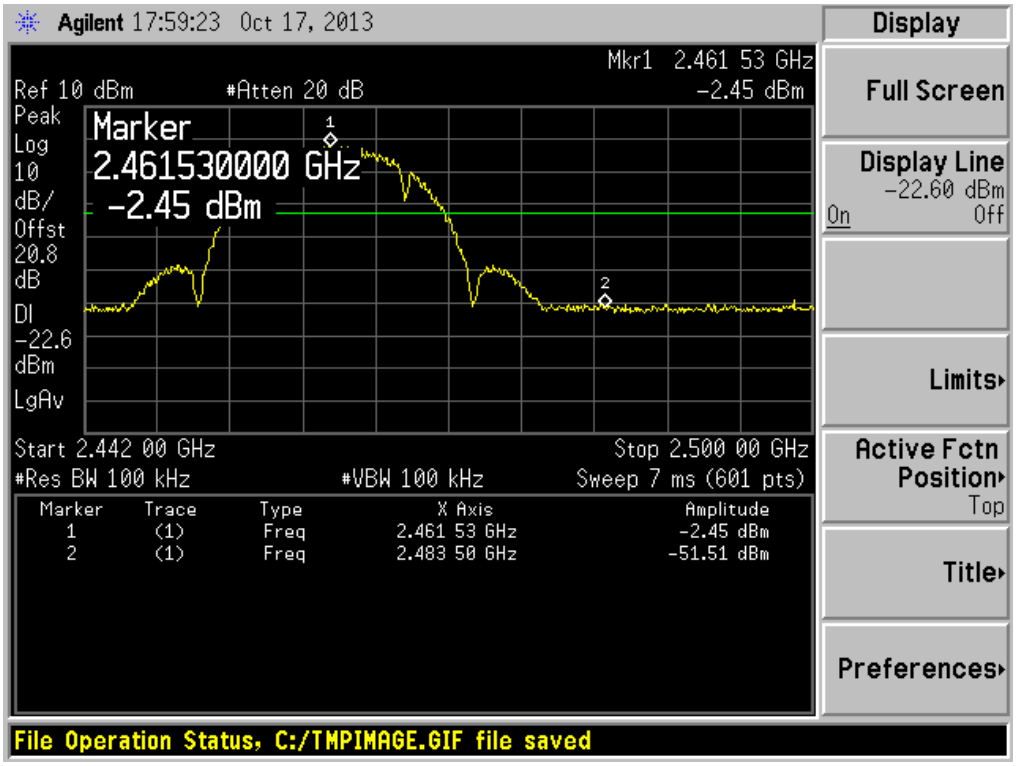
5.4.3 Test Result

The EUT operates at continuous transmit test mode. The test data of the lowest and highest channels are tested to verify the band edge emissions.

802.11b Test Mode

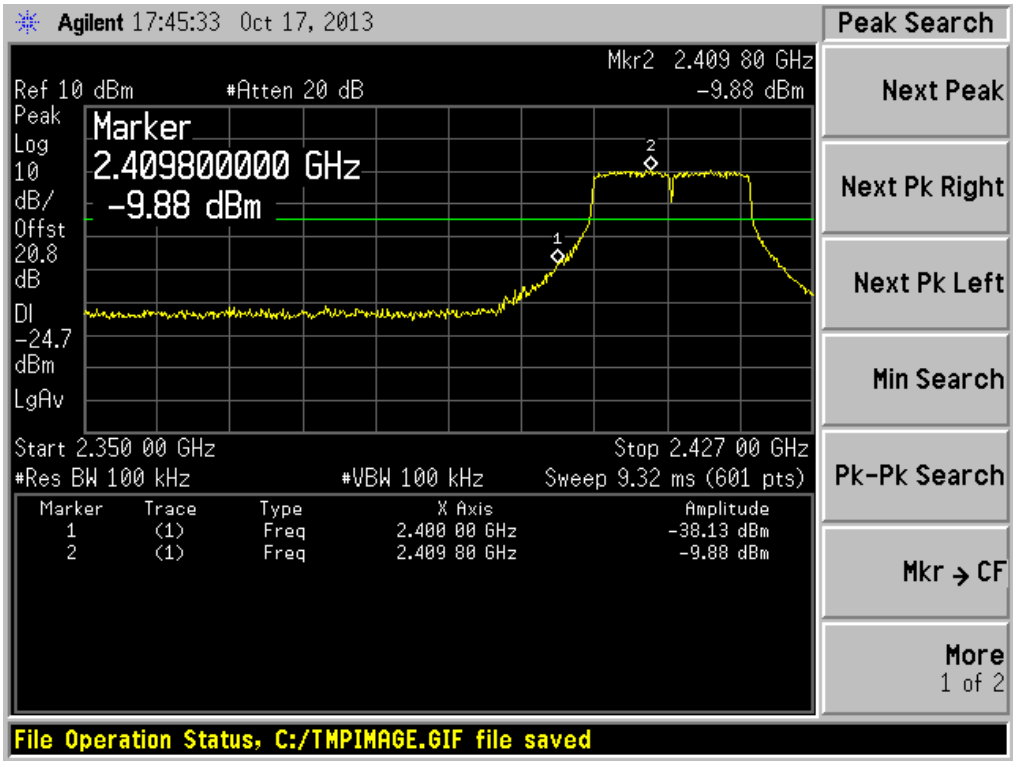


(CH Low)

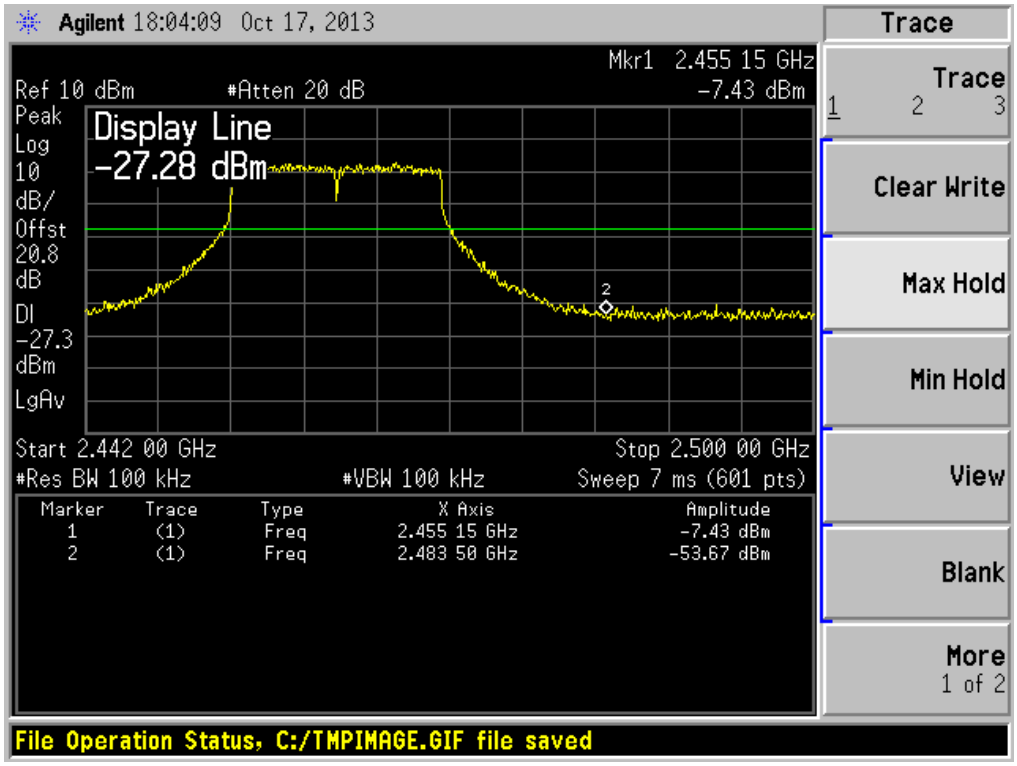


(CH High)

802.11g Test Mode

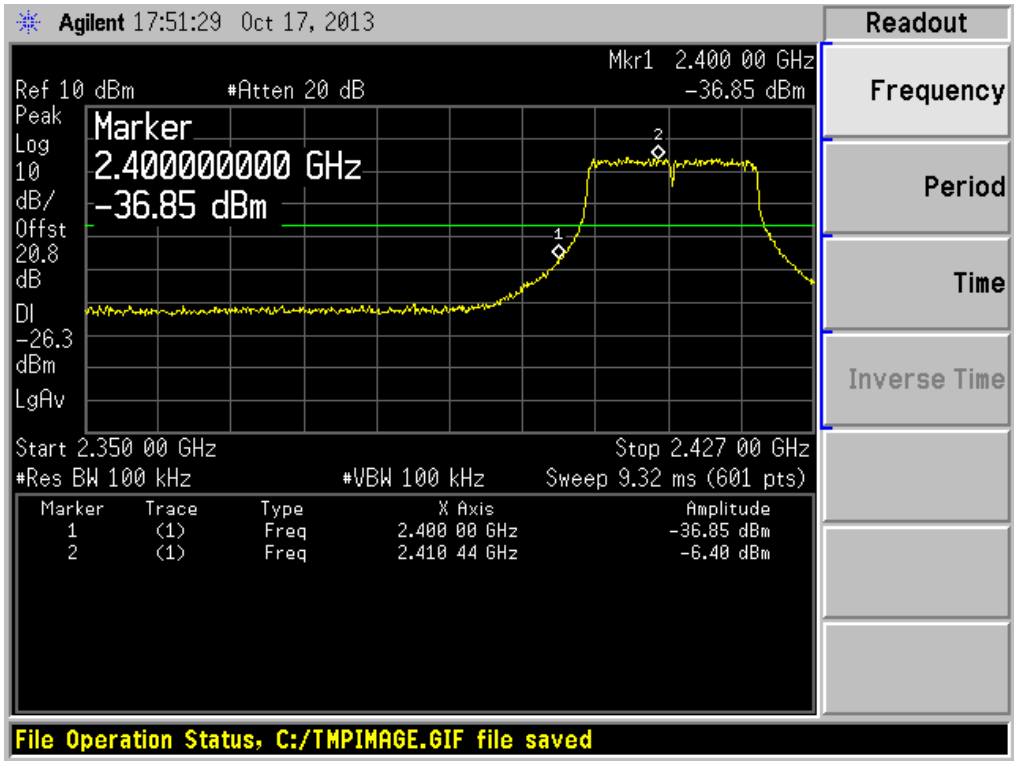


(CH Low)

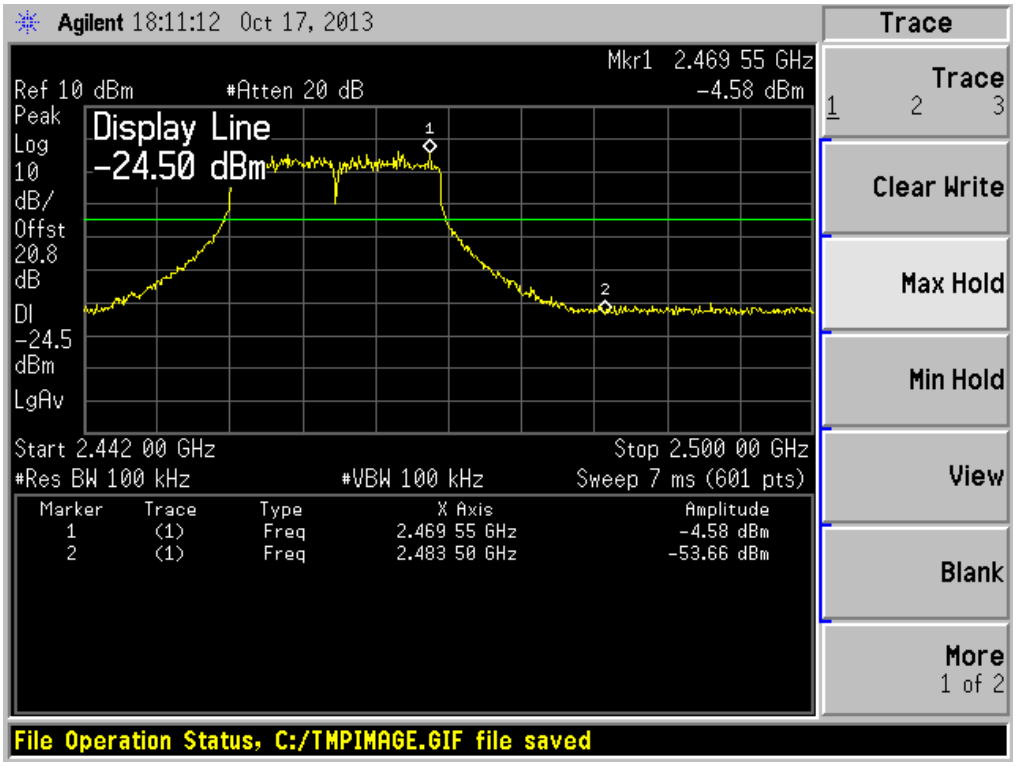


(CH High, Peak)

802.11N(HT20) Test Mode



(CH Low)


Agilent 18:11:12 Oct 17, 2013
Mkr1 2.469 55 GHz
Ref 10 dBm
#Atten 20 dB
-4.58 dBm
Peak
Log
10
dB/
Offst
20.8
dB
Dl
-24.5
dBm
LgAv
Display Line
-24.50 dBm
Start 2.442 00 GHz
Stop 2.500 00 GHz
#Res BW 100 kHz
#VBW 100 kHz
Sweep 7 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.469 55 GHz -4.58 dBm
2 (1) Freq 2.483 50 GHz -53.66 dBm
Trace
Trace
1 2 3
Clear Write
Max Hold
Min Hold
View
Blank
More
1 of 2
File Operation Status, C:/TMPIMAGE.GIF file saved

(CH High, Peak)

5.5 Power Spectral Density (PSD)

5.5.1 Definition

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.

5.5.2 Test Description

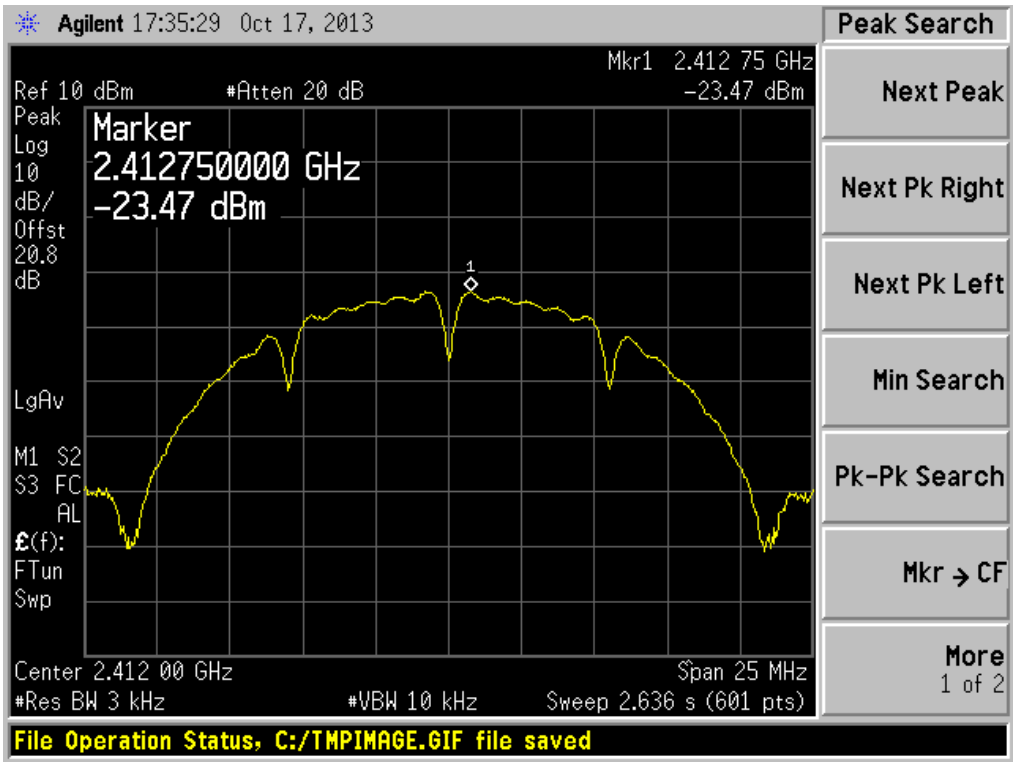
See section 5.1.2 of this report.

5.5.3 Test Result

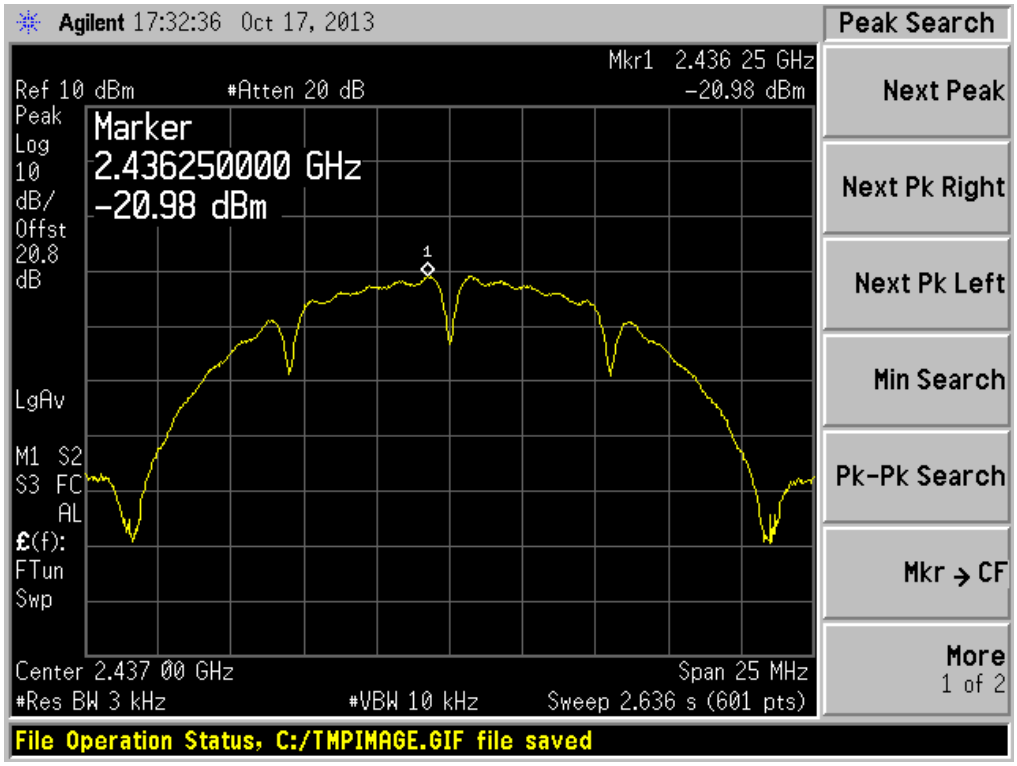
The lowest, middle and highest channels are tested to verify the power spectral density.

802.11b Test Mode

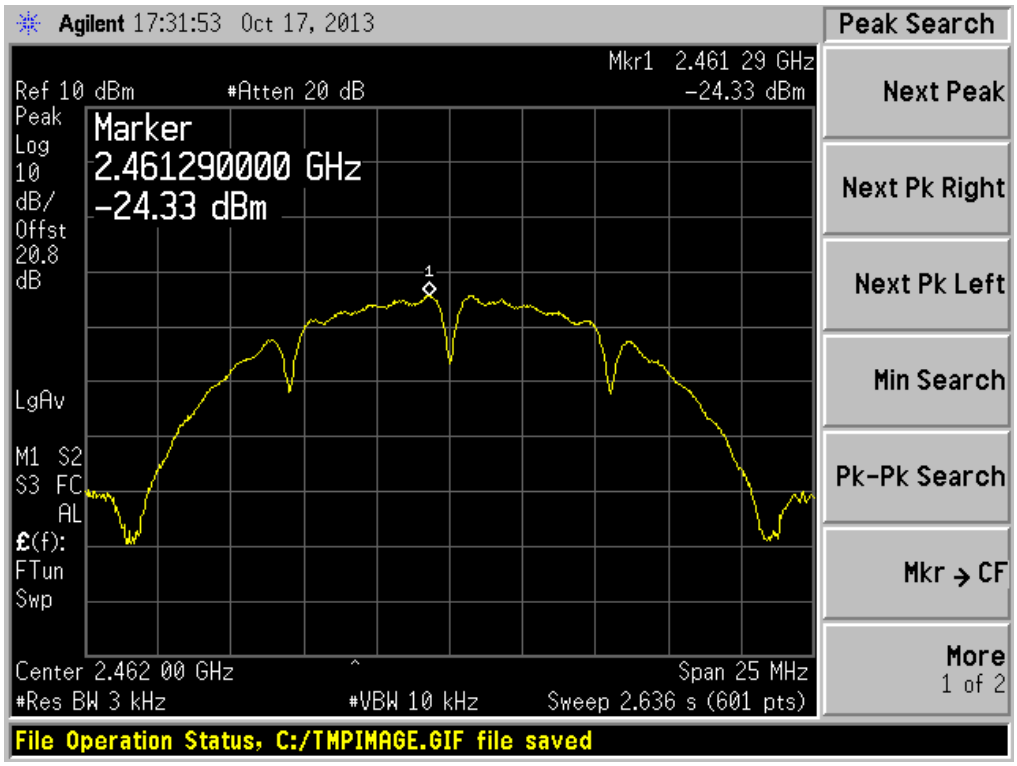
Channel	Frequency (MHz)	PSD (dBm)	Limits(dBm)	Result
1	2412	-23.47	≤8	PASS
6	2437	-20.98	≤8	PASS
11	2462	-24.33	≤8	PASS



(CH Low)



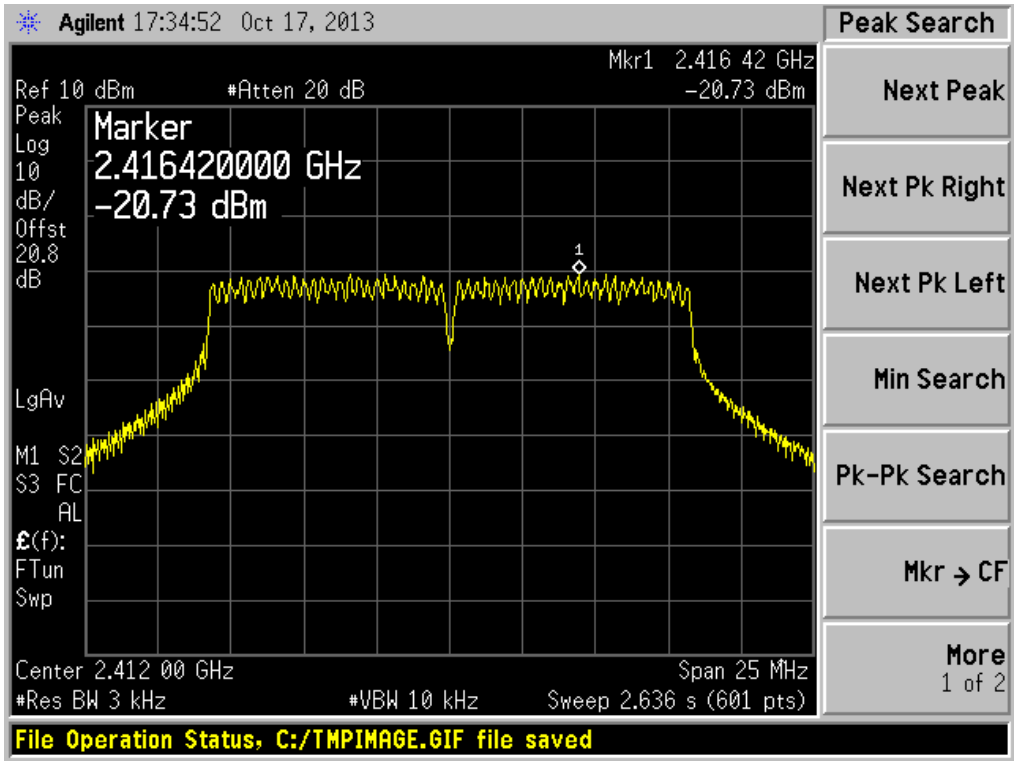
(CH Mid)



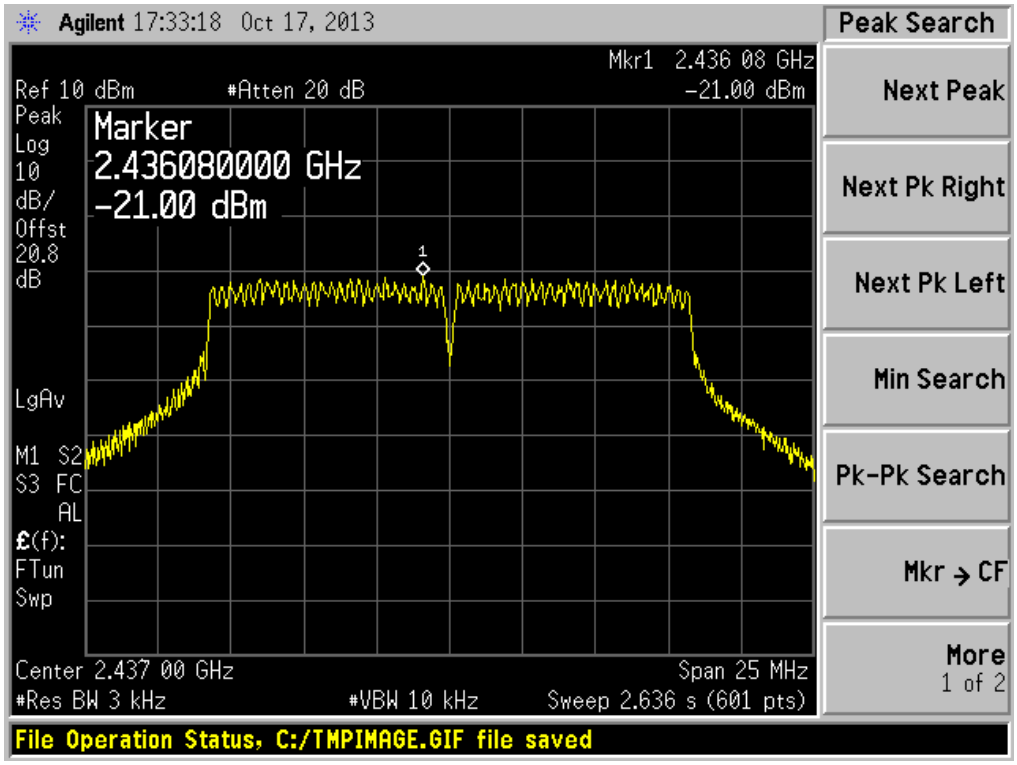
(CH High)

802.11g Test Mode

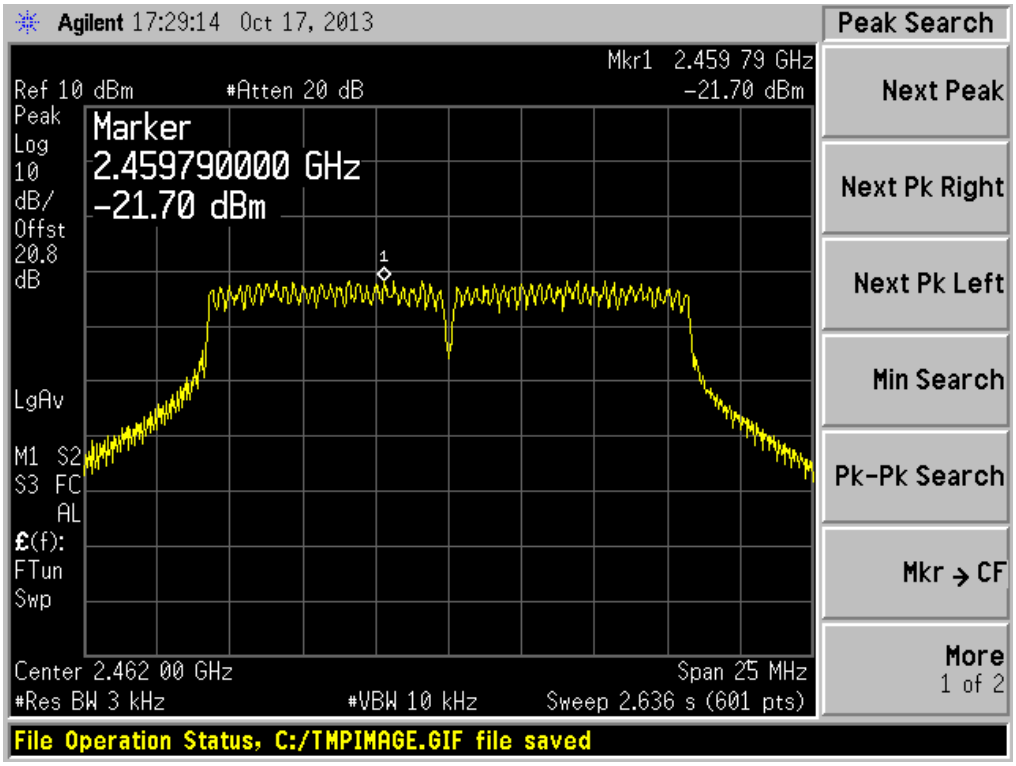
Channel	Frequency (MHz)	PSD (dBm)	Limits(dBm)	Result
1	2412	-20.73	≤8	PASS
6	2437	-21.00	≤8	PASS
11	2462	-21.70	≤8	PASS



(CH Low)



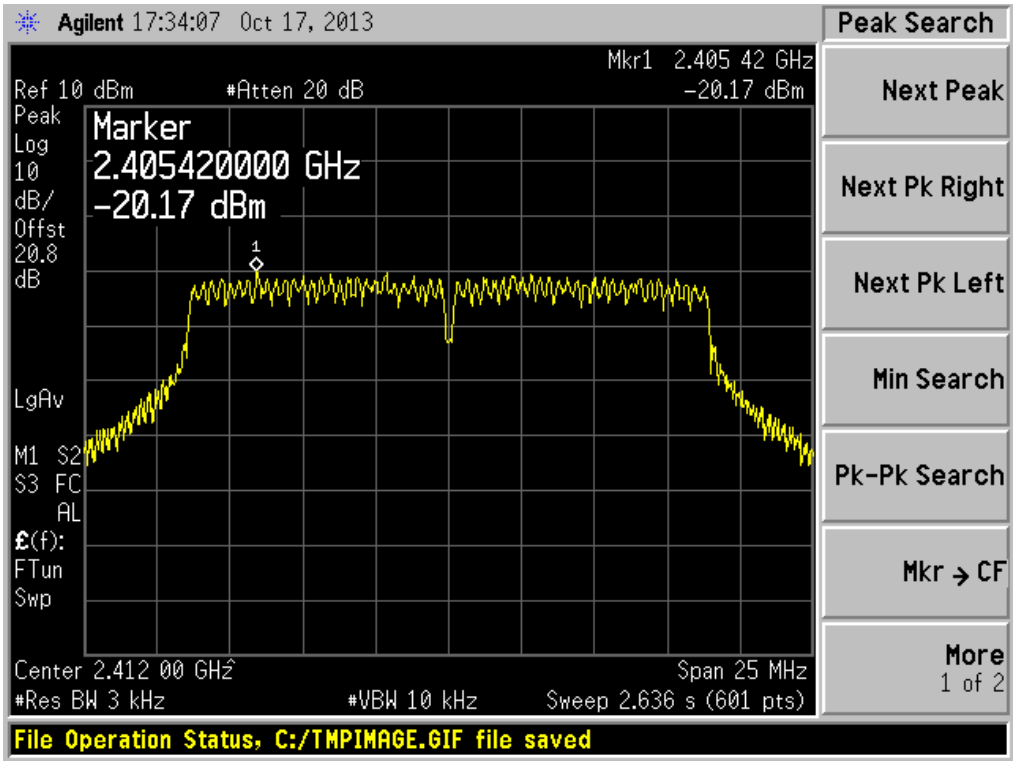
(CH Mid)



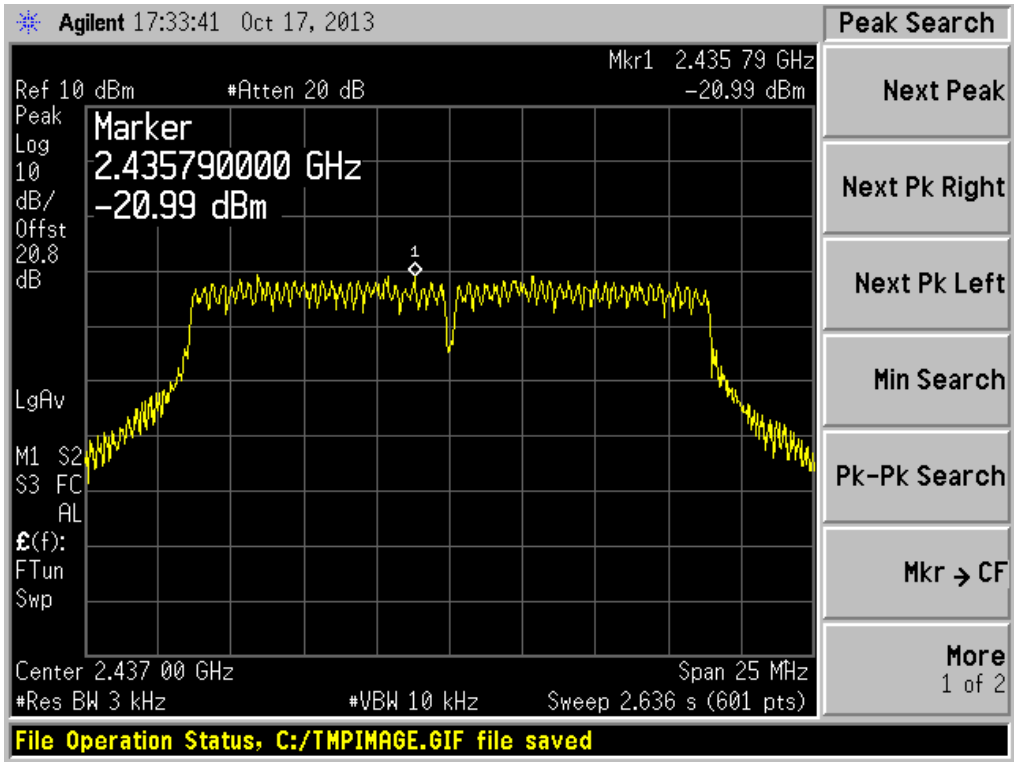
(CH High)

802.11N(HT20) Test Mode

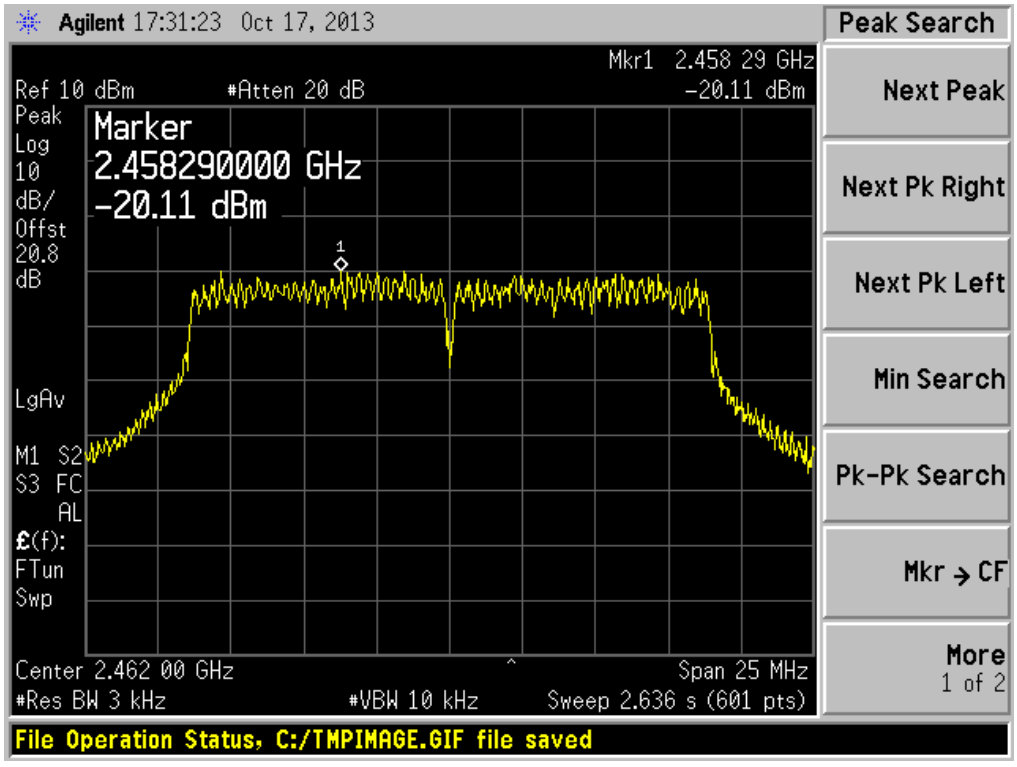
Channel	Frequency (MHz)	PSD (dBm)	Limits(dBm)	Result
1	2412	-20.17	≤8	PASS
6	2437	-20.90	≤8	PASS
11	2462	-20.11	≤8	PASS



(CH Low)



(CH Mid)



(CH High)

5.6 Conducted Emission

5.6.1 Definition

According to FCC section 15.207, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN).

Frequency	Maximum RF Line Voltage	
	Q.P.(dBuV)	Average(dBuV)
150kHz-500kHz	66-56	56-46
500kHz-5MHz	56	46
5MHz-30MHz	60	50

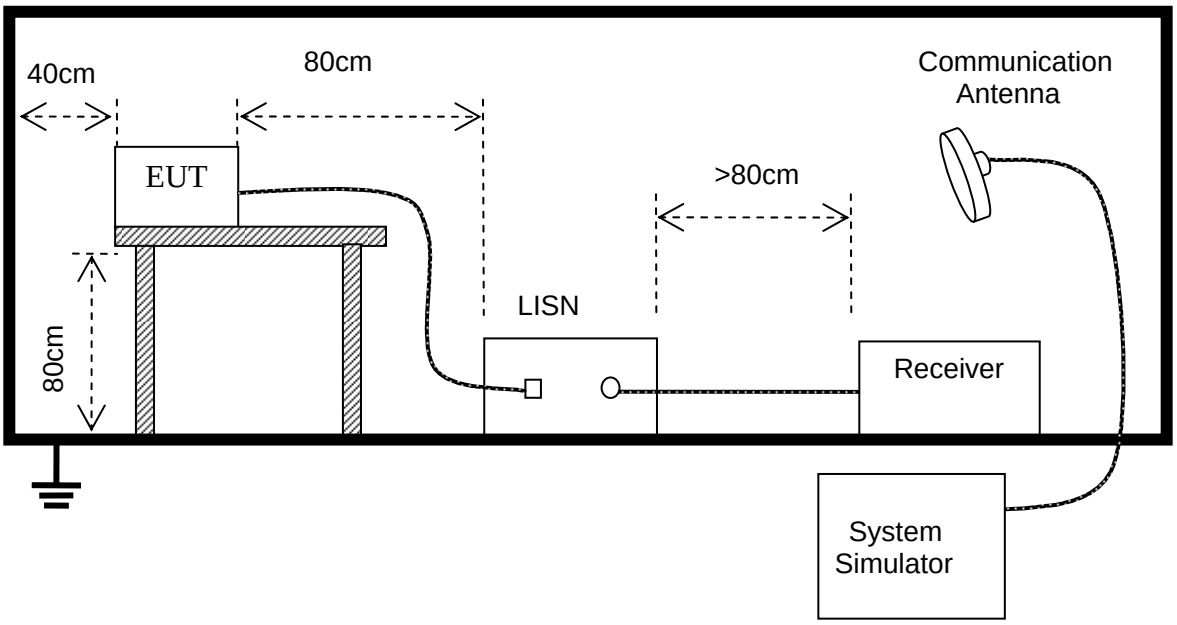
Note:

1. The lower limit shall apply at the transition frequency.

2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz

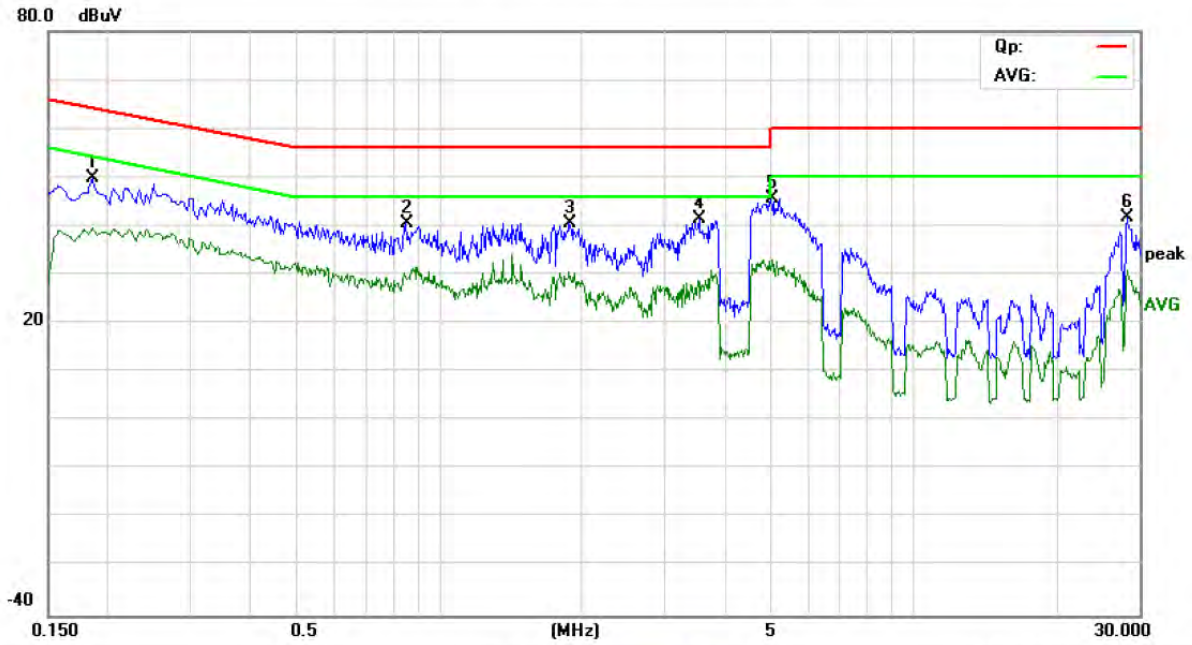
5.6.2 Test Description

The EUT is powered by the Battery charged with the AC Adapter which is powered by 120V, 60Hz AC mains supply. The path loss as the factor is calibrated to correct the reading. During the measurement, the EUT is activated and is set to operate at maximum power.



5.6.3 Test Result

Conducted Emission Measurement



Site site #1
Limit: FCC Part15 B Class B QP
EUT: Tablet PC
M/N: CT1020
Mode: WIFI
Note:

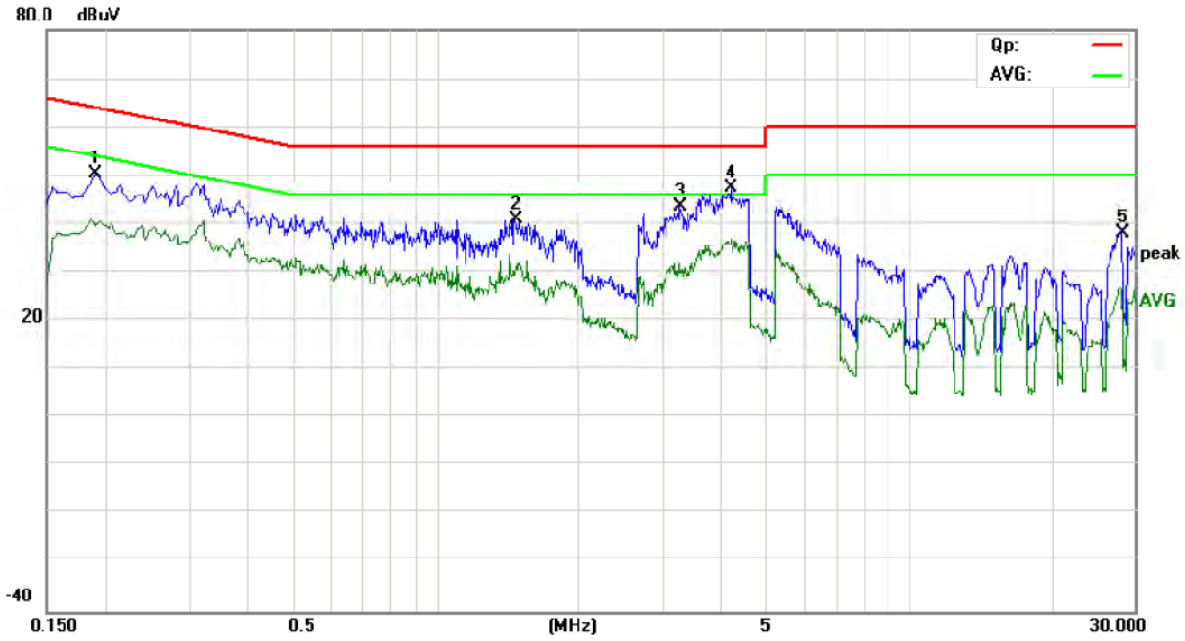
Phase: N
Power: AC 120V/60Hz

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1860	38.73	11.16	49.89	64.21	-14.32	peak	
2		0.8500	30.60	10.00	40.60	56.00	-15.40	peak	
3		1.8820	31.58	9.12	40.70	56.00	-15.30	peak	
4		3.5380	30.77	10.54	41.31	56.00	-14.69	peak	
5	*	5.0060	33.72	12.00	45.72	60.00	-14.28	peak	
6		28.2300	32.73	9.00	41.73	60.00	-18.27	peak	

*:Maximum data x:Over limit !:over margin

Conducted Emission Measurement



Site site #1
Limit: FCC Part15 B Class B QP
EUT: Tablet PC
M/N: CT1020
Mode: WIFI
Note:

Phase: *L1*
Power: AC 120V/60Hz

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1900	38.95	11.40	50.35	64.04	-13.69	peak	
2		1.4660	31.43	9.53	40.96	56.00	-15.04	peak	
3		3.2740	33.15	10.27	43.42	56.00	-12.58	peak	
4	*	4.1820	36.26	11.18	47.44	56.00	-8.56	peak	
5		28.0820	29.30	9.00	38.30	60.00	-21.70	peak	

*:Maximum data x:Over limit l:over margin

5.7 Radiated Emission

5.7.1 Definition

According to FCC section 15.247(d), radiated emission outside the frequency band 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)).

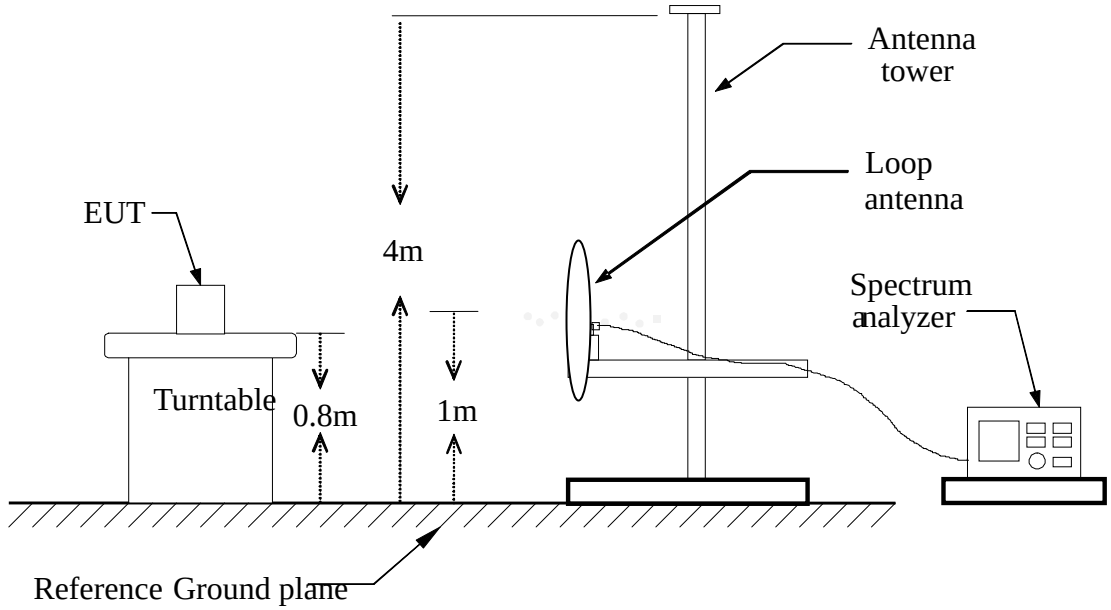
According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

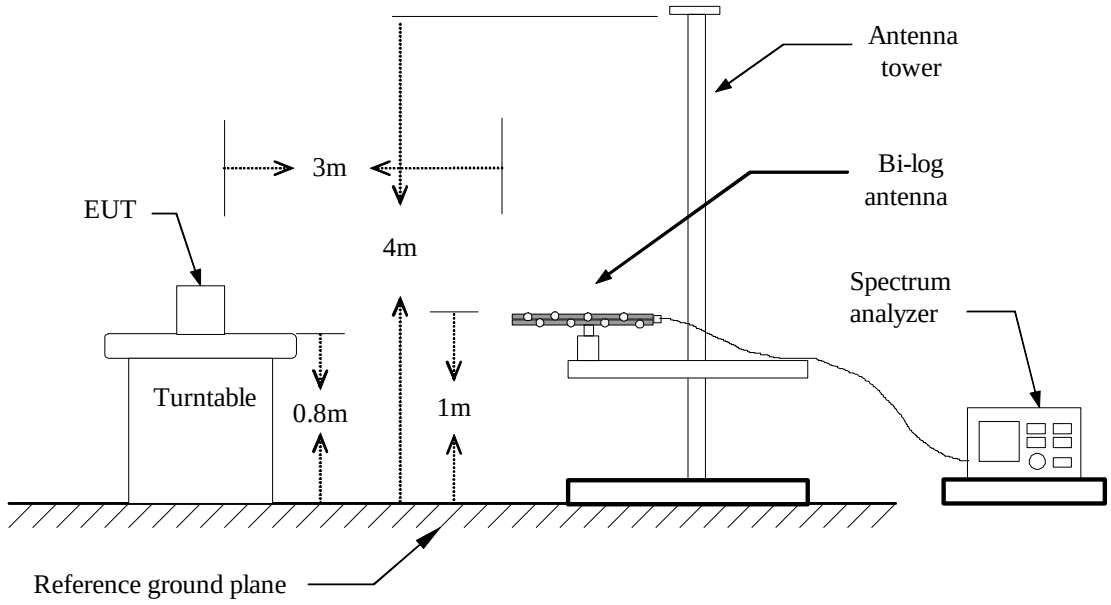
As shown in FCC section 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector. When average radiated emission measurements are specified in this part, including emission measurements below 1000MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules.

5.7.2 Test Description

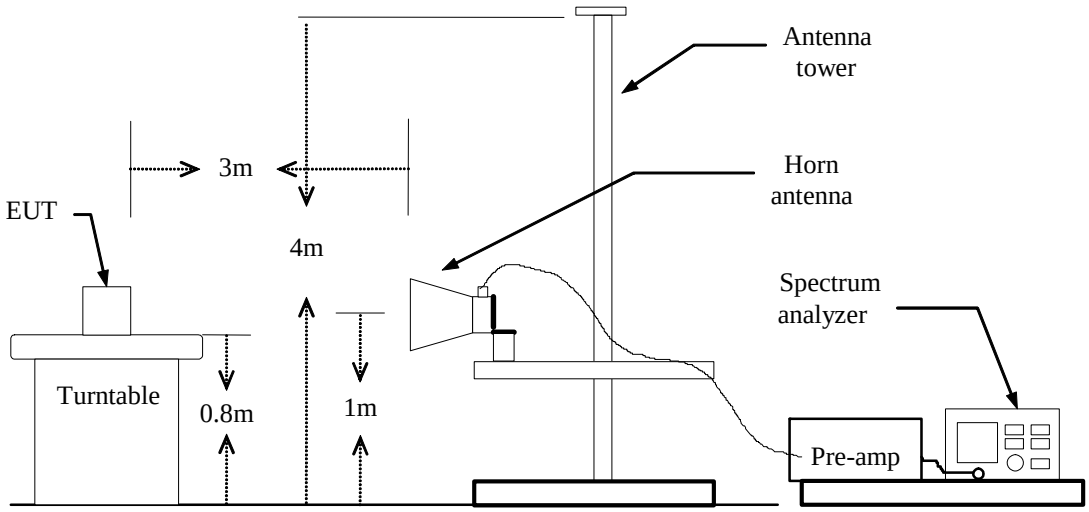
A. Test Setup:



Blow 1GHz:



Above 1GHz:



B. Test procedures

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Set the spectrum analyzer in the following setting as:

   Below 1GHz: RBW=100 kHz / VBW=300 kHz / Sweep=AUTO

   Above 1GHz : (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
   (b) AVERAGE: RBW=1MHz / VBW=1MHz / Sweep=AUTO
7. Repeat above procedures until the measurements for all frequencies are complete.

5.7.3 Test Result

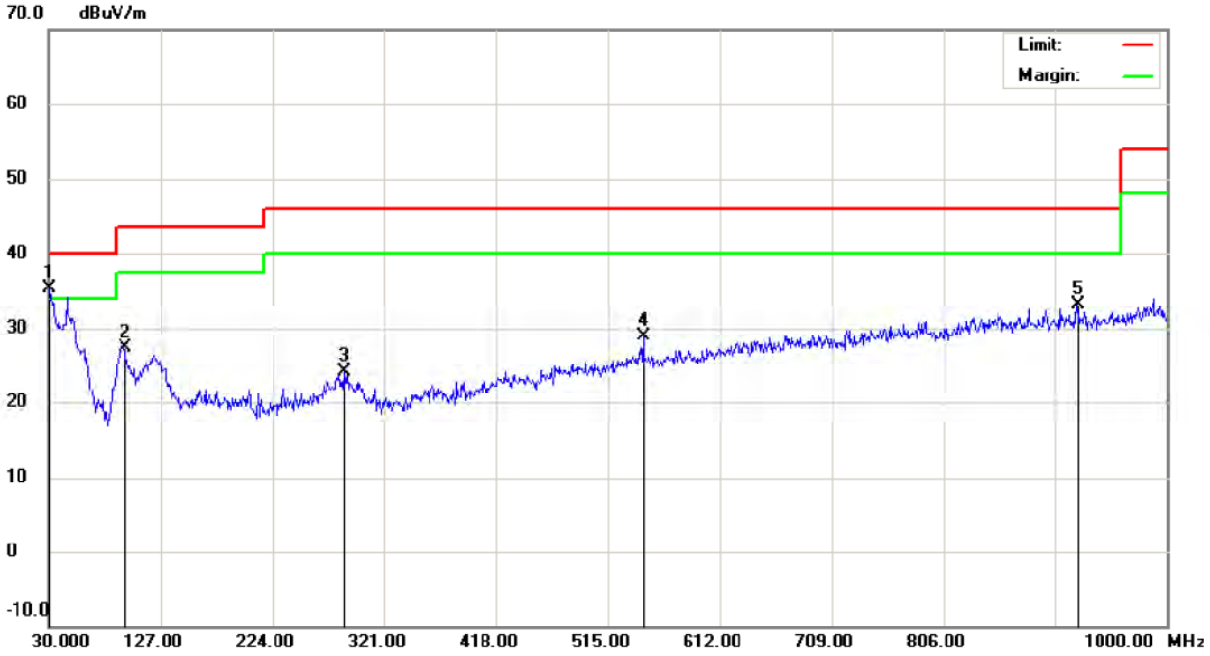
Form 9 KHz to 30MHz:

Freq.	Ant. Pol	Peak	Ant. / CL	Actual Fs	Peak	Peak
(MHz)	H/V	Reading	CF		Limit	Margin
		(dBuV)	(dB)	Peak	(dBuV/m)	(dB)
				(dBuV/m)		
	H					
	H					
	H					
N/A						>20
	V					
	V					
	V					
N/A						>20

-Note: No test data was detected in below 30MHz.

Below 1 GHz

Radiated Emission Measurement



Site site MOST 3M
Limit: FCC Part15 B 3M Radiation
EUT: Tablet PC
M/N: CT1020
Mode: WIFI
Note:

Polarization: *Vertical*
Power: AC 120V/60Hz

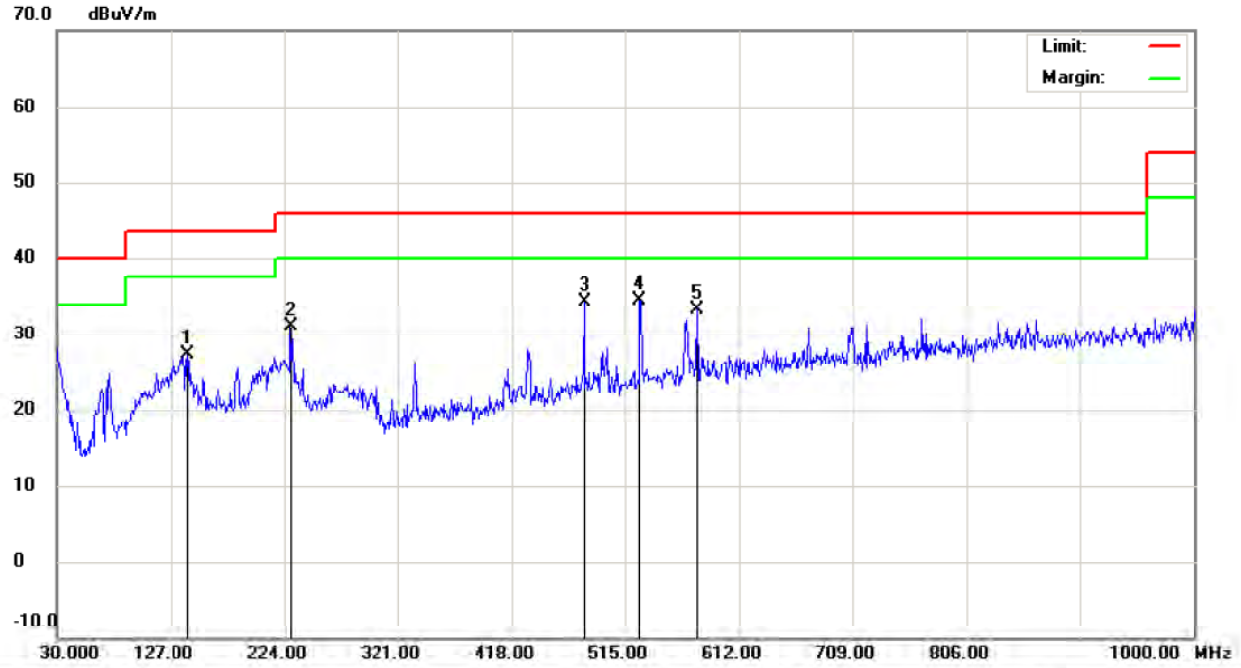
Temperature: 26
Humidity: 61 %

Distance:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	30.0000	10.46	24.80	35.26	40.00	-4.74	peak			
2		94.9900	15.22	12.05	27.27	43.50	-16.23	peak			
3		286.0799	4.74	19.44	24.18	46.00	-21.82	peak			
4		546.0400	6.50	22.34	28.84	46.00	-17.16	peak			
5		921.4300	5.40	27.62	33.02	46.00	-12.98	peak			

*:Maximum data x:Over limit !:over margin

Radiated Emission Measurement



Site site MOST 3M
Limit: FCC Part15 B 3M Radiation
EUT: Tablet PC
M/N: CT1020
Mode: BT
Note:

Polarization: *Vertical*
Power: AC 120V/60Hz
Distance:

Temperature: 26
Humidity: 61 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		141.5500	10.29	17.11	27.40	43.50	-16.10	peak			
2		228.8500	14.55	16.48	31.03	46.00	-14.97	peak			
3		480.0800	12.70	21.70	34.40	46.00	-11.60	peak			
4	*	527.6100	12.36	22.08	34.44	46.00	-11.56	peak			
5		576.1100	10.45	22.82	33.27	46.00	-12.73	peak			

*:Maximum data x:Over limit !:over margin

Above 1 GHz

Operation Mode: TX/ IEEE 802.11b/CH Low **Test Date:** 2013-10-17

Temperature: 20°C **Humidity:** 65 % RH

Freq.	Ant. Pol	Peak	AV	Ant. / CL	Actual Fs		Peak	AV	AV
(MHz)	H/V	Reading	Reading	CF			Limit	Limit	Margin
		dBuV	dBuV	dB)	Peak	AV	dBuV/m	dBuV/m	dB
					dBuV/m	dBuV/m			
4824	V	43.06	22.37	21.24	64.3	43.61	74	54	-10.39
N/A	H								
4824	H	43.56	22.05	21.24	64.8	43.29	74	54	-10.71
N/A	H								

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie:
   margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Operation Mode: TX/ IEEE 802.11b/CH Mid **Test Date:** 2013-10-17

Temperature: 20°C **Humidity:** 65 % RH

Freq.	Ant. Pol	Peak	AV	Ant. / CL	Actual Fs		Peak	AV	AV
(MHz)	H/V	Reading	Reading	CF			Limit	Limit	Margin
		dBuV	dBuV	dB	Peak	AV	dBuV/m	dBuV/m	dB
					dBuV/m	dBuV/m			
4874	V	42.73	22.71	22.11	64.84	44.82	74	54	-9.18
N/A	V								
4874	H	44.69	22.7	22.11	66.8	44.81	74	54	-9.19
N/A	H								

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie:
   margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Operation Mode: TX/ IEEE 802.11b/CH High **Test Date:** 2013-10-17

Temperature: 20°C **Humidity:** 65 % RH

Freq.	Ant. Pol	Peak	AV	Ant. / CL	Actual Fs		Peak	AV	AV
(MHz)	H/V	Reading	Reading	CF			Limit	Limit	Margin
		dBuV	dBuV	dB	Peak	AV	dBuV/m	dBuV/m	dB
					dBuV/m	dBuV/m			
4924	V	43.96	23.75	21.24	65.2	44.99	74	54	-9.01
N/A	V								
4924	H	44.02	23.85	21.24	65.26	45.09	74	54	-8.91
N/A	H								

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie:
   margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Operation Mode: TX/ IEEE 802.11g/CH Low **Test Date:** 2013-10-17

Temperature: 20°C **Humidity:** 65 % RH

Freq.	Ant. Pol	Peak	AV	Ant. / CL	Actual Fs		Peak	AV	AV
(MHz)	H/V	Reading	Reading	CF			Limit	Limit	Margin
		dBuV	dBuV	dB)	Peak	AV	dBuV/m	dBuV/m	dB
					dBuV/m	dBuV/m			
4824	V	43.27	22.11	22.11	65.38	44.22	74	54	-9.78
N/A	V								
4824	H	44.45	24.34	22.11	66.56	46.45	74	54	-7.55
N/A	H								

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie:
   margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Operation Mode: TX/ IEEE 802.11g/CH Mid **Test Date:** 2013-10-17

Temperature: 20°C **Humidity:** 65 % RH

Freq.	Ant. Pol	Peak	AV	Ant. / CL	Actual Fs		Peak	AV	AV
(MHz)	H/V	Reading	Reading	CF			Limit	Limit	Margin
		dBuV	dBuV	dB)	Peak	AV	dBuV/m	dBuV/m	dB
					dBuV/m	dBuV/m			
4874	V	42.39	20.72	22.56	64.95	43.28	74	54	-10.72
N/A	V								
4874	H	44.94	24.04	22.56	67.5	46.6	74	54	-7.40
N/A	H								

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie:
   margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Operation Mode: TX/ IEEE 802.11g/CH High **Test Date:** 2013-10-17

Temperature: 20°C **Humidity:** 65 % RH

Freq.	Ant. Pol	Peak	AV	Ant. / CL	Actual Fs		Peak	AV	AV
(MHz)	H/V	Reading	Reading	CF			Limit	Limit	Margin
		dBuV	dBuV	dB)	Peak	AV	dBuV/m	dBuV/m	dB
					dBuV/m	dBuV/m			
4924	V	43.05	22.8	21.24	64.29	44.04	74	54	-9.96
N/A	V								
4924	H	43.39	22.83	21.24	64.63	44.07	74	54	-9.93
N/A	H								

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie:
   margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Operation Mode: TX/ IEEE 802.11N(HT20)/CH Low **Test Date:** 2013-10-17

Temperature: 20°C **Humidity:** 65 % RH

Freq.	Ant. Pol	Peak	AV	Ant. / CL	Actual Fs		Peak	AV	AV
(MHz)	H/V	Reading	Reading	CF			Limit	Limit	Margin
		dBuV	dBuV	dB)	Peak	AV	dBuV/m	dBuV/m	dB
					dBuV/m	dBuV/m			
4824	V	42.68	22.01	21.24	63.92	43.25	74	54	-10.75
N/A	V								
4824	H	42.05	21.74	21.24	63.29	42.98	74	54	-11.02
N/A	H								

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie:
   margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Operation Mode: TX/ IEEE 802.11N(Ht20)/CH Mid **Test Date:** 2013-10-17

Temperature: 20°C **Humidity:** 65 % RH

Freq.	Ant. Pol	Peak	AV	Ant. / CL	Actual Fs		Peak	AV	AV
(MHz)	H/V	Reading	Reading	CF			Limit	Limit	Margin
		dBuV	dBuV	dB)	Peak	AV	dBuV/m	dBuV/m	dB
					dBuV/m	dBuV/m			
4874	V	44.32	23.13	22.11	66.43	45.24	74	54	-8.76
N/A	V								
4874	H	43.49	23.41	22.11	65.6	45.52	74	54	-8.48
N/A	H								

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie:
   margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Operation Mode:	TX/ IEEE 802.11N(HT20)/CH High	**Test Date:**	2013-10-17
Temperature:	20°C	**Humidity:**	65 % RH

Freq.	Ant. Pol	Peak	AV	Ant. / CL	Actual Fs		Peak	AV	AV
(MHz)	H/V	Reading	Reading	CF			Limit	Limit	Margin
		dBuV	dBuV	dB)	Peak	AV	dBuV/m	dBuV/m	dB
					dBuV/m	dBuV/m			
4924	V	42.81	22.06	22.56	65.37	44.62	74	54	-9.38
N/A	V								
4924	H	42.99	21.48	22.56	65.55	44.04	74	54	-9.96
N/A	H								

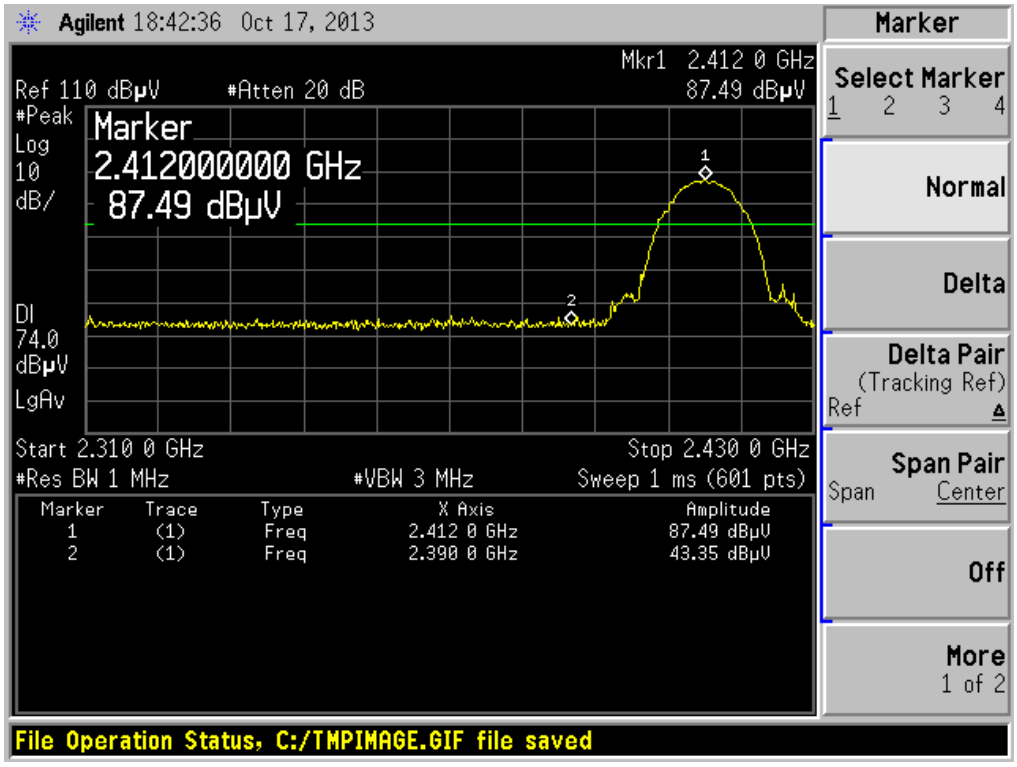
Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie:
   margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

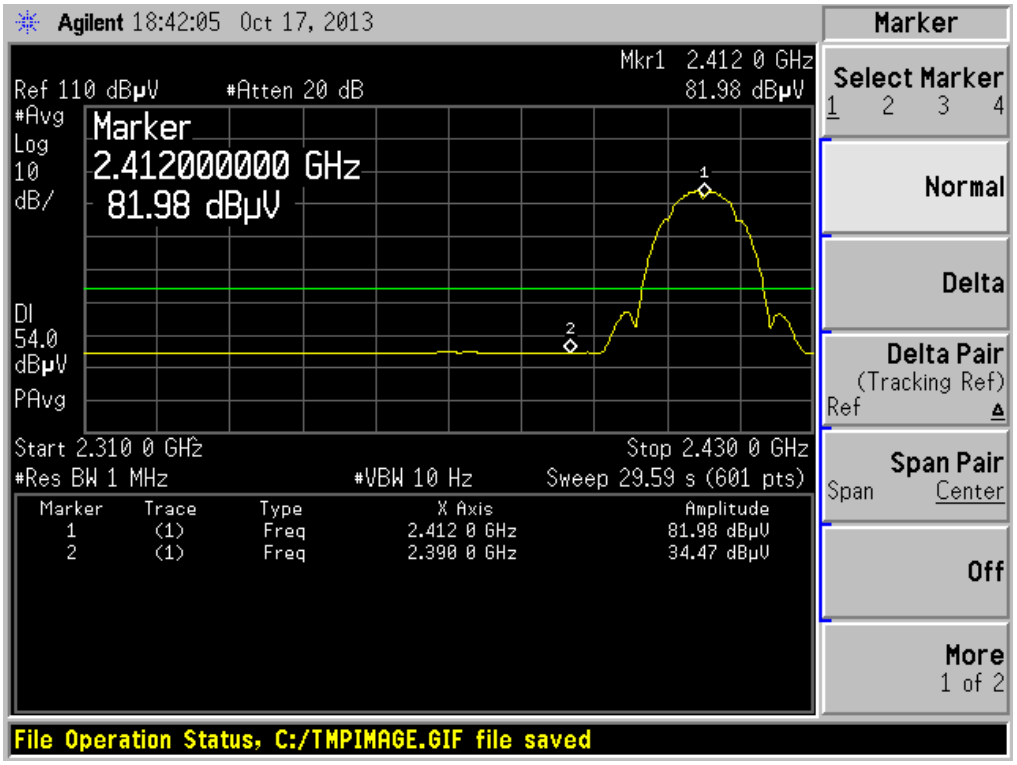
Test Restricted Range of "2.31GHz to 2.390GHz" and "2.4835GHz to 2.500GHz"

802.11b Test Mode

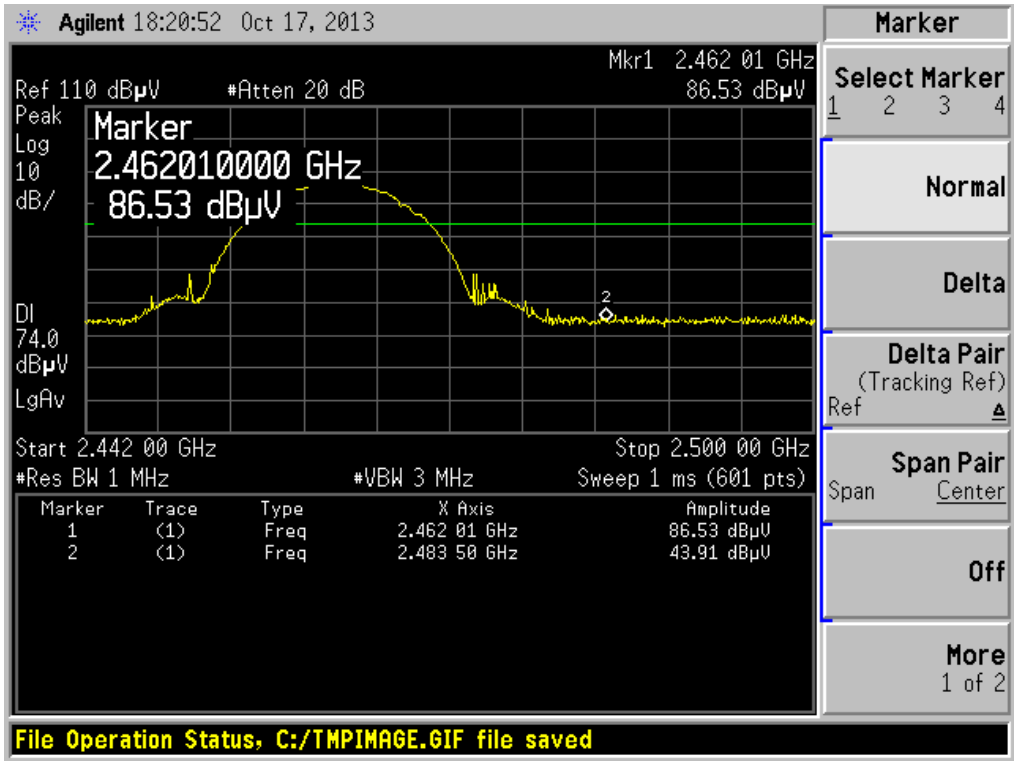
Fre. (MHz)	Measured Level (dBuV)	Limit (dBuV)	Margin (dB)	Height (cm)	Azimuth (deg)	Polarization	Detector
2390.00	43.35	74.00	30.65	100.00	90.00	Vertical	Peak
	34.47	54.00	19.53	100.00	90.00	Vertical	Average
2483.50	43.91	74.00	30.09	100.00	90.00	Vertical	Peak
	34.81	54.00	19.19	100.00	90.00	Vertical	Average



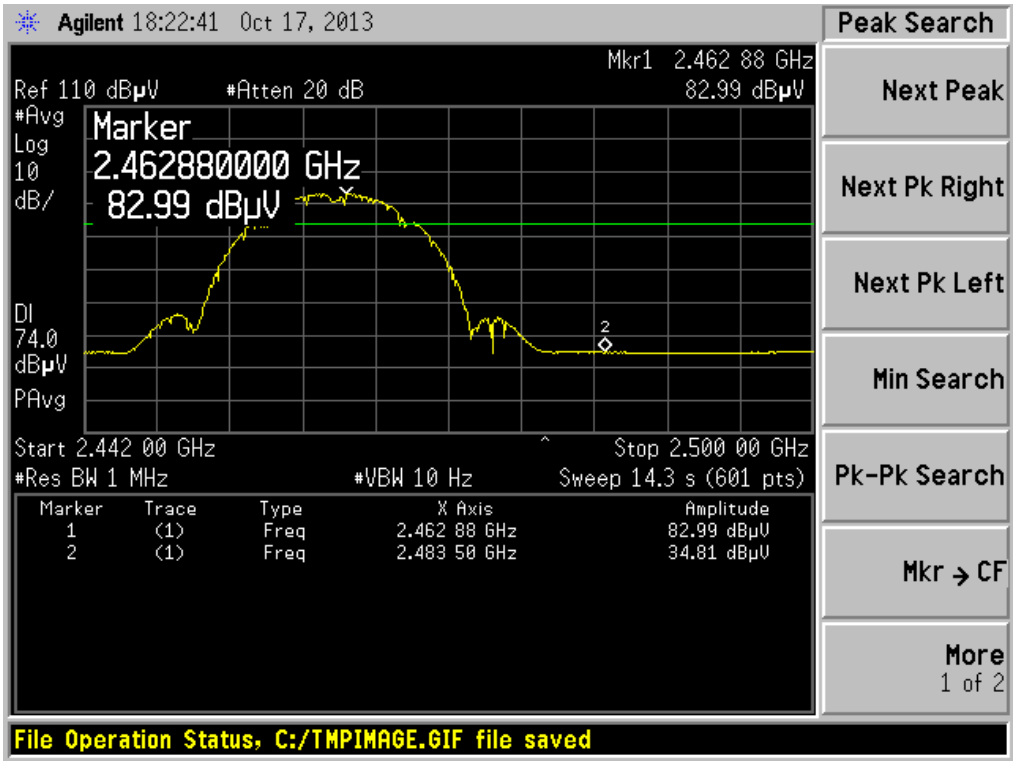
(CH Low, Peak)



(CH Low, Average)



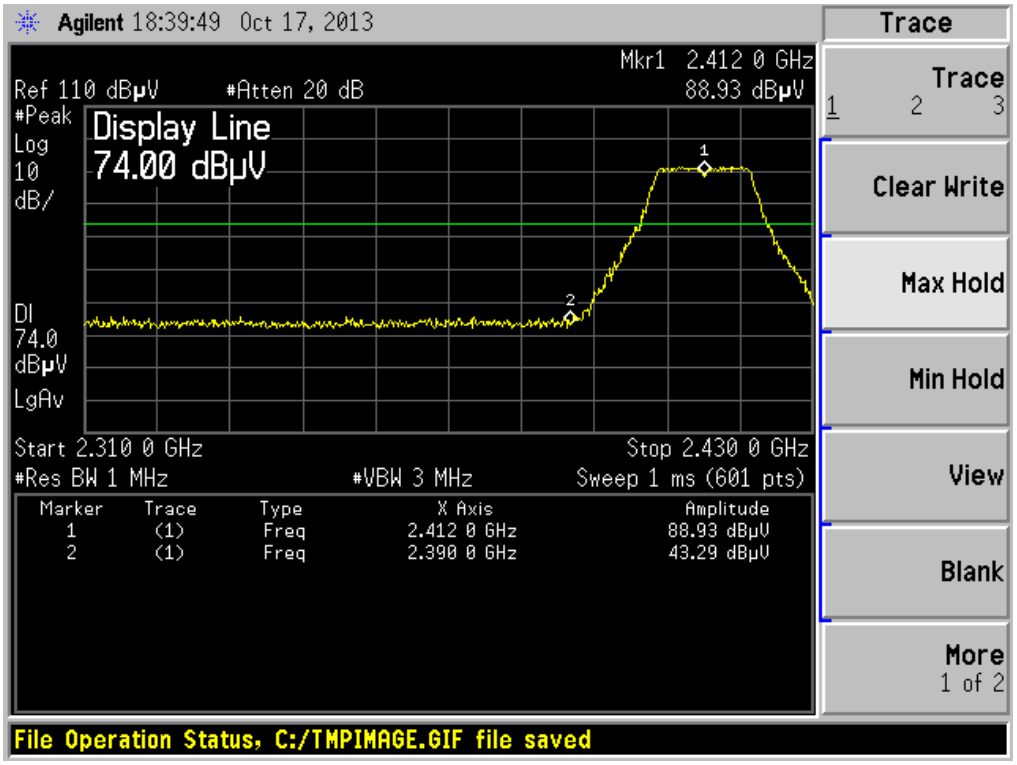
(CH High, Peak)



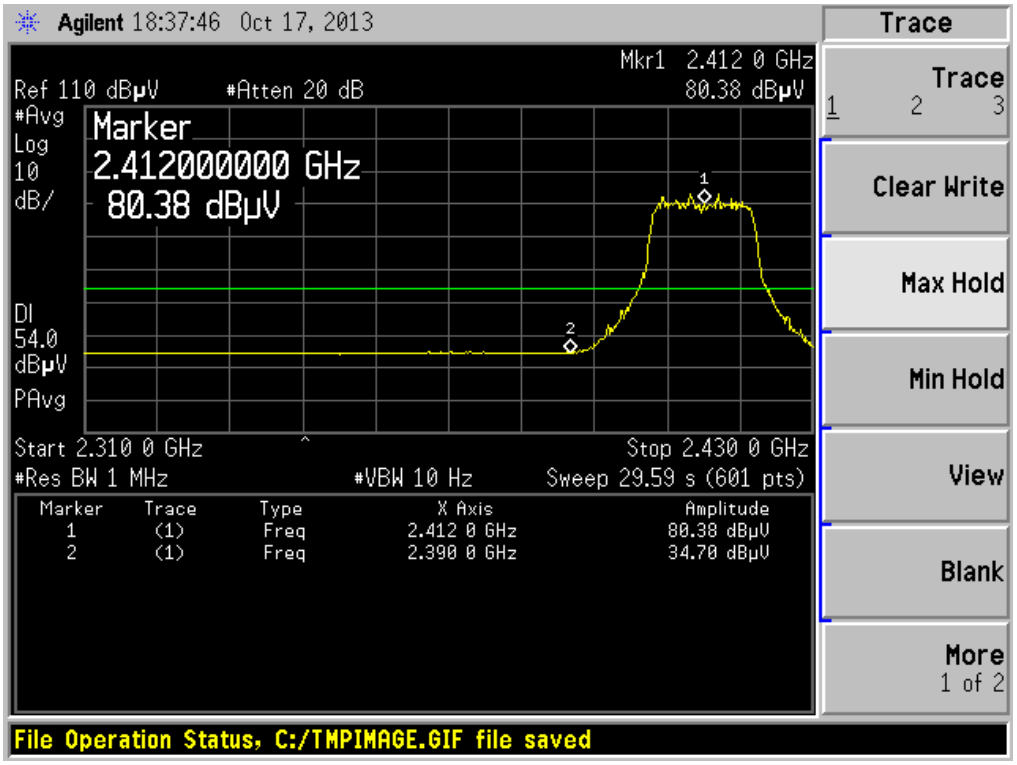
(CH High, Average)

802.11g Test Mode

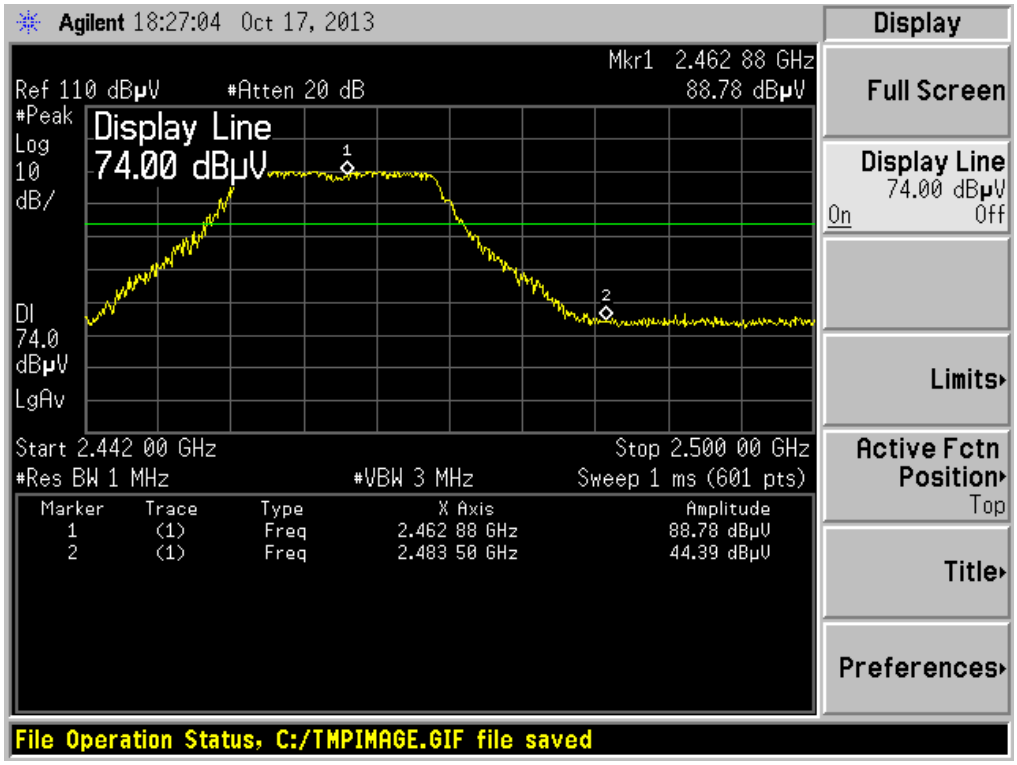
Fre. (MHz)	Measured Level (dBuV)	Limit (dBuV)	Margin (dB)	Height (cm)	Azimuth (deg)	Polarization	Detector
2390.00	43.29	74.00	30.71	100.00	90.00	Vertical	Peak
	34.70	54.00	19.3	100.00	90.00	Vertical	Average
2483.50	44.29	74.00	29.71	100.00	90.00	Vertical	Peak
	34.81	54.00	19.19	100.00	90.00	Vertical	Average



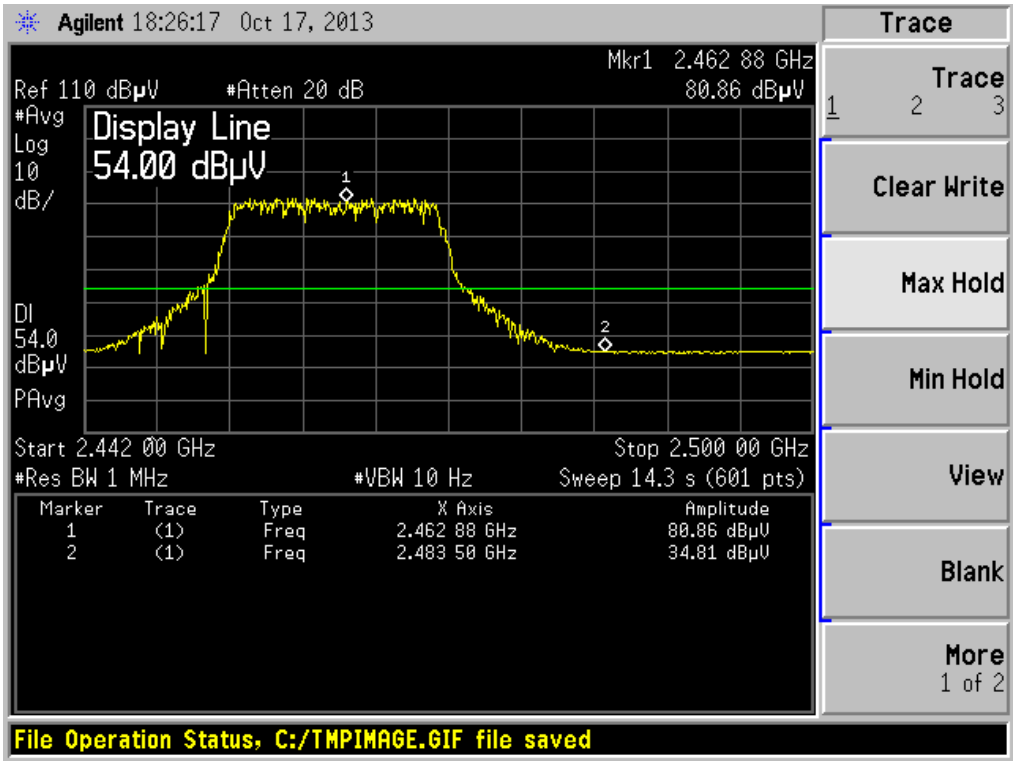
(CH Low, Peak)



(CH Low, Average)



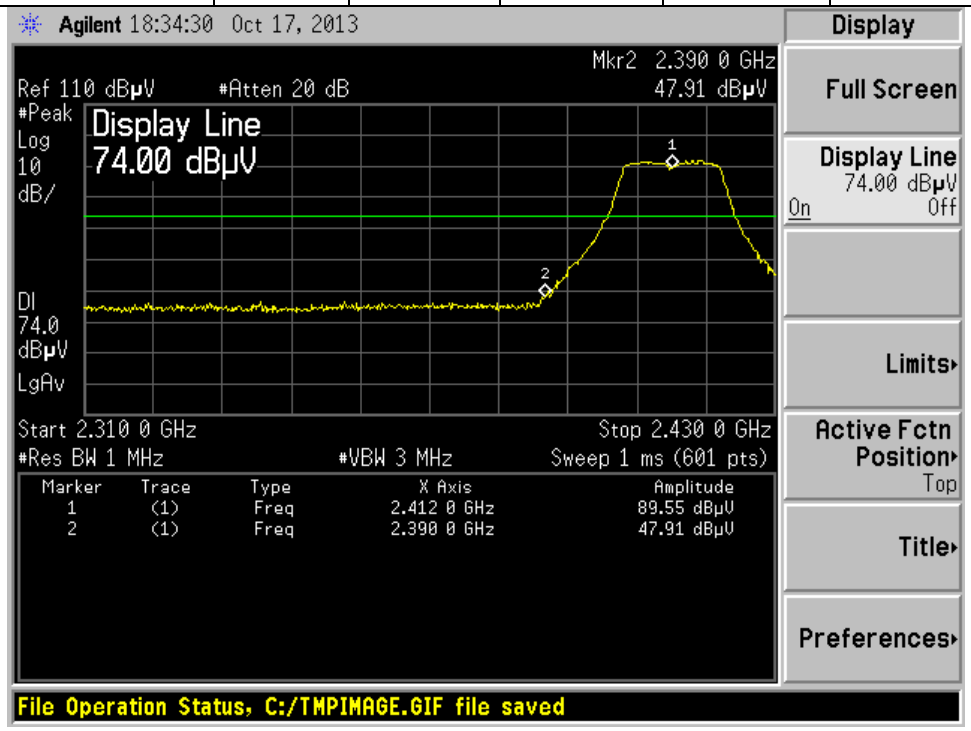
(CH High, Peak)



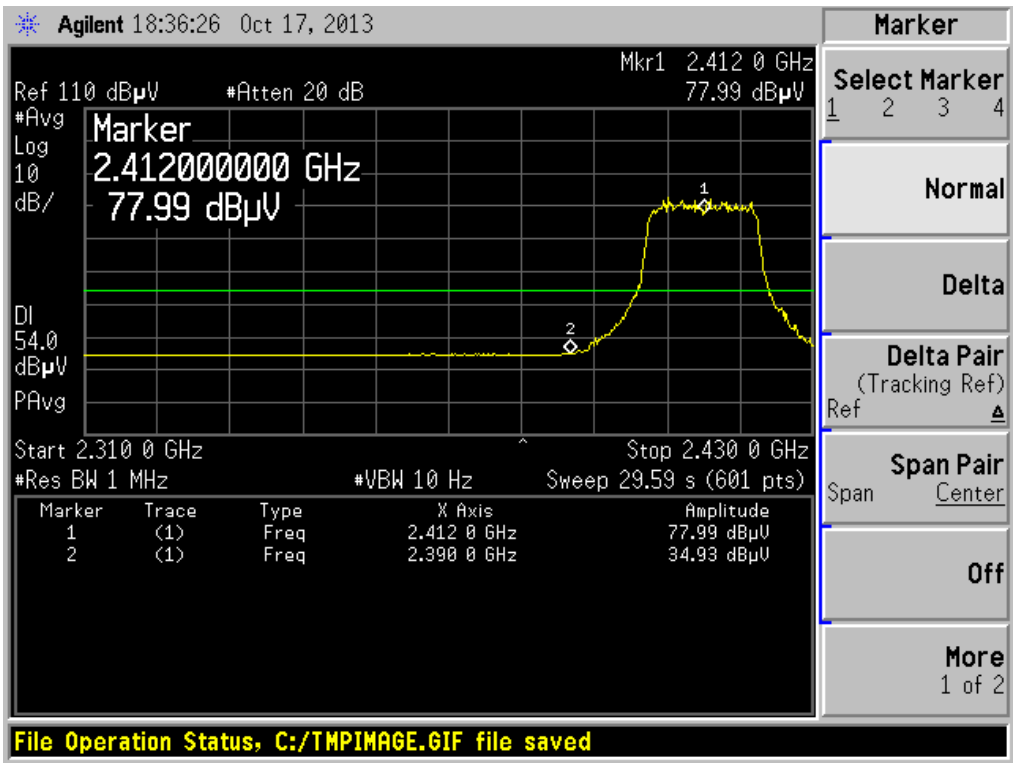
(CH High, Average)

802.11N()HT20 Test Mode

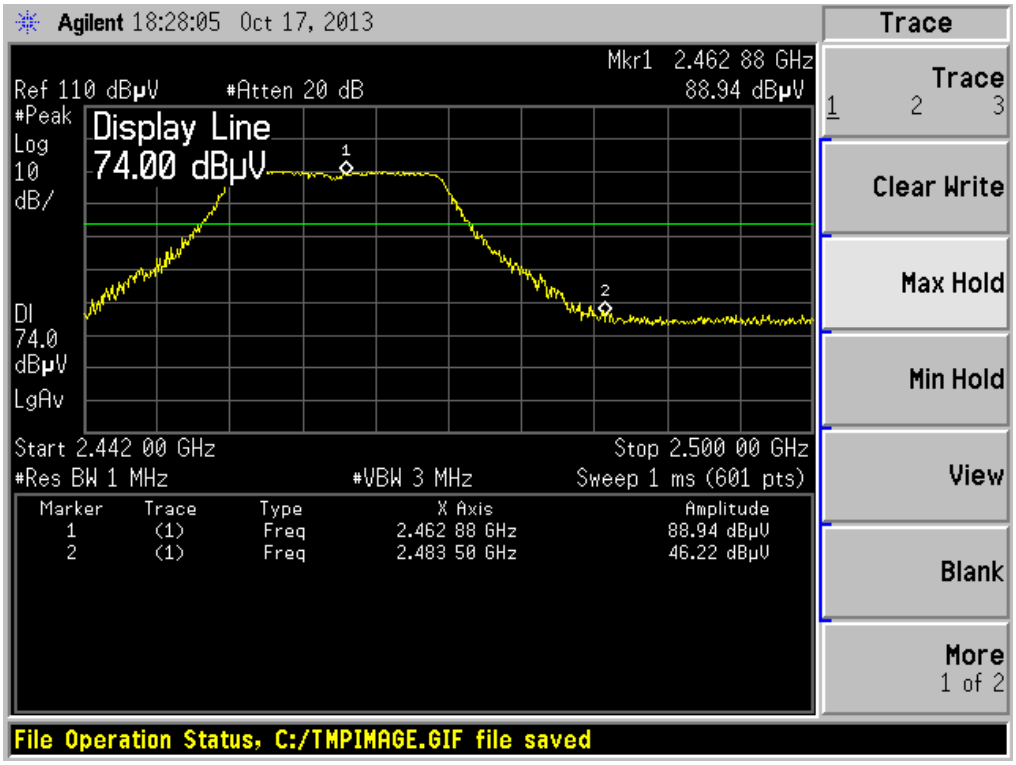
Fre. (MHz)	Measured Level (dBuV)	Limit (dBuV)	Margin (dB)	Height (cm)	Azimuth (deg)	Polarization	Detector
2390.00	47.91	74.00	26.09	100.00	90.00	Vertical	Peak
	34.93	54.00	19.07	100.00	90.00	Vertical	Average
2483.50	46.22	74.00	27.78	100.00	90.00	Vertical	Peak
	35.14	54.00	18.86	100.00	90.00	Vertical	Average



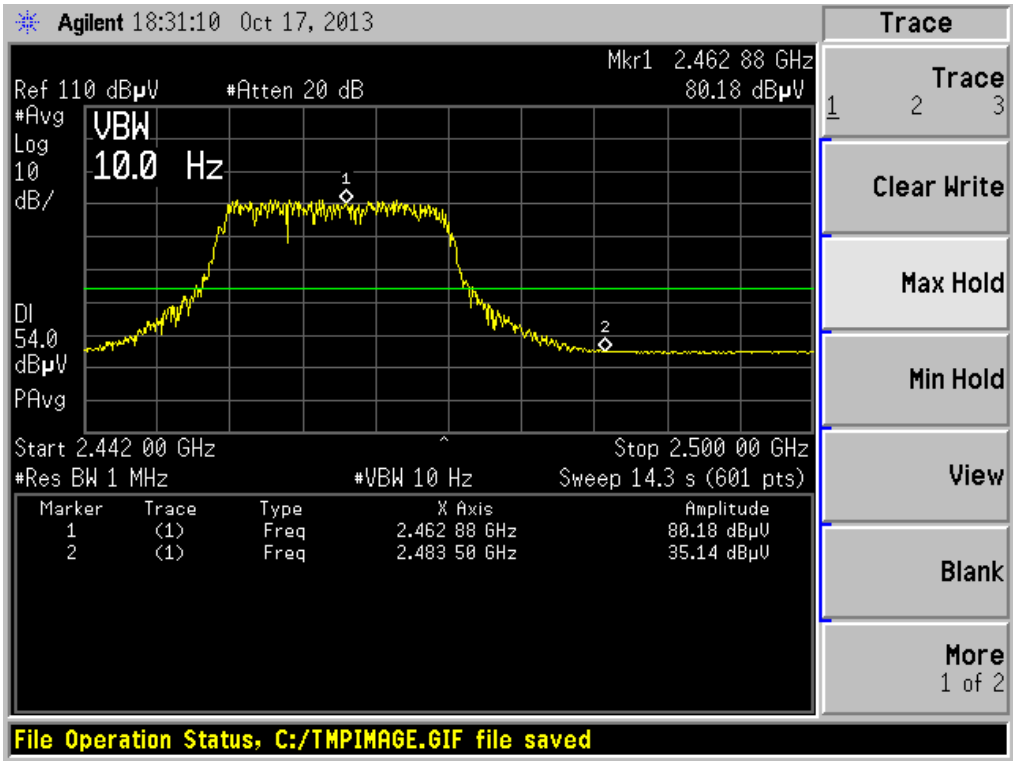
(CH Low, Peak)



(CH Low, Average)



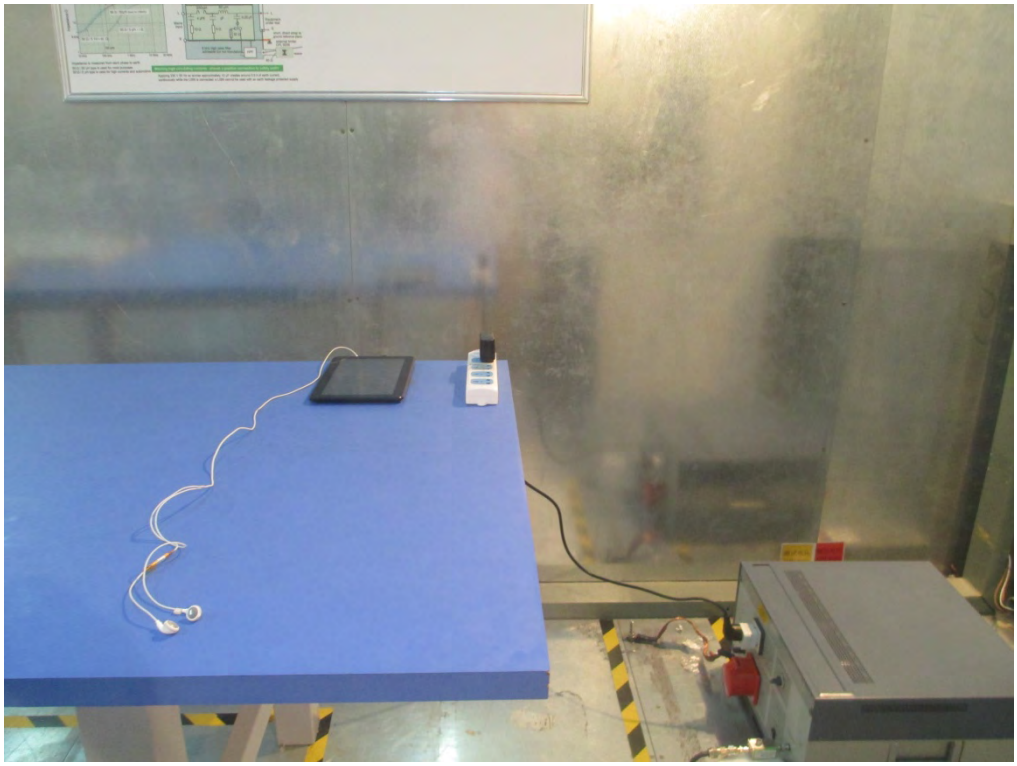
(CH High, Peak)



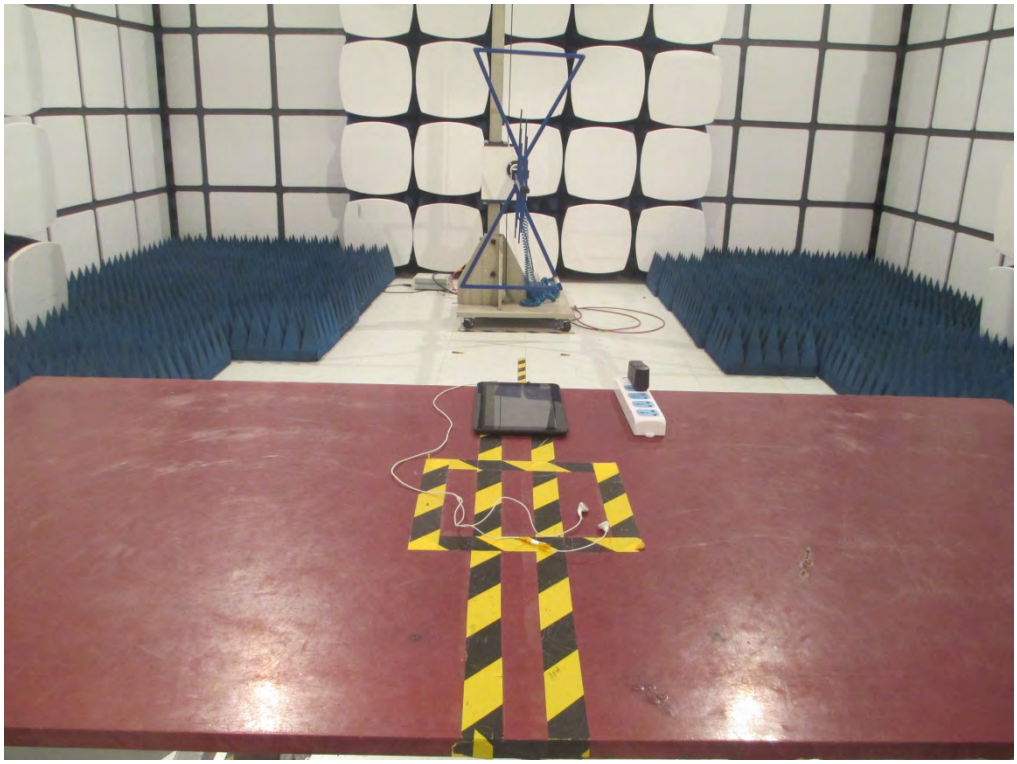
(CH High, Average)

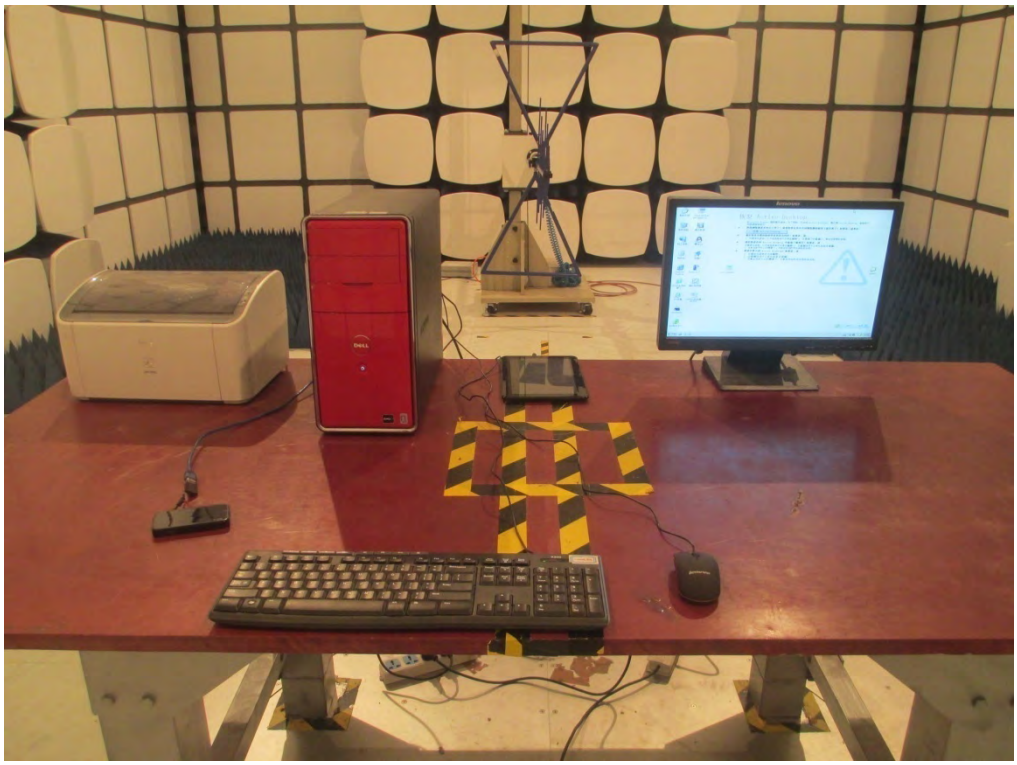
APPENDIX 1
PHOTOGRAPHS OF TEST SETUP

CE TEST SETUP



RE TEST SETUP





CONDUCTED TEST SETUP

APPENDIX 2
PHOTOGRAPHS OF EUT

FRONT VIEW OF SAMPLE

BACK VIEW OF SAMPLE

LEFT VIEW OF SAMPLE

RIGHT VIEW OF SAMPLE

UP VIEW OF SAMPLE

DOWN VIEW OF SAMPLE

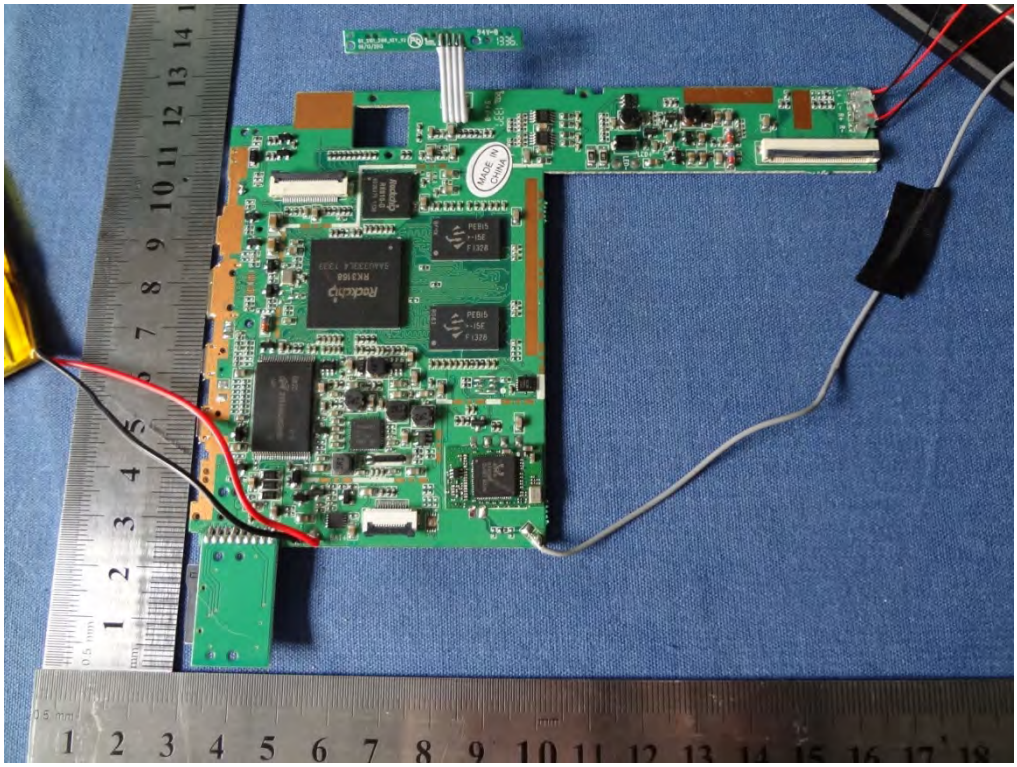
PHOTO OF ADAPTER

INTERNAL PHOTO OF SAMPLE -1

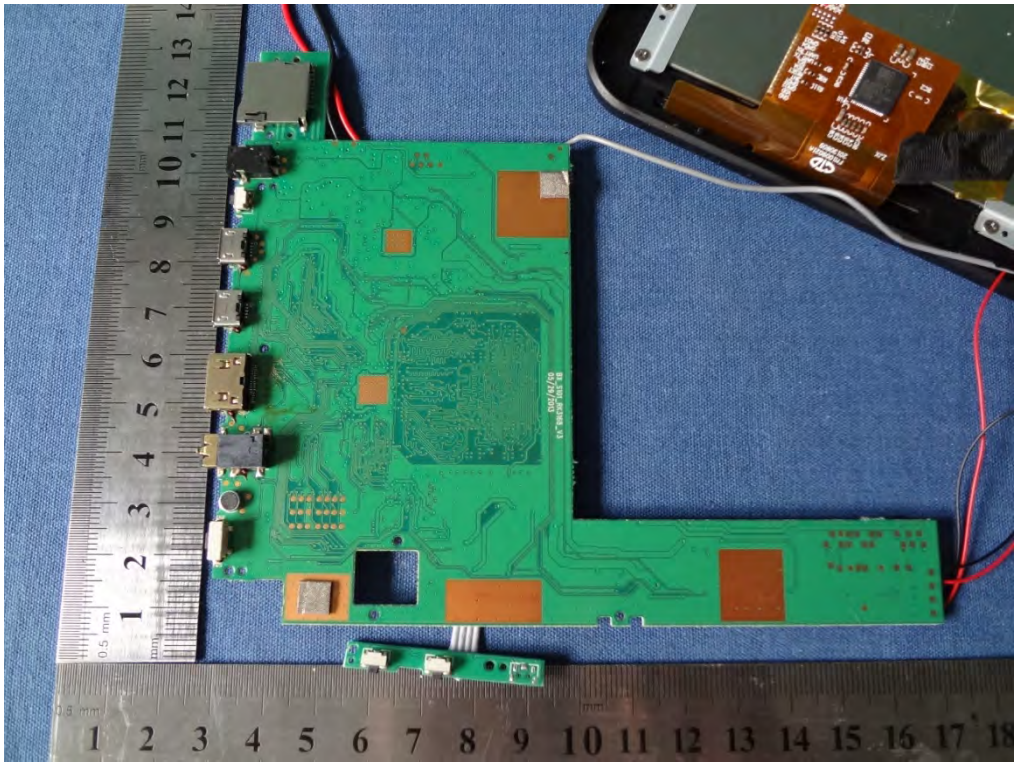
INTERNAL PHOTO OF SAMPLE - 2

INTERNAL PHOTO OF SAMPLE - 3

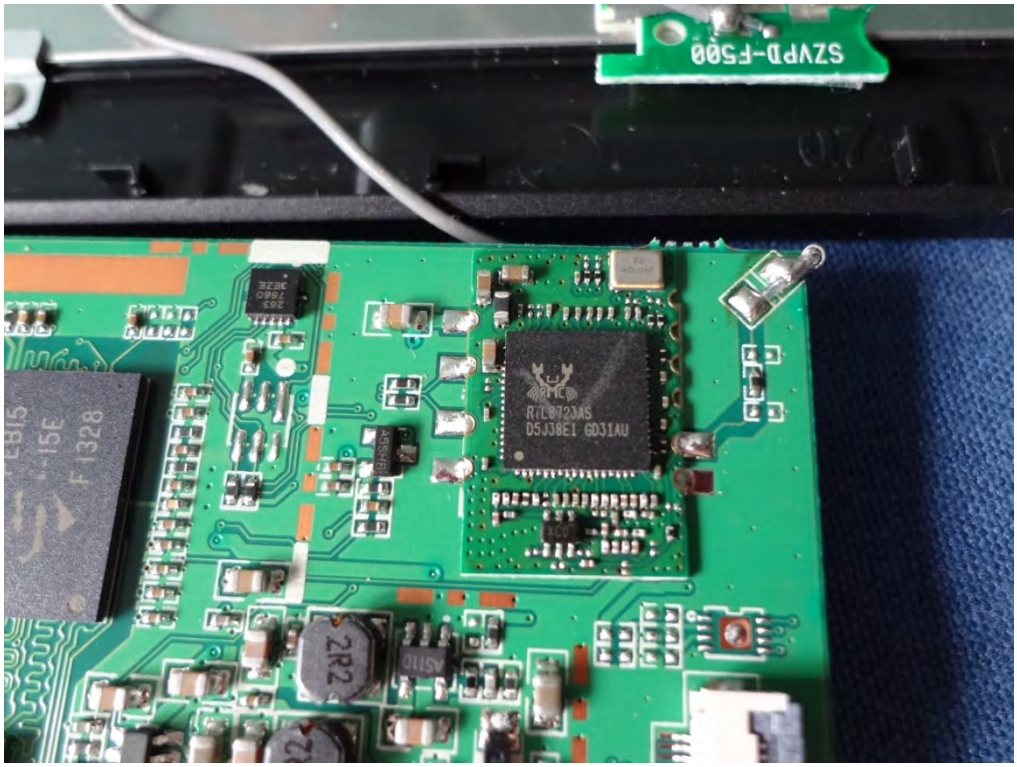
INTERNAL PHOTO OF SAMPLE - 4



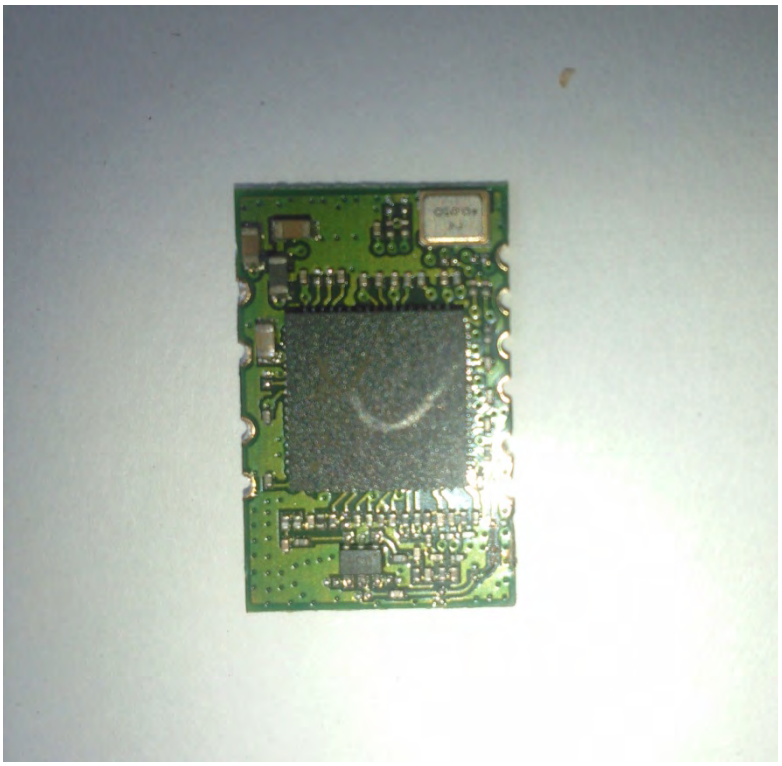
INTERNAL PHOTO OF SAMPLE - 5



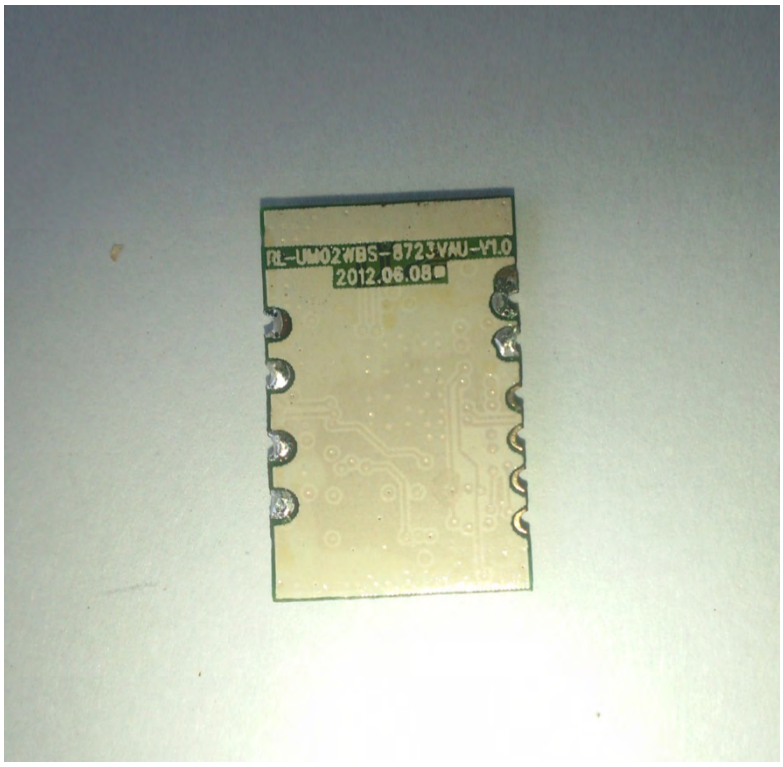
INTERNAL PHOTO OF SAMPLE – 5



TOP VIEW OF MODUEL



BACK VIEW OF MODUEL



------END OF REPORT------