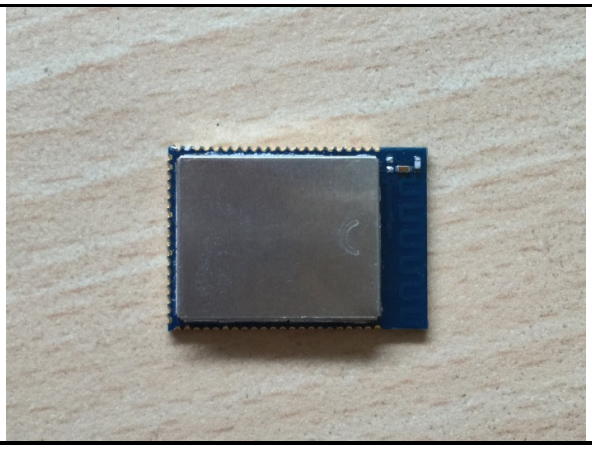
Prüfbericht-Nr.: *Test Report No.:*	**15092331 001**	**Auftrags-Nr.:** *Order No.:*	**154142469**	**Seite 1 von 50** *Page 1 of 50*
Kunden-Referenz-Nr.: *Client Reference No.:*	**487356**	**Auftragsdatum:** *Order date:*	**2016.01.04**	
Auftraggeber: *Client:*	**Cambridge Executive Limited** BlueCreation, St Johns Innovation Centre, Cowley Road, Cambridge,CB4 OWS			
Prüfgegenstand: *Test item:*	**Wi-Fi module**			
Bezeichnung / Typ-Nr.: *Identification / Type No.:*	**BC188** **FCC ID: SSSBC188-X** **IC: 11012A-BC188**			
Auftrags-Inhalt: *Order content:*	**Complete test**			
Prüfgrundlage: *Test specification:*	**FCC CFR47 Part 15, Subpart C Section 15.247** **ANSI C63.10: 2013** **KDB 558074 D01 DTS Meas Guidance v03r03** **RSS-Gen Issue 4, November 2014** **RSS-247 Issue 1, May 2015**			

Wareneingangsdatum: *Date of receipt:*	**2015.12.01**
Prüfmuster-Nr.: *Test sample No.:*	**A000304946-001**
Prüfzeitraum: *Testing period:*	**2015.12.30 to 2016.01.06**
Ort der Prüfung: *Place of testing:*	**MRT Technology(Suzhou) Co., Ltd.**
Prüflaboratorium: *Testing laboratory:*	**TÜV Rheinland (Shanghai) Co., Ltd.**
Prüfergebnis*: *Test result*:*	**Pass**



geprüft von / *tested by:*			**kontrolliert von** / *reviewed by:*		
2016.01.07	Elliot Zhang / PE	Zuwei Zhang	2016.01.07	Shi Li / Reviewer	Shi Li
Datum *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*	**Datum** *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*

Sonstiges / *Other*

Zustand des Prüfgegenstandes bei Anlieferung: *Condition of the test item at delivery:*	Prüfmuster vollständig und unbeschädigt *Test item complete and undamaged*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
Legend:	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specification(s)		*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.

This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.

V04

TEST SUMMARY

5.1.1 ANTENNA REQUIREMENT
RESULT: Pass

5.1.2 PEAK OUTPUT POWER
RESULT: Pass

5.1.3 6DB BANDWIDTH AND 99% BANDWIDTH
RESULT: Pass

5.1.4 CONDUCTED SPURIOUS EMISSIONS
RESULT: Pass

5.1.5 POWER SPECTRAL DENSITY
RESULT: Pass

5.1.6 SPURIOUS EMISSION
RESULT: Pass

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1. General Remarks

1.1 Complementary Materials

None.

2. Test Sites

2.1 Test Facilities

MRT Technology (Suzhou) Co., Ltd.

D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China

The used test equipment is in accordance with CISPR 16 for measurement of radio interference.

The Federal Communications Commission has reviewed the technical characteristics of the radiated and conducted emission facility, and has found these test facilities to be in compliance with the requirements of section 2.948 of the FCC rules. The description of the test facility is listed under FCC registration number 809388.

The Industry Canada has reviewed the technical characteristics of the radiated and conducted emission facility, and has found these test facilities to be in compliance. The description of the test facility is listed under chambers filing number 11384A.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Conducted Emissions

Instrument	Manufacturer	Type No.	Cali. Due Date
EMI Test Receiver	R&S	ESR7	2016.11.03
Two-Line V-Network	R&S	ENV216	2016.11.03
Two-Line V-Network	R&S	ENV216	2016.11.03
Temperature/Humidity Meter	Ouleinuo	N/A	2016.11.20

Radiated Emissions

Instrument	Manufacturer	Type No.	Cali. Due Date
Spectrum Analyzer	Agilent	E4447A	2016.12.08
EMI Test Receiver	R&S	ESR7	2016.11.03
Preamplifier	Agilent	83017A	2016.03.29
Preamplifier	Schwarzbeck	BBV9721	2016.04.16
Loop Antenna	Schwarzbeck	FMZB1519	2016.11.07
TRILOG Antenna	Schwarzbeck	VULB9162	2016.11.07
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	2016.11.07
Broadband Horn Antenna	Schwarzbeck	BBHA9170	2016.01.05
Temperature/Humidity Meter	Ouleinuo	N/A	2016.11.20

Conducted Test Equipment

Instrument	Manufacturer	Type No.	Cali. Due Date
Spectrum Analyzer	Agilent	N9020A	2016.05.08
USB Wideband Power Sensor	Boonton	55006	2016.05.08
Temperature/Humidity Meter	Ouleinuo	N/A	2016.11.20

2.3 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basics using in house standards or comparisons.

2.5 Measurement Uncertainty

Table 2: Measurement Uncertainty

Measurement Type	Frequency	Uncertainty
Antenna Port Conducted Emission	< 1GHz	±0.39dB
	> 1GHz	±0.68dB
Radiated Emission	30MHz - 1GHz	±5.34dB
	> 1GHz	±5.40dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT (Equipment Under Test) is a Wi-Fi module. And the module was soldered on the test board which is just used for the test.

For details refer to the User Manual and Circuit Diagram.

3.2 Ratings and System Details

Kind of Equipment	Wi-Fi module
Type Designation	BC188
Wireless Standard	802.11b/g/n(HT20)
Operating Frequency band	2412 – 2462MHz
Channel Separation	5MHz
Modulation	DSSS, OFDM
Antenna Type	PCB antenna
Antenna Gain	2dBi
Operation Voltage	DC 3.3V

Table 3: Carrier Frequency of Wi-Fi

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
2400 – 2483.5 MHz	1	2412 MHz	7	2442 MHz
	2	2417 MHz	8	2447 MHz
	3	2422 MHz	9	2452 MHz
	4	2427 MHz	10	2457 MHz
	5	2432 MHz	11	2462 MHz
	6	2437 MHz		

3.3 Independent Operation Modes

The basic operation modes are:

A. On
   1. Wi-Fi mode
      a. Transmitting
         i. Low Channel
         ii. Middle Channel
         iii. High Channel
      b. Receiving
B. Standby
C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.5 Submitted Documents

- Bill of Material
- PCB Layout
- Photo Document
- Circuit Diagram
- Instruction Manual
- Rating Label

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10: 2013.

Software used for testing: DutApiWiFiMW30XBrdigeUart.exe

This software was running on the laptop computer connected to the EUT. It was used to enable the test operation modes listed in section 3.3 as appropriate for conducted test.

Mode	Data Rate (Mbps)	Worst Case
802.11b	1, 2, 5, 11	1 Mbps
802.11g	6, 9, 12, 18, 24, 36, 48, 54	6 Mbps
802.11n(HT20)	6.5, 13.0, 19.5, 26.0, 39.0, 52.0, 58.5, 65.0 (MCS0 ~ MCS7)	6.5 Mbps

All modes of operation and data rates were investigated, but only worst case data rata was executed for all test requirements.

4.3 Special Accessories and Auxiliary Equipment

Null.

4.4 Countermeasures to achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Constructional Data Form or the Technical Construction File. No additional measures were employed to achieve compliance.

5. Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT: **Pass**

Test standard	:	FCC Part 15.247(b)(4) and Part 15.203 RSS-Gen Clause 6.7
Limit		The use of antennas with directional gains that do not exceed 6dBi

According to the manufacturer declared, the EUT has one PCB antenna, the directional gain of antenna is 2dBi and the PCB antenna is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

5.1.2 Peak Output Power

RESULT: **Pass**

Test date	:	2016.01.04
Test standard	:	FCC Part 15.247(b)(3) RSS-247 Clause 5.4(4)
Basic standard	:	ANSI C63.10: 2013 Clause 9.1 of KDB 558074 v03r03
Limit	:	1W
Kind of test site	:	Shielded room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	A.1.a
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 4: Peak Output Power

Mode	Channel	Channel Frequency (MHz)	Peak Output Power (dBm)	Limit (dBm)
b	1	2412	17.47	30
	6	2437	17.44	30
	11	2462	17.45	30
g	1	2412	21.09	30
	6	2437	21.32	30
	11	**2462**	**21.33**	**30**
n-HT20	1	2412	19.88	30
	6	2437	20.82	30
	11	2462	20.87	30

5.1.3 6dB Bandwidth and 99% Bandwidth

RESULT: **Pass**

Date of testing	:	2015.12.30
Test standard	:	FCC Part 15.247(a)(2) RSS-247 Clause 5.2(1)
Basic standard	:	ANSI C63.10: 2013 Clause 8 of KDB 558074 v03r03 Clause 6.6 of RSS-GEN (⩾500KHz for 6dB Bandwidth
Kind of test site	:	Shielded room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	A.1.a
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 5: 6dB & 99% Bandwidth

Mode	Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
b	1	2412	10.027	13.6019
	6	2437	10.028	13.6067
	11	2462	9.974	13.5555
g	1	2412	16.420	16.4969
	6	2437	16.577	16.4872
	11	2462	16.581	16.4665
n-HT20	1	2412	17.826	17.6935
	6	2437	17.802	17.6762
	11	2462	17.806	17.6726

Figure 1: 6dB & 99% Bandwidth of 802.11b, 2412MHz

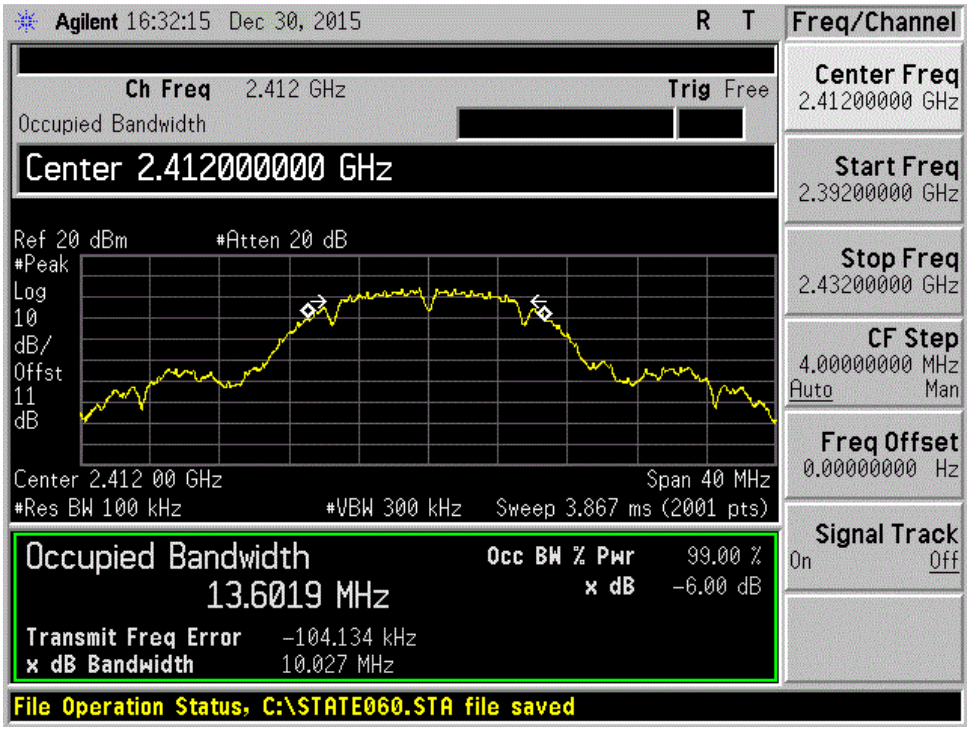


Figure 2: 6dB & 99% Bandwidth of 802.11b, 2437MHz

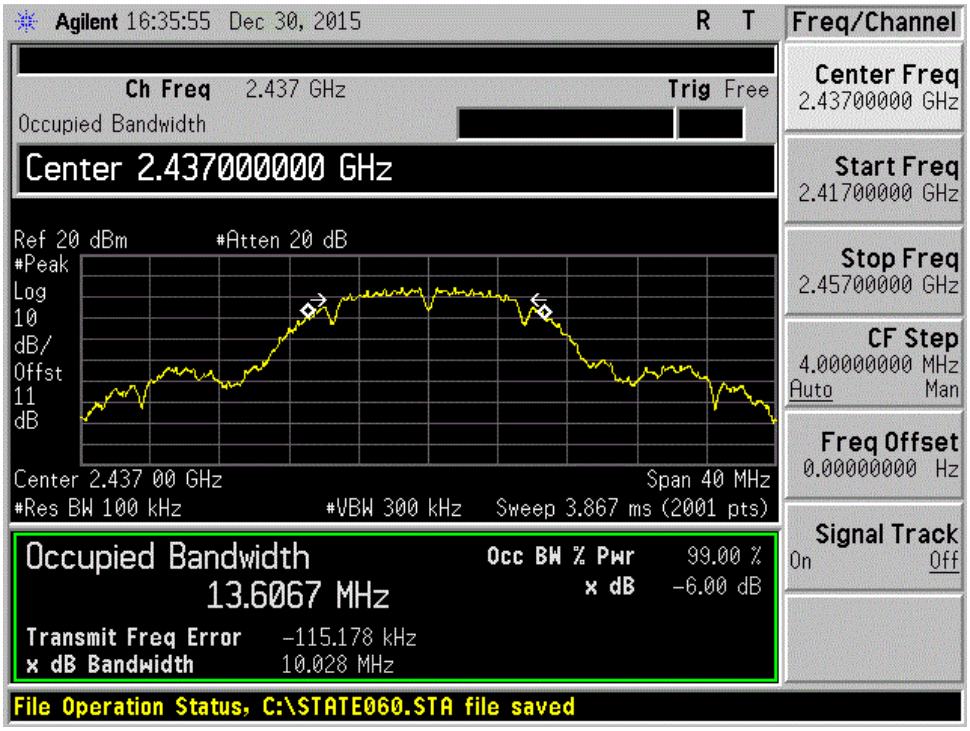


Figure 3: 6dB & 99% Bandwidth of 802.11b, 2462MHz

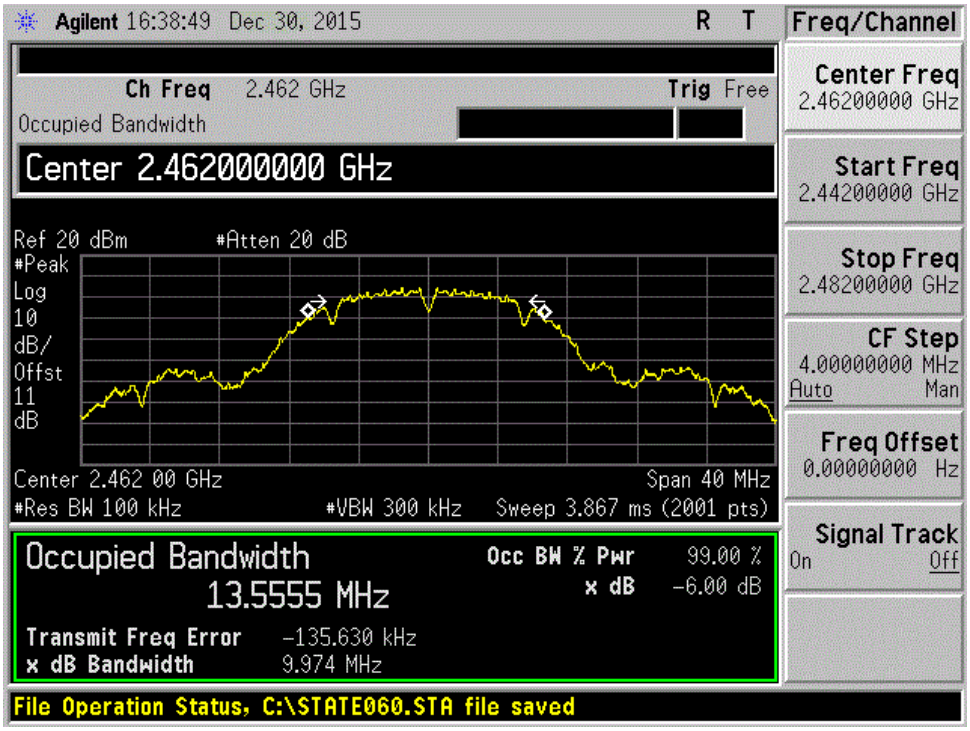


Figure 4: 6dB & 99% Bandwidth of 802.11g, 2412MHz

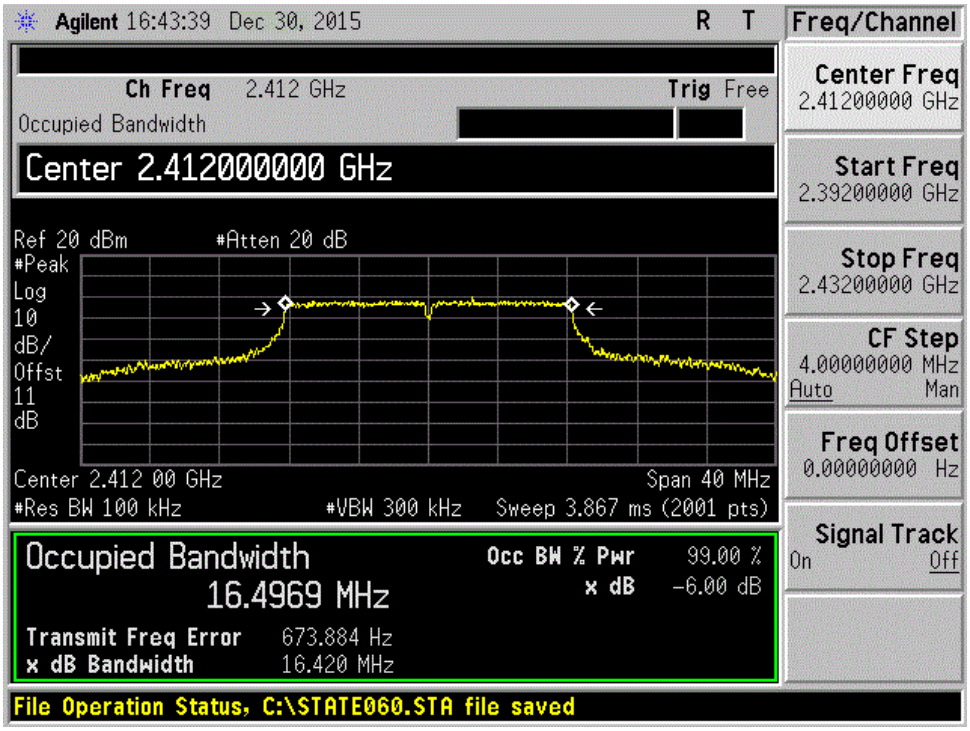


Figure 5: 6dB & 99% Bandwidth of 802.11g, 2437MHz

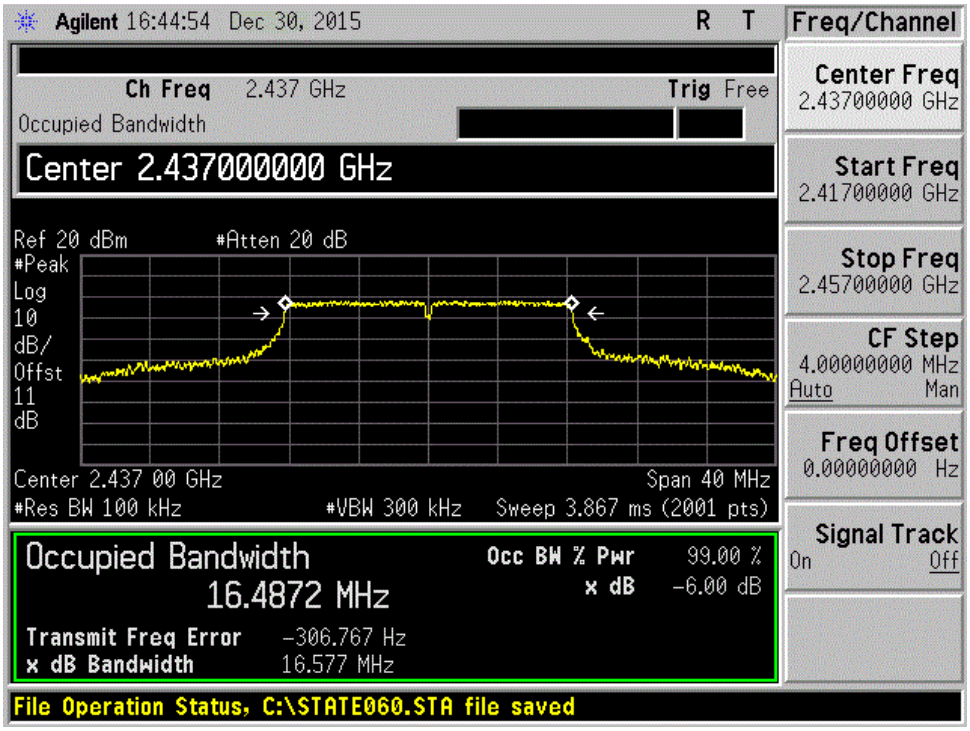


Figure 6: 6dB & 99% Bandwidth of 802.11g, 2462MHz

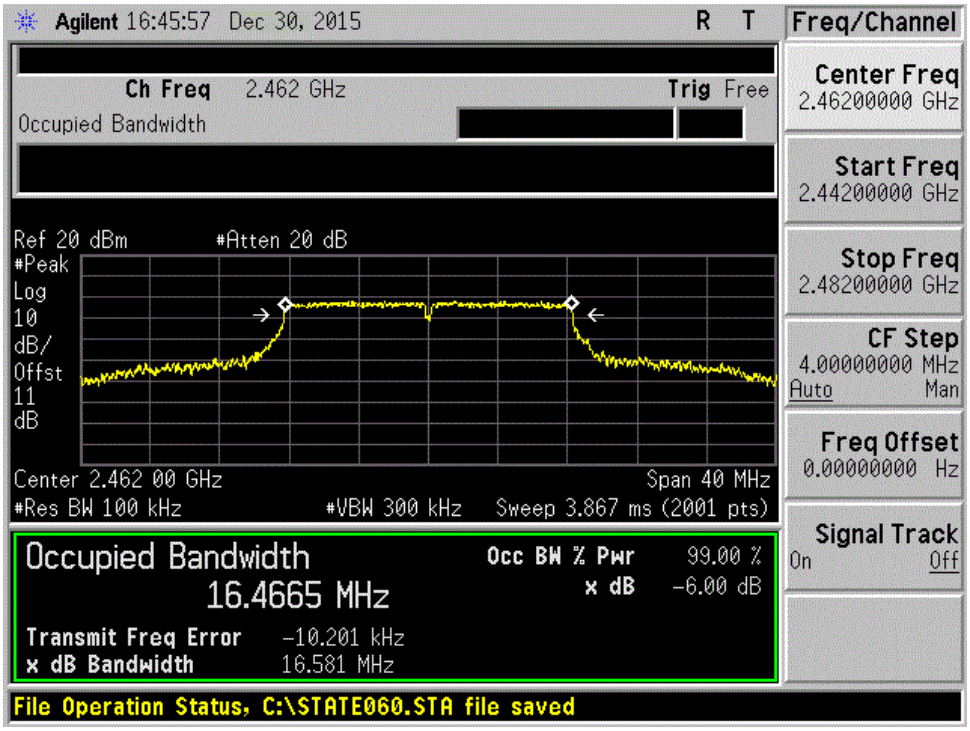


Figure 7: 6dB & 99% Bandwidth of 802.11n-HT20, 2412MHz

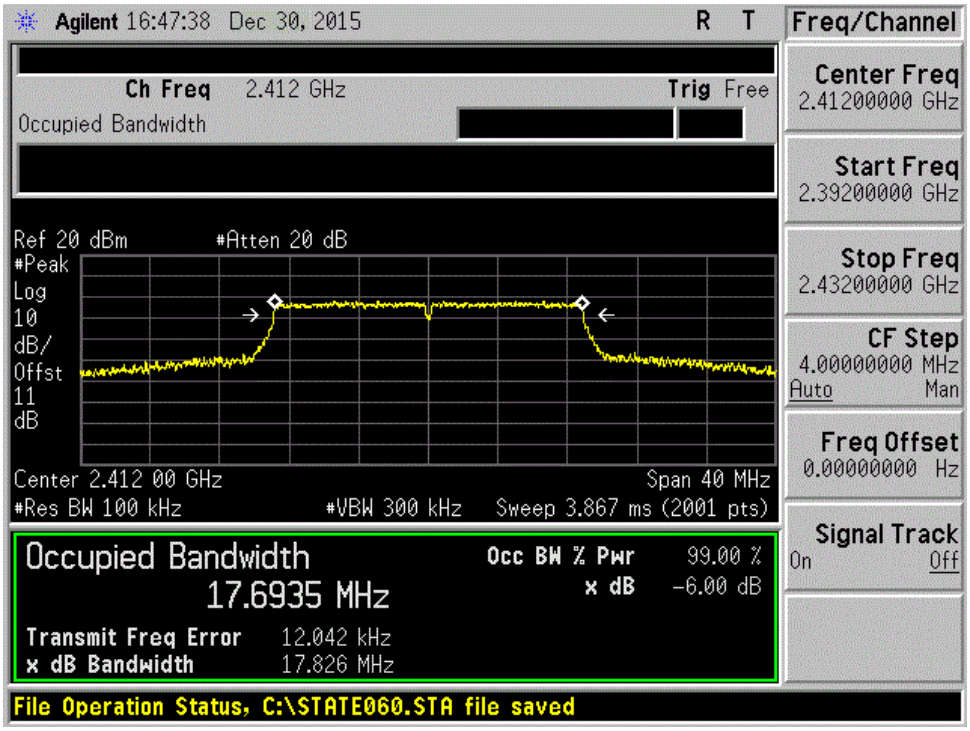


Figure 8: 6dB & 99% Bandwidth of 802.11n-HT20, 2437MHz

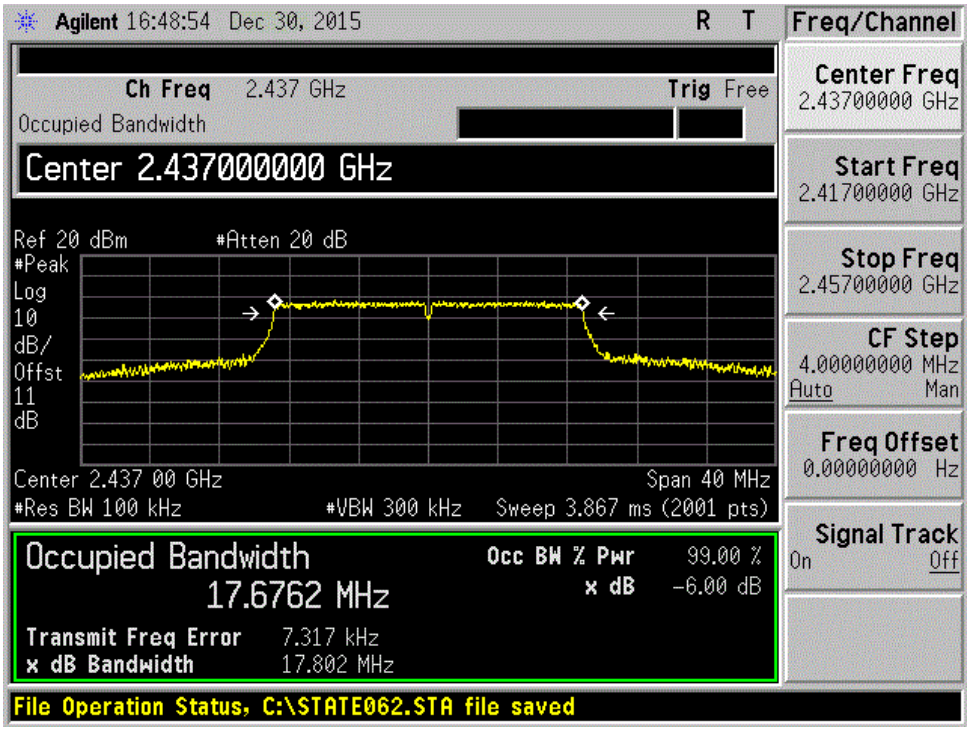
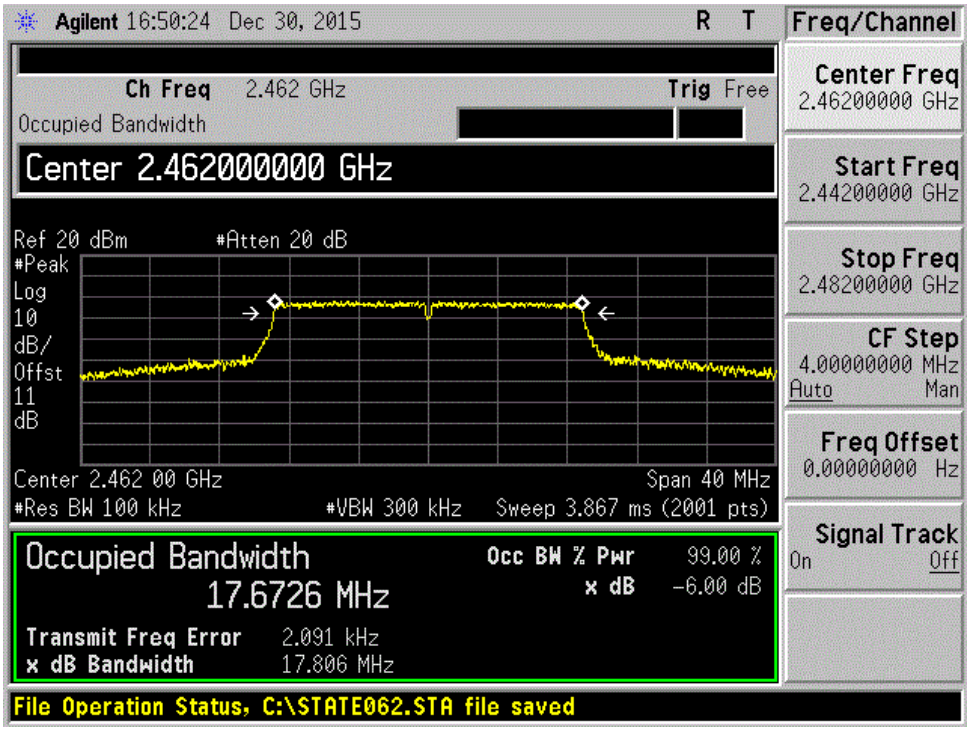


Figure 9: 6dB & 99% Bandwidth of 802.11n-HT20, 2462MHz



5.1.4 Conducted Spurious Emissions

RESULT: **Pass**

Date of testing	:	2015.12.31
Test standard	:	FCC part 15.247(d) RSS-247 Clause 5.5
Basic standard	:	ANSI C63.10: 2013
Limit	:	20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power)
Kind of test site	:	Shield room

Test setup

Test Channel	:	Low/ Middle/ High
Operation mode	:	A.1.a
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Figure 10: Conducted Spurious Emission of 802.11b, 2412MHz

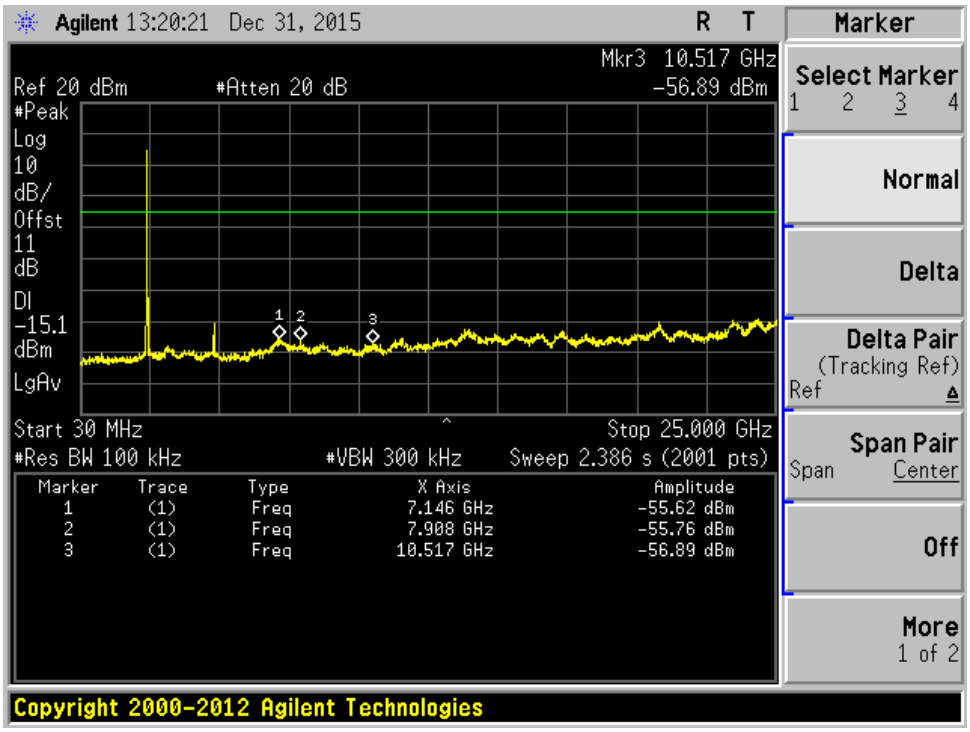


Figure 11: Conducted Spurious Emission of 802.11b, 2437MHz

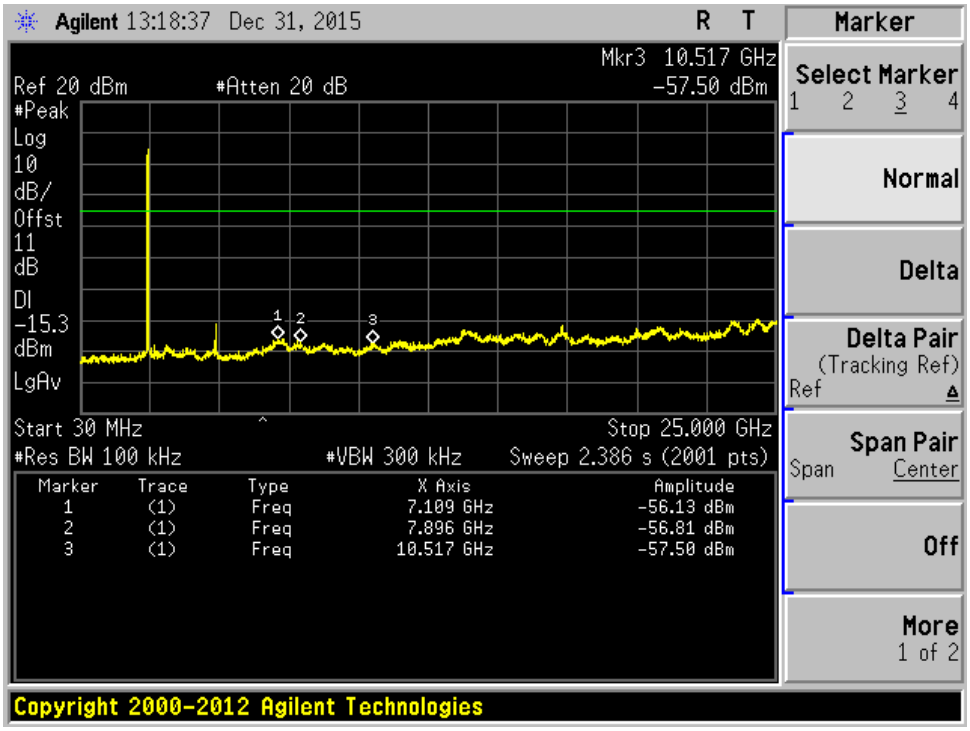


Figure 12: Conducted Spurious Emission of 802.11b, 2462MHz

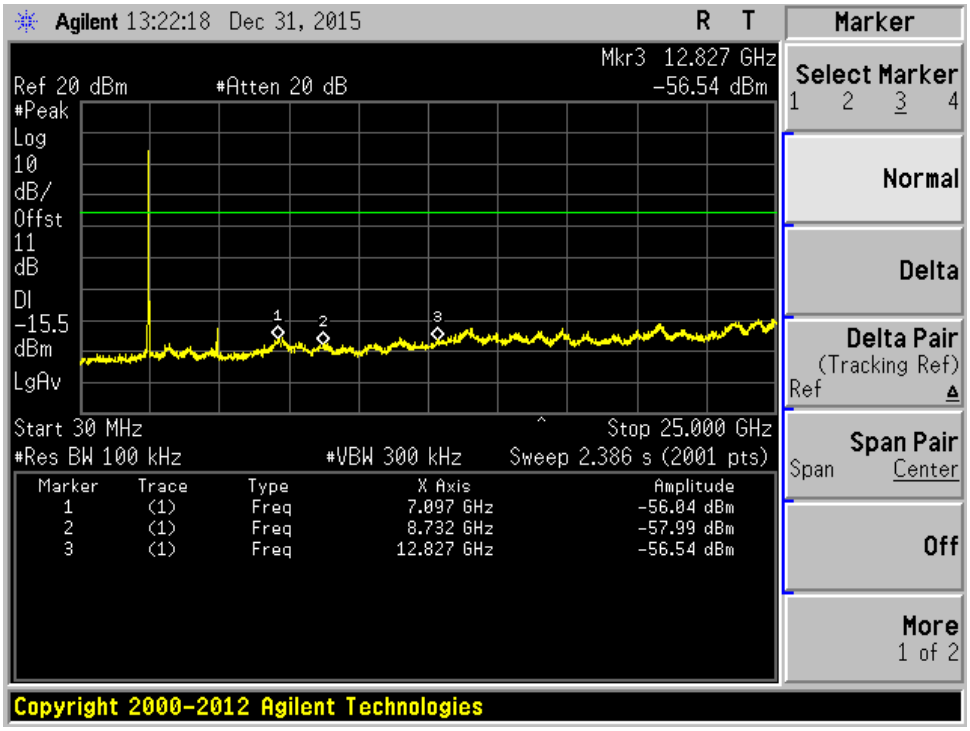


Figure 13: Band Edge of 802.11b, 2412MHz

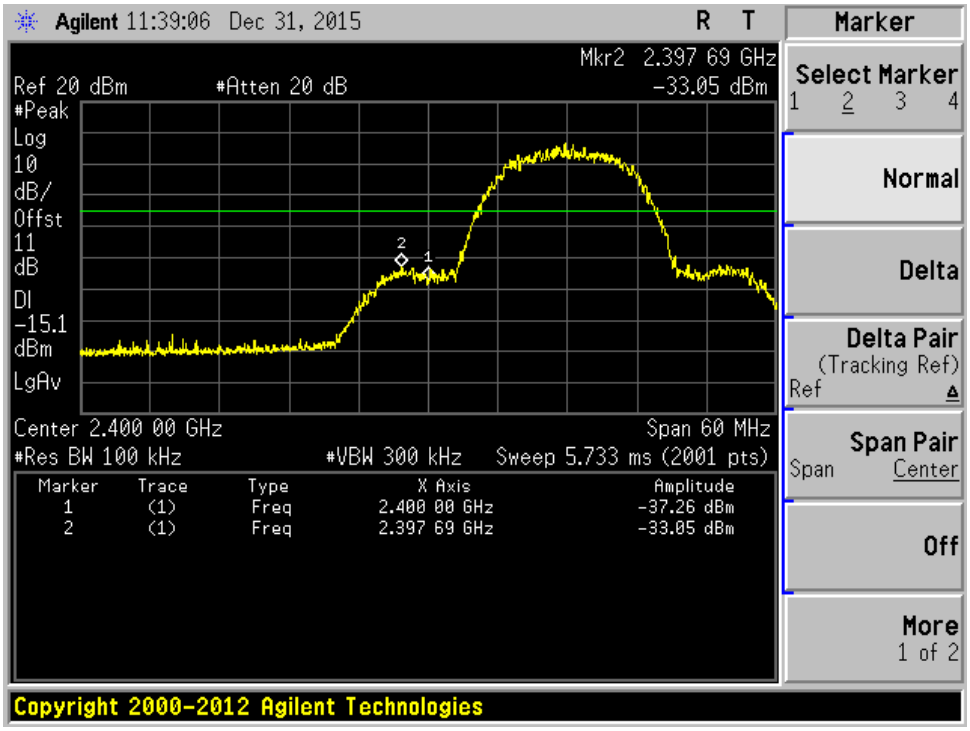


Figure 14: Band Edge of 802.11b, 2462MHz

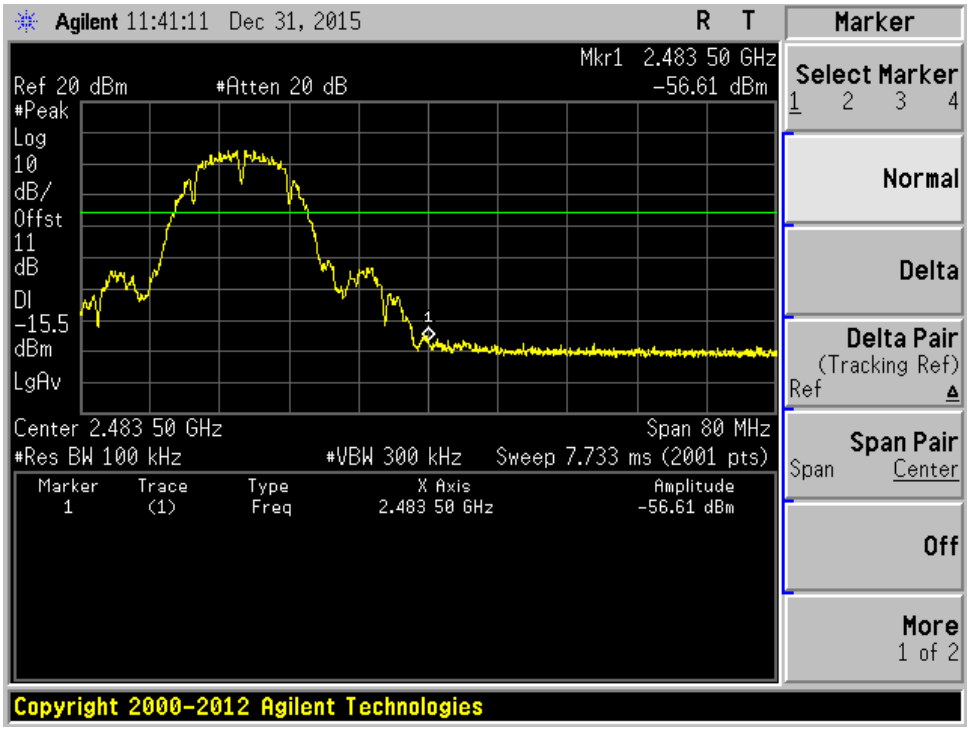


Figure 15: Conducted Spurious Emission of 802.11g, 2412MHz

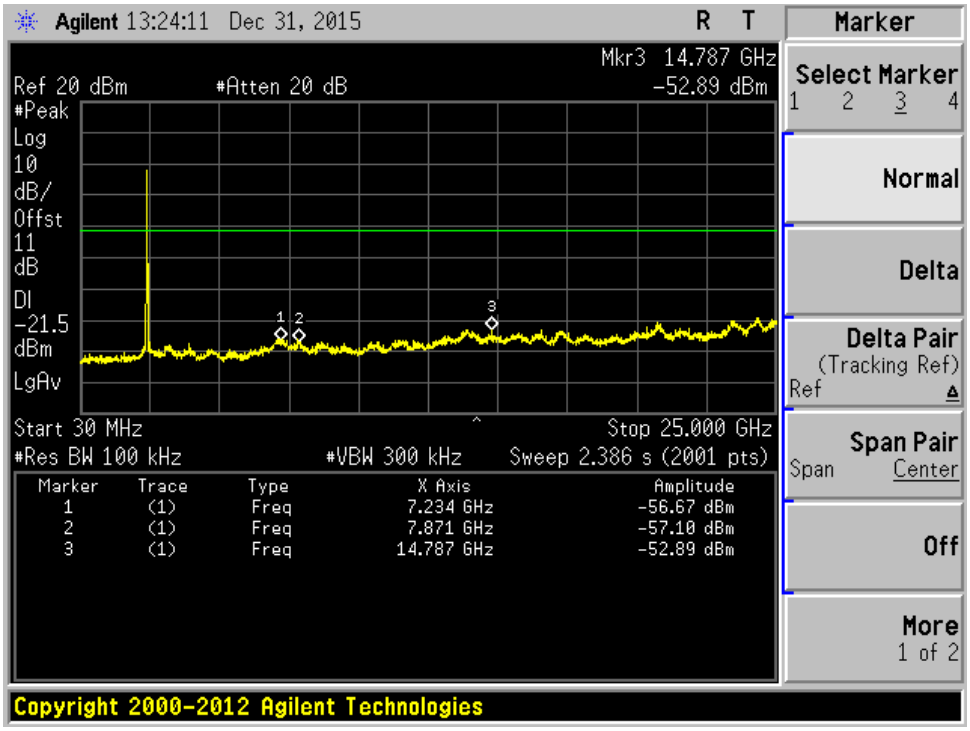


Figure 16: Conducted Spurious Emission of 802.11g, 2437MHz

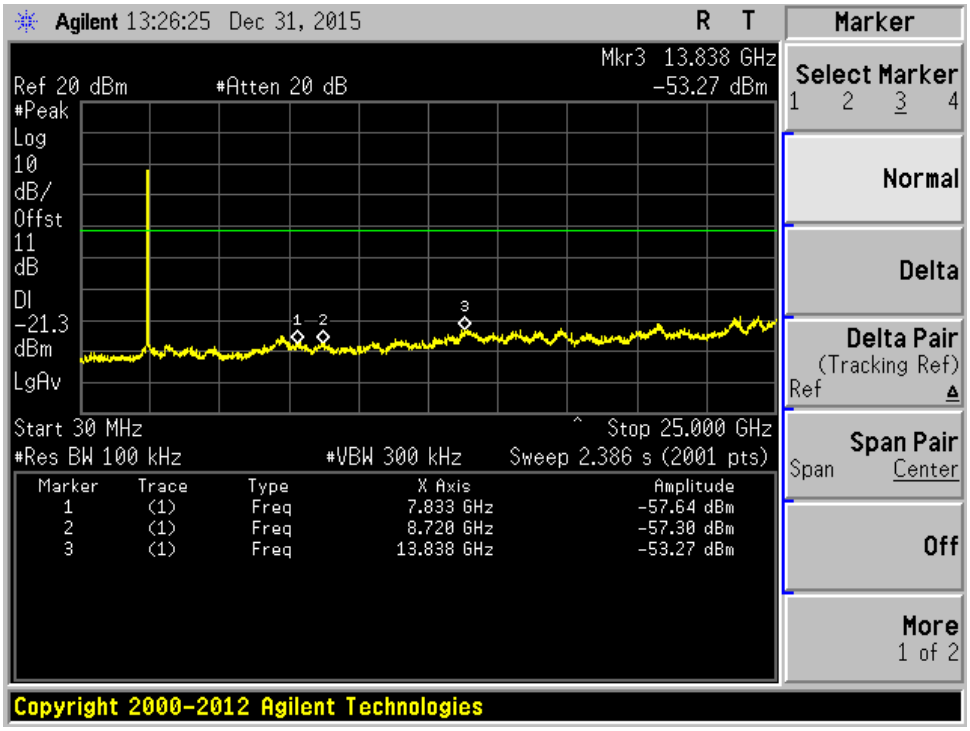


Figure 17: Conducted Spurious Emission of 802.11g, 2462MHz

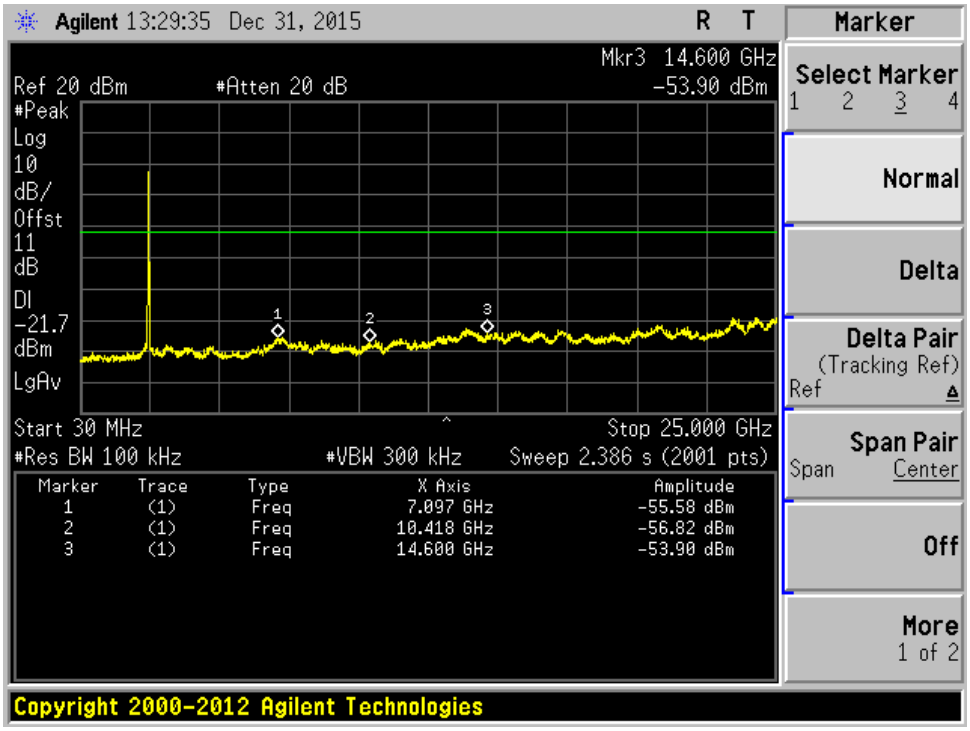


Figure 18: Band Edge of 802.11g, 2412MHz

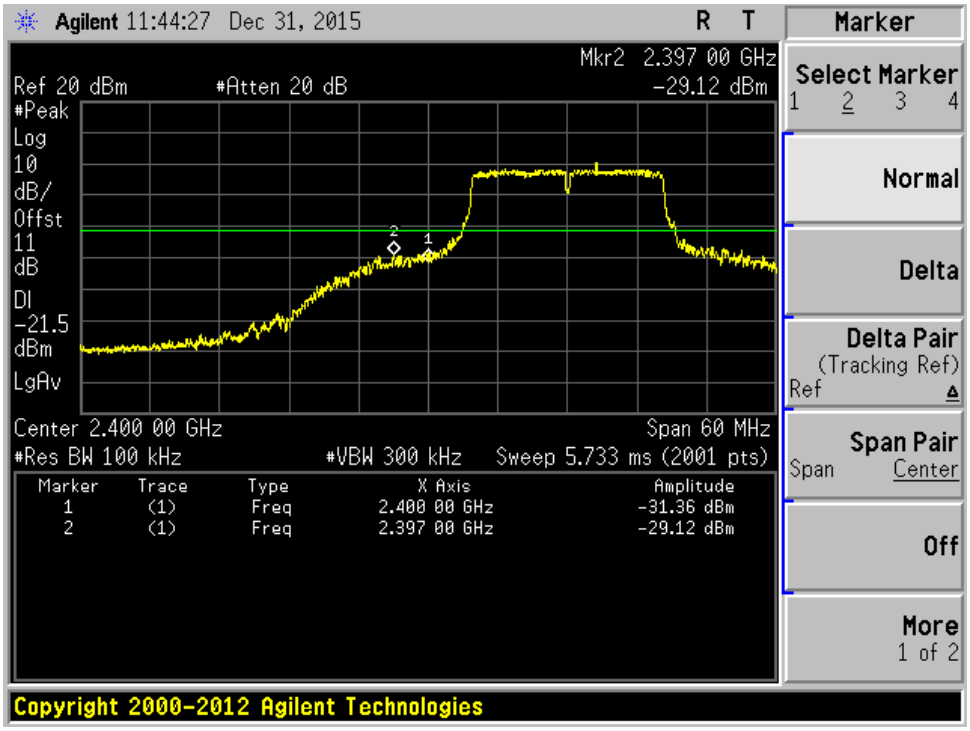


Figure 19: Band Edge of 802.11g, 2462MHz

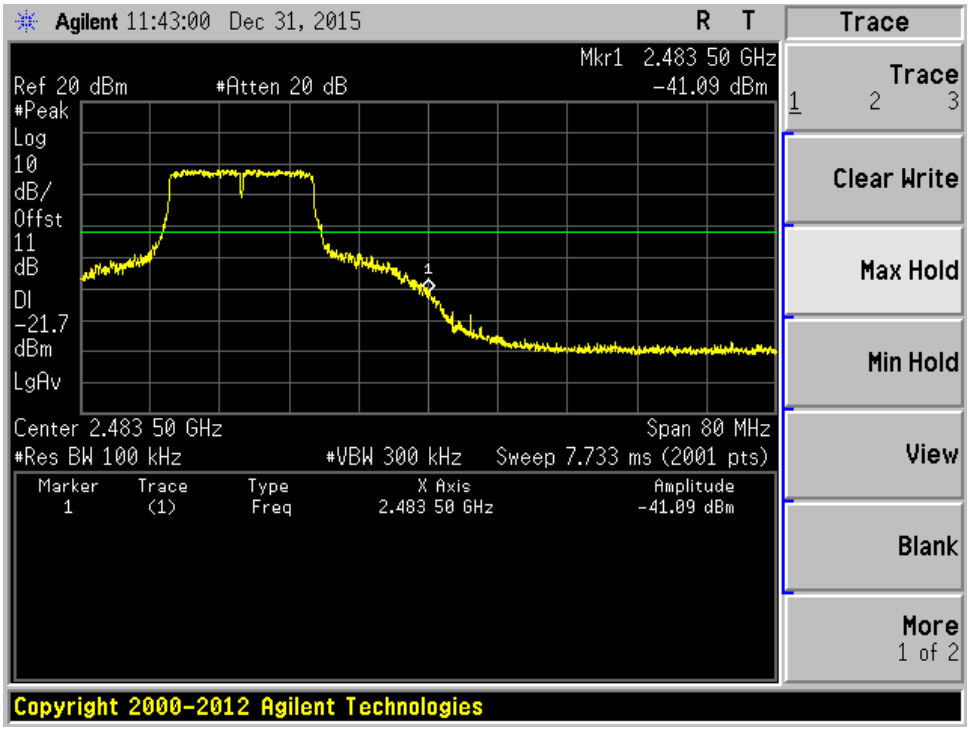


Figure 20: Conducted Spurious Emission of 802.11n-HT20, 2412MHz

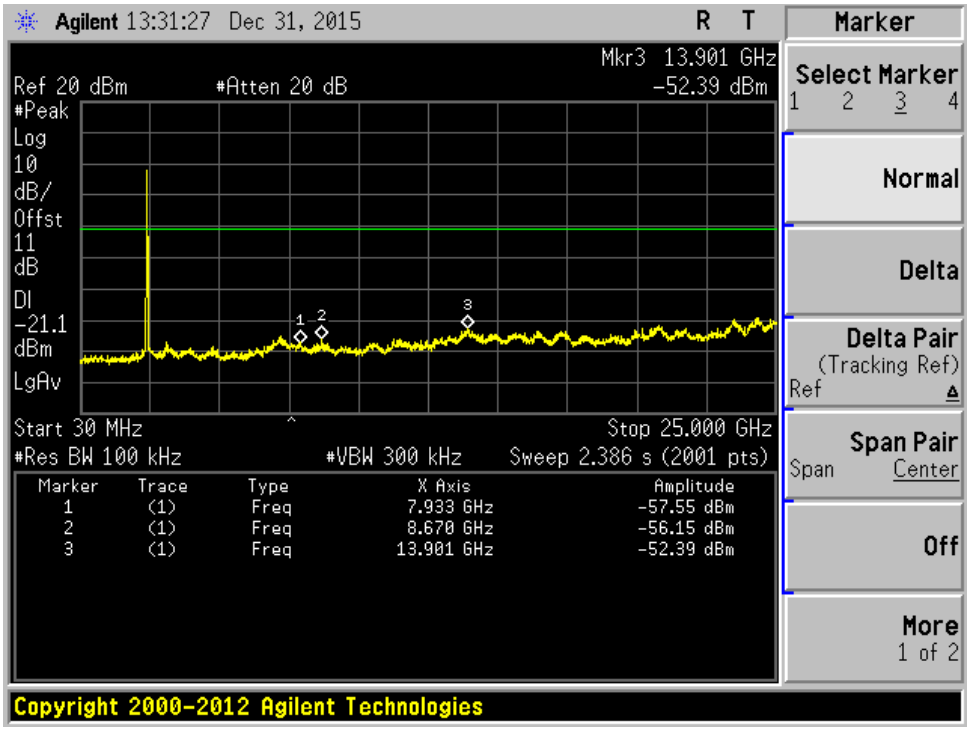


Figure 21: Conducted Spurious Emission of 802. 11n-HT20, 2437MHz

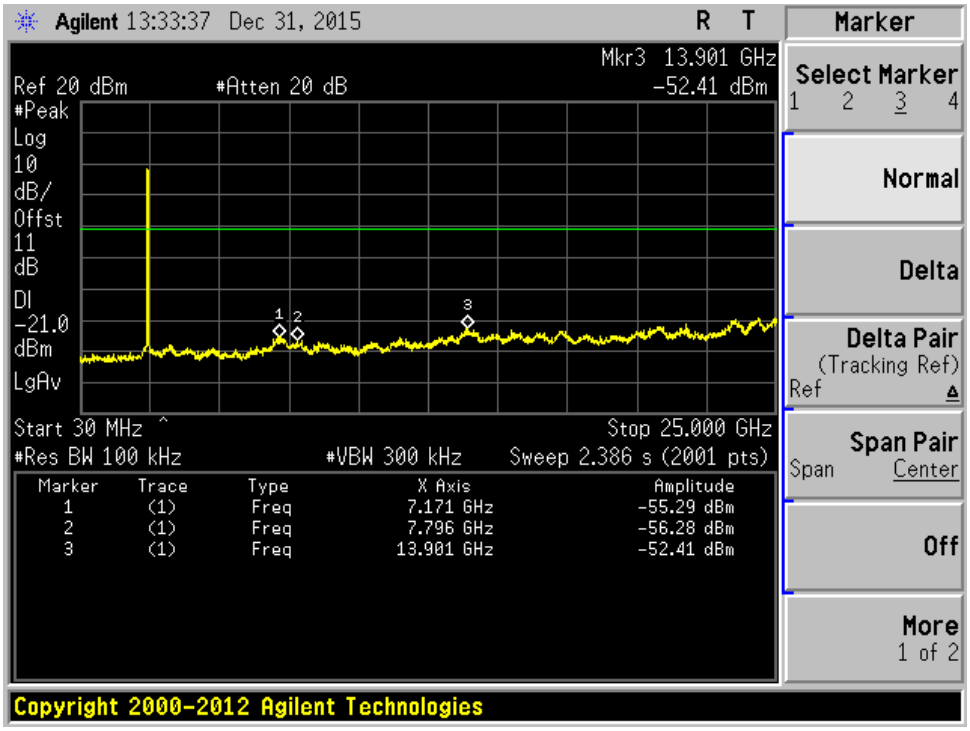


Figure 22: Conducted Spurious Emission of 802. 11n-HT20, 2462MHz

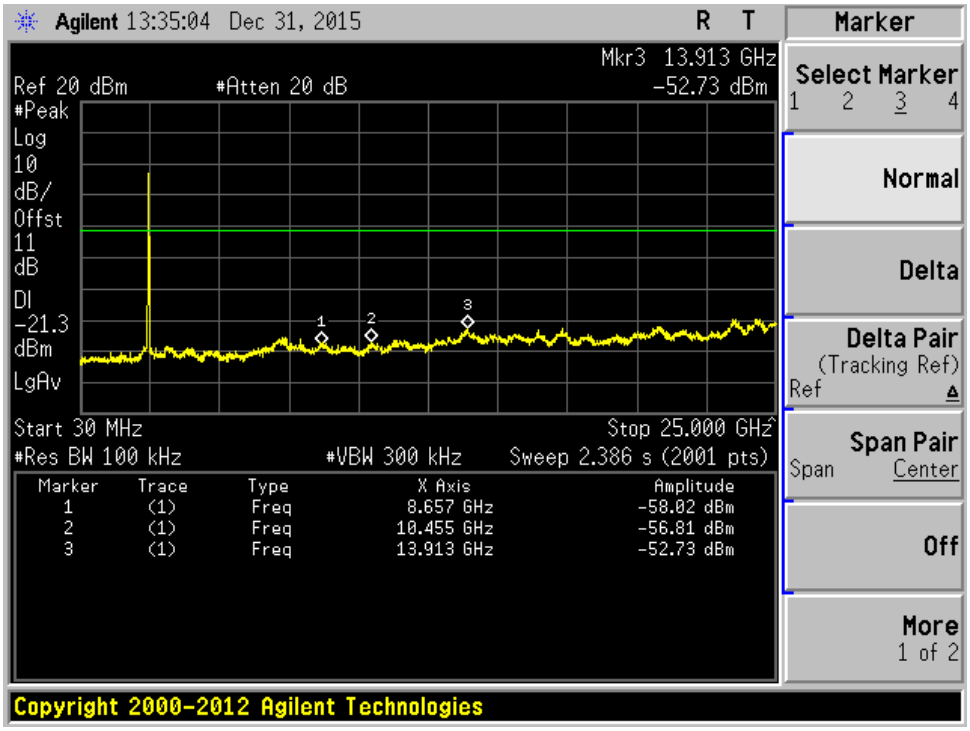


Figure 23: Band Edge of 802. 11n-HT20, 2412MHz

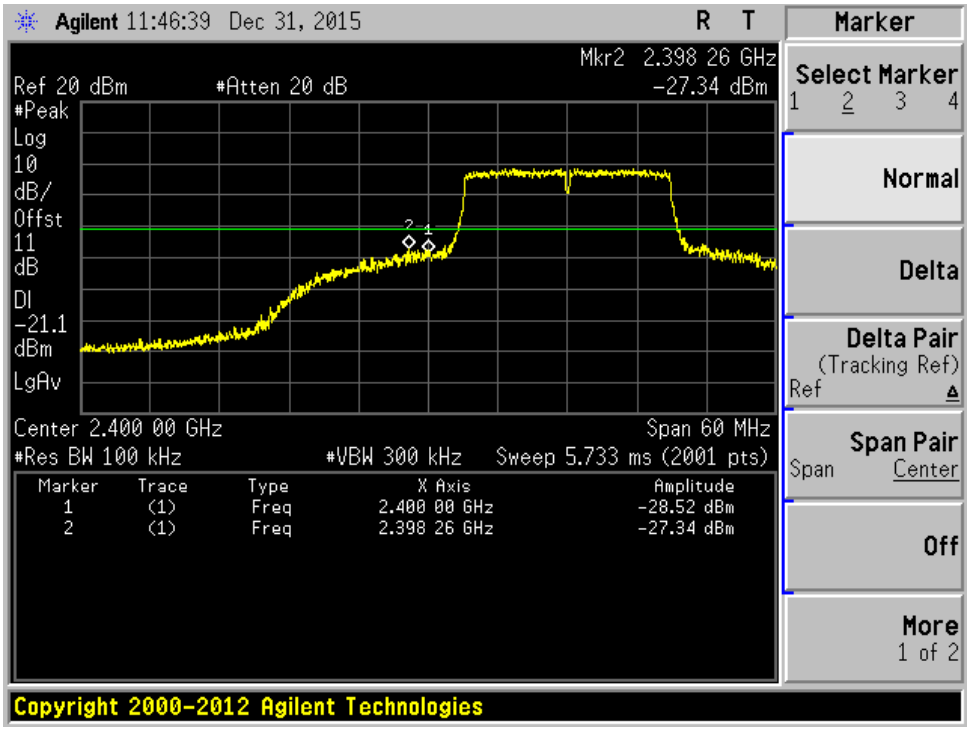
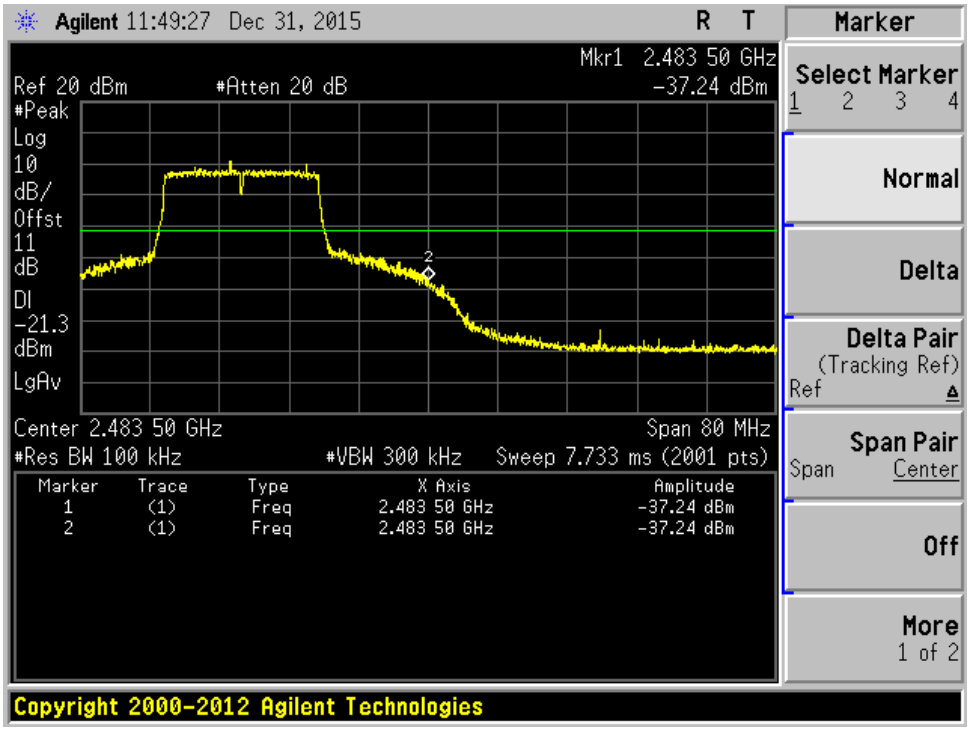


Figure 24: Band Edge of 802. 11n-HT20, 2462MHz



5.1.5 Power spectral density

RESULT: **Pass**

Date of testing	:	2015.12.31
Test standard	:	FCC part 15.247(e) RSS-247 Clause 5.2(2)
Basic standard	:	ANSI C63.10: 2013 Clause 10 of KDB 558074 v03r03
Limit	:	8dBm/3kHz
Kind of test site	:	Shield room

Test setup

Test Channel	:	Low/ Middle/ High
Operation mode	:	A.1.a
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 6: Power Spectral Density:

Mode	Channel	Channel Frequency (MHz)	Result (dBm/3kHz)	Limit (dBm/3kHz)
b	1	2412	-13.26	8
	6	2437	-13.55	8
	11	2462	-13.28	8
g	1	2412	-15.17	8
	6	2437	-15.40	8
	11	2462	-15.42	8
n-HT20	1	2412	-13.00	8
	6	2437	-12.52	8
	11	2462	-12.81	8

Figure 25: Power Spectral Density of 802.11b, 2412MHz

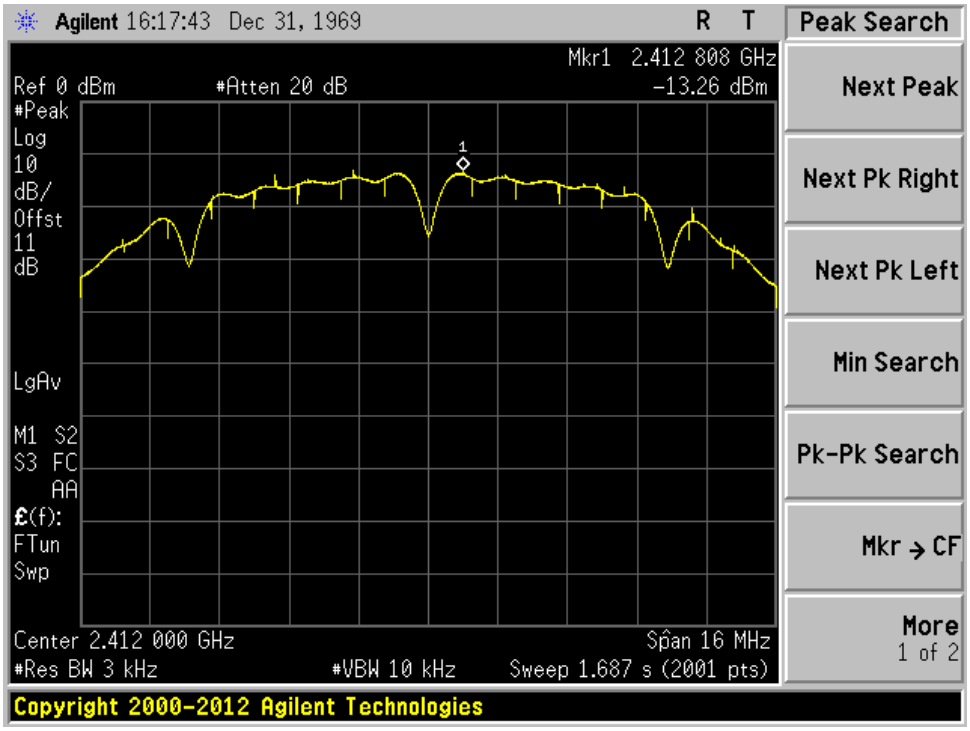


Figure 26: Power Spectral Density of 802.11b, 2437MHz

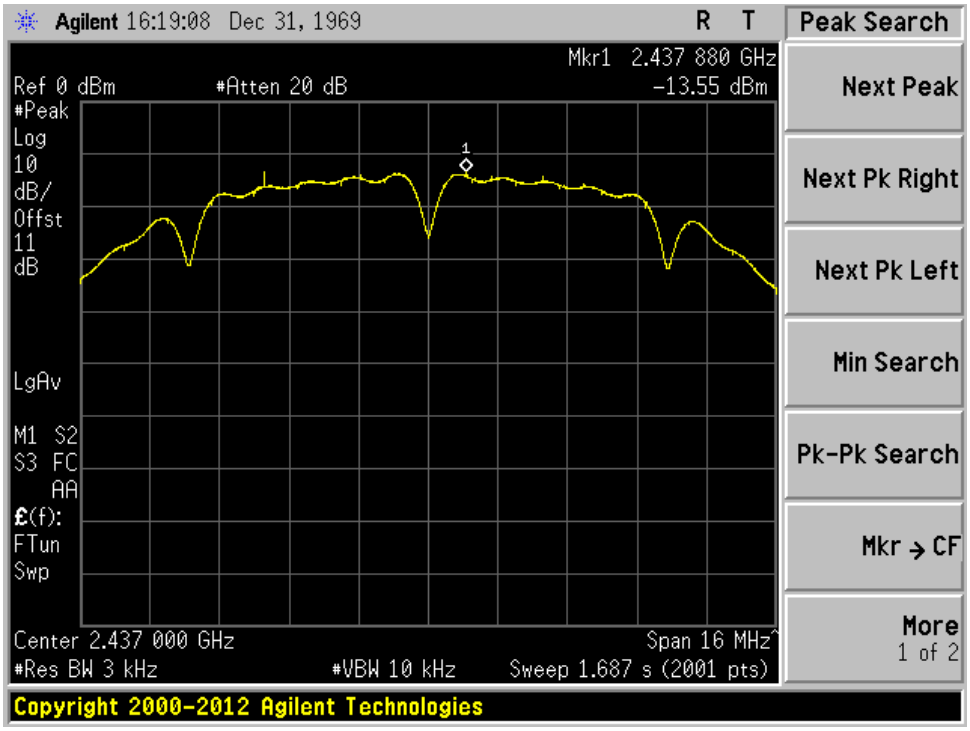


Figure 27: Power Spectral Density of 802.11b, 2462MHz

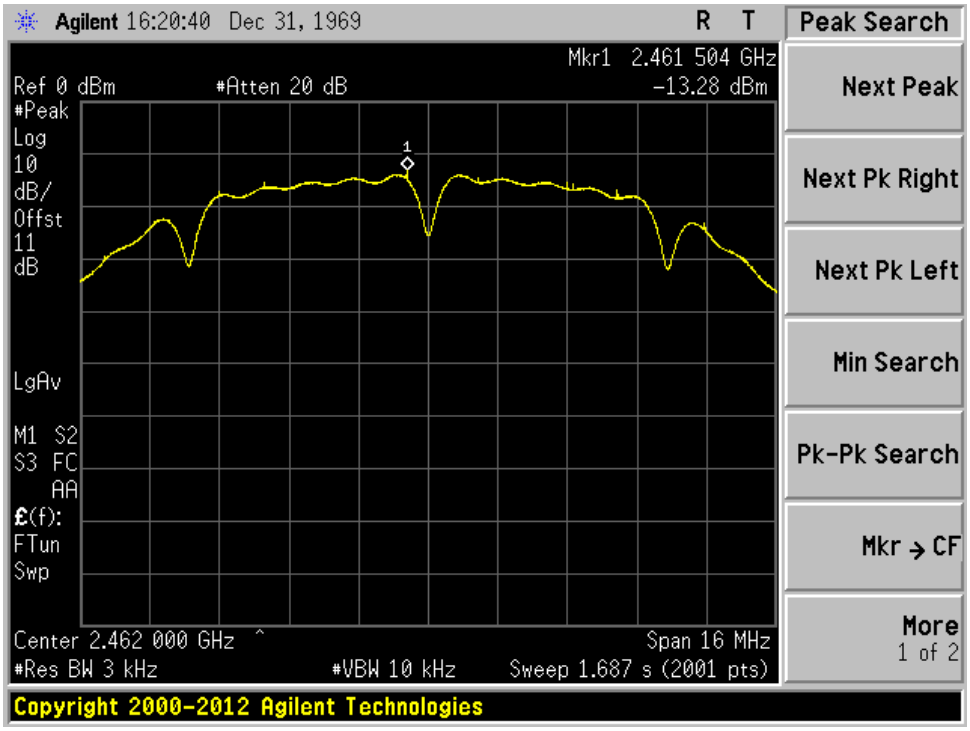


Figure 28: Power Spectral Density of 802.11g, 2412MHz

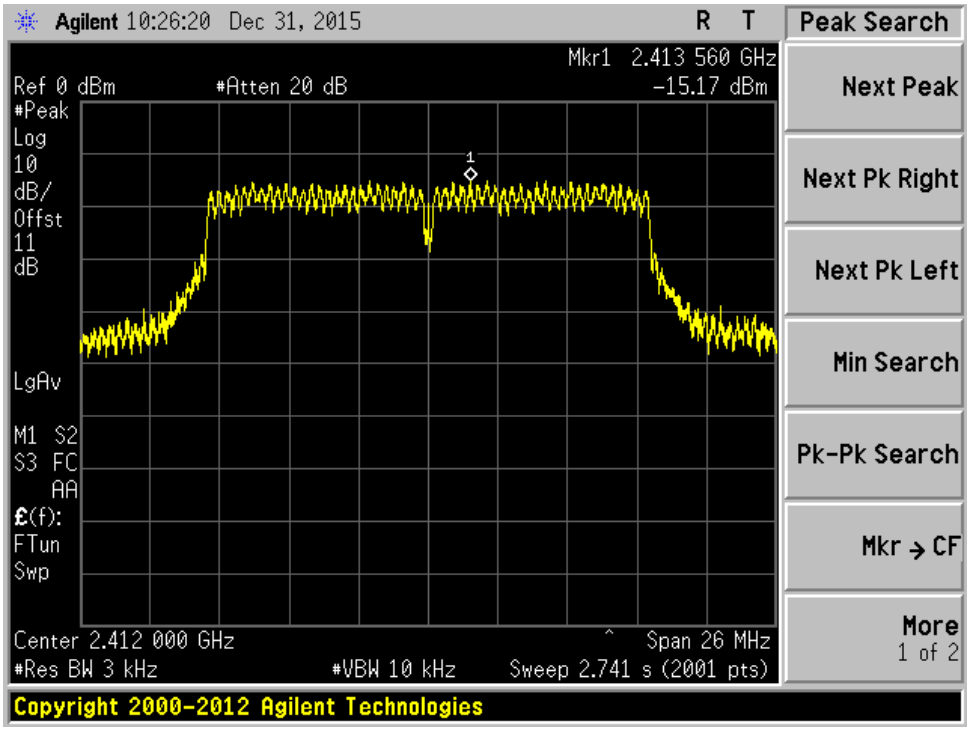


Figure 29: Power Spectral Density of 802.11g, 2437MHz

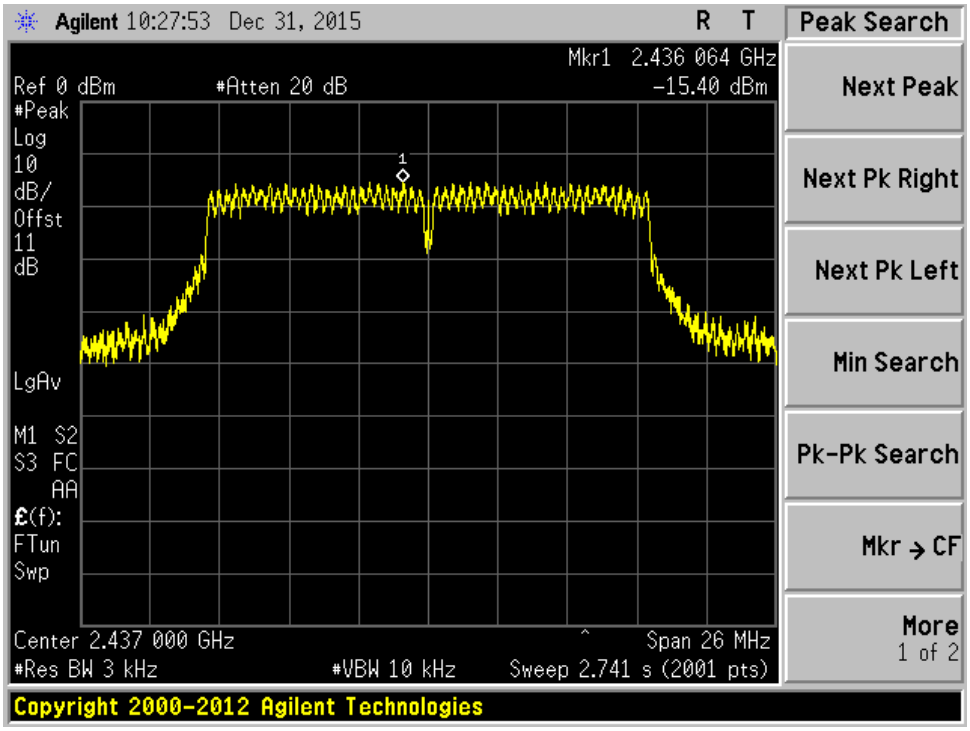


Figure 30: Power Spectral Density of 802.11g, 2462MHz

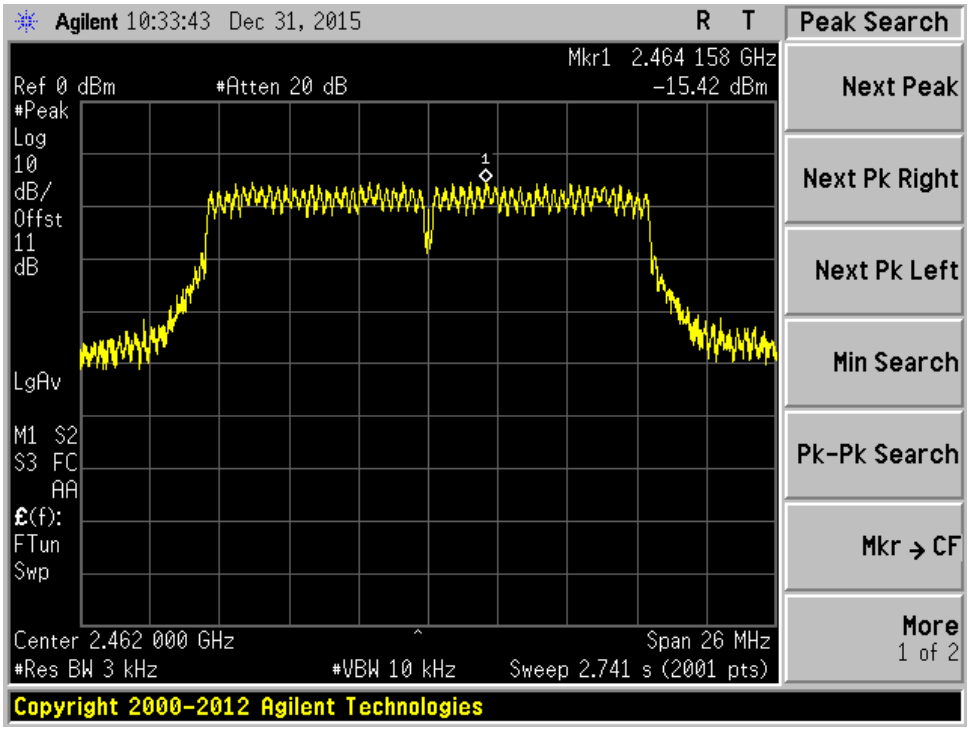


Figure 31: Power Spectral Density of 802.11n-HT20, 2412MHz

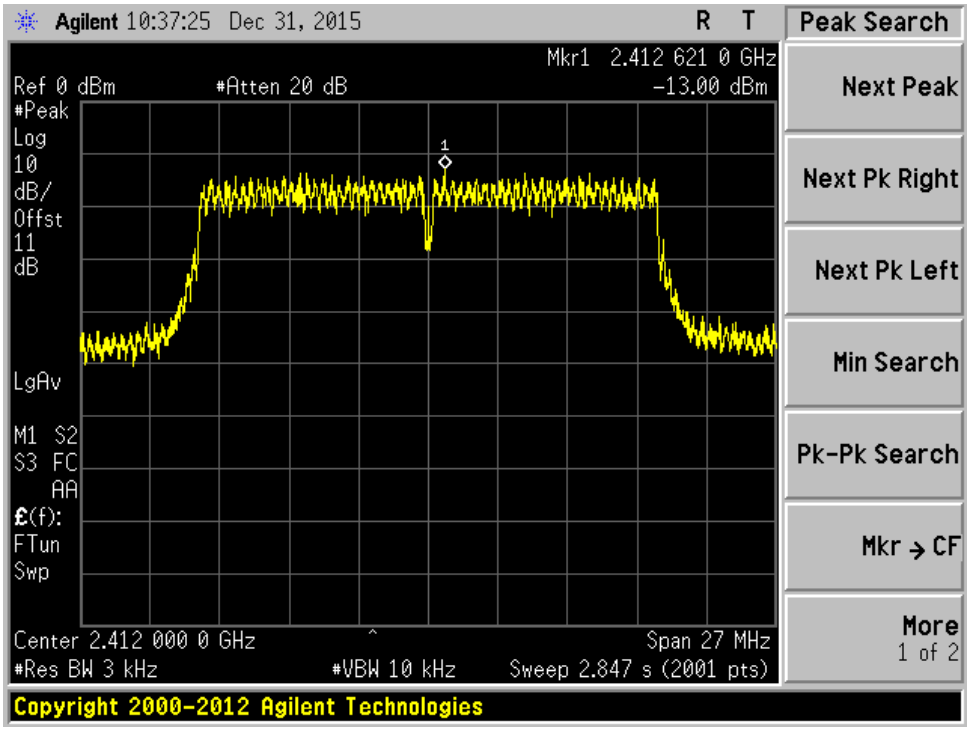


Figure 32: Power Spectral Density of 802. 11n-HT20, 2437MHz

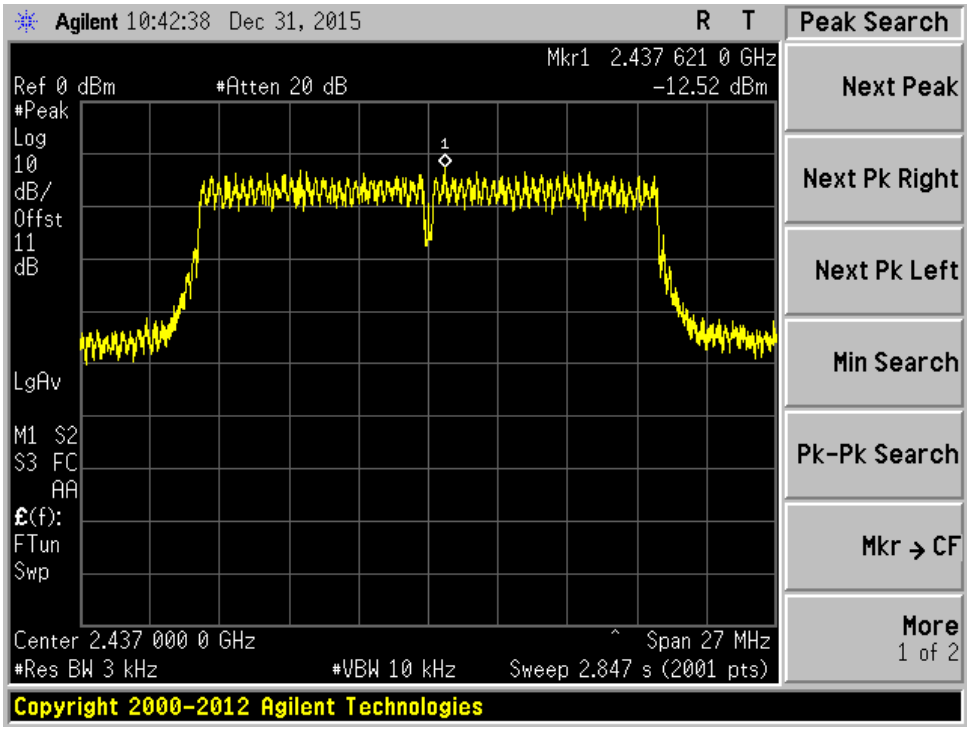
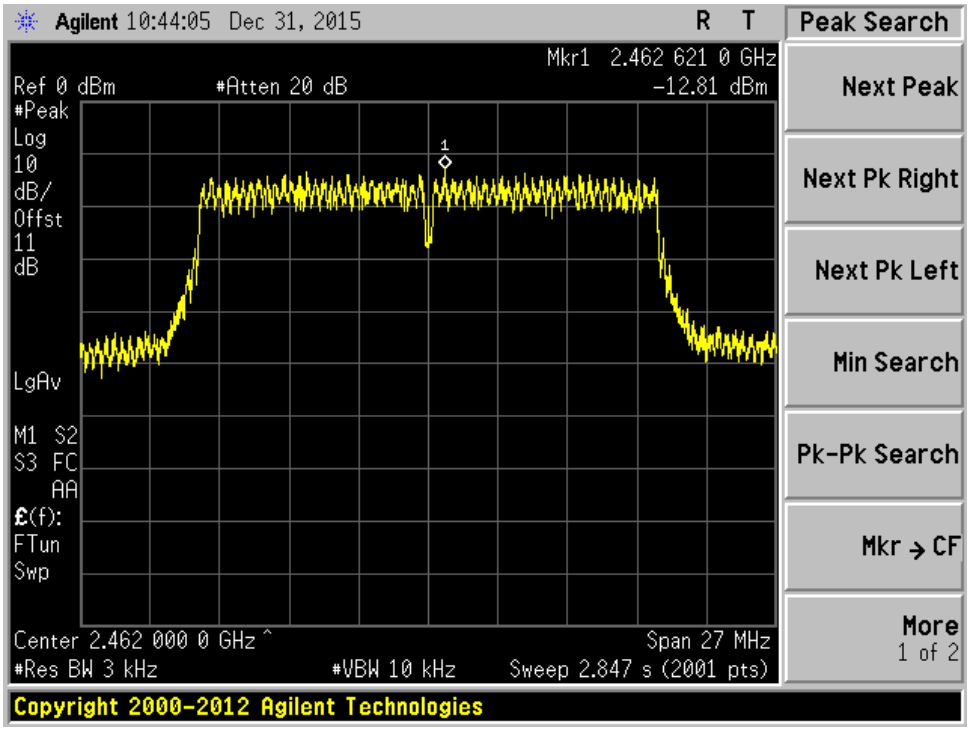


Figure 33: Power Spectral Density of 802. 11n-HT20, 2462MHz



5.1.6 Spurious Emission

RESULT: **Pass**

Date of testing	:	2016.01.04 – 2016.01.06
Test standard	:	FCC part 15.247(d) RSS-Gen Clause 8.9 RSS-Gen Clause 8.10
Basic standard	:	ANSI C63.10: 2013 Clause 11 of KDB 558074 v03r03 Clause 12 of KDB 558074 v03r03
Limits	:	FCC part 15.209(a) RSS-GEN Clause 8.9
Kind of test site	:	3m Semi-Anechoic Chamber

Test setup

Test Channel	:	Low/ Middle/ High
Operation mode	:	A.1
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 7: Spurious Emission of 802.11b

Channel	Freq. (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Over Limit (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
1	234.185	29.525	16.297	-16.475	46.000	13.229	PK	H
	257.950	30.276	16.419	-15.724	46.000	13.857	PK	
	720.155	30.350	8.464	-15.650	46.000	21.886	PK	
	4825.000	44.856	42.864	-29.144	74.000	1.992	PK	
	7281.500	44.627	34.985	-29.373	74.000	9.642	PK	
	8956.000	45.594	35.165	-28.406	74.000	10.430	PK	
	10341.50	46.704	33.349	-27.296	74.000	13.354	PK	
	31.940	31.801	19.418	-8.199	40.000	12.383	PK	V
	400.055	31.767	15.012	-14.233	46.000	16.755	PK	
	532.945	32.168	13.344	-13.832	46.000	18.824	PK	
	4825.000	41.929	39.937	-32.071	74.000	1.992	PK	
	7494.000	44.438	34.503	-29.562	74.000	9.935	PK	
	8505.500	44.001	34.476	-29.999	74.000	9.525	PK	
	10290.50	46.951	33.822	-27.049	74.000	13.128	PK	
6	222.060	28.260	15.524	-17.740	46.000	12.736	PK	H
	379.200	28.702	12.407	-17.298	46.000	16.295	PK	
	532.460	29.202	10.385	-16.798	46.000	18.817	PK	
	4876.000	46.184	44.266	-27.816	74.000	1.918	PK	
	7315.500	45.727	36.060	-28.273	74.000	9.666	PK	
	8862.500	44.548	34.036	-29.452	74.000	10.513	PK	
	10409.50	46.749	33.235	-27.251	74.000	13.514	PK	
	31.940	31.498	19.115	-8.502	40.000	12.383	PK	V
	400.055	31.697	14.942	-14.303	46.000	16.755	PK	
	750.225	31.770	9.508	-14.230	46.000	22.262	PK	
	4876.000	41.823	39.905	-32.177	74.000	1.918	PK	
	7307.000	44.298	34.616	-29.702	74.000	9.682	PK	
	8896.500	44.801	34.269	-29.199	74.000	10.532	PK	
	10520.00	47.194	33.374	-26.806	74.000	13.819	PK	
11	233.700	30.530	17.318	-15.470	46.000	13.212	PK	H
	359.800	29.329	13.320	-16.671	46.000	16.009	PK	
	720.155	29.859	7.973	-16.141	46.000	21.886	PK	
	4927.000	42.076	40.185	-31.924	74.000	1.891	PK	
	7409.000	44.279	34.517	-29.721	74.000	9.761	PK	
	8845.500	45.022	34.378	-28.978	74.000	10.644	PK	
	10418.00	46.535	32.983	-27.465	74.000	13.552	PK	
	32.425	31.548	19.081	-8.452	40.000	12.467	PK	V
	531.005	32.772	13.976	-13.228	46.000	18.795	PK	
	750.225	33.678	11.416	-12.322	46.000	22.262	PK	
	4927.000	40.236	38.345	-33.764	74.000	1.891	PK	
	7426.000	44.801	34.984	-29.199	74.000	9.817	PK	
	8624.500	44.560	34.509	-29.440	74.000	10.051	PK	
	9857.000	45.857	34.186	-28.143	74.000	11.670	PK	

Table 8: Spurious Emission of 802.11g

Channel	Freq. (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Over Limit (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
1	234.185	31.309	18.081	-14.691	46.000	13.229	PK	H
	363.680	28.728	12.653	-17.272	46.000	16.075	PK	
	875.840	30.866	6.922	-15.134	46.000	23.944	PK	
	4825.000	40.899	38.907	-33.101	74.000	1.992	PK	
	7383.500	45.019	35.225	-28.981	74.000	9.794	PK	
	8786.000	43.883	33.315	-30.117	74.000	10.568	PK	
	9950.500	45.828	33.900	-28.172	74.000	11.928	PK	
	32.425	31.485	19.018	-8.515	40.000	12.467	PK	V
	400.055	31.985	15.230	-14.015	46.000	16.755	PK	
	749.740	32.863	10.600	-13.137	46.000	22.263	PK	
	4842.000	39.009	36.784	-34.991	74.000	2.225	PK	
	7536.500	45.598	35.590	-28.402	74.000	10.008	PK	
	8913.500	44.333	33.800	-29.667	74.000	10.534	PK	
	10154.50	46.449	34.049	-27.551	74.000	12.400	PK	
6	232.730	27.092	13.914	-18.908	46.000	13.178	PK	H
	371.440	26.856	10.683	-19.144	46.000	16.174	PK	
	720.155	28.762	6.876	-17.238	46.000	21.886	PK	
	4876.000	39.894	37.976	-34.106	74.000	1.918	PK	
	7273.000	44.788	35.146	-29.212	74.000	9.642	PK	
	8905.000	44.603	33.961	-29.397	74.000	10.642	PK	
	9721.000	45.501	34.231	-28.499	74.000	11.270	PK	
	32.425	31.417	18.950	-8.583	40.000	12.467	PK	V
	288.020	28.924	14.590	-17.076	46.000	14.334	PK	
	531.490	30.686	11.885	-15.314	46.000	18.801	PK	
	4876.000	38.642	36.724	-35.358	74.000	1.918	PK	
	7290.000	44.330	34.688	-29.670	74.000	9.642	PK	
	8684.000	45.320	35.052	-28.680	74.000	10.269	PK	
	10520.00	47.408	33.588	-26.592	74.000	13.819	PK	
11	222.060	30.992	18.256	-15.008	46.000	12.736	PK	H
	367.560	29.470	13.345	-16.530	46.000	16.125	PK	
	983.995	34.594	9.725	-19.406	54.000	24.869	PK	
	4910.000	38.687	36.756	-35.313	74.000	1.931	PK	
	7502.500	44.113	34.082	-29.887	74.000	10.031	PK	
	8871.000	43.834	33.403	-30.166	74.000	10.430	PK	
	10537.00	46.987	33.046	-27.013	74.000	13.941	PK	
	31.940	31.520	19.137	-8.480	40.000	12.383	PK	V
	288.020	30.604	16.270	-15.396	46.000	14.334	PK	
	750.225	34.028	11.766	-11.972	46.000	22.262	PK	
	4944.000	38.782	36.793	-35.218	74.000	1.988	PK	
	7477.000	45.835	35.941	-28.165	74.000	9.893	PK	
	8905.000	43.817	33.175	-30.183	74.000	10.642	PK	
	10520.00	46.940	33.120	-27.060	74.000	13.819	PK	

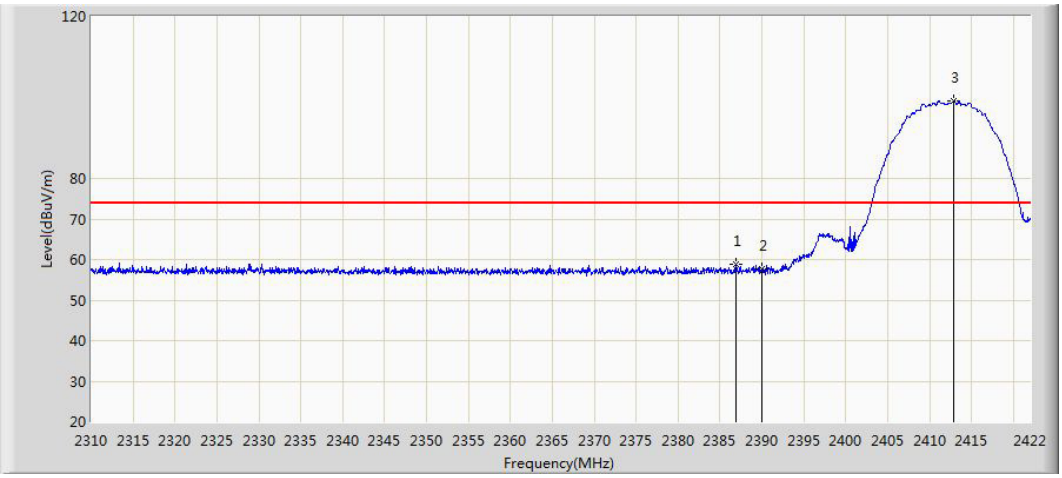
Table 9: Spurious Emission of 802.11n-HT20

Channel	Freq. (MHz)	Measure Level (dB μ V/m)	Reading Level (dB μ V)	Over Limit (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
1	234.185	32.347	19.119	-13.653	46.000	13.229	PK	H
	361.255	27.971	11.942	-18.029	46.000	16.030	PK	
	531.005	35.225	16.429	-10.775	46.000	18.795	PK	
	4833.500	40.803	38.648	-33.197	74.000	2.154	PK	
	7579.000	44.264	34.447	-29.736	74.000	9.817	PK	
	8879.500	43.655	33.314	-30.345	74.000	10.340	PK	
	10112.00	46.781	34.522	-27.219	74.000	12.259	PK	
	32.425	31.594	19.127	-8.406	40.000	12.467	PK	V
	400.055	31.420	14.665	-14.580	46.000	16.755	PK	
	532.945	32.196	13.372	-13.804	46.000	18.824	PK	
	4825.000	38.793	36.801	-35.207	74.000	1.992	PK	
	7536.500	43.996	33.988	-30.004	74.000	10.008	PK	
	9542.500	46.249	35.061	-27.751	74.000	11.188	PK	
	10554.00	48.097	34.340	-25.903	74.000	13.757	PK	
6	234.185	32.011	18.783	-13.989	46.000	13.229	PK	H
	363.195	27.943	11.875	-18.057	46.000	16.067	PK	
	532.945	28.476	9.652	-17.524	46.000	18.824	PK	
	4876.000	39.894	37.976	-34.106	74.000	1.918	PK	
	7443.000	44.803	34.913	-29.197	74.000	9.890	PK	
	8913.500	44.327	33.794	-29.673	74.000	10.534	PK	
	9925.000	45.597	33.837	-28.403	74.000	11.761	PK	
	32.425	31.868	19.401	-8.132	40.000	12.467	PK	V
	400.055	32.486	15.731	-13.514	46.000	16.755	PK	
	531.005	33.486	14.690	-12.514	46.000	18.795	PK	
	4867.500	40.389	38.497	-33.611	74.000	1.891	PK	
	7324.000	44.827	35.178	-29.173	74.000	9.649	PK	
	8947.500	43.904	33.506	-30.096	74.000	10.397	PK	
	9806.000	46.767	35.295	-27.233	74.000	11.472	PK	
11	222.060	28.741	16.005	-17.259	46.000	12.736	PK	H
	361.255	26.548	10.519	-19.452	46.000	16.030	PK	
	720.155	29.448	7.562	-16.552	46.000	21.886	PK	
	4918.500	38.951	37.040	-35.049	74.000	1.910	PK	
	7332.500	45.224	35.546	-28.776	74.000	9.679	PK	
	8650.000	44.751	34.743	-29.249	74.000	10.009	PK	
	10239.50	46.359	33.477	-27.641	74.000	12.882	PK	
	31.940	30.930	18.547	-9.070	40.000	12.383	PK	V
	400.055	31.821	15.066	-14.179	46.000	16.755	PK	
	798.725	32.251	9.405	-13.749	46.000	22.846	PK	
	4935.500	38.677	36.735	-35.323	74.000	1.942	PK	
	7468.500	44.648	34.687	-29.352	74.000	9.961	PK	
	8811.500	44.446	33.980	-29.554	74.000	10.466	PK	
	9882.500	46.122	34.374	-27.878	74.000	11.748	PK	

Notes:
1. Transmit mode comply with the field strength within the restricted bands. There is no spurious found below 30MHz.

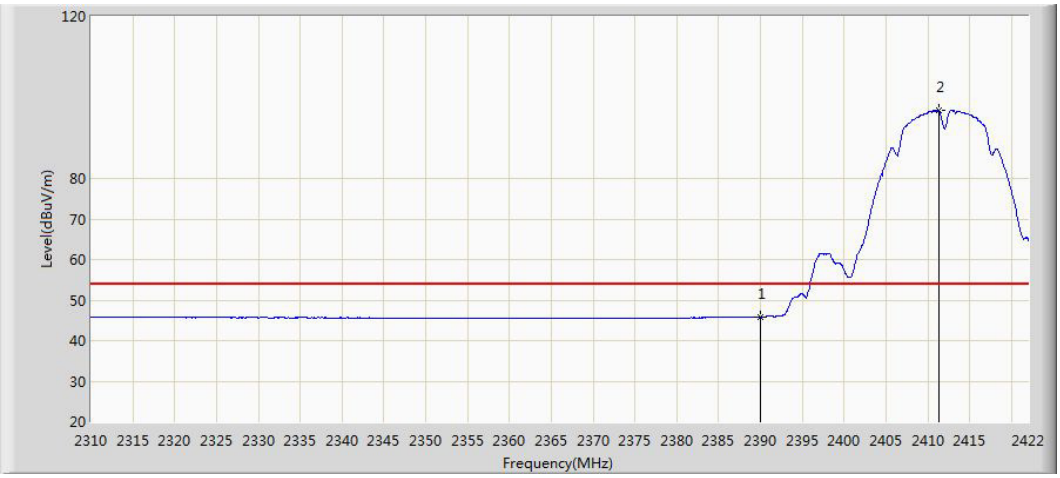
2. Due to the peak measure values also meet the average limit (54dBm), the average measurement is not tested based on technical judgment.

Figure 34: Radiated Restricted Band Edge of 802. 11b, 2412MHz, Horizontal, PK



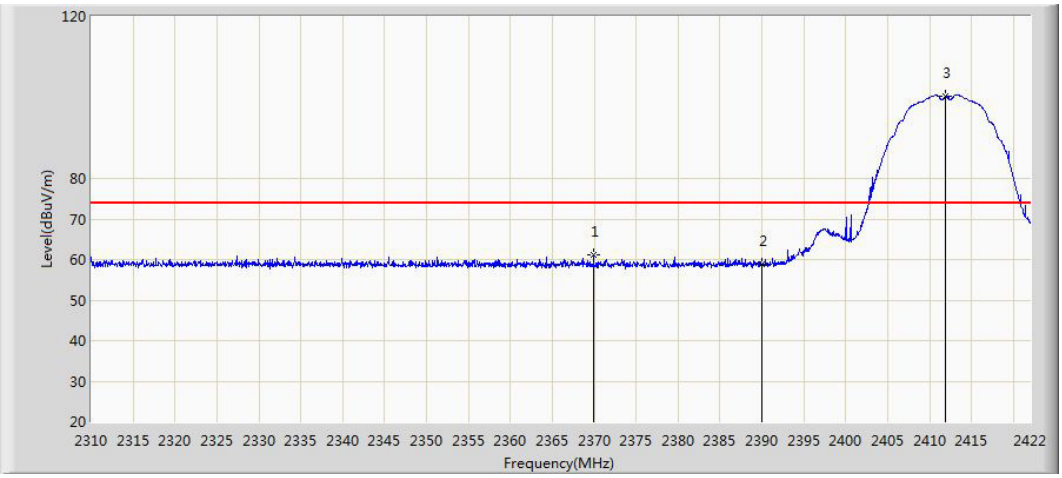
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2386.944	58.718	26.353	-15.282	74.000	32.365	PK
2390.000	57.653	25.285	-16.347	74.000	32.368	PK
2412.872	99.136	66.819	N/A	N/A	32.317	PK

Figure 35: Radiated Restricted Band Edge of 802. 11b, 2412MHz, Horizontal, AV



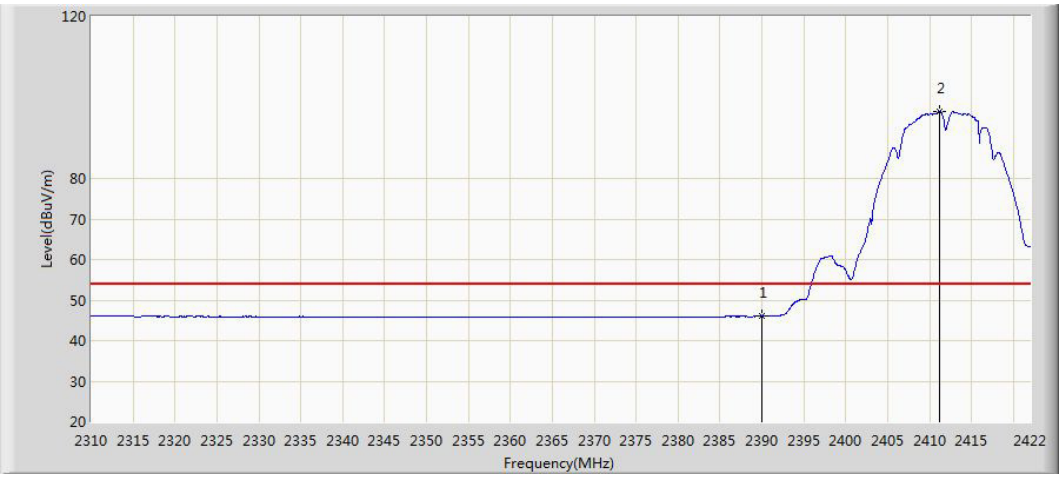
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2390.000	45.853	13.485	-8.147	54.000	32.368	AV
2411.304	96.733	64.414	N/A	N/A	32.319	AV

Figure 36: Radiated Restricted Band Edge of 802. 11b, 2412MHz, Vertical, PK



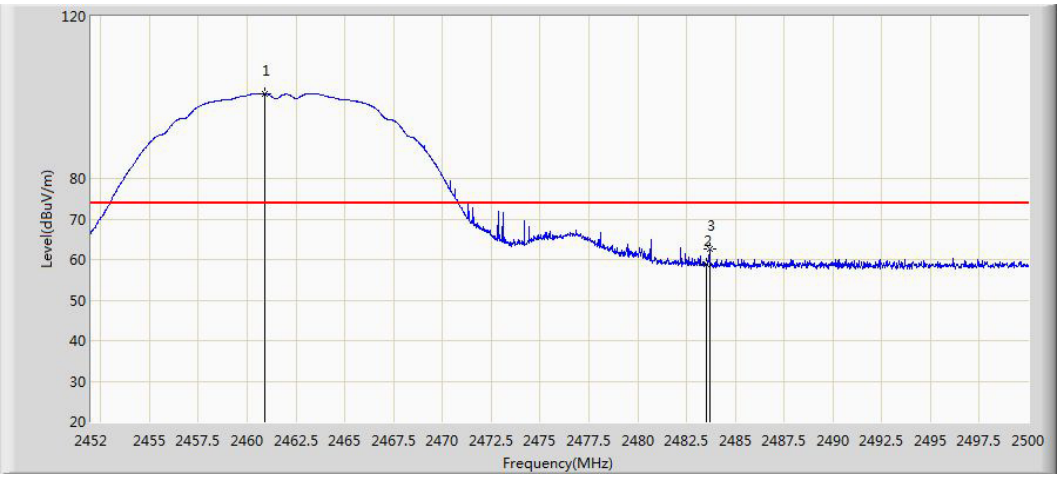
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2369.920	61.295	28.914	-12.705	74.000	32.381	PK
2390.000	58.883	26.515	-15.117	74.000	32.368	PK
2411.920	100.289	67.971	N/A	N/A	32.318	PK

Figure 37: Radiated Restricted Band Edge of 802. 11b, 2412MHz, Vertical, AV



Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2390.000	45.971	13.603	-8.029	54.000	32.368	AV
2411.136	96.577	64.258	N/A	N/A	32.319	AV

Figure 38: Radiated Restricted Band Edge of 802. 11b, 2462MHz, Horizontal, PK

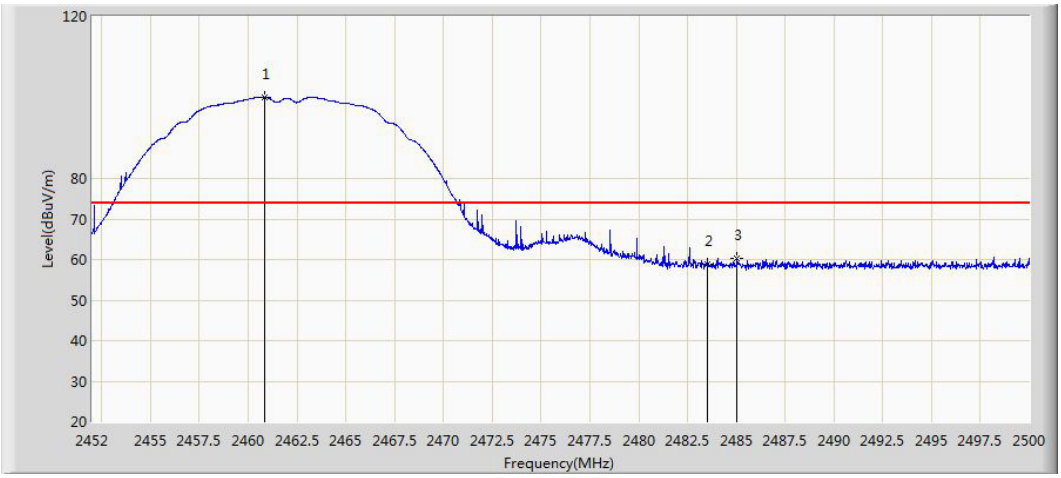


Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2460.928	100.935	68.664	N/A	N/A	32.271	PK
2483.500	58.778	26.429	-15.222	74.000	32.349	PK
2483.680	62.702	30.353	-11.298	74.000	32.349	PK

Figure 39: Radiated Restricted Band Edge of 802. 11b, 2462MHz, Horizontal, AV

Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2461.312	97.536	65.264	N/A	N/A	32.272	AV
2483.500	46.108	13.759	-7.892	54.000	32.349	AV

Figure 40: Radiated Restricted Band Edge of 802. 11b, 2462MHz, Vertical, PK

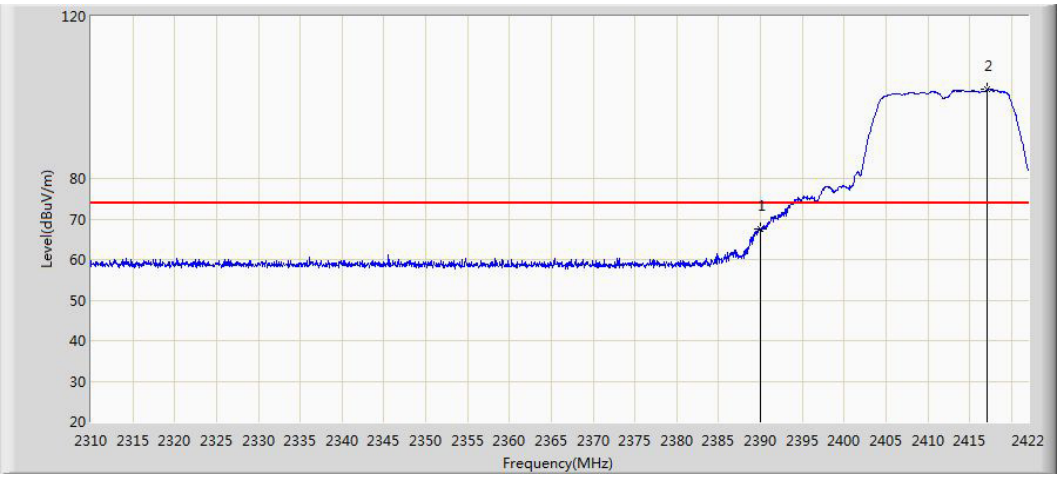


Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2460.856	99.990	67.719	N/A	N/A	32.271	PK
2483.500	58.888	26.539	-15.112	74.000	32.349	PK
2485.024	60.244	27.893	-13.756	74.000	32.351	PK

Figure 41: Radiated Restricted Band Edge of 802. 11b, 2462MHz, Vertical, AV

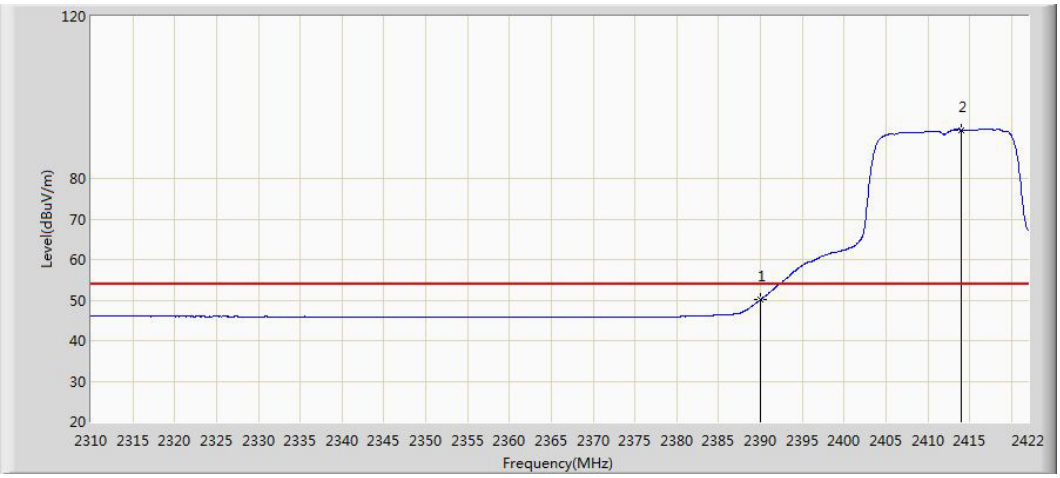
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2461.144	96.560	64.288	N/A	N/A	32.272	AV
2483.500	45.985	13.636	-8.015	54.000	32.349	AV

Figure 42: Radiated Restricted Band Edge of 802. 11g, 2412MHz, Horizontal, PK



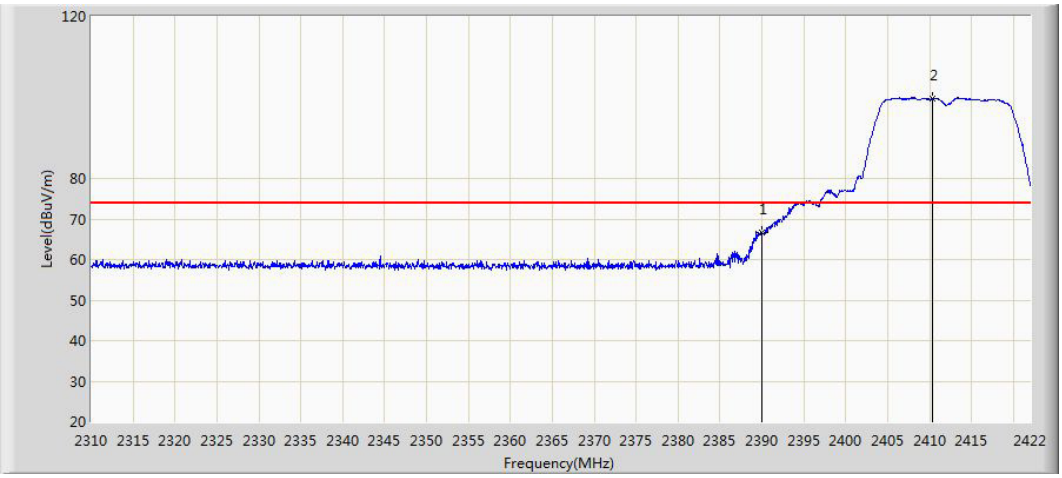
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2390.000	67.536	35.168	-6.464	74.000	32.368	PK
2417.128	101.902	69.590	N/A	N/A	32.312	PK

Figure 43: Radiated Restricted Band Edge of 802. 11g, 2412MHz, Horizontal, AV



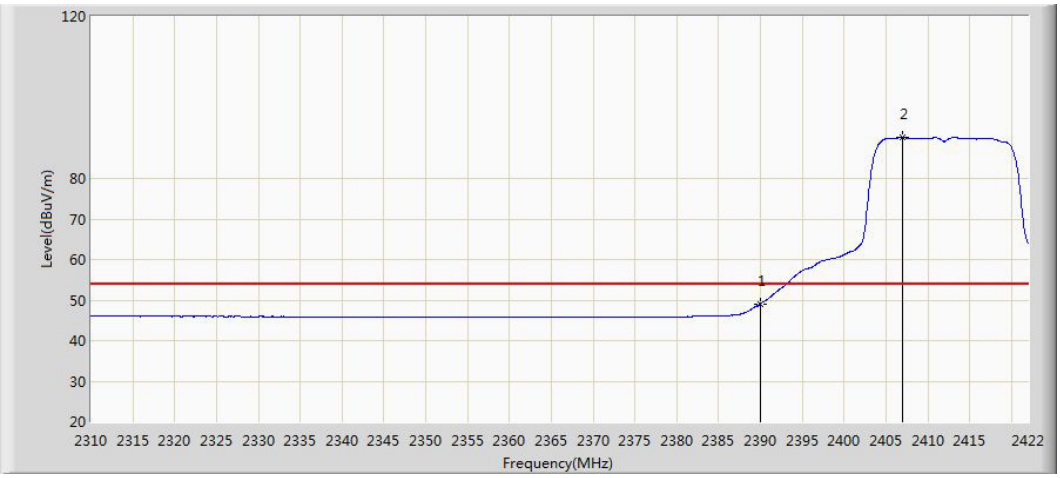
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2390.000	50.067	17.699	-3.933	54.000	32.368	AV
2413.936	91.979	59.663	N/A	N/A	32.315	AV

Figure 44: Radiated Restricted Band Edge of 802. 11g, 2412MHz, Vertical, PK



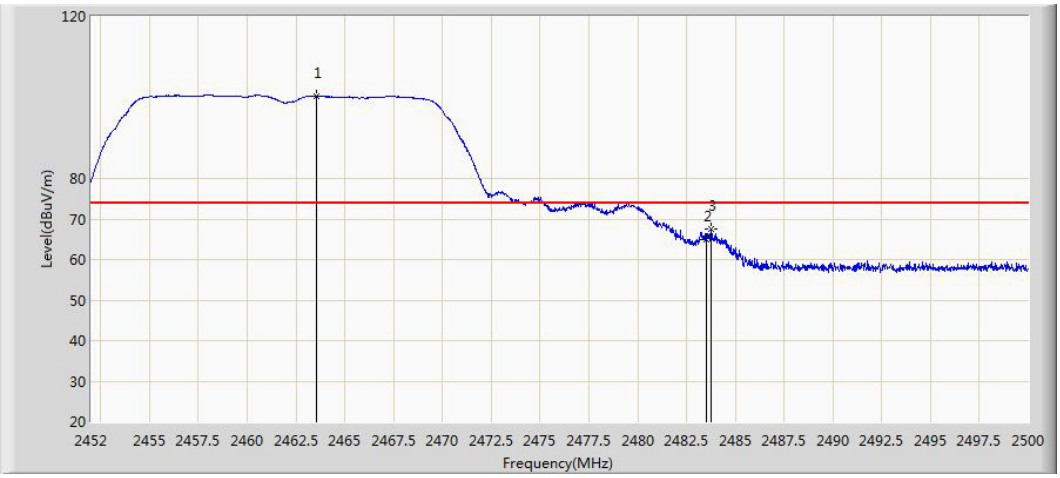
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2390.000	66.658	34.290	-7.342	74.000	32.368	PK
2410.296	99.676	67.355	N/A	N/A	32.321	PK

Figure 45: Radiated Restricted Band Edge of 802. 11g, 2412MHz, Vertical, AV



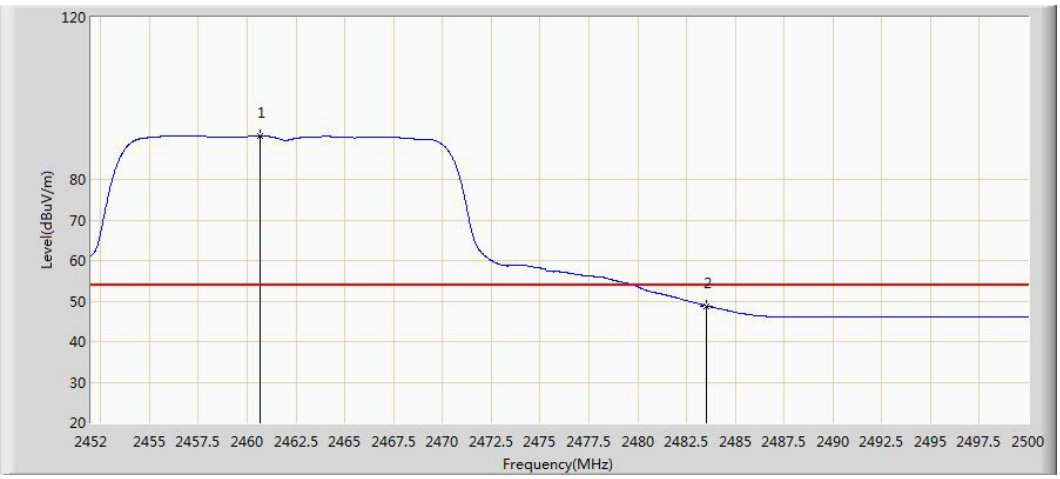
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2390.000	49.096	16.728	-4.904	54.000	32.368	AV
2406.936	90.034	57.702	N/A	N/A	32.331	AV

Figure 46: Radiated Restricted Band Edge of 802. 11g, 2462MHz, Horizontal, PK



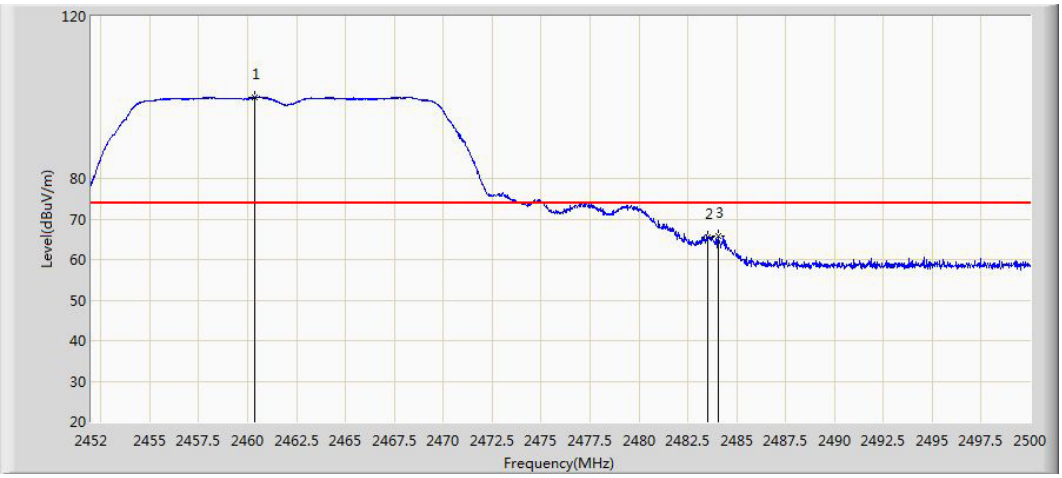
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2463.544	100.307	68.030	N/A	N/A	32.278	PK
2483.500	64.868	32.519	-9.132	74.000	32.349	PK
2483.752	67.523	35.174	-6.477	74.000	32.349	PK

Figure 47: Radiated Restricted Band Edge of 802. 11g, 2462MHz, Horizontal, AV



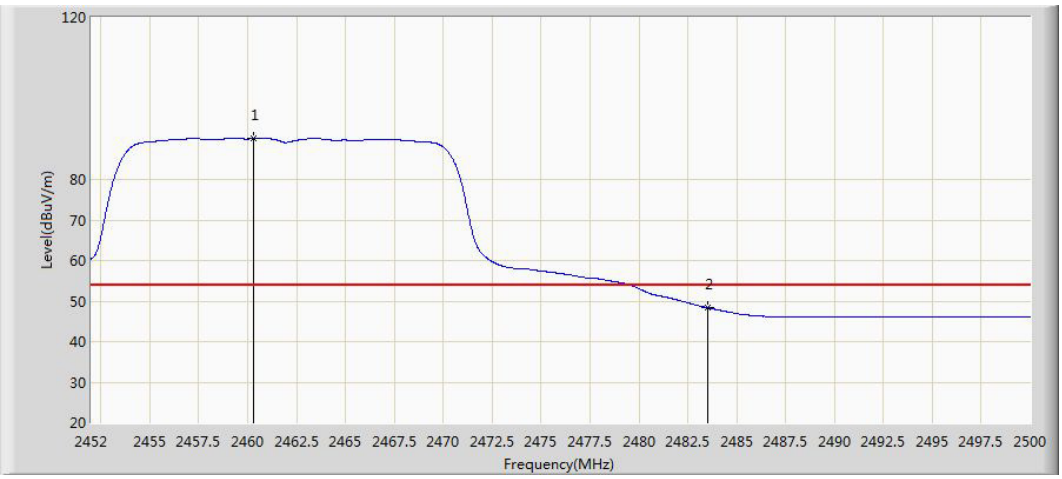
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2460.640	90.678	58.407	N/A	N/A	32.271	AV
2483.500	48.826	16.477	-5.174	54.000	32.349	AV

Figure 48: Radiated Restricted Band Edge of 802. 11g, 2462MHz, Vertical, PK



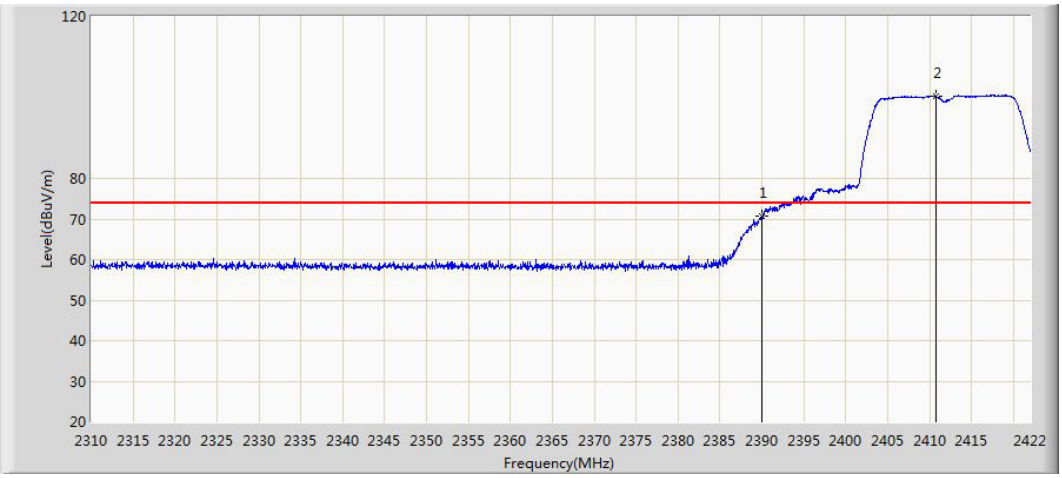
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2460.352	99.985	67.714	N/A	N/A	32.271	PK
2483.500	65.491	33.142	-8.509	74.000	32.349	PK
2484.088	65.833	33.483	-8.167	74.000	32.350	PK

Figure 49: Radiated Restricted Band Edge of 802. 11g, 2462MHz, Vertical, AV



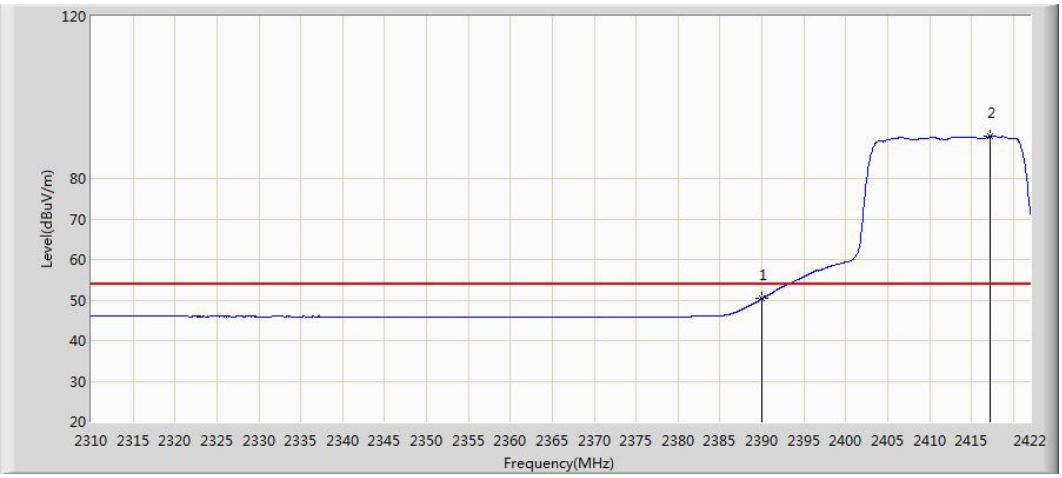
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2460.328	90.170	57.899	N/A	N/A	32.271	AV
2483.500	48.429	16.080	-5.571	54.000	32.349	AV

Figure 50: Radiated Restricted Band Edge of 802. 11n-HT20, 2412MHz, Horizontal, PK



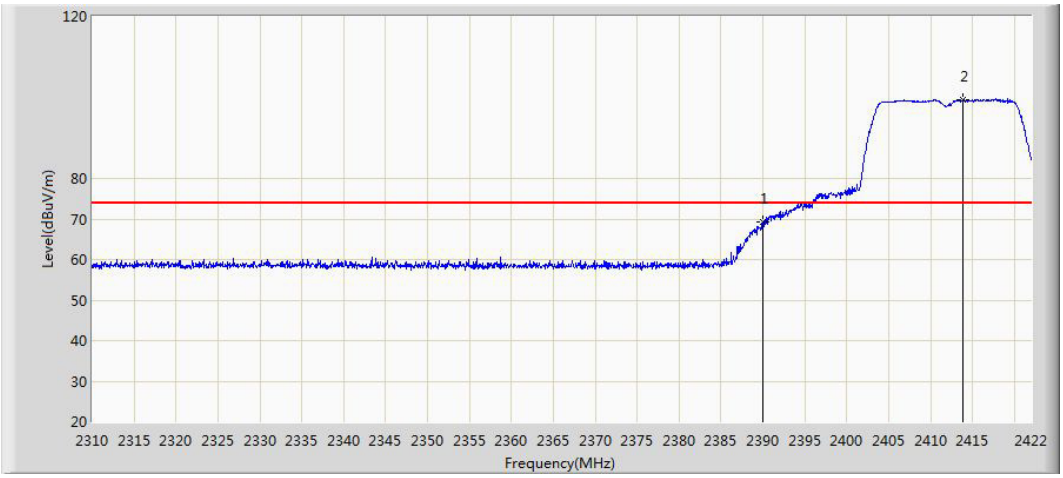
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2390.000	70.699	38.331	-3.301	74.000	32.368	PK
2410.800	100.335	68.015	N/A	N/A	32.320	PK

Figure 51: Radiated Restricted Band Edge of 802. 11n-HT20, 2412MHz, Horizontal, AV



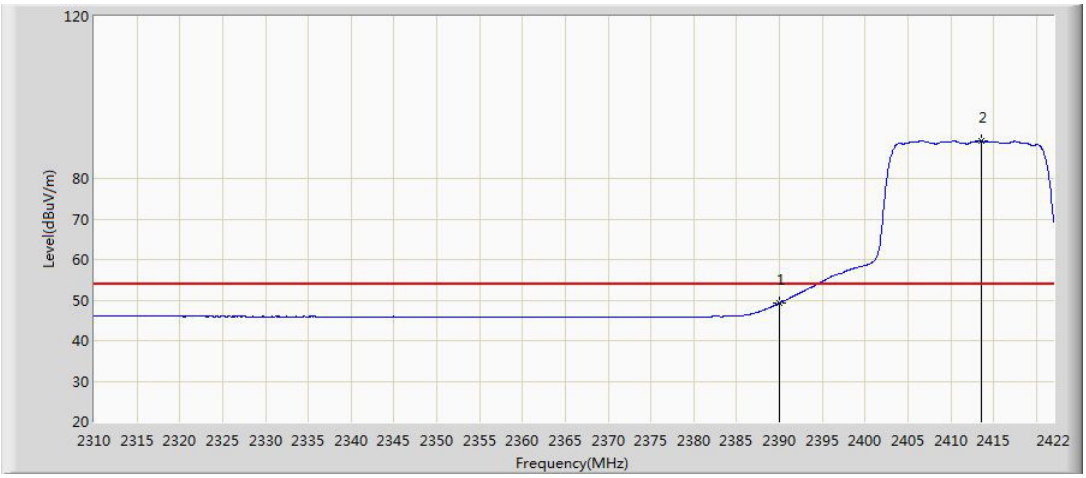
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2390.000	50.400	18.032	-3.600	54.000	32.368	AV
2417.240	90.431	58.119	N/A	N/A	32.311	AV

Figure 52: Radiated Restricted Band Edge of 802. 11n-HT20, 2412MHz, Vertical, PK



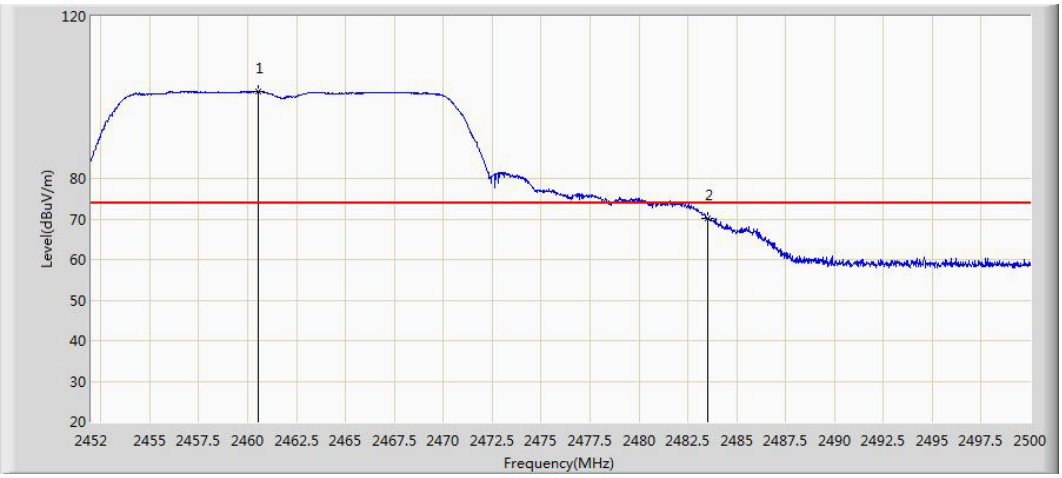
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2390.000	69.251	36.883	-4.749	74.000	32.368	PK
2413.824	99.356	67.040	N/A	N/A	32.316	PK

Figure 53: Radiated Restricted Band Edge of 802. 11n-HT20, 2412MHz, Vertical, AV



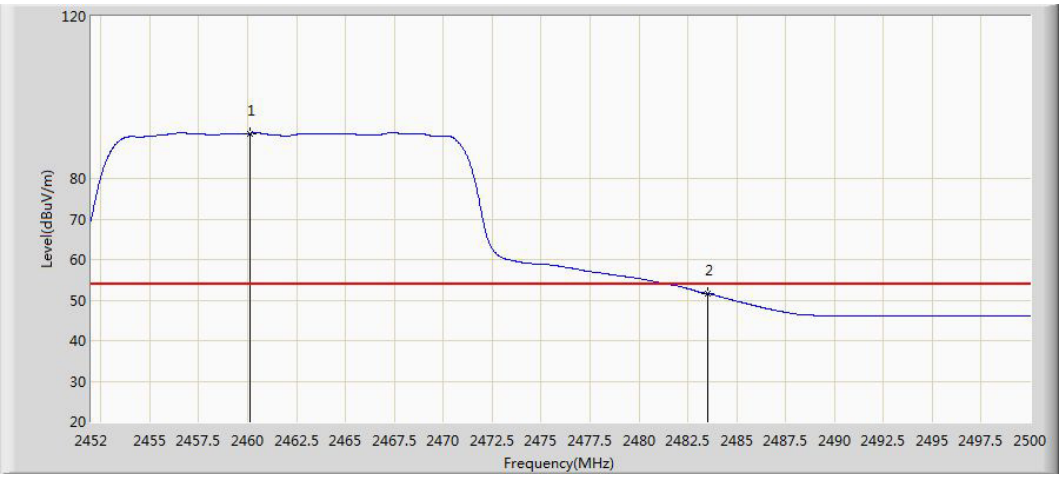
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2390.000	49.261	16.893	-4.739	54.000	32.368	AV
2413.600	89.198	56.882	N/A	N/A	32.316	AV

Figure 54: Radiated Restricted Band Edge of 802. 11n-HT20, 2462MHz, Horizontal, PK



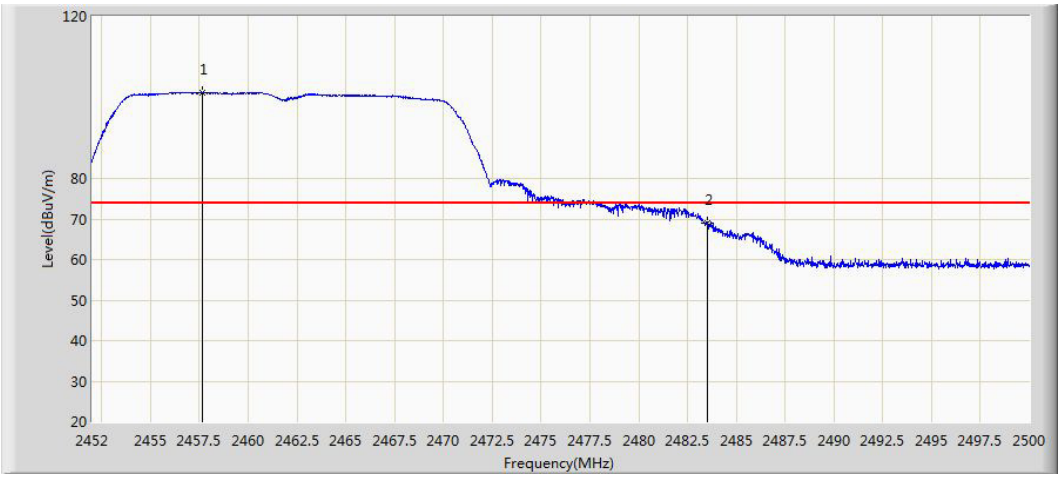
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2460.568	101.460	69.189	N/A	N/A	32.271	PK
2483.500	70.095	37.746	-3.905	74.000	32.349	PK

Figure 55: Radiated Restricted Band Edge of 802. 11n-HT20, 2462MHz, Horizontal, AV



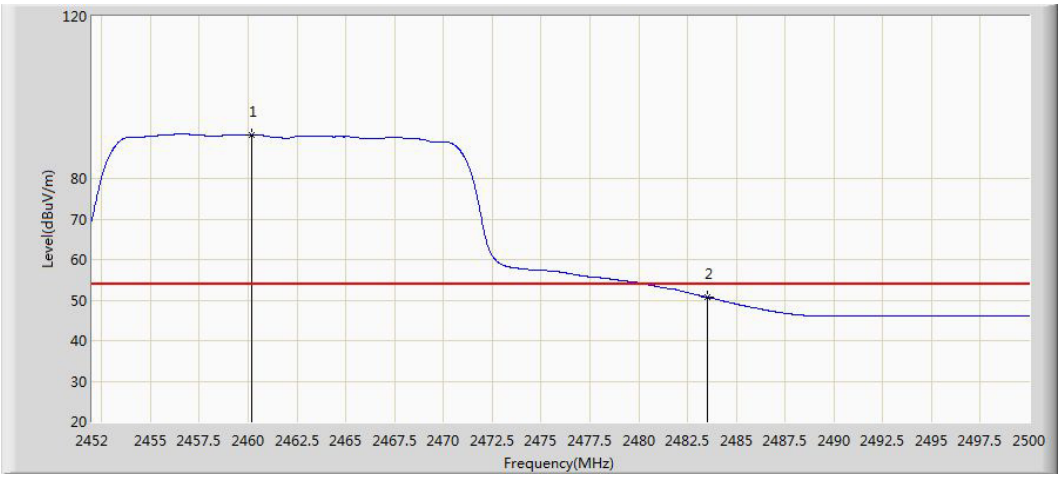
Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2460.112	91.135	58.864	N/A	N/A	32.271	AV
2483.500	51.623	19.274	-2.377	54.000	32.349	AV

Figure 56: Radiated Restricted Band Edge of 802. 11n-HT20, 2462MHz, Vertical, PK



Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2457.664	101.246	68.978	N/A	N/A	32.268	PK
2483.500	69.130	36.781	-4.870	74.000	32.349	PK

Figure 57: Radiated Restricted Band Edge of 802. 11n-HT20, 2462MHz, Vertical, AV



Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
2460.184	90.757	58.486	N/A	N/A	32.271	AV
2483.500	50.683	18.334	-3.317	54.000	32.349	AV

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