FCC PART 15C TEST REPORT

TESTING
CNAS L3572

Issued to

GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP.,LTD

For

Mobile Phone

Model Name:	OPPO X9076
Trade Name:	OPPO
Brand Name:	OPPO
FCC ID:	R9C-X9076
Standard:	47 CFR Part 15 Subpart C
Test date:	2013-12-20 to 2014-5-5
Issue date:	2014-5-6

by

Shenzhen Morlab Communications Technology Co., Ltd.
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Tested by	Nie Quan	***Approved by***	Zeng Dexin	***Reviewed by***	Peng Huarui
	Nie Quan		Zeng Dexin		Peng Huarui
	(Test Engineer)		(Chief Engineer)		(Dept. Manager)
Date	2014.5.6	***Date***	2014.5.6	***Date***	2014.5.6

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Change History		
Issue	Date	Reason for change
1.0	May 6, 2014	First Edition

1. General Information

1.1. EUT Description

EUT Type..... :	Mobile Phone
Serial No. ..... :	(n.a, marked #1 by test site)
Hardware Version..... :	214076
Software Version..... :	X9076_12_A.01_140410
Applicant..... :	GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP.,LTD NO. 18 HAIBIN ROAD, WUSHA, CHANG'AN, DONGGUAN, GUANGDONG, CHINA
Manufacturer ..... :	GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP.,LTD NO. 18 HAIBIN ROAD, WUSHA, CHANG'AN, DONGGUAN, GUANGDONG, CHINA
Frequency Range..... :	802.11b/g/n: 2.400GHz - 2.4835GHz 802.11a/n/ac: 5.150GHz- 5.350GHz 5.470GHz- 5725GHz 5.725GHz- 5.850GHz
Channel Number ..... :	2.4GHz Band: 802.11b/g/n-20MHz: 11 802.11n-40MHz: 7 802.11a/n/ac-20MHz: 5.725GHz- 5.850GHz: 5 Channels 5.150GHz – 5.350GHz: 8 Channels 5.470GHz – 5.725GHz: 11Channels 802.11n/ac-40MHz: 5.725GHz- 5.850GHz: 2 Channels 5.150GHz – 5.350GHz: 4 Channels 5.470GHz – 5.725GHz: 5 Channels
Modulation Type..... :	DSSS, OFDM
Antenna Type ..... :	PIFA Antenna
Antenna Gain..... :	1.0dBi MAX

Note :

1. 2.4GHz and 5.8GHz bands is applicable to this report, the U-NII band is documented in a separate report.
2. The EUT is Mobile Phone, it contains WIFI Module operating at 2.4GHz ISM and 5GHz band; it supports 802.11a, 802.11b, 802.11g, 802.11n,802.11ac and they are all tested in this report.
3. For 802.11b/g/n-20MHz (2.4GHz band), the frequencies allocated is F (MHz) =2412+5*(n-1) (1<=n<=11). The lowest, middle, highest channel numbers of the EUT used and tested in this report are separately 1 (2412MHz), 6 (2437MHz) and 11 (2462MHz).
   For 802.11n-40MHz, the frequencies allocated is F (MHz) =2412+5*(n-1) (3<=n<=9). The lowest,

middle, highest channel numbers of the EUT used and tested in this report are separately 3 (2422MHz), 6 (2437MHz) and 9 (2452MHz).

4. For 5.8GHz band, 802.11a/n/ac-20MHz: CH149(5745MHz), CH157(5785MHz) and CH165(5825GHz), 802.11ac/n-40MHz: CH151(5755MHz), CH159(5795MHz) are tested in this report
5. For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.
6. The antenna connector of EUT is designed with permanent attachment and no consideration of replacement.

2. Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 15 Subpart C (Wi-Fi, 2.4GHz ISM band radiators) for the EUT FCC ID Certification:

No.	Identity	Document Title
1	47 CFR Part 15 (10-1-12 Edition)	Radio Frequency Devices

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Result
1	15.203	Antenna Requirement	**PASS**
2	15.247(b)	Peak Output Power	**PASS**
3	15.247(a)	Bandwidth	**PASS**
4	15.247(d)	Conducted Spurious Emission and Band Edge	**PASS**
5	15.247(d)	Restricted Frequency Bands	**PASS**
6	15.207	Conducted Emission	**PASS**
7	15.209 ,15.247(d)	Radiated Emission	**PASS**
8	15.247(e)	Power spectral density (PSD)	**PASS**
9	15.247(i), 1.1307&2.1093	RF exposure evaluation	**PASS**

The tests of Conducted Emission and Radiated Emission were performed according to the method of measurements prescribed in ANSI C63.4 2009.

These RF tests were performed according to the method of measurements prescribed in KDB558074 D01 v03r01 (04/09/2013).

2.1. Facilities and Accreditations

2.1.1. Facilities

Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L3572.

All measurement facilities used to collect the measurement data are located at FL.1, Building A, FeiYang Science Park, Block 67, BaoAn District, Shenzhen, 518101 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.10 2009, ANSI C63.4 2009 and CISPR Publication 22; the FCC registration number is 695796.

2.1.2. Test Environment Conditions

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

Temperature (°C):	15 - 35
Relative Humidity (%):	30 -60
Atmospheric Pressure (kPa):	86-106

3. 47 CFR Part 15C Requirements

3.1. Antenna requirement

3.1.1. Applicable Standard

According to FCC 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

3.1.2. Result: Compliant

The EUT has a permanently and irreplaceable attached antenna. Please refer to the EUT internal photos.

3.2. Peak Output Power

3.2.1. Requirement

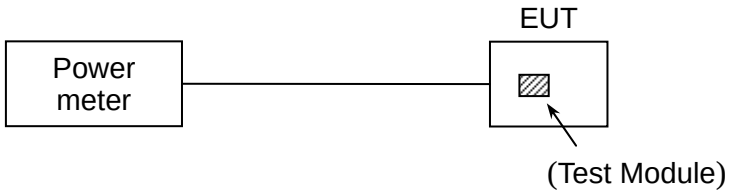
According to FCC section 15.247(b)(3), For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: The maximum peak conducted output power of the intentional radiator shall not exceed1 Watt.

3.2.2. Test Description

KDB 558074 D01 v03r01 (04/09/2013) Section 9.1.3 was used in order to prove compliance.

The measured output power was calculated by the reading of the Power Meter and calibration.

A. Test Setup:



The EUT (Equipment under the test) which is powered by the Battery is coupled to the Power Meter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading, all test result in power meter.

B. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
USB Wideband Power Sensor	Agilent	U2021XA	MY52280010	2013.05.12	2014.05.11

3.2.3. Test Result

The lowest, middle and highest channels are selected to perform testing to verify the conducted RF output peak power of the Module.

3.2.3.1. 802.11b Test Mode

Channel	Frequency (MHz)	Measured Output Peak Power		Limit		Verdict
		dBm	W	dBm	W	
1	2412	16.75	0.047315	30	1	PASS
6	2437	16.83	0.048195			PASS
11	2462	16.87	0.048641			PASS

Channel	Frequency (MHz)	Measured Output Average Power
		dBm
1	2412	14.65
6	2437	14.27
11	2462	14.14

3.2.3.2. 802.11g Test mode

Channel	Frequency (MHz)	Measured Output Peak Power		Limit		Verdict
		dBm	W	dBm	W	
1	2412	14.42	0.027669	30	1	PASS
6	2437	14.36	0.027290			PASS
11	2462	14.41	0.027606			PASS

Channel	Frequency (MHz)	Measured Output Average Power
		dBm
1	2412	11.31
6	2437	11.32
11	2462	11.08

3.2.3.3. 802.11n-20MHz Test mode

Channel	Frequency (MHz)	Measured Output Peak Power		Limit		Verdict
		dBm	W	dBm	W	
1	2412	13.51	0.022439	30	1	PASS
6	2437	13.56	0.022699			PASS
11	2462	13.47	0.022233			PASS
149	5745	12.87	0.019364			
157	5785	12.95	0.019724			
165	5825	12.85	0.019275			

Channel	Frequency (MHz)	Measured Output Average Power
		dBm
1	2412	10.44
6	2437	10.56
11	2462	10.32
149	5745	10.35
157	5785	10.21
165	5825	9.99

3.2.3.4. 802.11n-40MHz Test mode

Channel	Frequency (MHz)	Measured Output Peak Power		Limit		Verdict
		dBm	W	dBm	W	
3	2422	13.37	0.021727	30	1	PASS
6	2437	13.31	0.021429			PASS
9	2452	13.46	0.022182			PASS
151	5755	11.52	0.014191			PASS
159	5795	11.64	0.014588			PASS

Channel	Frequency (MHz)	Measured Output Average Power
		dBm
3	2422	9.72
6	2437	9.52
9	2452	9.58
151	5755	9.23
159	5795	8.70

3.2.3.5. 802.11a Test mode

Channel	Frequency (MHz)	Measured Output Peak Power		Limit		Verdict
		dBm	W	dBm	W	
149	5745	13.08	0.020324	30	1	PASS
157	5785	12.98	0.019861			PASS
165	5825	13.05	0.020184			PASS

Channel	Frequency (MHz)	Measured Output Average Power
		dBm
149	5745	10.37
157	5785	10.12
165	5825	10.02

3.2.3.6. 802.11ac-20MHz

Channel	Frequency (MHz)	Measured Output Peak Power		Limit		Verdict
		dBm	W	dBm	W	
149	5745	13.13	0.020559	30	1	PASS
157	5785	13.51	0.022439			PASS
165	5825	13.48	0.022284			PASS

Channel	Frequency (MHz)	Measured Output Average Power
		dBm
149	5745	10.33
157	5785	10.18
165	5825	9.880

3.2.3.7. 802.11ac-40MHz Test mode

Channel	Frequency (MHz)	Measured Output Peak Power		Limit		Verdict
		dBm	W	dBm	W	
151	5755	11.71	0.014825	30	1	PASS
159	5795	11.58	0.014388			PASS

Channel	Frequency (MHz)	Measured Output Average Power
		dBm
151	5755	9.62
159	5795	9.22

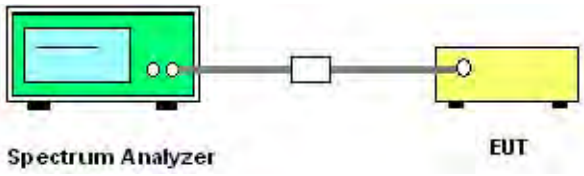
3.3. Bandwidth

3.3.1. Requirement

According to FCC section 15.247(a) (2), 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.

3.3.2. Test Description

A. Test Set:



The EUT which is powered by the Battery, is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW.

KDB 558074 D01 v03r01 (04/09/2013) Section 8.1 Option 1 was used in order to prove compliance.

B. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
EXA Signal Analzyer	Agilent	N9010A	MY51440152	2013.05.12	2014.05.11

3.3.3. Test Result

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

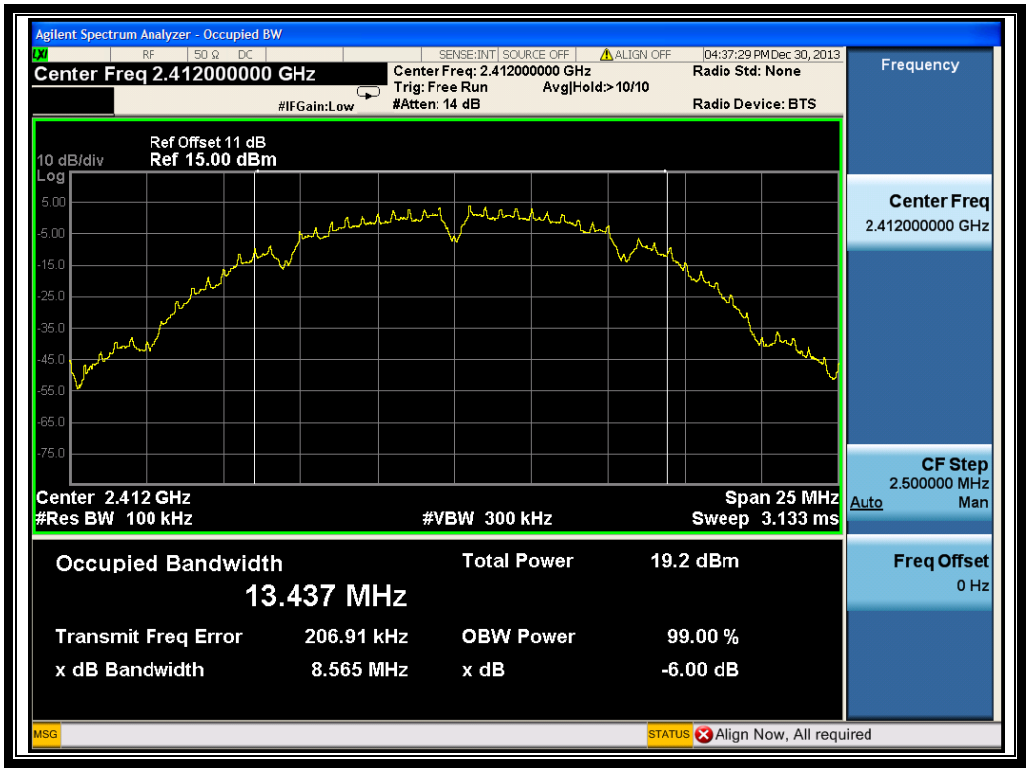
3.3.3.1. 802.11b Test mode

A. Test Verdict:

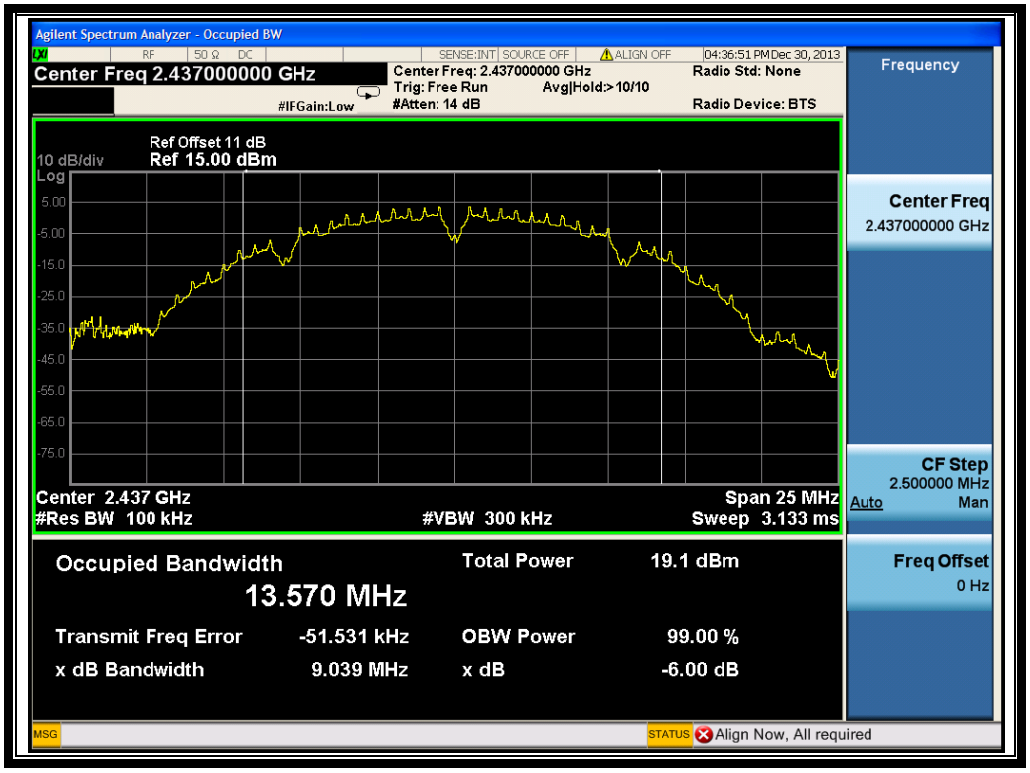
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits(kHz)	Result
1	2412	8.565	≥500	PASS
6	2437	9.039	≥500	PASS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits(kHz)	Result
11	2462	9.044	≥500	PASS

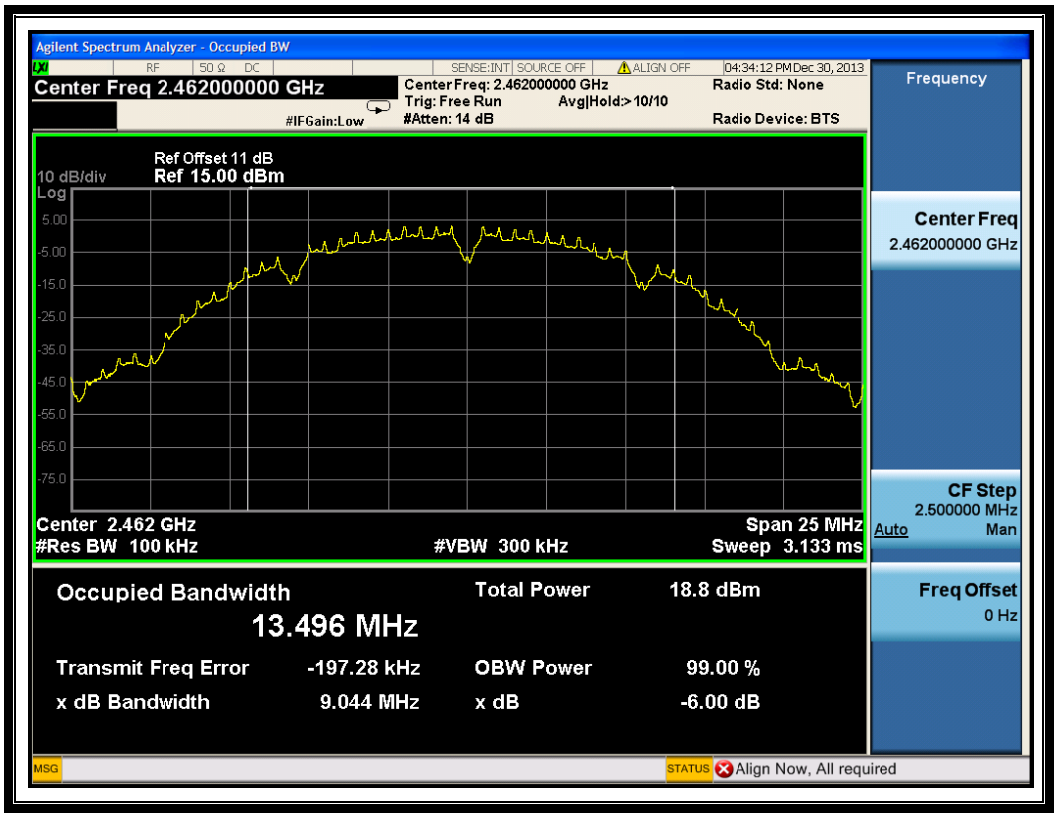
B. Test Plots



(Channel 1: 2412MHz @ 802.11b)



(Channel 6: 2437 MHz @ 802.11b)



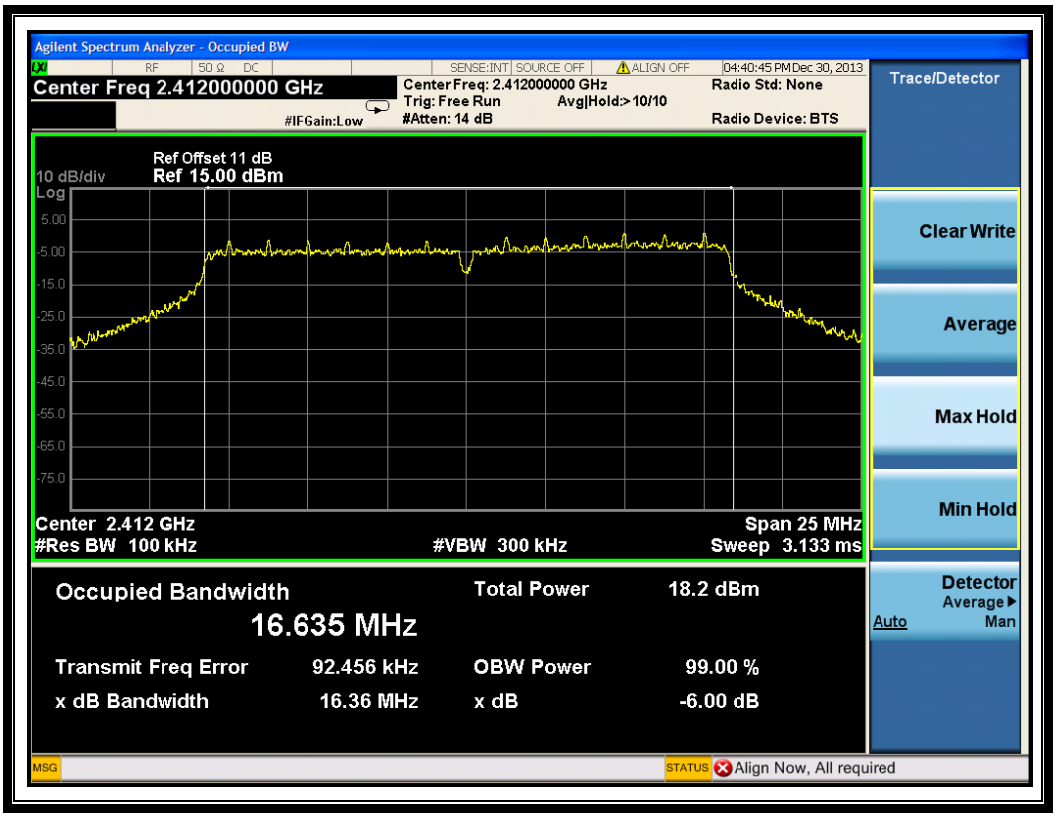
(Channel 11: 2462MHz @ 802.11b)

3.3.3.2. 802.11g Test mode

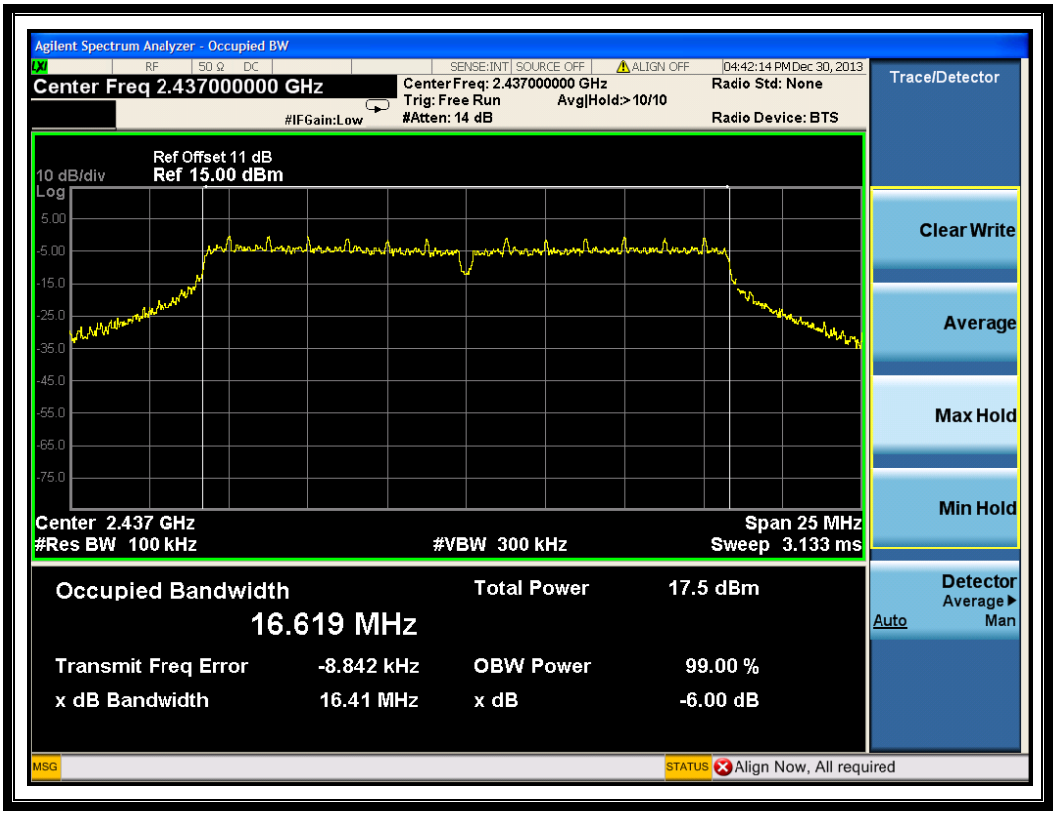
A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)	Result
1	2412	16.36	≥500	PASS
6	2437	16.41	≥500	PASS
11	2462	16.35	≥500	PASS

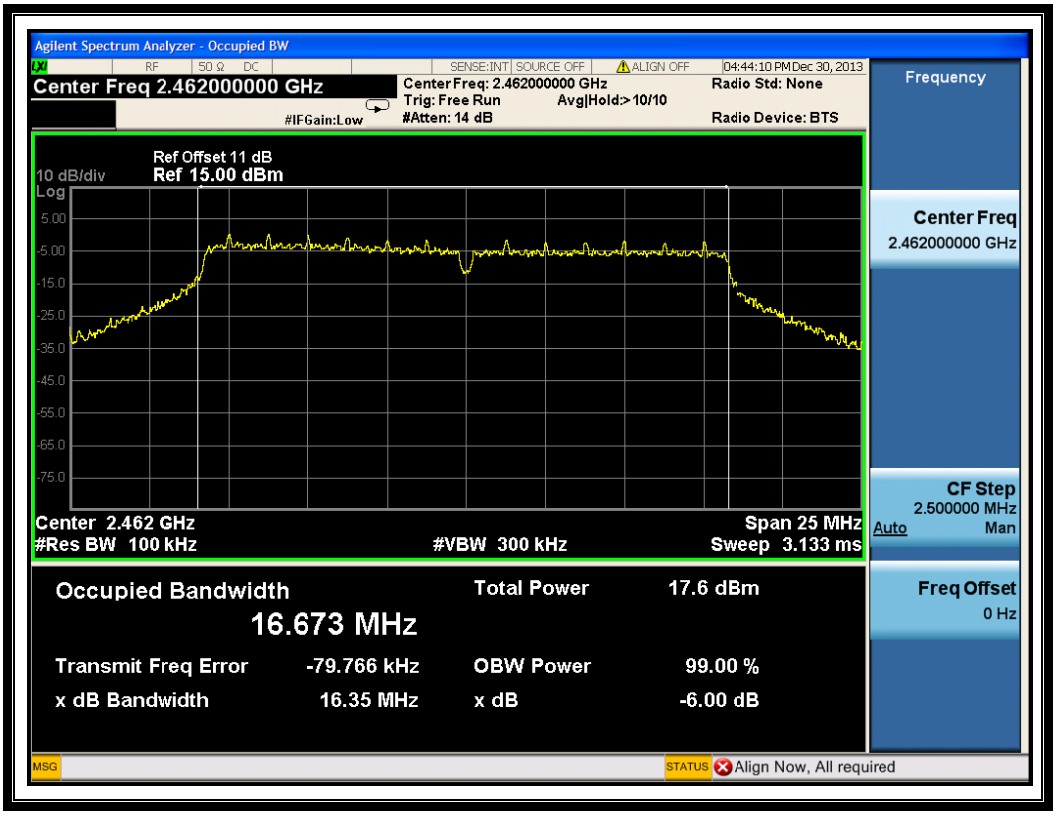
B. Test Plots:



(Channel 1: 2412MHz @ 802.11g)



(Channel 6: 2437MHz @ 802.11g)



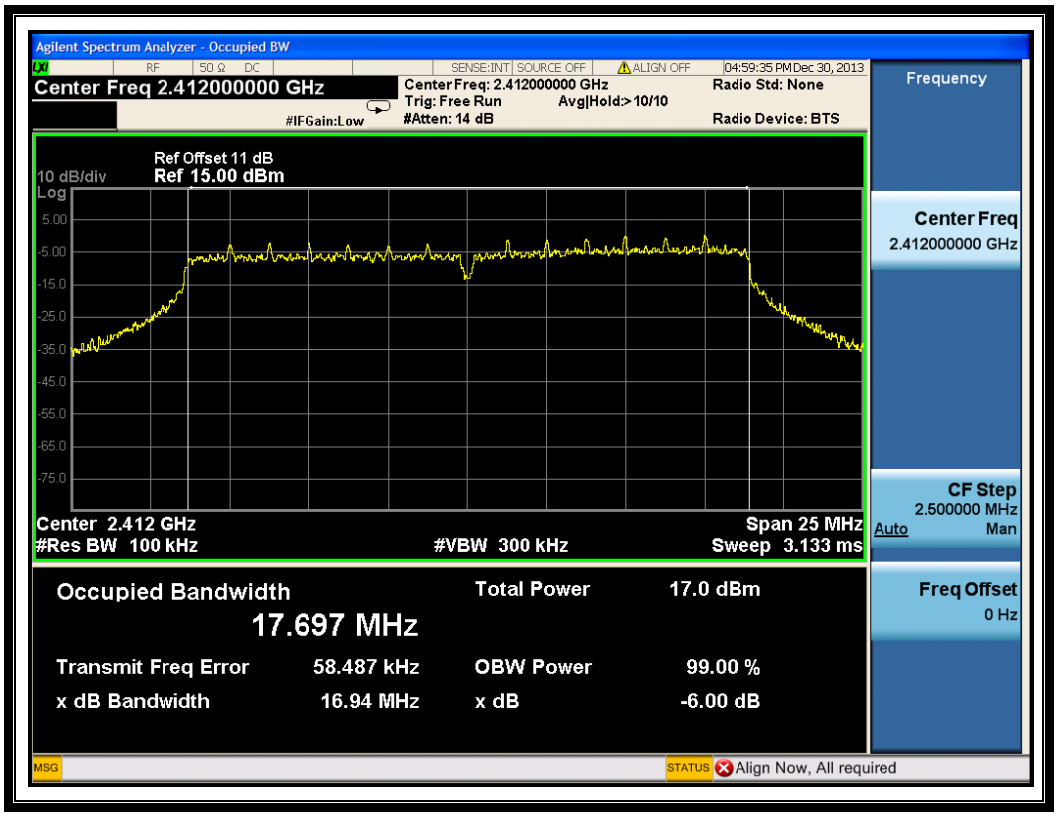
(Channel 11: 2462MHz @ 802.11g)

3.3.3.3. 802.11n-20 Test mode

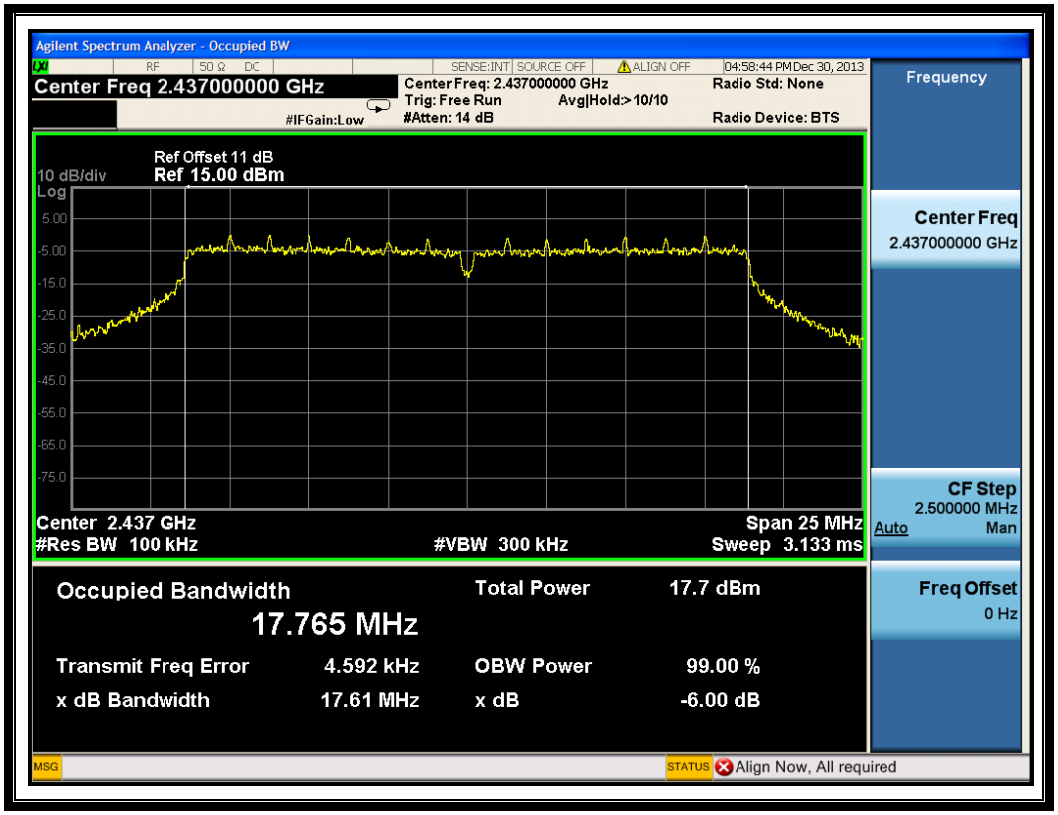
A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)	Result
1	2412	16.94	≥500	PASS
6	2437	17.61	≥500	PASS
11	2462	17.21	≥500	PASS
149	5745	17.57	≥500	PASS
157	5785	17.58	≥500	PASS
165	5825	17.59	≥500	PASS

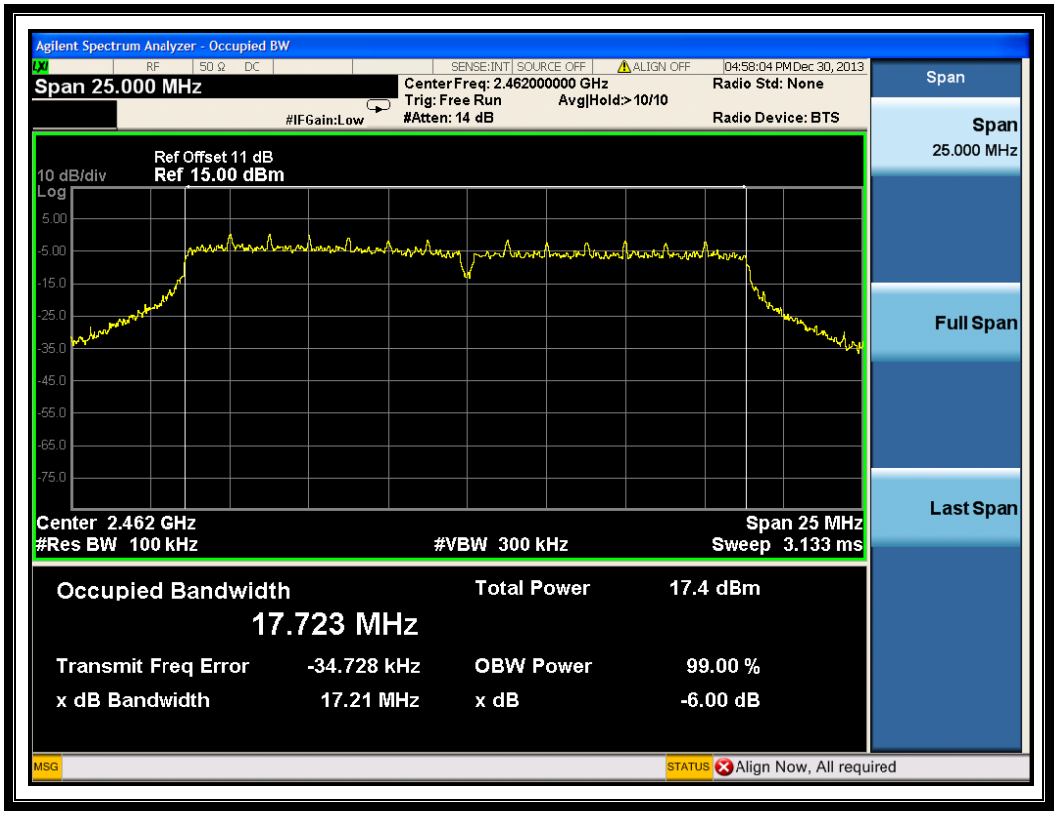
B. Test Plots:



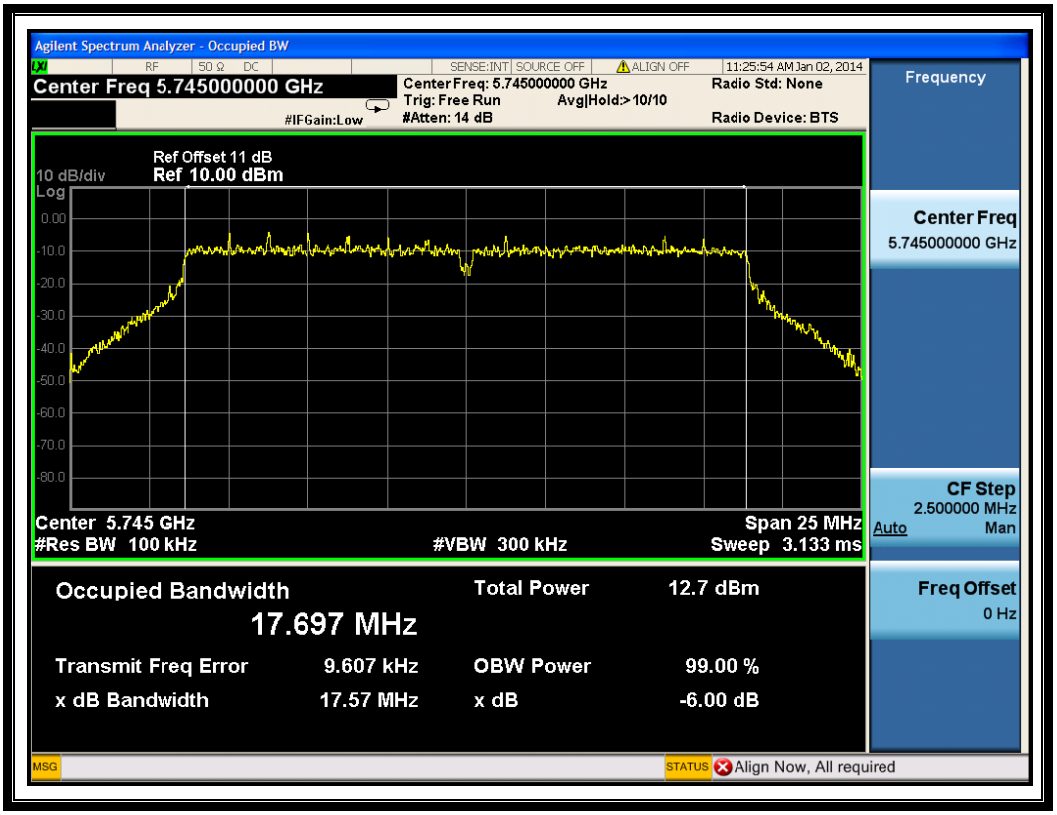
(Channel 1: 2412MHz @ 802.11n-20)



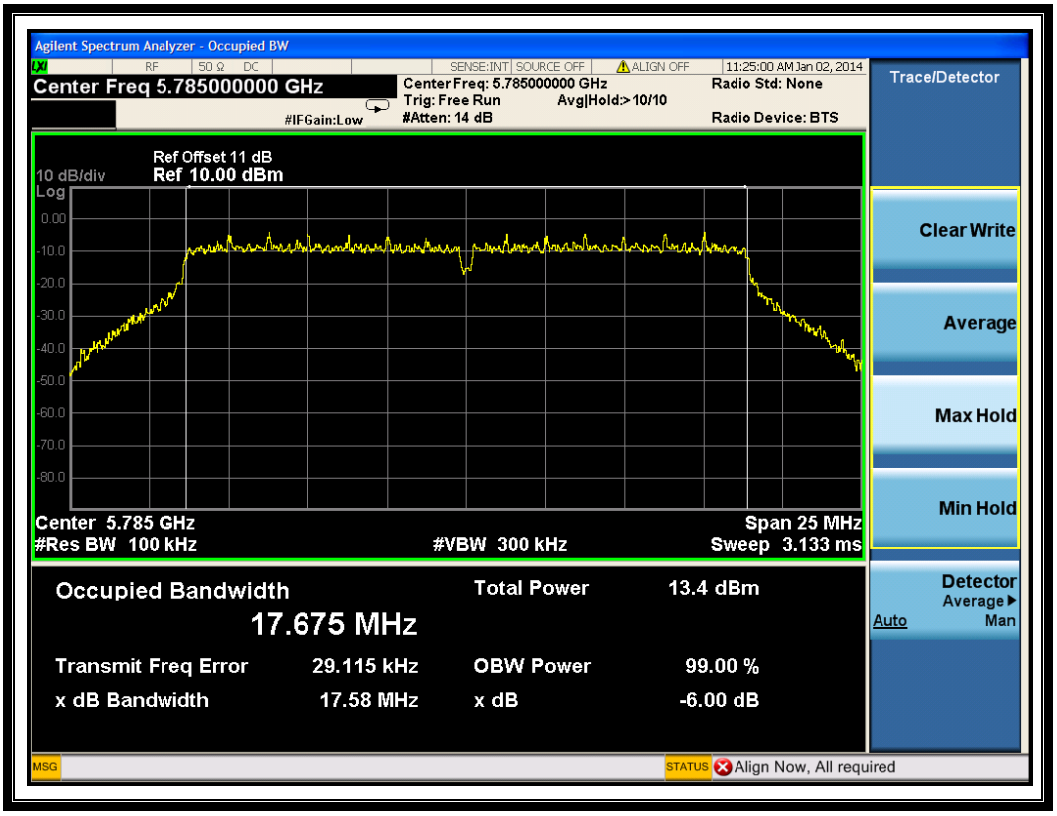
(Channel 6: 2437MHz @ 802.11n-20)



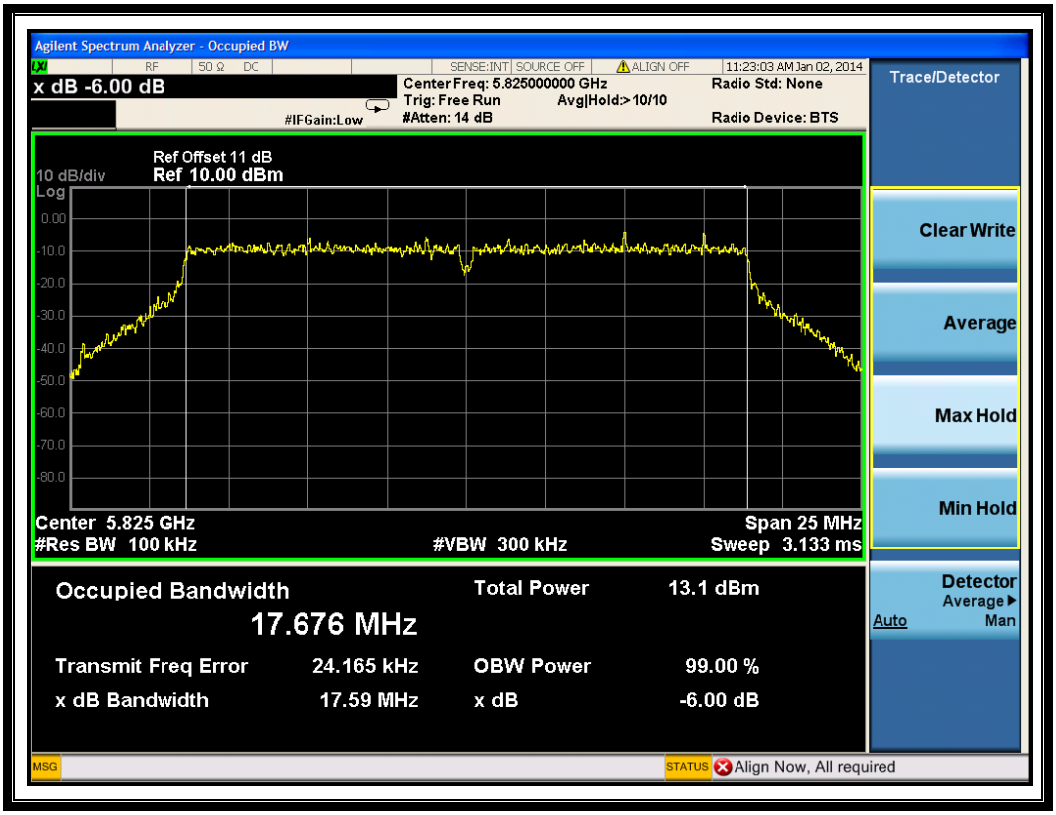
(Channel 11: 2462MHz @ 802.11n-20)



(Channel 149: 5745MHz @ 802.11n-20)



(Channel 157: 5785MHz @ 802.11n-20)



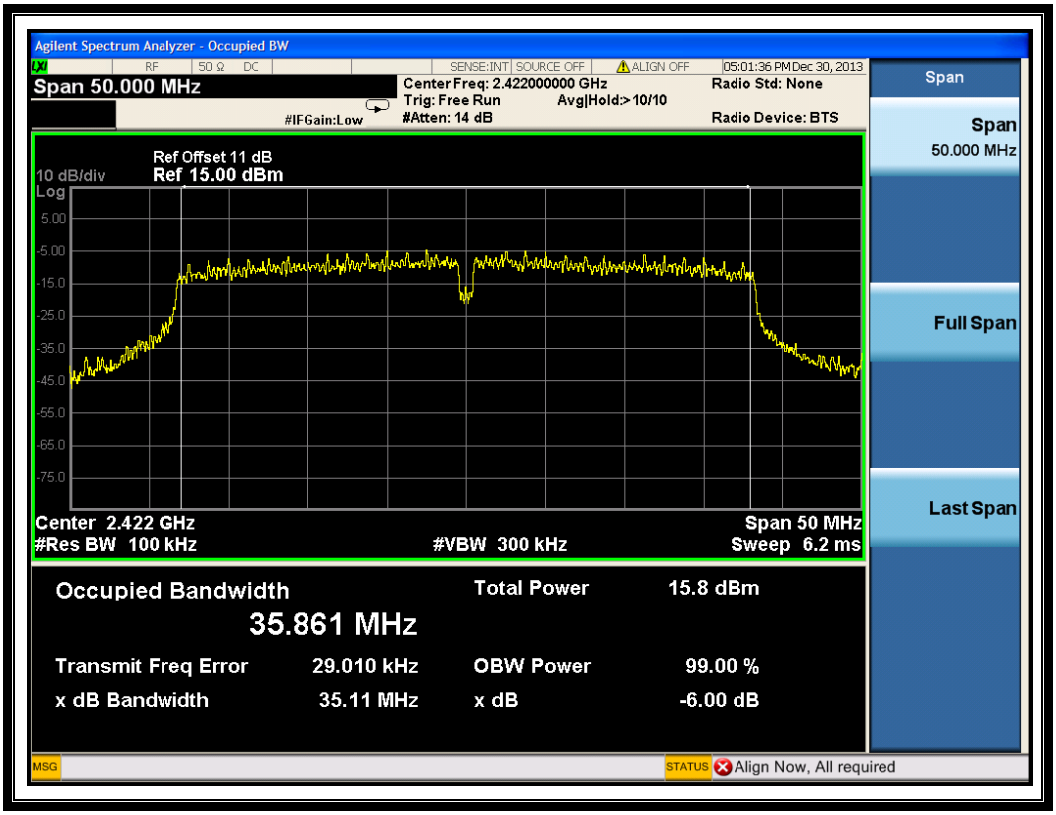
(Channel 165: 5825MHz @ 802.11n-20)

3.3.3.4. 802.11n-40 Test mode

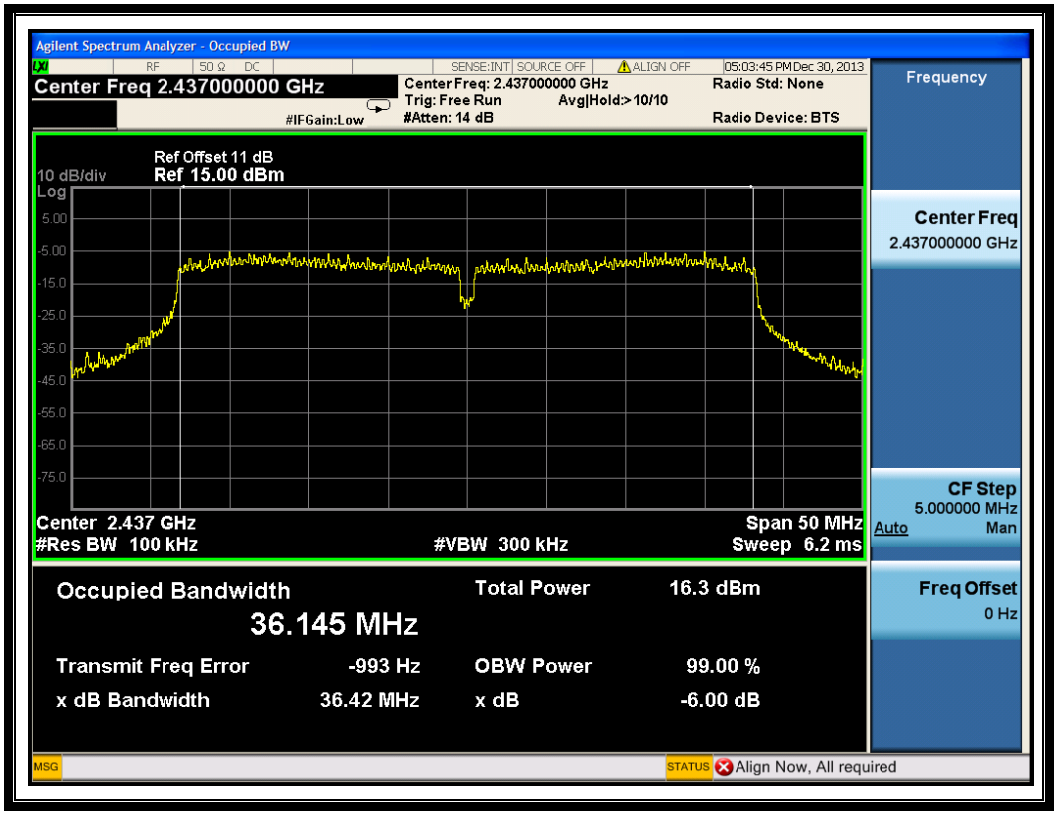
A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)	Result
3	2422	35.11	≥500	PASS
6	2437	36.42	≥500	PASS
9	2452	35.11	≥500	PASS
151	5755	35.16	≥500	PASS
159	5795	35.46	≥500	PASS

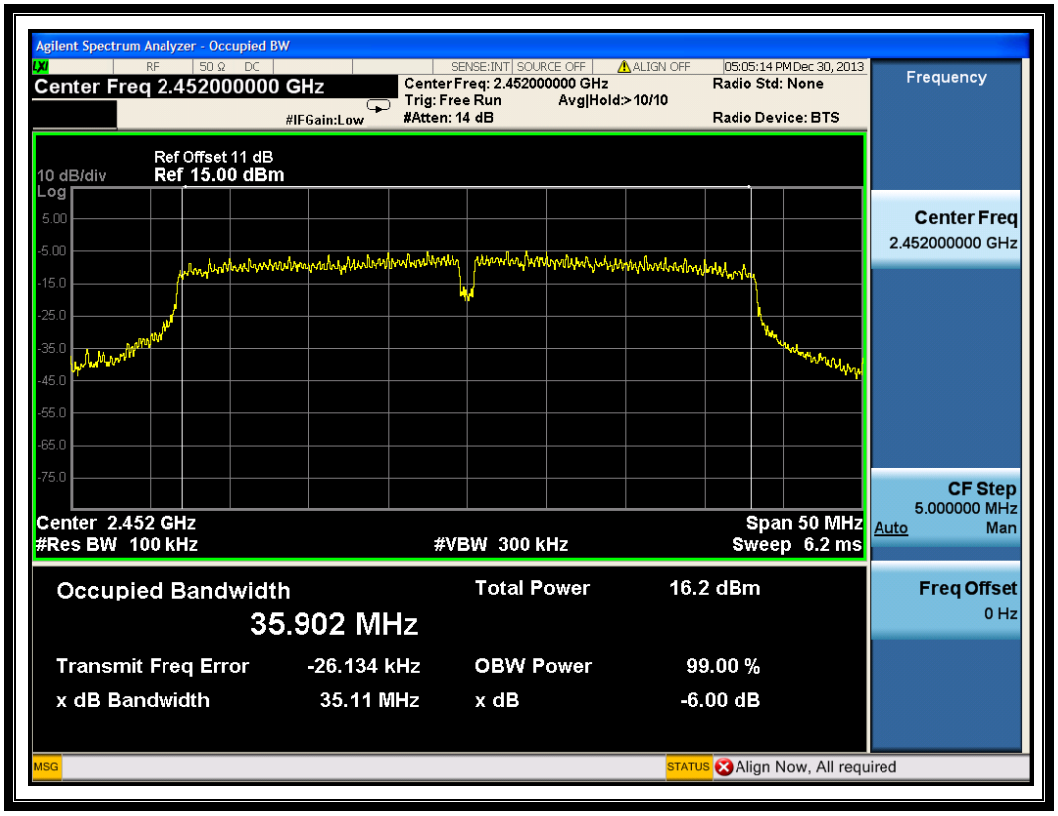
B. Test Plots:



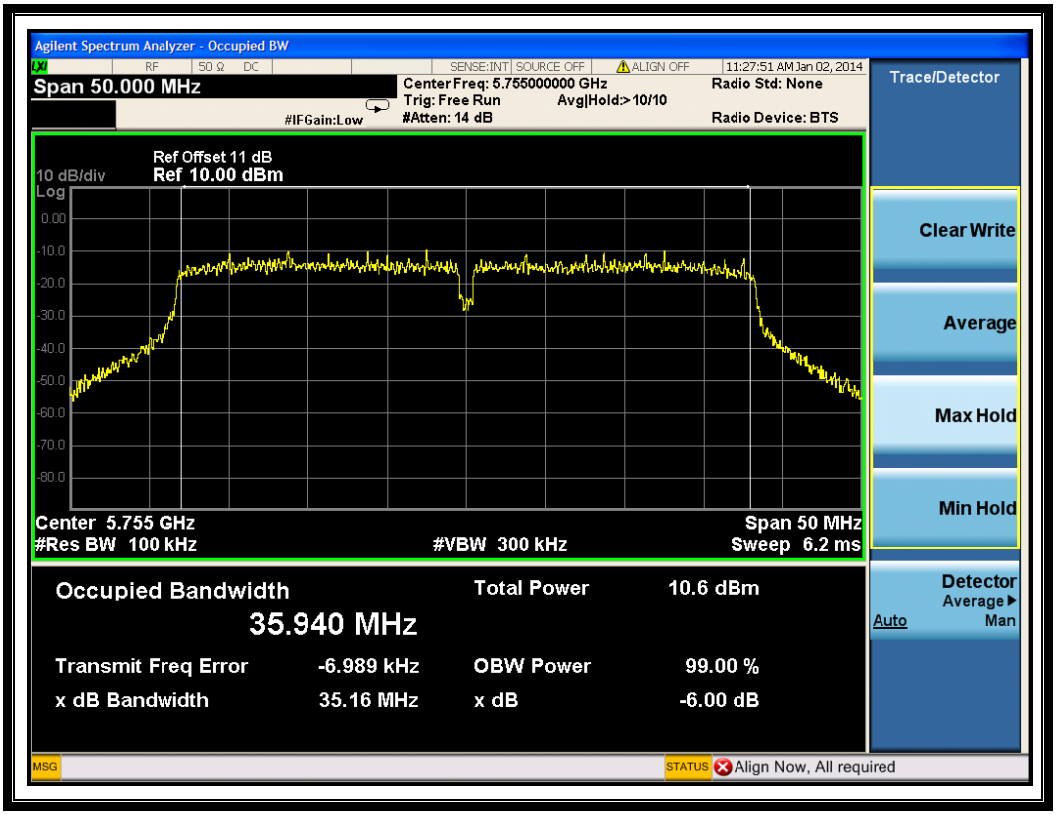
(Channel 3: 2422MHz @ 802.11n-40)



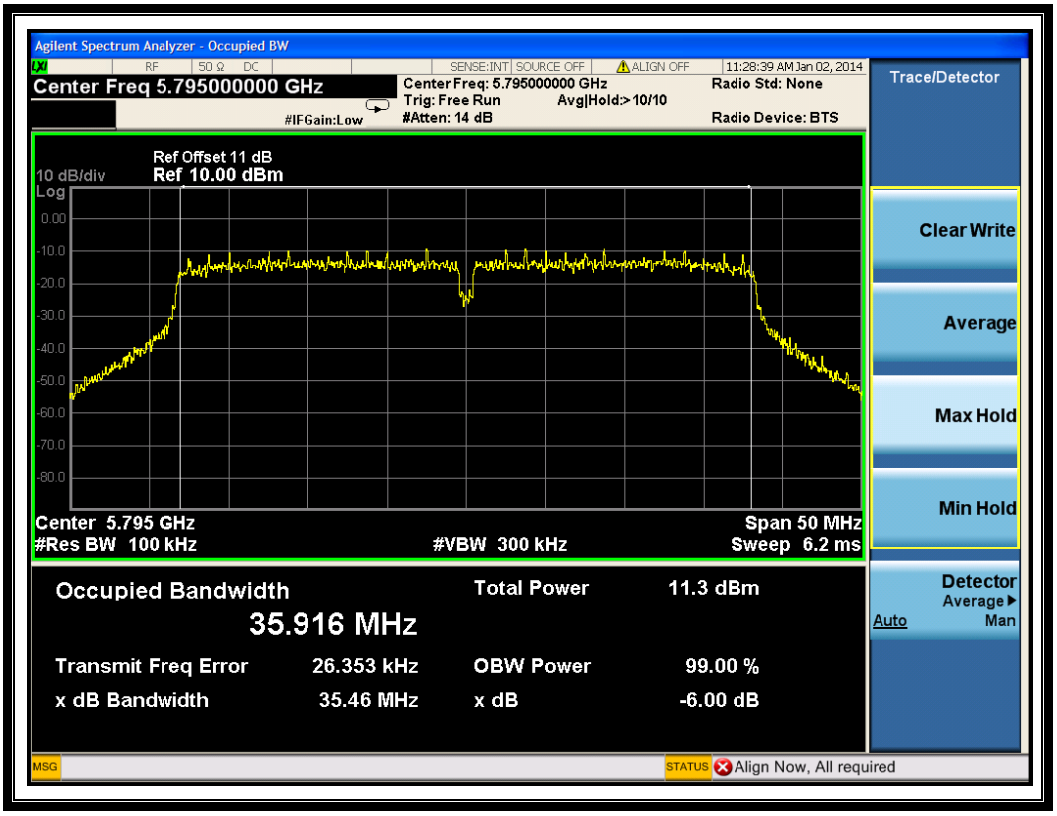
(Channel 6: 2437MHz @ 802.11n-40)



(Channel 9: 2452MHz @ 802.11n-40)



(Channel 151: 5755MHz @ 802.11n-40)



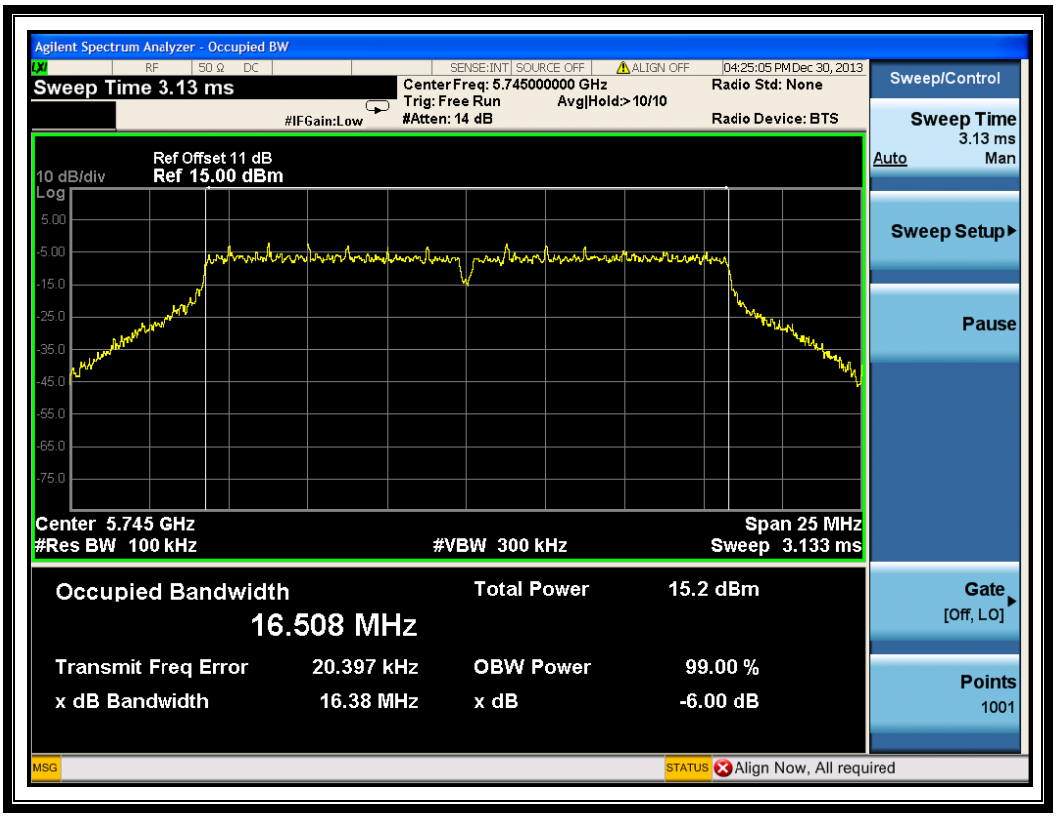
(Channel 159: 5795MHz @ 802.11n-40)

3.3.3.5. 802.11a Test mode

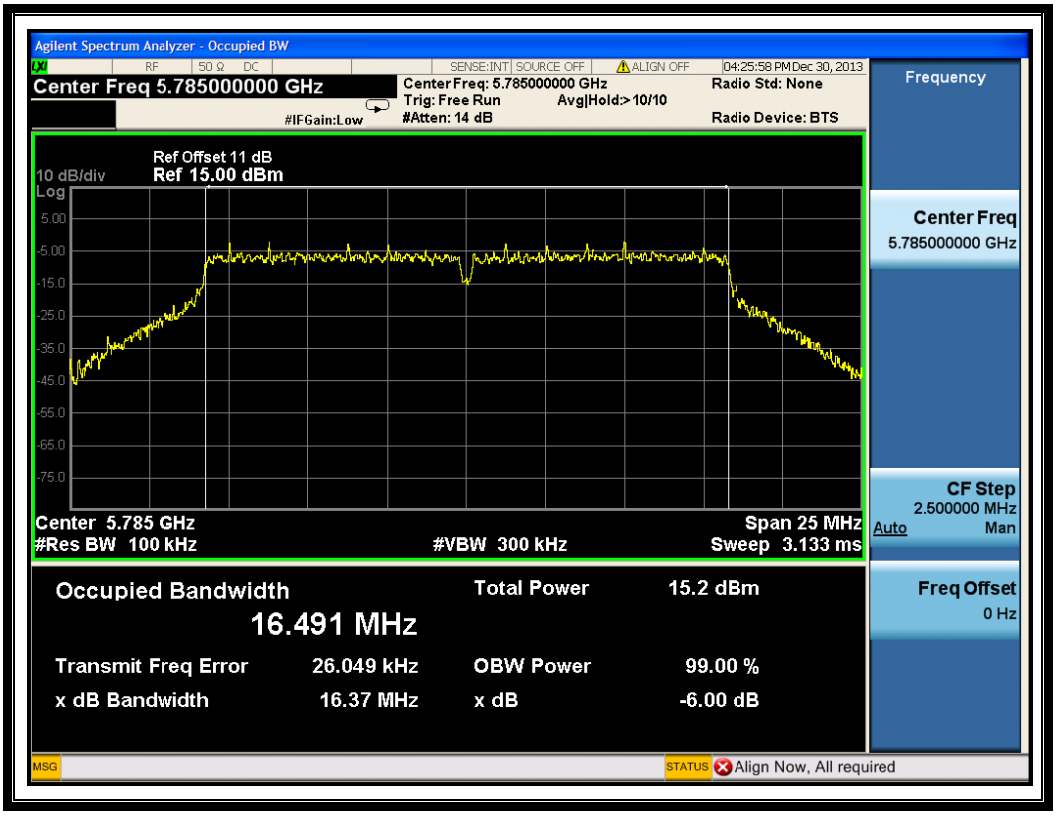
A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)	Result
149	5745	16.38	≥500	PASS
157	5785	16.37	≥500	PASS
165	5825	16.37	≥500	PASS

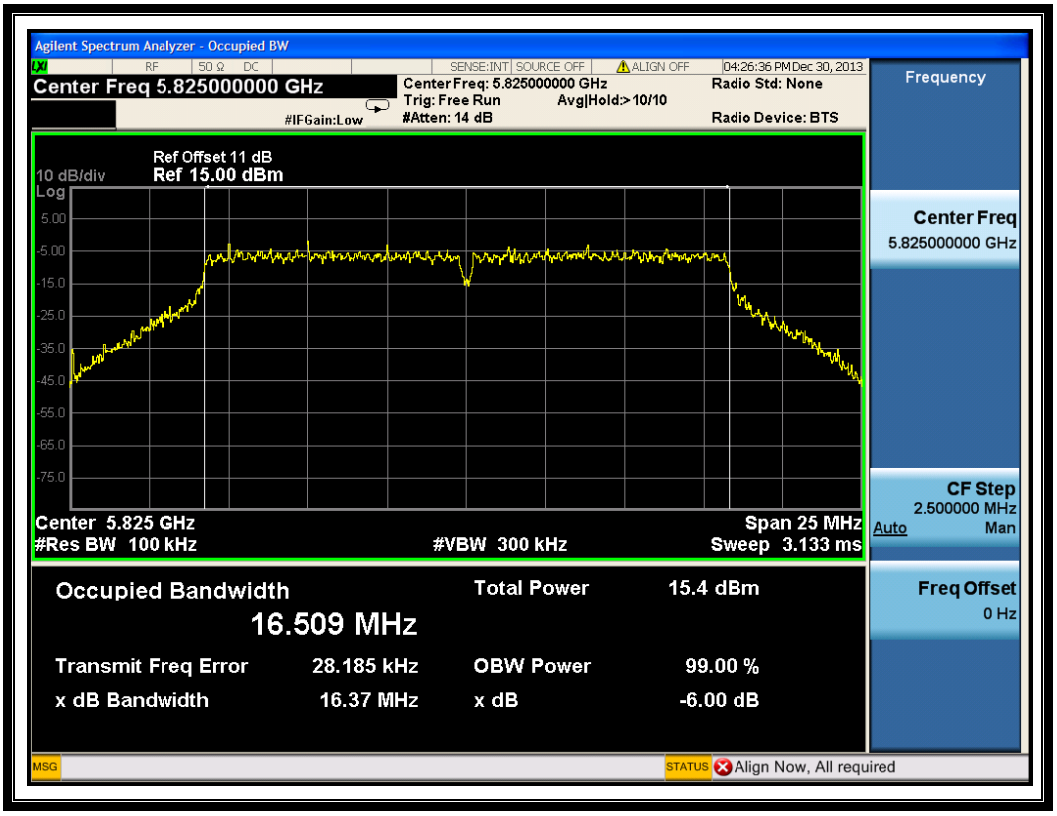
B. Test Plots:



(Channel 149: 5745MHz @ 802.11a)



(Channel 157: 5785MHz @ 802.11a)



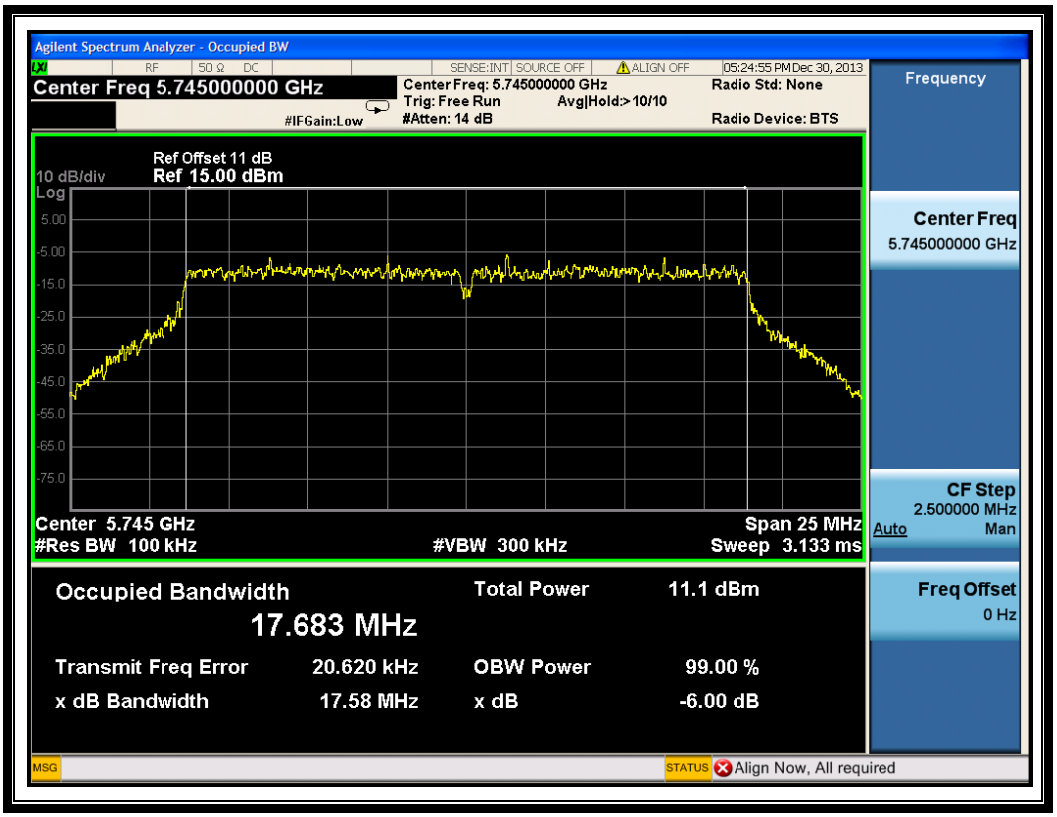
(Channel 165: 5825MHz @ 802.11a)

3.3.3.6. 802.11ac-20MHz

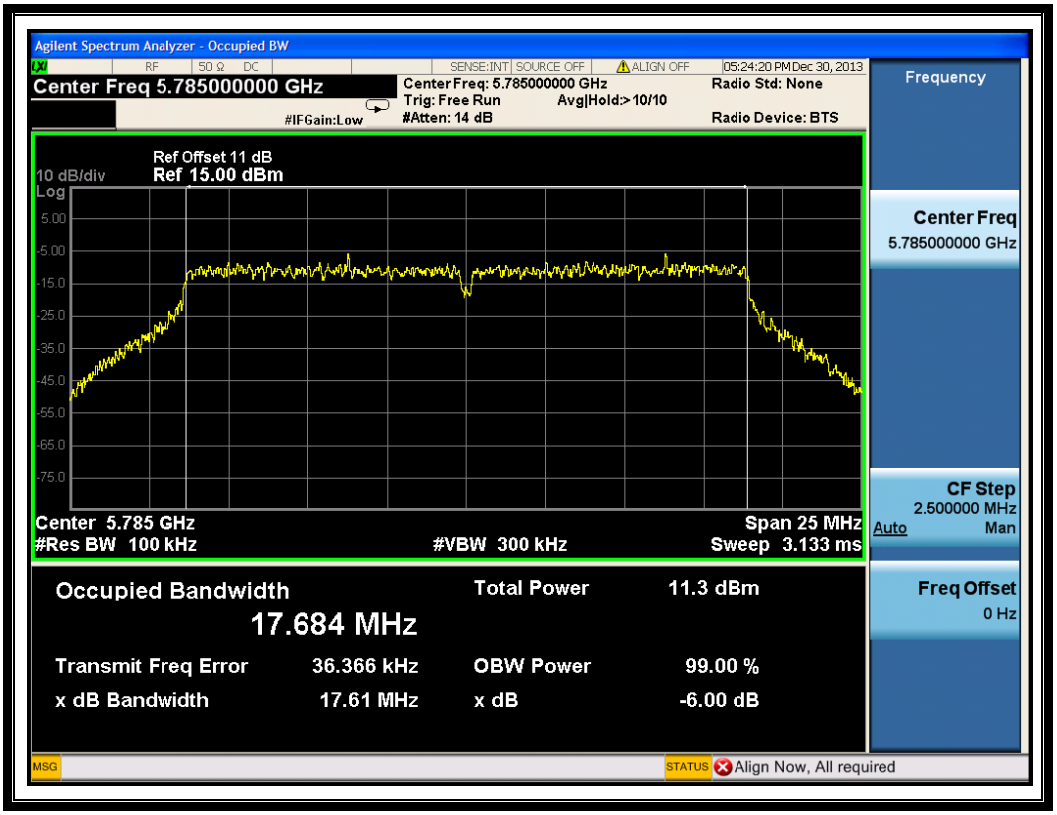
A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)	Result
149	5745	17.58	≥500	PASS
157	5785	17.61	≥500	PASS
165	5825	17.59	≥500	PASS

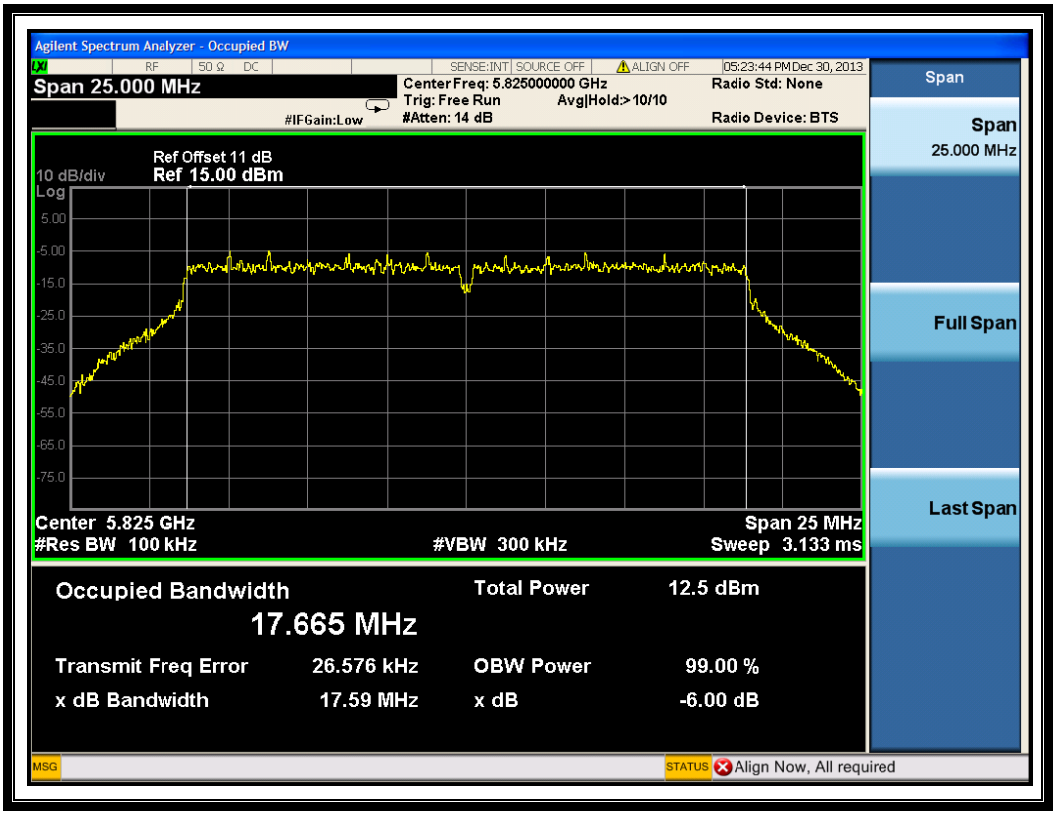
B. Test Plots:



(Channel 149: 5745MHz @ 802.11ac-20)



(Channel 157: 5785MHz @ 802.11ac-20)



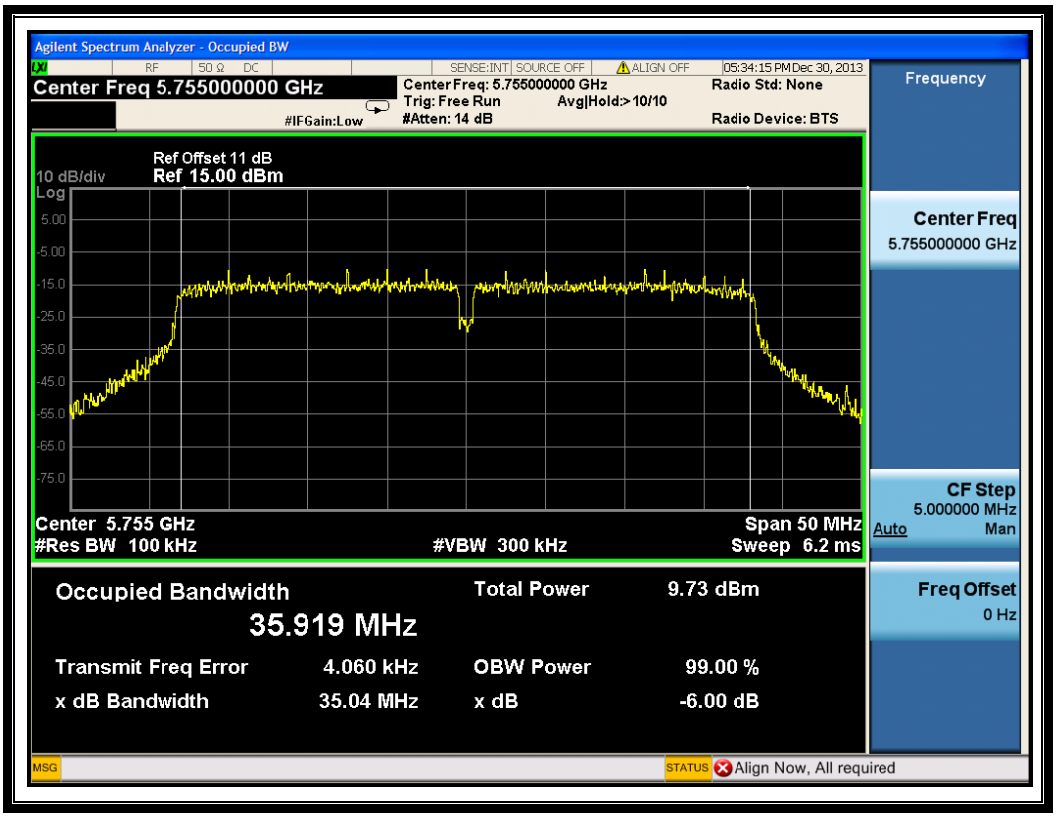
(Channel 165: 5825MHz @ 802.11ac-20)

3.3.3.7. 802.11ac-40 Test mode

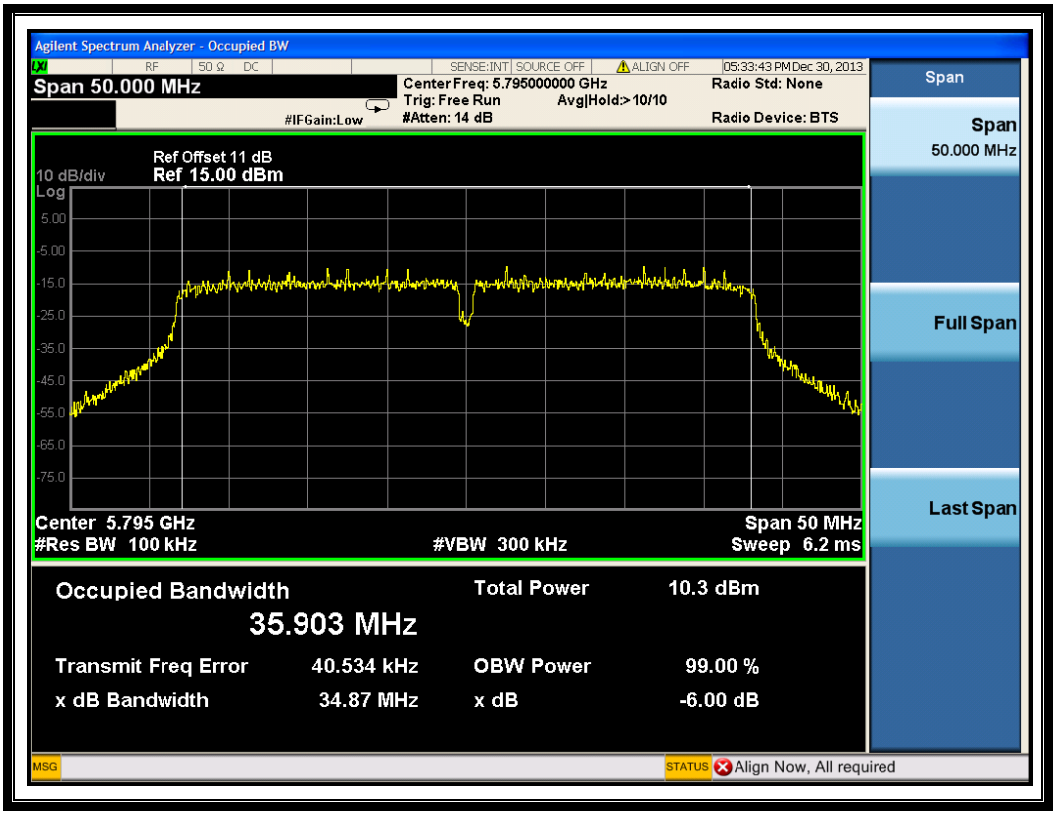
A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)	Result
151	5755	35.04	≥500	PASS
159	5795	34.87	≥500	PASS

B. Test Plots:



(Channel 151: 5755MHz @ 802.11ac-40)



(Channel 159: 5795MHz @ 802.11ac-40)

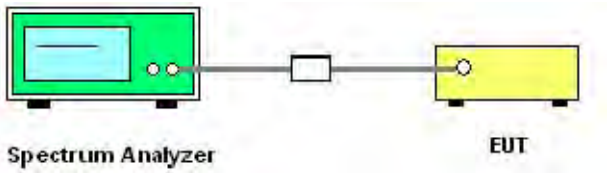
3.4. Conducted Spurious Emissions and Band Edge

3.4.1. Requirement

According to FCC section 15.247(c), in any 100kHz 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 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

3.4.2. Test Description

A. Test Set:



The EUT which is powered by the Battery, is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW.

KDB 558074 D01 v03r01 (04/09/2013) Section 11.0 was used in order to prove compliance.

B. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
EXA Signal Analzyer	Agilent	N9010A	MY51440152	2013.05.12	2014.05.11

3.4.3. 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.

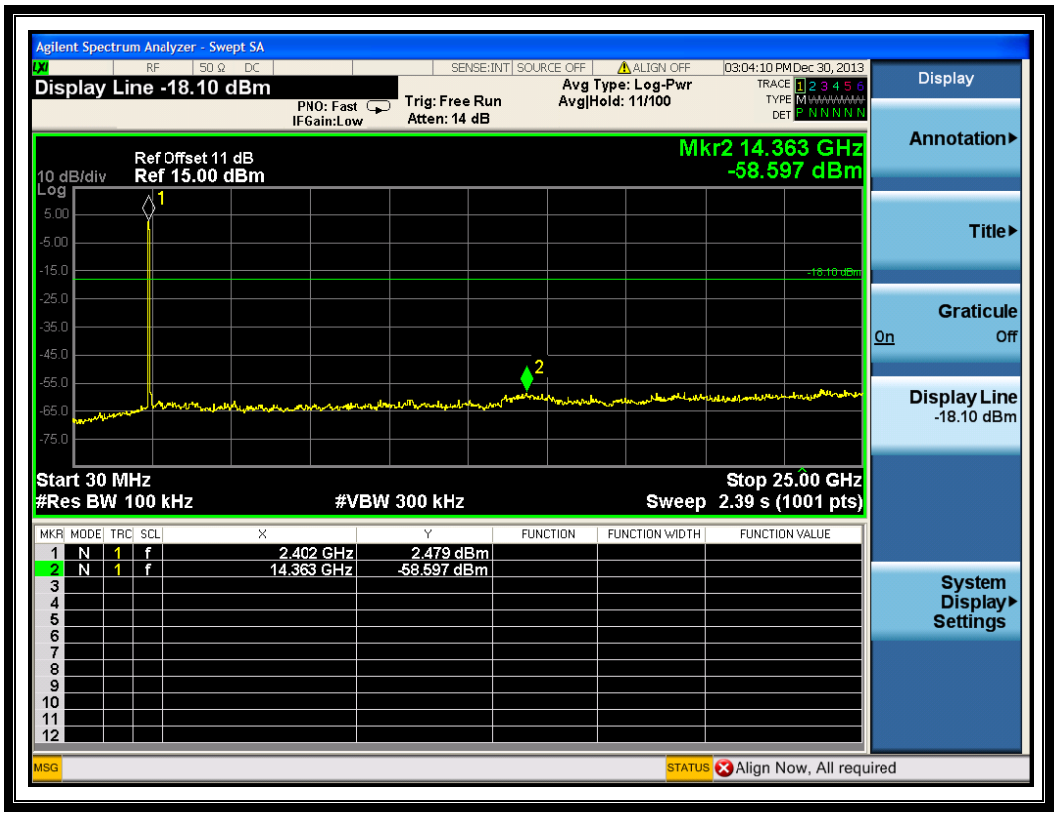
3.4.3.1. 802.11b Test mode

A. Test Verdict:

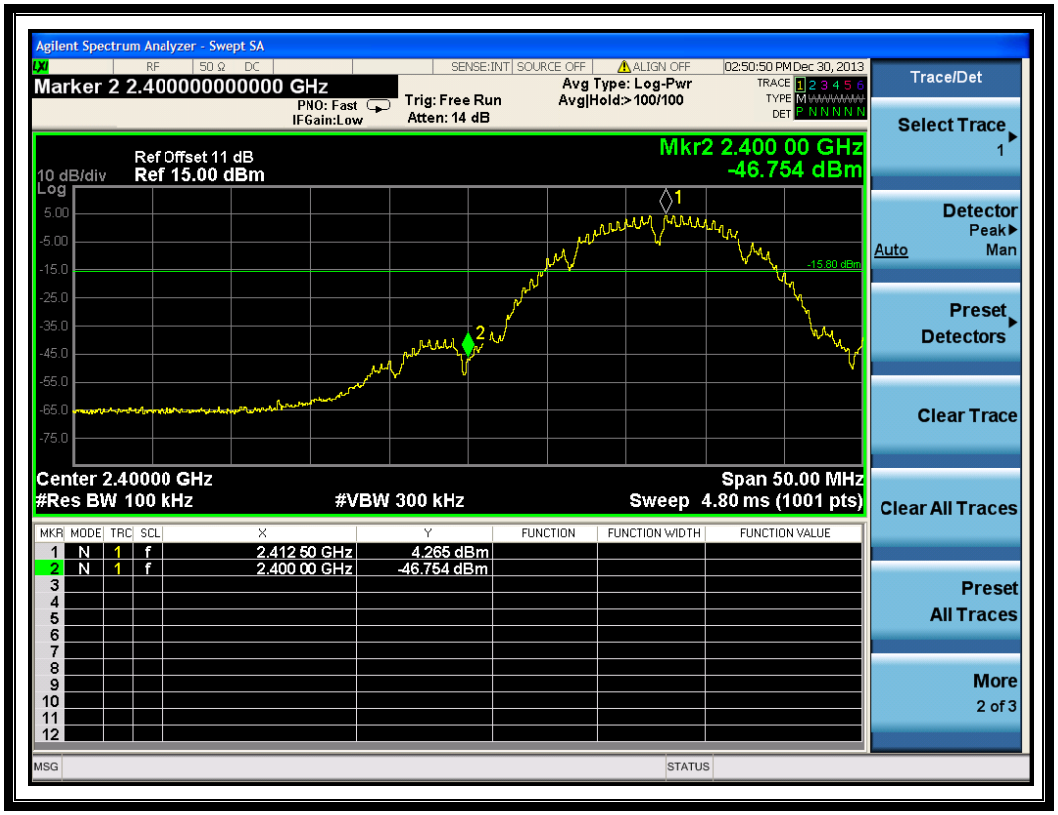
Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated -20dBc Limit	
1	2412	-58.597	2.479	-17.5	PASS
6	2437	-57.995	3.283	-16.7	PASS
11	2462	-58.604	2.587	-17.4	PASS

B. Test Plots:

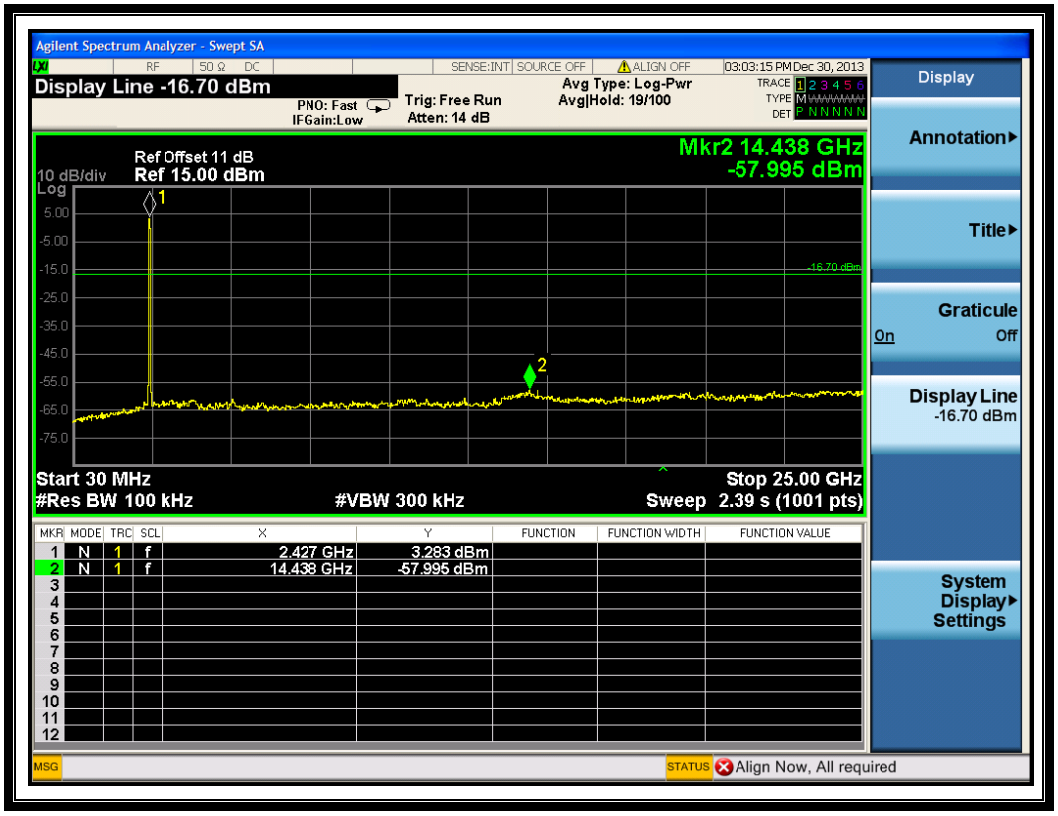
Note: the power of the Module transmitting frequency should be ignored.



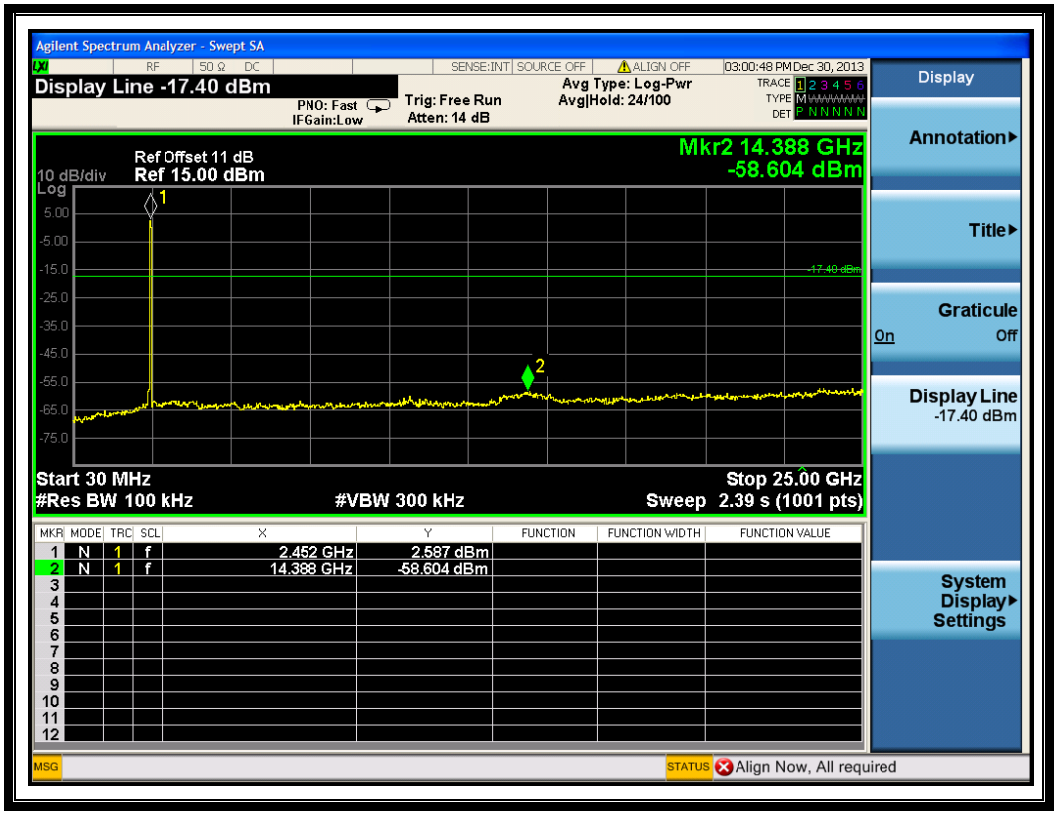
(Channel = 1, 30MHz to 25GHz)



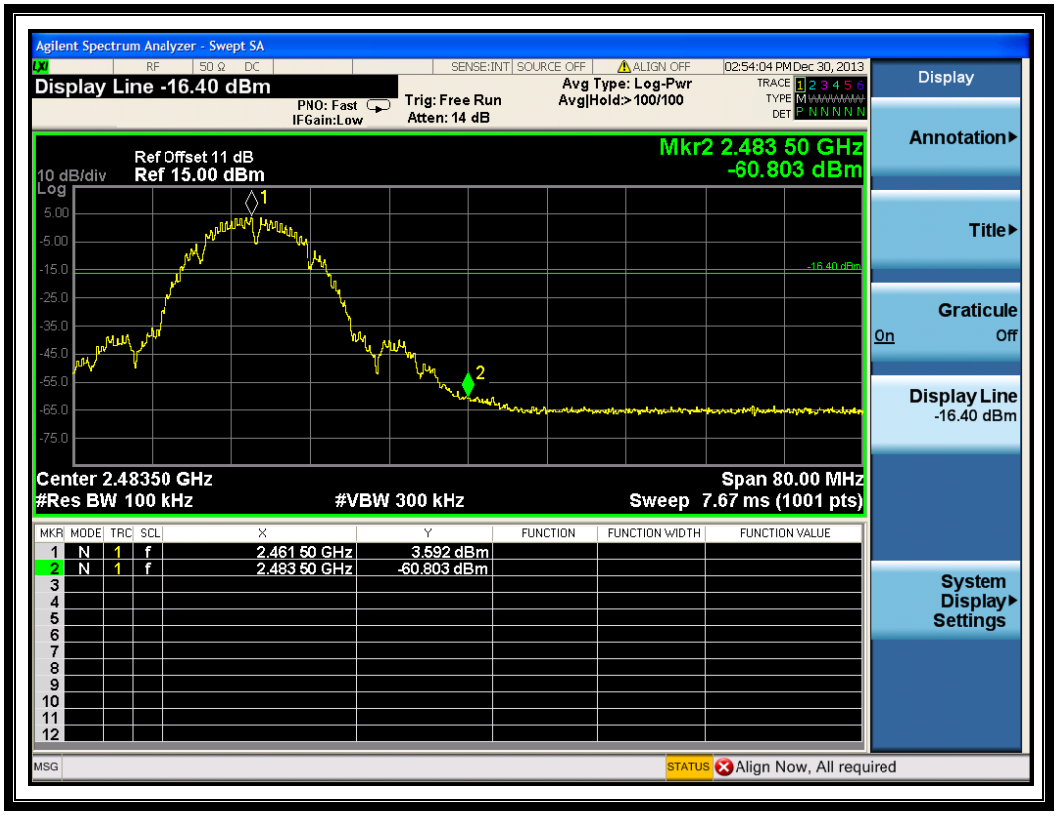
(Band Edge @ Channel = 1)



(Channel = 6, 30MHz to 25GHz)



(Channel = 11, 30MHz to 25GHz)



(Band Edge @ Channel = 11)

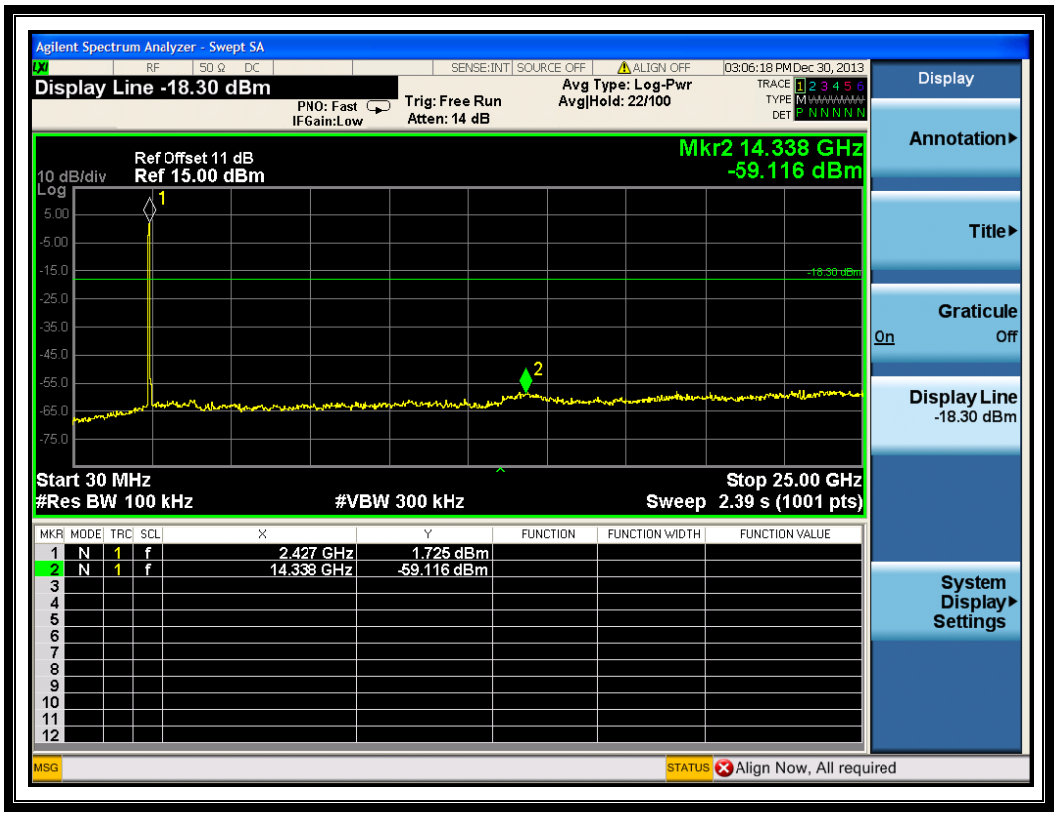
3.4.3.2. 802.11g Test mode

A. Test Verdict:

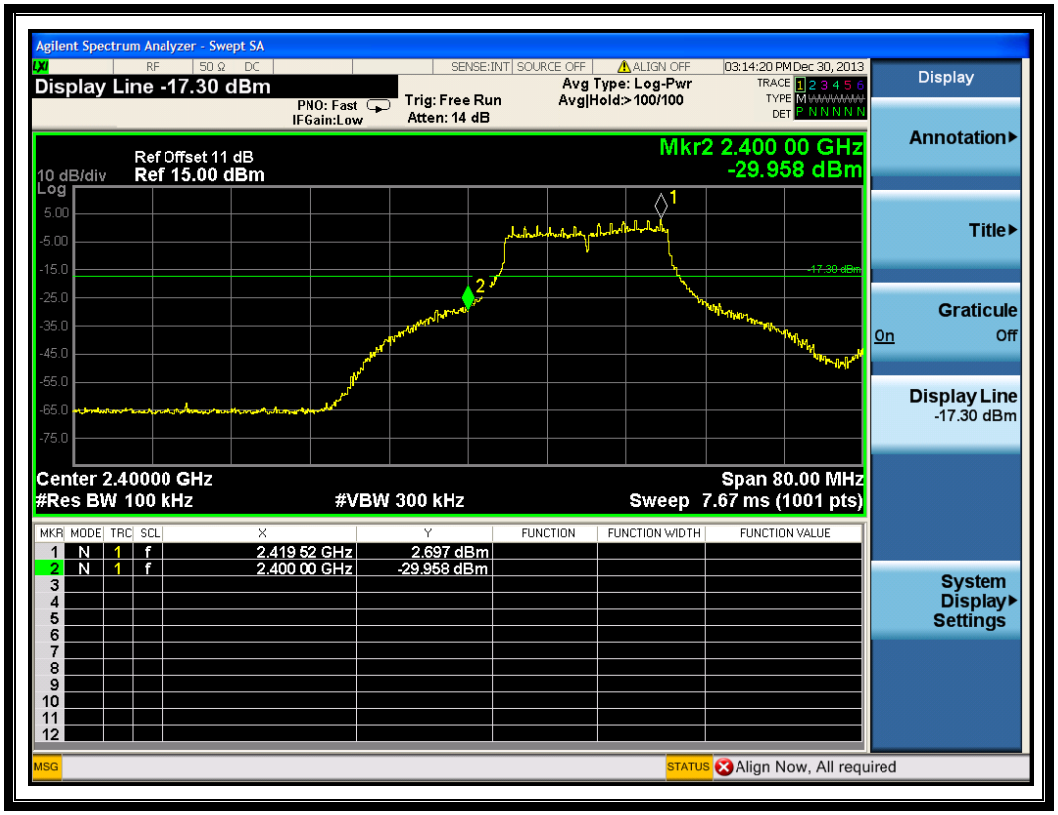
Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated -20dBc Limit	
1	2412	-59.116	1.725	-18.3	PASS
6	2437	-57.740	-1.337	-21.3	PASS
11	2462	-58.483	2.238	-17.8	PASS

B. Test Plots:

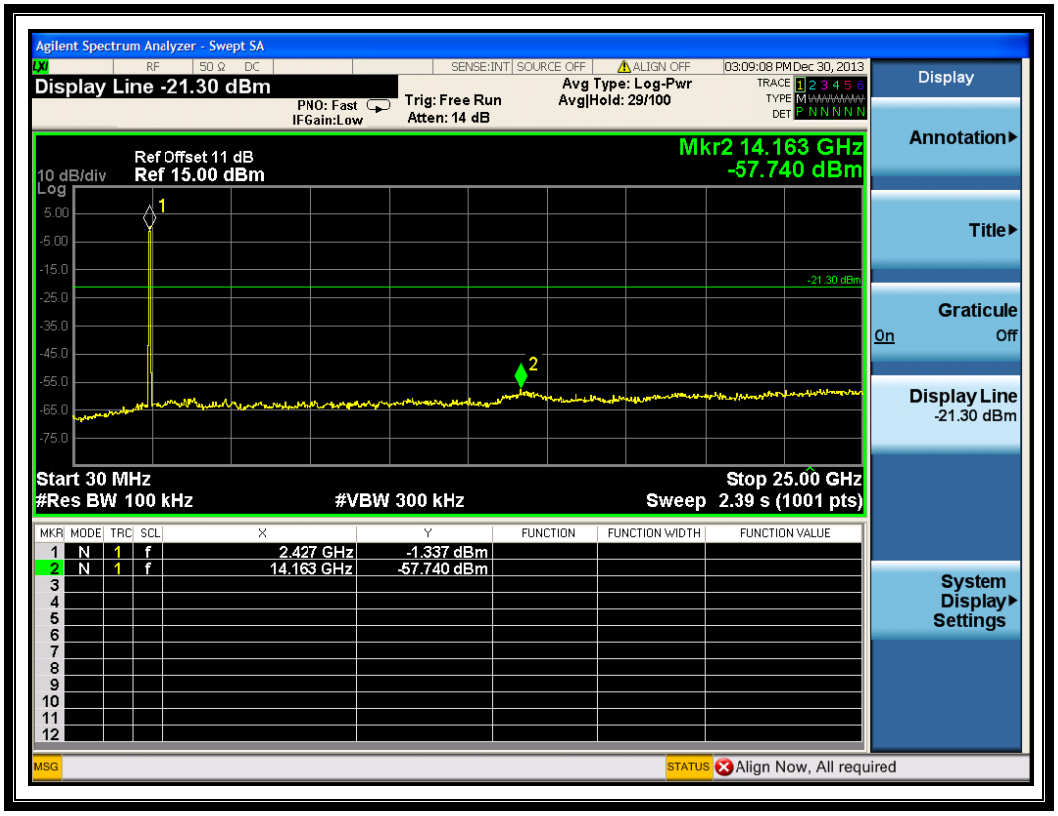
Note: the power of the Module transmitting frequency should be ignored.



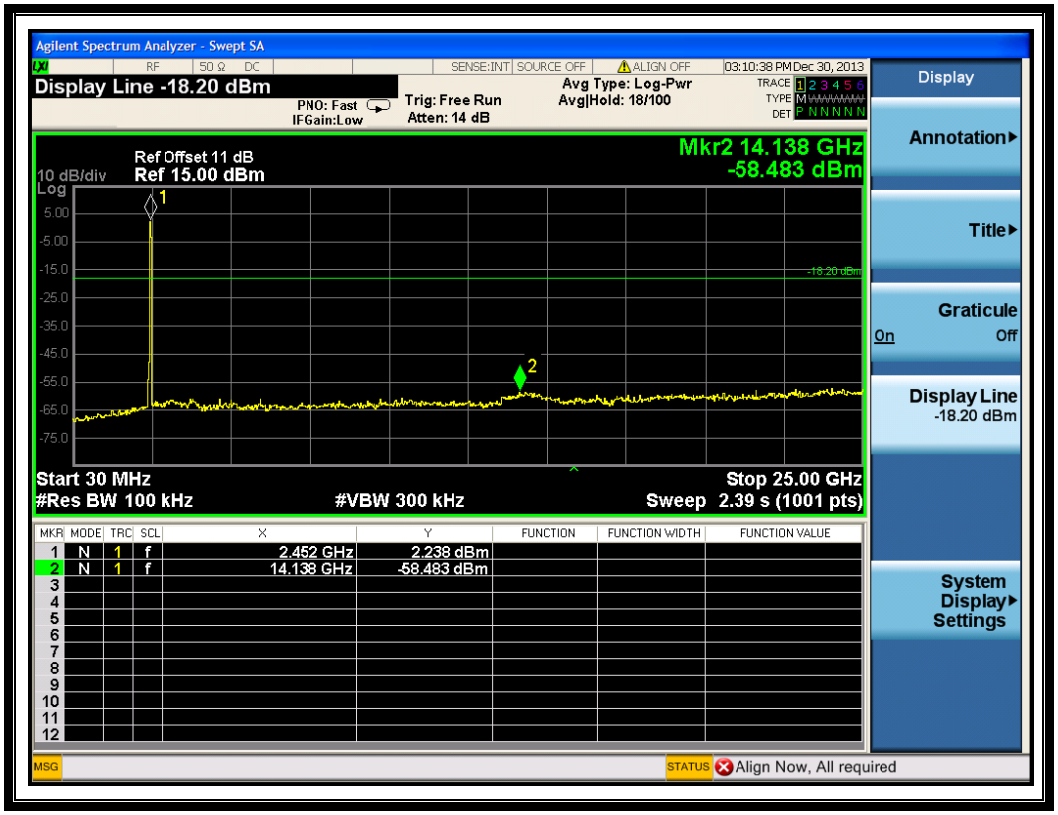
(Channel = 1, 30MHz to 25GHz)



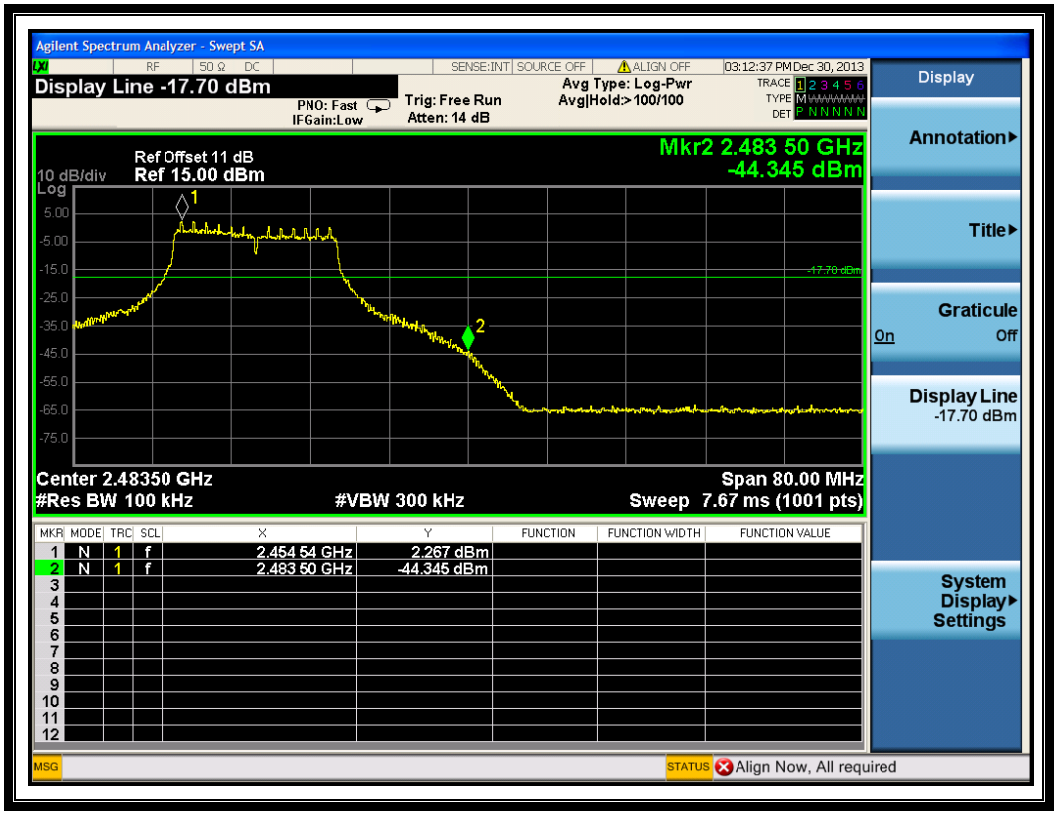
(Band Edge @ Channel = 1)



(Channel = 6, 30MHz to 25GHz)



(Channel = 11, 30MHz to 25GHz)



(Band Edge @ Channel = 11)

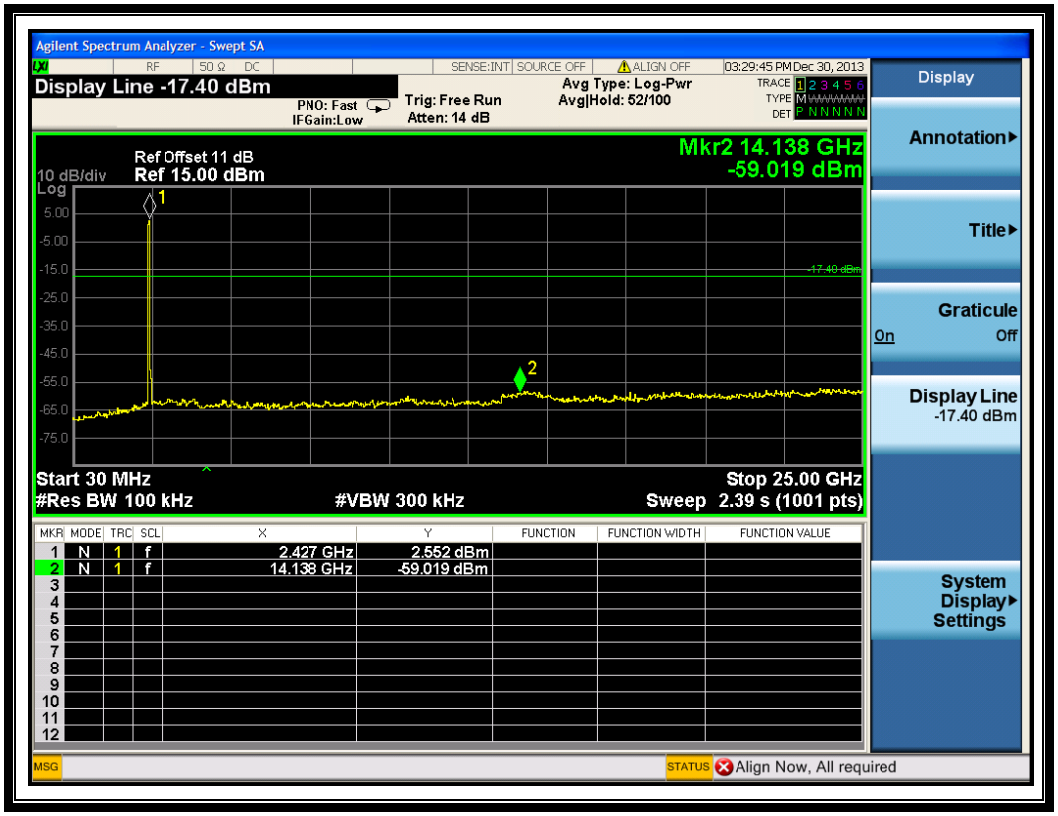
3.4.3.3. 802.11n -20MHz Test mode

A. Test Verdict:

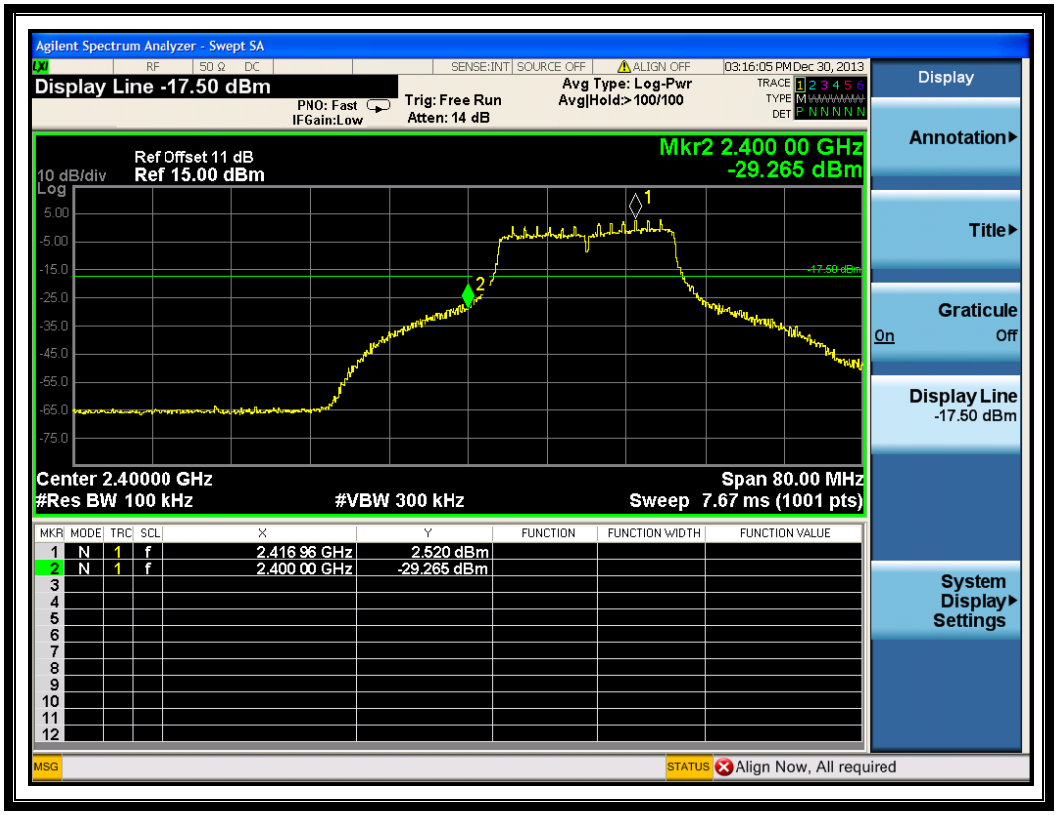
Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated -20dBc Limit	
1	2412	-59.019	2.552	-17.4	PASS
6	2437	-58.848	1.593	-18.4	PASS
11	2462	-57.110	1.727	-18.3	PASS
149	5745	-54.489	-4.422	-24.4	PASS
157	5785	-54.103	-5.576	-25.6	PASS
165	5825	-54.028	-3.666	-23.7	PASS

B. Test Plots:

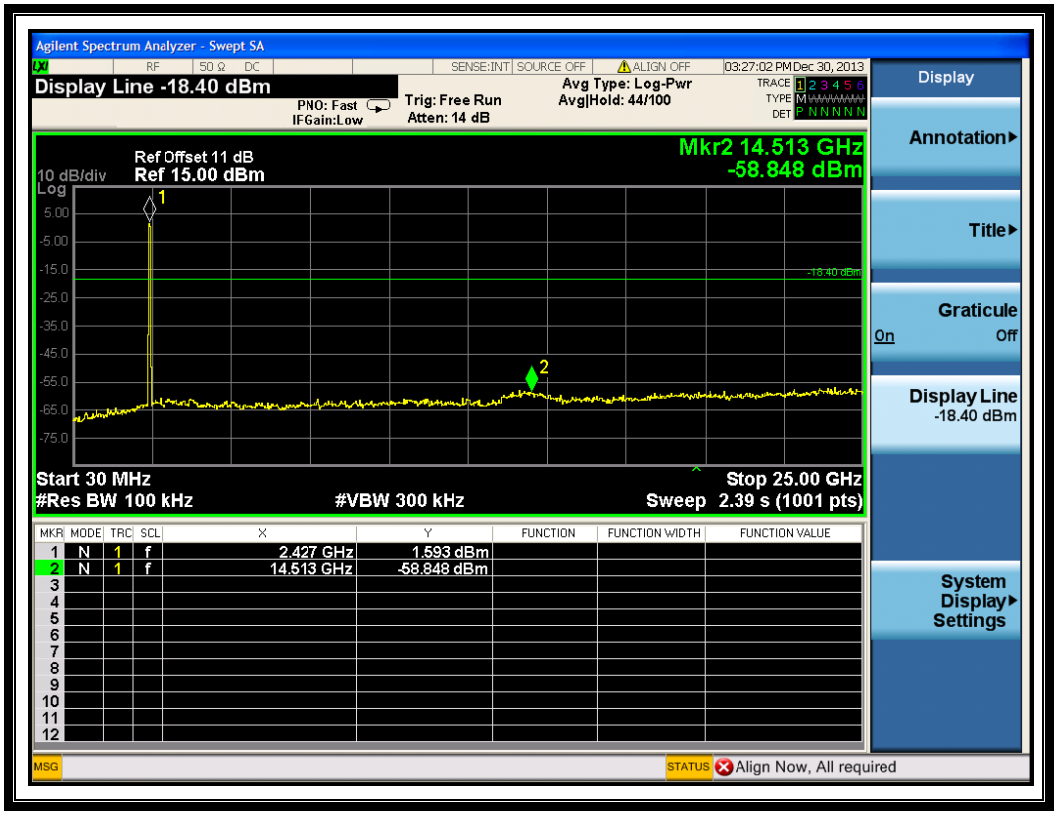
Note: the power of the Module transmitting frequency should be ignored.



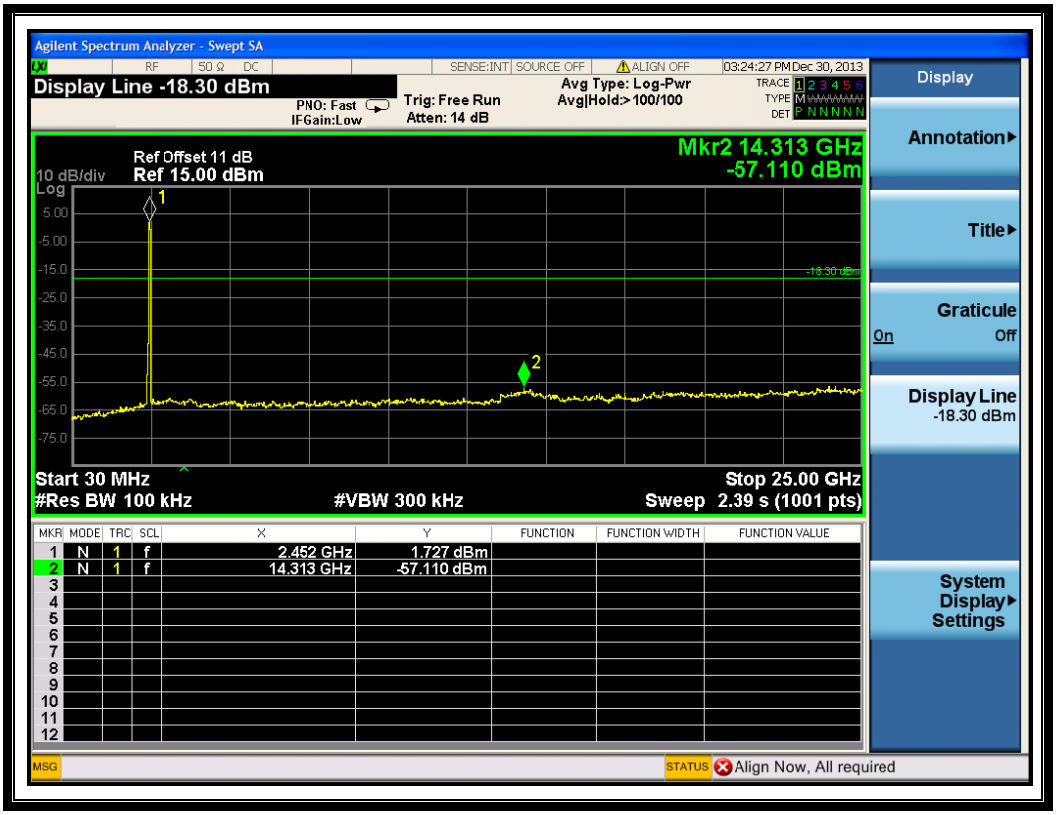
(Channel = 1, 30MHz to 25GHz)



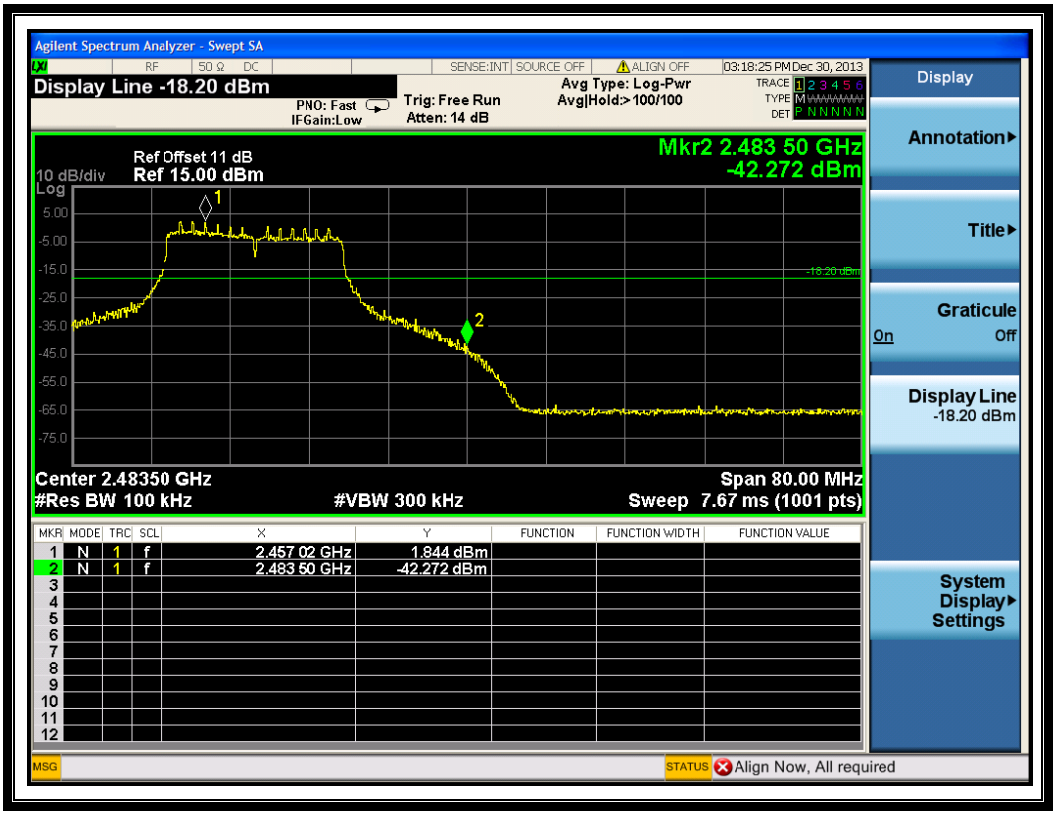
(Band Edge @ Channel = 1)



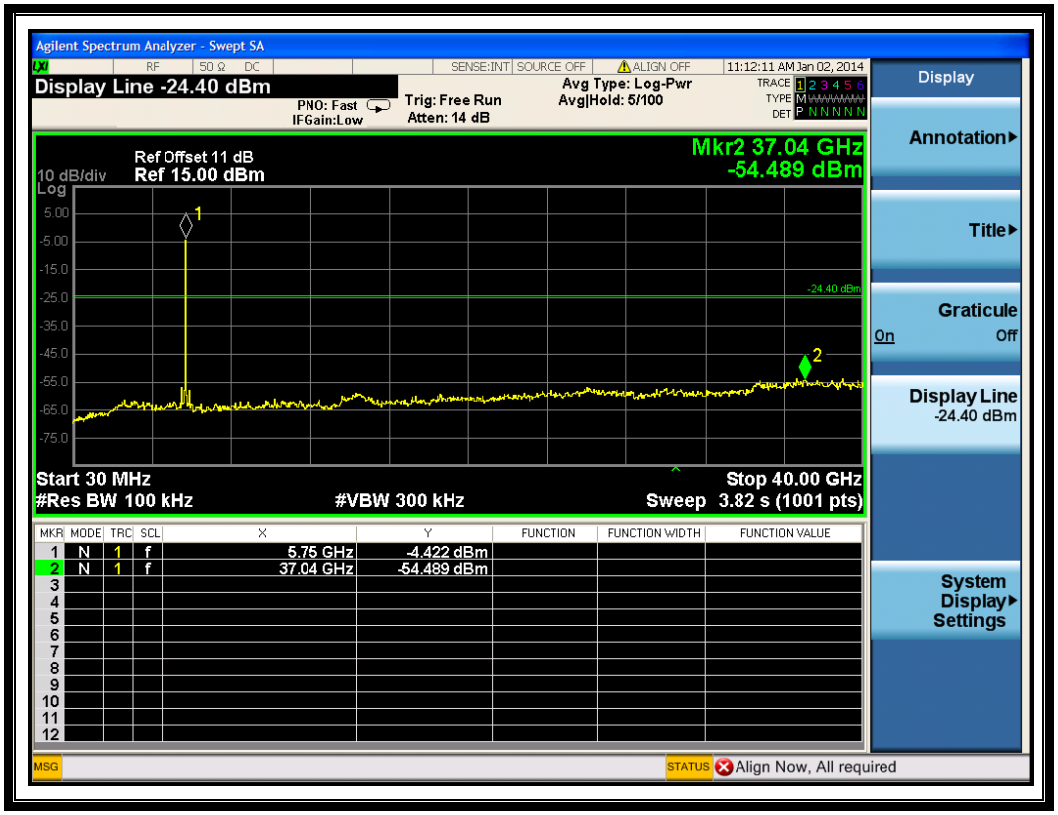
(Channel = 6, 30MHz to 25GHz)



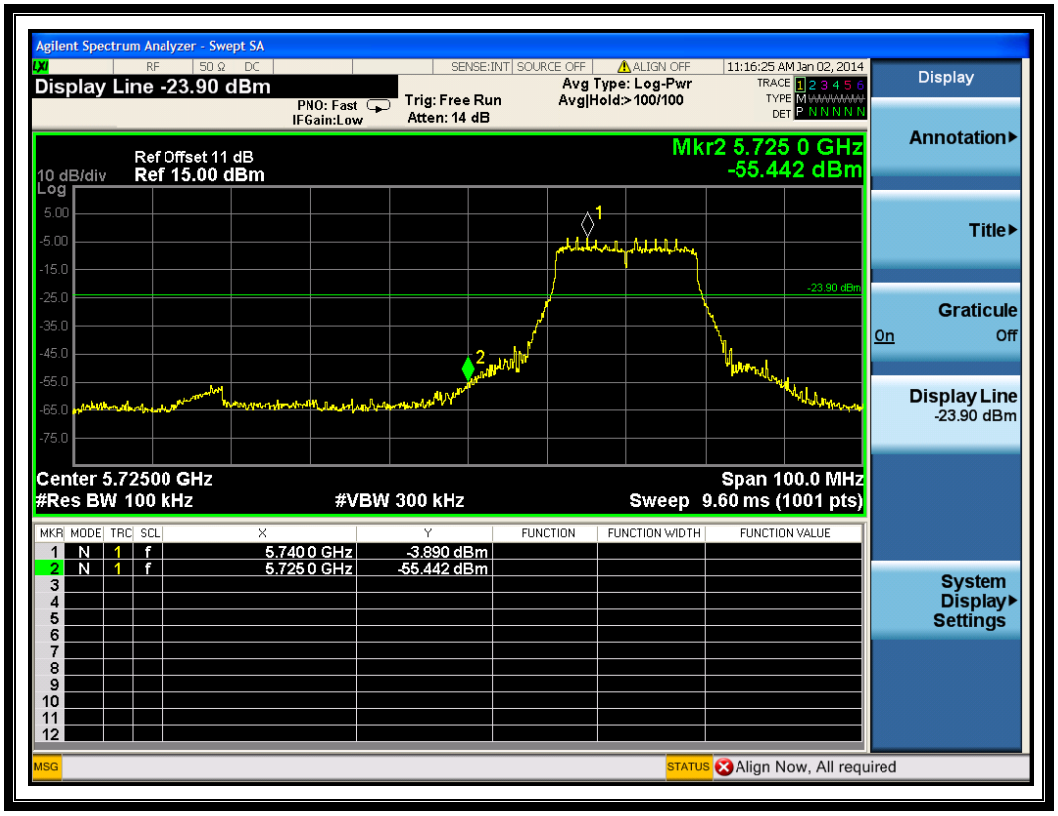
(Channel = 11, 30MHz to 25GHz)



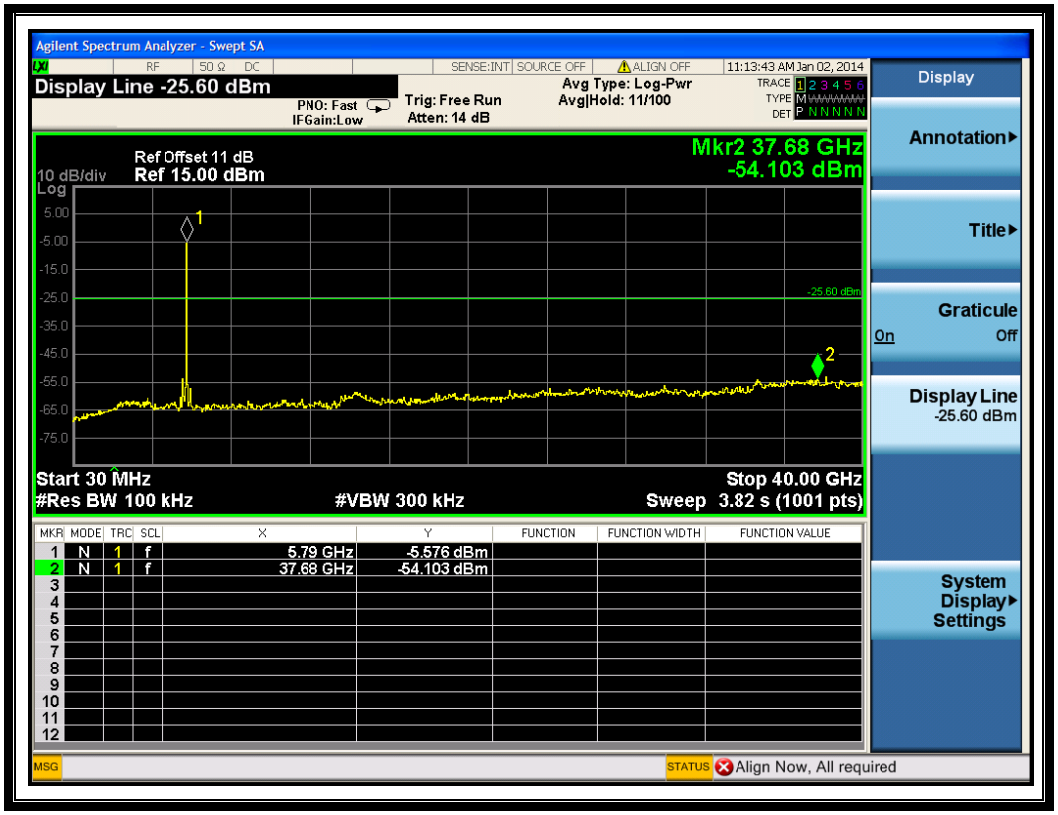
(Band Edge @ Channel = 11)



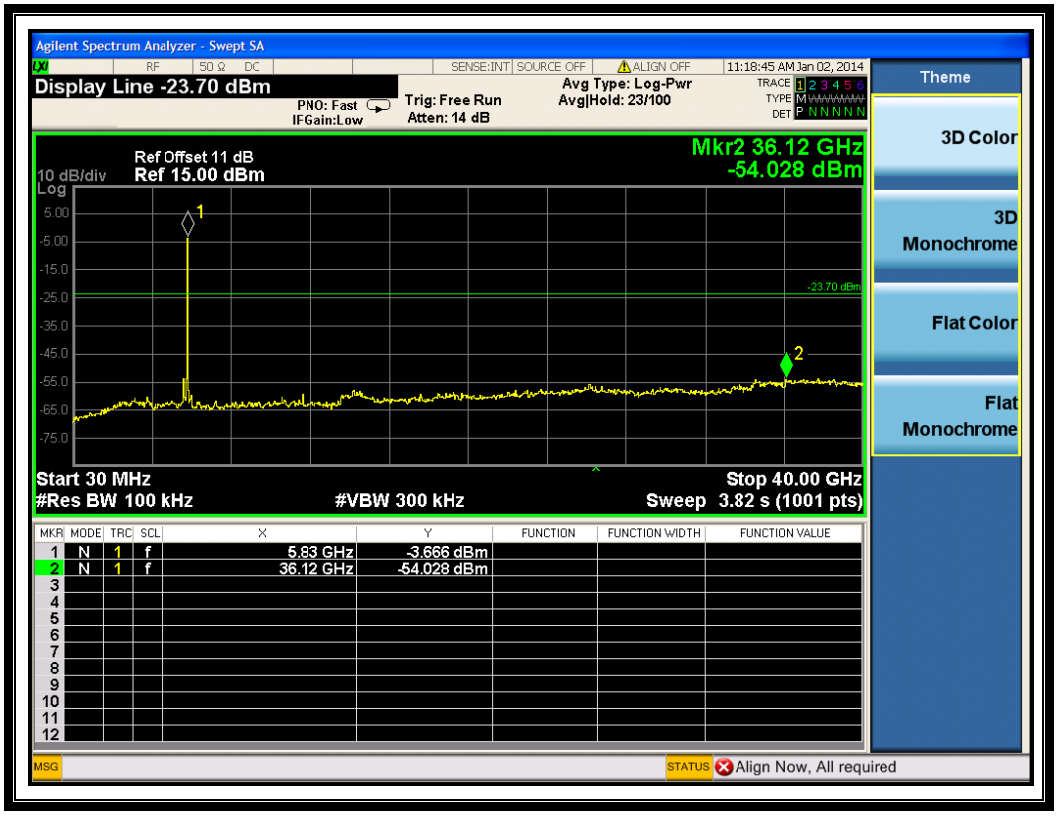
(Channel = 149, 30MHz to 40GHz)



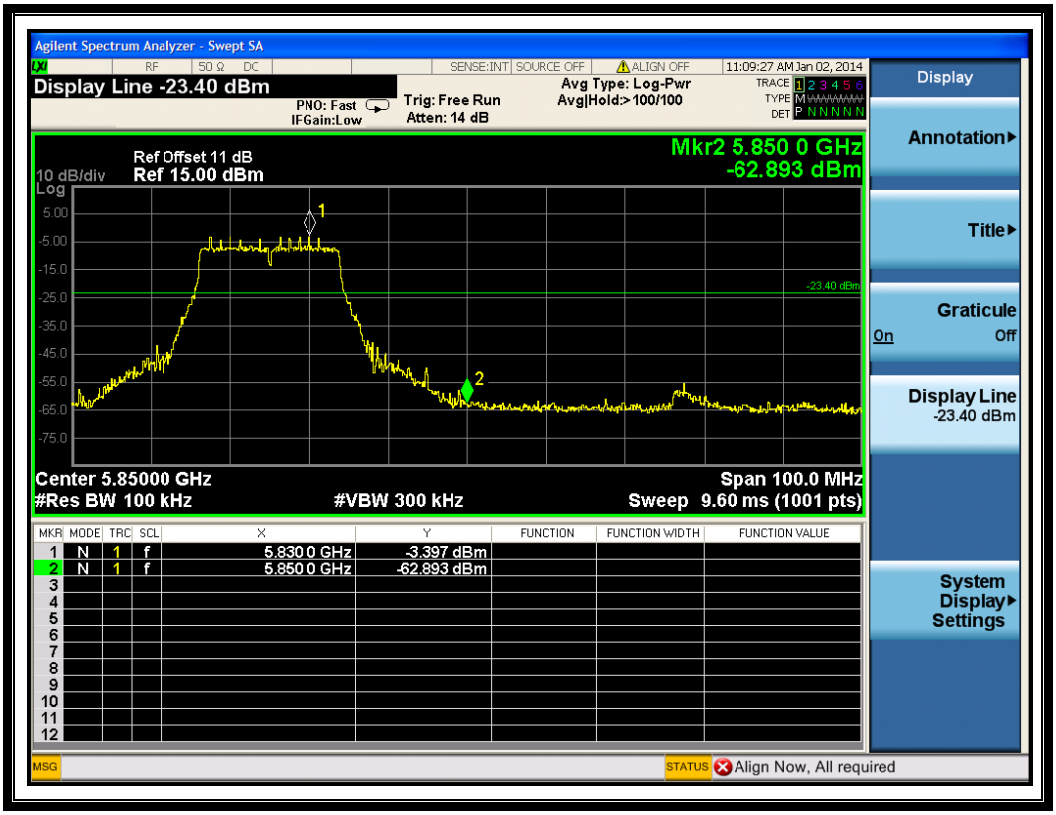
(Band Edge@ Channel = 149)



(Channel = 157, 30MHz to 40GHz)



(Channel = 165, 30MHz to 40GHz)



(Band Edge@ Channel = 165)

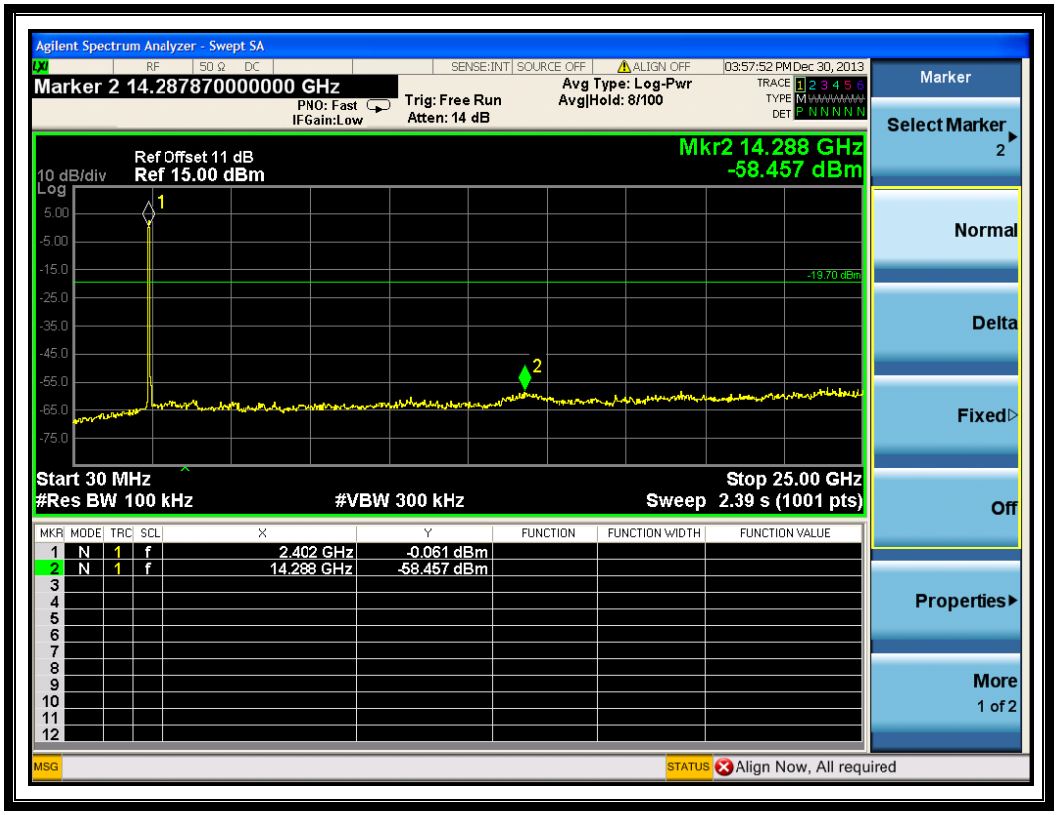
3.4.3.4. 802.11n -40MHz Test mode

A. Test Verdict:

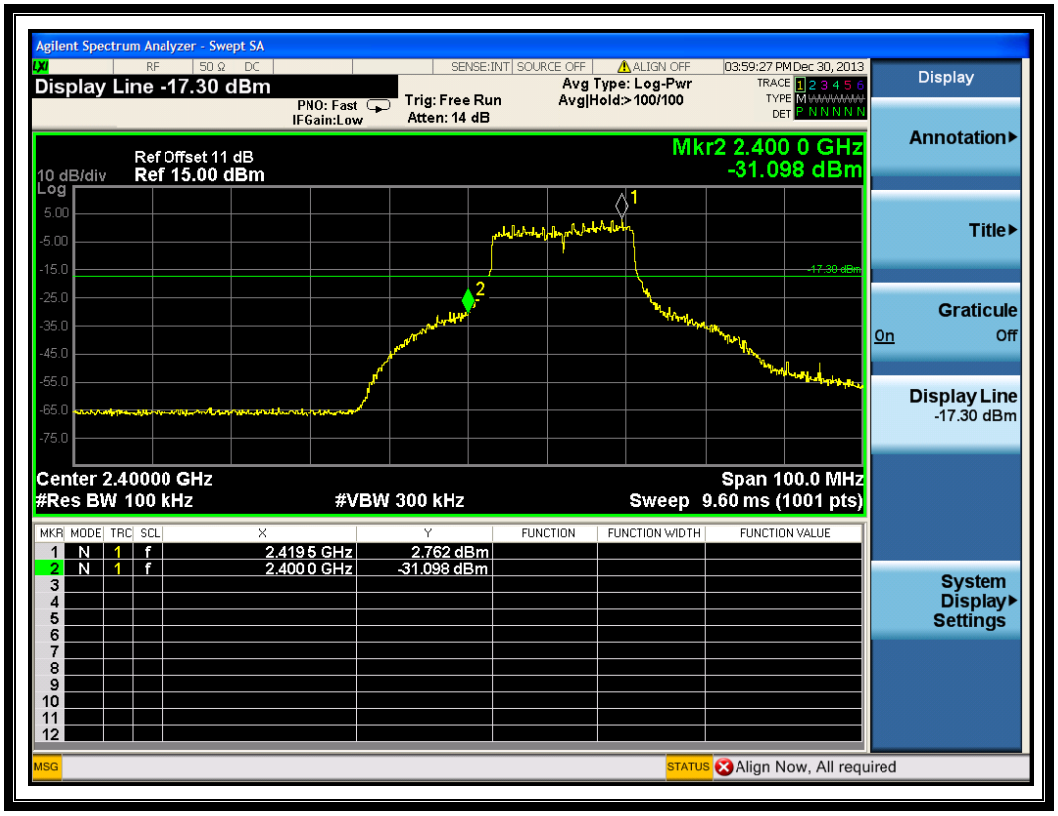
Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated -20dBc Limit	
3	2422	-58.457	-0.061	-20.0	PASS
6	2437	-58.681	0.274	-19.7	PASS
9	2452	-59.580	-0.122	-20.1	PASS
151	5755	-52.688	-7.634	-27.6	PASS
159	5795	-53.359	-8.829	--28.8	PASS

B. Test Plots:

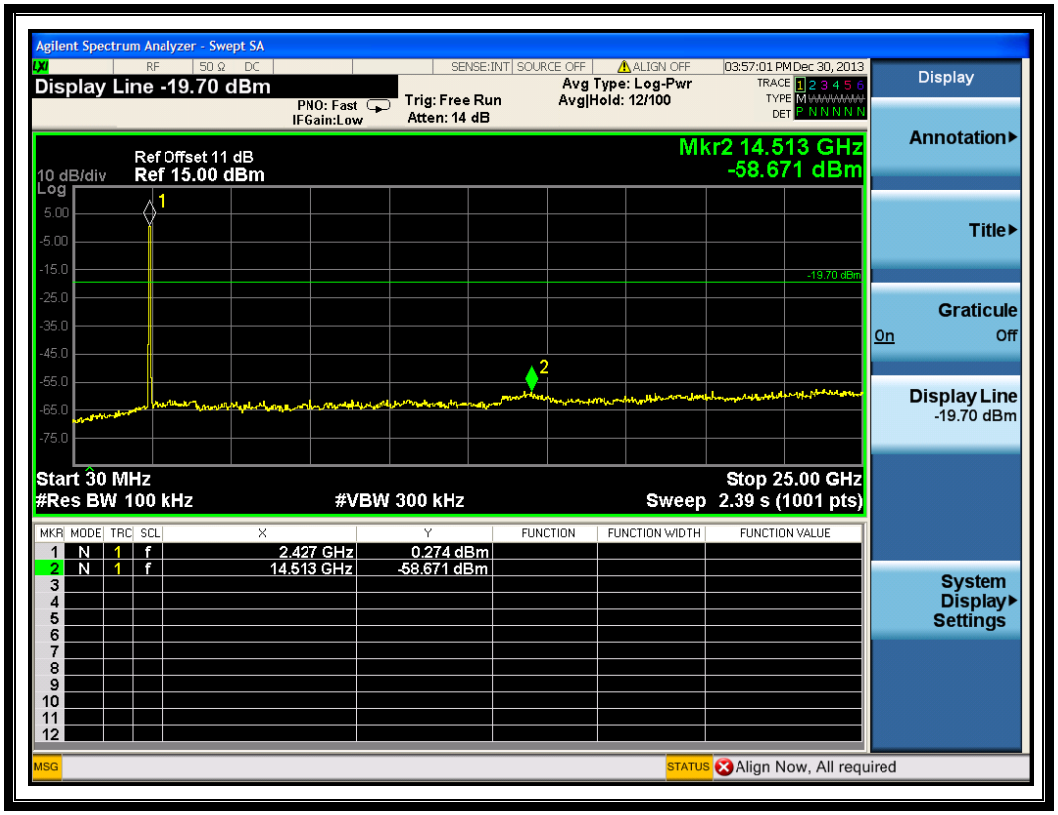
Note: the power of the Module transmitting frequency should be ignored.



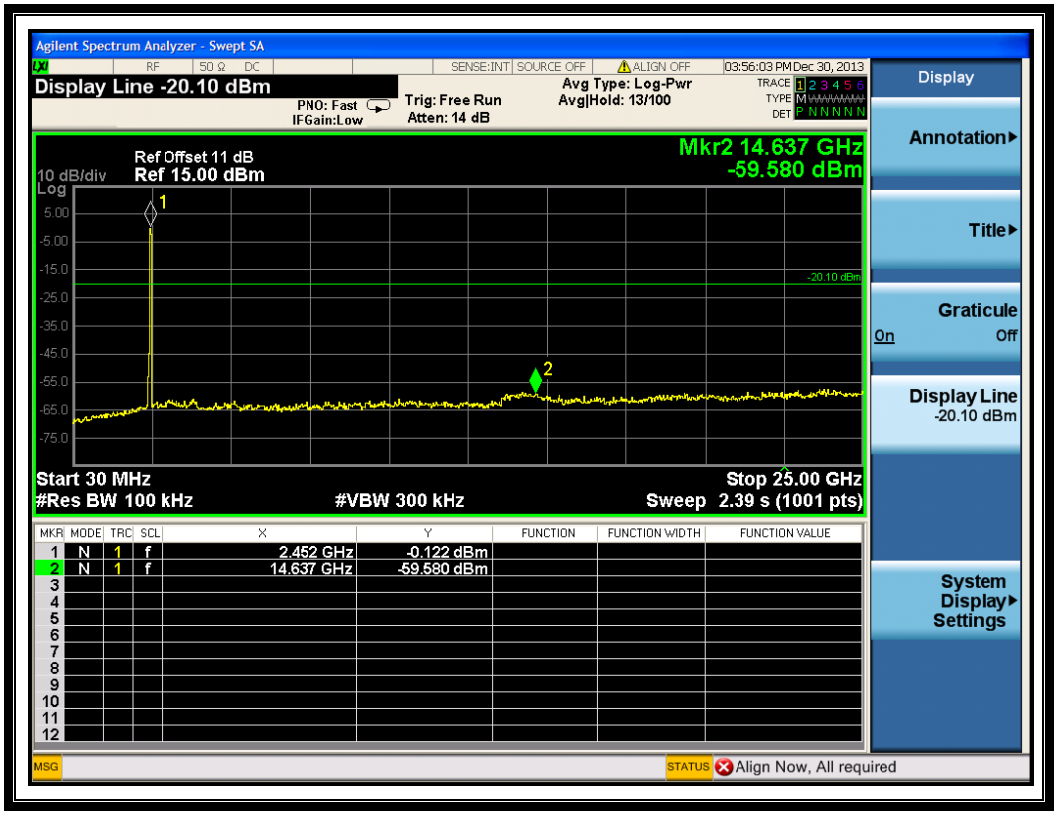
(Channel = 3, 30MHz to 25GHz)



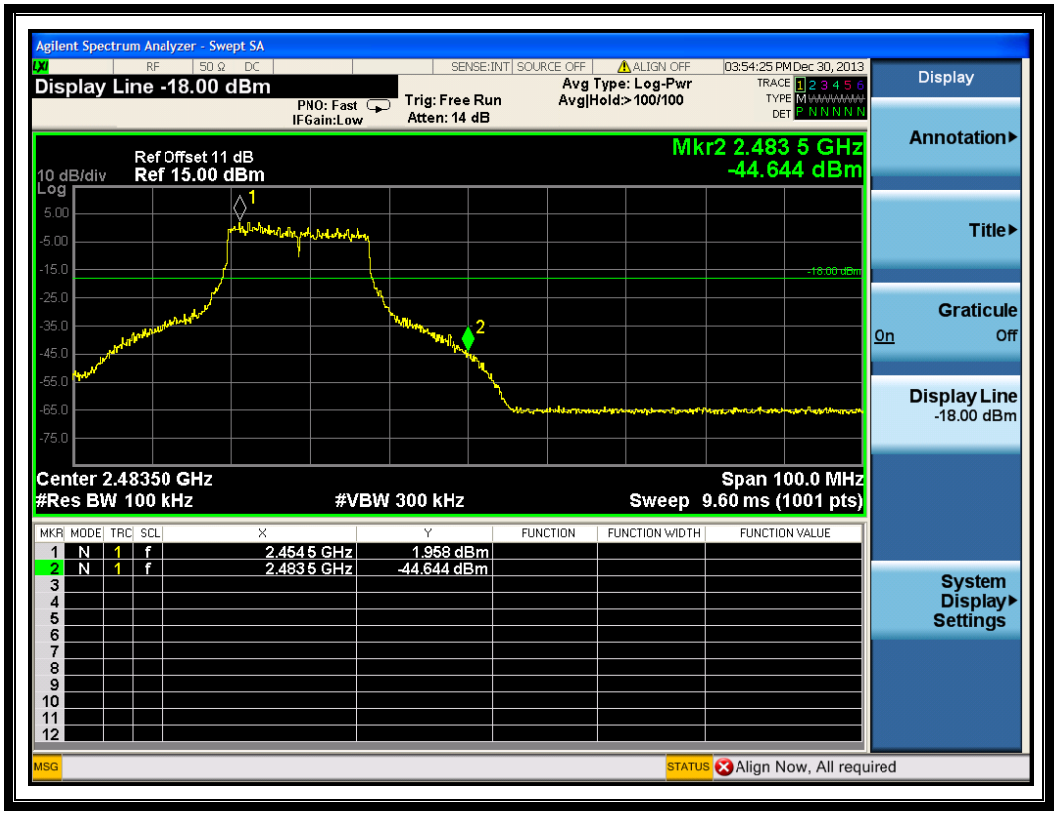
(Band Edge @ Channel = 3)



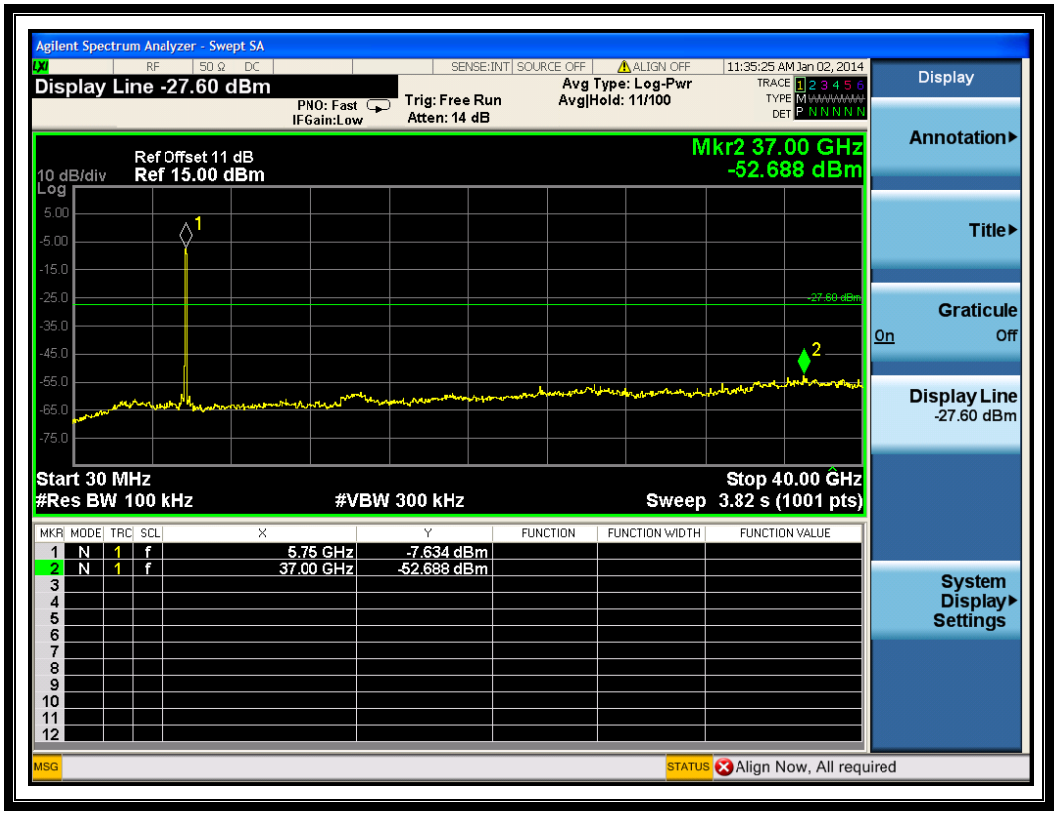
(Channel = 6, 30MHz to 25GHz)



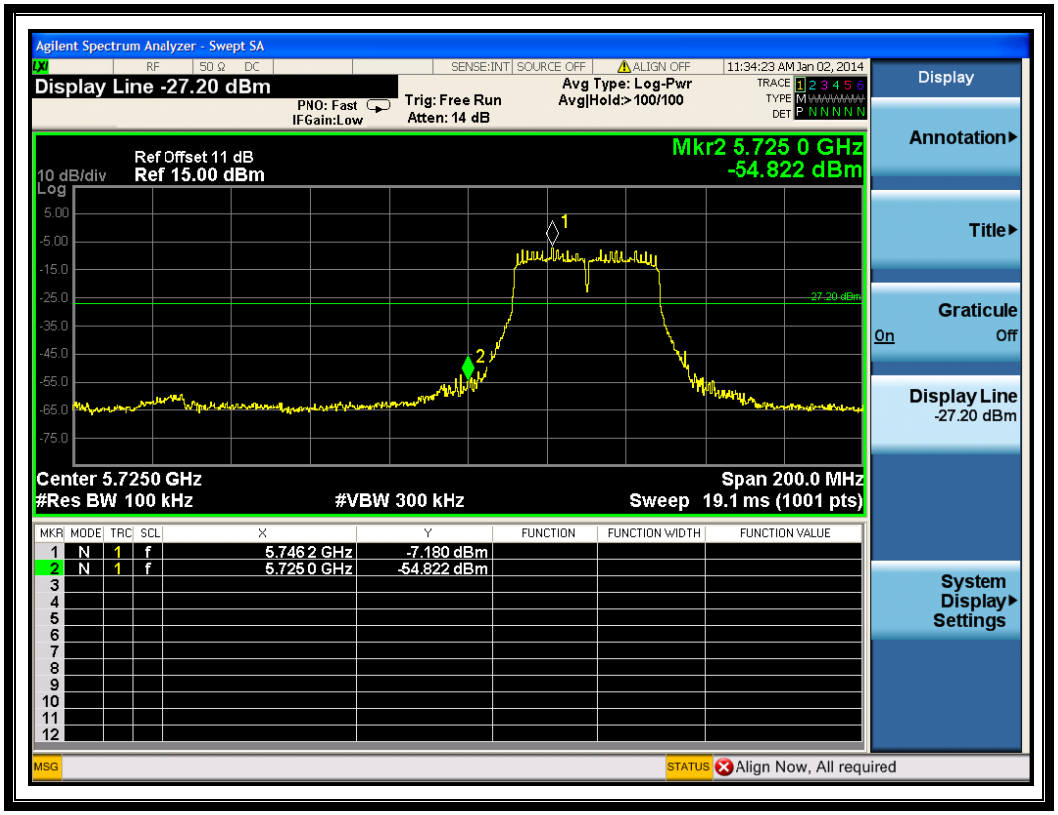
(Channel = 9, 30MHz to 25GHz)



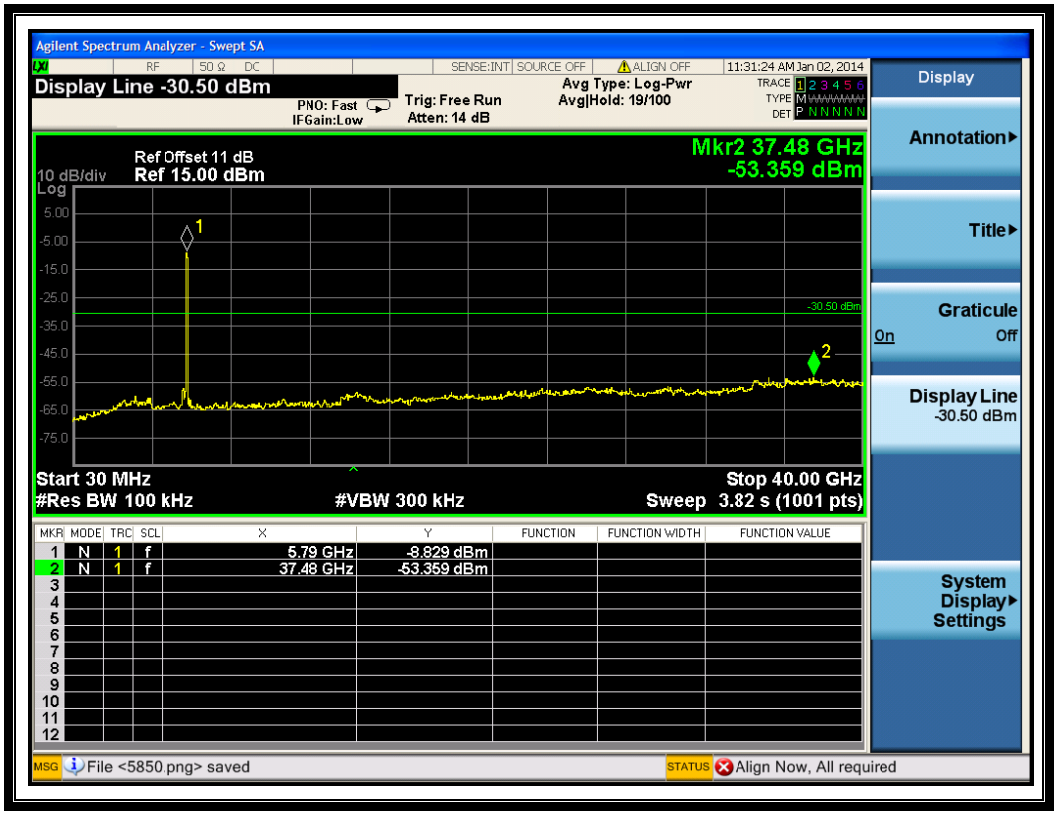
(Band Edge @ Channel = 9)



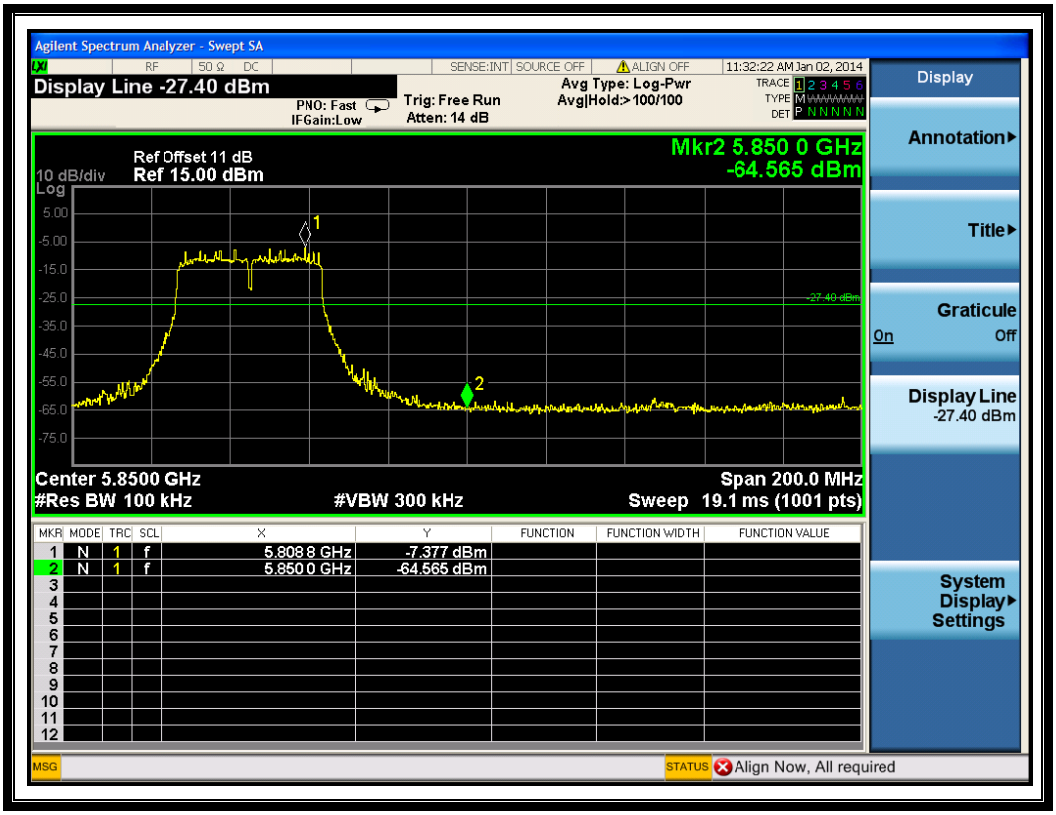
(Channel = 151, 30MHz to 40GHz)



(Band Edge@ Channel = 151)



(Channel = 159, 30MHz to 40GHz)



(Band Edge@ Channel = 159)

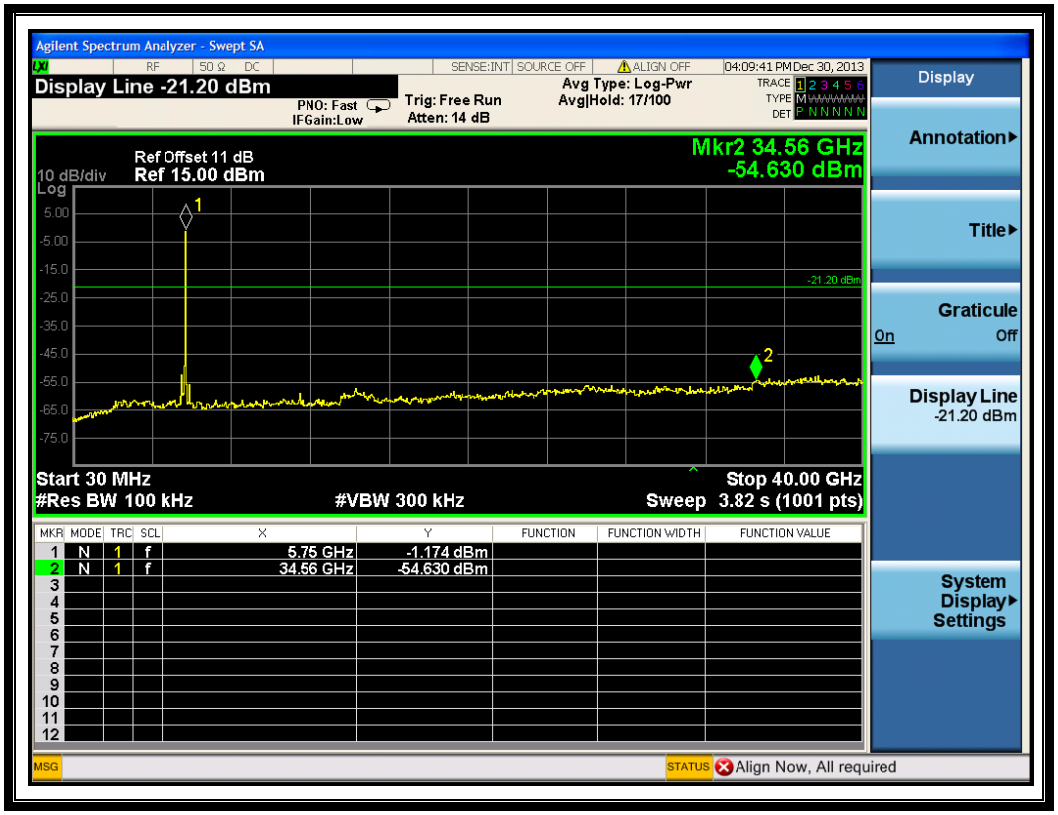
3.4.3.5. 802.11a Test mode

A. Test Verdict:

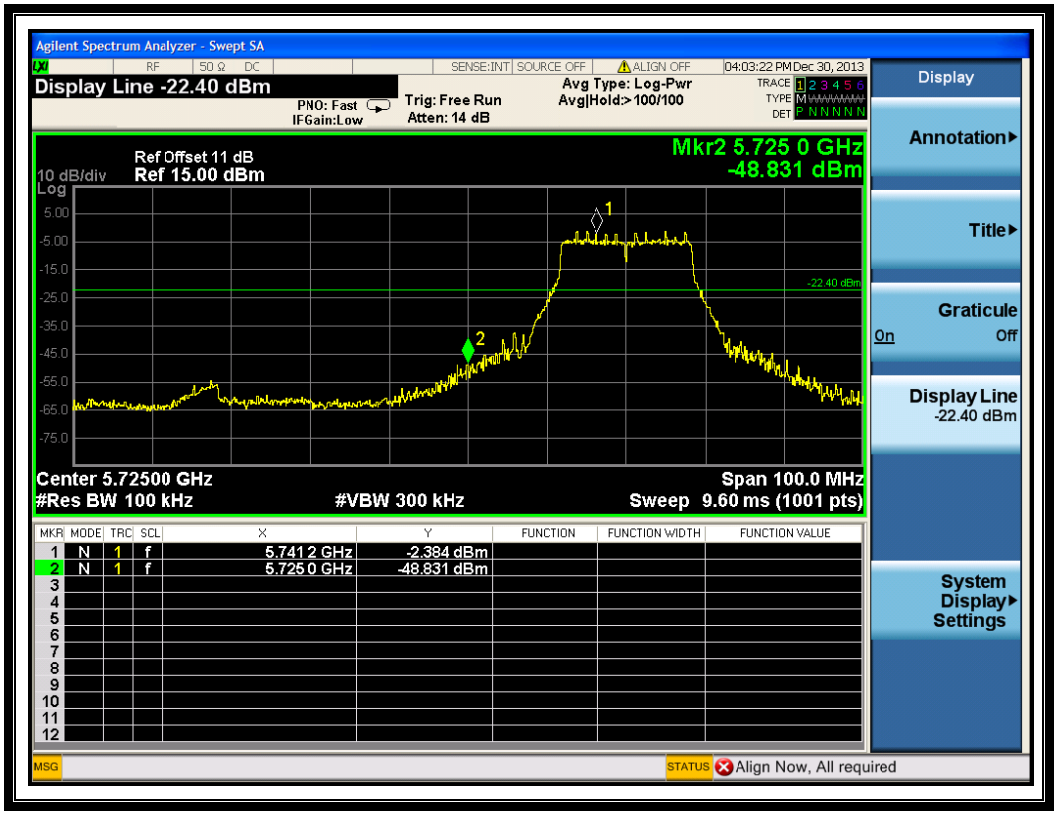
Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated -20dBc Limit	
149	5745	-54.630	-1.174	-21.2	PASS
157	5785	-52.383	-1.394	-21.4	PASS
165	5825	-53.401	-2.275	-22.3	PASS

B. Test Plots:

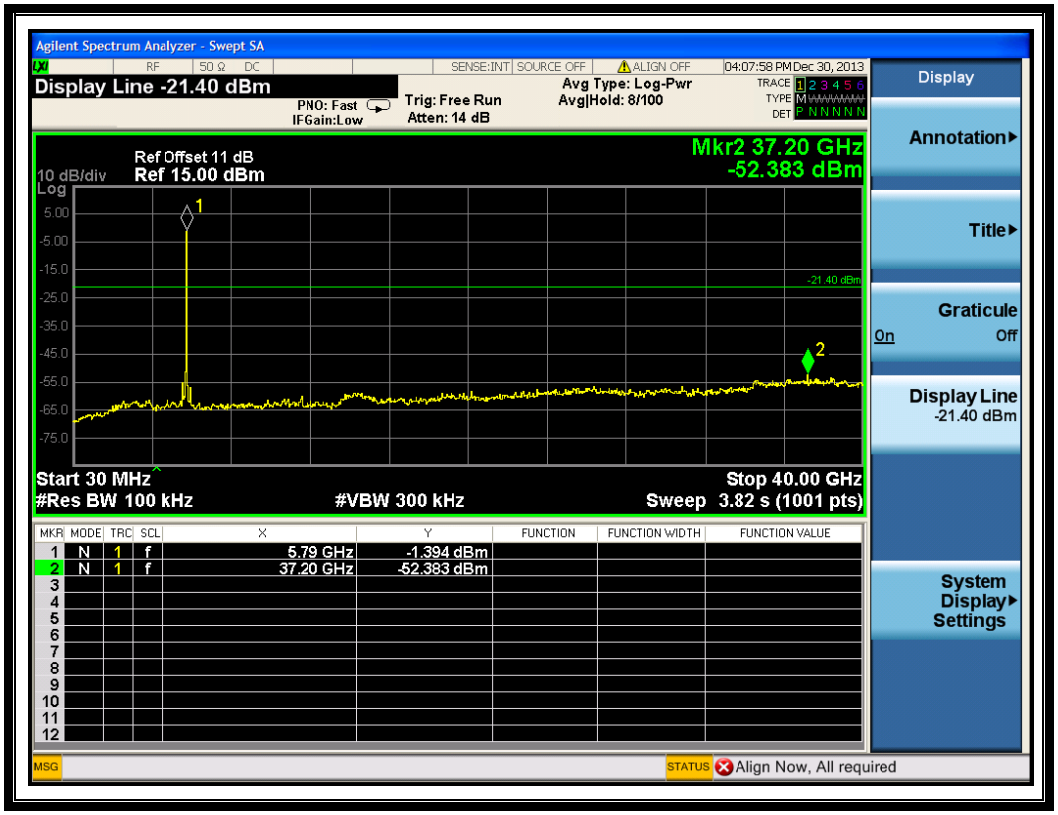
Note: the power of the Module transmitting frequency should be ignored.



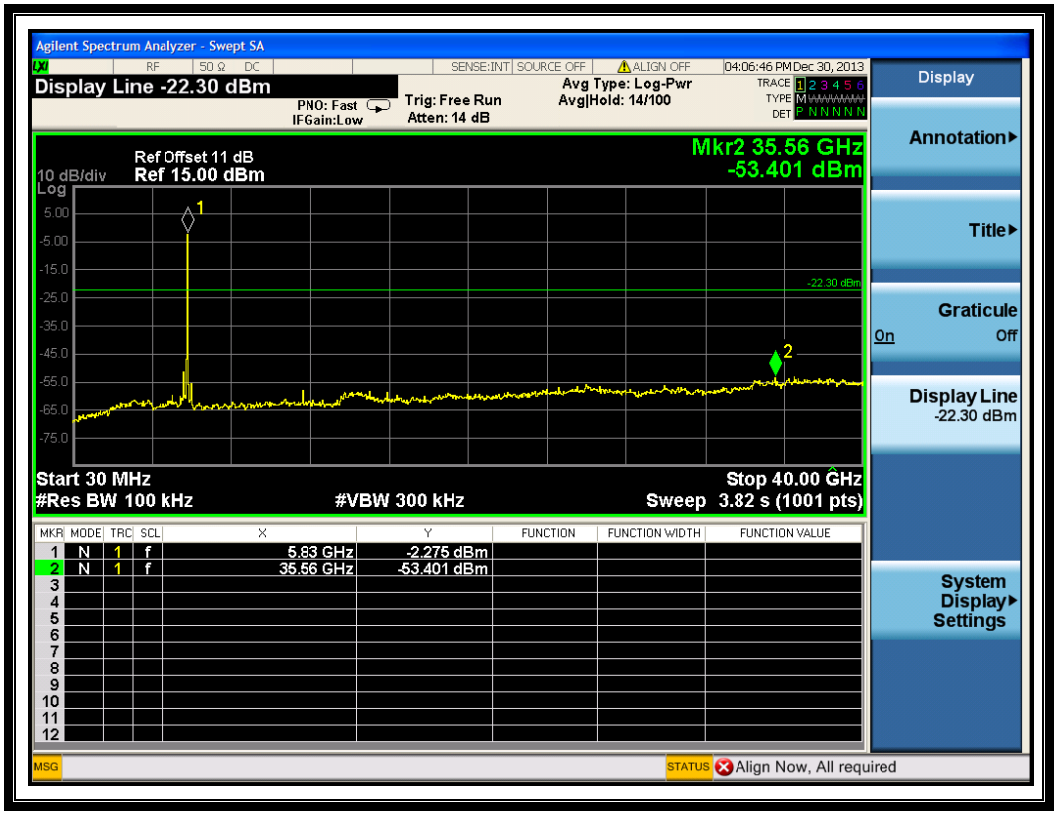
(Channel = 149, 30MHz to 40GHz)



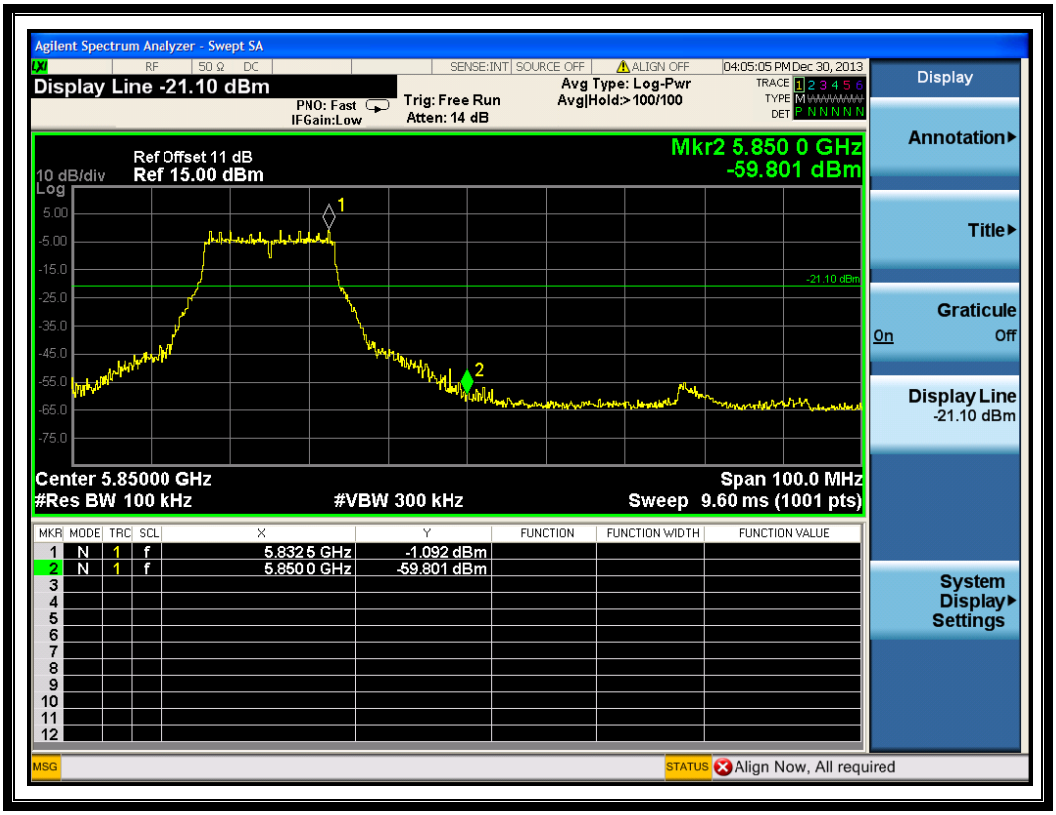
(Band Edge@ Channel = 149)



(Channel = 157, 30MHz to 40GHz)



(Channel = 165, 30MHz to 40GHz)



(Band Edge@ Channel = 165)

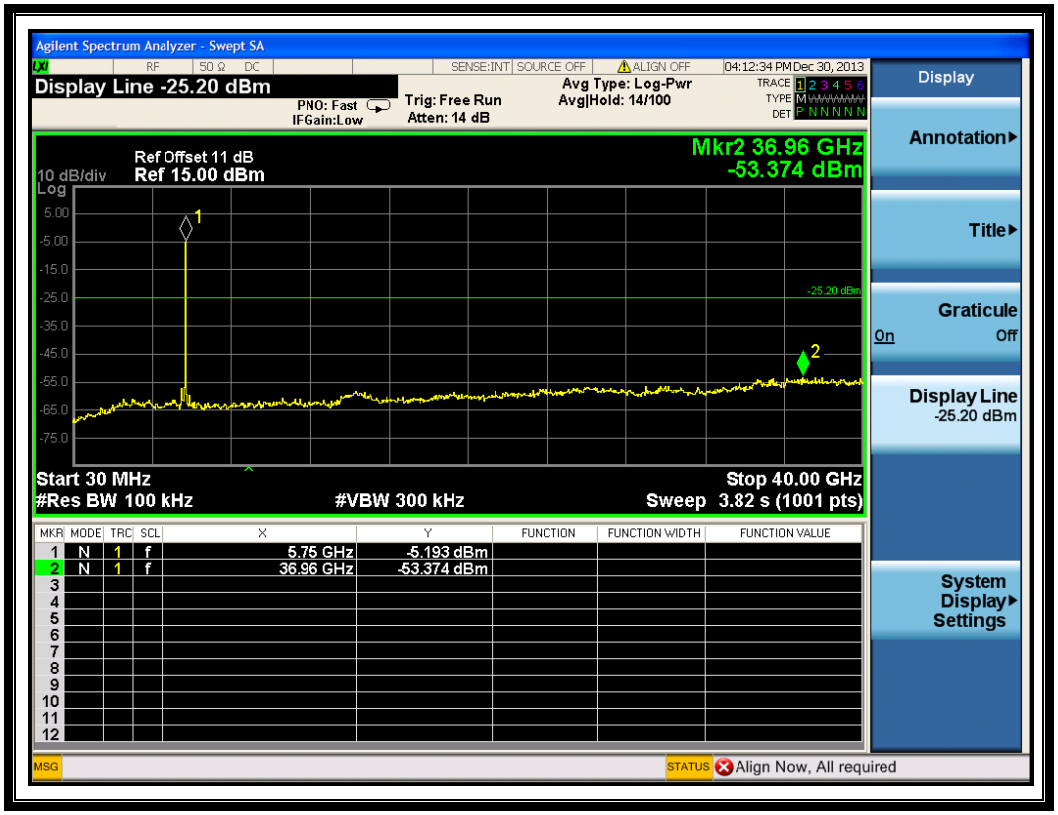
3.4.3.6. 802.11ac-20MHz Test mode

A. Test Verdict:

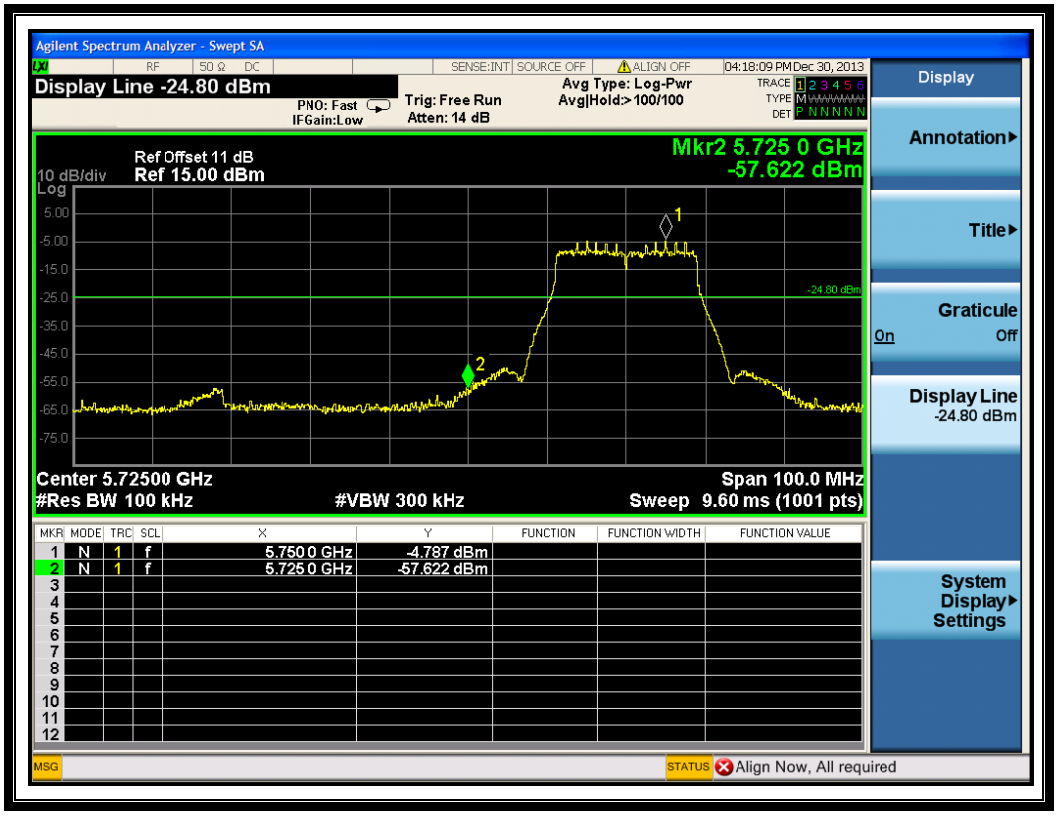
Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated -20dBc Limit	
149	5745	-53.374	-5.193	-25.2	PASS
157	5785	-54.590	-4.491	-24.5	PASS
165	5825	-54.43	-6.714	-26.7	PASS

B. Test Plots:

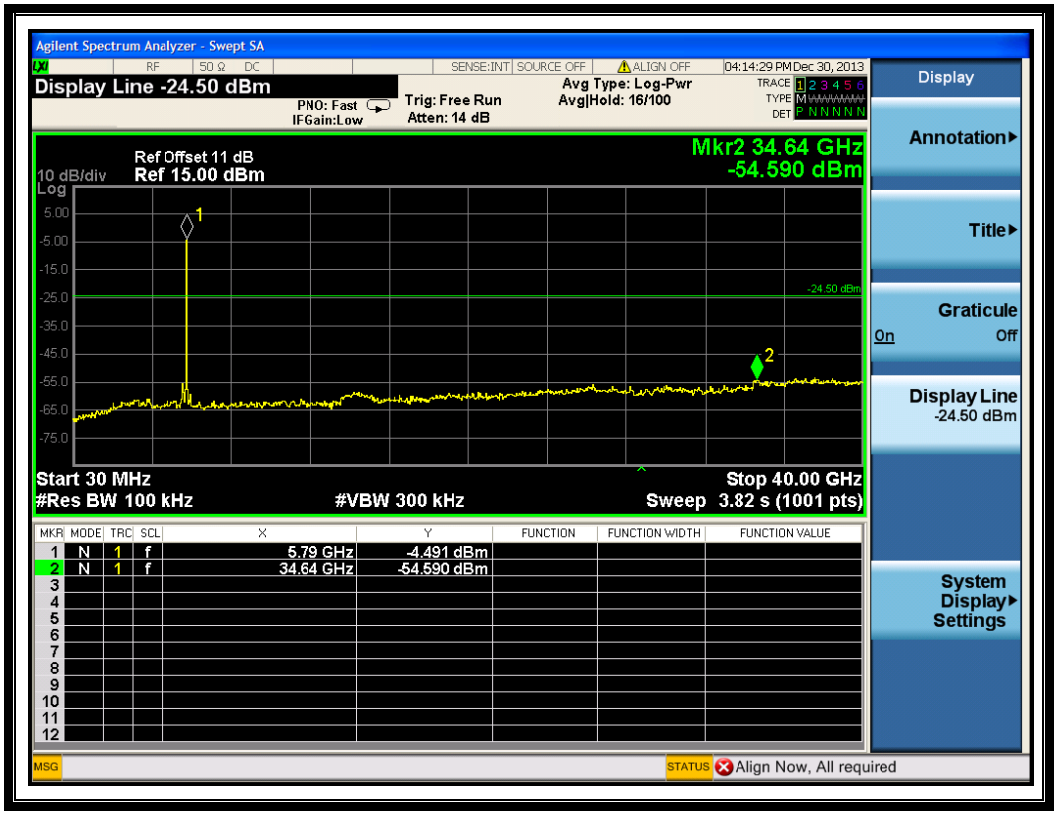
Note: the power of the Module transmitting frequency should be ignored.



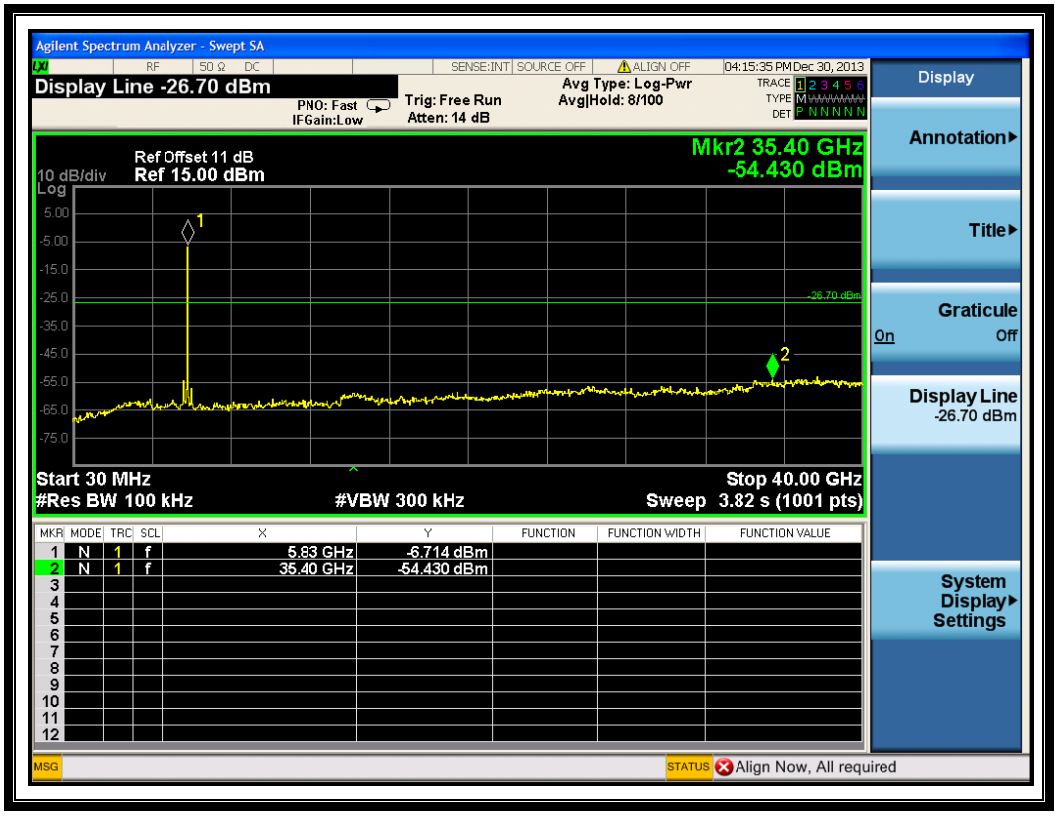
(Channel = 149, 30MHz to 40GHz)



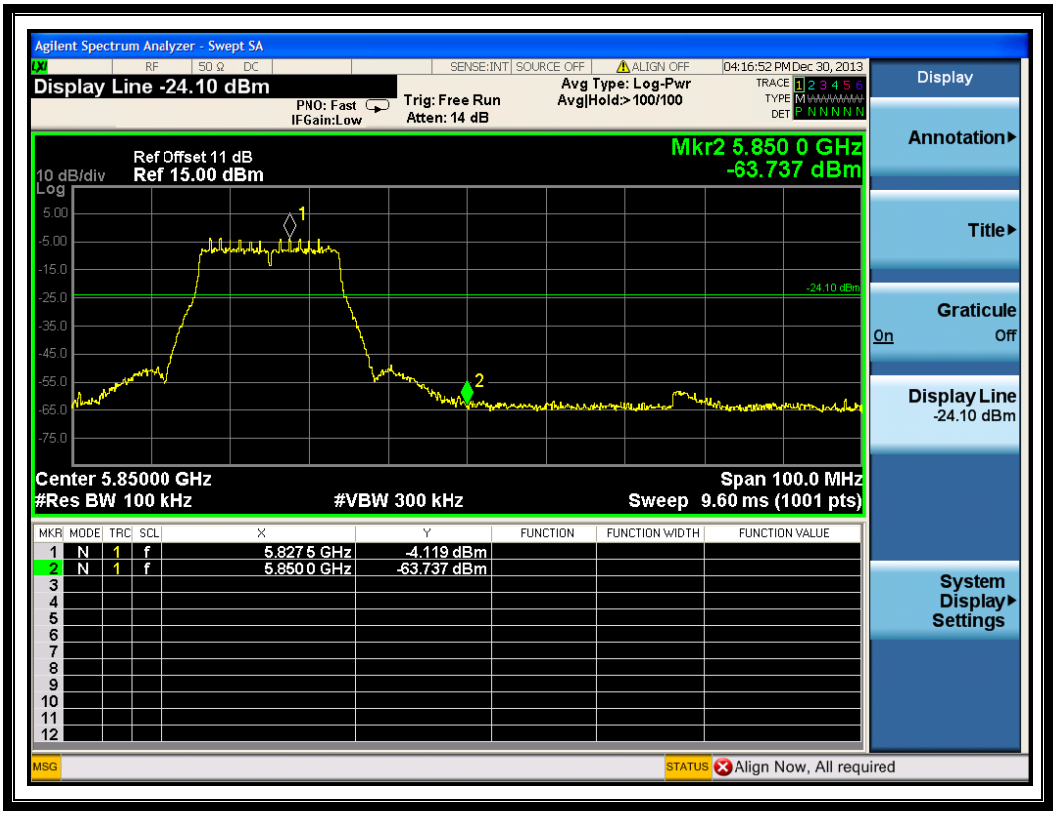
(Band Edge@ Channel = 149)



(Channel = 157, 30MHz to 40GHz)



(Channel = 165, 30MHz to 40GHz)



(Band Edge@ Channel = 165)

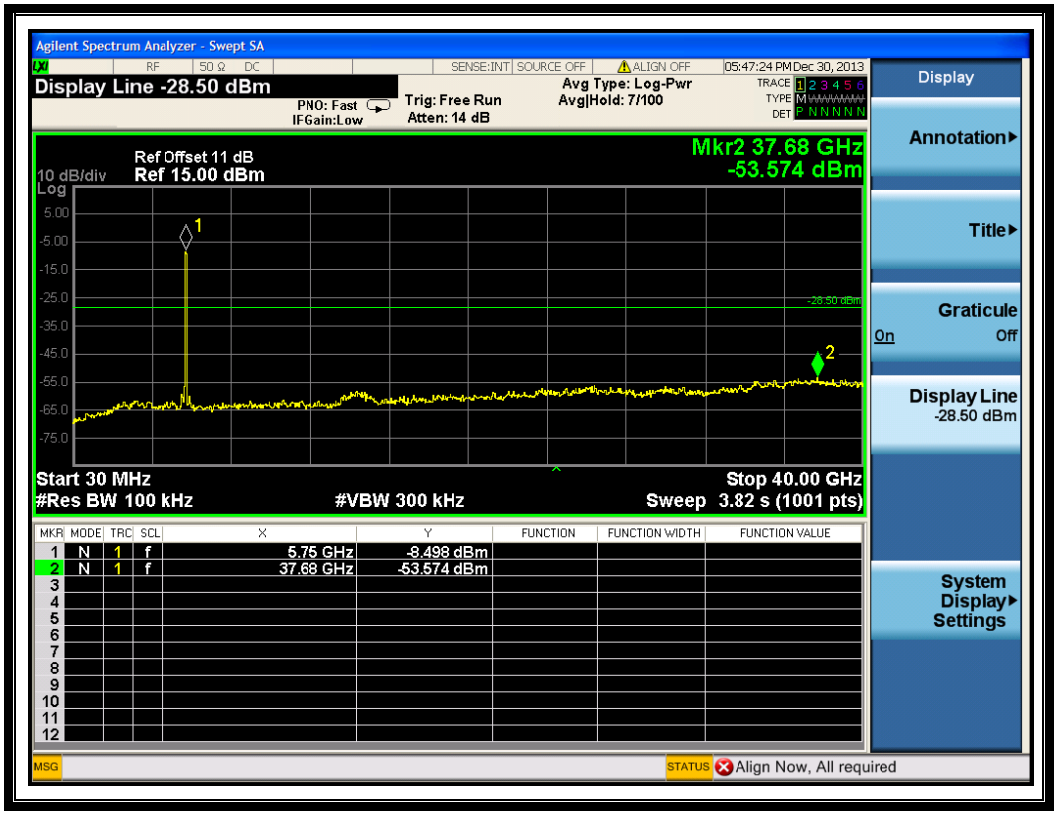
3.4.3.7. 802.11ac-40MHz Test mode

A. Test Verdict:

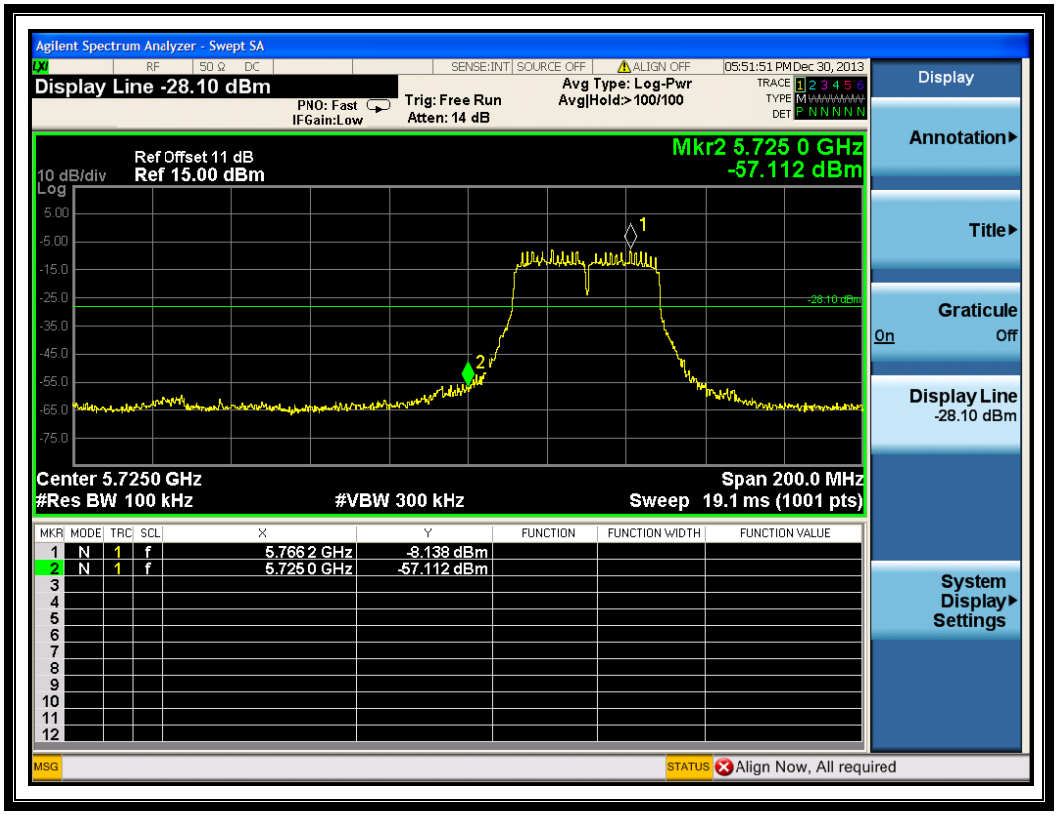
Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated -20dBc Limit	
151	5755	-53.574	-8.498	-28.5	PASS
159	5795	-53.927	-10.999	-31.0	PASS

B. Test Plots:

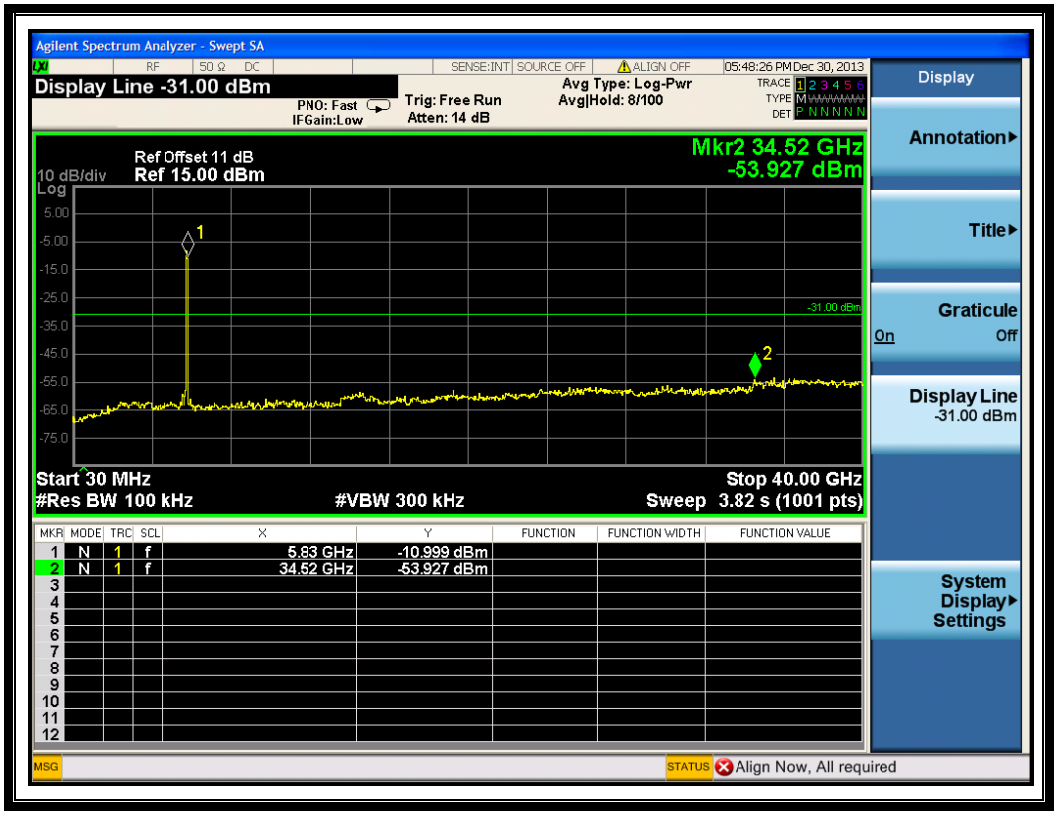
Note: the power of the Module transmitting frequency should be ignored.



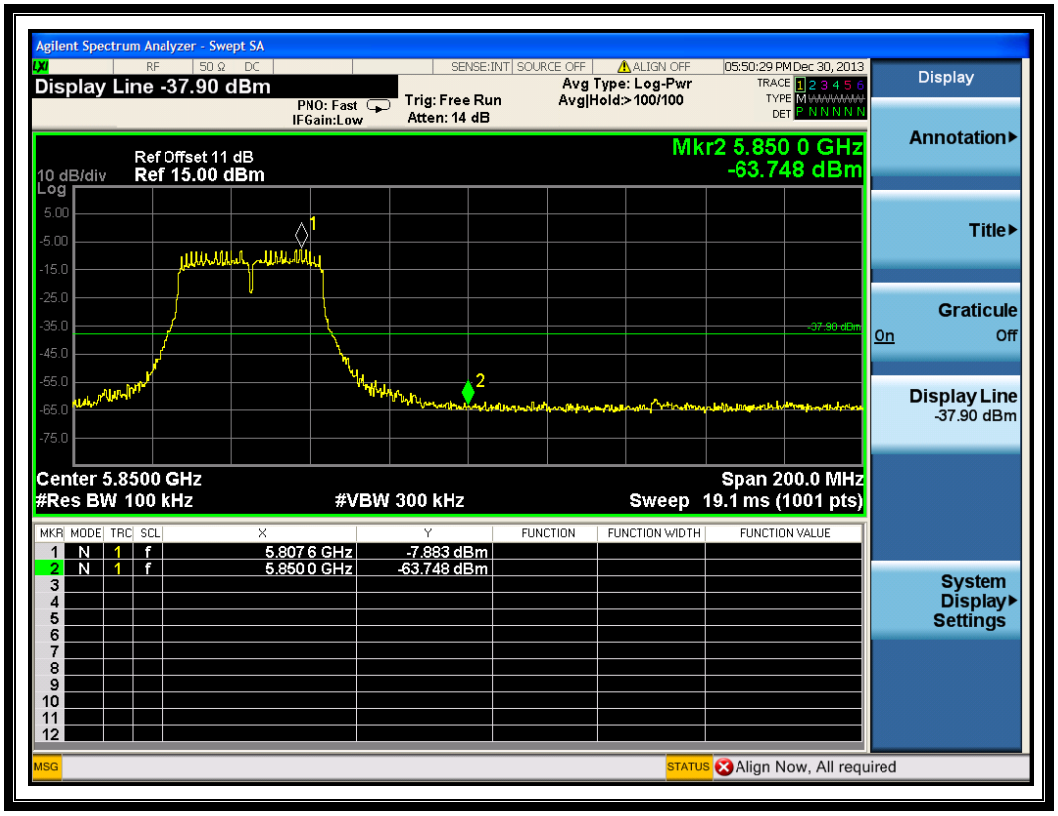
(Channel = 151, 30MHz to 40GHz)



(Band Edge@ Channel = 151)



(Channel = 159, 30MHz to 40GHz)



(Band Edge@ Channel = 159)

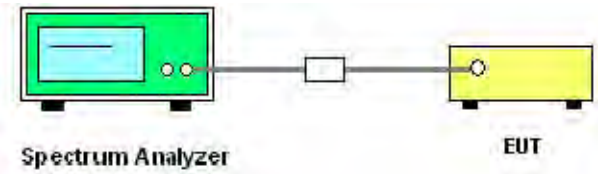
3.5. Power spectral density (PSD)

3.5.1. Requirement

According to FCC section 15.247(e), the same method of determining the conducted output power shall be used to determine the power spectral density. If a peak output power is measured, then a peak power spectral density measurement is required. If an average output power is measured, then an average power spectral density measurement should be used.

3.5.2. Test Description

A. Test Set:



The EUT which is powered by the Battery, is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

KDB 558074 D01 v03r01 (04/09/2013) Section 10.2 was used in order to prove compliance.

B. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
EXA Signal Analzyer	Agilent	N9010A	MY51440152	2013.05.12	2014.05.11

3.5.3. Test Result

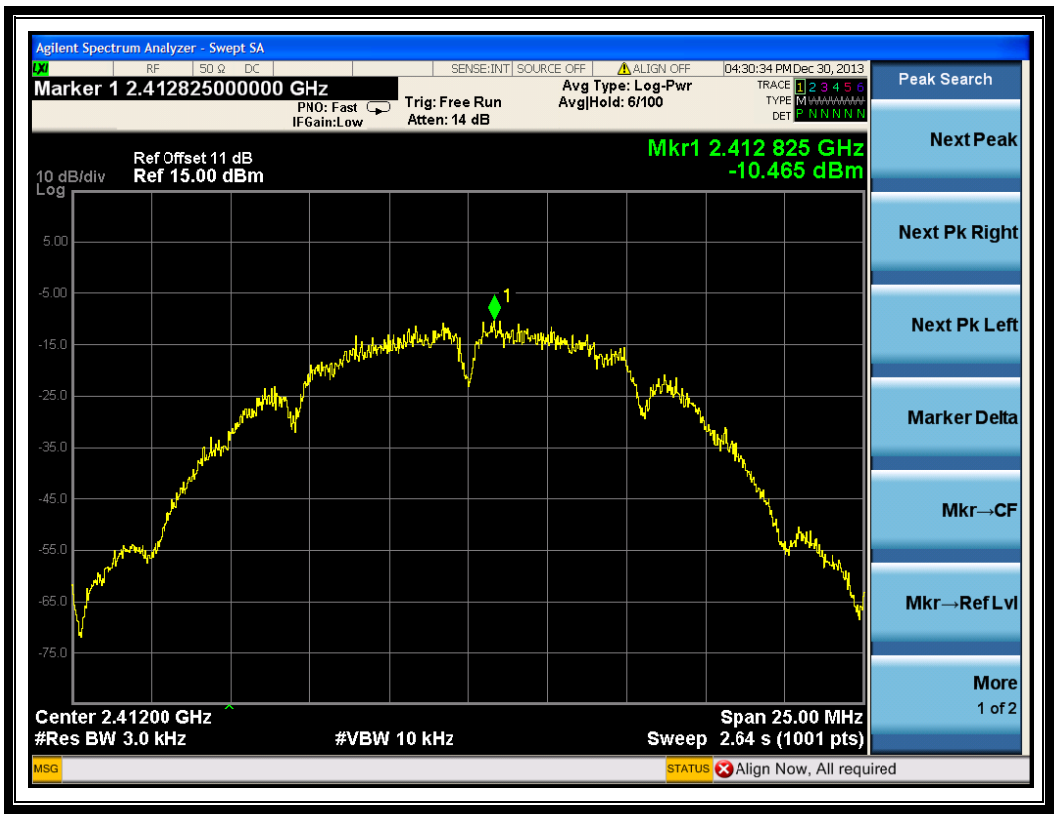
The lowest, middle and highest channels are tested to verify the band edge emissions.

3.5.3.1. 802.11b Test mode

A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
1	2412	-10.465	8	PASS
6	2437	-10.271	8	PASS
11	2462	-11.293	8	PASS
Measurement uncertainty: ±1.3dB				

B. Test Plots:



(Channel = 1 @ 802.11b)

(Channel = 6 @ 802.11b)

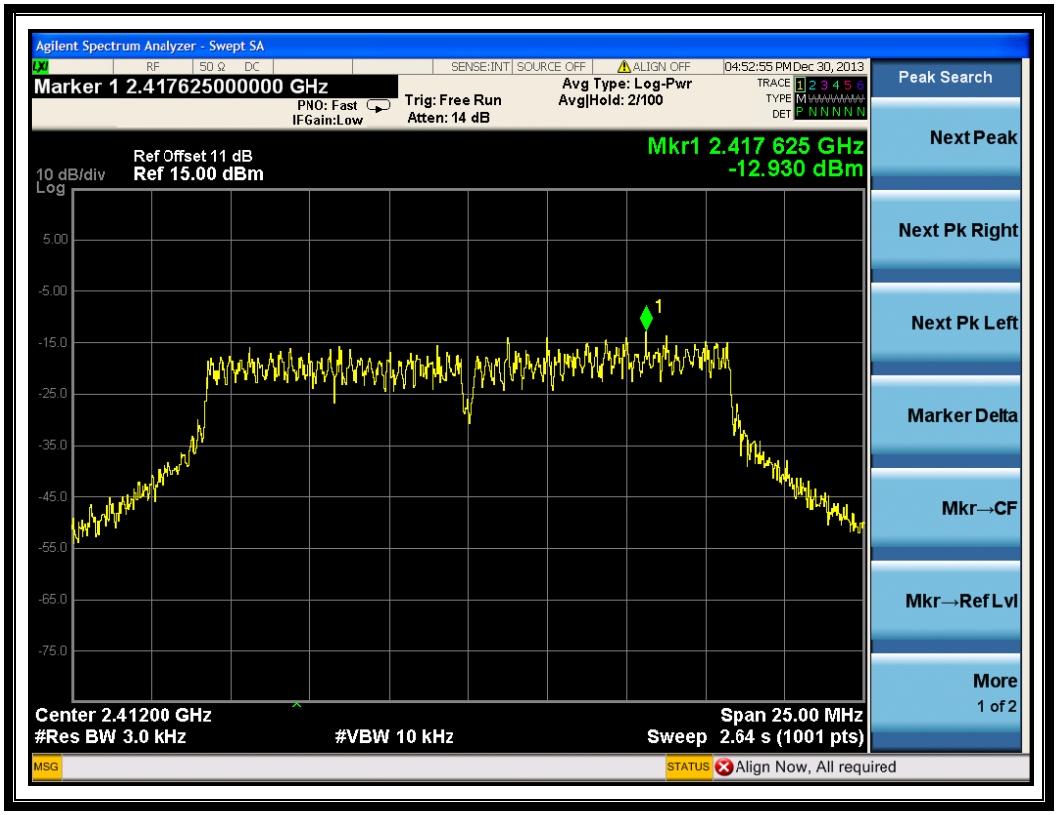
(Channel = 11 @ 802.11b)

3.5.3.2. 802.11g Test mode

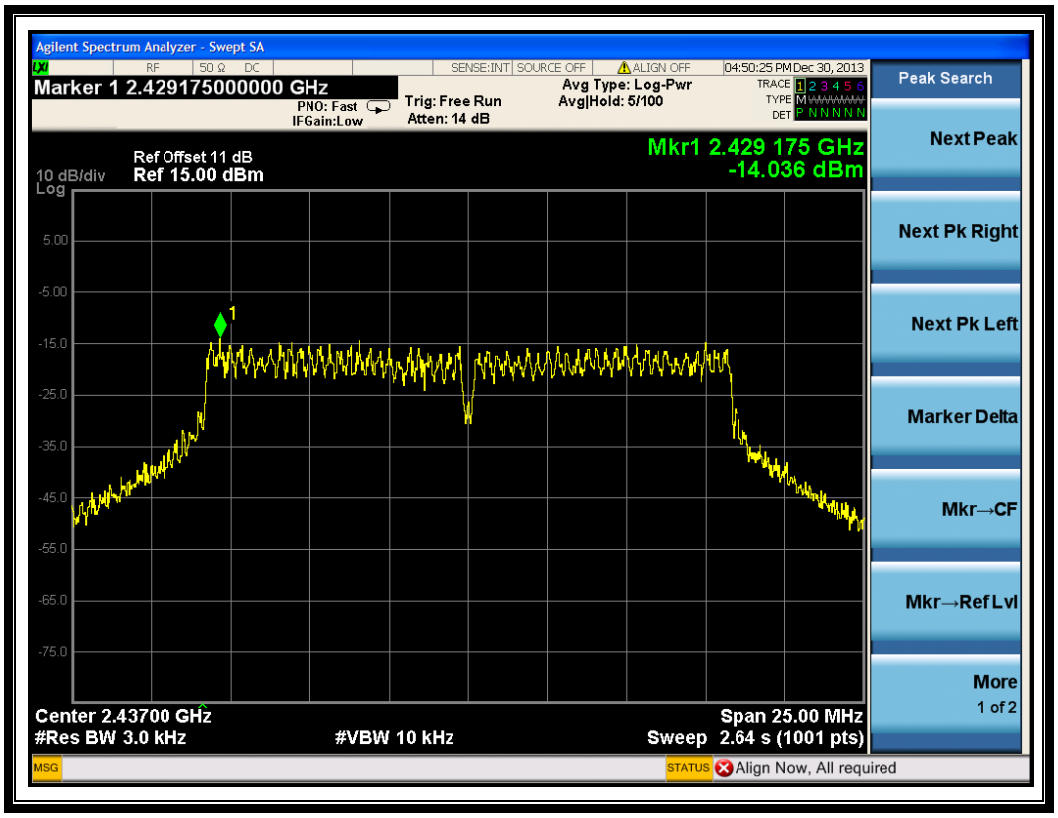
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
1	2412	-12.930	8	PASS
6	2437	-14.036	8	PASS
11	2462	-13.579	8	PASS
Measurement uncertainty: ±1.3dB				

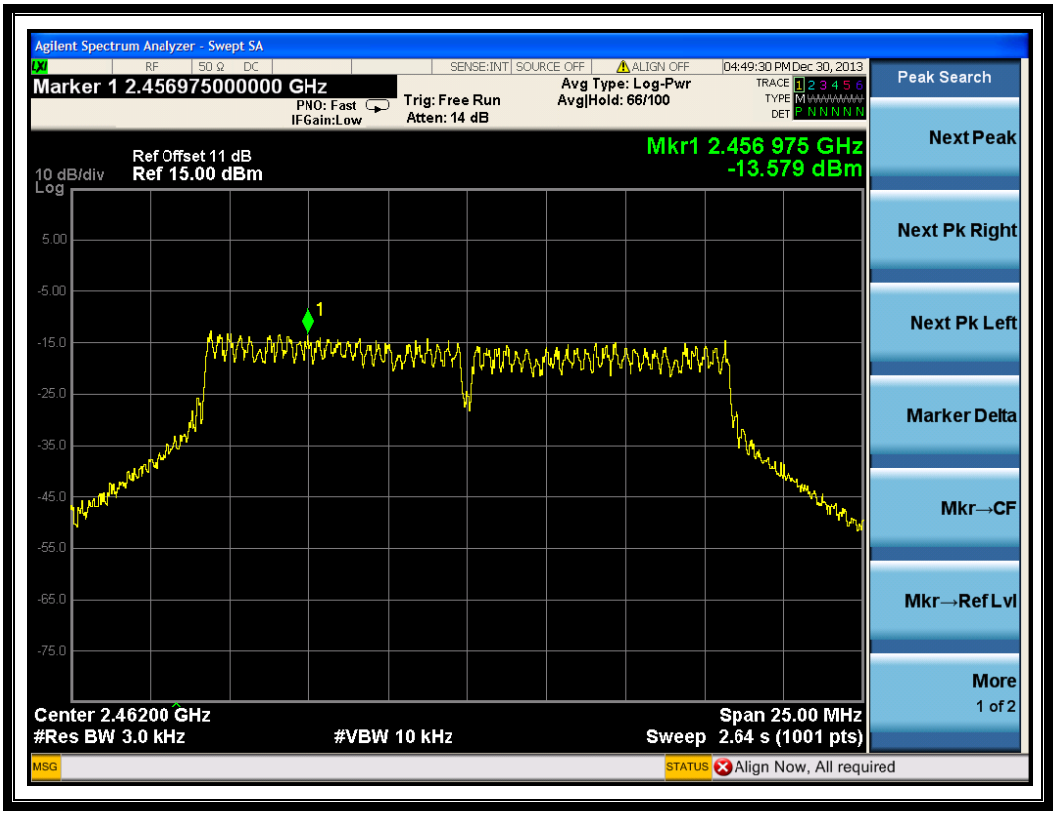
B. Test Plots:



(Channel = 1 @ 802.11g)



(Channel = 6 @ 802.11g)



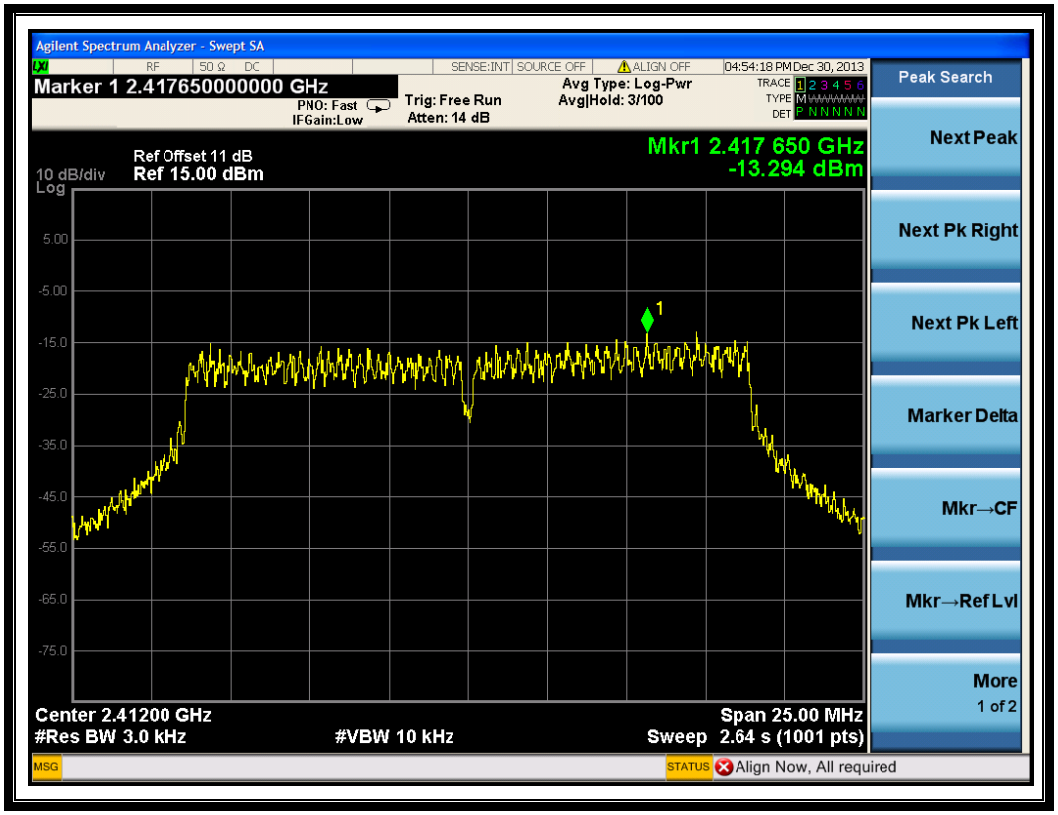
(Channel = 11 @ 802.11g)

3.5.3.3. 802.11n-20MHz Test mode

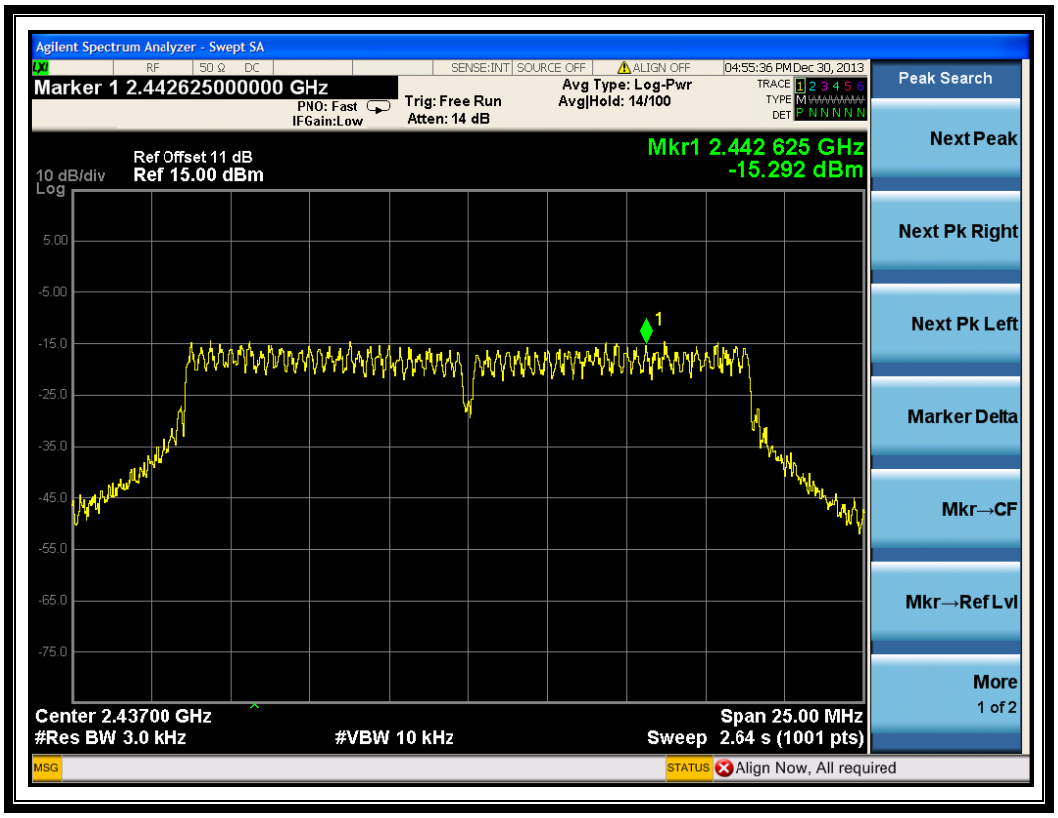
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
1	2412	-13.294	8	PASS
6	2437	-15.292	8	PASS
11	2462	-13.572	8	PASS
149	5745	-17.876	8	PASS
157	5785	-18.055	8	PASS
165	5825	-17.762	8	PASS
Measurement uncertainty: ±1.3dB				

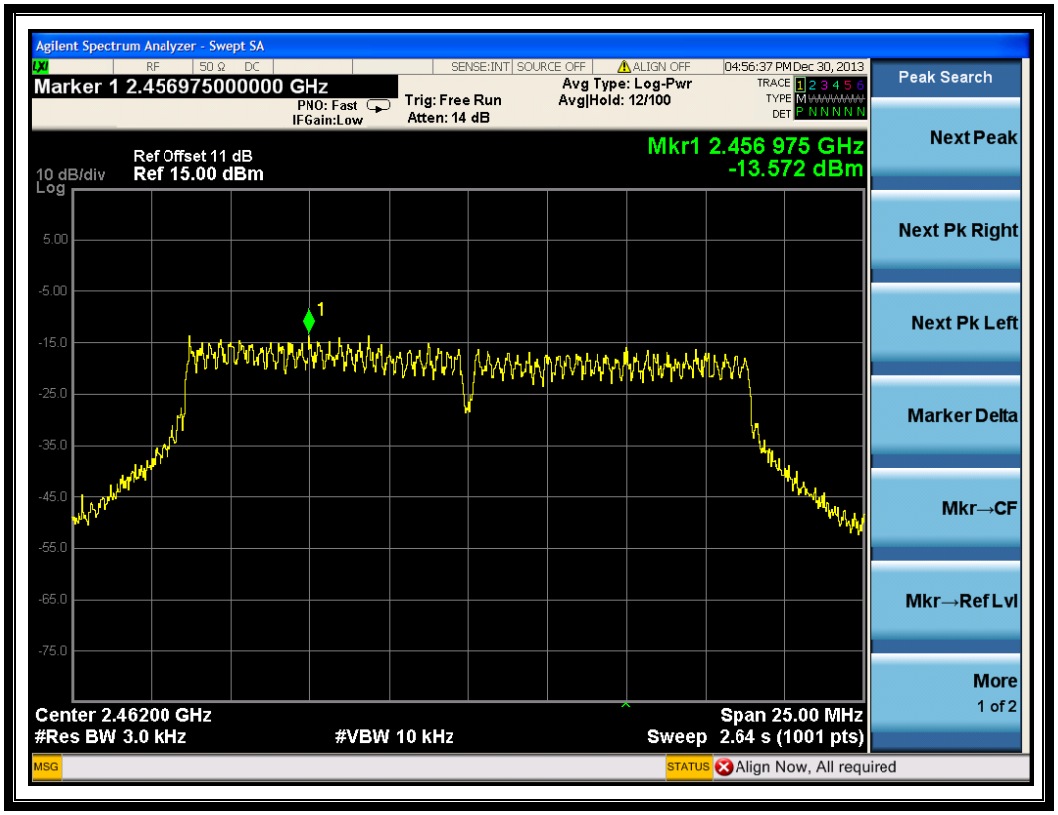
B. Test Plots:



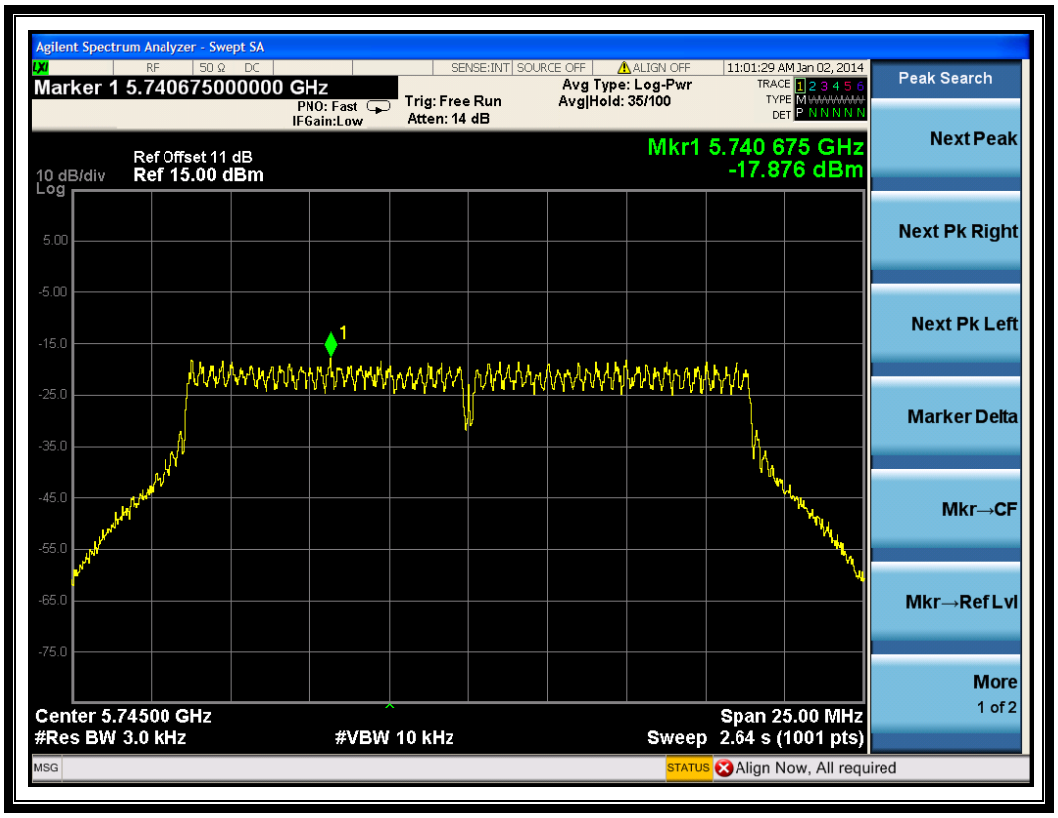
(Channel = 1 @ 802.11n-20MHz)



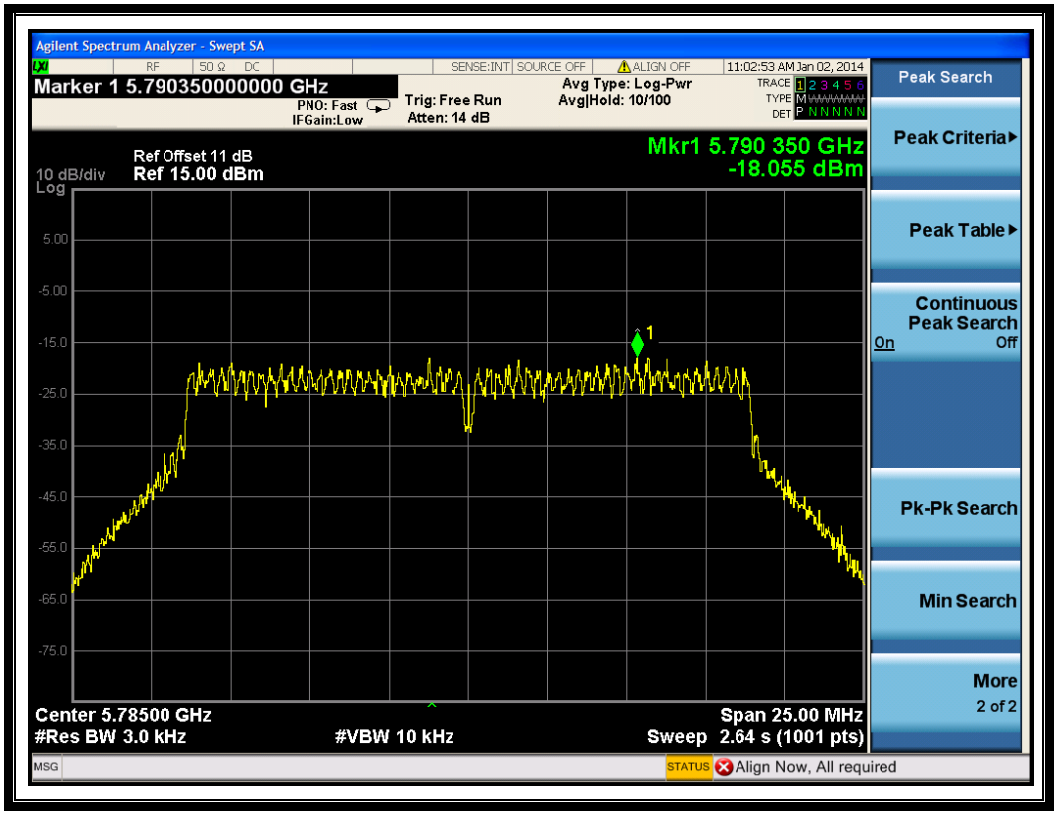
(Channel = 6 @ 802.11n-20MHz)



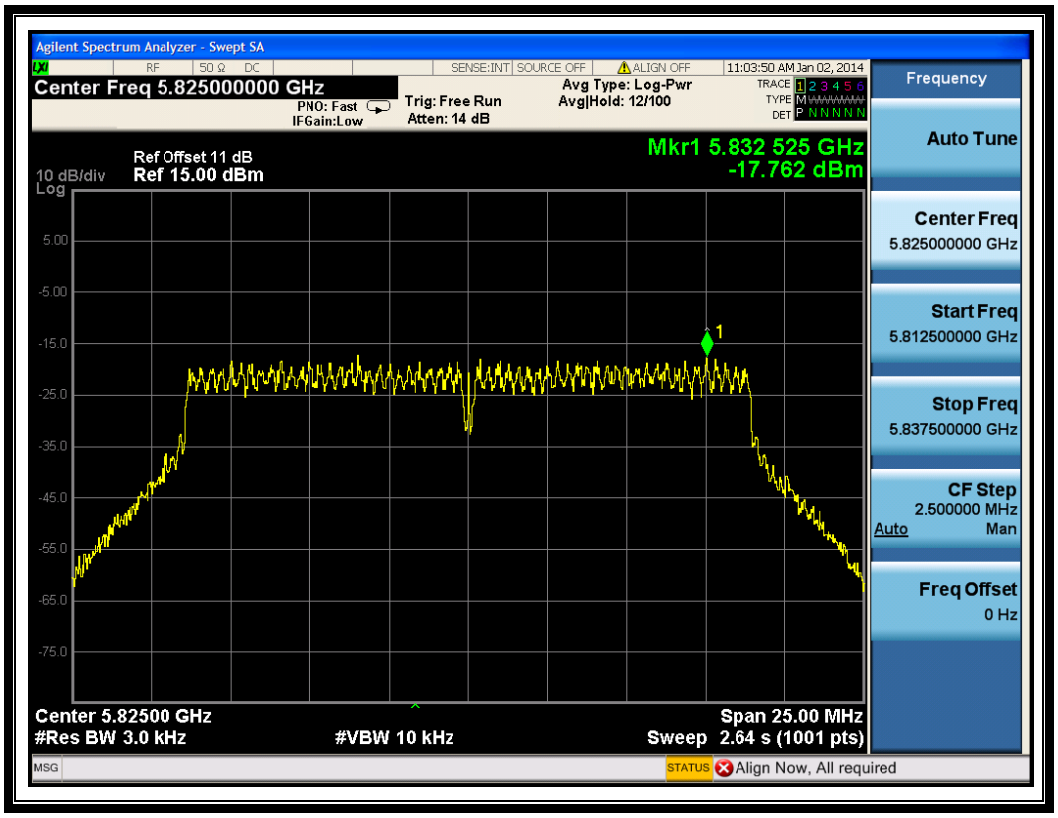
(Channel = 11 @ 802.11n-20MHz)



(Channel = 149 @ 802.11n-20MHz)



(Channel = 157 @ 802.11n-20MHz)



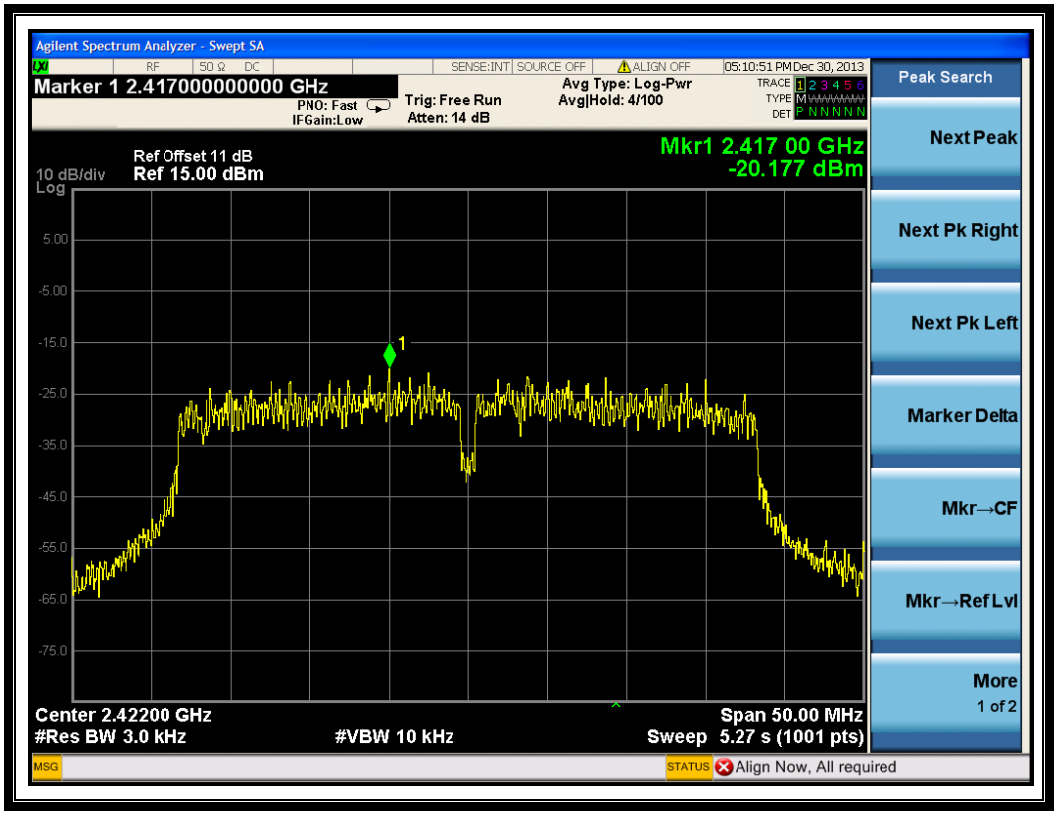
(Channel = 165 @ 802.11n-20MHz)

3.5.3.4. 802.11n-40MHz Test mode

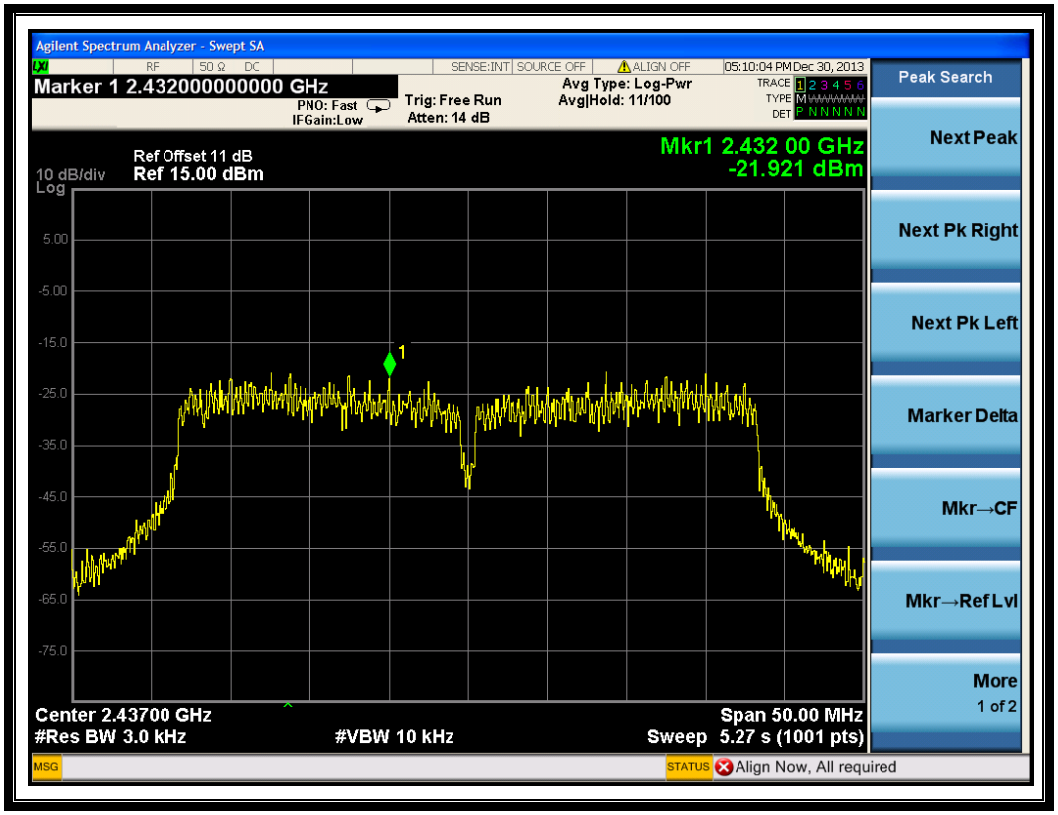
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
3	2422	-20.177	8	PASS
6	2437	-21.921	8	PASS
9	2452	-20.640	8	PASS
151	5755	-21.270	8	PASS
159	5795	-21.114	8	PASS
Measurement uncertainty: ±1.3dB				

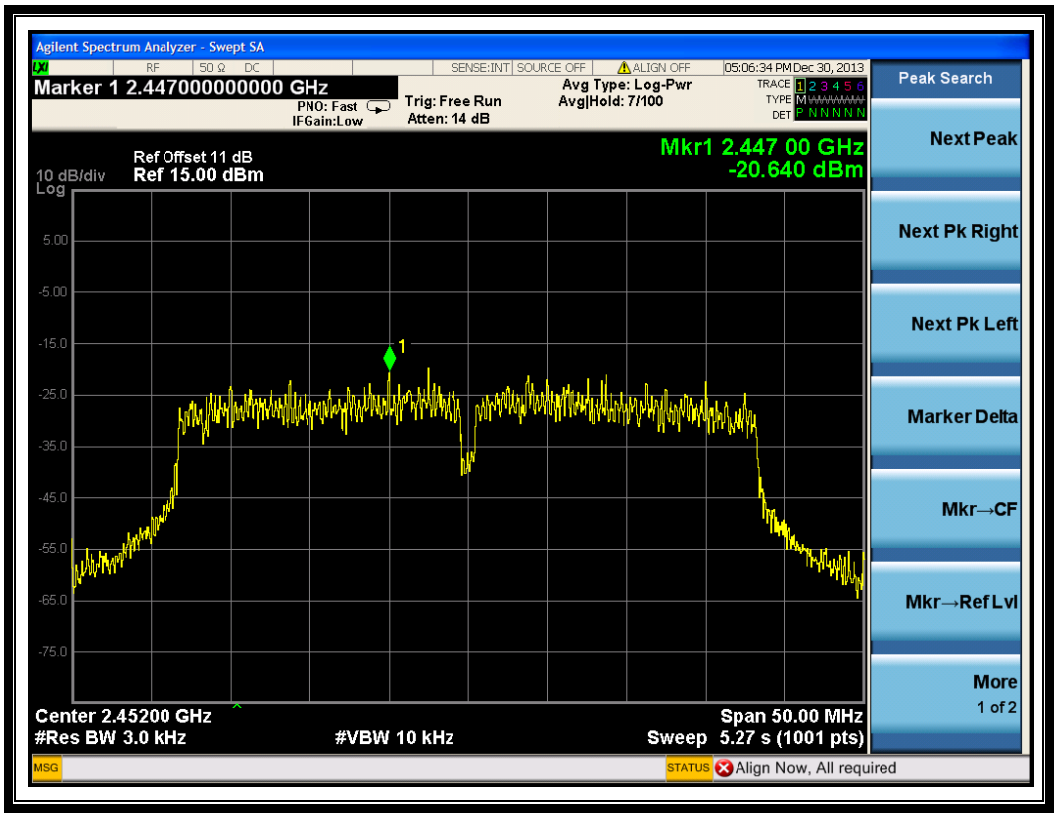
B. Test Plots:



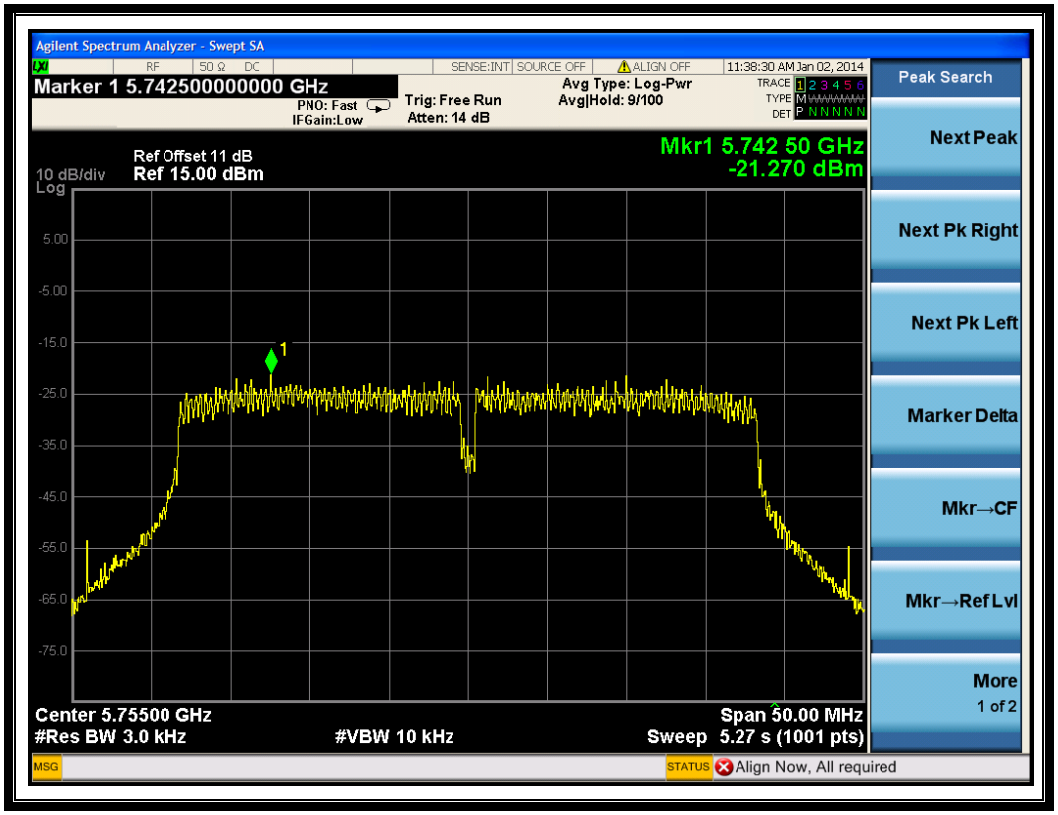
(Channel = 3 @ 802.11n-40MHz)



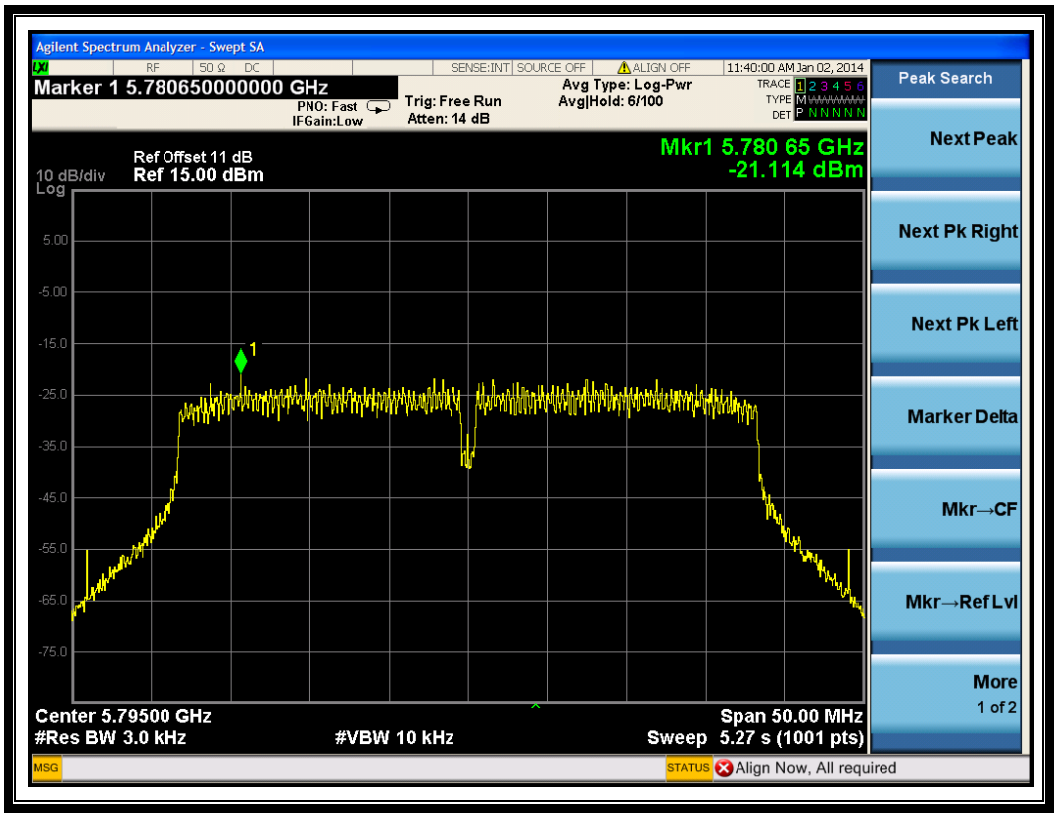
(Channel = 6 @ 802.11n-40MHz)



(Channel = 9 @ 802.11n-40MHz)



(Channel = 151 @ 802.11n-40MHz)



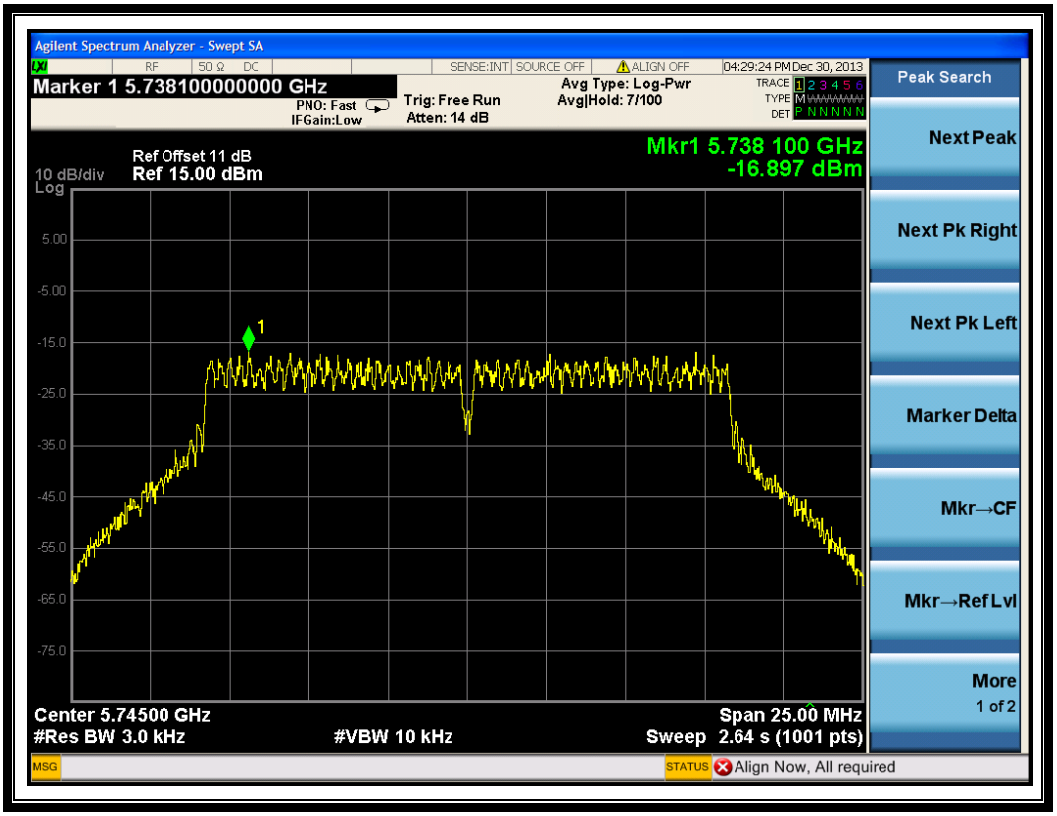
(Channel = 159 @ 802.11n-40MHz)

3.5.3.5. 802.11a Test mode

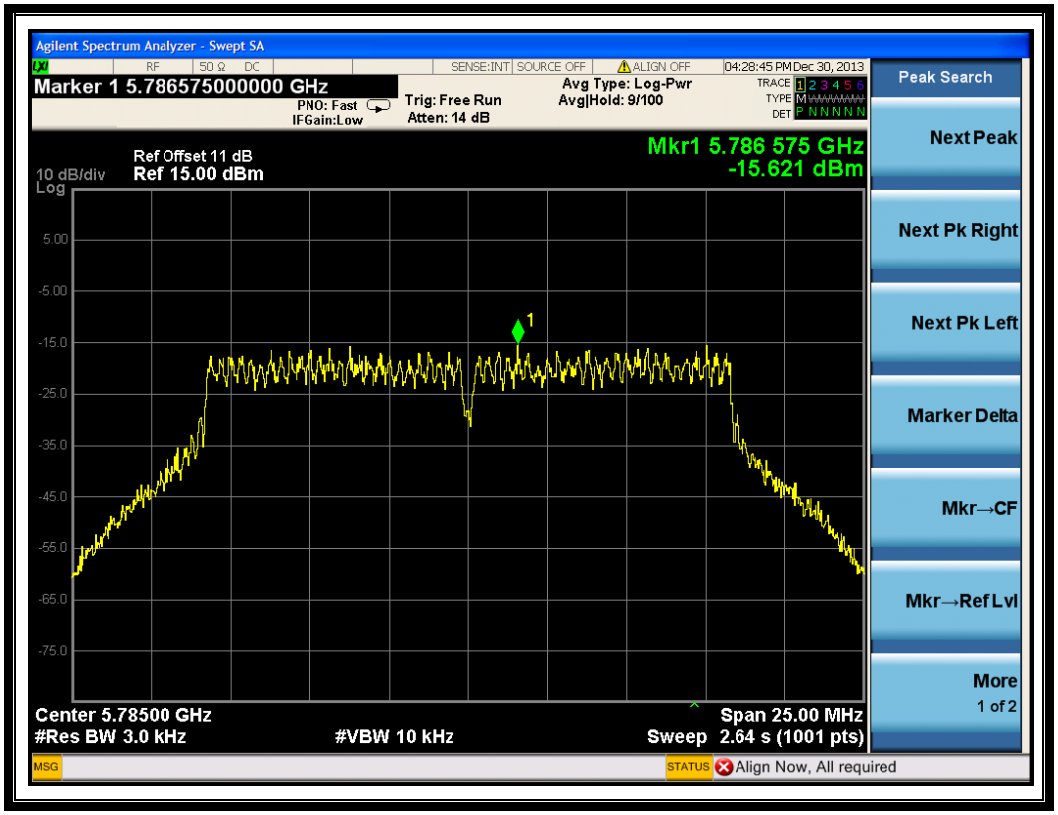
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
149	5745	-16.897	8	PASS
157	5785	-15.621	8	PASS
165	5825	-14.999	8	PASS
Measurement uncertainty: ±1.3dB				

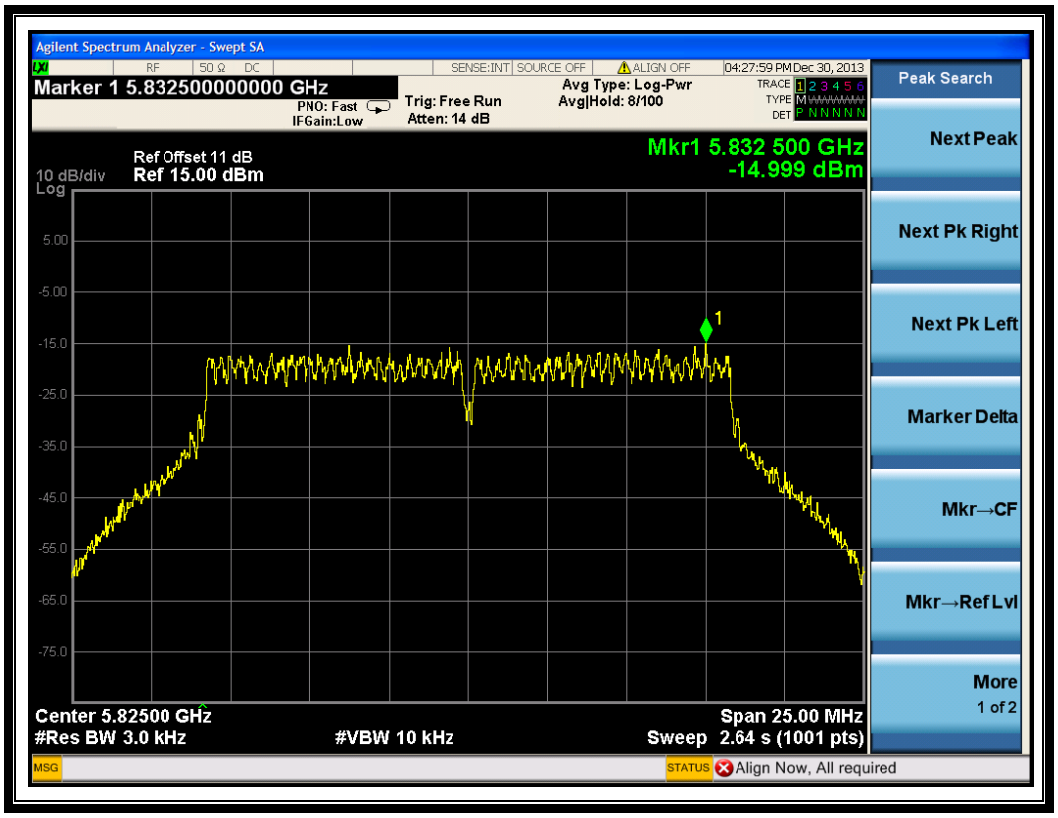
B. Test Plots:



(Channel = 149 @ 802.11a)



(Channel = 157 @ 802.11a)



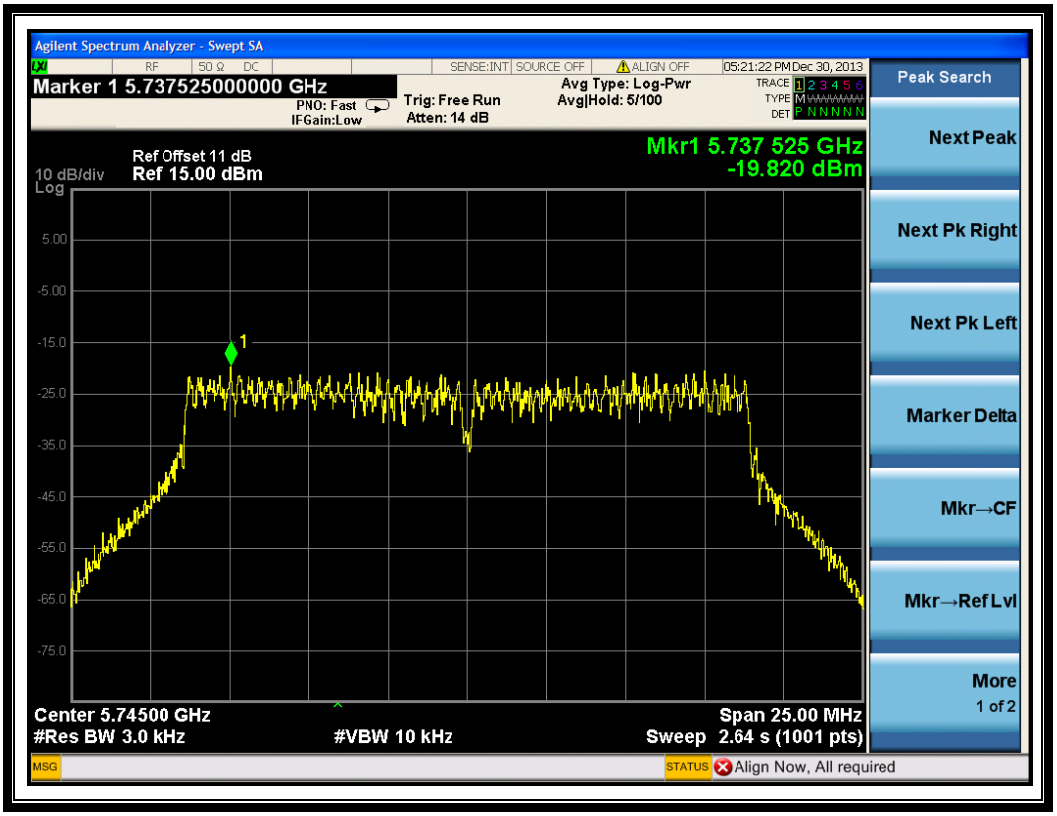
(Channel = 165 @ 802.11a)

3.5.3.6. 802.11ac-20MHz Test mode

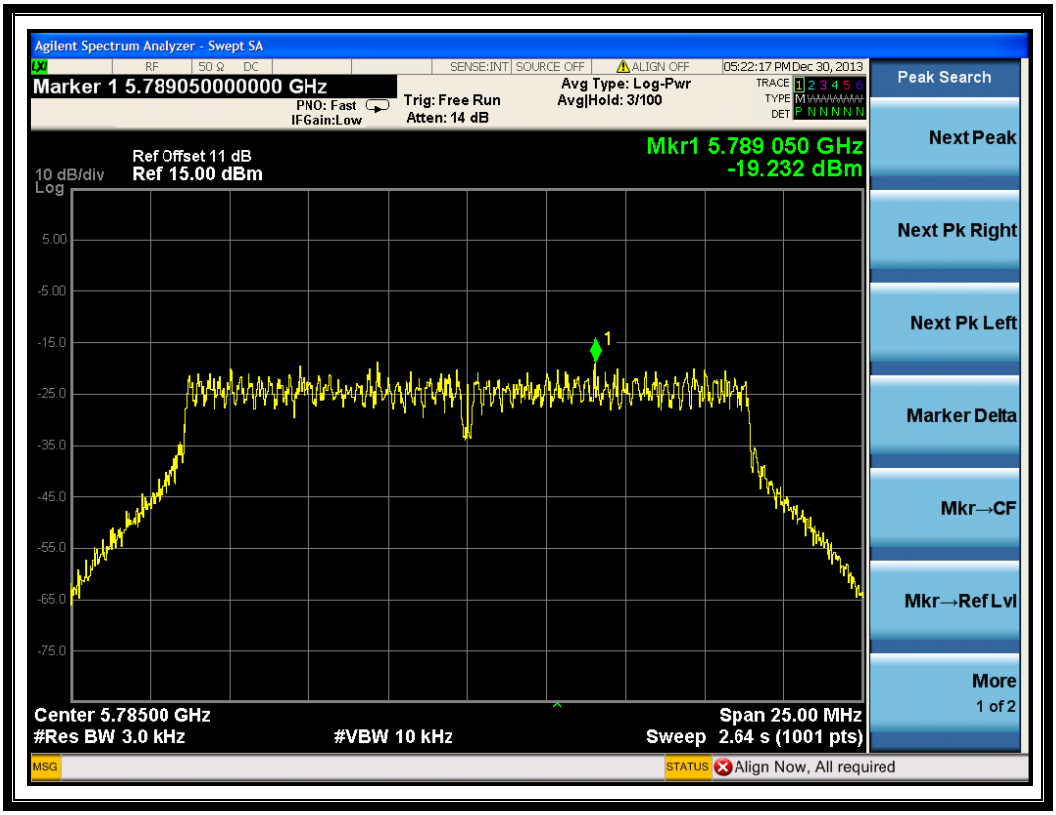
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
149	5745	-19.820	8	PASS
157	5785	-19.232	8	PASS
165	5825	-19.574	8	PASS
Measurement uncertainty: ±1.3dB				

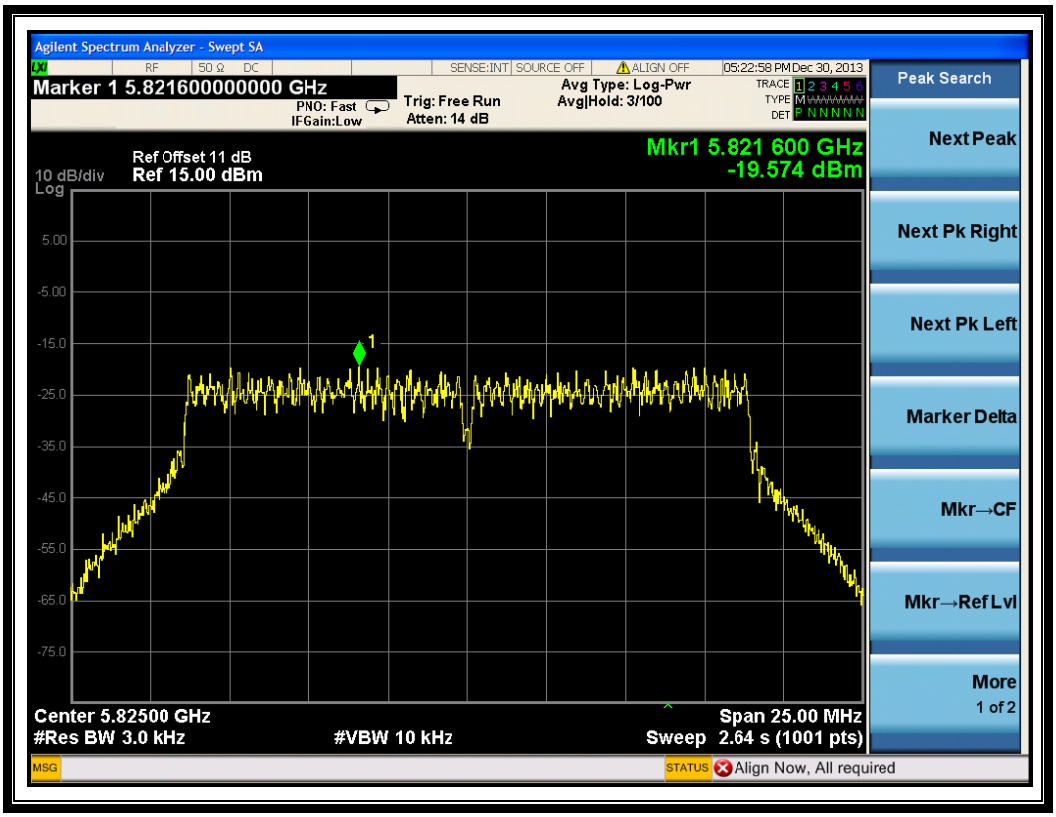
B. Test Plots:



(Channel = 149 @ 802.11 ac-20MHz)



(Channel = 157 @ 802.11 ac-20MHz)



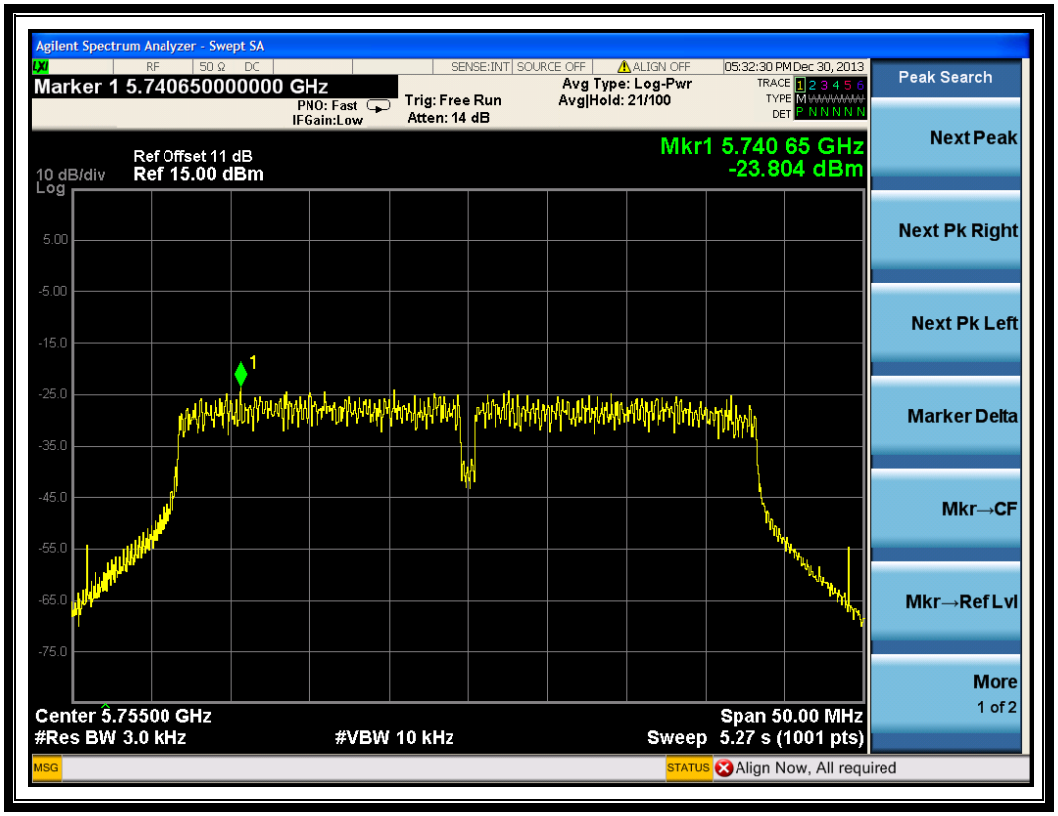
(Channel = 165 @ 802.11ac-20MHz)

3.5.3.7. 802.11ac-40MHz Test mode

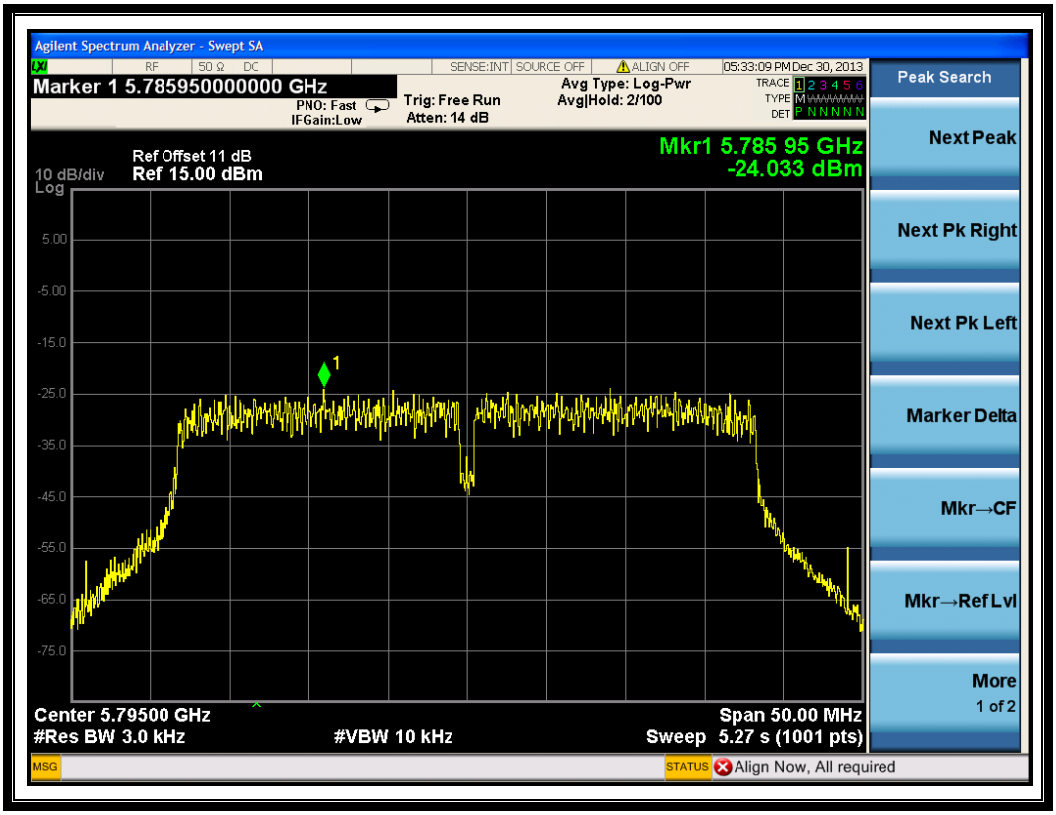
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
151	5755	-23.804	8	PASS
159	5795	-24.033	8	PASS
Measurement uncertainty: ±1.3dB				

B. Test Plots:



(Channel = 151 @ 802.11 ac-40MHz)



(Channel = 159 @ 802.11 ac-40MHz)

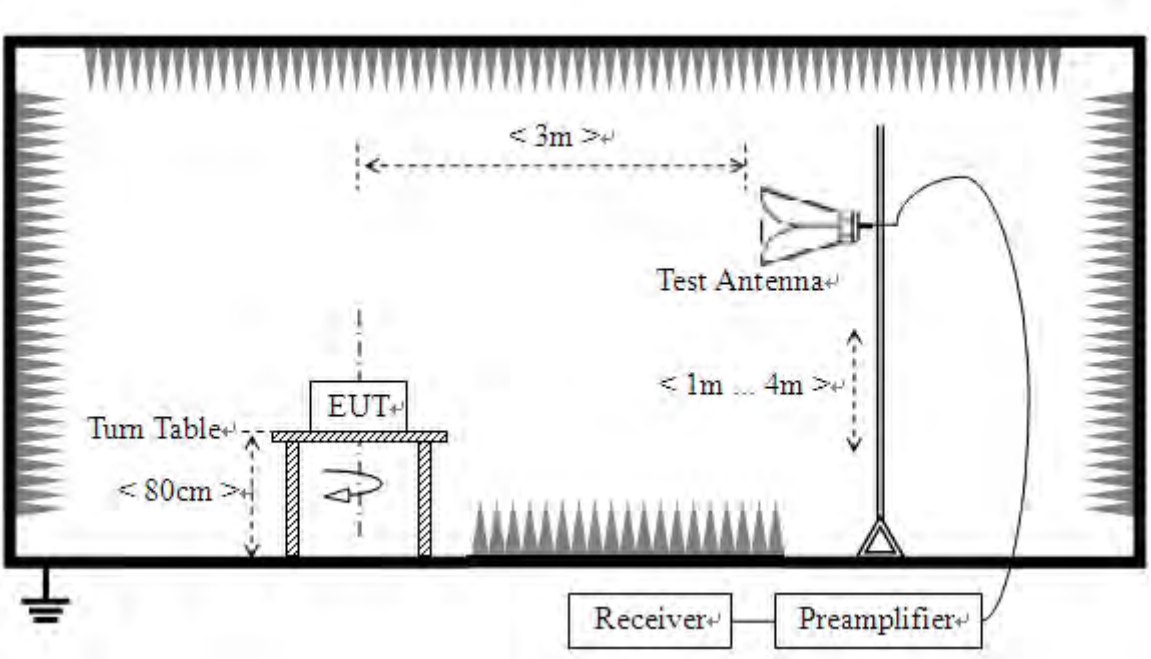
3.6. Restricted Frequency Bands

3.6.1. Requirement

According to FCC section 15.247(d), in any 100kHz 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 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, 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).

3.6.2. Test Description

A. Test Setup



The Module is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading.

For the Test Antenna:

Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength.

KDB 558074 D01 v03r01 (04/09/2013) Section 12.1 was used in order to prove compliance.

B. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Receiver	Agilent	E7405A	US44210471	2013.05.12	2014.05.11
Full-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2012.05.12	2014.05.11
Test Antenna - Horn	Schwarzbeck	BBHA 9120D	9120D-963	2013.05.12	2014.05.11

3.6.3. Test Result

The lowest and highest channels are tested to verify Restricted Frequency Bands.

The measurement results are obtained as below:
E [dBμV/m] =U_R + A_T + A_{Factor} [dB]; A_T =$L_{Cable\ loss}$ [dB]-G_{preamp} [dB]
A_T: Total correction Factor except Antenna
U_R: Receiver Reading
G_{preamp}: Preamplifier Gain
A_{Factor}: Antenna Factor at 3m

Note: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition (vertical) was recorded in this test report.

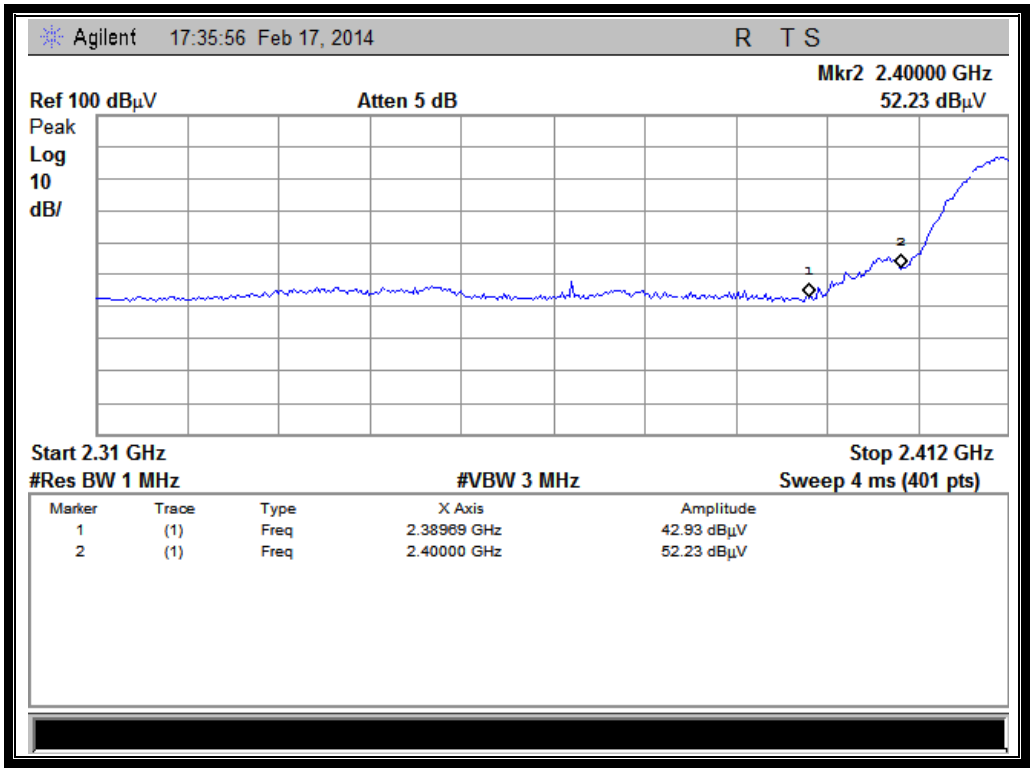
3.6.3.1. 802.11b Test mode

The lowest and highest channels are tested to verify the band edge emissions.

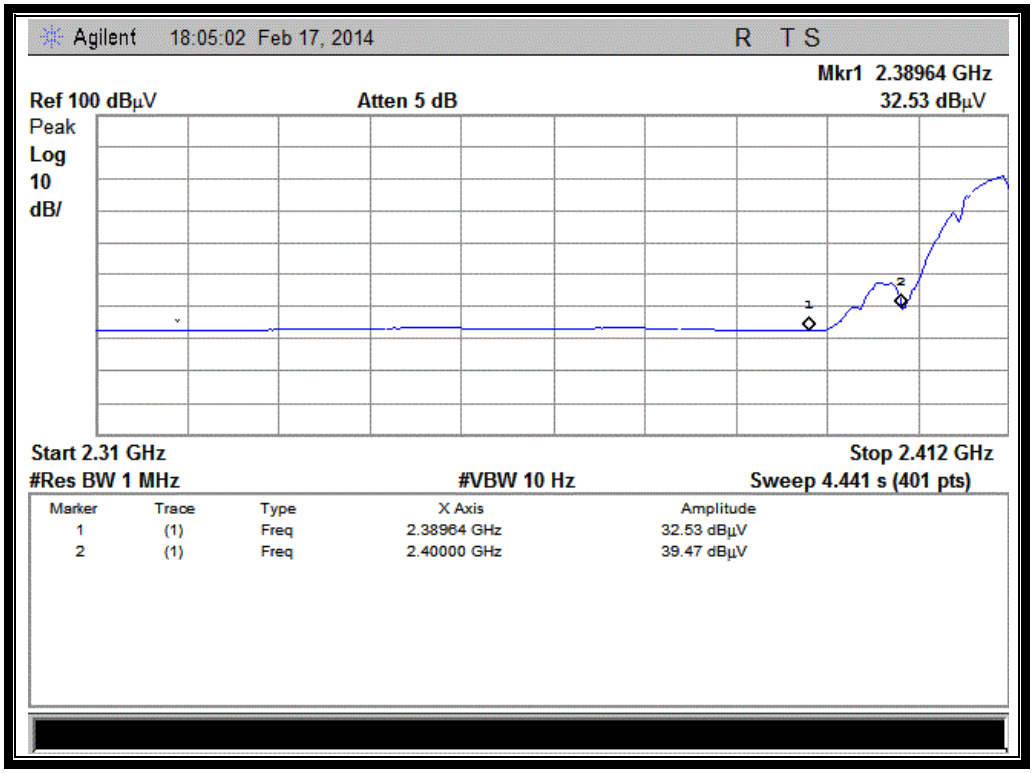
A. Test Verdict:

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading UR (dBuV)	AT (dB)	AFactor (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
1	2389.69	PK	42.93	-30.93	32.56	44.56	74	Pass
1	2389.64	AV	32.53	-30.93	32.56	34.16	54	Pass
11	2484.29	PK	46.13	-29.05	32.50	49.58	74	Pass
11	2483.50	AV	32.85	-29.05	32.50	36.30	54	Pass

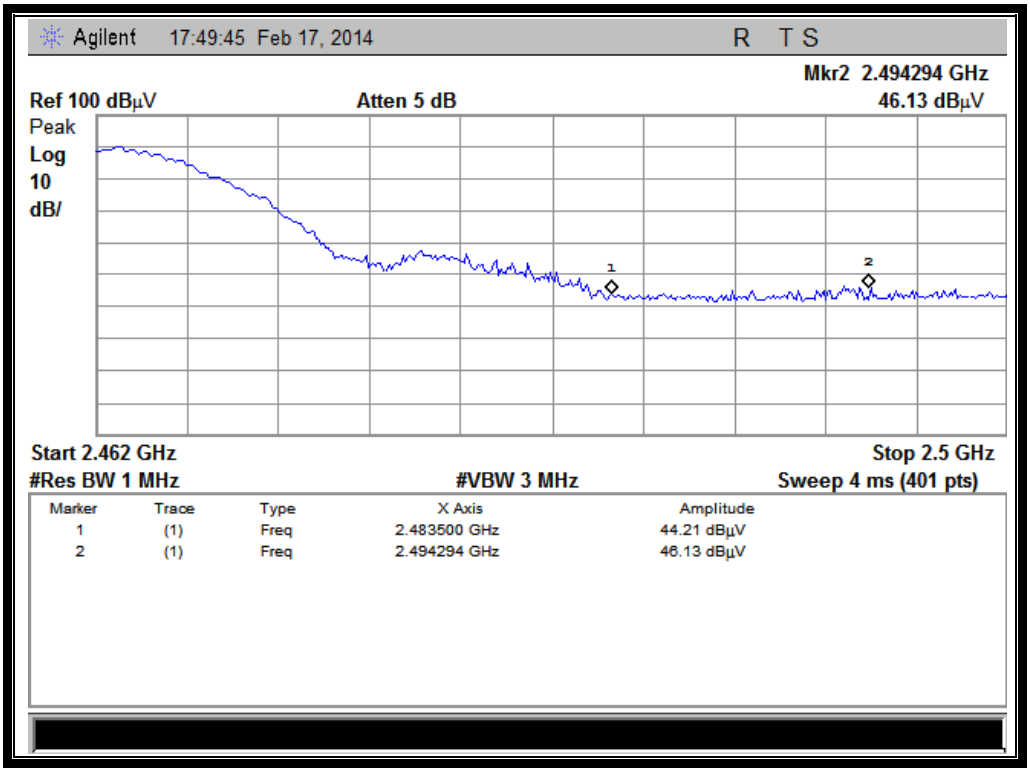
B. Test Plots:



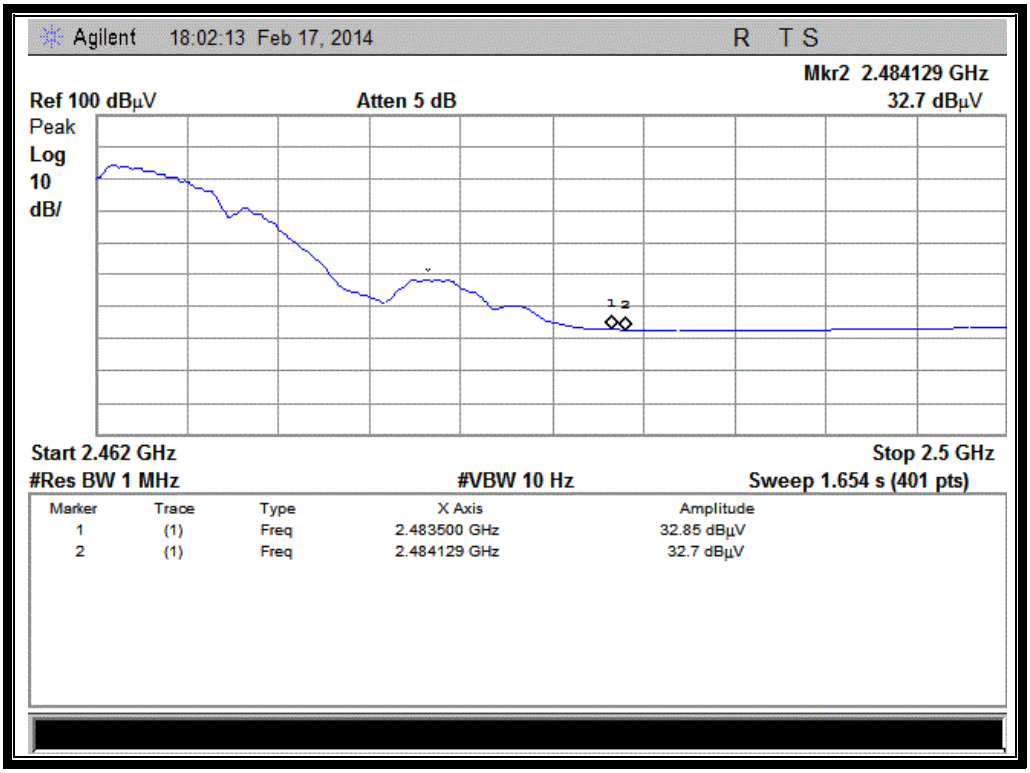
(Plot A1: Channel = 1 PEAK @ 802.11b)



(Plot A2: Channel = 1 AVG @ 802.11b)



(Plot B1: Channel = 11 PEAK @ 802.11b)



(Plot B2: Channel = 11 AVG @ 802.11b)

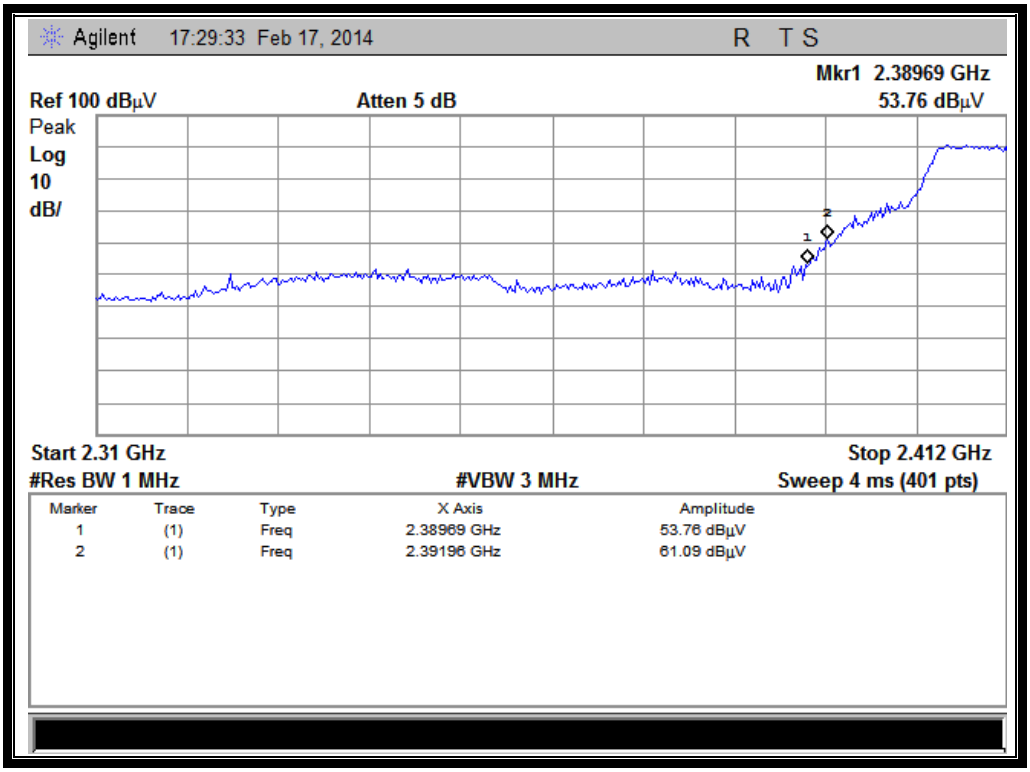
3.6.3.2. 802.11g Test mode

The lowest and highest channels are tested to verify the band edge emissions.

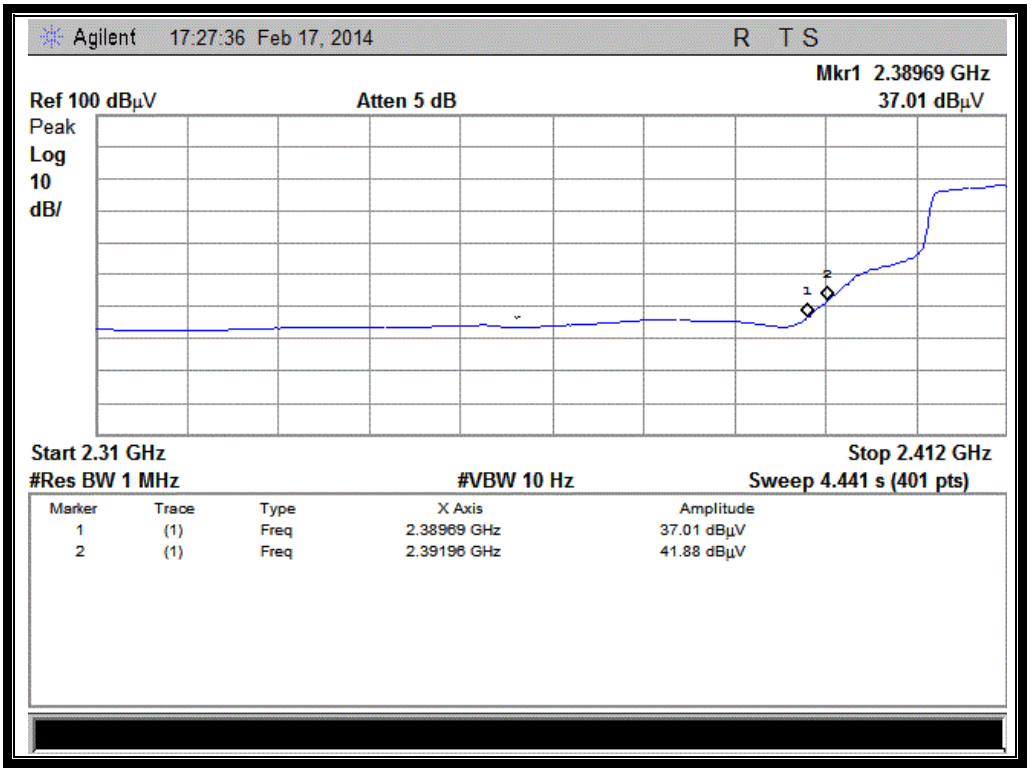
A. Test Verdict:

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading UR (dBuV)	AT (dB)	AFactor (dB@3m)	Max. Emission E (dBµV/m)	Limit (dBµV/m)	Verdict
1	2389.69	PK	53.76	-30.93	32.56	55.39	74	Pass
1	2389.69	AV	37.01	-30.93	32.56	38.64	54	Pass
11	2484.22	PK	50.71	-29.05	32.50	54.16	74	Pass
11	2483.50	AV	36.54	-29.05	32.50	39.99	54	Pass

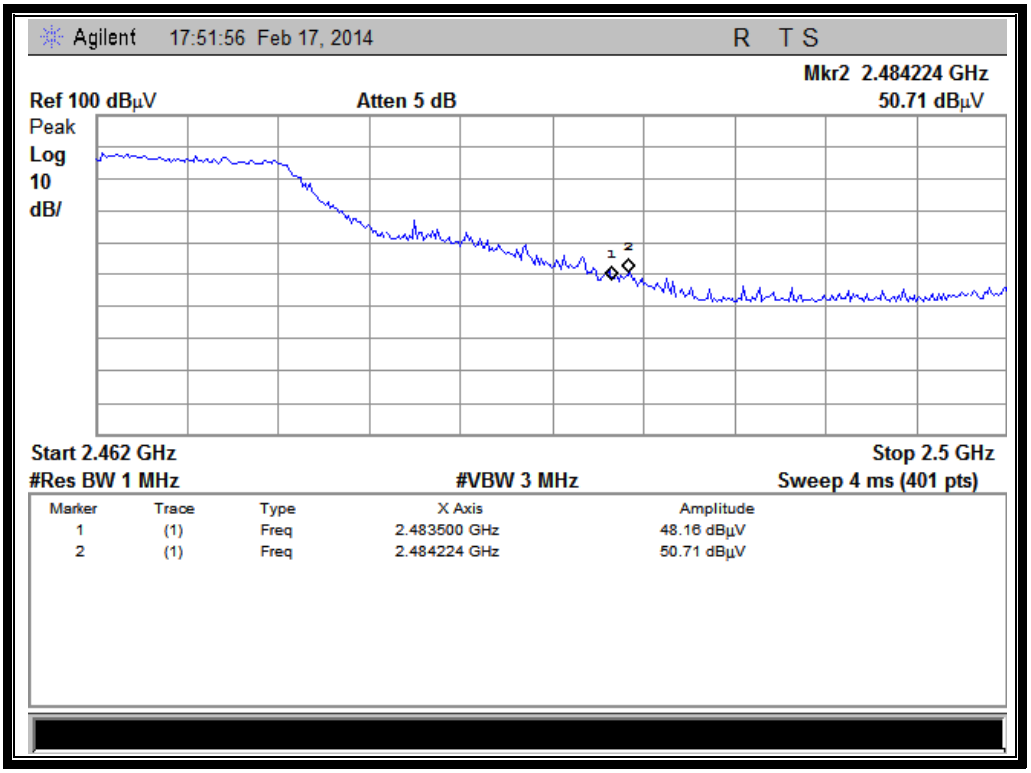
B. Test Plots:



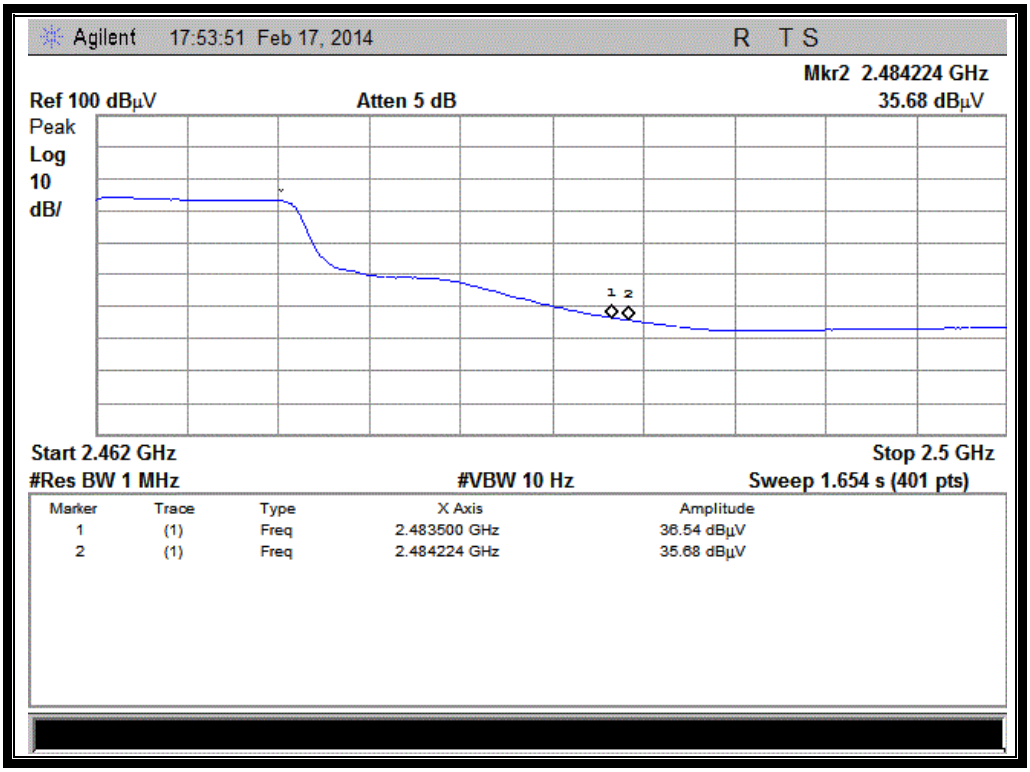
(Plot C1: Channel = 1 PEAK @ 802.11g)



(Plot C2: Channel = 1 AVG @ 802.11g)



(Plot D1: Channel = 11 PEAK @ 802.11g)



(Plot D2: Channel = 11 AVG @ 802.11g)

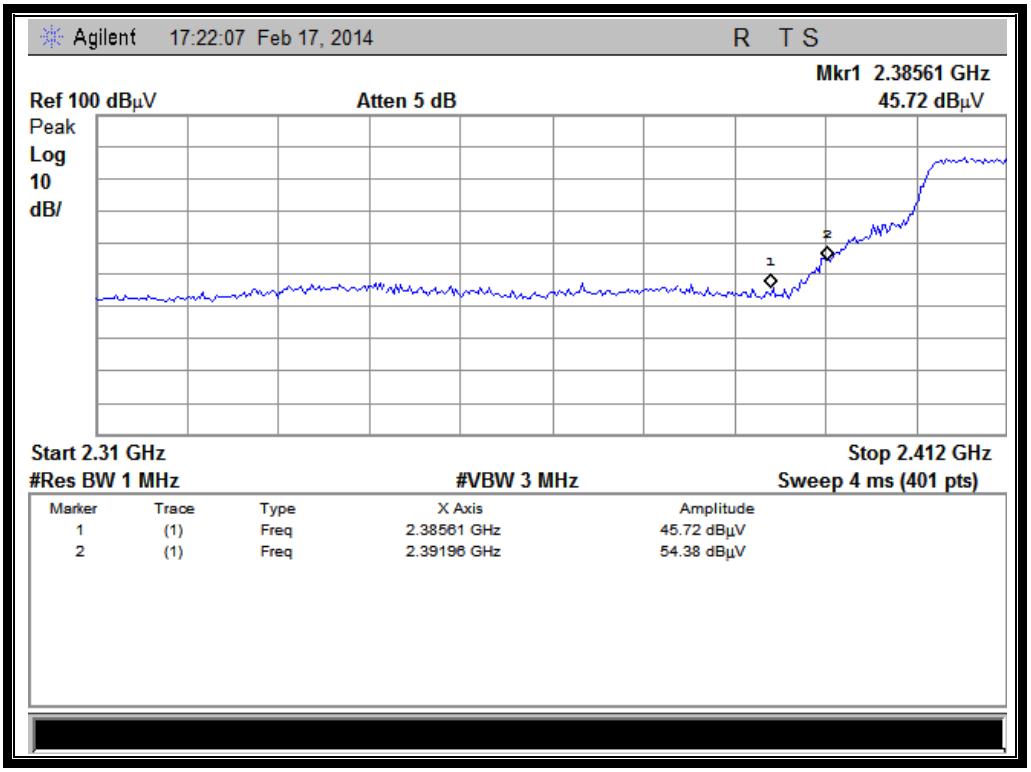
3.6.3.3. 802.11n-20MHz Test mode

The lowest and highest channels are tested to verify the band edge emissions.

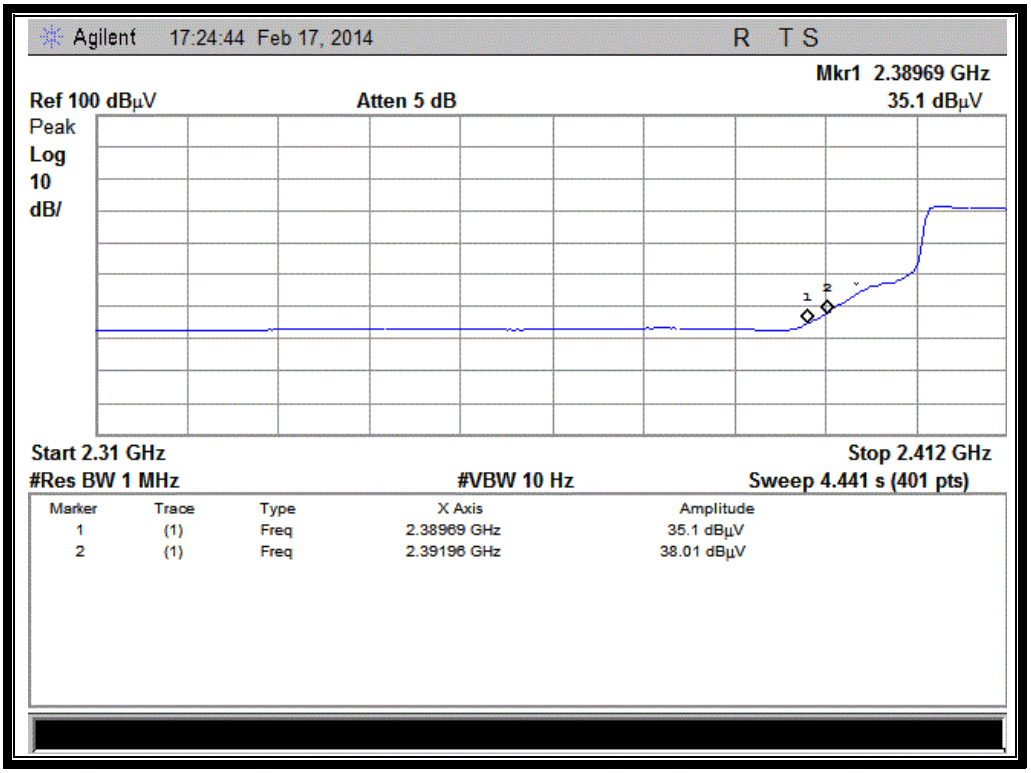
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading UR (dBuV)	AT (dB)	AFactor (dB@3m)	Max. Emission E (dBµV/m)	Limit (dBµV/m)	Verdict
		PK/ AV						
1	2385.61	PK	45.72	-30.93	32.56	47.35	74	Pass
1	2389.69	AV	35.10	-30.93	32.56	36.73	54	Pass
11	2483.94	PK	50.04	-29.05	32.50	53.49	74	Pass
11	2483.50	AV	36.35	-29.05	32.50	39.80	54	Pass

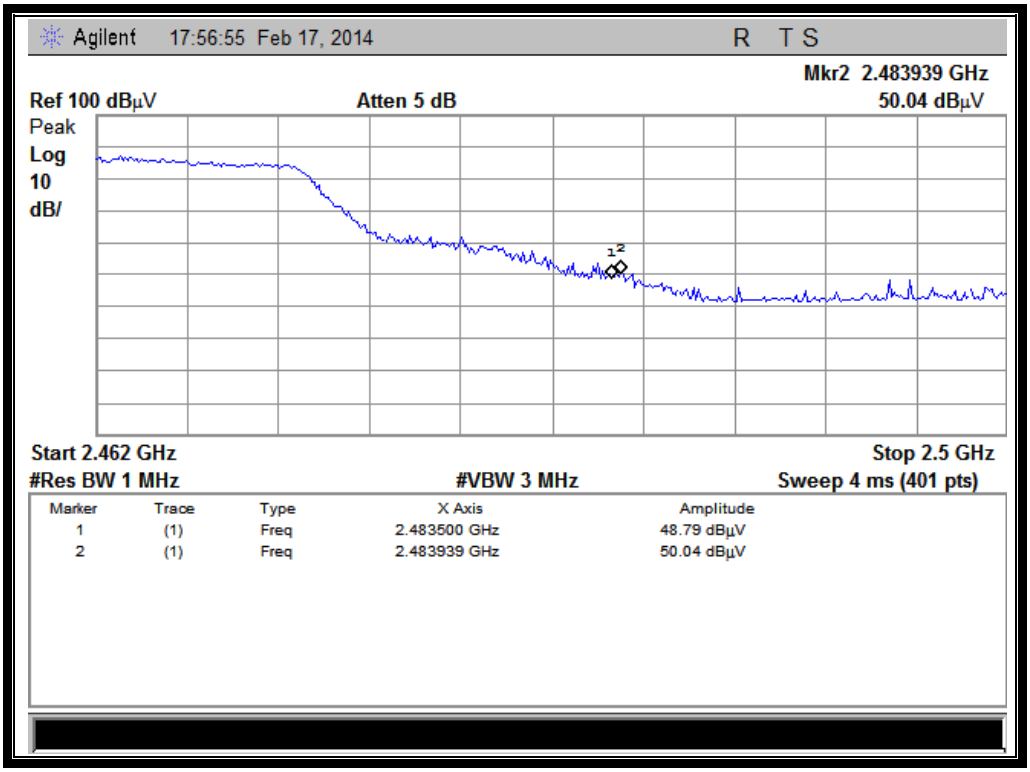
B. Test Plots:



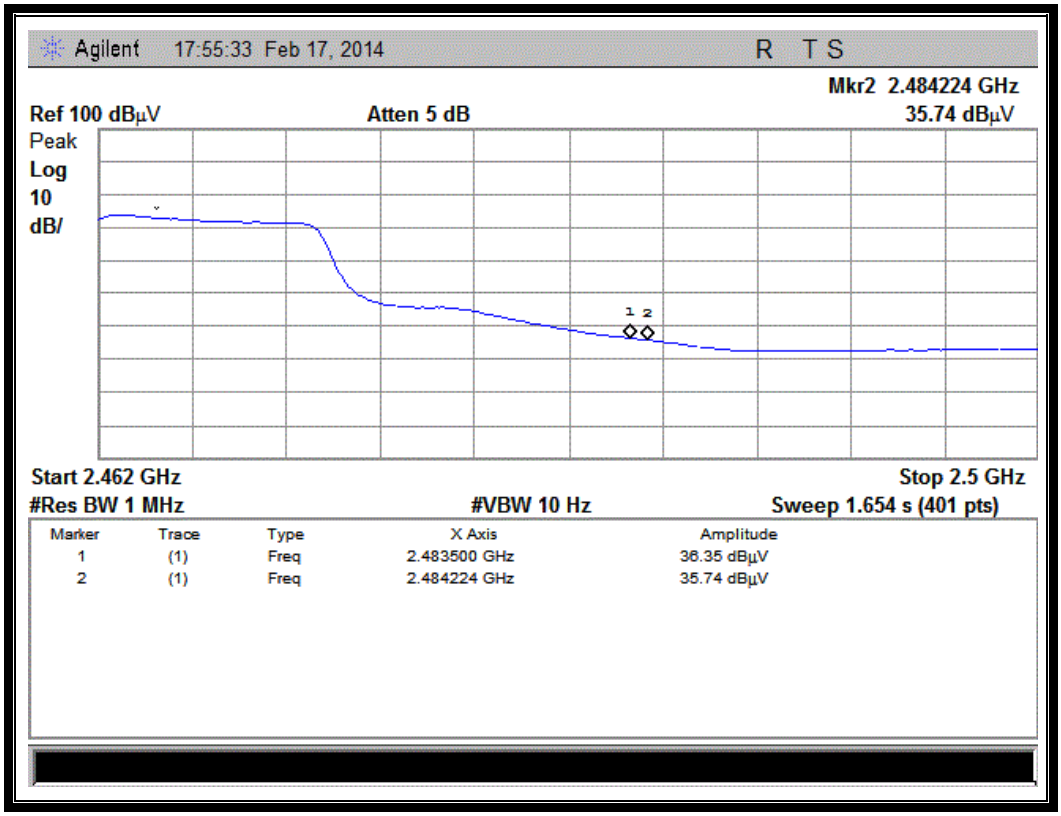
(Plot E1: Channel = 1 PEAK @ 802.11n-20)



(Plot E2: Channel = 1 AVG @ 802.11n-20)



(Plot F1: Channel = 11 PEAK @ 802.11n-20)



(Plot F2: Channel = 11 AVG @ 802.11n-20)

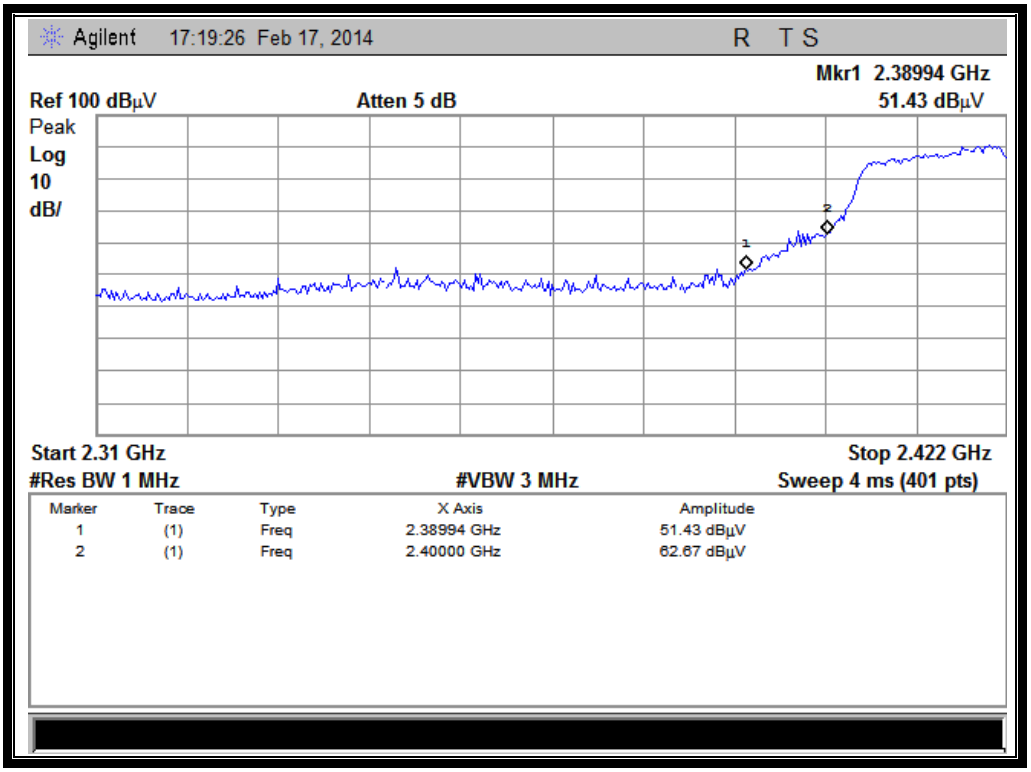
3.6.3.4. 802.11n-40MHz Test mode

The lowest and highest channels are tested to verify the band edge emissions.

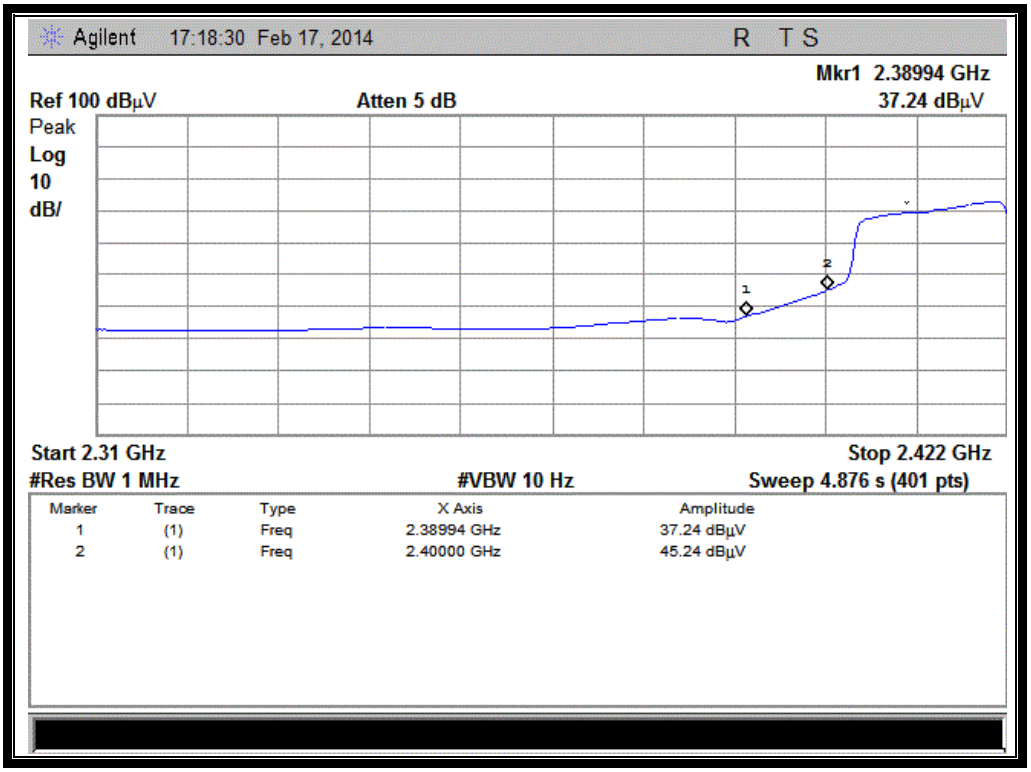
A. Test Verdict:

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading UR (dBuV)	AT (dB)	AFactor (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
3	2389.94	PK	51.43	-30.93	32.56	53.06	74	Pass
3	2389.94	AV	37.24	-30.93	32.56	38.87	54	Pass
9	2484.76	PK	53.97	-29.05	32.50	57.42	74	Pass
9	2483.50	AV	38.34	-29.05	32.50	41.79	54	Pass

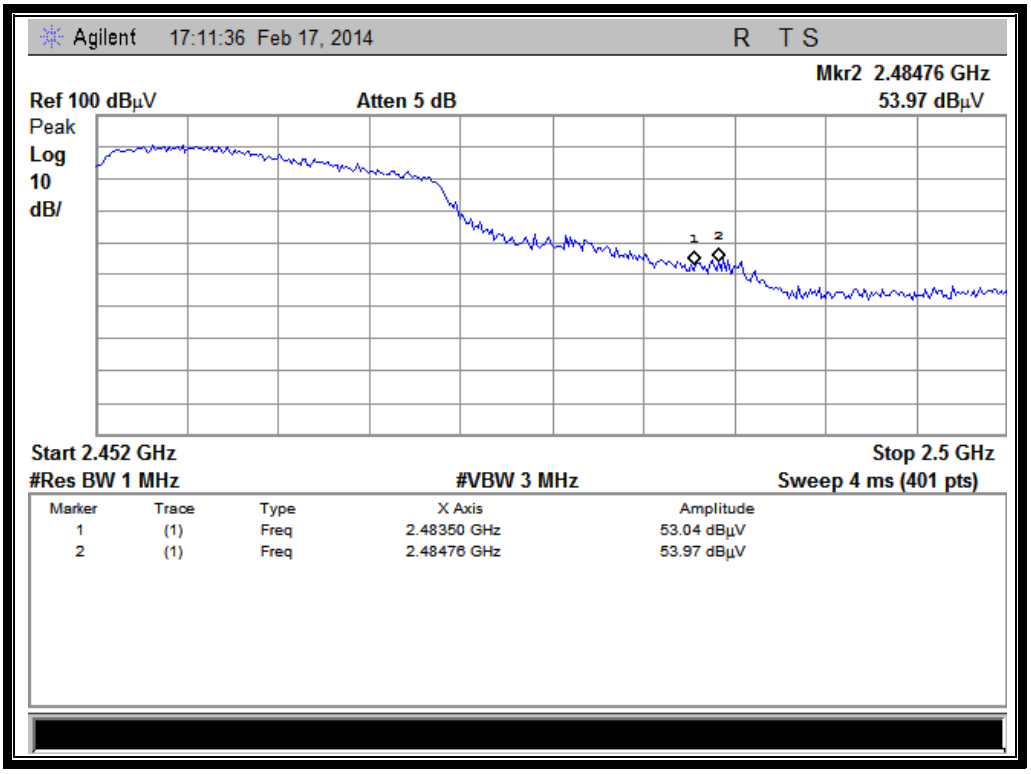
B. Test Plots:



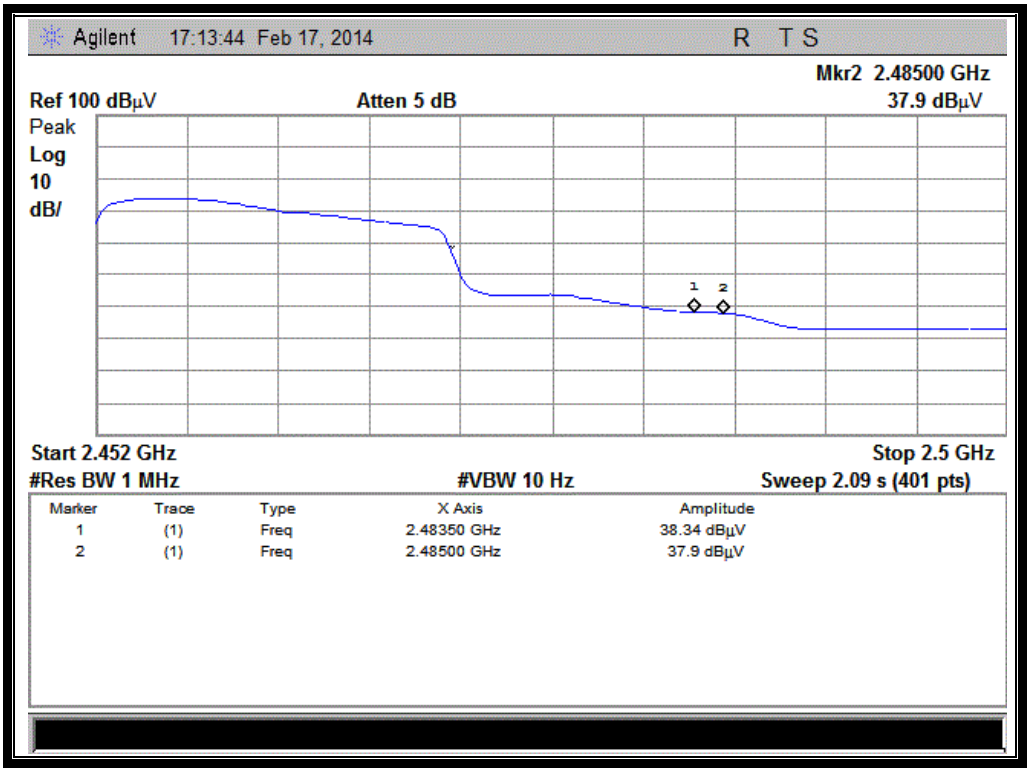
(Plot E1: Channel = 3 PEAK @ 802.11n-40)



(Plot E2: Channel = 3 AVG @ 802.11n-40)



(Plot F1: Channel = 9 PEAK @ 802.11n-40)



(Plot F2: Channel = 9 AVG @ 802.11n-40)

3.7. Conducted Emission

3.7.1. Requirement

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 within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50μH/50Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dBμV)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

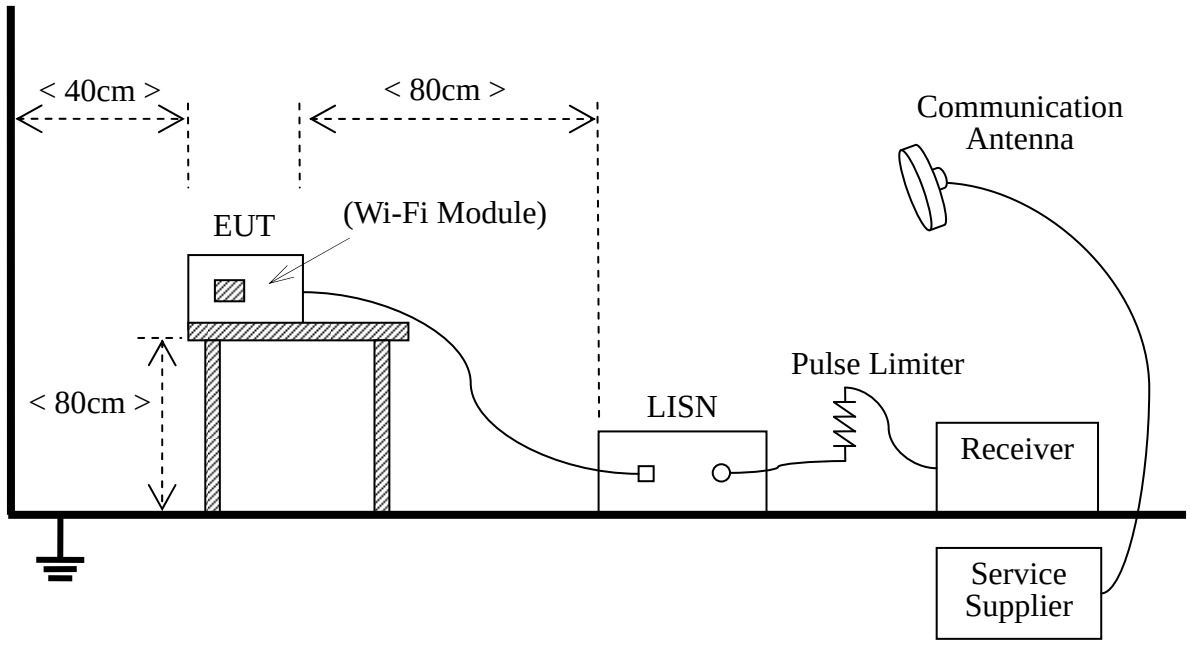
NOTE:

(a) The lower limit shall apply at the band edges.

(b) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

3.7.2. Test Description

A. Test Setup:



The Table-top EUT was placed upon a non-metallic table 0.8m above the horizontal metal reference ground plane. EUT was connected to LISN and LISN was connected to reference Ground Plane. EUT was 80cm from LISN. The set-up and test methods were according to ANSI C63.4:2009

The EUT is powered by the Battery charged with the AC Adapter which is powered by 120V, 60Hz AC mains supply.

B. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Receiver	Agilent	E7405A	US44210471	2013.05.12	2014.05.11
LISN	Schwarzbeck	NSLK 8127	812744	2013.05.12	2014.05.11
Service Supplier	R&S	CMU200	100448	2013.05.12	2014.05.11
Pulse Limiter (20dB)	Schwarzbeck	VTSD 9561-D	9391	(n.a.)	(n.a.)

3.7.3. Test Result

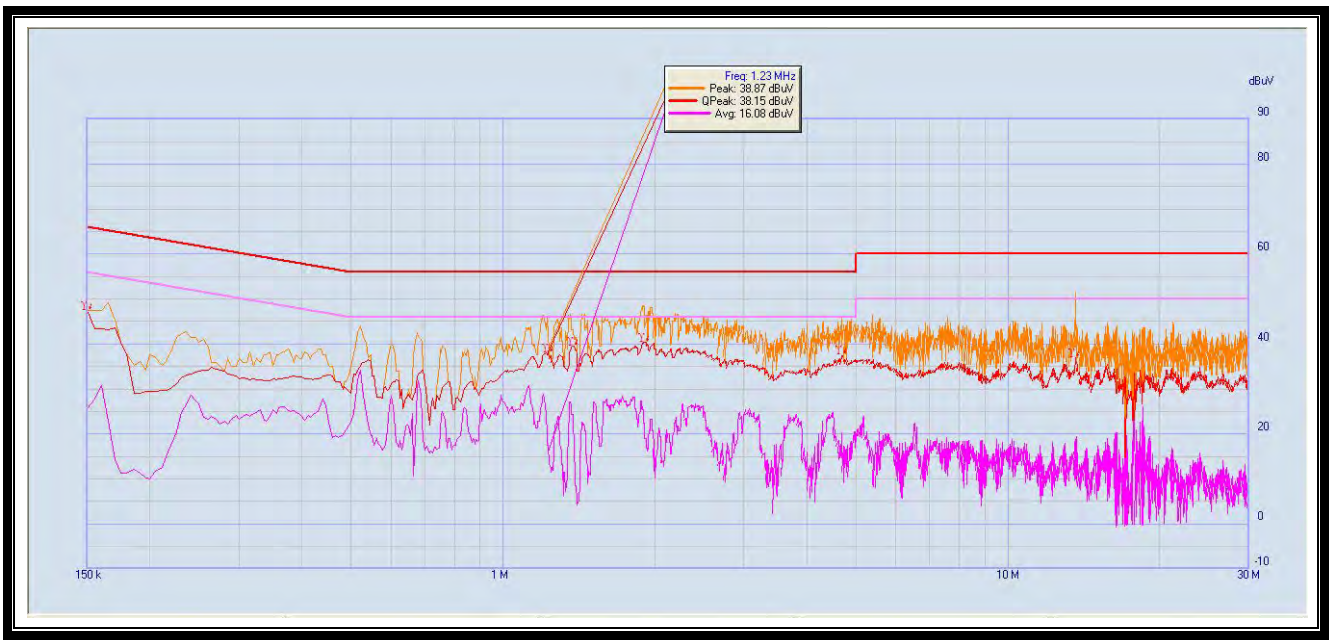
The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

Note: All test modes are performed, only the worst case is recorded in this report.

A. Test setup:

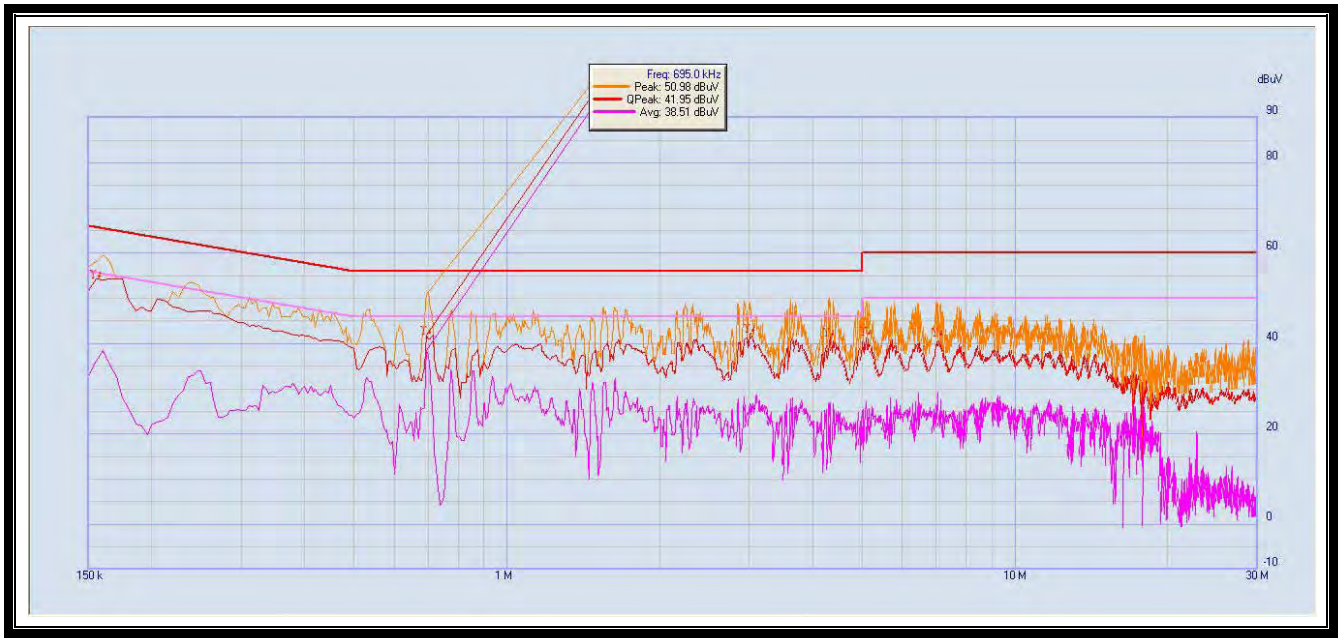
The EUT configuration of the emission tests is EUT + Link.

B. Test Plots:



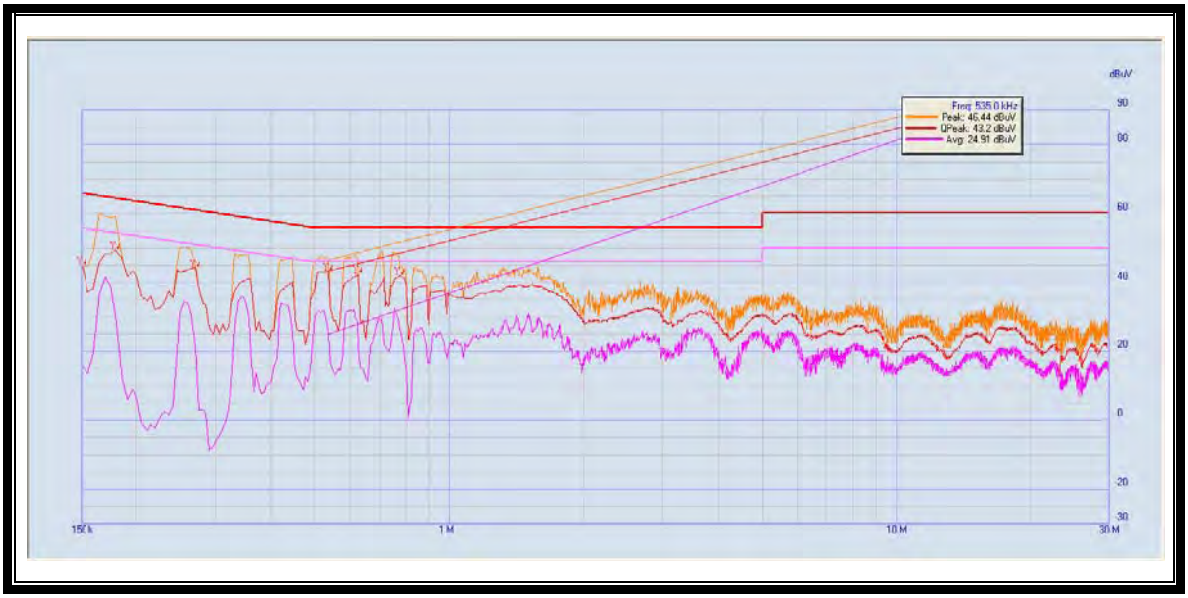
NO.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.150	47.41	25.70	66.00	56.00	Line	PASS
2	1.230	38.15	17.48	56.00	46.00		PASS
3	1.375	39.55	24.38	56.00	46.00		PASS
4	1.905	40.42	22.32	56.00	46.00		PASS
5	4.685	37.04	20.23	56.00	46.00		PASS
6	13.56	37.02	17.46	60.00	50.00		PASS

(Plot A: Adapter AK717, L Phase)



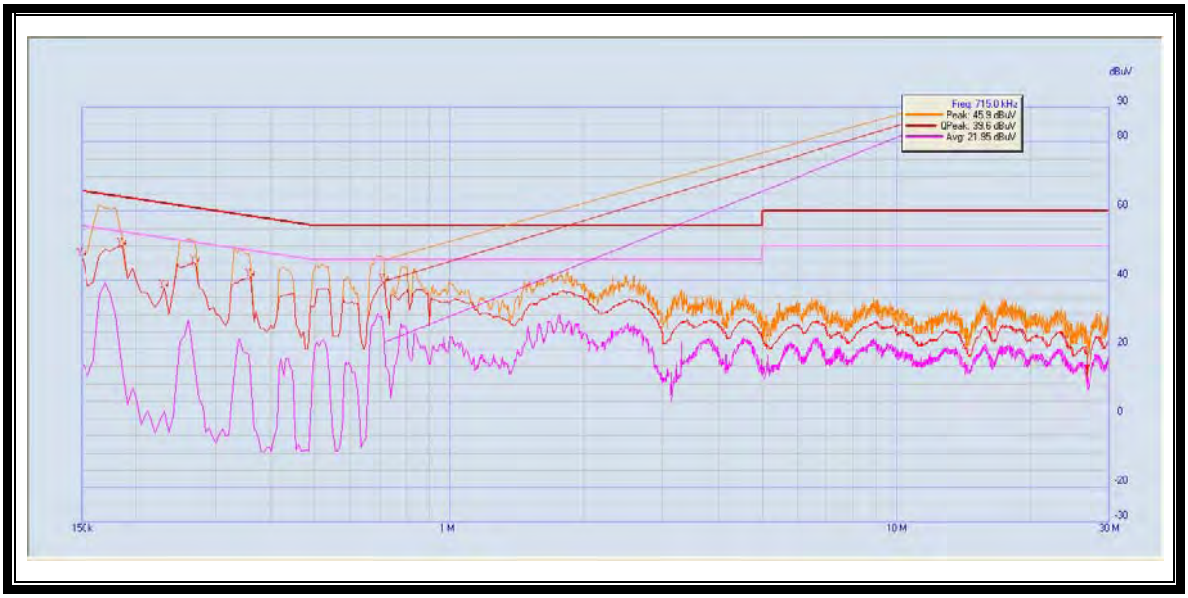
NO.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.155	54.39	36.10	66.00	56.00	Neutral	PASS
2	0.695	41.95	38.51	56.00	46.00		PASS
3	3.005	42.08	26.74	56.00	46.00		PASS
4	4.310	40.49	26.89	56.00	46.00		PASS
5	5.080	40.95	25.48	60.00	50.00		PASS
6	7.070	40.13	24.78	60.00	50.00		PASS

(Plot B: Adapter AK717, N Phase)



NO.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.15	44.93	41.58	66.00	56.00	Line	PASS
2	0.18	49.54	34.75	65.14	55.14		PASS
3	0.27	44.35	35.82	62.57	52.57		PASS
4	0.535	43.20	33.94	56.00	46.00		PASS
5	0.625	42.59	32.10	56.00	46.00		PASS
6	0.775	42.13	32.42	56.00	46.00		PASS

(Plot A: Adapter AK719, L Phase)



NO.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.15	46.87	39.27	66.00	56.00	Neutral	PASS
2	0.185	50.01	28.43	65.00	55.00		PASS
3	0.23	37.85	30.33	63.71	53.71		PASS
4	0.27	44.89	28.24	62.57	52.57		PASS
5	0.36	41.02	29.90	60.00	50.00		PASS
6	0.715	39.60	27.48	56.00	46.00		PASS

(Plot B: Adapter AK719, N Phase)

3.8. Radiated Emission

3.8.1. Requirement

According to FCC section 15.247(d), radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

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

Note:

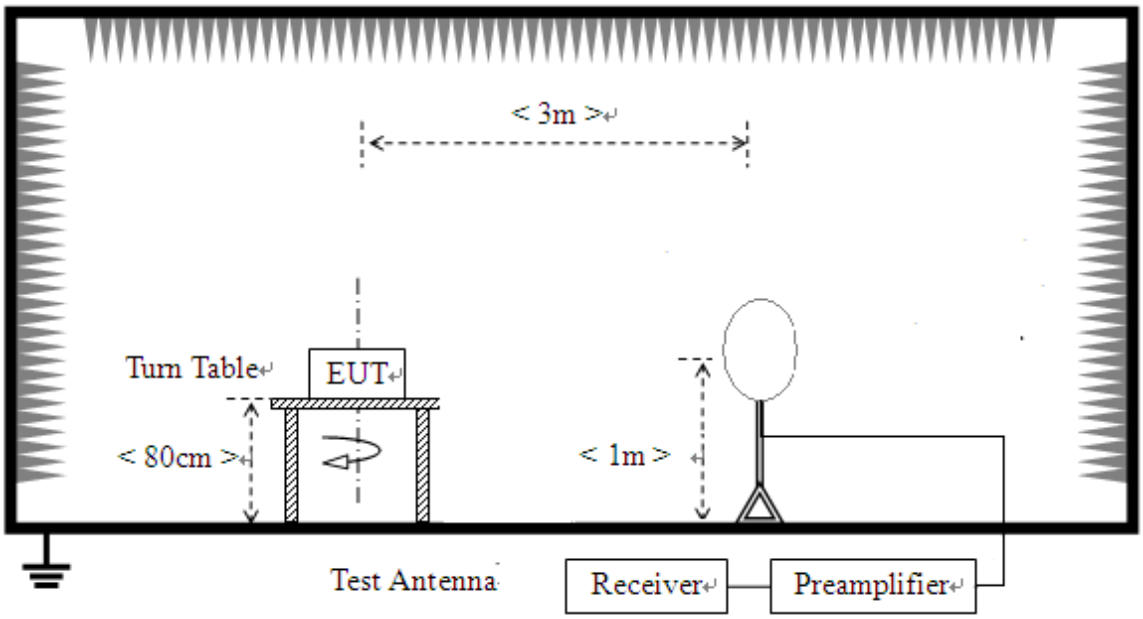
1. For Above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.
2. For above 1000MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK)

In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table)

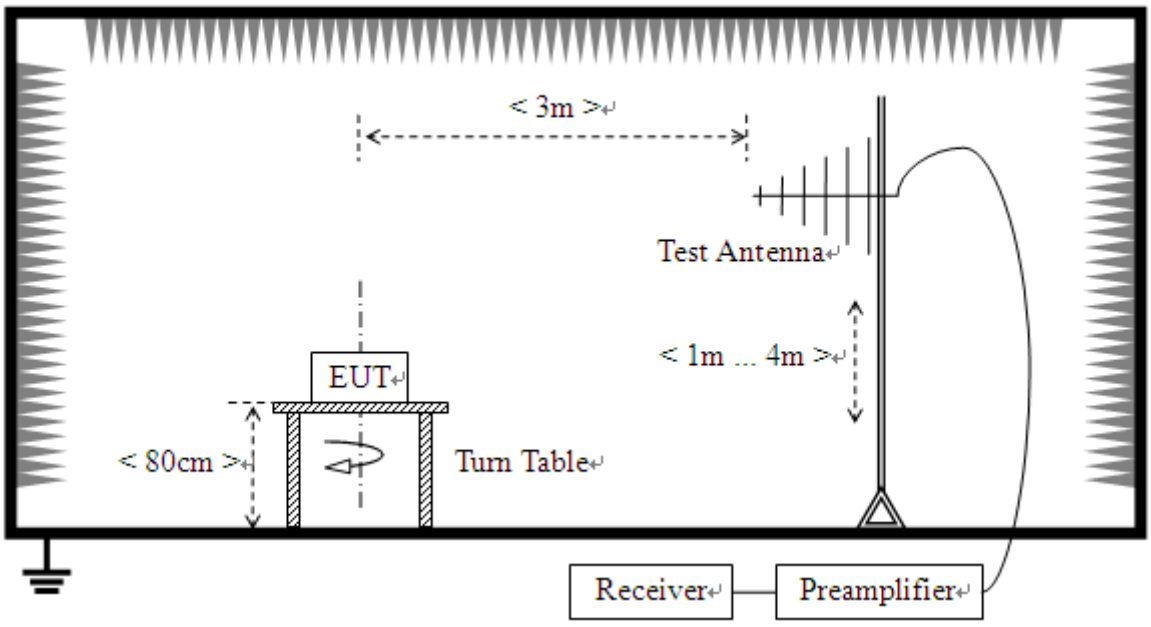
3.8.2. Test Description

A. Test Setup:

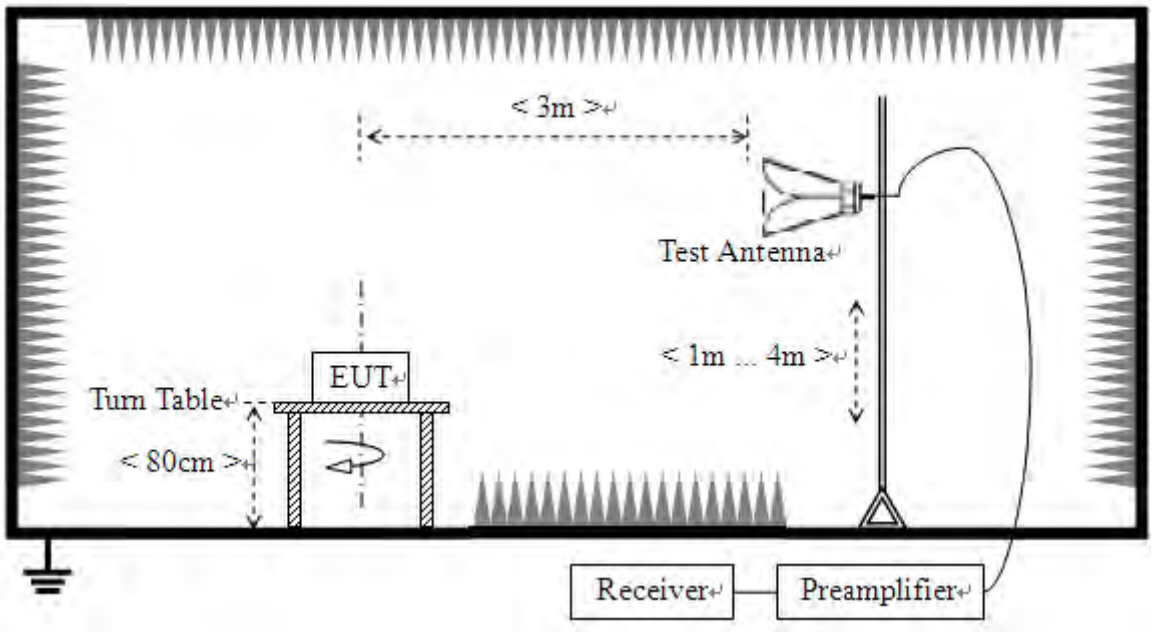
1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to1GHz



3) For radiated emissions above 1GHz



The test site semi-anechoic chamber has met the requirement of NSA tolerance 4dB according to the standards: ANSI C63.4 (2009). The EUT was set-up on insulator 80cm above the Ground Plane. The set-up and test methods were according to ANSI C63.4.

The EUT of the EUT is powered by the Battery charged with the AC Adapter which is powered by 120V, 60Hz AC mains supply. The Module is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading. During the measurement, the EUT is activated and controlled by the Wireless Router via a Common Antenna, and is set to operate under hopping-on test mode.

For the Test Antenna:

(a) In the frequency range of 9kHz to 30MHz, magnetic field is measured with Loop Test Antenna. The Test Antenna is positioned with its plane vertical at 1m distance from the EUT. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.
(b) In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 2GHz) and Horn Test Antenna (above 2GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength. The emission levels at both horizontal and vertical polarizations should be tested.

B. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Receiver	Agilent	E7405A	US44210471	2013.05.12	2014.05.11
EXA Signal Analzyer	Agilent	N9010A	MY51440152	2013.05.12	2014.05.11
Full-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2012.05.12	2014.05.11
Test Antenna - Bi-Log	Schwarzbeck	VULB 9163	9163-274	2013.05.12	2014.05.11
Test Antenna - Horn	Schwarzbeck	BBHA 9120D	9120D-963	2013.05.12	2014.05.11
Test Antenna - Horn	Schwarzbeck	BBHA9170	9170-872	2013.05.12	2014.05.11
Test Antenna - Horn	R&S	HL050S7	71688	2013.05.12	2014.05.11
Test Antenna -Loop	Schwarzbeck	FMZB 1519	1519-022	2013.05.12	2014.05.11

3.8.3. Test Result

According to ANSI C63.4 selection 4.2.2, because of peak detection will yield amplitudes equal to or greater than amplitudes measured with the quasi-peak (or average) detector, the measurement data from a spectrum analyzer peak detector will represent the worst-case results, if the peak measured value complies with the quasi-peak limit, it is unnecessary to perform an quasi-peak measurement.

The measurement results are obtained as below:

$E\ [dB\mu V/m] = U_R + A_T + A_{Factor}\ [dB]$; $A_T = L_{Cable\ loss}\ [dB] - G_{preamp}\ [dB]$

A_T: Total correction Factor except Antenna

U_R: Receiver Reading

G_{preamp}: Preamplifier Gain

A_{Factor}: Antenna Factor at 3m

During the test, the total correction Factor A_T and A_{Factor} were built in test software.

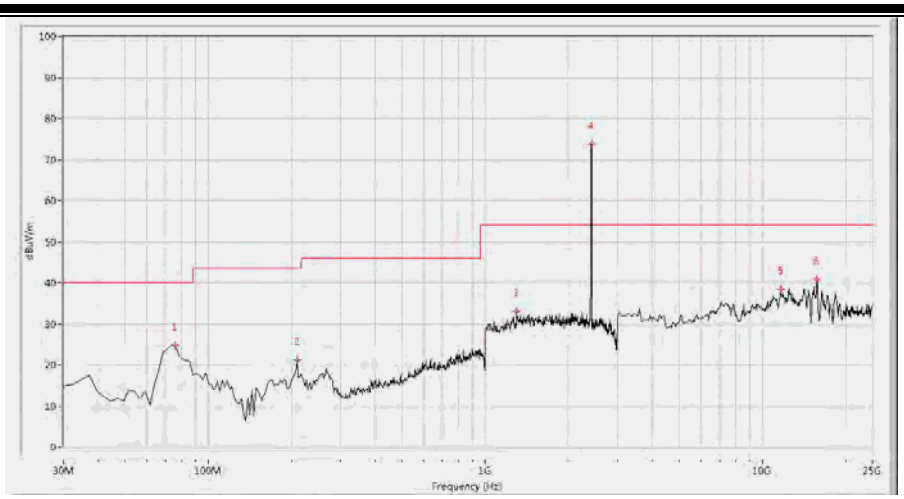
Note: All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

The low frequency, which started from 9KHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

3.8.3.1. 802.11b Test mode

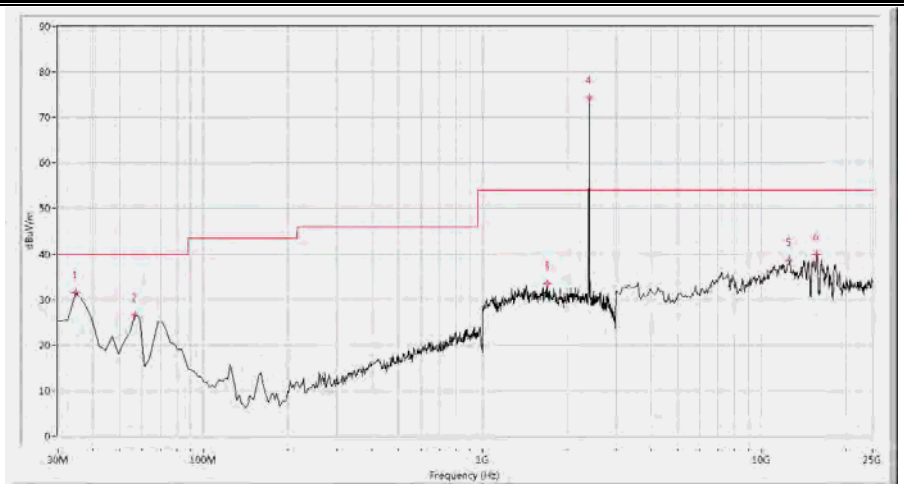
A. Test Plots for the Whole Measurement Frequency Range:

Plots for Channel = 1



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
75.960	24.68	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
209.002	21.16	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
1299.252	33.06	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2412.000	73.61	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
11668.329	38.48	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
15728.180	40.72	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

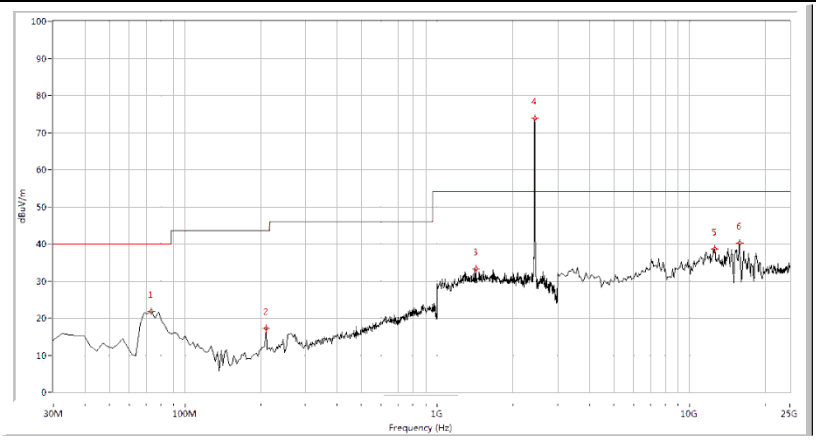
(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
34.838	31.57	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
56.608	26.63	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
1703.242	33.57	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2412.000	74.33	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
12600.998	38.68	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15783.042	39.94	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

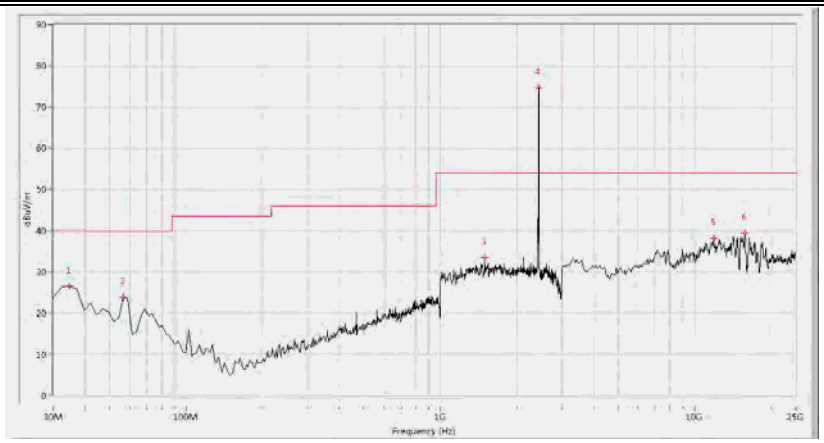
(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 6



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
73.541	21.77	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
209.002	17.21	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
1423.940	33.34	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2437.000	73.01	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
12600.998	38.53	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
15783.042	40.16	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

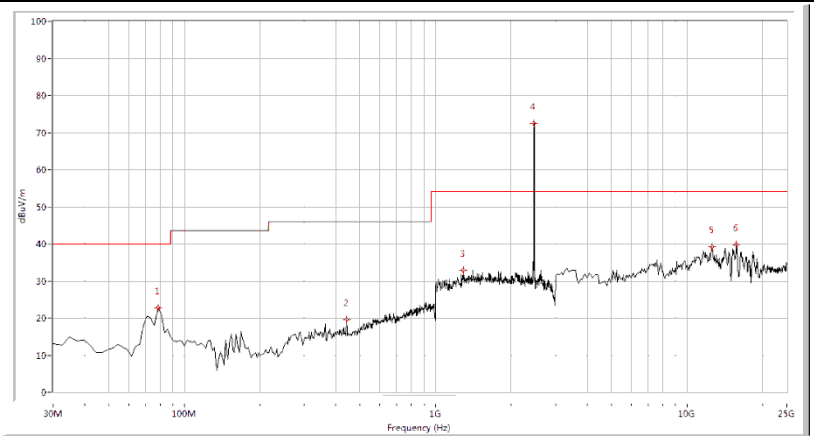
(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
34.838	26.54	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
56.608	23.87	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
1493.766	33.45	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2437.000	74.68	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
11887.781	38.14	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15783.042	39.34	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

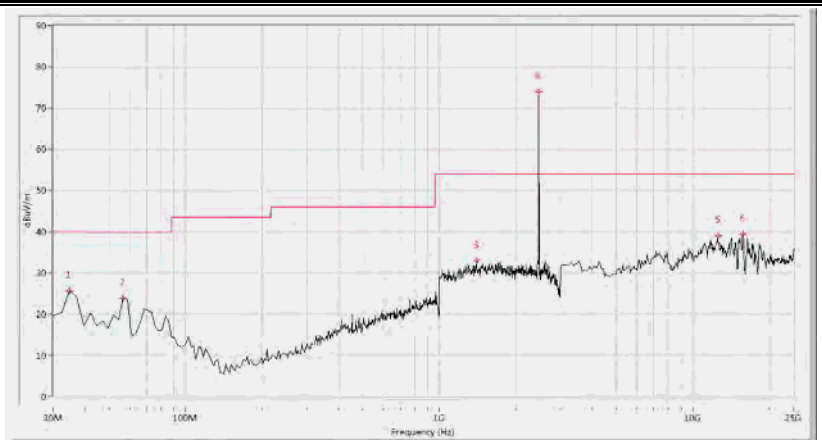
(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 11



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
78.379	22.78	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
441.222	19.59	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
1284.289	32.85	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2462.000	72.50	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
12600.998	39.19	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
15728.180	39.89	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 25GHz)



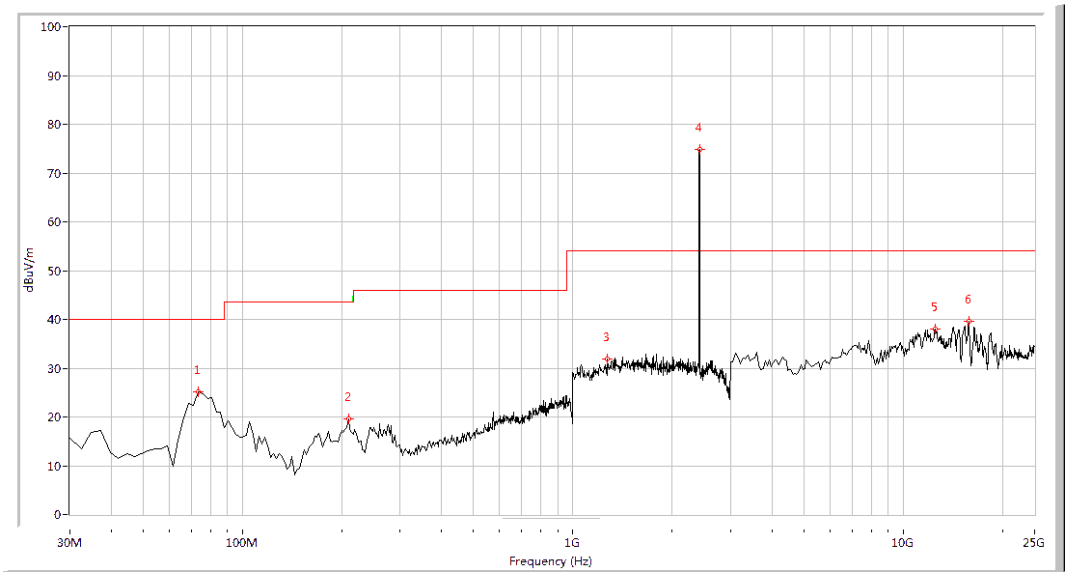
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
34.838	25.62	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
56.608	23.93	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
1403.990	32.91	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2462.000	73.96	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
12546.135	39.08	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15728.180	39.40	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

3.8.3.2. 802.11g Test mode

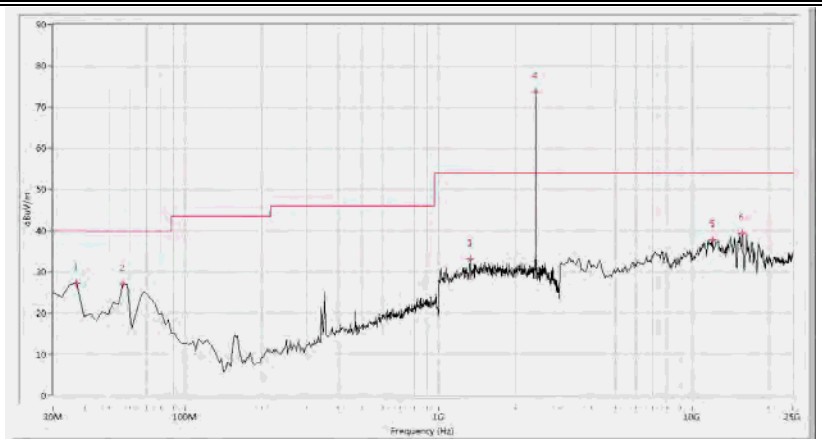
A. Test Plots for the Whole Measurement Frequency Range:

Plots for Channel = 1



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
73.541	25.15	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
209.002	19.54	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
1274.314	31.80	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2412.000	74.85	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
12491.272	38.02	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
15783.042	39.52	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

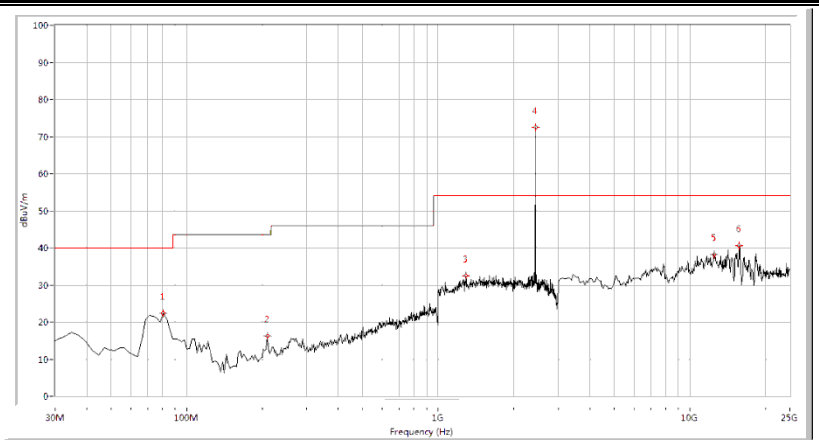
(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
37.257	27.26	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
56.608	27.00	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
1329.177	33.10	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2412.000	73.76	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
12052.369	37.78	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15783.042	39.38	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

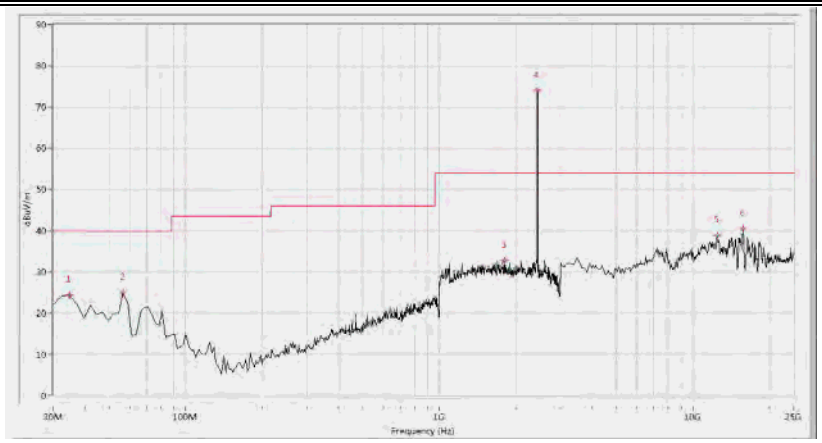
(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 6



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
80.798	22.31	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
209.002	16.20	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
1284.289	32.42	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2437.000	72.43	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
12546.135	38.19	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
15728.180	40.67	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

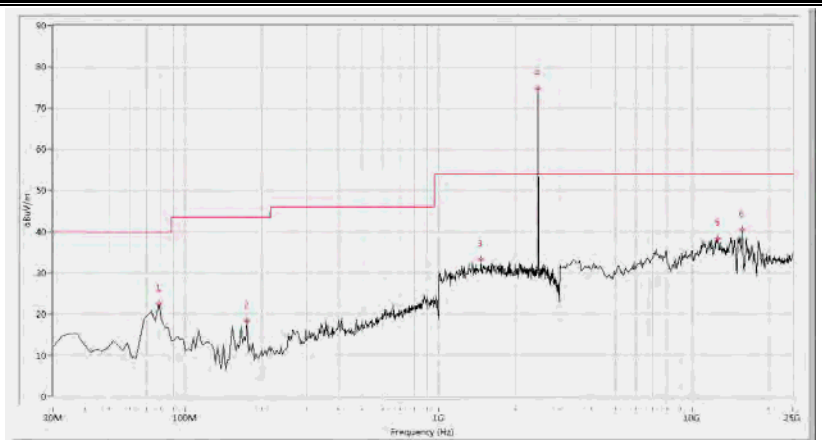
(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
34.838	24.37	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
56.608	24.87	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
1807.980	32.76	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2437.000	73.93	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
12491.272	38.91	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15728.180	40.38	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

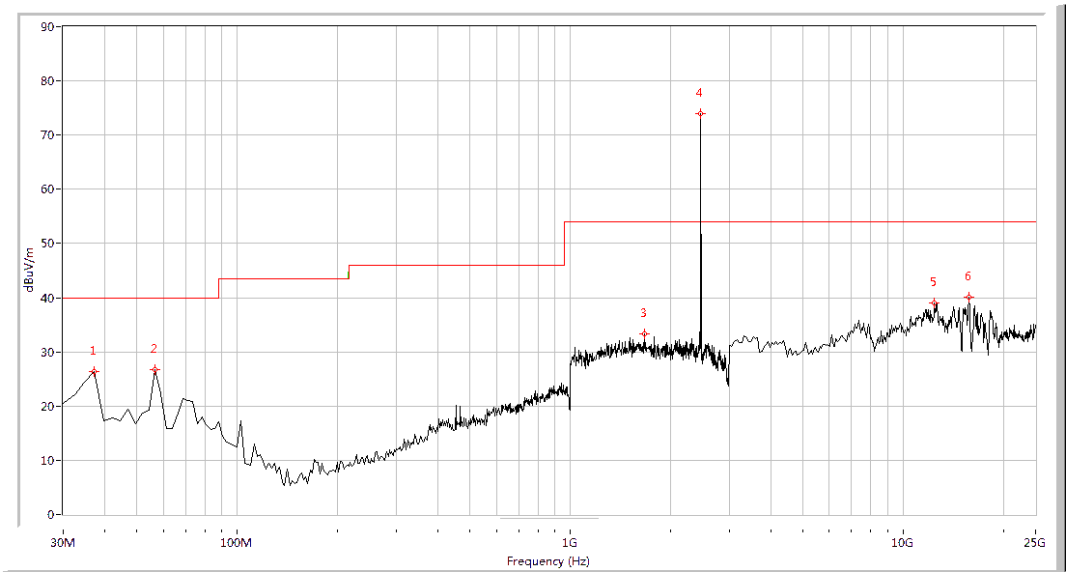
(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 11



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
78.379	22.43	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
175.137	18.31	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
1463.840	33.40	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2462.000	74.65	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
12655.860	38.36	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
15783.042	40.52	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 25GHz)



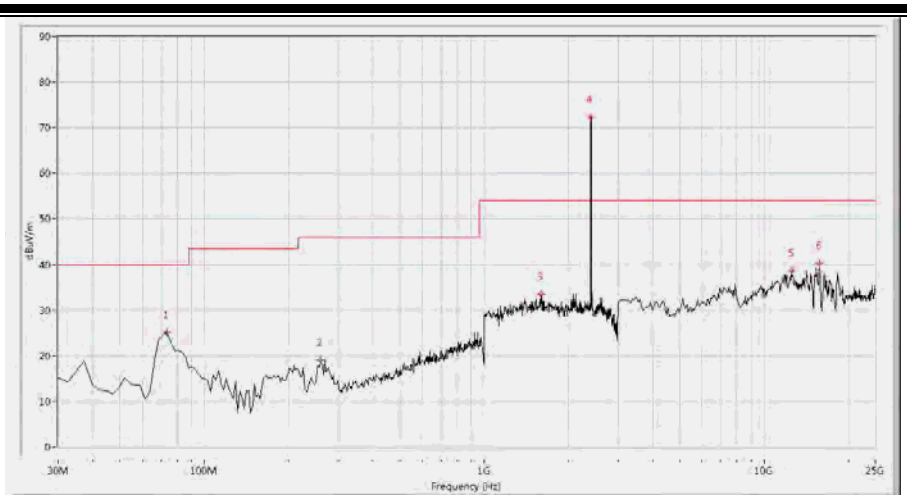
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
37.257	26.29	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
56.608	26.65	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
1668.329	33.34	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2462.000	73.94	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
12436.409	39.08	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15783.042	40.13	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

3.8.3.3. 802.11n-20MHz Test mode

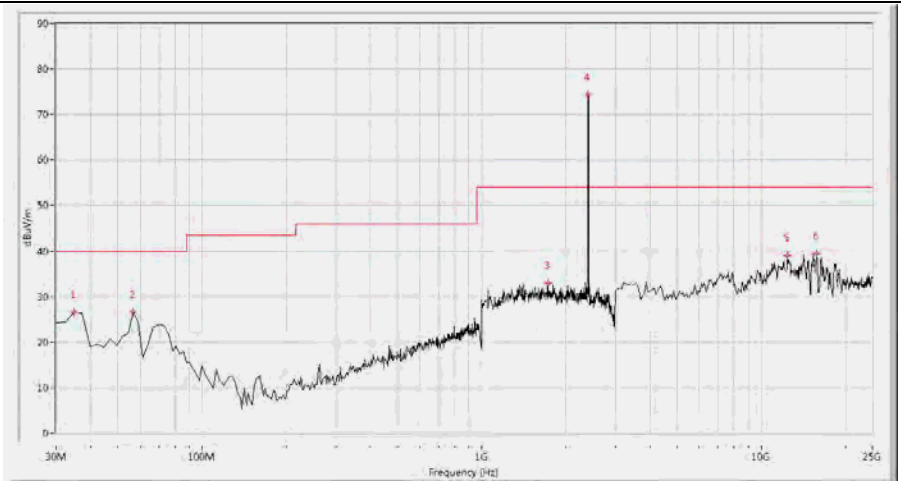
A. Test Plots for the Whole Measurement Frequency Range:

Plots for Channel = 1



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
73.541	25.12	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
259.800	19.07	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
1598.504	33.43	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2412.000	72.35	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
12546.135	38.71	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
15783.042	40.25	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

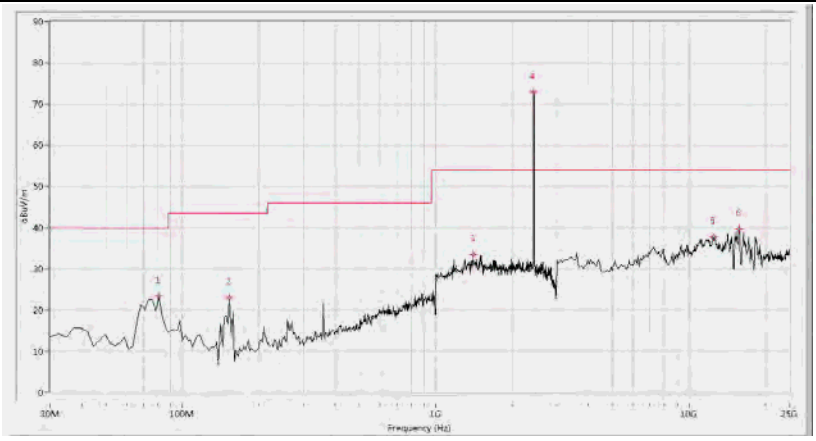
(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
34.838	26.60	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
56.608	26.57	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
1723.192	32.90	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2412.000	74.36	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
12436.409	38.98	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15783.042	39.31	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

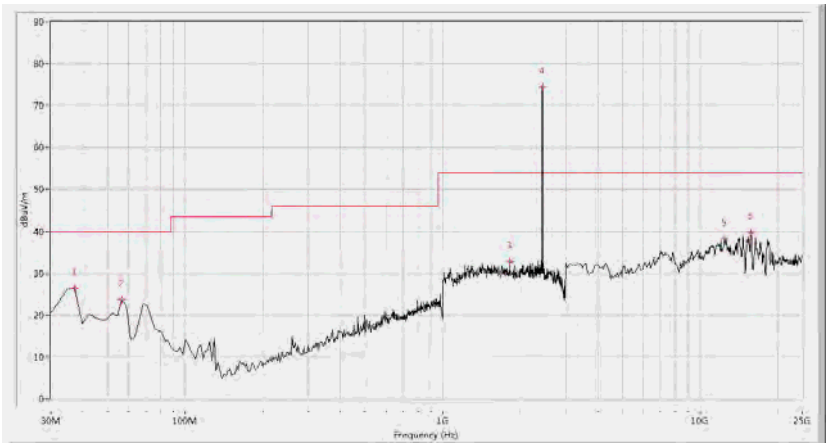
(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 6



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
80.798	23.35	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
153.367	22.96	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
1403.990	33.48	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2437.000	72.94	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
12491.272	37.84	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
15783.042	39.78	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

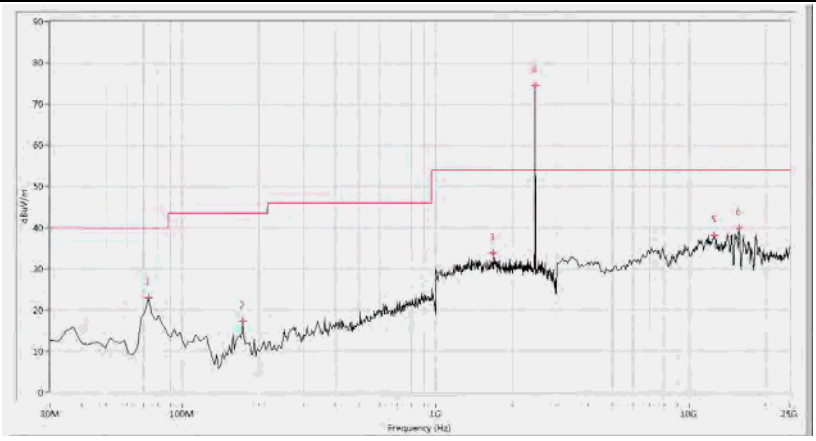
(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
37.257	26.30	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
56.608	23.68	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
1822.943	32.77	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2437.000	74.52	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
12491.272	38.08	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15728.180	39.69	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

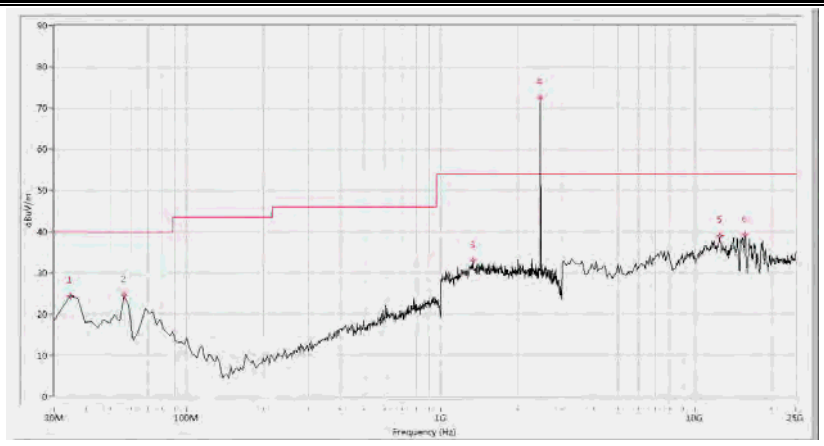
(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 11



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
73.541	23.05	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
172.718	17.30	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
1683.292	33.80	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2462.000	74.45	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
12600.998	38.10	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
15728.180	39.84	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

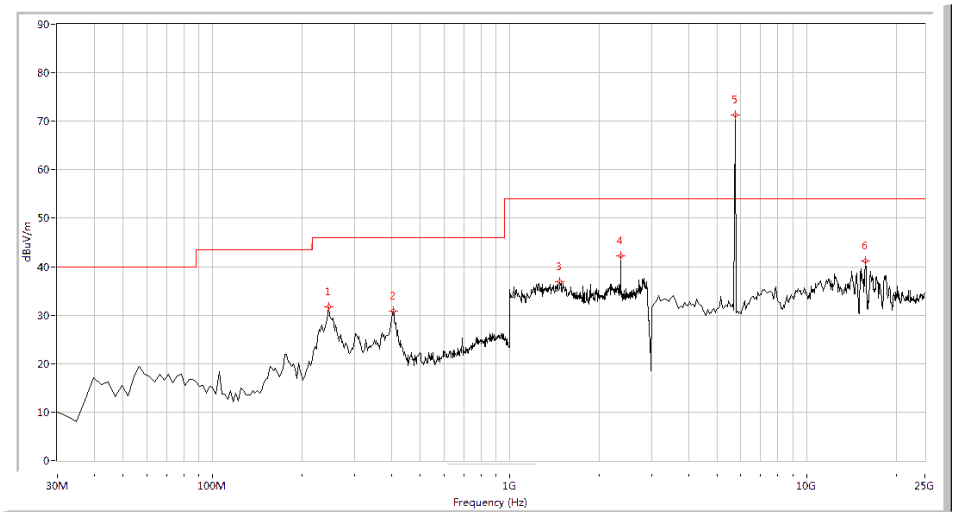
(Antenna Horizontal, 30MHz to 25GHz)



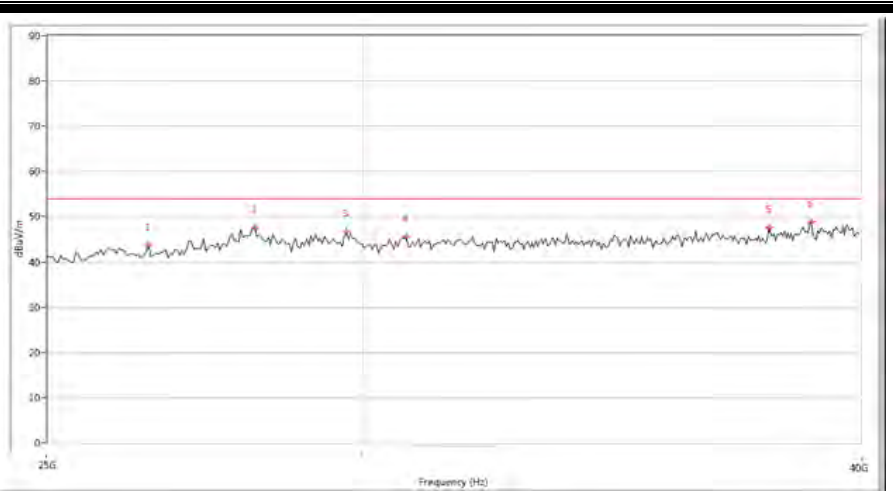
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
34.838	24.41	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
56.608	24.58	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
1339.152	33.03	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2462.000	72.58	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
12546.135	39.00	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15728.180	39.23	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

Plots for Channel = 149

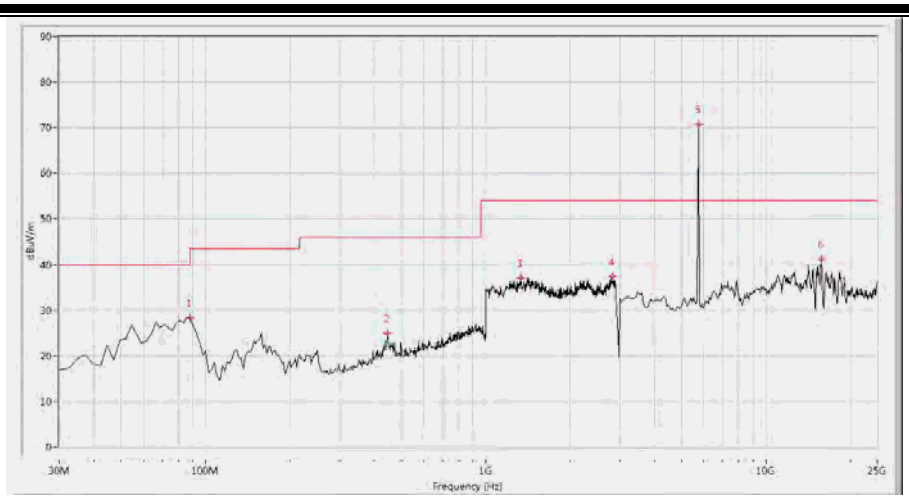


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
245.287	31.80	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
404.938	30.84	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
1473.815	36.83	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2366.584	42.31	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5745.000	71.29	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
15783.042	41.15	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

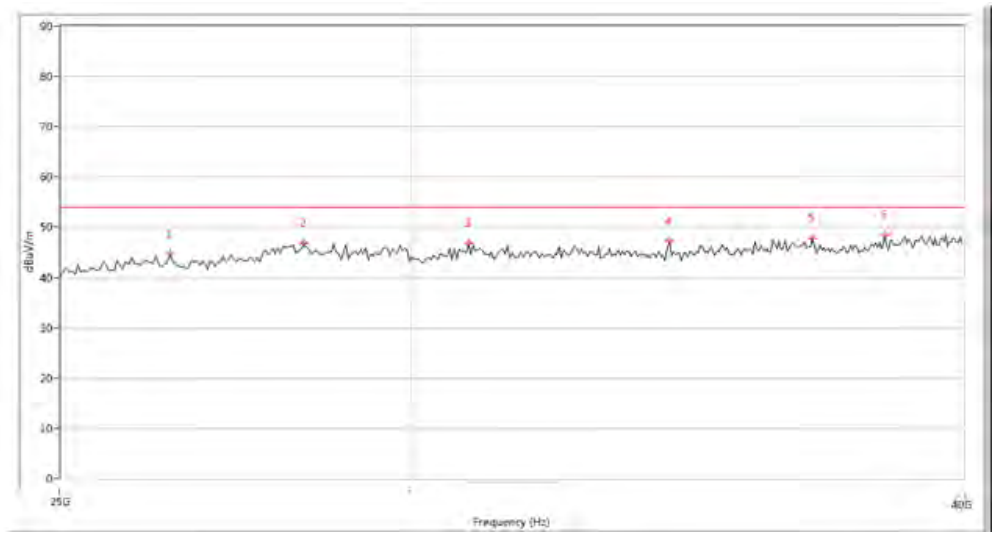


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26491.626	43.78	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
28174.955	47.53	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29716.322	46.63	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
30764.060	45.70	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
37943.264	47.54	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
38870.781	48.76	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



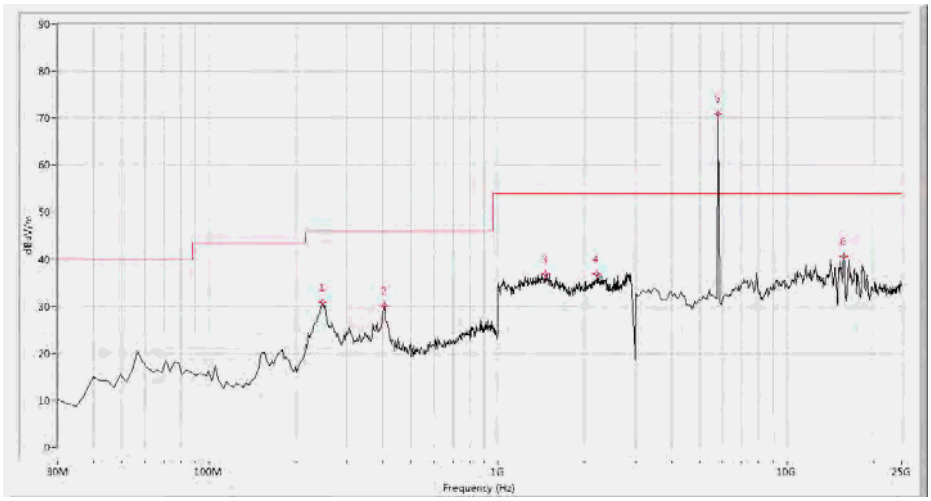
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
88.055	28.34	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
446.060	24.99	N.A	N.A	N.A	46.0	N.A	Vertical	PASS
1334.165	37.10	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2835.411	37.38	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5745.000	70.79	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15728.180	41.16	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



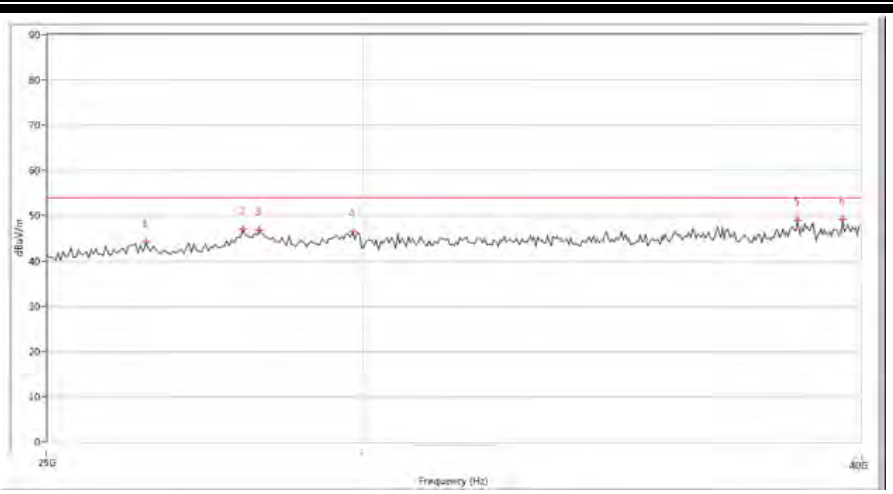
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26455.885	44.82	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28361.658	46.93	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
30916.022	46.85	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
34315.421	47.22	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
36977.007	47.84	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
38393.152	48.54	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

Plot for Channel = 157

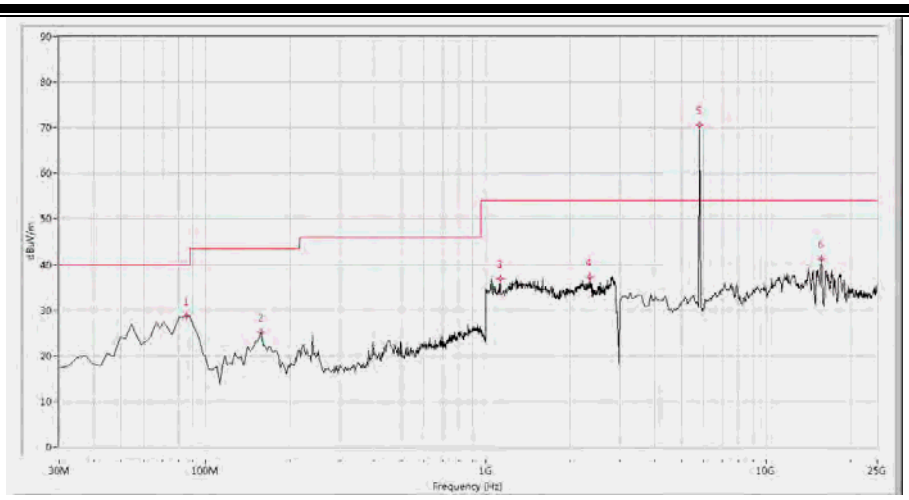


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
247.706	30.91	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
404.938	30.11	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
1458.853	36.86	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2201.995	36.83	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5785.000	70.86	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
15783.042	40.66	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

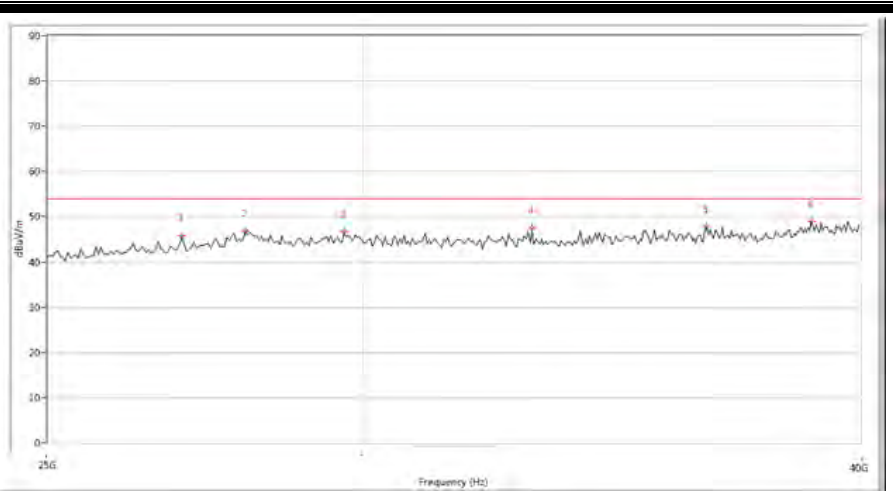


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26415.885	44.15	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
27992.252	47.02	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
28253.436	46.88	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29842.544	46.46	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
38507.855	49.04	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
39518.853	49.20	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



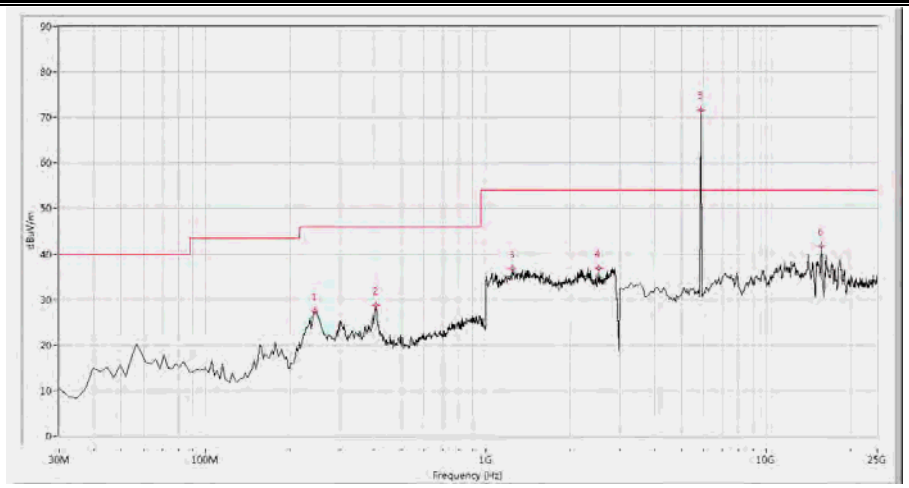
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
85.636	28.64	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
158.204	25.19	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
1124.688	36.84	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2351.621	37.23	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5785.000	70.50	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15728.180	41.16	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



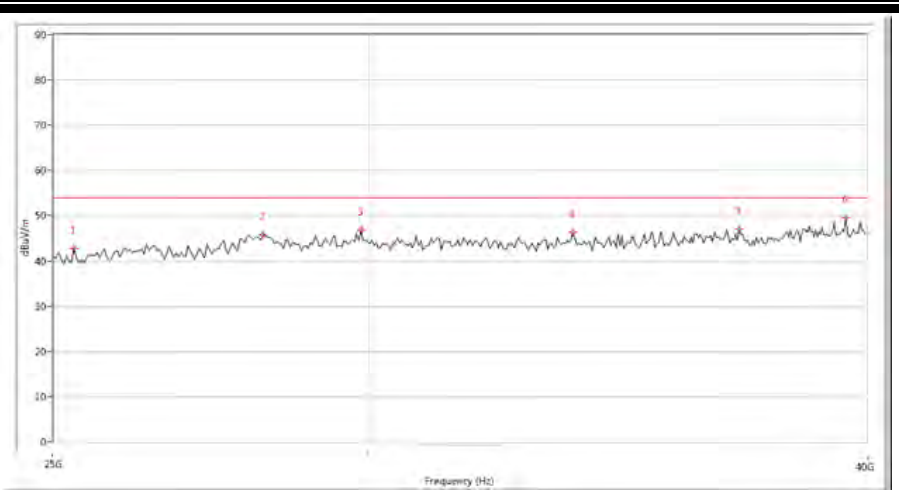
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
27019.995	45.76	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28024.993	46.93	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29657.581	46.67	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
33073.980	47.58	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
36509.601	47.81	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
38817.781	48.94	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

Plot for Channel = 165

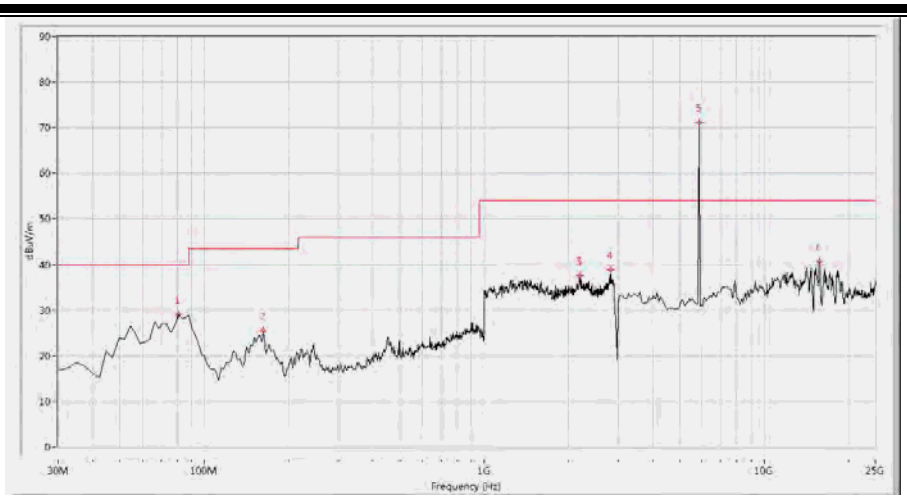


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
245.287	27.45	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
404.938	28.63	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
1244.389	36.65	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2531.172	36.86	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5825.000	71.63	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
15783.042	41.79	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

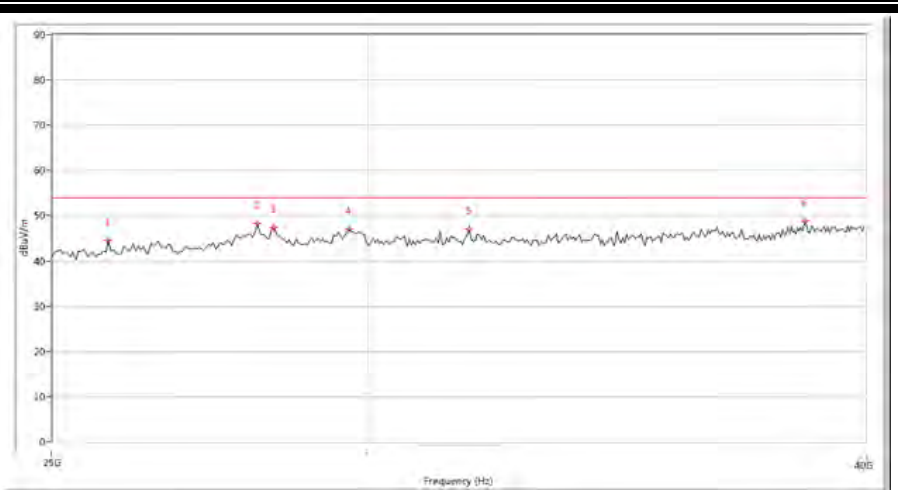


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
25291.925	42.77	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
28211.696	45.78	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29826.284	46.84	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
33735.312	46.36	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
37159.711	47.07	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
39514.372	49.63	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
80.798	29.07	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
163.042	25.42	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
2201.995	37.62	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2830.424	38.81	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5825.000	71.10	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15783.042	40.71	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



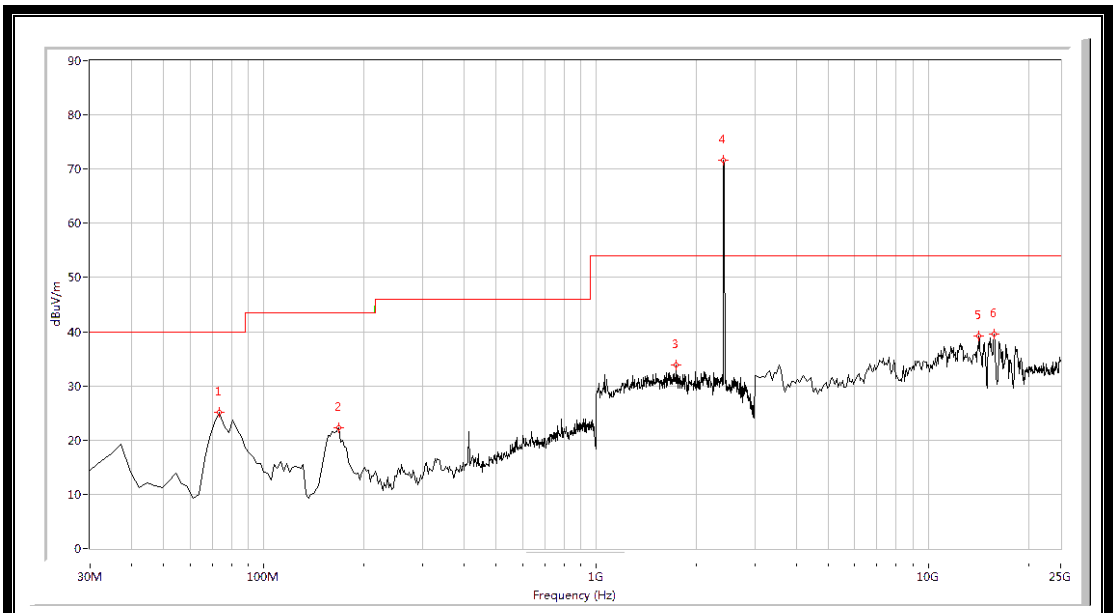
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
25824.294	44.52	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28114.214	48.36	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28430.399	47.44	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29617.581	47.07	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
31809.798	47.11	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
38617.596	48.75	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

3.8.3.4. 802.11n-40MHz Test mode

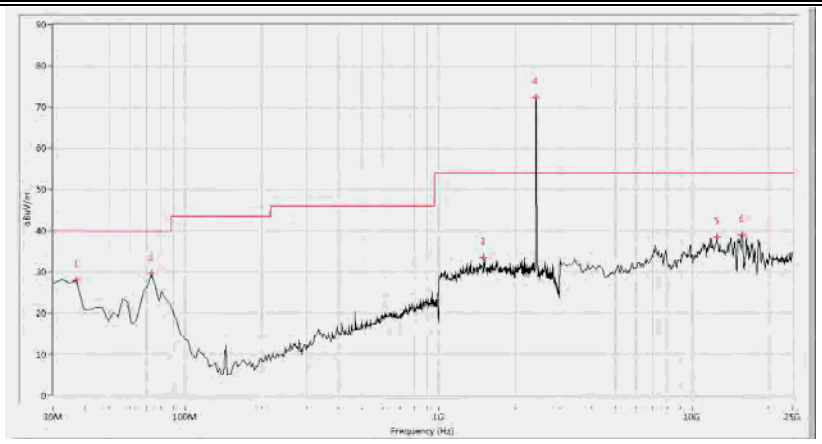
A. Test Plots for the Whole Measurement Frequency Range:

Plots for Channel = 3



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
73.541	25.13	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
167.880	22.36	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
1743.142	33.93	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2422.000	71.58	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
14192.020	39.26	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
15728.180	39.59	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

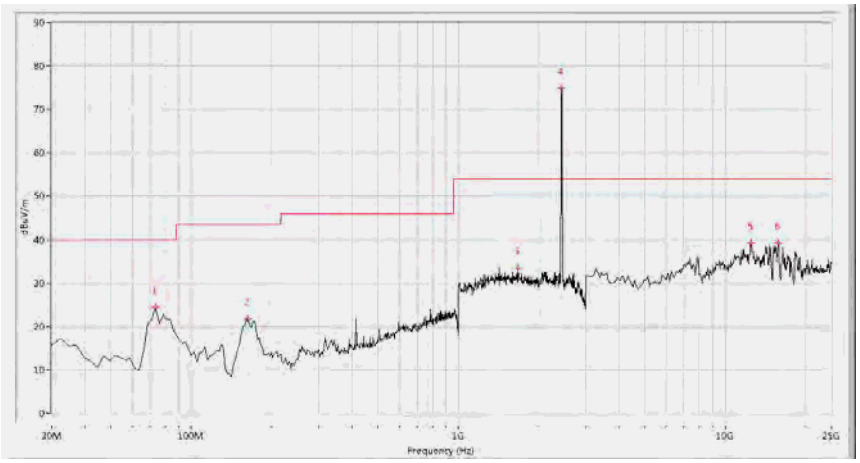
(Plot A.2: Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
37.257	28.00	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
73.541	29.55	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
1503.741	33.54	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2422.000	72.40	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
12546.135	38.54	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15783.042	39.10	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

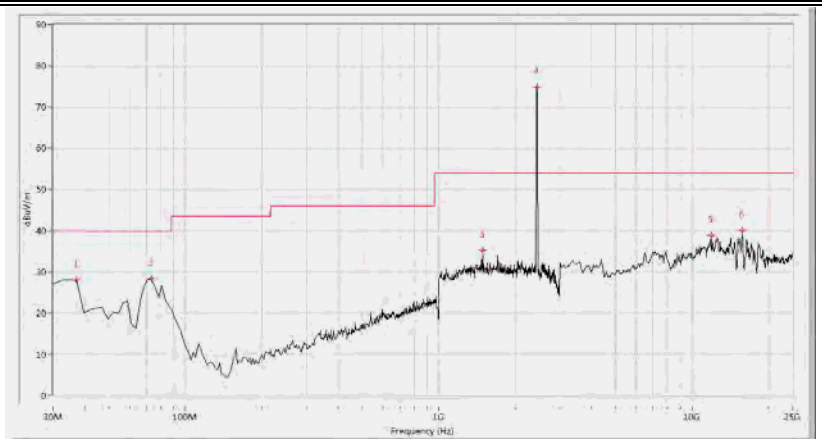
(Plot A.3: Antenna Vertical, 30MHz to 25GHz)

Plots for Channel = 6



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
73.541	24.40	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
163.042	21.67	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
1673.317	33.43	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2437.000	74.84	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
12491.272	39.14	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
15783.042	39.24	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

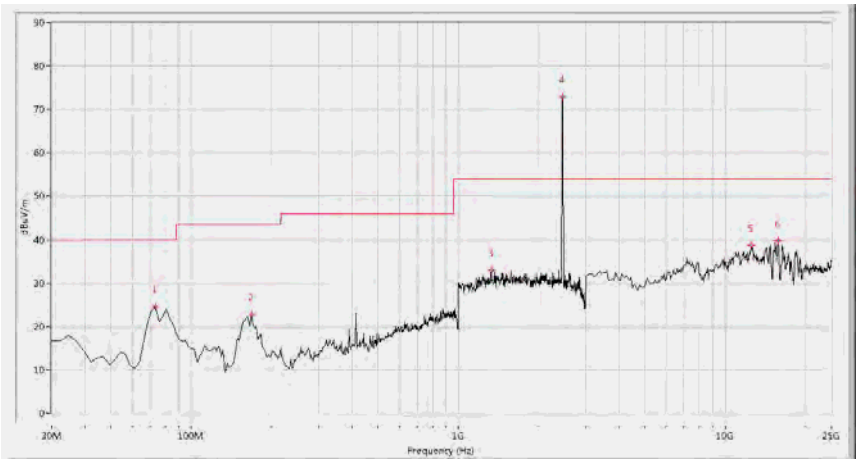
(Plot B.2: Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
37.257	27.97	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
73.541	28.29	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
1488.778	35.23	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2437.000	74.88	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
11887.781	38.87	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15783.042	40.04	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

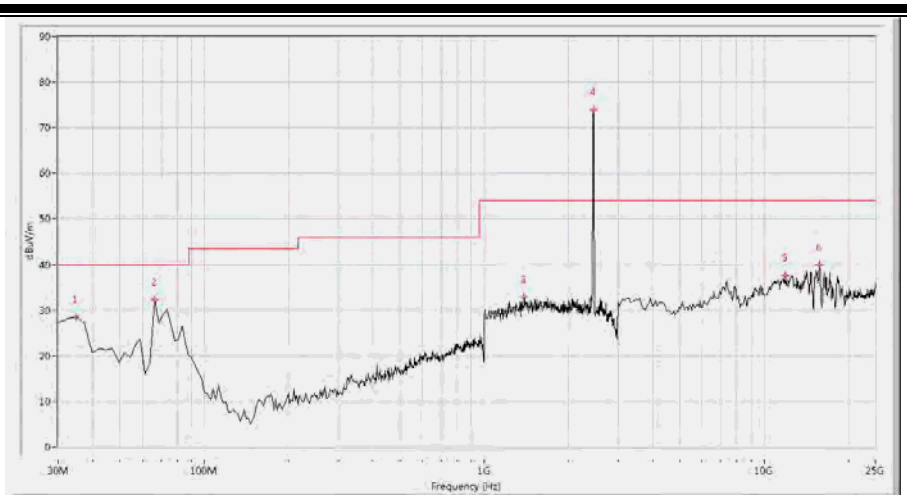
(Plot B.3: Antenna Vertical, 30MHz to 25GHz)

Plots for Channel = 9



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
73.541	24.60	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
167.880	22.73	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
1329.177	32.94	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2452.000	72.92	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
12491.272	38.59	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
15783.042	39.77	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

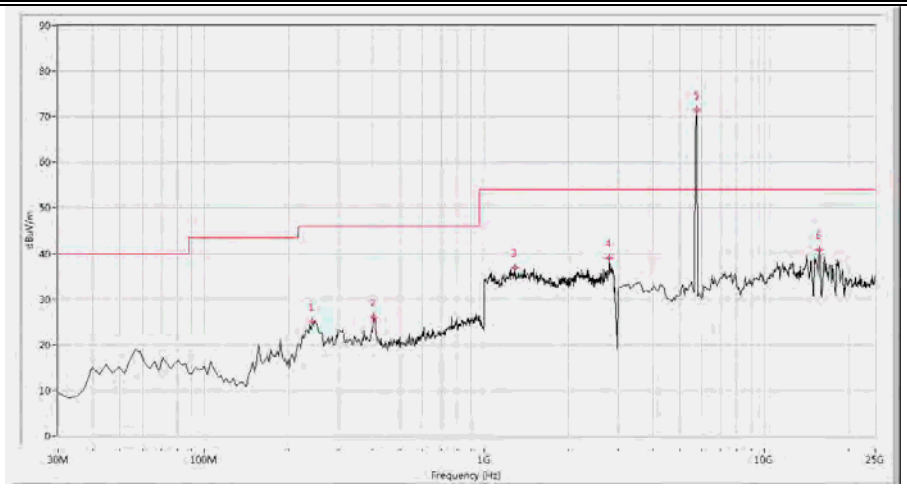
(Plot C.2: Antenna Horizontal, 30MHz to 25GHz)



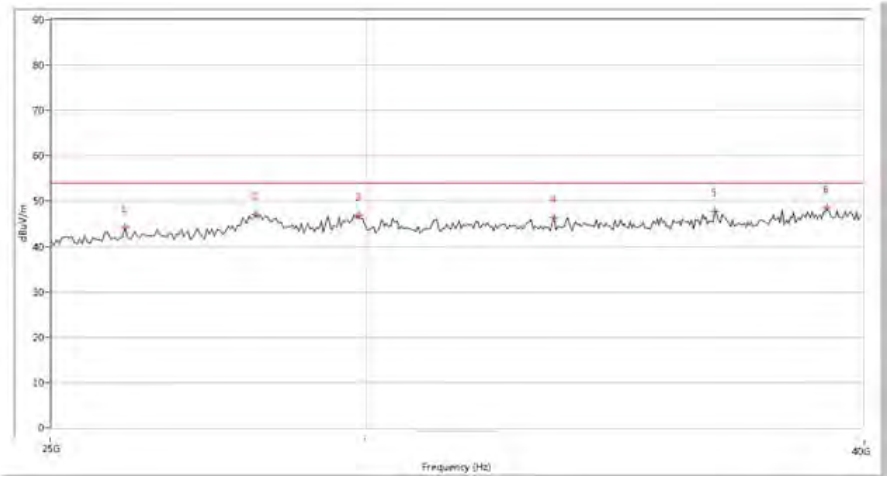
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
34.838	28.53	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
66.284	32.20	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
1389.027	32.73	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2452.000	73.95	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
11887.781	37.57	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15783.042	39.95	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Plot C.3: Antenna Vertical, 30MHz to 25GHz)

Plots for Channel = 151

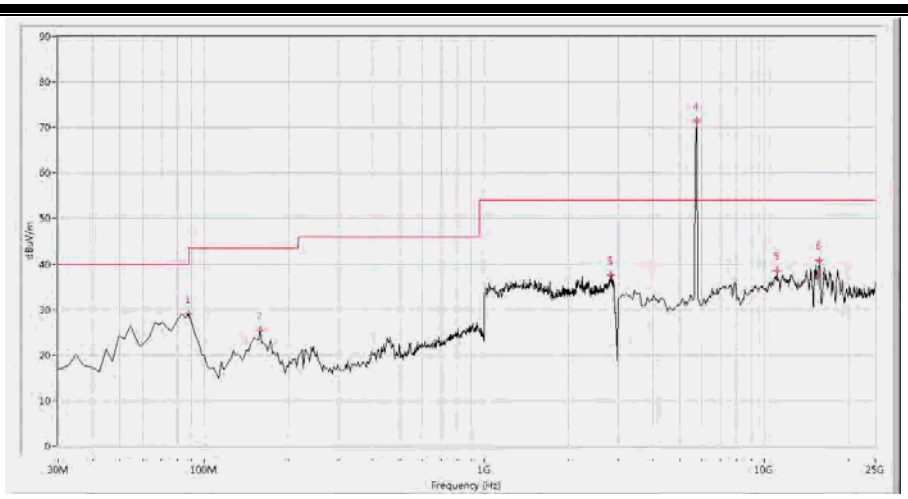


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
242.868	25.20	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
402.519	25.95	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
1289.277	36.90	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2805.486	38.97	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5755.000	71.48	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
15728.180	40.88	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

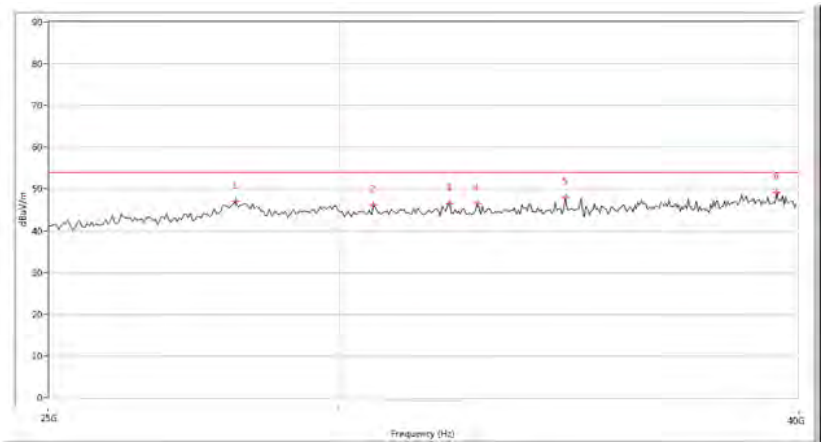


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26081.479	44.26	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
28124.214	46.99	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29816.284	46.85	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
33459.387	46.33	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
36707.823	47.73	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
39176.706	48.44	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



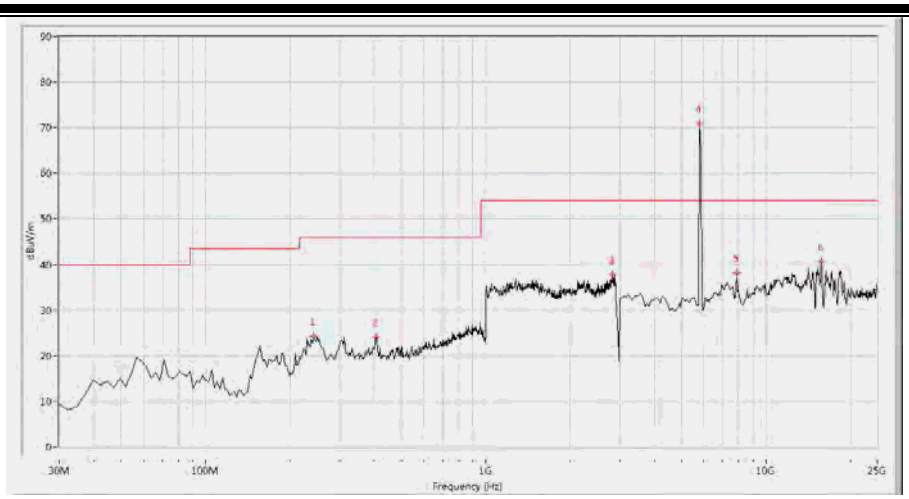
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
88.055	29.04	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
158.204	25.52	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
2840.399	37.55	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5755.000	71.51	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
11119.701	38.47	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15728.180	40.84	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



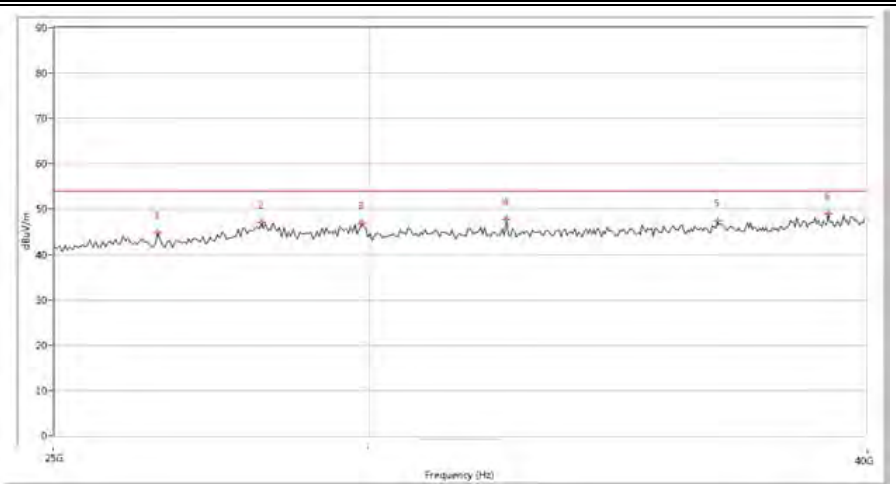
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
28109.474	47.05	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
30614.838	46.12	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
32142.464	46.43	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
32707.574	46.60	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
34573.606	47.94	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
39427.631	49.21	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

Plots for Channel = 159

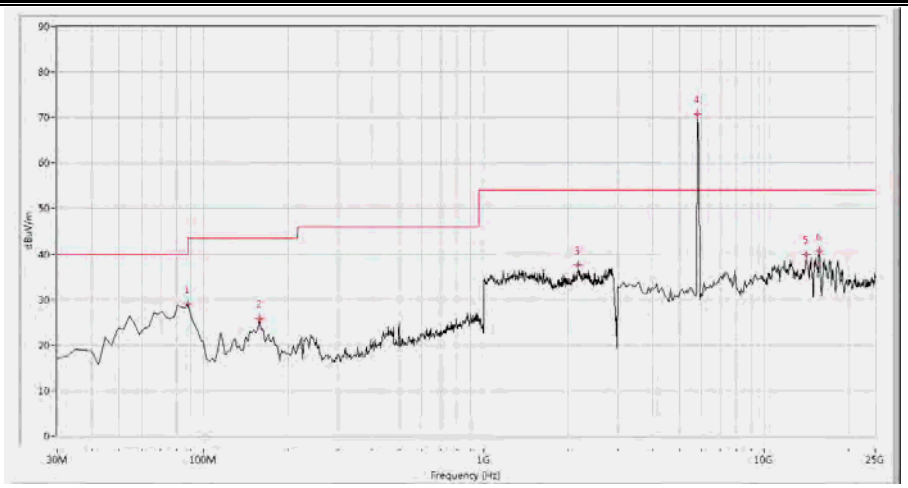


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
242.868	24.32	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
404.938	24.07	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
2840.399	37.80	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5795.000	71.00	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
7882.793	38.08	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
15783.042	40.59	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

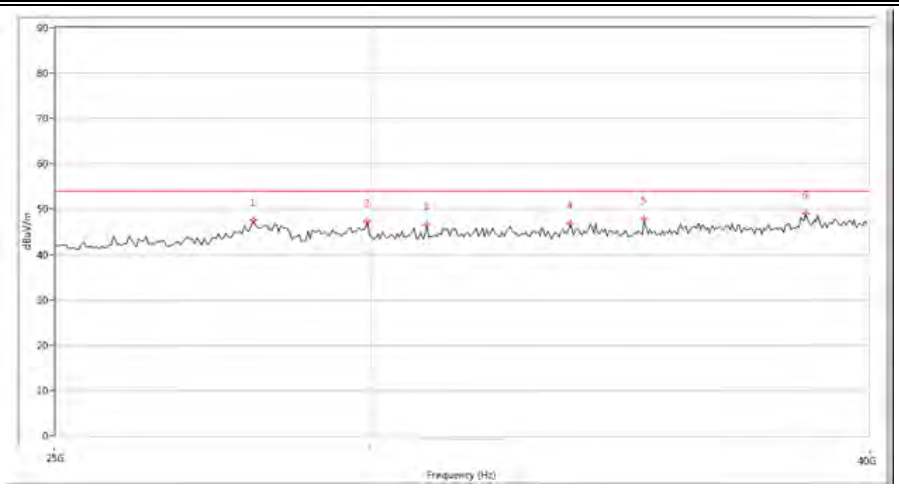


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26513.367	44.70	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
28176.955	47.14	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29863.284	46.82	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
32480.130	47.77	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
36707.823	47.35	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
39133.965	48.99	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
88.055	29.11	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
158.204	25.80	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
2167.082	37.59	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5795.000	70.69	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
14137.157	39.89	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15728.180	40.56	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

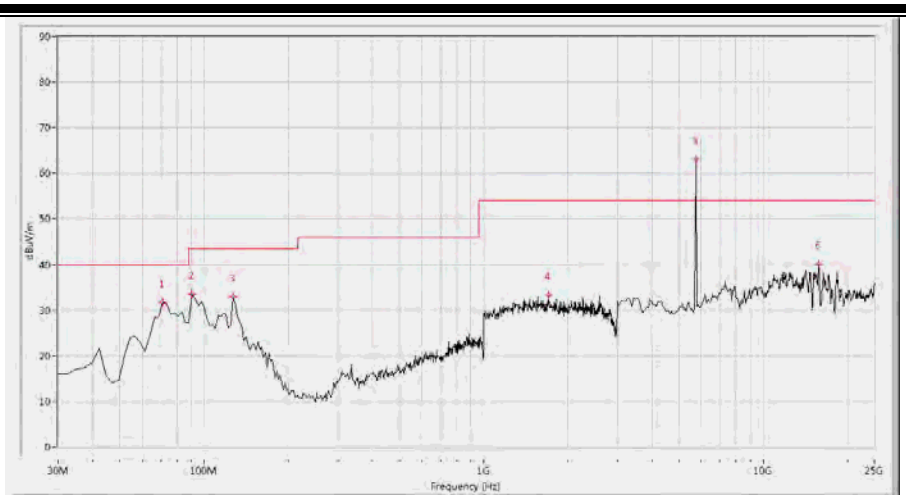


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
28025.993	47.65	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29937.766	47.30	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
30982.504	46.56	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
33617.830	46.94	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
35133.716	47.79	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
38517.855	49.06	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

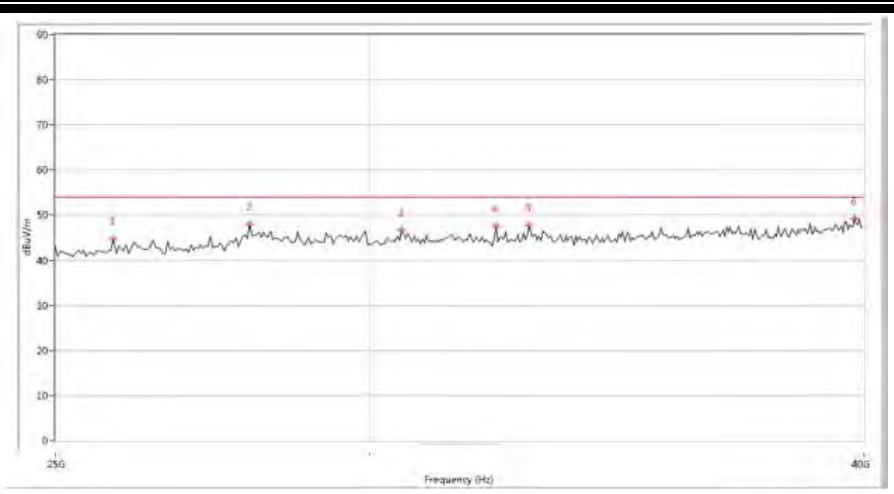
(Antenna Vertical, 30MHz to 40GHz)

3.8.3.5. 802.11a Test mode

Plots for Channel = 149

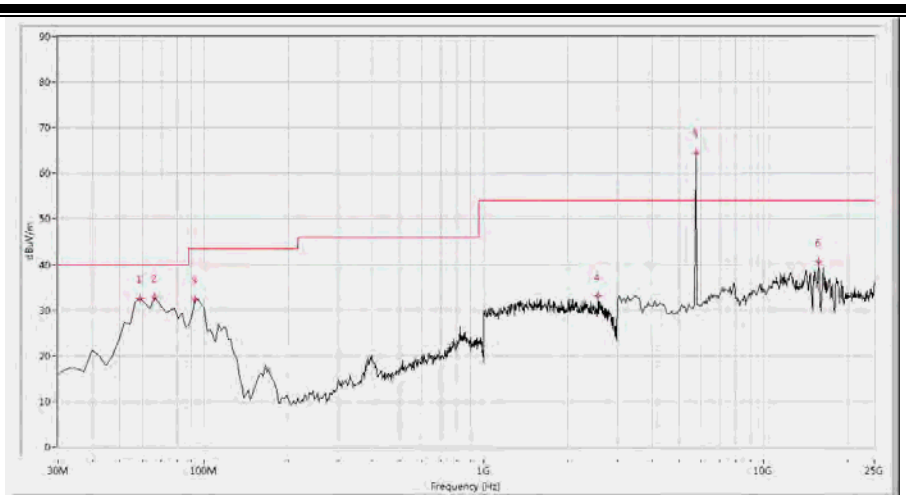


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
71.122	31.65	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
90.474	33.45	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
126.758	32.93	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
1703.242	33.25	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5745.000	63.15	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
15783.042	40.06	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

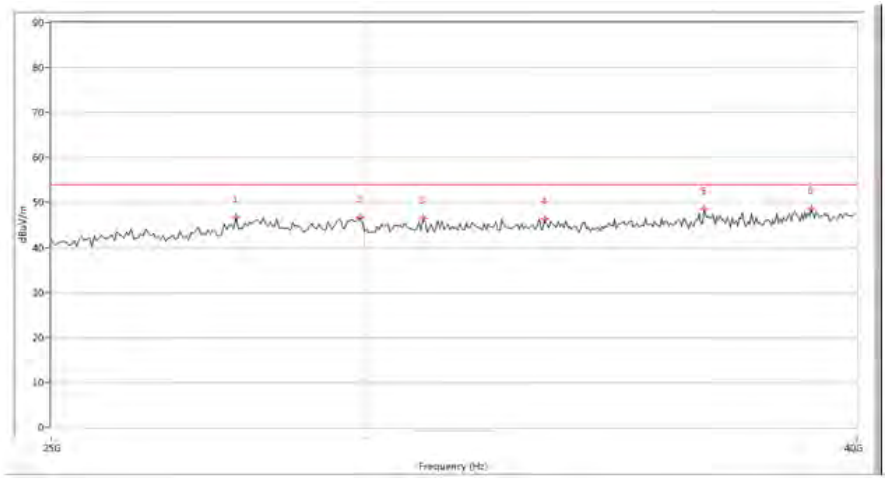


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
25860.035	44.67	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
27992.252	48.01	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
30574.357	46.75	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
32239.426	47.55	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
32903.017	47.70	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
39778.556	49.20	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



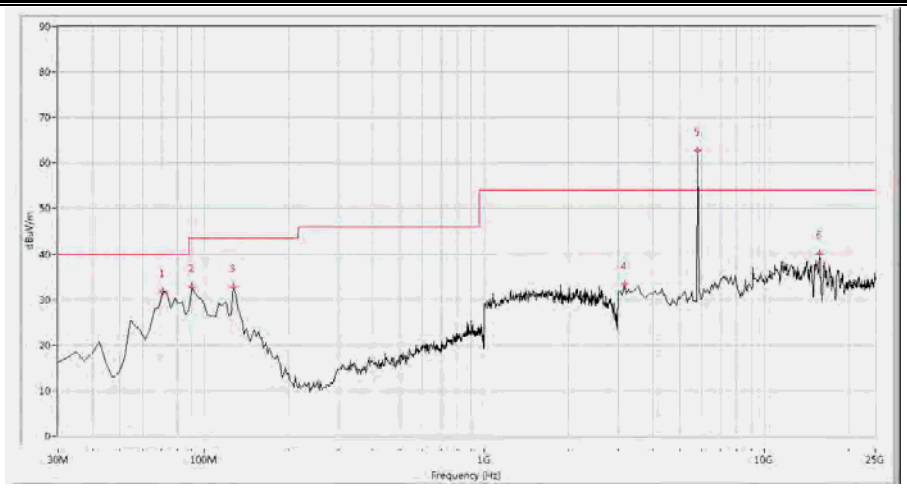
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
59.027	32.65	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
66.284	32.75	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
92.893	32.49	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
2561.097	33.15	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5745.000	64.56	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15783.042	40.65	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



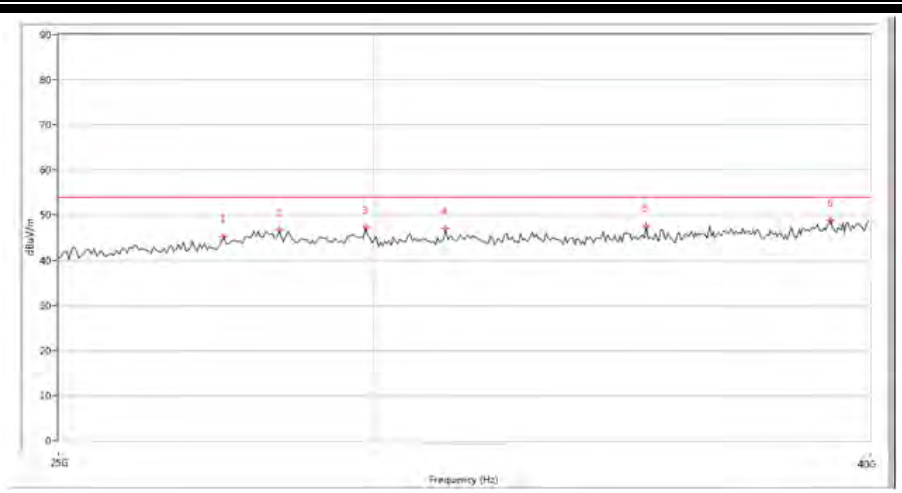
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
27841.289	46.65	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29913.766	46.75	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
31053.985	46.54	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
33348.165	46.29	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
36596.601	48.43	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
38957.262	48.63	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

Plot for Channel = 157

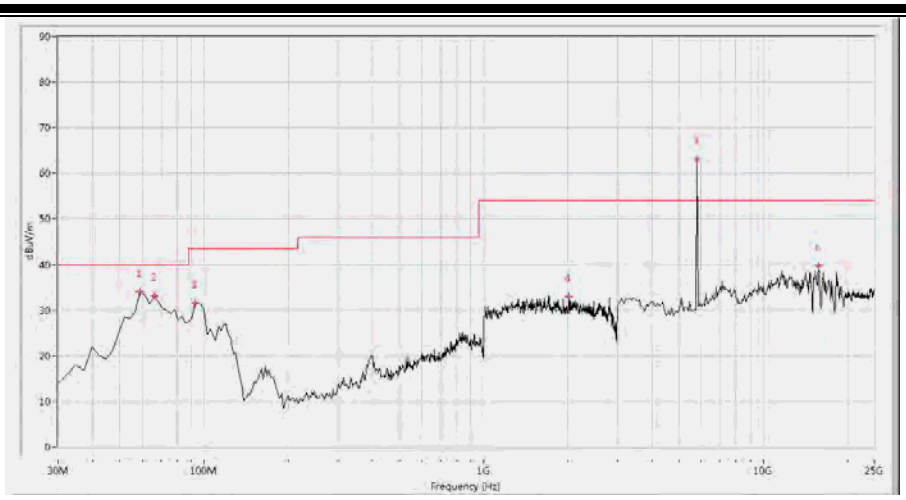


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
71.122	31.69	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
90.474	32.74	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
126.758	32.71	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
3164.589	33.40	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5785.000	62.74	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
15783.042	40.09	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

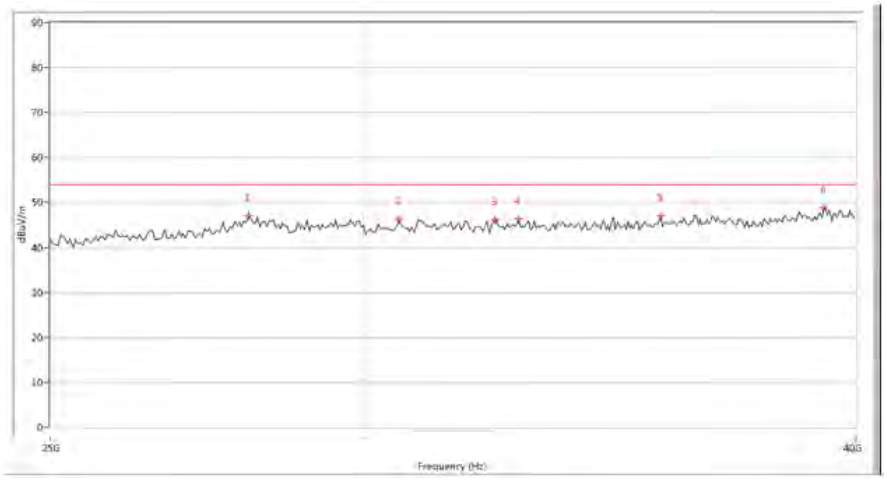


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
27510.623	45.30	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
28409.399	46.64	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29861.284	47.22	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
31218.429	47.09	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
35103.716	47.54	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
39130.224	48.77	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



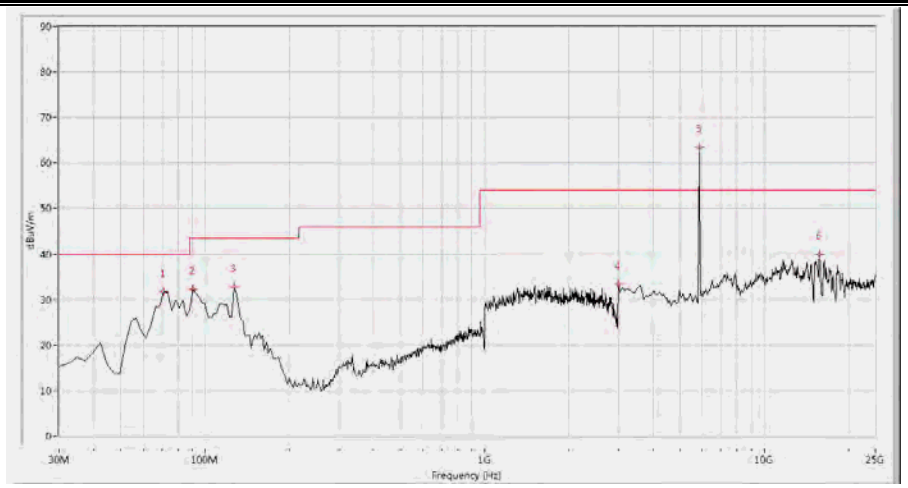
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
59.027	33.98	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
66.284	33.20	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
92.893	31.62	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
2022.444	32.91	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5785.000	63.15	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15728.180	39.76	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



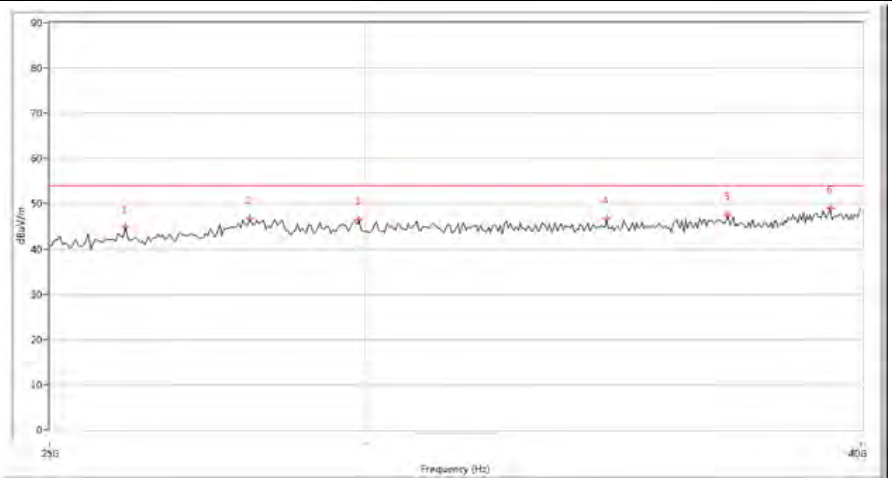
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
28069.733	47.10	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
30647.838	46.27	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
32406.648	46.21	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
32815.536	46.33	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
35609.825	47.02	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
39275.187	48.82	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

Plot for Channel = 165

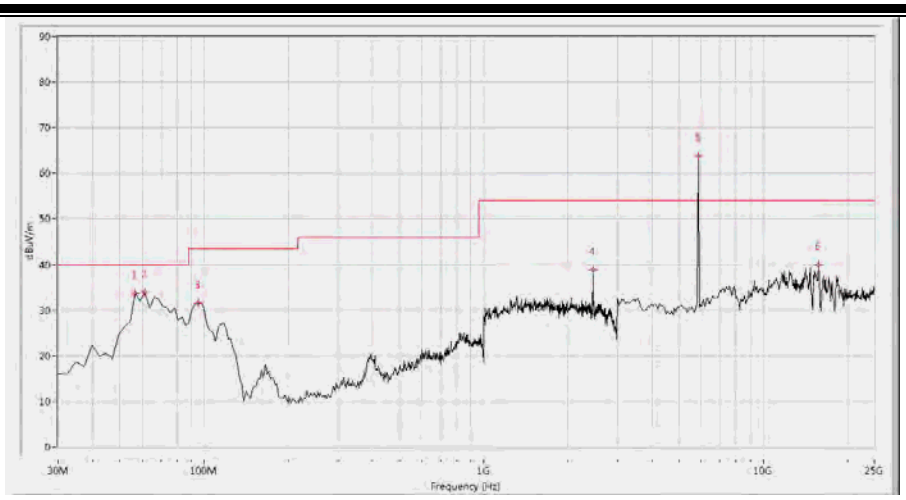


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
71.122	31.70	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
90.474	32.27	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
126.758	32.75	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
3000.000	33.24	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5825.000	63.41	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
15783.042	39.94	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

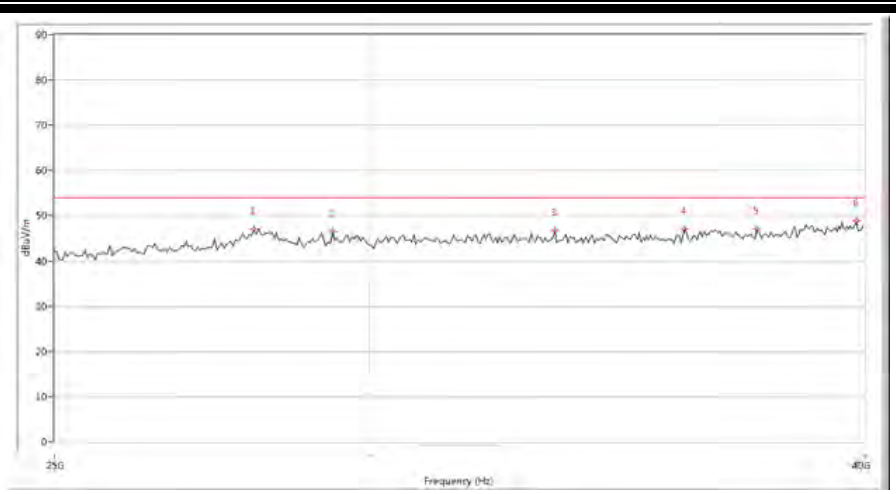


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26129.219	44.83	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
28067.733	46.65	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29960.025	46.60	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
34510.125	46.60	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
37009.748	47.53	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
39215.187	48.95	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
56.608	33.61	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
61.446	33.86	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
95.312	31.56	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
2461.347	38.85	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5825.000	63.87	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15728.180	39.85	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

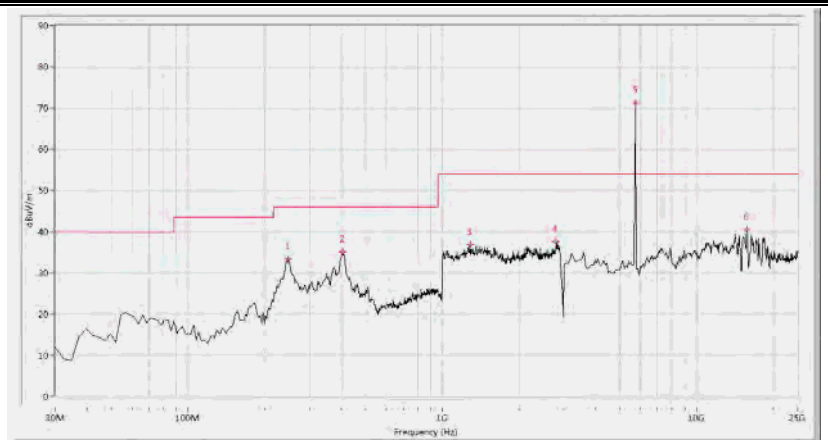


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
28016.733	47.04	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29373.656	46.44	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
33421.646	46.63	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
36037.491	46.98	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
37565.858	47.04	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
39818.297	48.76	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

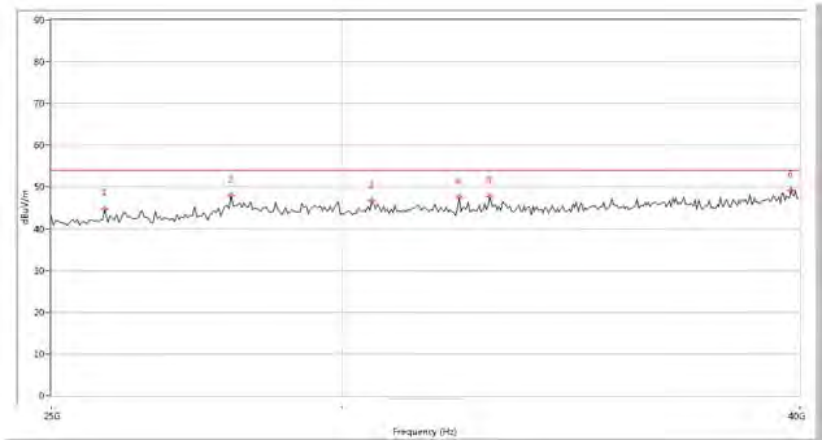
(Antenna Vertical, 30MHz to 40GHz)

3.8.3.6. 802.11ac-20MHz Test mode

Plots for Channel = 149

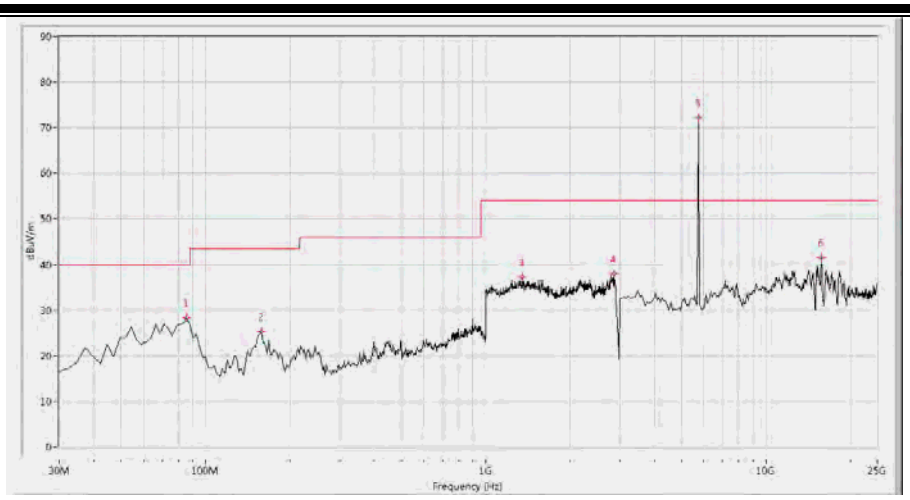


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
247.706	33.41	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
404.938	35.02	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
1289.277	36.90	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2800.499	37.63	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5745.000	71.34	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
15783.042	40.39	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

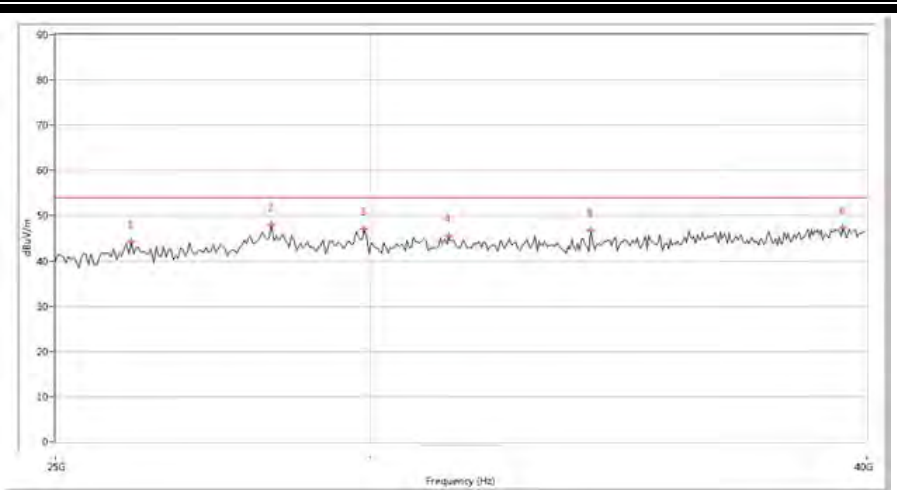


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26085.479	43.77	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
28219.177	47.40	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29623.840	46.94	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
33949.015	46.79	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
36554.860	47.96	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
39109.224	48.62	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



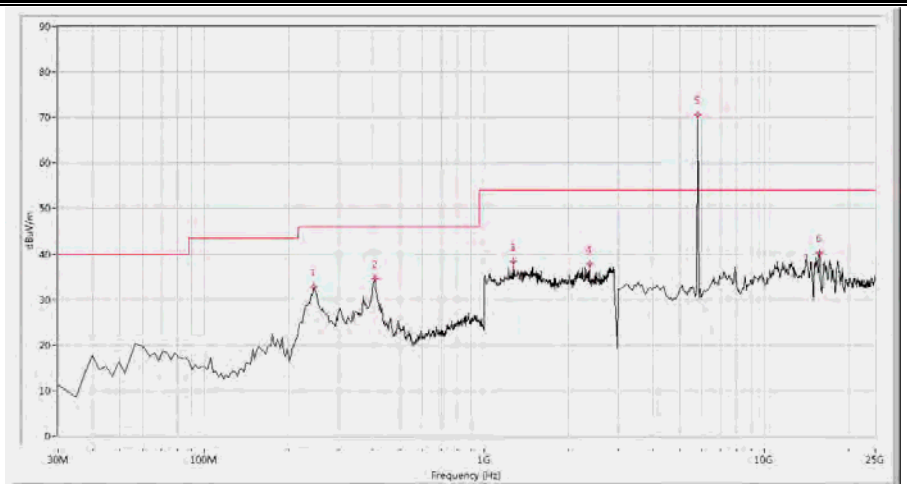
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
85.636	28.42	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
158.204	25.33	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
1354.115	37.27	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2875.312	38.02	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5745.000	72.16	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15783.042	41.45	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



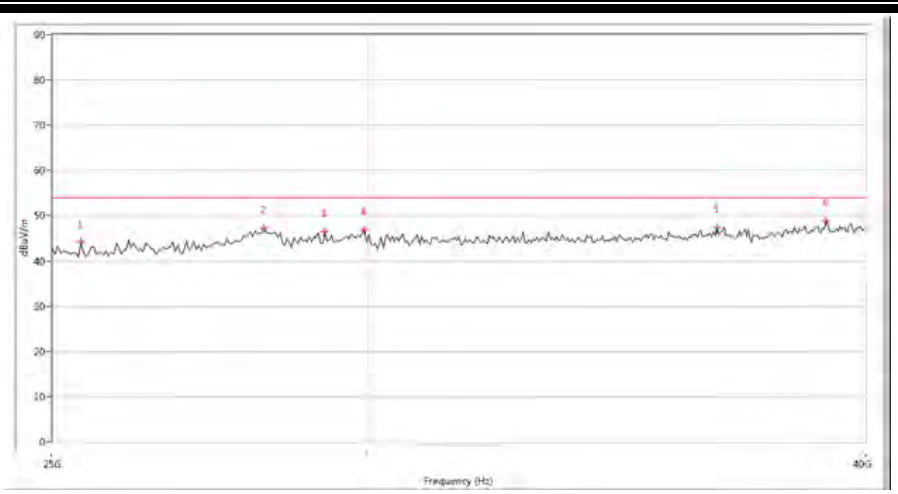
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26129.219	44.14	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28312.918	47.90	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29906.025	47.02	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
31319.651	45.51	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
34008.978	46.70	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
39439.890	47.14	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

Plot for Channel = 157

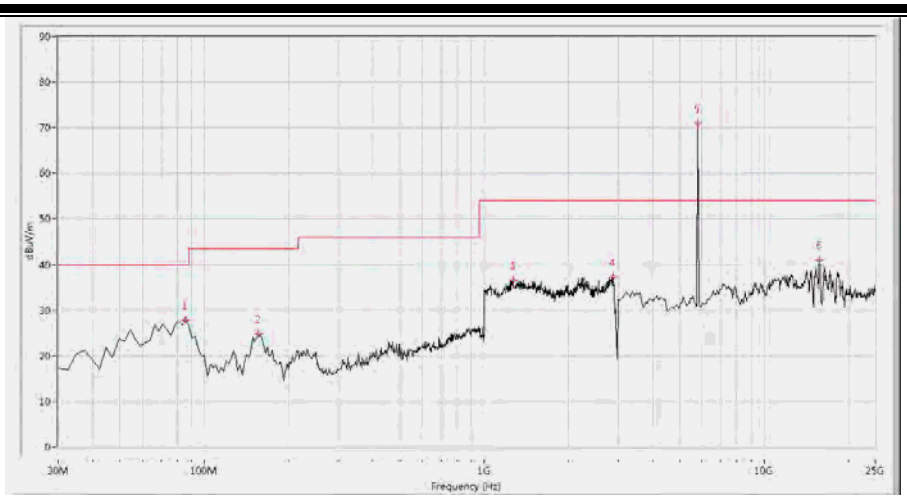


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
245.287	32.77	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
407.357	34.52	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
1274.314	38.37	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2376.559	37.80	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5785.000	70.54	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
15783.042	40.34	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

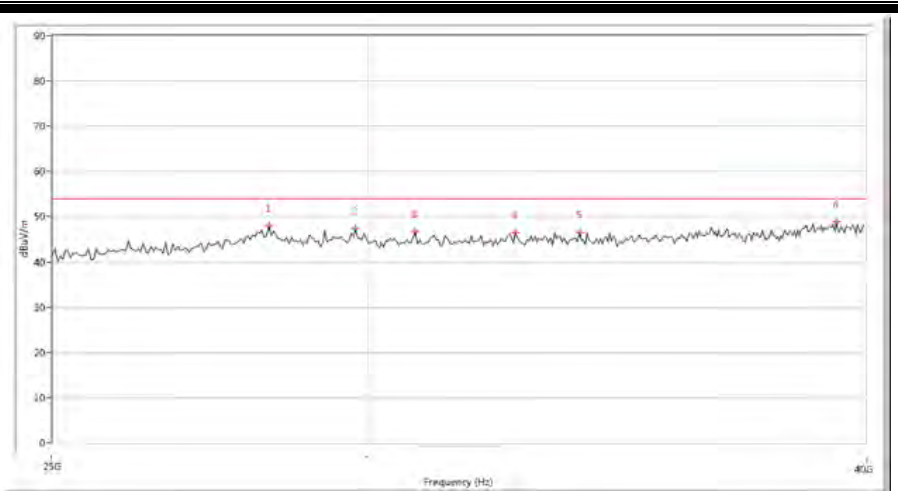


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
25419.147	44.25	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
28215.436	47.21	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29206.434	46.46	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29939.766	46.81	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
36707.823	47.38	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
39106.224	48.90	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



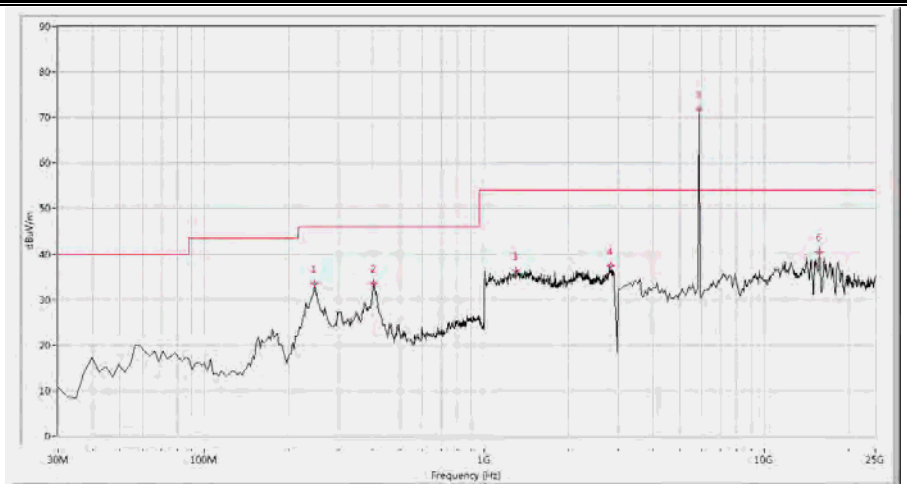
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
85.636	27.82	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
155.786	24.80	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
1269.327	36.48	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2895.262	37.22	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5785.000	70.91	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15783.042	40.98	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



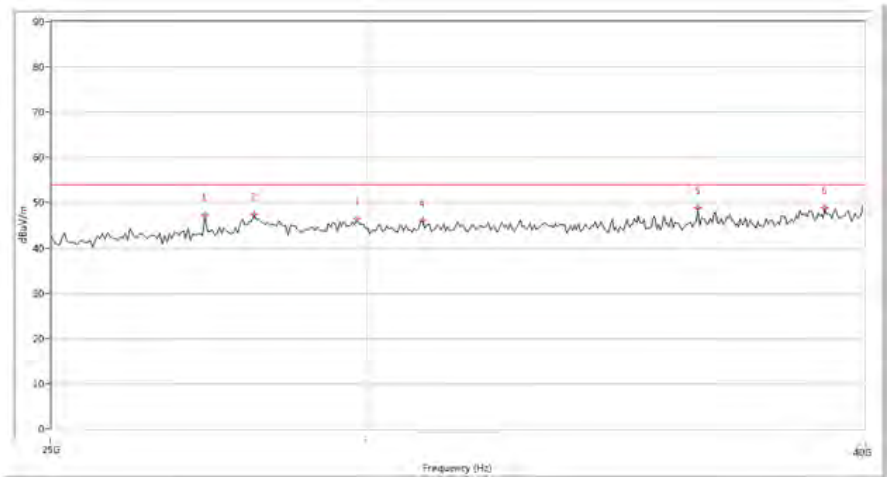
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
28321.918	47.96	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29718.803	47.43	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
30833.541	46.64	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
32616.833	46.54	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
33903.274	46.49	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
39324.668	48.82	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

Plot for Channel = 165

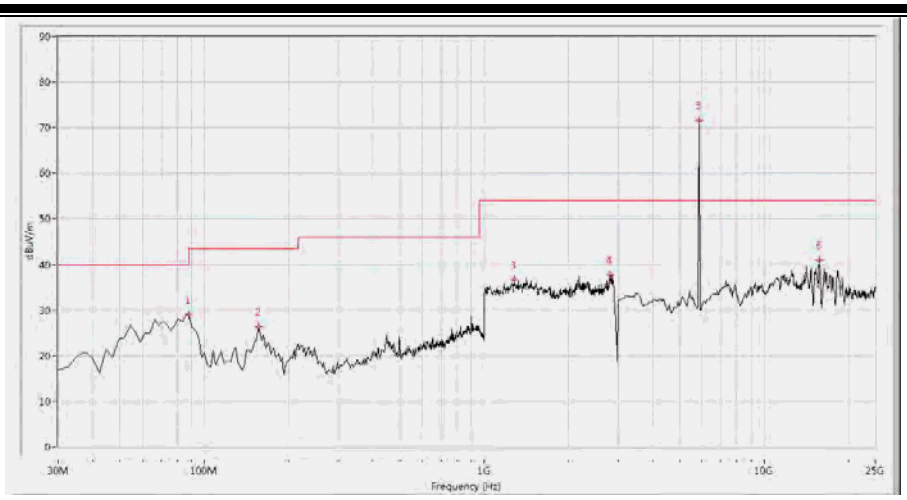


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
247.706	33.42	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
402.519	33.45	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
1299.252	36.37	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2835.411	37.36	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5825.000	71.90	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
15783.042	40.45	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

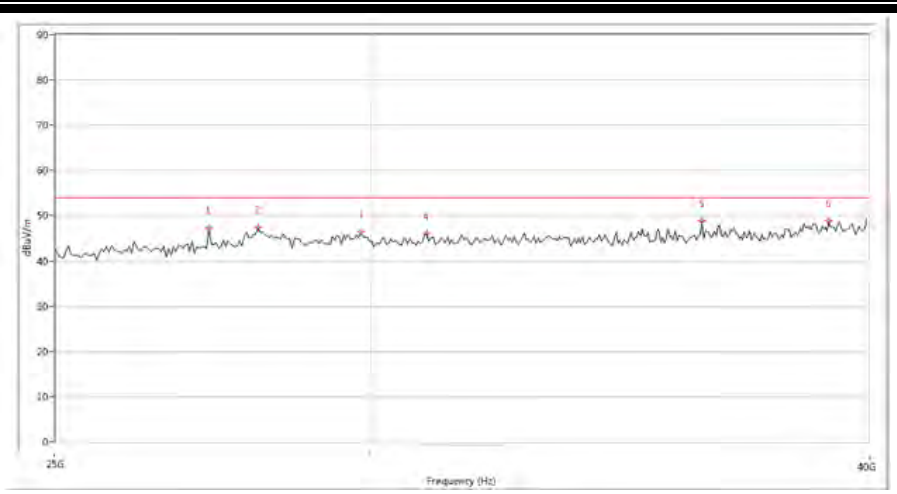


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
27319.920	47.18	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
28103.474	47.33	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29812.544	46.55	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
30918.504	45.89	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
36337.416	48.90	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
39104.224	48.76	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
88.055	29.12	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
155.786	26.36	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
1279.302	36.75	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2810.474	37.79	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5825.000	71.57	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15728.180	41.07	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

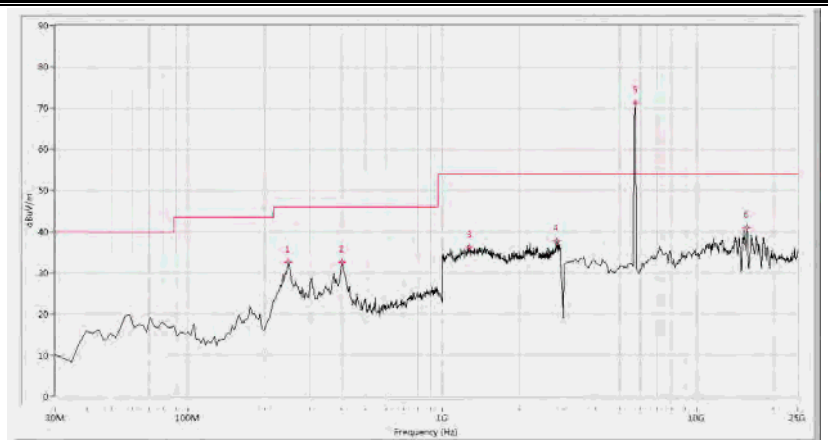


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26126.219	45.56	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28404.140	47.32	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29787.803	46.11	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
32811.796	46.28	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
35504.863	46.96	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
39028.743	48.53	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

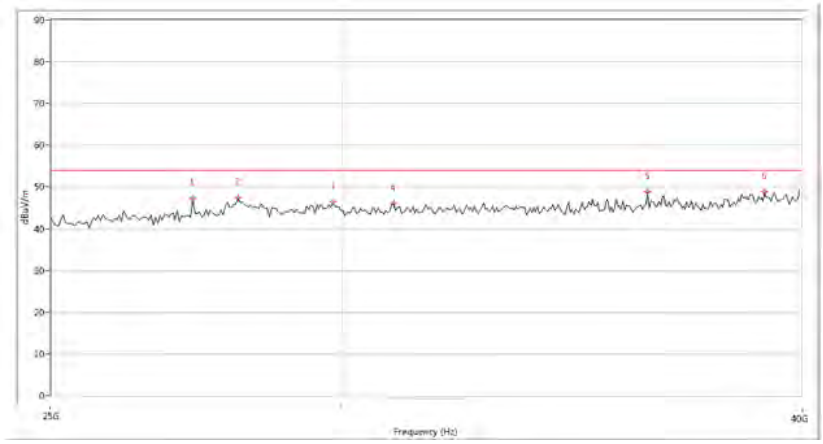
(Antenna Vertical, 30MHz to 40GHz)

3.8.3.7. 802.11ac-40MHz Test mode

Plots for Channel = 151

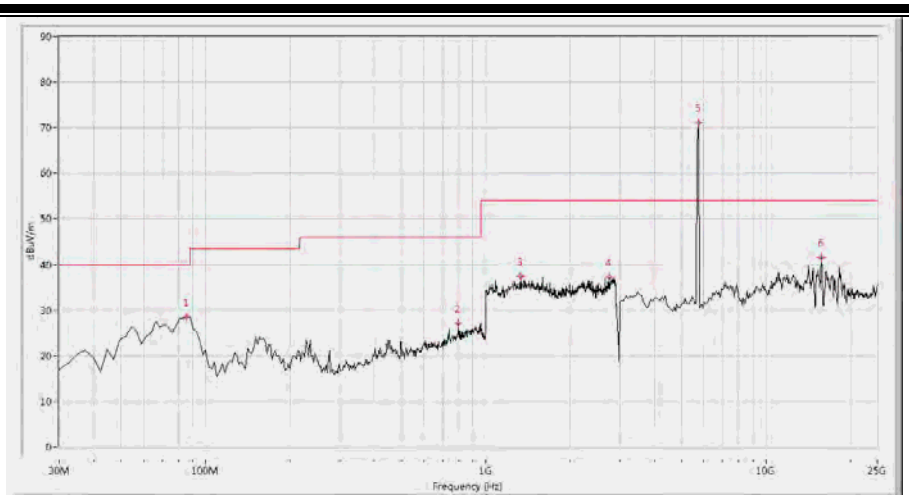


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
247.706	32.63	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
402.519	32.67	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
1279.302	36.11	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2810.474	37.86	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5755.000	71.35	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
15783.042	40.99	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

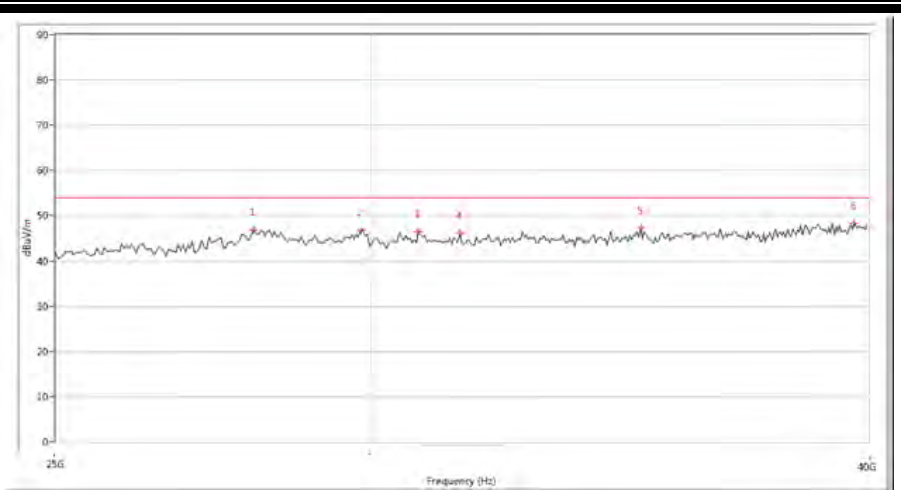


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
27139.217	44.15	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
28171.955	47.36	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29111.471	46.31	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
31302.170	46.05	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
37716.820	47.84	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
39952.519	48.95	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
85.636	28.52	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
799.227	27.10	N.A	N.A	N.A	46.0	N.A	Vertical	PASS
1329.177	37.46	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2750.623	37.17	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5755.000	71.14	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15783.042	41.58	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
28021.993	46.80	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29829.544	46.96	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
30863.541	46.48	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
31581.354	46.19	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
35036.234	47.15	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
39606.334	48.35	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

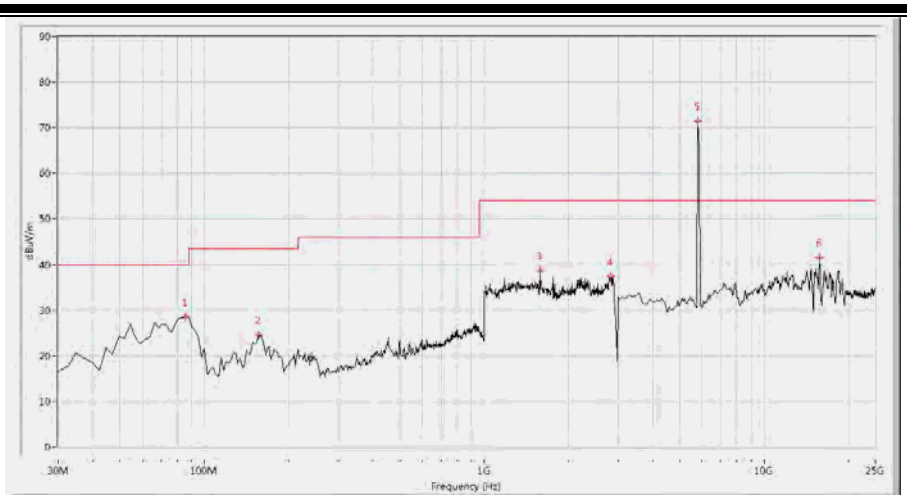
(Antenna Vertical, 30MHz to 40GHz)

Plots for Channel = 159

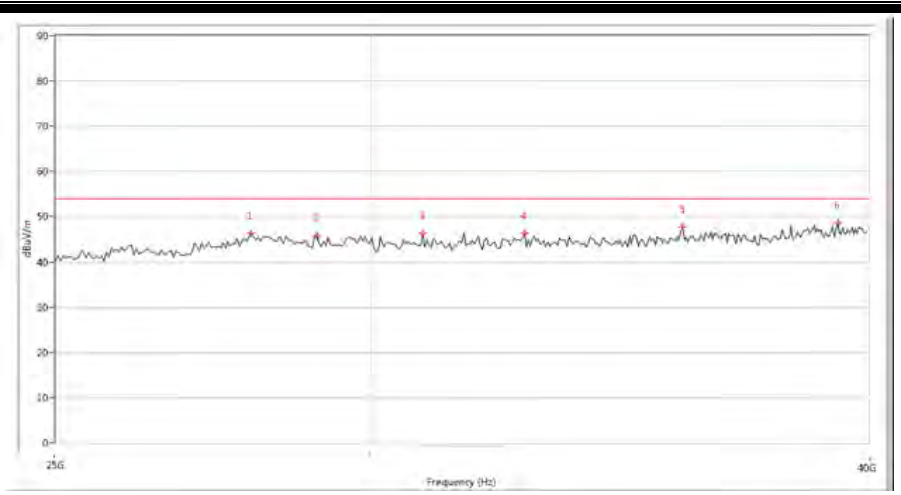
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
247.706	30.99	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
402.519	31.28	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
1384.040	37.53	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2830.424	37.48	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5795.000	70.00	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
15783.042	41.77	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
247.706	30.99	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
402.519	31.28	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
1384.040	37.53	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2830.424	37.48	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5795.000	70.00	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
15783.042	41.77	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
85.636	28.52	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
155.786	24.59	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
1583.541	38.67	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2840.399	37.48	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5795.000	71.46	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15783.042	41.53	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
27909.252	46.29	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29071.731	45.73	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
30931.022	46.28	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
32748.055	46.34	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
35920.269	47.71	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
39283.928	48.64	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

3.9. RF exposure evaluation

3.9.1. Requirement

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

3.9.2. Result

Please refer to SAR report.

** END OF REPORT **