REPORT No.: SZ16030070W03

FCC RF TEST REPORT

APPLICANT	:	ZTE Corporation
PRODUCT NAME	:	LTE Digital Mobile Phone
MODEL NAME	:	NX529J
TRADE NAME	:	Nubia
BRAND NAME	:	Nubia
FCC ID	:	SRQ-NX529J
STANDARD(S)	:	47 CFR Part 15 Subpart C
ISSUE DATE	:	2016-04-18

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.

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Change History		
Issue	Date	Reason for change
1.0	2016-04-18	First edition

TEST REPORT DECLARATION

Applicant	ZTE Corporation
Applicant Address	#889 Bibo Road, Zhangjiang Hi-tech Park Shanghai, P.R. China Shanghai
Manufacturer Address	ZTE Corporation
Manufacturer	#889 Bibo Road, Zhangjiang Hi-tech Park Shanghai, P.R. China Shanghai
Product Name	LTE Digital Mobile Phone
Model Name	NX529J
Brand Name	Nubia
HW Version	P2
SW Version	NX529J_Z69_EN_NSXPK1JD00K104
Test Standards	47 CFR Part 15 Subpart C
Test Date	2016-03-16 to 2016-04-15
Test Result	PASS

Tested by : Yuan Ling

Yuan Ling

Reviewed by : Qiu Xiaojun

Qiu Xiaojun

Approved by : Peng Hu

Peng Huarui

1. TECHNICAL INFORMATION

Note: Provide by applicant.

1.1 Applicant Information

Company:	ZTE Corporation
Address	#889 Bibo Road, Zhangjiang Hi-tech Park Shanghai, P.R. China Shanghai

1.2 Equipment under Test (EUT) Description

Brand Name:	Nubia
Trade Name:	Nubia
Model Name:	NX529J
Frequency Range:	802.11b/g/n-20MHz: 2.412GHz - 2.462GHz 802.11n-40MHz: 2.422GHz - 2.452GHz
Channel Number:	802.11b/g/n-20MHz: 11 802.11n-40MHz: 7
Modulation Type:	DSSS, OFDM
Antenna Type:	PIFA Antenna
Antenna Gain:	1 dBi

NOTE:

The EUT is a LTE Digital Mobile Phone, it contains WIFI Module operating at 2.4GHz ISM; it supports 802.11b, 802.11g, 802.11n and they are all tested in this report.

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).

For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

The antenna connector of EUT is designed with permanent attachment and no consideration of replacement.

1.2.1 Identification of all used EUTs

The EUT identity consists of numerical and letter characters, the letter character indicates the test sample, and the following two numerical characters indicate the software version of the test sample.

EUT Identity	Hardware Version	Software Version
A01	P2	NX529J_Z69_EN_NSXPK1JD00K104

1.3 Test Standards and Results

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

No.	Identity	Document Title
1	47 CFR Part 15 (10-1-13 Edition)	Radio Frequency Devices

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

No.	Section	Description	Test Date	Result
1	15.203	Antenna Requirement	N.A	**PASS**
2	15.247(b)	Peak Output Power	Mar 18, 2016	**PASS**
3	15.247(a)	Bandwidth	Mar 18, 2016	**PASS**
4	15.247(d)	Conducted Spurious Emission and Band Edge	Mar 18, 2016	**PASS**
5	15.247(d)	Restricted Frequency Bands	Mar 19, 2016	**PASS**
6	15.207	Conducted Emission	Mar 19, 2016	**PASS**
7	15.209 ,15.247(d)	Radiated Emission	Mar 19, 2016	**PASS**
8	15.247(e)	Power spectral density (PSD)	Mar 18, 2016	**PASS**

The tests of Conducted Emission and Radiated Emission were performed according to the method of measurements prescribed in ANSI C63.10 2013.

1.3.1 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

2. 47 CFR PART 15C REQUIREMENTS

2.1 Antenna requirement

2.1.1 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.

2.1.2 Result: Compliant

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

2.2 Peak Output Power

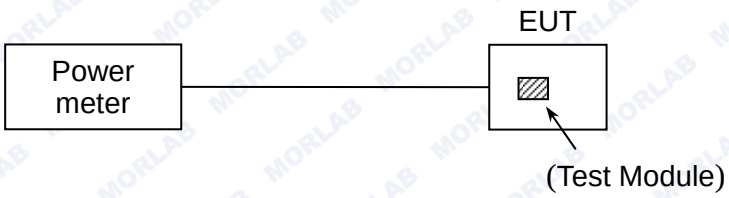
2.2.1 Requirement

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.

2.2.2 Test Description

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 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:

Please reference ANNEX A(1.4).

2.2.3 Test Result

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

2.2.3.1 802.11b Test Mode

Channel	Frequency (MHz)	Measured Output Peak Power		Limit		Verdict
		dBm	W	dBm	W	
1	2412	21.59	0.14421	30	1	PASS
6	2437	22.51	0.17824			PASS
11	2462	22.23	0.16711			PASS

2.2.3.2 802.11g Test mode

Channel	Frequency (MHz)	Measured Output Peak Power		Limit		Verdict
		dBm	W	dBm	W	
1	2412	22.79	0.190	30	1	PASS
6	2437	23.46	0.222			PASS
11	2462	23.21	0.209			PASS

2.2.3.3 802.11n-20MHz Test mode

Channel	Frequency (MHz)	Measured Output Peak Power		Limit		Verdict
		dBm	W	dBm	W	
1	2412	22.38	0.173	30	1	PASS
6	2437	23.18	0.208			PASS
11	2462	22.74	0.188			PASS

2.2.3.4 802.11n-40MHz Test mode

Channel	Frequency (MHz)	Measured Output Peak Power		Limit		Verdict
		dBm	W	dBm	W	
3	2422	22.19	0.166	30	1	PASS
6	2437	22.54	0.179			PASS
9	2452	22.53	0.179			PASS

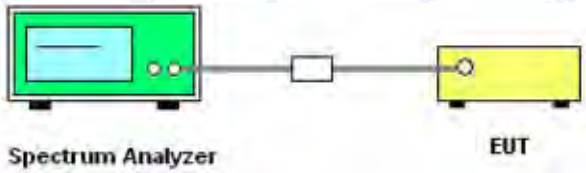
2.3 Bandwidth

2.3.1 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.

2.3.2 Test Description

A. Test Set:



The EUT 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 Section 8.1 Option 1 was used in order to prove compliance.

B. Equipments List:

Please reference ANNEX A(1.4).

2.3.3 Test Result

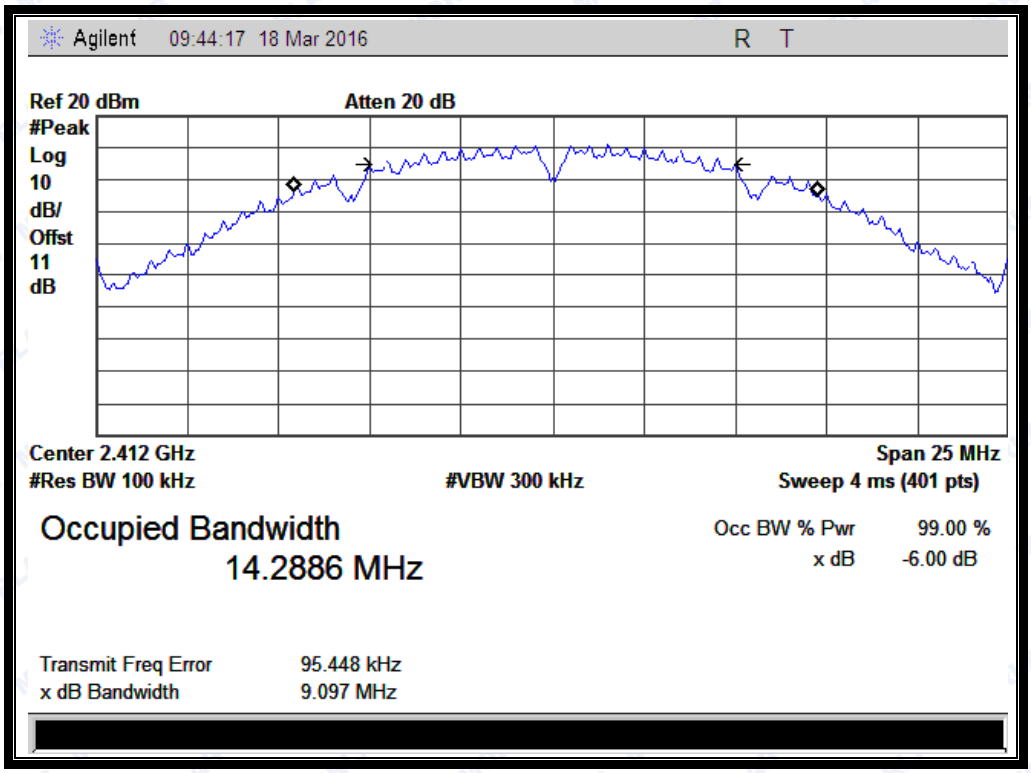
The lowest, middle and highest channels are selected to perform testing to record the 6 dB bandwidth of the Module.

2.3.3.1 802.11b Test mode

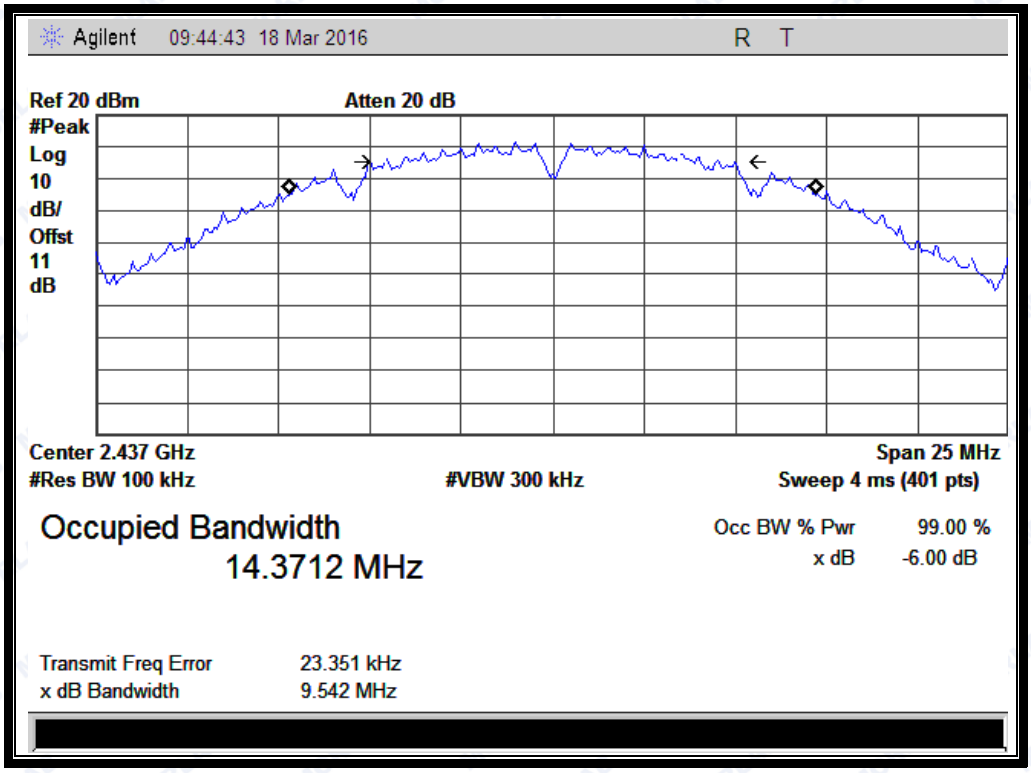
A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits(kHz)	Result
1	2412	9.097	≥500	PASS
6	2437	9.542	≥500	PASS
11	2462	9.596	≥500	PASS

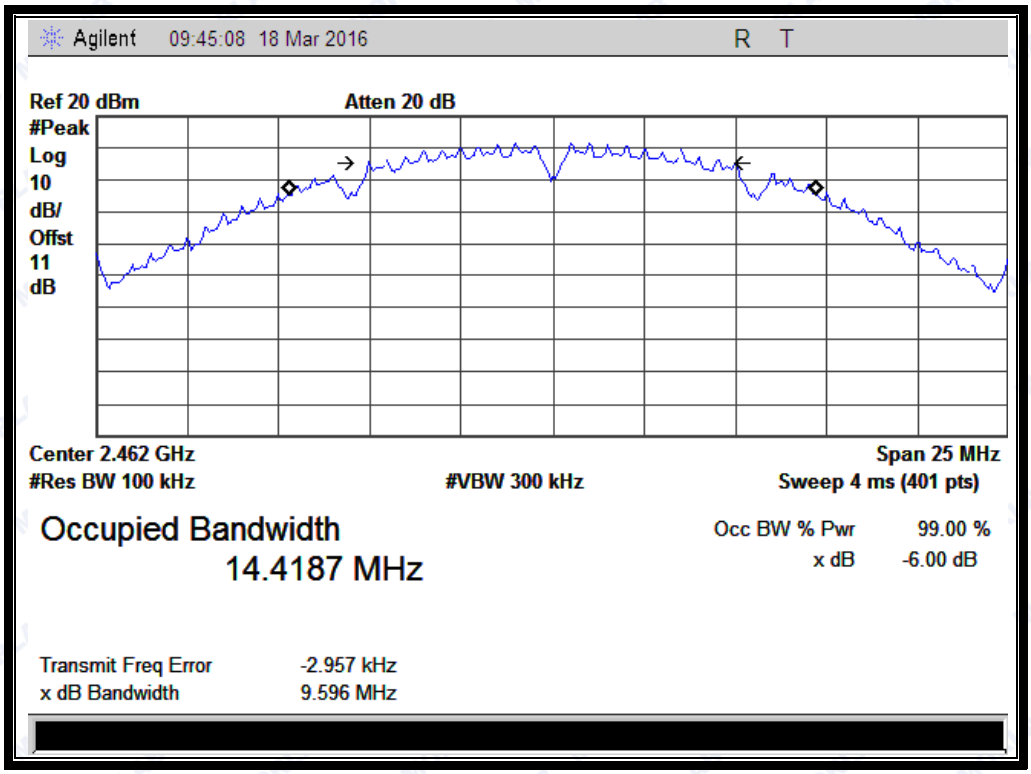
B. Test Plots



(Channel 1: 2412MHz @ 802.11b)



(Channel 6: 2437 MHz @ 802.11b)



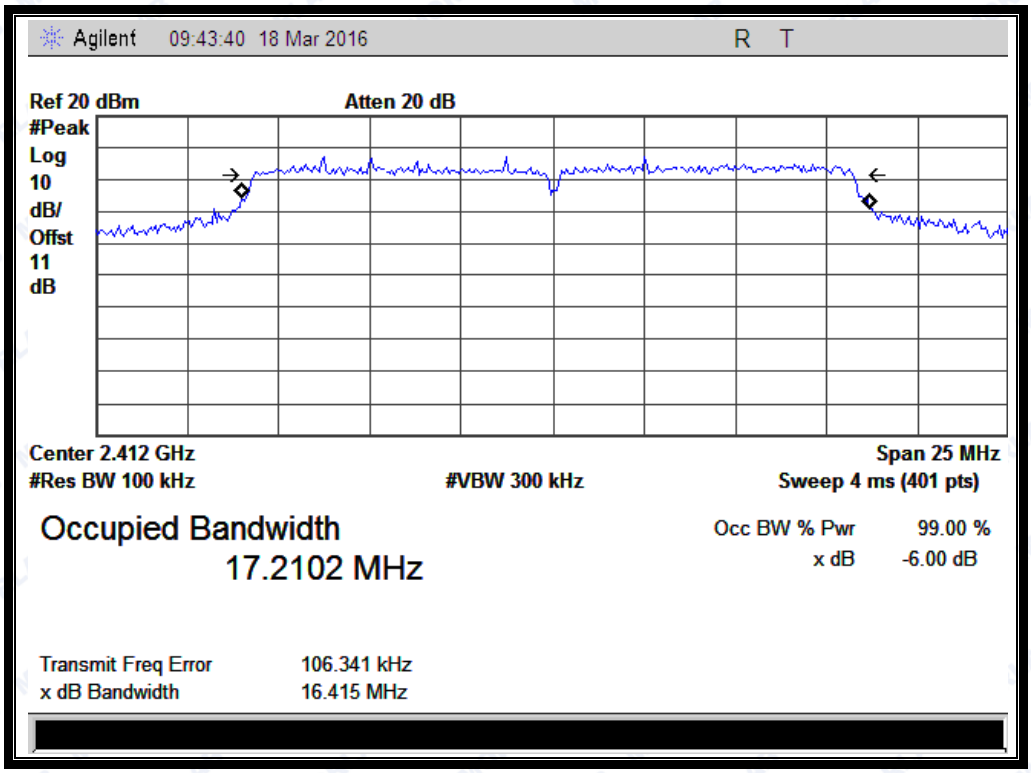
(Channel 11: 2462MHz @ 802.11b)

2.3.3.2 802.11g Test mode

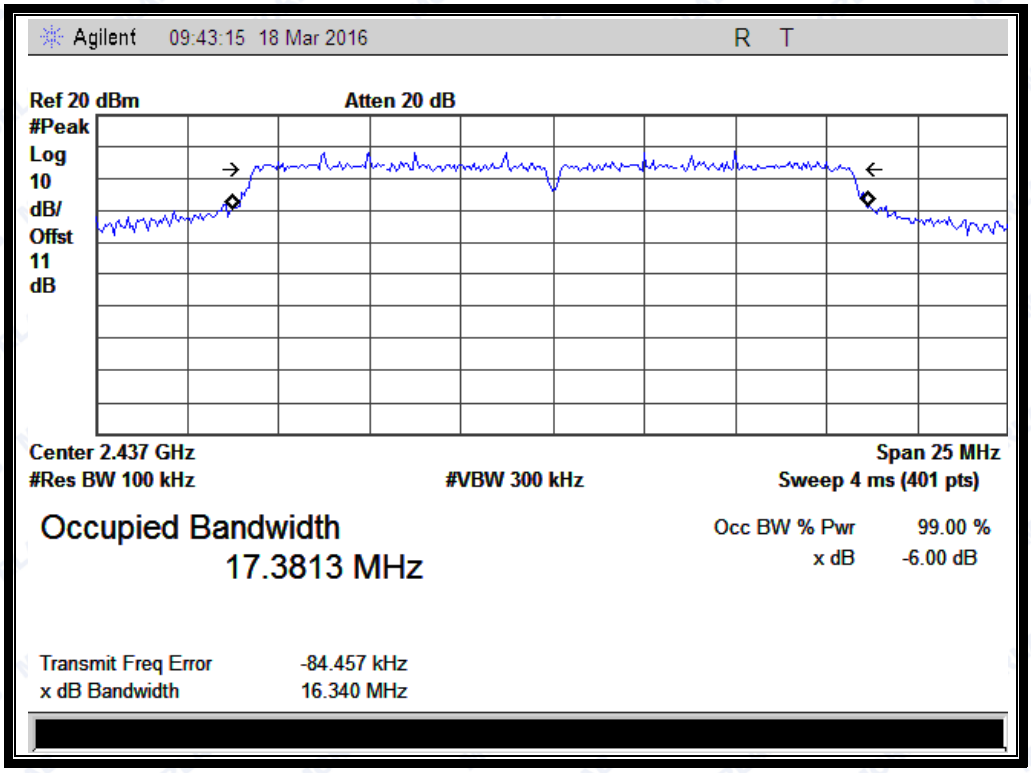
A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)	Result
1	2412	16.415	≥500	PASS
6	2437	16.340	≥500	PASS
11	2462	16.377	≥500	PASS

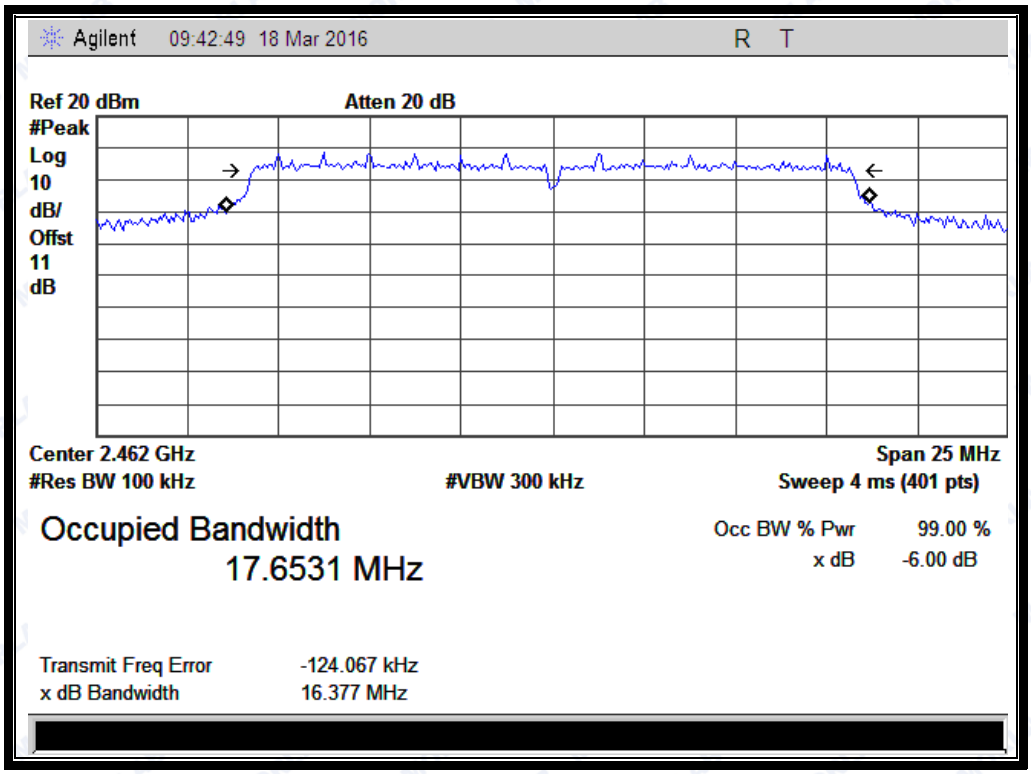
B. Test Plots:



(Channel 1: 2412MHz @ 802.11g)



(Channel 6: 2437MHz @ 802.11g)



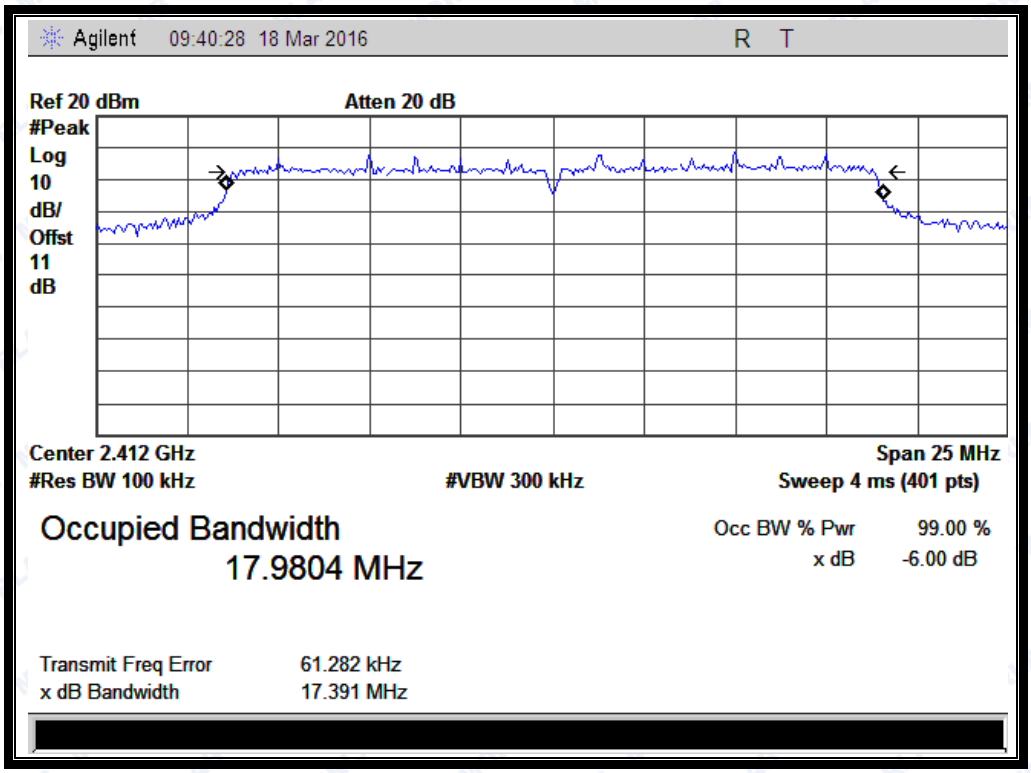
(Channel 11: 2462MHz @ 802.11g)

2.3.3.3 802.11n-20 Test mode

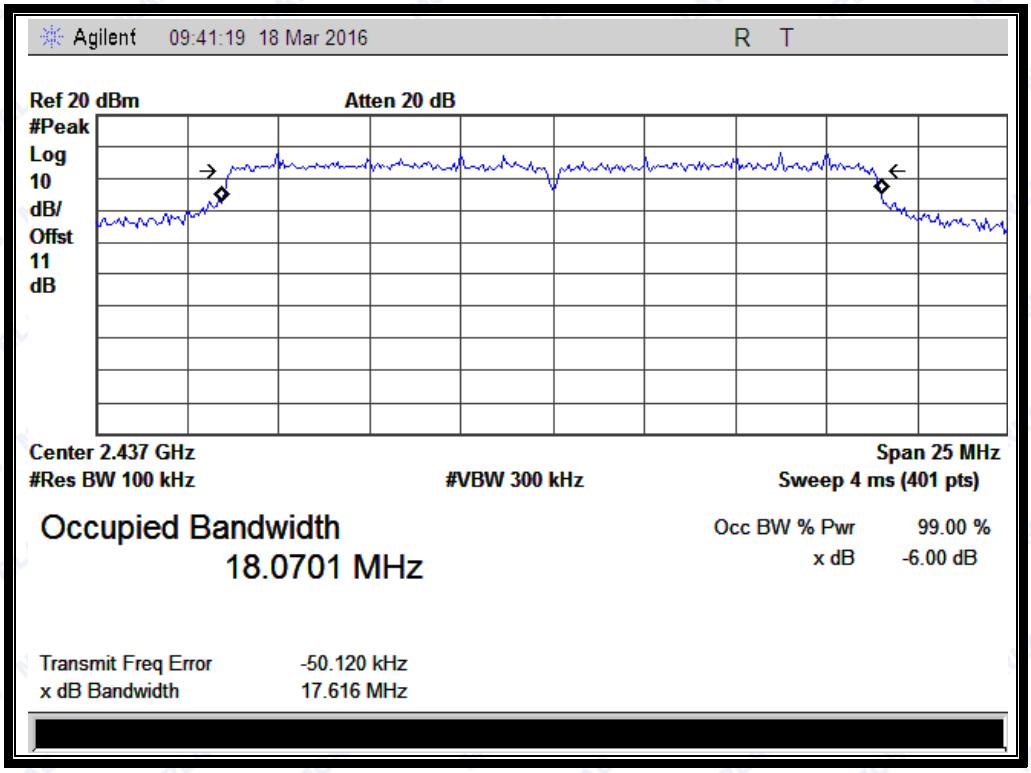
A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)	Result
1	2412	17.391	≥500	PASS
6	2437	17.616	≥500	PASS
11	2462	17.400	≥500	PASS

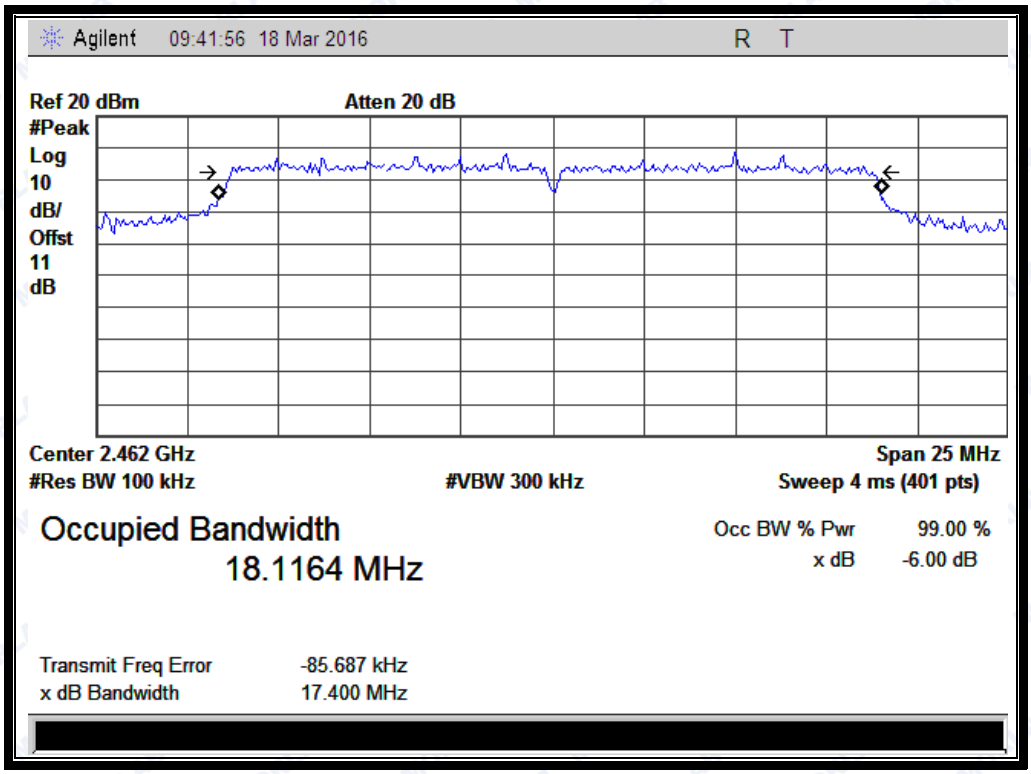
B. Test Plots:



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



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



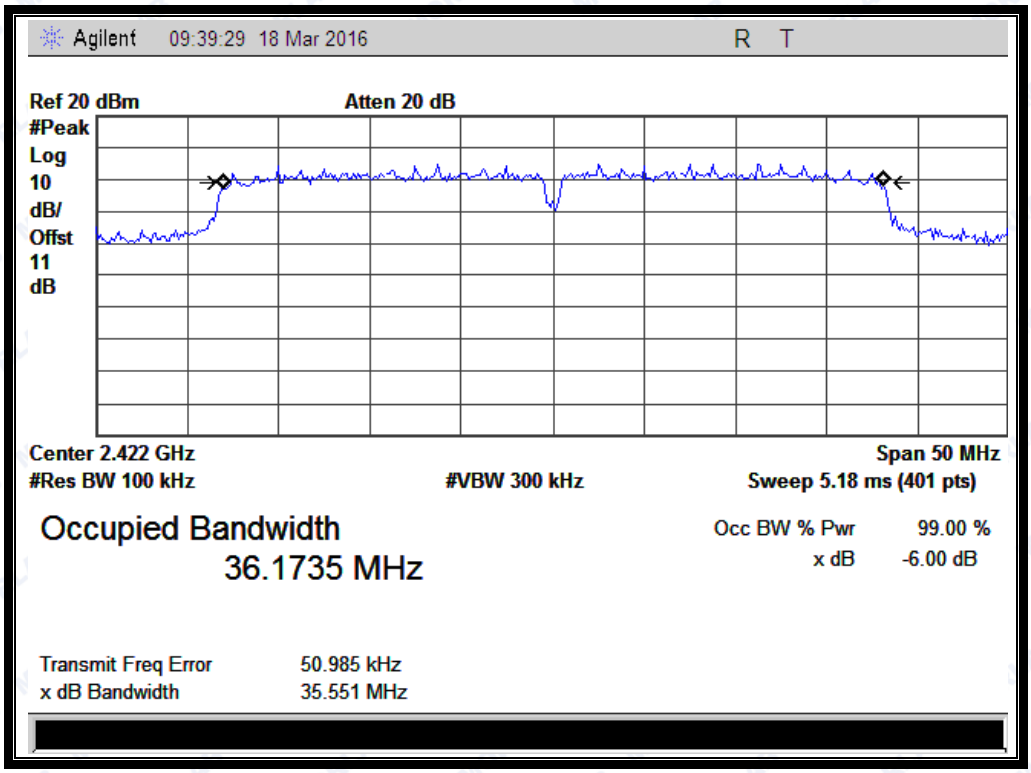
(Channel 11: 2462MHz @ 802.11n-20)

2.3.3.4 802.11n-40 Test mode

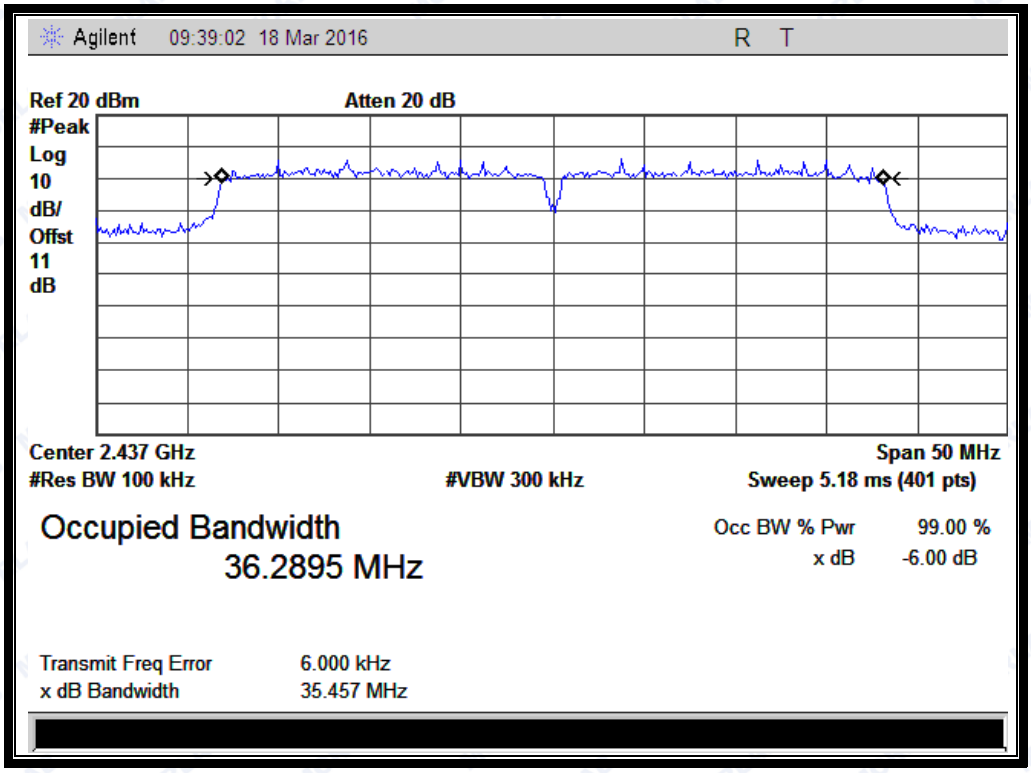
A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)	Result
3	2422	35.551	≥500	PASS
6	2437	35.457	≥500	PASS
9	2452	35.396	≥500	PASS

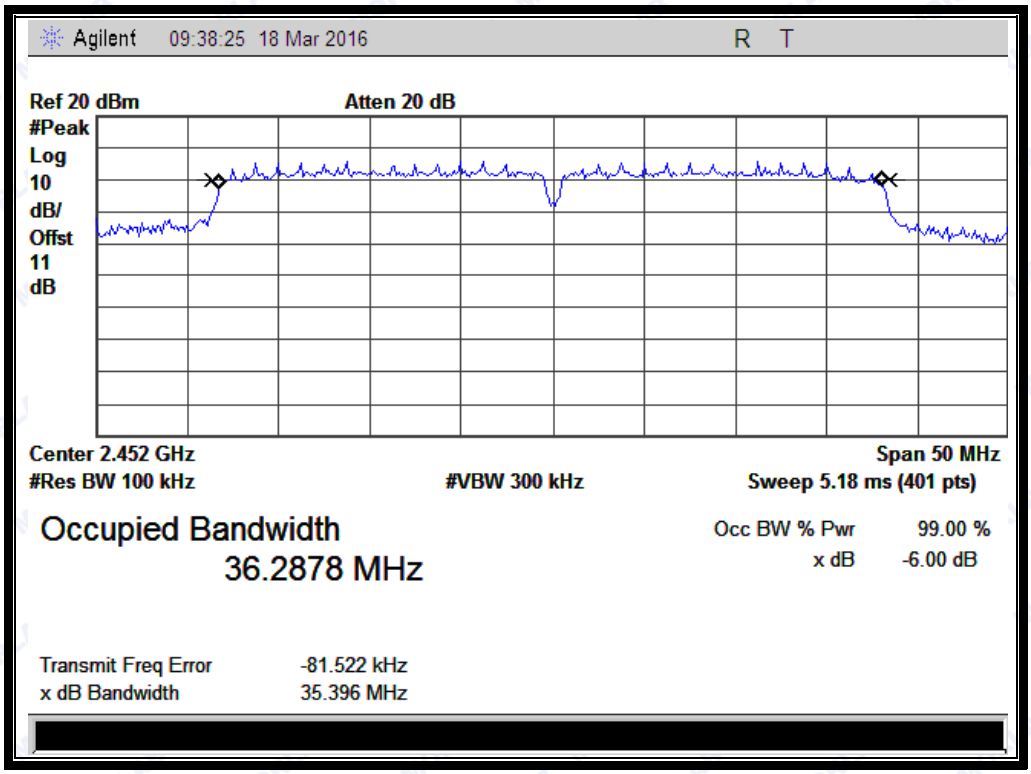
B. Test Plots:



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



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



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

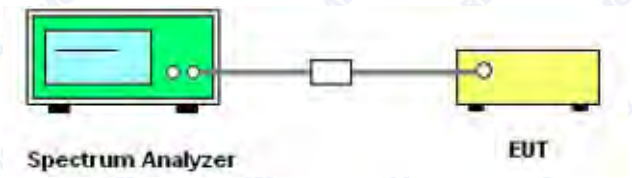
2.4 Conducted Spurious Emissions and Band Edge

2.4.1 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.

2.4.2 Test Description

A. Test Set:



The EUT 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 Section 11.0 was used in order to prove compliance.

B. Equipments List:

Please reference ANNEX A(1.4).

2.4.3 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.

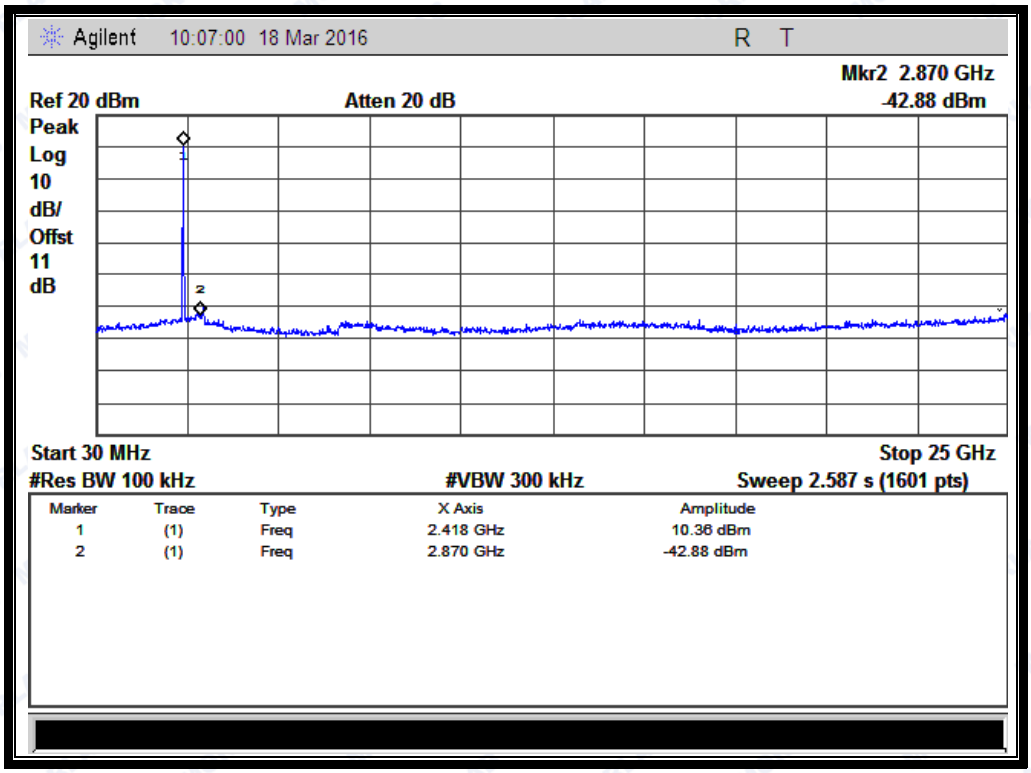
2.4.3.1 802.11b Test mode

A. Test Verdict:

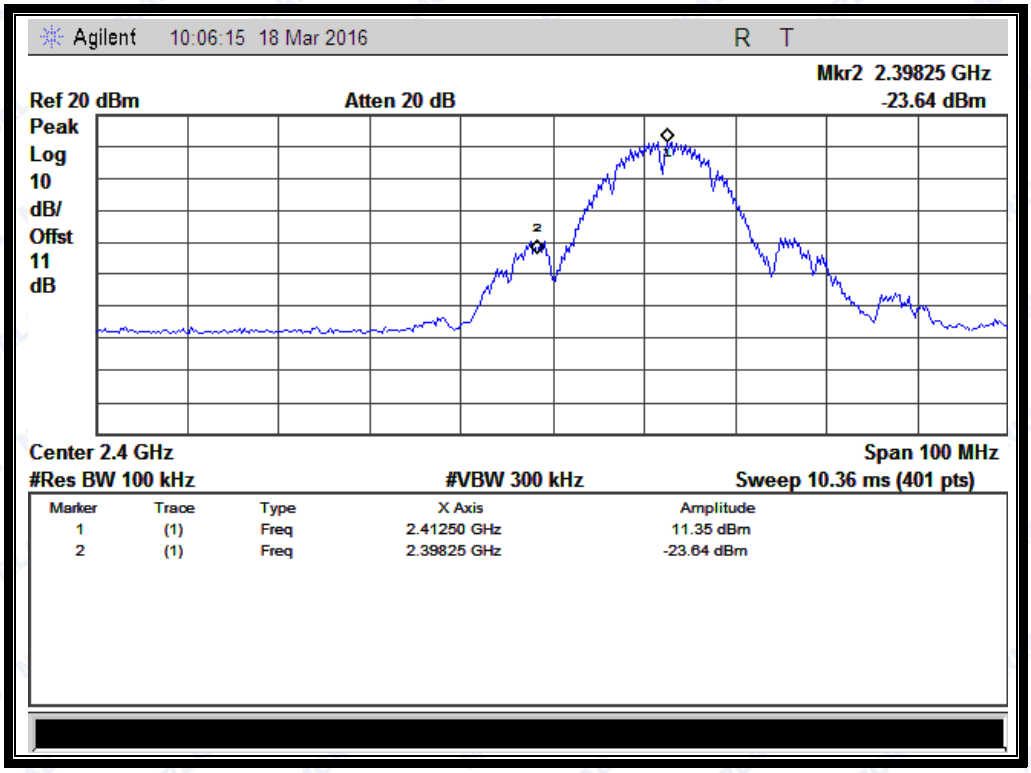
Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated -20dBc Limit	
1	2412	-42.88	10.36	-9.64	PASS
6	2437	-43.03	11.19	-8.81	PASS
11	2462	-42.27	9.50	-10.50	PASS

B. Test Plots:

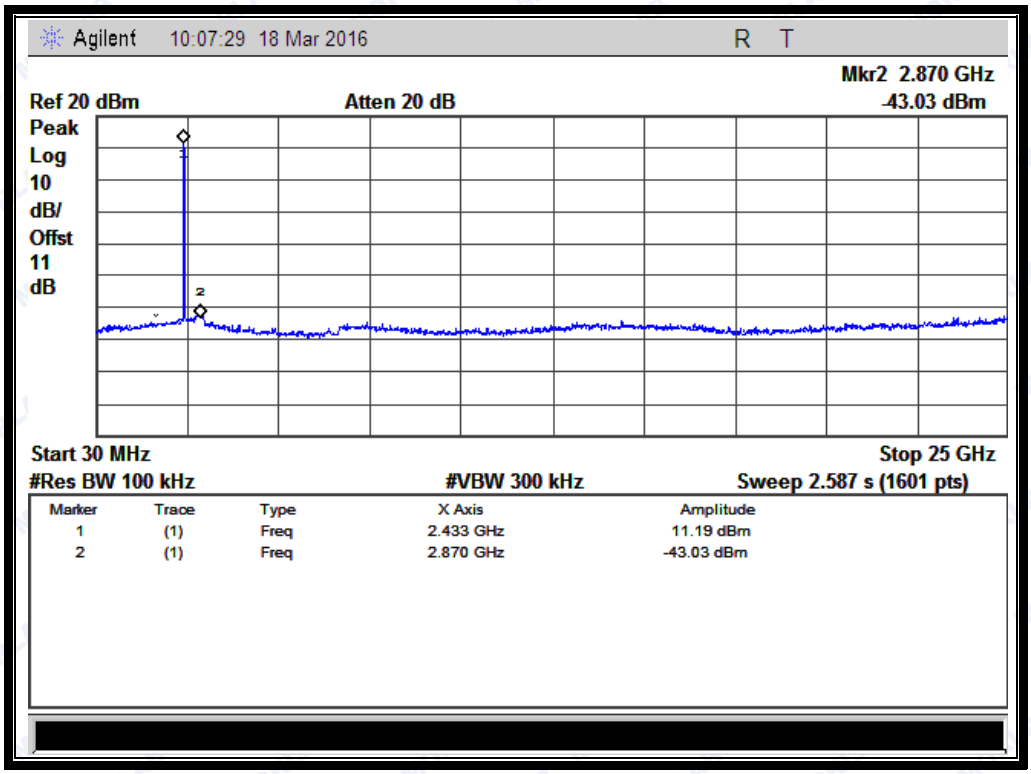
Note: the power of the Module transmitting frequency should be ignored.



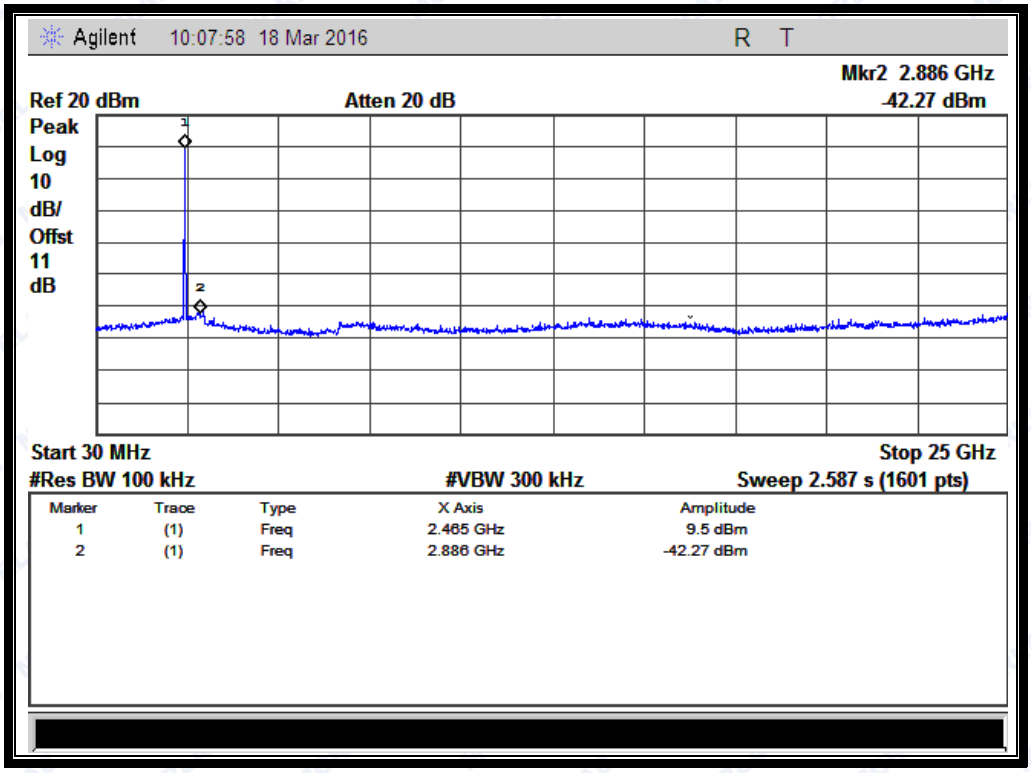
(Channel = 1, 30MHz to 25GHz)



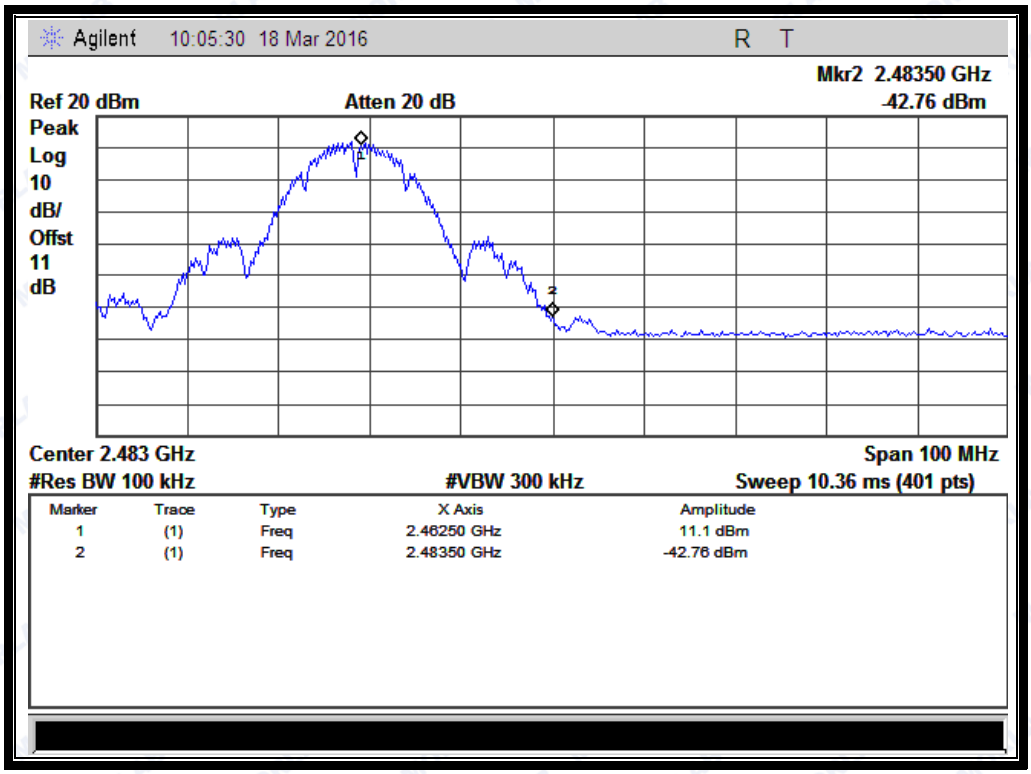
(Band Edge @ Channel = 1)



(Channel = 6, 30MHz to 25GHz)



(Channel = 11, 30MHz to 25GHz)



(Band Edge @ Channel = 11)

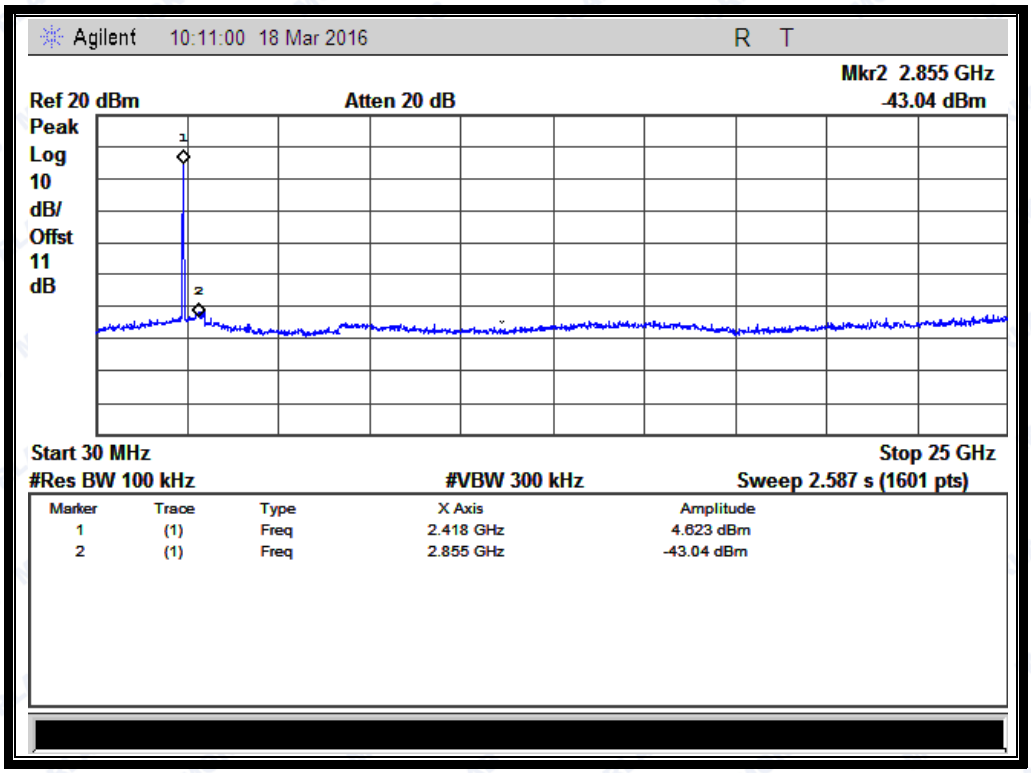
2.4.3.2 802.11g Test mode

A. Test Verdict:

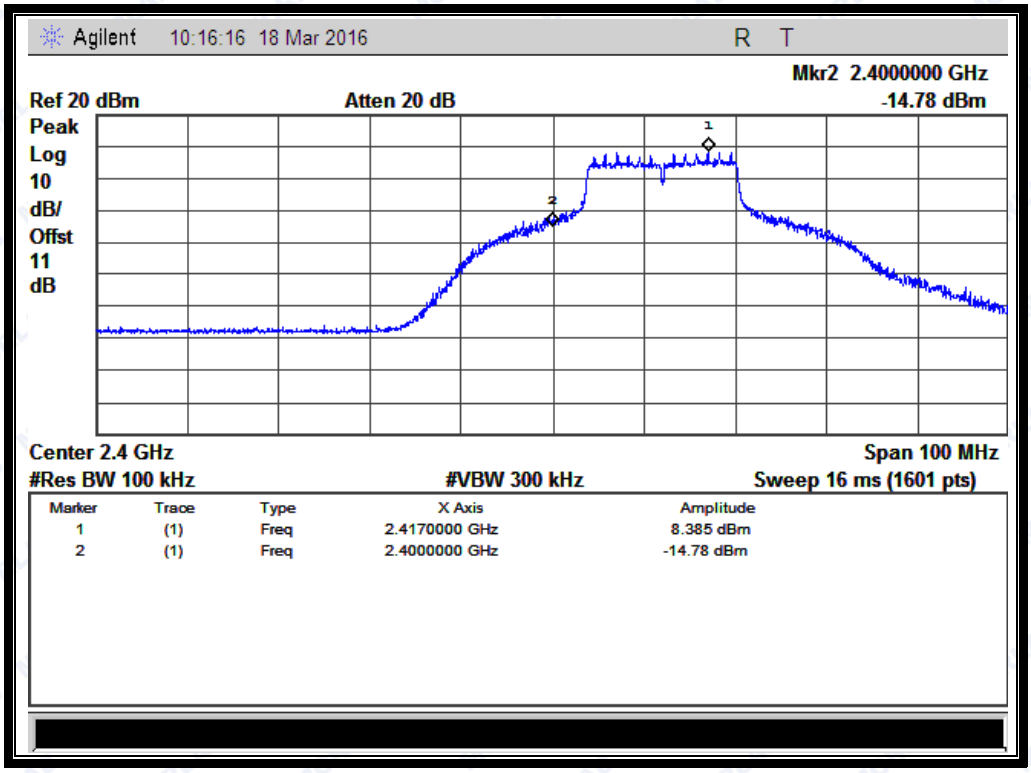
Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated -20dBc Limit	
1	2412	-43.04	4.62	-15.38	PASS
6	2437	-42.83	4.35	-15.65	PASS
11	2462	-42.33	7.28	-12.72	PASS

B. Test Plots:

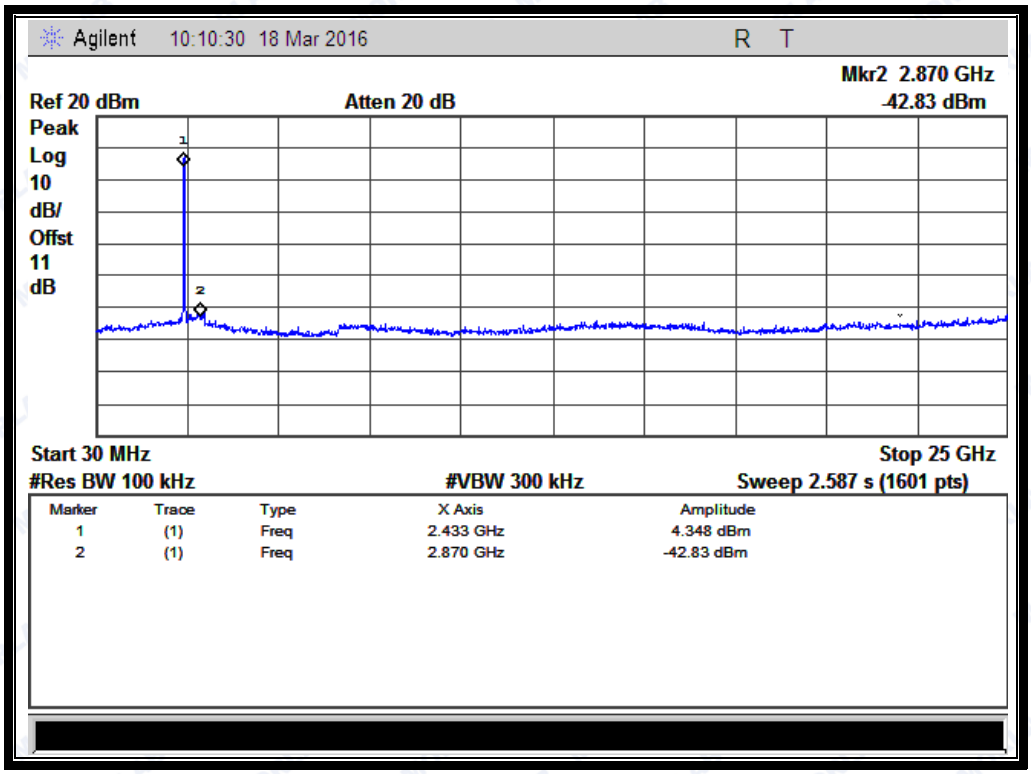
Note: the power of the Module transmitting frequency should be ignored.



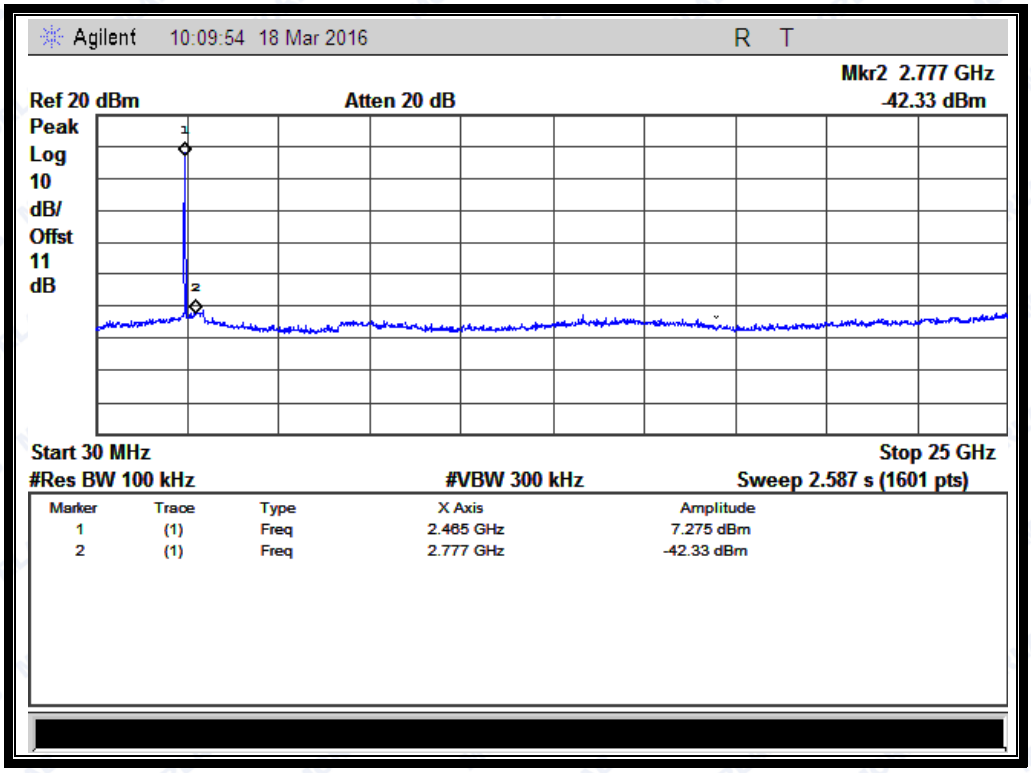
(Channel = 1, 30MHz to 25GHz)



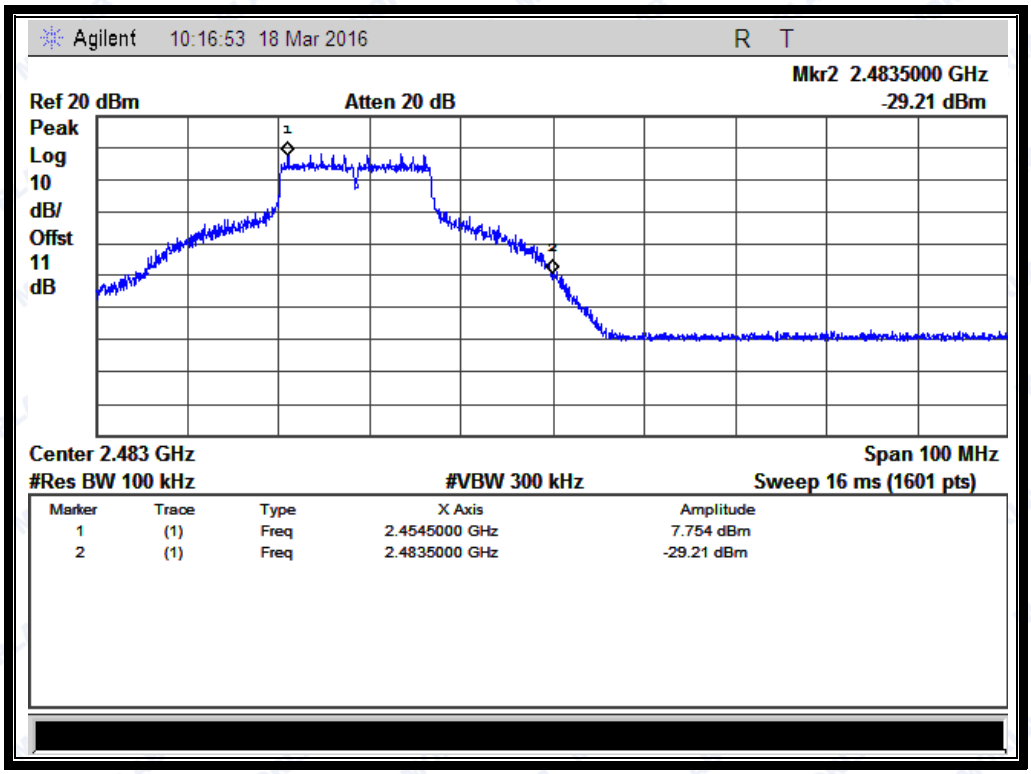
(Band Edge @ Channel = 1)



(Channel = 6, 30MHz to 25GHz)



(Channel = 11, 30MHz to 25GHz)



(Band Edge @ Channel = 11)

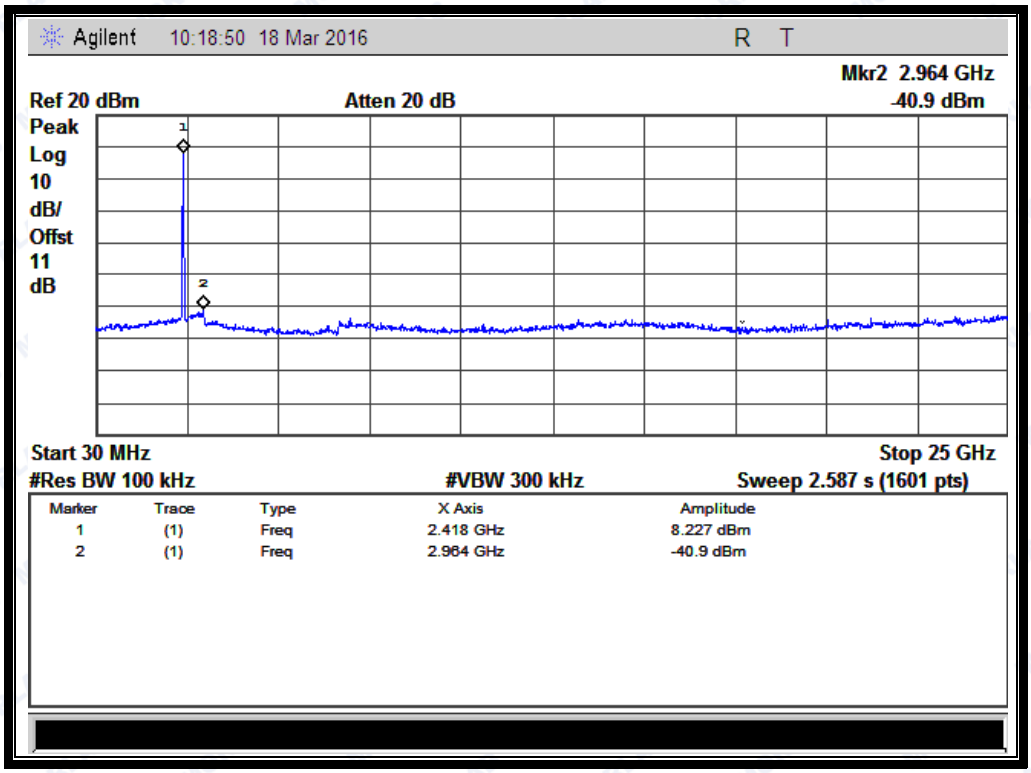
2.4.3.3 802.11n -20MHz Test mode

A. Test Verdict:

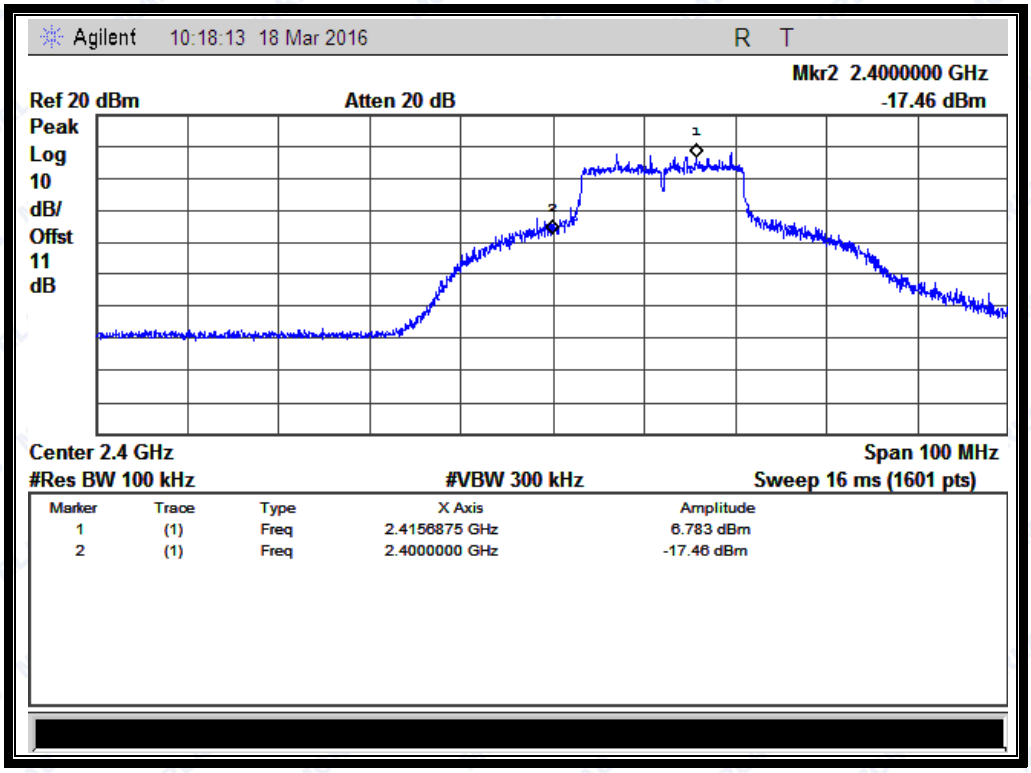
Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated -20dBc Limit	
1	2412	-40.90	8.23	-11.77	PASS
6	2437	-43.22	8.09	-11.91	PASS
11	2462	-41.37	5.39	-14.61	PASS

B. Test Plots:

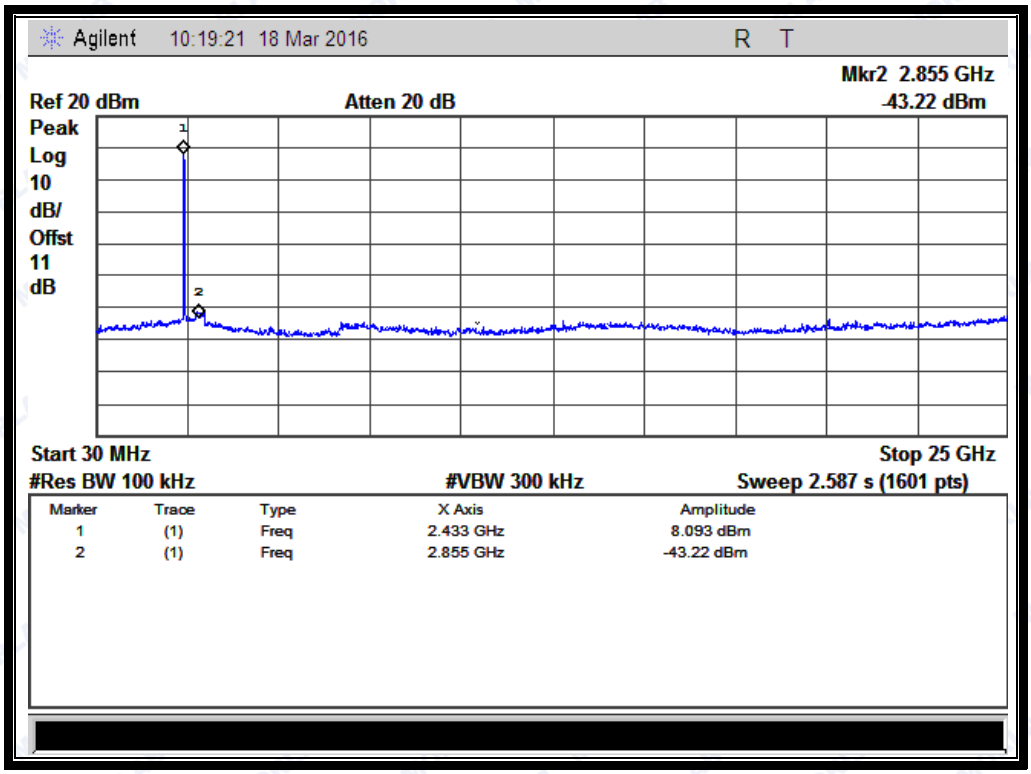
Note: the power of the Module transmitting frequency should be ignored.



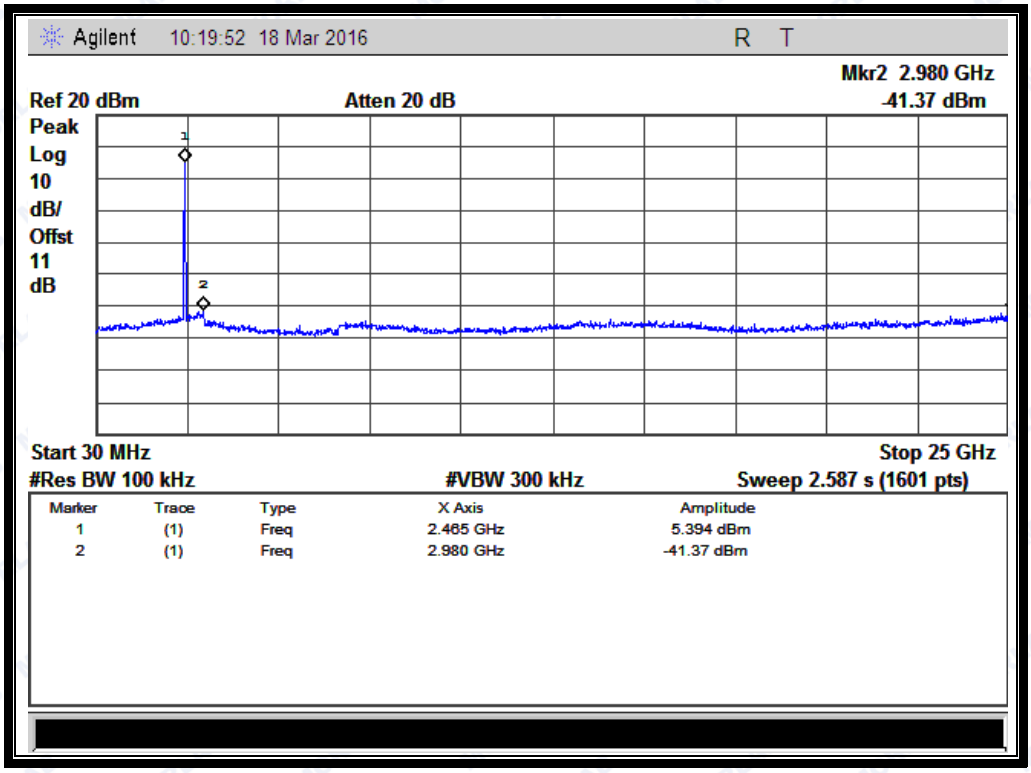
(Channel = 1, 30MHz to 25GHz)



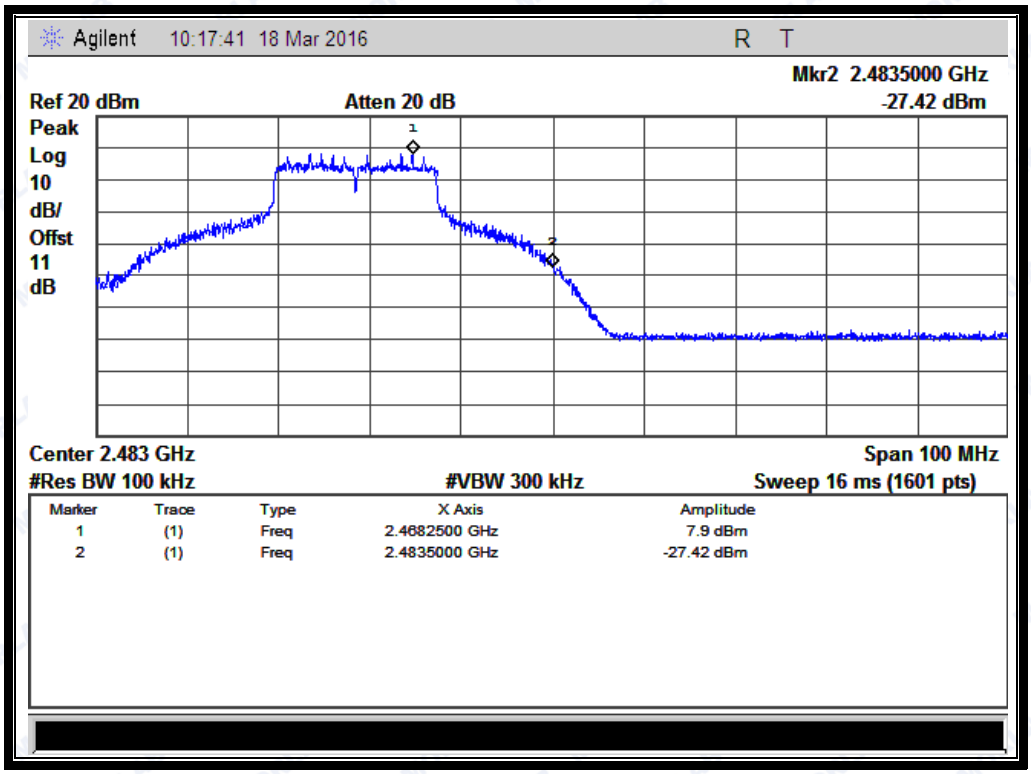
(Band Edge @ Channel = 1)



(Channel = 6, 30MHz to 25GHz)



(Channel = 11, 30MHz to 25GHz)



(Band Edge @ Channel = 11)

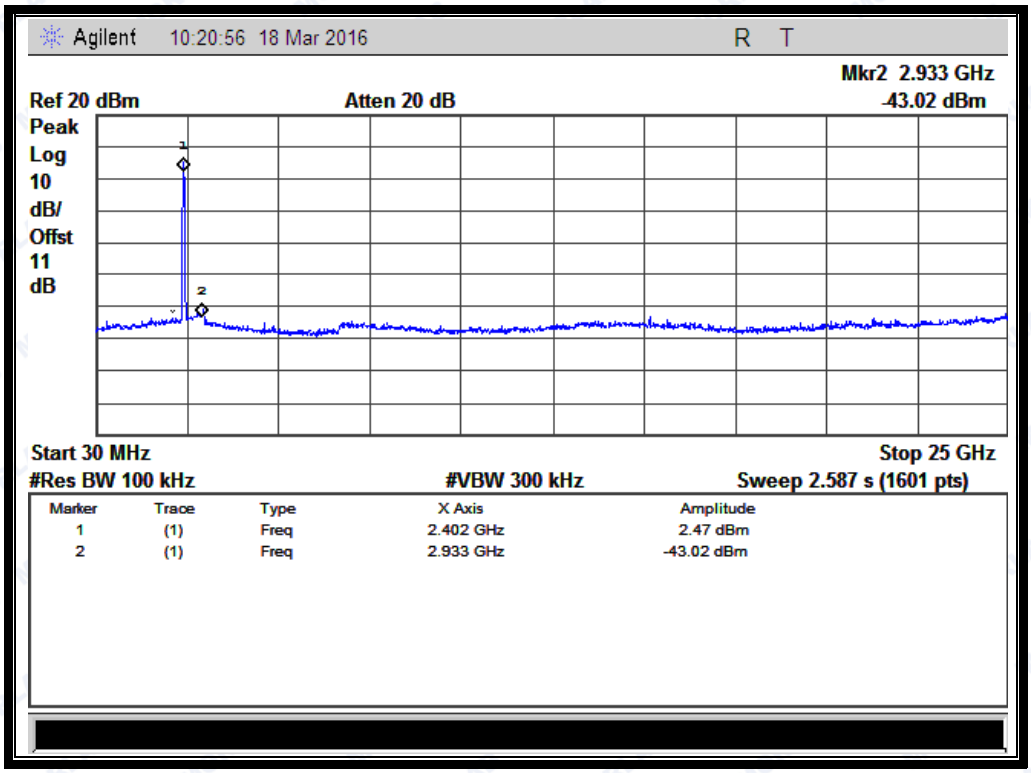
2.4.3.4 802.11n -40MHz Test mode

A. Test Verdict:

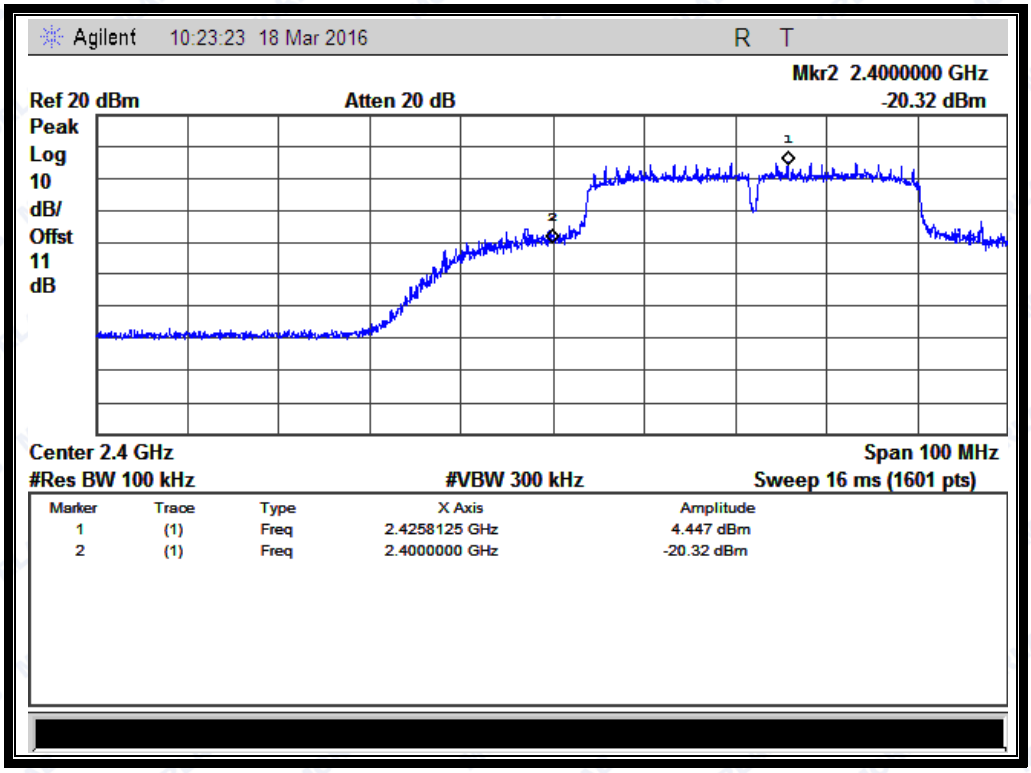
Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated -20dBc Limit	
3	2422	-43.02	2.47	-17.53	PASS
6	2437	-42.40	4.83	-15.17	PASS
9	2452	-42.44	3.98	-16.04	PASS

B. Test Plots:

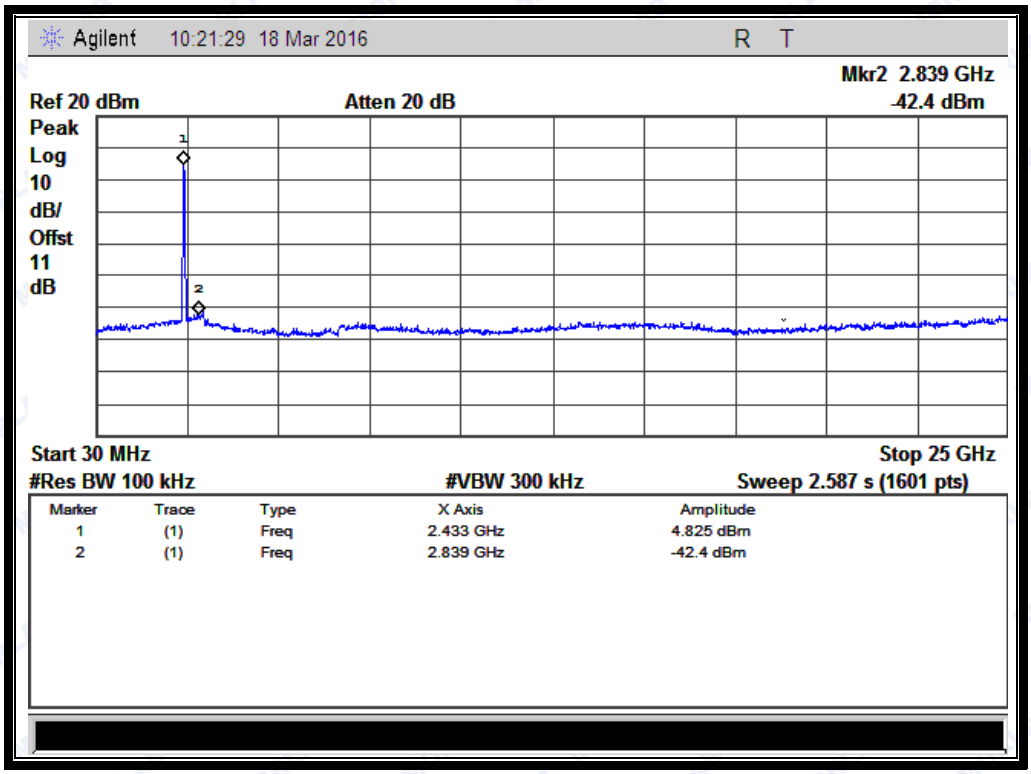
Note: the power of the Module transmitting frequency should be ignored.



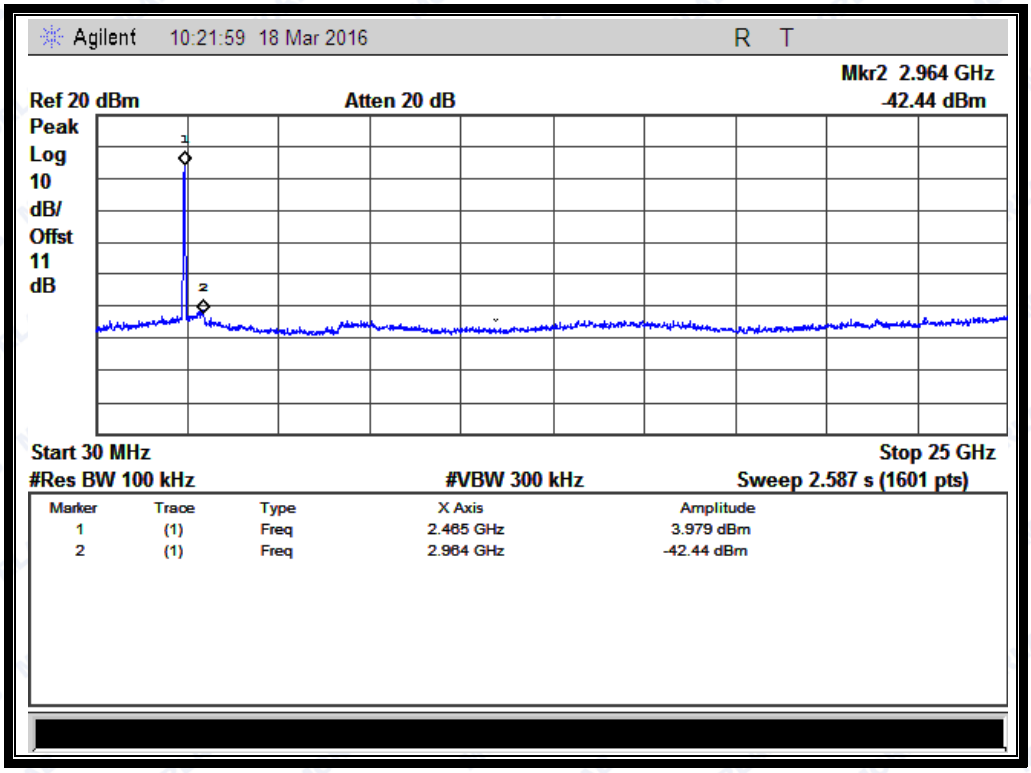
(Channel = 3, 30MHz to 25GHz)



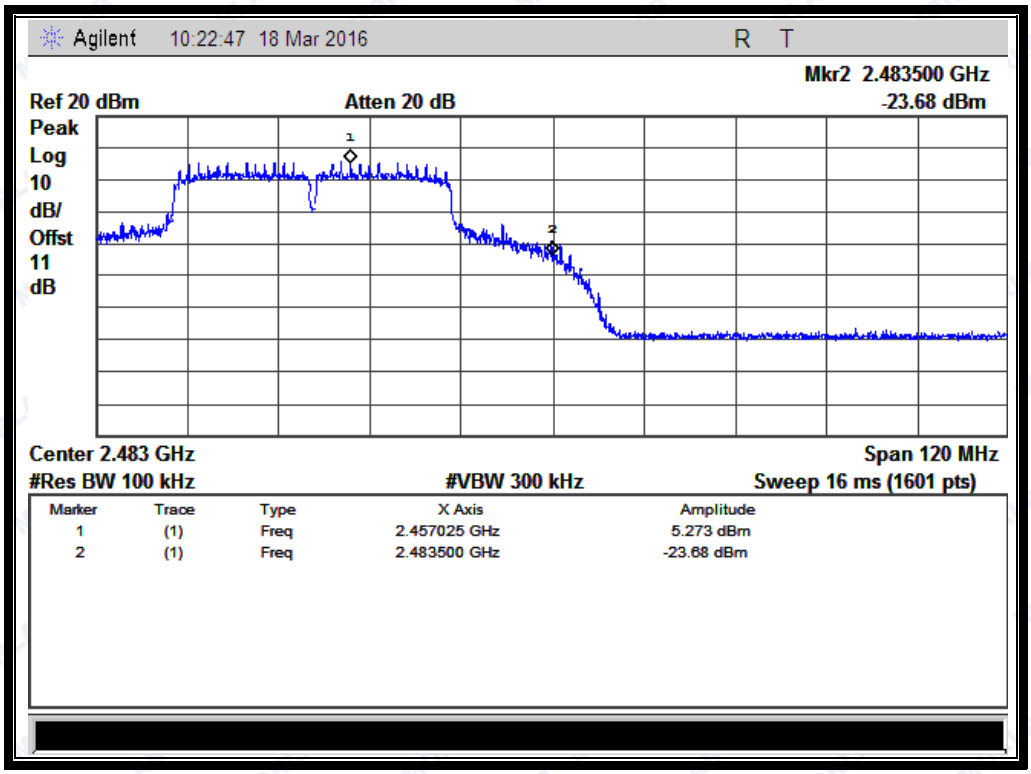
(Band Edge @ Channel = 3)



(Channel = 6, 30MHz to 25GHz)



(Channel = 9, 30MHz to 25GHz)



(Band Edge @ Channel = 9)

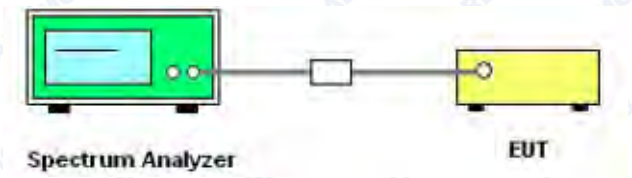
2.5 Power spectral density (PSD)

2.5.1 Requirement

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

2.5.2 Test Description

A. Test Set:



The EUT 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 Section 10.2 was used in order to prove compliance.

B. Equipments List:

Please reference ANNEX A(1.4).

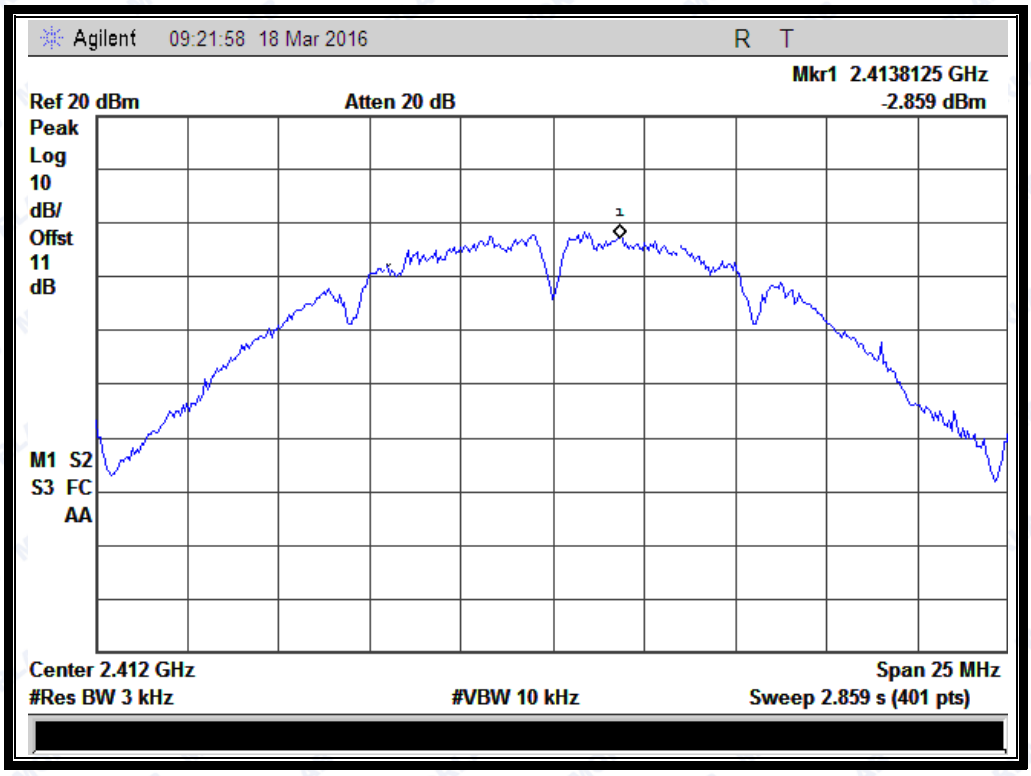
2.5.3 Test Result

2.5.3.1 802.11b Test mode

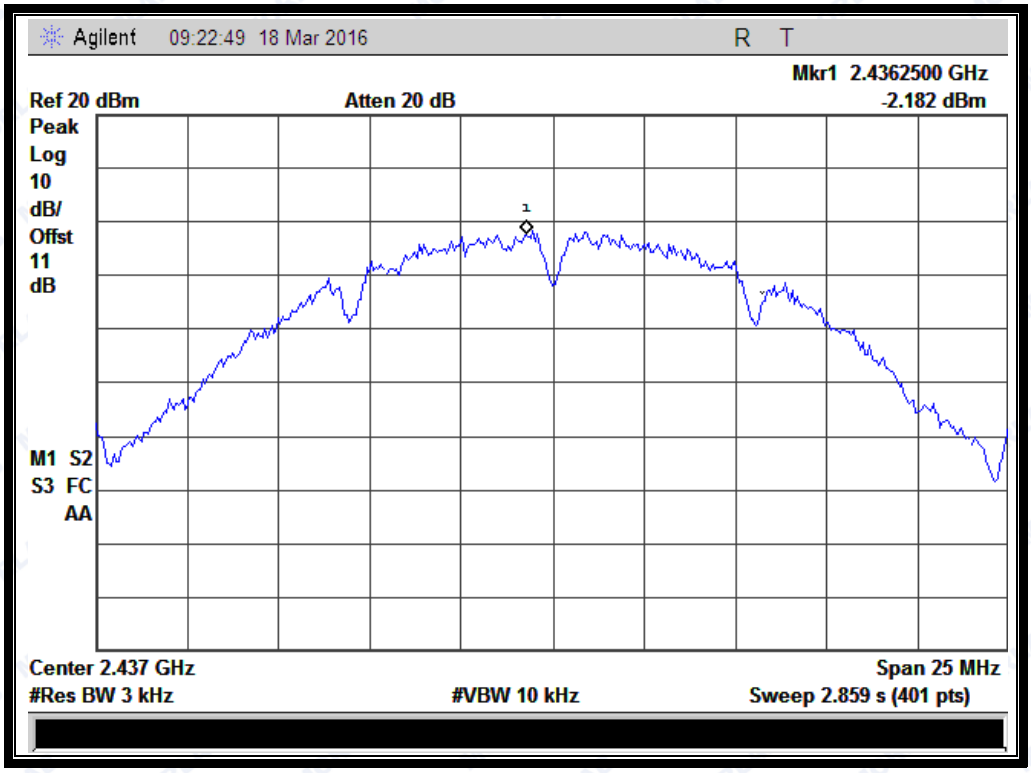
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
1	2412	-2.86	8	PASS
6	2437	-2.18	8	PASS
11	2462	-1.44	8	PASS
Measurement uncertainty: ±1.3dB				

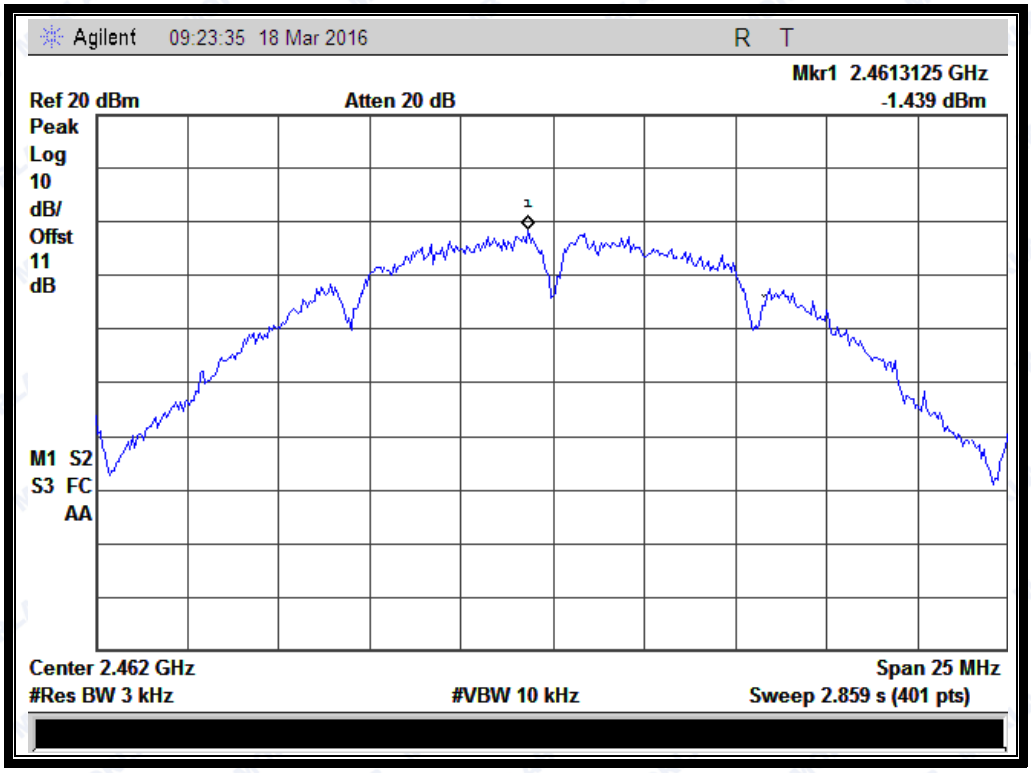
B. Test Plots:



(Channel = 1 @ 802.11b)



(Channel = 6 @ 802.11b)



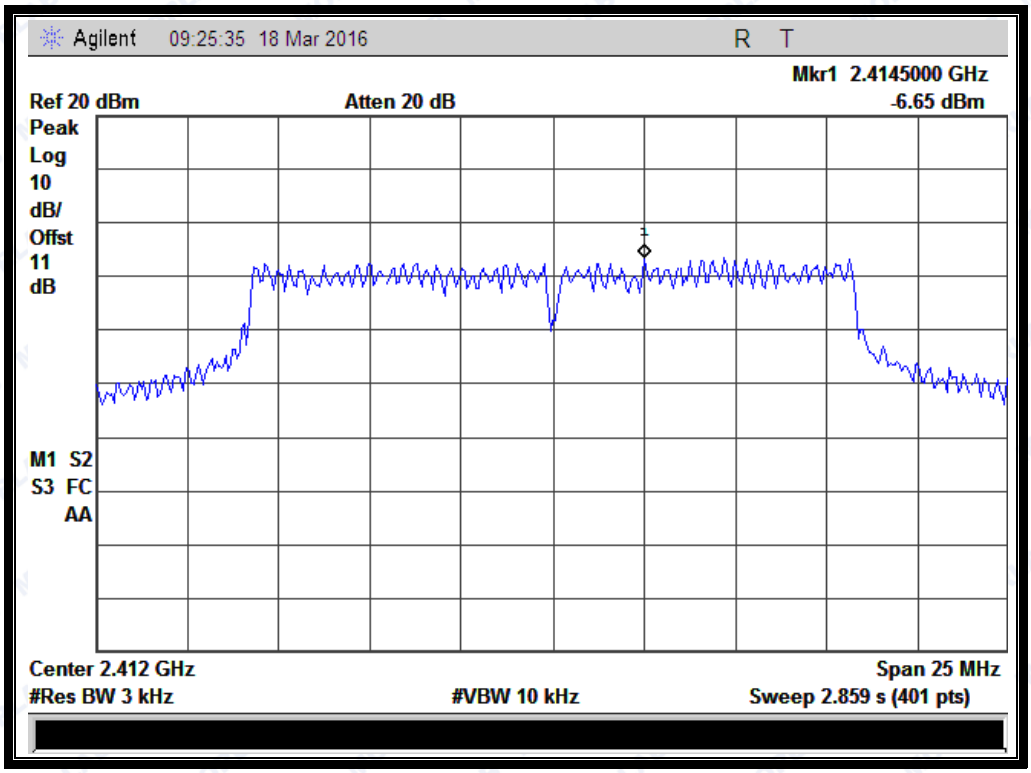
(Channel = 11 @ 802.11b)

2.5.3.2 802.11g Test mode

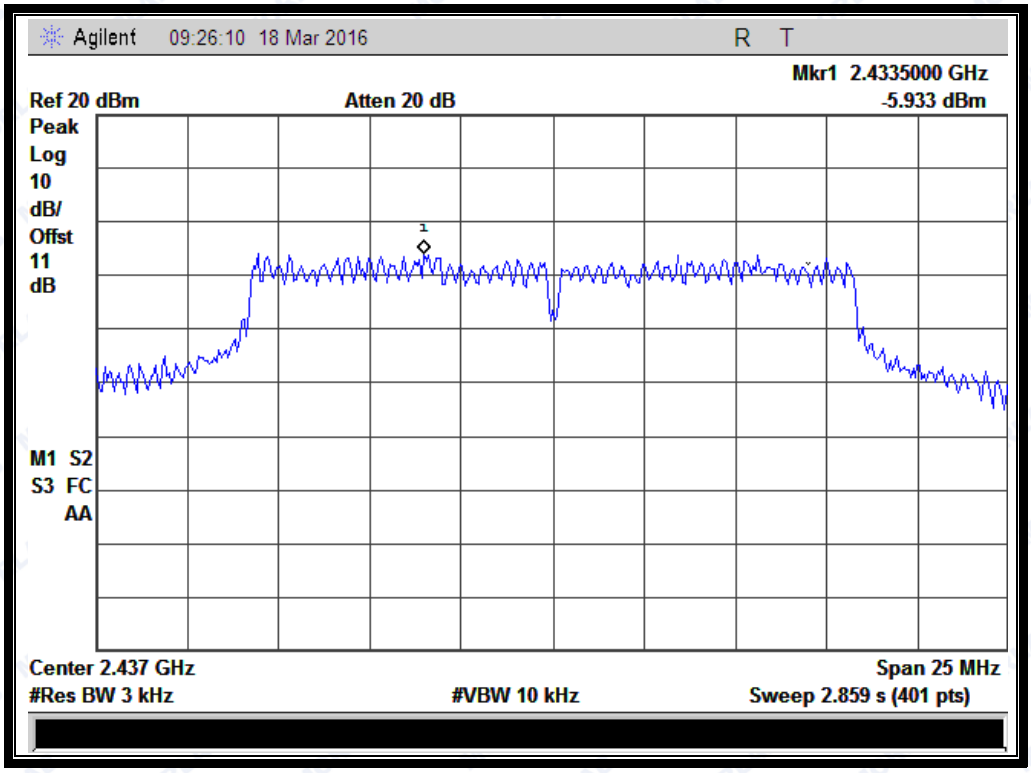
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
1	2412	-6.65	8	PASS
6	2437	-5.93	8	PASS
11	2462	-6.02	8	PASS
Measurement uncertainty: ±1.3dB				

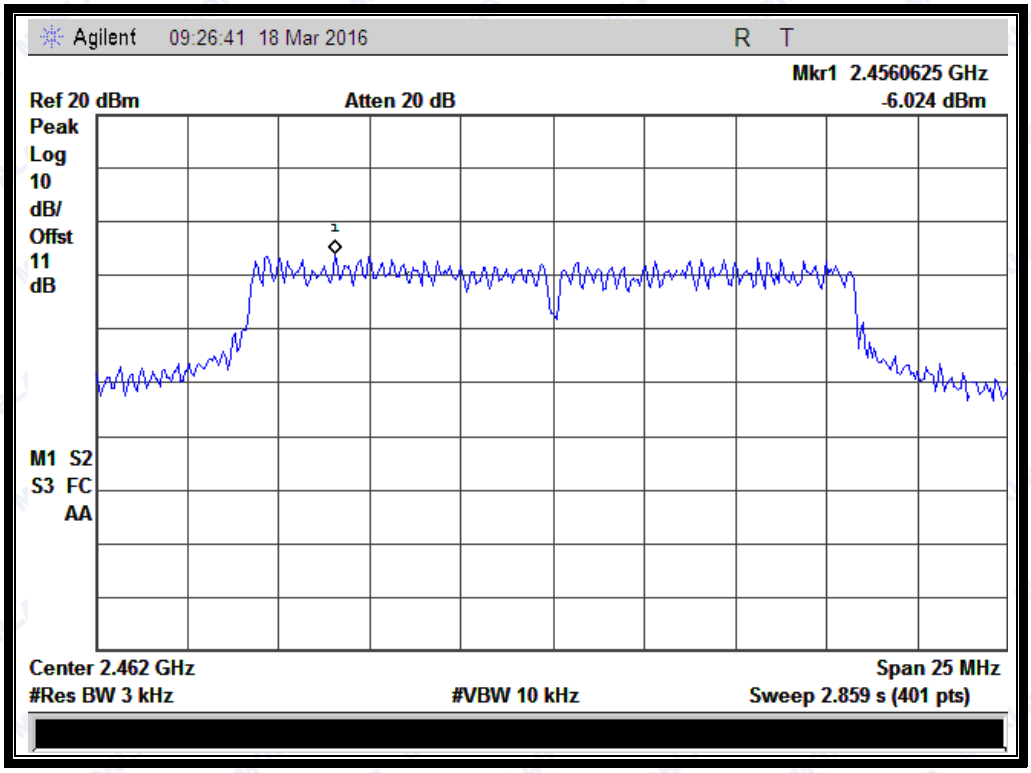
B. Test Plots:



(Channel = 1 @ 802.11g)



(Channel = 6 @ 802.11g)



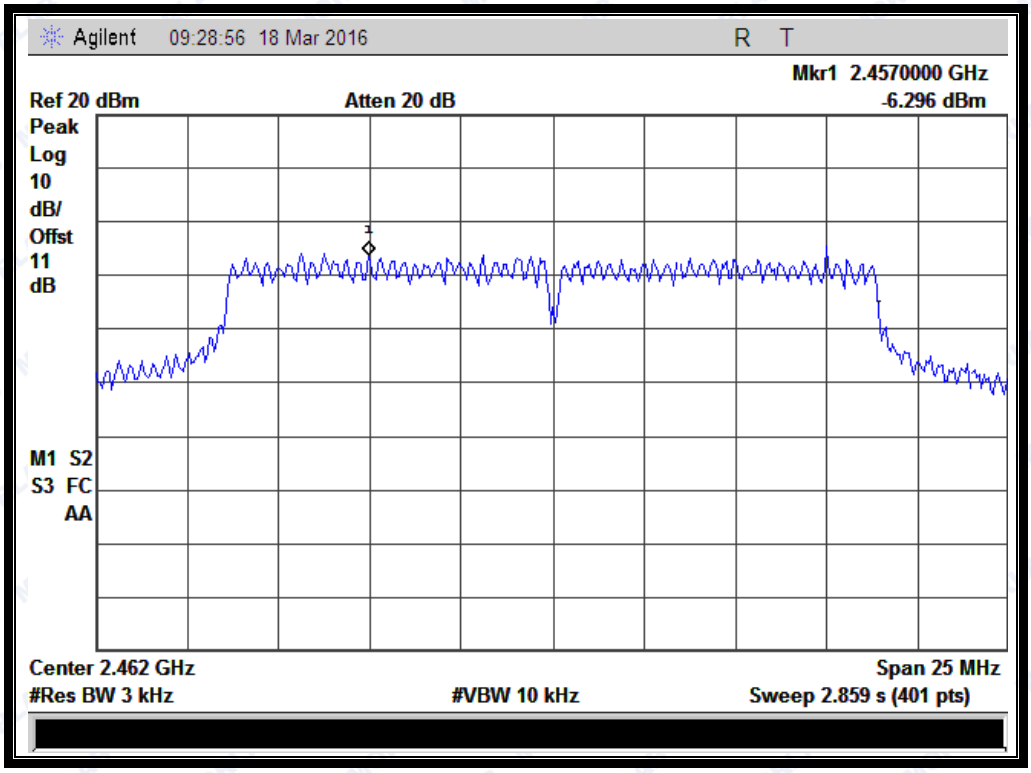
(Channel = 11 @ 802.11g)

2.5.3.3 802.11n-20MHz Test mode

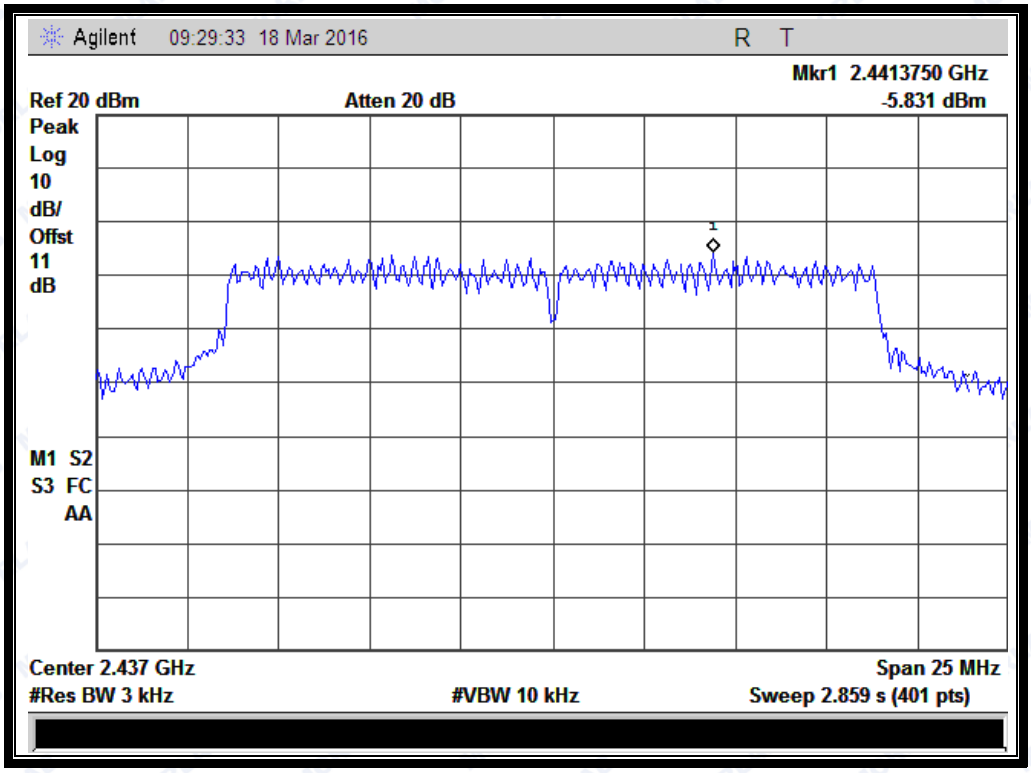
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
1	2412	-6.30	8	PASS
6	2437	-5.83	8	PASS
11	2462	-6.58	8	PASS
Measurement uncertainty: ±1.3dB				

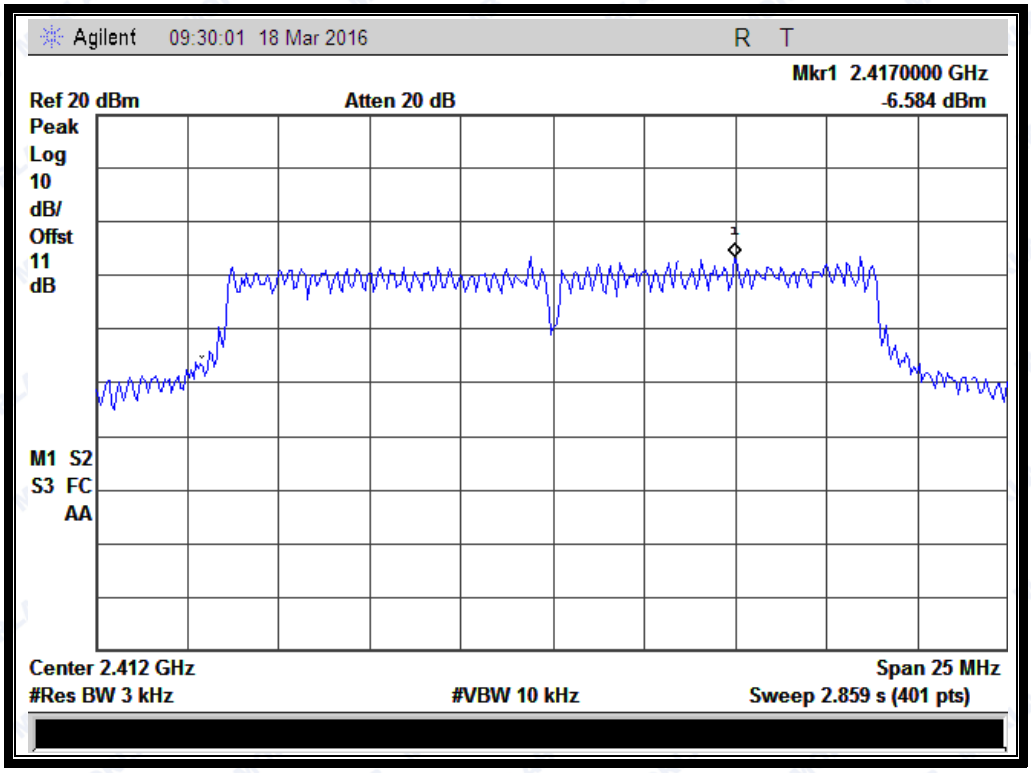
B. Test Plots:



(Channel = 1 @ 802.11n-20MHz)



(Channel = 6 @ 802.11n-20MHz)



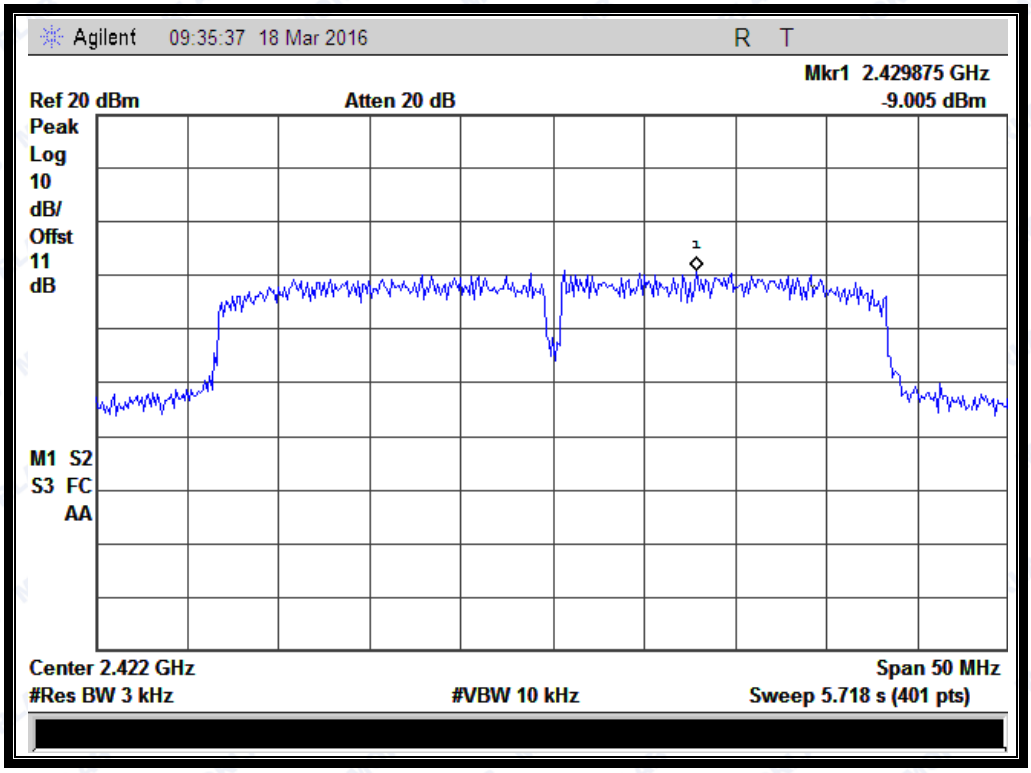
(Channel = 11 @ 802.11n-20MHz)

2.5.3.4 802.11n-40MHz Test mode

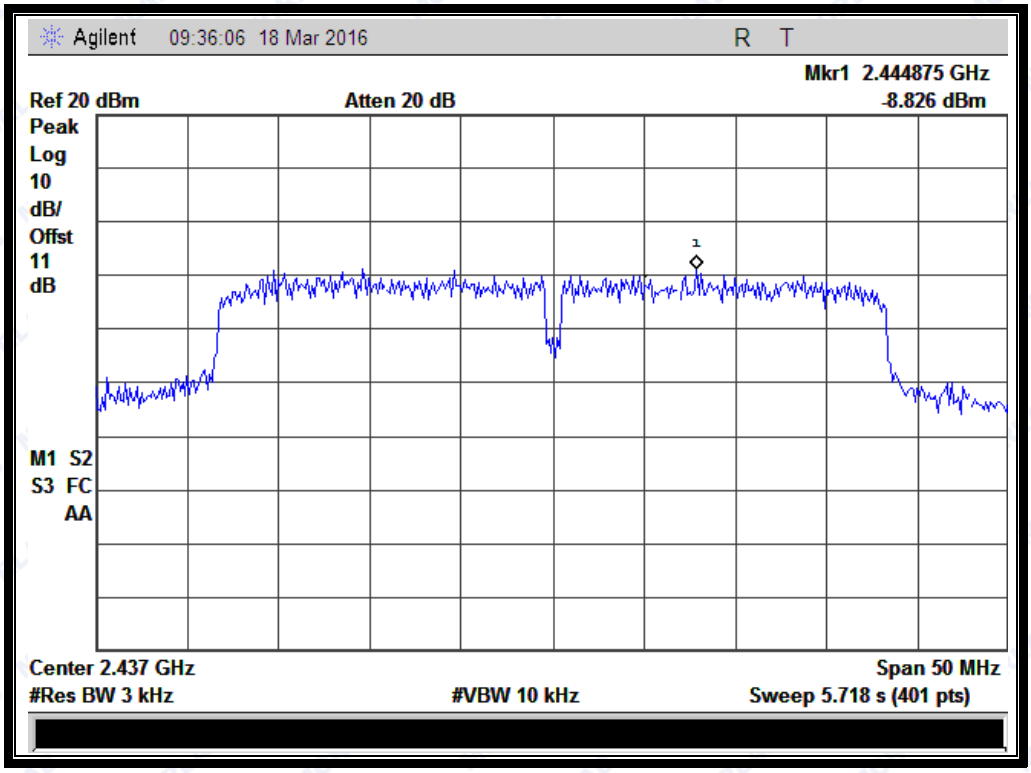
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
3	2422	-9.01	8	PASS
6	2437	-8.83	8	PASS
9	2452	-9.18	8	PASS
Measurement uncertainty: ±1.3dB				

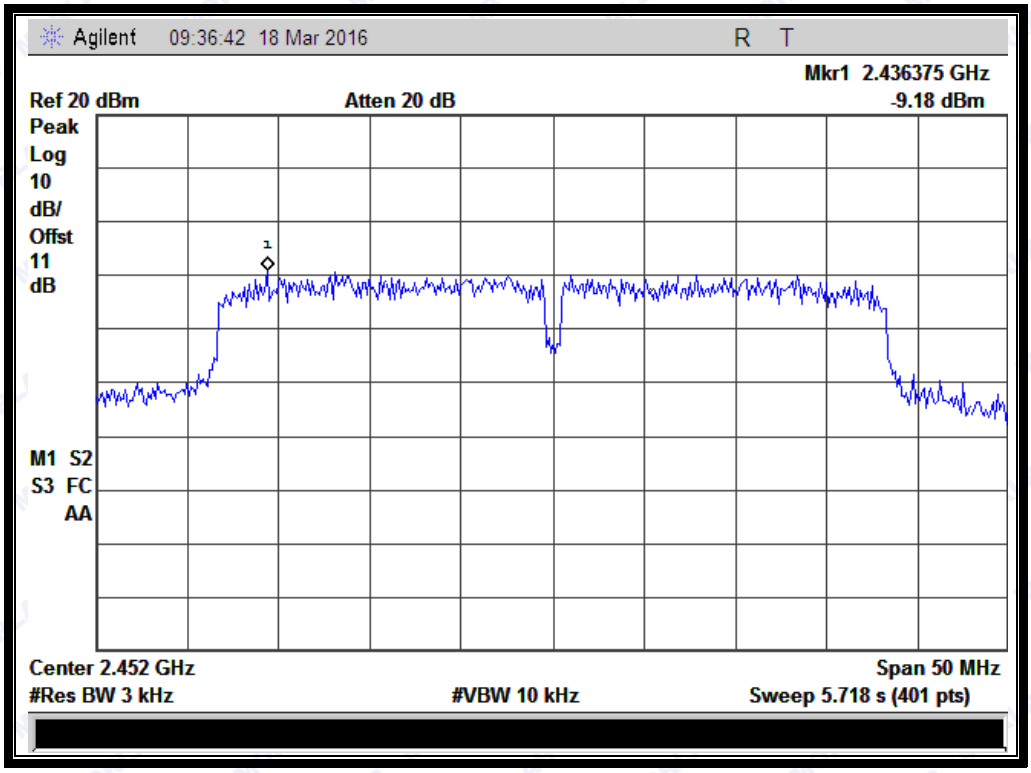
B. Test Plots:



(Channel = 3 @ 802.11n-40MHz)



(Channel = 6 @ 802.11n-40MHz)



(Channel = 9 @ 802.11n-40MHz)

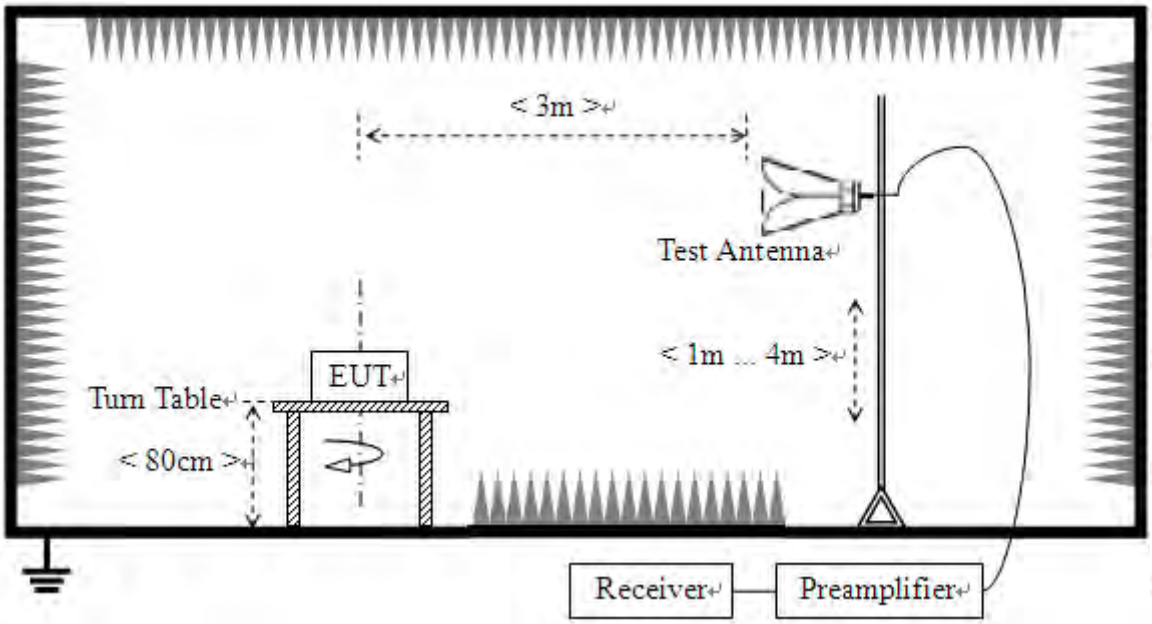
2.6 Restricted Frequency Bands

2.6.1 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).

2.6.2 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 Section 12.1 was used in order to prove compliance.

B. Equipments List:

Please reference ANNEX A(1.4).

2.6.3 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.

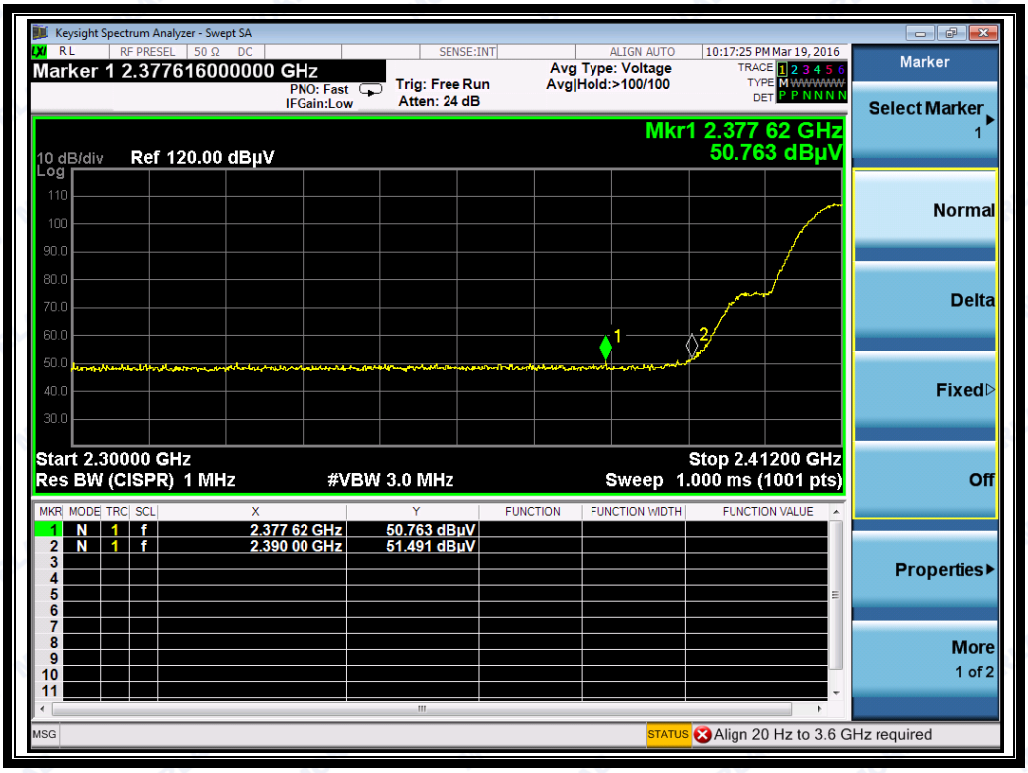
2.6.3.1 802.11b Test mode

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

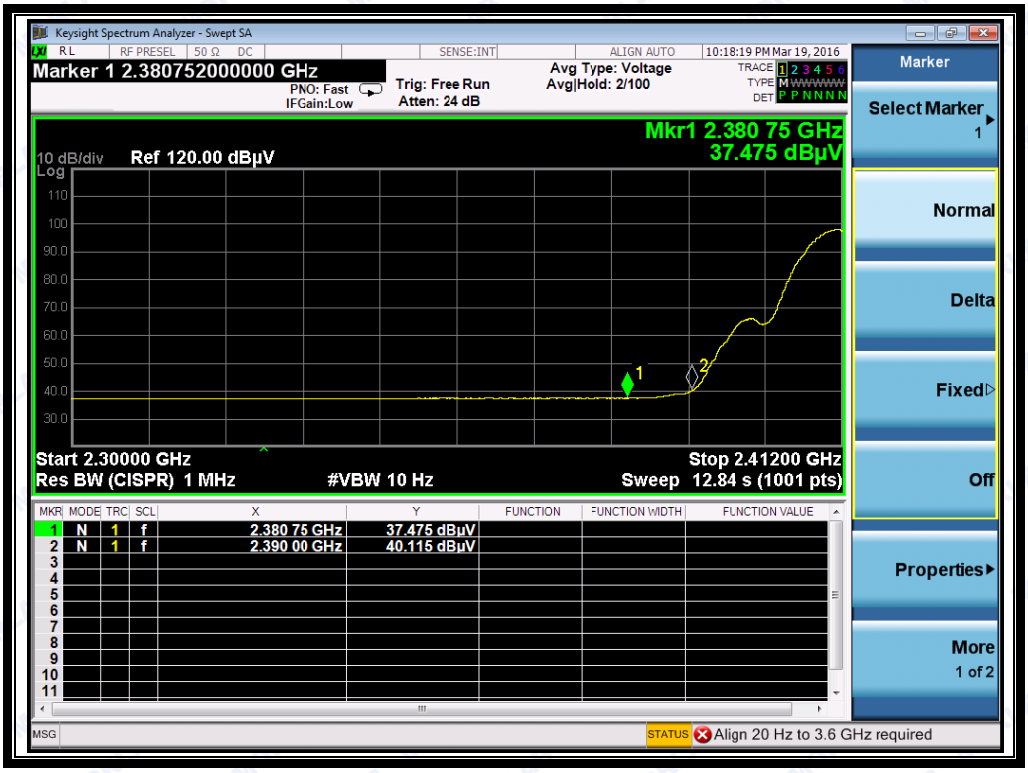
A. Test Verdict:

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBuV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
1	2377.62	PK	50.76	-33.63	32.56	49.69	74	Pass
1	2380.75	AV	37.48	-33.63	32.56	36.41	54	Pass
11	2485.10	PK	50.77	-33.18	32.5	50.09	74	Pass
11	2486.47	AV	38.87	-33.18	32.5	38.19	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)

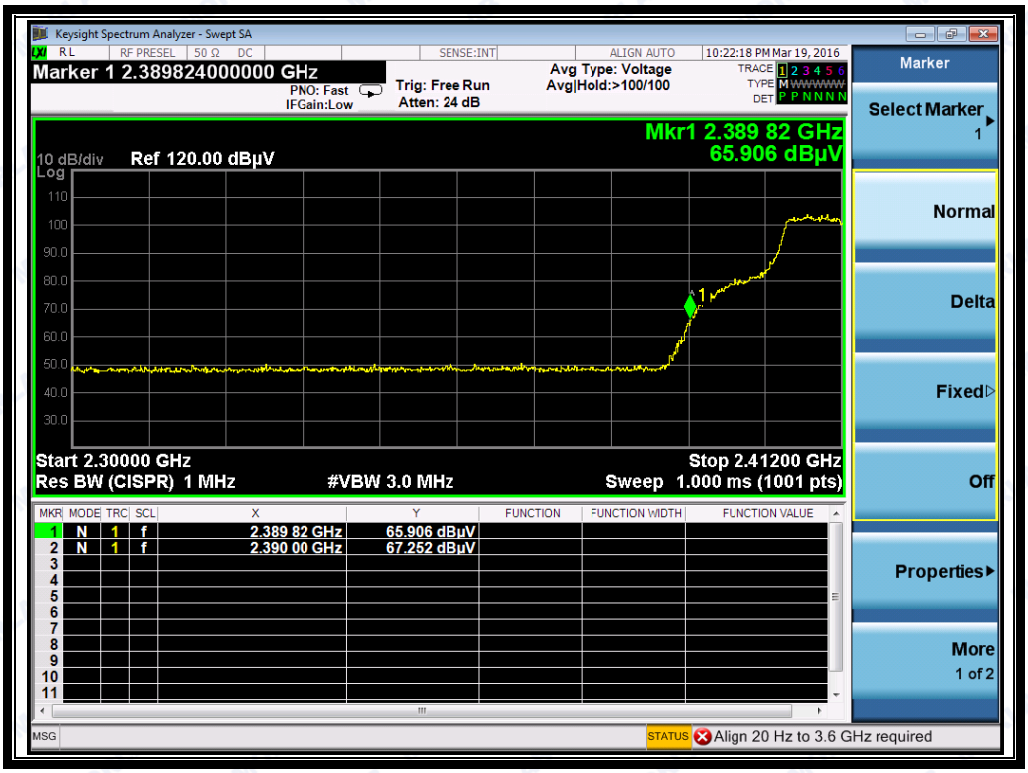
2.6.3.2 802.11g Test mode

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

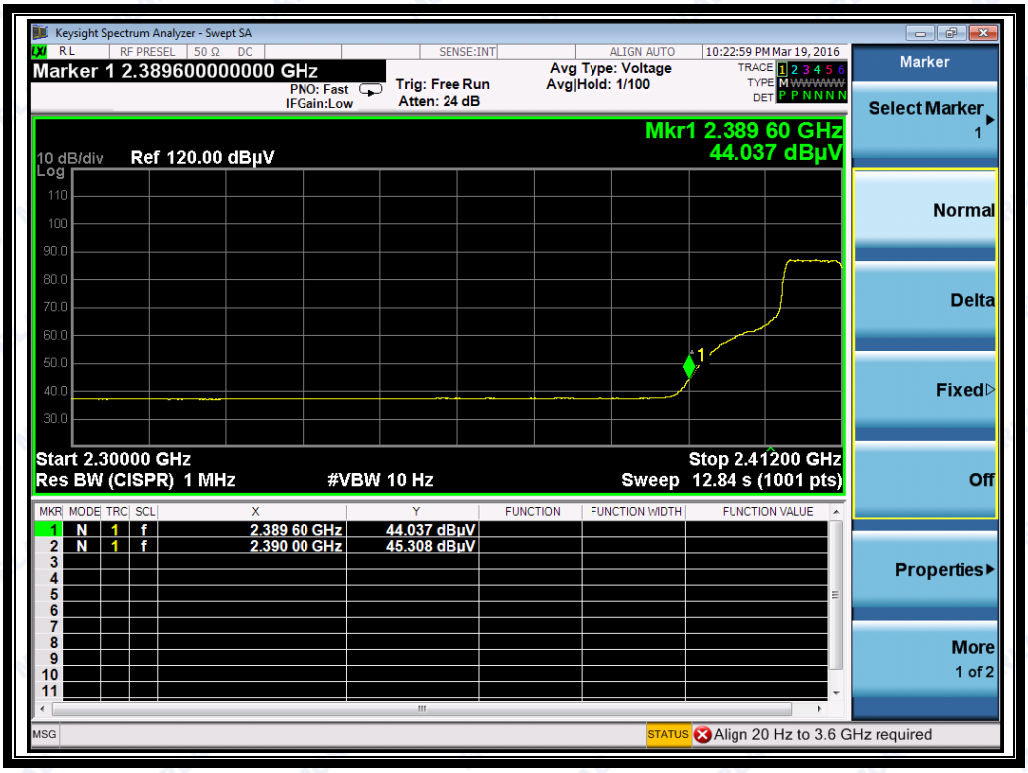
A. Test Verdict:

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBuV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
1	2389.82	PK	65.91	-33.63	32.56	64.84	74	Pass
1	2389.60	AV	44.04	-33.63	32.56	42.97	54	Pass
11	2484.12	PK	67.78	-33.18	32.5	67.10	74	Pass
11	2483.81	AV	46.86	-33.18	32.5	46.18	54	Pass

B. Test Plots:

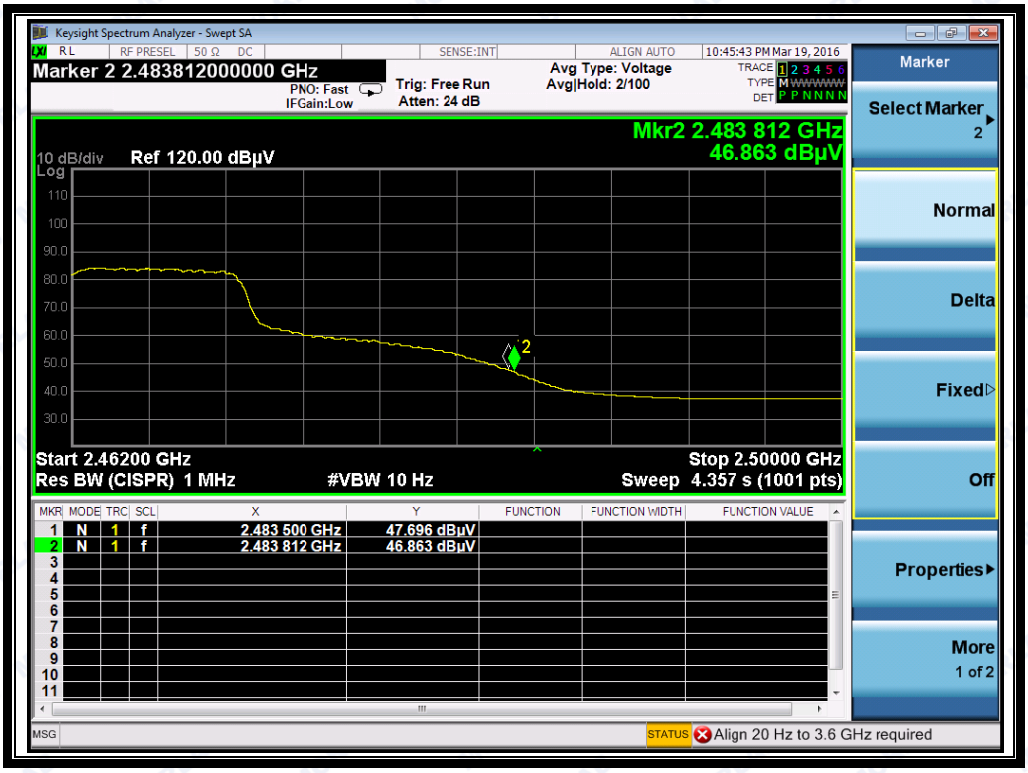


(Plot C1: Channel = 1 PEAK @ 802.11g)



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

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



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

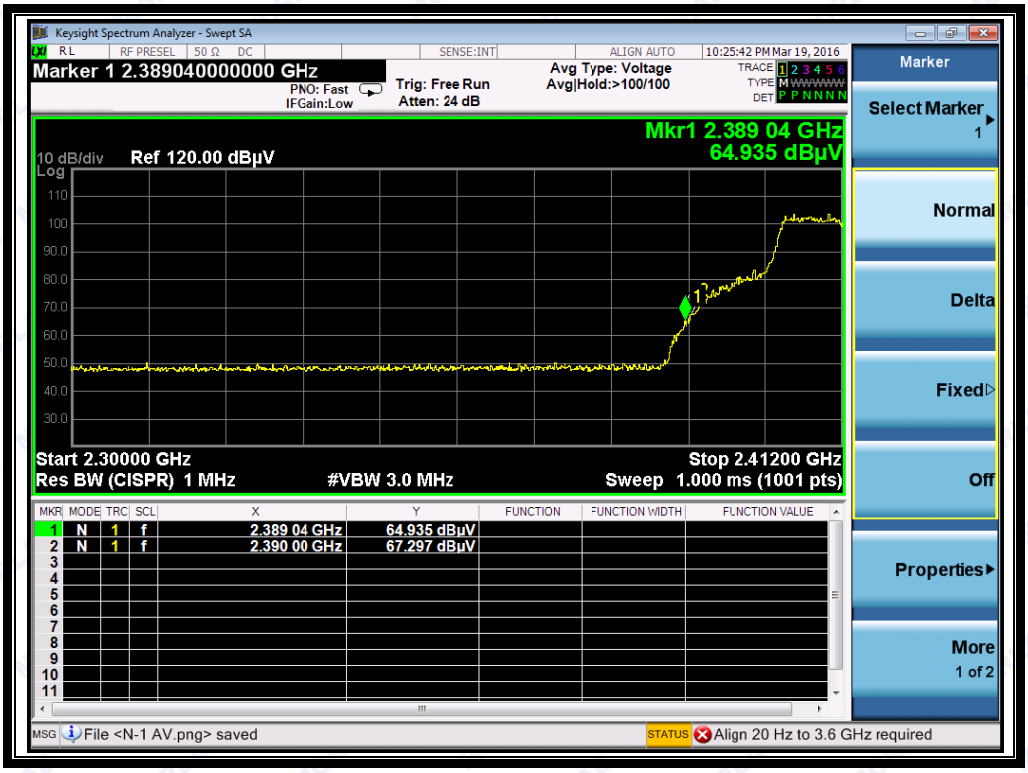
2.6.3.3 802.11n-20MHz Test mode

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

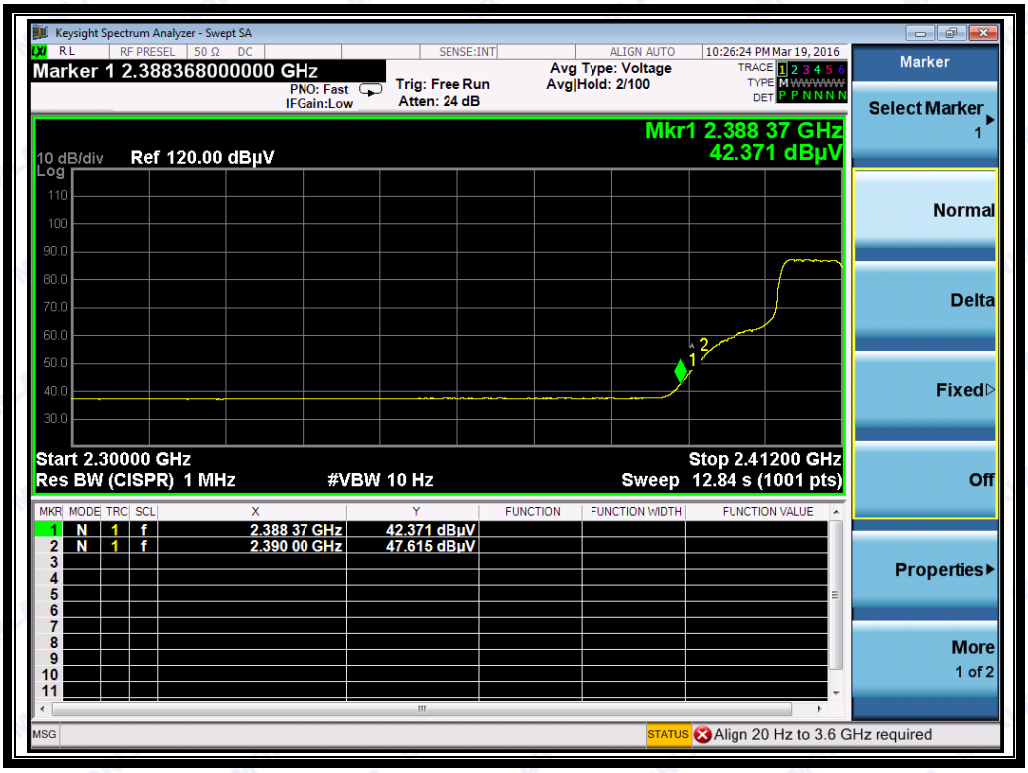
A. Test Verdict:

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBuV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBµV/m)	Limit (dBµV/m)	Verdict
1	2389.04	PK	64.94	-33.63	32.56	63.87	74	Pass
1	2388.37	AV	42.37	-33.63	32.56	41.30	54	Pass
11	2484.72	PK	68.67	-33.18	32.5	67.99	74	Pass
11	2484.08	AV	48.34	-33.18	32.5	47.66	54	Pass

B. Test Plots:

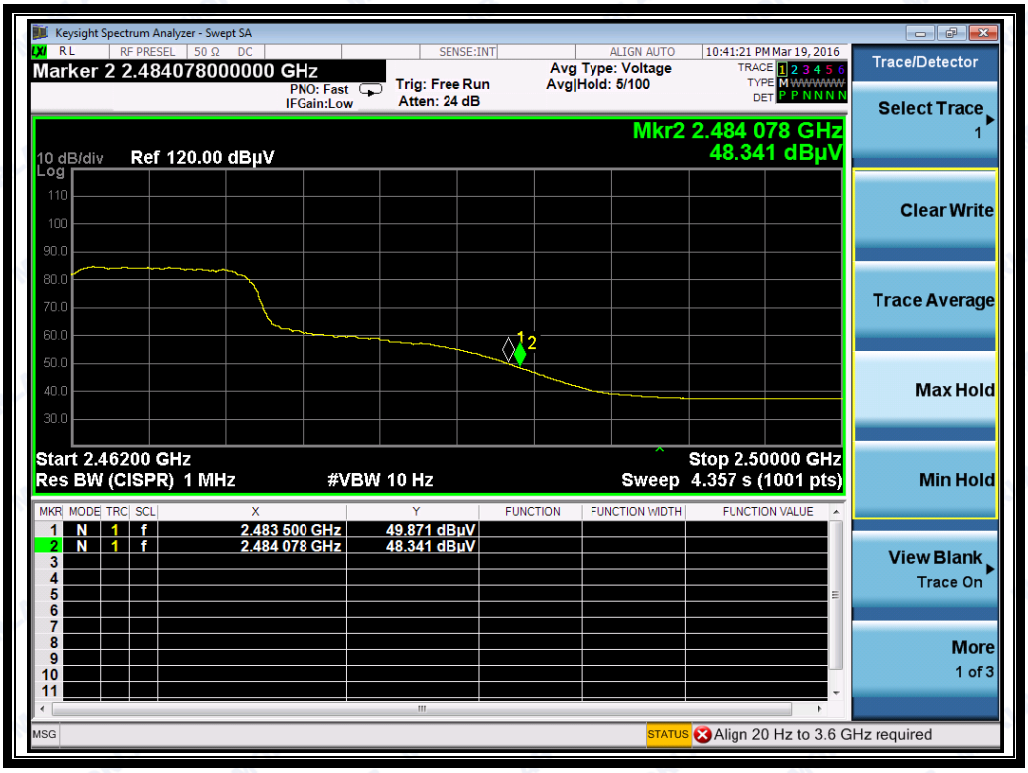


(Plot E1: Channel = 1 PEAK @ 802.11n-20)



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

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



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

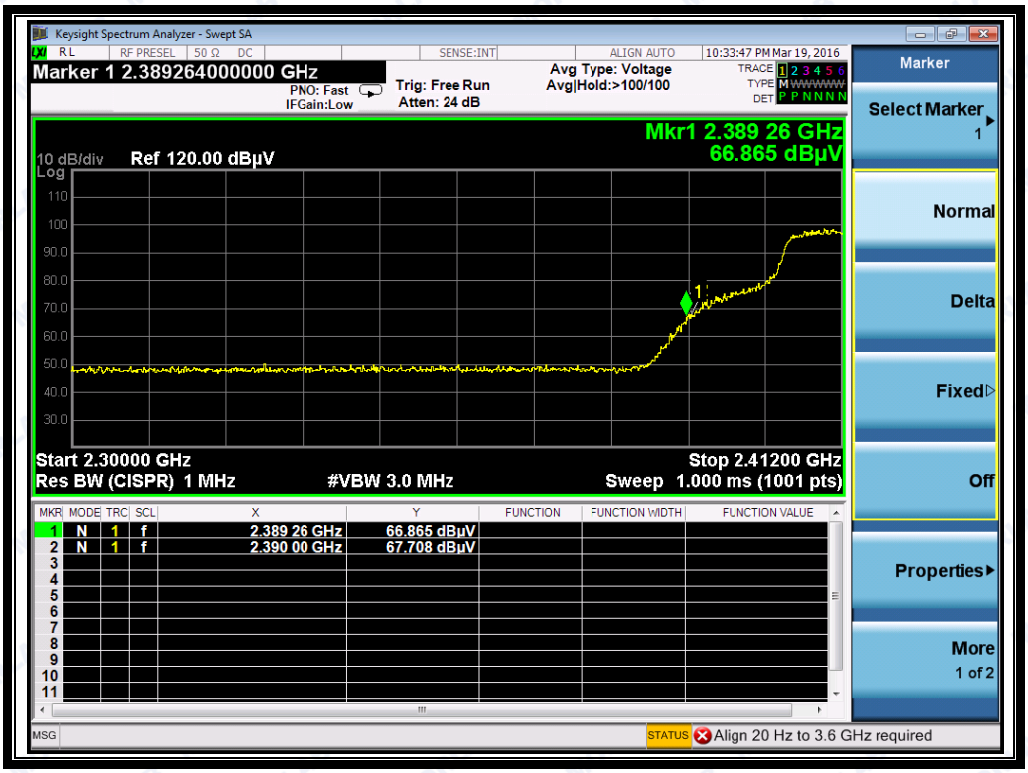
2.6.3.4 802.11n-40MHz Test mode

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

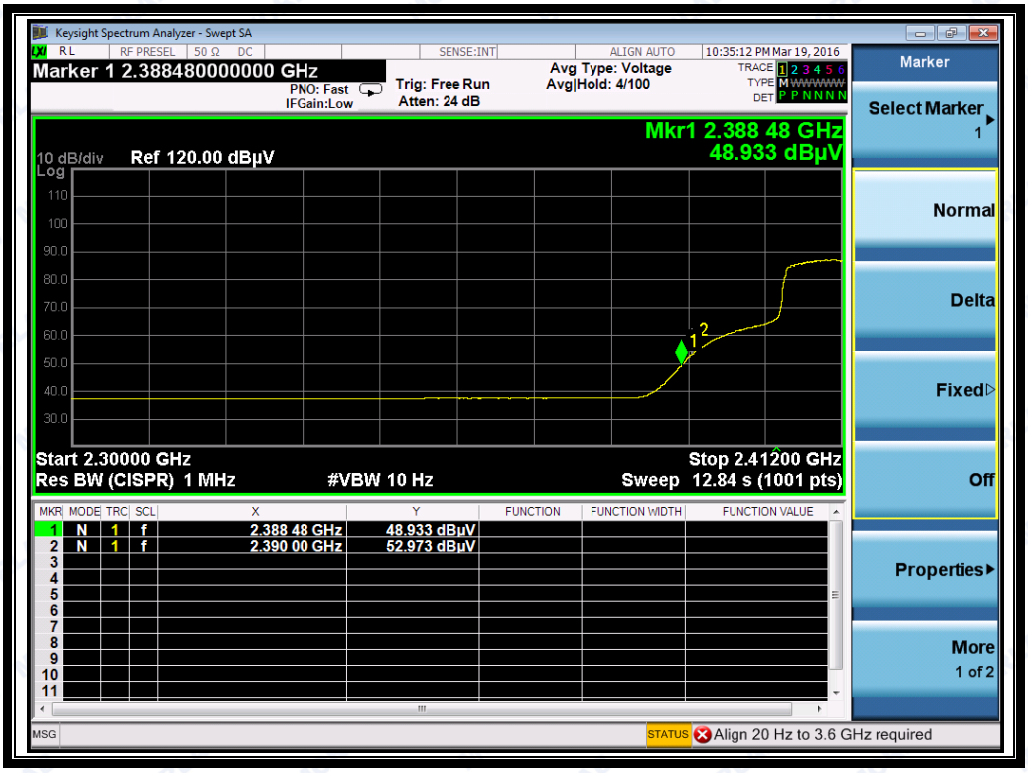
A. Test Verdict:

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBuV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
3	2389.26	PK	66.87	-33.63	32.56	65.80	74	Pass
3	2388.48	AV	48.93	-33.63	32.56	47.86	54	Pass
9	2484.19	PK	69.50	-33.18	32.5	68.82	74	Pass
9	2484.08	AV	53.65	-33.18	32.5	52.97	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)

2.7 Conducted Emission

2.7.1 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

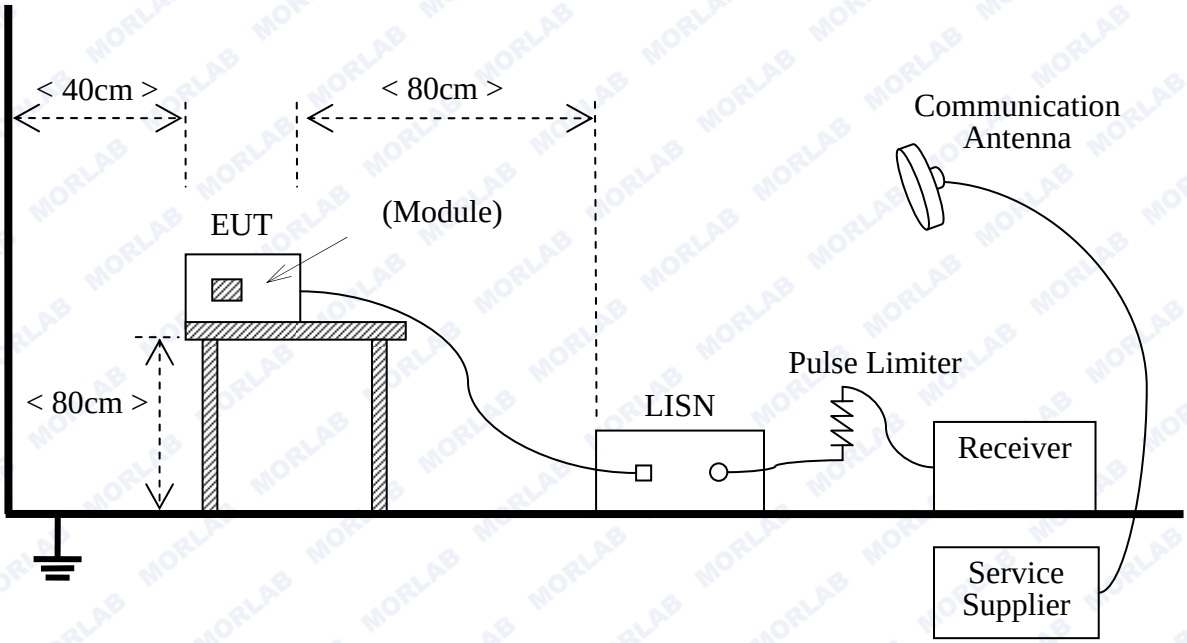
NOTE:

(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.

2.7.2 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

B. Equipments List:

Please reference ANNEX A(1.4).

2.7.3 Test Result

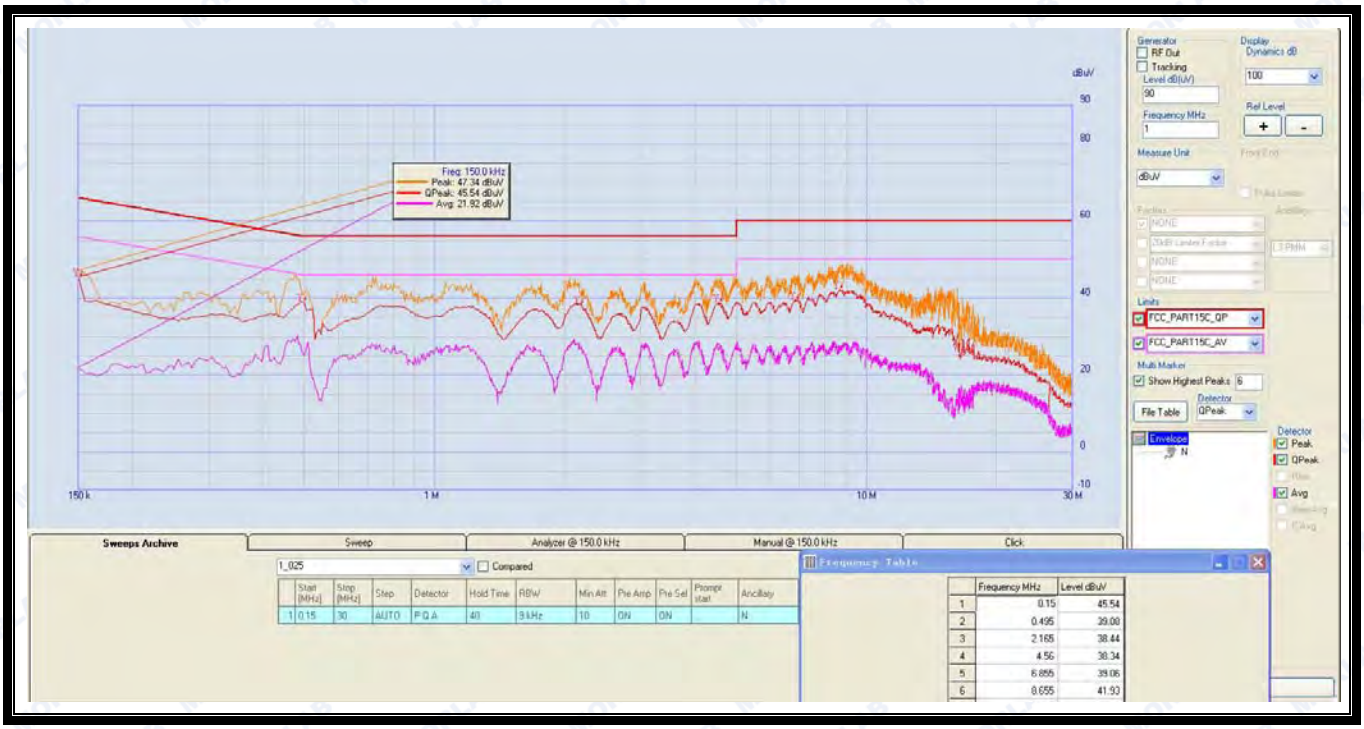
The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT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

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

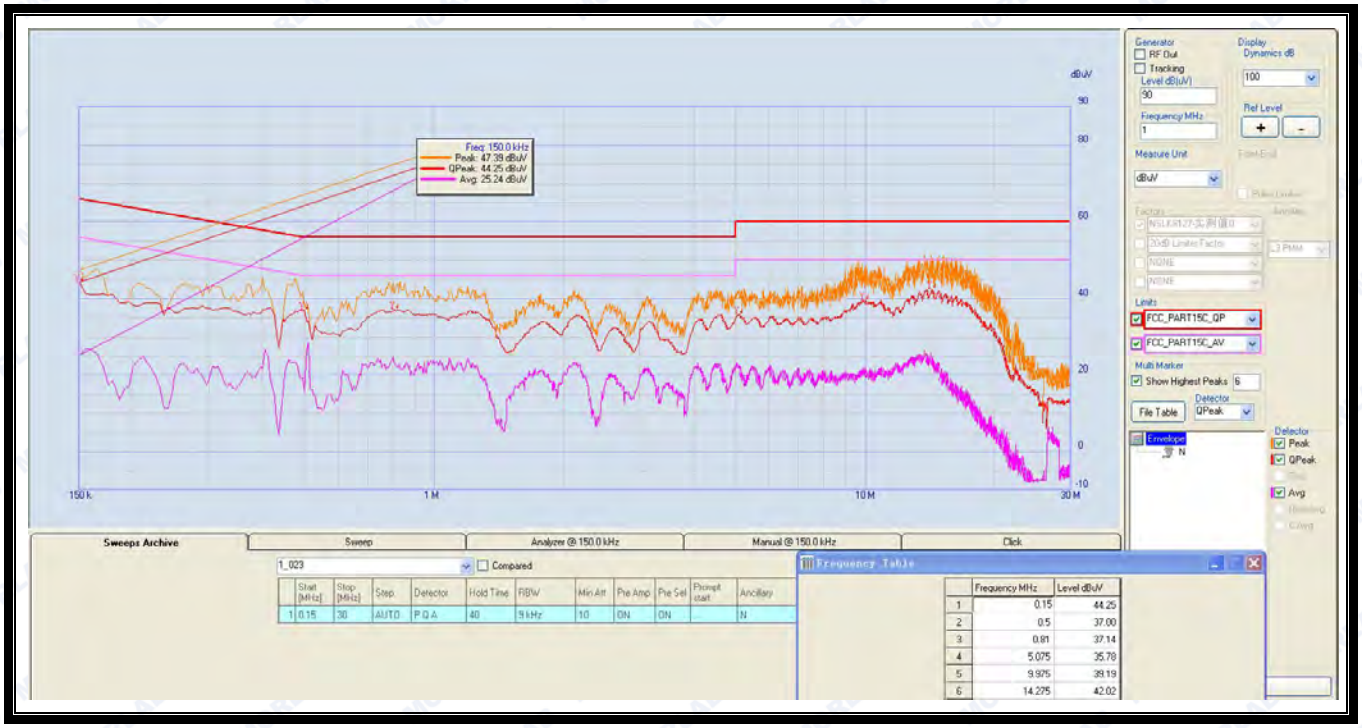
A. Test setup:

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

B. Test Plots:



(Plot A: L Phase)



(Plot B: N Phase)

2.8 Radiated Emission

2.8.1 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:

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.

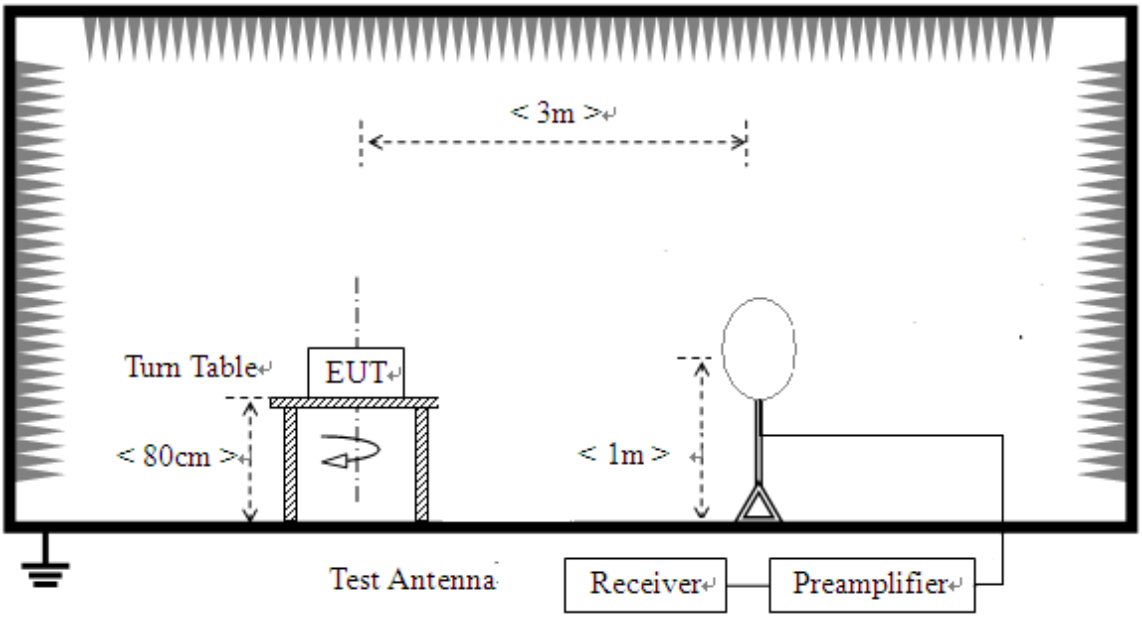
For above 1000MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK)

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)

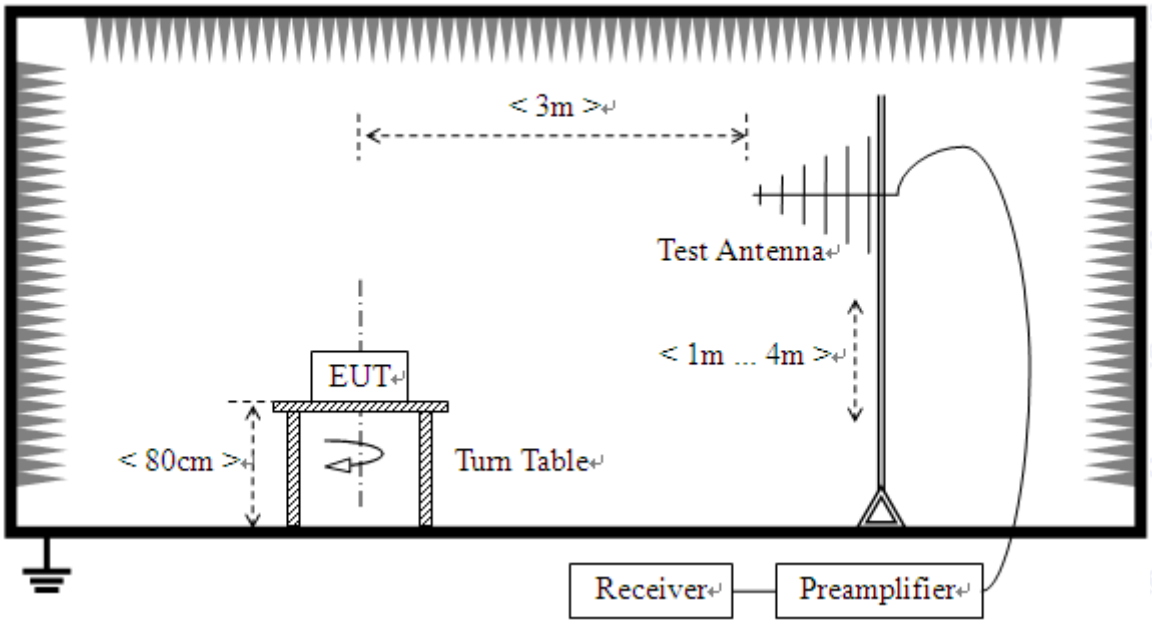
2.8.2 Test Description

A. Test Setup:

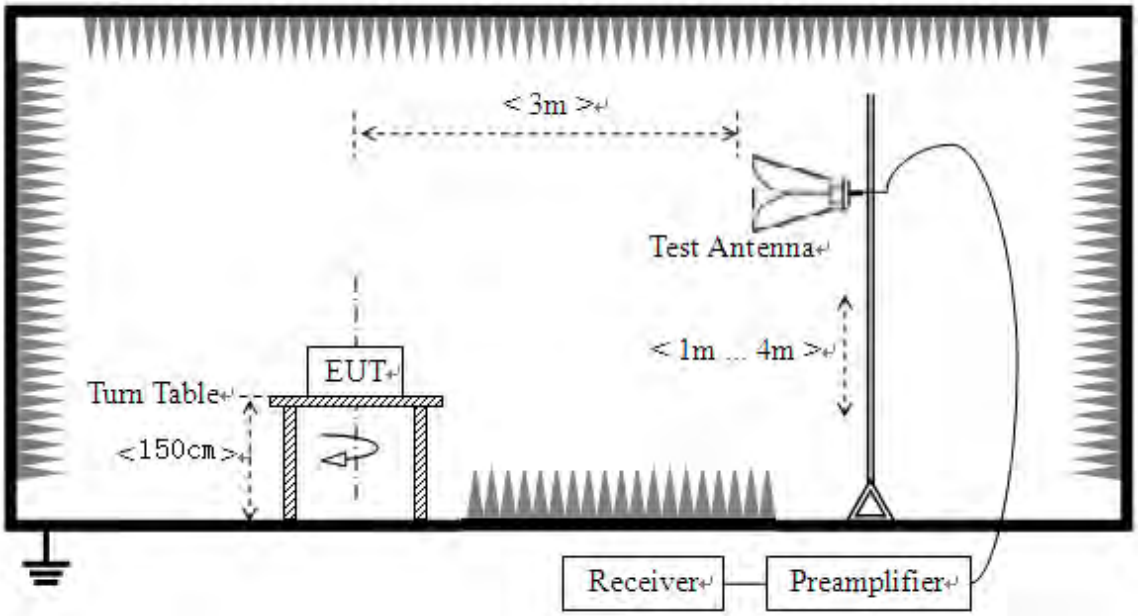
1) For radiated emissions from 9kHz to 30MHz



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 C63.10 (2013). For radiated emissions below or equal to 1GHz,The EUT was set-up on insulator 80cm above the Ground Plane, For radiated emissions above 1GHz, The EUT was set-up on insulator 150cm above the Ground Plane. The set-up and test methods were according to ANSI C63.10

For the radiated emission test above 1GHz:

Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

The EUT 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:

(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 1GHz) and Horn Test Antenna (above 1GHz) 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:

Please reference ANNEX A(1.4).

2.8.3 Test Result

According to ANSI C63.10, 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 [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

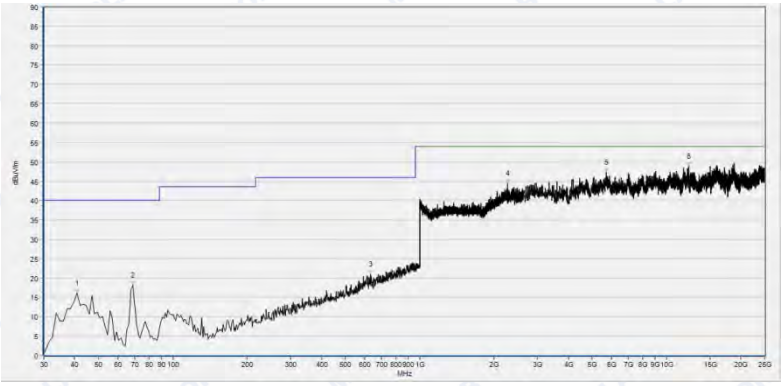
During the test, the total correction Factor A_T and A_{Factor} were built in test software.

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.

2.8.3.1 802.11b Test mode

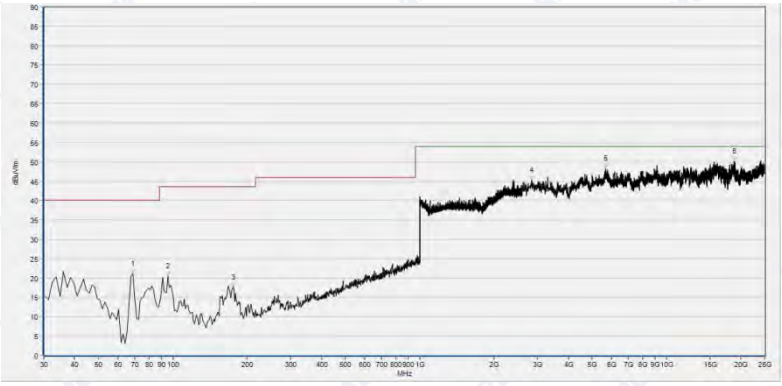
A. Test Plots for the Whole Measurement Frequency Range:

Plots for Channel = 1



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
40.926	16.11	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
68.849	18.07	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
630.939	21.01	N.A	N.A	N.A	46.00	N.A	Horizontal	PASS
2269.628	44.45	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5691.762	47.34	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
12298.927	48.69	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

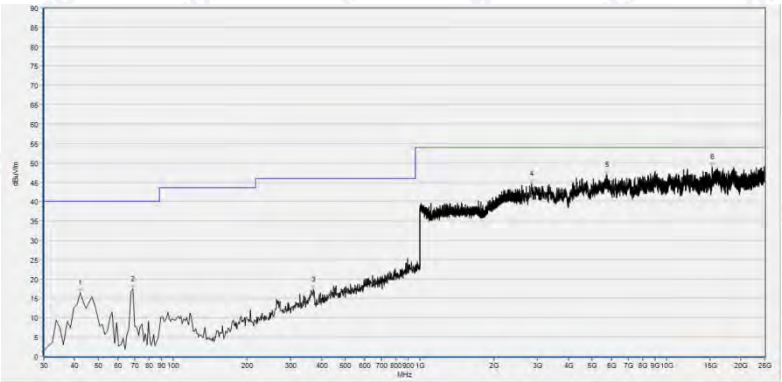
(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
68.849	21.09	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
95.557	20.46	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
175.682	17.66	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
2836.261	45.24	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5679.542	48.29	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
18824.623	50.14	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

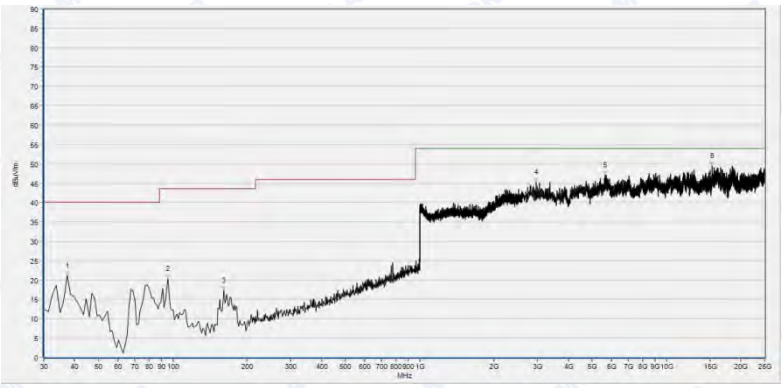
(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 6



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
42.140	16.47	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
68.849	17.48	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
369.925	17.19	N.A	N.A	N.A	46.00	N.A	Horizontal	PASS
2836.261	44.55	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5748.791	46.94	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
15325.514	48.96	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

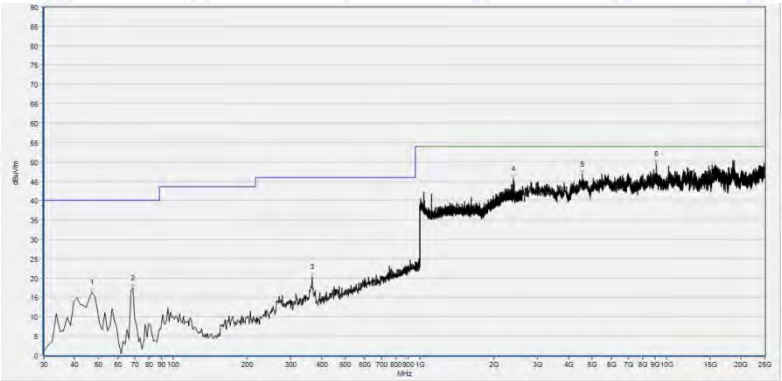
(Antenna Horizontal, 30MHz to 25GHz)



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
37.284	21.18	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
95.557	20.28	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
161.114	17.19	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
2962.539	45.29	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5646.954	47.17	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15325.514	49.43	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

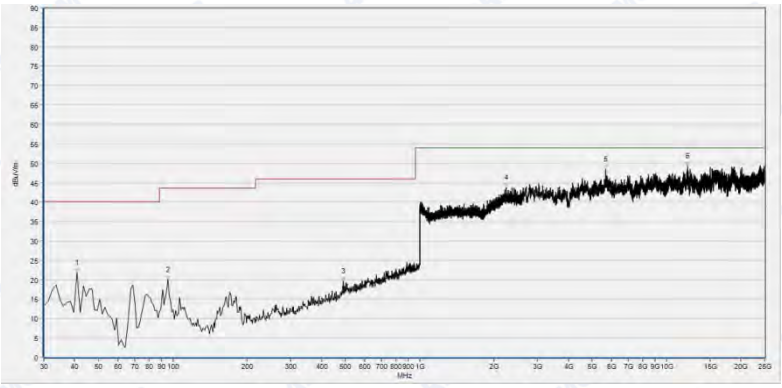
(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 11



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
46.996	16.26	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
68.849	17.45	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
366.283	20.20	N.A	N.A	N.A	46.00	N.A	Horizontal	PASS
2393.838	45.51	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
4563.412	46.70	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
9105.328	49.43	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 25GHz)



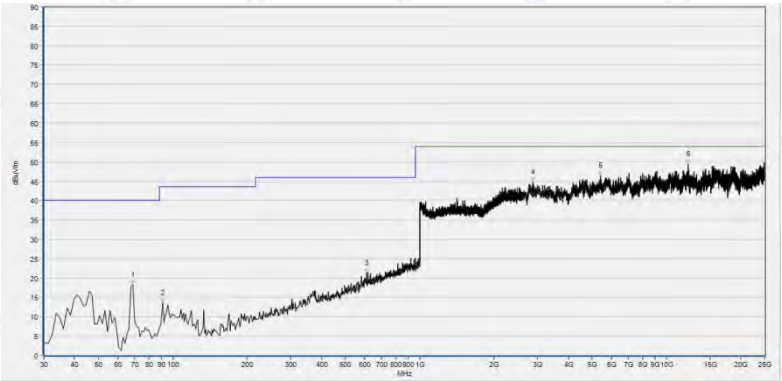
Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
40.926	21.81	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
95.557	19.96	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
491.327	19.56	N.A	N.A	N.A	46.00	N.A	Vertical	PASS
2242.737	43.66	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5659.174	48.51	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
12193.017	49.26	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

2.8.3.2 802.11g Test mode

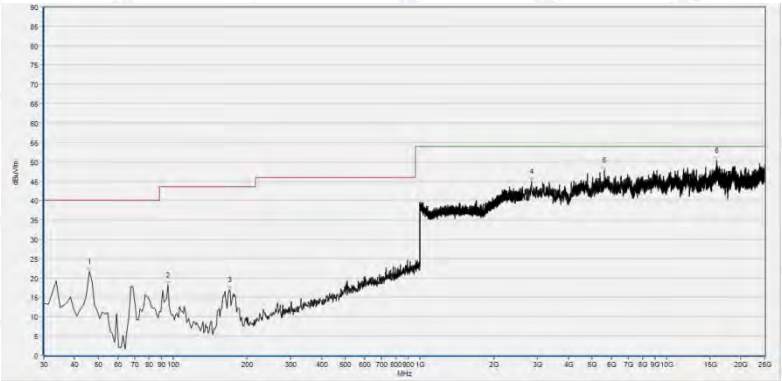
A. Test Plots for the Whole Measurement Frequency Range:

Plots for Channel = 1



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
68.849	18.23	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
90.701	13.65	N.A	N.A	N.A	43.50	N.A	Horizontal	PASS
607.872	21.23	N.A	N.A	N.A	46.00	N.A	Horizontal	PASS
2876.996	44.69	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5402.546	46.36	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
12201.164	49.44	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

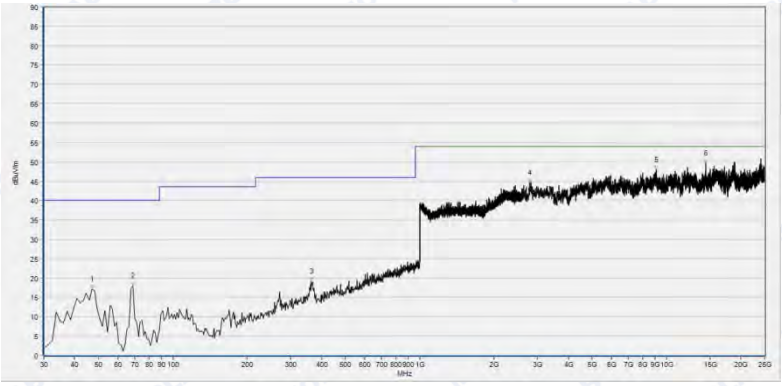
(Antenna Horizontal, 30MHz to 25GHz)



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
45.782	21.69	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
95.557	18.14	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
169.612	16.89	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
2836.261	44.97	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5610.293	47.82	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
16005.783	50.29	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

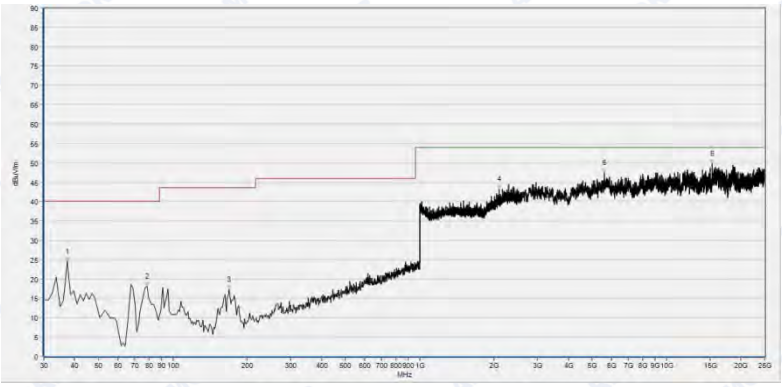
(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 6



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
46.996	17.03	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
68.849	17.92	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
363.855	19.15	N.A	N.A	N.A	46.00	N.A	Horizontal	PASS
2787.380	44.60	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
9068.667	47.95	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
14445.645	49.65	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

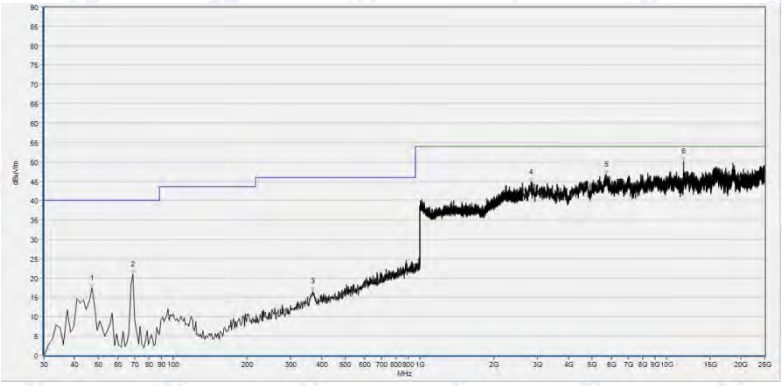
(Antenna Horizontal, 30MHz to 25GHz)



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
37.284	24.39	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
78.561	18.05	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
168.398	17.23	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
2092.917	43.17	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5593.999	47.35	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15341.808	49.75	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

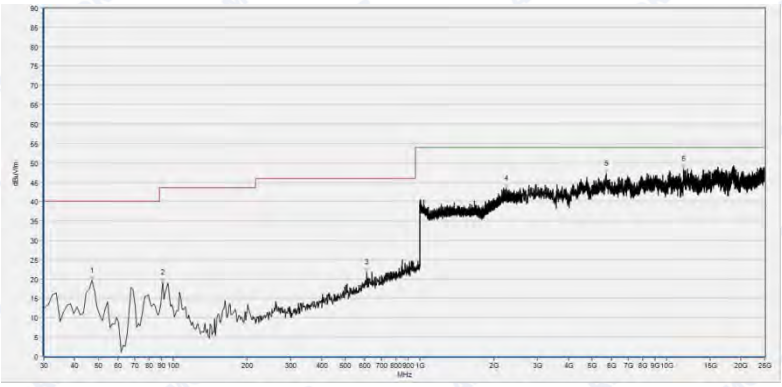
(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 11



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
46.996	17.39	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
68.849	21.02	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
367.497	16.56	N.A	N.A	N.A	46.00	N.A	Horizontal	PASS
2828.114	44.73	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5687.689	46.83	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
11744.935	50.11	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 25GHz)



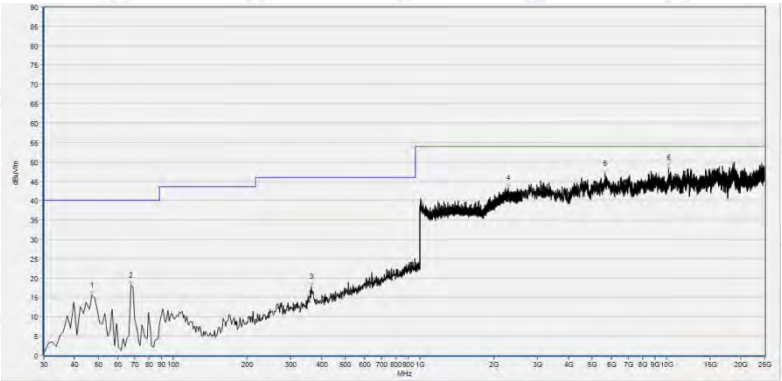
Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
46.996	19.58	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
90.701	19.03	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
610.300	21.72	N.A	N.A	N.A	46.00	N.A	Vertical	PASS
2243.377	43.35	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5708.056	47.25	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
11757.156	48.38	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

2.8.3.3 802.11n-20MHz Test mode

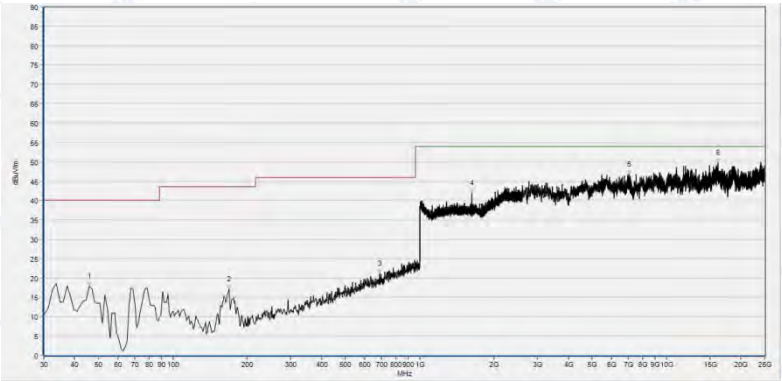
A. Test Plots for the Whole Measurement Frequency Range:

Plots for Channel = 1



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
46.996	15.63	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
67.635	18.02	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
363.855	17.83	N.A	N.A	N.A	46.00	N.A	Horizontal	PASS
2285.634	43.18	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5646.954	46.87	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
10201.091	48.49	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

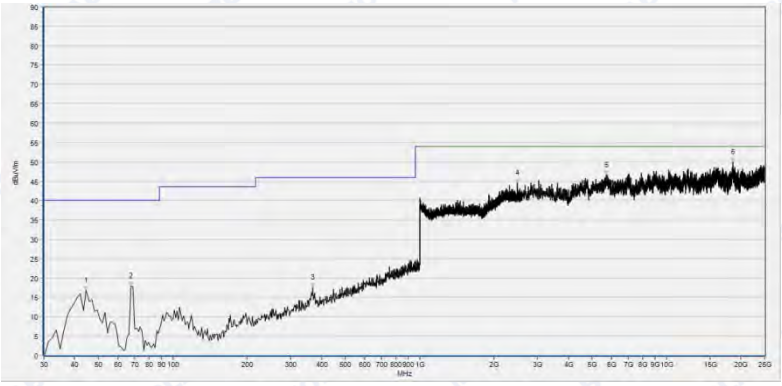
(Antenna Horizontal, 30MHz to 25GHz)



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
45.782	17.88	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
168.398	17.12	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
686.783	21.15	N.A	N.A	N.A	46.00	N.A	Vertical	PASS
1621.689	41.91	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
7031.933	46.76	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
16205.383	49.78	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

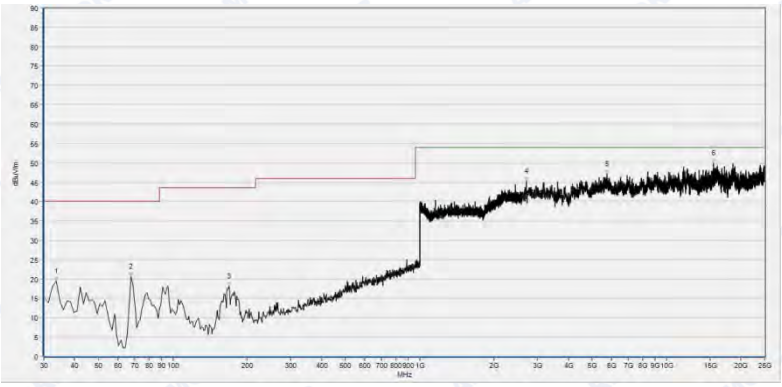
(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 6



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
44.568	16.70	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
67.635	17.89	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
367.497	17.65	N.A	N.A	N.A	46.00	N.A	Horizontal	PASS
2484.754	44.56	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5699.909	46.57	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
18584.288	49.93	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

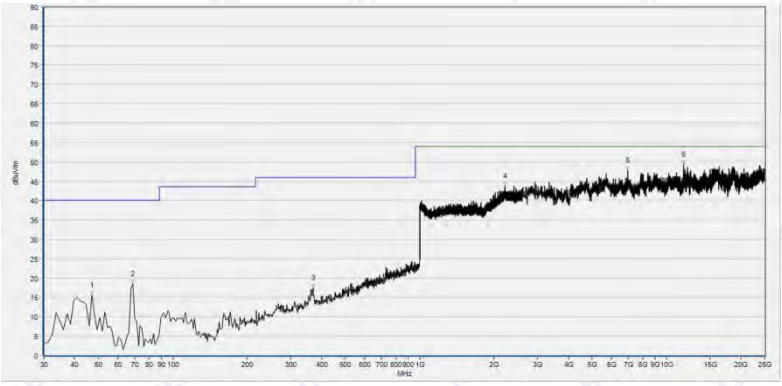
(Antenna Horizontal, 30MHz to 25GHz)



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
33.642	19.46	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
67.635	20.57	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
168.398	18.11	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
2697.763	45.27	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5748.791	47.06	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
15455.865	49.97	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

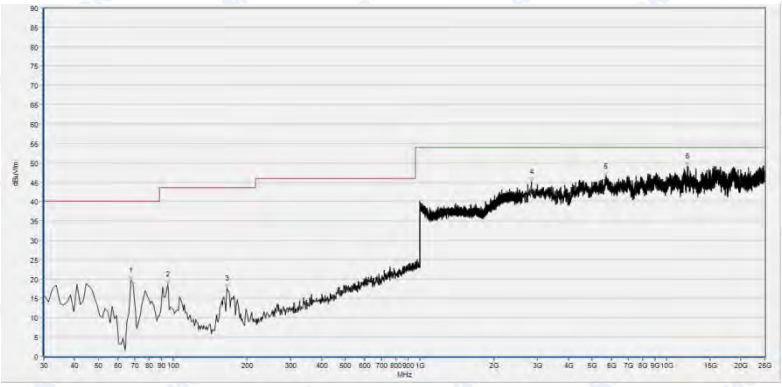
(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 11



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
46.996	15.55	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
68.849	18.49	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
369.925	17.50	N.A	N.A	N.A	46.00	N.A	Horizontal	PASS
2220.968	43.77	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
6966.758	47.79	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
11736.789	49.21	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 25GHz)



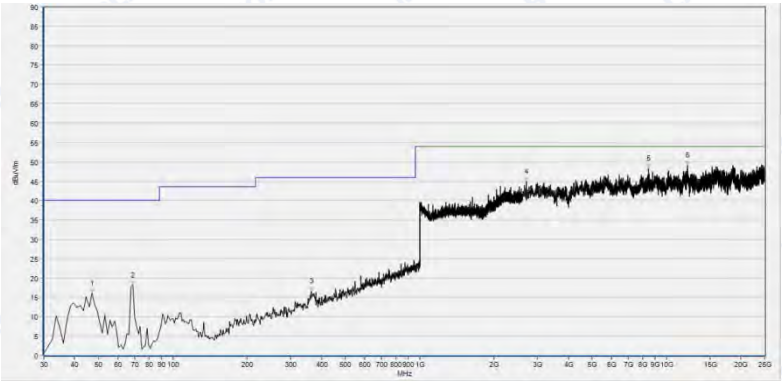
Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
67.635	19.53	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
95.557	18.60	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
165.970	17.56	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
2832.188	45.13	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5679.542	46.49	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
12160.429	49.16	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

2.8.3.4 802.11n-40MHz Test mode

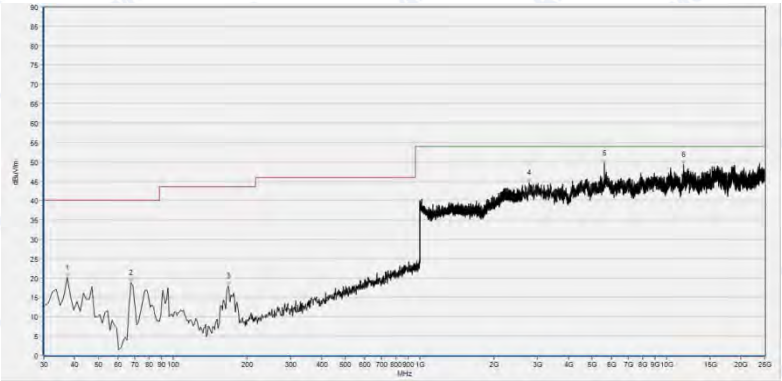
A. Test Plots for the Whole Measurement Frequency Range:

Plots for Channel = 3



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
46.996	16.16	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
68.849	18.18	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
363.855	16.63	N.A	N.A	N.A	46.00	N.A	Horizontal	PASS
2697.763	44.98	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
8449.500	48.24	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
12127.841	49.07	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

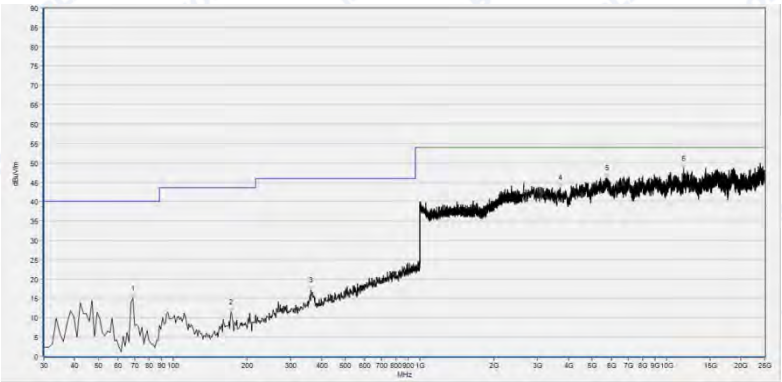
(Plot A.2: Antenna Horizontal, 30MHz to 25GHz)



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
37.284	20.13	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
67.635	18.77	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
167.184	17.93	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
2779.233	44.62	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5602.146	49.67	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
11736.789	49.25	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

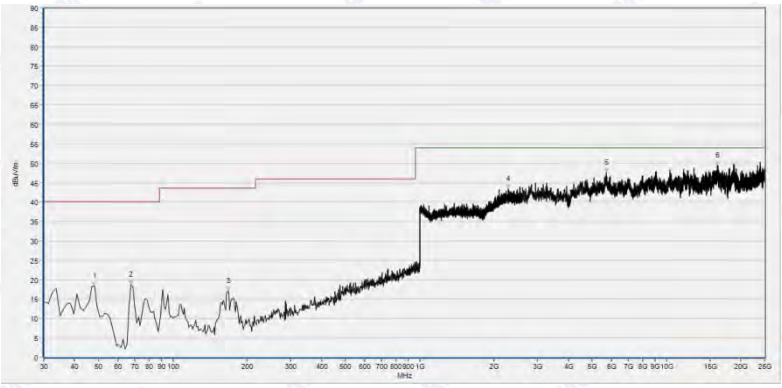
(Plot A.3: Antenna Vertical, 30MHz to 25GHz)

Plots for Channel = 6



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
68.849	14.94	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
172.040	11.35	N.A	N.A	N.A	43.50	N.A	Horizontal	PASS
362.641	17.15	N.A	N.A	N.A	46.00	N.A	Horizontal	PASS
3703.910	43.64	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5720.276	46.16	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
11757.156	48.44	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

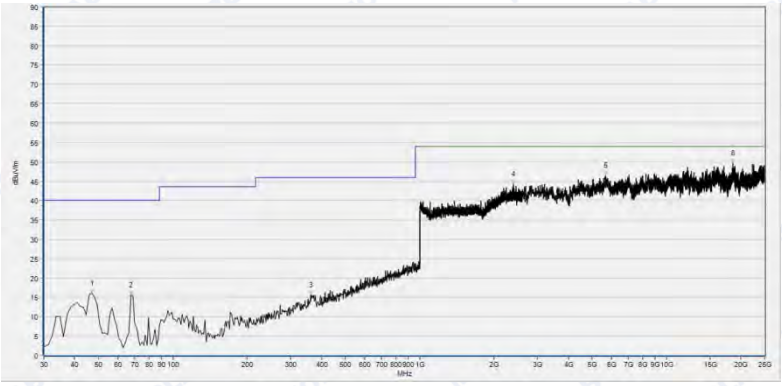
(Plot B.2: Antenna Horizontal, 30MHz to 25GHz)



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
48.210	18.49	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
67.635	18.72	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
167.184	17.10	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
2286.915	43.33	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5695.836	47.60	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
16099.473	49.40	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

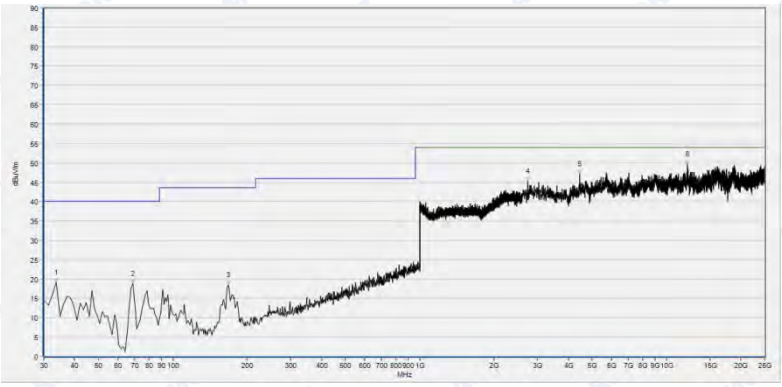
(Plot B.3: Antenna Vertical, 30MHz to 25GHz)

Plots for Channel = 9



Fre.(MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
46.996	16.16	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
67.635	15.52	N.A	N.A	N.A	40.00	N.A	Horizontal	PASS
361.427	15.54	N.A	N.A	N.A	46.00	N.A	Horizontal	PASS
2393.197	44.18	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5659.174	46.43	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
18567.994	49.65	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
33.642	19.05	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
68.849	18.72	N.A	N.A	N.A	40.00	N.A	Vertical	PASS
167.184	18.37	N.A	N.A	N.A	43.50	N.A	Vertical	PASS
2746.645	45.21	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
4449.354	47.03	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
12152.282	49.54	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

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

ANNEX A GENERAL INFORMATION

1.1 Identification of the Responsible Testing Laboratory

Company Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Department:	Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Responsible Test Lab Manager:	Mr. Su Feng
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

1.2 Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

1.3 Facilities and Accreditations

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.

1.4 Maximum measurement uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for test performed on the EUT as specified in CISPR 16-1-2:

Measurements	Frequency	Uncertainty
Conducted emissions	9KHz~30MHz	2.44dB
Radiated emissions	30MHz~200MHz	2.93
	200MHz~1000MHz	2.95
	1GHz~18GHz	2.26
	18GHz~40GHz	1.94

This uncertainty represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2

1.5 Test Equipments Utilized

1.5.1 Conducted Test Equipments

Conducted Test Equipment						
No.	**Equipment Name**	**Serial No.**	**Type**	**Manufacturer**	**Cal. Date**	**Cal. Due**
1	Spectrum Analyzer	MY45101810	E4407B	Agilent	2016.03.02	2017.03.01
2	USB Wideband Power Sensor	MY54210011	U2021XA	Agilent	2016.03.02	2017.03.01
3	EXA Signal Analzyer	MY53470838	N9010A	Agilent	2015.08.26	2016.08.25
4	RF cable	CB01	RF01	Morlab	N/A	N/A
5	Attenuator	(n.a.)	10dB	Resnet	N/A	N/A
6	SMA connector	CN01	RF03	HUBER-SUHNER	N/A	N/A

1.5.2 Conducted Emission Test Equipments

Conducted Emission Test Equipments						
No.	**Equipment Name**	**Serial No.**	**Type**	**Manufacturer**	**Cal. Date**	**Cal. Due**
1	Receiver	595WX11007	PMM9010	Narda S.T.S/PMM	2015.05.07	2016.05.06
2	LISN	812744	NSLK 8127	Schwarzbeck	2015.06.18	2016.06.17
3	Pulse Limiter (20dB)	9391	VTSD 9561-D	Schwarzbeck	2015.05.07	2016.05.06
4	Coaxial cable(BNC)	CB01	EMC01	Morlab	N/A	N/A

1.5.3 Auxiliary Test Equipment

Auxiliary Test Equipment						
No.	**Equipment Name**	**Serial No.**	**Type**	**Manufacturer**	**Cal.Date**	**Cal.Due Date**
1	Computer	N.A	N.A	Asus	N.A	N.A

1.5.4 Radiated Test Equipments

Radiated Test Equipments						
No.	Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Cal.Due Date
1	System Simulator	GB45360846	8960-E5515C	Agilent	2015.05.07	2016.05.06
2	Receiver	MY54130016	N9038A	Agilent	2015.05.07	2016.05.06
3	Test Antenna - Bi-Log	N/A	VULB9163	Schwarzbeck	2015.05.14	2016.05.13
4	Test Antenna - Horn	9170C-531	BBHA9170	Schwarzbeck	2016.03.02	2017.03.01
5	Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2016.03.02	2017.03.01
6	Test Antenna - Horn	71688	BBHA 9120D	Schwarzbeck	2016.03.02	2017.03.01
7	Coaxial cable(N male)	CB02	EMC02	Morlab	N/A	N/A
8	Coaxial cable(N male)	CB03	EMC03	Morlab	N/A	N/A
9	1-18GHz pre-Amplifier	MA02	TS-PR18	Rohde&Schwarz	2016.03.02	2017.03.01
10	18-26.5GHz pre-Amplifier	MA03	TS-PR18	Rohde&Schwarz	2016.03.02	2017.03.01

1.5.5 Climate Chamber

Climate Chamber						
No.	Equipment Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	Climate Chamber	2004012	HL4003T	Yinhe	2016.03.02	2017.03.01

1.5.6 Vibration Table

Vibration Table						
No.	Equipment Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	Vibration Table	N/A	ACT2000-S015L	CMI-COM	2016.03.02	2017.03.01

1.5.7 Anechoic Chamber

Anechoic Chamber						
No.	Equipment Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	Anechoic Chamber	N/A	9m*6m*6m	Changning	2015.05.14	2016.05.13

***** END OF REPORT *****