TEST REPORT

Product	:	Home Security System
Trade mark	:	SENS8
Model/Type reference	:	SHS1-US
Serial Number	:	N/A
Report Number	:	EED32J00129301
FCC ID	:	2AM3ESHS1
Date of Issue	:	Aug. 2, 2017
Test Standards	:	47 CFR Part 15 Subpart C
Test result	:	PASS

Prepared for:

Suzhou RippleInfo Co., Ltd
209 Zhuyuan Rd, Suzhou, China

Prepared by:

Centre Testing International Group Co., Ltd.
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Tested By:	Tom chen (Test Project)	Compiled by:	Max liang (Project Engineer)
Reviewed by:	Kevin yang (Reviewer)	Approved by:	Sheek Luo (Lab supervisor)
Date:	Aug. 2, 2017		Check No.:2827589596

CENTRE TESTING INTERNATIONAL GROUP CO.,LTD. Report Seal

2 Version

Version No.	Date	Description
00	Aug. 2, 2017	Original

3 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15 Subpart C Section 15.203/15.247 (c)	ANSI C63.10-2013	PASS
AC Power Line Conducted Emission	47 CFR Part 15 Subpart C Section 15.207	ANSI C63.10-2013	PASS
Conducted Peak Output Power	47 CFR Part 15 Subpart C Section 15.247 (b)(3)	ANSI C63.10-2013/ KDB 558074 D01v04	PASS
6dB Occupied Bandwidth	47 CFR Part 15 Subpart C Section 15.247 (a)(2)	ANSI C63.10-2013/ KDB 558074 D01v04	PASS
Power Spectral Density	47 CFR Part 15 Subpart C Section 15.247 (e)	ANSI C63.10-2013/ KDB 558074 D01v04	PASS
Band-edge for RF Conducted Emissions	47 CFR Part 15 Subpart C Section 15.247(d)	ANSI C63.10-2013/ KDB 558074 D01v04	PASS
RF Conducted Spurious Emissions	47 CFR Part 15 Subpart C Section 15.247(d)	ANSI C63.10-2013/ KDB 558074 D01v04	PASS
Radiated Spurious Emissions	47 CFR Part 15 Subpart C Section 15.205/15.209	ANSI C63.10-2013	PASS
Restricted bands around fundamental frequency (Radiated Emission)	47 CFR Part 15 Subpart C Section 15.205/15.209	ANSI C63.10-2013	PASS

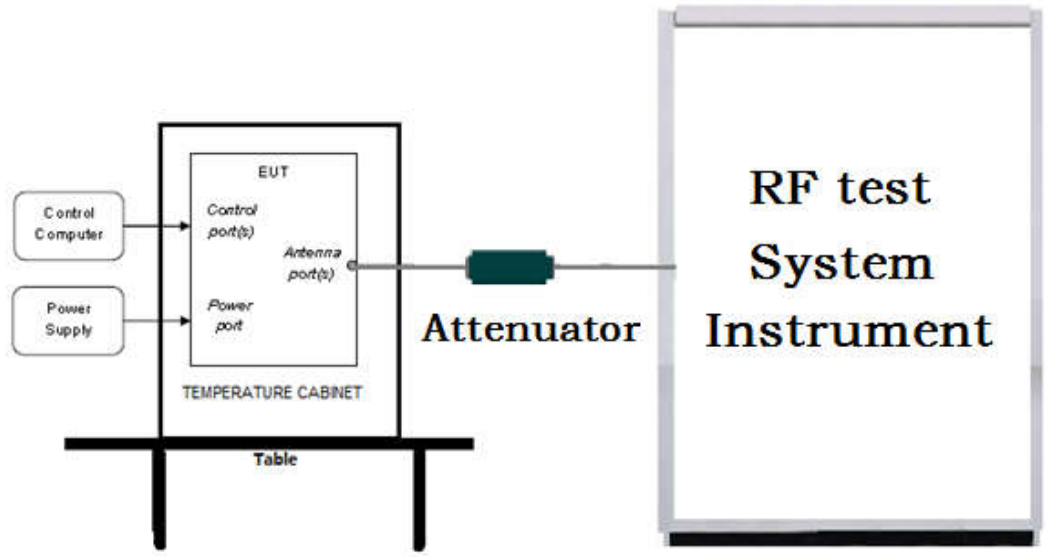
Remark:
Test according to ANSI C63.4-2014 & ANSI C63.10-2013.
The tested sample(s) and the sample information are provided by the client.

4 Content

5 Test Requirement

5.1 Test setup

5.1.1 For Conducted test setup



5.1.2 For Radiated Emissions test setup

Radiated Emissions setup:

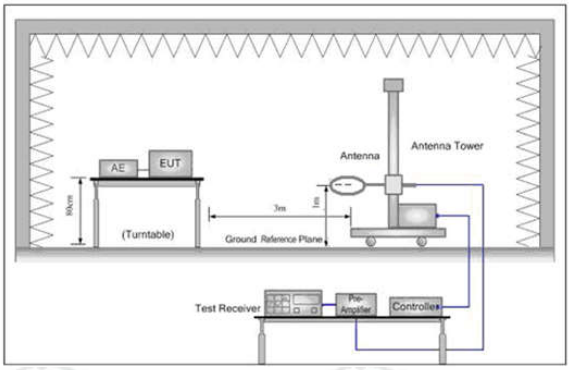


Figure 1. Below 30MHz

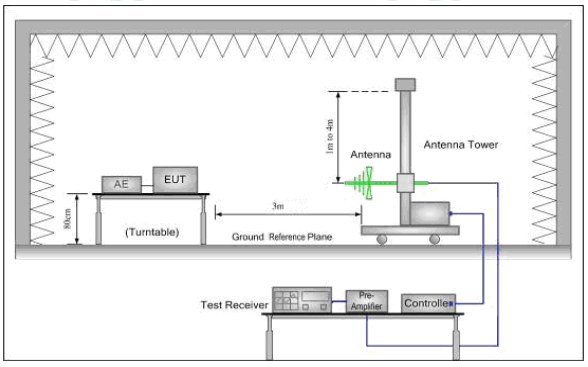


Figure 2. 30MHz to 1GHz

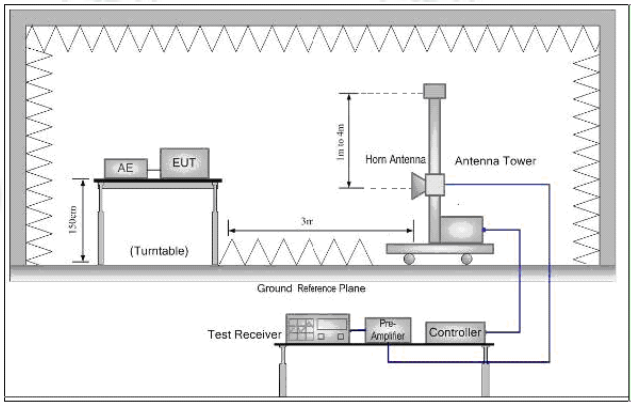
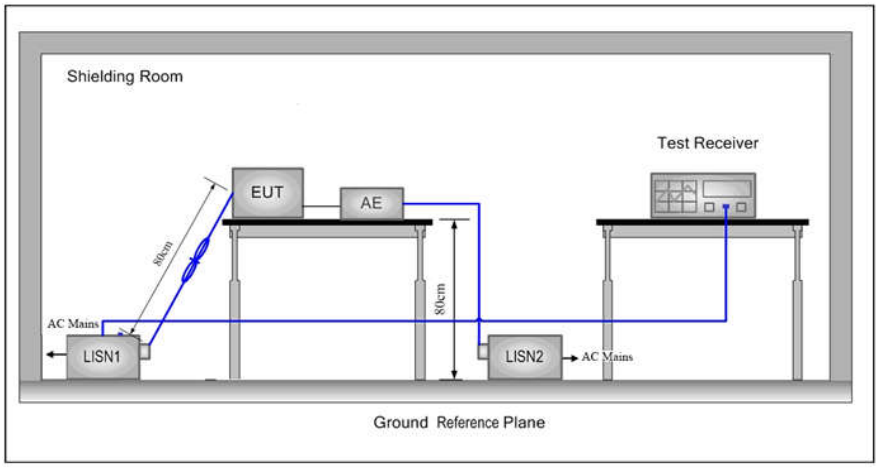


Figure 3. Above 1GHz

5.1.3 For Conducted Emissions test setup

Conducted Emissions setup



5.2 Test Environment

Operating Environment:	
Temperature:	22°C
Humidity:	53 % RH
Atmospheric Pressure:	1010 mbar

5.3 Test Condition

Test channel:

Test Mode	Tx	RF Channel		
		Low(L)	Middle(M)	High(H)
802.11b/g/n(HT20)	2412MHz ~2462 MHz	Channel 1	Channel 6	Channel11
		2412MHz	2437MHz	2462MHz
802.11n(HT40)	2422MHz ~2452 MHz	Channel 1	Channel 4	Channel7
		2422MHz	2437MHz	2452MHz
Transmitting mode:	Keep the EUT transmitted the continuous modulation test signal at the specific channel(s).			

Test mode:

Pre-scan under all rate at lowest channel 1

Mode	802.11b				
Data Rate	1Mbps	2Mbps	5.5Mbps	11Mbps	
Power(dBm)	22.50	22.59	22.65	22.71	

Mode	802.11g							
Data Rate	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
Power(dBm)	21.35	21.29	21.22	21.15	21.08	21.01	20.94	20.88

Mode	802.11n (HT20)							
Data Rate	6.5Mbps	13Mbps	19.5Mbps	26Mbps	39Mbps	52Mbps	58.5Mbps	65Mbps
Power(dBm)	19.78	19.72	19.66	19.59	19.52	19.46	19.38	19.32
Mode	802.11n (HT40)							
Data Rate	13.5Mbps	27Mbps	40.5Mbps	54Mbps	81Mbps	108Mbps	121.5Mbps	135Mbps
Power(dBm)	20.75	20.70	20.61	20.55	20.50	20.42	20.35	20.30

Through Pre-scan, 11Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g; 6.5Mbps of rate is the worst case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40).

6 General Information

6.1 Client Information

Applicant:	Suzhou RippleInfo Co., Ltd.
Address of Applicant:	209 Zhuyuan Rd, Suzhou, China
Manufacturer:	Suzhou RippleInfo Co., Ltd.
Address of Manufacturer:	209 Zhuyuan Rd, Suzhou, China
Factory:	Eolane(China) Co., Ltd.
Address of Factory:	#49, 9 Dongfu Road, Dongjing Industrial Park, SIP, Suzhou, China

6.2 General Description of EUT

Product Name:	Home Security System	
Mode No.(EUT):	SHS1-US	
Trade Mark:	SENS8	
EUT Supports Radios application:	Wlan 2.4GHz 802.11b/g/n(HT20)/n(HT40)	
Power Supply:	Battery	3.7V/750mAh
	AC Adapter	MODEL:AK12WG-0500200UU Input: 100V-240V,50Hz/60Hz,0.3A Output: 5V⎓2A
Sample Received Date:	Jun. 24, 2017	
Sample tested Date:	Jun. 24, 2017 to Aug. 2, 2017	

6.3 Product Specification subjective to this standard

Operation Frequency:	IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz IEEE 802.11n(HT40): 2422MHz to 2452MHz
Channel Numbers:	IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels IEEE 802.11n HT40: 7 Channels
Channel Separation:	5MHz
Type of Modulation:	IEEE for 802.11b: DSSS IEEE for 802.11g :OFDM IEEE for 802.11n(HT20 and HT40) : OFDM
Sample Type:	Fixed production
Test Power Grade:	N/A
Test Software of EUT:	Secure CRT V6.5.0 (build 380) (manufacturer declare)
Antenna Type:	Dipole
Antenna Gain:	2.63dBi
Test Voltage	AC 120V,60Hz

Operation Frequency each of channel(802.11b/g/n HT20)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

Operation Frequency each of channel(802.11n HT40)					
Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2422MHz	4	2437MHz	7	2452MHz
2	2427MHz	5	2442MHz		
3	2432MHz	6	2447MHz		

6.4 Description of Support Units

None.

6.5 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China518101
Telephone: +86 (0) 755 3368 3668 Fax:+86 (0) 755 3368 3385
No tests were sub-contracted.

6.6 Deviation from Standards

None.

6.7 Abnormalities from Standard Conditions

None.

6.8 Other Information Requested by the Customer

None.

6.9 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Radio Frequency	7.9×10^{-8}
2	RF power, conducted	0.31dB (30MHz-1GHz)
		0.57dB (1GHz-18GHz)
3	Radiated Spurious emission test	4.5dB (30MHz-1GHz)
		4.8dB (1GHz-12.75GHz)
4	Conduction emission	3.6dB (9kHz to 150kHz)
		3.2dB (150kHz to 30MHz)
5	Temperature test	0.64°C
6	Humidity test	2.8%
7	DC power voltages	0.025%

7 Equipment List

RF test system					
Equipment	**Manufacturer**	**Mode No.**	**Serial Number**	**Cal. Date (mm-dd-yyyy)**	**Cal. Due date (mm-dd-yyyy)**
Signal Generator	Keysight	E8257D	MY53401106	04-01-2016	03-13-2018
Communication test set test set	Agilent	N4010A	MY51400230	04-01-2016	03-13-2018
Spectrum Analyzer	Keysight	N9010A	MY54510339	04-01-2016	03-13-2018
Signal Generator	Keysight	N5182B	MY53051549	04-01-2016	03-13-2018
High-pass filter	Sinoscite	FL3CX03WG18 NM12-0398-002	---	01-12-2016	01-11-2018
High-pass filter	MICRO-TRONICS	SPA-F-63029-4	---	01-12-2016	01-11-2018
DC Power	Keysight	E3642A	MY54436035	04-01-2016	03-31-2018
PC-1	Lenovo	R4960d	---	04-01-2016	03-31-2018
power meter & power sensor	R&S	OSP120	101374	04-01-2016	03-13-2018
RF control unit	JS Tonscend	JS0806-2	158060006	04-01-2016	03-13-2018
BT&WI-FI Automatic test software	JS Tonscend	JS1120-2	---	04-01-2016	03-31-2018

Conducted disturbance Test					
Equipment	**Manufacturer**	**Mode No.**	**Serial Number**	**Cal. date (mm-dd-yyyy)**	**Cal. Due date (mm-dd-yyyy)**
Receiver	R&S	ESCI	100009	06-16-2016	06-13-2018
Temperature/ Humidity Indicator	TAYLOR	1451	1905	04-27-2016	05-07-2018
Communication test set	Agilent	E5515C	GB47050534	04-01-2016	03-13-2018
Communication test set	R&S	CMW500	152394	04-01-2016	03-13-2018
LISN	R&S	ENV216	100098	06-16-2016	06-12-2018
LISN	schwarzbeck	NNLK8121	8121-529	06-16-2016	06-12-2018
Voltage Probe	R&S	ESH2-Z3	--	06-13-2017	06-12-2018
Current Probe	R&S	EZ17	100106	06-16-2016	06-12-2018
ISN	TESEQ GmbH	ISN T800	30297	01-29-2015	02-22-2018

3M Semi/full-anechoic Chamber					
Equipment	**Manufacturer**	**Mode No.**	**Serial Number**	**Cal. date (mm-dd-yyyy)**	**Cal. Due date (mm-dd-yyyy)**
3M Chamber & Accessory Equipment	TDK	SAC-3	---	06-05-2016	06-05-2019
TRILOG Broadband Antenna	SCHWARZBECK	VULB9163	9163-484	05-23-2016	05-22-2018
Microwave Preamplifier	Agilent	8449B	3008A02425	02-04-2016	02-15-2018
Horn Antenna	ETS-LINDGREN	3117	00057410	06-30-2015	06-28-2018
Horn Antenna	A.H.SYSTEMS	SAS-574	374	06-30-2015	06-28-2018
Loop Antenna	ETS	6502	00071730	07-30-2016	07-28-2018
Spectrum Analyzer	R&S	FSP40	100416	06-16-2016	06-12-2018
Receiver	R&S	ESCI	100435	06-16-2016	06-13-2018
Multi device Controller	maturo	NCD/070/10711112	---	01-12-2016	01-11-2018
LISN	schwarzbeck	NNBM8125	81251547	06-16-2016	06-12-2018
LISN	schwarzbeck	NNBM8125	81251548	06-16-2016	06-12-2018
Signal Generator	Agilent	E4438C	MY45095744	04-01-2016	03-13-2018
Signal Generator	Keysight	E8257D	MY53401106	04-01-2016	03-13-2018
Temperature/ Humidity Indicator	TAYLOR	1451	1905	04-27-2016	05-07-2018
Communication test set	Agilent	E5515C	GB47050534	04-01-2016	03-13-2018
Cable line	Fulai(7M)	SF106	5219/6A	01-12-2016	01-11-2018
Cable line	Fulai(6M)	SF106	5220/6A	01-12-2016	01-11-2018
Cable line	Fulai(3M)	SF106	5216/6A	01-12-2016	01-11-2018
Cable line	Fulai(3M)	SF106	5217/6A	01-12-2016	01-11-2018
Communication test set	R&S	CMW500	152394	04-01-2016	03-13-2018
High-pass filter	Sinoscite	FL3CX03WG18NM12-0398-002	---	01-12-2016	01-11-2018
High-pass filter	MICRO-TRONICS	SPA-F-63029-4	---	01-12-2016	01-11-2018
band rejection filter	Sinoscite	FL5CX01CA09CL12-0395-001	---	01-12-2016	01-11-2018
band rejection filter	Sinoscite	FL5CX01CA08CL12-0393-001	---	01-12-2016	01-11-2018
band rejection filter	Sinoscite	FL5CX02CA04CL12-0396-002	---	01-12-2016	01-11-2018
band rejection filter	Sinoscite	FL5CX02CA03CL12-0394-001	---	01-12-2016	01-11-2018

8 Radio Technical Requirements Specification

Reference documents for testing:

No.	Identity	Document Title
1	FCC Part15C	Subpart C-Intentional Radiators
2	ANSI C63.10-2013	American National Standard for Testing Unlicesed Wireless Devices

Test Results List:

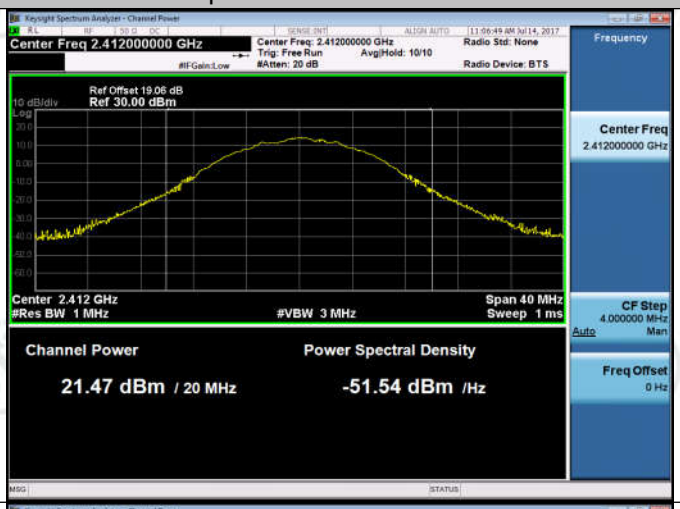
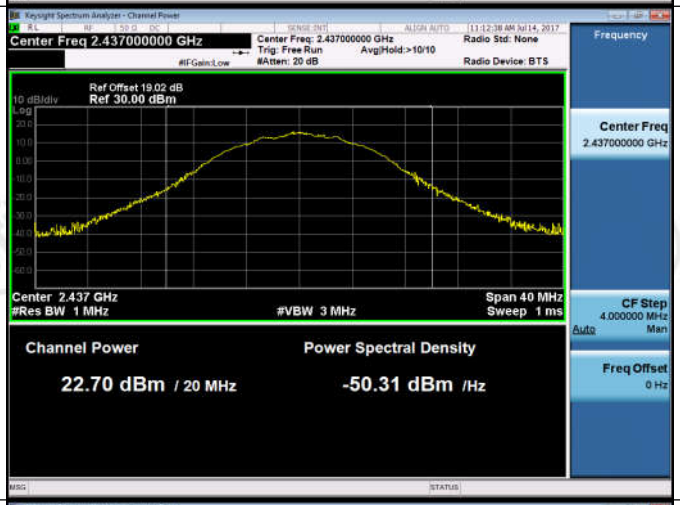
Test Requirement	Test method	Test item	Verdict	Note
Part15C Section 15.247 (b)(3)	ANSI C63.10/ KDB 558074	Conducted Peak Output Power	PASS	Appendix A)
Part15C Section 15.247 (a)(2)	ANSI C63.10/ KDB 558074	6dB Occupied Bandwidth	PASS	Appendix B)
Part15C Section 15.247(d)	ANSI C63.10/ KDB 558074	Band-edge for RF Conducted Emissions	PASS	Appendix C)
Part15C Section 15.247(d)	ANSI C63.10/ KDB 558074	RF Conducted Spurious Emissions	PASS	Appendix D)
Part15C Section 15.247 (e)	ANSI C63.10/ KDB 558074	Power Spectral Density	PASS	Appendix E)
Part15C Section 15.203/15.247 (c)	ANSI C63.10	Antenna Requirement	PASS	Appendix F)
Part15C Section 15.207	ANSI C63.10	AC Power Line Conducted Emission	PASS	Appendix G)
Part15C Section 15.205/15.209	ANSI C63.10	Restricted bands around fundamental frequency (Radiated Emission)	PASS	Appendix H)
Part15C Section 15.205/15.209	ANSI C63.10	Radiated Spurious Emissions	PASS	Appendix I)

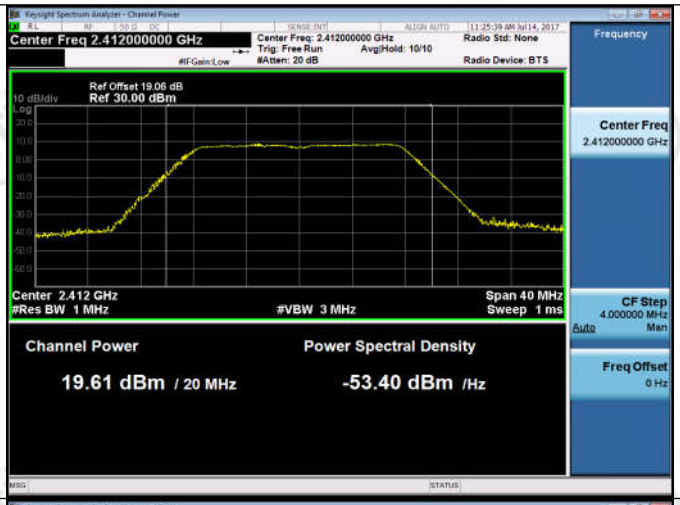
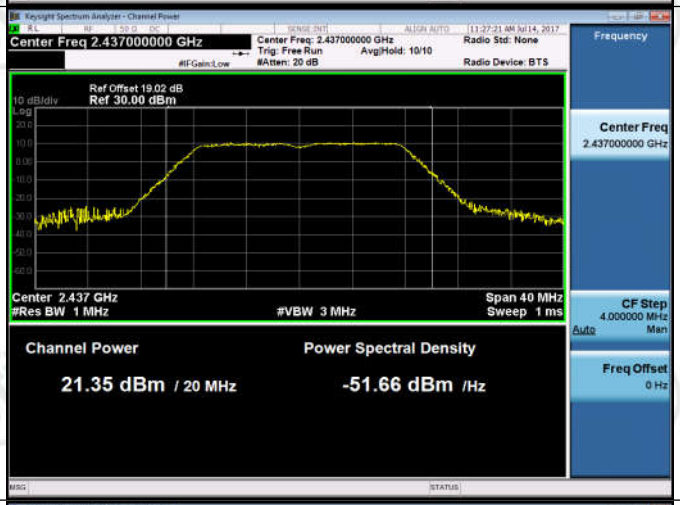
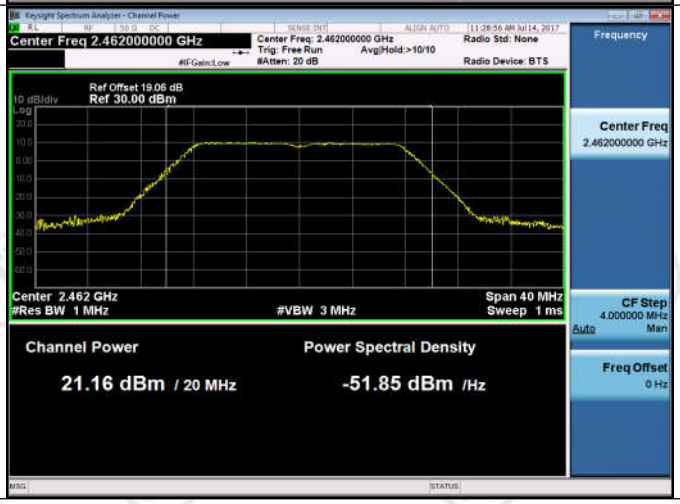
Appendix A): Conducted Peak Output Power

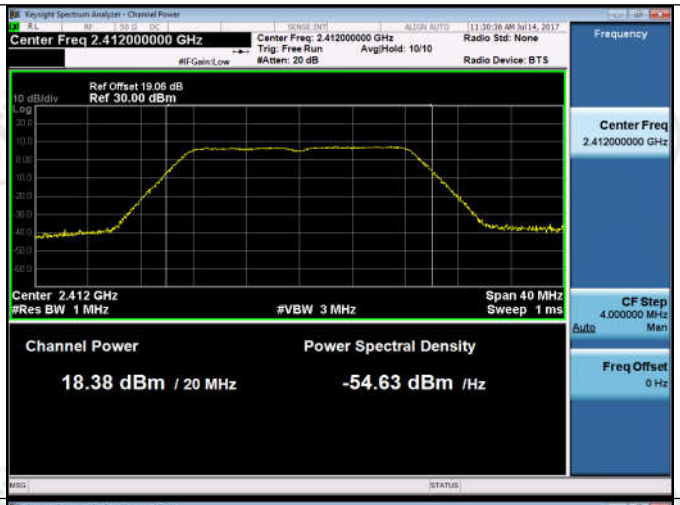
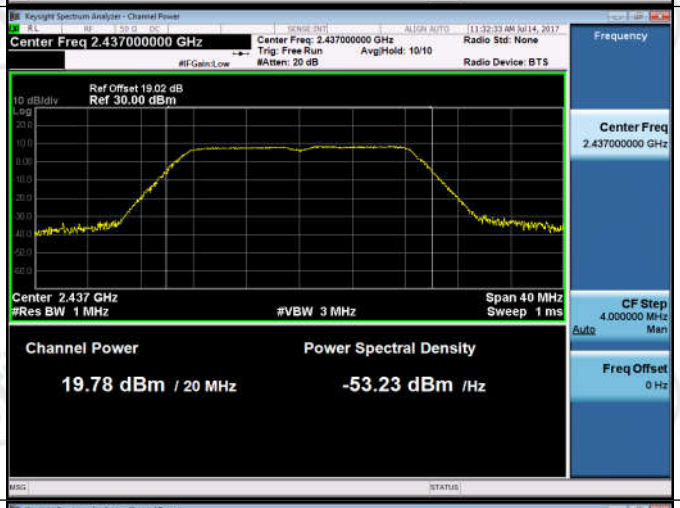
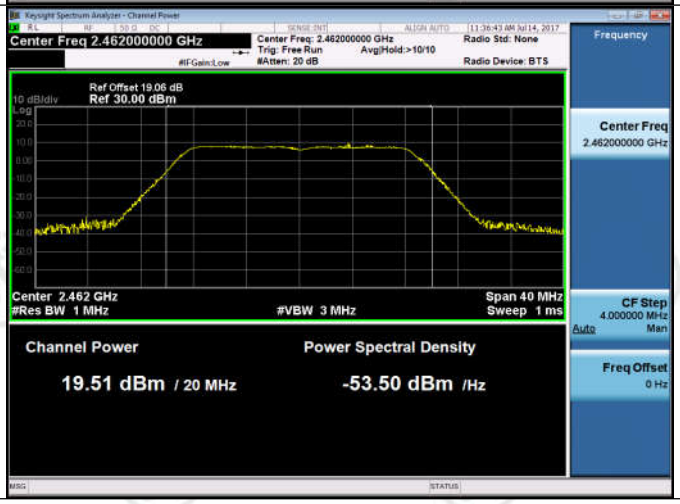
Result Table

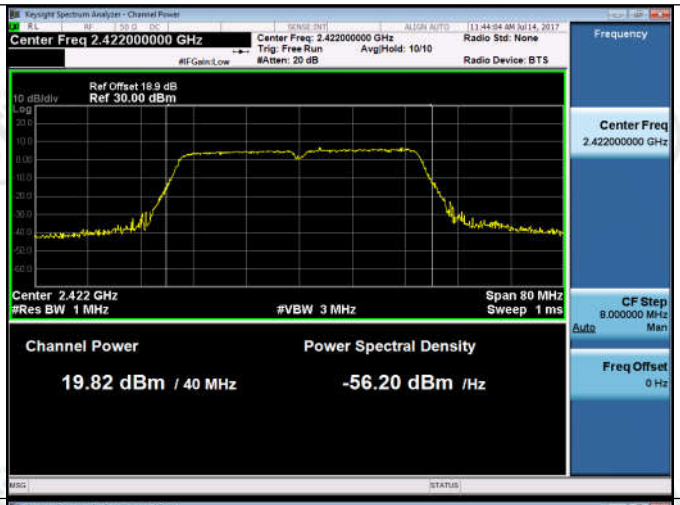
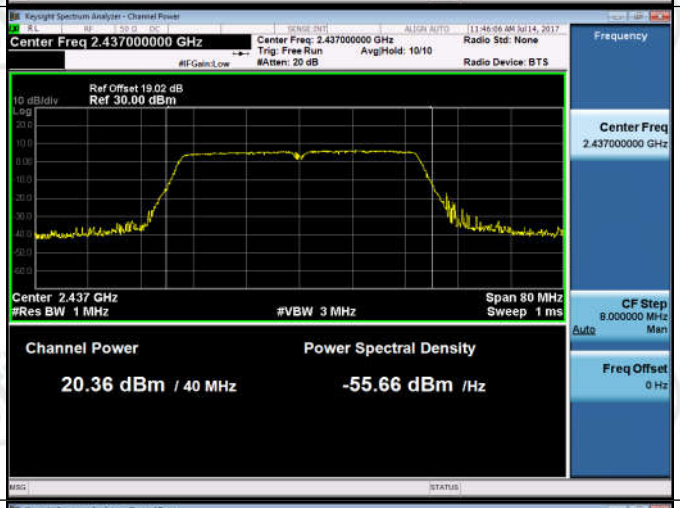
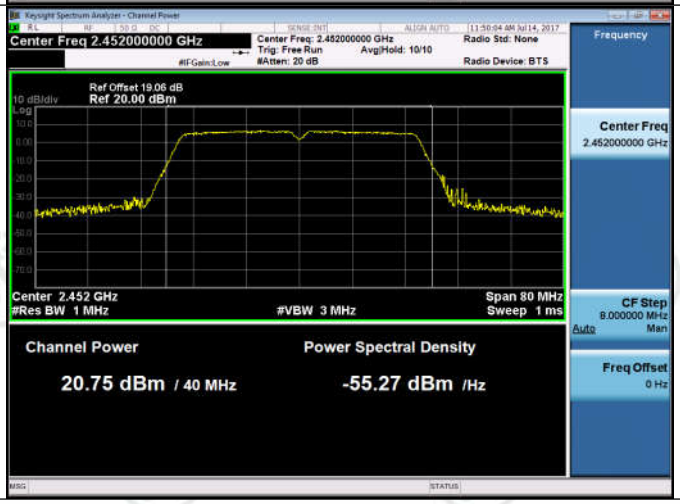
Mode	Channel	Conducted Peak Output Power [dBm]	Verdict	Remark
11B	LCH	21.47	PASS	RMS detecter
11B	MCH	22.7	PASS	
11B	HCH	22.71	PASS	
11G	LCH	19.61	PASS	
11G	MCH	21.35	PASS	
11G	HCH	21.16	PASS	
11N20SISO	LCH	18.38	PASS	
11N20SISO	MCH	19.78	PASS	
11N20SISO	HCH	19.51	PASS	
11N40SISO	LCH	19.82	PASS	
11N40SISO	MCH	20.36	PASS	
11N40SISO	HCH	20.75	PASS	

Test Graph

Graphs			
11B/LCH			
11B/MCH			
11B/HCH			

11G/LCH			
11G/MCH			
11G/HCH			

11N20SISO/LCH			
11N20SISO/MCH			
11N20SISO/HCH			

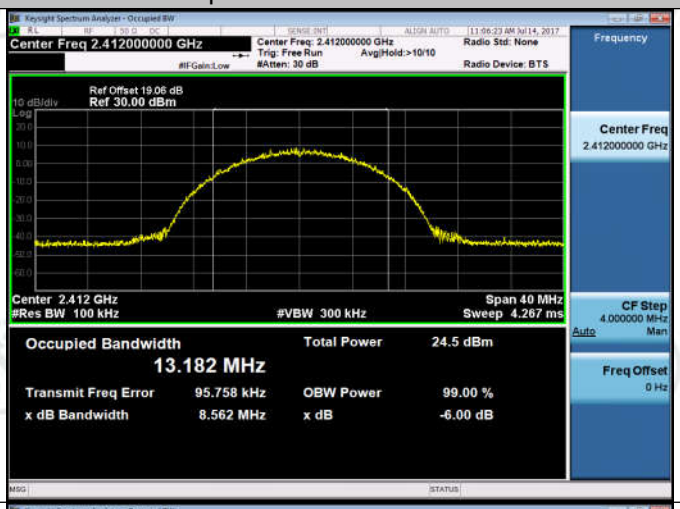
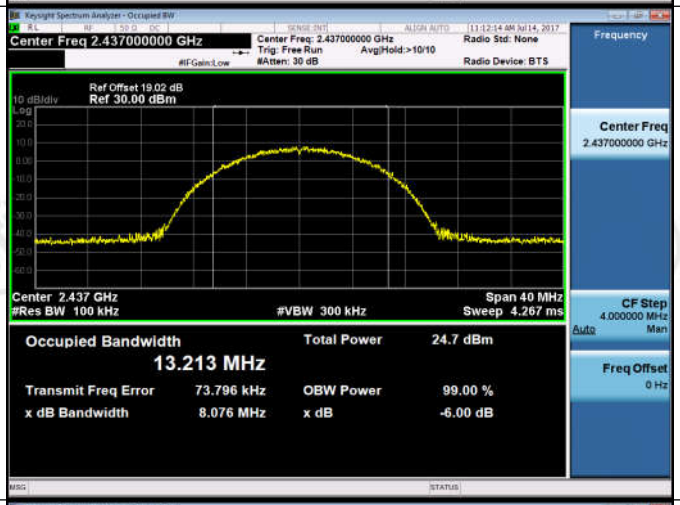
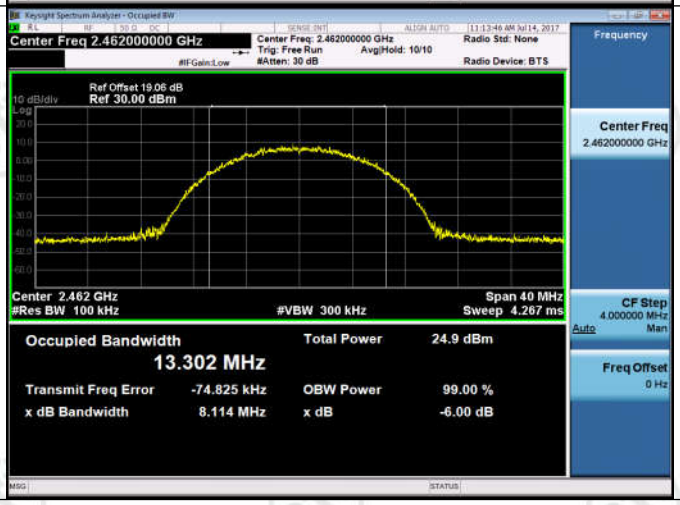
11N40SISO/LCH			
11N40SISO/MCH			
11N40SISO/HCH			

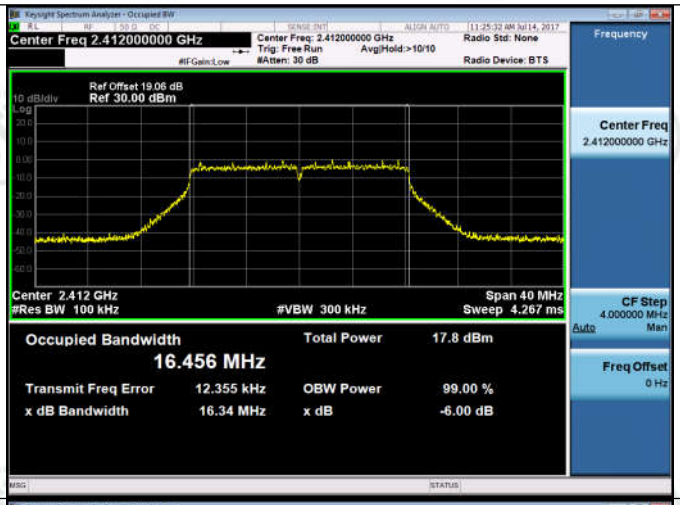
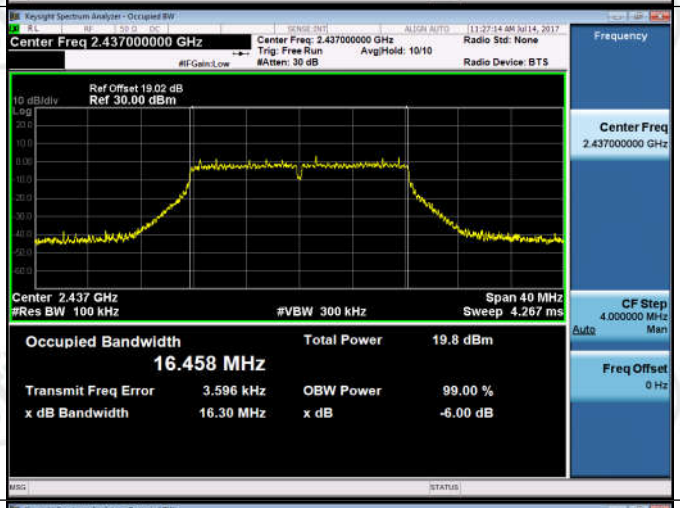
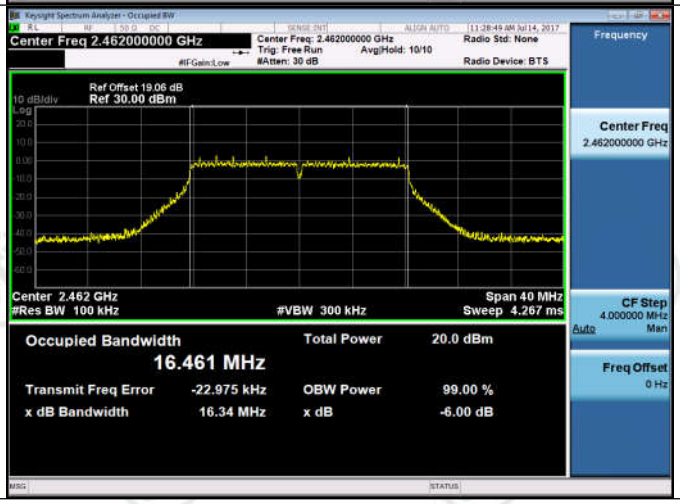
Appendix B): 6dB Occupied Bandwidth

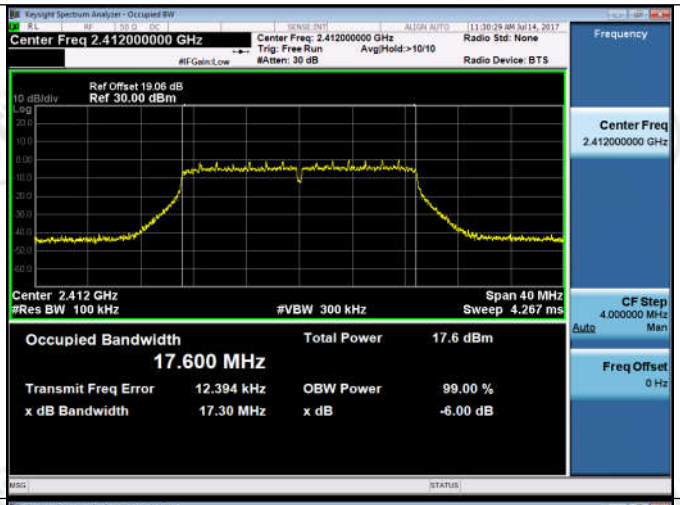
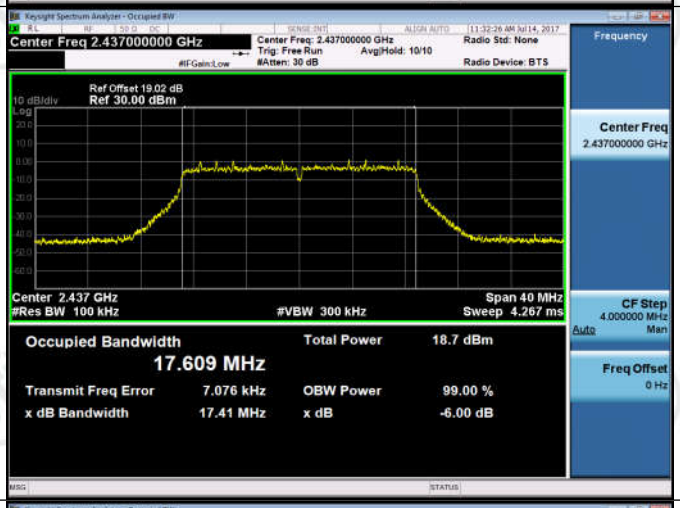
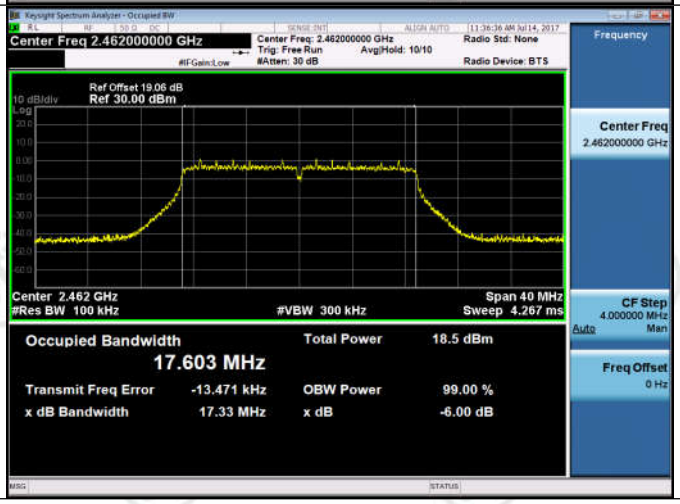
Result Table

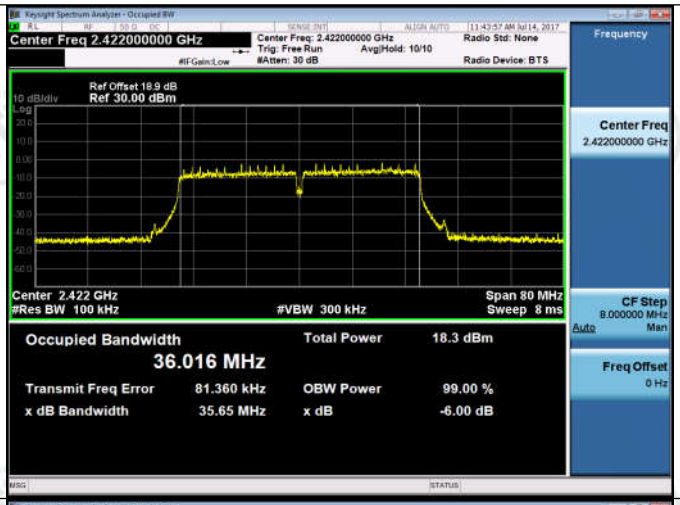
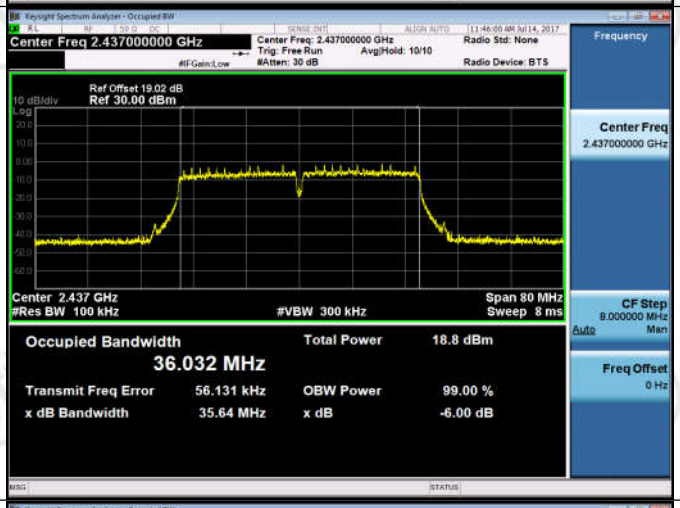
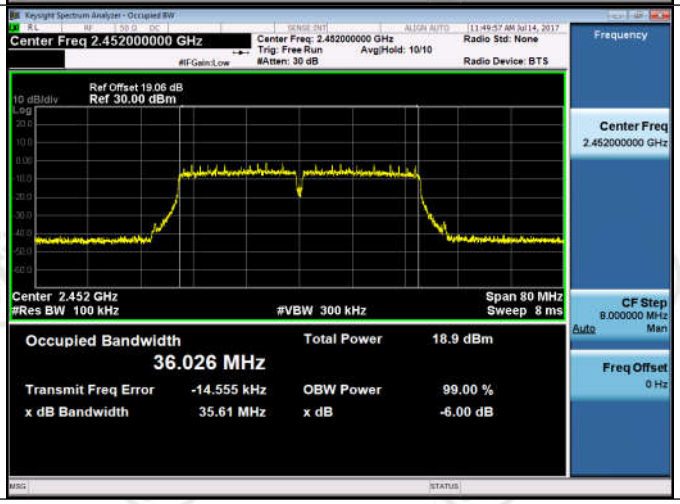
Mode	Channel	6dB Bandwidth [MHz]	99% OBW [MHz]	Verdict
11B	LCH	8.562	13.182	PASS
11B	MCH	8.076	13.213	PASS
11B	HCH	8.114	13.302	PASS
11G	LCH	16.34	16.456	PASS
11G	MCH	16.30	16.458	PASS
11G	HCH	16.34	16.461	PASS
11N20SISO	LCH	17.30	17.600	PASS
11N20SISO	MCH	17.41	17.609	PASS
11N20SISO	HCH	17.33	17.603	PASS
11N40SISO	LCH	35.65	36.016	PASS
11N40SISO	MCH	35.64	36.032	PASS
11N40SISO	HCH	35.61	36.026	PASS

Test Graph

Graphs			
11B/LCH			
11B/MCH			
11B/HCH			

11G/LCH			
11G/MCH			
11G/HCH			

11N20SISO/LCH			
11N20SISO/MCH			
11N20SISO/HCH			

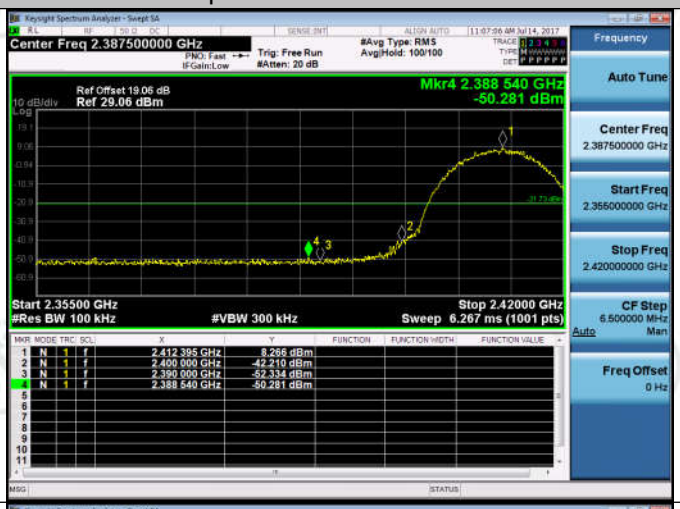
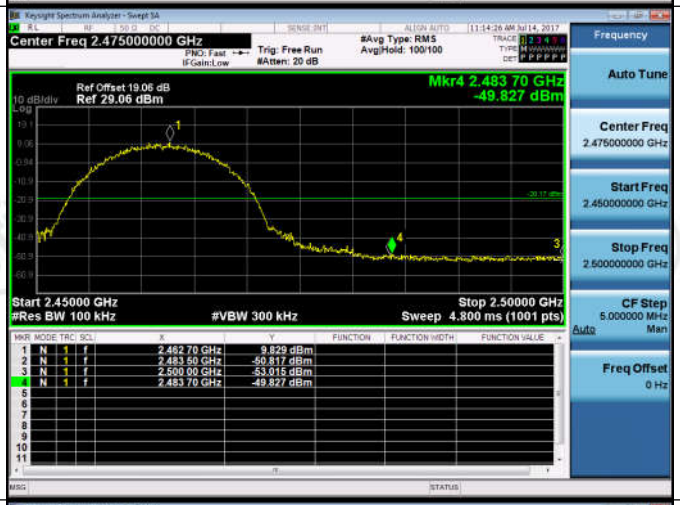
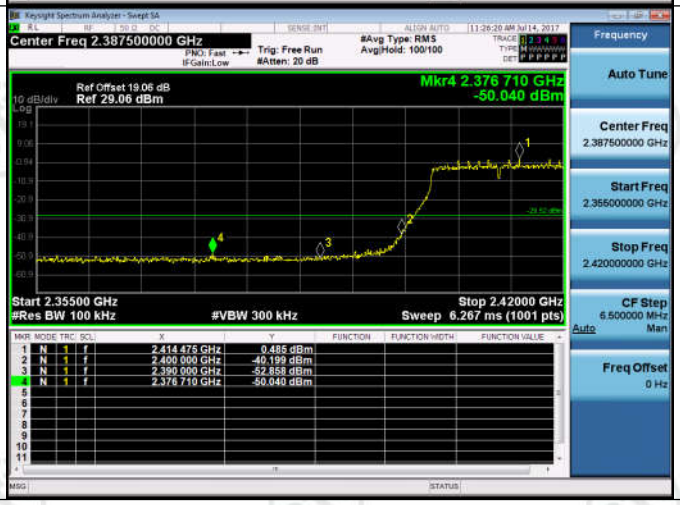
11N40SISO/LCH			
11N40SISO/MCH			
11N40SISO/HCH			

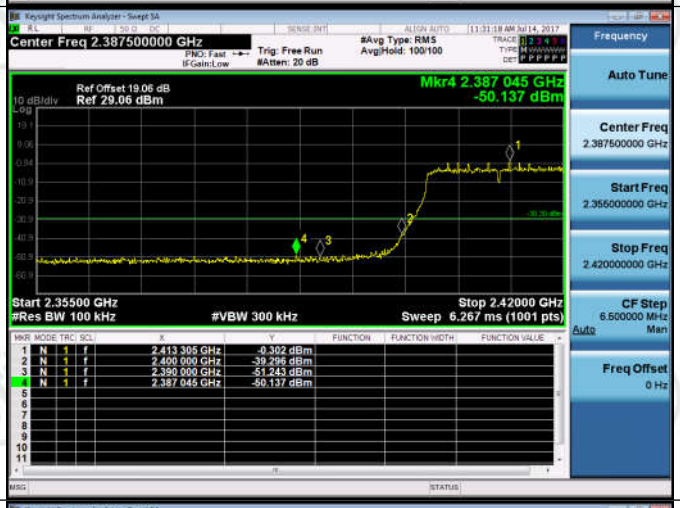
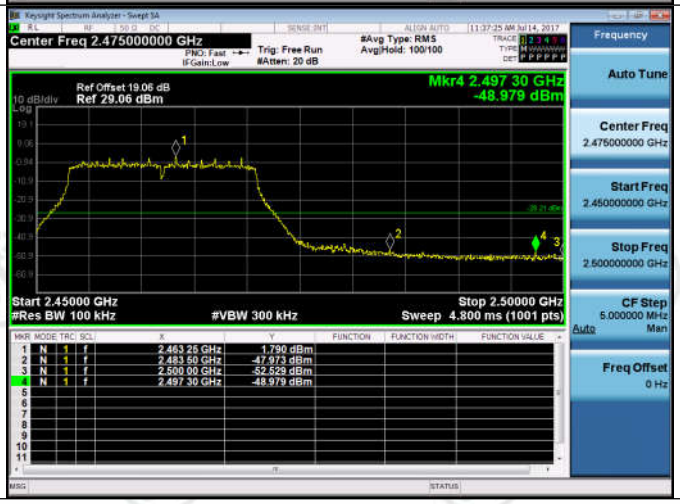
Appendix C): Band-edge for RF Conducted Emissions

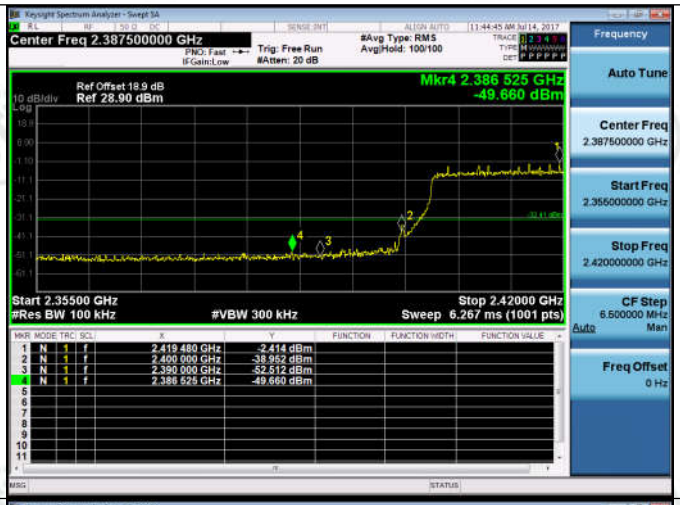
Result Table

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	8.266	-50.281	-21.73	PASS
11B	HCH	9.829	-49.827	-20.17	PASS
11G	LCH	0.485	-50.040	-29.52	PASS
11G	HCH	2.329	-47.209	-27.67	PASS
11N20SISO	LCH	-0.302	-50.137	-30.3	PASS
11N20SISO	HCH	1.790	-48.979	-28.21	PASS
11N40SISO	LCH	-2.414	-49.660	-32.41	PASS
11N40SISO	HCH	-0.832	-45.120	-30.83	PASS

Test Graph

Graphs			
11B/LCH			
11B/HCH			
11G/LCH			

11G/HCH			
11N20SISO/LCH			
11N20SISO/HCH			

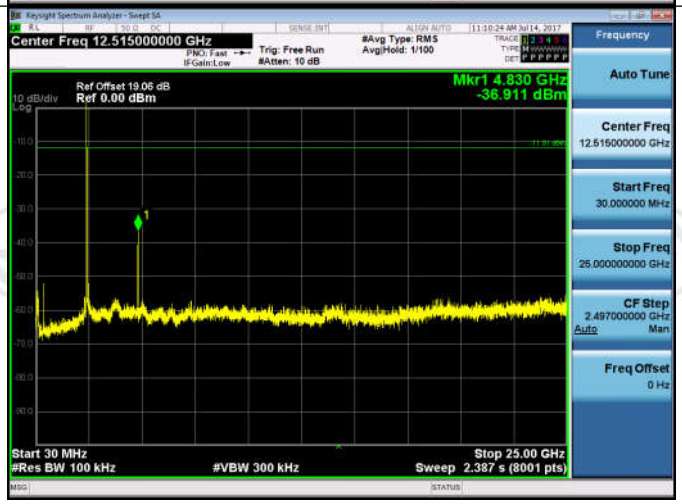
11N40SISO/LCH			
11N40SISO/HCH			

Appendix D): RF Conducted Spurious Emissions

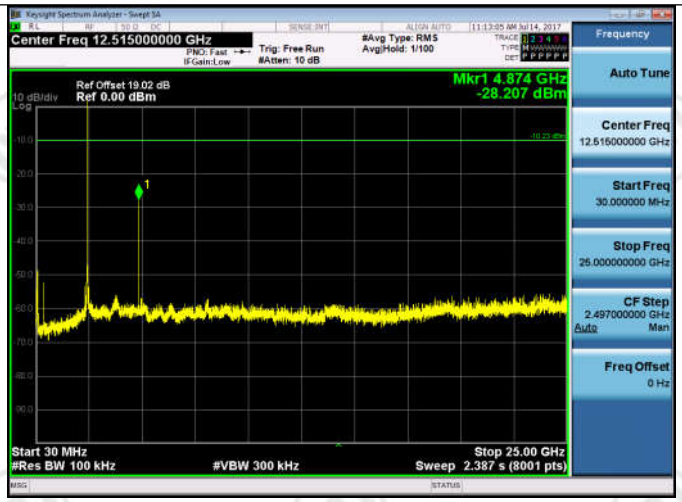
Result Table

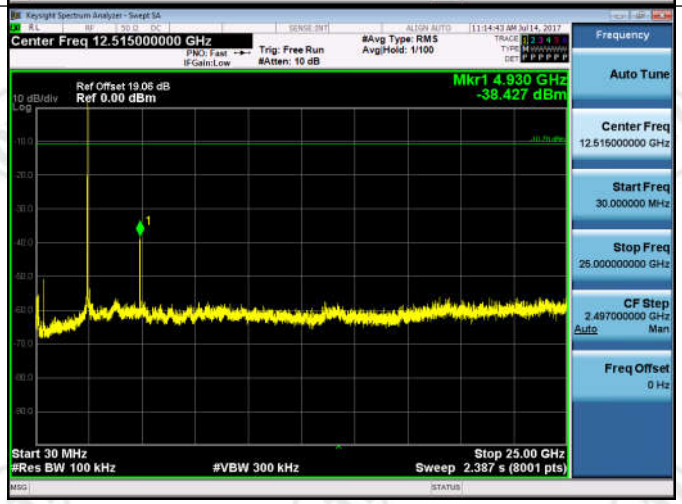
Mode	Channel	Pref [dBm]	Puw[dBm]	Verdict
11B	LCH	8.094	<Limit	PASS
11B	MCH	9.774	<Limit	PASS
11B	HCH	9.217	<Limit	PASS
11G	LCH	0.541	<Limit	PASS
11G	MCH	3.289	<Limit	PASS
11G	HCH	2.603	<Limit	PASS
11N20SISO	LCH	-0.143	<Limit	PASS
11N20SISO	MCH	1.895	<Limit	PASS
11N20SISO	HCH	1.922	<Limit	PASS
11N40SISO	LCH	-1.714	<Limit	PASS
11N40SISO	MCH	-0.782	<Limit	PASS
11N40SISO	HCH	-0.273	<Limit	PASS

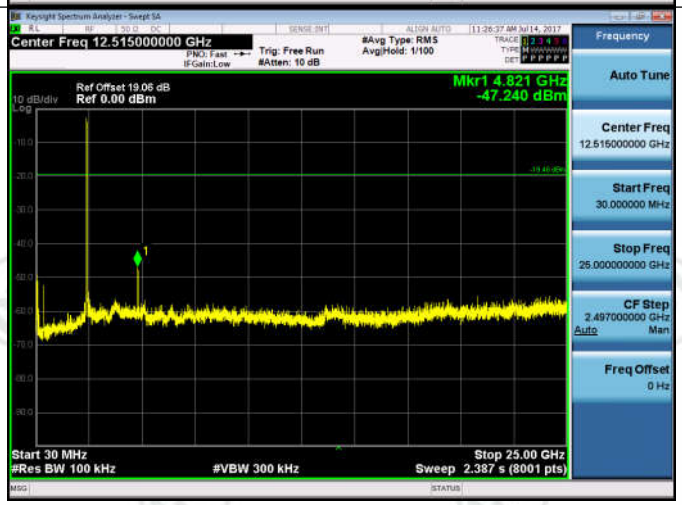
Test Graph

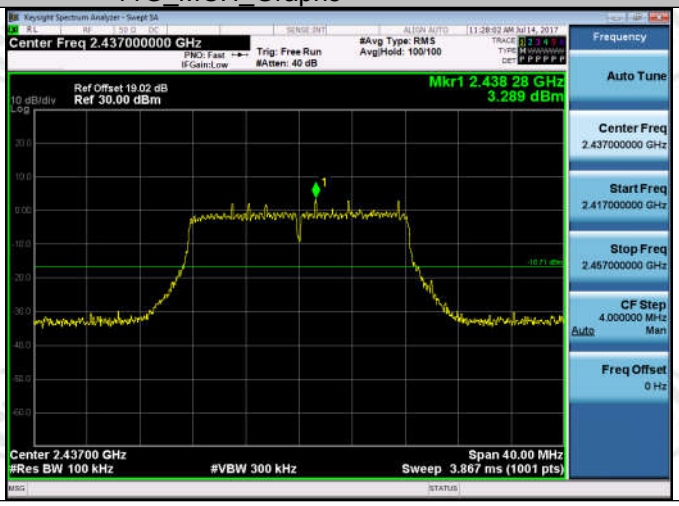
11B_LCH_Graphs	
Pref/11B/LCH	
Puw/11B/LCH	

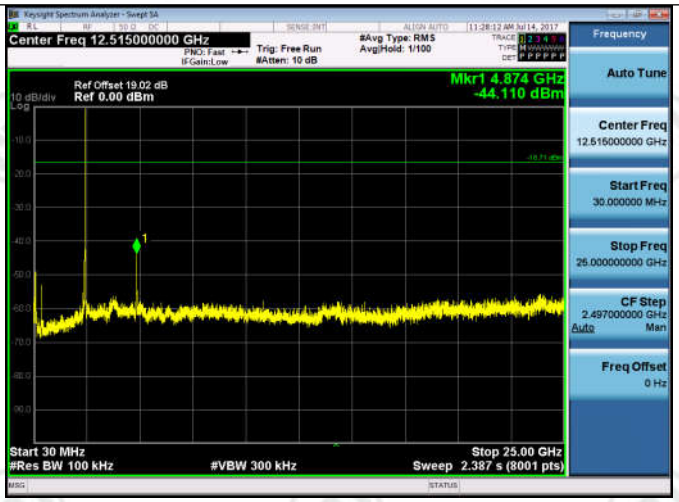
11B_MCH_Graphs	
Pref/11B/MCH	

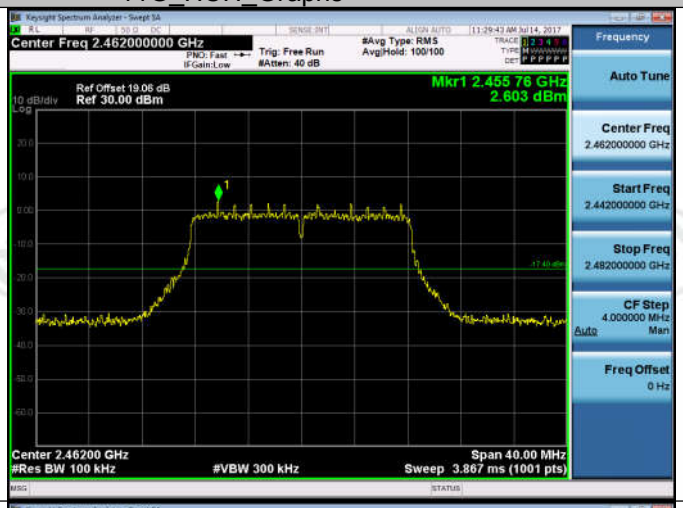
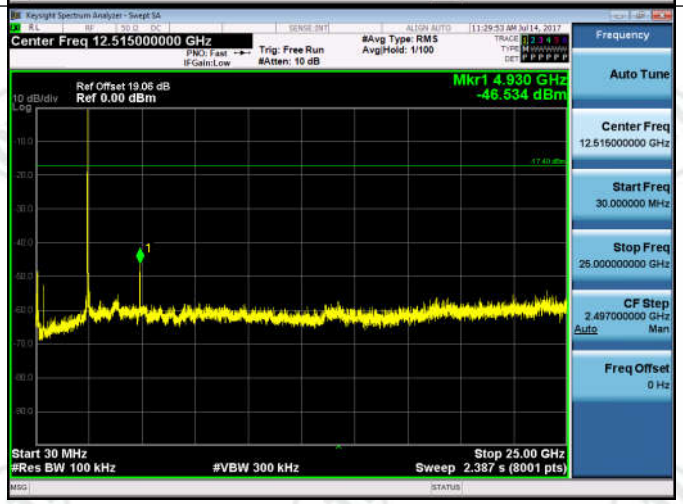
Puw/11B/MCH	

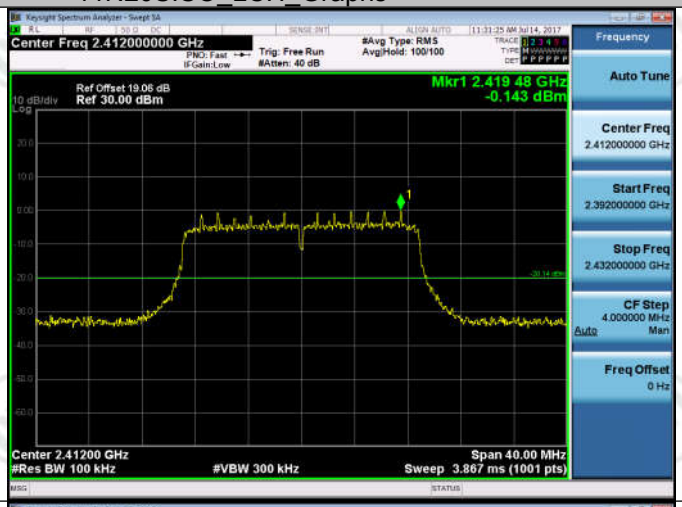
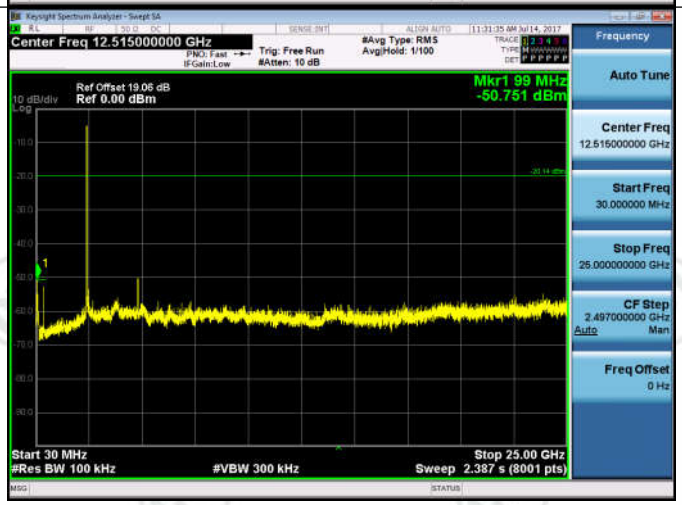
11B_HCH_Graphs	
Pref/11B/HCH	
Puw/11B/HCH	

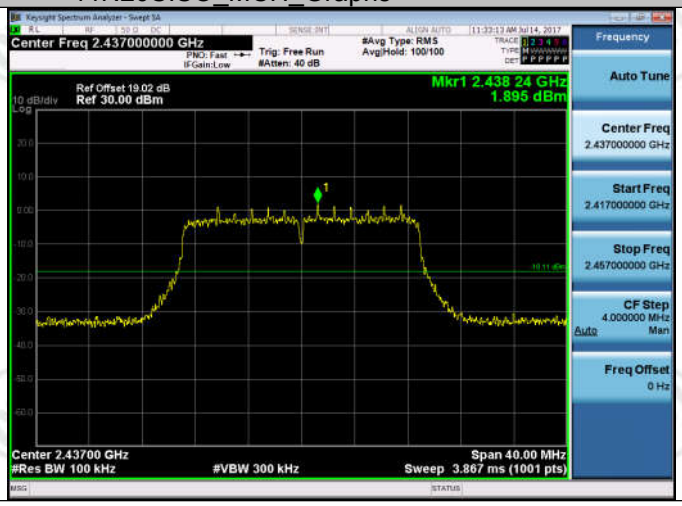
11G_LCH_Graphs	
Pref/11G/LCH	
Puw/11G/LCH	

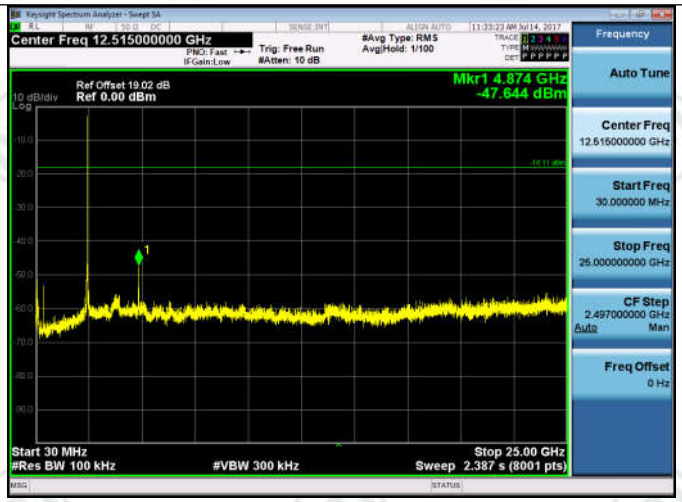
11G_MCH_Graphs	
Pref/11G/MCH	

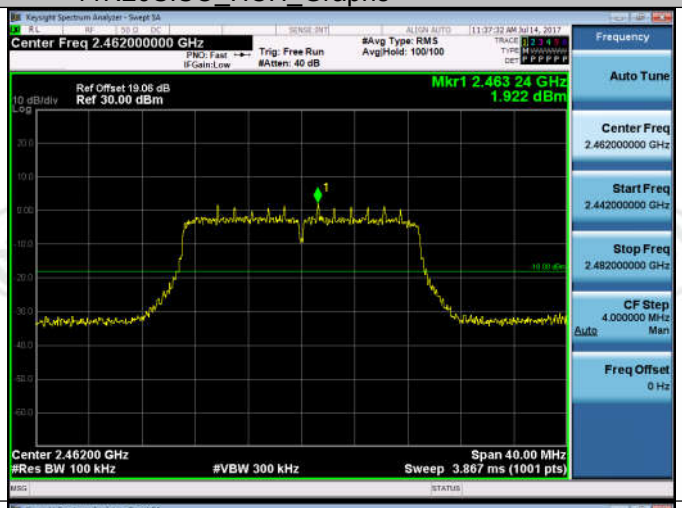
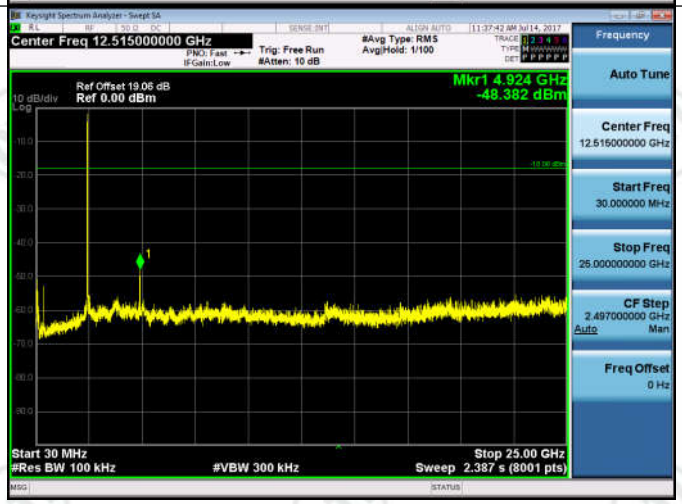
Puw/11G/MCH	

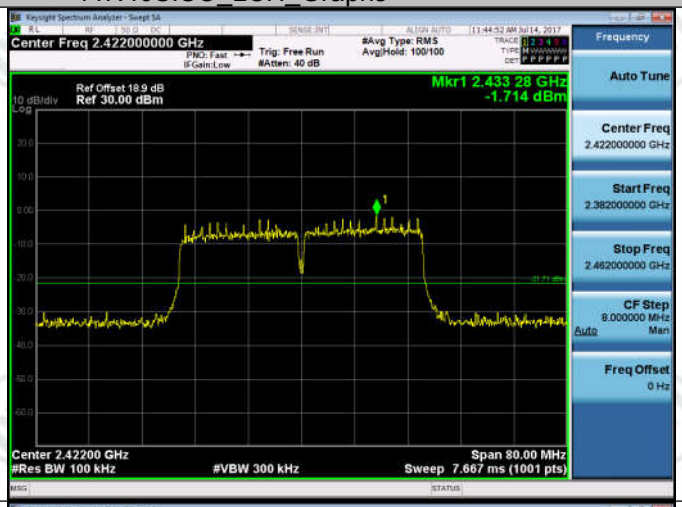
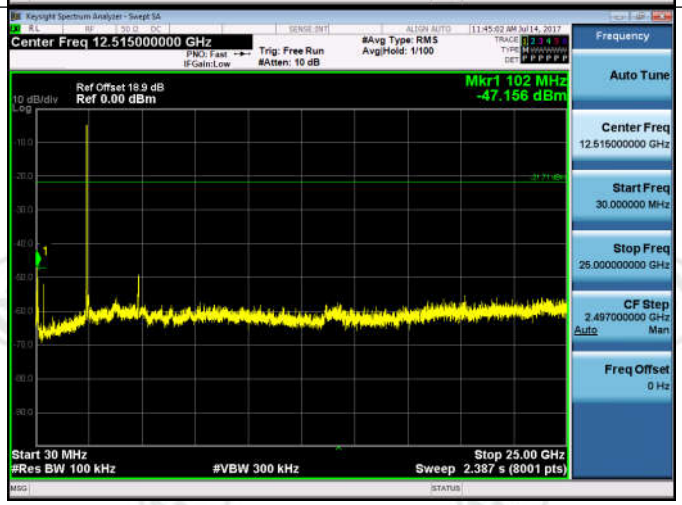
11G_HCH_Graphs	
Pref/11G/HCH	
Puw/11G/HCH	

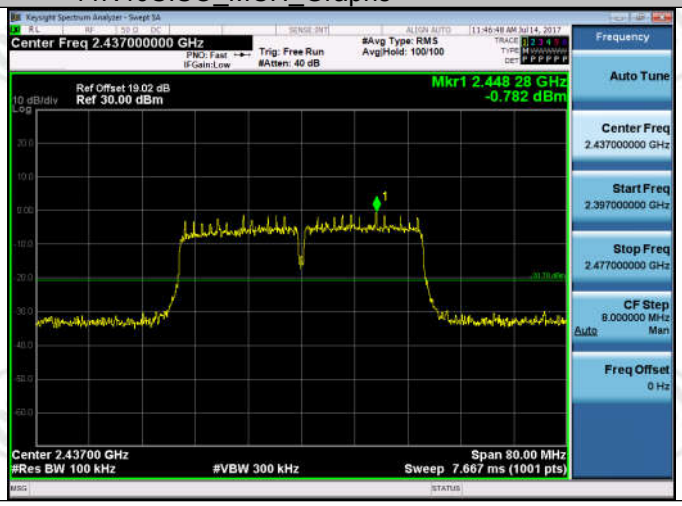
11N20SISO_LCH_Graphs	
Pref/11N20SISO/LCH	
/11N20SISO/LCH	

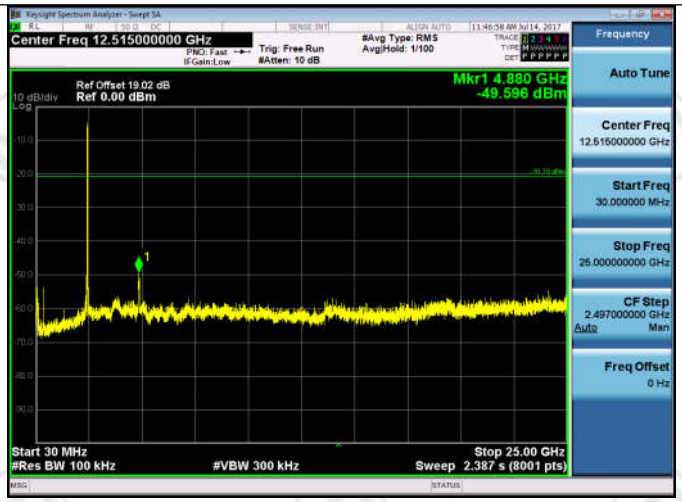
11N20SISO_MCH_Graphs	
Pref/11N20SISO/MCH	

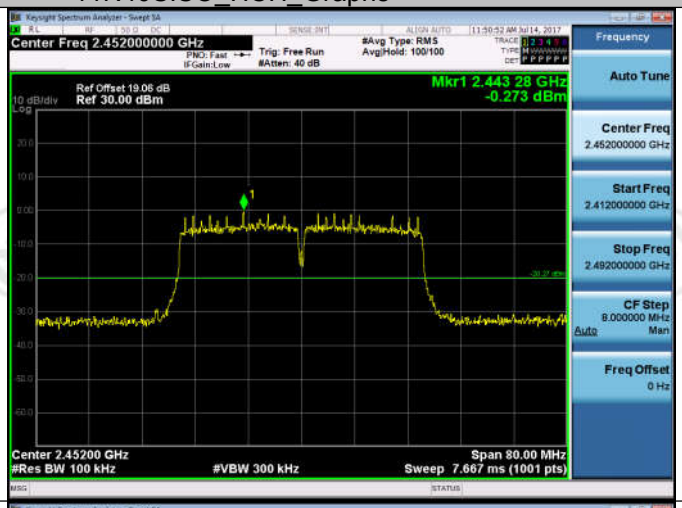
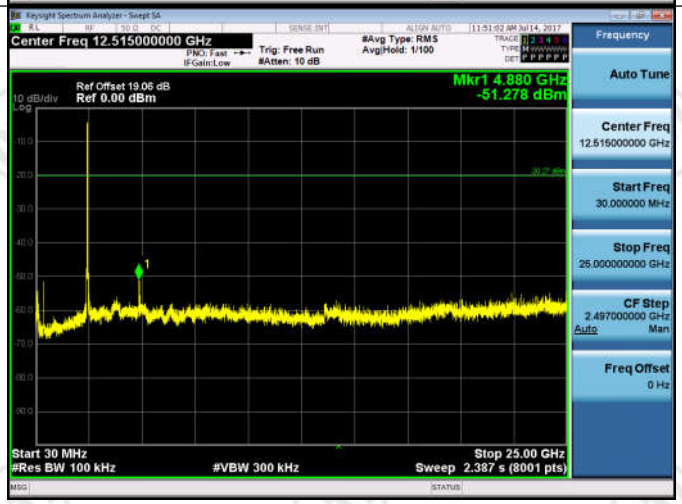
Puw/11N20SISO/MCH	

11N20SISO_HCH_Graphs	
Pref/11N20SISO/HCH	
Puw/11N20SISO/HCH	

11N40SISO_LCH_Graphs	
Pref/11N40SISO/LCH	
Puw/11N40SISO/LCH	

11N40SISO_MCH_Graphs	
Pref/11N40SISO/MCH	

Puw/11N40SISO/MCH	

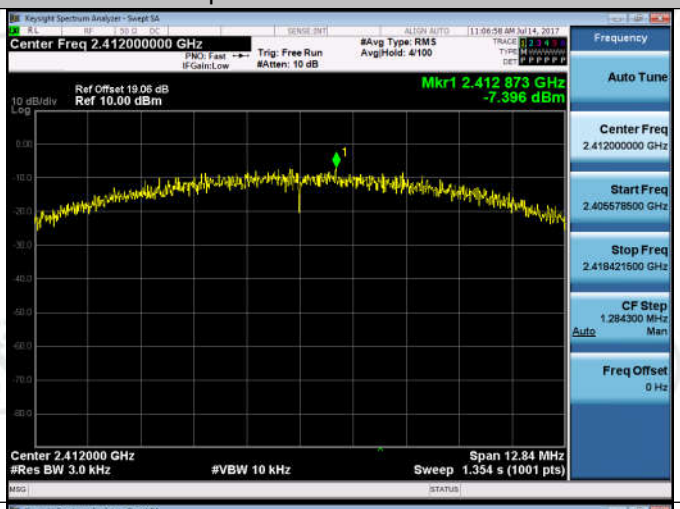
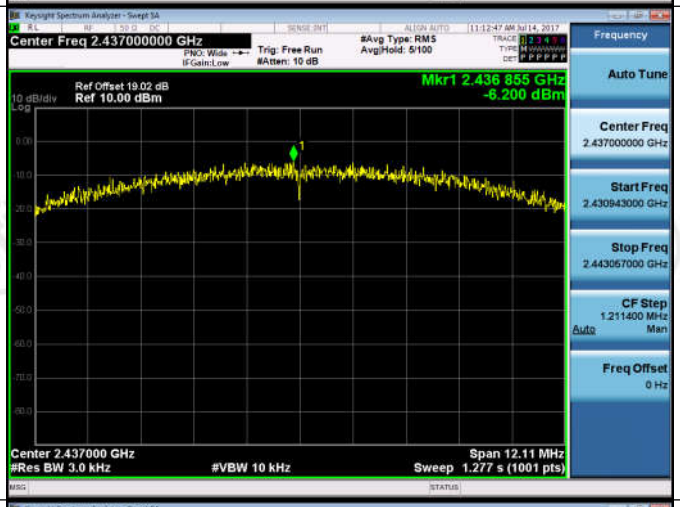
11N40SISO_HCH_Graphs	
Pref/11N40SISO/HCH	
Puw/11N40SISO/HCH	

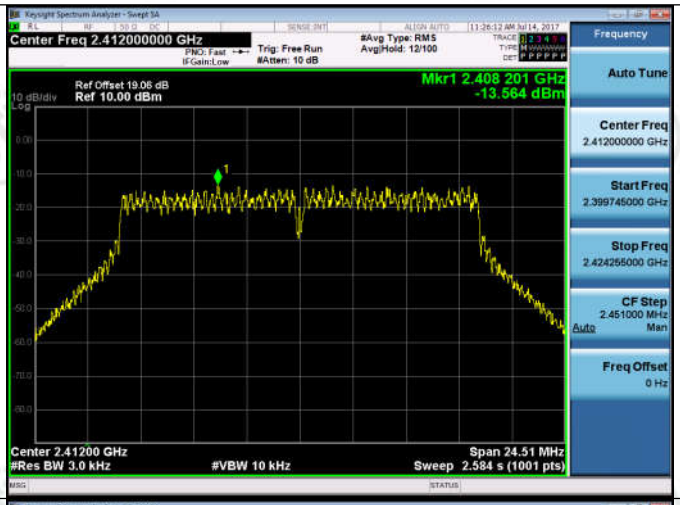
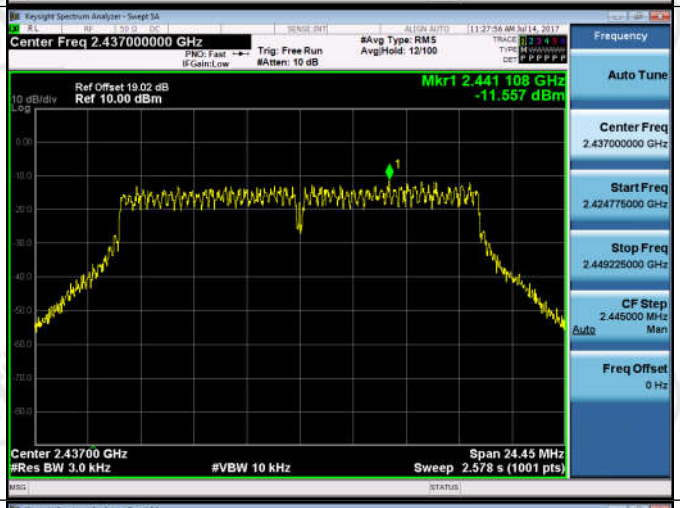
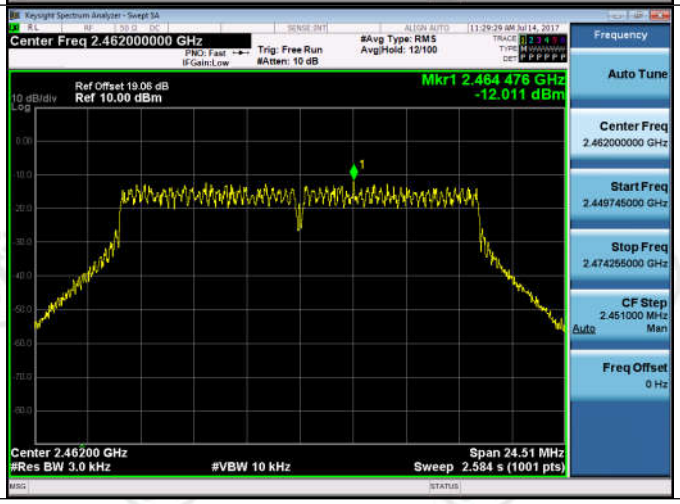
Appendix E): Power Spectral Density

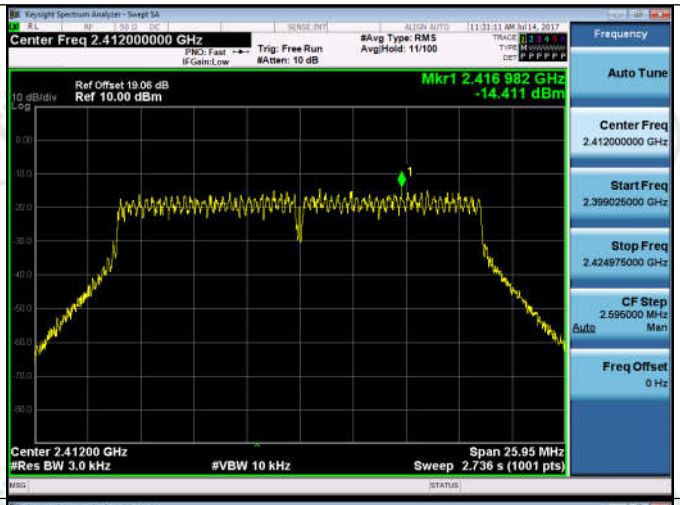
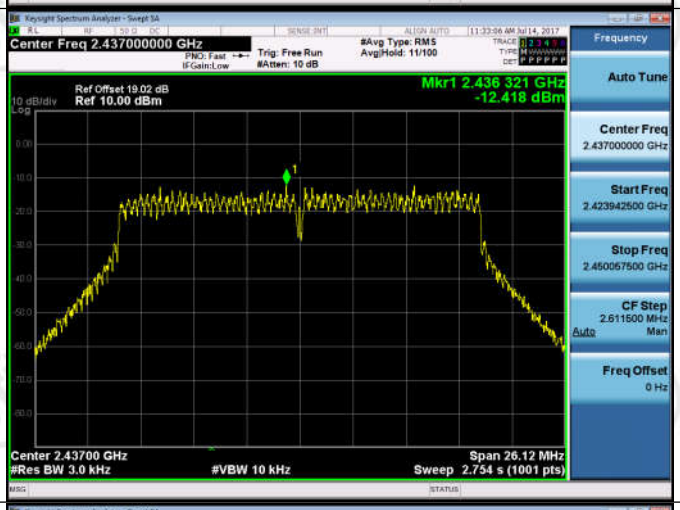
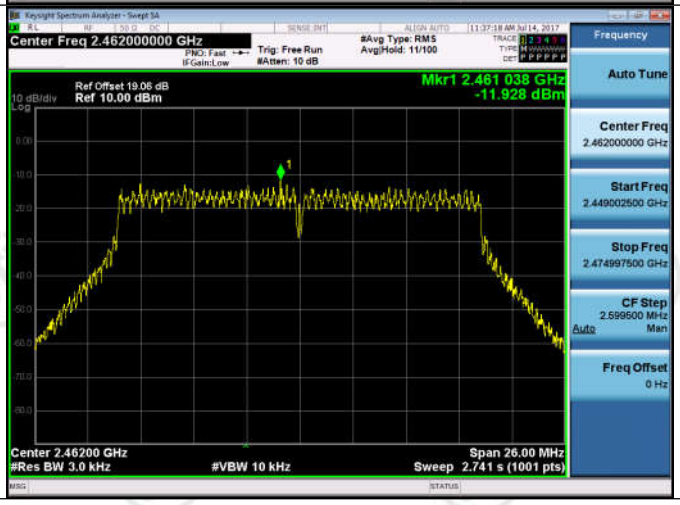
Result Table

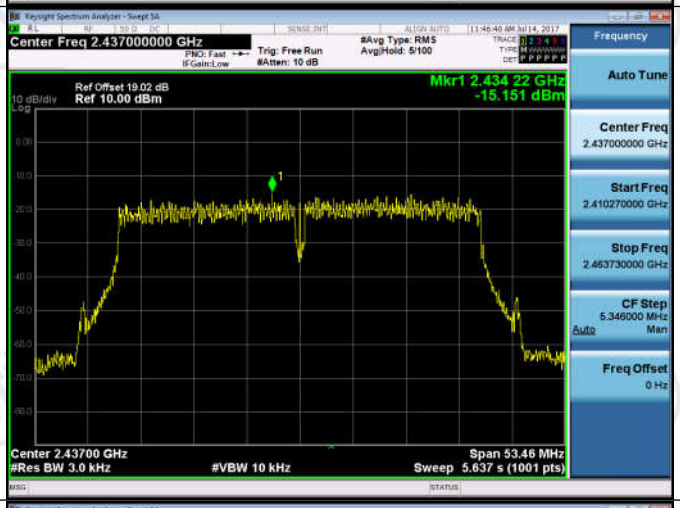
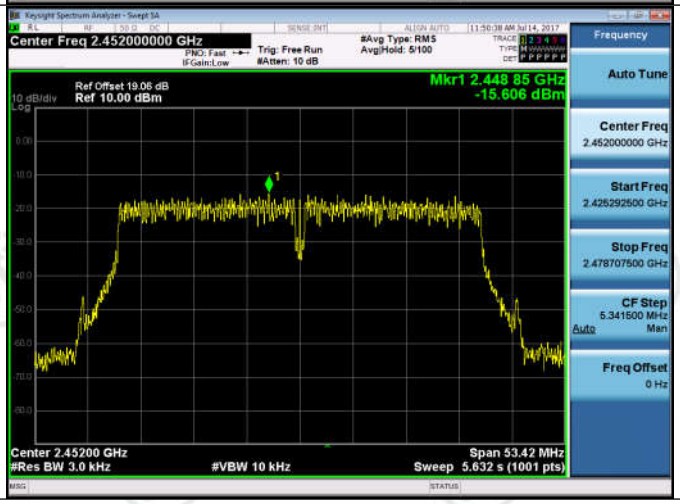
Mode	Channel	Power Spectral Density [dBm]	Verdict
11B	LCH	-7.396	PASS
11B	MCH	-6.200	PASS
11B	HCH	-5.387	PASS
11G	LCH	-13.564	PASS
11G	MCH	-11.557	PASS
11G	HCH	-12.011	PASS
11N20SISO	LCH	-14.411	PASS
11N20SISO	MCH	-12.418	PASS
11N20SISO	HCH	-11.928	PASS
11N40SISO	LCH	-16.357	PASS
11N40SISO	MCH	-15.151	PASS
11N40SISO	HCH	-15.606	PASS

Test Graph

Graphs			
11B/LCH			
11B/MCH			
11B/HCH			

11G/LCH			
11G/MCH			
11G/HCH			

11N20SISO/LCH			
11N20SISO/MCH			
11N20SISO/HCH			

11N40SISO/LCH		
11N40SISO/MCH		
11N40SISO/HCH		

Appendix F): Antenna Requirement

15.203 requirement:

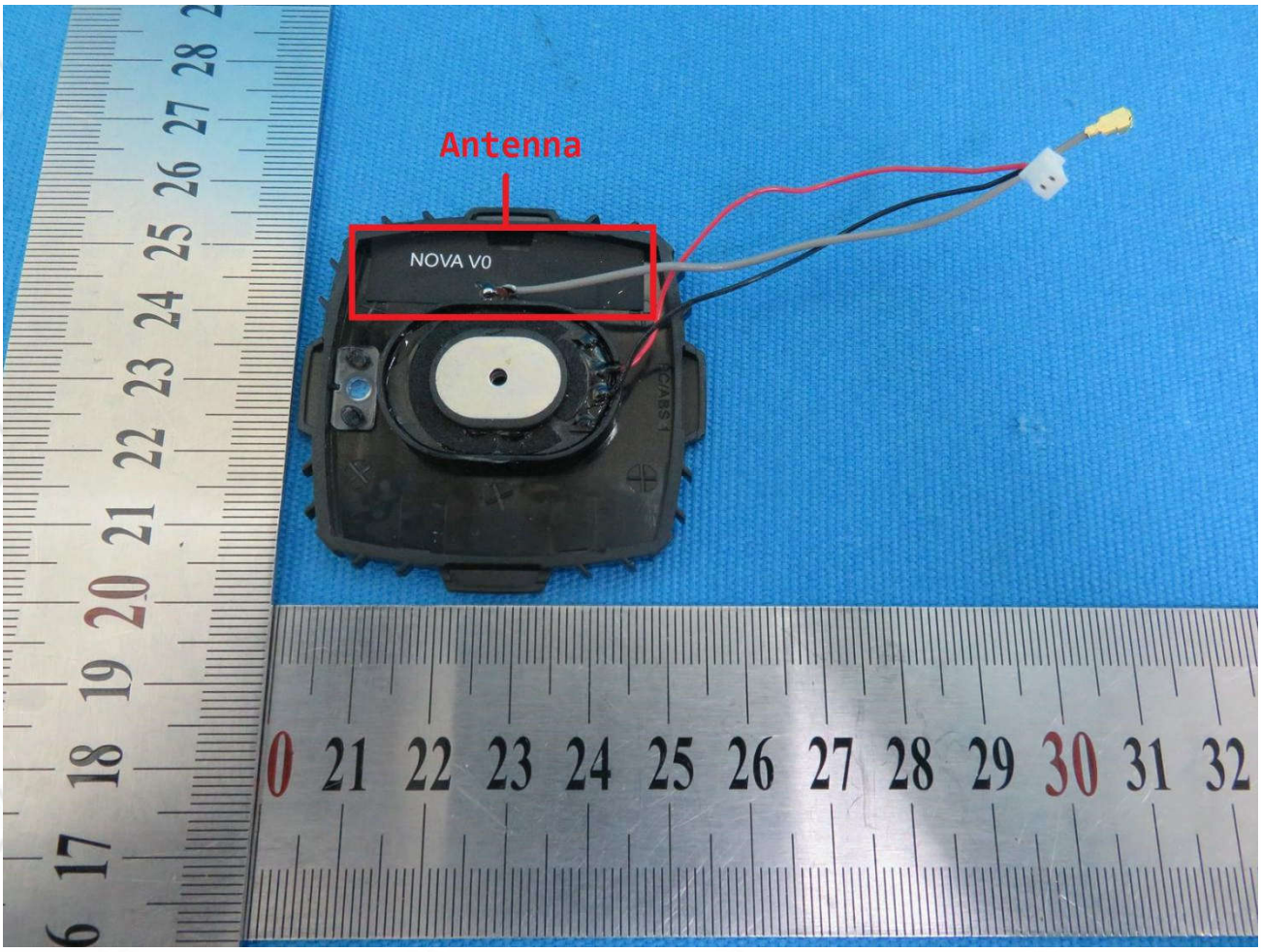
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:	

The antenna is dipole antenna and no consideration of replacement. The best case gain of the antenna is 2.63dBi.



Appendix G): AC Power Line Conducted Emission

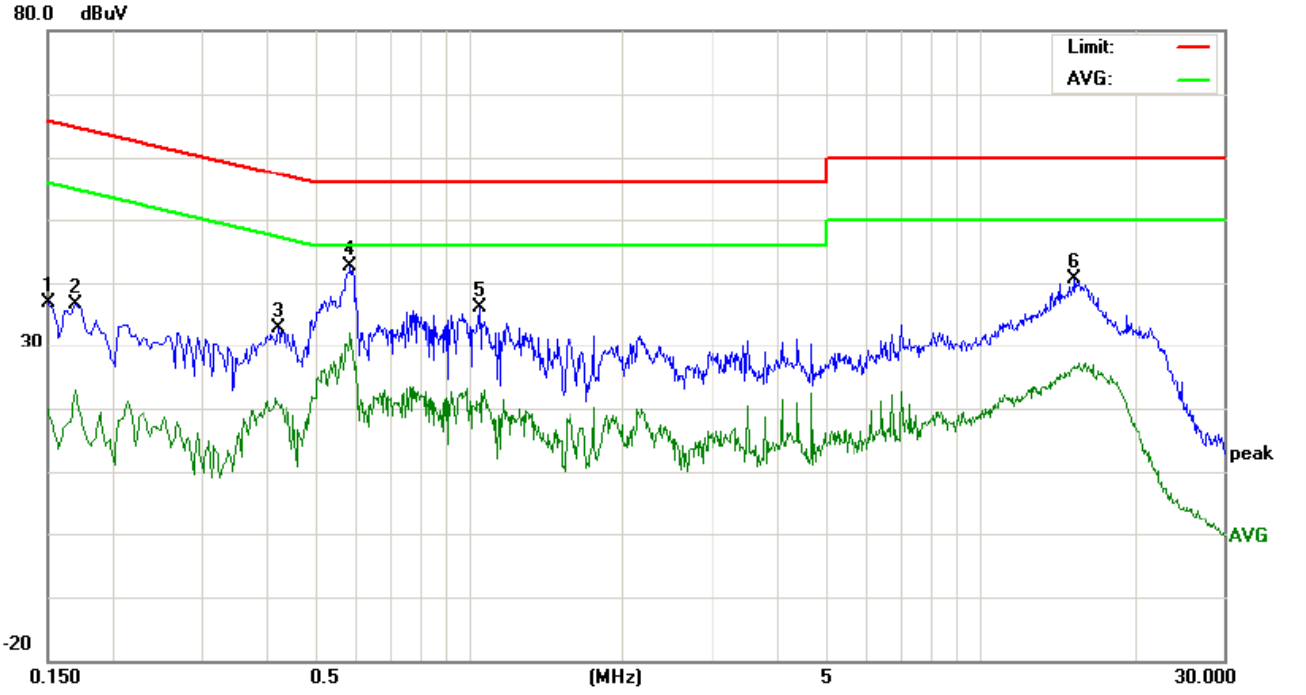
<table>
<tr><td>Test Procedure:</td><td>Test frequency range :150KHz-30MHz
1)The mains terminal disturbance voltage test was conducted in a shielded room.
2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
3)The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBμV)</th></tr>
<tr><th>Quasi-peak</th><th>Average</th></tr>
<tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr>
<tr><td>0.5-5</td><td>56</td><td>46</td></tr>
<tr><td>5-30</td><td>60</td><td>50</td></tr>
</table>
* The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.
NOTE : The lower limit is applicable at the transition frequency</td></tr>
</table>

Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

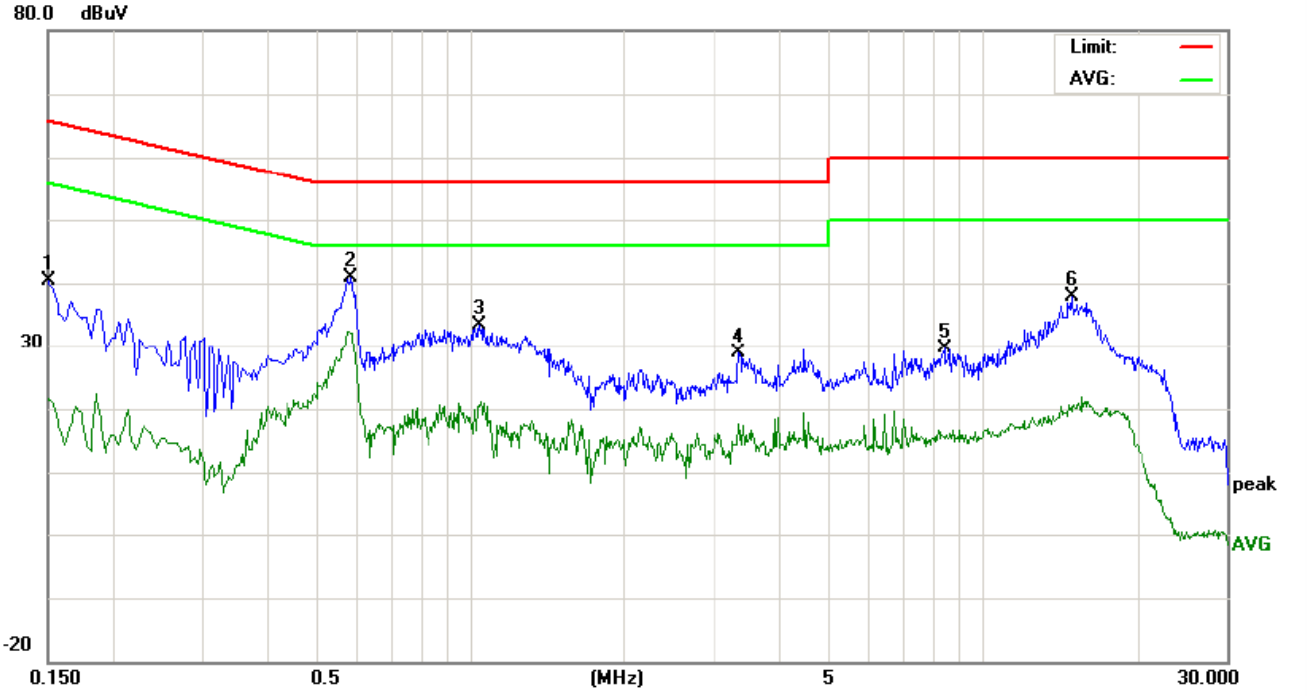
Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Live line:



No.	Freq.	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)			
	MHz	Peak	QP	AVG	dB	peak	QP	AVG	QP	AVG	QP	AVG	P/F	Comment
1	0.1500	27.12		10.01	9.77	36.89		19.78	65.99	55.99	-29.10	-36.21	P	
2	0.1700	26.93		13.10	9.74	36.67		22.84	64.96	54.96	-28.29	-32.12	P	
3	0.4220	23.09		10.83	9.74	32.83		20.57	57.41	47.41	-24.58	-26.84	P	
4	0.5860	32.95		22.34	9.74	42.69		32.08	56.00	46.00	-13.31	-13.92	P	
5	1.0540	26.39		11.22	9.63	36.02		20.85	56.00	46.00	-19.98	-25.15	P	
6	15.3580	30.63		16.46	10.02	40.65		26.48	60.00	50.00	-19.35	-23.52	P	

Neutral line:



No.	Freq.	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)			
	MHz	Peak	QP	AVG	dB	peak	QP	AVG	QP	AVG	QP	AVG	P/F	Comment
1	0.1500	30.48	27.16	11.25	9.77	40.25	36.93	21.02	65.99	55.99	-29.06	-34.97	P	
2	0.5860	31.22	28.17	22.08	9.74	40.96	37.91	31.82	56.00	46.00	-18.09	-14.18	P	
3	1.0460	23.69	19.55	10.11	9.62	33.31	29.17	19.73	56.00	46.00	-26.83	-26.27	P	
4	3.3620	19.12	11.02	3.68	9.67	28.79	20.69	13.35	56.00	46.00	-35.31	-32.65	P	
5	8.4460	19.84	13.14	4.34	9.80	29.64	22.94	14.14	60.00	50.00	-37.06	-35.86	P	
6	14.9140	27.80	19.00	7.83	10.01	37.81	29.01	17.84	60.00	50.00	-30.99	-32.16	P	

Notes:

1. The following Quasi-Peak and Average measurements were performed on the EUT:

2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.

3. AC120V and 240V are tested and found the worst case is 120V, So only the 120V data were shown in the above.

Appendix H): Restricted bands around fundamental frequency (Radiated)

Receiver Setup:

Frequency	Detector	RBW	VBW	Remark
30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

Test Procedure:

Below 1GHz test procedure as below:

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
f. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel

Above 1GHz test procedure as below:

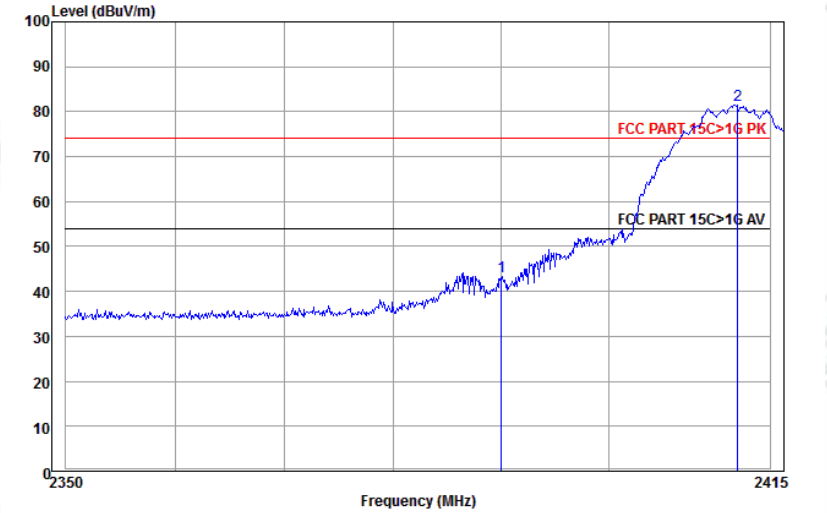
g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber change form table 0.8 meter to 1.5 meter(Above 18GHz the distance is 1 meter and table is 1.5 meter).
h. Test the EUT in the lowest channel , the Highest channel
i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case.
j. Repeat above procedures until all frequencies measured was complete.

Limit:

Frequency	Limit (dBμV/m @3m)	Remark
30MHz-88MHz	40.0	Quasi-peak Value
88MHz-216MHz	43.5	Quasi-peak Value
216MHz-960MHz	46.0	Quasi-peak Value
960MHz-1GHz	54.0	Quasi-peak Value
Above 1GHz	54.0	Average Value
	74.0	Peak Value

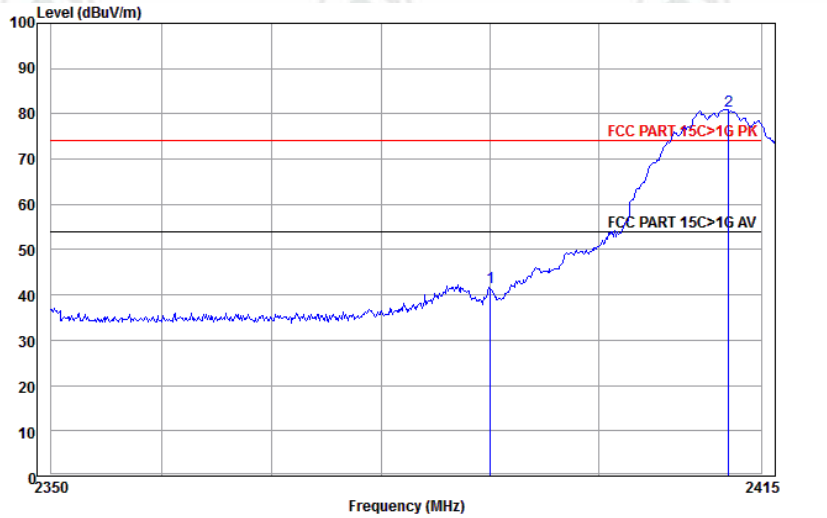
Test plot as follows:

Worse case mode:	802.11b (11Mbps)		
Frequency: 2390.0MHz	Test channel: Lowest	Polarization: Horizontal	Remark: Peak



	Freq	Ant Factor	Preamp Factor	Cable Loss	Read Level	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB		
1	2390.000	32.53	44.03	3.07	51.85	43.42	74.00	-30.58	Vertical	Peak
2 pp	2412.000	32.58	44.05	3.08	89.75	81.36	74.00	7.36	Vertical	Peak

Worse case mode:	802.11b (11Mbps)		
Frequency: 2390.0MHz	Test channel: Lowest	Polarization: Vertical	Remark: Peak



	Freq	Ant Factor	Preamp Factor	Cable Loss	Read Level	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB		
1	2390.000	32.53	44.03	3.07	50.17	41.74	74.00	-32.26	Horizontal	Peak
2 pp	2412.000	32.58	44.05	3.08	89.17	80.78	74.00	6.78	Horizontal	Peak