TEST REPORT

Product	:	Kami Baby Monitor
Trade mark	:	kami/ kami baby
Model/Type reference	:	YYS.5019
Serial Number	:	N/A
Report Number	:	EED32M00172003
FCC ID	:	2AFIB-YYS5019
Date of Issue	:	Jul. 10, 2020
Test Standards	:	47 CFR Part 15Subpart C
Test result	:	PASS

Prepared for:

Shanghai Xiaoyi Technology Co., Ltd.
Room 1608, No.515 huanke Road, China (Shanghai)
Pilot Free Trade Zone , Shanghai, China, 20000

Prepared by:

Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District,
Shenzhen, Guangdong, China
TEL: +86-755-3368 3668
FAX: +86-755-3368 3385

Compiled by:	Sunlight Sun	Reviewed by:	Ware Xin
	Sunlight Sun		Ware Xin
Approved by:	Sam Chuang	Date:	Jul. 10, 2020
	Sam Chuang		

Check No.: 3915582838

2 Version

Version No.	Date	Description
00	Jul. 10, 2020	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	PASS
6dB Occupied Bandwidth	47 CFR Part 15 Subpart C Section 15.247 (a)(2)	ANSI C63.10-2013	PASS
Power Spectral Density	47 CFR Part 15 Subpart C Section 15.247 (e)	ANSI C63.10-2013	PASS
Band-edge for RF Conducted Emissions	47 CFR Part 15 Subpart C Section 15.247(d)	ANSI C63.10-2013	PASS
RF Conducted Spurious Emissions	47 CFR Part 15 Subpart C Section 15.247(d)	ANSI C63.10-2013	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.

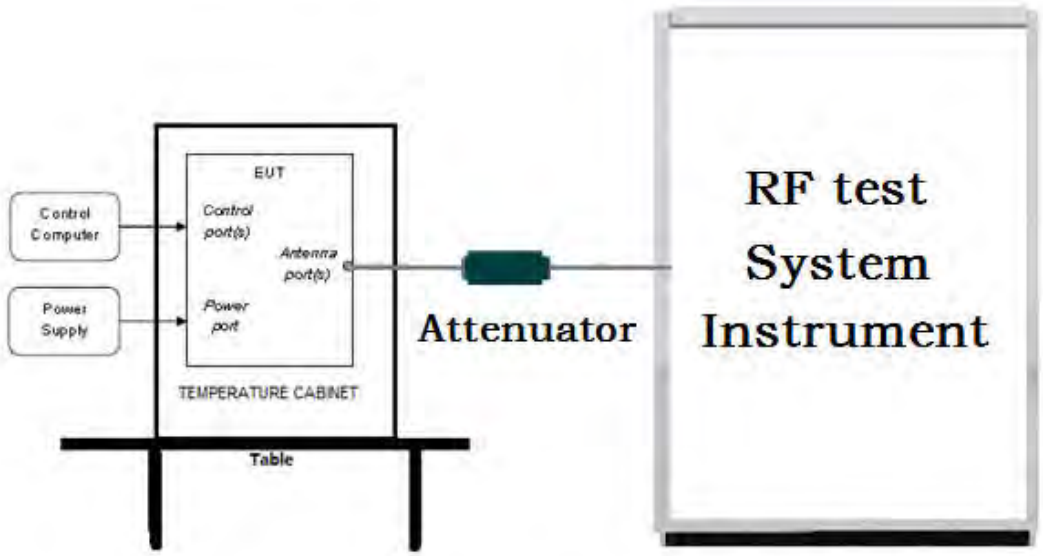
All test data come from the report of No.EED32L00138903, Updated product names and trademarks as wel as applicant and manufacturer addresses

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:

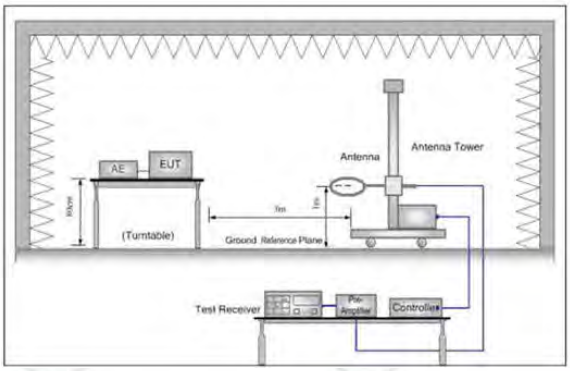


Figure 1. Below 30MHz

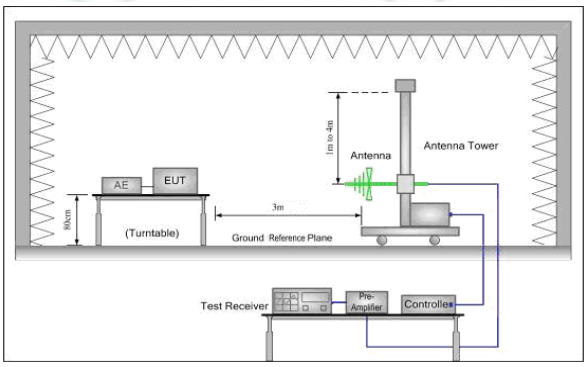


Figure 2. 30MHz to 1GHz

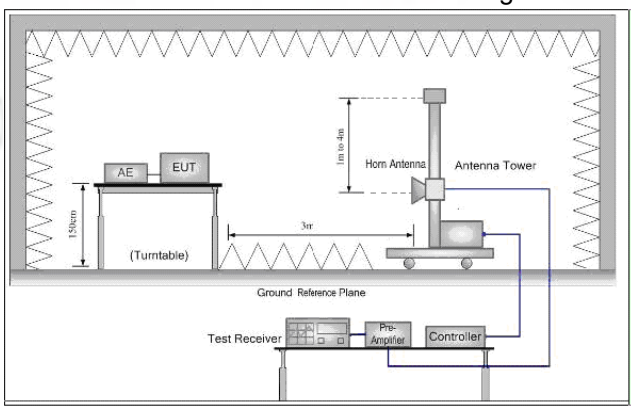
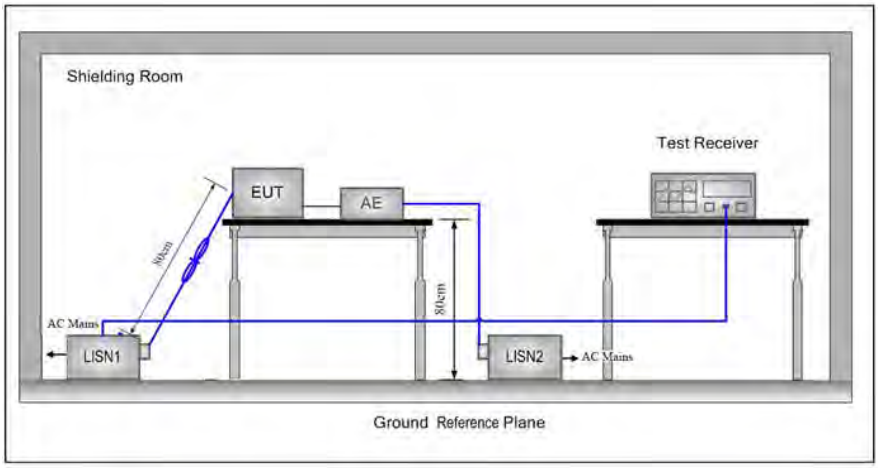


Figure 3. Above 1GHz

5.1.3 For Conducted Emissions test setup

Conducted Emissions setup



5.2 Test Environment

Operating Environment:	
Temperature:	23.0 °C
Humidity:	54 % RH
Atmospheric Pressure:	1010mbar

5.3 Test Condition

Test channel:

Test Mode	Tx/Rx	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 in transmitting mode with all kind of modulation and all kind of data rate.			

Test mode:

Pre-scan under all rate at lowest channel 1

Mode	802.11b			
Data Rate	1Mbps	2Mbps	5.5Mbps	11Mbps
Power(dBm)	15.73	15.76	15.79	15.81

Mode	802.11g							
Data Rate	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
Power(dBm)	12.76	12.73	12.71	12.69	12.65	12.63	12.60	12.59

Mode	802.11n (HT20)							
Data Rate	6.5Mbps	13Mbps	19.5Mbps	26Mbps	39Mbps	52Mbps	58.5Mbps	65Mbps
Power(dBm)	12.62	12.60	12.58	12.55	12.52	12.50	12.48	12.46
Mode	802.11n (HT40)							
Data Rate	13.5Mbps	27Mbps	40.5Mbps	54Mbps	81Mbps	108Mbps	121.5Mbps	135Mbps
Power(dBm)	14.38	13.36	13.35	13.33	13.30	13.29	13.25	13.23

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:	Shanghai Xiaoyi Technology Co., Ltd.
Address of Applicant:	Room 1608, No.515 huanke Road, China (Shanghai) Pilot Free Trade Zone , Shanghai, China, 20000
Manufacturer:	YI Technologies,Inc.
Address of Manufacturer:	Room 1608, No.515 huanke Road, China (Shanghai) Pilot Free Trade Zone , Shanghai, China, 20000

6.2 General Description of EUT

Product Name:	Kami Baby Monitor	
Model No.(EUT):	YYS.5019	
Trade Mark:	kami/ kami baby	
EUT Supports Radios application:	2.4G WiFi, 802.11b/g/n(20MHz)/n(40MHz) ,2412-2462MHz	
Power Supply:	AC Adapter	Input:100-240V 50/60Hz 0.35A Output 5V 2A Dongguan AOHAI power Technology co.LTD
	Battery	N/A
Sample Received Date:	Jun. 03, 2019	
Sample tested Date:	Jun. 03, 2019 to Aug. 02, 2019	

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(CCK,DQPSK,DBPSK) IEEE for 802.11g :OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20 and HT40) : OFDM (64QAM, 16QAM, QPSK,BPSK)
Test Power Grade:	B:30 / G:34 / N20:36 / N40:38 (manufacturer declare)
Test Software of EUT:	secureCRT (manufacturer declare)
Antenna Type and Gain:	Type: FPC Gain:4.67dBi
Test Voltage:	5V

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

The EUT has been tested independently

6.5 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd
Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China
Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385
No tests were sub-contracted.
FCC Designation No.: CN1164

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	0.46dB (30MHz-1GHz)
		0.55dB (1GHz-18GHz)
3	Radiated Spurious emission test	4.3dB (30MHz-1GHz)
		4.5dB (1GHz-12.75GHz)
4	Conduction emission	3.5dB (9kHz to 150kHz)
		3.1dB (150kHz to 30MHz)
5	Temperature test	0.64°C
6	Humidity test	3.8%
7	DC power voltages	0.026%

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	03-01-2019	02-28-2020
Spectrum Analyzer	Keysight	N9010A	MY54510339	03-01-2019	02-28-2020
Attenuator	HuaXiang	SHX370	15040701	03-01-2019	02-28-2020
Signal Generator	Keysight	N5181A	MY46240094	03-01-2019	02-28-2020
Signal Generator	Keysight	N5182B	MY53051549	03-01-2019	02-28-2020
Temperature/ Humidity Indicator	biaozhi	HM10	1804186	10-12-2018	10-11-2019
High-pass filter	Sinoscite	FL3CX03WG18 NM12-0398-002	---	01-09-2019	01-08-2020
High-pass filter	MICRO-TRONICS	SPA-F-63029-4	---	01-09-2019	01-08-2020
band rejection filter	Sinoscite	FL5CX01CA09 CL12-0395-001	---	01-09-2019	01-08-2020
band rejection filter	Sinoscite	FL5CX01CA08 CL12-0393-001	---	01-09-2019	01-08-2020
band rejection filter	Sinoscite	FL5CX02CA04 CL12-0396-002	---	01-09-2019	01-08-2020
band rejection filter	Sinoscite	FL5CX02CA03 CL12-0394-001	---	01-09-2019	01-08-2020
Communicati on test set	R&S	CMW500	107929	04-28-2019	04-26-2020
DC Power	Keysight	E3642A	MY54426035	03-01-2019	02-28-2020
PC-1	Lenovo	R4960d	---	03-01-2019	02-28-2020
BT&WI-FI Automatic control	R&S	OSP120	101374	03-01-2019	02-28-2020
RF control unit	JS Tonscend	JS0806-2	15860006	03-01-2019	02-28-2020
RF control unit	JS Tonscend	JS0806-1	15860004	03-01-2019	02-28-2020
RF control unit	JS Tonscend	JS0806-4	158060007	03-01-2019	02-28-2020
BT&WI-FI Automatic test software	JS Tonscend	JSTS1120-2	---	03-01-2019	02-28-2020
high-low temperature test chamber	DongGuangQi nZhuo	LK-80GA	QZ20150611 879	03-01-2019	02-28-2020

3M full-anechoic Chamber					
Equipment	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. date (mm-dd-yyyy)**	**Cal. Due date (mm-dd-yyyy)**
RSE Automatic test software	JS Tonscend	JS36-RSE	10166	06-19-2019	06-17-2020
Receiver	Keysight	N9038A	MY57290136	03-27-2019	03-25-2020
Spectrum Analyzer	Keysight	N9020B	MY57111112	03-27-2019	03-25-2020
Spectrum Analyzer	Keysight	N9030B	MY57140871	03-27-2019	03-25-2020
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-075	04-25-2018	04-23-2021
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-076	04-25-2018	04-23-2021
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	9163-1148	04-25-2018	04-23-2021
Horn Antenna	Schwarzbeck	BBHA 9170	9170-832	04-25-2018	04-23-2021
Horn Antenna	Schwarzbeck	BBHA 9170	9170-829	04-25-2018	04-23-2021
Communication Antenna	Schwarzbeck	CLSA 0110L	1014	02-14-2019	02-13-2020
Biconical antenna	Schwarzbeck	VUBA 9117	9117-381	04-25-2018	04-23-2021
Horn Antenna	ETS-LINDGREN	3117	00057407	07-10-2018	07-08-2021
Preamplifier	EMCI	EMC184055SE	980596	05-22-2019	5-20-2020
Communication test set	R&S	CMW500	102898	01-18-2019	01-17-2020
Preamplifier	EMCI	EMC001330	980563	05-08-2019	05-06-2020
Preamplifier	Agilent	8449B	3008A02425	08-21-2018	08-20-2019
Temperature/ Humidity Indicator	biaozhi	GM1360	EE1186631	05-01-2019	04-30-2020
Signal Generator	KEYSIGHT	E8257D	MY53401106	03-01-2019	02-28-2020
Fully Anechoic Chamber	TDK	FAC-3	---	01-17-2018	01-15-2021
Filter bank	JS Tonscend	JS0806-F	188060094	04-10-2018	04-08-2021
Cable line	Times	SFT205-NMSM-2.50M	394812-0001	01-09-2019	01-08-2020
Cable line	Times	SFT205-NMSM-2.50M	394812-0002	01-09-2019	01-08-2020
Cable line	Times	SFT205-NMSM-2.50M	394812-0003	01-09-2019	01-08-2020
Cable line	Times	SFT205-NMSM-2.50M	393495-0001	01-09-2019	01-08-2020
Cable line	Times	EMC104-NMNM-1000	SN160710	01-09-2019	01-08-2020
Cable line	Times	SFT205-NMSM-3.00M	394813-0001	01-09-2019	01-08-2020
Cable line	Times	SFT205-NMNM-1.50M	381964-0001	01-09-2019	01-08-2020
Cable line	Times	SFT205-NMSM-7.00M	394815-0001	01-09-2019	01-08-2020
Cable line	Times	HF160-KMKM-3.00M	393493-0001	01-09-2019	01-08-2020

3M Semi/full-anechoic Chamber					
Equipment	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. date (mm-dd-yyyy)**	**Cal. Due date (mm-dd-yyyy)**
3M Chamber & Accessory Equipment	TDK	SAC-3	---	05-24-2019	05-22-2020
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	9163-401	12-21-2018	12-20-2019
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	9163-617	11-04-2018	11-03-2019
Microwave Preamplifier	Agilent	8449B	3008A02425	08-21-2018	08-20-2019
Microwave Preamplifier	Tonscend	EMC051845SE	980380	01-16-2019	01-15-2020
Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-1869	04-25-2018	04-23-2021
Horn Antenna	ETS-LINDGREN	3117	00057410	06-05-2018	06-03-2021
Double ridge horn antenna	A.H.SYSTEMS	SAS-574	374	06-05-2018	06-04-2021
Pre-amplifier	A.H.SYSTEMS	PAP-1840-60	6041.6041	08-08-2018	08-07-2019
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-076	04-25-2018	04-25-2021
Spectrum Analyzer	R&S	FSP40	100416	04-28-2019	04-26-2020
Receiver	R&S	ESCI	100435	05-20-2019	05-18-2020
Receiver	R&S	ESCI7	100938-003	11-23-2018	11-22-2019
Multi device Controller	maturo	NCD/070/10711112	---	01-09-2019	01-08-2020
Signal Generator	Agilent	E4438C	MY45095744	03-01-2019	02-28-2020
Signal Generator	Keysight	E8257D	MY53401106	03-01-2019	02-28-2020
Temperature/ Humidity Indicator	Shanghai qixiang	HM10	1804298	10-12-2018	10-11-2019
Communication test set	Agilent	E5515C	GB47050534	03-01-2019	02-28-2020
Cable line	Fulai(7M)	SF106	5219/6A	01-09-2019	01-08-2020
Cable line	Fulai(6M)	SF106	5220/6A	01-09-2019	01-08-2020
Cable line	Fulai(3M)	SF106	5216/6A	01-09-2019	01-08-2020
Cable line	Fulai(3M)	SF106	5217/6A	01-09-2019	01-08-2020
High-pass filter	Sinoscite	FL3CX03WG18NM12-0398-002	---	01-09-2019	01-08-2020
High-pass filter	MICRO-TRONICS	SPA-F-63029-4	---	01-09-2019	01-08-2020
band rejection filter	Sinoscite	FL5CX01CA09CL12-0395-001	---	01-09-2019	01-08-2020
band rejection filter	Sinoscite	FL5CX01CA08CL12-0393-001	---	01-09-2019	01-08-2020
band rejection filter	Sinoscite	FL5CX02CA04CL12-0396-002	---	01-09-2019	01-08-2020
band rejection filter	Sinoscite	FL5CX02CA03CL12-0394-001	---	01-09-2019	01-08-2020

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:

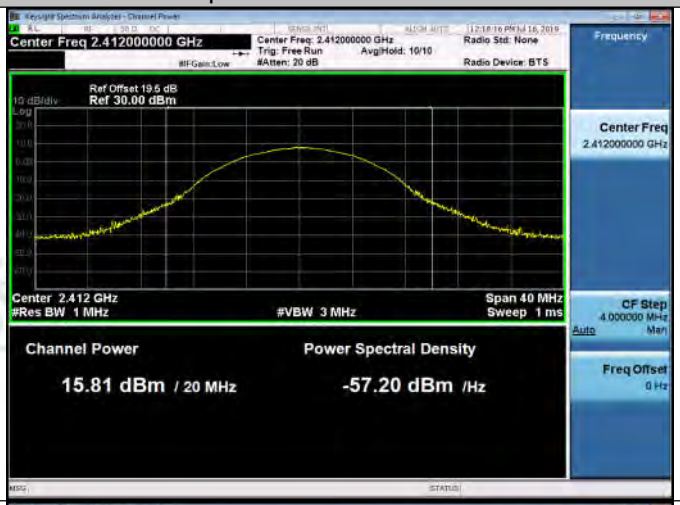
Test Requirement	Test method	Test item	Verdict	Note
Part15C Section 15.247 (b)(3)	ANSI C63.10	Conducted Peak Output Power	PASS	Appendix A)
Part15C Section 15.247 (a)(2)	ANSI C63.10	6dB Occupied Bandwidth	PASS	Appendix B)
Part15C Section 15.247(d)	ANSI C63.10	Band-edge for RF Conducted Emissions	PASS	Appendix C)
Part15C Section 15.247(d)	ANSI C63.10	RF Conducted Spurious Emissions	PASS	Appendix D)
Part15C Section 15.247 (e)	ANSI C63.10	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)

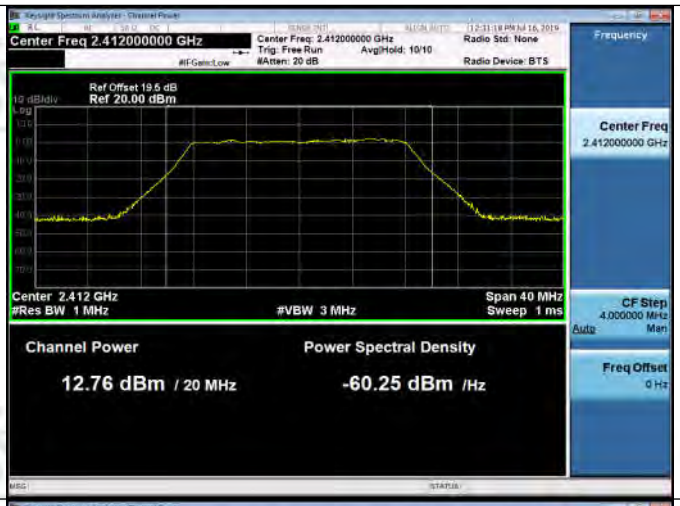
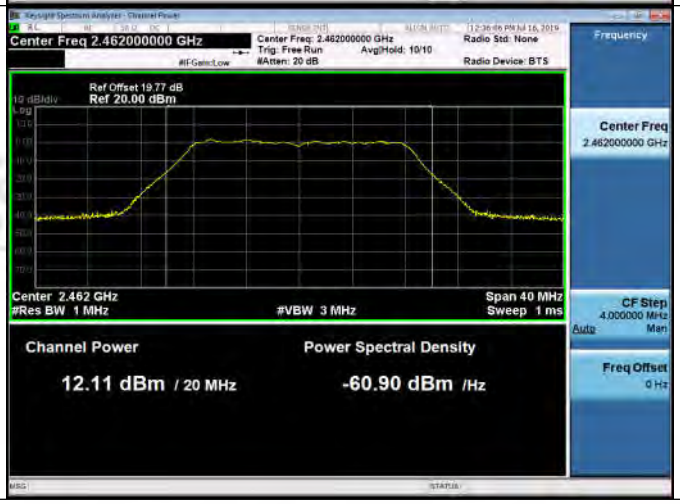
Appendix A): Conducted Peak Output Power

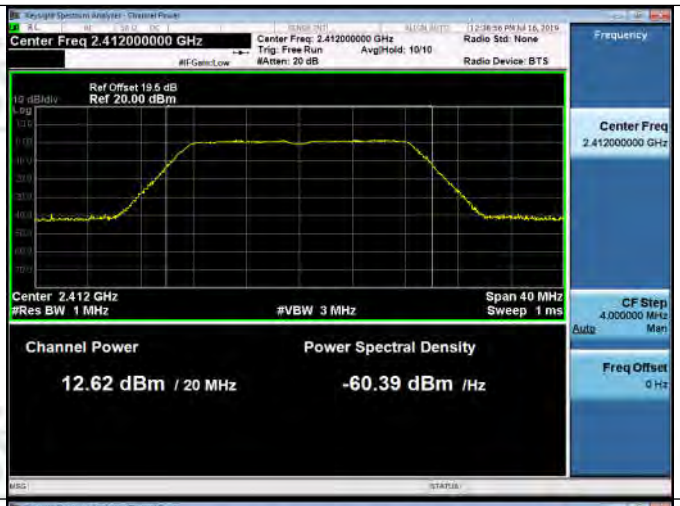
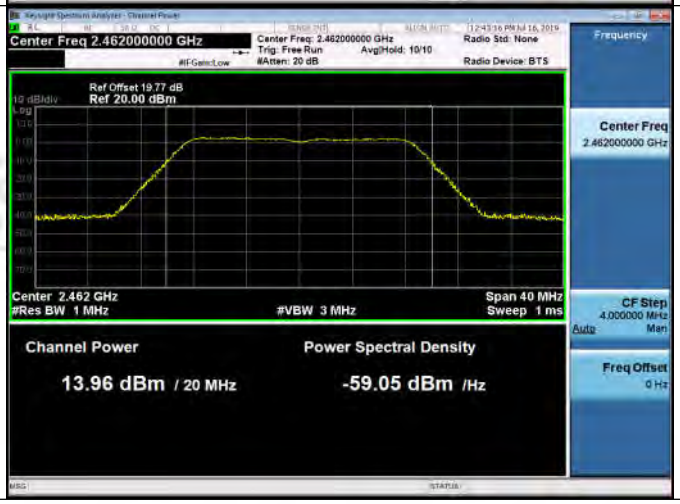
Result Table

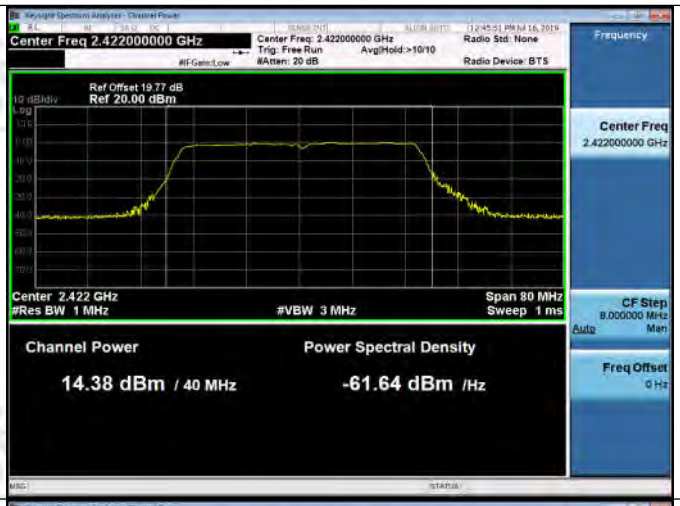
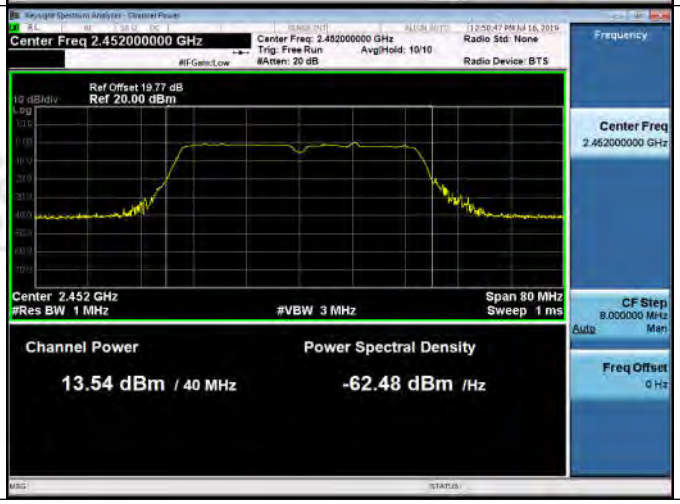
Mode	Channel	Conducted Peak Output Power [dBm]	Verdict
11B	LCH	15.81	PASS
11B	MCH	16.35	PASS
11B	HCH	15.05	PASS
11G	LCH	12.76	PASS
11G	MCH	12.89	PASS
11G	HCH	12.11	PASS
11N20SISO	LCH	12.62	PASS
11N20SISO	MCH	13.4	PASS
11N20SISO	HCH	13.96	PASS
11N40SISO	LCH	14.38	PASS
11N40SISO	MCH	13.82	PASS
11N40SISO	HCH	13.54	PASS

Test Graph

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

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

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

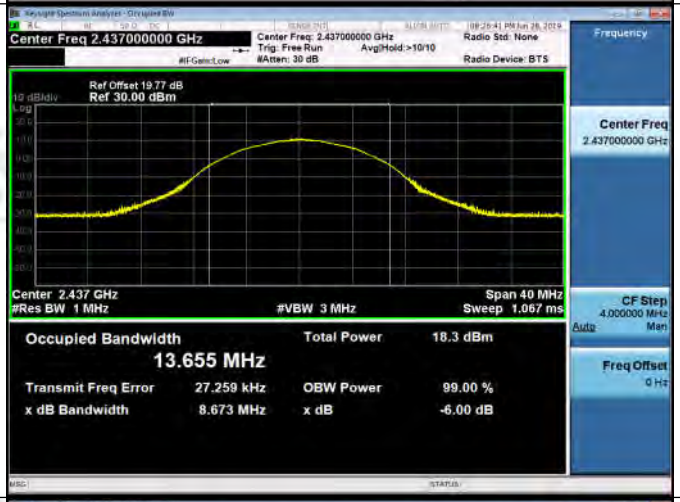
11N40SISO/LCH			
11N40SISO/MCH			
11N40SISO/HCH			

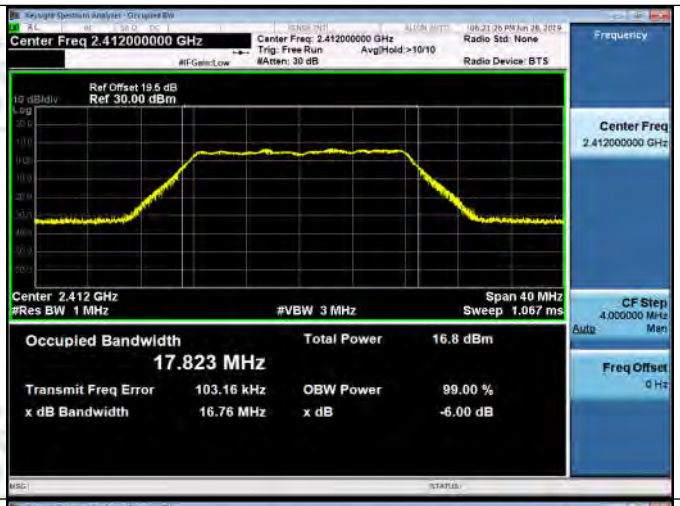
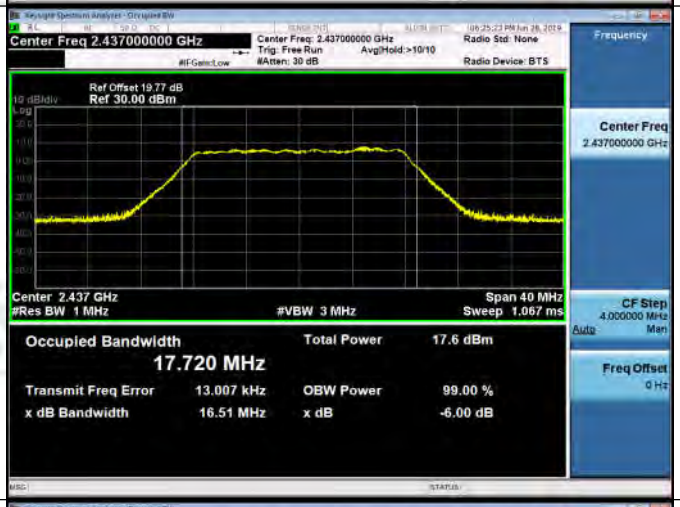
Appendix B): 6dB Occupied Bandwidth

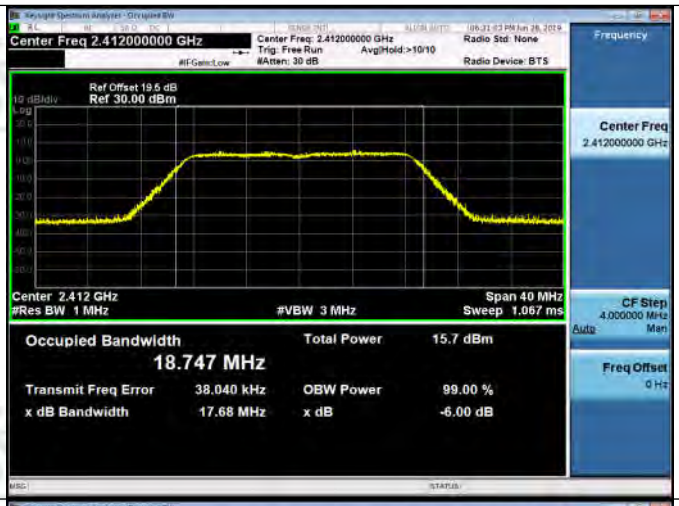
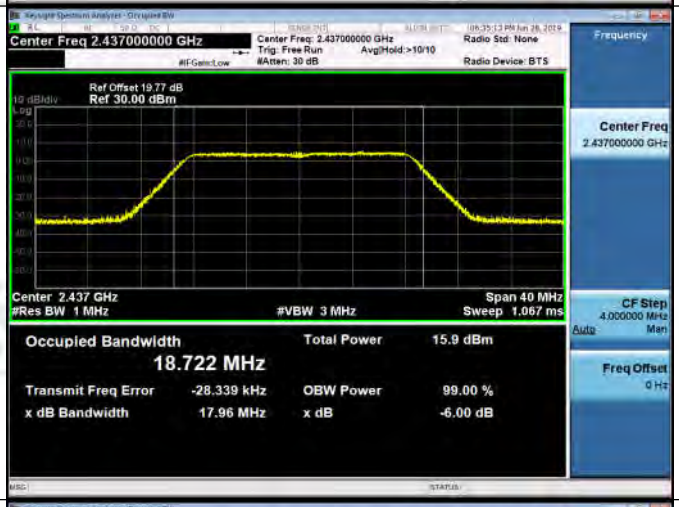
Result Table

Mode	Channel	6dB Bandwidth [MHz]	99% OBW [MHz]	Verdict
11B	LCH	8.754	13.602	PASS
11B	MCH	8.673	13.655	PASS
11B	HCH	8.892	13.783	PASS
11G	LCH	16.76	17.823	PASS
11G	MCH	16.51	17.720	PASS
11G	HCH	16.63	17.839	PASS
11N20SISO	LCH	17.68	18.747	PASS
11N20SISO	MCH	17.96	18.722	PASS
11N20SISO	HCH	17.94	18.776	PASS
11N40SISO	LCH	36.71	36.759	PASS
11N40SISO	MCH	36.37	36.578	PASS
11N40SISO	HCH	36.55	36.674	PASS

Test Graph

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

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

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

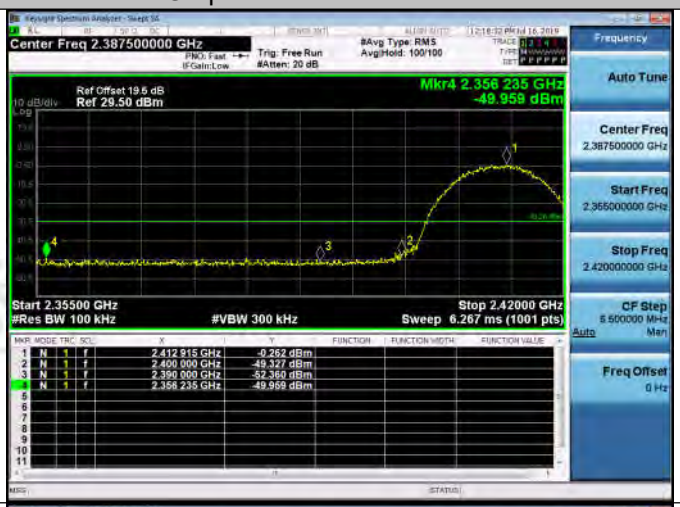
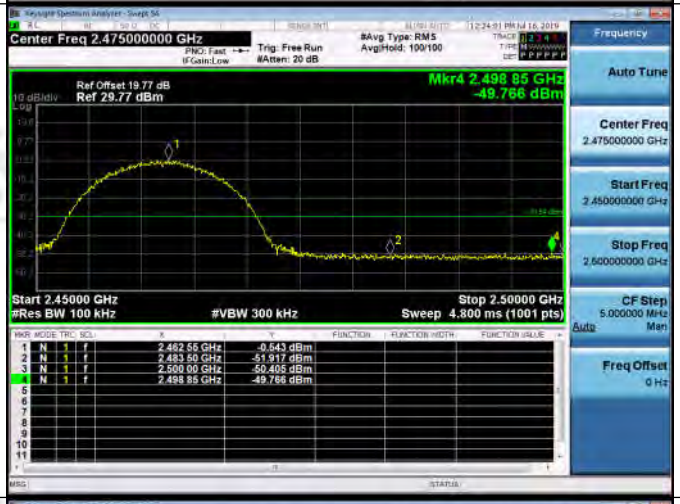
11N40SISO/LCH			
11N40SISO/MCH			
11N40SISO/HCH			

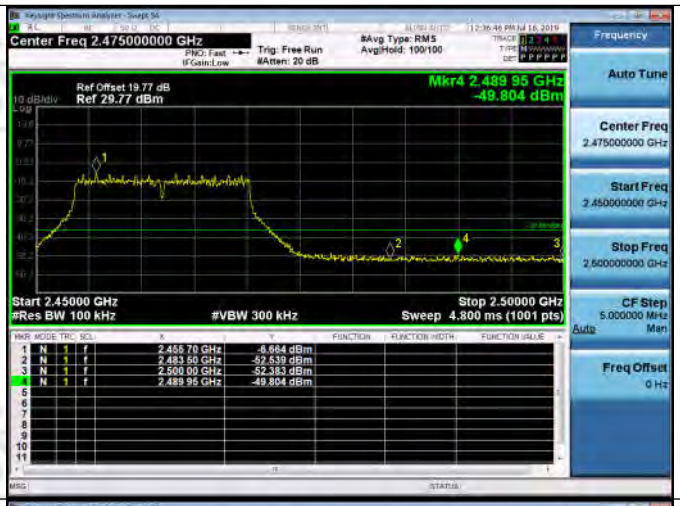
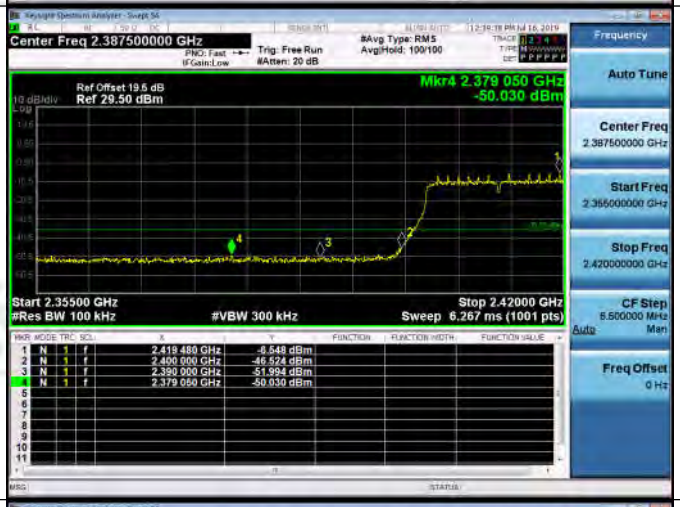
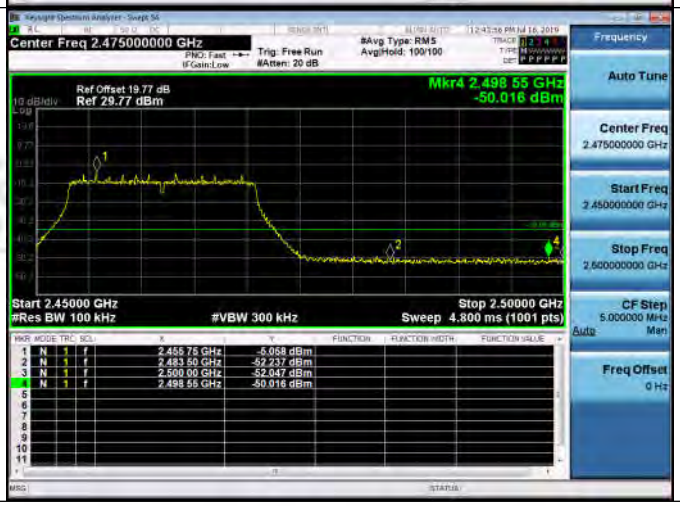
Appendix C): Band-edge for RF Conducted Emissions

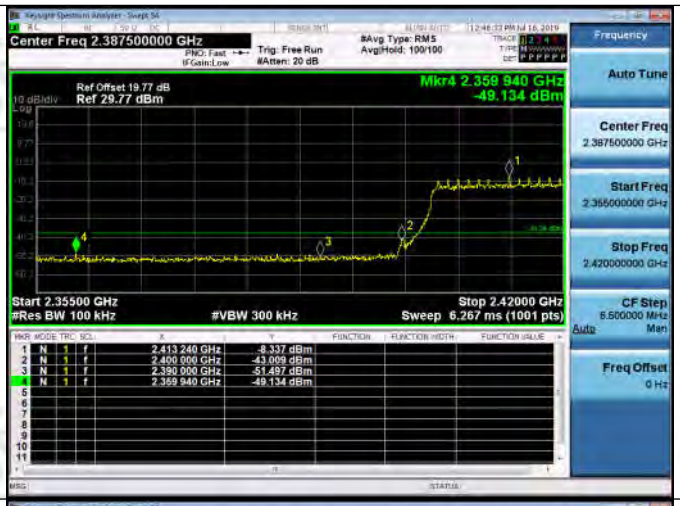
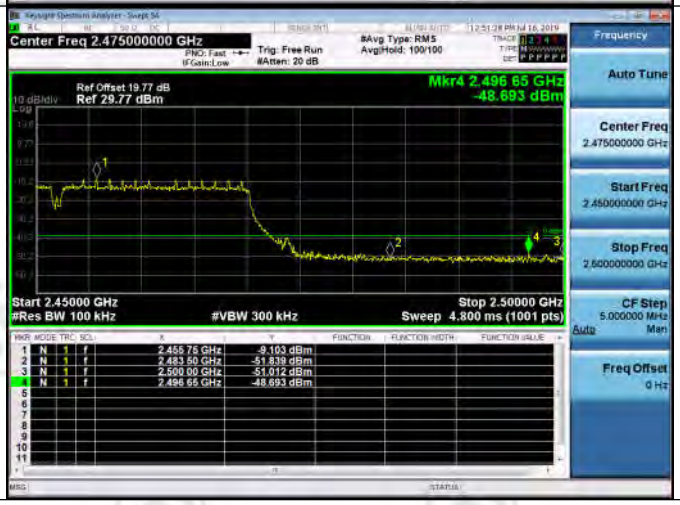
Result Table

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-0.262	-49.959	-30.26	PASS
11B	HCH	-0.543	-49.766	-30.54	PASS
11G	LCH	-5.994	-50.040	-35.99	PASS
11G	HCH	-6.664	-49.804	-36.66	PASS
11N20SISO	LCH	-6.548	-50.030	-36.55	PASS
11N20SISO	HCH	-5.058	-50.016	-35.06	PASS
11N40SISO	LCH	-8.337	-49.134	-38.34	PASS
11N40SISO	HCH	-9.103	-48.693	-39.1	PASS

Test Graph

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

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

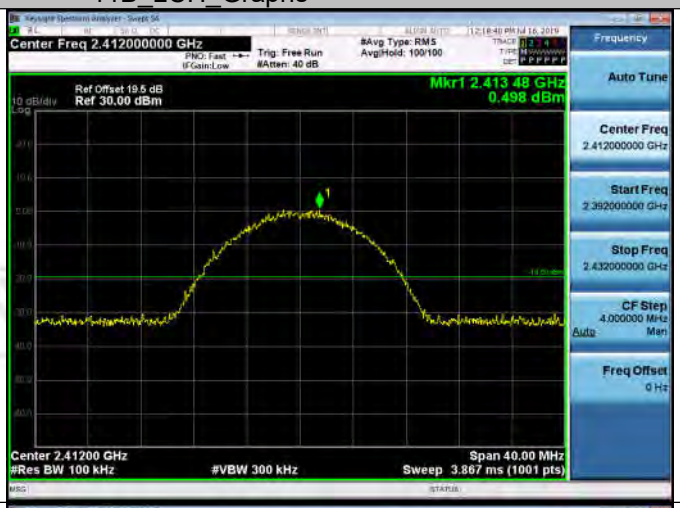
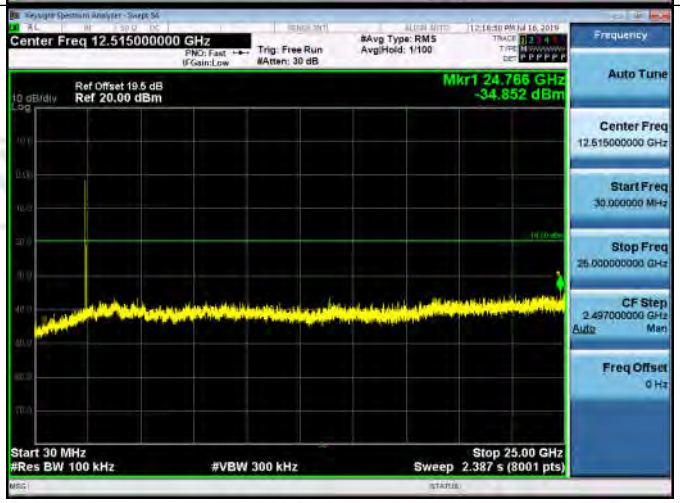
11N40SISO/LCH			
11N40SISO/HCH			

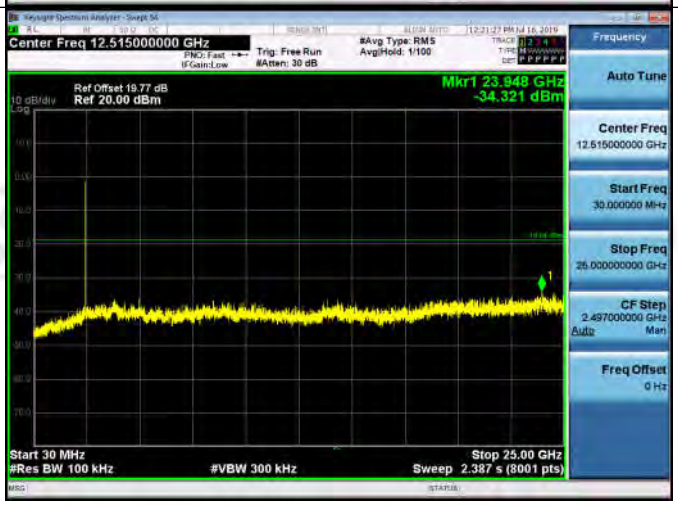
Appendix D): RF Conducted Spurious Emissions

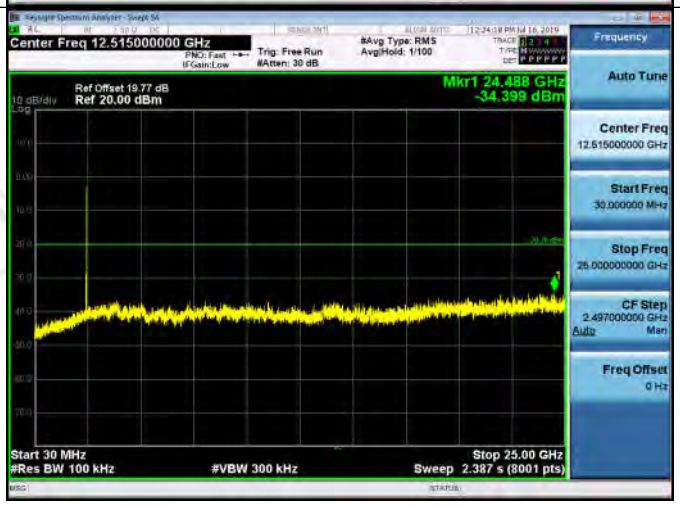
Result Table

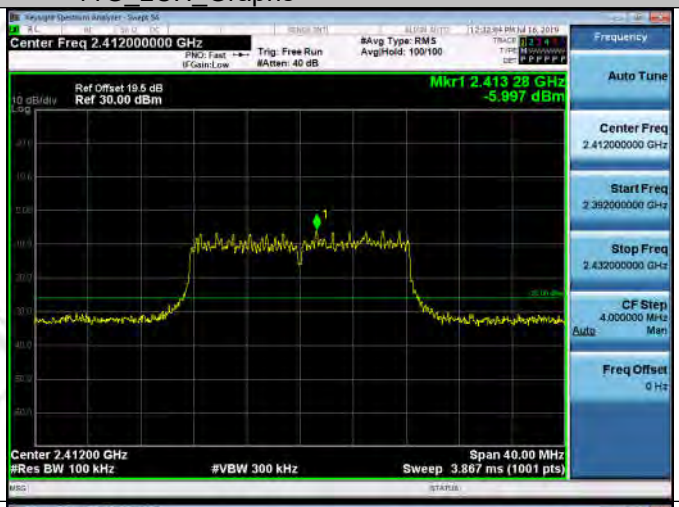
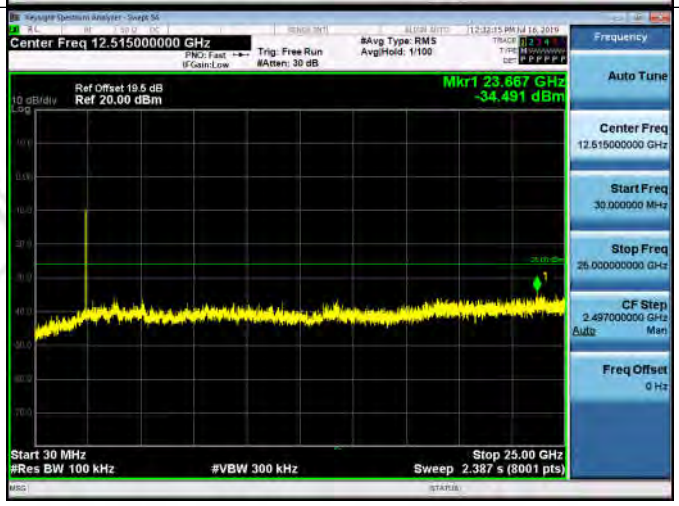
Mode	Channel	Pref [dBm]	Puw[dBm]	Verdict
11B	LCH	0.498	<Limit	PASS
11B	MCH	1.165	<Limit	PASS
11B	HCH	-0.261	<Limit	PASS
11G	LCH	-5.997	<Limit	PASS
11G	MCH	-5.758	<Limit	PASS
11G	HCH	-6.441	<Limit	PASS
11N20SISO	LCH	-6.765	<Limit	PASS
11N20SISO	MCH	-5.544	<Limit	PASS
11N20SISO	HCH	-5.198	<Limit	PASS
11N40SISO	LCH	-7.865	<Limit	PASS
11N40SISO	MCH	-8.605	<Limit	PASS
11N40SISO	HCH	-8.473	<Limit	PASS

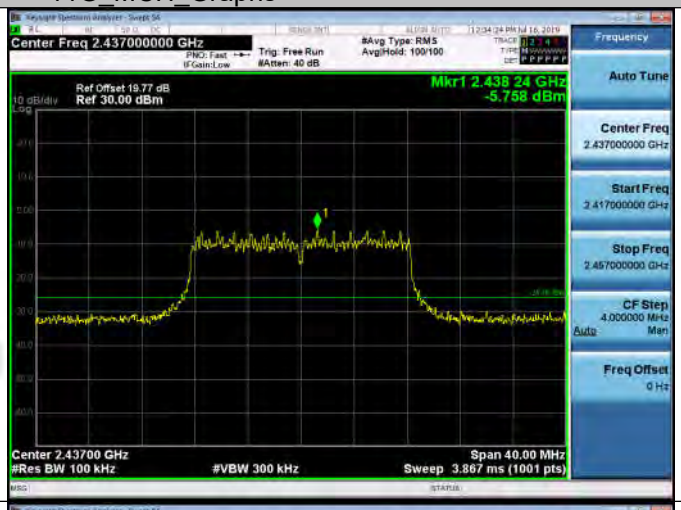
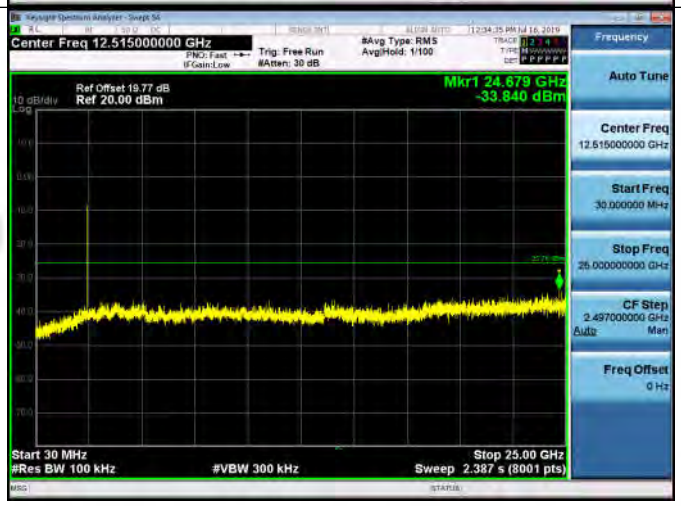
Test Graph

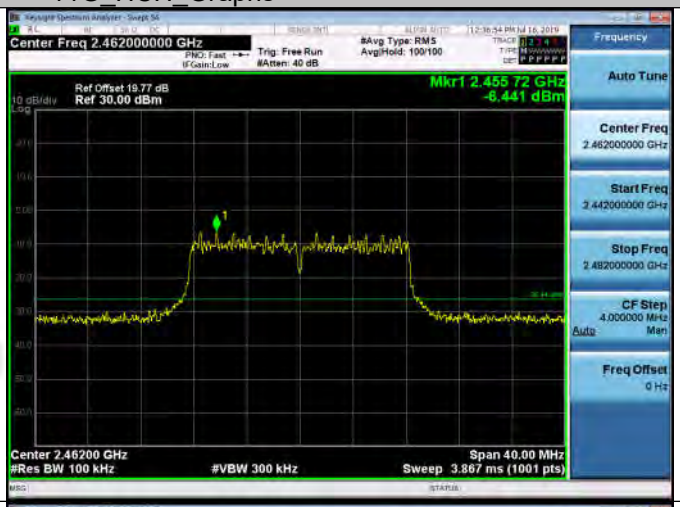
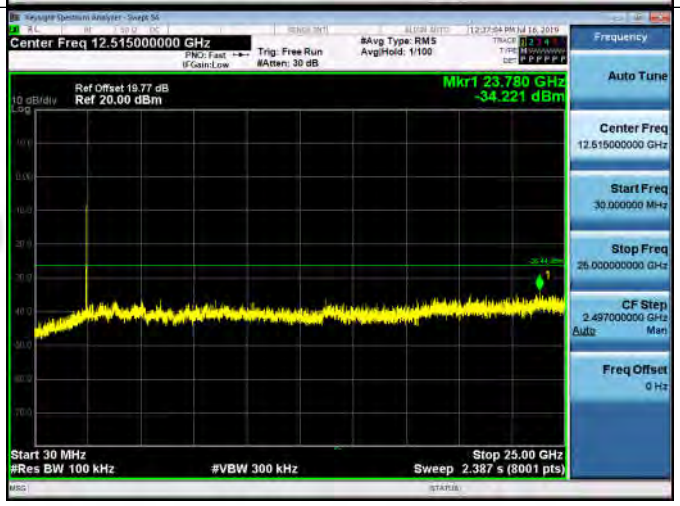
11B_LCH_Graphs	
Pref/11B/LCH	
Puw/11B/LCH	

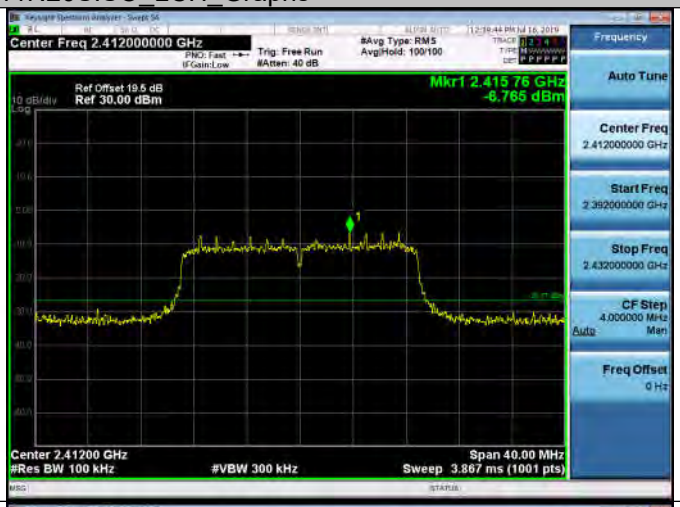
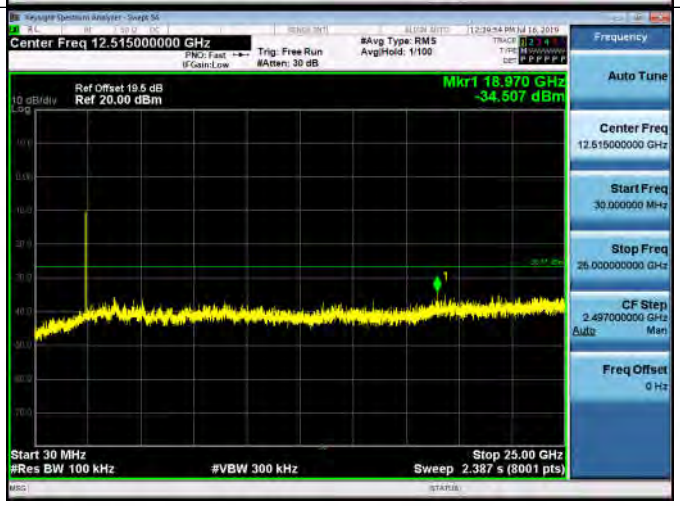
11B_MCH_Graphs		
Pref/11B/MCH		
Puw/11B/MCH		

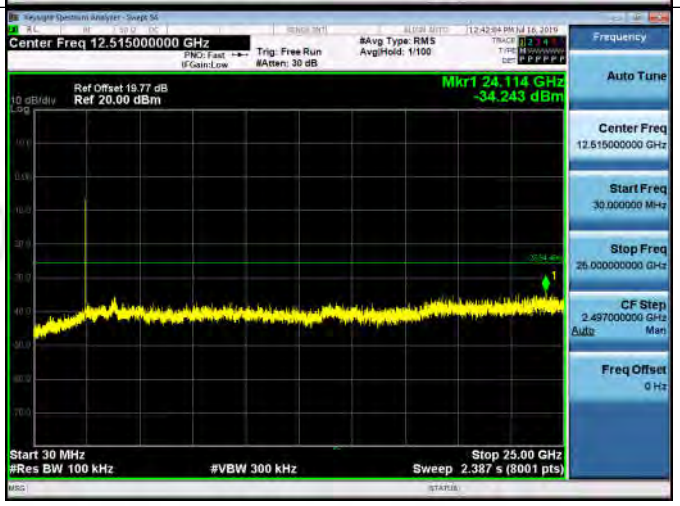
11B_HCH_Graphs		
Pref/11B/HCH		
Puw/11B/HCH		

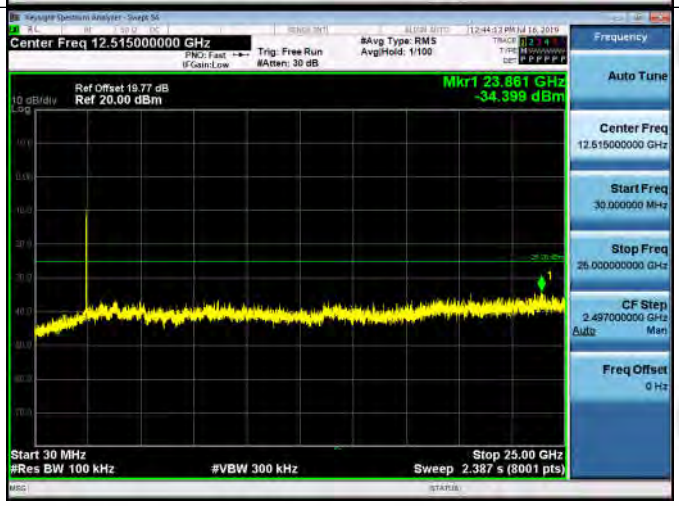
11G_LCH_Graphs	
Pref/11G/LCH	
Puw/11G/LCH	

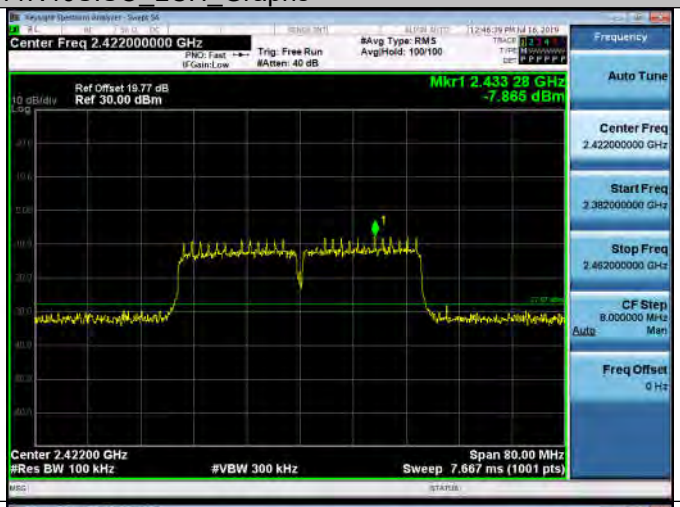
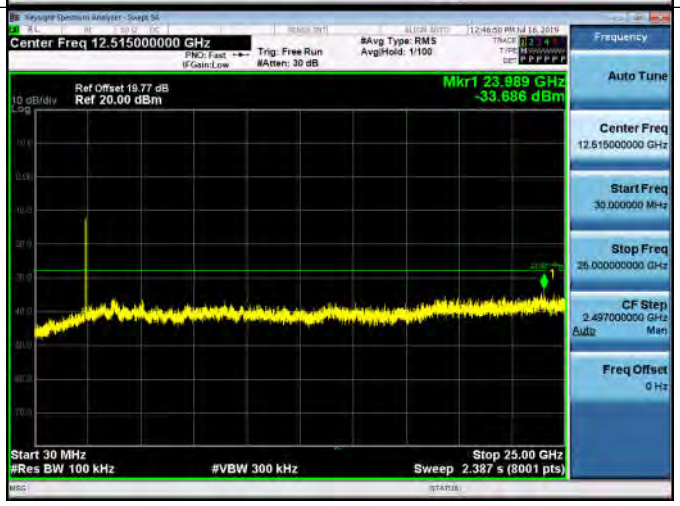
11G_MCH_Graphs		
Pref/11G/MCH		
Puw/11G/MCH		

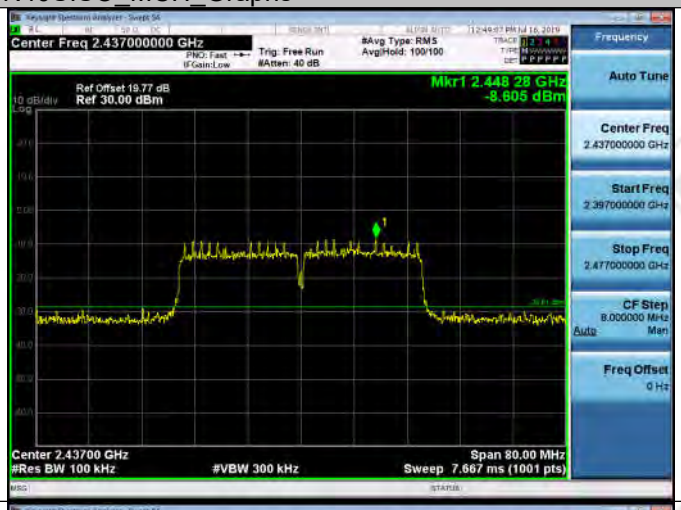
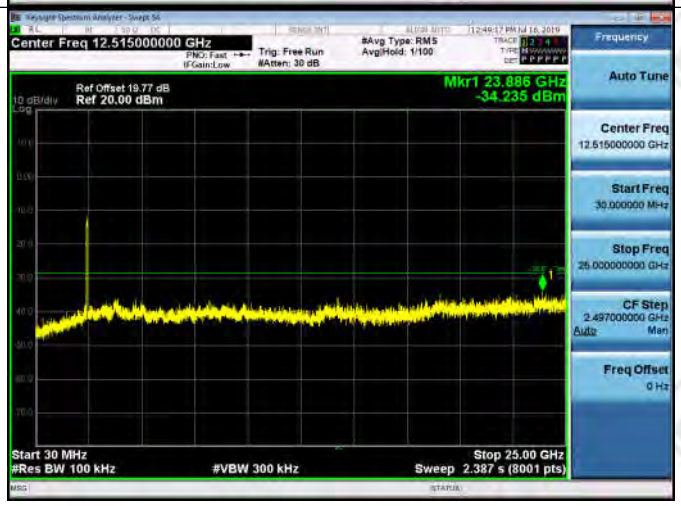
11G_HCH_Graphs			
Pref/11G/HCH			
Puw/11G/HCH			

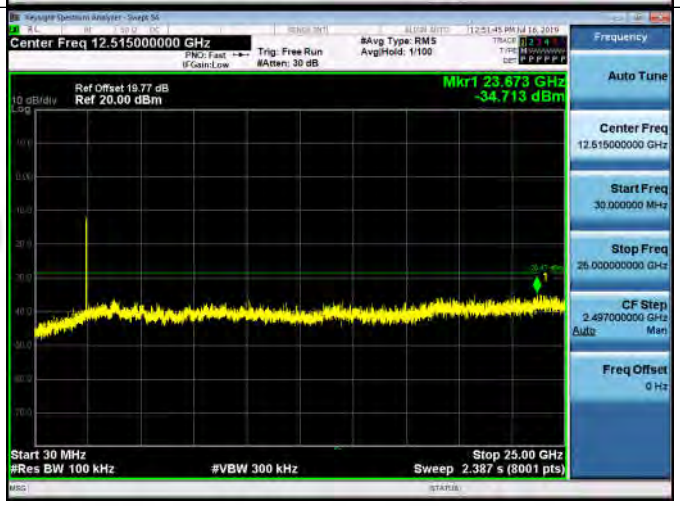
11N20SISO_LCH_Graphs	
Pref/11N20SISO/LCH	
/11N20SISO/LCH	

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	

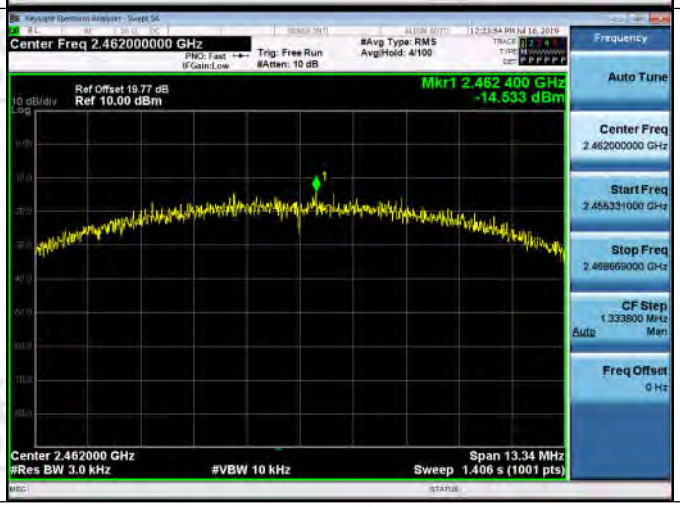
11N40SISO_HCH_Graphs		
Pref/11N40SISO/HCH		
Puw/11N40SISO/HCH		

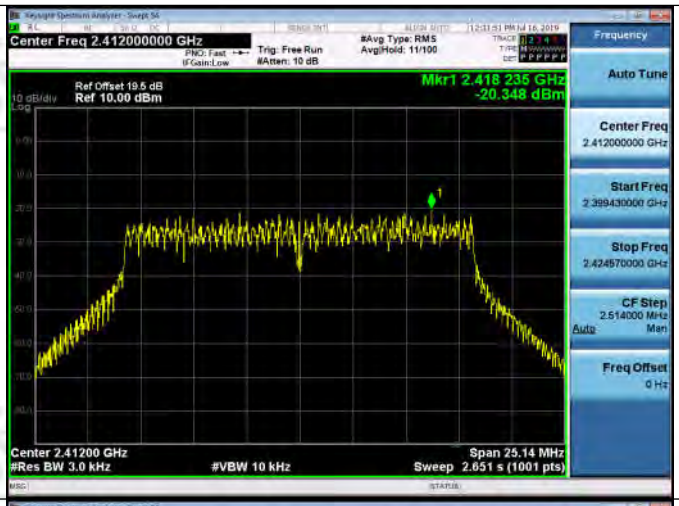
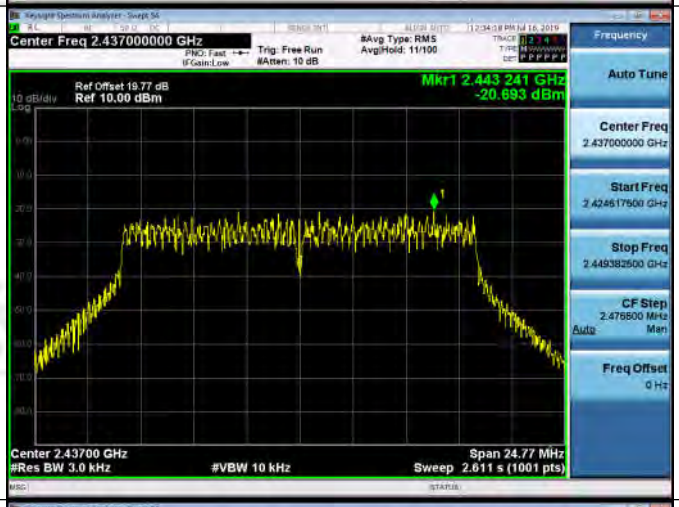
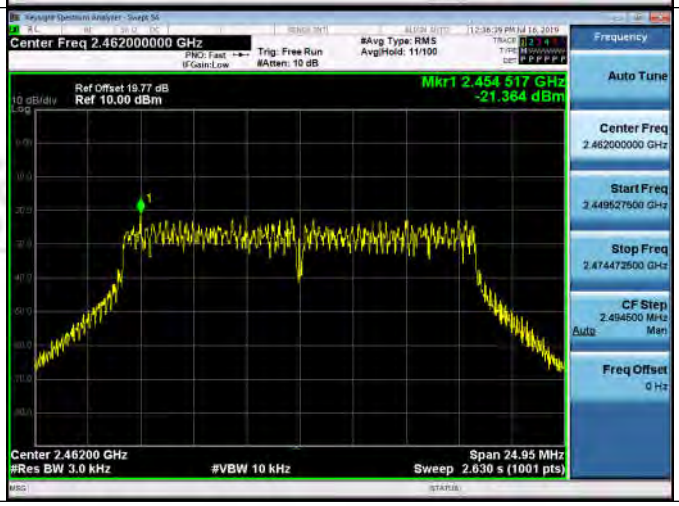
Appendix E): Power Spectral Density

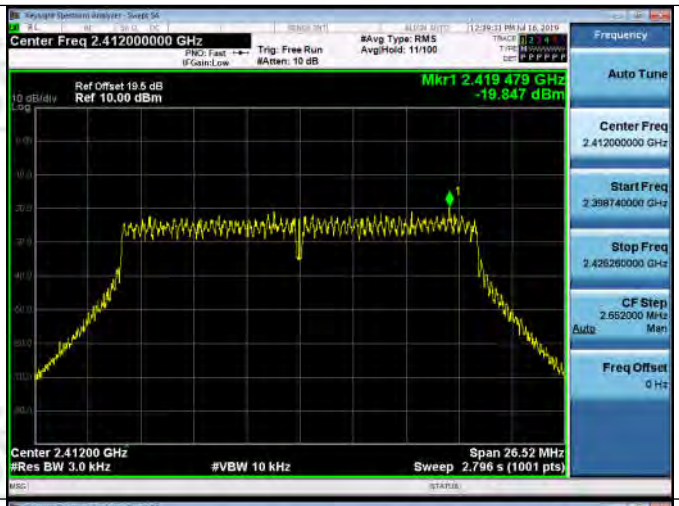
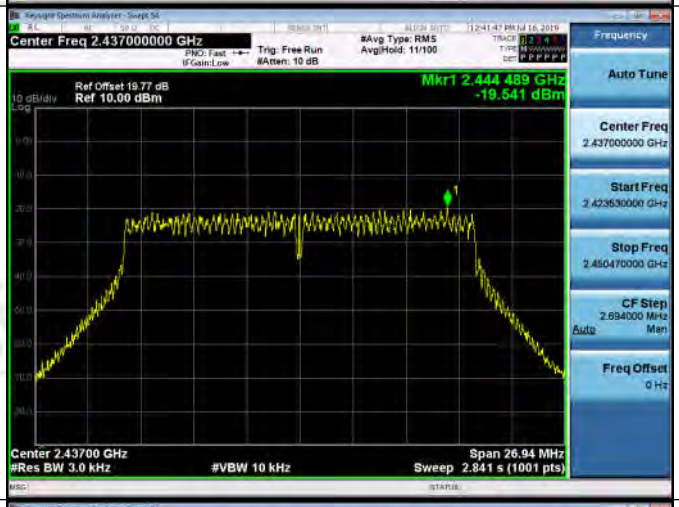
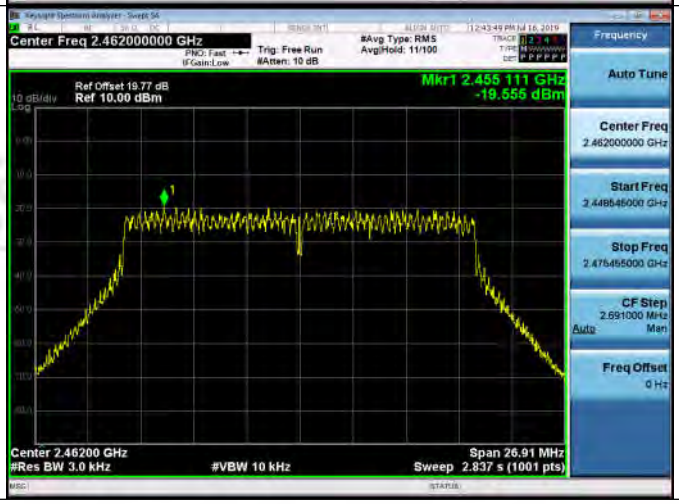
Result Table

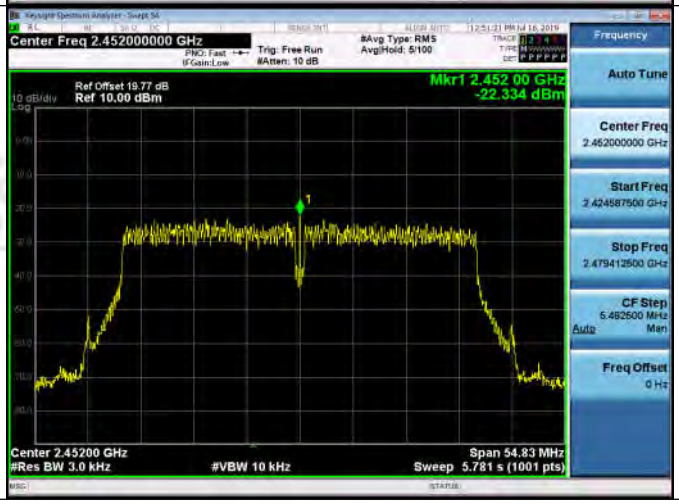
Mode	Channel	Power Spectral Density [dBm]	Verdict
11B	LCH	-14.166	PASS
11B	MCH	-13.425	PASS
11B	HCH	-14.533	PASS
11G	LCH	-20.348	PASS
11G	MCH	-20.693	PASS
11G	HCH	-21.364	PASS
11N20SISO	LCH	-19.847	PASS
11N20SISO	MCH	-19.541	PASS
11N20SISO	HCH	-19.555	PASS
11N40SISO	LCH	-22.277	PASS
11N40SISO	MCH	-22.095	PASS
11N40SISO	HCH	-22.334	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

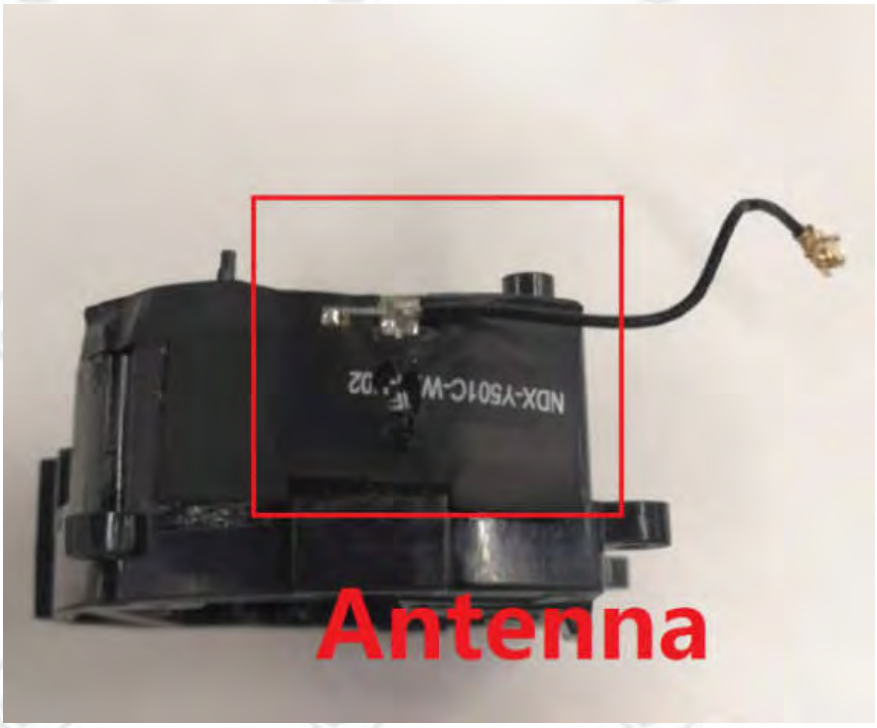
15.203 requirement:

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 integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 4.67dBi.

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>

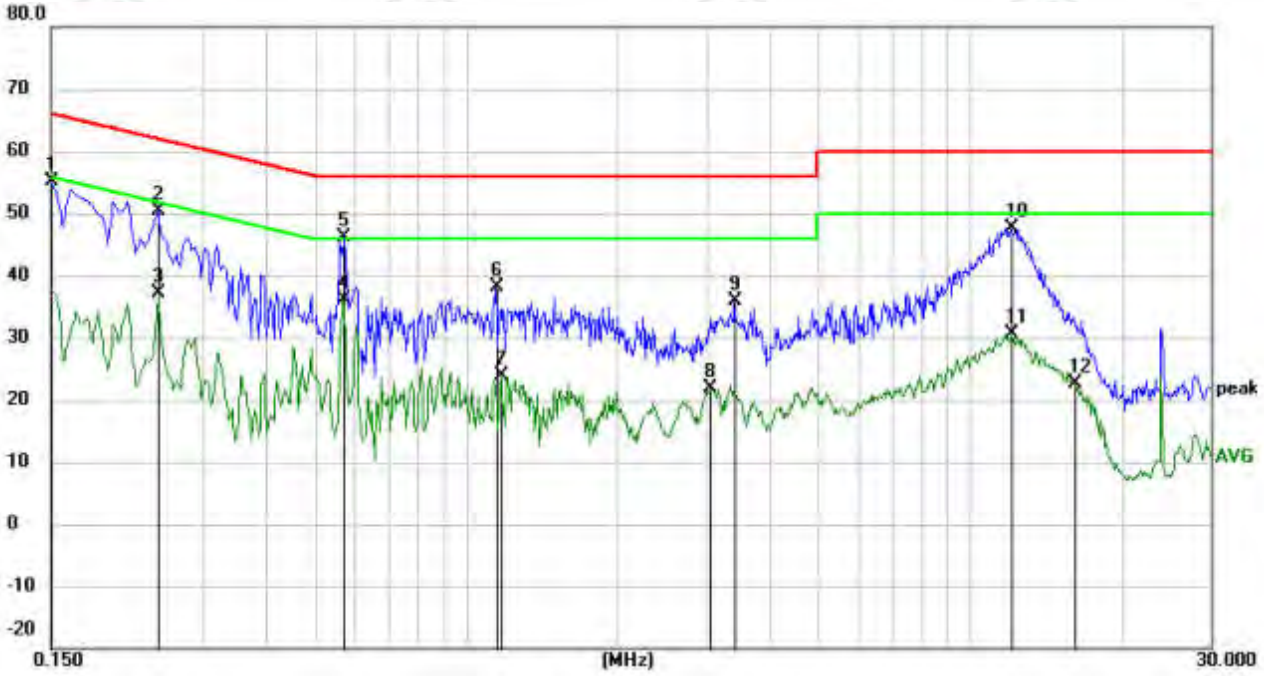
Measurement Data

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.

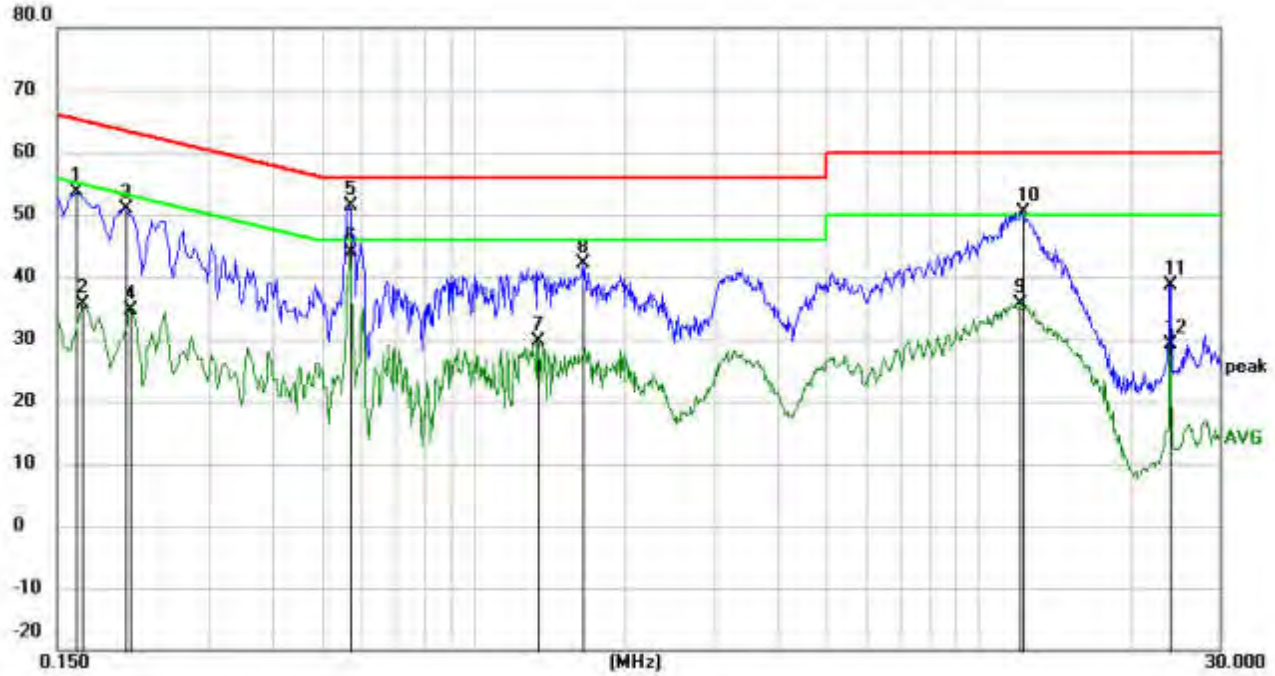
Product	:	Kami baby monitor	**Model/Type reference**	:	YYS.5019
Temperature	:	20℃	**Humidity**	:	50%

Live line:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	45.30	9.91	55.21	66.00	-10.79	peak	
2		0.2445	40.41	9.95	50.36	61.94	-11.58	peak	
3		0.2445	27.18	9.95	37.13	51.94	-14.81	AVG	
4	*	0.5685	26.04	10.00	36.04	46.00	-9.96	AVG	
5		0.5730	36.02	10.01	46.03	56.00	-9.97	peak	
6		1.1445	28.25	9.80	38.05	56.00	-17.95	peak	
7		1.1760	14.06	9.79	23.85	46.00	-22.15	AVG	
8		3.0570	12.15	9.72	21.87	46.00	-24.13	AVG	
9		3.4035	26.16	9.72	35.88	56.00	-20.12	peak	
10		12.0300	37.68	9.90	47.58	60.00	-12.42	peak	
11		12.0885	20.83	9.90	30.73	50.00	-19.27	AVG	
12		16.0665	12.77	9.97	22.74	50.00	-27.26	AVG	

Neutral line:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1635	43.80	9.91	53.71	65.28	-11.57	peak	
2		0.1680	25.62	9.91	35.53	55.06	-19.53	AVG	
3		0.2040	41.03	9.91	50.94	63.45	-12.51	peak	
4		0.2085	24.77	9.92	34.69	53.26	-18.57	AVG	
5		0.5685	41.32	10.00	51.32	56.00	-4.68	peak	
6	*	0.5685	33.78	10.00	43.78	46.00	-2.22	AVG	
7		1.3425	19.73	9.78	29.51	46.00	-16.49	AVG	
8		1.6530	32.36	9.75	42.11	56.00	-13.89	peak	
9		12.1155	25.83	9.90	35.73	50.00	-14.27	AVG	
10		12.2190	40.44	9.91	50.35	60.00	-9.65	peak	
11		24.0045	28.75	9.93	38.68	60.00	-21.32	peak	
12		24.0045	19.20	9.93	29.13	50.00	-20.87	AVG	

Notes:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.

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.

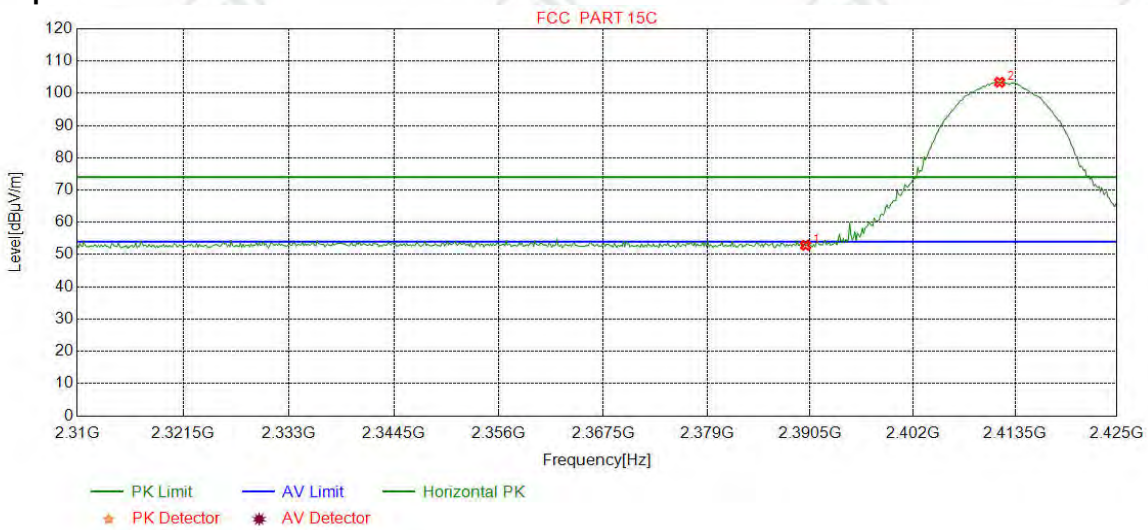
Limit:

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:

Mode:	802.11 n(HT40) (13.5Mbps) Transmitting	Channel:	2412
Remark:	PK		

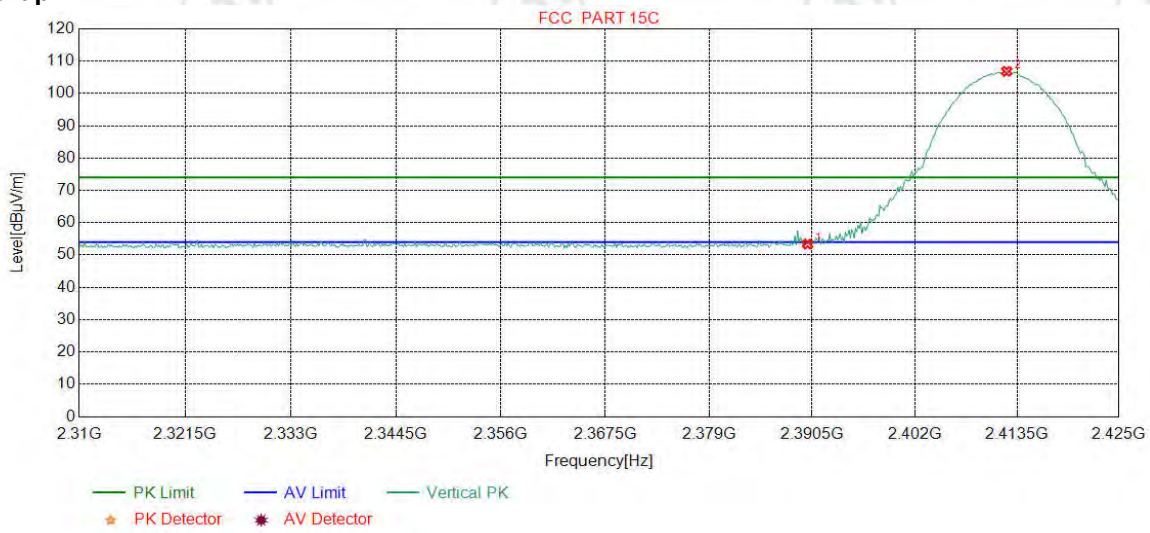
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	49.69	52.87	74.00	21.13	Pass	Horizontal
2	2411.7584	32.28	13.35	-42.43	100.23	103.43	74.00	-29.43	Pass	Horizontal

Mode:	802.11 n(HT40) (13.5Mbps) Transmitting	Channel:	2412
Remark:	PK		

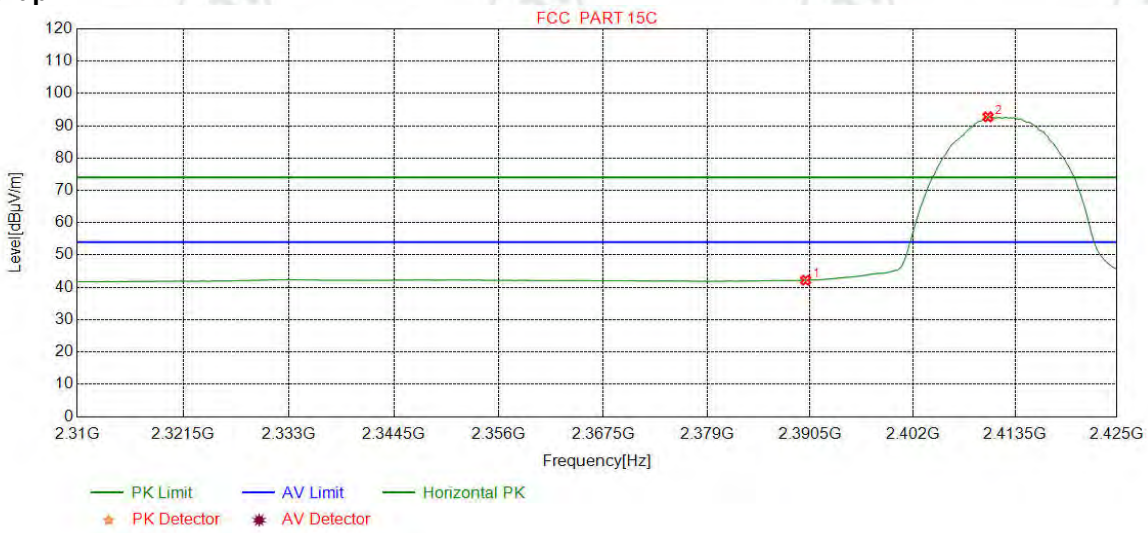
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	50.23	53.41	74.00	20.59	Pass	Vertical
2	2412.3342	32.28	13.36	-42.43	103.65	106.86	74.00	-32.86	Pass	Vertical

Mode:	802.11 n(HT40) (13.5Mbps) Transmitting	Channel:	2412
Remark:	AV		

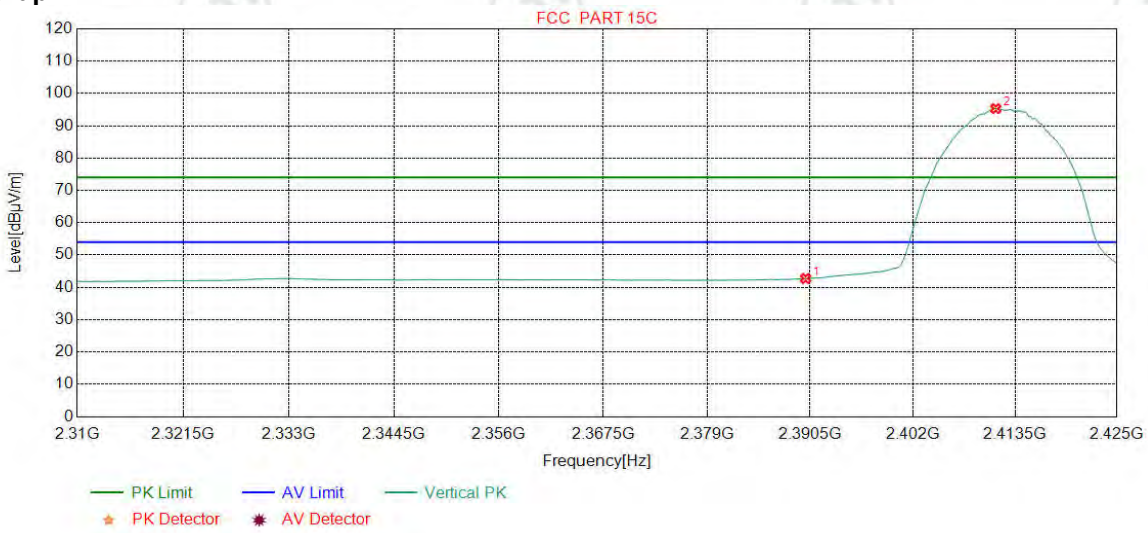
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	39.02	42.20	54.00	11.80	Pass	Horizontal
2	2410.4631	32.27	13.35	-42.43	89.58	92.77	54.00	-38.77	Pass	Horizontal

Mode:	802.11 n(HT40) (13.5Mbps) Transmitting	Channel:	2412
Remark:	AV		

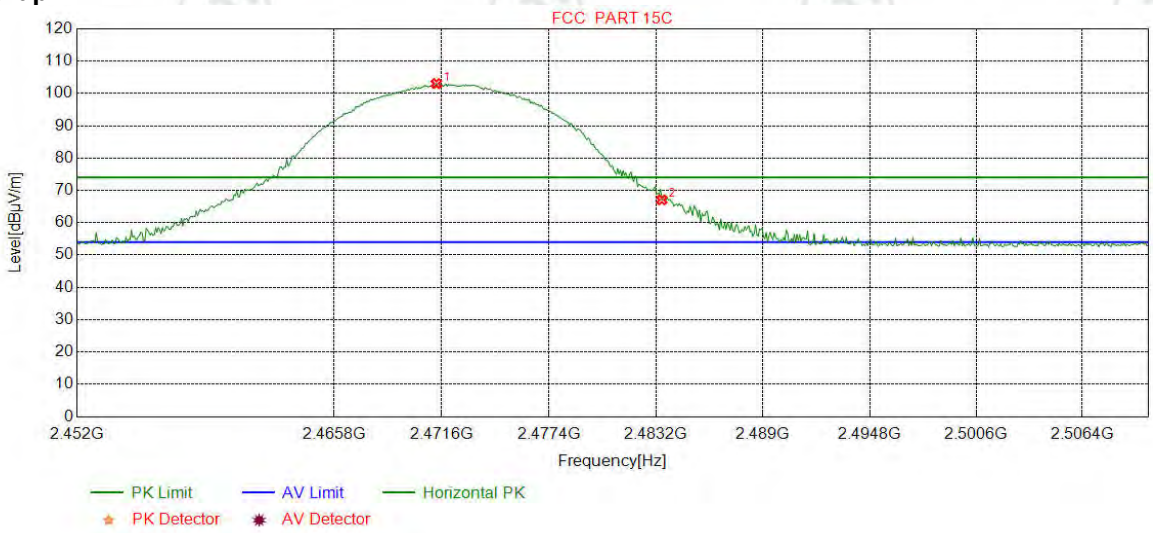
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	39.56	42.74	54.00	11.26	Pass	Vertical
2	2411.3267	32.28	13.35	-42.43	92.12	95.32	54.00	-41.32	Pass	Vertical

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2462
Remark:	PK		

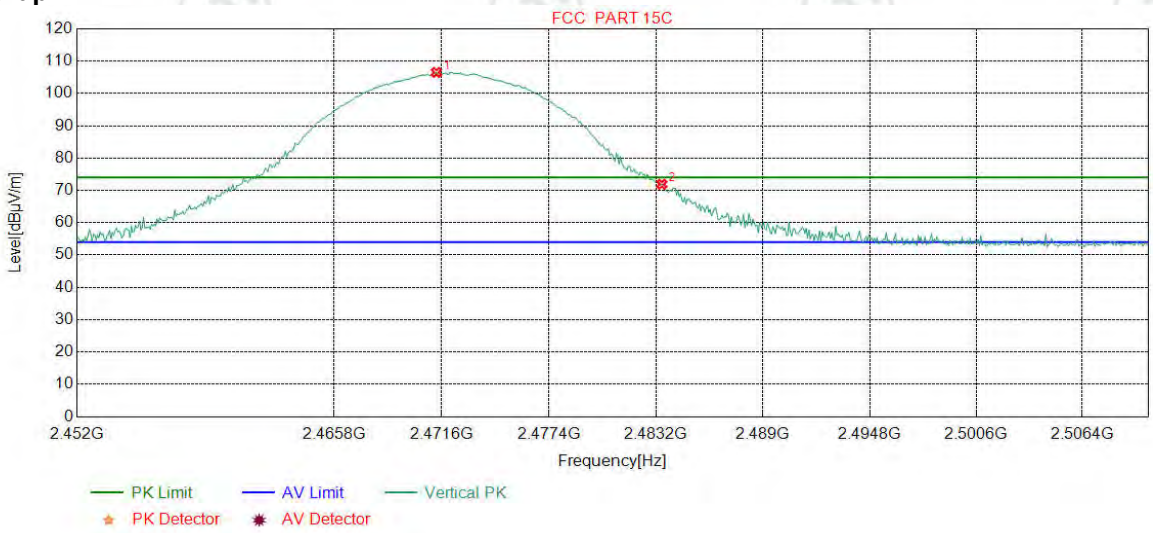
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2471.3091	32.36	13.43	-42.40	99.66	103.05	74.00	-29.05	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	63.71	67.07	74.00	6.93	Pass	Horizontal

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2462
Remark:	PK		

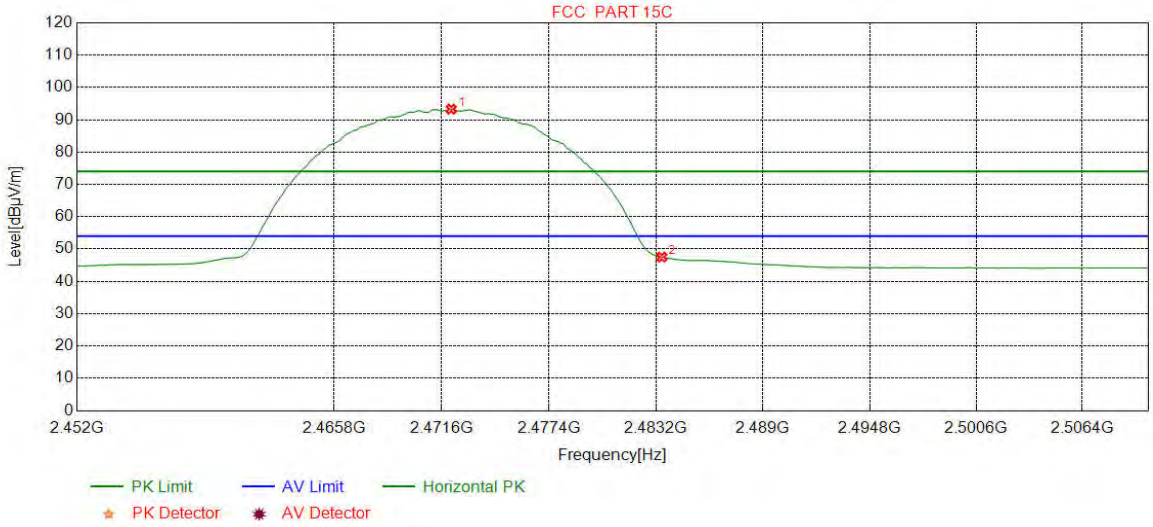
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2471.3091	32.36	13.43	-42.40	103.14	106.53	74.00	-32.53	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	68.55	71.91	74.00	2.09	Pass	Vertical

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2462
Remark:	AV		

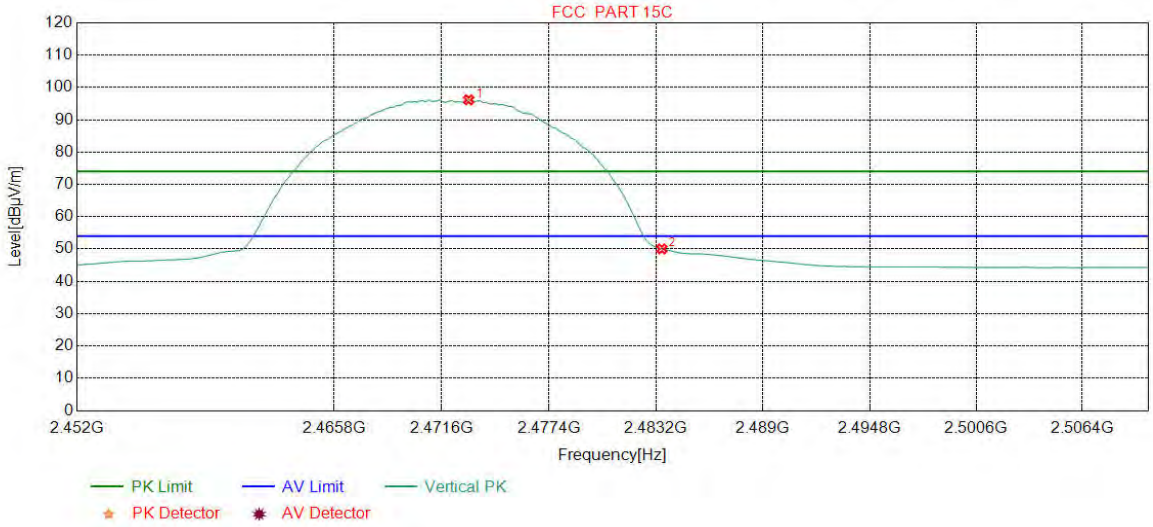
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2472.1076	32.36	13.43	-42.40	89.92	93.31	54.00	-39.31	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	44.15	47.51	54.00	6.49	Pass	Horizontal

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2462
Remark:	AV		

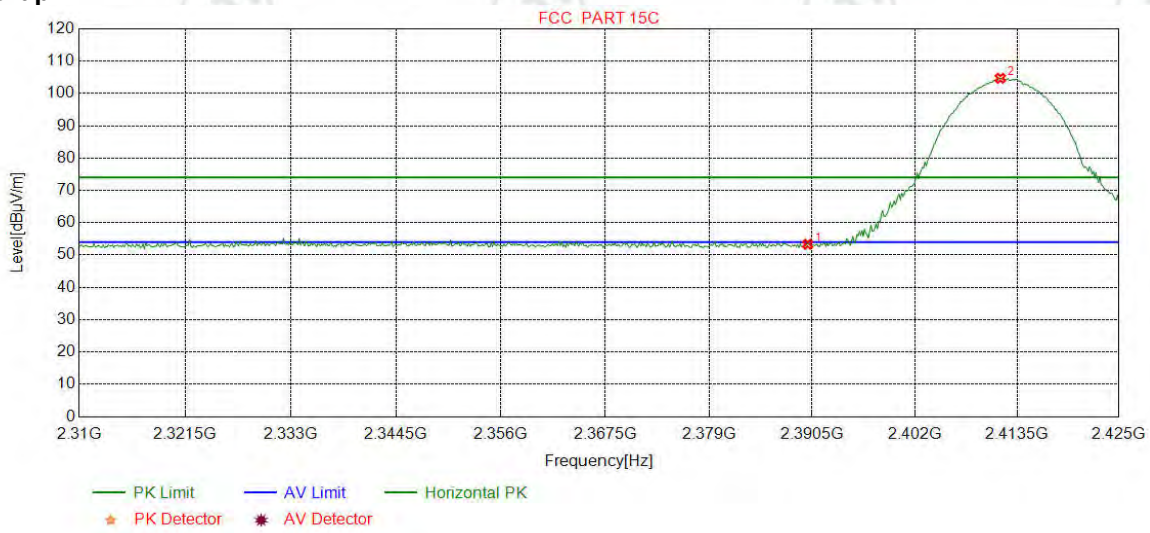
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2473.0513	32.36	13.42	-42.40	92.78	96.16	54.00	-42.16	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	46.68	50.04	54.00	3.96	Pass	Vertical

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2412
Remark:	PK		

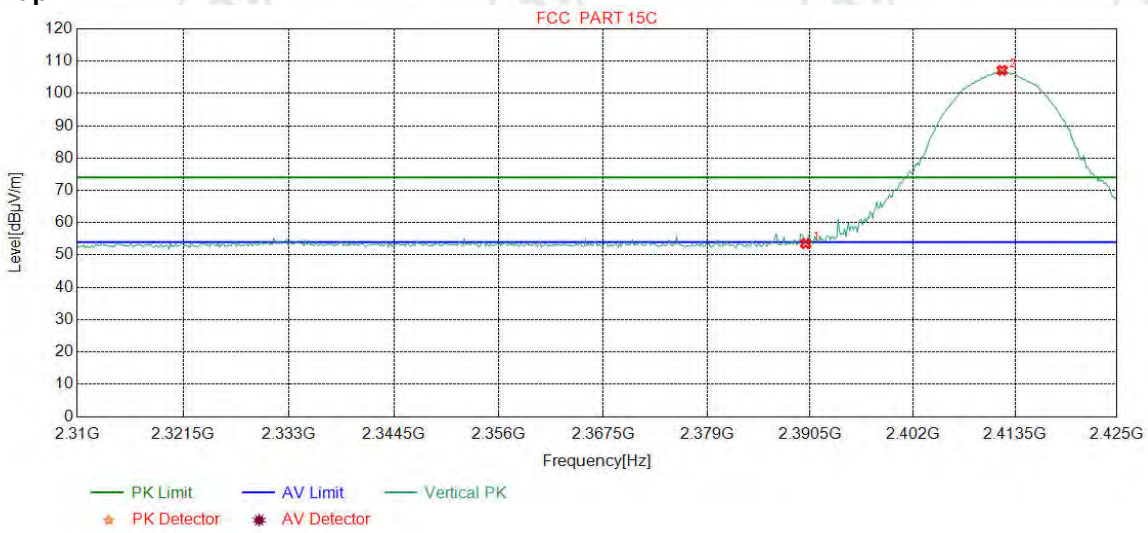
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	50.16	53.34	74.00	20.66	Pass	Horizontal
2	2411.6145	32.28	13.35	-42.43	101.50	104.70	74.00	-30.70	Pass	Horizontal

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2412
Remark:	PK		

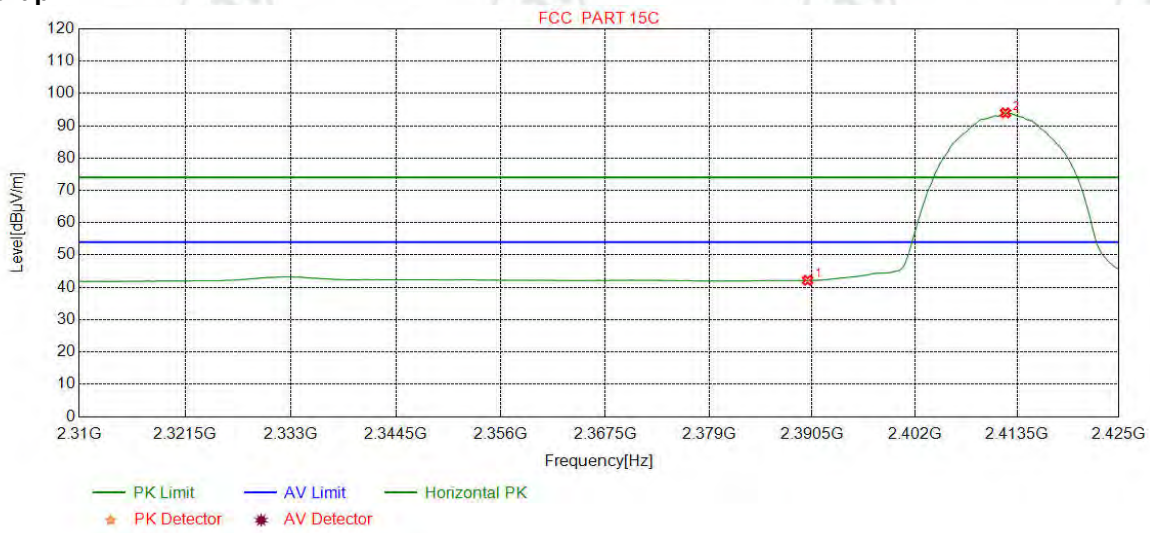
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	50.37	53.55	74.00	20.45	Pass	Vertical
2	2412.0463	32.28	13.36	-42.44	103.96	107.16	74.00	-33.16	Pass	Vertical

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2412
Remark:	AV		

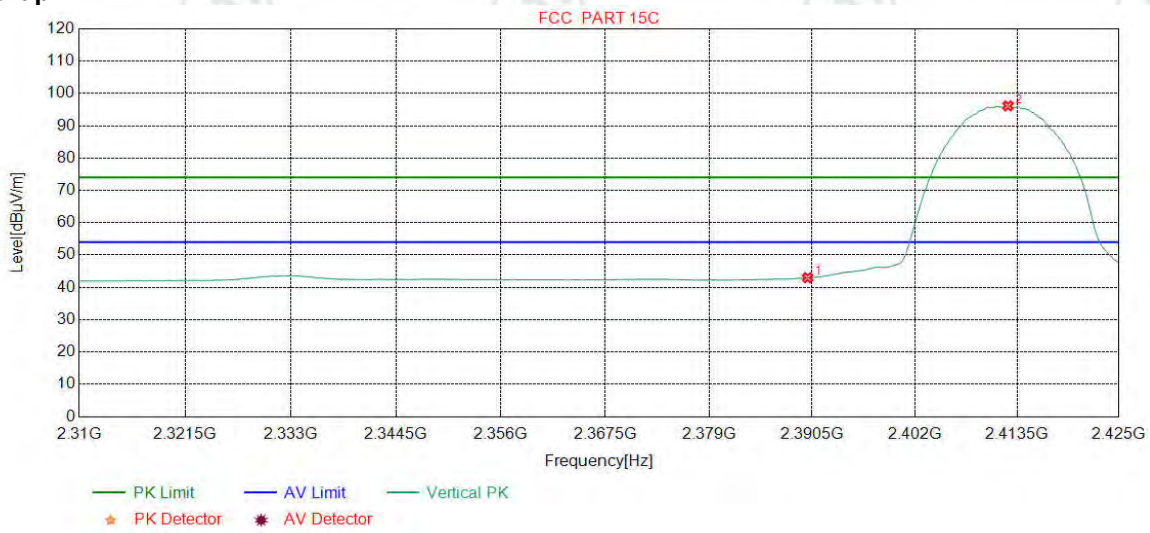
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	38.98	42.16	54.00	11.84	Pass	Horizontal
2	2412.1902	32.28	13.36	-42.44	90.79	93.99	54.00	-39.99	Pass	Horizontal

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2412
Remark:	AV		

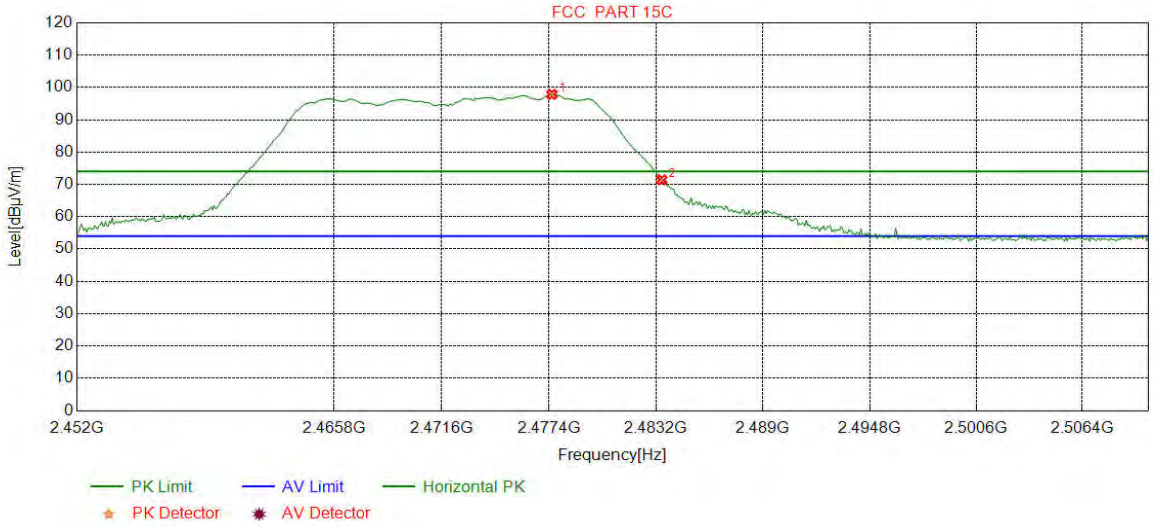
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	39.80	42.98	54.00	11.02	Pass	Vertical
2	2412.4781	32.28	13.36	-42.43	92.94	96.15	54.00	-42.15	Pass	Vertical

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2462
Remark:	PK		

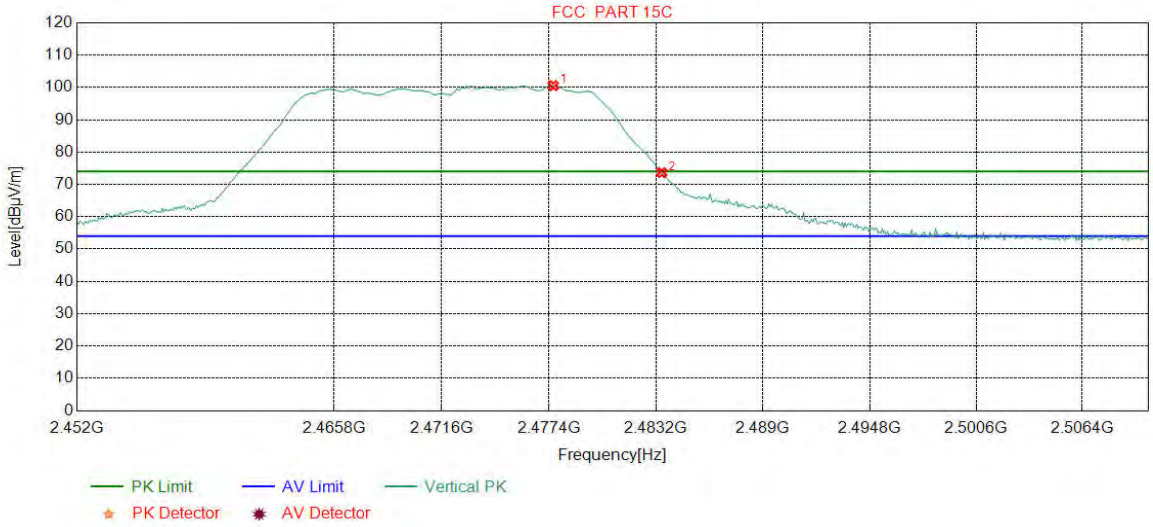
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2477.5519	32.37	13.40	-42.40	94.48	97.85	74.00	-23.85	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	68.06	71.42	74.00	2.58	Pass	Horizontal

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2462
Remark:	PK		

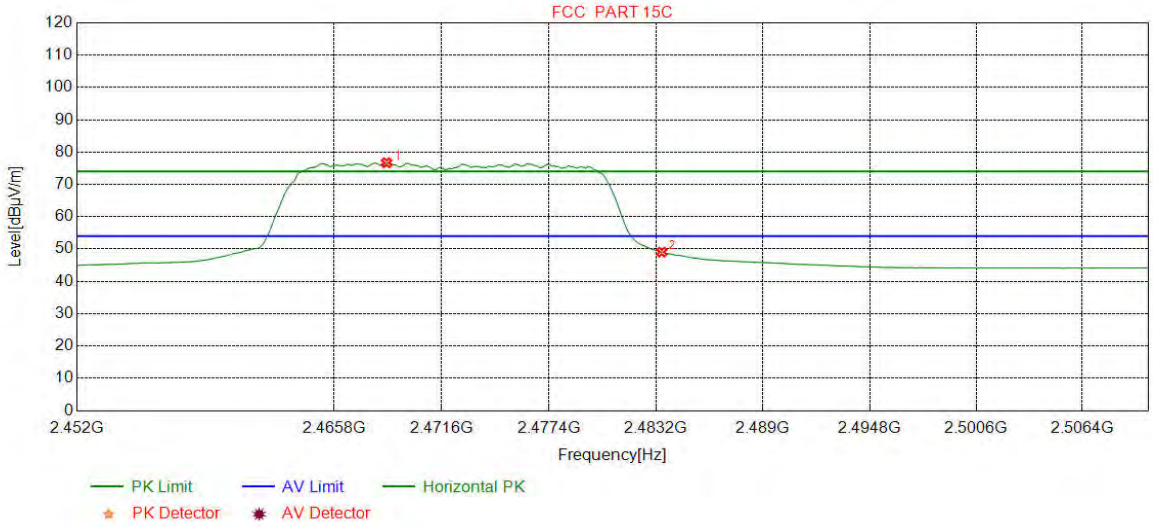
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2477.6245	32.37	13.40	-42.40	97.19	100.56	74.00	-26.56	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	70.26	73.62	74.00	0.38	Pass	Vertical

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2462
Remark:	AV		

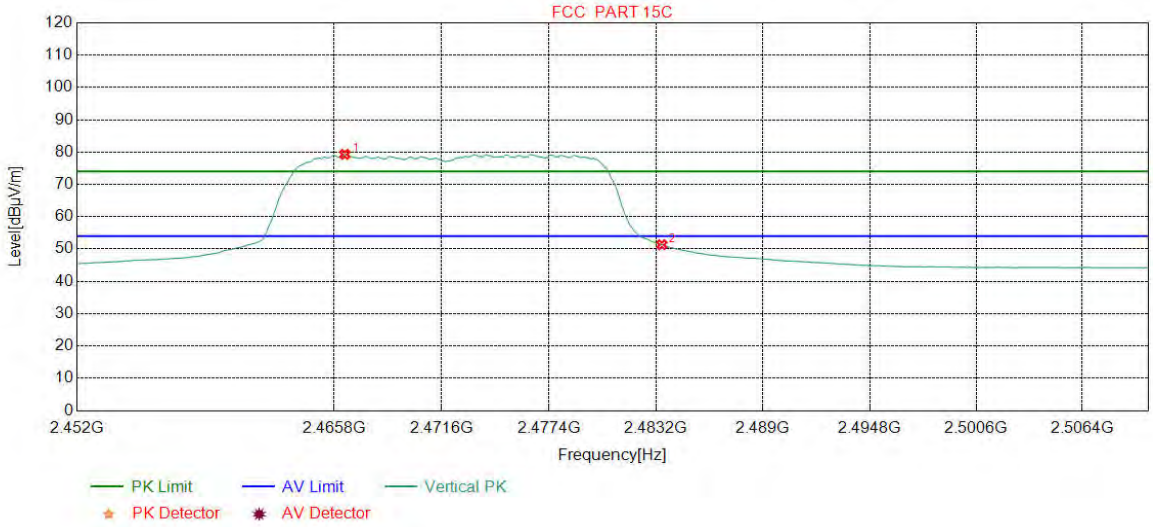
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2468.6233	32.36	13.44	-42.40	73.31	76.71	54.00	-22.71	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	45.71	49.07	54.00	4.93	Pass	Horizontal

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2462
Remark:	AV		

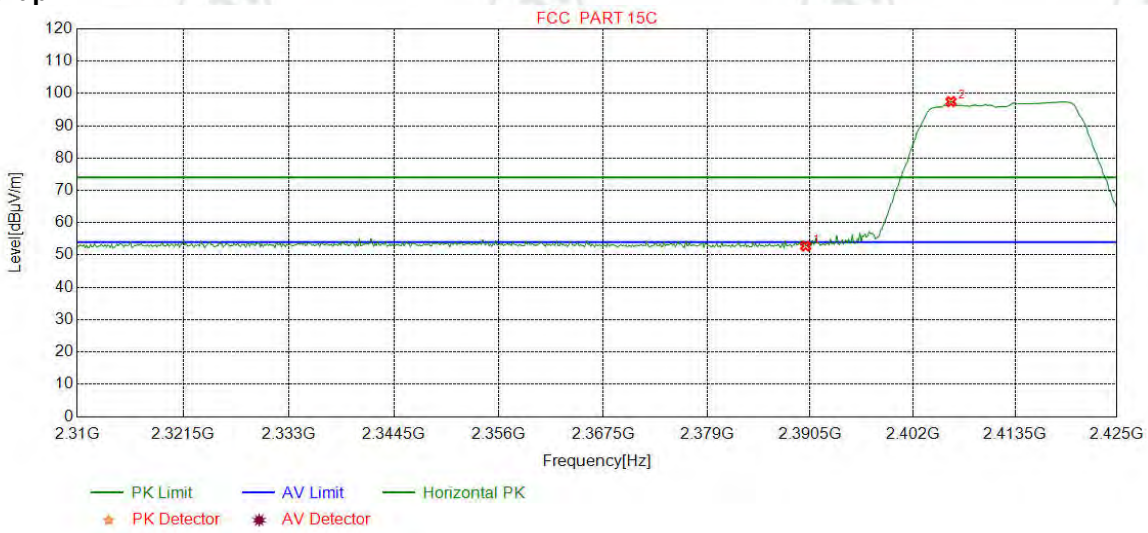
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2466.3730	32.35	13.45	-42.40	75.89	79.29	54.00	-25.29	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	47.97	51.33	54.00	2.67	Pass	Vertical

Mode:	802.11 n(HT20) (6.5Mbps) Transmitting	Channel:	2412
Remark:	PK		

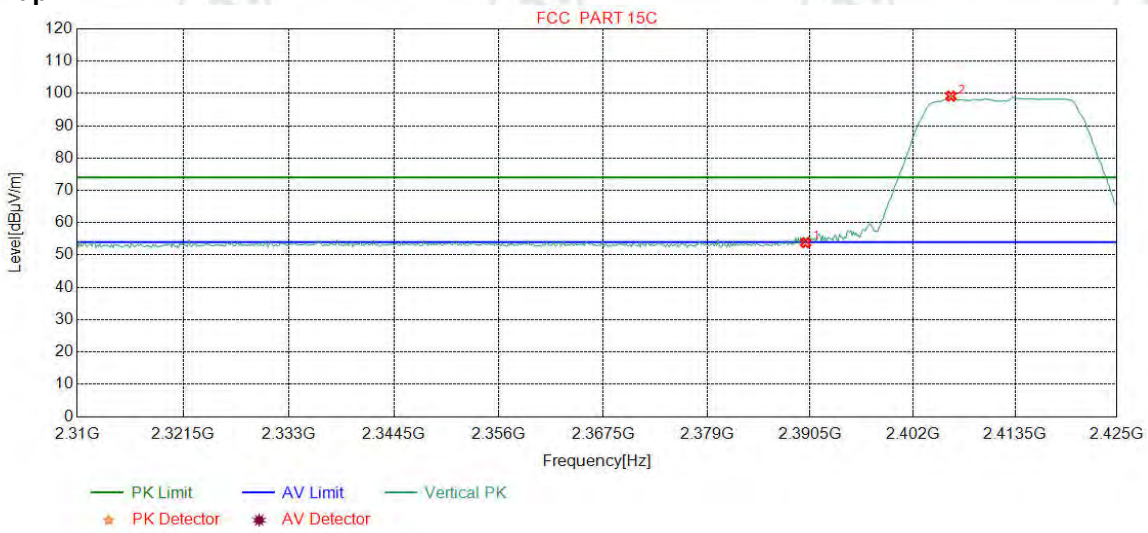
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	49.59	52.77	74.00	21.23	Pass	Horizontal
2	2406.2891	32.27	13.33	-42.43	94.31	97.48	74.00	-23.48	Pass	Horizontal

Mode:	802.11 n(HT20) (6.5Mbps) Transmitting	Channel:	2412
Remark:	PK		

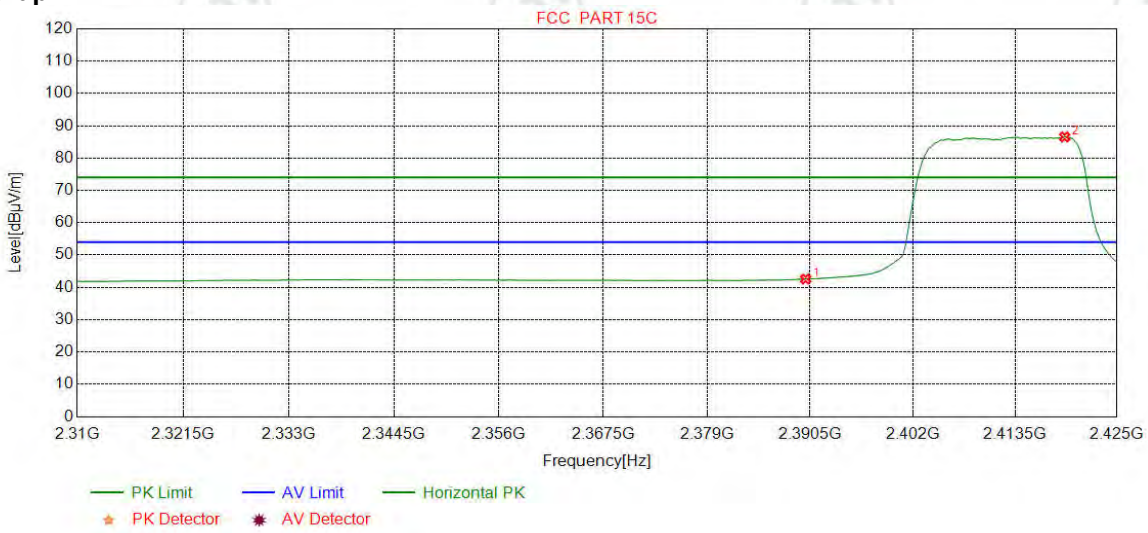
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	50.63	53.81	74.00	20.19	Pass	Vertical
2	2406.2891	32.27	13.33	-42.43	96.00	99.17	74.00	-25.17	Pass	Vertical

Mode:	802.11 n(HT20) (6.5Mbps) Transmitting	Channel:	2412
Remark:	AV		

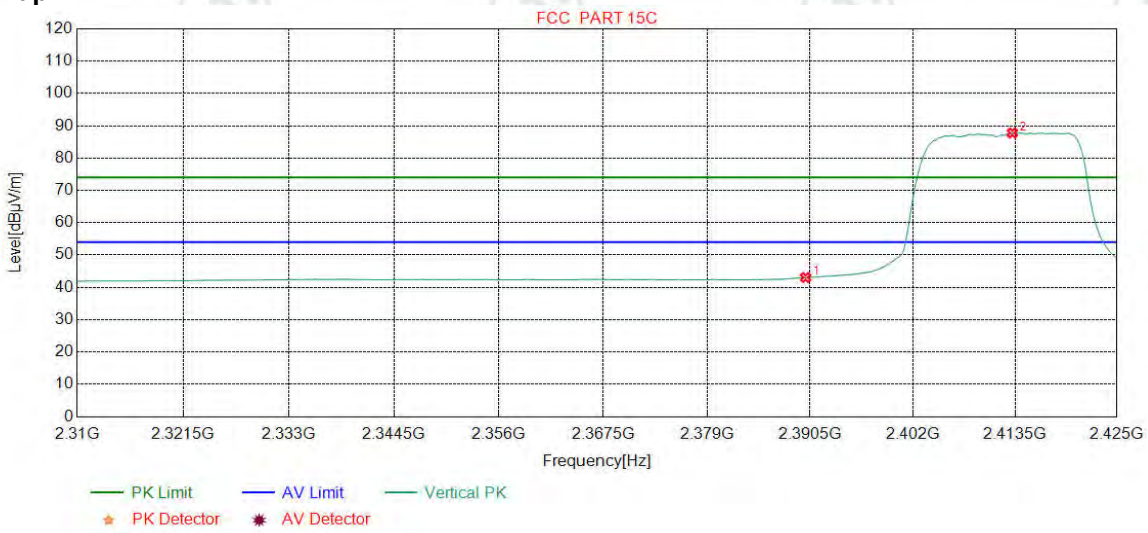
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	39.40	42.58	54.00	11.42	Pass	Horizontal
2	2419.0989	32.29	13.39	-42.43	83.30	86.55	54.00	-32.55	Pass	Horizontal

Mode:	802.11 n(HT20) (6.5Mbps) Transmitting	Channel:	2412
Remark:	AV		

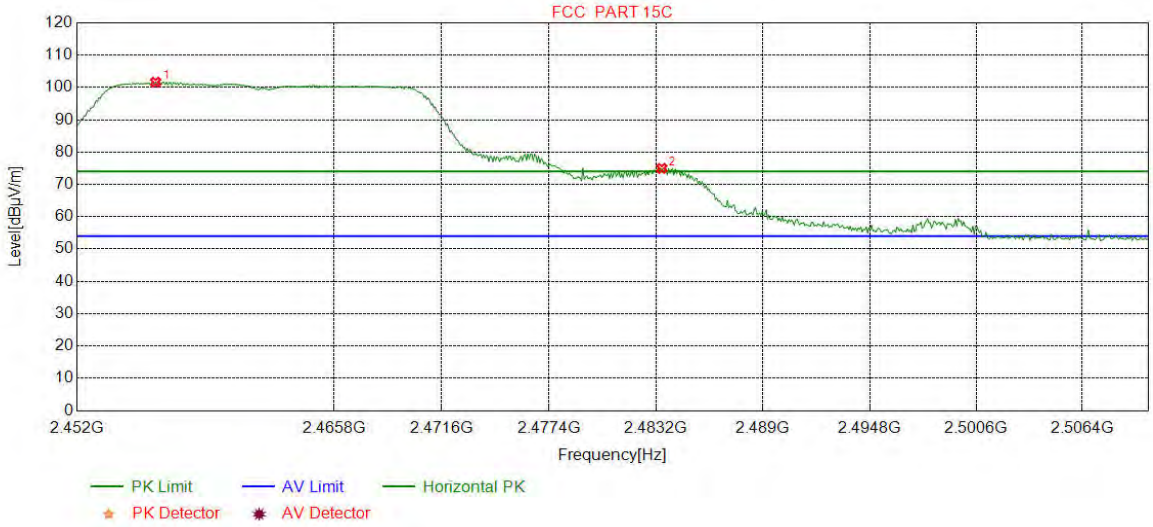
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	39.87	43.05	54.00	10.95	Pass	Vertical
2	2413.1977	32.28	13.36	-42.43	84.56	87.77	54.00	-33.77	Pass	Vertical

Mode:	802.11 n(HT20) (6.5Mbps) Transmitting	Channel:	2462
Remark:	PK		

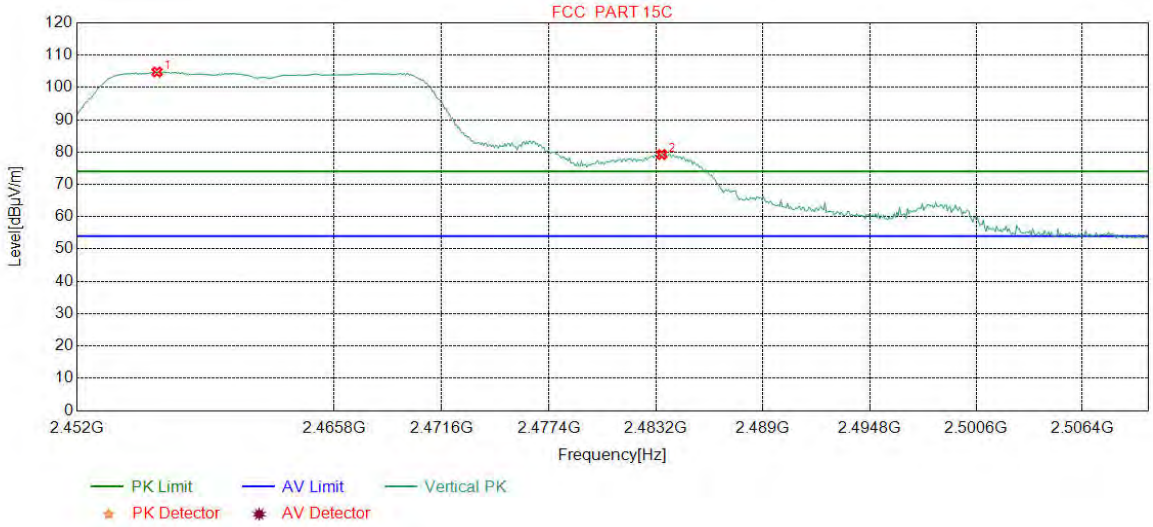
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2456.2103	32.34	13.50	-42.41	98.21	101.64	74.00	-27.64	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	71.60	74.96	74.00	-0.96	Pass	Horizontal

Mode:	802.11 n(HT20) (6.5Mbps) Transmitting	Channel:	2462
Remark:	PK		

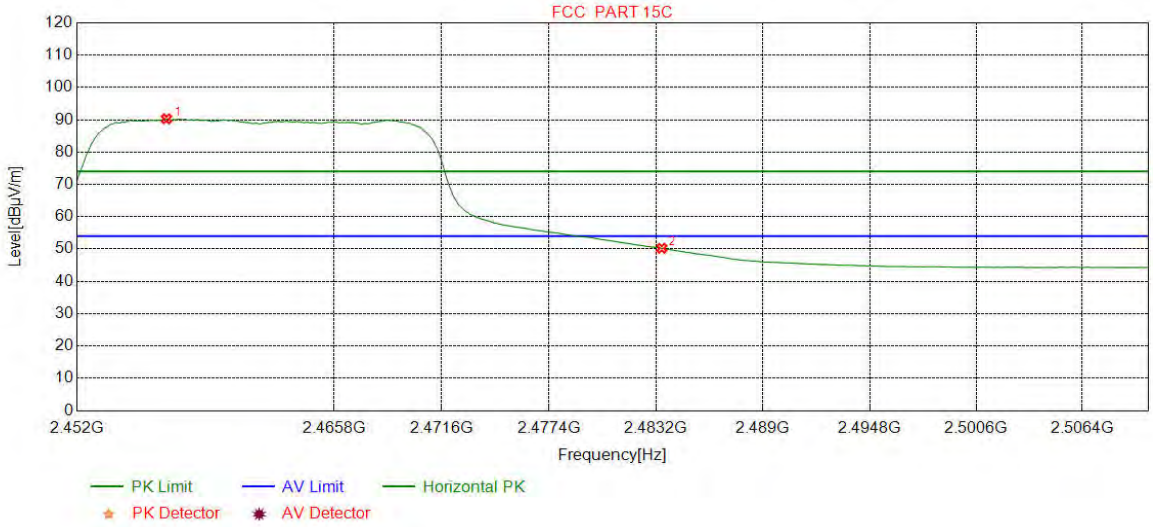
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2456.2829	32.34	13.50	-42.41	101.35	104.78	74.00	-30.78	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	75.89	79.25	74.00	-5.25	Pass	Vertical

Mode:	802.11 n(HT20) (6.5Mbps) Transmitting	Channel:	2462
Remark:	AV		

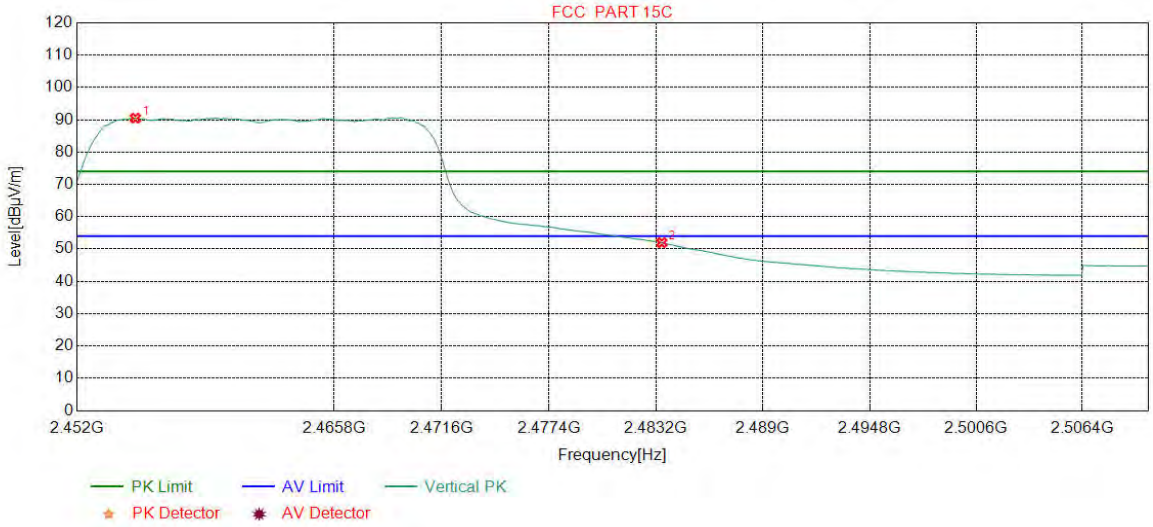
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2456.7910	32.34	13.50	-42.41	86.86	90.29	54.00	-36.29	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	46.88	50.24	54.00	3.76	Pass	Horizontal

Mode:	802.11 n(HT20) (6.5Mbps) Transmitting	Channel:	2462
Remark:	AV		

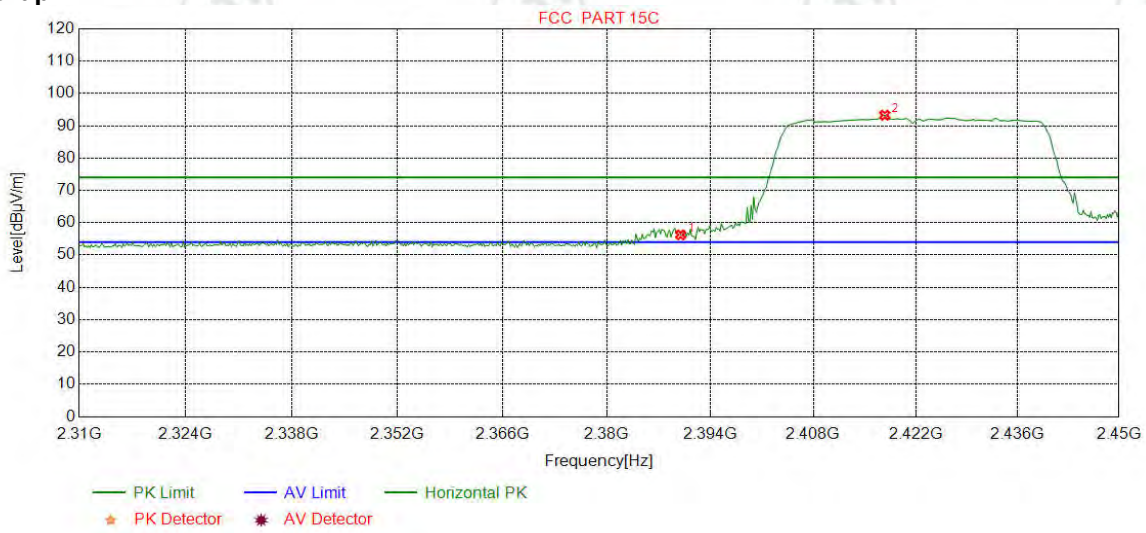
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2455.1214	32.34	13.51	-42.42	87.08	90.51	54.00	-36.51	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	48.64	52.00	54.00	2.00	Pass	Vertical

Mode:	802.11 n(HT40) (13.5Mbps) Transmitting	Channel:	2412
Remark:	PK		

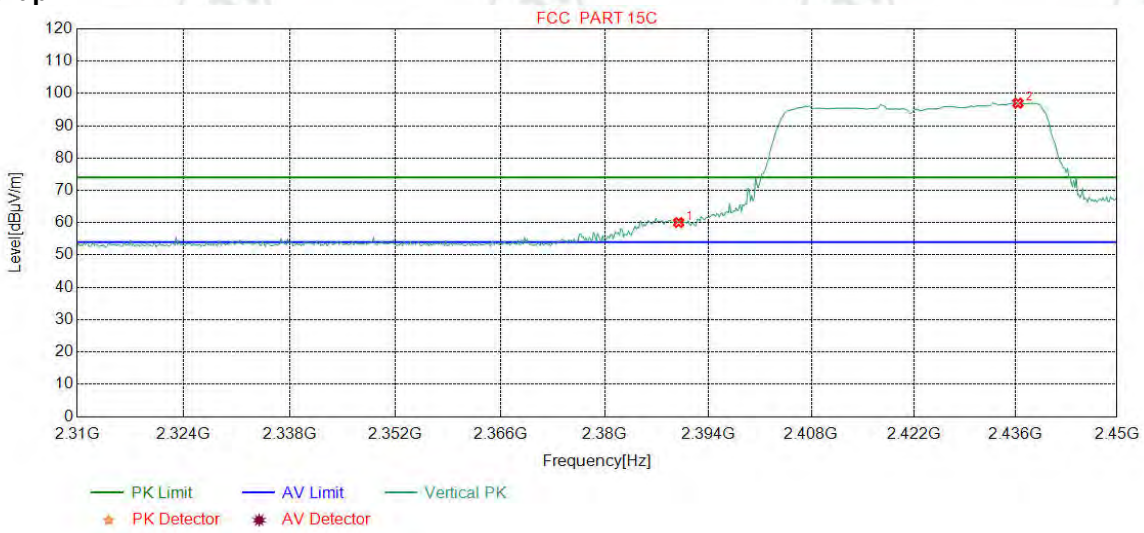
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	53.06	56.24	74.00	17.76	Pass	Horizontal
2	2417.7597	32.28	13.38	-42.42	90.03	93.27	74.00	-19.27	Pass	Horizontal

Mode:	802.11 n(HT40) (13.5Mbps) Transmitting	Channel:	2412
Remark:	PK		

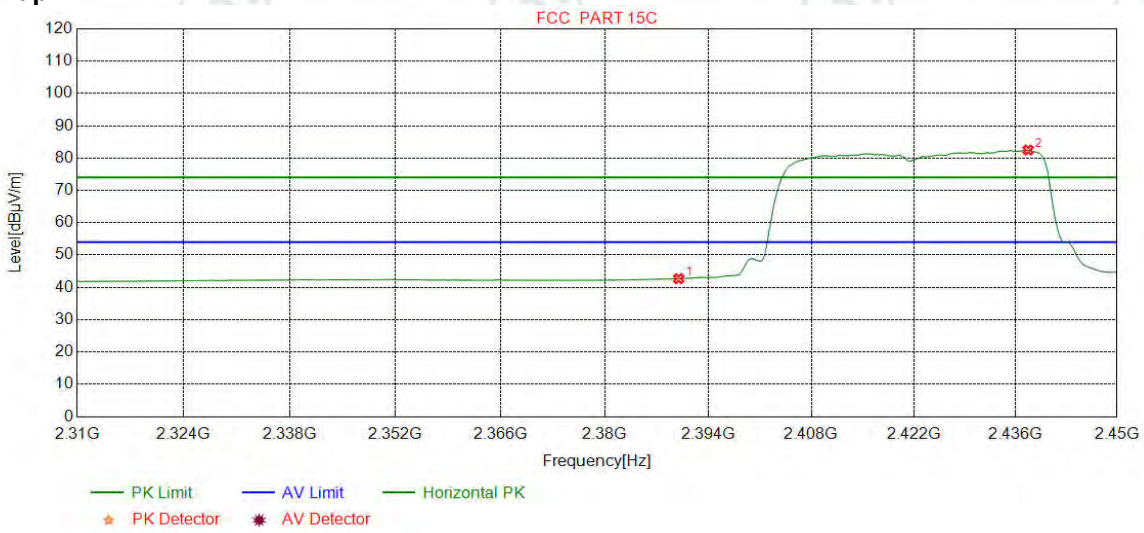
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	56.89	60.07	74.00	13.93	Pass	Vertical
2	2436.3329	32.31	13.47	-42.42	93.63	96.99	74.00	-22.99	Pass	Vertical

Mode:	802.11 n(HT40) (13.5Mbps) Transmitting	Channel:	2412
Remark:	AV		

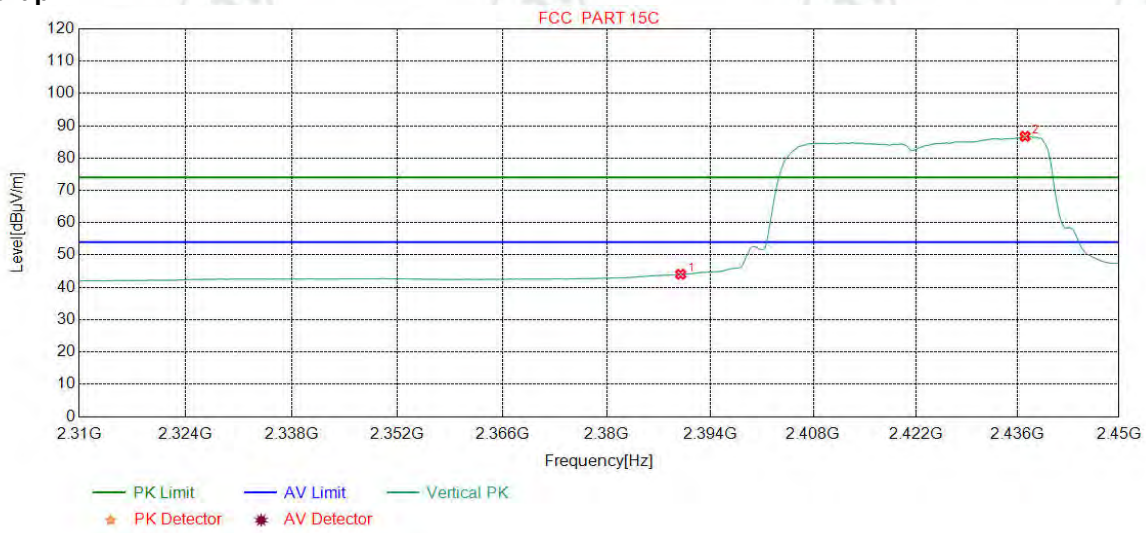
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	39.53	42.71	54.00	11.29	Pass	Horizontal
2	2437.7347	32.31	13.47	-42.41	79.13	82.50	54.00	-28.50	Pass	Horizontal

Mode:	802.11 n(HT40) (13.5Mbps) Transmitting	Channel:	2412
Remark:	AV		

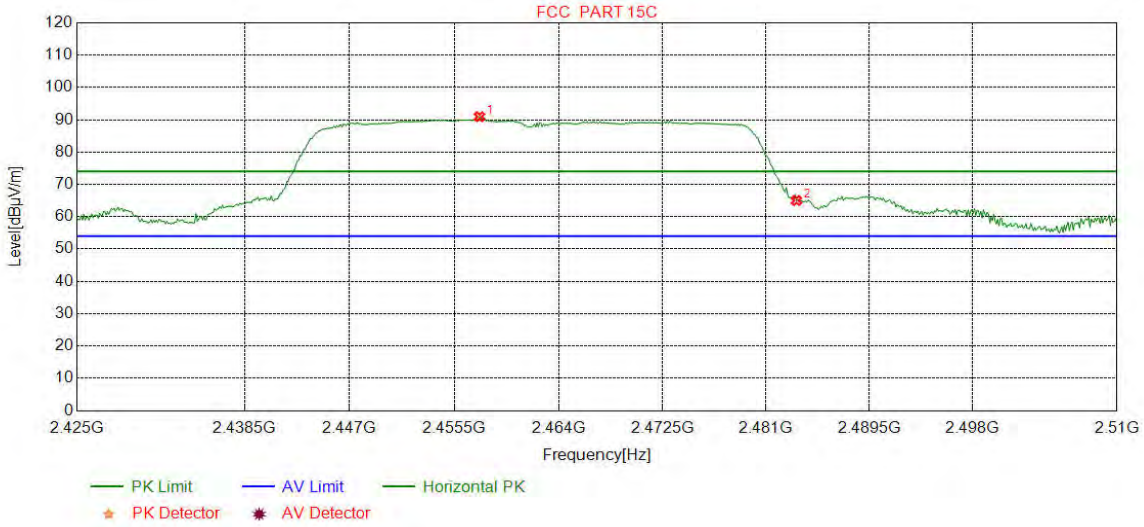
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	40.87	44.05	54.00	9.95	Pass	Vertical
2	2437.0338	32.31	13.47	-42.42	83.37	86.73	54.00	-32.73	Pass	Vertical

Mode:	802.11 n(HT40) (13.5Mbps) Transmitting	Channel:	2452
Remark:	PK		

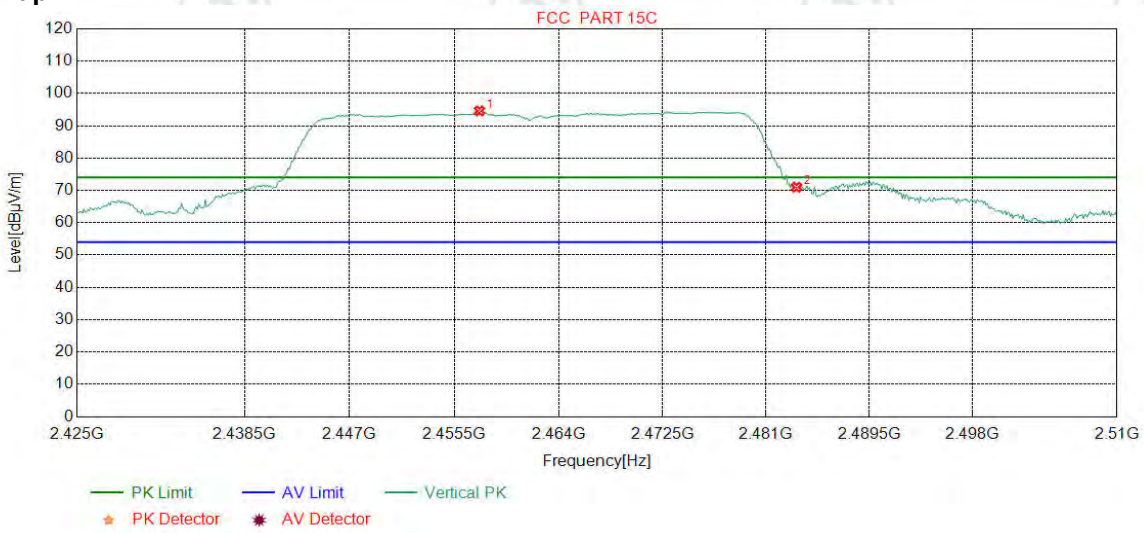
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2457.5532	32.34	13.50	-42.41	87.53	90.96	74.00	-16.96	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	61.65	65.01	74.00	8.99	Pass	Horizontal

Mode:	802.11 n(HT40) (13.5Mbps) Transmitting	Channel:	2452
Remark:	PK		

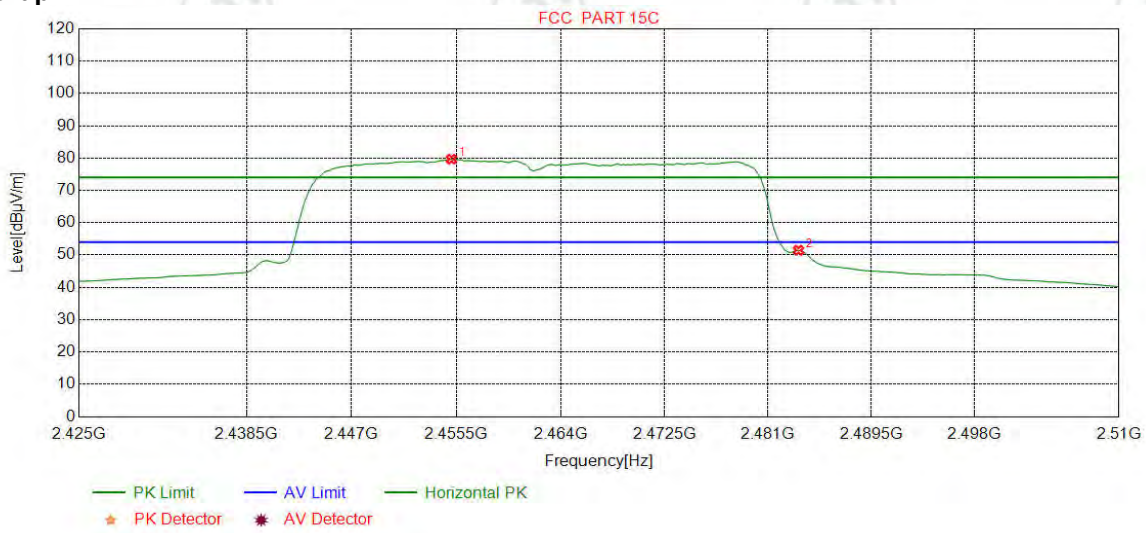
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2457.5532	32.34	13.50	-42.41	91.18	94.61	74.00	-20.61	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	67.64	71.00	74.00	3.00	Pass	Vertical

Mode:	802.11 n(HT40) (13.5Mbps) Transmitting	Channel:	2452
Remark:	AV		

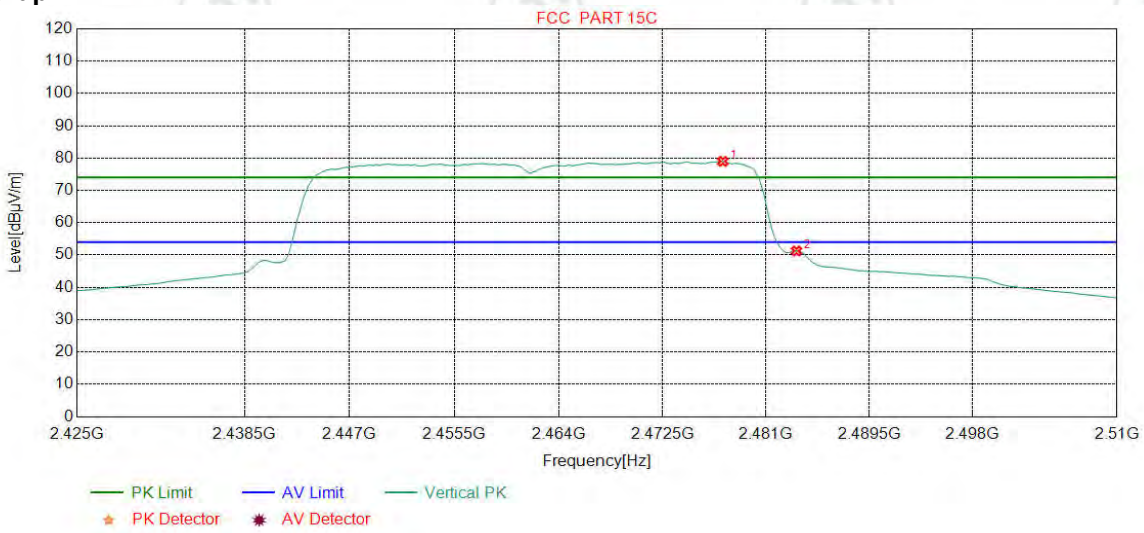
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2455.1064	32.34	13.51	-42.42	76.24	79.67	54.00	-25.67	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	48.11	51.47	54.00	2.53	Pass	Horizontal

Mode:	802.11 n(HT40) (13.5Mbps) Transmitting	Channel:	2452
Remark:	AV		

Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2477.4468	32.37	13.40	-42.40	75.62	78.99	54.00	-24.99	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	47.89	51.25	54.00	2.75	Pass	Vertical

Note:

1) Through Pre-scan transmitting mode and charge+transmitter mode with all kind of modulation and data rate, find the 11Mbps of rate is the worst case of 802.11b; 6Mbpsof 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),and then Only the worst case is recorded in the report.

2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor– Antenna Factor–Cable Factor

Appendix I): Radiated Spurious Emissions

Receiver Setup:

Frequency	Detector	RBW	VBW	Remark
0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak
0.009MHz-0.090MHz	Average	10kHz	30kHz	Average
0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak
0.110MHz-0.490MHz	Average	10kHz	30kHz	Average
0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) 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. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Above 1GHz test procedure as below:

g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and 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 middle 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	Field strength (microvolt/meter)	Limit (dBμV/m)	Remark	Measurement distance (m)
0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
1.705MHz-30MHz	30	-	-	30
30MHz-88MHz	100	40.0	Quasi-peak	3
88MHz-216MHz	150	43.5	Quasi-peak	3
216MHz-960MHz	200	46.0	Quasi-peak	3
960MHz-1GHz	500	54.0	Quasi-peak	3
Above 1GHz	500	54.0	Average	3

Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.

Radiated Spurious Emissions test Data:
Radiated Emissions below 1GHz

Mode:		802.11 b(11Mbps) Transmitting				Channel:		2412		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	72.2962	8.56	0.98	-32.05	49.72	27.21	40.00	12.79	Pass	H
2	175.9996	8.78	1.56	-31.98	51.62	29.98	43.50	13.52	Pass	H
3	216.0646	11.32	1.75	-31.95	51.68	32.80	46.00	13.20	Pass	H
4	391.6522	15.22	2.35	-31.80	57.22	42.99	46.00	3.01	Pass	H
5	552.5913	18.05	2.80	-31.97	46.93	35.81	46.00	10.19	Pass	H
6	788.3248	20.77	3.36	-31.98	37.96	30.11	46.00	15.89	Pass	H
7	72.0052	8.62	0.97	-32.05	48.67	26.21	40.00	13.79	Pass	V
8	96.0636	10.37	1.13	-32.07	49.45	28.88	43.50	14.62	Pass	V
9	208.8859	11.13	1.71	-31.94	49.26	30.16	43.50	13.34	Pass	V
10	390.7791	15.20	2.35	-31.81	53.49	39.23	46.00	6.77	Pass	V
11	600.0290	19.00	2.96	-31.99	44.08	34.05	46.00	11.95	Pass	V
12	800.4510	20.91	3.39	-32.03	38.64	30.91	46.00	15.09	Pass	V

Mode:		802.11 b(11Mbps) Transmitting				Channel:		2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	71.9082	8.64	0.97	-32.05	49.25	26.81	40.00	13.19	Pass	H
2	177.0667	8.84	1.57	-31.99	50.35	28.77	43.50	14.73	Pass	H
3	215.9676	11.32	1.75	-31.96	51.60	32.71	43.50	10.79	Pass	H
4	385.7346	15.09	2.34	-31.85	57.78	43.36	46.00	2.64	Pass	H
5	576.1646	18.52	2.87	-31.98	48.02	37.43	46.00	8.57	Pass	H
6	796.2796	20.86	3.38	-32.01	38.85	31.08	46.00	14.92	Pass	H
7	71.9082	8.64	0.97	-32.05	47.61	25.17	40.00	14.83	Pass	V
8	96.0636	10.37	1.13	-32.07	50.98	30.41	43.50	13.09	Pass	V
9	208.8859	11.13	1.71	-31.94	48.72	29.62	43.50	13.88	Pass	V
10	389.1299	15.16	2.35	-31.82	54.23	39.92	46.00	6.08	Pass	V
11	600.0290	19.00	2.96	-31.99	44.36	34.33	46.00	11.67	Pass	V
12	797.3467	20.87	3.38	-32.01	38.28	30.52	46.00	15.48	Pass	V

Mode:		802.11 b(11Mbps) Transmitting				Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	72.0052	8.62	0.97	-32.05	49.16	26.70	40.00	13.30	Pass	H
2	96.0636	10.37	1.13	-32.07	45.76	25.19	43.50	18.31	Pass	H
3	177.6488	8.87	1.57	-31.98	50.72	29.18	43.50	14.32	Pass	H
4	216.3556	11.33	1.75	-31.95	51.14	32.27	46.00	13.73	Pass	H
5	389.4209	15.17	2.35	-31.82	57.69	43.39	46.00	2.61	Pass	H
6	564.8145	18.30	2.81	-32.01	45.73	34.83	46.00	11.17	Pass	H
7	48.0438	13.20	0.78	-32.12	43.58	25.44	40.00	14.56	Pass	V
8	71.9082	8.64	0.97	-32.05	47.43	24.99	40.00	15.01	Pass	V
9	96.0636	10.37	1.13	-32.07	49.73	29.16	43.50	14.34	Pass	V
10	208.8859	11.13	1.71	-31.94	49.78	30.68	43.50	12.82	Pass	V
11	395.1445	15.29	2.37	-31.79	53.23	39.10	46.00	6.90	Pass	V
12	600.0290	19.00	2.96	-31.99	44.03	34.00	46.00	12.00	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2412		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	72.0052	8.62	0.97	-32.05	49.22	26.76	40.00	13.24	Pass	H
2	96.0636	10.37	1.13	-32.07	45.57	25.00	43.50	18.50	Pass	H
3	215.6766	11.31	1.75	-31.95	51.10	32.21	43.50	11.29	Pass	H
4	388.8389	15.15	2.35	-31.82	56.41	42.09	46.00	3.91	Pass	H
5	564.4264	18.29	2.81	-32.01	46.21	35.30	46.00	10.70	Pass	H
6	795.7946	20.85	3.38	-32.00	38.05	30.28	46.00	15.72	Pass	H
7	48.1408	13.20	0.78	-32.12	43.59	25.45	40.00	14.55	Pass	V
8	72.0052	8.62	0.97	-32.05	47.91	25.45	40.00	14.55	Pass	V
9	96.0636	10.37	1.13	-32.07	50.64	30.07	43.50	13.43	Pass	V
10	208.8859	11.13	1.71	-31.94	50.09	30.99	43.50	12.51	Pass	V
11	384.7645	15.06	2.33	-31.84	53.89	39.44	46.00	6.56	Pass	V
12	907.9378	22.15	3.60	-31.50	43.91	38.16	46.00	7.84	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	47.9468	13.20	0.78	-32.12	39.65	21.51	40.00	18.49	Pass	H
2	72.0052	8.62	0.97	-32.05	50.05	27.59	40.00	12.41	Pass	H
3	216.4526	11.33	1.75	-31.95	51.55	32.68	46.00	13.32	Pass	H
4	386.2196	15.10	2.34	-31.84	56.62	42.22	46.00	3.78	Pass	H
5	600.0290	19.00	2.96	-31.99	46.12	36.09	46.00	9.91	Pass	H
6	898.0428	22.08	3.60	-31.60	41.03	35.11	46.00	10.89	Pass	H
7	48.0438	13.20	0.78	-32.12	43.76	25.62	40.00	14.38	Pass	V
8	95.8696	10.34	1.13	-32.07	51.30	30.70	43.50	12.80	Pass	V
9	208.8859	11.13	1.71	-31.94	49.72	30.62	43.50	12.88	Pass	V
10	386.1226	15.09	2.34	-31.84	53.28	38.87	46.00	7.13	Pass	V
11	600.0290	19.00	2.96	-31.99	44.64	34.61	46.00	11.39	Pass	V
12	892.9983	22.02	3.59	-31.62	40.62	34.61	46.00	11.39	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	71.9082	8.64	0.97	-32.05	49.28	26.84	40.00	13.16	Pass	H
2	200.3490	10.91	1.67	-31.94	49.04	29.68	43.50	13.82	Pass	H
3	215.9676	11.32	1.75	-31.96	51.14	32.25	43.50	11.25	Pass	H
4	392.0402	15.22	2.36	-31.80	57.16	42.94	46.00	3.06	Pass	H
5	600.0290	19.00	2.96	-31.99	44.96	34.93	46.00	11.07	Pass	H
6	795.1155	20.85	3.38	-32.01	38.20	30.42	46.00	15.58	Pass	H
7	47.9468	13.20	0.78	-32.12	43.40	25.26	40.00	14.74	Pass	V
8	96.1606	10.39	1.13	-32.07	50.53	29.98	43.50	13.52	Pass	V
9	208.8859	11.13	1.71	-31.94	49.54	30.44	43.50	13.06	Pass	V
10	391.1671	15.21	2.35	-31.80	53.80	39.56	46.00	6.44	Pass	V
11	600.0290	19.00	2.96	-31.99	45.08	35.05	46.00	10.95	Pass	V
12	794.6305	20.84	3.38	-32.00	38.19	30.41	46.00	15.59	Pass	V

Mode:		802.11 n(HT20) (6.5Mbps)				Channel:		2412		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	72.0052	8.62	0.97	-32.05	48.92	26.46	40.00	13.54	Pass	H
2	96.3546	10.42	1.13	-32.07	44.50	23.98	43.50	19.52	Pass	H
3	215.9676	11.32	1.75	-31.96	52.60	33.71	43.50	9.79	Pass	H
4	389.8090	15.18	2.35	-31.82	56.69	42.40	46.00	3.60	Pass	H
5	600.0290	19.00	2.96	-31.99	44.39	34.36	46.00	11.64	Pass	H
6	801.7122	20.92	3.40	-32.03	39.10	31.39	46.00	14.61	Pass	H
7	48.0438	13.20	0.78	-32.12	43.20	25.06	40.00	14.94	Pass	V
8	72.0052	8.62	0.97	-32.05	47.31	24.85	40.00	15.15	Pass	V
9	95.9666	10.35	1.13	-32.07	50.80	30.21	43.50	13.29	Pass	V
10	208.8859	11.13	1.71	-31.94	49.35	30.25	43.50	13.25	Pass	V
11	388.5479	15.15	2.35	-31.83	53.80	39.47	46.00	6.53	Pass	V
12	600.0290	19.00	2.96	-31.99	43.26	33.23	46.00	12.77	Pass	V

Mode:		802.11 n(HT20) (6.5Mbps)				Channel:		2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	48.0438	13.20	0.78	-32.12	40.75	22.61	40.00	17.39	Pass	H
2	72.1022	8.60	0.98	-32.06	49.03	26.55	40.00	13.45	Pass	H
3	216.0646	11.32	1.75	-31.95	51.65	32.77	46.00	13.23	Pass	H
4	386.2196	15.10	2.34	-31.84	56.93	42.53	46.00	3.47	Pass	H
5	552.1062	18.04	2.80	-31.97	46.14	35.01	46.00	10.99	Pass	H
6	907.5498	22.15	3.60	-31.51	42.34	36.58	46.00	9.42	Pass	H
7	48.1408	13.20	0.78	-32.12	43.52	25.38	40.00	14.62	Pass	V
8	72.0052	8.62	0.97	-32.05	47.76	25.30	40.00	14.70	Pass	V
9	96.0636	10.37	1.13	-32.07	48.53	27.96	43.50	15.54	Pass	V
10	208.8859	11.13	1.71	-31.94	49.34	30.24	43.50	13.26	Pass	V
11	389.3239	15.17	2.35	-31.82	53.99	39.69	46.00	6.31	Pass	V
12	800.0630	20.90	3.39	-32.03	38.82	31.08	46.00	14.92	Pass	V

Mode:		802.11 n(HT20) (6.5Mbps)				Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	72.2962	8.56	0.98	-32.05	49.36	26.85	40.00	13.15	Pass	H
2	95.9666	10.35	1.13	-32.07	45.27	24.68	43.50	18.82	Pass	H
3	215.9676	11.32	1.75	-31.96	51.03	32.14	43.50	11.36	Pass	H
4	385.6376	15.08	2.34	-31.84	56.87	42.45	46.00	3.55	Pass	H
5	563.1653	18.26	2.81	-31.99	46.23	35.31	46.00	10.69	Pass	H
6	792.2052	20.81	3.37	-31.98	38.36	30.56	46.00	15.44	Pass	H
7	47.9468	13.20	0.78	-32.12	42.97	24.83	40.00	15.17	Pass	V
8	71.9082	8.64	0.97	-32.05	47.61	25.17	40.00	14.83	Pass	V
9	95.9666	10.35	1.13	-32.07	49.71	29.12	43.50	14.38	Pass	V
10	208.8859	11.13	1.71	-31.94	49.11	30.01	43.50	13.49	Pass	V
11	388.8389	15.15	2.35	-31.82	53.58	39.26	46.00	6.74	Pass	V
12	661.3391	19.49	3.06	-32.02	39.89	30.42	46.00	15.58	Pass	V

Mode:		802.11 n(HT40) (13.5Mbps)				Channel:		2422		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	47.9468	13.20	0.78	-32.12	39.37	21.23	40.00	18.77	Pass	H
2	72.0052	8.62	0.97	-32.05	49.21	26.75	40.00	13.25	Pass	H
3	215.2885	11.30	1.75	-31.96	50.88	31.97	43.50	11.53	Pass	H
4	390.0030	15.18	2.35	-31.81	57.50	43.22	46.00	2.78	Pass	H
5	552.0092	18.04	2.80	-31.97	46.13	35.00	46.00	11.00	Pass	H
6	792.3992	20.82	3.37	-31.99	38.42	30.62	46.00	15.38	Pass	H
7	48.1408	13.20	0.78	-32.12	43.63	25.49	40.00	14.51	Pass	V
8	96.0636	10.37	1.13	-32.07	50.37	29.80	43.50	13.70	Pass	V
9	208.8859	11.13	1.71	-31.94	48.80	29.70	43.50	13.80	Pass	V
10	388.6449	15.15	2.35	-31.82	53.28	38.96	46.00	7.04	Pass	V
11	599.9320	19.00	2.96	-31.99	44.03	34.00	46.00	12.00	Pass	V
12	797.4437	20.87	3.38	-32.01	38.61	30.85	46.00	15.15	Pass	V

Mode:		802.11 n(HT40) (13.5Mbps)				Channel:		2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	48.0438	13.20	0.78	-32.12	40.75	22.61	40.00	17.39	Pass	H
2	72.1992	8.58	0.98	-32.06	49.11	26.61	40.00	13.39	Pass	H
3	96.1606	10.39	1.13	-32.07	44.80	24.25	43.50	19.25	Pass	H
4	216.0646	11.32	1.75	-31.95	50.70	31.82	46.00	14.18	Pass	H
5	383.8914	15.05	2.33	-31.86	57.16	42.68	46.00	3.32	Pass	H
6	600.0290	19.00	2.96	-31.99	45.43	35.40	46.00	10.60	Pass	H
7	47.9468	13.20	0.78	-32.12	44.75	26.61	40.00	13.39	Pass	V
8	95.7726	10.32	1.13	-32.07	51.04	30.42	43.50	13.08	Pass	V
9	208.8859	11.13	1.71	-31.94	49.99	30.89	43.50	12.61	Pass	V
10	399.0249	15.38	2.38	-31.77	52.99	38.98	46.00	7.02	Pass	V
11	600.0290	19.00	2.96	-31.99	43.60	33.57	46.00	12.43	Pass	V
12	795.4065	20.85	3.38	-32.01	39.64	31.86	46.00	14.14	Pass	V

Mode:		802.11 n(HT40) (13.5Mbps)				Channel:		2452		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	71.9082	8.64	0.97	-32.05	49.10	26.66	40.00	13.34	Pass	H
2	199.7670	10.88	1.67	-31.94	49.08	29.69	43.50	13.81	Pass	H
3	215.9676	11.32	1.75	-31.96	51.33	32.44	43.50	11.06	Pass	H
4	390.0030	15.18	2.35	-31.81	58.16	43.88	46.00	2.12	Pass	H
5	540.1740	17.80	2.79	-31.95	49.33	37.97	46.00	8.03	Pass	H
6	897.9458	22.08	3.60	-31.60	44.79	38.87	46.00	7.13	Pass	H
7	47.9468	13.20	0.78	-32.12	43.52	25.38	40.00	14.62	Pass	V
8	95.9666	10.35	1.13	-32.07	50.10	29.51	43.50	13.99	Pass	V
9	208.8859	11.13	1.71	-31.94	49.28	30.18	43.50	13.32	Pass	V
10	390.0030	15.18	2.35	-31.81	53.32	39.04	46.00	6.96	Pass	V
11	600.0290	19.00	2.96	-31.99	44.03	34.00	46.00	12.00	Pass	V
12	797.2497	20.87	3.38	-32.01	38.87	31.11	46.00	14.89	Pass	V

Transmitter Emission above 1GHz

Mode:			802.11 b(11Mbps) Transmitting				Channel:		2412		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1305.8306	28.21	2.76	-42.78	56.12	44.31	74.00	29.69	Pass	H	PK
2	3004.0003	33.20	4.92	-42.11	50.08	46.09	74.00	27.91	Pass	H	PK
3	4824.1216	34.50	4.61	-40.65	58.67	57.13	74.00	16.87	Pass	H	PK
4	7236.2824	36.34	5.79	-40.99	55.77	56.91	74.00	17.09	Pass	H	PK
5	8170.3447	36.47	6.40	-40.86	47.65	49.66	74.00	24.34	Pass	H	PK
6	10152.476	38.01	6.86	-40.63	46.16	50.40	74.00	23.60	Pass	H	PK
7	7236.5661	36.34	5.79	-40.99	47.48	48.62	54.00	2.38	Pass	H	AV
8	4823.8126	34.50	4.61	-40.64	52.59	51.06	54.00	5.94	Pass	H	AV
9	1836.4836	30.62	3.36	-42.69	57.24	48.53	74.00	25.47	Pass	V	PK
10	2192.3192	31.97	3.65	-42.53	57.75	50.84	74.00	23.16	Pass	V	PK
11	2848.7849	32.96	4.23	-42.20	53.76	48.75	74.00	25.25	Pass	V	PK
12	4824.1216	34.50	4.61	-40.65	49.76	48.22	74.00	25.78	Pass	V	PK
13	7236.2824	36.34	5.79	-40.99	57.17	58.31	74.00	15.69	Pass	V	PK
14	10184.479	38.06	6.86	-40.69	46.09	50.32	74.00	23.68	Pass	V	PK
15	7236.6394	36.34	5.79	-40.99	47.48	48.62	54.00	5.38	Pass	V	AV

Mode:			802.11 b(11Mbps) Transmitting				Channel:		2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1994.8995	31.67	3.46	-42.61	56.58	49.10	74.00	24.90	Pass	H	PK
2	2992.1992	33.19	4.53	-42.13	53.16	48.75	74.00	25.25	Pass	H	PK
3	4874.1249	34.50	4.78	-40.61	56.95	55.62	74.00	18.38	Pass	H	PK
4	7311.2874	36.41	5.85	-40.93	59.23	60.56	74.00	13.44	Pass	H	PK
5	9581.4388	37.63	6.68	-40.79	46.04	49.56	74.00	24.44	Pass	H	PK
6	11165.544	38.70	7.21	-41.20	47.13	51.84	74.00	22.16	Pass	H	PK
7	4874.0219	34.50	4.78	-40.60	49.65	48.33	54.00	5.67	Pass	H	AV
8	7311.6031	36.41	5.85	-40.93	49.29	50.62	54.00	3.38	Pass	H	AV
9	1295.8296	28.20	2.74	-42.79	59.39	47.54	74.00	26.46	Pass	V	PK
10	1829.6830	30.58	3.36	-42.70	57.83	49.07	74.00	24.93	Pass	V	PK
11	2980.5981	33.17	4.49	-42.13	51.39	46.92	74.00	27.08	Pass	V	PK
12	4874.1249	34.50	4.78	-40.61	49.82	48.49	74.00	25.51	Pass	V	PK
13	7311.2874	36.41	5.85	-40.93	59.30	60.63	74.00	13.37	Pass	V	PK
14	10794.519	38.56	7.19	-41.14	46.18	50.79	74.00	23.21	Pass	V	PK
15	7311.6604	36.41	5.85	-40.93	49.14	50.47	54.00	3.53	Pass	V	AV

Mode:			802.11 b(11Mbps) Transmitting				Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1791.0791	30.32	3.30	-42.70	57.42	48.34	74.00	25.66	Pass	H	PK
2	1990.2990	31.64	3.46	-42.62	57.89	50.37	74.00	23.63	Pass	H	PK
3	3156.0104	33.26	4.58	-42.02	51.01	46.83	74.00	27.17	Pass	H	PK
4	4944.1296	34.50	4.83	-40.55	54.48	53.26	74.00	20.74	Pass	H	PK
5	7418.2946	36.52	5.85	-40.84	60.80	62.33	74.00	11.67	Pass	H	PK
6	10536.502	38.51	7.01	-41.18	46.56	50.90	74.00	23.10	Pass	H	PK
7	4944.0359	34.50	4.83	-40.55	47.43	46.21	54.00	7.79	Pass	H	AV
8	7416.6715	36.52	5.85	-40.84	51.25	52.78	54.00	1.22	Pass	H	AV
9	1593.2593	29.02	3.06	-42.88	58.80	48.00	74.00	26.00	Pass	V	PK
10	1851.6852	30.72	3.38	-42.68	56.40	47.82	74.00	26.18	Pass	V	PK
11	2843.5844	32.95	4.23	-42.20	52.98	47.96	74.00	26.04	Pass	V	PK
12	4943.1295	34.50	4.83	-40.55	47.61	46.39	74.00	27.61	Pass	V	PK
13	7415.2944	36.52	5.85	-40.85	60.57	62.09	74.00	11.91	Pass	V	PK
14	9591.4394	37.64	6.64	-40.78	46.96	50.46	74.00	23.54	Pass	V	PK
15	7416.5448	36.52	5.85	-40.84	50.78	52.31	54.00	1.69	Pass	V	AV

Mode:			802.11 g(6Mbps) Transmitting				Channel:		2412		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1799.6800	30.38	3.32	-42.71	56.85	47.84	74.00	26.16	Pass	H	PK
2	2940.3940	33.10	4.40	-42.15	51.25	46.60	74.00	27.40	Pass	H	PK
3	4824.1216	34.50	4.61	-40.65	61.84	60.30	74.00	13.70	Pass	H	PK
4	6309.2206	35.86	5.46	-41.15	46.51	46.68	74.00	27.32	Pass	H	PK
5	7235.2824	36.34	5.79	-41.00	64.31	65.44	74.00	8.56	Pass	H	PK
6	10147.476	38.01	6.86	-40.63	46.66	50.90	74.00	23.10	Pass	H	PK
7	7236.5088	36.34	5.79	-40.99	50.99	52.13	54.00	1.87	Pass	H	AV
8	4823.8739	34.50	4.61	-40.64	52.66	51.13	54.00	2.87	Pass	H	AV
9	1598.0598	29.05	3.07	-42.90	60.02	49.24	74.00	24.76	Pass	V	PK
10	2195.9196	31.97	3.65	-42.52	57.02	50.12	74.00	23.88	Pass	V	PK
11	4823.1215	34.50	4.60	-40.64	53.18	51.64	74.00	22.36	Pass	V	PK
12	7236.2824	36.34	5.79	-40.99	64.11	65.25	74.00	8.75	Pass	V	PK
13	8170.3447	36.47	6.40	-40.86	46.85	48.86	74.00	25.14	Pass	V	PK
14	10516.501	38.50	7.04	-41.17	45.46	49.83	74.00	24.17	Pass	V	PK
15	7236.2824	36.34	5.79	-40.99	51.35	52.49	54.00	1.51	Pass	V	AV

Mode:			802.11 g(6Mbps) Transmitting				Channel:		2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1800.2800	30.38	3.32	-42.71	56.04	47.03	74.00	26.97	Pass	H	PK
2	1999.9000	31.70	3.47	-42.61	57.45	50.01	74.00	23.99	Pass	H	PK
3	2960.5961	33.14	4.43	-42.14	51.16	46.59	74.00	27.41	Pass	H	PK
4	4874.1249	34.50	4.78	-40.61	59.05	57.72	74.00	16.28	Pass	H	PK
5	7311.2874	36.41	5.85	-40.93	63.02	64.35	74.00	9.65	Pass	H	PK
6	9574.4383	37.63	6.70	-40.79	45.57	49.11	74.00	24.89	Pass	H	PK
7	4874.0599	34.50	4.78	-40.60	51.89	50.57	54.00	3.43	Pass	H	AV
8	7311.5904	36.41	5.85	-40.93	51.53	52.86	54.00	1.14	Pass	H	AV
9	1592.6593	29.01	3.06	-42.88	59.22	48.41	74.00	25.59	Pass	V	PK
10	1868.8869	30.83	3.40	-42.68	56.43	47.98	74.00	26.02	Pass	V	PK
11	2962.9963	33.14	4.44	-42.14	51.27	46.71	74.00	27.29	Pass	V	PK
12	4874.1249	34.50	4.78	-40.61	50.40	49.07	74.00	24.93	Pass	V	PK
13	7311.2874	36.41	5.85	-40.93	63.99	65.32	74.00	8.68	Pass	V	PK
14	12183.612	39.41	7.72	-41.17	52.59	58.55	74.00	15.45	Pass	V	PK
15	7311.8058	36.41	5.85	-40.93	51.43	52.76	54.00	1.24	Pass	V	AV
16	12185.687	39.41	7.71	-41.17	37.85	43.80	54.00	10.20	Pass	V	AV

Mode:			802.11 g(6Mbps) Transmitting				Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1798.8799	30.37	3.32	-42.71	56.14	47.12	74.00	26.88	Pass	H	PK
2	2875.3875	33.00	4.31	-42.19	50.78	45.90	74.00	28.10	Pass	H	PK
3	4942.1295	34.50	4.83	-40.55	48.68	47.46	74.00	26.54	Pass	H	PK
4	7420.2947	36.52	5.85	-40.84	57.28	58.81	74.00	15.19	Pass	H	PK
5	10153.476	38.01	6.86	-40.63	46.74	50.98	74.00	23.02	Pass	H	PK
6	11032.535	38.62	7.44	-41.12	46.23	51.17	74.00	22.83	Pass	H	PK
7	7418.3736	36.52	5.85	-40.84	39.25	40.78	54.00	13.22	Pass	H	AV
8	1597.8598	29.05	3.07	-42.90	57.46	46.68	74.00	27.32	Pass	V	PK
9	1921.4921	31.18	3.42	-42.65	54.70	46.65	74.00	27.35	Pass	V	PK
10	3200.0133	33.28	4.65	-42.00	50.25	46.18	74.00	27.82	Pass	V	PK
11	7419.2946	36.52	5.85	-40.84	57.15	58.68	74.00	15.32	Pass	V	PK
12	10097.473	37.94	6.88	-40.55	46.66	50.93	74.00	23.07	Pass	V	PK
13	11697.579	39.06	7.49	-41.32	46.79	52.02	74.00	21.98	Pass	V	PK
14	7418.8416	36.52	5.85	-40.84	38.99	40.52	54.00	13.48	Pass	V	AV

Mode:		802.11 n(HT20) (6.5Mbps) Transmitting					Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1593.2593	29.02	3.06	-42.88	55.94	45.14	74.00	28.86	Pass	H	PK
2	2838.5839	32.94	4.23	-42.20	51.25	46.22	74.00	27.78	Pass	H	PK
3	4834.1223	34.50	4.64	-40.64	47.27	45.77	74.00	28.23	Pass	H	PK
4	6182.2121	35.84	5.23	-41.13	46.36	46.30	74.00	27.70	Pass	H	PK
5	7240.2827	36.34	5.79	-40.99	59.77	60.91	74.00	13.09	Pass	H	PK
6	10576.505	38.52	6.95	-41.17	46.34	50.64	74.00	23.36	Pass	H	PK
7	7239.1290	36.34	5.79	-40.99	38.05	39.19	54.00	14.81	Pass	H	AV
8	1597.6598	29.04	3.07	-42.89	58.22	47.44	74.00	26.56	Pass	V	PK
9	3055.0037	33.22	4.82	-42.09	50.70	46.65	74.00	27.35	Pass	V	PK
10	4821.1214	34.50	4.60	-40.65	47.71	46.16	74.00	27.84	Pass	V	PK
11	7240.2827	36.34	5.79	-40.99	60.92	62.06	74.00	11.94	Pass	V	PK
12	9044.4030	37.69	6.46	-40.69	45.35	48.81	74.00	25.19	Pass	V	PK
13	11247.549	38.75	7.24	-41.25	46.56	51.30	74.00	22.70	Pass	V	PK
14	7240.2737	36.34	5.79	-40.99	37.67	38.81	54.00	15.19	Pass	V	AV

Mode:		802.11 n(HT20) (6.5Mbps) Transmitting					Channel:		2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1597.6598	29.04	3.07	-42.89	55.94	45.16	74.00	28.84	Pass	H	PK
2	2987.5988	33.18	4.51	-42.12	51.33	46.90	74.00	27.10	Pass	H	PK
3	4877.1251	34.50	4.79	-40.60	52.22	50.91	74.00	23.09	Pass	H	PK
4	7320.2880	36.42	5.85	-40.92	62.53	63.88	74.00	10.12	Pass	H	PK
5	9060.4040	37.69	6.47	-40.70	45.27	48.73	74.00	25.27	Pass	H	PK
6	10672.511	38.53	7.01	-41.15	46.46	50.85	74.00	23.15	Pass	H	PK
7	7317.4735	36.42	5.85	-40.92	38.36	39.71	54.00	14.29	Pass	H	AV
8	1598.4598	29.05	3.07	-42.90	59.39	48.61	74.00	25.39	Pass	V	PK
9	1877.2877	30.89	3.40	-42.67	56.57	48.19	74.00	25.81	Pass	V	PK
10	5737.1825	35.38	4.96	-40.85	46.69	46.18	74.00	27.82	Pass	V	PK
11	7317.2878	36.42	5.85	-40.93	62.66	64.00	74.00	10.00	Pass	V	PK
12	10448.496	38.43	7.03	-41.11	45.81	50.16	74.00	23.84	Pass	V	PK
13	11090.539	38.65	7.26	-41.16	46.93	51.68	74.00	22.32	Pass	V	PK
14	7313.3692	36.41	5.85	-40.93	48.51	49.84	54.00	4.16	Pass	V	AV

Mode:		802.11 n(HT20) (6.5Mbps) Transmitting					Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2047.9048	31.77	3.56	-42.60	51.27	44.00	74.00	30.00	Pass	H	PK
2	2967.7968	33.15	4.45	-42.14	51.42	46.88	74.00	27.12	Pass	H	PK
3	4935.1290	34.50	4.84	-40.56	49.34	48.12	74.00	25.88	Pass	H	PK
4	7426.2951	36.53	5.85	-40.84	68.39	69.93	74.00	4.07	Pass	H	PK
5	10303.486	38.22	6.86	-40.86	46.87	51.09	74.00	22.91	Pass	H	PK
6	12357.623	39.51	7.68	-41.12	51.26	57.33	74.00	16.67	Pass	H	PK
7	7422.6872	36.52	5.85	-40.83	46.82	48.36	54.00	5.64	Pass	H	AV
8	12362.593	39.52	7.70	-41.13	43.26	49.35	54.00	4.65	Pass	H	AV
9	1598.2598	29.05	3.07	-42.90	58.91	48.13	74.00	25.87	Pass	V	PK
10	3435.0290	33.37	4.47	-41.86	52.09	48.07	74.00	25.93	Pass	V	PK
11	4949.1299	34.50	4.82	-40.54	48.49	47.27	74.00	26.73	Pass	V	PK
12	7426.2951	36.53	5.85	-40.84	66.68	68.22	74.00	5.78	Pass	V	PK
13	10804.520	38.56	7.20	-41.14	45.86	50.48	74.00	23.52	Pass	V	PK
14	12365.624	39.52	7.72	-41.13	56.88	62.99	74.00	11.01	Pass	V	PK
15	7422.8452	36.52	5.85	-40.83	45.89	47.43	54.00	6.57	Pass	V	AV
16	12364.909	39.52	7.71	-41.13	43.05	49.15	54.00	4.85	Pass	V	AV

Mode:		802.11 n(HT40) (13.5Mbps) Transmitting					Channel:		2422		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1600.0600	29.06	3.07	-42.90	54.11	43.34	74.00	30.66	Pass	H	PK
2	2996.1996	33.19	4.54	-42.12	51.57	47.18	74.00	26.82	Pass	H	PK
3	4820.1213	34.50	4.60	-40.65	58.37	56.82	74.00	17.18	Pass	H	PK
4	5938.1959	35.70	5.26	-41.03	46.68	46.61	74.00	27.39	Pass	H	PK
5	7241.2828	36.34	5.79	-40.99	61.71	62.85	74.00	11.15	Pass	H	PK
6	11132.542	38.68	7.23	-41.19	46.91	51.63	74.00	22.37	Pass	H	PK
7	4823.8679	34.50	4.61	-40.64	43.59	42.06	54.00	11.94	Pass	H	AV
8	7237.2949	36.34	5.79	-40.99	40.36	41.50	54.00	12.50	Pass	H	AV
9	1594.4594	29.02	3.07	-42.89	58.23	47.43	74.00	26.57	Pass	V	PK
10	1974.2974	31.53	3.44	-42.62	55.89	48.24	74.00	25.76	Pass	V	PK
11	3001.0001	33.20	4.93	-42.12	50.64	46.65	74.00	27.35	Pass	V	PK
12	4824.1216	34.50	4.61	-40.65	49.44	47.90	74.00	26.10	Pass	V	PK
13	7218.2812	36.32	5.81	-41.01	62.08	63.20	74.00	10.80	Pass	V	PK
14	11011.534	38.61	7.57	-41.12	46.89	51.95	74.00	22.05	Pass	V	PK
15	7223.2112	36.32	5.80	-41.00	39.33	40.45	54.00	13.55	Pass	V	AV

Mode:		802.11 n(HT40) (13.5Mbps) Transmitting					Channel:		2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1796.8797	30.36	3.31	-42.70	56.95	47.92	74.00	26.08	Pass	H	PK
2	2844.5845	32.95	4.23	-42.20	53.36	48.34	74.00	25.66	Pass	H	PK
3	4875.1250	34.50	4.78	-40.60	50.23	48.91	74.00	25.09	Pass	H	PK
4	7307.2872	36.41	5.85	-40.93	63.85	65.18	74.00	8.82	Pass	H	PK
5	9071.4048	37.69	6.46	-40.71	45.54	48.98	74.00	25.02	Pass	H	PK
6	11065.537	38.64	7.31	-41.15	46.21	51.01	74.00	22.99	Pass	H	PK
7	7310.9851	36.41	5.85	-40.93	40.11	41.44	54.00	12.56	Pass	H	AV
8	1971.8972	31.51	3.44	-42.62	55.72	48.05	74.00	25.95	Pass	V	PK
9	3189.0126	33.28	4.63	-42.01	53.83	49.73	74.00	24.27	Pass	V	PK
10	4874.1249	34.50	4.78	-40.61	47.08	45.75	74.00	28.25	Pass	V	PK
11	7308.2872	36.41	5.85	-40.93	62.10	63.43	74.00	10.57	Pass	V	PK
12	9564.4376	37.63	6.74	-40.81	45.33	48.89	74.00	25.11	Pass	V	PK
13	11726.581	39.08	7.48	-41.30	47.43	52.69	74.00	21.31	Pass	V	PK
14	7309.5216	36.41	5.85	-40.93	40.70	42.03	54.00	11.97	Pass	V	AV

Mode:		802.11 n(HT40) (13.5Mbps) Transmitting					Channel:		2452		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1973.2973	31.52	3.44	-42.62	51.20	43.54	74.00	30.46	Pass	H	PK
2	3209.0139	33.28	4.61	-41.99	50.35	46.25	74.00	27.75	Pass	H	PK
3	4928.1285	34.50	4.85	-40.56	50.81	49.60	74.00	24.40	Pass	H	PK
4	6399.2266	35.88	5.31	-41.17	46.79	46.81	74.00	27.19	Pass	H	PK
5	7379.2920	36.48	5.85	-40.87	61.61	63.07	74.00	10.93	Pass	H	PK
6	10152.476	38.01	6.86	-40.63	46.36	50.60	74.00	23.40	Pass	H	PK
7	7378.4829	36.48	5.85	-40.87	43.52	44.98	54.00	9.02	Pass	H	AV
8	1311.2311	28.21	2.77	-42.78	61.10	49.30	74.00	24.70	Pass	V	PK
9	1897.6898	31.02	3.42	-42.66	56.32	48.10	74.00	25.90	Pass	V	PK
10	2841.9842	32.95	4.23	-42.21	55.15	50.12	74.00	23.88	Pass	V	PK
11	7378.2919	36.48	5.85	-40.87	66.42	67.88	74.00	6.12	Pass	V	PK
12	9113.4076	37.68	6.44	-40.72	46.43	49.83	74.00	24.17	Pass	V	PK
13	12293.619	39.48	7.73	-41.15	50.38	56.44	74.00	17.56	Pass	V	PK
14	7378.4076	36.48	5.85	-40.87	43.69	45.15	54.00	8.85	Pass	V	AV
15	12293.619	39.48	7.73	-41.15	45.54	51.60	54.00	2.40	Pass	V	AV

Note:

1) Through Pre-scan transmitting mode and charge+transmitter mode with all kind of modulation and data rate, find the 11Mbps of rate is the worst case of 802.11b; 6Mbpsof 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),and then Only the worst case is recorded in the report.

2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor– Antenna Factor–Cable Factor

3) Scan from 9kHz to 25GHz, the disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.