

## TEST REPORT

**Product** : Wireless Smart Audio Module  
**Trade mark** : Linkplay  
**Model/Type reference** : A98, A98M, A98M-12, A98M-22,  
A98MG, A98-12, A98-22, A98G  
**Serial Number** : N/A  
**Report Number** : EED32L00167705  
**FCC ID** : 2ANOG-A98XX  
**Date of Issue** : Aug. 09, 2019  
**Test Standards** : 47 CFR Part 15Subpart C  
**Test result** : PASS

Prepared for:

**Linkplay Technology Inc**  
**8F-8036, Qianren Building, No. 7, Yingcui Road,**  
**Jiangning District, Nanjing, China**

Prepared by:

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Date:

Aug. 09, 2019

Check No: 3915522376



## 2 Version

Version No.	Date	Description
00	Aug. 09, 2019	Original

### 3 Test Summary

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

Model No.:A98, A98M, A98M-12, A98M-22, A98MG, A98-12, A98-22, A98G

Only the model A98 was tested, The difference is that ROM and RAM are different in size or customer.



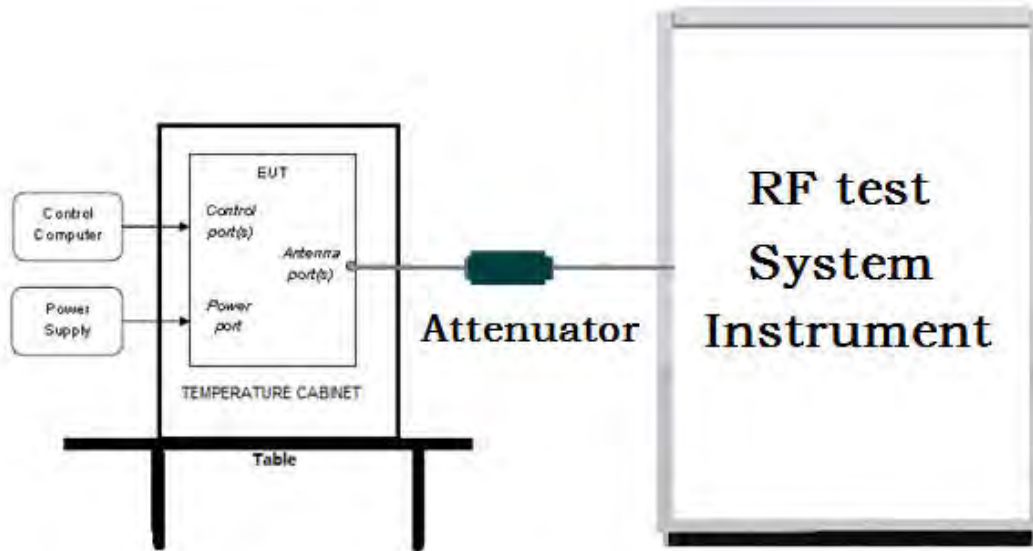
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## 5 Test Requirement

### 5.1 Test setup

#### 5.1.1 For Conducted test setup



#### 5.1.2 For Radiated Emissions test setup

Radiated Emissions setup:

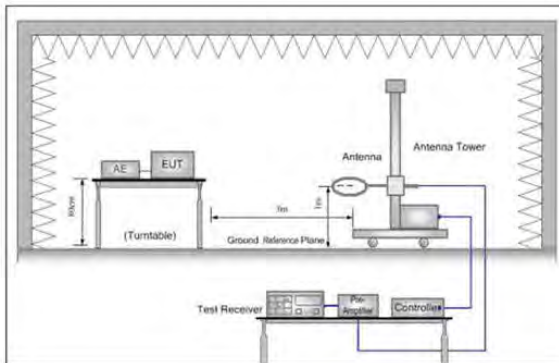


Figure 1. Below 30MHz

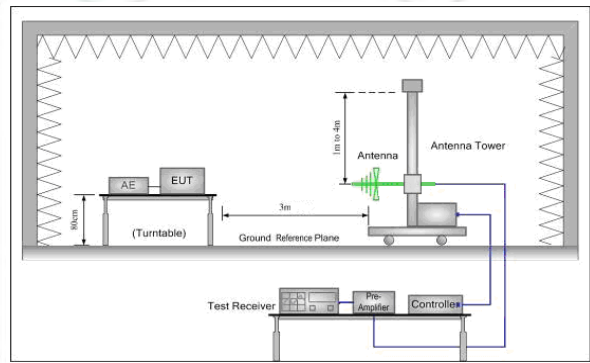


Figure 2. 30MHz to 1GHz

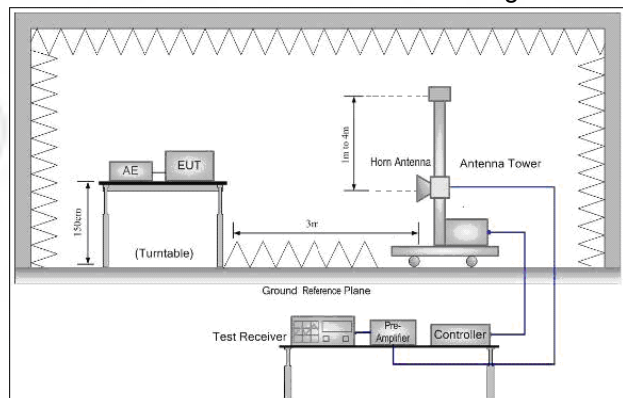
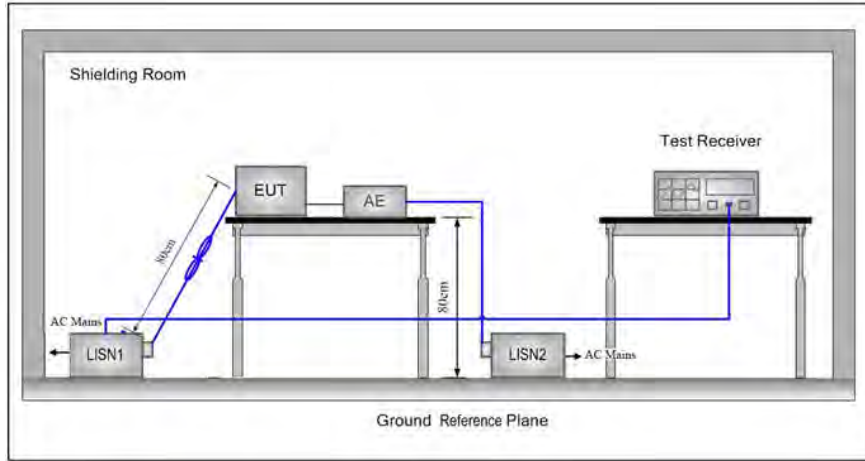


Figure 3. Above 1GHz

**5.1.3 For Conducted Emissions test setup**  
**Conducted Emissions setup**



**5.2 Test Environment**

<b>Operating Environment:</b>	
Temperature:	25.0 °C
Humidity:	57 % 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
Transmitting mode:	Keep the EUT in transmitting mode with all kind of modulation and all kind of data rate.			



## 6 General Information

### 6.1 Client Information

Applicant:	Linkplay Technology Inc
Address of Applicant:	8F-8036, Qianren Building, No. 7, Yingcui Road, Jiangning District, Nanjing, China
Manufacturer:	Linkplay Technology Inc
Address of Manufacturer:	8F-8036, Qianren Building, No. 7, Yingcui Road, Jiangning District, Nanjing, China
Factory:	Linkplay Technology Inc
Address of Factory:	8F-8036, Qianren Building, No. 7, Yingcui Road, Jiangning District, Nanjing, China

### 6.2 General Description of EUT

Product Name:	Wireless Smart Audio Module
Model No.(EUT):	A98, A98M, A98M-12, A98M-22, A98MG, A98-12, A98-22, A98G
Test model No.:	A98
Trade Mark:	Linkplay
EUT Supports Radios application	802.11b/g/n(20MHz),2412-2462MHz;
Power Supply:	DC 5V
Sample Received Date:	Jun. 26, 2019
Sample tested Date:	Jun. 26, 2019 to Aug. 09, 2019

### 6.3 Product Specification subjective to this standard

Operation Frequency:	IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz
Channel Numbers:	IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels
Channel Separation:	5MHz
Type of Modulation:	OFDM,DSSS
Test Power Grade:	Ant1 802.11b:15 / 802.11G:14 / 802.11n:13 Ant2 802.11b:15 / 802.11G:14 / 802.11n:13
Test Software of EUT:	Linkplay Factory Tool For Custom (manufacturer declare )
Antenna Type and Gain:	Type: PIFA antenna Gain:2.62dBi
Test Voltage:	DC 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		

## 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	$7.9 \times 10^{-8}$
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	Model 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
Signal Generator	Keysight	N5182B	MY53051549	03-01-2019	02-28-2020
High-pass filter	Sinoscite	FL3CX03WG1 8NM12-0398-002	---	01-09-2019	01-08-2020
High-pass filter	MICRO-TRONICS	SPA-F-63029-4	---	01-09-2019	01-08-2020
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	JS1120-2	---	03-01-2019	02-28-2020
Temperature/ Humidity Indicator	biaozhi	HM10	1804186	10-12-2018	10-11-2019

Conducted disturbance Test					
Equipment	Manufacturer	Model No.	Serial Number	Cal. date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
Receiver	R&S	ESCI	100435	05-20-2019	05-18-2020
Temperature/ Humidity Indicator	Defu	TH128	/	06-14-2019	06-12-2020
Communication test set	Agilent	E5515C	GB47050 534	03-01-2019	02-28-2020
Communication test set	R&S	CMW500	102898	01-18-2019	01-17-2020
LISN	R&S	ENV216	100098	05-08-2019	05-06-2020
LISN	schwarzbeck	NNLK8121	8121-529	05-08-2019	05-06-2020
Voltage Probe	R&S	ESH2-Z3 0299.7810.5 6	100042	06-13-2017	06-11-2020
Current Probe	R&S	EZ-17 816.2063.03	100106	05-20-2019	05-18-2020
ISN	TESEQ	ISN T800	30297	01-06-2019	01-15-2020
Barometer	changchun	DYM3	1188	06-20-2019	06-18-2020



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	9163-618	07-26-2019	07-24-2020
Microwave Preamplifier	Agilent	8449B	3008A02425	08-21-2018	08-20-2019
Microwave Preamplifier	Tonscend	EMC051845 SE	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	07-26-2019	07-24-2020
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

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

## 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 Unlicensed 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	PASS	Appendix H)
Part15C Section 15.205/15.209	ANSI C63.10	Radiated Spurious Emissions	PASS	Appendix I)



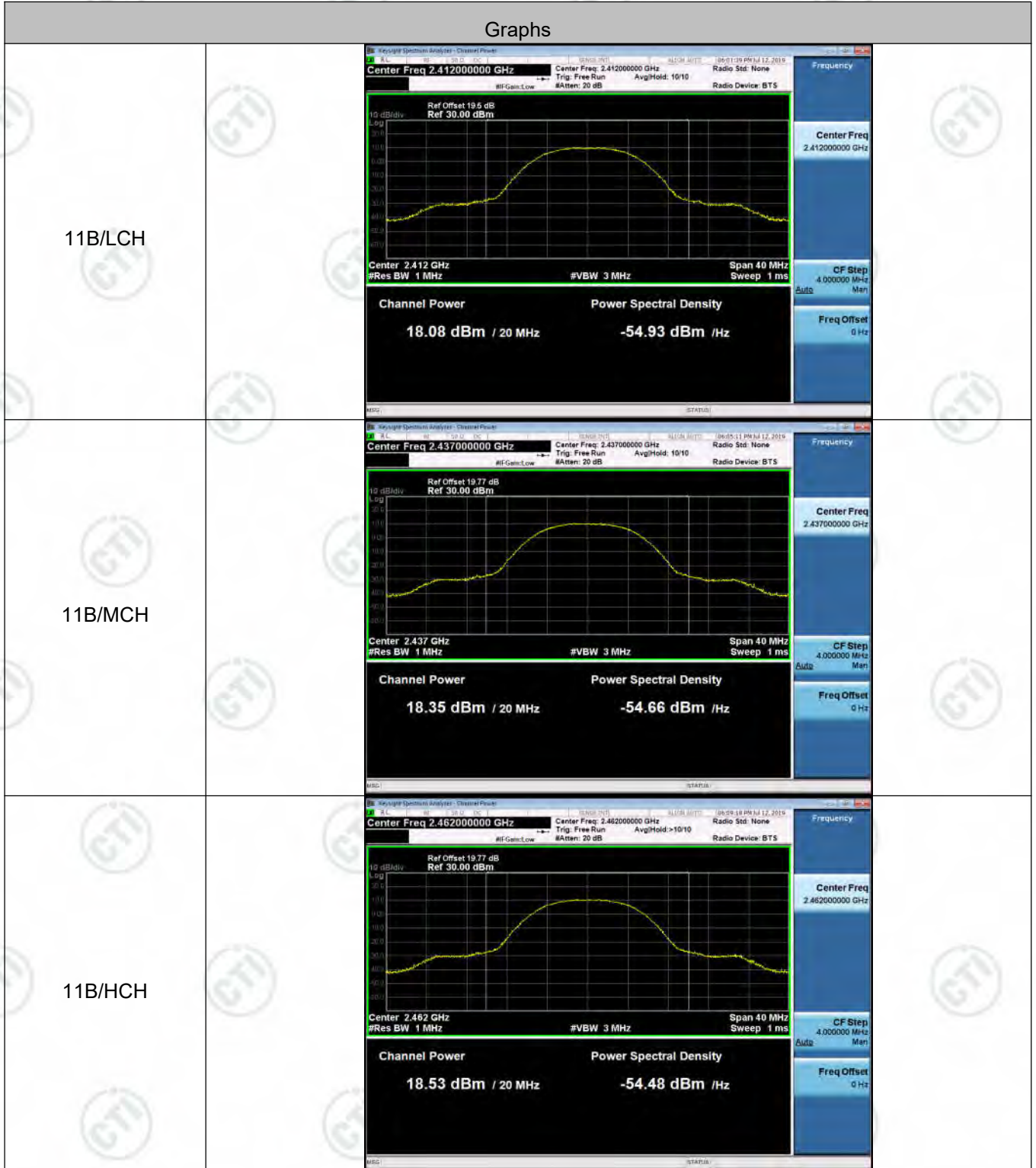
## Appendix A): Conducted Peak Output Power



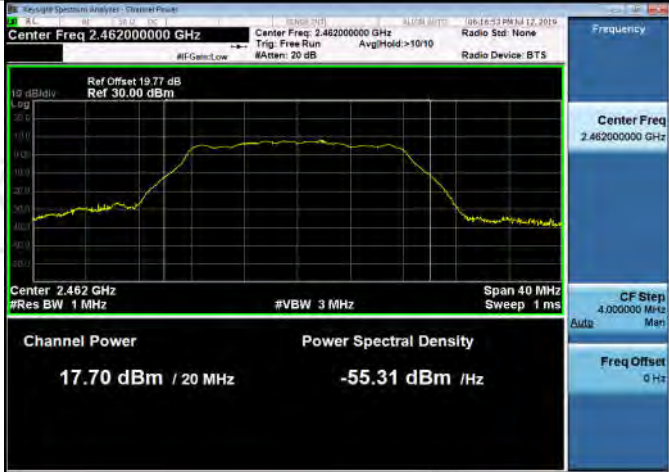
ANT1

**Result Table**

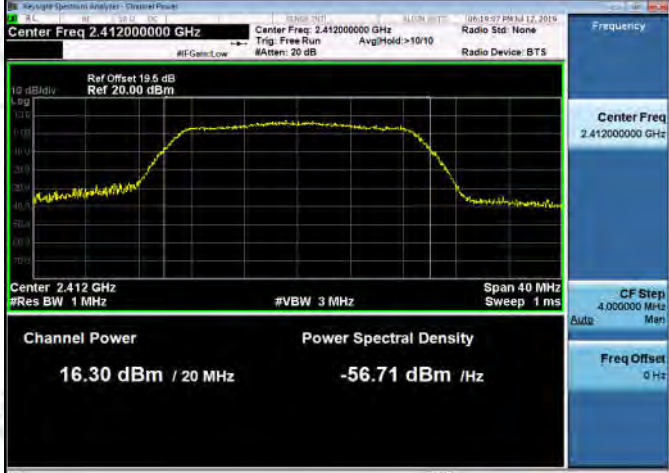
Mode	Channel	Conducted Peak Output Power [dBm]	Verdict
11B	LCH	18.08	PASS
11B	MCH	18.35	PASS
11B	HCH	18.53	PASS
11G	LCH	17.27	PASS
11G	MCH	17.77	PASS
11G	HCH	17.7	PASS
11N20SISO	LCH	16.3	PASS
11N20SISO	MCH	16.56	PASS
11N20SISO	HCH	16.63	PASS

**Test Graph**



<p>11G/LCH</p>	 <p>KeySight Spectrum Analyzer - Channel Power</p> <p>Center Freq: 2.412000000 GHz</p> <p>Ref Offset: 19.5 dB Ref: 20.00 dBm</p> <p>Channel Power: 17.27 dBm / 20 MHz</p> <p>Power Spectral Density: -55.74 dBm /Hz</p>
<p>11G/MCH</p>	 <p>KeySight Spectrum Analyzer - Channel Power</p> <p>Center Freq: 2.437000000 GHz</p> <p>Ref Offset: 19.77 dB Ref: 30.00 dBm</p> <p>Channel Power: 17.77 dBm / 20 MHz</p> <p>Power Spectral Density: -55.24 dBm /Hz</p>
<p>11G/HCH</p>	 <p>KeySight Spectrum Analyzer - Channel Power</p> <p>Center Freq: 2.462000000 GHz</p> <p>Ref Offset: 19.77 dB Ref: 30.00 dBm</p> <p>Channel Power: 17.70 dBm / 20 MHz</p> <p>Power Spectral Density: -55.31 dBm /Hz</p>



<p>11N20SISO/LCH</p>	 <p>Center Freq 2.412000000 GHz</p> <p>Ref Offset 19.5 dB Ref 20.00 dBm</p> <p>Center 2.412 GHz #Res BW 1 MHz #VBW 3 MHz Span 40 MHz Sweep 1 ms</p> <p>Channel Power 16.30 dBm / 20 MHz Power Spectral Density -56.71 dBm / Hz</p>
<p>11N20SISO/MCH</p>	 <p>Center Freq 2.437000000 GHz</p> <p>Ref Offset 19.77 dB Ref 20.00 dBm</p> <p>Center 2.437 GHz #Res BW 1 MHz #VBW 3 MHz Span 40 MHz Sweep 1 ms</p> <p>Channel Power 16.56 dBm / 20 MHz Power Spectral Density -56.45 dBm / Hz</p>
<p>11N20SISO/HCH</p>	 <p>Center Freq 2.462000000 GHz</p> <p>Ref Offset 19.77 dB Ref 20.00 dBm</p> <p>Center 2.462 GHz #Res BW 1 MHz #VBW 3 MHz Span 40 MHz Sweep 1 ms</p> <p>Channel Power 16.63 dBm / 20 MHz Power Spectral Density -56.38 dBm / Hz</p>

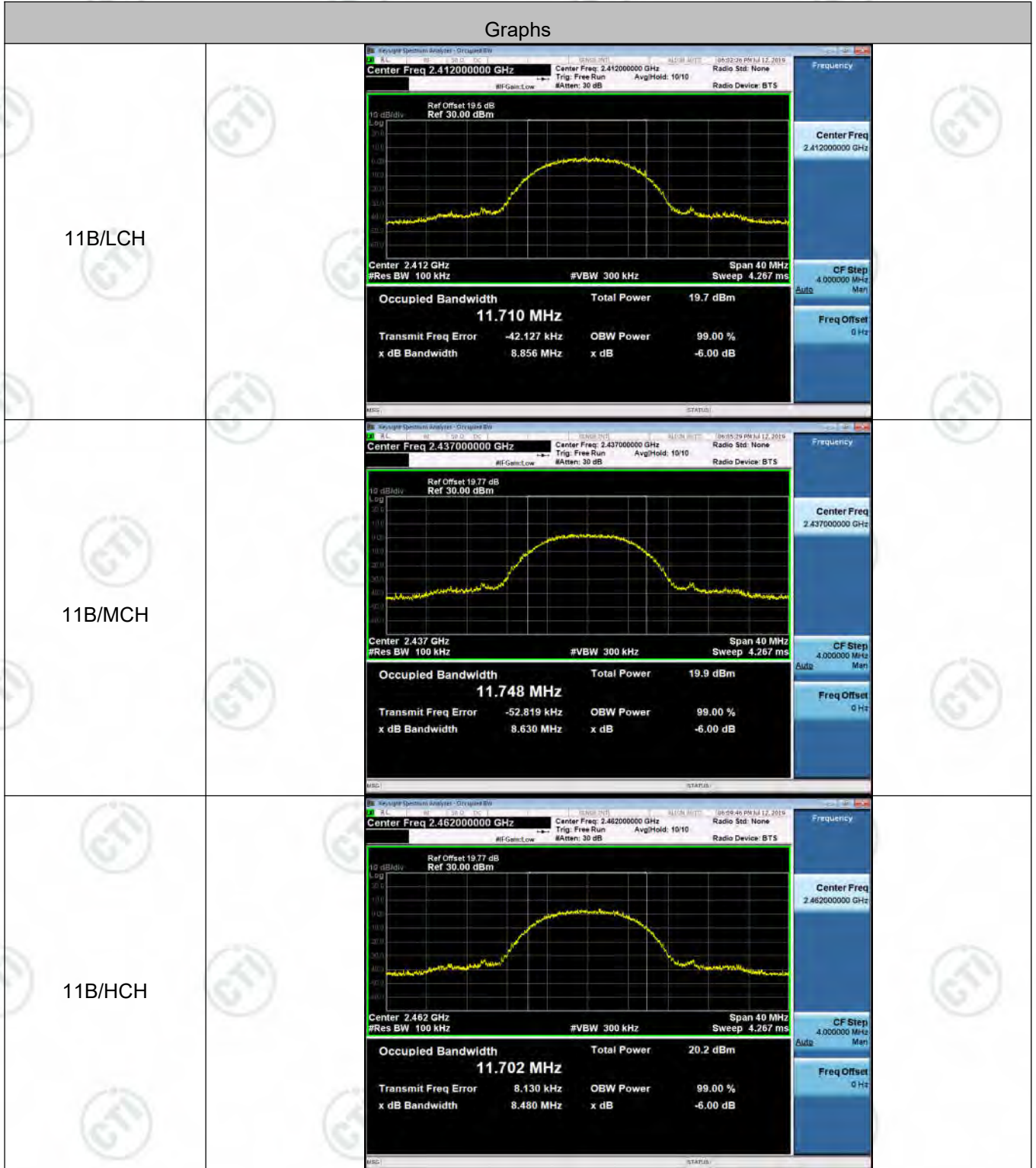
## Appendix B): 6dB Occupied Bandwidth

ANT1

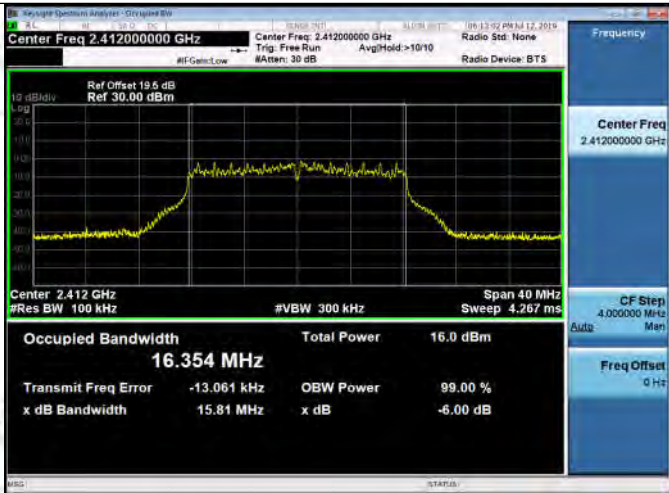
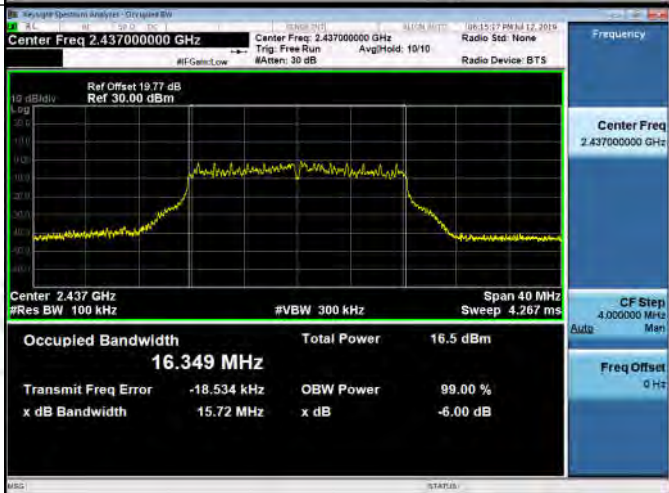
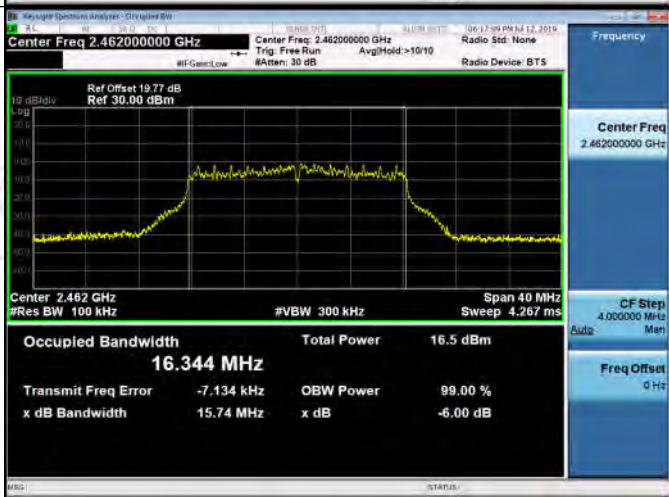
### Result Table

Mode	Channel	6dB Bandwidth [MHz]	99% OBW [MHz]	Verdict
11B	LCH	8.856	11.710	PASS
11B	MCH	8.630	11.748	PASS
11B	HCH	8.480	11.702	PASS
11G	LCH	15.81	16.354	PASS
11G	MCH	15.72	16.349	PASS
11G	HCH	15.74	16.344	PASS
11N20SISO	LCH	17.61	17.594	PASS
11N20SISO	MCH	17.63	17.612	PASS
11N20SISO	HCH	17.26	17.592	PASS

**Test Graph**





<p>11G/LCH</p>	 <p>Center Freq 2.412000000 GHz</p> <p>Ref Offset 19.5 dB Ref 30.00 dBm</p> <p>Center 2.412 GHz #Res BW 100 kHz</p> <p>Span 40 MHz Sweep 4.267 ms</p> <p>Occupied Bandwidth <b>16.354 MHz</b></p> <p>Total Power 16.0 dBm</p> <p>Transmit Freq Error -13.061 kHz</p> <p>x dB Bandwidth 15.81 MHz</p> <p>OBW Power 99.00 %</p> <p>x dB -6.00 dB</p>
<p>11G/MCH</p>	 <p>Center Freq 2.437000000 GHz</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center 2.437 GHz #Res BW 100 kHz</p> <p>Span 40 MHz Sweep 4.267 ms</p> <p>Occupied Bandwidth <b>16.349 MHz</b></p> <p>Total Power 16.5 dBm</p> <p>Transmit Freq Error -18.534 kHz</p> <p>x dB Bandwidth 15.72 MHz</p> <p>OBW Power 99.00 %</p> <p>x dB -6.00 dB</p>
<p>11G/HCH</p>	 <p>Center Freq 2.462000000 GHz</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center 2.462 GHz #Res BW 100 kHz</p> <p>Span 40 MHz Sweep 4.267 ms</p> <p>Occupied Bandwidth <b>16.344 MHz</b></p> <p>Total Power 16.5 dBm</p> <p>Transmit Freq Error -7.134 kHz</p> <p>x dB Bandwidth 15.74 MHz</p> <p>OBW Power 99.00 %</p> <p>x dB -6.00 dB</p>

<p>11N20SISO/LCH</p>	<p>Center Freq 2.412000000 GHz</p> <p>Ref Offset 19.5 dB Ref 30.00 dBm</p> <p>Center 2.412 GHz #Res BW 100 kHz</p> <p>Span 40 MHz Sweep 4.267 ms</p> <p>#VBW 300 kHz</p> <p>Occupied Bandwidth 17.594 MHz</p> <p>Total Power 15.3 dBm</p> <p>Transmit Freq Error -12.561 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 17.61 MHz</p> <p>x dB -6.00 dB</p>
<p>11N20SISO/MCH</p>	<p>Center Freq 2.437000000 GHz</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center 2.437 GHz #Res BW 100 kHz</p> <p>Span 40 MHz Sweep 4.267 ms</p> <p>#VBW 300 kHz</p> <p>Occupied Bandwidth 17.612 MHz</p> <p>Total Power 15.6 dBm</p> <p>Transmit Freq Error -16.631 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 17.63 MHz</p> <p>x dB -6.00 dB</p>
<p>11N20SISO/HCH</p>	<p>Center Freq 2.462000000 GHz</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center 2.462 GHz #Res BW 100 kHz</p> <p>Span 40 MHz Sweep 4.267 ms</p> <p>#VBW 300 kHz</p> <p>Occupied Bandwidth 17.592 MHz</p> <p>Total Power 15.8 dBm</p> <p>Transmit Freq Error -10.532 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 17.26 MHz</p> <p>x dB -6.00 dB</p>

## Appendix C): Band-edge for RF Conducted Emissions

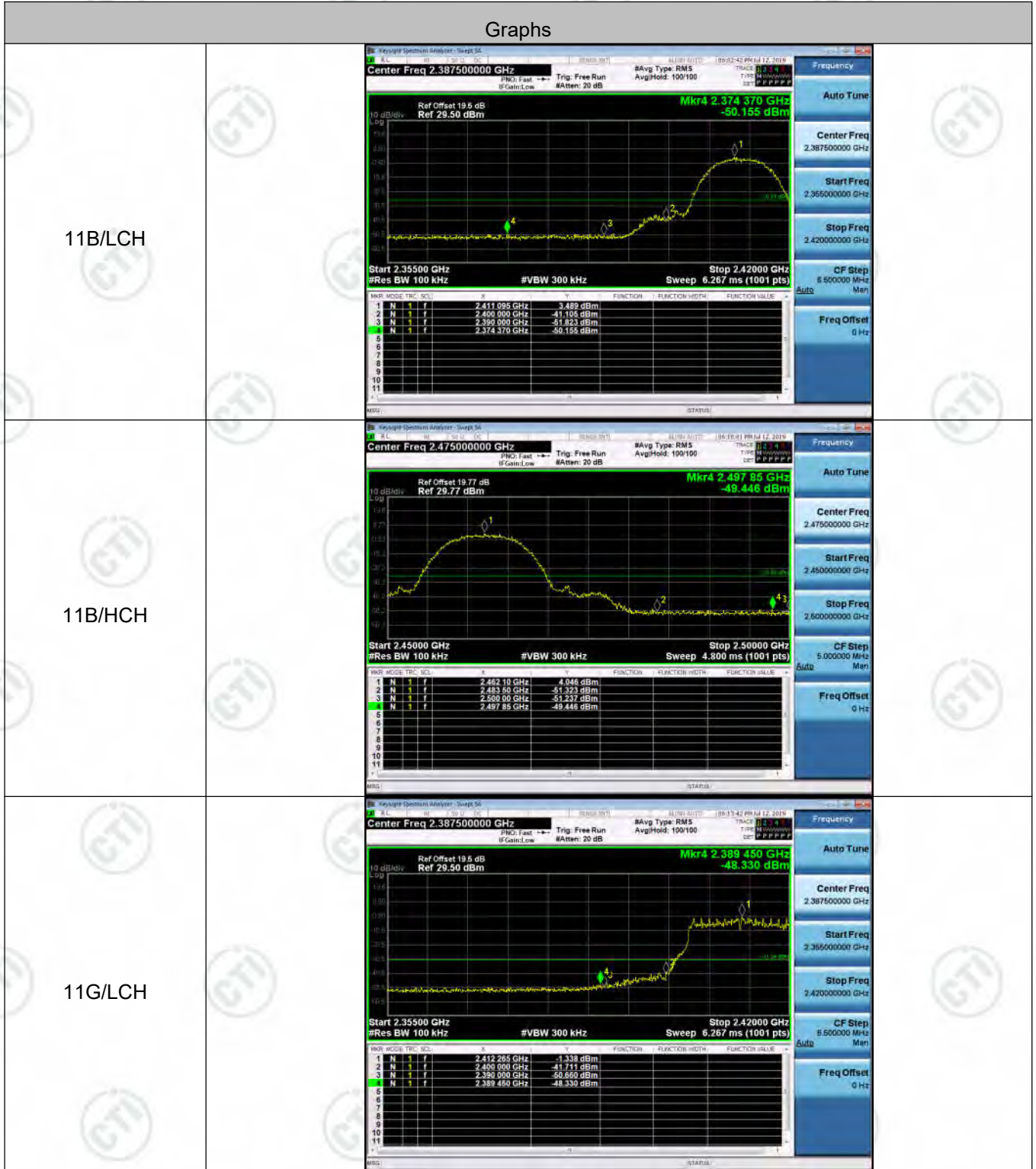
ANT1

### Result Table

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	3.489	-50.155	-26.51	PASS
11B	HCH	4.046	-49.446	-25.95	PASS
11G	LCH	-1.338	-48.330	-31.34	PASS
11G	HCH	-0.971	-47.451	-30.97	PASS
11N20SISO	LCH	-2.474	-49.399	-32.47	PASS
11N20SISO	HCH	-2.312	-47.831	-32.31	PASS



**Test Graph**



<p>11G/HCH</p>	<table border="1"> <thead> <tr> <th>MNR</th> <th>MODE</th> <th>TRF</th> <th>SCF</th> <th>F</th> <th>FUNCTION</th> <th>FUNCTION MATH</th> <th>FUNCTION VALUE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>N</td> <td>1</td> <td>f</td> <td>2.46230 GHz</td> <td></td> <td></td> <td>-0.971 dBm</td> </tr> <tr> <td>2</td> <td>N</td> <td>1</td> <td>f</td> <td>2.48350 GHz</td> <td></td> <td></td> <td>-50.072 dBm</td> </tr> <tr> <td>3</td> <td>N</td> <td>1</td> <td>f</td> <td>2.50000 GHz</td> <td></td> <td></td> <td>-59.247 dBm</td> </tr> <tr> <td>4</td> <td>N</td> <td>1</td> <td>f</td> <td>2.48430 GHz</td> <td></td> <td></td> <td>-47.461 dBm</td> </tr> </tbody> </table>	MNR	MODE	TRF	SCF	F	FUNCTION	FUNCTION MATH	FUNCTION VALUE	1	N	1	f	2.46230 GHz			-0.971 dBm	2	N	1	f	2.48350 GHz			-50.072 dBm	3	N	1	f	2.50000 GHz			-59.247 dBm	4	N	1	f	2.48430 GHz			-47.461 dBm
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## Appendix D): RF Conducted Spurious Emissions

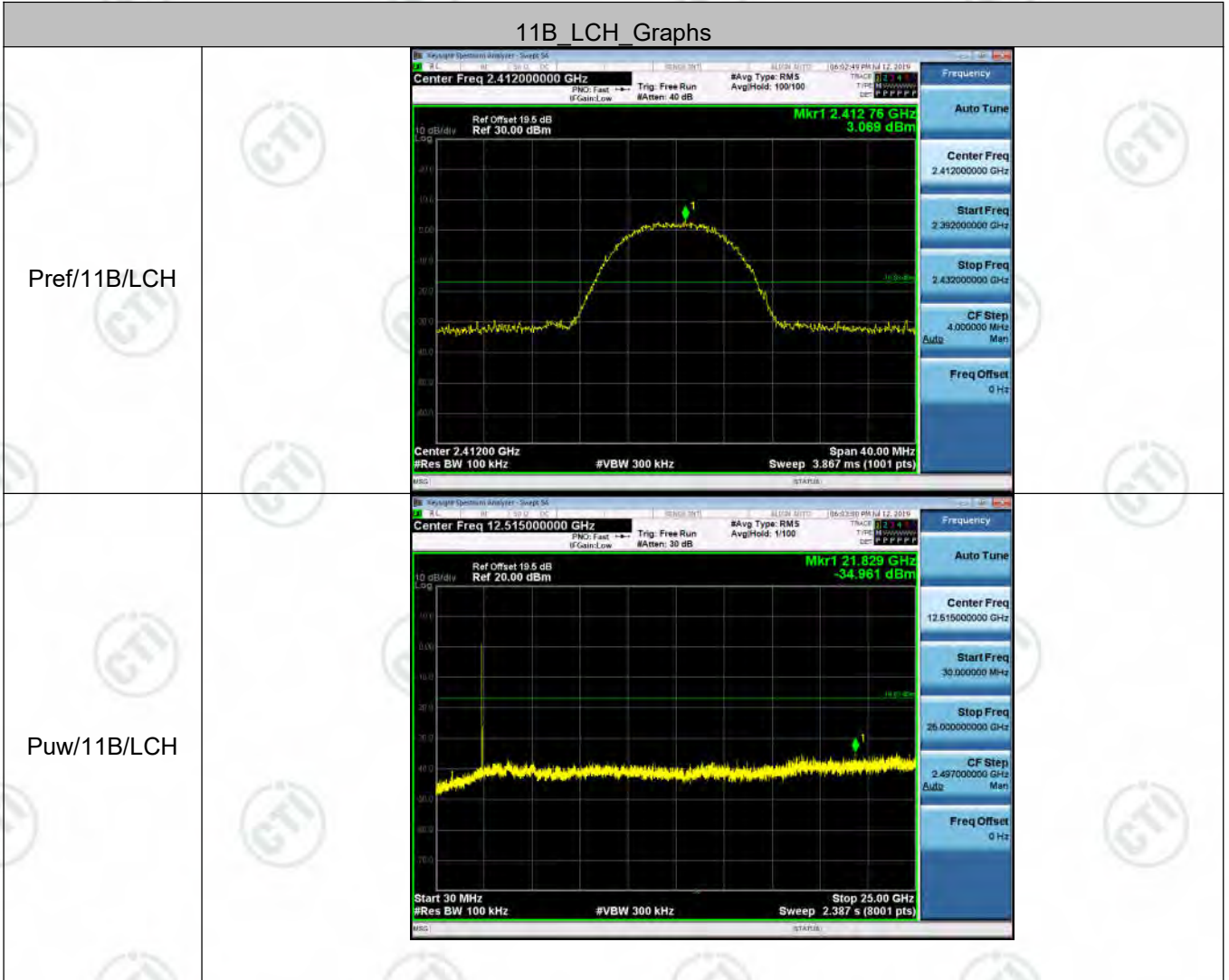
### ANT1

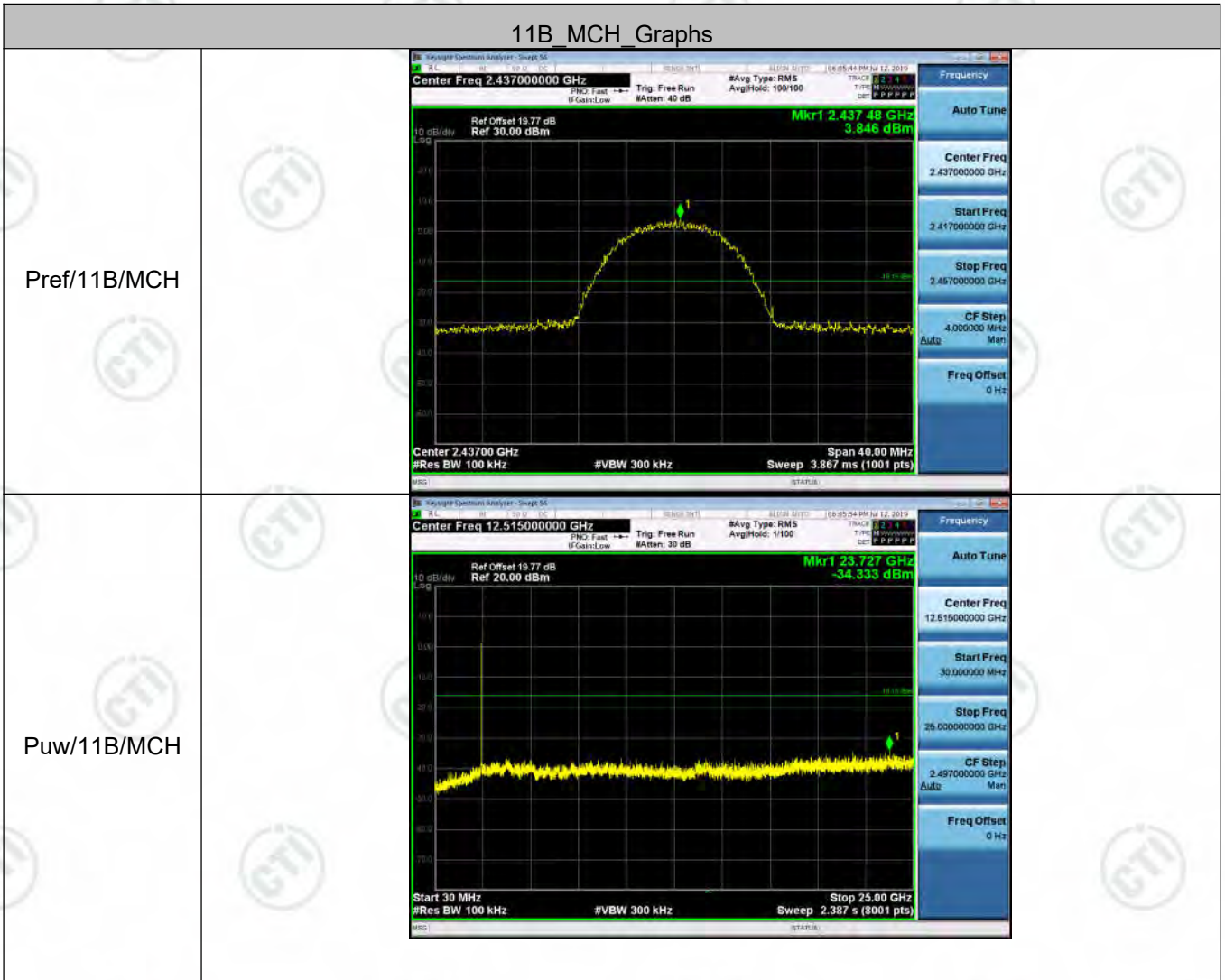
**Result Table**

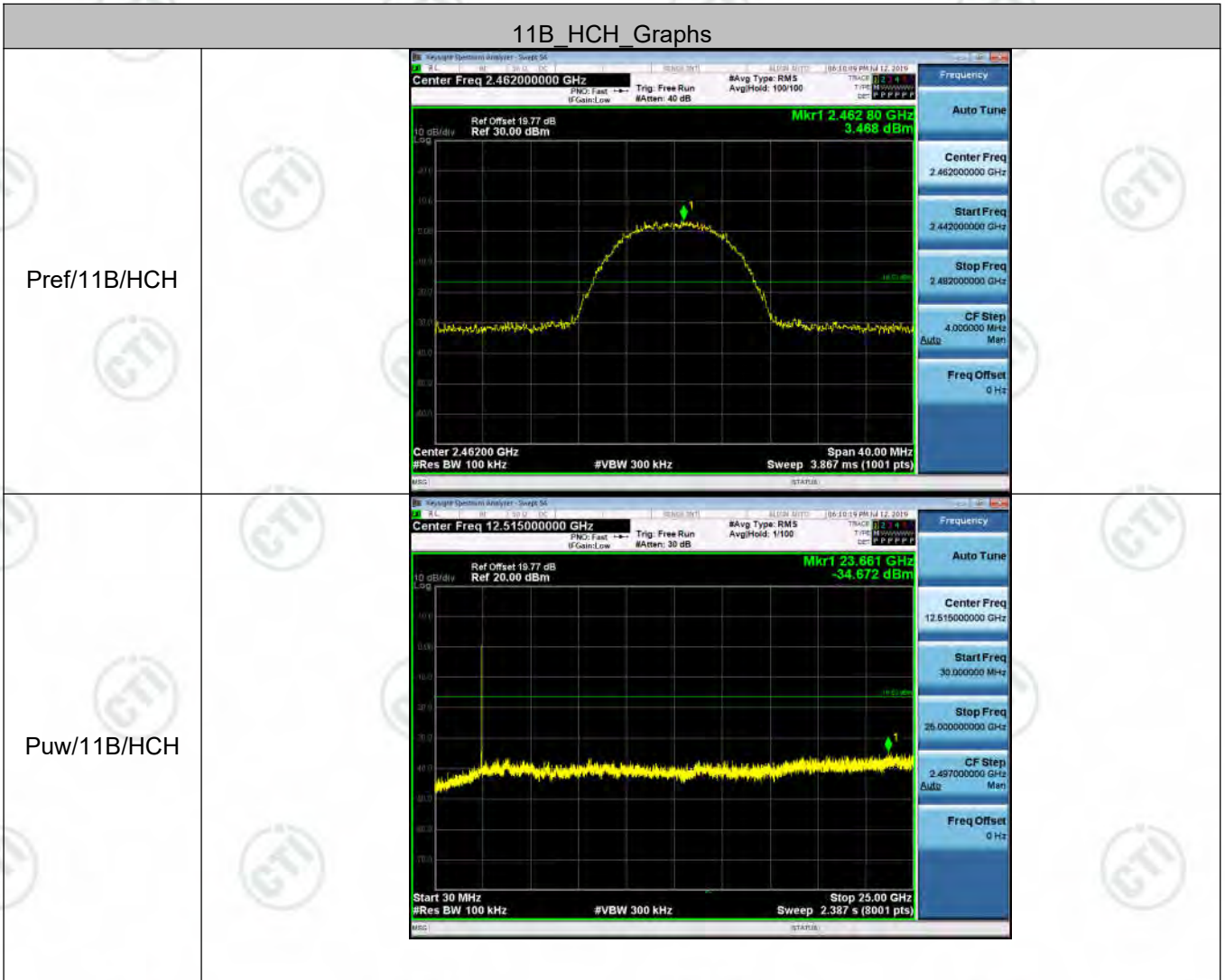
Mode	Channel	Pref [dBm]	Puw[dBm]	Verdict
11B	LCH	3.069	<Limit	PASS
11B	MCH	3.846	<Limit	PASS
11B	HCH	3.468	<Limit	PASS
11G	LCH	-1.259	<Limit	PASS
11G	MCH	-0.716	<Limit	PASS
11G	HCH	-0.761	<Limit	PASS
11N20SISO	LCH	-2.556	<Limit	PASS
11N20SISO	MCH	-1.951	<Limit	PASS
11N20SISO	HCH	-2.41	<Limit	PASS



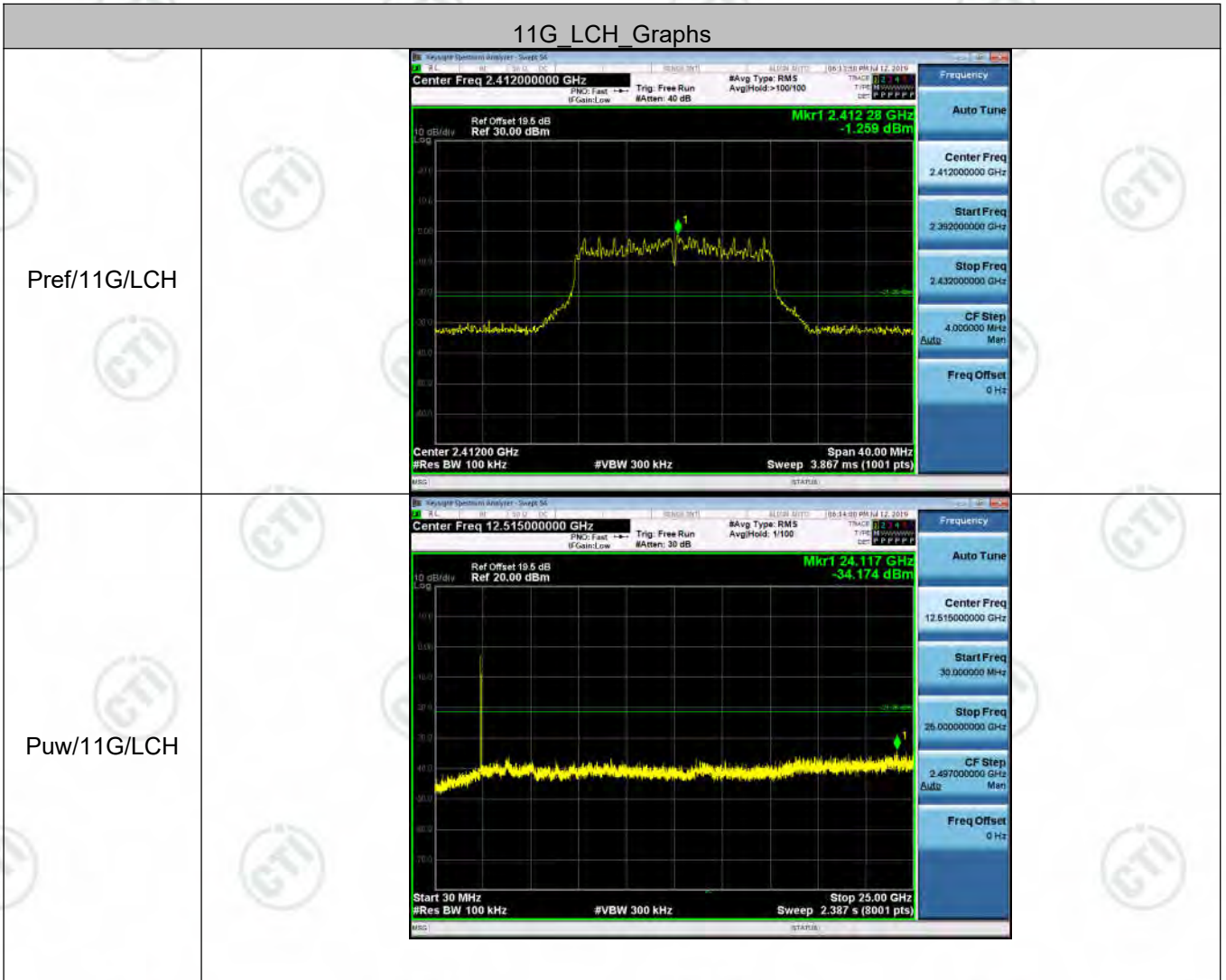
**Test Graph**







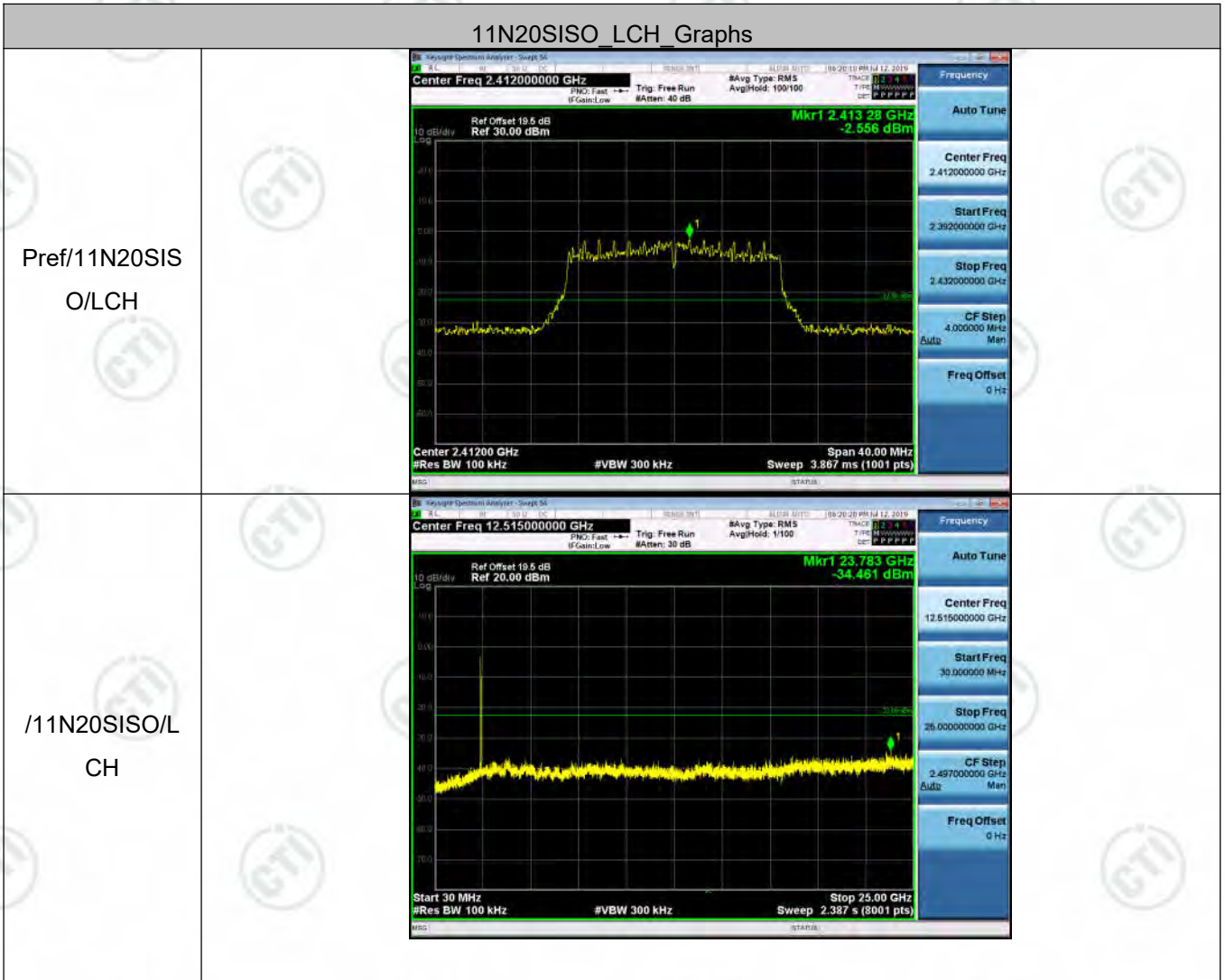




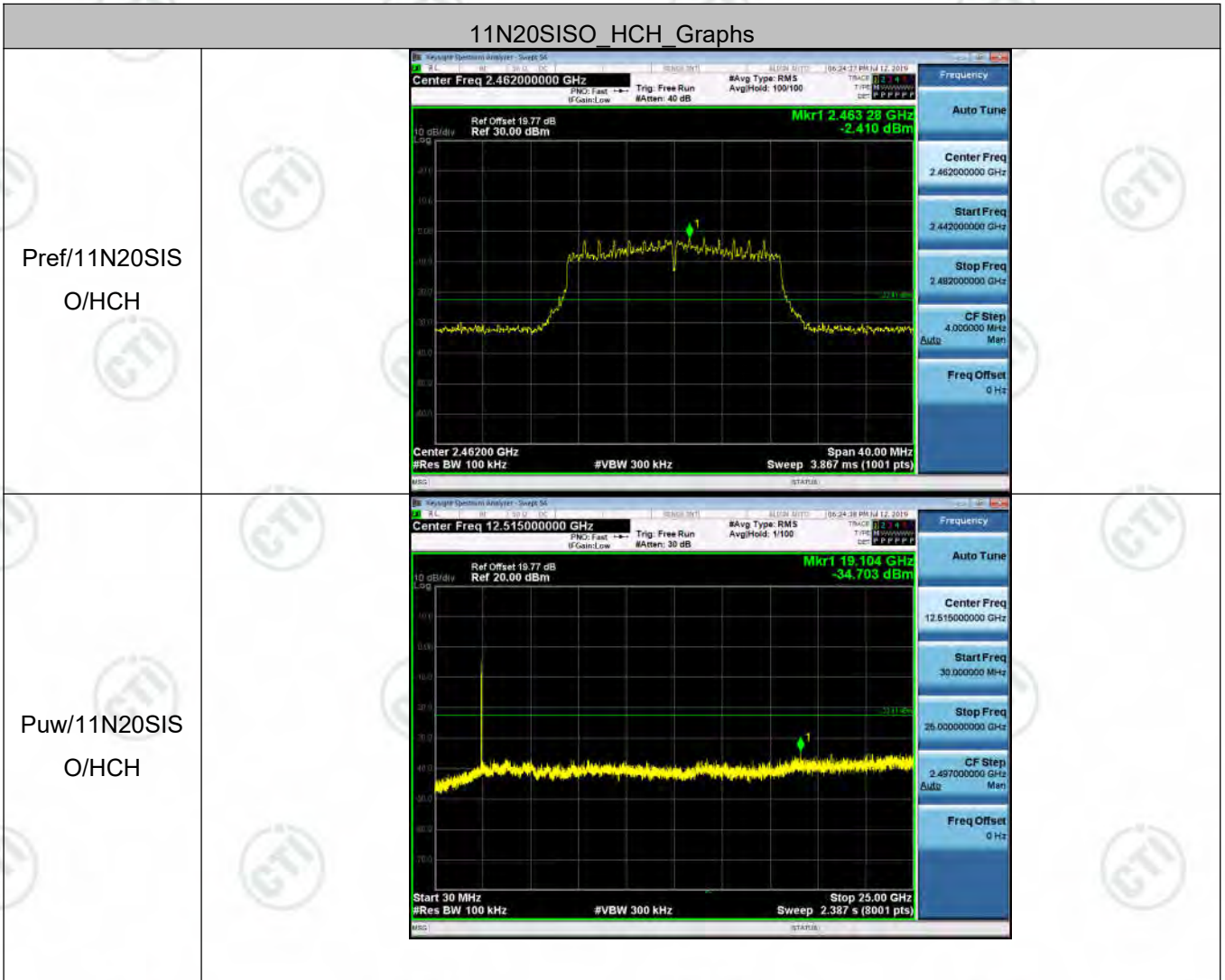








11N20SISO MCH Graphs	
Pref/11N20SIS O/MCH	
Puw/11N20SIS O/MCH	





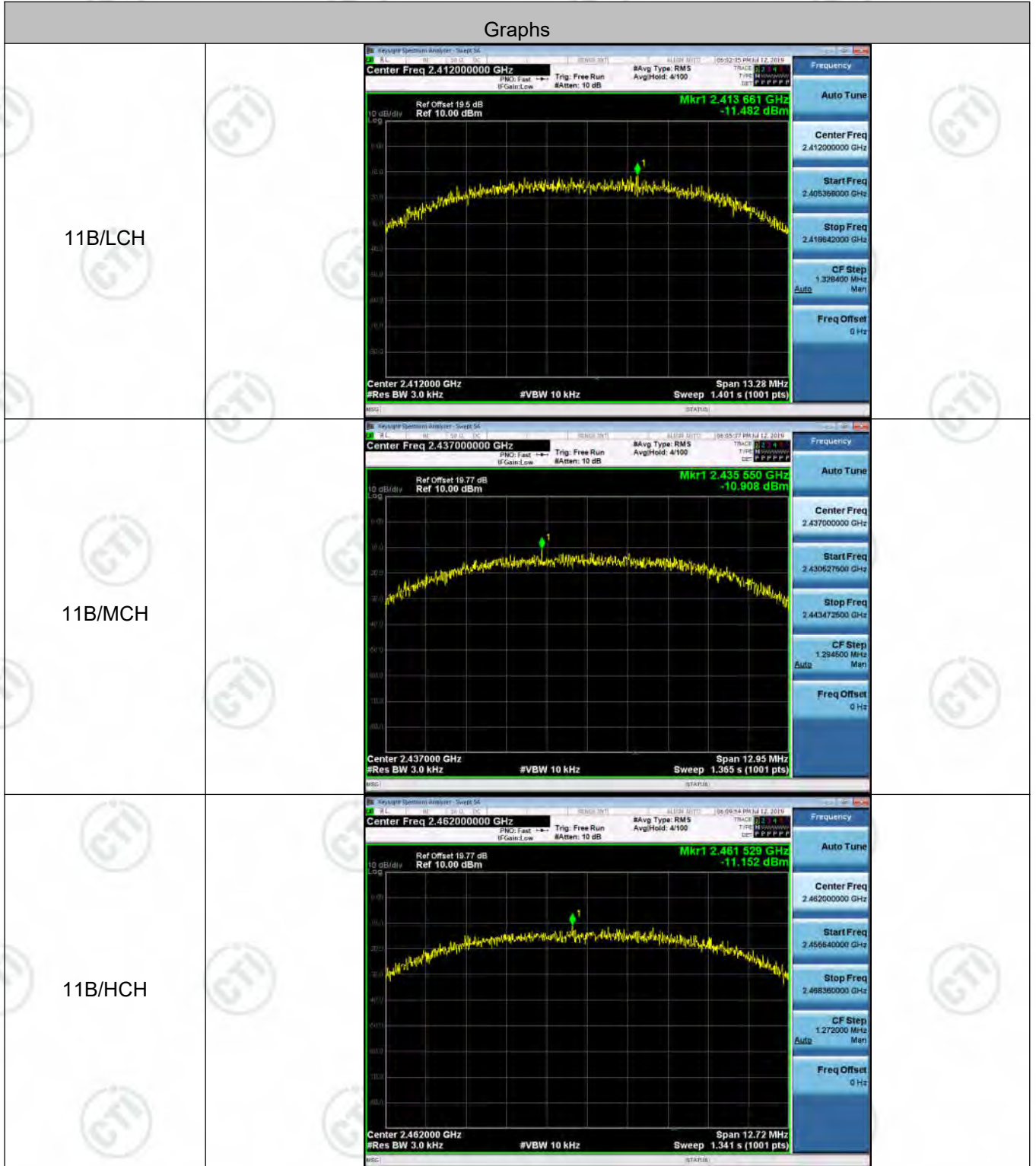
## Appendix E): Power Spectral Density

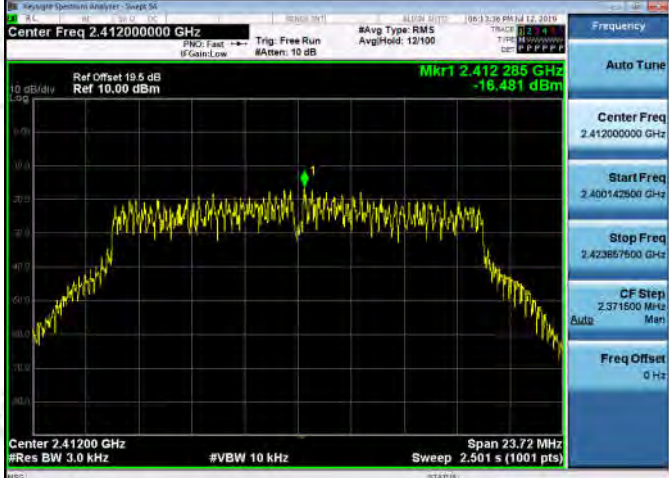
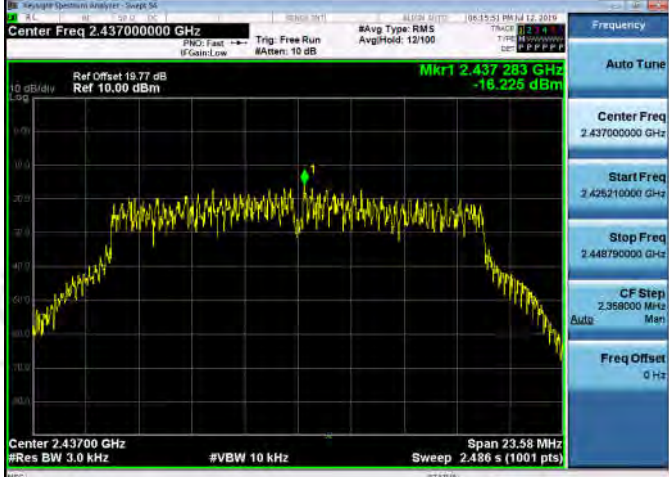
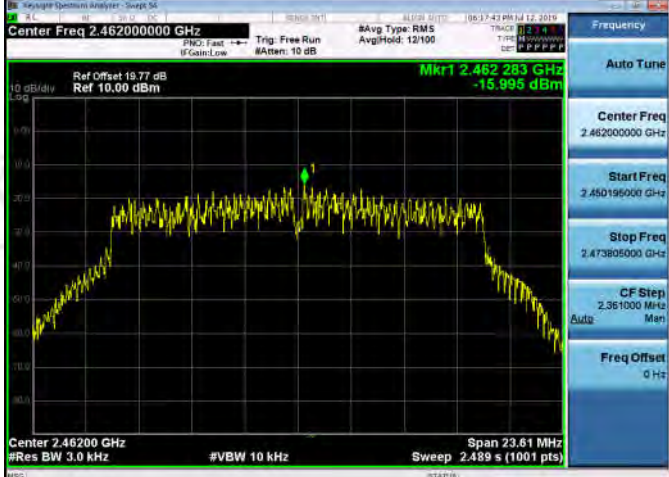
ANT1

### Result Table

Mode	Channel	Power Spectral Density [dBm]	Verdict
11B	LCH	-11.482	PASS
11B	MCH	-10.908	PASS
11B	HCH	-11.152	PASS
11G	LCH	-16.481	PASS
11G	MCH	-16.225	PASS
11G	HCH	-15.995	PASS
11N20SISO	LCH	-17.458	PASS
11N20SISO	MCH	-16.832	PASS
11N20SISO	HCH	-16.009	PASS

**Test Graph**



<p>11G/LCH</p>	
<p>11G/MCH</p>	
<p>11G/HCH</p>	



<p>11N20SISO/LCH</p>	
<p>11N20SISO/MCH</p>	
<p>11N20SISO/HCH</p>	

**Appendix A): Conducted Peak Output Power**

ANT2


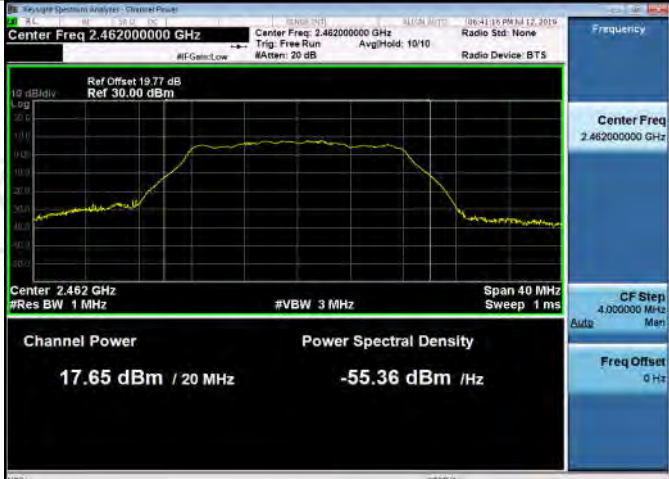
**Result Table**

Mode	Channel	Conducted Peak Output Power [dBm]	Verdict
11B	LCH	18.13	PASS
11B	MCH	18.31	PASS
11B	HCH	18.51	PASS
11G	LCH	17.2	PASS
11G	MCH	17.73	PASS
11G	HCH	17.65	PASS
11N20SISO	LCH	16.25	PASS
11N20SISO	MCH	16.73	PASS
11N20SISO	HCH	16.7	PASS

**Test Graph**

Graphs	
11B/LCH	<p>Center Freq 2.412000000 GHz Center Freq: 2.412000000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS</p> <p>Ref Offset 19.5 dB Ref 30.00 dBm</p> <p>Center 2.412 GHz #Res BW 1 MHz #VBW 3 MHz Span 40 MHz Sweep 1 ms</p> <p>Channel Power 18.13 dBm / 20 MHz Power Spectral Density -54.88 dBm / Hz</p>
11B/MCH	<p>Center Freq 2.437000000 GHz Center Freq: 2.437000000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center 2.437 GHz #Res BW 1 MHz #VBW 3 MHz Span 40 MHz Sweep 1 ms</p> <p>Channel Power 18.31 dBm / 20 MHz Power Spectral Density -54.70 dBm / Hz</p>
11B/HCH	<p>Center Freq 2.462000000 GHz Center Freq: 2.462000000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center 2.462 GHz #Res BW 1 MHz #VBW 3 MHz Span 40 MHz Sweep 1 ms</p> <p>Channel Power 18.51 dBm / 20 MHz Power Spectral Density -54.50 dBm / Hz</p>



<p>11G/LCH</p>	 <p>Keyway® Spectrum Analyzer - Channel Power</p> <p>Center Freq 2.412000000 GHz</p> <p>Ref Offset 19.5 dB Ref 30.00 dBm</p> <p>Center 2.412 GHz #Res BW 1 MHz</p> <p>Channel Power: 17.20 dBm / 20 MHz</p> <p>Power Spectral Density: -55.81 dBm / Hz</p>
<p>11G/MCH</p>	 <p>Keyway® Spectrum Analyzer - Channel Power</p> <p>Center Freq 2.437000000 GHz</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center 2.437 GHz #Res BW 1 MHz</p> <p>Channel Power: 17.73 dBm / 20 MHz</p> <p>Power Spectral Density: -55.28 dBm / Hz</p>
<p>11G/HCH</p>	 <p>Keyway® Spectrum Analyzer - Channel Power</p> <p>Center Freq 2.462000000 GHz</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center 2.462 GHz #Res BW 1 MHz</p> <p>Channel Power: 17.65 dBm / 20 MHz</p> <p>Power Spectral Density: -55.36 dBm / Hz</p>

<p>11N20SISO/LCH</p>	 <p>Center Freq 2.412000000 GHz</p> <p>Ref Offset 19.5 dB Ref 30.00 dBm</p> <p>Center 2.412 GHz #Res BW 1 MHz</p> <p>Channel Power: 16.25 dBm / 20 MHz</p> <p>Power Spectral Density: -56.76 dBm /Hz</p>
<p>11N20SISO/MCH</p>	 <p>Center Freq 2.437000000 GHz</p> <p>Ref Offset 19.77 dB Ref 20.00 dBm</p> <p>Center 2.437 GHz #Res BW 1 MHz</p> <p>Channel Power: 16.73 dBm / 20 MHz</p> <p>Power Spectral Density: -56.28 dBm /Hz</p>
<p>11N20SISO/HCH</p>	 <p>Center Freq 2.462000000 GHz</p> <p>Ref Offset 19.77 dB Ref 20.00 dBm</p> <p>Center 2.462 GHz #Res BW 1 MHz</p> <p>Channel Power: 16.70 dBm / 20 MHz</p> <p>Power Spectral Density: -56.31 dBm /Hz</p>

**Appendix B): 6dB Occupied Bandwidth**

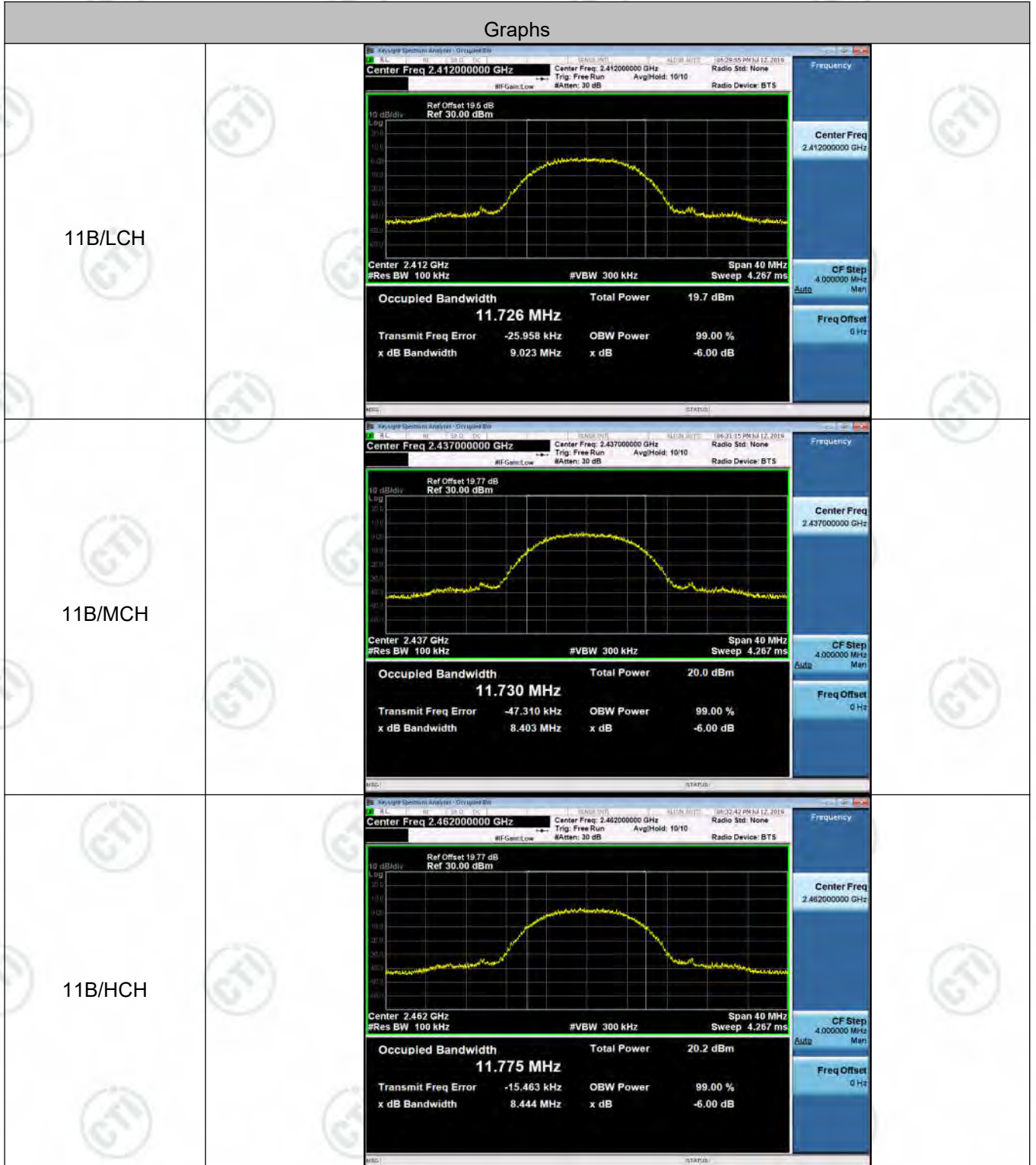
**ANT2**

**Result Table**

Mode	Channel	6dB Bandwidth [MHz]	99% OBW [MHz]	Verdict
11B	LCH	9.023	11.726	PASS
11B	MCH	8.403	11.730	PASS
11B	HCH	8.444	11.775	PASS
11G	LCH	15.80	16.353	PASS
11G	MCH	15.73	16.349	PASS
11G	HCH	15.71	16.342	PASS
11N20SISO	LCH	17.60	17.621	PASS
11N20SISO	MCH	17.62	17.597	PASS
11N20SISO	HCH	17.66	17.611	PASS



**Test Graph**



<p>11G/LCH</p>	<p>Center Freq 2.412000000 GHz</p> <p>Ref Offset 19.5 dB Ref 30.00 dBm</p> <p>Center 2.412 GHz #Res BW 100 kHz #VBW 300 kHz Span 40 MHz Sweep 4.267 ms</p> <p><b>Occupied Bandwidth 16.353 MHz</b></p> <p>Total Power 16.0 dBm</p> <p>Transmit Freq Error -13.435 kHz OBW Power 99.00 %</p> <p>x dB Bandwidth 15.80 MHz x dB -6.00 dB</p>
<p>11G/MCH</p>	<p>Center Freq 2.437000000 GHz</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center 2.437 GHz #Res BW 100 kHz #VBW 300 kHz Span 40 MHz Sweep 4.267 ms</p> <p><b>Occupied Bandwidth 16.349 MHz</b></p> <p>Total Power 16.5 dBm</p> <p>Transmit Freq Error -17.326 kHz OBW Power 99.00 %</p> <p>x dB Bandwidth 15.73 MHz x dB -6.00 dB</p>
<p>11G/HCH</p>	<p>Center Freq 2.462000000 GHz</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center 2.462 GHz #Res BW 100 kHz #VBW 300 kHz Span 40 MHz Sweep 4.267 ms</p> <p><b>Occupied Bandwidth 16.342 MHz</b></p> <p>Total Power 16.4 dBm</p> <p>Transmit Freq Error -7.487 kHz OBW Power 99.00 %</p> <p>x dB Bandwidth 15.71 MHz x dB -6.00 dB</p>



<p>11N20SISO/LCH</p>	<p>Center Freq 2.412000000 GHz</p> <p>Ref Offset 19.5 dB Ref 30.00 dBm</p> <p>Center 2.412 GHz #Res BW 100 kHz</p> <p>Span 40 MHz Sweep 4.267 ms</p> <p>Occupied Bandwidth 17.621 MHz</p> <p>Total Power 15.2 dBm</p> <p>Transmit Freq Error -12.564 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 17.60 MHz</p> <p>x dB -6.00 dB</p>
<p>11N20SISO/MCH</p>	<p>Center Freq 2.437000000 GHz</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center 2.437 GHz #Res BW 100 kHz</p> <p>Span 40 MHz Sweep 4.267 ms</p> <p>Occupied Bandwidth 17.597 MHz</p> <p>Total Power 15.8 dBm</p> <p>Transmit Freq Error -19.870 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 17.62 MHz</p> <p>x dB -6.00 dB</p>
<p>11N20SISO/HCH</p>	<p>Center Freq 2.462000000 GHz</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center 2.462 GHz #Res BW 100 kHz</p> <p>Span 40 MHz Sweep 4.267 ms</p> <p>Occupied Bandwidth 17.611 MHz</p> <p>Total Power 15.8 dBm</p> <p>Transmit Freq Error 4.159 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 17.66 MHz</p> <p>x dB -6.00 dB</p>



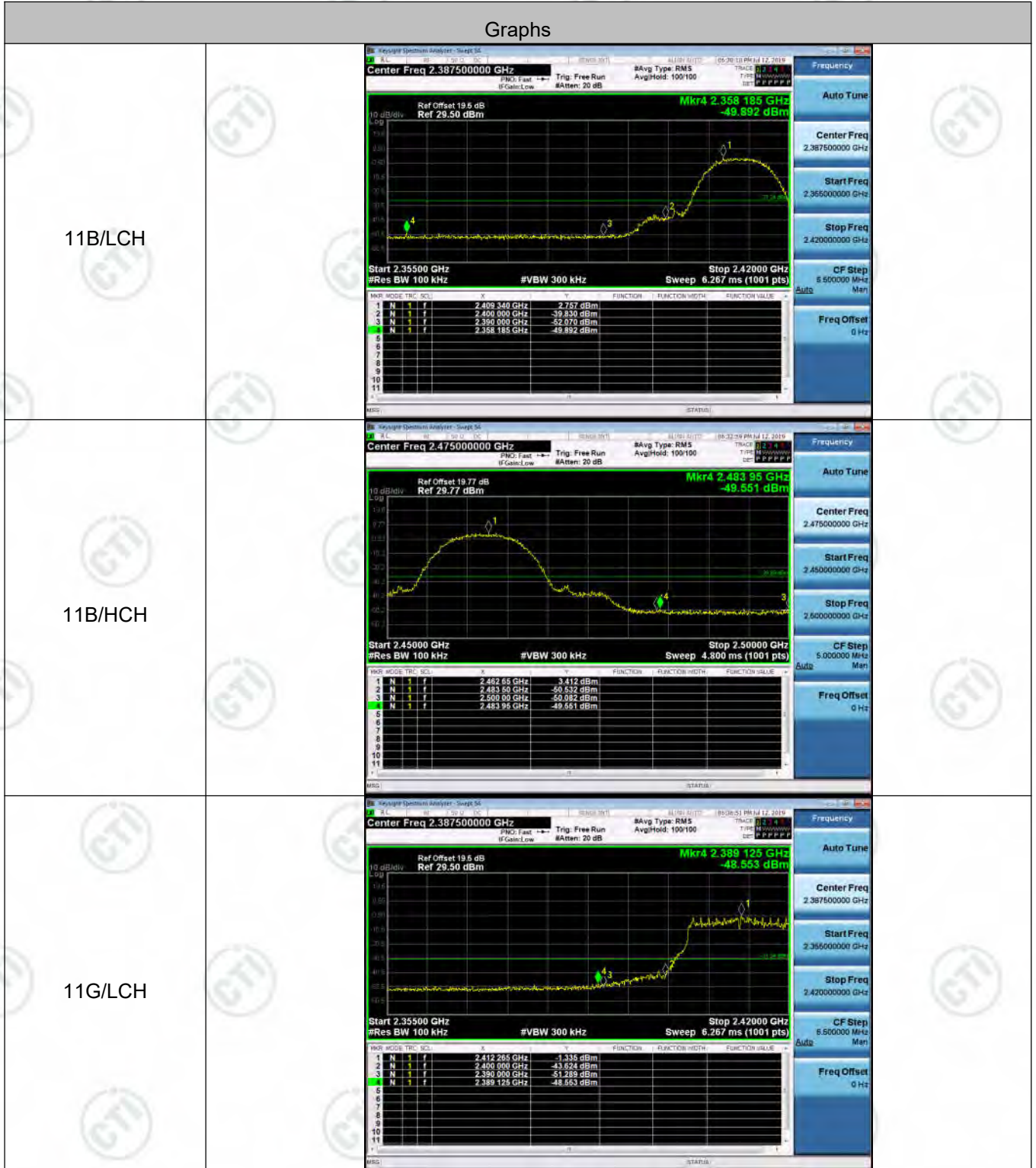
## Appendix C): Band-edge for RF Conducted Emissions

### ANT2

#### Result Table

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	2.757	-49.892	-27.24	PASS
11B	HCH	3.412	-49.551	-26.59	PASS
11G	LCH	-1.335	-48.553	-31.34	PASS
11G	HCH	-0.828	-48.021	-30.83	PASS
11N20SISO	LCH	-2.184	-48.794	-32.18	PASS
11N20SISO	HCH	-2.328	-49.160	-32.33	PASS

**Test Graph**





<p>11G/HCH</p>	<p>Center Freq 2.47500000 GHz</p> <p>Ref Offset 19.77 dB Ref 29.77 dBm</p> <p>Mkr4 2.487 00 GHz -48.021 dBm</p> <p>Start 2.45000 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.50000 GHz Sweep 4.800 ms (1001 pts)</p> <table border="1"> <thead> <tr> <th>MNR</th> <th>MODE</th> <th>TRC</th> <th>SCL</th> <th>F</th> <th>F</th> <th>FUNCTION</th> <th>FUNCTION</th> <th>VALUE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>N</td> <td>f</td> <td></td> <td>2.462 25 GHz</td> <td>-0.828 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>N</td> <td>f</td> <td></td> <td>2.483 50 GHz</td> <td>-50.587 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>N</td> <td>f</td> <td></td> <td>2.500 00 GHz</td> <td>-51.937 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>N</td> <td>f</td> <td></td> <td>2.487 00 GHz</td> <td>-48.021 dBm</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	MNR	MODE	TRC	SCL	F	F	FUNCTION	FUNCTION	VALUE	1	N	f		2.462 25 GHz	-0.828 dBm				2	N	f		2.483 50 GHz	-50.587 dBm				3	N	f		2.500 00 GHz	-51.937 dBm				4	N	f		2.487 00 GHz	-48.021 dBm			
MNR	MODE	TRC	SCL	F	F	FUNCTION	FUNCTION	VALUE																																						
1	N	f		2.462 25 GHz	-0.828 dBm																																									
2	N	f		2.483 50 GHz	-50.587 dBm																																									
3	N	f		2.500 00 GHz	-51.937 dBm																																									
4	N	f		2.487 00 GHz	-48.021 dBm																																									
<p>11N20SISO/LCH</p>	<p>Center Freq 2.38750000 GHz</p> <p>Ref Offset 19.6 dB Ref 29.50 dBm</p> <p>Mkr4 2.385 550 GHz -48.794 dBm</p> <p>Start 2.35500 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.42000 GHz Sweep 6.267 ms (1001 pts)</p> <table border="1"> <thead> <tr> <th>MNR</th> <th>MODE</th> <th>TRC</th> <th>SCL</th> <th>F</th> <th>F</th> <th>FUNCTION</th> <th>FUNCTION</th> <th>VALUE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>N</td> <td>f</td> <td></td> <td>2.412 330 GHz</td> <td>-2.184 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>N</td> <td>f</td> <td></td> <td>2.400 000 GHz</td> <td>-43.510 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>N</td> <td>f</td> <td></td> <td>2.390 000 GHz</td> <td>-50.193 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>N</td> <td>f</td> <td></td> <td>2.385 550 GHz</td> <td>-48.794 dBm</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	MNR	MODE	TRC	SCL	F	F	FUNCTION	FUNCTION	VALUE	1	N	f		2.412 330 GHz	-2.184 dBm				2	N	f		2.400 000 GHz	-43.510 dBm				3	N	f		2.390 000 GHz	-50.193 dBm				4	N	f		2.385 550 GHz	-48.794 dBm			
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<p>11N20SISO/HCH</p>	<p>Center Freq 2.47500000 GHz</p> <p>Ref Offset 19.77 dB Ref 29.77 dBm</p> <p>Mkr4 2.489 75 GHz -49.160 dBm</p> <p>Start 2.45000 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.50000 GHz Sweep 4.800 ms (1001 pts)</p> <table border="1"> <thead> <tr> <th>MNR</th> <th>MODE</th> <th>TRC</th> <th>SCL</th> <th>F</th> <th>F</th> <th>FUNCTION</th> <th>FUNCTION</th> <th>VALUE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>N</td> <td>f</td> <td></td> <td>2.463 25 GHz</td> <td>-2.328 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>N</td> <td>f</td> <td></td> <td>2.483 50 GHz</td> <td>-50.816 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>N</td> <td>f</td> <td></td> <td>2.500 00 GHz</td> <td>-52.257 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>N</td> <td>f</td> <td></td> <td>2.489 75 GHz</td> <td>-49.160 dBm</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	MNR	MODE	TRC	SCL	F	F	FUNCTION	FUNCTION	VALUE	1	N	f		2.463 25 GHz	-2.328 dBm				2	N	f		2.483 50 GHz	-50.816 dBm				3	N	f		2.500 00 GHz	-52.257 dBm				4	N	f		2.489 75 GHz	-49.160 dBm			
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4	N	f		2.489 75 GHz	-49.160 dBm																																									



## Appendix D): RF Conducted Spurious Emissions ANT2

**Result Table**

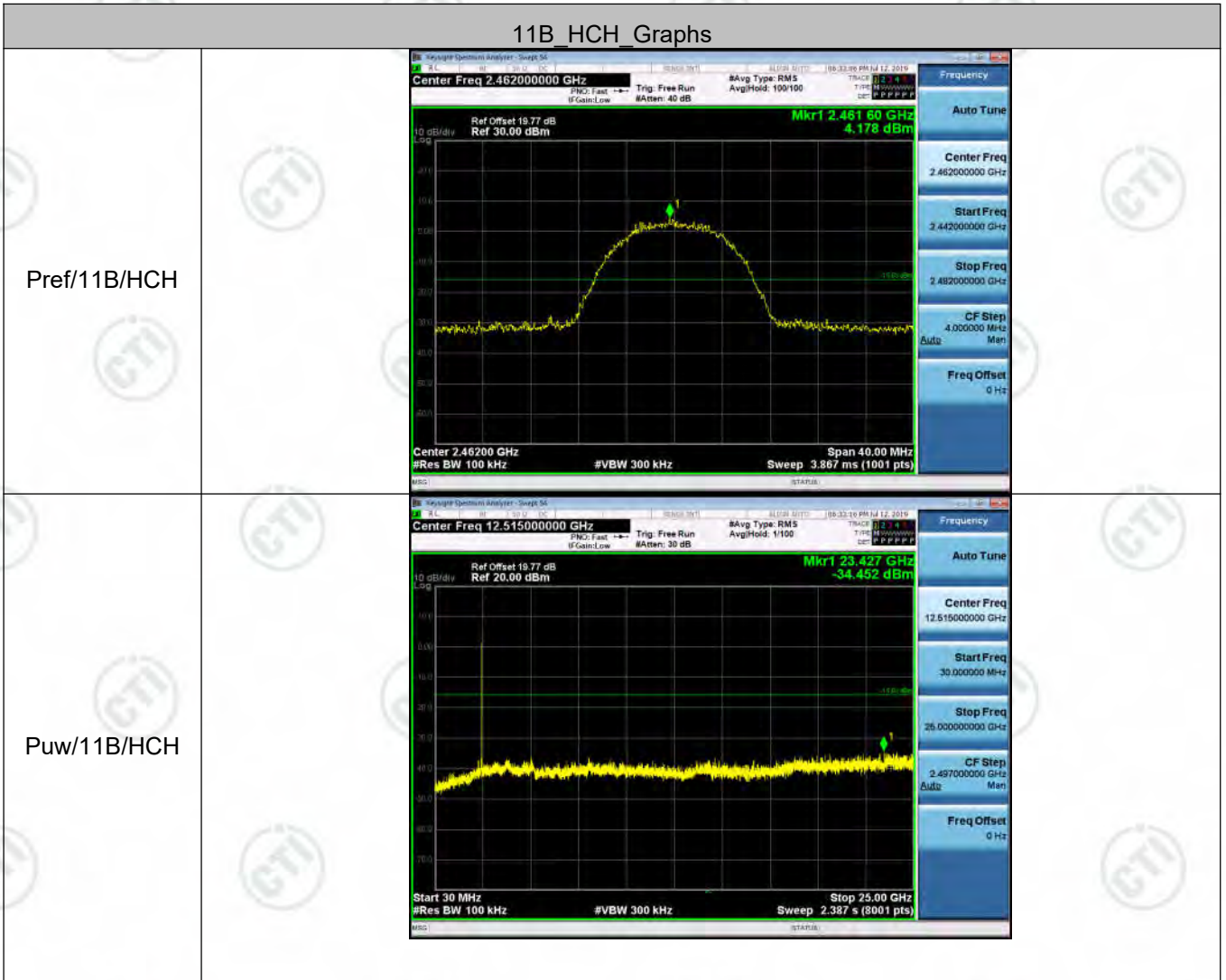
Mode	Channel	Pref [dBm]	Puw[dBm]	Verdict
11B	LCH	2.857	<Limit	PASS
11B	MCH	3.38	<Limit	PASS
11B	HCH	4.178	<Limit	PASS
11G	LCH	-1.291	<Limit	PASS
11G	MCH	-0.724	<Limit	PASS
11G	HCH	-0.815	<Limit	PASS
11N20SISO	LCH	-2.811	<Limit	PASS
11N20SISO	MCH	-2.01	<Limit	PASS
11N20SISO	HCH	-2.374	<Limit	PASS

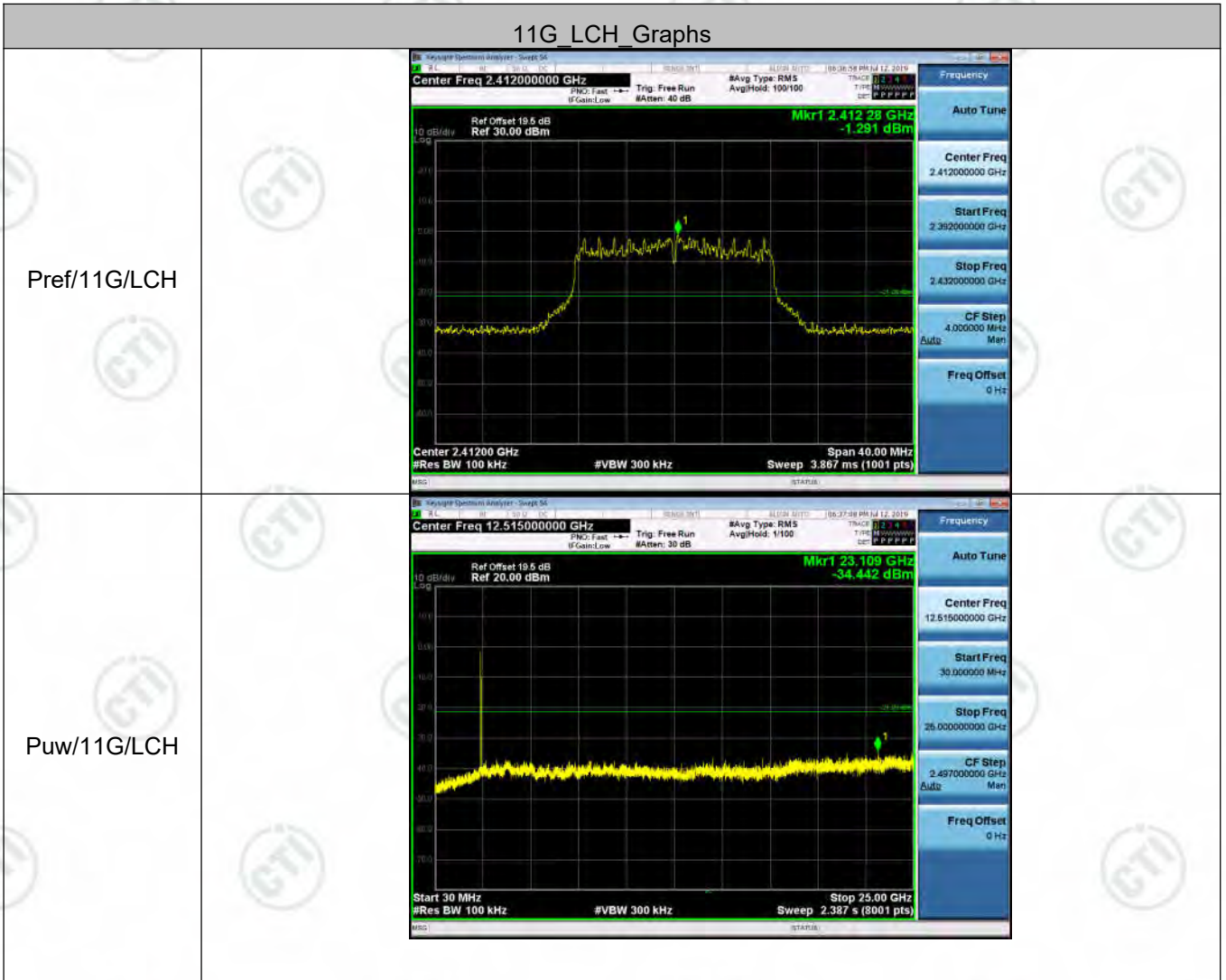
**Test Graph**

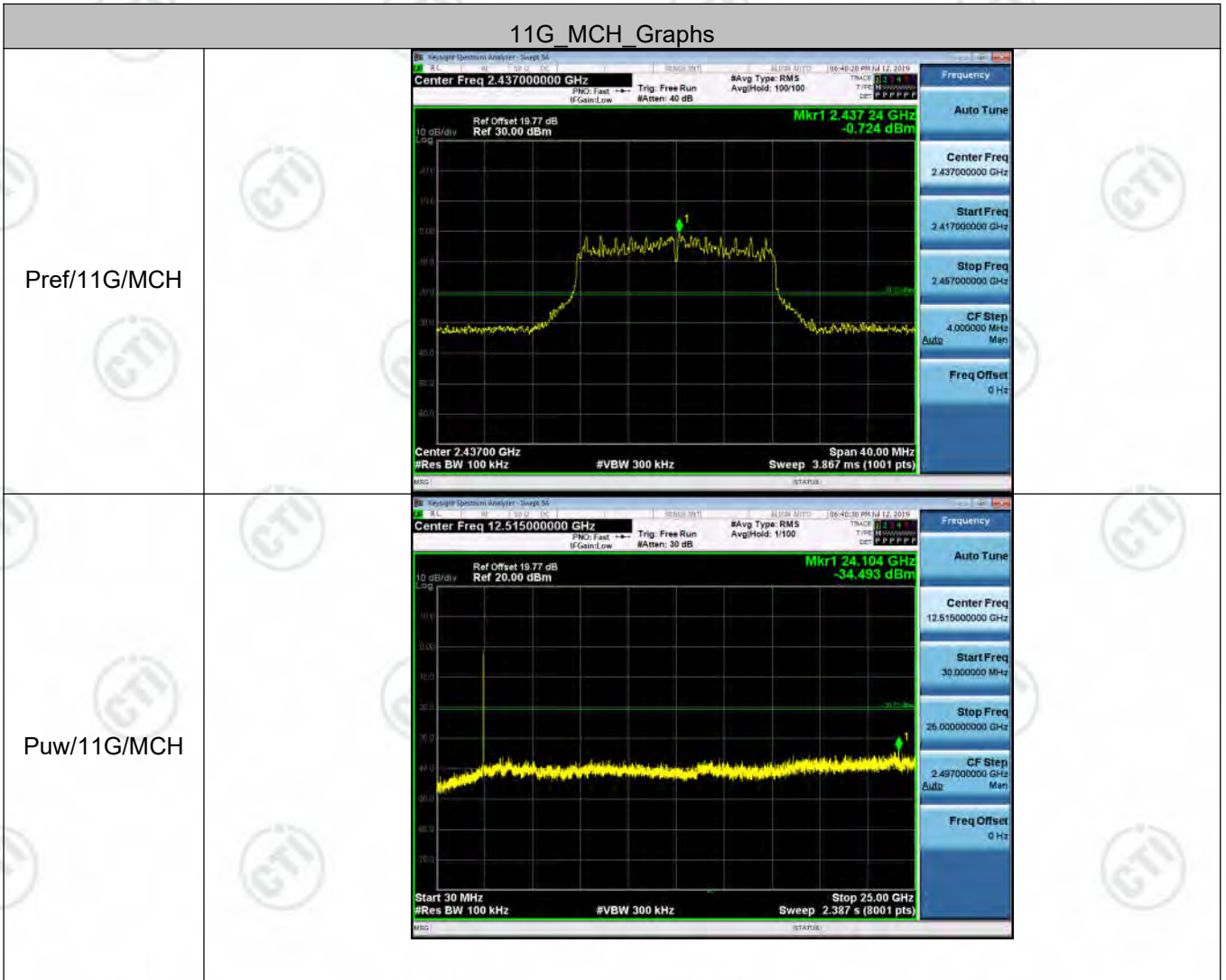






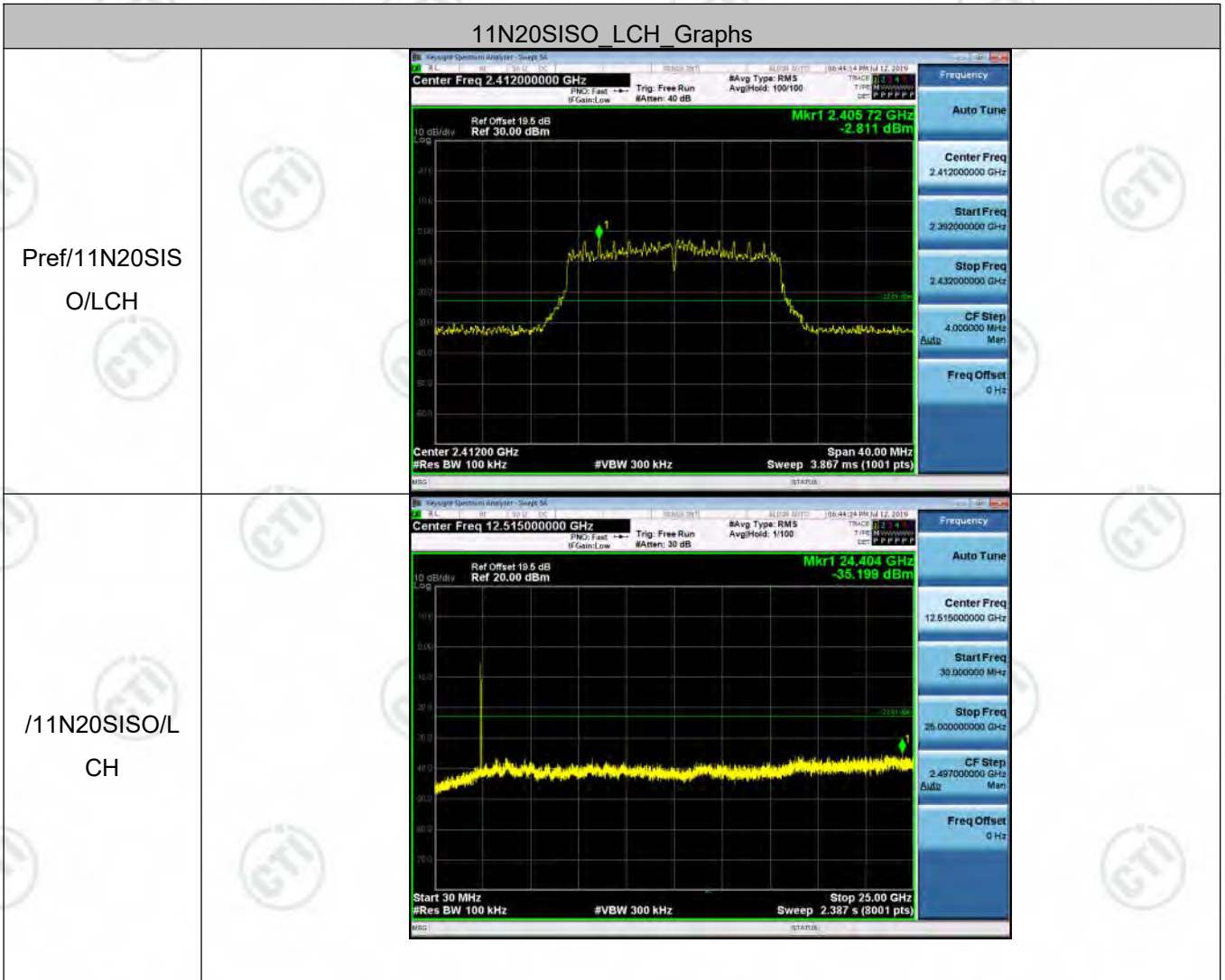







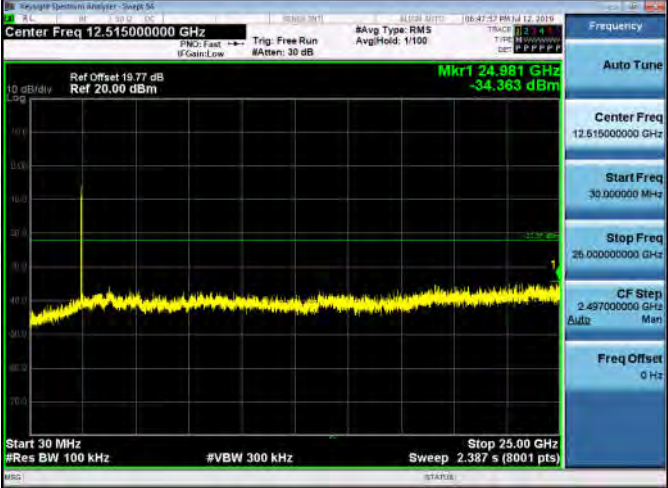






11N20SISO MCH Graphs	
Pref/11N20SIS O/MCH	
Puw/11N20SIS O/MCH	



11N20SISO_HCH_Graphs	
Pref/11N20SIS O/HCH	
Puw/11N20SIS O/HCH	

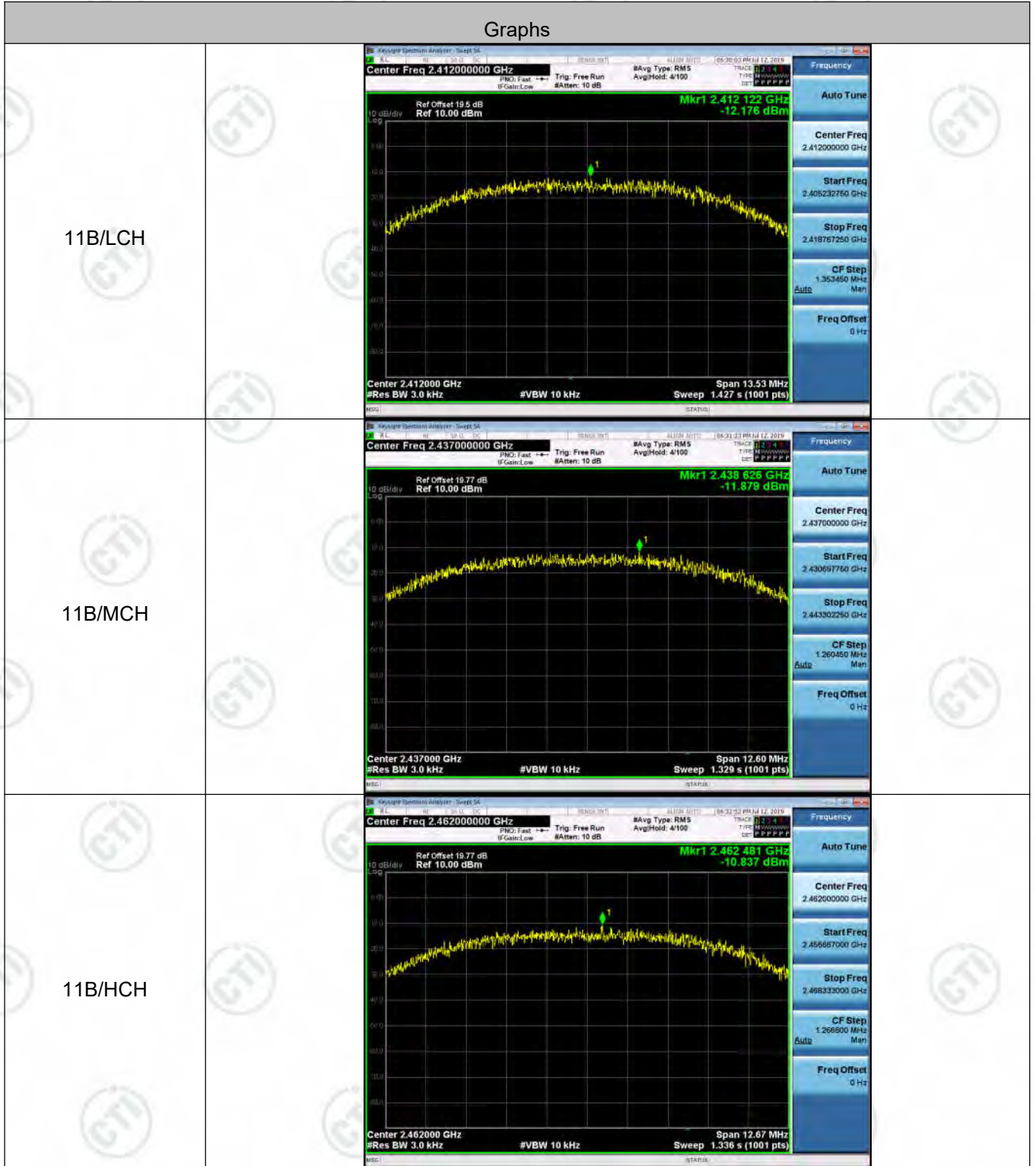
**Appendix E): Power Spectral Density**

**ANT2**

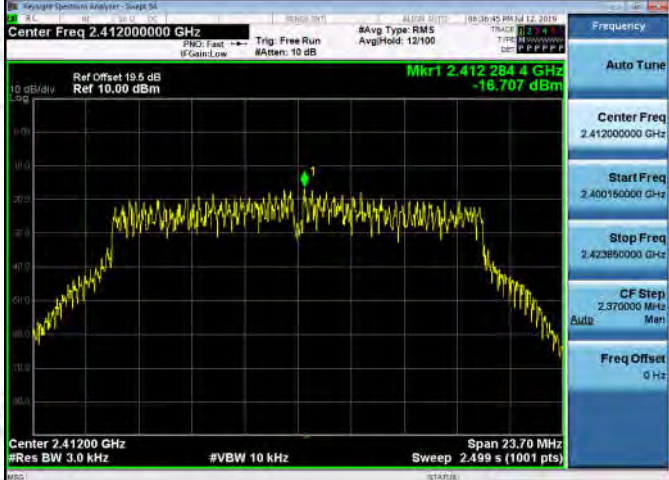


**Result Table**

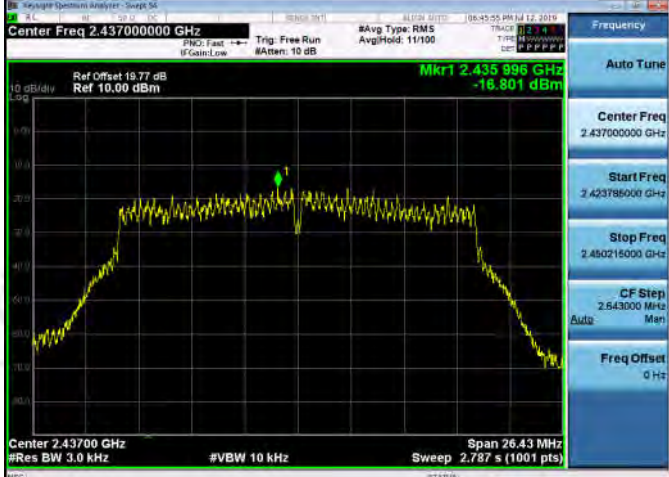
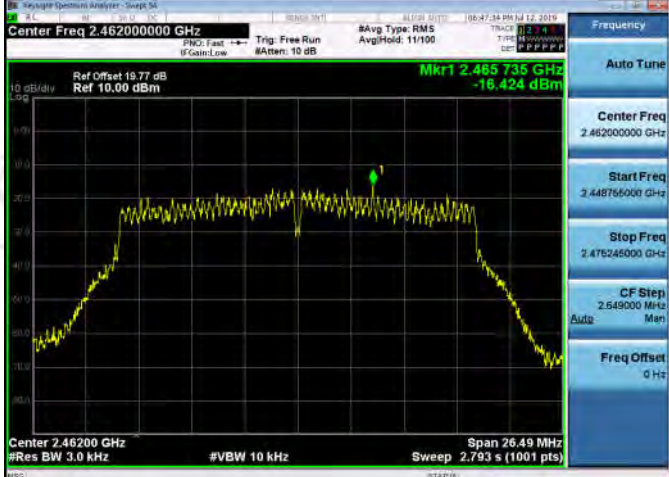
Mode	Channel	Power Spectral Density [dBm]	Verdict
11B	LCH	-12.176	PASS
11B	MCH	-11.879	PASS
11B	HCH	-10.837	PASS
11G	LCH	-16.707	PASS
11G	MCH	-16.188	PASS
11G	HCH	-16.203	PASS
11N20SISO	LCH	-17.319	PASS
11N20SISO	MCH	-16.801	PASS
11N20SISO	HCH	-16.424	PASS

**Test Graph**





<p>11G/LCH</p>	
<p>11G/MCH</p>	
<p>11G/HCH</p>	

<p>11N20SISO/LCH</p>	
<p>11N20SISO/MCH</p>	
<p>11N20SISO/HCH</p>	



## Appendix F): Antenna Requirement

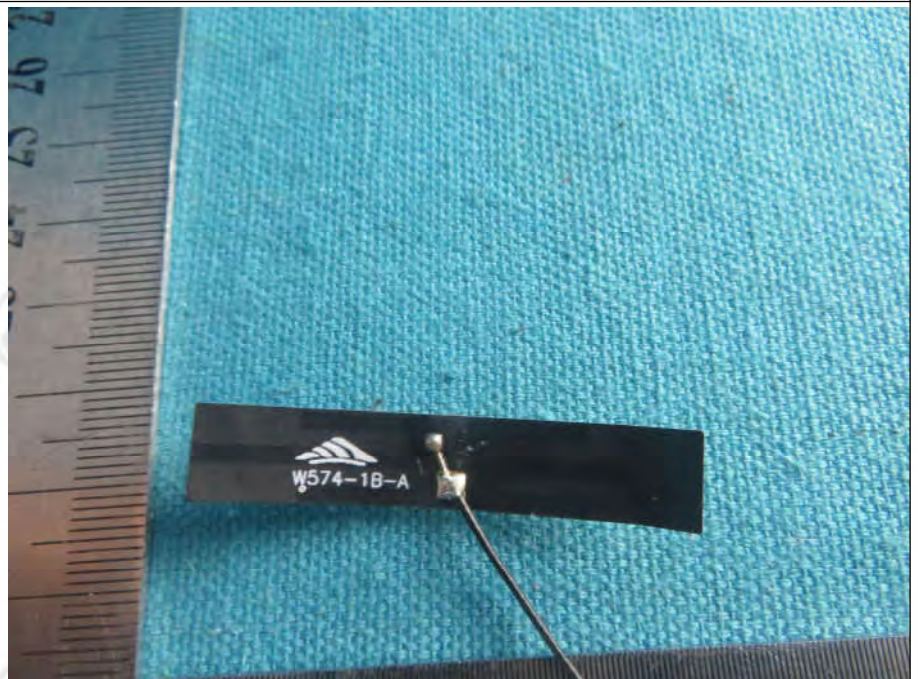
### 15.203 requirement:

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 2.62dBi



## Appendix G): AC Power Line Conducted Emission

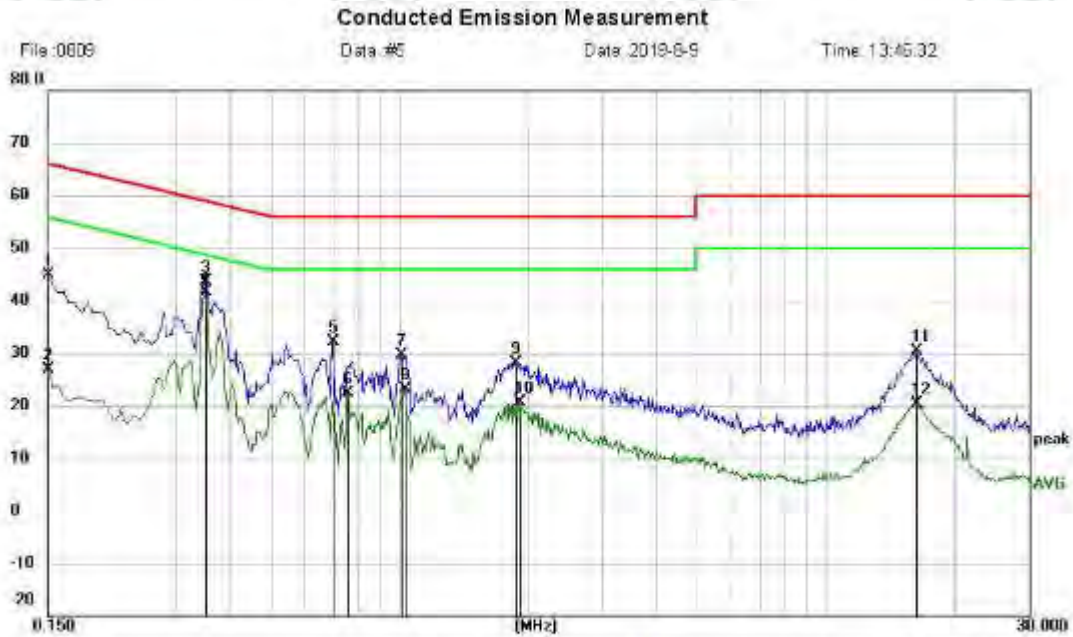
<p>Test Procedure:</p>	<p>Test frequency range :150KHz-30MHz</p> <ol style="list-style-type: none"> <li>1)The mains terminal disturbance voltage test was conducted in a shielded room.</li> <li>2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides 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.</li> <li>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,</li> <li>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.</li> <li>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.</li> </ol>														
<p>Limit:</p>	<table border="1" data-bbox="464 1155 1331 1375"> <thead> <tr> <th rowspan="2">Frequency range (MHz)</th> <th colspan="2">Limit (dBμV)</th> </tr> <tr> <th>Quasi-peak</th> <th>Average</th> </tr> </thead> <tbody> <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> </tbody> </table> <p>* 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</p>	Frequency range (MHz)	Limit (dBμV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dBμV)														
	Quasi-peak	Average													
0.15-0.5	66 to 56*	56 to 46*													
0.5-5	56	46													
5-30	60	50													

### 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:



File :0609      Data #5      Date: 2018-8-9      Time: 13:45:32

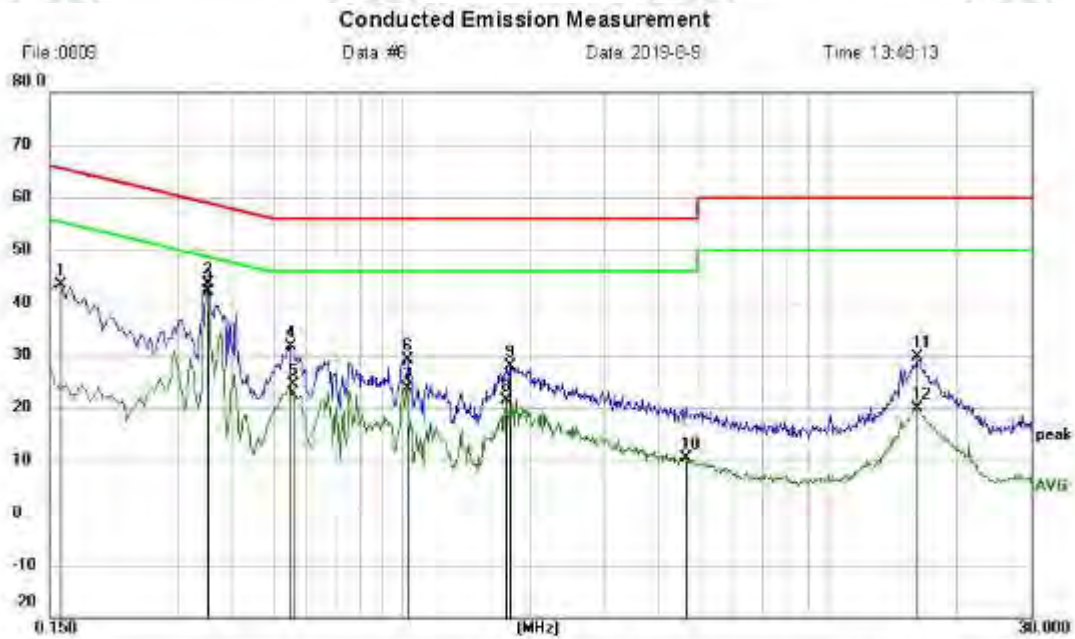
Site: LAB      Phase: **L1**      Temperature: 21  
 Limit: FCC Class B CE(QP)      Power: AC120/60Hz      Humidity: 51 %  
 EUT:  
 M/N:  
 Mode: 2.4G Wifi  
 Note:

No.	Mk.	Freq MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1500	34.98	9.97	44.95	66.00	-21.05	peak	
2		0.1500	16.90	9.97	26.87	56.00	-29.13	AVG	
3		0.3525	33.52	10.05	43.57	58.90	-15.33	peak	
4	*	0.3525	31.64	10.05	41.69	48.90	-7.21	AVG	
5		0.6990	22.57	9.64	32.21	56.00	-23.79	peak	
6		0.7575	12.66	9.80	22.46	46.00	-23.54	AVG	
7		1.0140	19.64	9.91	29.55	56.00	-26.45	peak	
8		1.0275	13.16	9.91	23.07	46.00	-22.93	AVG	
9		1.8600	16.27	9.84	26.11	56.00	-27.89	peak	
10		1.9050	10.60	9.84	20.64	46.00	-25.36	AVG	
11		16.3725	20.37	9.97	30.34	60.00	-29.66	peak	
12		16.3725	10.45	9.97	20.42	50.00	-29.58	AVG	

\*:Maximum data    x:Over limit    l:over margin

(Reference Only)

Neutral line:



File:0609 Data #6 Date:2019-0-9 Time:13:48:13

Site: LAB Phase: N Temperature: 21  
Limit: FCC Class B CE(GP) Power: AC120/60Hz Humidity: 51 %  
EUT:  
M/N:  
Mode: 2.4G Wifi  
Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1590	33.47	9.98	43.45	65.52	-22.07	peak	
2		0.3525	33.62	10.05	43.67	58.90	-15.23	peak	
3	*	0.3525	32.18	10.05	42.23	48.90	-6.67	AVG	
4		0.5505	21.62	10.06	31.68	56.00	-24.32	peak	
5		0.5595	14.36	10.07	24.43	46.00	-21.57	AVG	
6		1.0320	19.16	9.91	29.07	56.00	-26.93	peak	
7		1.0320	13.62	9.91	23.53	46.00	-22.47	AVG	
8		1.7610	11.56	9.85	21.41	46.00	-24.59	AVG	
9		1.7970	16.08	9.85	27.93	56.00	-28.07	peak	
10		4.6590	0.64	9.83	10.47	46.00	-35.53	AVG	
11		16.2600	19.66	9.97	29.63	60.00	-30.37	peak	
12		16.2600	10.00	9.97	19.97	50.00	-30.03	AVG	

\*:Maximum data x:Over limit l:lower margin

(Reference Only)

Notes:

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



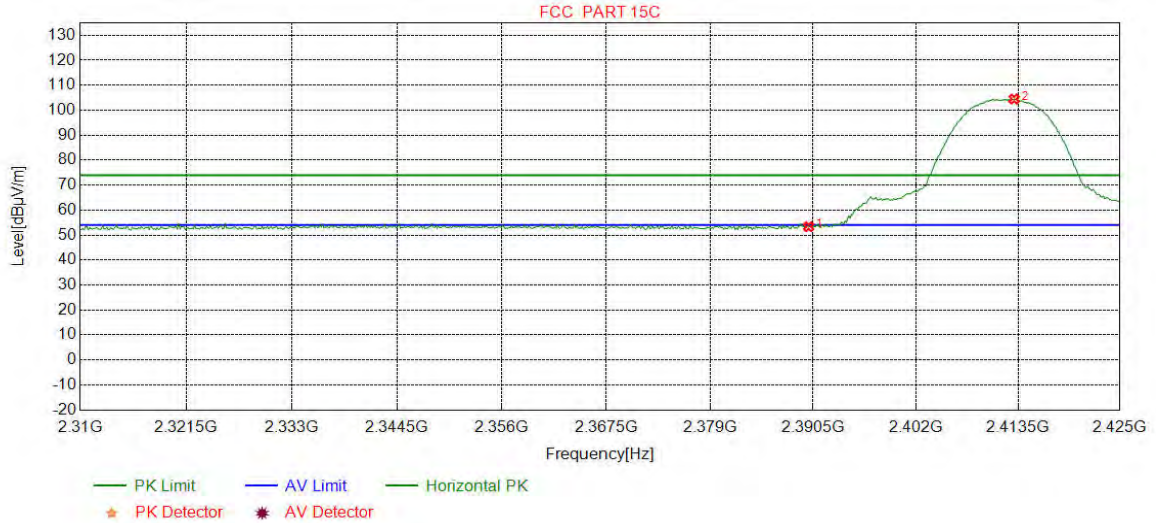
## Appendix H): Restricted bands around fundamental frequency (Radiated)

Receiver Setup:	<table border="1"> <thead> <tr> <th>Frequency</th> <th>Detector</th> <th>RBW</th> <th>VBW</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td>30MHz-1GHz</td> <td>Quasi-peak</td> <td>120kHz</td> <td>300kHz</td> <td>Quasi-peak</td> </tr> <tr> <td rowspan="2">Above 1GHz</td> <td>Peak</td> <td>1MHz</td> <td>3MHz</td> <td>Peak</td> </tr> <tr> <td>Peak</td> <td>1MHz</td> <td>10Hz</td> <td>Average</td> </tr> </tbody> </table>	Frequency	Detector	RBW	VBW	Remark	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak	Above 1GHz	Peak	1MHz	3MHz	Peak	Peak	1MHz	10Hz	Average	
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:	<p><b>Below 1GHz test procedure as below:</b></p> <ol style="list-style-type: none"> <li>The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</li> <li>The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</li> <li>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.</li> <li>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.</li> <li>The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li> <li>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</li> </ol> <p><b>Above 1GHz test procedure as below:</b></p> <ol style="list-style-type: none"> <li>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).</li> <li>Test the EUT in the lowest channel , the Highest channel</li> <li>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.</li> <li>Repeat above procedures until all frequencies measured was complete.</li> </ol>																				
Limit:	<table border="1"> <thead> <tr> <th>Frequency</th> <th>Limit (dB<math>\mu</math>V/m @3m)</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td>30MHz-88MHz</td> <td>40.0</td> <td>Quasi-peak Value</td> </tr> <tr> <td>88MHz-216MHz</td> <td>43.5</td> <td>Quasi-peak Value</td> </tr> <tr> <td>216MHz-960MHz</td> <td>46.0</td> <td>Quasi-peak Value</td> </tr> <tr> <td>960MHz-1GHz</td> <td>54.0</td> <td>Quasi-peak Value</td> </tr> <tr> <td rowspan="2">Above 1GHz</td> <td>54.0</td> <td>Average Value</td> </tr> <tr> <td>74.0</td> <td>Peak Value</td> </tr> </tbody> </table>	Frequency	Limit (dB $\mu$ V/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
Frequency	Limit (dB $\mu$ V/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:  
Antenna 1**

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
Remark:	Peak		

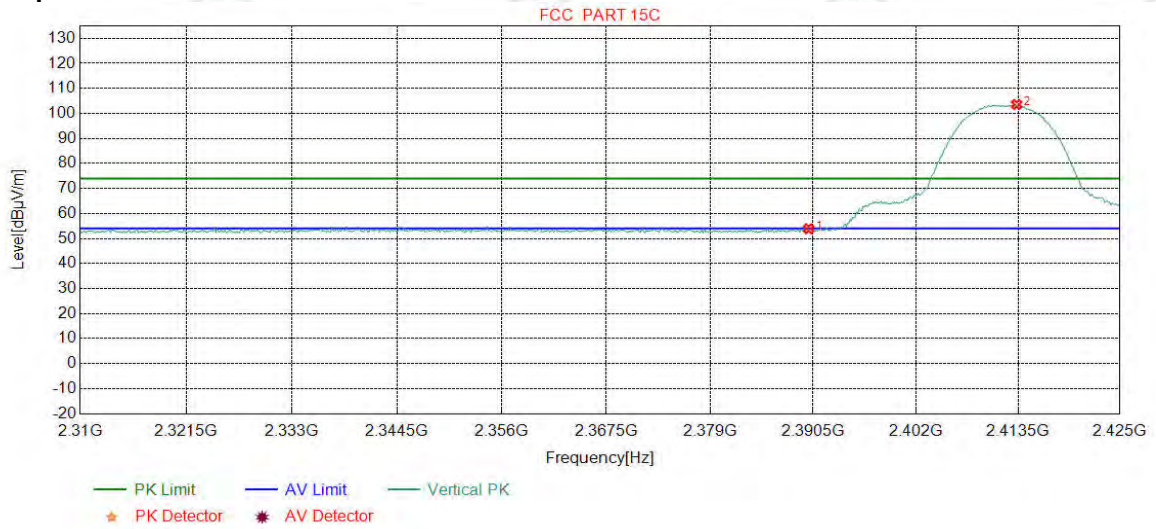
**Test Graph**



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	50.17	53.35	74.00	20.65	Pass	Horizontal
2	2413.0538	32.28	13.36	-42.43	101.24	104.45	74.00	-30.45	Pass	Horizontal

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
Remark:	Peak		

**Test Graph**

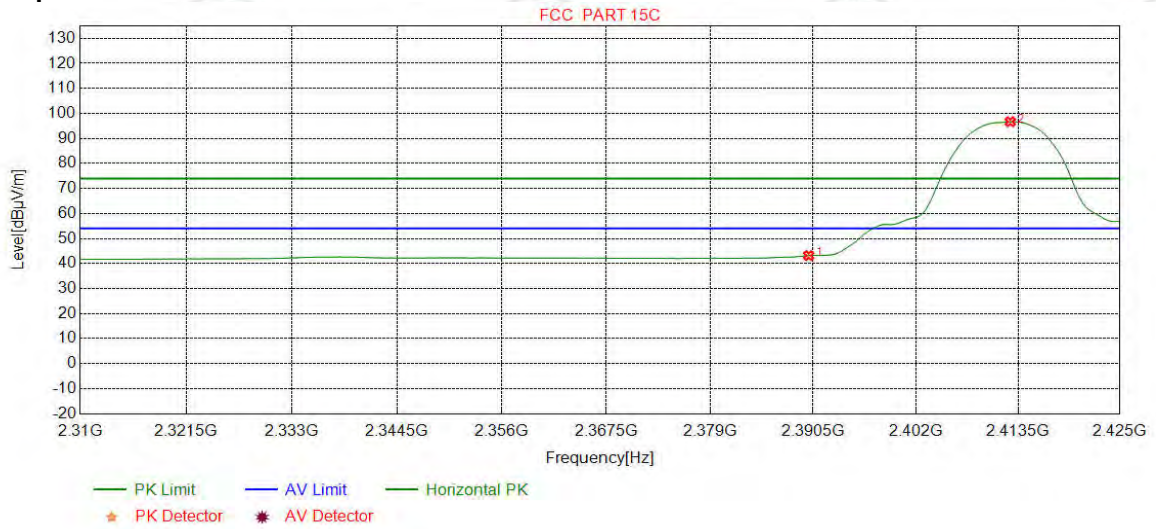


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	50.73	53.91	74.00	20.09	Pass	Vertical
2	2413.3417	32.28	13.36	-42.43	100.34	103.55	74.00	-29.55	Pass	Vertical



Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
Remark:	Peak		

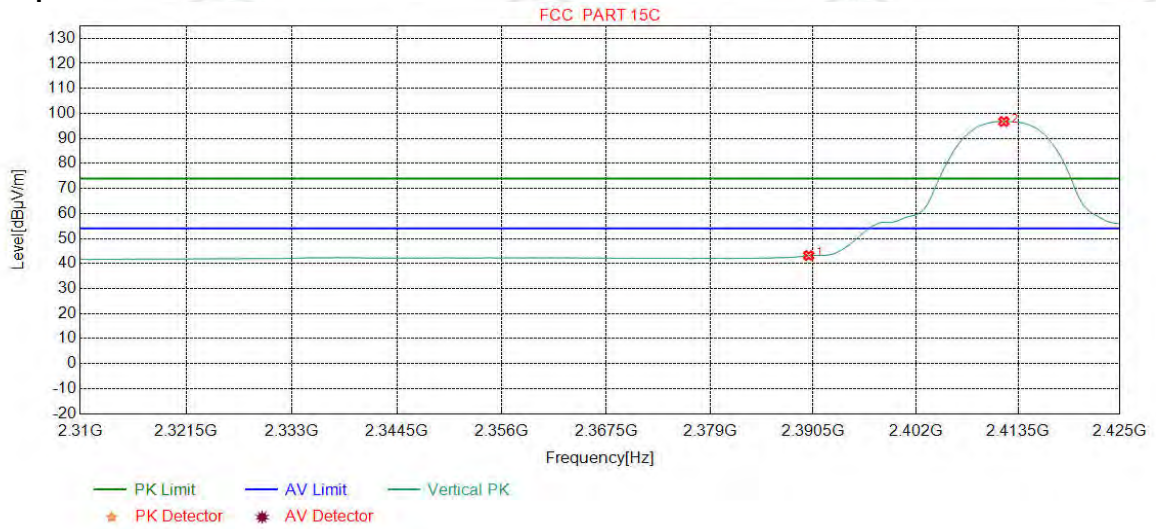
**Test Graph**



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	39.99	43.17	54.00	10.83	Pass	Horizontal
2	2412.6220	32.28	13.36	-42.43	93.45	96.66	54.00	-42.66	Pass	Horizontal

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
Remark:	Peak		

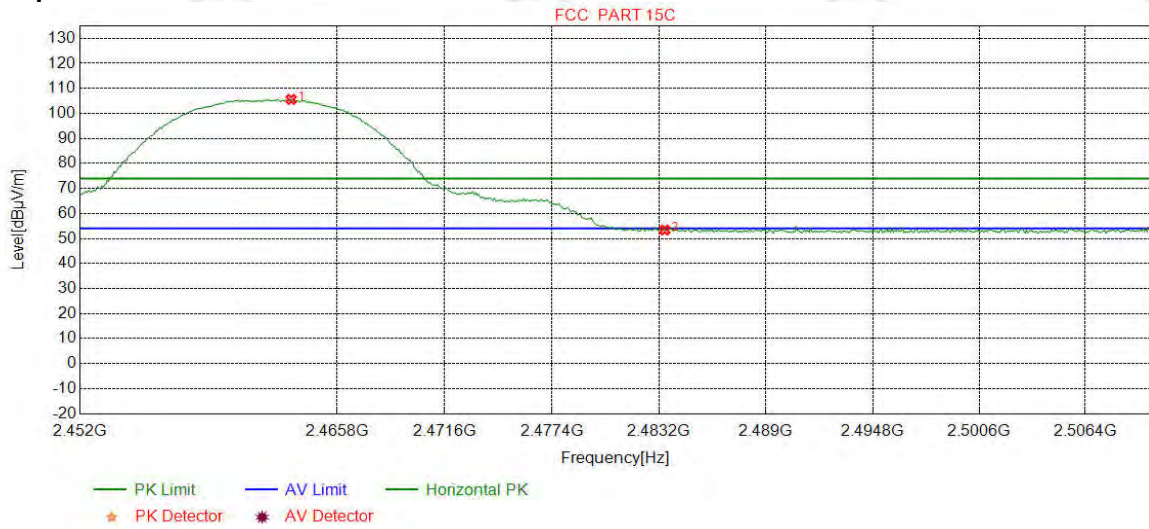
**Test Graph**



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	40.01	43.19	54.00	10.81	Pass	Vertical
2	2411.9024	32.28	13.35	-42.43	93.55	96.75	54.00	-42.75	Pass	Vertical

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

**Test Graph**

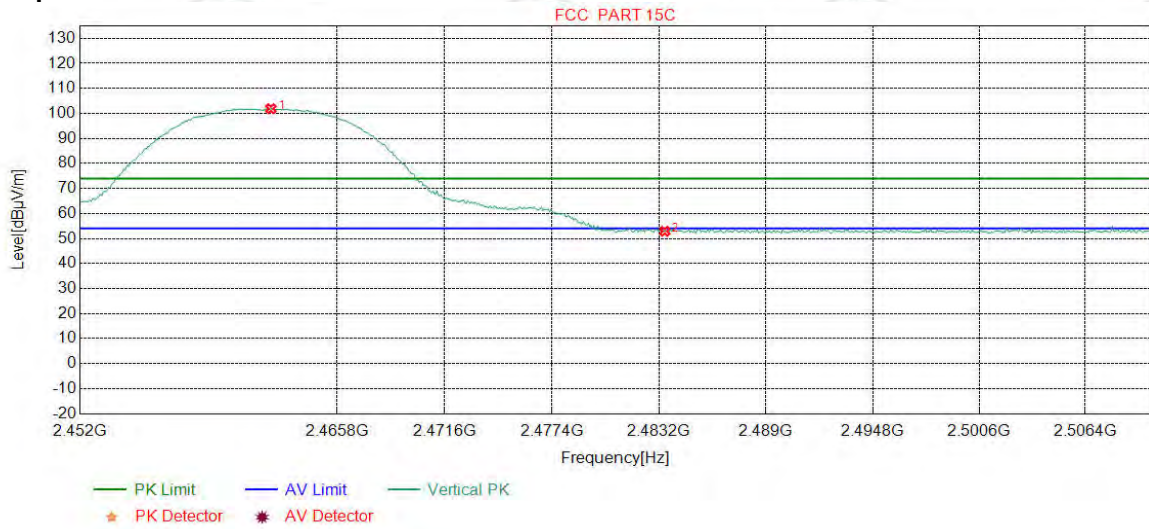


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2463.3242	32.35	13.47	-42.41	102.19	105.60	74.00	-31.60	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	50.03	53.39	74.00	20.61	Pass	Horizontal



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

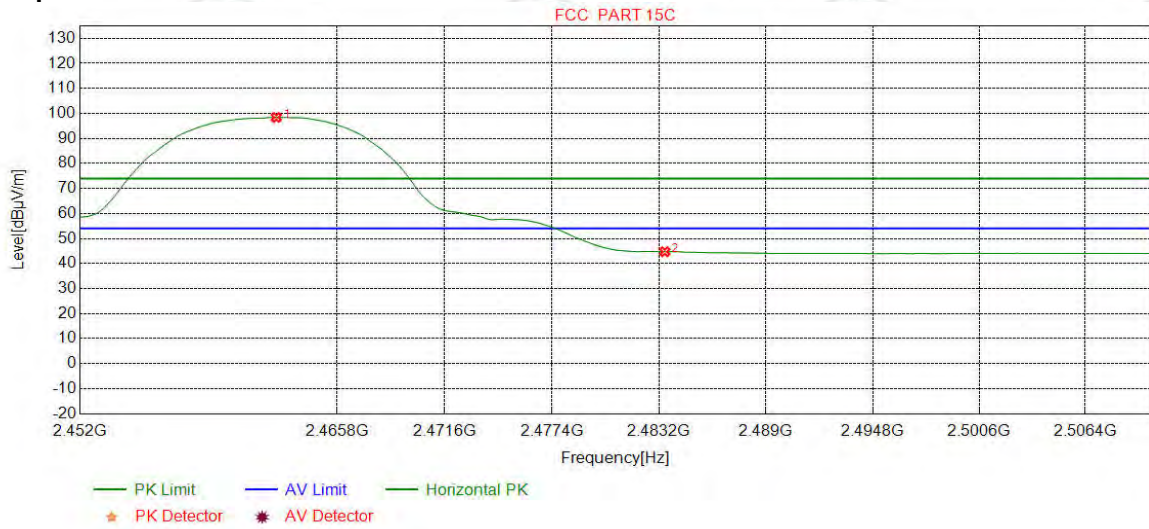
**Test Graph**



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	2462.2353	32.35	13.47	-42.41	98.45	101.86	74.00	-27.86	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	49.52	52.88	74.00	21.12	Pass	Vertical

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

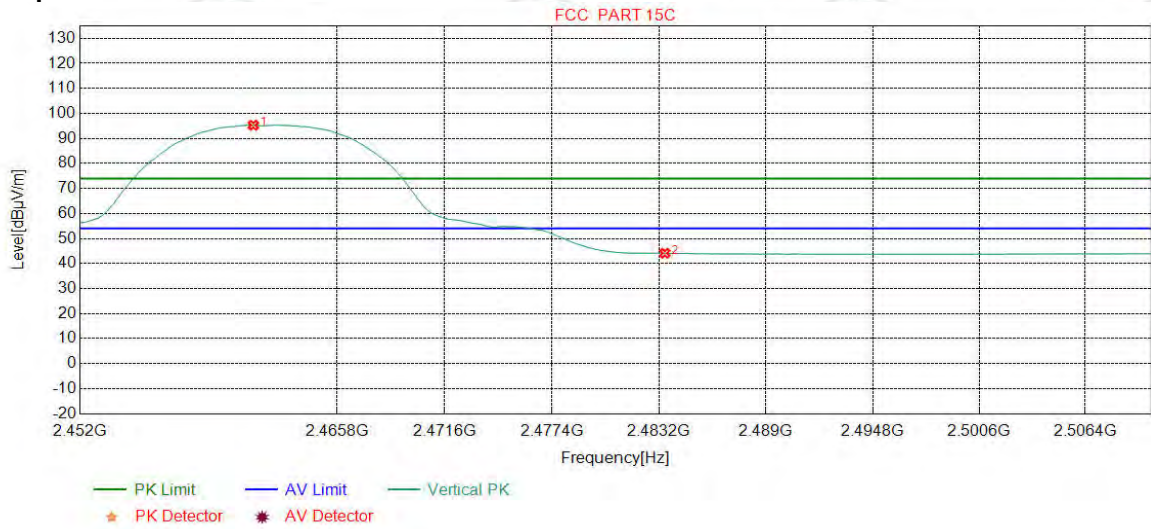
**Test Graph**



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	2462.5257	32.35	13.47	-42.41	94.99	98.40	54.00	-44.40	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	41.36	44.72	54.00	9.28	Pass	Horizontal

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

**Test Graph**

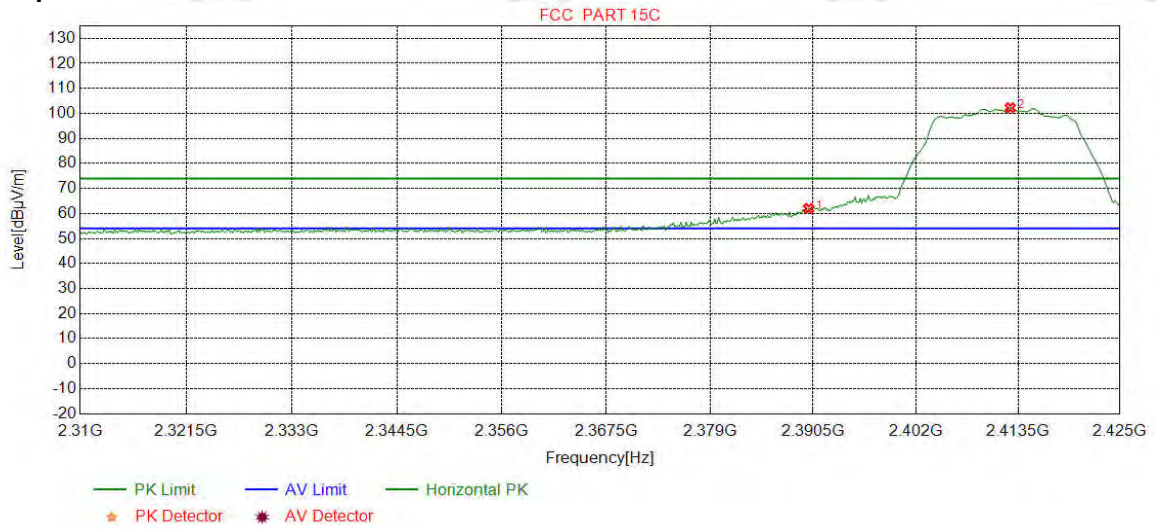


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2461.2916	32.35	13.48	-42.41	91.85	95.27	54.00	-41.27	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	40.75	44.11	54.00	9.89	Pass	Vertical



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

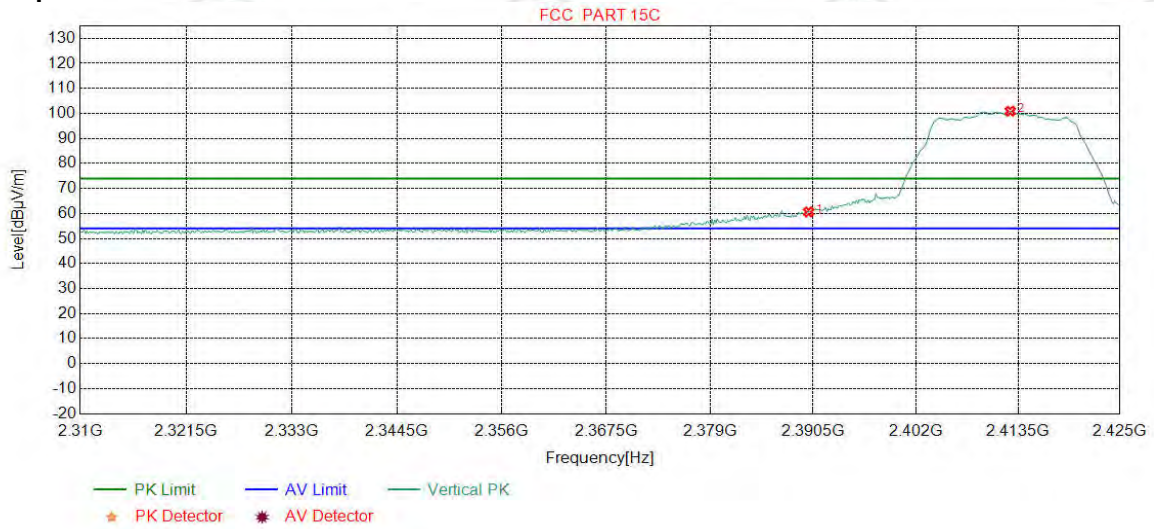
**Test Graph**



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	58.81	61.99	74.00	12.01	Pass	Horizontal
2	2412.6220	32.28	13.36	-42.43	99.04	102.25	74.00	-28.25	Pass	Horizontal

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

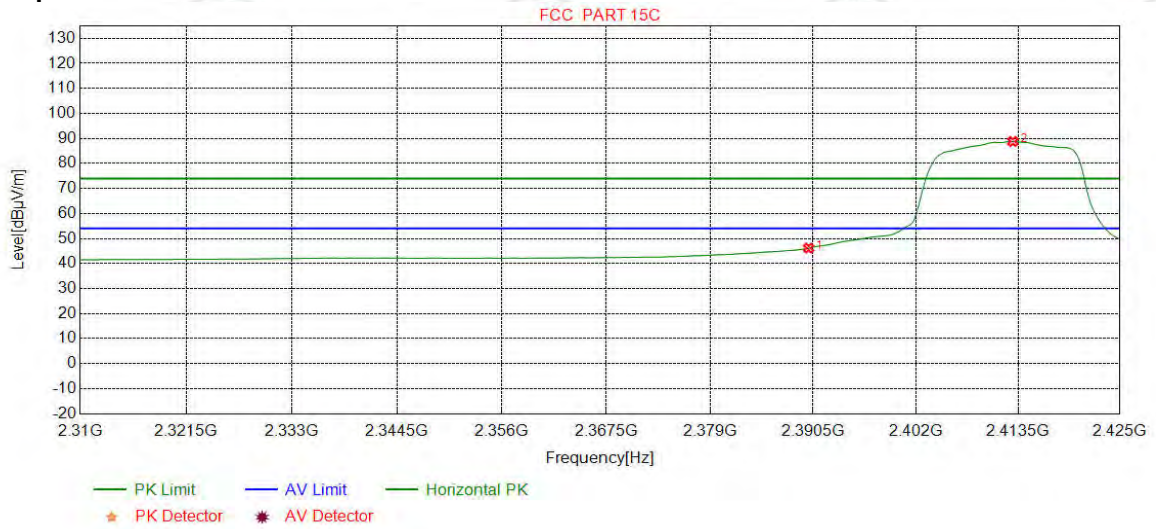
**Test Graph**



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	57.45	60.63	74.00	13.37	Pass	Vertical
2	2412.6220	32.28	13.36	-42.43	97.68	100.89	74.00	-26.89	Pass	Vertical

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

**Test Graph**

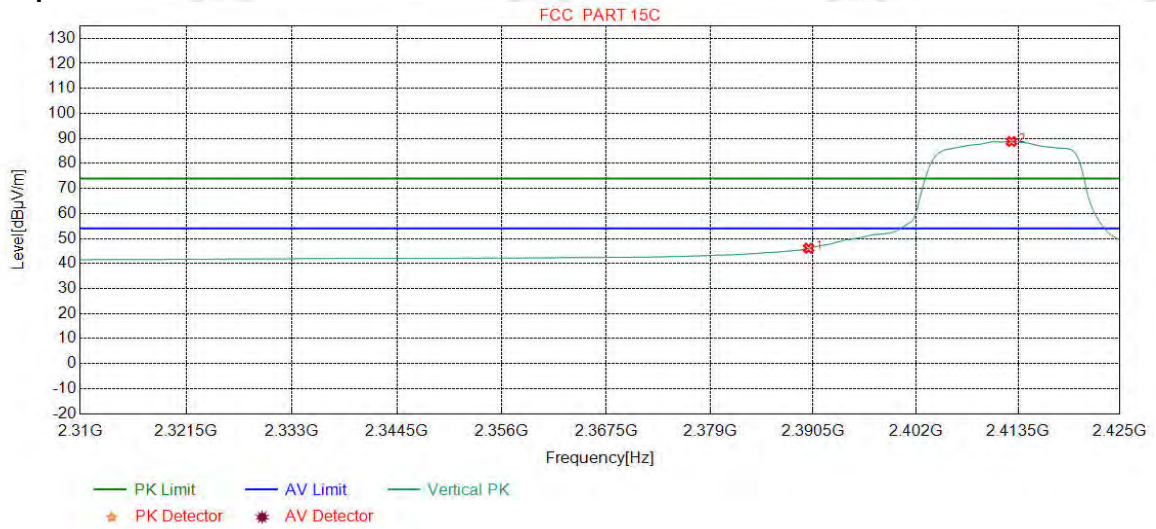


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	42.97	46.15	54.00	7.85	Pass	Horizontal
2	2412.9099	32.28	13.36	-42.43	85.57	88.78	54.00	-34.78	Pass	Horizontal



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

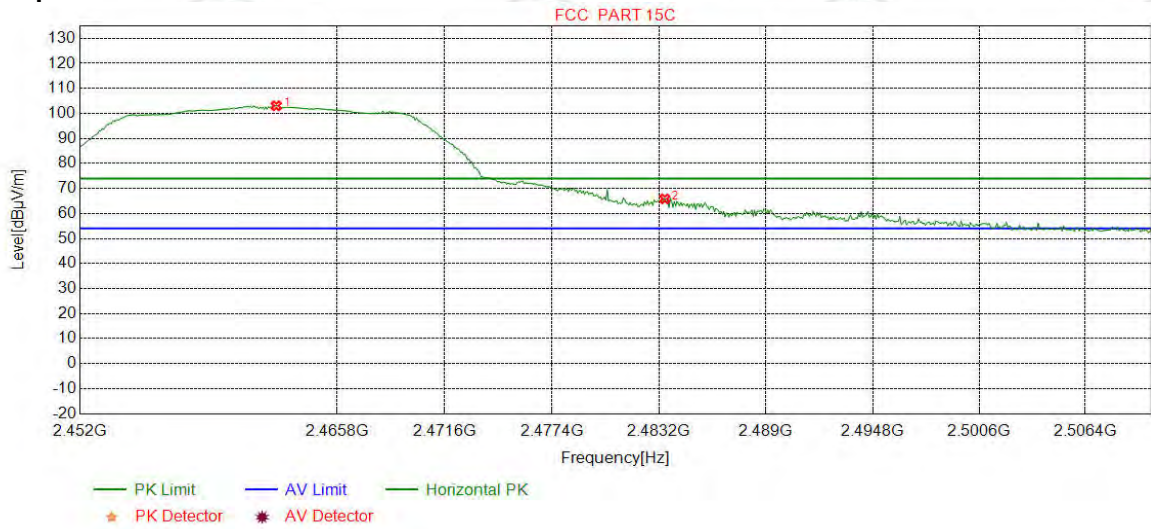
**Test Graph**



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	42.91	46.09	54.00	7.91	Pass	Vertical
2	2412.7660	32.28	13.36	-42.43	85.59	88.80	54.00	-34.80	Pass	Vertical

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

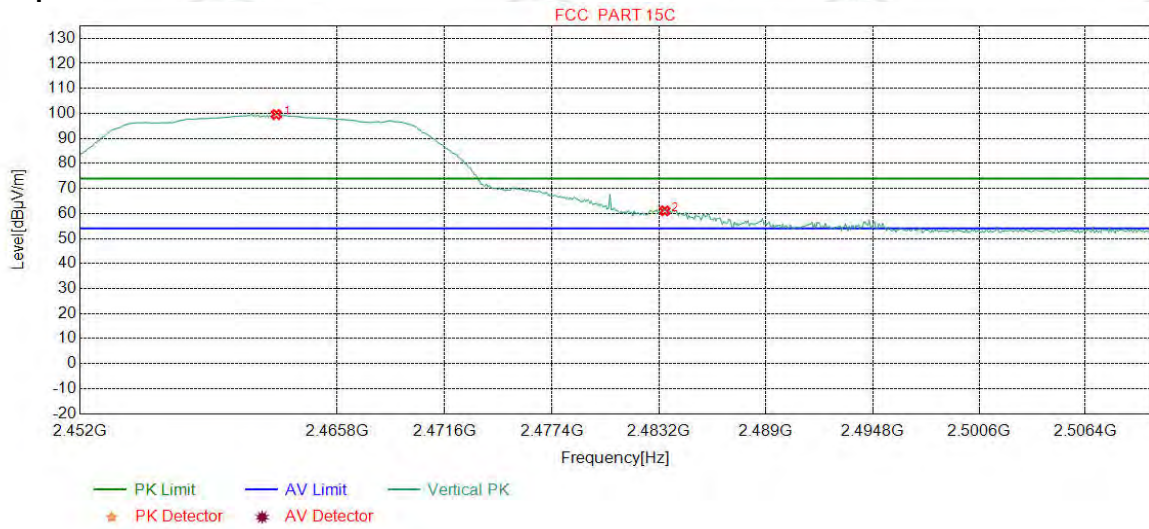
**Test Graph**



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	2462.5257	32.35	13.47	-42.41	99.62	103.03	74.00	-29.03	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	62.50	65.86	74.00	8.14	Pass	Horizontal

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

**Test Graph**

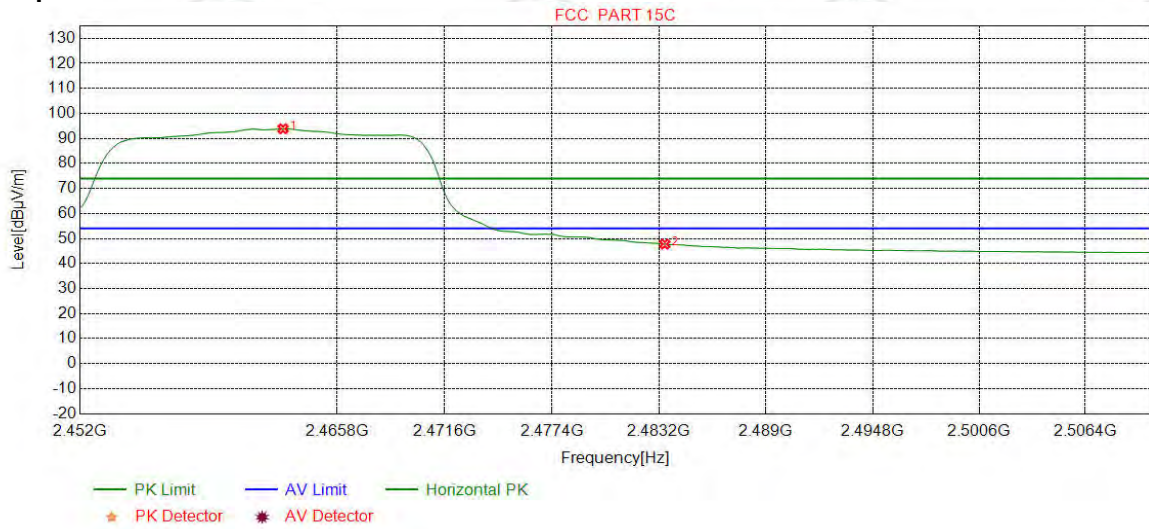


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2462.5257	32.35	13.47	-42.41	96.16	99.57	74.00	-25.57	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	57.69	61.05	74.00	12.95	Pass	Vertical



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

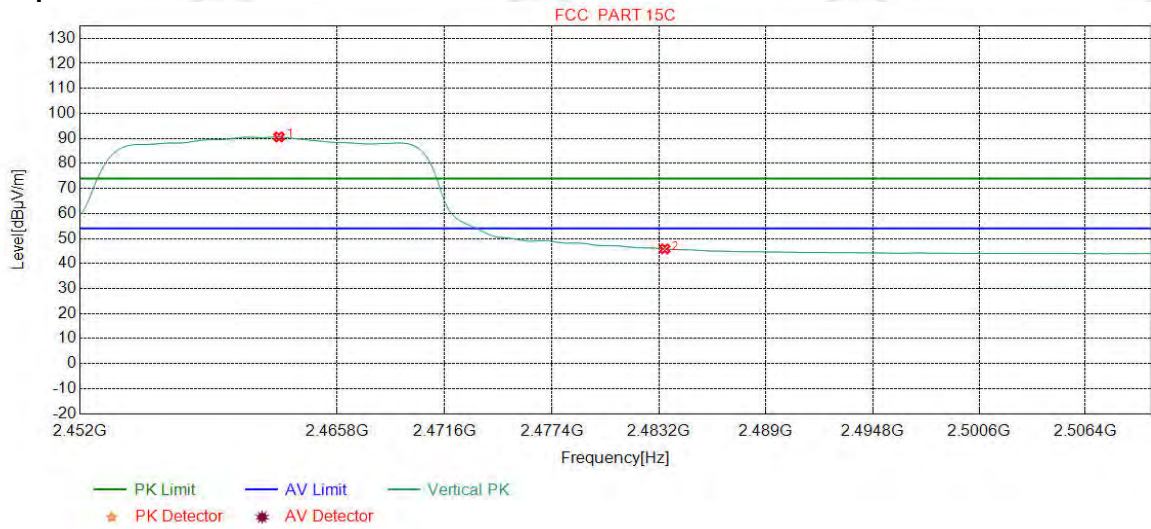
**Test Graph**



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	2462.8886	32.35	13.47	-42.41	90.44	93.85	54.00	-39.85	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	44.38	47.74	54.00	6.26	Pass	Horizontal

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

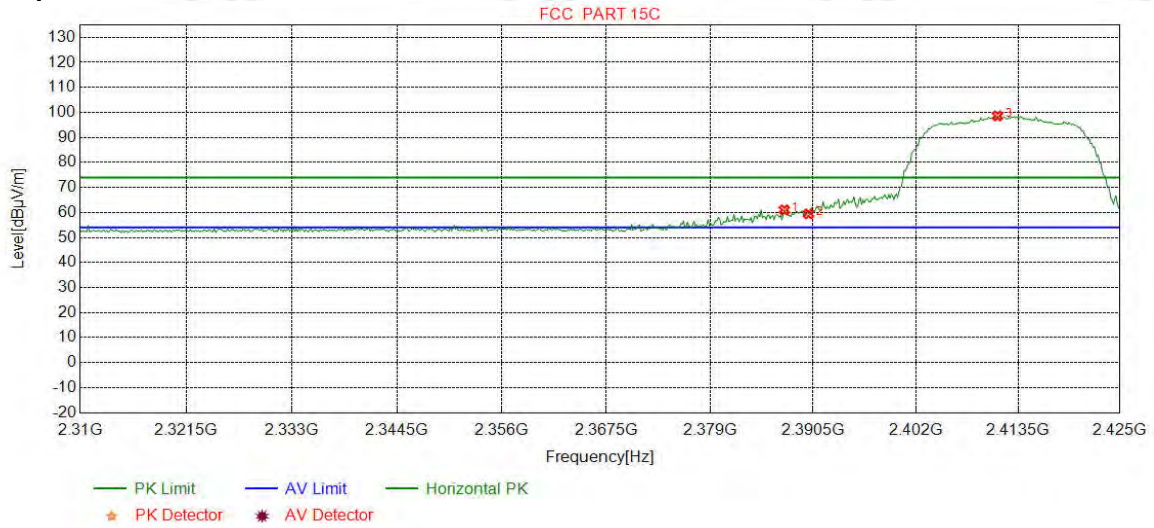
**Test Graph**



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	2462.6708	32.35	13.47	-42.41	87.19	90.60	54.00	-36.60	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	42.48	45.84	54.00	8.16	Pass	Vertical

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

**Test Graph**

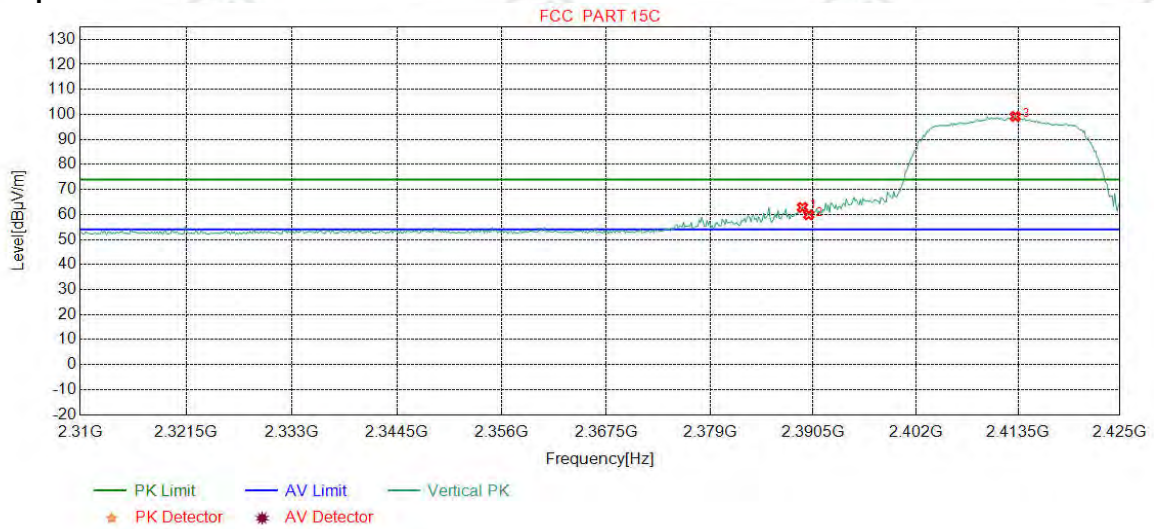


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2387.2904	32.24	13.39	-42.43	57.80	61.00	74.00	13.00	Pass	Horizontal
2	2390.0000	32.25	13.37	-42.44	56.26	59.44	74.00	14.56	Pass	Horizontal
3	2411.1827	32.28	13.35	-42.43	95.39	98.59	74.00	-24.59	Pass	Horizontal



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

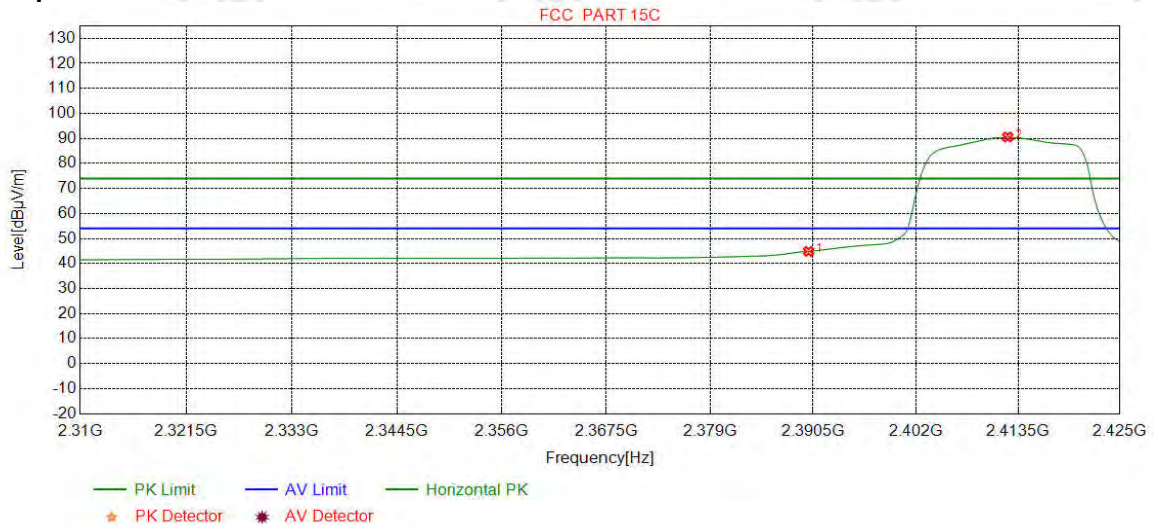
**Test Graph**



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	2389.3054	32.25	13.38	-42.44	59.64	62.83	74.00	11.17	Pass	Vertical
2	2390.0000	32.25	13.37	-42.44	56.68	59.86	74.00	14.14	Pass	Vertical
3	2413.1977	32.28	13.36	-42.43	95.96	99.17	74.00	-25.17	Pass	Vertical

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

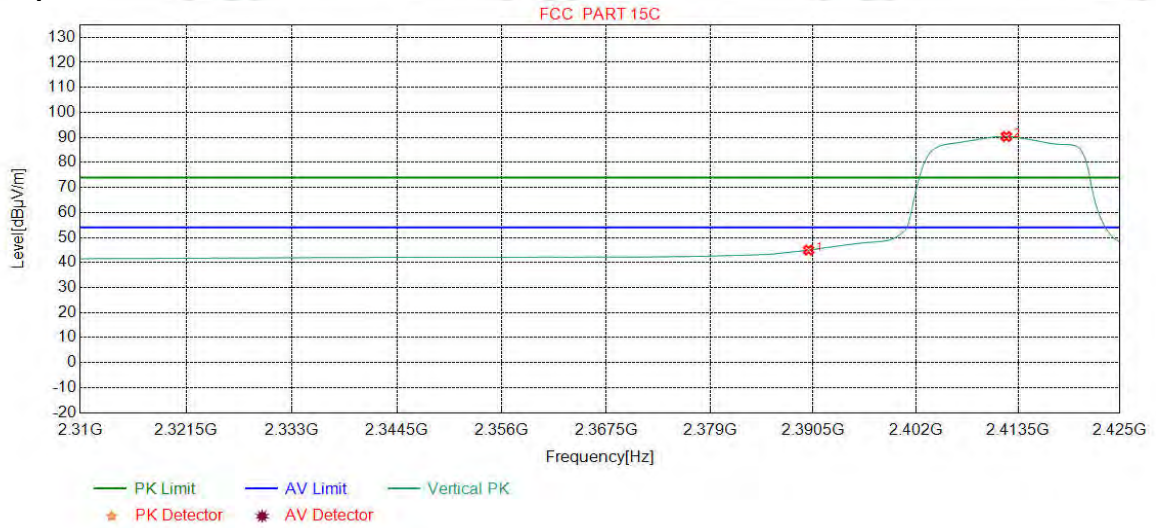
**Test Graph**



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	41.66	44.84	54.00	9.16	Pass	Horizontal
2	2412.3342	32.28	13.36	-42.43	87.34	90.55	54.00	-36.55	Pass	Horizontal

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

**Test Graph**

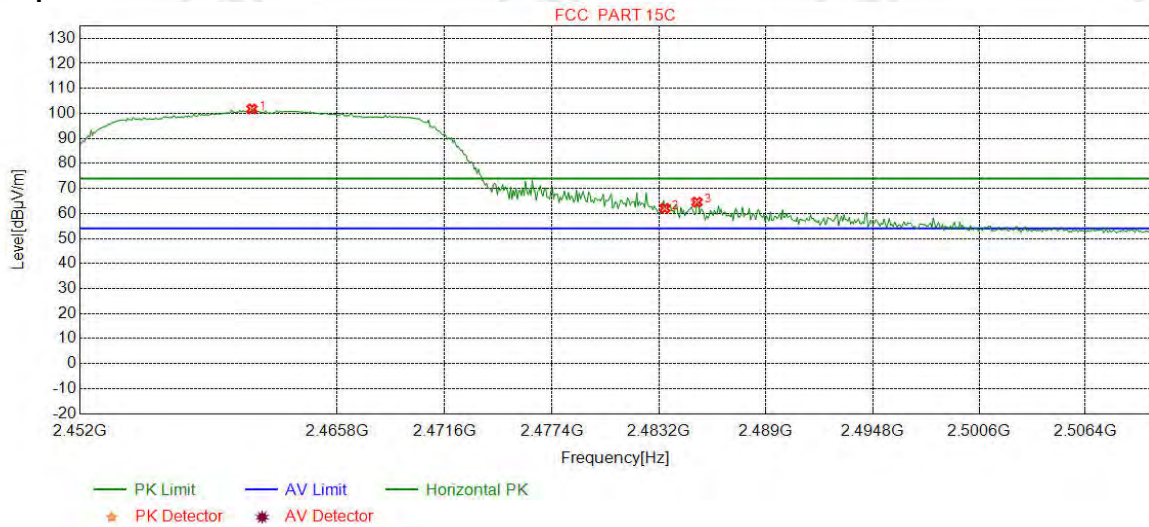


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	41.79	44.97	54.00	9.03	Pass	Vertical
2	2412.1902	32.28	13.36	-42.44	87.15	90.35	54.00	-36.35	Pass	Vertical



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

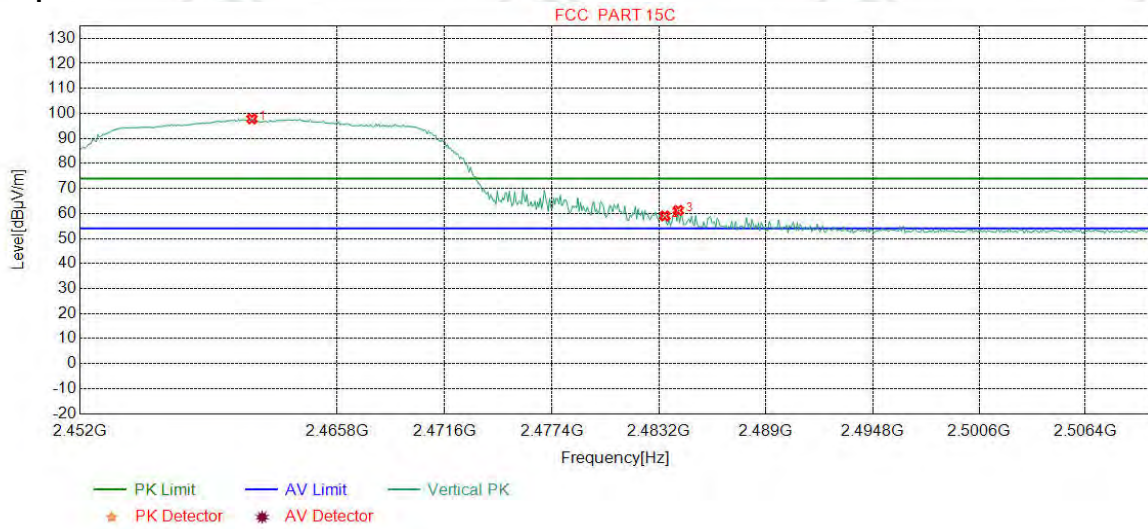
**Test Graph**



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	2461.2190	32.35	13.48	-42.41	98.39	101.81	74.00	-27.81	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	58.75	62.11	74.00	11.89	Pass	Horizontal
3	2485.2466	32.38	13.37	-42.40	61.19	64.54	74.00	9.46	Pass	Horizontal

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

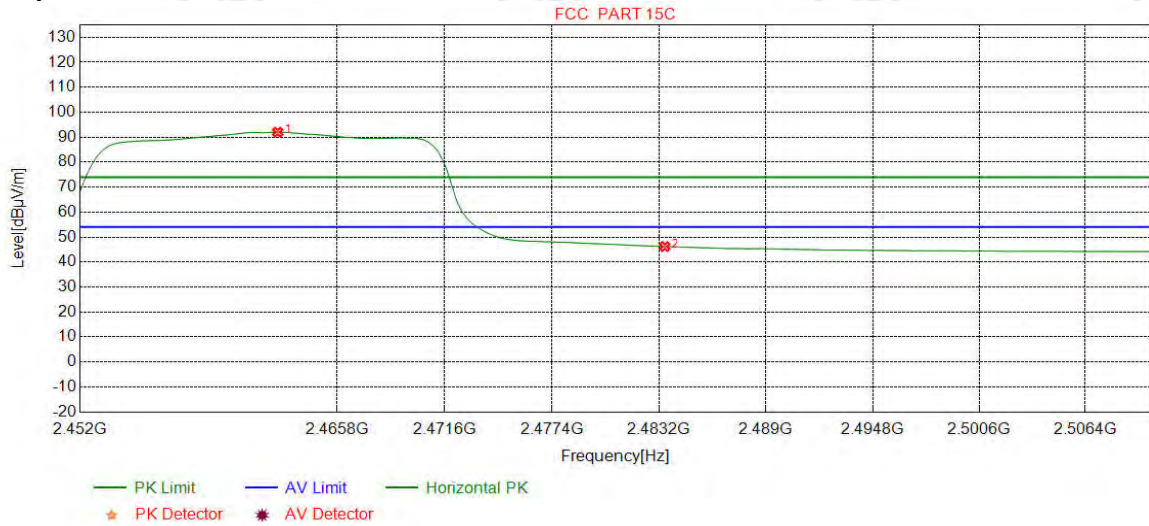
**Test Graph**



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	2461.2190	32.35	13.48	-42.41	94.38	97.80	74.00	-23.80	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	55.67	59.03	74.00	14.97	Pass	Vertical
3	2484.2303	32.38	13.37	-42.40	57.87	61.22	74.00	12.78	Pass	Vertical

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

**Test Graph**

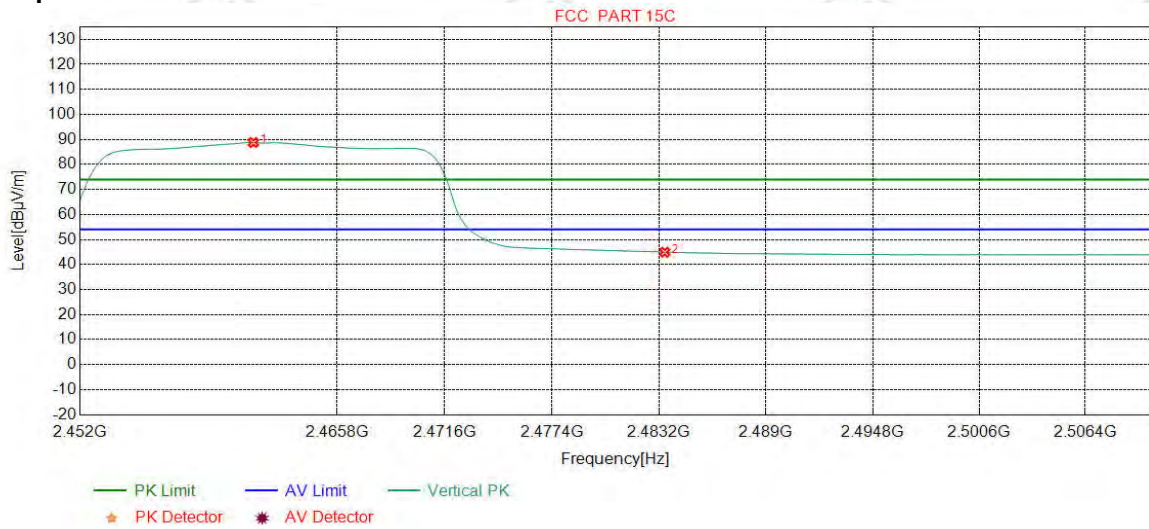


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2462.5982	32.35	13.47	-42.41	88.61	92.02	54.00	-38.02	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	42.83	46.19	54.00	7.81	Pass	Horizontal



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

**Test Graph**

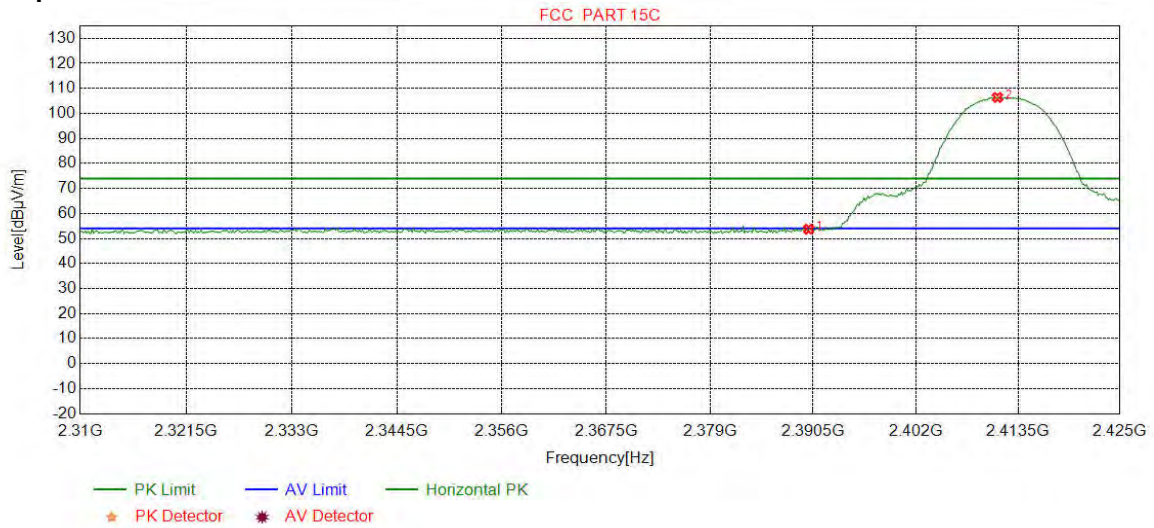


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2461.2916	32.35	13.48	-42.41	85.35	88.77	54.00	-34.77	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	41.56	44.92	54.00	9.08	Pass	Vertical

**Antenna 2**

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
Remark:	Peak		

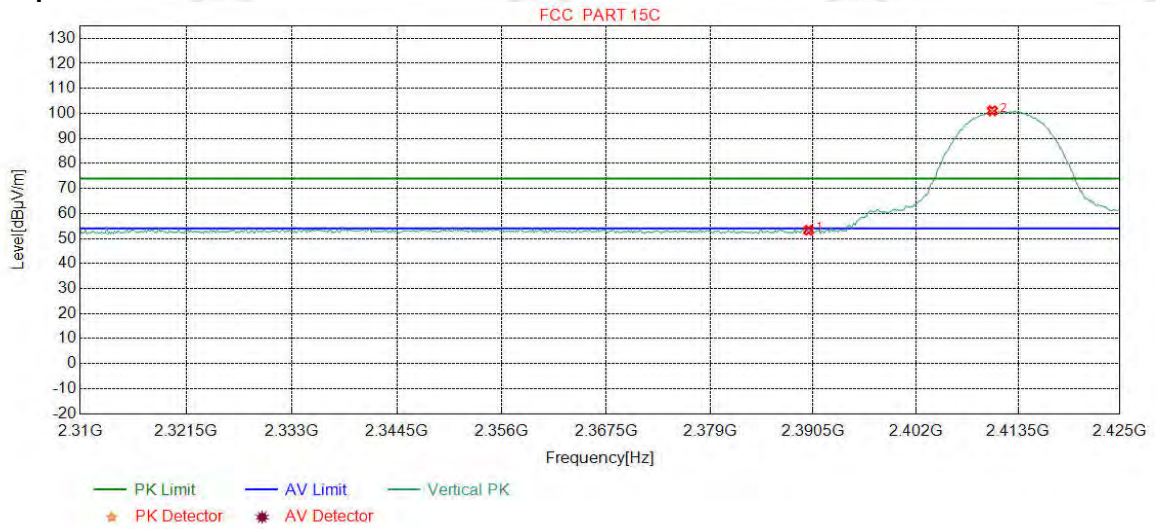
**Test Graph**



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	50.55	53.73	74.00	20.27	Pass	Horizontal
2	2411.1827	32.28	13.35	-42.43	103.19	106.39	74.00	-32.39	Pass	Horizontal

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
Remark:	Peak		

**Test Graph**

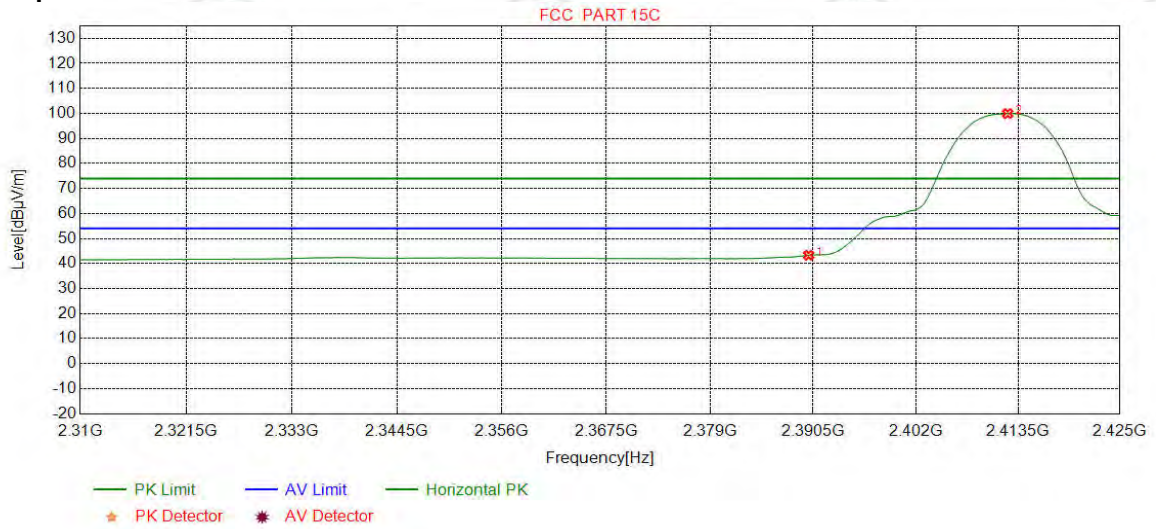


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	50.11	53.29	74.00	20.71	Pass	Vertical
2	2410.6070	32.27	13.35	-42.43	97.86	101.05	74.00	-27.05	Pass	Vertical



Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
Remark:	Peak		

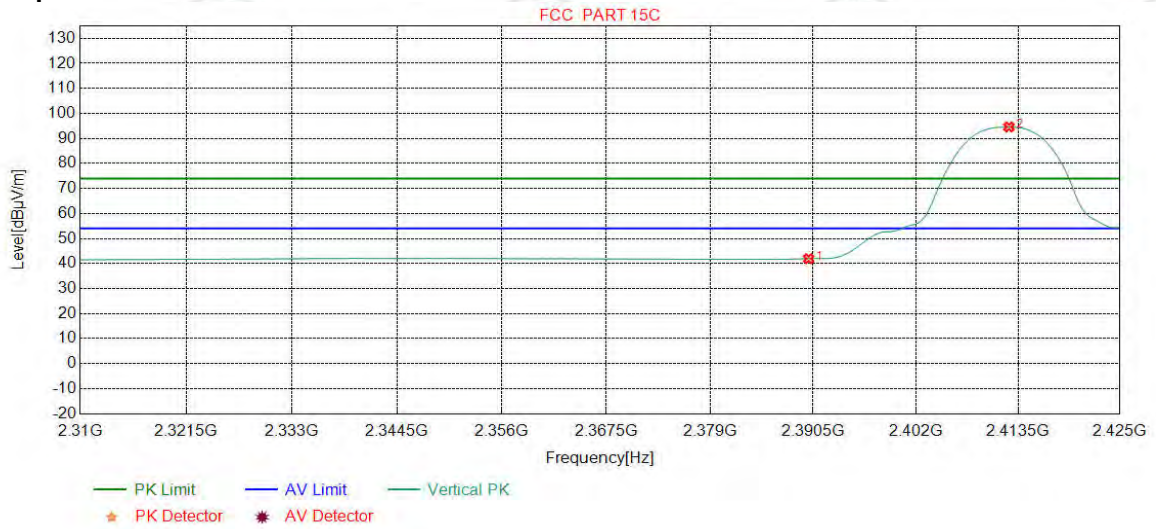
**Test Graph**



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	40.15	43.33	54.00	10.67	Pass	Horizontal
2	2412.3342	32.28	13.36	-42.43	96.71	99.92	54.00	-45.92	Pass	Horizontal

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
Remark:	Peak		

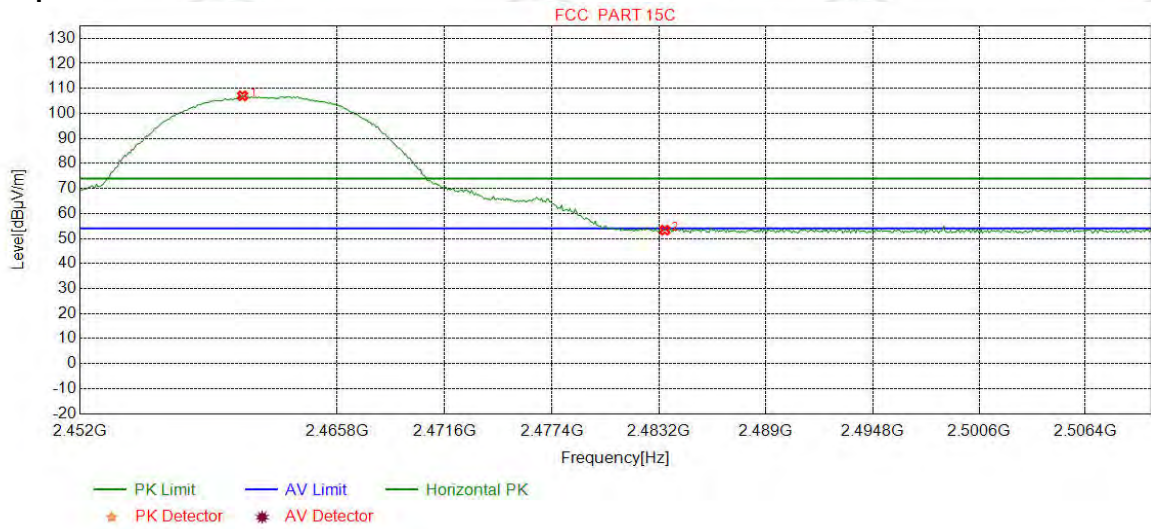
**Test Graph**



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	38.76	41.94	54.00	12.06	Pass	Vertical
2	2412.4781	32.28	13.36	-42.43	91.38	94.59	54.00	-40.59	Pass	Vertical

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

**Test Graph**

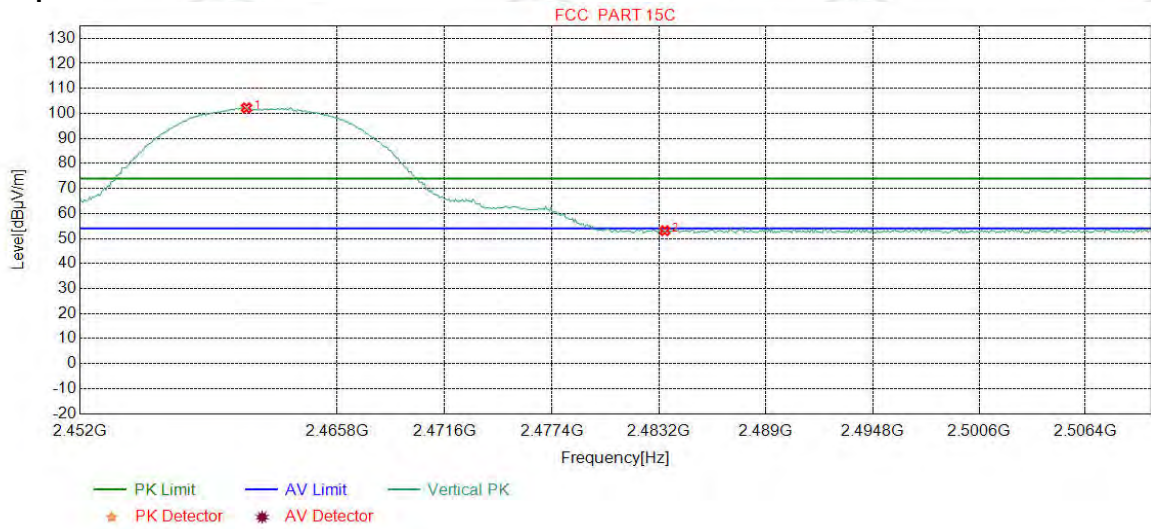


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2460.7109	32.34	13.48	-42.40	103.60	107.02	74.00	-33.02	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	49.95	53.31	74.00	20.69	Pass	Horizontal



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

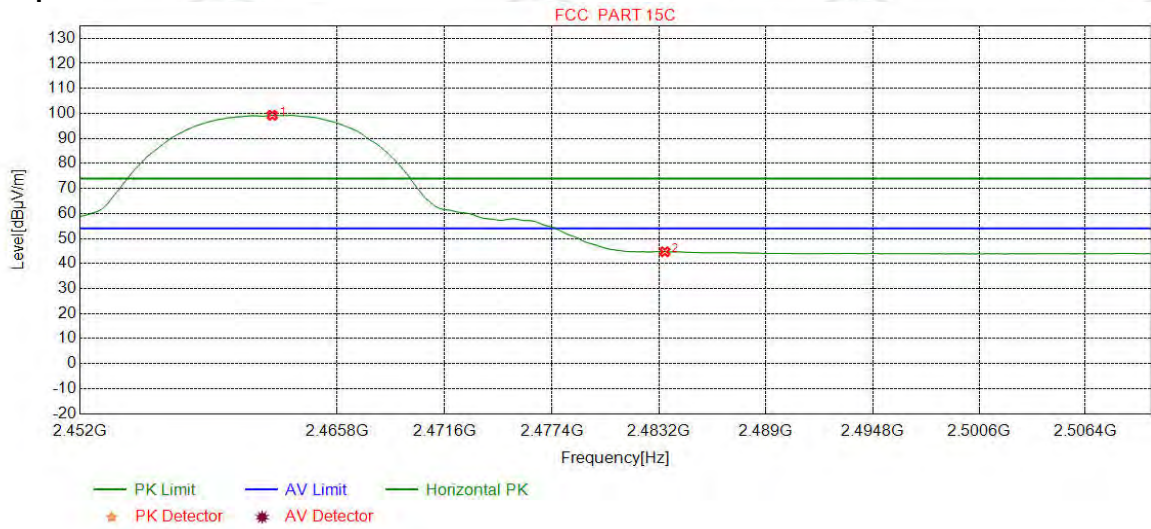
**Test Graph**



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	2460.9287	32.35	13.48	-42.41	98.79	102.21	74.00	-28.21	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	49.75	53.11	74.00	20.89	Pass	Vertical

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

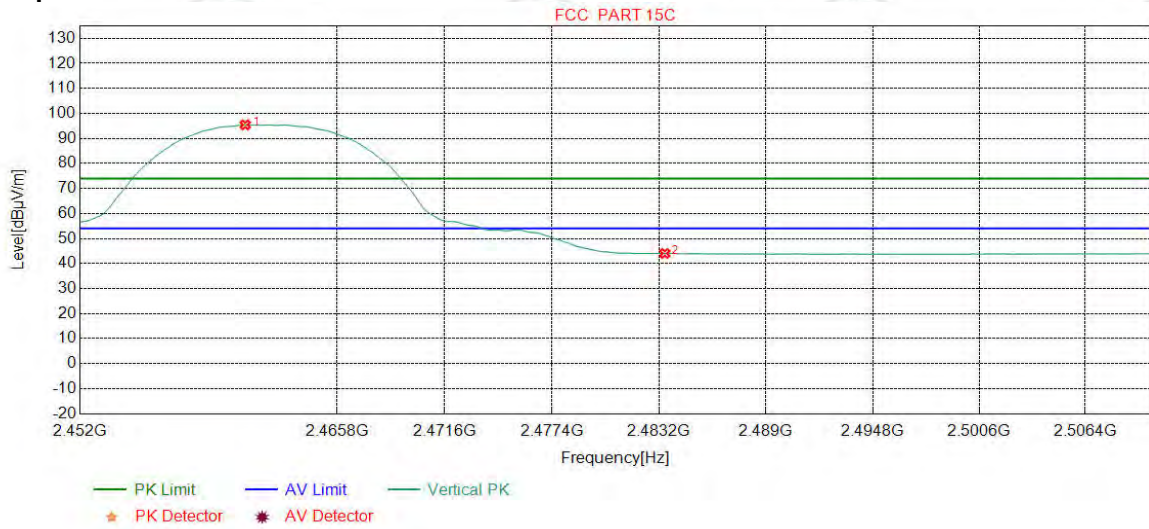
**Test Graph**



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	2462.3079	32.35	13.47	-42.41	95.85	99.26	54.00	-45.26	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	41.35	44.71	54.00	9.29	Pass	Horizontal

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

**Test Graph**

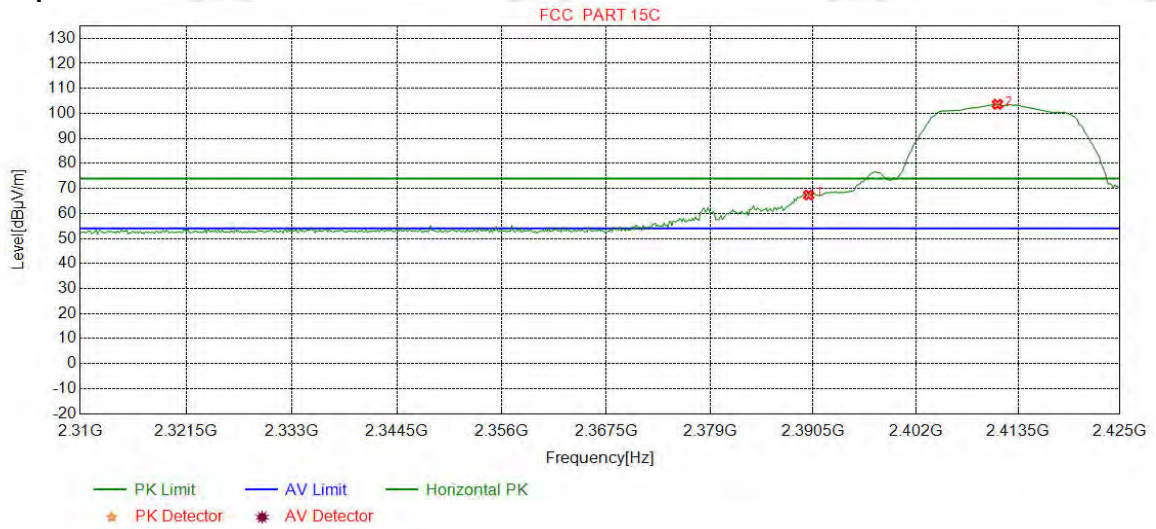


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2460.8561	32.35	13.48	-42.41	92.00	95.42	54.00	-41.42	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	40.67	44.03	54.00	9.97	Pass	Vertical



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

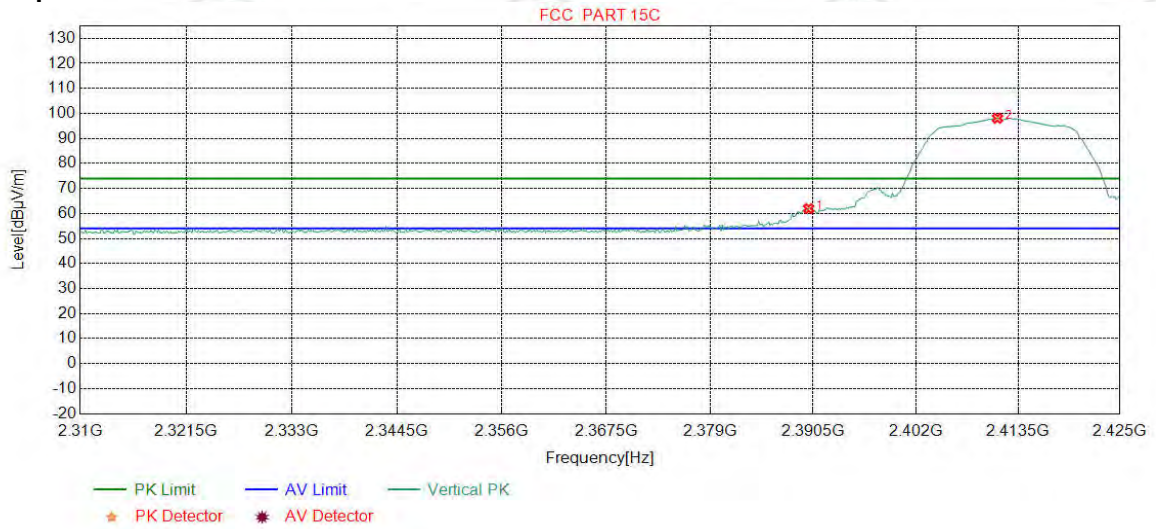
**Test Graph**



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	64.19	67.37	74.00	6.63	Pass	Horizontal
2	2411.1827	32.28	13.35	-42.43	100.44	103.64	74.00	-29.64	Pass	Horizontal

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

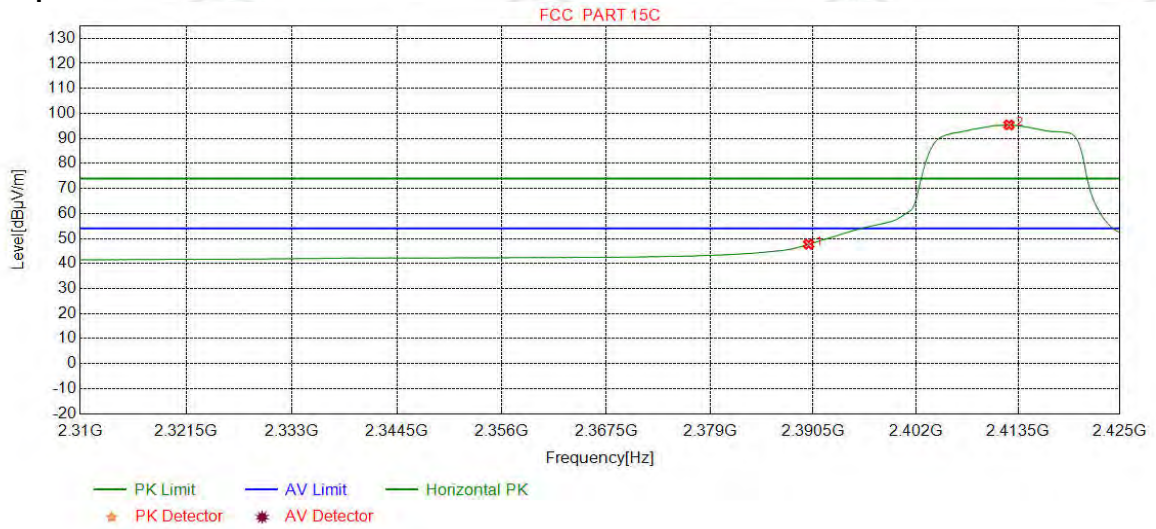
**Test Graph**



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	58.76	61.94	74.00	12.06	Pass	Vertical
2	2411.1827	32.28	13.35	-42.43	94.86	98.06	74.00	-24.06	Pass	Vertical

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

**Test Graph**

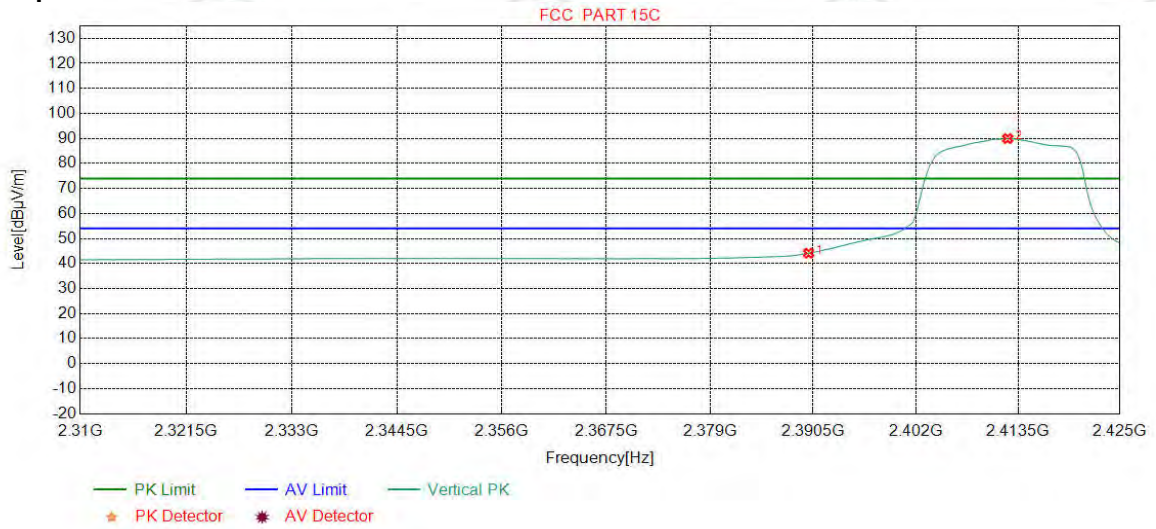


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	44.53	47.71	54.00	6.29	Pass	Horizontal
2	2412.4781	32.28	13.36	-42.43	92.21	95.42	54.00	-41.42	Pass	Horizontal



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

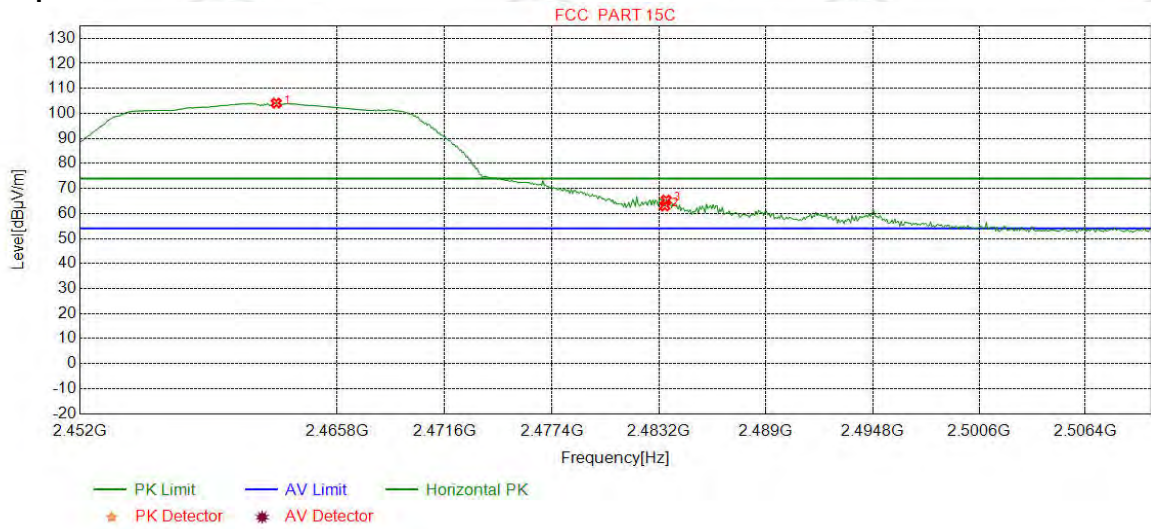
**Test Graph**



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	40.95	44.13	54.00	9.87	Pass	Vertical
2	2412.3342	32.28	13.36	-42.43	86.73	89.94	54.00	-35.94	Pass	Vertical

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

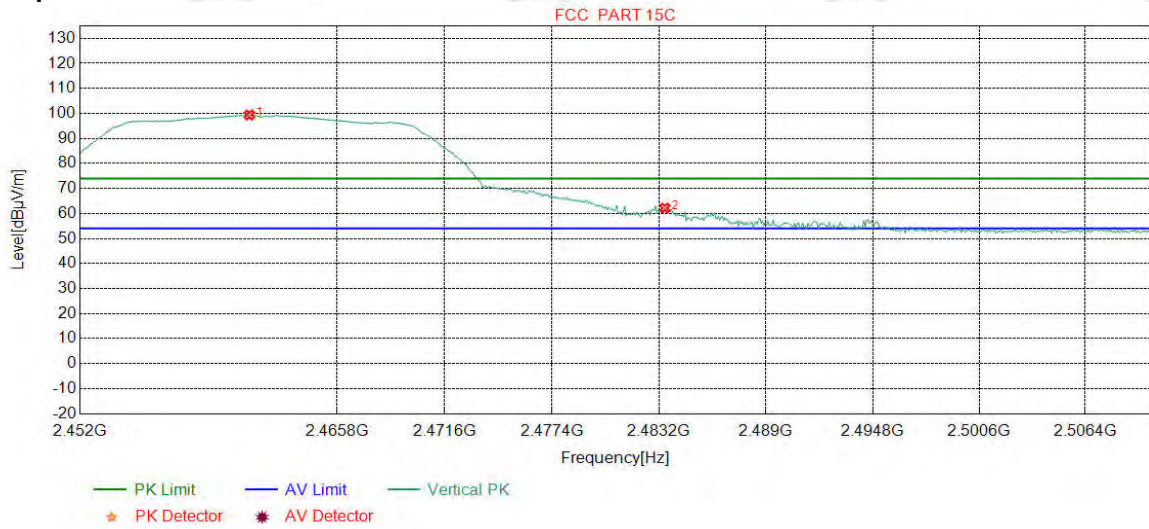
**Test Graph**



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	2462.5257	32.35	13.47	-42.41	100.71	104.12	74.00	-30.12	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	59.63	62.99	74.00	11.01	Pass	Horizontal
3	2483.5770	32.38	13.38	-42.40	62.00	65.36	74.00	8.64	Pass	Horizontal

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

**Test Graph**

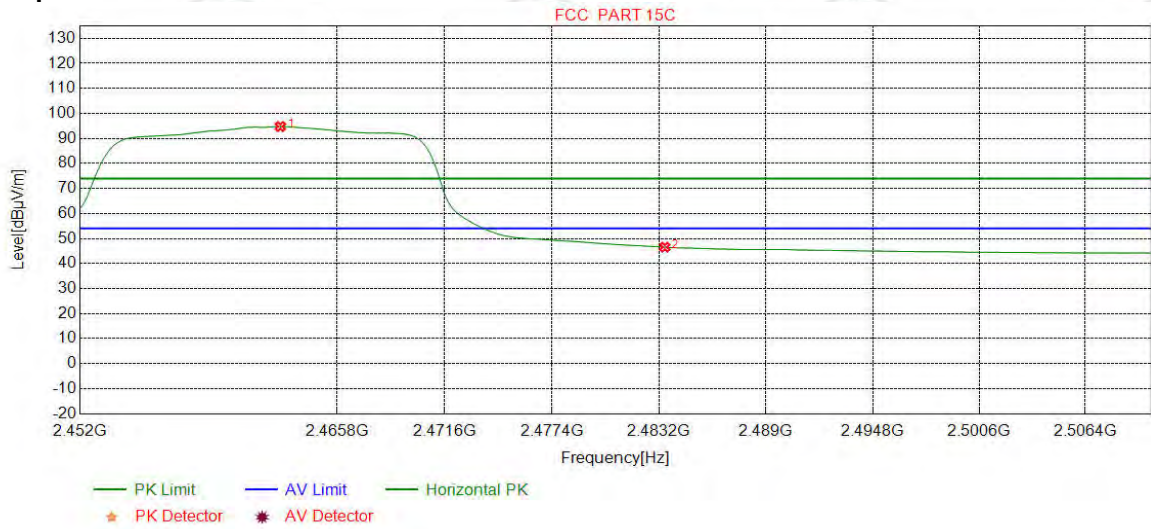


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2461.0738	32.35	13.48	-42.41	95.94	99.36	74.00	-25.36	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	58.83	62.19	74.00	11.81	Pass	Vertical



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

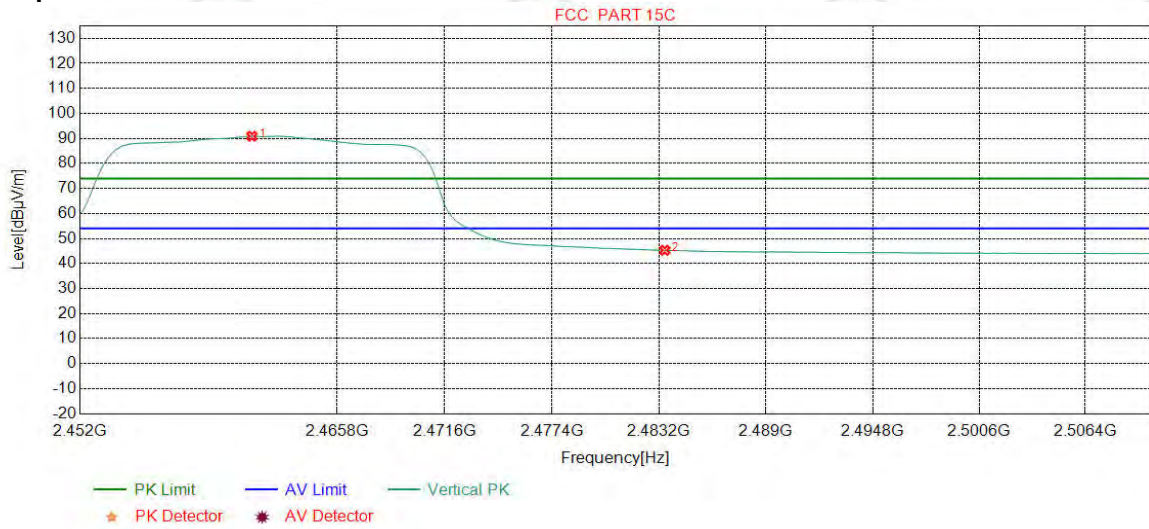
**Test Graph**



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	2462.7434	32.35	13.47	-42.41	91.35	94.76	54.00	-40.76	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	43.17	46.53	54.00	7.47	Pass	Horizontal

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

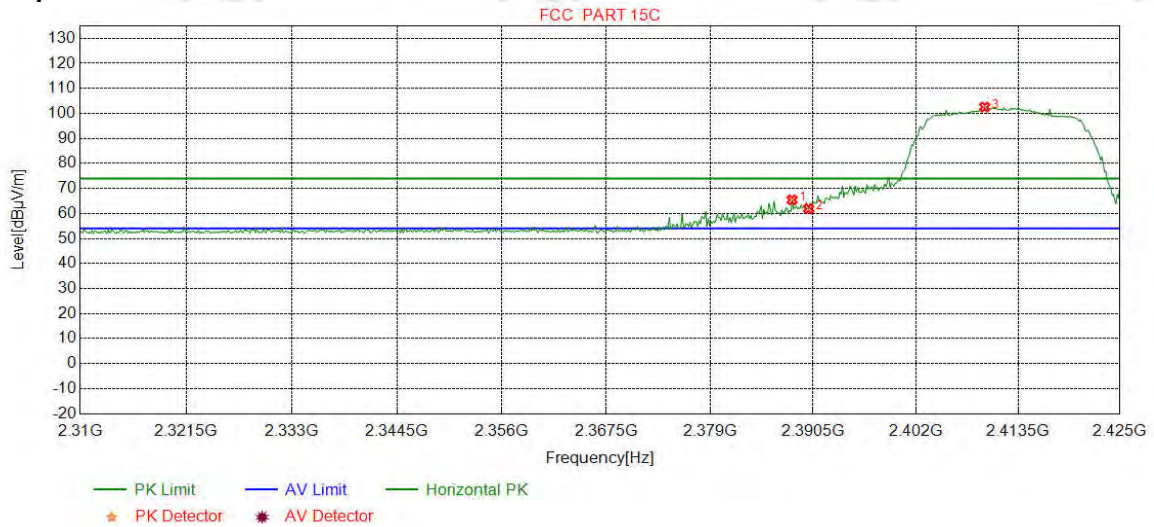
**Test Graph**



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	2461.2190	32.35	13.48	-42.41	87.46	90.88	54.00	-36.88	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	41.93	45.29	54.00	8.71	Pass	Vertical

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

**Test Graph**

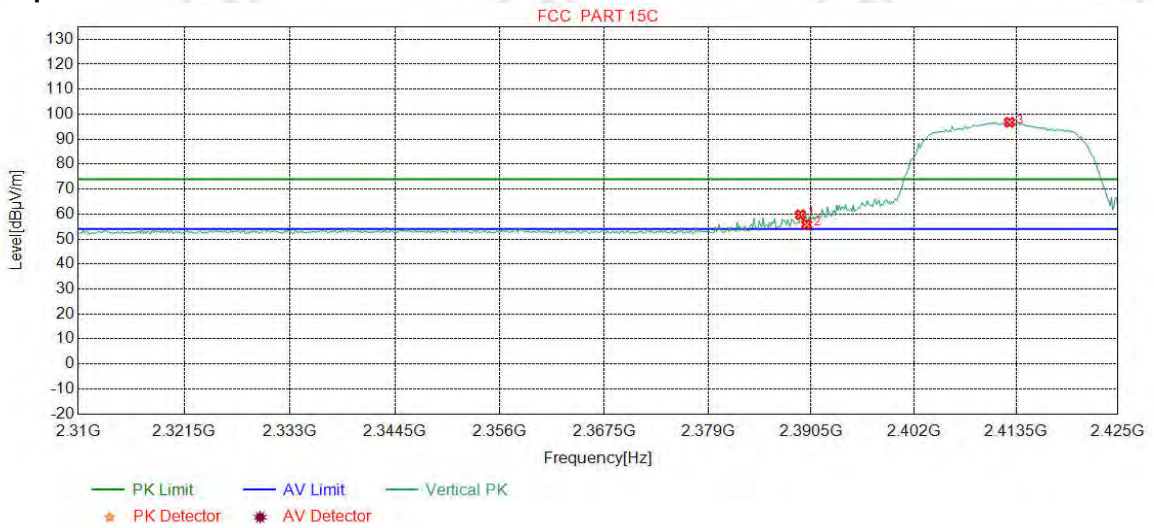


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2388.1539	32.24	13.39	-42.44	62.27	65.46	74.00	8.54	Pass	Horizontal
2	2390.0000	32.25	13.37	-42.44	58.71	61.89	74.00	12.11	Pass	Horizontal
3	2409.7434	32.27	13.34	-42.42	99.34	102.53	74.00	-28.53	Pass	Horizontal



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

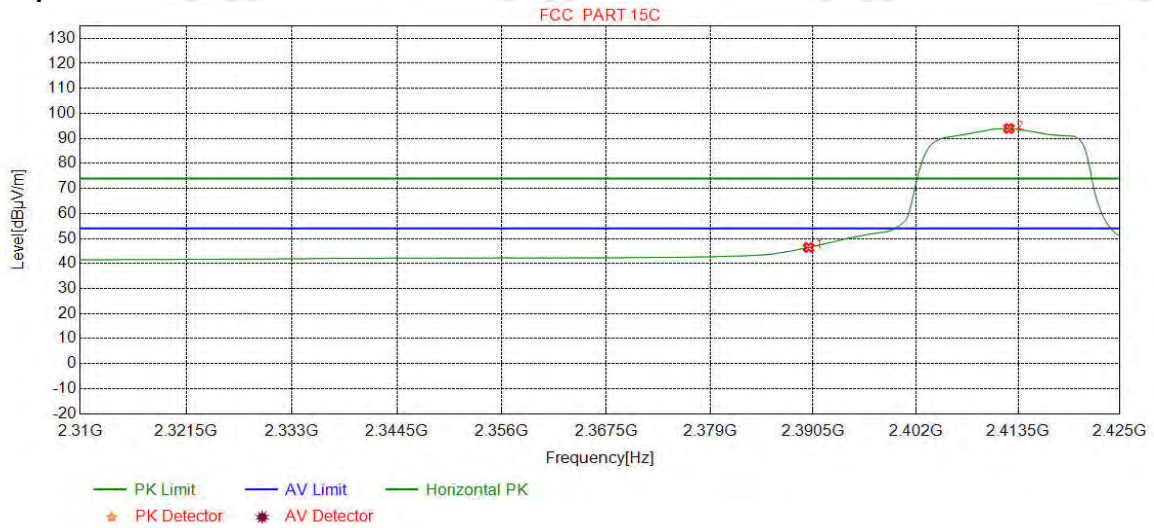
**Test Graph**



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	2389.3054	32.25	13.38	-42.44	56.54	59.73	74.00	14.27	Pass	Vertical
2	2390.0000	32.25	13.37	-42.44	52.69	55.87	74.00	18.13	Pass	Vertical
3	2412.7660	32.28	13.36	-42.43	93.54	96.75	74.00	-22.75	Pass	Vertical

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

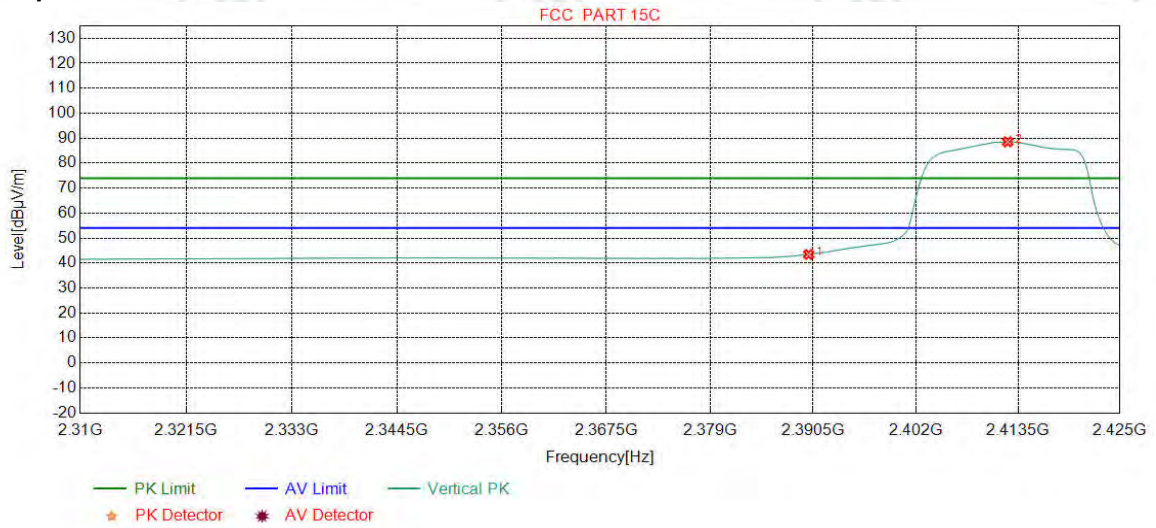
**Test Graph**



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	43.23	46.41	54.00	7.59	Pass	Horizontal
2	2412.4781	32.28	13.36	-42.43	90.76	93.97	54.00	-39.97	Pass	Horizontal

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

**Test Graph**

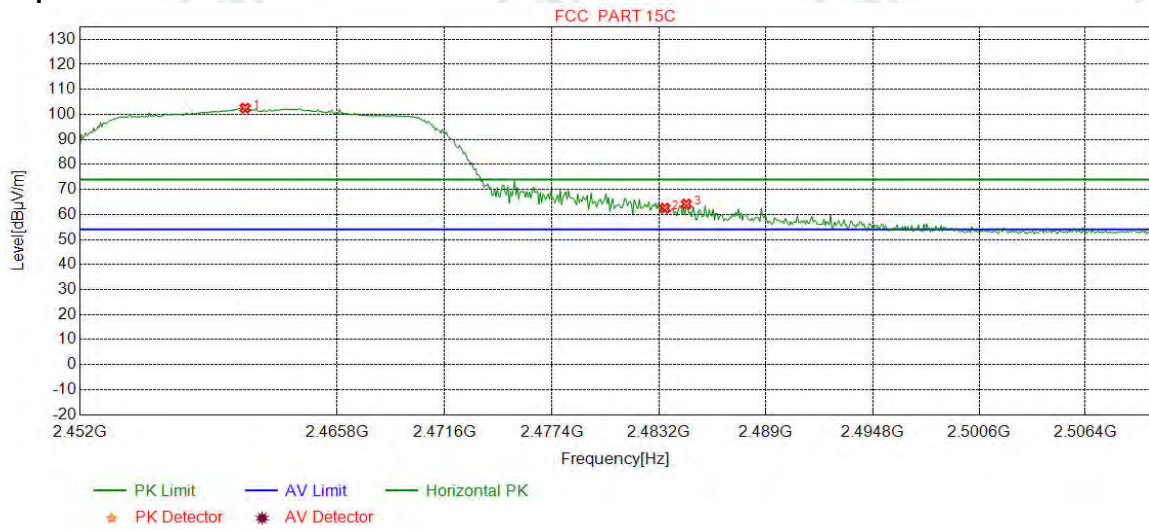


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	40.27	43.45	54.00	10.55	Pass	Vertical
2	2412.3342	32.28	13.36	-42.43	85.34	88.55	54.00	-34.55	Pass	Vertical



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

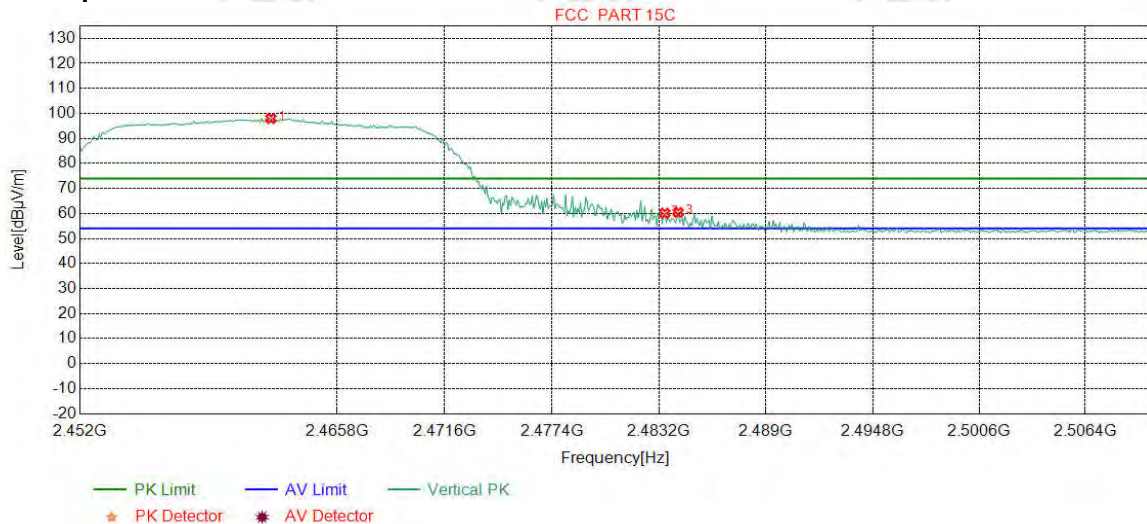
**Test Graph**



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	2460.8561	32.35	13.48	-42.41	99.09	102.51	74.00	-28.51	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	59.14	62.50	74.00	11.50	Pass	Horizontal
3	2484.6658	32.38	13.37	-42.40	60.81	64.16	74.00	9.84	Pass	Horizontal

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

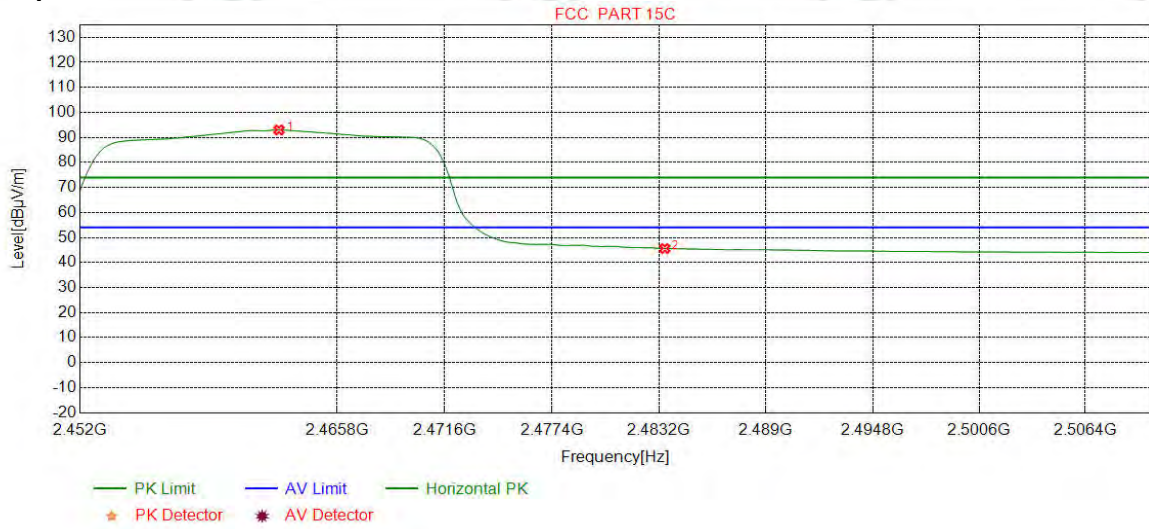
**Test Graph**



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	2462.2353	32.35	13.47	-42.41	94.53	97.94	74.00	-23.94	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	56.73	60.09	74.00	13.91	Pass	Vertical
3	2484.2303	32.38	13.37	-42.40	57.09	60.44	74.00	13.56	Pass	Vertical

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

**Test Graph**

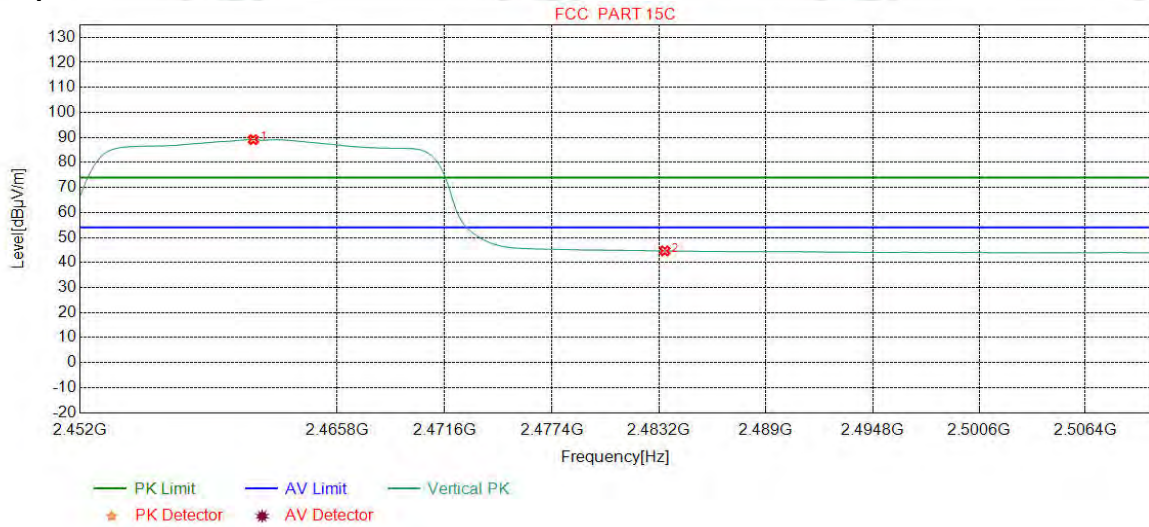


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2462.6708	32.35	13.47	-42.41	89.59	93.00	54.00	-39.00	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	42.25	45.61	54.00	8.39	Pass	Horizontal



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

**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	2461.2916	32.35	13.48	-42.41	85.71	89.13	54.00	-35.13	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	41.27	44.63	54.00	9.37	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; 6Mbps of rate is the worst case of 802.11g; 6.5Mbps of rate is the worst case of 802.11n(HT20) ; 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

<b>Receiver Setup:</b>	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	
<b>Test Procedure:</b>					
<b>Below 1GHz test procedure as below:</b>					
a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. 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.					
<b>Above 1GHz test procedure as below:</b>					
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 (dB $\mu$ V/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:**

**Product** : Wireless Smart Audio Module  
**Model/Type reference** : A98, A98M, A98M-12, A98M-22, A98MG, A98-12, A98-22, A98G  
**Temperature** : 23℃  
**Humidity** : 54%



**Radiated Emission below 1GHz**  
**Antenna 1**

Mode:		802.11 b(11Mbps) Transmitting				Channel:		2412		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	59.2969	11.71	0.89	-32.04	50.83	31.39	40.00	8.61	Pass	H
2	67.5428	9.64	0.94	-32.05	54.96	33.49	40.00	6.51	Pass	H
3	73.9454	8.25	1.00	-32.06	55.96	33.15	40.00	6.85	Pass	H
4	167.0747	8.29	1.51	-31.96	57.43	35.27	43.50	8.23	Pass	H
5	234.4965	11.80	1.81	-31.90	51.11	32.82	46.00	13.18	Pass	H
6	398.4428	15.37	2.38	-31.78	48.02	33.99	46.00	12.01	Pass	H
7	35.8206	10.96	0.66	-32.11	47.03	26.54	40.00	13.46	Pass	V
8	42.6113	12.77	0.74	-32.12	45.26	26.65	40.00	13.35	Pass	V
9	55.3195	12.35	0.84	-32.07	45.52	26.64	40.00	13.36	Pass	V
10	61.4311	11.23	0.91	-32.05	47.79	27.88	40.00	12.12	Pass	V
11	67.5428	9.64	0.94	-32.05	50.59	29.12	40.00	10.88	Pass	V
12	282.6133	12.85	2.00	-31.91	45.87	28.81	46.00	17.19	Pass	V

Mode:		802.11 b(11Mbps) Transmitting				Channel:		2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	61.4311	11.23	0.91	-32.05	53.42	33.51	40.00	6.49	Pass	H
2	67.5428	9.64	0.94	-32.05	54.80	33.33	40.00	6.67	Pass	H
3	73.7514	8.29	1.00	-32.07	55.47	32.69	40.00	7.31	Pass	H
4	166.2986	8.25	1.51	-31.97	56.83	34.62	43.50	8.88	Pass	H
5	233.6234	11.77	1.81	-31.90	51.48	33.16	46.00	12.84	Pass	H
6	391.7492	15.22	2.36	-31.81	47.68	33.45	46.00	12.55	Pass	H
7	35.6266	10.90	0.66	-32.12	46.29	25.73	40.00	14.27	Pass	V
8	42.6113	12.77	0.74	-32.12	46.34	27.73	40.00	12.27	Pass	V
9	57.3567	12.02	0.87	-32.06	46.28	27.11	40.00	12.89	Pass	V
10	67.5428	9.64	0.94	-32.05	50.30	28.83	40.00	11.17	Pass	V
11	208.8859	11.13	1.71	-31.94	46.76	27.66	43.50	15.84	Pass	V
12	282.6133	12.85	2.00	-31.91	45.71	28.65	46.00	17.35	Pass	V

Mode:		802.11 b(11Mbps) Transmitting				Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	61.4311	11.23	0.91	-32.05	53.47	33.56	40.00	6.44	Pass	H
2	67.5428	9.64	0.94	-32.05	53.90	32.43	40.00	7.57	Pass	H
3	73.7514	8.29	1.00	-32.07	54.91	32.13	40.00	7.87	Pass	H
4	152.8143	7.65	1.46	-32.01	58.07	35.17	43.50	8.33	Pass	H
5	167.0747	8.29	1.51	-31.96	57.67	35.51	43.50	7.99	Pass	H
6	398.0548	15.36	2.37	-31.77	50.01	35.97	46.00	10.03	Pass	H
7	42.3202	12.72	0.73	-32.11	45.53	26.87	40.00	13.13	Pass	V
8	55.2225	12.36	0.84	-32.07	45.40	26.53	40.00	13.47	Pass	V
9	65.3115	10.22	0.92	-32.04	48.89	27.99	40.00	12.01	Pass	V
10	67.6398	9.61	0.94	-32.05	50.45	28.95	40.00	11.05	Pass	V
11	208.8859	11.13	1.71	-31.94	46.60	27.50	43.50	16.00	Pass	V
12	282.6133	12.85	2.00	-31.91	45.78	28.72	46.00	17.28	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2412		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	62.6923	10.90	0.91	-32.04	53.85	33.62	40.00	6.38	Pass	H
2	67.5428	9.64	0.94	-32.05	54.92	33.45	40.00	6.55	Pass	H
3	152.0382	7.62	1.45	-32.00	57.67	34.74	43.50	8.76	Pass	H
4	164.9405	8.17	1.50	-31.97	57.33	35.03	43.50	8.47	Pass	H
5	239.3469	11.92	1.84	-31.90	50.32	32.18	46.00	13.82	Pass	H
6	282.6133	12.85	2.00	-31.91	51.00	33.94	46.00	12.06	Pass	H
7	42.3202	12.72	0.73	-32.11	45.65	26.99	40.00	13.01	Pass	V
8	55.9016	12.26	0.85	-32.08	45.84	26.87	40.00	13.13	Pass	V
9	65.5056	10.17	0.92	-32.04	49.93	28.98	40.00	11.02	Pass	V
10	67.5428	9.64	0.94	-32.05	50.69	29.22	40.00	10.78	Pass	V
11	208.8859	11.13	1.71	-31.94	46.93	27.83	43.50	15.67	Pass	V
12	649.9890	19.40	3.10	-32.07	37.22	27.65	46.00	18.35	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	55.3195	12.35	0.84	-32.07	50.68	31.80	40.00	8.20	Pass	H
2	63.3713	10.72	0.91	-32.04	53.52	33.11	40.00	6.89	Pass	H
3	67.5428	9.64	0.94	-32.05	54.23	32.76	40.00	7.24	Pass	H
4	166.9777	8.28	1.51	-31.96	57.00	34.83	43.50	8.67	Pass	H
5	240.6081	11.96	1.84	-31.90	50.89	32.79	46.00	13.21	Pass	H
6	397.4727	15.34	2.37	-31.77	45.48	31.42	46.00	14.58	Pass	H
7	42.5143	12.75	0.74	-32.11	45.76	27.14	40.00	12.86	Pass	V
8	55.3195	12.35	0.84	-32.07	45.46	26.58	40.00	13.42	Pass	V
9	62.0132	11.08	0.91	-32.05	48.14	28.08	40.00	11.92	Pass	V
10	67.5428	9.64	0.94	-32.05	49.81	28.34	40.00	11.66	Pass	V
11	208.8859	11.13	1.71	-31.94	46.92	27.82	43.50	15.68	Pass	V
12	282.6133	12.85	2.00	-31.91	45.92	28.86	46.00	17.14	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	61.4311	11.23	0.91	-32.05	54.24	34.33	40.00	5.67	Pass	H
2	73.7514	8.29	1.00	-32.07	55.35	32.57	40.00	7.43	Pass	H
3	153.2023	7.66	1.46	-32.00	57.54	34.66	43.50	8.84	Pass	H
4	160.5751	7.93	1.47	-31.97	58.17	35.60	43.50	7.90	Pass	H
5	233.4293	11.77	1.81	-31.90	52.15	33.83	46.00	12.17	Pass	H
6	394.7565	15.28	2.36	-31.78	47.44	33.30	46.00	12.70	Pass	H
7	42.4172	12.74	0.73	-32.11	45.78	27.14	40.00	12.86	Pass	V
8	55.1255	12.38	0.84	-32.08	44.95	26.09	40.00	13.91	Pass	V
9	61.4311	11.23	0.91	-32.05	47.97	28.06	40.00	11.94	Pass	V
10	67.5428	9.64	0.94	-32.05	50.21	28.74	40.00	11.26	Pass	V
11	208.8859	11.13	1.71	-31.94	46.88	27.78	43.50	15.72	Pass	V
12	282.6133	12.85	2.00	-31.91	46.11	29.05	46.00	16.95	Pass	V



Mode:		802.11 n(HT20) (6.5Mbps) 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	61.4311	11.23	0.91	-32.05	53.44	33.53	40.00	6.47	Pass	H
2	67.5428	9.64	0.94	-32.05	53.81	32.34	40.00	7.66	Pass	H
3	74.7215	8.10	1.01	-32.06	55.23	32.28	40.00	7.72	Pass	H
4	165.8136	8.22	1.50	-31.96	56.76	34.52	43.50	8.98	Pass	H
5	239.9290	11.94	1.84	-31.90	52.83	34.71	46.00	11.29	Pass	H
6	399.2189	15.38	2.38	-31.76	46.91	32.91	46.00	13.09	Pass	H
7	36.8877	11.30	0.68	-32.11	46.67	26.54	40.00	13.46	Pass	V
8	42.6113	12.77	0.74	-32.12	46.40	27.79	40.00	12.21	Pass	V
9	61.4311	11.23	0.91	-32.05	47.96	28.05	40.00	11.95	Pass	V
10	65.2145	10.24	0.92	-32.04	50.28	29.40	40.00	10.60	Pass	V
11	208.8859	11.13	1.71	-31.94	46.69	27.59	43.50	15.91	Pass	V
12	282.6133	12.85	2.00	-31.91	45.83	28.77	46.00	17.23	Pass	V

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
1	61.4311	11.23	0.91	-32.05	53.76	33.85	40.00	6.15	Pass	H
2	67.5428	9.64	0.94	-32.05	54.42	32.95	40.00	7.05	Pass	H
3	165.7166	8.21	1.50	-31.96	57.80	35.55	43.50	7.95	Pass	H
4	235.6606	11.83	1.82	-31.90	52.12	33.87	46.00	12.13	Pass	H
5	282.6133	12.85	2.00	-31.91	51.25	34.19	46.00	11.81	Pass	H
6	397.6668	15.35	2.37	-31.77	46.68	32.63	46.00	13.37	Pass	H
7	42.6113	12.77	0.74	-32.12	45.60	26.99	40.00	13.01	Pass	V
8	55.7076	12.29	0.85	-32.08	46.86	27.92	40.00	12.08	Pass	V
9	65.4085	10.19	0.92	-32.04	49.92	28.99	40.00	11.01	Pass	V
10	67.5428	9.64	0.94	-32.05	50.42	28.95	40.00	11.05	Pass	V
11	208.8859	11.13	1.71	-31.94	48.56	29.46	43.50	14.04	Pass	V
12	282.6133	12.85	2.00	-31.91	45.82	28.76	46.00	17.24	Pass	V

Mode:		802.11 n(HT20) (6.5Mbps) Transmitting				Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	58.0358	11.91	0.88	-32.06	51.03	31.76	40.00	8.24	Pass	H
2	61.4311	11.23	0.91	-32.05	52.81	32.90	40.00	7.10	Pass	H
3	67.5428	9.64	0.94	-32.05	55.05	33.58	40.00	6.42	Pass	H
4	167.2687	8.30	1.51	-31.96	57.02	34.87	43.50	8.63	Pass	H
5	235.6606	11.83	1.82	-31.90	52.27	34.02	46.00	11.98	Pass	H
6	397.5698	15.35	2.37	-31.77	47.72	33.67	46.00	12.33	Pass	H
7	42.3202	12.72	0.73	-32.11	45.99	27.33	40.00	12.67	Pass	V
8	61.4311	11.23	0.91	-32.05	47.24	27.33	40.00	12.67	Pass	V
9	65.1175	10.27	0.92	-32.04	49.55	28.70	40.00	11.30	Pass	V
10	67.5428	9.64	0.94	-32.05	50.41	28.94	40.00	11.06	Pass	V
11	208.8859	11.13	1.71	-31.94	48.05	28.95	43.50	14.55	Pass	V
12	282.6133	12.85	2.00	-31.91	45.92	28.86	46.00	17.14	Pass	V

**Antenna 2**

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	55.9016	12.26	0.85	-32.08	53.61	34.64	40.00	5.36	Pass	H
2	60.0730	11.58	0.90	-32.04	53.04	33.48	40.00	6.52	Pass	H
3	167.0747	8.29	1.51	-31.96	58.84	36.68	43.50	6.82	Pass	H
4	233.8174	11.78	1.81	-31.90	55.60	37.29	46.00	8.71	Pass	H
5	398.3458	15.36	2.38	-31.77	48.20	34.17	46.00	11.83	Pass	H
6	441.5152	16.06	2.48	-31.87	47.74	34.41	46.00	11.59	Pass	H
7	42.6113	12.77	0.74	-32.12	45.64	27.03	40.00	12.97	Pass	V
8	57.8418	11.95	0.87	-32.06	47.46	28.22	40.00	11.78	Pass	V
9	208.8859	11.13	1.71	-31.94	48.71	29.61	43.50	13.89	Pass	V
10	240.0260	11.94	1.84	-31.90	47.90	29.78	46.00	16.22	Pass	V
11	307.1567	13.36	2.08	-31.89	47.83	31.38	46.00	14.62	Pass	V
12	974.8745	22.55	3.75	-30.95	36.95	32.30	54.00	21.70	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	55.2225	12.36	0.84	-32.07	53.40	34.53	40.00	5.47	Pass	H
2	61.4311	11.23	0.91	-32.05	52.61	32.70	40.00	7.30	Pass	H
3	167.0747	8.29	1.51	-31.96	60.58	38.42	43.50	5.08	Pass	H
4	171.8282	8.55	1.54	-31.97	58.15	36.27	43.50	7.23	Pass	H
5	240.0260	11.94	1.84	-31.90	58.10	39.98	46.00	6.02	Pass	H
6	444.0374	16.10	2.49	-31.88	46.65	33.36	46.00	12.64	Pass	H
7	42.3202	12.72	0.73	-32.11	45.63	26.97	40.00	13.03	Pass	V
8	56.5807	12.15	0.86	-32.07	47.72	28.66	40.00	11.34	Pass	V
9	208.8859	11.13	1.71	-31.94	49.14	30.04	43.50	13.46	Pass	V
10	233.4293	11.77	1.81	-31.90	48.79	30.47	46.00	15.53	Pass	V
11	307.1567	13.36	2.08	-31.89	47.71	31.26	46.00	14.74	Pass	V
12	960.0320	22.46	3.71	-31.09	37.46	32.54	54.00	21.46	Pass	V



Mode:		802.11 b(11Mbps) Transmitting				Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	42.9993	12.84	0.74	-32.12	48.62	30.08	40.00	9.92	Pass	H
2	55.8046	12.27	0.85	-32.07	53.63	34.68	40.00	5.32	Pass	H
3	61.4311	11.23	0.91	-32.05	51.91	32.00	40.00	8.00	Pass	H
4	167.0747	8.29	1.51	-31.96	58.84	36.68	43.50	6.82	Pass	H
5	233.5264	11.77	1.81	-31.90	56.03	37.71	46.00	8.29	Pass	H
6	307.1567	13.36	2.08	-31.89	49.99	33.54	46.00	12.46	Pass	H
7	42.4172	12.74	0.73	-32.11	45.61	26.97	40.00	13.03	Pass	V
8	57.3567	12.02	0.87	-32.06	47.17	28.00	40.00	12.00	Pass	V
9	61.9162	11.10	0.91	-32.04	44.62	24.59	40.00	15.41	Pass	V
10	208.8859	11.13	1.71	-31.94	48.54	29.44	43.50	14.06	Pass	V
11	239.9290	11.94	1.84	-31.90	49.28	31.16	46.00	14.84	Pass	V
12	307.1567	13.36	2.08	-31.89	47.72	31.27	46.00	14.73	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2412		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	37.3727	11.46	0.68	-32.11	47.74	27.77	40.00	12.23	Pass	H
2	57.9388	11.93	0.88	-32.06	54.68	35.43	40.00	4.57	Pass	H
3	60.5581	11.45	0.90	-32.03	53.63	33.95	40.00	6.05	Pass	H
4	167.0747	8.29	1.51	-31.96	59.42	37.26	43.50	6.24	Pass	H
5	237.9888	11.89	1.83	-31.90	55.67	37.49	46.00	8.51	Pass	H
6	439.1869	16.03	2.48	-31.88	46.12	32.75	46.00	13.25	Pass	H
7	35.5296	10.87	0.66	-32.12	44.48	23.89	40.00	16.11	Pass	V
8	42.4172	12.74	0.73	-32.11	45.55	26.91	40.00	13.09	Pass	V
9	56.6777	12.13	0.86	-32.06	46.74	27.67	40.00	12.33	Pass	V
10	208.8859	11.13	1.71	-31.94	48.03	28.93	43.50	14.57	Pass	V
11	240.0260	11.94	1.84	-31.90	47.49	29.37	46.00	16.63	Pass	V
12	307.1567	13.36	2.08	-31.89	47.97	31.52	46.00	14.48	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	37.4697	11.49	0.68	-32.11	49.32	29.38	40.00	10.62	Pass	H
2	55.8046	12.27	0.85	-32.07	52.78	33.83	40.00	6.17	Pass	H
3	61.4311	11.23	0.91	-32.05	52.08	32.17	40.00	7.83	Pass	H
4	166.9777	8.28	1.51	-31.96	59.55	37.38	43.50	6.12	Pass	H
5	239.9290	11.94	1.84	-31.90	56.44	38.32	46.00	7.68	Pass	H
6	432.6873	15.92	2.46	-31.84	46.81	33.35	46.00	12.65	Pass	H
7	42.3202	12.72	0.73	-32.11	45.13	26.47	40.00	13.53	Pass	V
8	55.9016	12.26	0.85	-32.08	47.10	28.13	40.00	11.87	Pass	V
9	208.8859	11.13	1.71	-31.94	48.43	29.33	43.50	14.17	Pass	V
10	240.0260	11.94	1.84	-31.90	47.19	29.07	46.00	16.93	Pass	V
11	307.1567	13.36	2.08	-31.89	47.76	31.31	46.00	14.69	Pass	V
12	649.9890	19.40	3.10	-32.07	37.78	28.21	46.00	17.79	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	42.9993	12.84	0.74	-32.12	46.31	27.77	40.00	12.23	Pass	H
2	55.7076	12.29	0.85	-32.08	53.86	34.92	40.00	5.08	Pass	H
3	57.9388	11.93	0.88	-32.06	52.77	33.52	40.00	6.48	Pass	H
4	167.1717	8.29	1.51	-31.96	58.07	35.91	43.50	7.59	Pass	H
5	233.8174	11.78	1.81	-31.90	55.53	37.22	46.00	8.78	Pass	H
6	437.4407	16.00	2.47	-31.86	46.90	33.51	46.00	12.49	Pass	H
7	42.9993	12.84	0.74	-32.12	45.22	26.68	40.00	13.32	Pass	V
8	55.5136	12.32	0.85	-32.08	47.37	28.46	40.00	11.54	Pass	V
9	73.7514	8.29	1.00	-32.07	47.12	24.34	40.00	15.66	Pass	V
10	240.0260	11.94	1.84	-31.90	48.12	30.00	46.00	16.00	Pass	V
11	307.1567	13.36	2.08	-31.89	47.94	31.49	46.00	14.51	Pass	V
12	649.9890	19.40	3.10	-32.07	38.61	29.04	46.00	16.96	Pass	V

Mode:		802.11 n(HT20) (6.5Mbps) Transmitting				Channel:		2412		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	39.2159	12.05	0.71	-32.11	47.50	28.15	40.00	11.85	Pass	H
2	55.3195	12.35	0.84	-32.07	53.16	34.28	40.00	5.72	Pass	H
3	56.6777	12.13	0.86	-32.06	52.68	33.61	40.00	6.39	Pass	H
4	172.5073	8.59	1.54	-31.97	57.46	35.62	43.50	7.88	Pass	H
5	233.4293	11.77	1.81	-31.90	56.22	37.90	46.00	8.10	Pass	H
6	439.8660	16.04	2.48	-31.88	46.46	33.10	46.00	12.90	Pass	H
7	42.3202	12.72	0.73	-32.11	45.82	27.16	40.00	12.84	Pass	V
8	58.0358	11.91	0.88	-32.06	48.19	28.92	40.00	11.08	Pass	V
9	208.8859	11.13	1.71	-31.94	48.18	29.08	43.50	14.42	Pass	V
10	240.0260	11.94	1.84	-31.90	48.16	30.04	46.00	15.96	Pass	V
11	307.1567	13.36	2.08	-31.89	47.58	31.13	46.00	14.87	Pass	V
12	649.9890	19.40	3.10	-32.07	37.60	28.03	46.00	17.97	Pass	V

Mode:		802.11 n(HT20) (6.5Mbps) Transmitting				Channel:		2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	55.8046	12.27	0.85	-32.07	53.49	34.54	40.00	5.46	Pass	H
2	62.6923	10.90	0.91	-32.04	53.45	33.22	40.00	6.78	Pass	H
3	166.3956	8.25	1.51	-31.97	58.24	36.03	43.50	7.47	Pass	H
4	175.2235	8.74	1.56	-31.98	56.75	35.07	43.50	8.43	Pass	H
5	233.1383	11.76	1.81	-31.90	55.52	37.19	46.00	8.81	Pass	H
6	307.1567	13.36	2.08	-31.89	49.54	33.09	46.00	12.91	Pass	H
7	42.5143	12.75	0.74	-32.11	45.57	26.95	40.00	13.05	Pass	V
8	57.3567	12.02	0.87	-32.06	46.79	27.62	40.00	12.38	Pass	V
9	208.8859	11.13	1.71	-31.94	48.55	29.45	43.50	14.05	Pass	V
10	231.2951	11.71	1.80	-31.90	47.99	29.60	46.00	16.40	Pass	V
11	307.1567	13.36	2.08	-31.89	47.70	31.25	46.00	14.75	Pass	V
12	844.9785	21.44	3.50	-31.82	35.56	28.68	46.00	17.32	Pass	V



Mode:		802.11 n(HT20) (6.5Mbps) Transmitting				Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	57.2597	12.04	0.87	-32.07	53.00	33.84	40.00	6.16	Pass	H
2	73.9454	8.25	1.00	-32.06	52.50	29.69	40.00	10.31	Pass	H
3	167.0747	8.29	1.51	-31.96	58.09	35.93	43.50	7.57	Pass	H
4	231.6832	11.72	1.80	-31.90	55.64	37.26	46.00	8.74	Pass	H
5	399.0249	15.38	2.38	-31.77	47.10	33.09	46.00	12.91	Pass	H
6	960.0320	22.46	3.71	-31.09	40.96	36.04	54.00	17.96	Pass	H
7	42.3202	12.72	0.73	-32.11	45.39	26.73	40.00	13.27	Pass	V
8	56.6777	12.13	0.86	-32.06	47.20	28.13	40.00	11.87	Pass	V
9	240.0260	11.94	1.84	-31.90	49.13	31.01	46.00	14.99	Pass	V
10	307.1567	13.36	2.08	-31.89	47.93	31.48	46.00	14.52	Pass	V
11	649.9890	19.40	3.10	-32.07	38.44	28.87	46.00	17.13	Pass	V
12	960.0320	22.46	3.71	-31.09	37.79	32.87	54.00	21.13	Pass	V

**Transmitter Emission above 1GHz  
 Antenna 1**

Mode:		802.11 b(11Mbps) Transmitting				Channel:		2412	Remark: Peak	
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	1440.6441	28.34	2.94	-42.67	57.44	46.05	74.00	27.95	Pass	H
2	1919.6920	31.17	3.42	-42.65	57.33	49.27	74.00	24.73	Pass	H
3	4824.0000	34.50	4.61	-40.65	43.84	42.30	74.00	31.70	Pass	H
4	7236.0000	36.34	5.79	-40.99	42.94	44.08	74.00	29.92	Pass	H
5	9648.0000	37.66	6.72	-40.73	42.46	46.11	74.00	27.89	Pass	H
6	11795.5864	39.14	7.46	-41.28	47.29	52.61	74.00	21.39	Pass	H
7	1438.4438	28.34	2.94	-42.68	54.10	42.70	74.00	31.30	Pass	V
8	1918.4918	31.16	3.42	-42.65	52.55	44.48	74.00	29.52	Pass	V
9	4824.0000	34.50	4.61	-40.65	43.73	42.19	74.00	31.81	Pass	V
10	7236.0000	36.34	5.79	-40.99	43.87	45.01	74.00	28.99	Pass	V
11	9648.0000	37.66	6.72	-40.73	42.54	46.19	74.00	27.81	Pass	V
12	11680.5787	39.04	7.47	-41.31	46.34	51.54	74.00	22.46	Pass	V

Mode:		802.11 b(11Mbps) Transmitting				Channel:		2437	Remark: Peak	
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	1441.8442	28.34	2.94	-42.67	58.08	46.69	74.00	27.31	Pass	H
2	1919.6920	31.17	3.42	-42.65	56.48	48.42	74.00	25.58	Pass	H
3	4874.0000	34.50	4.78	-40.61	44.28	42.95	74.00	31.05	Pass	H
4	7311.0000	36.41	5.85	-40.93	43.21	44.54	74.00	29.46	Pass	H
5	9748.0000	37.70	6.77	-40.63	42.18	46.02	74.00	27.98	Pass	H
6	11792.5862	39.13	7.46	-41.27	46.51	51.83	74.00	22.17	Pass	H
7	1438.0438	28.34	2.94	-42.68	53.08	41.68	74.00	32.32	Pass	V
8	1921.0921	31.18	3.42	-42.65	52.55	44.50	74.00	29.50	Pass	V
9	4874.0000	34.50	4.78	-40.61	44.07	42.74	74.00	31.26	Pass	V
10	7311.0000	36.41	5.85	-40.93	43.70	45.03	74.00	28.97	Pass	V
11	9748.0000	37.70	6.77	-40.63	42.23	46.07	74.00	27.93	Pass	V
12	12271.6181	39.46	7.72	-41.15	46.95	52.98	74.00	21.02	Pass	V

Mode:		802.11 b(11Mbps) Transmitting				Channel:		2462	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	1437.2437	28.34	2.94	-42.68	57.38	45.98	74.00	28.02	Pass	H
2	1920.0920	31.17	3.42	-42.65	57.09	49.03	74.00	24.97	Pass	H
3	4924.0000	34.50	4.85	-40.56	44.28	43.07	74.00	30.93	Pass	H
4	7386.0000	36.49	5.85	-40.87	53.49	54.96	74.00	19.04	Pass	H
5	9848.0000	37.74	6.83	-40.54	41.91	45.94	74.00	28.06	Pass	H
6	11686.5791	39.05	7.48	-41.32	47.32	52.53	74.00	21.47	Pass	H

Mode:		802.11 b(11Mbps) Transmitting				Channel:		2462	Remark: Average	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	7386.00	36.49	5.85	-40.87	30.12	31.59	54.00	22.41	Pass	H

Mode:		802.11 b(11Mbps) Transmitting				Channel:		2462	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	1438.2438	28.34	2.94	-42.68	53.87	42.47	74.00	31.53	Pass	V
2	1920.2920	31.17	3.42	-42.65	52.02	43.96	74.00	30.04	Pass	V
3	4924.0000	34.50	4.85	-40.56	45.91	44.70	74.00	29.30	Pass	V
4	7386.0000	36.49	5.85	-40.87	55.05	56.52	74.00	17.48	Pass	V
5	9848.0000	37.74	6.83	-40.54	42.25	46.28	74.00	27.72	Pass	V
6	12273.6182	39.46	7.72	-41.15	46.39	52.42	74.00	21.58	Pass	V

Mode:		802.11 b(11Mbps) Transmitting				Channel:		2462	Remark: Average	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	7386.0000	36.49	5.85	-40.87	33.15	34.62	54.00	19.38	Pass	V



Mode:		802.11 g(6Mbps) Transmitting				Channel:		2412	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	1440.0440	28.34	2.94	-42.68	57.65	46.25	74.00	27.75	Pass	H
2	1920.4920	31.18	3.42	-42.65	56.59	48.54	74.00	25.46	Pass	H
3	4824.0000	34.50	4.61	-40.65	43.25	41.71	74.00	32.29	Pass	H
4	7236.0000	36.34	5.79	-40.99	43.84	44.98	74.00	29.02	Pass	H
5	9648.0000	37.66	6.72	-40.73	42.88	46.53	74.00	27.47	Pass	H
6	12985.6657	39.60	8.29	-41.72	46.43	52.60	74.00	21.40	Pass	H
7	1440.2440	28.34	2.94	-42.68	53.93	42.53	74.00	31.47	Pass	V
8	1917.8918	31.16	3.42	-42.65	52.67	44.60	74.00	29.40	Pass	V
9	4824.0000	34.50	4.61	-40.65	43.05	41.51	74.00	32.49	Pass	V
10	7236.0000	36.34	5.79	-40.99	43.26	44.40	74.00	29.60	Pass	V
11	9648.0000	37.66	6.72	-40.73	42.71	46.36	74.00	27.64	Pass	V
12	12371.6248	39.52	7.74	-41.12	46.34	52.48	74.00	21.52	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2437	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	1439.0439	28.34	2.94	-42.68	57.28	45.88	74.00	28.12	Pass	H
2	1921.4921	31.18	3.42	-42.65	56.55	48.50	74.00	25.50	Pass	H
3	4874.0000	34.50	4.78	-40.61	43.19	41.86	74.00	32.14	Pass	H
4	7315.2877	36.42	5.85	-40.93	53.40	54.74	74.00	19.26	Pass	H
5	9748.0000	37.70	6.77	-40.63	42.46	46.30	74.00	27.70	Pass	H
6	12408.6272	39.55	7.82	-41.12	46.36	52.61	74.00	21.39	Pass	H

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2437	Remark: Average	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	7318.4877	36.42	5.85	-40.92	32.59	33.94	54.00	20.06	Pass	H

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2437	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	1439.6440	28.34	2.94	-42.68	53.77	42.37	74.00	31.63	Pass	V
2	1919.0919	31.17	3.42	-42.65	51.72	43.66	74.00	30.34	Pass	V
3	4874.0000	34.50	4.78	-40.61	43.01	41.68	74.00	32.32	Pass	V
4	7312.2875	36.41	5.85	-40.93	53.73	55.06	74.00	18.94	Pass	V
5	9748.0000	37.70	6.77	-40.63	42.00	45.84	74.00	28.16	Pass	V
6	11694.5796	39.06	7.48	-41.31	47.04	52.27	74.00	21.73	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2437	Remark: Average	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	7316.7375	36.42	5.85	-40.92	32.70	34.05	54.00	19.95	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2462	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	1440.2440	28.34	2.94	-42.68	57.45	46.05	74.00	27.95	Pass	H
2	1919.4919	31.17	3.42	-42.65	56.32	48.26	74.00	25.74	Pass	H
3	4924.0000	34.50	4.85	-40.56	43.45	42.24	74.00	31.76	Pass	H
4	7384.2923	36.48	5.85	-40.86	65.47	66.94	74.00	7.06	Pass	H
5	9848.0000	37.74	6.83	-40.54	42.12	46.15	74.00	27.85	Pass	H
6	12877.6585	39.60	7.97	-41.58	46.80	52.79	74.00	21.21	Pass	H

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2462	Remark: Average	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	7387.5023	36.49	5.85	-40.86	39.12	40.60	54.00	13.40	Pass	H

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2462	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	1439.0439	28.34	2.94	-42.68	53.41	42.01	74.00	31.99	Pass	V
2	1918.0918	31.16	3.42	-42.65	52.60	44.53	74.00	29.47	Pass	V
3	4924.0000	34.50	4.85	-40.56	44.24	43.03	74.00	30.97	Pass	V
4	7386.0000	36.49	5.85	-40.87	64.26	65.73	74.00	8.27	Pass	V
5	9848.0000	37.74	6.83	-40.54	41.84	45.87	74.00	28.13	Pass	V
6	12570.6380	39.60	7.99	-41.20	46.45	52.84	74.00	21.16	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2462	Remark: Average	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	7388.6727	36.49	5.85	-40.86	39.14	40.62	54.00	13.38	Pass	V



Mode:		802.11 n(HT20) (6.5Mbps) Transmitting				Channel:		2412	Remark: Peak	
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	1441.8442	28.34	2.94	-42.67	58.02	46.63	74.00	27.37	Pass	H
2	1920.4920	31.18	3.42	-42.65	57.94	49.89	74.00	24.11	Pass	H
3	4824.0000	34.50	4.61	-40.65	43.24	41.70	74.00	32.30	Pass	H
4	7236.0000	36.34	5.79	-40.99	44.39	45.53	74.00	28.47	Pass	H
5	9648.0000	37.66	6.72	-40.73	43.04	46.69	74.00	27.31	Pass	H
6	12342.6228	39.51	7.66	-41.14	46.50	52.53	74.00	21.47	Pass	H
7	1438.6439	28.34	2.94	-42.68	53.46	42.06	74.00	31.94	Pass	V
8	1918.4918	31.16	3.42	-42.65	53.31	45.24	74.00	28.76	Pass	V
9	4824.0000	34.50	4.61	-40.65	42.98	41.44	74.00	32.56	Pass	V
10	7236.0000	36.34	5.79	-40.99	44.48	45.62	74.00	28.38	Pass	V
11	9648.0000	37.66	6.72	-40.73	42.52	46.17	74.00	27.83	Pass	V
12	13059.6706	39.58	8.13	-41.68	46.55	52.58	74.00	21.42	Pass	V

Mode:		802.11 n(HT20) (6.5Mbps) Transmitting				Channel:		2437	Remark: Peak	
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	1441.6442	28.34	2.94	-42.67	58.08	46.69	74.00	27.31	Pass	H
2	1919.6920	31.17	3.42	-42.65	56.58	48.52	74.00	25.48	Pass	H
3	4874.0000	34.50	4.78	-40.61	43.30	41.97	74.00	32.03	Pass	H
4	7316.2878	36.42	5.85	-40.93	52.29	53.63	74.00	20.37	Pass	H
5	9748.0000	37.70	6.77	-40.63	41.41	45.25	74.00	28.75	Pass	H
6	12588.6392	39.60	8.19	-41.21	46.12	52.70	74.00	21.30	Pass	H
7	1440.4440	28.34	2.94	-42.68	54.23	42.83	74.00	31.17	Pass	V
8	1919.2919	31.17	3.42	-42.65	52.43	44.37	74.00	29.63	Pass	V
9	4874.0000	34.50	4.78	-40.61	42.84	41.51	74.00	32.49	Pass	V
10	7317.2878	36.42	5.85	-40.93	49.41	50.75	74.00	23.25	Pass	V
11	9748.0000	37.70	6.77	-40.63	41.70	45.54	74.00	28.46	Pass	V
12	12917.6612	39.60	8.03	-41.63	46.24	52.24	74.00	21.76	Pass	V

Mode:		802.11 n(HT20) (6.5Mbps) Transmitting				Channel:		2462	Remark: Peak		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity	
1	1437.4437	28.34	2.94	-42.68	53.66	42.26	74.00	31.74	Pass	H	
2	1918.6919	31.16	3.42	-42.65	53.14	45.07	74.00	28.93	Pass	H	
3	4924.0000	34.50	4.85	-40.56	43.20	41.99	74.00	32.01	Pass	H	
4	7382.2922	36.48	5.85	-40.87	62.43	63.89	74.00	10.11	Pass	H	
5	9848.0000	37.74	6.83	-40.54	41.44	45.47	74.00	28.53	Pass	H	
6	12422.6282	39.55	7.76	-41.11	46.23	52.43	74.00	21.57	Pass	H	

Mode:		802.11 n(HT20) (6.5Mbps) Transmitting				Channel:		2462	Remark: Average		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity	
1	7387.2722	36.49	5.85	-40.86	32.90	34.38	54.00	19.62	Pass	H	

Mode:		802.11 n(HT20)(6.5Mbps)Transmitting				Channel:		2462	Remark: Peak		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity	
1	1437.4437	28.34	2.94	-42.68	53.66	42.26	74.00	31.74	Pass	V	
2	1918.6919	31.16	3.42	-42.65	53.14	45.07	74.00	28.93	Pass	V	
3	4924.0000	34.50	4.85	-40.56	43.20	41.99	74.00	32.01	Pass	V	
4	7382.2922	36.48	5.85	-40.87	62.43	63.89	74.00	10.11	Pass	V	
5	9848.0000	37.74	6.83	-40.54	41.44	45.47	74.00	28.53	Pass	V	
6	12422.6282	39.55	7.76	-41.11	46.23	52.43	74.00	21.57	Pass	V	

Mode:		802.11 n(HT20) (6.5Mbps) Transmitting				Channel:		2462	Remark:Average		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity	
1	7387.2722	36.49	5.85	-40.86	32.90	34.38	54.00	19.62	Pass	V	

**Antenna 2**

Mode:		802.11n(HT20)(6.5Mbps)Transmittg				Channel:		2462	Remark: Peak	
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	1439.4439	28.34	2.94	-42.68	57.74	46.34	74.00	27.66	Pass	H
2	1919.8920	31.17	3.42	-42.65	55.53	47.47	74.00	26.53	Pass	H
3	4824.0000	34.50	4.61	-40.65	43.12	41.58	74.00	32.42	Pass	H
4	7236.0000	36.34	5.79	-40.99	44.33	45.47	74.00	28.53	Pass	H
5	9648.0000	37.66	6.72	-40.73	43.66	47.31	74.00	26.69	Pass	H
6	13673.7116	39.50	8.23	-41.19	46.54	53.08	74.00	20.92	Pass	H
7	1440.6441	28.34	2.94	-42.67	53.19	41.80	74.00	32.20	Pass	V
8	2413.3413	32.28	3.93	-42.43	64.33	58.11	74.00	15.89	Pass	V
9	4824.0000	34.50	4.61	-40.65	43.89	42.35	74.00	31.65	Pass	V
10	7236.0000	36.34	5.79	-40.99	42.86	44.00	74.00	30.00	Pass	V
11	9648.0000	37.66	6.72	-40.73	42.51	46.16	74.00	27.84	Pass	V
12	12959.6640	39.60	8.16	-41.69	46.97	53.04	74.00	20.96	Pass	V

Mode:		802.11 b(11Mbps) Transmitting				Channel:		2437	Remark: Peak	
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	1439.0439	28.34	2.94	-42.68	58.85	47.45	74.00	26.55	Pass	H
2	1920.0920	31.17	3.42	-42.65	55.03	46.97	74.00	27.03	Pass	H
3	4874.0000	34.50	4.78	-40.61	44.05	42.72	74.00	31.28	Pass	H
4	7312.2875	36.41	5.85	-40.93	49.49	50.82	74.00	23.18	Pass	H
5	9748.0000	37.70	6.77	-40.63	42.47	46.31	74.00	27.69	Pass	H
6	13100.6734	39.56	7.94	-41.62	46.69	52.57	74.00	21.43	Pass	H
7	1438.0438	28.34	2.94	-42.68	54.28	42.88	74.00	31.12	Pass	V
8	3010.0007	33.20	4.91	-42.11	50.63	46.63	74.00	27.37	Pass	V
9	4874.0000	34.50	4.78	-40.61	43.09	41.76	74.00	32.24	Pass	V
10	7311.0000	36.41	5.85	-40.93	44.08	45.41	74.00	28.59	Pass	V
11	9748.0000	37.70	6.77	-40.63	41.74	45.58	74.00	28.42	Pass	V
12	11669.5780	39.04	7.46	-41.33	47.26	52.43	74.00	21.57	Pass	V



Mode:		802.11 b(11Mbps) Transmitting				Channel:		2462	Remark: Peak	
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	1441.6442	28.34	2.94	-42.67	58.28	46.89	74.00	27.11	Pass	H
2	1920.0920	31.17	3.42	-42.65	55.18	47.12	74.00	26.88	Pass	H
3	4924.0000	34.50	4.85	-40.56	45.19	43.98	74.00	30.02	Pass	H
4	7384.2923	36.48	5.85	-40.86	59.26	60.73	74.00	13.27	Pass	H
5	9848.0000	37.74	6.83	-40.54	41.79	45.82	74.00	28.18	Pass	H
6	12442.6295	39.57	7.68	-41.12	46.42	52.55	74.00	21.45	Pass	H

Mode:		802.11 b(11Mbps) Transmitting				Channel:		2462	Remark: Average	
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	7386.9423	36.49	5.85	-40.86	47.51	48.99	54.00	5.01	Pass	H

Mode:		802.11 b(11Mbps) Transmitting				Channel:		2462	Remark: Peak	
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	1438.2438	28.34	2.94	-42.68	54.54	43.14	74.00	30.86	Pass	V
2	1920.8921	31.18	3.42	-42.65	51.07	43.02	74.00	30.98	Pass	V
3	4924.0000	34.50	4.85	-40.56	44.23	43.02	74.00	30.98	Pass	V
4	7386.0000	36.49	5.85	-40.87	48.87	50.34	74.00	23.66	Pass	V
5	9848.0000	37.74	6.83	-40.54	42.29	46.32	74.00	27.68	Pass	V
6	12667.6445	39.60	8.05	-41.31	45.86	52.20	74.00	21.80	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2412	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	1439.4439	28.34	2.94	-42.68	57.90	46.50	74.00	27.50	Pass	H
2	1919.2919	31.17	3.42	-42.65	54.79	46.73	74.00	27.27	Pass	H
3	4824.0000	34.50	4.61	-40.65	43.38	41.84	74.00	32.16	Pass	H
4	7233.2822	36.33	5.79	-40.99	57.89	59.02	74.00	14.98	Pass	H
5	9648.0000	37.66	6.72	-40.73	42.45	46.10	74.00	27.90	Pass	H
6	12945.6630	39.60	8.10	-41.67	46.37	52.40	74.00	21.60	Pass	H

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2412	Remark: Average	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	7235.2822	36.34	5.79	-40.99	33.54	34.68	54.00	19.32	Pass	H

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2412	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	1441.0441	28.34	2.94	-42.67	54.10	42.71	74.00	31.29	Pass	V
2	1921.8922	31.18	3.42	-42.64	52.28	44.24	74.00	29.76	Pass	V
3	4824.0000	34.50	4.61	-40.65	43.40	41.86	74.00	32.14	Pass	V
4	7233.2822	36.33	5.79	-40.99	49.14	50.27	74.00	23.73	Pass	V
5	9648.0000	37.66	6.72	-40.73	42.11	45.76	74.00	28.24	Pass	V
6	12453.6302	39.57	7.65	-41.11	46.05	52.16	74.00	21.84	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2437	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	1441.4441	28.34	2.94	-42.67	57.52	46.13	74.00	27.87	Pass	H
2	1917.0917	31.15	3.42	-42.65	54.55	46.47	74.00	27.53	Pass	H
3	4874.0000	34.50	4.78	-40.61	44.19	42.86	74.00	31.14	Pass	H
4	7314.2876	36.41	5.85	-40.92	63.65	64.99	74.00	9.01	Pass	H
5	9748.0000	37.70	6.77	-40.63	41.43	45.27	74.00	28.73	Pass	H
6	11730.5820	39.08	7.48	-41.30	46.98	52.24	74.00	21.76	Pass	H

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2437	Remark: Average	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	7311.9976	36.41	5.85	-40.93	36.08	37.41	54.00	16.59	Pass	H

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2437	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	1437.8438	28.34	2.94	-42.68	53.28	41.88	74.00	32.12	Pass	V
2	2982.3982	33.17	4.50	-42.13	50.34	45.88	74.00	28.12	Pass	V
3	4874.0000	34.50	4.78	-40.61	42.89	41.56	74.00	32.44	Pass	V
4	7314.2876	36.41	5.85	-40.92	52.08	53.42	74.00	20.58	Pass	V
5	9748.0000	37.70	6.77	-40.63	42.07	45.91	74.00	28.09	Pass	V
6	11670.5780	39.04	7.46	-41.32	47.00	52.18	74.00	21.82	Pass	V



Mode:		802.11 g(6Mbps) Transmitting				Channel:		2462	Remark: Peak	
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	1437.8438	28.34	2.94	-42.68	58.03	46.63	74.00	27.37	Pass	H
2	1920.8921	31.18	3.42	-42.65	61.61	53.56	74.00	20.44	Pass	H
3	4924.0000	34.50	4.85	-40.56	42.67	41.46	74.00	32.54	Pass	H
4	7383.2922	36.48	5.85	-40.86	69.33	70.80	74.00	3.20	Pass	H
5	9848.0000	37.74	6.83	-40.54	42.30	46.33	74.00	27.67	Pass	H
6	12744.6496	39.60	7.81	-41.42	46.17	52.16	74.00	21.84	Pass	H

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2462	Remark: Average	
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	7387.4822	36.49	5.85	-40.86	40.54	42.02	54.00	11.98	Pass	H

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2462	Remark: Peak	
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	1438.2438	28.34	2.94	-42.68	53.48	42.08	74.00	31.92	Pass	V
2	1920.2920	31.17	3.42	-42.65	52.18	44.12	74.00	29.88	Pass	V
3	4924.0000	34.50	4.85	-40.56	43.22	42.01	74.00	31.99	Pass	V
4	7383.2922	36.48	5.85	-40.86	56.30	57.77	74.00	16.23	Pass	V
5	9848.0000	37.74	6.83	-40.54	42.70	46.73	74.00	27.27	Pass	V
6	12876.6584	39.60	7.97	-41.58	46.42	52.41	74.00	21.59	Pass	V

Mode:		802.11 g(6Mbps) Transmitting				Channel:		2462	Remark: Average	
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	7382.5922	36.48	5.85	-40.87	34.83	36.29	54.00	17.71	Pass	V

Mode:		802.11 n(HT20) (6.5Mbps) Transmitting				Channel:		2412	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity
1	1441.2441	28.34	2.94	-42.67	58.06	46.67	74.00	27.33	Pass	H
2	1919.8920	31.17	3.42	-42.65	55.08	47.02	74.00	26.98	Pass	H
3	4824.0000	34.50	4.61	-40.65	44.28	42.74	74.00	31.26	Pass	H
4	7232.2822	36.33	5.79	-40.99	49.00	50.13	74.00	23.87	Pass	H
5	9648.0000	37.66	6.72	-40.73	42.23	45.88	74.00	28.12	Pass	H
6	13054.6703	39.58	8.15	-41.68	46.77	52.82	74.00	21.18	Pass	H
7	1438.2438	28.34	2.94	-42.68	54.26	42.86	74.00	31.14	Pass	V
8	2074.3074	31.80	3.57	-42.57	52.38	45.18	74.00	28.82	Pass	V
9	4824.0000	34.50	4.61	-40.65	43.30	41.76	74.00	32.24	Pass	V
10	7246.2831	36.35	5.78	-40.98	46.57	47.72	74.00	26.28	Pass	V
11	9648.0000	37.66	6.72	-40.73	42.29	45.94	74.00	28.06	Pass	V
12	12982.6655	39.60	8.27	-41.71	45.98	52.14	74.00	21.86	Pass	V

Mode:		802.11 n(HT20) (6.5Mbps) Transmitting					Channel:		2437	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity	
1	1440.2440	28.34	2.94	-42.68	58.04	46.64	74.00	27.36	Pass	H	
2	1920.0920	31.17	3.42	-42.65	54.53	46.47	74.00	27.53	Pass	H	
3	4874.0000	34.50	4.78	-40.61	44.90	43.57	74.00	30.43	Pass	H	
4	7308.2872	36.41	5.85	-40.93	58.16	59.49	74.00	14.51	Pass	H	
5	9748.0000	37.70	6.77	-40.63	42.27	46.11	74.00	27.89	Pass	H	
6	13014.6676	39.59	8.30	-41.71	47.14	53.32	74.00	20.68	Pass	H	

Mode:		802.11 n(HT20) (6.5Mbps) Transmitting					Channel:		2437	Remark: Average	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity	
1	7313.0272	36.41	5.85	-40.93	32.33	33.66	54.00	20.34	Pass	H	

Mode:		802.11 n(HT20)(6.5Mbps)Transmitting					Channel:		2437	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V /m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity	
1	1437.8438	28.34	2.94	-42.68	53.21	41.81	74.00	32.19	Pass	V	
2	1920.4920	31.18	3.42	-42.65	52.05	44.00	74.00	30.00	Pass	V	
3	4874.0000	34.50	4.78	-40.61	43.71	42.38	74.00	31.62	Pass	V	
4	7319.2880	36.42	5.85	-40.92	48.64	49.99	74.00	24.01	Pass	V	
5	9748.0000	37.70	6.77	-40.63	42.19	46.03	74.00	27.97	Pass	V	
6	12593.6396	39.60	8.25	-41.22	45.11	51.74	74.00	22.26	Pass	V	



Mode:		802.11 n(HT20) (6.5Mbps) Transmitting					Channel:		2462	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity	
1	1440.8441	28.34	2.94	-42.67	58.36	46.97	74.00	27.03	Pass	H	
2	1920.0920	31.17	3.42	-42.65	54.93	46.87	74.00	27.13	Pass	H	
3	4924.0000	34.50	4.85	-40.56	43.55	42.34	74.00	31.66	Pass	H	
4	7379.2920	36.48	5.85	-40.87	65.76	67.22	74.00	6.78	Pass	H	
5	9848.0000	37.74	6.83	-40.54	41.69	45.72	74.00	28.28	Pass	H	
6	11645.5764	39.02	7.44	-41.33	46.93	52.06	74.00	21.94	Pass	H	

Mode:		802.11 n(HT20)(6.5Mbps)Transmitting					Channel:		2462	Remark: Average	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity	
1	7379.292	36.48	5.85	-40.87	48.33	49.79	54.00	4.21	Pass	H	

Mode:		802.11 n(HT20)(6.5Mbps)Transmitting					Channel:		2462	Remark: Peak	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB $\mu$ V]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Result	Polarity	
1	1440.8441	28.34	2.94	-42.67	53.48	42.09	74.00	31.91	Pass	V	
2	4924.0000	34.50	4.85	-40.56	43.47	42.26	74.00	31.74	Pass	V	
3	7381.2921	36.48	5.85	-40.87	52.14	53.60	74.00	20.40	Pass	V	
4	9848.0000	37.74	6.83	-40.54	41.39	45.42	74.00	28.58	Pass	V	
5	11718.5812	39.07	7.48	-41.30	46.76	52.01	74.00	21.99	Pass	V	
6	13638.7092	39.48	8.14	-41.19	46.80	53.23	74.00	20.77	Pass	V	

**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; 6Mbps of rate is the worst case of 802.11g; 6.5Mbps of rate is the worst case of 802.11n(HT20)

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

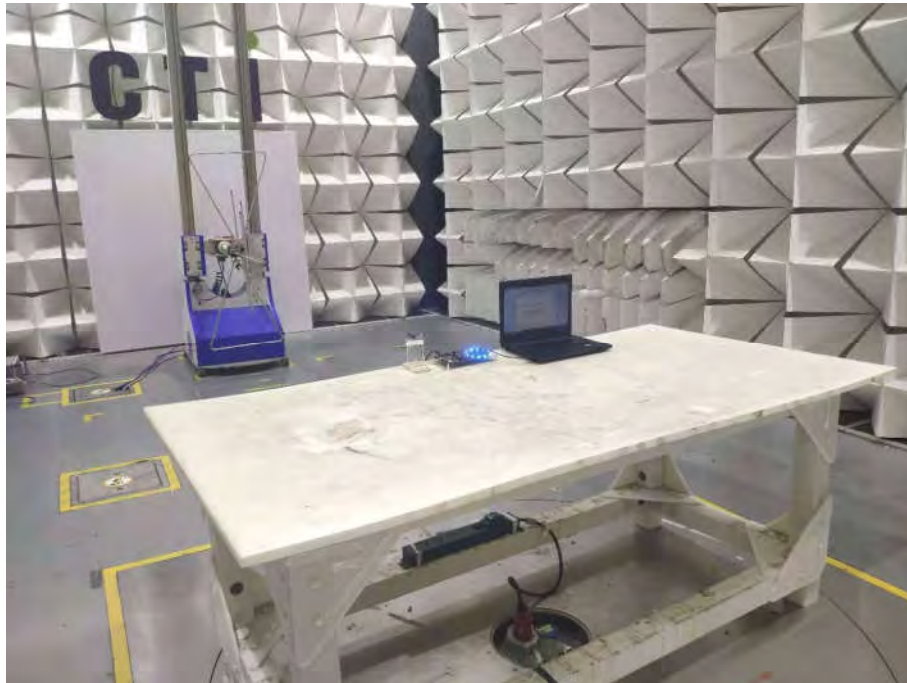
Final Test Level = Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor - Antenna Factor - Cable Factor

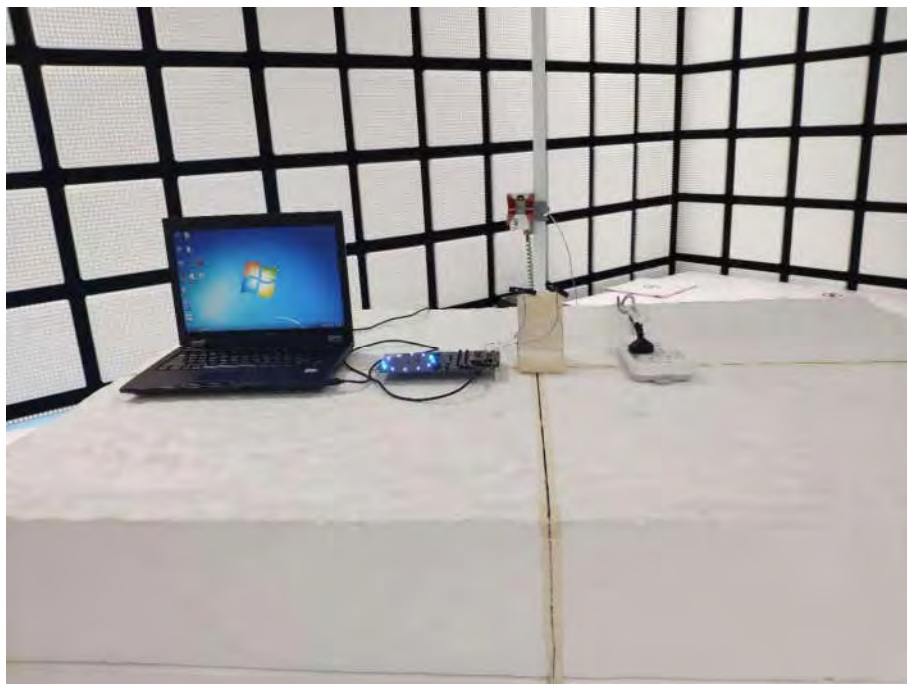
3) Scan from 9kHz to 25GHz, the disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below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

## PHOTOGRAPHS OF TEST SETUP

Test Model No.: A98



**Radiated spurious emission Test Setup-1(Below 1GHz)**



**Radiated spurious emission Test Setup-2(Above 1GHz)**



**Conducted Emissions Test Setup**