

## TEST REPORT

**Product** : 10 inch WIFI Digital Photo Frame  
**Trade mark** : N/A  
**Model/Type reference** : Skylight 2, D104S  
**Serial Number** : N/A  
**Report Number** : EED32M00246401  
**FCC ID** : 2AABK-SKYLIGHT2  
**Date of Issue** : Sep. 08, 2020  
**Test Standards** : 47 CFR Part 15Subpart C  
**Test result** : PASS

Prepared for:

**Shenzhen Chuangwei Electronic Appliance Tech Co., Ltd.**  
**4F & 6F, Overseas plant south, Skyworth Industrial Park,**  
**Shiyan Street, Bao'an District, Shenzhen, P.R. China**

Prepared by:

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Sep. 08, 2020



Sam Chuang

Check No.:3096322823

## 2 Version

Version No.	Date	Description
00	Dec. 19, 2018	Original
01	Aug.14, 2019	Add an adapter
02	Sep. 08, 2020	Change the new motherboard, adapter, and data line to change color, In this report No. EED32L00209701 all data except Band-edge for RF Conducted Emissions RF Conducted Spurious Emissions have been reverified

### 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	PASS
<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.: Skylight 2, D104S

Only the model Skylight 2 was tested, Their electrical circuit design, layout, components used and internal writing are identical, Only the modes are different.

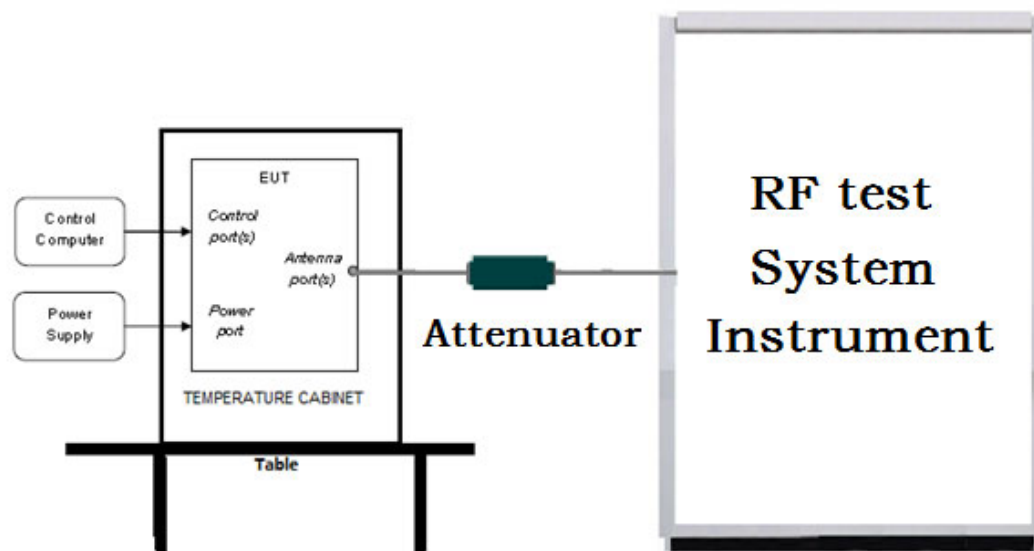
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## 5 Test Requirement

### 5.1 Test setup

#### 5.1.1 For Conducted test setup



#### 5.1.2 For Radiated Emissions test setup

Radiated Emissions setup:

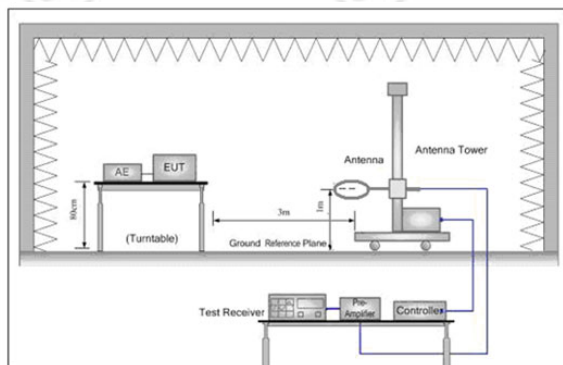


Figure 1. Below 30MHz

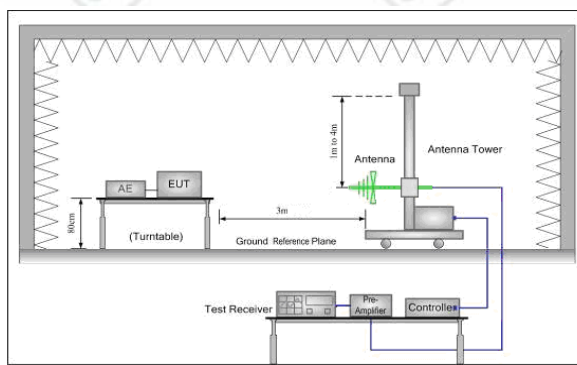


Figure 2. 30MHz to 1GHz

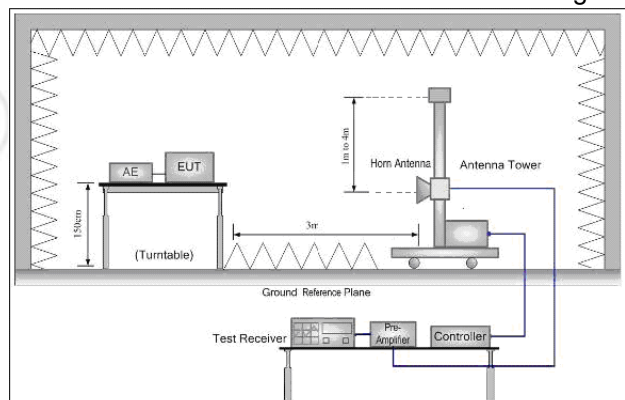
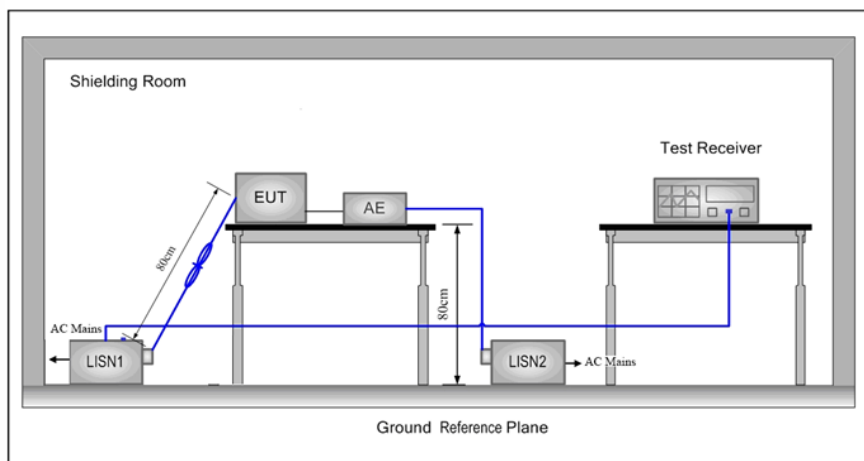


Figure 3. Above 1GHz



### 5.1.3 For Conducted Emissions test setup

#### Conducted Emissions setup



## 5.2 Test Environment

Operating Environment:	
Temperature:	24 °C
Humidity:	54 % RH
Atmospheric Pressure:	1010mbar

## 5.3 Test Condition

### Test channel:

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

Test mode:

Pre-scan under all rate at lowest channel 1

Mode	802.11b							
Data Rate	1Mbps	2Mbps	5.5Mbps	11Mbps				
Power(dBm)	12.18	12.16	12.14	12.12				
Mode	802.11g							
Data Rate	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
Power(dBm)	16.23	16.21	16.09	16.07	16.05	16.03	16.01	15.99
Mode	802.11n (HT20)							
Data Rate	6.5Mbps	13Mbps	19.5Mbps	26Mbps	39Mbps	52Mbps	58.5Mbps	65Mbps
Power(dBm)	16.08	16.06	16.04	16.02	16.00	15.98	15.96	15.94

Through Pre-scan, 1Mbps 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).

## 6 General Information

### 6.1 Client Information

Applicant:	Shenzhen Chuangwei Electronic Appliance Tech Co., Ltd.
Address of Applicant:	4F & 6F, Overseas plant south, Skyworth Industrial Park, Shiyan Street, Bao'an District, Shenzhen, P. R. China
Manufacturer:	Shenzhen Chuangwei Electronic Appliance Tech Co., Ltd.
Address of Manufacturer:	4F & 6F, Overseas plant south, Skyworth Industrial Park, Shiyan Street, Bao'an District, Shenzhen, P. R. China
Factory:	Shenzhen Chuangwei Electronic Appliance Tech Co., Ltd.
Address of Factory:	4F & 6F, Overseas plant south, Skyworth Industrial Park, Shiyan Street, Bao'an District, Shenzhen, P. R. China

### 6.2 General Description of EUT

Product Name:	10 inch WIFI Digital Photo Frame	
Model No.(EUT):	Skylight 2, D104S	
Test Model No.:	Skylight 2	
Trade Mark:	N/A	
EUT Supports Radios application:	2.4GHz Wi-Fi:802.11b/g/n(HT20): 2412MHz ~2462 MHz	
Power Supply:	AC Adapter	Model:S85A22 Input:100~240V~ 50/60Hz, 0.5A Output:5V---2A
Sample Received Date:	Aug. 14, 2020	
Sample tested Date:	Aug. 14, 2020 to Aug. 31, 2020	

### 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:	IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g :OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20) : OFDM (64QAM, 16QAM, QPSK,BPSK)
Test Power Grade:	Default
Test Software of EUT:	RFTestTool
Antenna Type:	Integral antenna
Antenna Gain:	4dBi
Test Voltage:	AC 120V, 60Hz

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



## 6.4 Description of Support Units

The EUT has been tested with associated equipment below.

Associated equipment name		Manufacturer	Model	S/N serial number	Certification	Supplied by
AE1	Notebook	DELL	DELL 3490	D245DX2	CE & FCC	DELL

## 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	Mode No.	Serial Number	Cal. Date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
Spectrum Analyzer	Keysight	N9010A	MY54510339	02-17-2020	02-16-2021
Signal Generator	Keysight	N5182B	MY53051549	02-17-2020	02-16-2021
Temperature/Humidity Indicator	biaozhi	HM10	1804186	06-29-2020	06-28-2021
High-pass filter	Sinoscite	FL3CX03WG18N M12-0398-002	---	---	---
High-pass filter	MICRO-TRONICS	SPA-F-63029-4	---	---	---
DC Power	Keysight	E3642A	MY56376072	02-17-2020	02-16-2021
PC-1	Lenovo	R4960d	---	---	---
BT&WI-FI Automatic control	R&S	OSP120	101374	02-17-2020	02-16-2021
RF control unit	JS Tonscend	JS0806-2	158060006	02-17-2020	02-16-2021
BT&WI-FI Automatic test software	JS Tonscend	JS1120-3	---	---	---

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	04-28-2020	04-27-2021
Temperature/Humidity Indicator	Defu	TH128	/	---	---
LISN	R&S	ENV216	100098	03-05-2020	03-04-2021
Barometer	changchun	DYM3	1188	---	---

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	05-23-2022
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	9163-618	05-16-2020	05-15-2021
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-076	04-25-2018	04-24-2021
Receiver	R&S	ESCI7	100938-003	10-21-2019	10-20-2020
Multi device Controller	maturo	NCD/070/107 1112	---	---	---
Temperature/ Humidity Indicator	Shanghai qixiang	HM10	1804298	06-29-2020	06-28-2021
Cable line	Fulai(7M)	SF106	5219/6A	---	---
Cable line	Fulai(6M)	SF106	5220/6A	---	---
Cable line	Fulai(3M)	SF106	5216/6A	---	---
Cable line	Fulai(3M)	SF106	5217/6A	---	---

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	---	---
Receiver	Keysight	N9038A	MY57290136	03-05-2020	03-04-2021
Spectrum Analyzer	Keysight	N9020B	MY57111112	03-05-2020	03-04-2021
Spectrum Analyzer	Keysight	N9030B	MY57140871	03-05-2020	03-04-2021
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	9163-1148	04-25-2018	04-24-2021
Horn Antenna	Schwarzbeck	BBHA 9170	9170-832	04-25-2018	04-24-2021
Horn Antenna	ETS-LINDGREN	3117	00057407	07-10-2018	07-09-2021
Preamplifier	EMCI	EMC184055SE	980596	05-20-2020	05-19-2021
Preamplifier	EMCI	EMC001330	980563	04-22-2020	04-21-2021
Preamplifier	JS Tonscend	980380	EMC051845 SE	01-09-2020	01-08-2021
Temperature/ Humidity Indicator	biaozhi	GM1360	EE1186631	04-27-2020	04-26-2021
Fully Anechoic Chamber	TDK	FAC-3	---	01-17-2018	01-16-2021
Filter bank	JS Tonscend	JS0806-F	188060094	04-10-2018	04-09-2021
Cable line	Times	SFT205-NMSM-2.50M	394812-0001	---	---
Cable line	Times	SFT205-NMSM-2.50M	394812-0002	---	---
Cable line	Times	SFT205-NMSM-2.50M	394812-0003	---	---
Cable line	Times	SFT205-NMSM-2.50M	393495-0001	---	---
Cable line	Times	EMC104-NMNM-1000	SN160710	---	---
Cable line	Times	SFT205-NMSM-3.00M	394813-0001	---	---
Cable line	Times	SFT205-NMNM-1.50M	381964-0001	---	---
Cable line	Times	SFT205-NMSM-7.00M	394815-0001	---	---
Cable line	Times	HF160-KMKM-3.00M	393493-0001	---	---

## 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	N/A
Part15C Section 15.247(d)	ANSI C63.10	RF Conducted Spurious Emissions	PASS	N/A
Part15C Section 15.247 (e)	ANSI C63.10	Power Spectral Density	PASS	Appendix C)
Part15C Section 15.203/15.247 (c)	ANSI C63.10	Antenna Requirement	PASS	Appendix D)
Part15C Section 15.207	ANSI C63.10	AC Power Line Conducted Emission	PASS	Appendix E)
Part15C Section 15.205/15.209	ANSI C63.10	Restricted bands around fundamental frequency (Radiated Emission)	PASS	Appendix F)
Part15C Section 15.205/15.209	ANSI C63.10	Radiated Spurious Emissions	PASS	Appendix G)



## Appendix A): Conducted Peak Output Power

### Test Limit

According to §15.247(b)(3),

#### Peak output power :

For systems using digital modulation in the 2400-2483.5 MHz: 1 Watt(30 dBm), base on the use of antennas with directional gain not exceed 6 dBi. If transmitting antennas of directional gain greater than 6dBi are used the peak output power the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

Limit	<input checked="" type="checkbox"/> Antenna not exceed 6 dBi : 30dBm <input type="checkbox"/> Antenna with DG greater than 6 dBi : [Limit = 30 – (DG – 6)] <input type="checkbox"/> Point-to-point operation :
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**Average output power** : For reporting purposes only.

### Test Procedure

- The EUT RF output connected to spectrum analyzer by RF cable.
- Setting maximum power transmit of EUT.
- Spectrum analyzer settings are as follows :
  - Set the RBW = 1 MHz.
  - Set the VBW  $\geq [3 \times \text{RBW}]$ .
  - Set the span  $\geq [1.5 \times \text{DTS bandwidth}]$ .
  - Detector = peak.
  - Sweep time = auto couple.
  - Trace mode = max hold.
  - Allow trace to fully stabilize.
  - Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges
- Measure and record the result in the test report.

### Test Setup

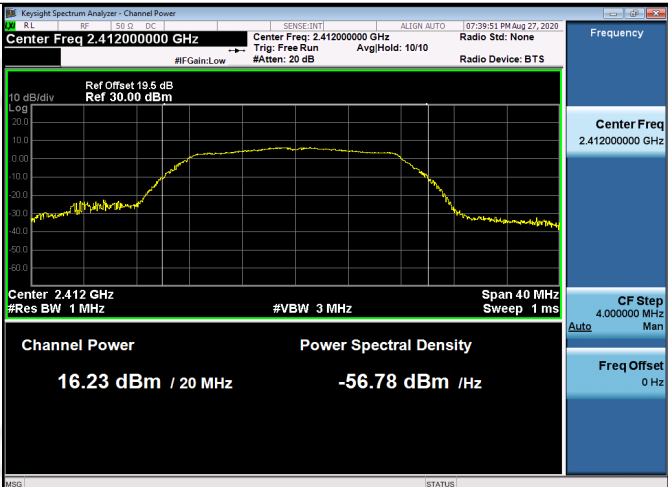
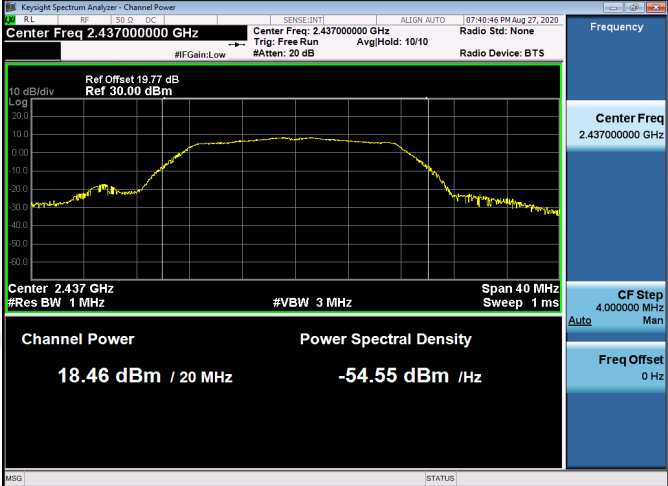
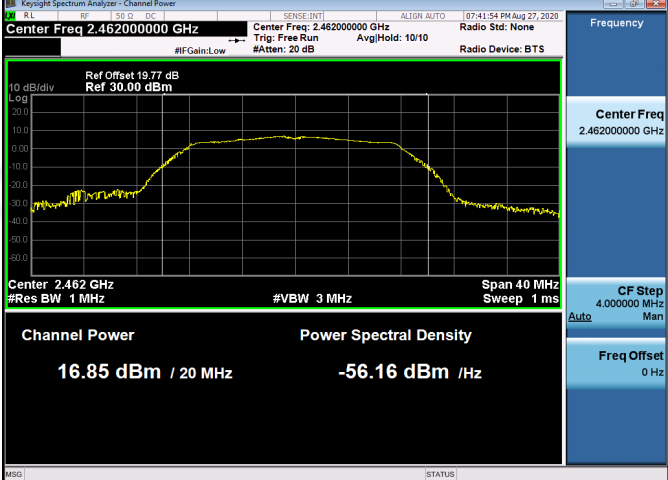


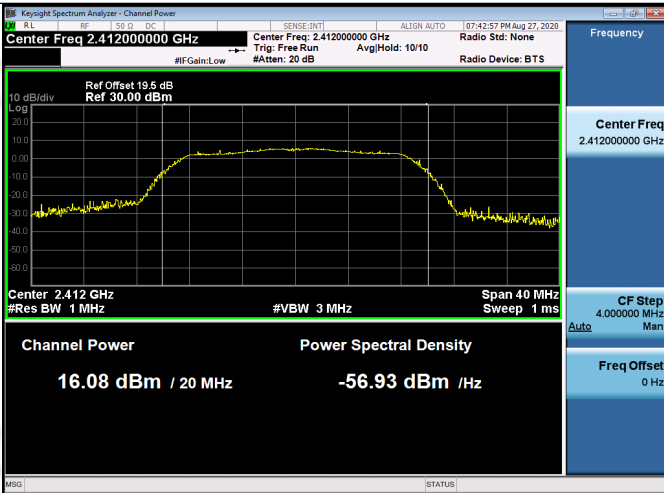
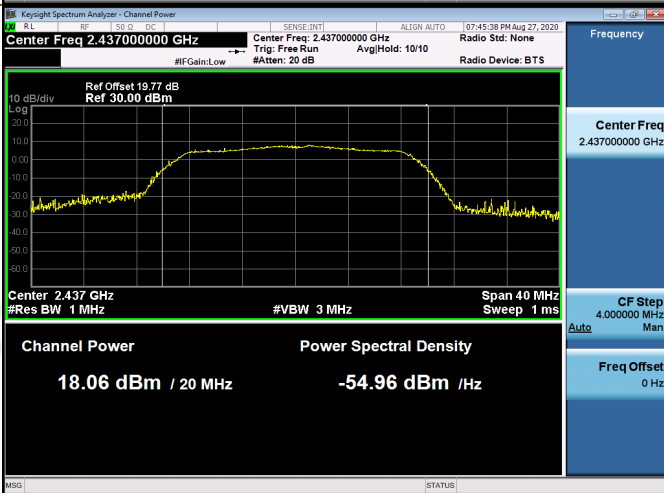
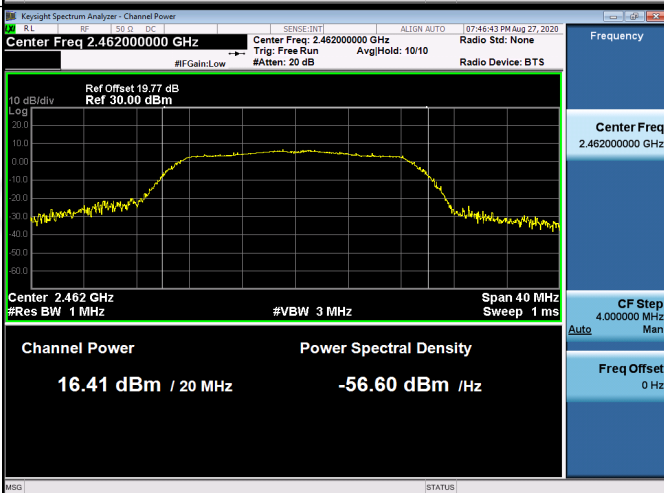
**Result Table**

Mode	Channel	Conducted Peak Output Power [dBm]	Verdict
11B	LCH	12.18	PASS
11B	MCH	14.04	PASS
11B	HCH	12.38	PASS
11G	LCH	16.23	PASS
11G	MCH	18.46	PASS
11G	HCH	16.85	PASS
11N20SISO	LCH	16.08	PASS
11N20SISO	MCH	18.06	PASS
11N20SISO	HCH	16.41	PASS

## Test Graph



11G/LCH	 <p>KeySight Spectrum Analyzer - Channel Power</p> <p>Center Freq 2.412000000 GHz</p> <p>Ref Offset 19.5 dB Ref 30.00 dBm</p> <p>Channel Power: 16.23 dBm / 20 MHz</p> <p>Power Spectral Density: -56.78 dBm / Hz</p> <p>Center Freq: 2.412 GHz</p> <p>#Res BW: 1 MHz</p> <p>#VBW: 3 MHz</p> <p>Span: 40 MHz</p> <p>Sweep: 1 ms</p>
11G/MCH	 <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: 18.46 dBm / 20 MHz</p> <p>Power Spectral Density: -54.55 dBm / Hz</p> <p>Center Freq: 2.437 GHz</p> <p>#Res BW: 1 MHz</p> <p>#VBW: 3 MHz</p> <p>Span: 40 MHz</p> <p>Sweep: 1 ms</p>
11G/HCH	 <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: 16.85 dBm / 20 MHz</p> <p>Power Spectral Density: -54.16 dBm / Hz</p> <p>Center Freq: 2.462 GHz</p> <p>#Res BW: 1 MHz</p> <p>#VBW: 3 MHz</p> <p>Span: 40 MHz</p> <p>Sweep: 1 ms</p>

11N20SISO/LCH	 <p>KeySight Spectrum Analyzer - Channel Power</p> <p>Center Freq 2.412000000 GHz</p> <p>Ref Offset 19.5 dB Ref 30.00 dBm</p> <p>Channel Power: 16.08 dBm / 20 MHz</p> <p>Power Spectral Density: -56.93 dBm / Hz</p> <p>Center 2.412 GHz #Res BW 1 MHz #VBW 3 MHz Span 40 MHz Sweep 1 ms</p>
11N20SISO/MCH	 <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: 18.06 dBm / 20 MHz</p> <p>Power Spectral Density: -54.96 dBm / Hz</p> <p>Center 2.437 GHz #Res BW 1 MHz #VBW 3 MHz Span 40 MHz Sweep 1 ms</p>
11N20SISO/HCH	 <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: 16.41 dBm / 20 MHz</p> <p>Power Spectral Density: -54.60 dBm / Hz</p> <p>Center 2.462 GHz #Res BW 1 MHz #VBW 3 MHz Span 40 MHz Sweep 1 ms</p>



## Appendix B): 6dB Occupied Bandwidth

### Test Limit

According to §15.247(a)(2),

#### 6 dB Bandwidth :

Limit	Shall be at least 500kHz
-------	--------------------------

Occupied Bandwidth(99%) : For reporting purposes only.

### Test Procedure

Test method Refer as KDB 558074 D01 and ANSI C63.10: 2013 clause 6.9.2,

1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. SA set RBW =100KHz , VBW = 300KHz and Detector = Peak, to measurement 6dB Bandwidth
4. SA set RBW = 1% ~ 5% OBW, VBW = three times the RBW and Detector = Peak, to measurement 99% Bandwidth
5. Measure and record the result of 6 dB Bandwidth and 99% Bandwidth. in the test report.

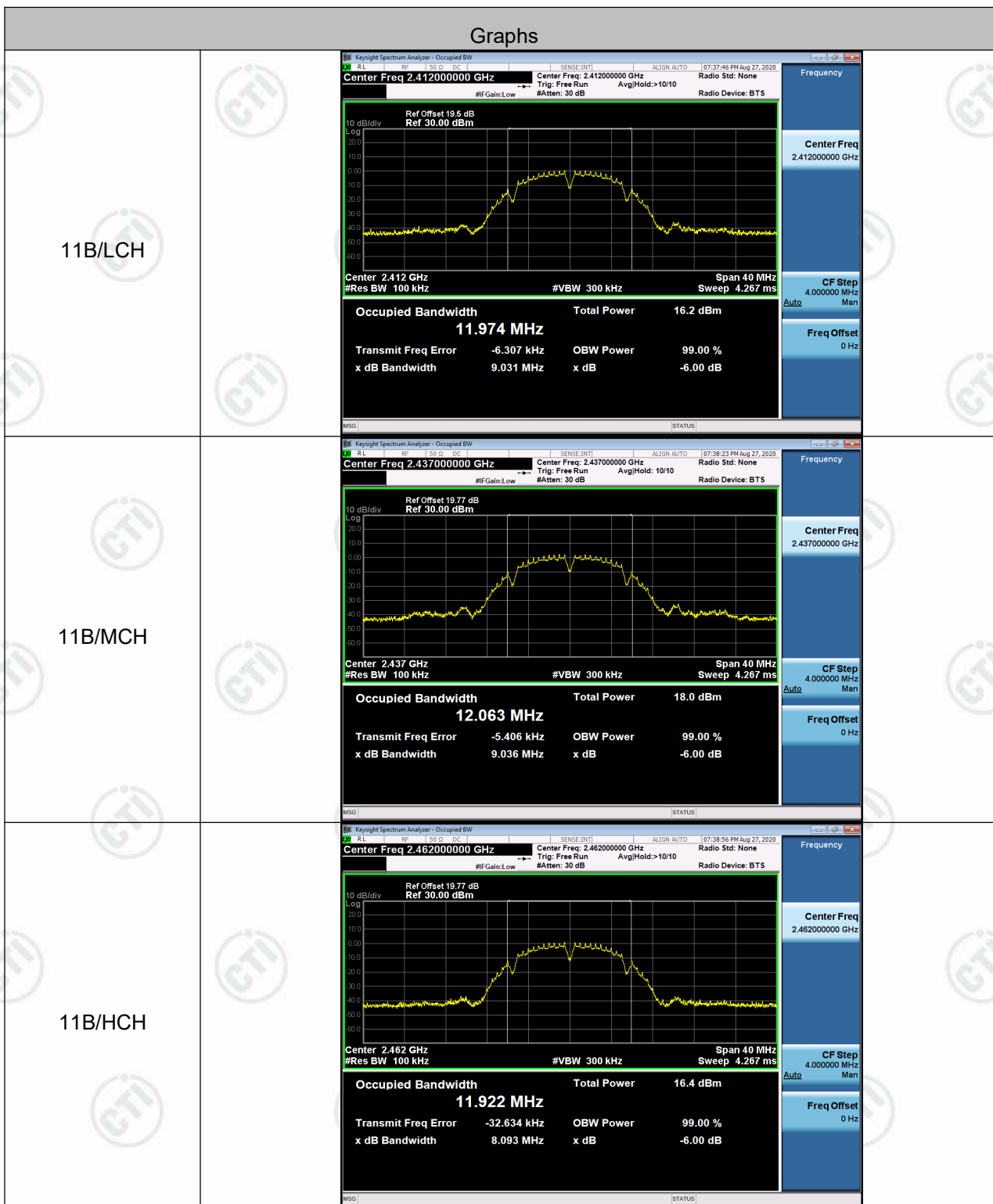
### Test Setup

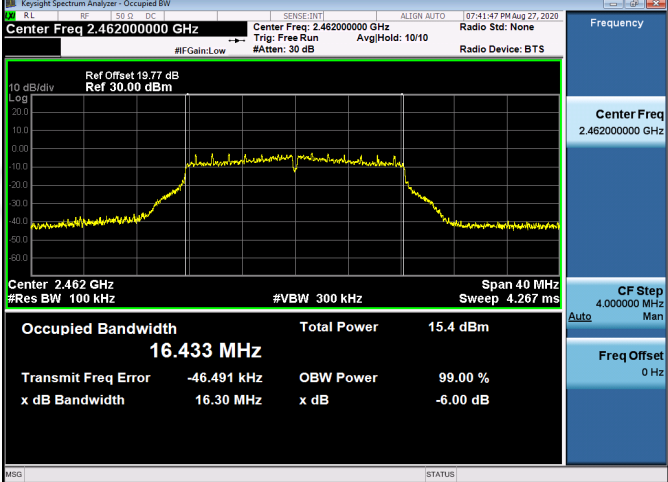


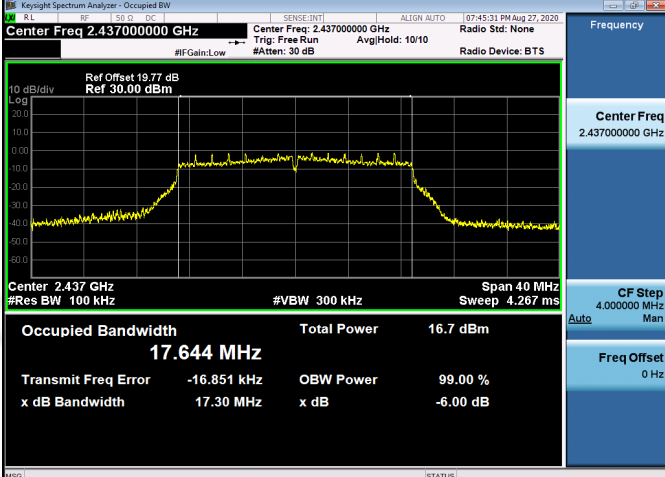
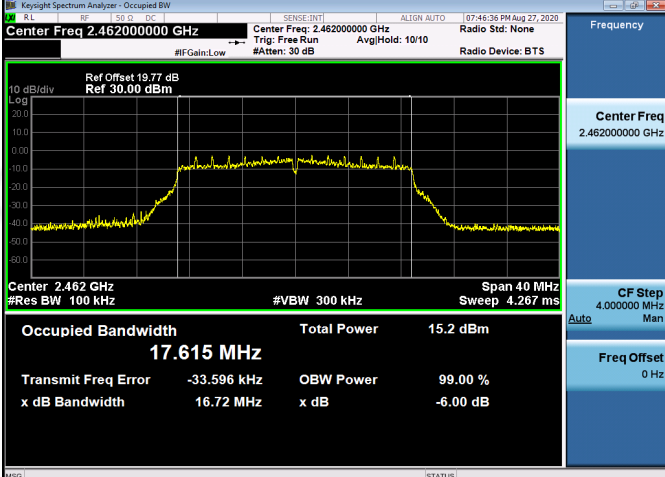
### Result Table

Mode	Channel	6dB Bandwidth [MHz]	99% OBW [MHz]	Verdict
11B	LCH	9.031	11.974	PASS
11B	MCH	9.036	12.063	PASS
11B	HCH	8.093	11.922	PASS
11G	LCH	16.29	16.438	PASS
11G	MCH	16.06	16.444	PASS
11G	HCH	16.30	16.433	PASS
11N20SISO	LCH	17.15	17.626	PASS
11N20SISO	MCH	17.30	17.644	PASS
11N20SISO	HCH	16.72	17.615	PASS

## Test Graph



11G/LCH	 <p>KeySight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.412000000 GHz</p> <p>Ref Offset 19.5 dB Ref 30.00 dBm</p> <p>Center Freq 2.412000000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS</p> <p>10 dB/div Log</p> <p>Center 2.412 GHz #Res BW 100 kHz #VBW 300 kHz Span 40 MHz Sweep 4.267 ms</p> <p>Occupied Bandwidth 16.438 MHz Total Power 14.7 dBm</p> <p>Transmit Freq Error -29.312 kHz OBW Power 99.00 % x dB Bandwidth 16.29 MHz x dB -6.00 dB</p> <p>Frequency Center Freq 2.412000000 GHz CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz</p>
11G/MCH	 <p>KeySight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.437000000 GHz</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center Freq 2.437000000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS</p> <p>10 dB/div Log</p> <p>Center 2.437 GHz #Res BW 100 kHz #VBW 300 kHz Span 40 MHz Sweep 4.267 ms</p> <p>Occupied Bandwidth 16.444 MHz Total Power 16.9 dBm</p> <p>Transmit Freq Error -28.955 kHz OBW Power 99.00 % x dB Bandwidth 16.06 MHz x dB -6.00 dB</p> <p>Frequency Center Freq 2.437000000 GHz CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz</p>
11G/HCH	 <p>KeySight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.462000000 GHz</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center Freq 2.462000000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS</p> <p>10 dB/div Log</p> <p>Center 2.462 GHz #Res BW 100 kHz #VBW 300 kHz Span 40 MHz Sweep 4.267 ms</p> <p>Occupied Bandwidth 16.433 MHz Total Power 15.4 dBm</p> <p>Transmit Freq Error -46.491 kHz OBW Power 99.00 % x dB Bandwidth 16.30 MHz x dB -6.00 dB</p> <p>Frequency Center Freq 2.462000000 GHz CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz</p>

11N20SISO/LCH	 <p>KeySight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.412000000 GHz</p> <p>Ref Offset 19.5 dB Ref 30.00 dBm</p> <p>Center Freq 2.412000000 GHz Trig: Free Run AvgHold: 10/10 Radio Std: None Radio Device: BTS</p> <p>10 dB/div Log 20.0 10.0 0.0 -10.0 -20.0 -30.0 -40.0 -50.0</p> <p>Center 2.412 GHz #Res BW 100 kHz #VBW 300 kHz Span 40 MHz Sweep 4.267 ms</p> <p>Occupied Bandwidth 17.626 MHz Total Power 14.7 dBm Transmit Freq Error -14.512 kHz OBW Power 99.00 % x dB Bandwidth 17.15 MHz x dB -6.00 dB</p> <p>MSG [STATUS]</p>
11N20SISO/MCH	 <p>KeySight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.437000000 GHz</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center Freq 2.437000000 GHz Trig: Free Run AvgHold: 10/10 Radio Std: None Radio Device: BTS</p> <p>10 dB/div Log 20.0 10.0 0.0 -10.0 -20.0 -30.0 -40.0 -50.0</p> <p>Center 2.437 GHz #Res BW 100 kHz #VBW 300 kHz Span 40 MHz Sweep 4.267 ms</p> <p>Occupied Bandwidth 17.644 MHz Total Power 16.7 dBm Transmit Freq Error -16.851 kHz OBW Power 99.00 % x dB Bandwidth 17.30 MHz x dB -6.00 dB</p> <p>MSG [STATUS]</p>
11N20SISO/HCH	 <p>KeySight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.462000000 GHz</p> <p>Ref Offset 19.77 dB Ref 30.00 dBm</p> <p>Center Freq 2.462000000 GHz Trig: Free Run AvgHold: 10/10 Radio Std: None Radio Device: BTS</p> <p>10 dB/div Log 20.0 10.0 0.0 -10.0 -20.0 -30.0 -40.0 -50.0</p> <p>Center 2.462 GHz #Res BW 100 kHz #VBW 300 kHz Span 40 MHz Sweep 4.267 ms</p> <p>Occupied Bandwidth 17.615 MHz Total Power 15.2 dBm Transmit Freq Error -33.596 kHz OBW Power 99.00 % x dB Bandwidth 16.72 MHz x dB -6.00 dB</p> <p>MSG [STATUS]</p>



## Appendix C): Power Spectral Density

### Test Limit

According to §15.247(e),

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

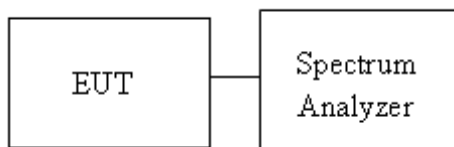
Limit	<input checked="" type="checkbox"/> Antenna not exceed 6 dBi : 8dBm <input type="checkbox"/> Antenna with DG greater than 6 dBi : [ Limit = 8 – (DG – 6) ] <input type="checkbox"/> Point-to-point operation :
-------	---

### Test Procedure

Test method Refer as KDB 558074 D01.

1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. SA set RBW = 3kHz, VBW = 10kHz, Span = 1.5 times DTS Bandwidth (6 dB BW), Detector = Peak, Sweep Time = Auto and Trace = Max hold.
4. The path loss was compensated to the results for each measurement by SA.
5. Mark the maximum level.
6. Measure and record the result of power spectral density. in the test report.

### Test Setup



### Result Table

Mode	Channel	Power Spectral Density [dBm]	Verdict
11B	LCH	-12.525	PASS
11B	MCH	-11.551	PASS
11B	HCH	-12.541	PASS
11G	LCH	-14.909	PASS
11G	MCH	-12.983	PASS
11G	HCH	-14.957	PASS
11N20SISO	LCH	-16.313	PASS
11N20SISO	MCH	-13.439	PASS
11N20SISO	HCH	-15.110	PASS

## Test Graph





11N20SISO/LCH	 <p>Key: Keysight Spectrum Analyzer - Sweep SA</p> <p>Center Freq 2.41200000 GHz</p> <p>Ref Offset 19.5 dB Ref 10.00 dBm</p> <p>Mkr1 2.412 360 GHz -16.313 dBm</p> <p>Center 2.41200 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 25.73 MHz Sweep 2.712 s (1001 pts)</p>
11N20SISO/MCH	 <p>Key: Keysight Spectrum Analyzer - Sweep SA</p> <p>Center Freq 2.43700000 GHz</p> <p>Ref Offset 19.77 dB Ref 10.00 dBm</p> <p>Mkr1 2.437 260 GHz -13.439 dBm</p> <p>Center 2.43700 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 25.95 MHz Sweep 2.736 s (1001 pts)</p>
11N20SISO/HCH	 <p>Key: Keysight Spectrum Analyzer - Sweep SA</p> <p>Center Freq 2.46200000 GHz</p> <p>Ref Offset 19.77 dB Ref 10.00 dBm</p> <p>Mkr1 2.463 831 GHz -19.110 dBm</p> <p>Center 2.46200 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 25.08 MHz Sweep 2.644 s (1001 pts)</p>



## Appendix D): Antenna Requirement

### 15.203 requirement:

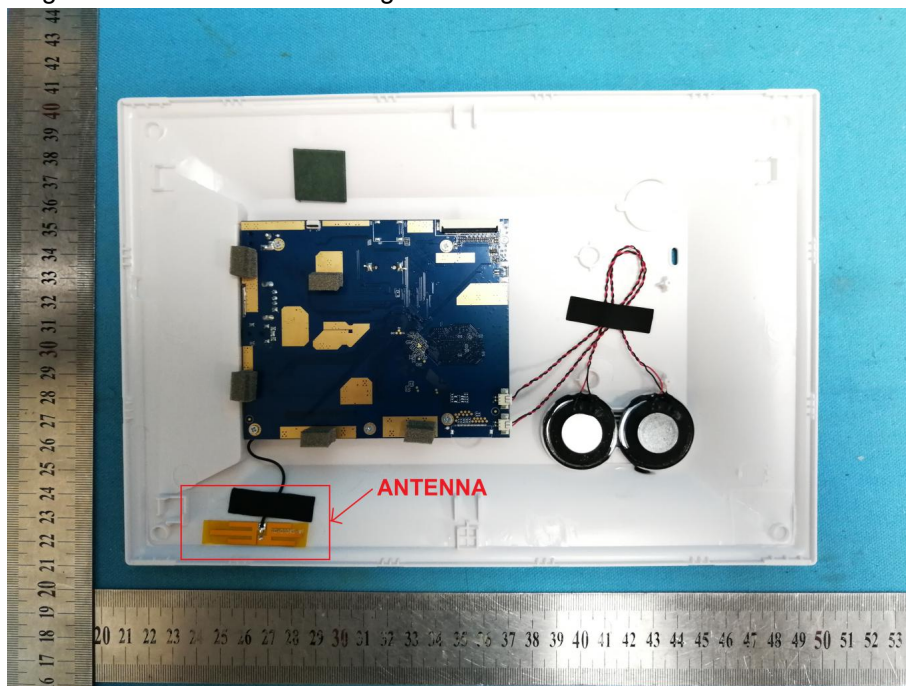
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit 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 Integral antenna. The best case gain of the antenna is 4dBi.



## Appendix E): AC Power Line Conducted Emission

Test Procedure:	<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 <math>50\Omega/50\mu\text{H} + 5\Omega</math> 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>															
Limit:	<table border="1"> <thead> <tr> <th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dB<math>\mu</math>V)</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 (dB $\mu$ V)		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 (dB $\mu$ V)															
	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.

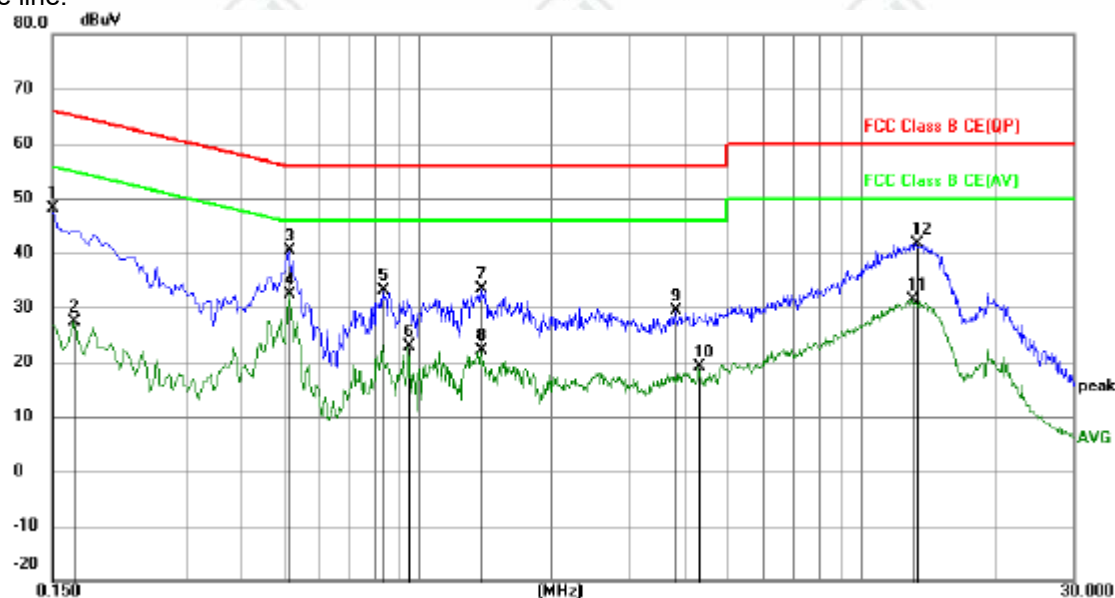
**Product** : 10 inch WIFI Digital Photo

**Model/Type reference** : Skylight 2

**Temperature** : 23°C

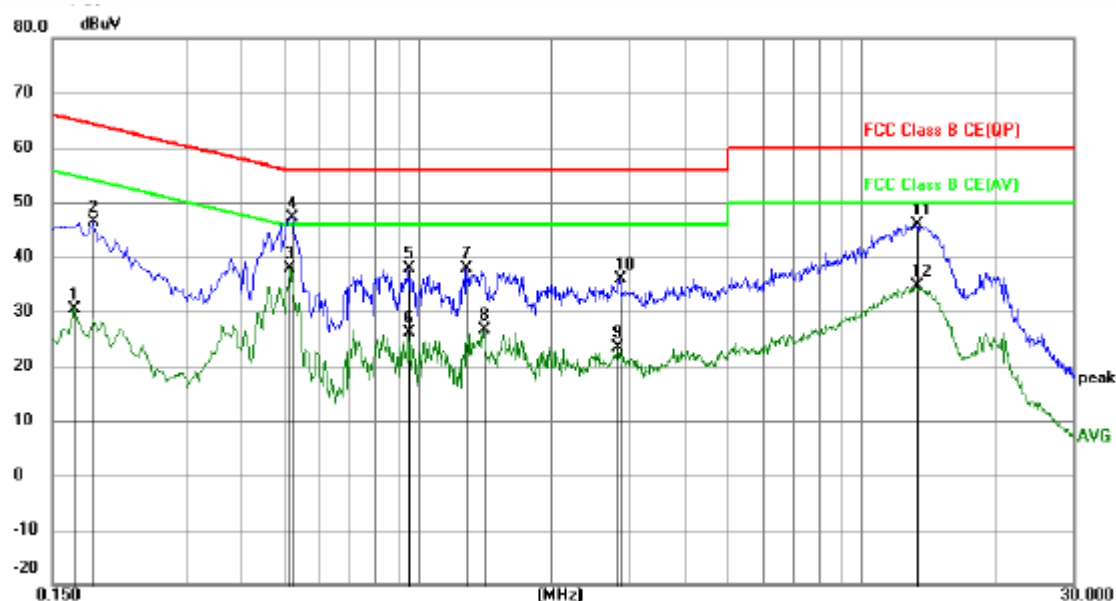
**Humidity** : 51%

Live line:



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1500	38.23	9.87	48.10	66.00	-17.90	peak	
2		0.1680	17.58	9.87	27.45	55.06	-27.61	AVG	
3		0.5144	30.46	9.97	40.43	56.00	-15.57	peak	
4	*	0.5144	22.53	9.97	32.50	46.00	-13.50	AVG	
5		0.8340	23.23	9.85	33.08	56.00	-22.92	peak	
6		0.9555	12.95	9.84	22.79	46.00	-23.21	AVG	
7		1.3875	23.59	9.81	33.40	56.00	-22.60	peak	
8		1.3875	12.22	9.81	22.03	46.00	-23.97	AVG	
9		3.8085	19.62	9.78	29.40	56.00	-26.60	peak	
10		4.2990	9.24	9.78	19.02	46.00	-26.98	AVG	
11		13.0290	21.39	9.87	31.26	50.00	-18.74	AVG	
12		13.3215	31.66	9.88	41.54	60.00	-18.46	peak	

Neutral line:



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1680	20.63	9.87	30.50	55.06	-24.56	AVG	
2		0.1860	36.53	9.87	46.40	64.21	-17.81	peak	
3	*	0.5144	27.96	9.97	37.93	46.00	-8.07	AVG	
4		0.5190	37.08	9.97	47.05	56.00	-8.95	peak	
5		0.9555	28.01	9.84	37.85	56.00	-18.15	peak	
6		0.9555	16.30	9.84	26.14	46.00	-19.86	AVG	
7		1.2885	27.97	9.82	37.79	56.00	-18.21	peak	
8		1.4100	16.77	9.81	26.58	46.00	-19.42	AVG	
9		2.8184	13.66	9.79	23.45	46.00	-22.55	AVG	
10		2.8410	25.98	9.79	35.77	56.00	-20.23	peak	
11		13.2855	36.10	9.88	45.98	60.00	-14.02	peak	
12		13.2855	24.86	9.88	34.74	50.00	-15.26	AVG	

Notes:

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



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

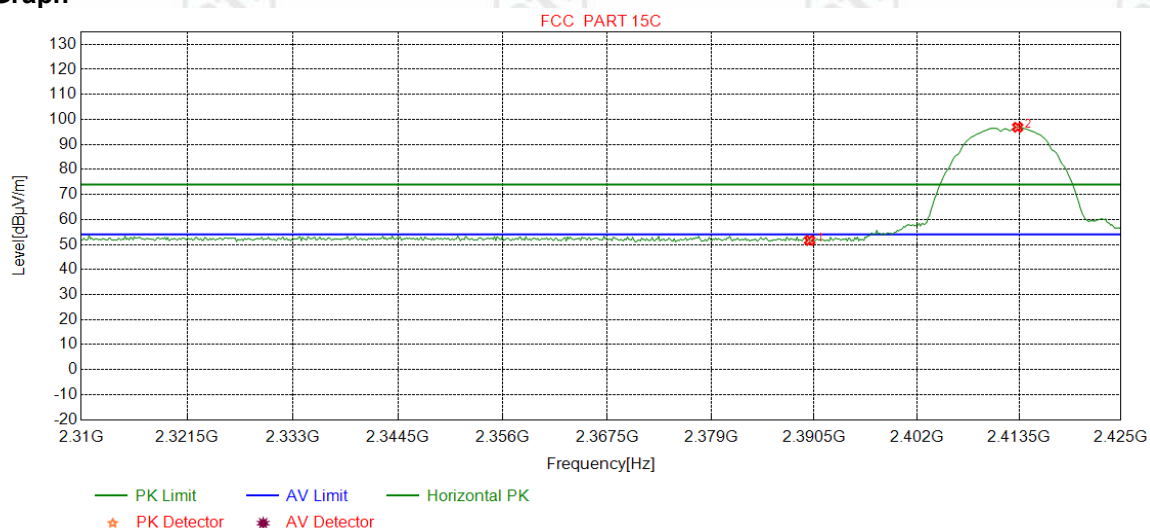
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
		Peak	1MHz	10Hz	Average
Test Procedure:	<p><b>Below 1GHz test procedure as below:</b></p> <ol style="list-style-type: none"> <li>The EUT was placed on the top of a rotating 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:	Frequency	Limit (dBμV/m @3m)		Remark	
	30MHz-88MHz	40.0		Quasi-peak Value	
	88MHz-216MHz	43.5		Quasi-peak Value	
	216MHz-960MHz	46.0		Quasi-peak Value	
	960MHz-1GHz	54.0		Quasi-peak Value	
	Above 1GHz	54.0		Average Value	
		74.0		Peak Value	



Test plot as follows:

Mode:	802.11 b(1Mbps) Transmitting	Channel:	2412
Remark:	PK		

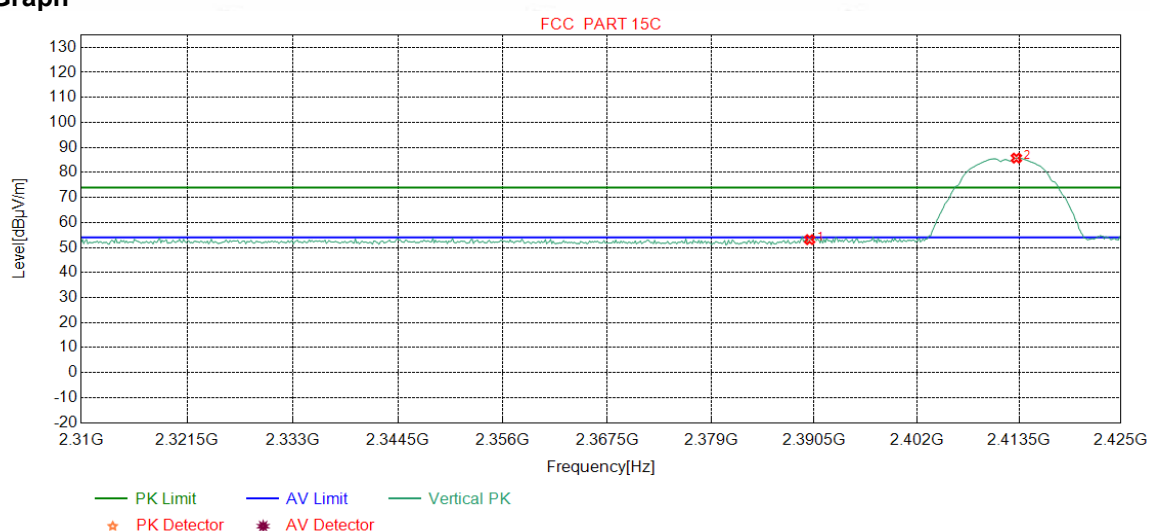
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-43.12	49.13	51.63	74.00	22.37	Pass	Horizontal
2	2413.3417	32.28	13.36	-43.12	94.34	96.86	74.00	-22.86	Pass	Horizontal

Mode:	802.11 b(1Mbps) Transmitting	Channel:	2412
Remark:	PK		

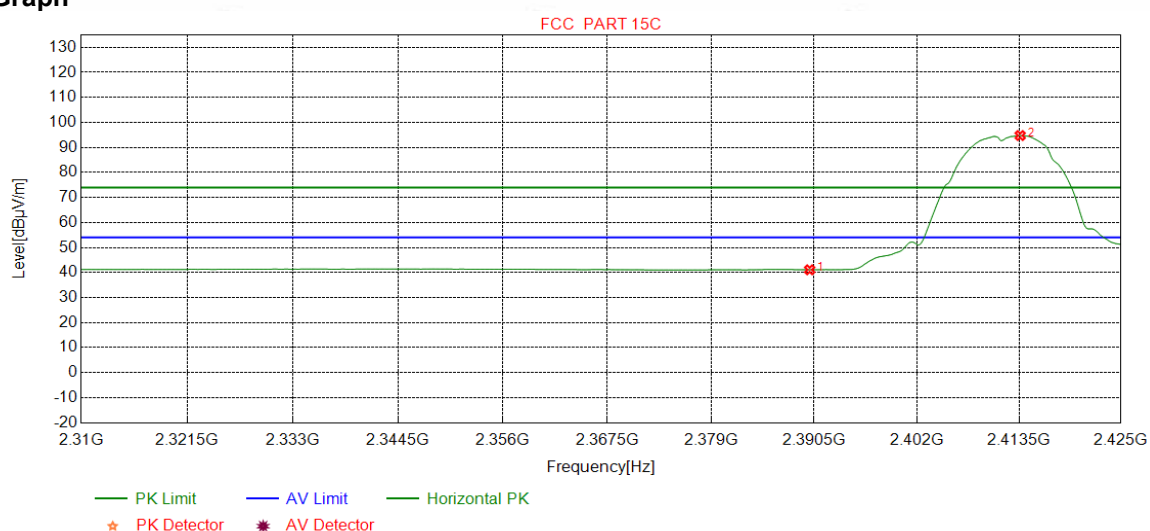
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-43.12	50.64	53.14	74.00	20.86	Pass	Vertical
2	2413.1977	32.28	13.36	-43.12	83.21	85.73	74.00	-11.73	Pass	Vertical

Mode:	802.11 b(1Mbps) Transmitting	Channel:	2412
Remark:	AV		

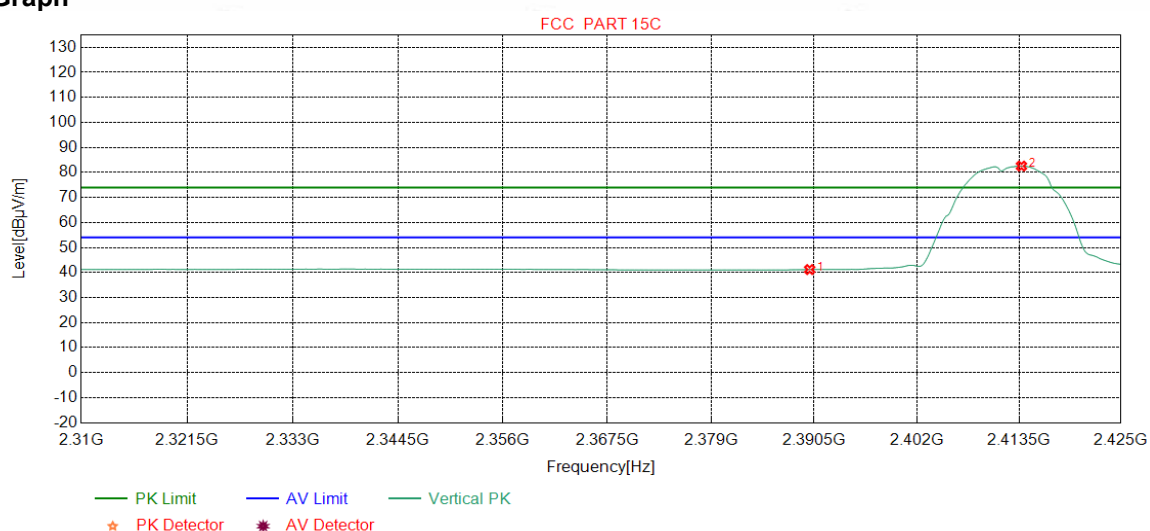
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-43.12	38.60	41.10	54.00	12.90	Pass	Horizontal
2	2413.6295	32.28	13.36	-43.12	92.23	94.75	54.00	-40.75	Pass	Horizontal

Mode:	802.11 b(1Mbps) Transmitting	Channel:	2412
Remark:	AV		

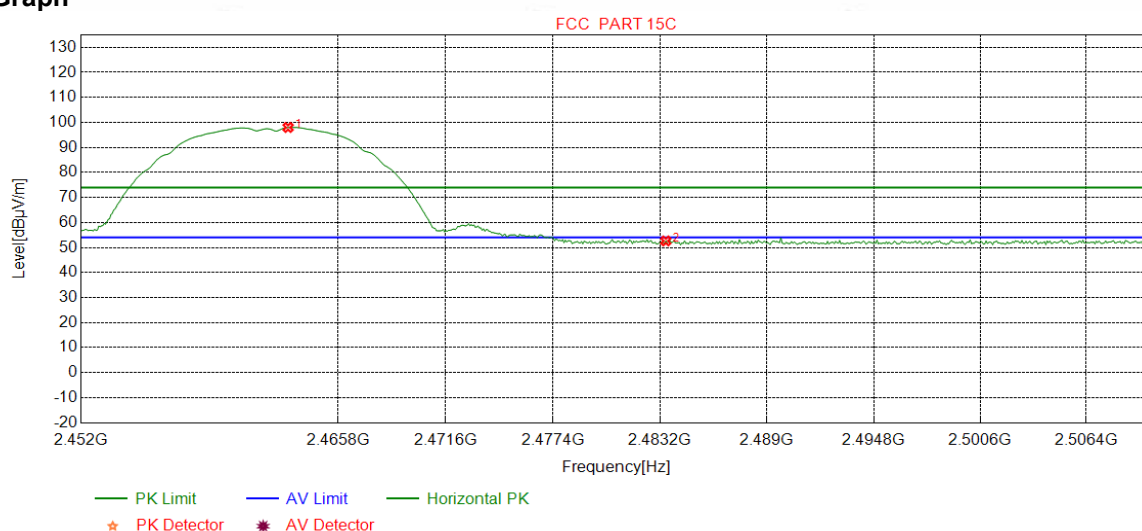
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-43.12	38.70	41.20	54.00	12.80	Pass	Vertical
2	2413.7735	32.28	13.36	-43.11	80.02	82.55	54.00	-28.55	Pass	Vertical

Mode:	802.11 b(1Mbps) Transmitting	Channel:	2462
Remark:	PK		

### Test Graph

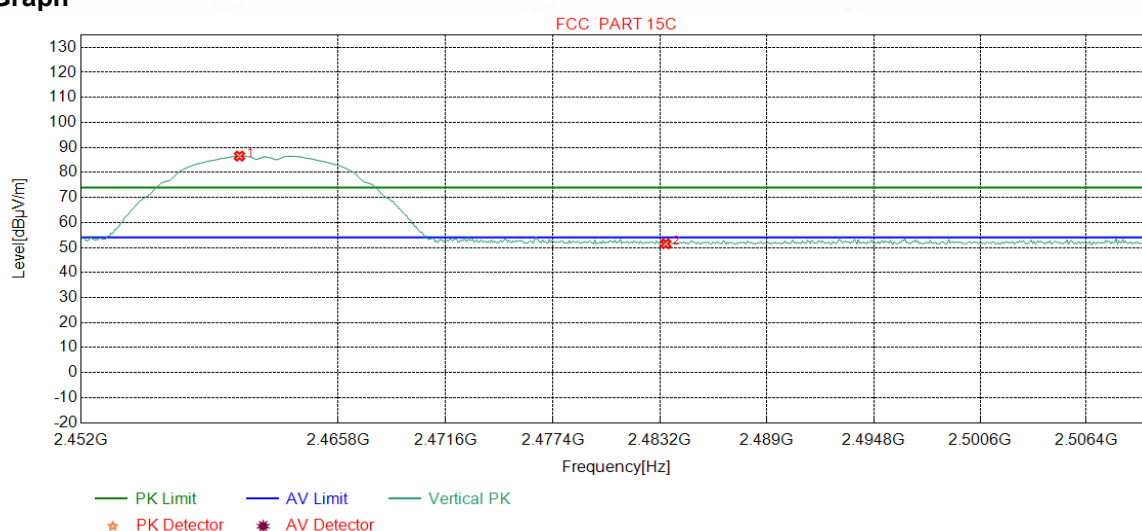


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2463.1064	32.35	13.47	-43.11	95.27	97.98	74.00	-23.98	Pass	Horizontal
2	2483.5000	32.38	13.38	-43.11	49.98	52.63	74.00	21.37	Pass	Horizontal



Mode:	802.11 b(1Mbps) Transmitting	Channel:	2462
Remark:	PK		

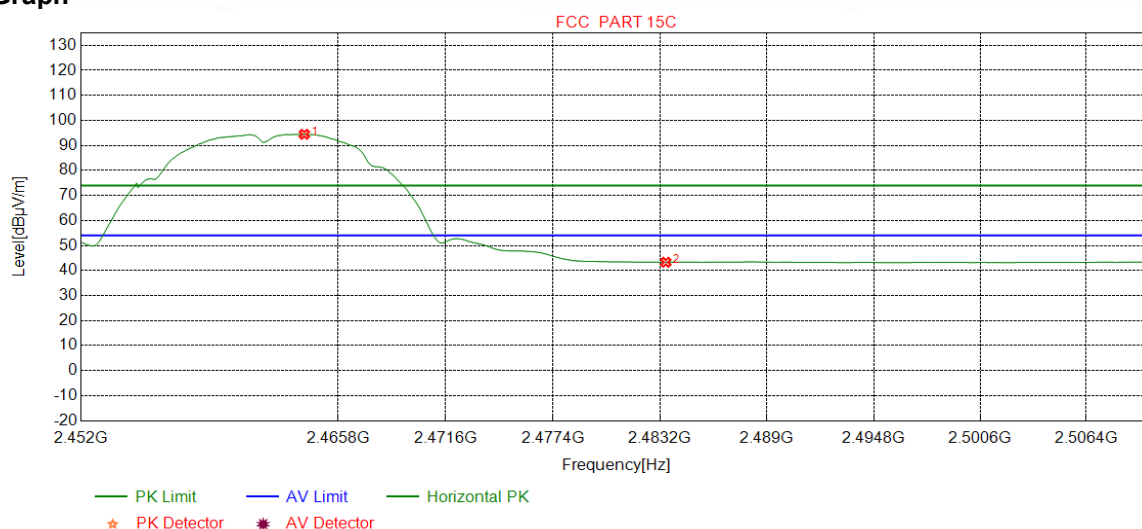
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2460.4931	32.34	13.48	-43.10	83.82	86.54	74.00	-12.54	Pass	Vertical
2	2483.5000	32.38	13.38	-43.11	48.84	51.49	74.00	22.51	Pass	Vertical

Mode:	802.11 b(1Mbps) Transmitting	Channel:	2462
Remark:	AV		

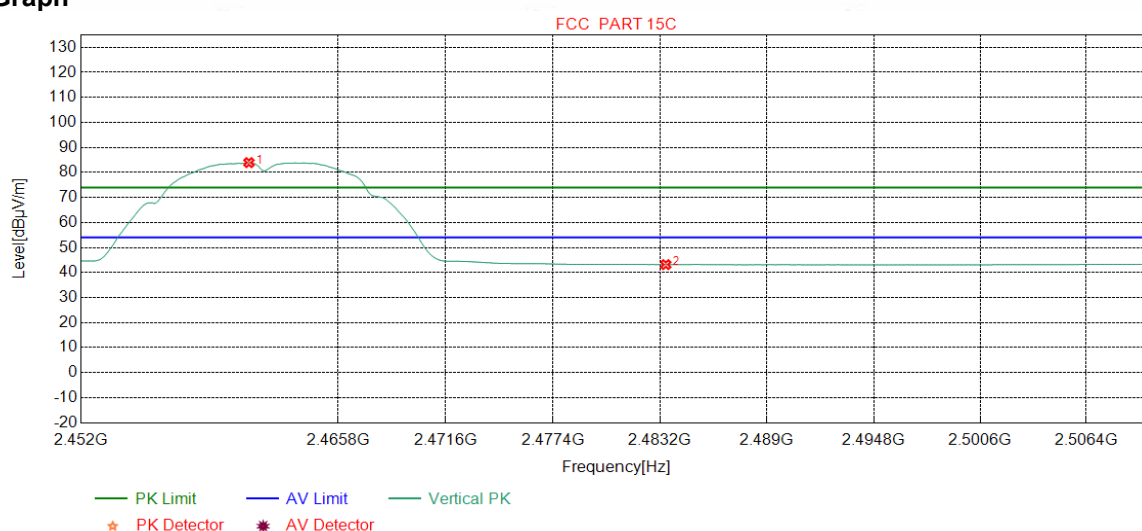
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2463.9775	32.35	13.47	-43.11	91.75	94.46	54.00	-40.46	Pass	Horizontal
2	2483.5000	32.38	13.38	-43.11	40.67	43.32	54.00	10.68	Pass	Horizontal

Mode:	802.11 b(1Mbps) Transmitting	Channel:	2462
Remark:	AV		

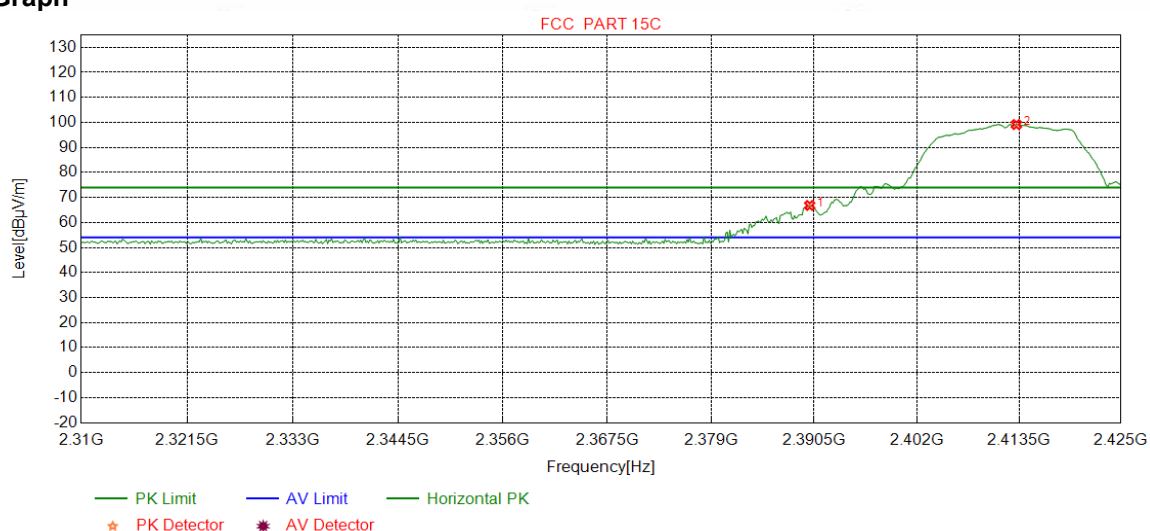
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2461.0013	32.35	13.48	-43.11	81.21	83.93	54.00	-29.93	Pass	Vertical
2	2483.5000	32.38	13.38	-43.11	40.51	43.16	54.00	10.84	Pass	Vertical

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

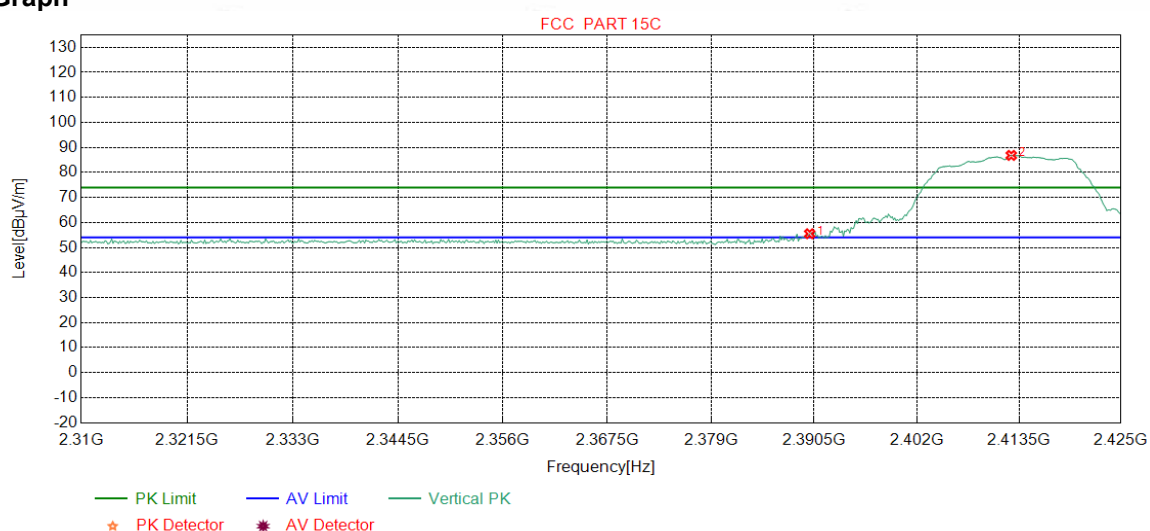
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-43.12	64.30	66.80	74.00	7.20	Pass	Horizontal
2	2413.1977	32.28	13.36	-43.12	96.63	99.15	74.00	-25.15	Pass	Horizontal

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

### Test Graph

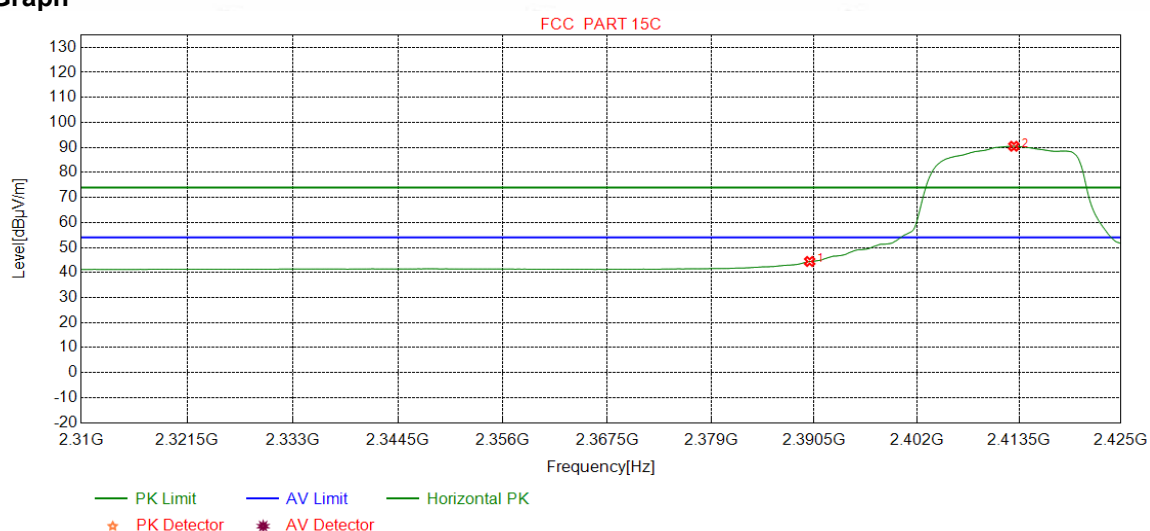


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-43.12	53.00	55.50	74.00	18.50	Pass	Vertical
2	2412.6220	32.28	13.36	-43.12	84.29	86.81	74.00	-12.81	Pass	Vertical



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

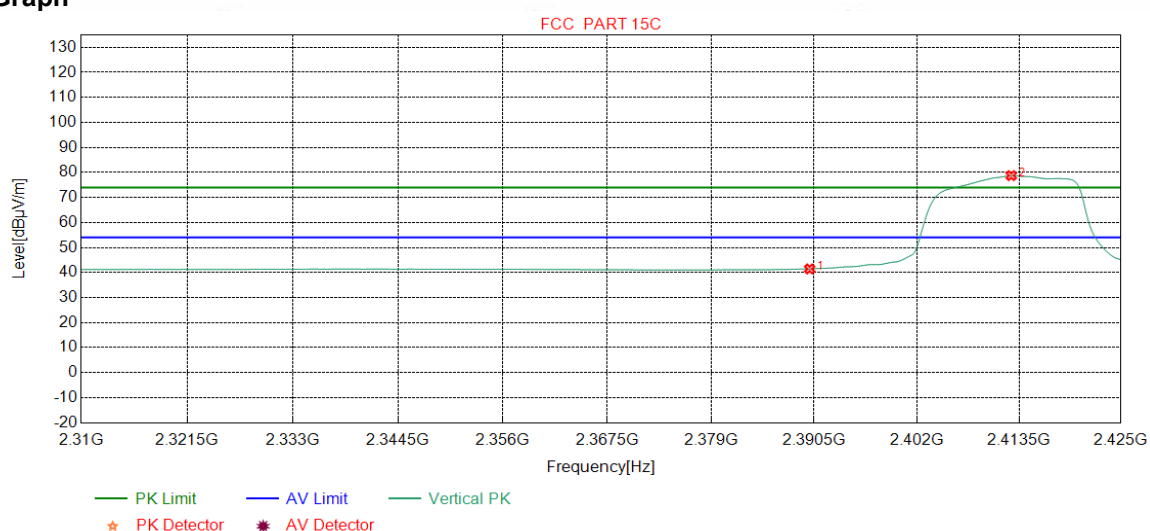
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-43.12	41.93	44.43	54.00	9.57	Pass	Horizontal
2	2412.9099	32.28	13.36	-43.12	87.95	90.47	54.00	-36.47	Pass	Horizontal

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

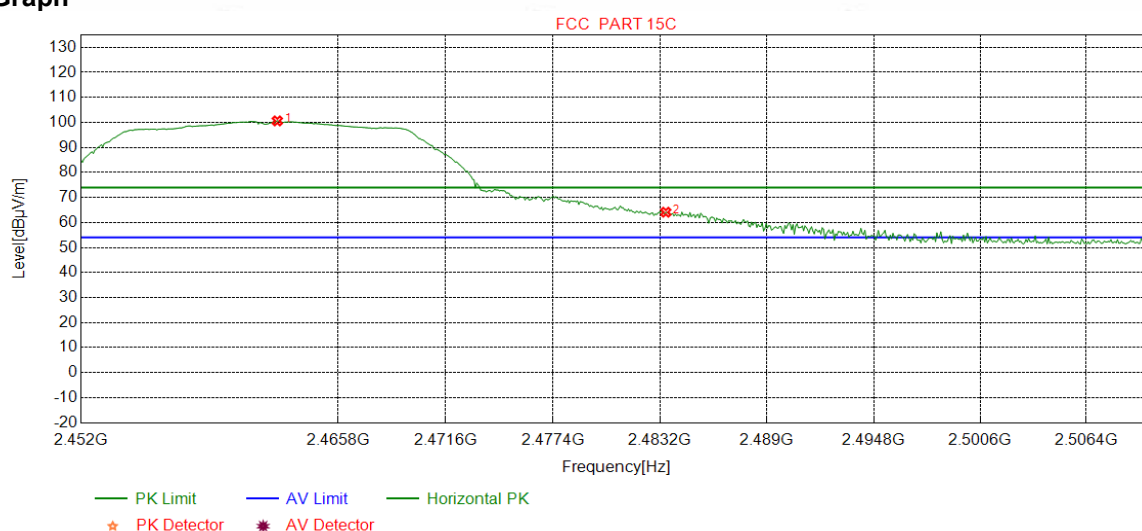
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-43.12	38.93	41.43	54.00	12.57	Pass	Vertical
2	2412.6220	32.28	13.36	-43.12	76.21	78.73	54.00	-24.73	Pass	Vertical

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

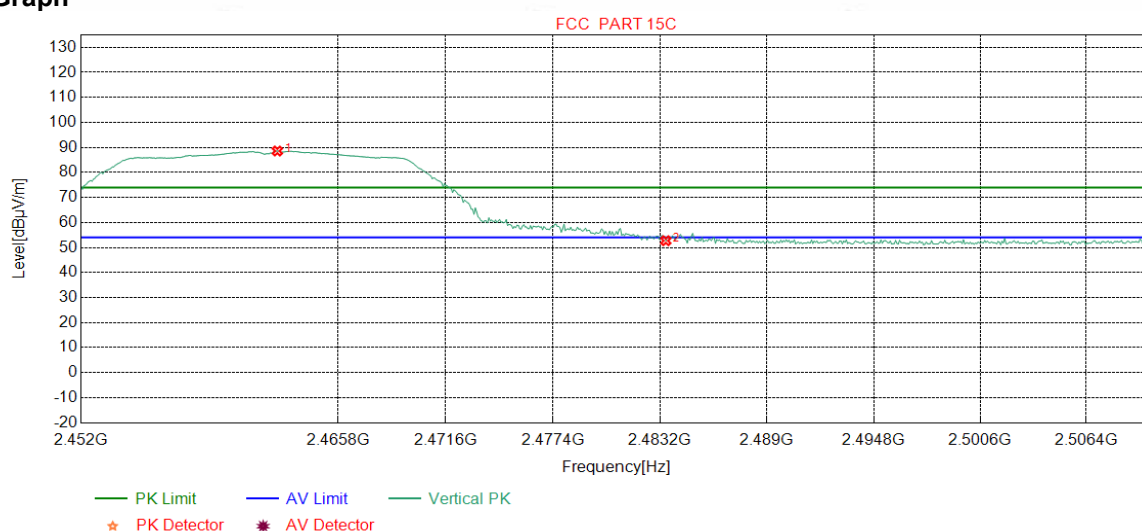
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2462.5257	32.35	13.47	-43.11	97.89	100.60	74.00	-26.60	Pass	Horizontal
2	2483.5000	32.38	13.38	-43.11	61.46	64.11	74.00	9.89	Pass	Horizontal

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

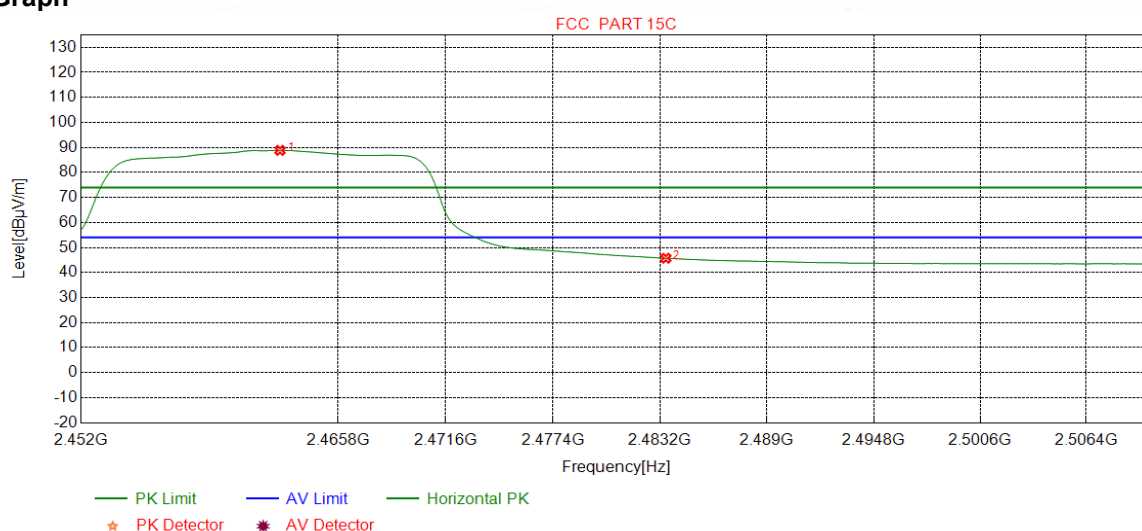
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2462.5257	32.35	13.47	-43.11	85.85	88.56	74.00	-14.56	Pass	Vertical
2	2483.5000	32.38	13.38	-43.11	50.06	52.71	74.00	21.29	Pass	Vertical

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

### Test Graph

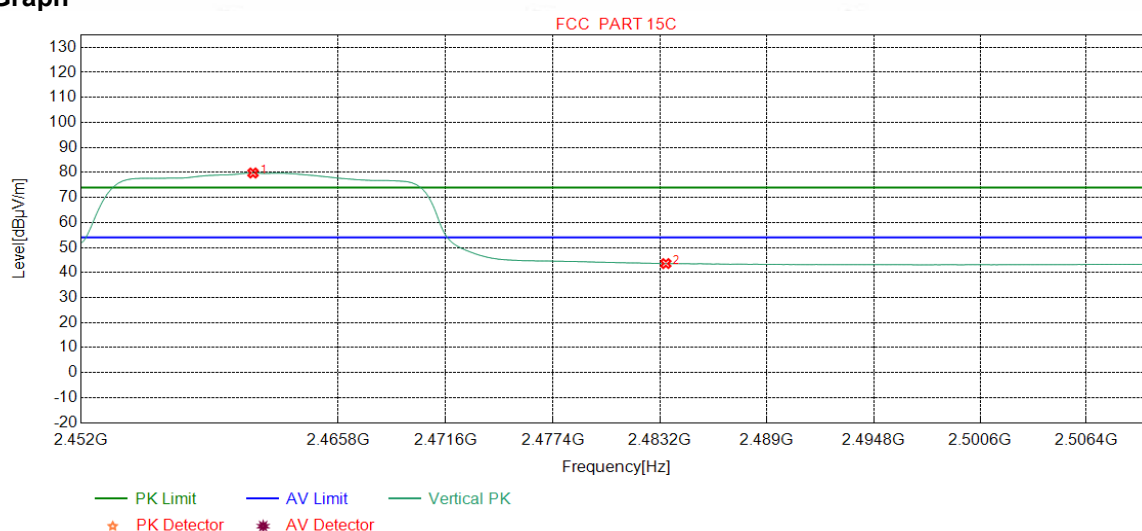


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2462.6708	32.35	13.47	-43.11	86.11	88.82	54.00	-34.82	Pass	Horizontal
2	2483.5000	32.38	13.38	-43.11	43.06	45.71	54.00	8.29	Pass	Horizontal



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

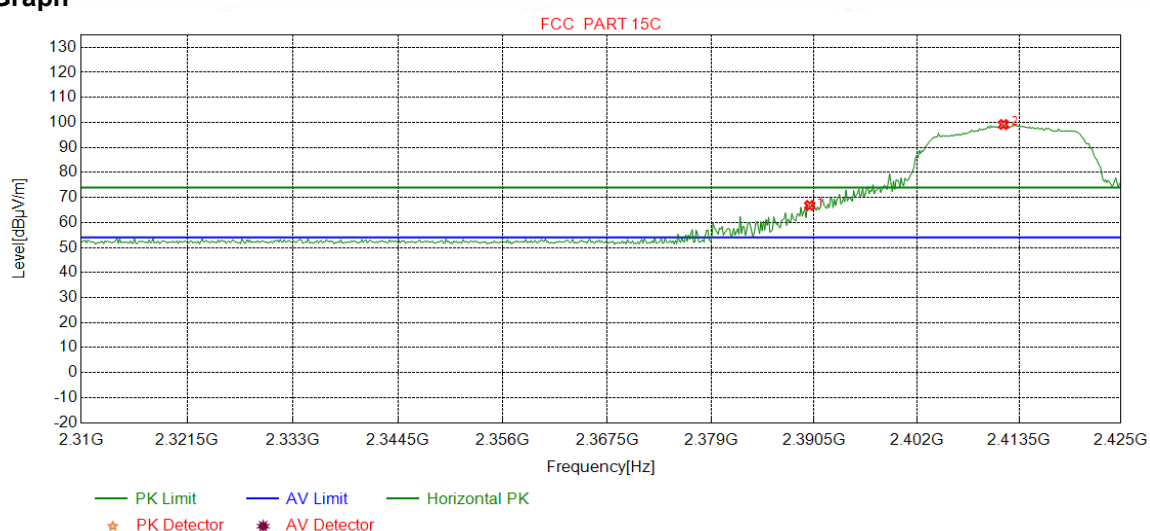
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2461.2190	32.35	13.48	-43.11	77.06	79.78	54.00	-25.78	Pass	Vertical
2	2483.5000	32.38	13.38	-43.11	40.93	43.58	54.00	10.42	Pass	Vertical

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

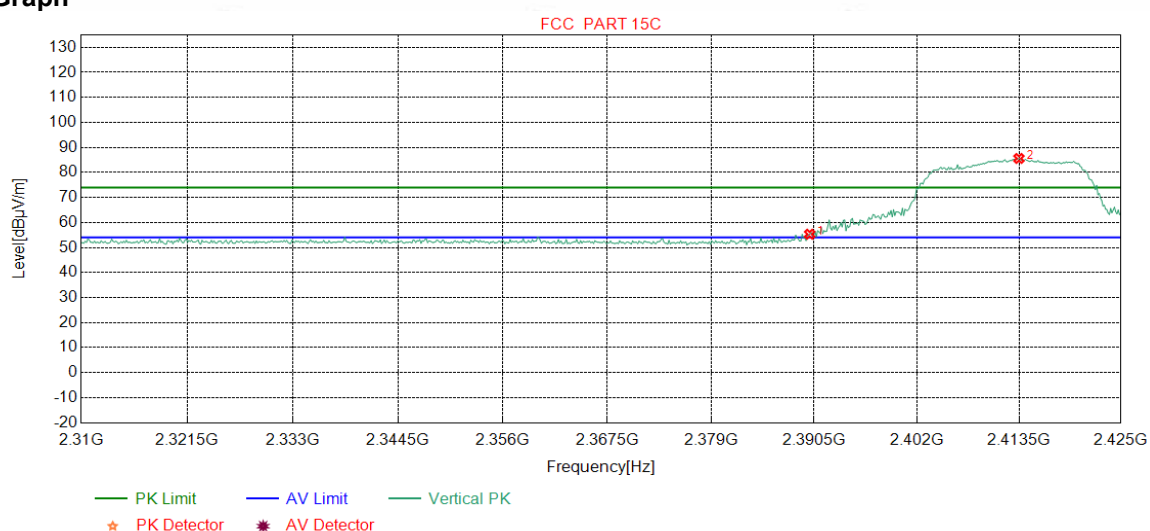
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-43.12	64.30	66.80	74.00	7.20	Pass	Horizontal
2	2411.7584	32.28	13.35	-43.12	96.65	99.16	74.00	-25.16	Pass	Horizontal

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

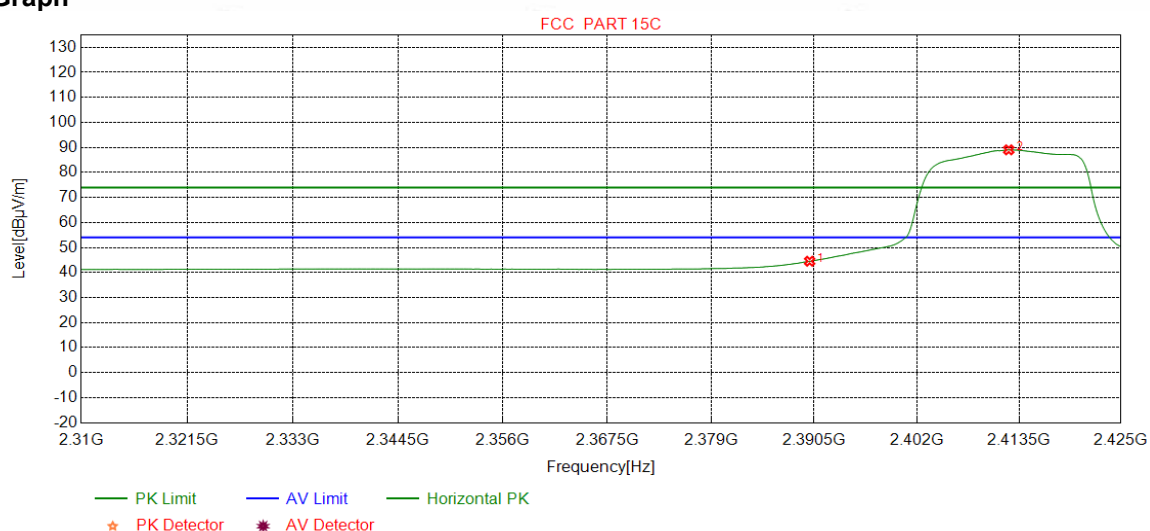
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-43.12	52.82	55.32	74.00	18.68	Pass	Vertical
2	2413.4856	32.28	13.36	-43.12	83.08	85.60	74.00	-11.60	Pass	Vertical

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

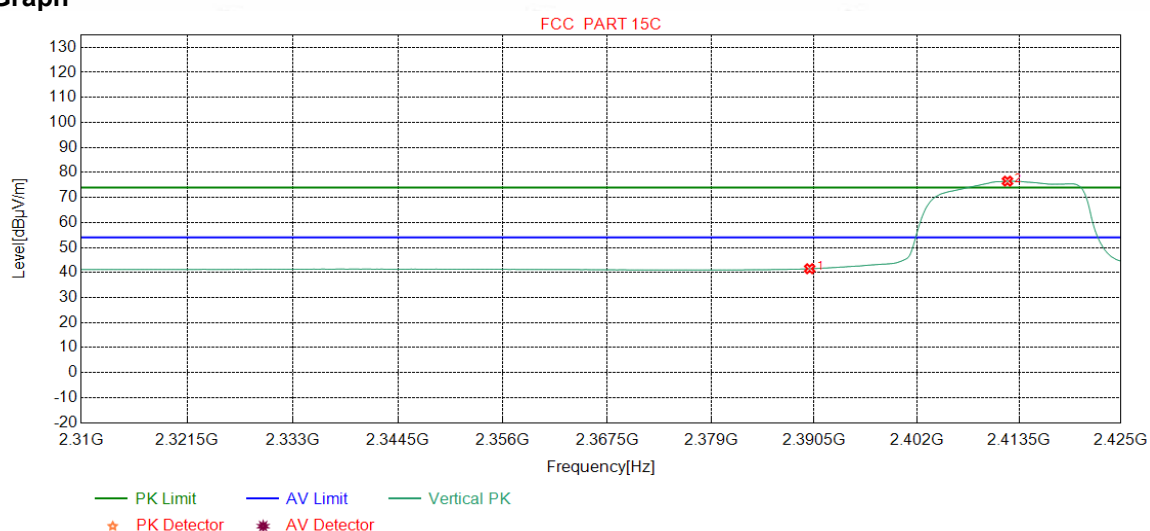
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-43.12	42.02	44.52	54.00	9.48	Pass	Horizontal
2	2412.3342	32.28	13.36	-43.12	86.52	89.04	54.00	-35.04	Pass	Horizontal

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

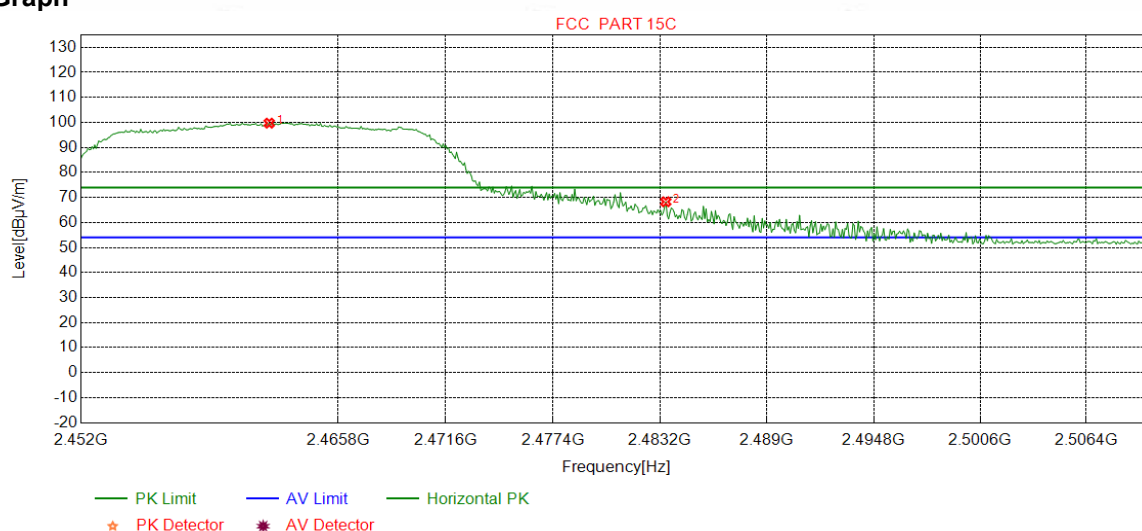
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-43.12	39.02	41.52	54.00	12.48	Pass	Vertical
2	2412.1902	32.28	13.36	-43.12	74.00	76.52	54.00	-22.52	Pass	Vertical

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

### Test Graph

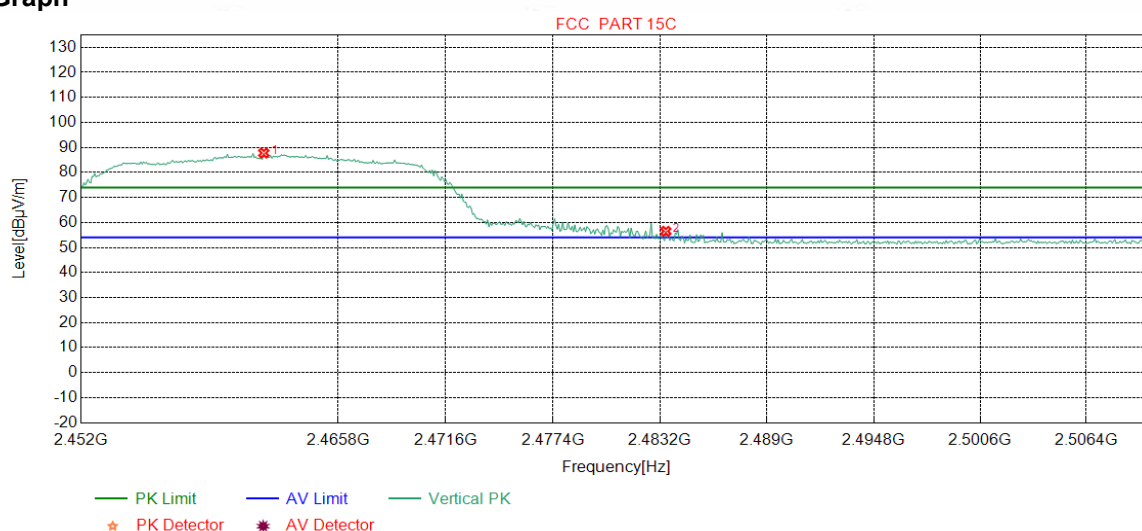


NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2462.0901	32.35	13.47	-43.11	97.00	99.71	74.00	-25.71	Pass	Horizontal
2	2483.5000	32.38	13.38	-43.11	65.63	68.28	74.00	5.72	Pass	Horizontal



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

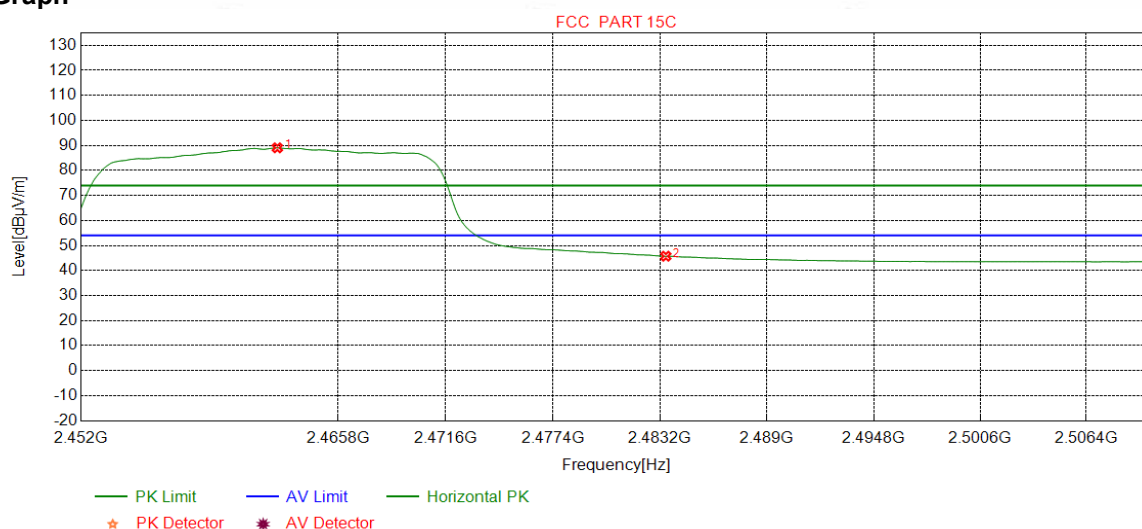
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2461.7998	32.35	13.48	-43.12	85.04	87.75	74.00	-13.75	Pass	Vertical
2	2483.5000	32.38	13.38	-43.11	53.84	56.49	74.00	17.51	Pass	Vertical

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

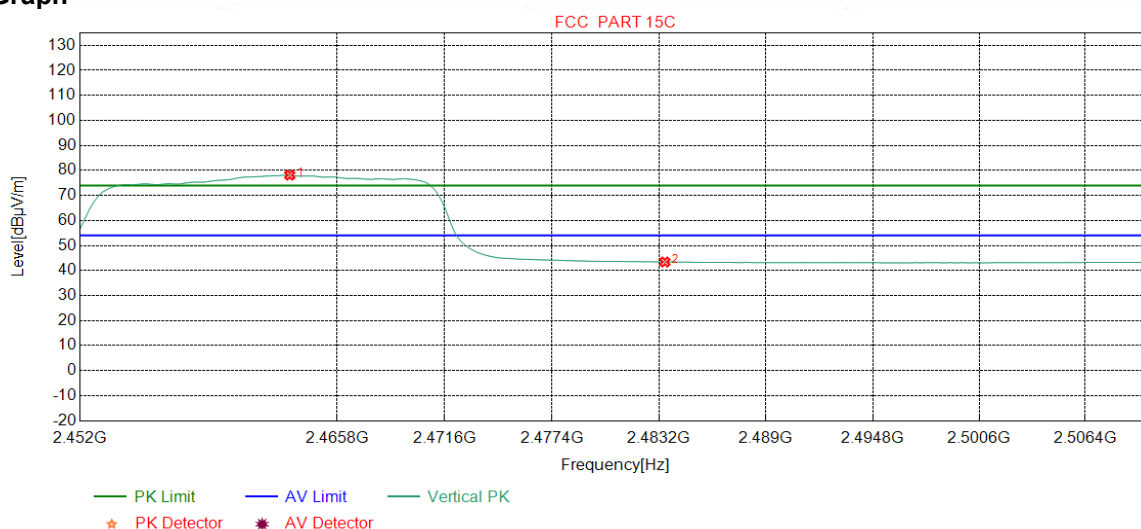
### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2462.5257	32.35	13.47	-43.11	86.33	89.04	54.00	-35.04	Pass	Horizontal
2	2483.5000	32.38	13.38	-43.11	43.07	45.72	54.00	8.28	Pass	Horizontal

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

### Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity
1	2463.2516	32.35	13.47	-43.11	75.42	78.13	54.00	-24.13	Pass	Vertical
2	2483.5000	32.38	13.38	-43.11	40.77	43.42	54.00	10.58	Pass	Vertical

### Note:

1) Through transmitting 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 G): Radiated Spurious Emissions

Receiver Setup:

Frequency	Detector	RBW	VBW	Remark
0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak
0.009MHz-0.090MHz	Average	10kHz	30kHz	Average
0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak
0.110MHz-0.490MHz	Average	10kHz	30kHz	Average
0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

Test Procedure:

Below 1GHz test procedure as below:

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Above 1GHz test procedure as below:

g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 meter to 1.5 meter( Above 18GHz the distance is 1 meter and table is 1.5 meter)..

h. Test the EUT in the lowest channel ,the middle channel ,the Highest channel

i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case.

j. Repeat above procedures until all frequencies measured was complete.

Limit:

Frequency	Field strength (microvolt/meter)	Limit (dBμV/m)	Remark	Measurement distance (m)
0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
1.705MHz-30MHz	30	-	-	30
30MHz-88MHz	100	40.0	Quasi-peak	3
88MHz-216MHz	150	43.5	Quasi-peak	3
216MHz-960MHz	200	46.0	Quasi-peak	3
960MHz-1GHz	500	54.0	Quasi-peak	3
Above 1GHz	500	54.0	Average	3

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

**Radiated Spurious Emissions test Data:**
**Radiated Emission below 1GHz**

Mode:			802.11 g(6Mbps) Transmitting					Channel:		2437	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	54.6405	12.46	0.84	-31.98	44.26	25.58	40.00	14.42	Pass	H	PK
2	131.2781	7.64	1.34	-32.02	52.31	29.27	43.50	14.23	Pass	H	PK
3	150.0010	7.55	1.45	-32.01	51.82	28.81	43.50	14.69	Pass	H	PK
4	241.0931	11.97	1.84	-31.90	50.09	32.00	46.00	14.00	Pass	H	PK
5	325.0065	13.75	2.14	-31.79	44.93	29.03	46.00	16.97	Pass	H	PK
6	750.0060	20.35	3.29	-32.04	39.38	30.98	46.00	15.02	Pass	H	PK
7	36.5967	11.21	0.67	-31.38	44.56	25.06	40.00	14.94	Pass	V	PK
8	54.8345	12.43	0.84	-31.97	40.99	22.29	40.00	17.71	Pass	V	PK
9	195.0135	10.43	1.64	-31.94	47.63	27.76	43.50	15.74	Pass	V	PK
10	242.5483	12.01	1.85	-31.90	46.28	28.24	46.00	17.76	Pass	V	PK
11	325.0065	13.75	2.14	-31.79	45.10	29.20	46.00	16.80	Pass	V	PK
12	600.0290	19.00	2.96	-31.50	39.08	29.54	46.00	16.46	Pass	V	PK

**Transmitter Emission above 1GHz**

Mode:			802.11 b(1Mbps) Transmitting					Channel:		2412	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1188.0188	28.09	2.67	-42.91	62.87	50.72	74.00	23.28	Pass	H	PK
2	1792.2792	30.33	3.31	-42.71	56.26	47.19	74.00	26.81	Pass	H	PK
3	1991.8992	31.65	3.46	-43.18	58.74	50.67	74.00	23.33	Pass	H	PK
4	4824.0000	34.50	4.61	-42.80	46.87	43.18	74.00	30.82	Pass	H	PK
5	7236.0000	36.34	5.79	-42.16	47.81	47.78	74.00	26.22	Pass	H	PK
6	9648.0000	37.66	6.72	-42.10	46.86	49.14	74.00	24.86	Pass	H	PK
7	1188.2188	28.09	2.67	-42.91	59.09	46.94	74.00	27.06	Pass	V	PK
8	1798.0798	30.37	3.32	-42.72	60.59	51.56	74.00	22.44	Pass	V	PK
9	1980.0980	31.57	3.45	-43.15	58.26	50.13	74.00	23.87	Pass	V	PK
10	4824.0000	34.50	4.61	-42.80	47.61	43.92	74.00	30.08	Pass	V	PK
11	7236.0000	36.34	5.79	-42.16	45.65	45.62	74.00	28.38	Pass	V	PK
12	9648.0000	37.66	6.72	-42.10	45.97	48.25	74.00	25.75	Pass	V	PK

Mode:			802.11 b(1Mbps) Transmitting					Channel:		2437	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1187.8188	28.09	2.67	-42.91	62.95	50.80	74.00	23.20	Pass	H	PK
2	1798.6799	30.37	3.32	-42.71	59.36	50.34	74.00	23.66	Pass	H	PK
3	1998.4999	31.69	3.47	-43.20	59.77	51.73	74.00	22.27	Pass	H	PK
4	4874.0000	34.50	4.78	-42.80	48.12	44.60	74.00	29.40	Pass	H	PK
5	7311.0000	36.41	5.85	-42.14	47.71	47.83	74.00	26.17	Pass	H	PK
6	9748.0000	37.70	6.77	-42.10	47.35	49.72	74.00	24.28	Pass	H	PK
7	1797.4797	30.36	3.32	-42.71	58.67	49.64	74.00	24.36	Pass	V	PK
8	1993.0993	31.65	3.46	-43.18	61.06	52.99	74.00	21.01	Pass	V	PK
9	3564.0376	33.45	4.41	-43.08	53.86	48.64	74.00	25.36	Pass	V	PK
10	4874.0000	34.50	4.78	-42.80	46.87	43.35	74.00	30.65	Pass	V	PK
11	7311.0000	36.41	5.85	-42.14	47.21	47.33	74.00	26.67	Pass	V	PK
12	9748.0000	37.70	6.77	-42.10	46.08	48.45	74.00	25.55	Pass	V	PK



Mode:			802.11 b(1Mbps) Transmitting					Channel:		2462	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1187.8188	28.09	2.67	-42.91	55.26	43.11	74.00	30.89	Pass	H	PK
2	1980.0980	31.57	3.45	-43.15	55.80	47.67	74.00	26.33	Pass	H	PK
3	2772.1772	32.84	4.19	-43.10	55.72	49.65	74.00	24.35	Pass	H	PK
4	4924.0000	34.50	4.85	-42.80	47.63	44.18	74.00	29.82	Pass	H	PK
5	7386.0000	36.49	5.85	-42.13	47.47	47.68	74.00	26.32	Pass	H	PK
6	9848.0000	37.74	6.83	-42.10	46.49	48.96	74.00	25.04	Pass	H	PK
7	1796.0796	30.35	3.31	-42.70	59.34	50.30	74.00	23.70	Pass	V	PK
8	3564.0376	33.45	4.41	-43.08	53.96	48.74	74.00	25.26	Pass	V	PK
9	4356.0904	34.30	4.51	-42.85	53.86	49.82	74.00	24.18	Pass	V	PK
10	4924.0000	34.50	4.85	-42.80	46.56	43.11	74.00	30.89	Pass	V	PK
11	7386.0000	36.49	5.85	-42.13	47.50	47.71	74.00	26.29	Pass	V	PK
12	9848.0000	37.74	6.83	-42.10	47.45	49.92	74.00	24.08	Pass	V	PK

Mode:			802.11 g(6Mbps) Transmitting					Channel:		2412	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1188.0188	28.09	2.67	-42.91	59.66	47.51	74.00	26.49	Pass	H	PK
2	1799.4799	30.38	3.32	-42.71	58.53	49.52	74.00	24.48	Pass	H	PK
3	1979.8980	31.57	3.45	-43.15	61.15	53.02	74.00	20.98	Pass	H	PK
4	4824.0000	34.50	4.61	-42.80	46.80	43.11	74.00	30.89	Pass	H	PK
5	7236.0000	36.34	5.79	-42.16	46.24	46.21	74.00	27.79	Pass	H	PK
6	9648.0000	37.66	6.72	-42.10	46.34	48.62	74.00	25.38	Pass	H	PK
7	1187.8188	28.09	2.67	-42.91	58.09	45.94	74.00	28.06	Pass	V	PK
8	1792.6793	30.33	3.31	-42.71	59.35	50.28	74.00	23.72	Pass	V	PK
9	1990.6991	31.64	3.46	-43.18	61.64	53.56	74.00	20.44	Pass	V	PK
10	4824.0000	34.50	4.61	-42.80	48.11	44.42	74.00	29.58	Pass	V	PK
11	7236.0000	36.34	5.79	-42.16	45.90	45.87	74.00	28.13	Pass	V	PK
12	9648.0000	37.66	6.72	-42.10	45.94	48.22	74.00	25.78	Pass	V	PK

Mode:			802.11 g(6Mbps) Transmitting					Channel:		2437	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1188.4188	28.09	2.67	-42.91	52.77	40.62	74.00	33.38	Pass	H	PK
2	2771.9772	32.84	4.19	-43.11	54.81	48.73	74.00	25.27	Pass	H	PK
3	3564.0376	33.45	4.41	-43.08	50.66	45.44	74.00	28.56	Pass	H	PK
4	4874.0000	34.50	4.78	-42.80	46.42	42.90	74.00	31.10	Pass	H	PK
5	7311.0000	36.41	5.85	-42.14	47.47	47.59	74.00	26.41	Pass	H	PK
6	9748.0000	37.70	6.77	-42.10	46.53	48.90	74.00	25.10	Pass	H	PK
7	1796.8797	30.36	3.31	-42.70	59.15	50.12	74.00	23.88	Pass	V	PK
8	1996.4997	31.68	3.47	-43.20	61.45	53.40	74.00	20.60	Pass	V	PK
9	2191.7192	31.97	3.65	-43.16	55.86	48.32	74.00	25.68	Pass	V	PK
10	4874.0000	34.50	4.78	-42.80	46.06	42.54	74.00	31.46	Pass	V	PK
11	7311.0000	36.41	5.85	-42.14	46.30	46.42	74.00	27.58	Pass	V	PK
12	9748.0000	37.70	6.77	-42.10	47.41	49.78	74.00	24.22	Pass	V	PK

Mode:			802.11 g(6Mbps) Transmitting					Channel:		2462	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1188.0188	28.09	2.67	-42.91	60.78	48.63	74.00	25.37	Pass	H	PK
2	1979.8980	31.57	3.45	-43.15	59.60	51.47	74.00	22.53	Pass	H	PK
3	2772.3772	32.84	4.19	-43.10	57.92	51.85	74.00	22.15	Pass	H	PK
4	4924.0000	34.50	4.85	-42.80	46.49	43.04	74.00	30.96	Pass	H	PK
5	7386.0000	36.49	5.85	-42.13	47.40	47.61	74.00	26.39	Pass	H	PK
6	9848.0000	37.74	6.83	-42.10	45.81	48.28	74.00	25.72	Pass	H	PK
7	1795.0795	30.35	3.31	-42.71	60.23	51.18	74.00	22.82	Pass	V	PK
8	1980.0980	31.57	3.45	-43.15	58.06	49.93	74.00	24.07	Pass	V	PK
9	3564.0376	33.45	4.41	-43.08	55.69	50.47	74.00	23.53	Pass	V	PK
10	4924.0000	34.50	4.85	-42.80	46.43	42.98	74.00	31.02	Pass	V	PK
11	7386.0000	36.49	5.85	-42.13	46.84	47.05	74.00	26.95	Pass	V	PK
12	9848.0000	37.74	6.83	-42.10	45.99	48.46	74.00	25.54	Pass	V	PK

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	Remark
1	1188.0188	28.09	2.67	-42.91	56.11	43.96	74.00	30.04	Pass	H	PK
2	2772.1772	32.84	4.19	-43.10	56.32	50.25	74.00	23.75	Pass	H	PK
3	3564.0376	33.45	4.41	-43.08	52.56	47.34	74.00	26.66	Pass	H	PK
4	4824.0000	34.50	4.61	-42.80	46.62	42.93	74.00	31.07	Pass	H	PK
5	7236.0000	36.34	5.79	-42.16	46.26	46.23	74.00	27.77	Pass	H	PK
6	9648.0000	37.66	6.72	-42.10	47.44	49.72	74.00	24.28	Pass	H	PK
7	1187.8188	28.09	2.67	-42.91	58.12	45.97	74.00	28.03	Pass	V	PK
8	1979.8980	31.57	3.45	-43.15	58.83	50.70	74.00	23.30	Pass	V	PK
9	3564.0376	33.45	4.41	-43.08	54.99	49.77	74.00	24.23	Pass	V	PK
10	4824.0000	34.50	4.61	-42.80	46.67	42.98	74.00	31.02	Pass	V	PK
11	7236.0000	36.34	5.79	-42.16	46.72	46.69	74.00	27.31	Pass	V	PK
12	9648.0000	37.66	6.72	-42.10	46.00	48.28	74.00	25.72	Pass	V	PK

Mode:			802.11 n(HT20) (6.5Mbps) Transmitting					Channel:		2437	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1188.0188	28.09	2.67	-42.91	62.31	50.16	74.00	23.84	Pass	H	PK
2	1979.8980	31.57	3.45	-43.15	60.77	52.64	74.00	21.36	Pass	H	PK
3	2772.1772	32.84	4.19	-43.10	57.63	51.56	74.00	22.44	Pass	H	PK
4	4874.0000	34.50	4.78	-42.80	46.50	42.98	74.00	31.02	Pass	H	PK
5	7311.0000	36.41	5.85	-42.14	47.81	47.93	74.00	26.07	Pass	H	PK
6	9748.0000	37.70	6.77	-42.10	46.91	49.28	74.00	24.72	Pass	H	PK
7	1187.8188	28.09	2.67	-42.91	59.00	46.85	74.00	27.15	Pass	V	PK
8	1979.8980	31.57	3.45	-43.15	57.95	49.82	74.00	24.18	Pass	V	PK
9	3564.0376	33.45	4.41	-43.08	54.19	48.97	74.00	25.03	Pass	V	PK
10	4874.0000	34.50	4.78	-42.80	45.87	42.35	74.00	31.65	Pass	V	PK
11	7311.0000	36.41	5.85	-42.14	46.21	46.33	74.00	27.67	Pass	V	PK
12	9748.0000	37.70	6.77	-42.10	47.00	49.37	74.00	24.63	Pass	V	PK

Mode:			802.11 n(HT20) (6.5Mbps) Transmitting					Channel:		2462	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1187.8188	28.09	2.67	-42.91	58.05	45.90	74.00	28.10	Pass	H	PK
2	1979.8980	31.57	3.45	-43.15	57.88	49.75	74.00	24.25	Pass	H	PK
3	2771.9772	32.84	4.19	-43.11	57.16	51.08	74.00	22.92	Pass	H	PK
4	4924.0000	34.50	4.85	-42.80	48.53	45.08	74.00	28.92	Pass	H	PK
5	7386.0000	36.49	5.85	-42.13	46.13	46.34	74.00	27.66	Pass	H	PK
6	9848.0000	37.74	6.83	-42.10	46.03	48.50	74.00	25.50	Pass	H	PK
7	1187.8188	28.09	2.67	-42.91	59.79	47.64	74.00	26.36	Pass	V	PK
8	1979.8980	31.57	3.45	-43.15	60.46	52.33	74.00	21.67	Pass	V	PK
9	4924.0000	34.50	4.85	-42.80	47.04	43.59	74.00	30.41	Pass	V	PK
10	7386.0000	36.49	5.85	-42.13	46.65	46.86	74.00	27.14	Pass	V	PK
11	9848.0000	37.74	6.83	-42.10	46.02	48.49	74.00	25.51	Pass	V	PK
12	11883.5922	39.21	7.43	-41.93	48.62	53.33	74.00	20.67	Pass	V	PK

**Note:**

1) Through transmitting modewith all kind of modulation and data rate, find the 1Mbps 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

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.