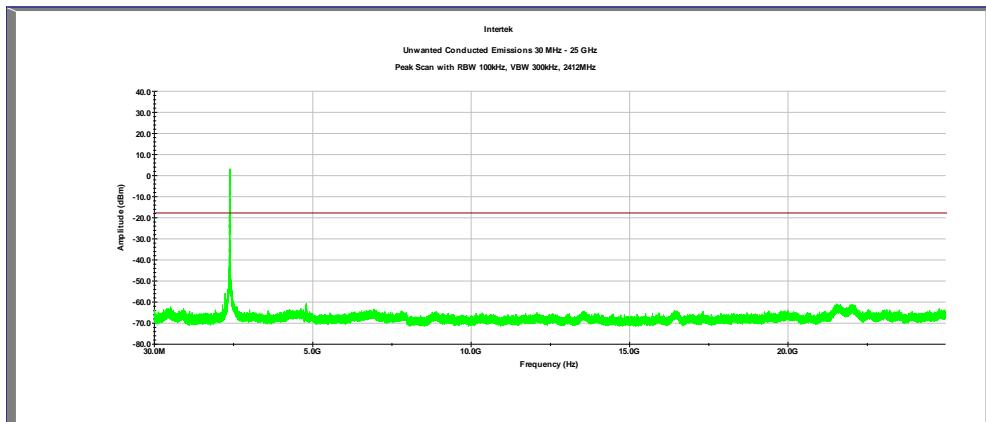
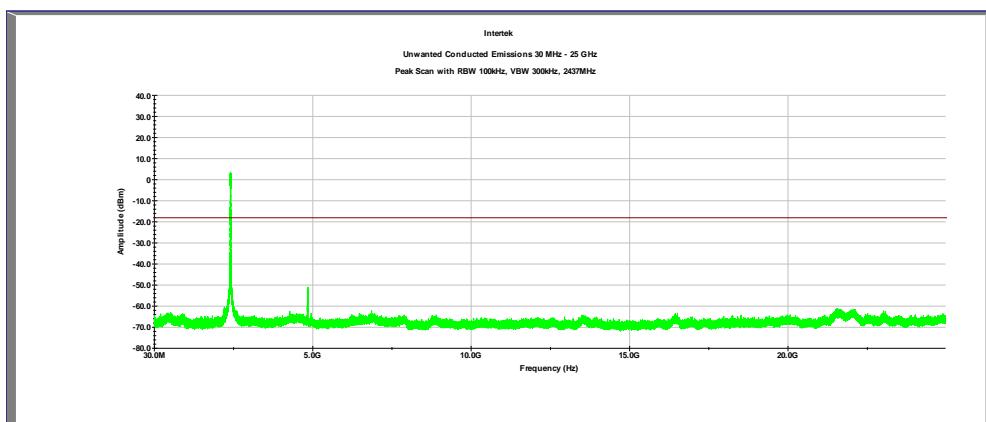


## 4.0 Measurement Results

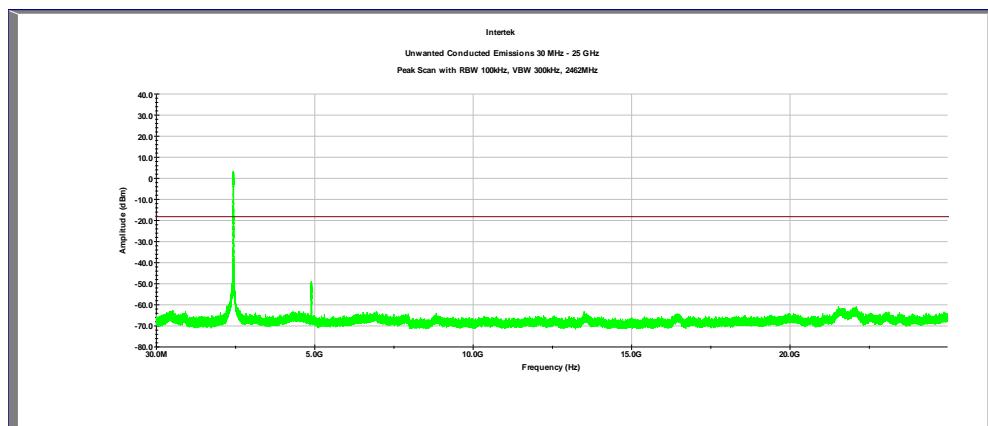
Plot 4.4 (b)  
Tx @ 2412MHz 802.11g second antenna



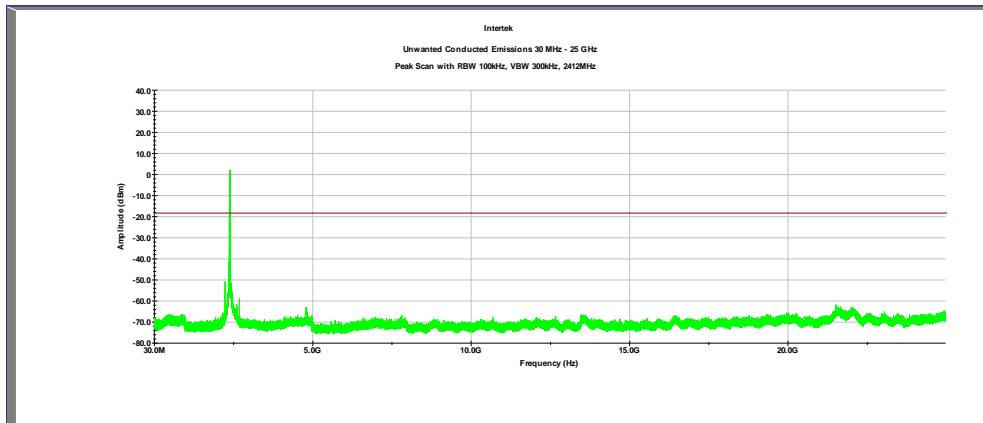
Plot 4.5 (b)  
Tx @ 2437MHz 802.11g second antenna



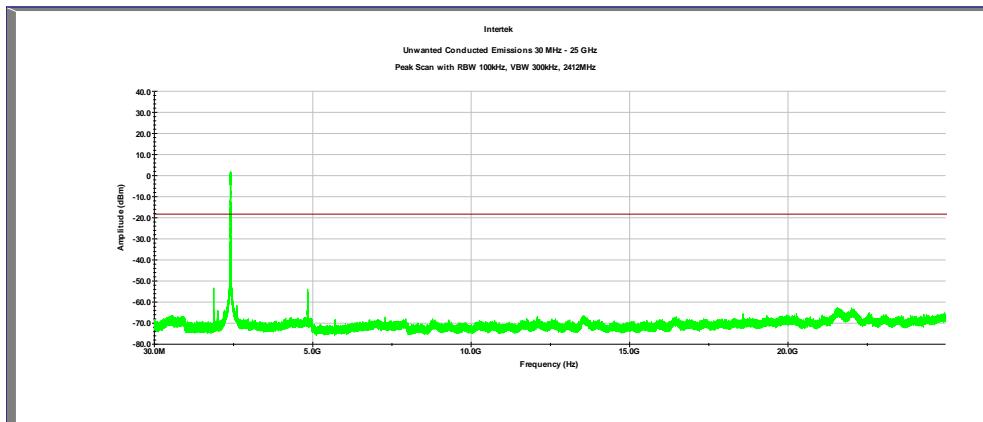
Plot 4.6 (b)  
Tx @ 2462MHz 802.11g second antenna



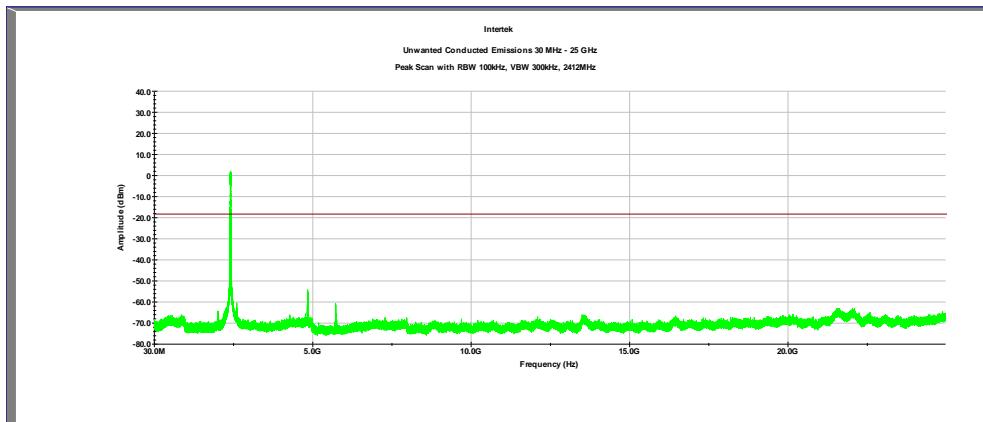
Plot 4.7  
**Tx @ 2412MHz 802.11n main antenna**



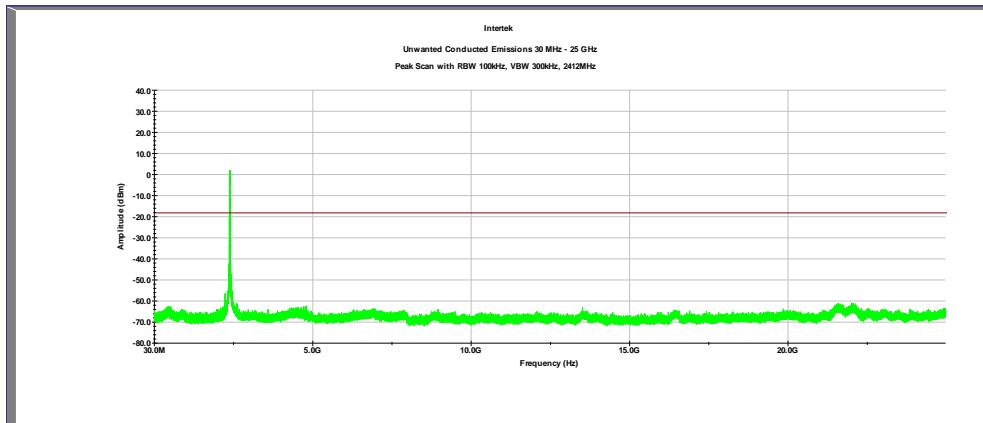
Plot 4.8  
**Tx @ 2437MHz 802.11n main antenna**



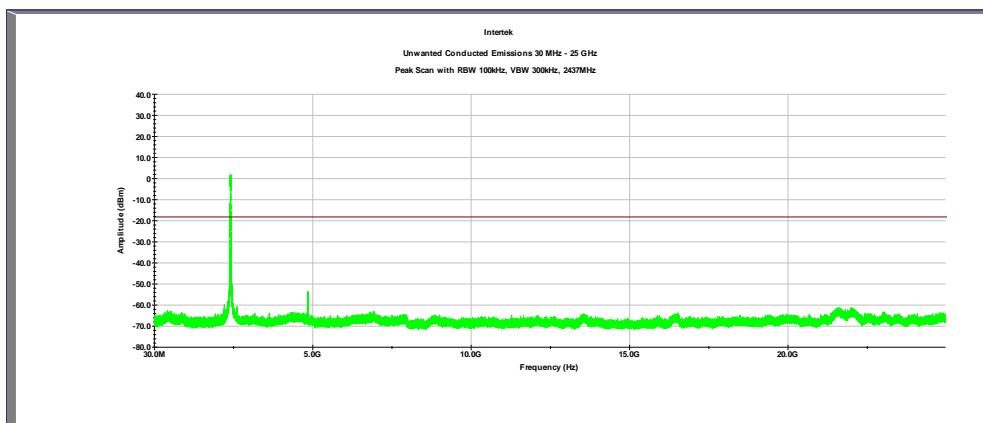
Plot 4.9  
**Tx @ 2462MHz 802.11n main antenna**



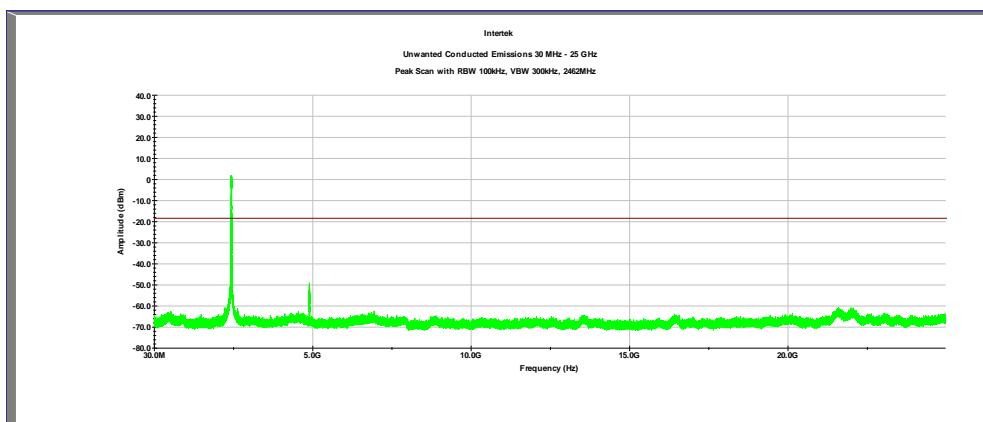
Plot 4.7(b)  
Tx @ 2412MHz 802.11n secondary antenna



Plot 4.8(b)  
Tx @ 2437MHz 802.11n secondary antenna

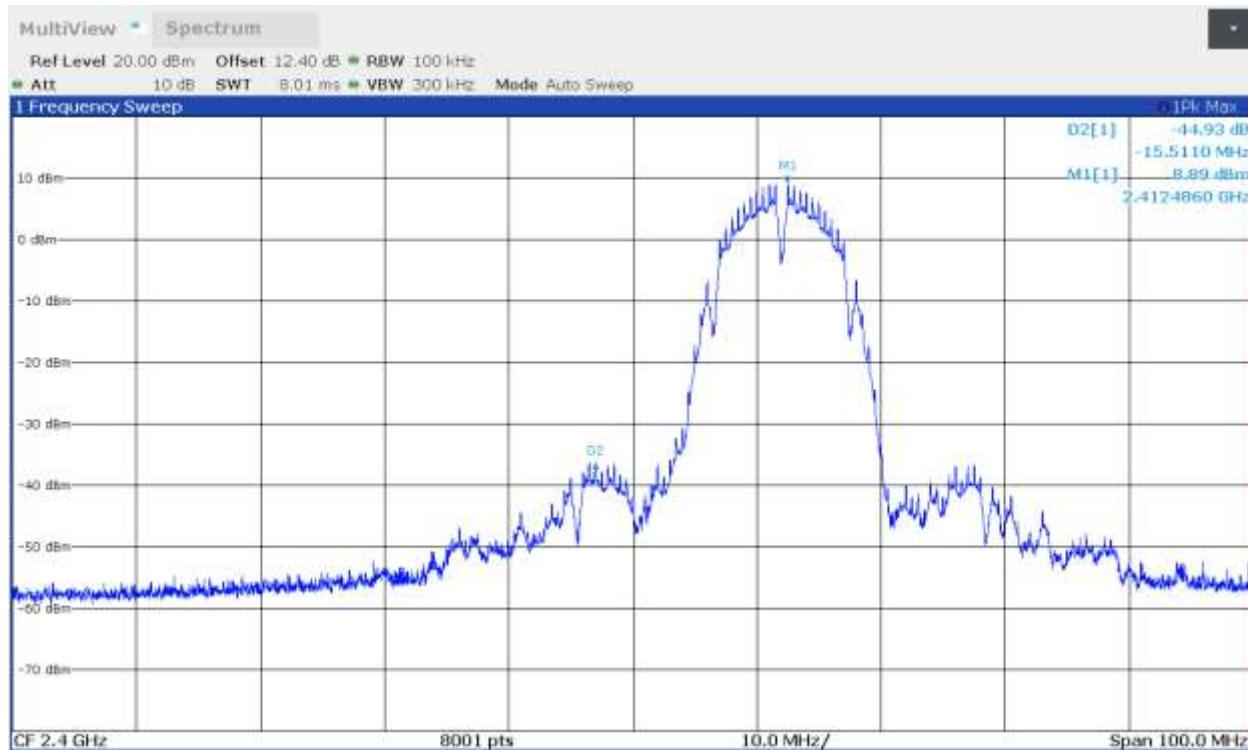


Plot 4.9(b)  
Tx @ 2462MHz 802.11n secondary antenna

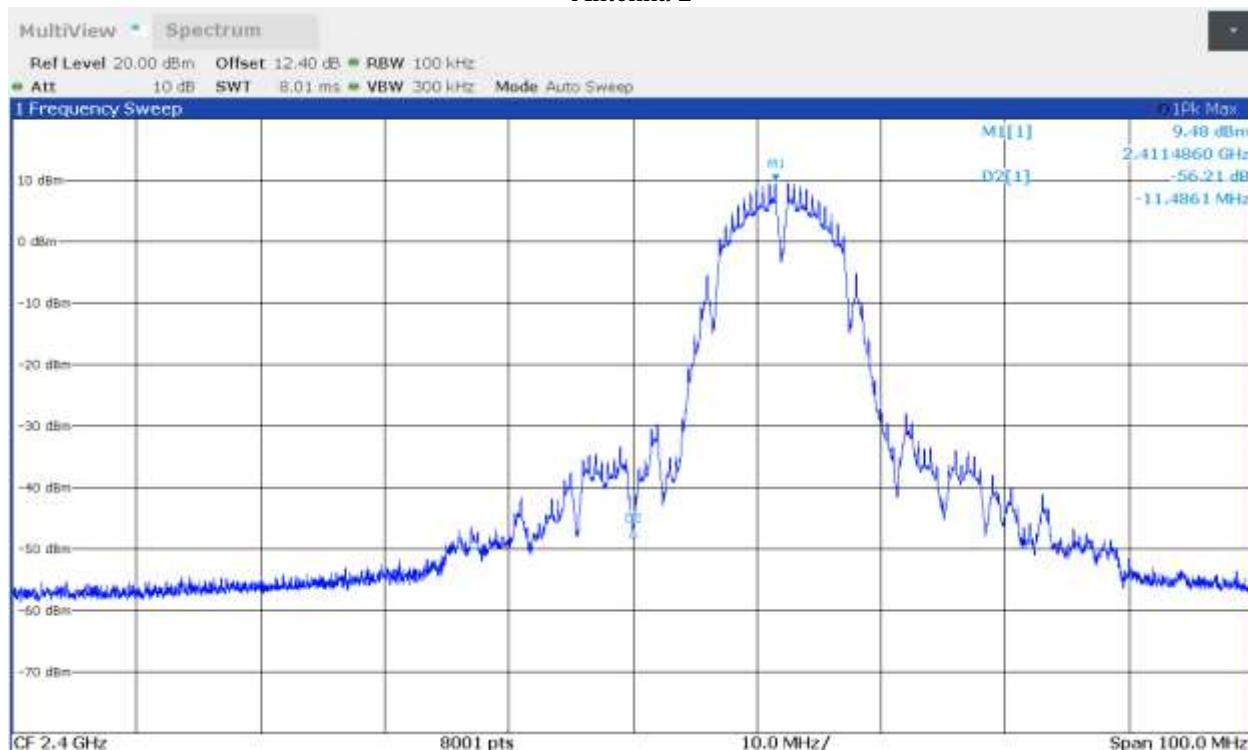


Plot 4.10  
 Conducted Band Edge, Tx @ 2412MHz 802.11b

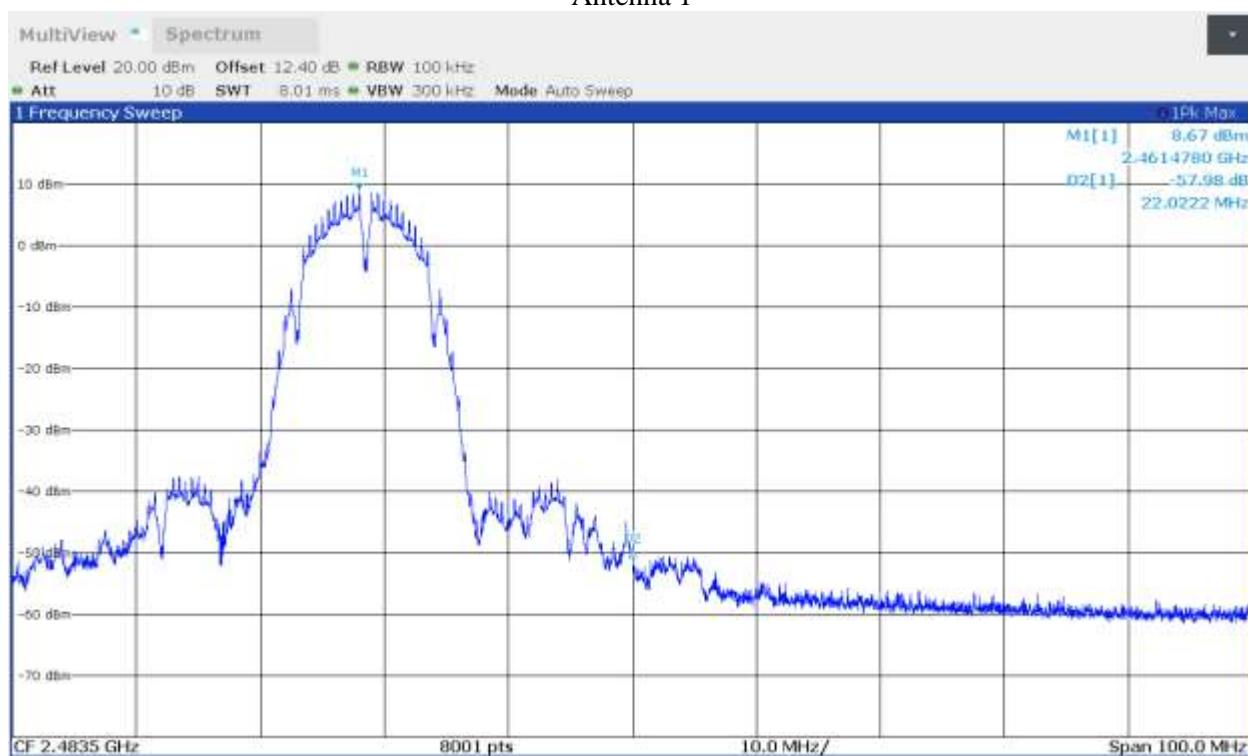
Antenna 1



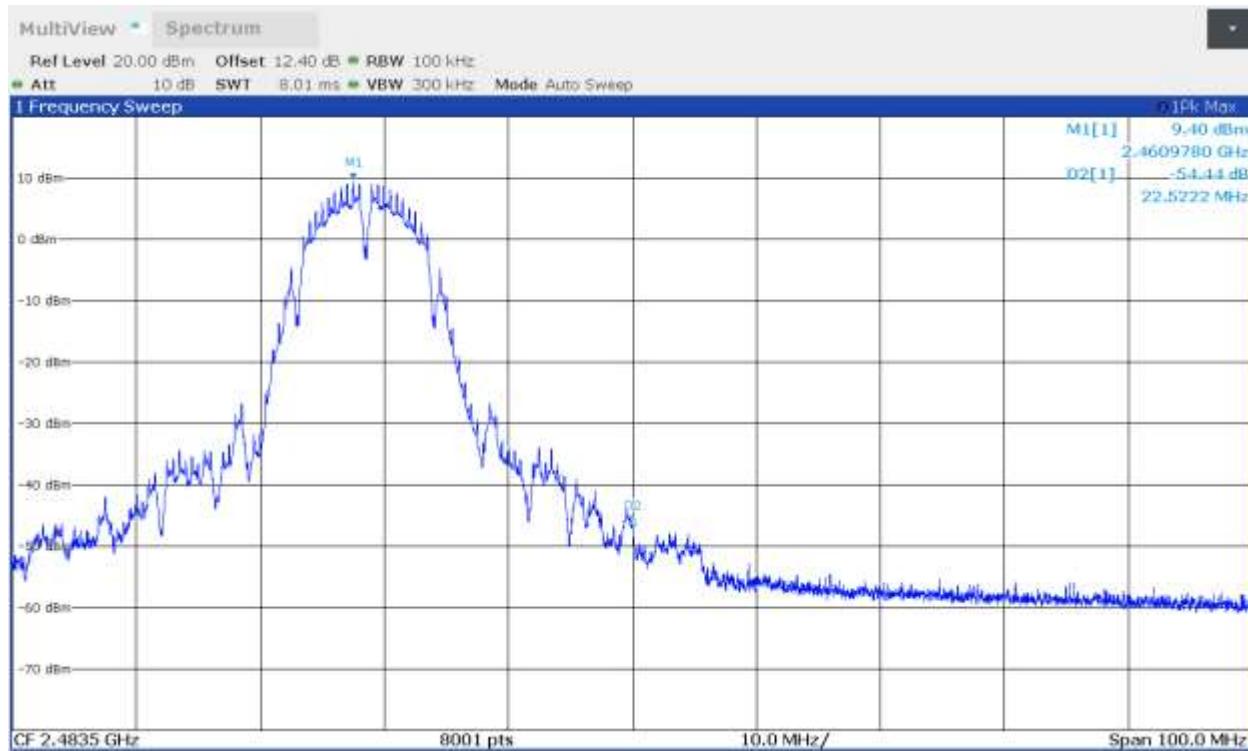
Antenna 2



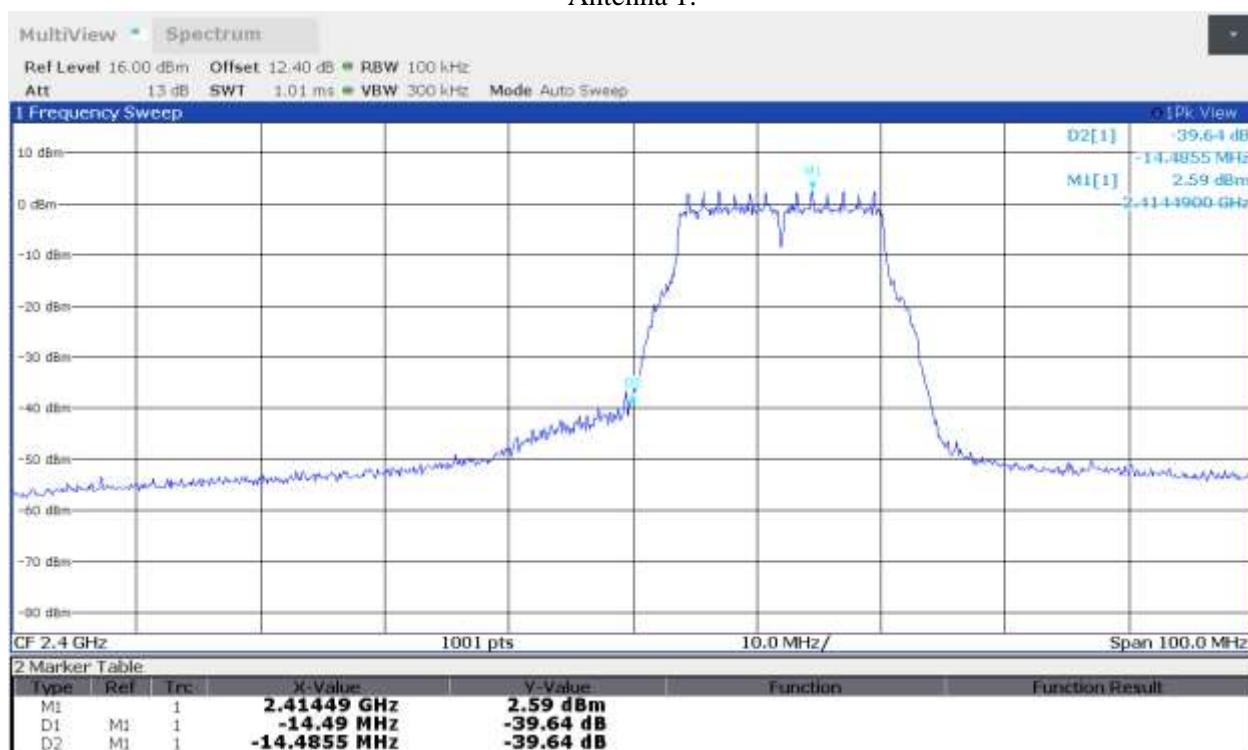
Plot 4.11  
**Conducted Band Edge, Tx @ 2462MHz 802.11b**  
 Antenna 1



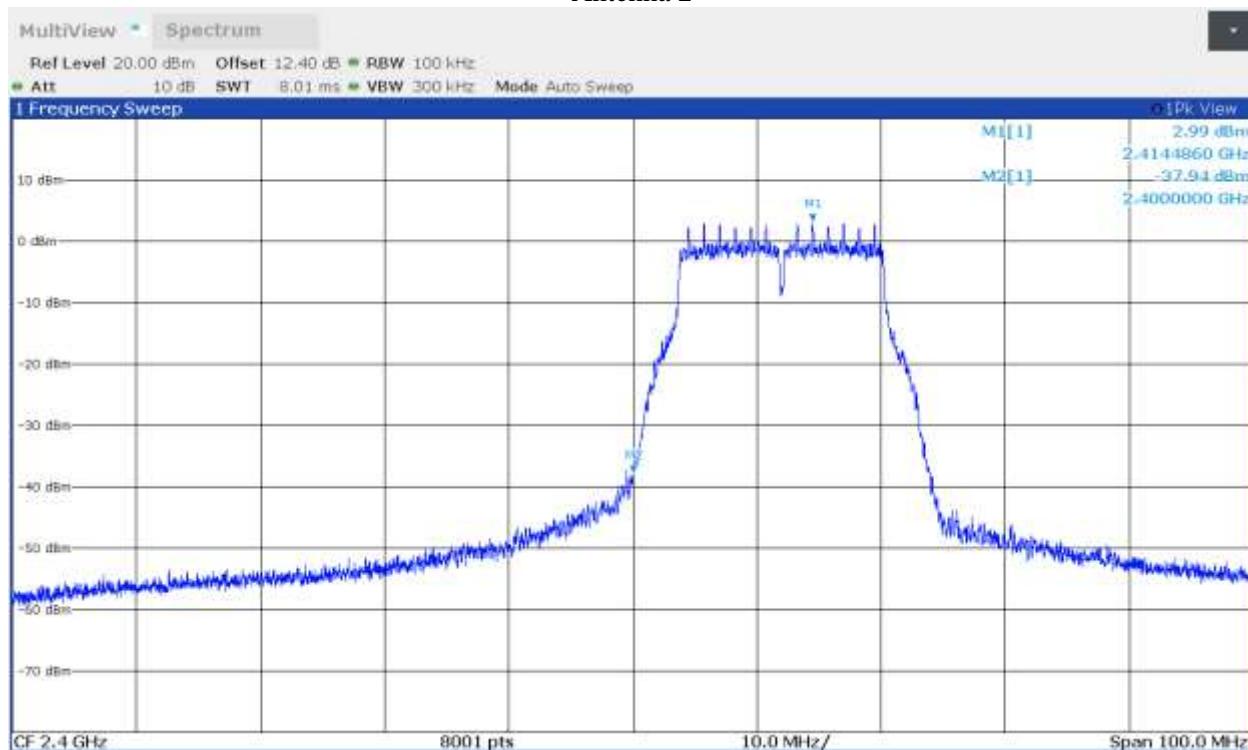
Antenna 2



Plot 4.12  
**Conducted Band Edge, Tx @ 2412MHz 802.11g**  
 Antenna 1.

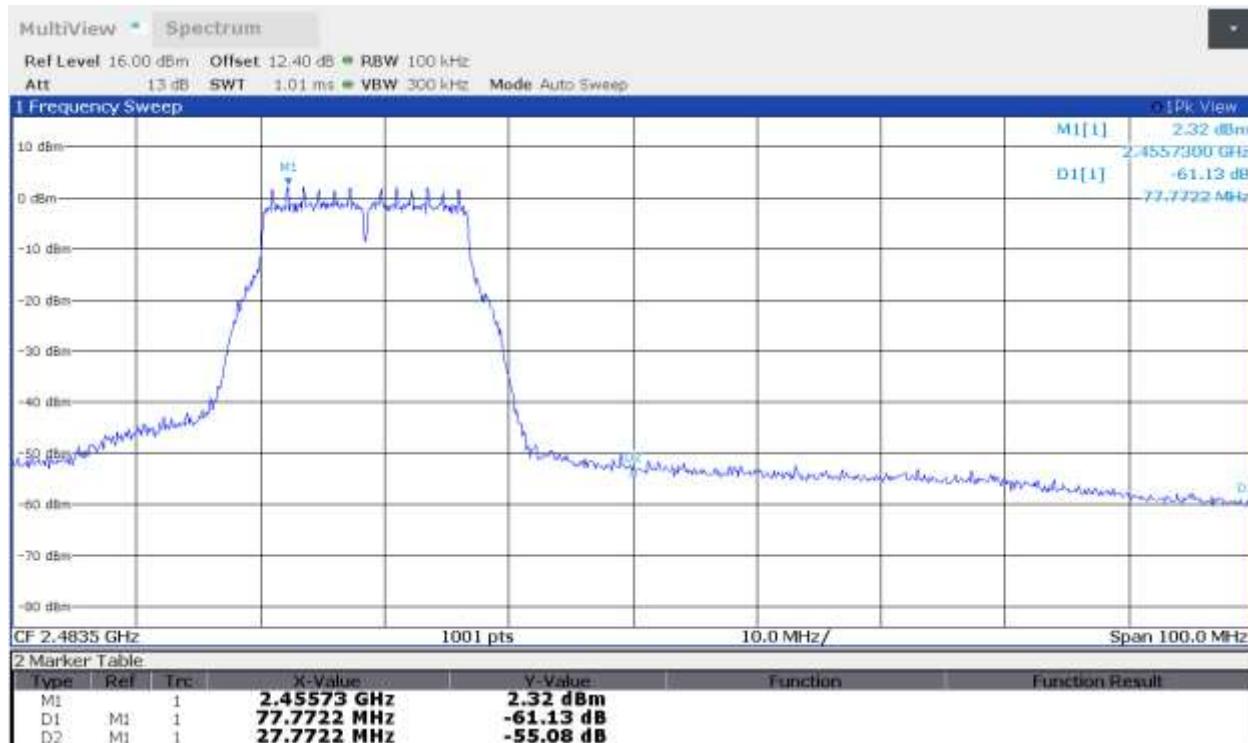


Antenna 2

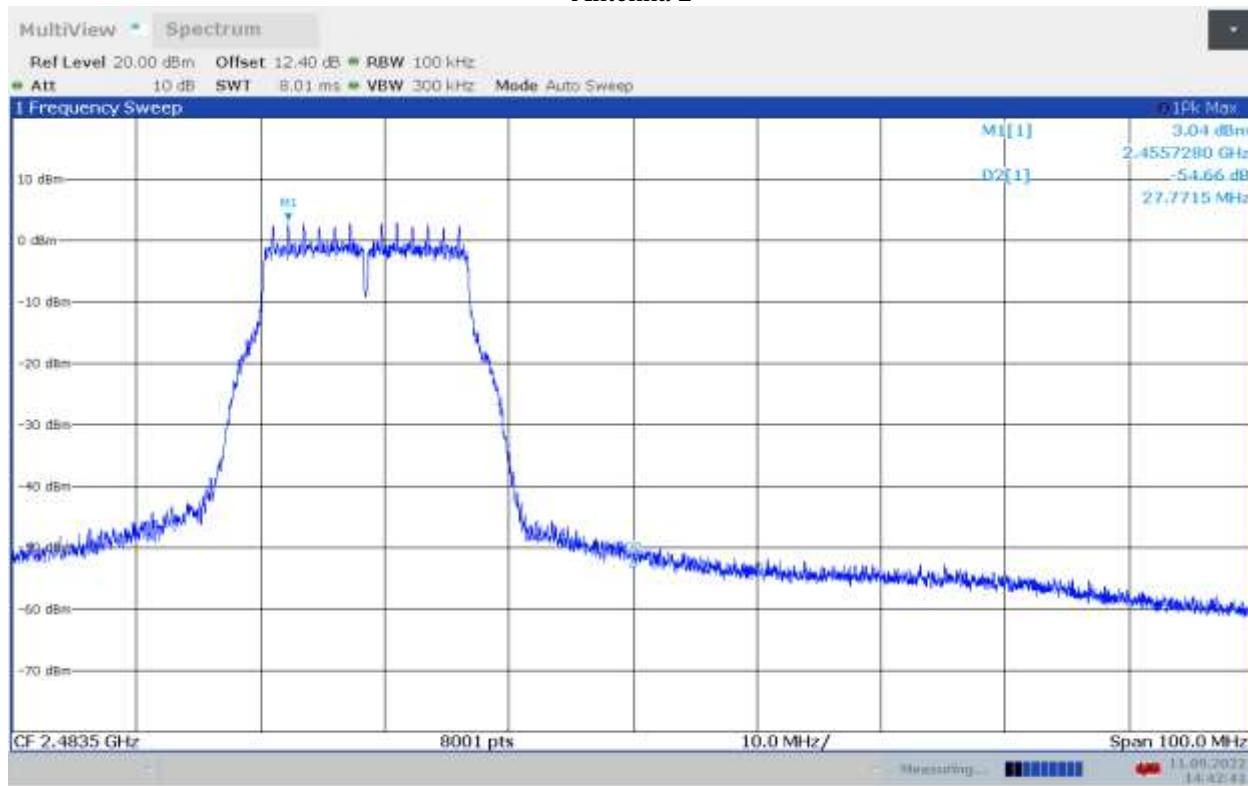


Plot 4.13  
 Conducted Band Edge, Tx @ 2462MHz 802.11g

Antenna 1

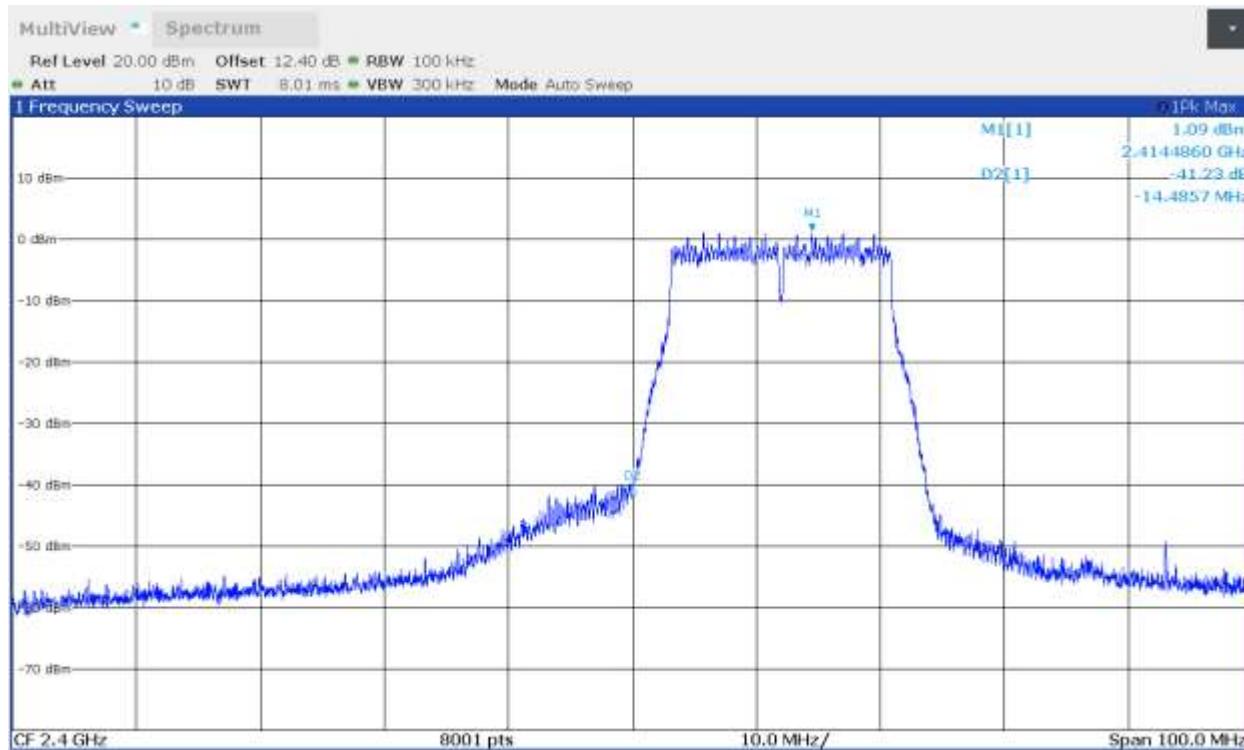


Antenna 2

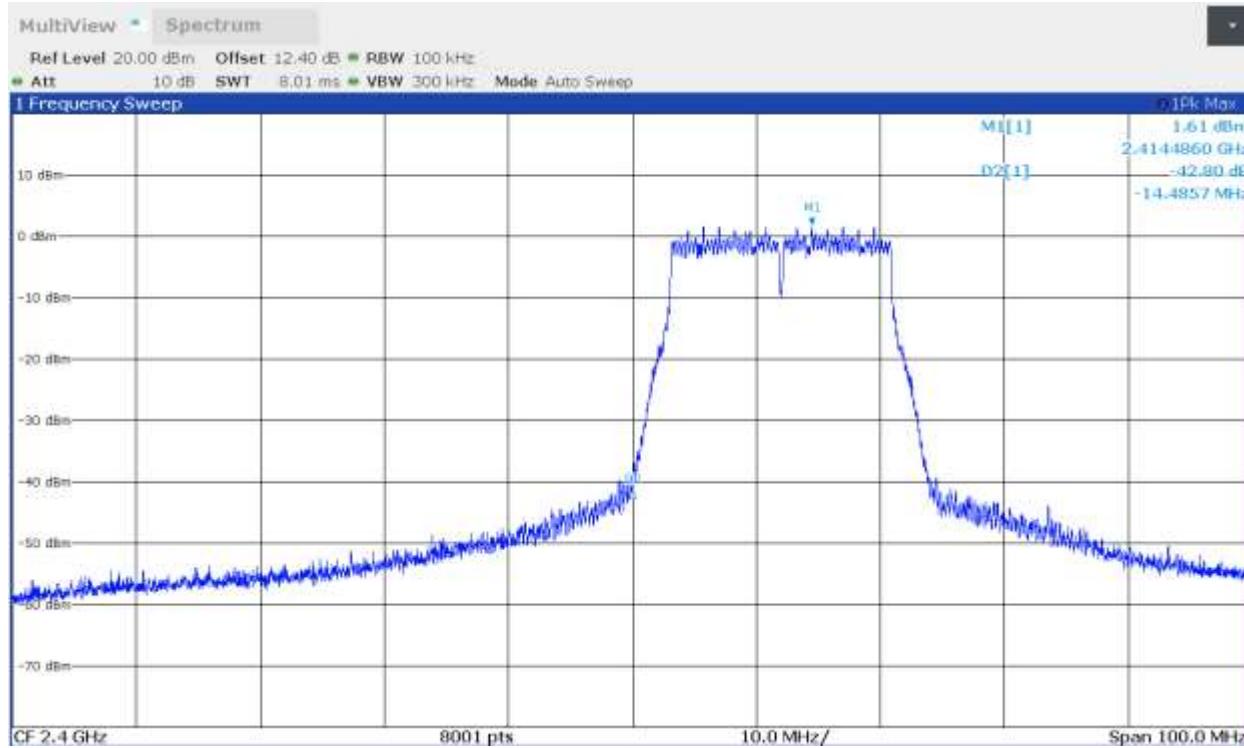


Plot 4.14  
Conducted Band Edge, Tx @ 2412MHz 802.11n 20MHz

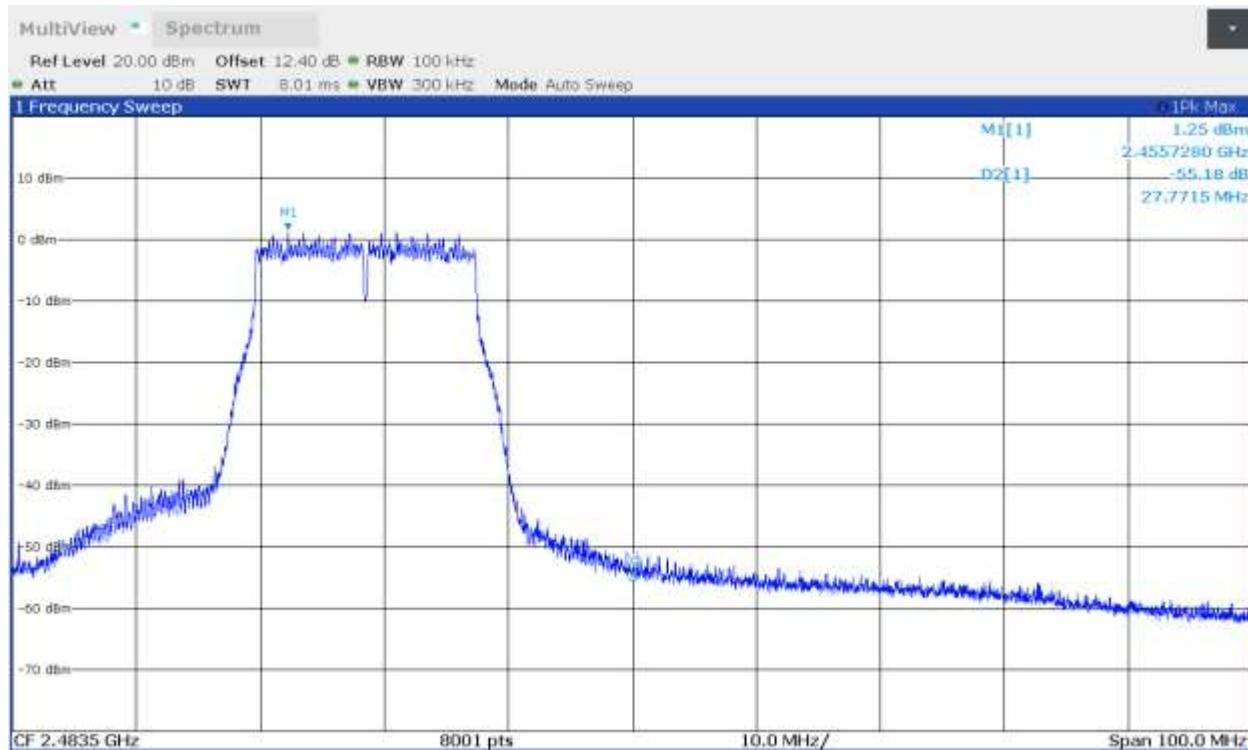
Antenna 1



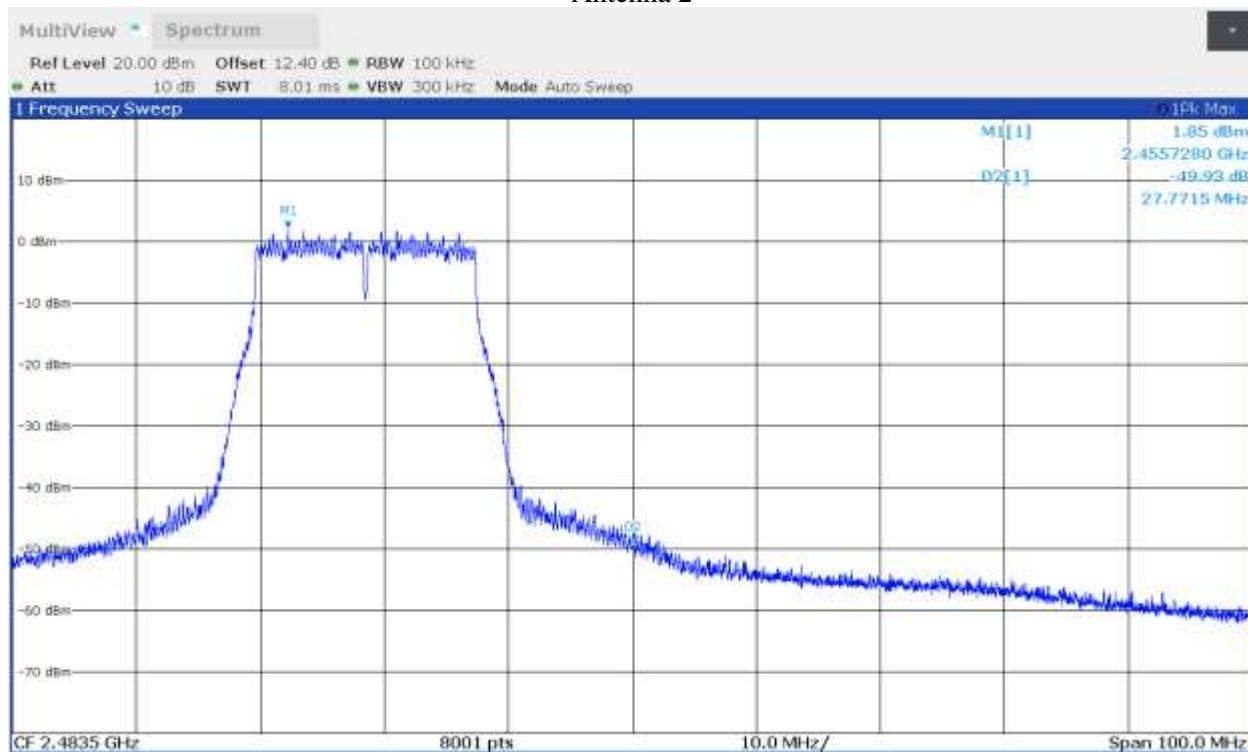
Antenna 2



Plot 4.15  
**Conducted Band Edge, Tx @ 2462MHz 802.11n 20MHz**  
 Antenna 1



Antenna 2



#### 4.5 Transmitter Radiated Emissions

FCC Rules: 15.247(d), 15.209, 15.205; RSS-247, 5.5;

##### 4.5.1 Requirement

Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

For out of band radiated emissions (except for frequencies in restricted bands), in any 100 kHz bandwidths outside the EUT pass-band, the RF power shall be at least 20dB (peak) or 30 dB (average) below that of the maximum in-band 100 kHz emissions.

##### 4.5.2 Procedure – Radiated Emissions

Radiated emission measurements were performed from 9 kHz to 26.5 GHz according to the procedure described in ANSI C63.10: 2013. Spectrum Analyzer Resolution Bandwidth is 200Hz or greater for frequencies 9kHz to 30MHz, 100 kHz or greater for frequencies 30 MHz to 1000 MHz, 1 MHz for frequencies above 1000 MHz. Above 1000 MHz Peak and Average measurements were performed.

The EUT is placed on a plastic turntable that is 80 cm in height for below 1000MHz and 1.5m in height for above 1GHz. If the EUT attaches to peripherals, they are connected and operational (as typical as possible). During testing, all cables were manipulated to produce worst-case emissions. The signal is maximized through rotation. The antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters.

Radiated emissions are taken at 3 meters for frequencies above 1 GHz and at 10 meters for frequencies below 1 GHz.

Measurements made from 1 GHz to 18GHz had a 2.4-2.5GHz notch filter in place. A preamp was used from 30MHz to 26GHz.

All measurements were made with a Peak Detector and compared to QP limits for 30MHz – 1GHz and Average limits for 1GHz – 26GHz.

Correlation measurements were performed below 30MHz between 10m ALSE and Open Field site according to FCC KDB 414788 D01 Radiated Test Site v01r01 section 2. All readings were within the acceptable tolerance.

Data is included of the worst-case configuration (the configuration which resulted in the highest emission levels).

#### 4.5.3 Field Strength Calculation

##### Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CF – AG; if measurement is performed at a distance other than specified in the rule, a Distance Correction Factor (DCF) shall be added.

Where FS = Field Strength in dB( $\mu$ V/m)

RA = Receiver Amplitude (including preamplifier) in dB( $\mu$ V); AF = Antenna Factor in dB(1/m)

CF = Cable Attenuation Factor in dB; AG = Amplifier Gain in dB

Assume a receiver reading of 52.0 dB( $\mu$ V) is obtained. The antennas factor of 7.4 dB(1/m) and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted, giving field strength of 32 dB( $\mu$ V/m). This value in dB( $\mu$ V/m) was converted to its corresponding level in  $\mu$ V/m.

RA = 52.0 dB( $\mu$ V)

AF = 7.4 dB(1/m)

CF = 1.6 dB

AG = 29.0 dB

FS = 52.0+7.4+1.6-29.0 = 32 dB( $\mu$ V/m).

Level in  $\mu$ V/m = Common Antilogarithm [(32 dB $\mu$ V/m)/20] = 39.8  $\mu$ V/m.

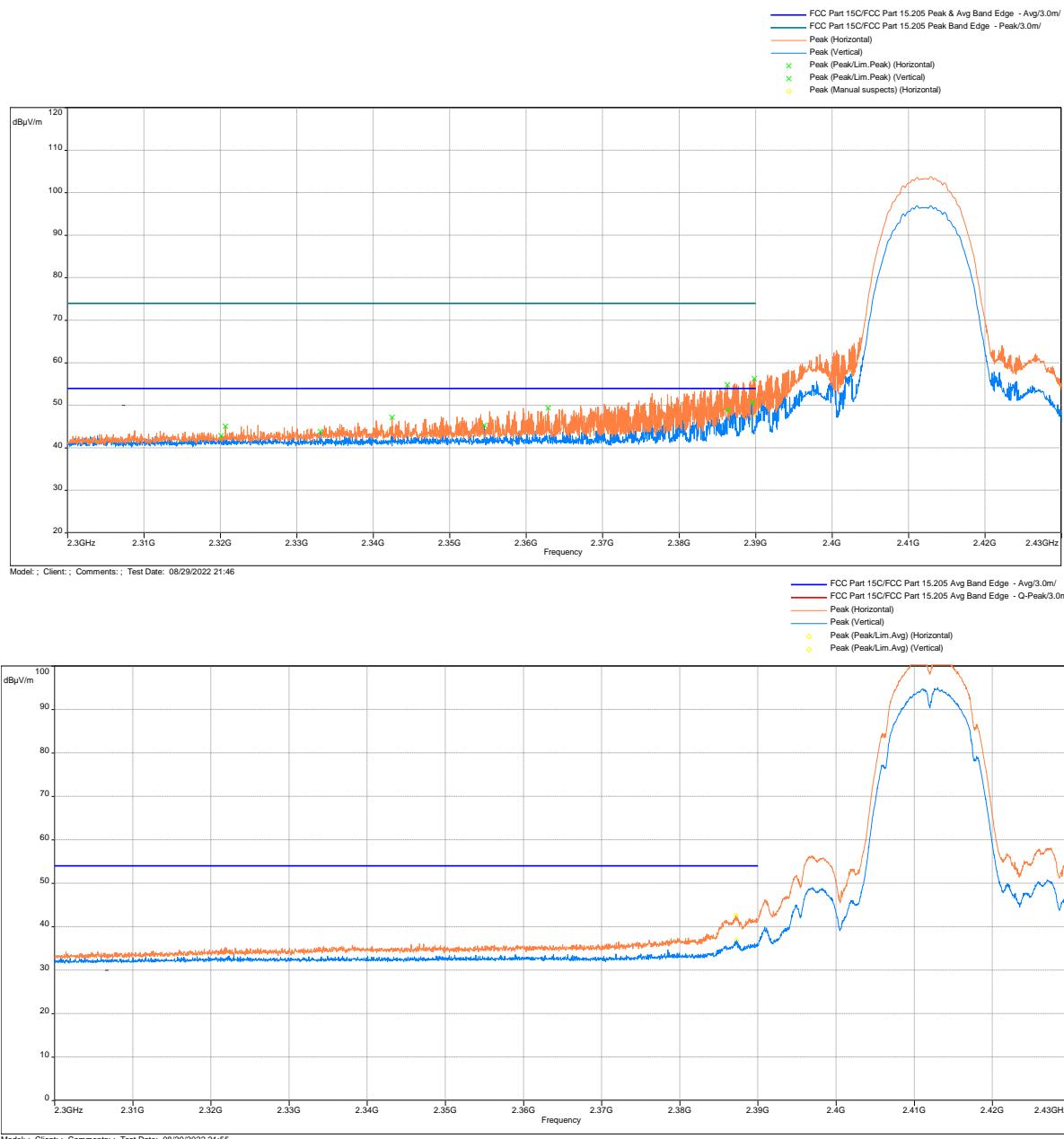
#### 4.5.4 Test Results

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

Tested By	Test Date
Juan Alapizco Vega	August 18 – October 11, 2022

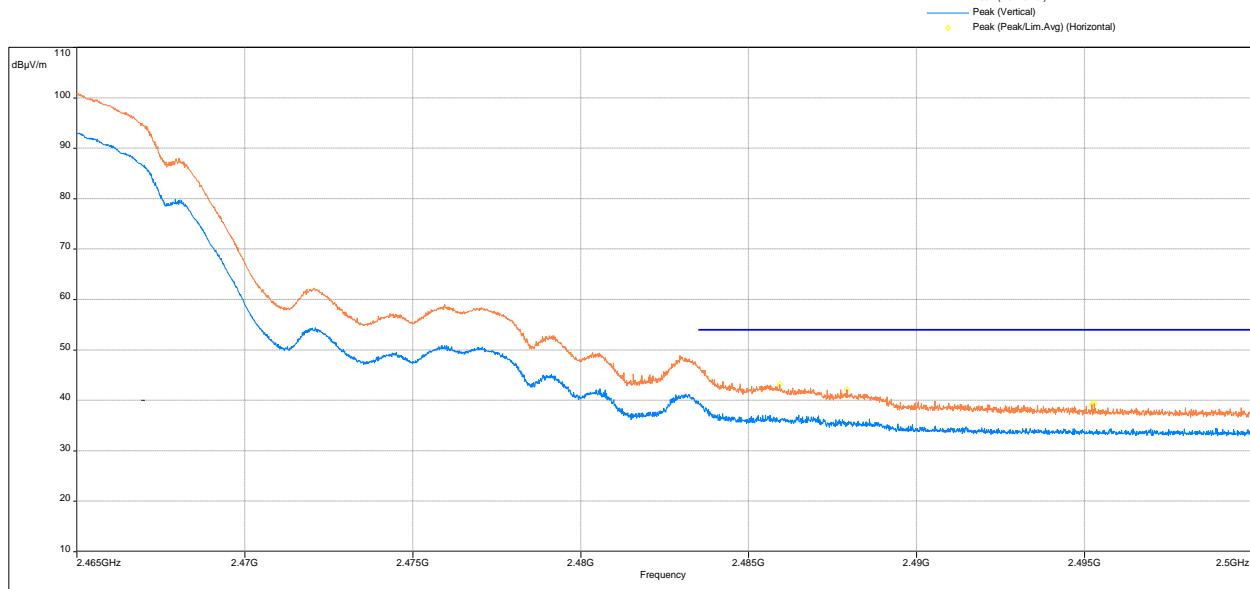
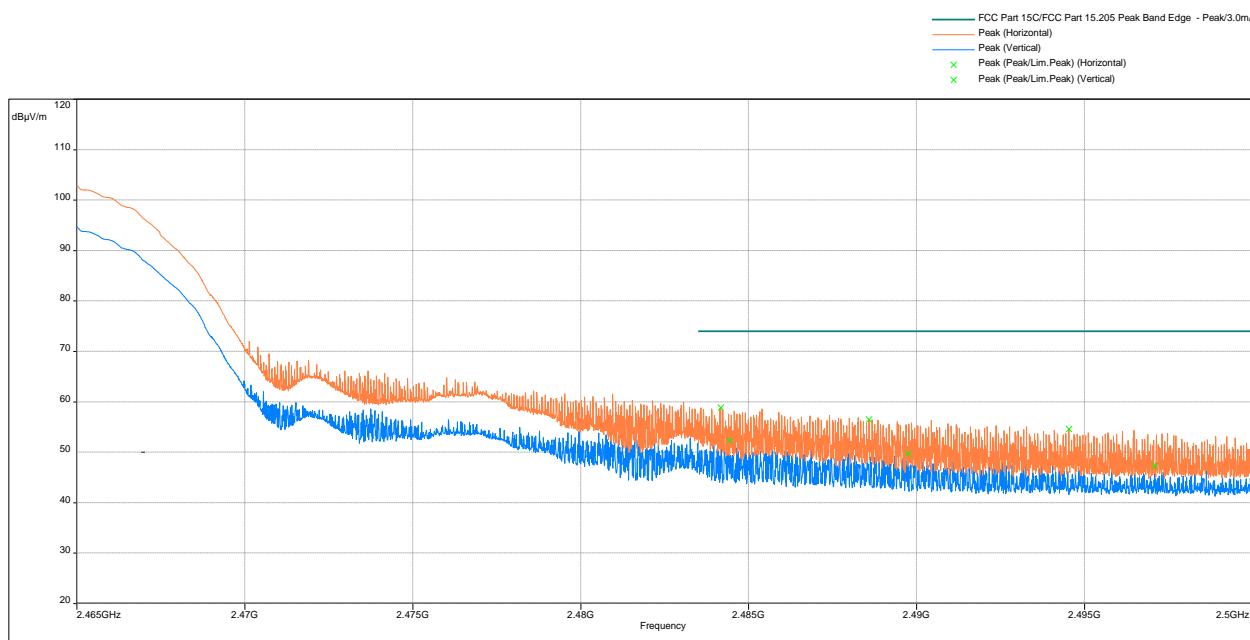
## Test Results: 15.209/15.205 Radiated Restricted Band Emissions

### Out-of-Band Spurious Emissions at the Band Edge - 802.11b, 2412 MHz



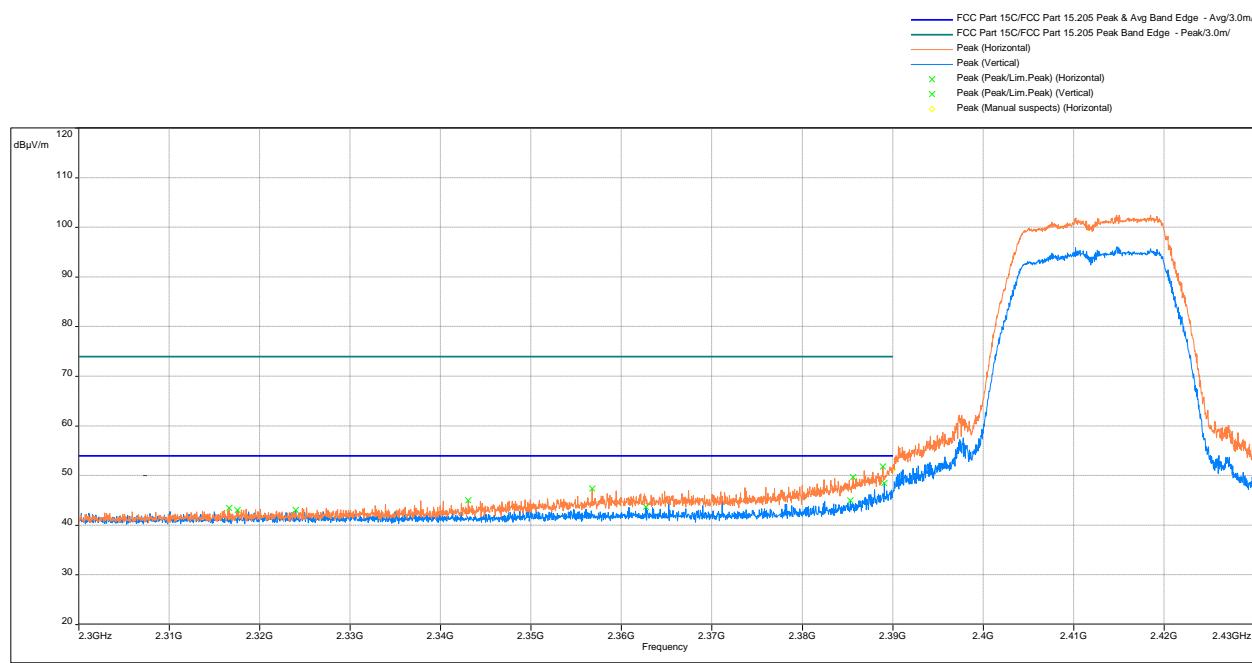
Frequency (MHz)	Detector	FS@3m	Margin	Limit	Height	Angle
		(dB $\mu$ V/m)	(dB)	(dB $\mu$ V/m)	(m)	( $^{\circ}$ )
2390	Peak	47.48	-26.52	74	1.23	94.25
2390	Average	40.84	-13.16	54	2.23	110.25

### Out-of-Band Spurious Emissions at the Band Edge - 802.11b, 2462 MHz



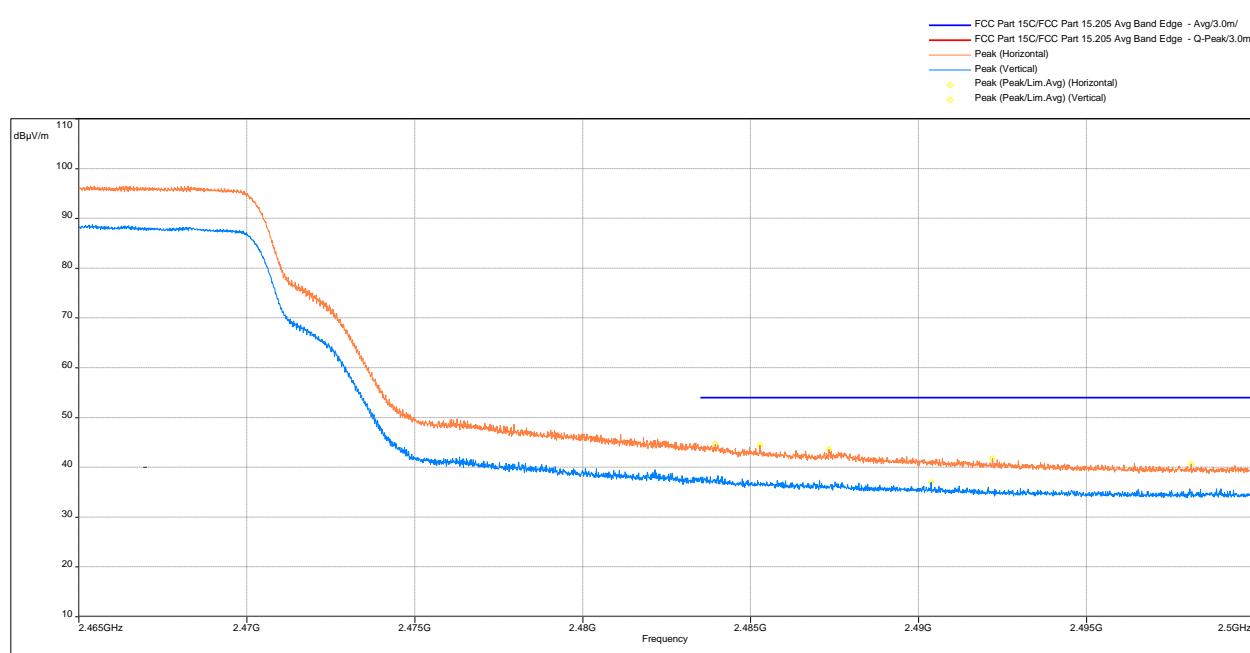
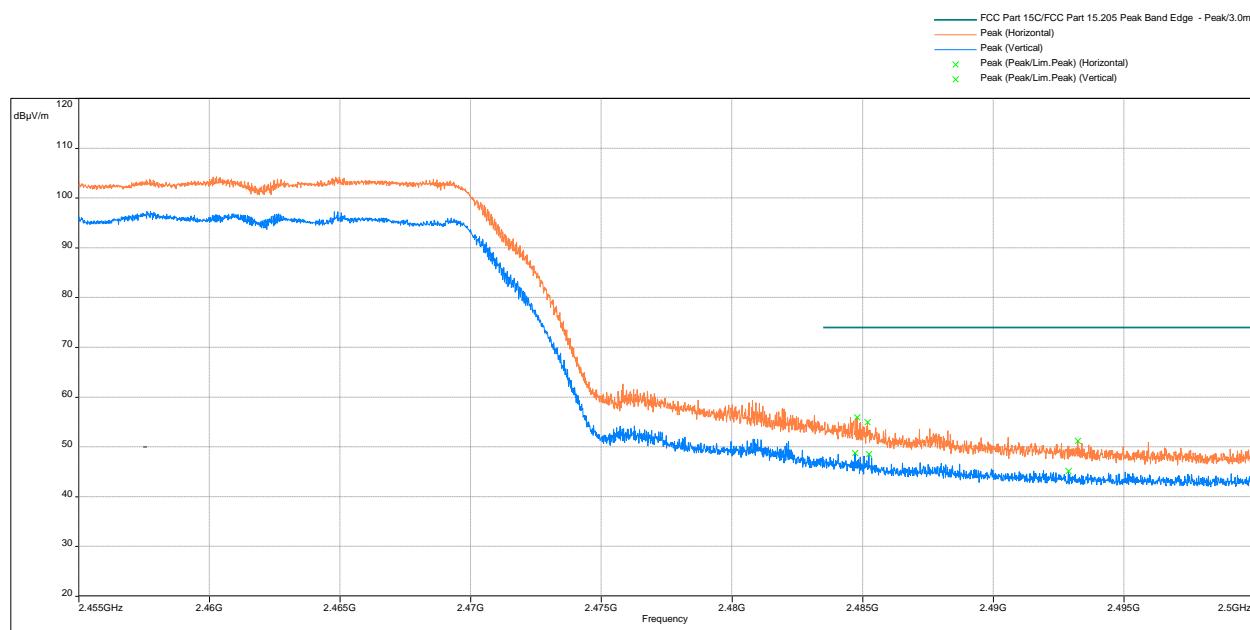
Frequency (MHz)	Detector	FS@3m (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Height (m)	Angle (°)
2483.500	Peak	51.59	-22.41	74	2.16	139
2483.500	Average	46.13	-7.87	54	2.42	125.25

### Out-of-Band Spurious Emissions at the Band Edge - 802.11g, 2412 MHz



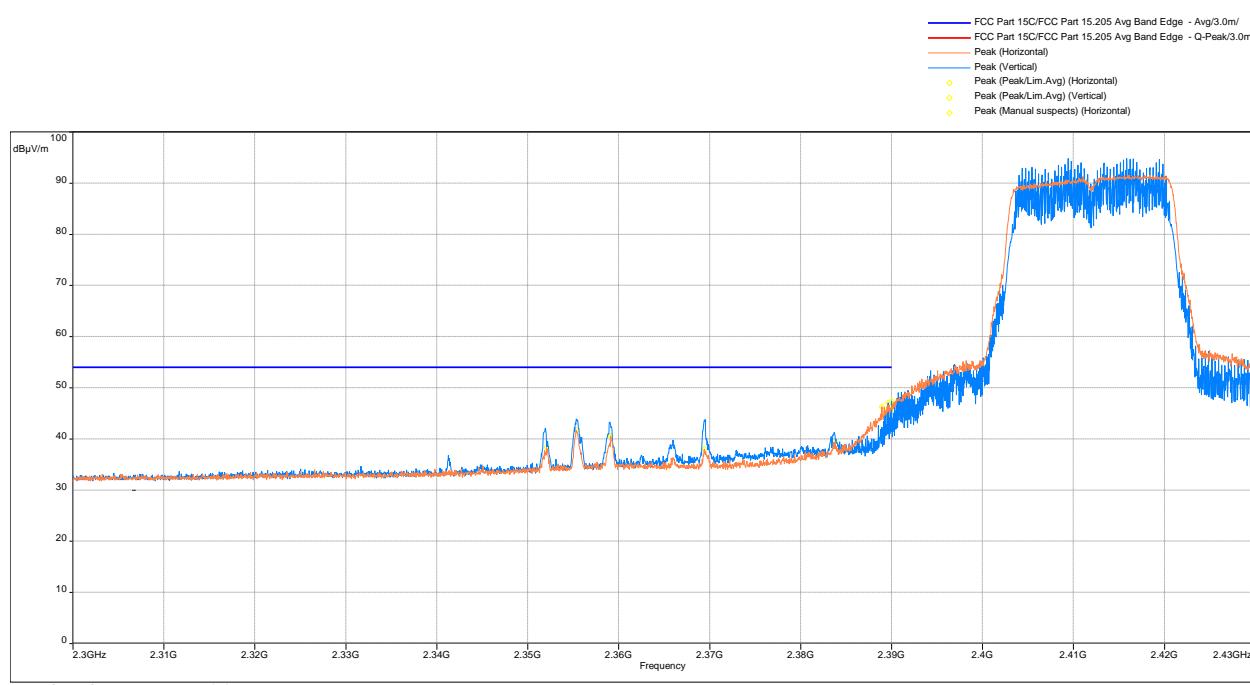
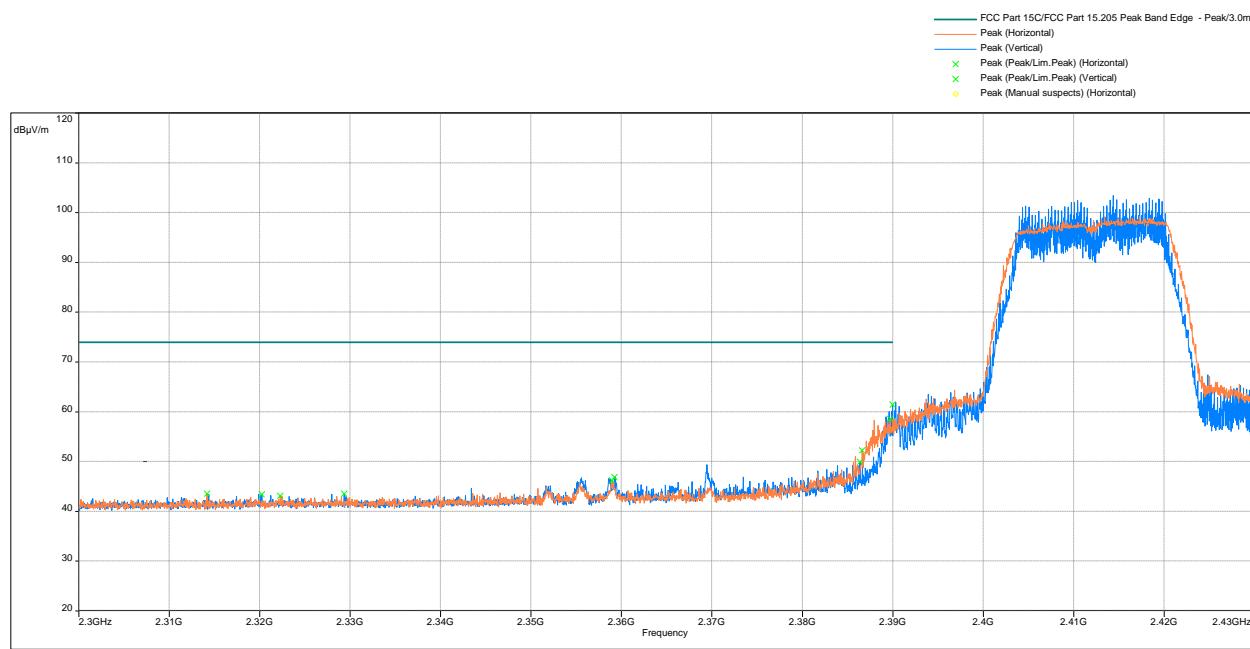
Frequency (MHz)	Detector	FS@3m	Margin	Ave Limit	Height	Angle
		(dB $\mu$ V/m)	(dB)	(dB $\mu$ V/m)	(m)	( $^{\circ}$ )
2390.0	Peak	51.31	-2.69	54	1.01	158

### Out-of-Band Spurious Emissions at the Band Edge - 802.11g, 2462 MHz



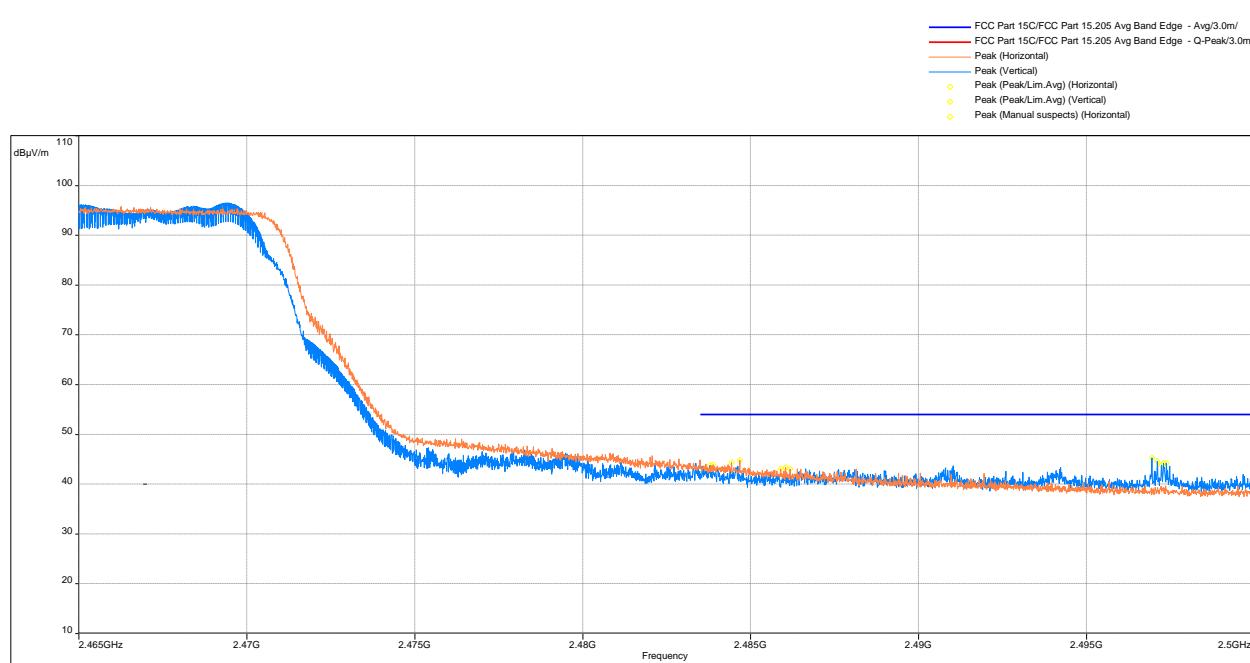
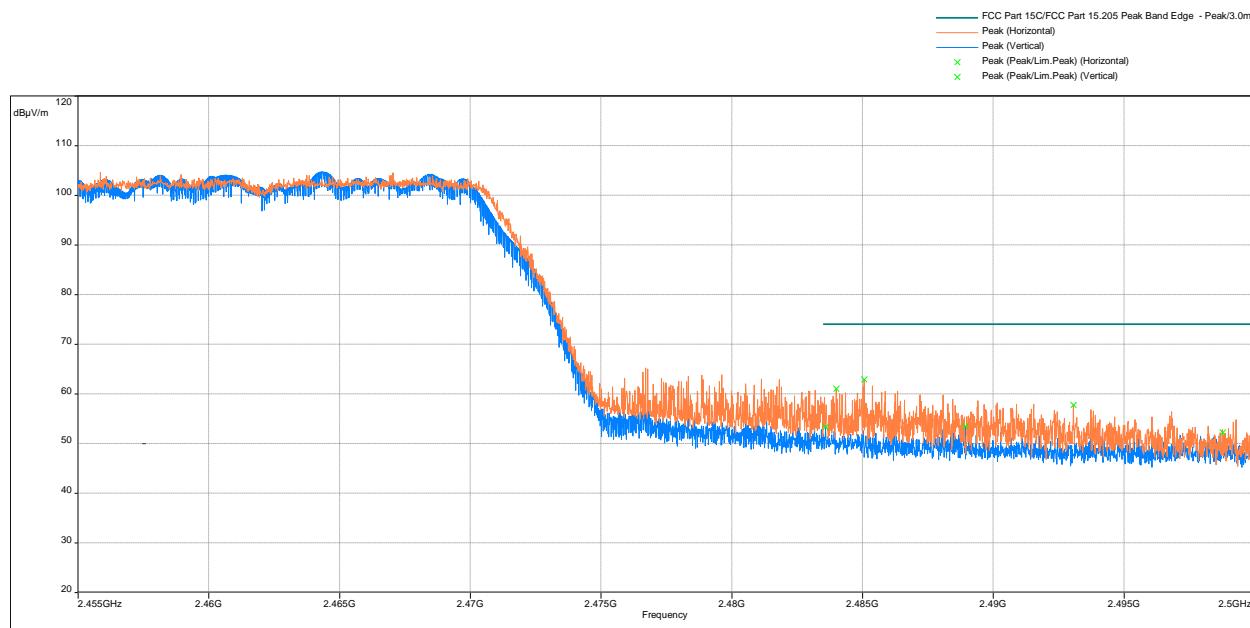
Frequency (MHz)	Detector	FS@3m	Margin	Limit	Height	Angle
		(dBμV/m)	(dB)	(dBμV/m)	(m)	(°)
2483.5	Average	39.21	-14.79	54	1.00	136
	Peak	52.56	-21.44	74		

### Out-of-Band Spurious Emissions at the Band Edge - 802.11n 20MHz, 2412 MHz



Frequency (MHz)	Detector	FS@3m (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Height (m)	Angle (°)
2390.0	Average	46.83	-7.17	54	1.00	143.25
2390.0		56.28	-17.72	74		

## Out-of-Band Spurious Emissions at the Band Edge - 802.11n 20MHz, 2462 MHz



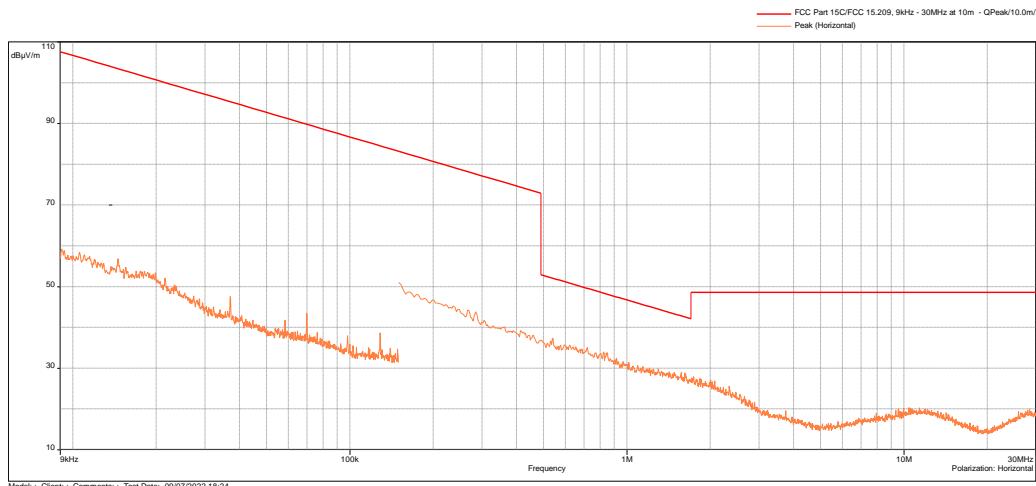
Frequency (MHz)	Detector	FS@3m	Margin	Limit	Height	Angle
		(dBµV/m)	(dB)	(dBµV/m)	(m)	(°)
2483.5	Average	42.05	-11.95	54	2.00	231.75
2483.5	Peak	57.98	-16.02	74		

Results	Complies
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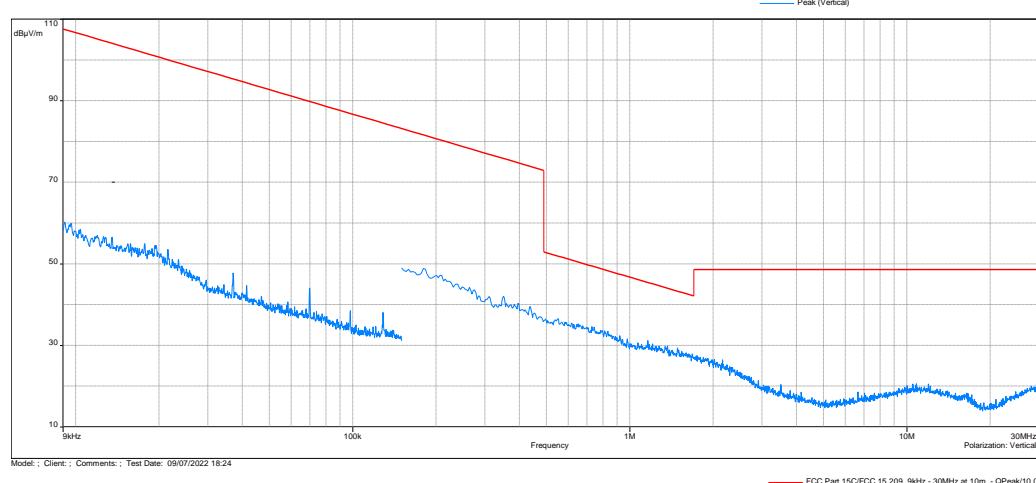
### Out-of-Band Radiated Spurious Emissions

#### Test Results: 15.209 Radiated Spurious Emissions Low Channel, Tx at 802.11b 2412MHz

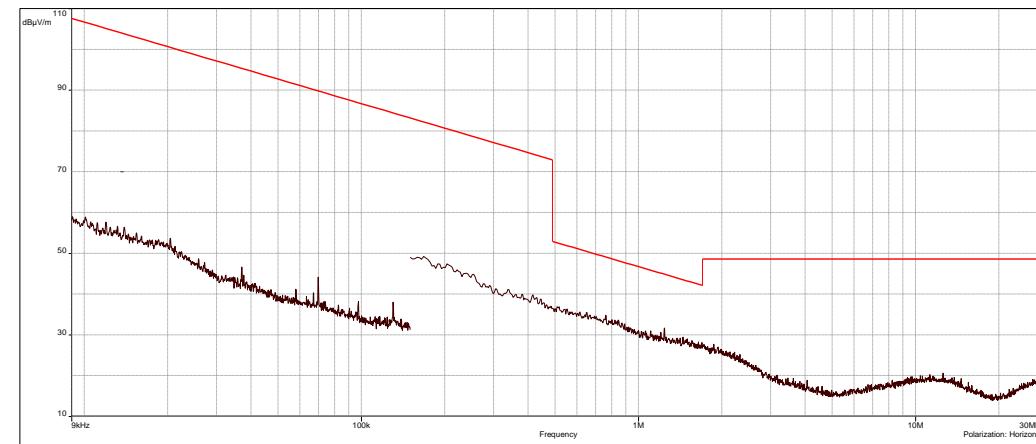
##### Out-of-Band Radiated Spurious Emissions - 9 kHz to 30 MHz



Horizontal

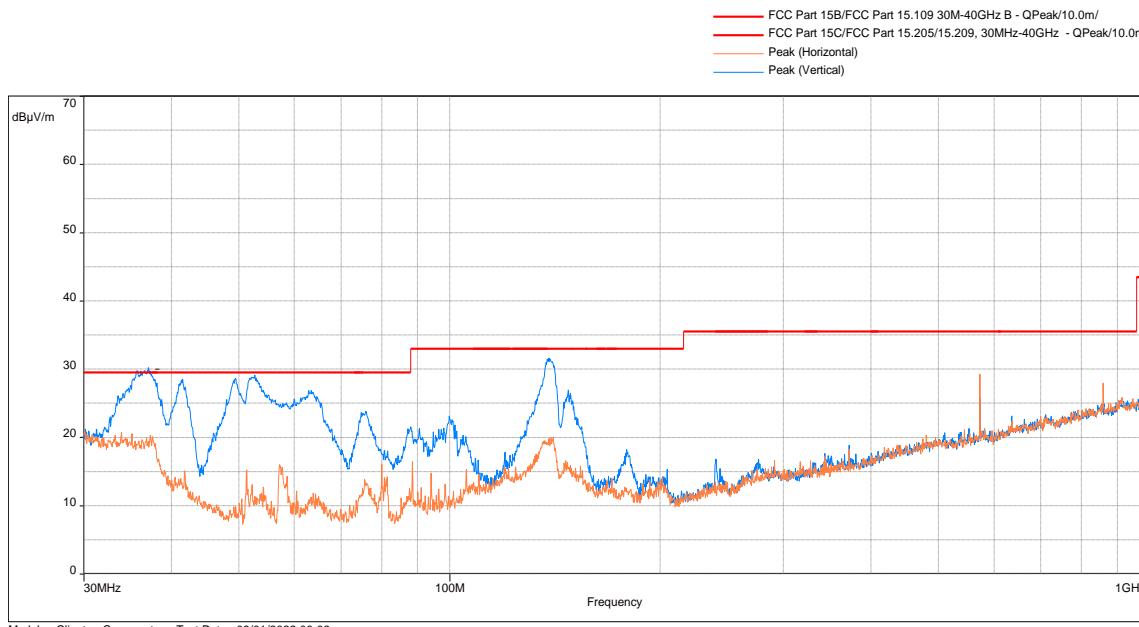


Vertical

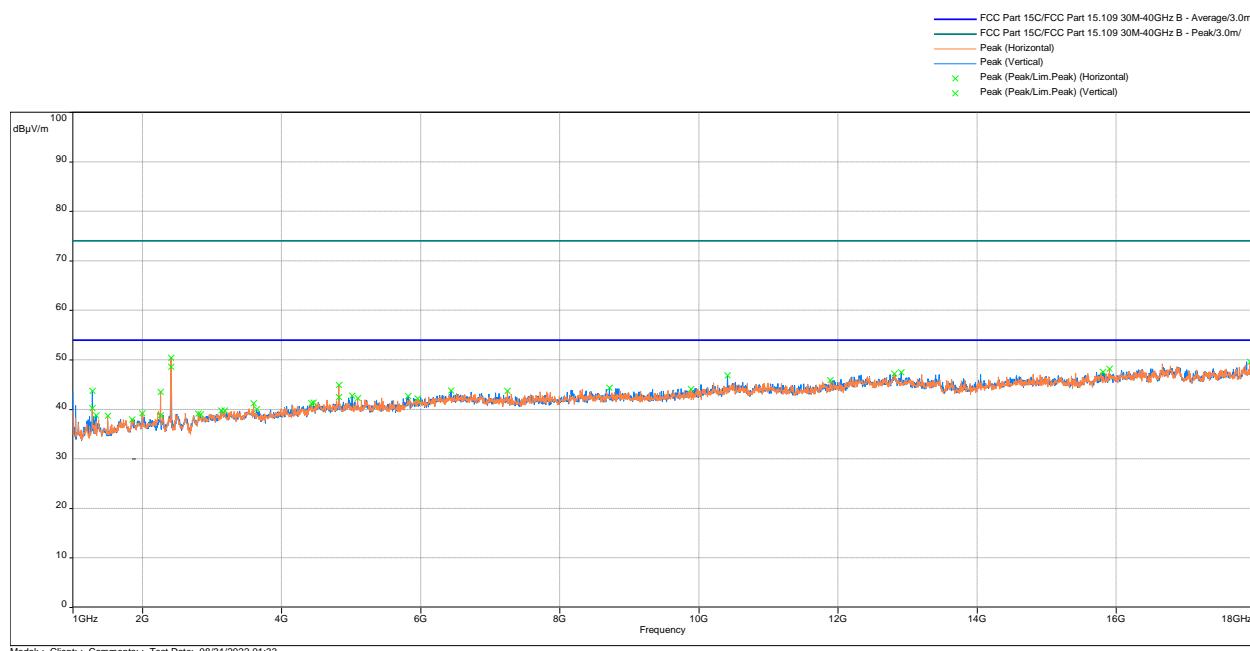


Perpendicular

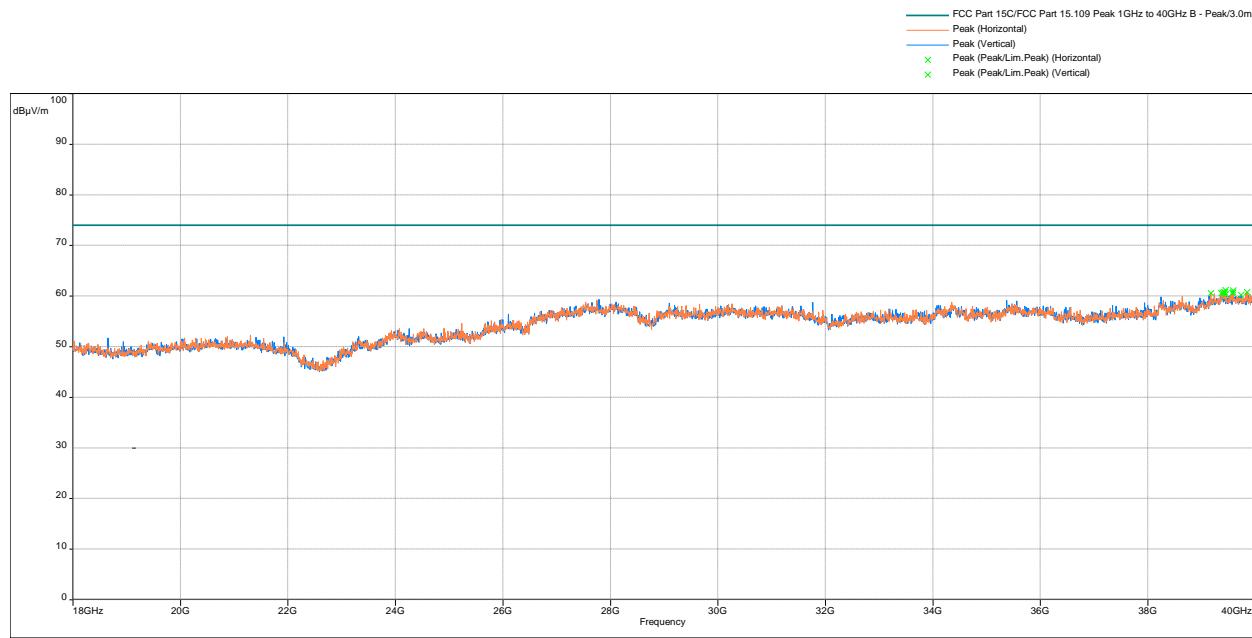
Out-of-Band Radiated Spurious Emissions - 30 MHz to 1000 MHz



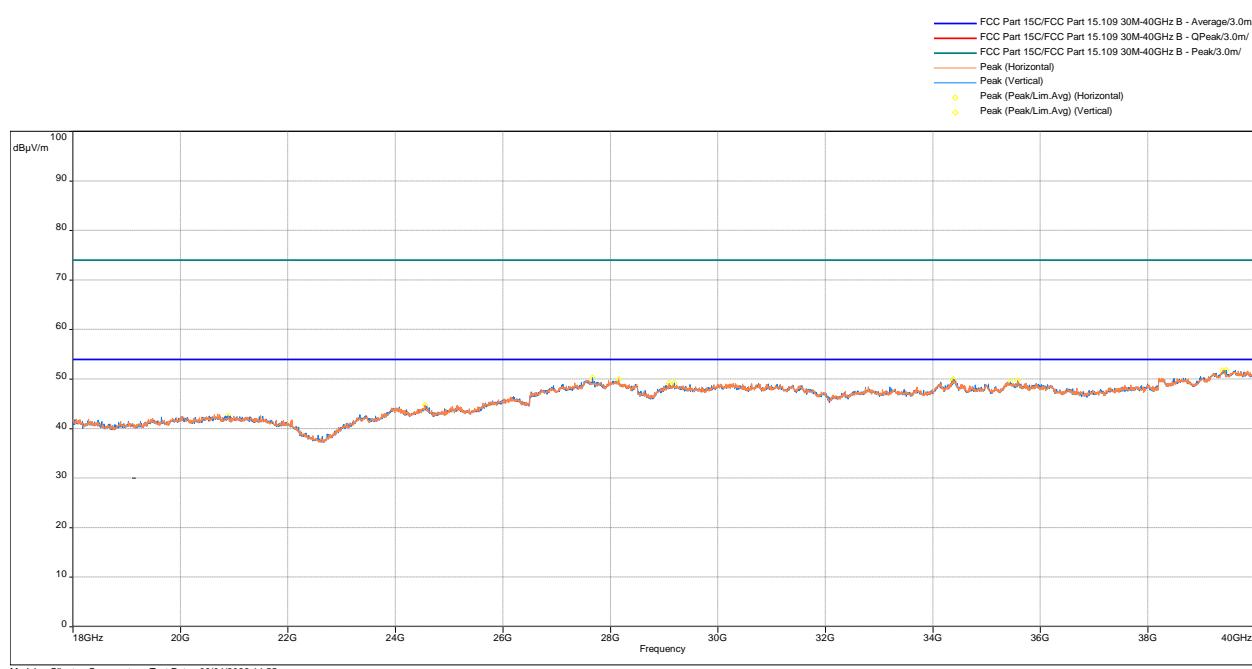
Radiated Spurious Emissions 1000 - 18000 MHz, Peak Scan vs Peak & Avg Limit



### Radiated Spurious Emissions 18000 - 26000 MHz, Peak Scan vs Peak Limit



### Radiated Spurious Emissions 18000 - 26000 MHz, Avg Scan vs Avg Limit



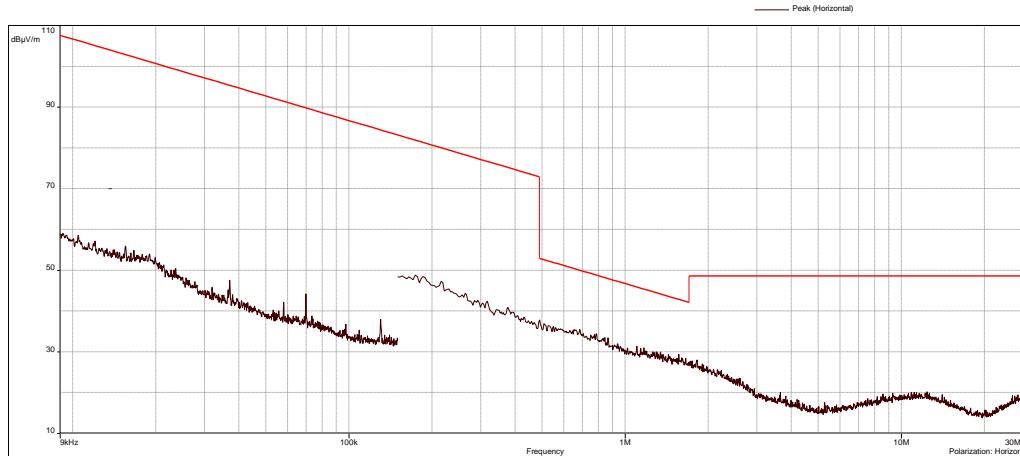
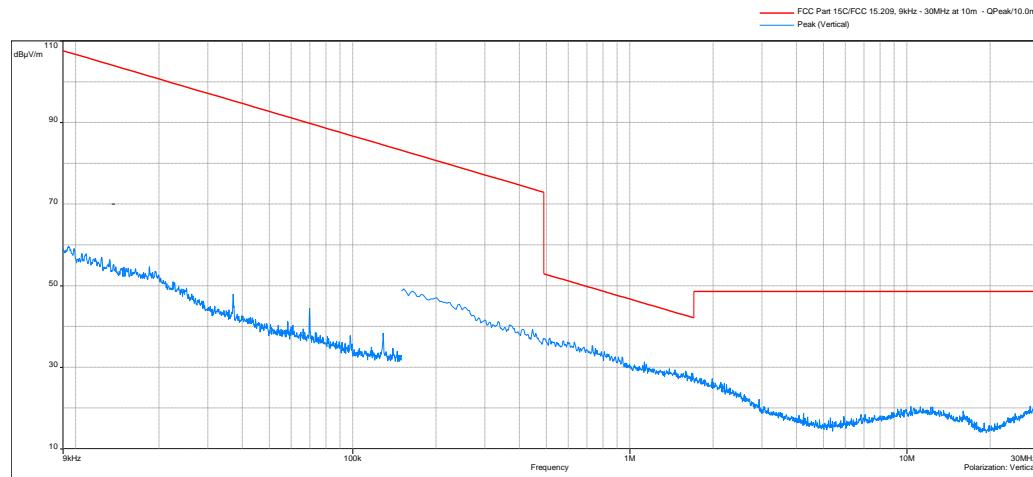
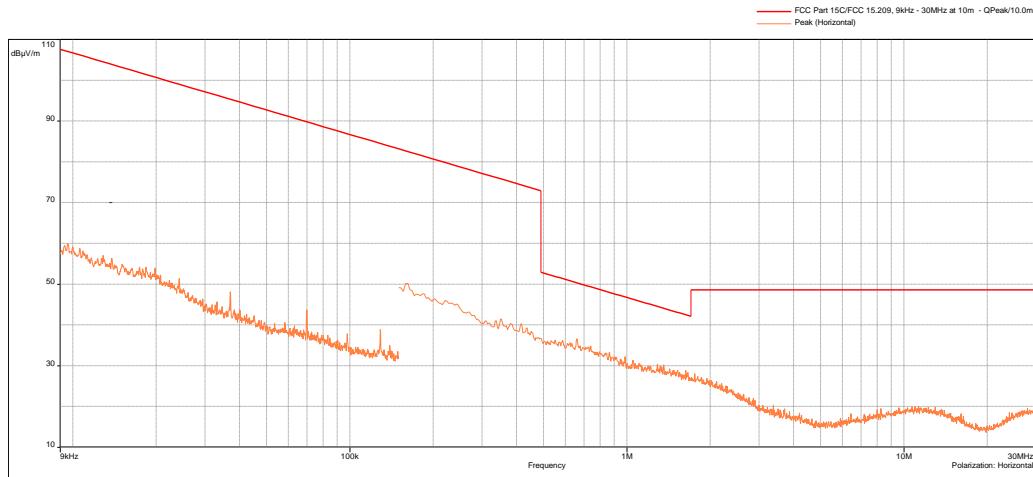
Frequency (MHz)	FS@10m (dB $\mu$ V/m)	Limit@10m (dB(uV/m))	Margin (dB)	Height (m)	Azimuth (deg)	Polarity	Correction (dB)
36.33733	30.66	29	1.66*	0.99	261	Vertical	-10.55
41.02567	28.35	29	-0.65	2.01	249.75	Vertical	-14.15
49.27067	28.72	29	-0.28	2.01	0	Vertical	-19.02
51.88967	29.12	29	0.12*	3	106.25	Vertical	-19.68
75.105	23.73	29	-5.27	2.01	109	Vertical	-18.72
140.774	30.04	33.5	-3.46	3	216.75	Vertical	-13.39

\*Note: These peaks were found to be coming from the unintentional emission and not from the radio. It is also not in the restricted band.

Results	Complies
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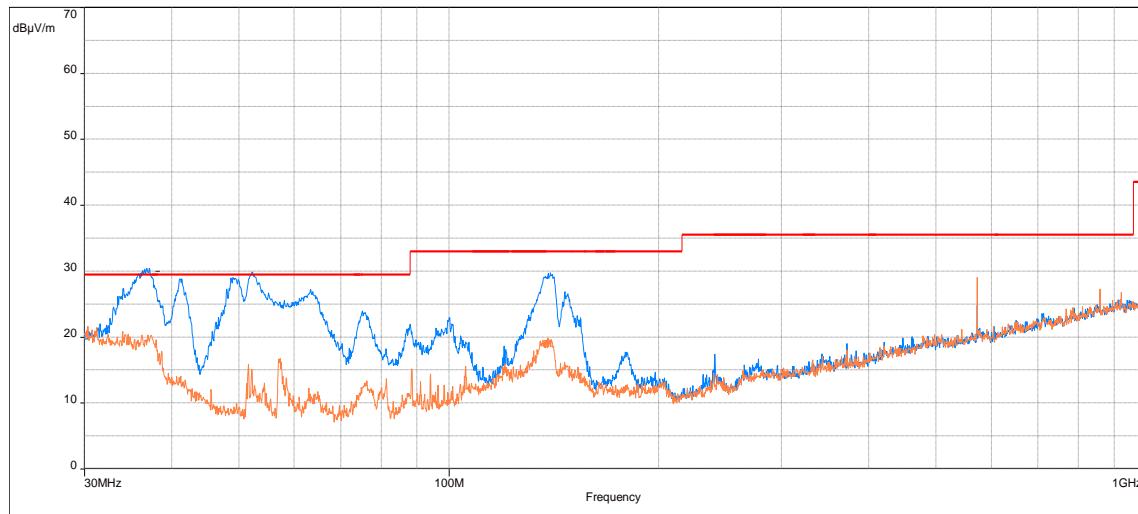
## Test Results: 15.209 Radiated Spurious Emissions Low Channel, Tx at 802.11b 2437MHz

## Out-of-Band Radiated Spurious Emissions - 9 kHz to 30 MHz

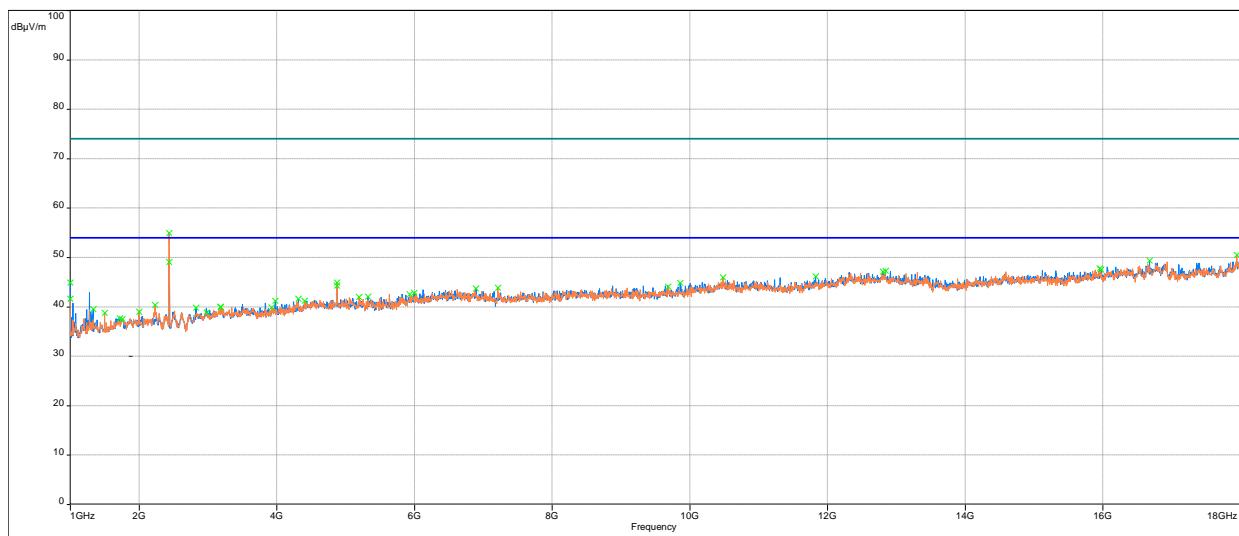


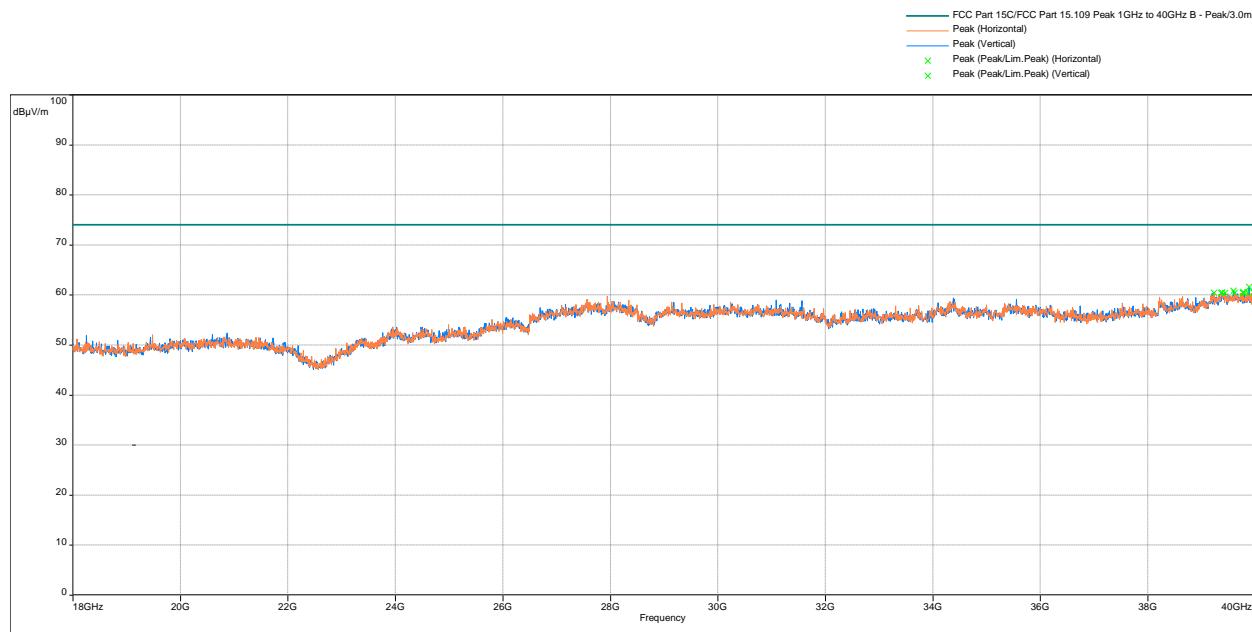
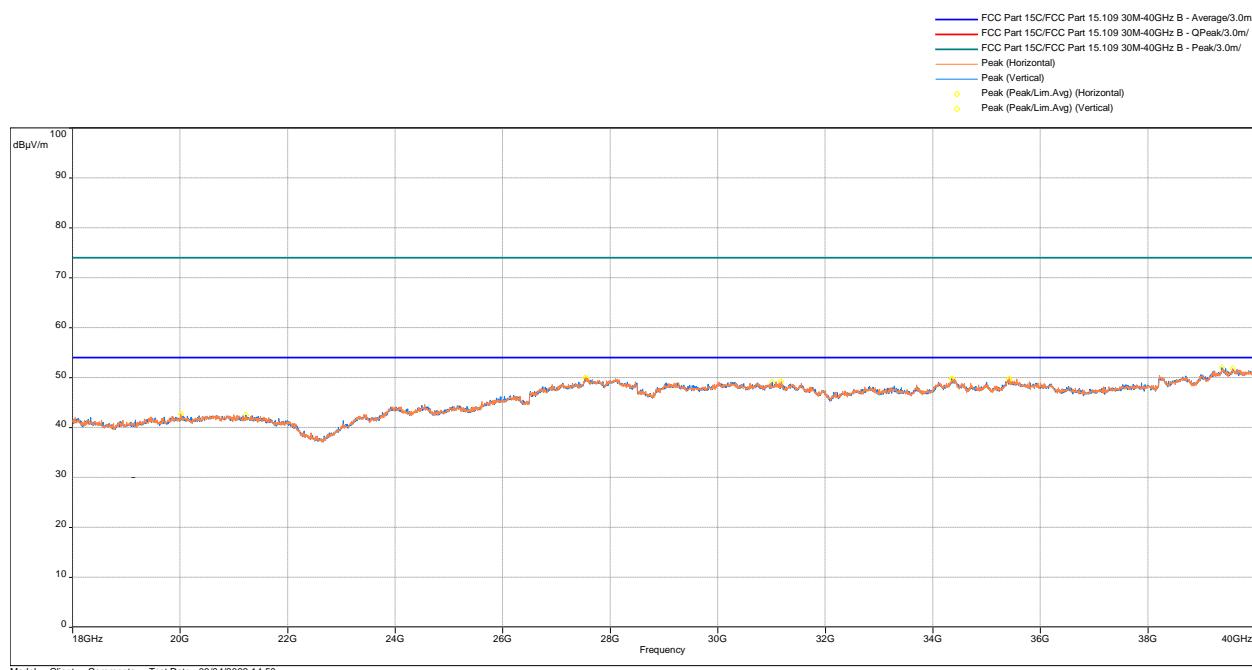
Out-of-Band Radiated Spurious Emissions - 30 MHz to 1000 MHz

— FCC Part 15B/FCC Part 15.109 30M-40GHz B - QPeak/10.0m/  
— FCC Part 15C/FCC Part 15.205/15.209, 30MHz-40GHz - QPeak/10.0m/  
— Peak (Horizontal)  
— Peak (Vertical)


Radiated Spurious Emissions 1000 - 18000 MHz, Peak Scan vs Peak & Avg Limit

— FCC Part 15C/FCC Part 15.109 30M-40GHz B - Average/3.0m/  
— FCC Part 15C/FCC Part 15.109 30M-40GHz B - Peak/3.0m/  
— Peak (Horizontal)  
— Peak (Vertical)  
x Peak (Peak/Lim.Peak) (Horizontal)  
x Peak (Peak/Lim.Peak) (Vertical)



Radiated Spurious Emissions 18000 - 26000 MHz, Peak Scan vs Peak Limit

Radiated Spurious Emissions 18000 - 26000 MHz, Avg Scan vs Avg Limit


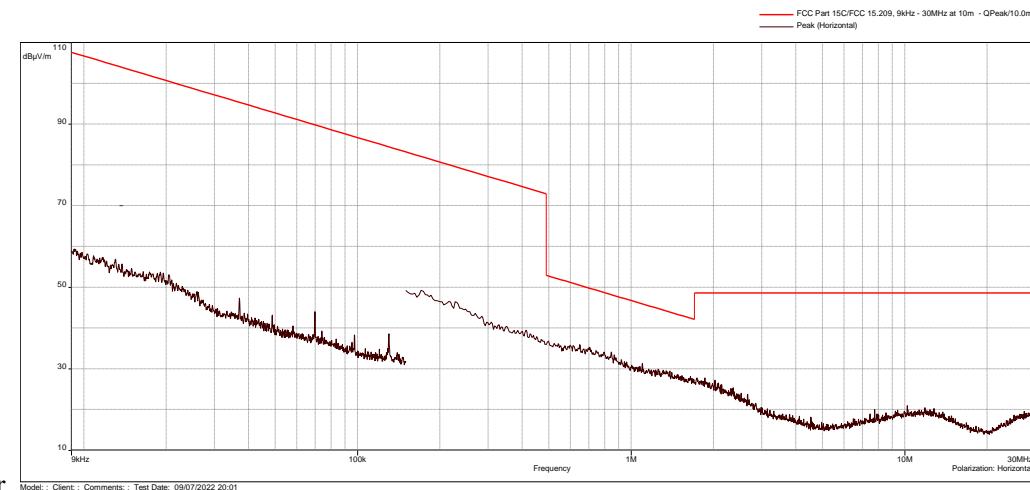
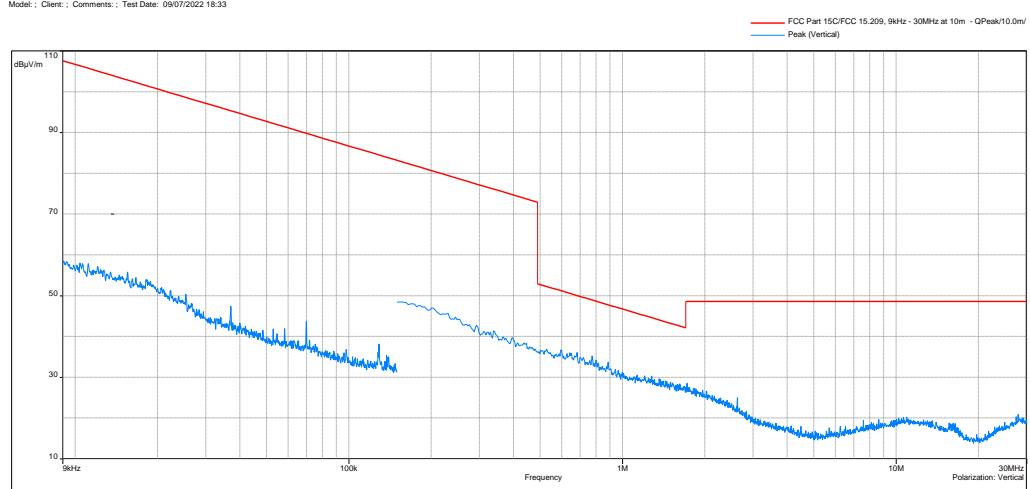
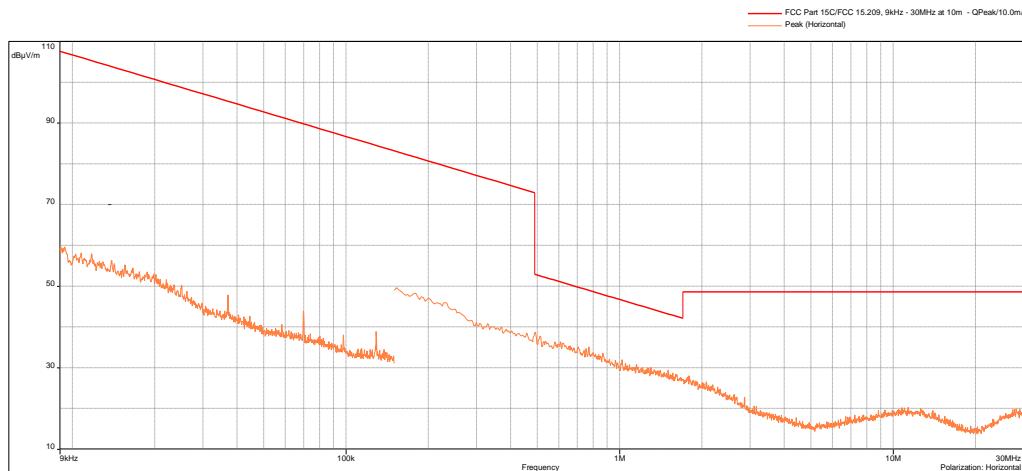
Frequency (MHz)	FS@10m (dB $\mu$ V/m)	Limit@10m (dB( $\mu$ V/m))	Margin (dB)	Height (m)	Azimuth (deg)	Polarity	Correction (dB)
36.82233	30.51	29	1.51*	1	264.5	Vertical	-10.94
40.961	28.48	29	-0.52*	3	252.75	Vertical	-14.1
49.594	28.71	29	-0.29*	3	82	Vertical	-19.11
52.08367	29.25	29	0.25*	3	129.25	Vertical	-19.71
75.13733	23.53	29	-5.47	1.99	107.25	Vertical	-18.72
138.155	29.64	33.5	-3.86	3	230	Vertical	-13.06

\*Note: These peaks were found to be coming from the unintentional emission and not from the radio. It is also not in the restricted band.

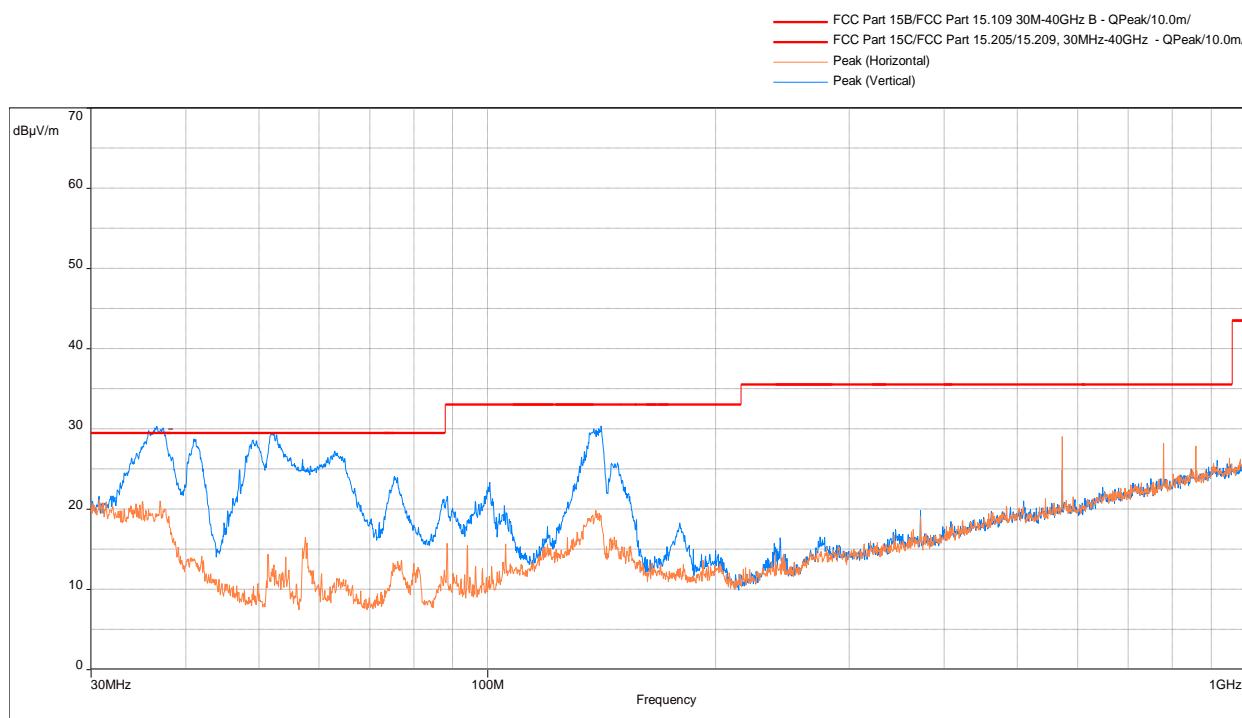
<b>Results</b>	<input type="checkbox"/> <b>Complies</b>
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## Test Results: 15.209 Radiated Spurious Emissions Low Channel, Tx at 802.11b 2462MHz

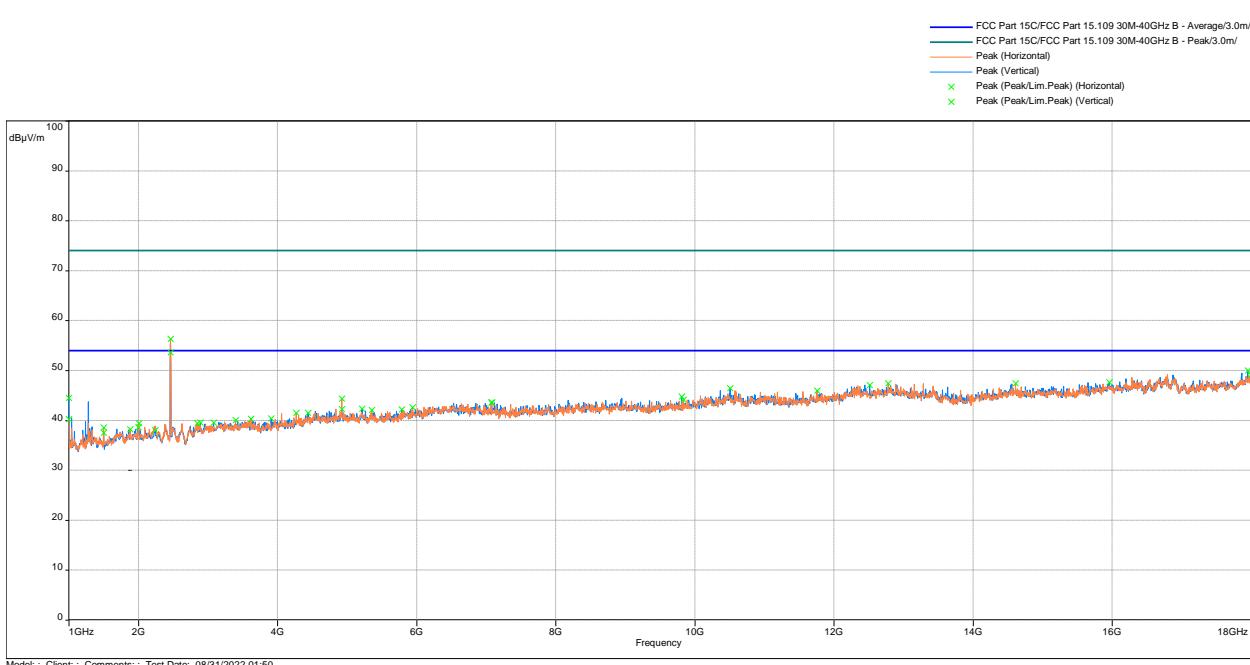
## Out-of-Band Radiated Spurious Emissions - 9 kHz to 30 MHz



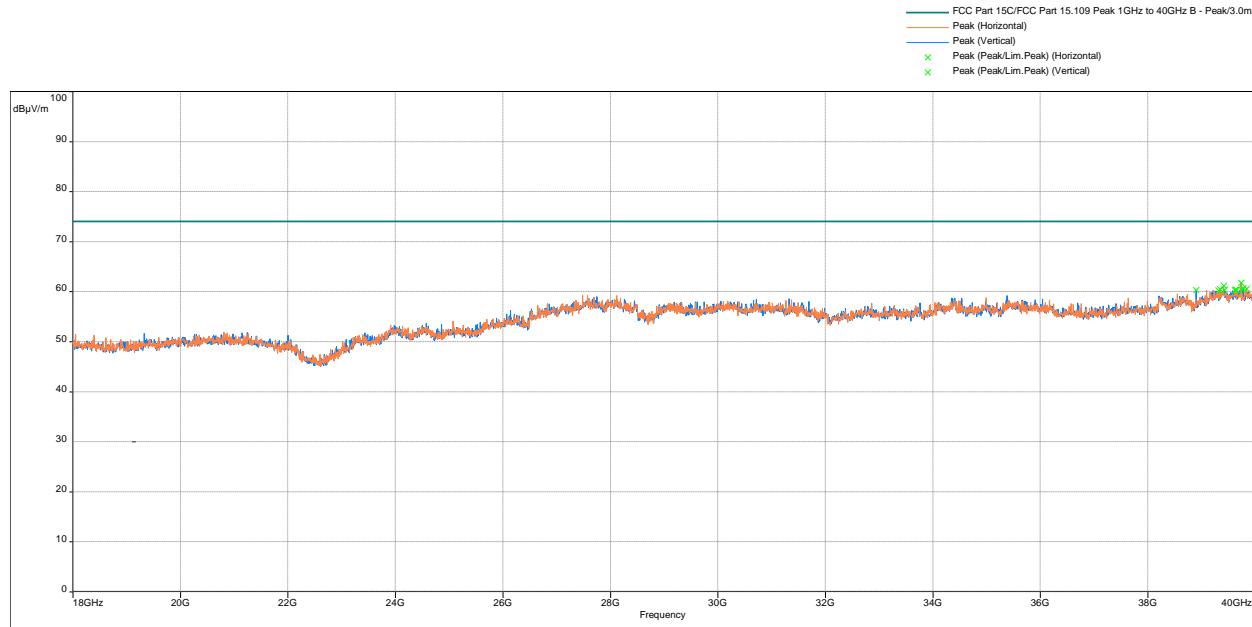
### Out-of-Band Radiated Spurious Emissions - 30 MHz to 1000 MHz



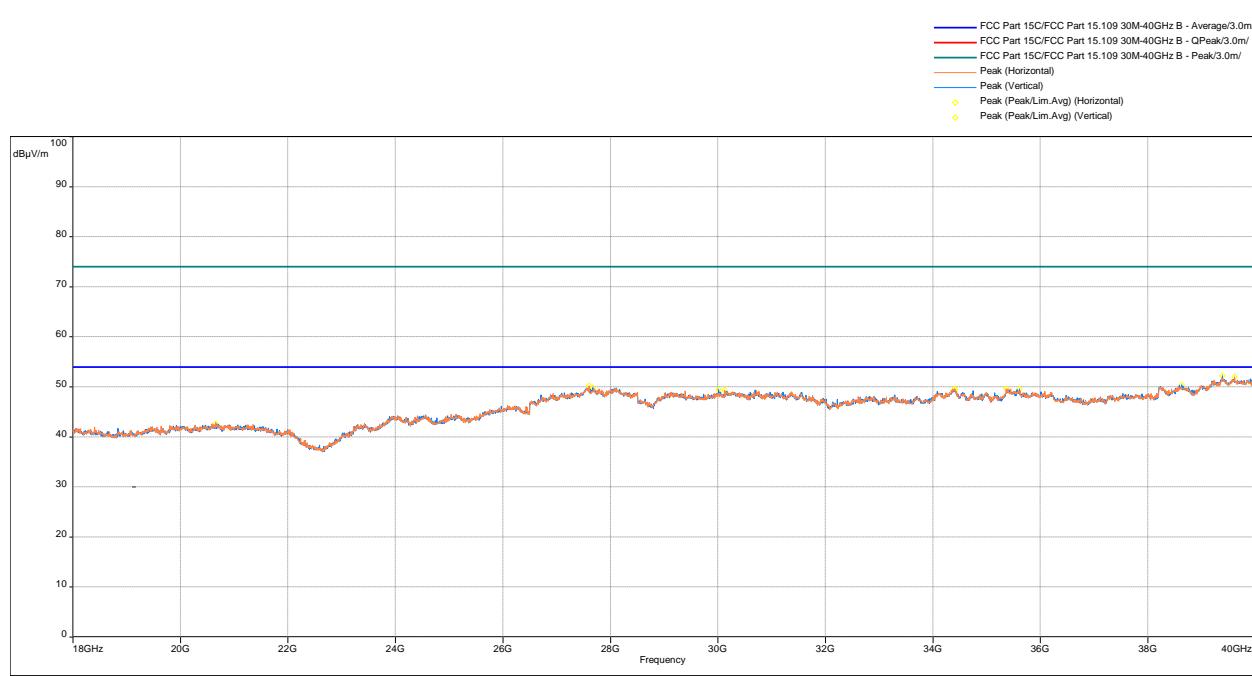
### Radiated Spurious Emissions 1000 - 18000 MHz, Peak Scan vs Peak & Avg Limit



### Radiated Spurious Emissions 18000 - 26000 MHz, Peak Scan vs Peak Limit



### Radiated Spurious Emissions 18000 - 26000 MHz, Avg Scan vs Avg Limit



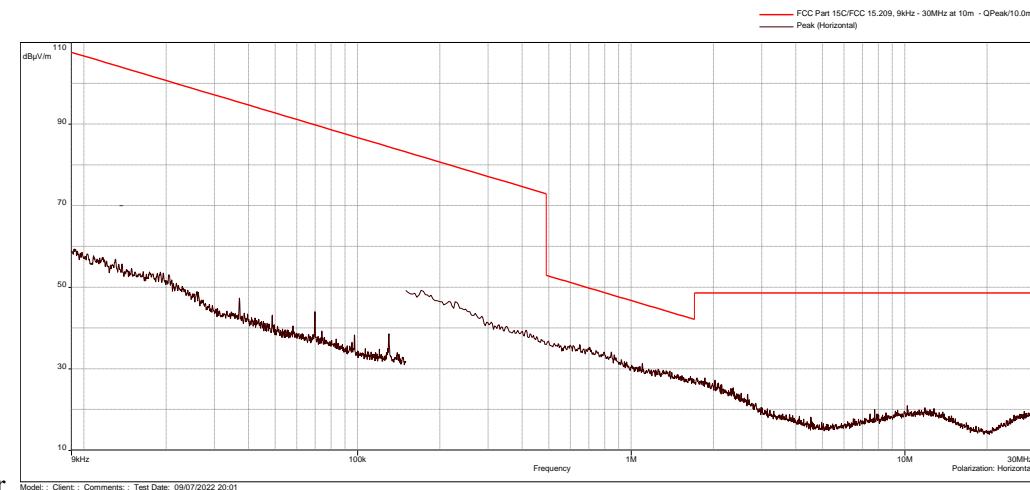
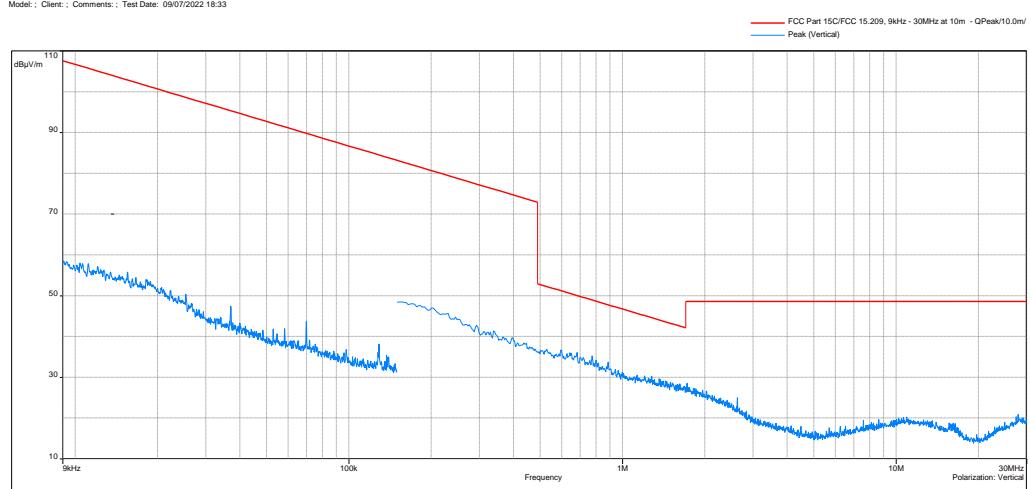
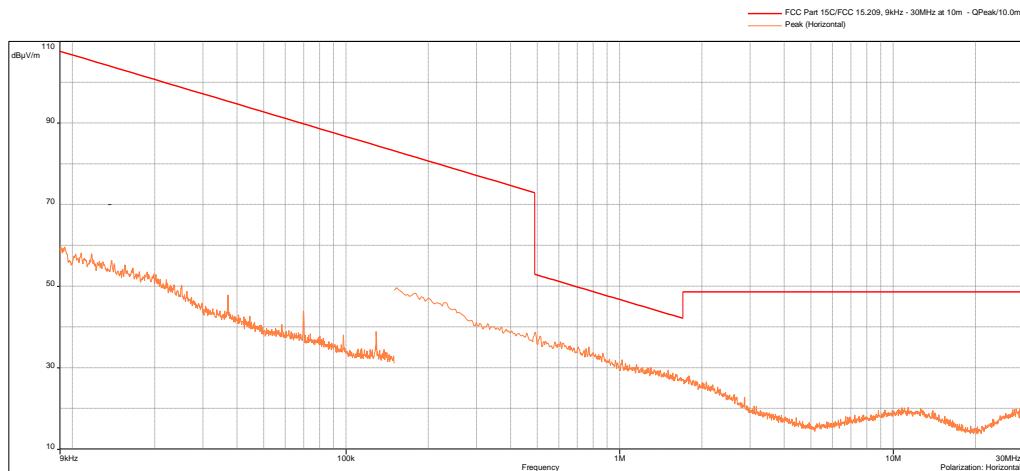
Frequency (MHz)	FS@10m (dB $\mu$ V/m)	Limit@10m (dB( $\mu$ V/m))	Margin (dB)	Height (m)	Azimuth (deg)	Polarity	Correction (dB)
36.43433	30.37	29	1.37*	0.99	274	Vertical	-10.62
41.058	28.14	29	-0.86	2	278	Vertical	-14.17
49.691	28.61	29	-0.39	3	84.5	Vertical	-19.13
52.18067	29.24	29	0.24*	3	137	Vertical	-19.73
75.36367	23.64	29	-5.36	2	83.75	Vertical	-18.74
137.573	29.7	33.5	-3.8	2	243.75	Vertical	-12.99

\*Note: These peaks were found to be coming from the unintentional emission and not from the radio. It is also not in the restricted band.

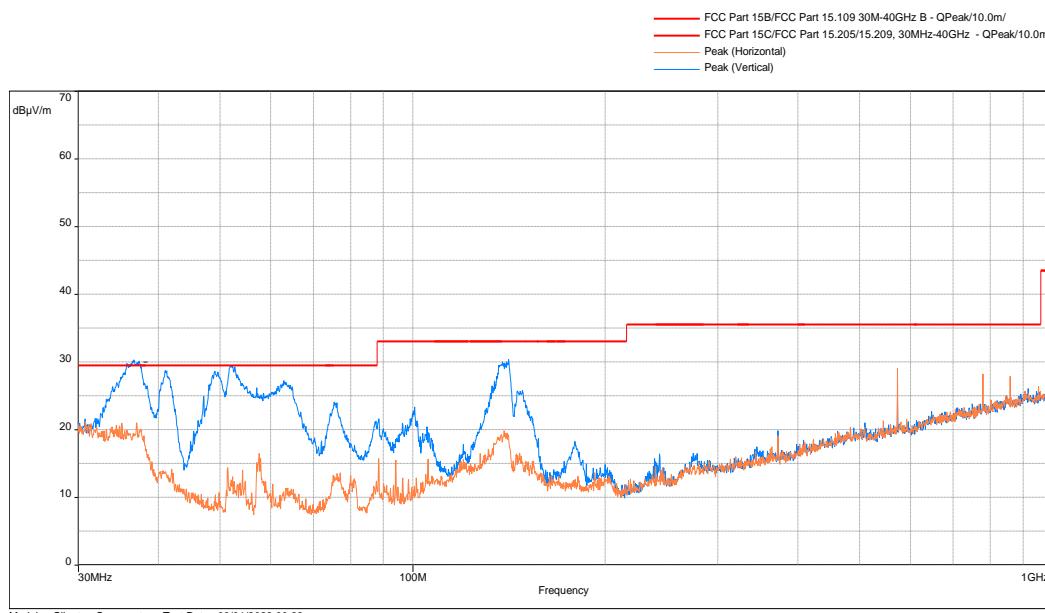
Results	Complies
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## Test Results: 15.209 Radiated Spurious Emissions Low Channel, Tx at 802.11g 2412MHz

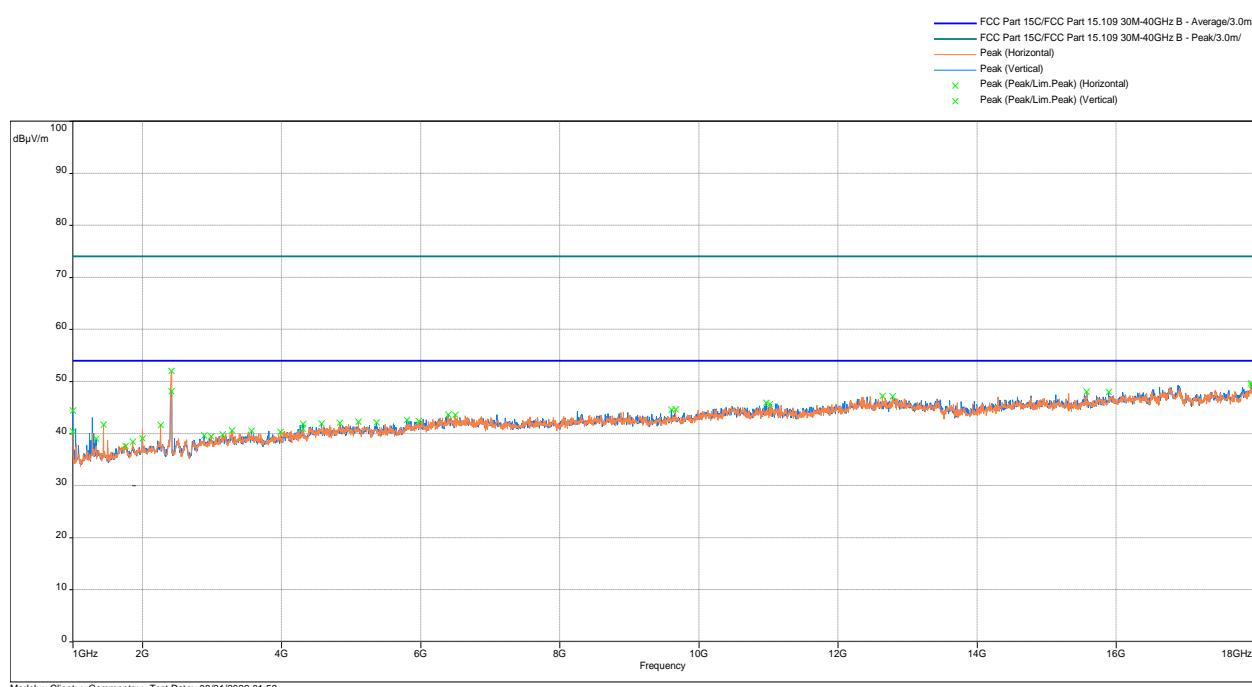
## Out-of-Band Radiated Spurious Emissions - 9 kHz to 30 MHz



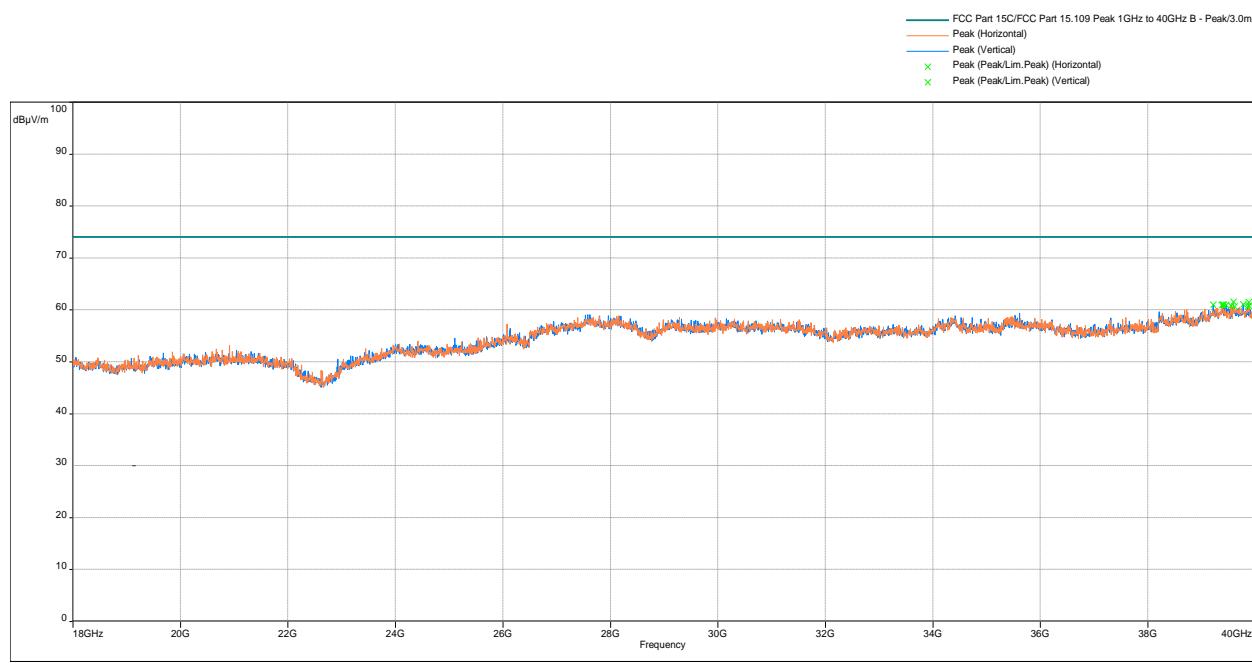
### Out-of-Band Radiated Spurious Emissions - 30 MHz to 1000 MHz



### Radiated Spurious Emissions 1000 - 18000 MHz, Peak Scan vs Peak & Avg Limit

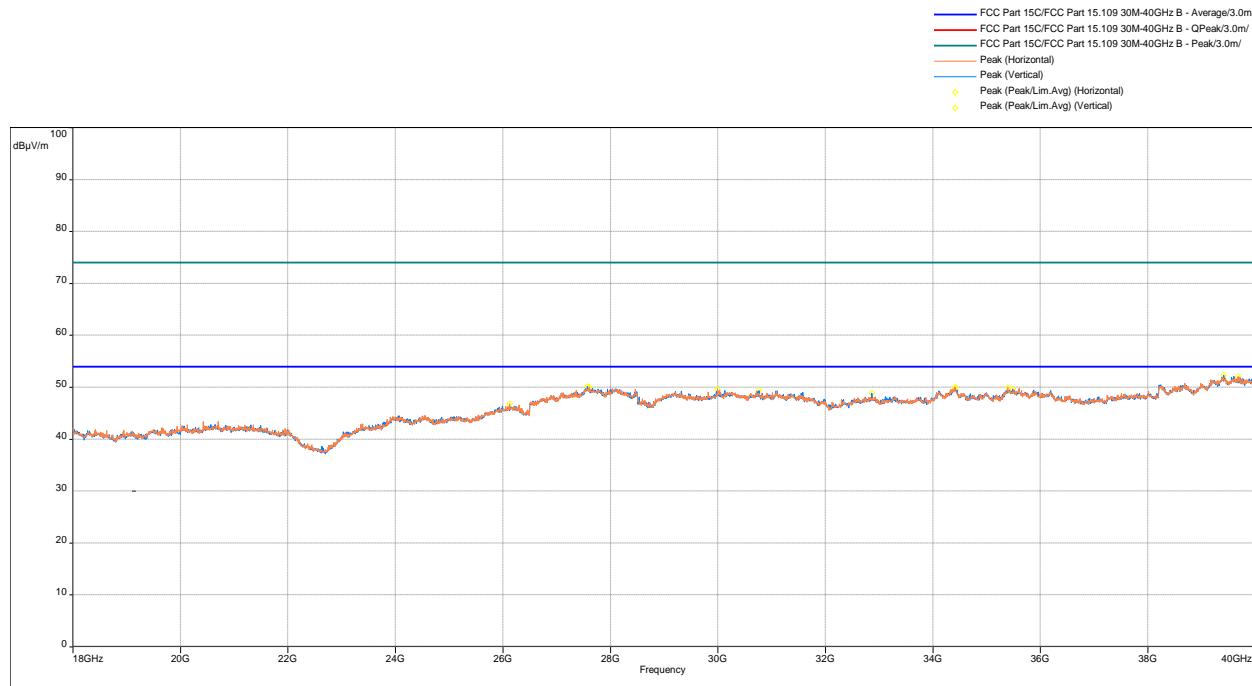


### Radiated Spurious Emissions 18000 - 26000 MHz, Peak Scan vs Peak Limit



Model: ; Client: ; Comments: ; Test Date: 09/04/2022 14:41

### Radiated Spurious Emissions 18000 - 26000 MHz, Avg Scan vs Avg Limit



Model: ; Client: ; Comments: ; Test Date: 09/04/2022 14:43

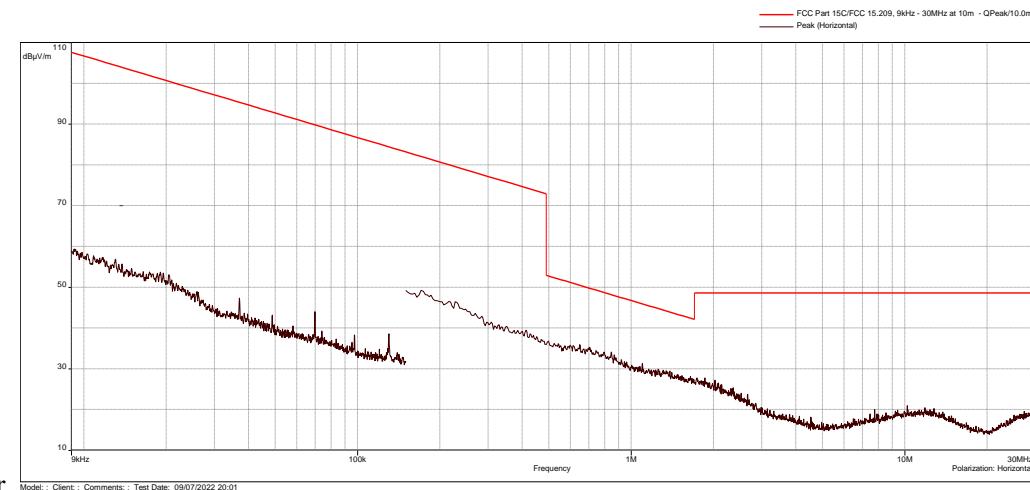
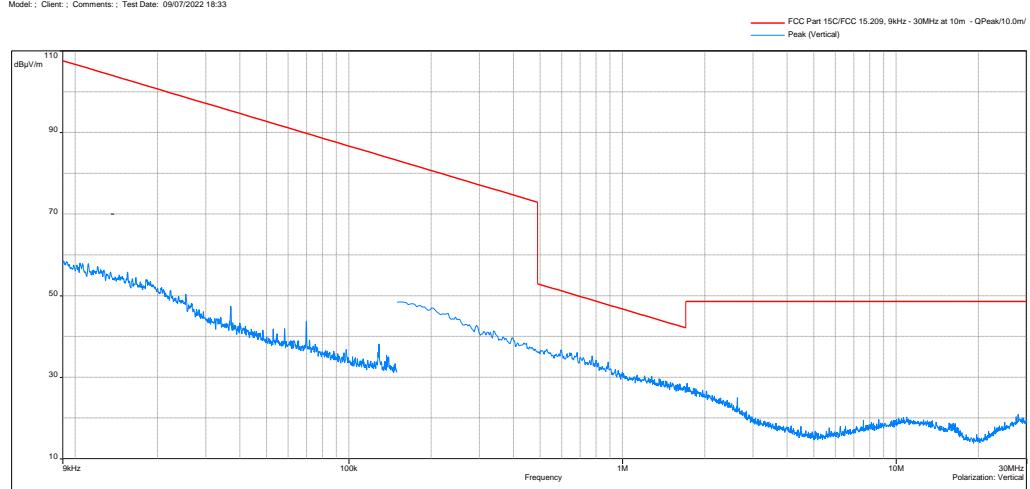
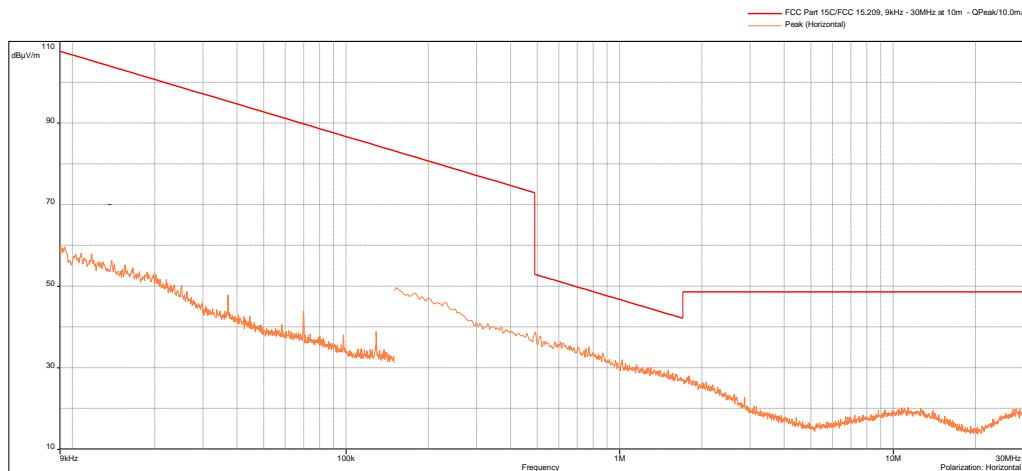
Frequency (MHz)	FS@10m (dB $\mu$ V/m)	Limit@10m (dB( $\mu$ V/m))	Margin (dB)	Height (m)	Azimuth (deg)	Polarity	Correction (dB)
36.43433	30.54	29	1.54*	0.99	255	Vertical	-10.62
41.12267	29.21	29	0.21*	1.99	262.5	Vertical	-14.21
49.012	28.59	29	-0.41	1.99	97.75	Vertical	-18.94
51.98667	29.79	29	0.79*	3	126.75	Vertical	-19.7
75.33133	24.22	29	-4.78	1.99	165	Vertical	-18.74
137.1527	29.7	33.5	-3.8	1.99	214.75	Vertical	-12.95

\*Note: These peaks were found to be coming from the unintentional emission and not from the radio. It is also not in the restricted band.

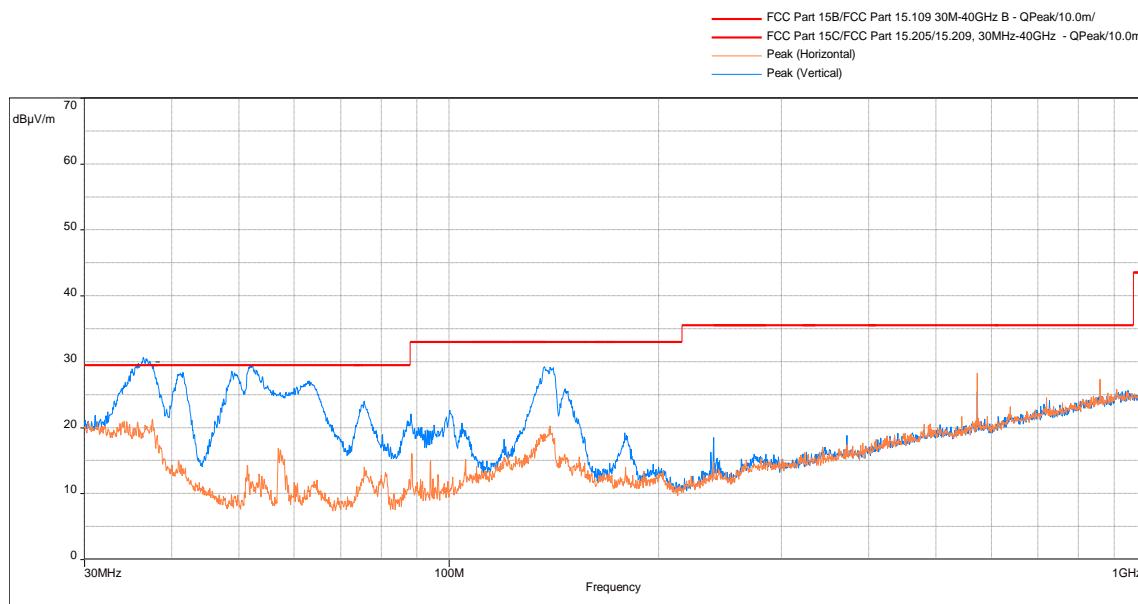
Results	Complies
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## Test Results: 15.209 Radiated Spurious Emissions Low Channel, Tx at 802.11g 2437MHz

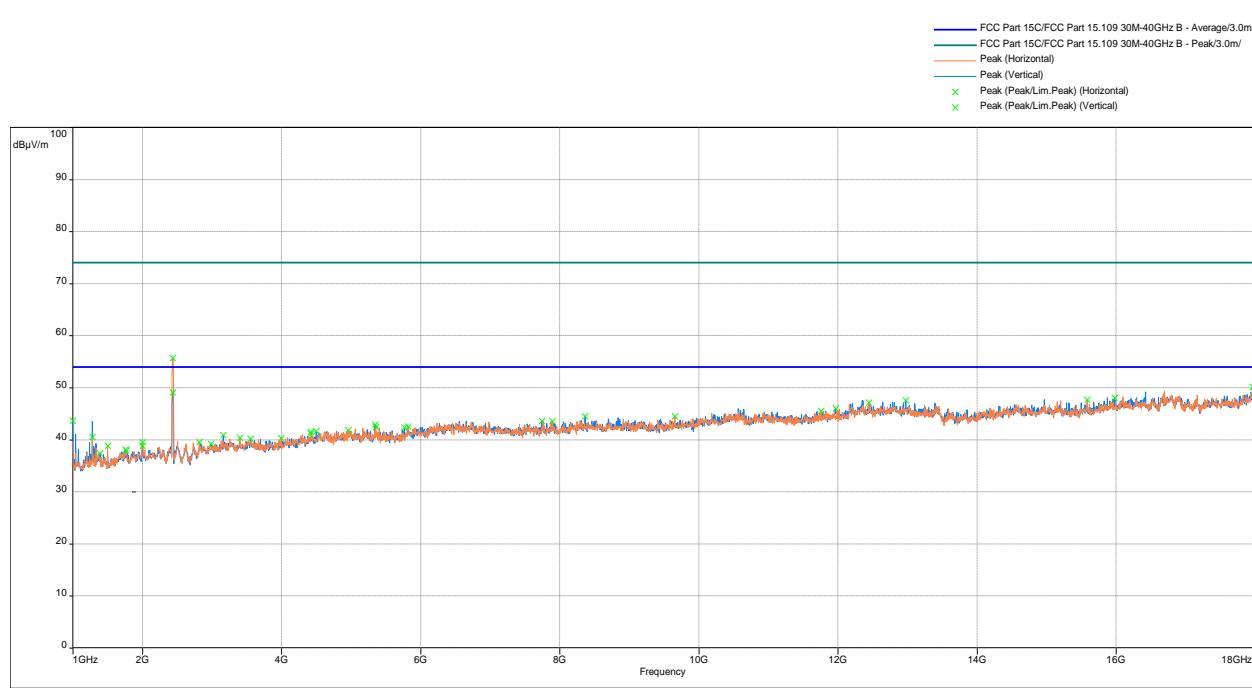
### Out-of-Band Radiated Spurious Emissions - 9 kHz to 30 MHz

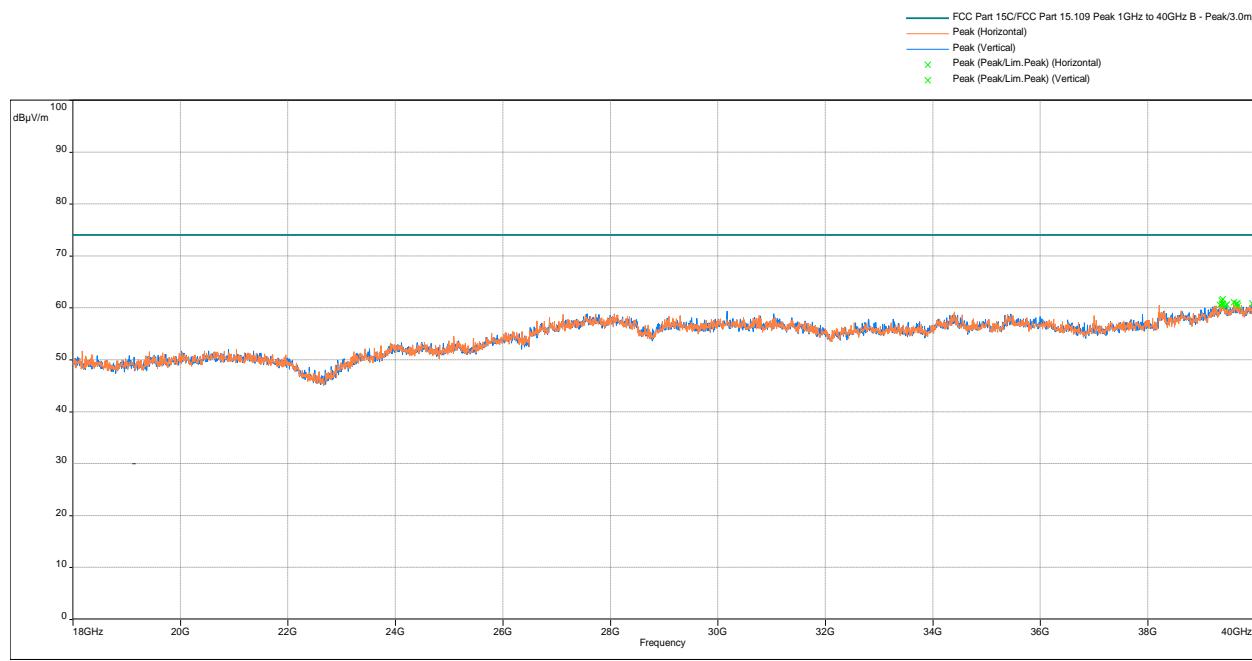
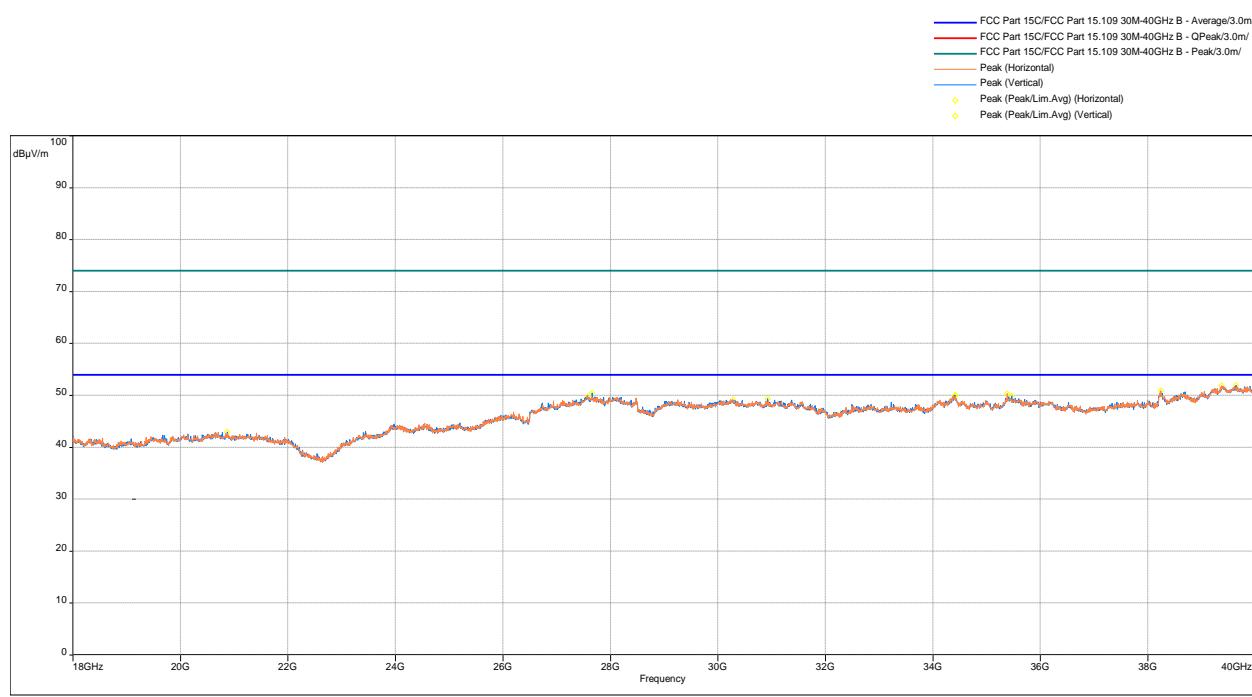


### Out-of-Band Radiated Spurious Emissions - 30 MHz to 1000 MHz



### Radiated Spurious Emissions 1000 - 18000 MHz, Peak Scan vs Peak & Avg Limit



Radiated Spurious Emissions 18000 - 26000 MHz, Peak Scan vs Peak Limit

Radiated Spurious Emissions 18000 - 26000 MHz, Avg Scan vs Avg Limit


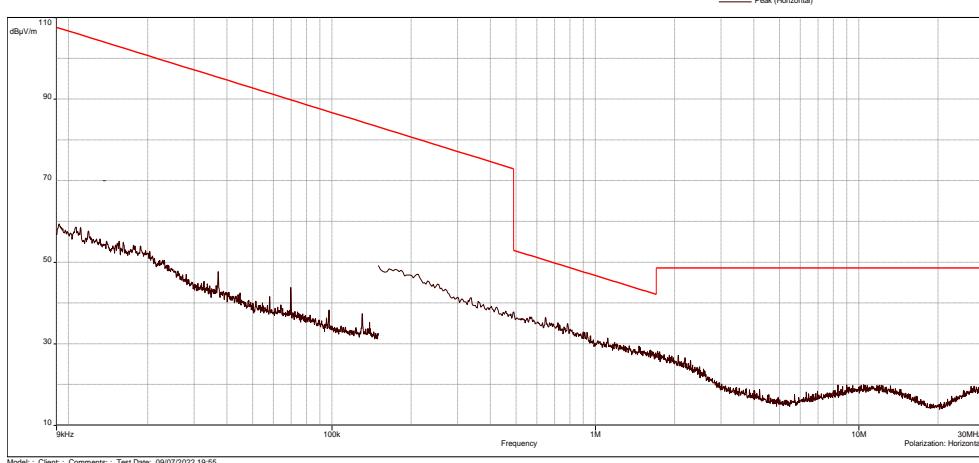
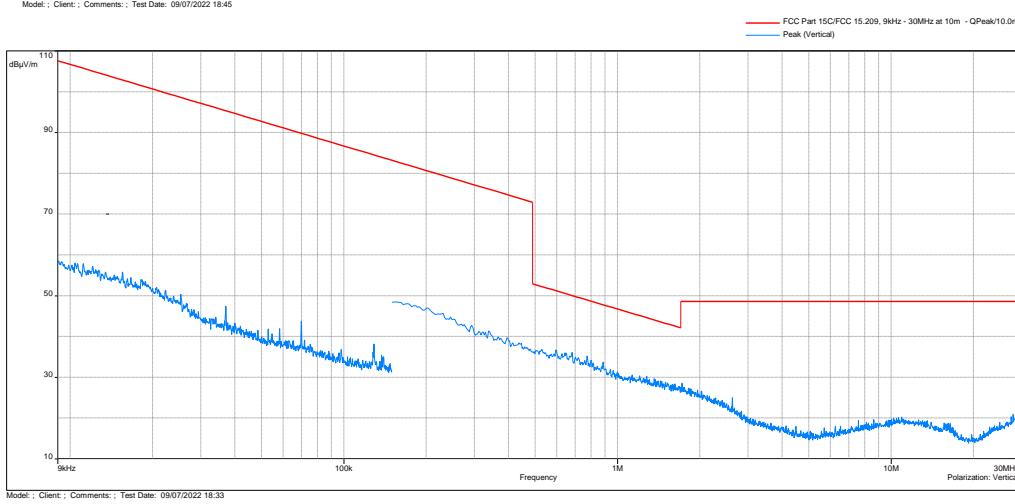
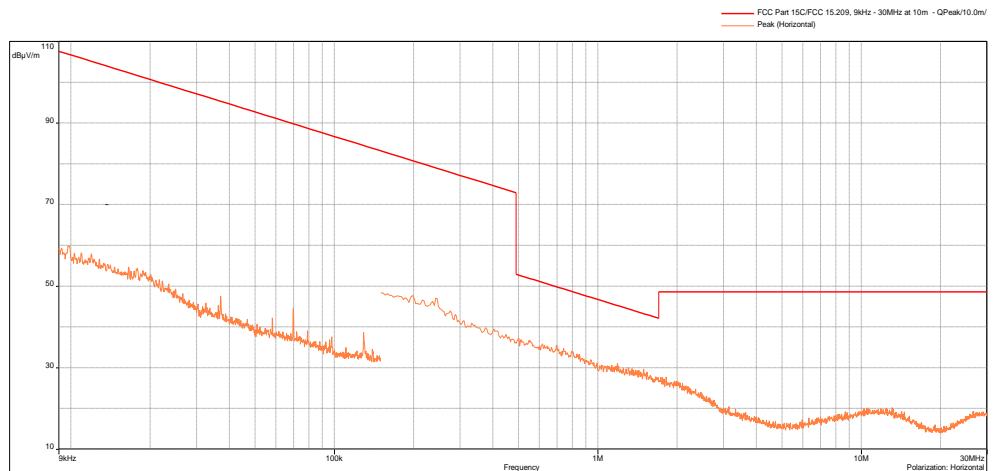
Frequency (MHz)	FS@10m (dB $\mu$ V/m)	Limit@10m (dB( $\mu$ V/m))	Margin (dB)	Height (m)	Azimuth (deg)	Polarity	Correction (dB)
36.43433	30.67	29	1.67*	0.99	262.75	Vertical	-10.62
41.543	28.36	29	-0.64	2.01	246.25	Vertical	-14.5
48.85033	28.54	29	-0.46	2.01	107.25	Vertical	-18.88
52.24533	29.5	29	0.5*	3	70.5	Vertical	-19.75
75.59	24.01	29	-4.99	2.01	114.75	Vertical	-18.76
137.088	29.22	33.5	-4.28	2.01	209.75	Vertical	-12.95

\*Note: These peaks were found to be coming from the unintentional emission and not from the radio. It is also not in the restricted band.

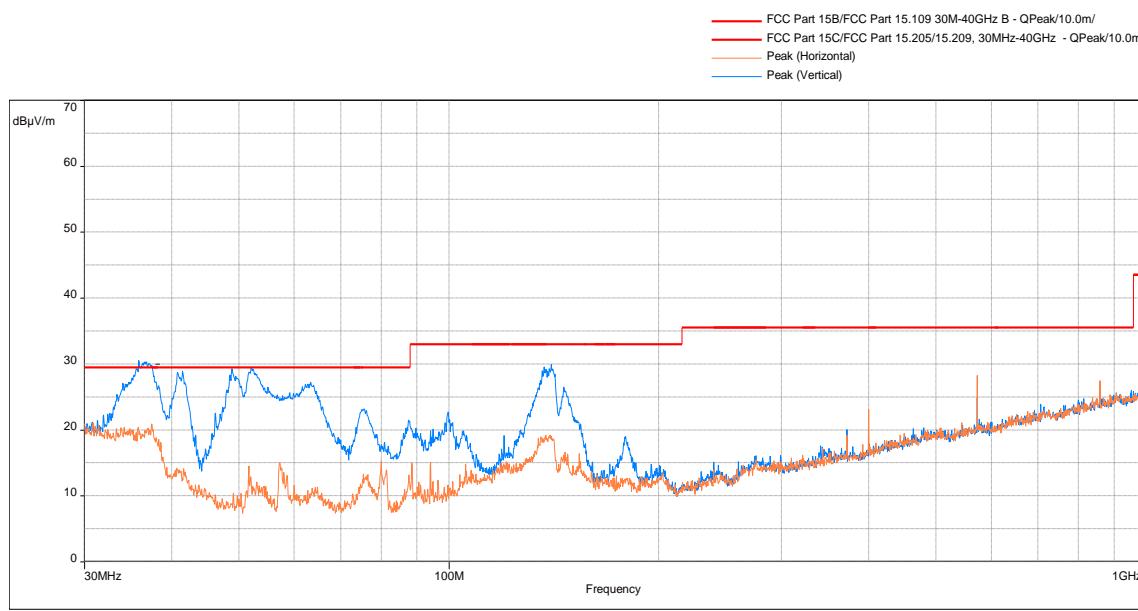
Results	Complies
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## Test Results: 15.209 Radiated Spurious Emissions Low Channel, Tx at 802.11g 2462MHz

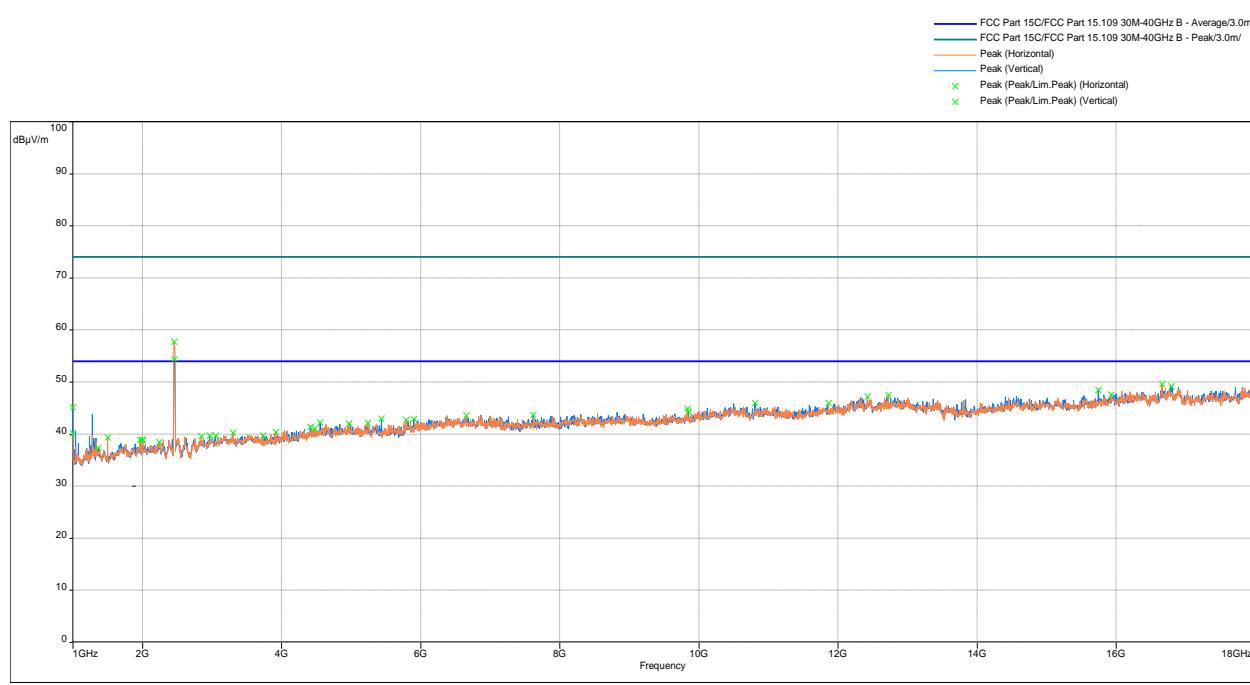
## Out-of-Band Radiated Spurious Emissions - 9 kHz to 30 MHz



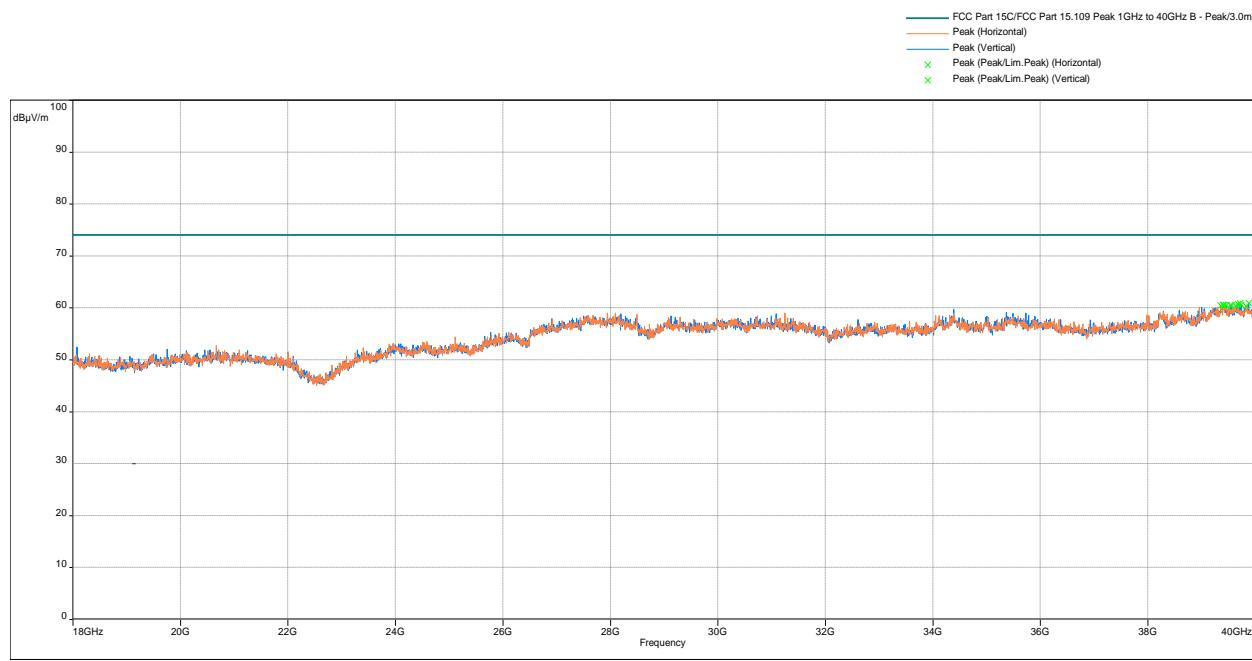
### Out-of-Band Radiated Spurious Emissions - 30 MHz to 1000 MHz



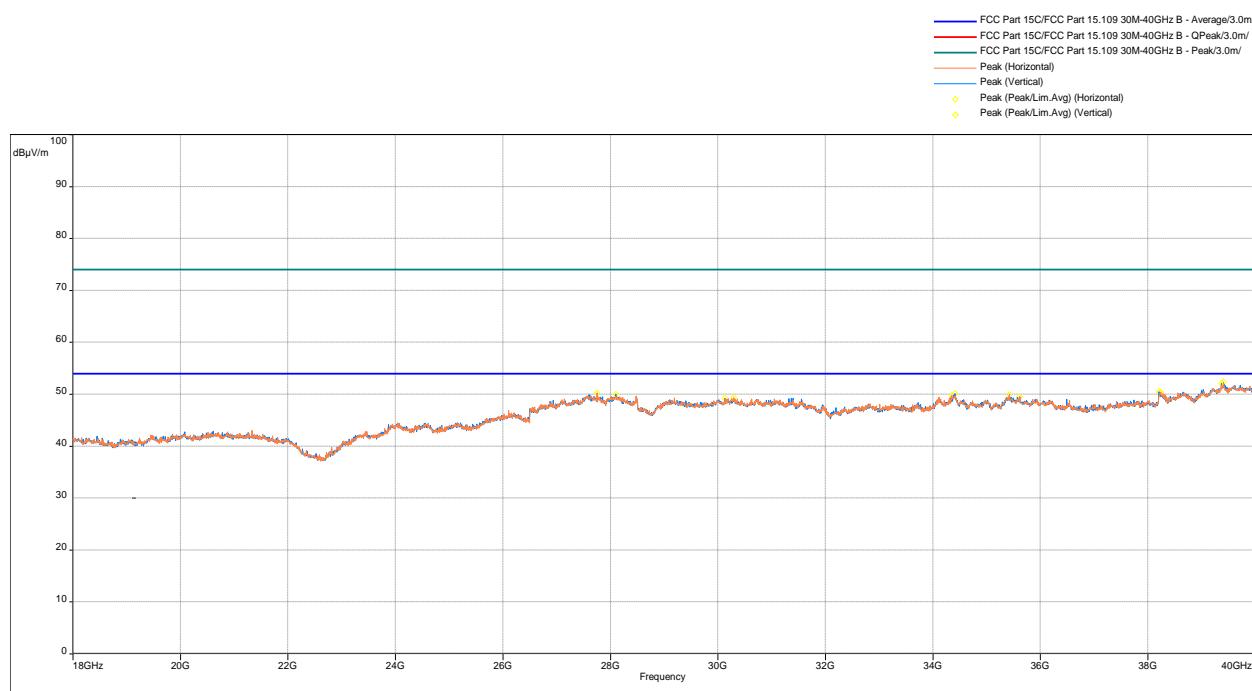
### Radiated Spurious Emissions 1000 - 18000 MHz, Peak Scan vs Peak & Avg Limit



### Radiated Spurious Emissions 18000 - 26000 MHz, Peak Scan vs Peak Limit



### Radiated Spurious Emissions 18000 - 26000 MHz, Avg Scan vs Avg Limit



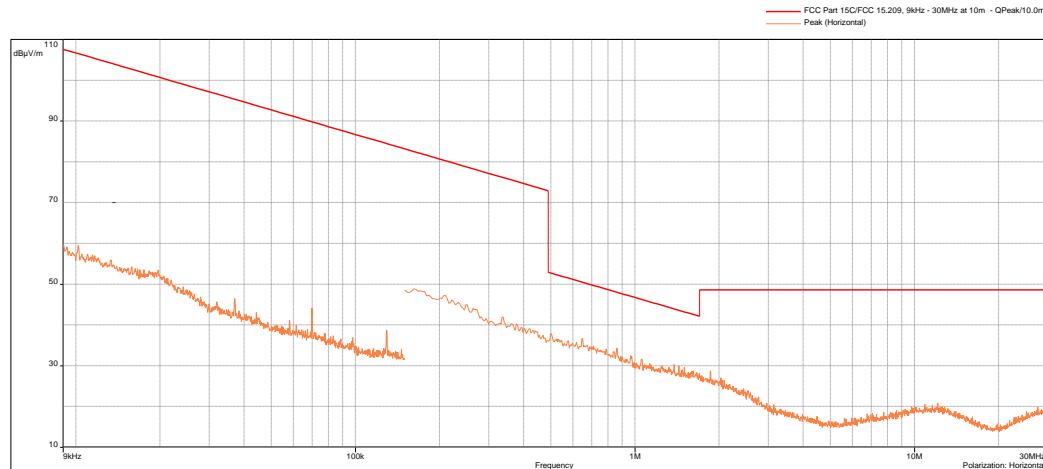
Frequency (MHz)	FS@10m (dB $\mu$ V/m)	Limit@10m (dB( $\mu$ V/m))	Margin (dB)	Height (m)	Azimuth (deg)	Polarity	Correction (dB)
35.917	30.53	29	1.53*	1	240	Vertical	-10.23
41.51067	28.87	29	-0.13*	2	263	Vertical	-14.47
48.85033	29.26	29	0.26*	2	122.25	Vertical	-18.88
52.019	29.36	29	0.36*	3	31.25	Vertical	-19.7
63.368	27.22	29	-1.78	2	91.5	Vertical	-19.26
140.289	29.91	33.5	-3.59	3	219.5	Vertical	-13.35

\*Note: These peaks were found to be coming from the unintentional emission and not from the radio. It is also not in the restricted band.

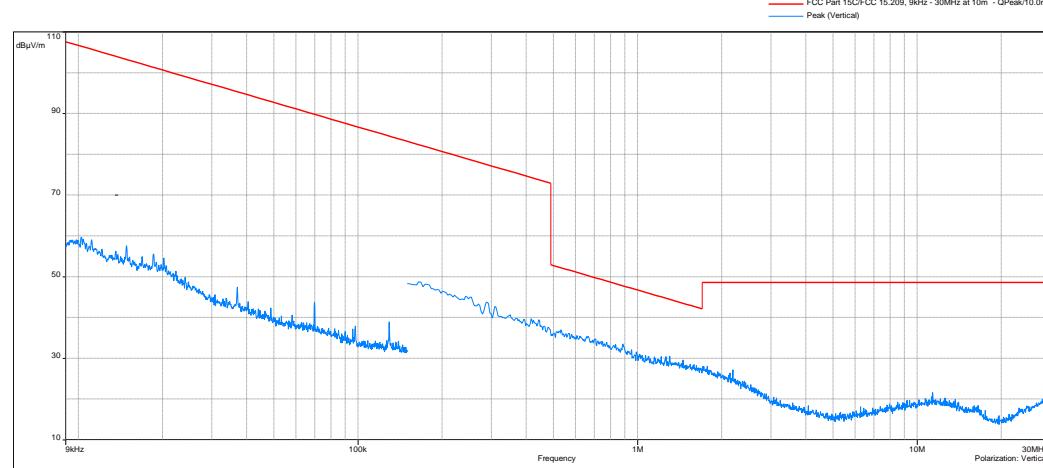
<b>Results</b>	<input checked="" type="checkbox"/> <b>Complies</b>
----------------	---

## Test Results: 15.209 Radiated Spurious Emissions Low Channel, Tx at 802.11n 20MHz, 2412MHz

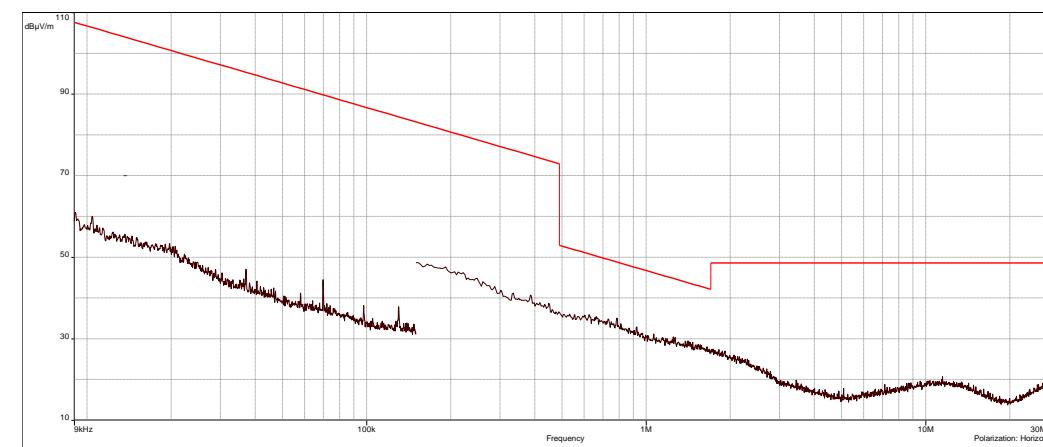
## Out-of-Band Radiated Spurious Emissions - 9 kHz to 30 MHz



Horizontal

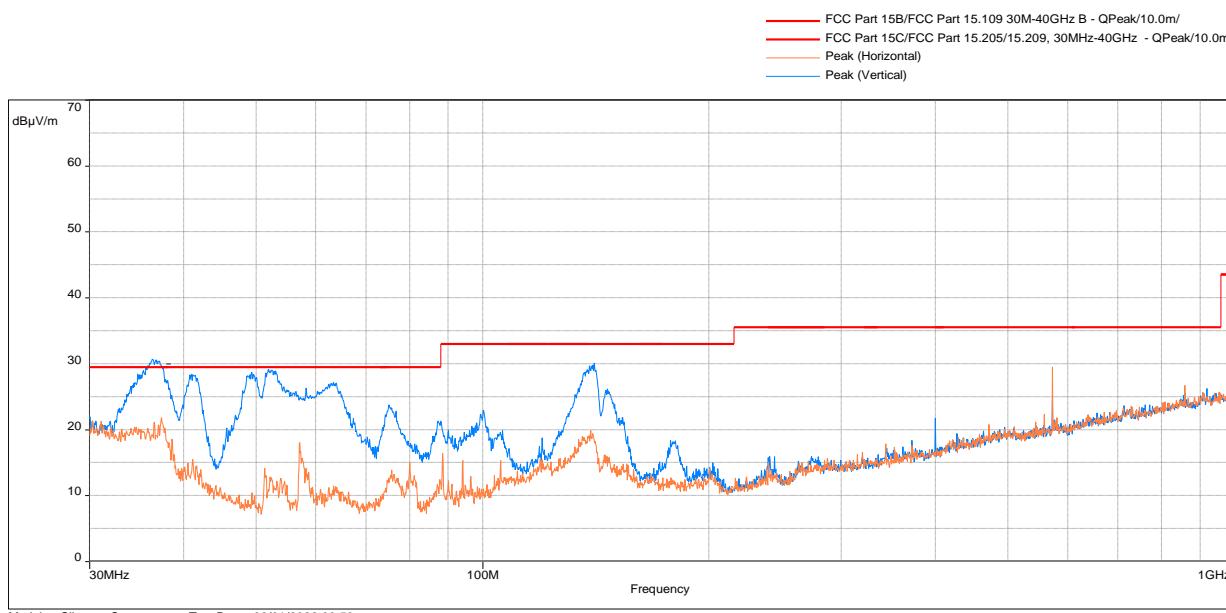


Vertical

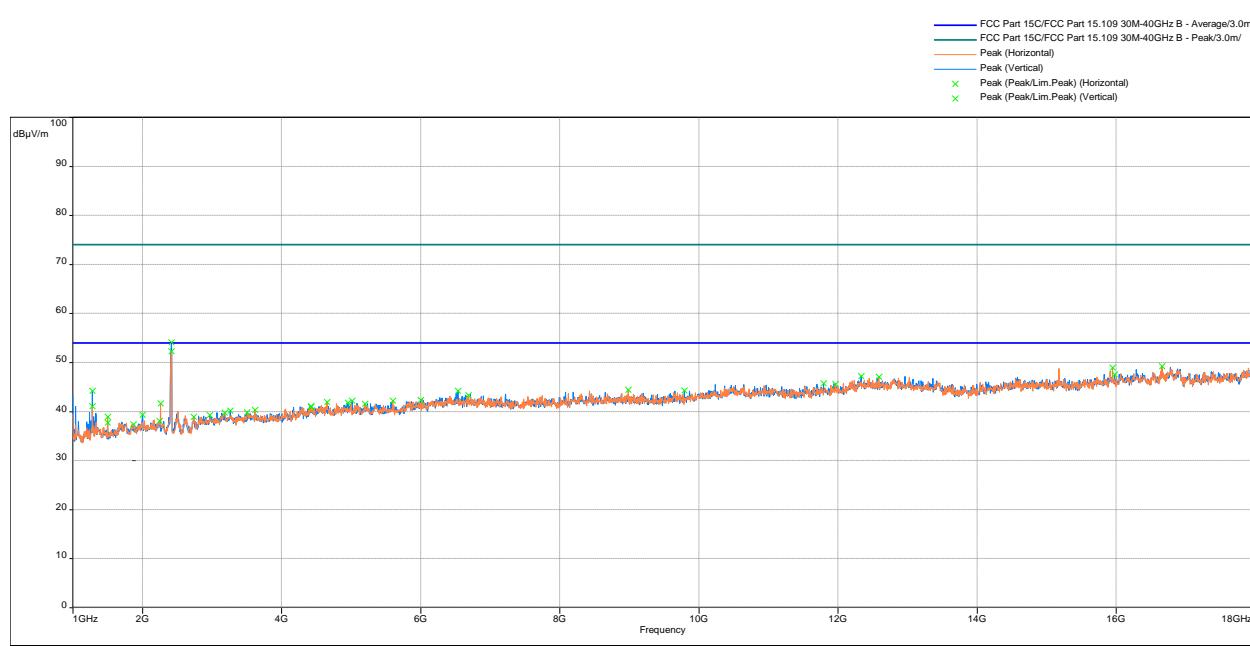


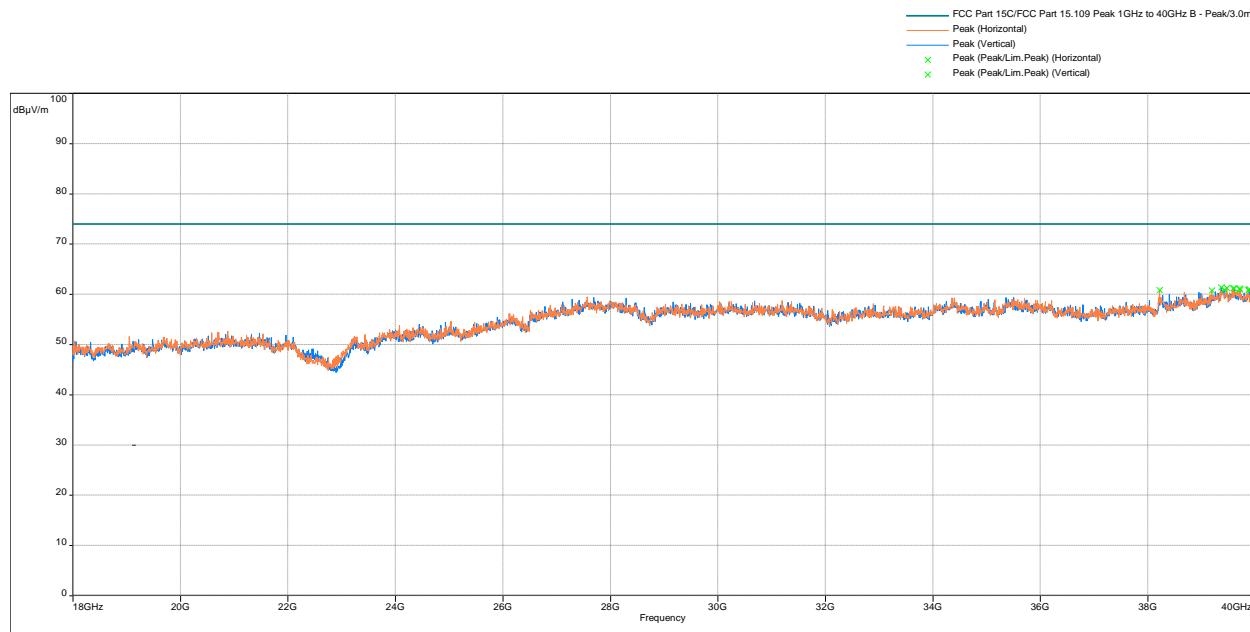
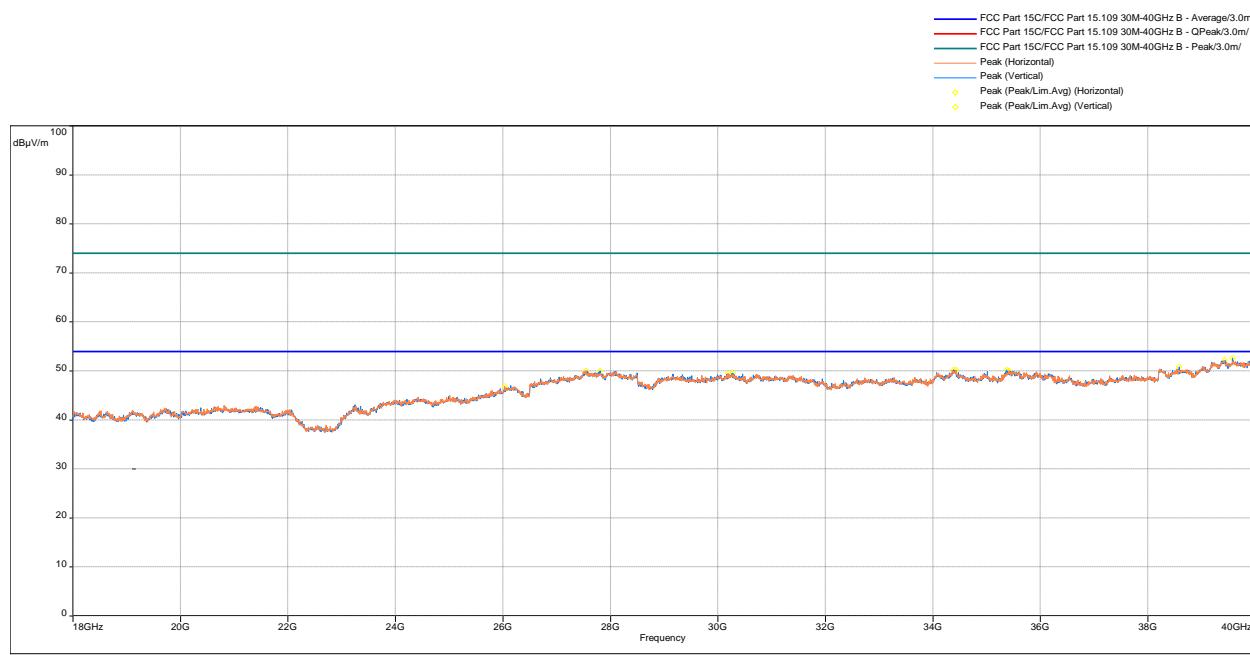
Perpendicular

### Out-of-Band Radiated Spurious Emissions - 30 MHz to 1000 MHz



### Radiated Spurious Emissions 1000 - 18000 MHz, Peak Scan vs Peak & Avg Limit



Radiated Spurious Emissions 18000 - 26000 MHz, Peak Scan vs Peak Limit

Radiated Spurious Emissions 18000 - 26000 MHz, Avg Scan vs Avg Limit


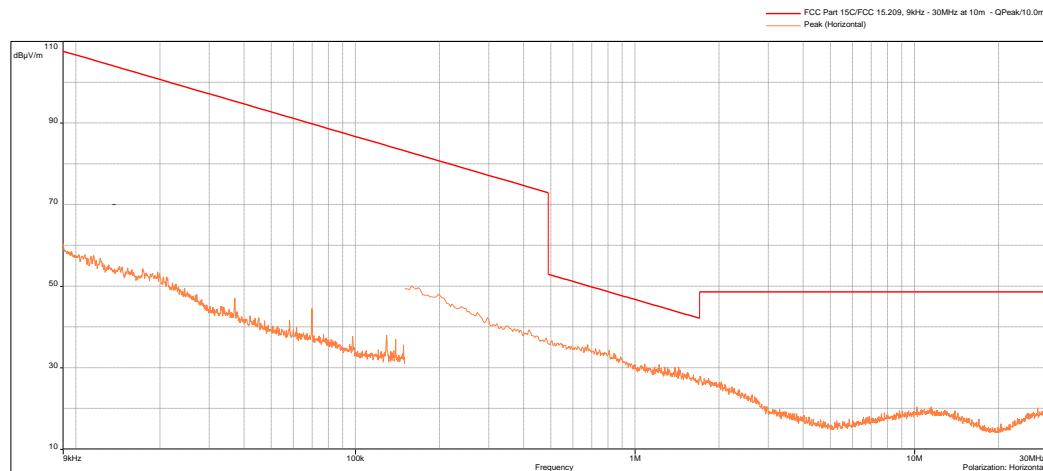
Frequency (MHz)	FS@10m (dB $\mu$ V/m)	Limit@10m (dB(uV/m))	Margin (dB)	Height (m)	Azimuth (deg)	Polarity	Correction (dB)
37.11333	30.18	29	1.18*	1	232.5	Vertical	-11.17
41.543	28.49	29	-0.51*	1	262.75	Vertical	-14.5
49.46467	28.64	29	-0.36*	2	115.5	Vertical	-19.07
52.698	26.15	29	-2.85	3.01	100.75	Vertical	-19.83
75.94567	23.82	29	-5.18	2	125	Vertical	-18.79
138.4783	31.61	33.5	-1.89	3.01	213.5	Vertical	-13.12

\*Note: These peaks were found to be coming from the unintentional emission and not from the radio. It is also not in the restricted band.

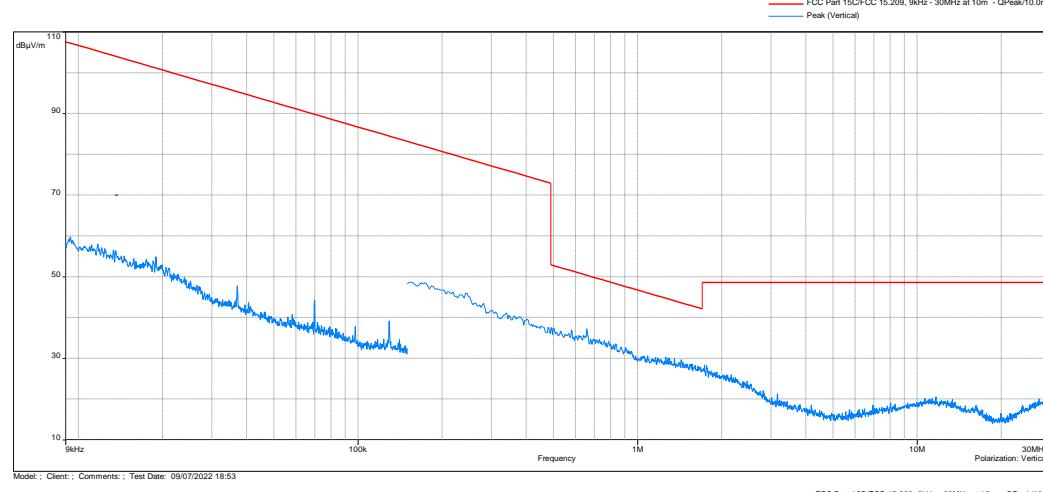
Results	<input checked="" type="checkbox"/> Complies
---------	--

## Test Results: 15.209 Radiated Spurious Emissions Low Channel, Tx at 802.11n 20MHz, 2437MHz

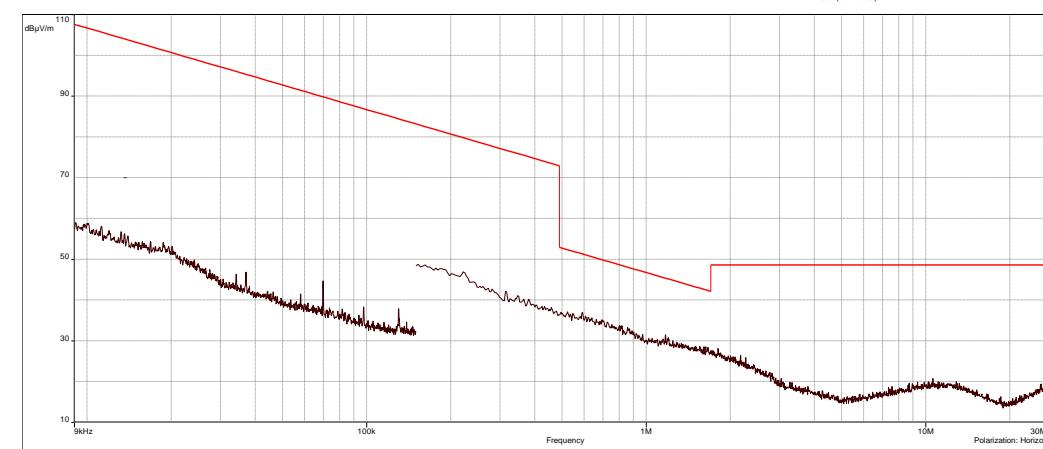
## Out-of-Band Radiated Spurious Emissions - 9 kHz to 30 MHz



Horizontal

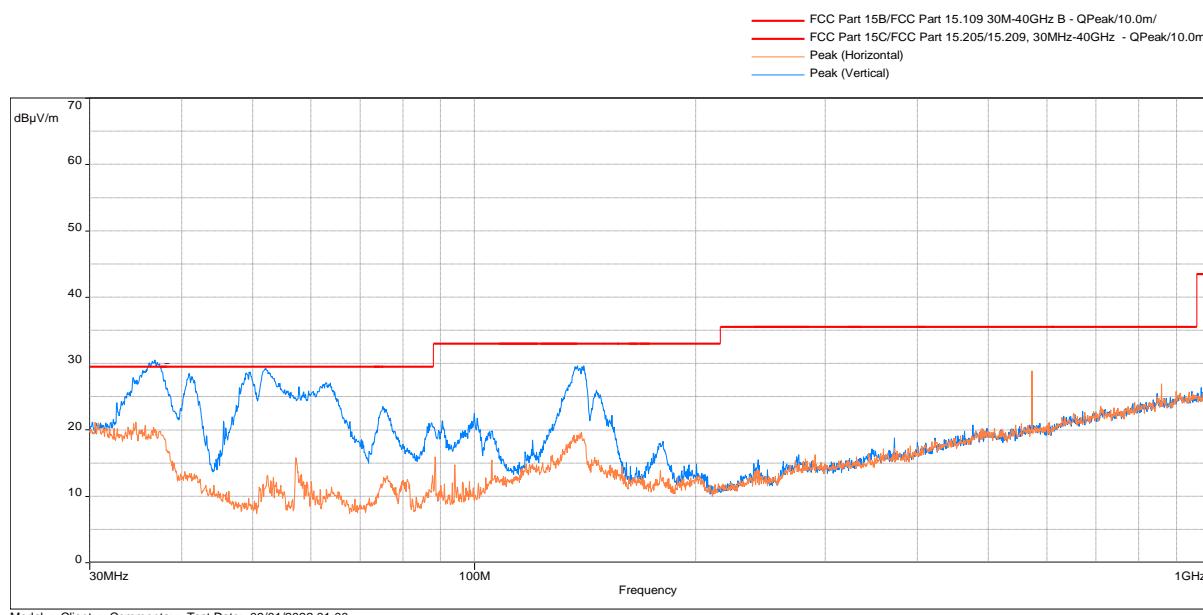


Vertical



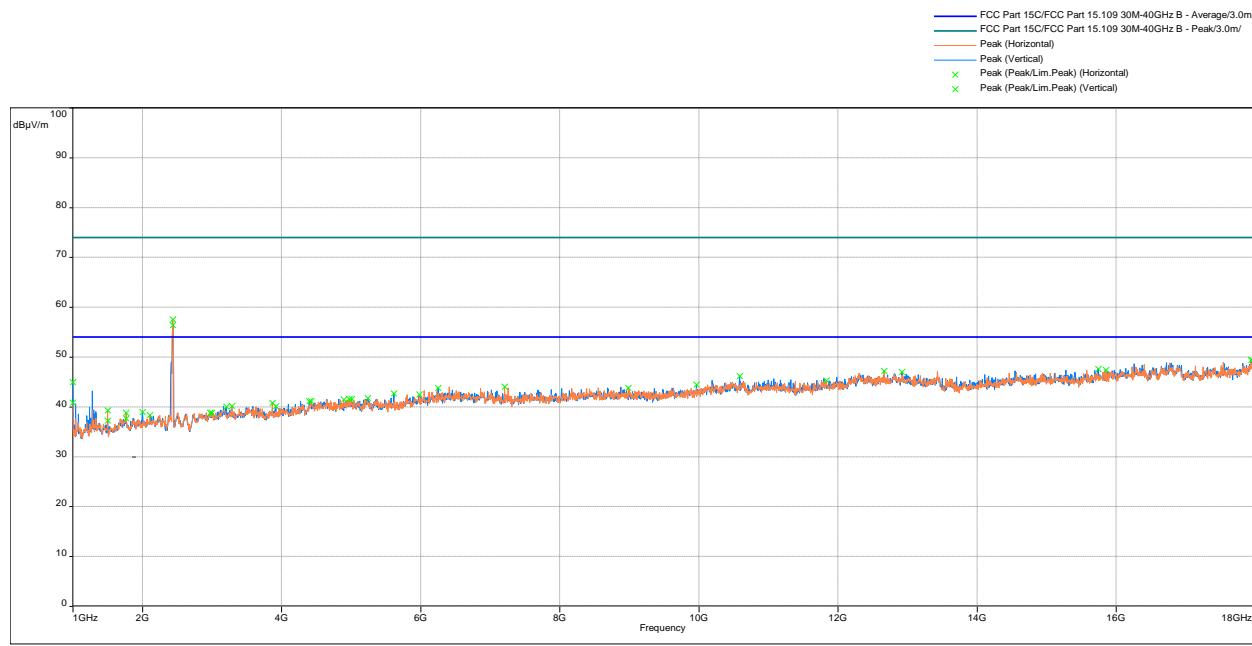
Perpendicular

### Out-of-Band Radiated Spurious Emissions - 30 MHz to 1000 MHz

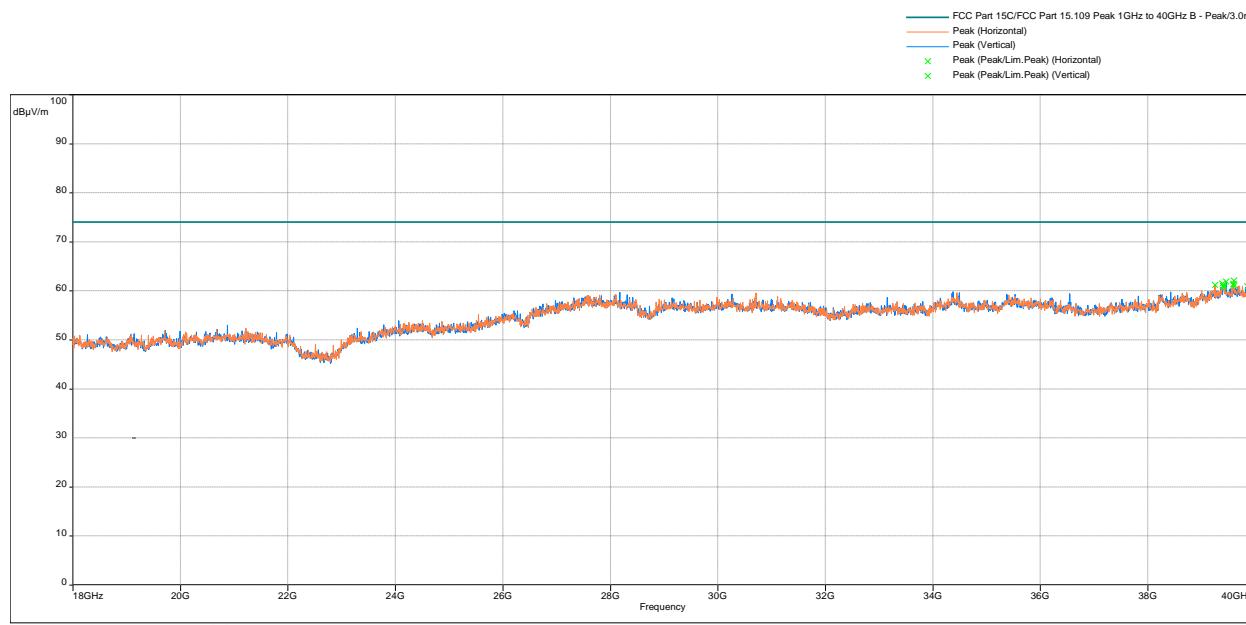


Ra

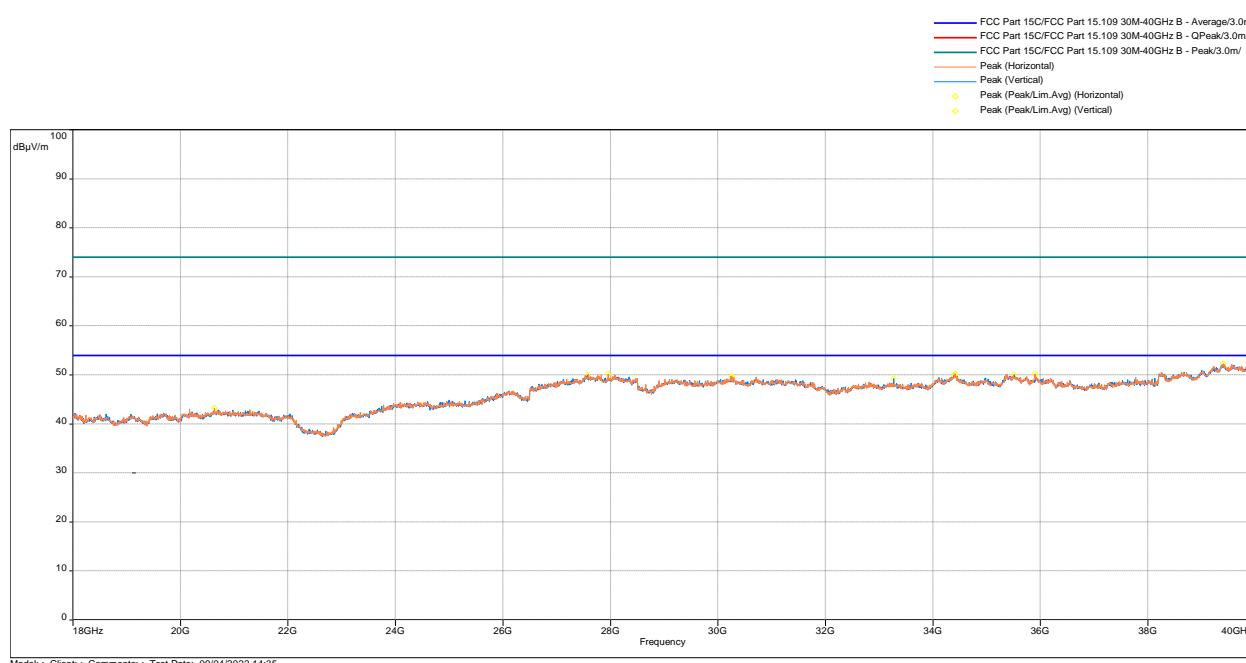
### Radiated Spurious Emissions 1000 - 18000 MHz, Peak Scan vs Peak & Avg Limit



### Radiated Spurious Emissions 18000 - 26000 MHz, Peak Scan vs Peak Limit



### Radiated Spurious Emissions 18000 - 26000 MHz, Avg Scan vs Avg Limit



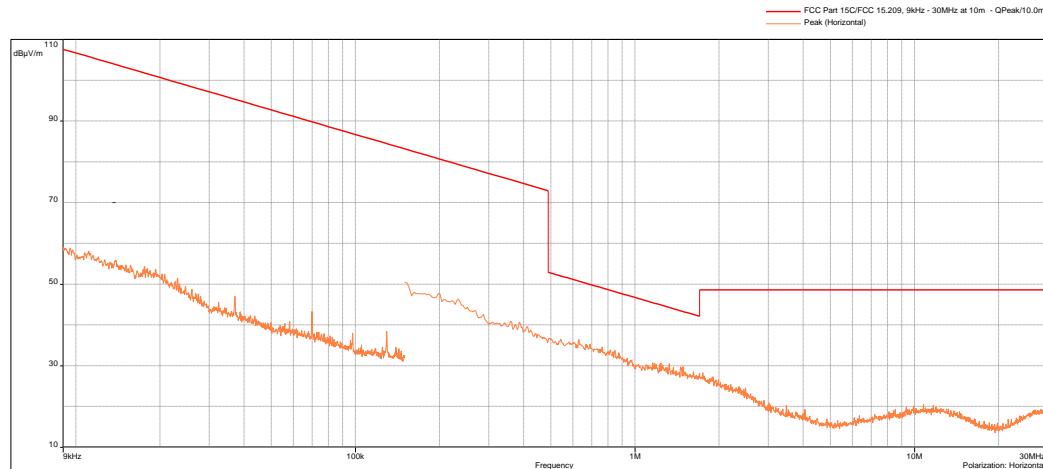
Frequency (MHz)	FS@10m (dB $\mu$ V/m)	Limit@10m (dB( $\mu$ V/m))	Margin (dB)	Height (m)	Azimuth (deg)	Polarity	Correction (dB)
36.85467	30.41	29	1.41*	1	270.25	Vertical	-10.96
41.38133	28.83	29	-0.17*	1	249.5	Vertical	-14.39
49.012	28.99	29	-0.01*	2.01	98	Vertical	-18.94
52.31	29.88	29	0.88*	3	85.5	Vertical	-19.76
63.33567	27.17	29	-1.83	2.01	103.25	Vertical	-19.27
139.901	29.72	33.5	-3.78	2.01	45.5	Vertical	-13.31

\*Note: These peaks were found to be coming from the unintentional emission and not from the radio. It is also not in the restricted band.

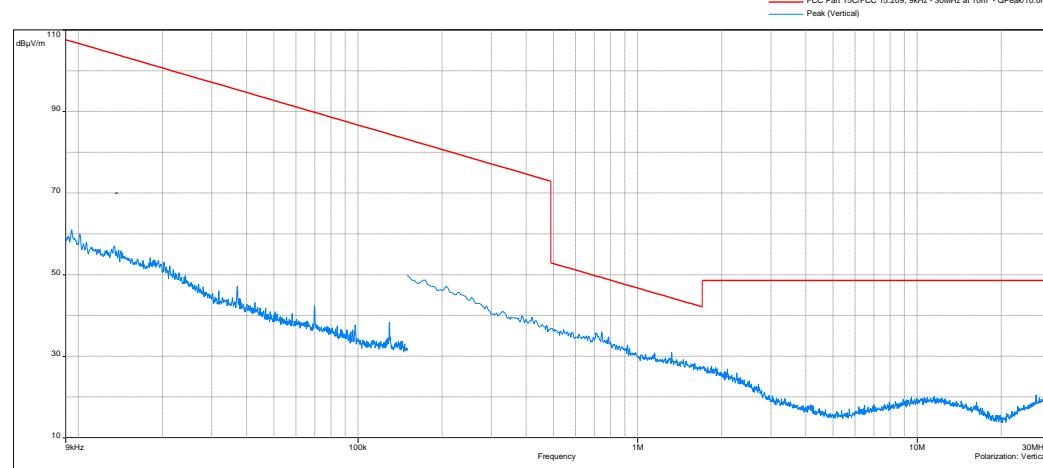
Results	<input checked="" type="checkbox"/> Complies
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## Test Results: 15.209 Radiated Spurious Emissions Low Channel, Tx at 802.11n 20MHz, 2462MHz

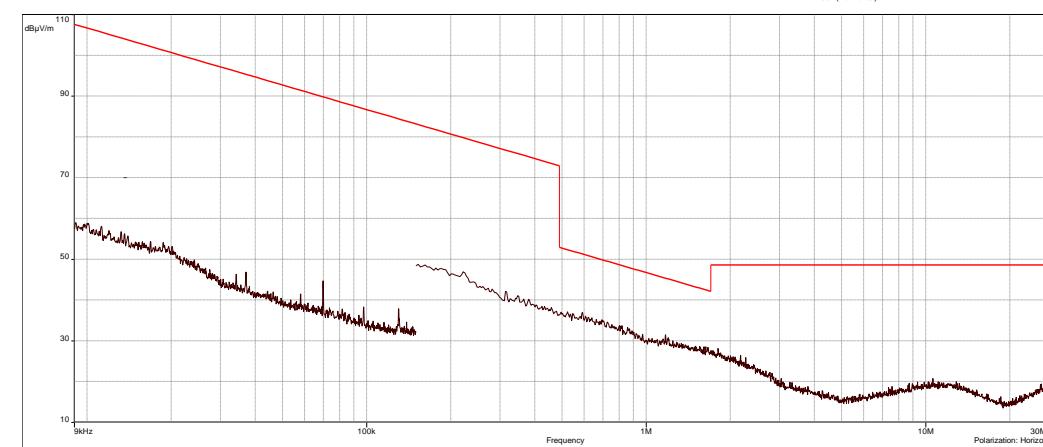
## Out-of-Band Radiated Spurious Emissions - 9 kHz to 30 MHz



Horizontal

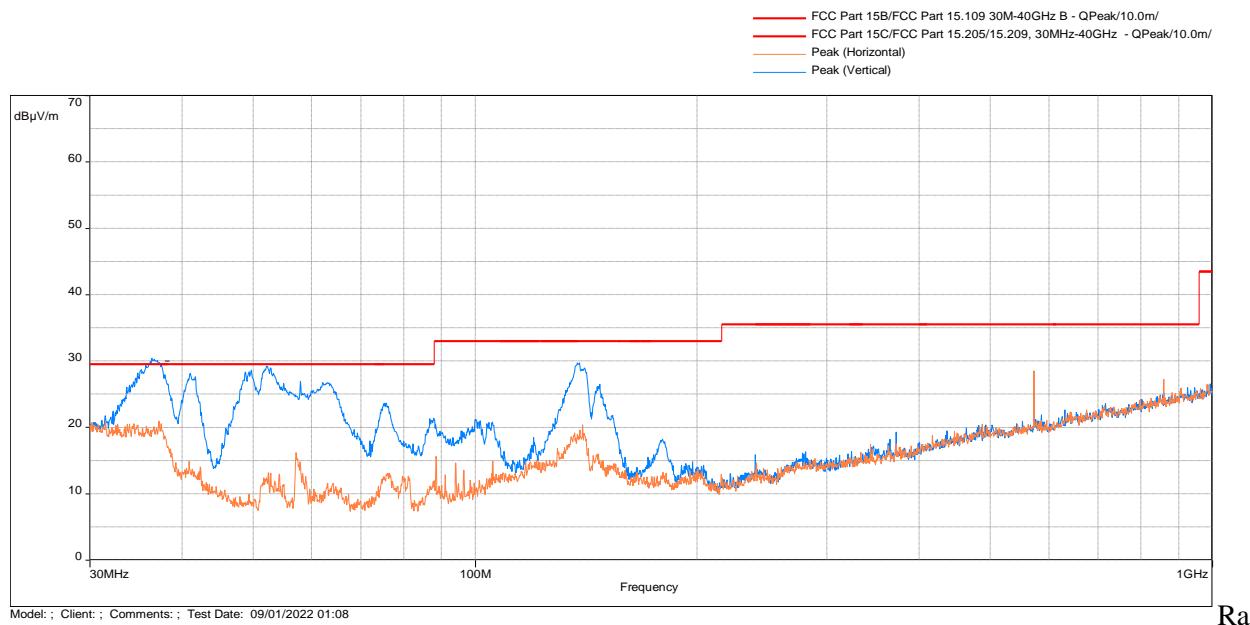


Vertical

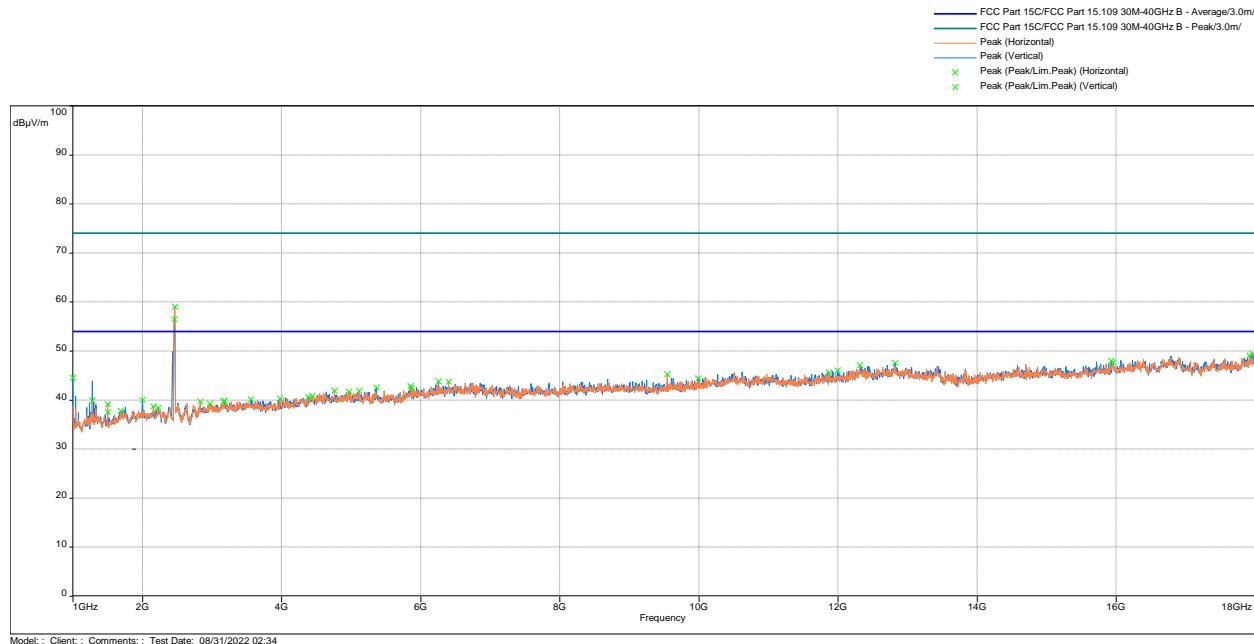


Perpendicular

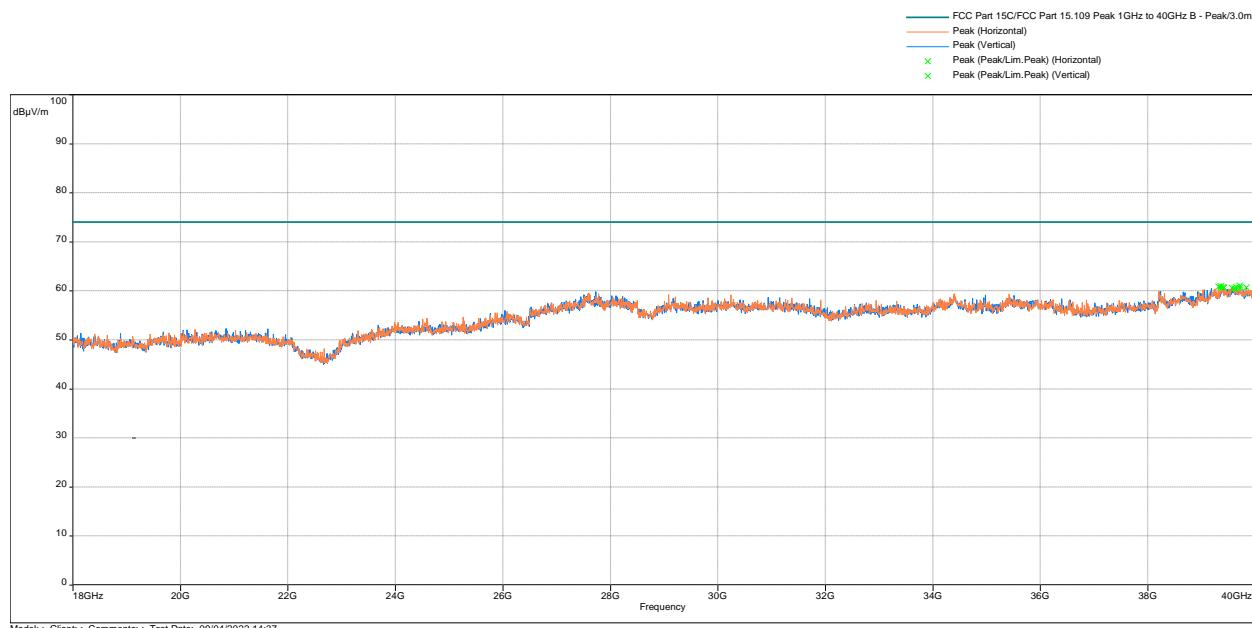
### Out-of-Band Radiated Spurious Emissions - 30 MHz to 1000 MHz



### Radiated Spurious Emissions 1000 - 18000 MHz, Peak Scan vs Peak & Avg Limit

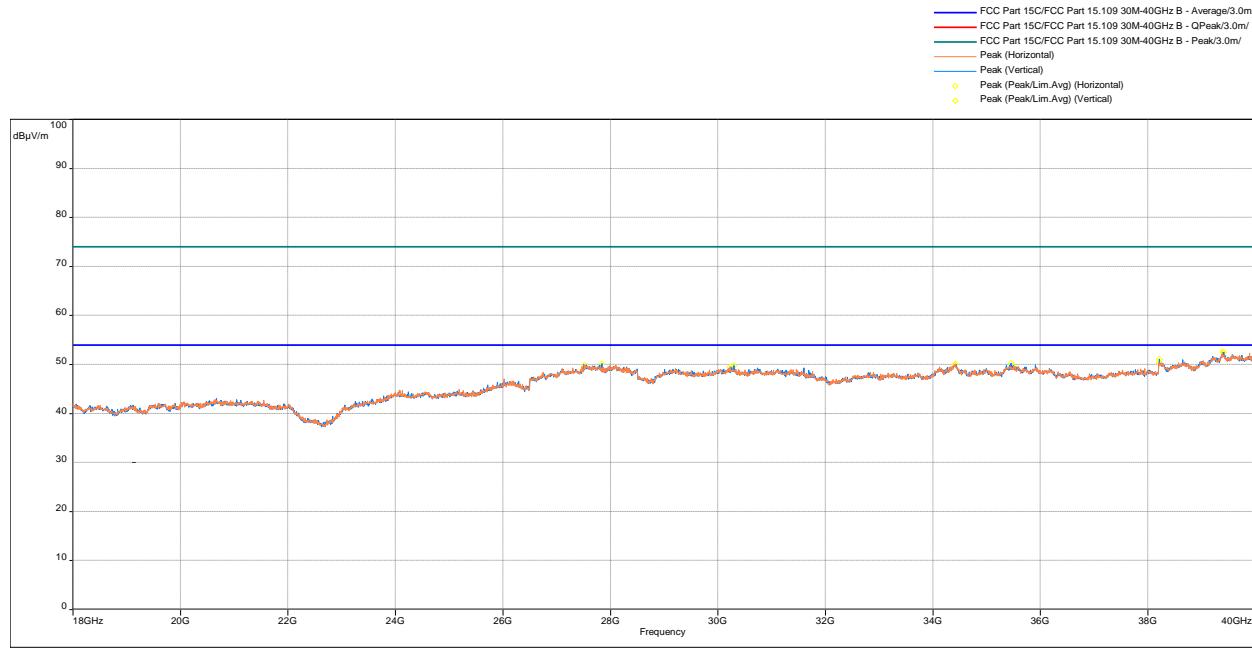


## Radiated Spurious Emissions 18000 - 26000 MHz, Peak Scan vs Peak Limit



Model: ; Client: ; Comments: ; Test Date: 09/04/2022 14:37

## Radiated Spurious Emissions 18000 - 26000 MHz, Avg Scan vs Avg Limit



Model: ; Client: ; Comments: ; Test Date: 09/04/2022 14:39

Frequency (MHz)	FS@10m (dB $\mu$ V/m)	Limit@10m (dB( $\mu$ V/m))	Margin (dB)	Height (m)	Azimuth (deg)	Polarity	Correction (dB)
36.66067	30.29	29	1.29*	1	237	Vertical	-10.81
41.02567	28.71	29	-0.29*	2.01	255	Vertical	-14.15
49.07667	28.64	29	-0.36*	2.01	64.75	Vertical	-18.96
51.85733	29.49	29	0.49*	3	128	Vertical	-19.67
62.91533	27.21	29	-1.79	2.01	136.25	Vertical	-19.31
141.2913	30.38	33.5	-3.12	1	211.25	Vertical	-13.44

\*Note: These peaks were found to be coming from the unintentional emission and not from the radio. It is also not in the restricted band.

<b>Results</b>	<input type="checkbox"/> <b>Complies</b>
----------------	--

#### 4.5.5 Test Setup Photographs

**The following photographs show the testing configurations used.**

#### 4.5.5 Test Setup Photographs (continued)

4.6 AC Line Conducted Emission  
 FCC: 15.207; RSS-GEN

4.6.1 Requirement

Frequency Band MHz	FCC Part 15.207 Limits	
	Quasi-Peak	Average
0.15-0.50	66 to 56 *	56 to 46 *
0.50-5.00	56	46
5.00-30.00	60	50

*Note: \*Decreases linearly with the logarithm of the frequency*

*At the transition frequency the lower limit applies.*

4.6.2 Procedure

Measurements are carried out using quasi-peak and average detector receivers in accordance with CISPR 16. An AMN is required to provide a defined impedance at high frequencies across the power feed at the point of measurement of terminal voltage and also to provide isolation of the circuit under test from the ambient noise on the power lines. An AMN as defined in CISPR 16 shall be used.

The EUT is located so that the distance between the boundary of the EUT and the closest surface of the AMN is 0.8m.

Where a flexible mains cord is provided by the manufacturer, this shall be 1m long or if in excess of 1m, the excess cable is folded back and forth as far as possible so as to form a bundle not exceeding 0.4m in length.

The EUT is arranged and connected with cables terminated in accordance with the product specification.

Conducted disturbance is measured between the phase lead and the reference ground, and between the neutral lead and the reference ground. Both measured values are reported.

The EUT, where intended for tabletop use, is placed on a table whose top is 0.8m above the ground plane. A vertical, metal reference plane is placed 0.4m from the EUT. The vertical metal reference-plane is at least 2m by 2m. The EUT shall be kept at least 0.8m from any other metal surface or other ground plane not being part of the EUT. The table is constructed of non-conductive materials. Its dimensions are 1m by 1.5m, but may be extended for larger EUT.

Floor standing EUT are placed on a horizontal metal ground plane and isolated from the ground plane by resting on an insulating material. The metal ground plane extends at least 0.5m beyond the boundaries of the EUT and has minimum dimensions of 2m by 2m.

Equipment setup for conducted disturbance tests followed the guidelines of ANSI C63.4:2014.

## 4.6.3 Test Results

## 15.207: Conducted Emissions

<b>Results:</b>	<b>Not Applicable. EUT is DC powered.</b>
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## 5.0 List of Test Equipment

Measurement equipment used for emission compliance testing utilized the equipment on the following list:

Equipment	Manufacturer	Model/Type	Asset #	Cal Int	Cal Due
9kHz-30MHz Loop Antenna	ETS Lindgren	6512	01573	12	11/09/2022
30MHz-2GHz Bi-Log	SunAR RF Motion	JB1	01577	12	02/10/2023
1-18GHz 2 meter RF Cable	TRU Corp.	TRU Core 300	01330	12	08/25/2023
1-40GHz RF Cable (SMA)	MEGAPHASE	EMC1-K1K1-20	01889	12	03/11/2023
1-40GHz DRG Horn (small)	ETS-Lindgren	3116	01894	12	06/20/2023
1-18GHz Horn Antenna	ETS Lindgren	3117-PA	01325	12	10/26/2022
9kHz-1GHz Pre-amplifier	Sonoma Instrument	310N	01713	12	02/17/2023
Vector Signal Generator	Rohde & Schwarz	SMU200A	00880	12	12/14/2022
1-40GHz RF Cable	Mega PHASE	TM40-K1K1-59	01655	12	01/11/2023
1GHz to 40GHz RF Cable	MEGAPHASE	EMC1-K1K1-236	01484	12	06/27/2023
1-18GHz Horn Antenna	EMCO	3115	001595	12	#
18-40GHz Preamp	uComp Nordic	MCNS-50-18004000335p	01799	12	03/24/2023
EMI Test Receiver 40GHz	Rohde & Schwarz	ESU40	00961	12	03/10/2023
EMI Test Receiver	Rohde & Schwarz	ESR7	01607	12	11/19/2022
10m Chamber	Panashield	10 Meter Chamber	00984	12	#

# = Calibration not required.

Software used for emission compliance testing utilized the following:

Name	Manufacturer	Version	Template/Profile
Tile	Quantum Change	3.4.K.22	Conducted Spurious 30M-26GHz
BAT-EMC	Nexio	3.16.0.64	Lyxt Wifi.bpp
RS Commander	Rohde Schwarz	1.6.4	Not Applicable (Screen grabber)

**6.0 Document History**

Revision/ Job Number	Writer Initials	Reviewers Initials	Date	Change
1.0 / G105146268	JAV	ML	October 29, 2022	Original document

***END OF REPORT***