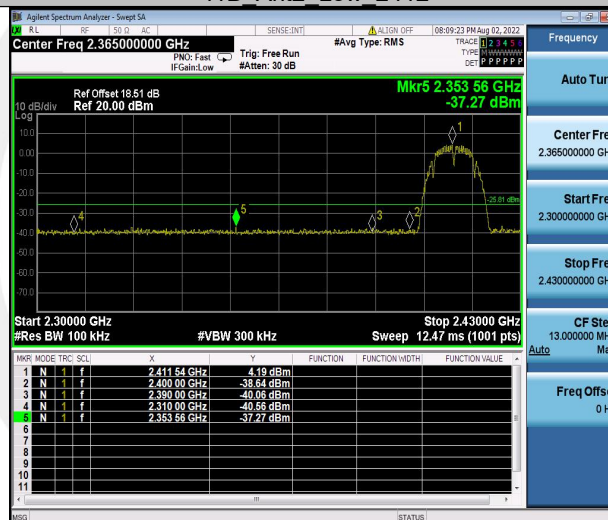


Band edge measurements

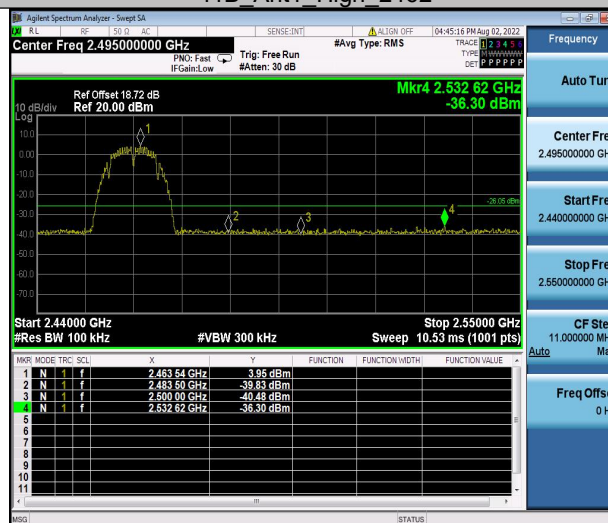
11B_Ant1_Low_2412



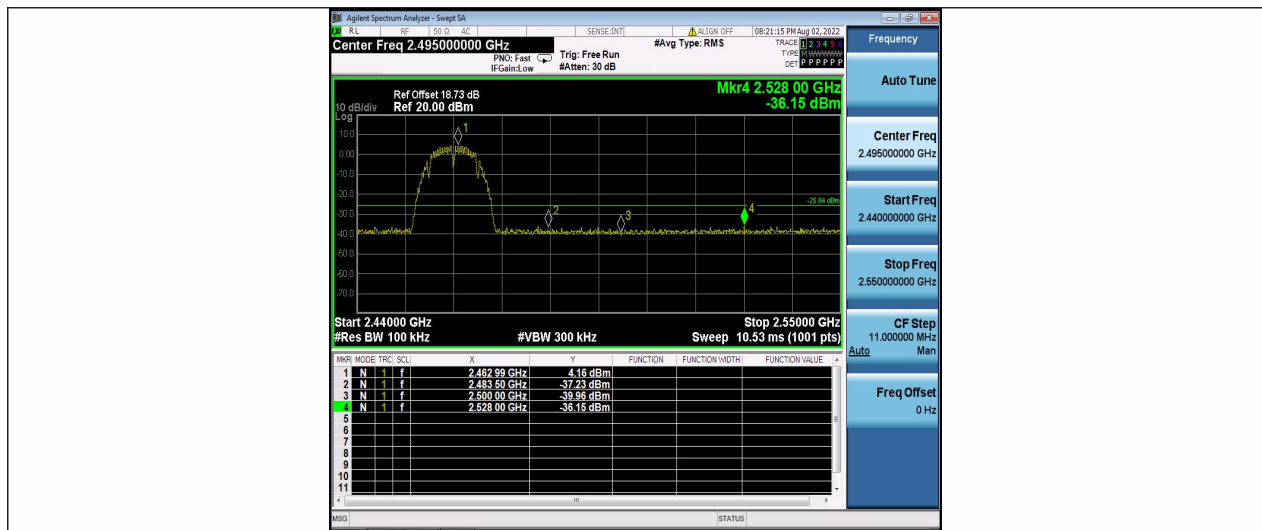
11B_Ant2_Low_2412



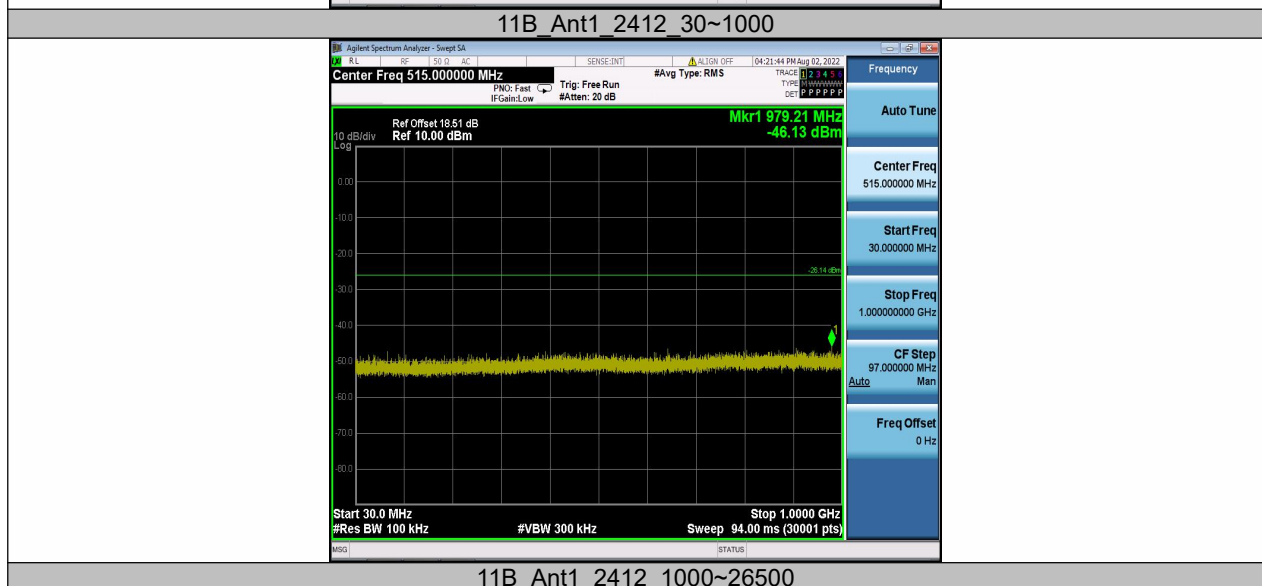
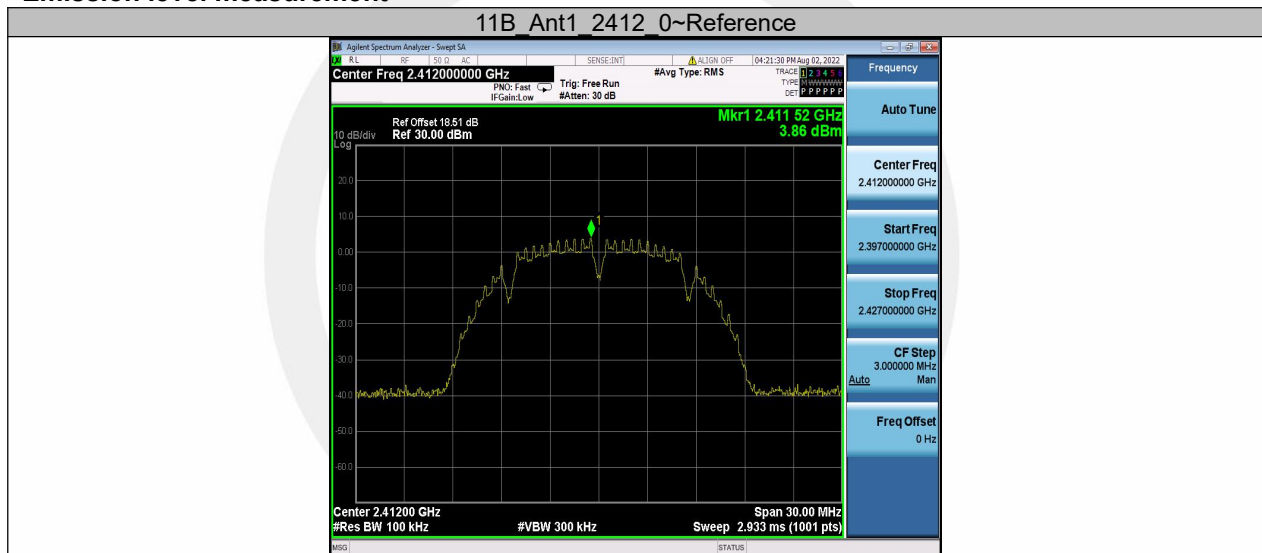
11B_Ant1_High_2462



11B_Ant2_High_2462



Emission level measurement

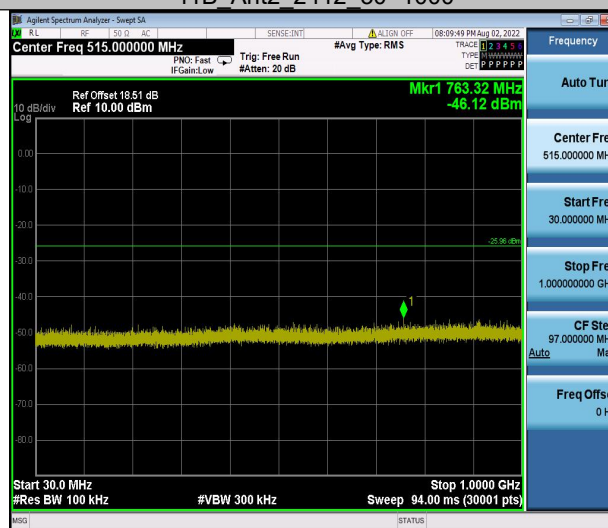




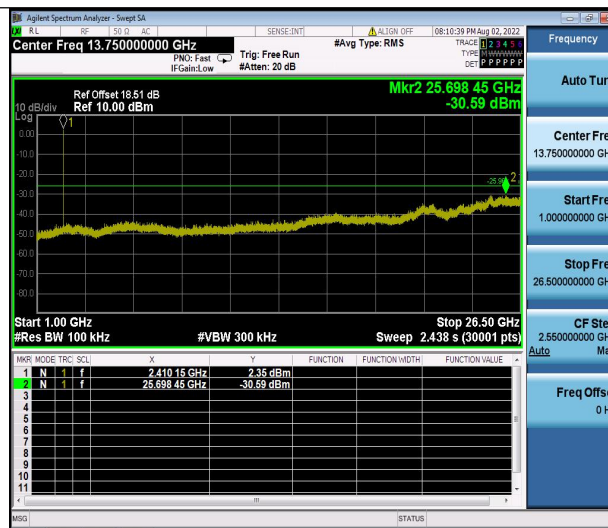
11B_Ant2_2412_0~Reference



11B_Ant2_2412_30~1000



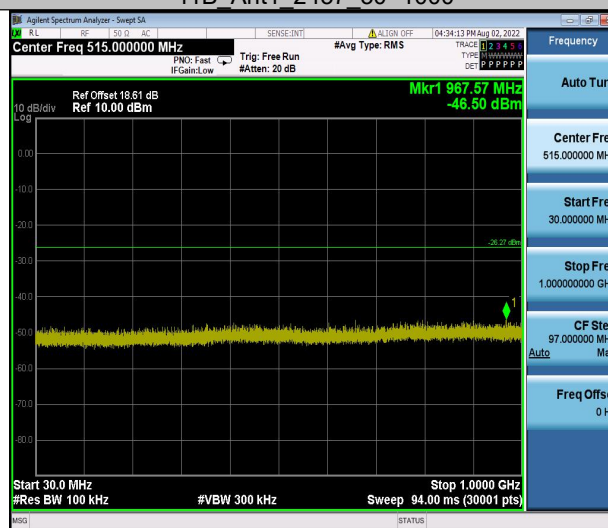
11B_Ant2_2412_1000~26500



11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



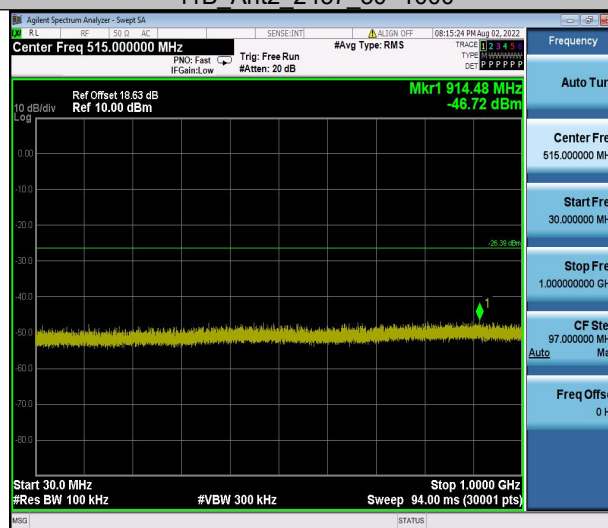
11B_Ant1_2437_1000~26500



11B_Ant2_2437_0~Reference



11B_Ant2_2437_30~1000



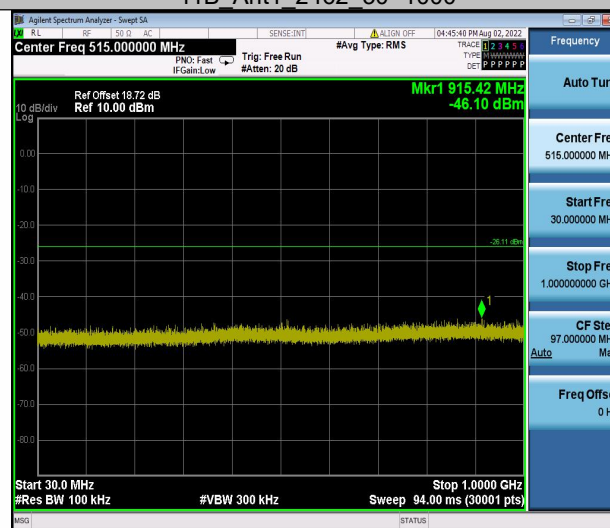
11B_Ant2_2437_1000~26500



11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



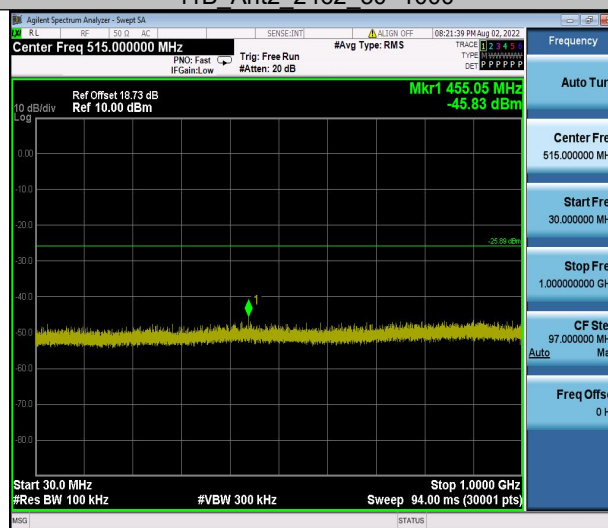
11B_Ant1_2462_1000~26500



11B_Ant2_2462_0~Reference



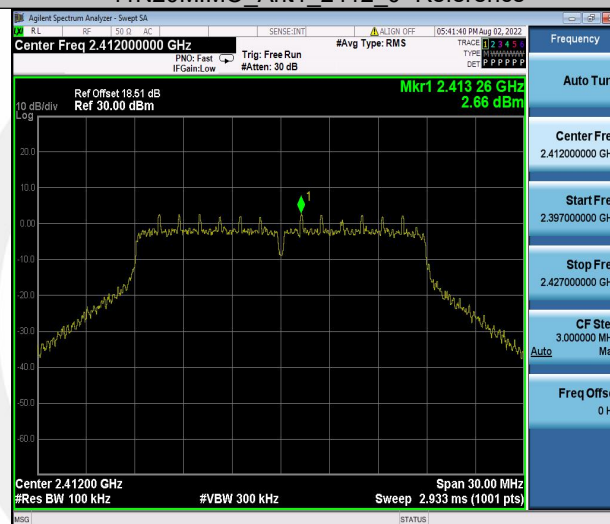
11B_Ant2_2462_30~1000



11B_Ant2_2462_1000~26500



11N20MIMO_Ant1_2412_0~Reference



7.5 RADIATED EMISSION

7.5.1 Applicable Standard

According to FCC Part 15.247(d) and 15.209 and KDB 558074 D01 15.247 Meas Guidance v05r02.

7.5.2 Conformance Limit

According to FCC Part 15.247(d): 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)).

According to FCC Part 15.205, Restricted bands:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(2)
13.36-13.41			

According to FCC Part 15.205 the level of any transmitter spurious emission in Restricted bands shall not exceed the level of the emission specified in the following table.

Restricted Frequency(MHz)	Field Strength (μV/m)	Field Strength (dBμV/m)	Measurement Distance
0.009-0.490	2400/F(KHz)	20 log (uV/m)	300
0.490-1.705	24000/F(KHz)	20 log (uV/m)	30
1.705-30	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

7.5.3 Test Configuration

Test according to clause 6.2 radio frequency test setup 2.

7.5.4 Test Procedure

This test is required for any spurious emission that falls in a Restricted Band, as defined in Section 15.205. It must be performed with the highest gain of each type of antenna proposed for use with the EUT. Use the following spectrum analyzer settings:

For Above 1GHz:

The EUT was placed on a turn table which is 1.5m above ground plane.

Maximum procedure was performed on the highest emissions to ensure EUT compliance.

Span = wide enough to fully capture the emission being measured.

RBW = 1 MHz.

VBW ≥ RBW.

Sweep = auto.

Detector function = peak.
Trace = max hold.

For Below 1GHz:

The EUT was placed on a turn table which is 0.8m above ground plane.
Maximum procedure was performed on the highest emissions to ensure EUT compliance.
Span = wide enough to fully capture the emission being measured.
RBW = 100 kHz.
 $VBW \geq RBW$.
Sweep = auto.
Detector function = peak.
Trace = max hold.

For Below 30MHz:

The EUT was placed on a turn table which is 0.8m above ground plane.
Maximum procedure was performed on the highest emissions to ensure EUT compliance.
Span = wide enough to fully capture the emission being measured.
RBW = 9kHz.
 $VBW \geq RBW$.
Sweep = auto.
Detector function = peak.
Trace = max hold.

For Below 150KHz:

The EUT was placed on a turn table which is 0.8m above ground plane.
Maximum procedure was performed on the highest emissions to ensure EUT compliance.
Span = wide enough to fully capture the emission being measured.
RBW = 200Hz.
 $VBW \geq RBW$.
Sweep = auto.
Detector function = peak.
Trace = max hold.

Follow the guidelines in ANSI C63.10 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization, etc. A pre-amp and a high pass filter are required for this test, in order to provide the measuring system with sufficient sensitivity. Allow the trace to stabilize. The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, which must comply with the limit. Submit this data. Now set the VBW to 10 Hz, while maintaining all of the other instrument settings. This peak level, once corrected, must comply with the limit. If the dwell time per channel of the hopping signal is less than 100 ms, then the reading obtained with the 10 Hz VBW may be further adjusted by a "duty cycle correction factor", derived from $20\log(\text{dwell time}/100 \text{ ms})$, in an effort to demonstrate compliance with the limit. Submit this data.
Repeat above procedures until all frequency measured was complete.

7.5.5 Test Results

Temperature:	28.1° C
Relative Humidity:	43%
ATM Pressure:	1011 mbar

■ Spurious Emission below 30MHz(9KHz to 30MHz)

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Over(dB)	
		PK	AV	PK	AV	PK	AV
--	--	--	--	--	--	--	--

Note: Data of measurement within this frequency range shown “ -- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

■ Spurious Emission Above 1GHz(1GHz to 25GHz)

All modes have been tested, and the worst result recorded was report as below:
Highest gain of each antenna and highest output power is ANT2 and MIMO as below:

ANT2:

Test mode: 802.11n(20) Frequency: Channel 1: 2412MHz

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
4824.375	V	50.43	74.00	23.57	peak
7237.5	V	55.68	74.00	18.32	peak
17649.37	V	70.04	74.00	3.96	peak
4824.325	V	45.51	54.00	8.49	AVG
7237.452	V	49.46	54.00	4.54	AVG
17649.37	V	49.77	54.00	4.23	AVG
4824.375	H	46.74	74.00	27.26	peak
7237.5	H	52.87	74.00	21.13	peak
17608.12	H	70.07	74.00	3.93	peak
4823.973	H	40.89	54.00	13.11	AVG
7237.144	H	44.27	54.00	9.73	AVG
17608.12	H	50.74	54.00	3.26	AVG

Test mode: 802.11n(20) Frequency: Channel 6: 2437MHz

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
4873.125	V	45.93	74.00	28.07	peak
7312.5	V	53.73	74.00	20.27	peak
17617.5	V	69.71	74.00	4.29	peak
4873.615	V	37.79	54.00	16.21	AVG
7312.020	V	46.49	54.00	7.51	AVG
17617.5	V	49.68	54.00	4.32	AVG
4875	H	46.00	74.00	28.00	peak
7312.5	H	50.27	74.00	23.73	peak
17610	H	70.06	74.00	3.94	peak
4875	H	38.45	54.00	15.55	AVG
7312.5	H	46.85	54.00	7.15	AVG
17610	H	50.00	54.00	4.00	AVG

Test mode: 802.11n(20) Frequency: Channel 11: 2462MHz

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
4923.75	V	48.67	74.00	25.33	peak
7385.625	V	55.31	74.00	18.69	peak
17589.37	V	70.58	74.00	3.42	peak
4923.736	V	43.90	54.00	10.10	AVG
7385.287	V	46.18	54.00	7.82	AVG
17589.37	V	49.81	54.00	4.19	AVG
4923.75	H	48.60	74.00	25.40	peak
7368.75	H	50.89	74.00	23.11	peak
17640	H	70.28	74.00	3.72	peak
4923.799	H	43.51	54.00	10.49	AVG
7368.766	H	42.09	54.00	11.91	AVG
17640	H	49.73	54.00	4.27	AVG

MIMO:

Test mode: 802.11n(20) Frequency: Channel 1: 2412MHz

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
4822.985	V	50.3	74.00	23.7	peak
7236.110	V	55.52	74.00	18.48	peak
17650.650	V	70.01	74.00	3.99	peak
4825.605	V	45.49	54.00	8.51	AVG
7235.202	V	49.2	54.00	4.8	AVG
17647.120	V	49.58	54.00	4.42	AVG
4836.065	H	46.66	74.00	27.34	peak
7249.190	H	52.66	74.00	21.34	peak
17619.810	H	69.91	74.00	4.09	peak
4835.663	H	40.75	54.00	13.25	AVG
7233.834	H	44.09	54.00	9.91	AVG
17604.810	H	50.61	54.00	3.39	AVG

Test mode: 802.11n(20) Frequency: Channel 6: 2437MHz

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
4871.735	V	45.8	74.00	28.2	peak
7311.110	V	53.57	74.00	20.43	peak
17618.780	V	69.68	74.00	4.32	peak
4874.895	V	37.77	54.00	16.23	AVG
7309.770	V	46.23	54.00	7.77	AVG
17615.250	V	49.49	54.00	4.51	AVG
4886.690	H	45.92	74.00	28.08	peak
7324.190	H	50.06	74.00	23.94	peak
17621.690	H	69.9	74.00	4.1	peak
4886.690	H	38.31	54.00	15.69	AVG
7309.190	H	46.67	54.00	7.33	AVG
17606.690	H	49.87	54.00	4.13	AVG

Test mode: 802.11n(20) Frequency: Channel 11: 2462MHz

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
4922.360	V	48.54	74.00	25.46	peak
7384.235	V	55.15	74.00	18.85	peak
17590.650	V	70.55	74.00	3.45	peak
4925.016	V	43.88	54.00	10.12	AVG
7383.037	V	45.92	54.00	8.08	AVG
17587.120	V	49.62	54.00	4.38	AVG
4935.440	H	48.52	74.00	25.48	peak
7380.440	H	50.68	74.00	23.32	peak
17651.690	H	70.12	74.00	3.88	peak
4935.489	H	43.37	54.00	10.63	AVG
7365.456	H	41.91	54.00	12.09	AVG
17636.690	H	49.6	54.00	4.4	AVG

- Note:** (1) All Readings are Peak Value (VBW=3MHz) and Average Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

■ Spurious Emission in Restricted Band 2310-2390MHz and 2483.5-2500MHz
All modes have been tested, and the worst result recorded was report as below:

Test mode: 802.11n(20) Frequency: Channel 1: 2412MHz

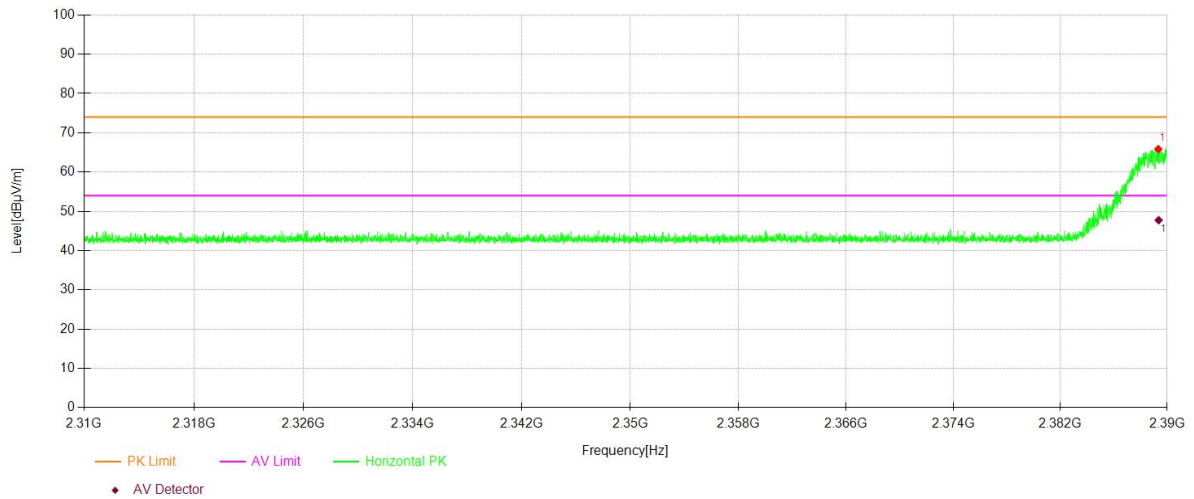
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
2389.69	V	63.95	74.00	10.05	peak
2389.664	V	47.78	54.00	6.22	AVG
2389.34	H	65.84	74.00	8.16	peak
2389.367	H	47.74	54.00	6.26	AVG

Test mode: 802.11n(20) Frequency: Channel 11: 2462MHz

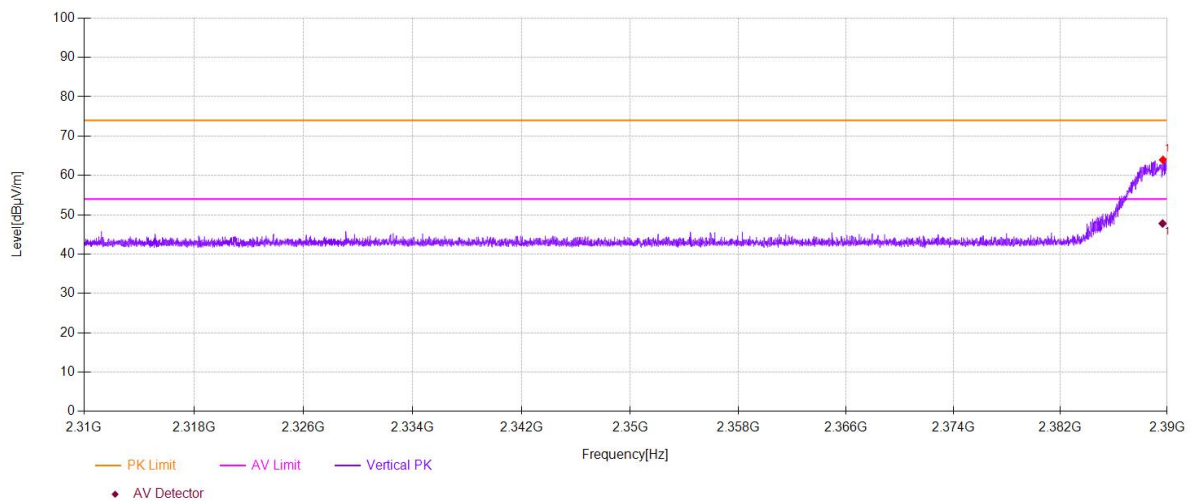
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
2484.172	V	63.89	74.00	10.11	peak
2484.188	V	43.89	54.00	10.11	AVG
2483.646	H	65.31	74.00	8.69	peak
2483.634	H	46.66	54.00	7.34	AVG

Note: (1) All Readings are Peak Value (VBW=3MHz) and Average Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

Spurious Emission in Restricted Band 2310-2390MHz			
Test Model	☐ 802.11b	☐ 802.11g	☒ 802.11n(HT20)
	☒ Channel 1:2412MHz	☐ Channel 3: 2422MHz	☐ 802.11n(HT40)
	VBW=3MHz		Polarity: H

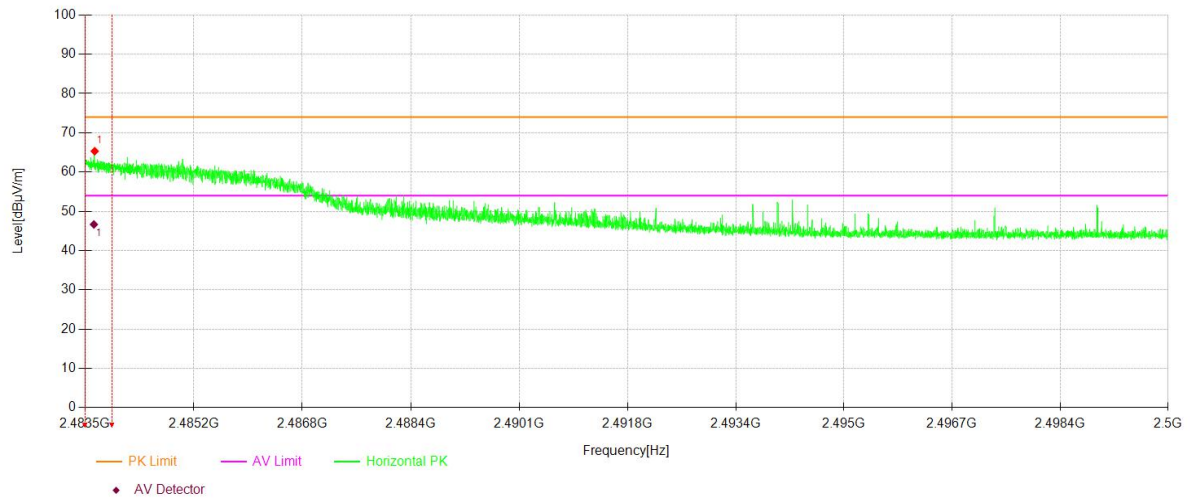


Spurious Emission in Restricted Band 2310-2390MHz			
Test Model	☐ 802.11b	☐ 802.11g	☒ 802.11n(HT20)
	☒ Channel 1:2412MHz	☐ Channel 3: 2422MHz	☐ 802.11n(HT40)
	VBW=3MHz		Polarity: V



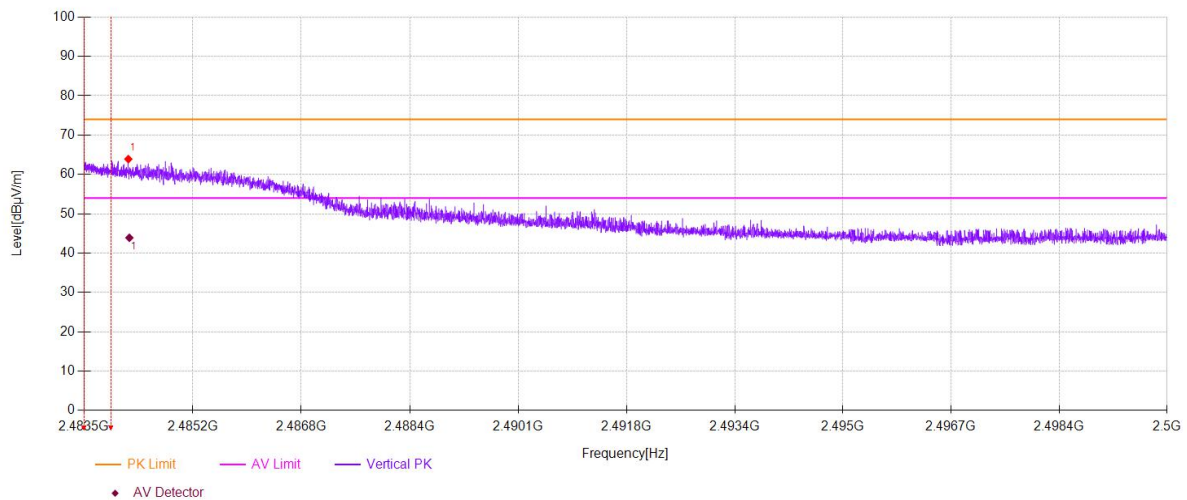
Spurious Emission in Restricted Band 2483.5-2500MHz

Test Model ☐ 802.11b ☐ 802.11g ☒ 802.11n(HT20) ☐ 802.11n(HT40)
☒ Channel 11: 2462MHz ☐ Channel 9: 2452MHz Polarity: H
 VBW=3MHz



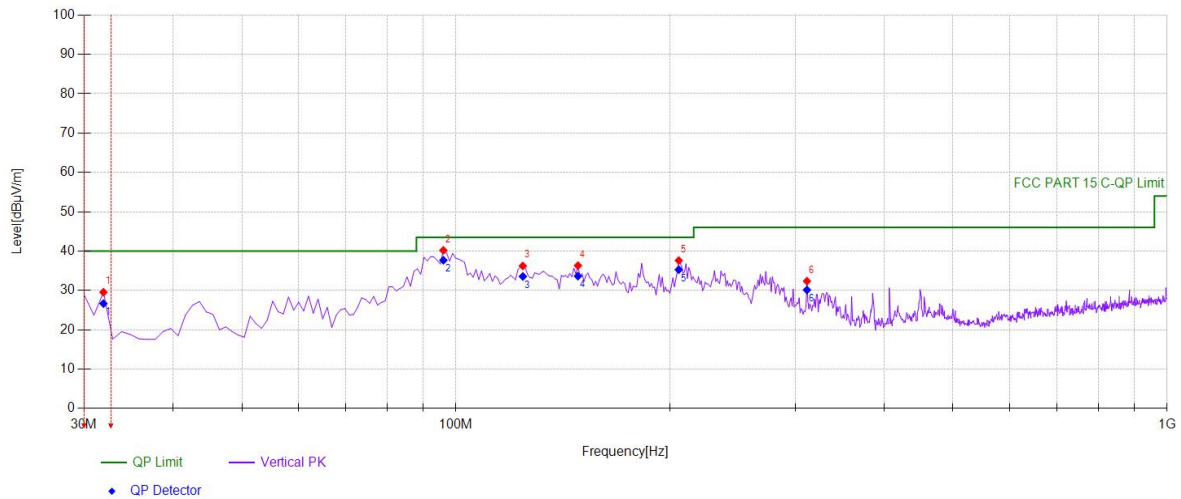
Spurious Emission in Restricted Band 2483.5-2500MHz

Test Model ☐ 802.11b ☐ 802.11g ☒ 802.11n(HT20) ☐ 802.11n(HT40)
☒ Channel 11: 2462MHz ☐ Channel 9: 2452MHz Polarity: V
 VBW=3MHz

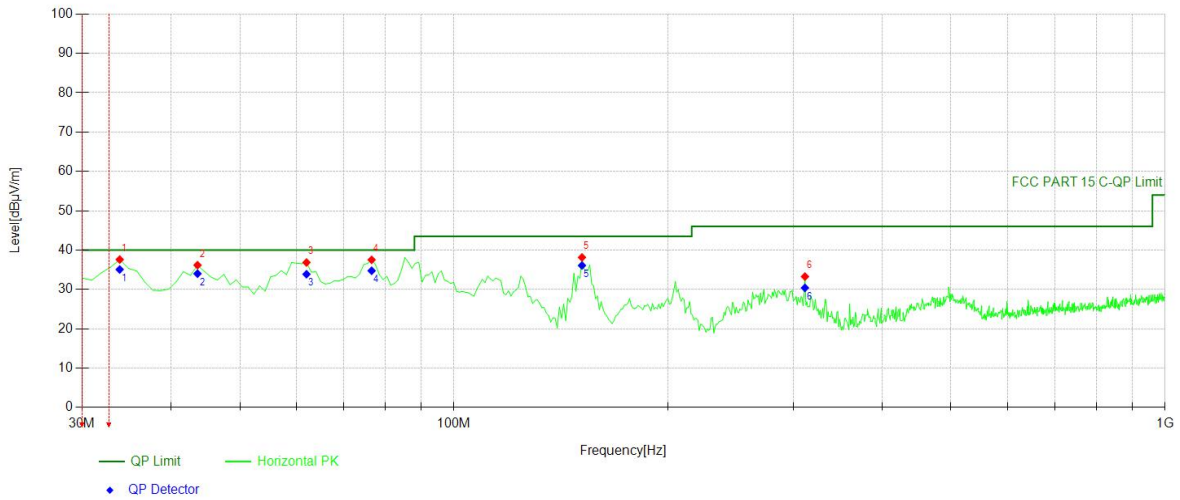


- Spurious Emission below 1GHz (30MHz to 1GHz)
All modes have been tested, and the worst result recorded was report as below:

Test mode: 802.11n(20) Frequency: Channel 1: 2412MHz

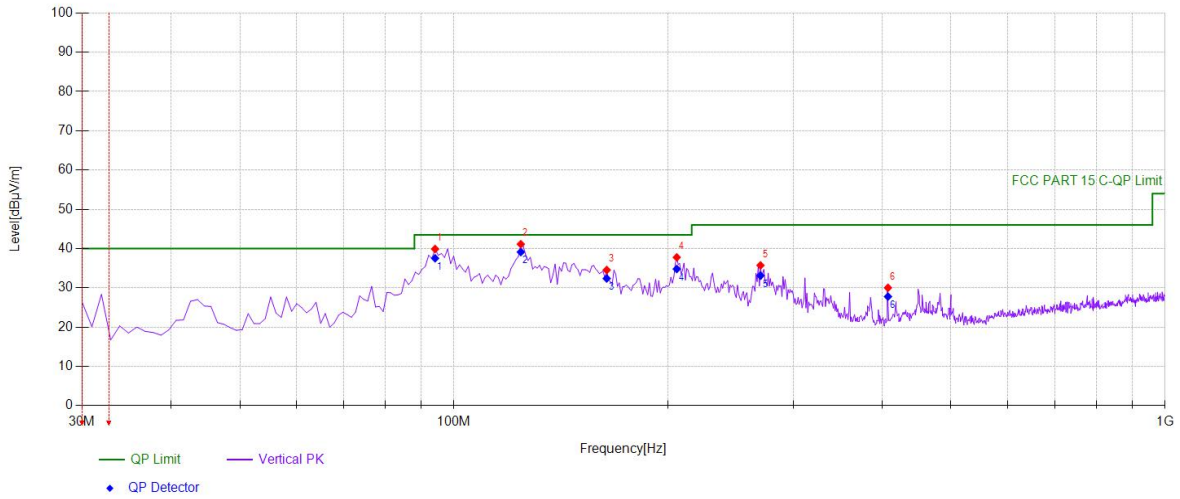


Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	31.9419	29.55	40.00	10.45	100	213	Vertical
2	96.026	40.20	43.50	3.30	100	105	Vertical
3	124.1842	36.24	43.50	7.26	100	31	Vertical
4	148.4585	36.32	43.50	7.18	100	114	Vertical
5	205.7457	37.61	43.50	5.89	100	142	Vertical
6	311.5816	32.37	46.00	13.63	100	180	Vertical

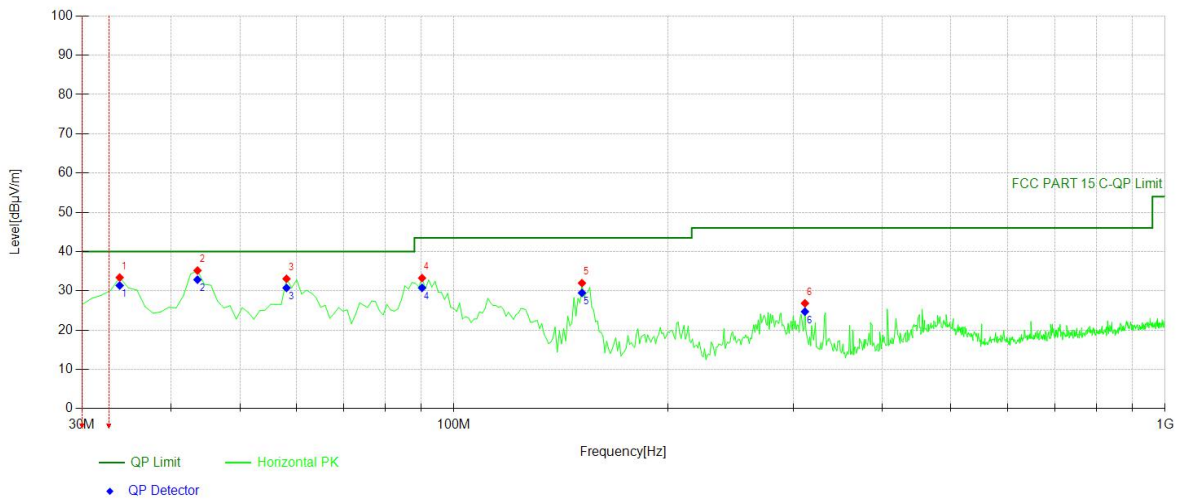


Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	33.8839	37.60	40.00	2.40	100	0	Horizontal
2	43.5936	36.18	40.00	3.82	100	1	Horizontal
3	62.042	36.85	40.00	3.15	100	199	Horizontal
4	76.6066	37.53	40.00	2.47	100	274	Horizontal
5	151.3714	38.15	43.50	5.35	100	162	Horizontal
6	311.5816	33.27	46.00	12.73	100	111	Horizontal

Test mode: 802.11n(20) Frequency: Channel 6: 2437MHz



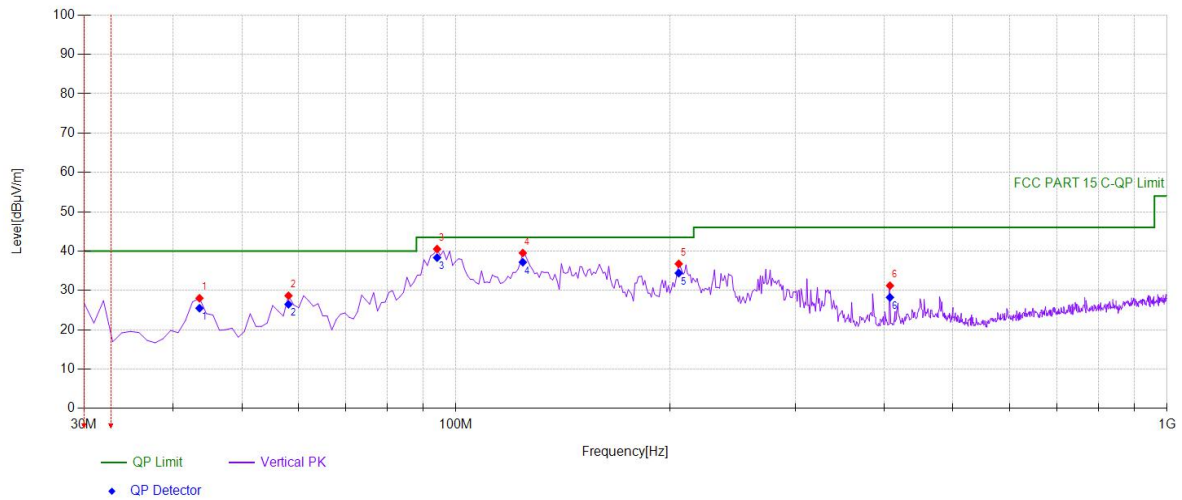
Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	94.0841	39.89	43.50	3.61	100	107	Vertical
2	124.1842	41.13	43.50	2.37	100	56	Vertical
3	163.994	34.55	43.50	8.95	100	89	Vertical
4	205.7457	37.77	43.50	5.73	100	74	Vertical
5	269.8298	35.73	46.00	10.27	100	140	Vertical
6	407.7077	30.02	46.00	15.98	100	154	Vertical



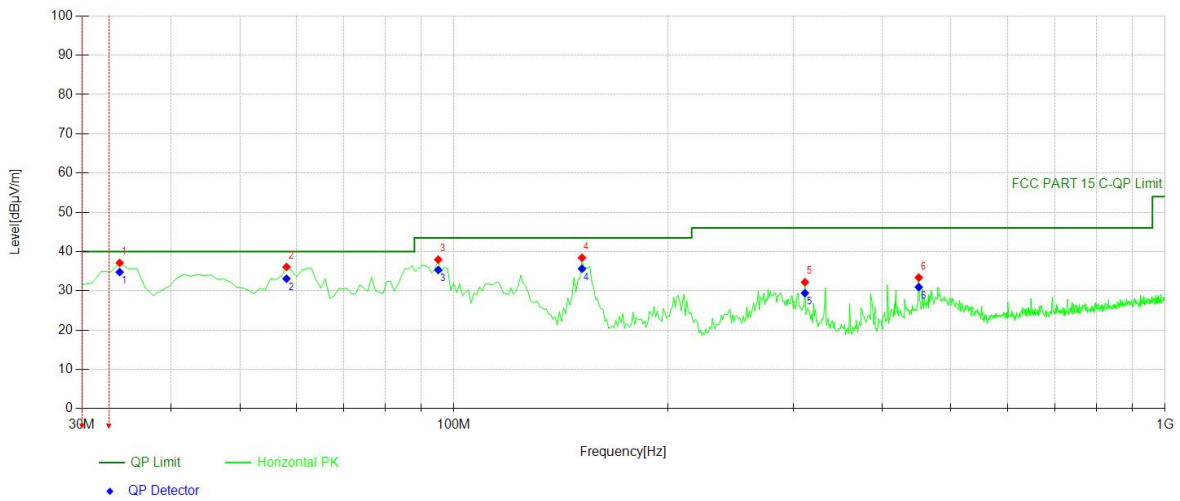
Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	33.8839	33.40	40.00	6.60	100	13	Horizontal
2	43.5936	35.17	40.00	4.83	100	77	Horizontal
3	58.1582	33.08	40.00	6.92	100	124	Horizontal
4	90.2002	33.26	43.50	10.24	100	273	Horizontal
5	151.3714	31.98	43.50	11.52	100	142	Horizontal
6	311.5816	26.83	46.00	19.17	100	128	Horizontal

Test mode: 802.11n(20) Frequency: Channel 11: 2462MHz



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	43.5936	28.03	40.00	11.97	100	72	Vertical
2	58.1582	28.67	40.00	11.33	100	172	Vertical
3	94.0841	40.53	43.50	2.97	100	127	Vertical
4	124.1842	39.52	43.50	3.98	100	31	Vertical
5	205.7457	36.76	43.50	6.74	100	67	Vertical
6	407.7077	31.22	46.00	14.78	100	156	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	33.8839	37.12	40.00	2.88	100	330	Horizontal
2	58.1582	36.08	40.00	3.92	100	80	Horizontal
3	95.0551	37.94	43.50	5.56	100	188	Horizontal
4	151.3714	38.43	43.50	5.07	100	178	Horizontal
5	311.5816	32.21	46.00	13.79	100	117	Horizontal
6	450.4304	33.39	46.00	12.61	100	169	Horizontal

7.6 CONDUCTED EMISSION TEST

7.6.1 Applicable Standard

According to IC RSS-Gen 8.8

7.6.2 Conformance Limit

FCC Part 15, Subpart B, Class B

Conducted Emission Limit		
Frequency(MHz)	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50
Note:		
1. The lower limit shall apply at the transition frequencies		
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.		

7.6.3 Test Configuration

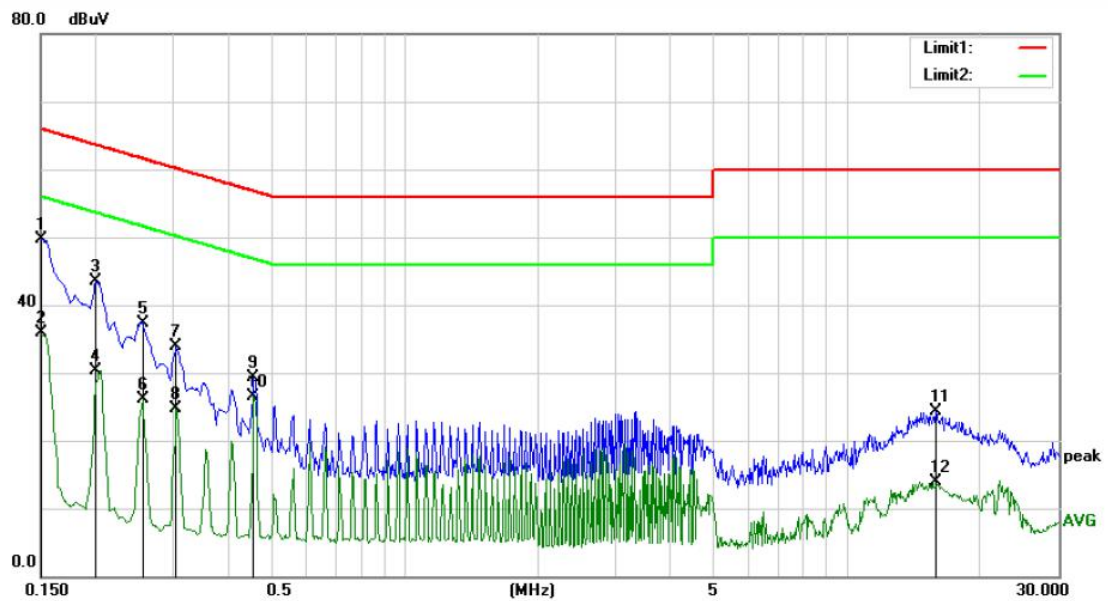
Test according to clause 6.3 conducted emission test setup 3.

7.6.4 Test Procedure

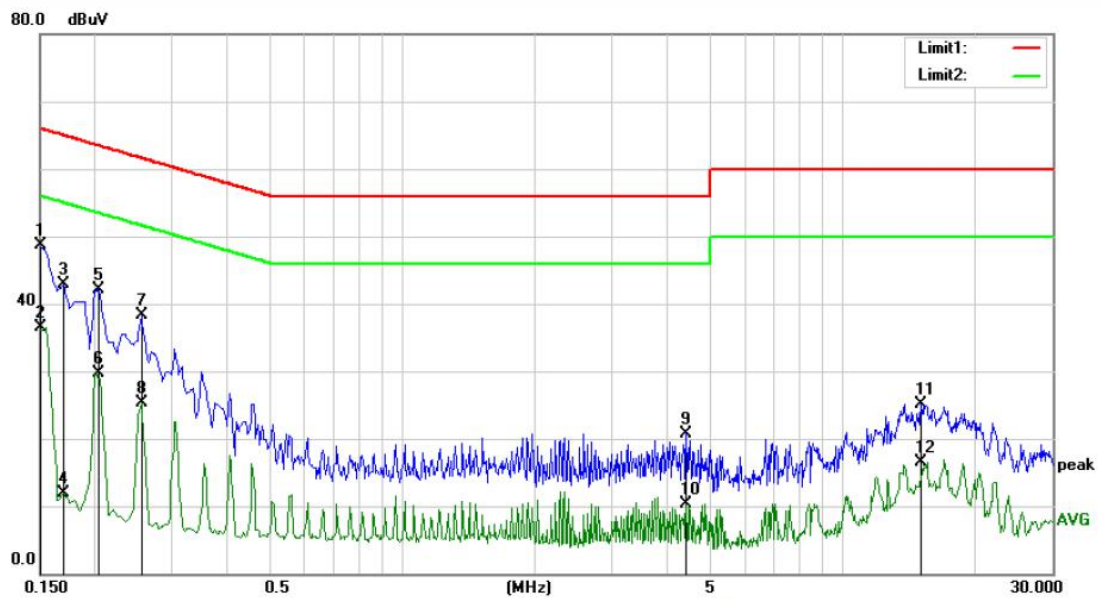
The EUT was placed on a table which is 0.8m above ground plane.
Maximum procedure was performed on the highest emissions to ensure EUT compliance.
Repeat above procedures until all frequency measured were complete.

7.6.5 Test Results

Pass



Site Conduction #1				Phase: N		Temperature: 21.9		
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector Comment
1	*	0.1500	40.21	9.53	49.74	66.00	-16.26	QP
2		0.1500	26.30	9.53	35.83	56.00	-20.17	AVG
3		0.2000	33.95	9.53	43.48	63.61	-20.13	QP
4		0.2000	20.86	9.53	30.39	53.61	-23.22	AVG
5		0.2550	27.87	9.53	37.40	61.59	-24.19	QP
6		0.2550	16.60	9.53	26.13	51.59	-25.46	AVG
7		0.3050	24.42	9.53	33.95	60.11	-26.16	QP
8		0.3050	15.14	9.53	24.67	50.11	-25.44	AVG
9		0.4550	19.84	9.53	29.37	56.78	-27.41	QP
10		0.4550	17.02	9.53	26.55	46.78	-20.23	AVG
11		15.8800	14.47	9.84	24.31	60.00	-35.69	QP
12		15.8800	4.07	9.84	13.91	50.00	-36.09	AVG



Site Conduction #1				Phase: L1		Temperature: 21.9		
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector Comment
1	*	0.1500	39.09	9.53	48.62	66.00	-17.38	QP
2		0.1500	26.88	9.53	36.41	56.00	-19.59	AVG
3		0.1700	33.31	9.53	42.84	64.96	-22.12	QP
4		0.1700	2.38	9.53	11.91	54.96	-43.05	AVG
5		0.2050	32.55	9.53	42.08	63.41	-21.33	QP
6		0.2050	20.15	9.53	29.68	53.41	-23.73	AVG
7		0.2550	28.74	9.53	38.27	61.59	-23.32	QP
8		0.2550	15.72	9.53	25.25	51.59	-26.34	AVG
9		4.4150	11.23	9.57	20.80	56.00	-35.20	QP
10		4.4150	0.70	9.57	10.27	46.00	-35.73	AVG
11		15.1050	15.29	9.82	25.11	60.00	-34.89	QP
12		15.1050	6.71	9.82	16.53	50.00	-33.47	AVG

7.7 ANTENNA APPLICATION

7.7.1 Antenna Requirement

Standard	Requirement
FCC CRF Part15.203	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 shall be considered sufficient to comply with the provisions of this section. 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. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

For intentional device, according to FCC 47 CFR Section 15.203, 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi..

7.7.2 Result

PASS

The EUT integrated antenna, antenna1 gain is 1.39dBi, antenna2 gain is 1.29dBi.

- ☐ Antenna uses a permanently attached antenna which is not replaceable.
- ☒ Not using a standard antenna jack or electrical connector for antenna replacement.
- ☐ The antenna has to be professionally installed (please provide method of installation).

Which in accordance to section 15.203, please refer to the internal photos.

Detail of factor for radiated emission:

Frequency(MHz)	Ant_F(dB)	Cab_L(dB)	Preamp(dB)	Correct Factor(dB)
0.009	20.6	0.03	\	20.63
0.15	20.7	0.1	\	20.8
1	20.9	0.15	\	21.05
10	20.1	0.28	\	20.38
30	18.8	0.45	\	19.25
30	11.7	0.62	27.9	-15.58
100	12.5	1.02	27.8	-14.28
300	12.9	1.91	27.5	-12.69
600	19.2	2.92	27	-4.88
800	21.1	3.54	26.6	-1.96
1000	22.3	4.17	26.2	0.27
1000	25.6	1.76	41.4	-14.04
3000	28.9	3.27	43.2	-11.03
5000	31.1	4.2	44.6	-9.3
8000	36.2	5.95	44.7	-2.55
10000	38.4	6.3	43.9	0.8
12000	38.5	7.14	42.3	3.34
15000	40.2	8.15	41.4	6.95
18000	45.4	9.02	41.3	13.12
18000	37.9	1.81	47.9	-8.19
21000	37.9	1.95	48.7	-8.85
25000	39.3	2.01	42.8	-1.49
28000	39.6	2.16	46.0	-4.24
31000	41.2	2.24	44.5	-1.06
34000	41.5	2.29	46.6	-2.81
37000	43.8	2.30	46.4	-0.3
40000	43.2	2.50	42.2	3.5

--- End of Report ---