

4.4.5 Test Results

Test Mode	Antenna	Channel [MHz]	Level [dBm]	10log(1/x) Factor[dB]	PSD [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-15.76	0.09	-15.67	<=8	PASS
		2437	-16.06	0.09	-15.97	<=8	PASS
		2462	-16.26	0.09	-16.17	<=8	PASS
11G	Ant1	2412	-18.51	0.52	-17.99	<=8	PASS
		2437	-22.47	0.52	-21.95	<=8	PASS
		2462	-23.02	0.52	-22.5	<=8	PASS
11N20SI SO	Ant1	2412	-23.04	0.25	-22.79	<=8	PASS
		2437	-23.15	0.25	-22.9	<=8	PASS
		2462	-23.33	0.25	-23.08	<=8	PASS

11B_Ant1_2412



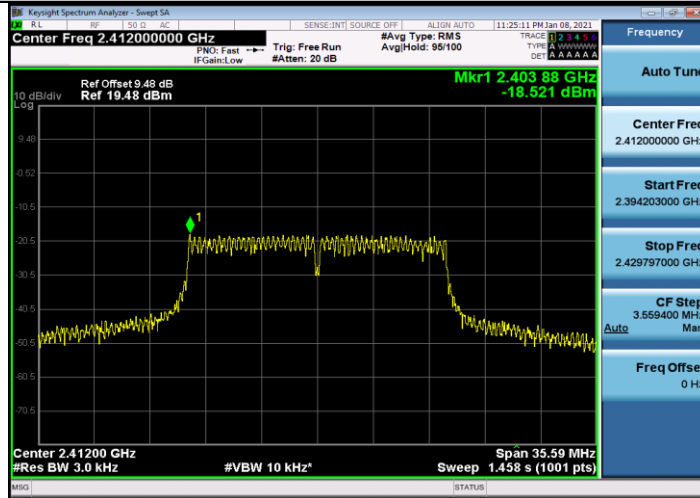
11B_Ant1_2437



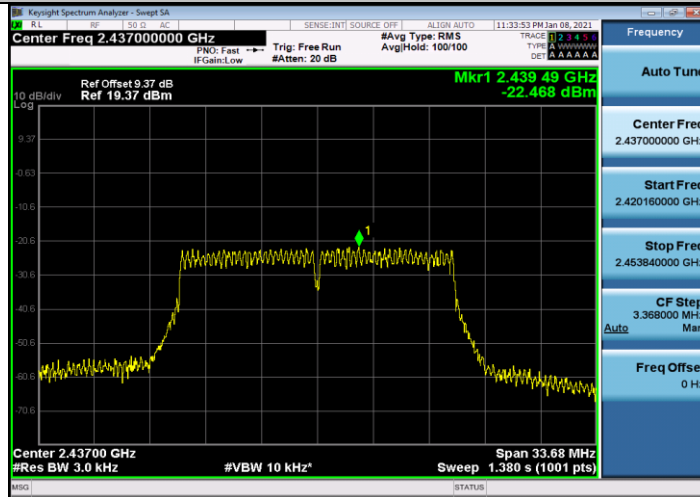
11B_Ant1_2462



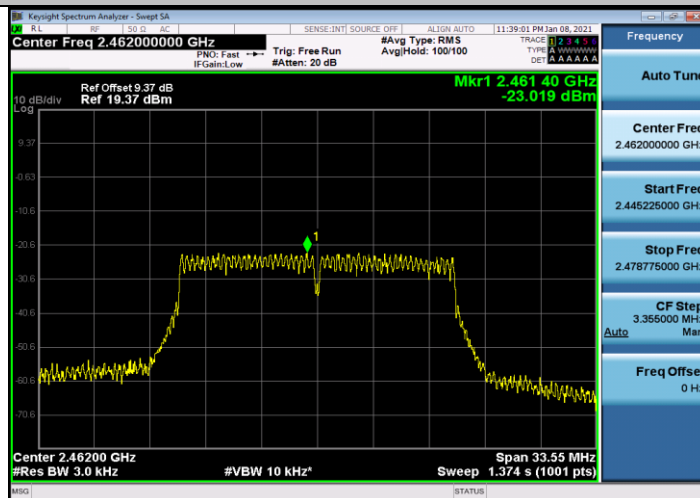
11G_Ant1_2412



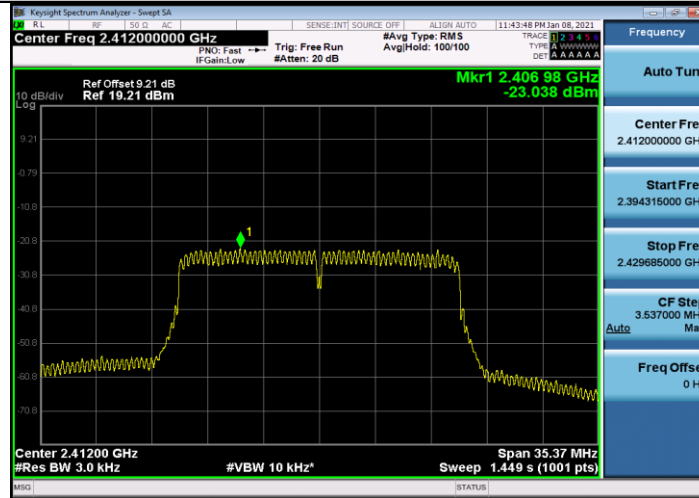
11G_Ant1_2437



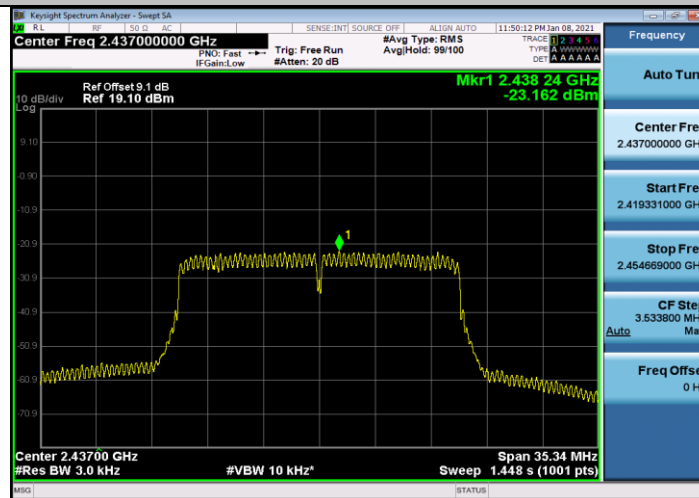
11G_Ant1_2462



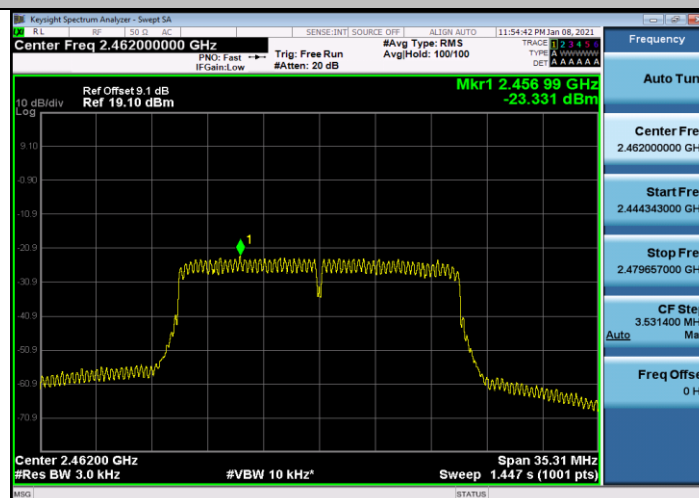
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462

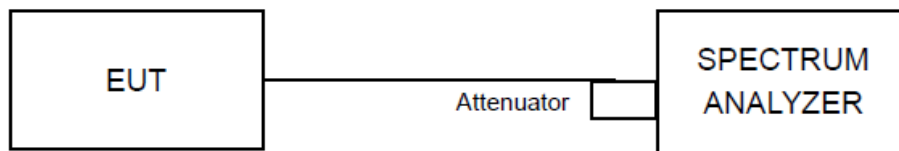


4.5 Conducted Band Edges Measurement

4.5.1 Limit

Below 30 dB of the highest emission level of operating band (in 100 kHz Resolution Bandwidth).

4.5.2 Test Setup



4.5.3 Test Procedures

The EUT was tested according to DTS test procedure of “KDB558074 D01 DTS Meas Guidance” (clause 11.0) for compliance to FCC 47CFR 15.247 requirements.

MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW $\geq$ 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOB

1. Set RBW = 100 kHz.
2. Set VBW $\geq$ 300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

4.5.4 Deviation of Test Standard

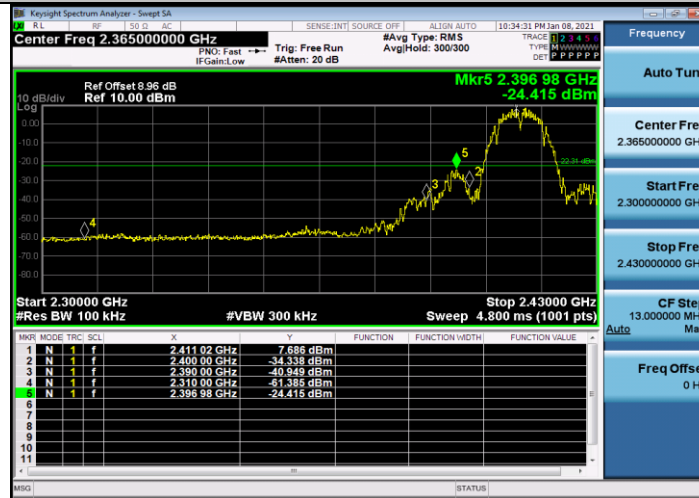
No deviation.

4.5.5 Test Results

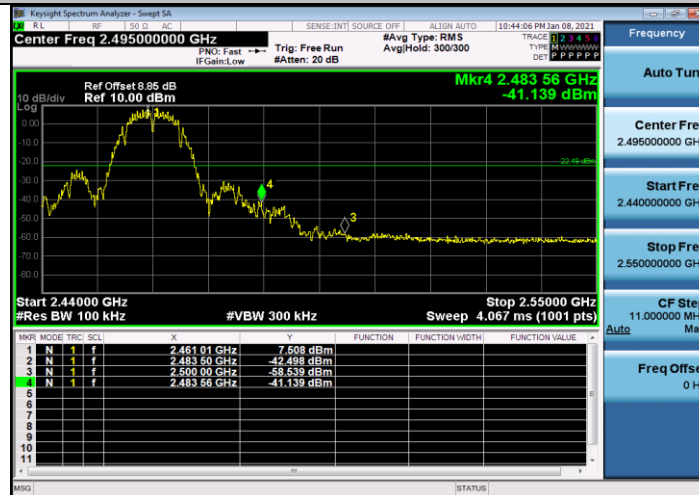
Test Mode	Antenna	ChName	Channel [MHz]	RefLevel [dBm]	Max. Spurious Level [dBm]	Limit [dBm]	Verdict
11B	Ant1	Low	2412	7.69	-24.42	<=-22.31	PASS
		High	2462	7.51	-41.14	<=-22.49	PASS
11G	Ant1	Low	2412	0.77	-29.52	<=-29.23	PASS
		High	2462	0.26	-47.34	<=-29.74	PASS
11N20SISO	Ant1	Low	2412	0.35	-29.73	<=-29.65	PASS
		High	2462	-0.22	-43.9	<=-30.22	PASS



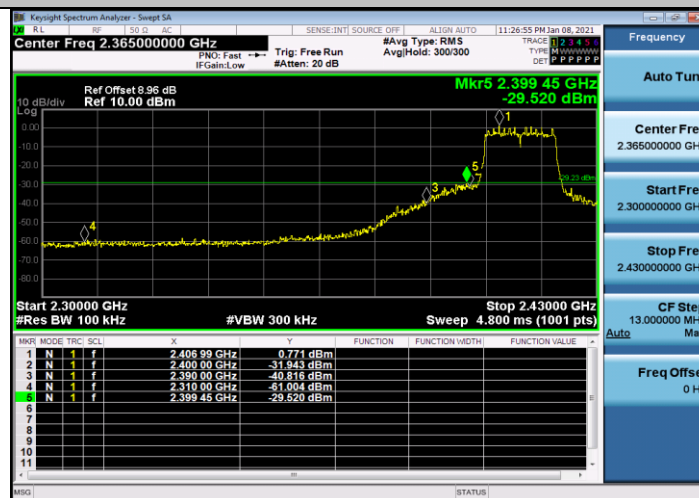
11B_Ant1_Low_2412



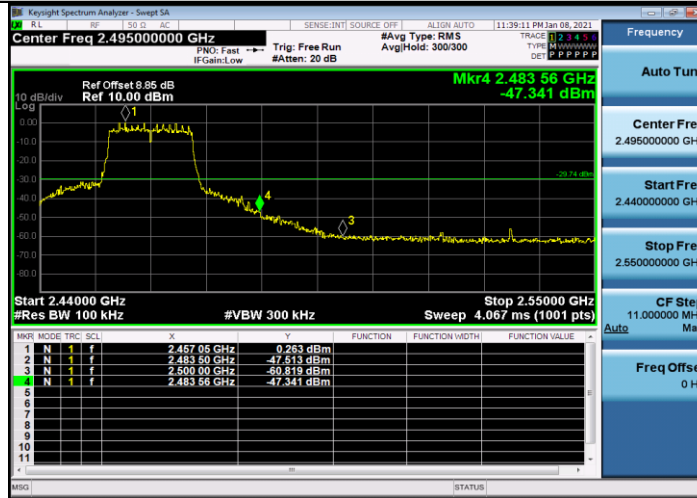
11B_Ant1_High_2462



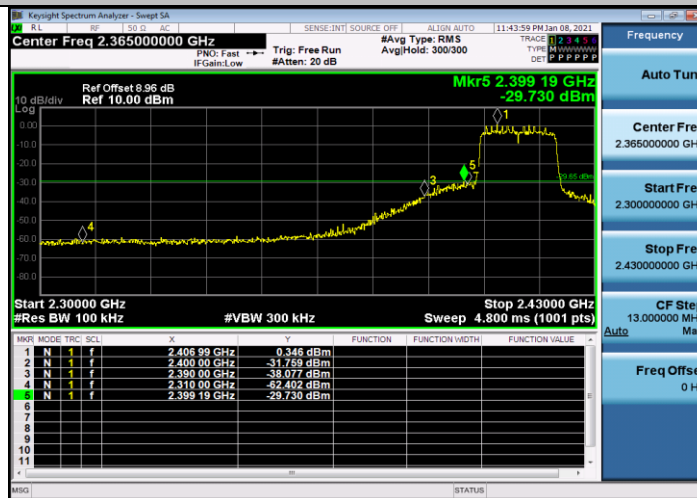
11G_Ant1_Low_2412



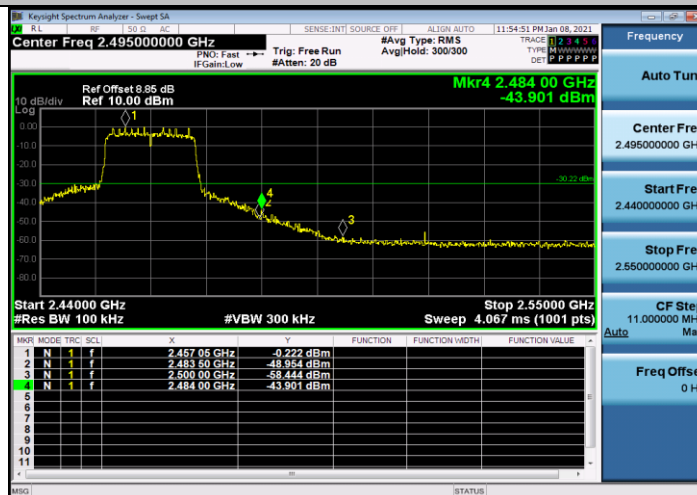
11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462

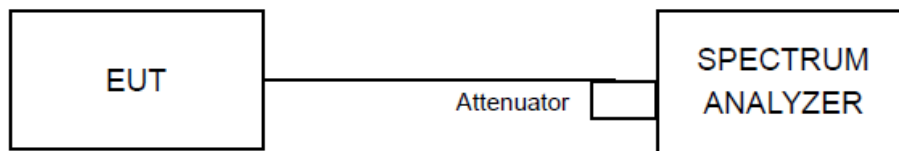


4.6 Conducted Spurious Emissions

4.6.1 Limit

Below 30 dB of the highest emission level of operating band (in 100 kHz Resolution Bandwidth).

4.6.2 Test Setup



4.6.3 Test Procedures

The EUT was tested according to DTS test procedure of “KDB558074 D01 DTS Meas Guidance” (clause 11.0) for compliance to FCC 47CFR 15.247 requirements.

MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW $\geq$ 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOB

1. Set RBW = 100 kHz.
2. Set VBW $\geq$ 300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

4.6.4 Deviation of Test Standard

No deviation.

4.6.5 Test Results

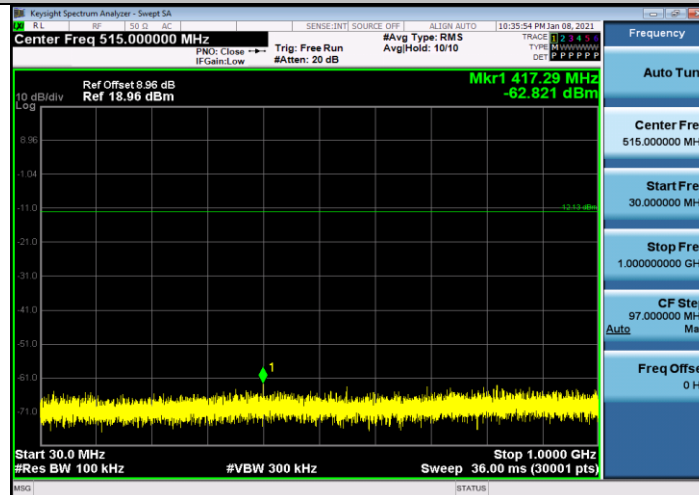
Test Mode	Antenna	Channel [MHz]	FreqRange [MHz]	RefLevel [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	7.88	7.88	---	PASS
			30~1000	30~1000	-62.821	<=-12.125	PASS
			1000~26500	1000~26500	-45.706	<=-12.125	PASS
		2437	Reference	7.56	7.56	---	PASS
			30~1000	30~1000	-63.006	<=-12.438	PASS
			1000~26500	1000~26500	-45.859	<=-12.438	PASS
		2462	Reference	6.76	6.76	---	PASS
			30~1000	30~1000	-63.041	<=-13.237	PASS
			1000~26500	1000~26500	-46.158	<=-13.237	PASS
11G	Ant1	2412	Reference	5.21	5.21	---	PASS
			30~1000	30~1000	-63.829	<=-14.635	PASS
			1000~26500	1000~26500	-46.292	<=-14.635	PASS
		2437	Reference	0.50	0.50	---	PASS
			30~1000	30~1000	-63.627	<=-19.5	PASS
			1000~26500	1000~26500	-46.599	<=-19.5	PASS
		2462	Reference	0.36	0.36	---	PASS
			30~1000	30~1000	-63.455	<=-19.642	PASS
			1000~26500	1000~26500	-46.46	<=-19.642	PASS
11N20SISO	Ant1	2412	Reference	0.65	0.65	---	PASS
			30~1000	30~1000	-62.942	<=-19.351	PASS
			1000~26500	1000~26500	-45.999	<=-19.351	PASS
		2437	Reference	0.41	0.41	---	PASS
			30~1000	30~1000	-62.548	<=-19.588	PASS
			1000~26500	1000~26500	-45.593	<=-19.588	PASS
		2462	Reference	0.09	0.09	---	PASS
			30~1000	30~1000	-62.641	<=-19.912	PASS
			1000~26500	1000~26500	-45.121	<=-19.912	PASS



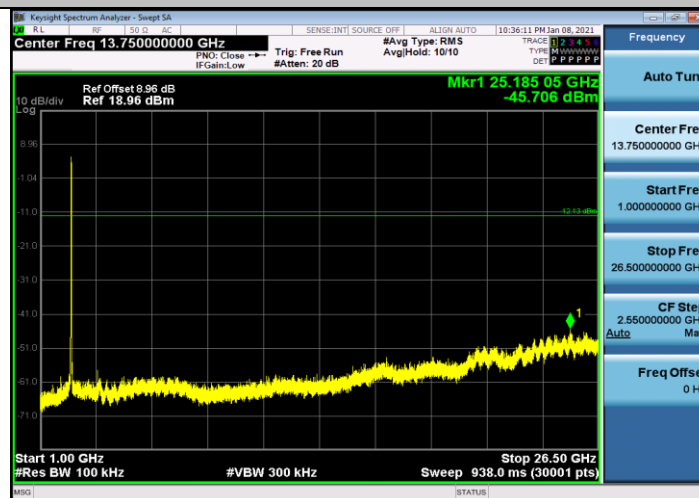
11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



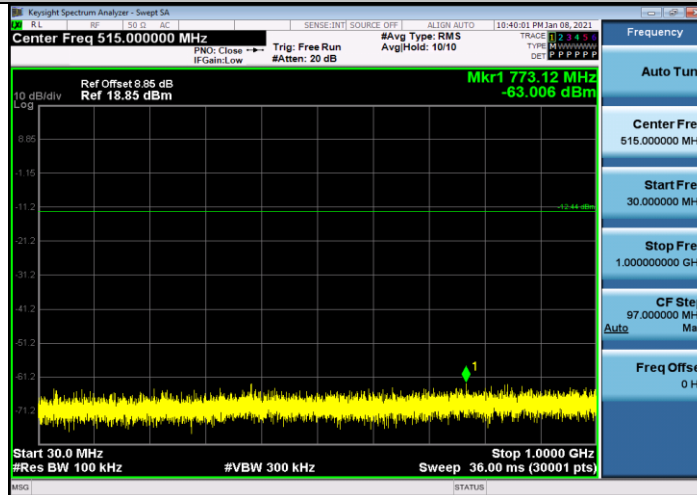
11B_Ant1_2412_1000~26500



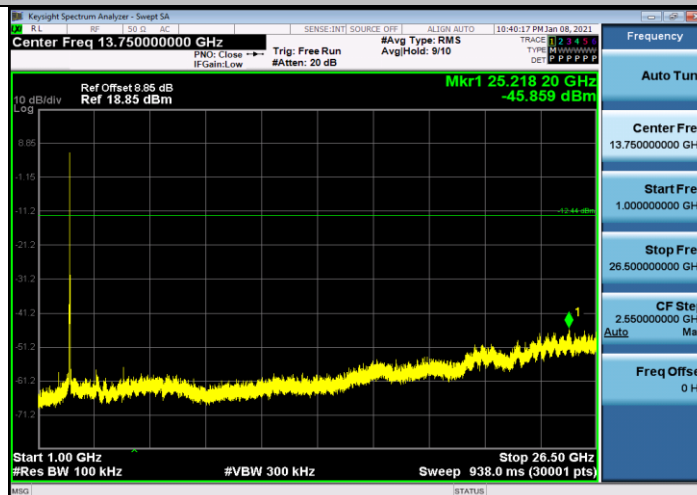
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



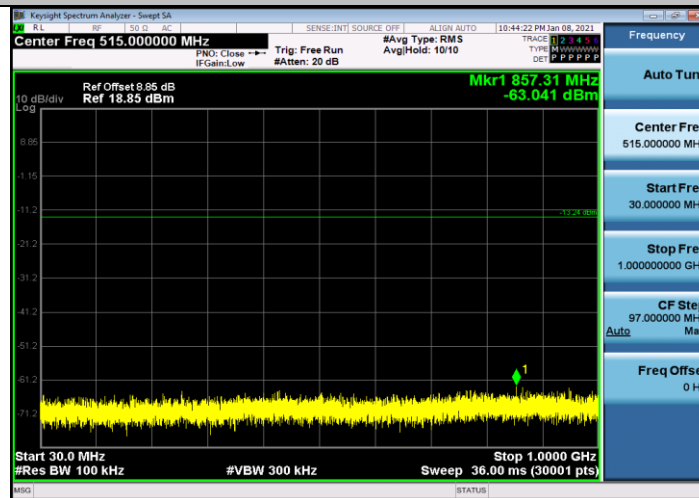
11B_Ant1_2437_1000~26500



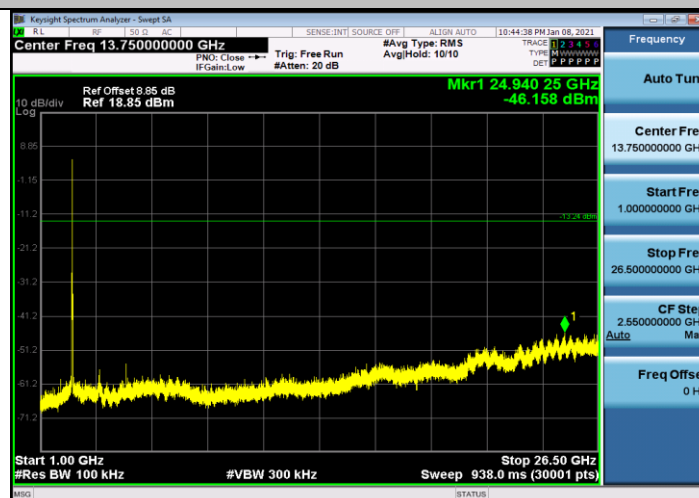
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



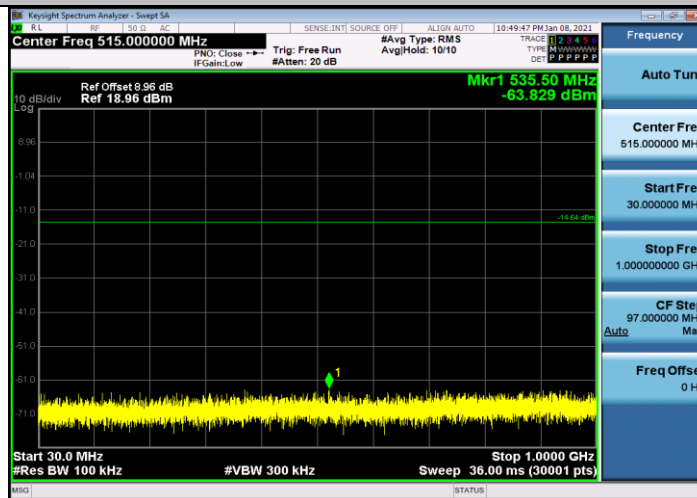
11B_Ant1_2462_1000~26500



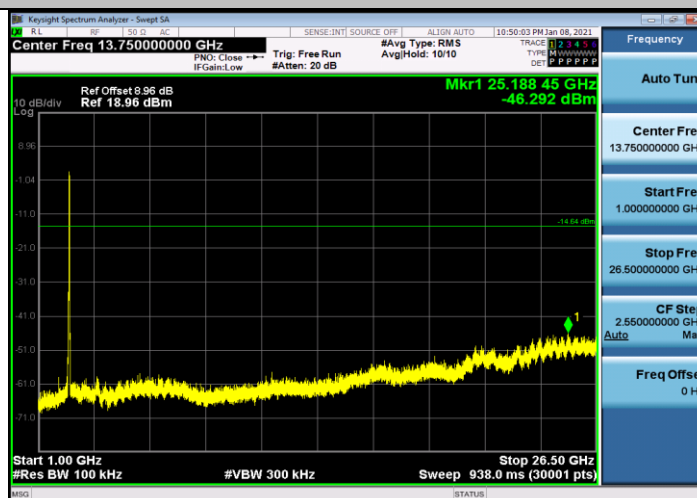
11G_Ant1_2412_0~Reference



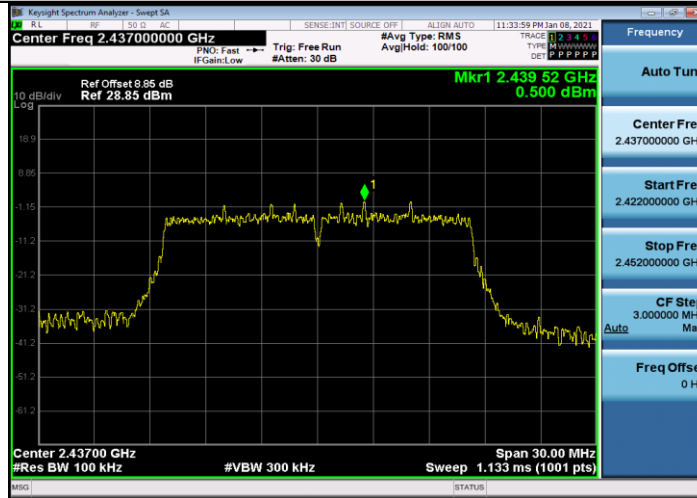
11G_Ant1_2412_30~1000



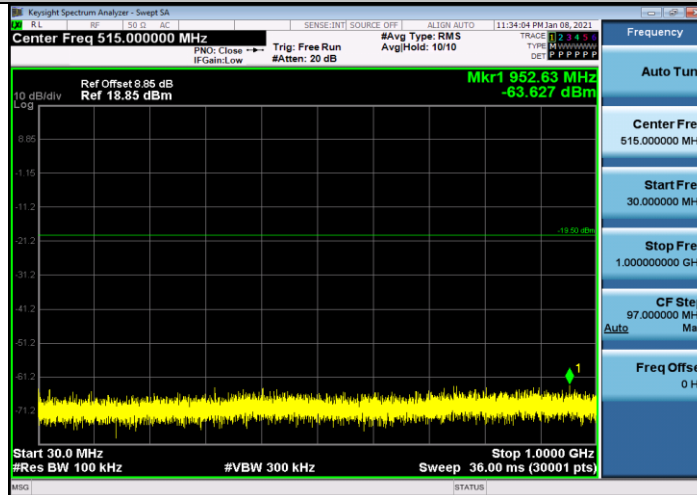
11G_Ant1_2412_1000~26500



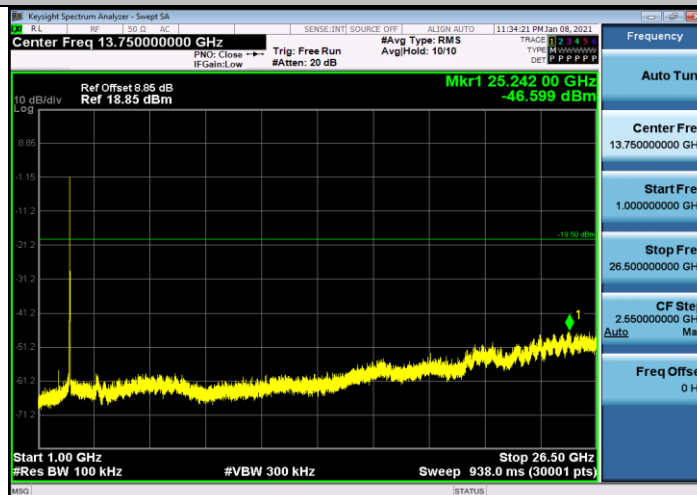
11G_Ant1_2437_0~Reference



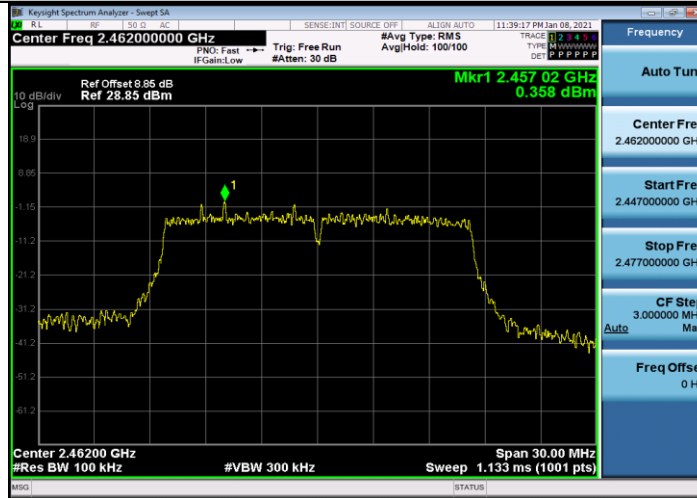
11G_Ant1_2437_30~1000



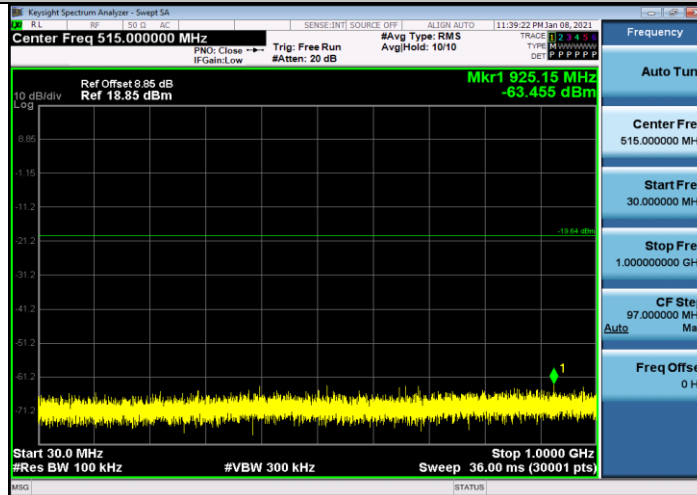
11G_Ant1_2437_1000~26500



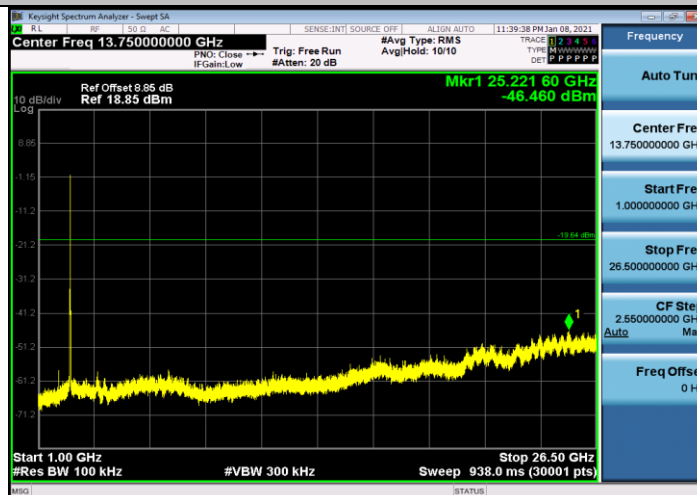
11G_Ant1_2462_0~Reference



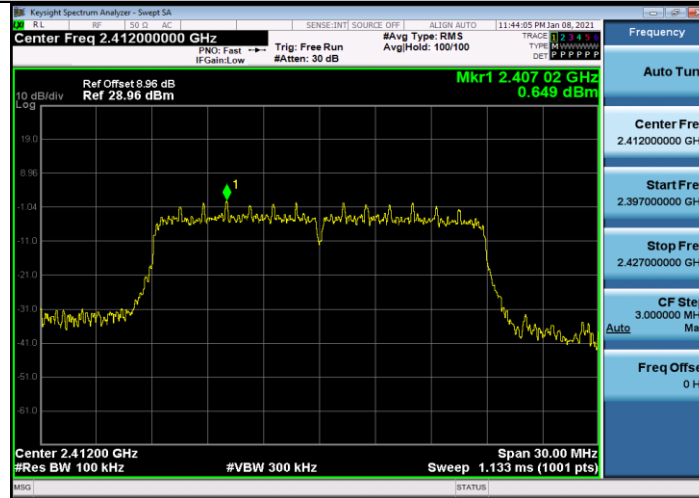
11G_Ant1_2462_30~1000



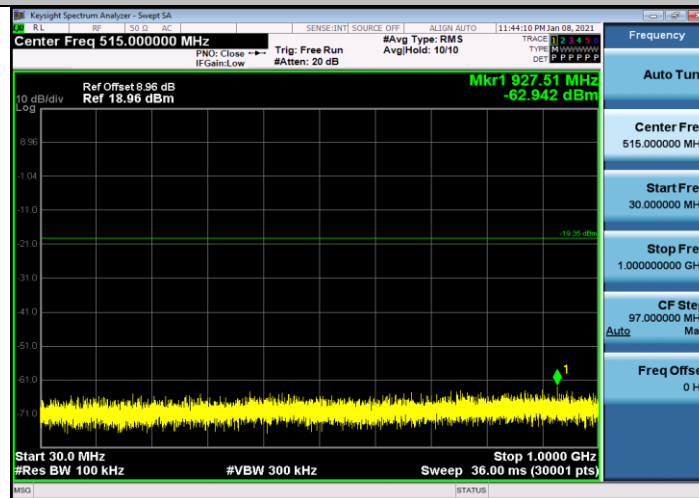
11G_Ant1_2462_1000~26500



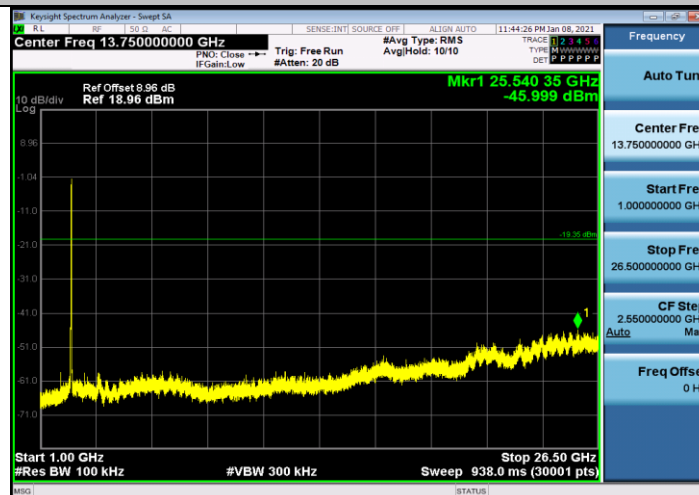
11N20SISO_Ant1_2412_0~Reference



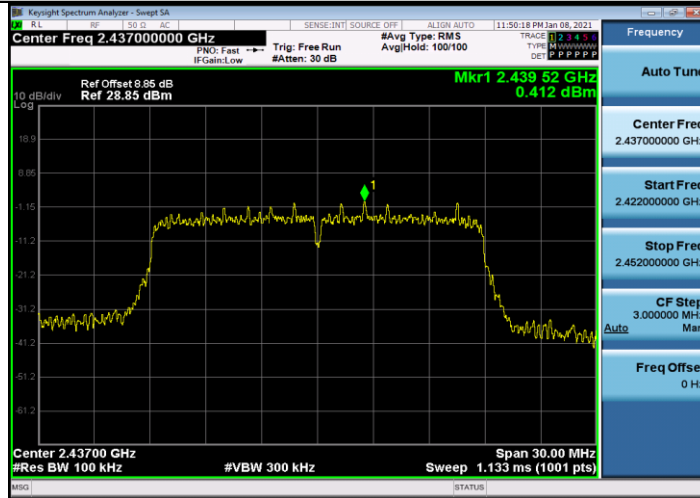
11N20SISO_Ant1_2412_30~1000



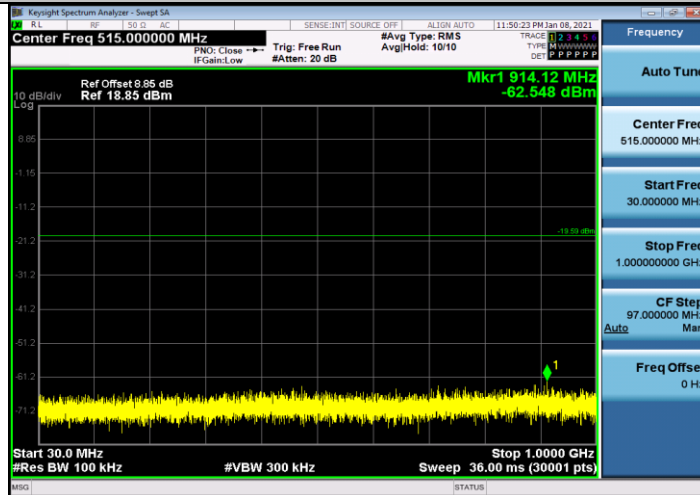
11N20SISO_Ant1_2412_1000~26500



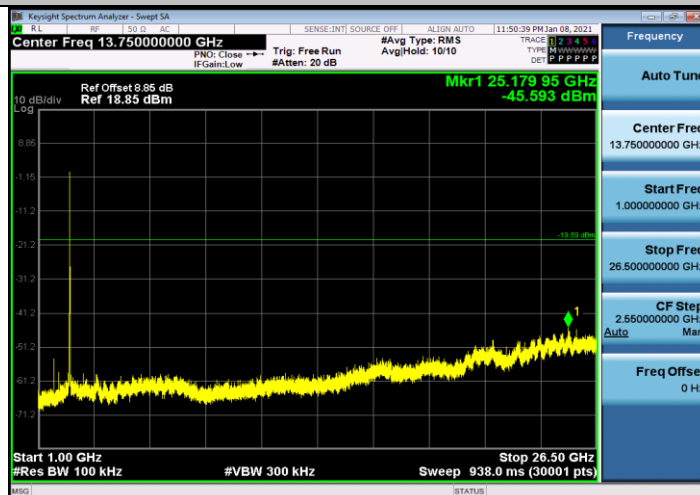
11N20SISO_Ant1_2437_0~Reference



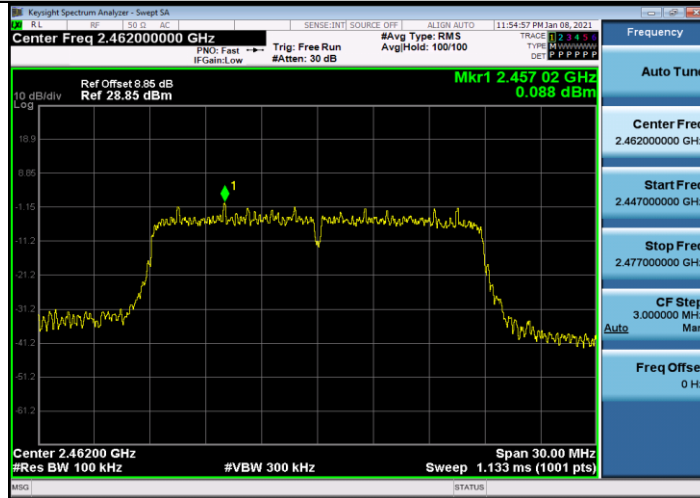
11N20SISO_Ant1_2437_30~1000



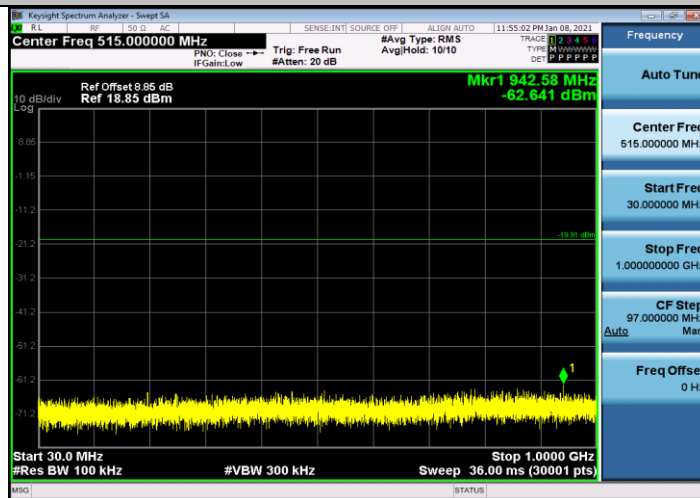
11N20SISO_Ant1_2437_1000~26500



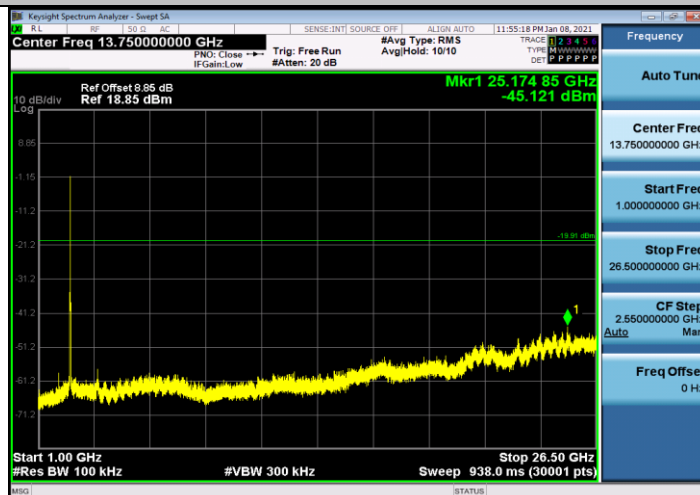
11N20SISO_Ant1_2462_0~Reference



11N20SISO_Ant1_2462_30~1000



11N20SISO_Ant1_2462_1000~26500



4.7 Emissions in restricted frequency bands

4.7.1 Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
1 0.495 - 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	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	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 - 156.525	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	--	--	--



All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

4.7.2 Test Procedure Reference

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

4.7.3 Test Procedures

Peak Field Strength Measurements

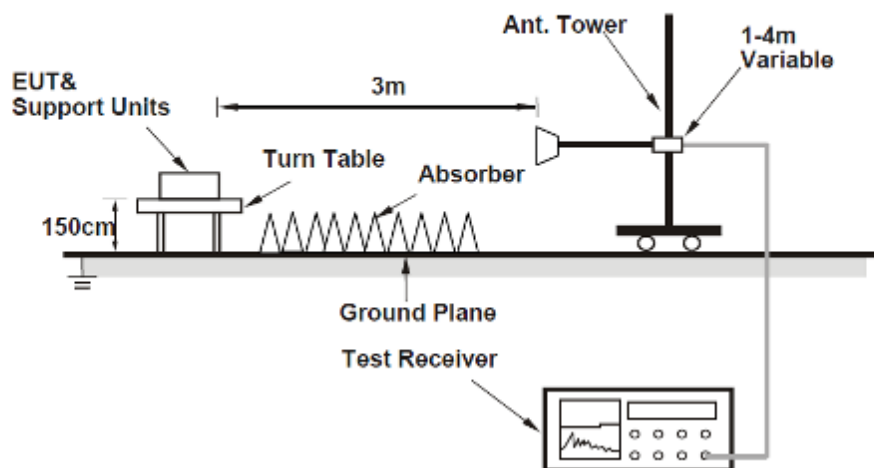
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

8. 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
9. 2. RBW = 1MHz
10. 3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
11. If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration.
12. 4. Detector = Peak
13. 5. Sweep time = auto
14. 6. Trace mode = max hold
15. 7. Trace was allowed to stabilize

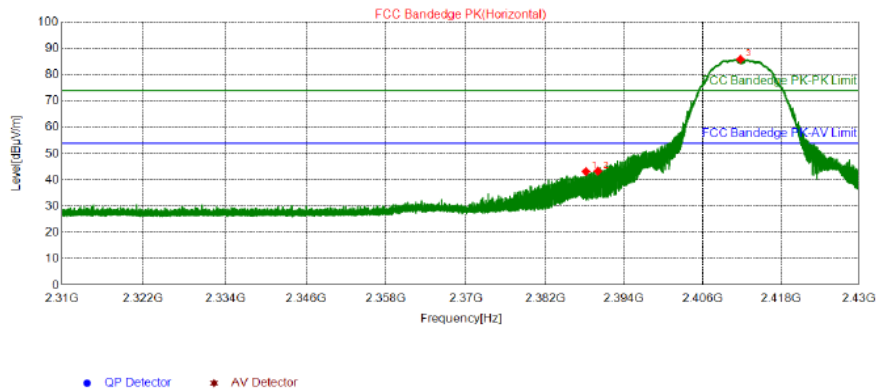
4.7.4 Test Setup

For Radiated emission above 1GHz



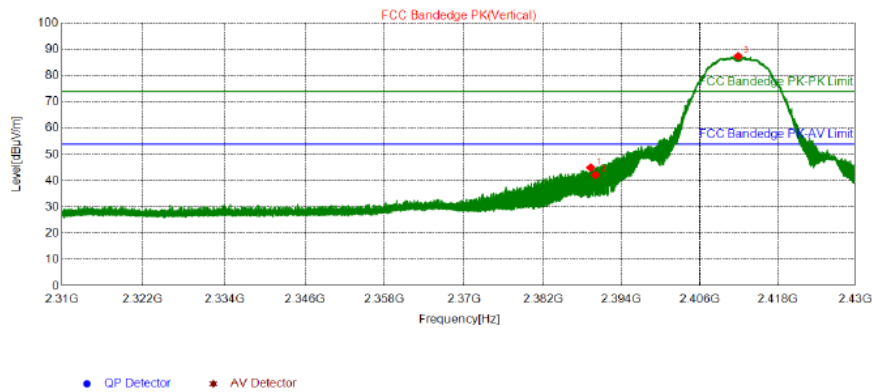
4.7.5 Test Results

802.11b-2412MHz/ Horizontal



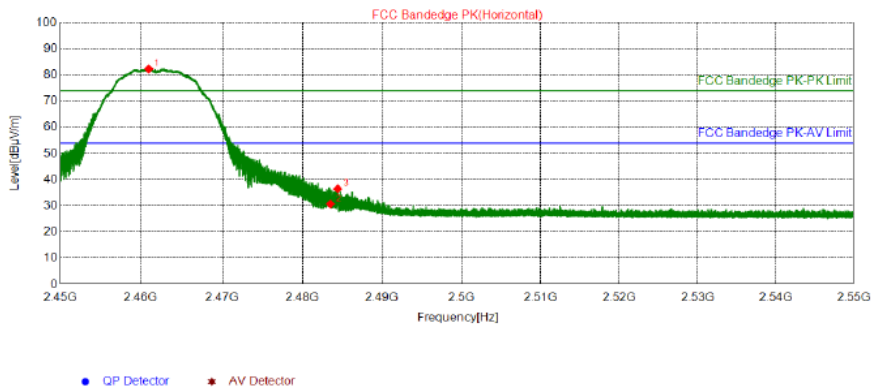
NO	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2388.1920	53.08	43.20	74.00	30.80	175	184	Horizontal	PK
2	2390.0040	53.23	43.35	74.00	30.65	165	215	Horizontal	PK
3	2411.7900	95.63	85.83	74.00	-11.83	165	185	Horizontal	PK

802.11b-2412MHz/ Vertical



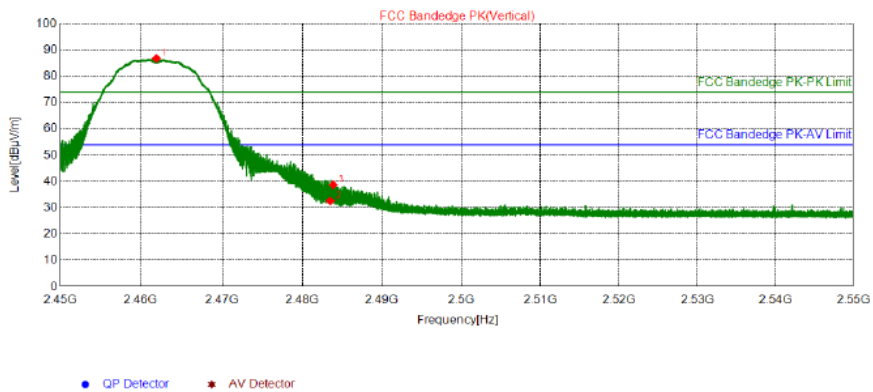
NO	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2389.2840	54.89	45.01	74.00	28.99	155	0	Vertical	PK
2	2390.0040	52.06	42.18	74.00	31.82	175	324	Vertical	PK
3	2411.9160	97.21	87.41	74.00	-13.41	165	343	Vertical	PK

802.11b-2462MHz/ Horizontal



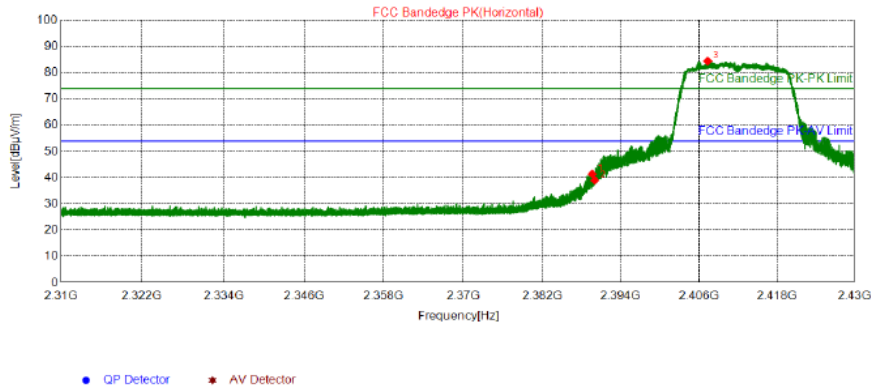
NO	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2460.9800	91.94	82.30	74.00	-8.30	155	214	Horizontal	PK
2	2483.5000	40.25	30.69	74.00	43.31	155	183	Horizontal	PK
3	2484.4150	46.01	36.45	74.00	37.55	155	214	Horizontal	PK

802.11b-2462MHz/ Vertical



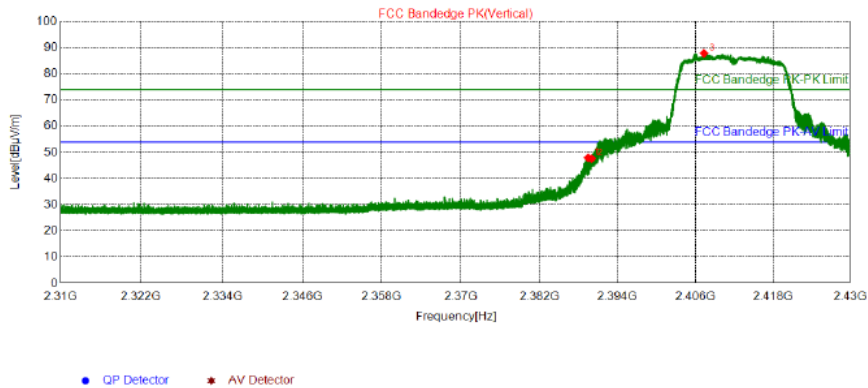
NO	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2461.9450	96.39	86.75	74.00	-12.75	175	343	Vertical	PK
2	2483.5000	42.15	32.59	74.00	41.41	155	352	Vertical	PK
3	2483.8650	48.25	38.69	74.00	35.31	175	353	Vertical	PK

802.11g-2412MHz/ Horizontal



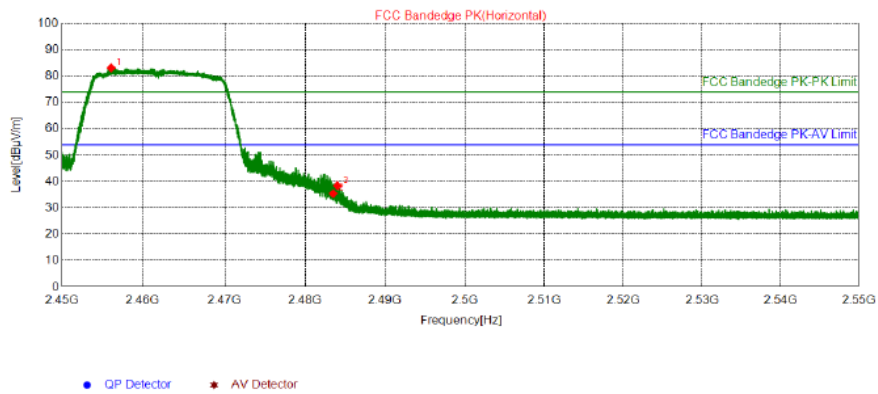
NO	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2389.6260	51.26	41.38	74.00	32.62	165	195	Horizontal	PK
2	2390.0040	48.87	38.99	74.00	35.01	165	323	Horizontal	PK
3	2407.3260	94.21	84.39	74.00	-10.39	165	185	Horizontal	PK

802.11g-2412MHz/ Vertical



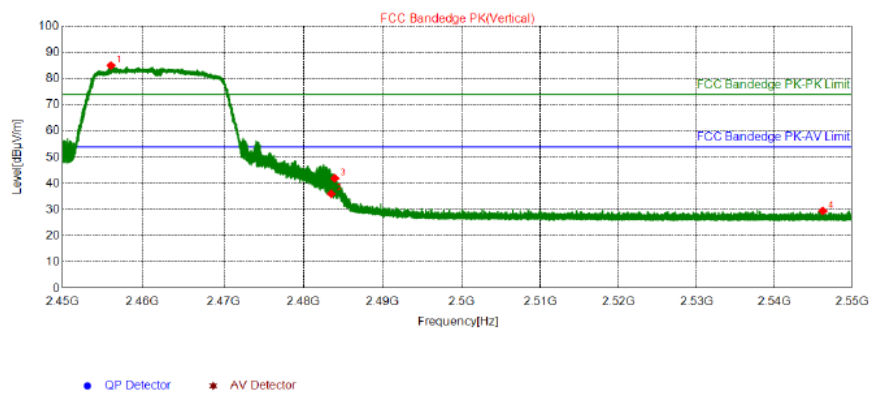
NO	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2389.4640	57.81	47.93	74.00	26.07	155	345	Vertical	PK
2	2390.0040	57.52	47.64	74.00	26.36	175	343	Vertical	PK
3	2407.3080	97.66	87.84	74.00	-13.84	175	343	Vertical	PK

802.11g-2462MHz/ Horizontal



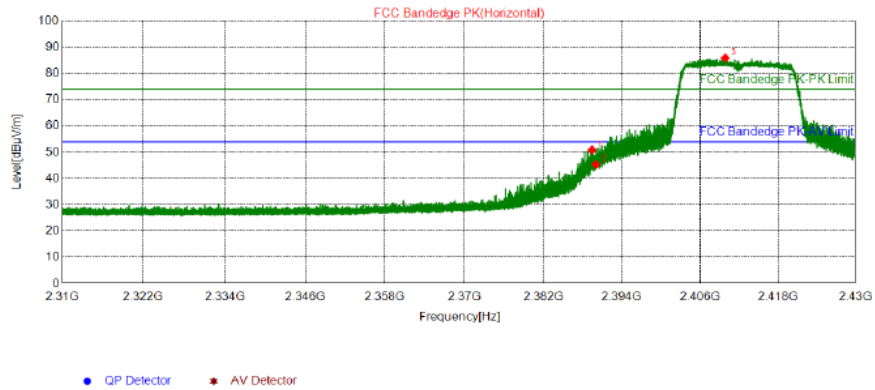
NO	Freq. [MHz]	Reading [dBuV/m]	Level [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2456.0900	92.75	83.10	74.00	-9.10	175	313	Horizontal	PK
2	2483.5000	44.98	35.42	74.00	38.58	175	264	Horizontal	PK
3	2484.0200	47.97	38.41	74.00	35.59	155	223	Horizontal	PK

802.11g-2462MHz/ Vertical

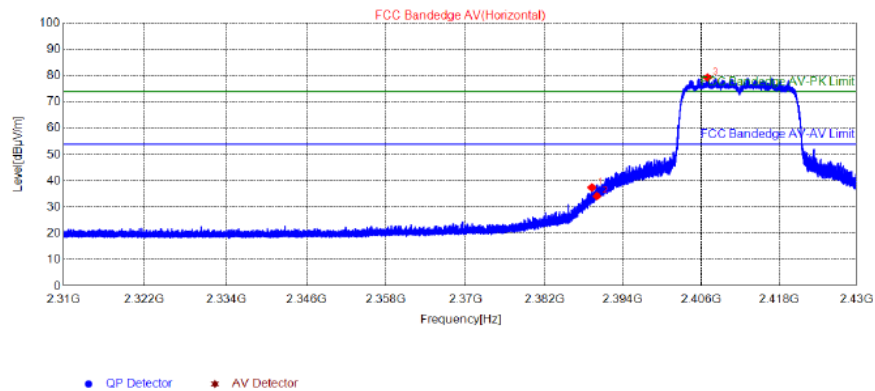


NO	Freq. [MHz]	Reading [dBuV/m]	Level [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2456.0500	94.66	85.00	74.00	-11.00	165	342	Vertical	PK
2	2483.5000	45.60	36.04	74.00	37.96	155	334	Vertical	PK
3	2483.9450	51.50	41.94	74.00	32.06	175	334	Vertical	PK
4	2546.2500	38.86	29.50	74.00	44.50	175	185	Vertical	PK

802.11n (HT20)-2412MHz/ Horizontal

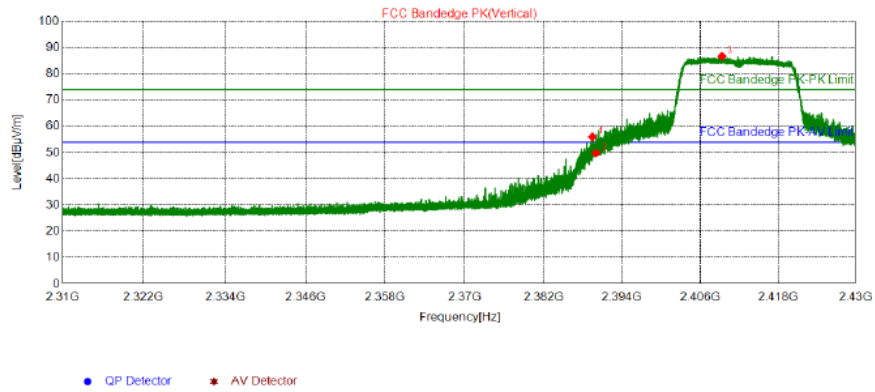


NO	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2389.4280	60.76	50.88	74.00	23.12	165	175	Horizontal	PK
2	2390.0040	55.25	45.37	74.00	28.63	175	194	Horizontal	PK
3	2409.8580	95.67	85.86	74.00	-11.86	165	175	Horizontal	PK

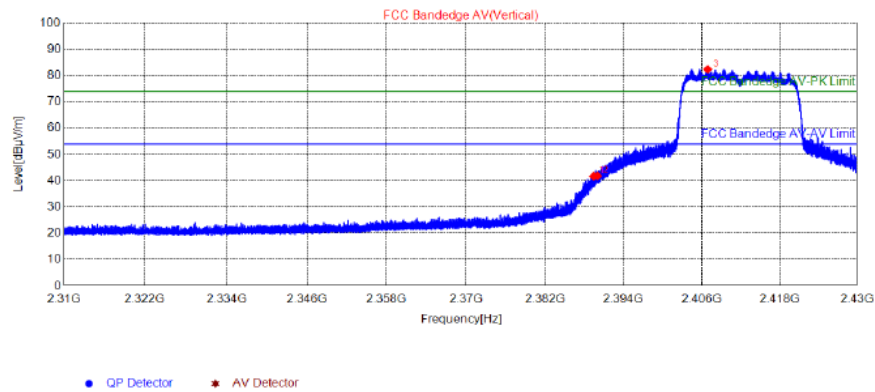


NO	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2389.2420	47.37	37.49	54.00	16.51	165	195	Horizontal	AV
2	2390.0040	44.04	34.16	54.00	19.84	175	185	Horizontal	AV
3	2406.9780	89.08	79.26	54.00	-25.26	165	195	Horizontal	AV

802.11n (HT20)-2412MHz/ Vertical

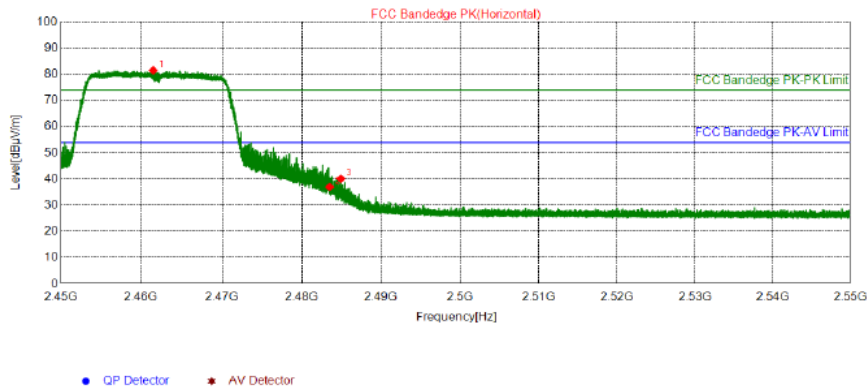


NO	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2389.4520	65.83	55.95	74.00	18.05	175	334	Vertical	PK
2	2390.0040	59.69	49.81	74.00	24.19	155	0	Vertical	PK
3	2409.3300	96.48	86.67	74.00	-12.67	175	344	Vertical	PK



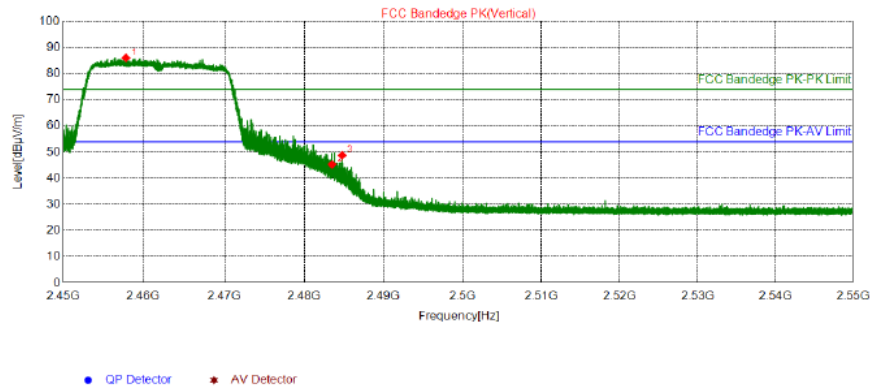
NO	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2389.4280	51.54	41.66	54.00	12.34	175	343	Vertical	AV
2	2390.0040	51.67	41.79	54.00	12.21	175	353	Vertical	AV
3	2406.9120	92.20	82.38	54.00	-28.38	175	353	Vertical	AV

802.11n (HT20)-2462MHz/ Horizontal



NO	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2461.5300	91.08	81.44	74.00	-7.44	165	314	Horizontal	PK
2	2483.5000	46.50	36.94	74.00	37.06	155	183	Horizontal	PK
3	2484.9100	49.68	40.12	74.00	33.88	165	304	Horizontal	PK

802.11n (HT20)-2462MHz/ Vertical



NO	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2457.8300	95.64	85.99	74.00	-11.99	175	343	Vertical	PK
2	2483.5000	54.86	45.30	74.00	28.70	155	338	Vertical	PK
3	2484.7750	58.31	48.75	74.00	25.25	175	353	Vertical	PK

4.8 Radiated Emission Measurement

4.8.1 Limits

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F (kHz)	300
0.490 ~ 1.705	24000/F (kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

4.8.2 Test Procedures

For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degree 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. Both X and Y axes of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotate table was turned from 0 degree to 360 degree to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1 GHz) / 1.5 meters (for above 1 GHz) above the ground at 3 meter chamber room for test. 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 height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detected function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

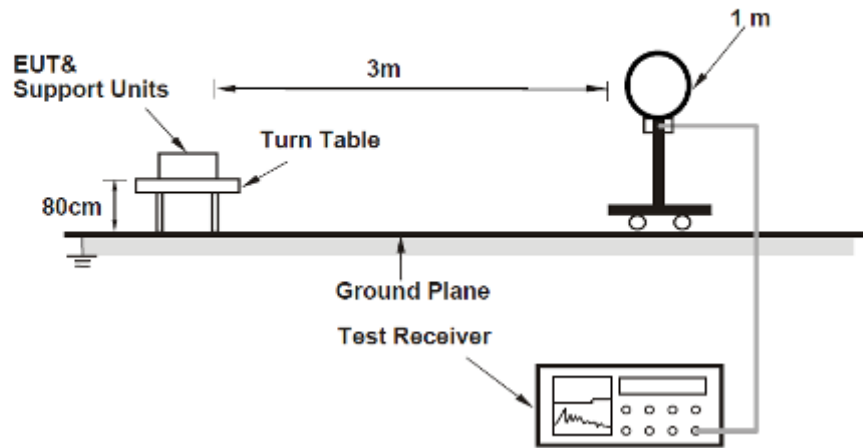
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz & 360 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1/T for RMS Average (Duty cycle < 98 %) for Peak detection at frequency above 1 GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz (Duty cycle $\geq$ 98 %) for Average detection (AV) at frequency above 1 GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

4.8.3 Deviation from Test Standard

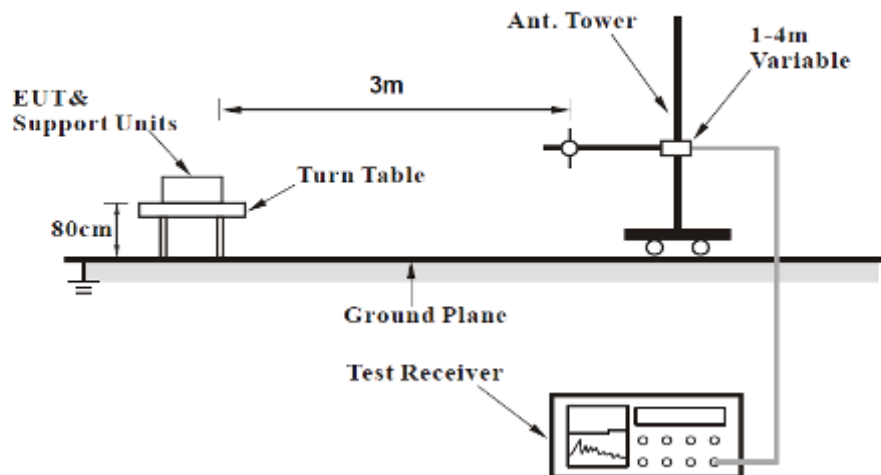
No deviation.

4.8.4 Test Setup

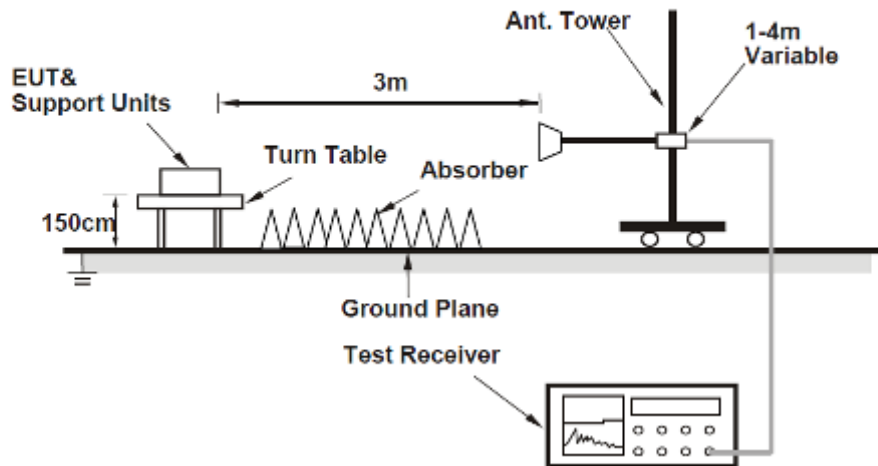
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.8.5 EUT Operating Conditions

- Placed the EUT on a testing table.
- Use the software to control the EUT under transmission condition continuously at specific channel frequency.

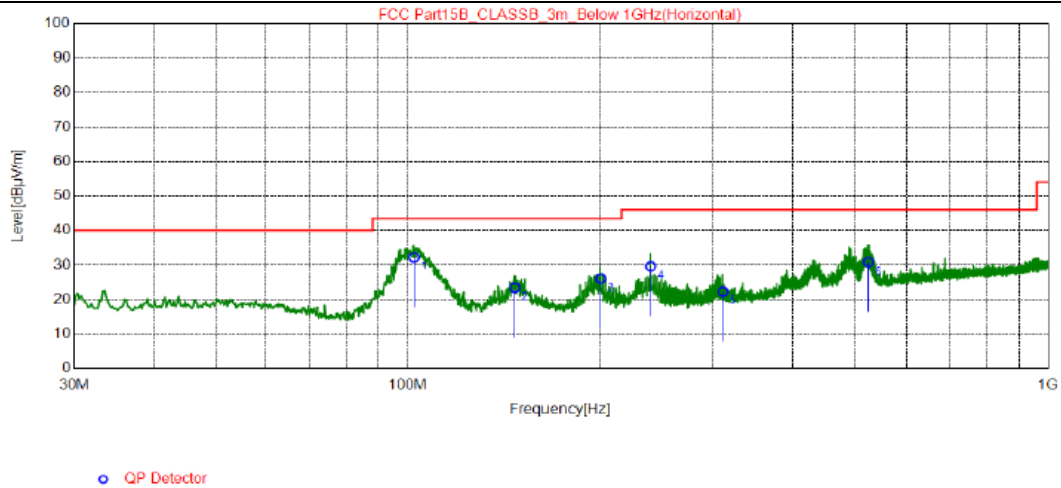
4.8.6 Test Results

Radiated Emissions Range 9kHz~30MHz

The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Radiated Emissions Range 30MHz~1GHz

Mode	802.11b-2412MHz	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz	Antenna Polarity	Horizontal

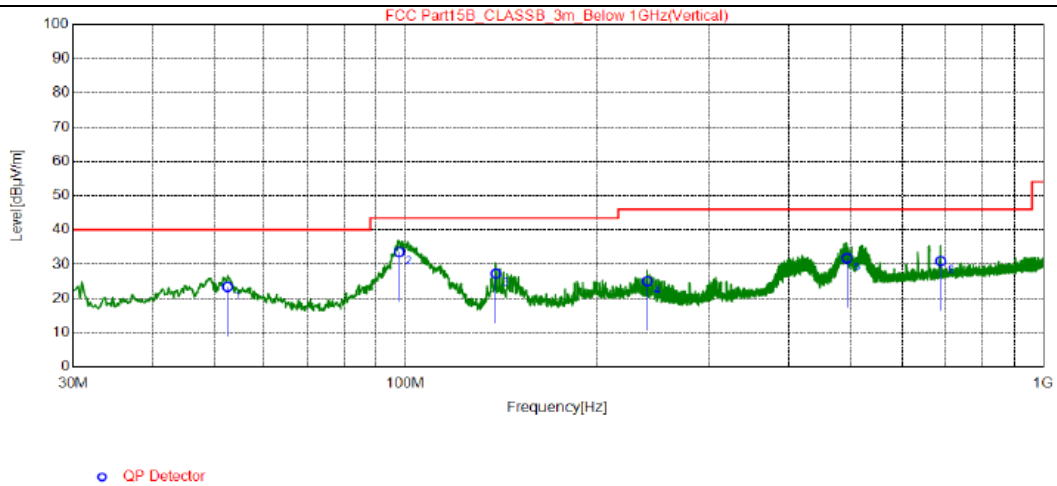


NO.	Freq. [MHz]	QP Reading [dBμV/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	102.1	46.9	-14.70	32.20	43.50	11.30	200	76	Horizontal
2	146.9	33.54	-10.13	23.41	43.50	20.09	200	270	Horizontal
3	200.3	38.16	-12.12	26.04	43.50	17.46	200	278	Horizontal
4	239.9	40.69	-11.07	29.62	46.00	16.38	200	68	Horizontal
5	311.3	30.63	-8.34	22.29	46.00	23.71	200	50	Horizontal
6	525.4	34.94	-4.11	30.83	46.00	15.17	200	215	Horizontal

REMARKS:

1. Emission Level(dBuV/m) = Spectrum reading (dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value =Limit value – Emission Level

Mode	802.11b-2412MHz	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz	Antenna Polarity	Vertical



NO.	Freq. [MHz]	QP Reading [dBμV/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	52.50	33.22	-9.84	23.38	40.00	16.62	100	46	Vertical
2	97.70	48.74	-15.18	33.56	43.50	9.94	100	87	Vertical
3	138.6	37.71	-10.47	27.24	43.50	16.26	100	175	Vertical
4	239.9	36.09	-11.07	25.02	46.00	20.98	100	35	Vertical
5	493.8	36.36	-4.61	31.75	46.00	14.25	100	134	Vertical
6	689.6	32.55	-1.65	30.90	46.00	15.10	100	83	Vertical

REMARKS:

1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value =Limit value – Emission Level



Radiated Emission Range 1GHz~10th Harmonic

802.11b

Channel	TX Channel 1	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4824.15	28.66	74.00	45.34	-10.74	H	PK
2	4825.00	23.97	54.00	30.03	-10.74	H	AV
3	4824.15	24.28	74.00	49.72	-10.74	V	PK
4	4824.15	16.82	54.00	37.18	-10.74	V	AV

REMARKS:

1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Limit value – Emission Level

Channel	TX Channel 6	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4958.45	23.16	74.00	50.84	-10.80	H	PK
2	4887.05	15.33	54.00	38.67	-10.77	H	AV
3	4874.30	26.40	74.00	47.60	-10.76	V	PK
4	4874.30	20.75	54.00	33.25	-10.76	V	AV

REMARKS:

1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Limit value – Emission Level



Channel	TX Channel 11	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4945.70	22.14	74.00	51.86	-10.80	H	PK
2	4924.45	17.07	54.00	36.93	-10.79	H	AV
3	4917.65	21.70	74.00	52.30	-10.78	V	PK
4	4864.10	15.51	54.00	38.49	-10.76	V	AV

REMARKS:

1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value =Limit value – Emission Level

802.11g

Channel	TX Channel 1	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4818.20	22.43	74.00	51.57	-10.74	H	PK
2	4805.45	15.81	54.00	38.19	-10.73	H	AV
3	4864.95	22.12	74.00	51.88	-10.76	V	PK
4	4866.65	16.48	54.00	37.52	-10.76	V	AV

REMARKS:

1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Limit value – Emission Level

Channel	TX Channel 6	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4770.60	21.88	74.00	52.12	-10.77	H	PK
2	4839.45	16.04	54.00	37.96	-10.75	H	AV
3	4894.70	22.22	74.00	51.78	-10.77	V	PK
4	4881.10	15.80	54.00	38.20	-10.77	V	AV

REMARKS:

1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value =Limit value – Emission Level



Channel	TX Channel 11	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4861.55	21.77	74.00	52.23	-10.76	H	PK
2	4841.15	15.23	54.00	38.77	-10.75	H	AV
3	4846.25	22.35	74.00	51.65	-10.75	V	PK
4	4884.50	16.38	54.00	37.62	-10.77	V	AV

REMARKS:

1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Limit value – Emission Level

802.11n (HT20)

Channel	TX Channel 1	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4915.95	22.44	74.00	51.56	-10.78	H	PK
2	4935.50	15.90	54.00	38.10	-10.79	H	AV
3	4813.10	21.84	74.00	52.16	-10.74	V	PK
4	4859.85	15.57	54.00	38.43	-10.76	V	AV

REMARKS:

1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Limit value – Emission Level

Channel	TX Channel 6	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4869.20	21.86	74.00	52.14	-10.76	H	PK
2	4893.00	15.77	54.00	38.23	-10.77	H	AV
3	4819.90	22.62	74.00	51.38	-10.74	V	PK
4	4836.05	16.35	54.00	37.65	-10.75	V	AV

REMARKS:

1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value =Limit value – Emission Level



Channel	TX Channel 11	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4898.10	22.08	74.00	51.92	-10.77	H	PK
2	4924.45	15.45	54.00	38.55	-10.79	H	AV
3	4870.90	21.98	74.00	52.02	-10.76	V	PK
4	4847.95	17.21	54.00	36.79	-10.75	V	AV

REMARKS:

1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Limit value – Emission Level



5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

----- END -----