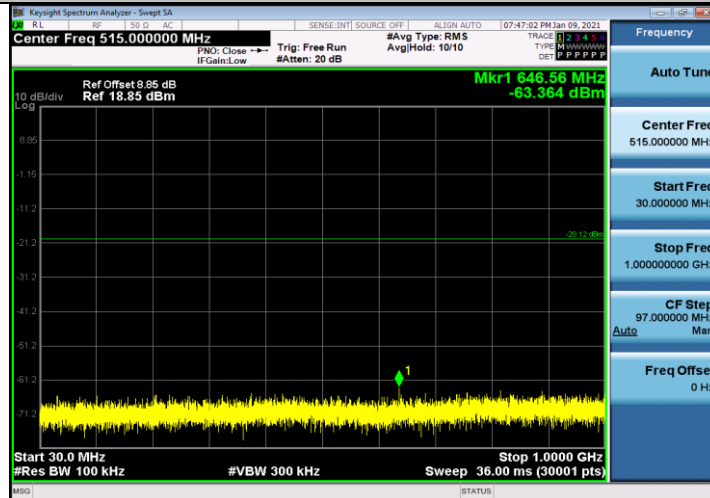




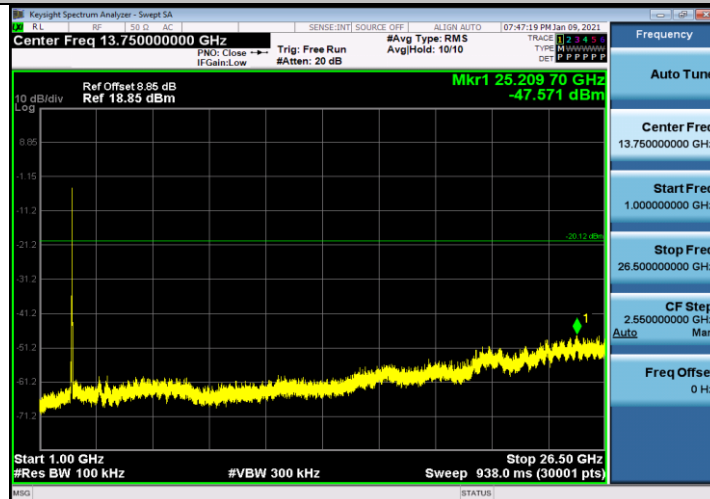
11G_Ant1_2462_0~Reference



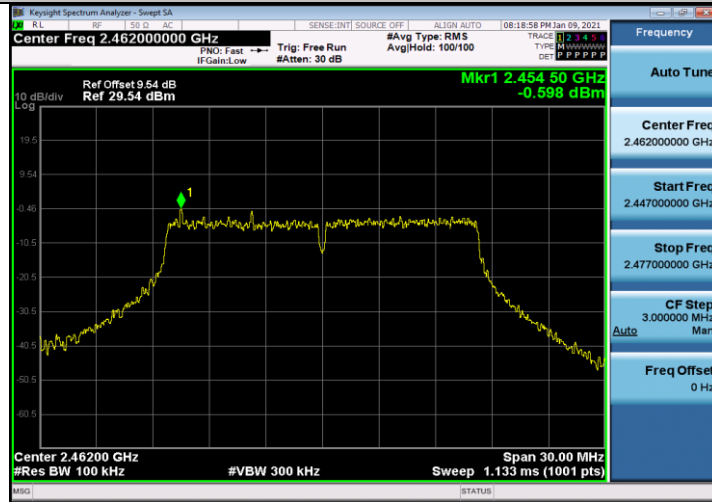
11G_Ant1_2462_30~1000



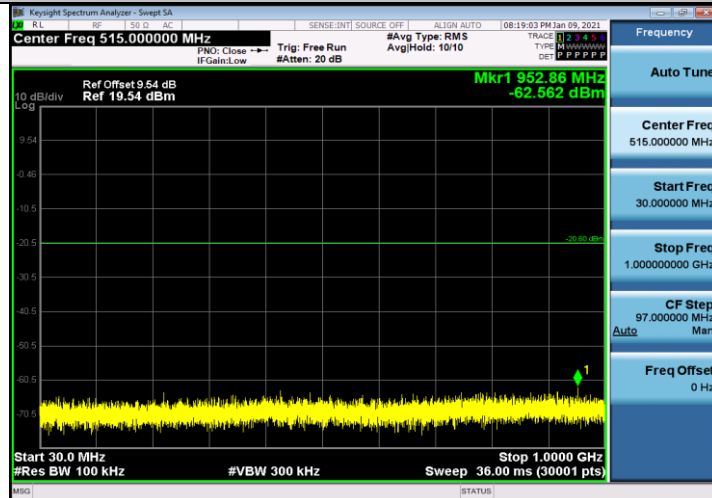
11G_Ant1_2462_1000~26500



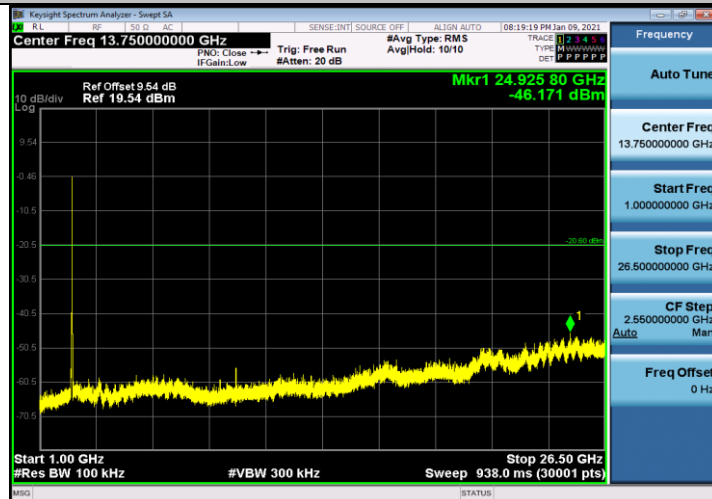
11G_Ant2_2462_0~Reference



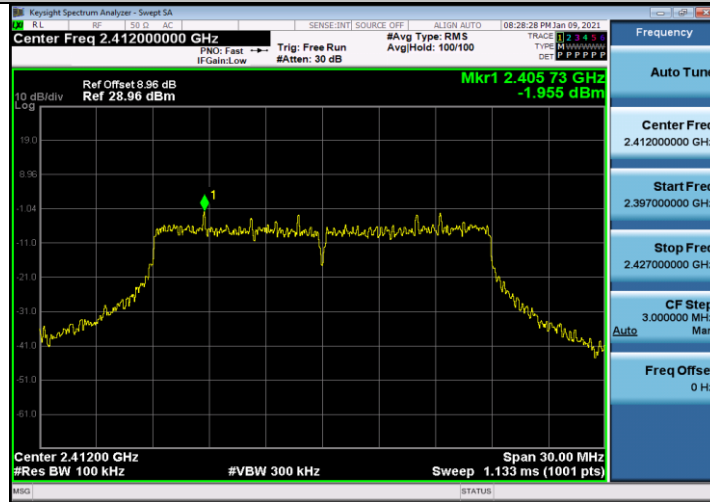
11G_Ant2_2462_30~1000



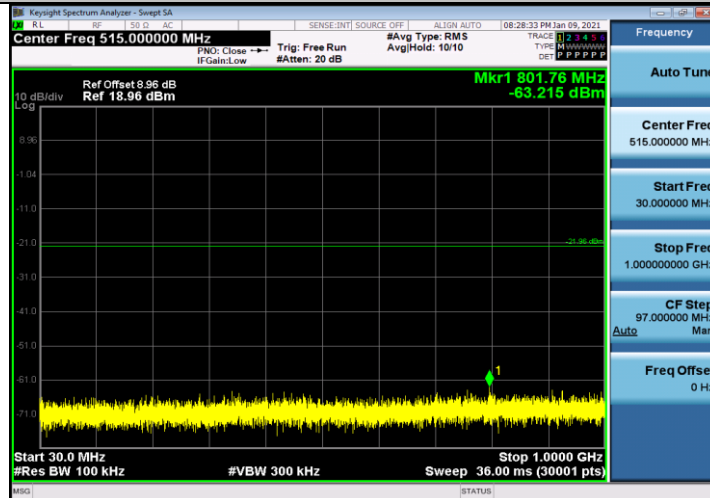
11G_Ant2_2462_1000~26500



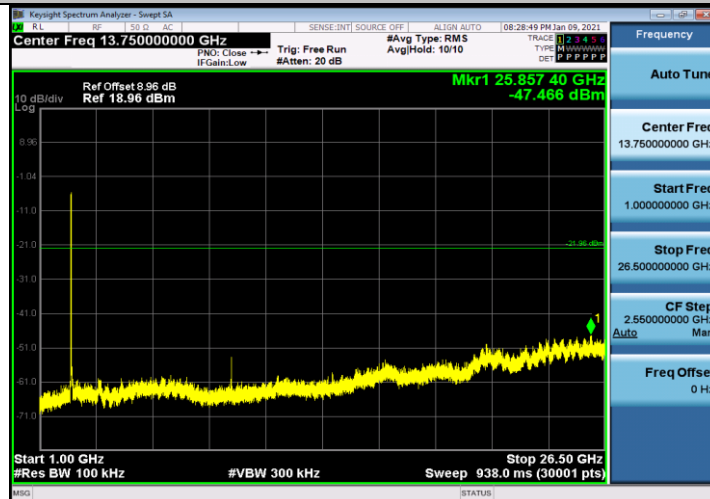
11N20MIMO_Ant1_2412_0~Reference



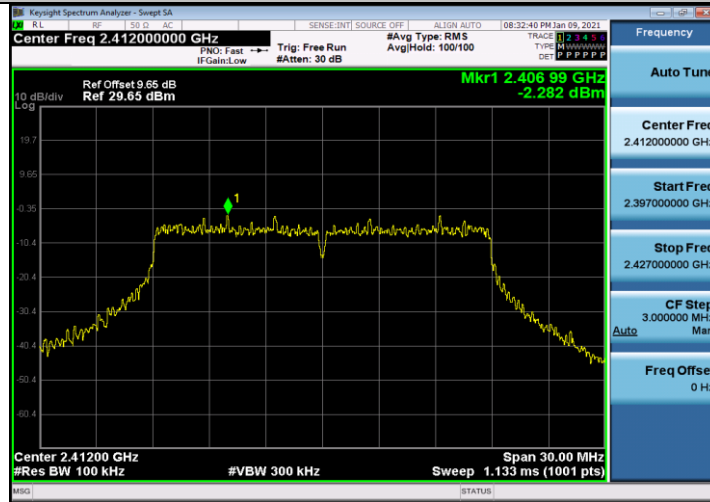
11N20MIMO_Ant1_2412_30~1000



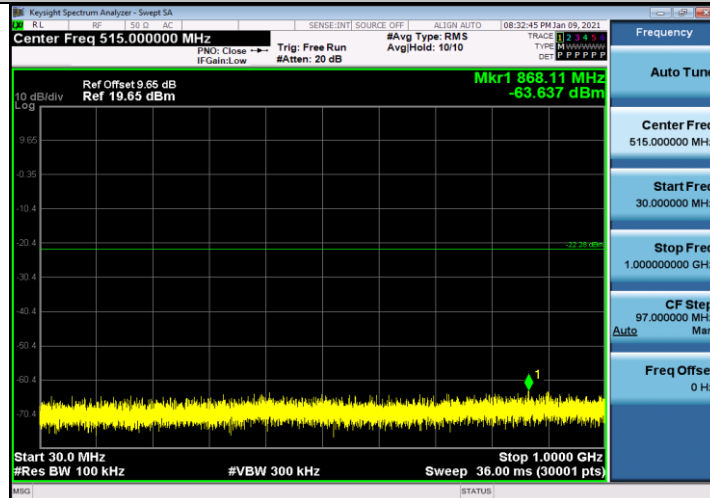
11N20MIMO_Ant1_2412_1000~26500



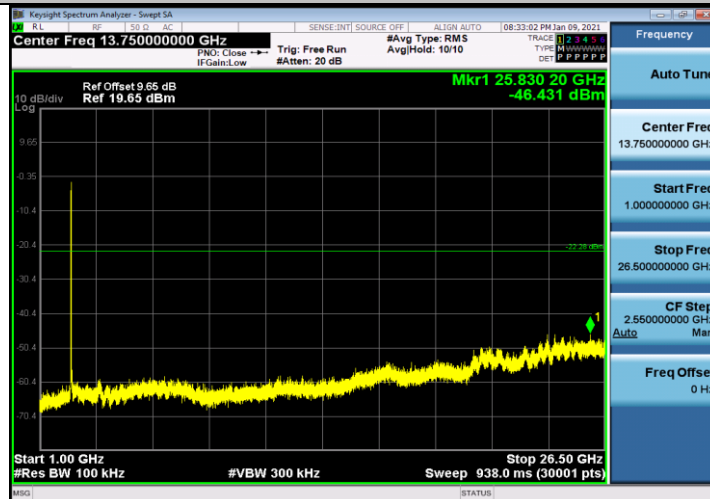
11N20MIMO_Ant2_2412_0~Reference



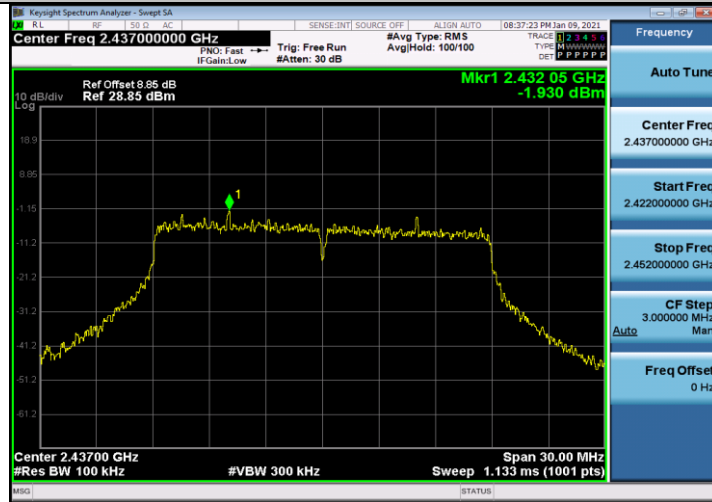
11N20MIMO_Ant2_2412_30~1000



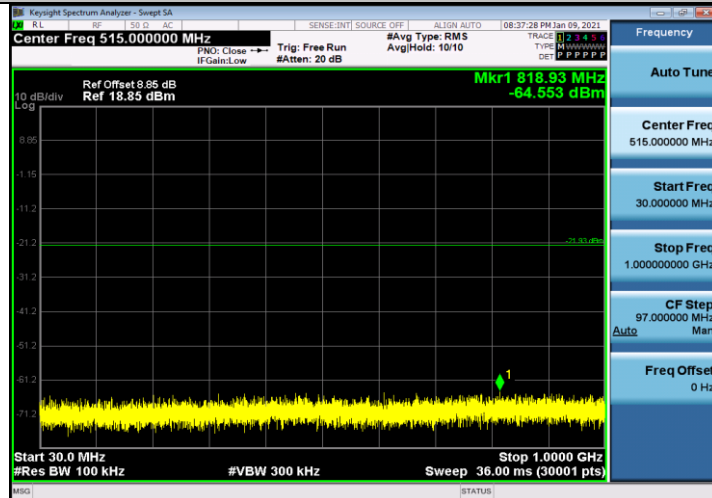
11N20MIMO_Ant2_2412_1000~26500



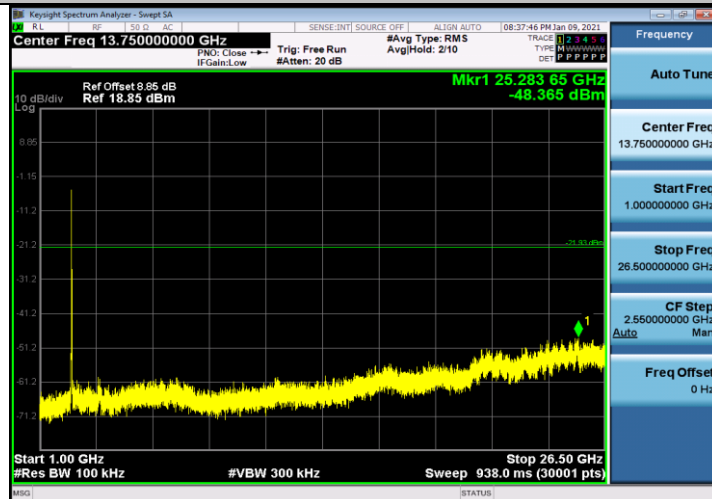
11N20MIMO_Ant1_2437_0~Reference



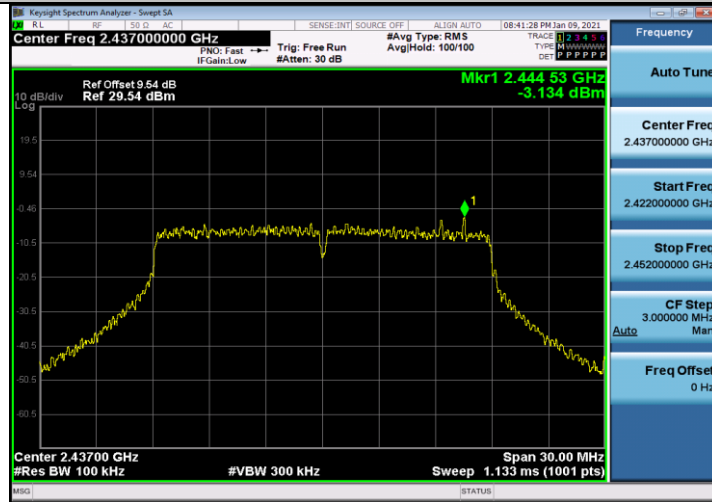
11N20MIMO_Ant1_2437_30~1000



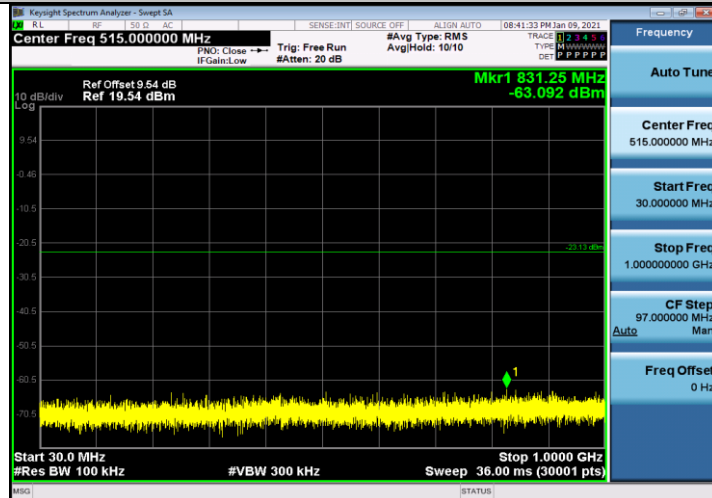
11N20MIMO_Ant1_2437_1000~26500



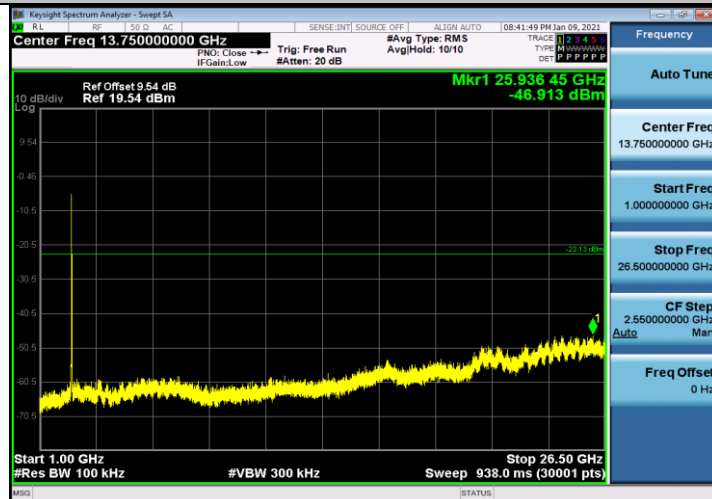
11N20MIMO_Ant2_2437_0~Reference



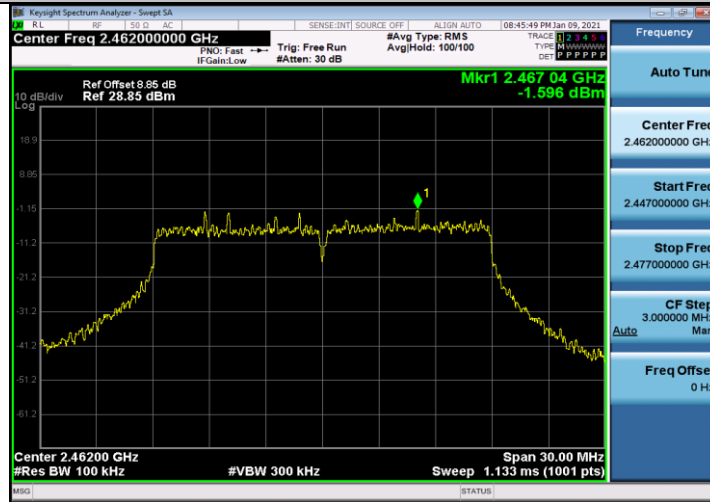
11N20MIMO_Ant2_2437_30~1000



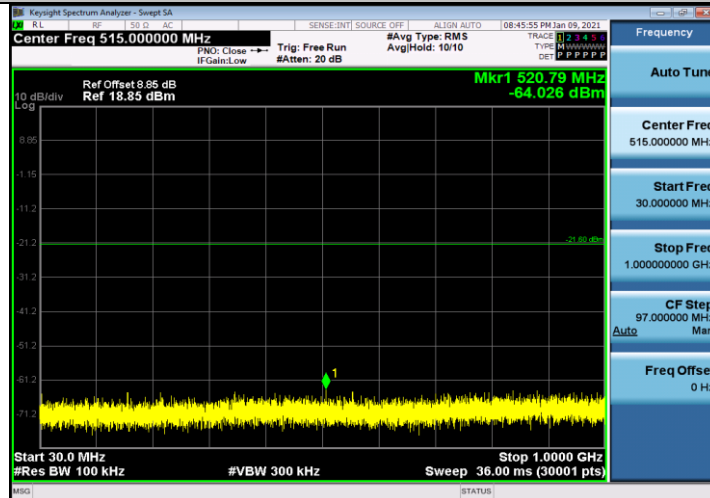
11N20MIMO_Ant2_2437_1000~26500



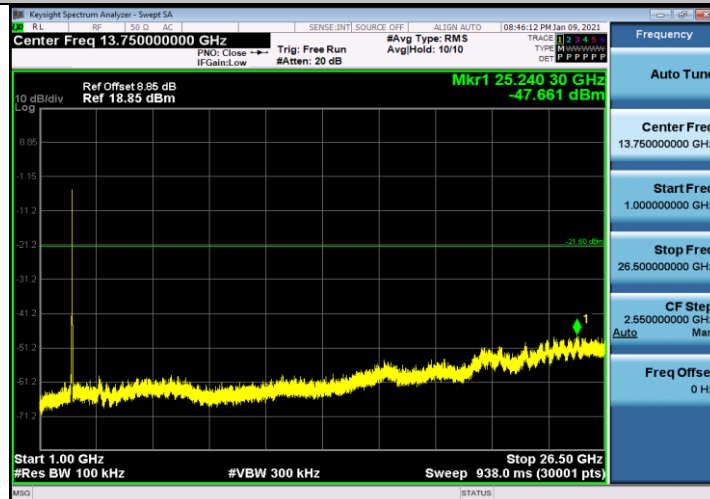
11N20MIMO_Ant1_2462_0~Reference



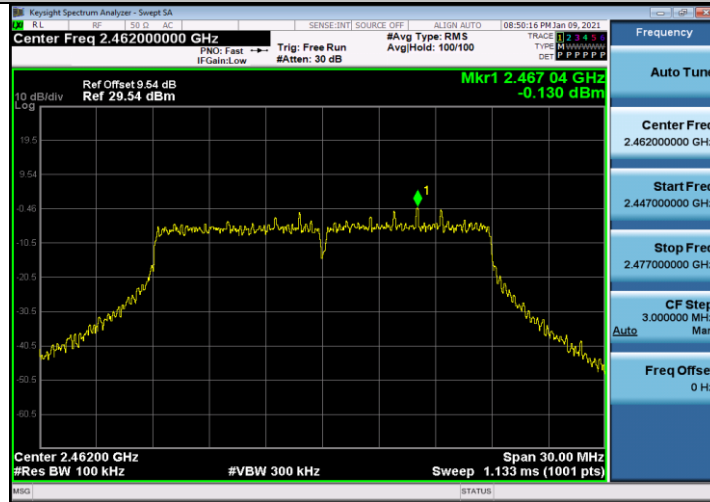
11N20MIMO_Ant1_2462_30~1000



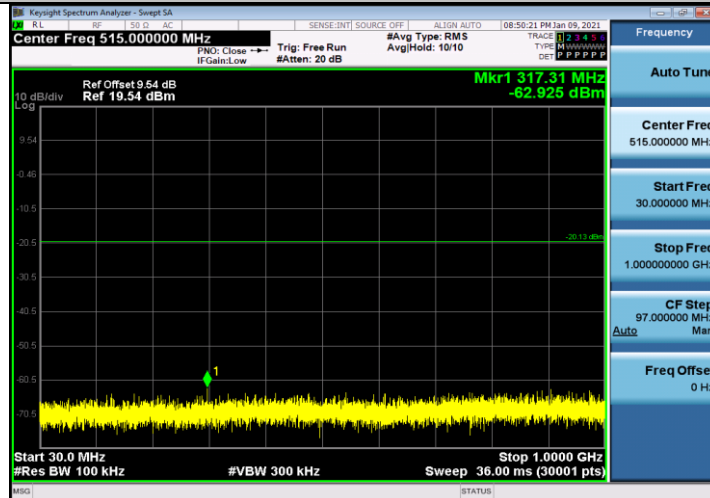
11N20MIMO_Ant1_2462_1000~26500



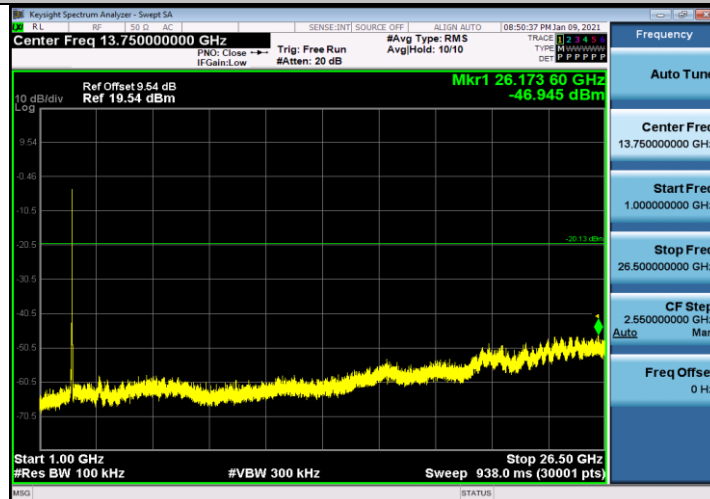
11N20MIMO_Ant2_2462_0~Reference



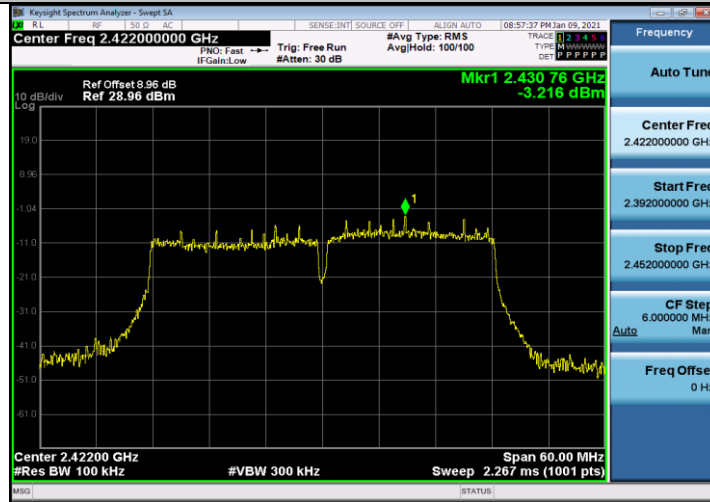
11N20MIMO_Ant2_2462_30~1000



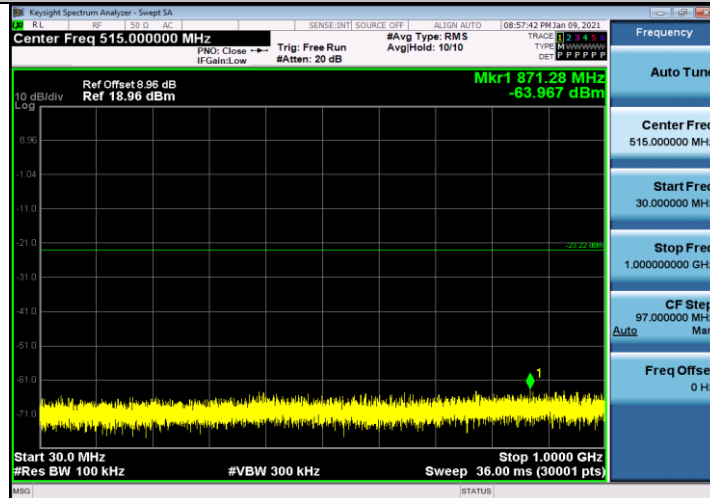
11N20MIMO_Ant2_2462_1000~26500



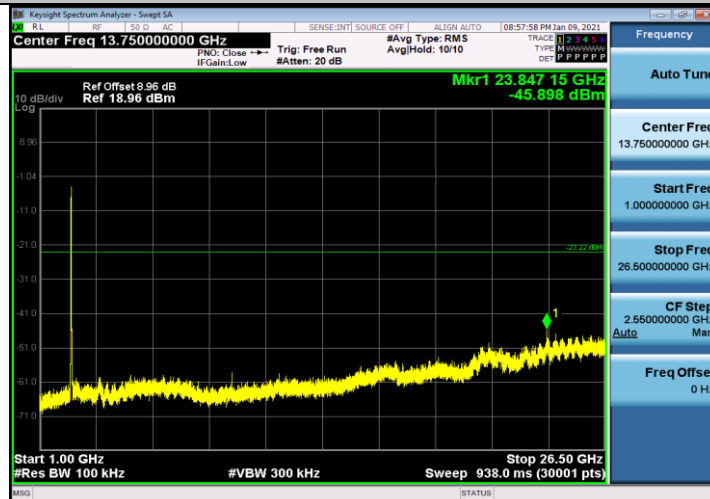
11N40MIMO_Ant1_2422_0~Reference



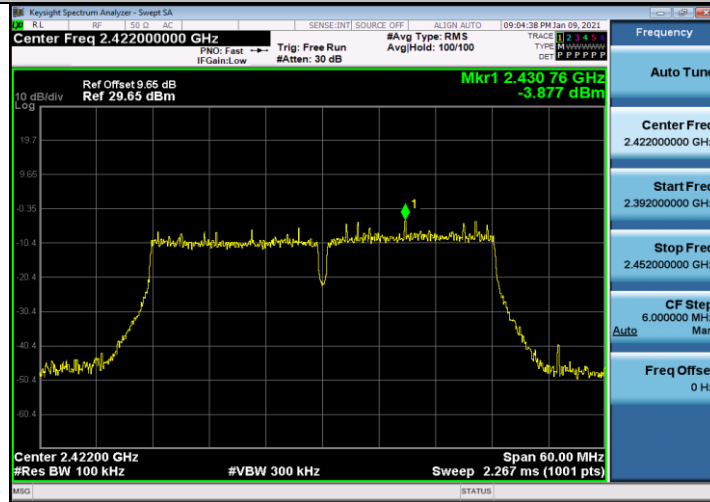
11N40MIMO_Ant1_2422_30~1000



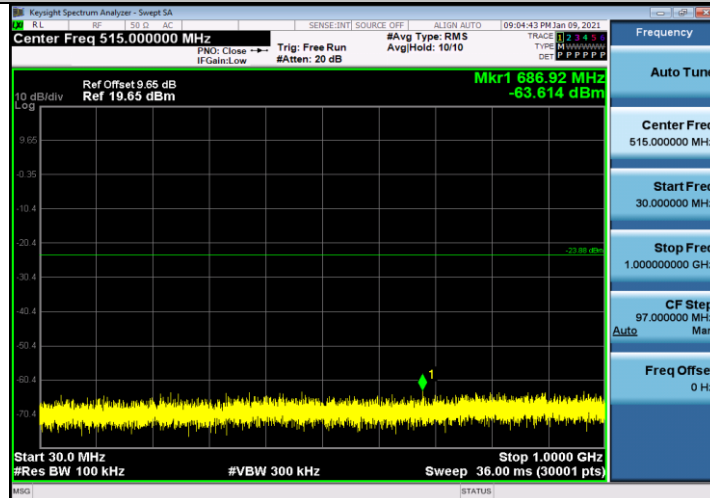
11N40MIMO_Ant1_2422_1000~26500



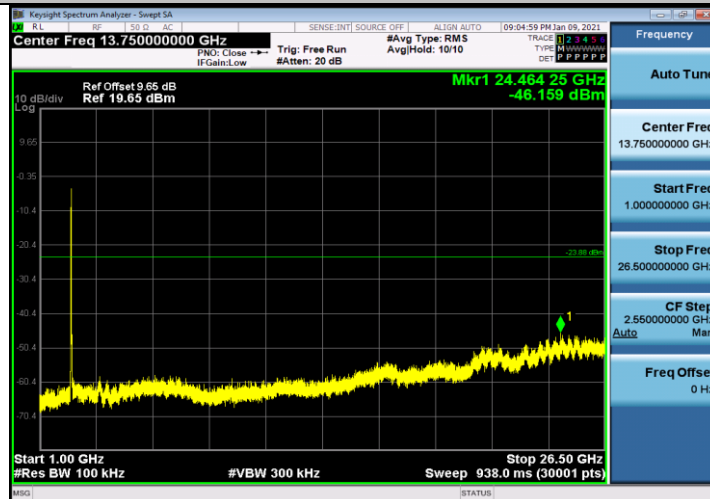
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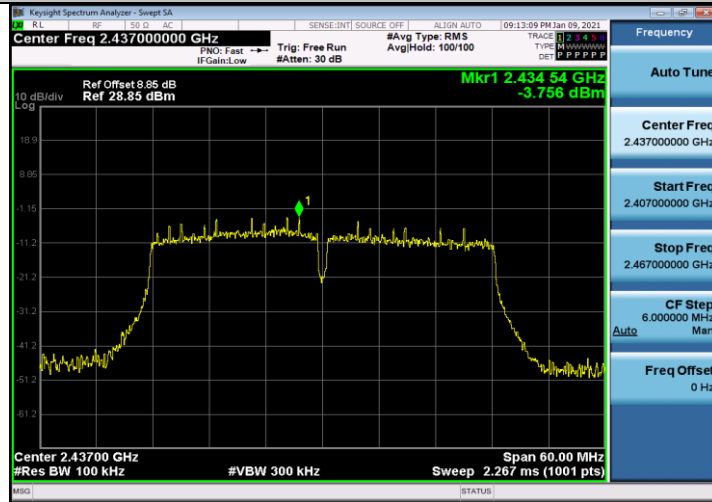
11N40MIMO_Ant2_2422_30~1000



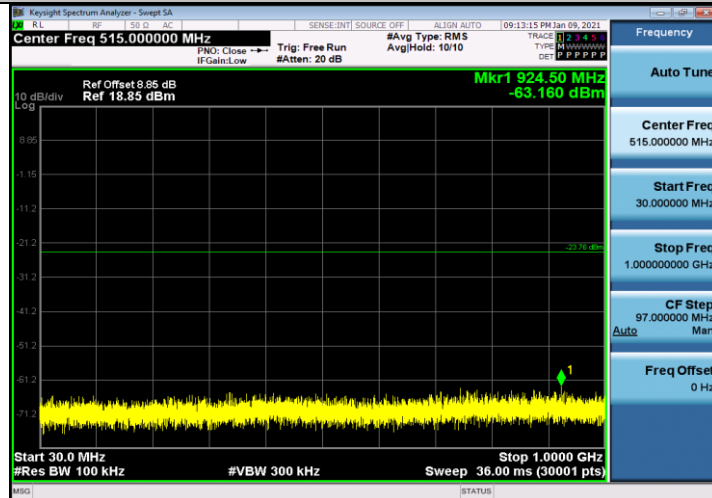
11N40MIMO_Ant2_2422_1000~26500



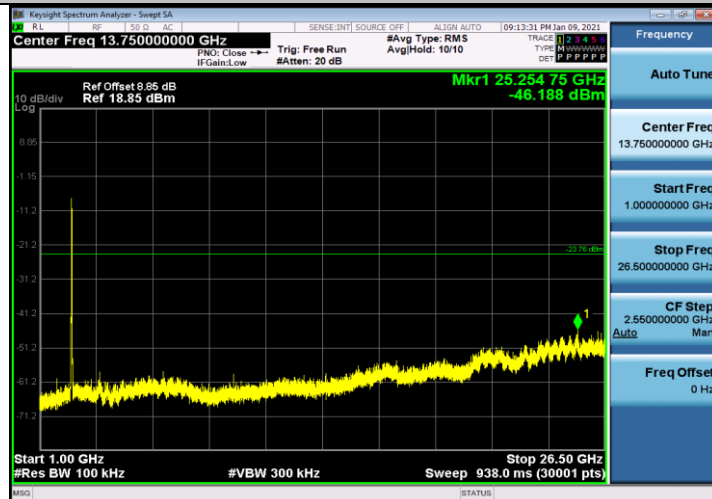
11N40MIMO_Ant1_2437_0~Reference



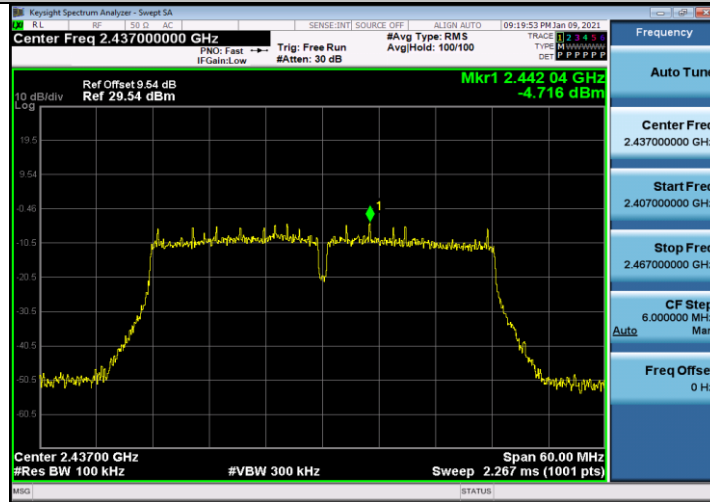
11N40MIMO_Ant1_2437_30~1000



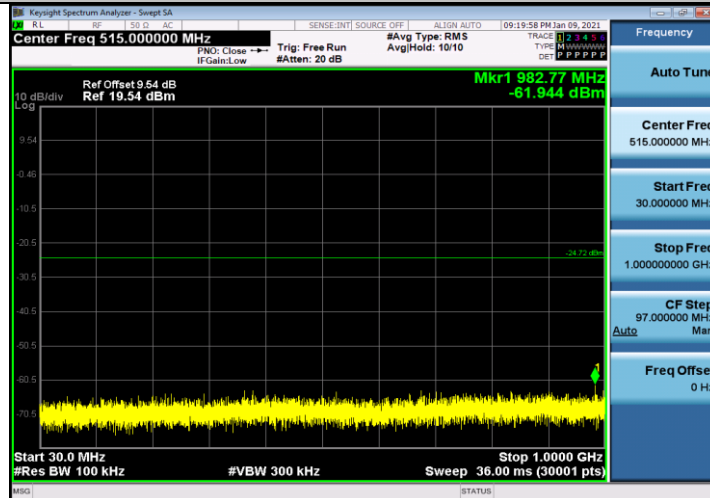
11N40MIMO_Ant1_2437_1000~26500



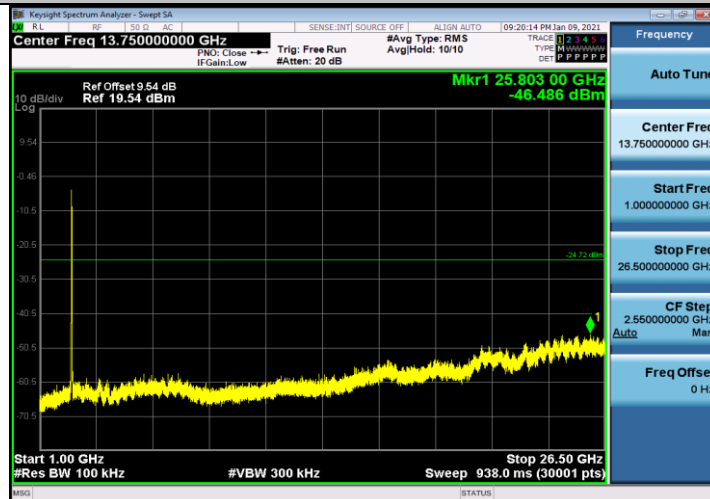
11N40MIMO_Ant2_2437_0~Reference



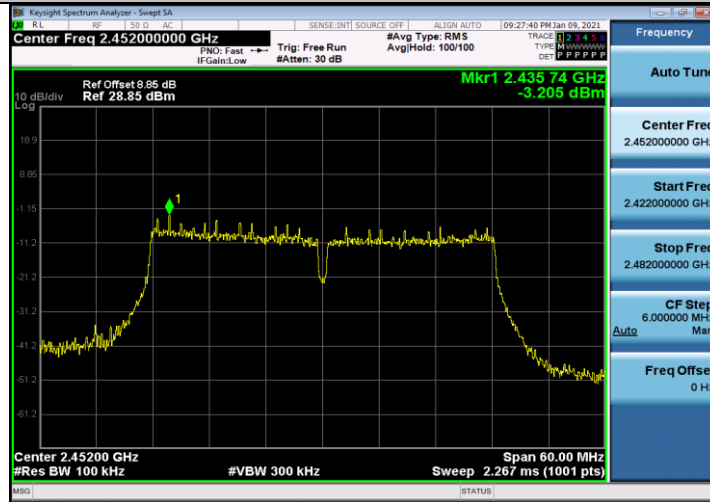
11N40MIMO_Ant2_2437_30~1000



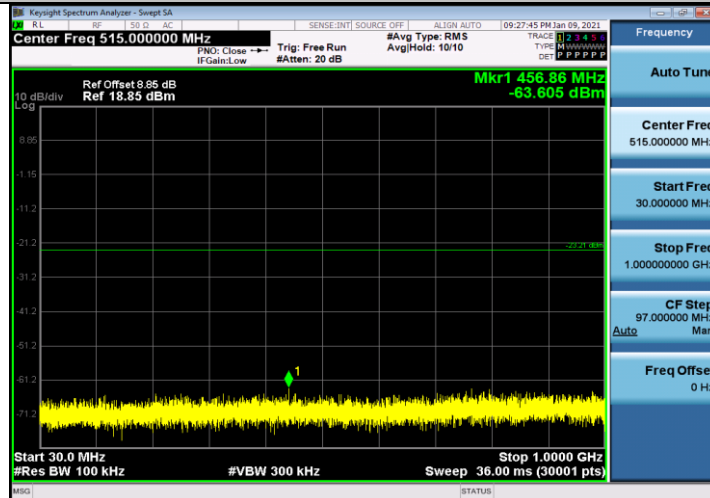
11N40MIMO_Ant2_2437_1000~26500



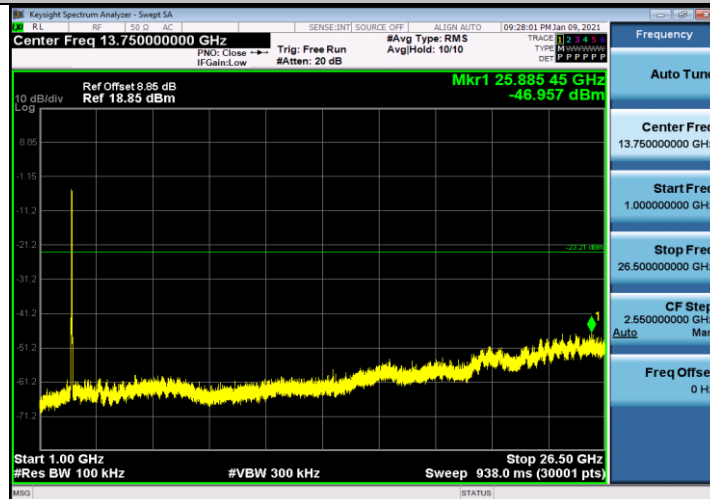
11N40MIMO_Ant1_2452_0~Reference



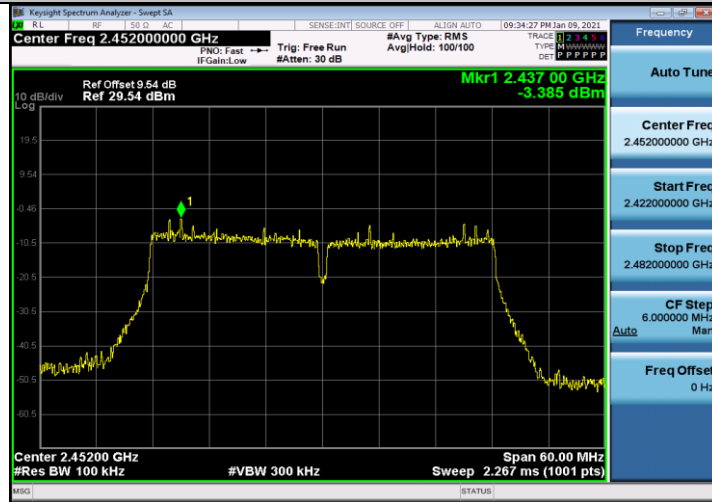
11N40MIMO_Ant1_2452_30~1000



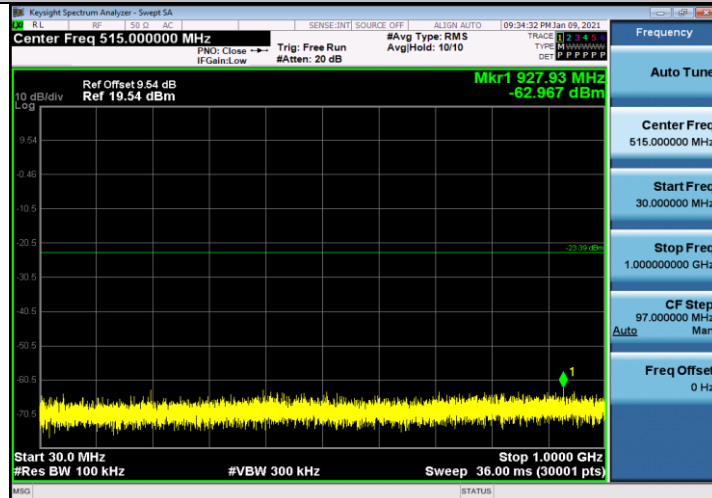
11N40MIMO_Ant1_2452_1000~26500



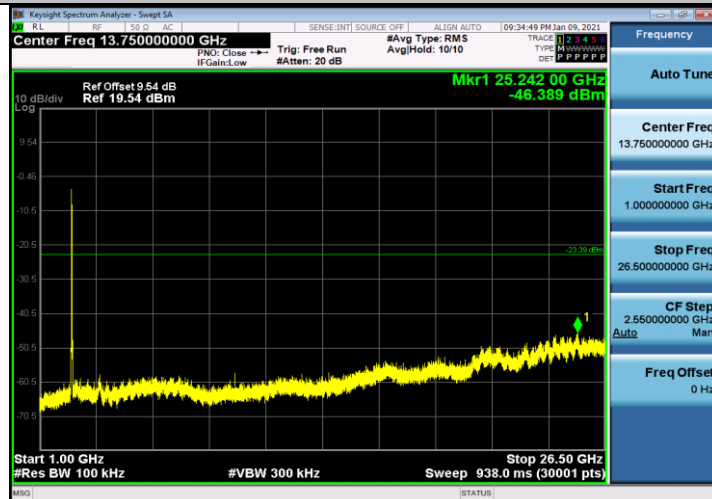
11N40MIMO_Ant2_2452_0~Reference



11N40MIMO_Ant2_2452_30~1000



11N40MIMO_Ant2_2452_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

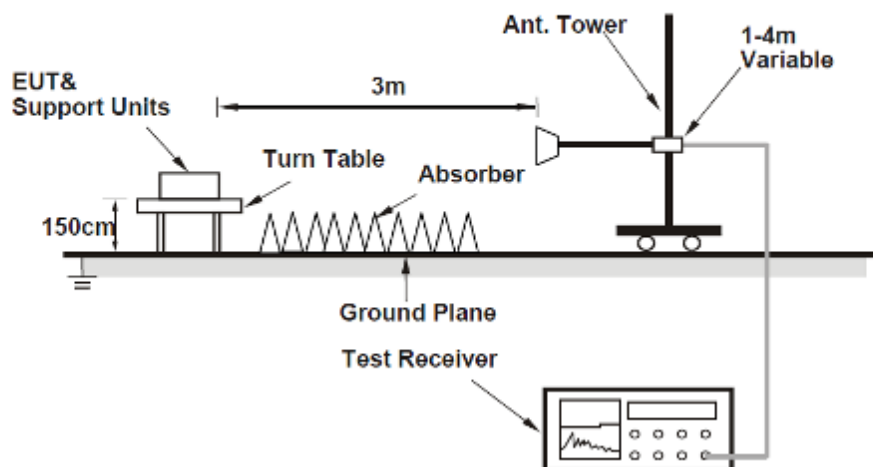
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

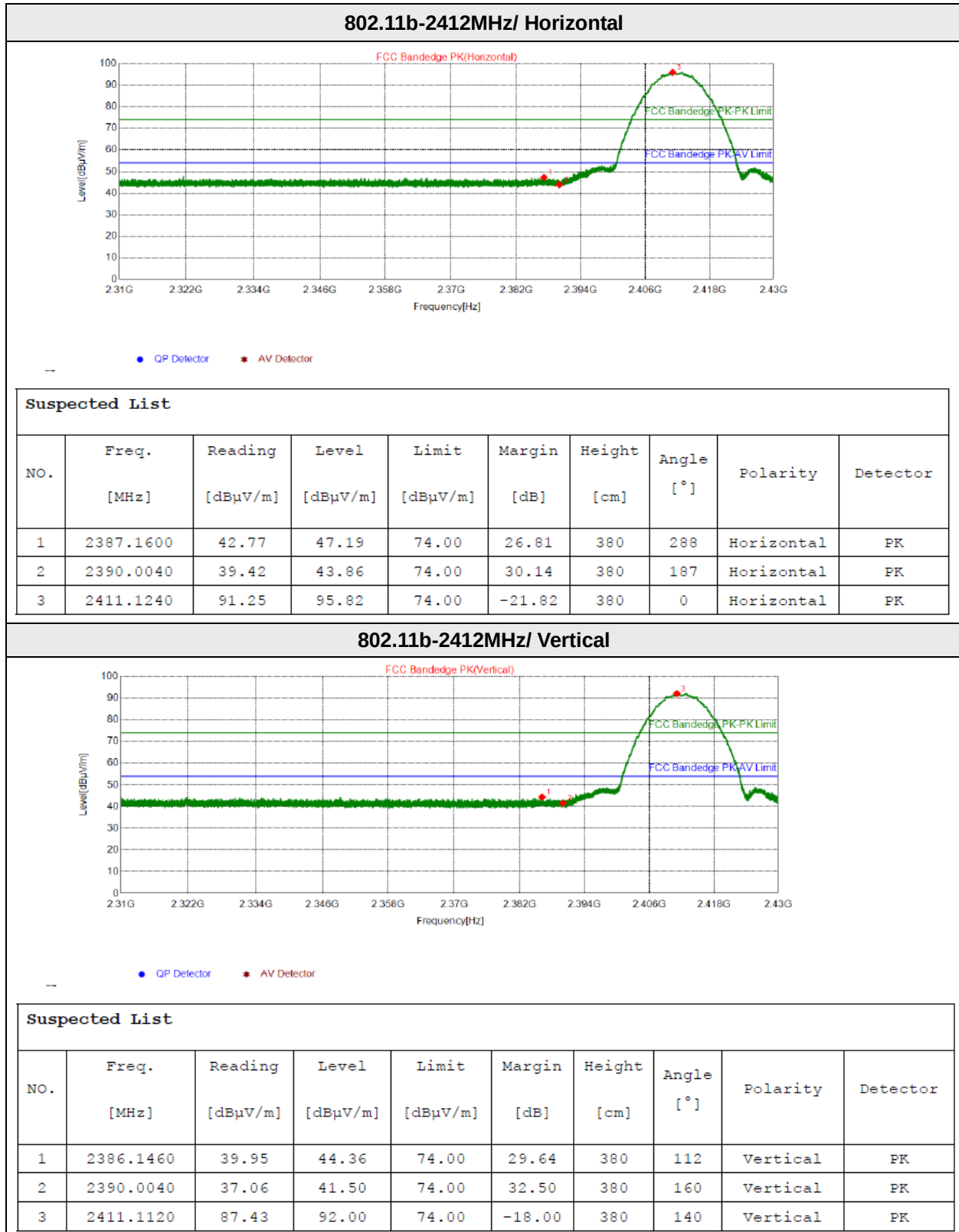
8. 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
9. 2. RBW = 1MHz
10. 3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
11. If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission 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

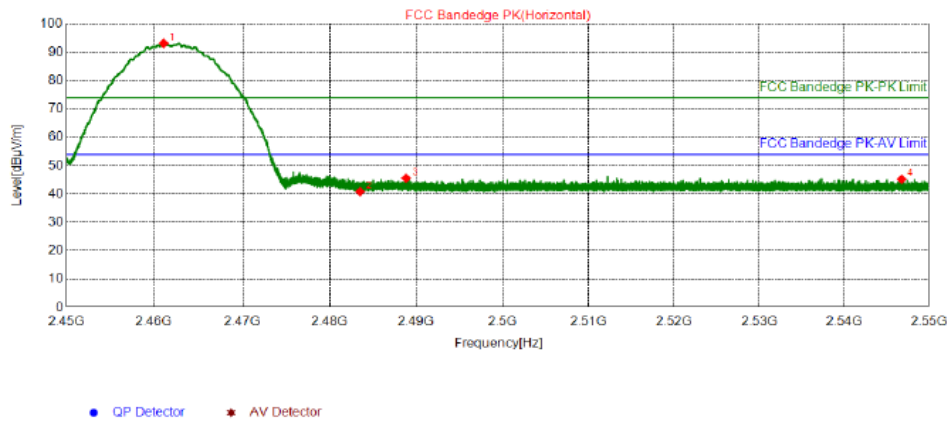
For Radiated emission above 1GHz



4.7.5 Test Results



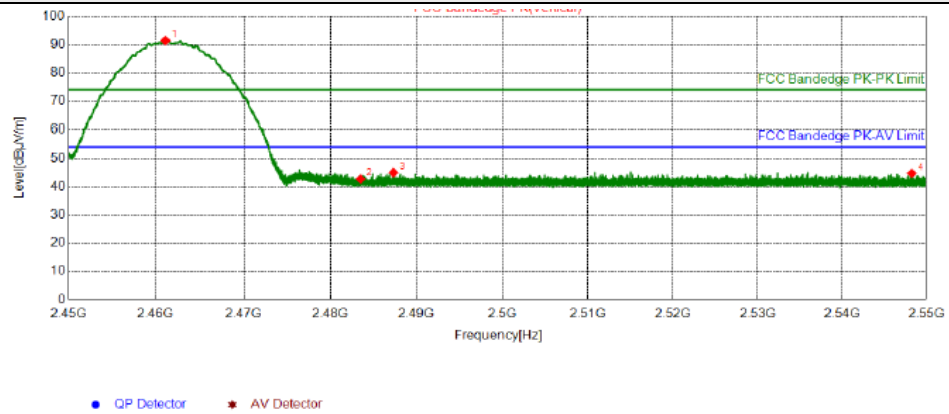
802.11b-2462MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2461.1100	88.32	93.15	74.00	-19.15	380	25	Horizontal	PK
2	2483.5000	35.87	40.81	74.00	33.19	380	152	Horizontal	PK
3	2488.8150	40.61	45.57	74.00	28.43	380	85	Horizontal	PK

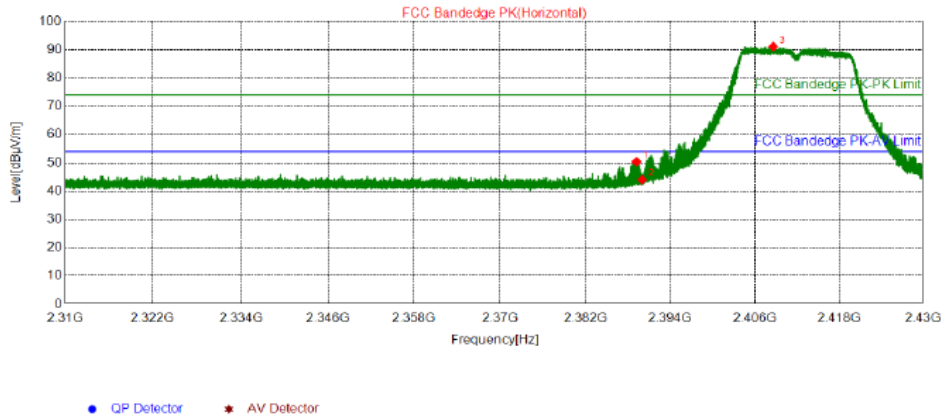
802.11b-2462MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2461.1250	86.57	91.40	74.00	-17.40	380	59	Vertical	PK
2	2483.5000	37.75	42.69	74.00	31.31	380	268	Vertical	PK
3	2487.3200	40.00	44.95	74.00	29.05	380	207	Vertical	PK

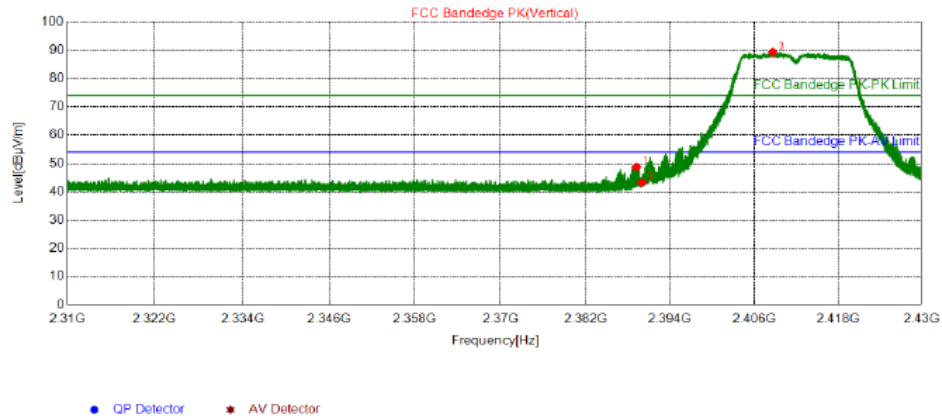
802.11g-2412MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2389.2180	45.94	50.37	74.00	23.63	380	6	Horizontal	PK
2	2390.0040	39.56	44.00	74.00	30.00	380	87	Horizontal	PK
3	2408.5920	86.53	91.08	74.00	-17.08	380	0	Horizontal	PK

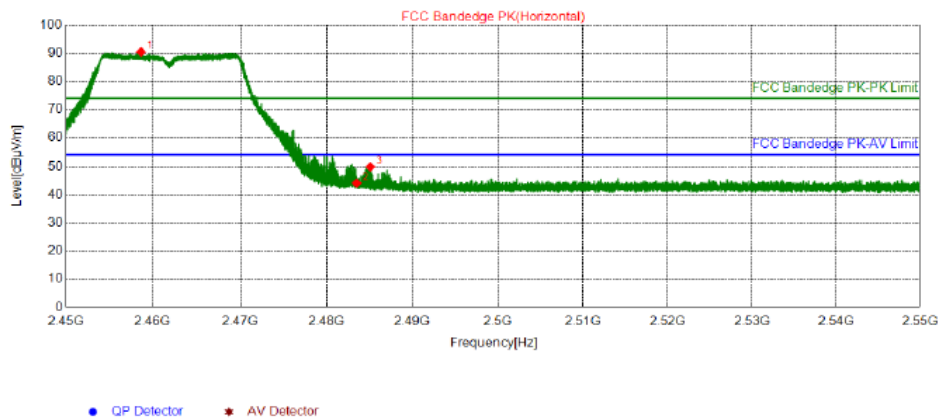
802.11g-2412MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2389.2360	44.31	48.74	74.00	25.26	380	139	Vertical	PK
2	2390.0040	38.83	43.27	74.00	30.73	380	72	Vertical	PK
3	2408.6460	84.70	89.25	74.00	-15.25	380	220	Vertical	PK

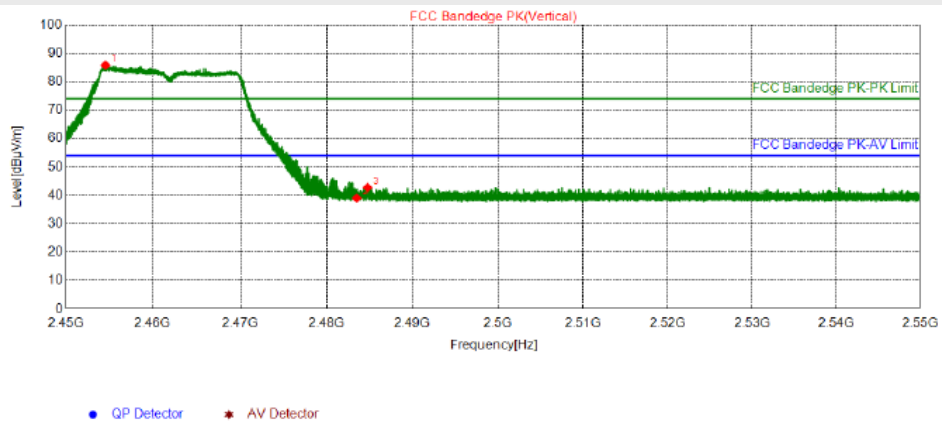
802.11g-2462MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2458.6700	85.63	90.45	74.00	-16.45	380	24	Horizontal	PK
2	2483.5000	39.17	44.11	74.00	29.89	380	78	Horizontal	PK
3	2485.0950	44.99	49.93	74.00	24.07	380	17	Horizontal	PK

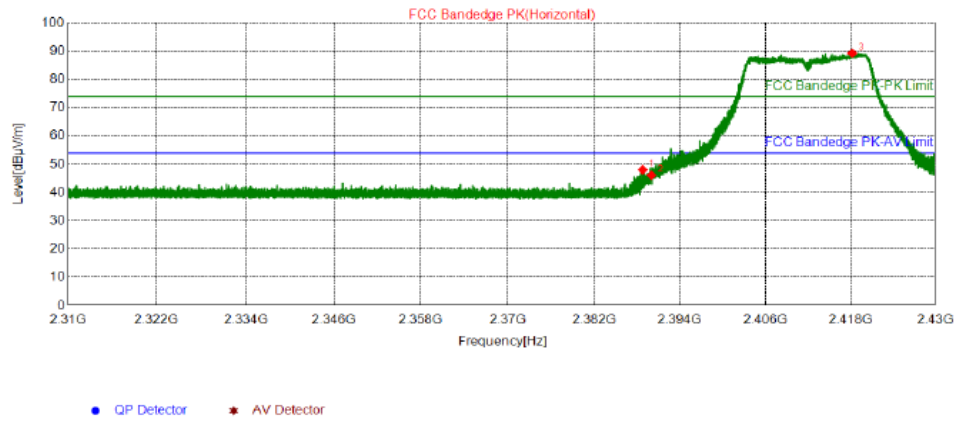
802.11g-2462MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2454.5700	80.99	85.79	74.00	-11.79	380	59	Vertical	PK
2	2483.5000	34.08	39.02	74.00	34.98	380	288	Vertical	PK
3	2484.7650	37.79	42.73	74.00	31.27	380	160	Vertical	PK

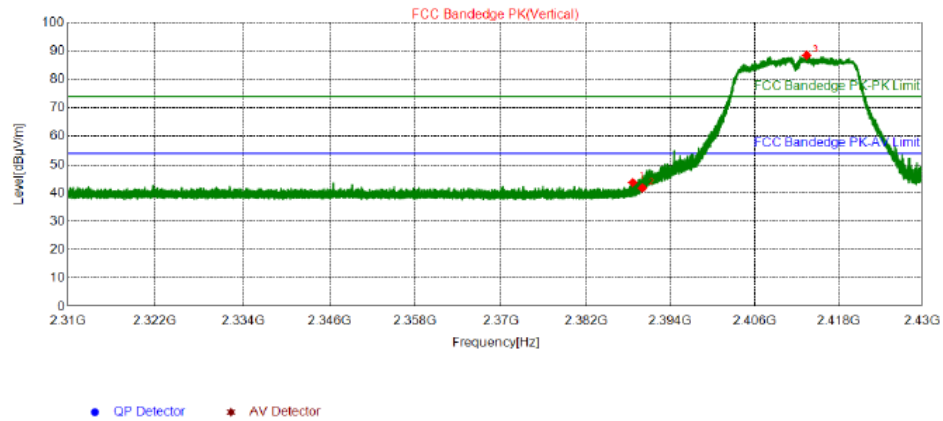
802.11n (HT20)-2412MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2388.7860	43.58	48.01	74.00	25.99	380	219	Horizontal	PK
2	2390.0040	41.66	46.10	74.00	27.90	380	178	Horizontal	PK
3	2418.2340	84.62	89.24	74.00	-15.24	380	252	Horizontal	PK

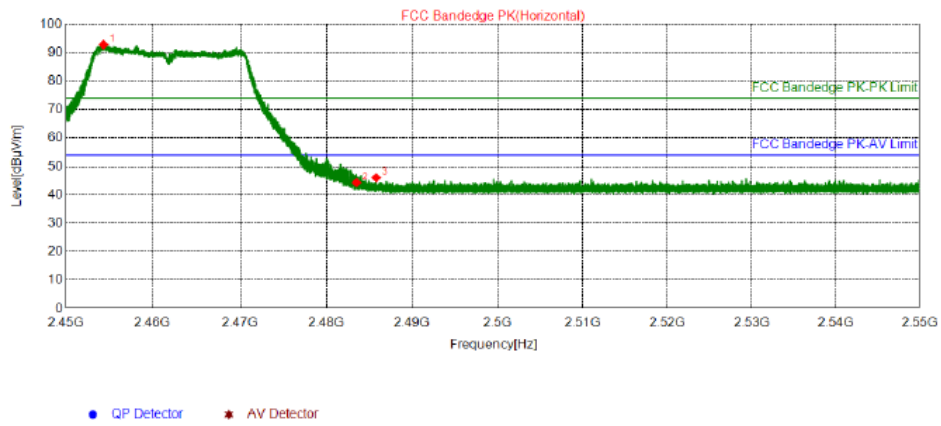
802.11n (HT20)-2412MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2388.6360	39.30	43.73	74.00	30.27	380	230	Vertical	PK
2	2390.0040	37.29	41.73	74.00	32.27	380	41	Vertical	PK
3	2413.4340	83.89	88.47	74.00	-14.47	380	140	Vertical	PK

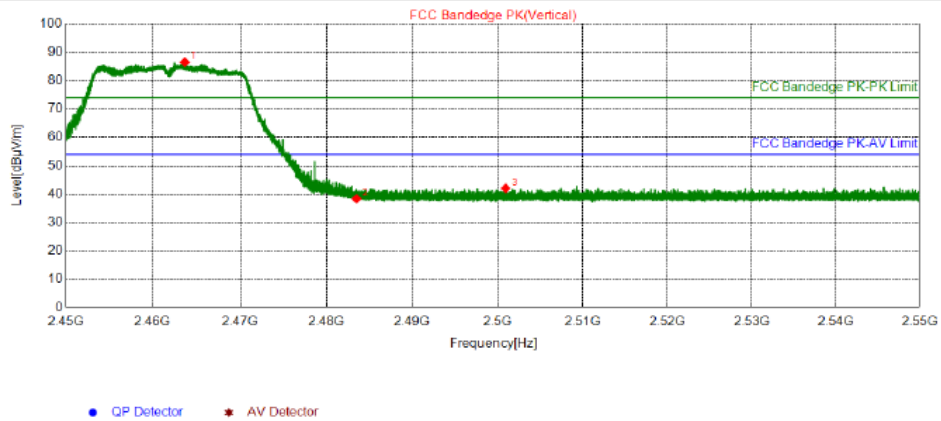
802.11n (ht20)-2462MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2454.3550	88.00	92.80	74.00	-18.80	380	164	Horizontal	PK
2	2483.5000	39.32	44.26	74.00	29.74	380	164	Horizontal	PK
3	2485.7950	41.10	46.05	74.00	27.95	380	164	Horizontal	PK

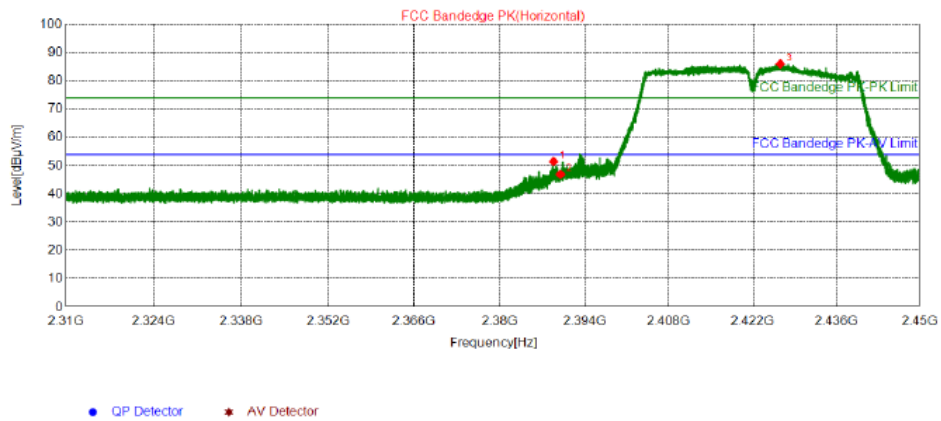
802.11n (HT20)-2462MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2463.7300	81.62	86.47	74.00	-12.47	380	65	Vertical	PK
2	2483.5000	33.45	38.39	74.00	35.61	380	213	Vertical	PK
3	2500.9500	37.03	42.05	74.00	31.95	380	164	Vertical	PK

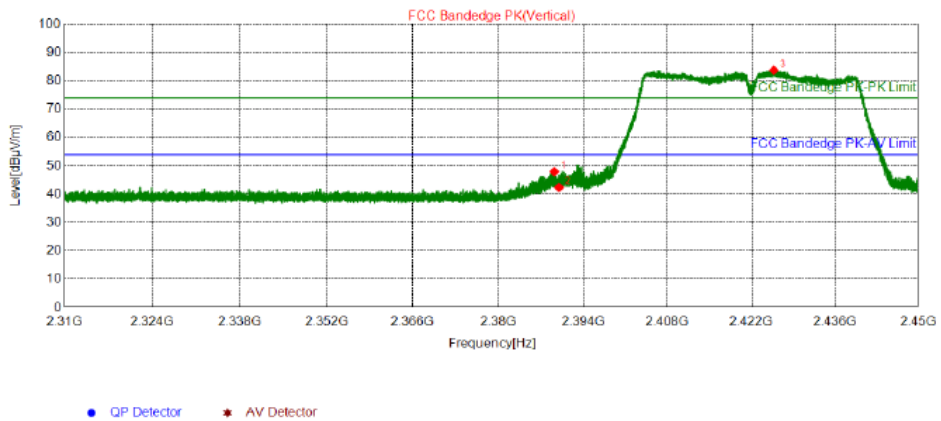
802.11n (HT40)-2422MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2388.8900	47.02	51.45	74.00	22.55	380	360	Horizontal	PK
2	2390.0100	42.46	46.90	74.00	27.10	380	228	Horizontal	PK
3	2426.5640	81.29	85.96	74.00	-11.96	380	211	Horizontal	PK

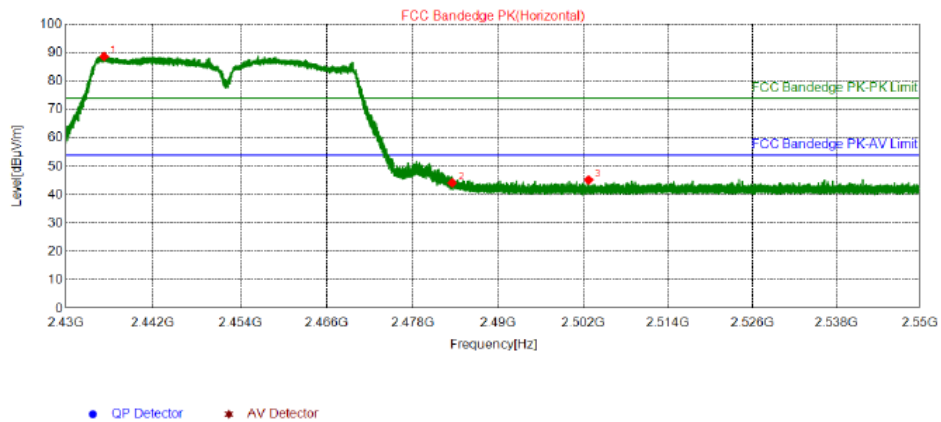
802.11n (HT40)-2422MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2389.2470	43.51	47.94	74.00	26.06	380	81	Vertical	PK
2	2390.0100	37.93	42.37	74.00	31.63	380	81	Vertical	PK
3	2425.7100	79.03	83.69	74.00	-9.69	380	214	Vertical	PK

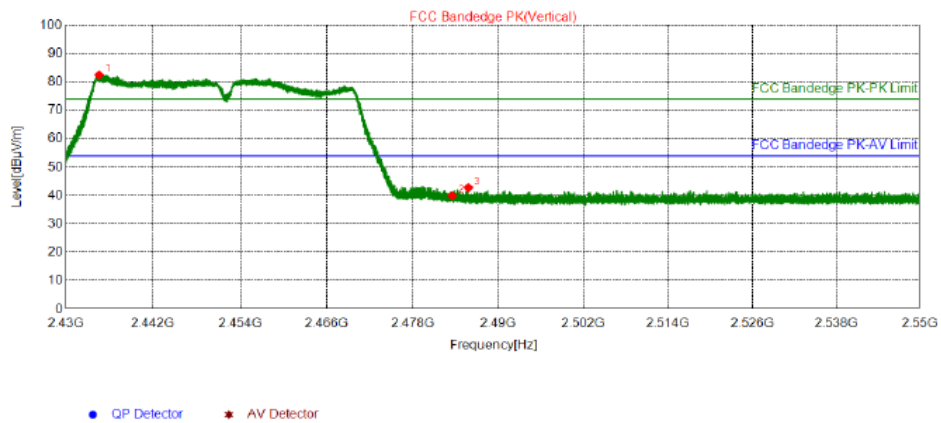
802.11n (HT40)-2452MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2435.2860	83.88	88.60	74.00	-14.60	380	239	Horizontal	PK
2	2483.5020	39.21	44.15	74.00	29.85	380	206	Horizontal	PK
3	2502.7260	40.21	45.24	74.00	28.76	380	74	Horizontal	PK

802.11n (HT40)-2452MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2434.6020	77.75	82.46	74.00	-8.46	380	219	Vertical	PK
2	2483.5020	34.98	39.92	74.00	34.08	380	296	Vertical	PK
3	2485.7700	37.85	42.80	74.00	31.20	380	261	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:

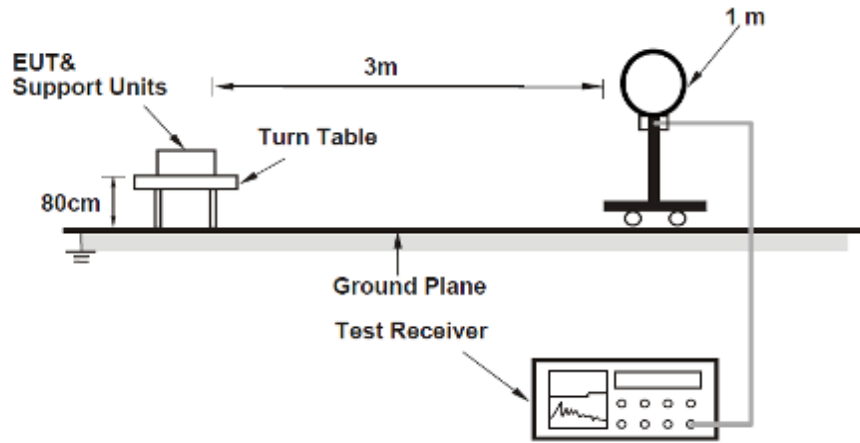
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz & 360 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency 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

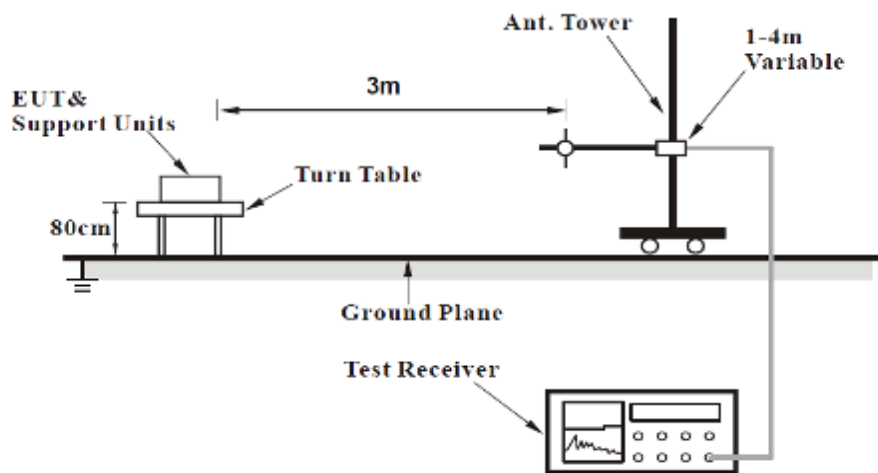
No deviation.

4.8.4 Test Setup

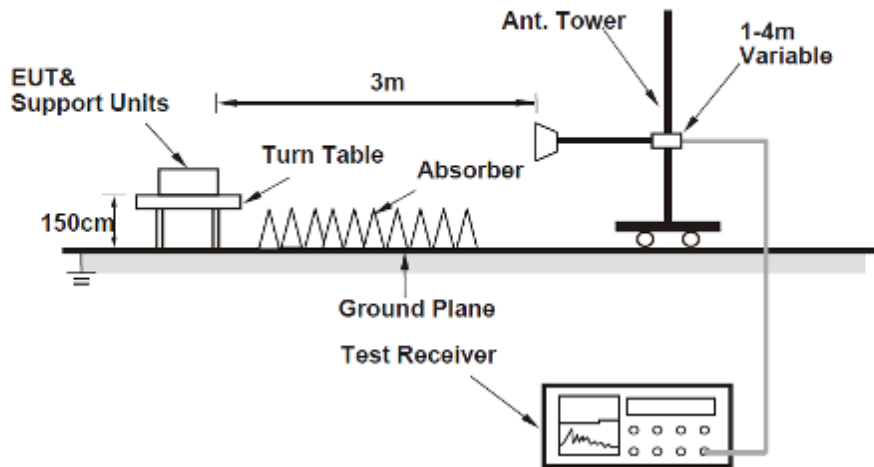
For Radiated emission below 30MHz



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.

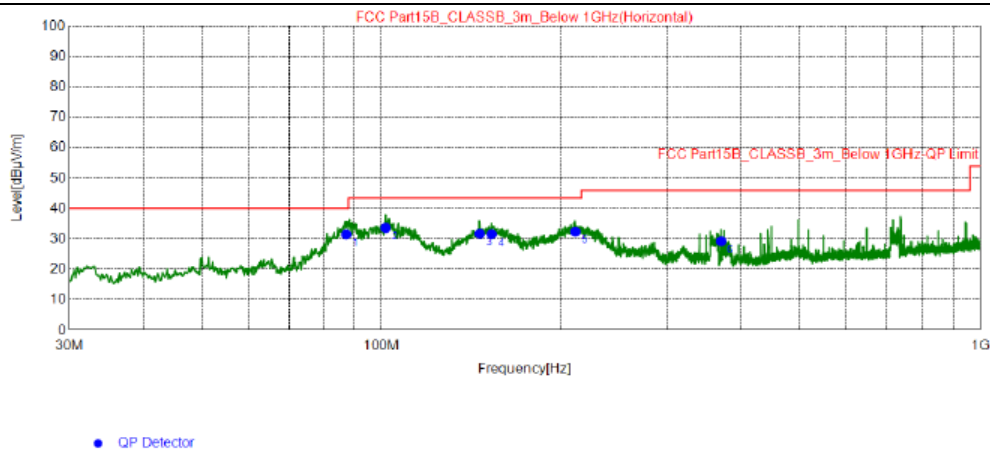
4.8.6 Test Results

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
Power supply	AC 120V, 60Hz		



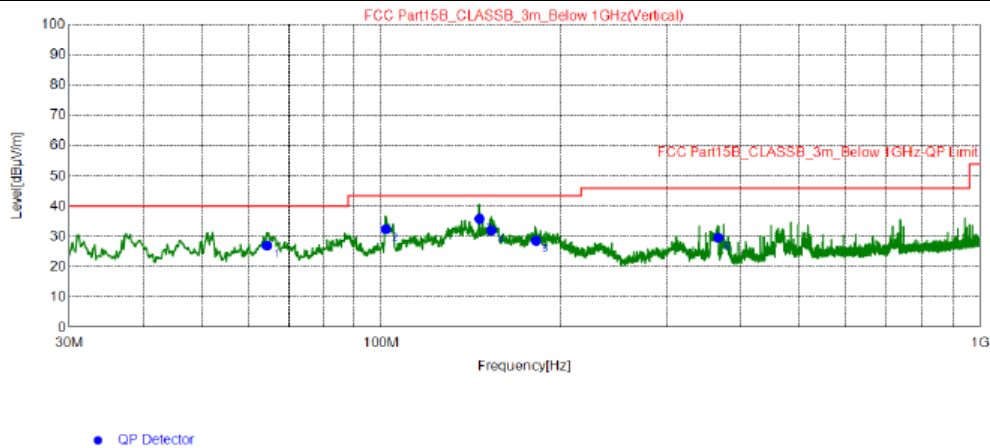
Final Data List

NO.	Freq. [MHz]	QP Reading [dB μV/m]	Factor [dB]	QP Value [dB μV/m]	QP Limit [dB μV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	87.23	46.93	-15.46	31.47	40.00	8.53	200	158	Horizontal
2	101.5	48.41	-14.77	33.64	43.50	9.86	200	319	Horizontal
3	146.0	41.85	-10.15	31.70	43.50	11.80	200	136	Horizontal
4	152.8	41.52	-9.96	31.56	43.50	11.94	200	158	Horizontal
5	211.0	44.34	-11.92	32.42	43.50	11.08	200	199	Horizontal
6	370.2	36.12	-6.90	29.22	46.00	16.78	200	158	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
Power supply	AC 120V, 60Hz		



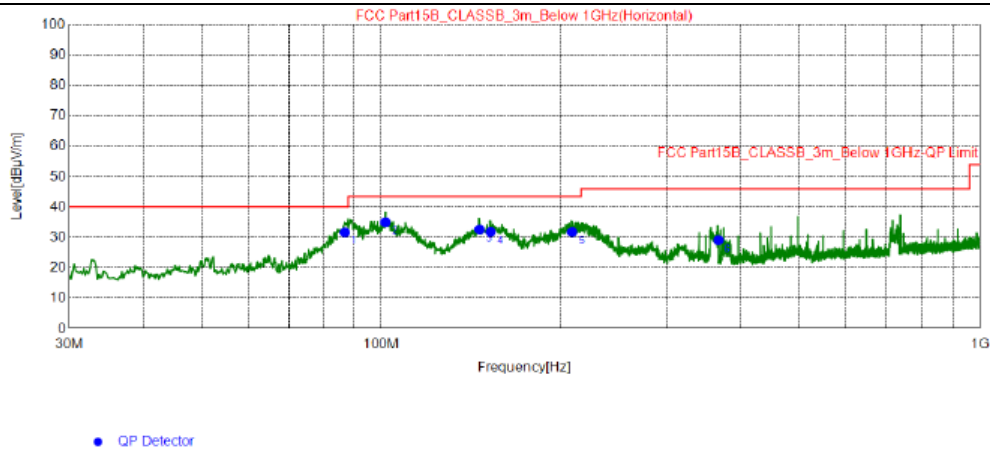
Final Data List

NO.	Freq. [MHz]	QP Reading [dB μ V/m]	Factor [dB]	QP Value [dB μ V/m]	QP Limit [dB μ V/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	64.33	38.09	-11.04	27.05	40.00	12.95	100	300	Vertical
2	101.7	47.25	-14.75	32.50	43.50	11.00	100	340	Vertical
3	146.0	46.07	-10.15	35.92	43.50	7.58	100	83	Vertical
4	152.8	41.97	-9.96	32.01	43.50	11.49	100	151	Vertical
5	181.5	39.65	-10.99	28.66	43.50	14.84	100	160	Vertical
6	366.3	36.64	-7.02	29.62	46.00	16.38	100	281	Vertical

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	Horizontal
Power supply	AC 240V, 50Hz		



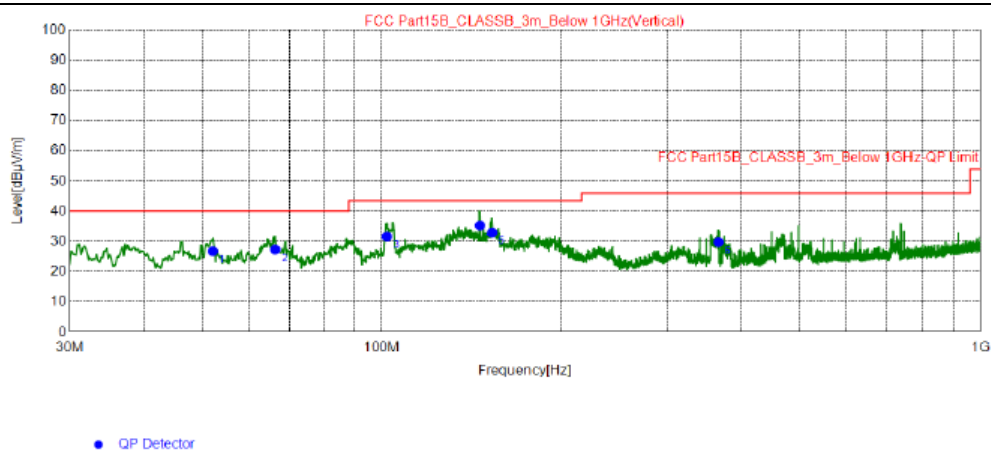
Final Data List

NO.	Freq. [MHz]	QP Reading [dB μ V/m]	Factor [dB]	QP Value [dB μ V/m]	QP Limit [dB μ V/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	86.84	47.04	-15.40	31.64	40.00	8.36	200	156	Horizontal
2	101.5	49.8	-14.77	35.03	43.50	8.47	200	294	Horizontal
3	146.0	42.82	-10.15	32.67	43.50	10.83	200	102	Horizontal
4	152.4	41.81	-9.97	31.84	43.50	11.66	200	116	Horizontal
5	208.6	43.74	-11.96	31.78	43.50	11.72	200	175	Horizontal
6	366.5	36.09	-7.01	29.08	46.00	16.92	200	175	Horizontal

REMARKS:

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

Mode	802.11b-2412MHz	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz	Antenna Polarity	Vertical
Power supply	AC 240V, 50Hz		



Final Data List

NO.	Freq. [MHz]	QP Reading [dB µ V/m]	Factor [dB]	QP Value [dB µ V/m]	QP Limit [dB µ V/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	52.11	36.6	-9.82	26.78	40.00	13.22	100	108	Vertical
2	66.27	38.75	-11.39	27.36	40.00	12.64	100	333	Vertical
3	101.9	46.33	-14.73	31.60	43.50	11.90	100	347	Vertical
4	146.0	45.48	-10.15	35.33	43.50	8.17	100	108	Vertical
5	152.9	42.97	-9.96	33.01	43.50	10.49	100	47	Vertical
6	366.0	36.84	-7.03	29.81	46.00	16.19	100	291	Vertical

REMARKS:

- Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
- The other emission levels were very low against the limit.
- 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	7237.3000	29.49	74.00	44.51	-4.12	H	PK
2	7237.3000	24.08	54.00	29.92	-4.12	H	AV
3	7237.3000	31.17	74.00	42.83	-4.12	V	PK
4	7237.3000	25.53	54.00	28.47	-4.12	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	7312.1000	30.48	74.00	43.52	-3.98	H	PK
2	7312.1000	25.62	54.00	28.38	-3.98	H	AV
3	7312.1000	30.62	74.00	43.38	-3.98	V	PK
4	7312.1000	24.50	54.00	29.50	-3.98	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	7386.9000	29.19	74.00	44.81	-3.85	H	PK
2	7386.9000	24.00	54.00	30.00	-3.85	H	AV
3	7386.9000	30.45	74.00	43.55	-3.85	V	PK
4	7386.9000	25.94	54.00	28.06	-3.85	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	7237.3000	29.92	74.00	44.08	-4.12	H	PK
2	7237.3000	24.51	54.00	29.49	-4.12	H	AV
3	7237.3000	29.48	74.00	44.52	-4.12	V	PK
4	7237.3000	25.56	54.00	28.44	-4.12	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	7312.1000	29.83	74.00	44.17	-3.98	H	PK
2	7312.1000	25.01	54.00	28.99	-3.98	H	AV
3	7312.1000	29.53	74.00	44.47	-3.98	V	PK
4	7312.1000	24.31	54.00	29.69	-3.98	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	7386.9000	29.19	74.00	44.81	-3.85	H	PK
2	7386.9000	24.00	54.00	30.00	-3.85	H	AV
3	7386.9000	30.45	74.00	43.55	-3.85	V	PK
4	7386.9000	25.94	54.00	28.06	-3.85	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	7237.3000	28.66	74.00	45.34	-4.12	H	PK
2	7237.3000	23.12	54.00	30.88	-4.12	H	AV
3	7237.3000	30.34	74.00	43.66	-4.12	V	PK
4	7237.3000	24.70	54.00	29.30	-4.12	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	7312.1000	29.70	74.00	44.30	-3.98	H	PK
2	7312.1000	23.67	54.00	30.33	-3.98	H	AV
3	7312.1000	28.89	74.00	45.11	-3.98	V	PK
4	7312.1000	24.03	54.00	29.97	-3.98	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	7386.9000	29.18	74.00	44.82	-3.85	H	PK
2	7386.9000	23.21	54.00	30.79	-3.85	H	AV
3	7386.9000	29.68	74.00	44.32	-3.85	V	PK
4	7386.9000	25.99	54.00	28.01	-3.85	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 (HT40)

Channel	TX Channel 3	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	7266.2000	29.00	74.00	45.00	-4.06	H	PK
2	7266.2000	26.60	54.00	27.40	-4.06	H	AV
3	7266.2000	29.24	74.00	44.76	-4.06	V	PK
4	7266.2000	25.11	54.00	28.89	-4.06	V	AV

REMARKS:

- Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
- The other emission levels were very low against the limit.
- 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	7312.1000	29.62	74.00	44.38	-3.98	H	PK
2	7312.1000	24.29	54.00	29.71	-3.98	H	AV
3	7312.1000	29.65	74.00	44.35	-3.98	V	PK
4	7312.1000	25.43	54.00	28.57	-3.98	V	AV

REMARKS:

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

Channel	TX Channel 9	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	7356.3000	29.04	74.00	44.96	-3.90	H	PK
2	7356.3000	23.58	54.00	30.42	-3.90	H	AV
3	7356.3000	30.67	74.00	43.33	-3.90	V	PK
4	7356.3000	23.89	54.00	30.11	-3.90	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 -----