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

APPLICABLE TO	LIMIT	
789033 D02 General U-NII Test Procedures New Rules v01r03	FIELD STRENGTH AT 3m (dBµV/m)	
	PK : 74	AV : 54
APPLICABLE TO	EIRP LIMIT (dBm/MHz)	EQUIVALENT FIELD STRENGTH AT 3m (dBµV/m)
15.407(b)(1)	PK : -27	PK : 68.3
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)	Note	Note

Note: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

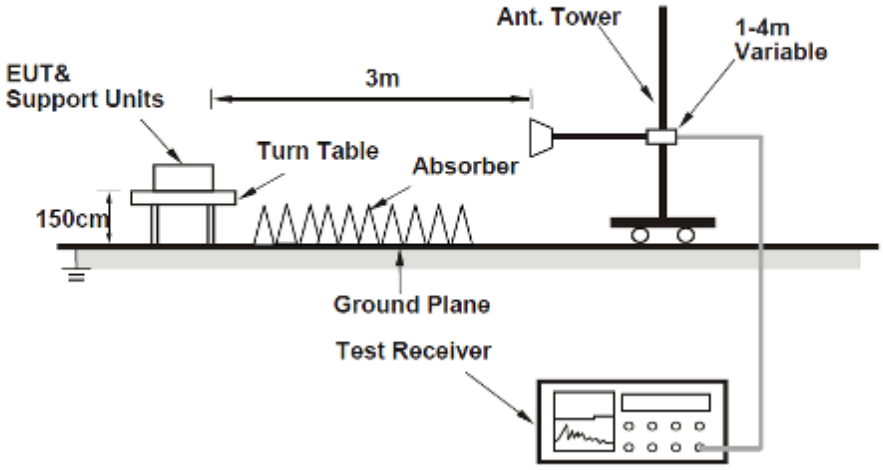
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

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 ≥ 98%, set VBW = 10 Hz.
11. If the EUT duty cycle is < 98%, set VBW ≥ 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

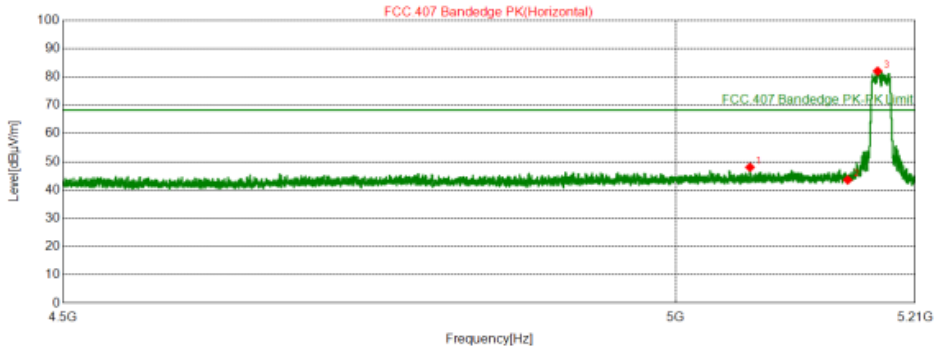


4.7.5 Test Results

Below is the worst test data

Wireless Module (LS9AD-AC11DBT-GV)

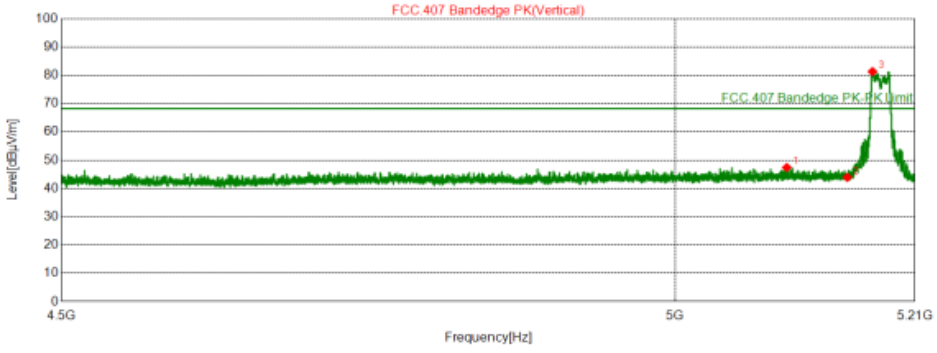
802.11a-5180MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5064.2015	48.79	48.03	68.20	20.17	300	30	Horizontal	PK
2	5150.0050	44.09	43.57	68.20	24.63	200	230	Horizontal	PK
3	5176.5590	82.47	81.99	68.20	-13.79	300	270	Horizontal	PK

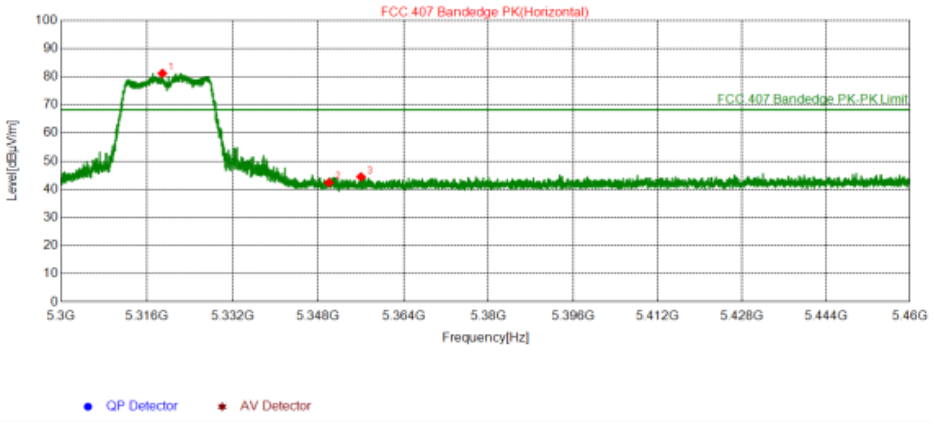
802.11a-5180MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5096.7550	48.06	47.40	68.20	20.80	300	30	Vertical	PK
2	5150.0050	44.44	43.92	68.20	24.28	200	20	Vertical	PK
3	5172.3345	81.80	81.31	68.20	-13.11	155	330	Vertical	PK

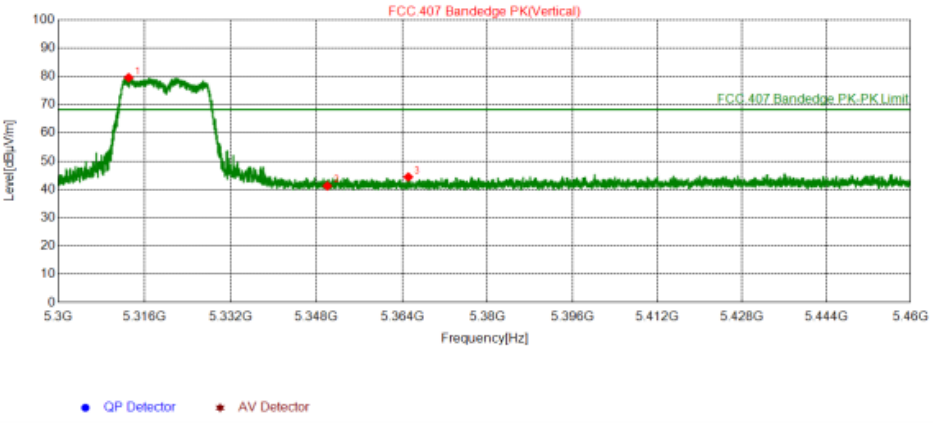
802.11a-5320MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5318.8640	81.74	81.16	68.20	-12.96	300	210	Horizontal	PK
2	5350.0000	42.88	42.37	68.20	25.83	300	150	Horizontal	PK
3	5356.0080	44.91	44.43	68.20	23.77	300	220	Horizontal	PK

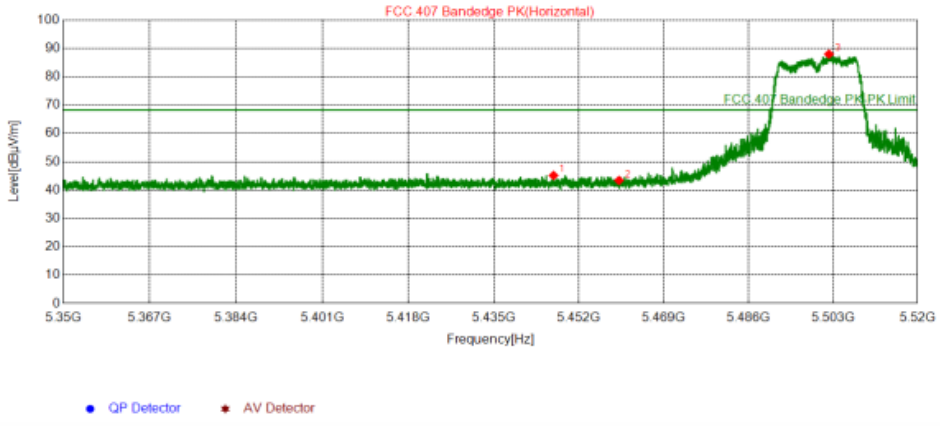
802.11a-5320MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5313.0320	80.09	79.52	68.20	-11.32	300	360	Vertical	PK
2	5350.0000	41.75	41.24	68.20	26.96	200	200	Vertical	PK
3	5365.1360	44.82	44.39	68.20	23.81	200	270	Vertical	PK

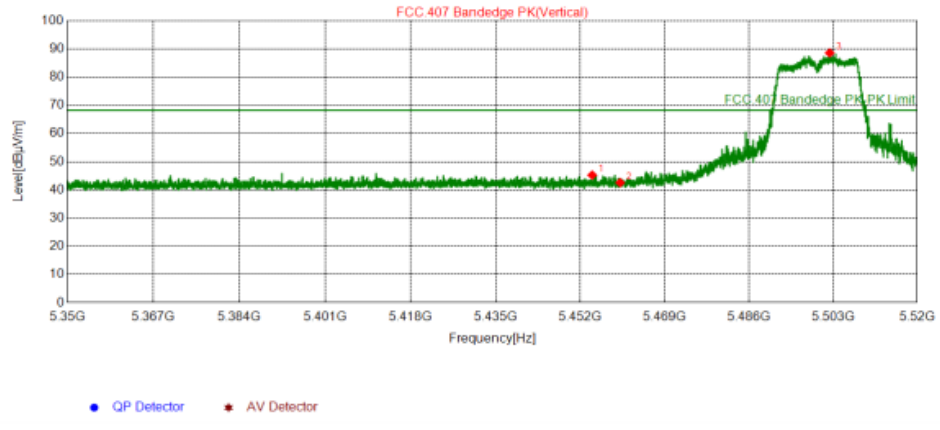
802.11a-5500MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5446.9425	45.33	45.15	68.20	23.05	200	140	Horizontal	PK
2	5460.0070	43.63	43.40	68.20	24.80	200	140	Horizontal	PK
3	5502.1415	88.32	87.94	68.20	-19.74	300	270	Horizontal	PK

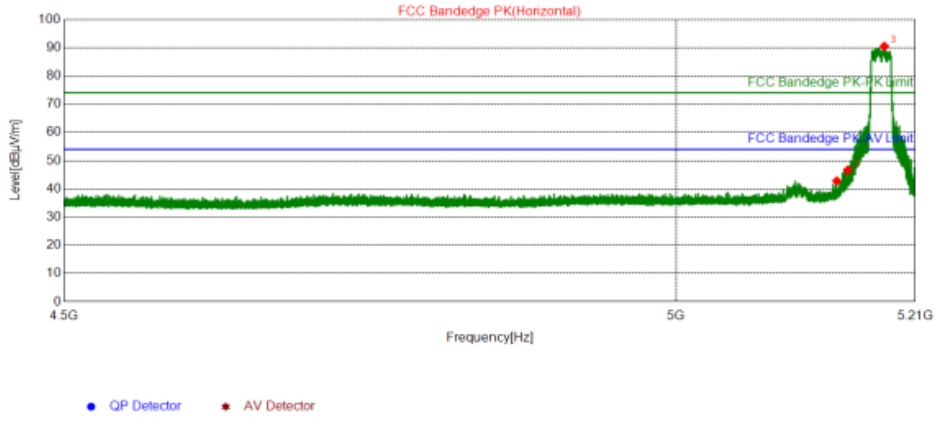
802.11a-5500MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5454.3885	45.45	45.24	68.20	22.96	155	90	Vertical	PK
2	5460.0070	42.78	42.55	68.20	25.65	300	50	Vertical	PK
3	5502.2775	88.93	88.55	68.20	-20.35	300	190	Vertical	PK

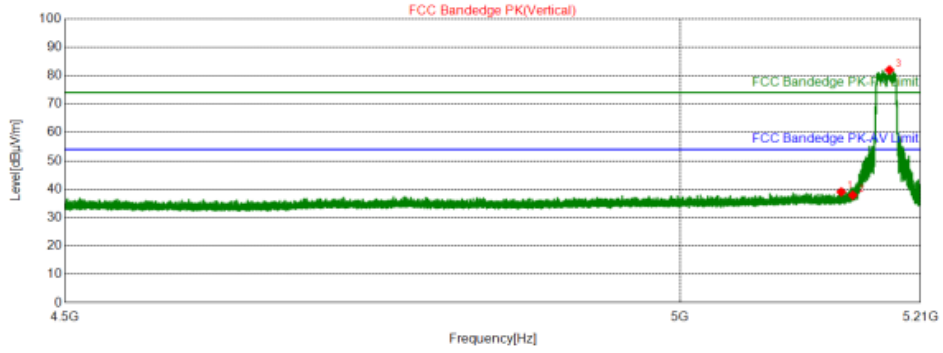
802.11n(20MHz)-5180MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5140.2070	43.21	42.79	74.00	31.21	300	285	Horizontal	PK
2	5150.0050	47.05	46.65	74.00	27.35	300	195	Horizontal	PK
3	5182.4875	90.80	90.48	74.00	-16.48	300	186	Horizontal	PK

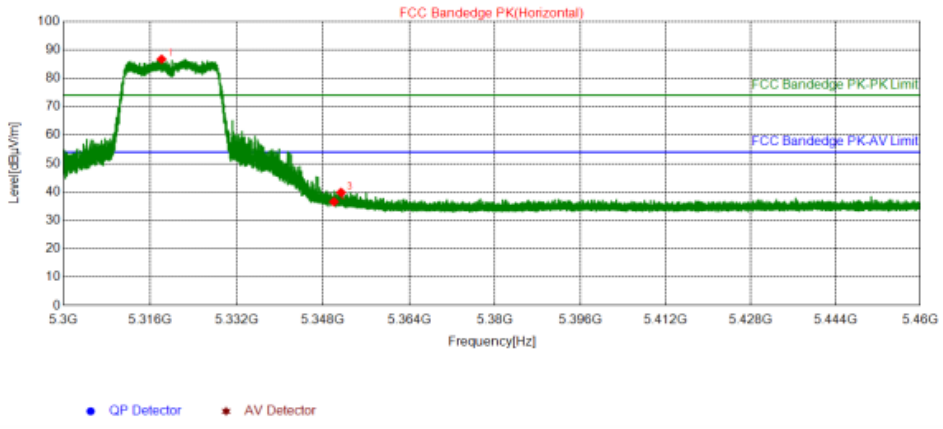
802.11n(20MHz)-5180MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5139.8520	39.45	39.02	74.00	34.98	300	324	Vertical	PK
2	5150.0050	38.28	37.88	74.00	36.12	300	264	Vertical	PK
3	5182.4875	82.28	81.96	74.00	-7.96	300	264	Vertical	PK

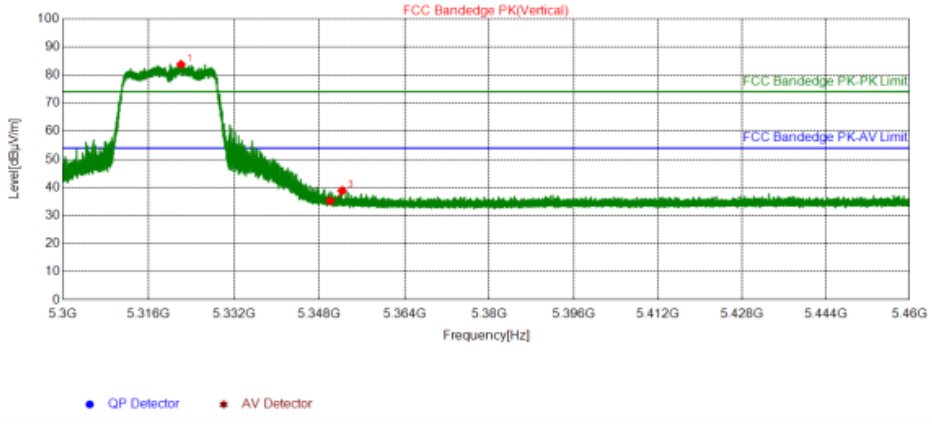
802.11n(20MHz)-5320MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5318.0880	87.00	86.68	74.00	-12.68	300	166	Horizontal	PK
2	5350.0000	36.75	36.52	74.00	37.48	300	244	Horizontal	PK
3	5351.3280	40.02	39.80	74.00	34.20	300	175	Horizontal	PK

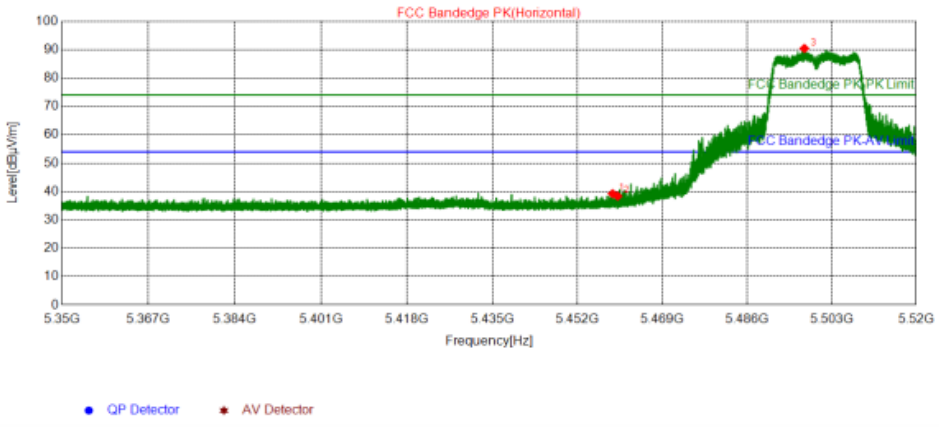
802.11n(20MHz)-5320MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5322.0480	84.07	83.74	74.00	-9.74	300	344	Vertical	PK
2	5350.0000	35.42	35.19	74.00	38.81	300	135	Vertical	PK
3	5352.2720	39.06	38.85	74.00	35.15	300	284	Vertical	PK

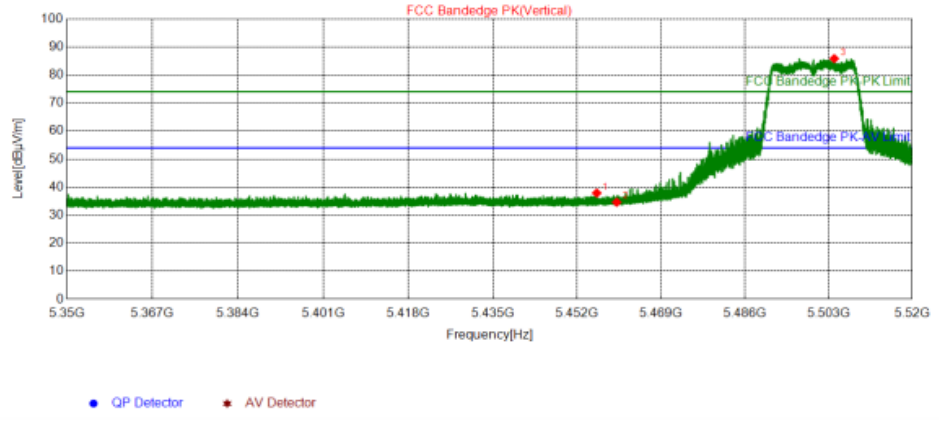
802.11n(20MHz)-5500MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5459.0125	39.07	39.21	74.00	34.79	300	209	Horizontal	PK
2	5460.0070	38.24	38.38	74.00	35.62	300	198	Horizontal	PK
3	5497.4665	90.39	90.42	74.00	-16.42	300	269	Horizontal	PK

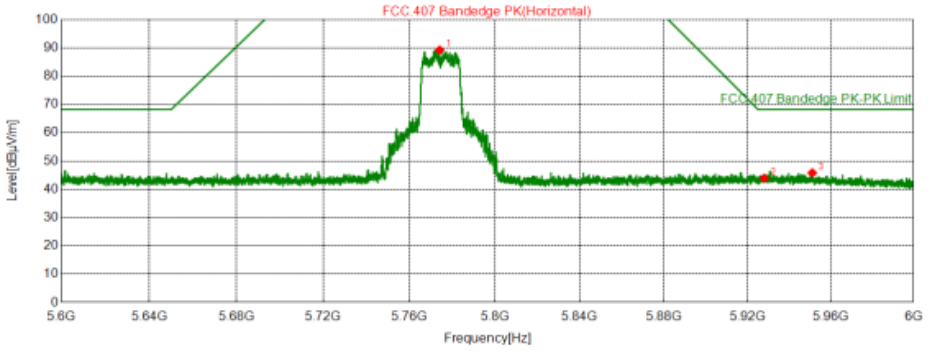
802.11n(20MHz)-5500MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5455.9695	37.73	37.88	74.00	36.12	300	4	Vertical	PK
2	5460.0070	34.46	34.60	74.00	39.40	300	104	Vertical	PK
3	5504.1220	85.82	85.83	74.00	-11.83	300	124	Vertical	PK

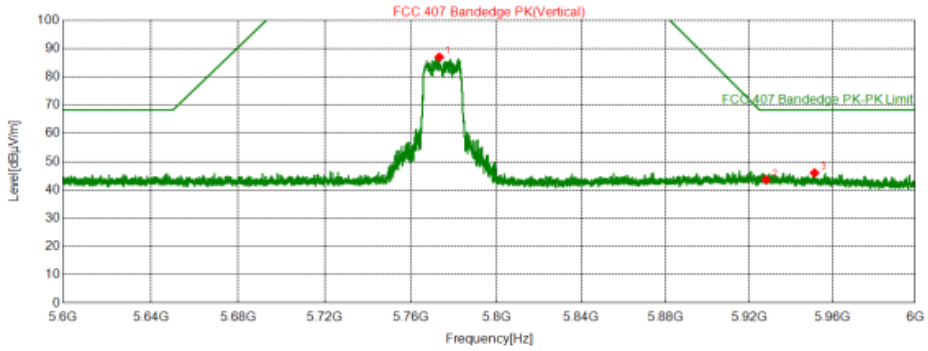
802.11n(20MHz)-5825MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5774.1800	89.61	89.19	122.20	33.01	300	268	Horizontal	PK
2	5928.0000	44.09	43.90	68.20	24.30	200	202	Horizontal	PK
3	5951.0600	46.33	45.81	68.20	22.39	200	303	Horizontal	PK

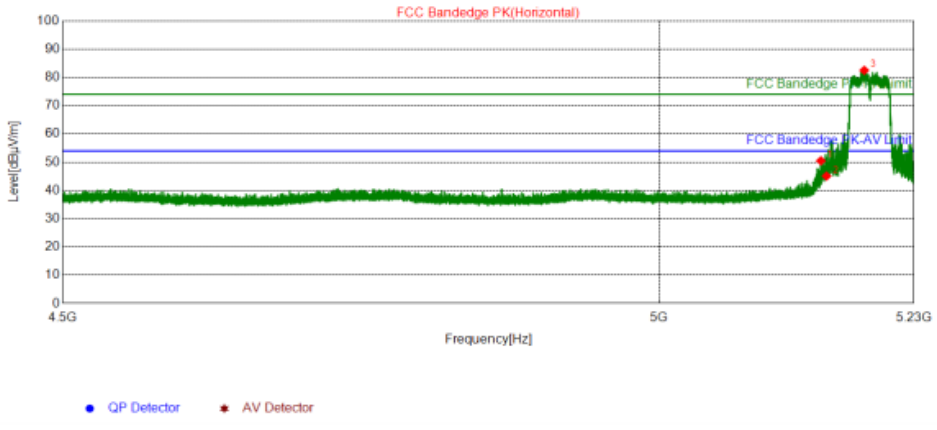
802.11n(20MHz)-5825MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5773.2600	87.35	86.94	122.20	35.26	300	105	Vertical	PK
2	5928.0000	43.76	43.57	68.20	24.63	300	346	Vertical	PK
3	5951.3400	46.54	46.02	68.20	22.18	300	13	Vertical	PK

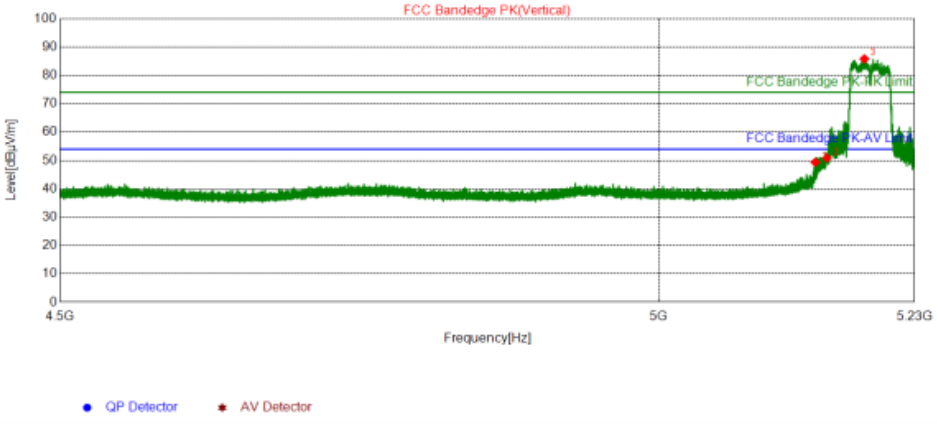
802.11n (40MHz)-5190MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5144.8820	50.90	50.49	74.00	23.51	350	164	Horizontal	PK
2	5150.0285	45.48	45.08	74.00	28.92	350	164	Horizontal	PK
3	5184.4480	82.81	82.49	74.00	-8.49	350	164	Horizontal	PK

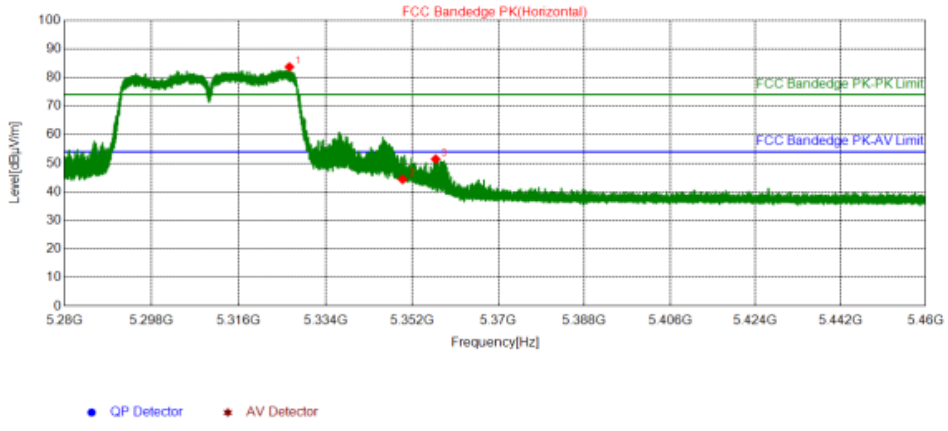
802.11n (40MHz)-5190MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5139.5530	49.78	49.35	74.00	24.65	300	264	Vertical	PK
2	5150.0285	51.22	50.82	74.00	23.18	155	333	Vertical	PK
3	5184.1195	86.12	85.80	74.00	-11.80	300	254	Vertical	PK

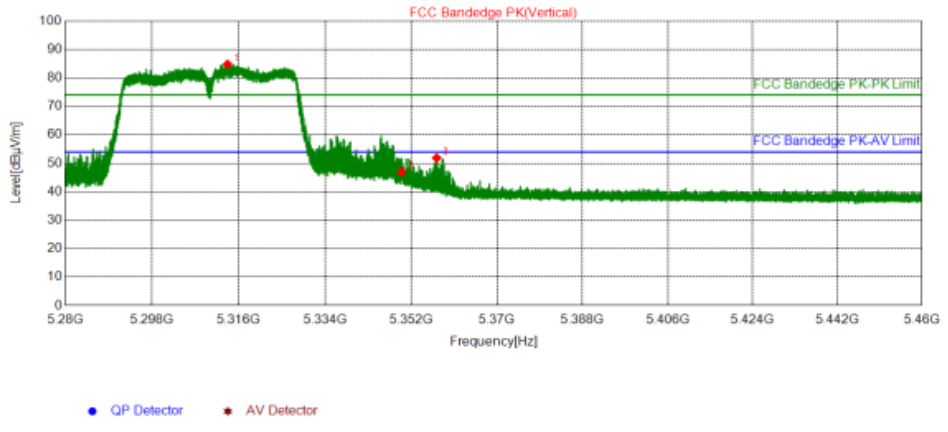
802.11n (40MHz)-5310MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5326.4760	84.00	83.67	74.00	-9.67	350	154	Horizontal	PK
2	5350.0020	44.59	44.36	74.00	29.64	350	154	Horizontal	PK
3	5356.8870	51.64	51.45	74.00	22.55	350	154	Horizontal	PK

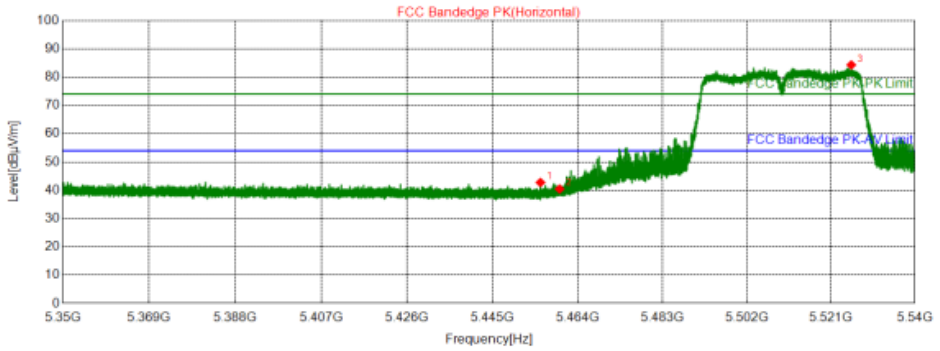
802.11n (40MHz)-5310MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5313.6510	85.13	84.81	74.00	-10.81	350	254	Vertical	PK
2	5350.0020	47.18	46.95	74.00	27.05	350	334	Vertical	PK
3	5357.3280	52.06	51.87	74.00	22.13	350	254	Vertical	PK

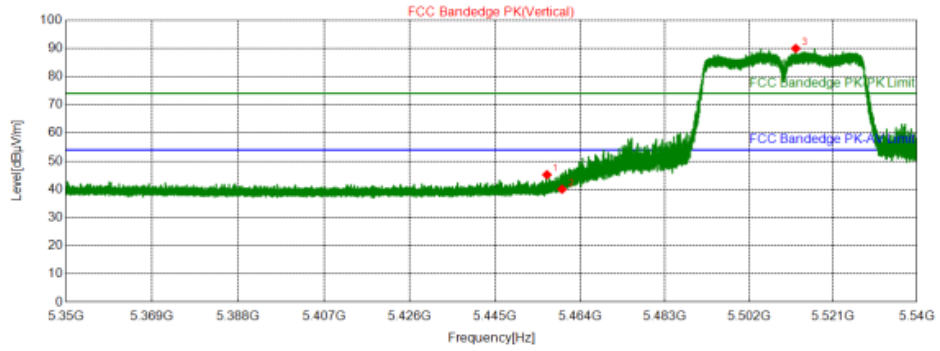
802.11n (40MHz)-5510MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5455.7160	42.60	42.75	74.00	31.25	350	274	Horizontal	PK
2	5460.0005	40.32	40.46	74.00	33.54	200	244	Horizontal	PK
3	5525.6075	84.37	84.32	74.00	-10.32	350	254	Horizontal	PK

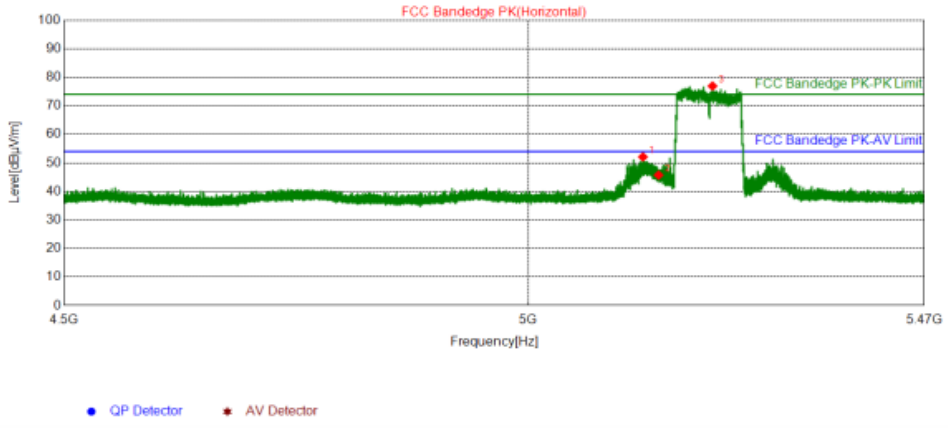
802.11n (40MHz)-5510MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5456.6185	45.03	45.18	74.00	28.82	350	215	Vertical	PK
2	5460.0005	39.91	40.05	74.00	33.95	350	206	Vertical	PK
3	5512.5735	89.95	89.94	74.00	-15.94	350	245	Vertical	PK

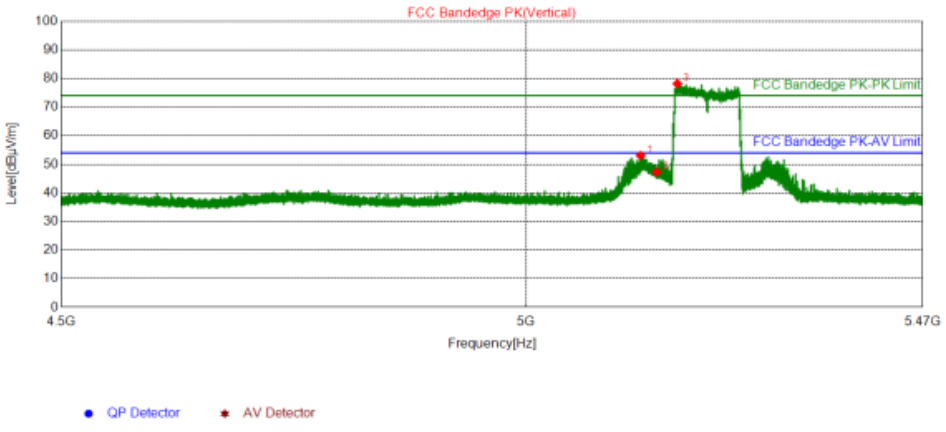
802.11ac(80MHz)-5210MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5131.8095	52.53	52.09	74.00	21.91	350	157	Horizontal	PK
2	5150.0455	46.12	45.72	74.00	28.28	350	157	Horizontal	PK
3	5213.4835	77.17	76.92	74.00	-2.92	350	157	Horizontal	PK

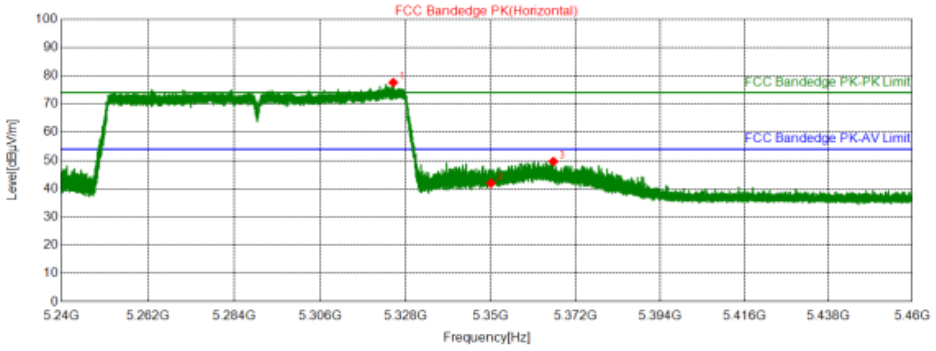
802.11ac(80MHz)-5210MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5131.4215	53.49	53.04	74.00	20.96	350	302	Vertical	PK
2	5150.0455	47.65	47.25	74.00	26.75	350	312	Vertical	PK
3	5174.3440	78.50	78.16	74.00	-4.16	350	332	Vertical	PK

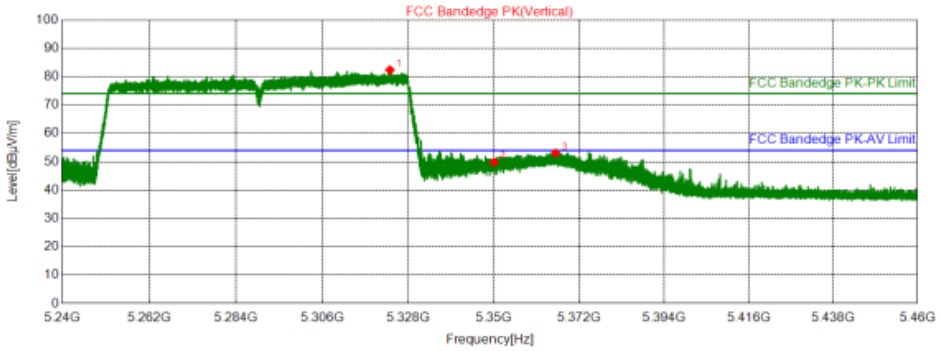
802.11ac(80MHz)-5290MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5324.7770	77.92	77.59	74.00	-3.59	350	156	Horizontal	PK
2	5350.0000	42.15	41.92	74.00	32.08	350	185	Horizontal	PK
3	5366.1480	49.79	49.65	74.00	24.35	350	156	Horizontal	PK

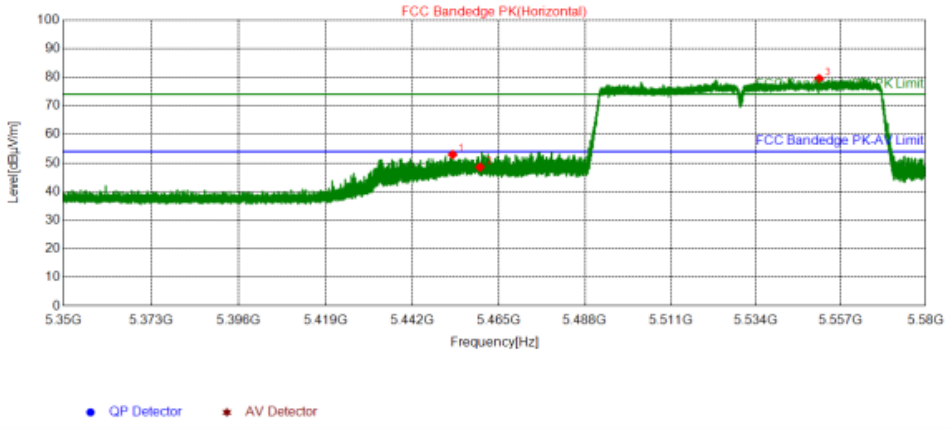
802.11ac(80MHz)-5290MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5323.2810	82.72	82.39	74.00	-8.39	350	264	Vertical	PK
2	5350.0000	50.07	49.84	74.00	24.16	350	264	Vertical	PK
3	5365.8730	53.16	53.02	74.00	20.98	350	264	Vertical	PK

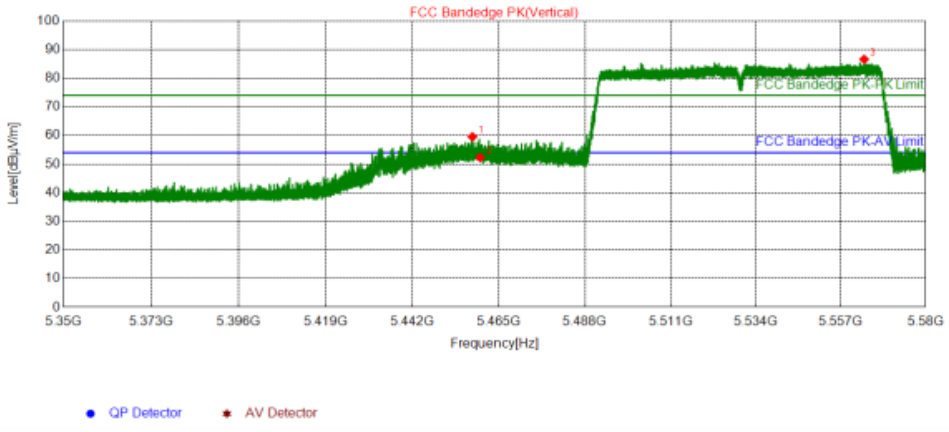
802.11ac(80MHz)-5530MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5452.6835	52.76	52.92	74.00	21.08	200	245	Horizontal	PK
2	5460.0090	48.40	48.54	74.00	25.46	350	175	Horizontal	PK
3	5551.1005	79.54	79.45	74.00	-5.45	350	145	Horizontal	PK

802.11ac(80MHz)-5530MHz/ Vertical



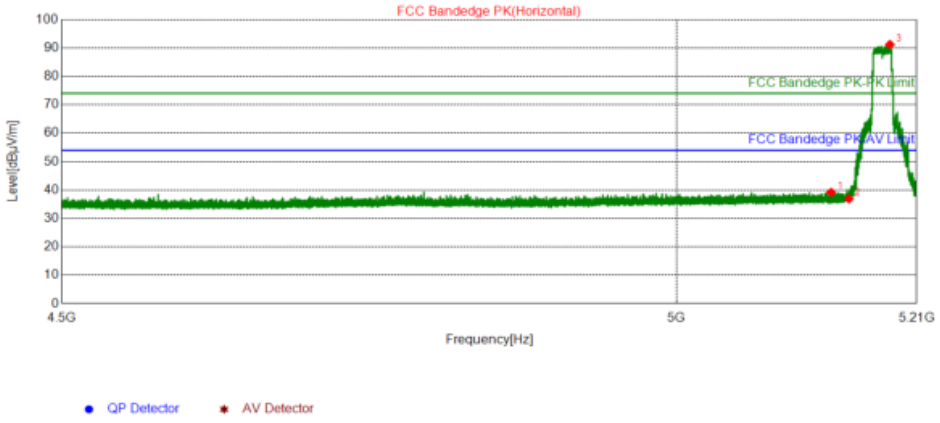
Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5457.9505	59.38	59.52	74.00	14.48	350	245	Vertical	PK
2	5460.0090	52.15	52.29	74.00	21.71	350	255	Vertical	PK
3	5563.3135	86.71	86.61	74.00	-12.61	350	245	Vertical	PK

Wireless Module (444-2250)

Below is the worst test data

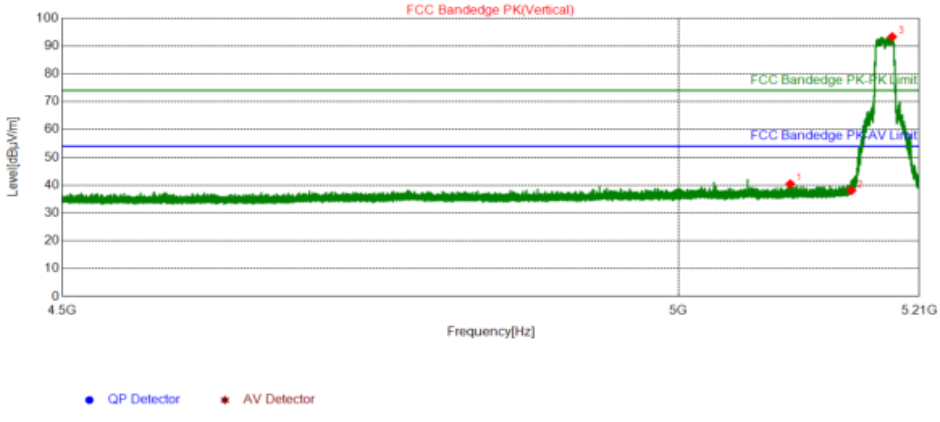
802.11a-5180MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5134.2785	39.59	39.15	74.00	34.85	300	348	Horizontal	PK
2	5150.0050	37.31	36.91	74.00	37.09	300	264	Horizontal	PK
3	5186.2860	91.54	91.23	74.00	-17.23	300	189	Horizontal	PK

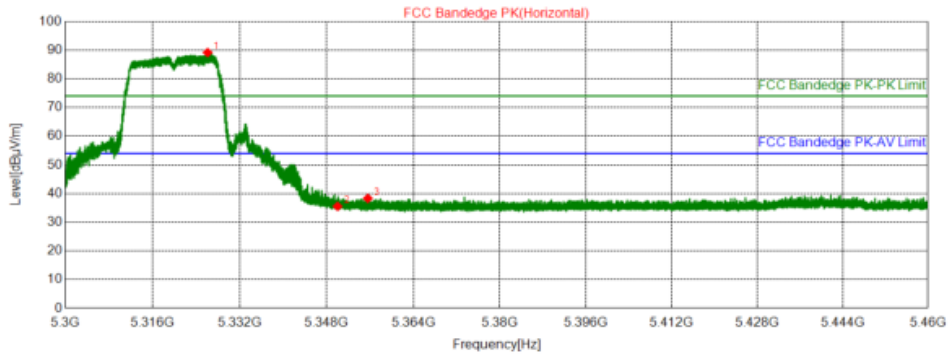
802.11a-5180MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5096.4710	41.03	40.45	74.00	33.55	300	4	Vertical	PK
2	5150.0050	38.50	38.10	74.00	35.90	300	230	Vertical	PK
3	5186.0730	93.63	93.32	74.00	-19.32	300	288	Vertical	PK

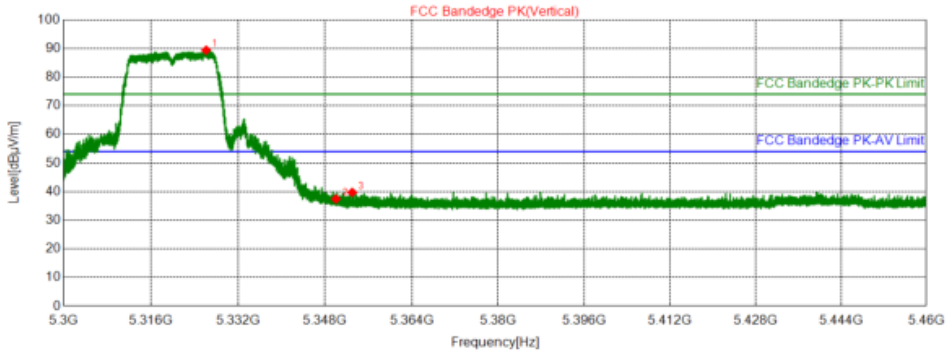
802.11a-5320MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5326.0800	89.50	89.17	74.00	-15.17	300	198	Horizontal	PK
2	5350.0000	35.77	35.54	74.00	38.46	300	357	Horizontal	PK
3	5355.5840	38.52	38.32	74.00	35.68	300	273	Horizontal	PK

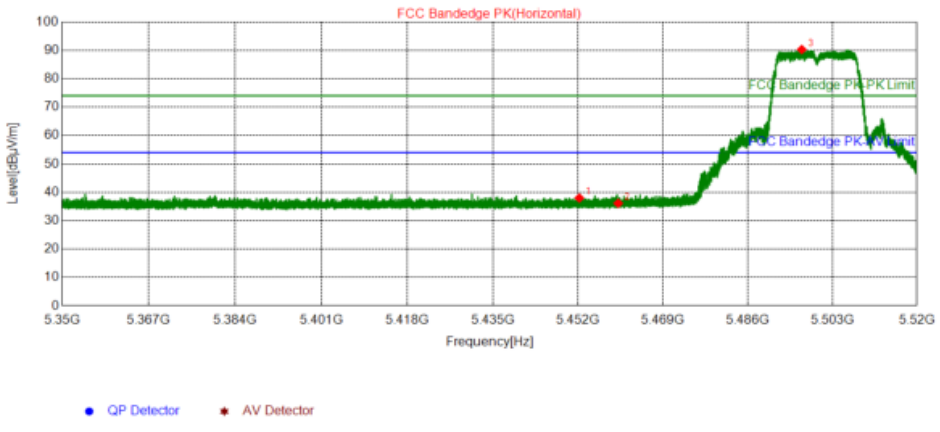
802.11a-5320MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5326.1040	89.73	89.40	74.00	-15.40	300	121	Vertical	PK
2	5350.0000	37.66	37.43	74.00	36.57	300	312	Vertical	PK
3	5353.0000	39.93	39.72	74.00	34.28	300	29	Vertical	PK

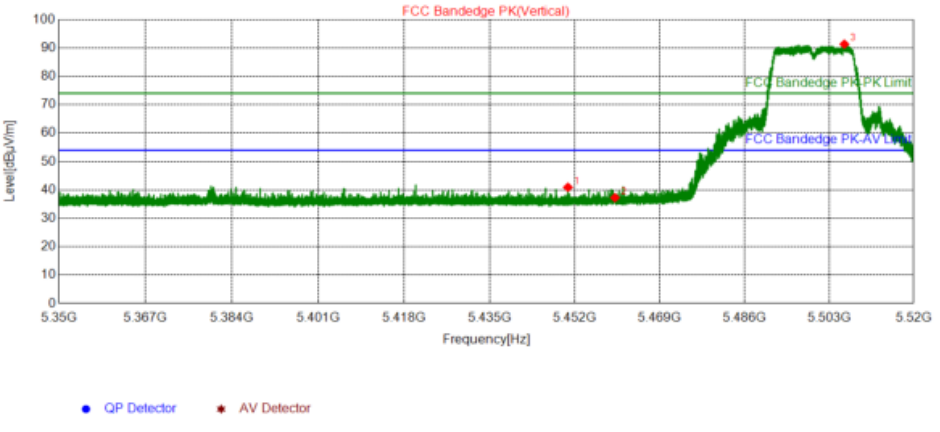
802.11a-5500MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5452.2465	37.83	37.99	74.00	36.01	300	190	Horizontal	PK
2	5460.0070	35.99	36.13	74.00	37.87	300	304	Horizontal	PK
3	5496.8120	90.27	90.30	74.00	-16.30	300	206	Horizontal	PK

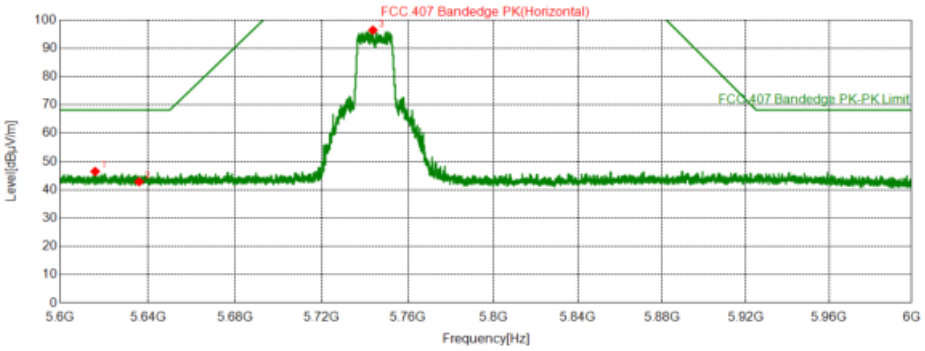
802.11a-5500MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5450.6230	40.76	40.92	74.00	33.08	300	348	Vertical	PK
2	5460.0070	37.15	37.29	74.00	36.71	300	314	Vertical	PK
3	5506.0430	91.32	91.33	74.00	-17.33	155	39	Vertical	PK

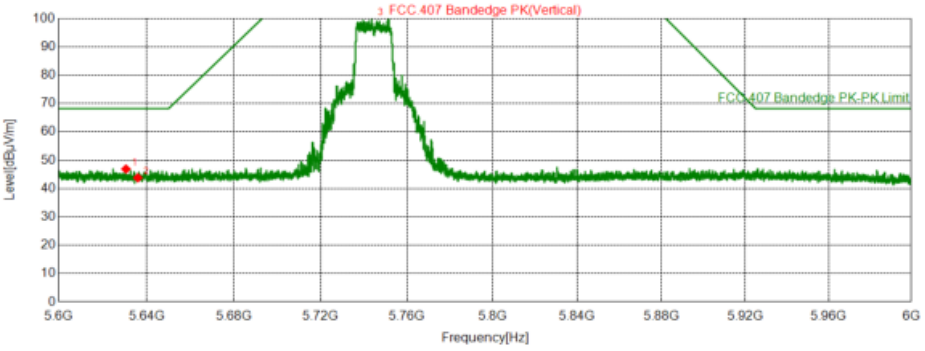
802.11a-5745MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5615.9400	47.15	46.49	68.20	21.71	200	36	Horizontal	PK
2	5636.0000	43.49	42.83	68.20	25.37	155	163	Horizontal	PK
3	5743.7800	96.62	96.40	122.20	25.80	300	73	Horizontal	PK

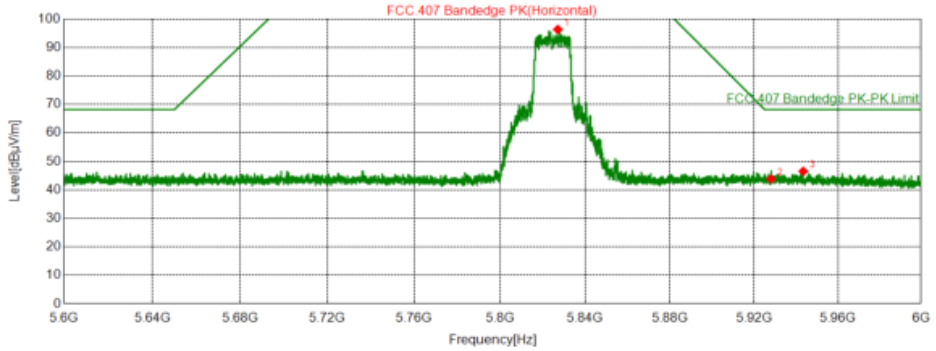
802.11a-5745MHz / Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5630.5800	47.58	46.89	68.20	21.31	300	216	Vertical	PK
2	5636.0000	44.45	43.79	68.20	24.41	155	22	Vertical	PK
3	5743.8600	100.23	100.01	122.20	22.19	155	324	Vertical	PK

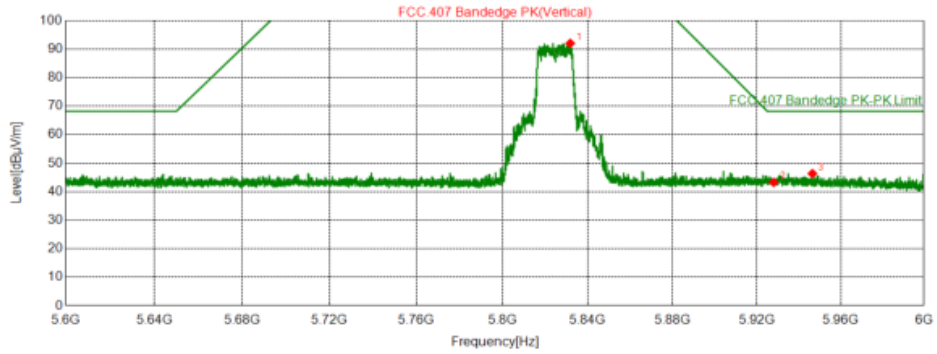
802.11a-5825MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5827.1200	97.11	96.34	122.20	25.86	300	240	Horizontal	PK
2	5928.0000	44.00	43.81	68.20	24.39	300	325	Horizontal	PK
3	5943.4400	46.93	46.54	68.20	21.66	300	358	Horizontal	PK

802.11a-5825MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	5831.8200	92.81	92.03	122.20	30.17	300	312	Vertical	PK
2	5928.0000	43.44	43.25	68.20	24.95	300	221	Vertical	PK
3	5946.4800	46.78	46.34	68.20	21.86	300	21	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.

APPLICABLE TO	LIMIT	
789033 D02 General U-NII Test Procedures New Rules v01r03	FIELD STRENGTH AT 3m (dBµV/m)	
	PK : 74	AV : 54
APPLICABLE TO	EIRP LIMIT (dBm/MHz)	EQUIVALENT FIELD STRENGTH AT 3m (dBµV/m)
15.407(b)(1)	PK : -27	PK : 68.3
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)	Note	Note

Note: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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:

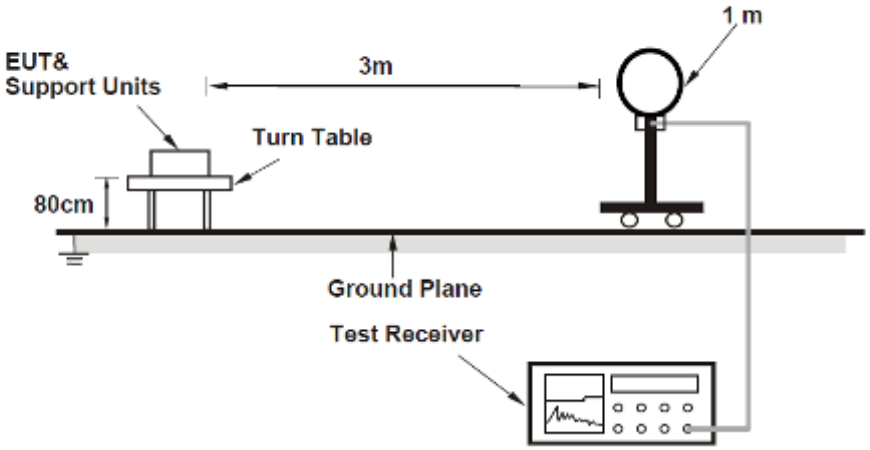
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz & 360 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency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

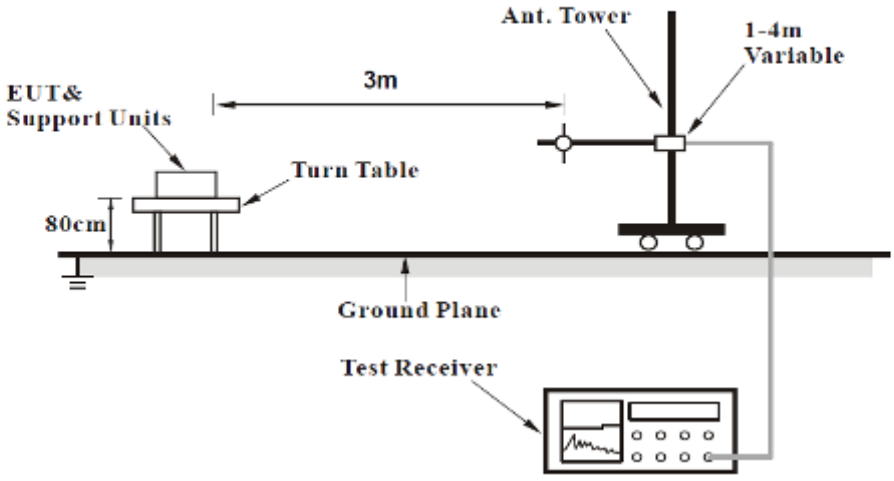
No deviation.

4.8.4 Test Setup

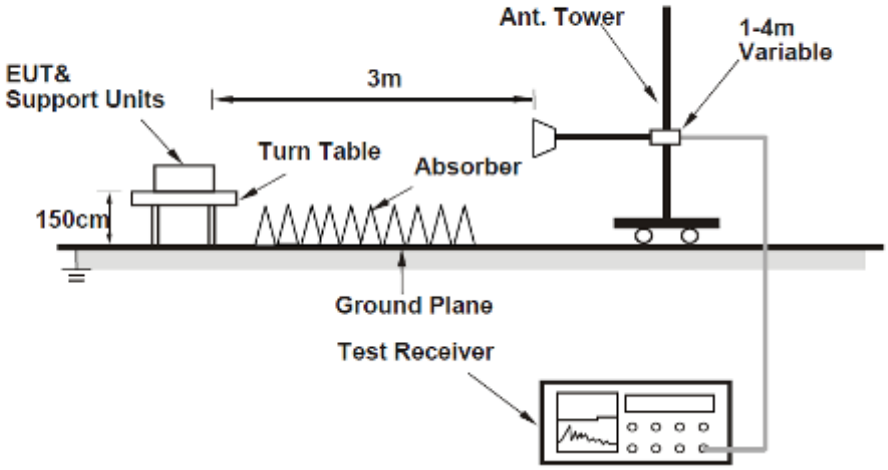
For Radiated emission below 30MHz



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

a. Placed the EUT on a testing table.

b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

4.8.6 Test Results

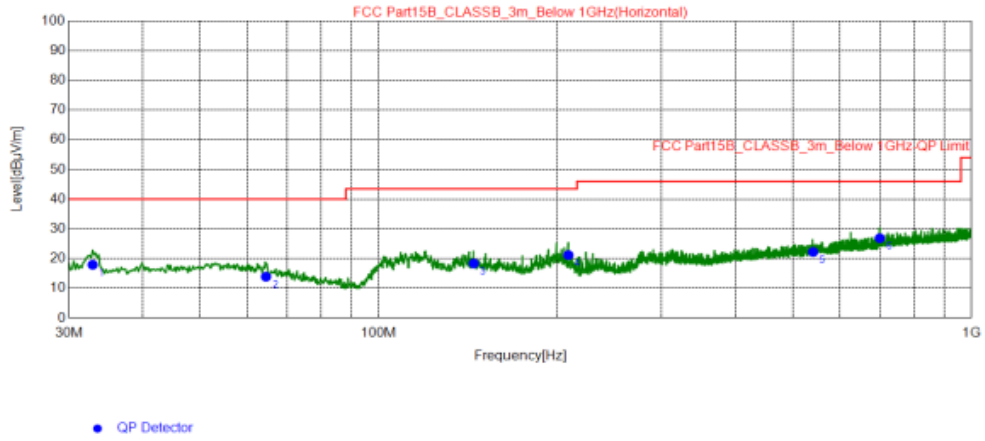
Radiated Emissions Range 9kHz~30MHz

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

Below is the worst test data

Mode	802.11a-5180MHz	**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 [dBµV/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	32.91	29.26	-11.31	17.95	40.00	22.05	200	90	Horizontal
2	64.53	25	-11.08	13.92	40.00	26.08	200	331	Horizontal
3	144.6	28.56	-10.19	18.37	43.50	25.13	200	282	Horizontal
4	208.8	33.17	-11.96	21.21	43.50	22.29	100	246	Horizontal
5	540.6	26.12	-3.85	22.27	46.00	23.73	200	112	Horizontal
6	700.4	28.41	-1.53	26.88	46.00	19.12	100	139	Horizontal

REMARKS:

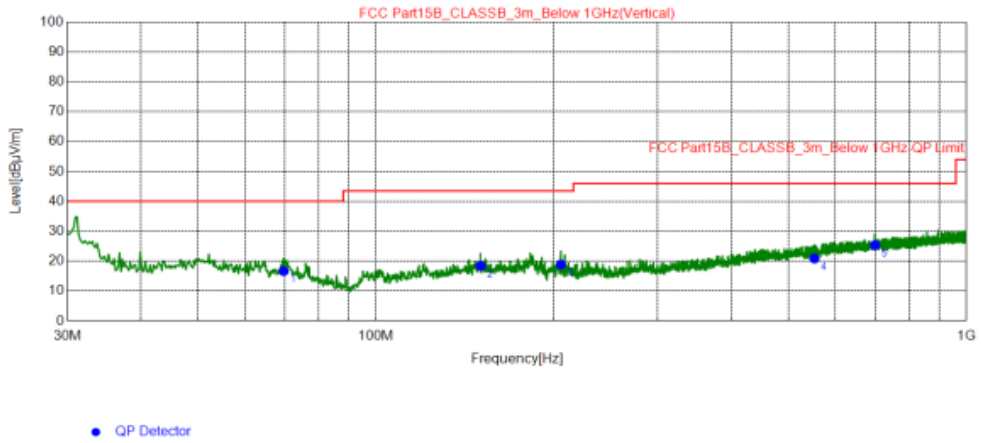
1. Emission Level(dBuV/m) = Spectrum reading (dBuV) + Correction Factor(dB/m)

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	802.11a-5180MHz	**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 [dBµV/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	69.77	28.72	-12.01	16.71	40.00	23.29	200	29	Vertical
2	150.4	28.46	-10.03	18.43	43.50	25.07	100	345	Vertical
3	205.7	30.88	-12.02	18.86	43.50	24.64	100	250	Vertical
4	553.0	24.51	-3.61	20.90	46.00	25.10	100	148	Vertical
5	700.4	26.88	-1.53	25.35	46.00	20.65	100	179	Vertical

REMARKS:

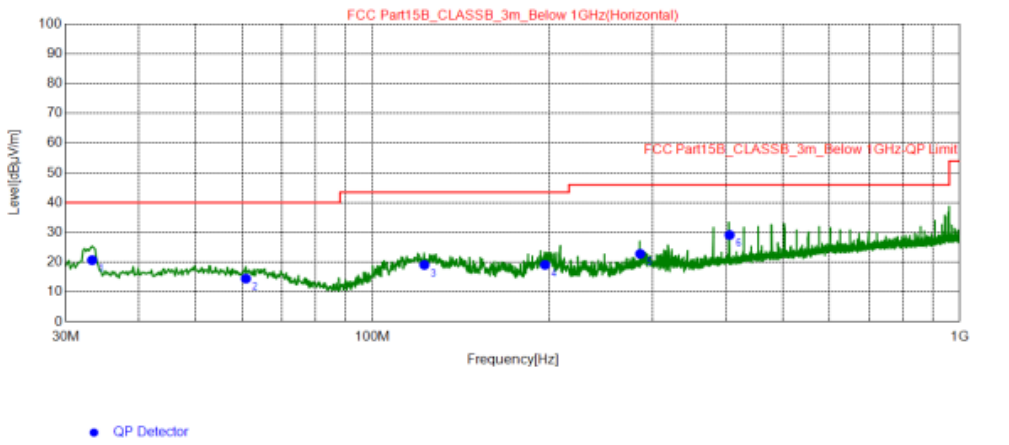
1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)

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

Channel	802.11a-5180MHz	**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 [dBμV/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	33.29	31.97	-11.26	20.71	40.00	19.29	200	155	Horizontal
2	60.84	24.94	-10.42	14.52	40.00	25.48	100	297	Horizontal
3	122.5	31.34	-12.22	19.12	43.50	24.38	100	355	Horizontal
4	196.6	31.05	-11.92	19.13	43.50	24.37	200	291	Horizontal
5	285.6	31.84	-9.03	22.81	46.00	23.19	100	176	Horizontal
6	405.5	35.33	-6.17	29.16	46.00	16.84	100	105	Horizontal

REMARKS:

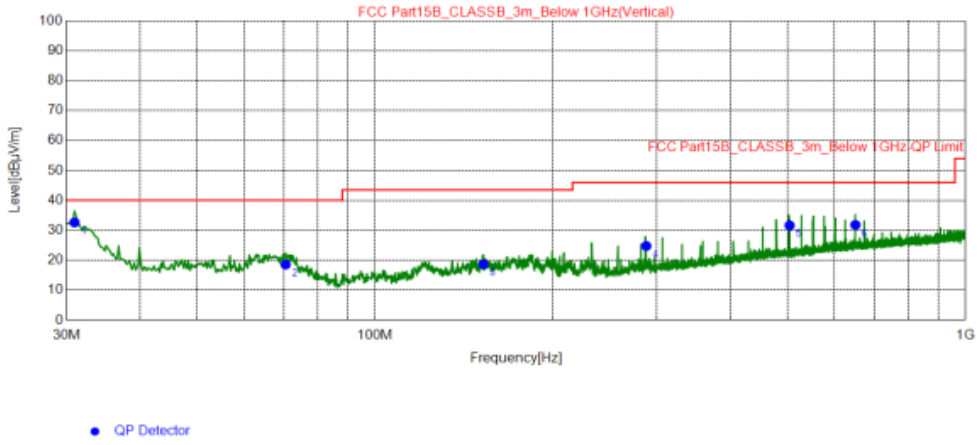
1. Emission Level(dBuV/m) = Spectrum reading (dBuV) + Correction Factor(dB/m)

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

Channel	802.11a-5180MHz	**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 [dBµV/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	30.97	44.2	-11.55	32.65	40.00	7.35	100	340	Vertical
2	70.54	30.75	-12.17	18.58	40.00	21.42	100	322	Vertical
3	152.6	28.64	-9.97	18.67	43.50	24.83	100	345	Vertical
4	288.0	33.76	-8.97	24.79	46.00	21.21	200	279	Vertical
5	503.7	36.13	-4.48	31.65	46.00	14.35	100	136	Vertical
6	651.1	33.91	-2.07	31.84	46.00	14.16	100	327	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

Wireless Module (LS9AD-AC11DBT-GV)

Radiated Emission Range 1GHz~10th Harmonic
Below is the worst test data
802.11a

Channel	TX Channel 36	**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	15540.1000	35.07	74.00	39.04	1.94	H	PK
2	15540.1000	29.71	54.00	24.40	1.94	H	AV
3	15540.1000	32.02	74.00	40.04	1.94	V	PK
4	15540.1000	27.13	54.00	24.93	1.94	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 40	**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	15601.3000	32.59	74.00	39.63	1.78	H	PK
2	15601.3000	27.71	54.00	24.51	1.78	H	AV
3	15601.3000	33.44	74.00	38.78	1.78	V	PK
4	15601.3000	28.29	54.00	23.93	1.78	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 48	**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	15720.3000	32.63	74.00	39.95	1.42	H	PK
2	15720.3000	27.14	54.00	25.44	1.42	H	AV
3	15720.3000	32.22	74.00	40.36	1.42	V	PK
4	15720.3000	28.70	54.00	23.88	1.42	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 52	**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	15781.5000	32.82	74.00	39.95	1.23	H	PK
2	15781.5000	28.30	54.00	24.47	1.23	H	AV
3	15781.5000	32.21	74.00	40.56	1.23	V	PK
4	15781.5000	26.60	54.00	26.17	1.23	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 60	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	15841	31.98	74.00	40.94	1.08	H	PK
2	15841	27.78	54.00	25.14	1.08	H	AV
3	15841	32.29	74.00	40.63	1.08	V	PK
4	15841	27.94	54.00	24.98	1.08	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 64	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	15960.0000	32.27	74.00	40.92	0.81	H	PK
2	15960.0000	25.11	54.00	28.08	0.81	H	AV
3	15960.0000	32.23	74.00	40.96	0.81	V	PK
4	15960.0000	25.79	54.00	27.40	0.81	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 100	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	16500.6000	30.48	74.00	40.65	2.87	H	PK
2	16500.6000	27.43	54.00	23.70	2.87	H	AV
3	16500.6000	31.33	74.00	39.80	2.87	V	PK
4	16500.6000	24.55	54.00	26.58	2.87	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 116	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	16740.3000	29.71	74.00	40.09	3.91	H	PK
2	16740.3000	25.08	54.00	24.72	3.91	H	AV
3	16740.3000	30.06	74.00	39.74	3.91	V	PK
4	16740.3000	25.50	54.00	24.30	3.91	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 140	**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	17100.7000	31.17	74.00	36.87	5.96	H	PK
2	17100.7000	25.96	54.00	22.08	5.96	H	AV
3	17100.7000	31.68	74.00	36.36	5.96	V	PK
4	17100.7000	25.23	54.00	22.81	5.96	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 (20MHz)

Channel	TX Channel 36	**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	15540.1000	32.90	74.00	39.16	1.94	H	PK
2	15540.1000	26.64	54.00	25.42	1.94	H	AV
3	15540.1000	32.15	74.00	39.91	1.94	V	PK
4	15540.1000	26.39	54.00	25.67	1.94	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 40	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	15601.3000	32.63	74.00	39.59	1.78	H	PK
2	15601.3000	26.84	54.00	25.38	1.78	H	AV
3	15601.3000	31.51	74.00	40.71	1.78	V	PK
4	15601.3000	27.52	54.00	24.70	1.78	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 48	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	15720.3000	33.39	74.00	39.19	1.42	H	PK
2	15720.3000	26.02	54.00	26.56	1.42	H	AV
3	15720.3000	33.11	74.00	39.47	1.42	V	PK
4	15720.3000	27.28	54.00	25.30	1.42	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 52	**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	15781.5000	32.58	74.00	40.19	1.23	H	PK
2	15781.5000	27.57	54.00	25.20	1.23	H	AV
3	15781.5000	33.29	74.00	39.48	1.23	V	PK
4	15781.5000	26.97	54.00	25.80	1.23	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 60	**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	15900.5000	33.29	74.00	39.48	0.95	H	PK
2	15900.5000	26.97	54.00	25.80	0.95	H	AV
3	15900.5000	31.91	74.00	41.01	0.95	V	PK
4	15900.5000	26.80	54.00	26.12	0.95	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 64	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	15960.0000	31.28	74.00	41.91	0.81	H	PK
2	15960.0000	26.39	54.00	26.80	0.81	H	AV
3	15960.0000	31.64	74.00	41.55	0.81	V	PK
4	15960.0000	27.80	54.00	25.39	0.81	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 100	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	16500.6000	29.98	74.00	41.15	2.87	H	PK
2	16500.6000	25.70	54.00	25.43	2.87	H	AV
3	16500.6000	30.82	74.00	40.31	2.87	V	PK
4	16500.6000	24.54	54.00	26.59	2.87	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 116	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	16740.3000	30.13	74.00	39.67	3.91	H	PK
2	16740.3000	24.63	54.00	25.17	3.91	H	AV
3	16740.3000	30.09	74.00	39.71	3.91	V	PK
4	16740.3000	25.05	54.00	24.75	3.91	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 140	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	17100.7000	30.60	74.00	37.44	5.96	H	PK
2	17100.7000	26.51	54.00	21.53	5.96	H	AV
3	17100.7000	31.73	74.00	36.31	5.96	V	PK
4	17100.7000	26.17	54.00	21.87	5.96	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 (40MHz)

Channel	TX Channel 38	**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	15570.7000	33.43	74.00	38.71	1.86	H	PK
2	15570.7000	29.66	54.00	22.48	1.86	H	AV
3	15570.7000	32.23	74.00	39.91	1.86	V	PK
4	15570.7000	27.33	54.00	24.81	1.86	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 46	**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	15691.4000	32.25	74.00	40.24	1.51	H	PK
2	15691.4000	27.26	54.00	25.23	1.51	H	AV
3	15691.4000	31.87	74.00	40.62	1.51	V	PK
4	15691.4000	27.81	54.00	24.68	1.51	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 54	**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	15810.4000	32.42	74.00	40.43	1.15	H	PK
2	15810.4000	27.49	54.00	25.36	1.15	H	AV
3	15810.4000	34.16	74.00	38.69	1.15	V	PK
4	15810.4000	28.09	54.00	24.76	1.15	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 62	**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	15931.1000	32.88	74.00	40.24	0.88	H	PK
2	15931.1000	28.18	54.00	24.94	0.88	H	AV
3	15931.1000	33.03	74.00	40.09	0.88	V	PK
4	15931.1000	25.79	54.00	27.33	0.88	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 102	**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	16531.2000	31.13	74.00	39.89	2.98	H	PK
2	16531.2000	26.34	54.00	24.68	2.98	H	AV
3	16531.2000	31.87	74.00	39.15	2.98	V	PK
4	16531.2000	26.50	54.00	24.52	2.98	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 118	**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	16770.9000	30.23	74.00	39.72	4.05	H	PK
2	16770.9000	25.26	54.00	24.69	4.05	H	AV
3	16770.9000	30.02	74.00	39.93	4.05	V	PK
4	16770.9000	25.85	54.00	24.10	4.05	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 134	**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	17010.6000	30.58	74.00	38.30	5.12	H	PK
2	17010.6000	26.20	54.00	22.68	5.12	H	AV
3	17010.6000	31.38	74.00	37.50	5.12	V	PK
4	17010.6000	25.28	54.00	23.60	5.12	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

802.11ac (80MHz)

Channel	TX Channel 42	**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	15630.2000	32.44	74.00	39.87	1.69	H	PK
2	15630.2000	28.18	54.00	24.13	1.69	H	AV
3	15630.2000	33.21	74.00	39.10	1.69	V	PK
4	15630.2000	27.76	54.00	24.55	1.69	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 58	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	15871.6000	32.66	74.00	40.33	1.01	H	PK
2	15871.6000	26.05	54.00	26.94	1.01	H	AV
3	15871.6000	31.48	74.00	41.51	1.01	V	PK
4	15871.6000	26.41	54.00	26.58	1.01	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 106	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	16590.7000	31.55	74.00	39.24	3.21	H	PK
2	16590.7000	24.59	54.00	26.20	3.21	H	AV
3	16590.7000	30.88	74.00	39.91	3.21	V	PK
4	16590.7000	25.87	54.00	24.92	3.21	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 122	**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	16830.4000	30.05	74.00	38.83	4.32	H	PK
2	16830.4000	24.29	54.00	24.59	4.32	H	AV
3	16830.4000	31.35	74.00	37.53	4.32	V	PK
4	16830.4000	24.64	54.00	24.24	4.32	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

Wireless Module (444-2250)
Radiated Emission Range 1GHz~10th Harmonic
Below is the worst test data
802.11a

Channel	TX Channel 36	**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	15540.1000	36.19	74.00	35.87	1.94	H	PK
2	15540.1000	30.72	54.00	21.34	1.94	H	AV
3	15540.1000	35.74	74.00	36.32	1.94	V	PK
4	15540.1000	30.81	54.00	21.25	1.94	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 40	**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	15601.3000	35.85	74.00	36.37	1.78	H	PK
2	15601.3000	32.19	54.00	20.03	1.78	H	AV
3	15601.3000	37.52	74.00	34.70	1.78	V	PK
4	15601.3000	30.75	54.00	21.47	1.78	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 48	**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	15720.3000	38.97	74.00	33.61	1.42	H	PK
2	15720.3000	31.98	54.00	20.60	1.42	H	AV
3	15720.3000	35.76	74.00	36.82	1.42	V	PK
4	15720.3000	30.90	54.00	21.68	1.42	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 52	**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	15781.5000	37.93	74.00	34.84	1.23	H	PK
2	15781.5000	33.80	54.00	18.97	1.23	H	AV
3	15781.5000	35.47	74.00	37.30	1.23	V	PK
4	15781.5000	30.83	54.00	21.94	1.23	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 60	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	15841	34.78	74.00	38.14	1.08	H	PK
2	15841	30.78	54.00	22.14	1.08	H	AV
3	15841	36.04	74.00	36.88	1.08	V	PK
4	15841	29.54	54.00	23.38	1.08	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 64	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	15960.0000	36.97	74.00	36.22	0.81	H	PK
2	15960.0000	30.48	54.00	22.71	0.81	H	AV
3	15960.0000	37.11	74.00	36.08	0.81	V	PK
4	15960.0000	30.15	54.00	23.04	0.81	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 100	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	16500.6000	35.60	74.00	35.53	2.87	H	PK
2	16500.6000	30.12	54.00	21.01	2.87	H	AV
3	16500.6000	34.63	74.00	36.50	2.87	V	PK
4	16500.6000	29.32	54.00	21.81	2.87	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 116	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	16740.3000	36.97	74.00	33.12	3.91	H	PK
2	16740.3000	31.73	54.00	18.36	3.91	H	AV
3	16740.3000	36.94	74.00	33.15	3.91	V	PK
4	16740.3000	30.02	54.00	20.07	3.91	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 140	**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	17100.7000	37.79	74.00	30.25	5.96	H	PK
2	17100.7000	32.31	54.00	15.73	5.96	H	AV
3	17100.7000	36.08	74.00	31.96	5.96	V	PK
4	17100.7000	30.25	54.00	17.79	5.96	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 149	**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	17235.0000	36.40	74.00	30.38	7.22	H	PK
2	17235.0000	31.99	54.00	14.79	7.22	H	AV
3	17235.0000	35.13	74.00	31.65	7.22	V	PK
4	17235.0000	30.91	54.00	15.87	7.22	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 157	**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	17355.7000	37.71	74.00	27.92	8.37	H	PK
2	17355.7000	31.98	54.00	13.65	8.37	H	AV
3	17355.7000	36.18	74.00	29.45	8.37	V	PK
4	17355.7000	30.66	54.00	14.97	8.37	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 165	**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	17476.4000	37.51	74.00	27.06	9.43	H	PK
2	17476.4000	30.36	54.00	14.21	9.43	H	AV
3	17476.4000	35.17	74.00	29.40	9.43	V	PK
4	17476.4000	29.96	54.00	14.61	9.43	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).

We verified that the 26dB Emission bandwidth of the module is sightly less than that of the original case, please see the appendix spot check data.

---------- **END** ----------