



Radiation Disturbance Test Limit for FCC (Above 1G)

Frequency (MHz)	dB(uV/m) (at 3 meters)	
	Peak	Average
Above 1000	74	54

IC Restricted bands please refer to ISSED RSS-GEN Clause 8.10

FCC Restricted bands of operation:

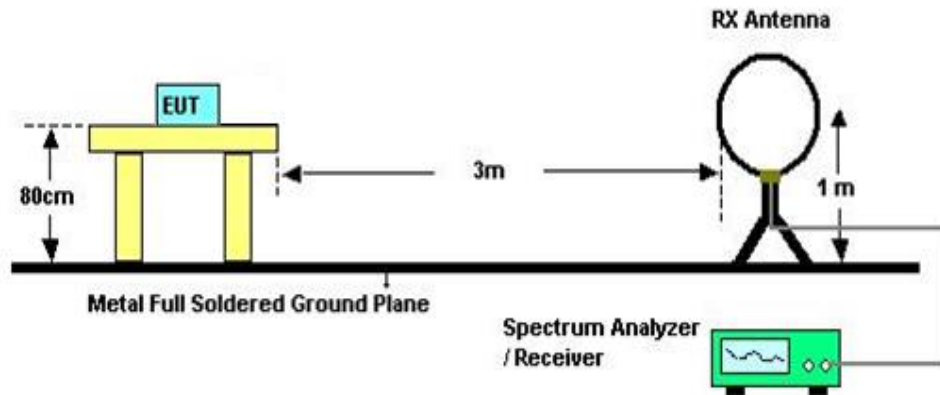
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	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	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

Note: ¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

²Above 38.6c

TEST SETUP AND PROCEDURE

Below 30MHz

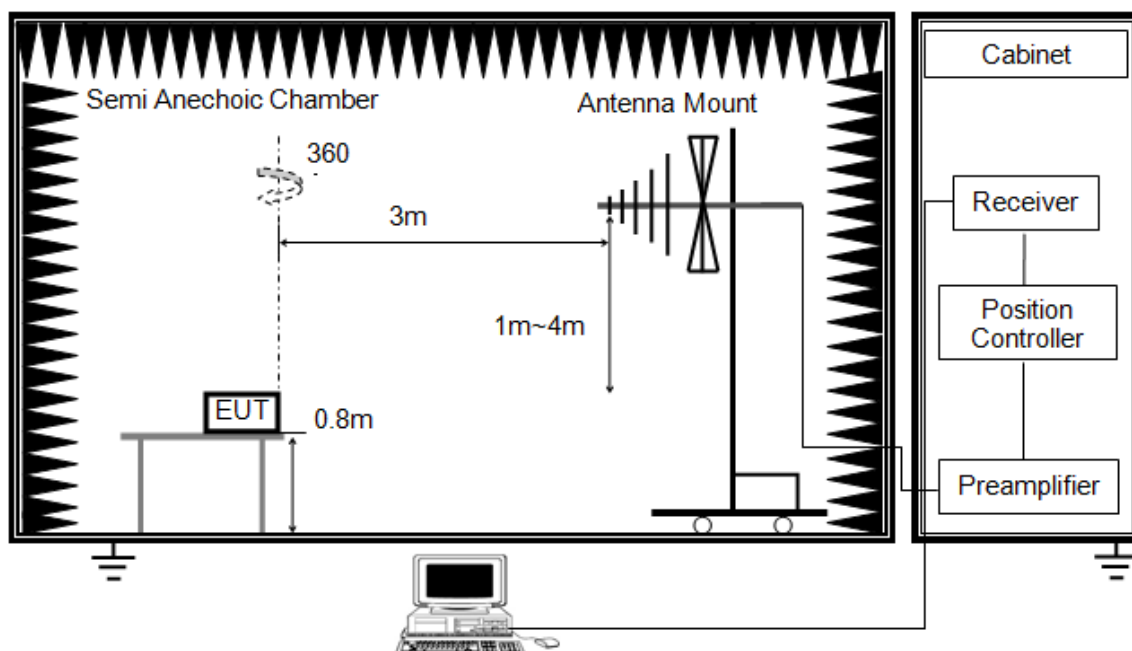


The setting of the spectrum analyzer

RBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
VBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
Sweep	Auto
Detector	Peak/QP/ Average
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013
2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 0.8 meter above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
6. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.

Below 1G

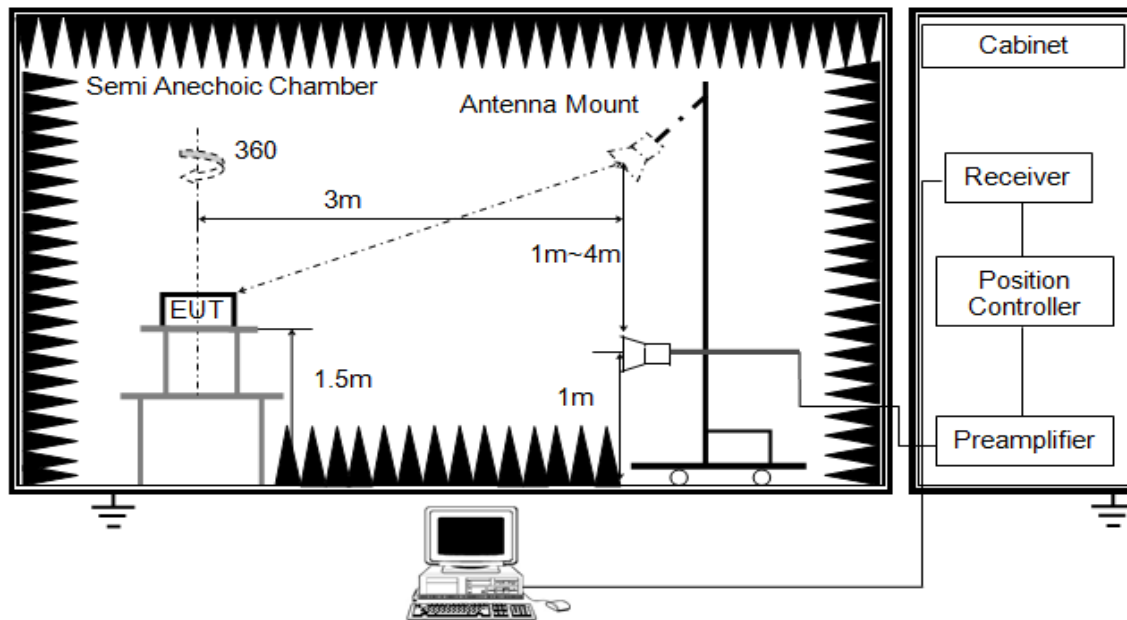


The setting of the spectrum analyser

RBW	120K
VBW	300K
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 0.8 meter above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

ABOVE 1G



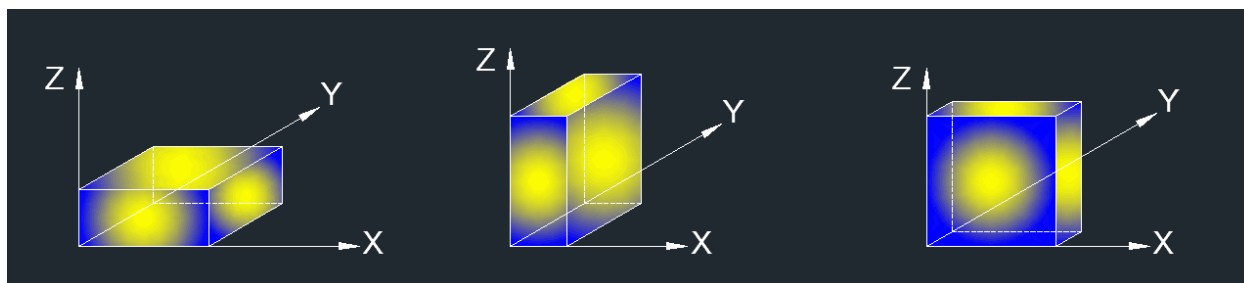
The setting of the spectrum analyser

RBW	1M
VBW	PEAK: 3M AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 1.5m above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement above 1GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.
6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 8.1.ON TIME AND DUTY CYCLE.



X axis, Y axis, Z axis positions:



Note : For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

TEST ENVIRONMENT

Temperature	20°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 5.0V



9.1. RESTRICTED BANDEDGE

Test Result Table

Test Mode	Test Antenna	Channel	Puw(dBm)	Verdict
11B	Antenna 1+2	LCH	<Limit	PASS
		MCH	<Limit	PASS
		HCH	<Limit	PASS
11G	Antenna 1+2	LCH	<Limit	PASS
		MCH	<Limit	PASS
		HCH	<Limit	PASS
11N20 MIMO	Antenna 1+2	LCH	<Limit	PASS
		MCH	<Limit	PASS
		HCH	<Limit	PASS
11N40MIMO	Antenna 1+2	LCH	<Limit	PASS
		MCH	<Limit	PASS
		HCH	<Limit	PASS

Remark:

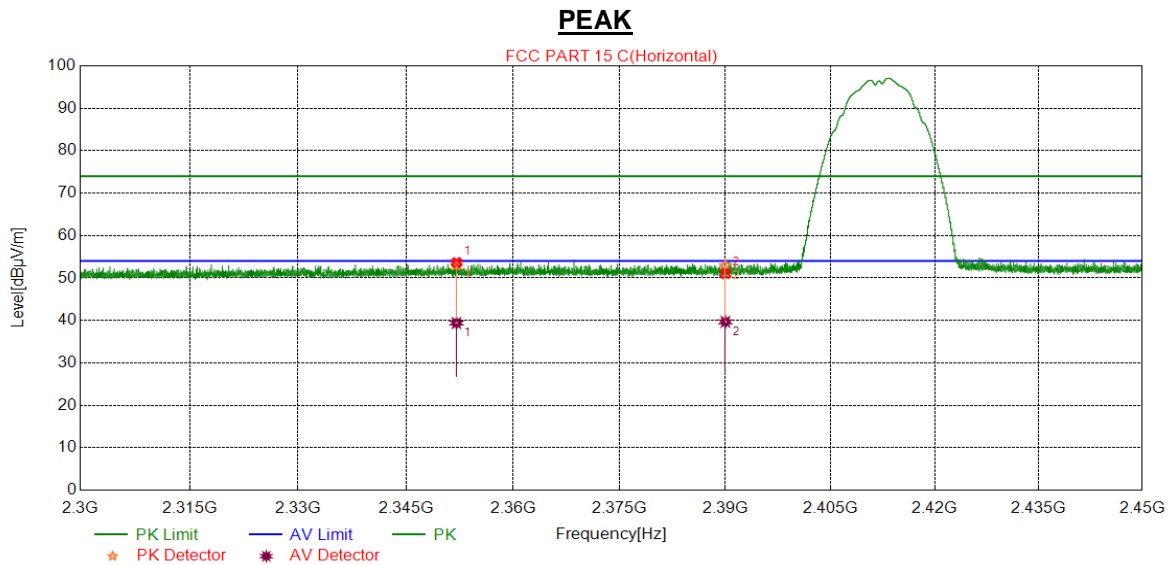
The antenna1 and antenna2 can transmit at the same time during work at 802.11B & 802.11G & 802.11N20 & 802.11N40 mode, and the PCL of the SISO and MIMO are the same, so the data of the MIMO mode is worse case, so only the data of worse case is shown in the test report.



9.1.1. 802.11b SISO MODE

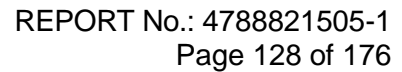
ANTENNA1+2

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2352.0584	53.06	74.00	-20.94	peak
		39.39	54.00	-14.61	average
2	2390.0000	52.91	74.00	-21.09	peak
		39.67	54.00	-14.33	average

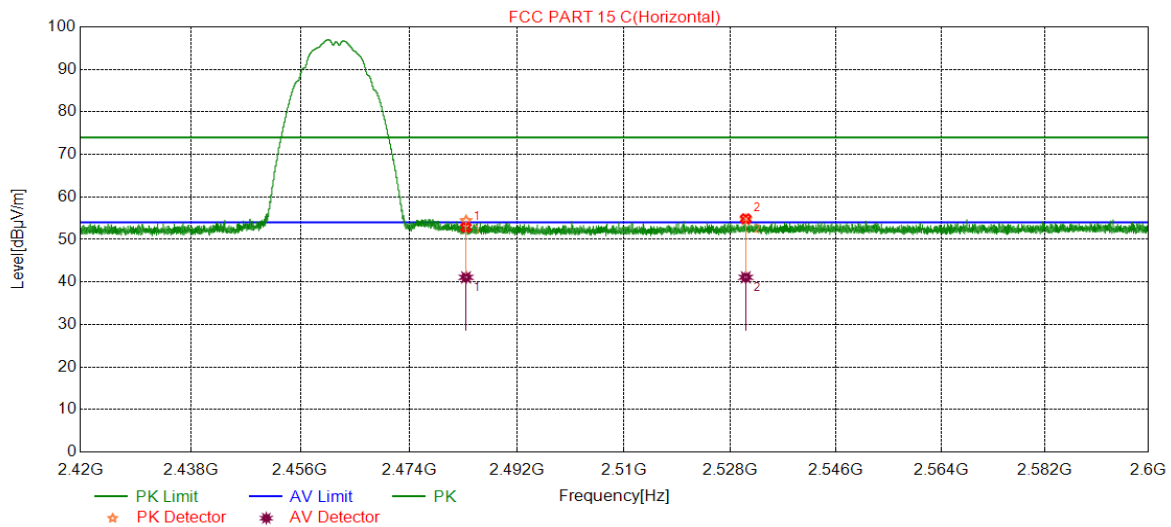
- Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: $VBW=1/Ton$ where: ton is transmit duration.
4. For transmit duration, please refer to clause 8.1.
5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

PEAK



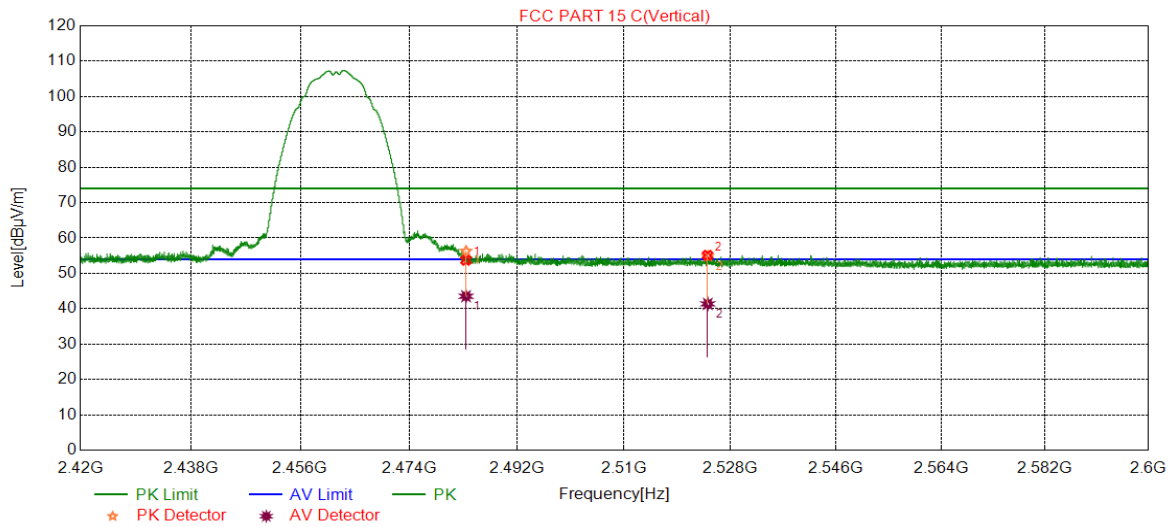
No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.5000	54.42	74.00	-19.58	peak
		41.08	54.00	-12.92	average
2	2530.6015	54.67	74.00	-19.33	peak
		41.09	54.00	-12.91	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

PEAK



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.5000	56.26	74.00	-17.74	peak
		43.52	54.00	-10.48	average
2	2524.1470	54.79	74.00	-19.21	peak
		41.37	54.00	-12.63	average

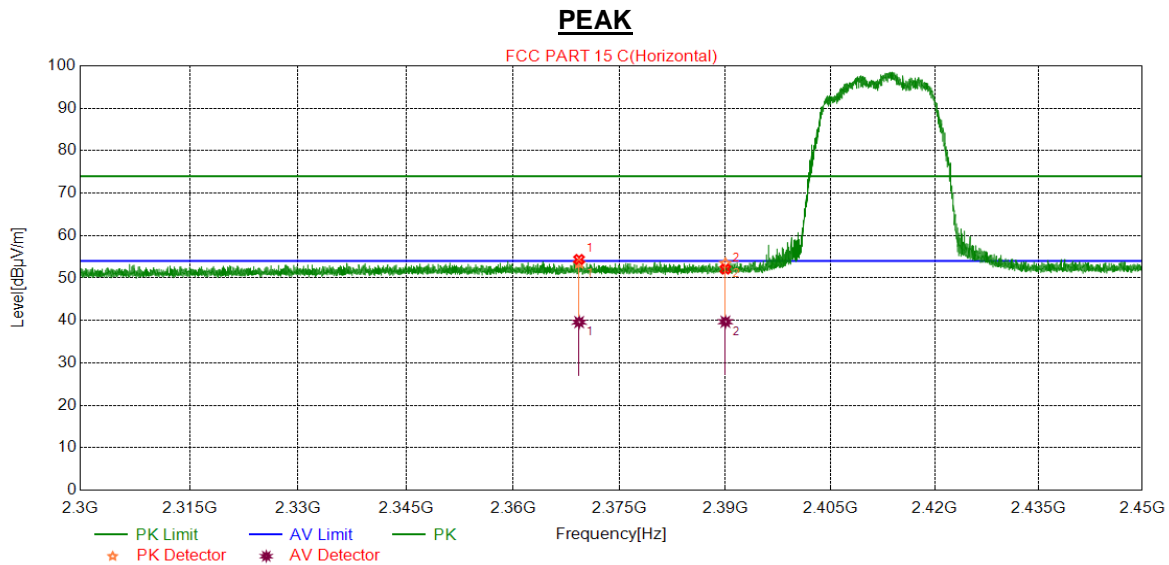
- Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



9.1.2. 802.11g SISO MODE

ANTENNA1+2

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



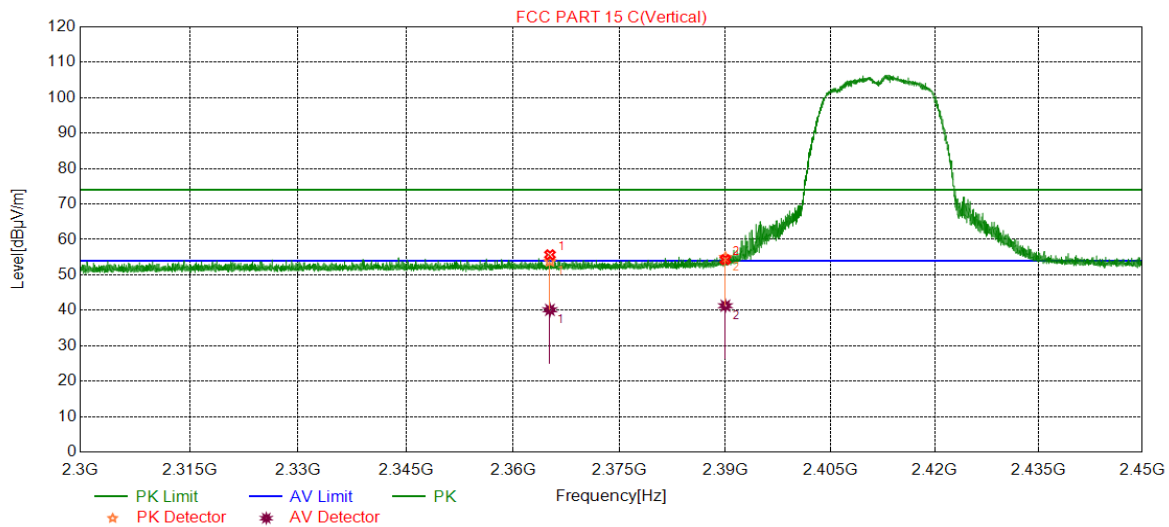
No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2369.2899	53.44	74.00	-20.56	peak
		39.60	54.00	-14.40	average
2	2390.0000	53.46	74.00	-20.54	peak
		39.69	54.00	-14.31	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

PEAK



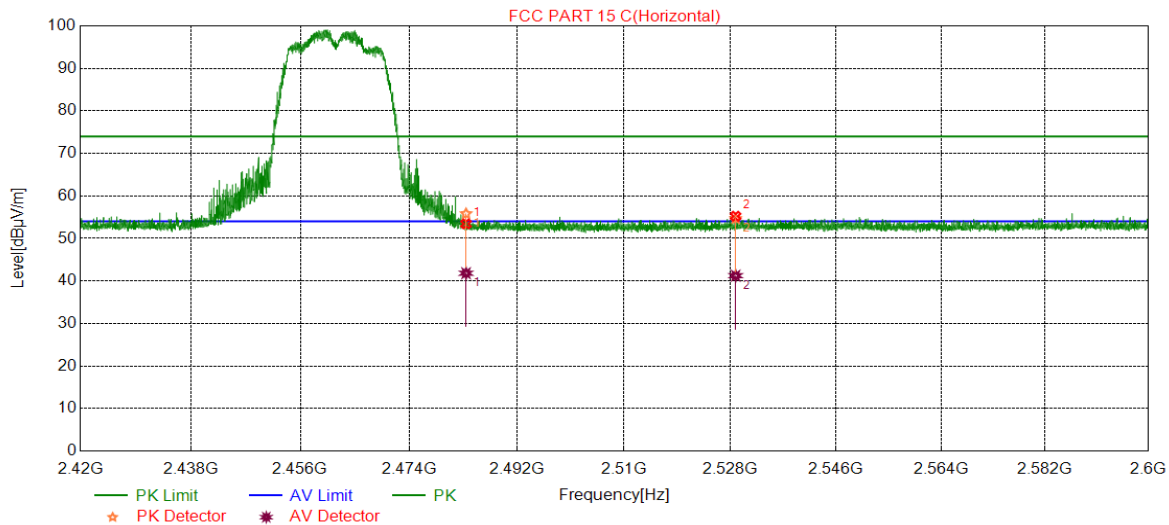
No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2365.1747	53.80	74.00	-20.20	peak
		40.13	54.00	-13.87	average
2	2390.0000	54.95	74.00	-19.05	peak
		41.29	54.00	-12.71	average

- Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

PEAK



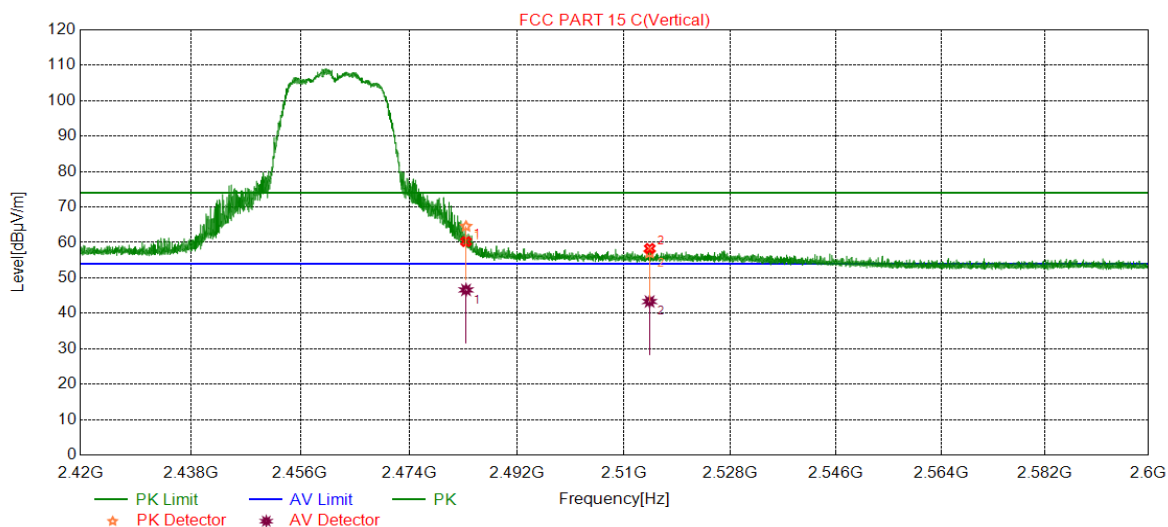
No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.5000	55.81	74.00	-18.19	peak
		41.82	54.00	-12.18	average
2	2528.8761	54.65	74.00	-19.35	peak
		41.23	54.00	-12.77	average

- Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

PEAK



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.5000	64.55	74.00	-9.45	peak
		46.59	54.00	-7.41	average
2	2514.3063	57.00	74.00	-17.00	peak
		43.33	54.00	-10.67	average

- Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

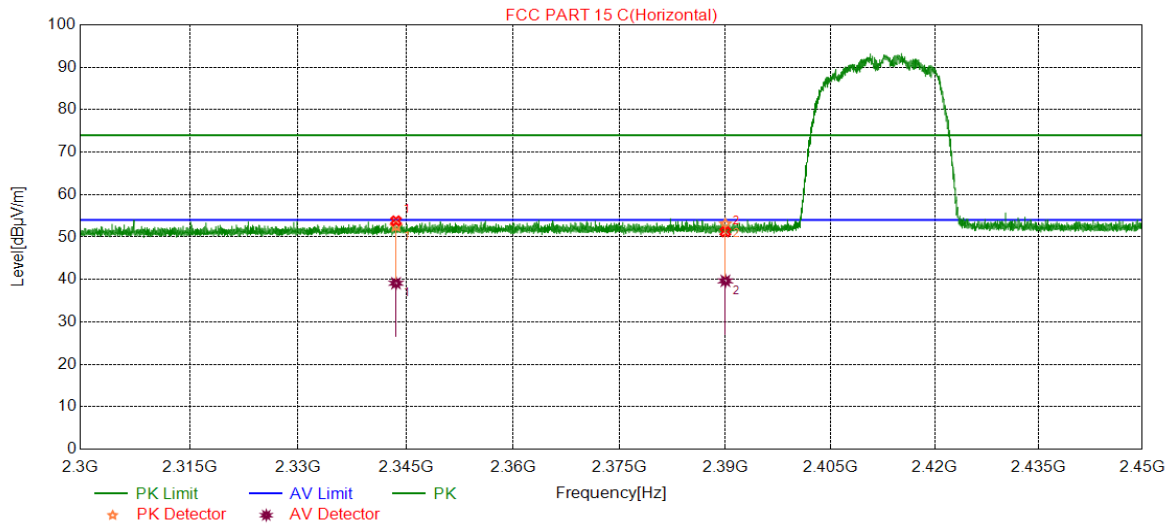


9.1.3. 802.11n HT20 MIMO MODE

ANTENNA1+2

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

PEAK



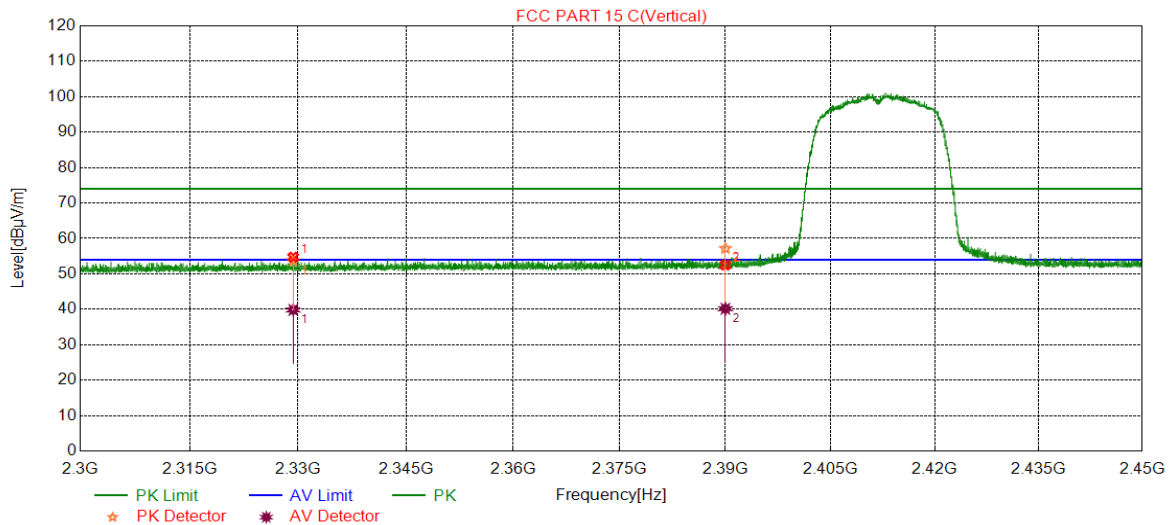
No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2343.6094	52.51	74.00	-21.49	peak
		39.10	54.00	-14.90	average
2	2390.0000	53.08	74.00	-20.92	peak
		39.66	54.00	-14.34	average

- Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

PEAK



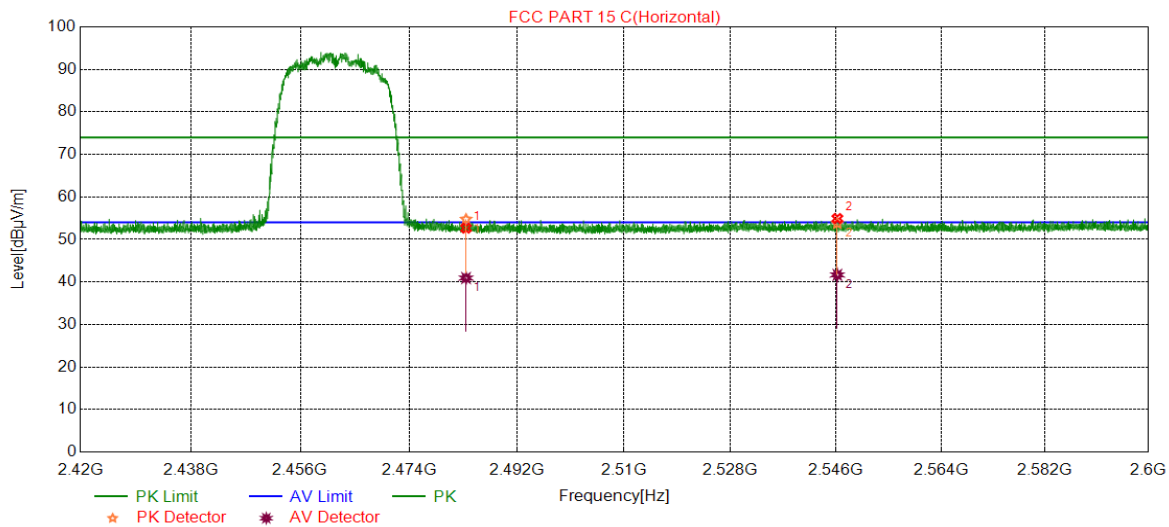
No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2329.3129	53.72	74.00	-20.28	peak
		39.84	54.00	-14.16	average
2	2390.0000	57.17	74.00	-16.83	peak
		40.17	54.00	-13.83	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

PEAK



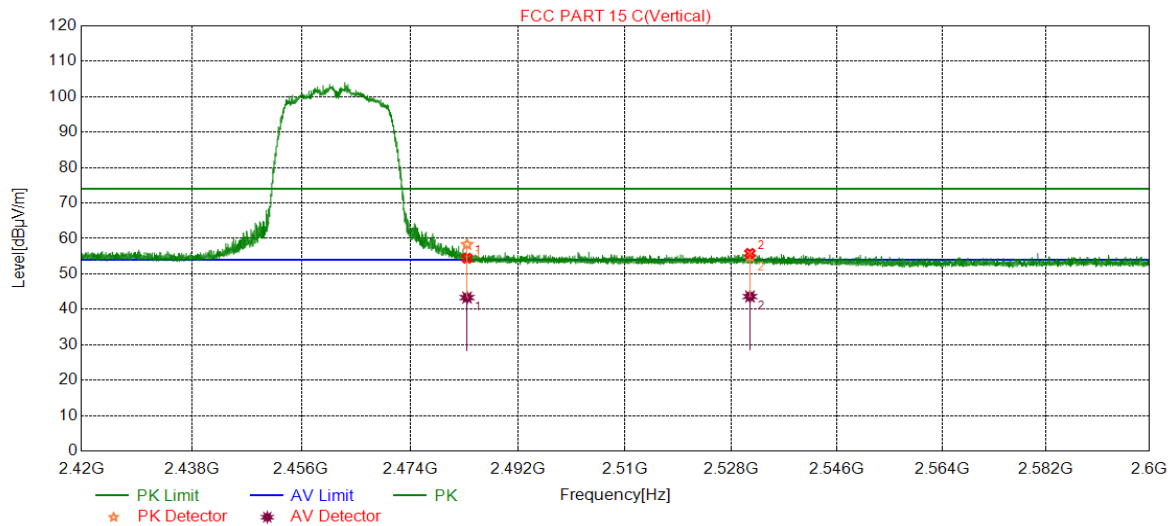
No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.5000	54.76	74.00	-19.24	peak
		40.92	54.00	-13.08	average
2	2546.2106	53.74	74.00	-20.26	peak
		41.66	54.00	-12.34	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

PEAK



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.5000	58.29	74.00	-15.71	peak
		43.31	54.00	-10.69	average
2	2531.1431	54.79	74.00	-19.21	peak
		43.61	54.00	-10.39	average

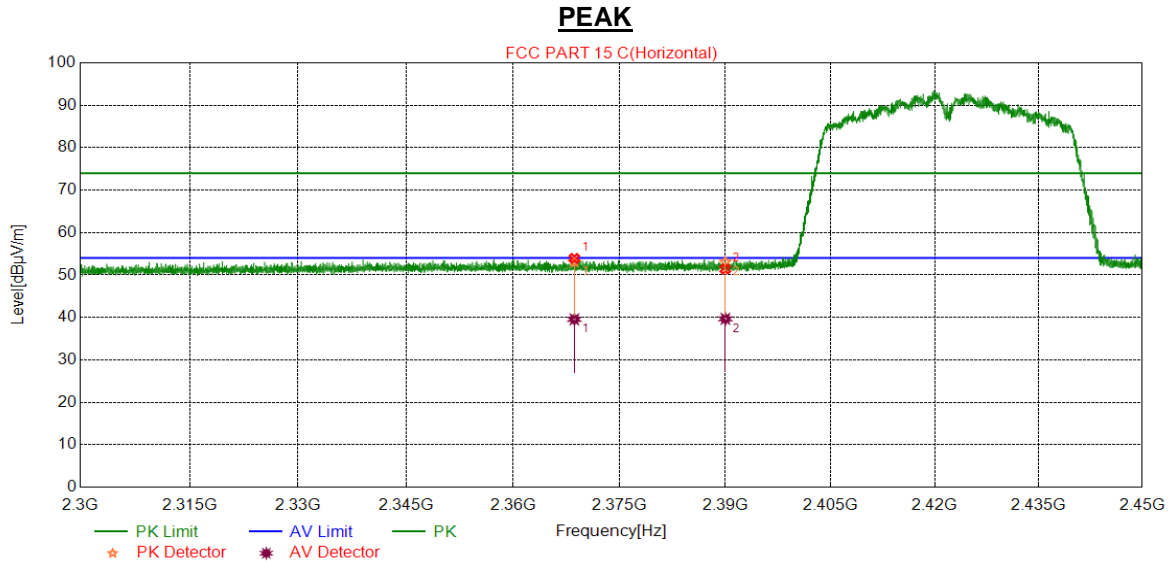
Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



9.1.1. 802.11n HT40 MIMO MODE

ANTENNA1+2

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



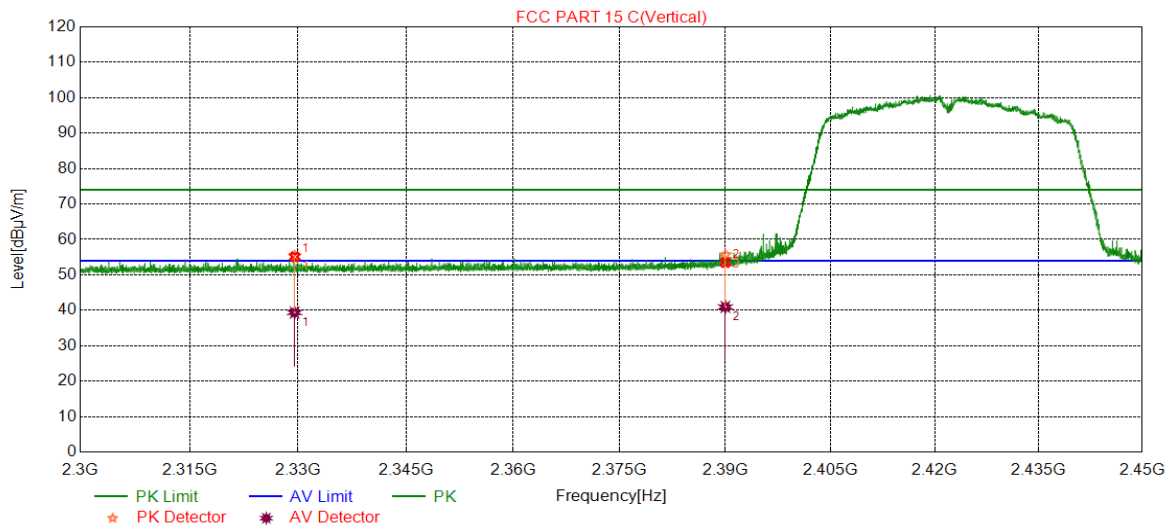
No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2368.6230	53.07	74.00	-20.93	peak
		39.55	54.00	-14.45	average
2	2390.0000	53.07	74.00	-20.93	peak
		39.67	54.00	-14.33	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

PEAK



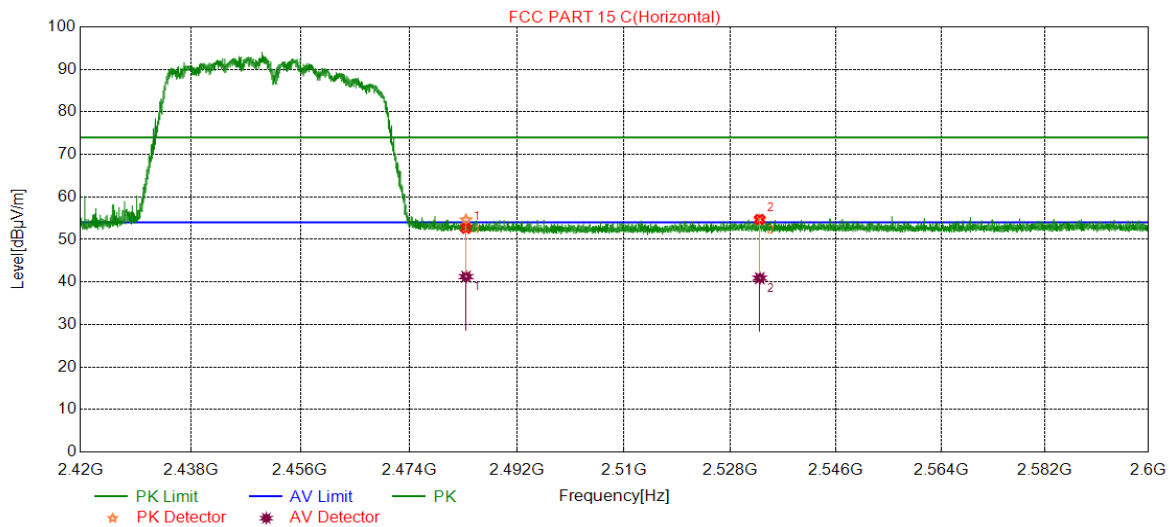
No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2329.5062	55.35	74.00	-18.65	peak
		39.35	54.00	-14.65	average
2	2390.0000	55.67	74.00	-18.33	peak
		40.95	54.00	-13.05	average

- Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

PEAK



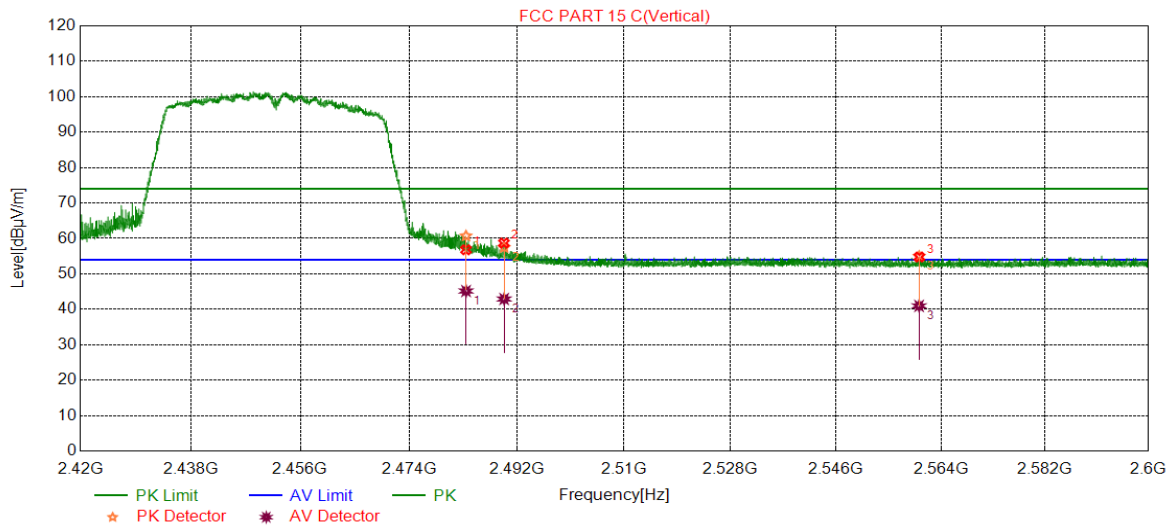
No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.5000	54.60	74.00	-19.40	peak
		41.25	54.00	-12.75	average
2	2532.9771	54.58	74.00	-19.42	peak
		40.89	54.00	-13.11	average

- Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

PEAK



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.5000	60.71	74.00	-13.29	peak
		45.16	54.00	-8.84	average
2	2489.8656	57.44	74.00	-16.56	peak
		42.90	54.00	-11.10	average
3	2560.2250	54.96	74.00	-19.04	peak
		40.96	54.00	-13.04	average

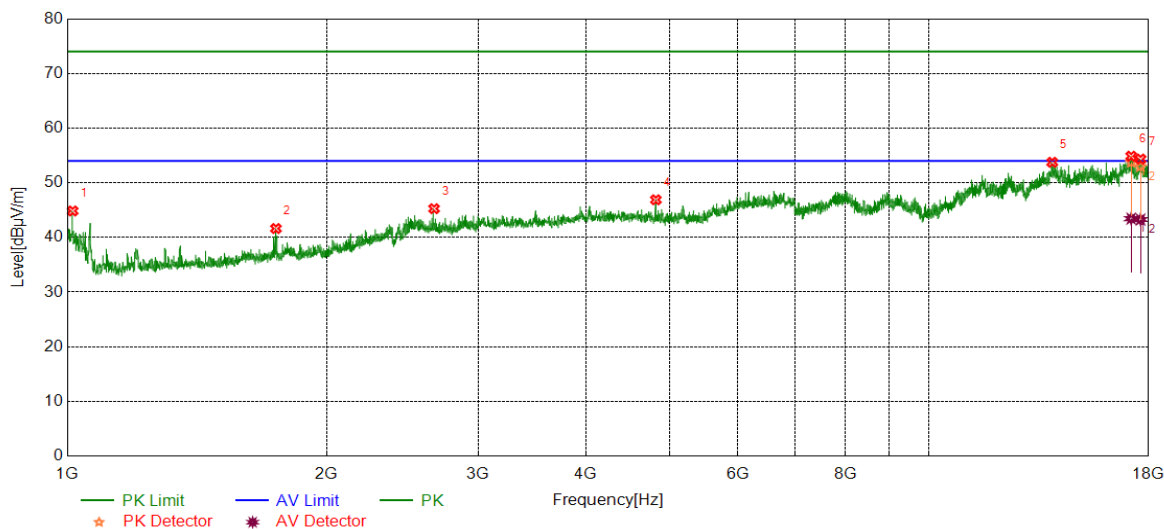
- Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

9.2. SPURIOUS EMISSIONS 1~18GHz)

9.2.1. 802.11b SISO MODE

ANTENNA1+2

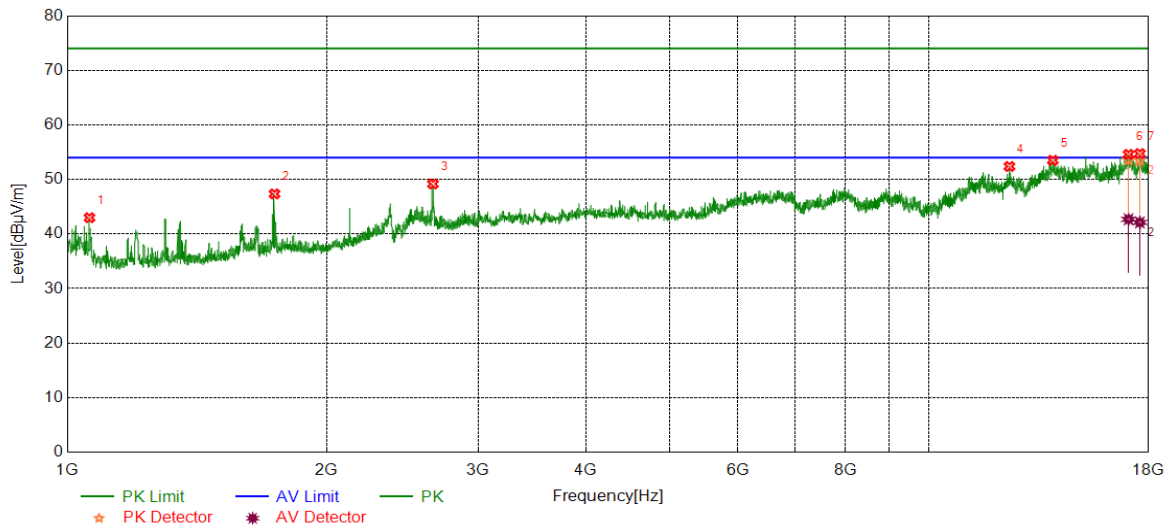
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1014.6716	44.84	74.00	-29.16	peak
2	1746.9156	41.63	74.00	-32.37	peak
3	2665.8886	45.26	74.00	-28.74	peak
4	4822.8038	46.89	74.00	-27.11	peak
5	13911.8186	53.75	74.00	-20.25	peak
6	17179.8633	53.74	74.00	-20.26	peak
		43.44	54.00	-10.56	average
7	17617.4362	52.96	74.00	-21.04	peak
		43.28	54.00	-10.72	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 2. Peak: Peak detector.
 3. AVG: VBW=10 Hz.
 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

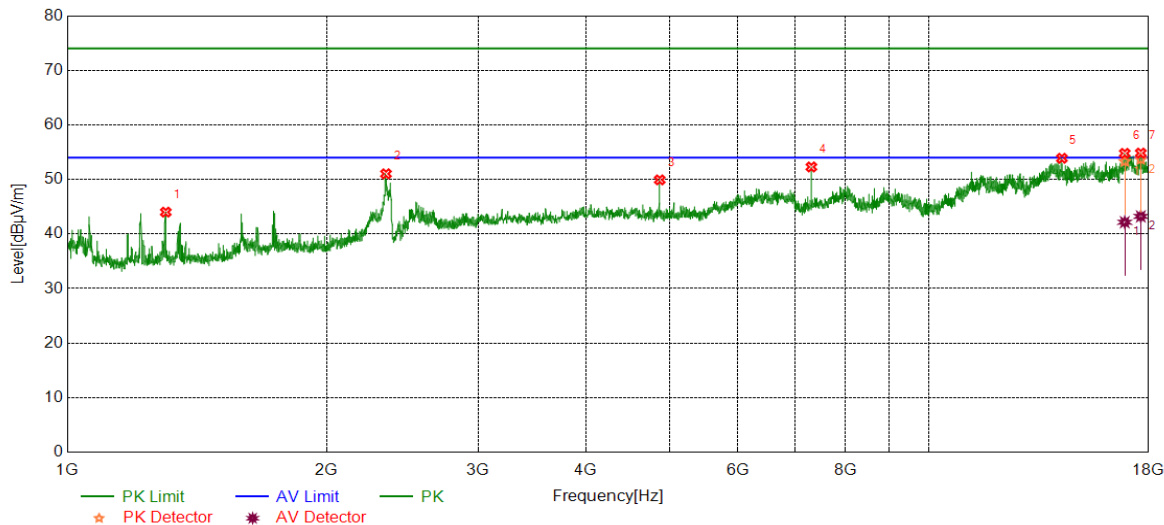


No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1061.3538	42.99	74.00	-31.01	peak
2	1740.2467	47.35	74.00	-26.65	peak
3	2657.8860	49.18	74.00	-24.82	peak
4	12409.0682	52.38	74.00	-21.62	peak
5	1061.3538	42.99	74.00	-31.01	peak
6	17057.3429	53.55	74.00	-20.45	peak
		42.69	54.00	-11.31	average
7	17584.9308	53.52	74.00	-20.48	peak
		42.13	54.00	-11.87	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 2. Peak: Peak detector.
 3. AVG: VBW=10 Hz.
 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

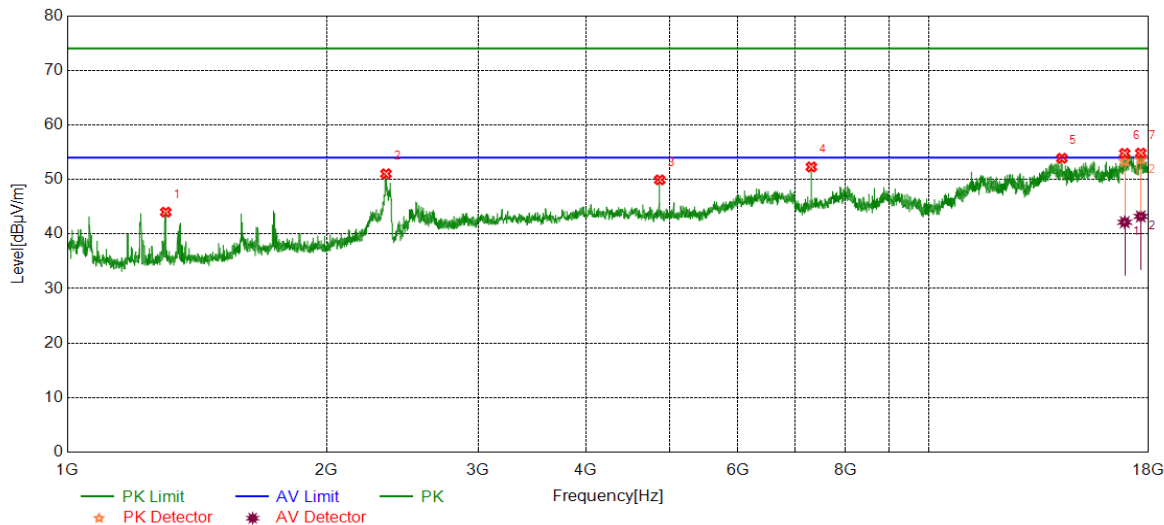


No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1062.6876	43.74	74.00	-30.26	peak
2	1740.2467	40.82	74.00	-33.18	peak
3	4872.8121	52.22	74.00	-21.78	peak
4	11561.4269	51.40	74.00	-22.60	peak
5	15434.5724	53.81	74.00	-20.19	peak
6	17189.8650	52.76	74.00	-21.24	peak
		43.47	54.00	-10.53	average
7	17652.4421	53.48	74.00	-20.52	peak
		42.63	54.00	-11.37	average

- Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

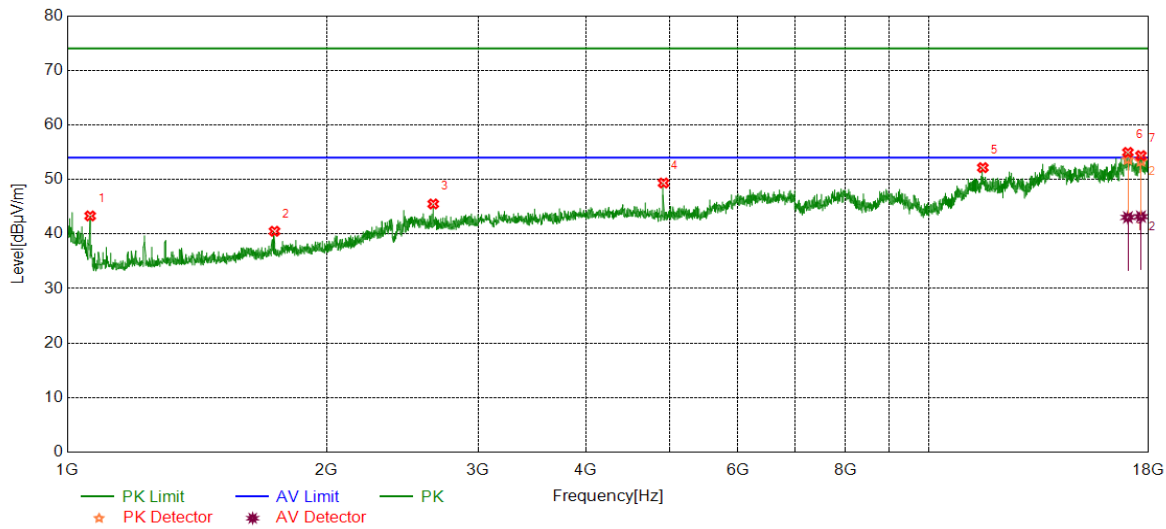


No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1301.4338	44.01	74.00	-29.99	peak
2	2344.4481	51.04	74.00	-22.96	peak
3	4872.8121	49.92	74.00	-24.08	peak
4	7308.2180	52.29	74.00	-21.71	peak
5	14276.8795	53.88	74.00	-20.12	peak
6	16887.3146	53.30	74.00	-20.70	peak
		42.16	54.00	-11.84	average
7	17627.4379	53.67	74.00	-20.33	peak
		43.23	54.00	-10.77	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

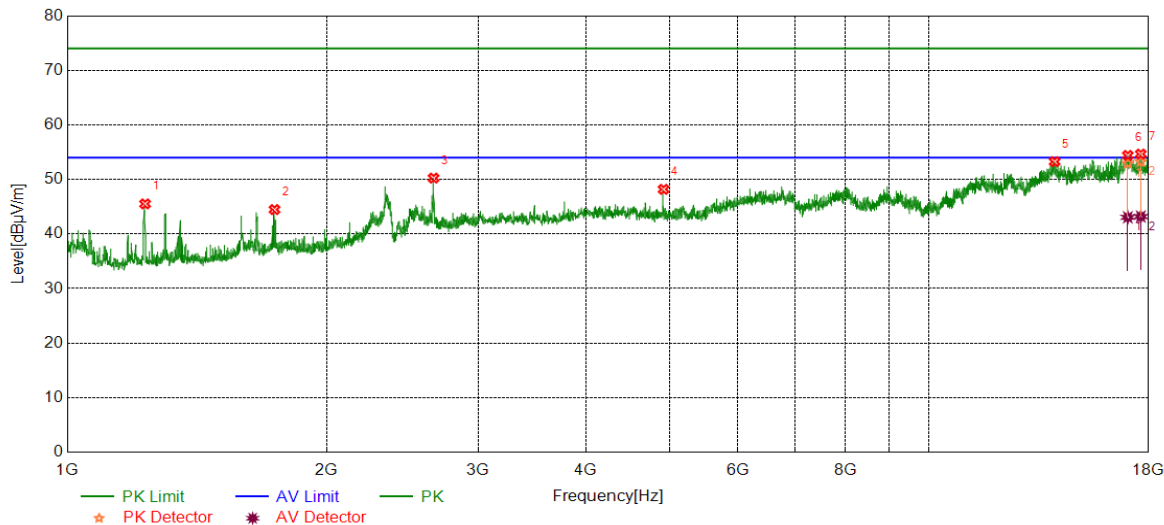


No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1063.3545	43.31	74.00	-30.69	peak
2	1740.2467	40.50	74.00	-33.50	peak
3	2659.8866	45.51	74.00	-28.49	peak
4	4922.8205	49.35	74.00	-24.65	peak
5	11556.4261	52.16	74.00	-21.84	peak
6	17029.8383	53.64	74.00	-20.36	peak
		43.05	54.00	-10.95	average
7	17634.9392	53.30	74.00	-20.70	peak
		43.19	54.00	-10.81	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1231.4105	45.52	74.00	-28.48	peak
2	1740.2467	44.48	74.00	-29.52	peak
3	2662.5542	50.25	74.00	-23.75	peak
4	4922.8205	48.19	74.00	-25.81	peak
5	14001.8336	53.26	74.00	-20.74	peak
6	17024.8375	52.94	74.00	-21.06	peak
		43.06	54.00	-10.94	average
7	17627.4379	53.25	74.00	-20.75	peak
		43.20	54.00	-10.80	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

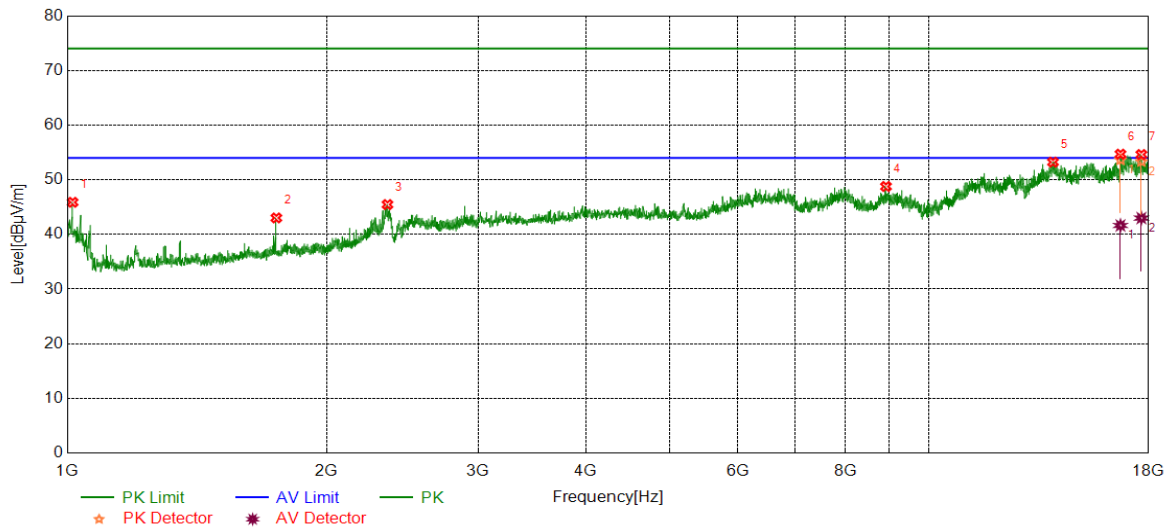
Note: All antennas have been tested, only the worst data record in the report.



9.2.2. 802.11g SISO MODE

ANTENNA1+2

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

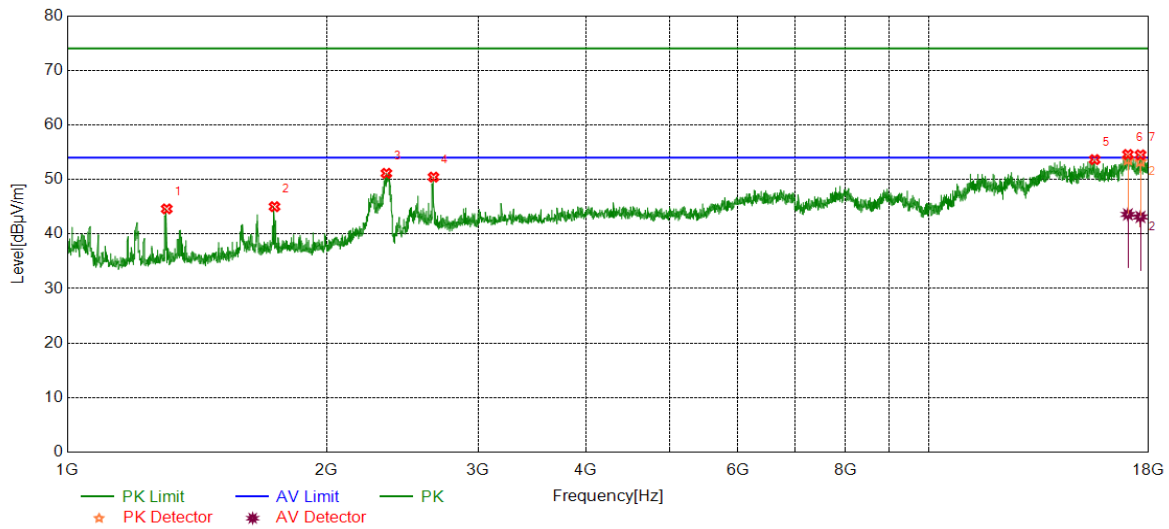


No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1014.6716	45.88	74.00	-28.12	peak
2	1748.9163	43.02	74.00	-30.98	peak
3	2353.7846	45.47	74.00	-28.53	peak
4	8920.9868	48.77	74.00	-25.23	peak
5	13939.3232	53.23	74.00	-20.77	peak
6	16694.7825	53.65	74.00	-20.35	peak
		41.64	54.00	-12.36	average
7	17654.9425	53.33	74.00	-20.67	peak
		42.99	54.00	-11.01	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



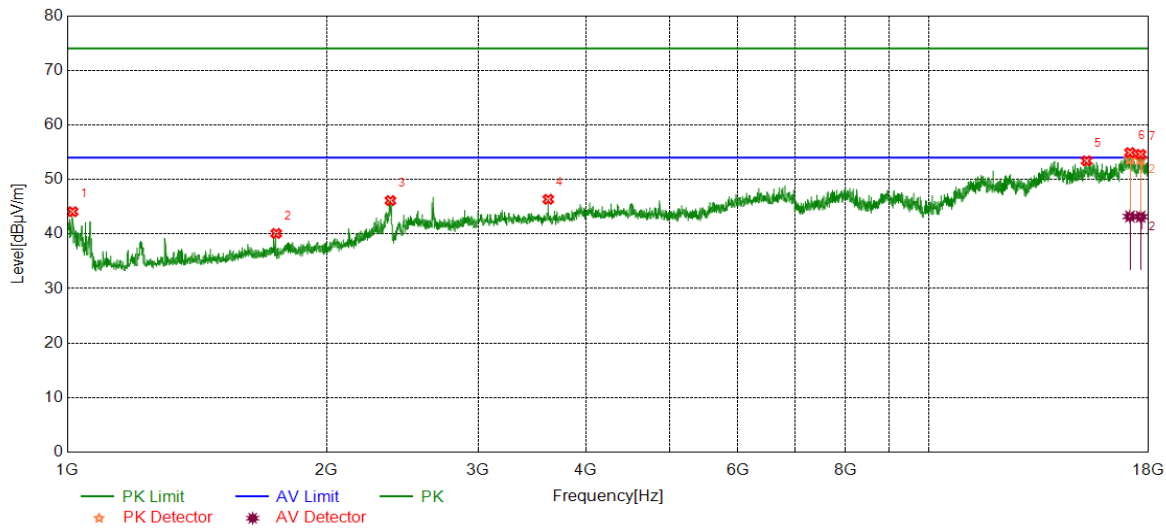
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1304.7683	44.60	74.00	--29.40	peak
2	1740.2467	45.01	74.00	-28.99	peak
3	2347.1157	51.13	74.00	-22.87	peak
4	2661.8873	50.43	74.00	-23.57	peak
5	15582.0970	53.64	74.00	-20.36	peak
6	17029.8383	53.55	74.00	-20.45	peak
		43.59	54.00	-10.41	average
7	17612.4354	53.23	74.00	-20.77	peak
		43.13	54.00	-10.87	average

- Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

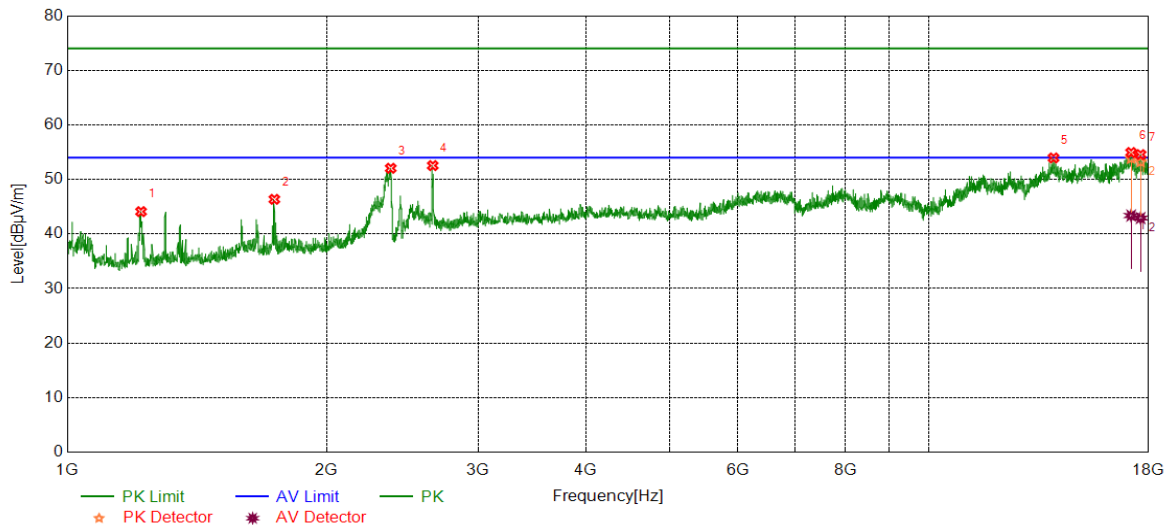
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1014.6716	44.09	74.00	-29.91	peak
2	1748.2494	40.10	74.00	-33.90	peak
3	2372.4575	46.12	74.00	-27.88	peak
4	3617.6029	46.36	74.00	-27.64	peak
5	15249.5416	53.41	74.00	-20.59	peak
6	17124.8541	53.63	74.00	-20.37	peak
		43.21	54.00	-10.79	average
7	17622.4371	53.56	74.00	-20.44	peak
		43.17	54.00	-10.83	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

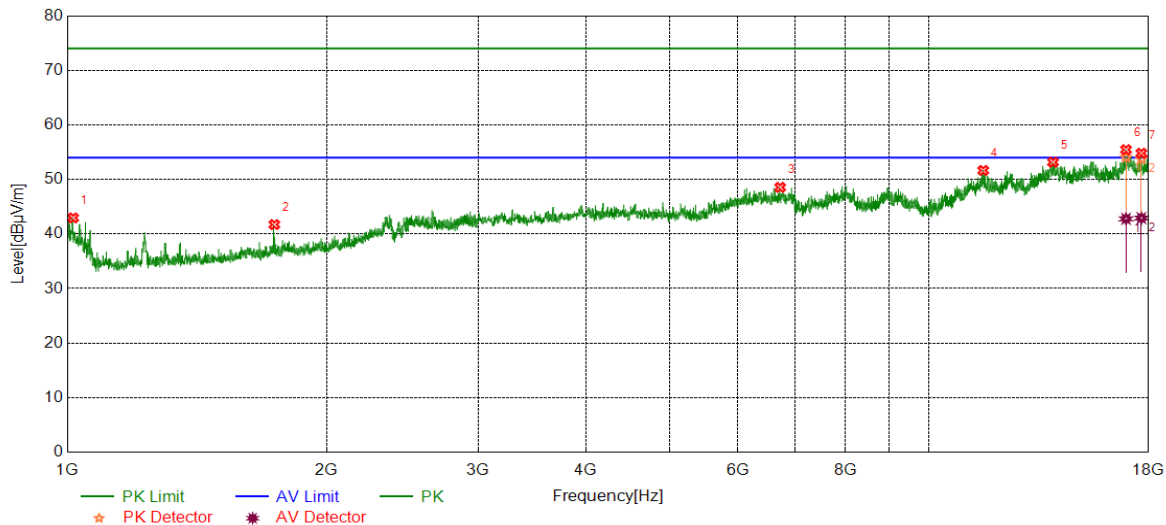


No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1218.0727	44.10	74.00	-29.90	peak
2	1739.5799	46.36	74.00	-27.64	peak
3	2374.4582	52.05	74.00	-21.95	peak
4	2656.5522	52.54	74.00	-21.46	peak
5	1218.0727	44.10	74.00	-29.90	peak
6	17177.3629	53.82	74.00	-20.18	peak
		43.38	54.00	-10.62	average
7	17619.9367	53.19	74.00	-20.81	peak
		42.93	54.00	-11.07	average

- Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



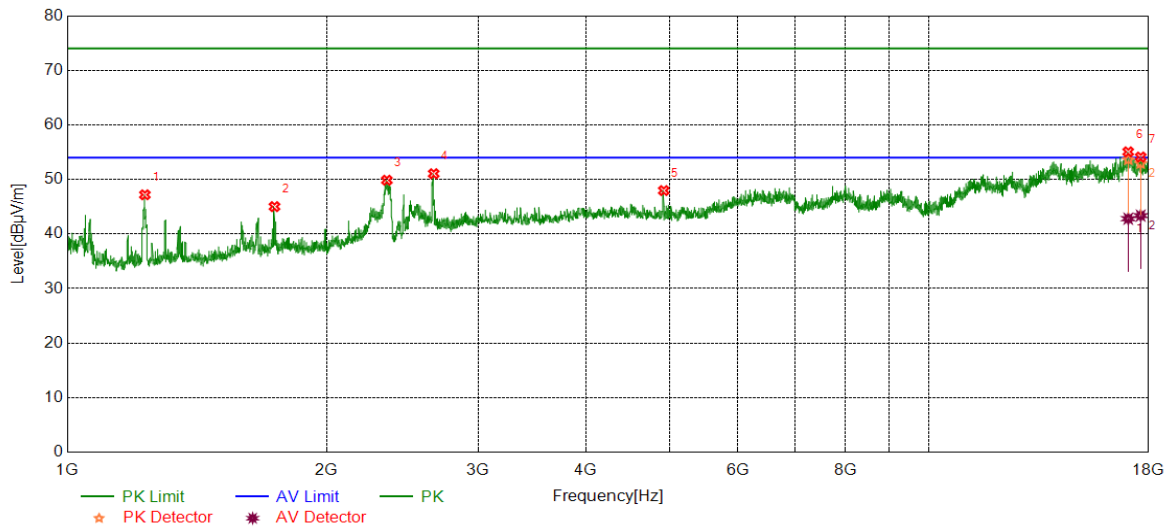
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1016.0053	42.95	74.00	-31.05	peak
2	1739.5799	41.73	74.00	-32.27	peak
3	6723.1205	48.55	74.00	-25.45	peak
4	11568.9282	51.65	74.00	-22.35	peak
5	13941.8236	53.16	74.00	-20.84	peak
6	16944.8241	54.06	74.00	-19.94	peak
		42.78	54.00	-11.22	average
7	17654.9425	53.74	74.00	-20.26	peak
		42.92	54.00	-11.08	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1230.7436	47.19	74.00	-26.81	peak
2	1740.2467	45.02	74.00	-28.98	peak
3	2349.7833	49.86	74.00	-24.14	peak
4	2663.2211	51.06	74.00	-22.94	peak
5	4925.3209	47.96	74.00	-26.04	peak
6	17044.8408	53.61	74.00	-20.39	peak
		42.81	54.00	-11.19	average
7	17622.4371	52.91	74.00	-21.09	peak
		43.37	54.00	-10.63	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 2. Peak: Peak detector.
 3. AVG: VBW=10 Hz.
 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

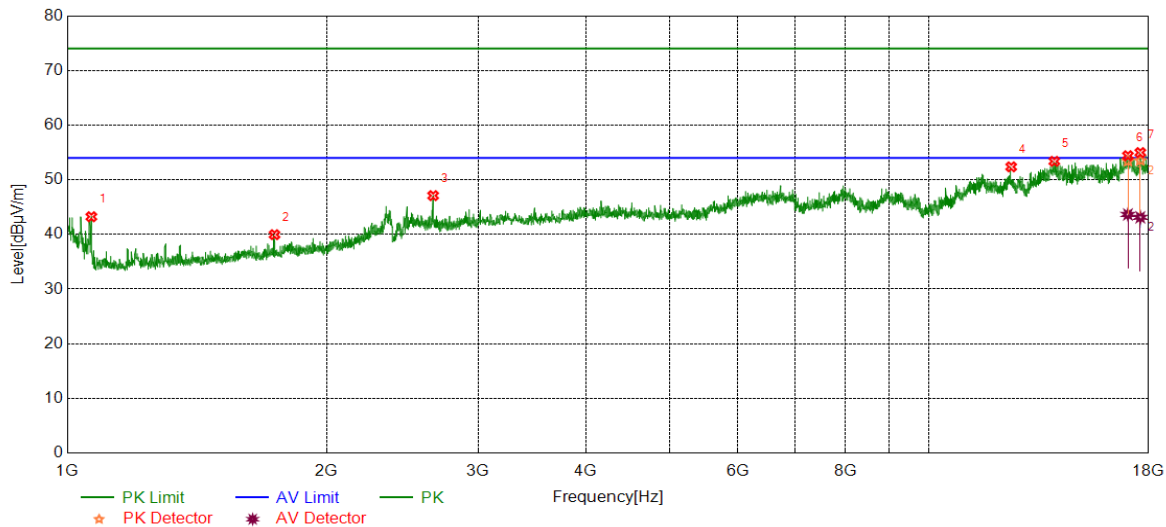
Note: All antennas have been tested, only the worst data record in the report.



9.2.3. 802.11n HT20 MIMO MODE

ANTENNA1+2

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

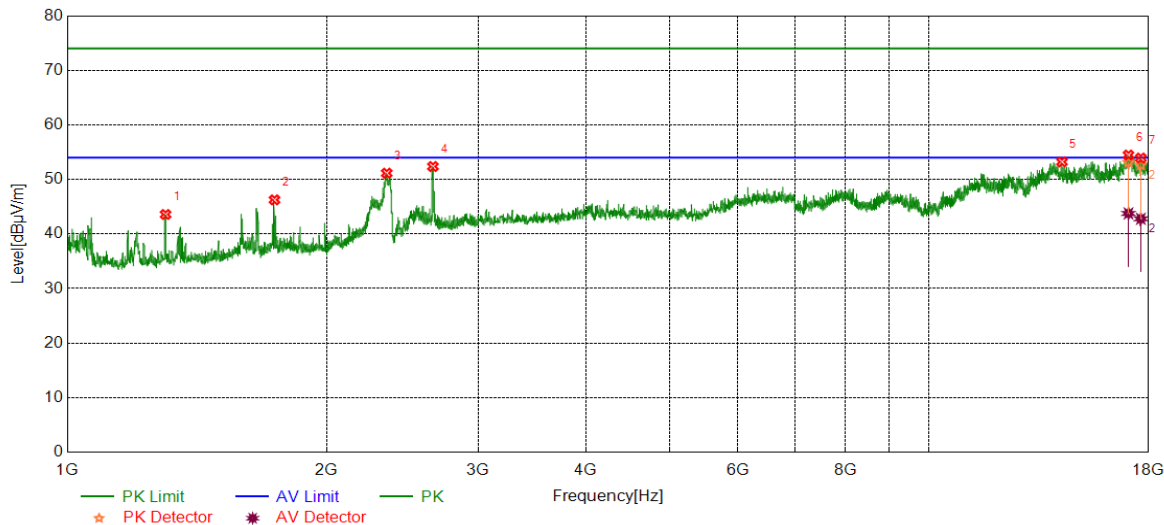


No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1066.6889	43.24	74.00	-30.76	peak
2	1740.2467	39.96	74.00	-34.04	peak
3	2659.2197	47.10	74.00	-26.90	peak
4	12466.5778	52.37	74.00	-21.63	peak
5	13989.3316	53.38	74.00	-20.62	peak
6	17029.8383	53.39	74.00	-20.61	peak
		43.65	54.00	-10.35	average
7	17604.9342	53.53	74.00	-20.47	peak
		43.13	54.00	-10.87	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

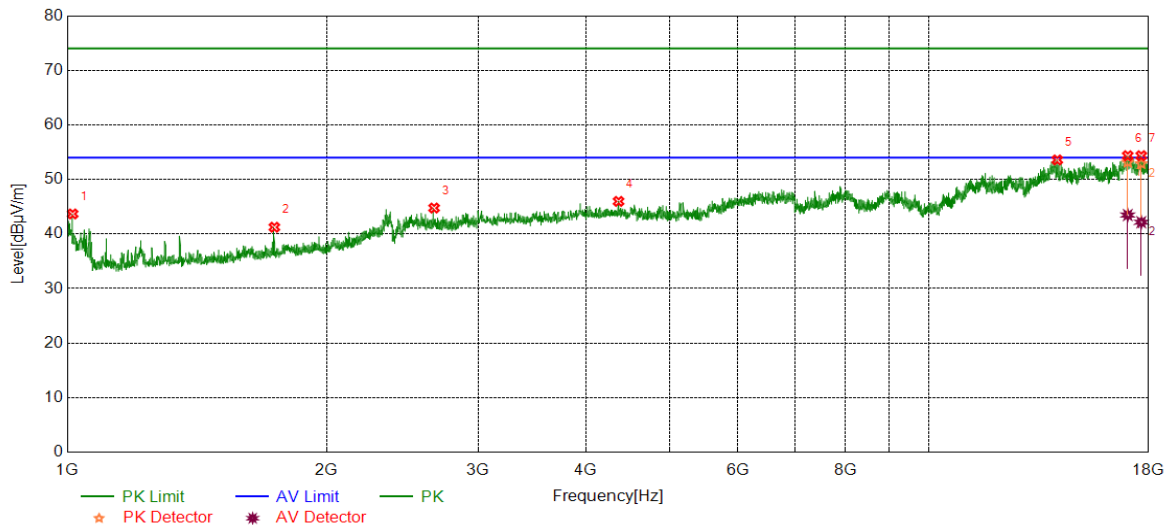


No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1300.7669	43.58	74.00	-30.42	peak
2	1740.2467	46.26	74.00	-27.74	peak
3	2349.1164	51.15	74.00	-22.85	peak
4	2657.8860	52.37	74.00	-21.63	peak
5	14279.3799	53.22	74.00	-20.78	peak
6	17054.8425	53.12	74.00	-20.88	peak
		43.77	54.00	-10.23	average
7	17629.9383	52.64	74.00	-21.36	peak
		42.79	54.00	-11.21	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

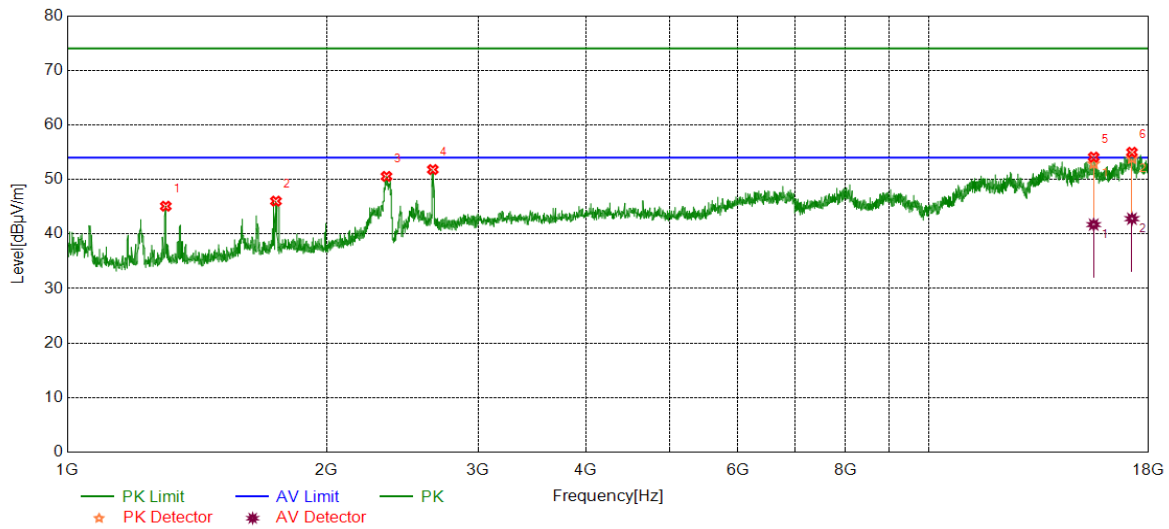


No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1014.6716	43.68	74.00	-30.32	peak
2	1739.5799	41.24	74.00	-32.76	peak
3	2665.8886	44.76	74.00	-29.24	peak
4	4365.2275	45.98	74.00	-28.02	peak
5	14099.3499	53.58	74.00	-20.42	peak
6	17022.3371	53.15	74.00	-20.85	peak
		43.47	54.00	-10.53	average
7	17649.9417	52.89	74.00	-21.11	peak
		42.16	54.00	-11.84	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

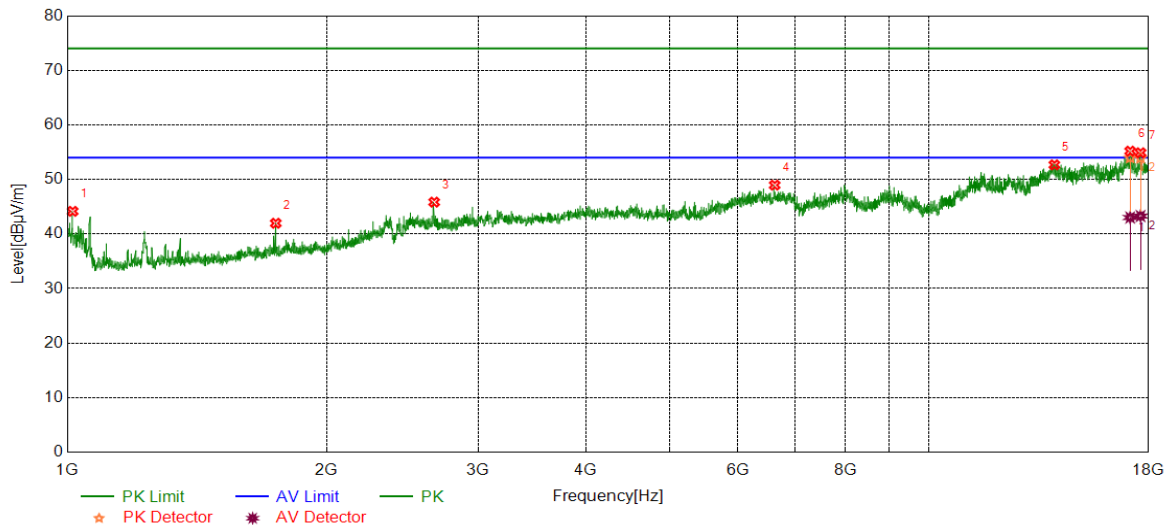


No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1301.4338	45.10	74.00	-28.90	peak
2	1746.9156	46.02	74.00	-27.98	peak
3	2347.7826	50.56	74.00	-23.44	peak
4	2657.2191	51.81	74.00	-22.19	peak
5	15542.0903	52.86	74.00	-21.14	peak
		41.72	54.00	-12.28	average
6	17214.8691	53.82	74.00	-20.18	peak
		42.80	54.00	-11.20	average

- Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



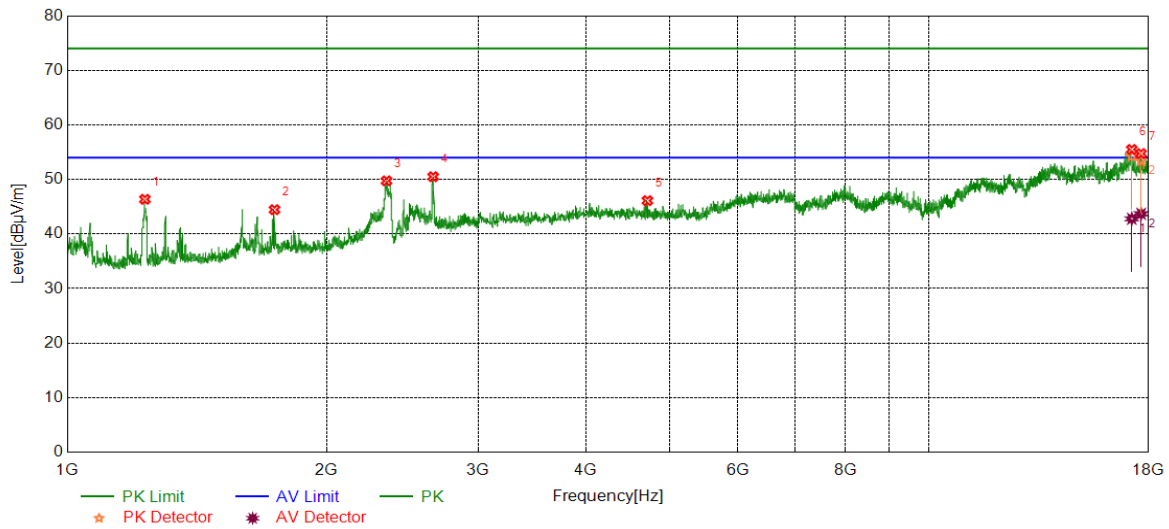
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1014.6716	44.16	74.00	-29.84	peak
2	1746.2488	41.97	74.00	-32.03	peak
3	2666.5555	45.84	74.00	-28.16	peak
4	6625.6043	48.96	74.00	-25.04	peak
5	13991.8320	52.68	74.00	-21.32	peak
6	17132.3554	53.94	74.00	-20.06	peak
		43.02	54.00	-10.98	average
7	17617.4362	53.89	74.00	-20.11	peak
		43.29	54.00	-10.71	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1230.7436	46.36	74.00	-27.64	peak
2	1740.2467	44.46	74.00	-29.54	peak
3	2347.7826	49.75	74.00	-24.25	peak
4	2659.2197	50.50	74.00	-23.50	peak
5	4715.2859	46.11	74.00	-27.89	peak
6	17207.3679	54.26	74.00	-19.74	peak
		42.79	54.00	-11.21	average
7	17642.4404	53.44	74.00	-20.56	peak
		43.70	54.00	-10.30	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 2. Peak: Peak detector.
 3. AVG: VBW=10 Hz.
 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

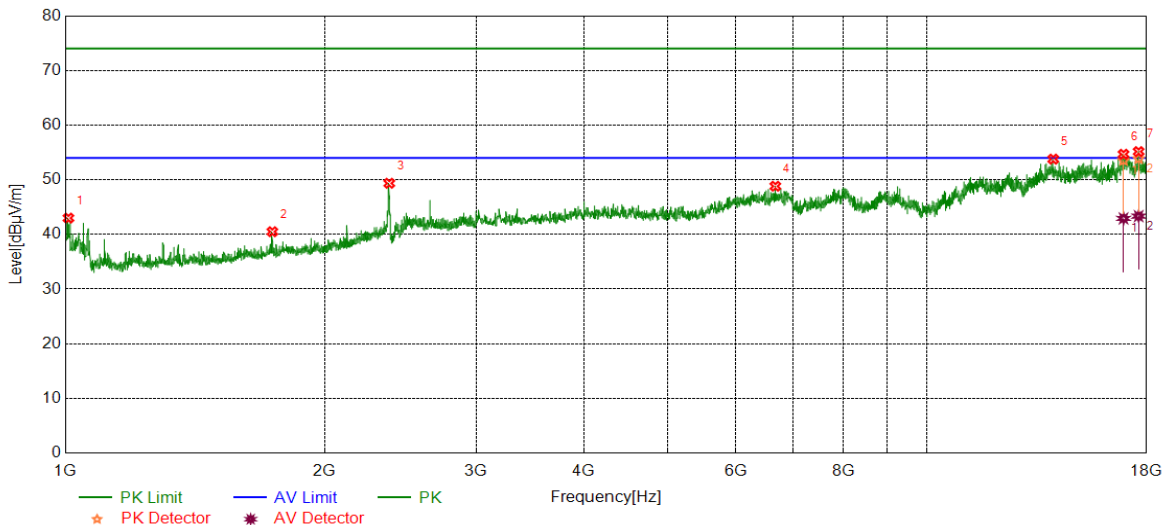
Note: All antennas have been tested, only the worst data record in the report.



9.2.4. 802.11n HT40 MIMO MODE

ANTENNA1+2

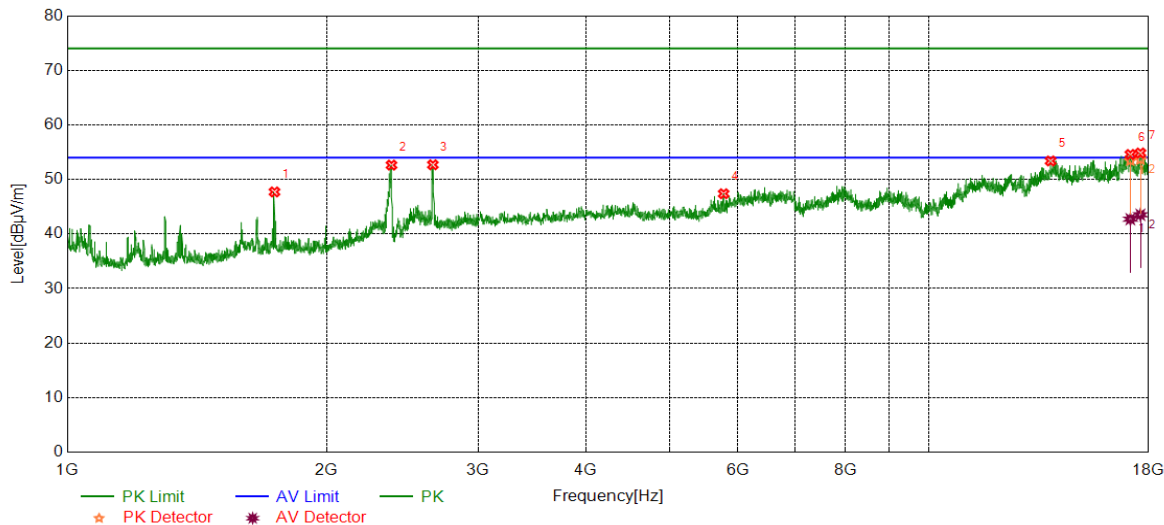
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1008.6696	42.99	74.00	-31.01	peak
2	1739.5799	40.50	74.00	-33.50	peak
3	2377.7926	49.36	74.00	-24.64	peak
4	6673.1122	48.82	74.00	-25.18	peak
5	14024.3374	53.78	74.00	-20.22	peak
6	16922.3204	53.53	74.00	-20.47	peak
		42.93	54.00	-11.07	average
7	17619.9367	53.85	74.00	-20.15	peak
		43.35	54.00	-10.65	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

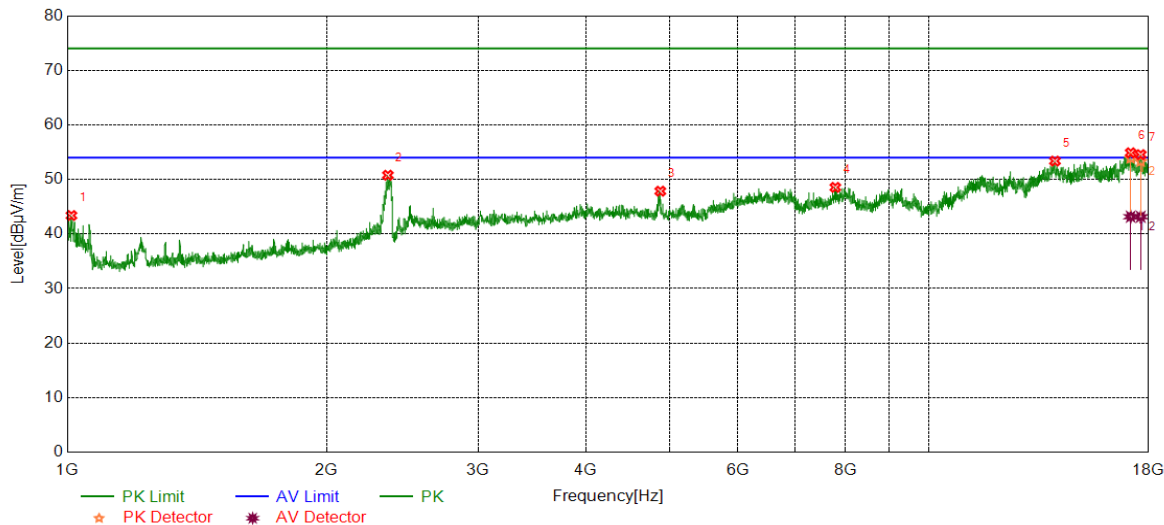


No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1740.2467	47.71	74.00	-26.29	peak
2	2379.1264	52.63	74.00	-21.37	peak
3	2657.2191	52.69	74.00	-21.31	peak
4	5780.4634	47.38	74.00	-26.62	peak
5	13851.8086	53.39	74.00	-20.61	peak
6	17142.3571	53.44	74.00	-20.56	peak
		42.72	54.00	-11.28	average
7	17609.9350	53.64	74.00	-20.36	peak
		43.53	54.00	-10.47	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 2. Peak: Peak detector.
 3. AVG: VBW=10 Hz.
 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

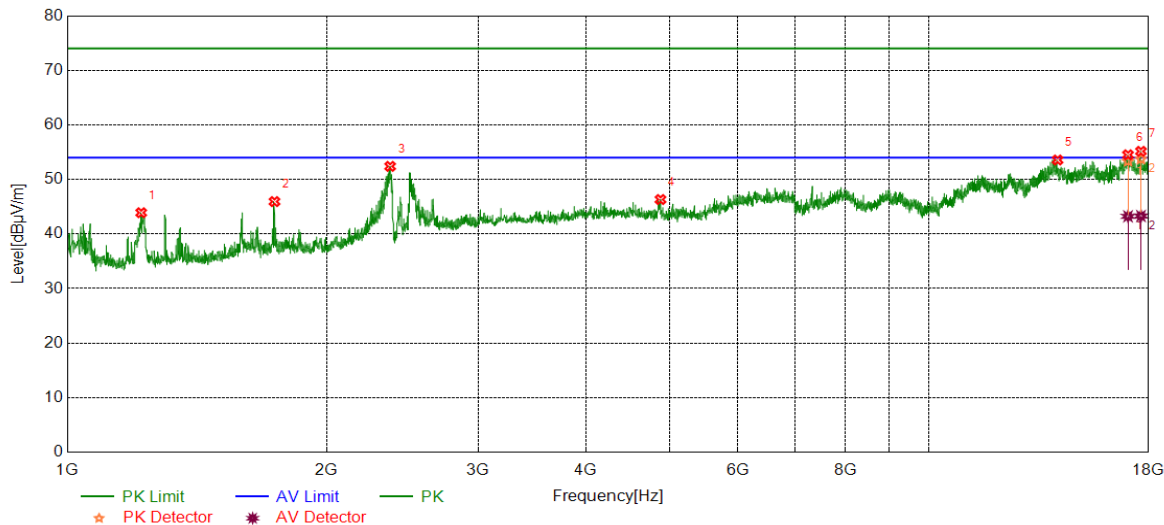


No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1011.3371	43.39	74.00	-30.61	peak
2	2356.4522	50.78	74.00	-23.22	peak
3	4880.3134	47.85	74.00	-26.15	peak
4	7790.7985	48.55	74.00	-25.45	peak
5	14014.3357	53.37	74.00	-20.63	peak
6	17157.3596	53.87	74.00	-20.13	peak
		43.17	54.00	-10.83	average
7	17624.9375	53.28	74.00	-20.72	peak
		43.16	54.00	-10.84	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

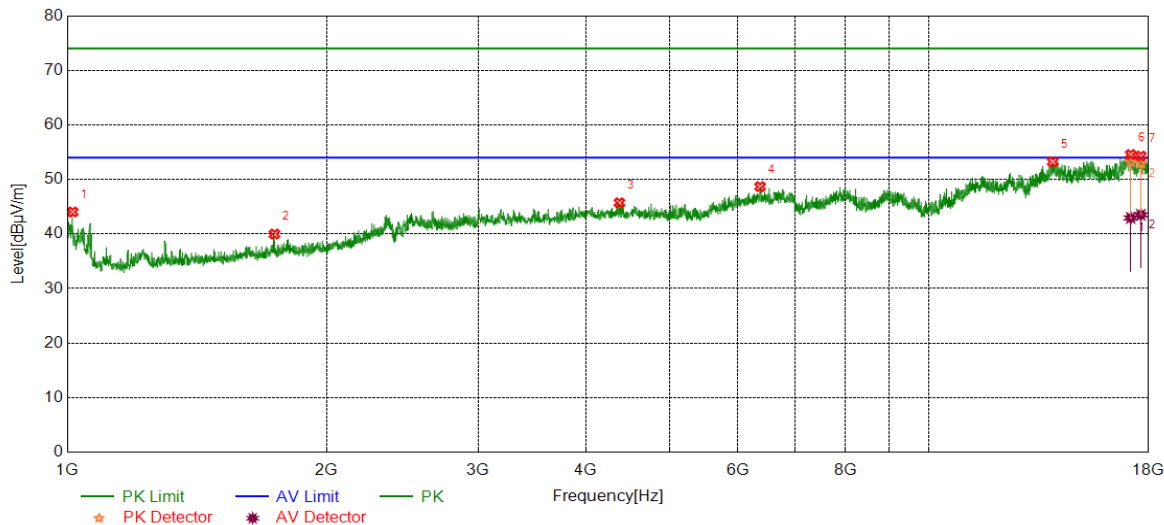


No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1218.7396	43.90	74.00	-30.10	peak
2	1740.2467	45.94	74.00	-28.06	peak
3	2370.4568	52.40	74.00	-21.60	peak
4	4882.8138	46.32	74.00	-27.68	peak
5	14111.8520	53.57	74.00	-20.43	peak
6	17034.8391	53.34	74.00	-20.66	peak
		43.24	54.00	-10.76	average
7	17634.9392	53.73	74.00	-20.27	peak
		43.30	54.00	-10.70	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



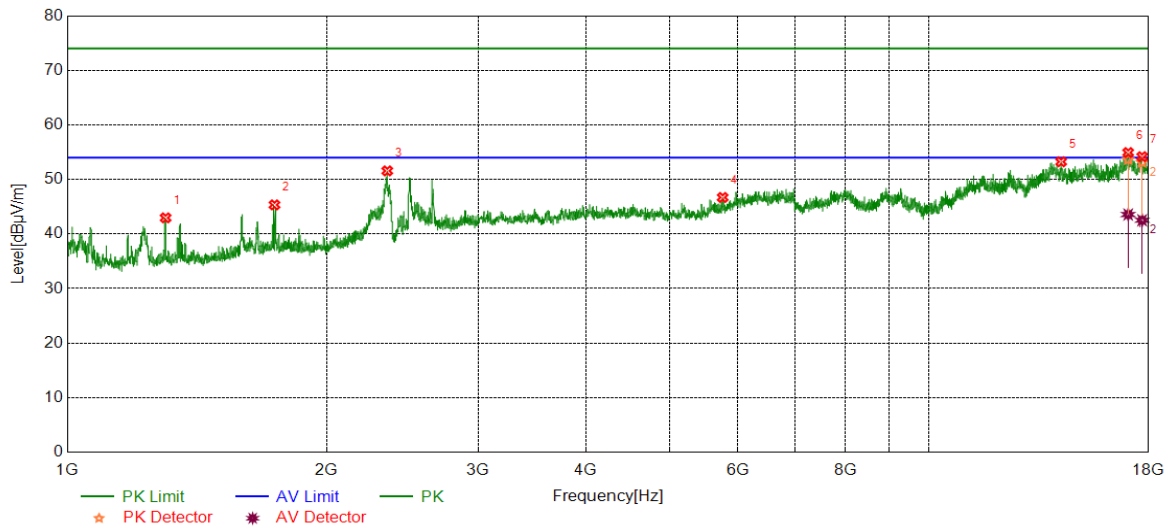
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1014.6716	44.04	74.00	-29.96	peak
2	1740.2467	39.99	74.00	-34.01	peak
3	4375.2292	45.72	74.00	-28.28	peak
4	6373.0622	48.69	74.00	-25.31	peak
5	13929.3216	53.24	74.00	-20.76	peak
6	17157.3596	53.20	74.00	-20.80	peak
		42.95	54.00	-11.05	average
7	17632.4387	52.99	74.00	-21.01	peak
		43.53	54.00	-10.47	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1300.7669	42.96	74.00	-31.04	peak
2	1740.2467	45.34	74.00	-28.66	peak
3	2352.4508	51.57	74.00	-22.43	peak
4	5765.4609	46.70	74.00	-27.30	peak
5	14246.8745	53.24	74.00	-20.76	peak
6	17042.3404	53.62	74.00	-20.38	peak
		43.57	54.00	-10.43	average
7	17689.9483	53.12	74.00	-20.88	peak
		42.52	54.00	-11.48	average

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Note: All antennas have been tested, only the worst data record in the report.

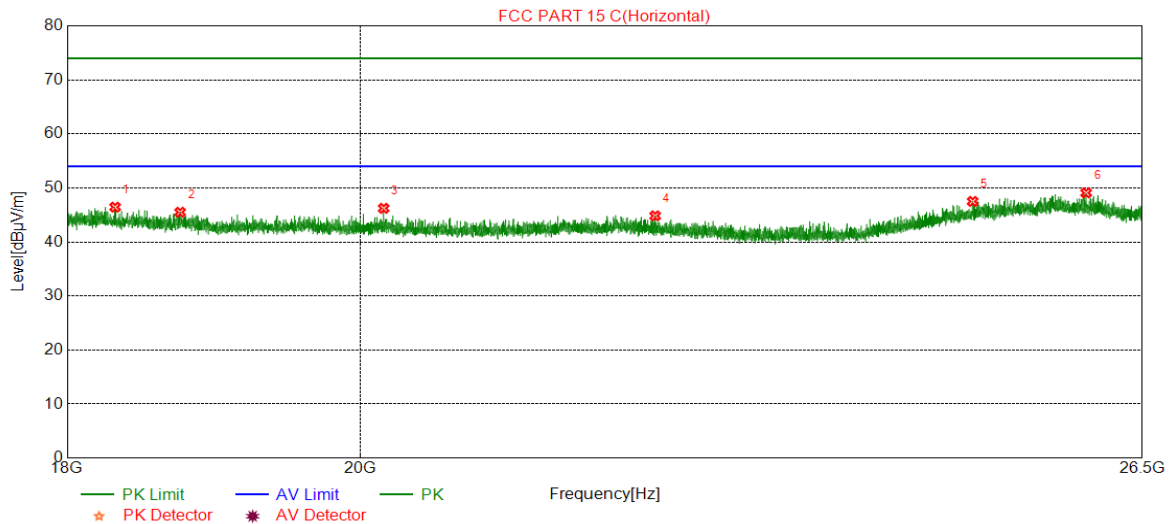


9.3. SPURIOUS EMISSIONS (18~26GHz)

9.3.1. 802.11g MODE(THE WORST CASE)

ANTENNA1+2

SPURIOUS EMISSIONS (MID CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)

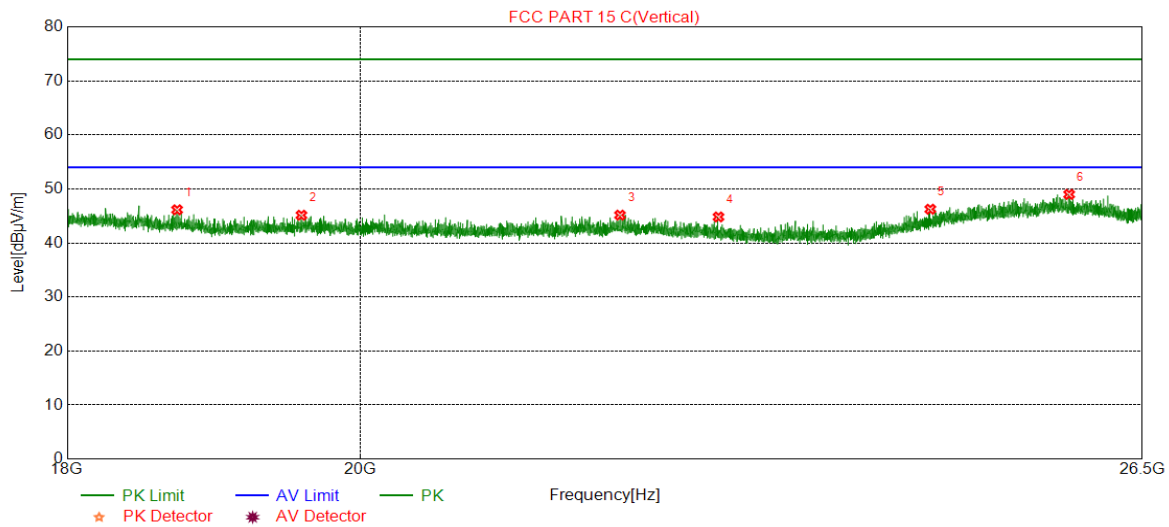


No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18312.8313	46.44	74.00	-27.56	peak
2	18746.3746	45.50	74.00	-28.50	peak
3	20171.1171	46.22	74.00	-27.78	peak
4	22241.0741	44.83	74.00	-29.17	peak
5	24933.2933	47.50	74.00	-26.50	peak
6	25972.0972	49.08	74.00	-24.92	peak

Note: 1. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Peak: Peak detector.
3. AVG: VBW=10 Hz.
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



SPURIOUS EMISSIONS (MID CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18725.9726	46.13	74.00	-27.87	peak
2	19582.8583	45.13	74.00	-28.87	peak
3	21961.3961	45.15	74.00	-28.85	peak
4	22753.6754	44.81	74.00	-29.19	peak
5	24555.8556	46.24	74.00	-27.76	peak
6	25813.9814	48.98	74.00	-25.02	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Proper operation of the transmitter prior to adding the filter to the measurement chain.

Note: All antennas and test modes have been tested, only the worst data record in the report.

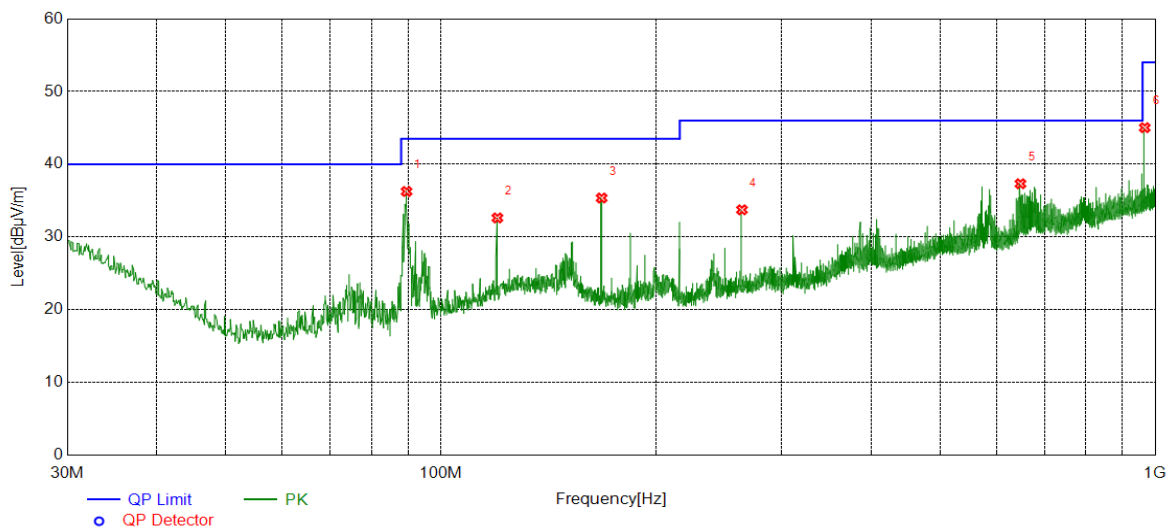


9.4. SPURIOUS EMISSIONS (0.03 ~ 1 GHz)

9.4.1. 802.11g SISO MODE(THE WORST CASE)

ANTENNA1+2

SPURIOUS EMISSIONS (MID CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	89.5640	36.26	43.50	-7.24	QP
2	120.0250	32.62	43.50	-10.88	QP
3	167.9478	35.36	43.50	-8.14	QP
4	263.9874	33.74	46.00	-12.26	QP
5	647.7578	37.32	46.00	-8.68	QP
6	966.8227	45.03	54.00	-8.97	QP

Note: 1. Result Level = Read Level + Correct Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.



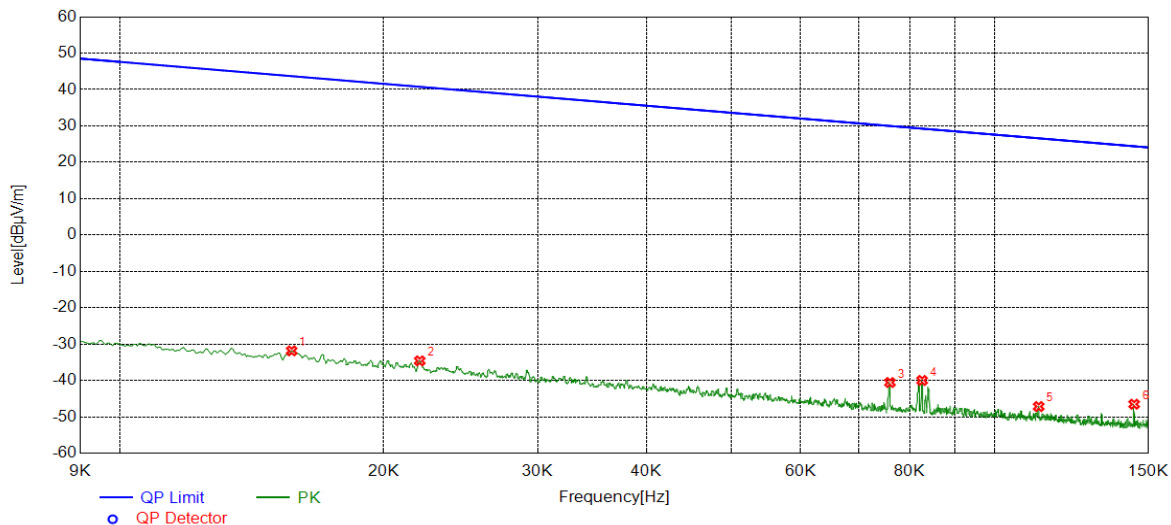
9.5. SPURIOUS EMISSIONS BELOW 30M

9.5.1. 802.11g SISO MODE(THE WORST CASE)

ANTENNA1+2

SPURIOUS EMISSIONS (MID CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)

0.09~ 150kHz



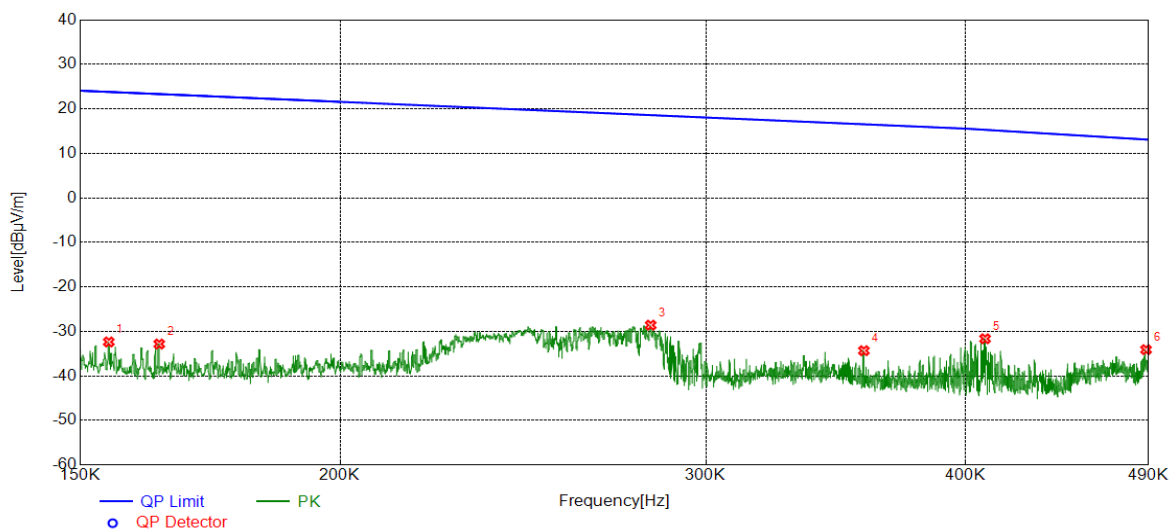
No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0157	-31.85	43.67	-75.52	peak
2	0.0220	-34.61	40.74	-75.35	peak
3	0.0759	-40.56	30.00	-70.56	peak
4	0.0826	-40.00	29.26	-69.26	peak
5	0.1123	-47.17	26.60	-73.77	peak
6	0.1444	-46.53	24.41	-70.94	peak

Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.



150kHz ~ 490kHz



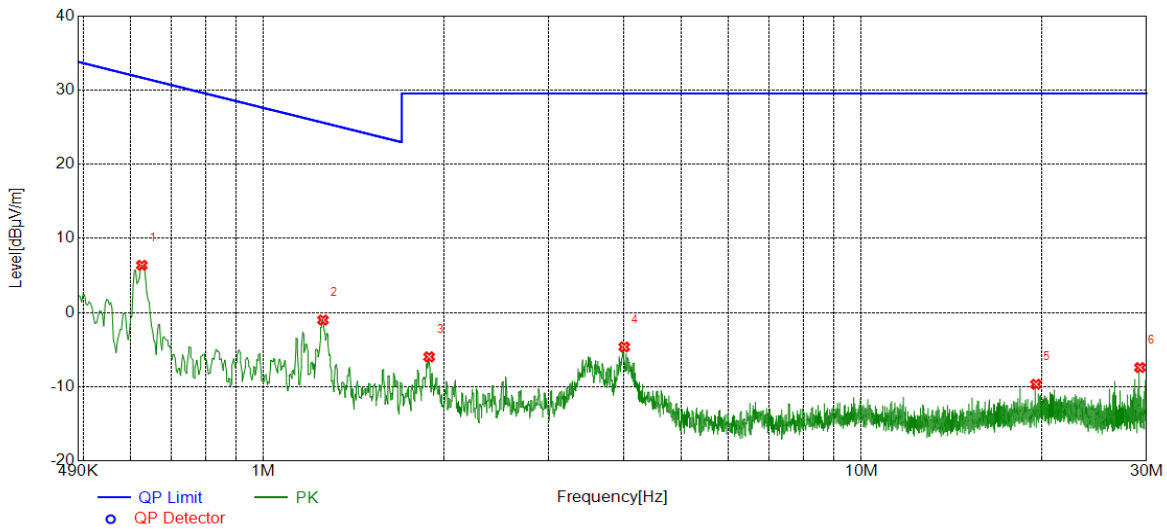
No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1548	-32.37	23.81	-56.18	peak
2	0.1637	-32.83	23.33	-56.16	peak
3	0.2822	-28.59	18.59	-47.18	peak
4	0.3574	-34.33	16.54	-50.87	peak
5	0.4088	-31.65	15.29	-46.94	peak
6	0.4886	-34.10	13.11	-47.21	peak

Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.



490kHz ~ 30MHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.6258	6.38	31.67	-25.29	peak
2	1.2573	-1.00	25.62	-26.62	peak
3	1.8919	-5.97	29.54	-35.51	peak
4	4.0109	-4.63	29.54	-34.17	peak
5	19.5878	-9.66	29.54	-39.20	peak
6	29.2386	-7.41	29.54	-36.95	peak

Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

Note: All constructions and test modes have been tested, only the worst data record in the report.

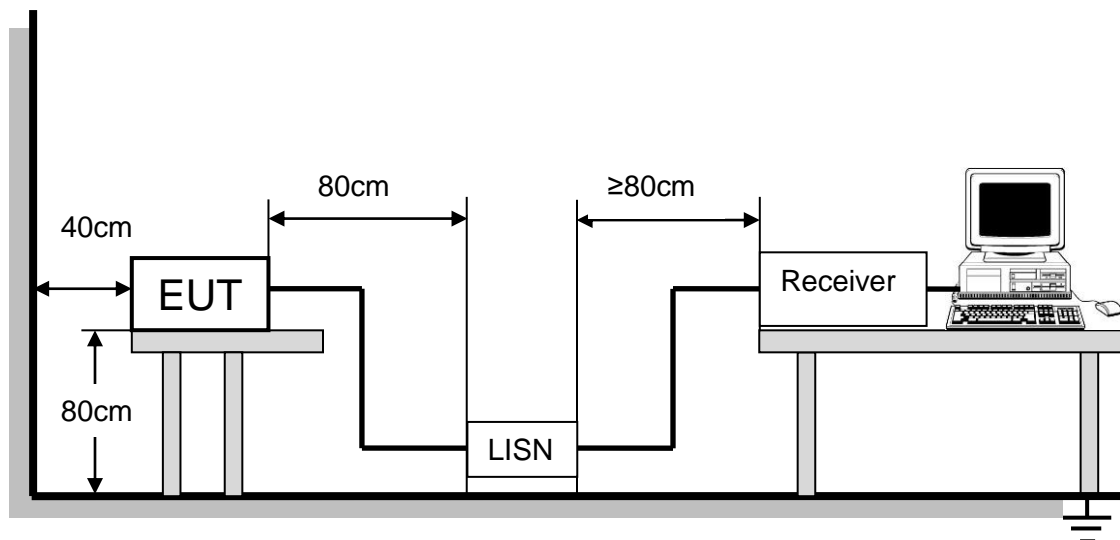
10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

FREQUENCY (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

TEST SETUP AND PROCEDURE



The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 7 and 13 of ANSI C63.10-2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

TEST ENVIRONMENT

Temperature	20°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 5.0V

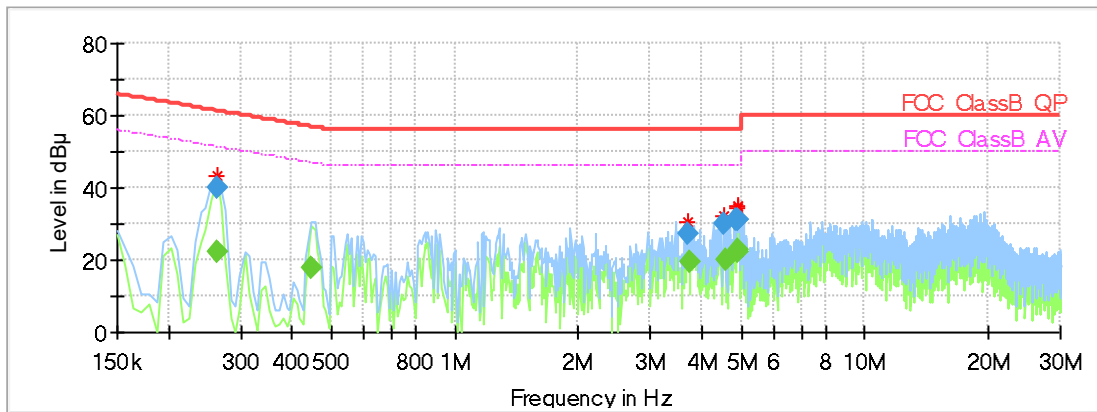


TEST RESULTS

10.1. 802.11g SISO MODE(THE WORST CASE)

ANTENNA1+2

LINE N RESULTS (MID CHANNEL, WORST-CASE CONFIGURATION)

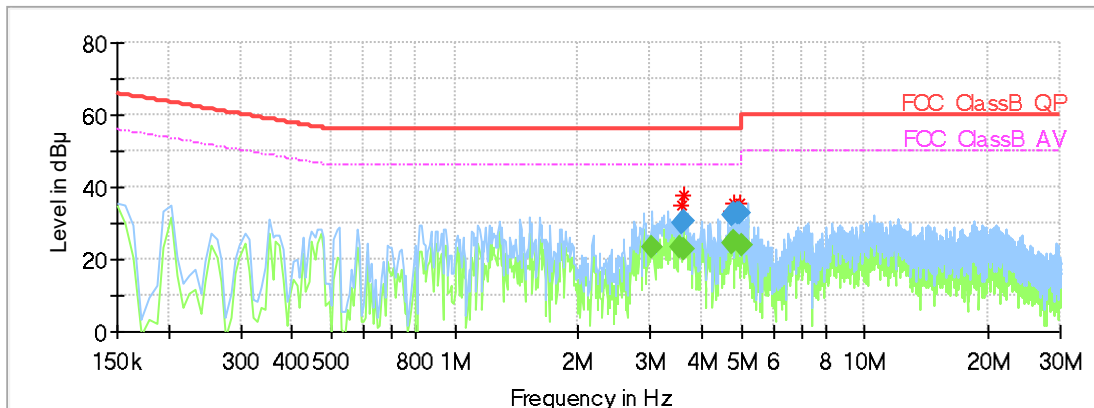


Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.261938	---	22.25	51.37	29.12	1000.0	9.000	N	OFF	9.6
0.261938	39.79	---	61.37	21.58	1000.0	9.000	N	OFF	9.6
0.448500	---	18.02	46.90	28.89	1000.0	9.000	N	OFF	9.6
3.709613	27.18	---	56.00	28.82	1000.0	9.000	N	OFF	9.7
3.761850	---	19.61	46.00	26.39	1000.0	9.000	N	OFF	9.7
4.508100	29.95	---	56.00	26.05	1000.0	9.000	N	OFF	9.7
4.560338	---	20.13	46.00	25.87	1000.0	9.000	N	OFF	9.7
4.828988	31.36	---	56.00	24.64	1000.0	9.000	N	OFF	9.7
4.896150	31.02	---	56.00	24.98	1000.0	9.000	N	OFF	9.7
4.896150	---	22.57	46.00	23.43	1000.0	9.000	N	OFF	9.7
4.926000	---	22.34	46.00	23.66	1000.0	9.000	N	OFF	9.7
4.926000	30.88	---	56.00	25.12	1000.0	9.000	N	OFF	9.7



LINE L RESULTS (HIGH CHANNEL, WORST-CASE CONFIGURATION)



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
3.030525	---	23.36	46.00	22.64	1000.0	9.000	L1	OFF	9.7
3.530513	---	23.24	46.00	22.76	1000.0	9.000	L1	OFF	9.7
3.567825	30.01	---	56.00	25.99	1000.0	9.000	L1	OFF	9.7
3.620063	30.65	---	56.00	25.35	1000.0	9.000	L1	OFF	9.7
3.627525	---	22.85	46.00	23.15	1000.0	9.000	L1	OFF	9.7
4.746900	---	24.59	46.00	21.41	1000.0	9.000	L1	OFF	9.7
4.746900	32.13	---	56.00	23.87	1000.0	9.000	L1	OFF	9.7
4.791675	32.68	---	56.00	23.32	1000.0	9.000	L1	OFF	9.7
4.791675	---	25.23	46.00	20.77	1000.0	9.000	L1	OFF	9.7
4.926000	32.53	---	56.00	23.47	1000.0	9.000	L1	OFF	9.7
4.985700	32.53	---	56.00	23.47	1000.0	9.000	L1	OFF	9.7
4.993163	---	24.15	46.00	21.85	1000.0	9.000	L1	OFF	9.7

Note: All antennas and test modes have been tested, only the worst data record in the report.



11. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.247(b)(4)

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that exceeds 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

ANTENNA CONNECTOR

EUT has two PCB Antennas.

ANTENNA GAIN

The antenna gain of EUT is less than 6 dBi, but the Directional gain = $10\log [(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}] = 6.01 > 6\text{dBi}$, where the N_{ANT} is the numbers of antenna. So the power and power density limit shall be reduced amount in dB that the directional gain of the antenna exceeds 6dBi.

END OF REPORT