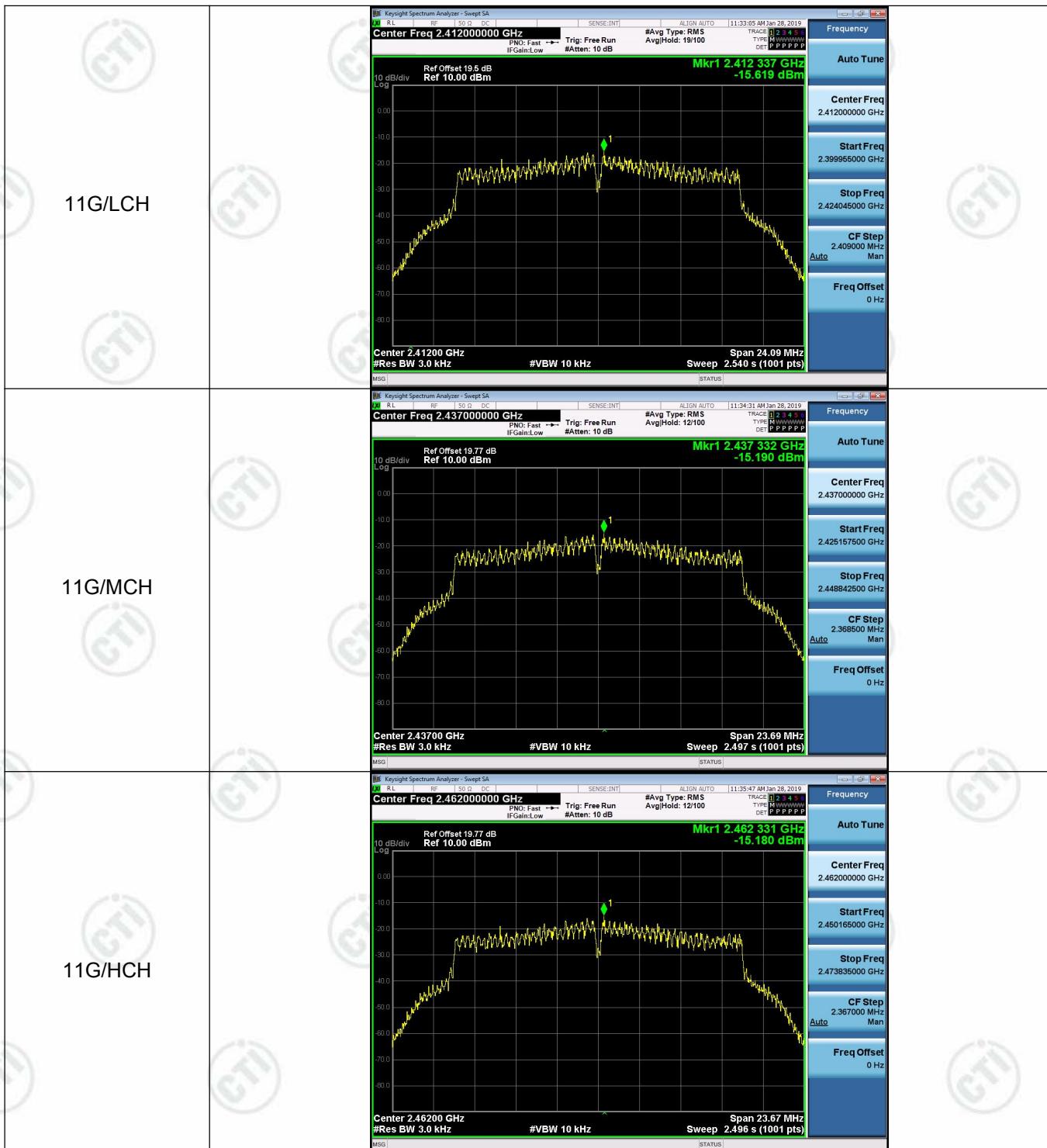
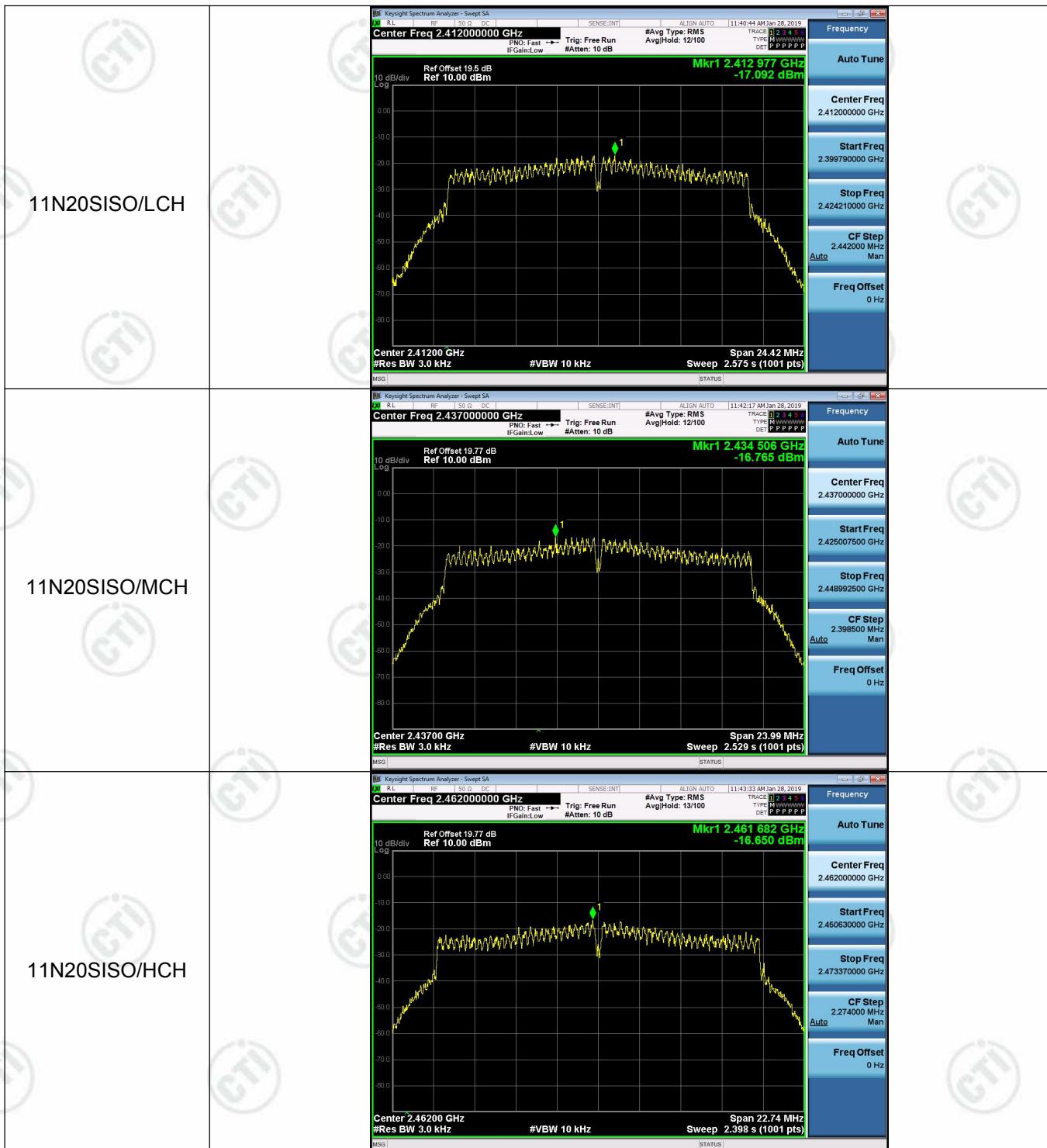


Test Graph







Appendix F): Antenna Requirement

15.203 requirement:

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, 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.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 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.

EUT Antenna:

The antenna is FPC antenna and no consideration of replacement. The best case gain of the antenna is 1dBi.

Appendix G): AC Power Line Conducted Emission

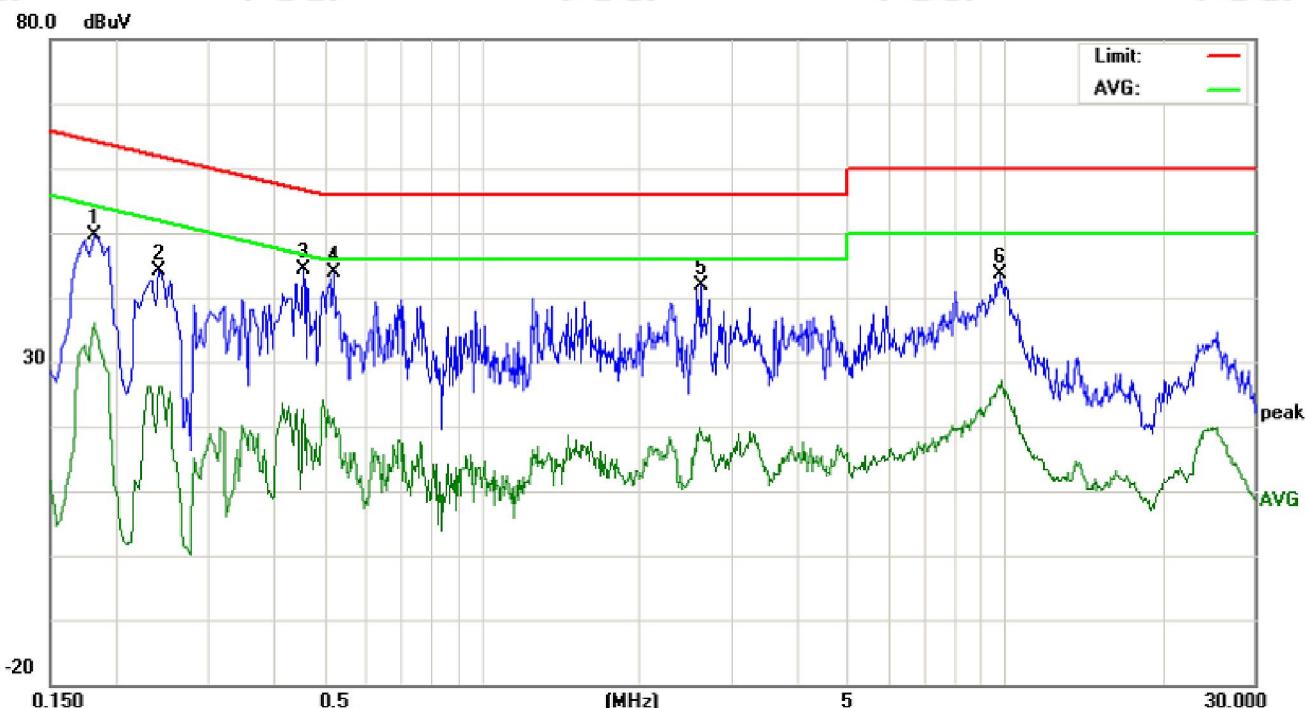
Test Procedure:	<p>Test frequency range :150KHz-30MHz</p> <p>1)The mains terminal disturbance voltage test was conducted in a shielded room.</p> <p>2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a $50\Omega/50\mu\text{H} + 5\Omega$ linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.</p> <p>3)The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,</p> <p>4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.</p> <p>5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.</p>																
Limit:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Frequency range (MHz)</th> <th colspan="2">Limit (dBμV)</th> </tr> <tr> <th>Quasi-peak</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>0.15-0.5</td> <td>66 to 56*</td> <td>56 to 46*</td> </tr> <tr> <td>0.5-5</td> <td>56</td> <td>46</td> </tr> <tr> <td>5-30</td> <td>60</td> <td>50</td> </tr> </tbody> </table> <p>* The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.</p> <p>NOTE : The lower limit is applicable at the transition frequency</p>			Frequency range (MHz)	Limit (dB μ V)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dB μ V)																
	Quasi-peak	Average															
0.15-0.5	66 to 56*	56 to 46*															
0.5-5	56	46															
5-30	60	50															
Test Ambient:	Temp.: 22°C	Humid.: 53%	Press.: 101kPa														

Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

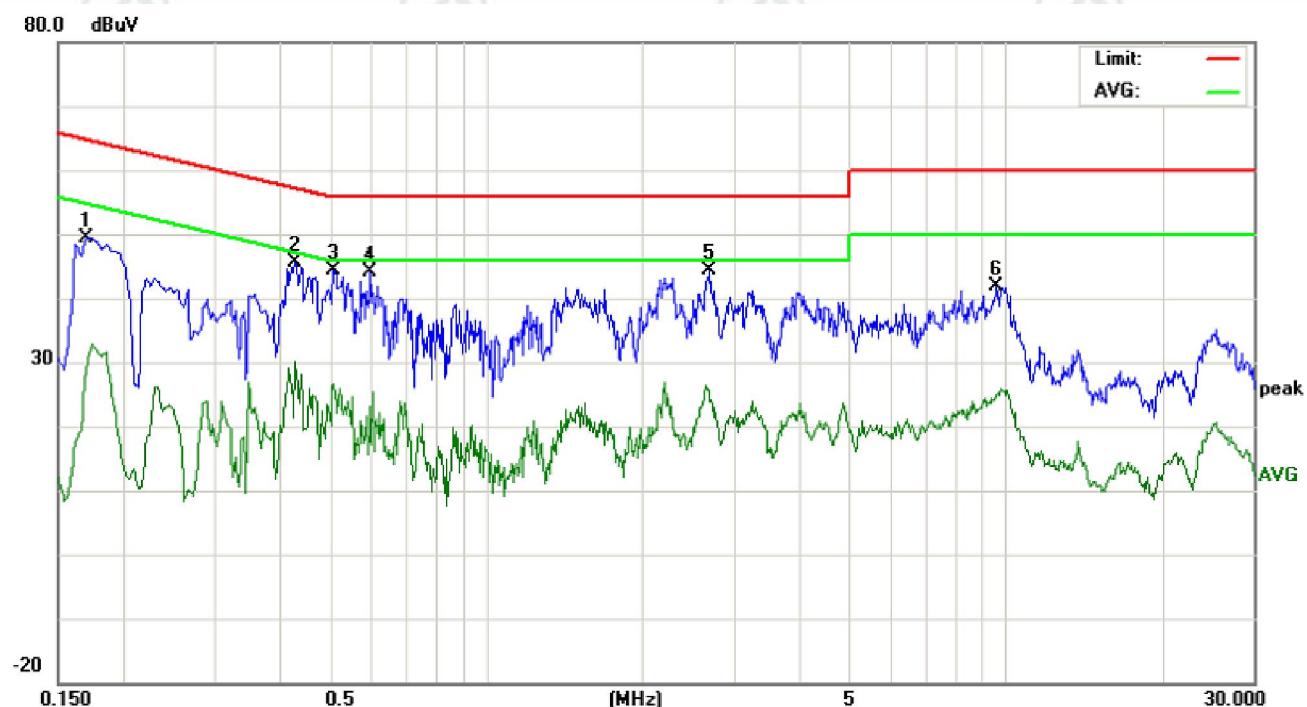
Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Live line:



No.	Freq.	Reading_Level (dBuV)			Correct Factor			Measurement (dBuV)			Limit (dBuV)			Margin (dB)		
		MHz	Peak	QP	Avg	dB	peak	QP	Avg	QP	Avg	QP	Avg	P/F	Comment	
1	0.1819	39.65	36.28	26.17	9.91	49.56	46.19	36.08	64.39	54.39	-18.20	-18.31	P			
2	0.2420	34.10	31.27	16.27	9.95	44.05	41.22	26.22	62.02	52.02	-20.80	-25.80	P			
3	0.4580	34.51	31.28	12.84	9.89	44.40	41.17	22.73	56.73	46.73	-15.56	-24.00	P			
4	0.5220	33.93	29.38	11.51	9.93	43.86	39.31	21.44	56.00	46.00	-16.69	-24.56	P			
5	2.6260	32.24	28.96	9.08	9.72	41.96	38.68	18.80	56.00	46.00	-17.32	-27.20	P			
6	9.8139	33.76	30.17	16.11	9.84	43.60	40.01	25.95	60.00	50.00	-19.99	-24.05	P			

Neutral line:



No.	Freq.	Reading Level (dBuV)				Correct Factor	Measurement (dBuV)			Limit (dBuV)			Margin (dB)	
		MHz	Peak	QP	Avg		dB	peak	QP	Avg	QP	Avg	QP	Avg
1	0.1700	39.57	36.28	19.15	9.91	49.48	46.19	29.06	64.96	54.96	-18.77	-25.90	P	
2	0.4300	35.83	32.24	20.26	9.89	45.72	42.13	30.15	57.25	47.25	-15.12	-17.10	P	
3	0.5100	34.53	30.35	16.62	9.91	44.44	40.26	26.53	56.00	46.00	-15.74	-19.47	P	
4	0.5980	34.14	31.26	13.17	10.05	44.19	41.31	23.22	56.00	46.00	-14.69	-22.78	P	
5	2.7060	34.55	31.39	14.21	9.72	44.27	41.11	23.93	56.00	46.00	-14.89	-22.07	P	
6	9.6180	32.05	28.37	14.93	9.84	41.89	38.21	24.77	60.00	50.00	-21.79	-25.23	P	

Notes:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.

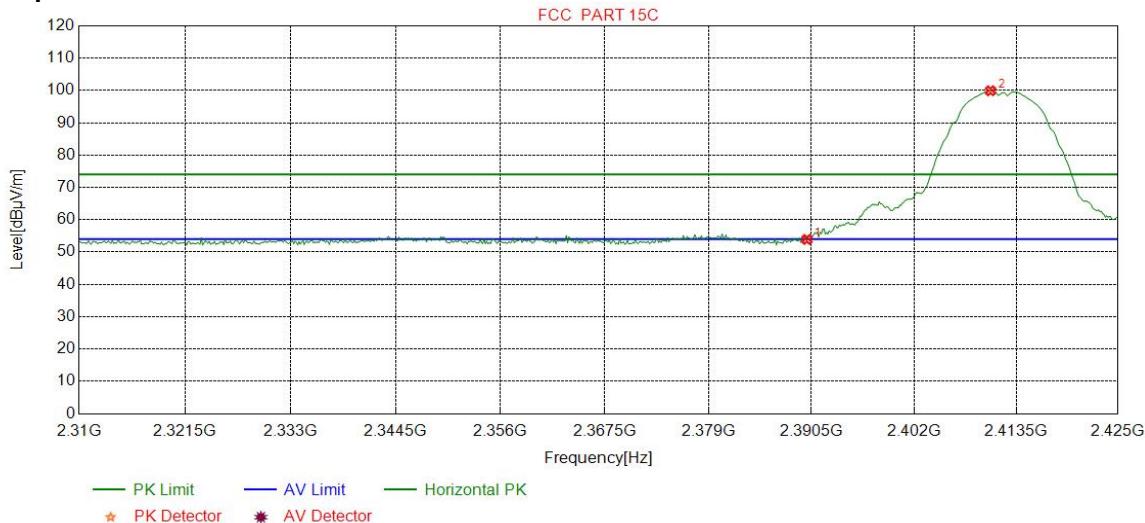
Appendix H): Restricted bands around fundamental frequency (Radiated)

Receiver Setup:	Frequency	Detector	RBW	VBW	Remark	
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak	
	Above 1GHz	Peak	1MHz	3MHz	Peak	
		Peak	1MHz	10Hz	Average	
Test Procedure:	Below 1GHz test procedure as below: <ul style="list-style-type: none"> a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. 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 antenna height 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 was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel Above 1GHz test procedure as below: <ul style="list-style-type: none"> g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber change form table 0.8 meter to 1.5 meter(Above 18GHz the distance is 1 meter and table is 1.5 meter). h. Test the EUT in the lowest channel , the Highest channel i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case. j. Repeat above procedures until all frequencies measured was complete. 					
Limit:	Frequency	Limit (dB μ V/m @3m)	Remark			
	30MHz-88MHz	40.0	Quasi-peak Value			
	88MHz-216MHz	43.5	Quasi-peak Value			
	216MHz-960MHz	46.0	Quasi-peak Value			
	960MHz-1GHz	54.0	Quasi-peak Value			
	Above 1GHz	54.0	Average Value			
		74.0	Peak Value			
Test Ambient:	Temp.: 23°C	Humid.: 51%	Press.: 101kPa			

Test plot as follows:

Mode:	11b	Channel:	2412
Remark:	Peak		

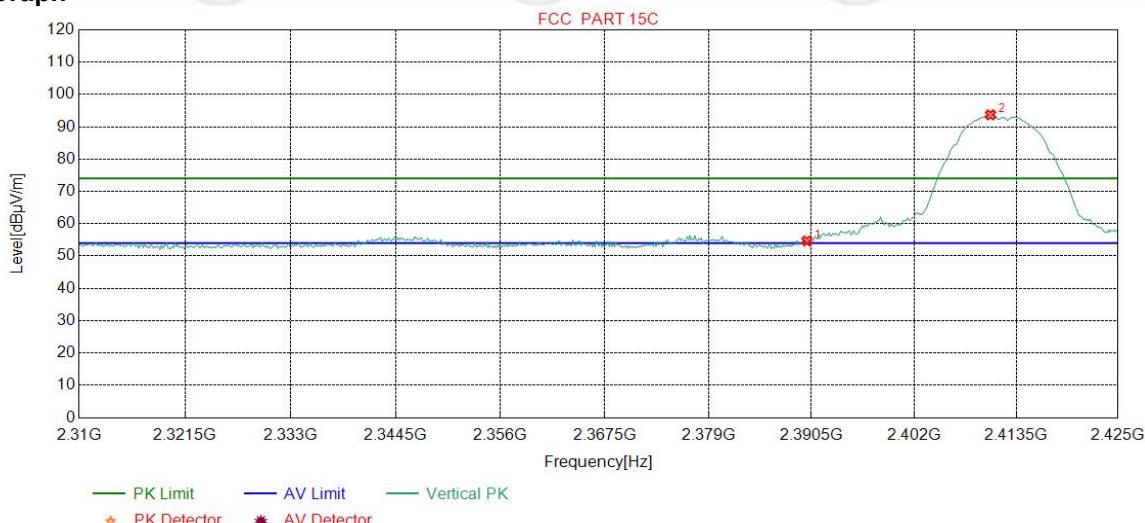
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	50.72	53.90	74.00	20.10	Pass	Horizontal
2	2410.6070	32.27	13.35	-42.43	96.72	99.91	74.00	-25.91	Pass	Horizontal

Mode:	11b	Channel:	2412
Remark:	Peak		

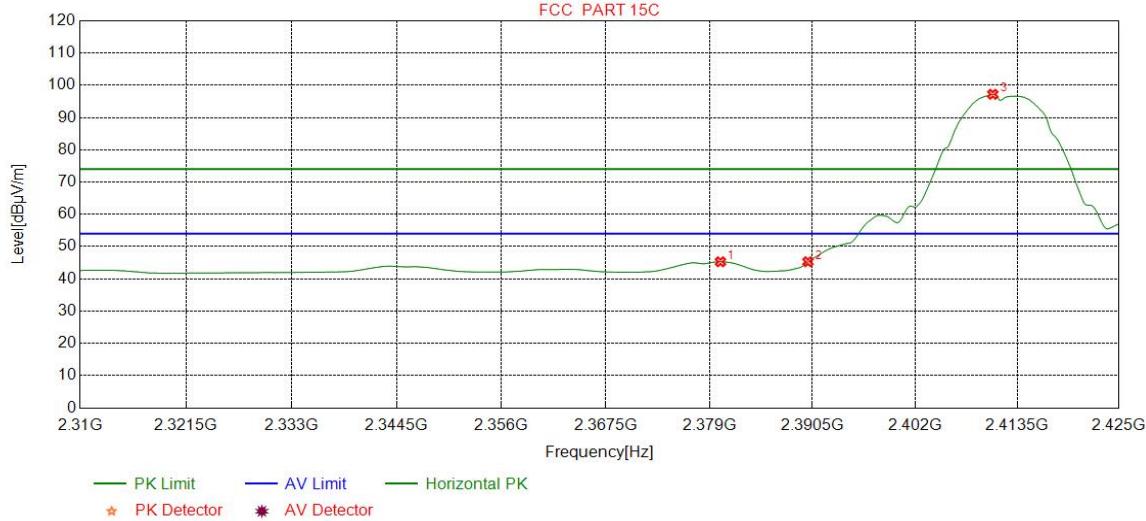
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	51.50	54.68	74.00	19.32	Pass	Vertical
2	2410.6070	32.27	13.35	-42.43	90.51	93.70	74.00	-19.70	Pass	Vertical

Mode:	11b	Channel:	2412
Remark:	AV		

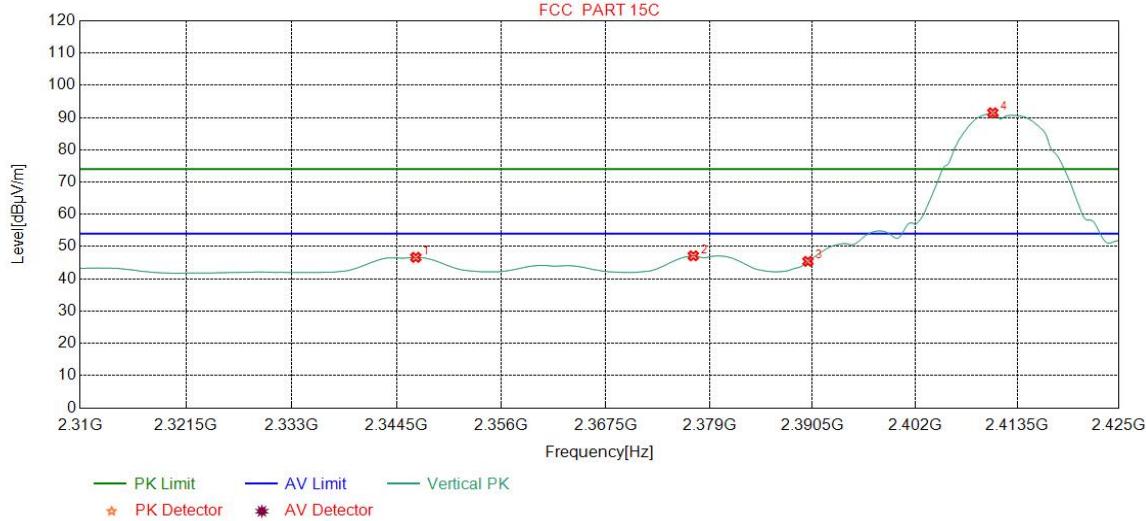
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2380.2378	32.23	13.45	-42.44	42.05	45.29	54.00	8.71	Pass	Horizontal
2	2390.0000	32.25	13.37	-42.44	42.12	45.30	54.00	8.70	Pass	Horizontal
3	2410.7509	32.28	13.35	-42.43	94.02	97.22	54.00	-43.22	Pass	Horizontal

Mode:	11b	Channel:	2412
Remark:	AV		

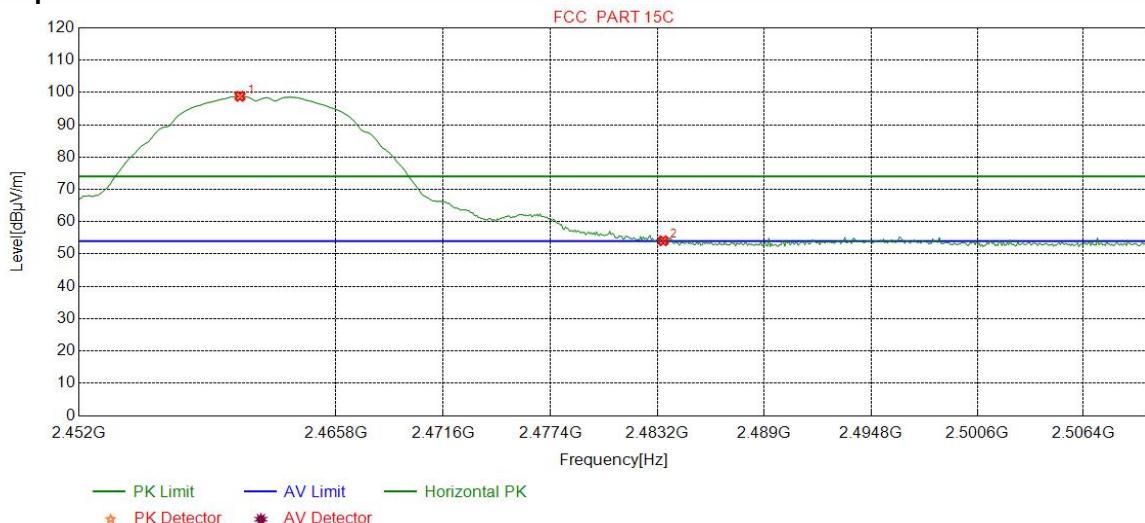
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2346.5582	32.19	13.64	-42.46	43.29	46.66	54.00	7.34	Pass	Vertical
2	2377.2153	32.23	13.47	-42.45	43.89	47.14	54.00	6.86	Pass	Vertical
3	2390.0000	32.25	13.37	-42.44	42.24	45.42	54.00	8.58	Pass	Vertical
4	2410.7509	32.28	13.35	-42.43	88.29	91.49	54.00	-37.49	Pass	Vertical

Mode:	11b	Channel:	2462
Remark:	Peak		

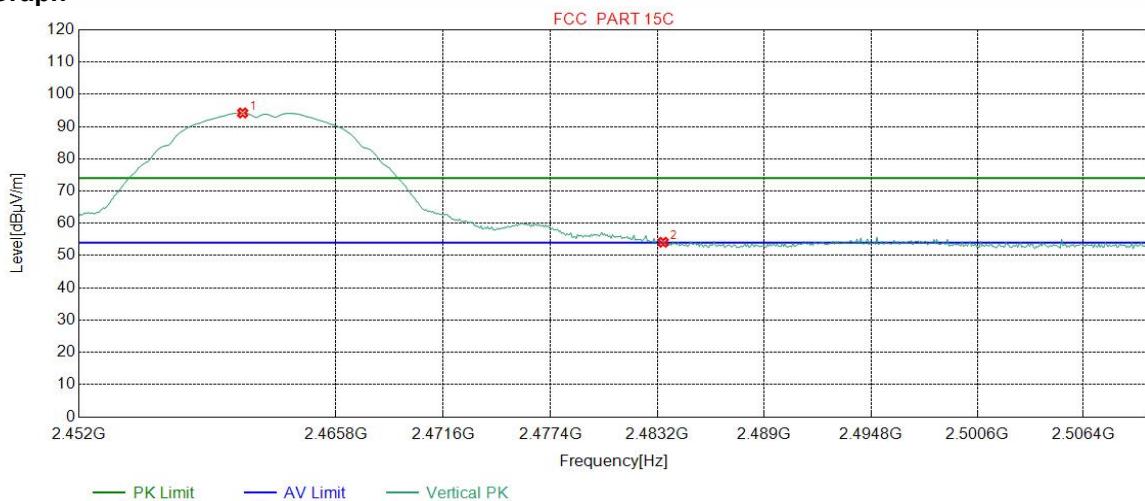
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2460.6383	32.34	13.48	-42.40	95.39	98.81	74.00	-24.81	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	50.75	54.11	74.00	19.89	Pass	Horizontal

Mode:	11b	Channel:	2462
Remark:	Peak		

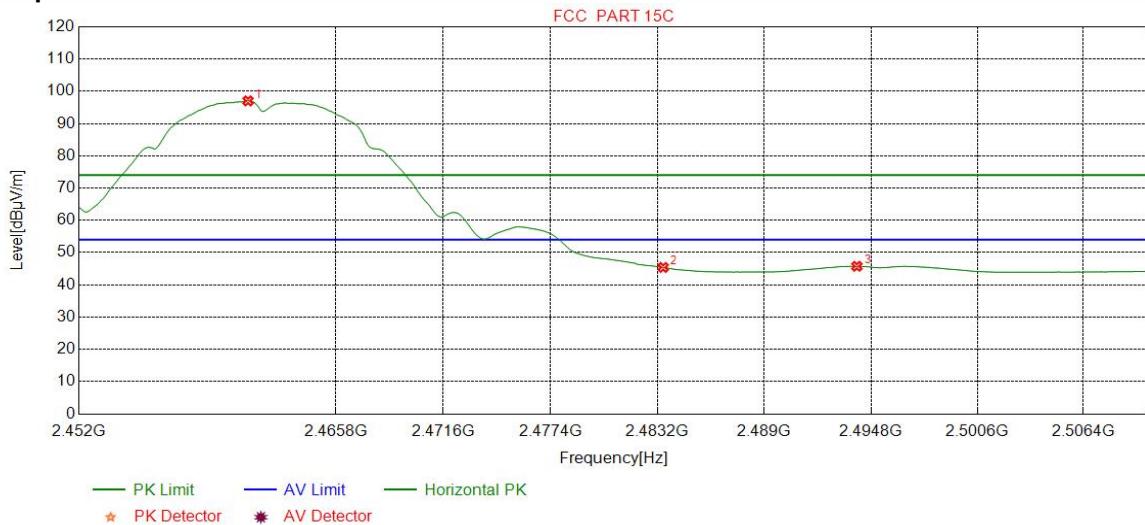
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2460.7835	32.35	13.48	-42.41	90.79	94.21	74.00	-20.21	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	50.77	54.13	74.00	19.87	Pass	Vertical

Mode:	11b	Channel:	2462
Remark:	AV		

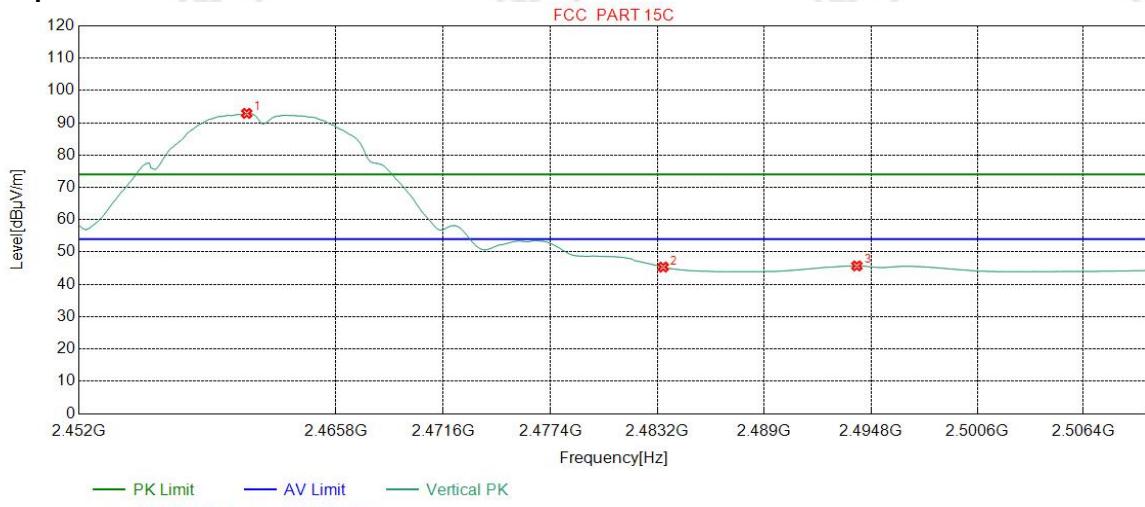
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2461.0738	32.35	13.48	-42.41	93.61	97.03	54.00	-43.03	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	42.05	45.41	54.00	8.59	Pass	Horizontal
3	2494.0300	32.39	13.33	-42.39	42.43	45.76	54.00	8.24	Pass	Horizontal

Mode:	11b	Channel:	2462
Remark:	AV		

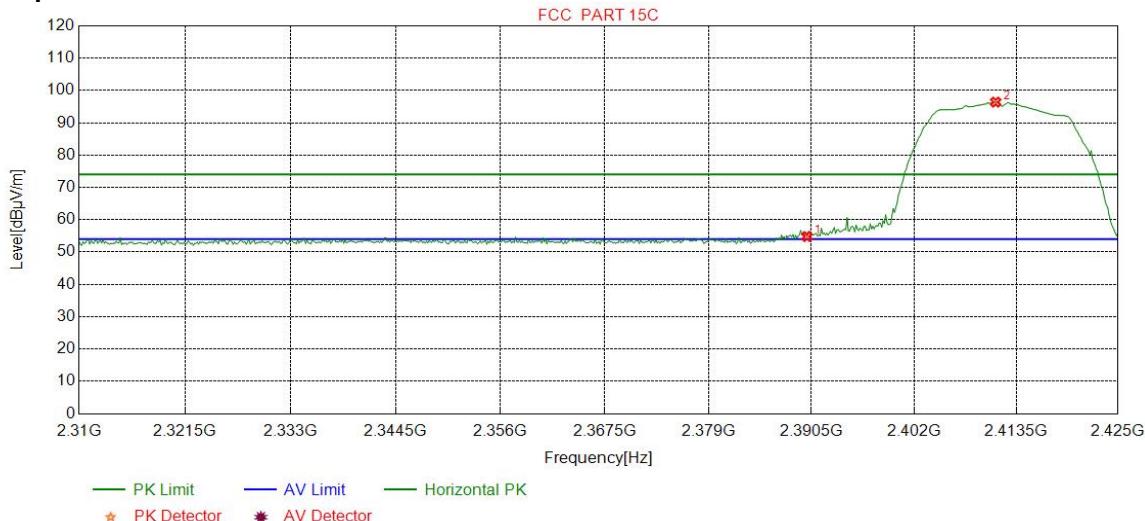
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2461.0013	32.35	13.48	-42.41	89.49	92.91	54.00	-38.91	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	41.99	45.35	54.00	8.65	Pass	Vertical
3	2494.0300	32.39	13.33	-42.39	42.38	45.71	54.00	8.29	Pass	Vertical

Mode:	11g	Channel:	2412
Remark:	Peak		

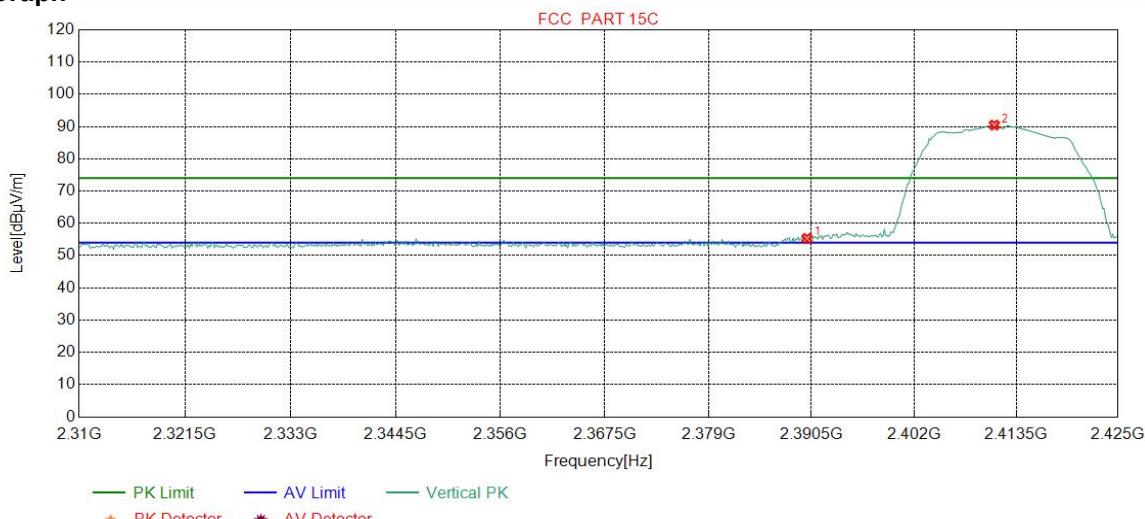
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	51.62	54.80	74.00	19.20	Pass	Horizontal
2	2411.1827	32.28	13.35	-42.43	93.20	96.40	74.00	-22.40	Pass	Horizontal

Mode:	11g	Channel:	2412
Remark:	Peak		

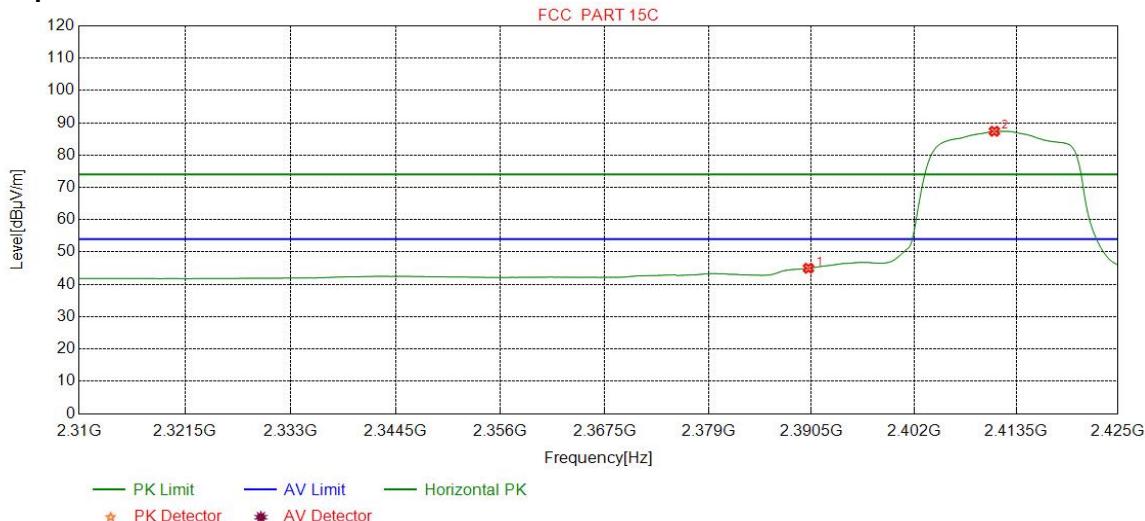
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	52.13	55.31	74.00	18.69	Pass	Vertical
2	2411.0388	32.28	13.35	-42.43	87.26	90.46	74.00	-16.46	Pass	Vertical

Mode:	11g	Channel:	2412
Remark:	AV		

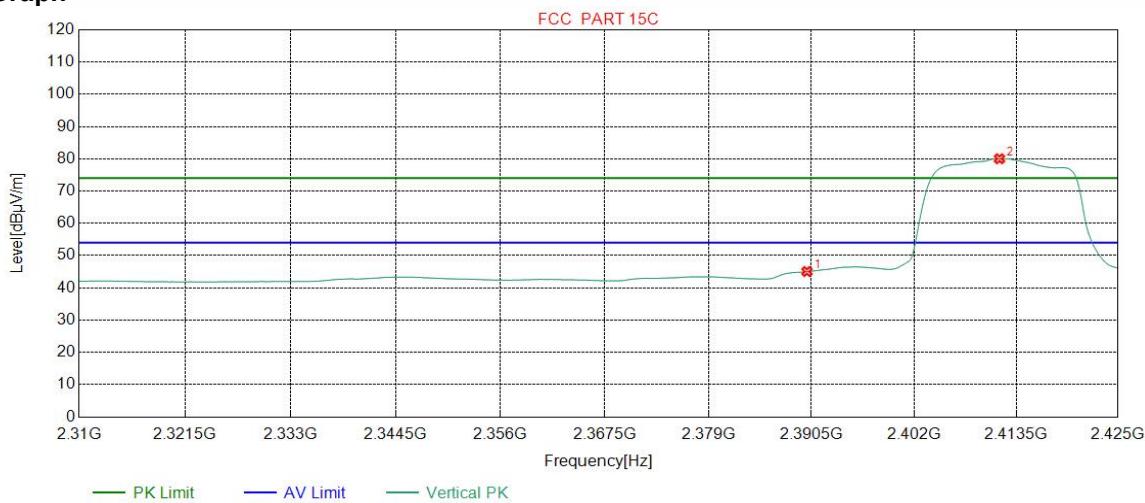
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2390.1690	32.25	13.37	-42.44	41.82	45.00	54.00	9.00	Pass	Horizontal
2	2411.0388	32.28	13.35	-42.43	84.17	87.37	54.00	-33.37	Pass	Horizontal

Mode:	11g	Channel:	2412
Remark:	AV		

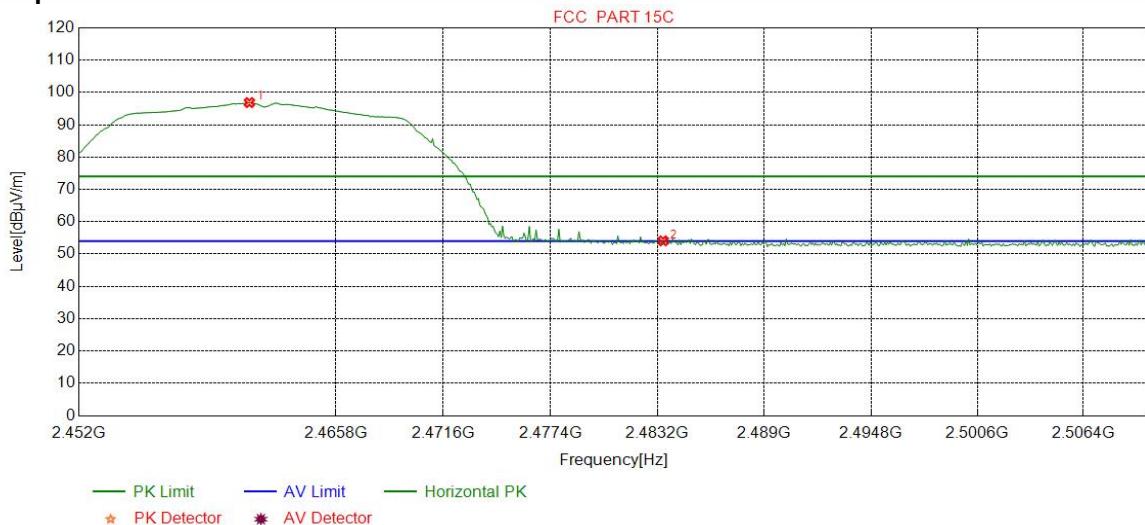
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	41.89	45.07	54.00	8.93	Pass	Vertical
2	2411.6145	32.28	13.35	-42.43	76.82	80.02	54.00	-26.02	Pass	Vertical

Mode:	11g	Channel:	2462
Remark:	Peak		

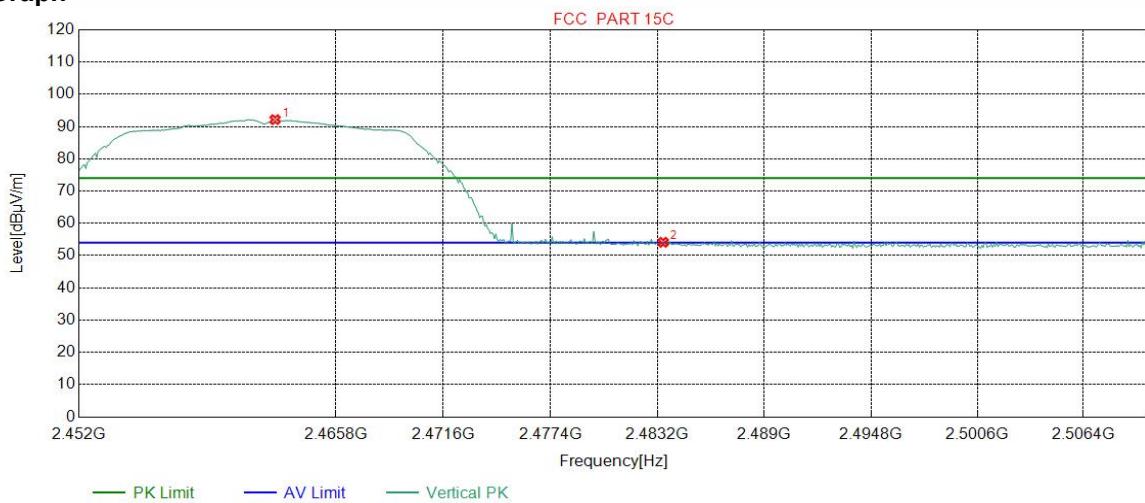
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2461.1464	32.35	13.48	-42.41	93.45	96.87	74.00	-22.87	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	50.72	54.08	74.00	19.92	Pass	Horizontal

Mode:	11g	Channel:	2462
Remark:	Peak		

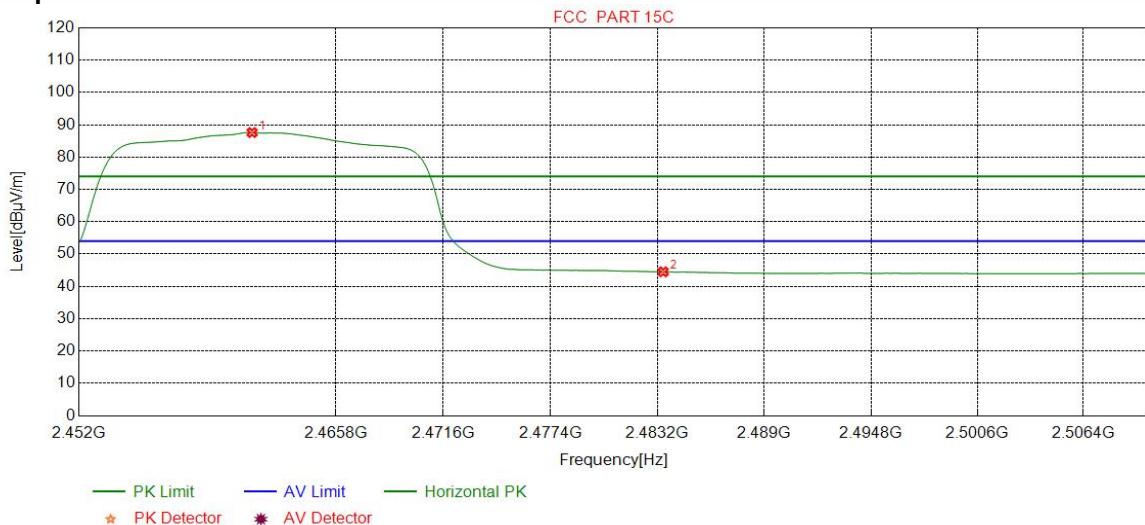
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2462.5257	32.35	13.47	-42.41	88.74	92.15	74.00	-18.15	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	50.76	54.12	74.00	19.88	Pass	Vertical

Mode:	11g	Channel:	2462
Remark:	AV		

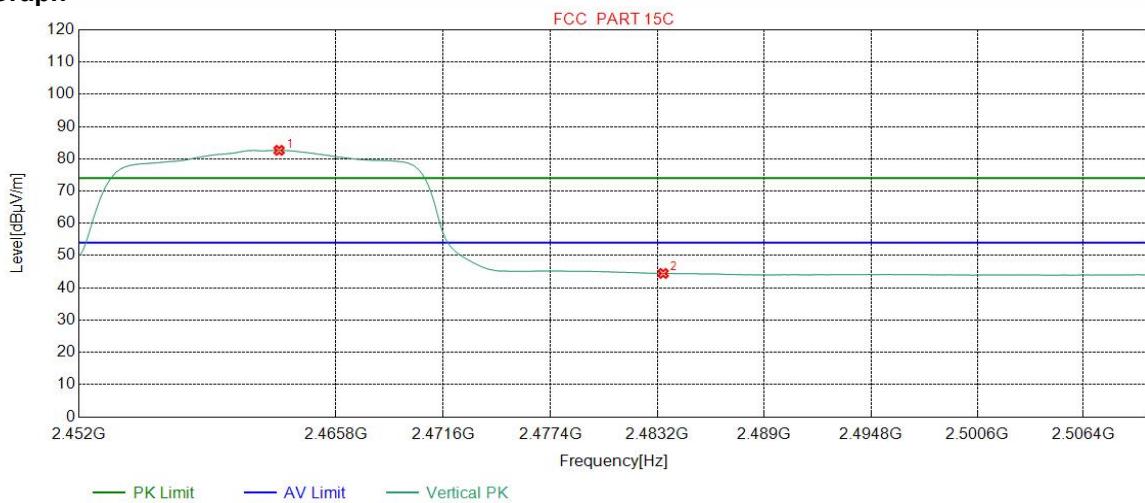
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2461.2916	32.35	13.48	-42.41	84.19	87.61	54.00	-33.61	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	41.15	44.51	54.00	9.49	Pass	Horizontal

Mode:	11g	Channel:	2462
Remark:	AV		

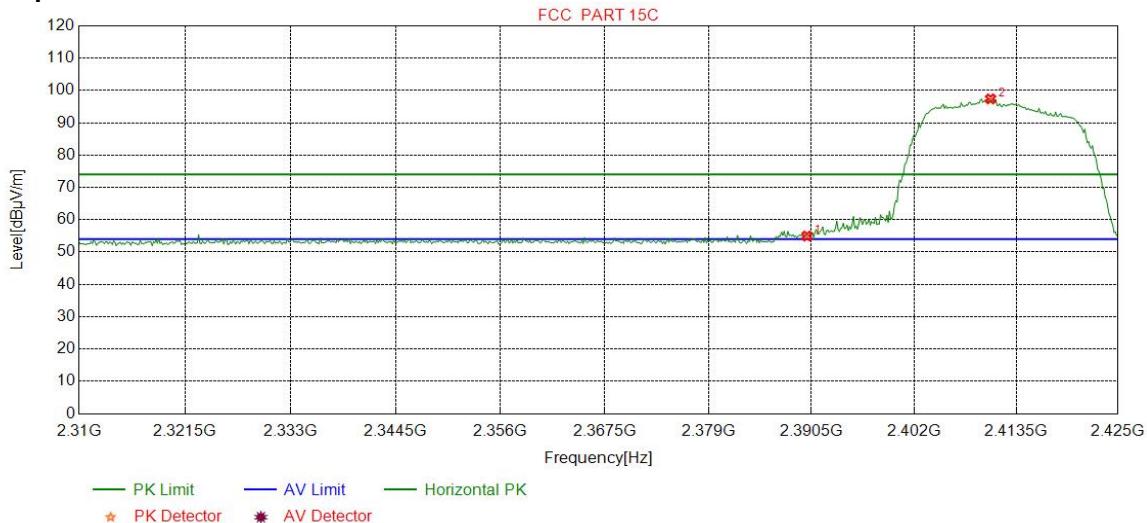
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2462.7434	32.35	13.47	-42.41	79.22	82.63	54.00	-28.63	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	41.11	44.47	54.00	9.53	Pass	Vertical

Mode:	11n	Channel:	2412
Remark:	Peak		

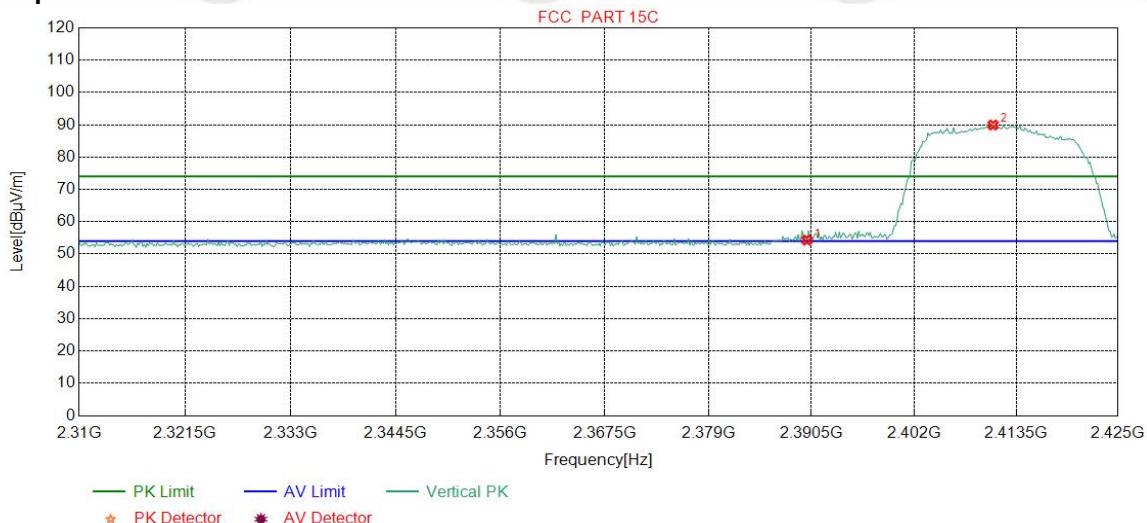
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	51.78	54.96	74.00	19.04	Pass	Horizontal
2	2410.6070	32.27	13.35	-42.43	94.20	97.39	74.00	-23.39	Pass	Horizontal

Mode:	11n	Channel:	2412
Remark:	Peak		

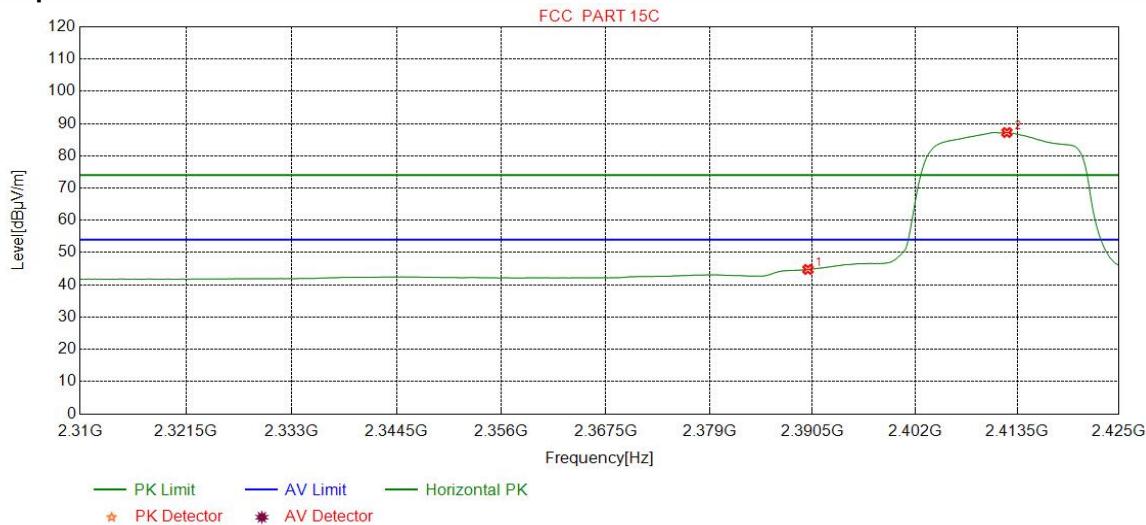
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	51.13	54.31	74.00	19.69	Pass	Vertical
2	2410.8949	32.28	13.35	-42.43	86.73	89.93	74.00	-15.93	Pass	Vertical

Mode:	11n	Channel:	2412
Remark:	AV		

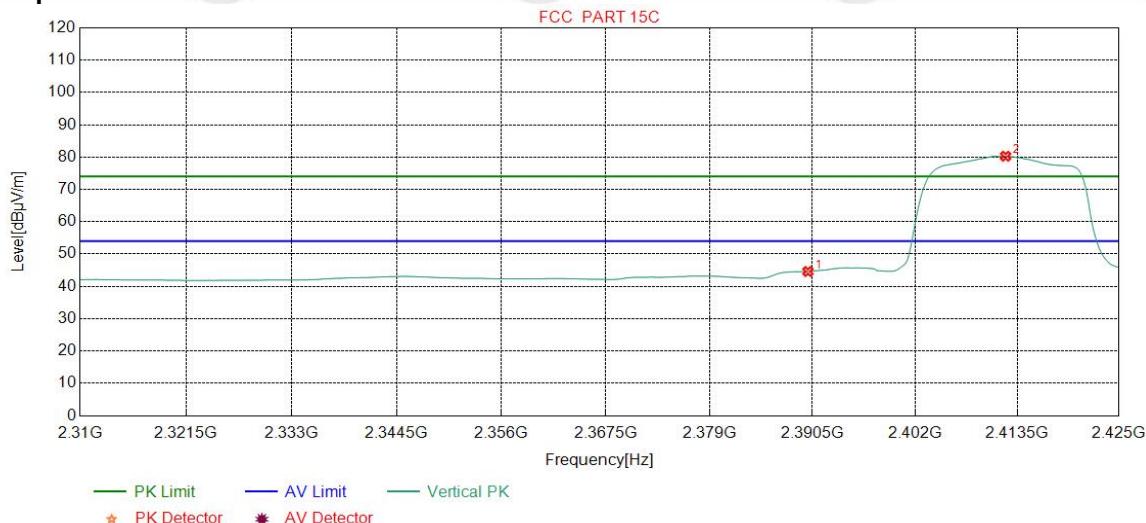
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	41.59	44.77	54.00	9.23	Pass	Horizontal
2	2412.3342	32.28	13.36	-42.43	84.01	87.22	54.00	-33.22	Pass	Horizontal

Mode:	11n	Channel:	2412
Remark:	AV		

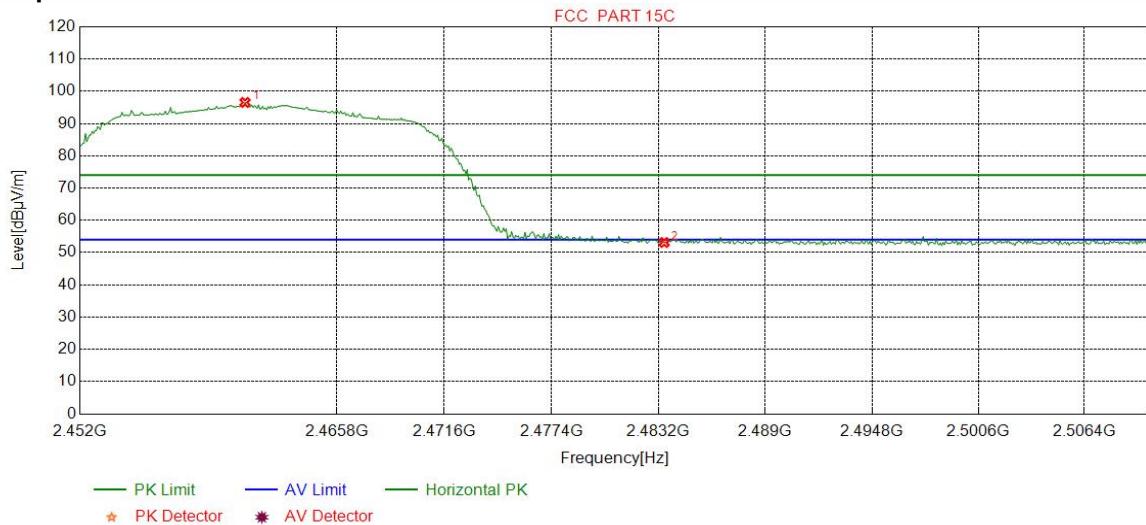
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	41.42	44.60	54.00	9.40	Pass	Vertical
2	2412.1902	32.28	13.36	-42.44	77.08	80.28	54.00	-26.28	Pass	Vertical

Mode:	11n	Channel:	2462
Remark:	Peak		

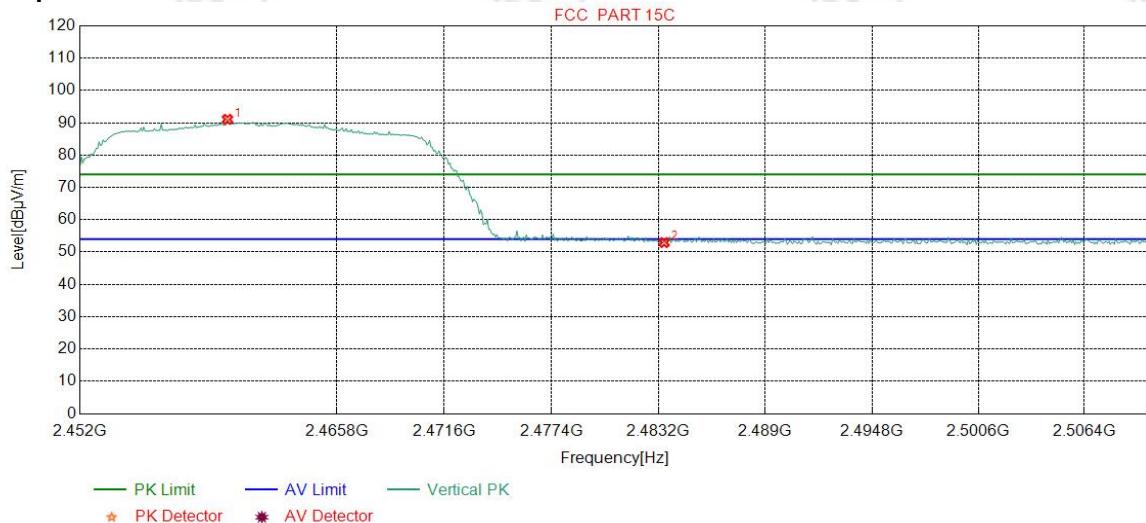
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2460.8561	32.35	13.48	-42.41	93.13	96.55	74.00	-22.55	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	49.76	53.12	74.00	20.88	Pass	Horizontal

Mode:	11n	Channel:	2462
Remark:	Peak		

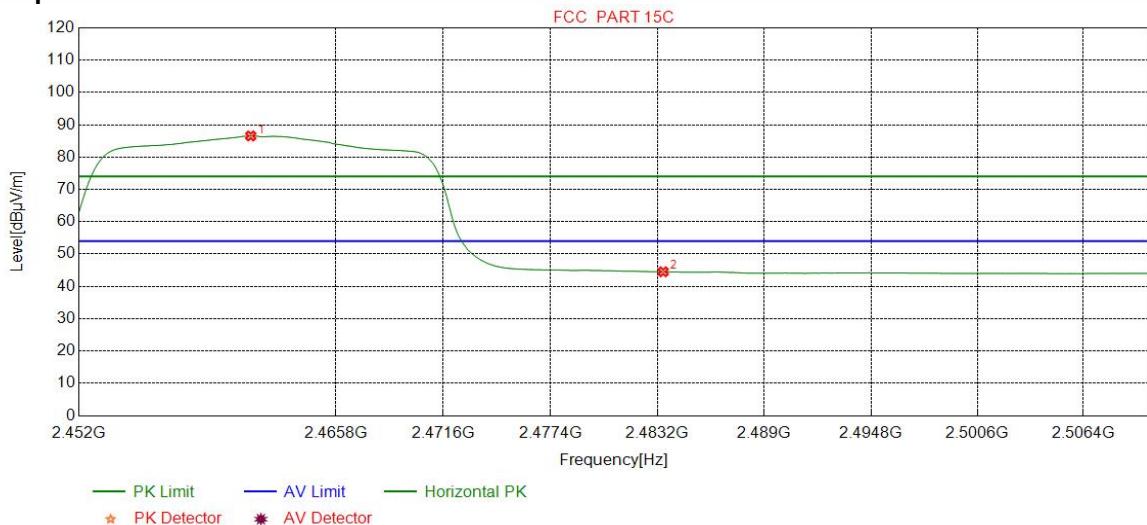
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2459.9124	32.34	13.48	-42.40	87.65	91.07	74.00	-17.07	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	49.57	52.93	74.00	21.07	Pass	Vertical

Mode:	11n	Channel:	2462
Remark:	Peak		

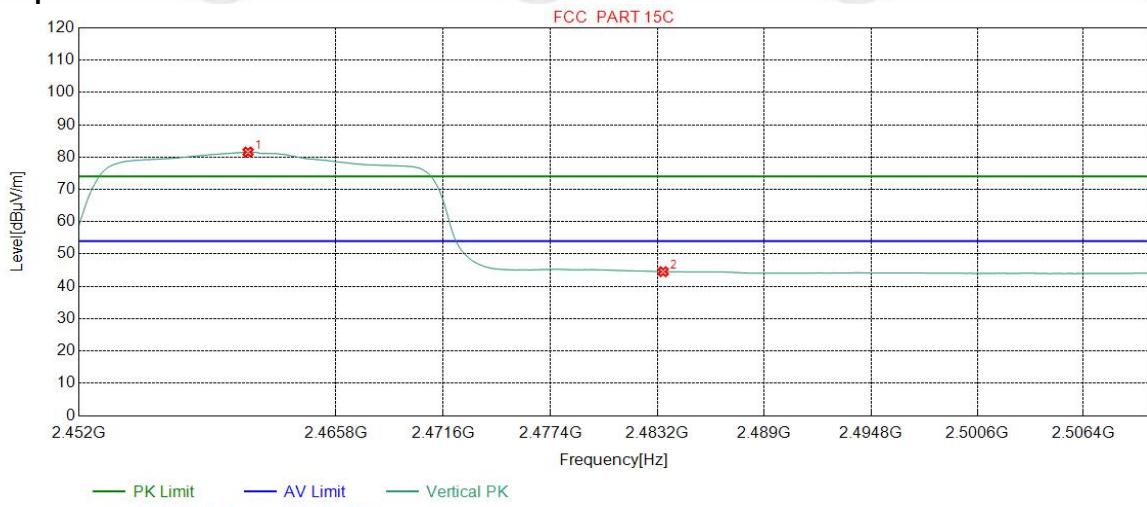
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2461.2190	32.35	13.48	-42.41	83.13	86.55	54.00	-32.55	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	41.16	44.52	54.00	9.48	Pass	Horizontal

Mode:	11n	Channel:	2462
Remark:	Peak		

Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity
1	2461.0738	32.35	13.48	-42.41	78.16	81.58	54.00	-27.58	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	41.18	44.54	54.00	9.46	Pass	Vertical

Note:

1) Through Pre-scan transmitting mode with all kind of modulation and data rate, find the 11Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g; 6.5Mbps of rate is the worst case of 802.11n(HT20), and then Only the worst case is recorded in the report.

2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor - Antenna Factor - Cable Factor

Appendix I): Radiated Spurious Emissions

Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak
	0.009MHz-0.090MHz	Average	10kHz	30kHz	Average
	0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak
	0.110MHz-0.490MHz	Average	10kHz	30kHz	Average
	0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
		Peak	1MHz	10Hz	Average
Test Procedure:	Below 1GHz test procedure as below: <ol style="list-style-type: none"> The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. The antenna height 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. 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. Above 1GHz test procedure as below: <ol style="list-style-type: none"> Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 meter to 1.5 meter(Above 18GHz the distance is 1 meter and table is 1.5 meter).. Test the EUT in the lowest channel ,the middle channel ,the Highest channel The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case. Repeat above procedures until all frequencies measured was complete. 				
Limit:	Frequency	Field strength (microvolt/meter)	Limit (dB μ V/m)	Remark	Measurement distance (m)
	0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
	1.705MHz-30MHz	30	-	-	30
	30MHz-88MHz	100	40.0	Quasi-peak	3
	88MHz-216MHz	150	43.5	Quasi-peak	3
	216MHz-960MHz	200	46.0	Quasi-peak	3
	960MHz-1GHz	500	54.0	Quasi-peak	3
	Above 1GHz	500	54.0	Average	3
	Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.				
Test Ambient:	Temp.: 23°C	Humid.: 54%	Press.: 101kPa		

**Radiated Spurious Emissions test Data:
Radiated Emission below 1GHz**

Mode:			11b				Channel:		2437	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Magin [dB]	Result	Polarity
1	30.5821	10.52	0.63	-32.11	45.74	24.78	40.00	15.22	Pass	Horizontal
2	75.7886	7.90	1.01	-32.06	45.54	22.39	40.00	17.61	Pass	Horizontal
3	145.2475	7.38	1.42	-32.00	46.77	23.57	43.50	19.93	Pass	Horizontal
4	208.8859	11.13	1.71	-31.94	46.33	27.23	43.50	16.27	Pass	Horizontal
5	649.9890	19.40	3.10	-32.07	42.96	33.39	46.00	12.61	Pass	Horizontal
6	996.2166	22.68	3.79	-30.72	38.14	33.89	54.00	20.11	Pass	Horizontal

Mode:			11b				Channel:		2437	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Magin [dB]	Result	Polarity
1	32.4252	10.60	0.64	-32.12	44.64	23.76	40.00	16.24	Pass	Vertical
2	75.1095	8.03	1.01	-32.06	45.21	22.19	40.00	17.81	Pass	Vertical
3	119.7340	9.25	1.30	-32.08	48.89	27.36	43.50	16.14	Pass	Vertical
4	347.0277	14.23	2.22	-31.85	45.91	30.51	46.00	15.49	Pass	Vertical
5	376.6157	14.89	2.31	-31.89	45.59	30.90	46.00	15.10	Pass	Vertical
6	649.9890	19.40	3.10	-32.07	43.04	33.47	46.00	12.53	Pass	Vertical
7	897.9458	22.08	3.60	-31.60	42.11	36.19	46.00	9.81	Pass	Vertical

Mode:			11g				Channel:		2412	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Magin [dB]	Result	Polarity
1	30.5821	10.52	0.63	-32.11	46.17	25.21	40.00	14.79	Pass	Horizontal
2	67.3487	9.69	0.93	-32.04	43.97	22.55	40.00	17.45	Pass	Horizontal
3	146.9937	7.44	1.43	-32.00	47.77	24.64	43.50	18.86	Pass	Horizontal
4	208.8859	11.13	1.71	-31.94	46.34	27.24	43.50	16.26	Pass	Horizontal
5	649.9890	19.40	3.10	-32.07	43.56	33.99	46.00	12.01	Pass	Horizontal
6	987.8738	22.63	3.77	-30.80	35.99	31.59	54.00	22.41	Pass	Horizontal

Mode:			11g				Channel:		2412	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Magin [dB]	Result	Polarity
1	32.1342	10.59	0.64	-32.12	44.40	23.51	40.00	16.49	Pass	Vertical
2	74.9155	8.07	1.01	-32.06	45.21	22.23	40.00	17.77	Pass	Vertical
3	123.5174	8.67	1.31	-32.05	48.39	26.32	43.50	17.18	Pass	Vertical
4	334.9985	13.97	2.18	-31.80	46.96	31.31	46.00	14.69	Pass	Vertical
5	377.0037	14.89	2.31	-31.88	44.70	30.02	46.00	15.98	Pass	Vertical
6	649.9890	19.40	3.10	-32.07	42.57	33.00	46.00	13.00	Pass	Vertical

Mode:			11n				Channel:		2412	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Magin [dB]	Result	Polarity
1	31.6492	10.57	0.64	-32.13	46.62	25.70	40.00	14.30	Pass	Horizontal
2	75.2065	8.01	1.01	-32.06	45.99	22.95	40.00	17.05	Pass	Horizontal
3	146.4116	7.42	1.43	-32.00	46.52	23.37	43.50	20.13	Pass	Horizontal
4	208.8859	11.13	1.71	-31.94	46.82	27.72	43.50	15.78	Pass	Horizontal
5	649.9890	19.40	3.10	-32.07	43.27	33.70	46.00	12.30	Pass	Horizontal
6	996.2166	22.68	3.79	-30.72	37.51	33.26	54.00	20.74	Pass	Horizontal

Mode:			11n				Channel:		2412	
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Magin [dB]	Result	Polarity
1	32.1342	10.59	0.64	-32.12	44.41	23.52	40.00	16.48	Pass	Vertical
2	73.0723	8.42	0.99	-32.06	45.18	22.53	40.00	17.47	Pass	Vertical
3	118.8609	9.39	1.29	-32.06	47.76	26.38	43.50	17.12	Pass	Vertical
4	336.0656	13.99	2.18	-31.79	46.19	30.57	46.00	15.43	Pass	Vertical
5	376.6157	14.89	2.31	-31.89	46.08	31.39	46.00	14.61	Pass	Vertical
6	649.9890	19.40	3.10	-32.07	43.26	33.69	46.00	12.31	Pass	Vertical

Remark : All the channels are tested, only the worst data were reported.

Transmitter Emission above 1GHz

Mode:			802.11 b(11Mbps) Transmitting				Channel:		2412		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity	Remark
1	1397.0397	28.30	2.90	-42.69	54.30	42.81	74.00	31.19	Pass	H	PK
2	1794.8795	30.35	3.31	-42.71	57.44	48.39	74.00	25.61	Pass	H	PK
3	2956.1956	33.13	4.42	-42.15	50.64	46.04	74.00	27.96	Pass	H	PK
4	4824.0000	34.50	4.61	-40.65	45.39	43.85	74.00	30.15	Pass	H	PK
5	7236.0000	36.34	5.79	-40.99	44.91	46.05	74.00	27.95	Pass	H	PK
6	9648.0000	37.66	6.72	-40.73	46.12	49.77	74.00	24.23	Pass	H	PK
7	1975.8976	31.54	3.45	-42.63	51.00	43.36	74.00	30.64	Pass	V	PK
8	3350.3734	33.34	4.52	-41.91	52.56	48.51	74.00	25.49	Pass	V	PK
9	4331.9388	34.26	4.47	-40.86	50.16	48.03	74.00	25.97	Pass	V	PK
10	4824.0000	34.50	4.61	-40.65	48.08	46.54	74.00	27.46	Pass	V	PK
11	7236.0000	36.34	5.79	-40.99	48.44	49.58	74.00	24.42	Pass	V	PK
12	9648.0000	37.66	6.72	-40.73	44.76	48.41	74.00	25.59	Pass	V	PK

Mode:			802.11 b(11Mbps) Transmitting				Channel:		2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity	Remark
1	1402.4402	28.30	2.90	-42.67	55.50	44.03	74.00	29.97	Pass	H	PK
2	1797.0797	30.36	3.31	-42.70	55.87	46.84	74.00	27.16	Pass	H	PK
3	3354.2736	33.34	4.52	-41.90	50.34	46.30	74.00	27.70	Pass	H	PK
4	4874.0000	34.50	4.78	-40.61	46.06	44.73	74.00	29.27	Pass	H	PK
5	7311.0000	36.41	5.85	-40.93	45.76	47.09	74.00	26.91	Pass	H	PK
6	9748.0000	37.70	6.77	-40.63	44.90	48.74	74.00	25.26	Pass	H	PK
7	1400.2400	28.30	2.90	-42.68	61.66	50.18	74.00	23.82	Pass	V	PK
8	2191.9192	31.97	3.65	-42.53	56.68	49.77	74.00	24.23	Pass	V	PK
9	3475.1817	33.39	4.46	-41.83	49.47	45.49	74.00	28.51	Pass	V	PK
10	4874.0000	34.50	4.78	-40.61	48.88	47.55	74.00	26.45	Pass	V	PK
11	7311.0000	36.41	5.85	-40.93	48.33	49.66	74.00	24.34	Pass	V	PK
12	9748.0000	37.70	6.77	-40.63	44.03	47.87	74.00	26.13	Pass	V	PK

Mode:			802.11 b(11Mbps) Transmitting				Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity	Remark
1	1448.0448	28.35	2.95	-42.68	54.57	43.19	74.00	30.81	Pass	H	PK
2	1791.0791	30.32	3.30	-42.70	57.35	48.27	74.00	25.73	Pass	H	PK
3	2978.7979	33.17	4.49	-42.14	51.35	46.87	74.00	27.13	Pass	H	PK
4	4924.0000	34.50	4.85	-40.56	45.74	44.53	74.00	29.47	Pass	H	PK
5	7386.0000	36.49	5.85	-40.87	44.50	45.97	74.00	28.03	Pass	H	PK
6	9848.0000	37.74	6.83	-40.54	43.91	47.94	74.00	26.06	Pass	H	PK
7	1399.4399	28.30	2.90	-42.68	57.68	46.20	74.00	27.80	Pass	V	PK
8	1598.0598	29.05	3.07	-42.90	59.74	48.96	74.00	25.04	Pass	V	PK
9	2462.1462	32.35	3.99	-42.41	56.63	50.56	74.00	23.44	Pass	V	PK
10	4924.0000	34.50	4.85	-40.56	47.22	46.01	74.00	27.99	Pass	V	PK
11	7386.0000	36.49	5.85	-40.87	47.18	48.65	74.00	25.35	Pass	V	PK
12	9848.0000	37.74	6.83	-40.54	44.49	48.52	74.00	25.48	Pass	V	PK

Mode:			802.11 g(6Mbps) Transmitting				Channel:		2412		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity	Remark
1	1796.0796	30.35	3.31	-42.70	56.62	47.58	74.00	26.42	Pass	H	PK
2	2199.5200	31.98	3.65	-42.52	52.51	45.62	74.00	28.38	Pass	H	PK
3	3349.7233	33.34	4.52	-41.91	50.89	46.84	74.00	27.16	Pass	H	PK
4	4874.0000	34.50	4.78	-40.61	43.94	42.61	74.00	31.39	Pass	H	PK
5	7311.0000	36.41	5.85	-40.93	44.48	45.81	74.00	28.19	Pass	H	PK
6	9748.0000	37.70	6.77	-40.63	44.61	48.45	74.00	25.55	Pass	H	PK
7	1599.8600	29.06	3.07	-42.90	59.59	48.82	74.00	25.18	Pass	V	PK
8	1796.6797	30.36	3.31	-42.71	57.20	48.16	74.00	25.84	Pass	V	PK
9	3371.8248	33.35	4.54	-41.90	50.94	46.93	74.00	27.07	Pass	V	PK
10	4874.0000	34.50	4.78	-40.61	45.02	43.69	74.00	30.31	Pass	V	PK
11	7311.0000	36.41	5.85	-40.93	44.59	45.92	74.00	28.08	Pass	V	PK
12	9748.0000	37.70	6.77	-40.63	43.61	47.45	74.00	26.55	Pass	V	PK

Mode:			802.11 g(6Mbps) Transmitting				Channel:		2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity	Remark
1	1795.8796	30.35	3.31	-42.70	55.66	46.62	74.00	27.38	Pass	H	PK
2	2991.1991	33.19	4.52	-42.13	50.80	46.38	74.00	27.62	Pass	H	PK
3	3390.0260	33.36	4.55	-41.89	49.98	46.00	74.00	28.00	Pass	H	PK
4	4874.0000	34.50	4.78	-40.61	45.29	43.96	74.00	30.04	Pass	H	PK
5	7311.0000	36.41	5.85	-40.93	44.45	45.78	74.00	28.22	Pass	H	PK
6	9748.0000	37.70	6.77	-40.63	44.88	48.72	74.00	25.28	Pass	H	PK
7	1595.2595	29.03	3.07	-42.89	59.34	48.55	74.00	25.45	Pass	V	PK
8	1991.4992	31.64	3.46	-42.61	56.67	49.16	74.00	24.84	Pass	V	PK
9	3354.2736	33.34	4.52	-41.90	54.09	50.05	74.00	23.95	Pass	V	PK
10	4874.0000	34.50	4.78	-40.61	44.02	42.69	74.00	31.31	Pass	V	PK
11	7311.0000	36.41	5.85	-40.93	45.34	46.67	74.00	27.33	Pass	V	PK
12	9748.0000	37.70	6.77	-40.63	44.08	47.92	74.00	26.08	Pass	V	PK

Mode:			802.11 g(6Mbps) Transmitting				Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity	Remark
1	1446.0446	28.35	2.95	-42.68	54.86	43.48	74.00	30.52	Pass	H	PK
2	1795.8796	30.35	3.31	-42.70	58.01	48.97	74.00	25.03	Pass	H	PK
3	2844.5845	32.95	4.23	-42.20	54.96	49.94	74.00	24.06	Pass	H	PK
4	4924.0000	34.50	4.85	-40.56	45.04	43.83	74.00	30.17	Pass	H	PK
5	7386.0000	36.49	5.85	-40.87	44.44	45.91	74.00	28.09	Pass	H	PK
6	9848.0000	37.74	6.83	-40.54	43.99	48.02	74.00	25.98	Pass	H	PK
7	1599.2599	29.06	3.07	-42.90	59.56	48.79	74.00	25.21	Pass	V	PK
8	1811.4811	30.46	3.33	-42.70	56.96	48.05	74.00	25.95	Pass	V	PK
9	2837.9838	32.94	4.23	-42.20	55.29	50.26	74.00	23.74	Pass	V	PK
10	4924.0000	34.50	4.85	-40.56	44.62	43.41	74.00	30.59	Pass	V	PK
11	7386.0000	36.49	5.85	-40.87	44.45	45.92	74.00	28.08	Pass	V	PK
12	9848.0000	37.74	6.83	-40.54	44.51	48.54	74.00	25.46	Pass	V	PK

Mode: 802.11 n(HT20) (6.5Mbps) Transmitting							Channel:		2412		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity	Remark
1	1262.6263	28.16	2.70	-42.82	56.33	44.37	74.00	29.63	Pass	H	PK
2	1795.0795	30.35	3.31	-42.71	54.71	45.66	74.00	28.34	Pass	H	PK
3	2975.9976	33.16	4.48	-42.13	50.82	46.33	74.00	27.67	Pass	H	PK
4	4824.0000	34.50	4.61	-40.65	43.61	42.07	74.00	31.93	Pass	H	PK
5	7236.0000	36.34	5.79	-40.99	44.96	46.10	74.00	27.90	Pass	H	PK
6	9648.0000	37.66	6.72	-40.73	45.52	49.17	74.00	24.83	Pass	H	PK
7	1594.6595	29.02	3.07	-42.89	59.72	48.92	74.00	25.08	Pass	V	PK
8	2590.9591	32.55	4.10	-42.35	54.68	48.98	74.00	25.02	Pass	V	PK
9	4329.3386	34.26	4.46	-40.86	50.57	48.43	74.00	25.57	Pass	V	PK
10	4824.0000	34.50	4.61	-40.65	45.26	43.72	74.00	30.28	Pass	V	PK
11	7236.0000	36.34	5.79	-40.99	44.42	45.56	74.00	28.44	Pass	V	PK
12	9648.0000	37.66	6.72	-40.73	44.79	48.44	74.00	25.56	Pass	V	PK

Mode: 802.11 n(HT20) (6.5Mbps) Transmitting							Channel:		2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity	Remark
1	1595.6596	29.03	3.07	-42.89	53.42	42.63	74.00	31.37	Pass	H	PK
2	1797.6798	30.36	3.32	-42.71	58.44	49.41	74.00	24.59	Pass	H	PK
3	2995.1995	33.19	4.54	-42.12	50.87	46.48	74.00	27.52	Pass	H	PK
4	4874.0000	34.50	4.78	-40.61	44.67	43.34	74.00	30.66	Pass	H	PK
5	7311.0000	36.41	5.85	-40.93	44.94	46.27	74.00	27.73	Pass	H	PK
6	9748.0000	37.70	6.77	-40.63	44.40	48.24	74.00	25.76	Pass	H	PK
7	1598.4598	29.05	3.07	-42.90	59.10	48.32	74.00	25.68	Pass	V	PK
8	1843.4843	30.67	3.37	-42.69	56.25	47.60	74.00	26.40	Pass	V	PK
9	3377.0251	33.35	4.54	-41.89	53.59	49.59	74.00	24.41	Pass	V	PK
10	4874.0000	34.50	4.78	-40.61	44.84	43.51	74.00	30.49	Pass	V	PK
11	7311.0000	36.41	5.85	-40.93	44.37	45.70	74.00	28.30	Pass	V	PK
12	9748.0000	37.70	6.77	-40.63	45.05	48.89	74.00	25.11	Pass	V	PK

Mode: 802.11 n(HT20) (6.5Mbps) Transmitting							Channel:		2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dB μ V]	Level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Result	Polarity	Remark
1	1595.2595	29.03	3.07	-42.89	53.76	42.97	74.00	31.03	Pass	H	PK
2	1792.6793	30.33	3.31	-42.71	57.09	48.02	74.00	25.98	Pass	H	PK
3	3357.5238	33.34	4.53	-41.91	50.00	45.96	74.00	28.04	Pass	H	PK
4	4924.0000	34.50	4.85	-40.56	45.19	43.98	74.00	30.02	Pass	H	PK
5	7386.0000	36.49	5.85	-40.87	44.24	45.71	74.00	28.29	Pass	H	PK
6	9848.0000	37.74	6.83	-40.54	45.81	49.84	74.00	24.16	Pass	H	PK
7	1395.6396	28.30	2.89	-42.69	58.15	46.65	74.00	27.35	Pass	V	PK
8	1596.8597	29.04	3.07	-42.90	59.76	48.97	74.00	25.03	Pass	V	PK
9	3378.9753	33.35	4.54	-41.89	52.74	48.74	74.00	25.26	Pass	V	PK
10	4924.0000	34.50	4.85	-40.56	45.07	43.86	74.00	30.14	Pass	V	PK
11	7386.0000	36.49	5.85	-40.87	44.64	46.11	74.00	27.89	Pass	V	PK
12	9848.0000	37.74	6.83	-40.54	44.76	48.79	74.00	25.21	Pass	V	PK

Note:

1) Through Pre-scan transmitting mode with all kind of modulation and data rate, find the 11Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g; 6.5Mbps of rate is the worst case of 802.11n(HT20) ; 13.5Mbps of rate is the worst case of 802.11n(HT40), and then Only the worst case is recorded in the report.

2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading - Correct Factor

Correct Factor = Preamplifier Factor - Antenna Factor - Cable Factor

3) Scan from 9kHz to 25GHz, the disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

PHOTOGRAPHS OF TEST SETUP

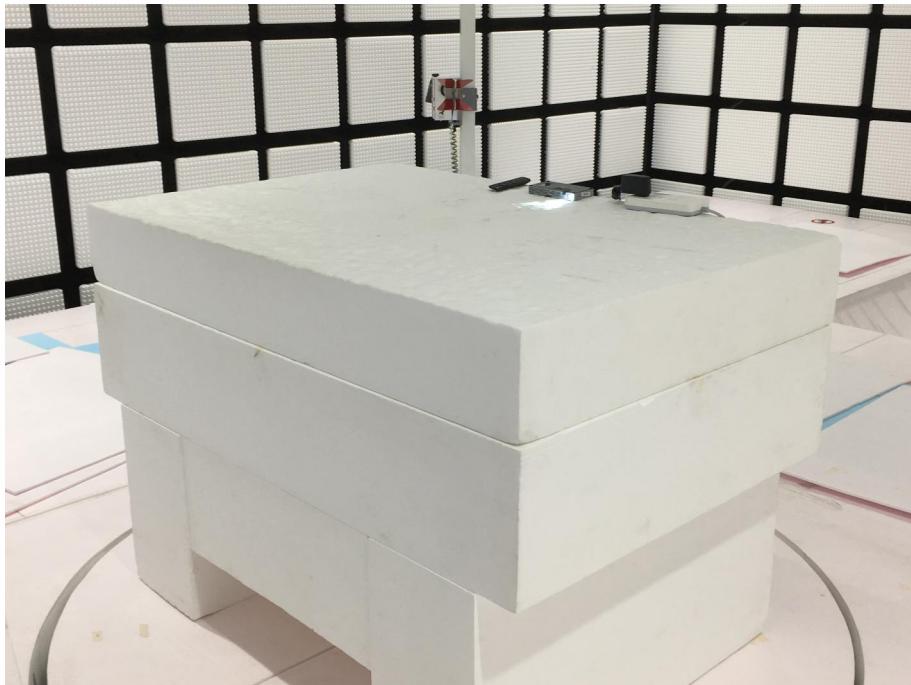
Test model No.: C800



Radiated spurious emission Test Setup-1(Below 30MHz)



Radiated spurious emission Test Setup-2(30MHz-1GHz)



Radiated spurious emission Test Setup-3(Above 1GHz)



Conducted Emissions Test Setup

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32L00007201 for EUT external and internal photos.

*** End of Report ***

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

