

Appendix F): Antenna Requirement

15.203 requirement:

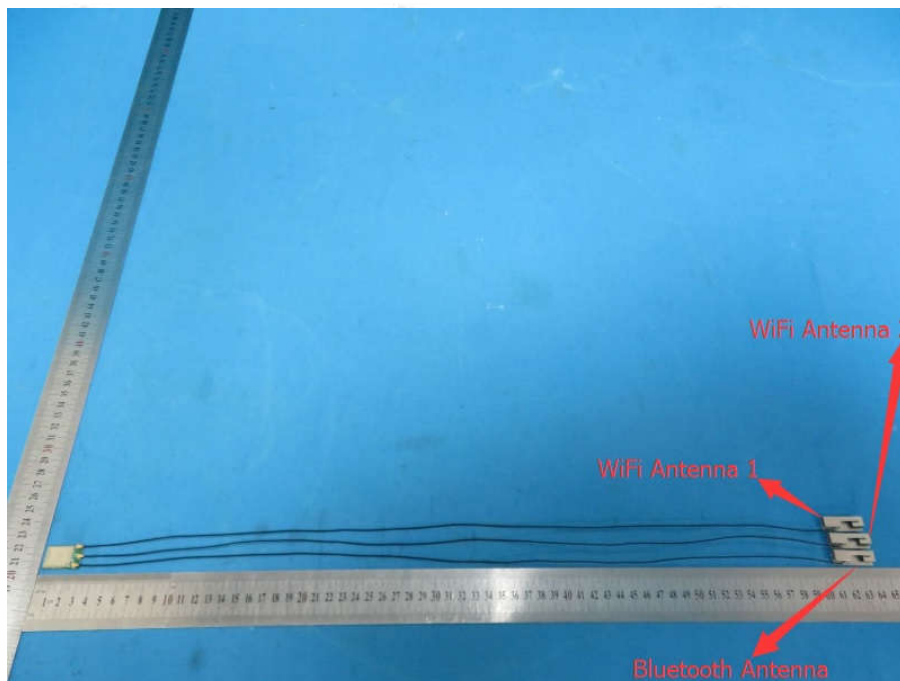
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit 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 PIFA Antenna and no consideration of replacement. The best case gain of the 2.4G WiFi antenna is 2.72dBi.



Appendix G): AC Power Line Conducted Emission

Test Procedure:	<p>Test frequency range :150KHz-30MHz</p> <ol style="list-style-type: none"> 1)The mains terminal disturbance voltage test was conducted in a shielded room. 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a $50\Omega/50\mu H + 5\Omega$ 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. 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, 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. 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. 															
Limit:	<table border="1"> <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. 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														

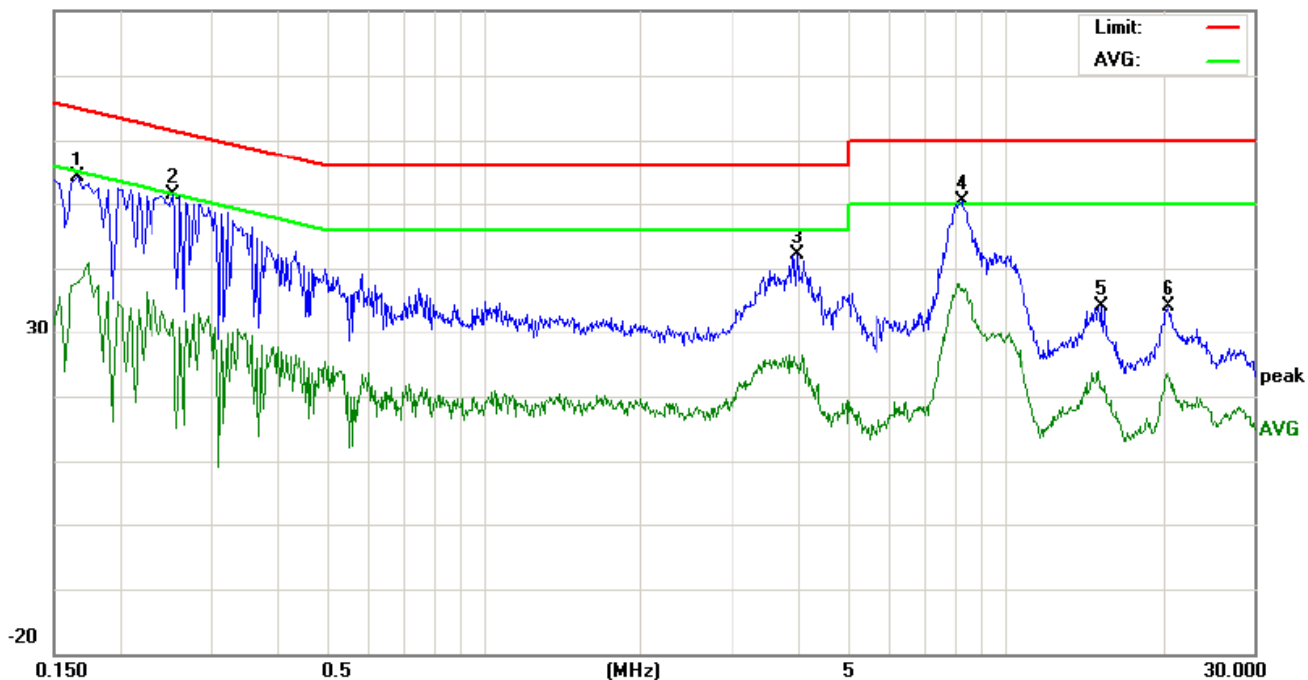
Measurement Data

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:

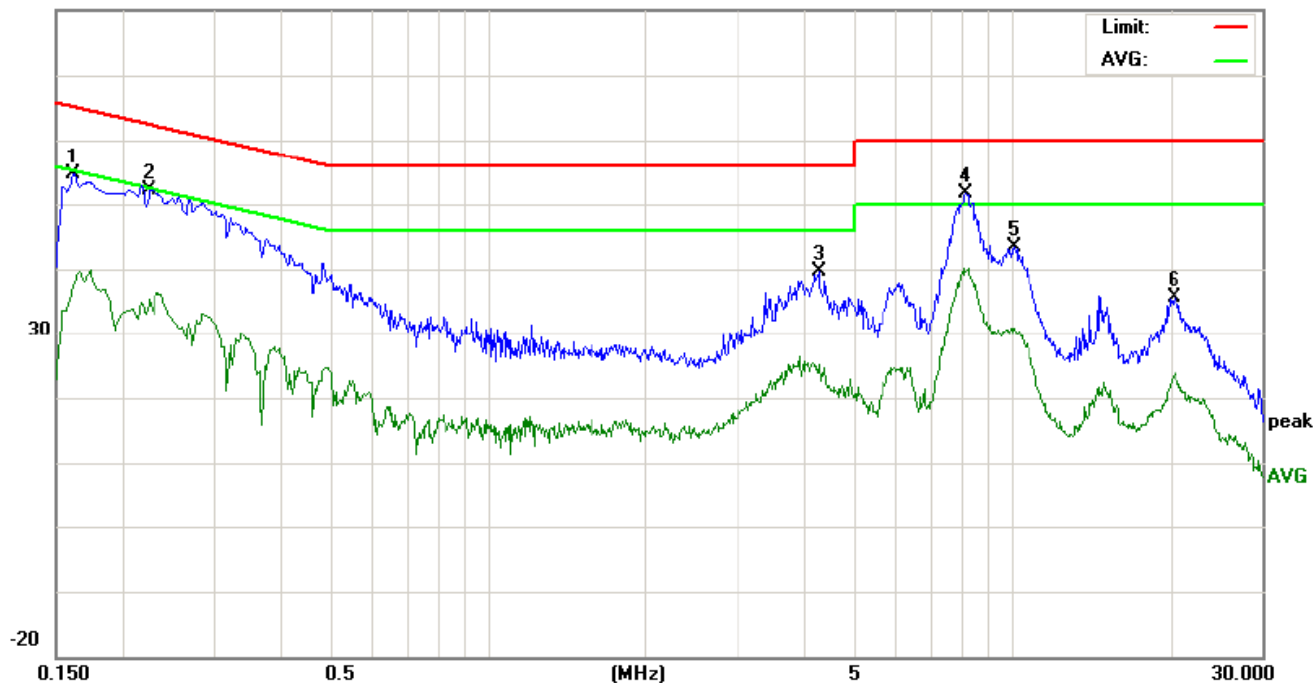
80.0 dBuV



No.	Freq. MHz	Reading_Level (dBuV)			Correct Factor dB	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
		Peak	QP	AVG		peak	QP	AVG	QP	AVG	QP	AVG		
1	0.1660	44.46	41.26	28.06	9.75	54.21	51.01	37.81	65.15	55.15	-14.14	-17.34	P	
2	0.2540	41.54	38.49	22.45	9.75	51.29	48.24	32.20	61.62	51.62	-13.38	-19.42	P	
3	4.0020	32.40	29.54	15.14	9.65	42.05	39.19	24.79	56.00	46.00	-16.81	-21.21	P	
4	8.2739	40.63	37.89	27.21	9.69	50.32	47.58	36.90	60.00	50.00	-12.42	-13.10	P	
5	15.3220	24.22	21.35	11.23	10.01	34.23	31.36	21.24	60.00	50.00	-28.64	-28.76	P	
6	20.6900	24.10	21.47	13.43	10.08	34.18	31.55	23.51	60.00	50.00	-28.45	-26.49	P	

Neutral line:

80.0 dBuV



No.	Freq. MHz	Reading_Level (dBuV)			Correct Factor dB	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
		Peak	QP	AVG		peak	QP	AVG	QP	AVG	QP	AVG		
1	0.1620	44.98	41.32	27.68	9.75	54.73	51.07	37.43	65.36	55.36	-14.29	-17.93	P	
2	0.2280	30.75	27.84	13.14	9.73	40.48	37.57	22.87	62.52	52.52	-24.95	-29.65	P	
3	4.2900	30.00	27.66	15.48	9.64	39.64	37.30	25.12	56.00	46.00	-18.70	-20.88	P	
4	8.1580	41.96	37.48	29.97	9.69	51.65	47.17	39.66	60.00	50.00	-12.83	-10.34	P	
5	10.1020	33.56	30.21	21.10	9.79	43.35	40.00	30.89	60.00	50.00	-20.00	-19.11	P	
6	20.4580	25.44	22.14	13.87	10.07	35.51	32.21	23.94	60.00	50.00	-27.79	-26.06	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)

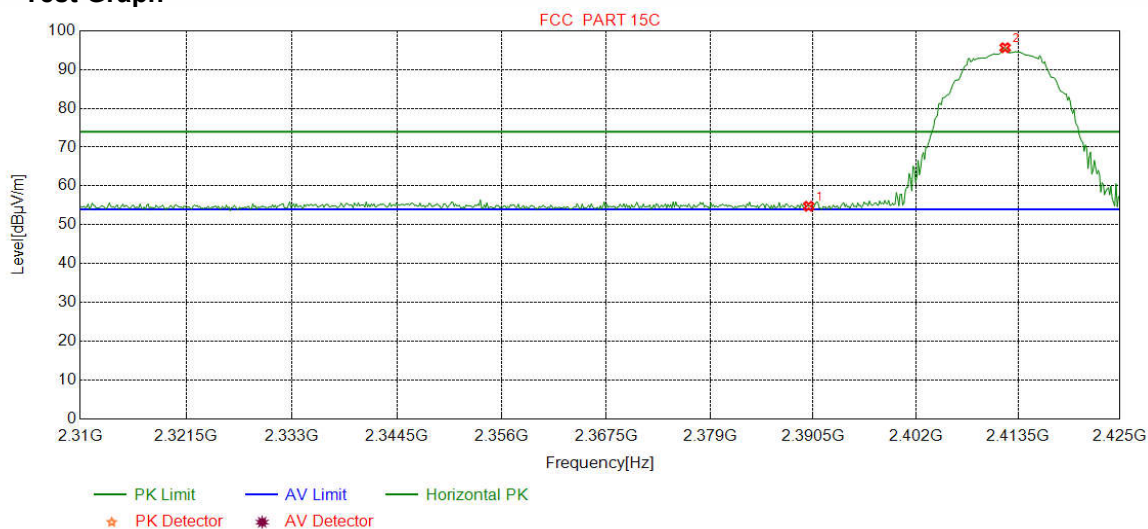
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
		Peak	1MHz	10Hz	Average
Test Procedure:	<p>Below 1GHz test procedure as below:</p> <ol style="list-style-type: none"> The EUT was placed on the top of a rotating table 0.8 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 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. 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 <p>Above 1GHz test procedure as below:</p> <ol style="list-style-type: none"> 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). Test the EUT in the lowest 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	Limit (dBμV/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 plot as follows:

Antenna 1

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
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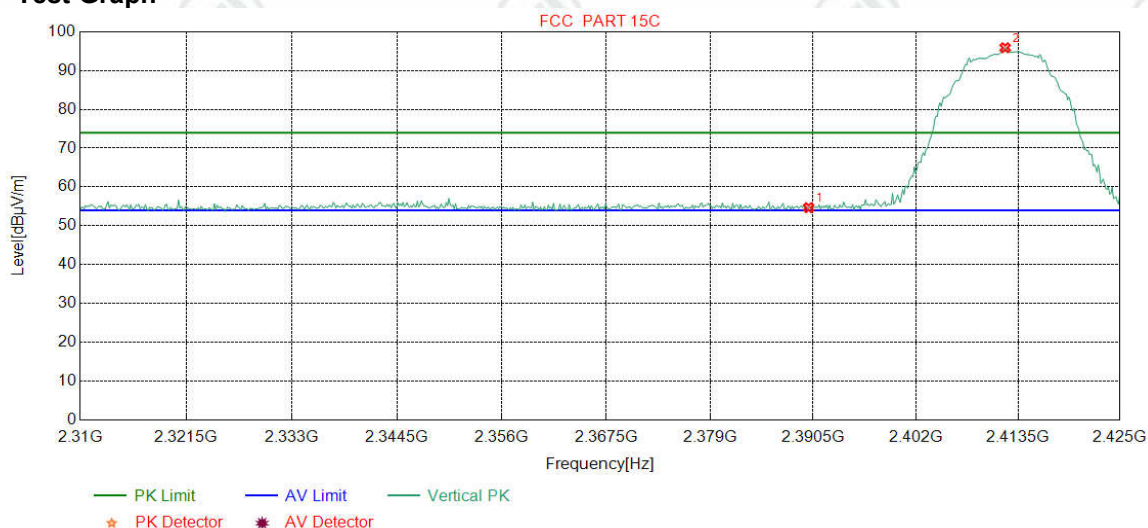
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	45.76	54.76	74.00	19.24	Pass	H	Peak
2	2412.0463	32.28	13.36	-36.61	86.62	95.65	74.00	-21.65	Pass	H	Peak

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
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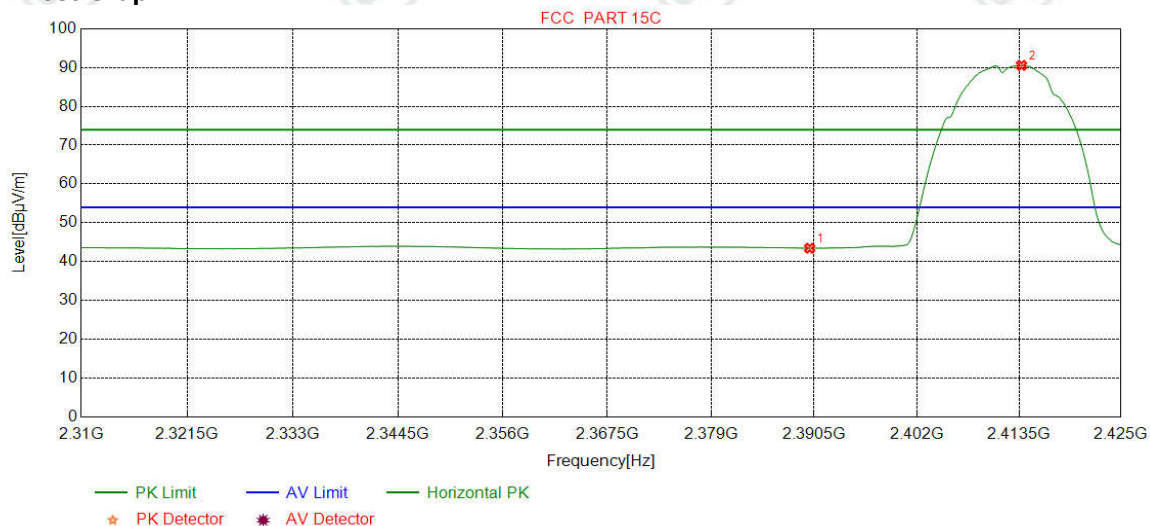
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	45.66	54.66	74.00	19.34	Pass	V	Peak
2	2412.0463	32.28	13.36	-36.61	86.87	95.90	74.00	-21.90	Pass	V	Peak

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
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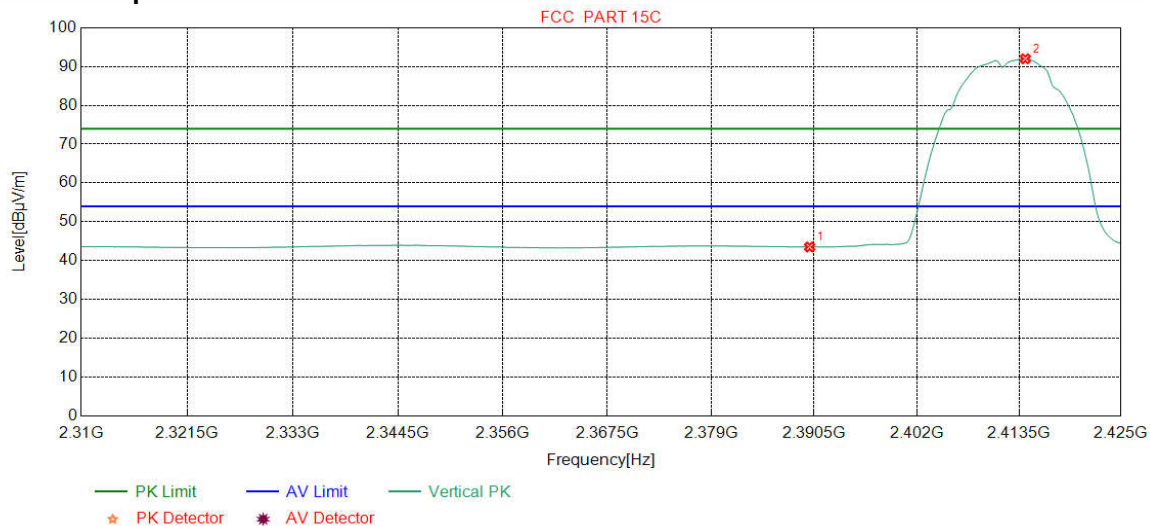
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	34.43	43.43	54.00	10.57	Pass	H	AV
2	2413.7735	32.28	13.36	-36.61	81.54	90.57	54.00	-36.57	Pass	H	AV

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
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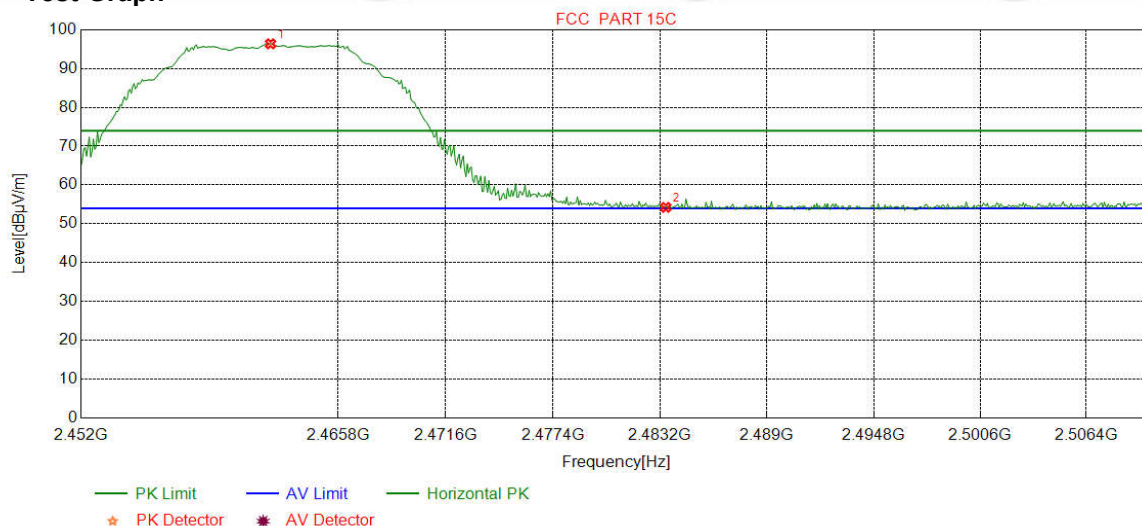
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	34.49	43.49	54.00	10.51	Pass	V	AV
2	2414.2053	32.28	13.37	-36.61	82.98	92.02	54.00	-38.02	Pass	V	AV

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2462
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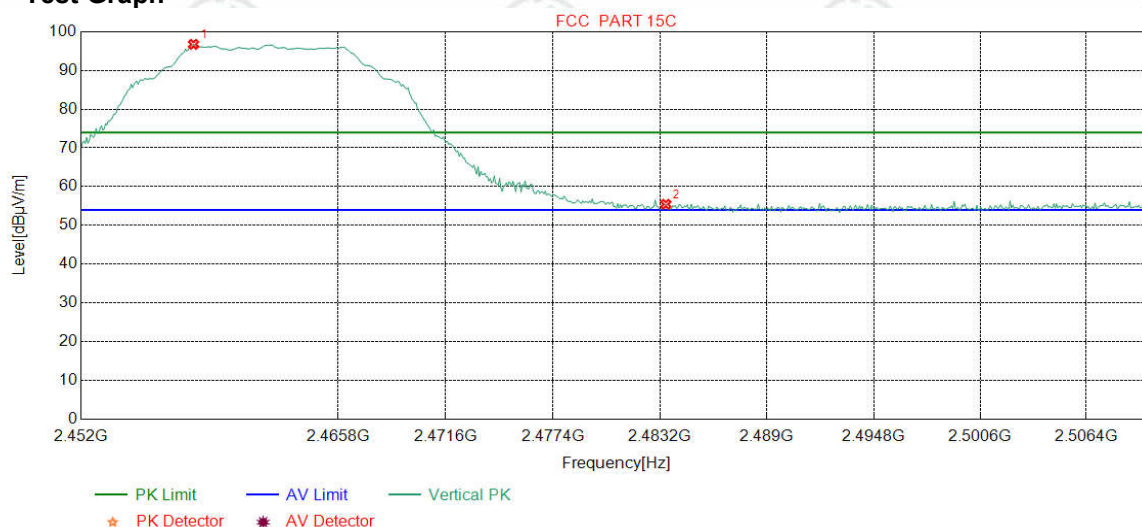
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2462.1627	32.35	13.47	-36.69	87.26	96.39	74.00	-22.39	Pass	H	Peak
2	2483.5000	32.38	13.38	-36.80	45.26	54.22	74.00	19.78	Pass	H	Peak

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2462
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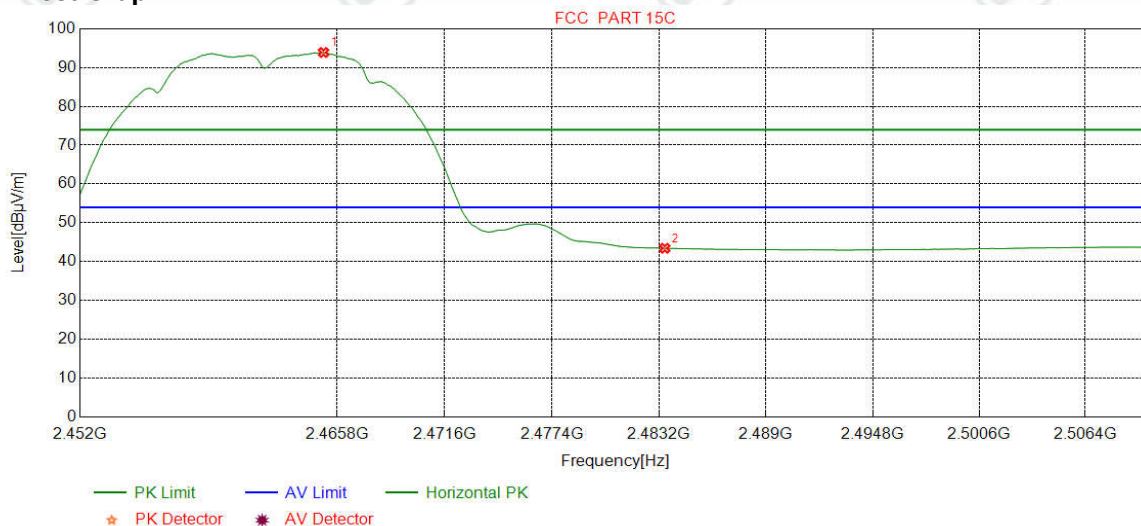
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2458.0250	32.34	13.49	-36.66	87.58	96.75	74.00	-22.75	Pass	V	Peak
2	2483.5000	32.38	13.38	-36.80	46.49	55.45	74.00	18.55	Pass	V	Peak

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2462
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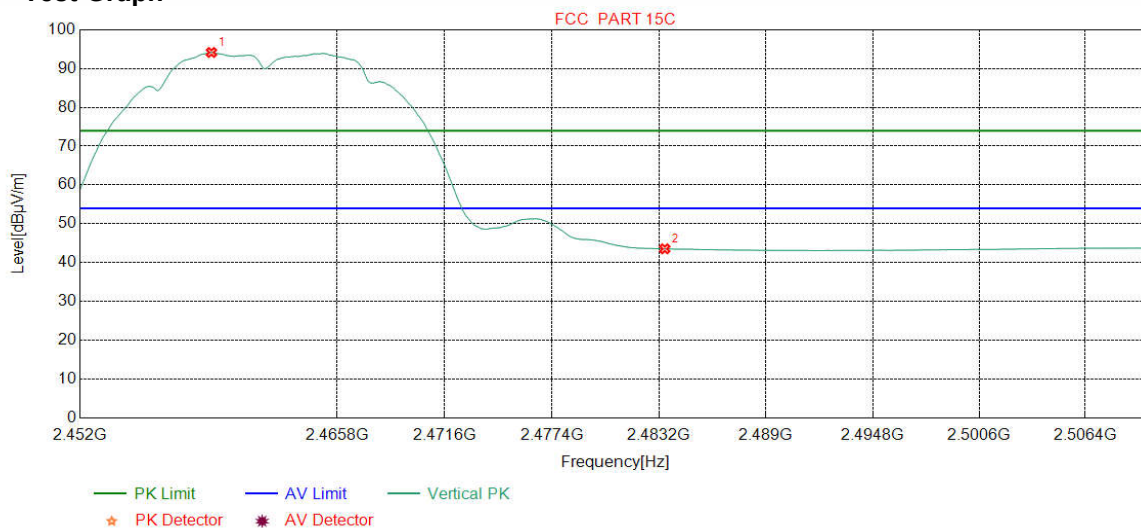
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2465.0663	32.35	13.46	-36.70	84.79	93.90	54.00	-39.90	Pass	V	AV
2	2483.5000	32.38	13.38	-36.80	34.46	43.42	54.00	10.58	Pass	V	AV

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2462
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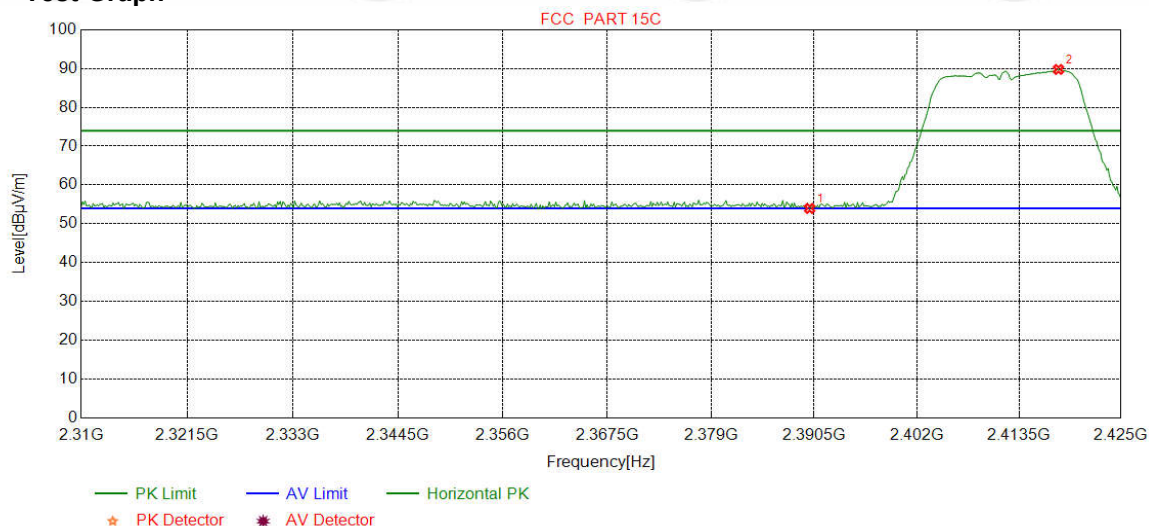
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2459.0413	32.34	13.49	-36.67	85.01	94.17	54.00	-40.17	Pass	V	AV
2	2483.5000	32.38	13.38	-36.80	34.57	43.53	54.00	10.47	Pass	V	AV

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2412
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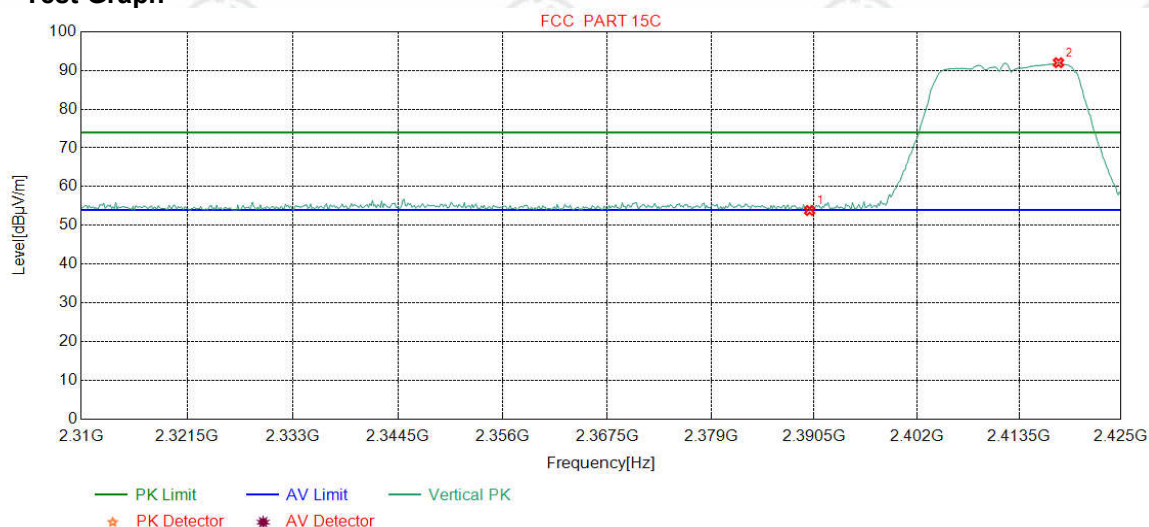
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	44.94	53.94	74.00	20.06	Pass	H	Peak
2	2417.9474	32.29	13.38	-36.61	80.72	89.78	74.00	-15.78	Pass	H	Peak

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2412
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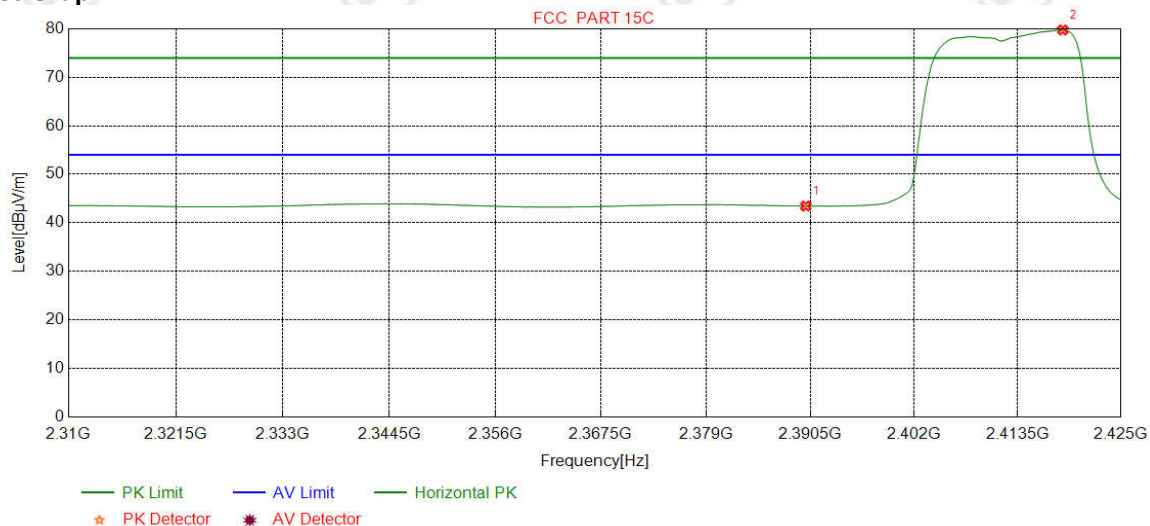
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	44.83	53.83	74.00	20.17	Pass	V	Peak
2	2417.9474	32.29	13.38	-36.61	82.95	92.01	74.00	-18.01	Pass	V	Peak

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2412
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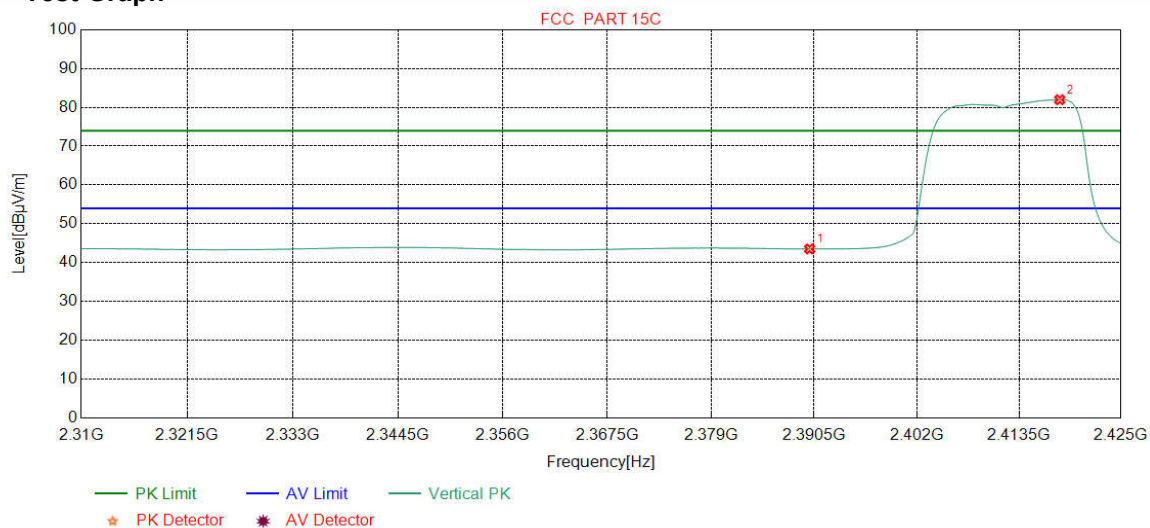
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	34.44	43.44	54.00	10.56	Pass	H	AV
2	2418.5232	32.29	13.39	-36.62	70.71	79.77	54.00	-25.77	Pass	H	AV

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2412
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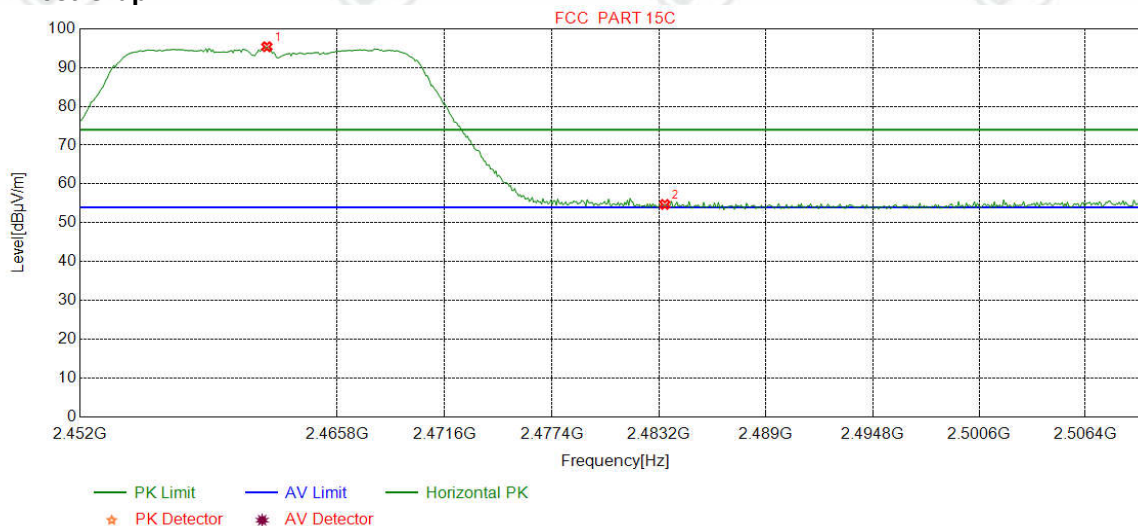
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	34.51	43.51	54.00	10.49	Pass	V	AV
2	2418.0914	32.29	13.38	-36.61	72.92	81.98	54.00	-27.98	Pass	V	AV

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2462
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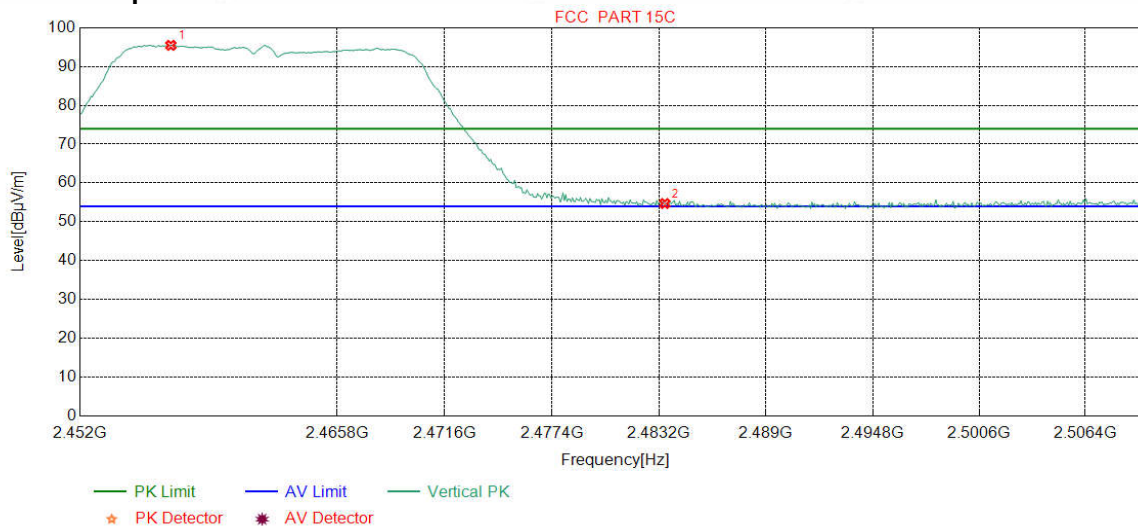
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2462.0175	32.35	13.47	-36.69	86.24	95.37	74.00	-21.37	Pass	H	Peak
2	2483.5000	32.38	13.38	-36.80	45.76	54.72	74.00	19.28	Pass	H	Peak

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2462
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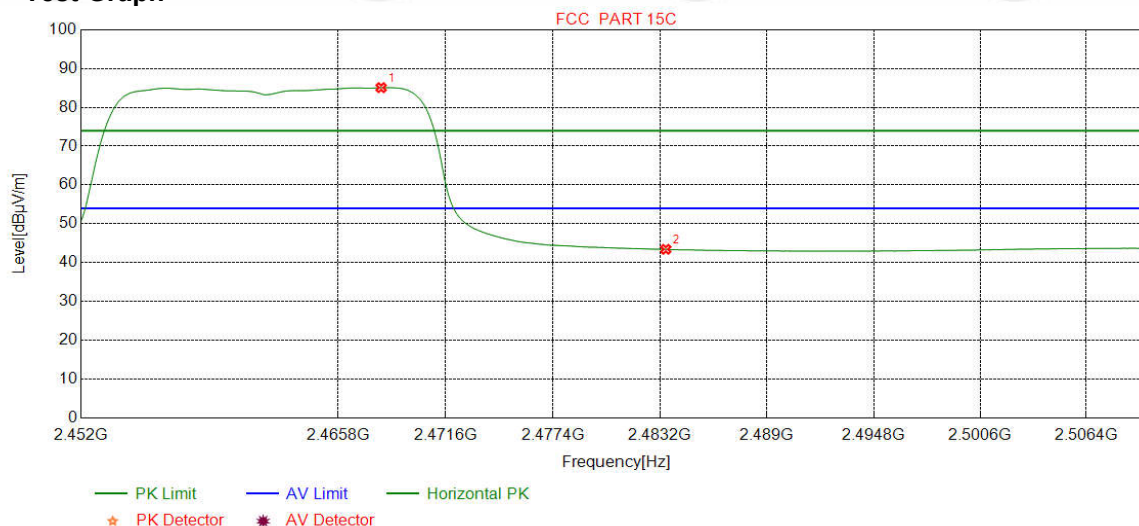
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2456.8636	32.34	13.50	-36.66	86.30	95.48	74.00	-21.48	Pass	V	Peak
2	2483.5000	32.38	13.38	-36.80	45.74	54.70	74.00	19.30	Pass	V	Peak

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2462
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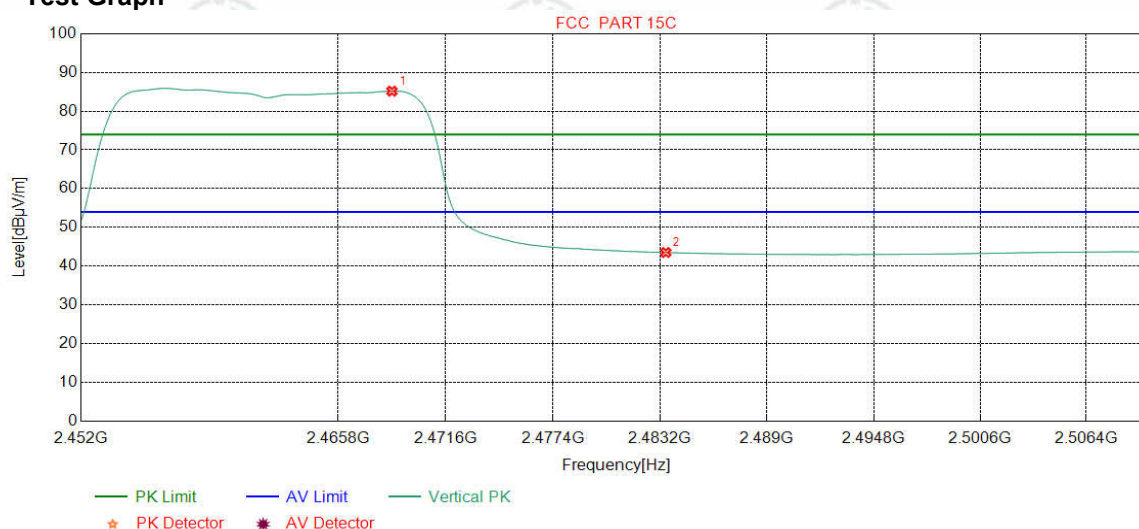
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2468.1151	32.36	13.45	-36.72	76.00	85.09	54.00	-31.09	Pass	H	AV
2	2483.5000	32.38	13.38	-36.80	34.45	43.41	54.00	10.59	Pass	H	AV

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2462
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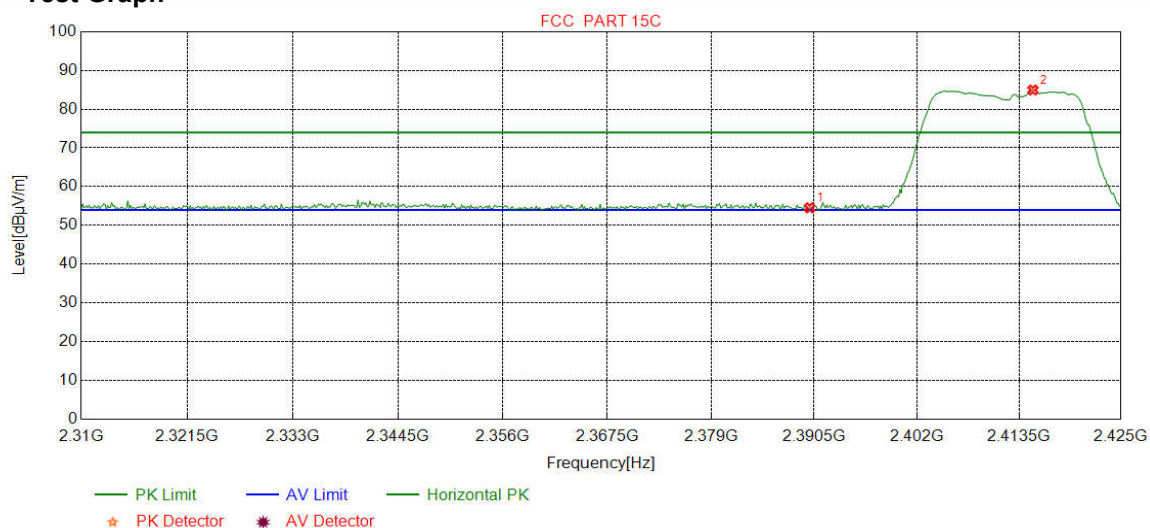
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2468.6959	32.36	13.44	-36.72	76.11	85.19	54.00	-31.19	Pass	V	Peak
2	2483.5000	32.38	13.38	-36.80	34.54	43.50	54.00	10.50	Pass	V	Peak

Mode:	802.11n(HT20)(6.5Mbps) Transmitting	Channel:	2412
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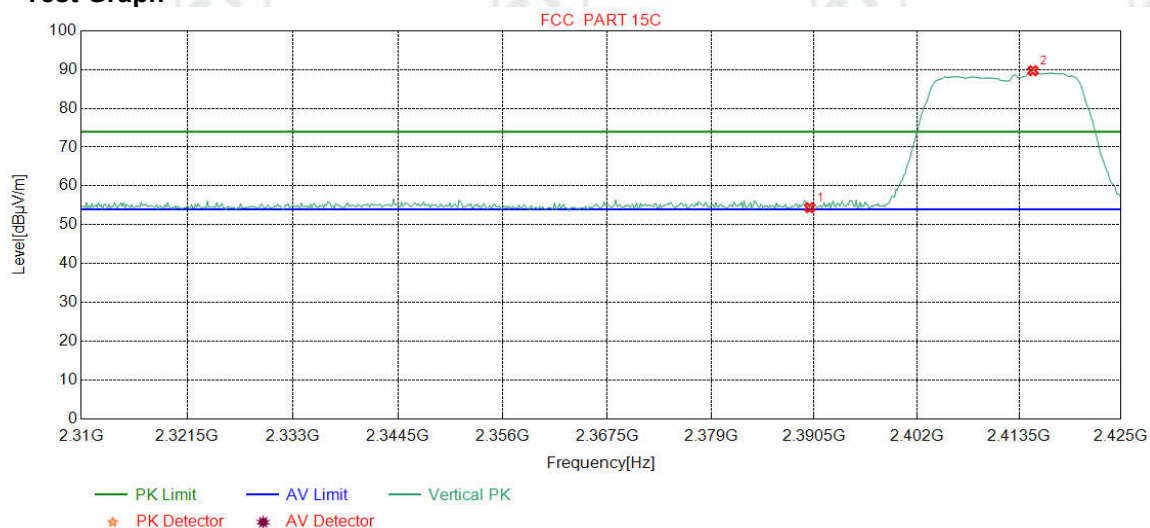
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	45.52	54.52	74.00	19.48	Pass	H	Peak
2	2415.0688	32.28	13.37	-36.61	75.92	84.96	74.00	-10.96	Pass	H	Peak

Mode:	802.11n(HT20)(6.5Mbps) Transmitting	Channel:	2412
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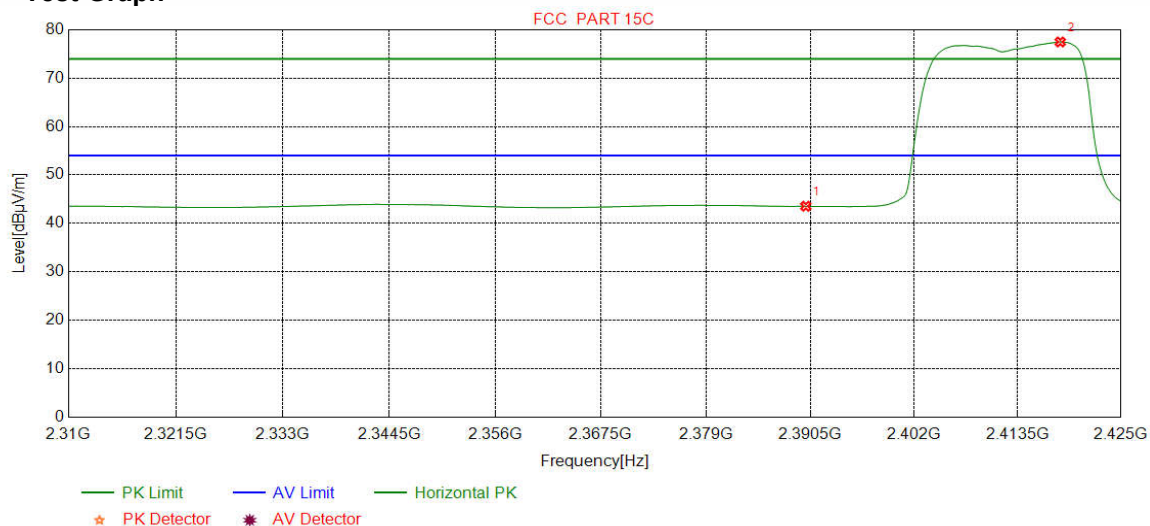
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	45.41	54.41	74.00	19.59	Pass	V	Peak
2	2415.0688	32.28	13.37	-36.61	80.68	89.72	74.00	-15.72	Pass	V	Peak

Mode:	802.11n(HT20)(6.5Mbps) Transmitting	Channel:	2412
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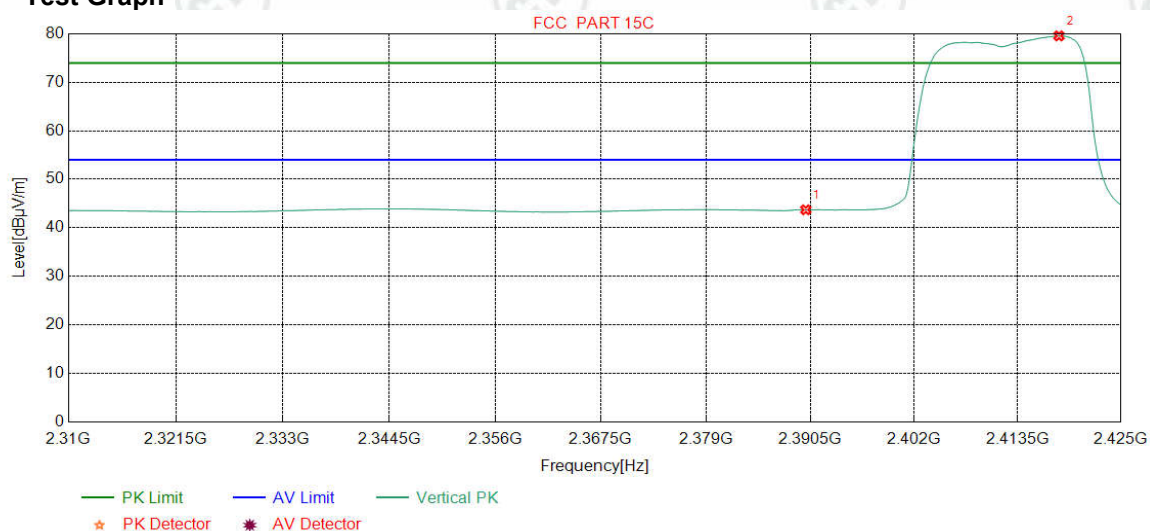
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	34.53	43.53	54.00	10.47	Pass	H	AV
2	2418.2353	32.29	13.38	-36.61	68.42	77.48	54.00	-23.48	Pass	H	AV

Mode:	802.11n(HT20)(6.5Mbps) Transmitting	Channel:	2412
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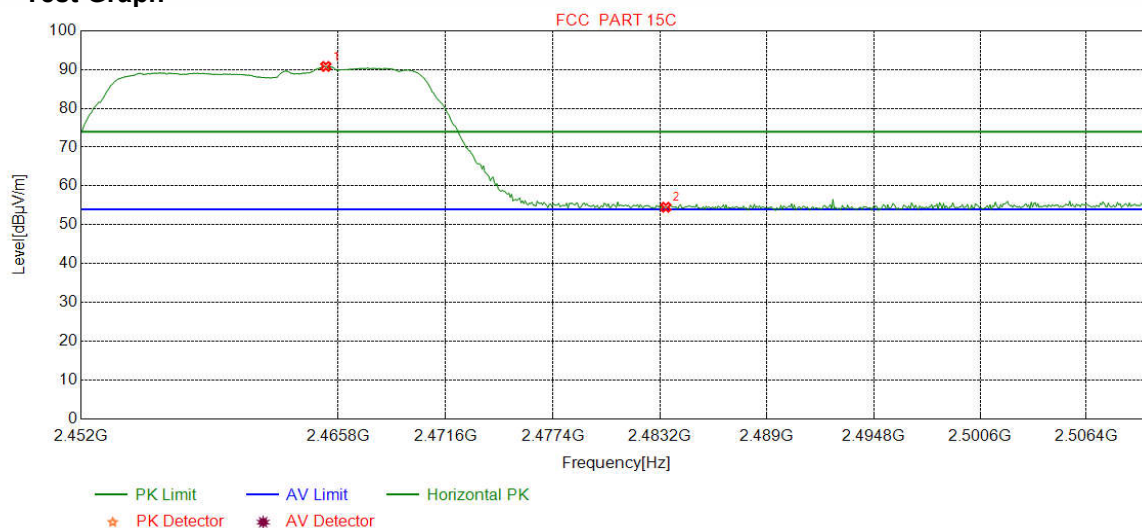
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	34.70	43.70	54.00	10.30	Pass	V	AV
2	2418.0914	32.29	13.38	-36.61	70.51	79.57	54.00	-25.57	Pass	V	AV

Mode:	802.11n(HT20)(6.5Mbps) Transmitting	Channel:	2462
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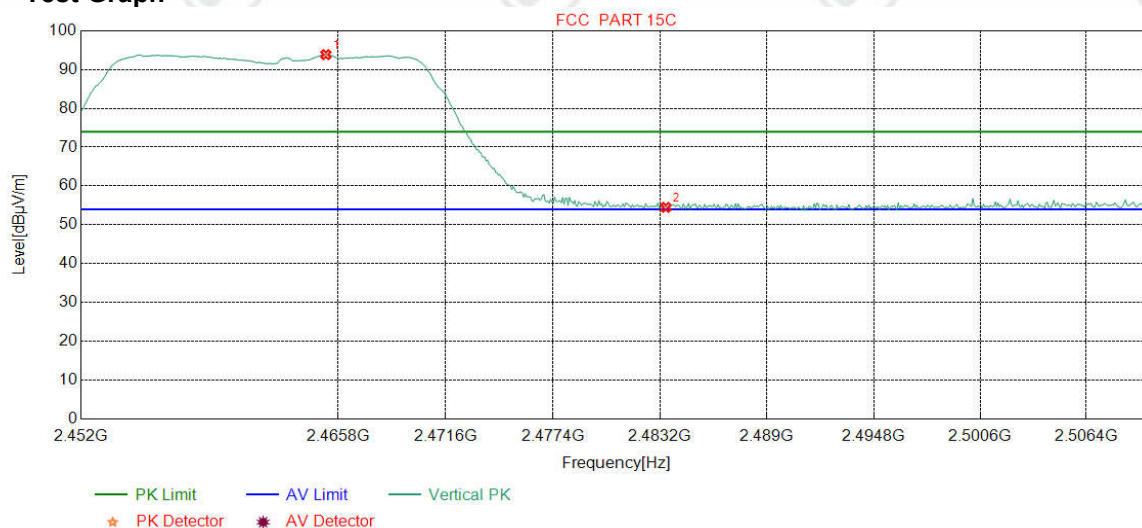
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2465.1389	32.35	13.46	-36.70	81.71	90.82	74.00	-16.82	Pass	H	Peak
2	2483.5000	32.38	13.38	-36.80	45.56	54.52	74.00	19.48	Pass	H	Peak

Mode:	802.11n(HT20)(6.5Mbps) Transmitting	Channel:	2462
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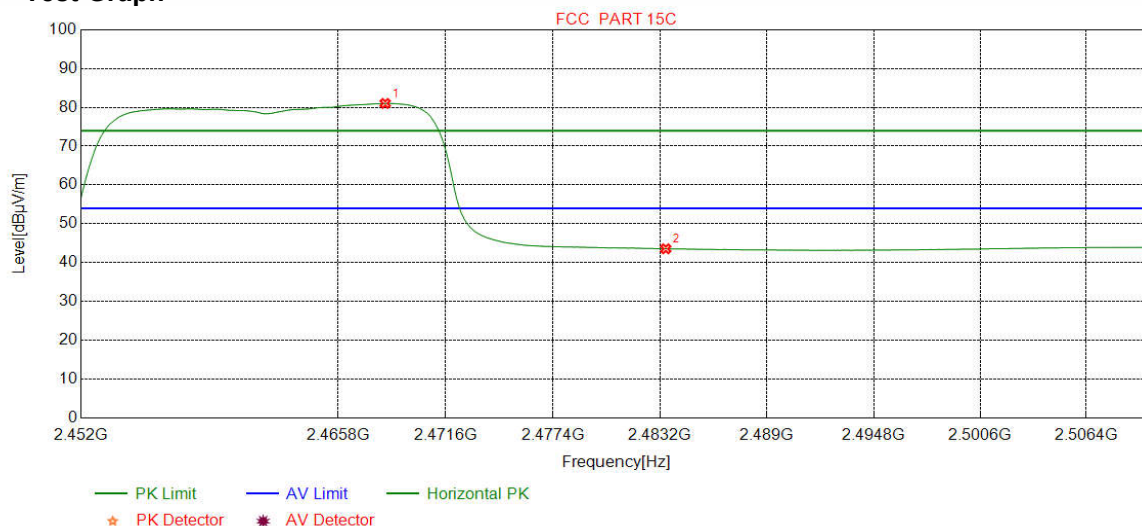
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2465.1389	32.35	13.46	-36.70	84.76	93.87	74.00	-19.87	Pass	V	Peak
2	2483.5000	32.38	13.38	-36.80	45.53	54.49	74.00	19.51	Pass	V	Peak

Mode:	802.11n(HT20)(6.5Mbps) Transmitting	Channel:	2462
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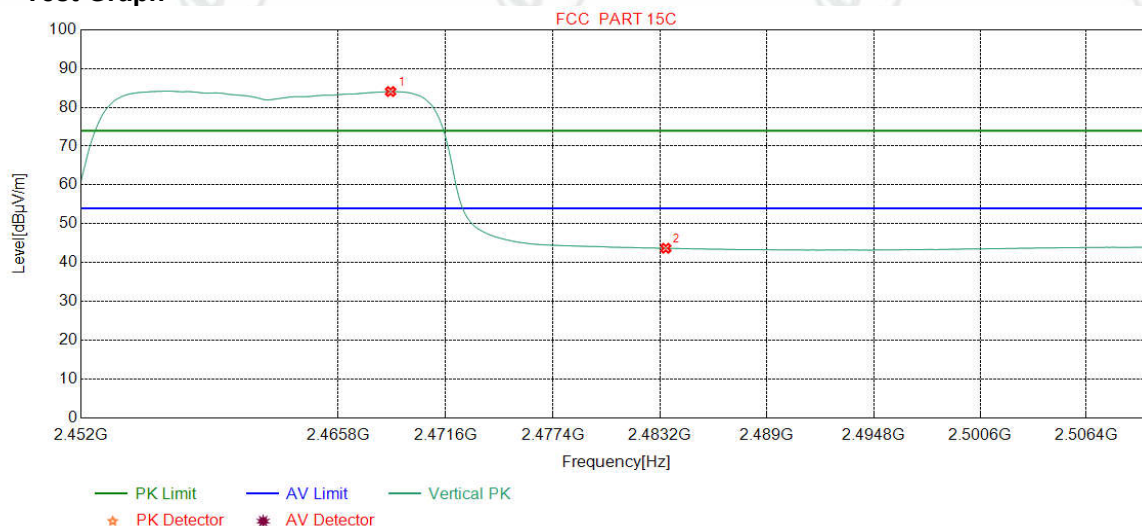
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2468.3329	32.36	13.45	-36.73	71.94	81.02	54.00	-27.02	Pass	H	AV
2	2483.5000	32.38	13.38	-36.80	34.58	43.54	54.00	10.46	Pass	H	AV

Mode:	802.11n(HT20)(6.5Mbps) Transmitting	Channel:	2462
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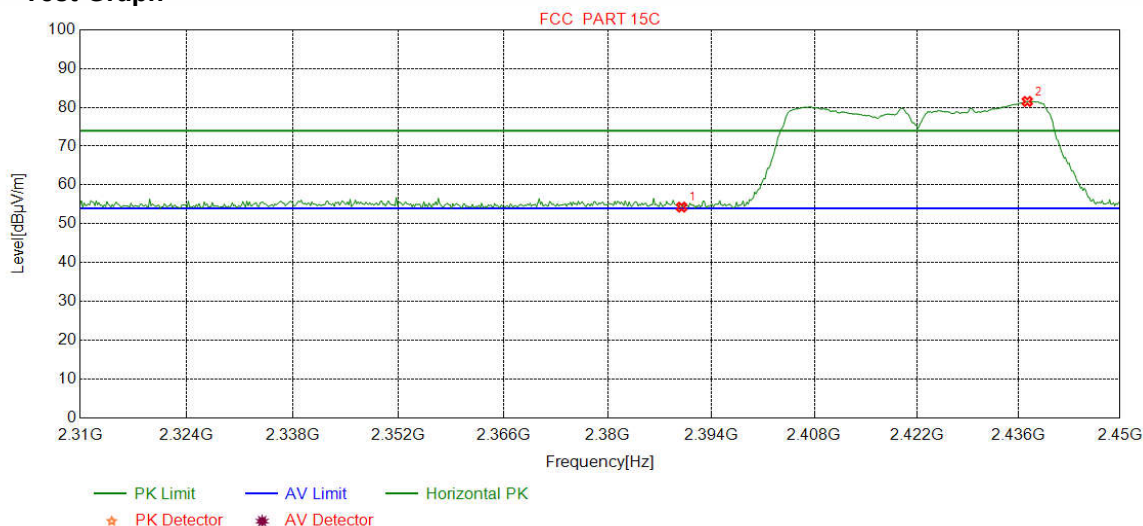
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2468.6233	32.36	13.44	-36.72	75.01	84.09	54.00	-30.09	Pass	V	AV
2	2483.5000	32.38	13.38	-36.80	34.71	43.67	54.00	10.33	Pass	V	AV

Mode:	802.11n(HT40)(13.5Mbps) Transmitting	Channel:	2422
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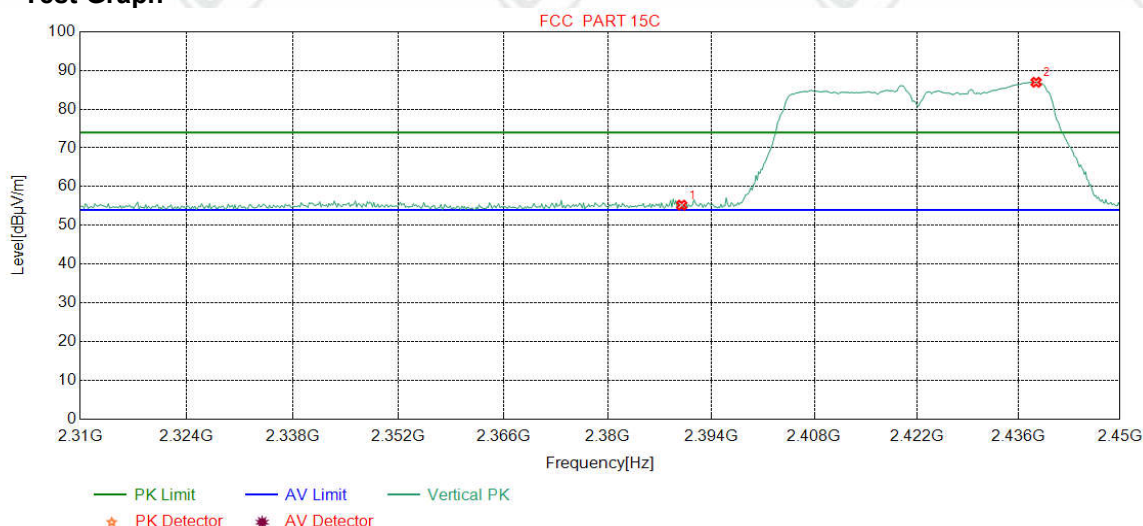
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	45.28	54.28	74.00	19.72	Pass	H	Peak
2	2437.2090	32.31	13.47	-36.62	72.37	81.53	74.00	-7.53	Pass	H	Peak

Mode:	802.11n(HT40)(13.5Mbps) Transmitting	Channel:	2422
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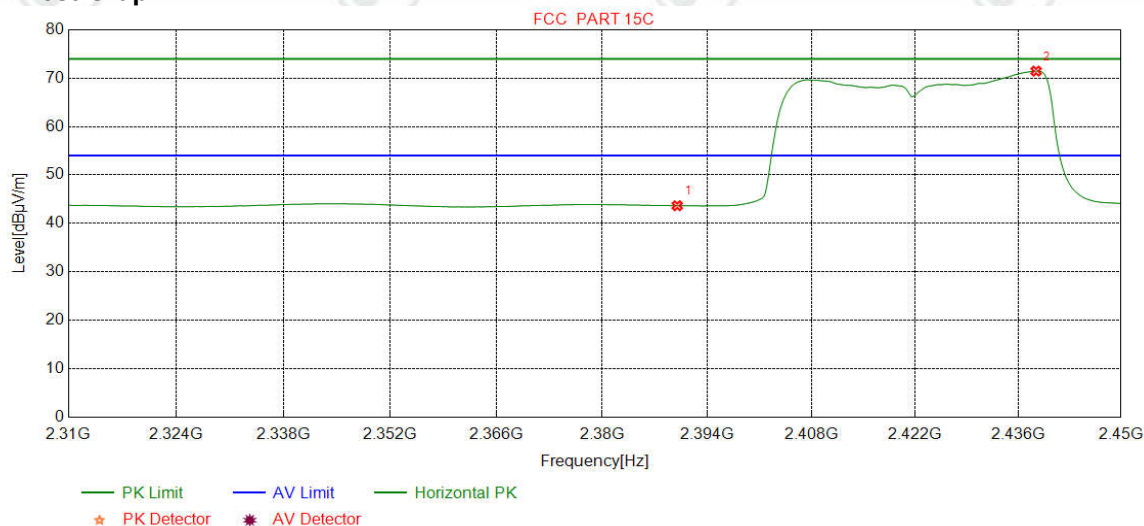
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	46.21	55.21	74.00	18.79	Pass	V	Peak
2	2438.4355	32.31	13.48	-36.62	77.79	86.96	74.00	-12.96	Pass	V	Peak

Mode:	802.11n(HT40)(13.5Mbps) Transmitting	Channel:	2422
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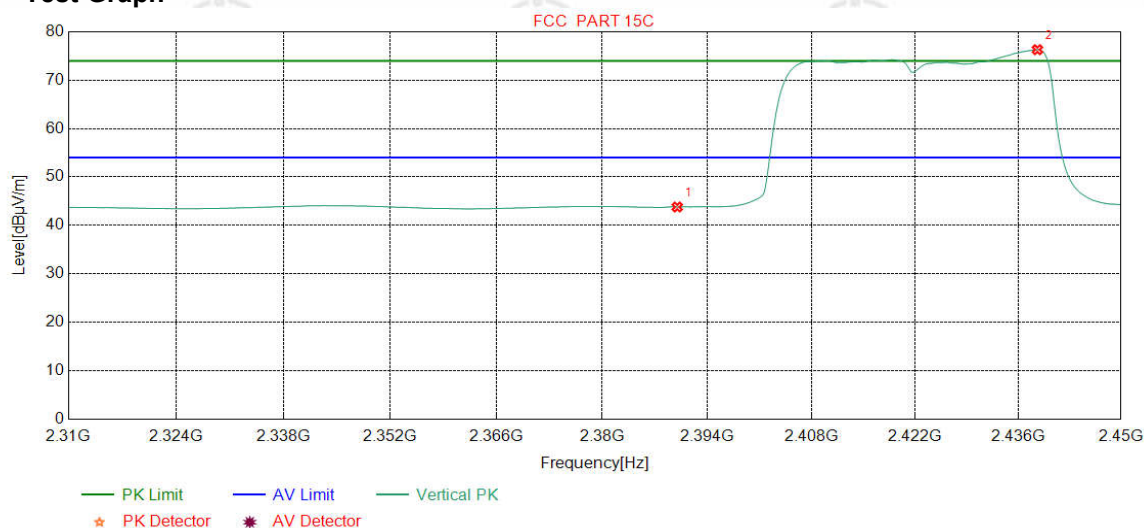
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	34.64	43.64	54.00	10.36	Pass	H	AV
2	2438.4355	32.31	13.48	-36.62	62.29	71.46	54.00	-17.46	Pass	H	AV

Mode:	802.11n(HT40)(13.5Mbps) Transmitting	Channel:	2422
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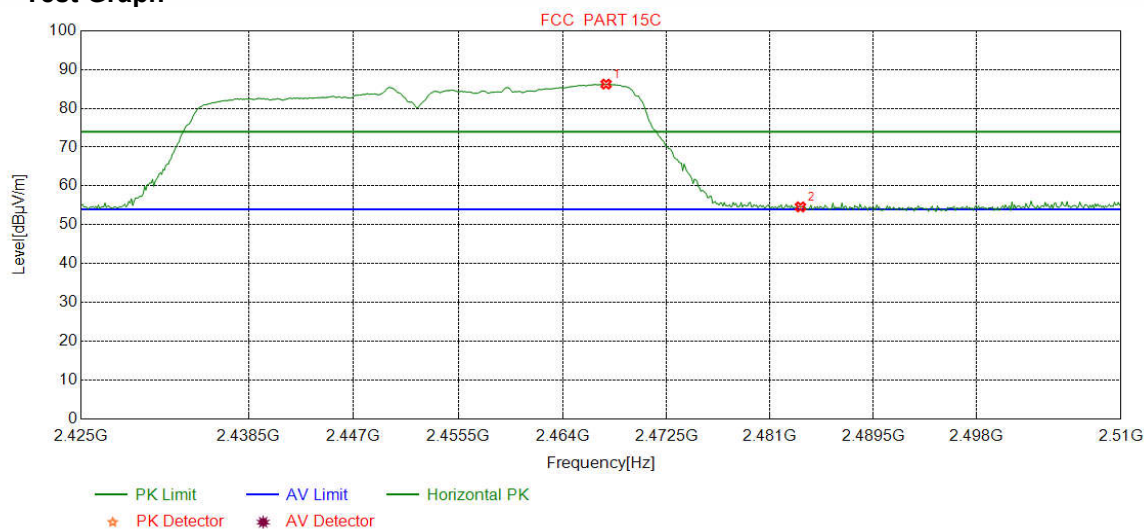
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2390.0000	32.25	13.37	-36.62	34.79	43.79	54.00	10.21	Pass	V	AV
2	2438.6108	32.31	13.48	-36.62	67.13	76.30	54.00	-22.30	Pass	V	AV

Mode:	802.11n(HT40)(13.5Mbps) Transmitting	Channel:	2452
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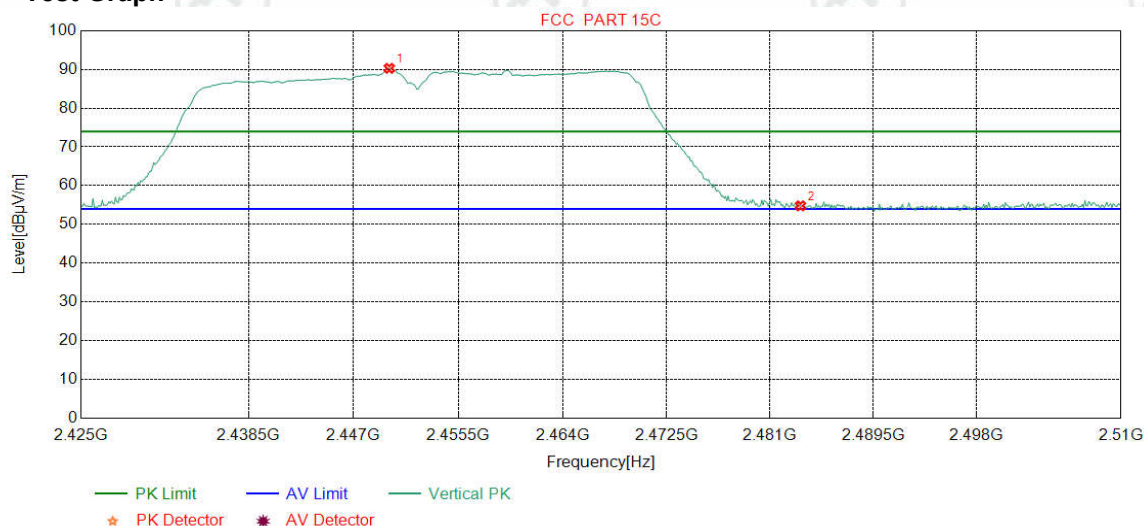
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2467.5532	32.35	13.45	-36.71	77.17	86.26	74.00	-12.26	Pass	H	Peak
2	2483.5000	32.38	13.38	-36.80	45.64	54.60	74.00	19.40	Pass	H	Peak

Mode:	802.11n(HT40)(13.5Mbps) Transmitting	Channel:	2452
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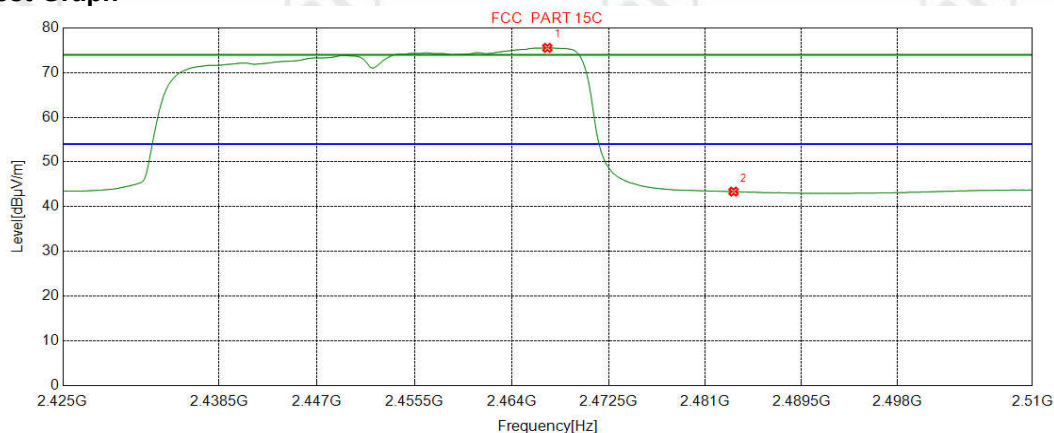
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2449.8936	32.33	13.53	-36.63	81.07	90.30	74.00	-16.30	Pass	V	Peak
2	2483.5000	32.38	13.38	-36.80	45.81	54.77	74.00	19.23	Pass	V	Peak

Mode:	802.11n(HT40)(13.5Mbps) Transmitting	Channel:	2452
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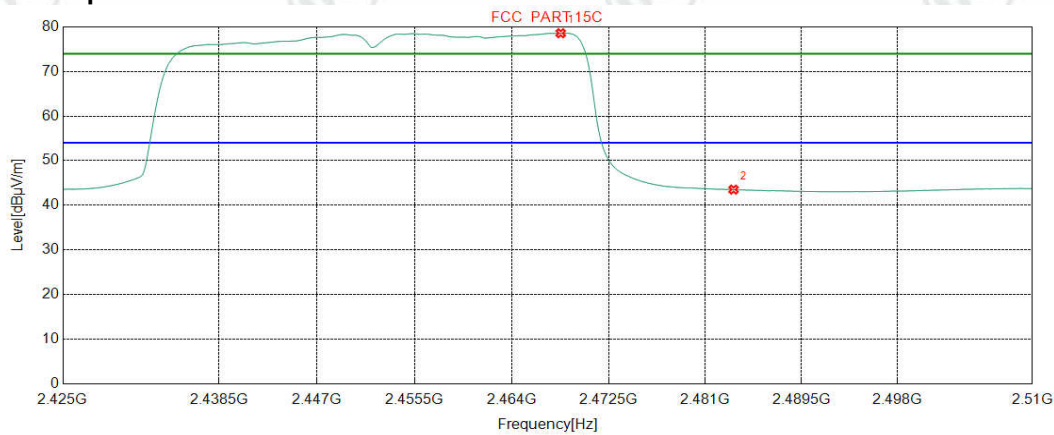
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2467.1277	32.35	13.45	-36.71	66.45	75.54	54.00	-21.54	Pass	H	AV
2	2483.5000	32.38	13.38	-36.80	34.41	43.37	54.00	10.63	Pass	H	AV

Mode:	802.11n(HT40)(13.5Mbps) Transmitting	Channel:	2452
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Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2468.2979	32.36	13.45	-36.73	69.51	78.59	54.00	-24.59	Pass	V	AV
2	2483.5000	32.38	13.38	-36.80	34.55	43.51	54.00	10.49	Pass	V	AV

Note:

1) Through Pre-scan transmitting mode and 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) All modes and antenna are tested, and found the antenna 1 which is worst case, and then only the worst case mode is recorded in the report.

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:

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. 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 (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.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. 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:

g. 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)..

h. Test the EUT in the lowest channel ,the middle 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	Field strength (microvolt/meter)	Limit (dBμV/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.

Radiated Spurious Emissions test Data:

Radiated Emission below 1GHz

Antenna 1

Mode:		802.11 b(11Mbps) Transmitting								
Remark:		(QP)								
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity
1	87.8236	8.90	1.08	-32.08	36.48	14.38	40.00	25.62	Pass	Horizontal
2	199.2018	10.82	1.67	-31.94	48.14	28.69	43.50	14.81	Pass	Horizontal
3	290.4001	13.01	2.03	-31.88	44.53	27.69	46.00	18.31	Pass	Horizontal
4	399.6439	15.39	2.38	-31.76	42.15	28.16	46.00	17.84	Pass	Horizontal
5	598.5337	18.97	2.95	-31.98	43.03	32.97	46.00	13.03	Pass	Horizontal
6	718.6437	20.01	3.21	-32.08	38.06	29.20	46.00	16.80	Pass	Horizontal

Mode:		802.11 b(11Mbps) Transmitting								
Remark:		(QP)								
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity
1	48.8218	13.20	0.79	-32.12	40.51	22.38	40.00	17.62	Pass	Vertical
2	120.0340	9.19	1.30	-32.06	40.62	19.05	43.50	24.45	Pass	Vertical
3	208.9038	11.13	1.71	-31.94	44.20	25.10	43.50	18.40	Pass	Vertical
4	290.4001	13.01	2.03	-31.88	41.57	24.73	46.00	21.27	Pass	Vertical
5	597.3695	18.95	2.94	-31.97	41.35	31.27	46.00	14.73	Pass	Vertical
6	796.6473	20.86	3.38	-32.01	35.69	27.92	46.00	18.08	Pass	Vertical

Mode:		802.11 g(6Mbps) Transmitting								
Remark:		(QP)								
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity
1	130.9002	7.65	1.34	-32.02	40.83	17.80	43.50	25.70	Pass	Horizontal
2	179.9920	9.00	1.58	-31.99	41.05	19.64	43.50	23.86	Pass	Horizontal
3	239.9500	11.94	1.84	-31.90	45.01	26.89	46.00	19.11	Pass	Horizontal
4	353.2687	14.37	2.24	-31.86	39.92	24.67	46.00	21.33	Pass	Horizontal
5	545.5611	17.91	2.79	-31.95	33.14	21.89	46.00	24.11	Pass	Horizontal
6	720.0020	20.02	3.22	-32.07	48.06	39.23	46.00	6.77	Pass	Horizontal

Mode:		802.11 g(6Mbps) Transmitting								
Remark:		(QP)								
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity
1	52.5085	12.80	0.82	-32.10	40.45	21.97	40.00	18.03	Pass	Vertical
2	96.5553	10.45	1.14	-32.08	37.36	16.87	43.50	26.63	Pass	Vertical
3	208.9038	11.13	1.71	-31.94	44.29	25.19	43.50	18.31	Pass	Vertical
4	399.6439	15.39	2.38	-31.76	35.75	21.76	46.00	24.24	Pass	Vertical
5	713.5987	19.95	3.19	-32.10	33.97	25.01	46.00	20.99	Pass	Vertical
6	796.4533	20.86	3.38	-32.01	33.54	25.77	46.00	20.23	Pass	Vertical

Mode:		802.11n(HT20)(6.5Mbps) Transmitting								
Remark:		(QP)								
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity
1	63.1806	10.77	0.91	-32.04	33.64	13.28	40.00	26.72	Pass	Horizontal
2	120.0340	9.19	1.30	-32.06	38.65	17.08	43.50	26.42	Pass	Horizontal
3	179.9920	9.00	1.58	-31.99	43.45	22.04	43.50	21.46	Pass	Horizontal
4	239.9500	11.94	1.84	-31.90	43.32	25.20	46.00	20.80	Pass	Horizontal
5	479.9760	16.68	2.61	-31.90	33.14	20.53	46.00	25.47	Pass	Horizontal
6	718.0616	20.00	3.21	-32.08	51.12	42.25	46.00	3.75	Pass	Horizontal

Mode:		802.11 n(HT20)(6.5Mbps) Transmitting								
Remark:		(QP)								
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity
1	49.2098	13.20	0.79	-32.12	41.53	23.40	40.00	16.60	Pass	Vertical
2	71.9124	8.64	0.97	-32.05	38.19	15.75	40.00	24.25	Pass	Vertical
3	208.9038	11.13	1.71	-31.94	41.13	22.03	43.50	21.47	Pass	Vertical
4	360.0600	14.52	2.27	-31.84	36.31	21.26	46.00	24.74	Pass	Vertical
5	559.5319	18.19	2.82	-31.98	32.68	21.71	46.00	24.29	Pass	Vertical
6	687.5975	19.70	3.14	-32.06	34.32	25.10	46.00	20.90	Pass	Vertical

Mode:		802.11 n(HT40)(6.5Mbps) Transmitting								
Remark:		(QP)								
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity
1	49.9860	13.20	0.80	-32.12	31.03	12.91	40.00	27.09	Pass	Horizontal
2	179.9920	9.00	1.58	-31.99	41.03	19.62	43.50	23.88	Pass	Horizontal
3	238.0096	11.89	1.83	-31.90	43.75	25.57	46.00	20.43	Pass	Horizontal
4	360.0600	14.52	2.27	-31.84	34.15	19.10	46.00	26.90	Pass	Horizontal
5	556.4273	18.13	2.81	-31.98	32.42	21.38	46.00	24.62	Pass	Horizontal
6	721.9424	20.04	3.24	-32.08	50.96	42.16	46.00	3.84	Pass	Horizontal

Mode:		802.11 n(HT40)(6.5Mbps) Transmitting								
Remark:		(QP)								
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity
1	52.5085	12.80	0.82	-32.10	42.22	23.74	40.00	16.26	Pass	Vertical
2	143.9008	7.34	1.41	-32.00	38.80	15.55	43.50	27.95	Pass	Vertical
3	208.9038	11.13	1.71	-31.94	42.43	23.33	43.50	20.17	Pass	Vertical
4	360.0600	14.52	2.27	-31.84	35.89	20.84	46.00	25.16	Pass	Vertical
5	598.1456	18.96	2.95	-31.98	30.80	20.73	46.00	25.27	Pass	Vertical
6	720.0020	20.02	3.22	-32.07	33.85	25.02	46.00	20.98	Pass	Vertical

Transmitter Emission above 1GHz
Antenna 1

Mode:		802.11b(11Mbps) Transmitting			Channel:				2412		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity	Remark
1	1369.2739	28.27	2.85	-37.26	48.54	42.40	74.00	31.60	Pass	H	Peak
2	3000.9751	33.20	4.93	-36.71	45.72	47.14	74.00	26.86	Pass	H	Peak
3	4824.0000	34.50	4.61	-36.11	55.03	58.03	74.00	15.97	Pass	H	Peak
4	4824.0000	34.50	4.61	-36.11	44.76	47.76	54.00	6.24	Pass	H	AV
5	5900.9151	35.64	5.06	-36.23	43.74	48.21	74.00	25.79	Pass	H	Peak
6	7236.0000	36.34	5.79	-36.44	42.56	48.25	74.00	25.75	Pass	H	Peak
7	9648.0000	37.66	6.72	-36.92	43.37	50.83	74.00	23.17	Pass	H	Peak
8	1397.6795	28.30	2.90	-37.21	53.20	47.19	74.00	26.81	Pass	V	Peak
9	3419.2919	33.37	4.51	-36.62	45.10	46.36	74.00	27.64	Pass	V	Peak
10	4824.0000	34.50	4.61	-36.11	47.76	50.76	74.00	23.24	Pass	V	Peak
11	6031.5782	35.81	5.26	-36.28	43.52	48.31	74.00	25.69	Pass	V	Peak
12	7236.0000	36.34	5.79	-36.44	42.15	47.84	74.00	26.16	Pass	V	Peak
13	9648.0000	37.66	6.72	-36.92	42.68	50.14	74.00	23.86	Pass	V	Peak

Mode:		802.11b(11Mbps) Transmitting			Channel:				2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity	Remark
1	1596.9194	29.04	3.07	-42.90	54.58	43.79	74.00	30.21	Pass	H	Peak
2	3790.8041	33.63	4.37	-41.22	48.31	45.09	74.00	28.91	Pass	H	Peak
3	4874.0000	34.50	4.78	-40.61	50.13	48.80	74.00	25.20	Pass	H	Peak
4	6498.6499	35.90	5.47	-41.19	49.68	49.86	74.00	24.14	Pass	H	Peak
5	7311.0000	36.41	5.85	-40.93	49.14	50.47	74.00	23.53	Pass	H	Peak
6	9748.0000	37.70	6.77	-40.63	46.56	50.40	74.00	23.60	Pass	H	Peak
7	1397.6795	28.30	2.90	-42.69	55.62	44.13	74.00	29.87	Pass	V	Peak
8	3420.2670	33.37	4.51	-41.87	49.93	45.94	74.00	28.06	Pass	V	Peak
9	4874.0000	34.50	4.78	-40.61	49.74	48.41	74.00	25.59	Pass	V	Peak
10	6498.6499	35.90	5.47	-41.19	49.43	49.61	74.00	24.39	Pass	V	Peak
11	7311.0000	36.41	5.85	-40.93	48.64	49.97	74.00	24.03	Pass	V	Peak
12	9748.0000	37.70	6.77	-40.63	46.13	49.97	74.00	24.03	Pass	V	Peak

Mode:		802.11b(11Mbps) Transmitting			Channel:				2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1396.0792	28.30	2.89	-42.68	54.85	43.36	74.00	30.64	Pass	H	Peak
2	2966.3933	33.15	4.45	-42.14	50.42	45.88	74.00	28.12	Pass	H	Peak
3	4924.0000	34.50	4.85	-40.56	46.65	45.44	74.00	28.56	Pass	H	Peak
4	6564.9565	35.93	5.40	-41.19	48.71	48.85	74.00	25.15	Pass	H	Peak
5	7386.0000	36.49	5.85	-40.87	47.22	48.69	74.00	25.31	Pass	H	Peak
6	9848.0000	37.74	6.83	-40.54	45.03	49.06	74.00	24.94	Pass	H	Peak
7	1724.9450	29.88	3.21	-36.82	48.23	44.50	74.00	29.50	Pass	V	Peak
8	3573.3573	33.46	4.39	-36.50	45.31	46.66	74.00	27.34	Pass	V	Peak
9	4824.0000	34.50	4.61	-36.11	50.45	53.45	74.00	20.55	Pass	V	Peak
10	4824.0000	34.50	4.61	-36.11	42.10	45.10	54.00	8.90	Pass	V	AV
11	5528.4278	35.05	5.16	-36.09	44.36	48.48	74.00	25.52	Pass	V	Peak
12	7236.0000	36.34	5.79	-36.44	42.68	48.37	74.00	25.63	Pass	V	Peak
13	9648.0000	37.66	6.72	-36.92	43.13	50.59	74.00	23.41	Pass	V	Peak

Mode:		802.11g(6Mbps) Transmitting			Channel:				2412		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1724.9450	29.88	3.21	-36.82	48.23	44.50	74.00	29.50	Pass	H	Peak
2	3573.3573	33.46	4.39	-36.50	45.31	46.66	74.00	27.34	Pass	H	Peak
3	4824.0000	34.50	4.61	-36.11	50.45	53.45	74.00	20.55	Pass	H	Peak
4	4824.0000	34.50	4.61	-36.11	42.10	45.10	54.00	8.90	Pass	H	AV
5	5528.4278	35.05	5.16	-36.09	44.36	48.48	74.00	25.52	Pass	H	Peak
6	7236.0000	36.34	5.79	-36.44	42.68	48.37	74.00	25.63	Pass	H	Peak
7	9648.0000	37.66	6.72	-36.92	43.13	50.59	74.00	23.41	Pass	H	Peak
8	1393.6787	28.29	2.89	-37.21	54.14	48.11	74.00	25.89	Pass	V	Peak
9	3195.9946	33.28	4.64	-36.71	46.17	47.38	74.00	26.62	Pass	V	Peak
10	4824.0000	34.50	4.61	-36.11	45.33	48.33	74.00	25.67	Pass	V	Peak
11	6299.7300	35.86	5.46	-36.23	43.65	48.74	74.00	25.26	Pass	V	Peak
12	7236.0000	36.34	5.79	-36.44	42.54	48.23	74.00	25.77	Pass	V	Peak
13	9648.0000	37.66	6.72	-36.92	42.21	49.67	74.00	24.33	Pass	V	Peak

Mode:		802.11g(6Mbps) Transmitting			Channel:				2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1799.3599	30.38	3.32	-36.81	51.49	48.38	74.00	25.62	Pass	H	Peak
2	3186.2436	33.27	4.63	-36.76	46.55	47.69	74.00	26.31	Pass	H	Peak
3	4874.0000	34.50	4.78	-36.09	50.49	53.68	74.00	20.32	Pass	H	Peak
4	4874.0000	34.50	4.78	-36.09	43.35	46.54	54.00	7.46	Pass	H	AV
5	5634.7135	35.22	5.01	-36.06	43.74	47.91	74.00	26.09	Pass	H	Peak
6	7311.0000	36.41	5.85	-36.31	41.23	47.18	74.00	26.82	Pass	H	Peak
7	9748.0000	37.70	6.77	-36.79	42.74	50.42	74.00	23.58	Pass	H	Peak
8	1597.7195	29.04	3.07	-36.99	53.39	48.51	74.00	25.49	Pass	V	Peak
9	3197.9448	33.28	4.65	-36.71	47.67	48.89	74.00	25.11	Pass	V	Peak
10	4874.0000	34.50	4.78	-36.09	45.20	48.39	74.00	25.61	Pass	V	Peak
11	5987.6988	35.78	5.34	-36.28	44.13	48.97	74.00	25.03	Pass	V	Peak
12	7311.0000	36.41	5.85	-36.31	41.93	47.88	74.00	26.12	Pass	V	Peak
13	9748.0000	37.70	6.77	-36.79	42.04	49.72	74.00	24.28	Pass	V	Peak

Mode:		802.11g(6Mbps) Transmitting			Channel:				2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1798.1596	30.37	3.32	-36.81	50.26	47.14	74.00	26.86	Pass	H	Peak
2	3100.4350	33.24	4.72	-36.81	45.39	46.54	74.00	27.46	Pass	H	Peak
3	4924.0000	34.50	4.85	-36.17	47.66	50.84	74.00	23.16	Pass	H	Peak
4	6033.5284	35.81	5.25	-36.27	43.08	47.87	74.00	26.13	Pass	H	Peak
5	7386.0000	36.49	5.85	-36.34	41.11	47.11	74.00	26.89	Pass	H	Peak
6	9848.0000	37.74	6.83	-36.93	42.19	49.83	74.00	24.17	Pass	H	Peak
7	1596.5193	29.04	3.07	-37.00	52.22	47.33	74.00	26.67	Pass	H	Peak
8	3191.1191	33.28	4.64	-36.75	46.30	47.47	74.00	26.53	Pass	V	Peak
9	4924.0000	34.50	4.85	-36.17	43.07	46.25	74.00	27.75	Pass	V	Peak
10	6119.3369	35.82	5.26	-36.28	43.54	48.34	74.00	25.66	Pass	V	Peak
11	7386.0000	36.49	5.85	-36.34	41.76	47.76	74.00	26.24	Pass	V	Peak
12	9848.0000	37.74	6.83	-36.93	43.73	51.37	74.00	22.63	Pass	V	Peak

Mode:		802.11n(HT20)(6.5Mbps)			Channel:				2412		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1795.3591	30.35	3.31	-36.81	51.32	48.17	74.00	25.83	Pass	H	Peak
2	3437.8188	33.38	4.46	-36.59	45.88	47.13	74.00	26.87	Pass	H	Peak
3	4824.0000	34.50	4.61	-36.11	50.04	53.04	74.00	20.96	Pass	H	Peak
4	4824.0000	34.50	4.61	-36.11	34.51	37.51	54.00	16.49	Pass	H	AV
5	6800.9301	36.02	5.65	-36.12	43.69	49.24	74.00	24.76	Pass	H	Peak
6	7236.0000	36.34	5.79	-36.44	41.57	47.26	74.00	26.74	Pass	H	Peak
7	9648.0000	37.66	6.72	-36.92	43.25	50.71	74.00	23.29	Pass	H	Peak
8	1593.3187	29.02	3.06	-36.99	53.13	48.22	74.00	25.78	Pass	V	Peak
9	3192.0942	33.28	4.64	-36.74	47.14	48.32	74.00	25.68	Pass	V	Peak
10	4824.0000	34.50	4.61	-36.11	45.81	48.81	74.00	25.19	Pass	V	Peak
11	6326.0576	35.87	5.46	-36.18	43.80	48.95	74.00	25.05	Pass	V	Peak
12	7236.0000	36.34	5.79	-36.44	42.08	47.77	74.00	26.23	Pass	V	Peak
13	9648.0000	37.66	6.72	-36.92	42.15	49.61	74.00	24.39	Pass	V	Peak

Mode:		802.11n(HT20)(6.5Mbps)			Channel:				2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1793.3587	30.34	3.31	-36.81	50.46	47.30	74.00	26.70	Pass	H	Peak
2	2843.5687	32.95	4.23	-36.92	47.87	48.13	74.00	25.87	Pass	H	Peak
3	4874.0000	34.50	4.78	-36.09	50.60	53.79	74.00	20.21	Pass	H	Peak
4	4874.0000	34.50	4.78	-36.09	46.77	49.96	54.00	4.04	Pass	H	AV
5	6311.4311	35.86	5.46	-36.20	44.16	49.28	74.00	24.72	Pass	H	Peak
6	7311.0000	36.41	5.85	-36.31	41.30	47.25	74.00	26.75	Pass	H	Peak
7	9748.0000	37.70	6.77	-36.79	42.32	50.00	74.00	24.00	Pass	H	Peak
8	1596.1192	29.03	3.07	-36.99	54.55	49.66	74.00	24.34	Pass	V	Peak
9	3091.6592	33.24	4.74	-36.83	46.47	47.62	74.00	26.38	Pass	V	Peak
10	4874.0000	34.50	4.78	-36.09	44.79	47.98	74.00	26.02	Pass	V	Peak
11	6252.9253	35.85	5.36	-36.29	44.03	48.95	74.00	25.05	Pass	V	Peak
12	7311.0000	36.41	5.85	-36.31	42.01	47.96	74.00	26.04	Pass	V	Peak
13	9748.0000	37.70	6.77	-36.79	41.77	49.45	74.00	24.55	Pass	V	Peak

Mode:		802.11n(HT20)(6.5Mbps)			Channel:				2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1796.9594	30.36	3.31	-36.80	49.29	46.16	74.00	27.84	Pass	H	Peak
2	3019.5020	33.21	4.89	-36.78	45.63	46.95	74.00	27.05	Pass	H	Peak
3	4924.0000	34.50	4.85	-36.17	47.79	50.97	74.00	23.03	Pass	H	Peak
4	6137.8638	35.83	5.25	-36.22	42.60	47.46	74.00	26.54	Pass	H	Peak
5	7386.0000	36.49	5.85	-36.34	39.63	45.63	74.00	28.37	Pass	H	Peak
6	9848.0000	37.74	6.83	-36.93	40.32	47.96	74.00	26.04	Pass	H	Peak
7	1596.1192	29.03	3.07	-36.99	52.11	47.22	74.00	26.78	Pass	V	Peak
8	3540.2040	33.43	4.45	-36.47	45.88	47.29	74.00	26.71	Pass	V	Peak
9	4924.0000	34.50	4.85	-36.17	44.00	47.18	74.00	26.82	Pass	V	Peak
10	5836.5587	35.54	5.05	-36.01	44.09	48.67	74.00	25.33	Pass	V	Peak
11	7386.0000	36.49	5.85	-36.34	40.96	46.96	74.00	27.04	Pass	V	Peak
12	9848.0000	37.74	6.83	-36.93	41.79	49.43	74.00	24.57	Pass	V	Peak

Mode:		802.11n(HT40) (13.5Mbps)			Channel:				2422		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	2704.7409	32.73	4.12	-36.72	48.74	48.87	74.00	25.13	Pass	H	Peak
2	4844.0000	34.50	4.67	-36.07	47.87	50.97	74.00	23.03	Pass	H	Peak
3	5562.5563	35.10	5.14	-36.06	43.61	47.79	74.00	26.21	Pass	H	Peak
4	6459.6460	35.89	5.51	-36.25	44.43	49.58	74.00	24.42	Pass	H	Peak
5	7266.0000	36.37	5.80	-36.37	41.97	47.77	74.00	26.23	Pass	H	Peak
6	9688.0000	37.68	6.62	-36.75	42.92	50.47	74.00	23.53	Pass	H	Peak
7	1596.9194	29.04	3.07	-36.99	52.19	47.31	74.00	26.69	Pass	H	Peak
8	2593.5187	32.55	4.10	-36.63	50.13	50.15	74.00	23.85	Pass	V	Peak
9	4844.0000	34.50	4.67	-36.07	46.44	49.54	74.00	24.46	Pass	V	Peak
10	6458.6709	35.89	5.51	-36.25	43.33	48.48	74.00	25.52	Pass	V	Peak
11	7266.0000	36.37	5.80	-36.37	40.79	46.59	74.00	27.41	Pass	V	Peak
12	9688.0000	37.68	6.62	-36.75	42.86	50.41	74.00	23.59	Pass	V	Peak

Mode:		802.11n(HT40) (13.5Mbps)			Channel:				2437		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity	Remark
1	1187.6375	28.09	2.67	-37.68	49.65	42.73	74.00	31.27	Pass	H	Peak
2	2919.1838	33.07	4.39	-36.69	47.45	48.22	74.00	25.78	Pass	H	Peak
3	4874.0000	34.50	4.78	-36.09	50.36	53.55	74.00	20.45	Pass	H	Peak
4	4874.0000	34.50	4.78	-36.09	35.71	38.90	54.00	15.10	Pass	H	AV
5	6412.8413	35.88	5.36	-36.31	43.93	48.86	74.00	25.14	Pass	H	Peak
6	7311.0000	36.41	5.85	-36.31	41.26	47.21	74.00	26.79	Pass	H	Peak
7	9748.0000	37.70	6.77	-36.79	42.06	49.74	74.00	24.26	Pass	V	Peak
8	1394.0788	28.29	2.89	-37.21	51.81	45.78	74.00	28.22	Pass	V	Peak
9	3220.3720	33.29	4.57	-36.75	46.58	47.69	74.00	26.31	Pass	V	Peak
10	4874.0000	34.50	4.78	-36.09	44.29	47.48	74.00	26.52	Pass	V	Peak
11	5641.5392	35.23	4.99	-36.04	43.71	47.89	74.00	26.11	Pass	V	Peak
12	7311.0000	36.41	5.85	-36.31	40.36	46.31	74.00	27.69	Pass	V	Peak
13	9748.0000	37.70	6.77	-36.79	41.72	49.40	74.00	24.60	Pass	V	Peak

Mode:		802.11n(HT40) (13.5Mbps)			Channel:				2462		
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Magin [dB]	Result	Polarity	Remark
1	2014.2028	31.72	3.50	-36.75	47.48	45.95	74.00	28.05	Pass	H	Peak
2	3209.6460	33.28	4.61	-36.71	46.51	47.69	74.00	26.31	Pass	H	Peak
3	4904.0000	34.50	4.87	-36.12	50.32	53.57	74.00	20.43	Pass	H	Peak
4	4904.0000	34.50	4.88	-36.13	39.46	42.71	54.00	11.29	Pass	H	AV
5	6328.9829	35.87	5.46	-36.18	42.72	47.87	74.00	26.13	Pass	H	Peak
6	7356.0000	36.46	5.85	-36.57	40.05	45.79	74.00	28.21	Pass	H	Peak
7	9808.0000	37.72	6.59	-36.89	41.45	48.87	74.00	25.13	Pass	H	Peak
8	1397.6795	28.30	2.90	-37.21	50.31	44.30	74.00	29.70	Pass	V	Peak
9	3190.1440	33.28	4.63	-36.74	47.42	48.59	74.00	25.41	Pass	V	Peak
10	4904.0000	34.50	4.87	-36.12	45.68	48.93	74.00	25.07	Pass	V	Peak
11	6462.5713	35.89	5.51	-36.25	43.34	48.49	74.00	25.51	Pass	V	Peak
12	7356.0000	36.46	5.85	-36.57	39.42	45.16	74.00	28.84	Pass	V	Peak
13	9808.0000	37.72	6.59	-36.89	41.36	48.78	74.00	25.22	Pass	V	Peak

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.

4) All modes and antenna are tested, and found the antenna 1 which is worst case, and then only the worst case mode is recorded in the report.

PHOTOGRAPHS OF TEST SETUP

Test model No.: WCT1BR2701T



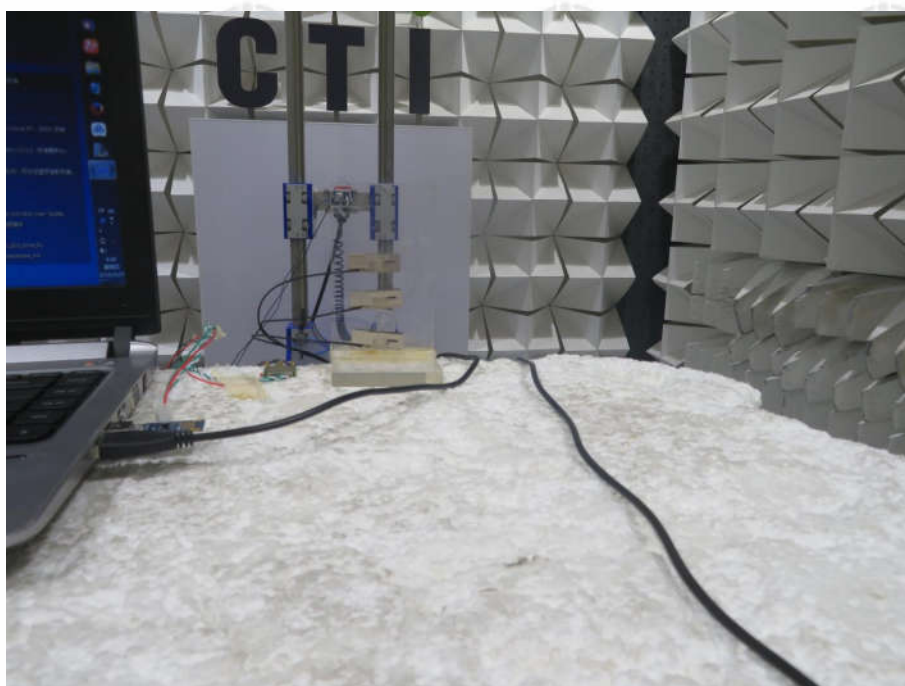
Radiated spurious emission Test Setup-1(Below 30MHz)



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



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



Radiated spurious emission Test Setup-4(Close-up)



Conducted Emissions Test Setup

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No.EED32K00249901 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.