Appendix E): Power Spectral Density

Test Limit

According to §15.247(e),

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

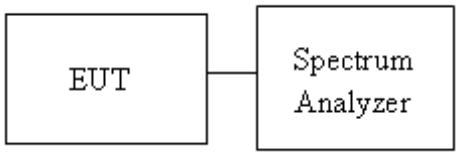
Limit	☒ Antenna not exceed 6 dBi：8dBm ☐ Antenna with DG greater than 6 dBi： [Limit = 8 – (DG – 6)] ☐ Point-to-point operation：

Test Procedure

Test method Refer as KDB 558074 D01.

1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. SA set RBW = 3kHz, VBW = 30kHz, Span = 1.5 times DTS Bandwidth (6 dB BW), Detector = Peak, Sweep Time = Auto and Trace = Max hold.
4. The path loss was compensated to the results for each measurement by SA.
5. Mark the maximum level.
6. Measure and record the result of power spectral density. in the test report.

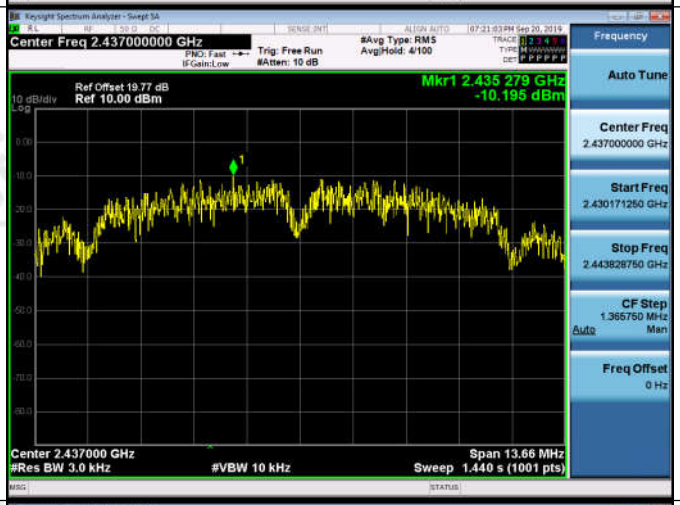
Test Setup

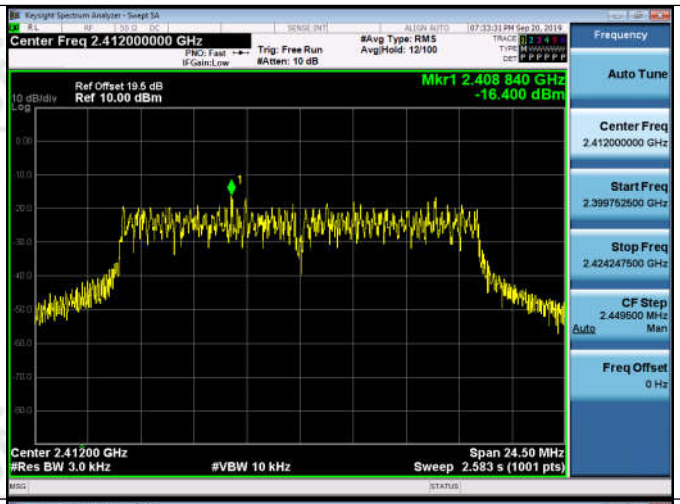
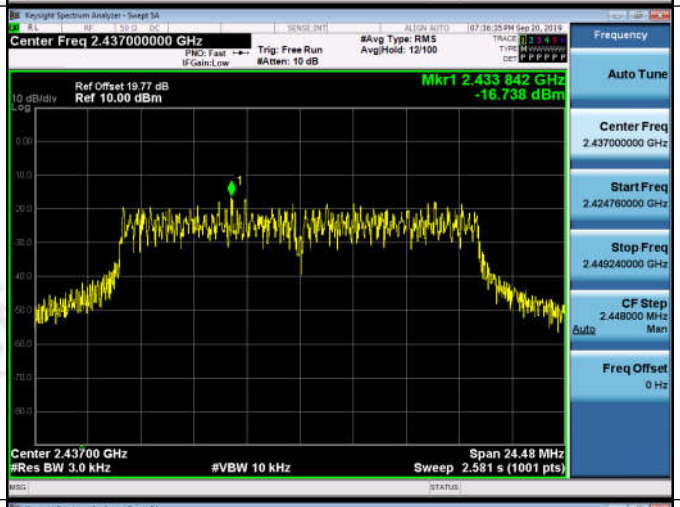
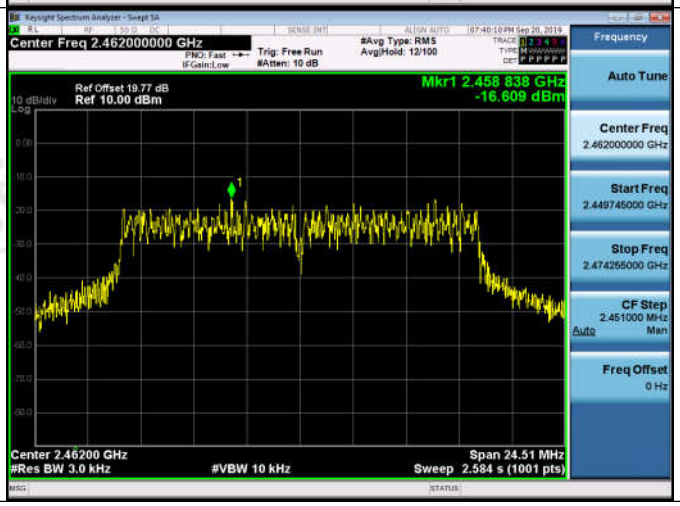


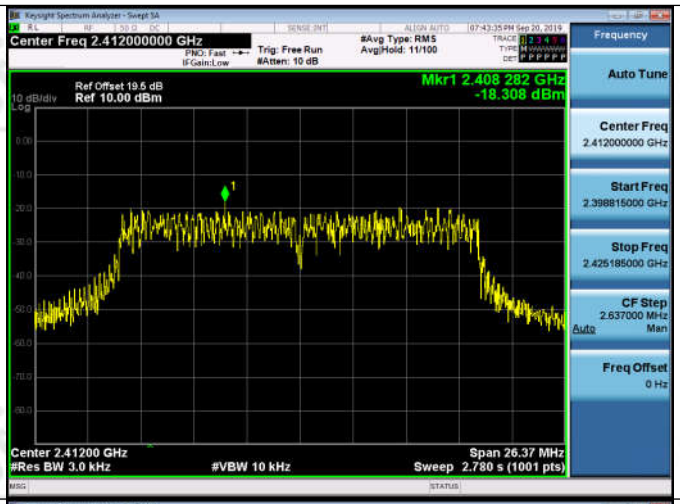
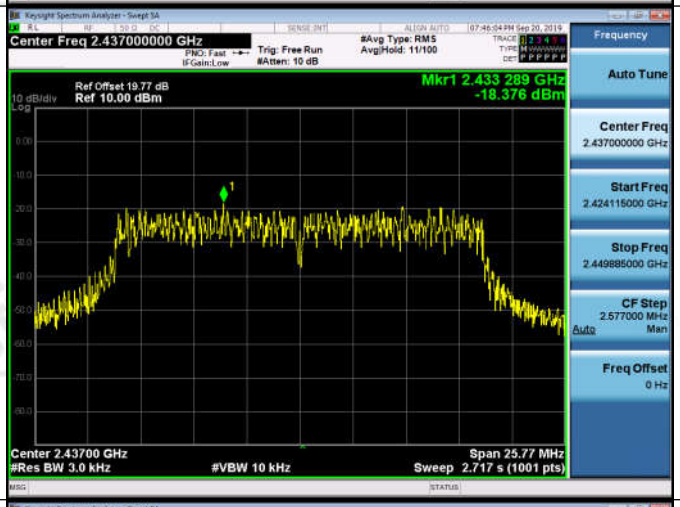
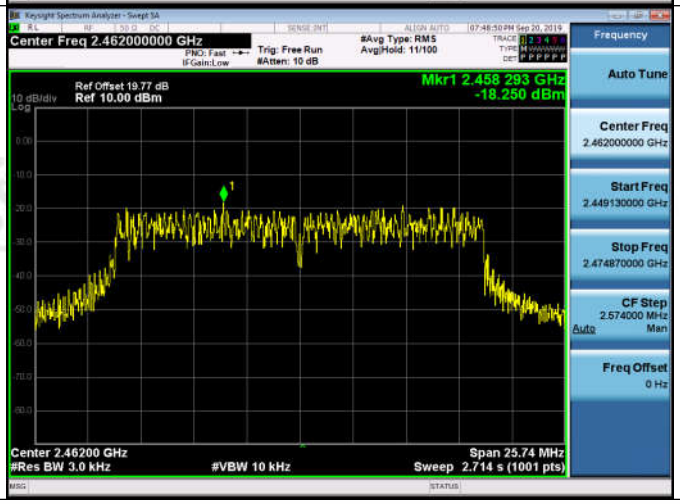
Result Table

Mode	Channel	Power Spectral Density [dBm/3KHz]	Verdict
11B	LCH	-9.582	PASS
11B	MCH	-10.195	PASS
11B	HCH	-11.065	PASS
11G	LCH	-16.400	PASS
11G	MCH	-16.738	PASS
11G	HCH	-16.609	PASS
11N20SISO	LCH	-18.308	PASS
11N20SISO	MCH	-18.376	PASS
11N20SISO	HCH	-18.250	PASS

Test Graph

Graphs			
11B/LCH			
11B/MCH			
11B/HCH			

11G/LCH			
11G/MCH			
11G/HCH			

11N20SISO/LCH			
11N20SISO/MCH			
11N20SISO/HCH			

Appendix F): Antenna Requirement

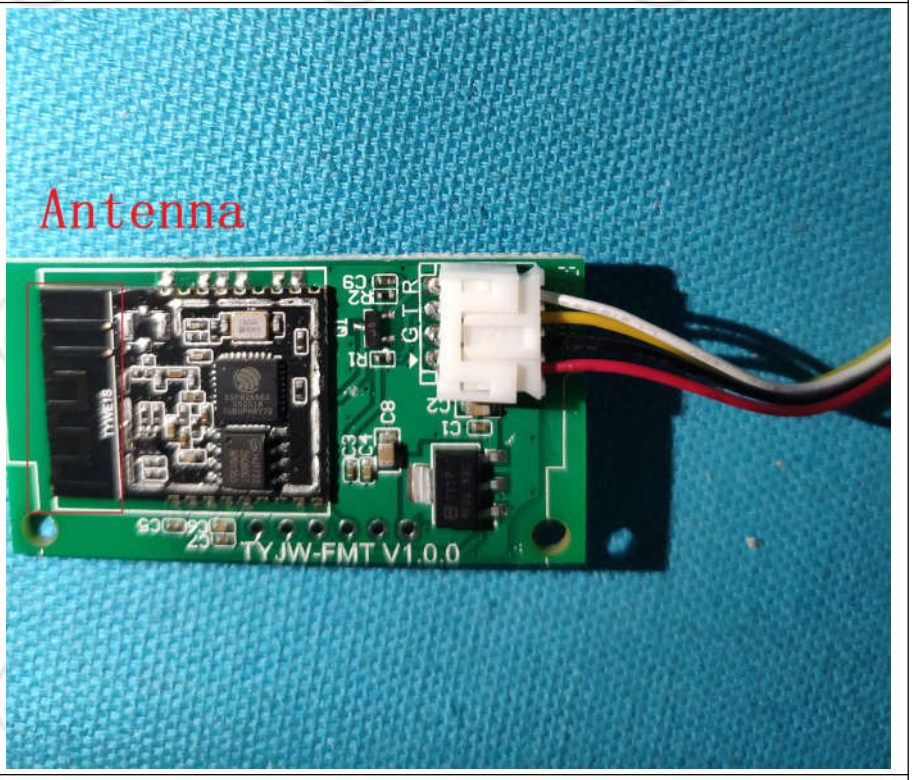
15.203 requirement:

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 integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 3dBi.

Appendix G): AC Power Line Conducted Emission

<table>
<tr><td>Test Procedure:</td><td>Test frequency range :150KHz-30MHz
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 50Ω/50μH + 5Ω 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.</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBμV)</th></tr>
<tr><th>Quasi-peak</th><th>Average</th></tr>
<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>
</table>
* 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</td></tr>
</table>

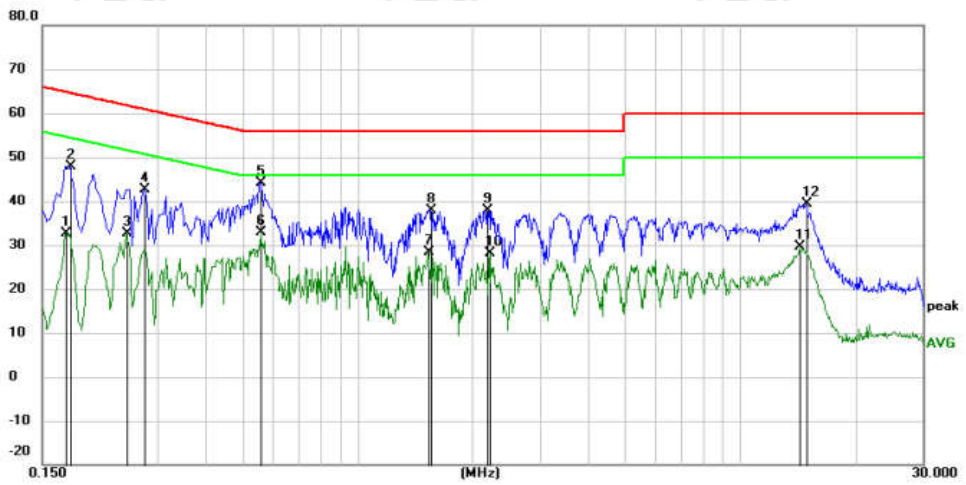
Measurement Data

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.

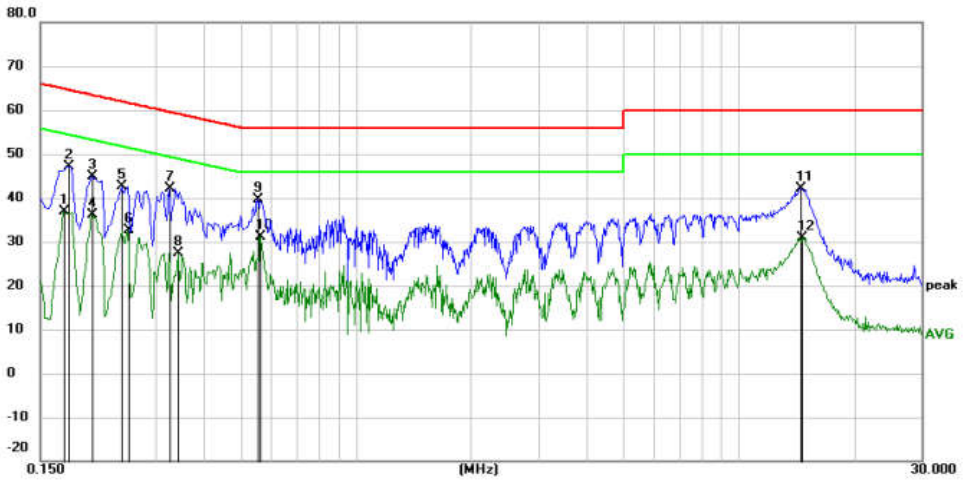
Product	:	Smart Sweeping Robot	**Model/Type reference**	:	SI-350
Temperature	:	21℃	**Humidity**	:	51%

Live line:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1725	22.60	10.00	32.60	54.84	-22.24	AVG	
2		0.1770	37.77	10.00	47.77	64.63	-16.86	peak	
3		0.2490	22.53	10.06	32.59	51.79	-19.20	AVG	
4		0.2760	32.65	10.08	42.73	60.94	-18.21	peak	
5	*	0.5595	34.15	10.07	44.22	56.00	-11.78	peak	
6		0.5595	22.88	10.07	32.95	46.00	-13.05	AVG	
7		1.5315	18.40	9.87	28.27	46.00	-17.73	AVG	
8		1.5585	28.10	9.87	37.97	56.00	-18.03	peak	
9		2.1885	27.95	9.83	37.78	56.00	-18.22	peak	
10		2.2155	18.29	9.83	28.12	46.00	-17.88	AVG	
11		14.3385	19.57	9.98	29.55	50.00	-20.45	AVG	
12		14.8560	29.36	9.98	39.34	60.00	-20.66	peak	

Neutral line:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1725	26.89	10.00	36.89	54.84	-17.95	AVG	
2		0.1770	37.23	10.00	47.23	64.63	-17.40	peak	
3		0.2040	34.89	10.02	44.91	63.45	-18.54	peak	
4		0.2040	26.19	10.02	36.21	53.45	-17.24	AVG	
5		0.2445	32.51	10.06	42.57	61.94	-19.37	peak	
6		0.2535	22.54	10.06	32.60	51.64	-19.04	AVG	
7		0.3255	32.18	10.07	42.25	59.57	-17.32	peak	
8		0.3435	17.29	10.06	27.35	49.12	-21.77	AVG	
9		0.5550	29.47	10.07	39.54	56.00	-16.46	peak	
10	*	0.5639	21.07	10.08	31.15	46.00	-14.85	AVG	
11		14.5050	32.26	9.98	42.24	60.00	-17.76	peak	
12		14.5950	20.92	9.98	30.90	50.00	-19.10	AVG	

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:

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 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:

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.

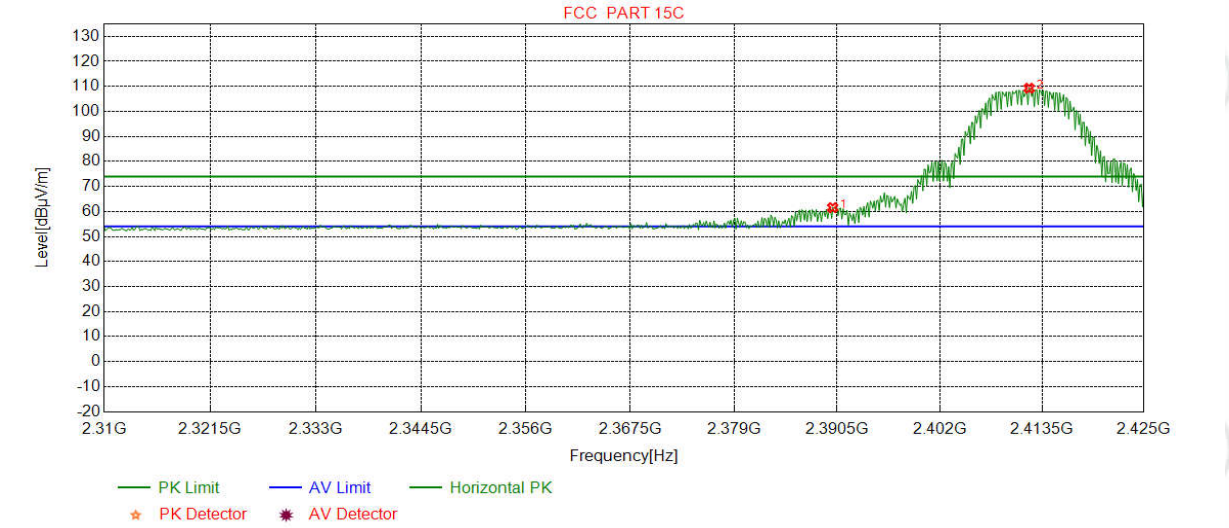
Limit:

Frequency	Limit (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:

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
Remark:	PK		

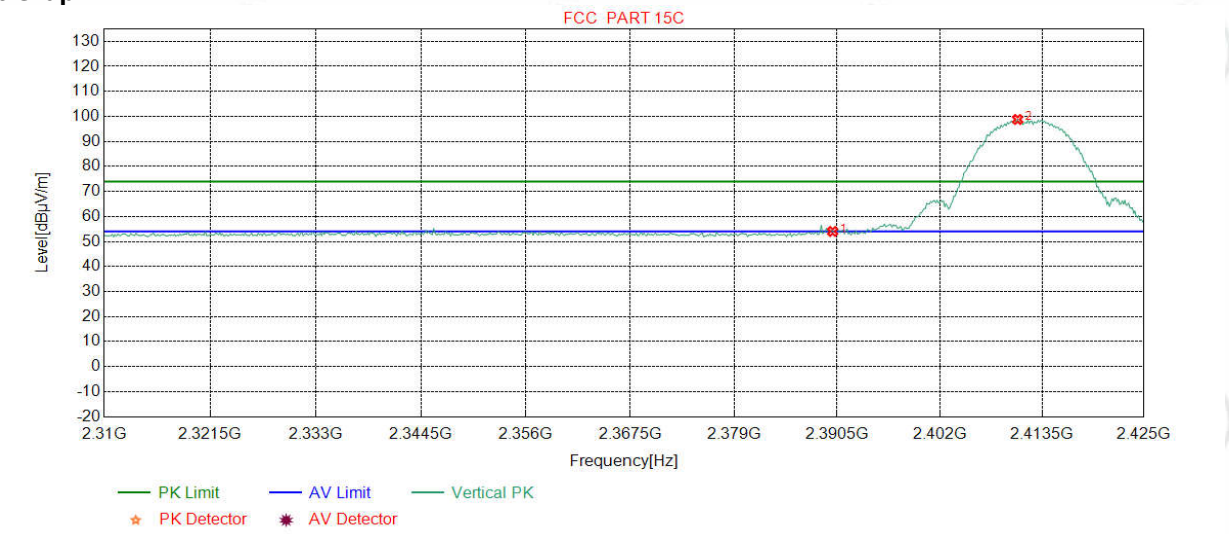
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	58.36	61.54	74.00	12.46	Pass	Horizontal
2	2412.0463	32.28	13.36	-42.44	106.07	109.27	74.00	-35.27	Pass	Horizontal

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
Remark:	PK		

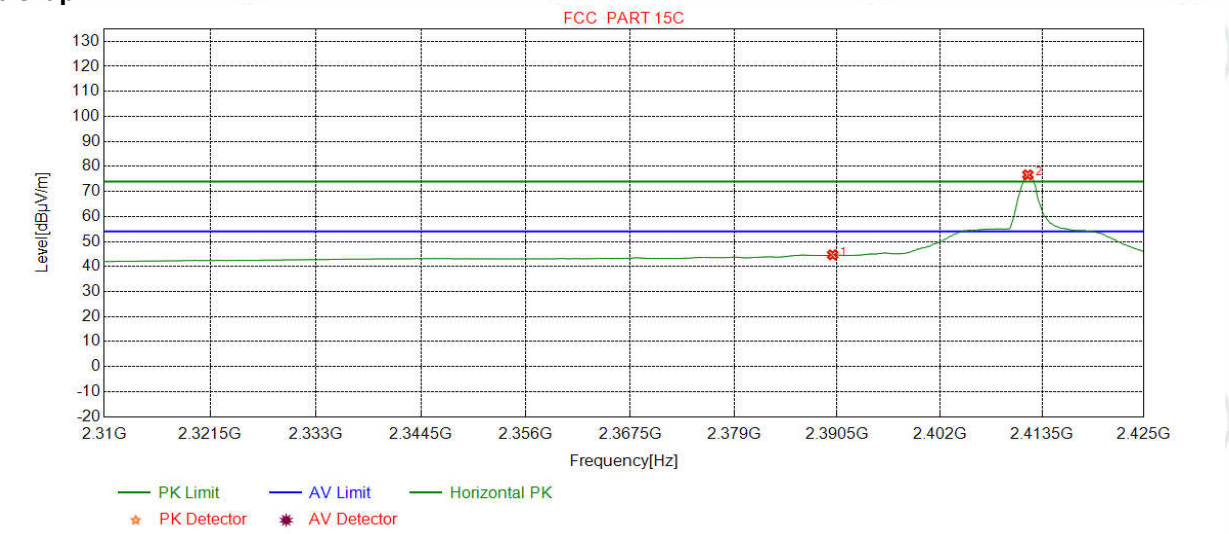
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	50.85	54.03	74.00	19.97	Pass	Vertical
2	2410.7509	32.28	13.35	-42.43	95.57	98.77	74.00	-24.77	Pass	Vertical

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
Remark:	AV		

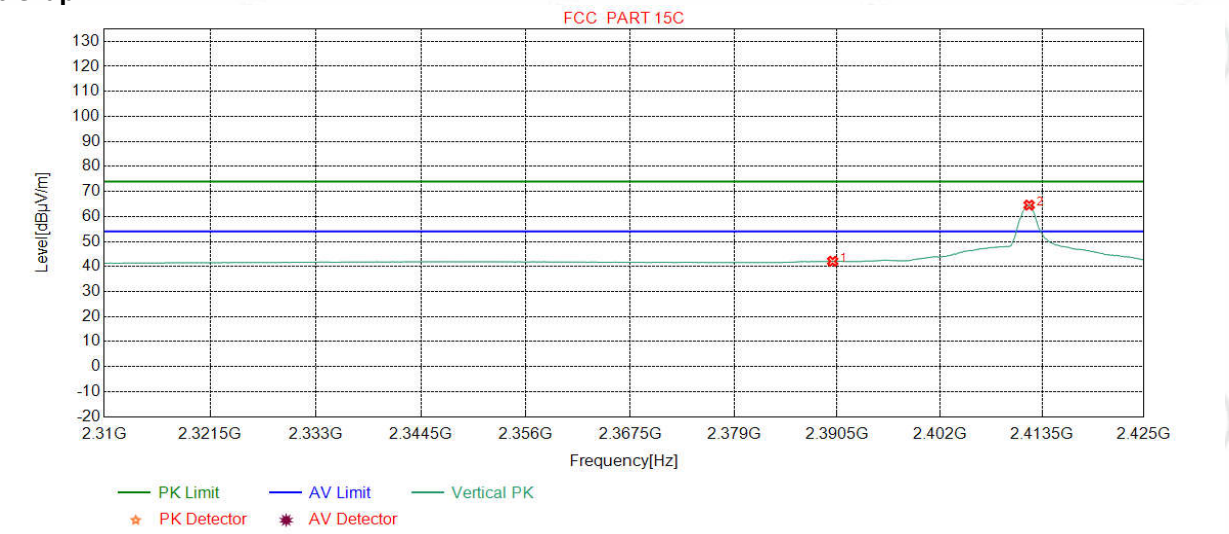
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	41.50	44.68	54.00	9.32	Pass	Horizontal
2	2411.9024	32.28	13.35	-42.43	73.46	76.66	54.00	-22.66	Pass	Horizontal

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2412
Remark:	AV		

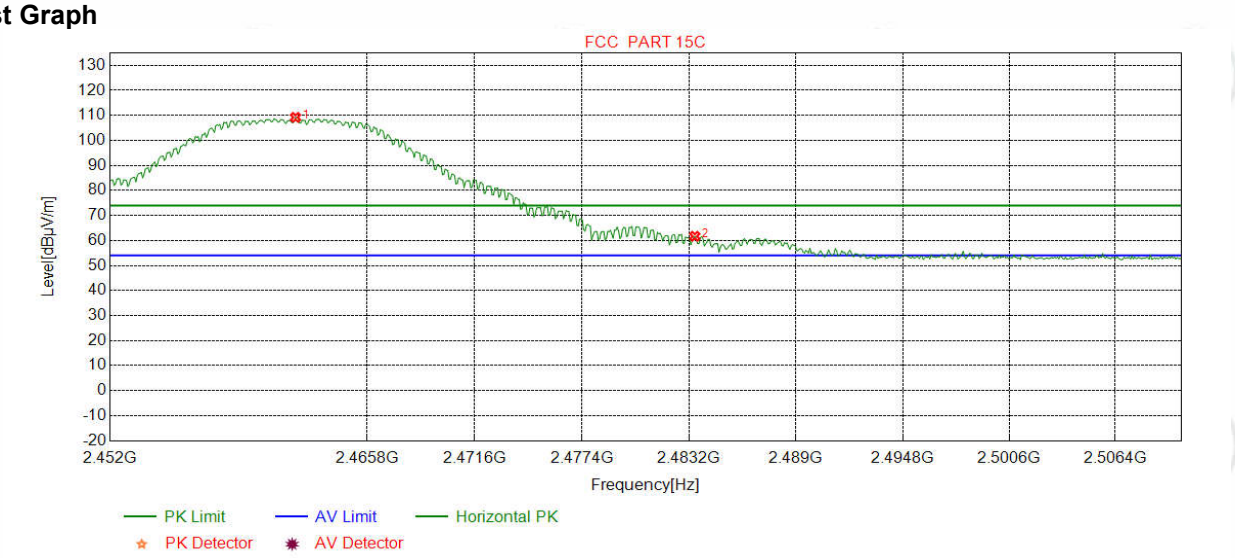
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	38.92	42.10	54.00	11.90	Pass	Vertical
2	2412.0463	32.28	13.36	-42.44	61.35	64.55	54.00	-10.55	Pass	Vertical

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2462
Remark:	PK		

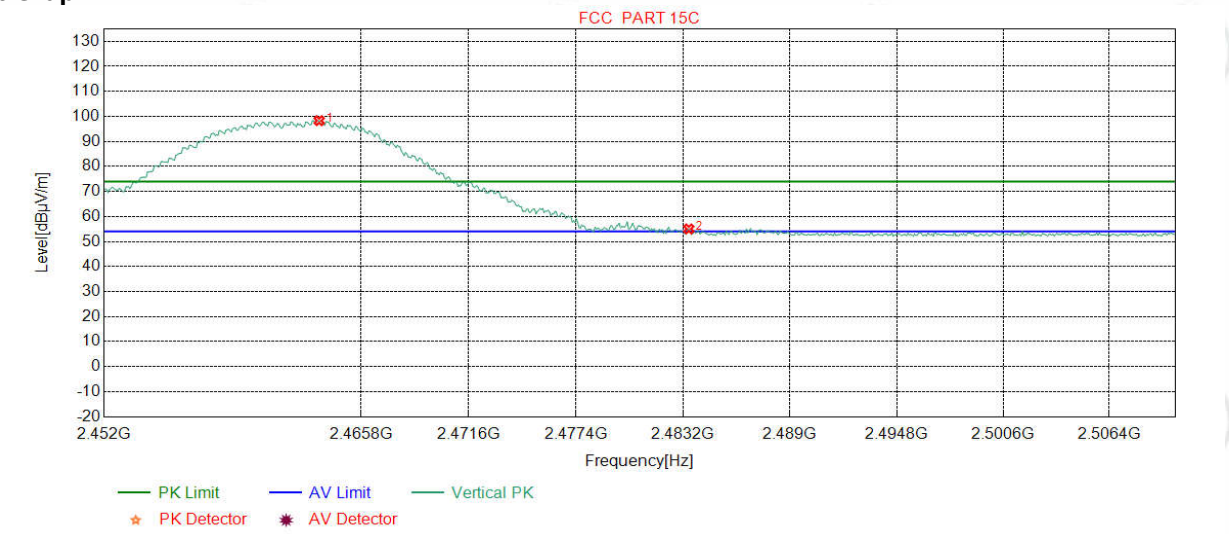
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2461.9449	32.35	13.48	-42.41	105.78	109.20	74.00	-35.20	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	58.32	61.68	74.00	12.32	Pass	Horizontal

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2462
Remark:	PK		

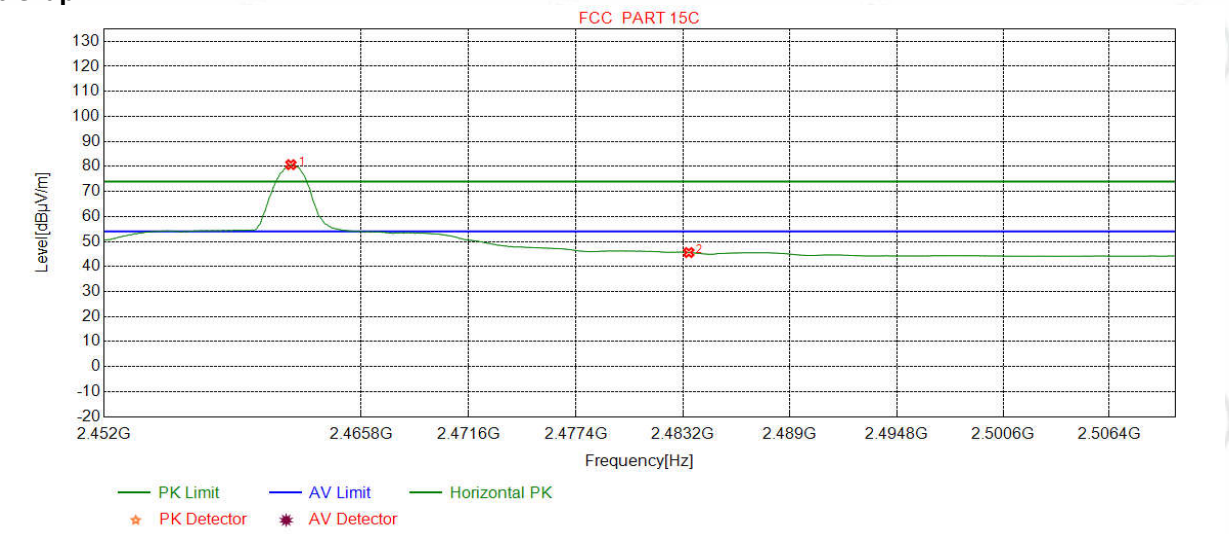
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2463.5419	32.35	13.47	-42.41	94.88	98.29	74.00	-24.29	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	51.68	55.04	74.00	18.96	Pass	Vertical

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2462
Remark:	AV		

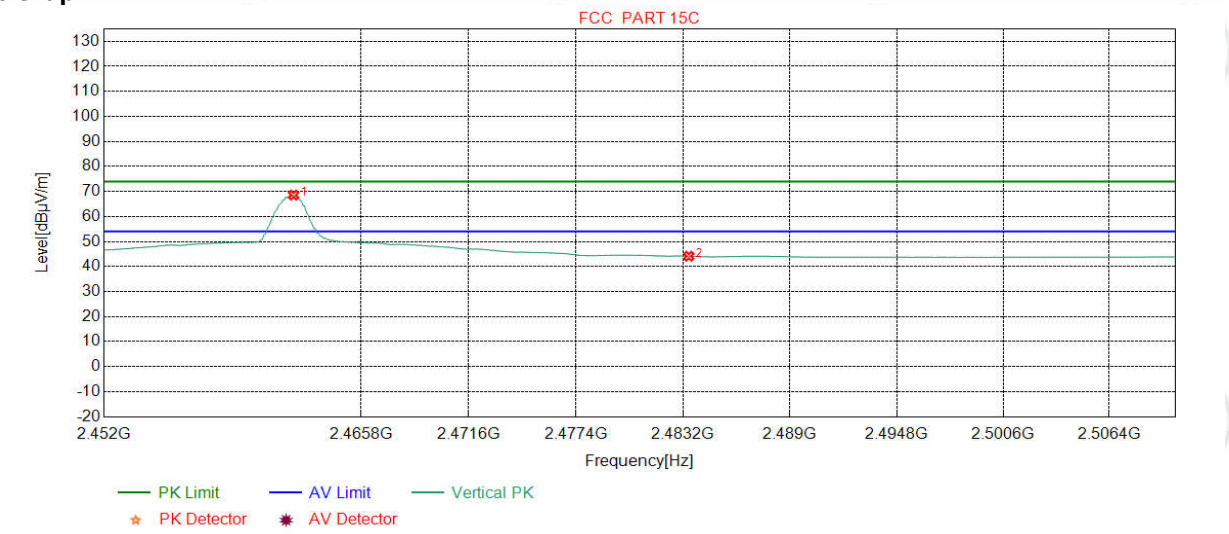
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2462.0175	32.35	13.47	-42.41	77.29	80.70	54.00	-26.70	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	42.23	45.59	54.00	8.41	Pass	Horizontal

Mode:	802.11 b(11Mbps) Transmitting	Channel:	2462
Remark:	AV		

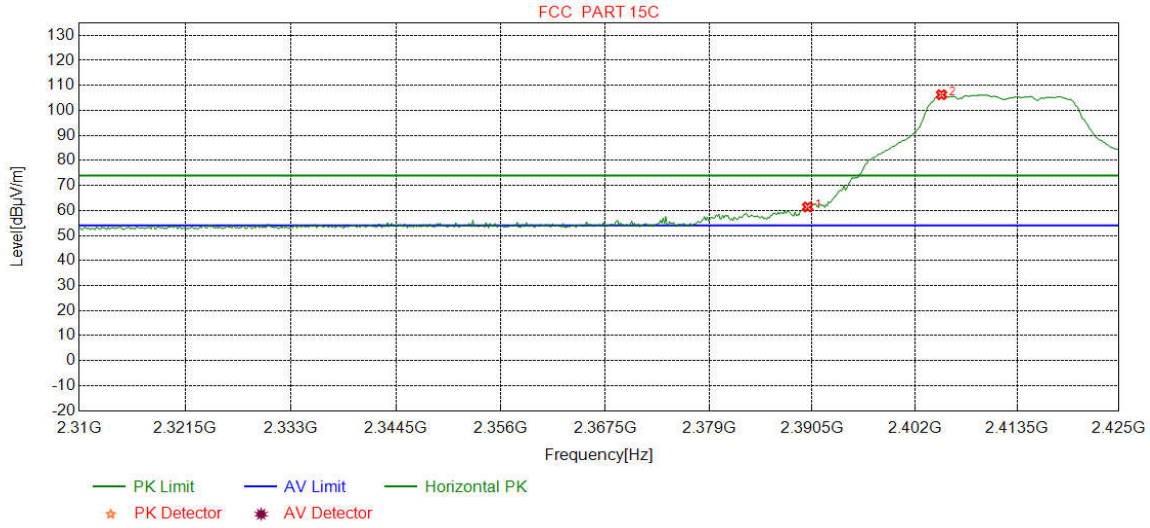
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2462.1627	32.35	13.47	-42.41	65.14	68.55	54.00	-14.55	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	40.76	44.12	54.00	9.88	Pass	Vertical

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2412
Remark:	PK		

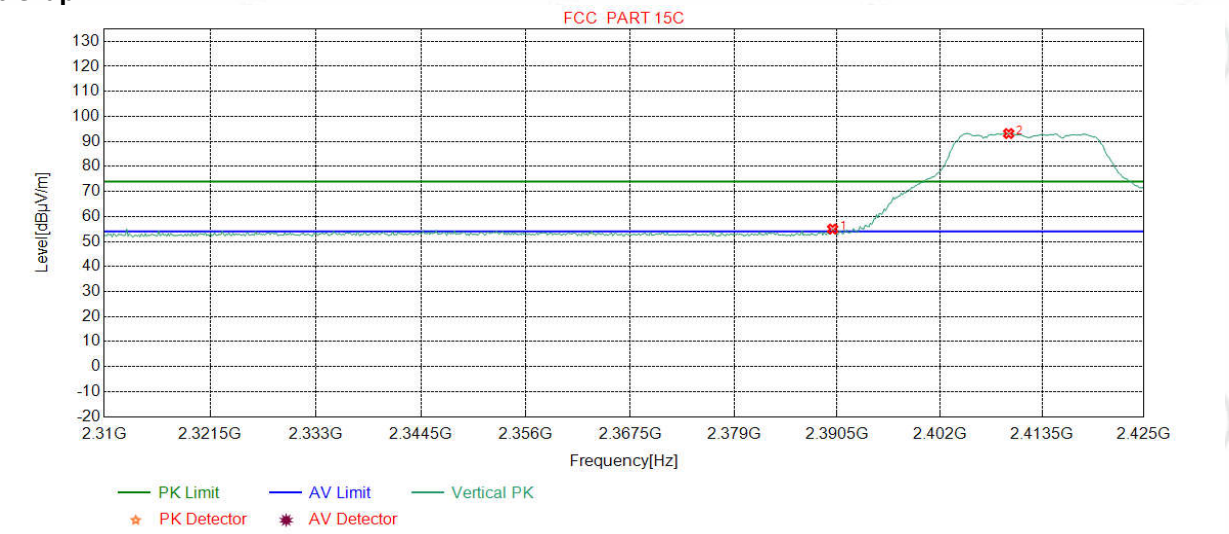
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	58.21	61.39	74.00	12.61	Pass	Horizontal
2	2404.9937	32.27	13.32	-42.43	103.11	106.27	74.00	-32.27	Pass	Horizontal

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2412
Remark:	PK		

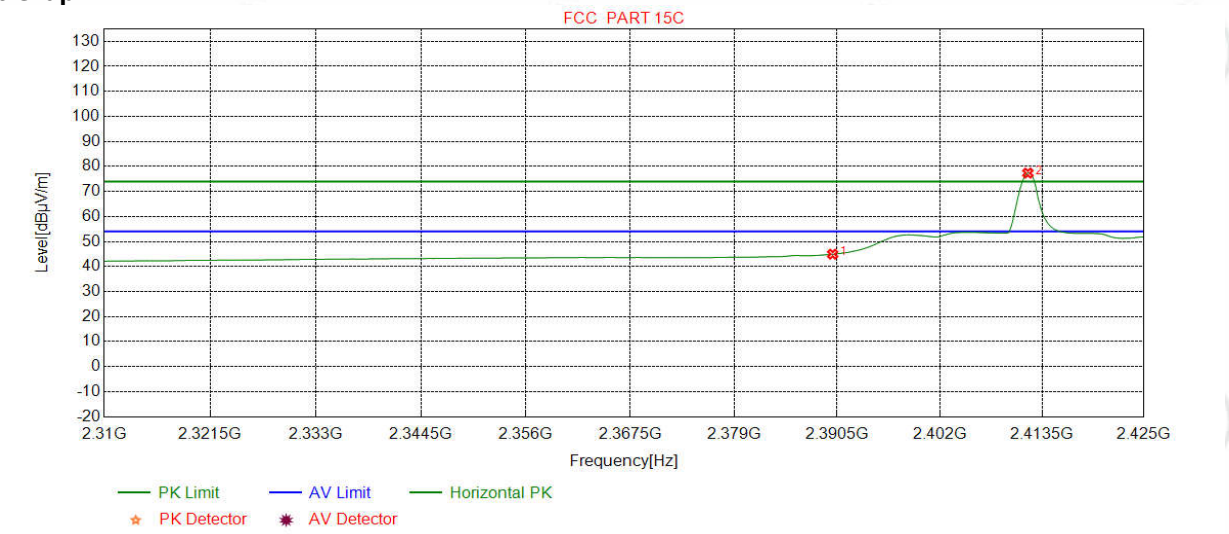
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	51.82	55.00	74.00	19.00	Pass	Vertical
2	2409.7434	32.27	13.34	-42.42	89.96	93.15	74.00	-19.15	Pass	Vertical

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2412
Remark:	AV		

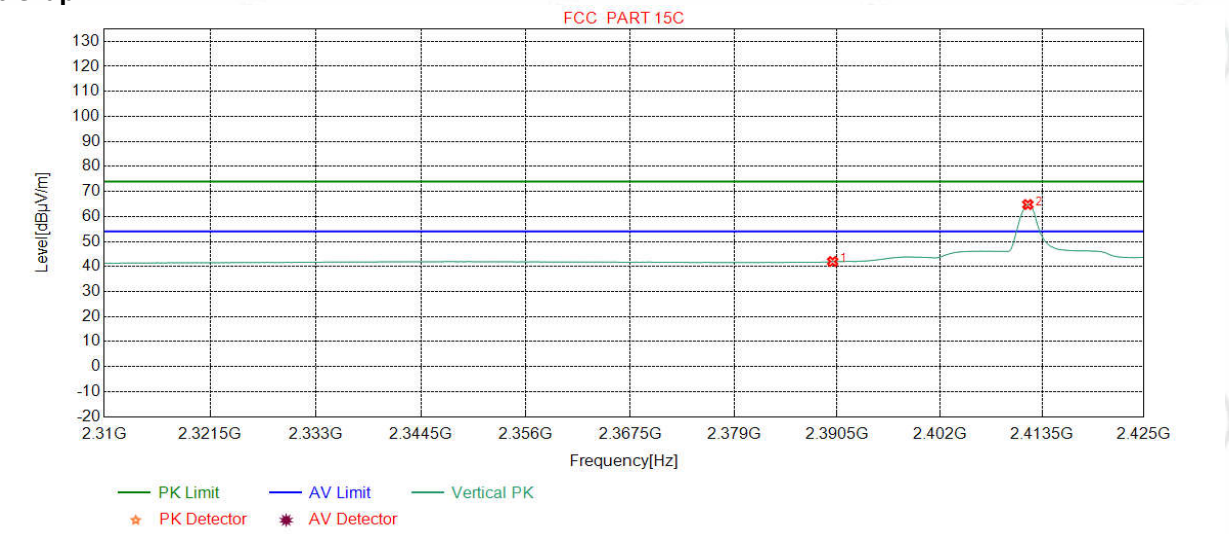
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	41.76	44.94	54.00	9.06	Pass	Horizontal
2	2411.9024	32.28	13.35	-42.43	74.15	77.35	54.00	-23.35	Pass	Horizontal

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2412
Remark:	AV		

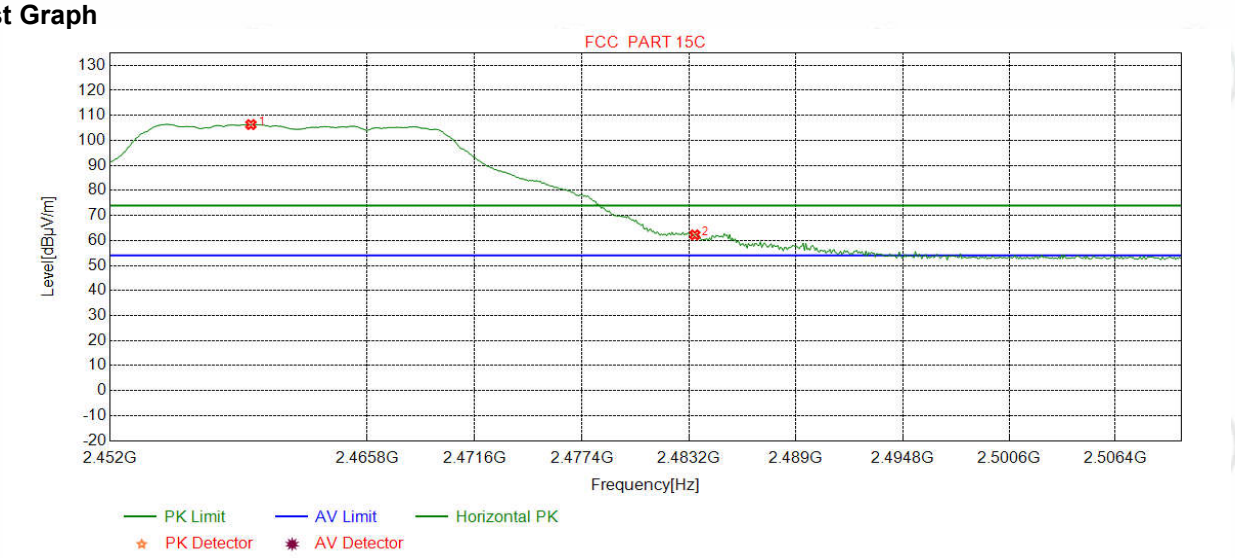
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	38.81	41.99	54.00	12.01	Pass	Vertical
2	2411.9024	32.28	13.35	-42.43	61.58	64.78	54.00	-10.78	Pass	Vertical

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2462
Remark:	PK		

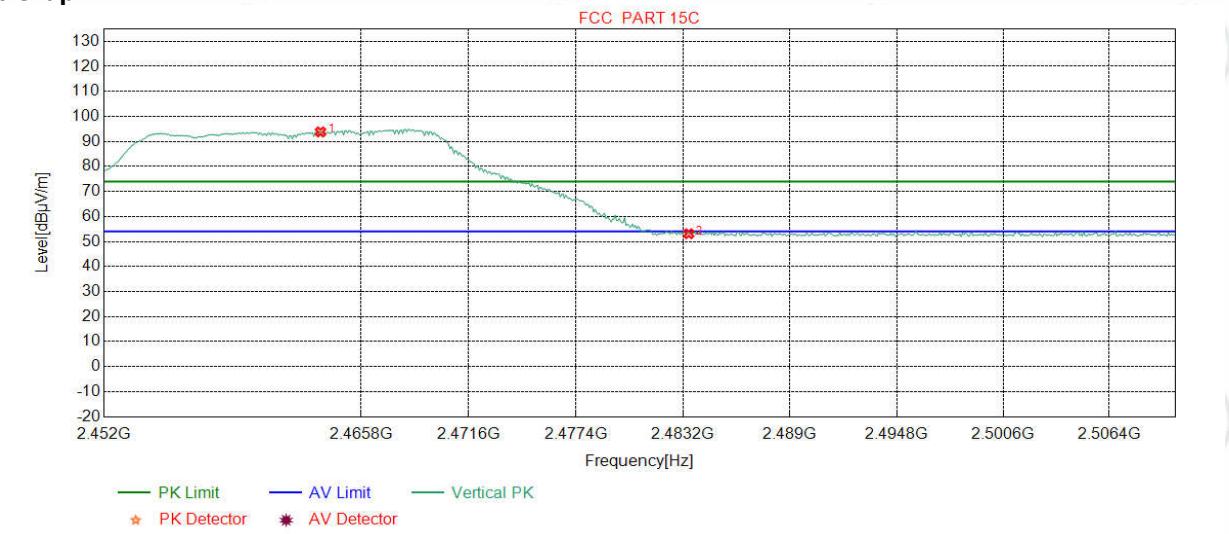
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2459.5494	32.34	13.49	-42.41	102.90	106.32	74.00	-32.32	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	58.89	62.25	74.00	11.75	Pass	Horizontal

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2462
Remark:	PK		

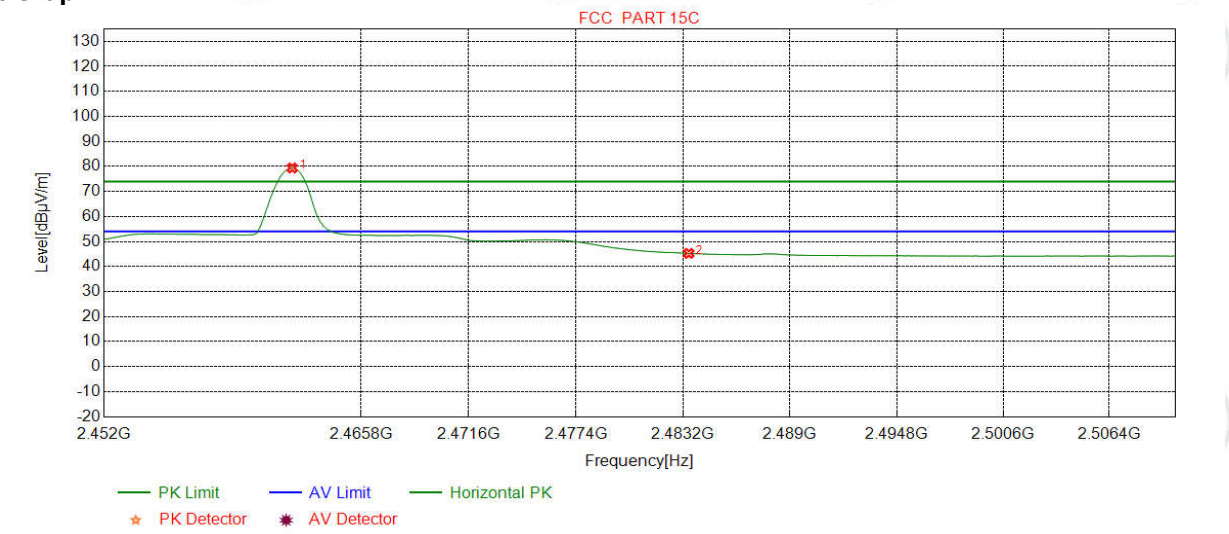
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2463.6145	32.35	13.47	-42.41	90.39	93.80	74.00	-19.80	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	49.76	53.12	74.00	20.88	Pass	Vertical

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2462
Remark:	AV		

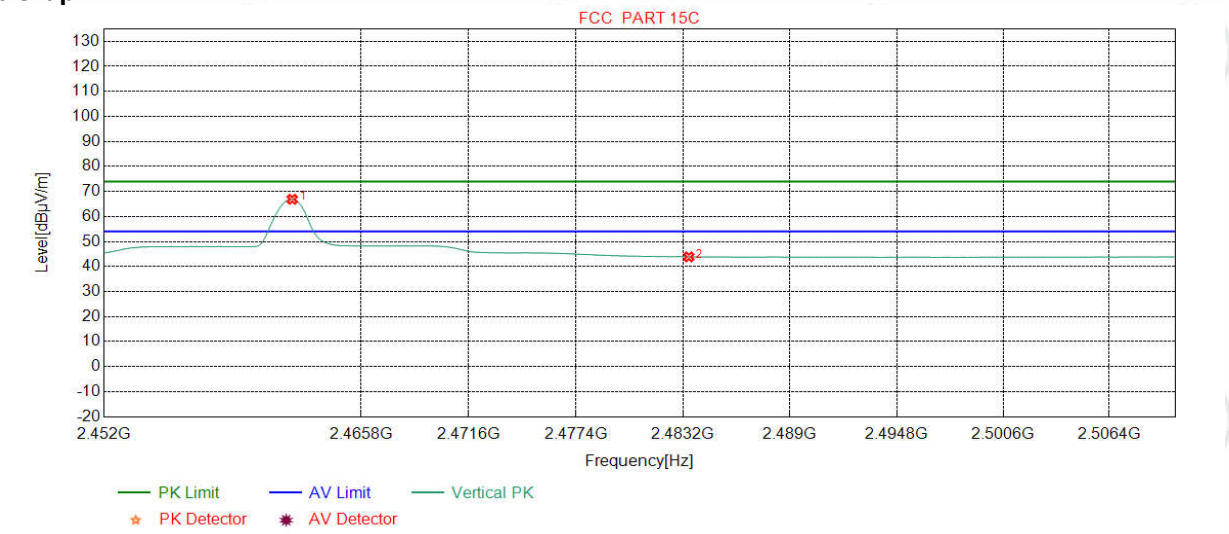
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2462.0901	32.35	13.47	-42.41	75.98	79.39	54.00	-25.39	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	41.89	45.25	54.00	8.75	Pass	Horizontal

Mode:	802.11 g(6Mbps) Transmitting	Channel:	2462
Remark:	AV		

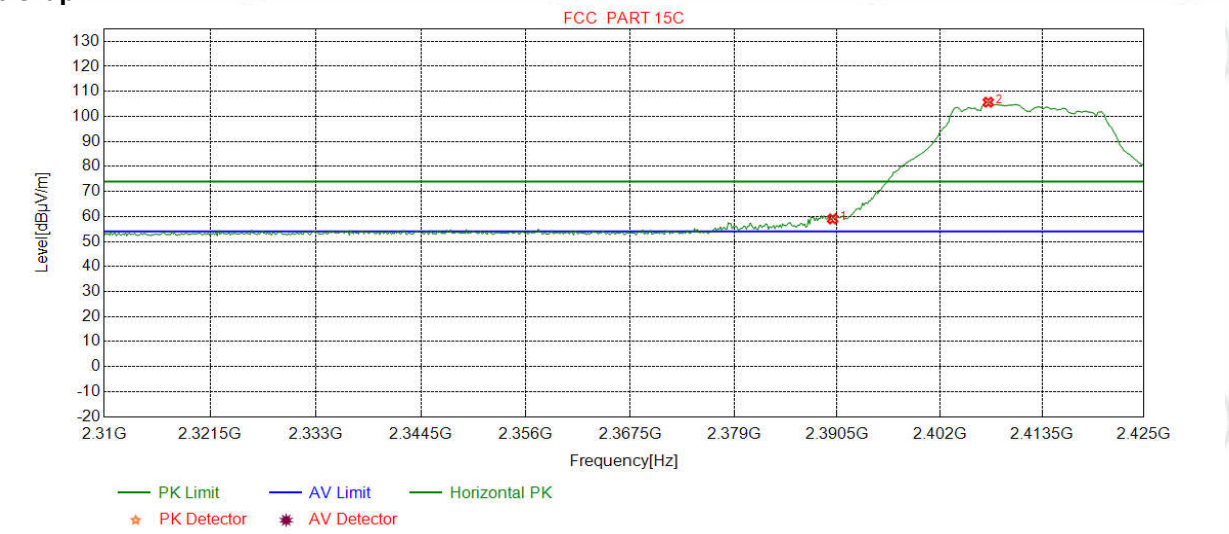
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2462.0901	32.35	13.47	-42.41	63.46	66.87	54.00	-12.87	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	40.50	43.86	54.00	10.14	Pass	Vertical

Mode:	802.11 n(HT20) (6.5Mbps)	Channel:	2412
Remark:	PK		

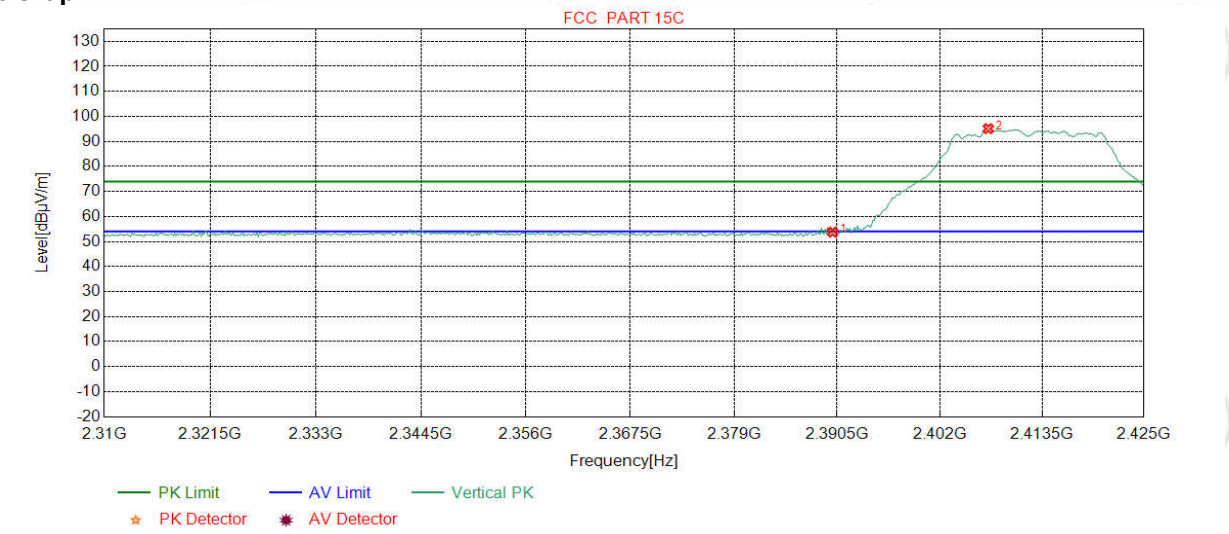
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	55.83	59.01	74.00	14.99	Pass	Horizontal
2	2407.4406	32.27	13.33	-42.43	102.50	105.67	74.00	-31.67	Pass	Horizontal

Mode:	802.11 n(HT20) (6.5Mbps)	Channel:	2412
Remark:	PK		

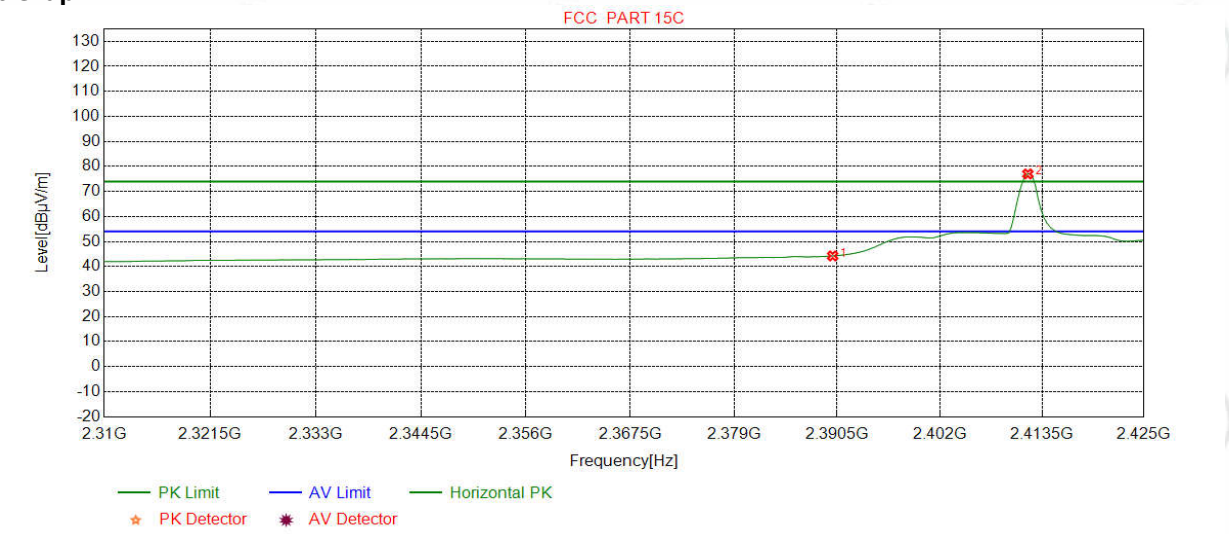
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	50.57	53.75	74.00	20.25	Pass	Vertical
2	2407.4406	32.27	13.33	-42.43	91.93	95.10	74.00	-21.10	Pass	Vertical

Mode:	802.11 n(HT20) (6.5Mbps)	Channel:	2412
Remark:	AV		

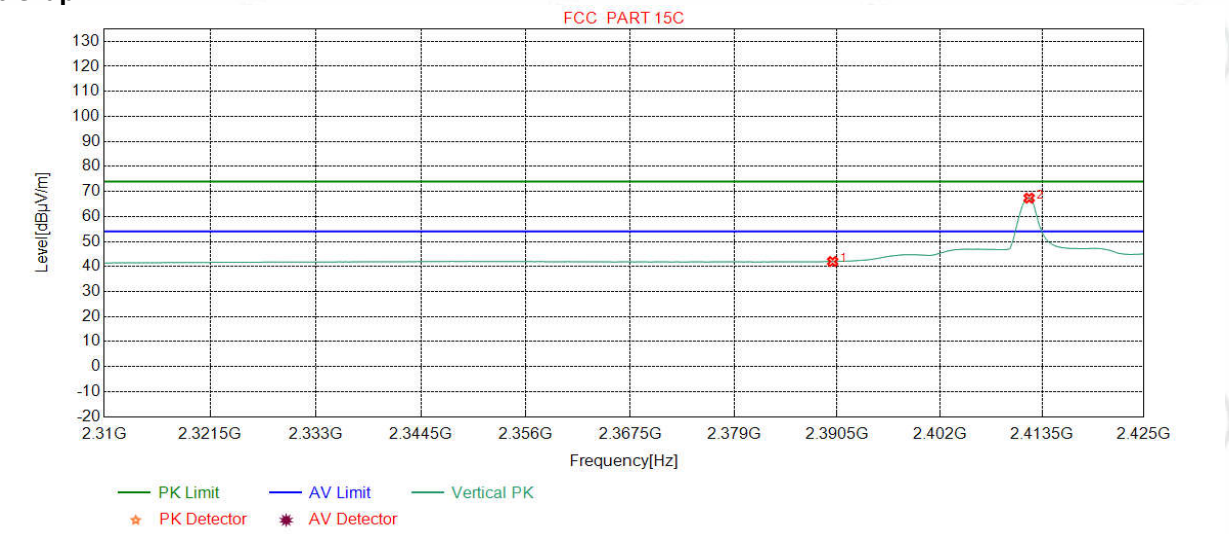
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	41.06	44.24	54.00	9.76	Pass	Horizontal
2	2411.9024	32.28	13.35	-42.43	73.81	77.01	54.00	-23.01	Pass	Horizontal

Mode:	802.11 n(HT20) (6.5Mbps)	Channel:	2412
Remark:	AV		

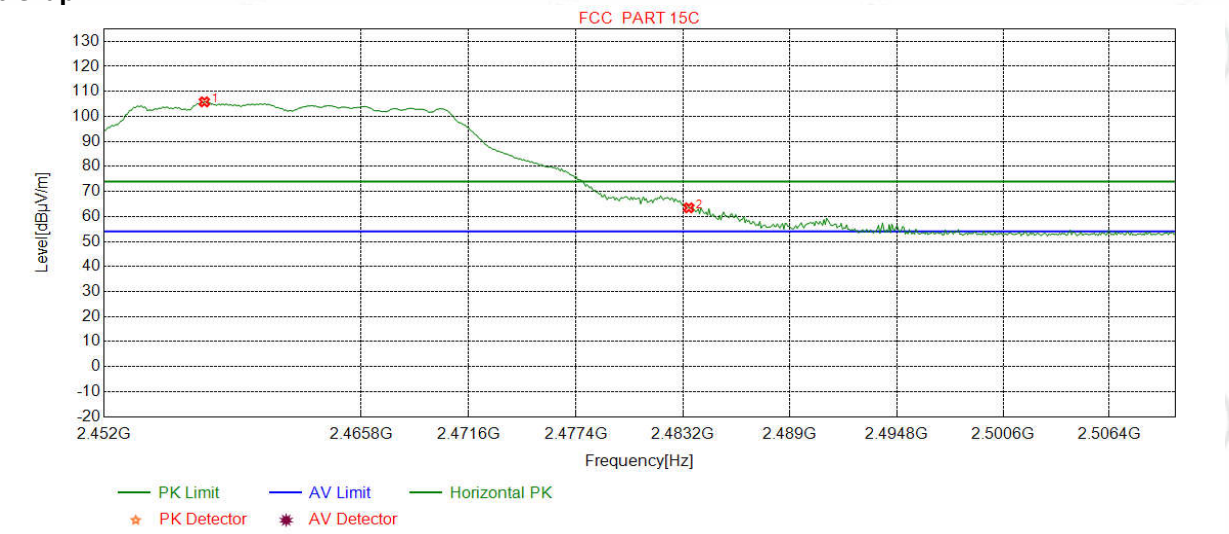
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2390.0000	32.25	13.37	-42.44	38.81	41.99	54.00	12.01	Pass	Vertical
2	2412.0463	32.28	13.36	-42.44	64.14	67.34	54.00	-13.34	Pass	Vertical

Mode:	802.11 n(HT20) (6.5Mbps)	Channel:	2462
Remark:	PK		

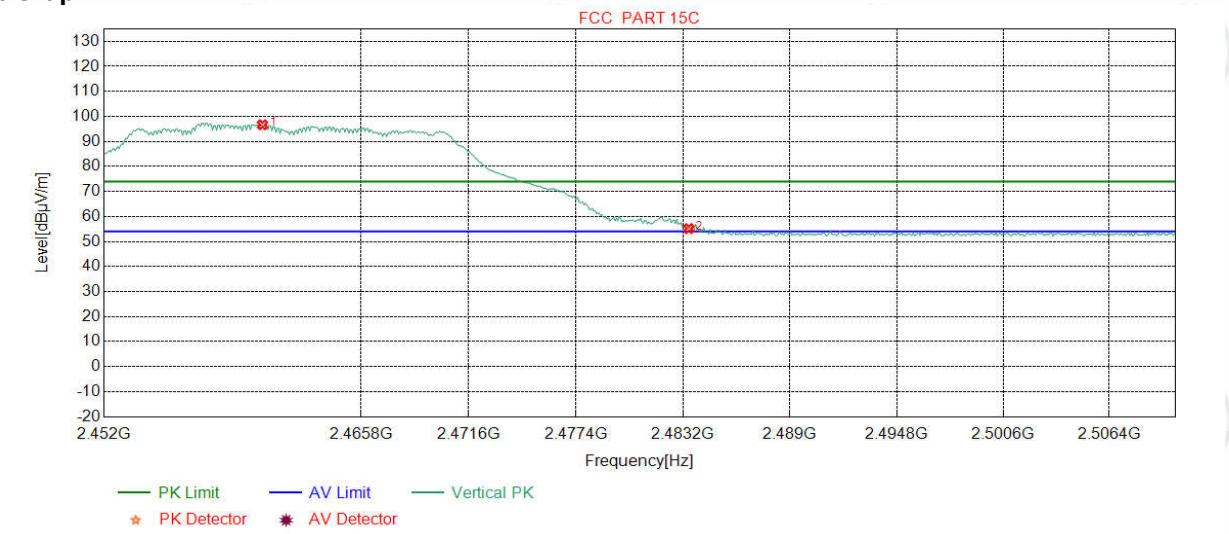
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2457.3717	32.34	13.50	-42.41	102.38	105.81	74.00	-31.81	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	60.10	63.46	74.00	10.54	Pass	Horizontal

Mode:	802.11 n(HT20) (6.5Mbps)	Channel:	2462
Remark:	PK		

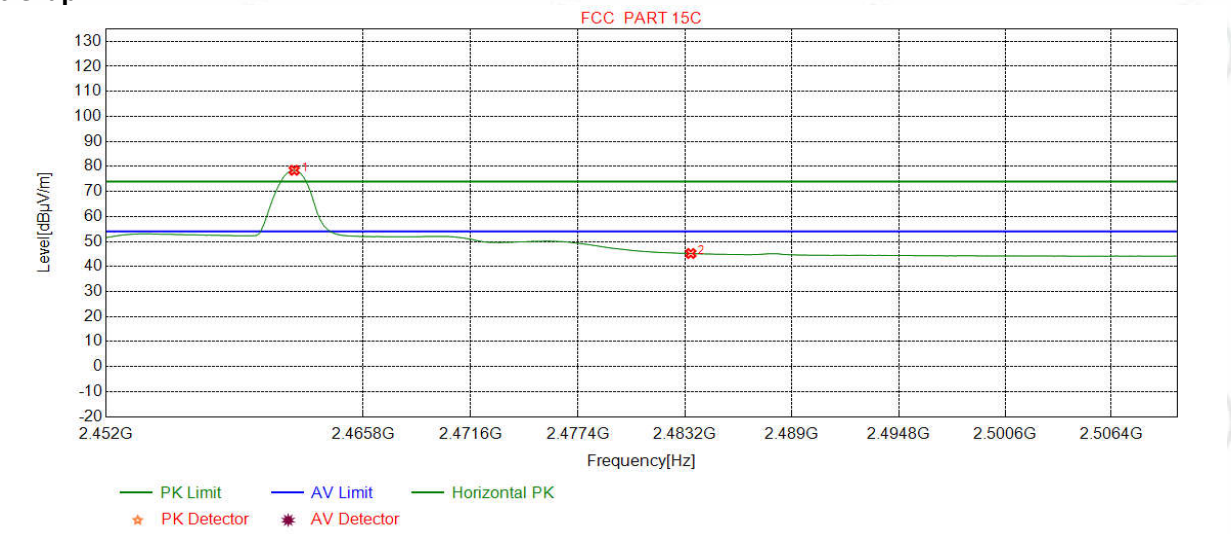
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2460.4931	32.34	13.48	-42.40	93.23	96.65	74.00	-22.65	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	51.79	55.15	74.00	18.85	Pass	Vertical

Mode:	802.11 n(HT20) (6.5Mbps)	Channel:	2462
Remark:	AV		

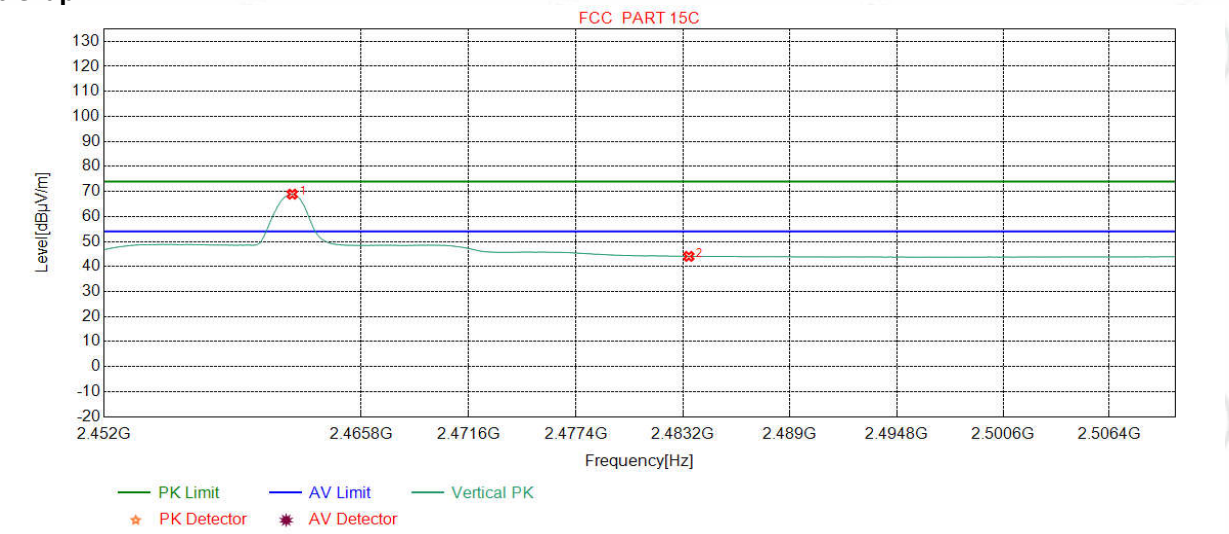
Test Graph



NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity
1	2462.0901	32.35	13.47	-42.41	75.05	78.46	54.00	-24.46	Pass	Horizontal
2	2483.5000	32.38	13.38	-42.40	41.85	45.21	54.00	8.79	Pass	Horizontal

Mode:	802.11 n(HT20) (6.5Mbps)	Channel:	2462
Remark:	AV		

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
1	2462.0901	32.35	13.47	-42.41	65.50	68.91	54.00	-14.91	Pass	Vertical
2	2483.5000	32.38	13.38	-42.40	40.70	44.06	54.00	9.94	Pass	Vertical

Note:

1) Through Pre-scan transmitting mode and charge+transmitter mode with all kind of modulation and data rate, find the 11Mbps of rate is the worst case of 802.11b; 6Mbpsof 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:

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:

Product : Smart Sweeping Robot **Model/Type reference** : SI-350
Temperature : 24℃ **Humidity** : 54%

Radiated Emission below 1GHz

Mode:		802.11 b (11Mbps) 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
1	36.6937	11.24	0.67	-32.11	57.71	37.51	40.00	2.49	Pass	H
2	44.4544	13.10	0.75	-32.12	56.31	38.04	40.00	1.96	Pass	H
3	156.2096	7.77	1.46	-31.99	62.40	39.64	43.50	3.86	Pass	H
4	204.7145	11.02	1.69	-31.94	58.26	39.03	43.50	4.47	Pass	H
5	456.9397	16.31	2.54	-31.84	50.44	37.45	46.00	8.55	Pass	H
6	875.1485	21.80	3.55	-31.70	40.52	34.17	46.00	11.83	Pass	H
7	35.9176	10.99	0.66	-32.11	58.73	38.27	40.00	1.73	Pass	V
8	99.1679	10.87	1.16	-32.06	51.30	31.27	43.50	12.23	Pass	V
9	159.2169	7.87	1.47	-31.98	56.31	33.67	43.50	9.83	Pass	V
10	334.8045	13.97	2.18	-31.80	47.21	31.56	46.00	14.44	Pass	V
11	480.0280	16.68	2.61	-31.90	43.25	30.64	46.00	15.36	Pass	V
12	875.0515	21.80	3.55	-31.70	40.30	33.95	46.00	12.05	Pass	V

Mode:		802.11 b (11Mbps) 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
1	35.3355	10.81	0.65	-32.11	58.78	38.13	40.00	1.87	Pass	H
2	45.4245	13.20	0.75	-32.11	56.22	38.06	40.00	1.94	Pass	H
3	137.1957	7.34	1.37	-32.00	64.01	40.72	43.50	2.78	Pass	H
4	204.9085	11.03	1.69	-31.94	58.32	39.10	43.50	4.40	Pass	H
5	480.0280	16.68	2.61	-31.90	51.30	38.69	46.00	7.31	Pass	H
6	865.1565	21.68	3.54	-31.75	40.49	33.96	46.00	12.04	Pass	H
7	30.0970	10.50	0.63	-32.12	59.14	38.15	40.00	1.85	Pass	V
8	43.7754	12.98	0.74	-32.11	55.88	37.49	40.00	2.51	Pass	V
9	159.3139	7.88	1.47	-31.99	56.21	33.57	43.50	9.93	Pass	V
10	204.8115	11.03	1.69	-31.95	50.87	31.64	43.50	11.86	Pass	V
11	334.8045	13.97	2.18	-31.80	48.81	33.16	46.00	12.84	Pass	V
12	480.0280	16.68	2.61	-31.90	43.39	30.78	46.00	15.22	Pass	V

Mode:		802.11 b (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
1	35.5296	10.87	0.66	-32.12	58.94	38.35	40.00	1.46	Pass	H
2	137.1957	7.34	1.37	-32.00	61.80	38.51	43.50	5.34	Pass	H
3	182.9843	9.28	1.59	-31.98	58.07	36.96	43.50	2.41	Pass	H
4	205.0055	11.03	1.70	-31.95	59.04	39.82	43.50	10.73	Pass	H
5	319.9620	13.64	2.12	-31.83	49.22	33.15	46.00	8.84	Pass	H
6	457.2307	16.32	2.55	-31.85	50.23	37.25	46.00	6.91	Pass	H
7	44.3574	13.08	0.75	-32.11	56.25	37.97	40.00	2.03	Pass	V
8	159.9930	7.90	1.47	-31.98	59.21	36.60	43.50	6.90	Pass	V
9	208.8859	11.13	1.71	-31.94	50.86	31.76	43.50	11.74	Pass	V
10	304.0524	13.29	2.07	-31.87	46.96	30.45	46.00	15.55	Pass	V
11	455.3875	16.29	2.54	-31.86	43.56	30.53	46.00	15.47	Pass	V
12	875.0515	21.80	3.55	-31.70	37.31	30.96	46.00	15.04	Pass	V

Mode:		802.11 g (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
1	36.4026	11.15	0.67	-32.12	58.02	37.72	40.00	2.28	Pass	H
2	45.0365	13.20	0.75	-32.11	55.75	37.59	40.00	2.41	Pass	H
3	137.7778	7.31	1.38	-32.00	61.96	38.65	43.50	4.85	Pass	H
4	205.6846	11.05	1.70	-31.95	58.99	39.79	43.50	3.71	Pass	H
5	319.9620	13.64	2.12	-31.83	51.11	35.04	46.00	10.96	Pass	H
6	459.3649	16.35	2.56	-31.84	49.90	36.97	46.00	9.03	Pass	H
7	43.4843	12.93	0.74	-32.12	56.12	37.67	40.00	2.33	Pass	V
8	62.9833	10.82	0.91	-32.04	58.96	38.65	40.00	1.35	Pass	V
9	159.9930	7.90	1.47	-31.98	60.35	37.74	43.50	5.76	Pass	V
10	205.6846	11.05	1.70	-31.95	51.25	32.05	43.50	11.45	Pass	V
11	458.9769	16.34	2.55	-31.83	42.14	29.20	46.00	16.80	Pass	V
12	879.7080	21.86	3.55	-31.66	38.20	31.95	46.00	14.05	Pass	V

Mode:		802.11 g (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
1	44.7455	13.15	0.75	-32.11	56.21	38.00	40.00	2.00	Pass	H
2	137.6808	7.32	1.38	-32.00	61.89	38.59	43.50	4.91	Pass	H
3	205.7816	11.05	1.70	-31.95	58.94	39.74	43.50	3.76	Pass	H
4	319.9620	13.64	2.12	-31.83	50.22	34.15	46.00	11.85	Pass	H
5	458.8799	16.34	2.55	-31.83	50.25	37.31	46.00	8.69	Pass	H
6	872.7233	21.77	3.54	-31.72	39.97	33.56	46.00	12.44	Pass	H
7	44.9395	13.19	0.75	-32.12	55.51	37.33	40.00	2.67	Pass	V
8	159.9930	7.90	1.47	-31.98	60.48	37.87	43.50	5.63	Pass	V
9	205.7816	11.05	1.70	-31.95	51.69	32.49	43.50	11.01	Pass	V
10	334.8045	13.97	2.18	-31.80	45.82	30.17	46.00	15.83	Pass	V
11	457.3277	16.32	2.55	-31.85	42.94	29.96	46.00	16.04	Pass	V
12	875.0515	21.80	3.55	-31.70	37.03	30.68	46.00	15.32	Pass	V

Mode:		802.11 g (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
1	36.4997	11.18	0.67	-32.11	58.29	38.03	40.00	1.97	Pass	H
2	44.3574	13.08	0.75	-32.11	56.45	38.17	40.00	1.83	Pass	H
3	137.0987	7.35	1.37	-32.00	61.87	38.59	43.50	4.91	Pass	H
4	205.6846	11.05	1.70	-31.95	58.82	39.62	43.50	3.88	Pass	H
5	457.1337	16.31	2.55	-31.85	50.37	37.38	46.00	8.62	Pass	H
6	872.3352	21.77	3.54	-31.73	38.91	32.49	46.00	13.51	Pass	H
7	36.2086	11.09	0.67	-32.12	58.63	38.27	40.00	1.73	Pass	V
8	43.3873	12.91	0.74	-32.11	56.94	38.48	40.00	1.52	Pass	V
9	159.9930	7.90	1.47	-31.98	60.36	37.75	43.50	5.75	Pass	V
10	205.6846	11.05	1.70	-31.95	51.39	32.19	43.50	11.31	Pass	V
11	458.7829	16.34	2.55	-31.83	42.40	29.46	46.00	16.54	Pass	V
12	875.0515	21.80	3.55	-31.70	35.14	28.79	46.00	17.21	Pass	V

Mode:		802.11 n (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
1	44.4544	13.10	0.75	-32.12	48.86	30.59	40.00	9.41	Pass	H
2	137.0017	7.35	1.37	-32.00	59.69	36.41	43.50	7.09	Pass	H
3	183.1783	9.30	1.59	-31.98	59.38	38.29	43.50	5.21	Pass	H
4	410.8601	15.57	2.42	-31.83	51.25	37.41	46.00	8.59	Pass	H
5	456.4546	16.30	2.54	-31.85	50.45	37.44	46.00	8.56	Pass	H
6	867.1937	21.71	3.54	-31.76	40.10	33.59	46.00	12.41	Pass	H
7	44.4544	13.10	0.75	-32.12	49.99	31.72	40.00	8.28	Pass	V
8	159.7020	7.89	1.47	-31.98	56.76	34.14	43.50	9.36	Pass	V
9	205.3935	11.04	1.70	-31.95	51.37	32.16	43.50	11.34	Pass	V
10	319.9620	13.64	2.12	-31.83	45.47	29.40	46.00	16.60	Pass	V
11	456.3576	16.30	2.54	-31.85	42.11	29.10	46.00	16.90	Pass	V
12	879.7080	21.86	3.55	-31.66	38.22	31.97	46.00	14.03	Pass	V

Mode:		802.11 n (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
1	36.6937	11.24	0.67	-32.11	52.59	32.39	40.00	7.61	Pass	H
2	159.7020	7.89	1.47	-31.98	57.63	35.01	43.50	8.49	Pass	H
3	205.2965	11.04	1.70	-31.95	52.22	33.01	43.50	10.49	Pass	H
4	387.8688	15.13	2.34	-31.82	43.99	29.64	46.00	16.36	Pass	H
5	559.2849	18.19	2.82	-31.99	41.81	30.83	46.00	15.17	Pass	H
6	898.0428	22.08	3.60	-31.60	41.93	36.01	46.00	9.99	Pass	H
7	44.4544	13.10	0.75	-32.12	50.11	31.84	40.00	8.16	Pass	V
8	91.2131	9.59	1.10	-32.08	50.09	28.70	43.50	14.80	Pass	V
9	137.3897	7.33	1.37	-31.99	59.34	36.05	43.50	7.45	Pass	V
10	205.2965	11.04	1.70	-31.95	60.68	41.47	43.50	2.03	Pass	V
11	456.2606	16.30	2.54	-31.85	50.83	37.82	46.00	8.18	Pass	V
12	892.9983	22.02	3.59	-31.62	40.78	34.77	46.00	11.23	Pass	V

Mode:		802.11 n (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
1	44.4544	13.10	0.75	-32.12	50.57	32.30	40.00	7.70	Pass	H
2	159.7020	7.89	1.47	-31.98	57.82	35.20	43.50	8.30	Pass	H
3	205.3935	11.04	1.70	-31.95	52.01	32.80	43.50	10.70	Pass	H
4	319.9620	13.64	2.12	-31.83	46.12	30.05	46.00	15.95	Pass	H
5	410.6661	15.57	2.42	-31.84	44.14	30.29	46.00	15.71	Pass	H
6	908.0348	22.15	3.60	-31.50	41.05	35.30	46.00	10.70	Pass	H
7	44.4544	13.10	0.75	-32.12	49.49	31.22	40.00	8.78	Pass	V
8	137.5838	7.32	1.38	-32.00	59.50	36.20	43.50	7.30	Pass	V
9	205.4905	11.04	1.70	-31.95	60.49	41.28	43.50	2.22	Pass	V
10	319.9620	13.64	2.12	-31.83	50.20	34.13	46.00	11.87	Pass	V
11	456.4546	16.30	2.54	-31.85	51.00	37.99	46.00	8.01	Pass	V
12	867.3877	21.71	3.54	-31.75	40.34	33.84	46.00	12.16	Pass	V

Transmitter Emission above 1GHz

Mode:		802.11 b (11Mbps) Transmitting				Channel:		2412			
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1799.6800	30.38	3.32	-42.71	55.55	46.54	74.00	27.46	Pass	H	Peak
2	3576.0384	33.46	4.39	-41.66	48.54	44.73	74.00	29.27	Pass	H	Peak
3	4824.0000	34.50	4.61	-40.65	47.78	46.24	74.00	27.76	Pass	H	Peak
4	7236.0000	36.34	5.79	-40.99	42.53	43.67	74.00	30.33	Pass	H	Peak
5	9648.0000	37.66	6.72	-40.73	43.42	47.07	74.00	26.93	Pass	H	Peak
6	14903.7936	40.36	9.18	-42.31	46.02	53.25	74.00	20.75	Pass	H	Peak
7	1292.6293	28.19	2.74	-42.79	59.78	47.92	74.00	26.08	Pass	V	Peak
8	3216.0144	33.29	4.59	-42.00	50.79	46.67	74.00	27.33	Pass	V	Peak
9	4824.0000	34.50	4.61	-40.65	50.10	48.56	74.00	25.44	Pass	V	Peak
10	7236.0000	36.34	5.79	-40.99	44.65	45.79	74.00	28.21	Pass	V	Peak
11	9648.0000	37.66	6.72	-40.73	41.96	45.61	74.00	28.39	Pass	V	Peak
12	14351.7568	40.05	8.63	-41.97	46.49	53.20	74.00	20.80	Pass	V	Peak

Mode:		802.11 b (11Mbps) Transmitting				Channel:		2437			
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1796.6797	30.36	3.31	-42.71	58.68	49.64	74.00	24.36	Pass	H	Peak
2	2991.1991	33.19	4.52	-42.13	53.75	49.33	74.00	24.67	Pass	H	Peak
3	4874.0000	34.50	4.78	-40.61	46.98	45.65	74.00	28.35	Pass	H	Peak
4	7311.0000	36.41	5.85	-40.93	43.34	44.67	74.00	29.33	Pass	H	Peak
5	9748.0000	37.70	6.77	-40.63	42.19	46.03	74.00	27.97	Pass	H	Peak
6	14204.7470	39.90	8.65	-41.67	46.86	53.74	74.00	20.26	Pass	H	Peak
7	1599.2599	29.06	3.07	-42.90	58.63	47.86	74.00	26.14	Pass	V	Peak
8	3249.0166	33.30	4.45	-41.97	50.10	45.88	74.00	28.12	Pass	V	Peak
9	4874.0000	34.50	4.78	-40.61	49.63	48.30	74.00	25.70	Pass	V	Peak
10	7311.0000	36.41	5.85	-40.93	43.40	44.73	74.00	29.27	Pass	V	Peak
11	9748.0000	37.70	6.77	-40.63	43.98	47.82	74.00	26.18	Pass	V	Peak
12	15501.8335	40.90	9.22	-42.99	46.52	53.65	74.00	20.35	Pass	V	Peak

Mode:		802.11 b (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	1594.6595	29.02	3.07	-42.89	56.63	45.83	74.00	28.17	Pass	H	Peak
2	1798.4798	30.37	3.32	-42.71	57.65	48.63	74.00	25.37	Pass	H	Peak
3	4924.0000	34.50	4.85	-40.56	47.30	46.09	74.00	27.91	Pass	H	Peak
4	7386.0000	36.49	5.85	-40.87	47.07	48.54	74.00	25.46	Pass	H	Peak
5	9848.0000	37.74	6.83	-40.54	44.06	48.09	74.00	25.91	Pass	H	Peak
6	14307.7539	40.01	8.62	-41.88	46.35	53.10	74.00	20.90	Pass	H	Peak
7	1599.6600	29.06	3.07	-42.90	58.16	47.39	74.00	26.61	Pass	V	Peak
8	3283.0189	33.31	4.54	-41.95	50.55	46.45	74.00	27.55	Pass	V	Peak
9	4924.0000	34.50	4.85	-40.56	42.64	41.43	74.00	32.57	Pass	V	Peak
10	7386.0000	36.49	5.85	-40.87	45.48	46.95	74.00	27.05	Pass	V	Peak
11	9848.0000	37.74	6.83	-40.54	44.47	48.50	74.00	25.50	Pass	V	Peak
12	14487.7659	40.19	8.98	-42.24	46.11	53.04	74.00	20.96	Pass	V	Peak

Mode:		802.11 g (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	1595.6596	29.03	3.07	-42.89	54.81	44.02	74.00	29.98	Pass	H	Peak
2	2991.3991	33.19	4.52	-42.12	49.70	45.29	74.00	28.71	Pass	H	Peak
3	4824.0000	34.50	4.61	-40.65	40.96	39.42	74.00	34.58	Pass	H	Peak
4	7236.0000	36.34	5.79	-40.99	42.22	43.36	74.00	30.64	Pass	H	Peak
5	9648.0000	37.66	6.72	-40.73	42.23	45.88	74.00	28.12	Pass	H	Peak
6	15014.8010	40.41	9.15	-42.34	45.83	53.05	74.00	20.95	Pass	H	Peak
7	1596.0596	29.03	3.07	-42.89	57.70	46.91	74.00	27.09	Pass	V	Peak
8	3187.0125	33.27	4.63	-42.00	51.97	47.87	74.00	26.13	Pass	V	Peak
9	4824.0000	34.50	4.61	-40.65	41.47	39.93	74.00	34.07	Pass	V	Peak
10	7236.0000	36.34	5.79	-40.99	42.59	43.73	74.00	30.27	Pass	V	Peak
11	9648.0000	37.66	6.72	-40.73	42.73	46.38	74.00	27.62	Pass	V	Peak
12	14923.7949	40.37	9.13	-42.31	46.20	53.39	74.00	20.61	Pass	V	Peak

Mode:		802.11 g (6Mbps) Transmitting				Channel:		2437			
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1594.6595	29.02	3.07	-42.89	54.47	43.67	74.00	30.33	Pass	H	Peak
2	3249.0166	33.30	4.45	-41.97	50.28	46.06	74.00	27.94	Pass	H	Peak
3	4874.0000	34.50	4.78	-40.61	40.68	39.35	74.00	34.65	Pass	H	Peak
4	7311.0000	36.41	5.85	-40.93	41.93	43.26	74.00	30.74	Pass	H	Peak
5	9748.0000	37.70	6.77	-40.63	42.63	46.47	74.00	27.53	Pass	H	Peak
6	14477.7652	40.18	8.99	-42.22	45.94	52.89	74.00	21.11	Pass	H	Peak
7	1394.2394	28.29	2.89	-42.68	56.74	45.24	74.00	28.76	Pass	V	Peak
8	3249.0166	33.30	4.45	-41.97	52.21	47.99	74.00	26.01	Pass	V	Peak
9	4874.0000	34.50	4.78	-40.61	40.98	39.65	74.00	34.35	Pass	V	Peak
10	7311.0000	36.41	5.85	-40.93	43.28	44.61	74.00	29.39	Pass	V	Peak
11	9748.0000	37.70	6.77	-40.63	42.61	46.45	74.00	27.55	Pass	V	Peak
12	14283.7523	39.98	8.61	-41.84	46.45	53.20	74.00	20.80	Pass	V	Peak

Mode:		802.11 g (6Mbps) Transmitting				Channel:		2462			
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Preamp gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	1596.4596	29.04	3.07	-42.90	55.40	44.61	74.00	29.39	Pass	H	Peak
2	3283.0189	33.31	4.54	-41.95	49.66	45.56	74.00	28.44	Pass	H	Peak
3	4924.0000	34.50	4.85	-40.56	42.04	40.83	74.00	33.17	Pass	H	Peak
4	7386.0000	36.49	5.85	-40.87	42.68	44.15	74.00	29.85	Pass	H	Peak
5	9848.0000	37.74	6.83	-40.54	42.04	46.07	74.00	27.93	Pass	H	Peak
6	14246.7498	39.95	8.59	-41.77	46.26	53.03	74.00	20.97	Pass	H	Peak
7	1396.6397	28.30	2.89	-42.68	56.95	45.46	74.00	28.54	Pass	V	Peak
8	3283.0189	33.31	4.54	-41.95	51.01	46.91	74.00	27.09	Pass	V	Peak
9	4924.0000	34.50	4.85	-40.56	45.65	44.44	74.00	29.56	Pass	V	Peak
10	7386.0000	36.49	5.85	-40.87	42.15	43.62	74.00	30.38	Pass	V	Peak
11	9848.0000	37.74	6.83	-40.54	42.08	46.11	74.00	27.89	Pass	V	Peak
12	14924.7950	40.37	9.13	-42.32	46.37	53.55	74.00	20.45	Pass	V	Peak

Mode:		802.11 n (HT20) (6.5Mbps)				Channel:		2412			
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Readin g [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark
1	1594.8595	29.03	3.07	-42.90	52.96	42.16	74.00	31.84	Pass	H	Peak
2	3283.0189	33.31	4.54	-41.95	49.11	45.01	74.00	28.99	Pass	H	Peak
3	4824.0000	34.50	4.61	-40.65	41.06	39.52	74.00	34.48	Pass	H	Peak
4	7236.0000	36.34	5.79	-40.99	42.38	43.52	74.00	30.48	Pass	H	Peak
5	9648.0000	37.66	6.72	-40.73	41.80	45.45	74.00	28.55	Pass	H	Peak
6	15041.8028	40.44	9.39	-42.37	44.21	51.67	74.00	22.33	Pass	H	Peak
7	1386.2386	28.29	2.88	-42.70	58.40	46.87	74.00	27.13	Pass	V	Peak
8	3189.0126	33.28	4.63	-42.01	51.64	47.54	74.00	26.46	Pass	V	Peak
9	4824.0000	34.50	4.61	-40.65	41.76	40.22	74.00	33.78	Pass	V	Peak
10	7236.0000	36.34	5.79	-40.99	43.36	44.50	74.00	29.50	Pass	V	Peak
11	9648.0000	37.66	6.72	-40.73	41.57	45.22	74.00	28.78	Pass	V	Peak
12	15014.8010	40.41	9.15	-42.34	45.01	52.23	74.00	21.77	Pass	V	Peak

Mode:		802.11 n (HT20) (6.5Mbps)				Channel:		2437			
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Readin g [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark
1	1592.8593	29.01	3.06	-42.88	52.42	41.61	74.00	32.39	Pass	H	Peak
2	3250.0167	33.30	4.45	-41.97	49.64	45.42	74.00	28.58	Pass	H	Peak
3	4874.0000	34.50	4.78	-40.61	40.37	39.04	74.00	34.96	Pass	H	Peak
4	7311.0000	36.41	5.85	-40.93	42.74	44.07	74.00	29.93	Pass	H	Peak
5	9748.0000	37.70	6.77	-40.63	40.52	44.36	74.00	29.64	Pass	H	Peak
6	15074.8050	40.47	9.53	-42.42	44.21	51.79	74.00	22.21	Pass	H	Peak
7	1382.4382	28.28	2.87	-42.69	59.33	47.79	74.00	26.21	Pass	V	Peak
8	3166.0111	33.27	4.60	-42.03	49.54	45.38	74.00	28.62	Pass	V	Peak
9	4874.0000	34.50	4.78	-40.61	41.04	39.71	74.00	34.29	Pass	V	Peak
10	7311.0000	36.41	5.85	-40.93	41.86	43.19	74.00	30.81	Pass	V	Peak
11	9748.0000	37.70	6.77	-40.63	40.42	44.26	74.00	29.74	Pass	V	Peak
12	14980.7987	40.39	9.03	-42.32	44.24	51.34	74.00	22.66	Pass	V	Peak

Mode:		802.11 n (HT20) (6.5Mbps)				Channel:		2462			
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Readin g [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark
1	1797.6798	30.36	3.32	-42.71	57.43	48.40	74.00	25.60	Pass	H	Peak
2	3531.0354	33.42	4.46	-41.75	48.12	44.25	74.00	29.75	Pass	H	Peak
3	4924.0000	34.50	4.85	-40.56	43.15	41.94	74.00	32.06	Pass	H	Peak
4	7386.0000	36.49	5.85	-40.87	41.74	43.21	74.00	30.79	Pass	H	Peak
5	9848.0000	37.74	6.83	-40.54	39.17	43.20	74.00	30.80	Pass	H	Peak
6	15011.8008	40.41	9.12	-42.34	44.53	51.72	74.00	22.28	Pass	H	Peak
7	1400.2400	28.30	2.90	-42.68	56.52	45.04	74.00	28.96	Pass	V	Peak
8	3283.0189	33.31	4.54	-41.95	50.85	46.75	74.00	27.25	Pass	V	Peak
9	4904.0000	34.50	4.88	-40.58	41.11	39.91	74.00	34.09	Pass	V	Peak
10	7356.0000	36.46	5.85	-40.89	43.52	44.94	74.00	29.06	Pass	V	Peak
11	9808.0000	37.72	6.59	-40.57	40.62	44.36	74.00	29.64	Pass	V	Peak
12	16910.9274	42.22	11.02	-43.32	43.08	53.00	74.00	21.00	Pass	V	Peak

Note:

1) Through Pre-scan transmitting mode and charge+transmitter mode with all kind of modulation and data rate, find the 11Mbps of rate is the worst case of 802.11b; 6Mbpsof 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

3) Scan from 9kHz to 25GHz, the disturbance above 16GHz 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.